RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

D146/D147/D148/D149/D150
SERVICE MANUAL

LANIER RICOH SAVIN

It is the reader's responsibility when discussing the information contained within this document to maintain a level of confidentiality that is in the best interest of Ricoh Americas Corporation and its member companies.

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FASHION AND DISTRIBUTED WITHOUT THE PRIOR PERMISSION OF RICOH AMERICAS CORPORATION.

All product names, domain names or product illustrations, including desktop images, used in this document are trademarks, registered trademarks or the property of their respective companies.
They are used throughout this book in an informational or editorial fashion only and for the benefit of such companies. No such use, or the use of any trade name, or web site is intended to convey endorsement or other affiliation with Ricoh products.

ã 2013 RICOH Americas Corporation. All rights reserved.

WARNING

The Service Manual contains information regarding service techniques, procedures, processes and spare parts of office equipment distributed by Ricoh Americas Corporation. Users of this manual should be either service trained or certified by successfully completing a Ricoh Technical Training Program.

Untrained and uncertified users utilizing information contained in this service manual to repair or modify Ricoh equipment risk personal injury, damage to property or loss of warranty protection.

Ricoh Americas Corporation

LEGEND

PRODUCT CODE	COMPANY		
	LANIER	RICOH	SAVIN
D146	MP C3003	MP C3003	MP C3003
D147	MP C3503	MP C3503	MP C3503
D148	MP C4503	MP C4503	MP C4503
D149	MP C5503	MP C5503	MP C5503
D150	MP C6003	MP C6003	MP C6003

DOCUMENTATION HISTORY

REV. NO.	DATE	COMMENTS
*	07/2013	Original Printing

D146/D147/D148/D149/D150

TABLE OF CONTENTS

1. PRODUCT INFORMATION 1-1

1.1 PRODUCT OVERVIEW 1-1

1.1.1 COMPONENT LAYOUT 1-1

Scanner Unit 1-2

Laser Exposure Unit 1-3

Image Transfer Unit 1-4

PCDU 1-5

Toner Supply / Waste Toner Bottle 1-6

Paper Feed Unit 1-7

Duplex Unit 1-8

By-pass unit 1-9

Fusing Unit 1-10

Paper Transfer / Paper Exit 1-11

Air Flow 1-12

Drive Unit 1-13

Board / Switch 1-14

1.1.2 PAPER PATH 1-15

1.1.3 DRIVE LAYOUT 1-18

1.2 MACHINE CODES AND PERIPHERALS CONFIGURATION 1-20

1.2.1 DIAGRAM 1-20

D146/D147 Options (mainly North America) 1-20

D146/D147 Options (mainly Europe and Asia) 1-23

D148D149 Options (mainly North America) 1-26

D148/D149 Options (mainly Europe and Asia) 1-29

D150 Options (mainly North America) 1-32

D150 Options (mainly Europe and Asia) 1-35

1.3 SPECIFICATIONS 1-38

1.4 GUIDANCE FOR THOSE WHO ARE FAMILIAR WITH PREDECESSOR PRODUCTS 1-39

1.4.1 DIFFERENCES FROM PREDECESSOR 1-39

Scan, LD unit, Paper feed unit 1-39

Duplex, Driving, Main frame 1-40

PCDU 1-40

Toner supplement, Image transfer 1-41

Fusing 1-42
Electrical component 1-43
1.4.2 NEW FEATURES OF D146/D147/D148/D149/D150 1-43
1.4.3 IMPORTANT NOTICE FOR MACHINE 1-44

2. INSTALLATION 2-1
2.1 INSTALLATION REQUIREMENTS 2-1
2.1.1 ENVIRONMENT 2-1
2.1.2 MACHINE LEVEL 2-2
2.1.3 MACHINE SPACE REQUIREMENTS 2-2
2.1.4 MACHINE DIMENSIONS 2-3
2.1.5 POWER REQUIREMENTS 2-4
Input voltage level 2-4
2.2 MAIN MACHINE INSTALLATION 2-5
2.2.1 INSTALLATION FLOW CHART 2-5
2.2.2 ACCESSORY CHECK 2-6
2.2.3 INSTALLATION PROCEDURE 2-7
Removal of packing materials and shipping retainers / Removal of PCDU seal 2-7
For machines with preinstalled SPDF: Removal of protective sheet 2-14
Toner bottle installation 2-14
Attaching paper output tray parts 2-16
Attaching the decals 2-16
Connecting the power cord 2-16
2.2.4 IMAGE QUALITY TEST / SETTINGS 2-17
Image quality test 2-17
Checking the copy image with the test chart 2-17
Paper setting 2-17
Security Function Installation 2-17
2.2.5 MOVING THE MACHINE 2-25
2.2.6 TRANSPORTING THE MACHINE 2-25
Main Frame 2-25
2.3 PAPER FEED UNIT PB3160 2-26
2.3.1 ACCESSORY CHECK 2-26
2.3.2 INSTALLATION PROCEDURE 2-26
2.4 PAPER FEED UNIT PB3150 2-30
2.4.1 ACCESSORY CHECK 2-30
2.4.2 INSTALLATION PROCEDURE 2-30
2.5 LCIT PB3170 2-33
2.5.1 ACCESSORY CHECK 2-33

2.5.2 INSTALLATION PROCEDURE 2-33
Changing the paper size 2-36
2.6 LCIT RT3030 2-39
2.6.1 ACCESSORY CHECK 2-39
2.6.2 INSTALLATION PROCEDURE 2-39
Changing the Paper Size 2-43
2.7 CASTER TABLE TYPE M3 2-45
2.7.1 ACCESSORY CHECK 2-45
2.7.2 INSTALLATION PROCEDURE 2-45
2.8 PLATEN COVER PN2000 2-47
2.8.1 ACCESSORY CHECK 2-47
2.8.2 INSTALLATION PROCEDURE 2-48
2.9 ARDF DF3090 2-50
2.9.1 ACCESSORY CHECK 2-50
2.9.2 INSTALLATION PROCEDURE 2-51
When feeding thin paper 2-54
2.10 SPDF DF3080 2-55
2.10.1 ACCESSORY CHECK 2-55
2.10.2 INSTALLATION PROCEDURE 2-56
Attaching the SPDF 2-56
Attaching the Sub IPU / Replacing the BCU 2-59
Set serial number on new BCU 2-66
Adjust SP Settings 2-66
2.11 BRIDGE UNIT BU3070 2-68
2.11.1 ACCESSORY CHECK 2-68
2.11.2 INSTALLATION PROCEDURE 2-68
2.12 1 BIN TRAY BN3110 2-73
2.12.1 ACCESSORY CHECK 2-73
2.12.2 INSTALLATION PROCEDURE 2-73
2.13 INTERNAL SHIFT TRAY SH3070 2-79
2.13.1 ACCESSORY CHECK 2-79
2.13.2 INSTALLATION PROCEDURE 2-79
2.14 SIDE TRAY TYPE M3 2-83
2.14.1 ACCESSORY CHECK 2-83
2.14.2 INSTALLATION PROCEDURE 2-84
2.15 BOOKLET FINISHER SR3170 (D688)/ FINISHER SR3160 (D689) 2-87
2.15.1 ACCESSORY CHECK 2-87
2.15.2 INSTALLATION PROCEDURE 2-88
Auxiliary Tray 2-93

2.16 PUNCH UNIT PU3060 2-94
2.16.1 ACCESSORY CHECK 2-94
2.16.2 INSTALLATION PROCEDURE 2-95
2.17 BOOKLET FINISHER SR3150 / FINISHER SR3140 2-104
2.17.1 ACCESSORY CHECK 2-104
2.17.2 INSTALLATION PROCEDURE 2-105
2.18 PUNCH UNIT PU3050 2-111
2.18.1 ACCESSORY CHECK 2-111
2.18.2 INSTALLATION PROCEDURE 2-111
2.19 INTERNAL FINISHER SR3130 2-121
2.19.1 ACCESSORY CHECK 2-121
2.19.2 INSTALLATION PROCEDURE 2-122
2.20 PUNCH UNIT PU3040 2-130
2.20.1 ACCESSORY CHECK 2-130
2.20.2 INSTALLATION PROCEDURE 2-130
2.21 KEY COUNTER BRACKET TYPE M3 2-136
2.21.1 INSTALLATION PROCEDURE 2-136
2.22 OPTIONAL COUNTER INTERFACE UNIT TYPE A 2-138
2.22.1 INSTALLATION PROCEDURE 2-138
Key Counter 2-138
2.23 INTERNAL OPTIONS 2-140
2.23.1 LIST OF SLOTS 2-140
D148/D149/D150 2-140
D146/D147 2-141
2.24 IEEE 1284 INTERFACE BOARD TYPE A 2-142
2.24.1 INSTALLATION PROCEDURE 2-142
2.25 IEEE 802.11A/G/N INTERFACE UNIT TYPE M2 2-144
2.25.1 ACCESSORY CHECK 2-144
2.25.2 INSTALLATION PROCEDURE 2-144
Attaching the boards 2-145
Attaching the antenna 2-146
2.25.3 SETTINGS 2-146
Check the connection of the wireless LAN interface 2-146
2.26 BLUETOOTH INTERFACE UNIT TYPE D 2-148
2.26.1 ACCESSORY CHECK 2-148
2.26.2 INSTALLATION PROCEDURE 2-148
2.27 FILE FORMAT CONVERTER TYPE E 2-150
2.27.1 ACCESSORY CHECK 2-150
2.27.2 INSTALLATION PROCEDURE 2-150

2.28 DATA OVERWRITE SECURITY UNIT TYPE H (D377)/ I (D362) 2-152
2.28.1 OVERVIEW 2-152
2.28.2 COMPONENT LIST 2-152
2.28.3 BEFORE YOU BEGIN THE PROCEDURE 2-153
Seal Check and Removal 2-154
2.28.4 INSTALLATION PROCEDURE 2-155
2.28.5 CONFIGURING “AUTO ERASE MEMORY” (PERFORMED BY THE CUSTOMER) 2-156
2.29 COPY DATA SECURITY UNIT TYPE G 2-159
2.29.1 ACCESSORY CHECK 2-159
2.29.2 INSTALLATION PROCEDURE 2-159
2.29.3 SETTINGS (TO BE DONE BY THE USER) 2-161
Equipment administrator settings 2-161
2.30 IMAGEABLE AREA EXTENSION UNIT TYPE M3 2-162
2.30.1 ACCESSORY CHECK 2-162
2.30.2 INSTALLATION PROCEDURE 2-162
When you forgot to change the SP 2-165
2.31 OCR UNIT TYPE M2 2-166
2.31.1 ACCESSORY CHECK 2-166
2.31.2 SEARCHABLE PDF FUNCTION OUTLINE 2-166
2.31.3 INSTALLATION PROCEDURE 2-167
2.31.4 RECOVERY PROCEDURE 2-169
2.32 SD CARD OPTION 2-170
2.32.1 SD CARD SLOTS 2-170
2.32.2 LIST OF SLOTS USED 2-170
2.33 SD CARD APPLI MOVE 2-171
2.33.1 OVERVIEW 2-171
2.33.2 MOVE EXEC 2-172
2.33.3 UNDO EXEC 2-174
2.34 BROWSER UNIT TYPE M4/M3 2-175
2.34.1 ACCESSORY CHECK 2-175
2.34.2 INSTALLATION PROCEDURE 2-175
To update EXJS 2-178
When checking the version of EXJS 2-180
Browser unit uninstallation procedure 2-180
2.34.3 SETTINGS 2-181
Browser default setting 2-181
2.35 SD CARD FOR NETWARE PRINTING TYPE M4/M3 2-182
2.35.1 ACCESSORY CHECK 2-182

2.35.2 INSTALLATION PROCEDURE 2-182
2.36 PS3 CARD TYPE M4/M3 2-185
2.36.1 ACCESSORY CHECK 2-185
2.36.2 INSTALLATION PROCEDURE 2-185
2.37 CAMERA DIRECT PRINT CARD TYPE M4/M3 2-188
2.37.1 ACCESSORY CHECK 2-188
2.37.2 INSTALLATION PROCEDURE 2-188
2.38 COLOR CONTROLLER CONNECTION BOARD TYPE M4/M3 2-191
2.38.1 INSTALLATION PROCEDURE 2-191

3. PREVENTIVE MAINTENANCE 3-1
3.1 PM PARTS SETTINGS 3-1
3.1.1 REPLACEMENT PROCEDURE OF THE PM PARTS 3-1
3.1.2 AFTER INSTALLING THE NEW PM PARTS 3-2
3.1.3 PREPARATION BEFORE OPERATION CHECK 3-3
3.1.4 OPERATION CHECK 3-3
3.2 IMAGE QUALITY STANDARDS 3-4
3.2.1 RESOLUTION 3-4
3.2.2 COLOR SHIFT 3-4
3.2.3 MAGNIFICATION RATIO ERROR MARGIN 3-5
3.2.4 MAGNIFICATION RATIO ERROR MARGIN DEVIATION 3-6
3.2.5 PITCH ERROR MARGIN 3-6
3.2.6 PERPENDICULARITY 3-6
3.2.7 LINEARITY 3-7
3.2.8 PARALLELISM 3-7
3.2.9 MISSING IMAGE AREA (D135/D136) 3-8
3.2.10 MARGIN POSITION 3-8
3.3 PAPER TRANSFER QUALITY STANDARDS 3-9
3.3.1 REGISTRATION 3-9
3.3.2 SKEW 3-9
Exposure glass 3-9
ADF 3-10

4. REPLACEMENT AND ADJUSTMENT 4-1
4.1 NOTES ON THE MAIN POWER SWITCH 4-1
4.1.1 PUSH SWITCH 4-1
Characteristics of the Push Switch (DC Switch) 4-1
Shutdown Method 4-2
Forced Shutdown 4-2
4.2 BEFOREHAND 4-3

4.3 SPECIAL TOOLS 4-4
4.4 EXTERIOR COVERS 4-5
4.4.1 FRONT COVER 4-5
4.4.2 CONTROLLER COVER 4-6
4.4.3 UPPER LEFT COVER 4-7
4.4.4 LEFT REAR COVER 4-8
4.4.5 LEFT COVER 4-8
4.4.6 REAR COVER 4-10
4.4.7 REAR RIGHT COVER 4-11
4.4.8 REAR LOWER COVER 4-11
4.4.9 SCANNER REAR COVER 4-11
4.4.10 SCANNER REAR COVER (SMALL) 4-12
4.4.11 RIGHT REAR COVER 4-12
4.4.12 RIGHT UPPER COVER 4-13
4.4.13 MAIN POWER SWITCH COVER 4-13
4.4.14 WASTE TONER COVER 4-14
4.4.15 REVERSE TRAY 4-14
4.4.16 PAPER EXIT TRAY 4-15
4.4.17 PAPER EXIT COVER 4-15
4.4.18 PAPER EXIT LOWER COVER 4-16
4.4.19 PAPER EXIT FRONT COVER 4-17
4.4.20 INNER UPPER COVER 4-18
4.4.21 INNER LOWER COVER 4-18
4.5 CONTROLLER UNIT 4-19
4.5.1 OPERATION PANEL 4-19
4.5.2 BOARD A 4-20
4.5.3 BOARD B 4-21
4.5.4 BOARD C 4-22
4.5.5 LCD PANEL 4-22
4.5.6 LCD 4-23
Notes when replacing the LCD 4-23
Replacement procedure 4-25
4.6 SCANNER UNIT 4-27
4.6.1 SCANNER EXTERIOR 4-27
Scanner Upper Cover 4-27
Scanner Right Cover 4-27
Scanner Front Cover 4-28
Scanner Left Cover 4-28
4.6.2 EXPOSURE GLASS 4-29

4.6.3 EXPOSURE LAMP (LED) 4-30
4.6.4 SCANNER MOTOR 4-31
4.6.5 LENS BLOCK 4-33
4.6.6 ORIGINAL SIZE SENSOR 4-34
4.6.7 SIO 4-34
4.6.8 SCANNER HP SENSOR 4-35
4.6.9 DF POSITION SENSOR 4-36
4.6.10 ADJUSTING THE SCANNER WIRE 4-37
Scanner Wire (Front) 4-37
Scanner wire assembly (front side) 4-39
Scanner position adjustment 4-41
Scanner Wire (Rear) 4-42
Scanner Wire Assembly (rear side) 4-45
4.6.11 MODIFYING THE SCANNER (CONTACT/CONTACTLESS) WHEN USING ARDF 4-45
Procedure for the ADF 4-45
Procedure for the scanner 4-48
4.6.12 MODIFYING THE SCANNER (CONTACT/CONTACTLESS) WHEN USING SPDF 4-48
Procedure for the SPDF 4-48
Procedure for the scanner 4-50
4.7 LASER UNIT 4-51
4.7.1 LASER UNIT 4-52
Before Replacement 4-52
Removing 4-52
Installing a New Laser Unit 4-53
Adjustment after replacing the laser unit 4-54
4.7.2 POLYGON MOTOR 4-55
Adjustment after replacing the polygon motor 4-56
4.7.3 IMAGING TEMPERATURE SENSOR (THERMISTOR) 4-56
4.8 PCDU 4-57
4.8.1 NOTES WHEN REPLACING A PCDU 4-57
D146/D147/ D148 4-57
D149/D150 4-57
4.8.2 PCDU 4-58
Adjustment before replacing the PCDU 4-58
Replacement 4-59
4.8.3 PCU/DEVELOPMENT UNIT 4-61
Before replacing a PCU or development unit 4-61

Replacement 4-61
Precautions when joining the PCU and the development Unit 4-63
Check procedure after replacing 4-63
4.9 WASTE TONER 4-64
4.9.1 REPLACEMENT 4-64
4.9.2 ADJUSTMENT AFTER REPLACING 4-64
4.10 IMAGE TRANSFER UNIT 4-65
4.10.1 IMAGE TRANSFER BELT UNIT 4-65
Adjustment before replacing the image transfer belt unit 4-65
Replacement 4-65
4.10.2 IMAGE TRANSFER CLEANING UNIT 4-68
Adjustment before replacing the image transfer cleaning unit 4-68
Replacement 4-68
4.10.3 IMAGE TRANSFER BELT 4-70
Adjustment after replacing the Image transfer belt 4-72
4.10.4 PAPER TRANSFER ROLLER 4-73
4.10.5 PAPER TRANSFER ROLLER UNIT 4-73
Adjustment before replacing the paper transfer roller unit 4-73
Replacement 4-73
4.10.6 PAPER TRANSFER EXIT SENSOR 4-76
4.10.7 TM (ID) SENSOR 4-76
Before Replacing the TM(ID) sensor 4-76
Replacement procedure 4-78
Adjustment after replacing the TM(ID) sensor 4-79
4.10.8 TEMPERATURE AND HUMIDITY SENSOR 4-80
4.11 DRIVE UNIT 4-81
4.11.1 OVERVIEW 4-81
4.11.2 PAPER FEED MOTOR 4-82
4.11.3 TRANSPORT MOTOR 4-82
4.11.4 TRANSFER MOTOR UNIT 4-83
4.11.5 IMAGING DRIVE UNIT 4-85
4.11.6 PCU MOTOR: CMY 4-86
4.11.7 DEVELOPMENT MOTOR: CMY 4-86
4.11.8 DEVELOPMENT MOTOR: BLACK 4-87
4.11.9 PCU: BLACK / IMAGE TRANSFER MOTOR 4-87
4.11.10 REGISTRATION MOTOR 4-87
4.11.11 FUSING MOTOR 4-88
4.11.12 PAPER EXIT / PRESSURE RELEASE MOTOR 4-88
4.11.13 DUPLEX ENTRANCE MOTOR 4-89

4.11.14 TONER TRANSPORT MOTOR 4-90
4.11.15 SUB HOPPER 4-90
K 4-90
C 4-91
M 4-92
Y 4-93
4.11.16 TONER END SENSOR 4-94
4.11.17 TONER BOTTLE DRIVE MOTOR 4-95
K 4-95
C 4-95
M 4-95
Y 4-96
4.11.18 ID CHIP 4-97
K 4-97
C 4-97
M 4-97
Y 4-98
4.12 FUSING UNIT 4-99
4.12.1 FUSING UNIT 4-99
Replacement 4-99
4.12.2 FUSING ENTRANCE GUIDE PLATE 4-100
Cleaning the Fusing Entrance Guide Plate 4-100
4.12.3 FUSING EXIT GUIDE PLATE 4-101
Cleaning the Fusing Exit Guide Plate 4-101
4.12.4 FUSING UPPER COVER 4-102
4.12.5 FUSING LOWER COVER 4-102
4.12.6 FUSING FRONT COVER 4-103
4.12.7 FUSING REAR COVER 4-103
4.12.8 HEATING SLEEVE BELT UNIT 4-104
Replacement 4-104
4.12.9 PRESSURE ROLLER 4-105
Adjustment before replacing the pressure roller 4-105
Replacement 4-105
4.12.10 THERMOSTAT UNIT 4-107
4.12.11 NC SENSOR UNIT 4-108
4.12.12 FUSING THERMISTOR 4-108
4.12.13 FUSING THERMOPILE UNIT 4-109
4.12.14 PRESSURE ROLLER HP SENSOR 4-109
4.12.15 FUSING SHIELD POSITION SENSOR 4-110

4.12.16 FUSING SHIELD DRIVE MOTOR 4-111
4.13 PAPER EXIT 4-112
4.13.1 PAPER EXIT UNIT 4-112
4.13.2 PAPER EXIT SWITCHING SOLENOID 4-112
4.13.3 PAPER EXIT SENSOR 4-113
4.13.4 REVERSE SENSOR 4-114
4.13.5 PAPER EXIT FULL SENSOR 4-115
4.13.6 REVERSE MOTOR 4-115
4.13.7 FUSING EXIT SENSOR 4-116
4.14 PAPER FEED 4-117
4.14.1 PAPER FEED UNIT 4-117
1st Paper Feed Unit 4-117
2nd Paper Feed Unit 4-118
4.14.2 PAPER DUST COLLECTION UNIT 4-120
4.14.3 PICK-UP ROLLER, PAPER FEED ROLLER, SEPARATION ROLLER, TORQUE LIMITER 4-120
4.14.4 PAPER FEED SOLENOID 4-122
4.14.5 PAPER FEED SENSOR 4-123
4.14.6 VERTICAL TRANSPORT SENSOR 4-124
4.14.7 LIMIT SENSOR 4-125
4.14.8 PAPER END SENSOR 4-125
4.14.9 REGISTRATION SENSOR 4-126
4.15 BY-PASS TRAY UNIT 4-127
4.15.1 BY-PASS TRAY 4-127
4.15.2 BY-PASS PAPER END SENSOR 4-129
4.15.3 BY-PASS PICK-UP ROLLER 4-130
4.15.4 BY-PASS PAPER FEED ROLLER 4-130
4.15.5 BY-PASS SEPARATION ROLLER 4-131
4.15.6 TORQUE LIMITER 4-131
4.15.7 BY-PASS TRAY SIDE FENCE (D150 ONLY) 4-132
4.16 DUPLEX UNIT 4-134
4.16.1 DUPLEX UNIT 4-134
4.16.2 DUPLEX/BY-PASS MOTOR 4-136
4.16.3 DUPLEX ENTRANCE SENSOR 4-137
4.16.4 DUPLEX JAM PROCESSING LED 4-139
4.16.5 DUPLEX EXIT SENSOR 4-139
4.16.6 DOUBLE FEED SENSOR (D150 ONLY) 4-140
4.17 ELECTRICAL COMPONENTS 4-142
4.17.1 OVERVIEW 4-142

Printed Circuits/Parts Inside the Controller Box 4-142
Printed Circuits Behind the Controller Box. 4-143
Printed Circuit/Parts Inside the Power Box..... 4-143
Printed Circuits Behind the Power Box..... 4-144
4.17.2 IPU SUB (SPDF ONLY) 4-144
4.17.3 IPU 4-145
4.17.4 BCU..... 4-147
Replacing the NVRAM (EEPROM) on the BCU 4-147
4.17.5 CONTROLLER BOARD 4-148
NVRAMs on the controller board..... 4-149
4.17.6 HDD 4-150
Adjustment after replacement 4-151
4.17.7 CPU COOLING FAN..... 4-151
4.17.8 IMAGING IOB 4-151
4.17.9 HVP_TTS..... 4-152
4.17.10 PSU (AC CONTROLLER BOARD)..... 4-153
4.17.11 PSU (DC POWER) 4-153
4.17.12 PAPER TRANSPORT IOB 4-154
4.17.13 HVP-CB 4-155
4.18 FANS/FILTERS..... 4-156
4.18.1 OZONE FILTER/DUST FILTER 4-156
Adjustment before replacing the dust filter 4-156
Replacement 4-156
4.18.2 ODOR FILTER..... 4-157
4.18.3 DEVELOPMENT INTAKE FAN/RIGHT 4-158
4.18.4 DEVELOPMENT INTAKE FAN/LEFT 4-159
4.18.5 OZONE EXHAUST FAN 4-159
4.18.6 PAPER EXIT COOLING FAN 4-160
4.18.7 FUSING EXHAUST HEAT FAN..... 4-160
4.18.8 DRIVE COOLING FAN (D148/D149/D150)..... 4-161
4.18.9 MAIN EXHAUST FAN (D148/D149/D150) 4-162
4.18.10 TONER SUPPLY COOLING FAN 4-163
D148/D149/D150..... 4-163
D146/D147..... 4-164
4.18.11 PSU COOLING FAN..... 4-165
4.18.12 PSU EXHAUST HEAT FAN (D148/D149/D150)..... 4-166
4.18.13 POWER BOX COOLING FAN..... 4-166
4.19 IMAGE ADJUSTMENT..... 4-167
4.19.1 SCANNING 4-167

Scanner sub-scan magnification 4-167
Scanner leading edge and side-to-side registration 4-167
4.19.2 ARDF 4-168
ARDF side-to-side, leading edge registration and trailing edge 4-168
ARDF sub-scan magnification 4-169
4.19.3 REGISTRATION 4-169
Image Area 4-169
Leading Edge 4-169
Side to Side 4-169
Adjustment Standard 4-169
Paper Registration Standard 4-169
Adjustment Procedure 4-170
4.19.4 ERASE MARGIN ADJUSTMENT 4-171
4.19.5 COLOR REGISTRATION 4-171
Line Position Adjustment 4-171
4.19.6 PRINTER GAMMA CORRECTION 4-172
Copy Mode 4-172
Printer Mode 4-176

5. TROUBLESHOOTING 5-1
5.1 SELF-DIAGNOSTIC MODE 5-1
5.1.1 SERVICE CALL CODES 5-1
Service Call Conditions 5-1
SC logging 5-2
SC automatic reboot 5-2
Controller self-diagnosis outline 5-5
Controller self-diagnosis flowchart 5-6
5.2 SERVICE CALL 101-195 5-10
5.2.1 SC100 (ENGINE: SCANNING) 5-10
5.3 SERVICE CALL 201-285 5-22
5.3.1 SC200 (ENGINE: IMAGE WRITING) 5-22
5.4 SERVICE CALL 312-396 5-28
5.4.1 SC300 (ENGINE: CHARGE, DEVELOPMENT) 5-28
5.5 SERVICE CALL 441-498 5-33
5.5.1 SC400 (ENGINE: AROUND THE DRUM) 5-33
5.6 SERVICE CALL 501-584 5-41
5.6.1 SC500 (ENGINE: PAPER TRANSPORT 1: PAPER FEED, DUPLEX, TRANSPORT) 5-41
5.7 SERVICE CALL 620-689 5-84
5.7.1 SC600 (ENGINE: COMMUNICATION AND OTHERS) 5-84

5.7.2 SC600 (CONTROLLER) 5-91
5.8 SERVICE CALL 700-792 5-103
5.8.1 SC700 (ENGINE: PERIPHERALS) 5-103
5.9 SERVICE CALL 816-899 5-126
5.9.1 SC800 (CONTROLLER) 5-126
5.10 SERVICE CALL 900-998 5-189
5.10.1 SC900 (ENGINE: OTHERS) 5-189
5.10.2 SC900 (CONTROLLER) 5-191
5.11 JAM DETECTION 5-199
5.11.1 JAM DISPLAY 5-199
Paper Jam Display 5-199
5.11.2 JAM CODES AND DISPLAY CODES 5-200
5.11.3 PAPER SIZE CODE 5-212
5.11.4 SENSOR LOCATIONS 5-213
5.12 ELECTRICAL COMPONENT DEFECTS 5-214
5.12.1 D148/D149/D150 5-214
5.12.2 D146/D147 5-215
5.12.3 FUSE POSITION 5-216
5.13 IMAGE QUALITY 5-218
5.13.1 WHEN AN ABNORMAL IMAGE IS GENERATED 5-218

6. ENERGY SAVE 6-1
6.1 ENERGY SAVE 6-1
6.1.1 ENERGY SAVER MODES 6-1
Timer Settings 6-1
Return to Stand-by Mode 6-2
Recommendation 6-2
6.1.2 ENERGY SAVE EFFECTIVENESS 6-3
6.2 PAPER SAVE 6-4
6.2.1 EFFECTIVENESS OF DUPLEX/COMBINE FUNCTION 6-4

READ THIS FIRST

Important Safety Notices

Prevention of Physical Injury

1. Before disassembling or assembling parts of the copier and peripherals, make sure that the copier power cord is unplugged.
2. The wall outlet should be near the copier and easily accessible.
3. If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrified or mechanically driven components.
4. The copier drives some of its components when it completes the warm-up period. Be careful to keep hands away from the mechanical and electrical components as the copier starts operation.
5. The inside and the metal parts of the fusing unit become extremely hot while the copier is operating. Be careful to avoid touching those components with your bare hands.

Health Safety Conditions

1. Toner and developer are non-toxic, but if you get either of them in your eyes by accident, it may cause temporary eye discomfort. Immediately wash eyes with plenty of water. If unsuccessful, get medical attention.
2. The copier, which use high voltage power source, can generate ozone gas. High ozone density is harmful to human health. Therefore, the machine must be installed in a well-ventilated room.

Observance of Electrical Safety Standards

The copier and its peripherals must be serviced by a customer service representative who has completed the training course on those models.

⚠WARNING

- § Keep the machine away from flammable liquids, gases, and aerosols. A fire or an explosion might occur.

⚠CAUTION

- § The Controller board on this machine contains a lithium battery. The danger of explosion exists if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer. Discard batteries in accordance with the manufacturer's instructions and local regulations.
- § The optional fax and memory expansion units contain lithium batteries, which can explode if replaced incorrectly. Replace only with the same or an equivalent type recommended by the manufacturer. Do not recharge or burn the batteries. Used batteries must be handled in accordance with local regulations.

Safety and Ecological Notes for Disposal

1. Do not incinerate toner bottles or used toner. Toner dust may ignite suddenly when exposed to an open flame.
2. Dispose of used toner, the maintenance unit which includes developer or the organic photoconductor in accordance with local regulations. (These are non-toxic supplies.)
3. Dispose of replaced parts in accordance with local regulations.
4. When keeping used lithium batteries in order to dispose of them later, do not put more than 100 batteries per sealed box. Storing larger numbers or not sealing them apart may lead to chemical reactions and heat build-up.

Laser Safety

The Center for Devices and Radiological Health (CDRH) prohibits the repair of laser-based optical units in the field. The optical housing unit can only be repaired in a factory or at a location with the requisite equipment. The laser subsystem is replaceable in the field by a qualified Customer Engineer. The laser chassis is not repairable in the field. Customer engineers are therefore directed to return all chassis and laser subsystems to the factory or service depot when replacement of the optical subsystem is required.

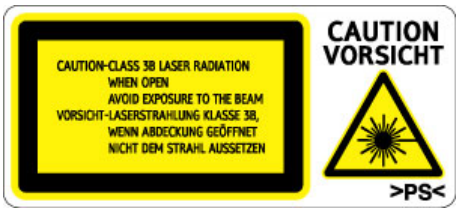
⚠WARNING

§ **Use of controls, or adjustment, or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.**

⚠WARNING

§ Turn off the main switch before attempting any of the procedures in the Laser Optics Housing Unit section. Laser beams can seriously damage your eyes.

CAUTION MARKING:



Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

⚠WARNING

§ A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

⚠CAUTION

§ A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

Important

§ Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.

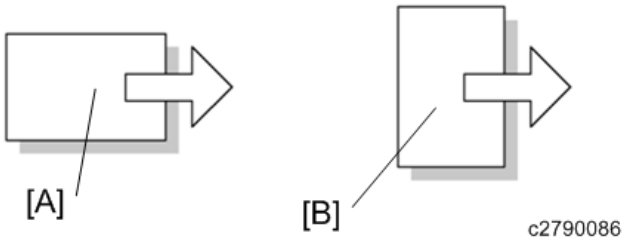
Note

§ This information provides tips and advice about how to best service the machine.

Symbols, Abbreviations and Trademarks

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

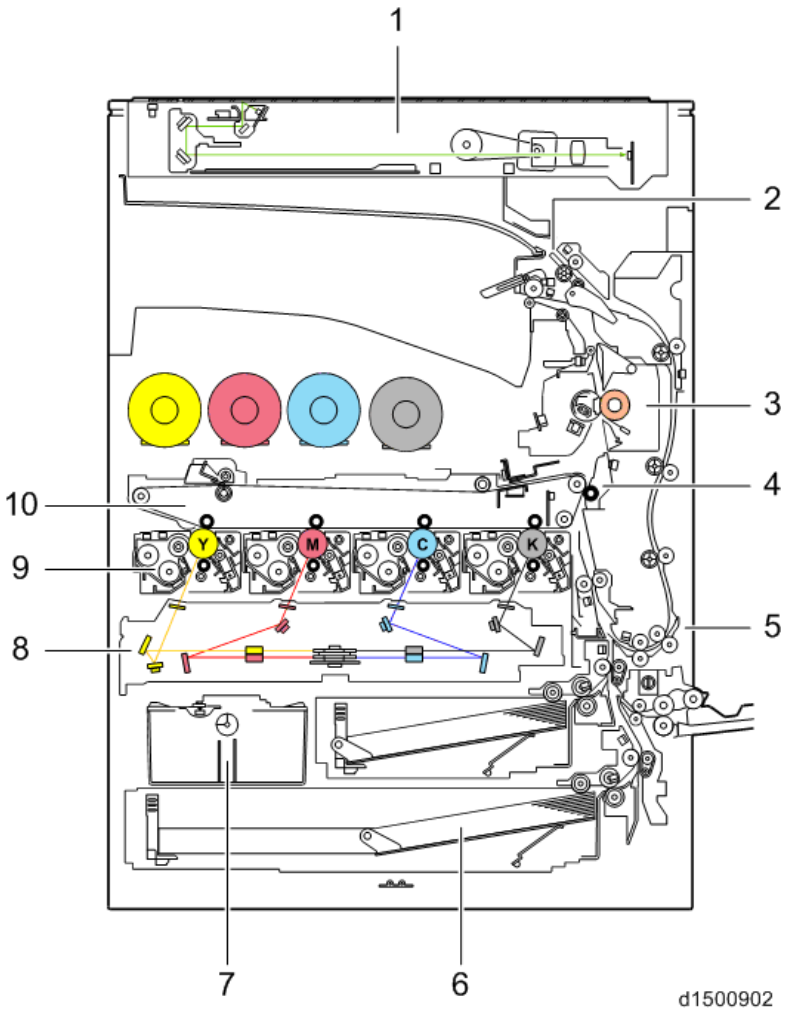
PRODUCT INFORMATION

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

1. PRODUCT INFORMATION

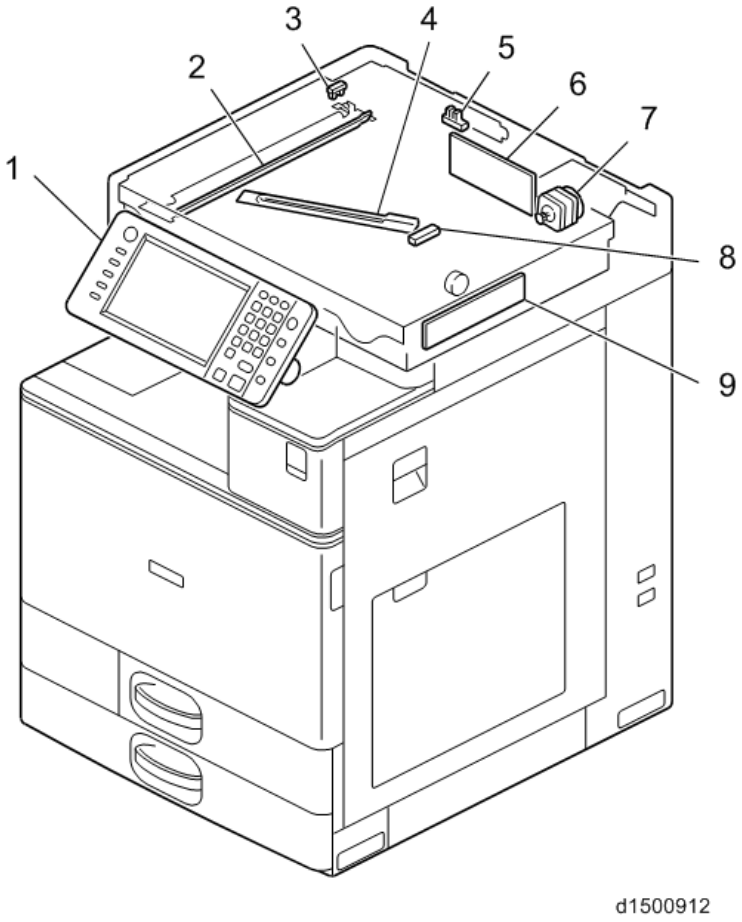
1.1 PRODUCT OVERVIEW

1.1.1 COMPONENT LAYOUT



No.	Description	No.	Description
1	Scanner Unit	6	Paper Feed Unit
2	Paper Exit Unit	7	Waste Toner Unit
3	Fusing Unit	8	Laser Exposure Unit
4	Paper Transfer Unit	9	PCDU
5	Duplex Unit	10	Image Transfer Unit

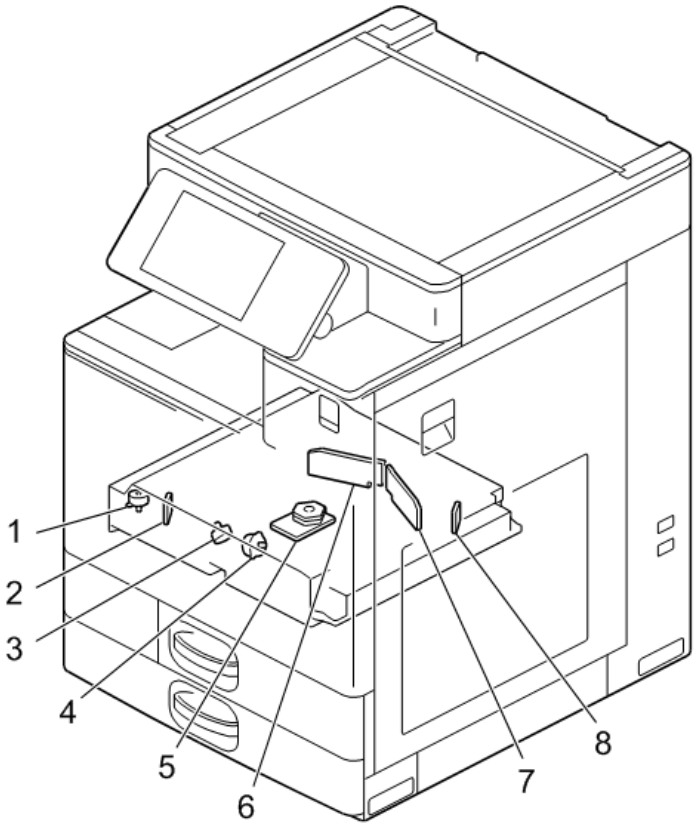
Scanner Unit



No.	Description	No.	Description
1	Operation Panel	6	Scanner Input/Output (SIO) board
2	Scanner lamp Unit (LED)	7	Scanner motor
3	Scanner Home Position sensor	8	Auto Paper Size detection (APS) sensor
4	Anti-condensation heater (Scanner heater) *1	9	Sensor Board Unit (SBU)
5	DF Position Sensor		

*1 Option

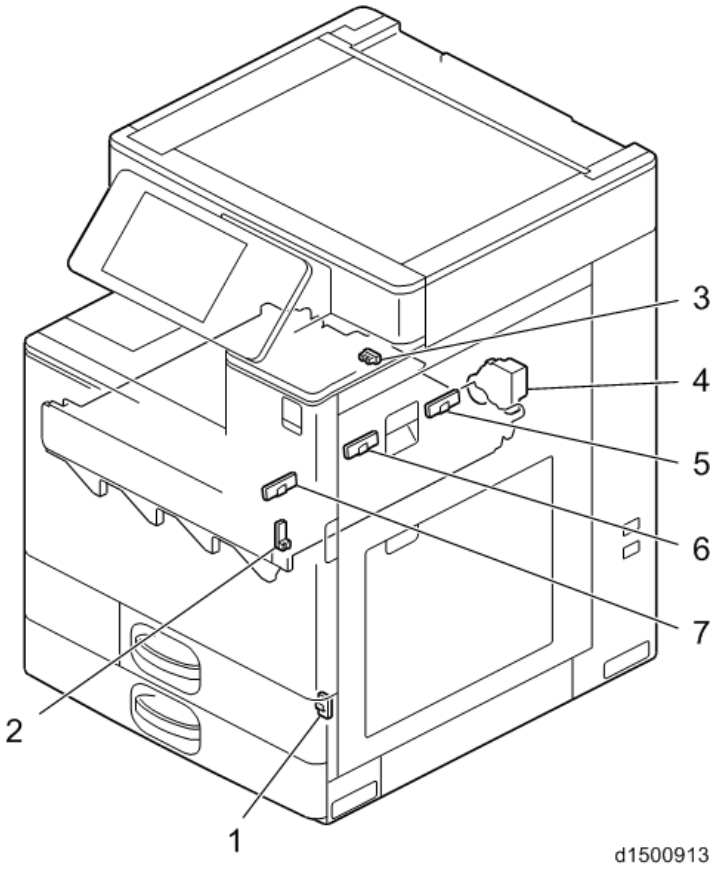
Laser Exposure Unit



d1500914

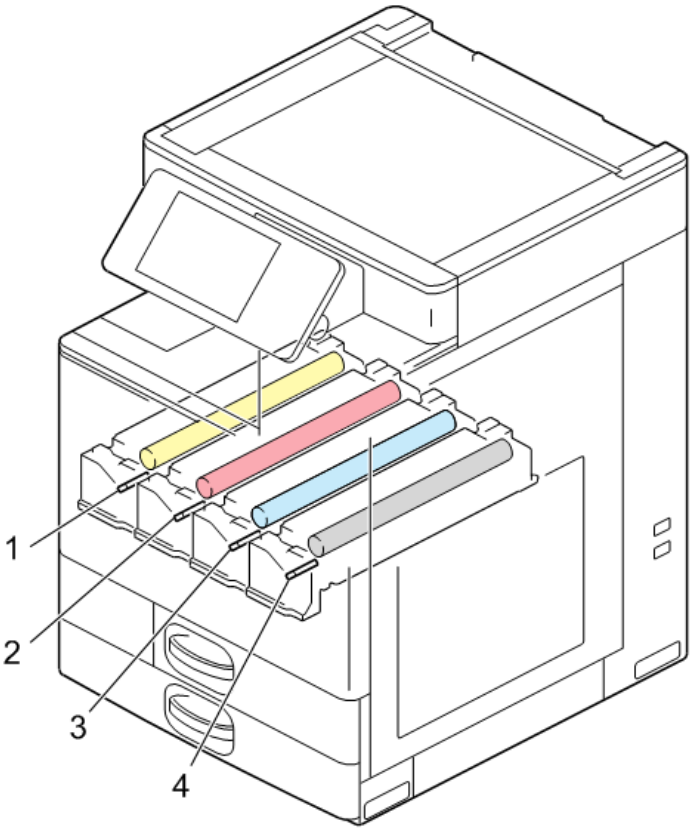
No.	Description	No.	Description
1	Skew motor	5	Polygon mirror motor
2	Synchronizing detector board: M/Y-S	6	LD Drive Board (M/Y)
3	Skew motor	7	LD Drive Board (Bk/C)
4	Skew motor	8	Synchronizing detector board: Bk/C-S

Image Transfer Unit



No.	Description
1	Interlock switch: Front cover (LD Safety Switch)
2	Interlock switch: Duplex Unit (LD Safety Switch)
3	Imaging Temperature Sensor (Thermistor)
4	TM/P sensor shutter solenoid
5	TM/P sensor (rear)
6	TM/P sensor (center)
7	TM/P sensor (front)

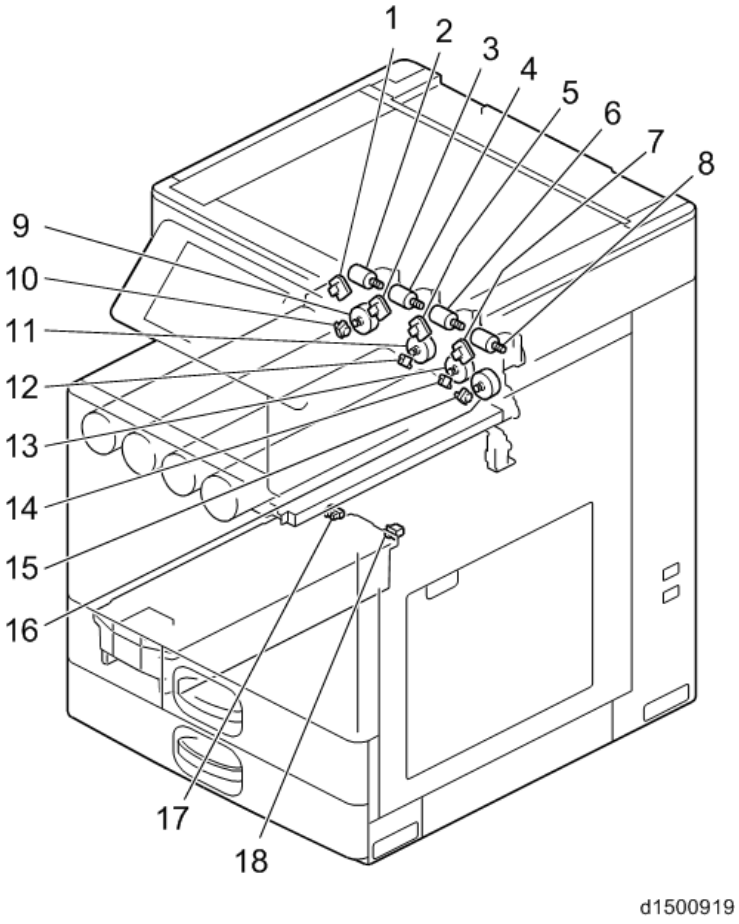
PCDU



d1500915

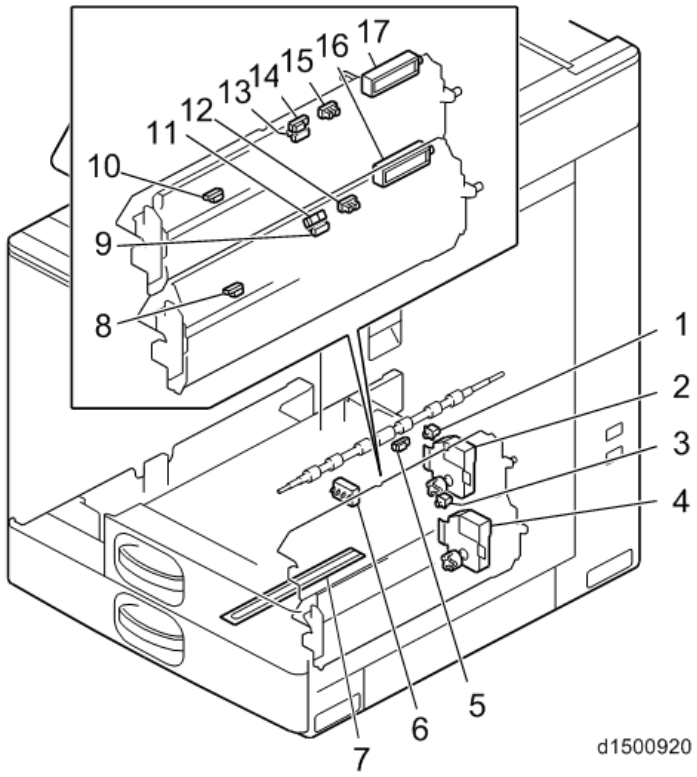
No.	Description	No.	Description
1	PCDU (Y)	3	PCDU (C)
2	PCDU (M)	4	PCDU (Bk)

Toner Supply / Waste Toner Bottle



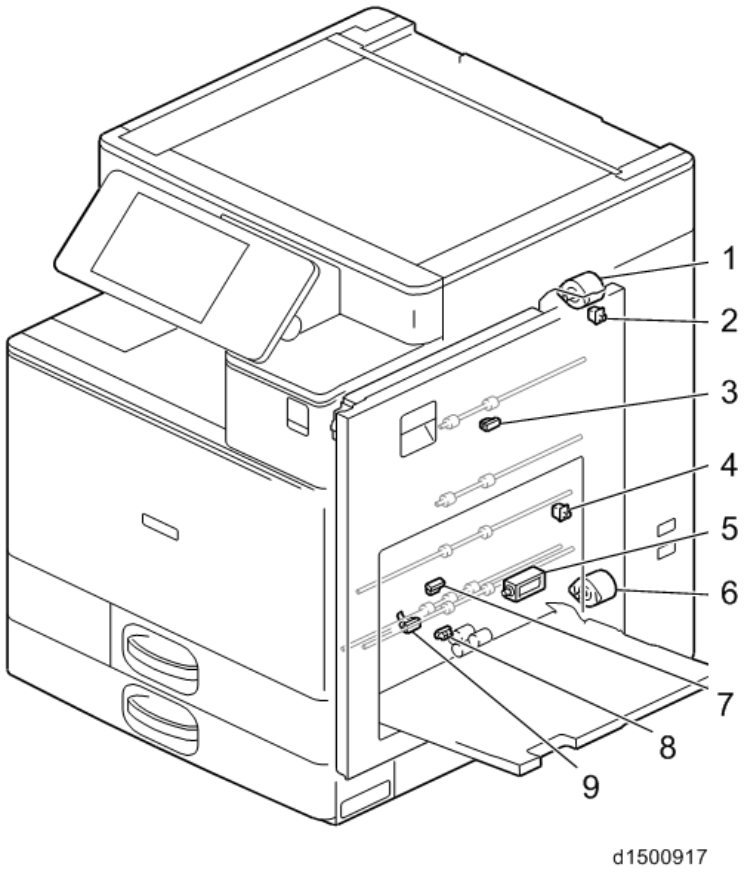
No.	Description	No.	Description
1	ID chip (Y)	10	Toner end sensor (Y)
2	Toner bottle drive motor (Y)	11	Toner transport motor (M)
3	ID chip (M)	12	Toner end sensor (M)
4	Toner bottle drive motor (M)	13	Toner transport motor (C)
5	ID chip (C)	14	Toner end sensor (C)
6	Toner bottle drive motor (C)	15	Toner end sensor (Bk)
7	ID chip (Bk)	16	Toner transport motor (Bk)
8	Toner bottle drive motor (Bk)	17	Waste toner capacity sensor
9	Toner transport motor (Y)	18	Waste toner bottle set switch

Paper Feed Unit



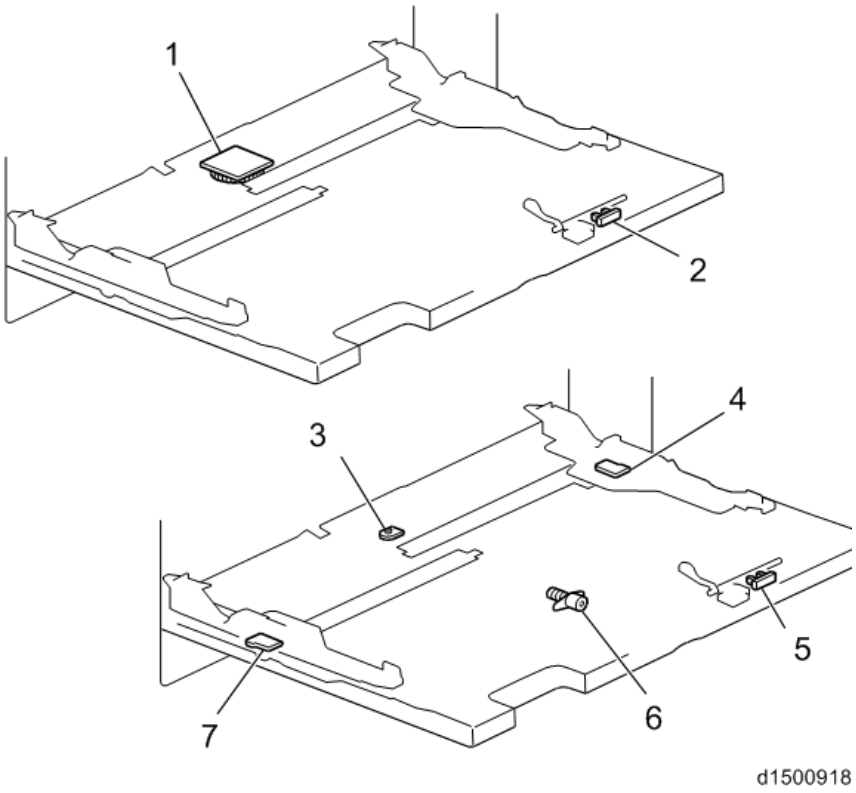
No.	Description	No.	Description
1	Tray set switch (1st feed tray)	10	Paper feed sensor (1st feed tray)
2	Lift motor (1st feed tray)	11	Paper end sensor (2nd feed tray)
3	Tray set switch (2nd feed tray)	12	Limit sensor (2nd feed tray)
4	Lift motor (2nd feed tray)	13	Transport sensor (1st feed tray)
5	Registration sensor	14	Paper end sensor (1st feed tray)
6	Size switch (2nd Feed Tray)	15	Limit sensor (1st feed tray)
7	Anti-condensation heater	16	Pick-up solenoid (2nd feed tray)
8	Paper feed sensor (2nd Feed Tray)	17	Pick-up solenoid (1st feed tray)
9	Transport sensor (2nd Feed Tray)		

Duplex Unit



No.	Description	No.	Description
1	Duplex entrance motor	6	By-pass/Duplex motor
2	Duplex unit open/close sensor	7	Double feed sensor (D150 only)
3	Duplex entrance sensor	8	By-pass paper end sensor
4	By-pass unit open/close sensor	9	Duplex exit sensor
5	By-pass pick-up solenoid		

By-pass unit

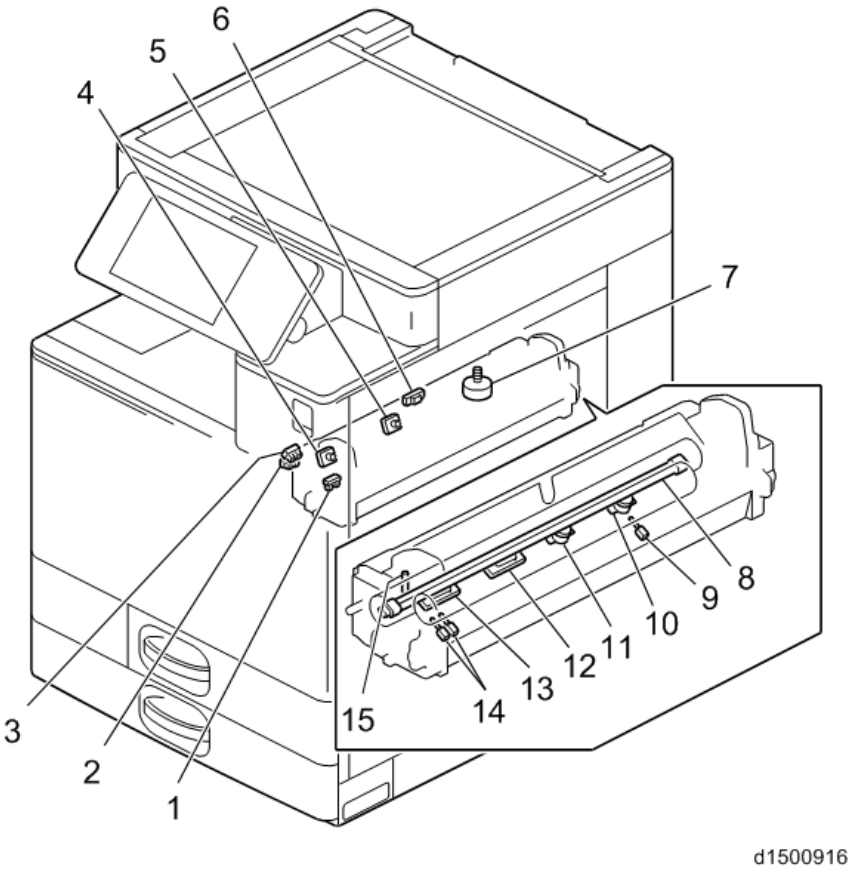


Upper fig.: D146/D147/D148/D149

Lower fig.: D150

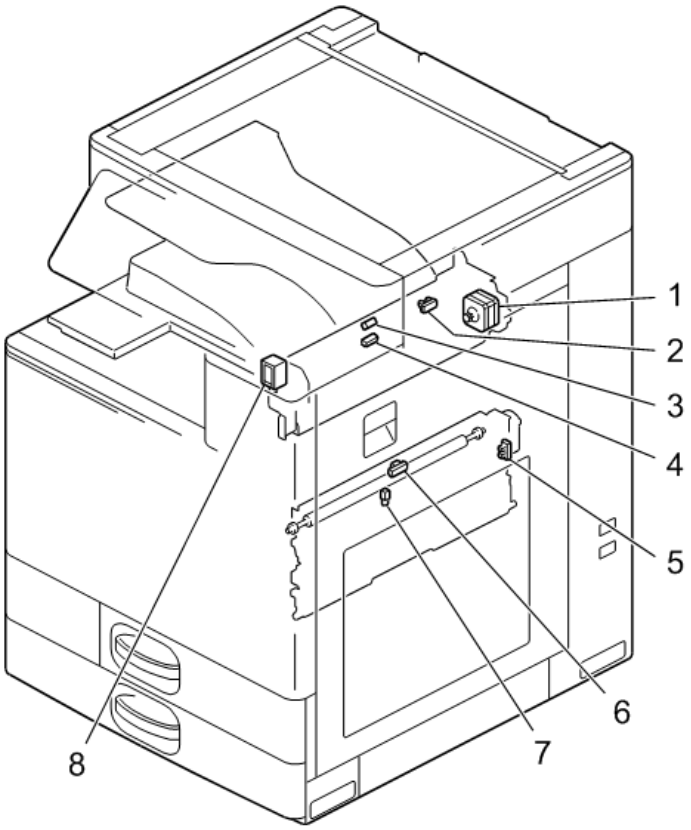
No.	Description	No.	Description
1	Main Scanning Sensor	5	By-pass length sensor
2	By-pass length sensor	6	Side Fence Drive Motor
3	Main Scanning Sensor	7	Side Fence Paper Contact sensor
4	Side Fence Paper Contact sensor		

Fusing Unit



No.	Description	No.	Description
1	Fusing pressure release sensor	9	Thermistor (center)
2	Shield position sensor (Lower)	10	Thermostat (edge)
3	Shield position sensor (Upper)	11	Thermostat (center)
4	Thermopile (edge)	12	NC sensor (center)
5	Thermopile (center)	13	NC sensor (edge)
6	Fusing exit sensor	14	Thermistor (edge)
7	Shield drive motor	15	Shield sensor 1 / 2
8	Fusing heater		

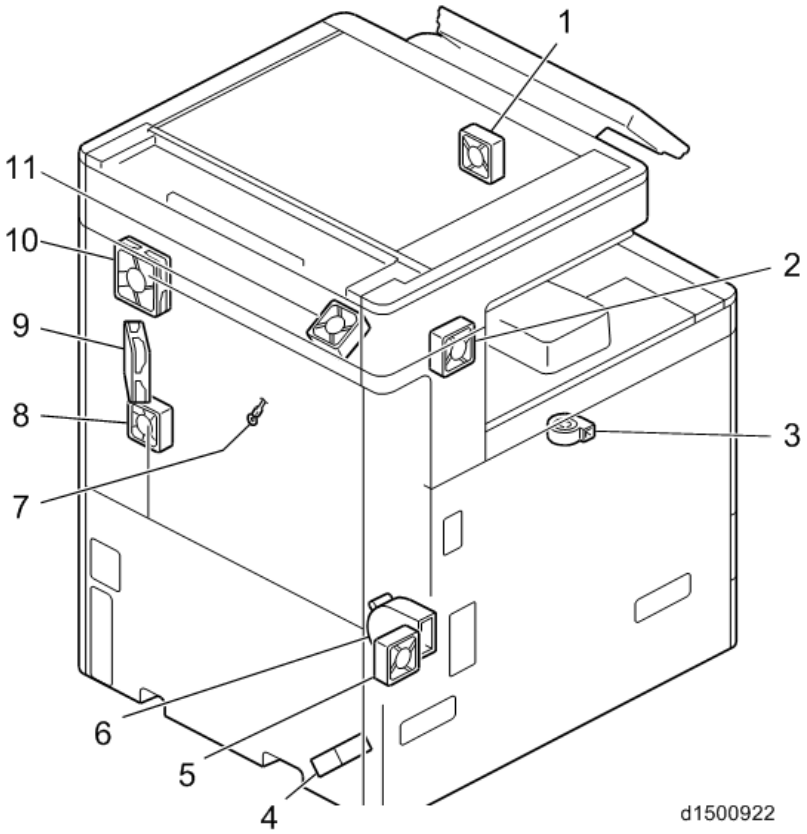
Paper Transfer / Paper Exit



d1500921

No.	Description	No.	Description
1	Inversion Motor	5	Paper transfer roller home position sensor
2	Paper exit full sensor	6	Fusing entrance sensor
3	Inversion Sensor	7	Fusing jam sensor
4	Paper exit sensor	8	Paper exit solenoid

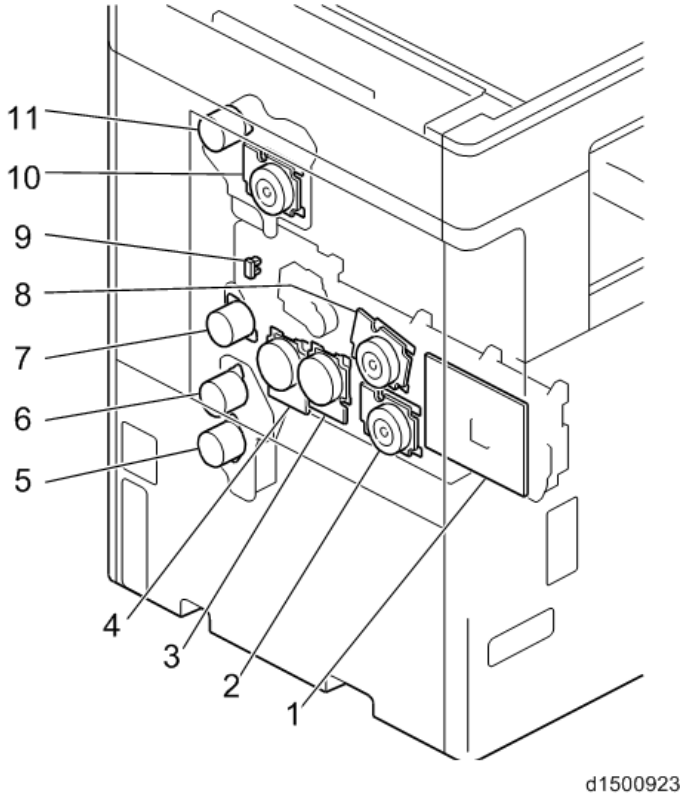
Air Flow



No.	Description	No.	Description
1	Paper exit cooling fan	7	Thermistor
2	Development intake fan/right	8	Drive cooling fan*
3	Development intake fan/left	9	Toner supply cooling fan
4	PSU cooling fan	10	Fusing exhaust heat fan
5	PSU exhaust heat fan*	11	Main exhaust fan*
6	Ozone exhaust fan		

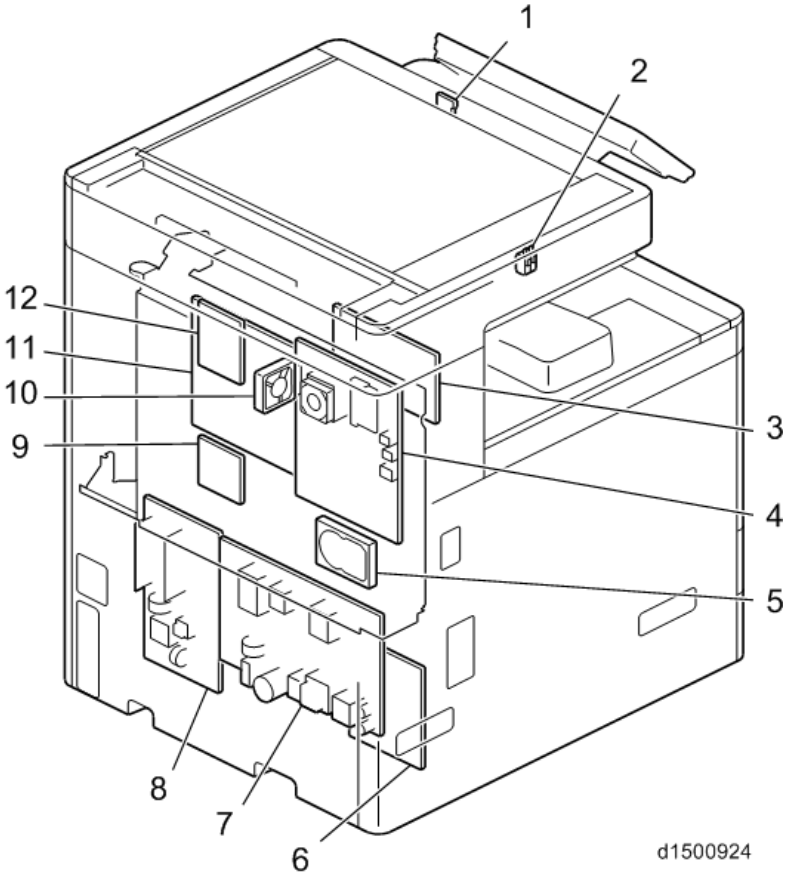
* D150/D149/D148 only

Drive Unit



No.	Description	No.	Description
1	Imaging IOB	7	Registration Motor
2	Development Motor: CMY	8	PCU Motor: CMY
3	Development Motor: Black	9	Phase sensor
4	PCU: Black / Image Transfer Motor	10	Fusing Motor
5	Paper Feed Motor	11	Paper Exit / Pressure Release Motor
6	Transport Motor		

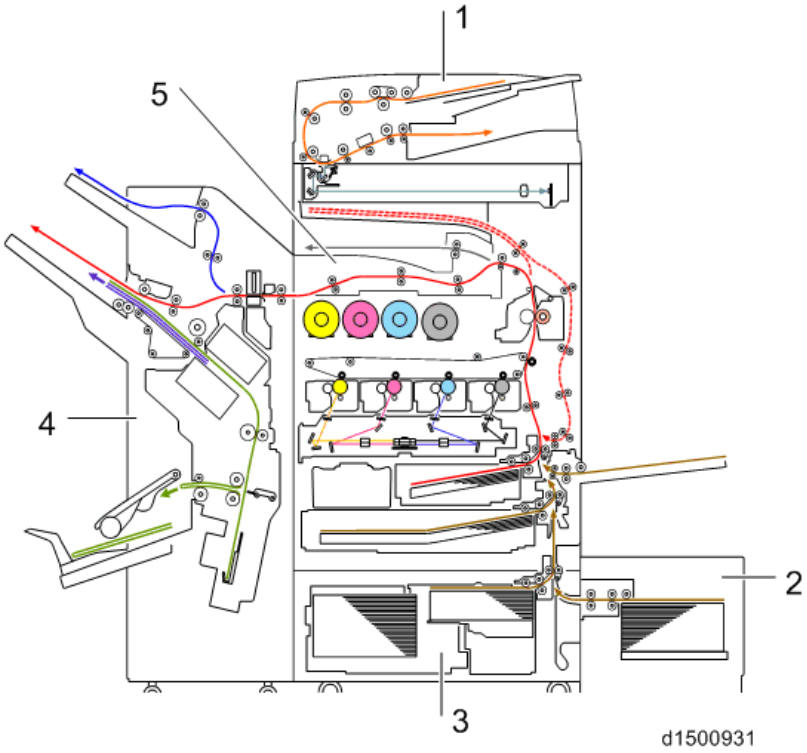
Board / Switch



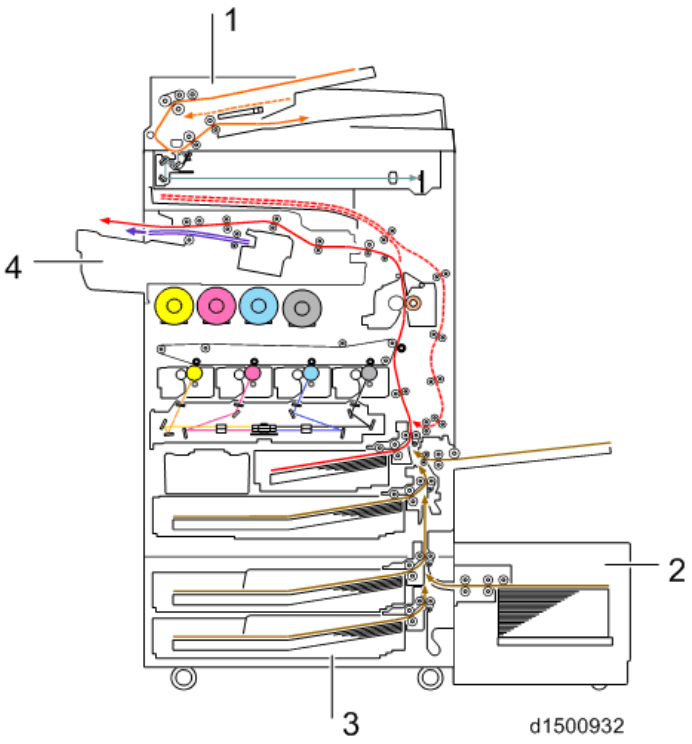
No.	Description	No.	Description
1	Power switch	7	PSU (AC controller board)
2	Interlock switch: front cover	8	PSU (DC Power)
3	HVP_TTS	9	BCU
4	Control board	10	Controller box cooling fan
5	HDD	11	IPU
6	Paper Transport IOB	12	IPU Sub*

* SPDF only

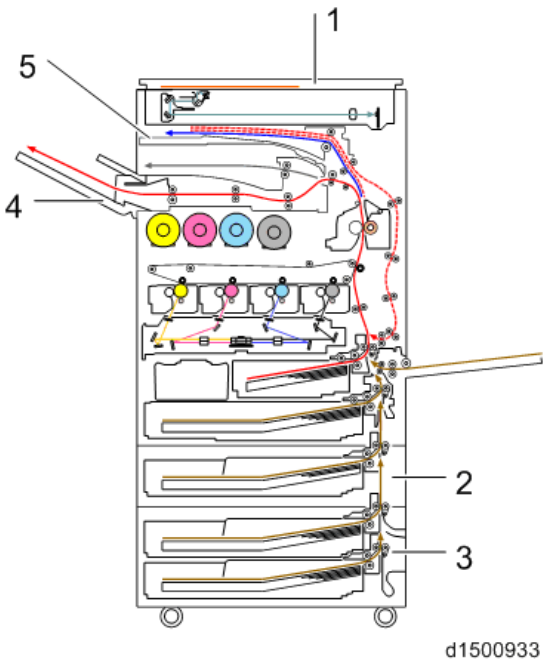
1.1.2 PAPER PATH



No.	Description	No.	Description
1	SPDF DF3080	4	Booklet Finisher SR3150
2	LCIT RT3030	5	Bridge Unit BU3070
3	LCIT PB3170		

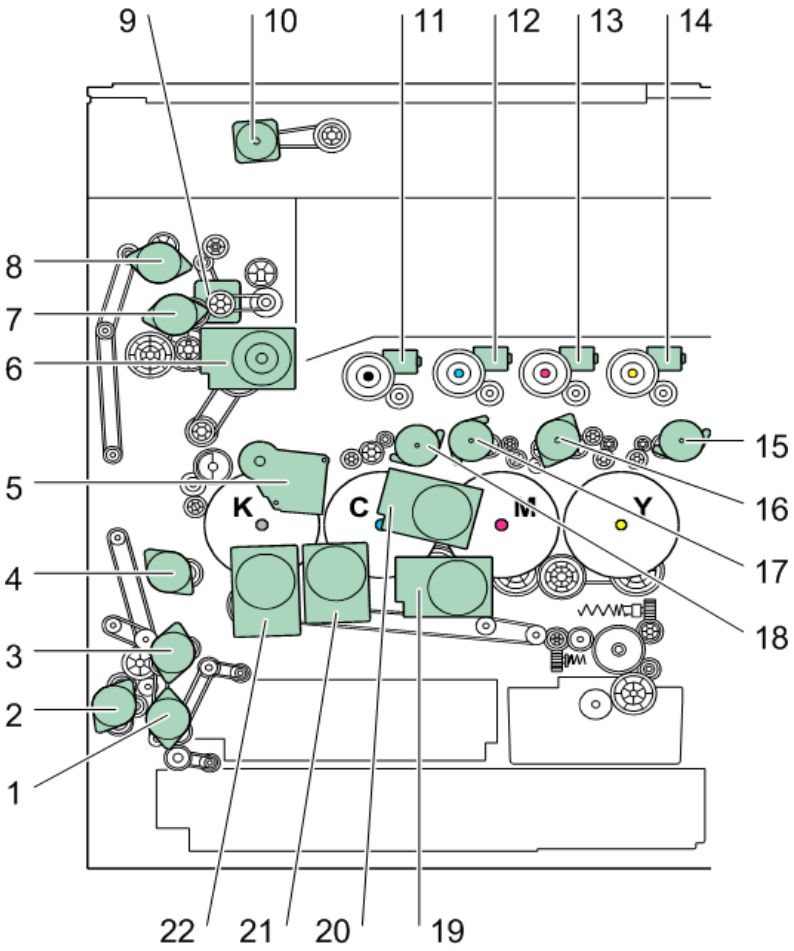


No.	Description	No.	Description
1	ARDF DF3090	3	Paper Feed Unit PB3160
2	LCIT RT3030	4	Internal Finisher SR3130



No.	Description	No.	Description
1	Platen Cover PN2000	3	Side Tray Type M3
2	Paper Feed Unit PB3150	4	1 Bin Tray BN3110

1.1.3 DRIVE LAYOUT



d1500901

No.	Description	No.	Description
1	Paper feed motor	12	Toner bottle drive motor (C)
2	Duplex / By-pass motor	13	Toner bottle drive motor (M)
3	Transport motor	14	Toner bottle drive motor (Y)
4	Registration motor	15	Toner transport motor (Y)
5	Paper transfer contact motor	16	Toner transport motor (M)
6	Fusing motor	17	Toner transport motor (C)
7	Paper exit / Pressure release motor	18	Toner transport motor (Bk)
8	Duplex entrance motor	19	Development Motor: CMY
9	Inversion motor	20	PCU Motor: CMY

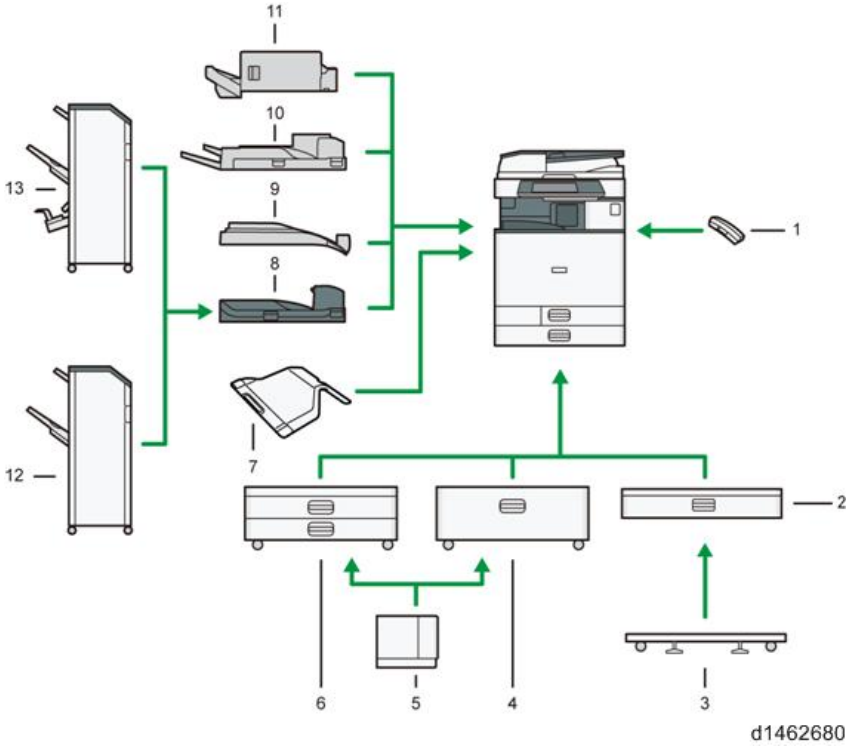
No.	Description	No.	Description
10	Scanner motor	21	Development Motor: Black
11	Toner bottle drive motor (Bk)	22	PCU: Black / Image Transfer Motor

1.2 MACHINE CODES AND PERIPHERALS CONFIGURATION

1.2.1 DIAGRAM

D146/D147 Options (mainly North America)

Mainframe (D146/D147): ARDF as standard



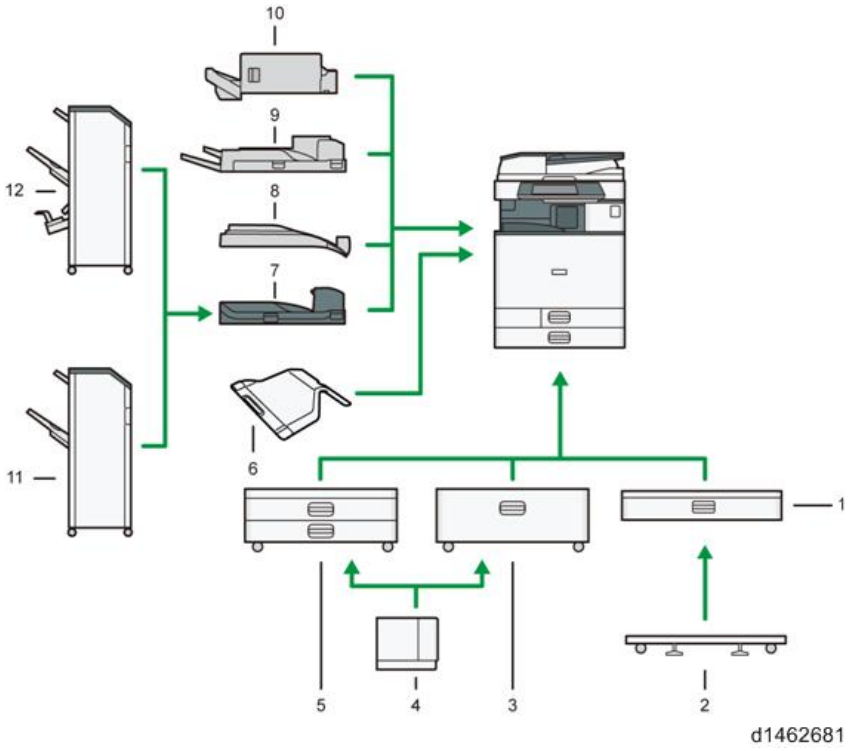
Item	Machine Code	Call out
Finisher SR3140	D687	12
Booklet Finisher SR3150	D686	13
Punch Unit PU3050	D717-17 (NA)	-
Internal Finisher SR3130	D690	11
Punch Unit PU3040	D716-17 (NA)	-
Paper Feed Unit PB3160	D693	6
Paper Feed Unit PB3150	D694	2

Item	Machine Code	Call out
Caster Table Type M3	D178	3
LCIT PB3170	D695-17 (NA)	4
LCIT RT3030	D696-17 (NA)	5
Internal Shift Tray SH3070	D691	9
Bridge Unit BU3070	D685	8
1 Bin Tray BN3110	D692	7
Side Tray Type M3	D725	10
Fax Option Type M3	D163-01 (NA)	-
G3 Interface Unit Type M3	D163-07 (NA)	-
Memory Unit Type B 32MB	G578	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M3	D165-01 (NA)	-
Postscript3 Unit Type M3	D165-05 (NA)	-
Camera Direct Print Card Type M3	D165-13	-
Browser Unit Type M3	D165-15 (NA)	-
SD card for NetWare printing Type M3	D165-19	-
IPDS Unit Type M3	D165-20 (NA)	-
OCR Unit Type M2	D166-25 (NA)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-
Imageable Area Extension Unit Type M3	D739-07	-
Handset HS3020	D739-05	1
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-
IEEE 1284 Interface Board Type A	B679	-

Item	Machine Code	Call out
Bluetooth Interfance Unit Type D	D566	-
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (NA)	-
Color Controller Connection Board Type M3	D730-06	-
Color Controller Connection Board Type M4	D730-04	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-81 (NA)	-

D146/D147 Options (mainly Europe and Asia)

Mainframe (D146/D147): ARDF as standard



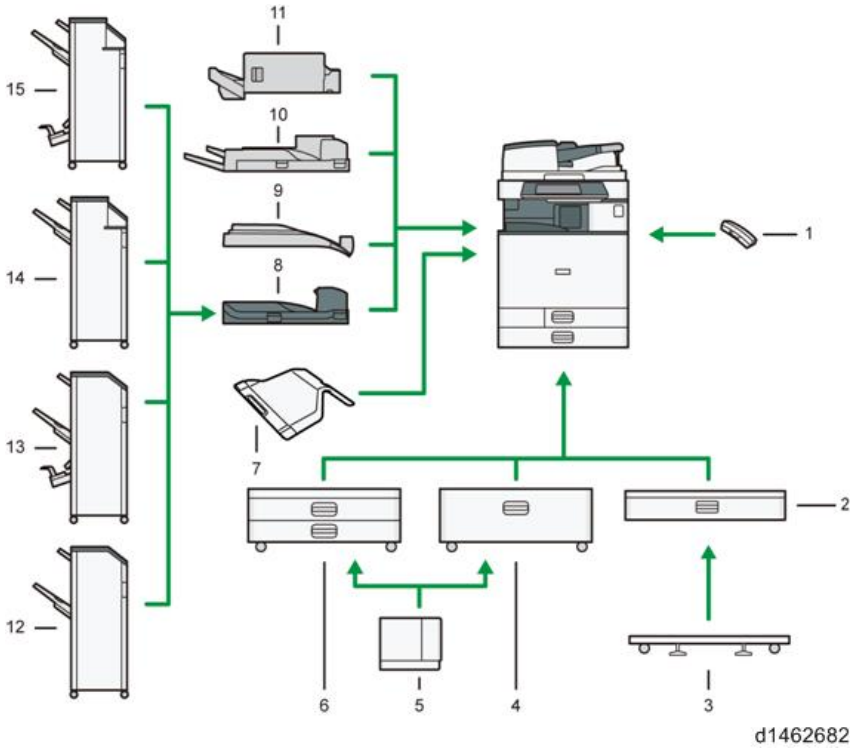
Item	Machine Code	Call out
Finisher SR3140	D687	11
Booklet Finisher SR3150	D686	12
Punch Unit PU3050	D717-27 (EU) D717-28 (SC)	-
Internal Finisher SR3130	D690	10
Punch Unit PU3040	D716-27 (EU) D716-28 (SC)	-
Paper Feed Unit PB3160	D693	5
Paper Feed Unit PB3150	D694	1
Caster Table Type M3	D178	2
LCIT PB3170	D695-27 (EU/AP)	3
LCIT RT3030	D696-27 (EU/AP)	4

Item	Machine Code	Call out
Internal Shift Tray SH3070	D691	8
Bridge Unit BU3070	D685	7
1 Bin Tray BN3110	D692	6
Side Tray Type M3	D725	9
Fax Option Type M3	D163-02 (EU) D163-03 (AP)	-
G3 Interface Unit Type M3	D163-08 (EU/AP)	-
Memory Unit Type B 32MB	G578	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M3	D165-02 (EU) D165-03 (AP)	-
Postscript3 Unit Type M3	D165-06 (EU) D165-07 (AP)	-
Camera Direct Print Card Type M3	D165-13	-
Browser Unit Type M3	D165-16 (EU) D165-17 (AP)	-
SD card for NetWare printing Type M3	D165-19	-
IPDS Unit Type M3	D165-21 (EU) D165-22 (AP)	-
OCR Unit Type M2	D166-26 (EU) D166-27 (AP)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-
Imageable Area Extension Unit Type M3	D739-07	--
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-
IEEE 1284 Interface Board Type A	B679	-

Item	Machine Code	Call out
Bluetooth Interfance Unit Type D	D566	-
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
SD Card for Fonts Type D	D641	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (EU/AP)	-
Color Controller Connection Board Type M3	D730-06	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-83 (AP)	-

D148D149 Options (mainly North America)

Mainframe (D148/D149): SPDF as standard

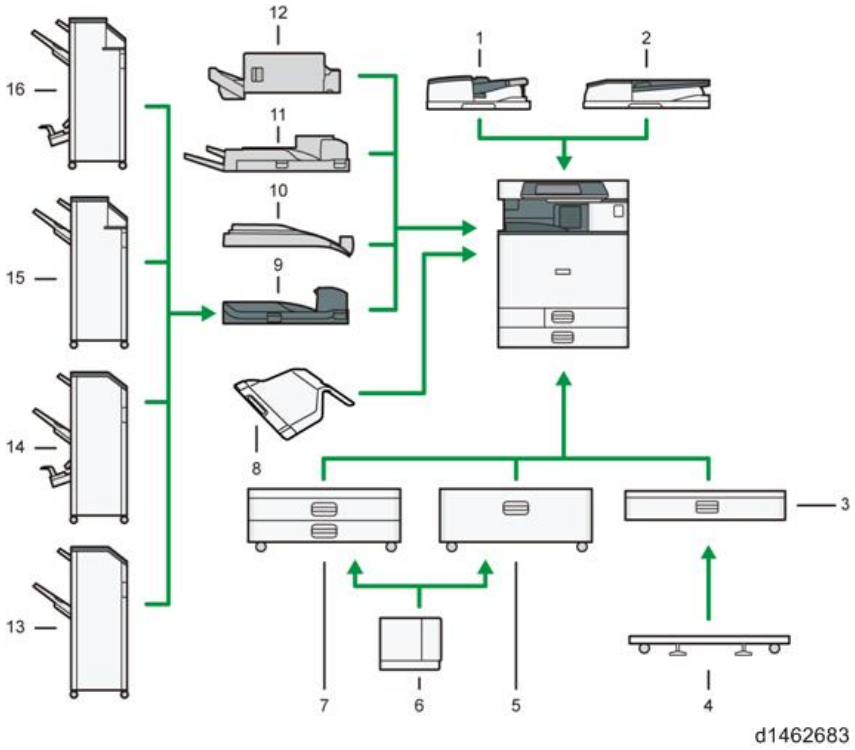


Item	Machine Code	Call out
Finisher SR3140	D687	12
Booklet Finisher SR3150	D686	13
Punch Unit PU3050	D717-17 (NA)	-
Booklet Finisher SR3170	D688	15
Finisher SR3160	D689	14
Punch Unit PU3060	D706-00 (NA)	-
Internal Finisher SR3130	D690	11
Punch Unit PU3040	D716-17 (NA)	-
Paper Feed Unit PB3160	D693	6
Paper Feed Unit PB3150	D694	2
Caster Table Type M3	D178	3

Item	Machine Code	Call out
LCIT PB3170	D695-17 (NA)	4
LCIT RT3030	D696-17 (NA)	5
Internal Shift Tray SH3070	D691	9
Bridge Unit BU3070	D685	8
1 Bin Tray BN3110	D692	7
Side Tray Type M3	D725	10
Memory Unit Type B 32MB	G578	-
Fax Option Type M4	D167-01 (NA)	-
G3 Interface Unit Type M4	D167-07 (NA)	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M4	D166-01 (NA)	-
Postscript3 Unit Type M4	D166-05 (NA)	-
Camera Direct Print Card Type M4	D166-13	-
Browser Unit Type M4	D166-15 (NA)	-
SD card for NetWare printing Type M4	D166-19	-
IPDS Unit Type M4	D166-20 (NA)	-
OCR Unit Type M2	D166-25 (NA)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-
Imageable Area Extension Unit Type M3	D739-07	-
Handset HS3020	D739-05	1
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-
IEEE 1284 Interface Board Type A	B679	-
Bluetooth Interfance Unit Type D	D566	-

Item	Machine Code	Call out
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (NA)	-
Color Controller Connection Board Type M3	D730-06	-
Color Controller Connection Board Type M4	D730-04	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-81 (NA)	-

D148/D149 Options (mainly Europe and Asia)



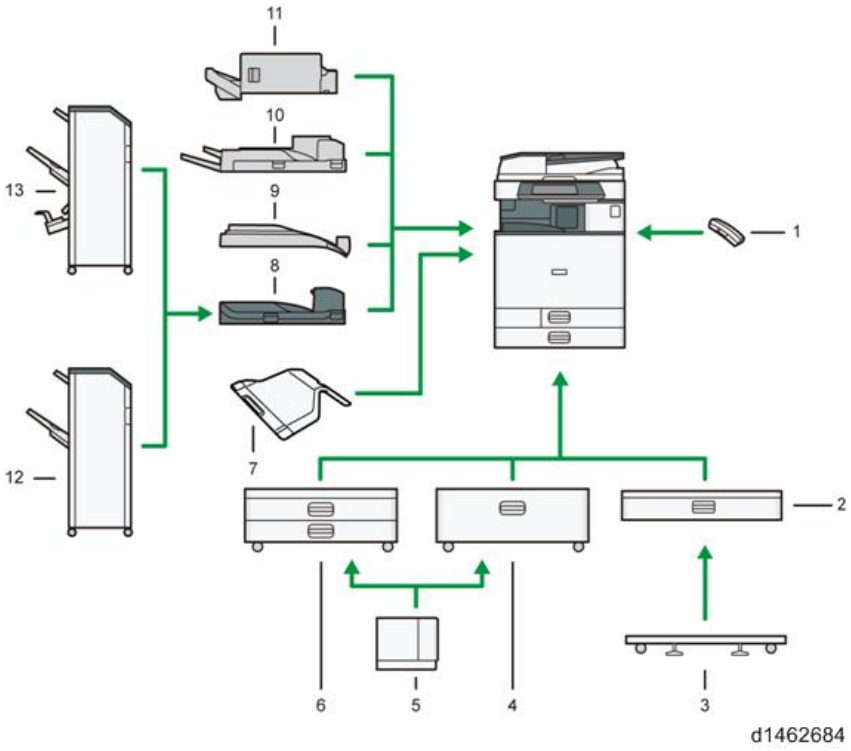
Item	Machine Code	Call out
Finisher SR3140	D687	13
Booklet Finisher SR3150	D686	14
Punch Unit PU3050	D717-27 (EU) D717-28 (SC)	-
Booklet Finisher SR3170	D688	16
Finisher SR3160	D689	15
Punch Unit PU3060	D706-01 (EU) D706-02 (SC)	-
Internal Finisher SR3130	D690	12
Punch Unit PU3040	D716-27 (EU) D716-28 (SC)	-
Paper Feed Unit PB3160	D693	7
Paper Feed Unit PB3150	D694	3
Caster Table Type M3	D178	4

Item	Machine Code	Call out
LCIT PB3170	D695-27 (EU/AP)	5
LCIT RT3030	D696-27 (EU/AP)	6
Internal Shift Tray SH3070	D691	10
Bridge Unit BU3070	D685	9
1 Bin Tray BN3110	D692	8
Side Tray Type M3	D725	11
ARDF DF3090	D779	2
SPDF DF3080	D683	1
Memory Unit Type B 32MB	G578	-
Fax Option Type M4	D167-02 (EU) D167-03 (AP)	-
G3 Interface Unit Type M4	D167-08 (EU/AP)	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M4	D166-02 (EU) D166-03 (AP)	-
Postscript3 Unit Type M4	D166-06 (EU) D166-07 (AP)	-
Camera Direct Print Card Type M4	D166-13	-
Browser Unit Type M4	D166-16 (EU) D166-17 (AP)	-
SD card for NetWare printing Type M4	D166-19	-
IPDS Unit Type M4	D166-21 (EU) D166-22 (AP)	-
OCR Unit Type M2	D166-26 (EU) D166-27 (AP)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-

Item	Machine Code	Call out
Imageable Area Extension Unit Type M3	D739-07	-
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-
IEEE 1284 Interface Board Type A	B679	-
Bluetooth Interfance Unit Type D	D566	-
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
SD Card for Fonts Type D	D641	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (EU/AP)	-
Color Controller Connection Board Type M4	D730-04	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-83 (AP)	-

D150 Options (mainly North America)

Mainframe (D150): SPDF as standard



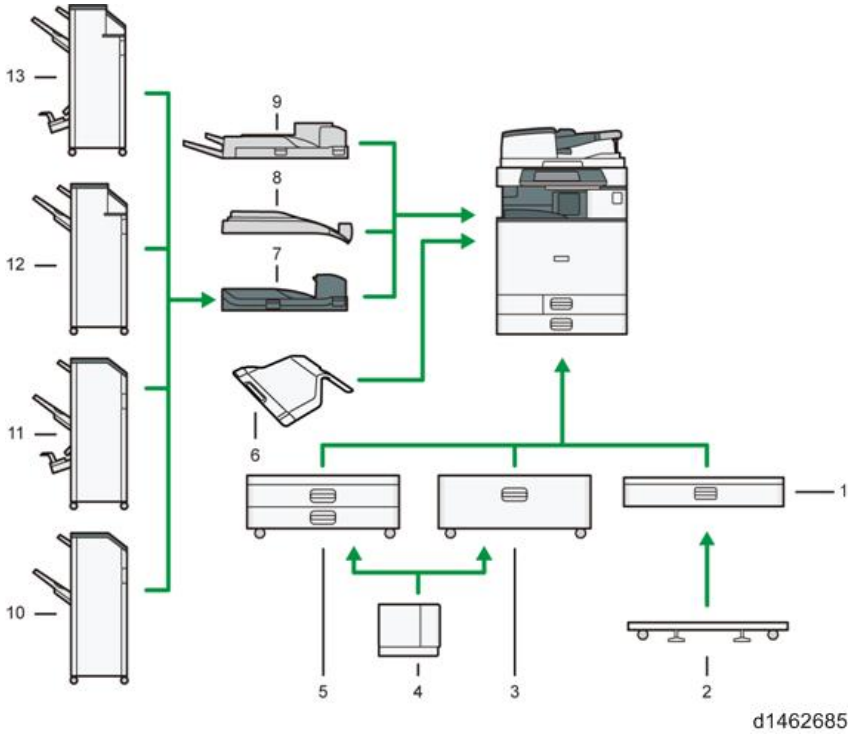
Item	Machine Code	Call out
Finisher SR3140	D687	11
Booklet Finisher SR3150	D686	12
Punch Unit PU3050	D717-17 (NA)	-
Booklet Finisher SR3170	D688	14
Finisher SR3160	D689	13
Punch Unit PU3060	D706-00 (NA)	-
Paper Feed Unit PB3160	D693	6
Paper Feed Unit PB3150	D694	2
Caster Table Type M3	D178	3
LCIT PB3170	D695-17 (NA)	4
LCIT RT3030	D696-17 (NA)	5

Item	Machine Code	Call out
Internal Shift Tray SH3070	D691	9
Bridge Unit BU3070	D685	8
1 Bin Tray BN3110	D692	7
Side Tray Type M3	D725	10
Memory Unit Type B 32MB	G578	-
Fax Option Type M4	D167-01 (NA)	-
G3 Interface Unit Type M4	D167-07 (NA)	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M4	D166-01 (NA)	-
Postscript3 Unit Type M4	D166-05 (NA)	-
Camera Direct Print Card Type M4	D166-13	-
Browser Unit Type M4	D166-15 (NA)	-
SD card for NetWare printing Type M4	D166-19	-
IPDS Unit Type M4	D166-20 (NA)	-
OCR Unit Type M2	D166-25 (NA)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-
Imageable Area Extension Unit Type M3	D739-07	-
Handset HS3020	D739-05	1
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-
IEEE 1284 Interface Board Type A	B679	-
Bluetooth Interfance Unit Type D	D566	-
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-

Item	Machine Code	Call out
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (NA)	-
Color Controller Connection Board Type M3	D730-06	-
Color Controller Connection Board Type M4	D730-04	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-81 (NA)	-

D150 Options (mainly Europe and Asia)

Mainframe (D150): SPDF as standard



Item	Machine Code	Call out
Finisher SR3140	D687	10
Booklet Finisher SR3150	D686	11
Punch Unit PU3050	D717-27 (EU) D717-28 (SC)	-
Booklet Finisher SR3170	D688	12
Finisher SR3160	D689	13
Punch Unit PU3060	D706-01 (EU) D706-02 (SC)	-
Paper Feed Unit PB3160	D693	5
Paper Feed Unit PB3150	D694	1
Caster Table Type M3	D178	2
LCIT PB3170	D695-27 (EU/AP)	3

Item	Machine Code	Call out
LCIT RT3030	D696-27 (EU/AP)	4
Internal Shift Tray SH3070	D691	8
Bridge Unit BU3070	D685	7
1 Bin Tray BN3110	D692	6
Side Tray Type M3	D725	7
Memory Unit Type B 32MB	G578	-
Fax Option Type M4	D167-02 (EU) D167-03 (AP)	-
G3 Interface Unit Type M4	D167-08 (EU/AP)	-
IEEE 802.11a/g/n Interface Unit Type M2	D164-01	-
Memory Unit Type M3 2GB	D164-03	-
Fax Connection Unit Type M4	D166-02 (EU) D166-03 (AP)	-
Postscript3 Unit Type M4	D166-06 (EU) D166-07 (AP)	-
Camera Direct Print Card Type M4	D166-13	-
Browser Unit Type M4	D166-16 (EU) D166-17 (AP)	-
SD card for NetWare printing Type M4	D166-19	-
IPDS Unit Type M4	D166-21 (EU) D166-22 (AP)	-
OCR Unit Type M2	D166-26 (EU) D166-27 (AP)	-
Smart Card Reader Built-in Unit Type M2	D739-06	-
Imageable Area Extension Unit Type M3	D739-07	-
Marker Type 30	H903	-
ADF Handle TypeC	D593-81	-

Item	Machine Code	Call out
IEEE 1284 Interface Board Type A	B679	-
Bluetooth Interfance Unit Type D	D566	-
File Format Converter Type E	D377-04	-
Copy Data Security Unit Type G	D640	-
Optional Counter Interface Unit Type A	B870	-
Key Counter Bracket Type M3	D739-09	-
Card Reader Bracket Type 3352	D593-61	-
Unicode Font Package for SAP(R) 1 License	B869-01	-
Unicode Font Package for SAP(R) 10 License	B869-02	-
Unicode Font Package for SAP(R) 100 License	B869-03	-
SD Card for Fonts Type D	D641	-
DataOverwriteSecurity Unit Type H	D377-06	-
Waste Toner Bottle MP C6003	D860-01	-
Color Controller E-22C	D730-01 (EU/AP)	-
Color Controller Connection Board Type M4	D730-04	-
External Keyboard Bracket Type M3	D739-10	-
Smart Operation Panel Type M3	D148-83 (AP)	-

1.3 SPECIFICATIONS

See "Appendices" for the following information:

- General Specifications
- Supported Paper Sizes
- Software Accessories
- Optional Equipment
- Other Specifications

1.4 GUIDANCE FOR THOSE WHO ARE FAMILIAR WITH PREDECESSOR PRODUCTS

1.4.1 DIFFERENCES FROM PREDECESSOR

Scan, LD unit, Paper feed unit

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
Scan	LED Scanning on all models Non contact sheet-through scan (DF use)	45/55 CPM halogen scan Contact sheet-through scan	Energy saving Improvement of black line occurrence
LD unit	Adjustment of original point after the unit replacement § Download the SP value from the unit § 1 SP for coarse and fine adjustment	Adjustment of original point after the unit replacement § Hand- input in reference of sheet included in the unit. § 2 SP for coarse and fine adjustment	Serviceability improvement
Paper feed	RF system Paper weight capacity:52 to 300g/m^2 Draw system tray Up to SRA3 compatible (opt) Paper tray detection: Specific sensor Clicked operational feeling at position of regular paper size Double feed detection (D150 only) Small size standard support(2nd tray only) Paper dust case removable by technician	FRR system Paper weight capacity:52 to 256g/m^2 Locked tray Up to A3 Paper tray detection: Paper size detection sensor No clicked operation feeling No double feed detection Small size tray option Paper dust case removable by technician	Simplify the layout Paper capability improvement User ability improvement Expand paper size User ability improvement User ability improvement Spec improvement

Duplex, Driving, Main frame

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
Duplex / Exit	Duplex: 256g/m^2 Internal tray reverse switch back system Jam detection LED(D148/D149/D150 only) Real time jam animation	Duplex: 169g/m^2 Internal reverse system No Jam detection LED No real time Jam animation	Paper capacity up Down sizing User ability up User ability up
By-pass	Side fence set assist function(D150 only)	No side fence set assist function	User ability up
Driving	Individual motor for paper feed and transport (DC motor)	One motor for paper feed and transport (STP motor) + clutch	Energy saving and high productivity
Frame	Baseless(stand by three points) Partially adopt for plastic frame	Frame with base	Less machine weight
Air flow	Proper cooling system	Atmosphere cooling system	Cooling efficiency up

PCDU

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
PCDU	Spring release procedure as each model needed at the unit replacement Harness connection Heat seal at machine installation and unit replacement	No spring release procedure Drawer connection Heat seal only at unit replacement	Optimization of PM yeild and compatible unit for each model Simplify the unit layout

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
PCU	PCU: ϕ30mm Distance of PCU and Charger roller: 50μm Lubricant application blade in the trailing direction	PCU:ϕ40mm Distance of PCU and Charger roller: 18μm Lubricant application blade in the counter direction	Downsizing Imrovement of charger roller dirt Downsizing
Dev. Unit	Two axis development New carrier adoption Dev roller upsizing:ϕ20mm Dev screw upsizing:ϕ22mm Air pressure filter upsizing	Two axis one way development Dev roller upsizing:ϕ18mm Dev screw upsizing:ϕ14mm	Stabilization of image density along to main direction High image quality High productivity More developer amount Prevent of toner scattering

Toner supplement, Image transfer

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
Toner supply	HI-ACT system Sub hopper toner supply system Two types of toner near end (estimated near end and fixed near end)	Toner supply unit One type of toner near end	Less machine down time at toner bottle replacement
Waste toner bottle	Coil driven by intermediate image transfer unit motor	Coil driven by individual motor	§ Layout optimization

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
Image transfer	ITB cleaning unit position § upper of ITB unit No lubricant in ITB cleaning unit No bias voltage on PTR Encoder less control (FG control) of ITB Adjustment value of ID sensor is provided by a seal attached on ID sensor	ITB cleaning unit position § left side of ITB unit lubricant in ITB cleaning unit Bias voltage on PTR Encoder control of ITB Adjustment value of ID sensor is provided by a seal included in ID sensor	Downsizing § Cleaning ability up according to new lubricant in PCDU
Process control	Real time process control § (when it is without SRA3 option (Imageable Area Extension Unit Type M3)))	Normal process control	Image quality stabilization and reduction of interval time

Fusing

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
Fusing	Fusing sleeve material change (Ni+Cu) § Two heaters + shield Fusing unit replacement required only at SC544-02/554-02 occurrence Metal single purpose grease adopted (Fluotribo) on pressure roller and the bushing (this can be also used for the predecessors) Pressure release motor turn by one way	Fusing sleeve material (SUS: stainless) Three heaters (one is postcard purpose) Fusing unit replacement required at SC544-00/554-00/564-00/574-00 occurrence Plastic purpose grease on pressure roller and the bushing (Barrierta) Pressure release motor turn by both way	AC-TEC reduction Grease lubulicant ability up Machine layout change

Electrical component

Item	D146/D147/D148/D149/D150	Predecessor	Purpose
LCD	Two types of LCD (not compatible each other)	One type of LCD	Multi vender system
IOB	Two IOB's for image creation and paper transfer	One IOB	Optimized layout
NVRAM	Two EEPROM's	One	
Flat Flexible Cable (FFC)	FFC used for main sigle line FFC with clip socket	Wire harness FFC without clip	Weight saving Handle ability improvement
Main switch	DC SW Press and hold = forced OFF	Locker SW The plug must be pulled out for forced OFF.	(component change)
FAX	Bracket added in the replacement FCU part	No bracket for FCU to hold	Handle ability improvement

1.4.2 NEW FEATURES OF D146/D147/D148/D149/D150

Item	Description
Android operation panel	Android OS built in Simple UI for copy, scanner and FAX Advanced operational feeling
Searchable PDF (SD card option)	Scan function to add text information in the scan file
Image area extension option (paper transfer roller)	Wider paper transfer roller Real time process control deactivation is required.
Log trace function	Enhancement for controller and engine log correction function

1.4.3 IMPORTANT NOTICE FOR MACHINE

Item	D146/D147/D148/D149/D150	Predecessor
SP cord	SP enter code change	-
Procedure at electrical board replacement	To hold the main switch down is always required before start procedure for electrical board replacement. (discharge of remaining charge)	No procedure
VM function on CTL board	VM function built in CTL board. Accordingly, the procedure to update VM firmware is changed.	VM function is provided by SD card option.
Grease used in fusing unit	Metal use purpose grease (Fluotribo) on pressure roller and bushing.	Traditional grease (Barrierta)
Release way for Fusing high temperature detection	Fusing unit replacement is required only at SC544/554 (Fusing high temperature detection) occurrence.	Fusing unit replacement is required at SC544/554/564/574 occurrence.
SRA3 option (Imageable Area Extension Unit Type M3)	§ SP setting is required at the option installation. § This have PM yield as well as normal PTR. Regular PM replacement is required.	-

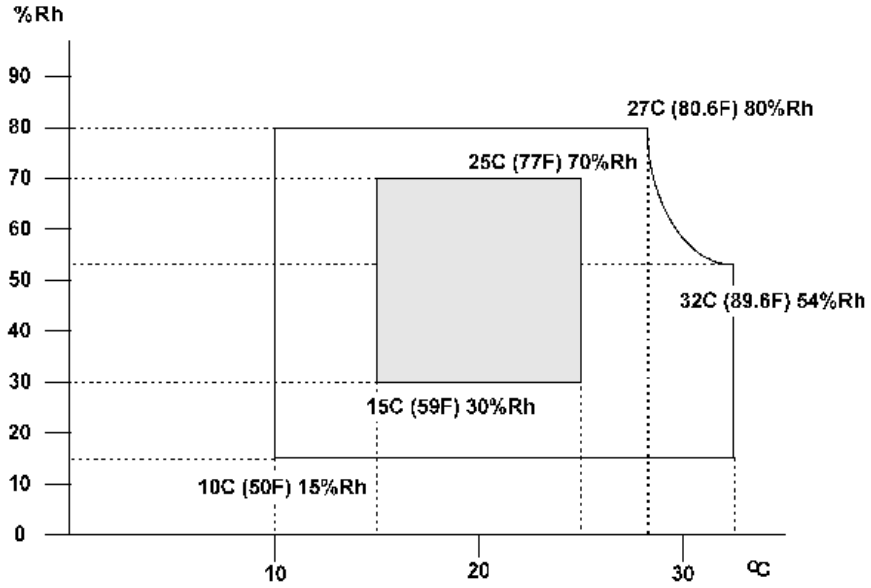
INSTALLATION

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

2. INSTALLATION

2.1 INSTALLATION REQUIREMENTS

2.1.1 ENVIRONMENT



Temperature Range:	10°C to 32°C (50°F to 90°F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight.)
Ventilation:	Room air should turn over at least 30 m3/hr/person

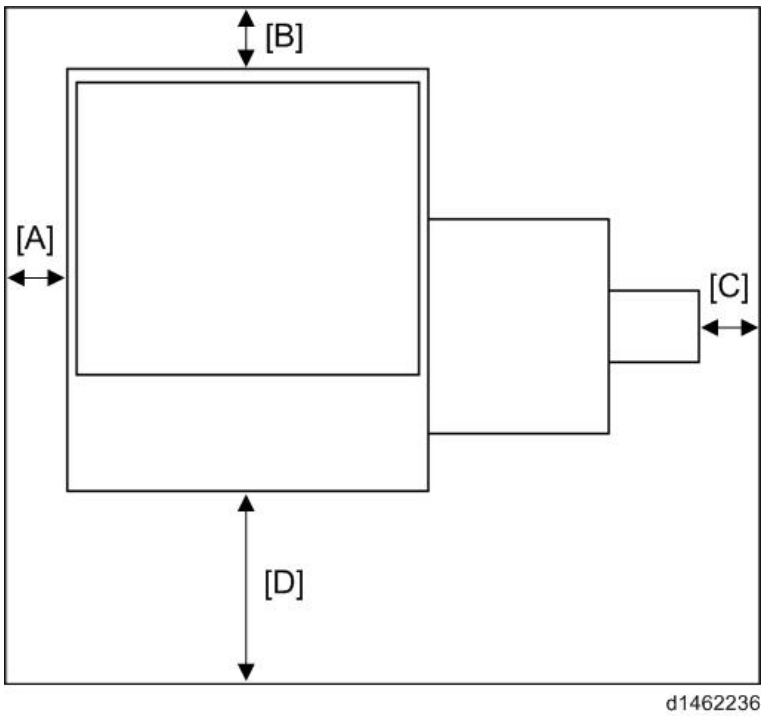
1. Avoid areas exposed to sudden temperature changes:
   1) Areas directly exposed to cool air from an air conditioner.
   2) Areas directly exposed to heat from a heater.
2. Do not place the machine where it will be exposed to corrosive gases.
3. Do not install the machine at any location over 2,000 m (6,500 ft.) above sea level. (D135 for NA can be installed only up to 2,500m (8,202 ft.))
4. Place the main machine on a strong and level base. Inclination on any side should be no more than 5 mm (0.2").
5. Do not place the machine where it may be subjected to strong vibrations.

2.1.2 MACHINE LEVEL

Front to back: Within 5 mm (0.2")

Right to left: Within 5 mm (0.2")

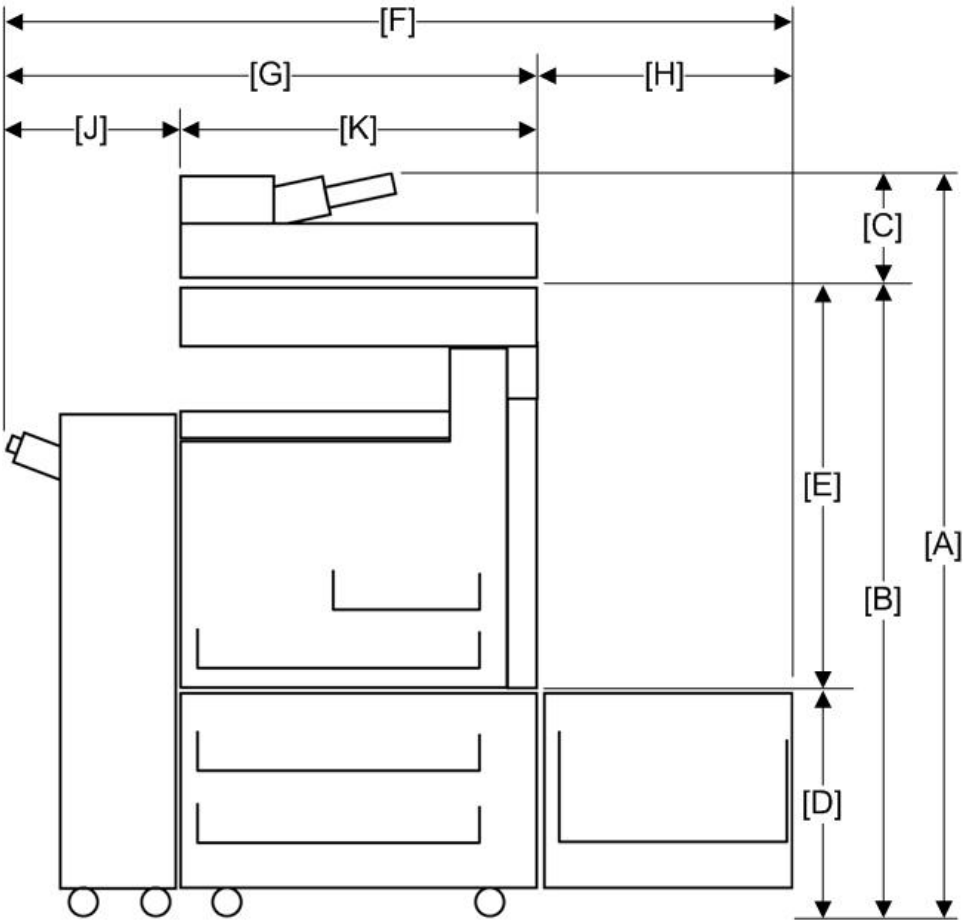
2.1.3 MACHINE SPACE REQUIREMENTS



[A]	Left	Over 100 mm (3.9")
[B]	Rear	Over 100 mm (3.9")
[C]	Right	Over 100 mm (3.9")
[D]	Front	Over 750 mm (29.5")

Put the machine near the power source with the clearance shown above.

2.1.4 MACHINE DIMENSIONS



d1462236

[A]	1210 mm	[F]	1589.5 mm
[B]	1030 mm	[G]	1249.5 mm
[C]	180 mm	[H]	340 mm
[D]	247 mm	[J]	662.5 mm
[E]	783 mm	[K]	587 mm

2.1.5 POWER REQUIREMENTS

⚠CAUTION

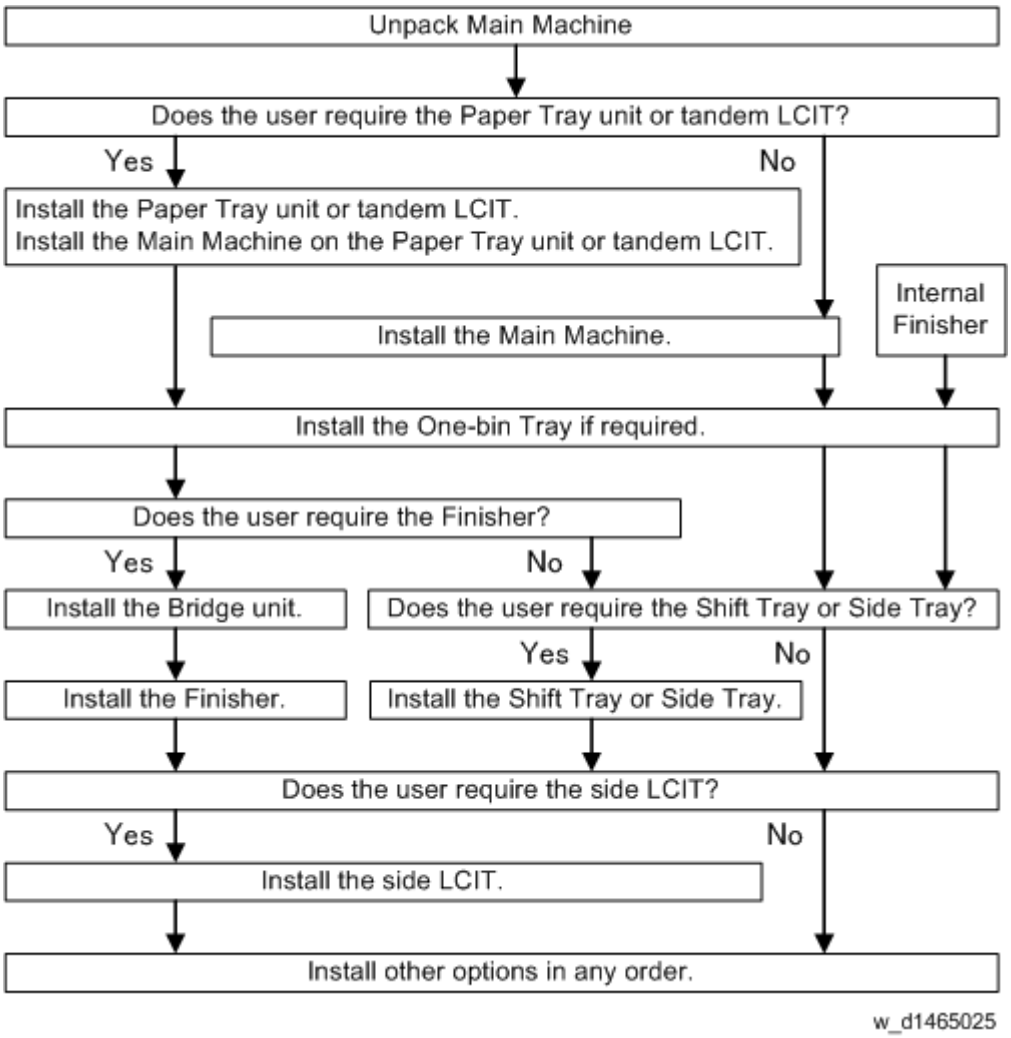
- § Insert the plug firmly in the outlet.
- § Do not use an outlet extension plug or cord.
- § Ground the machine.

Input voltage level

Destination	Power supply voltage	Rated current consumption	Permissible voltage fluctuation
NA	120 to 127V	12A or more	Imaging: 108V(120V-10%) to 138V(127V+8.66%) Motions: 102V(120V-15%) to 138V(127V+8.66%)
EU	220 to 240V	10A	Imaging: ±10% Motions: ±15%
AP			
CHN			

2.2 MAIN MACHINE INSTALLATION

2.2.1 INSTALLATION FLOW CHART



You need the optional paper tray unit or the tandem LCT if you want to install the finisher D686, D687, D688 or D689) or side LCT (D696).

The punch unit is for 1000-sheet booklet finisher (D686), 1000-sheet finisher (D687), 2000-sheet booklet finisher (D688) and 3000-sheet finisher (D689).

2.2.2 ACCESSORY CHECK

Description	Q'ty	
	D146/D147	D148/ D149/ D150
Power Supply Cord (NA)	1	1
Operation Instructions	4	4
CD-ROM - Driver (NA)	1	-
CD-ROM - Driver	-	1
CD-ROM - OI	1	1
Sheet - 20 Languages (CHN)	1	1
Seal - 20 Languages	1	1
Holder	1	1
PCU Cover	4	4
Image Transfer Cover	1	1
Sheet - Application : Multi Language :Blank	1	1
Sheet - Application : Multi Language (NA)	1	1
Decal - Paper Tray	1	1
Decal - Original Table	1	1
Decal - Caution : Original : Multi Language	1	1
Plate – Logo	1	1
End Fence	1	1

2.2.3 INSTALLATION PROCEDURE

⚠CAUTION

§ Remove the tape from the development units before you turn the main switch on. The development units can be severely damaged if you do not remove the tape.

Put the machine on the paper tray unit or the LCT first if you install an optional paper tray unit or the optional LCT at the same time. Then install the machine and other options.

Note

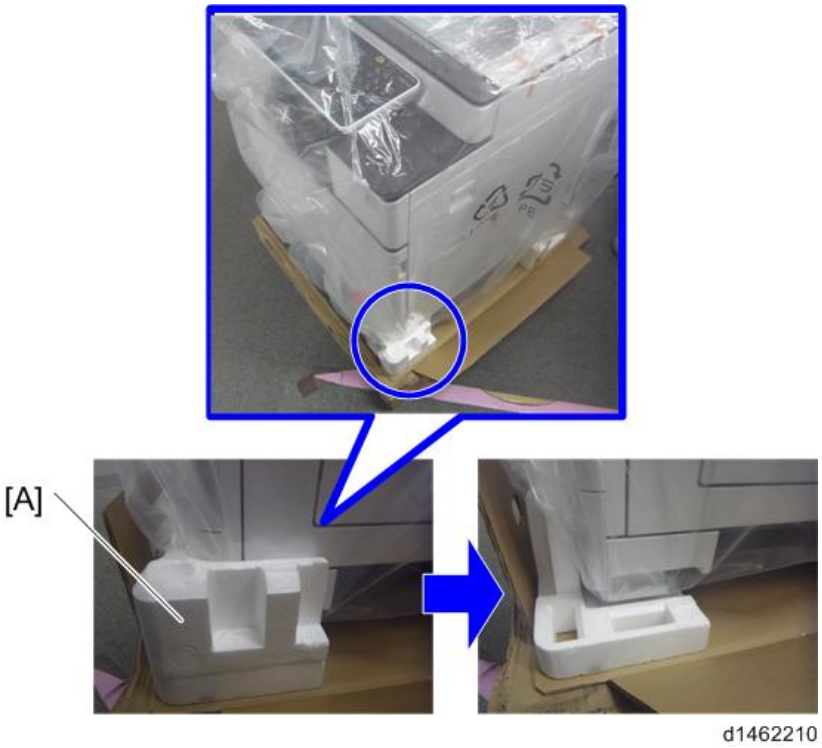
§ Keep the shipping retainers after you install the machine. You may need them in the future if you transport the machine to another location.

Removal of packing materials and shipping retainers / Removal of PCDU seal

1. Remove the machine from the box, and check the items in the package.

⚠CAUTION

§ Before lifting up the machine, as there are hidden handles, remove the retainers [A] at the lower front right.



Note

§ When you lift the machine, hold the correct parts, as shown in the diagram below.

§ Do not lift by holding the scanner unit, etc., because this might deform the machine or break the exterior covers

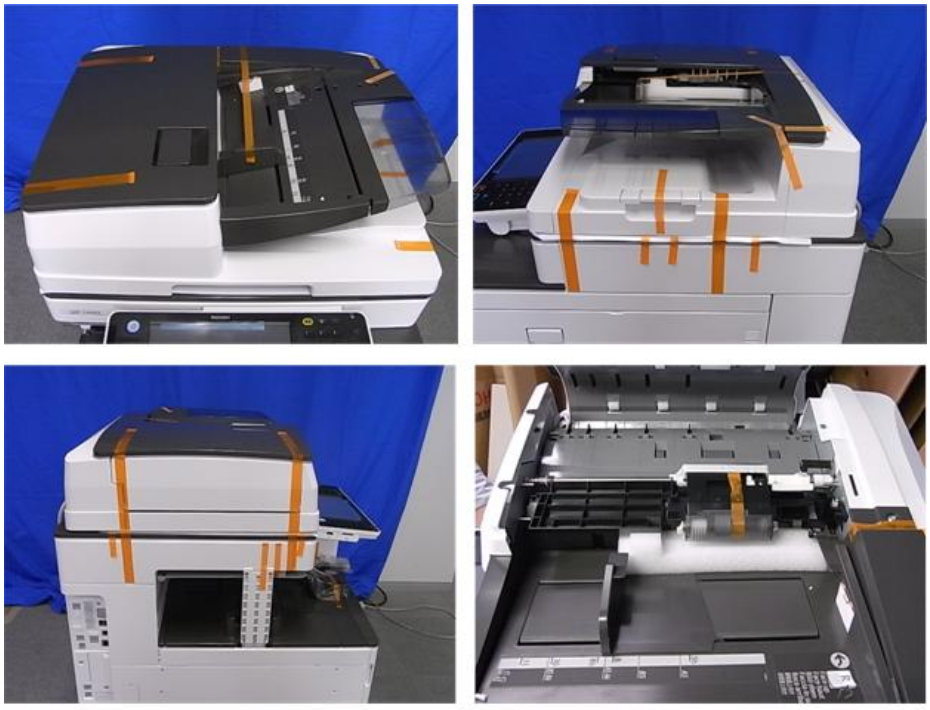
2. Remove the orange tape and retainers on the outside.

For a machine with preinstalled SPDF, remove the orange tape and retainers on the SPDF.

d1462212

⚠CAUTION

Make sure to **remove the cardboard stabilizer shown below.** If you do not, JAM 27 or JAM 64 may occur when printing out onto B4, DLT, or SRA3 sized paper in duplex mode.



d1462215

3. Remove the paper size decal [A] on the exposure glass.

d1462213

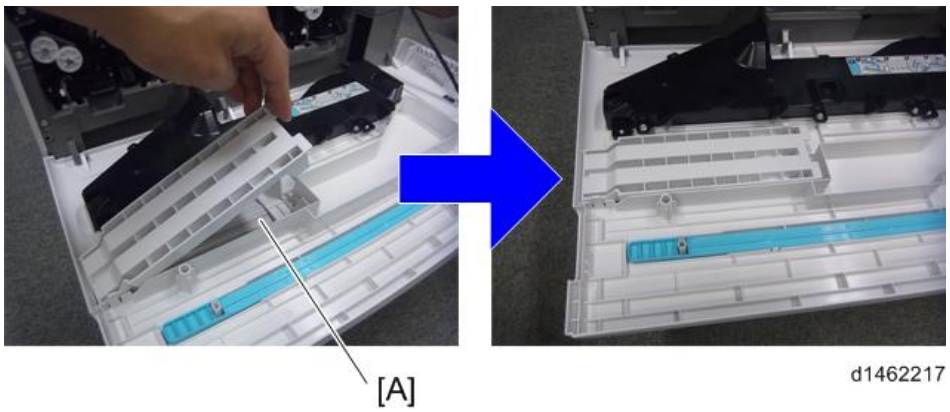
4. Pull out the 1st paper feed tray, and remove the orange tape and retainers.

d1462214

5. Pull out the 2nd paper feed tray, and remove the orange tape and retainers.
6. Remove the scanner support [A].

d1462216

7. Open the front cover, and store the scanner support in the storage location [A].

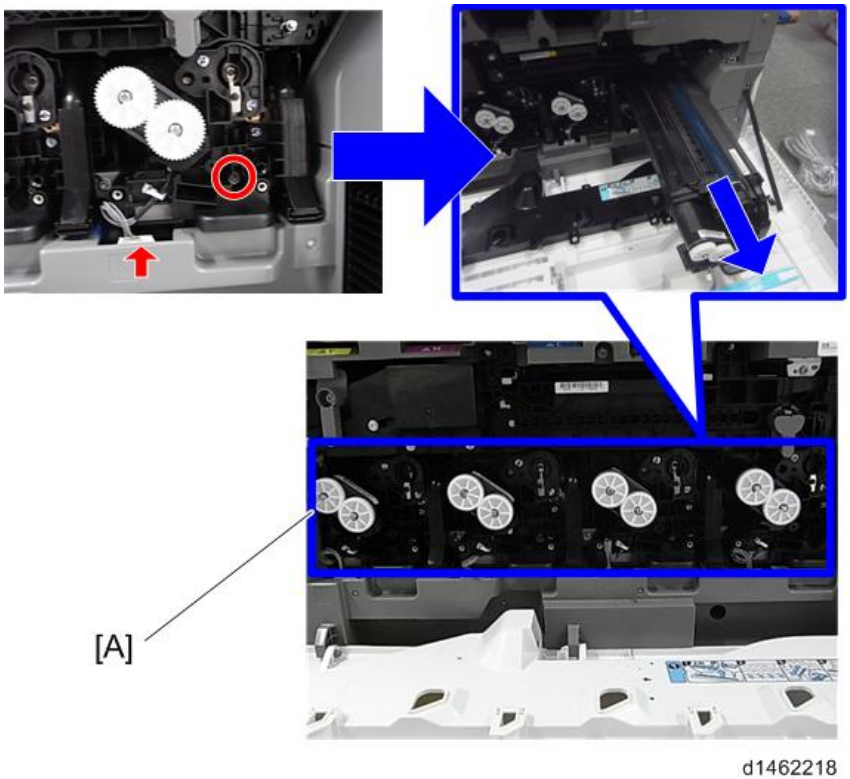


d1462217

Note

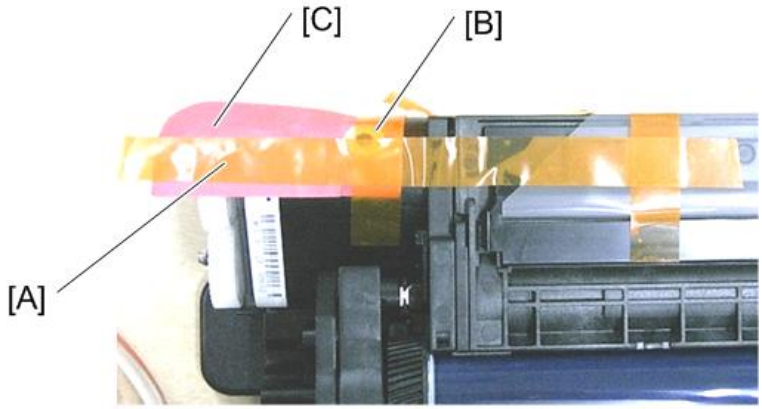
§ The factory setting sheet is kept in the position [A].

8. Remove the PCDU [A]. (×4, ×4)



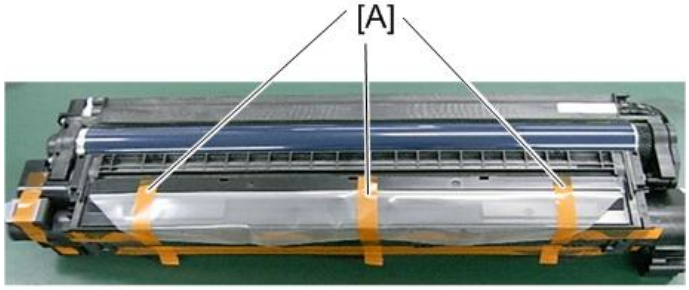
d1462218

9. After removing the orange tape [A], remove the orange tape [B] and red tag [C].



d1465014

10. Remove the orange tapes [A].



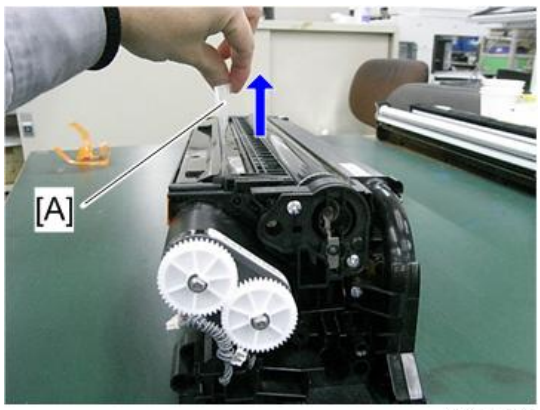
d1465015

⚠CAUTION

§ When removing the orange tapes, remove the orange tapes one by one without removing the preset seal as shown below.

d1465016

11. Remove the preset seal [A] in the direction of the blue arrow.

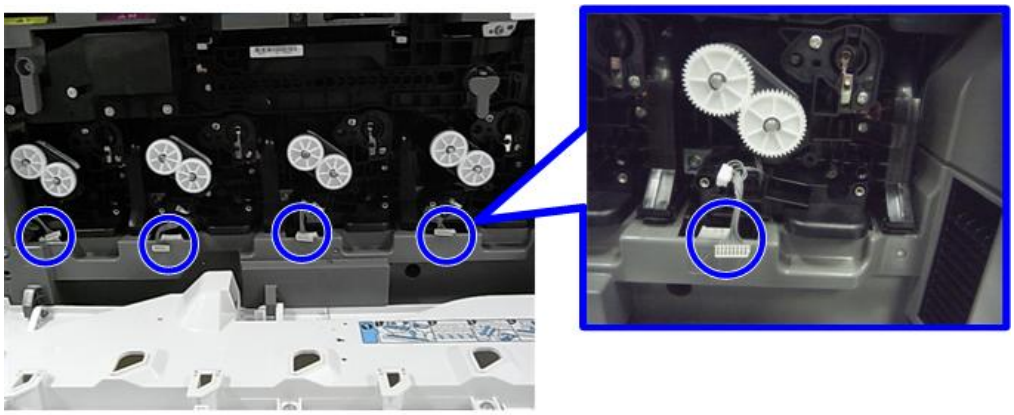


d1465018

12. Return the PCDU to its original position, and connect the harnesses (4 for each unit).

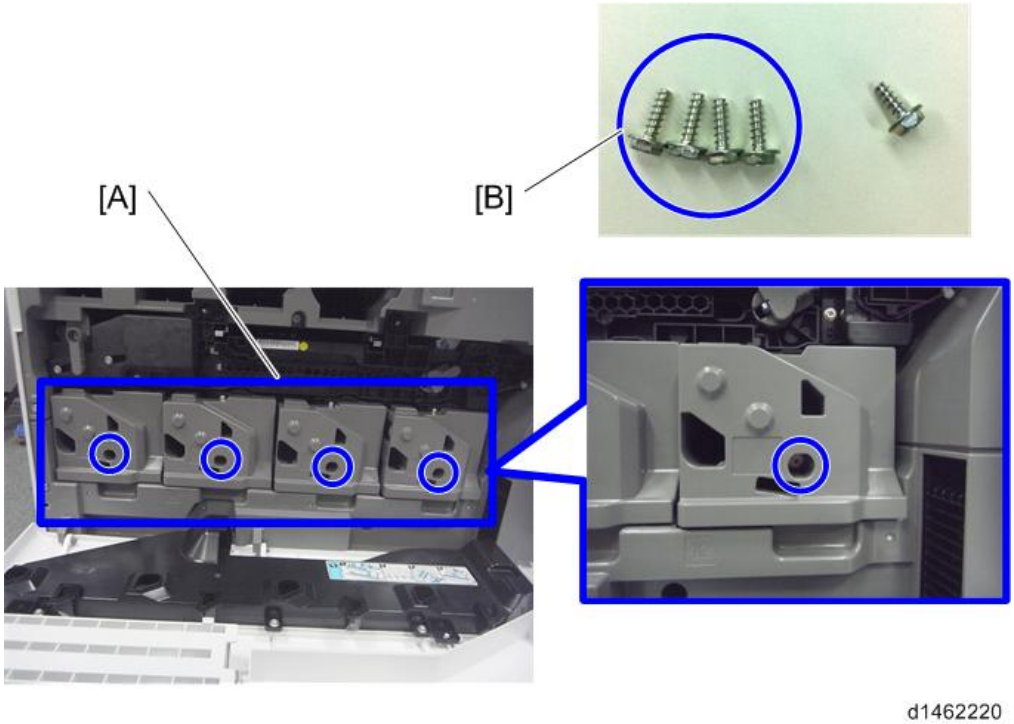
CAUTION

§ When you return the PCDU to its original position, check the color (engraving), and set each color unit in the right position.



d1462219

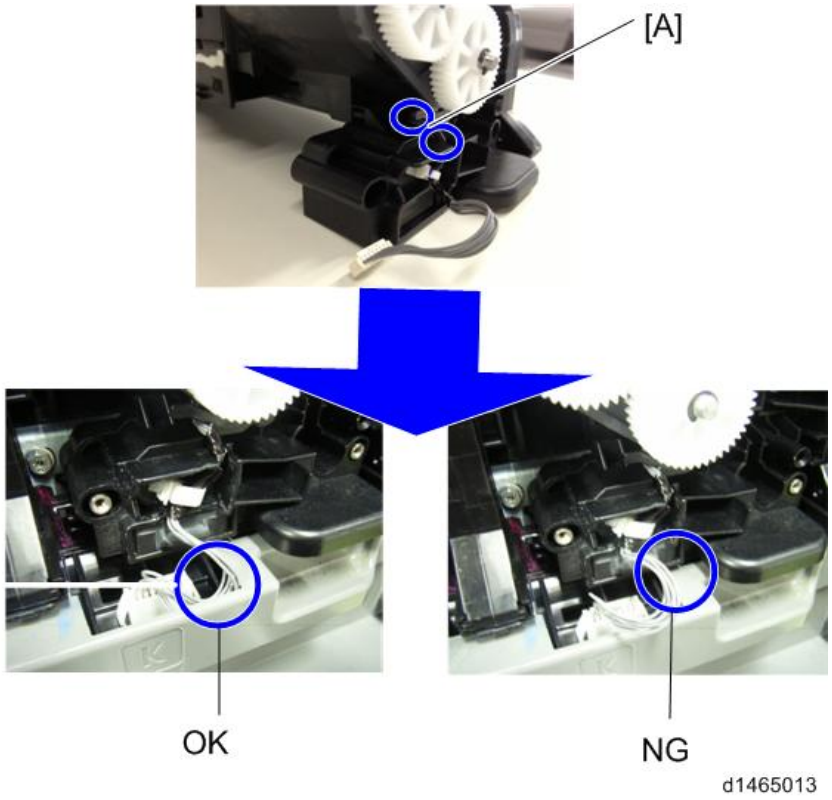
13. Attach the PCDU front cover [A] with the screws provided (3×10) [B]. (×4)



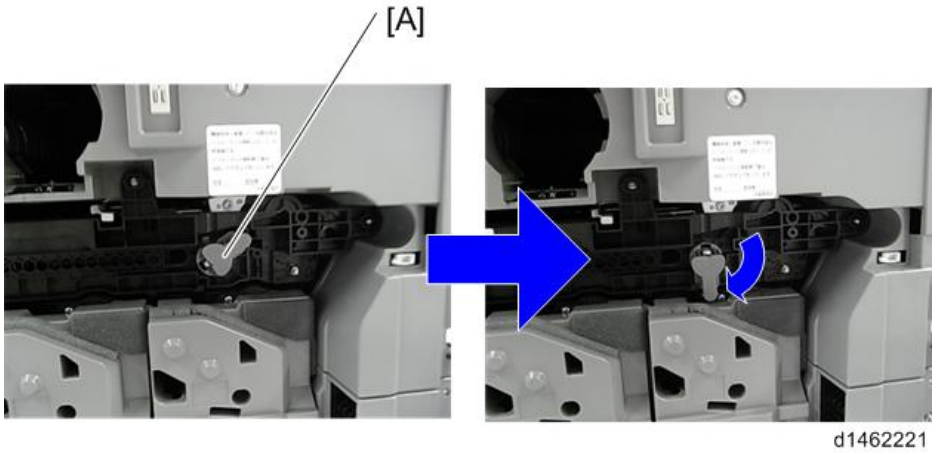
d1462220

CAUTION

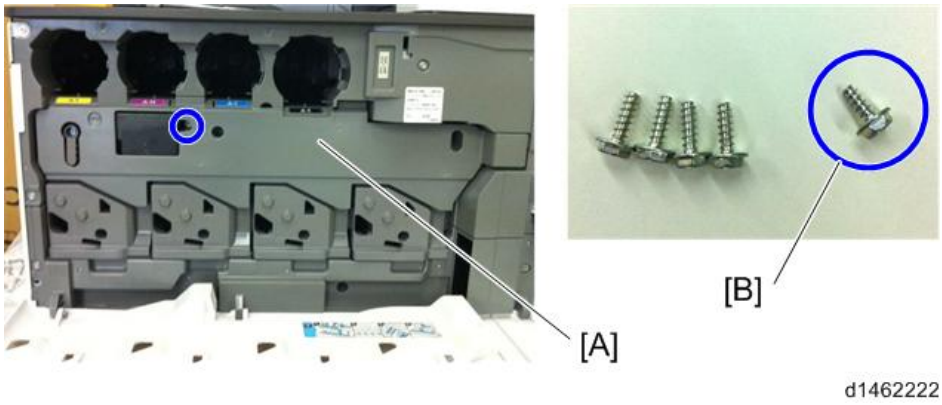
§ Be careful not to trap the harness with the PCDU front cover. Place the excess portion of the harness on the inside of the inner cover. Also, hook the harness in two places [A].



14. Rotate the ITB contact/separation lever [A] clockwise, and set it to the position in the following picture.



15. Attach the ITB unit front cover [A] with the screw provided (3×8) [B].



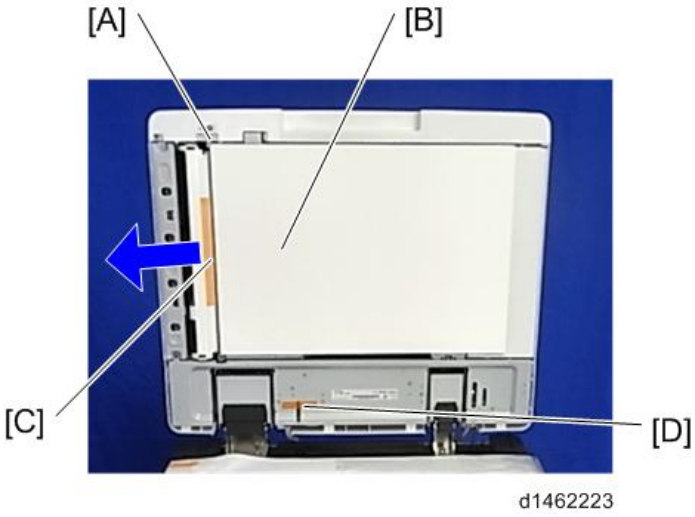
16. Close the front cover.

For machines with preinstalled SPDF: Removal of protective sheet

1. Open the SPDF.

2. Release the lever [A], open the pressure plate sheet [B], and pull out the protective sheet [C] slowly.

At this time, remove the filament tape [D].



3. Close the pressure plate sheet.

4. Close the SPDF.

Note

§ If the protective sheet remains in the SPDF, a paper jam will be detected.

Toner bottle installation

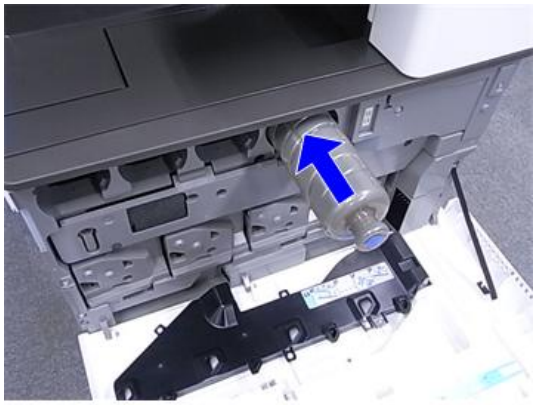
1. Open the front cover.

2. Shake the toner bottle (Bk) 5 to 6 times.

3. Remove the toner bottle protection cap [A].

d1462234

4. Push the toner bottle into the machine slowly.



d1462400

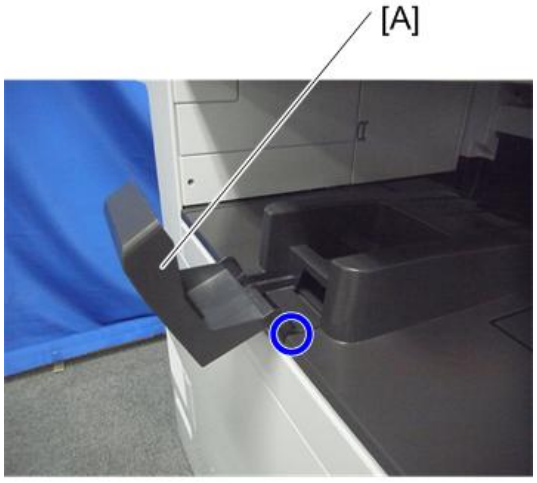
5. Set the toner bottles (Y, M, C) in the same way.
6. Close the front cover.

Note

§ When the power is turned on, it will fill up for the first time in about 5 minutes.

Attaching paper output tray parts

1. Attach the part [A] to the paper output tray.
First, insert and attach the front pin (inside the blue circle).



d1462228

Attaching the decals

1. Attach the correct paper tray number and size decals to the paper trays.

Note

§ Paper tray number and size decals are also used for the optional paper tray or the optional LCT. Keep these decals for use with these optional units.

d1465026

Connecting the power cord

⚠CAUTION

§ Do not use any connectors other than the power cord provided. Also, do not use an extension cord.

1. Connect the power cord to the machine.

d1462401

2.2.4 IMAGE QUALITY TEST / SETTINGS

Image quality test

When there are other options to be installed, install according to the procedure for each.

1. After checking that clamps, etc., have been removed, connect the power plug to the wall socket.
2. Turn the main power supply switch ON.
3. Check that the operation panel shows the following display.
   "Please supply the tray with paper."
4. The paper size is basically detected automatically.
   1. Pull out the paper feed tray slowly until it stops.
   2. While pressing the release lever, adjust the side fence to the paper size to be set.
   3. Set the back fence.

Checking the copy image with the test chart

Check the copy image with the test chart.

Paper setting

1. Set some paper in the feed tray.

* SP5-181-001 to 017 (Size Adjust)

1. If necessary, adjust the registration for the paper feed tray.

* SP1-002-002 (Side-to-Side Registration Paper Tray 1)
* SP1-002-003 (Side-to-Side Registration Paper Tray 2)

Security Function Installation

The machine contains the Security functions (Data Overwrite Security and HDD Encryption unit) built into the controller board.

If you are installing a new machine, it is recommended to activate the Data Overwrite Security and HDD Encryption unit by selecting "Format All Data" from “System Settings” on the operation panel.

Note

§ This method is recommended because there is no user data on the hard drive yet (Address Book data, image data, etc.).

If the customer wishes to activate the Data Overwrite Security and HDD Encryption unit on a machine that is already running, it is recommended to activate the unit by selecting "All Data" from “System Settings” on the operation panel.

Important

§ Selecting "All Data" will preserve the data that has already been saved to the hard drive. (If "Format All Data" is selected, all user data saved to the hard drive up to that point will be erased).

Immediately after encryption is enabled, the encryption setting process will take several minutes to complete before you can begin using the machine.

Note

§ If encryption is enabled after data has been stored on the disk, or of the encryption key is changed, this process can take up to three and a half hours or more.

The machine cannot be operated while data is being encrypted.

Once the encryption process begins, it cannot be stopped.

Make sure that the machine's main power is not turned off while the encryption process is in progress.

If the machine's main power is turned off while the encryption process is in progress, the hard disk will be damaged and all data on it will be unusable.

Print the encryption key and keep the encryption key (which is printed as a paper sheet).

Keep the encryption key in a safe place. If the encryption key is lost and is needed, the controller board, hard disk and NVRAM must all be replaced at the same time.

Note

§ "NVRAM" mentioned in here means the NVRAM on the Controller Board.

§ "NVRAM" or EEPROM on the BCU has nothing to do with this.

Please use the following procedure when the Data Overwrite Security and HDD Encryption is reinstalled.

Data Overwrite Security

Before You Begin the Procedure

1. Make sure that the following settings (1) to (3) are not at their factory default values.
   (1) Supervisor login password
   (2) Administrator login name
   (3) Administrator login password
   If any of these settings is at a factory default value, tell the customer these settings must be changed before you do the installation procedure.
2. Make sure that “Admin. Authentication” is on.
   [System Settings] -> [Administrator Tools] -> [Administrator Authentication Management] ->

[Admin. Authentication]

If this setting is off, tell the customer this setting must be on before you do the installation procedure.

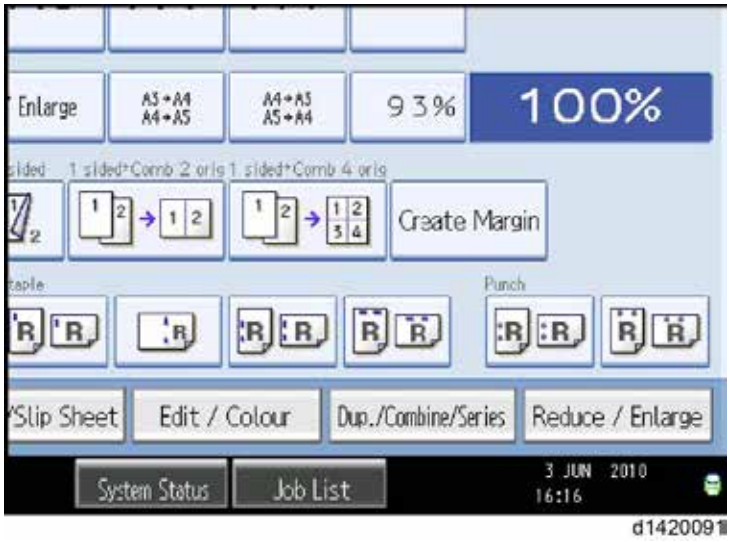
3. Make sure that “Administrator Tools” is enabled (selected).

   [System Settings] -> [Administrator Tools] -> [Administrator Authentication Management] -> [Available Settings]

   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before you do the installation procedure.

Installation Procedure

1. Connect the network cable if it needs to be connected.
2. Turn on the main power switch.
3. Go into the SP mode and push “EXECUTE” in SP5-878-001.
4. Exit the SP mode and turn off the operation switch. Then turn off the main power switch.
5. Turn on the machine power.
6. Do SP5-990-005 (SP print mode Diagnostic Report).
7. Go into the User Tools mode, and select [System Settings] →[Administrator Tools] →[Auto Erase Memory Setting] →[On].
8. Exit the User Tools mode.



	Icon [1]	This icon is lit when there is temporary data to be overwritten, and blinks during overwriting.
	Icon [2]	This icon is lit when there is no temporary data to be overwritten.

9. Check the display and make sure that the overwrite erase icon appears.
10. Check the overwrite erase icon.
    The icon [1] is lit when there is temporary data to be overwritten, and blinks during overwriting.
    The icon [2] is lit when there is no temporary data to be overwritten.

HDD Encryption

Before You Begin the Procedure:

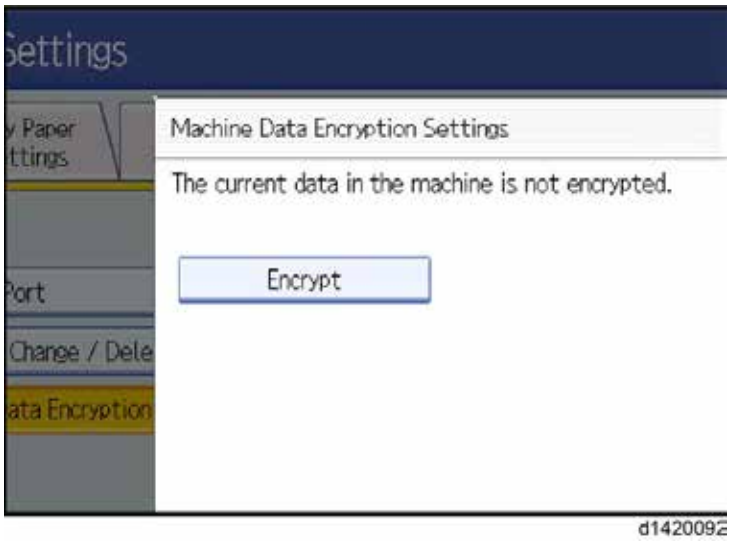
1. Make sure that the following settings (1) to (3) are not at the factory default settings.
   (1) Supervisor login password
   (2) Administrator login name
   (3) Administrator login password
   These settings must be set up by the customer before the HDD Encryption unit can be installed.
2. Confirm that "Admin. Authentication" is on: [User tools/Counter] key -> [System Settings] -> [Administrator Tools] -> [Administrator Authentication Management] -> [Admin. Authentication] -> [On]
   If this setting is off, tell the customer that this setting must be on before you can do the installation procedure.
3. Confirm that "Administrator Tools" is selected and enabled.
   [User tools/Counter] key -> [System Settings] -> [Administrator Tools] -> [Administrator Authentication Management] -> [Available Settings]
   "Available Settings" is not displayed until step 2 is done.
   If this setting is not selected, tell the customer that this setting must be selected before you can do the installation procedure.

Installation Procedure:

1. Turn on the main power switch, and then enter the SP mode.
2. Select SP5878-002, and then press "Execute" on the LCD.
3. Exit the SP mode after "Completed" is displayed on the LCD.
4. Turn off the main power switch.

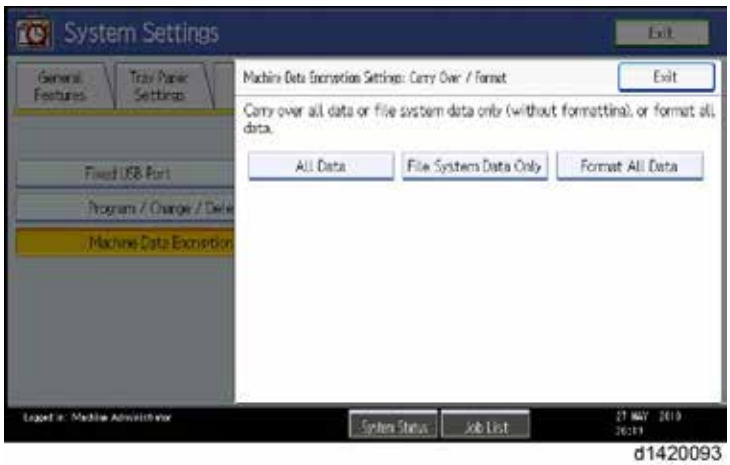
Enable Encryption Setting:

1. Press the [User tools/Counter] key.
2. Press [System Settings].
3. Press [Administrator Tools].
4. Press [Machine Data Encryption Settings].If this item is not visible, press [Next] to display more settings.
5. Press [Encrypt].



d1420092

1. Select the data to be carried over to the hard disk and not be reset.
   To carry all of the data over to the hard disk, select [All Data].
   To carry over only the machine settings data, select [File System Data Only].
   To reset all of the data, select [Format All Data].

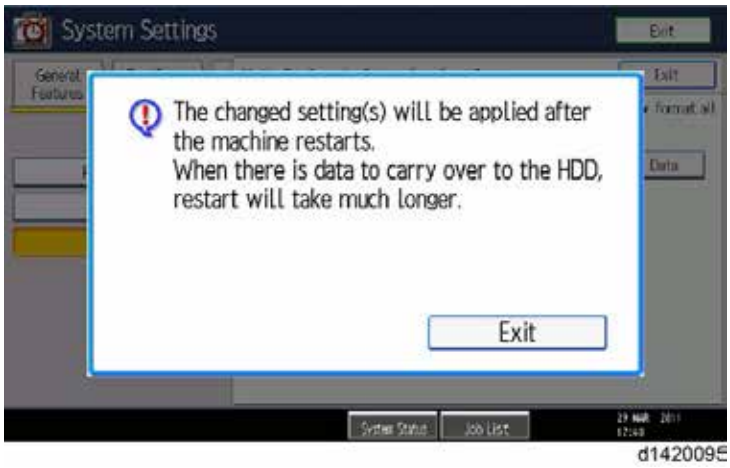


d1420093

2. The following message will be displayed. Press the [Start] key to print the encryption key for safe keeping.

d1420094

3. Press [Exit] to remove the following message.



d142009E

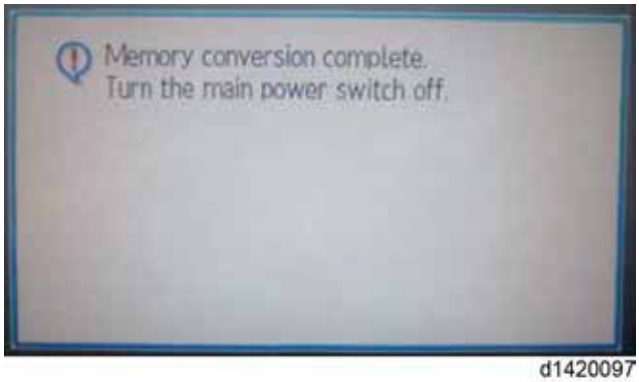
4. Press [Exit] again.
5. Press the [User Tools/Counter] key.

Important

§ After step 10, the initial operation display appears as below. However, HDD data encryption has not been completed at this moment. Step 11 and step 12 should be performed in order to encrypt the HDD data.

d142009E

6. Turn the main power switch off and on.
7. "Memory Conversion complete. Turn the main power switch off" is displayed as below. Then turn the main power switch off and on.



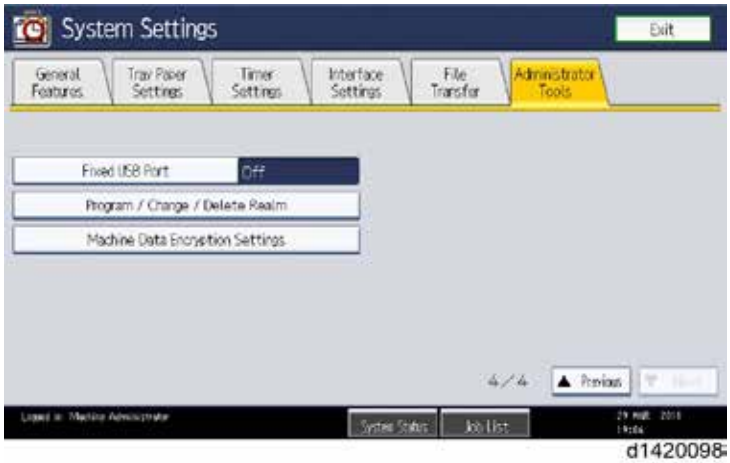
d1420097

8. Then initial operation display appears again. After this step, HDD data encryption has already been completed.

d142009E

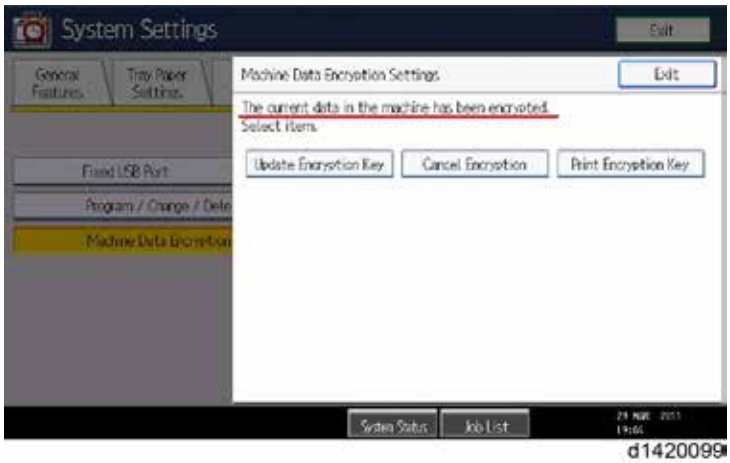
Check the Encryption Settings

1. Press the [User tools/Counter] key
2. Press [System Settings].
3. Press [Administrator Tools].



d1420098

4. Press [Machine Data Encryption Settings].



d1420099

5. Please confirm whether the encryption has been completed or not on this display.

Print the encryption key

Use the following procedure to print the key again if it has been lost or misplaced.

1. Press the [User tools/Counter] key.
2. Press [System Settings].
3. Press [Administrator Tools].
4. Press [Machine Data Encryption Settings].

If this item is not visible, press [Next] to display more settings.

1. Press [Print Encryption Key].

Encryption key sample

The encryption key is printed out as a sheet of paper like the example shown above.

Please instruct the customer to keep it in a safe place.

2.2.5 MOVING THE MACHINE

This section shows you how to manually move the machine from one floor to another floor. See the section "Transporting the Machine" if you have to pack the machine and move it a longer distance.

§ Before turning off the main power, make sure 100% is shown as available memory on the screen if the fax option is installed.
§ Turn off the main power.
§ Disconnect the power plug from the outlet.
§ Close all covers and paper trays, including the front cover and bypass tray.
§ Keep the machine level and carry it carefully, taking care not to jolt or tip it, and protect the machine from strong shocks.
§ When moving the machine, do not press against the ADF.

2.2.6 TRANSPORTING THE MACHINE

Main Frame

1. Remove the toner cartridges. This prevents toner flow into the toner supply tube, which is caused by vibration during transport. This can also cause the tube to be clogged with toner.
2. Make sure there is no paper left in the paper trays. Then fix down the bottom plates with a sheet of paper and tape.
3. Take out the scanner stay from inside the front door and install the scanner stay.
4. Do one of the following:

§ Attach shipping tape to the covers and doors.
§ Shrink-wrap the machine tightly.

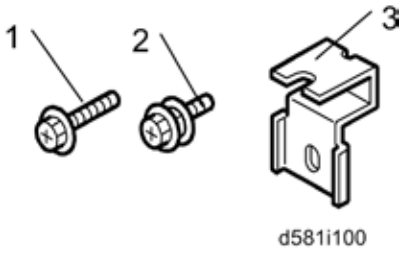
Note

§ After you move the machine, make sure you do the "Auto Color Registration" as follows. This optimizes color registration.
§ 1. Do the "Forced Line Position Adj. Mode d" (SP2-111-4).
§ 2. The result can be checked with SP2-194-007 (MUSIC Execution Result Execution Result) (0:Succeed, 1:Fail).
§ Also, results for each color can be checked with SP2-194-010 to 013.
§ Make sure that the side fences in the trays are correctly positioned to prevent color registration errors.

2.3 PAPER FEED UNIT PB3160

2.3.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Screws (M4 × 10)	2
2	Screw with Spring Washer (M4 × 10)	2
3	Securing Bracket	2



d581i100

2.3.2 INSTALLATION PROCEDURE

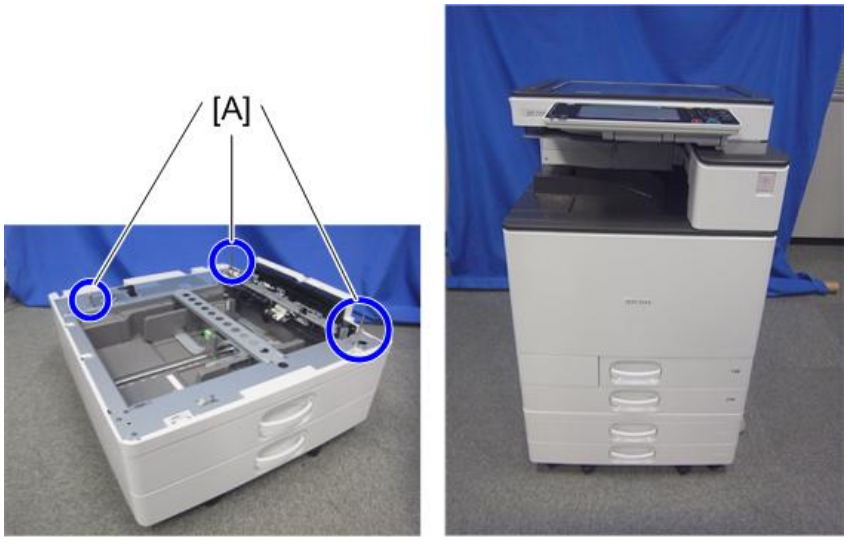
⚠CAUTION

- § Removal of stabilizers must always be with the consent of the customer. Do not remove them at your own judgment.
- § The machine should be held at the correct locations and lifted gently.
- § If it is lifted without care, handled carelessly or dropped, it may result in an injury.
- § When installing this option, turn the machine power OFF, and unplug the power supply cord from the wall socket.
- § If it is installed with the power on, it may result in an electric shock or a malfunction.
- § Be sure to join the machine to the paper feed unit so as to prevent equipment from falling over.
- § If they are not connected, they may move and fall over, resulting in injury.

1. Remove the orange tape and retainers.

2. Remove the items provided (fixing screws, etc.) from the package.

Holding the grips on the machine, align it with the locating pin [A], and place the machine on the paper feed unit.



d1462442

Note

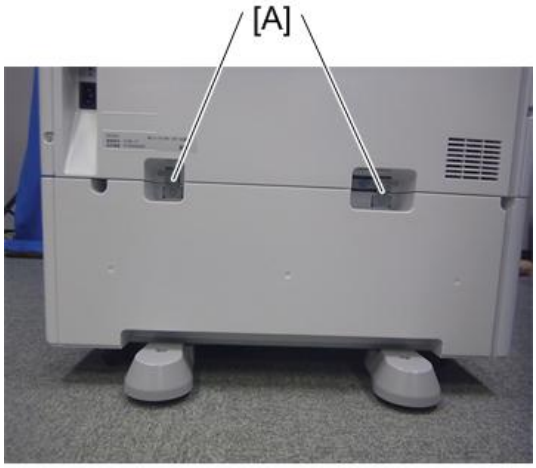
- § When you lift the machine, hold the correct locations.
- § In particular, do not lift the machine by holding the scanner unit, etc, because this may cause the machine to deform.
- § Do not put the machine down on the paper feed unit as a temporary resting place. This may cause the paper feed unit to deform. Always connect the machine and paper feed unit properly.

3. Pull out the 2nd paper feed tray.

4. Using securing bracket as a screwdriver, fix the machine to the feed unit (spring washer: screw: M4×10: 1).

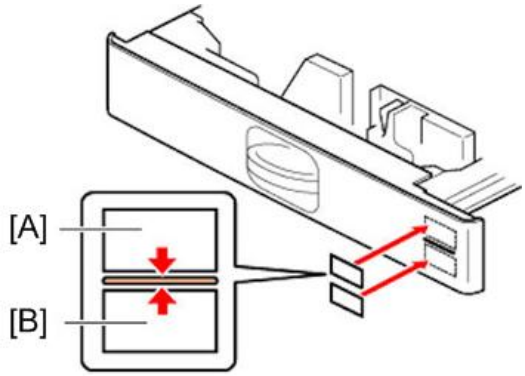
d1462443

5. Attach the securing brackets [A] to two positions on the left and right at the rear of the machine (screws: 1 each).



d1462444

6. Return the paper feed tray to the machine
7. Attach the decals as shown below.



d1462230

[A]: Tray number decal

[B]: Paper size decal

Note

§ The tray number decal and paper size decal are packaged together with the machine.

8. Lock the casters of the paper feed unit.

d1462439

9. Connect the power cord to the machine.

Note

§ Stabilizers are attached to the machine when it is shipped. Do not remove it.

d1462468

10. Turn the power switch ON.

11. Set the paper, and check that the paper size set in the paper feed tray is displayed on the operation panel.

12. Adjust the registration for the paper feed unit.

SP1-002-004 (Side-to-Side Registration Paper Tray 3)

SP1-002-005 (Side-to-Side Registration Paper Tray 4)

2.4 PAPER FEED UNIT PB3150

2.4.1 ACCESSORY CHECK

Description	Q'ty
Securing Bracket	2
Screw with Spring Washer - M4 × 10	1
Screws - M4 × 10	2
Rating label	1
Decal - EMC Address	1

d1462445

2.4.2 INSTALLATION PROCEDURE

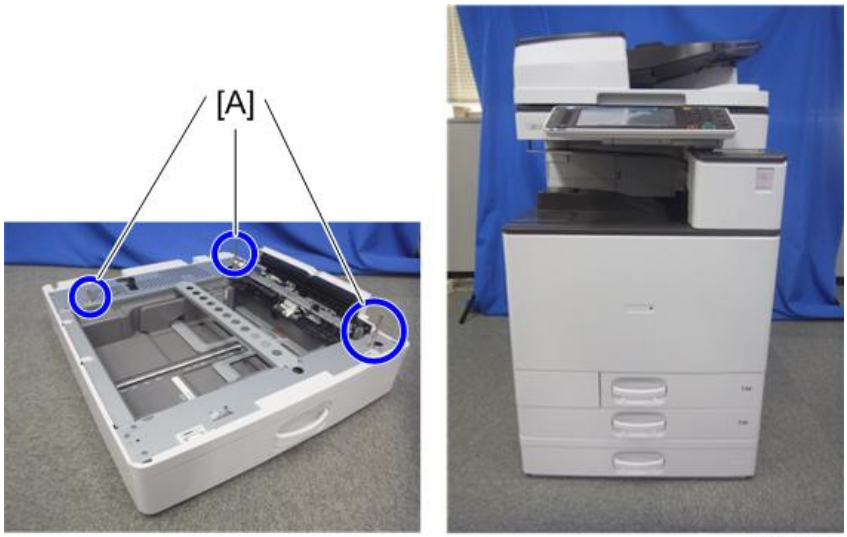
⚠CAUTION

- § The machine should be held at the correct locations and lifted gently by two people.
- § If it is lifted without care, handled carelessly or dropped, it may result in injury.
- § When installing this option, turn the machine power OFF, and unplug the power supply cord from the wall socket.
- § If it is installed with the power on, it may result in an electric shock or a malfunction.
- § Be sure to join the machine to the paper feed unit so as to prevent equipment from falling over.
- § If they are not connected, they may move and fall over, resulting in injury.

1. Remove the orange tape and retainers.

2. Remove the items provided (fixing screws, etc.) from the package.

3. Holding the grips on the machine, align it with the locating pin [A], and place the machine on the paper feed unit.



d1462447

Note

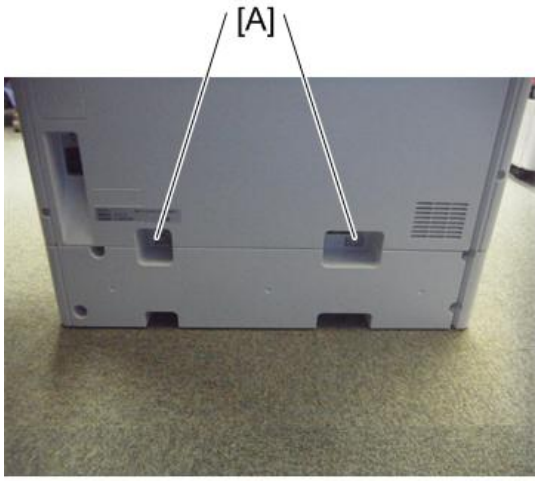
- § When you lift the machine, hold the correct locations.
- § In particular, do not lift the machine by holding the scanner unit, etc., because this may cause the machine to deform.
- § Do not put the machine down on the paper feed unit as a temporary resting place. This may cause the paper feed unit to deform. Always connect the machine and paper feed unit properly.

4. Pull out the 2nd paper feed tray.

5. Using a securing bracket as a screwdriver, fix the machine to the feed unit (spring washer: screw: M4×10: 1).

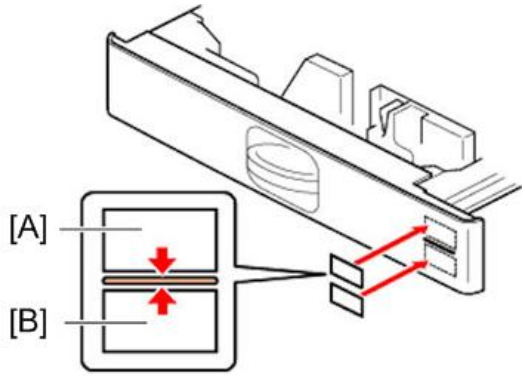
d1462448

6. Attach the securing brackets [A] to two positions on the left and right at the rear of the machine (screws: 1 each).



d1462449

7. Return the paper feed tray to the machine.
8. Attach the decals as shown below.



d1462230

[A]: Tray number decal

[B]: Paper size decal

Note

§ The tray number decal and paper size decal are packaged together with the machine.

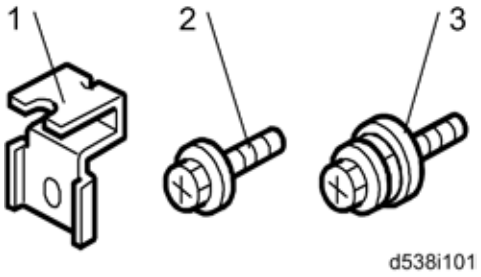
9. Connect the power cord to the machine.
10. Turn the power switch ON.
11. Set the paper, and check that the paper size set in the paper feed tray is displayed on the operation panel.
12. Adjust the registration for the paper feed unit.

    SP1-002-004 (Side-to-Side Registration Paper Tray 3)

2.5 LCIT PB3170

2.5.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Securing Bracket	2
2	Screw(M4×10)	2
3	Hexagonal Bolt	1



2.5.2 INSTALLATION PROCEDURE

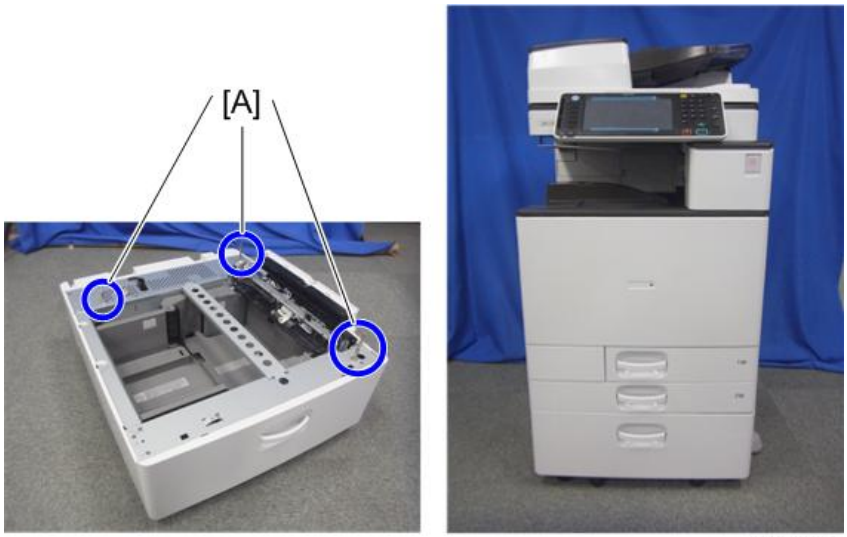
⚠CAUTION

- § Removal of stabilizers must always be with the consent of the customer. Do not remove them at your own judgment.
- § The machine should be held at the correct locations and lifted gently.
- § If it is lifted without care, handled carelessly or dropped, it may result in an injury.
- § When installing this option, turn the machine power OFF, and unplug the power supply cord from the wall socket.
- § If it is installed with the power on, it may result in an electric shock or a malfunction.
- § Be sure to join the machine to the paper feed unit so as to prevent equipment from falling over.
- § If they are not connected, they may move and fall over, resulting in injury.

1. Remove the orange tape and retainers.

2. Remove the items provided (fixing screws, etc.) from the package.

3. Holding the grips on the machine, align it with the locating pin [A], and place the machine on the paper feed unit.



d1462452

Note

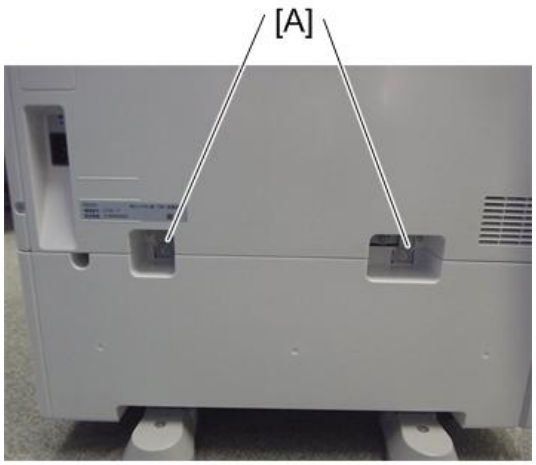
- § When you lift the machine, hold the correct locations.
- § In particular, do not lift the machine by holding the scanner unit, etc., because this may cause the machine to deform.
- § Do not put the machine down on the paper feed unit as a temporary resting place. This may cause the paper feed unit to deform. Always connect the machine and paper feed unit properly.

4. Pull out the 2nd paper feed tray.

5. Using a securing bracket as a screwdriver, fix the machine to the feed unit (spring washer: screw: M4×10: 1).

d1462453

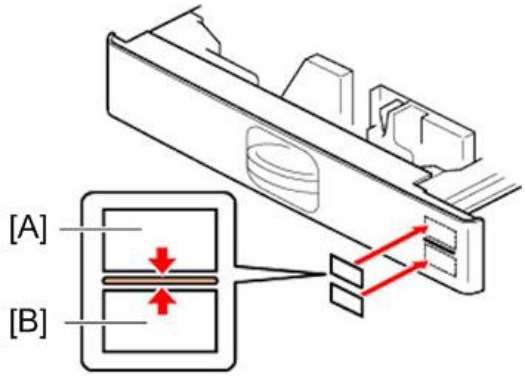
6. Attach the securing brackets [A] to two positions on the left and right at the rear of the machine (screws: 1 each).



d1462454

7. Return the paper feed tray to the machine.

8. Attach the decals as shown below.



d1462230

[A]: Tray number decal

[B]: Paper size decal

Note

§ The tray number decal and paper size decal are packaged together with the machine.

9. Lock the casters of the paper feed unit.

d1462439

10. Connect the power cord to the machine.

Note

§ A stabilizer is attached to the machine when it is shipped. Do not remove it.

d1462468

11. Turn the power switch ON.
12. Set the paper, and check that the paper size set in the paper feed tray is displayed on the operation panel.
13. Adjust the registration for the paper feed unit.
    SP1-002-004 (Side-to-Side Registration Paper Tray 3)

Changing the paper size

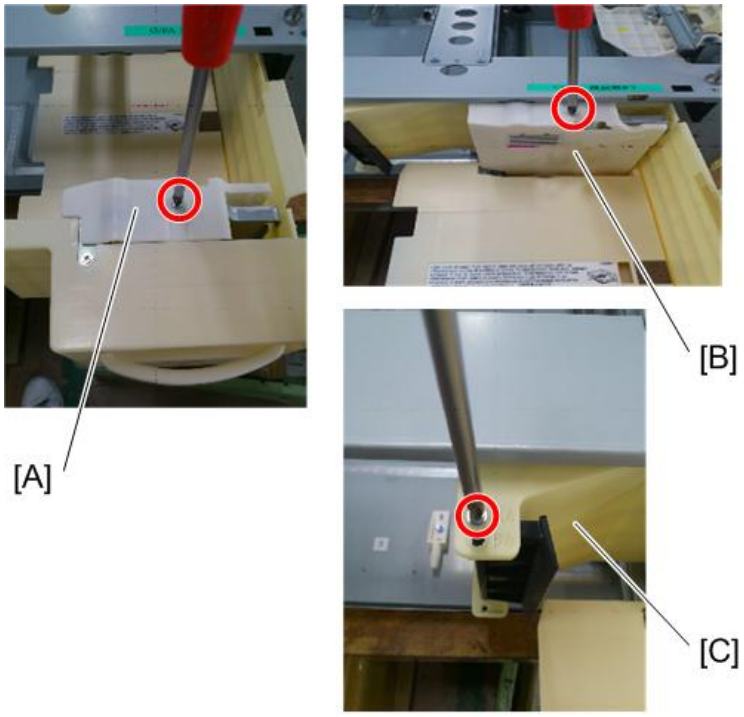
Paper size is set as shown below when the machine is shipped from the factory.

NA: LT LEF

EU.AA.CHN: A4 LEF

The paper size can be changed to A4 or LT.

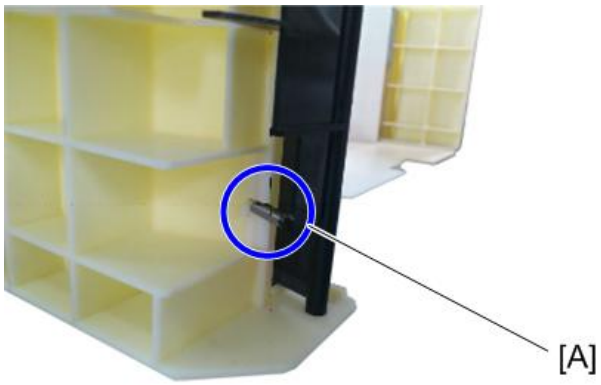
1. Pull out the left tray and right tray.
2. Right tray side fence (front), [A], right tray side fence (rear) [B] and right tray end fence [C] (×3)



d1462600

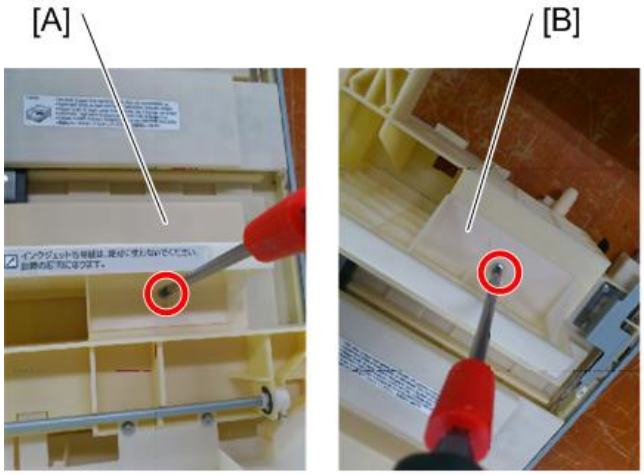
3. Attach the fences to the required position (A4 or LT).

4. Make sure that the spring [A] is attached.



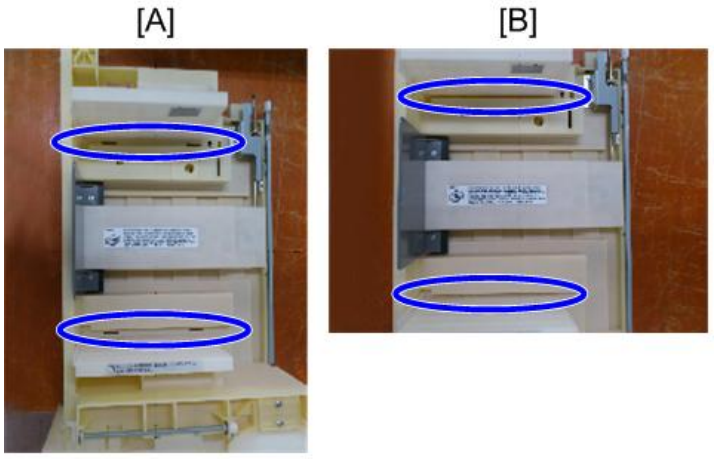
d1462601

5. Left tray side fence (front) [A] and left tray side fence (rear) [B] (×2)



d1462602

6. Attach the fences to the required position (A4 or LT).



d1462603

[A]: A4 position (Holes are visible)

[B]: LT position (Holes are hidden)

7. Set the SP

SP5-181-007

0: A4, 1: LT

2.6 LCIT RT3030

2.6.1 ACCESSORY CHECK

Description	Q'ty
Screws – M3 × 6	1
Tapping screw – M3 × 6	1
Connecter Cover	1
Rating label	1
Joint Bracket	1
Harness	1

d1462455

2.6.2 INSTALLATION PROCEDURE

⚠CAUTION

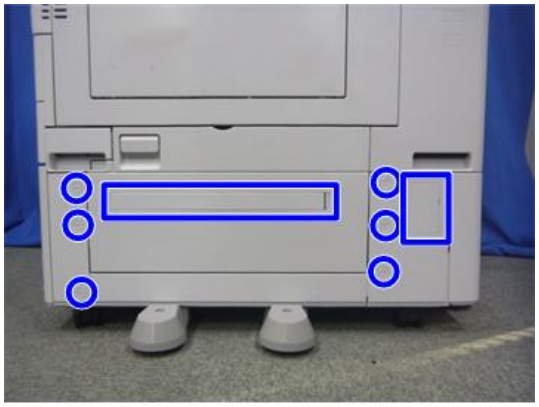
§ When installing this option, turn the power of the machine off, and unplug the power plug from the wall socket.

§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

Note

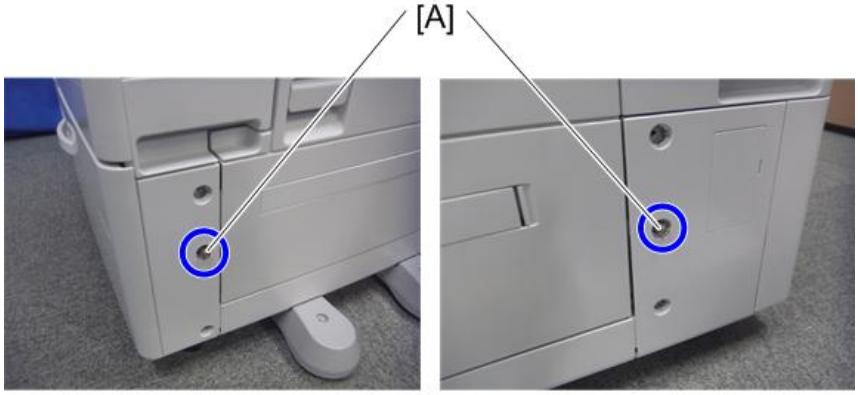
§ Before installing this option, first attach the "Paper Feed Unit PB3160" or "LCIT PB3170".

1. Remove the orange tape and retainers.
2. Remove the enclosed items (fixing screws, etc.).
3. Covers on the right of the paper feed table (8).



d1462457

4. Attach the connecting pins [A] to the front and rear on the right of the paper feed table.

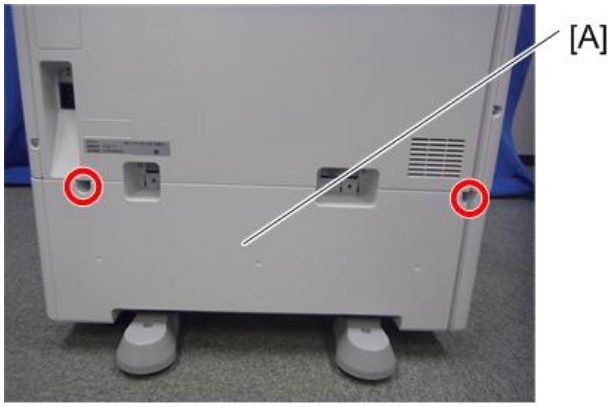


d1462458

5. Attach the brackets [A], [B] at the positions of the connecting pins (×4).

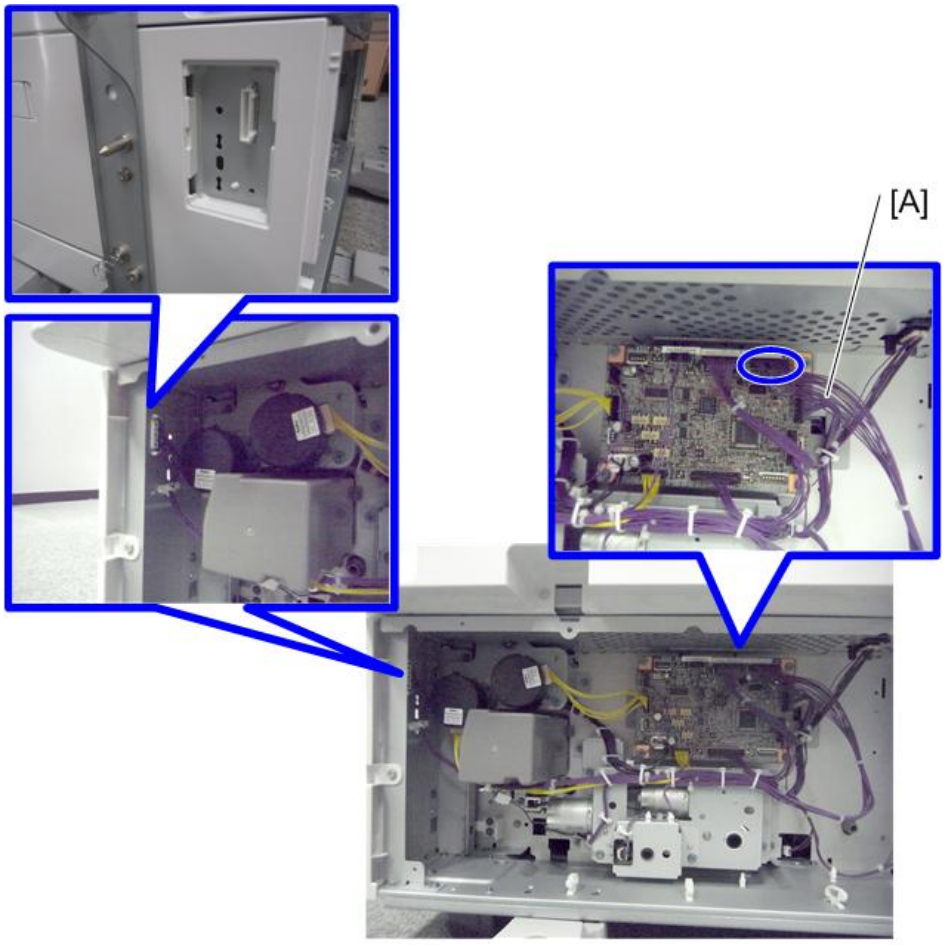
d1462459

6. Paper feed table rear covers [A] (×2).



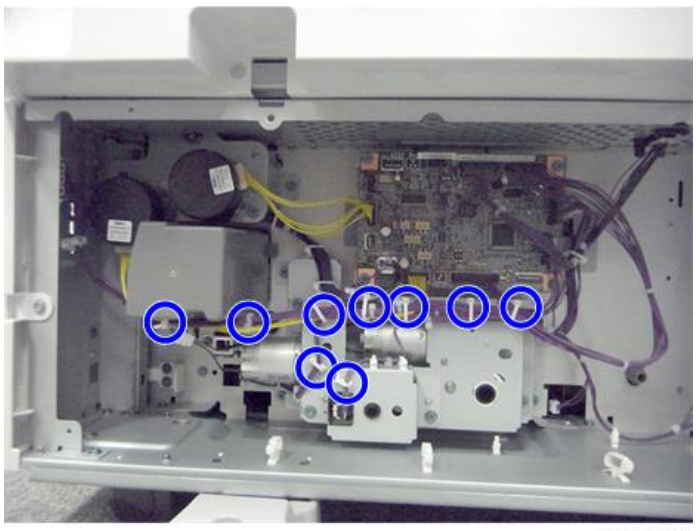
d1462460

7. Clamp the harness [A].



d1462461

8. Clamp the harness



d1465024

9. Attach the paper feed table rear cover.

10. Attach the hook of the side LCT to the bracket.

d1462462

11. Connect the cable [A] of the side LCT to the machine (×1).

d1462463

12. Attach the cable cover [A] (×1).

d1462464

13. Push the side LCT towards the machine.

d1462465

14. Turn the power switch ON.
15. Set the paper, and check that the paper size set in the paper feed tray is displayed on the control unit.
16. Do the registration adjustment for the large capacity tray.
    SP1-002-007 (Side-to-Side Registration Large Capacity Tray)

Changing the Paper Size

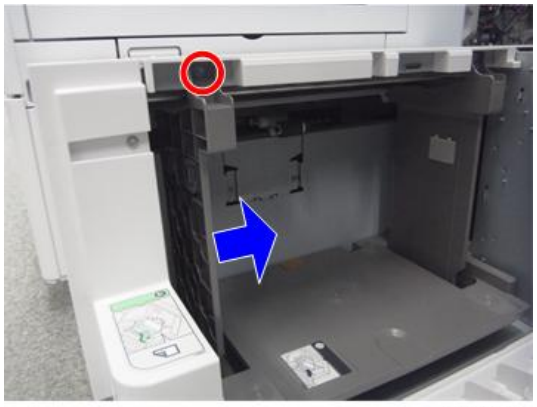
Paper size is set as shown below when the machine is shipped from the factory.

NA: LT LEF

EU.AA.CHN: A4 LEF

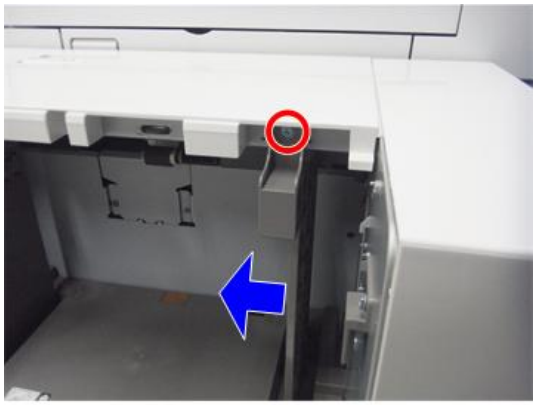
The paper size can be changed to A4, LT, or B5.

1. Open the tray cover.
1. Remove the upper screw at the front side fence, and after setting the side fence to the position of the paper (outer: A4 LEF, center: LT LEF, inner: B5 LEF), tighten the screw that was removed.



d1462466

2. Also change the rear side fence to the same size position.



d1462467

3. Change the paper size according to the new side fence position.

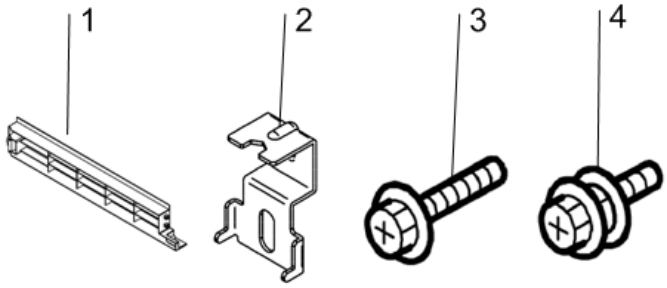
SP5-181-017 (Size Adjust LCT)

0: A4, 1: LT, 2: B5

2.7 CASTER TABLE TYPE M3

2.7.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Right Lower Cover	1
2	Securing Bracket	2
3	Screws (M4 × 10)	2
4	Screw with Spring Washer (M4 × 10)	1



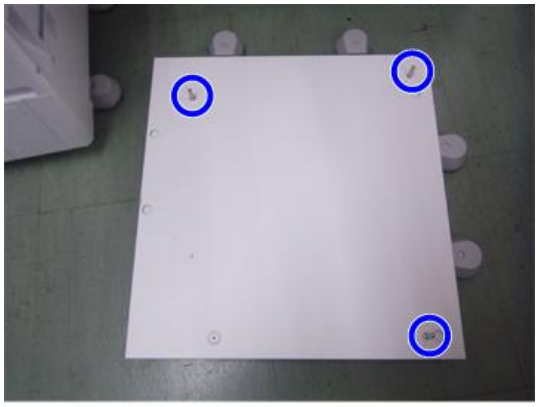
d1465005

2.7.2 INSTALLATION PROCEDURE

⚠CAUTION

- § Removal of stabilizers must always be with the consent of the customer. Do not remove them at your own judgment.
- § The machine must be held at the correct locations, and must be lifted slowly.
- § If it is lifted with force, handled carelessly or dropped, it will result in an injury.
- § If installing this option, turn the power to the machine off, and unplug the power plug from the wall socket.
- § If it is installed when the power is on, it will result in an electric shock or malfunction.
- § Be sure to join the machine and caster table to prevent equipment from falling over.
- § If it is not joined, the machine will move or fall over, which will result in an injury.

1. Attach the 3 locating pins.



d1463030

2. Holding the grips on the machine, align with the locating pin, and place the machine on the caster table.

Note

- § When you lift the machine, hold the lifting handles.
- § In particular, do not lift it by holding the scanner unit, etc., (as it may deform). .
- § Do not put the machine down on the caster table as a temporary resting place. This may cause the machine to deform. Always connect the machine and caster unit properly.

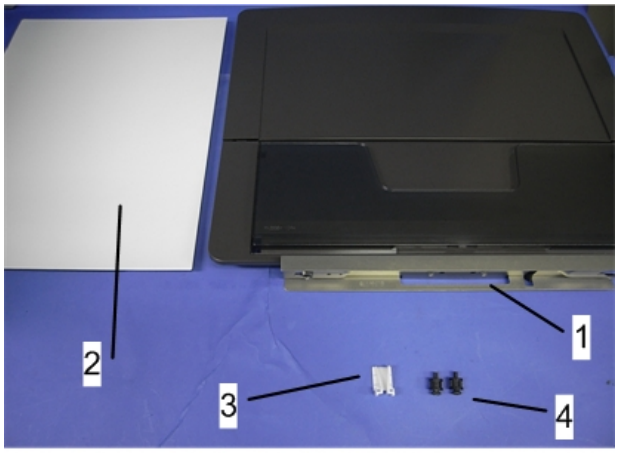
3. Pull out the 2nd paper feed tray.
4. Using a securing bracket, fix the machine to the paper tray unit (spring washer : screw: M4×10: 1).
5. Attach the securing brackets [A] at 2 positions to left and right at the rear of the machine (screws: 1 each).
6. Return the paper feed tray to the machine.

2.8 PLATEN COVER PN2000

2.8.1 ACCESSORY CHECK

Check that you have the accessories indicated below.

No.	Description	Q'ty
1	Platen Cover	1
2	Platen Sheet	1
3	Feeler Guide	1
4	Stepped Screw	2



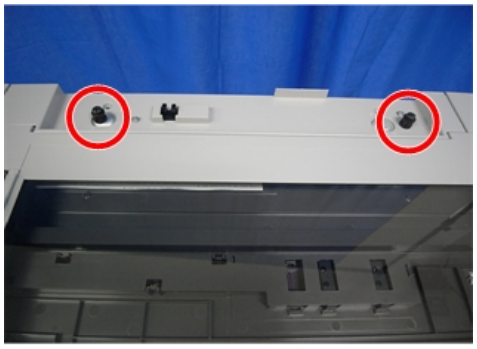
d1582018

2.8.2 INSTALLATION PROCEDURE

⚠CAUTION

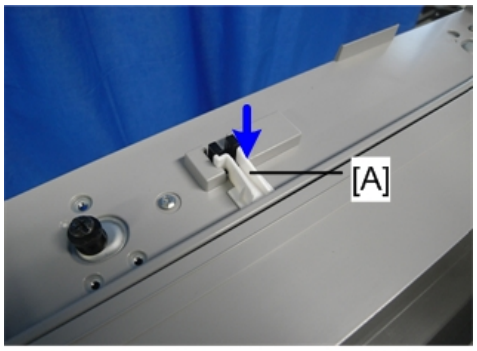
§ Unplug the machine power cord before starting the following procedure.

1. Install the stepped screws (× 2).



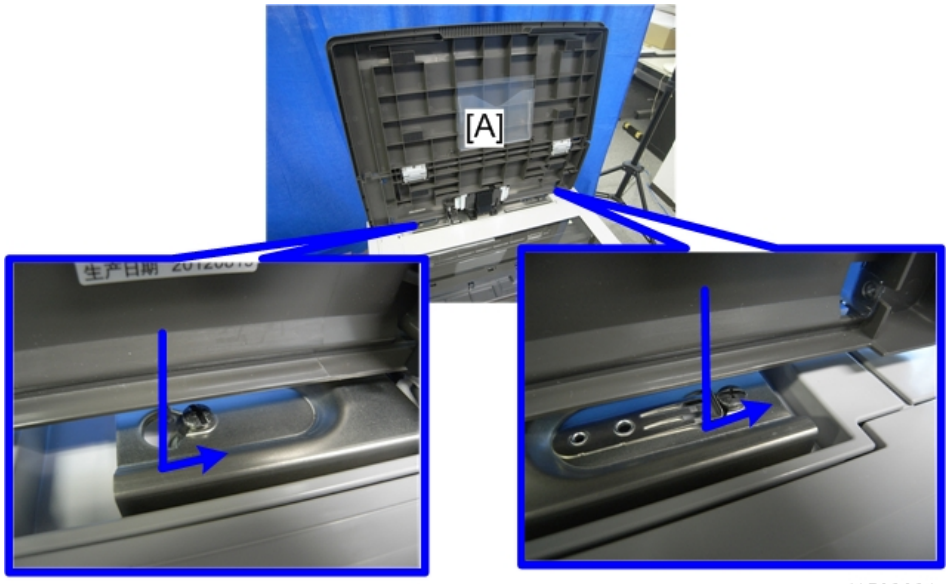
d1582019

2. Install the feeler guide [A].



d1582020

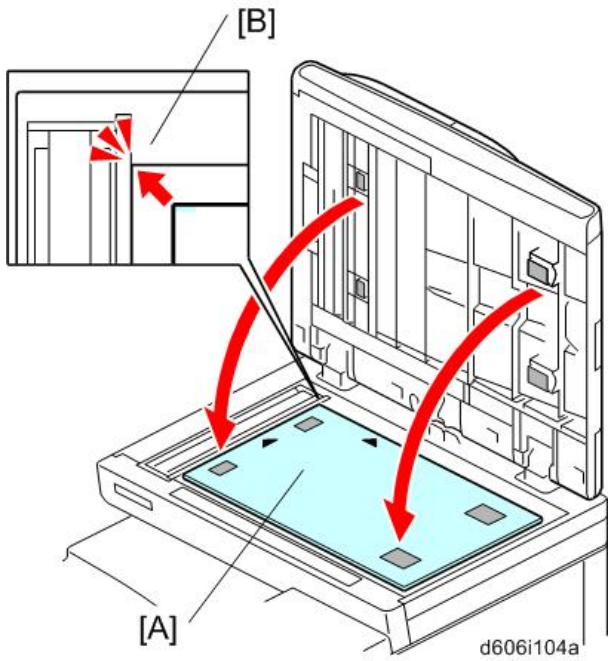
3. Install the platen cover [A].



d1582021

4. Place the platen sheet [A] on the exposure glass.

5. Line up the rear left corner of the platen sheet flush against corner [B] on the exposure glass.



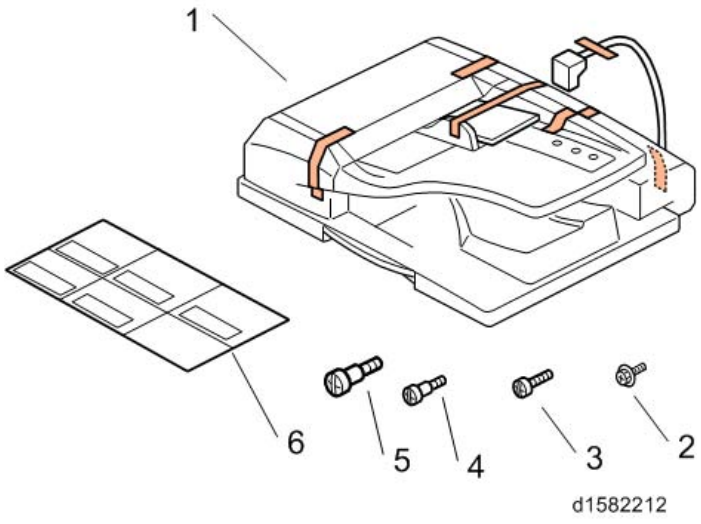
6. Close the platen cover.
7. Open the platen cover.
8. Press the surface of the platen sheet gently to fix it on the platen cover securely.

2.9 ARDF DF3090

2.9.1 ACCESSORY CHECK

Check the quantity and condition of the accessories against the following list.

No.	Description	Q'ty
1	ARDF	1
2	Screw	2
3	Knob Screw	2
4	Stud Screw (Small)	1
5	Stud Screw (Large)	1
6	Attention Decal – Top Cover	1

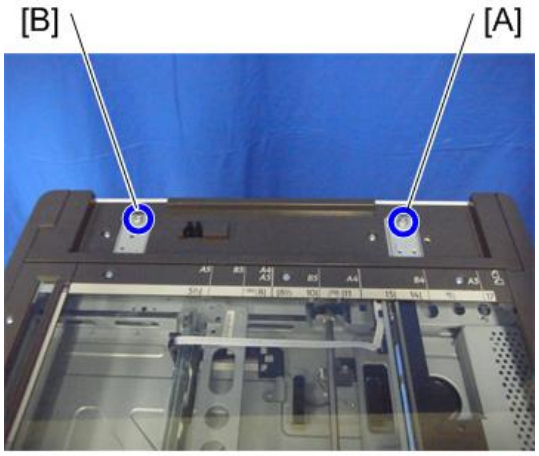


2.9.2 INSTALLATION PROCEDURE

⚠CAUTION

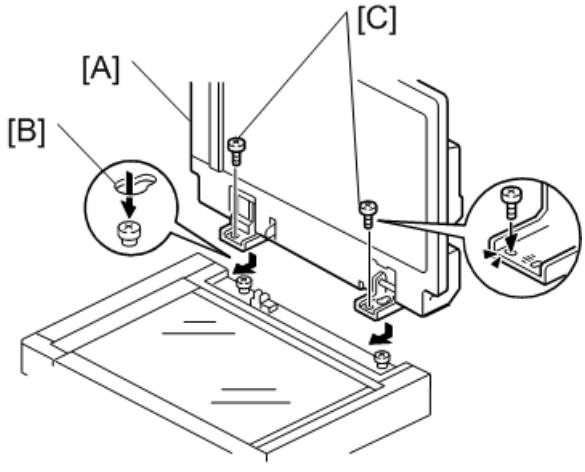
§ Unplug the copier power cord before starting the following procedure.

1. All tapes and shipping retainers.
2. Insert the two stud screws ([A] is the larger stud, [B] is the smaller stud).



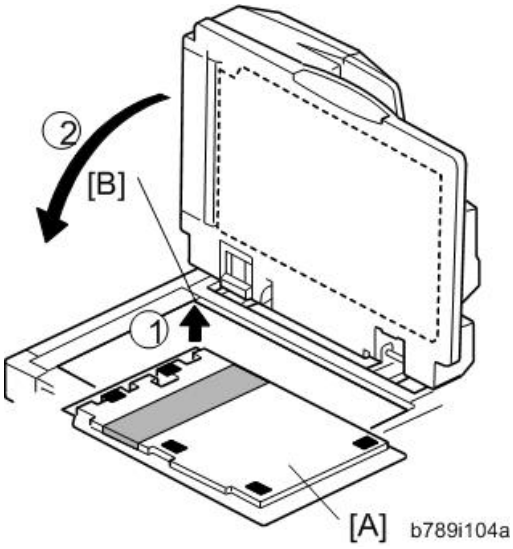
d1463130

3. Mount the ARDF [A] by aligning the screw keyholes [B] of the ARDF support plate over the stud screws.
4. Slide the ARDF toward the front of the machine.
5. Secure the ARDF with the two knob screws [C].



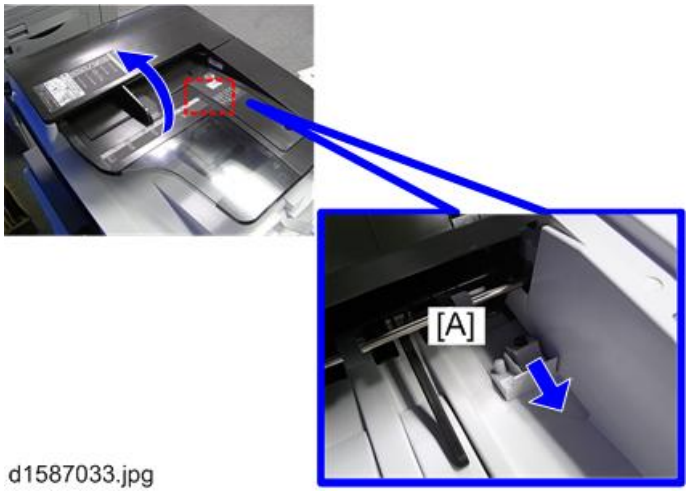
b789i103a

6. Align the rear left corner of the platen sheet [A] with the corner [B] on the exposure glass.
7. Close the ARDF.
8. Open the ARDF and check that the platen sheet is correctly attached.



9. Lift the ARDF original tray.

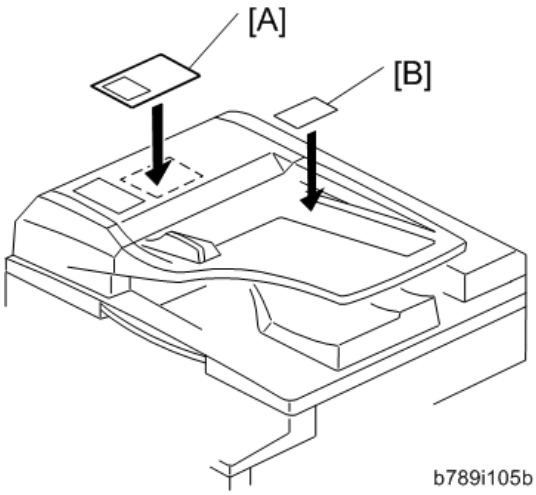
10. Slide the stamp holder [A] out and install the stamp cartridge in it, if necessary.



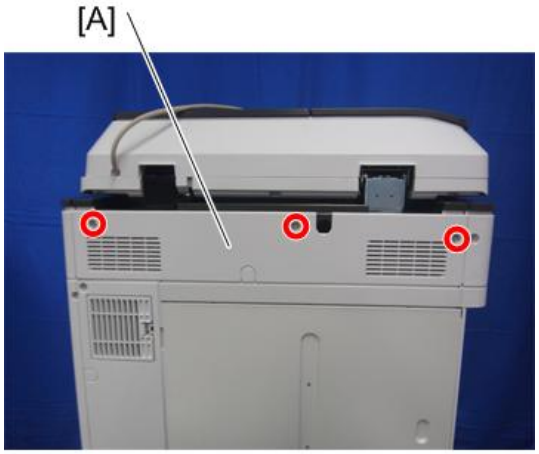
Note

§ After the stamp installation, be sure to slide the holder in correctly. If not, jam detection (J001) will occur.

11. Attach the decals [A] [B] to the top cover as shown. Choose the language that you want.



12. Scanner rear cover [A] (×3)



d1463131

13. Connect the harness [A].

d1463132

14. Attach the bracket [A] (×1)

d1463133

15. Fasten the grounding wire [A] (×1)

d1463134

16. Attach the rear cover.
17. Plug in and turn on the main power switch of the machine, and then check the ARDF operation.
18. Make a full size copy. Check that the registrations (side-to-side and leading edge) and image skew are correct. If they are not, adjust the registrations and image skew (see ARDF Image Adjustment in the "Replacements and Adjustments" chapter).

When feeding thin paper

When feeding thin paper, adjust the sliding tray to the point shown below [A].

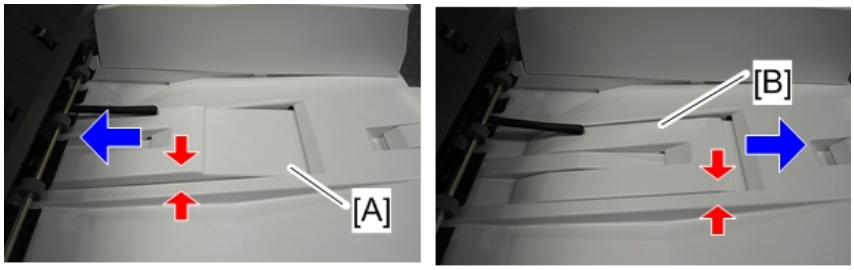
When feeding normal paper, adjust the sliding tray to the point shown below [B].

If not, it may cause problems as follows:

§ Original jam

§ Original curl

§ Originals cannot be stacked neatly



d1585055

2.10 SPDF DF3080

2.10.1 ACCESSORY CHECK

No.	Description	Q'ty	Remarks
1	TAPPING SCREW:3×6	10	
2	CLAMP:LWS-0711A	2	
3	FERRITE CORE:K3 NF-70-A(N)BK0	1	
4	FERRITE CORE:K3 NF-75(N)BK0	1	
5	SCREW:HINGE:INNER BACK	2	
6	BCU:TYPE-H1:ME-C1E:ASS'Y	1	
7	PCB:IMAGE PROCESSING UNIT:TYPE-S1MD-SUB	1	
8	BRACKET:1PASS:ADF	1	
9	BRACKET:IPU_SUB	1	
10	FULL DUG POINT SCREW:FIX:HINGE	2	
11	DECAL:SET:ORIGINAL TABLE	1	
12	DECAL::ORIGINAL:DOM	1	

d1462501

2.10.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When you install this option, turn off the power supply to the machine, and unplug the power plug from the wall socket.

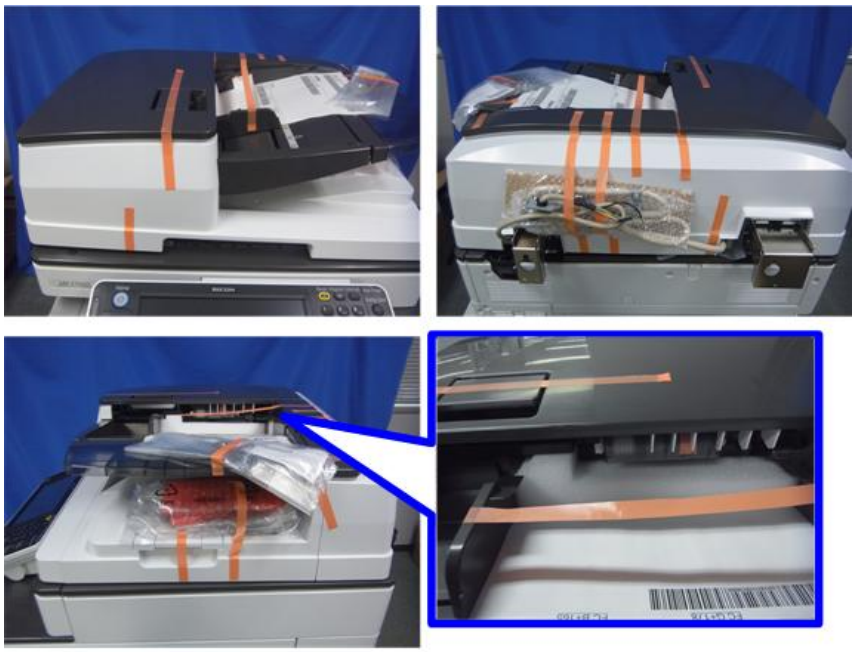
§ If it is installed when the power is ON, it will result in an electric shock or a malfunction.

⚠CAUTION

§ Do not turn the power on until you perform “adjustment after installation,” otherwise it may not start normally.

Attaching the SPDF

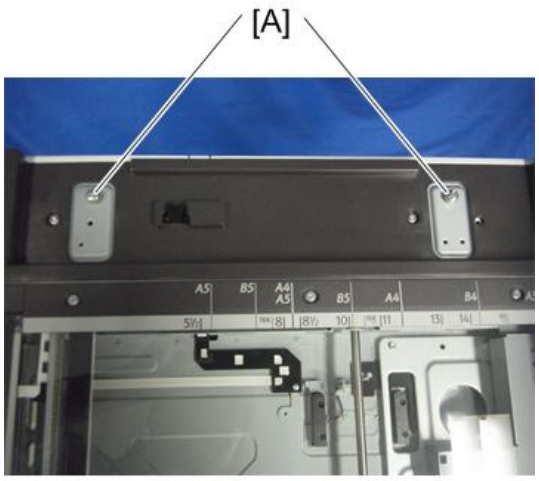
1. Place the unit on the machine temporarily, and remove the orange tape and shipping retainers.



d1462502

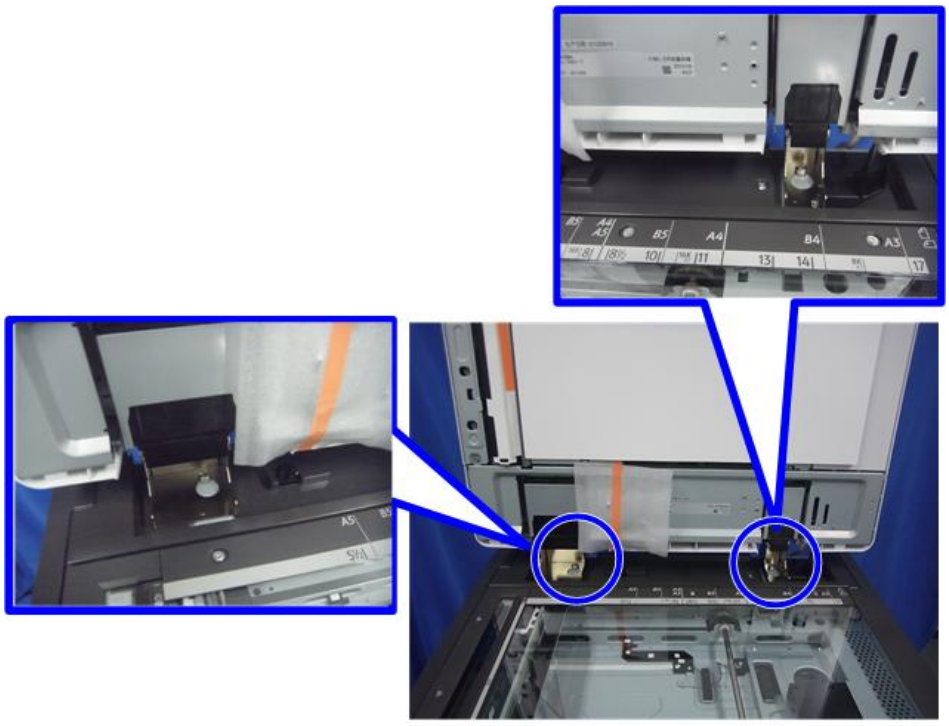
2. Remove the items in the package (boards, fixing screws, etc.).

3. Attach the 2 stepped screws [A] to the machine.



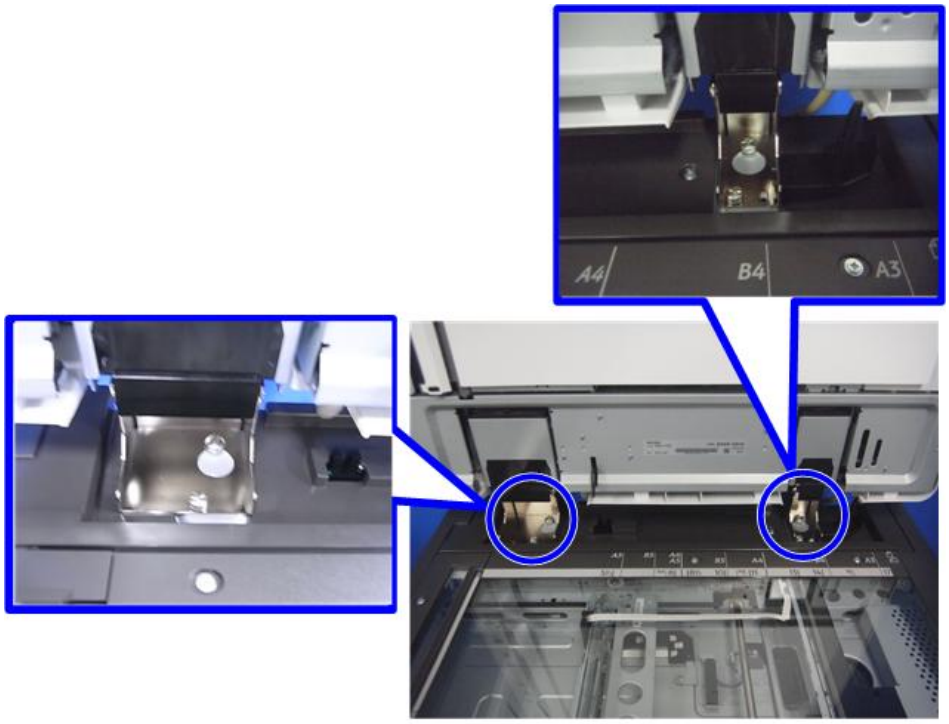
d1462503

4. Align the hinges of the SPDF with the stepped screws, and attach them by sliding them in.



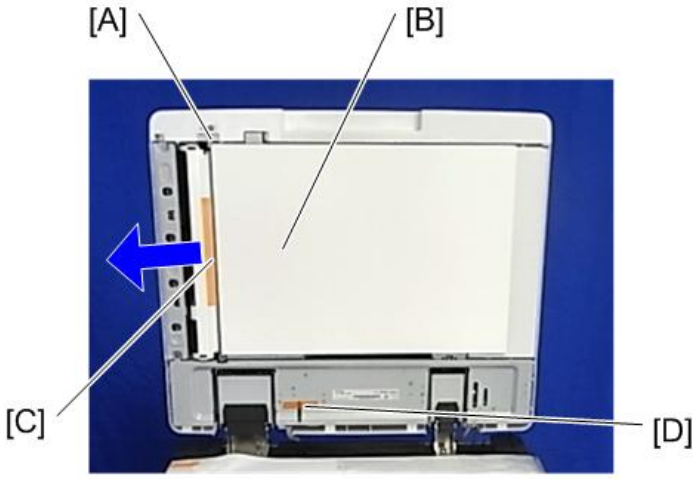
d1462504

5. Fix the SPDF to the machine (coin screws×2)



d1462505

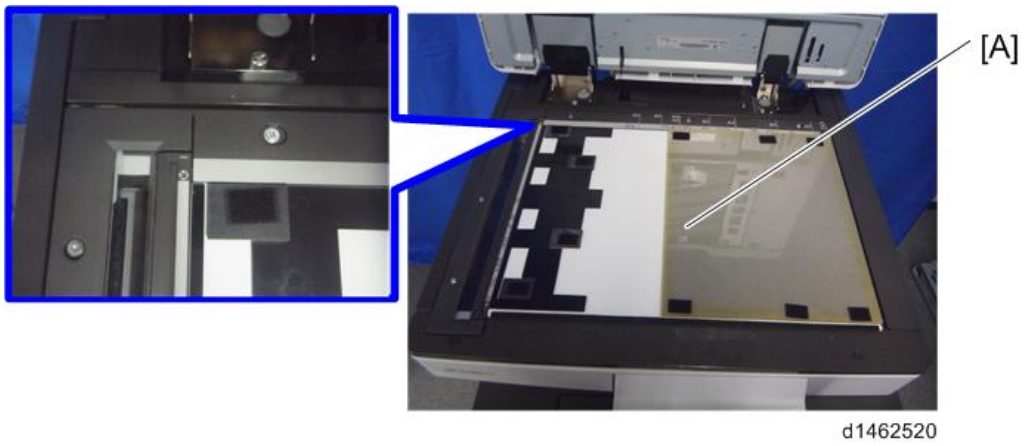
6. Release the lever [A], open the pressure plate sheet [B], gently remove the protective sheet [C], and shut the pressure plate sheet.



d1462223

7. Remove the filament tape [D].

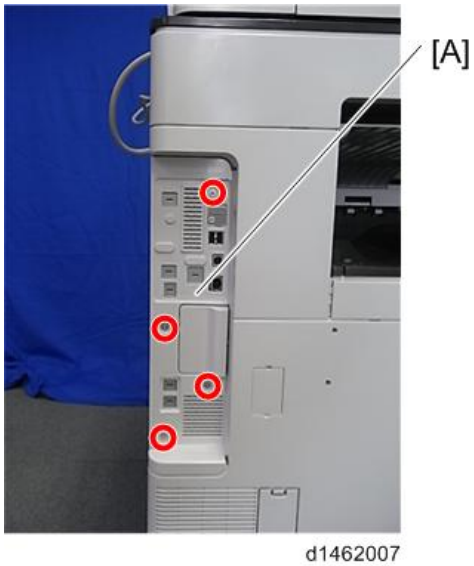
8. Remove the platen sheet [A], and set it on the exposure glass.
Align it with the left scale and rear scale of the printer.



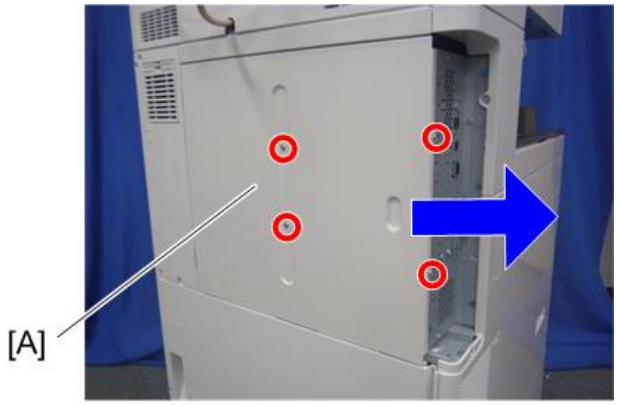
9. Close the SPDF slowly, and attach the platen sheet and SPDF.

Attaching the Sub IPU / Replacing the BCU

1. Controller cover [A] (×4)

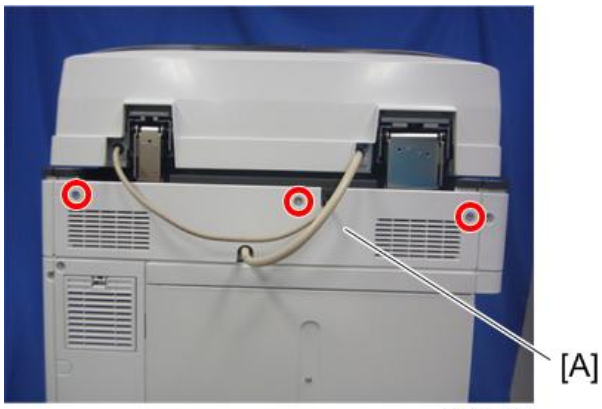


1. Rear cover [A] (×4)



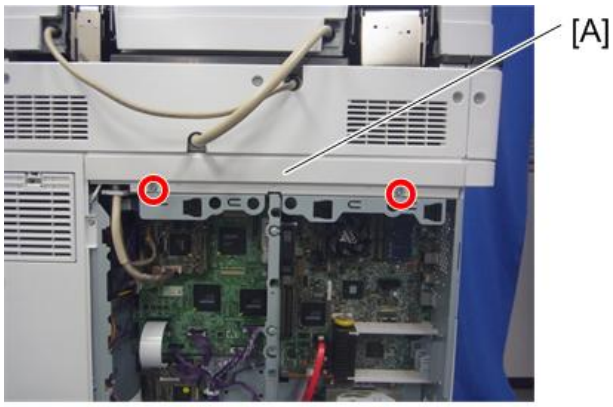
d1462013

2. Scanner rear cover [A] (×3)



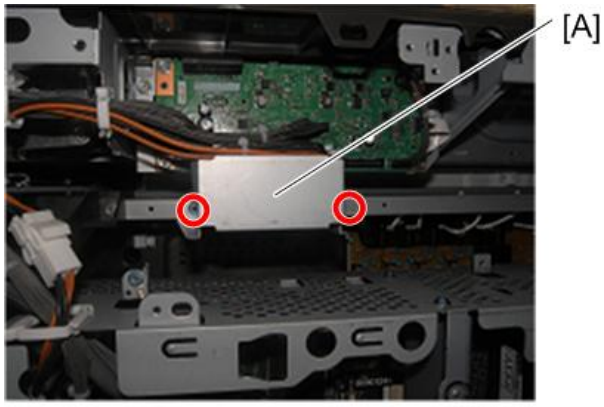
d1462016

3. Scanner rear small cover [A] (×2)



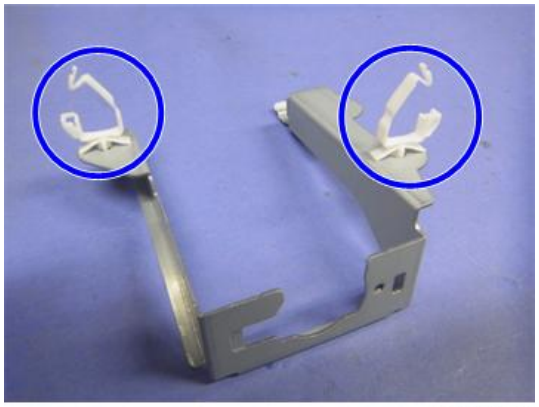
d1462017

4. Bracket [A] (×2)



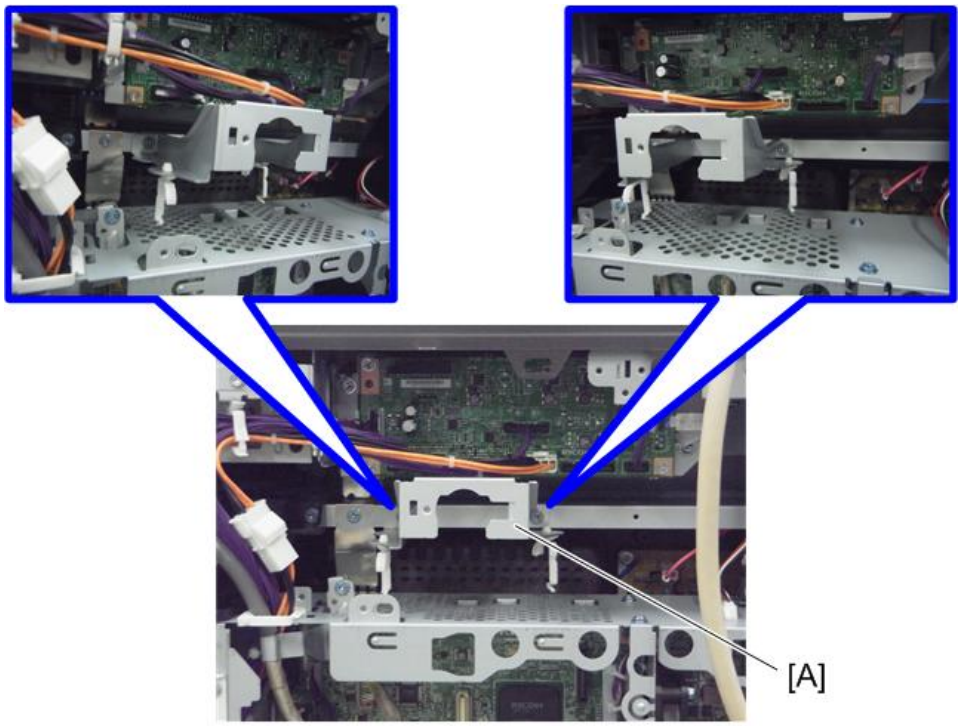
d1462522

5. Attach the 2 clamps to the bracket provided.



d1462506

6. Attach the bracket [A] to the frame (×2)

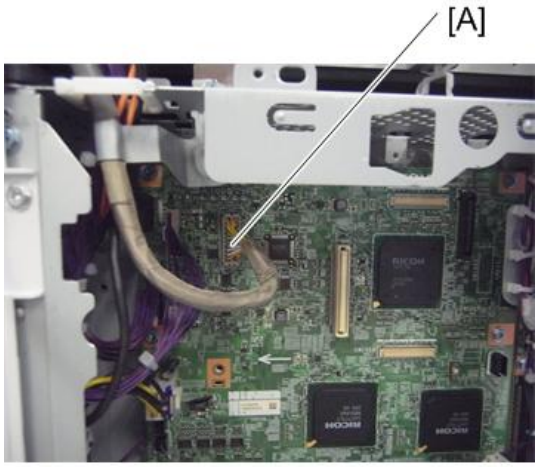


d1462507

7. Retaining bracket [A] (×1)

d1462523

8. Pull out the connector [A] of the scanner cable.

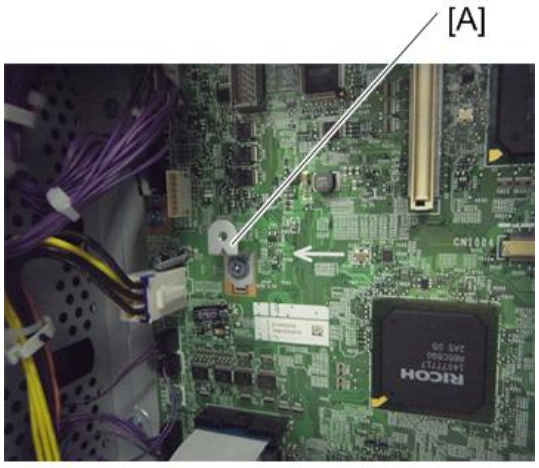


d1462508

9. Attach the provided ferrite core [A] to the scanner cable.

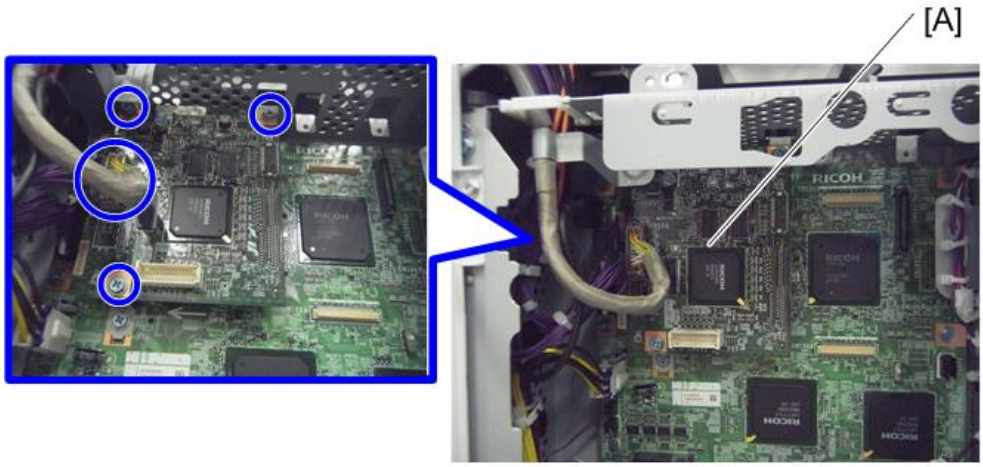
d1462511

10. Attach the provided bracket [A] to the IPU board (×1)



d1462509

11. Attach the IPU sub board [A], and insert the connector of the scanner cable (×3)

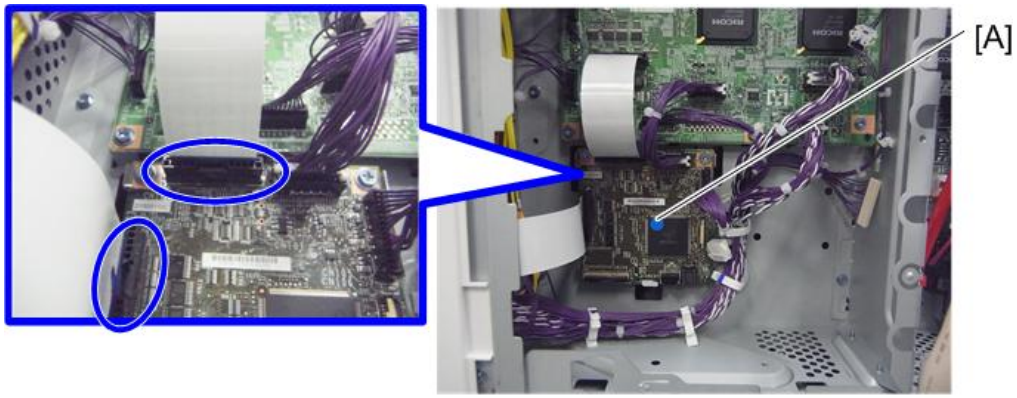


d1462510

12. Replace the BCU board [A] (×2, ×4)

CAUTION

§ Since a tab is attached to the FFC, when removing, do not use force.



d1462512

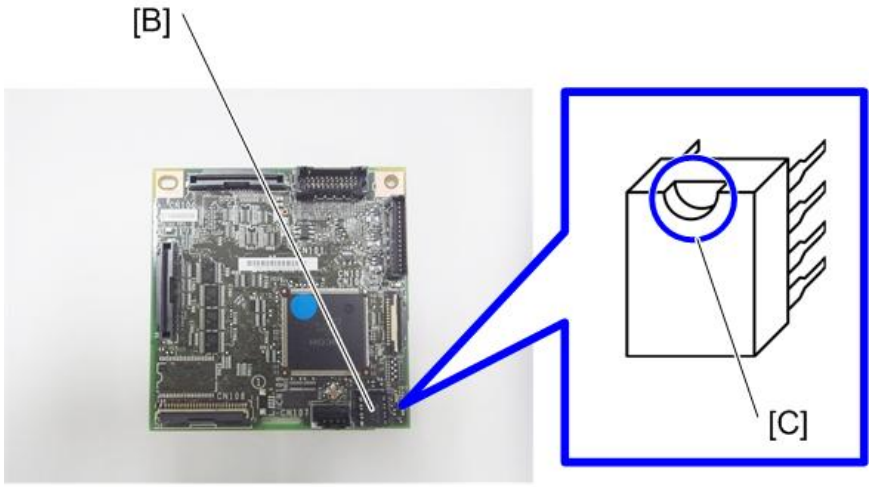
Remove the EEPROM [B] from the original BCU board with a knob screwdriver or tweezers, and replace with the BCU board in the accessories.

CAUTION

§ Remove it with the knob screwdriver or tweezers so as not to bend the terminals of the EEPROM.

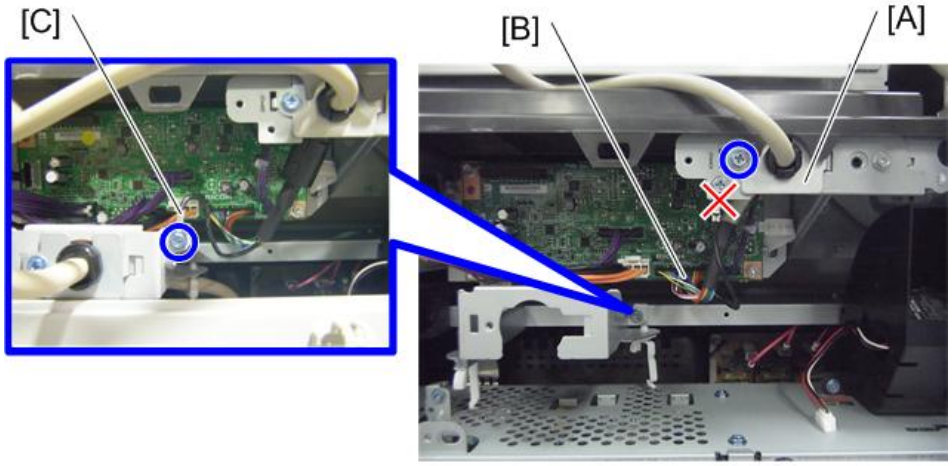
CAUTION

§ Attach the EEPROM with the correct orientation so that the depression [C] is up.



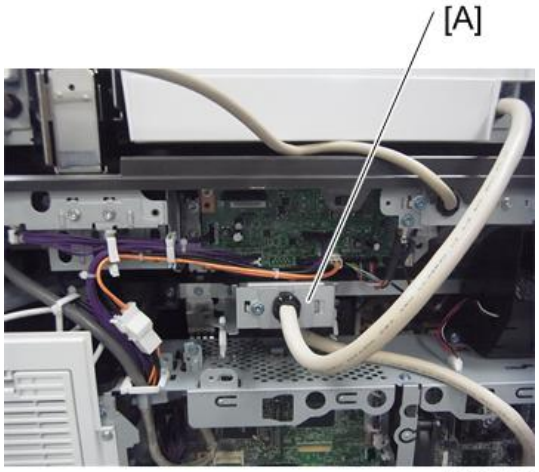
d1462513

13. Attach the bracket [A] of the CIS image cable to the frame, insert the connector [B] in the SIO, and attach an earth wire [C] (×2)



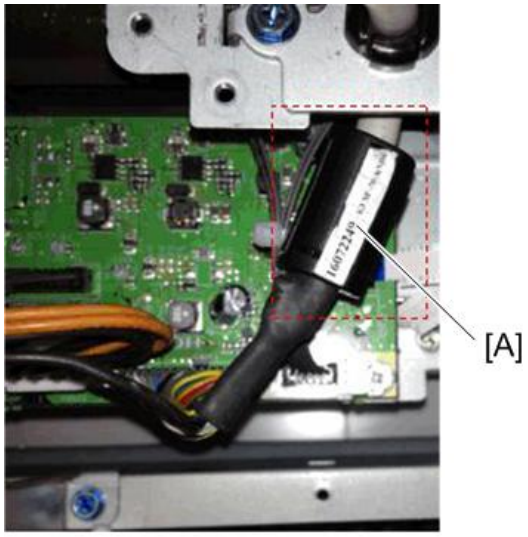
d1462515

14. Attach the bracket [A] of the I/F cable to the bracket attached in Step 16 (×1)



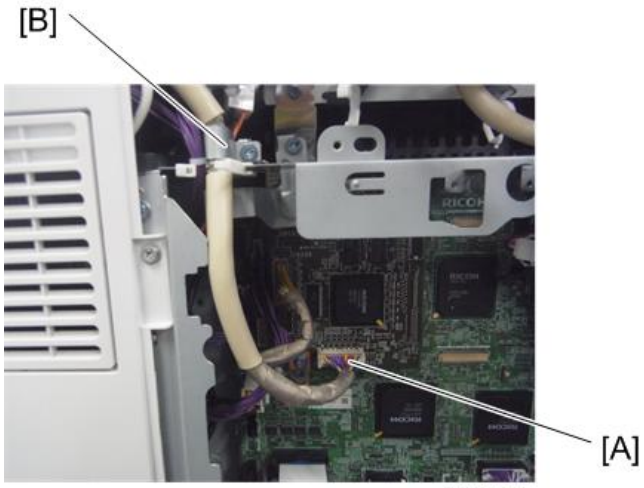
d1462516

15. Attach the ferrite core [A] provided to the I/F cable.



d1462524

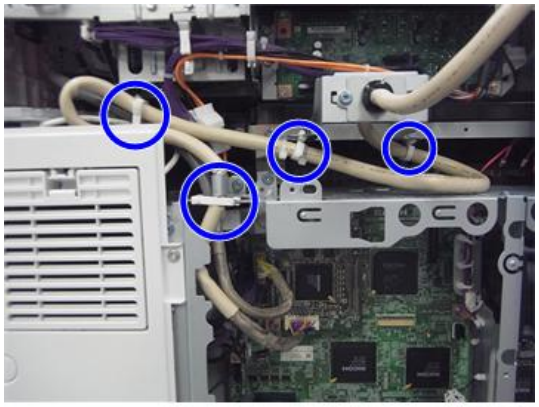
16. Insert the connector [A] of the I/F cable in the IPU small board, and fix the bracket [B] to the controller box.



d1462519

17. Attach the bracket that was removed in step 17.

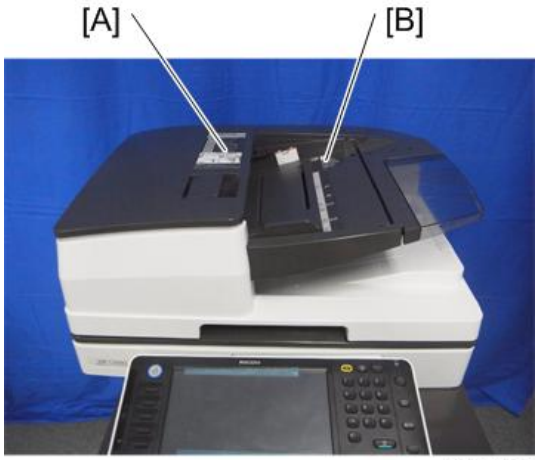
18. Attach the cable via four clamps.



d1462517

19. Attach the scanner rear small cover, the scanner rear cover, the rear cover, and the controller cover.

20. Attach the decals: “Original” [A] and “Original table set” [B].



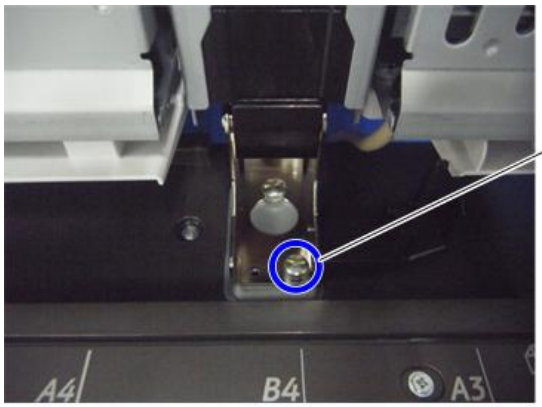
d1462499

Set serial number on new BCU

1. Open the front cover.
1. Turn the power on. SC995-01 occurs immediately.
2. Make a note of the number that is displayed in SP5-811-005.
3. Enter the number that you noted in SP5-811-004.
4. Turn the power off.
5. Close the front cover

Adjust SP Settings

1. Turn the power ON.
2. Enter the SP values marked on the paper provided, in the following SP.
    1. SP4-712-001: CIS GB Adj. Value: R
    2. SP4-713-001: CIS GB Adj. Value: G
    3. SP4-714-001: CIS GB Adj. Value: B
1. Adjust the registration for the SPDF.
    - SP6-006-010: ADF Adjustment L-Edge Regist (1-Pass): Front
    - SP6-006-011: ADF Adjustment L-Edge Regist (1-Pass): Rear
    - SP6-006-001: ADF Adjustment Side-to-Side Regist: Front
    - SP6-006-002: ADF Adjustment Side-to-Side Regist: Rear
2. If there is skew, loosen the fixing screw [A] and swivel the SPDF slightly to the left or right. Then tighten screw [A] and make a test copy to check that there is no skew.

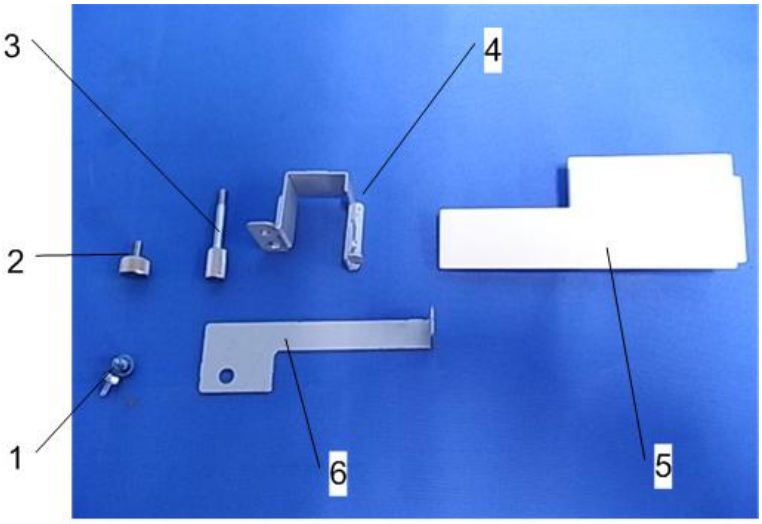


d1462518

2.11 BRIDGE UNIT BU3070

2.11.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Tapping screw- M3 × 8	1
2	Screw - M4	1
3	Knob Screw - M4	1
4	Right Front Bracket	1
5	Left Lower Cover	1
6	Left Front Bracket	1



2.11.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When installing this option, turn the power of the machine off, and unplug the power plug from the wall socket.

§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

Note

§ The bridge unit cannot be used together with the "Internal Shift Tray SH3070" or "Side Tray Type M3".

§ To use together with the "1 Bin Tray BN3110", attach the "1 Bin Tray BN3110" first before

installing the bridge unit.

1. Remove the orange tape and shipping retainers.
2. Remove the enclosed items (fixing screws, etc.).

d1465002

3. Paper output tray [A].

d1462023

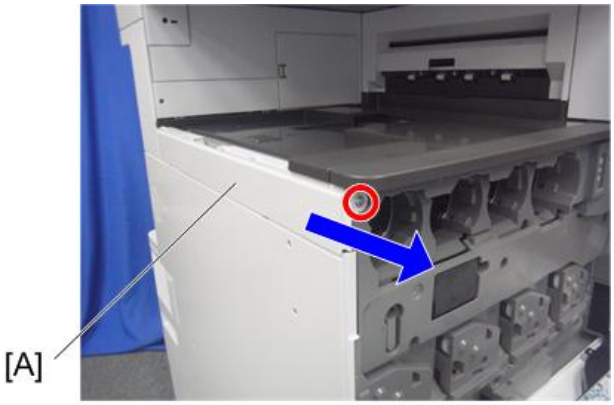
4. Connector cover [A].

d1462470

5. Open the front cover.
6. Upper left cover (×1).

Note

§ The screw removed is used again in step 13.



d1462008

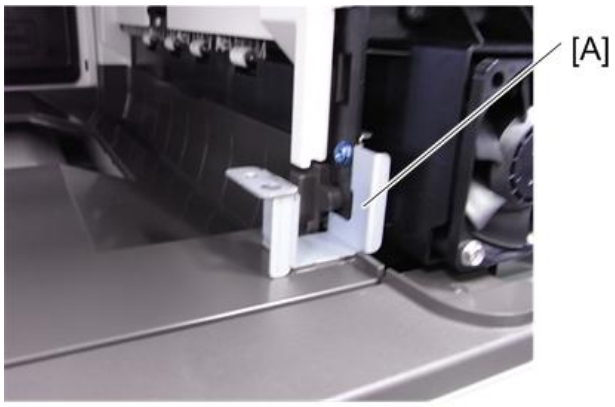
7. Open the right cover.
8. Main power switch cover [A] (×1).

CAUTION

§ Remember that there is a tab at the positions in the blue circles.

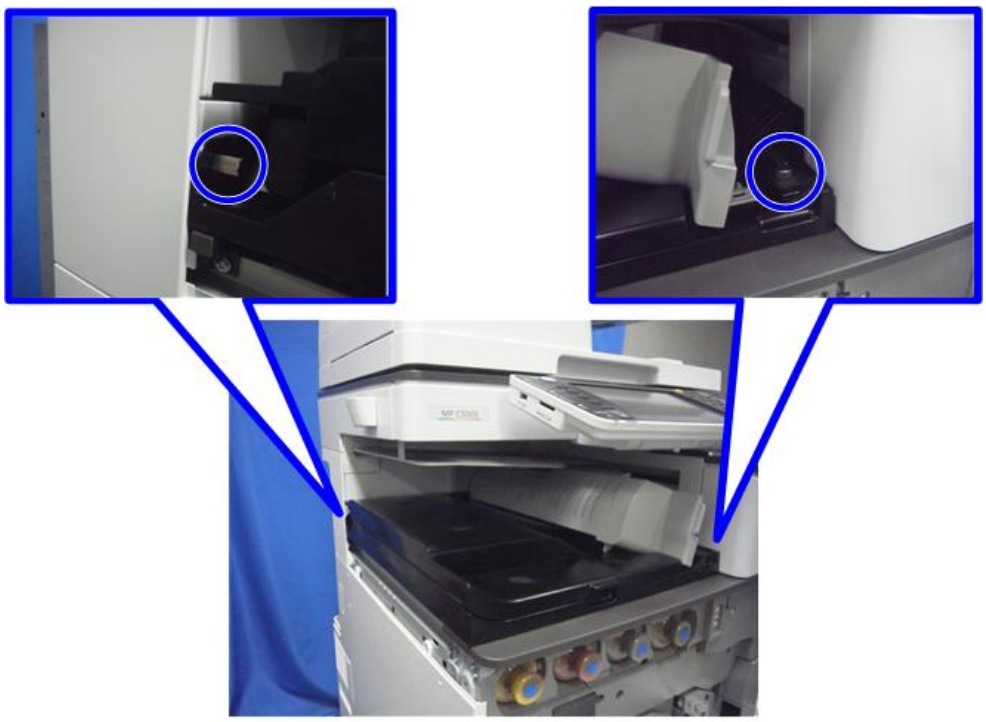
d1462021

9. Attach the bracket [A] (×1).



d1462471

10. Attach the main power switch cover, and close the duplex unit.
11. Attach the bridge unit to the machine (×2, left rear is a knob screw [A]).



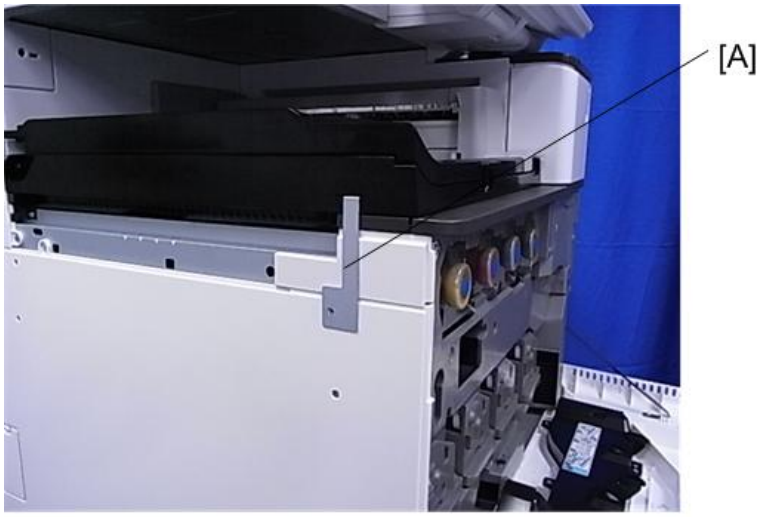
d1462472

12. Close the bridge unit right cover.

13. Attach the upper left cover provided.

d1465003

14. Referring to the finisher's installation procedure, attach the L type connecting bracket [A].



d1465004

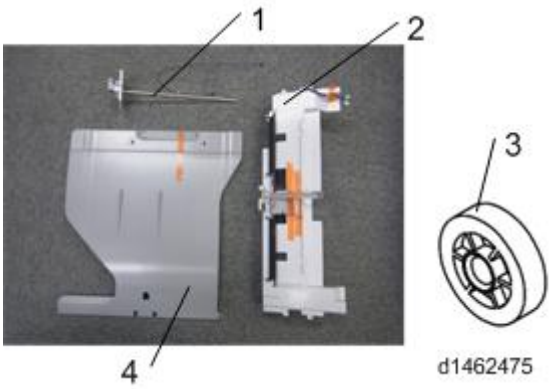
15. After the finisher is installed, turn the power switch ON.

16. Check that the finisher can be selected at the operation panel.

2.12 1 BIN TRAY BN3110

2.12.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Tray support bar	1
2	1 Bin tray unit	1
3	gear	1
4	Tray	1



2.12.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When installing this option, turn the machine power off, and unplug the power plug from the wall socket.

§ If it is installed with the power on, it will result in an electric shock or a malfunction.

1. Remove the orange tape and shipping retainers.

2. Remove the enclosed items (fixing screws, etc.).

3. Open the right cover.

4. Main power switch cover [A] (×1).

⚠CAUTION

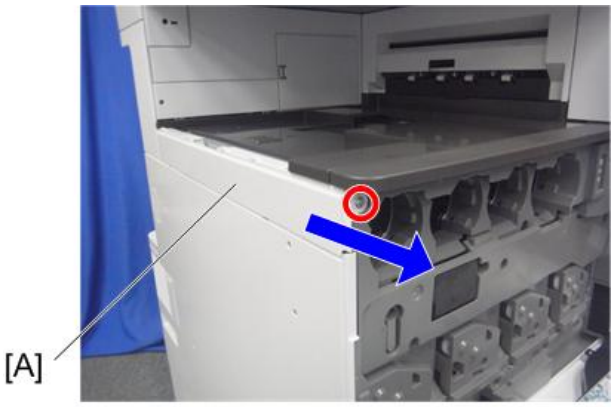
§ Remember that there is a tab at the positions in the blue circles.

d1462021

5. Paper output tray [A].

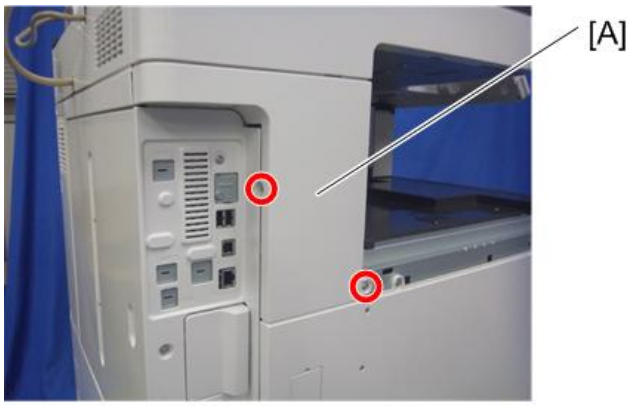
d1462023

6. Open the front cover.
7. Upper left cover [A] (×1).



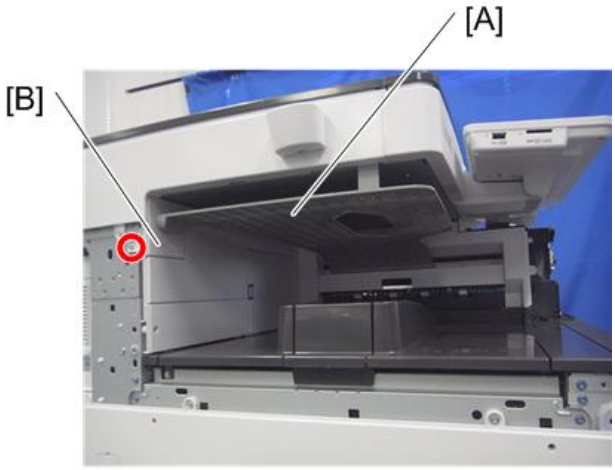
d1462008

8. Left rear cover [A] (×2).



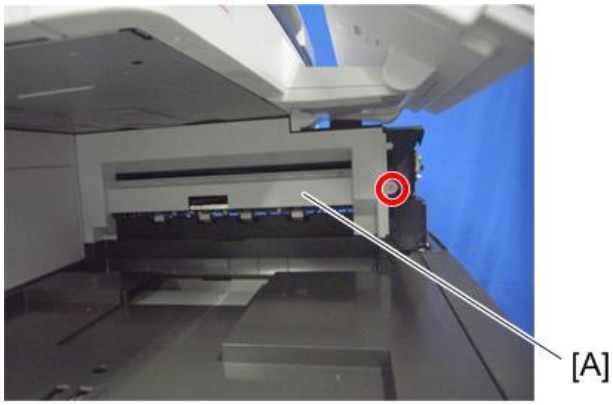
d1462010

9. Inverter tray [A], tray support rod cover [B] (×1).



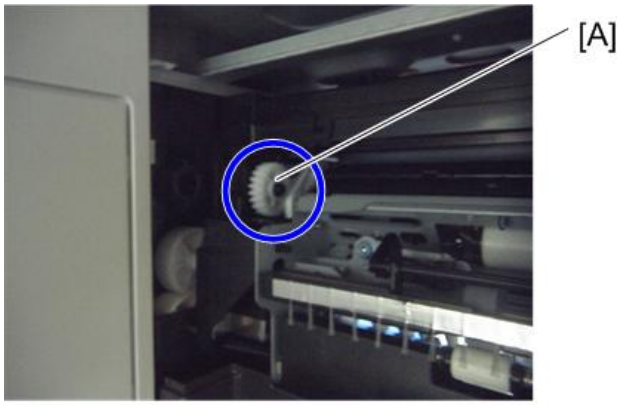
d1462478

10. Paper output cover [A] (×1).



d1462024

11. Attach the gear [A] provided.

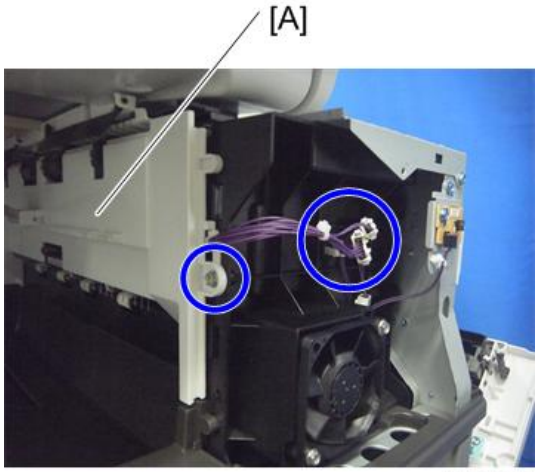


d1462476

12. Attach the 1 bin tray unit [A] (×1, ×2).

CAUTION

§ Take care that the harness is not trapped between the 1 bin tray unit and the machine frame.



d1462477

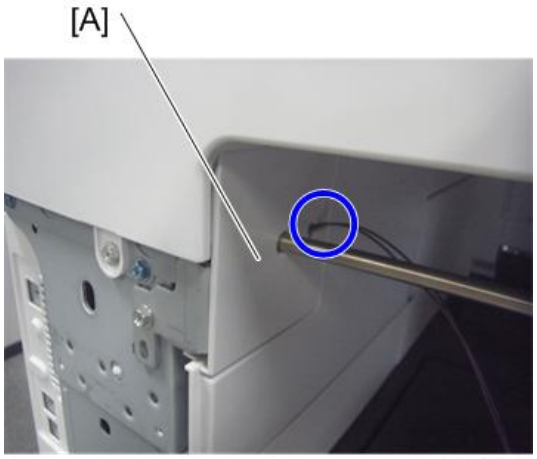
13. Attach the harness provided.

d1462479

14. Attach the tray support bar unit [A] (×1).

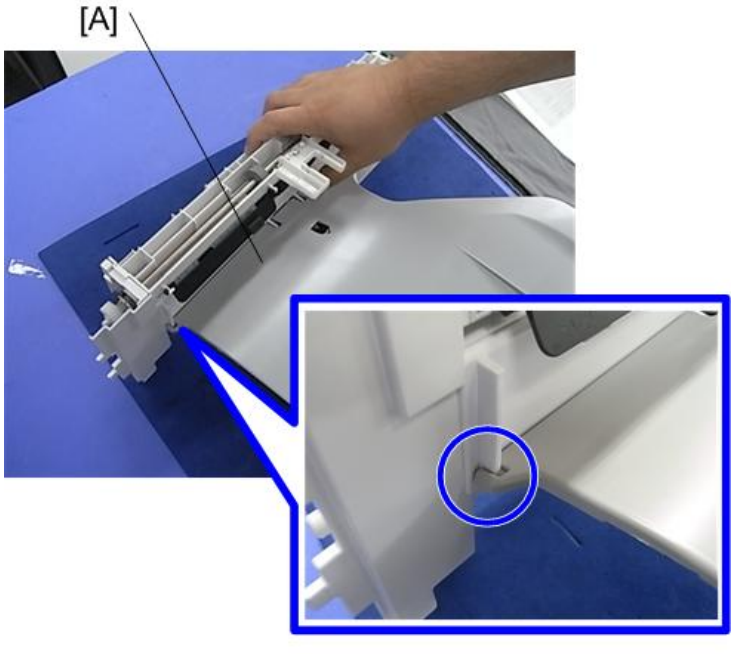
Note

§ Take out the harness attached in the previous step from the position in the blue circle.



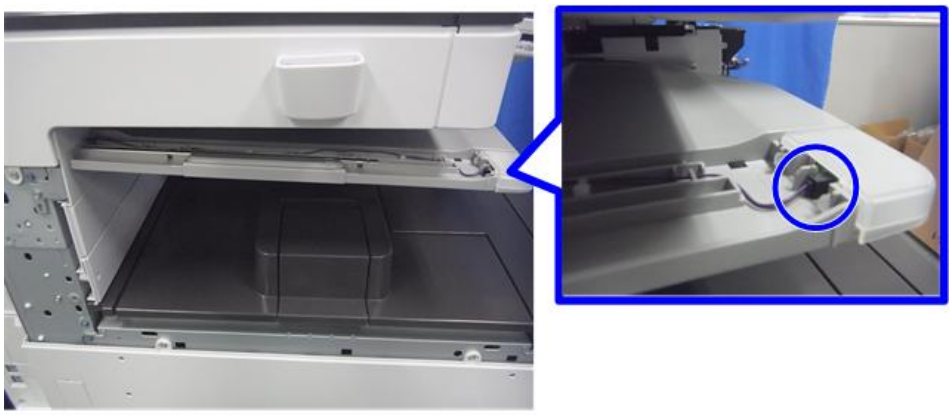
d1462480

15. Hook the 1 bin tray [A] to the 1 bin tray unit, aligning the positions in the blue circles.



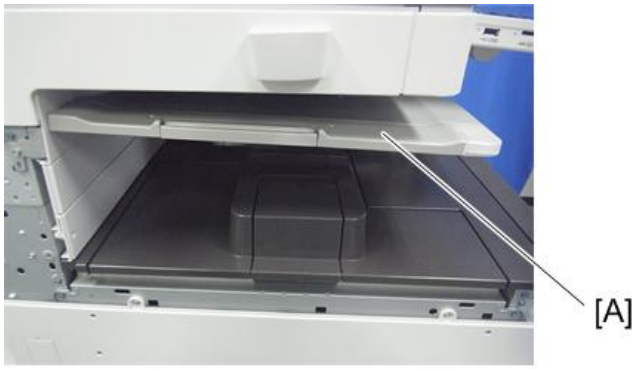
d1465027

16. Connect the harness to the 1 bin tray, and bring it around.



d1462482

17. Insert the tray support bar firmly in the 1 bin tray, and attach the cover [A].



d1462483

18. Attach the left rear cover, upper left cover and main power switch cover, and close the duplex unit.

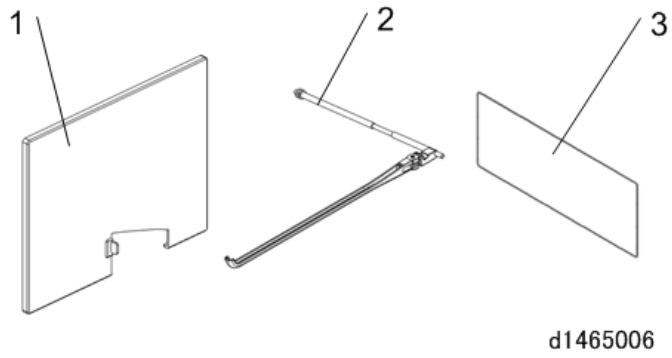
19. Turn the power switch ON.

20. Check that output to this tray can be selected on the operation panel, and check operation.

2.13 INTERNAL SHIFT TRAY SH3070

2.13.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Tray Cover	1
2	Lever	1
3	Sheet	2



2.13.2 INSTALLATION PROCEDURE

⚠CAUTION

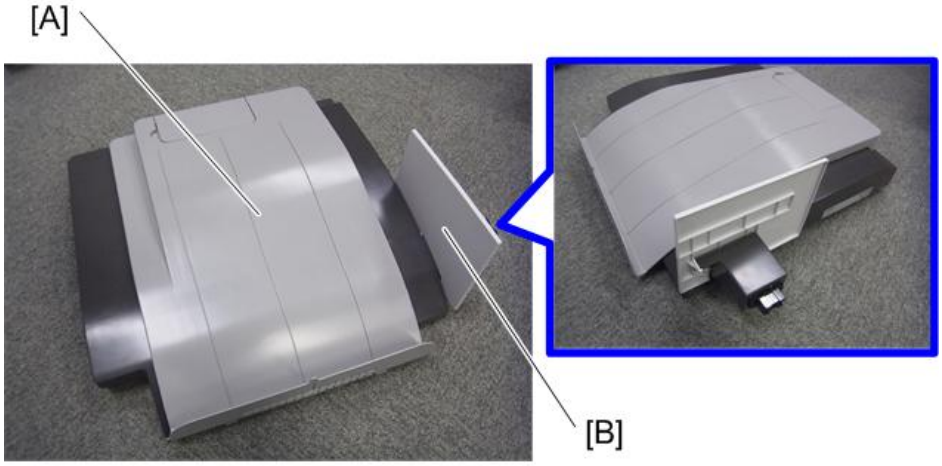
§ When installing this option, turn the power to the machine off, and unplug the power plug from the wall socket.

§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

1. Remove the filament tape and packing material.

2. Remove the enclosed items.

3. Attach the part [B] to the shift tray [A].



d1462486

4. Paper output tray [A].

d1462023

5. Connector cover [A].

d1462470

6. Attach the shift tray.

d1462487

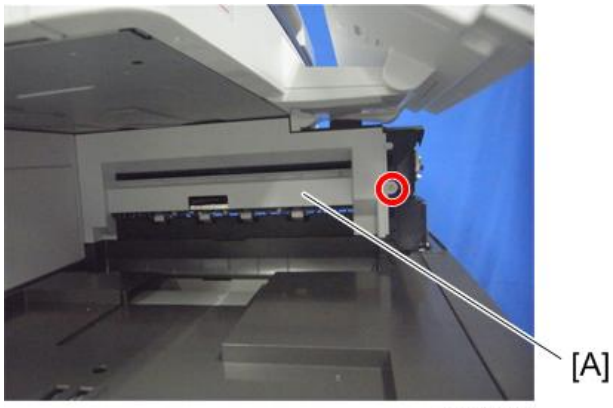
7. Open the right cover.
8. Main power switch cover [A] (×1).

CAUTION

§ Remember that there is a claw at the positions in the blue circles.

d1462021

9. Paper output cover [A] (×1).

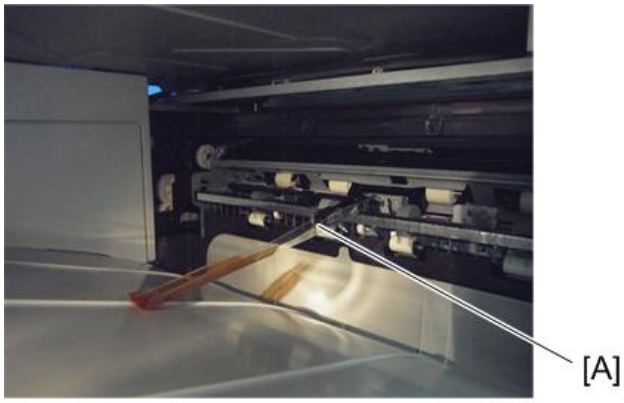


d1462024

10. Remove the feeler [A].

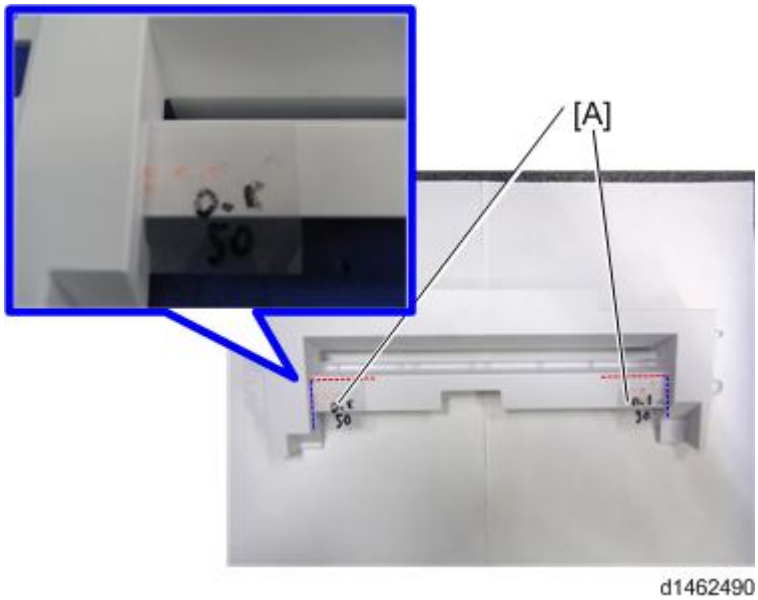
d1462488

11. Attach the shift tray feeler [A].



d1462489

12. Attach the sheets [A] at the edge of the paper output cover.



d1462490

13. Attach the paper output cover and main power switch cover, and close the duplex unit.

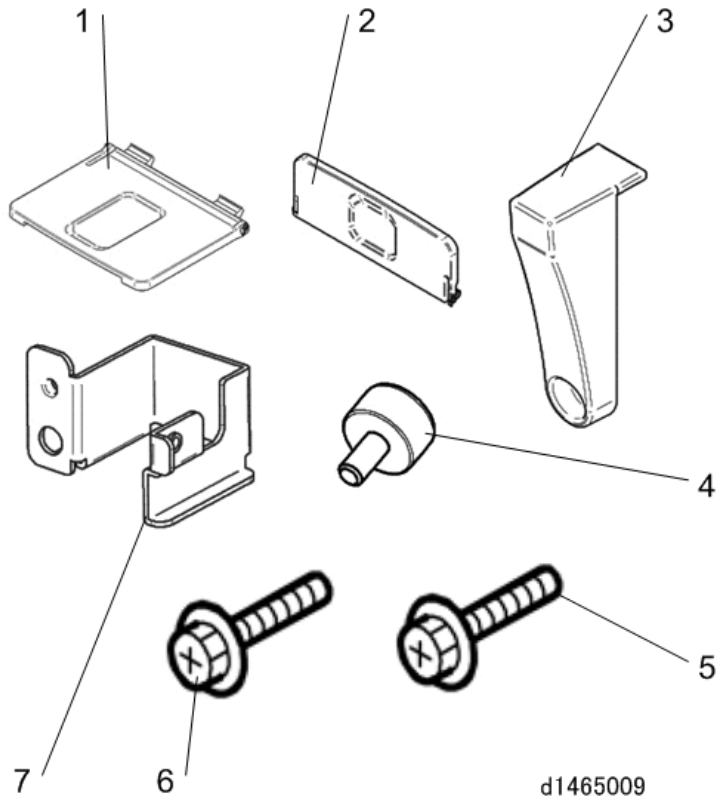
14. Turn the power switch ON.

15. Check that paper output to the shift tray can be selected at the operation panel, and check the operation.

2.14 SIDE TRAY TYPE M3

2.14.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Left Extension Tray	1
2	Upper Extension Tray	1
3	Fixing Plate	1
4	Knob Screw	1
5	Tapping screw - M4 x 10	1
6	Tapping screw - M3 x 8	1
7	Bracket	1



2.14.2 INSTALLATION PROCEDURE

CAUTION

§ When installing this option, turn the power to the machine off, and unplug the power plug from the wall socket.

§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

Note

§ The side tray cannot be used together with “Internal Shift Tray SH3070” or “Bridge Unit BU3070”.

§ To use together with the “1 Bin Tray BN3110”, attach the “1 Bin Tray BN3110” first before installing the side tray.

1. Remove the orange tape and shipping retainers.
2. Remove the enclosed items (fixing screws, etc.).
3. Paper output tray [A].

d1462023

4. Open the right cover.
5. Main power switch cover [A] (×1).

CAUTION

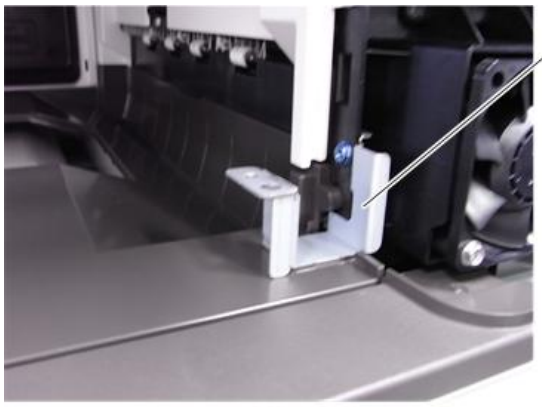
§ Remember that there is a claw at the positions in the blue circles.

d1462021

6. Connector cover [A].

d1462470

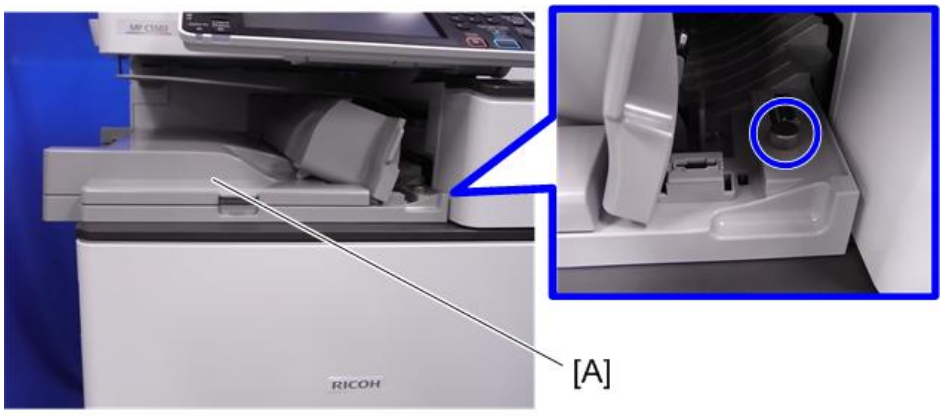
7. Attach the bracket [A] (×1).



d1462471

8. Attach the main power switch cover, and close the duplex unit.

9. Attach the side tray unit [A] to the machine, and fix with a knob screw. (×1).



d1462492

10. Attach the fixing plate [A] (×1).

d1462493

11. Attach the upper extension tray [A] and the left extension tray [B].

d1462494

12. Turn the power switch ON.

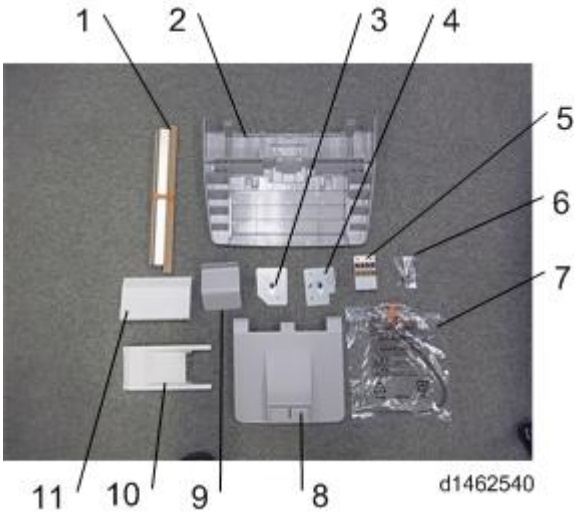
13. Check that paper output to the side tray can be selected at the operation panel, and check the operation.

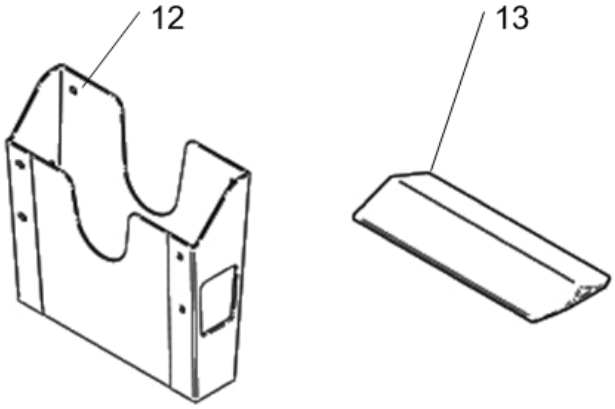
2.15 BOOKLET FINISHER SR3170 (D688)/ FINISHER SR3160 (D689)

2.15.1 ACCESSORY CHECK

Booklet Finisher SR3170 / Finisher SR3160

No.	Description	Q'ty
1	Guide Plate	1
2	Shift Tray	1
3	Right joint bracket	1
4	Left joint bracket	1
5	Ground Plate	1
6	Screws(4x12)	4
6	Screws(3x8)	1
6	Screws(3x6)	2
6	Tapping screw(3x6)(D688 only)	1
6	Round Rivets	1
7	Cushion	1
8	Output Tray (D688 only)	1
9	End Fence (D688 only)	1
10	Proof Tray	1
11	Support Plate for Shift Tray	1
12	Tray Holder	1
13	Proof Tray	1





2.15.2 INSTALLATION PROCEDURE

⚠CAUTION

- § When you install this option, turn off the power to the machine, and unplug the power plug from the wall socket.
- § If it is installed when the power is on, it will result in an electric shock or a malfunction.

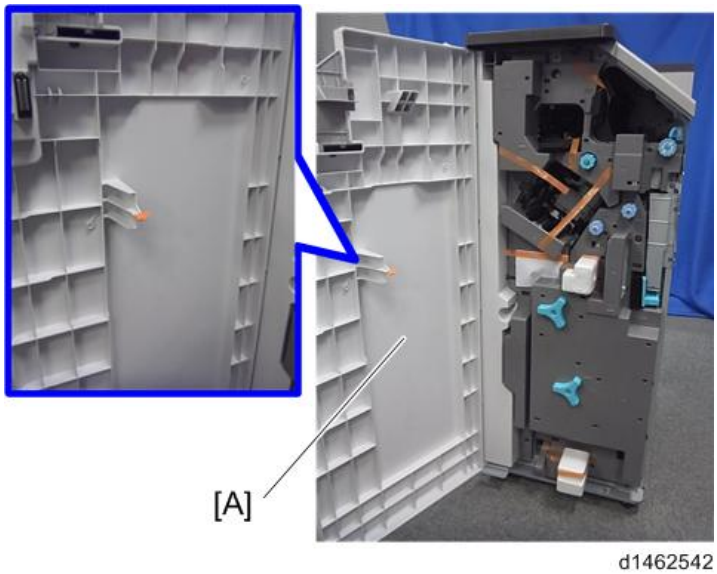
Note

- § Before installing this option, attach the “Bridge Unit BU3070” first.
- § Attach the “LCIT PB3170” or “Paper Feed Unit PB3160” first before installing this option.

1. Remove the external orange tape and shipping retainers.

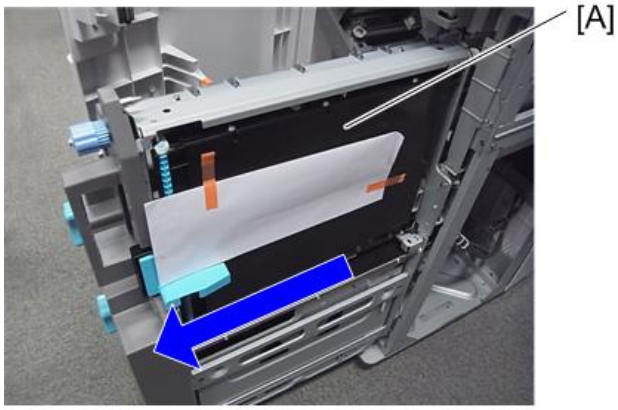
d1462541

2. Open the front cover [A], and remove the orange tape and shipping retainers.



d1462542

3. Pull out the saddle stitch unit [A] or stapling unit, and remove the orange tape and shipping retainers.

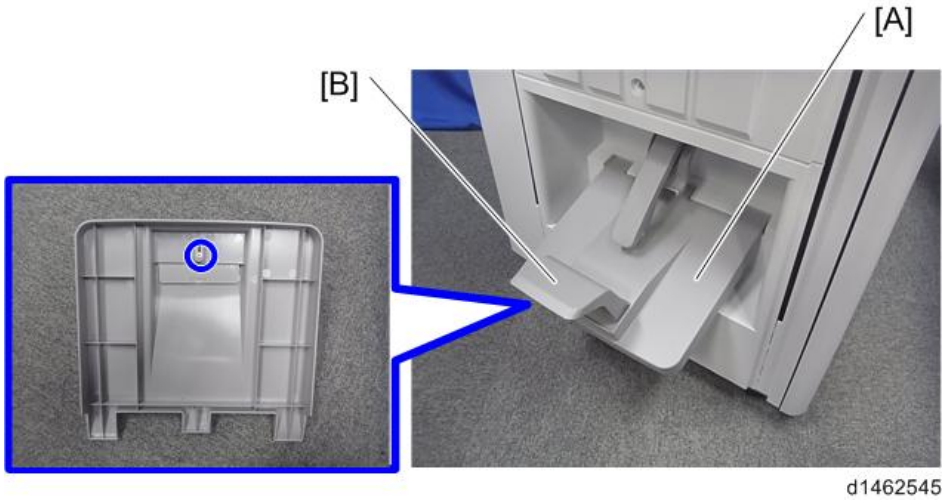


d1462543

4. Remove the items in the package (fixing screws, etc.).
5. Attach the shift tray [A] (×1).

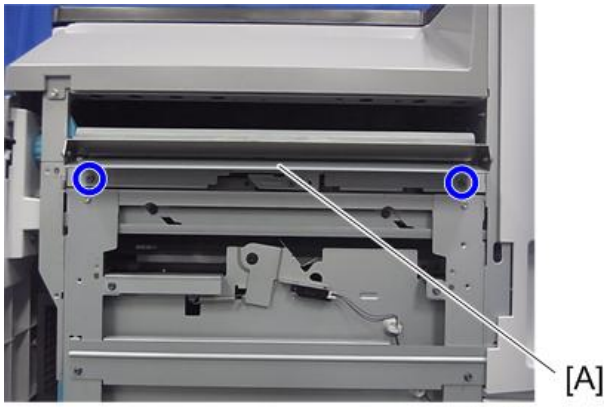
d1462544

6. SR3170 only: Attach the extension [B] to the booklet tray (×1) ,and attach the booklet tray [A]



d1462545

7. Attach the relay guide plate [A] (×2).



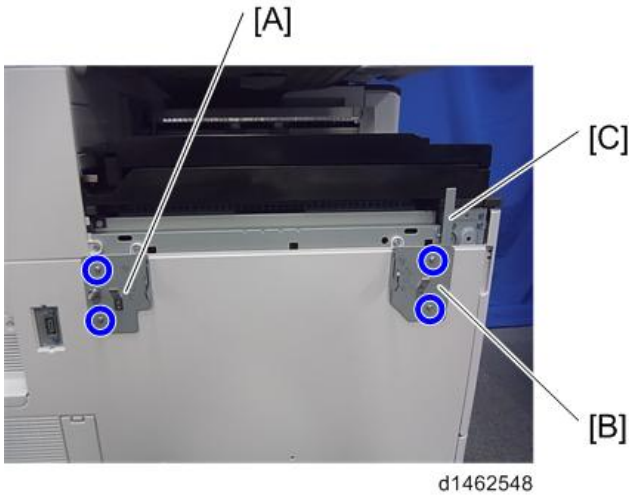
d1462546

8. Attach the ground plate bracket [A] (×2).

d1462547

9. Attach the connecting brackets [A], [B] to the machine (×4).

At this time, tighten the bracket [B] and bracket [C] of the bridge unit together.



d1462548

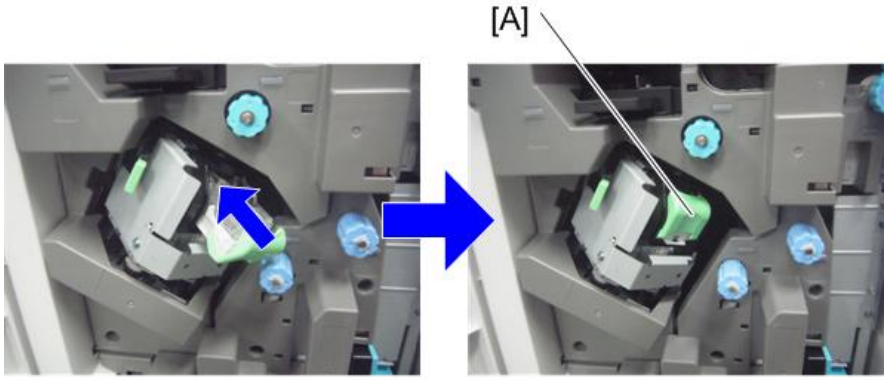
10. Connect the finisher to the machine with the connection lever [A] (×1).

d1462549

11. Connect the interface cable to the machine.

d1462550

12. Set the stapler [A].



d1462551

13. Turn the power switch on.

14. Check that the finisher can be selected on the operation panel, and check the finisher's operation.

Auxiliary Tray

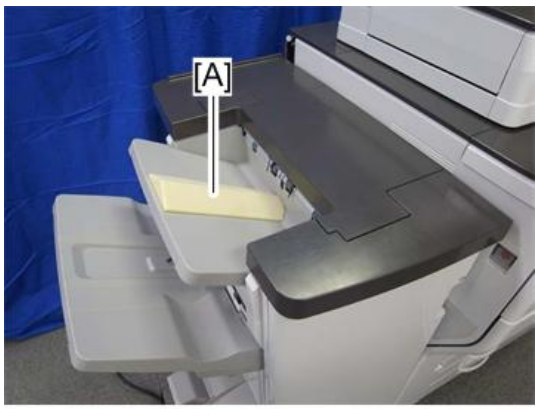
Make sure that the customer understands the following points about these auxiliary trays:

§ The trailing edges of excessively curled paper can activate the tray full sensors before the tray is actually full.

§ Once the "Exit Tray Full" message displays, the job cannot continue until some sheets are removed from the tray which is only partially full. The trays are designed to prevent this problem.

Proof Support Tray

Install the proof support tray [A] on the proof tray when the trailing edges of paper are excessively curled.

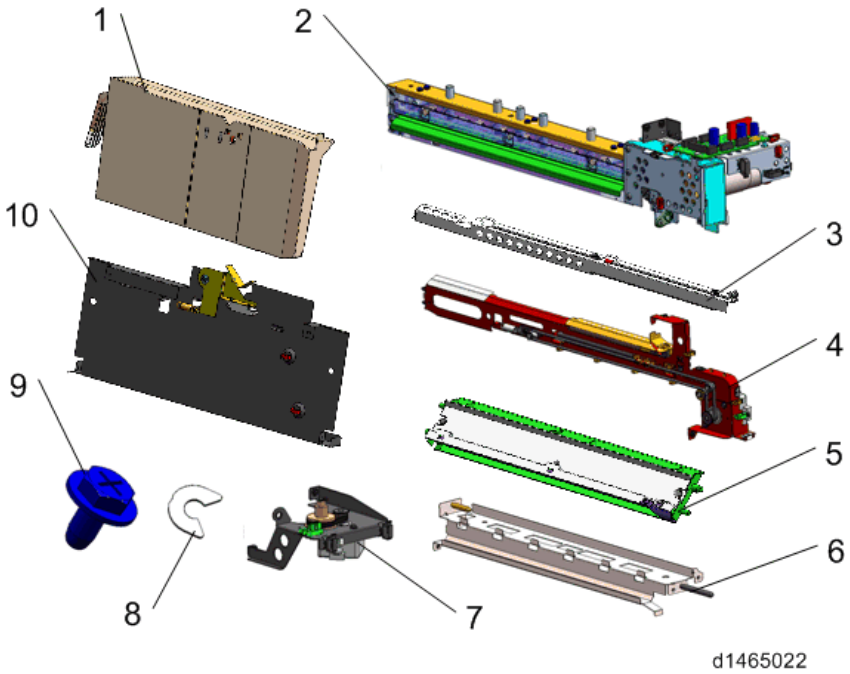


d1351199

2.16 PUNCH UNIT PU3060

2.16.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Hopper	1
2	Punch Unit	1
3	Registration Guide Plate	1
4	Registration Mobile Unit	1
5	Registration Mobile Unit	1
6	Punch Unit Stay	1
7	Punch Stepping Motor Unit	1
8	Clip Ring	1
9	Tapping Screw- M3×6	14
10	Hopper Bracket	1



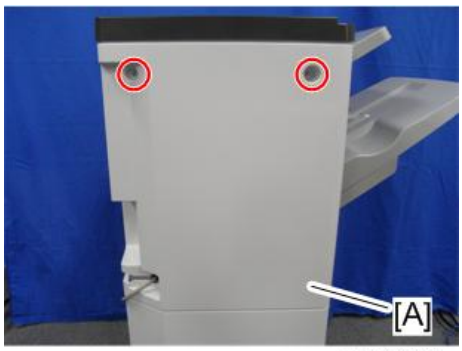
2.16.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When installing this option, turn the power source of the machine off, and unplug the power plug from the wall socket.

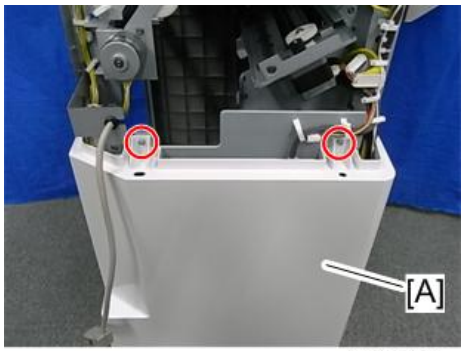
§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

1. Rear upper cover [A] (×2)



d7060011

2. Rear lower cover [A] (×2)

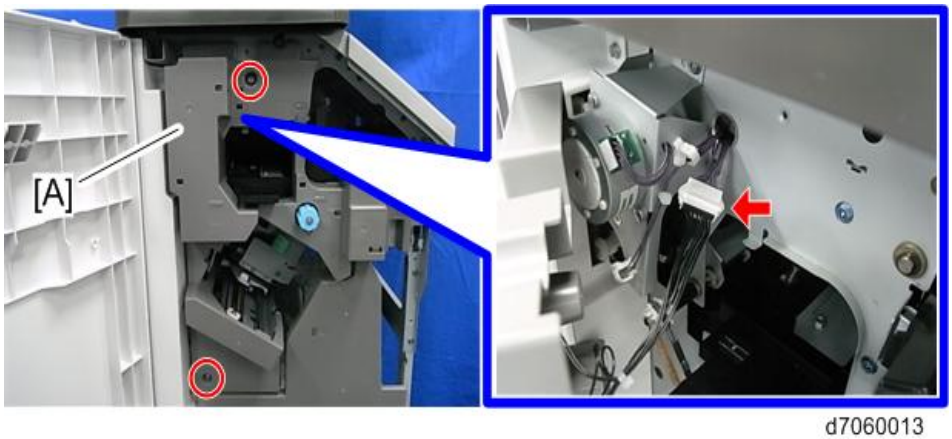


d7060012

3. Inner cover [A] (×2, ×1)

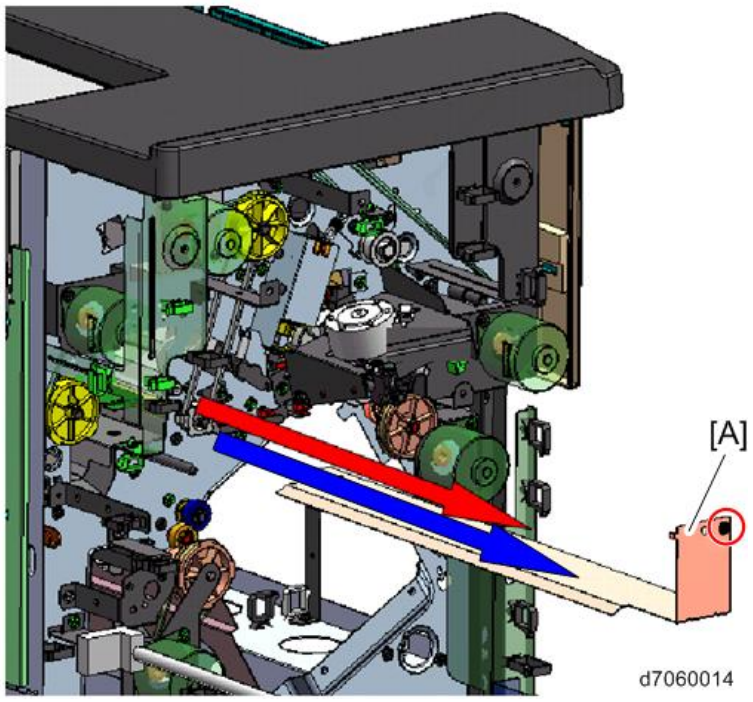
Note

§ There is a connector on the back of the inner cover.

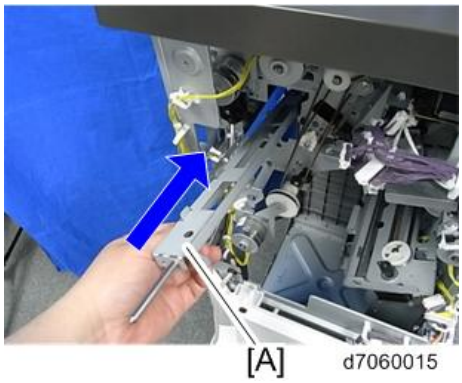


d7060013

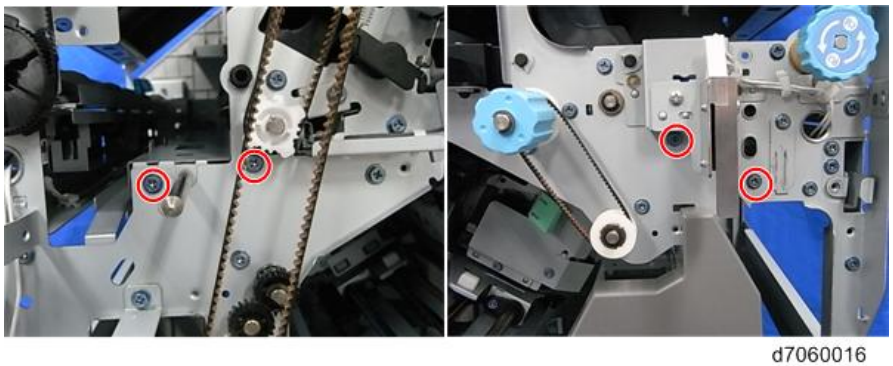
4. Punch guide plate [A](×1)



5. Attach the punch unit stay [A]. (×4)



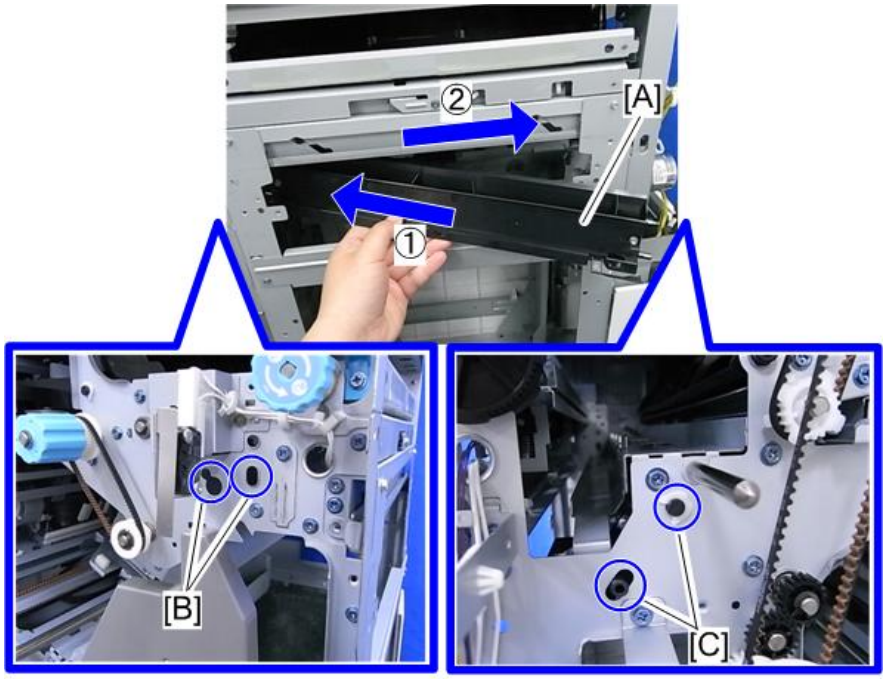
Rear Front



6. Attach the punch waste paper guide [A]. (×1)

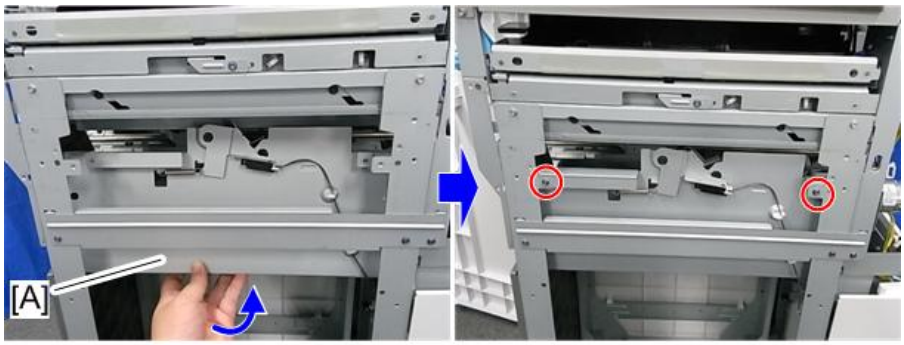
Note

§ After inserting the front tab of the punch waste paper guide into the frame [B] of the finisher, insert the rear tab into the frame [C].



d7060017

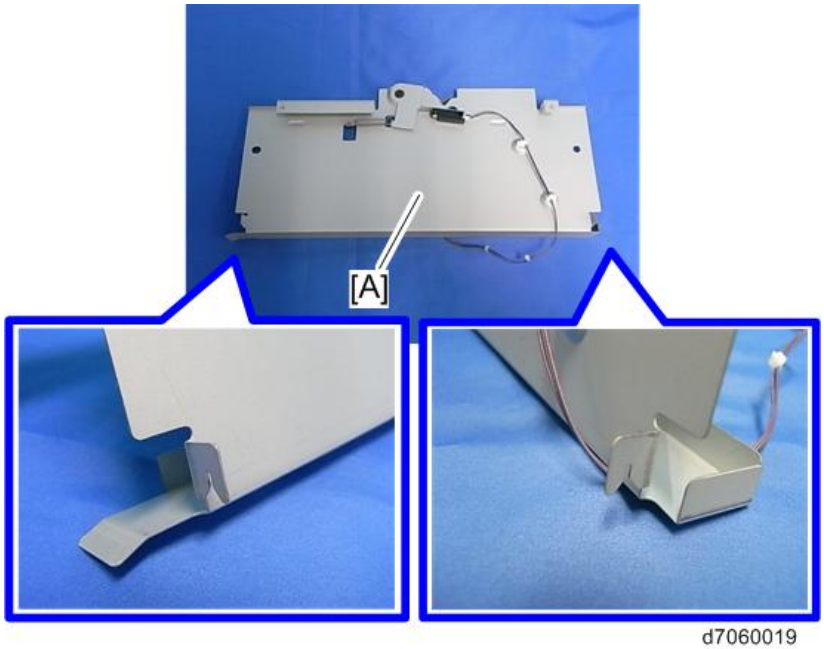
7. Attach the hopper bracket [A], inserting from the outside frame of the finisher. (×2, 2 hooks)



d7060018

Note

§ Hook the hooks of the hopper bracket onto the back side of the frame.



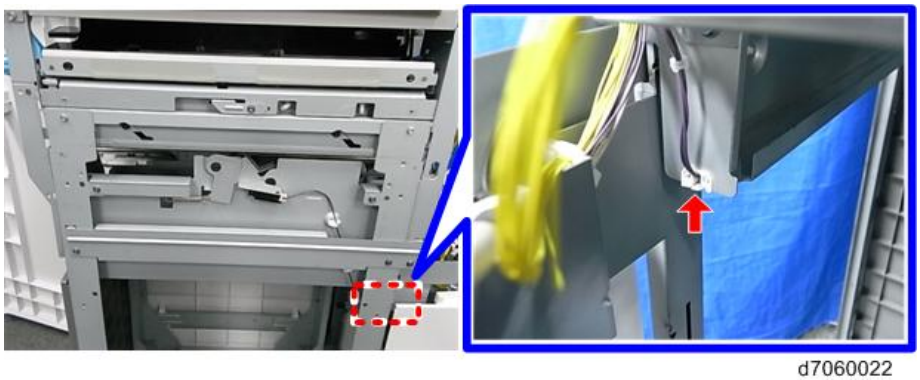
d7060019

d7060020

§ Hook the upper frame of the hopper bracket onto the outside frame of the finisher.

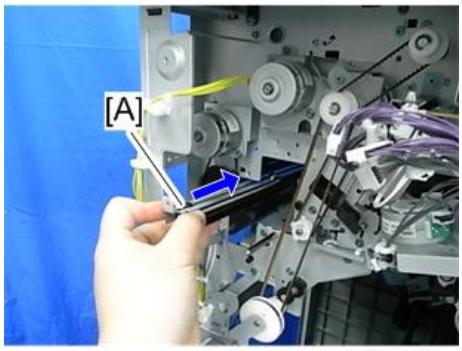
d7060021

8. Fix the harness of the hopper sensor. (×1)



d7060022

9. Attach the registration guide plate [A]. (×2)

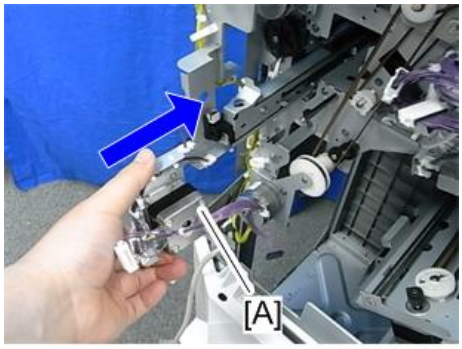


d7060023

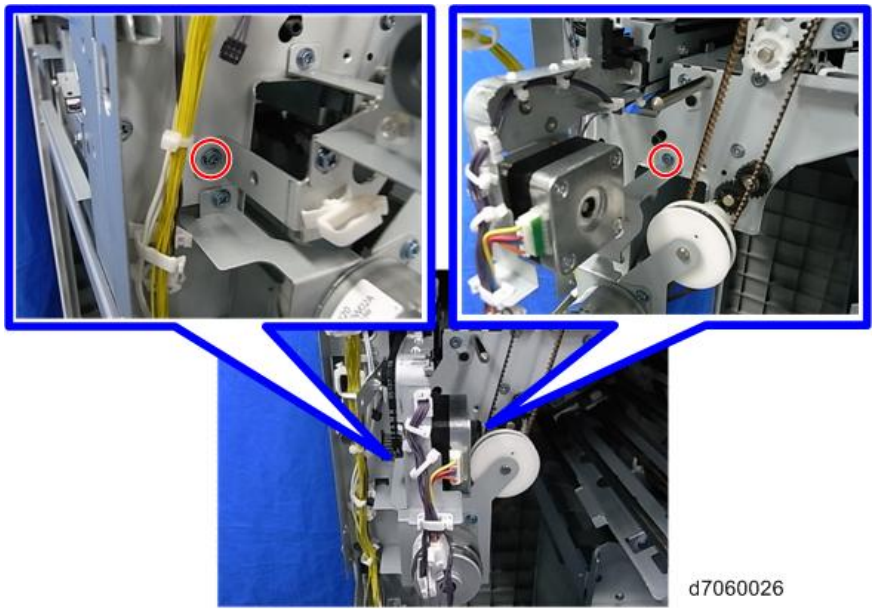
Rear Front

d7060024

10. Attach the registration mobile unit [A]. (×2)



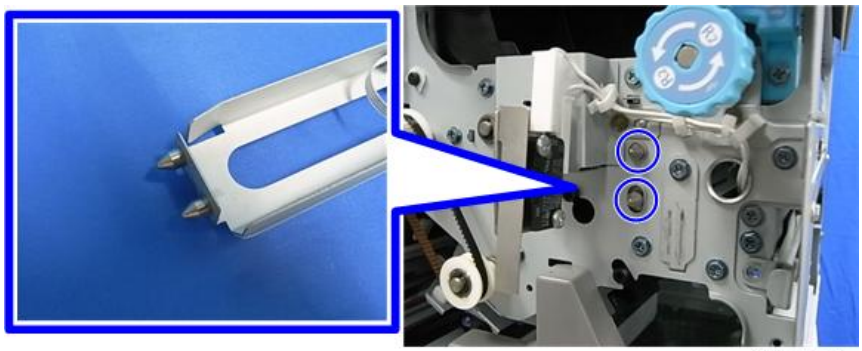
d7060025



d7060026

Note

§ Insert the front pins of the registration mobile unit into the holes of the frame.

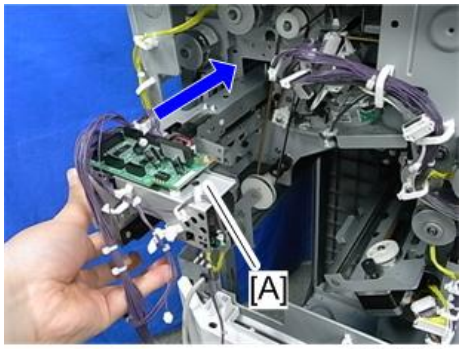


d7060027

11. Attach the punch unit [A]. (×2)

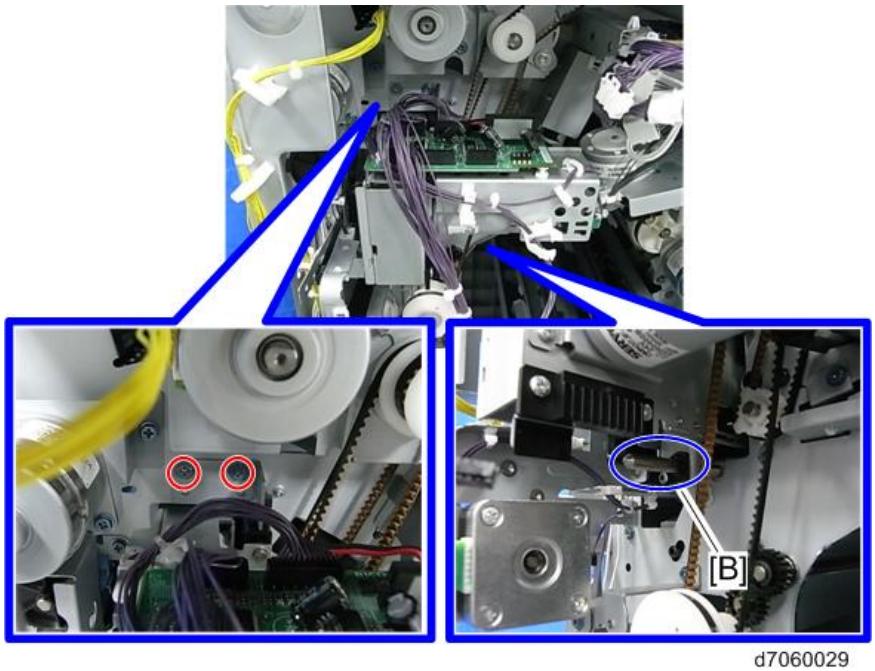
Note

§ After inserting the pins [B] of the punch unit stay into the front and rear holes of the punch unit, fix the punch unit with two screws.



d7060028

§ Rear

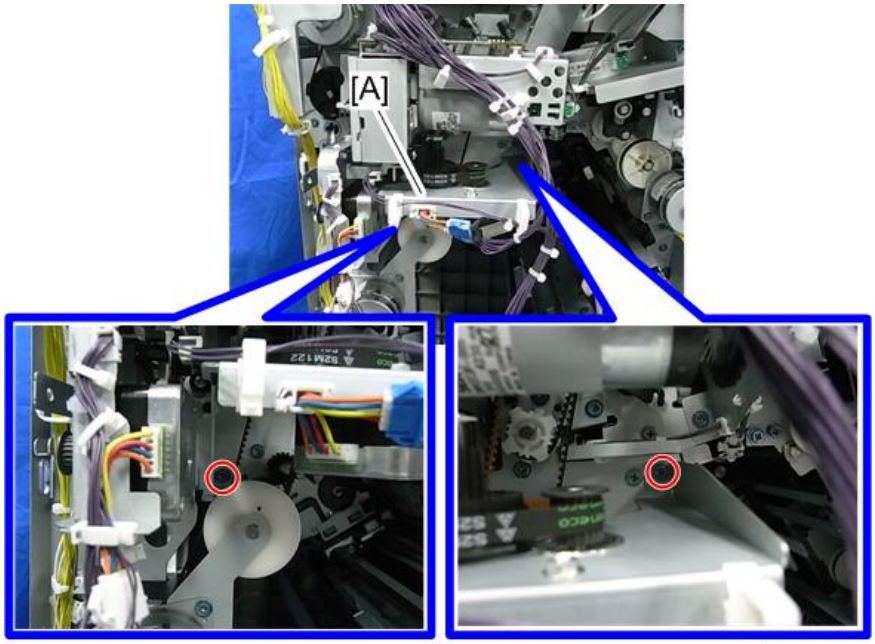


d7060029

§ Front

d7060030

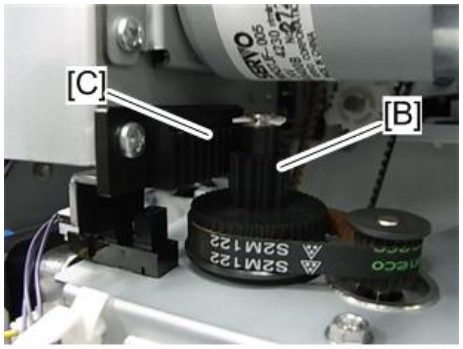
12. Attach the punch stepping motor unit [A]. (×2)



d7060031

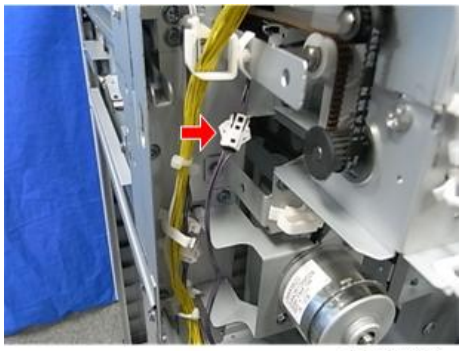
Note

§ Engage the gear [B] of the punch stepping motor unit with the rack [C] of the punch unit.



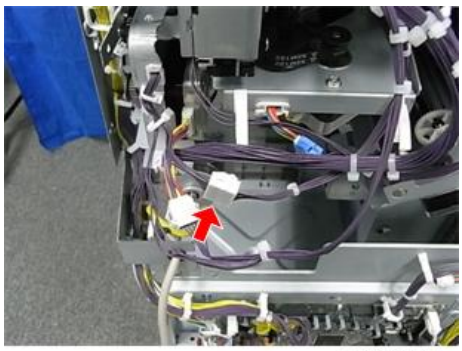
d7060032

13. Connect the harness of the hopper sensor to the connector of the finisher.



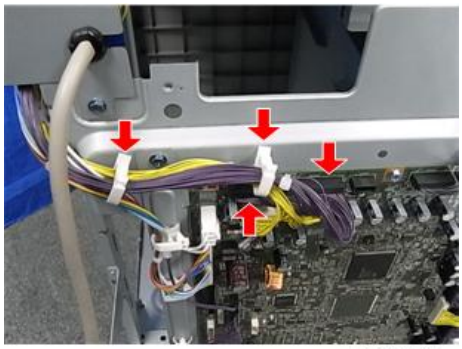
d7060033

14. Connect the harness of the punch unit to the connector of the registration drive unit.



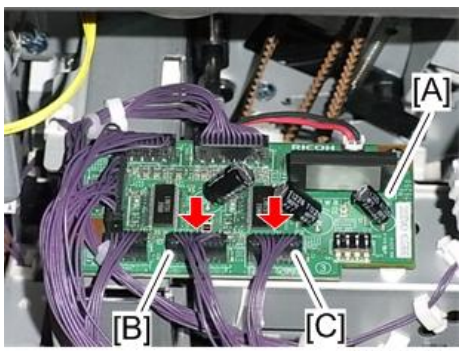
d7060034

15. Connect the harness of the punch unit to the connector of the main board, and then fix it. (×2, ×2)



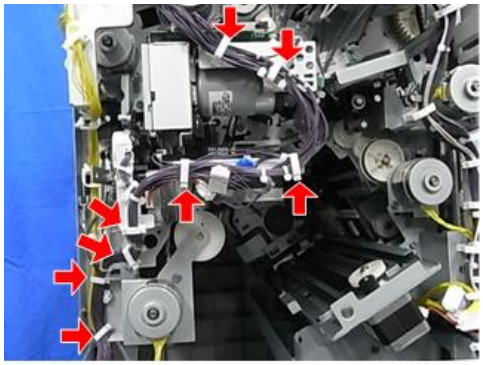
d7060035

16. Connect the harness [B] of the punch stepping motor unit and the harness [C] of the registration mobile unit to the connector of the punch unit board [A].



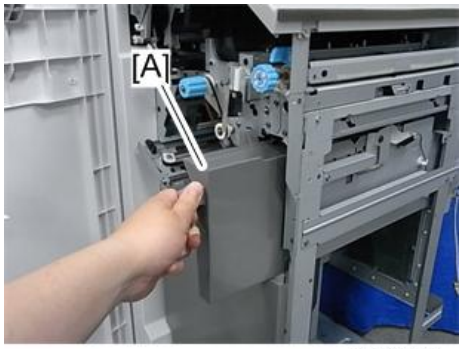
d7060036

17. Fix all the harnesses of the punch unit PU3060. (×8)



d7060037

18. Attach the hopper [A].



d7060038

19. Attach the rear upper cover, the rear lower cover, the inner cover, and the punch guide plate.

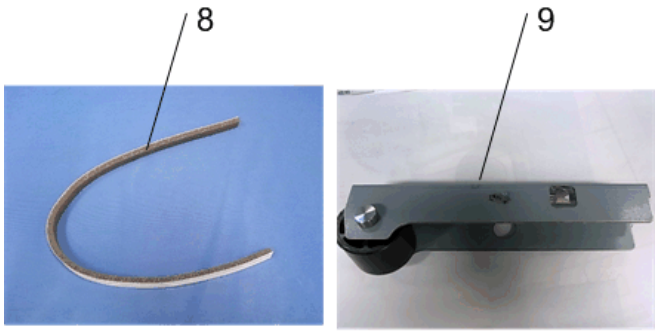
2.17 BOOKLET FINISHER SR3150 / FINISHER SR3140

2.17.1 ACCESSORY CHECK

Booklet Finisher SR3150 / SR3140

No.	Description	Q'ty
1	Tray (SR3150 only)	1
2	Guide Plate	1
3	Ground Plate Joint Bracket	1
4	Front Bracket	1
5	Rear Bracket	1
6	Screws - M4 × 12	4
6	Tapping screws - M3 × 6	2
6	Tapping screw - M4 × 8	1
7	Shift Tray	1
8	Cushion	1
9	Arm Of The Anti-tip Component (SR3140 only)	1

d1462525



d1465017

2.17.2 INSTALLATION PROCEDURE

Important

- § Only for SP3140, two stabilizers are included as accessories.
- § They must be attached to the finisher just after it is taken out of the shipping box.

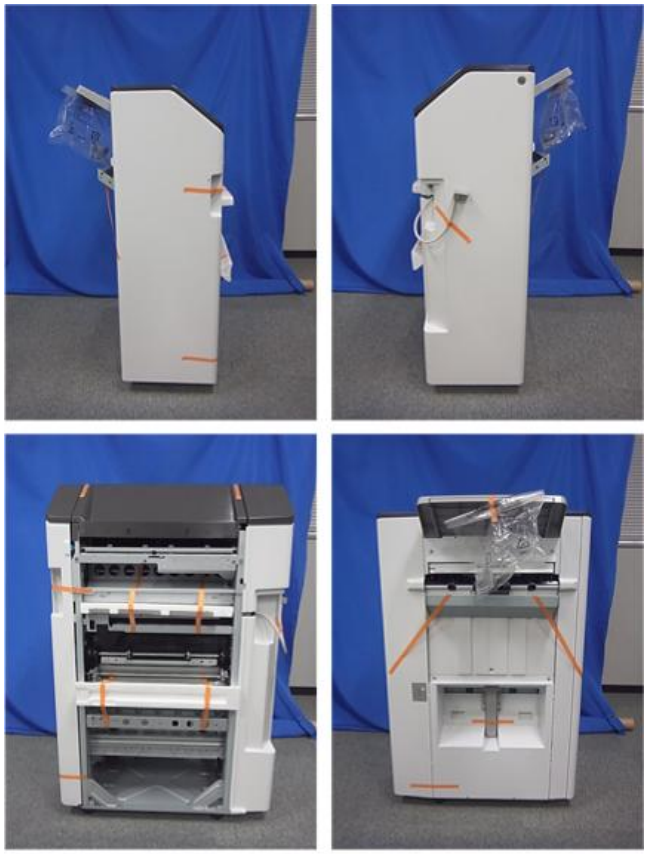
CAUTION

- § Removal of the stabilizers must always be with the consent of the customer. Do not remove them at your own judgment.
- § When you install this option, turn off the power to the machine, and unplug the power plug from the wall socket.
- § If it is installed when the power is on, it will result in an electric shock or a malfunction.

Note

- § Before installing this option, attach the “Bridge Unit BU3070” first.
- § Attach the “LCIT PB3170” or “Paper Feed Unit PB3160” first before installing this option.

1. Remove the external orange tape and shipping retainers.



d1462526

2. Open the front cover [A], and remove the filament tape and packing materials.

d1462527

3. Pull out the saddle stitch unit [A] or stapling unit, and remove the filament tape and packing materials.

d1462528

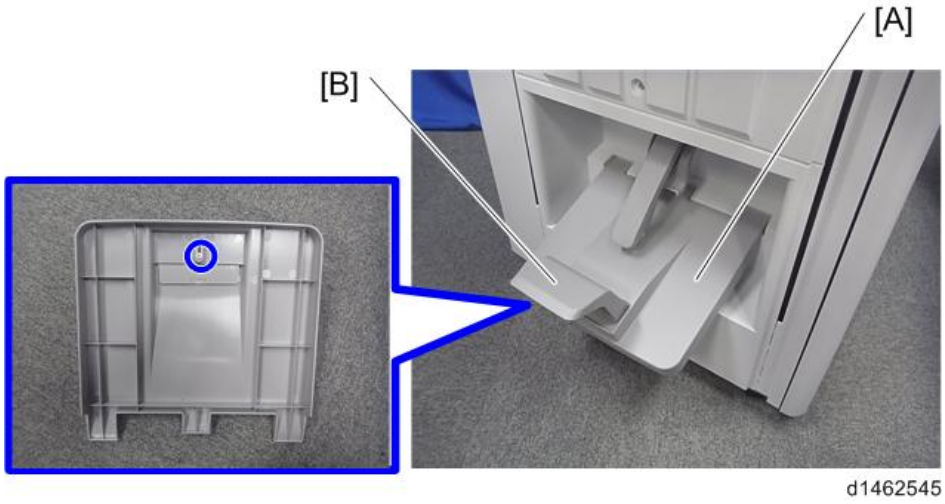
4. Remove the items in the package (fixing screws, etc.).
5. Attach the shift tray [A] (×1).

d1462529

6. Attach the booklet tray [A] (SR3150 only).

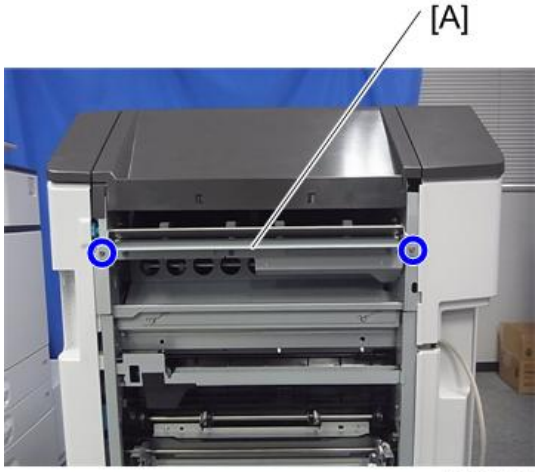
d1462530

7. Attach the extension [B] to the booklet tray, and attach the booklet tray [A] (×1) (SR3150 only).



d1462545

8. Attach the relay guide plate [A] (×2).



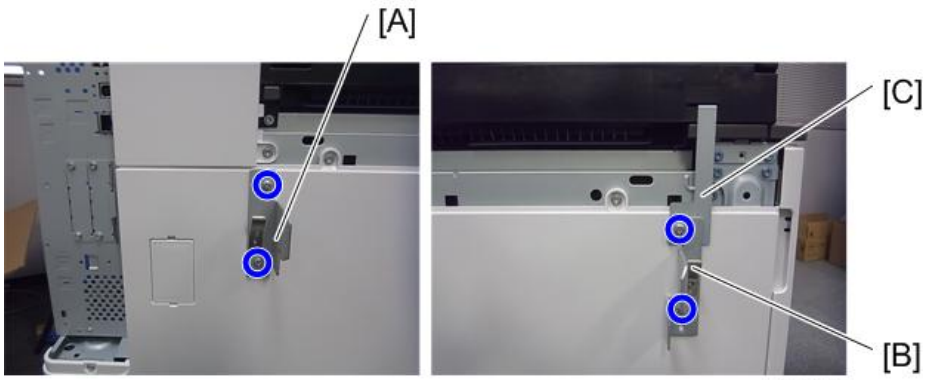
d1462531

9. Attach the ground plate bracket [A] (×2).

d1462532

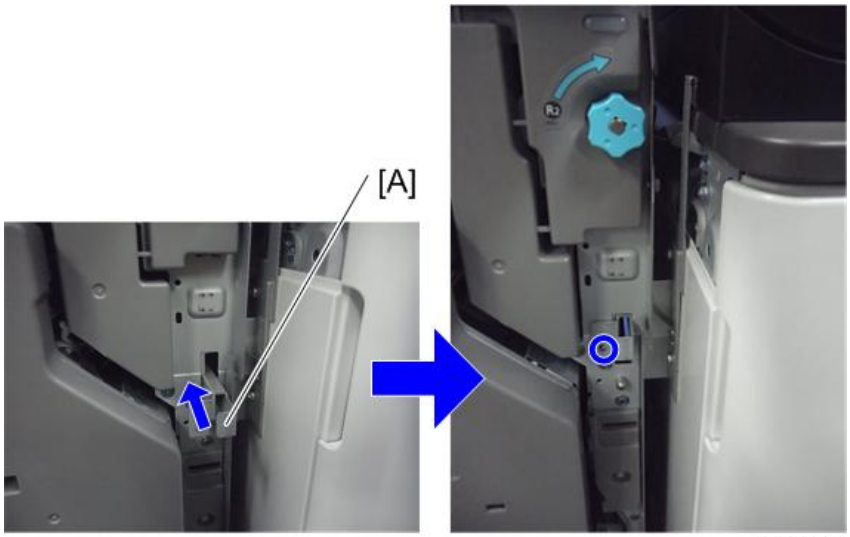
10. Attach the connecting brackets [A], [B] to the machine (×4).

At this time, tighten the bracket [B] and bracket [C] of the bridge unit together.



d1462533

11. Connect the finisher to the machine with the connection lever [A] (×1).



d1462534

12. Attach the arm of the anti-tip component [A] (×1). (Finisher SR3140 only)

d1465019

13. Connect the interface cable to the machine.

d1462535

14. Turn the power switch on.

15. Check that the finisher can be selected on the operation panel, and check the finisher's operation.

2.18 PUNCH UNIT PU3050

2.18.1 ACCESSORY CHECK

Description	Q'ty
Harness	1
Hopper guide plate	1
Punch unit	1
Hopper	1
Stay	1
Guide plate	1
Registration Sensor unit	1
Stepping motor bracket	1
Tapping screws - M3 × 6	15

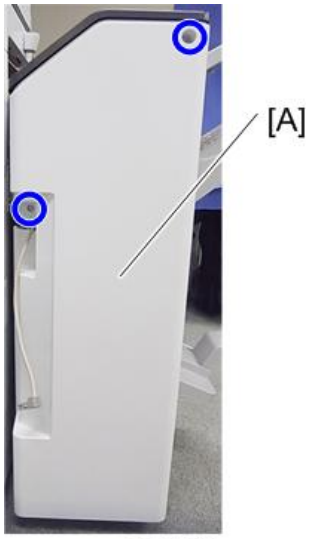
2.18.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When installing this option, turn the power source of the machine off, and unplug the power plug from the wall socket.

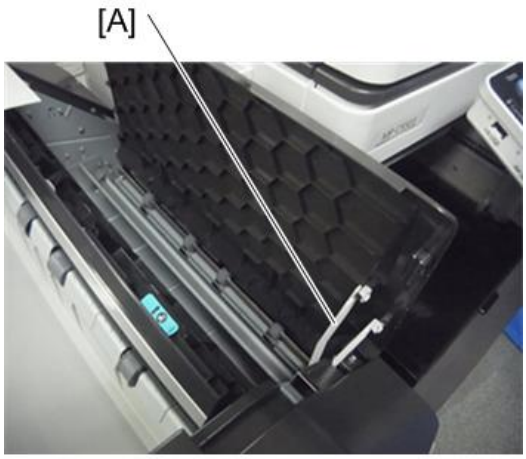
§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

1. Take out of the box, and remove the orange tape and shipping retainers.
2. Pull out the finisher interface cable, and move it away from the machine.
3. Finisher rear cover [A] (×2).



d1462581

4. Remove the arm [A] of the guide plate from the finisher top cover (×1).

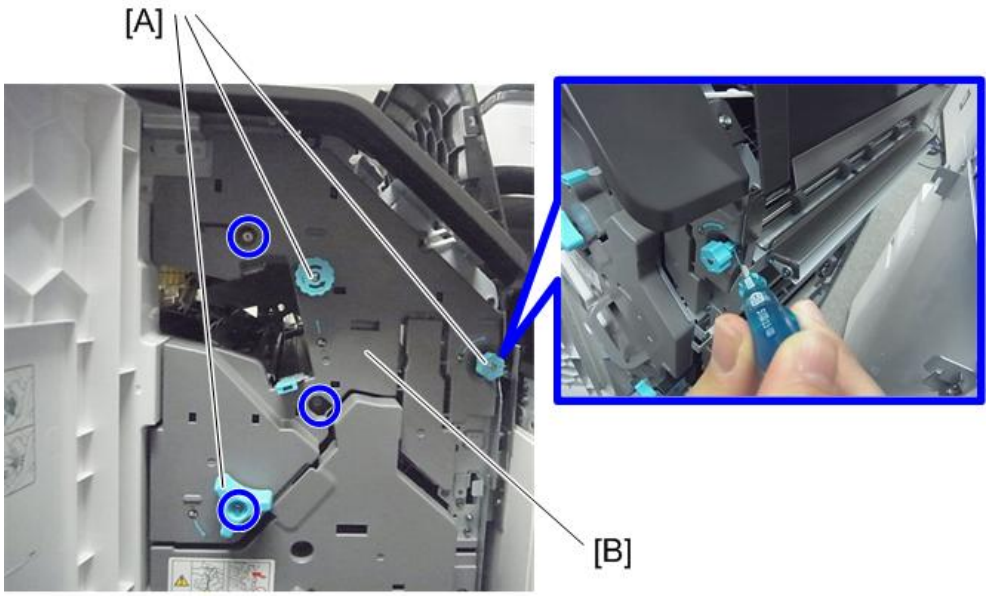


d1462582

5. Open the finisher front cover, remove the three knobs [A], and remove the finisher inner cover [B] (×3, ×1).

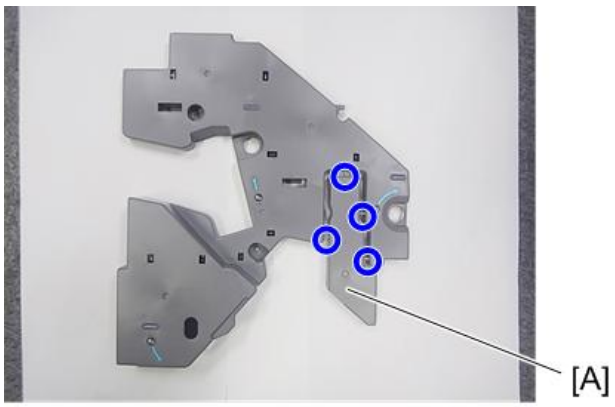
Note

§ Knobs with a lock mechanism are removed using a knob screwdriver or similar while releasing the lock.



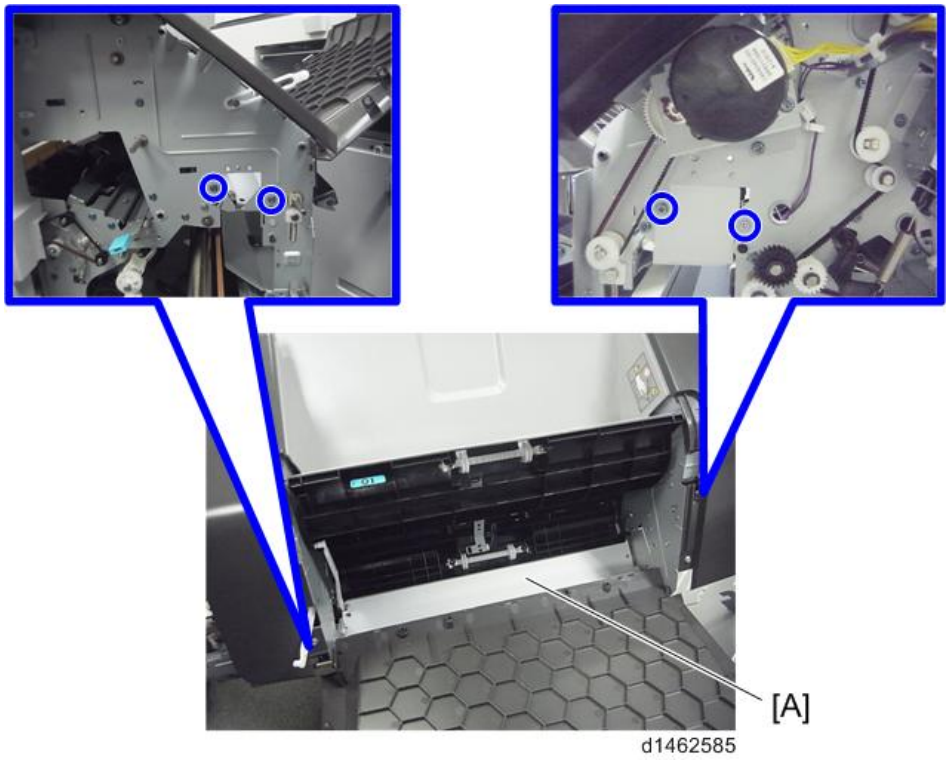
d1462583

6. Cut off part of the finisher inner cover [A].

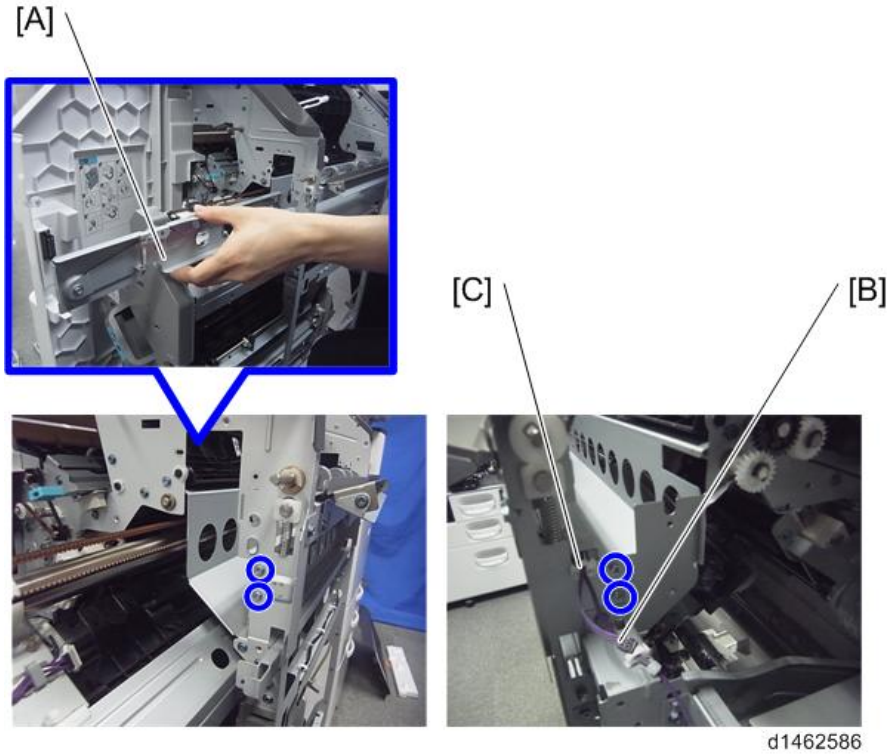


d1462584

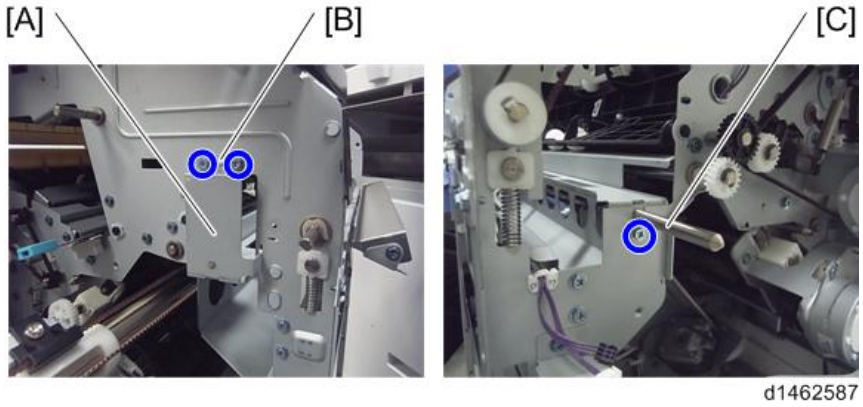
7. Guide plate [A] (×4).



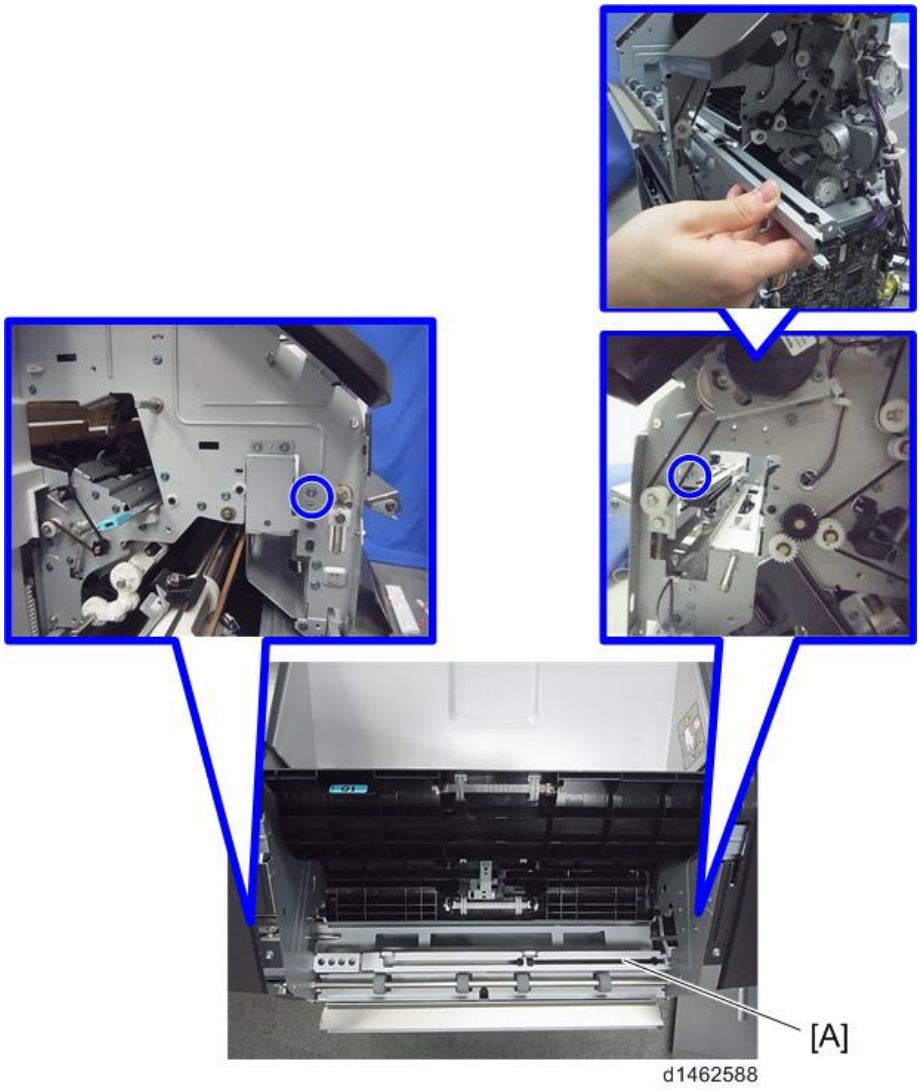
8. Insert and attach the hopper guide plate [A] from the front (×4).
At this time, pass the harness [B] through the clamp [C].



9. Attach the stay [A] (×3).
Front [B]: Insert the holes in the stay over the embossed parts on the finisher.
Rear [C]: Place the axis of the stay on the notch in the finisher.

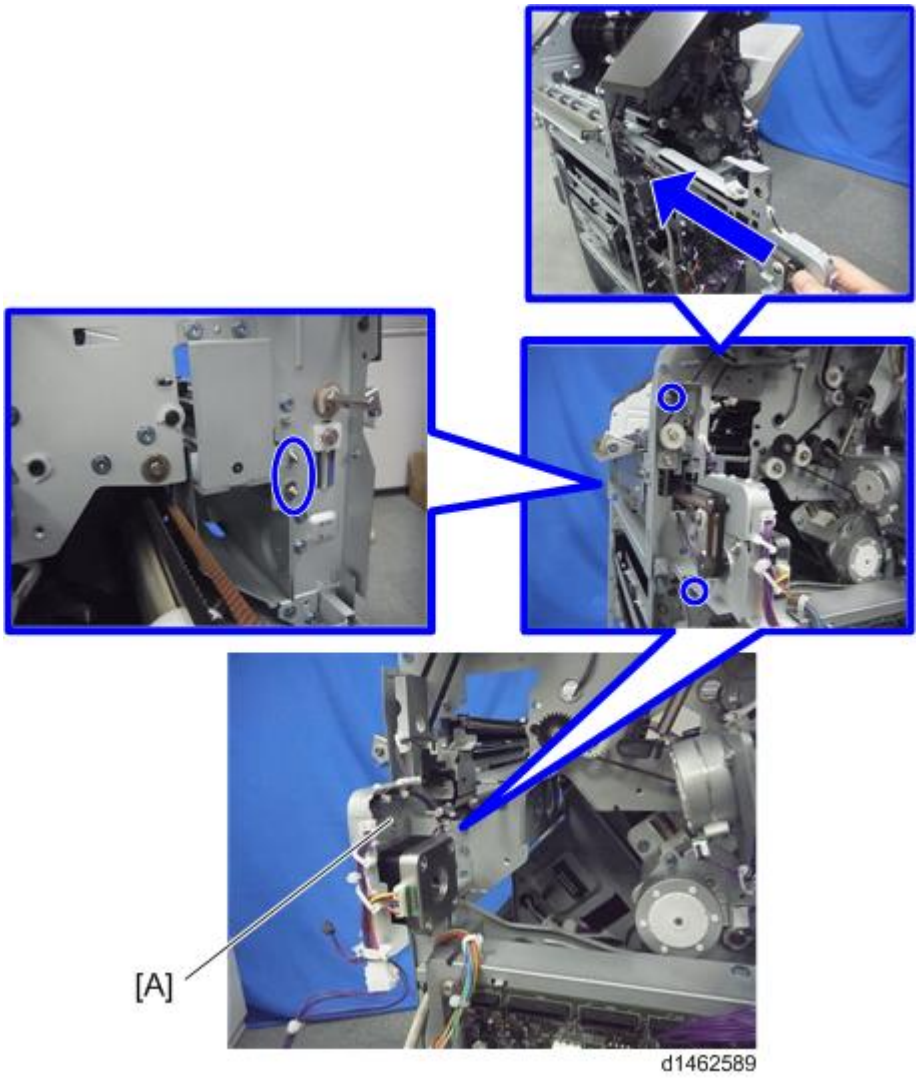


10. Insert and attach the guide plate [A] from the rear (×2).

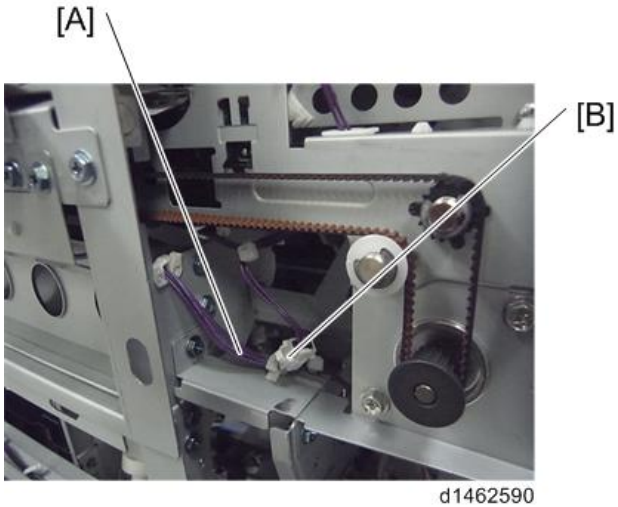


11. Insert and attach the registration sensor unit [A] from the rear (×2).

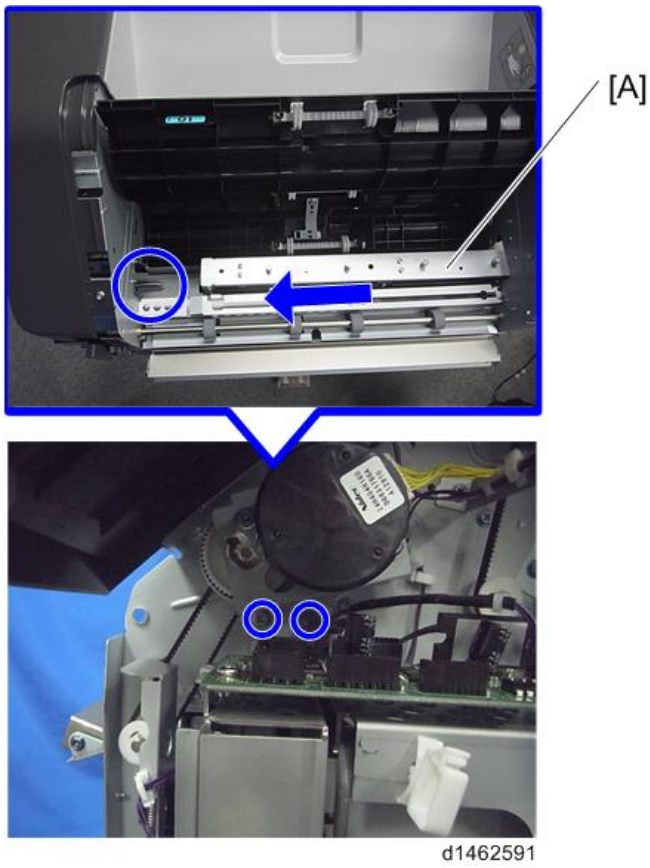
Front: The two shafts of the unit are passed through bearings in the finisher.



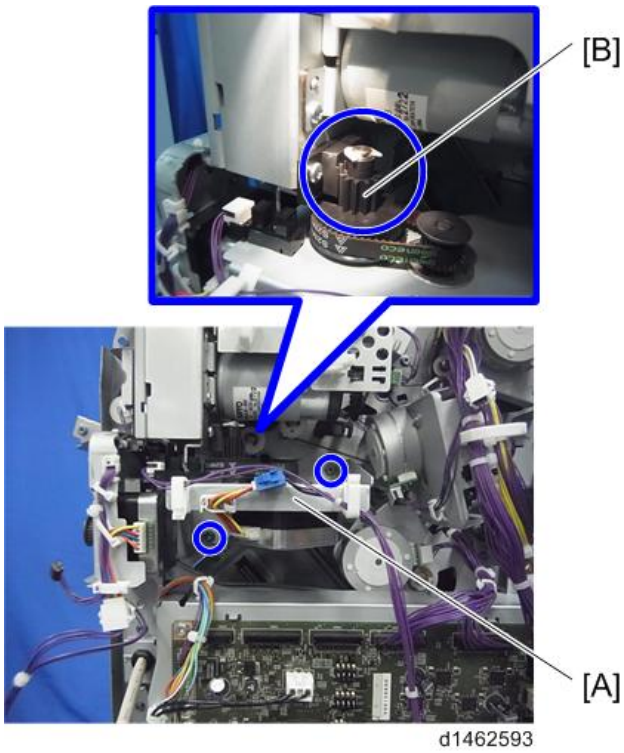
12. Connect the harness [A] of the hopper guide plate to the relay connector [B] of the registration sensor unit.



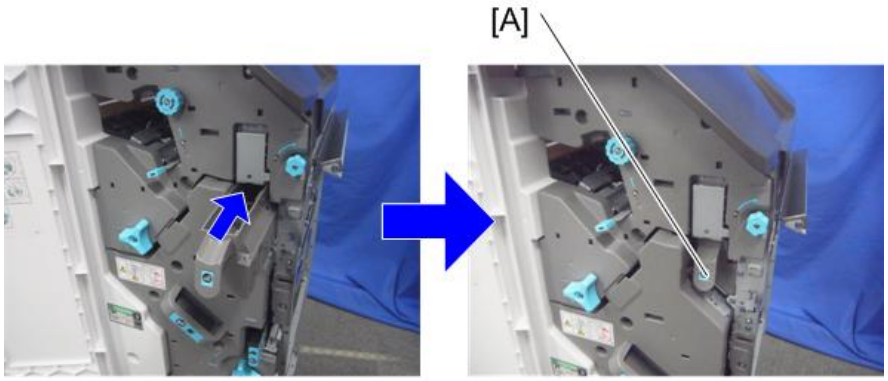
13. Insert and attach the punch unit [A] from the rear (×2).



14. Attach the stepping motor bracket [A] so that the gear [B] meshes firmly (×2).

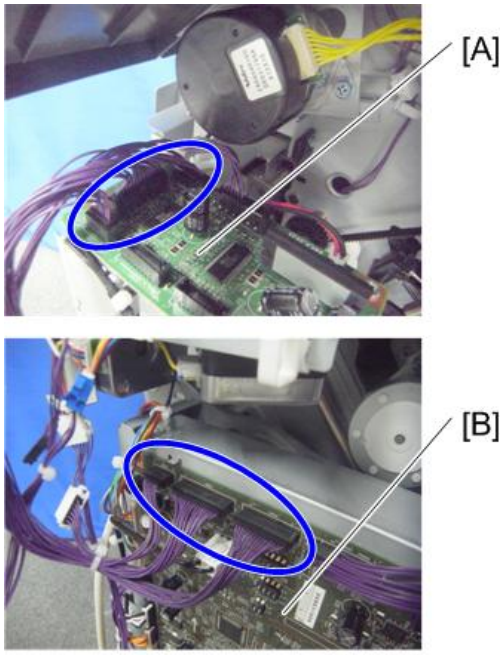


15. Insert the hopper [A].



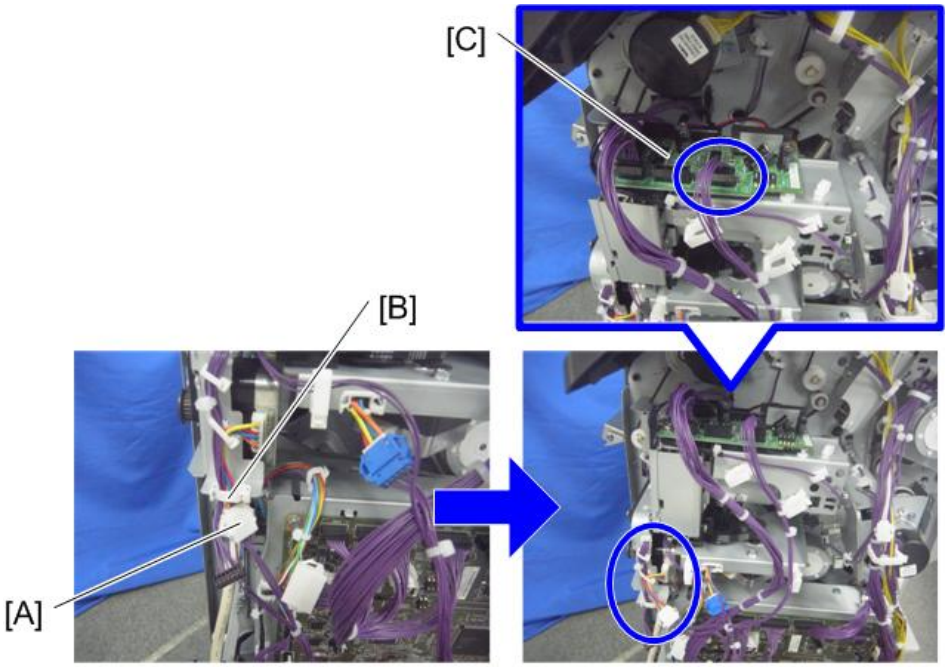
d1462594

16. Connect the harness provided to the punch unit board [A] and the control board [B] of the finisher (×6).

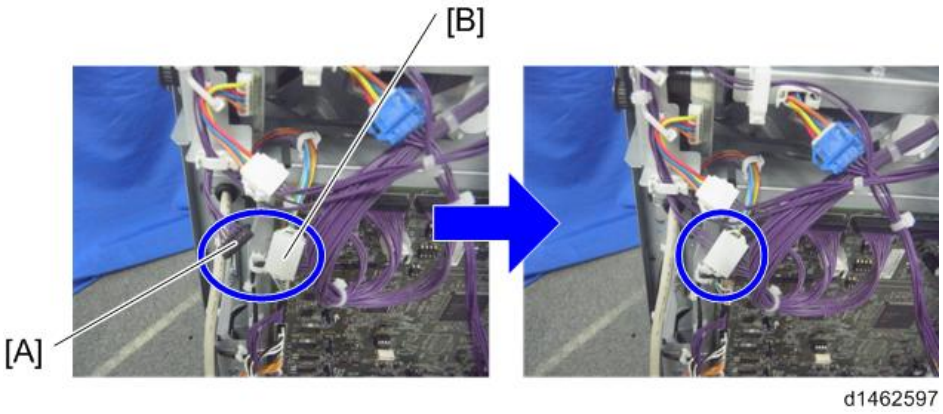


d1462595

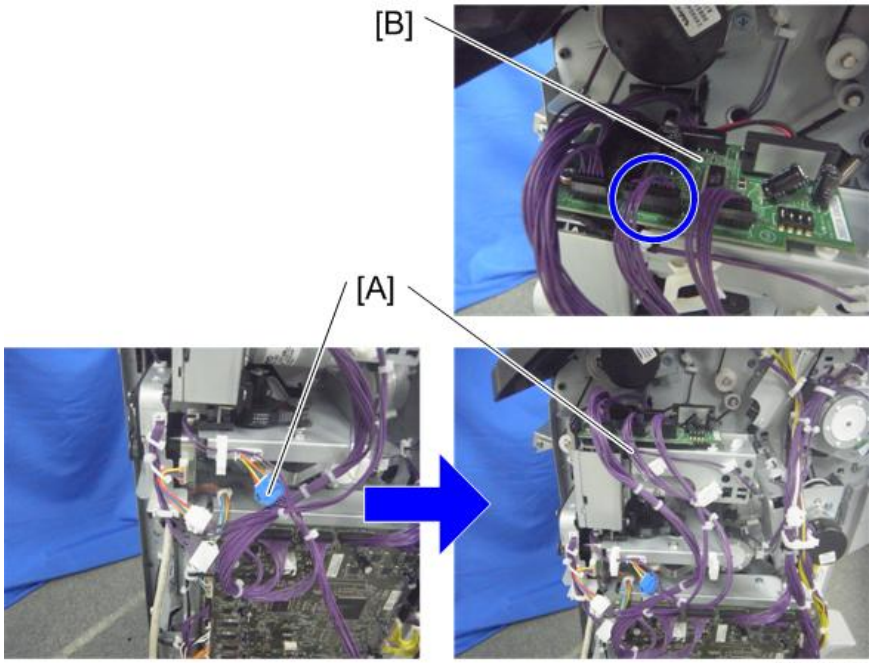
17. Remove the harness [A] from the clamp [B], and connect it to the punch unit board [C] (×1).



18. Connect the harness [A] of the registration sensor unit to the relay connector [B] of the harness (×1).

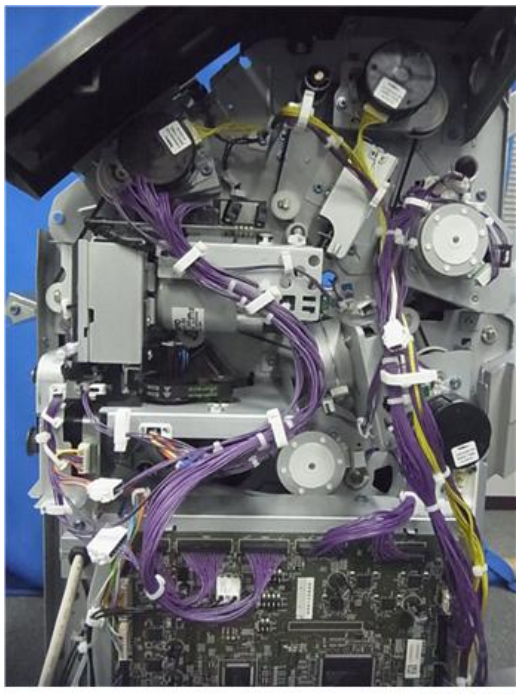


19. Connect the harness [A] of the stepping motor bracket to the punch unit board [B] (×1).



d1462598

20. Clamp the harnesses.


d1462599

21. Attach the finisher rear cover.

22. Attach the finisher inner cover and three knobs.

23. Close the front cover.

24. Close the top cover.

25. Attach the finisher to the machine, and connect the interface cable.

26. Turn the power switch on.

27. Check that the punch can be selected at the operation panel, and check the operation.

2.19 INTERNAL FINISHER SR3130

2.19.1 ACCESSORY CHECK

Description	Q'ty
Screws - M3 × 6	6
Tapping screw - M4 × 6	1
Decal - EMC Address	1
Tapping screw - M3 × 6	1
Rail(Front)	1
Front Right Cover	1
Left Lower Cover	1
Arm	2
Guide Plate	1

d1462555

2.19.2 INSTALLATION PROCEDURE

⚠CAUTION

- § Removal of stabilizers must always be with the consent of the customer. Do not remove them at your own judgment.
- § When you install this option, turn off the power to the machine, and unplug the power plug from the wall socket.
- § If it is installed with the power on, it will result in an electric shock or a malfunction.

Note

- § Cannot be used together with “Internal Shift Tray SH3070”, “Side Tray Type M3”, “Bridge Unit BU3070”, “Finisher SR3140”, “Booklet Finisher SR3150”, “Finisher SR3160”, “Booklet Finisher SR3170”.
- § To use together with the “1 Bin Tray BN3110”, after attaching the bottom plate of this option, attach the “1 Bin Tray BN3110”, and then install this option.
- § To use together with the “Punch Unit PU3040”, first attach the “Punch Unit PU3040” before installing this option.

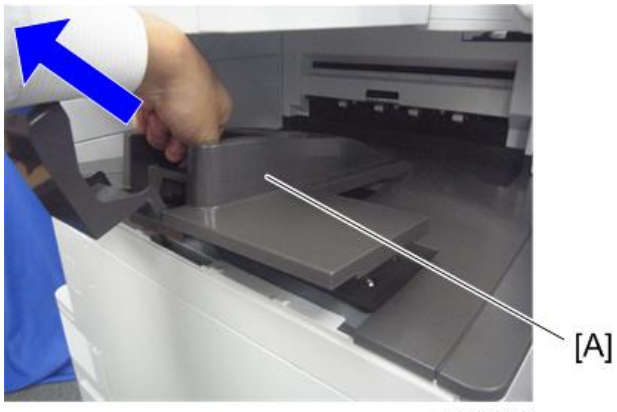
1. Remove the orange tape and shipping retainers.

d1462556

2. Remove the package items (fixing screws, etc.).

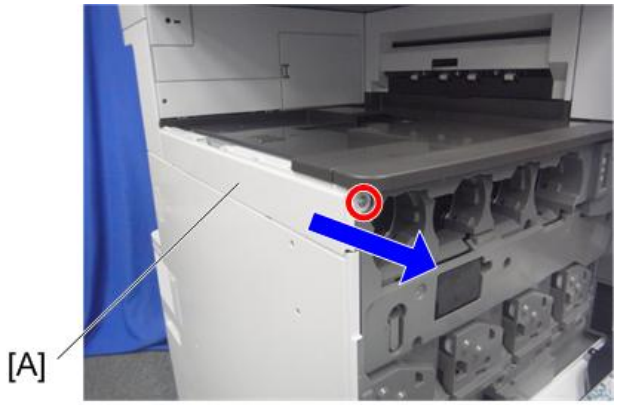
3. Open the front cover.

4. Paper output tray [A].



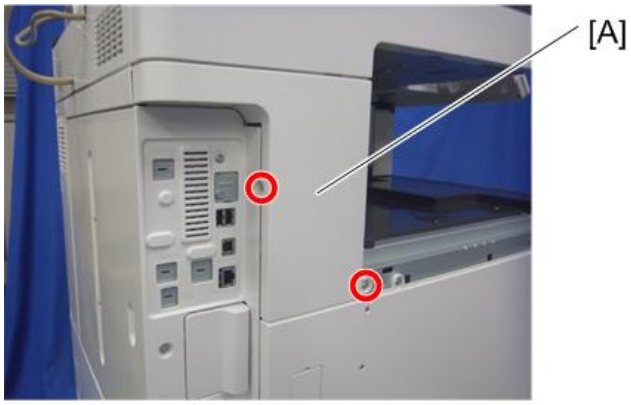
d1462023

5. Upper left cover [A] (×1).



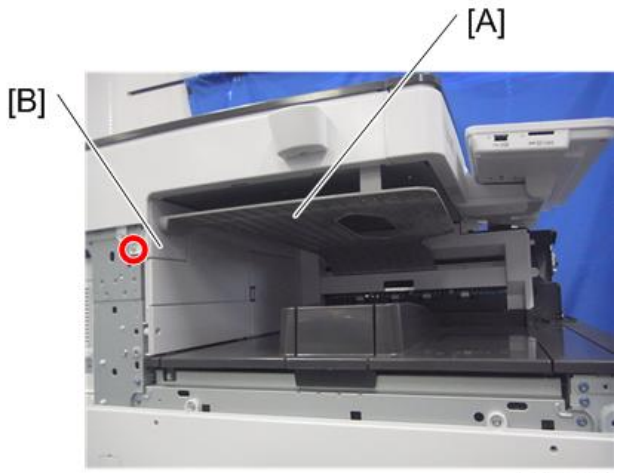
d1462008

6. Left rear cover [A] (×2).



d1462010

7. Inverter tray [A], tray support plate [B].



d1462478

8. Open the right cover.

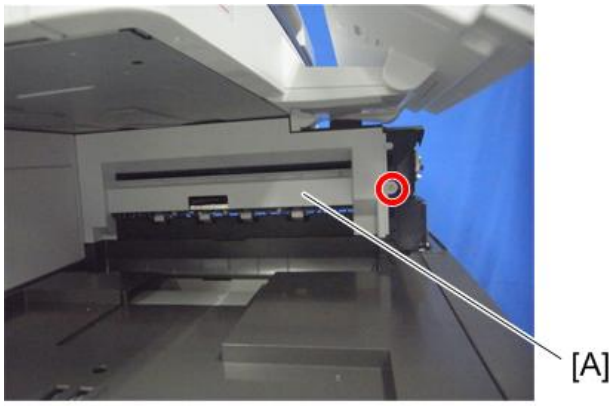
9. Main power switch cover [A] (×1).

CAUTION

§ Remember that there is a claw at each location in the blue circles.

d1462021

10. Paper output cover [A] (×1).

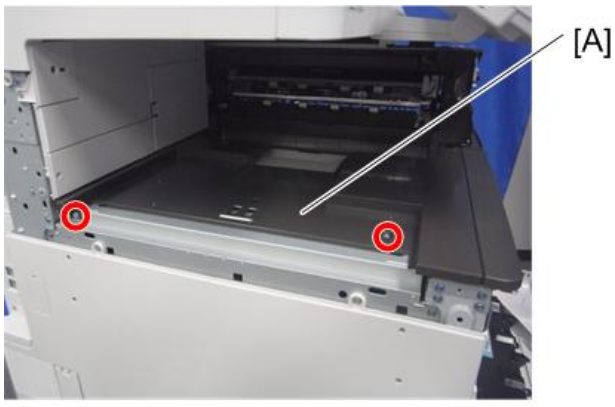


d1462024

11. Connector cover [A].

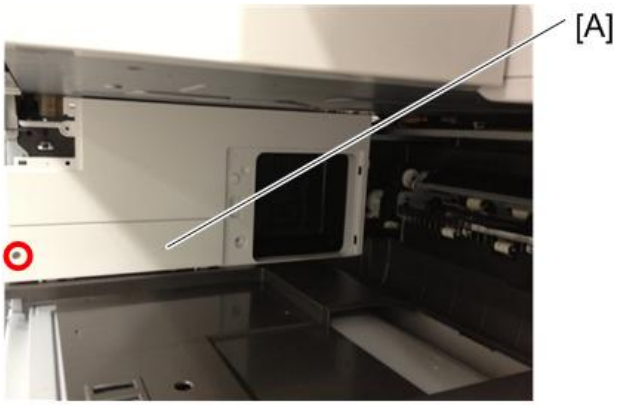
d1462470

12. Paper output lower cover [A] (×2).



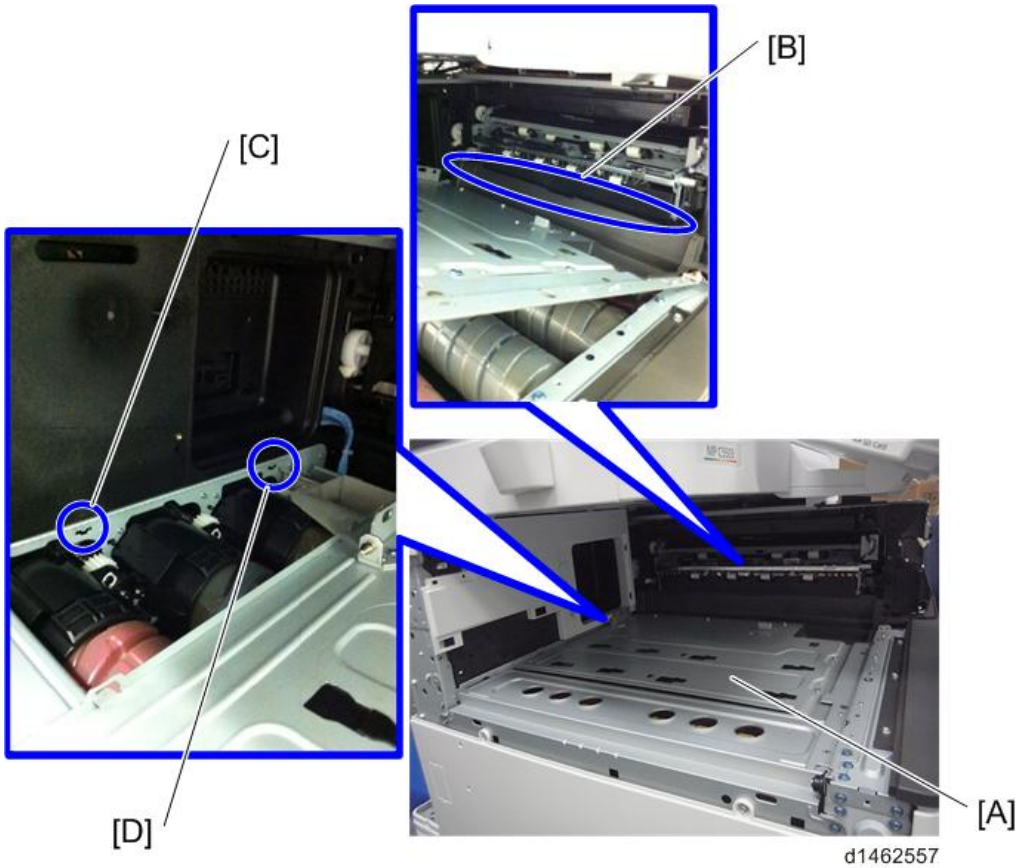
d1462026

13. Upper rear inner cover [A] (×1)



d1462565

14. While pressing the bottom plate [A] into the area shown by the blue circle [B], insert it into the slot shown by the blue circle [C][D] (×3).



d1462557

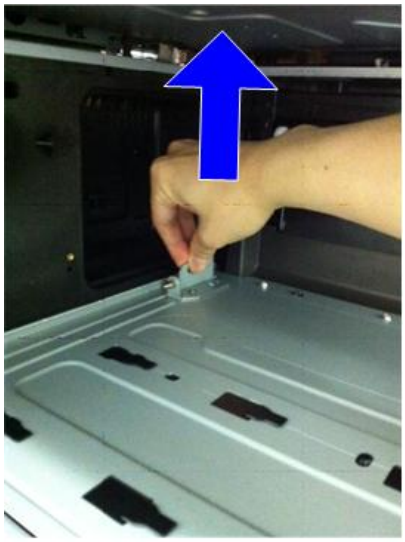
Note

§ The following procedure is the easiest way to set this component.

§ 1) Slip the bottom plate [A] into the position in the blue circle [B].

§ 2) Insert the bottom plate [A] into the hole in the blue circle [C].

§ 3) When the bottom plate [A] is picked up (see below), it can be inserted into the hole in the blue circle [D].



d1462566

15. Attach the upper rear inner cover.

16. Attach the paper output cover.

Note

§ Up to this point, the procedure is the same as punch unit installation (for fitting the punch unit, refer to Step 3 and later of the Punch unit installation procedure).

17. Attach the connector cover.

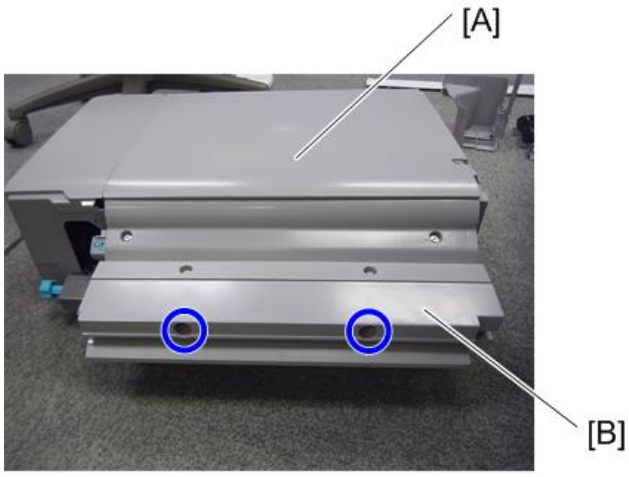
18. Attach the main power switch cover, and close the duplex unit.

19. Slide the finisher right front cover [A] from left to right to attach it (×1).

d1462558

20. Attach the inverter tray.

21. Attach the relay guide plate [B] to the finisher [A] (×2).



d1462559

22. Slide the finisher [A] along the rail of the bottom plate from the left-hand side of the machine to attach it (×1).

d1462560

23. Attach the left rear cover.

24. Insert the upper left cover [A] from the front, and slide it to attach it.

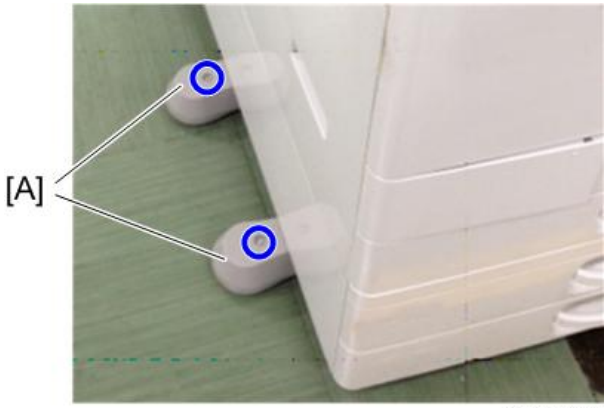
d1462561

25. Attach stabilizers [A].

Note

§ Because the weight is biased to the right of the machine if the inner finisher is installed, anti-tip components are required on the left side. Because they are included with the finisher, install these components at the same time as you install

the inner finisher.

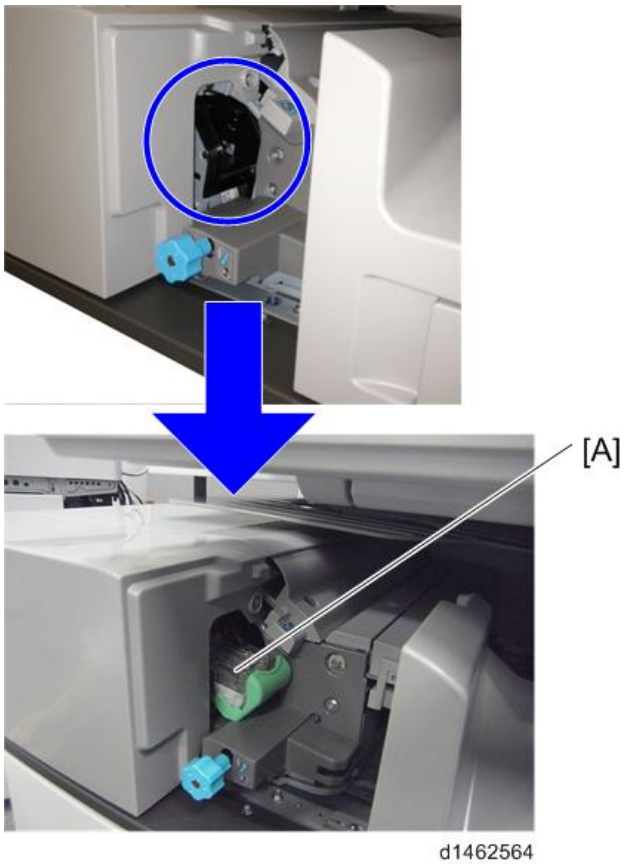


d1462945

26. Connect the interface cable to the machine.

D1462563

27. Move forward the stapler unit, then set the stapler [A].



d1462564

28. Turn the power switch on.

29. Check that the finisher can be selected at the operation panel, and check the finisher operation. Also when punch unit is installed, check the punching operation.

2.20 PUNCH UNIT PU3040

2.20.1 ACCESSORY CHECK

Description	Q'ty
Tapping screws - M3x 6	3
Decal - EMC Address	1
Knob Screw - M4	1
Hopper	1
Holder	1
Punch Unit Cover	1
Lower Front Cover	1
Lower Rear Cover	1

d1462570

2.20.2 INSTALLATION PROCEDURE

⚠CAUTION

§ When installing this option, turn the power to the machine off, and unplug the power plug from the wall socket.

§ If it is installed when the power is on, it will result in an electric shock or a malfunction.

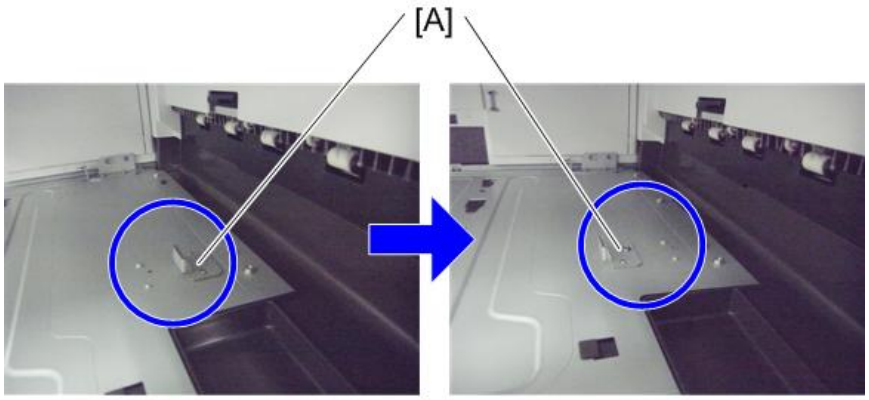
Note

§ When supplied together with the "Internal Finisher SR3130", attach this option before installing the "Internal Finisher SR3130"

§ If the "Internal Finisher SR3130" is already attached, attach this option after removing the

finisher.

1. Take out from the box, and remove the filament tape and packing material.
2. Remove the finisher and finisher front right cover from the machine.
3. Perform steps 1 to 17 of the installation procedure for the "Internal finisher SR3130".
4. Change the fixing position of the bracket [A] of the bottom plate (×1).

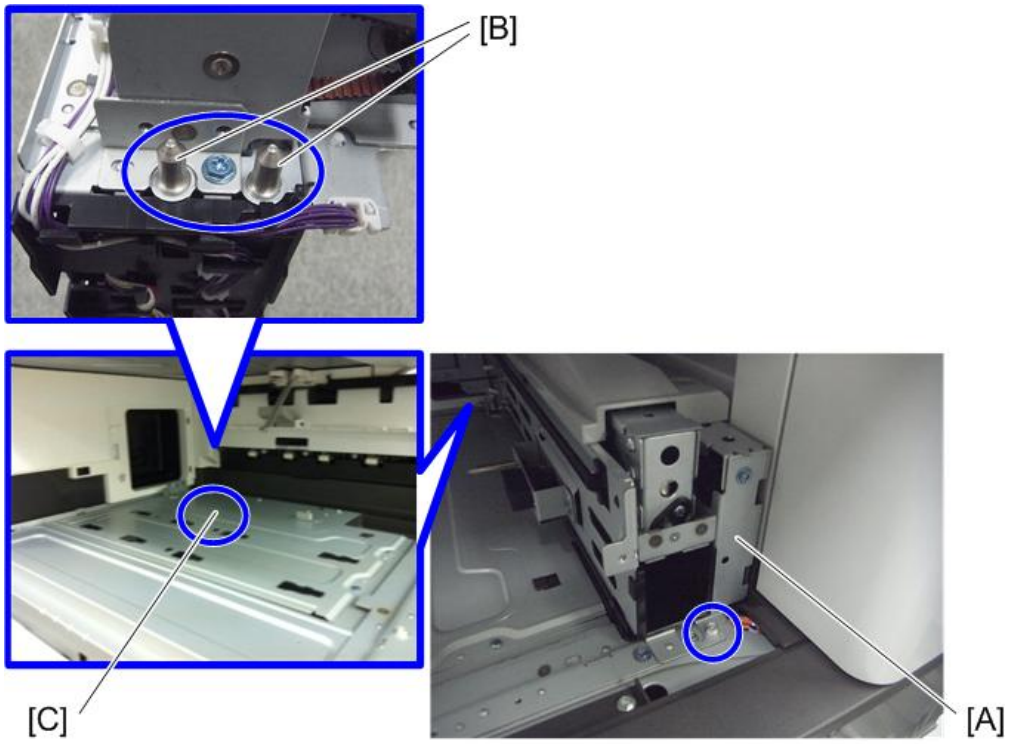


d1462571

5. Replace the lock holder of the bottom plate with the lock holder [A] provided (×1).

d1462572

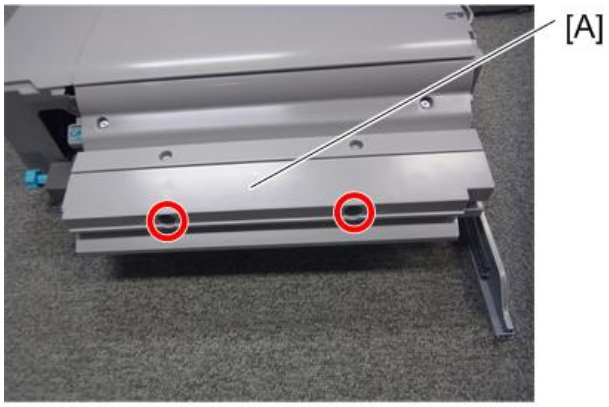
6. Attach the main power switch cover.
7. Pass the shafts [B] of the punch unit [A] through the bearings [C] of the bottom plate, and attach to the machine (×1, knob screw).
   If it is difficult to insert by probing, look from the side while you insert it into the bearings of the bottom plate.



d1462573

d1462579

8. When installing the punch unit in a finisher that is already installed, remove the relay guide plate [A] (×2).



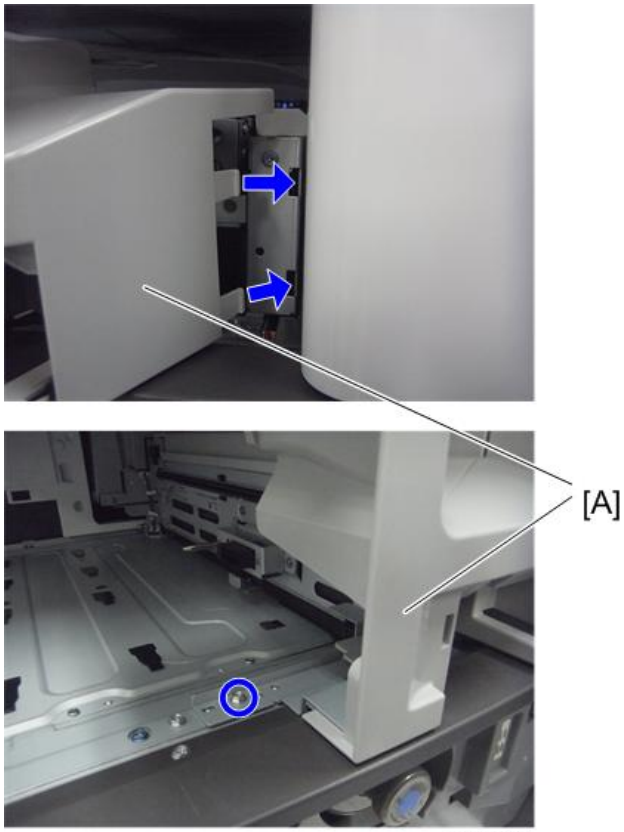
d1462574

Note

§ This step is unnecessary when installing the finisher and punch unit at the same

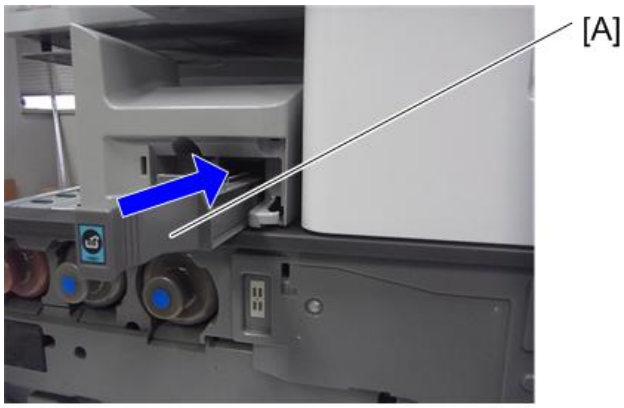
time.

9. Attach the front right cover [A] provided, inserting the claws (×1).



d1462575

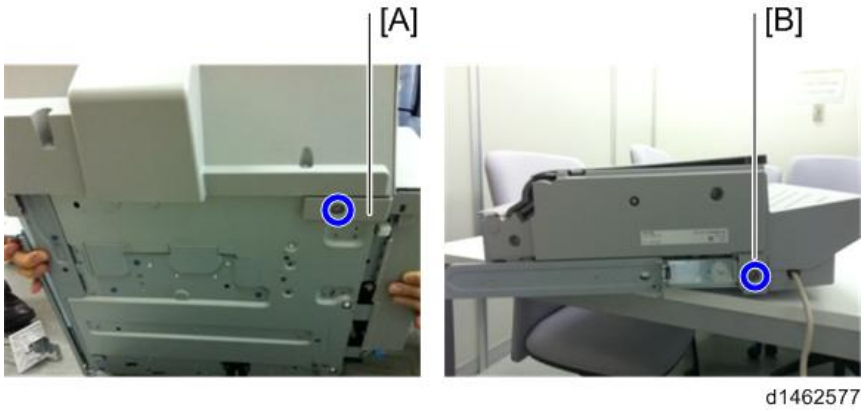
10. Insert the hopper [A].



d1462576

11. Slide the finisher [A] along the rail of the bottom plate from the left-hand side of the machine to attach it (×1).

12. Attach the components [A] and [B] to the finisher (×2).



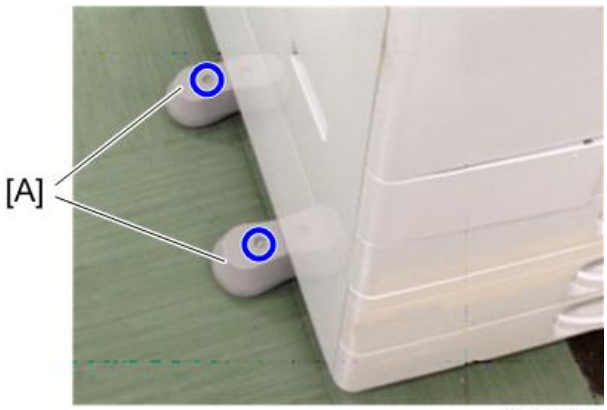
13. Attach the left rear cover

14. Insert the upper left cover [A] from the front, and slide it to attach it.

15. Attach stabilizers [A].

Note

§ Because the weight is biased to the right of the machine if the inner finisher is installed, anti-tip components are required on the left side. Because they are included with the finisher, install these components at the same time as you install the inner finisher.



d1462945

16. Connect the interface cable to the machine.

.

17. Move forward the stapler unit, then set the stapler [A].

d1462564

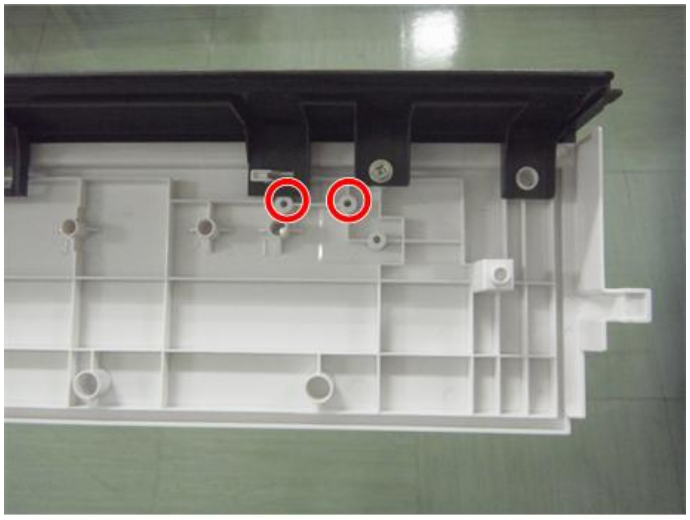
18. Turn the power switch on.

19. Check that the finisher can be selected at the operation panel, and check the finisher and punch operation.

2.21 KEY COUNTER BRACKET TYPE M3

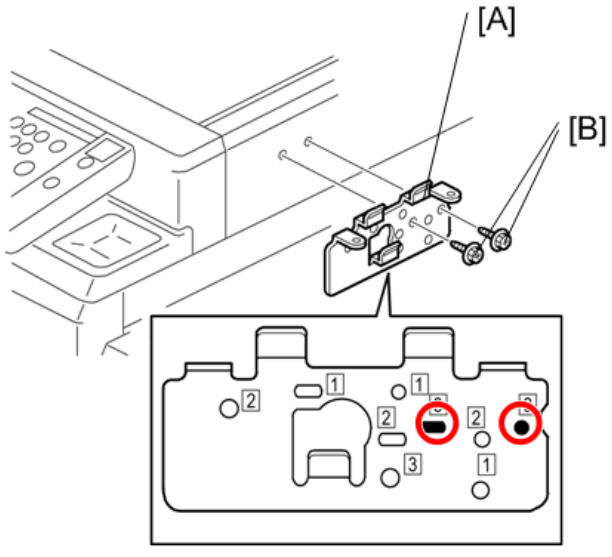
2.21.1 INSTALLATION PROCEDURE

1. Scanner right cover.
2. Make a screw hole in the removed scanner right cover with a screwdriver or drill.



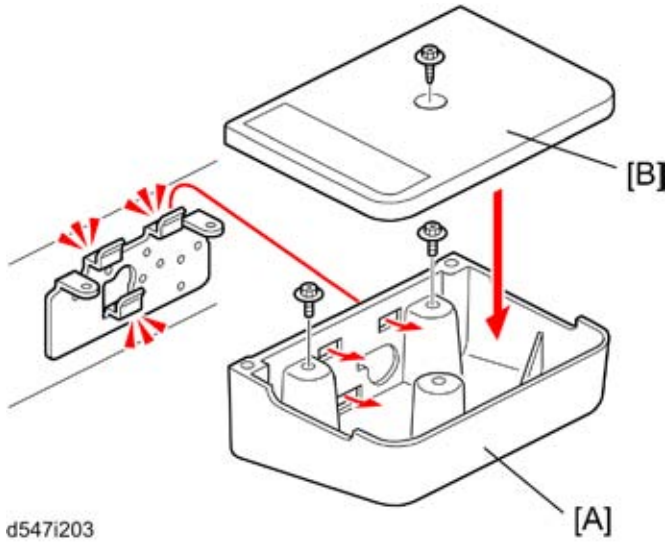
d1465010

3. Attach the tray bracket [A] to the scanner right cover ([B] × 2: M3x10).
   § For this model, use the screw holes marked "1" on the table bracket.



d1465011

4. Attach the lower tray [A] to the tray bracket (×2: M3x8).
5. Attach the upper tray [B] to the tray bracket (×1: M3x8).
6. Use the clamps as necessary to clamp the cable of the card read/writer device.



Important

§ The smart card reader must be placed on this card reader table. If not, some antenna or transmitter in the main machine may be interrupted.

2.22 OPTIONAL COUNTER INTERFACE UNIT TYPE A

2.22.1 INSTALLATION PROCEDURE

⚠CAUTION

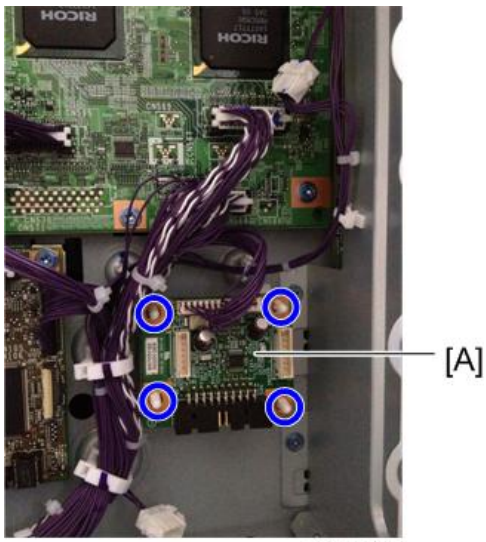
- § When you install this option, switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.
- § If installed when the power is on, it will result in an electric shock or malfunction.

Key Counter

1. Rear right cover (page 4-11 "

Rear Right Cover")

2. After attaching the clamp provided, attach the counter interface board [A] (×4)

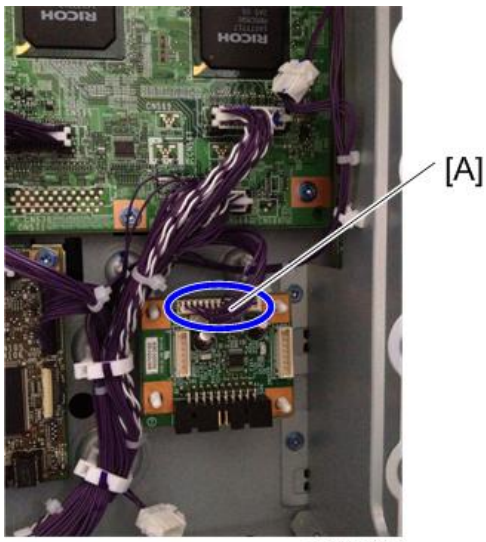


d1463075

3. Connect the harness of the MFP to the upper connector (white/13 pin) [A].

Note

§ Do not use the harness provided for the interface cable.

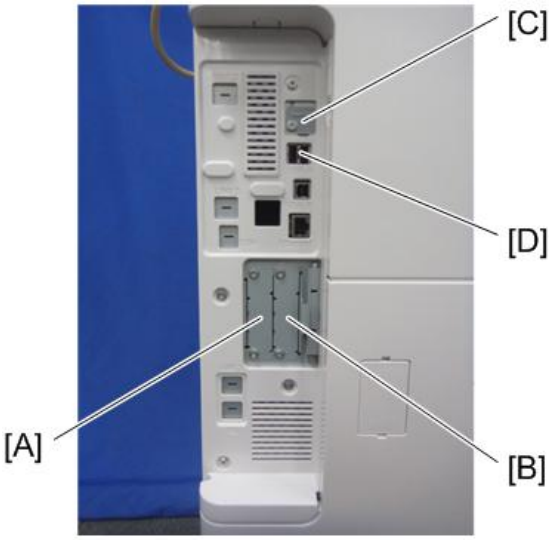


d1463076

2.23 INTERNAL OPTIONS

2.23.1 LIST OF SLOTS

D148/D149/D150

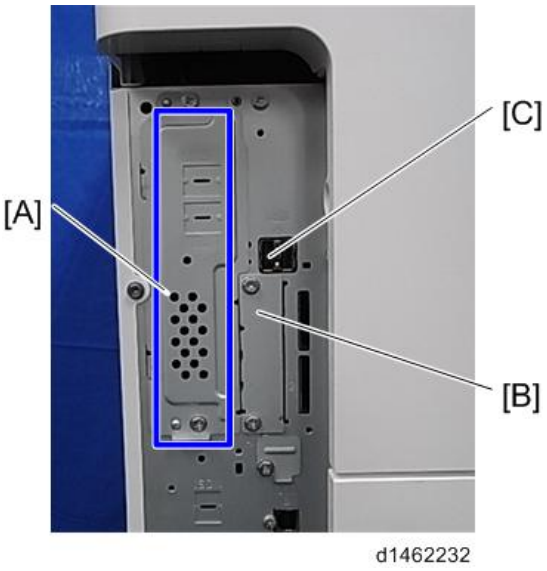


Slot		Option
[A]	I/F slot A*1	IEEE 1284 Interface Board Type A
		IEEE 802.11a/g/n Interface Unit Type M2
		Remote communication Gate
[B]	I/F slot B*1	File Format Converter Type E
		RC-GATE/LB
[C]	I/F slot C	Color Controller Connection Board Type M4
[D]	USB port*2	Bluetooth Interface Unit Type D
		Smart Card Reader Built-in Unit Type M2

*1 RC-GATE/LB can be fitted to either I/F slot A or B.

*2 There is no difference between the left and right USB port.

D146/D147



Slot		Option
[A]	I/F slot A*1	Fax Option Type M3
[B]	I/F slot B	IEEE 1284 Interface Board Type A
		File Format Converter Type E
		IEEE 802.11a/g/n Interface Unit Type M2
		RC-GATE/LB
		Color Controller Connection Board Type M3
[C]	USB port*2	Bluetooth Interface Unit Type D
		Smart Card Reader Built-in Unit Type M2

*1 Dedicated slot for fax unit

*2 There is no difference between the left and right USB port.

2.24 IEEE 1284 INTERFACE BOARD TYPE A

2.24.1 INSTALLATION PROCEDURE

⚠WARNING

§ When you install this option, Switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

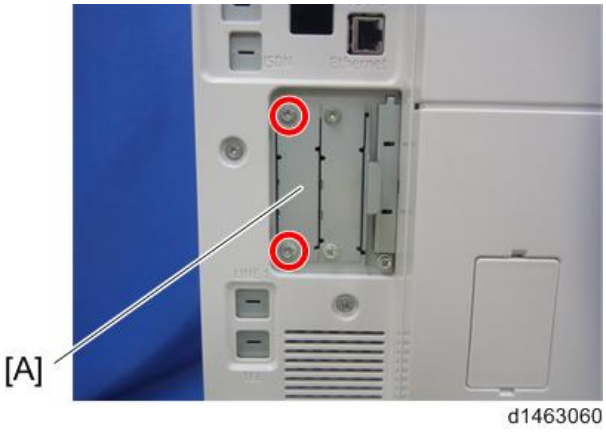
⚠CAUTION

§ Do not put your hand into the controller box. It will result in a malfunction or injury.

§ Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the IEEE 1284 Interface Board may malfunction due to static electricity.

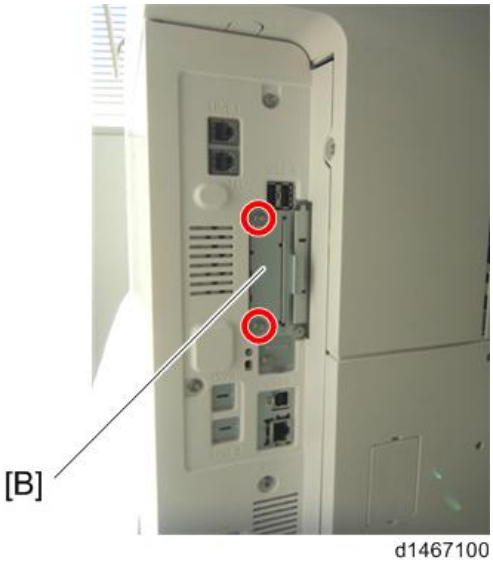
1. I/F slot A (D148/D149/D150) [A] (×2), I/F slot B (D146/D147) [B] (×2) covers.

D148/D149/D150:



d1463060

D146/D147:



d1467100

2. Attach the IEEE 1284 Interface Board to the I/F slot (×2)

3. Check that the system settings list is output, and that the board is recognized correctly.

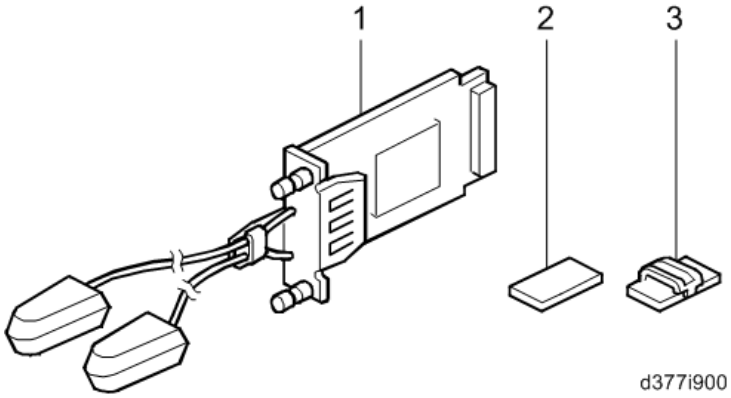
Note

§ The customer should keep the I/F card slot covers which were removed.

2.25 IEEE 802.11A/G/N INTERFACE UNIT TYPE M2

2.25.1 ACCESSORY CHECK

No.	Description	Q'ty
1	IEEE802.11a/g/n Unit	1
2	Velcro Fasteners	2
3	Clamps	8



Important

§ Since disassembly/alteration of a wireless LAN board is illegal, during service replacements, replace the whole PCB assembly.

§ Be sure to give the leaflet provided to the customer.

2.25.2 INSTALLATION PROCEDURE

⚠WARNING

§ When you install this option, Switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

⚠CAUTION

§ Do not put your hand into the controller box. It will result in a malfunction or injury.

§ Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the extension wireless LAN board may malfunction due to static electricity.

Important

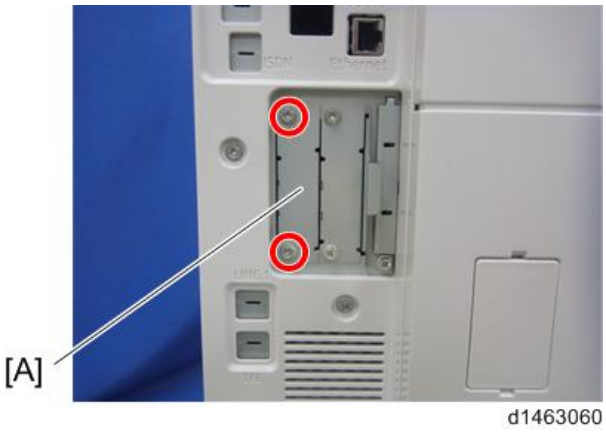
§ * When using wireless LAN (IEEE802.11 b/g/n:2.4-GHz band), this radio product uses the 2.4-GHz band. Check that industrial, scientific and medical devices using the same frequency bands, such as a microwave oven and cordless telephone, are not used nearby.

§ If there is interference, communication may become unstable. Check that there are no devices likely to cause interference in the surrounding area.

Attaching the boards

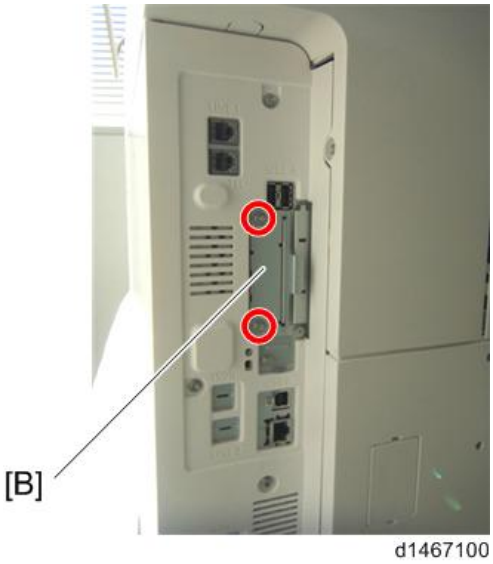
1. I/F slot A (D148/D149/D150) [A] (×2), I/F slot B (D146/D147) [B] (×2) covers.

D148/D149/D150:



d1463060

D146/D147:



d1467100

2. Attach the extended wireless LAN board to a slot (×2)

Note

§ Press the extended wireless LAN board firmly in, and check it is firmly connected.

§ The customer should keep the I/F card slot covers which were removed.

Attaching the antenna

1. Stick the fastener provided on the antenna case.

   Note

   § Stick the fastener provided on the lower half (cable side) of the case.

   § It can be stuck to either side of the antenna case.

2. Attach the 2 antennas to the rear cover of the MFP.

   Note

   § The two antennas must be attached at least 12 cm apart from each other.

3. Stick 8 cable stickers on the rear face of the MFP.
4. Fix the cable.

   Note

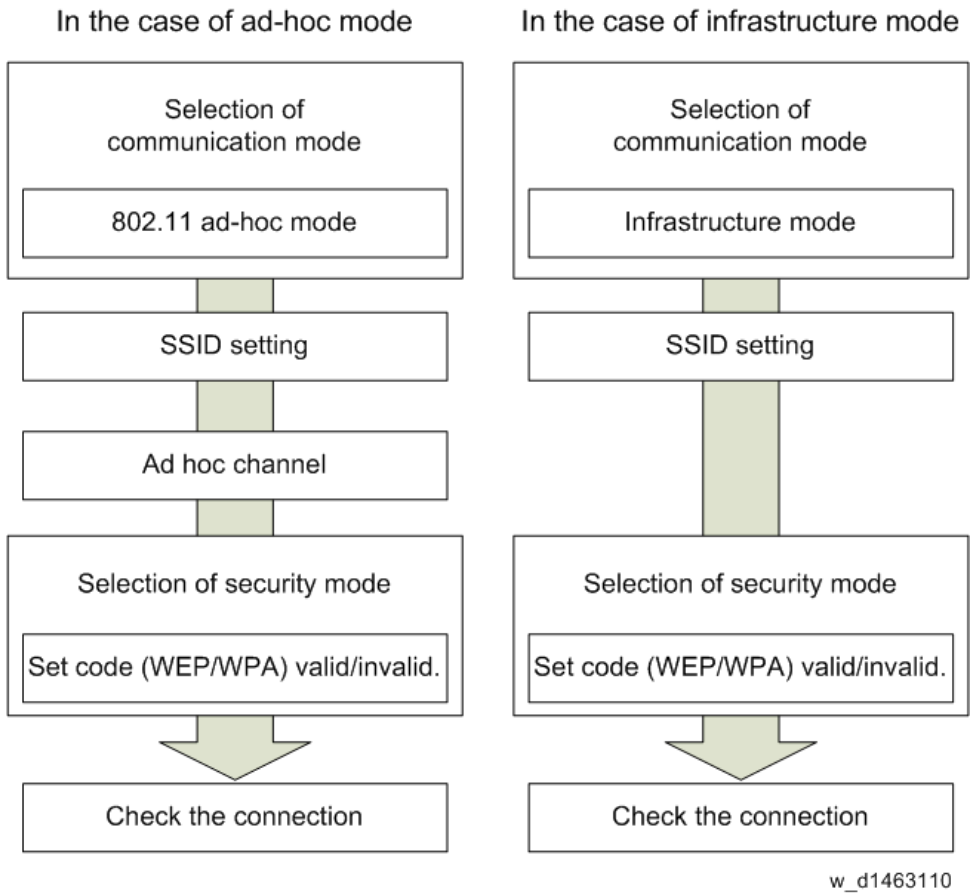
   § Take care to loop it around so that it does not interfere with other options or I/F cables.

5. Switch the power supply ON.
6. Check that the system settings list is output, and the option is recognized correctly.

2.25.3 SETTINGS

Check the connection of the wireless LAN interface

1. Check the IPv4 address and subnet mask, or IPv6 address setting of the MFP.
2. Press the [Default setting/counter] key.
3. Press the [System default setting] button.
4. Choose [Wireless LAN] in [Interface setting].
5. Set each item, and press the [Setting] button.



Note

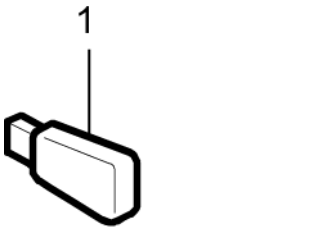
§ For details, refer to instructions for use. (Check instructions for use, “Network connection/System default setting” "Wireless LAN interface connection")

§ If the extended wireless LAN board does not work correctly, refer to the leaflet provided in the options box.

2.26 BLUETOOTH INTERFACE UNIT TYPE D

2.26.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Bluetooth Module	1
	CD-ROM	2



2-5-6_002.jpg

2.26.2 INSTALLATION PROCEDURE

⚠WARNING

§ When you install this option, switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

⚠CAUTION

§ Do not put your hand into the controller box. It will result in a malfunction or injury.

§ Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the wireless interface board may malfunction due to static electricity.

1. Attach the BT wireless interface to the USB-A slot [A].

d1463062

Note

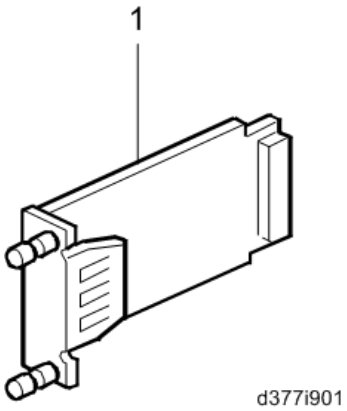
§ There is no difference between the left and right USB ports.

2. Check the system settings list is output, and that the option is recognized correctly.

2.27 FILE FORMAT CONVERTER TYPE E

2.27.1 ACCESSORY CHECK

No.	Description	Q'ty
1	File Format Converter	1



2.27.2 INSTALLATION PROCEDURE

⚠WARNING

§ When you install this option, switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

⚠CAUTION

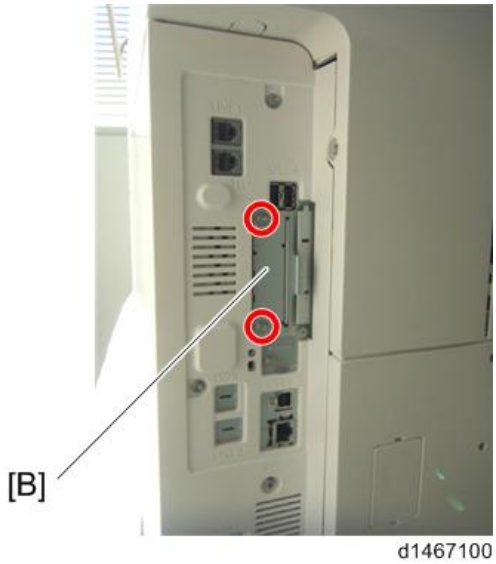
§ Do not put your hand into the controller box. It will result in a malfunction or injury.

§ Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the board may malfunction due to static electricity.

1. I/F slot B (D148/D149/D150) [A] (×2), I/F slot A (D146/D147) [B] (×2) covers

D148/D149/D150:

D146/D147:



2. Set the File Format Converter in an I/F slot (×2)
3. Check the system settings list is output, and that the option is recognized correctly.

Note

§ The customer should keep the I/F card slot covers which were removed.

2.28 DATA OVERWRITE SECURITY UNIT TYPE H (D377)/ I (D362)

2.28.1 OVERVIEW

This option should be installed only for the customer who requires the **CC certified Data Overwrite Security function**.

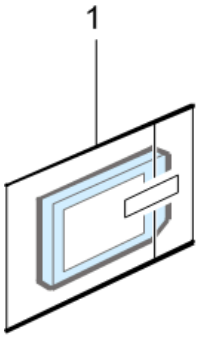
Type H is for D148/D149/D150 and type I is for D146/D147 .

The function of this option is completely the same as the Data Overwrite Security in Security Functions, which is standard on this machine. (page 2-17 "Image quality test / settings")

2.28.2 COMPONENT LIST

Check the quantity and condition of the accessories in the box against the following list.

No.	Description	Q'ty
1.	Data Overwrite Security SD Card	1
*	Comments Sheet	*
*	Operating Instructions CD-ROM	*



d1351921

2.28.3 BEFORE YOU BEGIN THE PROCEDURE

Note

The machine's hard disk stores all document data from the Copier, Printer, and Scanner functions. It also stores the data of users' Document Server and code counters, and the Address Book. To prevent data on the hard disk being leaked before disposing of the machine, you can overwrite all data stored on the hard disk (Erase All Memory). You can also automatically overwrite temporarily-stored data (Auto Erase Memory).

1. Confirm that the Data Overwrite Security unit SD card is the correct type for the machine. The correct type for this machine is "**Type H" or** "**Type I"**.

   Important

   § If you install any version other than "**Type H**" or "**Type I"**, you will have to replace the NVRAM and do this installation procedure again.

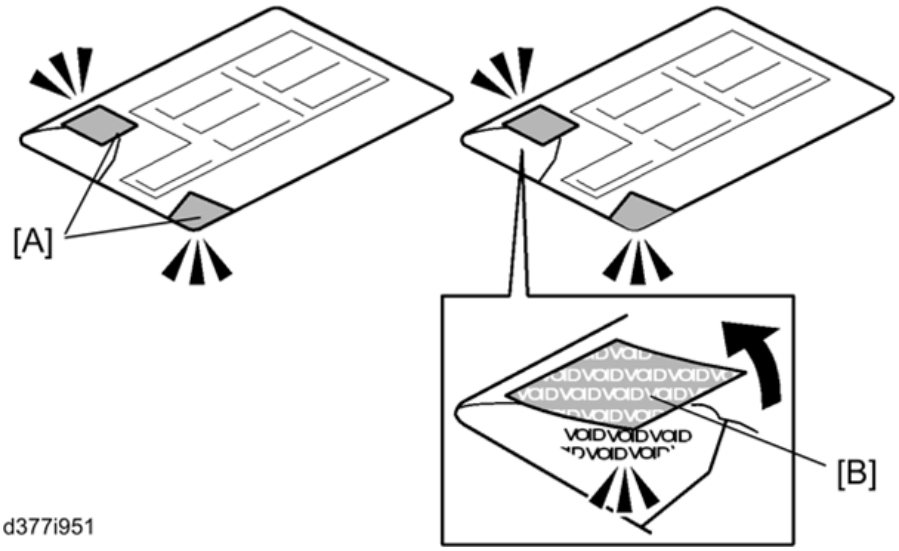
2. Make sure that the following settings are not at their factory default values:
   § Supervisor login password
   § Administrator login name
   § Administrator login password

   If any of these settings is at a factory default value, tell the customer these settings must be changed before you do the installation procedure.
3. Make sure that "Admin. Authentication" is ON.
   [System Settings] – [Administrator Tools] – [Administrator Authentication Management] - [Admin. Authentication]
   If this setting is OFF, tell the customer this setting must be ON before you do the installation procedure.
4. Make sure that "Administrator Tools" is enabled (selected).
   [System Settings] – [Administrator Tools] – [Administrator Authentication Management] - [Available Settings]
   If this setting is disabled (not selected), tell the customer this setting must be enabled (selected) before you do the installation procedure.

Note

See the Operating Instructions (Security Guide) for the factory default values

Seal Check and Removal



d377i951

⚠CAUTION

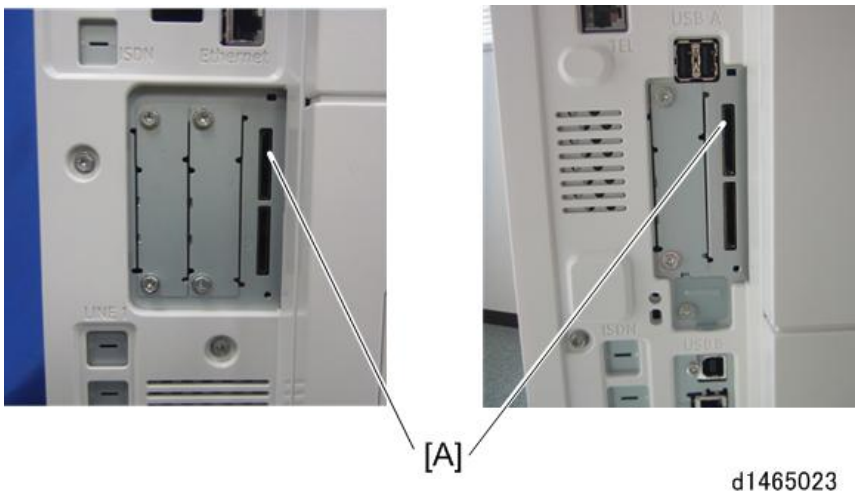
- § You must check the box seals to make sure that they were not removed after the items were sealed in the box at the factory before you do the installation.

1. Check the box seals [1] on each corner of the box.
   - § Make sure that a tape is attached to each corner.
   - § The surfaces of the tapes must be blank. If you see “VOID” on the tapes, do not install the components in the box.
2. If the surfaces of the tapes do not show “VOID”, remove them from the corners of the box.
3. You can see the “VOID” marks [2] when you remove each seal. In this condition, they cannot be attached to the box again.

2.28.4 INSTALLATION PROCEDURE

1. Before you begin this procedure, make sure to turn off the main power switch, and then remove the power cord from the outlet. If you do not, this may result in electrical shock and/or a machine failure.
2. Disconnect the network cable from the machine.
3. Remove the cover for the SD card slot (×1).
4. Insert the SD card (DataOverwriteSecurity Unit) in SD slot 1 (upper) [A] with its label face towards the front of the machine. Then push it slowly into SD slot 1 (upper) until you hear a click.

D148 / D149 / D150 **D146 / D147**



Important

- **If you wish to merge multiple applications onto a single SD card, do the merge now before moving onto the next step.**

5. Insert the power cord into the outlet, and then turn on the main power switch.
6. Access System/Copy SP mode.
7. Do this step only if you are installing the option on a machine that is already in use (not a new machine):
   - **If the customer wishes to continue using the same hard disk:**
     Execute all three SP modes below.
     SP5-801-014 (Clear DCS Setting)
     SP5-832-001 (HDD Formatting (ALL))
     SP5-832-002 (HDD Formatting (IMH))
   - **If customer wishes to replace the hard disk with a new one:**
     Execute SP5-801-014 only.

NOTE: If the customer continues using the same hard disk, the overwriting of the data stored on the disk before the option is installed cannot be guaranteed. It is highly recommended to replace the hard disk with a new one.

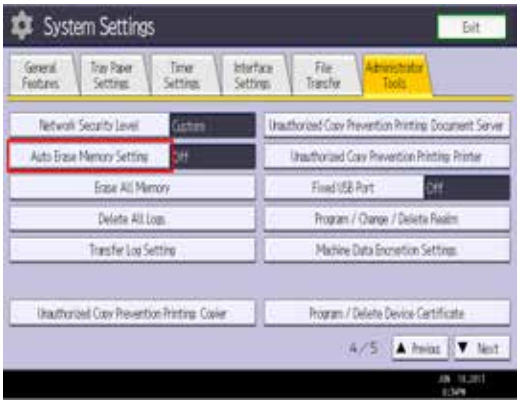
8. **S**et SP5-836-001 (Capture Function (0: Off 1: On)) to **a value of** 0 **(disable).**
9. **Execu**te SP5-878-001 ([Option Setup：Data Overwrite Security)**.**
   Note: If the installation fails, “Installation failed” is displayed when this SP is executed.
10. Print out the System Settings List and make sure that the option was installed successfully.
11. Turn off the machine main power switch.
12. Reattach the cover for the SD card slot.
13. Reconnect the network cable.
14. Insert the power cord into the outlet and turn on the main power switch.
15. Execute SP5-990-005 (SP print mode Diagnostic Report).
16. Make sure that ROM number “D3775902B“ and firmware version “1.02x“ appear in both of the following areas on the report (they must match):
17. “ROM Number / Firmware Version” – ”HDD Format Option”
18. ”Loading Program”

2.28.5 CONFIGURING “AUTO ERASE MEMORY” (PERFORMED BY THE CUSTOMER)

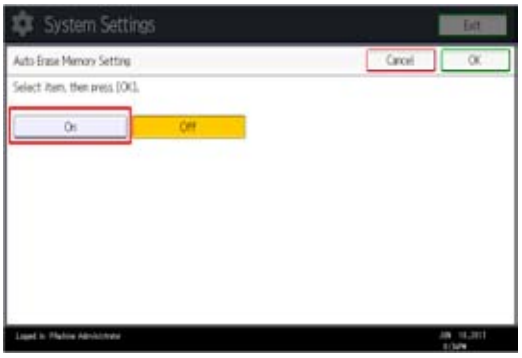
Note

The following procedure is performed by the customer once the above Installation Procedure has been completed.

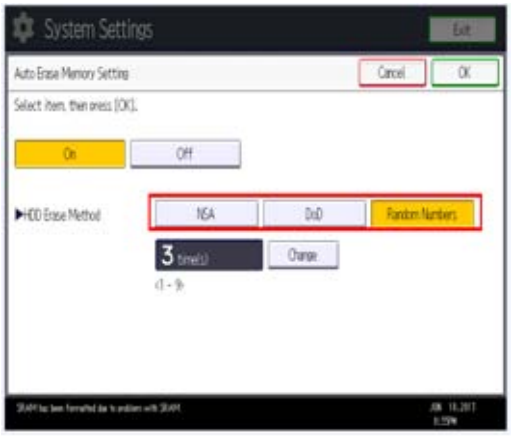
1. Press [System Settings].
2. Press [Administrator Tools].
3. Press [Next] three times.
4. Press [Auto Erase Memory Setting].



5. Press [On].



6. Select the method of overwriting.
   - If you select [NSA] or [DoD], proceed to Step 9.
   - If you select [Random Numbers], proceed to Step 7.



7. Press [Change].
8. Enter the number of times that you want to overwrite using the ten keys, and then press [#].

   NOTE: The Random Numbers method overwrites the data using random numbers. You can set the overwrite to be performed anywhere from 1-9 times, with a default of 3 times.

9. Press [OK].
10. Make sure that the Data Overwrite icon is displayed in the bottom right hand corner of the screen.

11. Take a test copy, and then make sure that the Data Overwrite icon changes from “Dirty” (solid) to “Dirty” (blinking), and then to “Clear”.

NOTE:

- If the Data Overwrite icon does not change to Clear, check to see if there are any active Sample Print or Locked Print jobs. A Sample Print or Locked Print job can only be overwritten after it has been executed.
- The Dirty icon blinks while an overwrite is in progress.
- If you use your machine for a while with Auto Erase Memory disabled, and then suddenly enable it, the overwrite process may take 10 or more hours depending on HDD usage.

Data Overwrite icon:

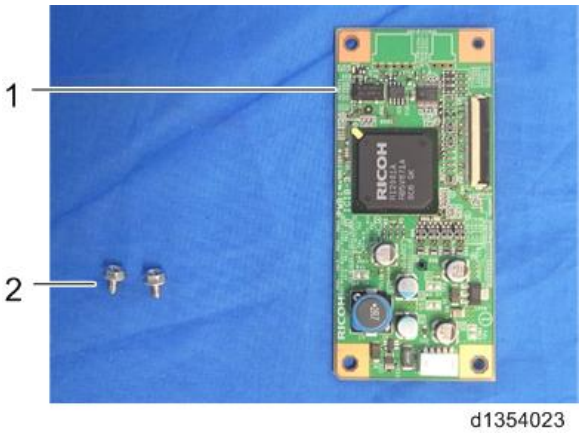
§ Clear (There is no temporary data to be overwritten)

§ Dirty (There is temporary data to be overwritten)

2.29 COPY DATA SECURITY UNIT TYPE G

2.29.1 ACCESSORY CHECK

No.	Description	Q'ty
1	Copy data security unit board	1
2	Screws	2



2.29.2 INSTALLATION PROCEDURE

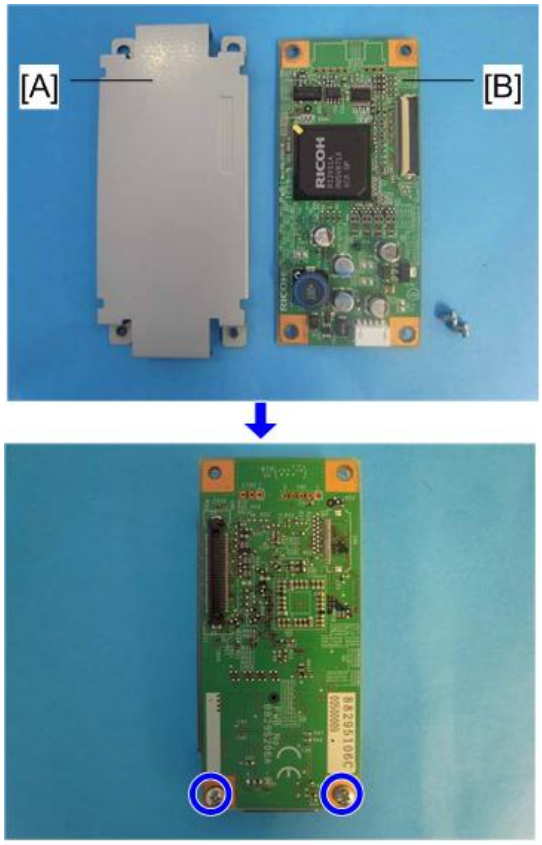
⚠WARNING

§ When you install this option, switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

§ If it is installed when the power is on, it will result in an electric shock or malfunction.

1. Rear cover (page 4-10 "Rear Cover")

2. Attach the bracket [A] to the copy data security module [B] (×2)



d129i303

3. Attach the IPU to which the bracket was attached, to the copy data security module (×2)

d1463063

4. Attach the rear cover.

2.29.3 SETTINGS (TO BE DONE BY THE USER)

Equipment administrator settings

In order to validate administrator authentication, select [YES] in administrator authentication management settings. When the setting is validated, the initial-setting item currently assigned to each administrator will be the administration item.

1. Press the [Default setting/counter] key.
2. Press the [System default setting] button.
3. Press the [Administrator settings] button.
4. Press the [Next] button.
5. Press the [Administrator authentication management] button.

2.30 IMAGEABLE AREA EXTENSION UNIT TYPE M3

2.30.1 ACCESSORY CHECK

Description	Q'ty
Paper transfer roller (Extended)	1

2.30.2 INSTALLATION PROCEDURE

⚠CAUTION

§ Do not touch the roller surface during replacement.

1. Check the Engine firmware. If the version is earlier than 1.22, then you must input all the SPs in the following table. If the version is 1.22 or later, then you only need to do SP2-400-001.

SP	Description	Default	Setting
SP2-400-001	Paper Transfer Roller Settings Width of Paper Transfer Roller	0	1
SP3-232-040	Vtref Correct:Pixel Initial ProCon Thresh	100	10
SP3-232-041	Vtref Correct:Pixel High Coverage Thresh:H	100	60
SP3-232-050	Vtref Correct:Pixel ProCon Thresh	100	50
SP3-234-011	Vtref Corr :Disp/Set Corr Amt(+):K	0	0.05
SP3-234-012	Vtref Corr :Disp/Set Corr Amt(+):C	0	0.05
SP3-234-013	Vtref Corr :Disp/Set Corr Amt(+):M	0	0.05
SP3-234-014	Vtref Corr :Disp/Set Corr Amt(+):Y	0	0.05
SP3-234-021	Vtref Corr :Disp/Set Corr Amt(-):K	0	0.05
SP3-234-022	Vtref Corr :Disp/Set Corr Amt(-):C	0	0.05
SP3-234-023	Vtref Corr :Disp/Set Corr Amt(-):M	0	0.05
SP3-234-024	Vtref Corr :Disp/Set Corr Amt(-):Y	0	0.05
SP3-533-003	Interrupt ProCon :Set Corr(Short):BW	1	0.1

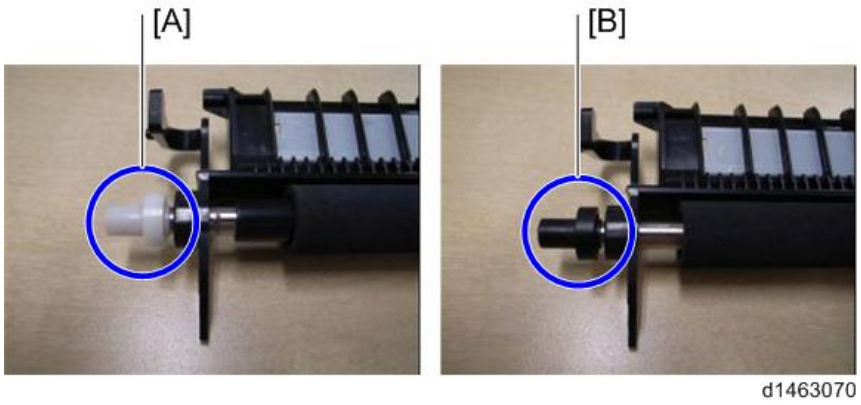
SP	Description	Default	Setting
SP3-533-013	Interrupt ProCon :Set Corr(Short):FC	1	0.25
SP3-534-001	JobEnd ProCon :Set Interval:Set:BW	500	250
SP3-534-003	JobEnd ProCon :Set Corr(Short):BW	1	0.2
SP3-534-011	JobEnd ProCon :Set Interval:Set:FC	200	100
SP3-534-013	JobEnd ProCon :Set Corr(Short):FC	1	0.5
SP1-102-024	Feed Permit Setting Temp.:Lower Delta:Press	D150: 31 D149: 31 D148: 22 D147: 31 D146: 31	D150: 25 D149: 25 D148: 16 D147: 26 D146: 26
SP1-102-025	Feed Permit Setting Temp.:Lower Delta:Press	D150: 48 or 49 D149: 48 or 49 D148: 39 D147: 48 D146: 48	D150: 42 D149: 42 D148: 33 D147: 43 D146: 43
SP1-102-031	Feed Permit Setting Temp.:Lower Delta:Press	D150: 22 D149: 22 D148: 16 D147: 22 D146: 22	D150: 19 D149: 19 D148: 13 D147: 19 D146: 19
SP1-102-032	Feed Permit Setting Temp.:Lower Delta:Press	D150: 41 D149: 41 D148: 35 D147: 41 D146: 41	D150: 36 D149: 36 D148: 30 D147: 36 D146: 36

SP	Description	Default	Setting
SP1-117-144	Repeat Temp. Correction Temp.:End:1:SRA3:M-thick	D150: 5 D149: 5 D148: 5 D147: 25 D146: 25	D150: 20 D149: 20 D148: 20 D147: 25(same as Int) D146: 25(same as Int)

Note

§ When SP2-400-001 is changed over, a message is displayed stating “Switch the power OFF/ON”.

2. After all SP values are changed, turn the power off.
3. Replace the roller.



[A]: Standard roller

[B]: Imageable Area Extension Unit Type M3

Note

§ During PM replacement, do not install the wrong type of roller.

4. Turn the power on.
5. Using SRA3 paper, check that a full-bleed halftone image is output, and that the image extends to 315 mm in width.

When you forgot to change the SP

The following problems occur.

When a change-over was made from a standard roller to the imaging range extension option

(If the SP setting is the normal setting (SRA3 paper not supported), but the optional longer paper transfer roller is installed)

- The image cannot be correctly transferred to the SRA3 paper area.
- MUSIC/program control pattern adheres to the ends of the paper transfer roller (outside the A3 area), and this can transfer to the underside of printouts.
- Real-time process control cannot be performed correctly, and an abnormal image and SC285-00 (MUSIC error) may occur.

When a change-over was made from the imaging range extension option to a standard roller

(If the SP setting is for SRA3, but the paper transfer roller is the normal one (SRA3 paper not supported))

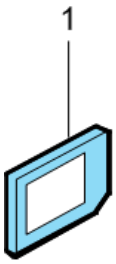
- Real-time process control is not performed, and the interval between process controls becomes short.
- The waiting time for fusing temperature rise is longer than intended.

2.31 OCR UNIT TYPE M2

This option adds a searchable PDF function to the scanning function.

2.31.1 ACCESSORY CHECK

No.	Description	Q'ty
1	SD Card	1



d595i900b

2.31.2 SEARCHABLE PDF FUNCTION OUTLINE

§ The searchable PDF function performs OCR by the MFP on a document read with the scanner, and embeds text data in the PDF. This permits PDF text browsing, automatic assignment of filenames, and automatic alignment of document orientation.

§ This option is provided with an SD card. By installing an SD card in the MFP, a functional icon is added to the control unit. It is not necessary to install software in a PC.

§ If this option is installed, various settings related to the searchable PDF function are available.

§ After reading of the document is completed (after it is read by the ADF and output), OCR is performed. Therefore, after reading is completed, documents can be collected from the document glass or ADF.

§ Other functions, such as the copy function and printer function, can be used during OCR.

2.31.3 INSTALLATION PROCEDURE

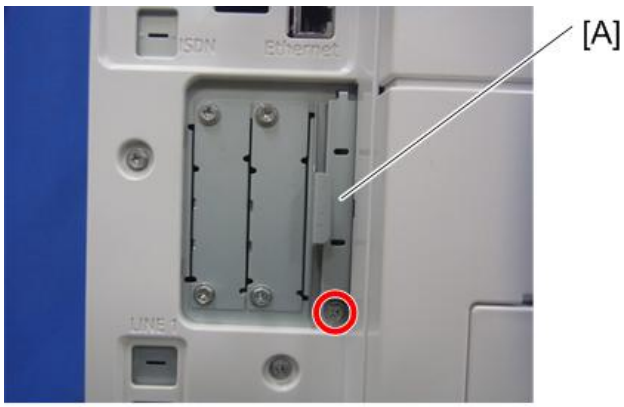
⚠CAUTION

§ Switch the MFP's power supply OFF, and unplug the power plug from the mains outlet.

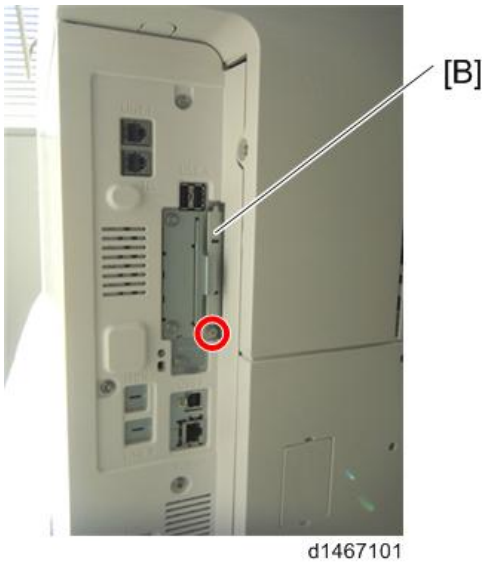
§ If the battery is replaced by the wrong type, there is a danger of explosion. Dispose of used batteries according to the instructions.

1. Remove the SD card slot covers [A] and [B] (×1)

D148/D149/D150:

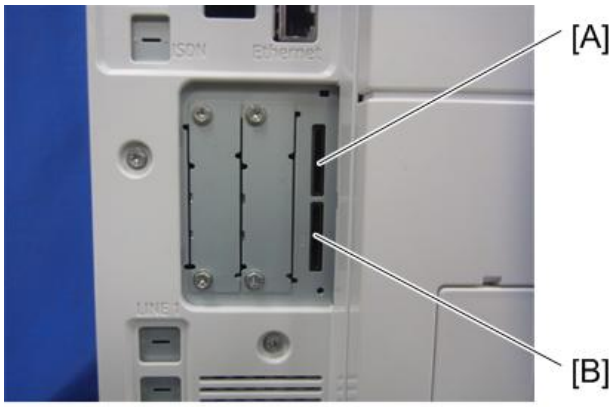


D146/D147:



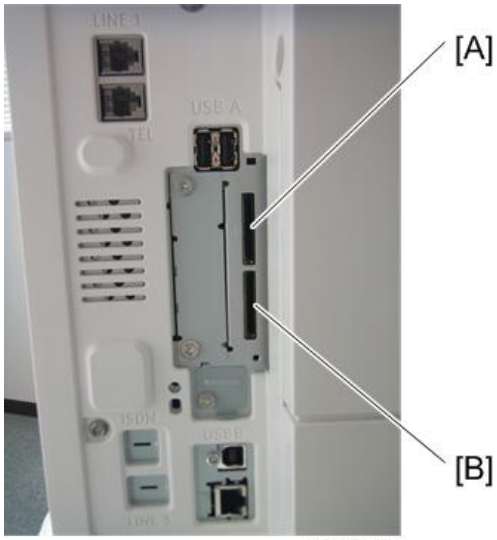
2. Insert the OCR module SD card in SD card slot 1 [A] or slot 2 [B].

D148/D149/D150:



d1463066

D146/D147:



d1467102

3. Switch the power supply ON.
4. Press “Enter” in SP5-878-004 (Option Setup: OCR Dictionary).
   The SD card ID is saved in the NVRAM, and the ID of the MFP is saved on the SD card. The MFP and SD card are thereby linked.
5. When “operation complete” is displayed, press "Close”.

Note

- § If installation fails, "Failed" is displayed.
- § If installation fails, perform the following steps.

1. Check whether it is a used SD card.
2. Switch the power OFF, and repeat steps 1-5.

6. Switch the power OFF/ON.
7. Press “Enter” in SP5-878-004 (Option Setup: OCR Dictionary).
   Dictionary data is copied to the HDD.

Note

- § On the first run, SP5-878-004 links the SD card, and on the second run, copies dictionary data.

8. Switch the power OFF, and remove the SD card from the SD card slot.

Note

§ Keep the SD card in the SD card storage location of the MFP. The original SD card is needed in the event of a HDD malfunction.

9. Return the SD card slot cover to the original position.

10. Switch the power ON.

11. Press [File Format / File Name] on the scanner function screen.

12. Check that [OCR setting] is displayed on the “File format / "File Name" screen.

Note

§ After installation, the OCR setting can be changed on the "OCR setting" screen.

§ When setting OCR, set [OCR setting] to [Yes]. (Default setting: [No])

2.31.4 RECOVERY PROCEDURE

When this option is installed, a function is saved on the HDD, and ID information on the SD card is saved in the NVRAM. Therefore, when replacing the HDD and NVRAM, this option must be reinstalled.

When storing the original SD card

§ When only the HDD is replaced
Reinstall using the original SD card.

§ When only the NVRAM is replaced
When performing upload/download of NVRAM data, reinstall using the original SD card.
When not performing upload/download of NVRAM data, order and reinstall a new SD card (service part).

§ When the HDD and NVRAM are replaced simultaneously
Reinstall using the original SD card.

If the original SD card is lost

Order and reinstall a new SD card (service part).

Note

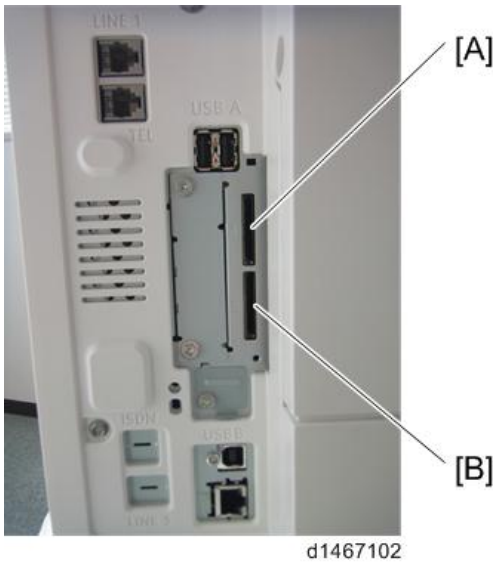
§ Perform reinstallation in the same way as installation. (Link: Installation procedure)

2.32 SD CARD OPTION

2.32.1 SD CARD SLOTS

D148/D149/D150

D146/D147



[A]: SD card slot 1 (option slot)

[B]: SD card slot 2 (service slot)

2.32.2 LIST OF SLOTS USED

Optional SD cards can be set in either slot 1 or slot 2. But slot 2 is the service slot, so we recommend that you use slot 1 to install the SD card options.

Note

§ In this machine, it is possible to transfer data from a "Postscript3 Unit" SD card, unlike in earlier models, due to a change in the software licensing (the part of the Postscript software that requires licensing is now built into the controller, so the portion on the SD card can be moved to another SD card).

2.33 SD CARD APPLI MOVE

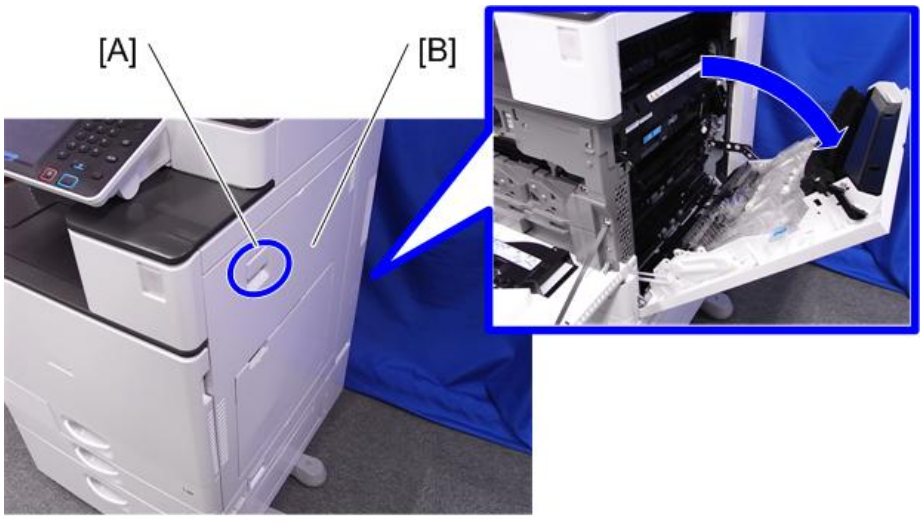
2.33.1 OVERVIEW

Since there are only two SD card slots (one of them is a service slot), three or more SD card applications cannot be used simultaneously.
However, if multiple SD card applications are merged, three or more SD card options can be used.
This function is referred to as the “SD card merge function.”
The “SD card merge function” is a function which enables the use of three or more functions within the capacity of two SD cards by physically transferring the function of one SD card to other SD cards (all SD card options can be stored in two SD cards).
However, SD card applications are under license, therefore, since an SD card license after merge is transferred to the target SD card, it cannot be used even if it is moved to the target machine.
Also, a process to prevent illegal copying is performed.

Note

§ After merge, store the empty SD card in the location shown below.

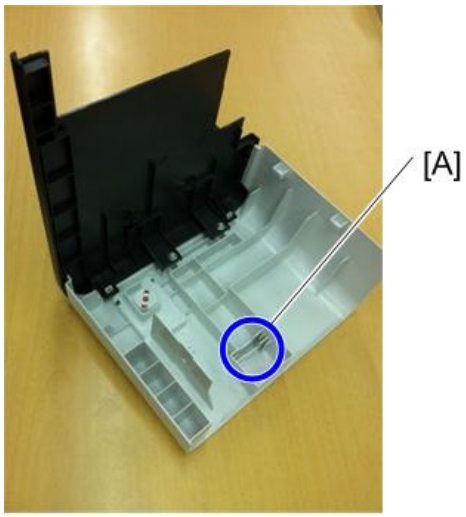
1. Unlock the lever [A], and then open the right cover [B].



2. Main power switch cover [A].

d1462021

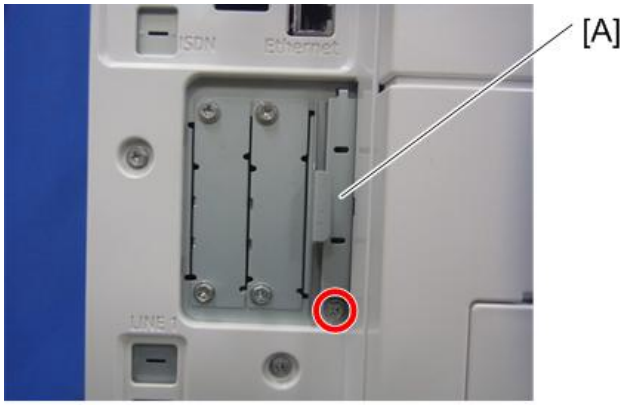
3. Insert the SD card in the storage location [A] inside the cover.



d1463067

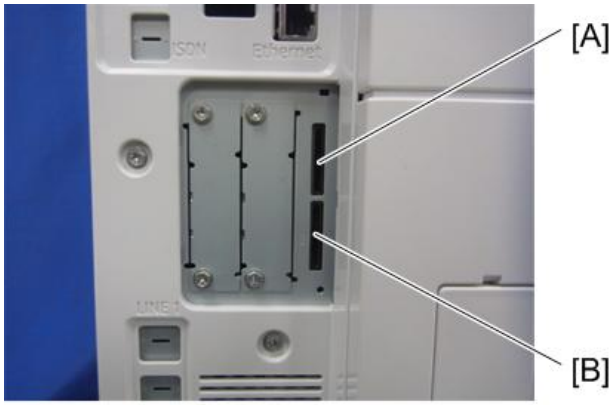
2.33.2 MOVE EXEC

1. Turn the power off.
2. SD card slot cover [A](×1).



d1463064

3. Set the destination SD card (SD card where data is to be stored) in Slot 1 [A], and set the original SD card (SD card from which data is to be transferred) in Slot 2 [B].



4. Turn the power on, and press [ENTER] in SP5-873-001 (SD Card Appli Move: Move Exec).
5. When a confirmation screen is displayed, press [ENTER] (it takes about 2 - 3 minutes).

Note

- § If [CANCEL] is pressed, the display returns to the previous screen.
- § Note that if the power supply is turned off, a panel operation is performed, or the cover is opened during merge, it will result in a malfunction.

6. When merge is complete, and the following screen is displayed, press [CLOSE].

Note

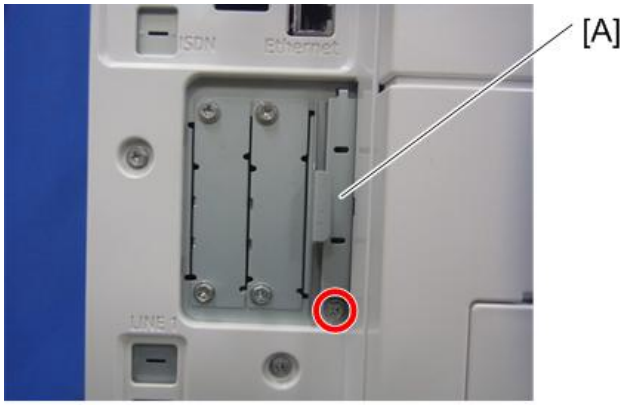
- § If the process is terminated abnormally, perform the merge in SP mode again.
- § If the capacity of the destination SD card is insufficient, the merge operation cannot be performed.

1. Press [END] twice.
2. Turn the power off.
3. Remove the empty SD card after transfer from Slot 2.
4. Attach the slot cover(×1).
5. Turn the power on, output the system setting list, and check that the options are recognized correctly.

2.33.3 UNDO EXEC

This is a recovery function if an application is incorrectly transferred to a different device of the same model.

1. Turn the power off.
2. SD card slot cover [A] (×1).



3. Set the integrated SD card in Slot 1.
4. Set the SD card which became empty after integration in Slot 2.
5. Turn the power on, and press [ENTER] in SP5-873-002 (SD Card Appli Move: Undo Exec).
6. When a confirmation screen is displayed, press [ENTER].

Note

- If [CANCEL] is pressed, the display returns to the previous screen.
- Note that if the power supply is turned off, a panel operation is performed, or the cover is opened during cancellation, it will result in a malfunction.

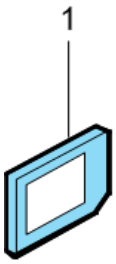
7. When cancellation is complete, press [CLOSE].
8. Press [END] twice.
9. Turn the power off.
10. Attach the SD card slot cover (×1).
11. Turn the power on, and check that the application has been deleted.

2.34 BROWSER UNIT TYPE M4/M3

M4: D148/D149/D150, M3: D146/D147

2.34.1 ACCESSORY CHECK

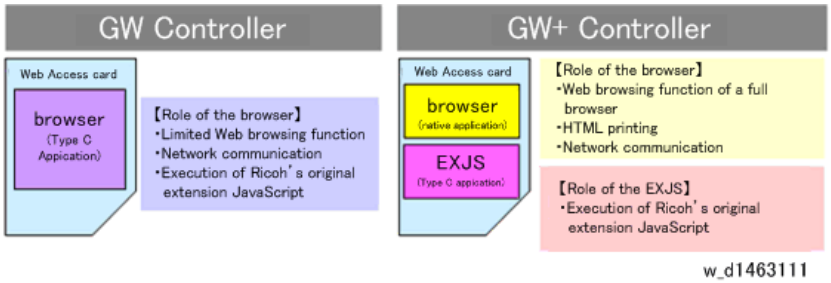
No.	Description	Q'ty
1	SD Card	1



d595i900b

2.34.2 INSTALLATION PROCEDURE

The browser unit uses a native application such as a full browser in order to improve web browsing.
Also, to provide a solution utilizing the web as in previous machines, Extended JavaScript is also provided as an SDK application.
Due to the above, the browser unit for this model has two firmware modules, native application firmware, and Type-C application EXJS firmware.
The browser for these models is not installed in the SD card HDD, but in order to start up using the data on the SD card, it must be operated with the SD card inserted.



w_d1463111

Note

§ In addition to link-up with the conventional Scan Router and MFP, the browser unit has the following functions.

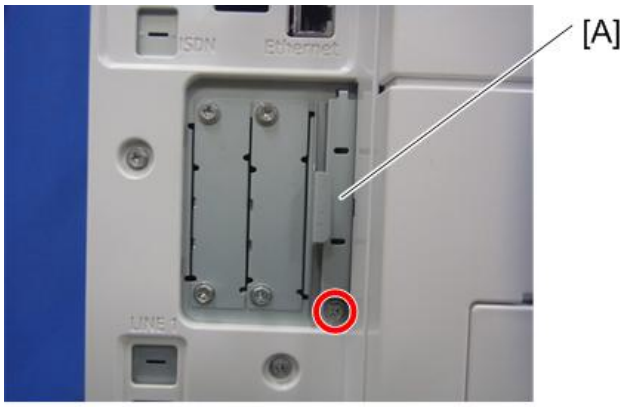
§ For scanning, arbitrary distribution types and preset values are selected/set and delivered.

§ Mail is delivered (login transmission) to an address previously set in the profile of the user who logged in.

1. Switch the power OFF.

2. SD card slot cover [A] (×1)

D148/D149/D150:



d1463064

D146/D147:

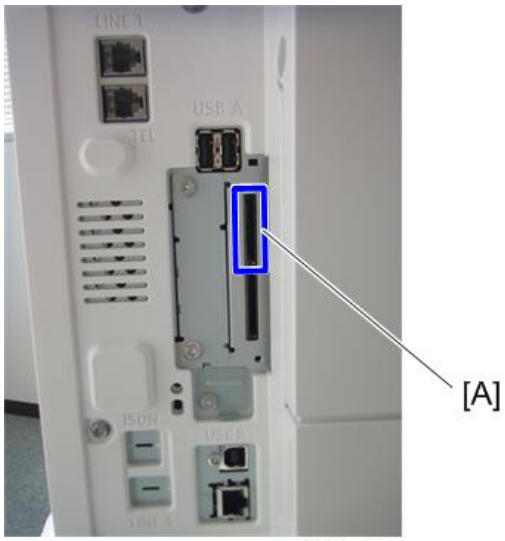
d1467101

3. Insert the browser unit card in SD card slot 1 [A].

D148/D149/D150:

d1463065b

D146/D147:



d1467103b

Note

§ When installing more than one SD card, perform the merge operation.

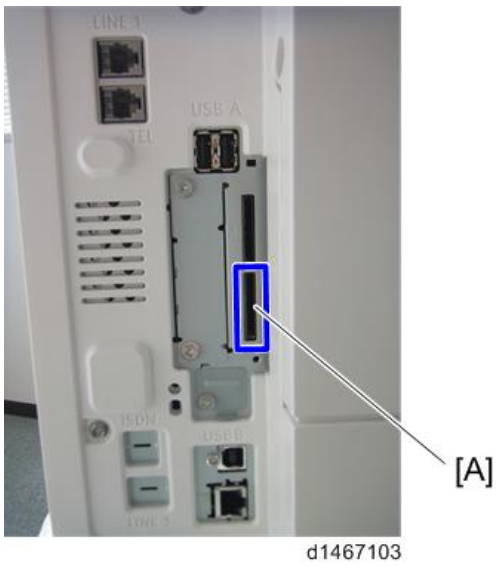
4. Switch the power ON.
5. Press the [Default setting/Counter] key.
6. Press the [Extension function default setting] button.
7. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
8. On the [Startup setting] tab, check that "Extended JS" was installed automatically and has started.
9. Switch the power OFF/ON.
10. Press the [Default setting/Counter] key.
11. Press the [Home editing] button.
12. Press the [Add icon] button.
13. Press the [Browser] button displayed on the “Application” tab.
14. Select the position at which [Blank] is displayed, and press the [OK] button.
15. Check that the [Browser] icon has been added to the Home screen.

To update EXJS

1. Put the SD card containing the firmware to update with in SD card slot 2 [A], and switch on the power.

   D148/D149/D150:

   D146/D147:



2. Wait until the update screen starts.
3. When the update screen is displayed, select [Browser], and press the [Update (#)] button.
4. When "Update done." is displayed, switch the power OFF, and remove the SD card from SD card slot 2.
5. When updating Extension JavaScript, add the following steps.
6. Switch the power ON.
7. Press the [Default setting/counter] key.
8. Press the [Extension function default setting] button.
9. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
10. Stop "Extended JS" on the “Startup setting” condition with a tab.
11. Switch the power OFF.
12. Insert the Extended JavaScript upgrade SD card in SD card slot 2.

13. Switch the power ON.
14. Press the [Default setting/counter] key.
15. Press the [Extension function default setting] button.
16. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
17. Press the [Install] tab.
18. Press [SD card], and select "Extended JS" from the list of extension functions.
19. Select [MFP hard disk] as the installation location, and press [Next].
20. After checking extension function information on the “Installation preparation complete” screen, press the [Enter] button.
21. "The following extension functions are already installed. The message “Overwrite extension function?” is displayed. Press the [Continue] button.
22. When installation is complete, the message “Extension function has been installed" is displayed. Press the [OK] button.
23. On the “Startup settings” tab, set [Extended JS] to the startup standby state, and switch the power OFF.
24. Remove the SD card from SD card slot 2, and return the controller cover.
25. Switch the power ON.
26. Press the [Default setting/counter] key.
27. Press the [Extension function default setting] button.
28. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
29. Check the version of [Extended JS] on the “Startup settings tab” is the latest version.

Note

§ If the power is ON before starting Step 1, switch the power OFF after first performing Steps 5-9, and perform Step 1 and subsequent steps. In that case, skip Steps 5-10. (This saves time.)

§ If you do not plan to update Extension JavaScript, return the controller cover to the original position after performing Step 5.

When checking the version of EXJS

1. Switch the power ON.
2. Press the [Default setting/counter] key.
3. Press the [Extension function default setting] button.
4. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
5. Check the version of [Extended JS] on the “Startup settings tab” is the latest version.

Note

§ If checked apart from the above procedure (firmware version displayed in system default settings), a different version from the actual version may be displayed.

Browser unit uninstallation procedure

EXJS uninstallation procedure

1. Switch the power ON.
2. Press the [Default settings/counter] key.
3. Press the [Login/Logout] key, and log in with an administrator account (login user name, login password).
4. Press [Extension function default setting], and when the screen changes, press [Extension function default setting] again.
5. Press [Uninstall]
6. When “Browser” is pressed, a message screen is displayed, press “Yes”.
7. When a message reconfirming uninstallation is displayed, press [Yes].
8. When uninstall starts, the message "Uninstalling the extended feature ... Please wait." is displayed on the screen. When "Completed" is displayed after a while, press [End], and the display returns to the setting screen.
9. Close [Default settings/counter] settings, and switch OFF the power.

Note

§ Uninstall is completed only by removing the SD card.

2.34.3 SETTINGS

Browser default setting

Register the browser default settings. For details, refer to the following.

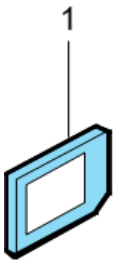
1. Switch ON the power.
2. Press the [Default settings/counter] key.
3. Press the [Browser default settings] button.
4. Press the [Home screen] button on the “Browser Settings” tab.
5. Press the [URL input] button.
6. Input the URL, and press the [OK] button.
7. Press the [Settings] button.
8. Press the [End] button twice, and finish.

2.35 SD CARD FOR NETWARE PRINTING TYPE M4/M3

M4: D148/D149/D150, M3: D146/D147:

2.35.1 ACCESSORY CHECK

No.	Description	Q'ty
1	SD Card	1

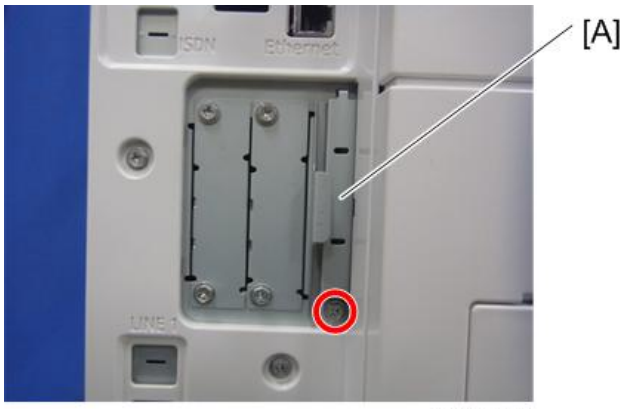


d595i900b

2.35.2 INSTALLATION PROCEDURE

1. SD card slot covers [A] [B] (×1)

D148/D149/D150:



d1463064

D146/D147:

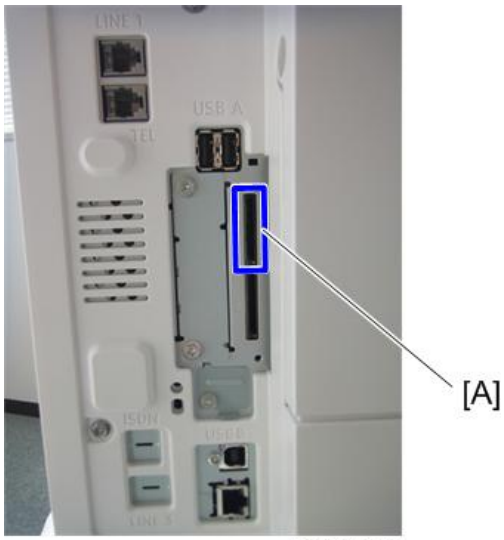
d1467101

2. Put the SD card for NetWare printing in SD card slot 1 [A].

D148/D149/D150:

d1463065b

D146/D147:



d1467103b

Note

§ When installing more than one SD card, perform the merge operation.

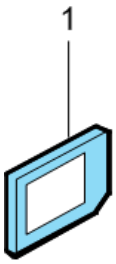
3. Switch the power ON.
4. Attach the SD card slot cover. (×1)
5. After switching the power ON, check that the system settings list is output, and that the option is recognized correctly.

2.36 PS3 CARD TYPE M4/M3

M4: D148/D149/D150, M3: D146/D147:

2.36.1 ACCESSORY CHECK

No.	Description	Q'ty
1	SD Card	1

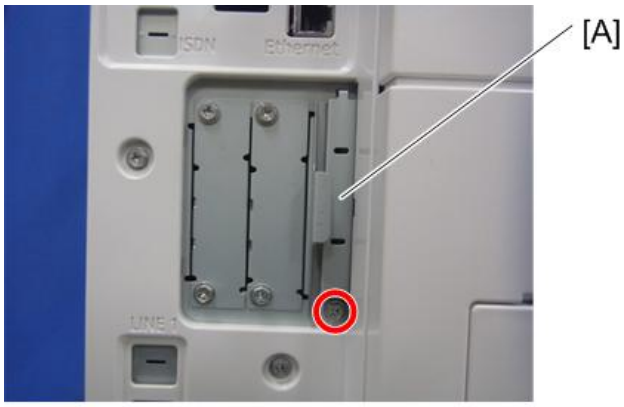


d595i900b

2.36.2 INSTALLATION PROCEDURE

1. SD card slot covers [A] [B](×1)

D148/D149/D150:



d1463064

D146/D147:

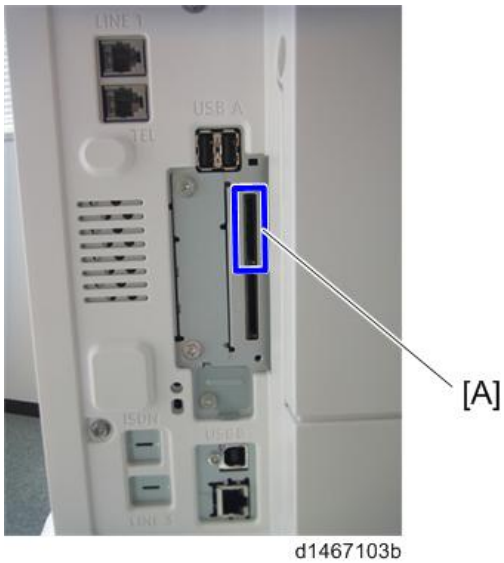
d1467101

2. Insert the PS3 SD card in SD card slot 1 [A].

D148/D149/D150:

d1463065b

D146/D147:



d1467103b

Note

§ When installing more than one SD card, perform the merge operation.

3. Switch the power ON.
4. Attach the SD card slot cover.(×1)
5. Stick the "Adobe PostScript3" decal on the front face of the MFP.
6. After switching the power ON, check that the system settings list is output, and that the option is recognized correctly.

Note

§ The PDF firmware installed as standard contains a program required to print PS3 data as default. However, this PS3 program is normally disabled.

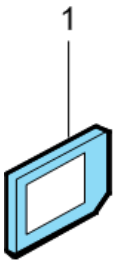
§ The PS3 firmware is a dongle (key) which enables PS3 data printing functions. When the PS3 firmware is installed, the PS3 program in the PDF firmware is enabled. Due to this specification, the self-diagnosis result report shows the ROM part number/software version of the PDF firmware contained in the PS3 program.

2.37 CAMERA DIRECT PRINT CARD TYPE M4/M3

M4: D148/D149/D150, M3: D146/D147:

2.37.1 ACCESSORY CHECK

No.	Description	Q'ty
1	SD Card	1

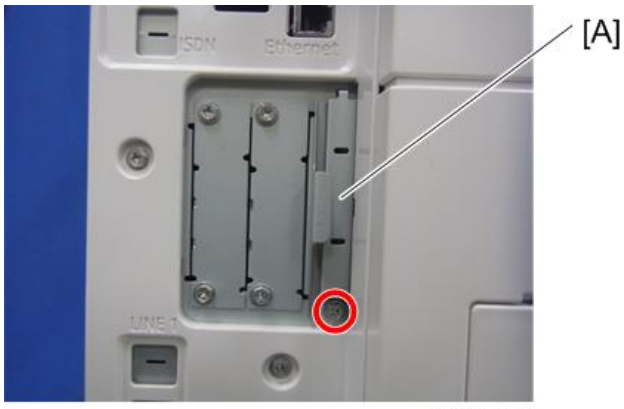


d595i900b

2.37.2 INSTALLATION PROCEDURE

1. SD card slot covers [A] [B] (×1)

D148/D149/D150:



d1463064

D146/D147:

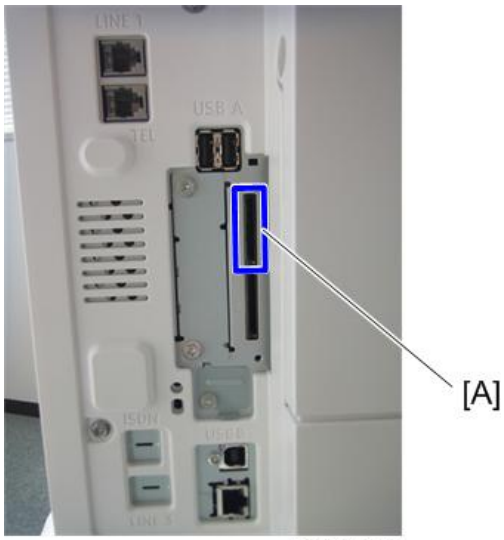
d1467101

2. Put the camera direct print card in SD card slot 1 [A].

D148/D149/D150:

d1463065b

D146/D147:



d1467103b

Note

§ When installing more than one SD card, perform the merge operation.

3. Switch the power ON.
4. Attach the SD card slot cover. (×1)
5. Stick the "PictBridge" sticker on the front face of the MFP.
6. After switching the power ON, check that the system settings list is output, and that the option is recognized correctly.

2.38 COLOR CONTROLLER CONNECTION BOARD TYPE M4/M3

M4: D148/D149/D150, M3: D146/D147

2.38.1 INSTALLATION PROCEDURE

This option is a board for EFI controller connection. Refer to the service manual of "color controller E-22C" for the installation procedure.

PREVENTIVE MAINTENANCE

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

3. PREVENTIVE MAINTENANCE

3.1 PM PARTS SETTINGS

3.1.1 REPLACEMENT PROCEDURE OF THE PM PARTS

1. Enter the SP mode.
2. Output the SMC logging data with SP5-990-004.
3. Set the following SPs to "1" before you turn the power off.
4. Replace the PM parts and turn the power on, then, the machine will reset the PM counters automatically. In the case of developer, the developer initialization will also be done automatically.
5. Exit the SP mode.

Item	SP
PCDU	Black: 3701-002, 003 Yellow: 3701-025, 026 Cyan: 3701-048, 049 Magenta: 3701-071, 072
Development unit	Black: 3701-003 Yellow: 3701-026 Cyan: 3701-049 Magenta: 3701-072
PCU	Black: 3701-002 Yellow: 3701-025 Cyan: 3701-048 Magenta: 3701-071
Pressure Roller (not necessary for complete fusing unit and Heating sleeve belt unit; see below)	Pressure roller: 3701-118
Image Transfer Belt Unit	3701-093
Image Transfer Belt Cleaning Unit	3701-102
PTR Unit	3701-109

Item	SP
Exhaust Filter	3701-132

Important

§ After the PM counter for the heating sleeve belt unit reaches its PM life (400K pages), the machine stops the operation automatically. Replace the heating sleeve belt unit before the machine stops its operation (stop warning: 415K pages, stop: 430K pages).

For the following units, there is a new unit detection mechanism. It is not necessary to reset PM counters.

§ Fusing unit

§ Heating sleeve belt unit

§ Toner Collection Bottle (if full or near-full)

Note

§ Even if you replace the new Toner Collection Bottle, PM counter will not reset soon (The machine judges whether PM counter should be reset or not after printing for some time).

§ Even if you set SP3-701-142 or SP7-622-142, PM counter of Toner Collection Bottle will not reset.

3.1.2 AFTER INSTALLING THE NEW PM PARTS

1. Turn on the main power switch.
2. Output the SMC logging data with SP5-990-004 and check the counter values.
3. Make sure that the PM counters for the replaced units are "0" with SP7-803. If the PM counter for a unit was not reset, then reset that counter with SP 7-622.
4. Make sure that the exchange counter counts up with SP7-853.
5. Make sure that the counters for the previous units (SP7-908) on the new SMC logging data list (from step 2 above) are equal to the counters (SP7-803) for these units on the previous SMC logging data list (the list that was output in the "Before removing the old parts" section).
6. Make sure that the unit replacement date is updated with SP7-950.

3.1.3 PREPARATION BEFORE OPERATION CHECK

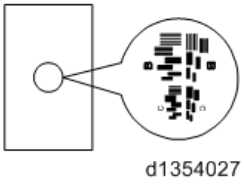
1. Clean the exposure glasses (for DF and book scanning).
2. Enter the user tools mode.
3. Do the "Automatic Color Calibration(ACC)" for the copier mode & printer mode as follows:
   - § Print the ACC test pattern (User Tools Maintenance ACC Start).
   - § Put the printout on the exposure glass.
   - § Put 10 sheets of white paper on the test chart. This ensures the precise ACC adjustment.
   - § Close the ARDF or the platen cover.
   - § Press "Start Scanning" on the LCD. Then, the machine starts the ACC.
4. Exit the User Tools mode, and then enter the SP mode.
5. Perform line adjustment.
   SP2-111-004: Forced Line Position Adj. Mode d
   The result can be checked with SP2-194-007 (MUSIC Execution Result Execution Result) (0:Succeed, 1: Fail).
   Also, results for each color can be checked with SP2-194-010 to 013.
6. Exit the SP mode.

3.1.4 OPERATION CHECK

Check if the sample image has been copied normally.

3.2 IMAGE QUALITY STANDARDS

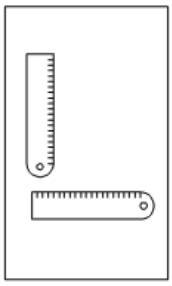
3.2.1 RESOLUTION

Item	Specification	Chart	Measuring method
Copy (100%/Enlargement), Black and White (1C)	Ave 5.0 lines/mm or more Min 4.5lines/mm or more	Book: S-5 (revised)	Copy onto plain paper using Auto Image Density/5 notches and then determine resolution.  d1354027
Copy (Reduction), Black and White (1C)	Min 4.5×M lines/mm or more	DF: S-5Y (revised)	

3.2.2 COLOR SHIFT

Item	Specification	Chart	Measuring method
Engine, Main Scan/Sub Scan	180.0µm or less	L-Pattern	Print within 1 minute after MUSIC correction.

3.2.3 MAGNIFICATION RATIO ERROR MARGIN

Item	Specification	Chart	Measuring method
Engine, Main Scan, Black and White (1C)	±0.50% or less	Mono_CCD	Copy the scale and compare it with the scale at 100 mm to see if it is within specification. Leave the sheet for 3 minutes or more after it has been output before measuring.  d1354028 The swelling/shrinkage of paper caused by humidity are excluded. First side of the sheet only.
Engine, Sub Scan, Black and White (1C)	±0.50% or less	Scale chart	
Copy (100%), Main Scan, Black and White (1C)	±0.80% or less		
Copy (100%), Sub Scan, Black and White (1C)	±1.00% or less		
Copy (Reduction), Main Scan/Sub Scan, Black and White (1C)	±1.00% or less		
Copy (Enlargement), Main Scan/Sub Scan, Black and White (1C)	±1.00% or less		

3.2.4 MAGNIFICATION RATIO ERROR MARGIN DEVIATION

Item	Specification	Chart	Measuring method
Copy (100% / Enlargement / Reduction), Black and White (1C)	1.00% or less	Scale chart	Leave the sheet for 3 minutes or more after it has been output before measuring.

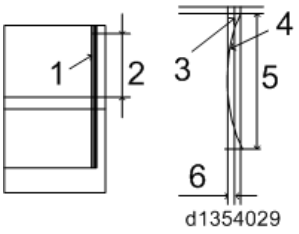
3.2.5 PITCH ERROR MARGIN

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	1.50% or less	Mono_CCD	For a line of about 1/2 inch in length.

3.2.6 PERPENDICULARITY

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	±1.25mm/200mm or less (90° ± 0.35°)	Mono_CCD	Measure with the full length and width of the image.
Copy (100%), Black and White (1C)	±1.75mm/200mm or less (90° ± 0.5°)	Scale chart	

3.2.7 LINEARITY

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	±0.20mm/100mm or less	Mono_CCD	Measure with the full length and width of the image.  1. Inner line 2. 100mm 3. Base line 4. Copy 5. 100mm 6. 0.5mm
Copy, Black and White (1C)	±0.50mm/100mm or less	Scale chart	

3.2.8 PARALLELISM

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	± 1.8mm or less	Mono_CCD	Measure with the full length and width of the image.

3.2.9 MISSING IMAGE AREA (D135/D136)

Item	Specification	Chart	Measuring method
Engine/Copy (leading edge), Black and White(1C)	4.2±1.5%	Trim	Since there is a variability of about 1 mm in the sizes of sheets of paper, correct the size of the sheet before measuring.
Engine/Copy (left/right), Black and White(1C)	0.5 to 4.0mm		
Engine/Copy (trailing edge), Black and White(1C)	0.5 to 6.0mm (Duplex: 3.0 to 6.0mm)		

3.2.10 MARGIN POSITION

Item	Specification	Chart	Measuring method
Engine (simplex), Main Scan/Sub Scan, Black and White (1C)	0±1.5mm	Mono_CCD	
Engine (duplex), Main Scan/Sub Scan, Black and White (1C)	0±3mm		

3.3 PAPER TRANSFER QUALITY STANDARDS

3.3.1 REGISTRATION

Item	Specification	Note
Simplex (1st print side), 100% or reduction	0±2mm (Vertically and horizontally)	
Simplex (1st print side), enlargement	0±2mm × M mm (Vertically and horizontally)	M: Magnification ratio
Duplex (2nd print side), 100% or reduction	0±4mm (Vertically and horizontally)	
Duplex (2nd print side), enlargement	0±2mm × (2×M+2) mm (Vertically and horizontally)	M: Magnification ratio

3.3.2 SKEW

Exposure glass

Item	Specification	Note
1st side, Less than B5 SEF	±1.3mm/100mm or less	
1st side, B5 SEF or more	±0.9mm/100mm or less	
2nd side, Less than B5 SEF	±1.8mm/100mm or less	
2nd side, B5 SEF or more	±1.3mm/100mm or less	

ADF

Item	Specification	Note
1st side, Less than B5 SEF	±2.0mm/100mm or less	
1st side, B5 SEF or more	±1.5mm/100mm or less	
2nd side, All size	±2.5mm/100mm or less	

REPLACEMENT AND ADJUSTMENT

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

4. REPLACEMENT AND ADJUSTMENT

4.1 NOTES ON THE MAIN POWER SWITCH

4.1.1 PUSH SWITCH

The main power button of this machine has been changed to a push-button switch (push button) from the conventional rocker switch. The push switch has characteristics and specifications different from the rocker switch. Care must be taken when replacing and adjusting parts.

Characteristics of the Push Switch (DC Switch)

Power is supplied to the machine even when the main power switch is turned OFF.

The push switch in this machine uses DC (direct current). Therefore, if the AC power cord is connected to an electrical outlet, power is supplied to the controller board, the operation unit and other modules even when the main power is turned OFF. When replacing the controller board and the operation unit in this state, not only these boards, it will damage other electrical components.

So, when performing maintenance work such as replacing parts, in addition to turning off the main power with the push switch, always unplug the AC power cord.

When you disconnect the power cord from the AC wall outlet, inside the machine there is still residual charge.

When you disconnect the power cord from the AC wall outlet, inside the machine for a while there is still residual charge. Therefore, if you remove boards in this state, it can cause a blown fuse or memory failure.

§ How to remove the residual charge inside the machine

After you unplug the power cord from the AC wall outlet, in order to remove the residual charge from inside the machine, be sure to press the main power switch. Thus, the charge remaining in the machine is released, and it is possible to remove boards.

When you reconnect the AC power cord into an AC wall outlet, the machine will start automatically.

In order to remove the residual charge, push the main power switch while you disconnect the AC power cord. At that time, the power ON flag inside the machine is set. Therefore, after you finish work on the machine and reconnect the power cord to the AC, even if you do not press the main power switch, the machine will start automatically and the moving parts will begin to move. When working on moving parts, be careful that fingers or clothes do not get caught.

Note

§ Automatic restart deals with cases when you accidentally unplugged the AC power cord or unexpected power outages. By keeping the power flag ON, after the resumption of power, the machine will start up automatically.

In rare cases, when you reconnect the AC power cord to a power outlet, the machine does not start automatically. In this case, the machine has not failed. The cause is due to the timing of releasing the residual charge. If you press the main power switch while the residual charge was already released, the power ON flag will not be set. At this time, start the machine manually by pressing the main power switch.

Shutdown Method

1. Press the main power switch [A] on the machine.
2. The shutdown message is displayed. Wait for 3 minutes for the machine to shut down.

Note

§ After the shutdown process, the main power is turned off automatically.

d1462045

CAUTION

§ Before removing and adjusting electrical boards, do the following procedure. Otherwise, the board can be damaged by the residual charge inside the machine and must be replaced.

1. Take out the power cord after shutdown.
2. Press the power switch for a second to remove the residual charge inside the machine.

Forced Shutdown

In case normal shutdown does not complete for some reason, the machine has a forced shutdown function.

To make a forced shutdown, press and hold the main power switch for 6 seconds.

In general, do not use the forced shutdown.

Important

§ Forced shutdown may damage the hard disk and memory, and can cause damage to the machine. Use a forced shutdown only if it is unavoidable.

4.2 BEFOREHAND

⚠WARNING

- § Turn off the main switch and disconnect the power cord.
- § After replacing, make sure that all harnesses that were removed are connected up again and secured in their clamps.

4.3 SPECIAL TOOLS

Part Number	Description	Q'ty	Unique or Common
A1849501	Scanner Positioning Pin (2pcs/set)	1	C (General)
B6455020	SD Card (1GB)	1	C (General)
52039502	Silicone Grease G-501	1	C (General)
A2579300	Grease Barrierta – S552R	1	C (General)
VSSG9002	FLUOTRIBO MG GREASE: 100G	1	C (*1)
C4019503	20× Magnification Scope	1	C (General)
A0929503	C4 Color Test Chart (3 pcs/set)	1	C (General)

Note

§ These items are common with the following models. (*1): Common with TH-C1

§ A PC (Personal Computer) is required for creating the Encryption key file on an SD card when replacing the controller board in which HDD encryption has been enabled.

4.4 EXTERIOR COVERS

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.

4.4.1 FRONT COVER

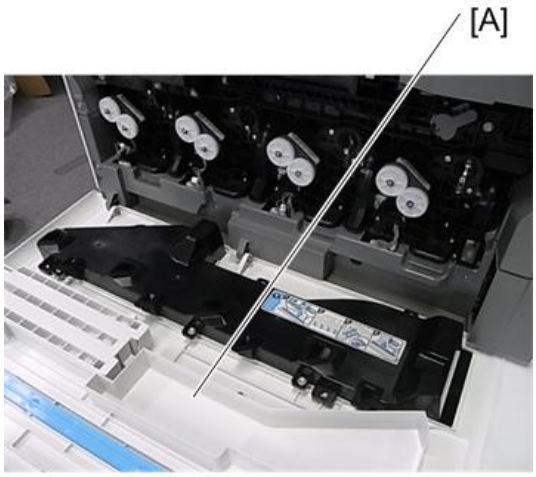
1. Open the front cover [A].

d1462004

2. Belt [A]

d1462005

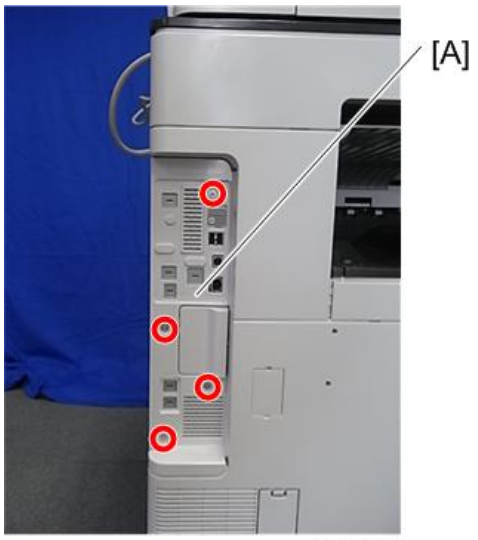
3. Front cover [A]



d1462006

4.4.2 CONTROLLER COVER

1. Controller cover [A] (×4)

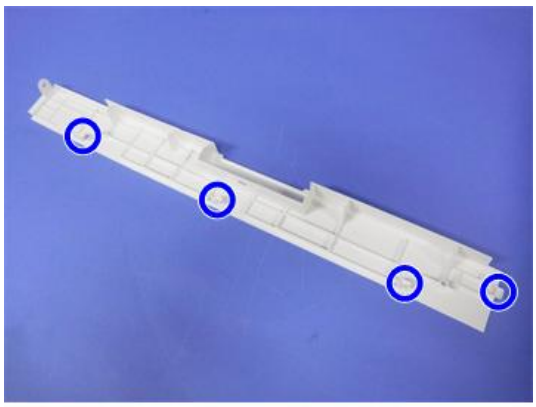


d1462007

4.4.3 UPPER LEFT COVER

⚠CAUTION

§ Each part enclosed by a blue circle has a tab. Be careful not to damage it when attaching and detaching.



d1462009

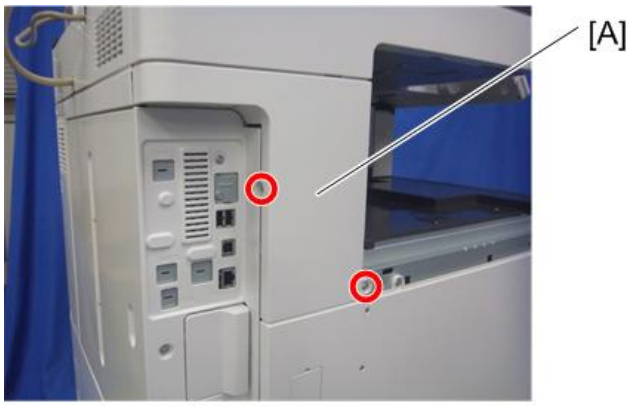
1. Open the front cover. (page 4-5 "Front Cover")
2. Paper exit tray (page 4-15 "Paper Exit Tray")
3. Upper left cover [A] (×1)

   Slide the cover in the direction of the blue arrow.

d1462008

4.4.4 LEFT REAR COVER

1. Upper left cover (page 4-7 "Upper Left Cover")
2. Left Rear Cover [A] (×2)

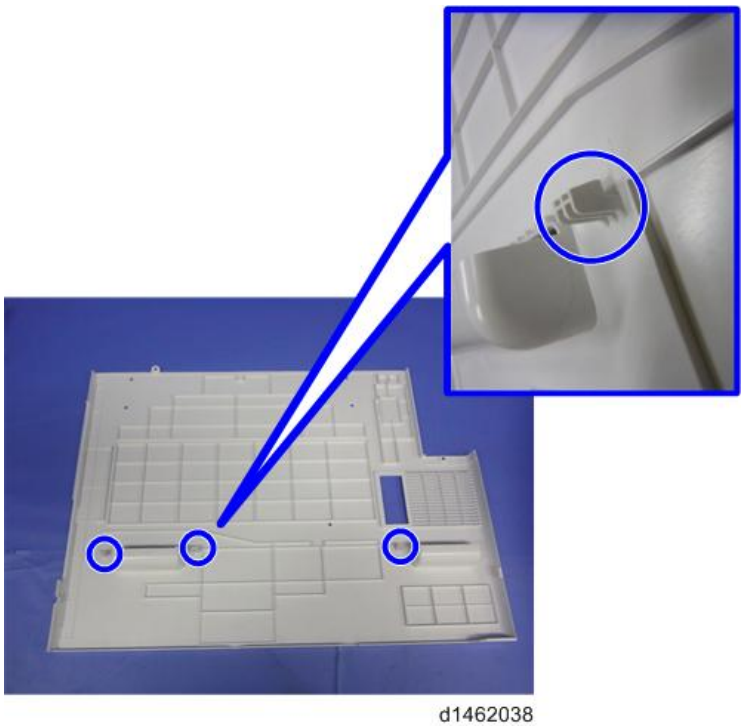


d1462010

4.4.5 LEFT COVER

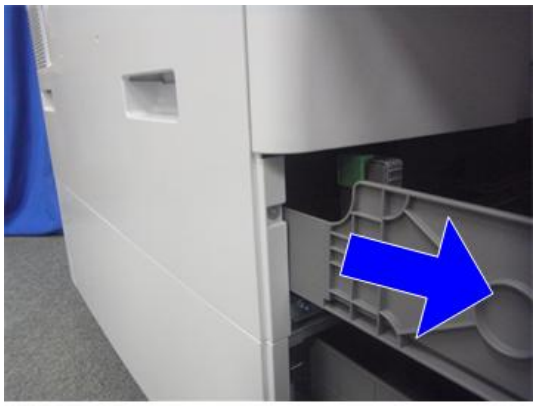
CAUTION

§ Each part enclosed by a blue circle has a tab. Be careful not to damage it when attaching and detaching.



d1462038

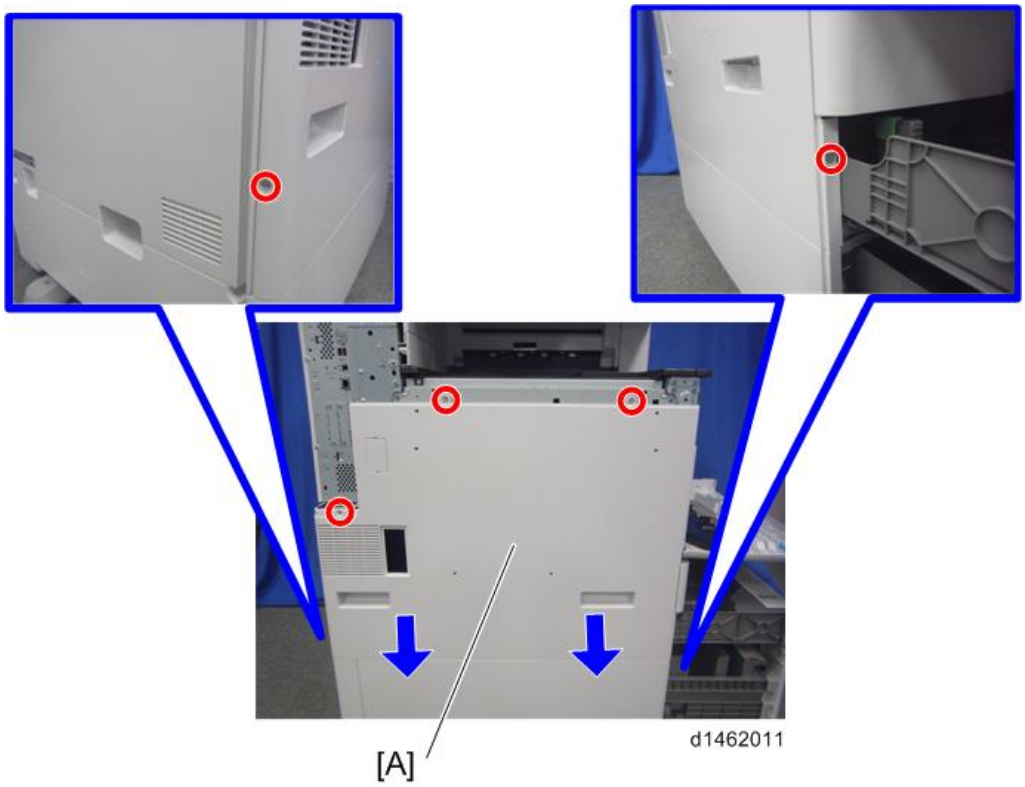
1. Controller cover (page 4-6 "Controller Cover")
2. Ozone filter/Dust-shield filter box (page 4-156 "Ozone filter/Dust filter")
3. Upper left cover (page 4-7 "Upper Left Cover")
4. Left rear cover (page 4-8 "Left Rear Cover")
5. Open the 2nd paper feed tray slightly.



d1462036

6. Left cover [A] (×5)

Remove it while pressing down.



d1462011

Order to remove

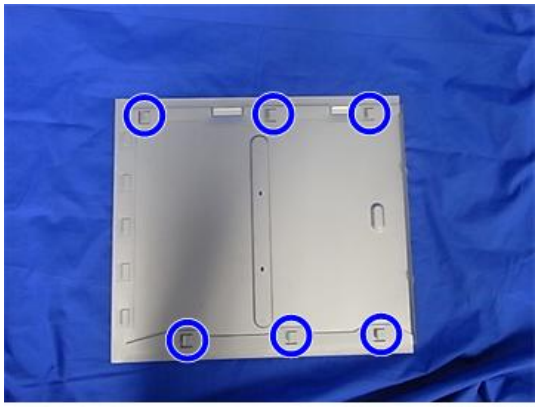
d1462039

1. **Paper exit tray**
2. **Controller cover**
3. **Ozone filter/Dust-shield filter box**
4. **Front cover**
5. **Upper left cover**
6. **Left rear cover**
7. **2nd paper feed tray**
8. **Left cover**

4.4.6 REAR COVER

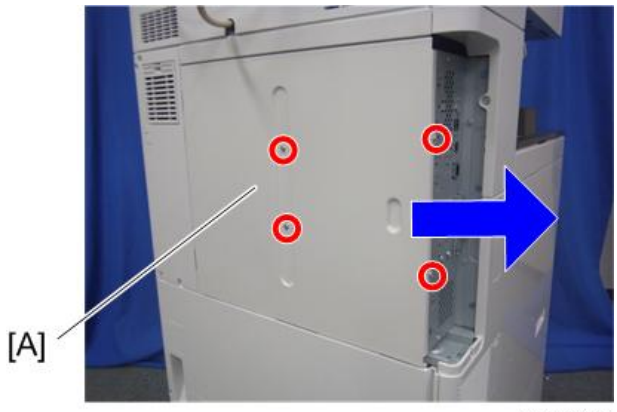
⚠CAUTION

§ There is a claw (left-facing) on the back face of the rear cover. When fitting or removing the cover, take care not to damage it.



d1462012

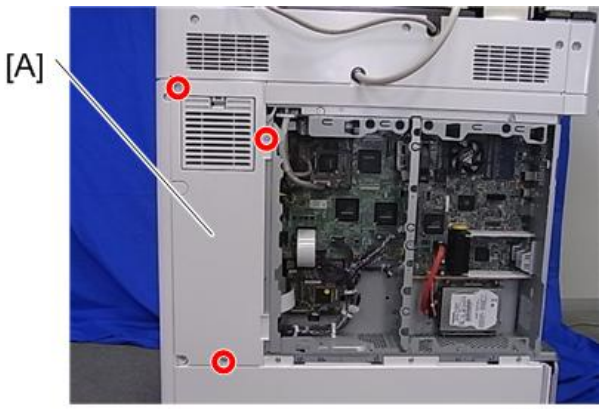
1. Controller cover (page 4-6 "Controller Cover")
2. Rear cover [A] (×4)



d1462013

4.4.7 REAR RIGHT COVER

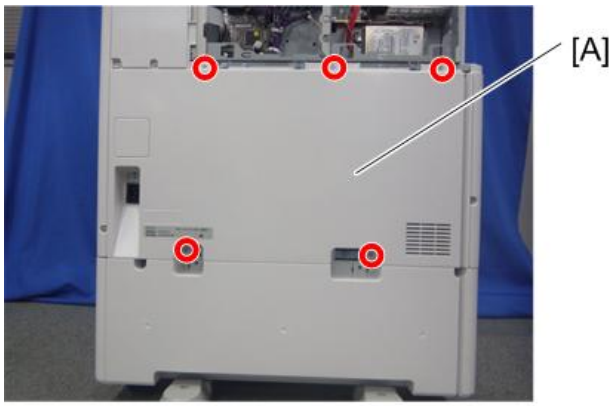
1. Rear cover (page 4-10 "Rear Cover")
2. Rear Right Cover [A] (×3)



d1462014

4.4.8 REAR LOWER COVER

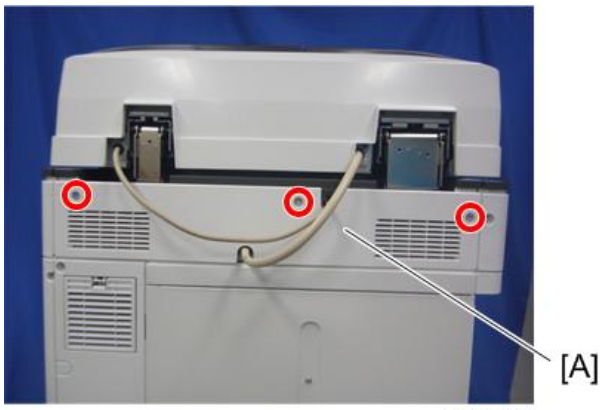
1. Rear cover (page 4-10 "Rear Cover")
2. Rear lower cover [A] (×5)



d1462015

4.4.9 SCANNER REAR COVER

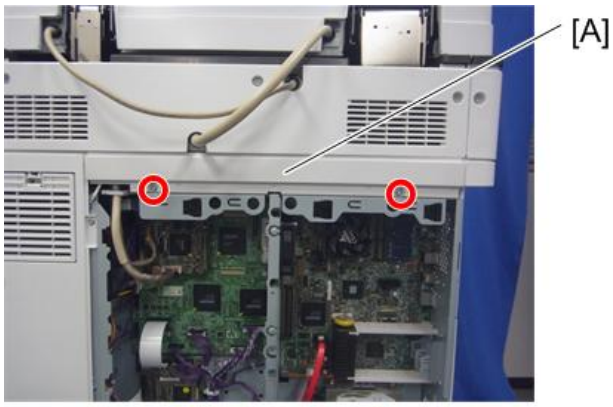
1. Scanner rear cover [A] (×3)



d1462016

4.4.10 SCANNER REAR COVER (SMALL)

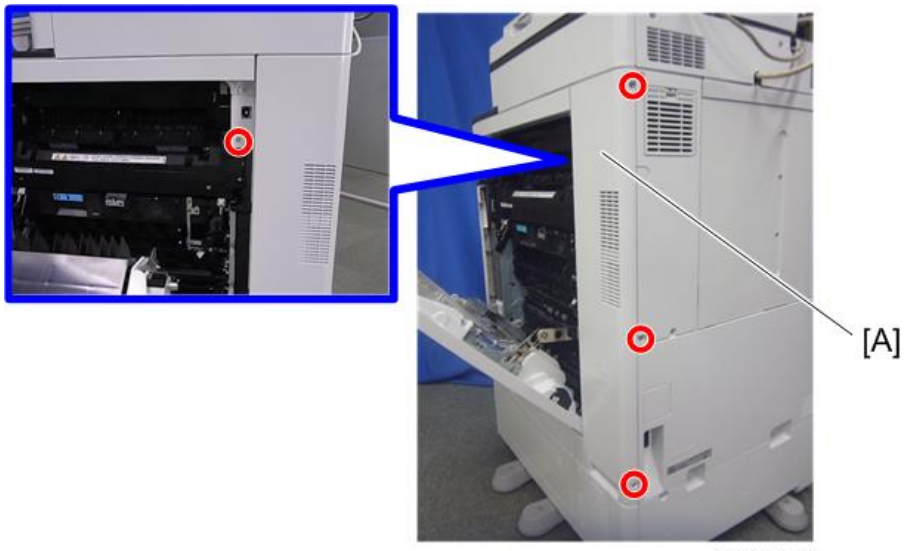
1. Rear cover (page 4-10 "Rear Cover")
2. Scanner rear cover (Small) [A] (×2)



d1462017

4.4.11 RIGHT REAR COVER

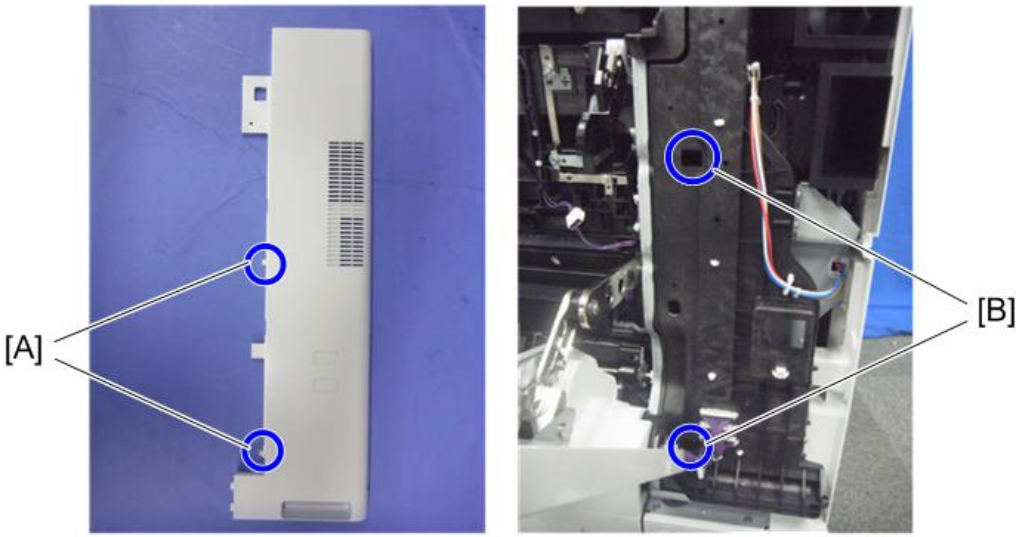
1. Open the right cover. (page 4-134 "Duplex Unit")
2. Right rear cover [A] (×4, Among them, tapping screw×1)



d1462019

Note

§ When installing, insert the projections [A] in the holes [B], taking care not to trap the harness inside.

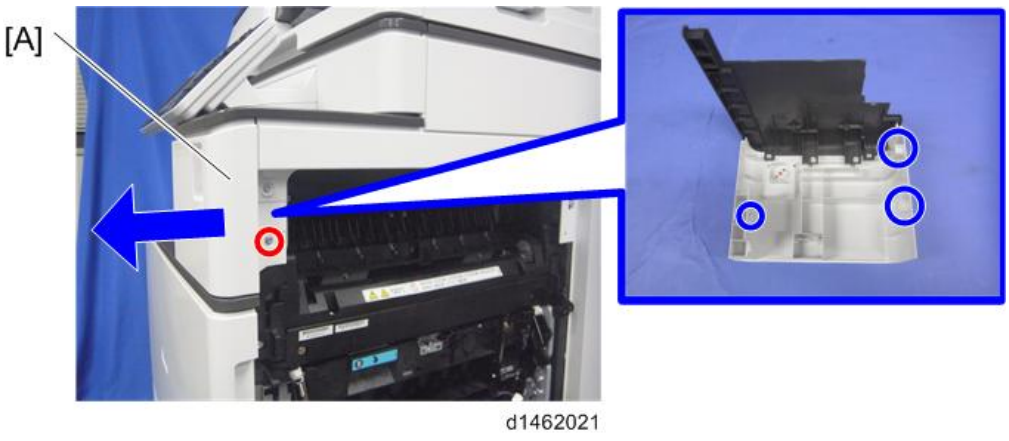


4.4.12 RIGHT UPPER COVER

1. Main power switch cover (page 4-13 "Main power switch cover")
2. Right upper cover [A] (×2)

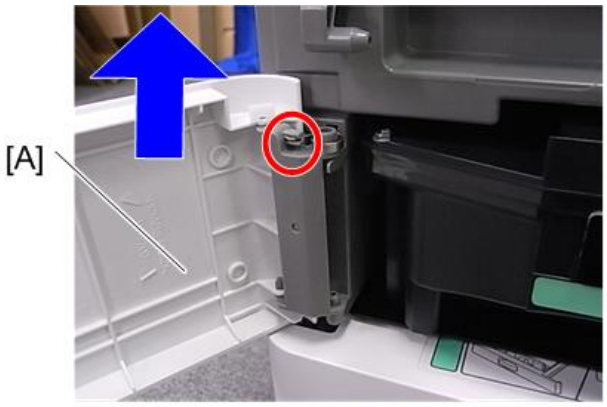
4.4.13 MAIN POWER SWITCH COVER

1. Open the right cover. (page 4-134 "Duplex Unit")
2. Main power switch cover [A] (×1)



4.4.14 WASTE TONER COVER

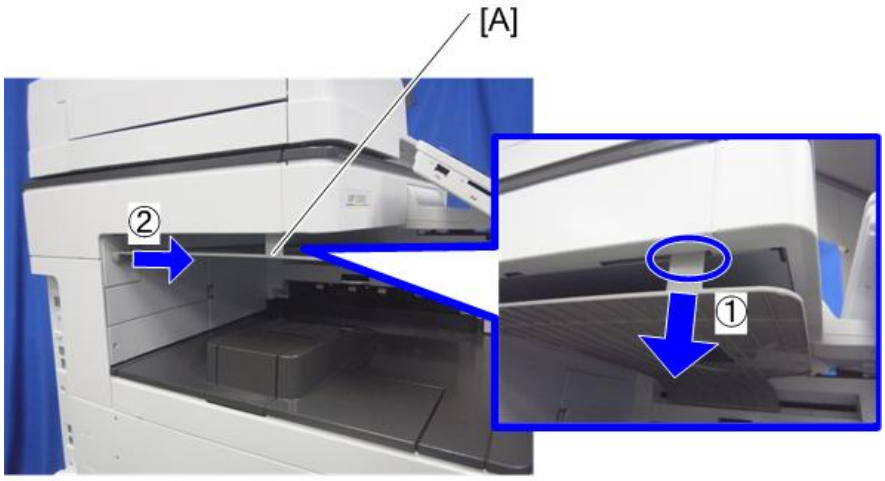
1. Front cover (page 4-5 "Front Cover")
2. Waste Toner Cover [A]



d1462022

4.4.15 REVERSE TRAY

1. Reverse Tray [A]



d1462037

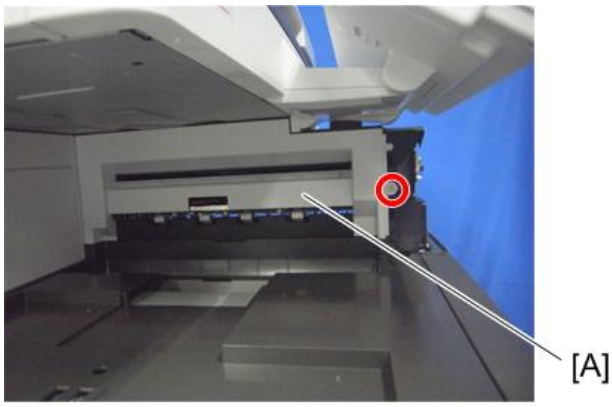
4.4.16 PAPER EXIT TRAY

1. Paper Exit Tray [A]

d1462023

4.4.17 PAPER EXIT COVER

1. Main power switch cover (page 4-13 "Main power switch cover")
2. Paper exit tray (page 4-15 "Paper Exit Tray")
3. Reverse Tray (page 4-14 "Reverse Tray")
4. Paper exit cover [A] (×1)



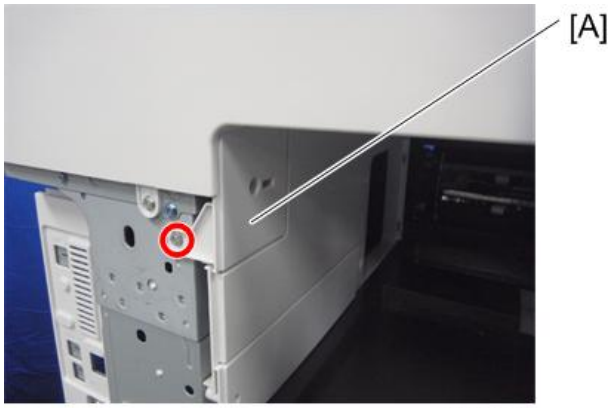
d1462024

4.4.18 PAPER EXIT LOWER COVER

1. Left rear cover (page 4-8 "Left Rear Cover")
2. Paper exit cover (page 4-15 "Paper Exit Cover")
3. Connector cover [A].

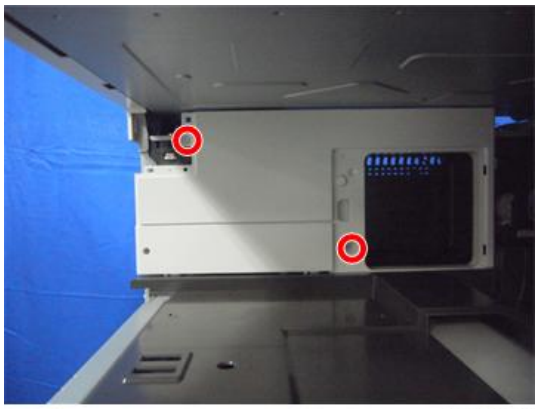
d1462090

4. Upper rear small cover [A].



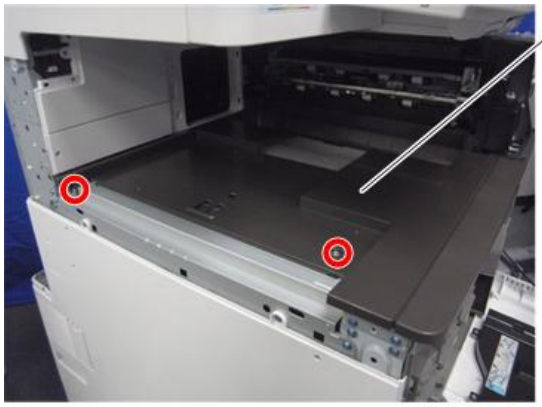
d1462091

5. 2 screws



d1462092

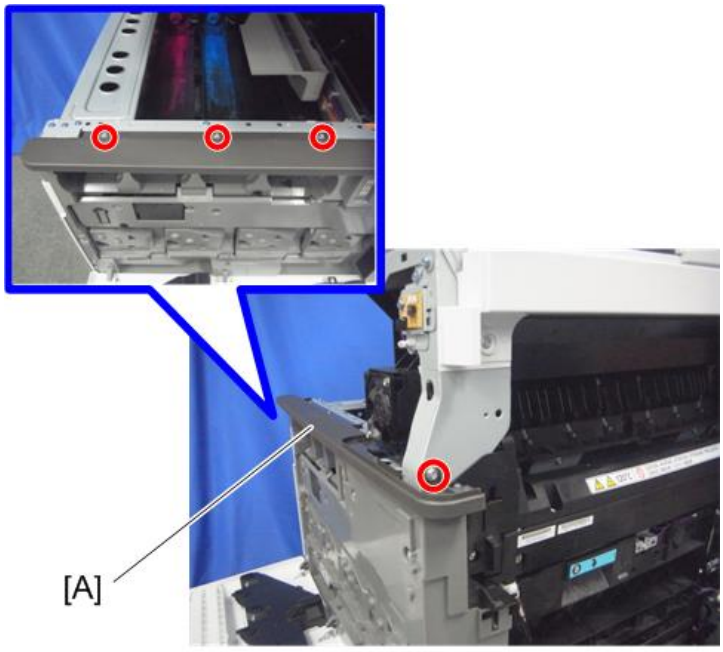
6. Paper exit lower cover [A] (×2)



d1462093

4.4.19 PAPER EXIT FRONT COVER

1. Paper exit lower cover (page 4-16 "Paper Exit Lower Cover")
2. Paper exit front cover [A] (×4)



d1462027

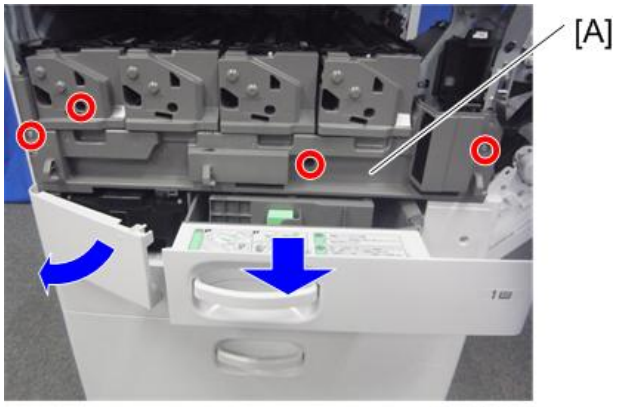
4.4.20 INNER UPPER COVER

1. Open the front cover, and remove the belt. (page 4-5 "Front Cover")
2. Open the right cover. (page 4-134 "Duplex Unit")
3. Paper exit front cover (page 4-17 "Paper Exit Front Cover")
4. Image transfer unit (page 4-65 "Image Transfer Unit")
5. Inner upper cover [A] (×3)

d1462028

4.4.21 INNER LOWER COVER

1. Front cover (page 4-5 "Front Cover")
2. Inner upper cover (page 4-18 "Inner Upper Cover")
3. PCDU front cover (Y) (page 4-58 "PCDU")
4. Inner lower cover [A] (×4)

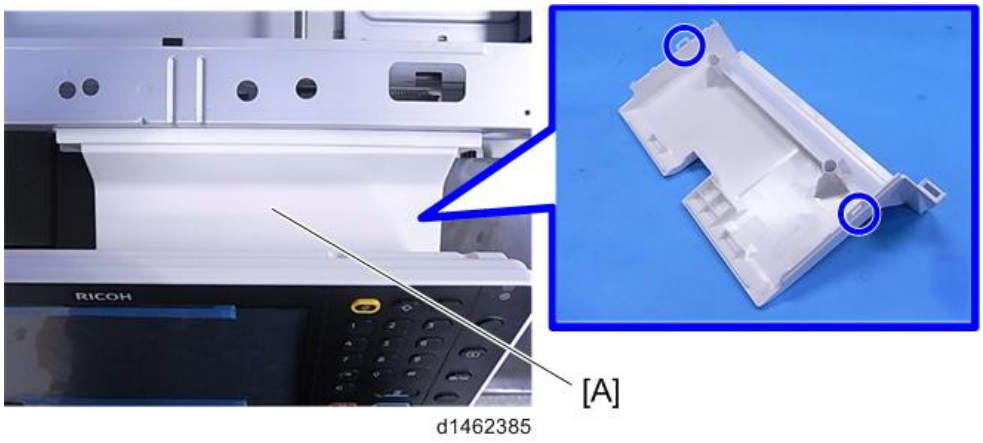


d1462029

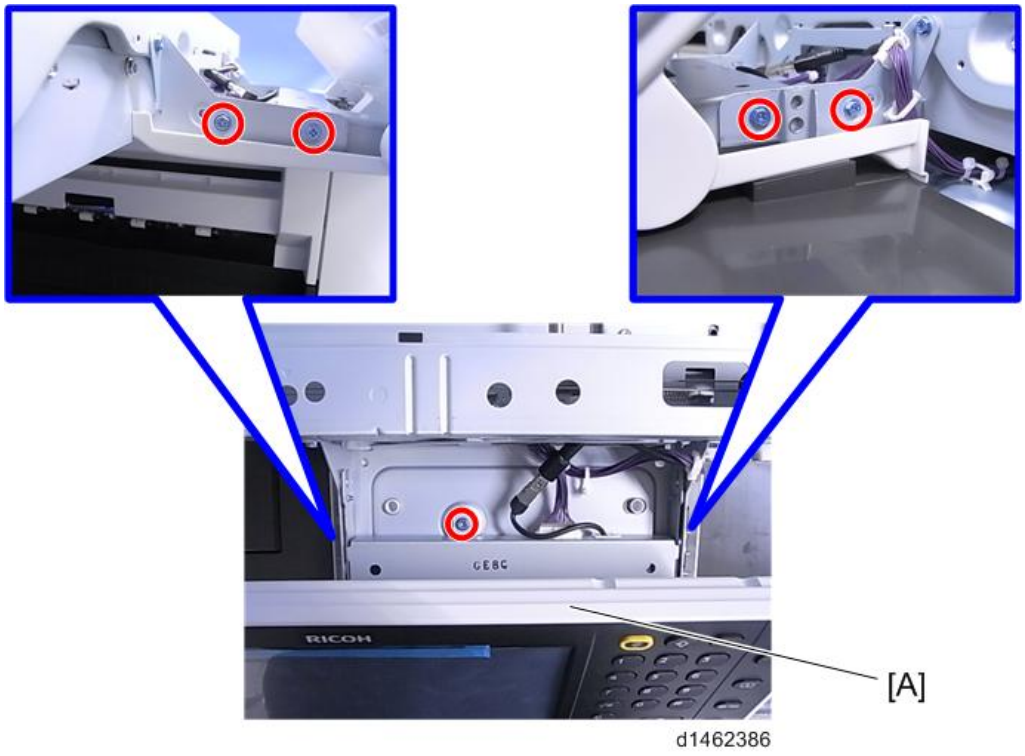
4.5 CONTROLLER UNIT

4.5.1 OPERATION PANEL

1. Scanner front cover (page 4-28 "Scanner Front Cover")
2. Operation panel upper cover [A]

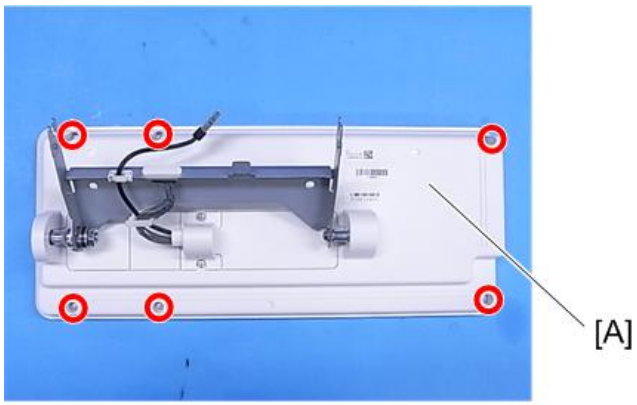


3. Operation panel [A] (×5, ×2)



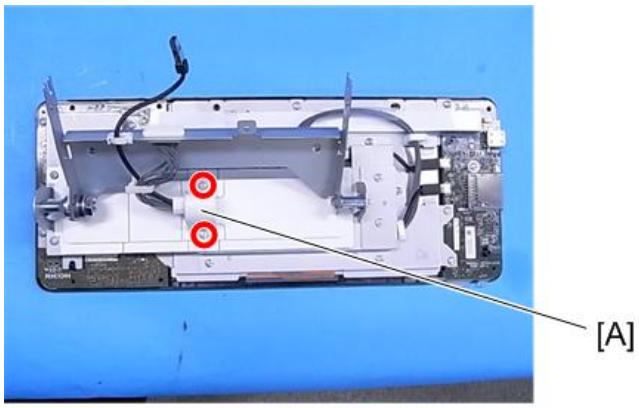
4.5.2 BOARD A

1. Operation panel (page 4-19 "Operation Panel")
2. Operation panel lower cover [A] (×6)



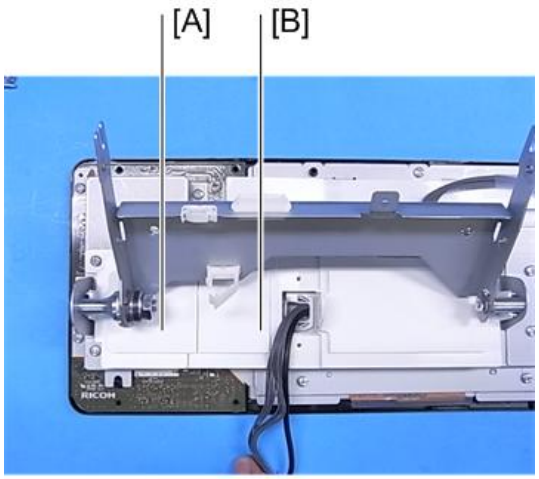
d1462387

3. Harness guide [A] (×2)



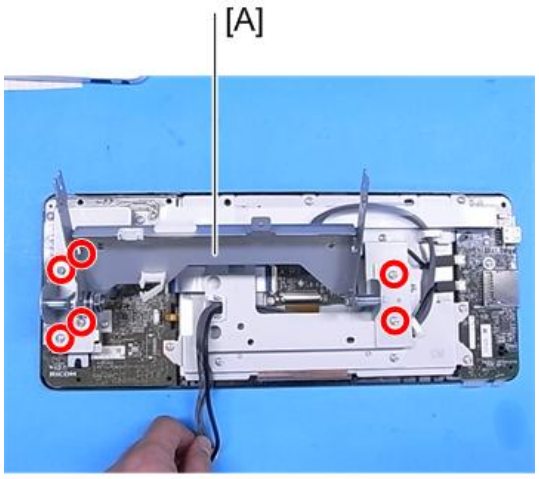
d1462388

4. Bracket covers [A] [B]



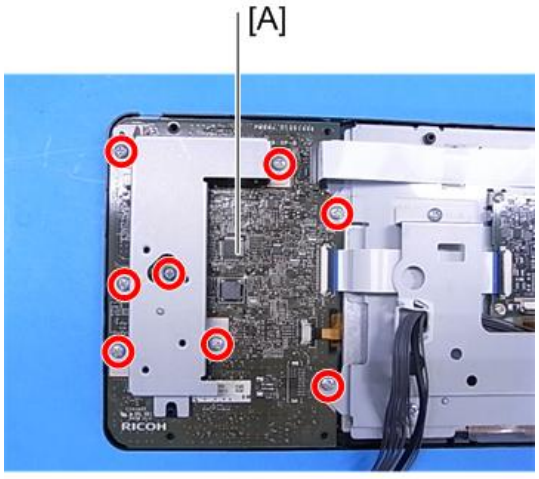
d1462389

5. Operation panel arm bracket [A] (×6)



d1462390

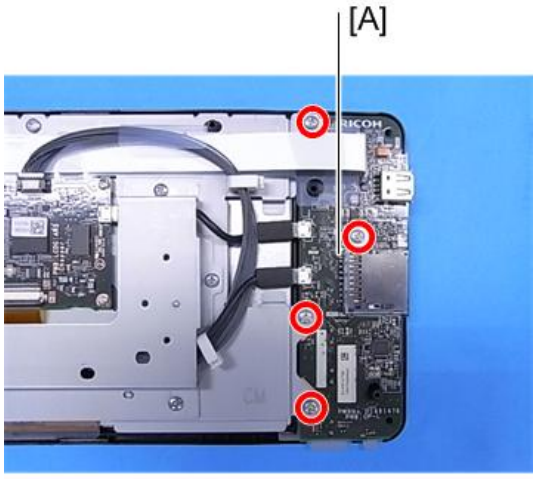
6. Board A [A] (×8, ×3)



d1462391

4.5.3 BOARD B

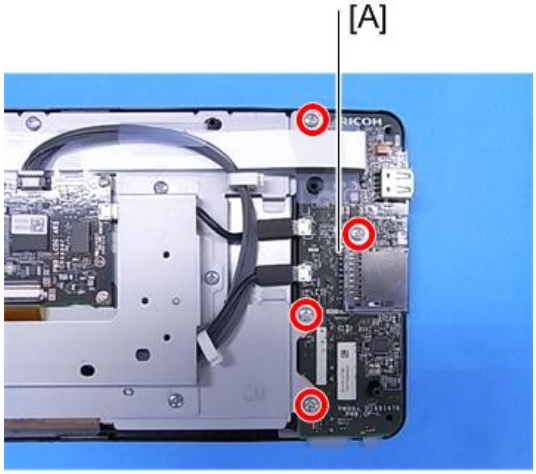
1. Operation panel arm bracket (page 4-19 "Operation Panel")
2. Board B [A] (×4, ×1, USB×2)



d1462392

4.5.4 BOARD C

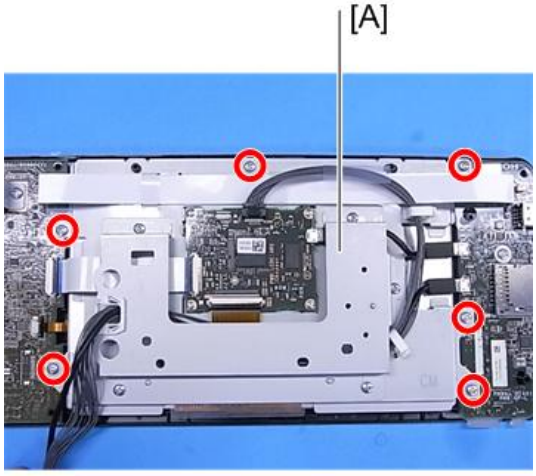
1. Operation panel arm bracket (page 4-19 "Operation Panel")
2. Board C [A] (×4, ×1, USB×2)



d1462392

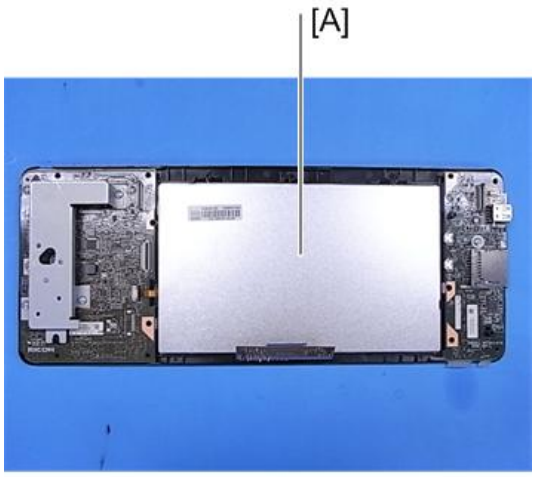
4.5.5 LCD PANEL

1. Operation panel arm bracket (page 4-19 "Operation Panel")
2. Bracket [A] (×6, ×5, USB×2)



d1462394

3. LCD panel unit [A]



d1462395

4.5.6 LCD

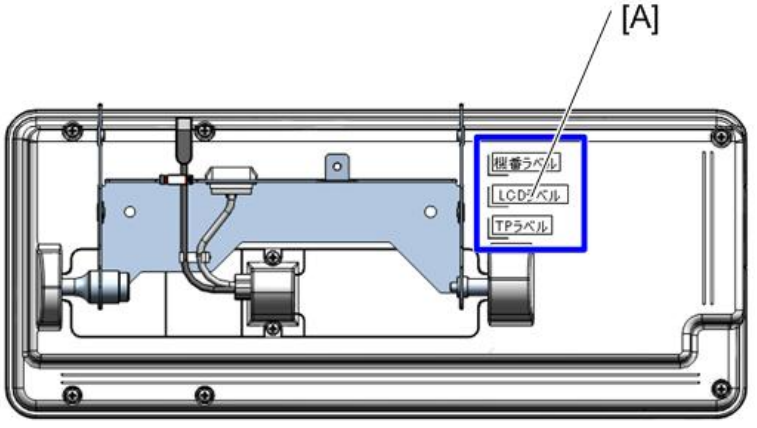
Notes when replacing the LCD

Since LCD panels from 2 vendors are used, the replacement parts are different. When replacing, check the vendor used, and ensure that you use the correct part.

Distinguishing method

Of the 3 labels on the rear of the operation panel, the center label shows the LCD model number.

Operation panel rear surface



d1462396

[A]: Label attachment position

Label

d1462397

[A]: S Co. LCD: Printed as Sxxxxx...

[B]: C Co. LCD: Printed as Cxxxxx...

Differences between operation panels from 2 vendors

§ Operation panel upper cover

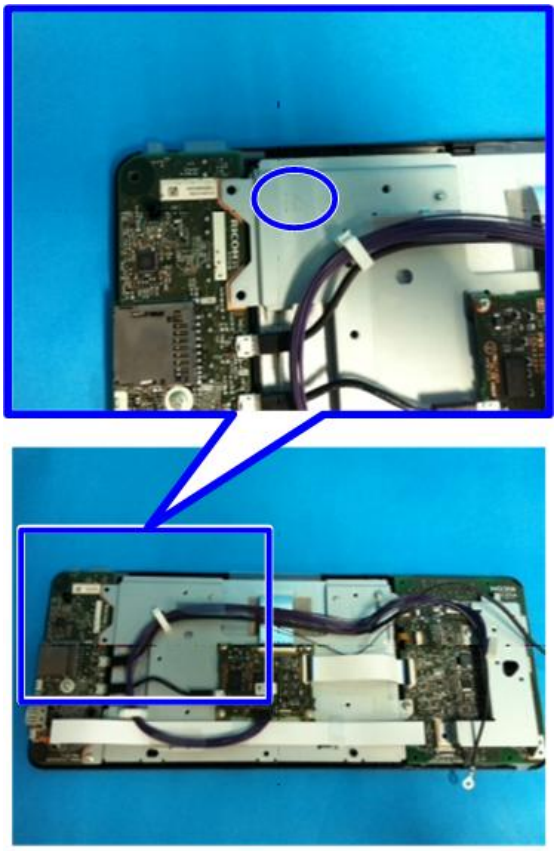
There is no difference in appearance, but there is a difference in internal layout.

§ LCD bracket

There is a difference in the shape of the bracket and the stamp inside the blue circle.

S Co.: S stamp

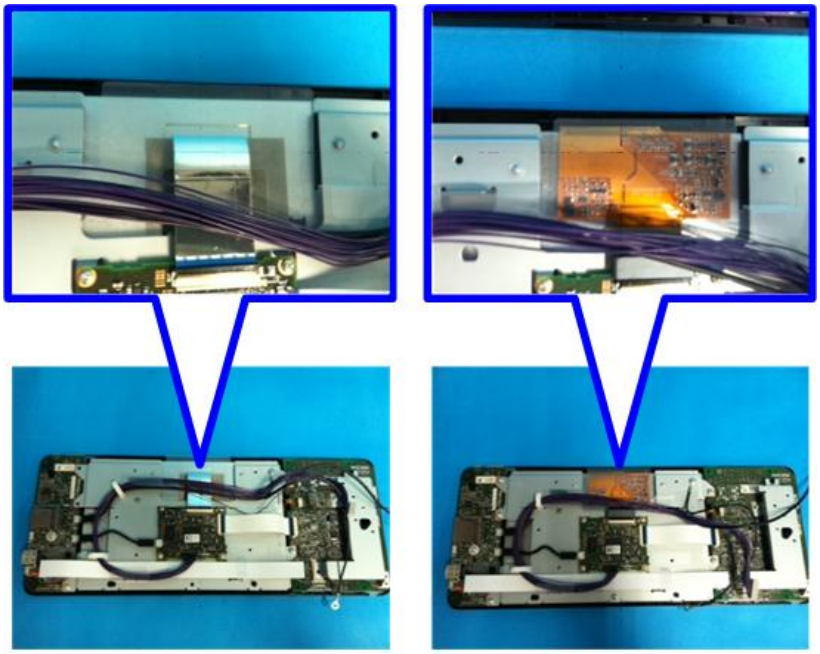
C Co.: CM stamp



d1462398

§ Use of FFC (Flexible Flat Cable)

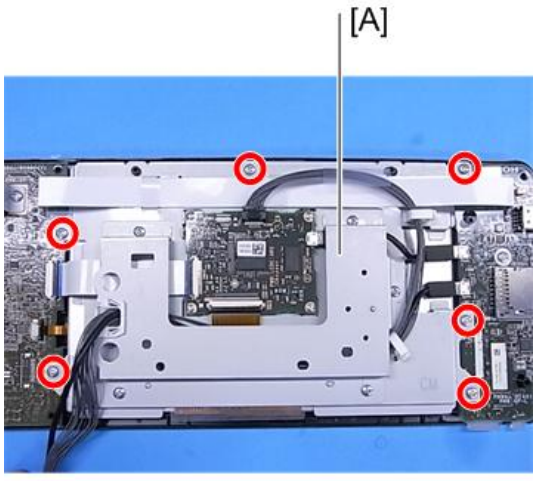
For S Co., FFC is used, but for C Co., instead of an FFC, a cable integrated with the LCD (orange) is used.



d1462399

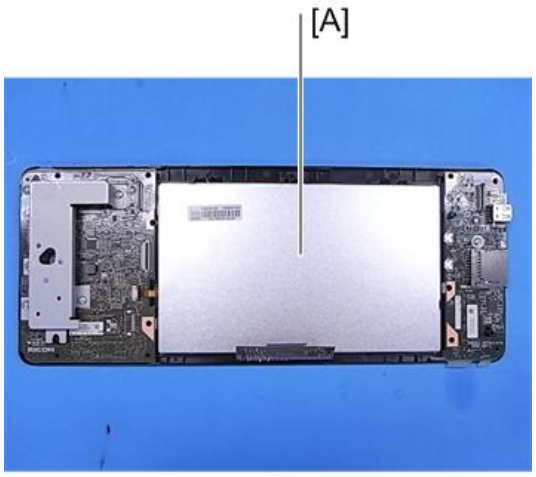
Replacement procedure

1. Operation panel arm bracket (page 4-19 "Operation Panel")
2. Bracket [A] (×6, ×5, USB×2)



d1462394

3. LCD panel unit [A]



d1462395

4.6 SCANNER UNIT

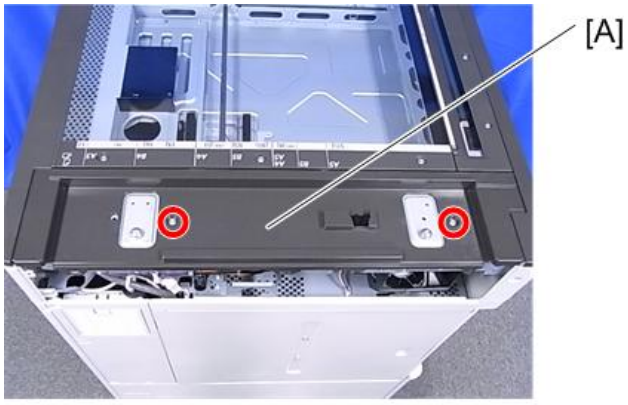
Note

§ When you replace the scanner wire, use the standard positioning pins.

4.6.1 SCANNER EXTERIOR

Scanner Upper Cover

1. Platen cover or ADF
2. Scanner rear cover (page 4-11 "Scanner Rear Cover")
3. Scanner Upper Cover [A] (×2)



d1462301

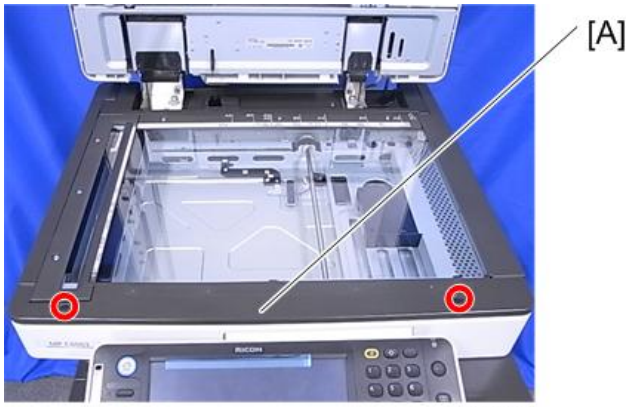
Scanner Right Cover

1. Scanner rear cover (page 4-11 "Scanner Rear Cover")
2. Scanner right cover [A] (×1)

d1462300

Scanner Front Cover

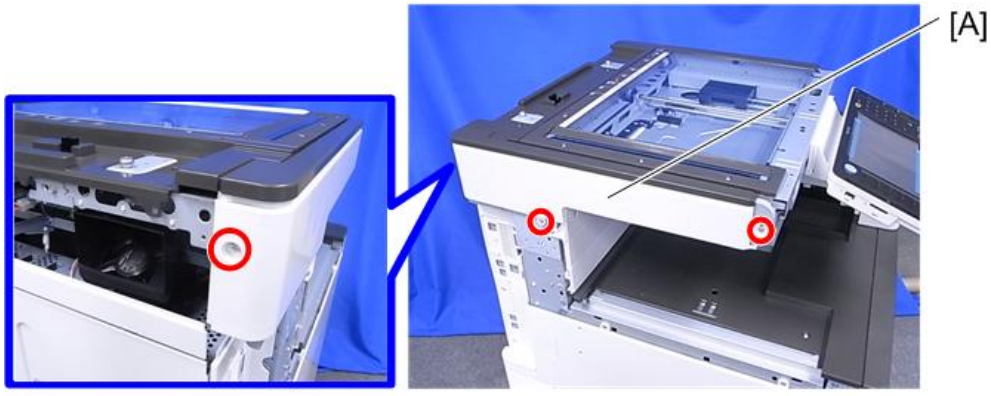
1. Scanner front cover [A] (×2)



d1462302

Scanner Left Cover

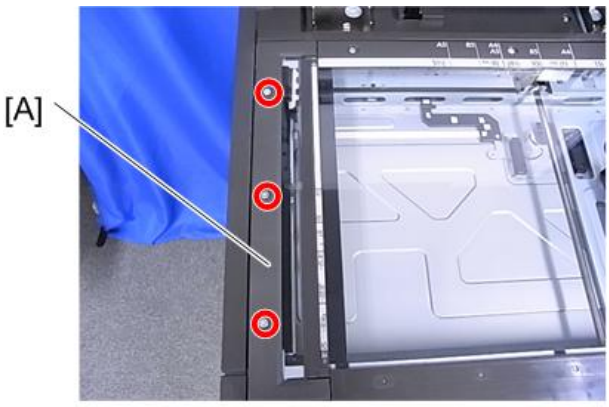
1. Left rear cover (page 4-8 "Left Rear Cover")
2. Scanner front cover (page 4-28 "Scanner Front Cover")
3. Scanner left cover [A] (×3)



d1462303

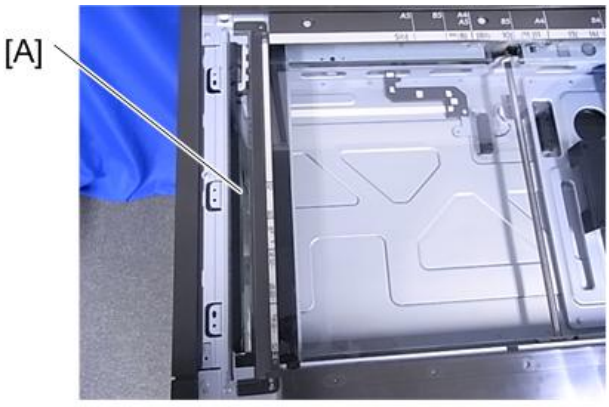
4.6.2 EXPOSURE GLASS

1. Open the platen cover or ADF, and remove the scale [A]. (×3)



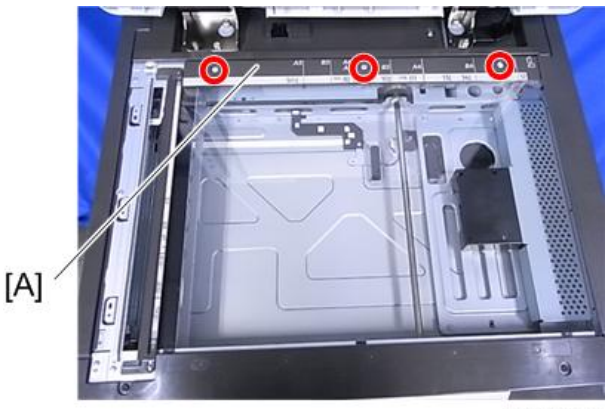
d1462304

2. ADF exposure glass [A]



d1462305

3. Rear scale [A] (×3)

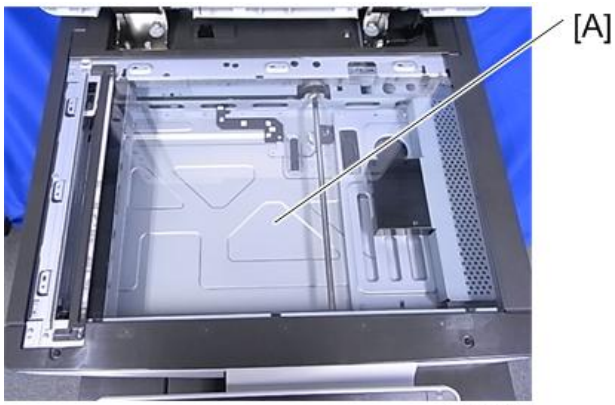


d1462306

4. Left scale and exposure glass [A]

CAUTION

§ The exposure glass and the left scale are attached with double-sided tape.



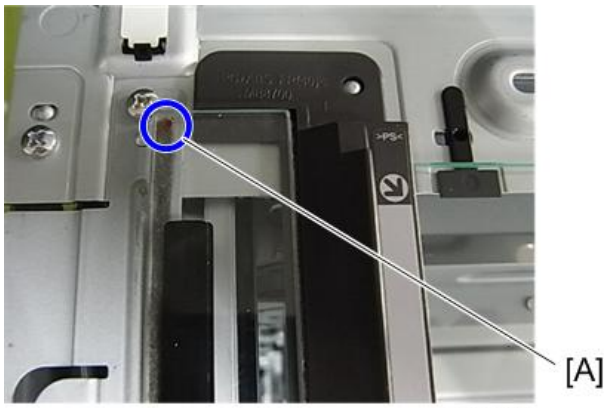
d1462307

Note

§ When installing, please follow the points below:

§ Set so that the blue mark [A] of the ADF exposure glass is on the left at the front of the operation panel.

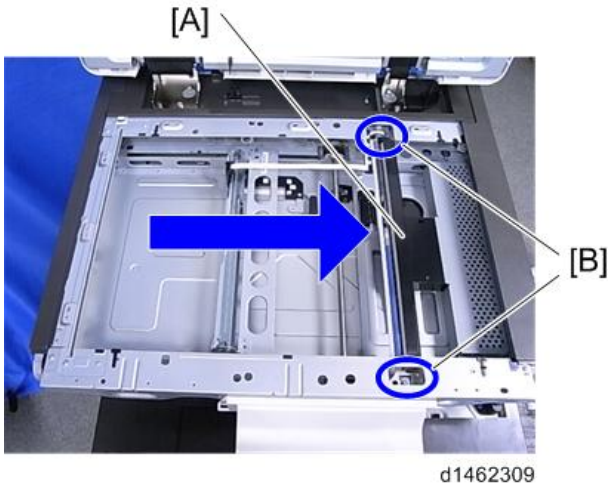
§ Set so that the locating hole of the left scale fits over the locating boss of the front/rear frame.



d1462308

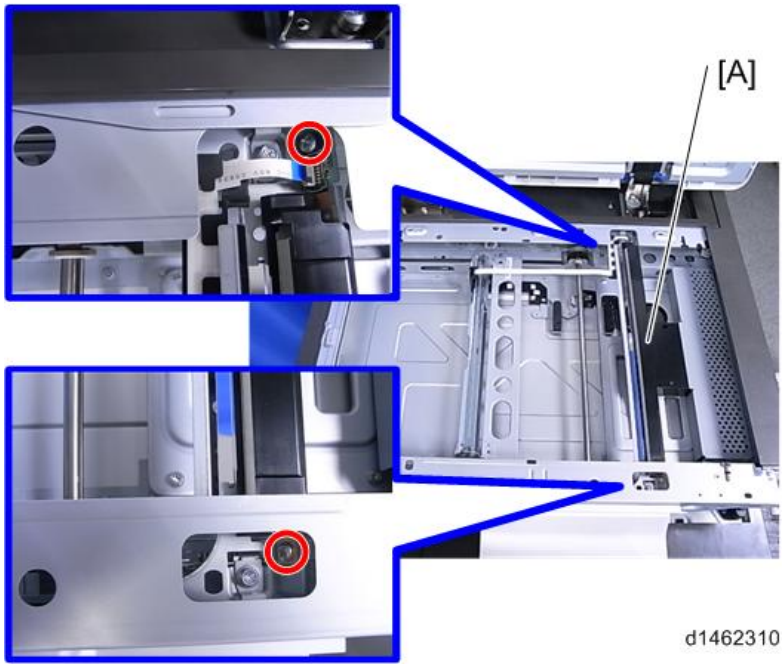
4.6.3 EXPOSURE LAMP (LED)

1. Exposure glass (page 4-29 "Exposure Glass")
2. Move the exposure lamp (1st scanner carriage) [A] to position [B].



d1462309

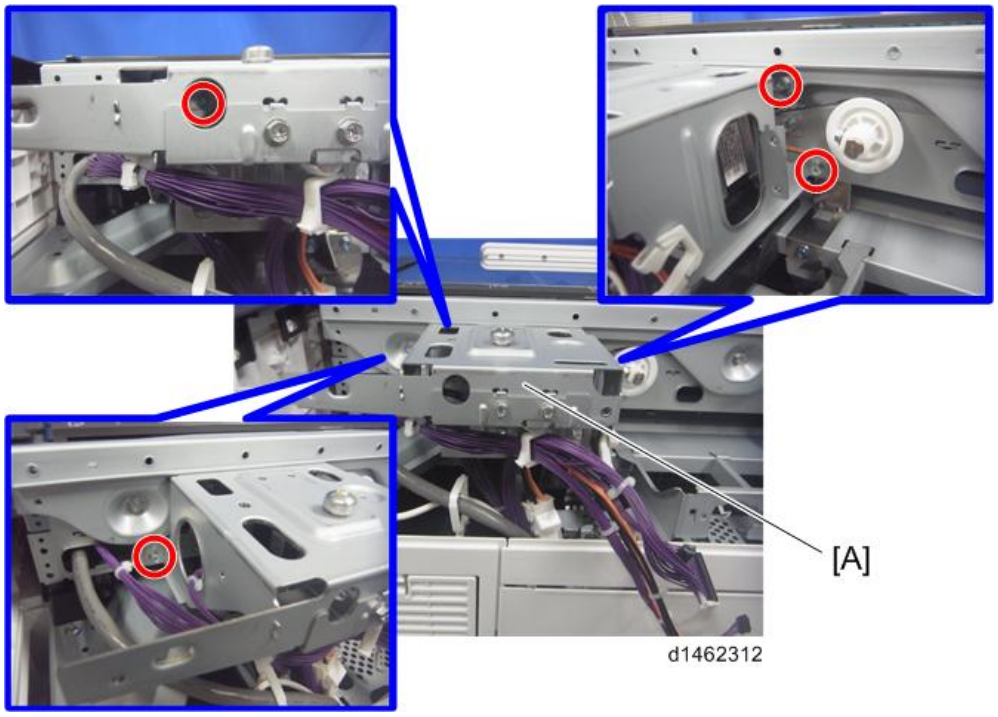
3. Exposure lamp [A] (×2, ×1)



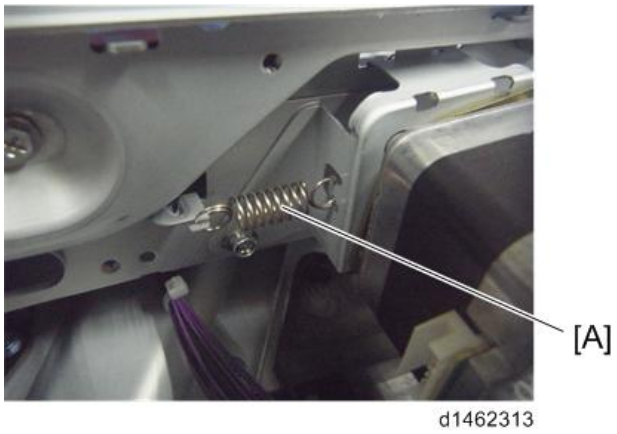
4.6.4 SCANNER MOTOR

1. Scanner upper cover (page 4-27 "Scanner Upper Cover")
2. SIO unit [A] (×2, ×7)

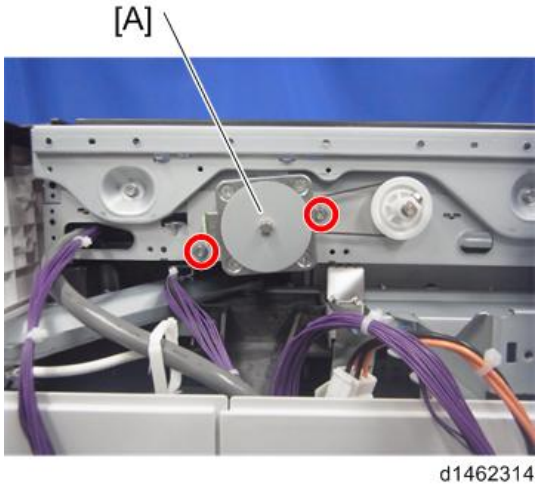
3. Bracket [A] (×4,×3)



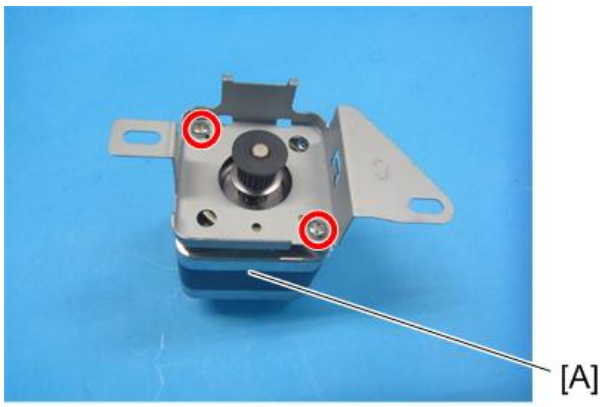
4. Spring [A]



5. Scanner motor unit [A] (×2, ×1)



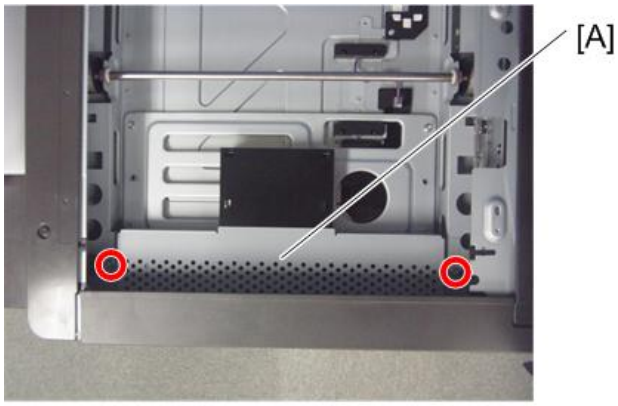
6. Scanner motor [A] (×2)



d1462315

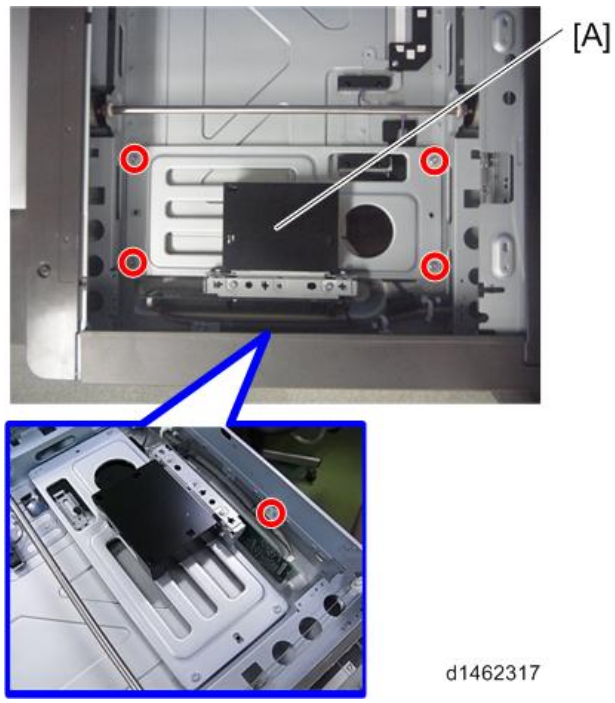
4.6.5 LENS BLOCK

1. Exposure Glass (page 4-29 "Exposure Glass")
2. Lens block cover [A] (×2)



d1462316

3. Lens block [A] (×5, ×2)



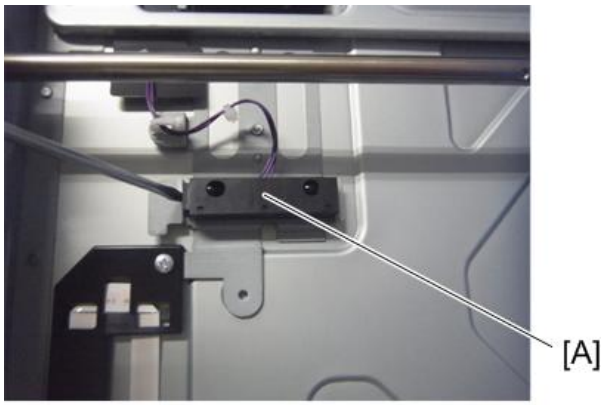
d1462317

4.6.6 ORIGINAL SIZE SENSOR

1. Exposure glass (page 4-29 "Exposure Glass")
2. Original size sensor [A] (×1)

Note

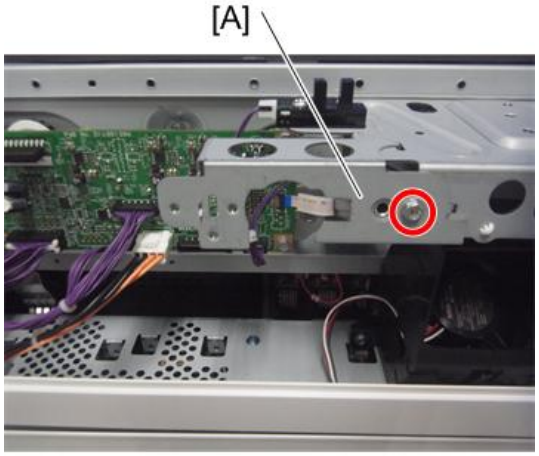
§ When a screw driver is inserted, the tab can be removed smoothly.



d1462318

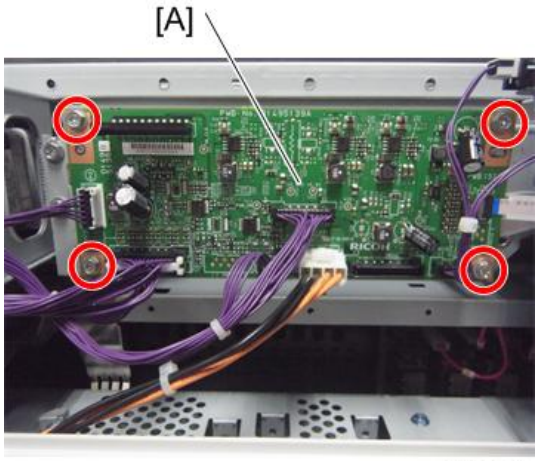
4.6.7 SIO

1. Scanner rear cover (page 4-11 "Scanner Rear Cover")
2. Scanner upper cover (page 4-27 "Scanner Upper Cover")
3. Bracket [A] (×1)



d1462337

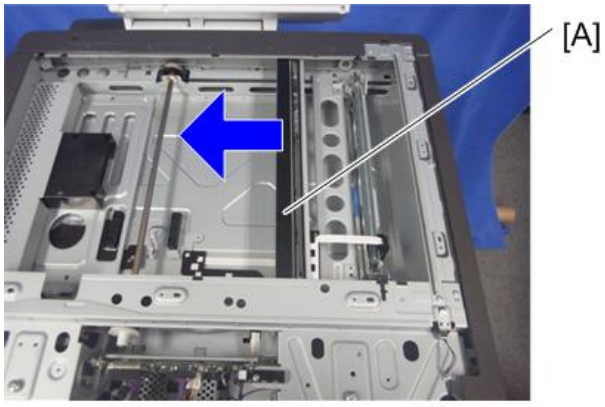
4. SIO [A] (×4, ×7)



d1462319

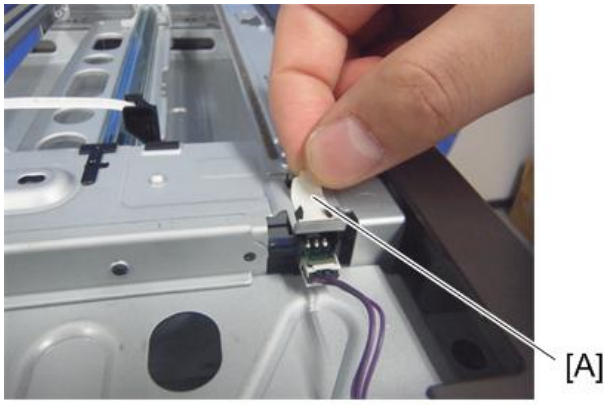
4.6.8 SCANNER HP SENSOR

1. Scanner upper cover (page 4-27 "Scanner Upper Cover")
2. Exposure glass (page 4-29 "Exposure Glass")
3. Slide the exposure lamp (1st scanner carriage) [A] in the direction of the arrow a little.



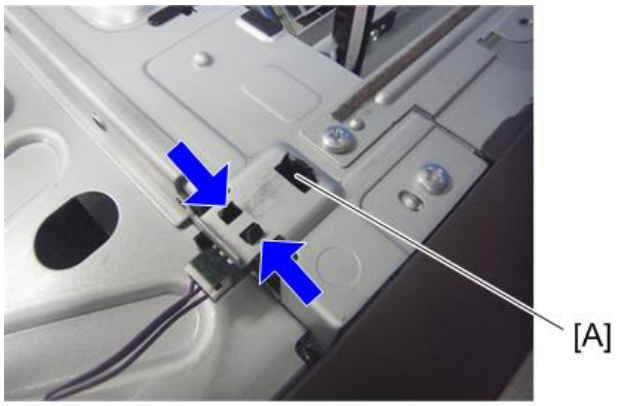
d1462320

4. Peel off the sensor stopper [A].



d1462321

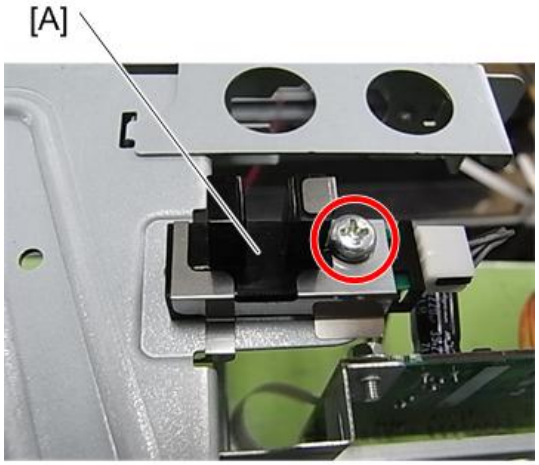
5. Scanner HP Sensor [A] (×1)



d1462322

4.6.9 DF POSITION SENSOR

1. Scanner upper cover (page 4-27 "Scanner Upper Cover")
2. DF Position sensor [A] (×1, ×1)

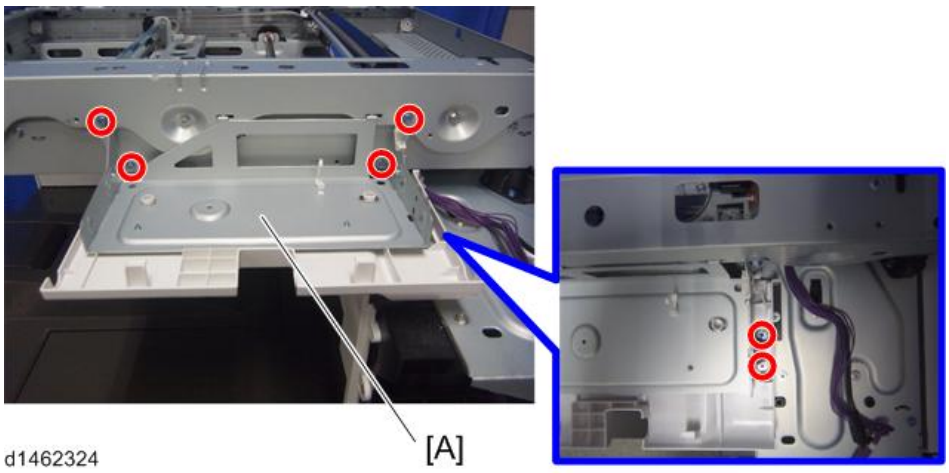


d1462323

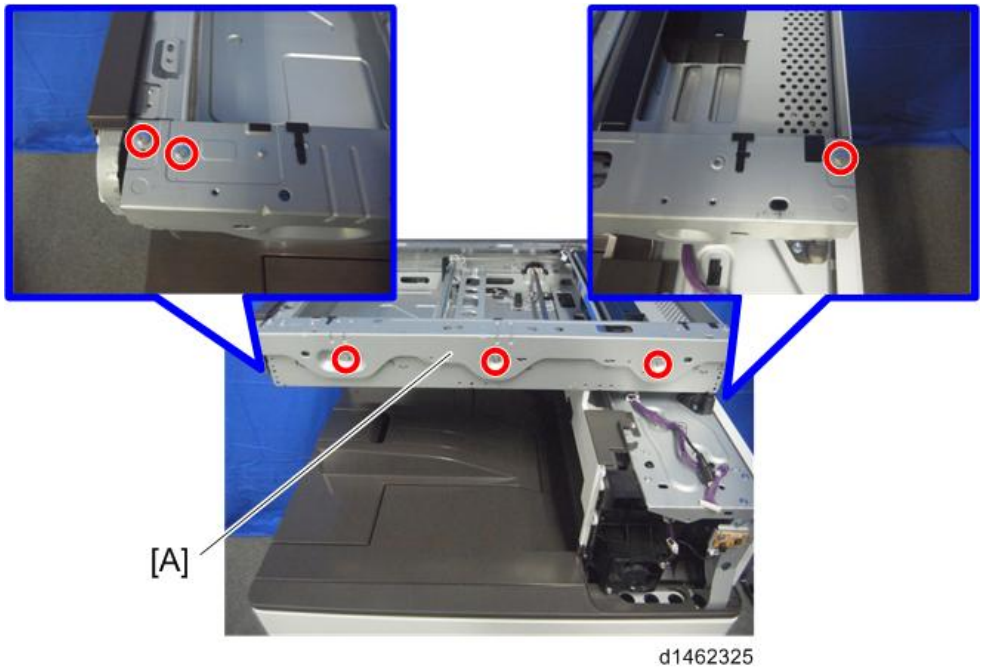
4.6.10 ADJUSTING THE SCANNER WIRE

Scanner Wire (Front)

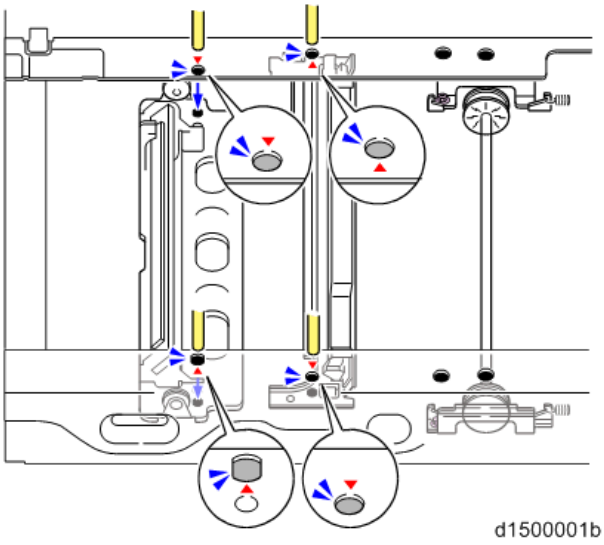
1. Exposure glass (page 4-29 "Exposure Glass")
2. Scanner right cover (page 4-27 "Scanner Right Cover")
3. Operation panel (page 4-19 "Operation Panel")
4. Main power switch cover (page 4-13 "Main power switch cover")
5. Lower bracket [A] of the operation panel (×6, ×3).



6. Scanner front frame [A] (×6)



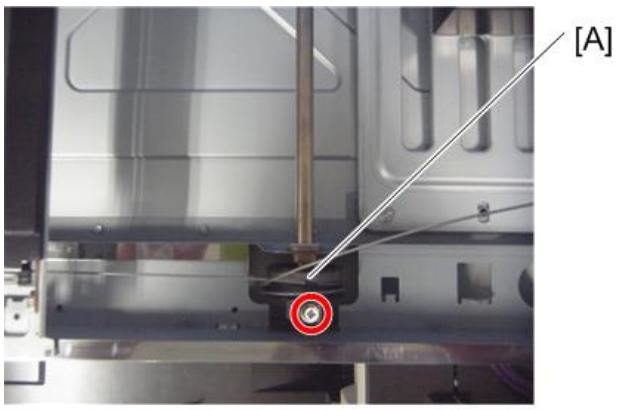
7. Move the 1st scanner carriage to the set position of the scanner fixing pin.



8. Wire clamp [A] (×1)

9. Wire fixing bracket [A], spring [B] (×1)

10. Wire pulley [A] (×1, ×1)

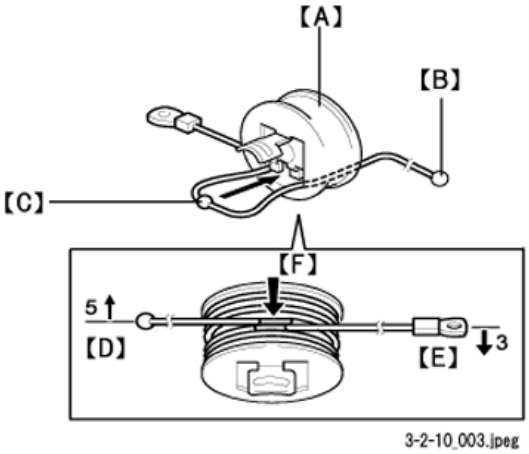


Note

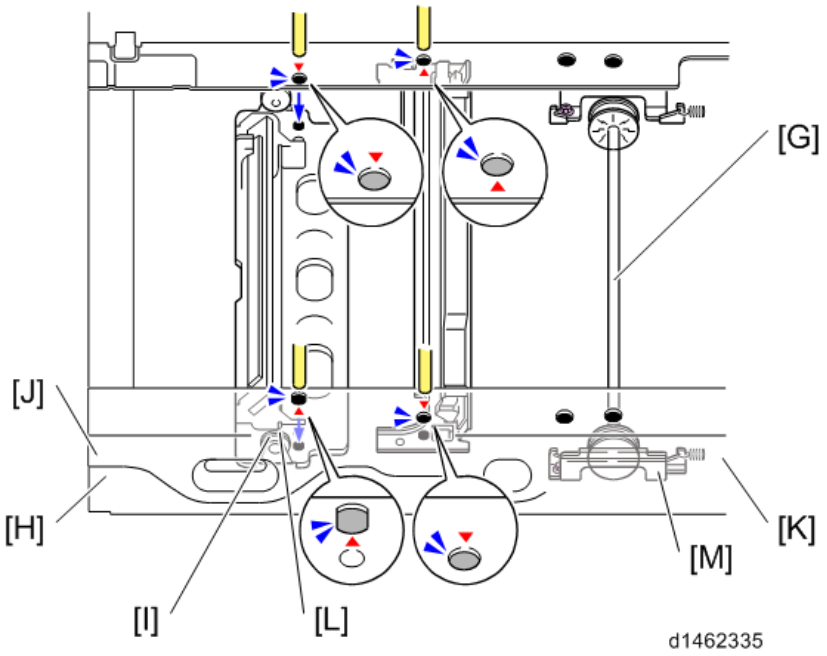
§ Do not touch the mirror and the lamp.

§ When you move the carriage, hold the central part and move it gently.

Scanner wire assembly (front side)



1. Pull the scanner wire ball end [B] to the pulley [A] from the left side of the pulley as shown in the diagram.
2. Set the ball [C] in the center part of the wire on the pulley.
3. Turn the ball end [D] 5 times counterclockwise along the edge on the rear side of the pulley.
4. Turn the ring end [E] 3.5times clockwise along the edge at the front side of pulley.
5. Check that the blue marks [F] of the wire overlap, and secure it temporarily with Teflon tape, etc.



6. Set the pulley on the drive shaft [G] (tighten the screw temporarily).

7. Set the ball end of the wire in the following order.

1. Left frame pulley (outside) [H]
2. 2nd scanner carriage (outside) [I]
3. Left frame slit [J]

8. Set the ring end of the wire in the following order.

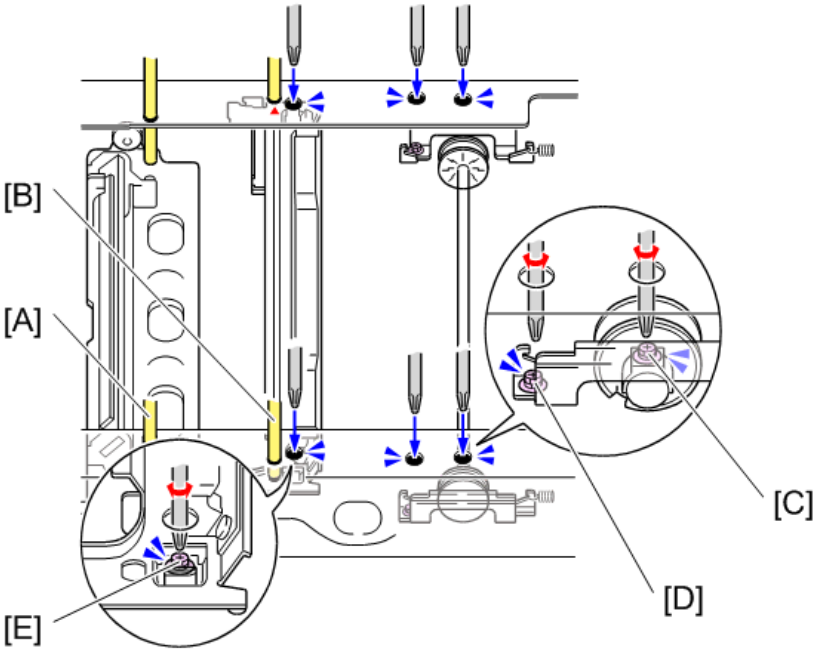
1. Right frame pulley (outside) [K]
1. 2nd scanner carriage (inside) [L]
2. Scanner retaining bracket [M]

   (Tighten the screw of the scanner retaining bracket temporarily)

9. Remove the tape which temporarily held the wire in Step 5.

10. Attach the spring.

Scanner position adjustment



1. Set the scanner positioning pins (4).
   - § 2nd scanner carriage and frame hole [A]
   - § 1st scanner carriage and frame hole [B]
   - § Same position as [A] on the rear side
   - § Same position as [B] on the rear side
2. Tighten the screw [C] of the pulley which was temporarily tightened.
3. Tighten the screw [D] of the scanner retaining bracket which was temporarily tightened.
4. Attach the wire clamp [E].
5. Pull out the scanner positioning pins.
6. Holding the center part of the 1st scanner carriage, move it to the left and right to ensure it moves smoothly.

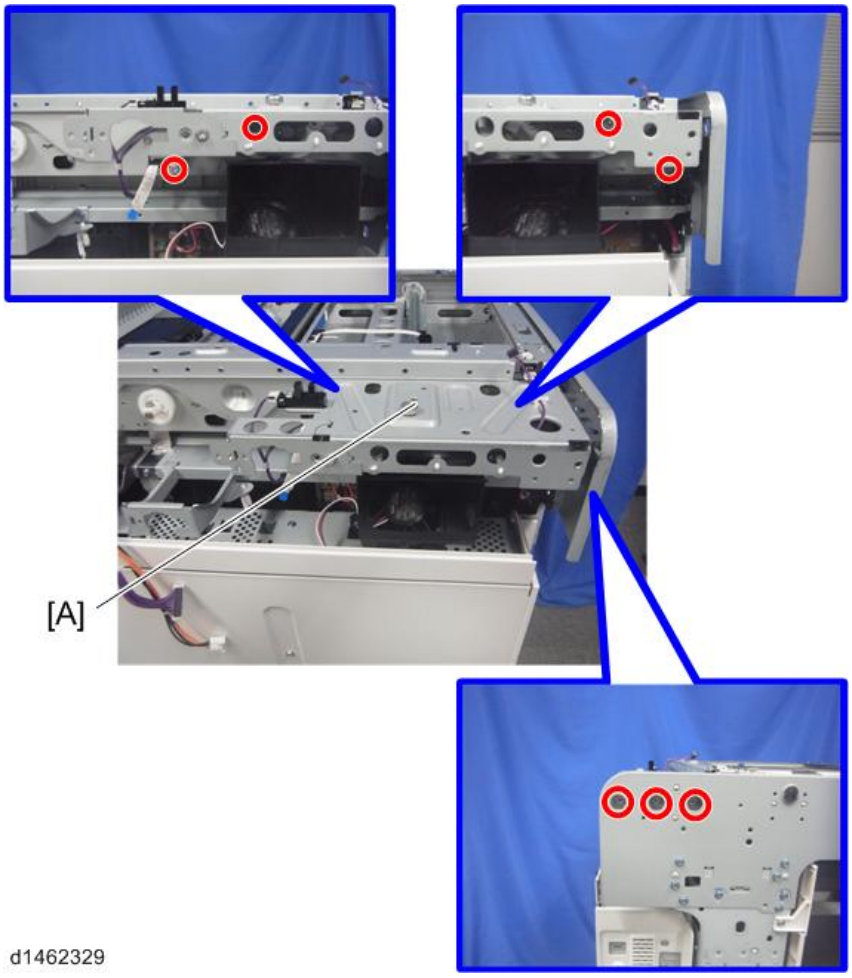
   If it does not move smoothly, loosen the scanner wire, and perform the scanner position adjustment procedure again.

Note

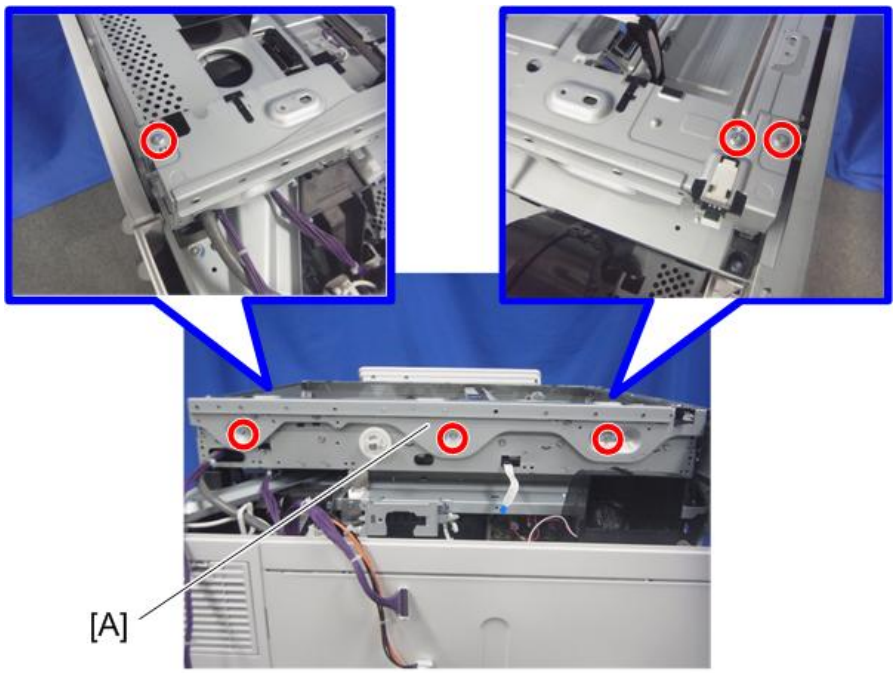
- § After replacing the wire, make a test copy, and check skew, magnification, and whether there is a registration gap. If there is a gap, adjust the scanner wire position again, or perform Scan Registration Adjustment (SP4010-SP4011).

Scanner Wire (Rear)

1. Scanner right cover (page 4-27 "Scanner Right Cover")
2. Scanner left cover (page 4-28 "Scanner Left Cover")
3. Exposure glass (page 4-29 "Exposure Glass")
4. Scanner motor (page 4-31 "Scanner Motor")
5. Bracket [A] (×7, ×1)

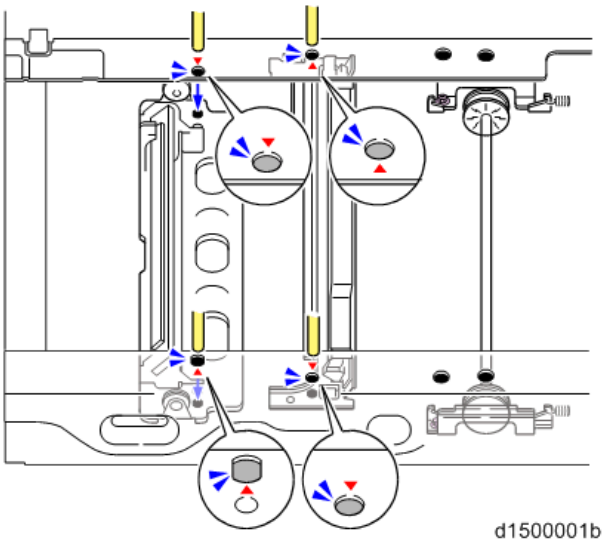


6. Rear frame [A] (×6)



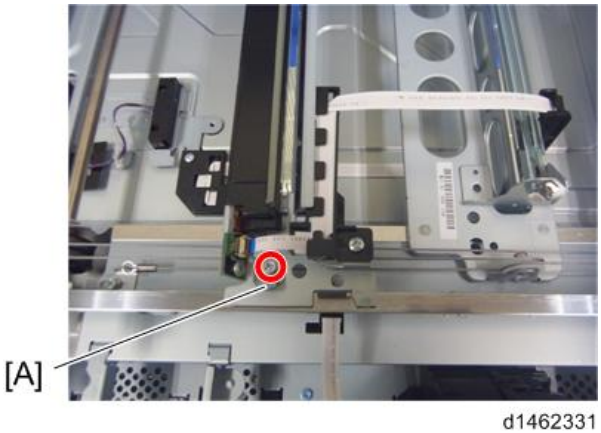
d1462330

7. Move to the set position of the fixing pin for the first carriage.



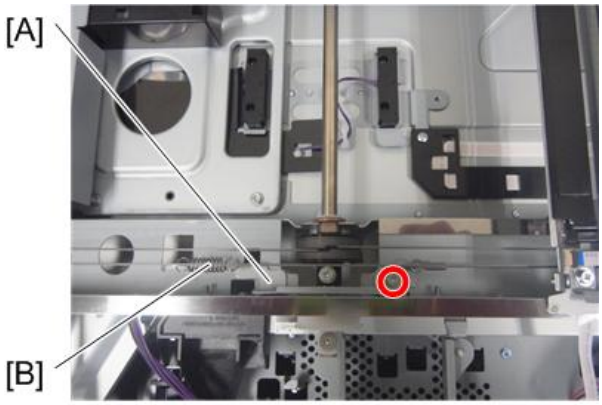
d1500001b

8. Wire clamp [A] (×1)

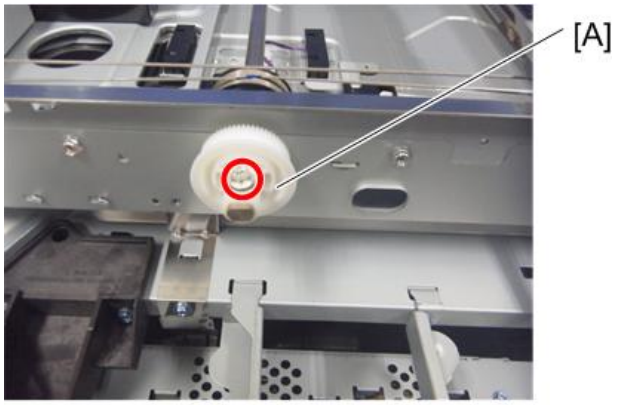


d1462331

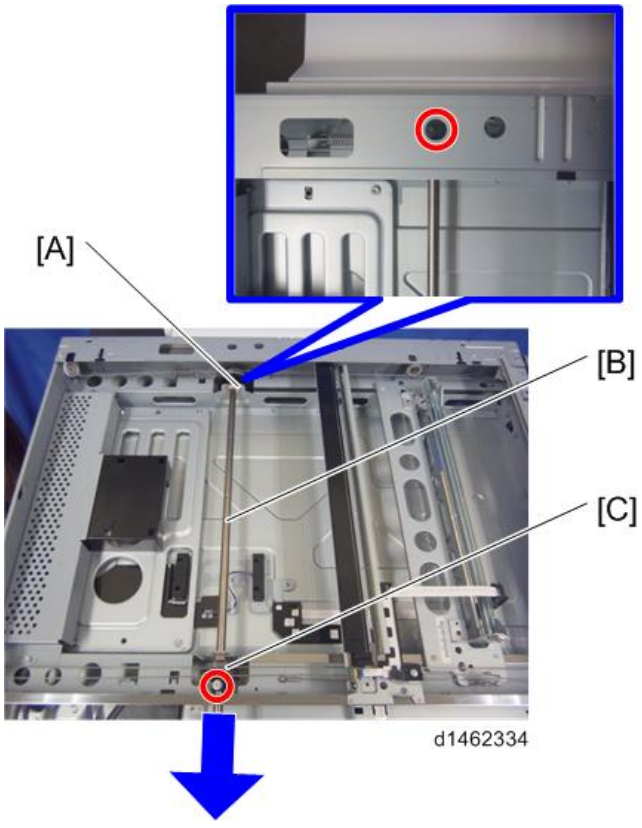
9. Wire fixing bracket [A], spring [B] (×1)



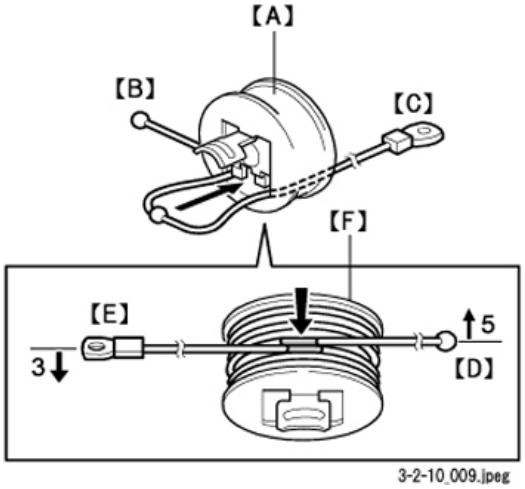
10. Scanner drive gear [A] (×1)



11. Remove the screw and the clip ring of the wire pulley (front) [A] and wire pulley (rear) [C], draw out the scanner drive shaft [B] in the direction of the arrow, and remove the wire pulley (rear) [C] (×1, ×2).



Scanner Wire Assembly (rear side)



3-2-10_009.jpeg

1. Pull the scanner wire ball end [B] to the pulley [A] from the right side of the pulley as shown in the diagram.
2. Set the ball [C] in the center part of the wire on the pulley.
3. Turn the ball end [D] 4.5 times clockwise along the edge on the rear side of the pulley.
4. Turn the ring end [E] 3.5 times counterclockwise along the edge at the front side of the pulley.
5. Check that the blue marks [F] of the wire overlap, and secure it temporarily with Teflon tape, etc.
6. Set the pulley on the drive shaft, and attach the scanner drive gear.
7. Attach the scanner wire on the rear side as in Step 7, attaching the scanner wire (front side).

4.6.11 MODIFYING THE SCANNER (CONTACT/CONTACTLESS) WHEN USING ARDF

Procedure for the ADF

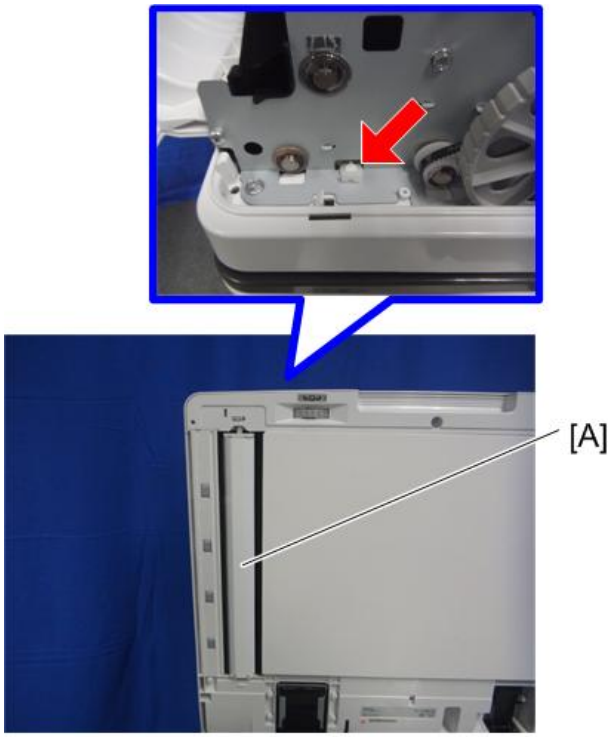
1. ADF front cover [A] .(×1)

Note

§ Remove with the document table [B] lifted up.

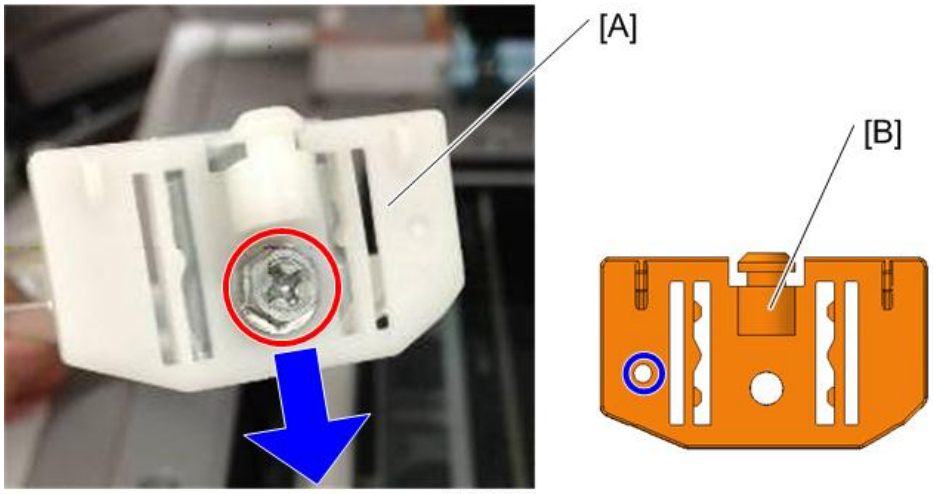
d1463140

2. Document reader guide plate [A].(×1)



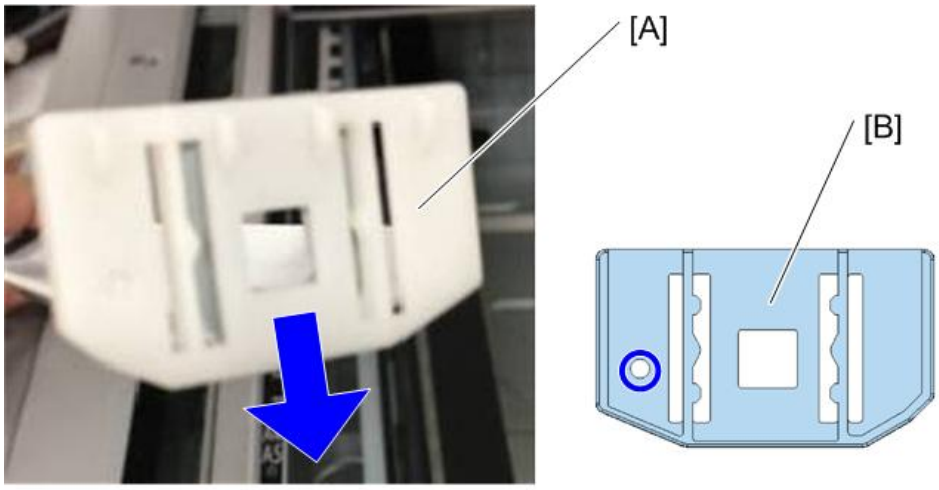
d1463141

3. Replace the contactless guide plate (front) [A] with the contact guide plate (front) [B]. (×1)
There is a hole in the contact guide plate (front).



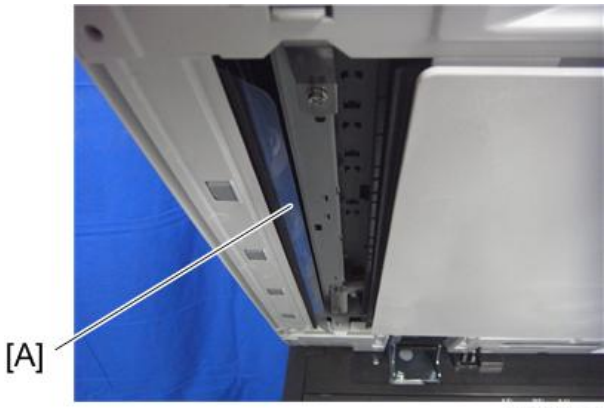
d1463142

4. Replace the contactless guide plate (rear) [A] with the contact guide plate (rear) [B].
There is a hole in the contact guide plate (rear).



d1463143

5. Attach the document reader guide plate. Be careful not to scratch the sheet [A].

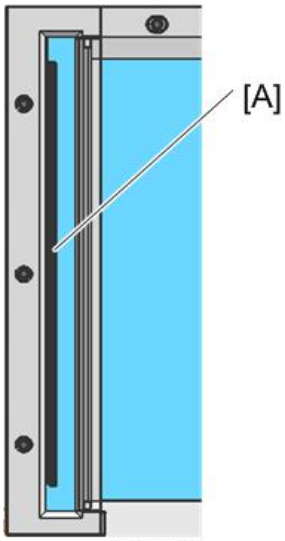


d1463144

6. Attach the ADF front cover, and return the ADF to its original position.
7. From the SP mode, change the DF density setting (SP4-688-001) from [106%] to [101%].

Procedure for the scanner

1. Remove the exposure glass, and peel off the sheet [A]



2. Wipe the exposure glass with alcohol, etc., so that no glue remains from the double-sided tape.

Note

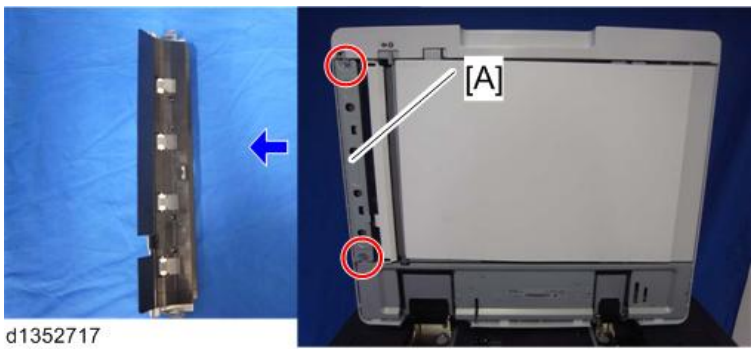
§ Remember that if any glue remains, it will cause a paper jam in the ADF.

4.6.12 MODIFYING THE SCANNER (CONTACT/CONTACTLESS) WHEN USING SPDF

When changing from contactless to contact original feed, some parts of the ADF and scanner must be replaced.

Procedure for the SPDF

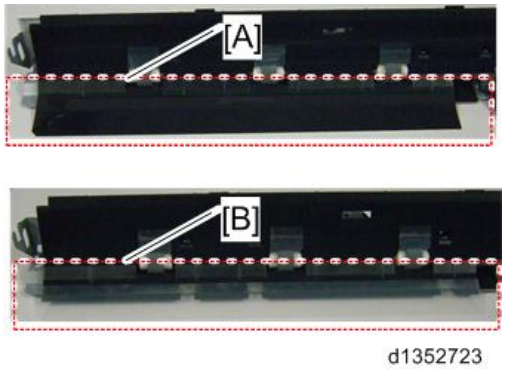
1. Open the SPDF
2. Lower entrance guide unit [A] (×2)



Note

§ The part below the contactless lower entrance guide unit is black [A].

§ The part below the contact lower entrance guide unit is colorless and transparent [B].

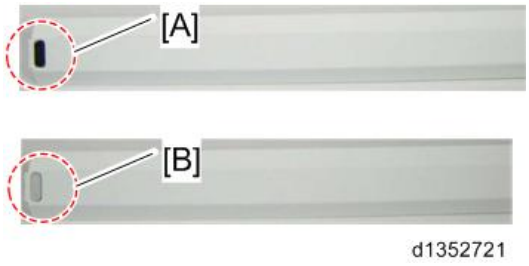


1. Document reader guide plate [A].(×1)

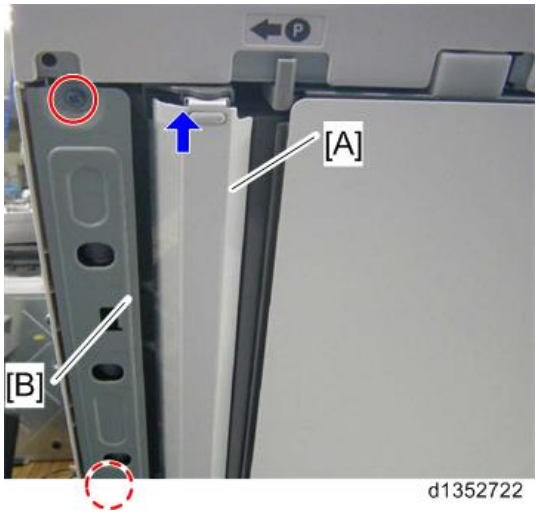
Note

§ The part below the contactless document reader guide plate is black [A].

§ The part below the contact document reader guide plate is white [B].



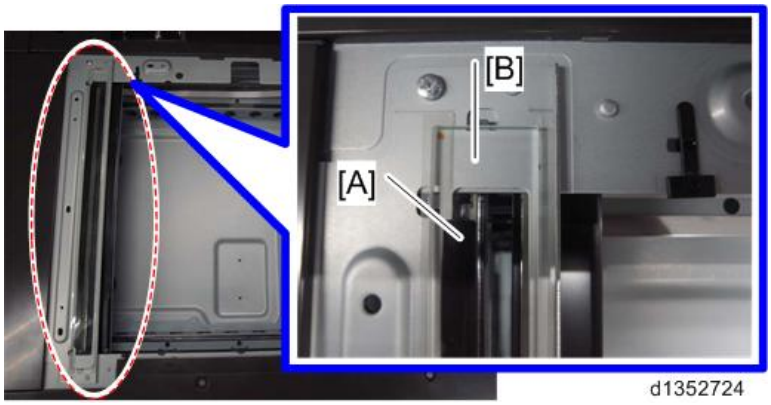
2. Attach the contact document reader guide plate [A] (×1)
3. Attach the contact lower entrance guide unit [A] (×2)



4. Enter SP mode, and set SP4-688-002 (Scan Image Density Adjustment 1-pass DF) to "98".

Procedure for the scanner

1. Exposure glass (page 4-29 "Exposure Glass")
2. Peel off the gap sheet (black) [A] from the sheet-through glass [B].



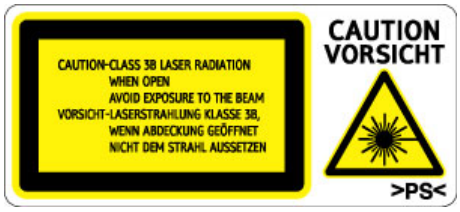
3. Wipe the exposure glass with alcohol, etc., so that no glue remains from the double-sided tape.

4.7 LASER UNIT

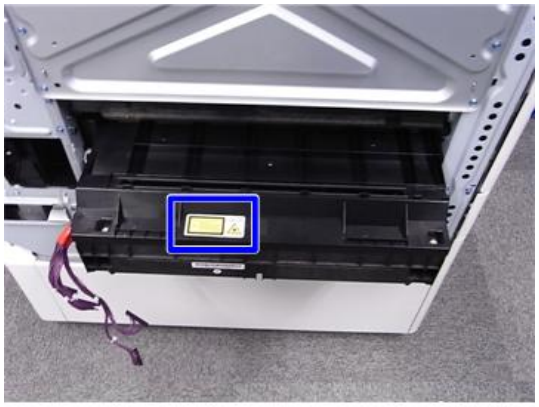
⚠WARNING

§ Turn off the main switch and unplug the machine before beginning any of the procedures in this section. Laser beams can cause serious eye injury.

§ Caution Decals



§ Decal Location



d1462271

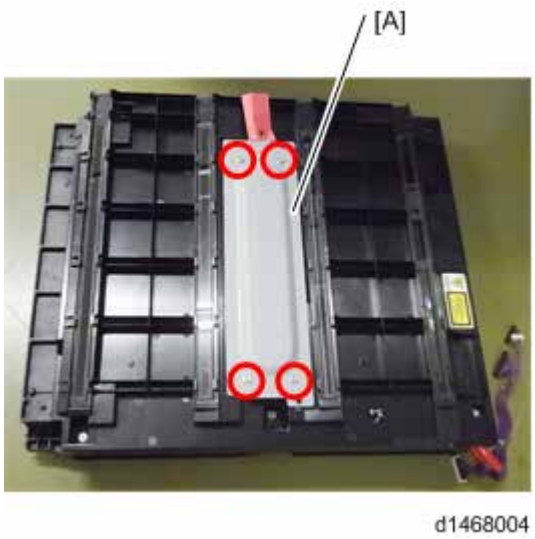
4.7.1 LASER UNIT

⚠CAUTION

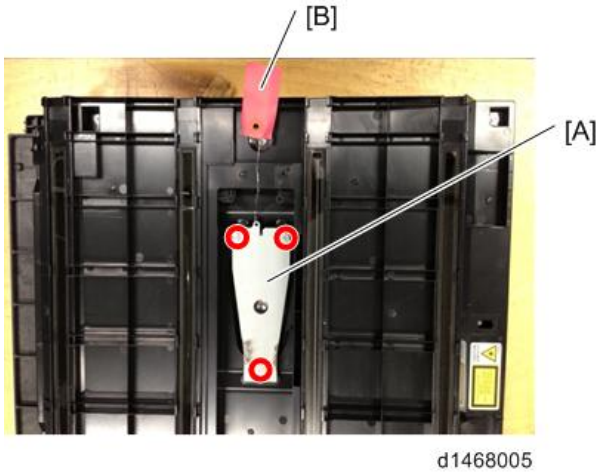
§ A polygon motor protection bracket and a red label are attached to each new laser unit. Remove these before you install the new unit.

Before Replacement

1. Polygon motor cover [A] (×4)



2. Polygon motor bracket [A], Red tag [B] (×3)



3. Reattach the polygon motor cover.

Removing

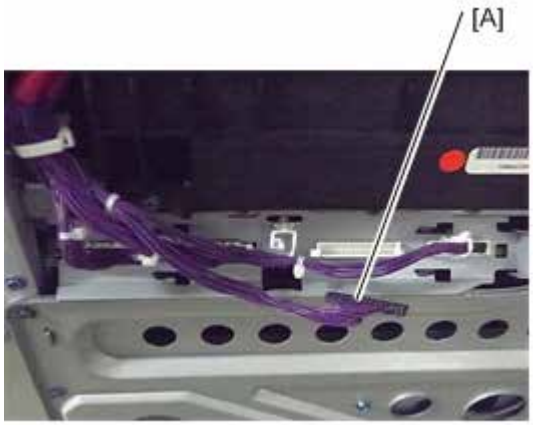
1. Left cover (page 4-8 "Left Cover")

2. Laser unit [A] (×2, ×4, ×3)

d1462272

Installing a New Laser Unit

1. Insert the new laser unit in the main body carefully.
2. Connect all harnesses except the skew correction motor harness [A] (2nd from right).
   For D148/D149/D150, connect three harnesses.



d1468013

For D146/D147, connect two harnesses.

d1468015

3. Reassemble the machine.

Adjustment after replacing the laser unit

1. Close the front cover and attach the left cover.

WARNING

§ Attach the left cover before turning on the main switch. Laser beams can seriously damage your eyes.

2. Plug in and turn on the main power switch.
3. Download the data of the new laser unit to the main body with SP2-110-005.

Note

§ If it fails (see step 4 below), perform SP2-110-005 again.

§ If it is not executed correctly, outputs will be abnormal (magnification and color registration errors), and SC 285 may occur.

4. Check that SP2-119-001 to 003 is "0."

Note

§ If it is not "0", perform SP2-110-005 again.

5. Turn off the main power switch and disconnect the power cord.
6. Remove the left cover and attach the skew correction motor harness [A].

For D148/D149/D150

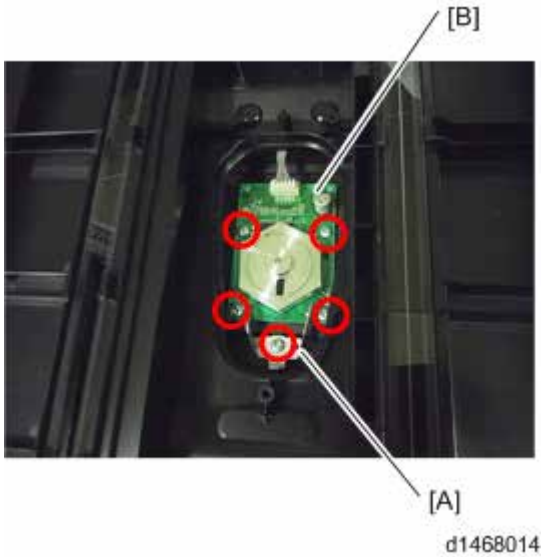
For D146/D147

d1468015

7. Close the left cover.
8. Plug in and turn on the main power switch.
9. Set SP2-109-003 to 1, press 'Copy Window', and print. The 1-dot vertical line test pattern is printed.
   After outputting the 1-dot vertical line pattern, set SP2-109-003 to "0."
   Check that the space on either side is less than 4±1 mm. If it is not within these limits, change the reference value of the main scanning magnification adjustment (SP4-011-001).
10. Perform line adjustment.
    SP2-111-004: Forced Line Position Adj. Mode d
    The result can be checked with SP2-194-007 (MUSIC Execution Result Execution Result) (0: Succeed, 1: Fail).
    Also, results for each color can be checked with SP2-194-010 to 013.
11. Exit the SP mode.

4.7.2 POLYGON MOTOR

1. Polygon motor cover (page 4-52 "Laser Unit")
2. Polygon motor holder [A], Polygon motor [B] (×5, ×1)



d1468014

Adjustment after replacing the polygon motor

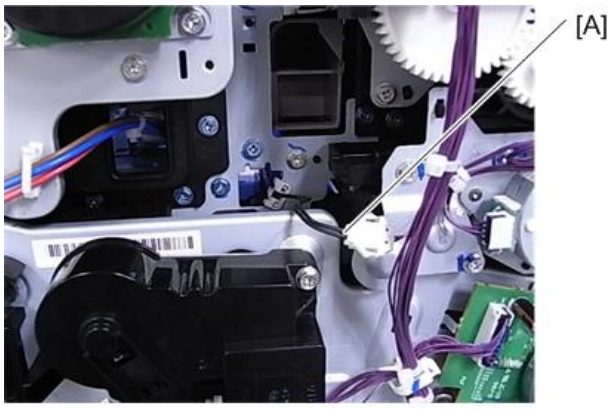
SP2-111-004: Forced Line Position Adj. Mode d

The result can be checked with SP2-194-007 (MUSIC Execution Result Execution Result) (0: Succeed, 1: Fail).

Also, results for each color can be checked with SP2-194-010 to 013.

4.7.3 IMAGING TEMPERATURE SENSOR (THERMISTOR)

1. Open the controller box (page 4-83 "Transfer Motor Unit")
2. Connector [A]



d1462273

3. Imaging temperature sensor harness guide [A] and Imaging temperature sensor [B] (×2)

d1462274

4.8 PCDU

4.8.1 NOTES WHEN REPLACING A PCDU

D146/D147/ D148

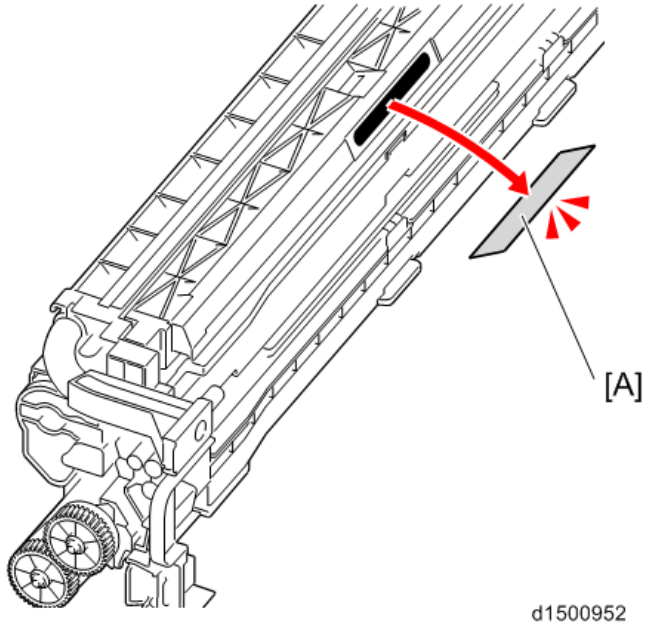
Do not release the spring pressure.

D149/D150

Release the spring pressure, and remove non-compatible parts.

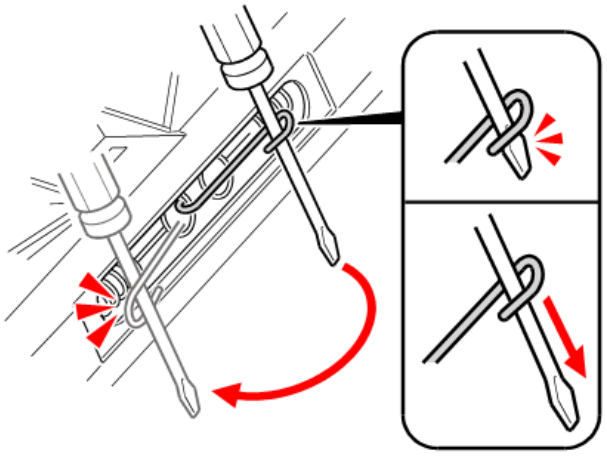
Replacement procedure

1. Seal [A]



d1500952

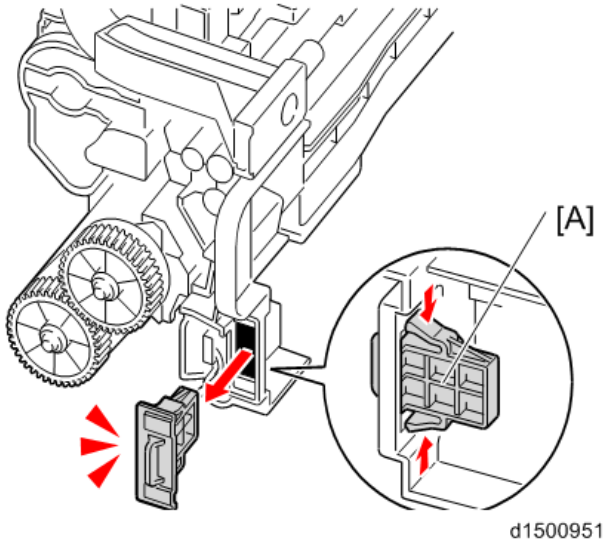
2. Insert the knob in the bent part of the pin, move it gently, and release the spring pressure.



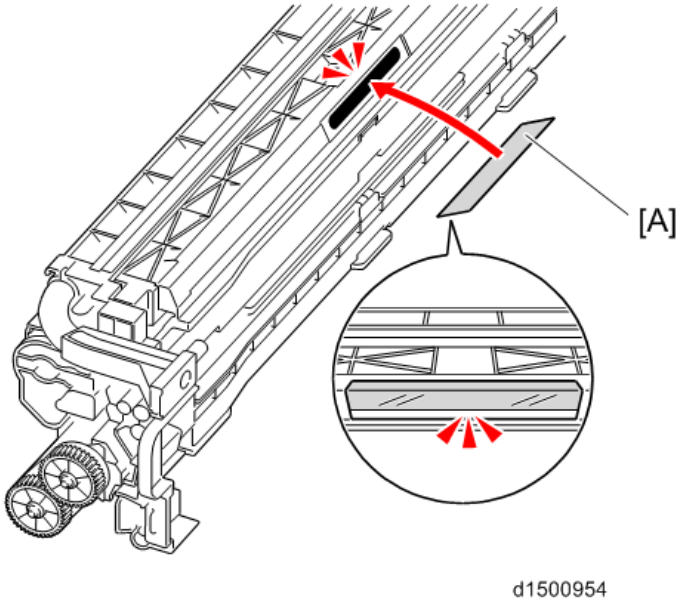
d1500953

3. When the spring is released, gently pull the knob out.

4. Non-compatible part [A]



5. Affix the seal [A] provided to the unit.



4.8.2 PCDU

Adjustment before replacing the PCDU

Each PCDU has two components: a drum and a development unit. Before replacing a PCDU, set SP3-701 to "1" for the PCU that you will replace, and again for the development unit that you will replace. Then switch the power OFF.

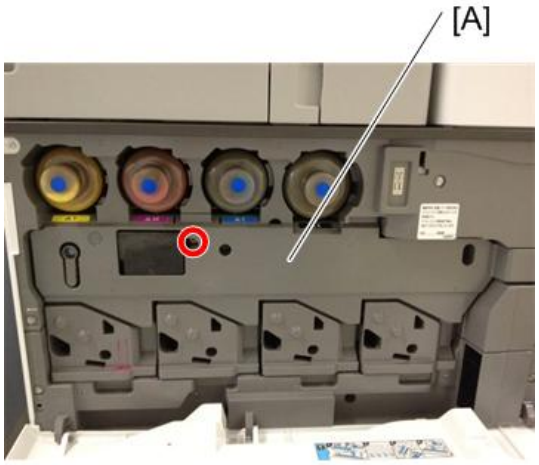
Then replace the PCDU and switch the power ON.

Replacement

1. Open the front cover [A].

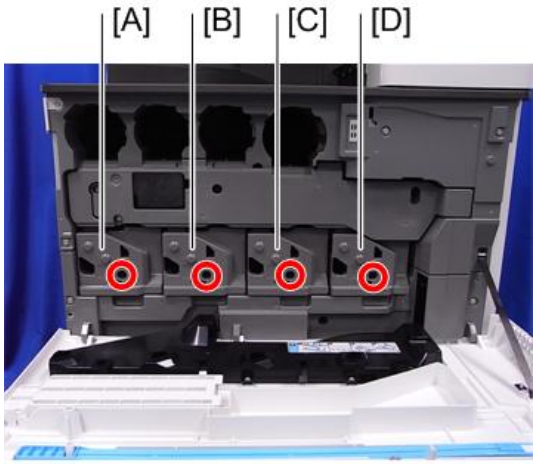
d1462004

2. Image transfer front cover [A] (×1)



d1462240

3. PCDU cover



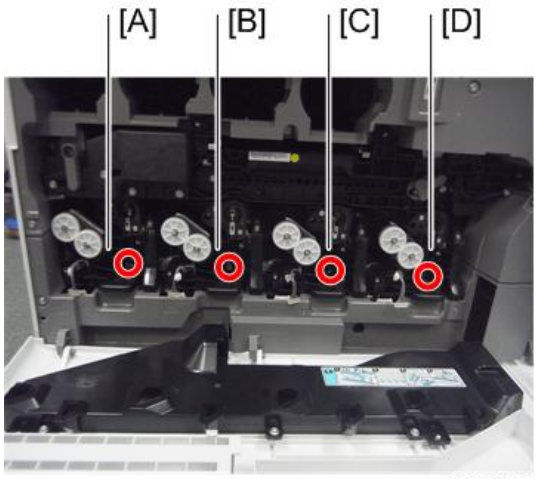
d1462160

[A]	Y	×1
[B]	M	×1
[C]	C	×1
[D]	K	×1

4. Release the lock of the image transfer contact lever [A].

d1462171

5. PCDU



d1462161

[A]	Y	×1, ×1
[B]	M	×1, ×1
[C]	C	×1, ×1
[D]	K	×1, ×1

4.8.3 PCU/DEVELOPMENT UNIT

Before replacing a PCU or development unit

CAUTION

- § Before replacing a PCU, set SP3-701 for that PCU to "1" and switch the power OFF. Then replace the PCU and switch the power ON.
- § Before replacing a development unit, set SP3-701 for that development unit to "1" and switch the power OFF. Then replace the development unit and switch the power ON.

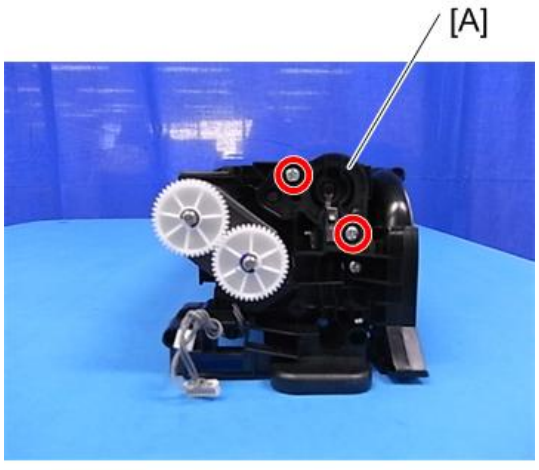
Replacement

CAUTION

- § Remove carefully so as not to damage the part of the rear end block shown by the blue circle (removed in Step 3). If the parts are bent or deformed, electrical contact may become poor, and this may cause poor image quality.

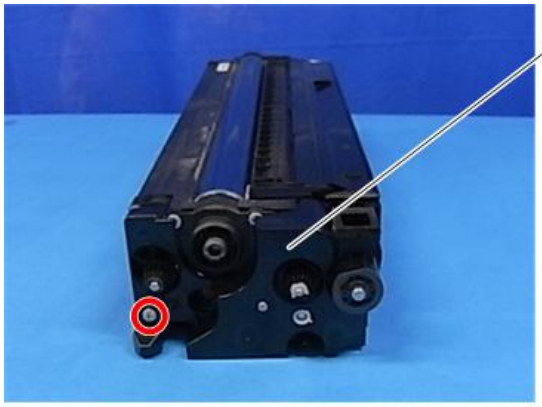
d1462167

1. PCDU (page 4-58 "PCDU")
2. Front end block [A] (×2)



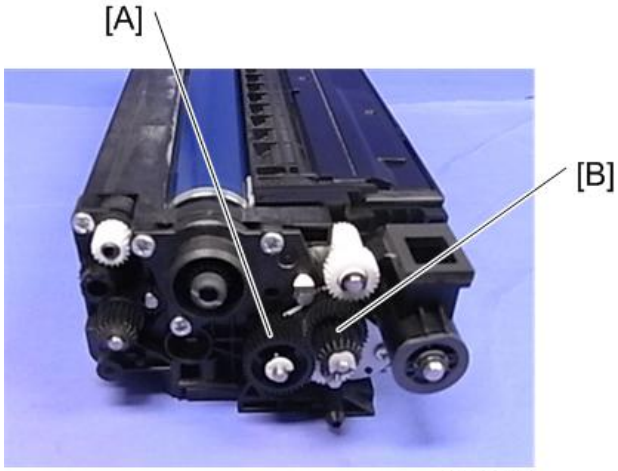
d1462162

3. Rear end block [A] (×1)



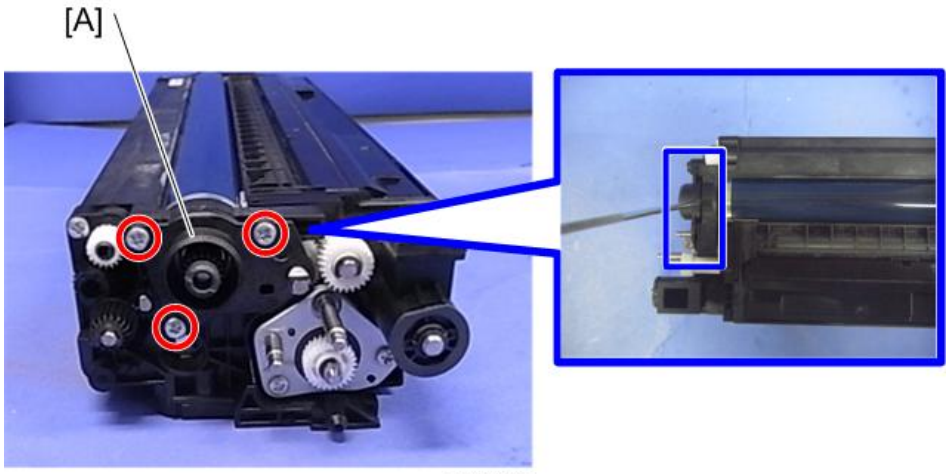
d1462163

4. Gears [A] [B] (×2)



d1462164

5. Remove the joint (rear side) [A] (×3).



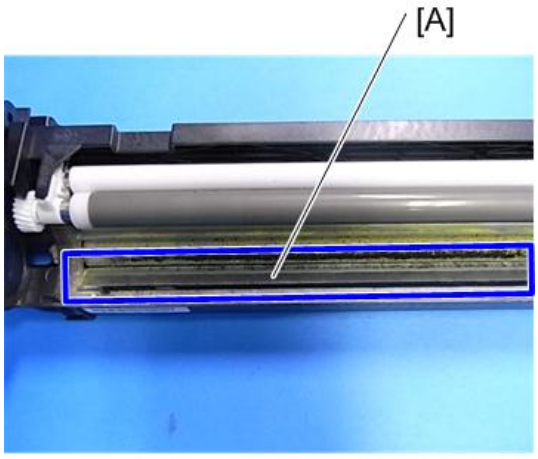
d1462165

6. Separate the PCU [A] and Development Unit [B].

d1462166

Precautions when joining the PCU and the development Unit

Note that if these are joined while pressing the charge roller, the cleaning blade may turn over in the opposite direction to the original. If this happens, toner lines may appear on prints.



d1462169

Check procedure after replacing

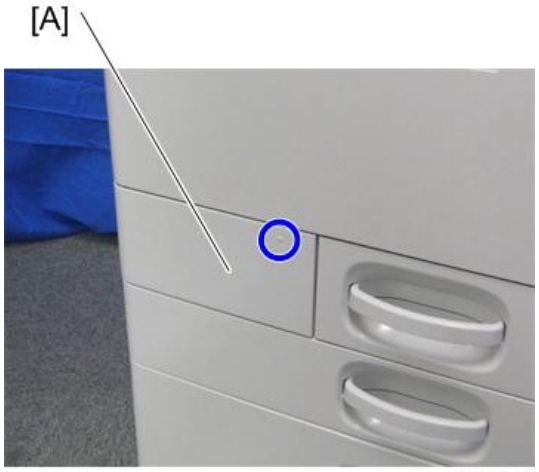
Turn the drum in the direction of the arrows before attaching to the main body, and check that toner lines do not appear.

d1462170

4.9 WASTE TONER

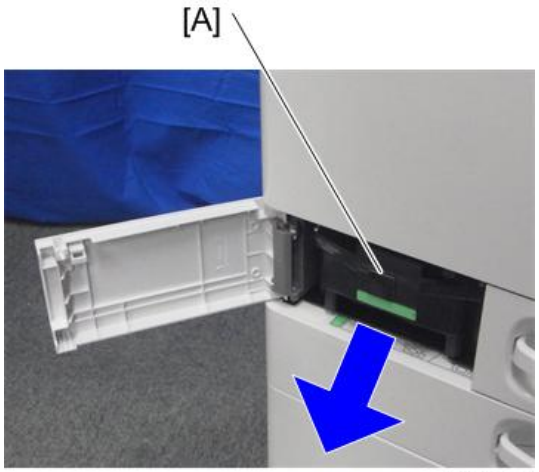
4.9.1 REPLACEMENT

1. Open the waste toner cover [A].
   Push the blue circle area, then open the cover.



d1462040

2. Pull out the waste toner bottle [A].



d1462041

4.9.2 ADJUSTMENT AFTER REPLACING

The counter for the Waste Toner Bottle is reset automatically.

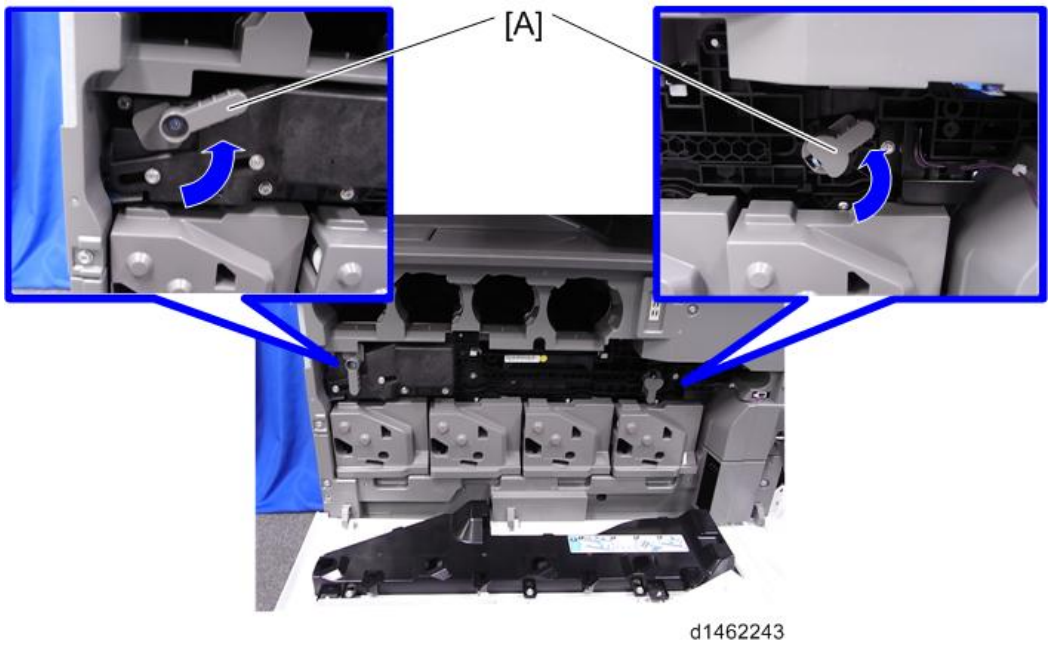
The counter isn't reset with SP3-701-142 (Manual New Unit Set: Waste Toner Bottle) and SP7-622-142 (PM Counter reset: Waste Toner Bottle).

4.10 IMAGE TRANSFER UNIT

4.10.1 IMAGE TRANSFER BELT UNIT

⚠CAUTION

- § Note that if the two levers [A] are not pointing up, the image transfer belt unit cannot be inserted.
- § Before you remove or attach the image transfer belt unit, remove the duplex unit and open the paper transfer unit.

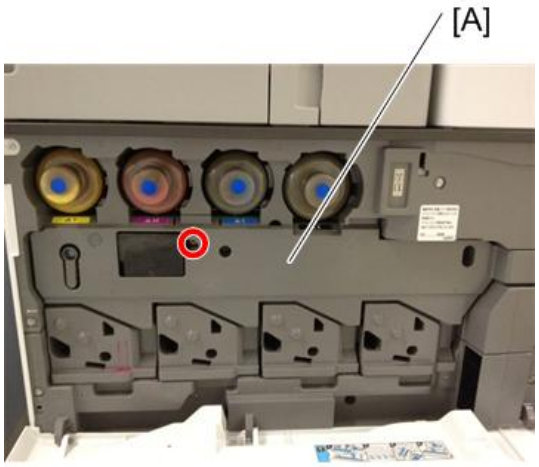


Adjustment before replacing the image transfer belt unit

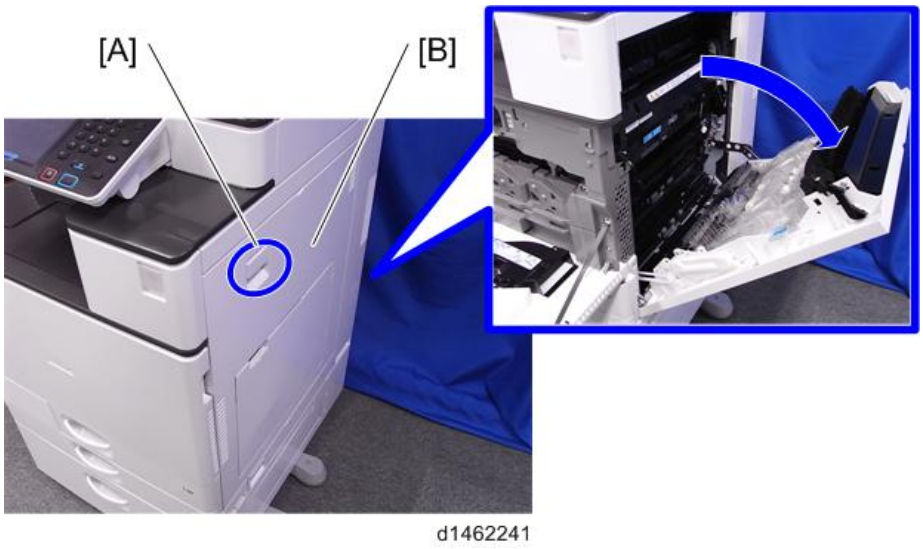
Before replacing the Image Transfer Belt unit, set SP3-701-093 to "1" and switch the power OFF. Then replace the Image Transfer Belt unit and switch the power ON.

Replacement

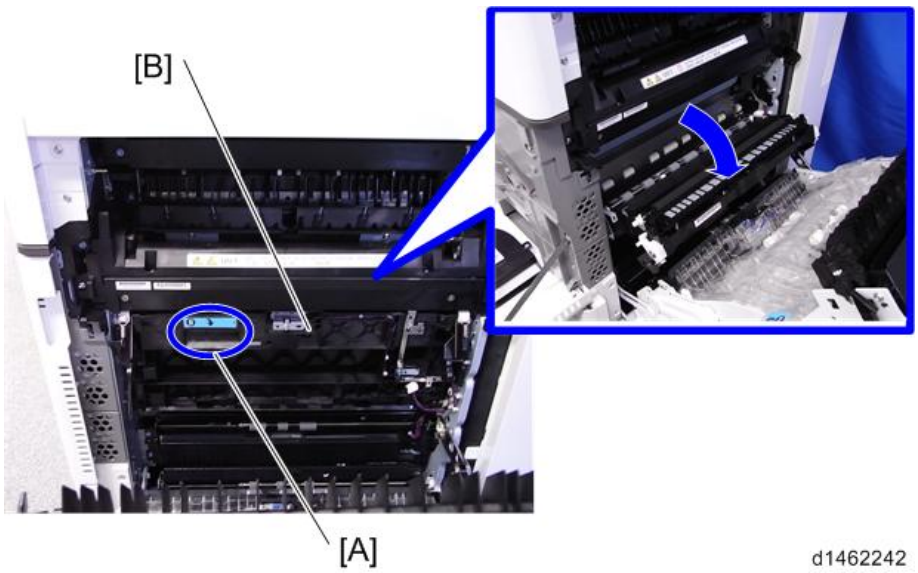
1. Open the front cover. (page 4-5 "Front Cover")
2. Image transfer front cover [A] (×1)



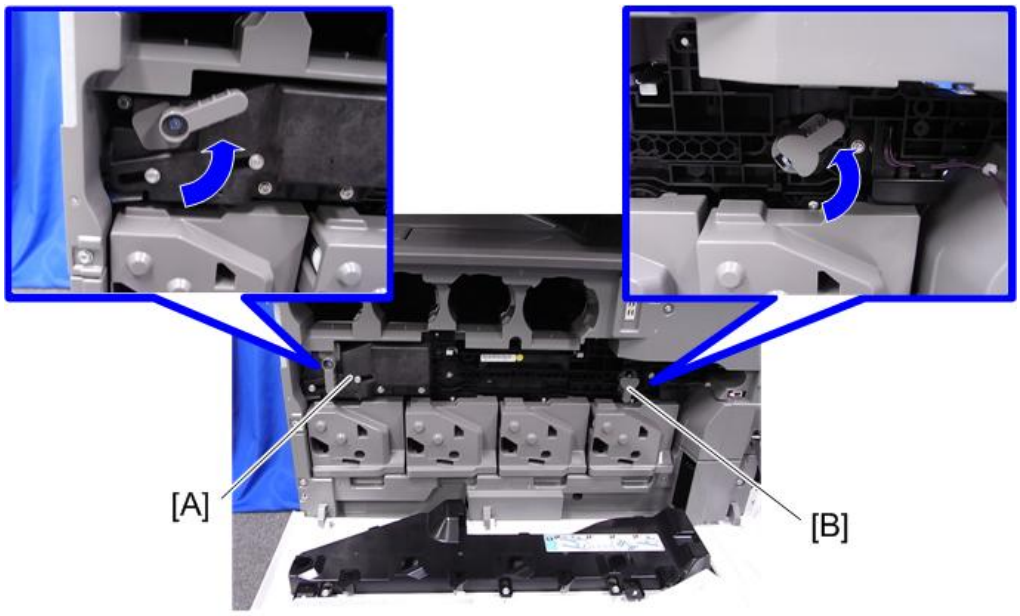
3. Release the lock [A] and open the right cover [B].



4. Pull the handle [A] and open the paper transfer unit [B].



5. Release the ITB lock lever [A] and ITB contact lever [B].

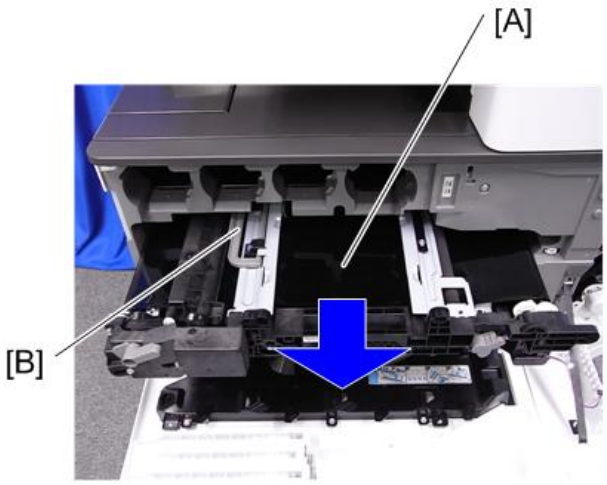


d1462243

6. Image Transfer Belt Unit [A]

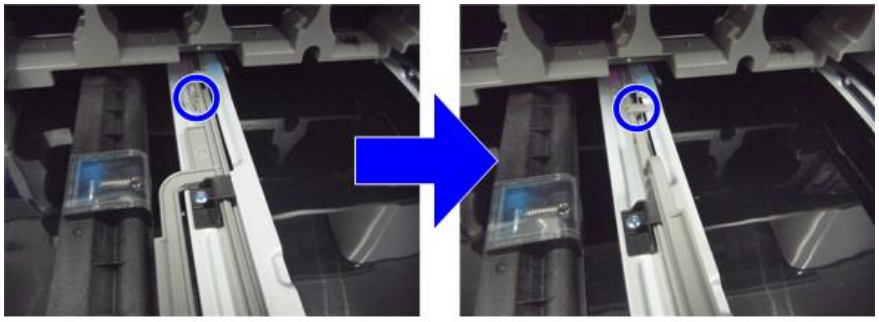
Note

§ To prevent the image transfer belt unit from falling out, there is a lock mechanism. After pulling out the image transfer belt unit fully, lift the handle [B] to release the lock, and remove image transfer belt unit.



d1462244

Locking mechanism by handle

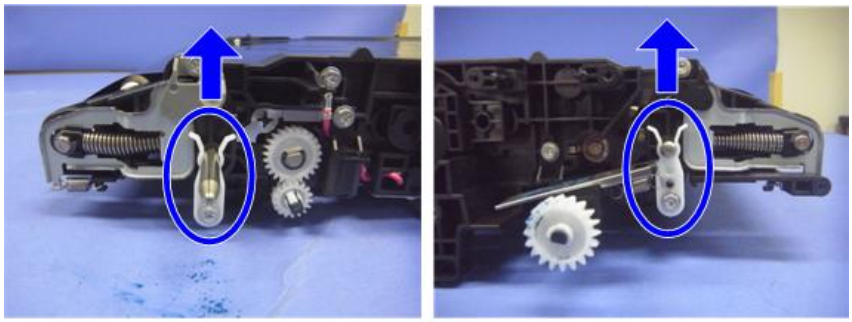


d1462257

4.10.2 IMAGE TRANSFER CLEANING UNIT

⚠CAUTION

§ When removing the image transfer cleaning unit, to prevent scattering of toner, remove it so that the image transfer cleaning unit is underneath the image transfer belt unit.



d1462255

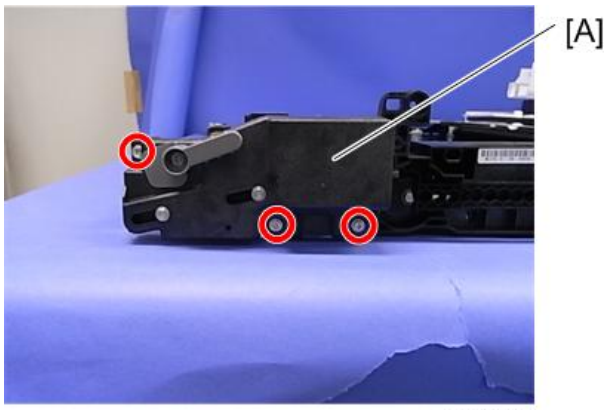
Adjustment before replacing the image transfer cleaning unit

Before replacing the Image Transfer Belt Cleaning, set SP3-701-093 to "1" and switch the power OFF.

Then replace the Image Transfer Belt Cleaning and switch the power ON.

Replacement

1. Image transfer unit (page 4-65 "Image Transfer Unit")
2. Image transfer lock unit [A] (×3, Among them, stepping screw ×1)

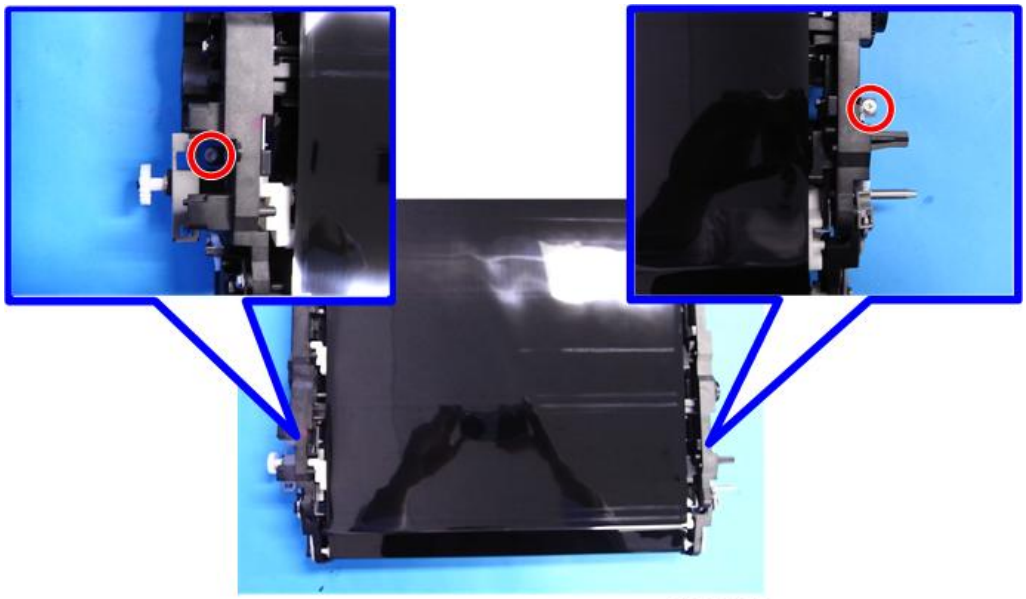


d1462245

3. Remove the screw above the image transfer cleaning unit [A] (×2).

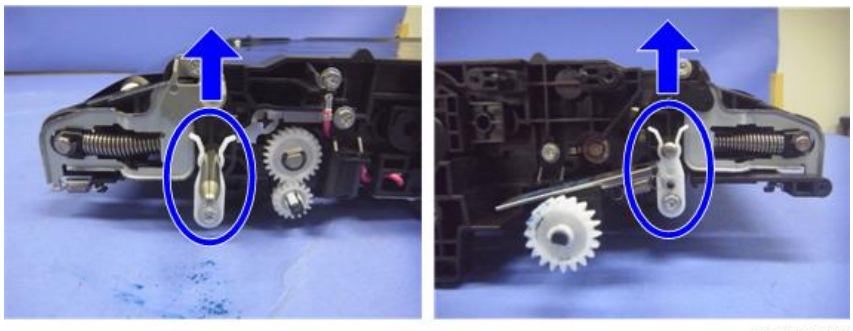
d1462246

4. Turn the whole image transfer belt unit over, and remove the screw below the image transfer cleaning unit (×2).



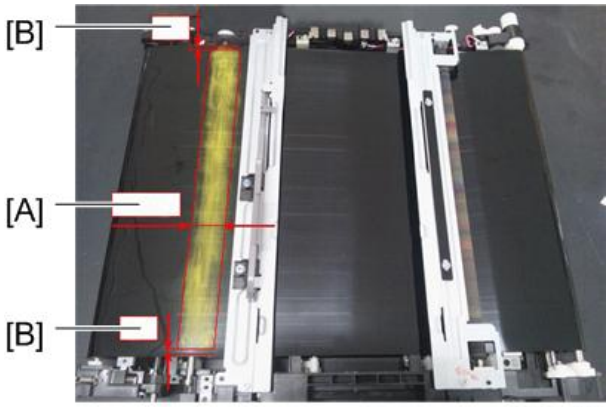
d1462247

5. While releasing the hook, lift the image transfer belt unit gently, and remove the image transfer cleaning unit.



d1462255

6. Put toner on the image transfer belt.

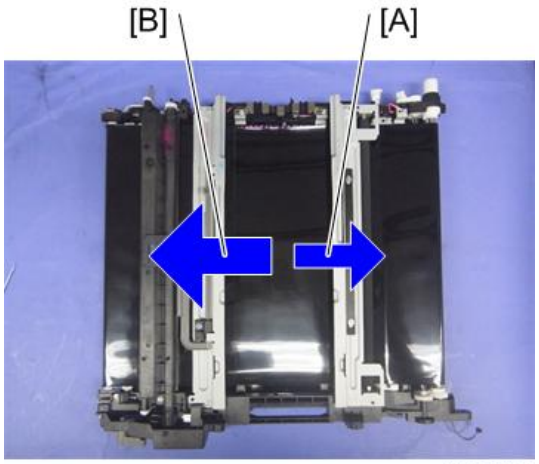


d1462176

[A]: 20mm or more

[B]: About 5mm

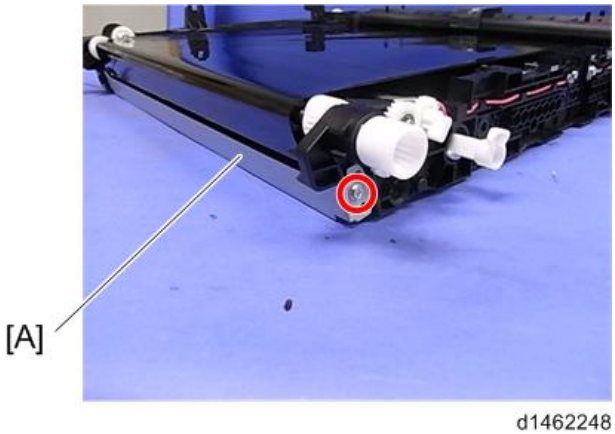
7. Attach the image transfer cleaning unit.
8. Rotate the image transfer belt about 10mm [A] in the reverse direction, then turn it forward one complete turn [B].



d1462175

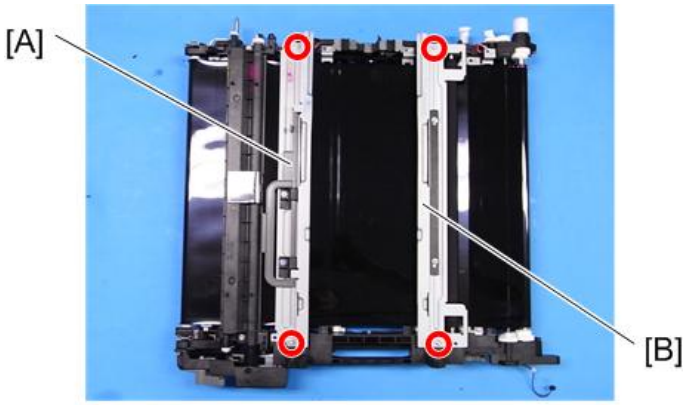
4.10.3 IMAGE TRANSFER BELT

1. Image transfer unit (page 4-65 "Image Transfer Unit")
2. Bracket [A] (×1)



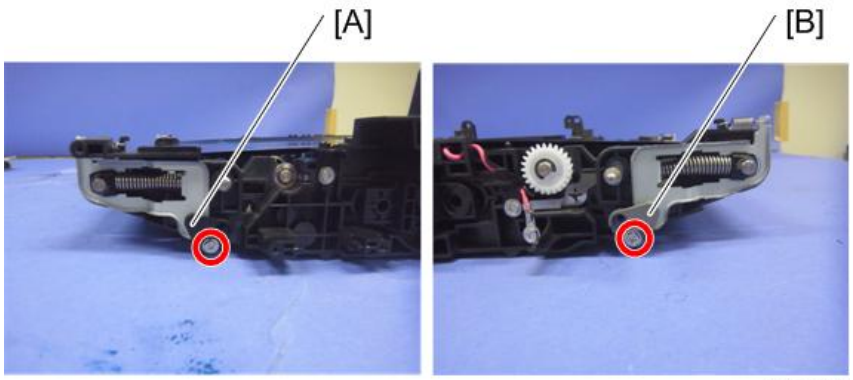
d1462248

3. Brackets [A] [B] (×4)



d1462249

4. Image transfer cleaning unit (page 4-68 "Image Transfer Cleaning Unit")
5. Remove the tension fixing frames [A] and [B] (front side: black, rear side: gray).

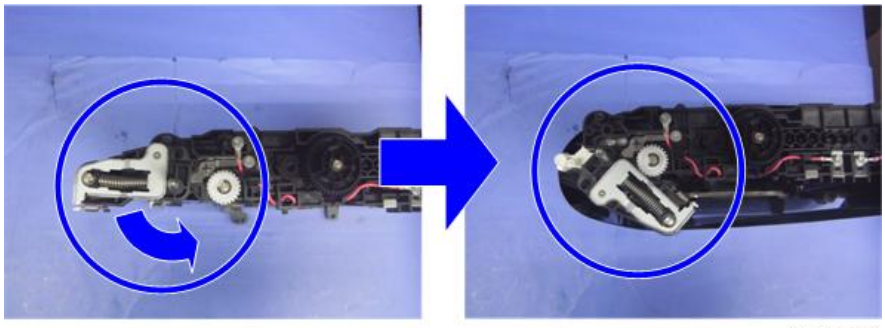


d1462256

6. Position the image transfer unit with the front side underneath.

d1462250

7. Release the tension, and remove the belt.

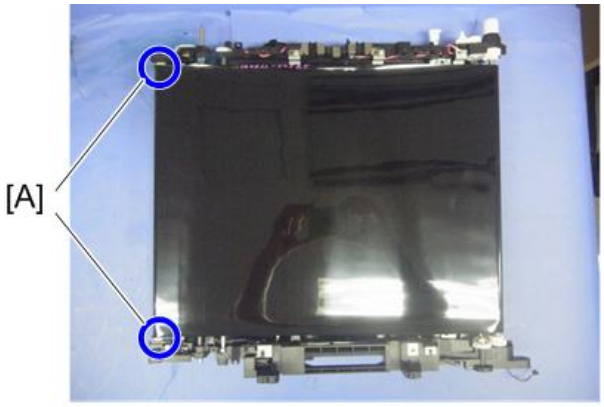


d1462251

d1462252

Note

§ When you install a new image transfer belt, install it under the guide [A].



d1462177

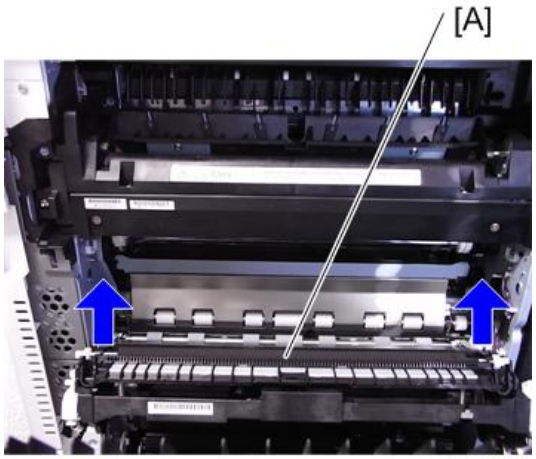
Adjustment after replacing the Image transfer belt

After replacing the image transfer belt, to prevent twisting of the belt, pass the belt round once in the direction of the arrow.

d1462254

4.10.4 PAPER TRANSFER ROLLER

1. Open the paper transfer roller unit. (page 4-65 "Image Transfer Unit")
2. Paper transfer roller [A]



d1462260

4.10.5 PAPER TRANSFER ROLLER UNIT

Adjustment before replacing the paper transfer roller unit

Before replacing the Image Paper Transfer Roller Unit, set SP3-701-109 to "1" and switch the power OFF. Then replace the Image Paper Transfer Roller Unit and switch the power ON.

Replacement

1. Open the right cover. (page 4-65 "Image Transfer Unit")
2. After removing the clip ring and connector on the rear side, open the paper transfer roller unit, remove the clip ring at the front side, and remove the paper transfer roller unit [A] (×2, ×1).

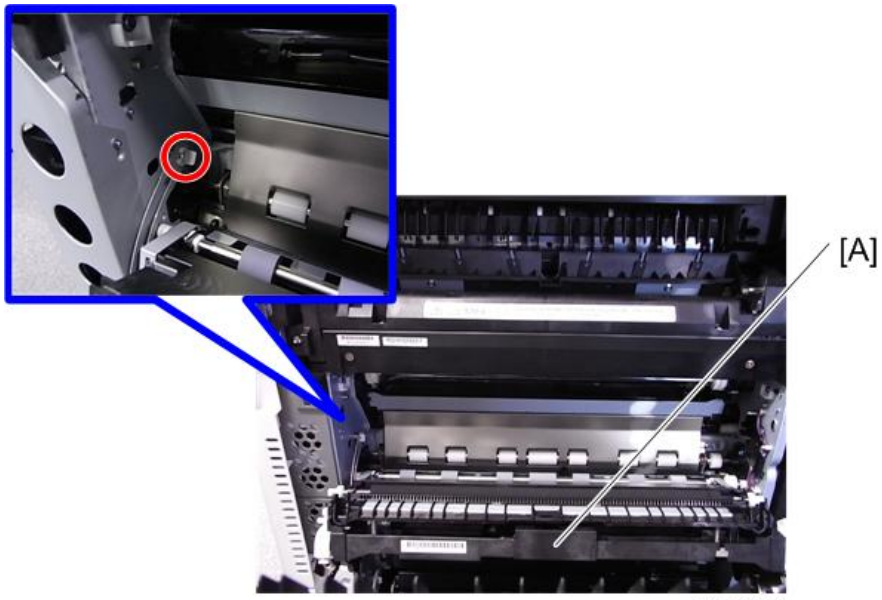
CAUTION

§ Note that the sizes of the clip ring differ on the left and right.

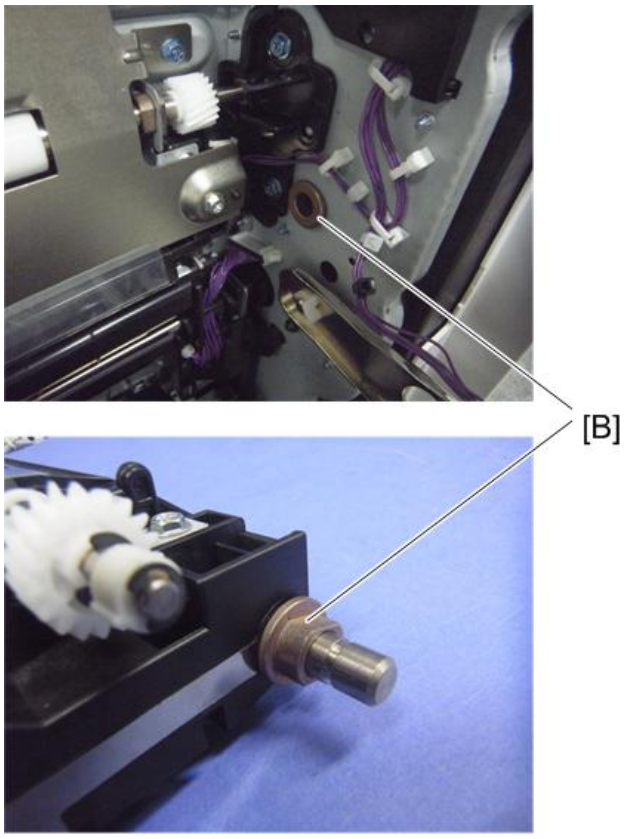
Note

§ When attaching a paper transfer roller unit, first attach the stops [B] to the paper transfer roller unit.

d1462261



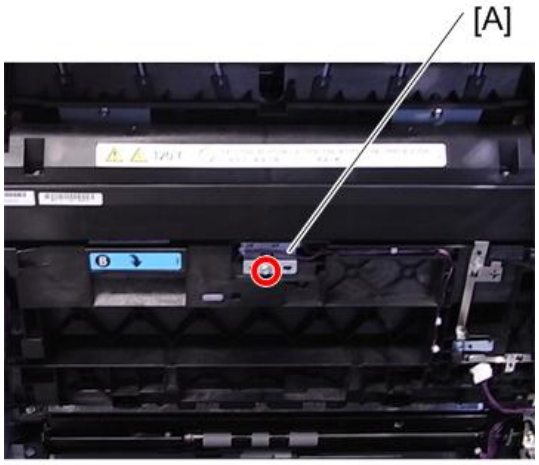
d1462262



d1462267

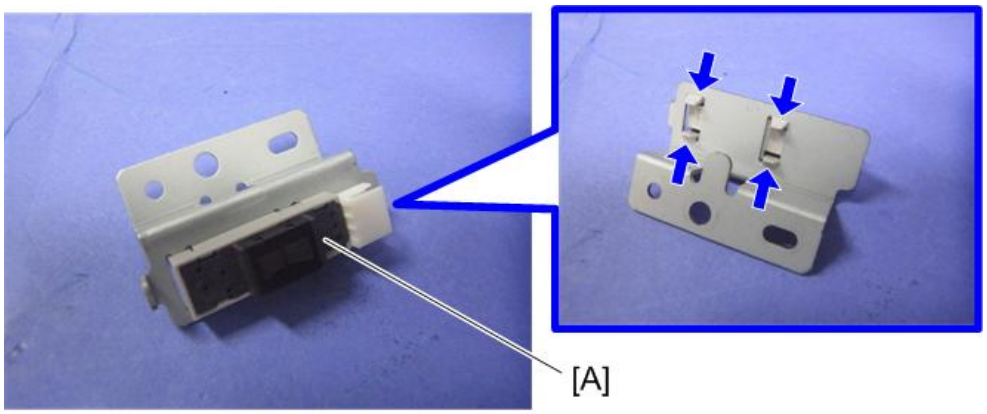
4.10.6 PAPER TRANSFER EXIT SENSOR

1. Open the right cover. (page 4-65 "Image Transfer Unit")
2. Fusing entrance sensor unit [A] (×1,×1)



d1462263

3. Fusing entrance sensor [A]



d1462264

4.10.7 TM (ID) SENSOR

Before Replacing the TM(ID) sensor

Each sensor assembly has a list of characteristic values attached to it. Before you replacing the TM / ID sensor, you must do the following procedure, or process control/MUSIC will not be done correctly after power is switched on (it will use the values for the old sensor).

Note

§ The characteristic values attached to the service part must be entered before replacement. It is recommended that in case Process control/MUSIC after replacement is not completed successfully, take a note of values of SP3-333,SP3-334,SP3-335.

1. Note the characteristic values that are listed on the bar code label.

d1462268

Note

§ TM/P Sensor (front): F, TM/P Sensor (center): C, TM/P Sensor (rear): R, be careful.

2. Turn on the main power switch, and then go into the SP mode.

3. Input the characteristic values.

Input data for TM/P Sensor: F into SP3-333. Input data for TM/P sensor: C into SP3-334.

Input data for TM/P sensor: R into SP3-335.

SP No.	Classification 1	Classification 2	Value
3-333-001	ID.Sens TestVal:F	K2: Check	TM/P sensor: F, value of [1]
3-333-002	ID.Sens TestVal:F	Diffuse Corr	TM/P sensor: F, value of [2]
3-333-003	ID.Sens TestVal:F	Vct_reg Check:Slope	TM/P sensor: F, value of [3]
3-333-004	ID.Sens TestVal:F	Vct_reg Check:Xint	TM/P sensor: F, value of [4]
3-333-005	ID.Sens TestVal:F	Vct_dif Check:Slope	TM/P sensor: F, value of [5]
3-333-006	ID.Sens TestVal:F	Vct_dif Check:Xint	TM/P sensor: F, value of [6]
3-334-001	ID.Sens TestVal:C	K2: Check	TM/P sensor: C, value of [1]
3-334-002	ID.Sens TestVal:C	Diffuse Corr	TM/P sensor: C, value of [2]
3-334-003	ID.Sens TestVal:C	Vct_reg Check:Slope	TM/P sensor: C, value of [3]
3-334-004	ID.Sens TestVal:C	Vct_reg Check:Xint	TM/P sensor: C, value of [4]
3-334-005	ID.Sens TestVal:C	Vct_dif Check:Slope	TM/P sensor: C, value of [5]

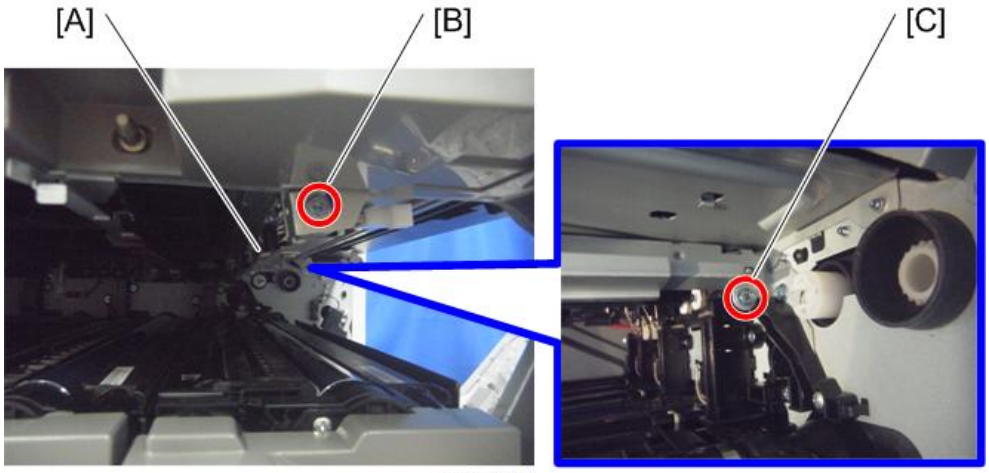
SP No.	Classification 1	Classification 2	Value
3-334-006	ID.Sens TestVal:C	Vct_dif Check:Xint	TM/P sensor: C, value of [6]
3-335-001	ID.Sens TestVal:R	K2: Check	TM/P sensor: R, value of [1]
3-335-002	ID.Sens TestVal:R	Diffuse Corr	TM/P sensor: R, value of [2]
3-335-003	ID.Sens TestVal:R	Vct_reg Check:Slope	TM/P sensor: R, value of [3]
3-335-004	ID.Sens TestVal:R	Vct_reg Check:Xint	TM/P sensor: R, value of [4]
3-335-005	ID.Sens TestVal:R	Vct_dif Check:Slope	TM/P sensor: R, value of [5]
3-335-006	ID.Sens TestVal:R	Vct_dif Check:Xint	TM/P sensor: R, value of [6]

Replacement procedure

1. Image transfer belt unit (page 4-65 "Image Transfer Belt Unit")
2. Paper transfer roller unit (page 4-73 "Paper Transfer Roller Unit ")
3. Fusing unit (page 4-99 "Fusing Unit")
4. Fusing dowser position sensor unit (page 4-110 "Fusing Shield Position Sensor")
5. TM(ID) sensor unit [A] (×2, ×3, ×5)

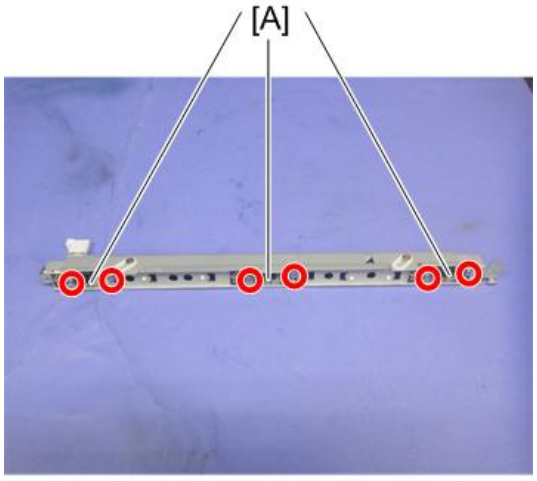
CAUTION

- When installing the TM / ID sensor unit.
- 1. Attach the screw of the front side [B]
- 2. Attach the screw of the back side [C]
- When installed in reverse order, an SC may occur because the sensor position has shifted.



d1462265

6. TM(ID) sensor [A] (×6)



d1462266

Adjustment after replacing the TM(ID) sensor

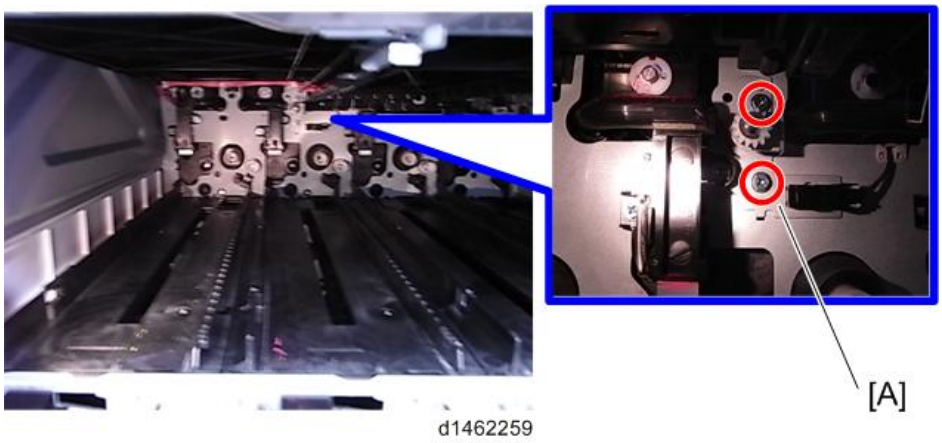
1. Turn on the main power switch, and then go into the SP mode.
2. Run SP3-011-004 (Manual Procon: Exe Full MUSIC).

Note

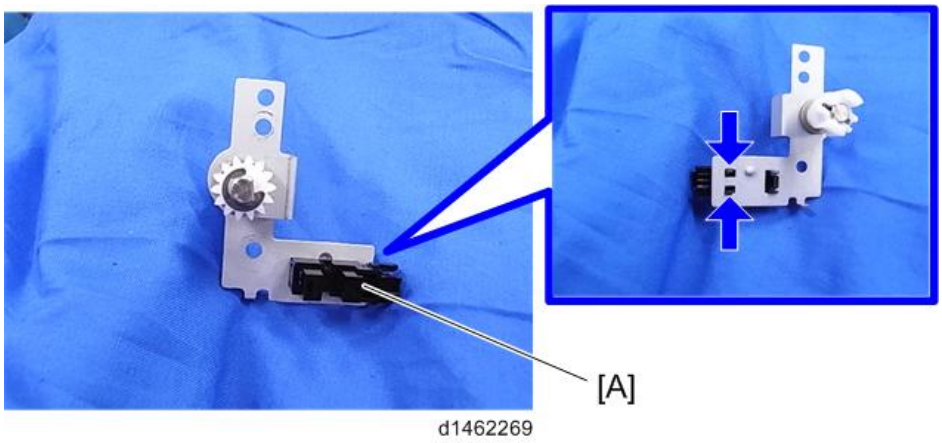
§ If the SP3-011-004 can't finish successfully, make sure you are entering the correct value to the SP.

4.10.8 TEMPERATURE AND HUMIDITY SENSOR

1. PCDUs (page 4-58 "PCDU")
2. Temperature and humidity sensor bracket [A] (×2)

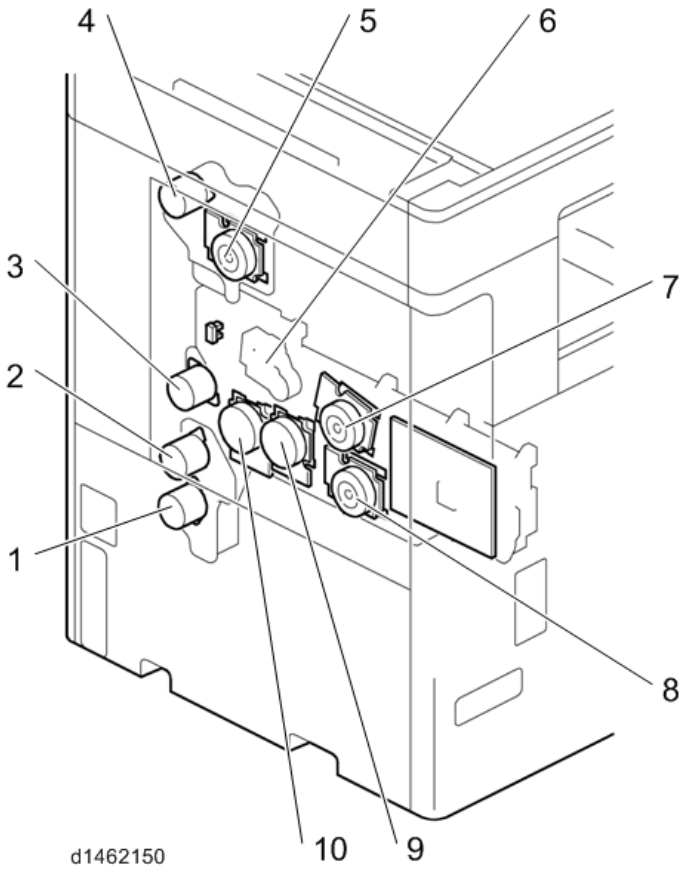


3. Temperature and humidity sensor [A]



4.11 DRIVE UNIT

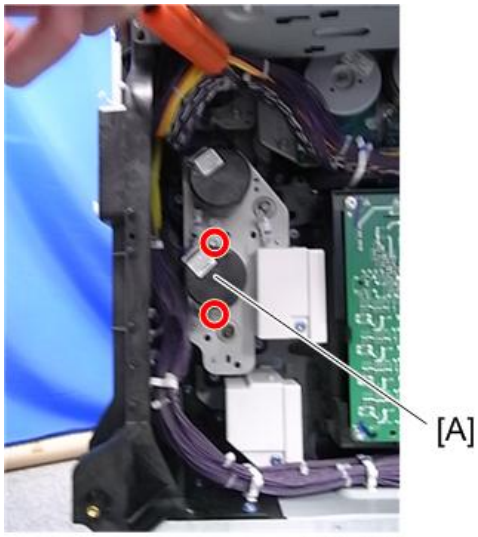
4.11.1 OVERVIEW



No.	Description	No.	Description
1	Paper Feed Motor	6	Paper Transfer Contact Motor
2	Transport Motor	7	PCU Motor: CMY
3	Registration Motor	8	Development Motor: CMY
4	Paper Exit / Pressure Release Motor	9	Development Motor: Black
5	Fusing Motor	10	PCU: Black / Image Transfer Motor

4.11.2 PAPER FEED MOTOR

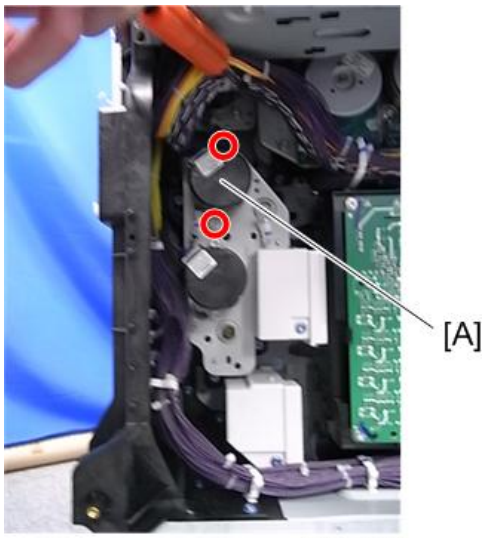
1. Power supply box (page 4-154 "Paper Transport IOB")
2. Paper Feed Motor [A] (×2, ×1)



d1462102

4.11.3 TRANSPORT MOTOR

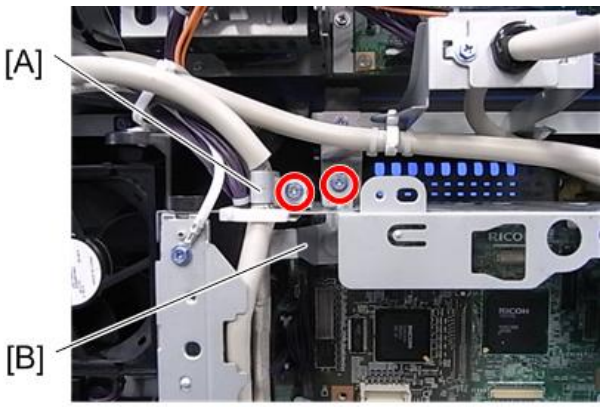
1. Power supply box (page 4-154 "Paper Transport IOB")
2. Transport motor [A] (×2, ×1)



d1462103

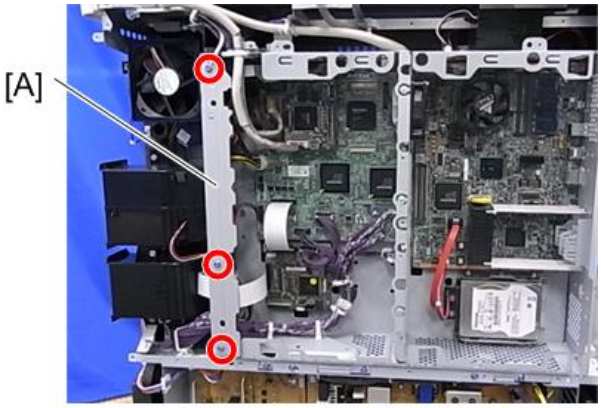
4.11.4 TRANSFER MOTOR UNIT

1. Rear right cover (page 4-11 "Rear Right Cover")
2. Scanner rear lower cover (page 4-12 "Scanner Rear Cover (Small)")
3. Bracket [A] [B] (×2)



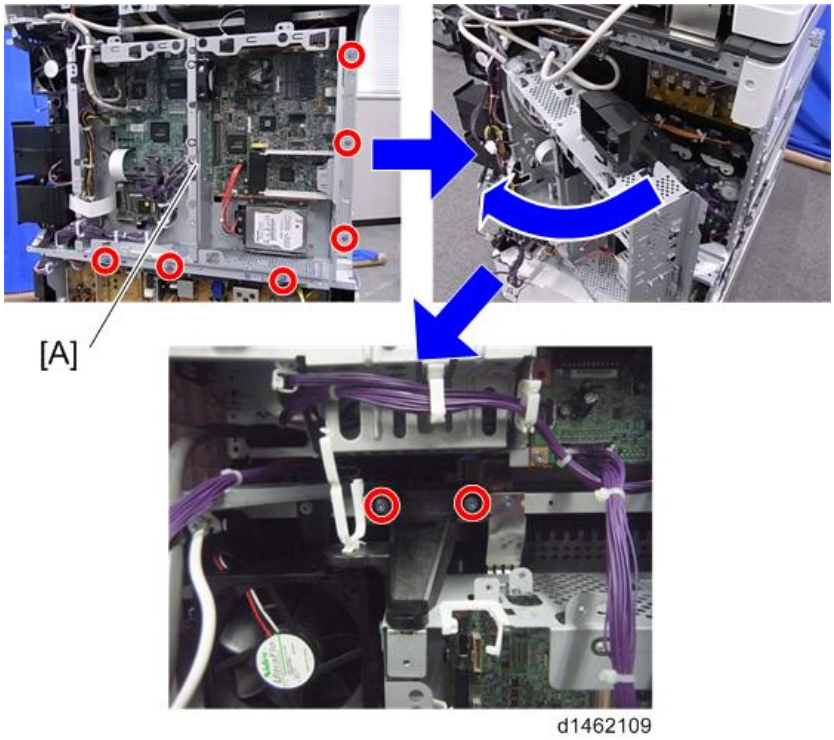
d1462107

4. Bracket [A] (×3)



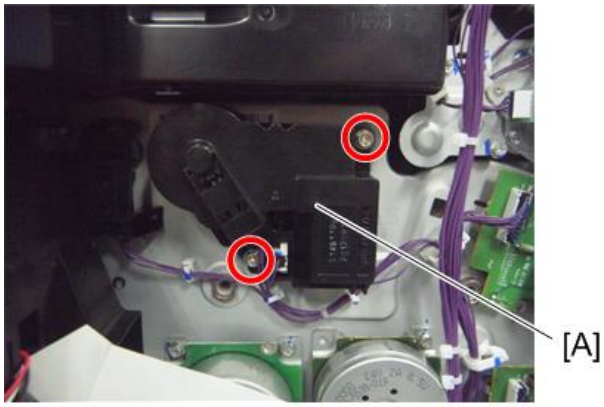
d1462108

5. Controller box [A] (×8, ×16, ×17, USB×1)



d1462109

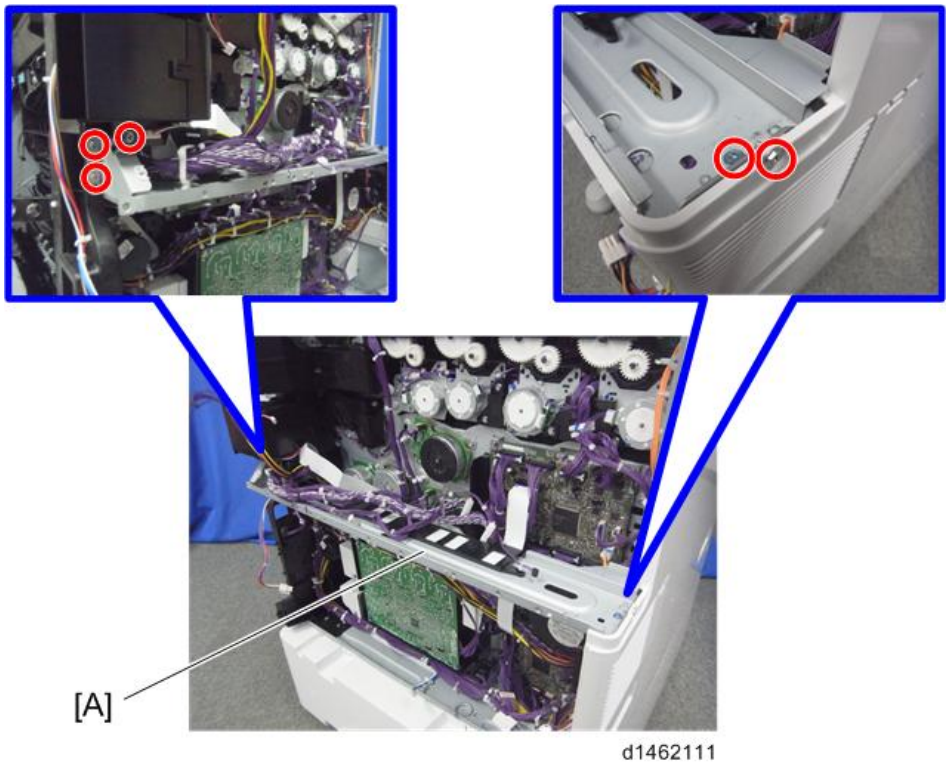
6. Paper transfer contact motor unit [A] (×2)



d1462110

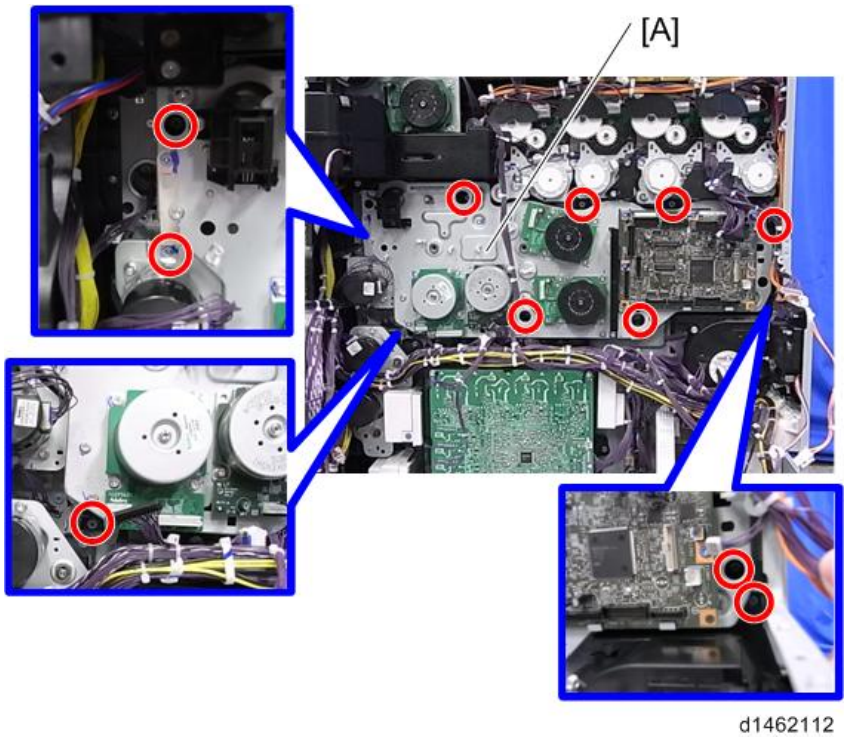
4.11.5 IMAGING DRIVE UNIT

1. Paper transfer contact motor unit (page 4-83 "Transfer Motor Unit")
2. Power supply box (page 4-154 "Paper Transport IOB")
3. Bracket [A] (×4)



d1462111

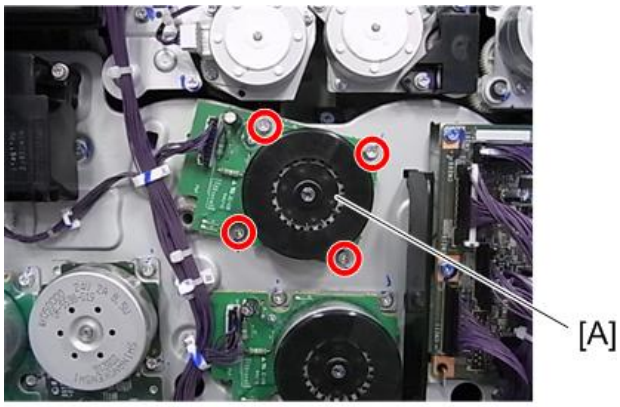
4. Drive cooling fan (page 4-161 "Drive Cooling Fan (D148/D149/D150)")
5. Imaging drive unit [A] (×11)



d1462112

4.11.6 PCU MOTOR: CMY

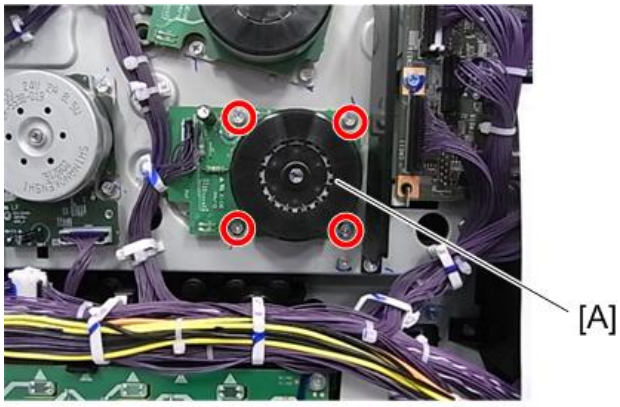
1. Controller box (page 4-83 "Transfer Motor Unit")
2. Color drum motor [A] (×4)



d1462113

4.11.7 DEVELOPMENT MOTOR: CMY

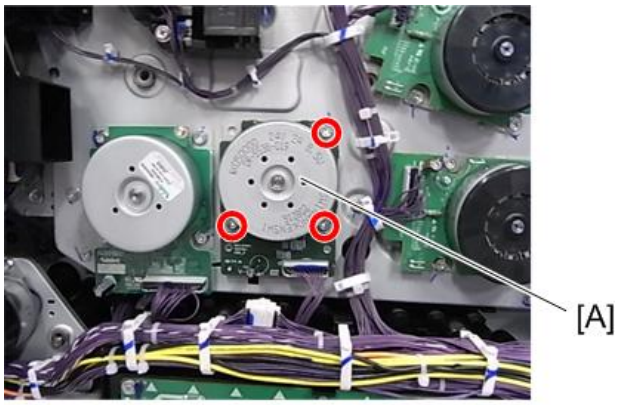
1. Bracket (page 4-85 "Imaging Drive Unit")
2. Color Development motor [A] (×4)



d1462114

4.11.8 DEVELOPMENT MOTOR: BLACK

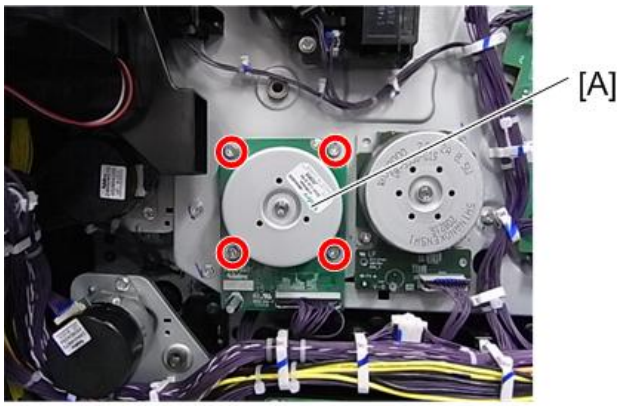
1. Bracket (page 4-85 "Imaging Drive Unit")
2. Development Motor: Black [A] (×3)



d1462115

4.11.9 PCU: BLACK / IMAGE TRANSFER MOTOR

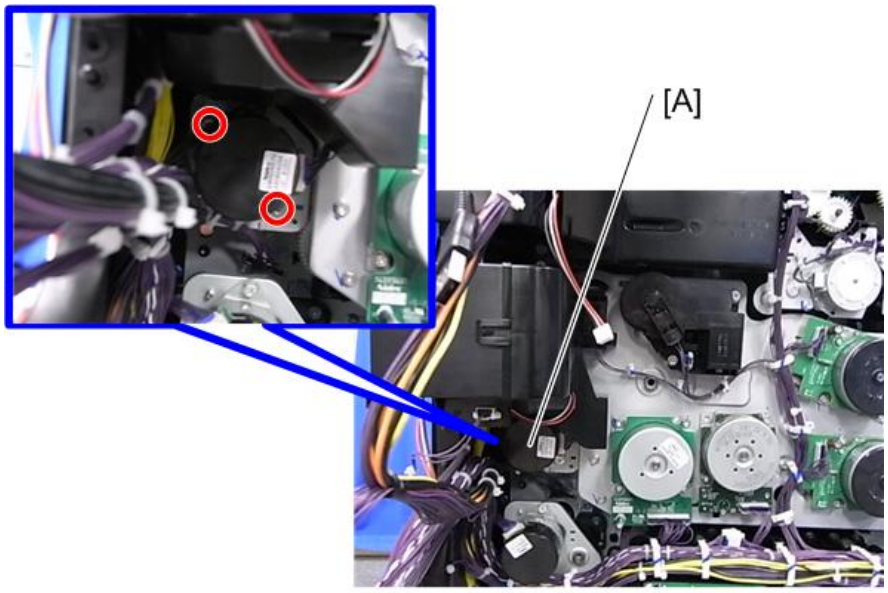
1. Bracket (page 4-85 "Imaging Drive Unit")
2. PCU: Black / Image Transfer Motor [A] (×4)



d1462116

4.11.10 REGISTRATION MOTOR

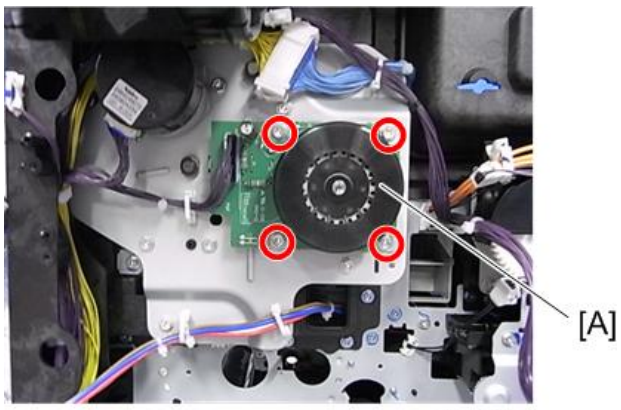
1. Power supply box (page 4-154 "Paper Transport IOB")
2. Drive cooling fan (page 4-161 "Drive Cooling Fan (D148/D149/D150)")
3. Registration motor [A] (×2, ×1)



d1462117

4.11.11 FUSING MOTOR

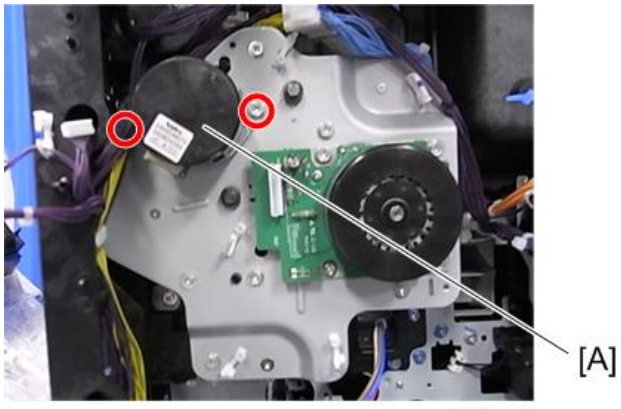
1. Rear right cover (page 4-11 "Rear Right Cover")
2. Fusing motor [A] (×4, ×1)



d1462120

4.11.12 PAPER EXIT / PRESSURE RELEASE MOTOR

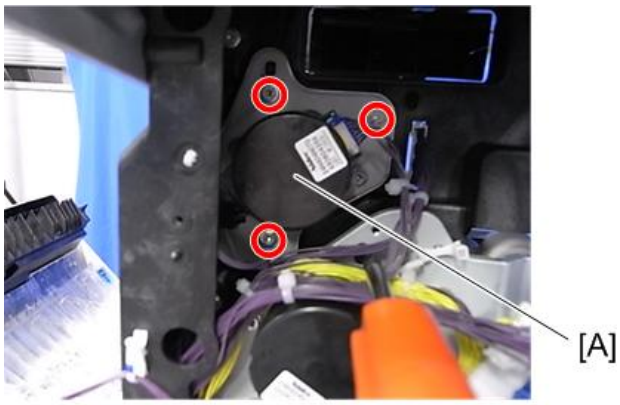
1. Fusing exhaust heat fan (page 4-160 "Fusing Exhaust Heat Fan")
2. Paper exit / Pressure release motor [A] (×2, ×1)



d1462121

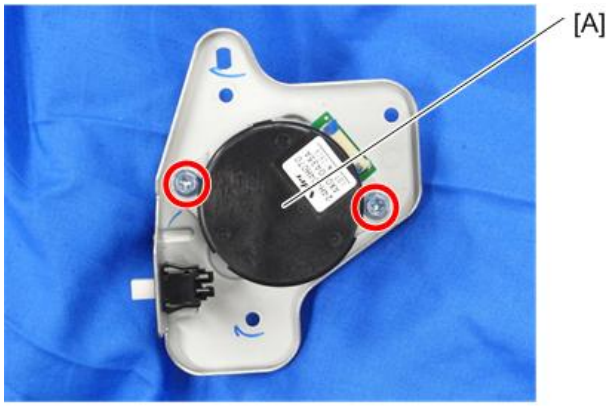
4.11.13 DUPLEX ENTRANCE MOTOR

1. Paper exit unit (page 4-112 "Paper Exit Unit")
2. Fusing exhaust heat fan (page 4-160 "Fusing Exhaust Heat Fan")
3. Duplex entrance motor unit [A] (×3, ×2)



d1462122

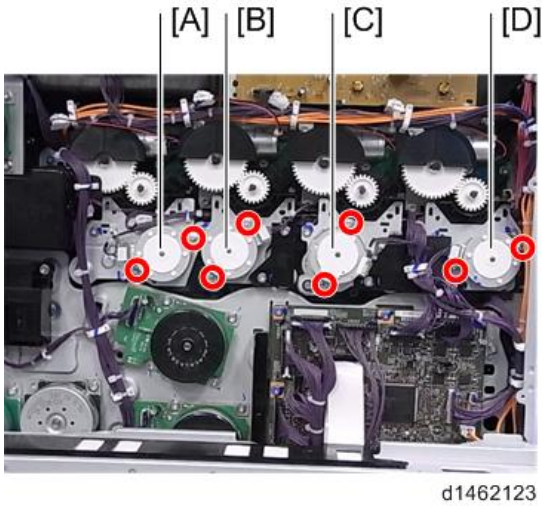
4. Duplex entrance motor [A] (×2)



d1462151

4.11.14 TONER TRANSPORT MOTOR

1. Controller box (page 4-85 "Imaging Drive Unit")
2. Toner transport motor

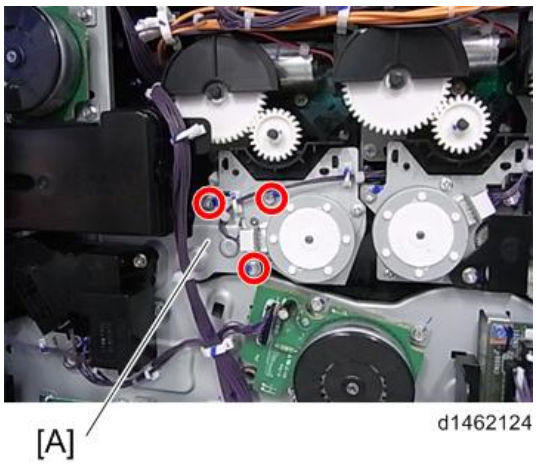


[A]	K	×2, ×1
[B]	C	×2, ×1
[C]	M	×2, ×1
[D]	Y	×2, ×1

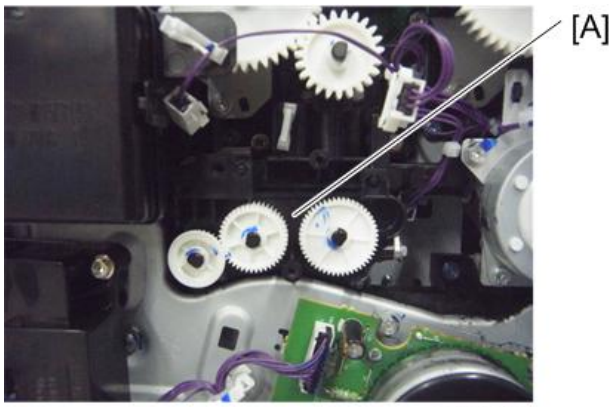
4.11.15 SUB HOPPER

K

1. Pull out the image transfer unit about 5cm.
2. Controller box. (page 4-83 "Transfer Motor Unit")
3. Toner transport motor unit (K) [A] (×3)



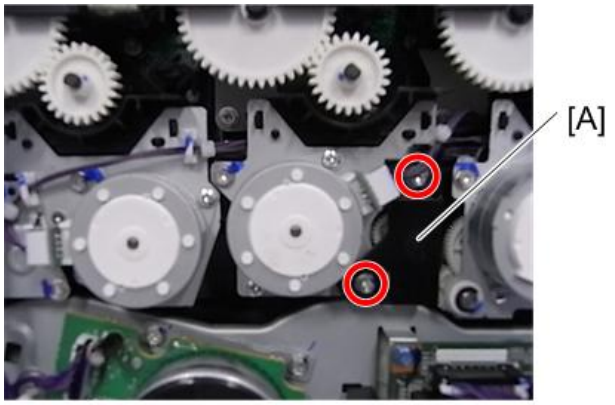
4. Sub hopper (K) [A]



d1462125

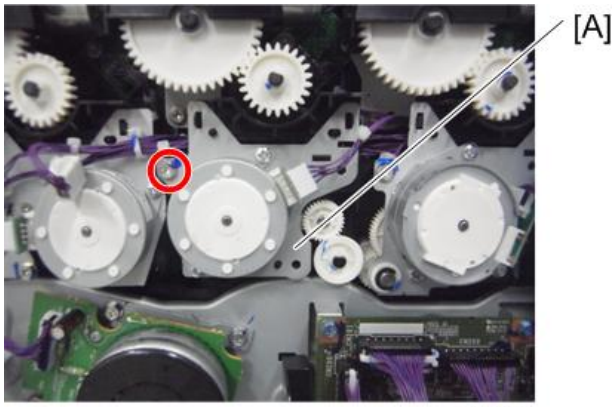
C

1. Pull out the image transfer unit about 5cm.
2. Controller box. (page 4-83 "Transfer Motor Unit")
3. Harness guide [A] (×2)



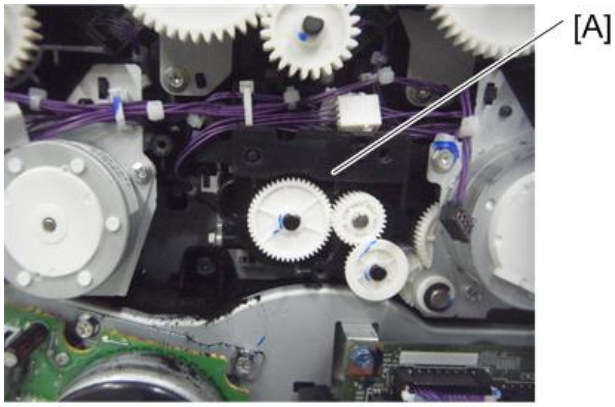
d1462126

4. Toner transport motor unit (C) [A] (×1)



d1462127

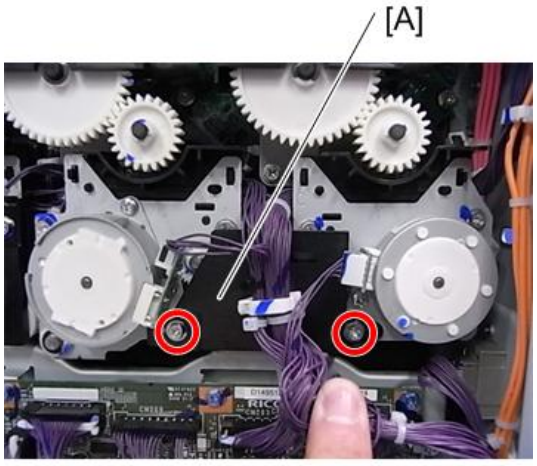
5. Hopper (C) [A]



d1462128

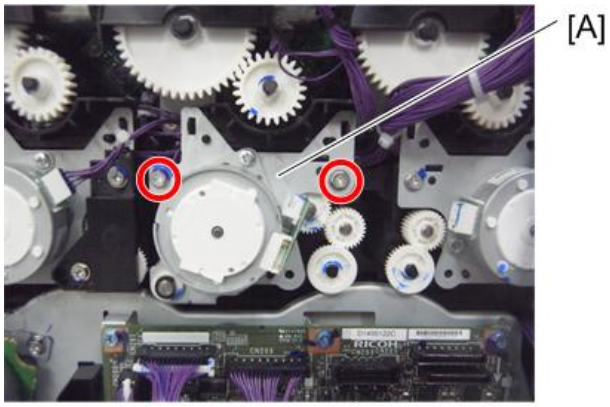
M

1. Controller box (page 4-83 "Transfer Motor Unit")
2. Harness guide [A] (×2)



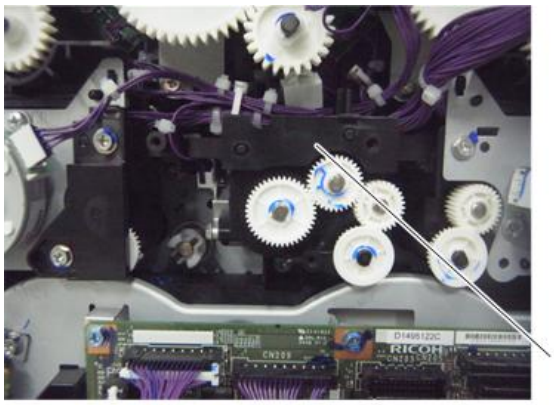
d1462129

3. Toner transport motor unit (M) [A] (×3)



d1462130

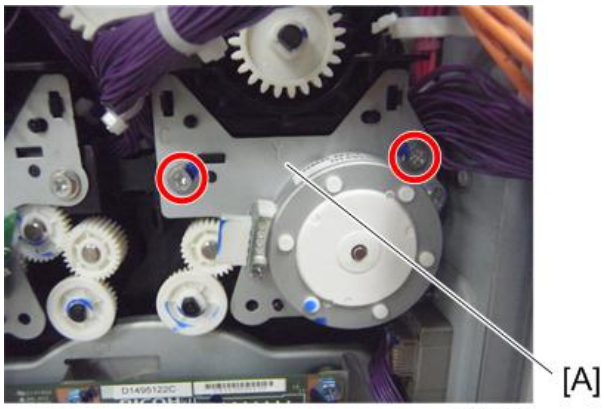
4. Hopper (M) [A]



d1462131

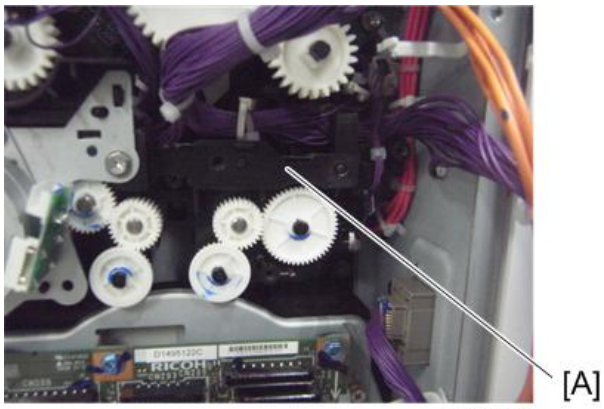
Y

1. Harness guide (page 4-92 "M")
2. Toner transport motor unit (Y) [A] (×3)



d1462132

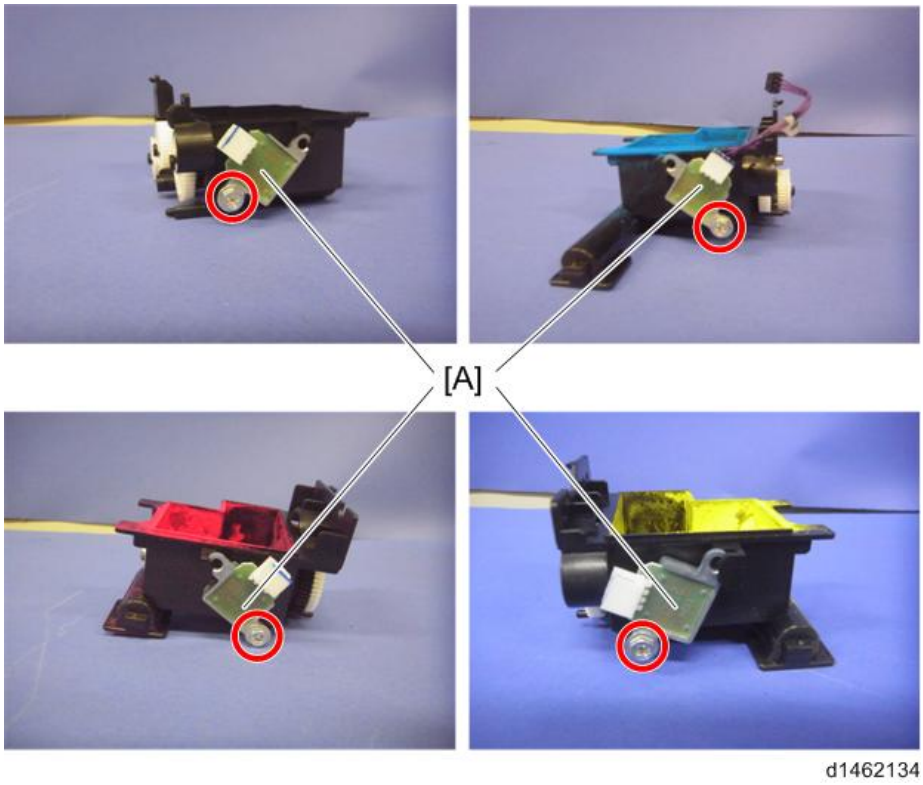
3. Hopper (Y) [A]



d1462133

4.11.16 TONER END SENSOR

1. Hopper (page 4-90 "Sub Hopper")
2. Toner end sensor [A]



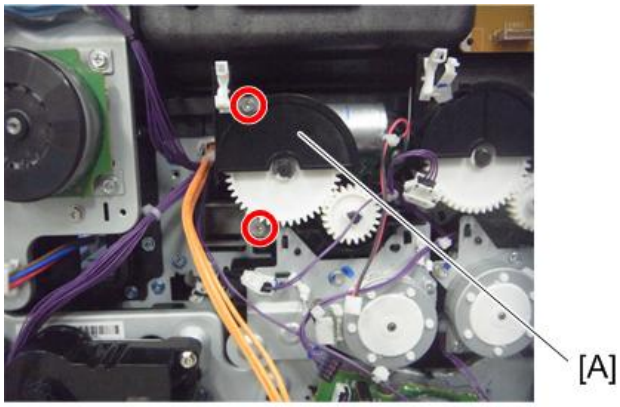
Note

§ The toner end sensor, there is no difference between each color.

4.11.17 TONER BOTTLE DRIVE MOTOR

K

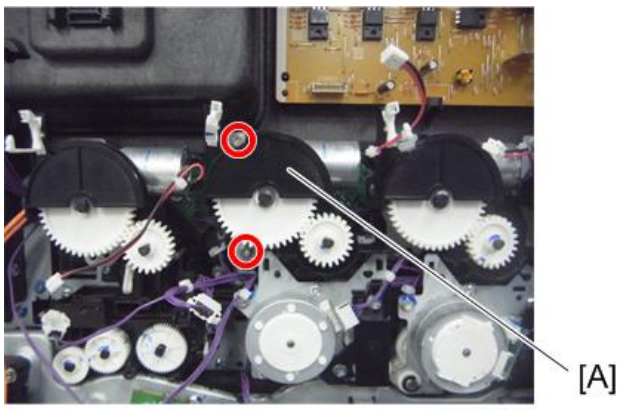
1. Toner transport motor (K) (page 4-90 "Toner Transport Motor")
2. Toner bottle drive motor (K) [A] (×2)



d1462135

C

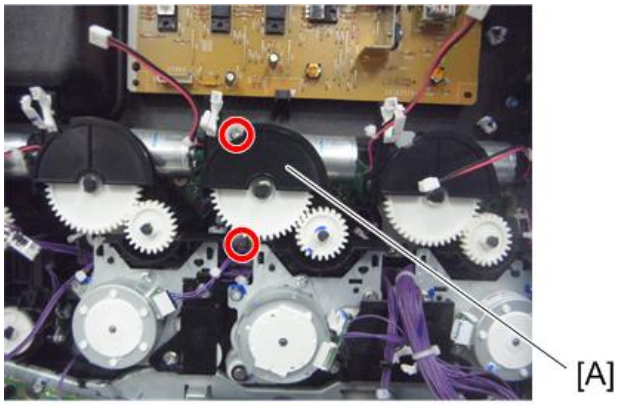
1. Toner transport motor (C) (page 4-90 "Toner Transport Motor")
2. Toner bottle drive motor (C) [A] (×2)



d1462137

M

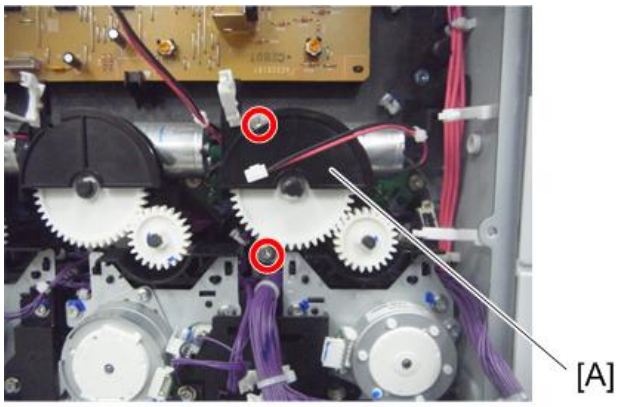
1. Toner transport motor (M) (page 4-90 "Toner Transport Motor")
2. Toner bottle drive motor (M) [A] (×2)



d1462139

Y

1. Toner transport motor (Y) (page 4-90 "Toner Transport Motor")
2. Toner bottle drive motor (Y) [A] (×2)

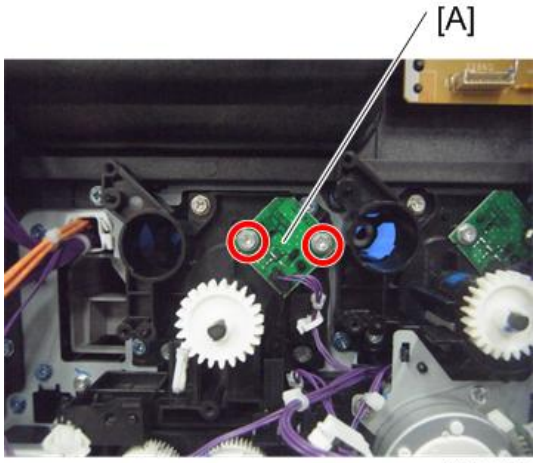


d1462141

4.11.18 ID CHIP

K

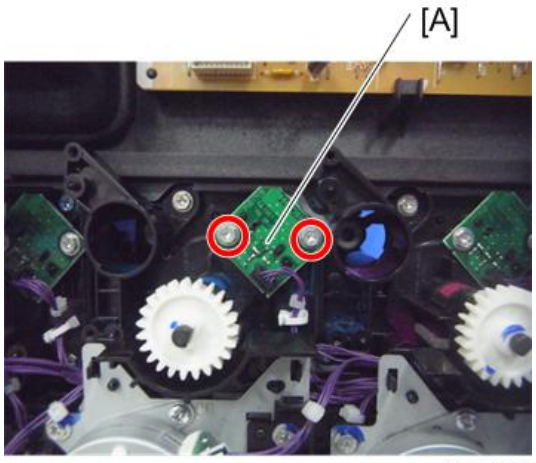
1. Toner bottle drive motor (K) (page 4-95 "K")
2. Toner bottle drive motor (C) (page 4-95 "C")
3. ID chip (K) [A] (×2)



d1462143

C

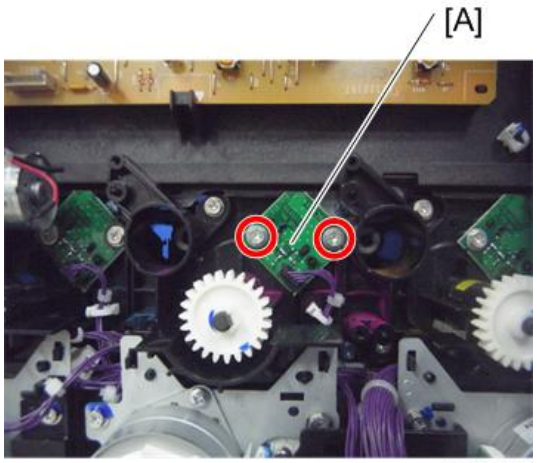
1. Toner bottle drive motor (C) (page 4-95 "C")
2. Toner bottle drive motor (M) (page 4-95 "M")
3. ID chip (C) [A] (×2)



d1462144

M

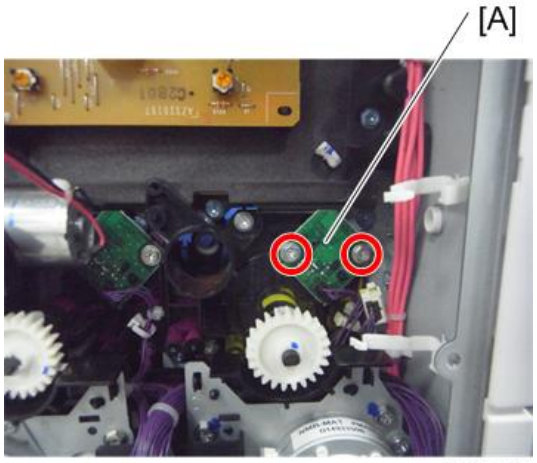
1. Toner bottle drive motor (M) (page 4-95 "M")
2. Toner bottle drive motor (Y) (page 4-96 "Y")
3. ID chip (M) [A] (×2)



d1462145

Y

1. Toner bottle drive motor (Y) (page 4-96 "Y")
2. ID chip (Y) [A] (×2)



d1462146

4.12 FUSING UNIT

4.12.1 FUSING UNIT

Replacement

⚠CAUTION

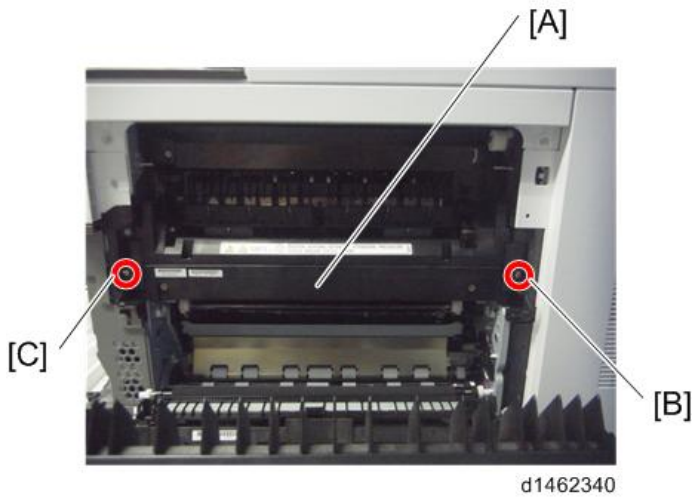
§ Because there is a danger of burns on contact with hot parts of the fusing unit, start work when the temperature drops to a low enough temperature.

Note

§ When the fusing unit is used past its target yield (400k), the fusing unit may break, causing a service call. Therefore, the machine displays a warning on the operation panel at 415k pages and stops at 430k pages.

1. Open the paper transfer unit. (page 4-65 "Image Transfer Unit")

2. Fusing unit [A] (×2)

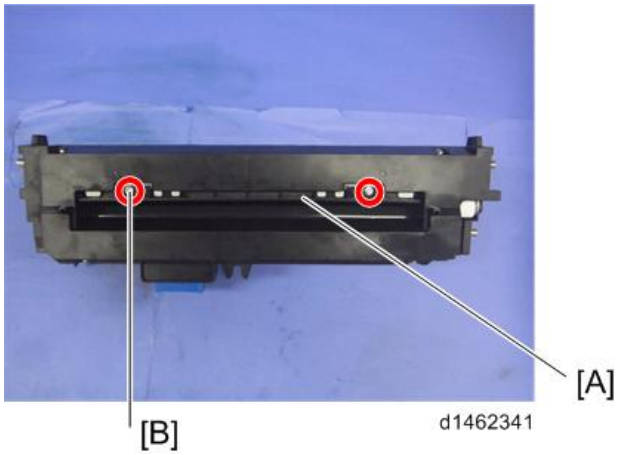


Note

§ To attach the fusing unit, fasten the screws in the order [B] (rear), [C] (front).

4.12.2 FUSING ENTRANCE GUIDE PLATE

1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing entrance guide plate [A] (×2)



Note

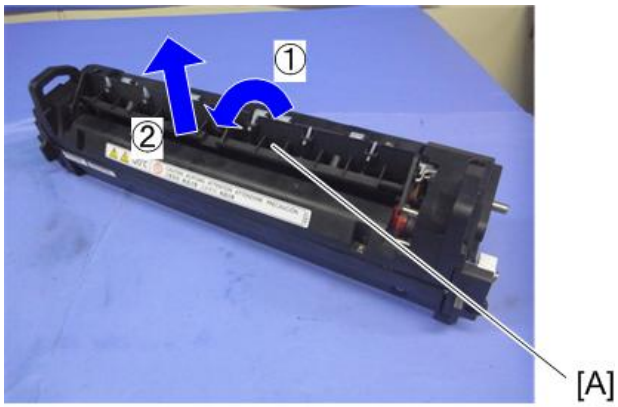
- The screw [B] is a threaded screw. When you assemble the unit, take care not to use the wrong screws.
- Attach the fusing entrance guide plate on the outer of the two screw holes.

Cleaning the Fusing Entrance Guide Plate

Carefully remove toner adhering as shown in the diagram below with a dry cloth. Then, wipe with a cloth moistened with alcohol.

4.12.3 FUSING EXIT GUIDE PLATE

1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing exit guide plate [A]
   1. Open the fusing exit guide plate in the direction of the arrow 1.
   2. Remove the fusing exit guide plate in the direction of the arrow 2.



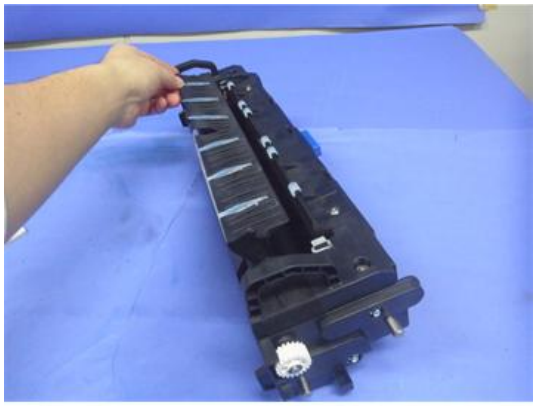
d1462342

Cleaning the Fusing Exit Guide Plate

1. Open the fusing exit guide plate [A].

d1462343

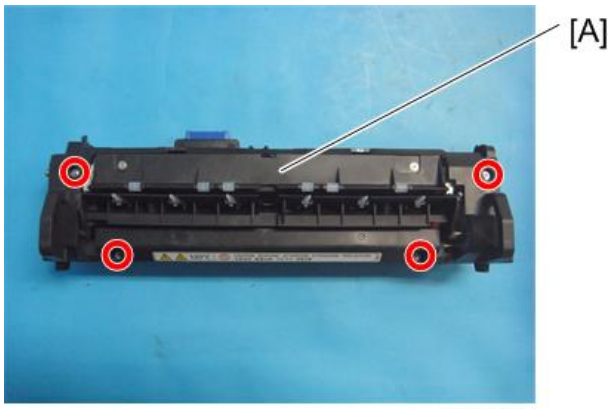
2. Wipe clean with a dry cloth. Then wipe clean with a cloth dampened with alcohol.



d1462344

4.12.4 FUSING UPPER COVER

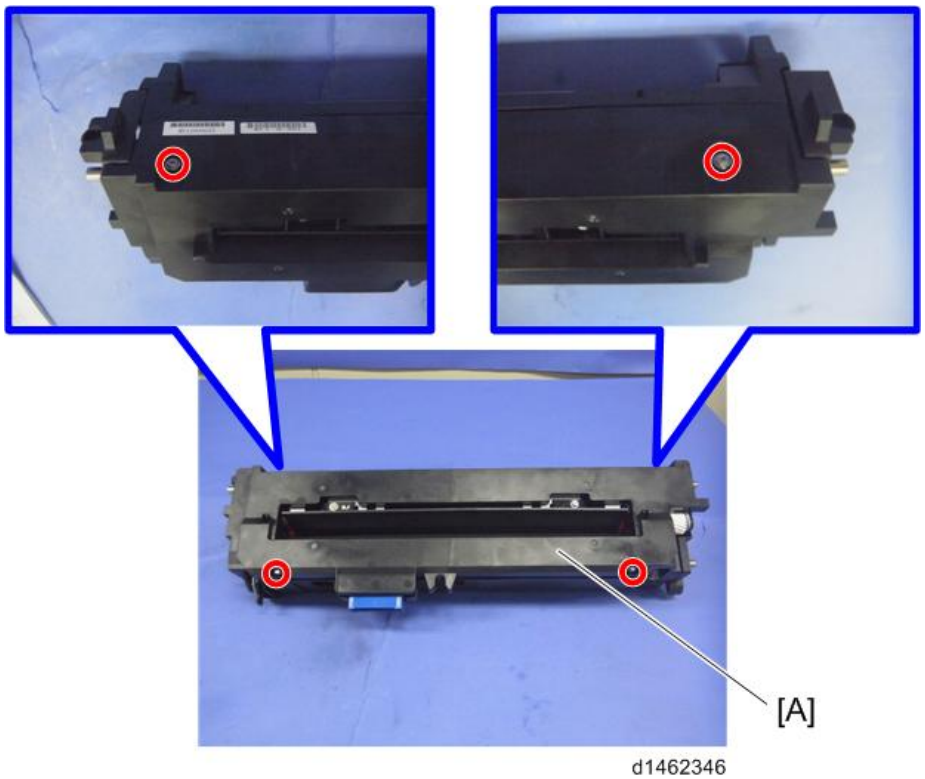
1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing upper cover [A] (×4)



d1462345

4.12.5 FUSING LOWER COVER

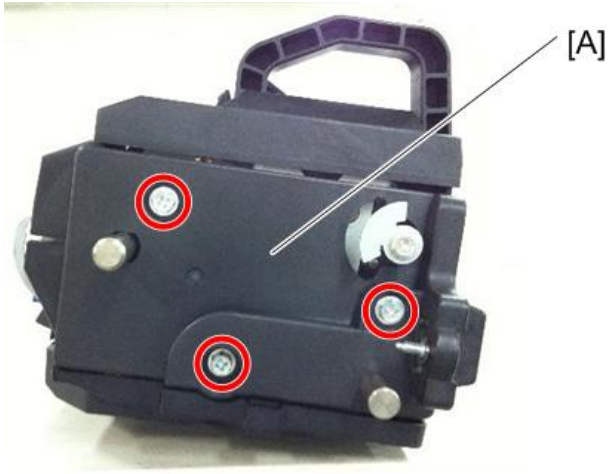
1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing lower cover [A] (×4)



d1462346

4.12.6 FUSING FRONT COVER

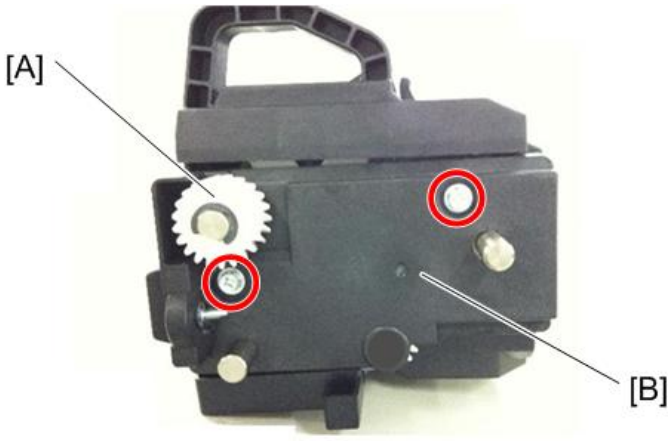
1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing front cover [A] (×3)



d1462347

4.12.7 FUSING REAR COVER

1. Fusing unit (page 4-99 "Fusing Unit")
2. Gear [A] (×1), Fusing rear cover [B] (×2)

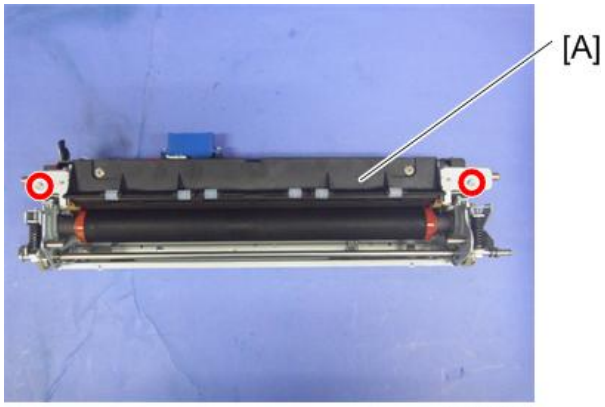


d1462348

4.12.8 HEATING SLEEVE BELT UNIT

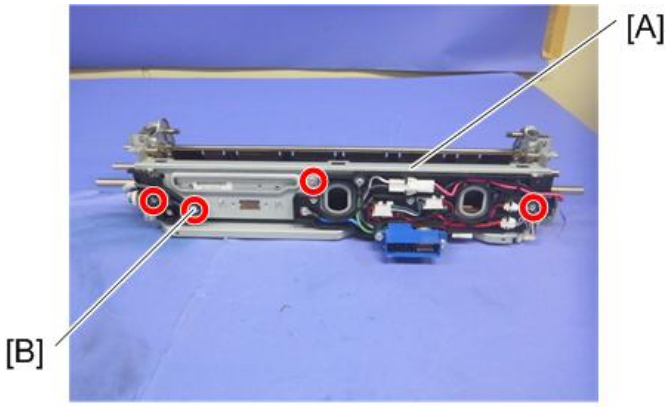
Replacement

1. Fusing upper cover (page 4-102 "Fusing Upper Cover")
2. Fusing lower cover (page 4-102 "Fusing Lower Cover")
3. Fusing front cover (page 4-103 "Fusing Front Cover")
4. Fusing rear cover (page 4-103 "Fusing Rear Cover")
5. Exit guide plate (left) unit [A] (×2)



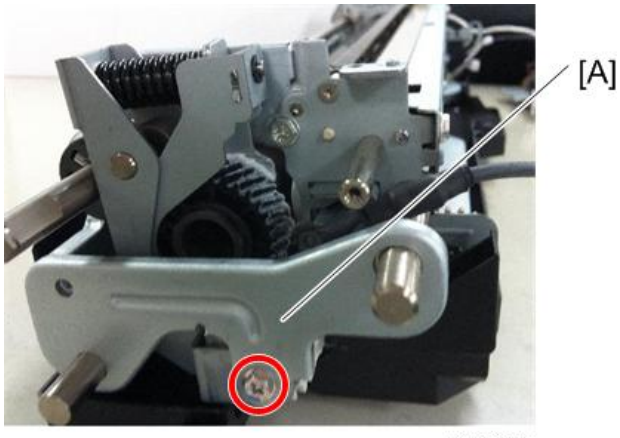
d1462350

6. Left frame [A] (×4, ×4)
   [B]: sems screw



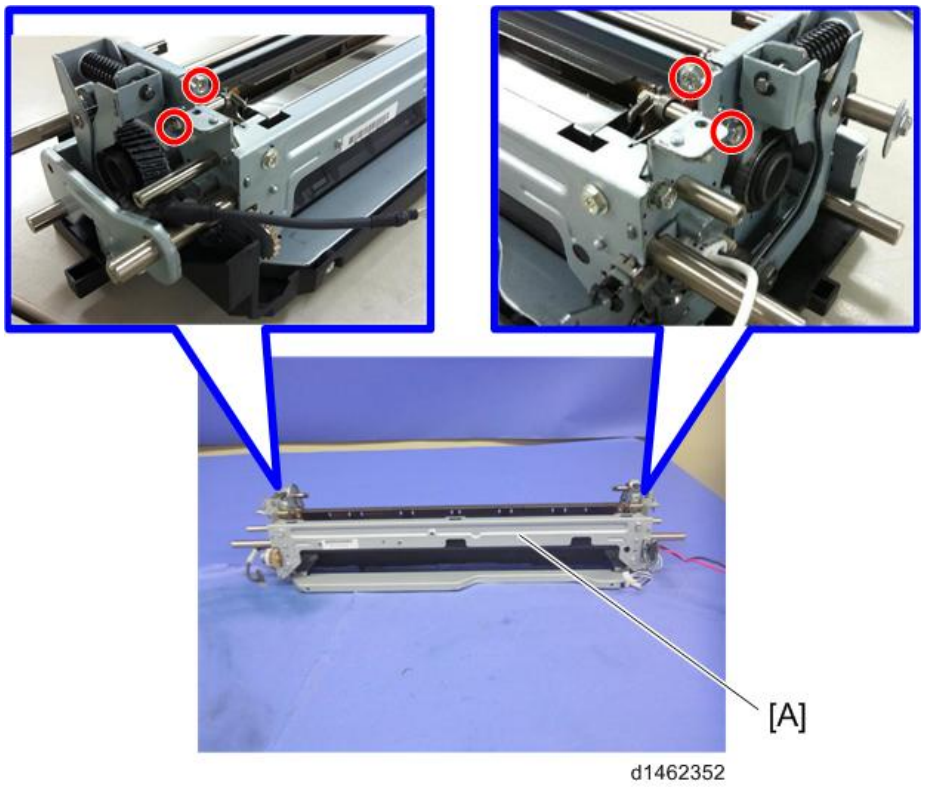
d1462351

7. Side plate [A] (×1)



d1462365

8. Heating sleeve belt unit [A] (×4)



4.12.9 PRESSURE ROLLER

Adjustment before replacing the pressure roller

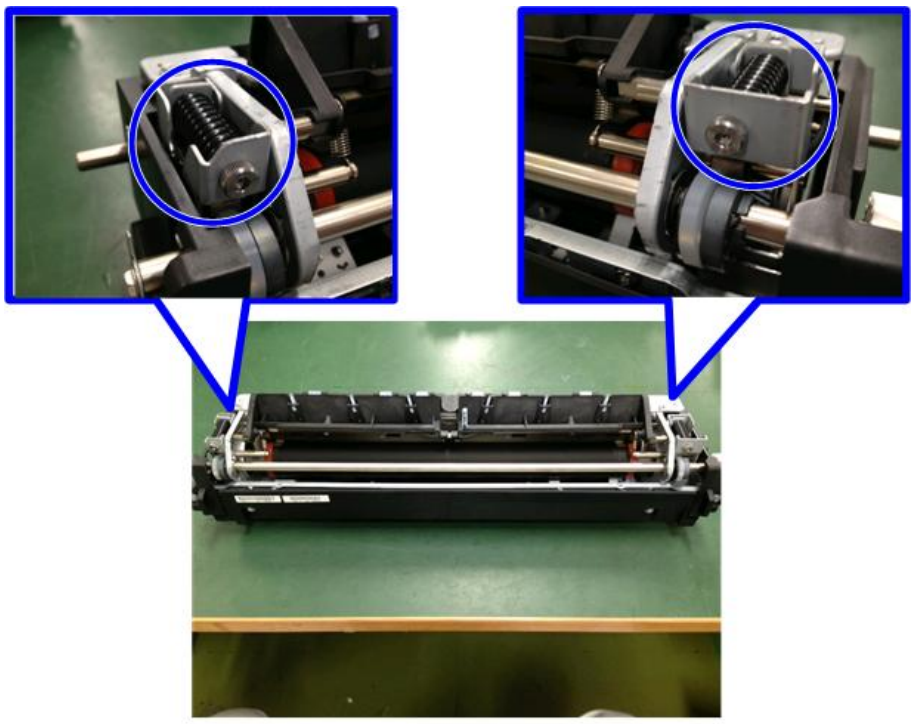
Before replacing the Pressure Roller, set SP3-701-118 to "1" and switch the power OFF. Then replace the Pressure Roller and switch the power ON.

Replacement

⚠CAUTION

§ Do not remove or adjust the pressure adjusting screws [A] when replacing the pressure roller.

The fusing unit is adjusted in the factory to match the hardness of the pressure roller, so that the nip width will be correct, so please do not release the pressure adjustment screw.



d1462364

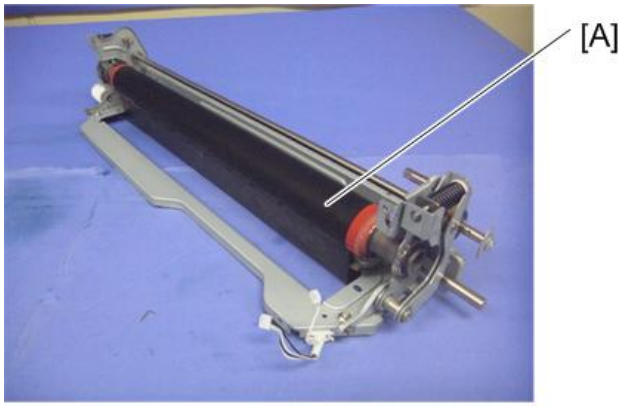
CAUTION

§ This screw is adjusted in the factory for the correct nip width, to match the hardness characteristics of each roller. Do not adjust the pressure adjustment screw in the field.

§ Also, do not move the pressure roller to another fusing unit.

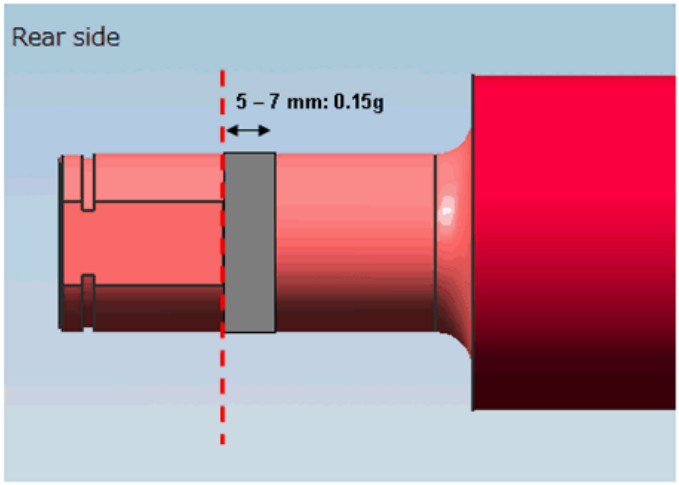
1. Heating sleeve belt unit (Heating sleeve belt unit)

2. Pressure roller [A] (×2)



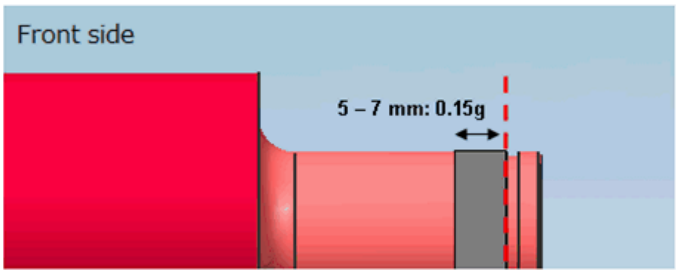
d1462353

3. Apply the grease (FLUOTRIBO MG GREASE) to the rear shaft of the pressure roller at 5-7mm from the cut edge.



W_d1465020

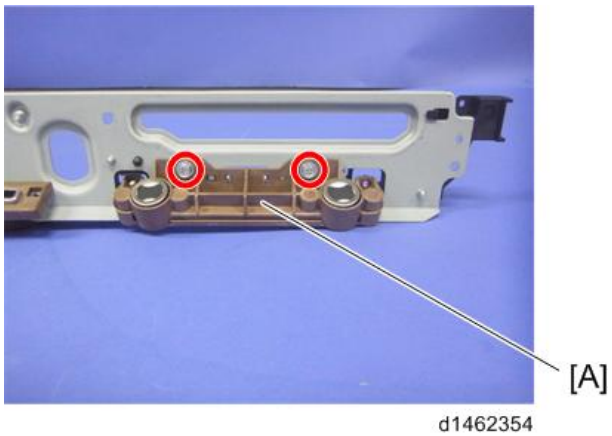
4. Apply the grease (FLUOTRIBO MG GREASE) to the front shaft of the pressure roller at 5-7mm from the C-ring notch.



W_d1465021

4.12.10 THERMOSTAT UNIT

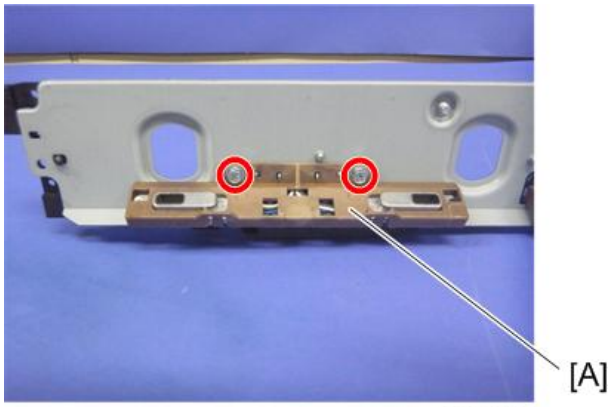
1. Left frame (Heating sleeve belt unit)
2. Thermostat unit [A] (×2)



d1462354

4.12.11 NC SENSOR UNIT

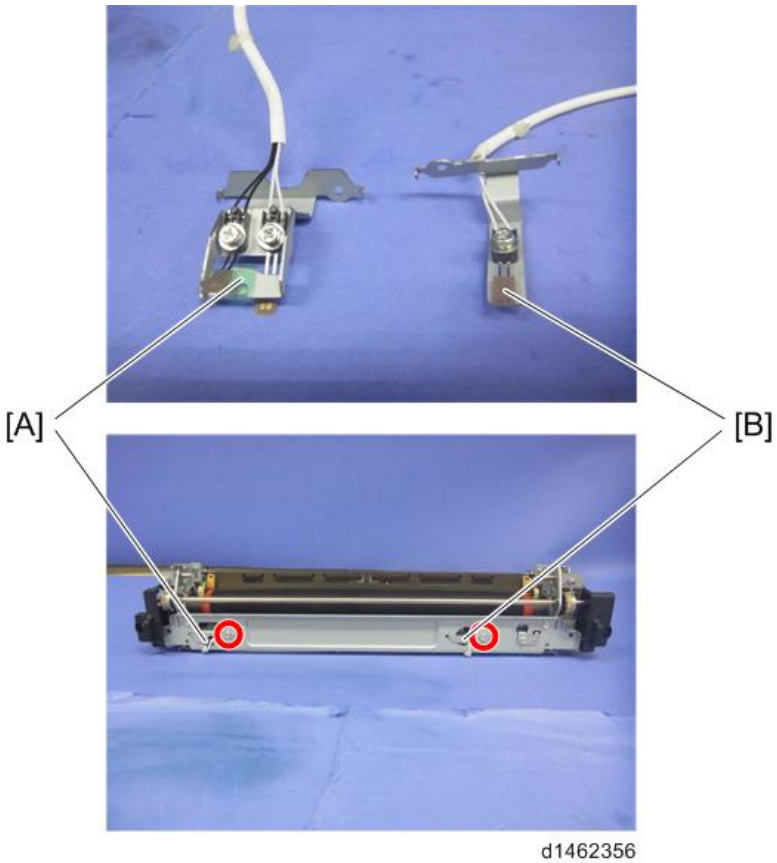
1. Left frame (Heating sleeve belt unit)
2. NC sensor unit [A] (×2, ×2)



d1462355

4.12.12 FUSING THERMISTOR

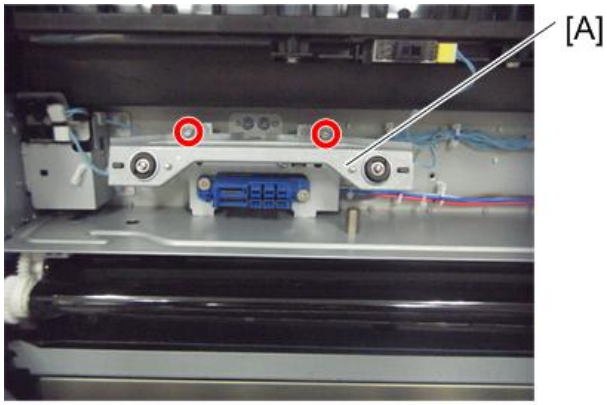
1. Fusing upper cover (page 4-102 "Fusing Upper Cover")
2. Fusing lower cover (page 4-102 "Fusing Lower Cover")
3. Fusing thermistor (edge) [A], fusing thermistor (center) [B] (×2, ×2, ×1)



d1462356

4.12.13 FUSING THERMOPILE UNIT

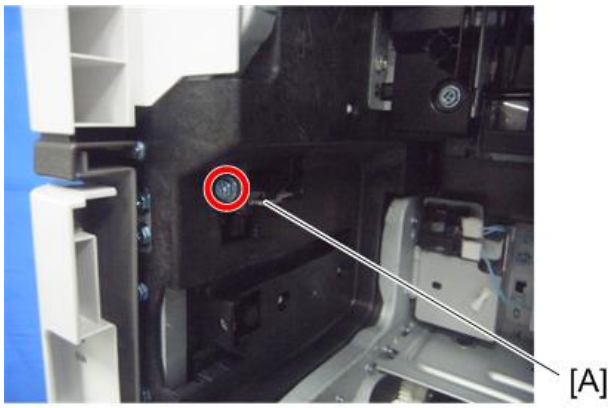
1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing thermopile unit [A] (×2, ×2)



d1462357

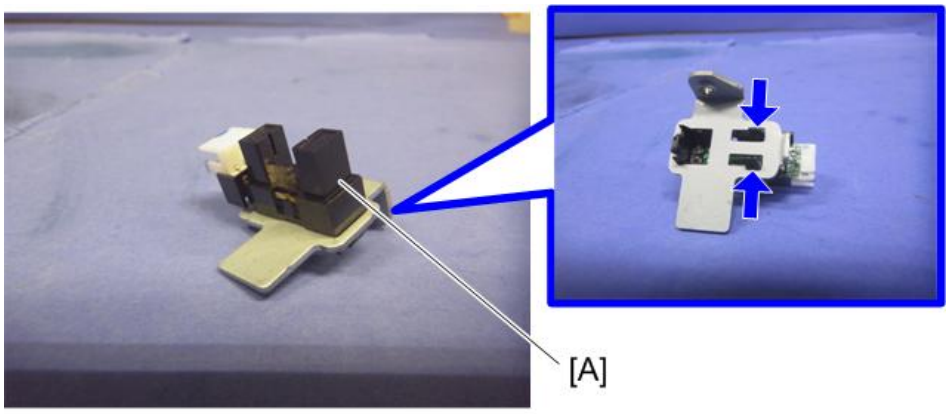
4.12.14 PRESSURE ROLLER HP SENSOR

1. Fusing unit (page 4-99 "Fusing Unit")
2. Pressure roller HP sensor unit [A] (×1, ×1)



d1462358

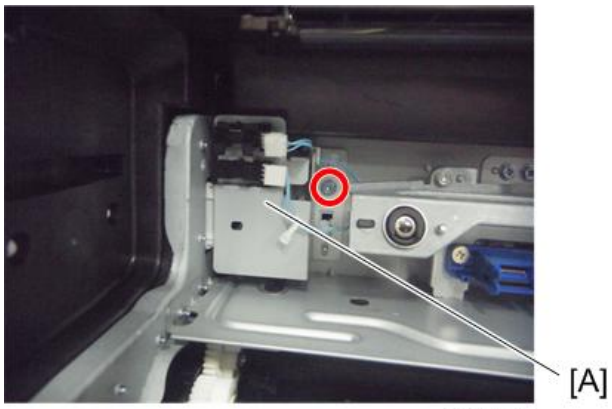
3. Pressure roller HP sensor [A]



d1462359

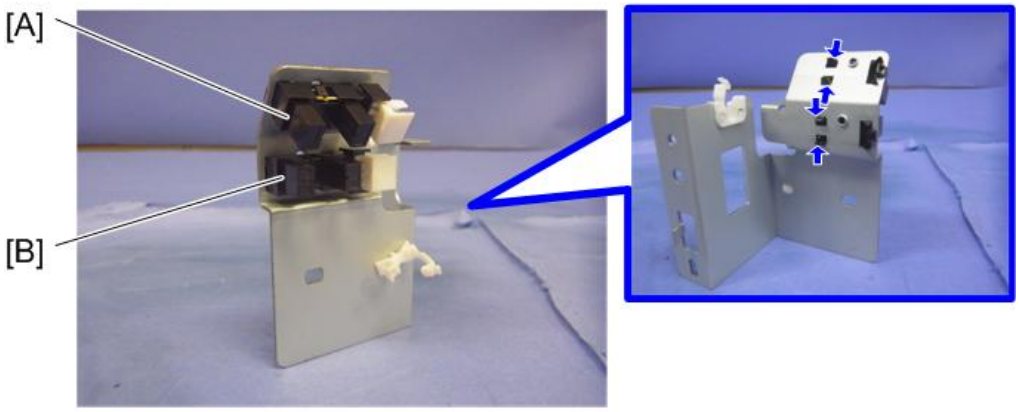
4.12.15 FUSING SHIELD POSITION SENSOR

1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing shield position sensor unit [A] (×1, ×2)



d1462360

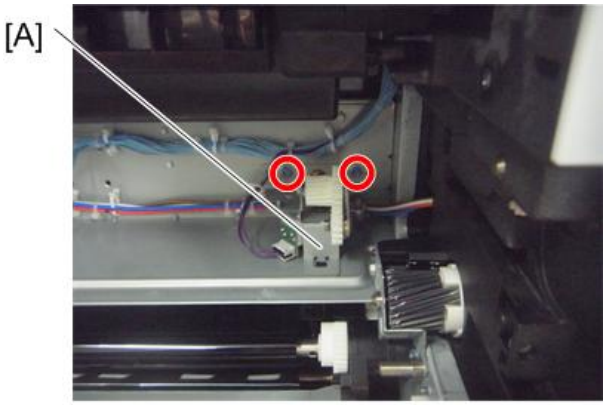
3. Fusing shield position sensor (upper) [A], Fusing shield position sensor (lower)[B]



d1462361

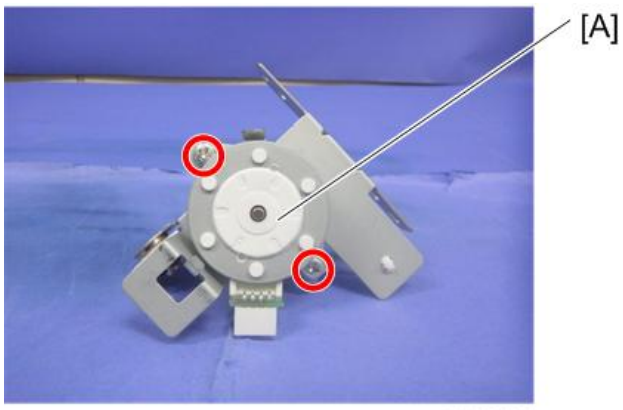
4.12.16 FUSING SHIELD DRIVE MOTOR

1. Fusing unit (page 4-99 "Fusing Unit")
2. Fusing shield drive motor unit [A] (×2, ×1)



d1462362

3. Fusing shield drive motor [A] (×2)

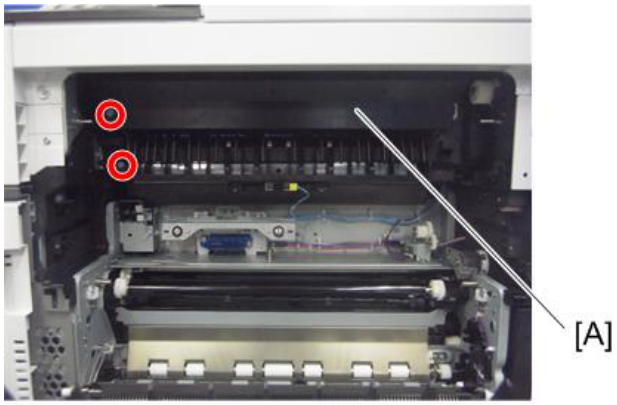


d1462363

4.13 PAPER EXIT

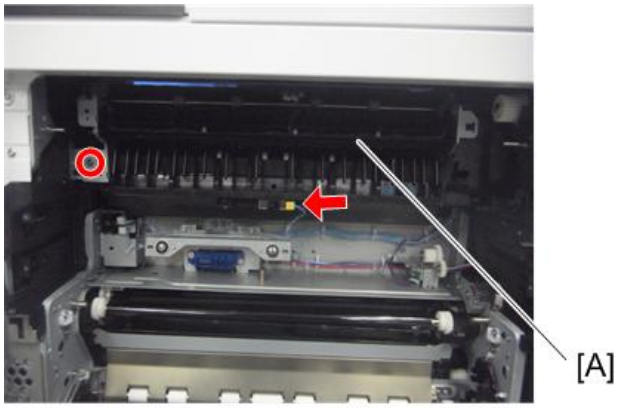
4.13.1 PAPER EXIT UNIT

1. Open the right cover (page 4-134 "Duplex Unit")
2. Fusing unit (page 4-99 "Fusing Unit")
3. Inner cover [A] (×2)



d1462370

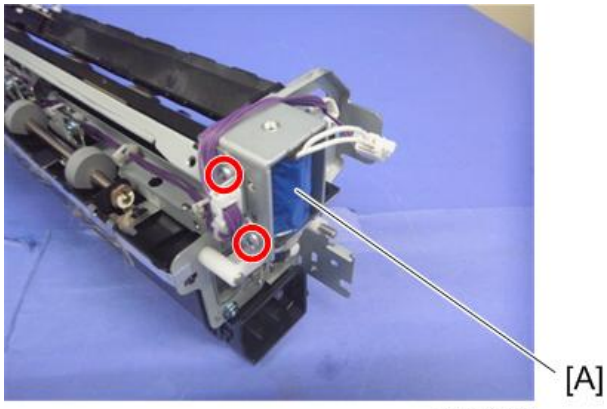
4. Paper exit unit [A] (×1, ×2)



d1462371

4.13.2 PAPER EXIT SWITCHING SOLENOID

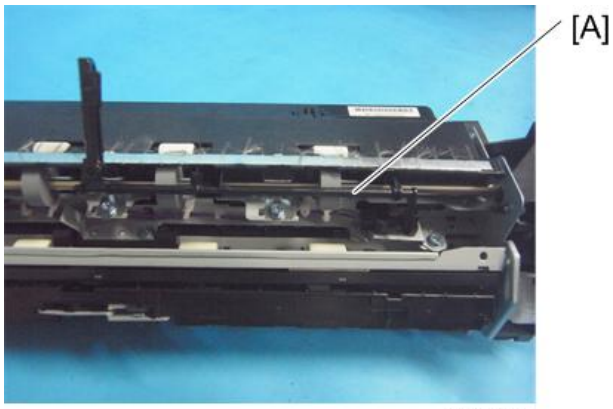
1. Paper exit unit (page 4-112 "Paper Exit Unit")
2. Paper exit switching solenoid [A] (×2, ×1,×1)



d1462372

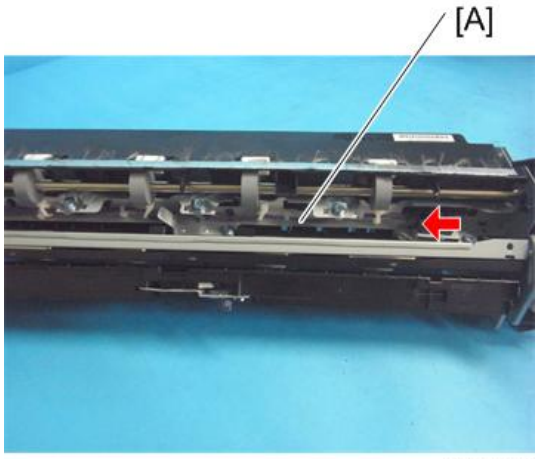
4.13.3 PAPER EXIT SENSOR

1. Paper exit unit
2. Feeler [A]



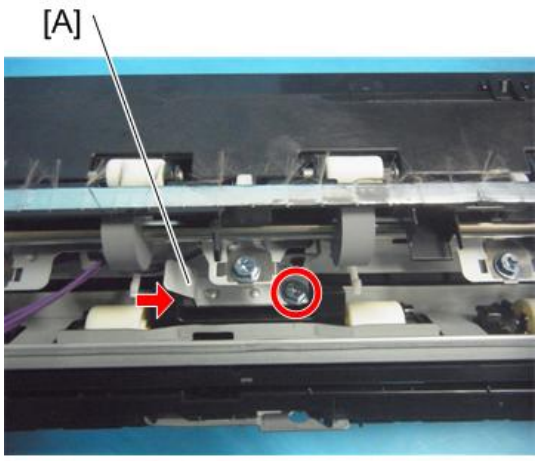
d1462405

3. Harness [A] (×1, ×3)



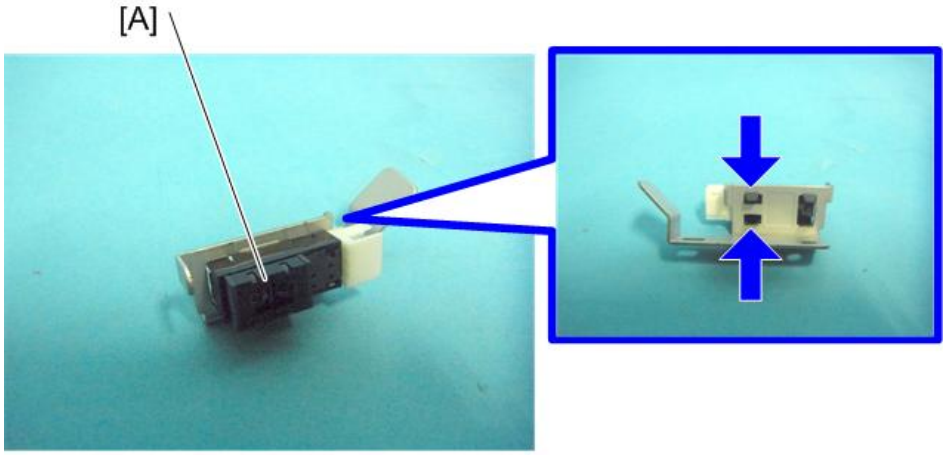
d1462406

4. Paper exit sensor unit [A] (×1, ×1)



d1462407

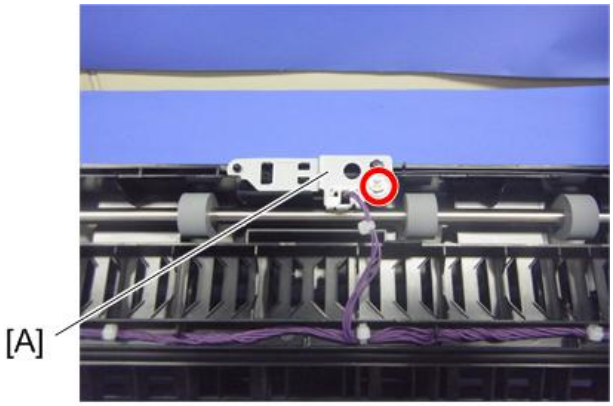
5. Paper exit sensor [A]



d1462408

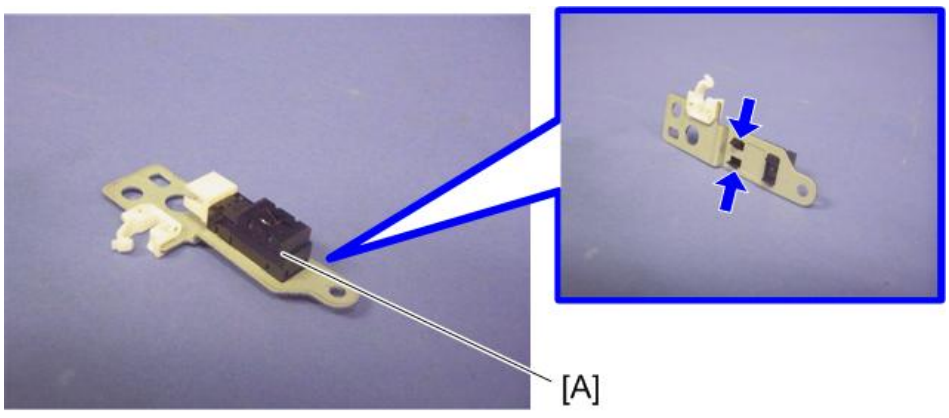
4.13.4 REVERSE SENSOR

1. Paper exit unit
2. Reverse sensor unit [A] (×1, ×1, ×1)



d1462373

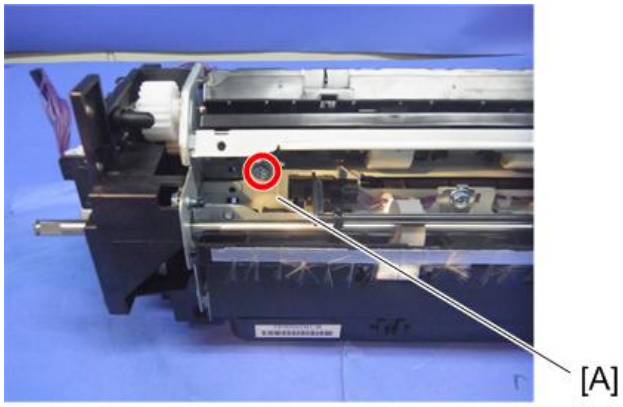
3. Reverse sensor [A]



d1462374

4.13.5 PAPER EXIT FULL SENSOR

1. Paper exit unit (page 4-112 "Paper Exit Unit")
2. Paper exit full sensor unit [A] (×2)

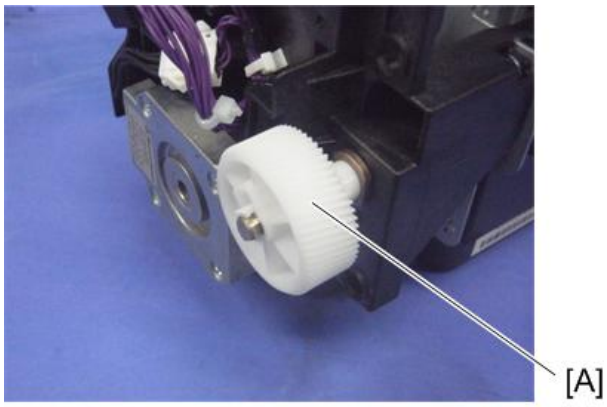


d1462380

3. Paper exit full sensor [A]

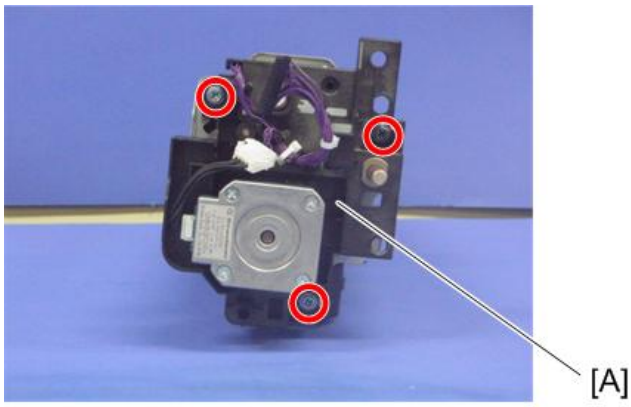
4.13.6 REVERSE MOTOR

1. Paper exit unit (page 4-112 "Paper Exit Unit")
2. Gear [A]



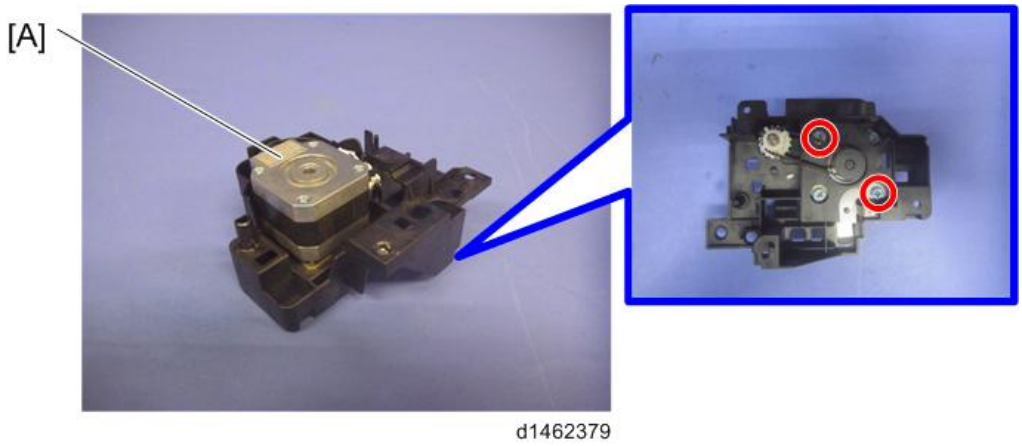
d1462377

3. Reverse motor unit [A] (×3, ×1, ×1,×1)



d1462378

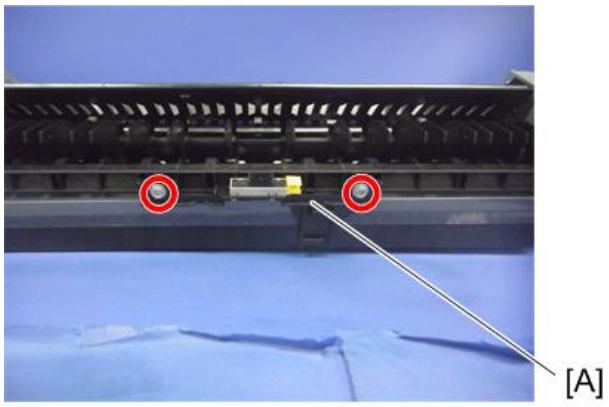
4. Reverse motor [A] (×2, ×1)



d1462379

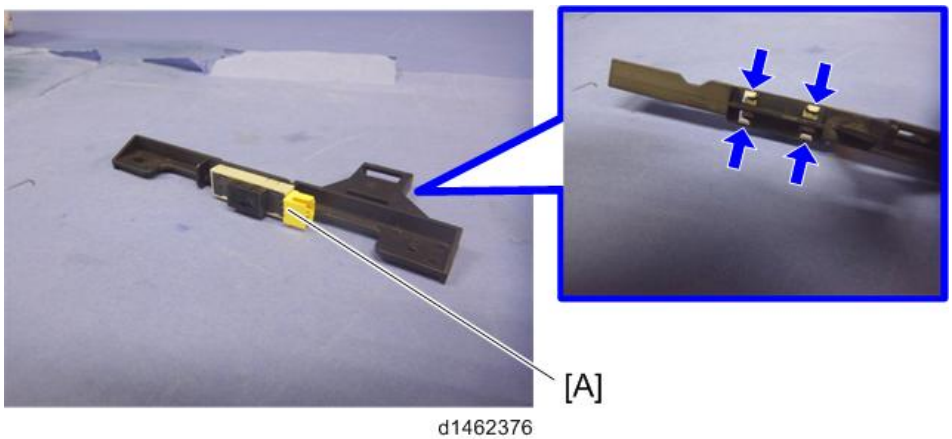
4.13.7 FUSING EXIT SENSOR

1. Paper exit unit (page 4-112 "Paper Exit Unit")
2. Fusing exit sensor unit [A] (×1, ×1, ×1)



d1462375

3. Fusing exit sensor [A]



d1462376

4.14 PAPER FEED

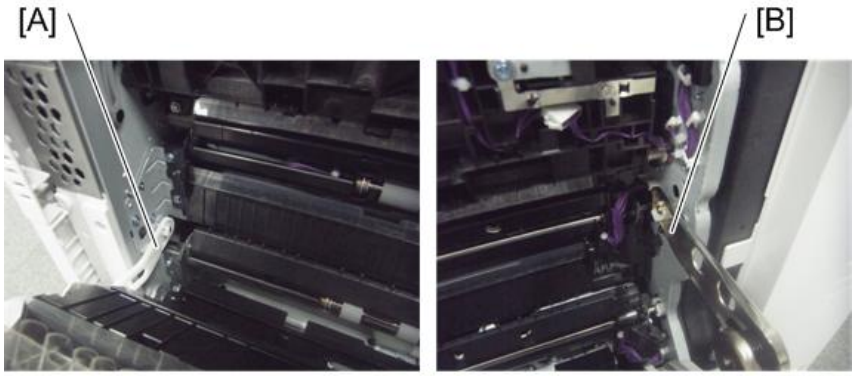
Note

- § The 1st paper feed unit can be removed without removing the duplex unit (just open the right cover), and you can remove the paper feed unit after pulling out the paper tray.
- § Note that the 1st paper feed unit and 2nd paper feed unit are not interchangeable.
- § Note that the 1st paper feed unit for the D150 is not interchangeable with the 1st paper feed unit for other models.

4.14.1 PAPER FEED UNIT

1st Paper Feed Unit

1. Open the right cover [A] wide (×2).



d1462180

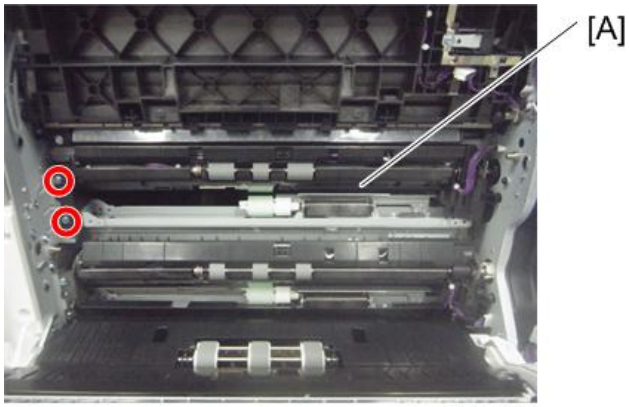
2. Pull out the 1st paper tray [A].

d1462181

3. Paper feed guide plate [A]

d1462182

4. 1st paper feed unit [A] (×2, ×1)

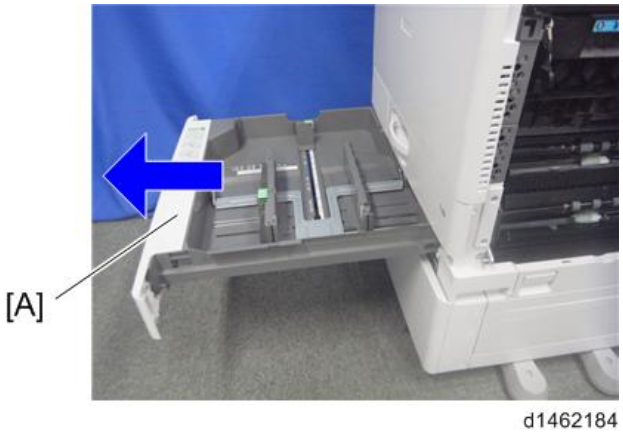


d1462183

2nd Paper Feed Unit

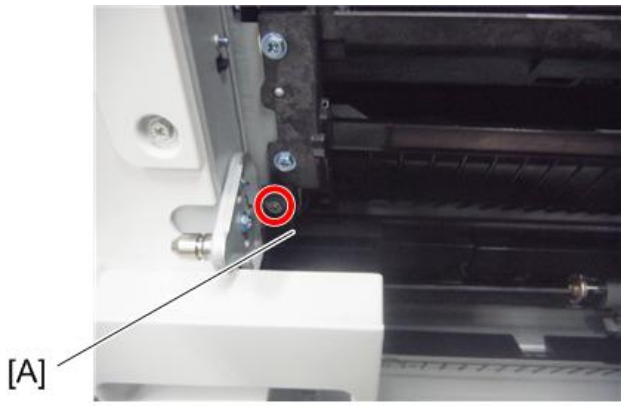
1. Duplex unit (page 4-134 "Duplex Unit")

2. Pull out the 2nd paper tray [A].



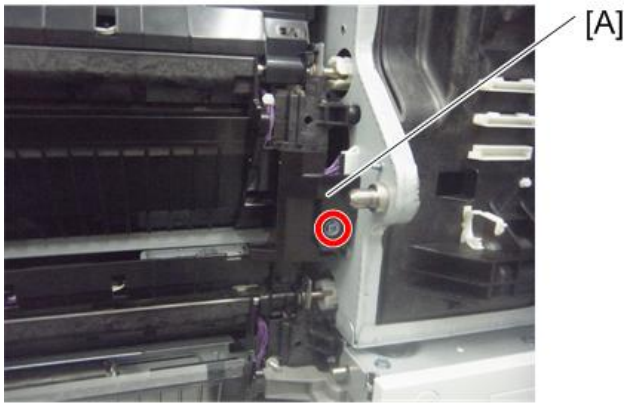
d1462184

3. Transport guide [A] (×1)



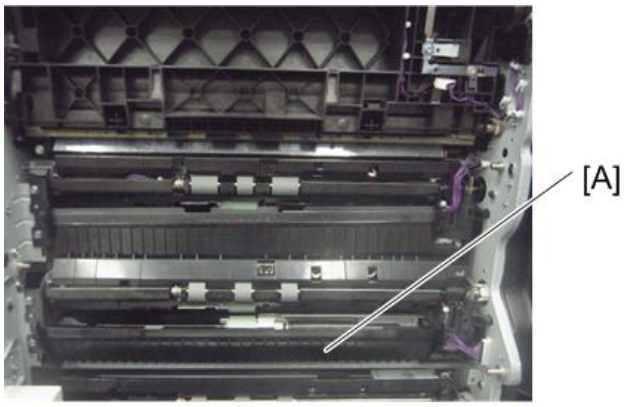
d1462185

4. Harness guide [A] (×1)



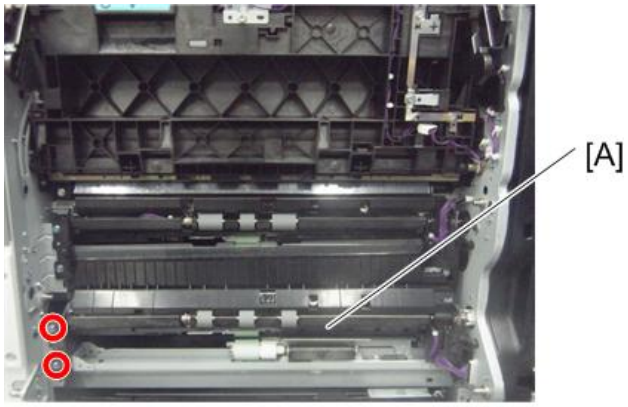
d1462186

5. Paper feed guide plate [A]



d1462187

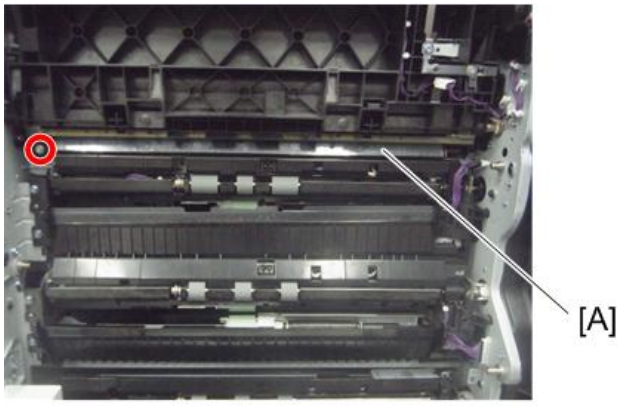
6. 2nd paper feed unit [A] (×2, ×1)



d1462201

4.14.2 PAPER DUST COLLECTION UNIT

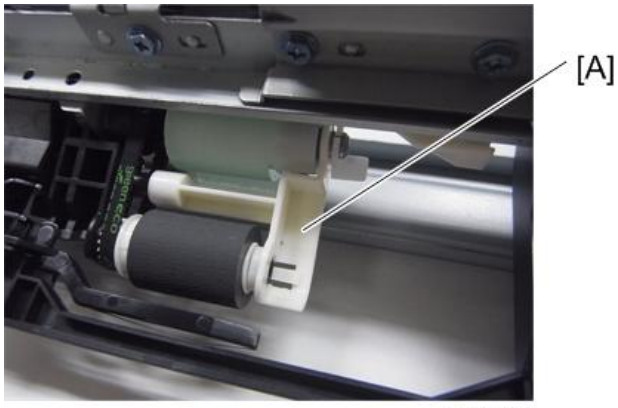
1. Open the right cover (page 4-134 "Duplex Unit")
2. Paper dust collection unit [A] (×1)



d1462202

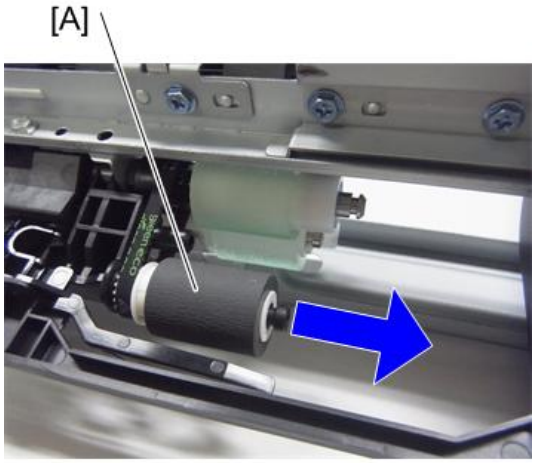
4.14.3 PICK-UP ROLLER, PAPER FEED ROLLER, SEPARATION ROLLER, TORQUE LIMITER

1. Roller holder [A] (×1)



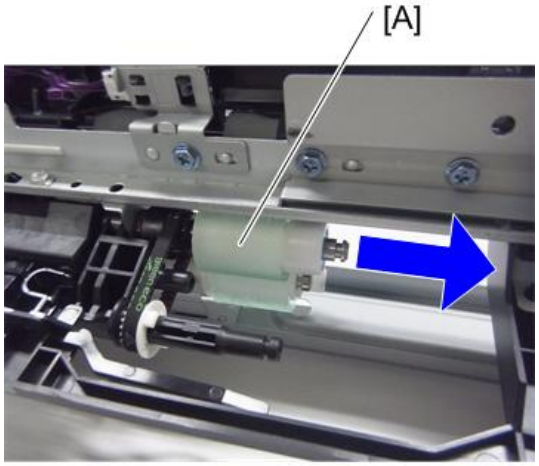
d1462188

2. Pick-up roller [A]



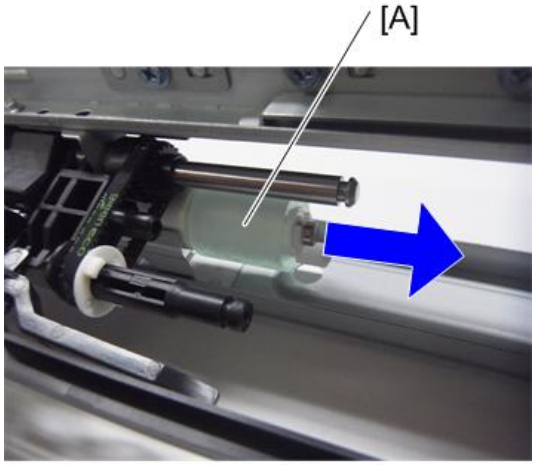
d1462189

3. Paper feed roller [A]



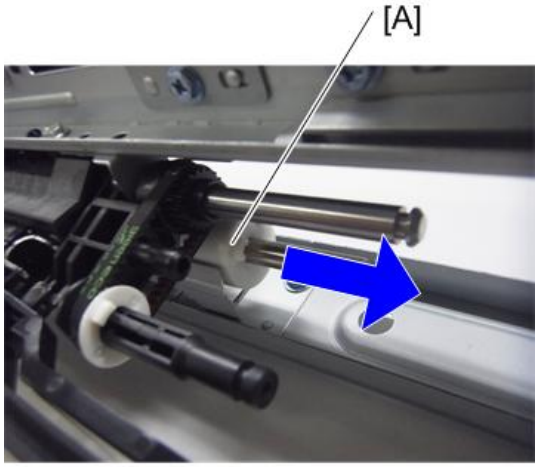
d1462190

4. Separation roller [A] (×1)



d1462191

5. Torque limiter [A]



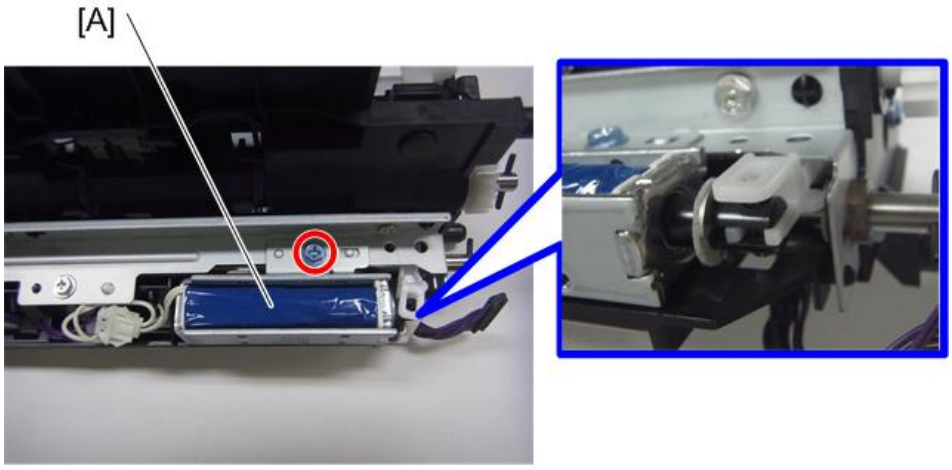
d1462192

4.14.4 PAPER FEED SOLENOID

Note

§ Note that the mounting part in the 1st paper feed solenoid is different from the one for the 2nd paper feed solenoid.

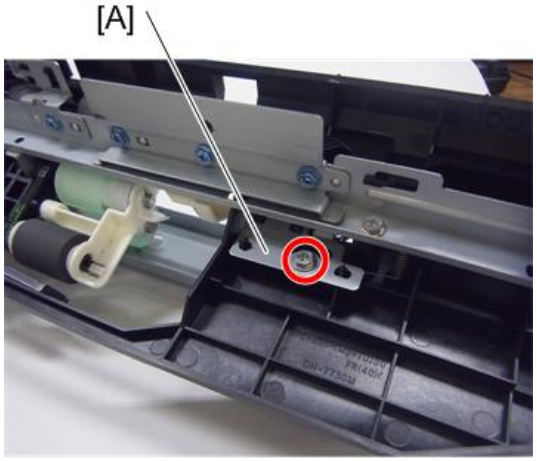
1. Paper feed unit (page 4-117 "Paper Feed Unit")
2. Paper feed solenoid [A] (×1,×1)



d1462193

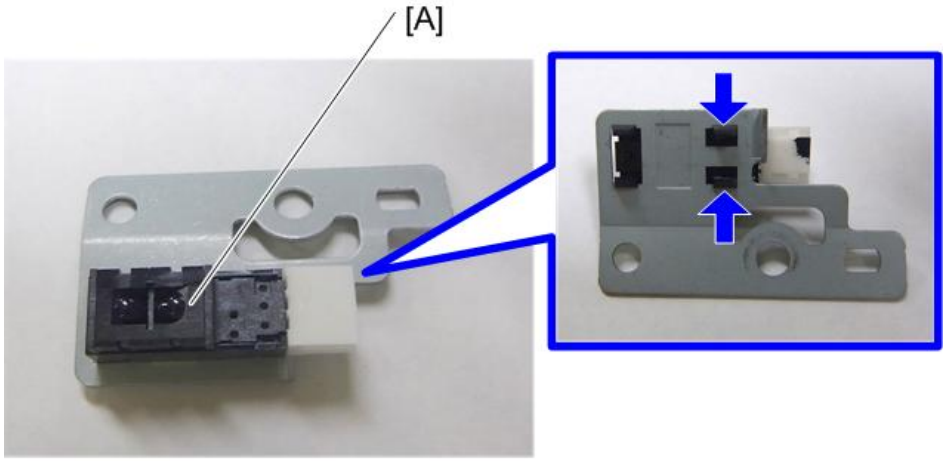
4.14.5 PAPER FEED SENSOR

1. Paper feed unit (page 4-117 "Paper Feed Unit")
2. Paper feed sensor unit [A] (×1, ×1)



d1462194

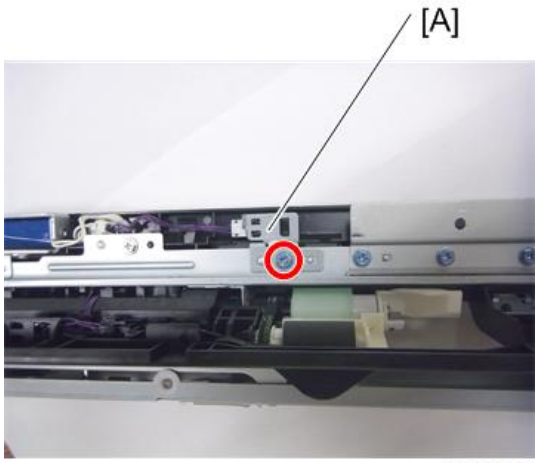
3. Paper feed sensor [A]



d1462195

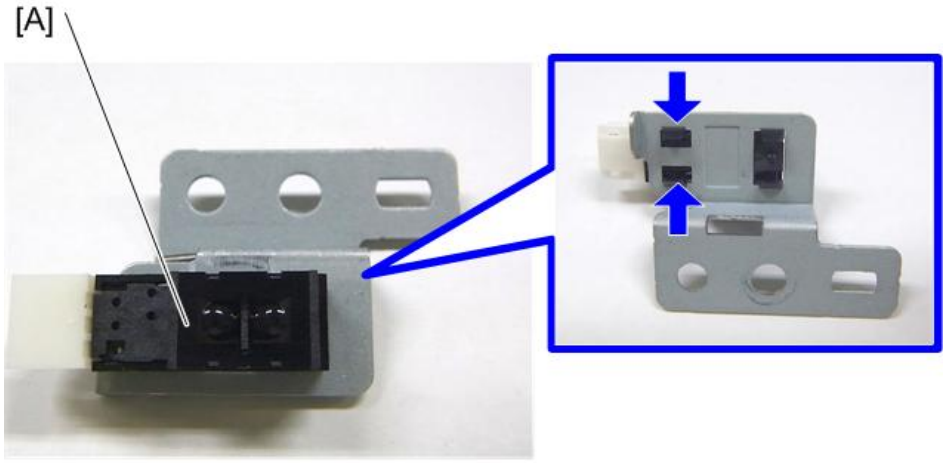
4.14.6 VERTICAL TRANSPORT SENSOR

1. Paper feed unit (page 4-117 "Paper Feed Unit")
2. Vertical transport sensor unit [A] (×1, ×1)



d1462196

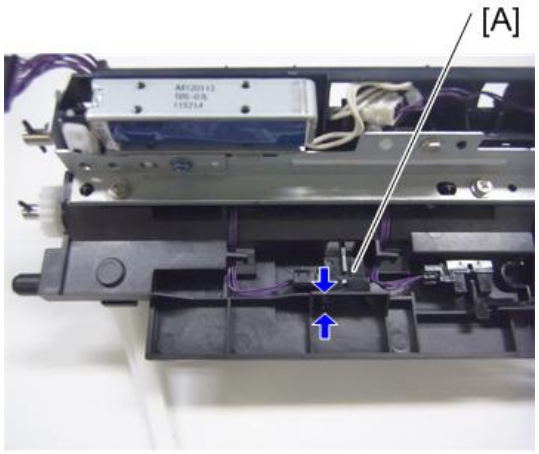
3. Vertical transport sensor [A]



d1462197

4.14.7 LIMIT SENSOR

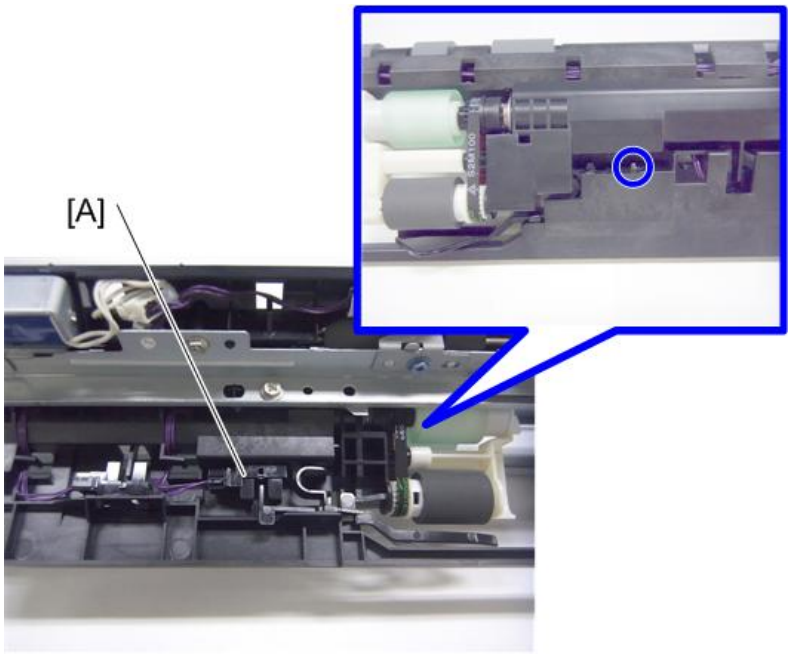
1. Paper feed unit (page 4-117 "Paper Feed Unit")
2. Limit sensor [A]



d1462198

4.14.8 PAPER END SENSOR

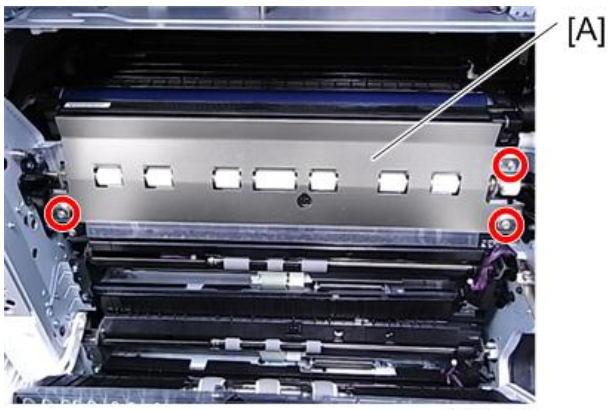
1. Paper feed unit (page 4-117 "Paper Feed Unit")
2. While pressing the tab enclosed by the blue circle, remove the paper end sensor [A] (Harness×1).



d1462200

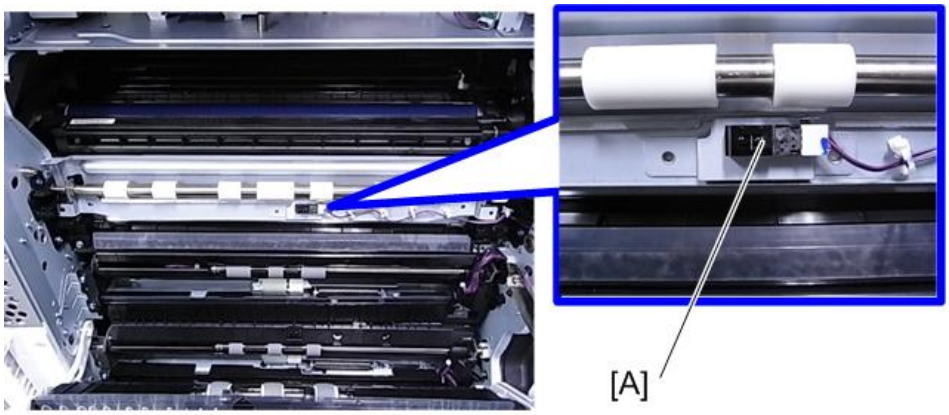
4.14.9 REGISTRATION SENSOR

1. Open the right cover (page 4-134 "Duplex Unit")
2. Paper transfer roller unit (page 4-73 "Paper Transfer Roller Unit ")
3. Inner bracket [A] (×3)



d1462203

4. Remove the registration sensor from the stay gap using a slotted screwdriver (×1)

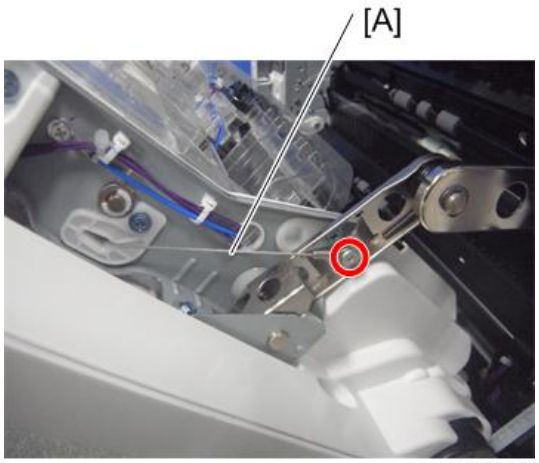


d1462204

4.15 BY-PASS TRAY UNIT

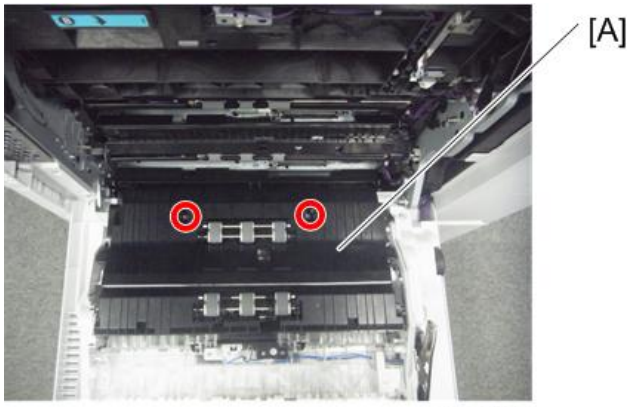
4.15.1 BY-PASS TRAY

1. Open the right cover (page 4-134 "Duplex Unit")
2. Wire [A] (×1)



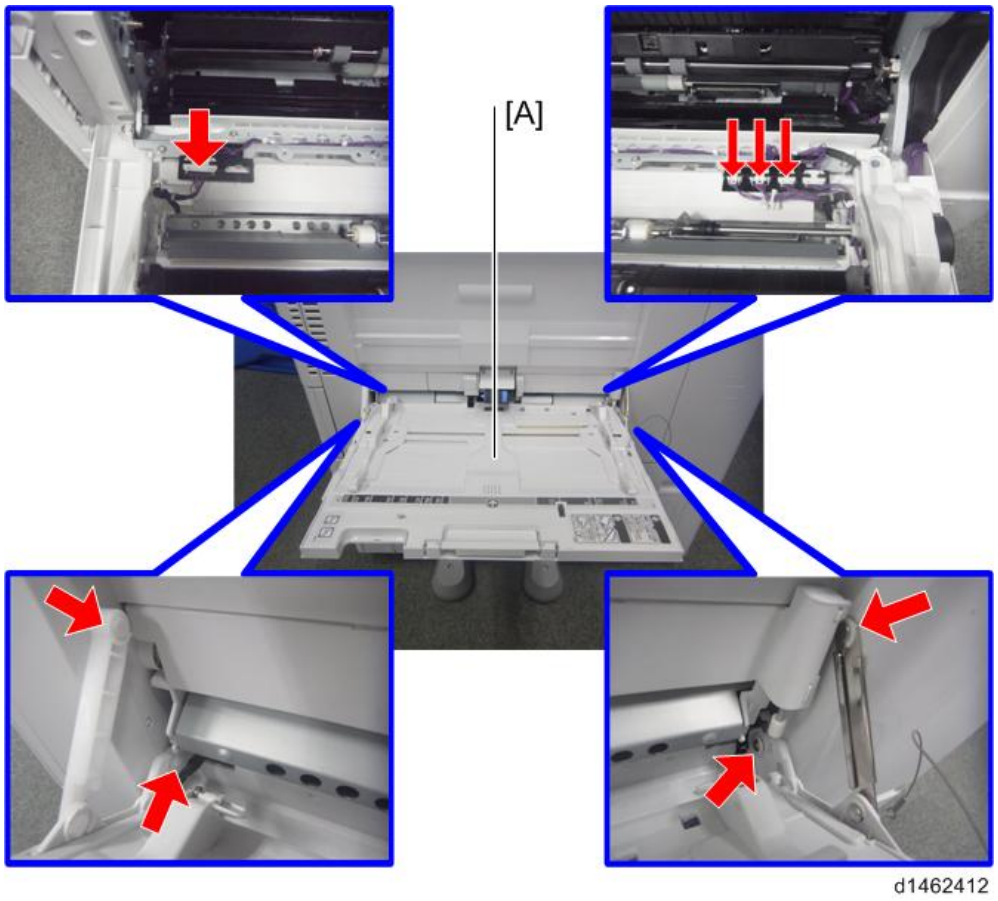
d1462410

3. Open the duplex unit wide. (page 4-117 "Paper Feed Unit")
4. Paper transport guide [A] (×2)



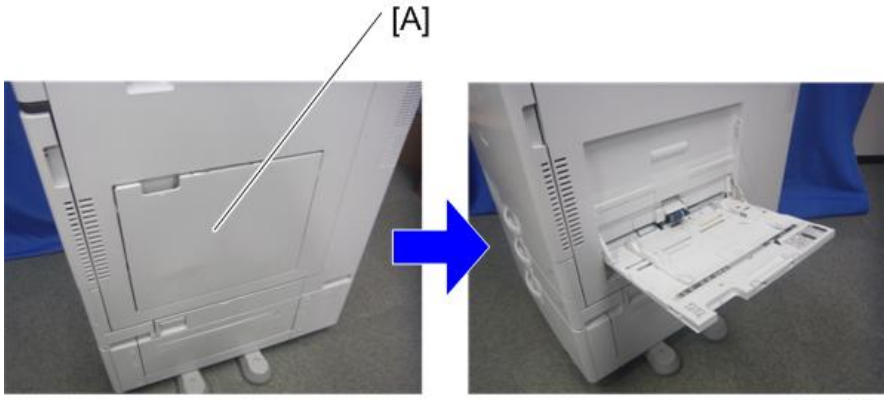
d1462411

5. By-pass tray [A] (×4,×3,×4)


[A]
d1462412

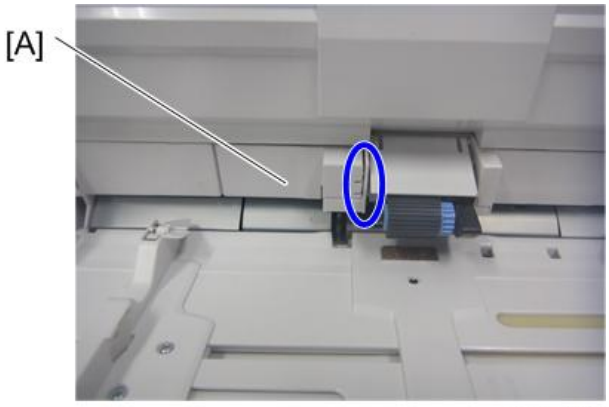
4.15.2 BY-PASS PAPER END SENSOR

1. Open the by-pass tray [A].



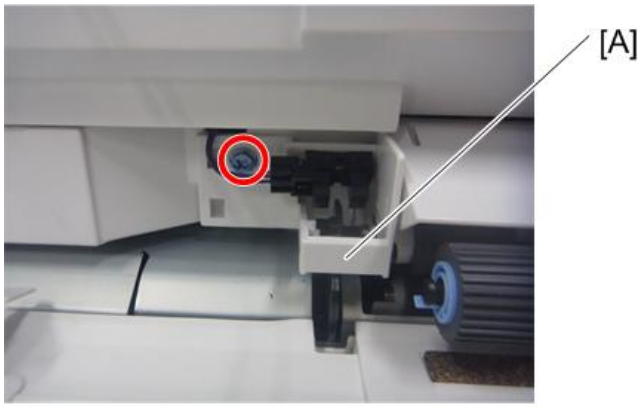
d1462416

2. By-pass paper end sensor cover [A]



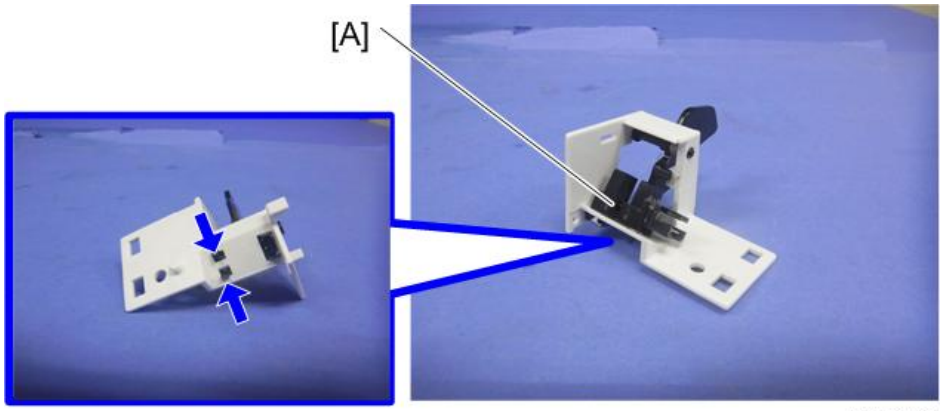
d1462413

3. By-pass paper end sensor unit [A] (×1, ×1)



d1462414

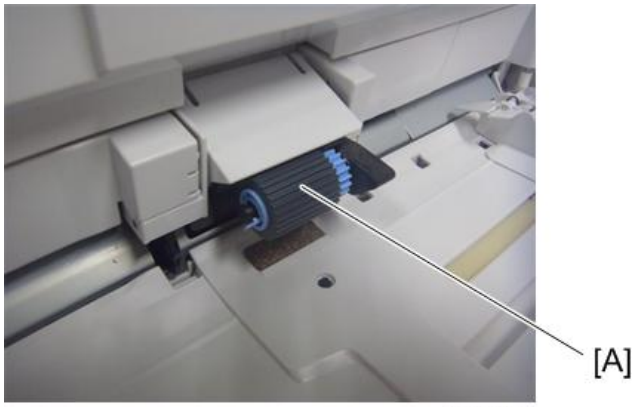
4. By-pass paper end sensor [A]



d1462415

4.15.3 BY-PASS PICK-UP ROLLER

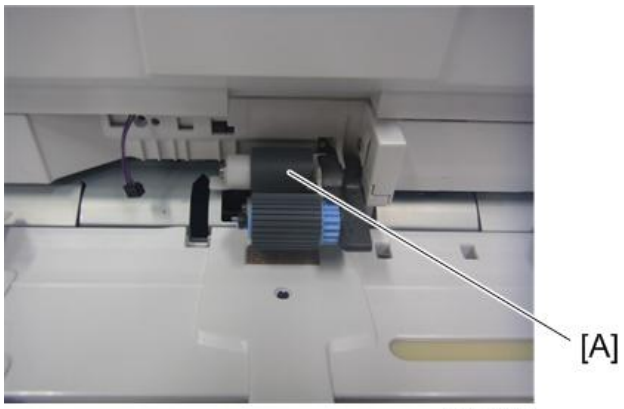
1. Open the by-pass tray. (page 4-127 "By-pass Tray")
2. By-pass pick-up roller [A] (×1)



d1462417

4.15.4 BY-PASS PAPER FEED ROLLER

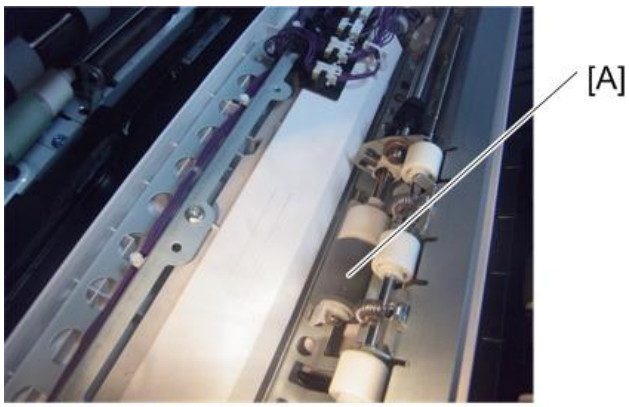
1. Paper End Sensor (page 4-125 "Paper End Sensor")
2. By-pass paper feed roller [A] (×1)



d1462418

4.15.5 BY-PASS SEPARATION ROLLER

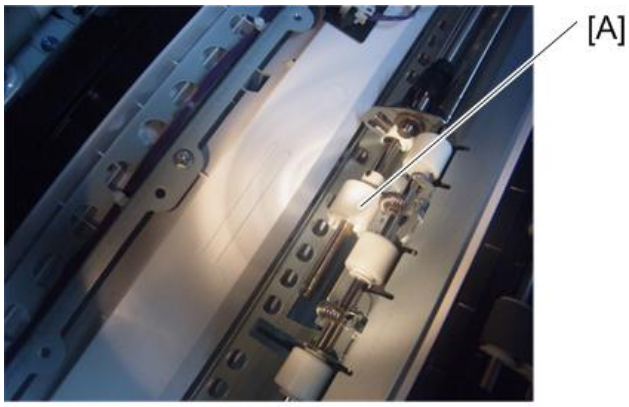
1. Paper transport guide (page 4-127 "By-pass Tray")
2. By-pass separation roller [A] (×1)



d1462419

4.15.6 TORQUE LIMITER

1. By-pass separation roller (page 4-131 "By-pass Separation Roller")
2. Torque limiter [A]

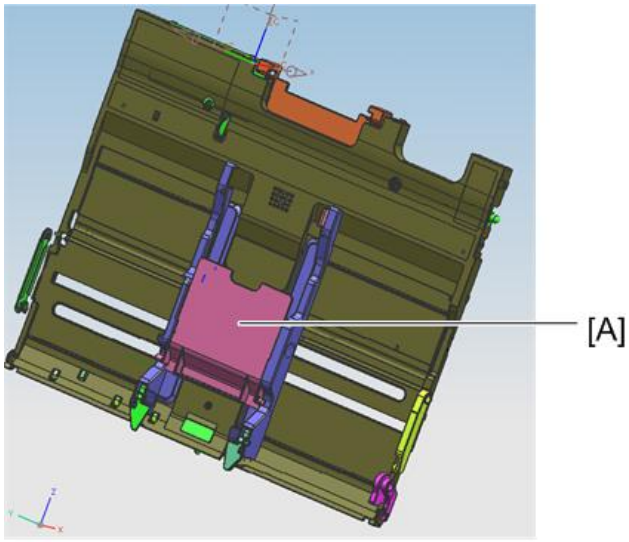


d1462420

4.15.7 BY-PASS TRAY SIDE FENCE (D150 ONLY)

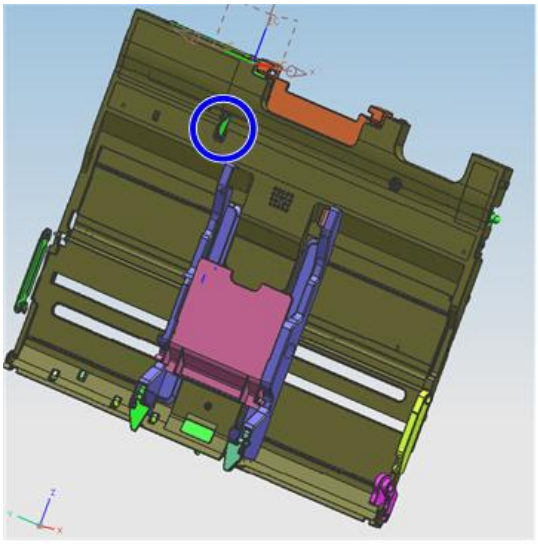
When replacing the side fence (including the Hall element), be sure to perform steps 1-7, and when replacing or disassembling other parts, be sure to perform steps 5-7.

1. Input the following output values into SP mode.
   - § Input the output value from SP5-803-087 (INPUT Check SI Bypass SF Paper Contact Sensor: Front) to SP1-008-007 (SI By-Pass Size Detection Adj Sidefence F adj2).
   - § Input the output value from SP5-803-088 (INPUT Check SI Bypass SF Paper Contact Sensor: Rear) to SP1-008-009 (SI By-Pass Size Detection Adj Sidefence R adj2).
2. Remove the extension tray [A] of the by-pass tray, make the side fence slightly wider than the width of the extension tray, and set it in the by-pass tray as follows.



d1462421

3. When the extension tray is set, switch SP5-804-087 (OUTPUT Check SI Bypass SF Drive Motor:CCW (500pps)) ON, and move the side fence inside until it contacts the extension tray and can no longer move.
4. When the side fence is in contact with the extension tray, input the following output values into SP mode.
   - § Input the output value from SP5-803-087 (INPUT Check SI Bypass SF Paper Contact Sensor: Front) to SP1-008-006 (SI By-Pass Size Detection Adj Sidefence F adj1).
   - § Input the output value from SP5-803-088 (INPUT Check SI Bypass SF Paper Contact Sensor: Rear) to SP1-008-008 (SI By-Pass Size Detection Adj Sidefence R adj1).
5. While holding the feeler of the By-pass length sensor with your hand, perform SP1-008-032 (SI By-Pass Size Detection Adj Main Scan Size Adj). When the auto-adjusting SP starts, release the feeler (the SP value of each paper size is read automatically, and stored).



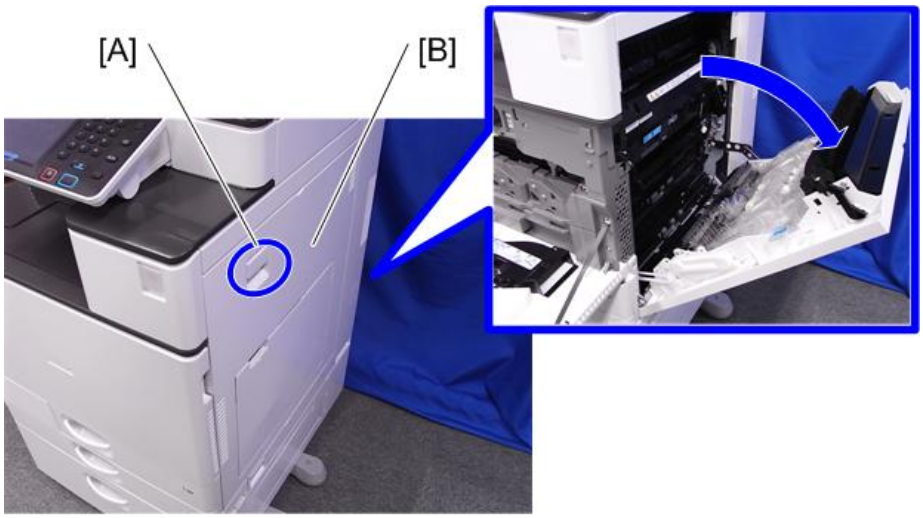
d1462422

6. When the side fence starts to move towards the outside, remove the extension tray.
7. Check SP1-008-033 (SI By-Pass Size Detection Adj Main Scan Size Adj Result), and check that it is 1: Succeed.

4.16 DUPLEX UNIT

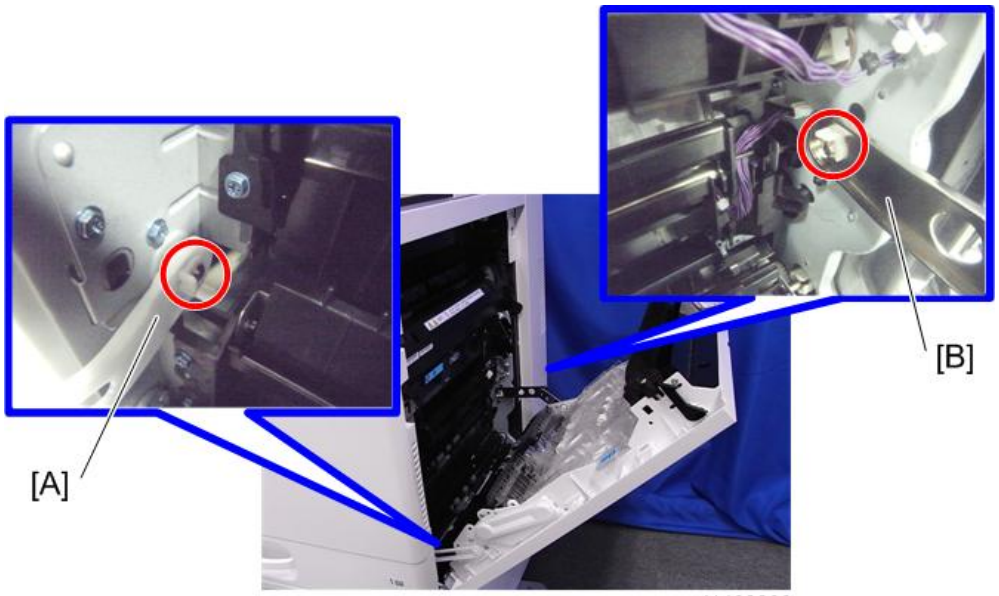
4.16.1 DUPLEX UNIT

1. Unlock the lever [A], and then open the right cover [B].



d1462241

2. Arm [A] [B] (×2)

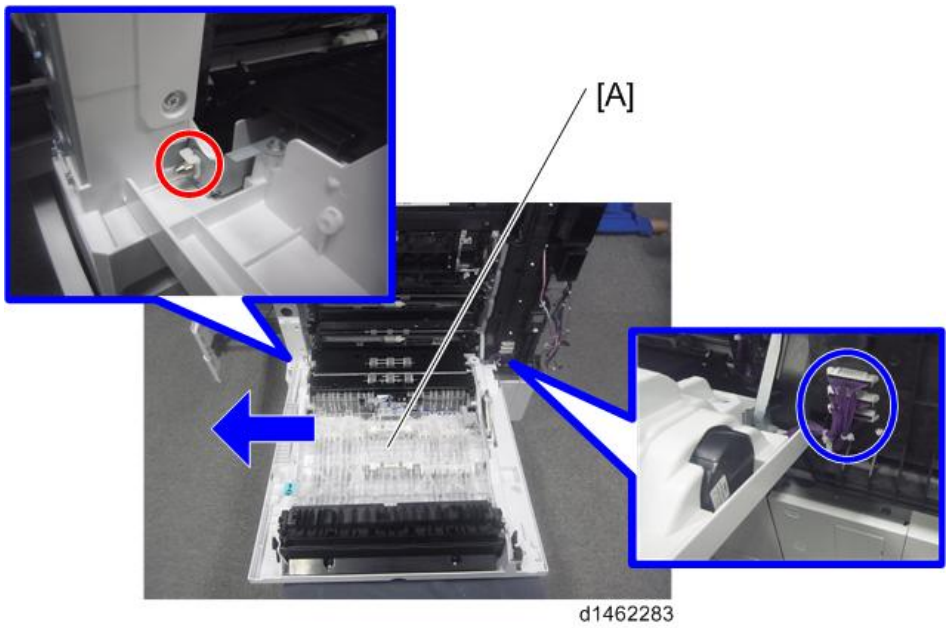


d1462280

3. Right rear cover (page 4-12 "Right Rear Cover")
4. Open the 1st paper feed tray [A] and 2nd paper feed tray [B].

5. Cover [A] (×1)

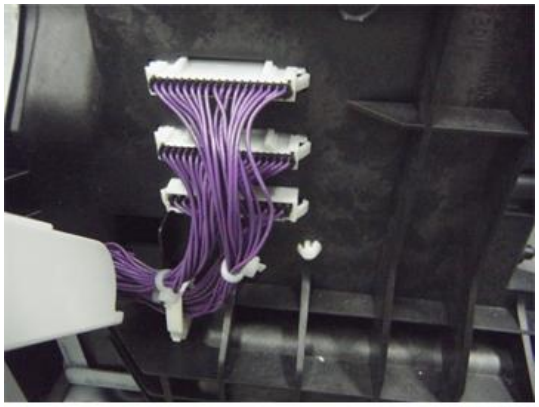
6. Duplex unit [A] (×1, ×3)



Note

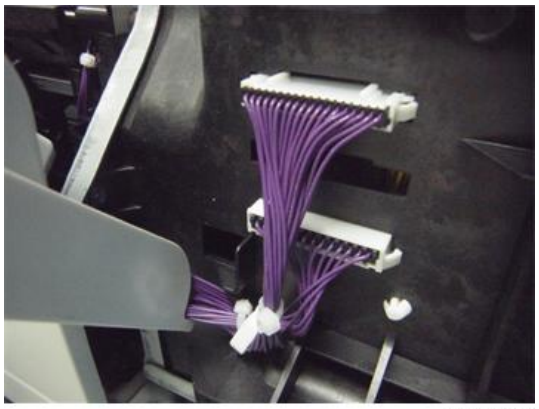
§ To attach the duplex unit, loop the harness around as shown in the diagram.

MP C6003



d1462278

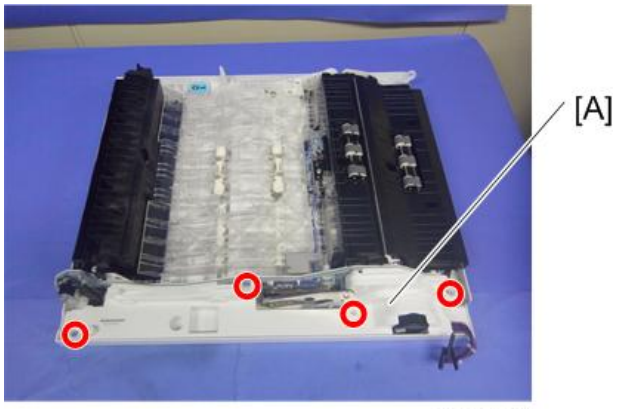
MP C5503/C4503/C3503/C3003



d1462279

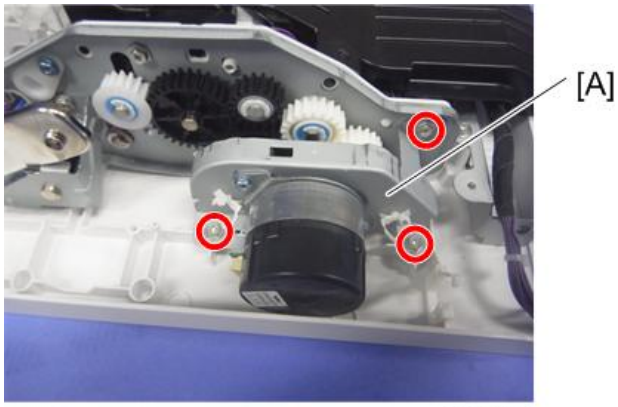
4.16.2 DUPLEX/BY-PASS MOTOR

1. Duplex unit (page 4-134 "Duplex Unit")
2. Harness guide [A] (×4)



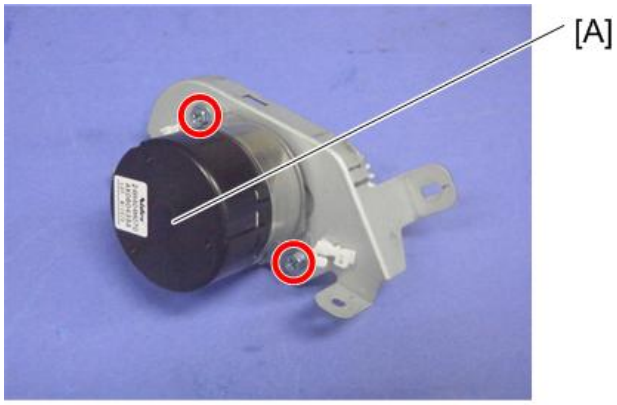
d1462284

3. Duplex/by-pass motor unit [A] (×3, ×1, ×3)



d1462297

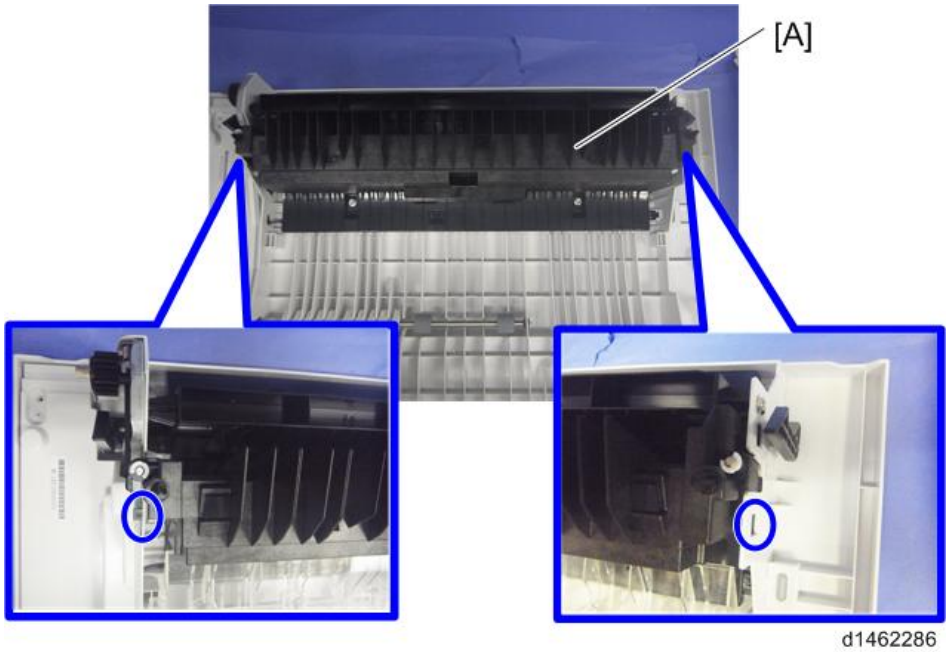
4. Duplex/By-pass Motor [A] (×2)



d1462285

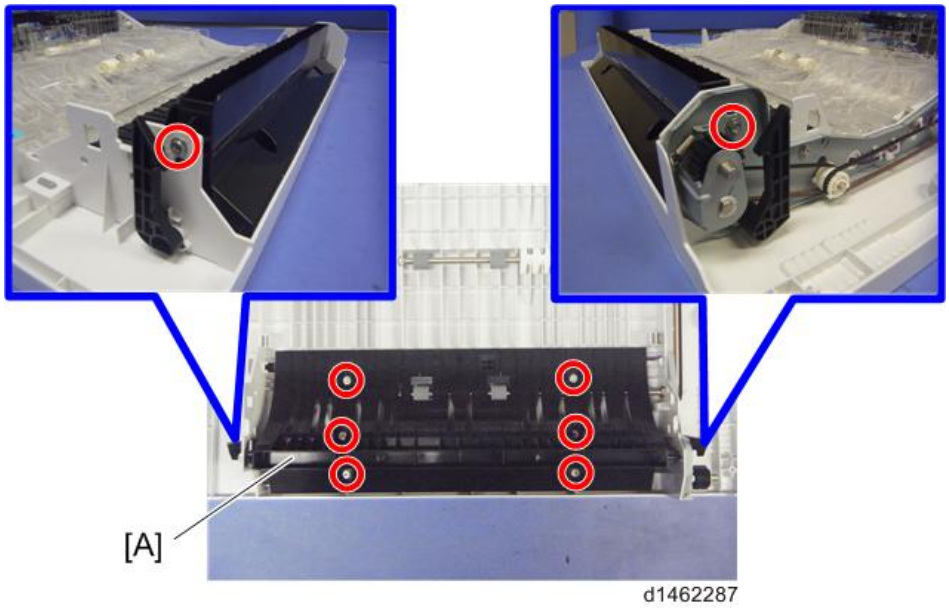
4.16.3 DUPLEX ENTRANCE SENSOR

1. Harness guide (page 4-134 "Duplex Unit")
2. Remove two tabs, and remove the transport guide [A].

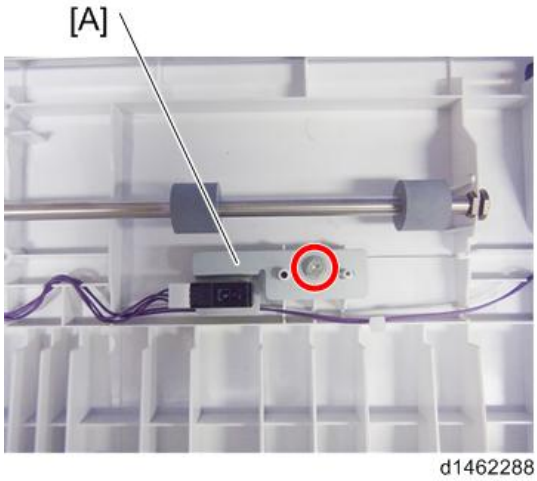


d1462286

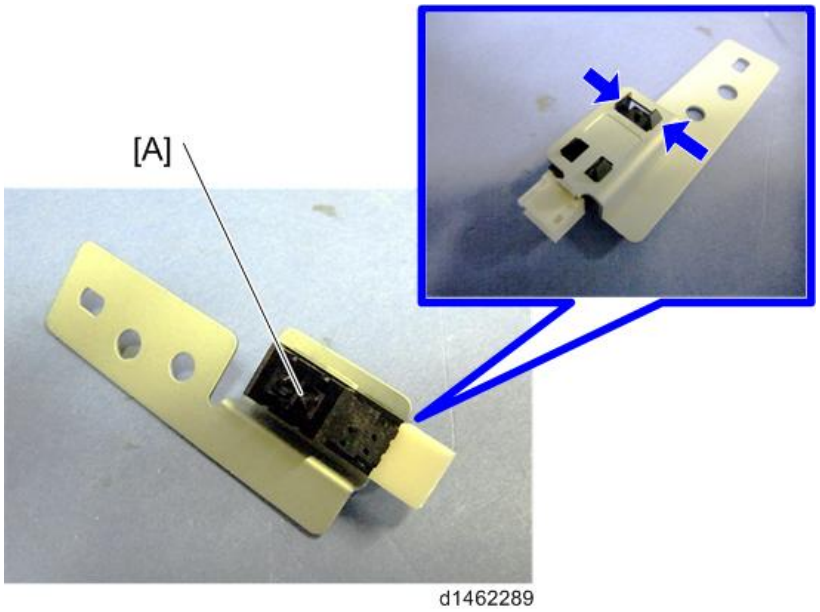
3. Duplex entrance unit [A] (×8)



4. Duplex entrance sensor unit [A] (×1)

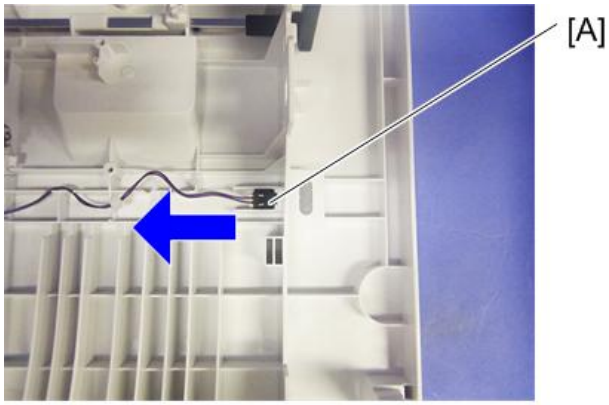


5. Duplex entrance sensor [A] (×1)



4.16.4 DUPLEX JAM PROCESSING LED

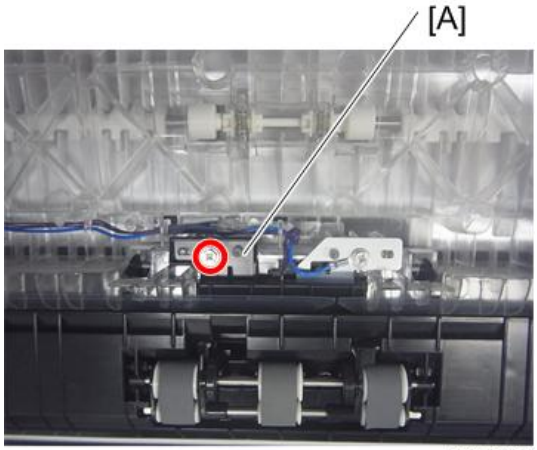
1. Duplex entrance unit (page 4-137 "Duplex Entrance Sensor")
2. Duplex jam processing LED [A] (×1)



d1462290

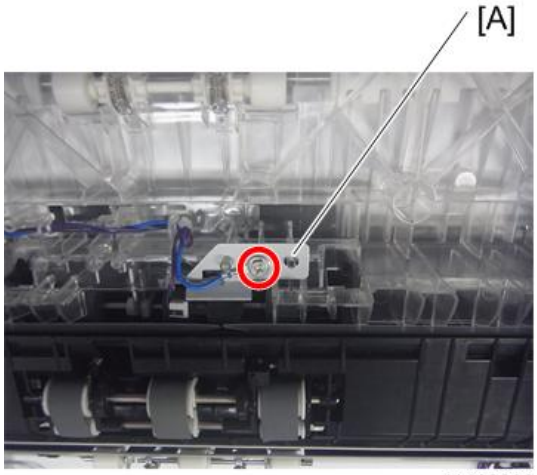
4.16.5 DUPLEX EXIT SENSOR

1. Duplex unit (page 4-134 "Duplex Unit")
2. Harness guide [A] (×1)



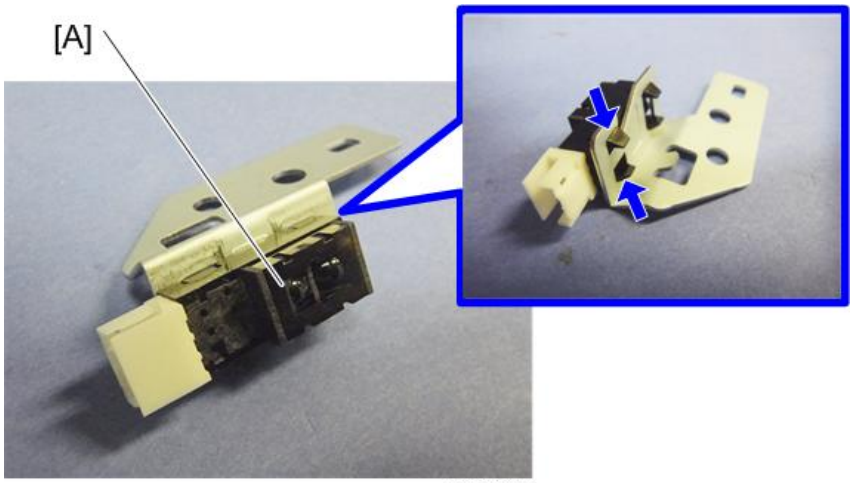
d1462291

3. Duplex exit sensor unit [A] (×1)



d1462292

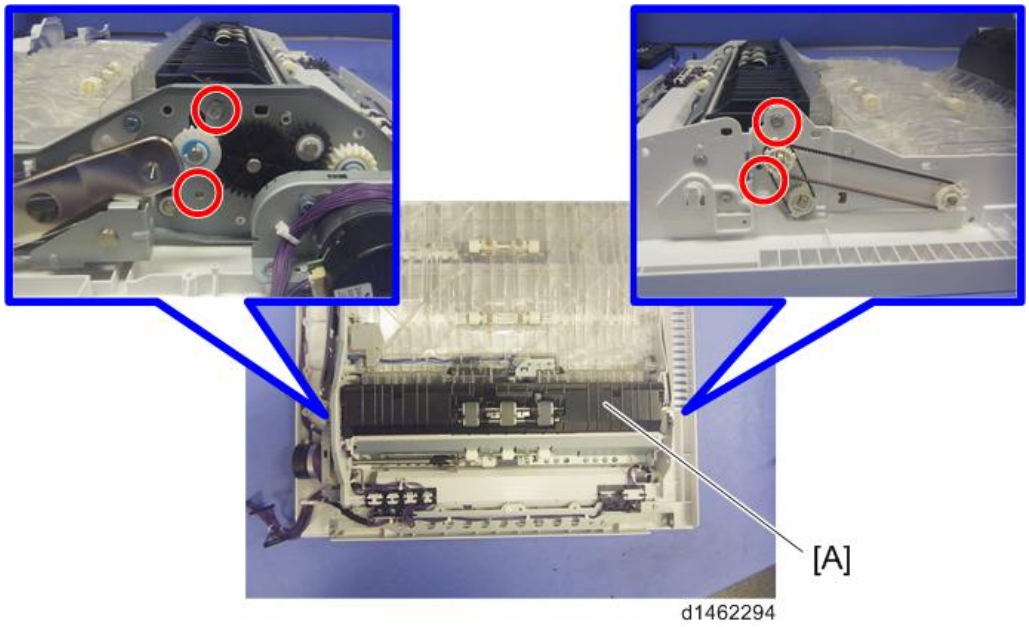
4. Duplex exit sensor [A] (×1)



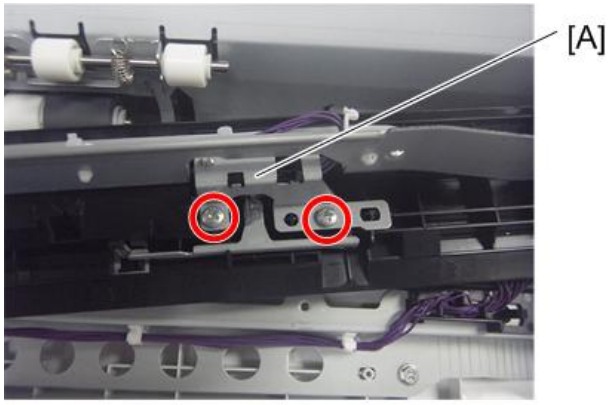
4.16.6 DOUBLE FEED SENSOR (D150 ONLY)

1. Duplex unit (page 4-134 "Duplex Unit")
2. Harness guide (page 4-136 "Duplex/By-pass Motor")
3. Gear cover [A]

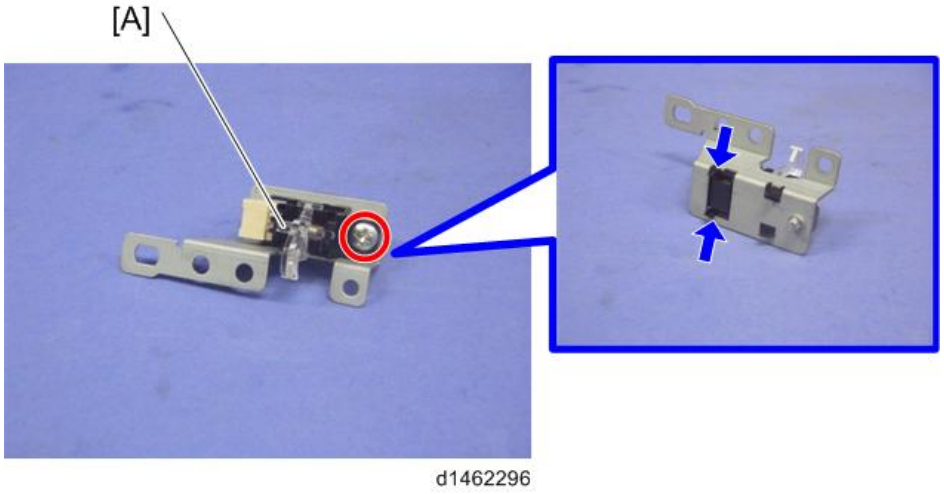
4. Remove two tabs, and remove the vertical transport guide plate [A] (×4).



5. Double feed sensor unit [A] (×2)



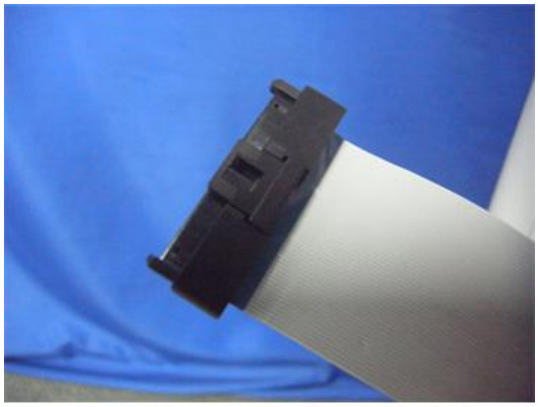
6. Double feed sensor [A] (×1)



4.17 ELECTRICAL COMPONENTS

⚠CAUTION

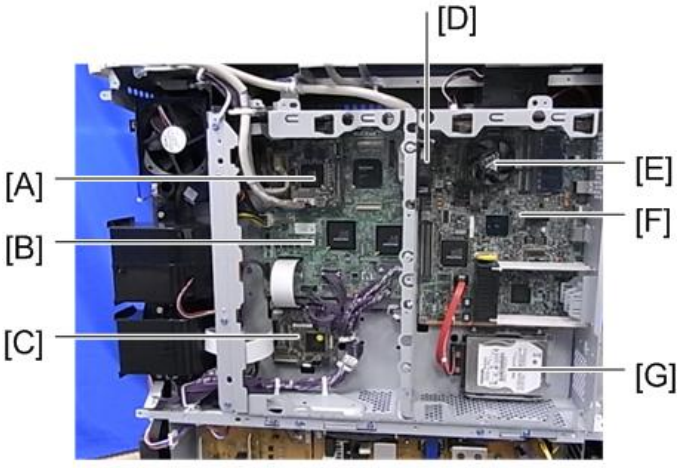
§ There is a FFC with tabs. Release the tabs to remove.



d1462076

4.17.1 OVERVIEW

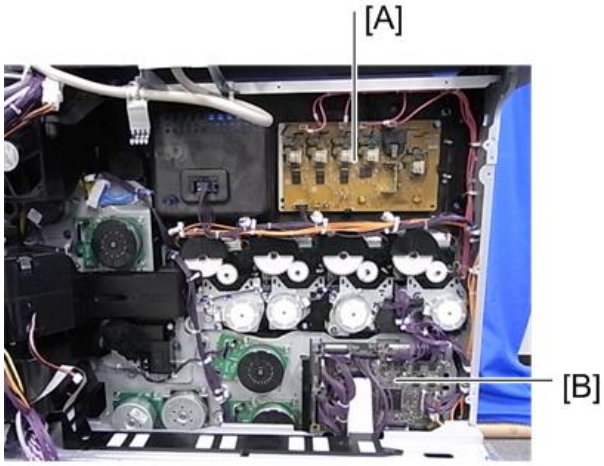
Printed Circuits/Parts Inside the Controller Box



d1462050

[A]	IPU Sub (SPDF only)
[B]	IPU
[C]	BCU
[D]	Controller Box Cooling Fan
[E]	CPU Cooling Fan
[F]	Controller Board
[G]	HDD

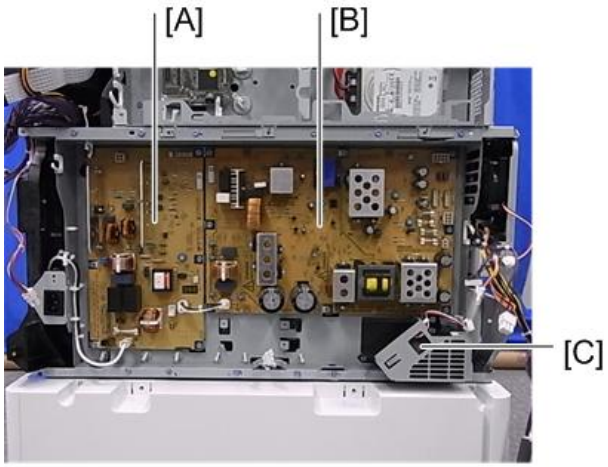
Printed Circuits Behind the Controller Box.



d1462051

[A]	HVP_TTS
[B]	Imaging IOB

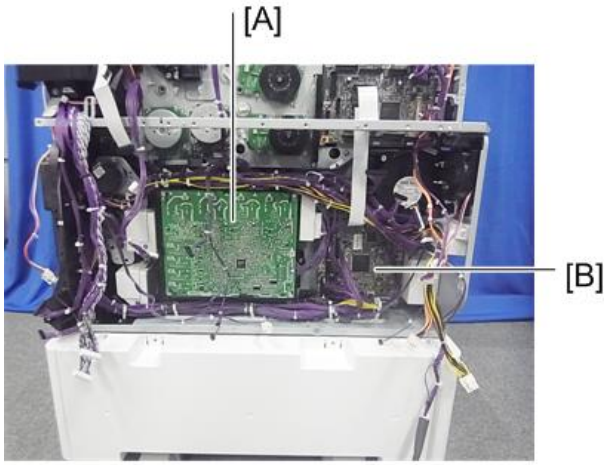
Printed Circuit/Parts Inside the Power Box



d1462052

[A]	PSU (AC controller board)
[B]	PSU (DC Power)
[C]	PSU Cooling Fan

Printed Circuits Behind the Power Box.

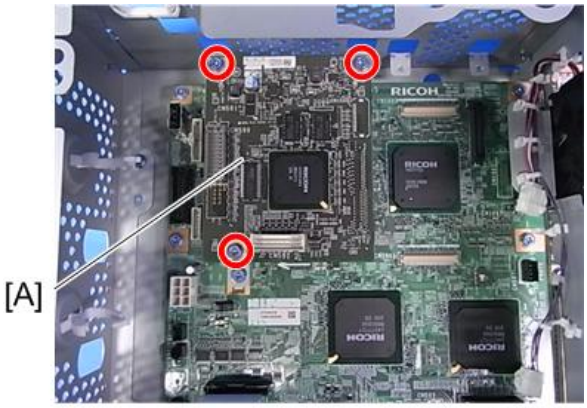


d1462053

[A]	HVP_CB
[B]	Paper Transport IOB

4.17.2 IPU SUB (SPDF ONLY)

1. Rear cover (page 4-10 "Rear Cover")
2. IPU Sub [A] (×3, ×2)



d1462054

4.17.3 IPU

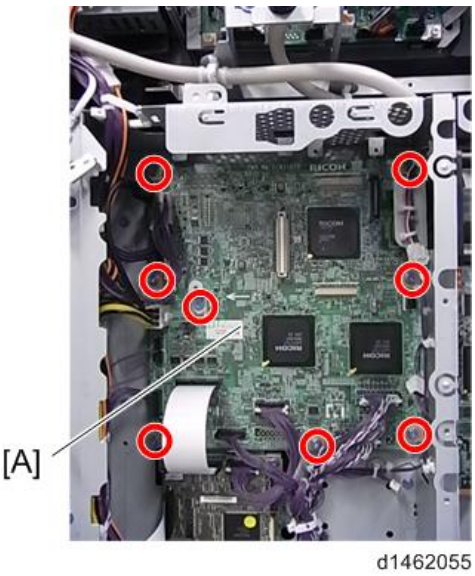
CAUTION

§ The FFC connector has a lock mechanism. Do not use force to pull it out.

1. IPU Sub (page 4-144 "IPU Sub (SPDF only)")
2. IPU [A]

D150:

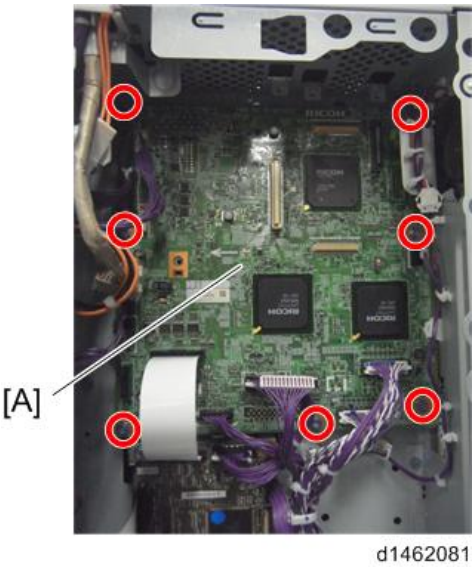
(×8, ×12)



d1462055

D149/D148:

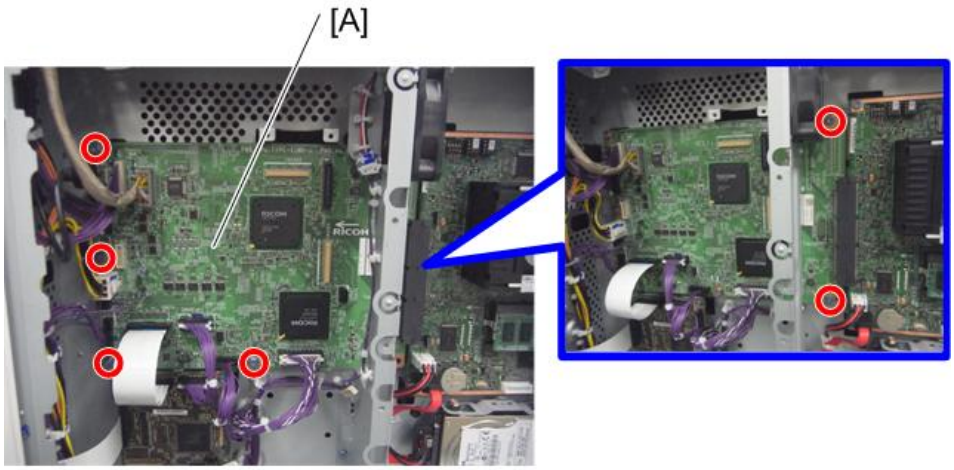
(×7, ×12)



d1462081

D147/D146:

(×6, ×12)

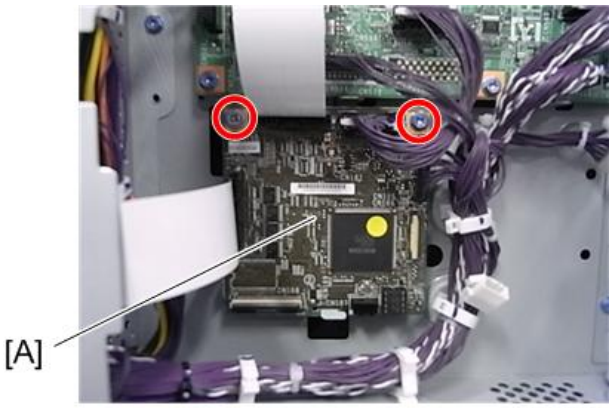

[A]
d1462082

4.17.4 BCU

CAUTION

§ The FFC connector has a lock mechanism. Do not use force to pull it out.

1. Rear cover (page 4-10 "Rear Cover")
2. BCU [A] (×2, ×6)



d1462056

Replacing the NVRAM (EEPROM) on the BCU

1. Make sure that you have the SMC report (factory settings). This report comes with the machine.
2. Output the SMC data ("ALL") using SP5-990-001/SP5-992-001.
3. Turn off the main switch.
4. Insert a blank SD card in the SD slot #2, and then turn on the main switch.
5. Use SP5-824-001 to upload the NVRAM data from the BCU.
6. Turn off the main power switch and unplug the power cord.
7. Replace the NVRAM on the BCU with a new one.
8. Plug in, and then turn on the main switch.

Note

§ When the power is turned ON, SC195-00 appears, but continue with the following steps.

9. Select the destination setting. (SP5-131-001) (JPN: 0, NA: 1, EU/AA/TWN/CHN: 2)
10. Set the following SP, Machine Serial Set (SP5-811-001), Area Selection (SP5-807-001), CPM Set (SP5-882-001).

Note

§ For information on how to configure this SP, contact the supervisor in your branch office.

11. Turn off the machine, and then turn it back on.
12. Use SP5-801-002 "Memory Clear Engine".

Important

§ After changing the EEPROM, Some SPs do not have appropriate initial values. Because of this, steps 10 to 12 are done.

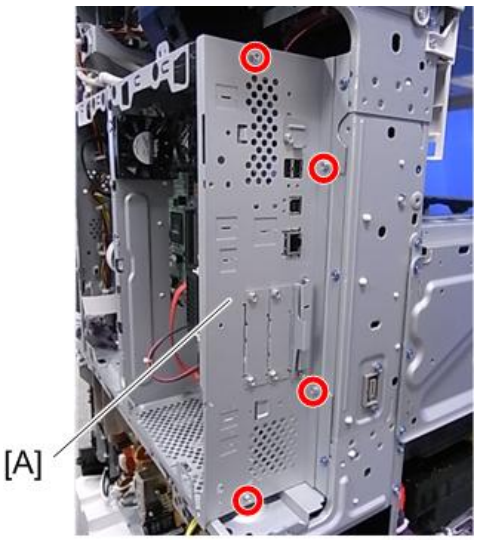
13. Turn off the machine, and then turn it back on.
14. From the SD card where you saved the NV-RAM data in step 5, download the NV-RAM data.
15. Turn off the machine, and then remove the SD card from slot #2.
16. Turn on the main switch.
17. Check the factory setting sheet and the SMC data printout from step 2, and set the user tool and SP settings so they are the same as before.
18. Do ACC (Copier function and Printer function).

4.17.5 CONTROLLER BOARD

Note

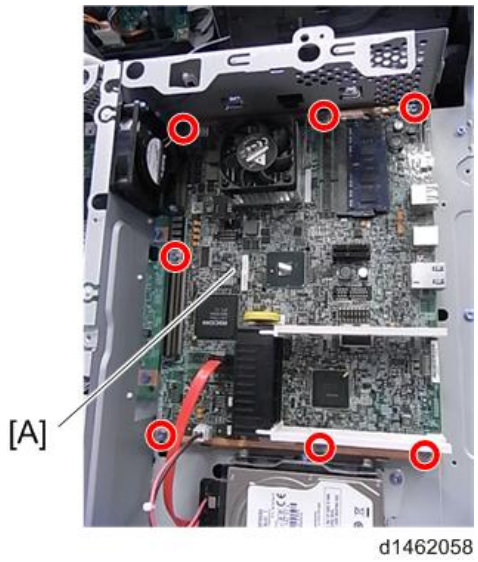
§ Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.

1. Rear cover (page 4-10 "Rear Cover")
2. Controller bracket [A] (×4)



d1462057

3. Controller Board [A] (×7, ×**)



NVRAMs on the controller board

⚠CAUTION

§ Referring to the following procedure, be sure that there are no mistakes in the mounting position and orientation of the NVRAMs.

⚠CAUTION

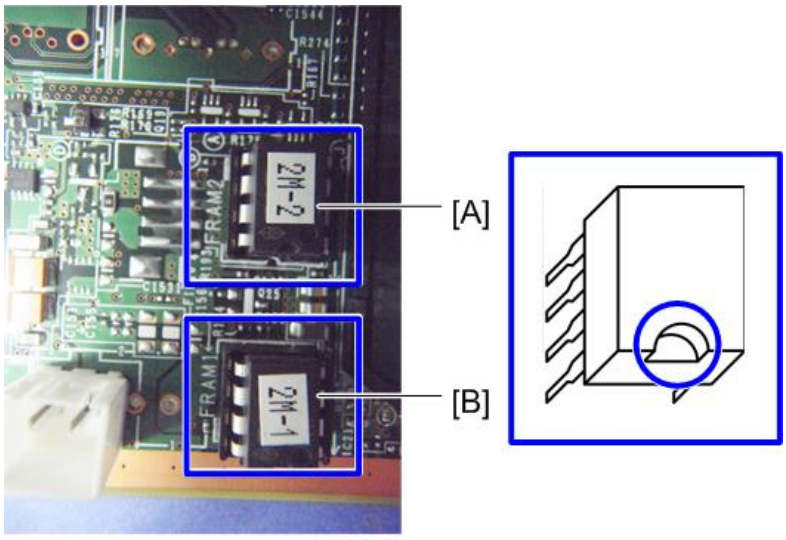
§ SC195 (Machine serial number error) will be displayed if you forget to attach the NVRAM.

§ If you mounted the NVRAM in the wrong direction, each component needs to be replaced because a short circuit was caused in the controller board and the NVRAM.

Correspondence table

	Position	Label on the board	Label on the NVRAM
[A]	Upper	FRAM2	2M-2
[B]	Lower	FRAM1	2M-1

Mounting position and orientation of the NVRAMs



d1462079

§ When replacing the controller board, first, check which SDK applications have been installed. After replacing the controller board, re-install the SDK applications by following the installation instructions for each application.

§ After reinstalling the SDK applications, print the SMC (SP-5-990-024/025 (SMC: SDK/Application Info)). Then open the Main power switch cover. Store the SMC sheet and the SD card(s) that was used to install the SDK application(s).

4.17.6 HDD

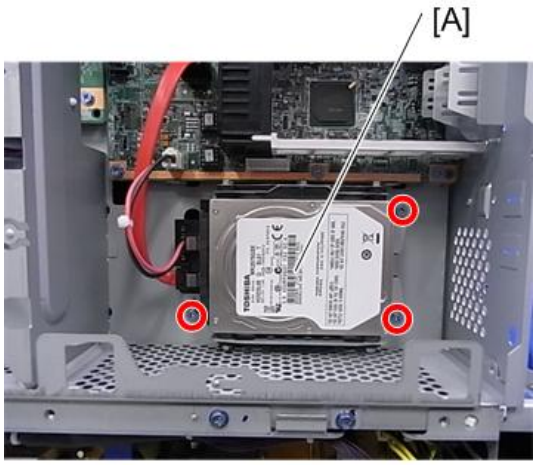
Note

§ Before replacing the HDD, copy the address book data to an SD card with SP5846-051 if possible.

§ If the customer is using the Data Overwrite Security, the Data Encryption feature or OCR Scanned PDF, these applications must be installed again.

1. Rear cover (page 4-10 "Rear Cover")

2. HDD [A] (×3, ×2)



d1462059

Adjustment after replacement

1. Run SP5832-001, to initialize the hard disk.
   Even if you use an HDD that is already formatted, it is recommended that you re-initialize.
2. Run SP5853-001, to install the fixed stamps.
3. Run SP5846-052, to copy the address book from the SD card to the HDD.
4. Turn off the machine, and then turn it back on.

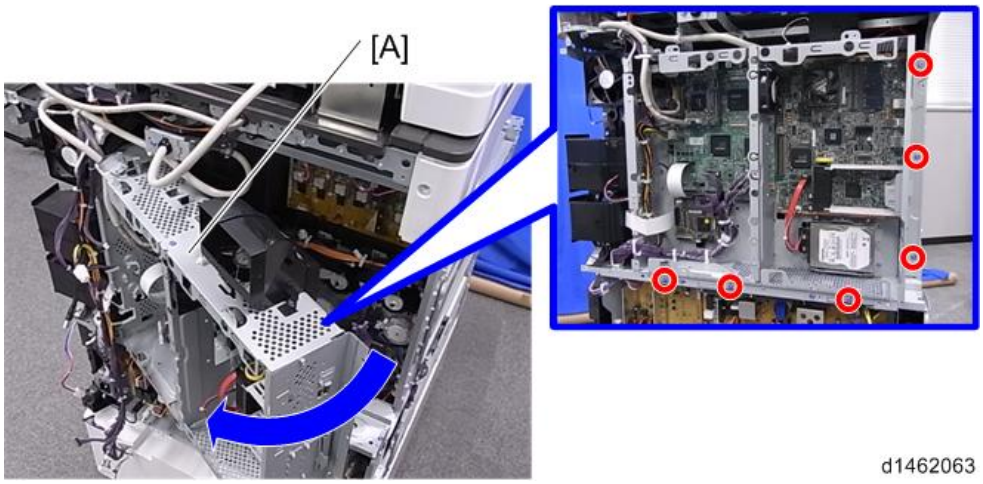
4.17.7 CPU COOLING FAN

1. Rear cover (page 4-10 "Rear Cover")
2. CPU cooling fan [A] (×4)

d1462060

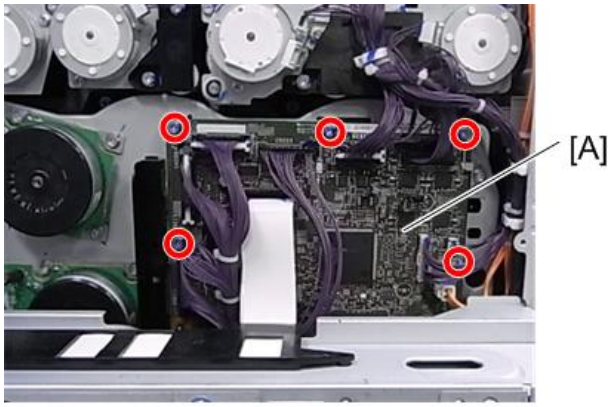
4.17.8 IMAGING IOB

1. Scanner rear cover (page 4-11 "Scanner Rear Cover")
2. Scanner rear small cover (page 4-12 "Scanner Rear Cover (Small)")
3. Rear right cover (page 4-11 "Rear Right Cover")
4. Open the controller box [A]. (×6)



d1462063

5. Imaging IOB [A] (×5, ×**)



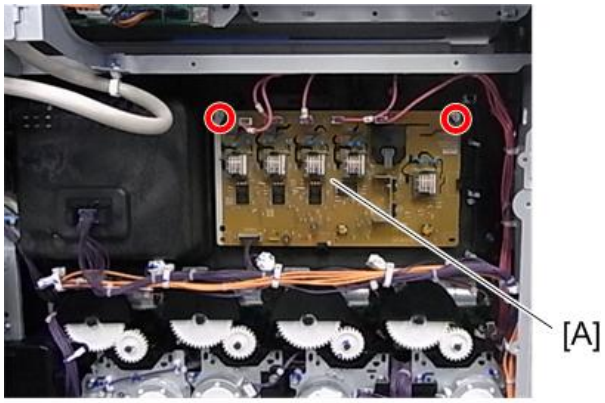
d1462064

4.17.9 HVP_TTS

1. Open the controller box. (page 4-151 "Imaging IOB")
2. HVP_TTS [A]

D148/D149/D150

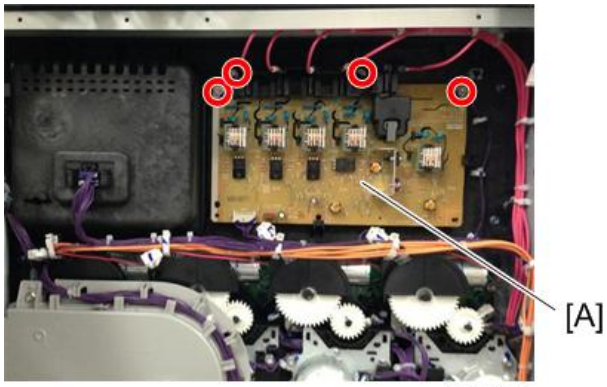
(×2, ×**)



d1462065

D146/D147

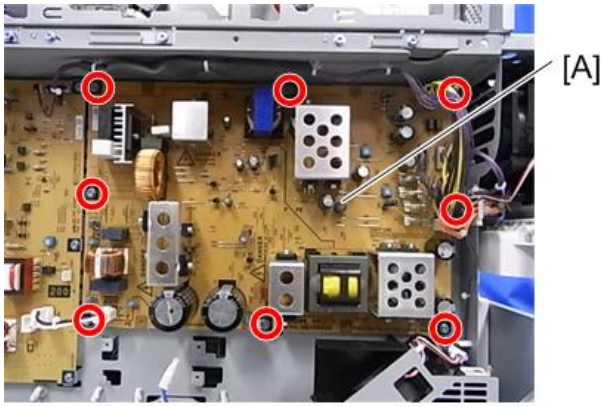
(×4, ×**)



d1462080

4.17.10 PSU (AC CONTROLLER BOARD)

1. Rear lower cover (page 4-11 "Rear Lower Cover")
2. PSU (AC Controller Board) [A] (×8, ×**)



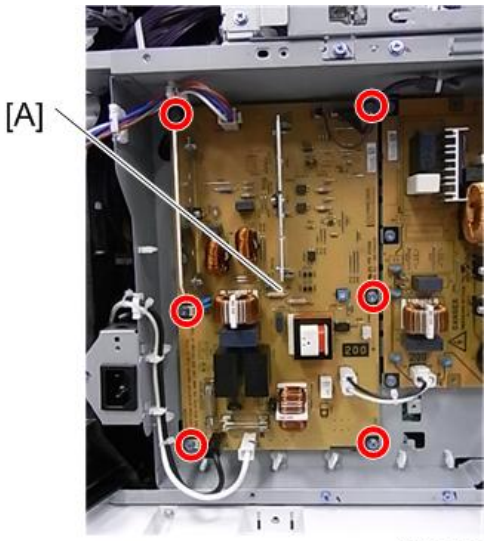
d1462067

4.17.11 PSU (DC POWER)

Note

§ PSU (DC) for D146/D147 is different from the PSU (DC) for D148/D149/D150.

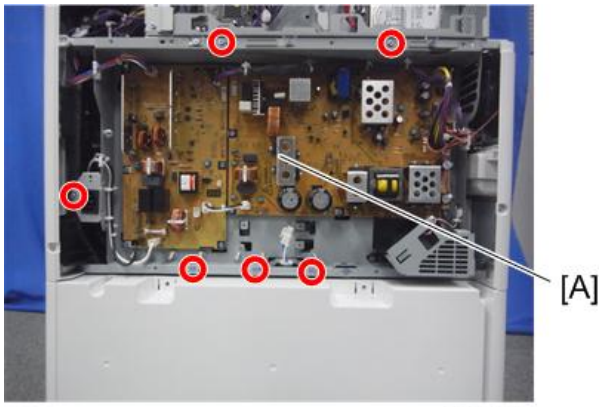
1. Rear lower cover (page 4-11 "Rear Lower Cover")
2. PSU (DC Power) [A] (×6, ×**)



d1462068

4.17.12 PAPER TRANSPORT IOB

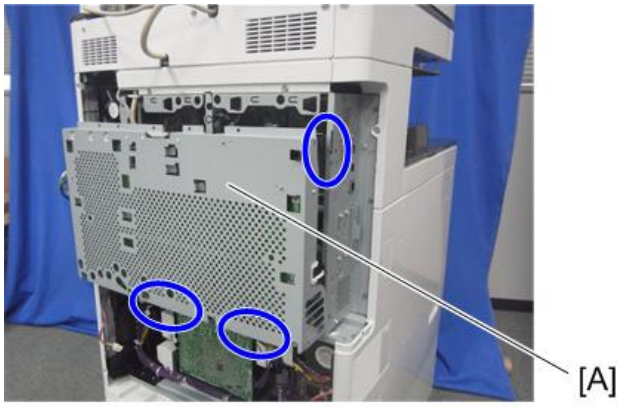
1. Rear lower cover (page 4-11 "Rear Lower Cover")
2. Power supply box [A] (×6, Among them, tapping screw×1, ×10, ×4)



d1462070

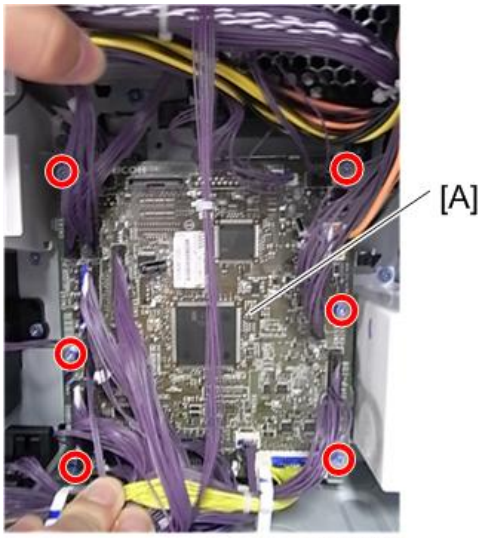
Note

§ The power box [A] is hooked onto the machine at the locations in the blue circles.



d1462075

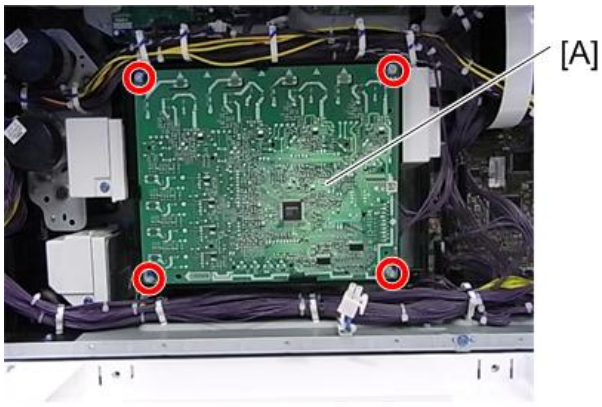
3. Paper transport IOB [A] (×6,×**)



d1462071

4.17.13 HVP-CB

1. Power supply box (page 4-154 "Paper Transport IOB")
2. HVP_CB [A] (×4, ×**)



d1462072

4.18 FANS/FILTERS

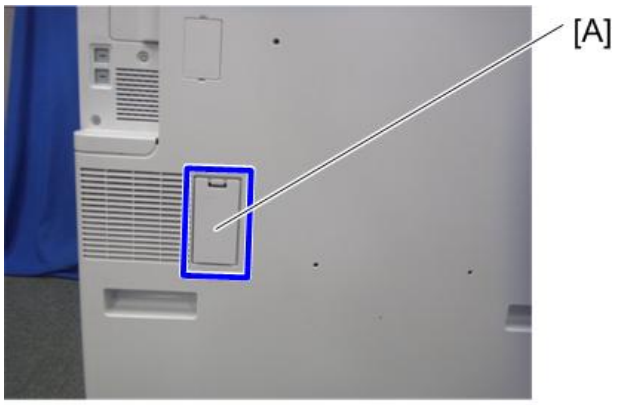
4.18.1 OZONE FILTER/DUST FILTER

Adjustment before replacing the dust filter

Before replacing the Dust filter, set SP3-701-132 to "1" and switch the power OFF. Then replace the Dust filter and switch the power ON.

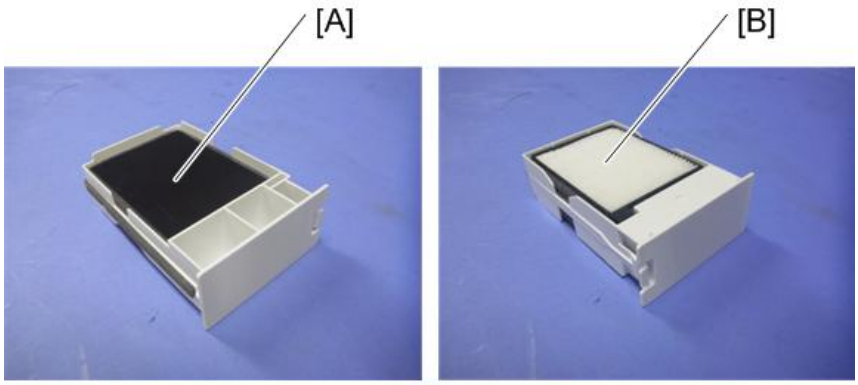
Replacement

1. Pull out the ozone filter and dust filter [A].



d1462031

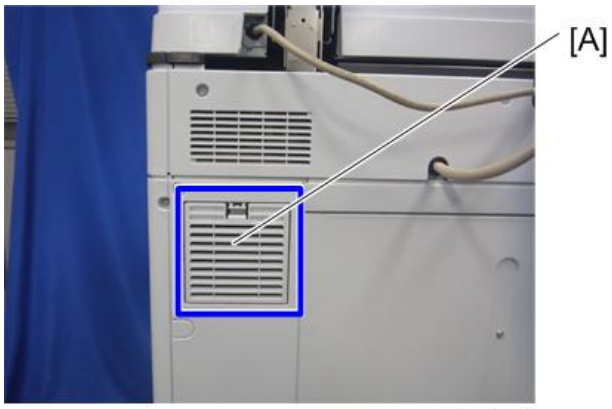
2. Ozone filter[A], Dust filter [B]



d1462032

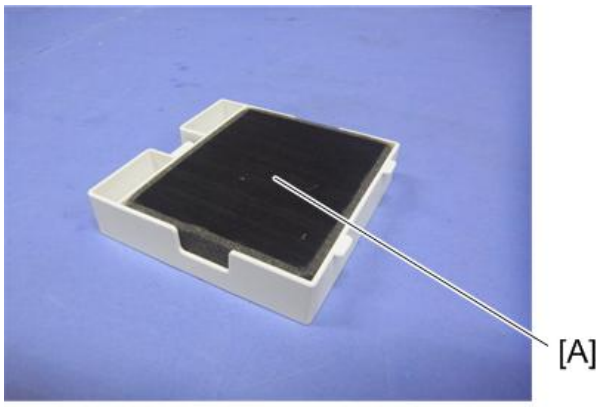
4.18.2 ODOR FILTER

1. Odor filter box [A]



d1462033

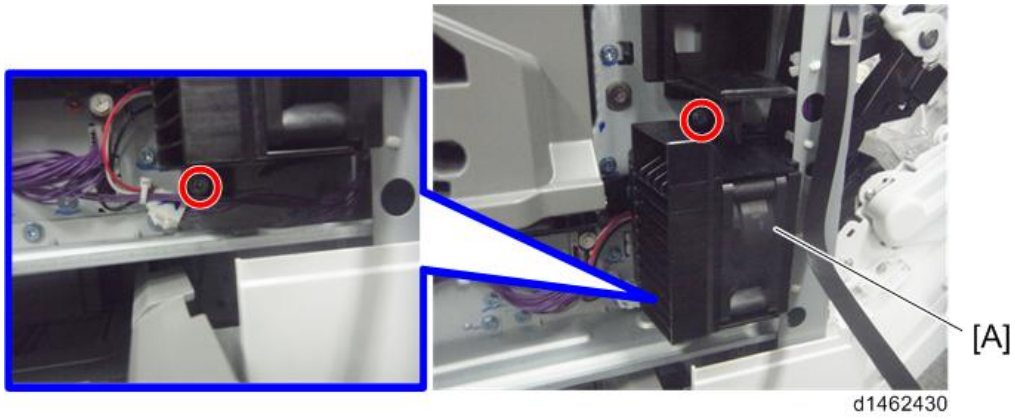
2. Odor filter [A]



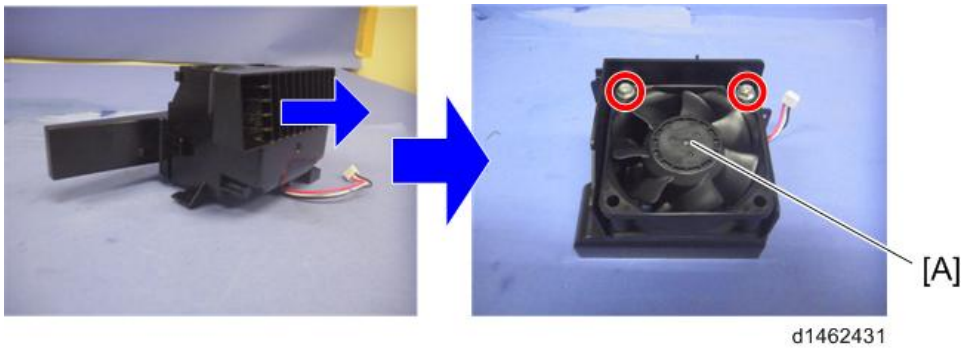
d1462034

4.18.3 DEVELOPMENT INTAKE FAN/RIGHT

1. Inner lower cover (page 4-18 "Inner Lower Cover")
2. Development intake fan/Right unit [A] (×2, ×1,×1)

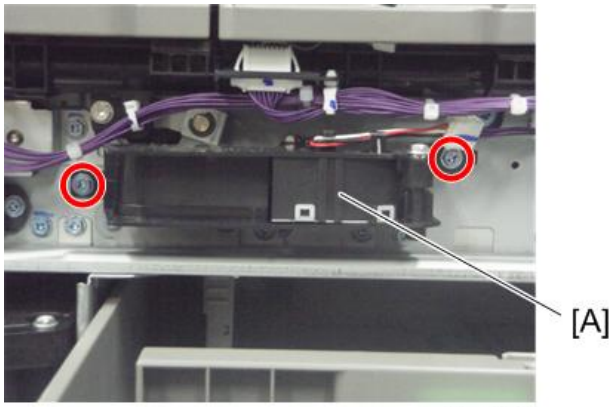


3. Development intake fan/Right [A] (×2)



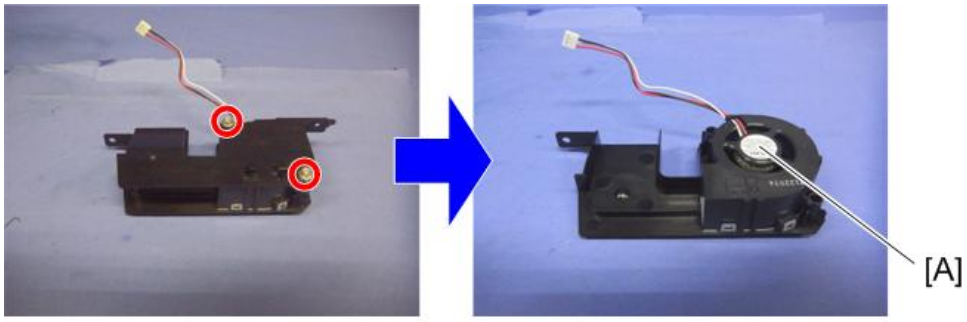
4.18.4 DEVELOPMENT INTAKE FAN/LEFT

1. Inner lower cover (page 4-18 "Inner Lower Cover")
2. Development Intake Fan/Left unit [A] (×2, ×1)



d1462432

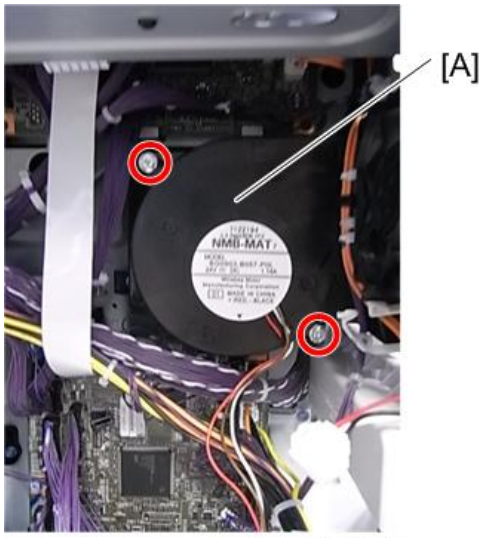
3. Development Intake Fan/Left [A] (×2)



d1462433

4.18.5 OZONE EXHAUST FAN

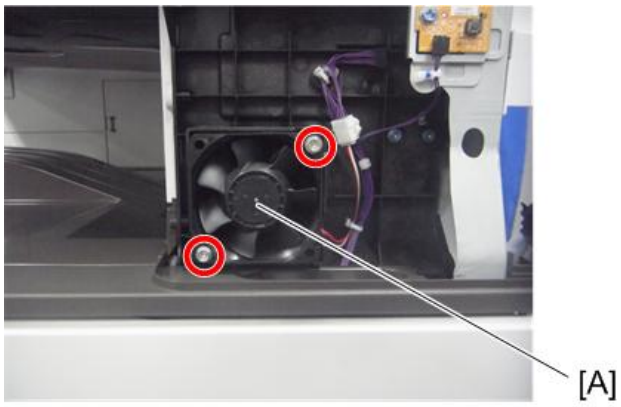
1. Power supply box (page 4-154 "Paper Transport IOB")
2. Ozone exhaust fan [A] (×2, ×1)



d1462074

4.18.6 PAPER EXIT COOLING FAN

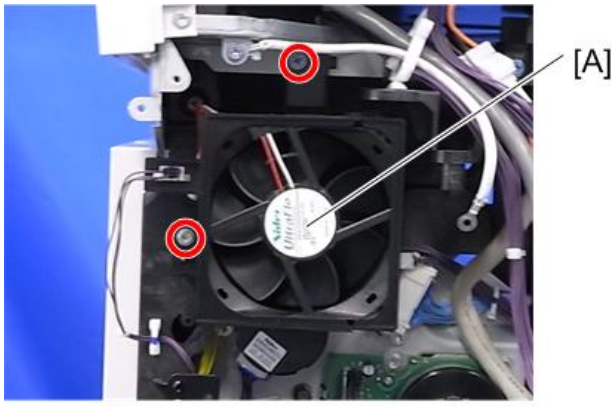
1. Main power switch cover (page 4-13 "Main power switch cover")
2. Paper exit cooling fan [A] (×2, ×1)



d1462434

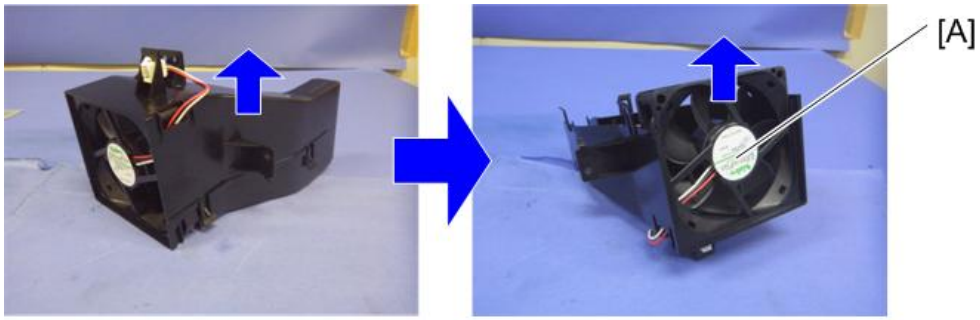
4.18.7 FUSING EXHAUST HEAT FAN

1. Rear right cover (page 4-11 "Rear Right Cover")
2. Fusing exhaust heat fan unit [A] (×2, ×1, ×1)



d1462104

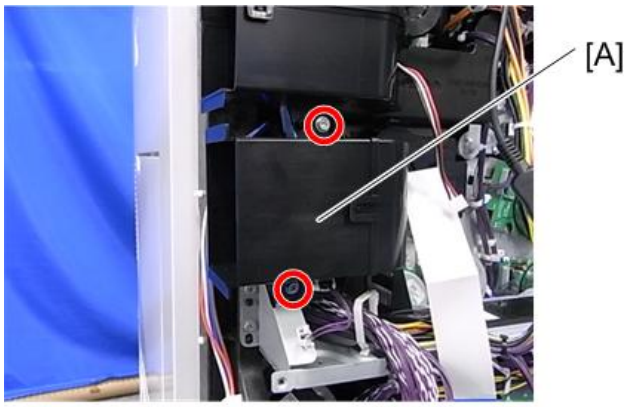
3. Fusing exhaust heat fan [A]



d1462147

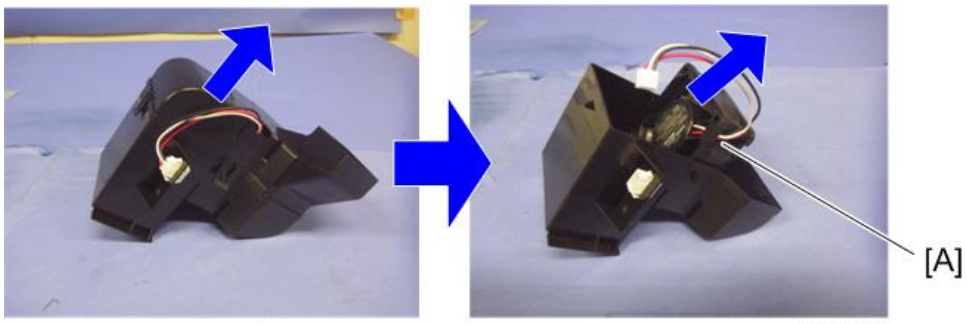
4.18.8 DRIVE COOLING FAN (D148/D149/D150)

1. Rear right cover (page 4-11 "Rear Right Cover")
2. Right rear cover (page 4-12 "Right Rear Cover")
3. Drive cooling fan unit [A] (×2, ×1)



d1462105

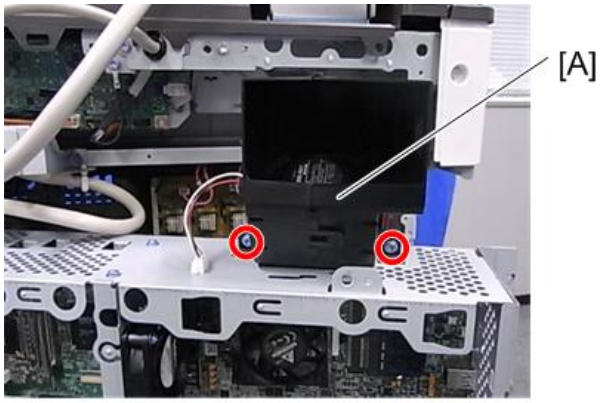
4. Drive cooling fan



d1462148

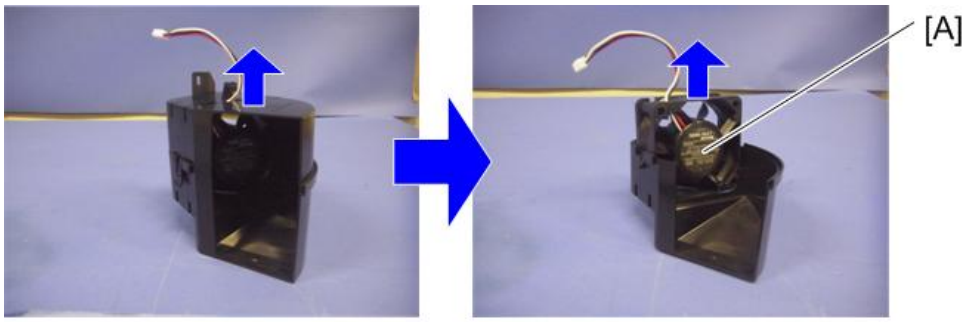
4.18.9 MAIN EXHAUST FAN (D148/D149/D150)

1. Scanner rear cover (page 4-11 "Scanner Rear Cover")
2. Scanner rear small cover (page 4-12 "Scanner Rear Cover (Small)")
3. Main exhaust fan unit [A] (×2, ×1)



d1462066

4. Main exhaust fan [A]

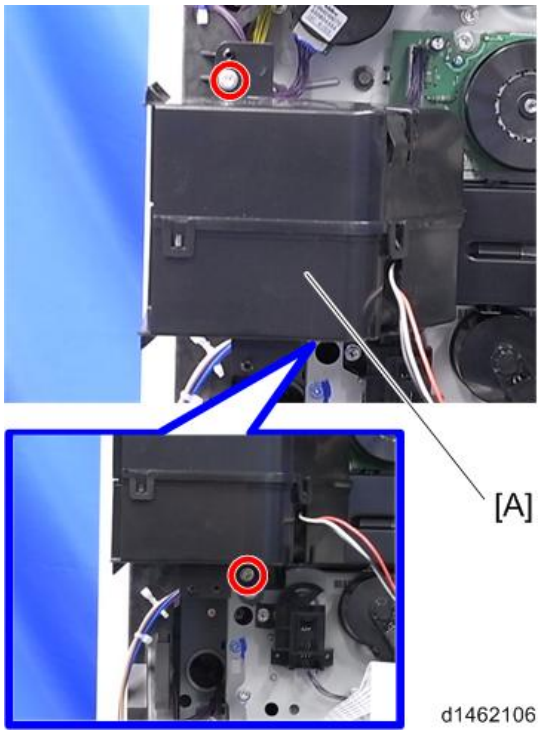


d1462078

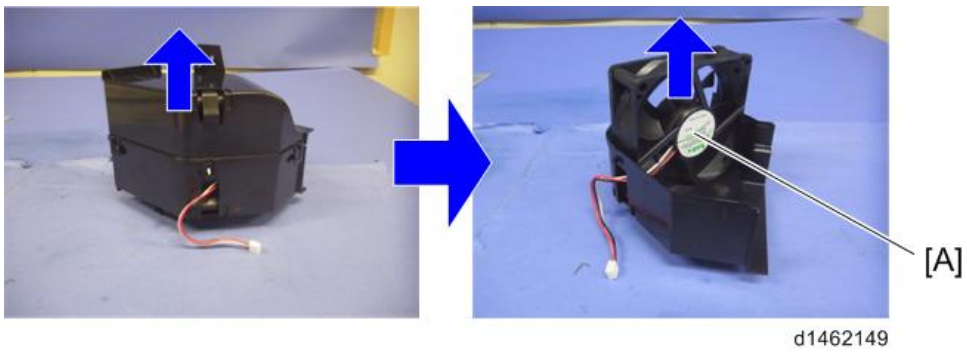
4.18.10 TONER SUPPLY COOLING FAN

D148/D149/D150

1. Drive cooling fan (page 4-161 "Drive Cooling Fan (D148/D149/D150)")
2. Toner supply cooling fan unit [A] (×2, ×1)

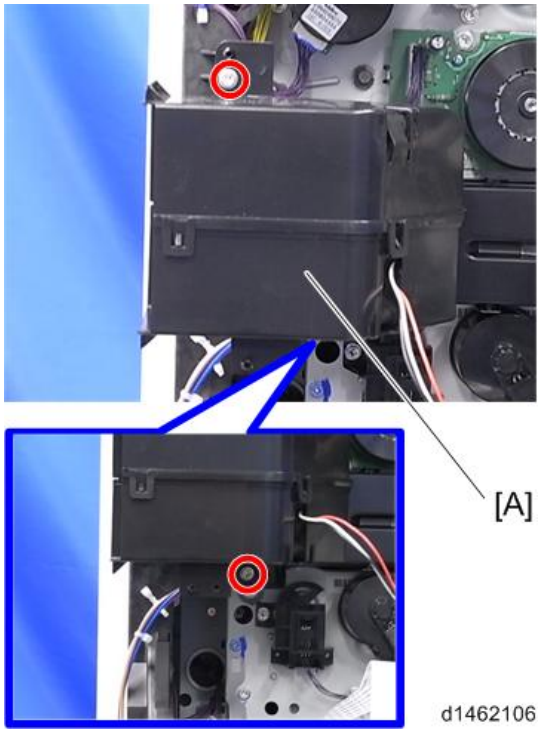


3. Toner supply cooling fan [A]

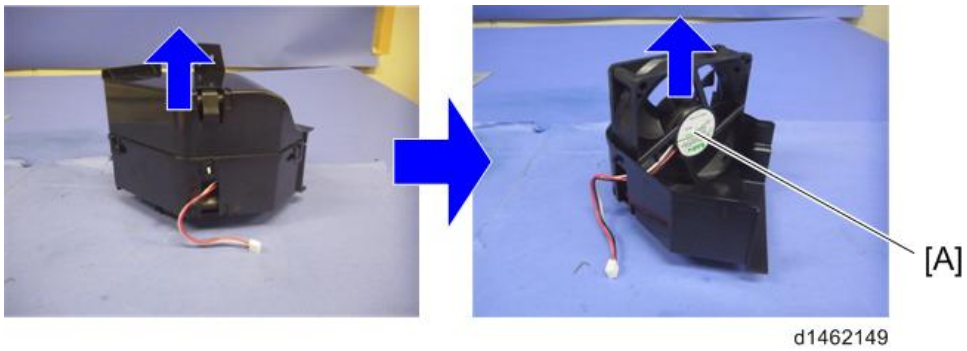


D146/D147

1. Rear right cover (page 4-11 "Rear Right Cover")
2. Right rear cover (page 4-12 "Right Rear Cover")
3. Toner supply cooling fan unit [A] (×2, ×1)

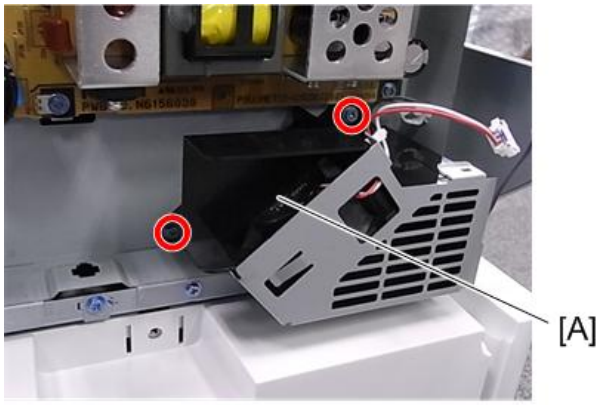


4. Toner supply cooling fan [A]



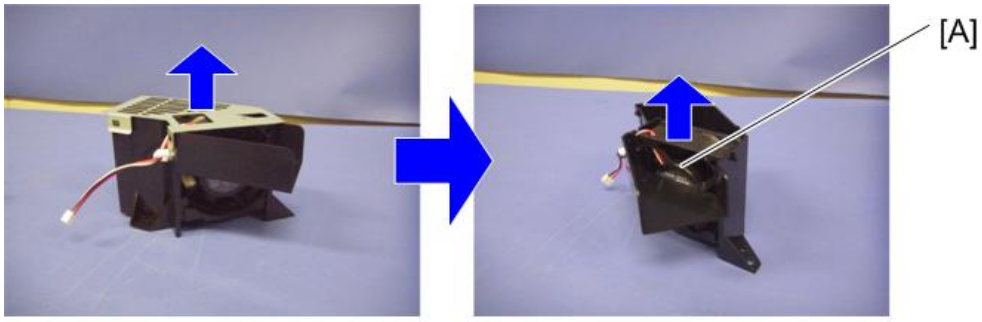
4.18.11 PSU COOLING FAN

1. Rear lower cover (page 4-11 "Rear Lower Cover")
2. PSU cooling fan unit [A] (×2)



d1462069

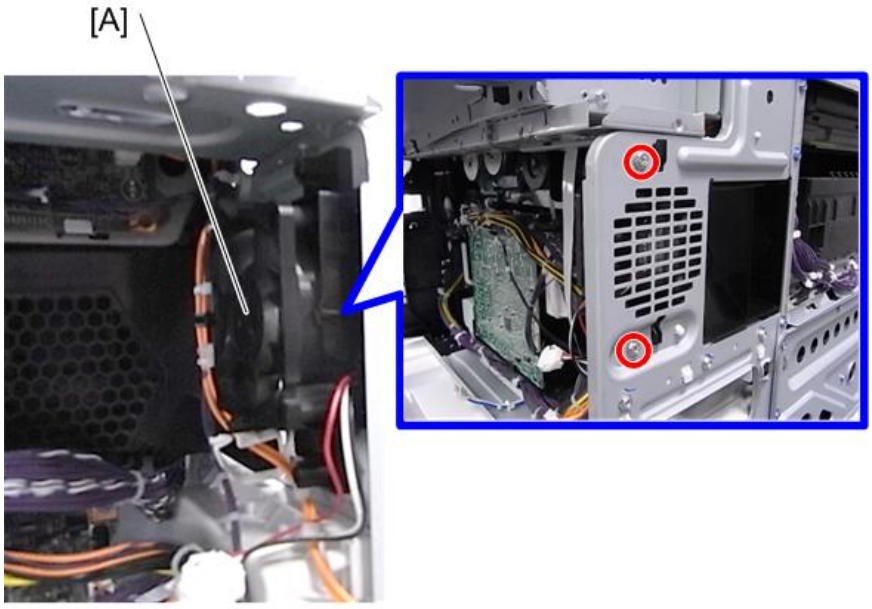
3. PSU cooling fan [A]



d1462077

4.18.12 PSU EXHAUST HEAT FAN (D148/D149/D150)

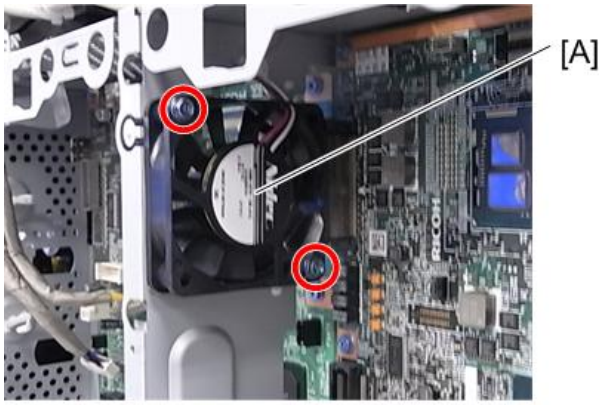
1. Power supply box (page 4-154 "Paper Transport IOB")
2. Left cover (page 4-8 "Left Cover")
3. PSU exhaust heat fan [A] (×2, ×1)



d1462073

4.18.13 POWER BOX COOLING FAN

1. Rear cover (page 4-10 "Rear Cover")
2. Power box cooling fan [A] (×2)



d1462062

4.19 IMAGE ADJUSTMENT

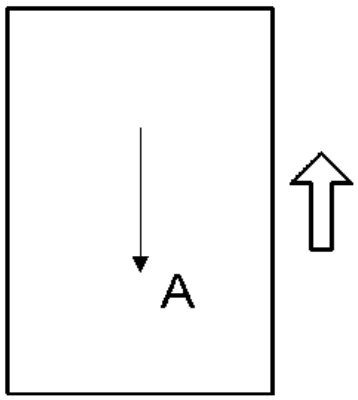
4.19.1 SCANNING

Check the printing registration/side-to-side adjustment and the blank margin adjustment before you do the following scanner adjustments.

Note

§ Use a C4 test chart to do the following adjustments.

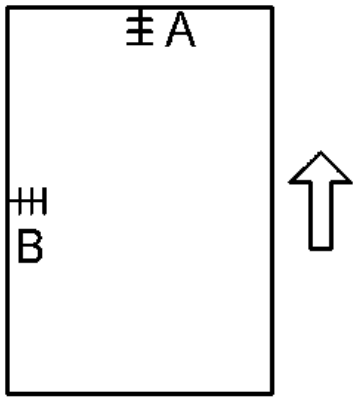
Scanner sub-scan magnification



A: Sub-scan magnification

1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
2. Check the magnification ratio. Adjust with SP4-008 if necessary.
   Standard: ±1.0%.

Scanner leading edge and side-to-side registration



A: Leading Edge Registration

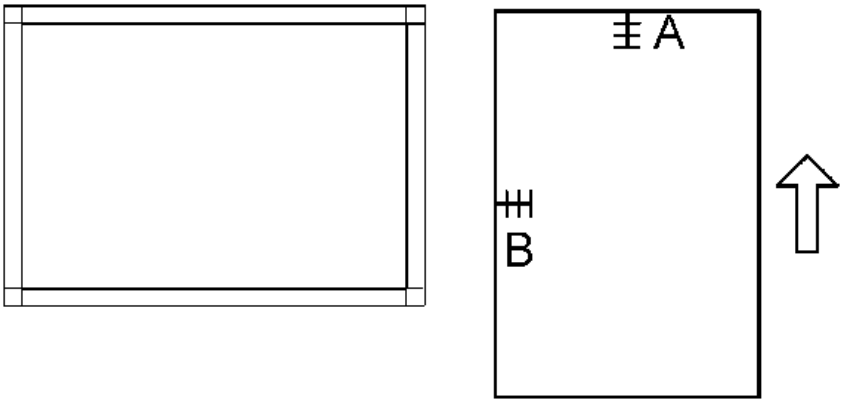
1. Put the test chart on the exposure glass. Then make a copy from one of the feed stations.
2. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary.

Standard: 0 ± 2mm for the leading edge registration, 0 ± 2.5mm for the side-to-side registration.

	SP mode
Leading Edge Registration	SP4-010-001
Side-to-Side Registration	SP4-011-001

4.19.2 ARDF

ARDF side-to-side, leading edge registration and trailing edge



A: Leading edge registration

Use A3/DLT paper to make a temporary test chart as shown above.

1. Put the temporary test chart on the ARDF. Then make a copy from one of the feed stations.
2. Check the registration. Check the leading edge and side-to-side registration. Adjust the following SP modes if necessary.
   Standard: 4.2 ± 2 mm for the leading edge registration, 2 ± 1 mm for the side-to-side registration. Use the following SP modes to adjust if necessary.

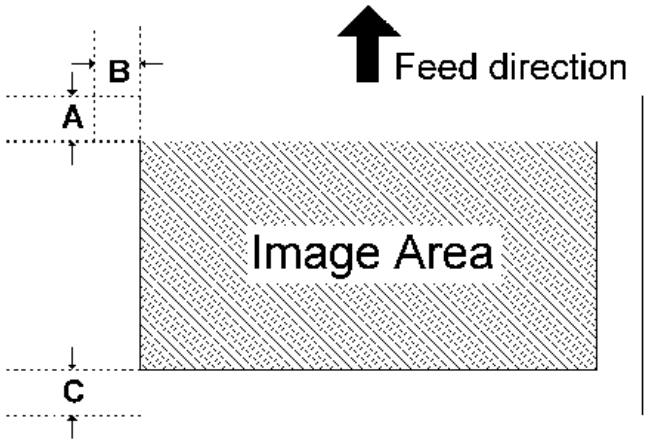
SP Code	What It Does	Adjustment Range
SP6-006-001	Side-to-Side Regist: Front	± 3.0 mm
SP6-006-003	Leading Edge Registration	± 5.0 mm
SP6-006-005	Buckle: Duplex Front	± 3.0 mm
SP6-006-006	Buckle: Duplex Rear	± 2.5 mm
SP6-006-007	Rear Edge Erase (Trailing Edge)	± 10.0 mm

ARDF sub-scan magnification

1. Put the temporary test chart on the ARDF. Then make a copy from one of the feed stations.
2. Check the magnification ratio. Adjust with SP6-017-001 if necessary.
   - § Standard: ±5.0%
   - § Reduction mode: ±1.0%
   - § Enlargement mode: ±1.0%

4.19.3 REGISTRATION

Image Area



A = C = 5.2 mm (0.2"), B = 2.0 mm

Make sure that the registration is adjusted within the adjustment standard range as shown below.

Leading Edge

Adjusts the leading edge registration for each paper type and process line speed.

Side to Side

Adjusts the side-to-side registration for each paper feed station. Use SP mode (SP1-002) to adjust the side-to-side registration for the optional paper feed unit, LCT, and duplex unit.

Adjustment Standard

- § Leading edge (sub-scan direction): 5.2 ± 2 mm
- § Side to side (main-scan direction): 2 ± 1 mm

Paper Registration Standard

The registration in both main- and sub-scan directions can change within the following tolerance.

- § Sub-scan direction: 0 ± 9 mm
- § Main-scan direction: 0 ± 4 mm

Adjustment Procedure

1. Enter SP2-109-003.
2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.

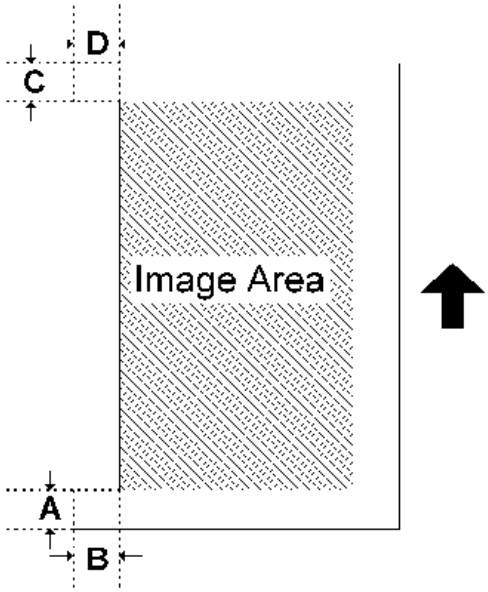
   Note

   § Registration can change slightly as shown on the previous page. Print some pages of the 1-dot trimming pattern for step 3 and 4. Then average the leading edge and side-to-side registration values, and adjust each SP mode.
3. Do the leading edge registration adjustment.
   1) Check the leading edge registration and adjust it with SP1-001.
   2) Select the adjustment conditions (paper type and process line speed).
   3) Input the value. Then press the # key.
   4) Generate a trim pattern to check the leading edge adjustment.
4. Do the side-to-side registration adjustment.
   1) Check the side-to-side registration and adjust it with SP1-002.
   2) Select the adjustment conditions (paper feed station).
   3) Input the value. Then press the # key.
   4) Generate a trim pattern to check the leading edge adjustment.

4.19.4 ERASE MARGIN ADJUSTMENT

Note

§ Adjust the erase margin C and D only if the registration (main scan and sub scan) cannot be adjusted within the standard values. Do the registration adjustment after adjusting the erase margin C and D, and then adjust the erase margin A and B.



1. Enter SP2-109-003.
2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.
3. Check the erase margin A and B. Adjust them with SP2-103-001 to -015 if necessary.
   § Leading edge: 0.0 to 9.0 mm (default: 4.2 mm)
   § Side-to-side: 0.0 to 9.0 mm (default: 2.0 mm)
   § Trailing edge: 0.0 to 9.0 mm (default: 4.2 mm)

4.19.5 COLOR REGISTRATION

Line Position Adjustment

The automatic line position adjustment usually is done for a specified condition to get the best color prints.

Do the following if color registration shifts:

SP2-111-004: Forced Line Position Adj. Mode d

The result can be checked with SP2-194-007 (MUSIC Execution Result Execution Result) (0:Succeed, 1: Fail).

Also, results for each color can be checked with SP2-194-010 to 013.

§ You should also do the line position adjustment at these times:
   § After you transport or move the machine (you should do the forced line position adjustment if you install the machine at the user location.) if the machine is pre-installed

at the workshop and moved to the user location,

- § When you open the drum positioning plate
- § When you remove or replace the motors, clutches, and/or gears related to the drum/development/transfer sections
- § When you remove or replace the image transfer belt, image transfer belt unit or laser optical housing unit

4.19.6 PRINTER GAMMA CORRECTION

Note

- § The ACC is usually sufficient to adjust the color balance to get the best print output. You only need the printer gamma correction to fine-tune to meet user requirements.

Use SP modes if you want to modify the printer gamma curve created with ACC. You can adjust the gamma data for the following:

- § Highlight
- § Middle
- § Shadow areas
- § IDmax.

The adjustable range is from 0 to 30 (31 steps).

Copy Mode

- KCMY Color Balance Adjustment -

The adjustment uses only "Offset" values.

Note

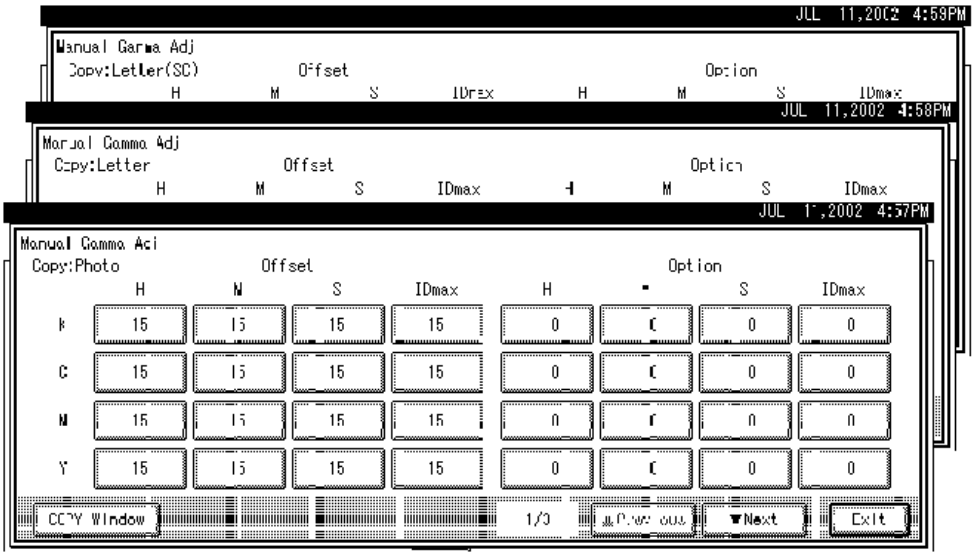
- § Never change "Option" values (default value is 0).

Highlight (Low ID)	Levels 2 through 5 in the C4 chart 10-level scale
Middle (Middle ID)	Levels 3 through 7 in the C4 chart 10-level scale
Shadow (High ID)	Levels 6 through 9 in the C4 chart 10-level scale
ID max	Level 10 in the C4 chart 10-level scale (affects the entire image density.)
Offset	The higher the number in the range associated with the low ID, middle ID, high ID, and ID max, the greater the density.

There are four adjustable modes (can be adjusted with SP4-918-009):

- § Copy Photo mode
- § Copy Letter mode
- § Copy Letter (Single Color) mode

§ Copy Photo (Single Color) mode



- Adjustment Procedure -

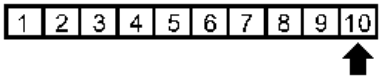
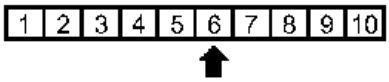
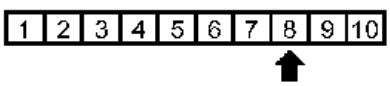
1. Copy the C-4 chart in the mode that you want to adjust.
2. Enter the SP mode.
3. Select "System SP."
4. Select SP4-918-009.
5. Adjust the offset values until the copy quality conforms to the standard (see the table below).

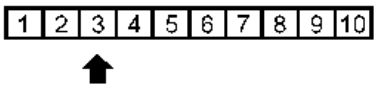
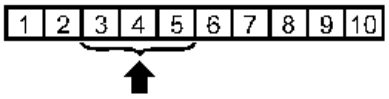
Note

§ 1. Never change "Option" value (default value is "0").

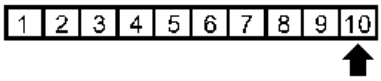
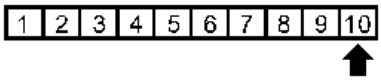
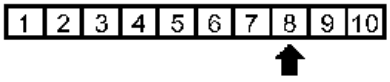
§ 2. Adjust the density in this order: "ID Max", "Middle", "Shadow", "Highlight".

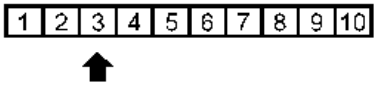
- Photo Mode, Full Color -

	Item to Adjust	Level on the C-4 chart	Adjustment Standard
1	ID max: (K, C, M, and Y)		Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.
2	Middle (Middle ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.
3	Shadow (High ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.

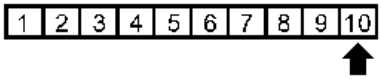
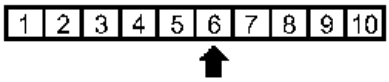
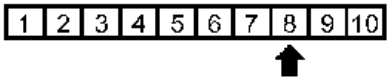
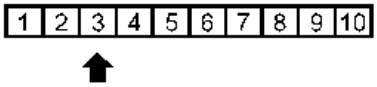
4	Highlight (Low ID) (K, C, M, and Y)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.
5	K Highlight (Low ID) (C,M, and Y) <on the full color copy>		Adjust the offset value so that the color balance of black scale levels 3 through 5 in the copy is seen as gray (no C, M, or Y should be visible). If the black scale contains C, M, or Y, do steps 1 to 4 again.

- Photo Mode, Single Color -

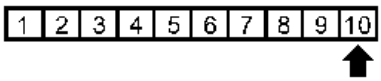
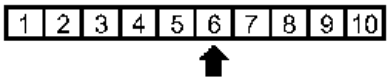
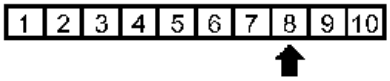
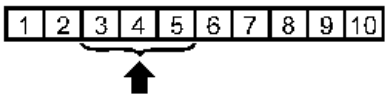
	Item to Adjust	Level on the C-4 chart	Adjustment Standard
1	ID max: (K)		Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.
2	Middle (Middle ID) (K)		Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.
3	Shadow (High ID) (K)		Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.

4	Highlight (Low ID) (K)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.

- Text (Letter) Mode, Full Color -

	Item to Adjust	Level on the C-4 chart (K)	Adjustment Standard
1	ID max: (K, C, M, and Y)		Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.
2	Middle (Middle ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.
3	Shadow (High ID) (K, C, M, and Y)		Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.
4	Highlight (Low ID) (K, C, M, and Y)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.

- Text (Letter) Mode, Single Color -

	Item to Adjust	Level on the C-4 chart (K)	Adjustment Standard
1	ID max: (K)		Adjust the offset value so that the density of level 10 matches that of level 10 on the C-4 chart.
2	Middle (Middle ID) (K)		Adjust the offset value so that the density of level 6 matches that of level 6 on the C-4 chart.
3	Shadow (High ID) (K)		Adjust the offset value so that the density of level 8 matches that of level 8 on the C-4 chart.
4	Highlight (Low ID) (K)		Adjust the offset value so that dirty background does not show on the copy and the density of level 3 is slightly lighter than that of level 3 on the C-4 chart.

Note

§ Text parts of the test pattern cannot be printed clearly after you adjust "shadow" as shown above. At this time, check if the 5 line/mm pattern at each corner is printed clearly. If it is not, adjust the offset value of "shadow" again until it is.

Printer Mode

There are six adjustable modes (select these modes with printer SP1-102-001):

§ 1200 x 1200 photo mode
§ 1200 x 1200 text mode
§ 2400 x 600 photo mode
§ 2400 x 600 text mode
§ 1800 x 600 photo mode
§ 1800 x 600 text mode
§ 600 x 600 photo mode
§ 600 x 600 text mode

	K	C	M	Y
Highlight	SP1-104-1	SP1-104-21	SP1-104-41	SP1-104-61
Shadow	SP1-104-2	SP1-104-22	SP1-104-42	SP1-104-62
Middle	SP1-104-3	SP1-104-23	SP1-104-43	SP1-104-63
IDmax	SP1-104-4	SP1-104-24	SP1-104-44	SP1-104-64

- Adjustment Procedure -

1. Do ACC for the printer mode.
2. Turn the main power off and on.
3. Enter SP mode.
4. Select "Printer SP".
5. Select SP1-102-001. Then select the necessary print mode to adjust.
6. Choose SP1-103-1 to print out a tone control test sheet if you want to examine the image quality for these settings.
7. Adjust the color density with SP1-104. Compare the tone control test sheet with the C4 test chart.

   Note

   § Adjust the density in this order: "ID Max", "Shadow", "Middle", "Highlight".
8. Use SP1-105-001 to keep the adjusted settings.

TROUBLESHOOTING

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

5. TROUBLESHOOTING

5.1 SELF-DIAGNOSTIC MODE

5.1.1 SERVICE CALL CODES

Service Call Conditions

Pattern	Display	How to reset	SC call or SC alarm in customer support system
A	The SC is displayed on the operation panel, and the machine cannot be used (safety-related SC).	Execute CE reset SP mode, and switch main power from OFF to ON. **⚠CAUTION** § When canceling a fusing unit SC, (SC544-00/SC554-00/SC564-00/SC574-00), perform part replacement in accordance with the above procedure.	Occurrence & alarm count ↓ Immediate alarm
B	When a function is selected, the SC is displayed on the operation panel, and the machine cannot be used (down-time mitigation).	Switch the user reset power key or main power switch OFF to ON.	Occurrence & alarm count ↓ Power OFF → ON ↓ Alarm count and alarm only if recurrence
C	No display on the operation panel, and use is permitted.	Count only logging.	Occurrence ↓ Logging count & alarm count

Pattern	Display	How to reset	SC call or SC alarm in customer support system
D	The SC is displayed on the operation panel, and the machine cannot be used (machine-error SC).	Switch user reset power key or main power switch OFF to ON.	Occurrence & alarm count ↓ Power supply OFF → ON ↓ Alarm count and alarm only if recurrence

Note

§ When an ordinary SC (type D) is generated, an automatic reboot is performed. When an event is reported by the customer support system, even in the event of an ordinary SC, reboot is not performed. During automatic reboot, a confirmation screen is displayed after the reboot.

§ When automatic reboot occurs twice continuously, an SC is displayed without rebooting, and logging count is performed. Also, when an SMC print is output, an * mark is added alongside the SC number for clarity.

§ Automatic reboot can be enabled or disabled with SP5-875-001 (SC automatic reboot setting) (default value: ON).

SC logging

When an SC is generated, the "total count value when the SC is generated" and the "SC code" are logged. However, if the total count value during the SC is the same as last time, logging is not performed.

Logged data can be checked by outputting an administrative report (SMC print). The SC history is logged up to the last 10 entries, and if there are more than 10 entries, data are progressively deleted starting from the oldest.

SC automatic reboot

When an ordinary SC (pattern D) is generated, automatically reboot is performed. Automatic reboot or reboot by user operation can be set by SP5-875-001 (SC automatic reboot setting out) (default value: 0 "Automatic reboot").

However, when a NRS report is performed, a reboot is not performed even in the case of the corresponding SC.

When an automatic reboot is performed, a confirmation screen is displayed after reboot. The confirmation screen can be cancelled by pressing the [OK] key (display is not cancelled only when the main power switch is switched OFF to ON).

Screen display during reboot

- Status display on the current screen
  - Post-processing ..... Post-processing during printing, etc.
  - Automatic reboot .... After operation end

    Post-processing

    ■■□□□□□□□□

    Until automatic reboot

    □□□□□□□□□□
- Reset key (Reboot key)

  Key to perform reboot

  # Cancel key is not displayed.
- Turn on spanner LED (same as when an SC is generated).

Operation during SC reboot

- Timing of SC reboot

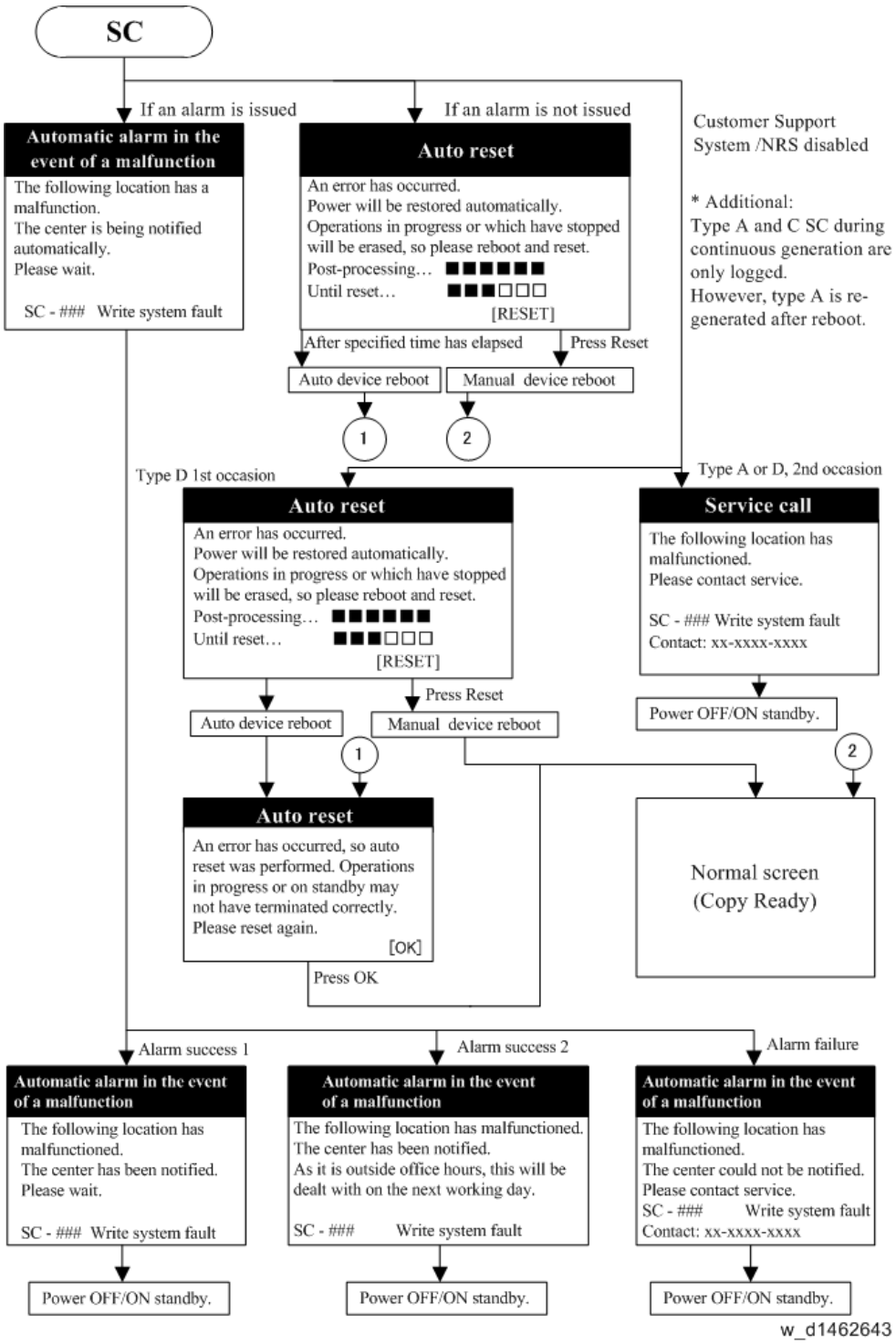
  When NRS is enabled, and when a NRS alarm*1 is not generated, the corresponding SC is the object of an automatic reboot.

  *1 NRS alarm: Issued when an ordinary SC (type D) is generated twice while the total counter counts 10 times.
- Time to automatic reboot

  Reboot is performed 30 seconds after an engine reboot is possible, after the end of post-processing during printing, etc.

  At that time, a reboot is performed even if the MFP is operating. The engine does not start process control when a reboot is possible.
- Automatic reboot

  See the flowchart below.


SC
If an alarm is issued
If an alarm is not issued
Customer Support System /NRS disabled
Automatic alarm in the event of a malfunction
The following location has a malfunction.
The center is being notified automatically.
Please wait.
SC - ### Write system fault
Auto reset
An error has occurred.
Power will be restored automatically.
Operations in progress or which have stopped will be erased, so please reboot and reset.
Post-processing…
Until reset…
[RESET]
* Additional:
Type A and C SC during continuous generation are only logged.
However, type A is re-generated after reboot.
After specified time has elapsed
Press Reset
Auto device reboot
Manual device reboot
1
2
Type D 1st occasion
Type A or D, 2nd occasion
Auto reset
An error has occurred.
Power will be restored automatically.
Operations in progress or which have stopped will be erased, so please reboot and reset.
Post-processing…
Until reset…
[RESET]
Service call
The following location has malfunctioned.
Please contact service.
SC - ### Write system fault
Contact: xx-xxxx-xxxx
Press Reset
Auto device reboot
Manual device reboot
Power OFF/ON standby.
1
2
Auto reset
An error has occurred, so auto reset was performed. Operations in progress or on standby may not have terminated correctly.
Please reset again.
[OK]
Press OK
Normal screen
(Copy Ready)
Alarm success 1
Alarm success 2
Alarm failure
Automatic alarm in the event of a malfunction
The following location has malfunctioned.
The center has been notified.
Please wait.
SC - ### Write system fault
Automatic alarm in the event of a malfunction
The following location has malfunctioned.
The center has been notified.
As it is outside office hours, this will be dealt with on the next working day.
SC - ### Write system fault
Automatic alarm in the event of a malfunction
The following location has malfunctioned.
The center could not be notified.
Please contact service.
SC - ### Write system fault
Contact: xx-xxxx-xxxx
Power OFF/ON standby.
Power OFF/ON standby.
Power OFF/ON standby.
w_d1462643

Controller self-diagnosis outline

Controller self-diagnosis includes 3 types, i.e., "ordinary self-diagnosis", "detailed self-diagnosis", and "SC detection". "Ordinary self-diagnosis" is diagnosis performed for every power ON, and "detailed self-diagnosis" is diagnosis treated as part of the service tools. "SC detection" detects mechanical faults when power is switched on or when the machine is operating.

Detailed self-diagnosis – Method

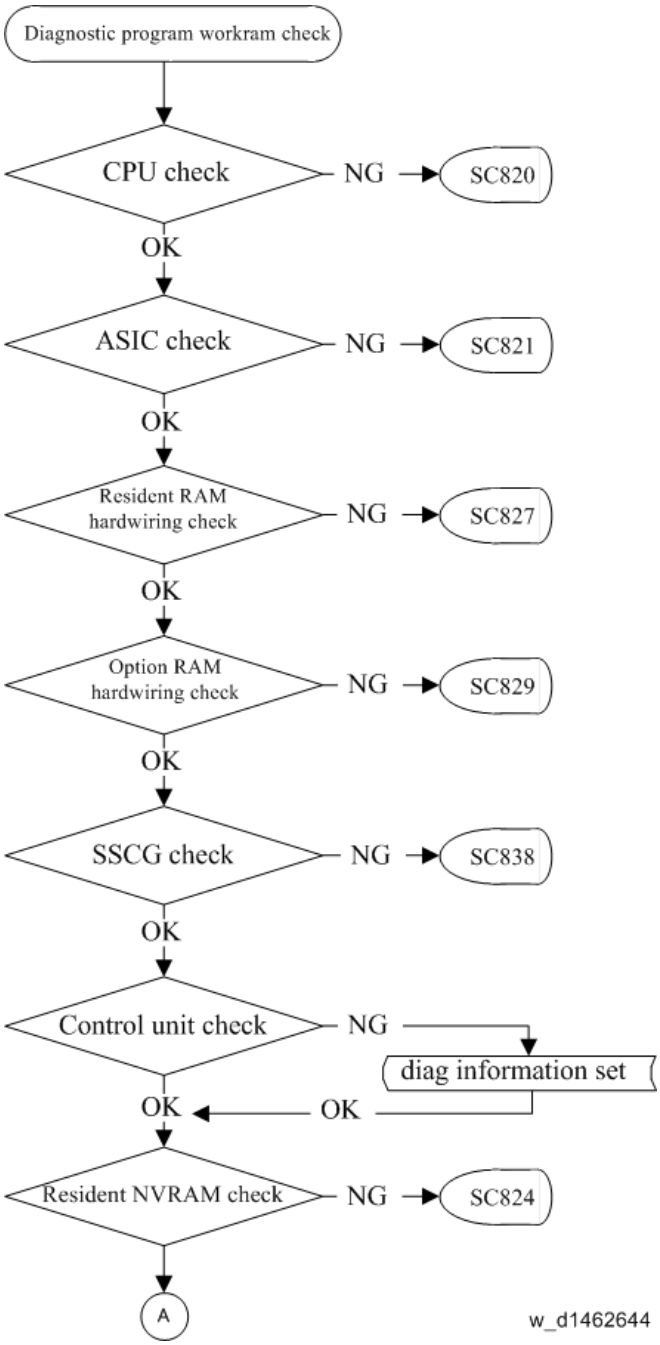
1. After attaching the option "extension 1284 board" to the controller board, connect the conversion connector provided.
2. Set a loop back connector in the reference Centronics I/F.
3. Press the main power supply switch while simultaneously pressing the "#" and "./* key. The display changes to the following screen, and self-diagnosis starts.

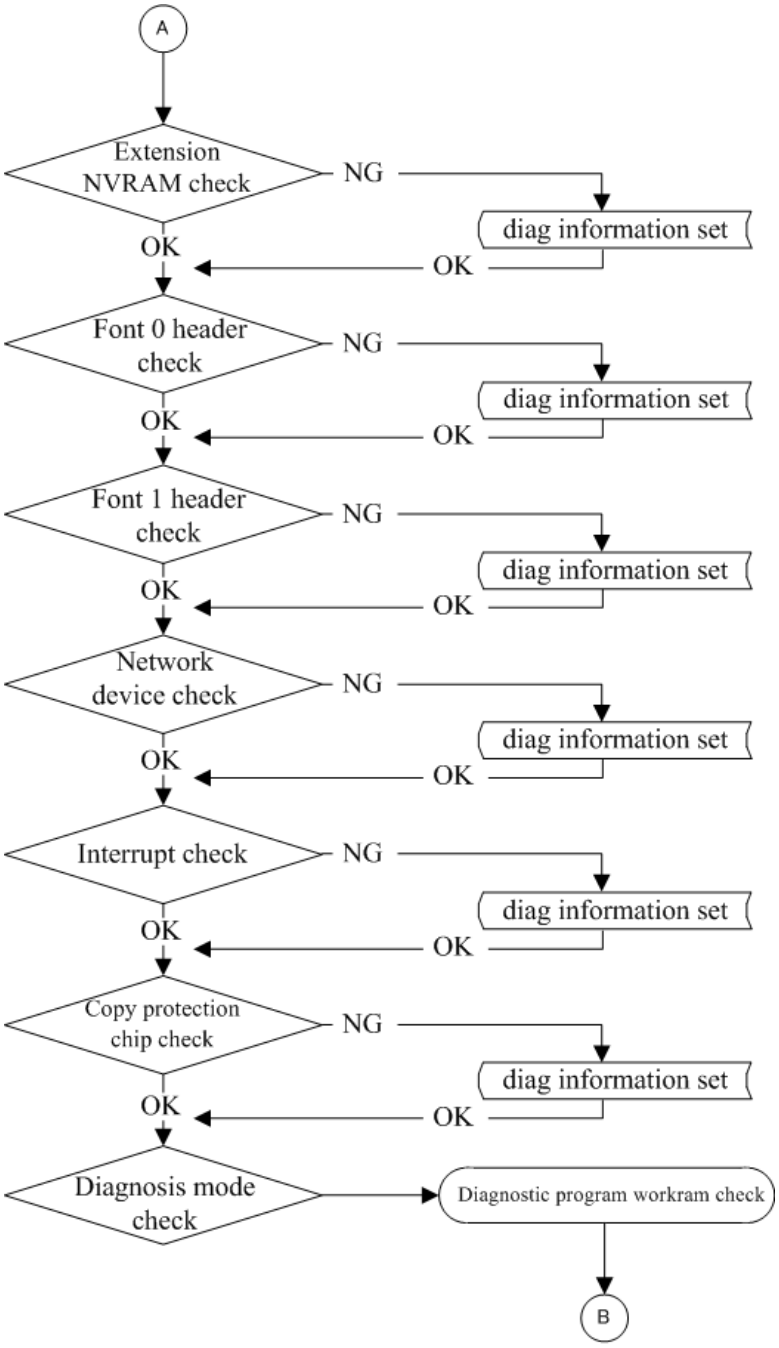
4. After the end of detailed self-diagnosis, a "Self-diagnosis results report" is automatically printed.

Note

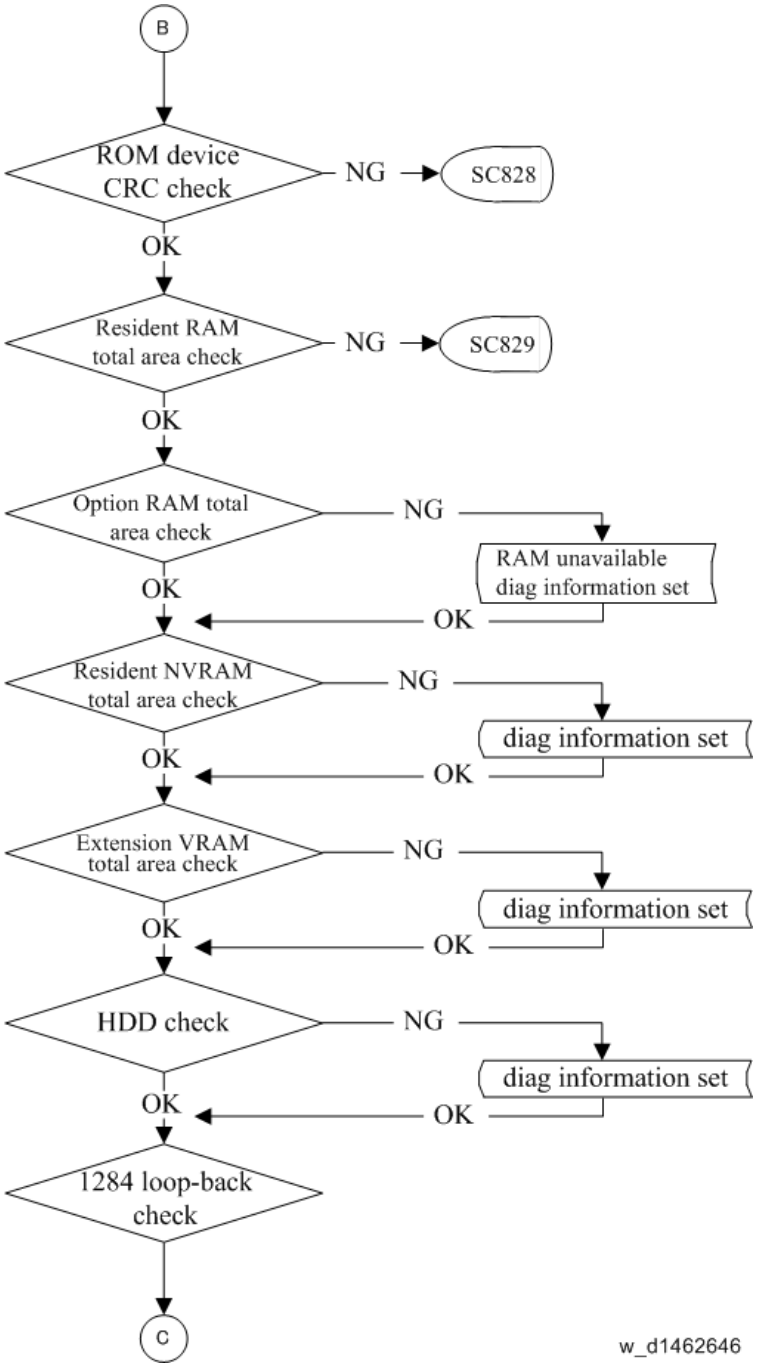
- § If a Centronics loopback connector is not fitted, a Centronics diagnosis error (SC 835) is generated.
- § Loop-back connector: G0219350

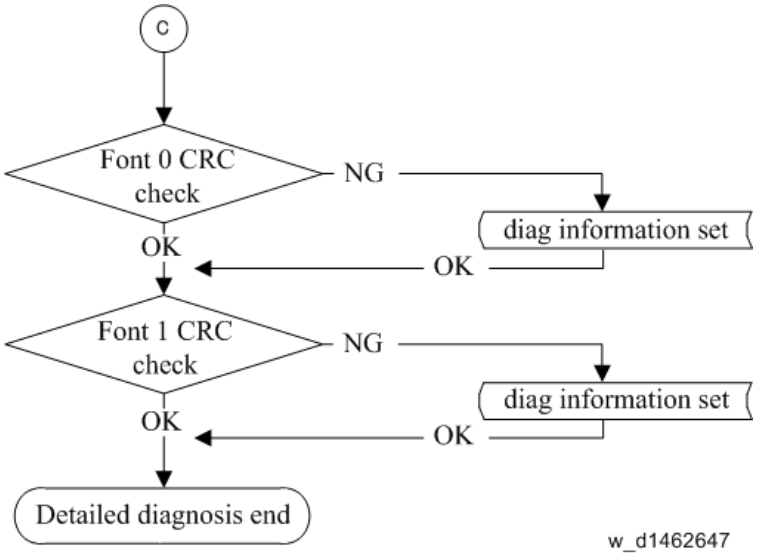
Controller self-diagnosis flowchart




A
Extension NVRAM check
NG
diag information set
OK
OK
Font 0 header check
NG
diag information set
OK
OK
Font 1 header check
NG
diag information set
OK
OK
Network device check
NG
diag information set
OK
OK
Interrupt check
NG
diag information set
OK
OK
Copy protection chip check
NG
diag information set
OK
OK
Diagnosis mode check
Diagnostic program workram check
B

w_d1462645


B
ROM device CRC check
NG
SC828
OK
Resident RAM total area check
NG
SC829
OK
Option RAM total area check
NG
RAM unavailable diag information set
OK
OK
Resident NVRAM total area check
NG
diag information set
OK
OK
Extension VRAM total area check
NG
diag information set
OK
OK
HDD check
NG
diag information set
OK
OK
1284 loop-back check
C
w_d1462646


C
Font 0 CRC check
NG
diag information set
OK
OK
Font 1 CRC check
NG
diag information set
OK
OK
Detailed diagnosis end
w_d1462647

5.2 SERVICE CALL 101-195

5.2.1 SC100 (ENGINE: SCANNING)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC101-01	D	Lamp Error (Scanning)
		The white level peak did not reach the prescribed threshold when the white plate was scanned.
		§ LED defective § IDB (LED driver) defective § SBU defective § IPU defective § Power/signal harness defective § Condensation in scanner unit § Mirrors or lenses dirty or positioned incorrectly § White plate dirty or installed incorrectly
		1. Turn the power off/on. 2. Perform the following operations: § Reconnect the power/signal harness. § Reattach/clean the mirrors/lenses. § Reattach/clean the white plate. 3. Replace the following parts: § Replace the LED board. § Replace the IDB board or SIO board. § Replace the SBU board. § Replace the IPU board. § Replace the power/signal harness.
-02	D	Lamp Error (LED illumination adjustment)
		LED error was detected.
		§ LED defective § IDB (LED driver) defective § Power/signal harness defective

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		1. Turn the power off/on. 2. Perform the following operations: § Reconnect the power/signal harness. 3. Replace the following parts: § Replace the LED board. § Replace the IDB board or SIO board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC102-00	D	LED Illumination Adjustment Error
		The white level peak reached the prescribed threshold when the white plate was scanned after a specified number of adjustments.
		§ LED defective § IDB (LED driver) defective § SBU defective § IPU defective § Power/signal harness defective
		1. Turn the power off/on. 2. Reconnect the power/signal harness. 3. Replace the following parts: § Replace the LED board. § Replace the SBU board. § Replace the IDB board or SIO board. § Replace the IPU board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC120-00	D	Scanner Home Position Error 1
		The scanner home position sensor does not go OFF. Details: Error detection timing § During homing (when the machine is turned ON or when it returns from energy save mode) § During an automatic adjustment (when the machine is turned ON or when it returns from energy save mode) § During a scan from the ADF or exposure glass.
		§ Scanner motor driver defective § Scanner motor defective § Scanner HP sensor defective § Harness defective § Timing belt, pulley, wire, or carriage not installed correctly
		Replace the following parts: § Replace the HP sensor § Replace the scanner motor § Replace the harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC121-00	D	Scanner Home Position Error 2
		The scanner home position sensor does not go ON. Details: Error detection timing § During homing § During an automatic adjustment § During a scan from the ADF or exposure glass.
		§ Scanner motor driver defective § Scanner motor defective § Scanner HP sensor defective § Harness defective § Timing belt, pulley, wire, or carriage not installed correctly
		Replace the following parts: § Replace the home position sensor § Replace the scanner motor § Replace the harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC141-00	D	Black level detection error
		The black level cannot be adjusted within the target during auto gain control.
		§ SBU defective § IPU defective § Power/signal harness defective
		1. Turn the power off/on. 2. Reconnect the power/signal harness. 3. Replace the following parts: § Replace the SBU board. § Replace the IPU board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC142-00	D	White level detection error
		The white level cannot be adjusted to the second target level within the target during auto gain control.
		§ SBU defective § LED defective § IDB (LED driver) defective § IPU defective § Power/signal harness defective § Scanner drive error § Condensation in scanner unit § Mirrors or lenses dirty or positioned incorrectly § White plate dirty or installed incorrectly
		1. Turn the power off/on. 2. Perform the following operations: § Reconnect the power/signal harness. § Reattach/clean the mirrors/lenses. § Reattach/clean the white plate. 3. Replace the following parts: § Replace the SBU board. § Replace the LED board. § Replace the IDB board. § Replace the IPU board. § Replace the SIO board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC144-00	D	SBU Communication Error
		§ Connection to SBU cannot be confirmed. (Connection detection error) § Cannot communicate with the SBU, or the communication result is abnormal.
		§ SBU defective § The other side of the communication (BCU, IPU etc.) defective § Power/signal harness defective
		1. Turn the power off/on. 2. Reconnect the power/signal harness. 3. Replace the following parts: § Replace the SBU board. § Replace the IPU board. § Replace the BCU board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC161-01	D	IPU Error (LSYNC abnormal)
		An error occurred during the self-diagnostic test performed every time the machine is turned on, or returns to full operation from energy save mode.
		§ IPU (BiCU, iCTL) board defective (ASIC-LEO connection failure, LSYNC abnormal, etc.) § Cable between SBU and IPU (or BiCU) defective
		§ Replace the IPU (or BiCU) board. § Check the cable between SBU and IPU (or BiCU)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC161-02	D	IPU error (Ri response abnormal)
		The machine detects an error during an access to the Ri.
		IPU (BiCU, iCTL) board defective (Ri response abnormal, etc.)
		Replace the IPU (or BiCU) board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC165-00	D	Copy data security unit error
		§ The copy data security option is enabled in the User Tools but the option board is detected as missing or defective. § The copy data security option was detected as defective when the machine was turned on or returned from energy save mode.
		§ Copy data security unit board not installed correctly § Copy data security unit board defective
		§ Reinstall the copy data security unit board. § Replace the copy data security unit board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC185-00	D	CIS transmission error
		The data read from the ASIC register on the CIS were not as expected. Details: § Occurs when a serial communication error between the CIS board and the DF board is detected. Occurs also when an error is detected during initialization of the ASIC on the CIS. § This can happen during initialization and feeding. The first and second consecutive occurrences of each constitute jams. The third occurrence constitutes an SC. (An initialization jam/transport jam occurs on 2 continuous occasions during either initialization or transport, and on the 3rd continuous occasion, an SC is generated)
		§ Connector or harness between DF board and CIS board is disconnected or defective § ASIC on the CIS is defective § Boot failure of ASIC on the CIS
		1. Reconnect the power/signal harness. 2. Replace the following parts: § Replace the CIS and CIPB. § Replace the ADF main control board. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC186-00	D	CIS LED error
		During initialization: § The ratio between the average values of leading-edge area and rear-edge area is out of specification. § Shading data peak value is below specification. During scanning: § Shading data peak value is below specification. Details: During initialization: § Occurs when one out of two CIS LEDs is malfunctioning, causing the difference between the average values of leading-edge area and rear-edge area to be large (CIS LED error detection). § Occurs when both of the CIS LEDs are malfunctioning (unlit), causing the shading data peak value to be extremely low (CIS white level adjustment). During scanning: § Occurs when both of the CIS LEDs are malfunctioning (unlit), causing the shading data peak value to be extremely low (CIS scan control, gray balance adjustment/confirmation). § The first and second consecutive occurrences of each constitute initial/feed jams. The third occurrence constitutes an SC. (An initialization jam/transport jam occurs on 2 continuous occasions during either initialization or transport, and on the 3rd continuous occasion, an SC is generated)
		During initialization: § One or two out of two CIS LEDs are defective During scanning: § Both of the CIS LEDs are defective.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		1. Reconnect the power/signal harness. 2. Replace the following parts: § Replace the CIS and CIPB. § Replace the CIS background white roller. § Replace the power/signal harness. § Replace the ADF main control board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC187-00	D	CIS black level error
		The black level scanned by CIS is abnormal. Details: § Occurs when abnormality is detected in the process of black level generation – detection. § The first and second consecutive occurrences constitute initial jams. The third occurrence constitutes an SC.
		CIS defective
		Replace the CIS and CIPB.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC188-00	D	CIS white level error
		§ The shading data peak value read out from the CIS is abnormal. § The shading data peak value is not within the specified range from the target value. Details: § Occurs when abnormality is detected in the process of CIS shading data peak detection. § The first and second consecutive occurrences constitute initial jams. The third occurrence constitutes an SC.
		CIS defective
		1. Reconnect the power/signal harness. 2. Replace the following parts: § Replace the CIS and CIPB. § Replace the CIS background white roller. § Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC189-00	D	CIS gray balance adjustment error
		The difference between gray balance adjustment target value and the value scanned from the GS20 chart was out of specification upon execution of gray balance adjustment confirmation (SP4-705-002). Details: § Occurs when gray balance adjustment fails. § The first occurrence constitutes an SC (not an initial jam).
		CIS defective
		Replace the adjustment chart. (Degradation due to scratches and smudges)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC195-00	D	Machine serial number error
		Comparison of the product identification code in the machine serial number (11 digits).
		The product identification code in the machine serial number (11 digits) does not match.
		Re-enter the machine serial number.

5.3 SERVICE CALL 201-285

5.3.1 SC200 (ENGINE: IMAGE WRITING)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC201-00	D	Polygon motor error
		XSCRDY signal (polygon ready) error
		§ Disconnection or connection fault of I/F harness to polygon motor driver § Polygon motor or polygon motor driver malfunction § Polygon motor drive pulse is not outputted normally (polygon control unit peripherals). § XSCRDY signal monitoring cannot be performed (polygon control unit peripherals).
		§ Turn the power off/on § Replace the LSU or polygon motor § Replace the polygon harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC202-00	D	Polygon Motor: ON Timeout Error
		After the polygon motor turned on, or within T1 sec. after the rpm's changed, the motor did not enter READY status.
		§ The interface harness to the polygon motor driver damaged or not connected correctly. § Polygon motor or polygon motor driver defective § Polygon motor drive pulse cannot be output correctly. (Polygon controller) § XSCRDY signal observation failing (Polygon controller)
		§ Turn the power off/on § Replace the LSU or polygon motor § Replace the polygon harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC203-00	D	Polygon Motor: OFF Timeout Error
		The XSCRDY signal (polygon ready) never becomes inactive (H) within 3 sec. after the polygon motor went OFF.
		§ The interface harness to the polygon motor driver damaged or not connected correctly. § Polygon motor or polygon motor driver defective § Polygon motor drive pulse cannot be output correctly. (Polygon controller) § XSCRDY signal observation failing (Polygon controller)
		§ Turn the power off/on § Replace the LSU or polygon motor § Replace the polygon harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC204-00	D	Polygon Motor: XSCRDY Signal Error
		During polygon motor rotation, the XSCRDY signal was inactive (H) for longer than one rotation of the polygon.
		§ The interface harness to the polygon motor driver damaged or not connected correctly. § Polygon motor or polygon motor driver defective
		§ Turn the power off/on § Replace the LSU or polygon motor § Replace the polygon harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC220-01	D	Leading Edge: LD1 synchronization detection error: Bk
SC220-04	D	Leading Edge: LD1 synchronization detection error: Ye
		The leading edge LD0 synchronization detection signal of the corresponding color was not output within T1 sec. while the polygon mirror motor was operating at normal speed.
		§ The interface harness to the synchronization detection unit damaged or not connected correctly. § Synchronization detection board defective § Beam does not enter photo detector. § Abnormality around GAVD § IDB (LED driver) defective § LDB defective § BCU defective
		§ Turn the power off/on § Replace the LSU or polygon motor § Replace the polygon harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC230-01	D	FGATE ON error: Bk
SC230-02	D	FGATE ON error: Cy
SC230-03	D	FGATE ON error: Ma
SC230-04	D	FGATE ON error: Ye
		The FGATE signal did not turn ON within T1 sec. after the writing process of the corresponding color started.
		§ GAVD defective § Image processing ASIC defective § BCU, controller board not connected correctly or defective § Harness between IPU and LDB defective
		§ Turn the power off/on § Replace the IPU board § Replace the controller board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC231-01	D	FGATE OFF error: Bk
SC231-02	D	FGATE OFF error: Cy
SC231-03	D	FGATE OFF error: Ma
SC231-04	D	FGATE OFF error: Ye
		§ The FGATE signal did not turn OFF within T1 sec. after the writing process of the corresponding color ended. § The FGATE signal did not turn OFF when the next job of the corresponding color started.
		§ GAVD defective § Image processing ASIC defective
		§ Turn the power off/on. § Replace the IPU board. § Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC240-01	D	LD error: Bk
SC240-04	D	LD error: Ma
		§ If LD error terminal of LD driver of corresponding color is asserted after LD initialization. § If an error is detected during initialization of P-MAC which detects Ith/Ieta of LD of corresponding color.
		§ LD degradation (LD broken, shift of output characteristics etc.) § The interface harness damaged or not connected correctly. § LD driver defective
		§ Cycle the main power off/on § Replace the LD unit § Replace the harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC272-01	D	G-MAC communication error: Bk
SC272-02	D	G-MAC communication error: Cy
SC272-03	D	G-MAC communication error: Ma
SC272-04	D	G-MAC communication error: Ye
SC272-10	D	G-MAC communication error: Other
		In view of parity, 3 retries were performed
		§ IPU defective § Harness defective § LDB defective
		§ Cycle the main power off/on § Replace the LD unit § Replace the harness § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC285-00	C	MUSIC error
		The results of MUSIC pattern reading failed 4 times. (even if mode e (real time MUSIC) fails, the error count is not incremented (+1))
		§ TM sensor defective § ITB defective § PCU defective § LD unit defective § MUSIC pattern density thin
		§ ITB reset § PCU reset § Toner replenishment § Replace the TM (ID) sensor § Replace the ITB § Replace the PCU § Replace the LD unit

5.4 SERVICE CALL 312-396

5.4.1 SC300 (ENGINE: CHARGE, DEVELOPMENT)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC312-01	D	Charge Roller HVP_CB Output Error (K)
SC312-02	D	Charge Roller HVP_CB Output Error (C)
SC312-03	D	Charge Roller HVP_CB Output Error (M)
SC312-04	D	Charge Roller HVP_CB Output Error (Y)
		Charging AC is set to ON at the standard speed, and the FB voltage of the charging AC of each color is monitored for 200 ms at 20ms intervals (10 times) after 80ms of charge AC_ON, and below 0.3V is detected continuously for 200ms (10 times), the SC of the corresponding color lights up, and machine operation is suspended.
		§ High voltage harness defective or shorted. § PCU setting fault or damage § HVP_CB fault § Connector disconnected § Harness broken
		§ High voltage harness reset/replacement § PCU reset/replacement § Replace the HVP_CB § Connector reset § Replace the harness

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC324-01	D	Development motor: Bk: Lock
		Lock signals are observed at 2 sec intervals during motor ON, and a High level is detected at least 20 times
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Unit torque increased
		§ Replace the motor § Reconnect the connector § Replace the harness § Replace the IOB § Replace the unit § Replace the driven unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC324-05	D	Development motor: CMY: Lock
		Lock signals are observed at 2 sec intervals during motor ON, and a High level is detected at least 20 times
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Unit torque increased
		§ Replace the motor § Reconnect the connector § Replace the harness § Replace the IOB § Replace the unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC360-01	D	TD sensor adjustment error (K)
SC360-02	D	TD sensor adjustment error (C)
SC360-03	D	TD sensor adjustment error (M)
SC360-04	D	TD sensor adjustment error (Y)
		During TD sensor initialization, the TD sensor output voltage (Vt) cannot be adjusted to the target range (target value ± 0.2V, SP3-030-031 to 034) for 3 times consecutively.
		§ TD sensor defective § Loose connection § Harness broken § Developer toner density differs from initial developer
		§ Replace the development unit.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC361-01	D	TD sensor output error: Upper Limit (K)
SC361-02	D	TD sensor output error: Upper Limit (C)
SC361-03	D	TD sensor output error: Upper Limit (M)
SC361-04	D	TD sensor output error: Upper Limit (Y)
		TD sensor output: Vt (SP3-210-001 to 004) > output upper limit error threshold (SP3-211-002) continuously exceeded the upper limit occurrence threshold value (SP3-211-003).
		TD sensor connector dropout (connection fault)
		1. TD sensor connector missing check 2. Check whether there is any error in the TD sensor harness (disconnection, etc.) 3. If the sensor is defective, replace the development unit.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC362-01	D	TD sensor output error: Lower limit (K)
SC362-02	D	TD sensor output error: Lower limit (C)
SC362-03	D	TD sensor output error: Lower limit (M)
SC362-04	D	TD sensor output error: Lower limit (Y)
		TD sensor output: Vt (SP3-210-001 - 004) < output lower limit error threshold (SP3-211-004) is continuously below the lower limit occurrence threshold value (SP3-211-005)
		TD sensor connector missing/dropout
		1. TD sensor connector missing check 2. Check whether there is any error in the TD sensor harness (disconnection, etc.) 3. If the sensor is defective, replace the development unit.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC370-01	D	TM (ID) sensor calibration error (F)
SC370-02	D	TM (ID) sensor calibration error (C)
SC370-03	D	TM (ID) sensor calibration error (R)
		Regular reflection optical output voltage of the Front or Center or Rear TM (ID) sensor: Vsg_reg cannot be adjusted to within target range. Upper limit (SP3-320-013: initial value 4.5V) Lower limit (SP3-320-014: initial value 3.5V)
		§ TM (ID) sensor connector missing/ connection fault § TM (ID) sensor detection window dirt § TM (ID) sensor malfunction § Undulation in the ITB, or belt slippage

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Remove image transfer unit, and check for TM (ID) sensor connector missing. If it is missing, reconnect it. § Check for dirt on the ID sensor detection window. If te detection window is dirty, clean by predetermined method (do not wipe dry). § Check the condition of the ITB. If undulation or belt slippage has occurred, re-install or replace the ITB. § If neither of the above have occurred, perform TM (ID) sensor replacement

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC396-05	D	Drum motor (CMY) Lock
		Lock signals are observed at 2 sec intervals during motor ON, and a High level is detected at least 20 times.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Unit torque increased.
		§ Replace the motor § Reconnect the connector § Replace the harness § Replace the IOB § Replace the PCDU

5.5 SERVICE CALL 441-498

5.5.1 SC400 (ENGINE: AROUND THE DRUM)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC441-00	D	Drum transfer motor: Lock
		Lock signals are observed at 2 sec intervals during motor ON, and a High level is detected at least 20 times.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Unit torque increased.
		§ Replace the motor § Reconnect the connector § Replace the harness § Replace the IOB § Check the load on the motor (PCDU, Image transfer unit, Paper transfer unit, Waste toner bottle). § Replace the PCDU, Image transfer unit, Paper transfer unit or Waste toner bottle.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC442-00	D	ITB Lift Error
		Even though the ITB lift motor (also Toner supply motor (M)) rotates, the ITB lift sensor failed to detect the specified sensor feeler status within specified time. § Contact/separation operation: If not detected in 2000msec § Home position operation: If not detected in 5000msec Signal detection sampling period: 10msec
		§ Image transfer unit not set/faulty setting § Sensor dirt § Sensor defective § Motor defective § Unit load large
		§ Reset the Image transfer unit § Clean the sensor § Replace the sensor § Replace the contact/separation drive unit § Replace the image transfer unit § Check the harness

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC443-00	C	Image transfer encoder error/Image transfer unit set fault
		During encoder count of the transfer motor, if there is no effective edge interrupt for 1.5 sec, and there is an overflow for 1.5 seconds consecutively, it is determined that there is an encoder error, SC443-00 is logged, and the system shifts to FG control without stopping the transfer motor. This error does not occur in this machine, because it does not have an encoder.
		§ Encoder defective § Transfer motor defective § Connector disconnected § Harness broken
		§ Replace the image transfer unit § Replace the transfer motor § Reset the connector § Replace the harness § Ensure that SP2-920-07 to 009 is set to "1(FG)". It must not be set to "0".

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC444-00	C	Image transfer phase sensor error
		Phase sensor signal does not become L->H or H->L for 1.2 sec (time to perform 1.5 or more rotations even when transfer gear is at minimum speed) during motor ON, an image transfer phase sensor error log SC is displayed.
		§ Sensor dirt § Sensor defective § Connector disconnected § Harness broken
		§ Clean the sensor § Replace the sensor § Reset the connector § Check the harness

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC452-00	D	Paper transfer contact motor error
		Paper transfer contact motor: position sensor cannot detect the sensor filler state within the predetermined time (see below) even if the paper transfer contact motor is rotated. § Contact operation: If not detected in 2000msec § Home position operation: If not detected in 5000msec Signal detection sampling period: 10msec
		§ Sensor dirt § Sensor defection § Motor defection § Unit load large
		§ Replace the contact drive unit § Replace the image transfer unit § Check the harness

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC491-00	D	High voltage power source: charge/development: output error
		SC detection signal (charge/development) is L (abnormal) for 200 ms consecutively during high voltage (charge/development) output.
		H/W error § Output contact setting fault § Controller connector set fault § Ground fault of output high voltage path § Surface/air clearance insufficient (arc discharge) § Controller harness disconnection, short-circuit § PCU setting fault § Control board _IOB error (related signal error) § HVP_CB error Load error § Grounding fault of charging output, short-circuit with other outputs § Surface/air clearance insufficient in charging output path (including distance from other outputs) § Abnormal deterioration of drum, and over current due to pinholes § Drum vs charge roller gap error (PCU error). § Over current due to drum surface condensation § Grounding fault of developing output, short-circuit with other outputs § Surface/air clearance insufficient in developing output path (including distance from other outputs) § Other
		§ Cycle the main power off/on § Reset or replace the harness of high voltage power supply feed path § Reset or replace the harness between IOB-HVP_CB § Reset or replace the PCU § Check the operation of the contact mechanism § Replace the HVP_CB § Replace the IOB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC492-00	C	High voltage power source: image transfer/paper transfer: output error
		SC detection signal (transfer) is L (abnormal) for 200 ms consecutively during high voltage (transfer) output.
		H/W error § Output power connector setting fault § Controller connector setting fault § Output high voltage Harness disconnection § Controller harness disconnection, short-circuit § Transfer unit setting fault § Control board_ IOB error (related signal error) § HVP_TTS error Load error § Increase in paper transfer roller impedance (low temperature environment/impedance rise/impedance rise due to dirt) § Operation fault of paper transfer contact mechanism § Increase in image transfer belt impedance § Opening in load power supply path
		§ Reset or replacement the harness of high voltage power supply feed path § Reset or replace the harness between IOB-HVP_TTS § Reset or replace the transfer unit § Check operation of the contact mechanism § Replace the HVP_TTS § Replace the IOB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC493-00	D	High voltage power source: DS development: output error
		"HVP:DS:output error detection signal" is detected “0” (abnormal) for 10 times consecutively (for 200ms) during output of the PWM signal used as an error detection target
		§ Leak harness fault § Unit fault § High voltage power source fault
		§ Turn the power off/on § Reset or replacement the harness of high voltage power supply feed path § Reset or replace the unit § Replace the high voltage power source

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC497-00	C	Machine temperature detection thermistor error
		Temperature sensor output error: Below 0.56V (90 degrees or more), or above 3.0V (below -18 degrees)
		§ Connector disconnection or broken § Sensor defective
		§ Check the sensor setting § Replace the imaging temperature sensor (thermistor)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC498-00	C	Temperature and humidity sensor error
		Temperature sensor output error: Below 0.76V, or above 2.90V, or Moisture sensor output error: more than 2.4V
		§ Sensor not setting (disconnection or broken) § Sensor defective
		§ Check the sensor setting § Replace the sensor

5.6 SERVICE CALL 501-584

5.6.1 SC500 (ENGINE: PAPER TRANSPORT 1: PAPER FEED, DUPLEX, TRANSPORT)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC501-01	B	1st Tray Lift Error
		The 1st tray lift motor error detection count reaches 3. (Up to 2, reset is displayed)
		§ 1st tray limit sensor connector missing, malfunction, dirt § 1st tray lift motor connector missing, disconnection, malfunction. § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor. § Paper set fault
		§ Reset the paper § Remove the foreign matter 1st tray limit sensor, 1st tray lift motor § Check the harness § Reset the connector § Replacement 1st paper feed unit, 1st tray § Replacement Paper transport IOB § Replacement
SC501-02	B	1st Tray Lowering Error
		The 1st tray descent motor error detection count reaches 5. (Up to 4, reset is displayed)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ 1st tray limit sensor connector missing, malfunction, dirt § 1st tray lift motor connector missing, disconnection, malfunction § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor. § Paper set fault § Paper overload
		§ Reset the paper § Remove the foreign matter 1st tray limit sensor, 1st tray lift motor § Check the harness § Reset the connector § Replacement 1st paper feed unit, 1st tray § Replacement Paper transport IOB § Replacement

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC502-01	B	2nd Tray Lift Error
		The 2nd tray lift motor error detection count reaches 3. (up to 2, reset is displayed)
		§ 2nd tray limit sensor connector missing, malfunction, dirt § 2nd tray lift motor connector missing, disconnection, malfunction § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter 2nd tray limit sensor, 2nd tray lift motor § Check the harness § Reset the connector § Replacement 2nd paper feed unit, 2nd tray § Replacement Paper transport IOB § Replacement
SC502-02	B	2nd Tray Lowering Error
		The detection count of 2nd tray descent motor descent errors reaches a total of 5. (up to 4, reset is displayed)
		§ The 2nd paper feed tray limit sensor connector missing, malfunction, and dirt § 2nd tray lift motor connector missing, disconnection, malfunction § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault § Paper overload
		§ Reset the paper § Remove the foreign matter 2nd tray limit sensor, 2nd tray lift motor § Check the harness § Reset the connector § Replacement 2nd paper feed unit, 2nd tray § Replacement Paper transport IOB § Replacement

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-01	B	3rd Tray Lift Error (single bank)
		§ Lift motor ascent error detection During tray initialization (upper limit not detected/lower limit detection), the tray base plate is raised to check the tray base plate position, and the limit sensor is not detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm
SC503-02	B	3rd Tray Lowering Error (single bank)
		§ Lift motor descent error detection During tray initialization, the tray base plate is lowered to check the tray base plate position, and the limit sensor is detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Paper overload § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm
SC503-11	B	3rd Tray Lift Error (double bank, upper tray)
		§ Lift motor ascent error detection During tray initialization (upper limit not detected/lower limit detection), the tray base plate is raised to check the tray base plate position, and the limit sensor is not detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm
SC503-12	B	3rd Tray Lowering Error (double bank, upper tray)
		§ Lift motor descent error detection During tray initialization, the tray base plate is lowered to check the tray base plate position; the limit sensor is detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Paper overload § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-31	B	3rd Tray Lift Error (LCIT)
		§ Upper limit detection error (during descent) During tray initialization (upper limit detection/lower limit not detected), the tray base plate is lowered to check the tray base plate position, and the limit sensor is detected although a predetermined time elapsed, for 3 times consecutively. § Upper limit detection error (during ascent) During tray initialization (upper limit not detected/lower limit detection), the tray base plate is raised to check the tray base plate position, and the limit sensor is not detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught between the right tray and the tray lift motor § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Base plate damage/horizontality fault § Paper feed roller missing item § Pickup arm damage § Foreign matter, such as paper scrap, is caught inside the right tray

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm § Replace the timing belt § Replace the timing pulley § Replace the base plate
SC503-32	B	3rd Tray Lowering Error (LCIT)
		§ Lower limit detection error (during descent) During tray initialization (upper limit not detected/lower eject limit detection), the tray base plate is lowered to check the tray base plate position, and the lower limit sensor is not detected although a predetermined time elapsed. Alternatively, at paper end, the tray base plate is lowered, but the lower limit sensor is not detected although a predetermined time elapsed. § Lower limit error (during ascent) During tray initialization (upper limit eject detection/lower limit detection), the tray base plate is raised to check the tray base plate position, and the lower limit sensor is detected although a predetermined time elapsed. *If an error occurs 3 times consecutively: LCIT transmits "3rd tray lower limit detection error" to the main machine. Up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Lift motor error/connector missing § Lower limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught between the right tray and the tray lift motor § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Base plate damage/horizontality fault § Foreign matter, such as paper scrap, is caught inside the right tray
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the timing belt § Replace the timing pulley § Replace the base plate
SC503-33	B	3rd Tray Paper Overload Error (LCIT)
		During tray initialization, both the upper limit and lower limit are detected 3 times consecutively. (up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Paper overload § Paper set fault § Limit sensor error/connector missing § Lower limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught inside the right tray
		§ Reset the paper § Remove the foreign matter § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray
SC503-34	B	3rd Tray Paper Position Error (LCIT)
		During left/right tray set, or when power is switched ON, or when transfer is complete, "open" is detected 3 times consecutively by end fence open/close detection. (up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine)
		§ Paper set fault (paper is offset from position for pushing end fence) § Foreign matter entry (foreign matter is caught in the position for pushing end fence) § End fence open/close sensor error/connector missing § Harness broken § Bank control board defective
		§ Reset the paper § Remove the foreign matter § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-35	B	3rd Tray Transfer Error (LCIT)
		§ Transfer end detection error At right tray paper end (right tray lower limit detection, left tray paper detection), left tray paper is transferred to the right tray, but the left tray paper sensor is detected although a predetermined time elapsed (transfer paper missing is not detected), for 3 times consecutively. (up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine)
		§ Transfer motor error/connector missing § Left tray paper sensor error/connector missing § Harness broken § Bank control board defective § Paper overload § Foreign matter, such as paper scrap, is caught between the left tray and the tray transfer motor § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Transfer fence defective § Foreign matter, such as paper scrap, is caught inside the left tray
		§ Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Reset the paper § Remove the foreign matter § Replace the tray § Replace the timing belt § Replace the timing pulley § Replace the transfer fence

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-36	B	3rd Tray Transfer HP Error (LCIT)
		§ HP detection error (during transfer start) At right tray paper end (right tray lower limit detection, left tray paper detection), left tray paper is transferred to the right tray, but the left tray transfer fence HP sensor is detected although a predetermined time elapsed (HP sensor missing cannot be detected) § HP detection error (during transfer fence HP return) During left tray transfer fence HP not detected (stop after paper transfer, during power supply ON, during left tray set), the left tray transfer fence is moved to HP, but the left tray HP sensor is not detected although a predetermined time elapsed. *If an error occurs 3 times consecutively: LCIT transmits "3rd paper feed tray transfer HP error" to the main machine. (up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine)
		§ Transfer motor error/connector missing § Left tray transfer fence HP sensor error/connector missing § Harness broken § Bank control board defective § Paper overload § Foreign matter, such as paper scrap, is caught between the left tray and the tray transport motor § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Transfer fence defective § Foreign matter, such as paper scrap, is caught inside the left tray

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Reset the paper § Remove the foreign matter § Replace the tray § Replace the timing belt § Replace the timing pulley § Replace the transfer fence

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC504-21	B	4th Tray Lift Error (double bank, lower tray)
		§ Lift motor ascent error detection During tray initialization (upper limit not detected/lower limit detection), the tray base plate is raised to check the tray base plate position, but the limit sensor is not detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm
SC504-22	B	4th Tray Lowering Error (double bank, lower tray)
		§ Lift motor descent error detection During tray initialization, the tray base plate is lowered to check the tray base plate position, but the limit sensor is detected although a predetermined time elapsed, for 3 times consecutively. (up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine)
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Paper overload § Foreign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motor § Paper set fault

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional paper feed tray § Replace the tray § Replace the paper feed roller § Replace the pick-up arm

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC505-41	B	Side LCIT Limit Detection Error
		§ Upper limit detection error (during descent) During tray initialization (upper limit detection/lower limit not detected), the tray base plate is lowered to check the tray base plate position, but the limit sensor is detected although a predetermined time elapsed. § Upper limit detection error (during ascent) During tray initialization (upper limit not detected /lower limit detection), the tray base plate is raised to check the tray base plate position, but the limit sensor is not detected although a predetermined time elapsed. *If an error occurs for 3 times consecutively: the side LCIT transmits a "5th paper feed tray upper limit detection error" to the main machine. Up to 2 times consecutively, the side LCIT transmits a "tray set fault" to the main machine.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Lift motor error/connector missing § Limit sensor error/connector missing § Harness broken § Bank control board defective § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Base plate damage/horizontality fault § Paper feed roller missing item § Pickup arm defective § Foreign matter, such as paper scrap, is caught inside the tray
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional side LCT § Replace the tray § Replace the paper feed roller § Replace the pick-up arm § Replace the timing belt § Replace the timing pulley § Replace the base plate

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC505-42	B	Side LCIT Lower Limit Detection Error
		§ Lower limit detection error (during descent) During tray initialization (upper limit not detected /lower limit eject detection), the tray base plate is lowered to check the tray base plate position, but the lower limit sensor is not detected although a predetermined time elapsed. Alternatively, at paper end, the tray base plate is lowered, but the lower limit sensor is not detected although a predetermined time elapsed. § Lower limit detection error (during ascent) During tray initialization (upper limit not detected/lower limit detection), the tray base plate is raised to check the tray base plate position, but the lower limit sensor is detected although a predetermined time elapsed. *If an error occurs for 3 times consecutively: the side LCIT transmits a "5th paper feed tray upper limit detection error" to the main machine. Up to 2 times consecutively, the side LCIT transmits a "tray set fault" to the main machine.
		§ Lift motor error/connector missing § Lower limit sensor error/connector missing § Harness broken § Bank control board defective § Paper set fault § Timing belt damage/dropout § Timing pulley damage/dropout § Base plate damage/horizontality fault § Foreign matter, such as paper scrap, is caught inside the tray

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the paper § Remove the foreign matter § Replace the motor § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional side LCT § Replace the tray § Replace the timing belt § Replace the timing pulley § Replace the base plate
SC505-43	B	Side LCIT Paper Overload Error
		During tray initialization, both the upper limit and lower limit are detected for 3 times consecutively (up to 2 times consecutively, the side LCIT transmits a "tray set fault" to the main machine.
		§ Paper overload § Paper set fault § Limit sensor error/connector missing § Lower limit sensor error/connector missing § Harness broken § Bank control board defective § Foreign matter, such as paper scrap, is caught inside the tray
		§ Reset the paper § Remove the foreign matter § Reset the connector § Replace the harness § Replace the sensor § Replace the control board for the optional side LCT

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC509-00	B	SI By-pass Side Fence Drive Motor Error
		SI by-pass tray performs control to drive the side fence, and bring it against the paper. If the drive does not stop after the maximum drive time set for each operation mode, the error is detected. 1. Side fence contact operation § Drive stop trigger: One side of the fence will be a non-contact state. § Maximum drive time: 1350 msec § Side fence drive motor: CW 2. Side fence pushing operation § Drive stop trigger: Both of the fences will be a contact state. § Maximum drive time: 4200 msec § Side fence drive motor: CCW If the error is detected, a message is displayed "after re-set the paper size in the paper can be pulled through the paper. Should fit the paper guide plate" that. Accumulated count of error detection are 3 (CW) or 13 (CCW), the SC is displayed on the operation panel. In addition, the accumulated count is reset under the following conditions. a Turn the power off/on b If the by-pass side fence is back correct adjustment c Return from sleep
		§ SI by-pass side fence drive motor connector missing, error, step out § SI by-pass side fence paper contact sensor connector missing, error § by-pass paper end sensor error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ SI by-pass side fence drive motor connector reset or replacement § SI by-pass side fence paper contact sensor (front, rear) connector reset or replacement § SI by-pass paper end sensor connector reset or replacement

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC511-00	C	Paper Thickness Sensor Error
		During initial calibration of the paper thickness sensor, the sensor output value does not become the correct value although 3 or more retries are performed.
		§ Paper thickness sensor harness disconnection/connector missing § Dirt on the paper thickness sensor due to paper powder or dust, etc. § Foreign matter adhesion to paper thickness detection unit (1st transport roller)
		-

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC520-01	C	Registration Motor: Lock
SC520-02	C	Paper feed Motor: Lock
SC520-03	C	Transport Motor: Lock
		During motor ON, after checking the motor error notification registers (err_velo and err_posi) for 500msec, the error state of either register was detected at least 5 times.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Encoder defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC521-01	C	Duplex Entrance Motor: Lock
SC521-02	C	Duplex By-pass Motor: Lock
		During motor ON, after checking the motor error notification registers (err_velo and err_posi) for 500msec, the error state of either register was detected at least 5 times.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Encoder defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC522-00	C	Paper Exit Motor: Lock
		During motor ON, after checking the motor error notification registers (err_velo and err_posi) for 500msec, the error state of either register was detected at least 5 times.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Encoder defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC530-00	D	Fusing Exhaust Heat Fan Lock
		In the motor ON state, the value of the lock sensor is checked every 100msec. If a lock signal is not obtained for 50 times consecutively.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the fan

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC531-01	D	Development Intake Fan/Right Lock
SC531-02	D	Development Intake Fan/Left Lock
SC531-03	D	Drive Cooling Fan Lock
		In the motor ON state, the value of the lock sensor is checked every 100msec. If a lock signal is not obtained for 50 times consecutively.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the fan

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC533-01	D	PSU Exhaust Heat Fan Lock
SC533-03	D	PSU Cooling Fan Lock
SC533-04	D	Controller Box Cooling Fan Lock
		In the motor ON state, the value of the lock sensor is checked every 100msec. If a lock signal is not obtained for 50 times consecutively.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the fan

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC534-01	D	Main Exhaust Fan Lock
SC534-02	D	Toner Supply Cooling Fan Lock
SC534-03	D	Ozone Exhaust Fan Lock
		In the motor ON state, the value of the lock sensor is checked every 100msec. If a lock signal is not obtained for 50 times consecutively.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the fan

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC535-00	D	Paper Exit Cooling Fan Lock
		In the motor ON state, the value of the lock sensor is checked every 100msec. If a lock signal is not obtained for 50 times consecutively.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the fan

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC540-00	D	Fusing Motor: Lock
		During motor ON, after checking lock signals for 2sec, a High level was detected at least 20 times.
		§ Motor defective § Connector disconnected § Harness broken § IOB defective § Unit torque increased
		§ Replace the motor § Reset the connector § Replace the harness § Replace the IOB § Replace the unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC541-01	A	Fusing Central Thermopile Disconnection
		Below -50 degrees C (or below CB) is detected for (t11) seconds continuously.
		§ disconnection § Connector disconnected
		§ Replace the thermopile § Reset the connector § Replace the connector § Replace the unit
SC541-02	A	Central NC Sensor Disconnection
		3ED - 3FF (FB voltage: 3.243V-3.300V) is detected for (t13) seconds continuously (NC sensor center: detection & compensation NC sensor edge: detection & compensation). Detection period: 100 ms, detection frequency: 10 times or more.
		§ NC sensor disconnection § Connector disconnected
		§ Reset the NC sensor § Reset the connector § Replace the connector § Replace the unit
SC541-03	A	Central NC sensor short-circuit
		AD value: 0-13 (FB voltage: 0.000V-0.041V) (*3) is detected for (t14) seconds continuously. Detection period: 100 ms, detection frequency: 10 times or more.
		§ NC short-circuit § Connector disconnected

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the NC sensor § Reset the connector § Replace the connector § Replace the unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC542-02	A	Fusing central thermopile does not reload
		(T21) degrees C not reached after heater 1 ON for (t3) seconds
SC542-03	A	Fusing central thermopile does not reload
		Heating central reload permission temperature not reached after heater 1 ON for (t311) seconds.
		§ Thermopile lens dirt § Thermopile modification/float § Outside input voltage guarantee § After excessive temperature rise prevention unit operation
		§ Replace the thermopile § Check that the input voltage is within acceptable limits § Replace the unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
543-00	A	Fusing central thermopile high temperature detection (software)
		Above (T3) degrees C detected for (t4) seconds continuously. Detection period 100ms, detection count: 10 times or more.
		§ Triac short-circuit § IOB board defective § BCU board defective
		§ Replace the IOB board § Replace the BCU board § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC544-01	A	Fusing central thermopile high temperature detection (hardware)
		In the event of an error
		§ Triac defective (short-circuit) § Engine controller defective § Heating central thermopile defective § Fusing control software: out of control
		§ If the triac is defective, replace the AC power supply board § If necessary, replace the BCU or the heating central thermopile

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC544-02	A	Fusing central NC sensor high temperature detection (hardware)
		In the event of an error
		§ Triac defective (short-circuit) § Engine controller defective § Heating central thermopile defective § Fusing control software: out of control
		§ Attach the new fusing unit, then run SP-5-810-002 § If the triac is defective, replace the AC power supply board § If necessary, replace the BCU or the Fusing central NC sensor

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC545-00	A	Fusing central heater continuously Heat
		After waiting for full power for more than (t6) seconds continuously, not detected for (t8) seconds. § Definition of heater full power Continuously heating rate set point (maximum heating rate) § Measurement start point After reload (after heater extinguished, after rotation complete) below the standby temperature (target temperature), measurement starts after a heater heat-up request is issued. § Measurement stop condition Rotation started due to a print signal during measurement or other. § Maximum heat-up Duty (SP interlinked value) 0% is excluded.
		§ Thermistor deformation/float § Heater disconnection § After excessive temperature rise prevention unit operates
		§ Replace the thermistor § Replace the fusing lamp § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC547-01	D	Zero cross error (relay-contact soldering)
		In the event of an error
		§ Fusing relay defective (contact soldering) § Fusing relay drive circuit fault
		§ Turn the main power supply switch OFF/ON § If the fusing relay is damaged, replace the PSU § Check the connection between PSU and control board, and replace harness and board if necessary
SC547-02	D	Zero cross error (relay contact fault)
		In the event of an error
		§ Fusing relay damage (contact open) § Fusing relay drive circuit fault § PSU fuse (24VS) blowout
		§ Turn the main power supply switch OFF/ON § If the fusing relay is damaged, replace the PSU § Check the connection between PSU and control board, and replace harness and board if necessary § If the PSU fuse (24VS) blows out, replace the fuse
SC547-03	D	Zero cross error (low-frequency error)
		In the event of an error
		Frequency instability of commercial power line
		§ Turn the main power supply switch OFF/ON § Check the power source § Check the connection between PSU and control board, and replace harness and board if necessary

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC548-00	A	Fusing Rotation Detection
		During heating, there is no input to the edge of the rotation sensor (t7) ms.
		§ Motor defective § Sensor defective § Sensor actuator/feeler modification/defective
		§ Replace the motor § Replace the sensor § Replace the actuator/feeler § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
549-01	D	Shield Operation Error Detection
		During HP detection operation, shield sensors 1 and 2 detect "High" for (t30) seconds continuously.
549-02	D	Shield Operation Error Detection
		During shield basic operation, shield sensor 2 does not go "Low > High" even if (t31) seconds elapsed from screen motor rotation start.
549-03	D	Shield Operation Error Detection
		During shield basic operation, shield motor does not stop even if (t32) seconds elapsed from rotation start.
549-04	D	Shield Operation Error Detection
		During HP detection operation, HP detection fails 3 times consecutively.
		§ Motor defective § Sensor defective § Sensor actuator/feeler modification/defective § Shield modification/defective

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Replace the motor § Replace the HP sensor § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC551-01	A	Fusing Edge Thermopile Disconnection
		Below -50 degrees C (or below CB) is detected for (t11) seconds continuously.
		§ Thermopile disconnection § Connector disconnected
		§ Replace the thermopile § Reset the connector § Replace the connector § Replace the fusing unit
SC551-02	A	Edge NC Sensor Disconnection
		3ED - 3FF (FB voltage: 3.243V-3.300V) is detected for (t13) seconds continuously (NC sensor center: detection & compensation NC sensor edge: detection & compensation). Detection period: 100 ms, detection frequency: 10 times or more.
		§ NC sensor disconnection § Connector disconnected
		§ Replace the NC sensor § Reset the connector § Replace the connector § Replace the fusing unit
SC551-03	A	Edge NC Sensor Short-circuit
		AD value: 0-13 (FB voltage: 0.000V-0.041V) (*3) is detected for (t14) seconds continuously. Detection period: 100 ms, detection frequency: 10 times or more.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ NC sensor short-circuit § Connector disconnected
		§ Replace the NC sensor § Reset the connector § Replace the connector § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC552-02	A	Fusing Central Thermopile Does Not Reload
		(T21) degrees C not reached after heater 1 ON for (t3) seconds.
SC552-03	A	Fusing Central Thermopile Does Not Reload
		Heating edge reload permission temperature not reached after heater 1 ON for (t312) seconds.
		§ Thermopile lens dirt § Thermopile modification, float § Outside input voltage guarantee § After excessive temperature rise prevention unit operation
		§ Replace the thermopile § Make sure that the input voltage is within acceptable limits § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC553-00	A	Fusing End Thermopile High Temperature Detection (software)
		Above (T3) degrees C detected for (t4) seconds continuously. Detection period: 100ms, detection count: 10 times or more.
		§ Triac short-circuit § IOB defective § BCU defective
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC554-01	A	Fusing end thermopile high temperature detection (hardware)
		In the event of an error
		§ Triac defective (short-circuit) § Engine controller defective § Heating edge thermopile defective § Fusing control software: out of control
		§ If the triac is defective, replace the AC power supply board § If necessary, replace the BCU or heating edge thermopile

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC554-02	A	Fusing end NC sensor high temperature detection (hardware)
		In the event of an error
		§ Triac defective (short-circuit) § Engine controller defective § Heating edge thermopile defective § Fusing control software: out of control
		§ Attach the new fusing unit, then run SP-5-810-002 § If necessary, replace the BCU or Fusing edge NC sensor

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC555-00	D	Fusing Edge Heater Continuously Heat
		After waiting for full power for more than (t6) seconds continuously, not detected for (t8) seconds. § Definition of heater full power Continuously heating rate set point (maximum heating rate) § Measurement start point After reload (after heater extinguished, after rotation complete) below the standby temperature (target temperature), measurement starts after a heater heat-up request is issued. § Measurement stop condition Rotation started due to a print signal during measurement or other § Maximum heat-up Duty (SP interlinked value) 0% is excluded
		§ Thermistor deformation/float § Heater disconnection § After excess temperature rise prevention unit operation
		§ Replace the thermistor § Replace the fusing lamp § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC557-00	C	Zero Cross Frequency Exceeded
		In the event of an error
		Frequency instability of commercial power line/Noise
		-

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC559-00	A	Fusing Jam Detected for 3 Times Consecutively
		Fusing jam (does not reach fusing exit sensor) is detected for 3 times consecutively. § Detection conditions Displays the SC559-00 at the time of integrating the counter each time fusing jam occurs, became fusing jam counter value = 3. The counter value is retained without fusing jam also reset by OFF/ON the power supply. § Control ON/OFF And enables ON / OFF is this SC, the default is set to OFF, then ON at the time of customer requirements. SP1-142-001 0: OFF (default), 1: ON (Set at the time of customer requirements) § Counter reset condition occurs fusing jam 1. Normal paper exit has been done during this continuous fusing jam, fusing jam counter is reset. 2. When "1" is changed to "0" SP1-142-001, to reset the (SP9-912-001) fusing jam counter. 3. When after displaying SC559, SC release is made, reset the (SP9912-001) fusing jam counter.
		Fusing unit paper jam
		Remove the jam

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC561-00	A	Pressurized Central Thermistor Disconnection
		Below 0 degree C (or below 3F9) detected for (t12) seconds continuously. Detection period 100ms, detection count: 10 times or more.
		§ Thermistor disconnection § Connector disconnected
		§ Replace the thermistor § Reset the connector § Replace the connector § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC562-02	A	Pressurized Central Thermistor Does Not Reload
		Does not reach (T21) degree C after heater 1ON for (t3) seconds.
		§ Thermistor dirt § Thermistor deformation, float § Outside input voltage guarantee § After excess temperature rise prevention unit operation
		§ Replace the thermistor § Make sure that the input voltage is within acceptable limits § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC563-00	A	Pressurized Central Thermistor High Temperature Detection (software)
		Above (T3) degrees C detected for (t4) seconds continuously. Detection period: 100ms, detection count: 10 times or more.
		§ Triac short-circuit § IOB defective § BCU defective
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC564-00	A	Pressurized Central Thermistor High Temperature Detection (hardware)
		Above (T4) degrees C detected
		§ Triac short-circuit § IOB controller defective § BCU controller defective § Fusing control: out of control
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC569-00	D	Depressurizing Error Detection
		Retry operation fails 3 times consecutively.
		§ Motor defective § Sensor defective § Filler modification, defective
		§ Replace the motor § Replace the sensor § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC571-00	A	Pressurized Edge Thermistor Disconnection
		Below 0 degree C (or above 3F9) detected for (t12) continuously. Detection period: 100 ms, detection counts: 10 times or more.
		§ Thermistor disconnection § Connector disconnected
		§ Replace the thermistor § Reset the connector § Replace the connector § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC572-04	A	Pressurized Edge Thermistor Does Not Reload
		After starting continuous job with paper width of 257mm or more, does not reach (T22) degrees C after (t313) seconds.
		§ Thermistor dirt § Thermistor deformation, float § Outside input voltage guarantee § After excess temperature rise prevention unit operation
		§ Replace the thermistor § Make sure that the input voltage is within acceptable limits § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC573-00	A	Pressurized Edge Thermistor High Temperature Detection (software)
		Above (T3) degrees C detected for (t4) seconds continuously. Detection period: 100ms, detection count: 10 times or more.
		§ Triac short-circuit § IOB defective § BCU defective
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC574-00	A	Pressurized Edge Thermistor High Temperature Detection (hardware)
		Above (T4) degrees C detected
		§ Triac short-circuit § IOB defective § BCU defective § Fusing control: out of control
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC581-00	A	Pressurized Expanded Edge Thermistor Disconnection
		Below 0 degree C (or above 3F9) detected for (t12) seconds continuously. Detection period: 100ms, detection count: 10 times or more.
		§ Thermistor disconnection § Connector disconnected
		§ Replace the thermistor § Reset the connector § Replace the connector § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC582-04	A	Pressurized Expanded Edge Thermistor Does Not Reload
		After starting continuous job with paper width of 257mm or more, does not reach (T22) degrees C after (t313) seconds.
		§ Thermistor dirt § Thermistor deformation, float § Outside input voltage guarantee § After excess temperature rise prevention unit operation
		§ Replace the thermistor § Make sure that the input voltage is within acceptable limits § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC583-00	A	Pressurized Expanded Edge Thermistor High Temperature Detection (software)
		Above (T3) degrees C detected for (t4) seconds continuously. Detection period: 100ms, detection count: 10 times or more.
		§ Triac short-circuit § IOB defective § BCU defective
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC584-00	A	Pressurized Expanded Edge Thermistor High Temperature Detection (hardware)
		Above (T4) degrees C detected
		§ Triac short-circuit § IOB controller defective § BCU controller defective § Fusing control: out of control
		§ Replace the IOB § Replace the BCU § Replace the fusing unit

5.7 SERVICE CALL 620-689

5.7.1 SC600 (ENGINE: COMMUNICATION AND OTHERS)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC620-01	D	ADF Communication error
		After ADF connection was recognized on startup, an error is detected. (disconnection detection)
SC620-02	D	ADF Communication Error
		After ADF connection was recognized on startup, an error is detected. (Retry out due to communication error)
		§ ADF connection fault § ADF defection § IPU board defection § Noise contamination
		§ Check the ADF cable connection § Replace the ADF § Replace the IPU board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC621-00	D	Finisher communication error
		§ Detected an error when connecting the communication line. § Received a communication error notification from the URAT.
		§ Finisher control board defective. § BCU defective § IOB defective § Connection fault between finisher and main machine.
		§ Reconnect the Finisher interface cable § Replace the BCU § Replace the finisher § Turn the power off/on

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC622-00	D	Paper bank communication error
		§ Detected an error when connecting the communication line. § Received a communication error notification from the URAT.
		§ Paper bank control board defective § BCU defective § IOB defective § Paper bank-main machine connection fault
		§ Reconnect the optional paper tray connection cable § Replace the BCU § Replace the optional paper tray § Turn the power off/on

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC623-00	D	2nd bank communication error
		During superposition of single bank - double bank, double bank - side LICT, and LCIT - side LCIT, 1. When the upper bank side recognizes the lower bank, the break of the lower bank is not canceled within t5ms. 2. After the upper bank side recognizes the lower bank, there is no ACK within t6ms after transmission of a data frame to the lower bank, and a timeout error occurs for 3 times consecutively even if retransmission is performed (Bank/LCIT transmits "between bank 1 - bank 2: communication error" to the main machine.)
		§ Bank control board fault § Connector disconnected
		§ Reset the optional paper tray connecting cable § Replace the BCU § Replace the optional paper tray § Turn the power off/on

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC664		ASIC on the IOB SRAM program expansion error
SC664-01	D	Access permission error to ASIC on the IOB SRAM (write permission fails)
SC664-02	D	Write error to ASIC on the IOB SRAM (write result error)
SC664-03	D	ASIC on the IOB program startup error
		§ Noise § Hardware defection
		§ Replace the imaging IOB and paper transport IOB § Check the harness

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC665		FFC set detection
		FFC set error is detected by port lead and AD value read-out
SC665-01	D	BCU-IPU connection error
		§ SC display § LED blink mode correction on BCU
SC665-02	D	BCU - imaging IOB connection error
		SC display
SC665-03	D	BCU - paper transport IOB connection error
		SC display

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC669		EEPROM Communication Error
SC669-01	D	EEPROM OPEN: ID error
SC669-02	D	EEPROM OPEN: Channel error
SC669-03	D	EEPROM OPEN: Device error
SC669-04	D	EEPROM OPEN: Communication abort error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC669-05	D	EEPROM OPEN: Communication timeout error
SC669-06	D	EEPROM OPEN: Operation stopped error
SC669-07	D	EEPROM OPEN: Buffer full
SC669-08	D	EEPROM OPEN: No error code
SC669-09	D	EEPROM CLOSE: ID error
SC669-10	D	EEPROM CLOSE: No error code
SC669-11	D	EEPROM Data write: ID error
SC669-12	D	EEPROM Data write: Channel error
SC669-13	D	EEPROM Data write: Device error
SC669-14	D	EEPROM Data write: Communication abort error
SC669-15	D	EEPROM Data write: Communication timeout error
SC669-16	D	EEPROM Data write: Operation stopped error
SC669-17	D	EEPROM Data write: Buffer full
SC669-18	D	EEPROM Data write: No error code
SC669-19	D	EEPROM Data read: ID error
SC669-20	D	EEPROM Data read: Channel error
SC669-21	D	EEPROM Data read: Device error
SC669-22	D	EEPROM Data read: Communication abort error
SC669-23	D	EEPROM Data read: Communication timeout error
SC669-24	D	EEPROM Data read: Operation stopped error
SC669-25	D	EEPROM Data read: Buffer full
SC669-26	D	EEPROM Data read: No error code
SC669-27	D	EEPROM Device detection: ID error
SC669-28	D	EEPROM Device detection: Channel error
SC669-29	D	EEPROM Device detection: Device error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC669-30	D	EEPROM Device detection: Communication abort error
SC669-31	D	EEPROM Device detection: Communication timeout error
SC669-32	D	EEPROM Device detection: Operation stopped error
SC669-33	D	EEPROM Device detection: Buffer full
SC669-34	D	EEPROM Device detection: No error code
		§ Electrical noise § EEPROM not connected fully § EEPROM not installed § EEPROM damaged § BCU damaged
		§ Turn the power off/on § Reconnect the EEPROM § Replace the EEPROM § Replace the BCU

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC681-		Toner Cartridge: ID Chip Communication Error
01 - 04	D	Invalid Device ID
06 - 09	D	Channel error
11 - 14	D	Device Error
16 - 19	D	Communication aborted (error during communication)
21 - 24	D	Communication timeout
26 - 29	D	Device stopped (logically stopped)
31 - 34	D	Requested buffer full
36 - 39	D	No error code
		§ When abnormality occurs at cable connection § When error notification was received during communication with the tag and operation is not resumed after 3 retries.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		There was an error during (wired) communication with the ID chip on the toner bottle.
		§ Replace the development unit SC branch number: 01, 06, 11, 16, 21, 26, 31, 36: K 02, 07, 12, 17, 22, 27, 32, 37: M 03, 08, 13, 18, 23, 28, 33, 38: C 04, 09, 14, 19, 24, 29, 34, 39: Y

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC682-		PCU: ID Chip Communication Error
01 - 04	D	Invalid Device ID
06 - 09	D	Channel error
11 - 14	D	Device Error
16 - 19	D	Communication aborted (error during communication)
21 - 24	D	Communication timeout
26 - 29	D	Device stopped (logically stopped)
31 - 34	D	Requested buffer full
36 - 39	D	No error code
		When error notification was received during communication with the tag and operation is not resumed after 3 retries.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ HST sensor defective § EEPROM defective § PCU set error 01 - 04 § Device ID data corruption 06 - 09 § Connection fault (bus disconnect, etc.) 11 - 14 § No ID chip 16 – 19, 21 – 24, 26 - 29 § Noise 31 - 34, 36 - 39 § Software defection
		Replace the PCU

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC687-00	D	PER Not Received Error
		Unable to receive the PER command from the controller.
		Communication error
		Replace the BCU

5.7.2 SC600 (CONTROLLER)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC632-00	B	Counter device error 1
		After 3 attempts to send a data frame to the optional counter device via the serial communication line, no ACK signal was received within 100 ms.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged.
		§ Turn the main power off/on. § Check the serial communication line.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC633-00	B	Counter device error 2
		After communication was established, the controller received the brake signal from the accounting device.
		Serial line between the optional counter device, the relay board and copier control board is disconnected or damaged.
		§ Turn the main power off/on. § Check the serial communication line.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC634-00	B	Counter device error 3
		A backup RAM error was returned by the counter device.
		Counter device control board or the backup battery of counter device defective
		§ Replace the counter device control board. § Replace the backup battery.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC635-00	B	Counter device error 4
		A backup battery error was returned by the counter device.
		Counter device control board or the backup battery of counter device defective
		§ Replace the counter device control board. § Replace the backup battery.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC636-01	D	IC Card Error (Expanded authentication module error)
		Issued when expanded authentication management is set to "ON" but either of the following occur. § There is no expanded authentication module in the machine. § The SD card or the file of the expanded authentication module is broken. § There is no DESS module in the machine.
		§ There is no DESS module in the machine (models on which the function is optional). § There is no expanded authentication module in the machine. § The SD card or the file of the expanded authentication module is broken.
		§ Set a working SD card/expanded authentication module file. § Install the DESS module. § In the SSP mode set SP5-401-160 to 0. § In the SSP mode, set SP5-401-161 to 0. § Replace the NVRAM.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC636-02	D	IC Card Error (Version error)
		The version of the expanded authentication module is not correct.
		Incorrect module version
		Install the correct file of the expanded authentication module.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC636-11	D	IC Card Error (OSM user code file error)
		§ The correct "usercode" file could not be found in the root folder of the SD card. § The "usercode" file on the SD card could not be read.
		§ The "usercode" file does not exist on the SD card. § The "usercode" file on the SD card is an invalid file. § Data in the "usercode" file on the SD card is invalid. § "usercode" file was not moved when moving the application to another SD card
		Use the user code configuration tool for OSM users (Idissuer.exe) to create the "usercode" and store it in the root folder of the SD card containing the IC card module (eccm.mod).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC637-01	D	Tracking Information Notification Error (Tracking application error)
		Tracking information was lost.
		§ Tracking SDK application error § Internal notification error
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC637-02	D	Tracking Information Notification Error (Management server error)
		Tracking information was lost.
		Communication with tracking management server failed. § Network error § tracking management server error § Tracking SDK application error
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-01	B	Remote Service Modem Communication Error (Dialup authentication failure)
		§ An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. § Displayed only when an error is detected while RC Gate is operating. § SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		Dialup authentication failure
		Check the following SPs. § SP5-816-156 § SP5-816-157

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-04	B	Remote Service Modem Communication Error (dialup failing because of incorrect modem configuration)
		§ An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. § Displayed only when an error is detected while RC Gate is operating. § SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		Dialup failing because of incorrect modem configuration
		Check if the setting of SP5-816-160 is correct. If it is correct, then there is a software bug.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-05	B	Remote Service Modem Communication Error (insufficient current or connection fault)
		§ An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. § Displayed only when an error is detected while RC Gate is operating. § SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		Insufficient current or connection fault
		The line is not supported and nothing can be done.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-13	B	Remote Service Modem Communication Error (RC Gate Type Mwas installed but modem is not present (detected during operation))
		§ An error related to communication (dialup connection, modem board etc.) using the RC Gate Type M was detected or an error that prevents RC Gate operation was detected at power on. § Displayed only when an error is detected while RC Gate is operating. § SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		RC Gate Type Mwas installed but modem is not present (detected during operation)
		§ If a modem board is not installed, install it. § Check again if the modem driver configurations (SP5-816-160, SP5-816-165 to 171, SP5-816-165 to 171) are correct. § If the problem is not solved, replace the modem.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-14	B	Remote Service Modem Communication Error (RC Gate Type N was installed but modem is present or wired/wireless LAN is not working correctly)
		§ An error related to communication (dialup connection, modem board etc.) using the RC Gate was detected or an error that prevents RC Gate operation was detected at power on. § Displayed only when an error is detected while RC Gate is operating. § SC is not issued if an error occurs during RC Gate installation (because it can be referenced using SP).
		RC Gate Type N was installed but modem is present or wired/wireless LAN is not working correctly

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ If a modem board is attached, remove it. § Check if wired/wireless LAN works.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC651-01	C	Illegal Remote Service Dial-up (Chat program parameter error)
		An unexpected error occurred when RC Gate Type M dialed up the NRS Center.
		Software bug
		Logging only.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC651-02	C	Illegal Remote Service Dial-up (Chat program execution error)
		An unexpected error occurred when RC Gate dialed up the NRS Center.
		Software bug
		Logging only.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC652-00	D	Remote service ID2 mismatching
		There was an authentication mismatch between ID2 for @Remote, the controller board, and NVRAM.
		§ Used controller board installed § Used NVRAM installed (such action is not allowed.)
		§ If this occurs during RC Gate installation: Check the validity of the certificate and the NVRAM, check the machine serial number, write the common certificate, and then begin installation again. § If this occurs after RC Gate installation: Clear the RC Gate install status, check the validity of the certificate and the NVRAM, check the machine serial number, write the common certificate, and then begin installation again.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC653-00	D	Incorrect remote service ID2
		ID2 stored in the NVRAM has either of the following problems. § Number of characters is not 17. § Includes a character that cannot be printed. § All spaces § NULL
		Replace the NVRAM.
		Clear the RC Gate install status, write the common certificate, and then begin installation again.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC670-00	D	Engine start up error
		§ Case 1 § /ENGRDY signal was not asserted when the machine was turned on or returned from energy saver mode. § /IPURDY signal was not asserted when the machine was turned on or returned from energy saver mode. § EC response was not received within specified time from power on. § PC response was not received within specified time from power on. § SC response was not received within specified time from power on. § Writing to Rapi driver failed (the other party not found through PCI). § Case 2 § Unexpected down status was detected after /ENGRDY assertion.
		§ Case 1 § Engine board does not start up. § Case 2 § Engine board reset unexpectedly.
		Check the connection between the engine board and the controller board. § If it is always reproduced, replace the engine board. If the problem persists, consider replacing the controller board or other boards between them. § If reproducibility is low, multiple causes are to be considered, such as software, engine board, controller board, and PSU.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC672-10	D	Controller start up error
		After the machine was powered on, communication between the controller and the operation panel was not established.
		§ Controller stalled § Board installed incorrectly § Controller board defective § Operation panel connector loose, broken, or defective § Controller late
		§ Turn the main power off/on. § Check the connection of the controller board. § Replace the controller board. § Check the control panel harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC672-11	D	Controller start up error
		After the machine was powered on, communication between the controller and the operation panel was not established, or communication with controller was interrupted after a normal startup.
		§ Controller stalled § Board installed incorrectly § Controller board defective § Operation panel connector loose, broken, or defective § Controller late
		§ Turn the main power off/on. § Check the connection of the controller board. § Replace the controller board. § Check the control panel harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC672-12	D	Controller start up error
		Communication with controller was interrupted after a normal startup.
		§ Controller stalled § Board installed incorrectly § Controller board defective § Operation panel connector loose, broken, or defective § Controller late
		§ Turn the main power off/on. § Check the connection of the controller board. § Replace the controller board. § Check the control panel harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC672-13	D	Controller start up error
		The operation panel detected that the controller is down.
		§ Controller stalled § Board installed incorrectly § Controller board defective § Operation panel connector loose, broken, or defective § Controller late
		§ Turn the main power off/on. § Check the connection of the controller board. § Replace the controller board. § Check the control panel harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC672-99	D	Controller start up error
		The operation panel software ended abnormally.
		§ Controller stalled § Board installed incorrectly § Controller board defective § Operation panel connector loose, broken, or defective § Controller late
		§ Turn the main power off/on. § Check the connection of the controller board. § Replace the controller board. § Check the control panel harness.

5.8 SERVICE CALL 700-792

5.8.1 SC700 (ENGINE: PERIPHERALS)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC700		1-pass ADF error
SC700-01	D	Base Plate Lift Motor Error (1-pass ADF)
SC700-02	D	Original Pick-up Error (1-pass ADF)
SC700-04	D	Paper Feed Motor Error (1-pass ADF)
SC700-05	D	Pullout Motor Error (1-pass ADF)
SC700-06	D	Intermediate Motor Error (1-pass ADF)
SC700-07	D	Scanning Motor Error (1-pass ADF)
SC700-09	D	Paper Exit Motor Error (1-pass ADF)
		-01 Even if the base plate motor is rotated in the base plate ascent direction, the base plate paper feed correct position sensor does not detect. Even if the base plate motor is rotated in the base plate descent direction, the base plate home position sensor does not detect. -02 Even if the pick up arm motor is rotated, the pick up arm home position sensor does not detect. -04, 05, 06, 07, 09 When an error notification signal is detected during the motor drive period.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		-01 § Base plate paper feed correct position sensor error (output error) § Base plate home position sensor error (output error) § Base plate motor error (does not rotate) § Controller error -02 § Pick-up home position sensor error (output error) § Pick-up motor error (does not rotate) § Controller error -04, 05, 06, 07, 09 § Motor defective § Connector disconnected § Harness broken § Overload
		-01, 02 § Check the sensor harness and motor harness connection § Replace the sensor harness and motor harness § Replace the sensor § Replace the motor § Replace the controller -04, 05, 06, 07, 09 § Check the harness connection § Replace the harness § Replace the motor

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC701-02	D	Original Pick-up Motor Driver Error (1-pass ADF)
		When the protective function of motor driver IC detects: § Over current § Heating and an error is output
		Motor driver IC detects an error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Check the motor harness connection § Check of paper scrap in transport path, and foreign matter contamination in drive unit § Replace the motor harness § Replace the motor § Replace the controller
SC701-03	D	Paper Feed Motor Driver Error (ARDF)
		Detection of error signal from motor driver
		§ Encoder disconnection § Encoder connector dropout § Encoder defective § Overload § Motor deterioration
		§ Replace the encoder harness § Check the harness connection § Replace the motor
SC701-08	D	Paper Exit Motor Driver Error (ARDF)
		Detection of error signal from motor driver.
		§ Encoder disconnection § Encoder connector dropout § Encoder defective § Overload § Motor deterioration
		§ Replace the encoder harness § Check the harness connection § Replace the motor

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC702-01	D	Protection Device Intercept Error 1 (ARDF)
		When original source 5V power supply is ON, protection device intercept of 24V power supply system is detected.
		Any of feed motor, transport motor, reverse solenoid, paper feed solenoid, paper feed clutch and FAN motor defective, a harness short-circuit occurs, and the protection device of the 24V power supply system intercepts.
		§ Replace the blown fuse or circuit board § Replace the short-circuited parts
SC702-02	D	Protection Device Intercept Error 2 (ARDF)
		When original source 5V power supply is ON, protection device intercept of 24V OUT power supply system is detected.
		Solenoid defective or harness short-circuit occurs in 24VOUT power supply system.
		§ Replace the blown fuse or circuit board § Replace the short-circuited parts
SC702-03	D	Protection Device Intercept Error 3 (ARDF)
		When original source 5V power supply is ON, protection device intercept of 5VE power supply system is detected.
		Sensor defective or a harness short-circuit occur in 5VE power supply system.
		§ Replace the blown fuse or circuit board § Replace the short-circuited parts
SC702-04	D	Protection Device Intercept Error 4 (1-pass ADF)
		Motor defective in any of the pickup motor, completion stamp, base plate motor or FAN motor, or a harness short-circuit occurs, and the protection device of the non-interlocking power supply system intercepts.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		Motor defective or a harness short-circuit occurs in the non-interlocking power supply system.
		§ Replace the blown fuse or circuit board § Replace the short-circuited parts
SC702-05	D	Protection Device Intercept Error 5 (1-pass ADF)
		Motor defective in the paper feed motor, pullout motor, intermediate motor, scanner motor or paper exit motor, or a harness short-circuit occurs, and the protection device of the interlocking power supply system intercepts.
		Motor defective or a harness short-circuit occurs in the interlocking power supply system.
		§ Replace the blown fuse or circuit board § Replace the short-circuited parts

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720		2K/3K Sheet finisher Error
SC720-03	B	Protection Device Intercept Error 1 (2K/3K sheet finisher)
		Protection device intercept error state (fuse break) is detected.
		§ Short-circuit defective § Overload defective § Motor defective § Solenoid defective
		§ Check the harness § Replace the controller § Replace the motor § Replace the solenoid

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720		2K/3K Sheet finisher Error
SC720-10	B	Entrance Transport Motor Error (2K/3K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720-11	B	Horizontal Transport Motor Error (2K/3K sheet finisher)
SC720-12	B	Prestack Transport Motor Error (2K/3K sheet finisher)
SC720-13	B	Intermediate Transport Motor Error (2K/3K sheet finisher)
SC720-16	B	Paper Exit Motor Error (2K/3K sheet finisher)
		Motor driver detects an error state (DC motor control error). (1st time is jam notification, 2nd time is SC notification)
		§ Motor defective § Connector disconnected § Overload § Encoder defective
		§ Check the motor connection § Replace the motor § Replace the controller

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720		2K/3K Sheet finisher Error
SC720-20	B	Lower Separation Claw Motor Error (2K/3K sheet finisher)
SC720-24	B	Paper Exit Open/Close Guide Plate Motor Error (2K/3K sheet finisher)
SC720-25	B	Punching Motor Error (2K/3K sheet finisher)
SC720-27	B	Punch Displacement Motor Error (2K/3K sheet finisher)
SC720-28	B	Horizontal Registration Detection Displacement Motor Error (2K/3K sheet finisher)
SC720-30	B	Jogger Motor Error (2K/3K sheet finisher)
SC720-33	B	Strike Roller Drive Motor Error (2K/3K sheet finisher)
SC720-41	B	Release Motor Error (2K/3K sheet finisher)
SC720-42	B	Edge Stapler Displacement Motor Error (2K/3K sheet finisher)
SC720-50	B	Booklet Jogger Motor Error (2K/3K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720-51	B	Booklet Adjustment Claw Displacement Motor Error (2K/3K sheet finisher)
SC720-53	B	Booklet Reference Fence Motor Error (2K/3K sheet finisher)
SC720-65	B	Press Folding Motor Error (2K/3K sheet finisher)
SC720-71	B	Shift Motor Error (2K/3K sheet finisher)
SC720-72	B	Shift Jogger Front Motor Error (2K/3K sheet finisher)
SC720-73	B	Shift Jogger Rear Motor Error (2K/3K sheet finisher)
SC720-74	B	Shift Jogger Retreat Motor Error (2K/3K sheet finisher)
SC720-77	B	Edge Guide Motor Error (2K/3K sheet finisher)
		§ Motor driver detects an error (short-circuit/ overheating) (1st time, SC). § During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification).
		§ Motor defective § Connector disconnected § Overload § Encoder defective (*SC720-25 only) § Home position sensor defective
		§ Check the motor § Check the home position sensor connection § Replace the motor § Replace the home position sensor § Replace the controller

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720		2K/3K Sheet finisher Error
SC720-44	B	Edge Stapler Motor Error (2K/3K sheet finisher)
SC720-60	B	Booklet Stapler Motor Error (2K/3K sheet finisher)
SC720-75	B	Reverse Roller Rocking Motor Error (2K/3K sheet finisher)
SC720-78	B	Rear End Press Motor Error (2K/3K sheet finisher)
		§ Motor driver detects an error (DC motor control error) (1st time is jam notification, 2nd time is SC notification) *SC720-75, 78 only. § During movement to home, the home position could not be detected within a predetermined time (t0sec) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined time (t1sec) (1st time is jam notification, 2nd time is SC notification).
		§ Motor defective § Connector disconnected § Overload § Home position sensor defective
		§ Check the motor § Check the home position sensor connection § Replace the motor § Replace the home position sensor § Replace the controller

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720		2K/3K Sheet finisher Error
SC720-62	B	Transfer Roller Transport Motor Error (2K/3K sheet finisher)
SC720-63	B	Folding Transport Motor Error (2K/3K sheet finisher)
		§ SC720-62 Motor driver detects an error (DC motor control error) (1st time is jam notification, 2nd time is SC notification). § SC720-63 Motor driver detects an error (short-circuit/ overheating) (1st time is jam notification, 2nd time is SC notification).
		§ Motor defective § Connector disconnected § Overload § Encoder defective
		§ Check the motor § Replace the motor § Replace the controller

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720-70	B	Folding Transport Motor Error (2K/3K sheet finisher)
		§ Motor controller detects an error (overload) (1st time is jam notification, 2nd time is SC notification). § During descent, the paper surface sensor still detects paper even after a predetermined time (t0sec) elapses (1st time is jam notification, 2nd time is SC notification). § During ascent, the paper surface sensor could not detect the paper surface even after a predetermined time (t1sec) elapses (1st time is jam notification, 2nd time is SC notification).
		§ Motor defective § Connector disconnected § Overload § Home position sensor defective
		§ Check the motor § Check the home position sensor connection § Replace the motor § Replace the home position sensor § Replace the controller

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721		1K Sheet finisher Error
SC721-03	B	Protection Device Intercept Error 1 (1K sheet finisher)
		Fuse blowout is detected
SC721-10	B	Transport Motor 1 Error (1K sheet finisher)
		Motor driver detects an error state (DC motor control error) (1st time is jam notification, 2nd time is SC notification).
SC721-11	B	Transport Motor 2 Error (1K sheet finisher)
		Motor driver detects an error state (DC motor control error) (1st time is jam notification, 2nd time is SC notification).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-17	B	Paper Eject Motor 2 Error (1K sheet finisher)
		Motor driver detects an error state (DC motor control error) (1st time is jam notification, 2nd time is SC notification).
SC721-24	B	Paper Exit Guide Plate Open/Close motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). § The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC721-25	B	Punch Drive Motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined time (t0 sec) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected even after a predetermined time (t1 sec) elapsed (1st time is jam notification, 2nd time is SC notification). § Output from the encoder could not be counted for a predetermined number of times within a predetermined time (t0 sec) (1st time is jam notification, 2nd time is SC notification). § The time to return to home without fail, the time coming from home, and the time for which the encoder output can be counted during normal operation, are taken as t0, t1 and t2.
SC721-27	B	Punch Displacement Motor Error (1K sheet finisher)
SC721-28	B	Punch Horizontal Registration Detection Error (1K sheet finisher)
SC721-30	B	Jogger Motor 1 Error (1K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-33	B	Strike Roller Motor Error (1K sheet finisher)
SC721-41	B	Release Motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected even after a predetermined pulse (p1 pulse) elapsed (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC721-42	B	Stapler Displacement Motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected even after a predetermined pulse (p1 pulse) elapsed (1st time is jam notification, 2nd time is SC notification). § During movement from home, retreat sensor ON could not be detected even after a predetermined pulse (p2 pulse) elapsed (1st time is jam notification, 2nd time is SC notification). § During initialization, retreat sensor ON was detected simultaneously when the home position is detected (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0, p1 and p2.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-44	B	Stapler Motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected even after a predetermined time (t0 sec) elapsed (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected even after a predetermined time (t1 sec) elapsed (1st time is jam notification, 2nd time is SC notification). § During motor drive, the output from the encoder could not be counted for a predetermined number of times within a predetermined time (t0 sec) (1st time is jam notification, 2nd time is SC notification). The time to return to home without fail, the time coming from home, and the time for which the encoder output can be counted during normal operation, are taken as t0, t1 and t2.
SC721-52	B	Folding Plate Drive Motor Error (1K sheet finisher)
		§ Motor driver detects an error (short-circuit and overheating) (1st time is SC). § During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-53	B	Rear End Fence Displacement Motor Error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC721-54	B	Bundle Transport Upper unit motor error (1K sheet finisher)
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC721-58	B	Bundle Transport 1 Release Motor Error (1K sheet finisher)
SC721-59	B	Bundle Transport 2 Release Motor Error (1K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-80	B	Folding Transport Motor Error (1K sheet finisher)
		§ Motor driver detects an error (short-circuit or overheating) (1st time is SC)
SC721-70	B	Tray 1 Lift Motor Error (1K sheet finisher)
		§ Motor driver detects an error (short-circuit or overheating) (1st time is SC). § During descent, the paper surface sensor still detects paper even after a predetermined time (t0sec) elapses (1st time is jam notification, 2nd time is SC notification). § During ascent, the paper surface sensor could not detect the paper surface even after a predetermined time (t0sec) elapses (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
SC721-71	B	Shift Motor 1 Error (1K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ During movement to home, the home position could not be detected within a predetermined pulse (p0 pulse) (1st time is jam notification, 2nd time is SC notification). § During movement from home, the home position was detected for longer than a predetermined pulse (p1 pulse) (1st time is jam notification, 2nd time is SC notification). The return pulse to home and pulse coming from home during normal operation are calculated and measured. The pulses which are 1.5-2 times the normal operation pulse are taken as p0 and p1.
		§ Over current (board defective, harness short-circuit, solenoid defective) (*721-03 only) § Motor defective (*excluding 721-03) § Connector disconnected (*excluding 721-03) § Overload (*excluding 721-03) § Encoder error (*720-10, 11, 17, 25, 44 only) § Home position sensor error (*Excluding 721-03, 10, 11, 17, 70, and 80) § Retreat sensor error (*721-42 only) § Needle jam (*721-44 only) § Home position sensor (folding blade HP) error (*721-52 only) § Home position sensor (folding cam HP) error (*721-52 only) § Paper surface sensor error (*721-70 only)
		§ Replace the controller § Replace the harness § Replace the motor (*excluding SC721-03) § Reset the connector (*excluding SC721-03) § Replace the solenoid (*SC721-03 only) § Replace the home position sensor (*excluding SC721-03, 10, 11, 17, 80)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC724		Internal finisher Error
SC724-24	B	Paper Exit Guide Plate Open/Close Motor Error (Internal finisher)
		§ When paper exit guide plate open/close motor is driven for T3 msec after paper exit guide plate HP sensor ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When paper exit guide plate open/close motor is driven for T4 msec after paper exit guide plate HP sensor OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-25	B	Punch Motor Error (Internal finisher)
		§ When punch motor is driven for T16 msec after punch HP sensor ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When punch motor is driven for T17 msec after punch HP sensor OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-27	B	Punch Displacement Motor Error (Internal finisher)
		§ When punch displacement motor is driven for T18 msec when punch displacement HP sensor is ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When punch displacement motor is driven for T19 msec when punch displacement HP sensor is OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-28	B	Punch Horizontal Registration Detection Motor Error (Internal finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ When horizontal registration displacement motor is driven for T20 msec when horizontal registration displacement HP sensor is ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When horizontal registration displacement motor is driven for T21 msec when horizontal registration displacement HP sensor is OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-31	B	Jogger Front Motor Error (Internal finisher)
		§ When front jogger motor is driven for T22 msec when front jogger HP sensor is ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When front jogger motor is driven for T23 msec when front jogger HP sensor is OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-32	B	Jogger Rear Motor Error (Internal finisher)
		§ When rear jogger motor is driven for T24 msec when rear jogger HP sensor is ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When rear jogger motor is driven for T25 msec when rear jogger HP sensor is OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-33	B	Strike Roller Motor Error (Internal finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ During initialization/strike descent, even when the strike roller motor is driven for T1 msec when the strike roller HP sensor is ON, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § During initialization, even when the strike roller motor is driven for T2 msec when the strike roller HP sensor is OFF, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification). § When the strike roller is lifted from the press position, even when driven for T2 msec, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-38	B	Paper Press Motor Error (Internal finisher)
		§ When the paper press HP sensor is ON and the paper press motor is driven for T14 msec, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § When the paper press HP sensor is OFF and the paper press motor is driven for T15 msec, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-42	B	Stapler Displacement Movable Motor Error (Internal finisher)
		§ Sifter stapler displacement HP sensor ON, even when the stapler displacement motor is driven for T9 msec, the HP sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § After stapler displacement HP sensor OFF, even when the stapler displacement motor is driven for T10 msec, the HP sensor does not switch ON (1st time is jam notification, 2nd time is SC notification).
SC724-70	B	Shift Tray Ascent/Descent Motor Error (Internal finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ During ascent from paper surface sensor ON, even after T11 msec elapses, the paper surface sensor does not switch OFF (1st time is jam notification, 2nd time is SC notification). § During descent from paper surface sensor OFF, the paper surface sensor does not switch ON even after T12 msec elapses (1st time is jam notification, 2nd time is SC notification). § During descent to the packing position, the full sensor does not switch ON even if T13 msec elapses.
SC724-80	B	Shift Motor Error (Internal finisher)
		§ When the shift roller HP sensor is ON, the HP sensor does not switch OFF even when the shift roller motor is driven for T5 msec (1st time is jam notification, 2nd time is SC notification) § When the shift roller HP sensor is OFF, the HP sensor does not switch ON even when the shift roller motor is driven for T6 msec (1st time is jam notification, 2nd time is SC notification).
SC724-86	B	Stapler Motor Error (Internal finisher)
		§ HP sensor does not switch OFF even when the stapler motor is driven for T7 msec after the stapler HP sensor switches ON (1st time is jam notification, 2nd time is SC notification). § HP sensor does not switch ON even when the stapler motor is driven for T8 msec after the stapler HP sensor switches OFF (1st time is jam notification, 2nd time is SC notification).
		§ Motor defective § Connector disconnected § Motor overload § Home position sensor error § Paper surface sensor error (*SC724-38, 70 only) § Staple jam (*SC724-86 only)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Reset the connector § Replace the motor § Replace the sensor § Replace the harness § Remove the staple jam (*SC724-86 only)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC761		Protection Device Intercept Error *V (bridge unit or left paper output tray)
SC761-03	B	Protection Device Intercept Error 5V
SC761-04	B	Protection Device Intercept Error 24V
		Fuse blowout occurs due to over current during power injection (output detected for longer than 2 seconds).
		§ Over current of bridge unit motor § Over current due to short-circuit in PCB
		§ Replace the bridge unit § Replace the PCB

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC780-01	D	Bank 1 (Upper optional paper tray) Protection Device Intercept Error
		When original source of 5V power supply is ON, protection device intercept of 24V power system is detected.
		In 24V power supply system: § Motor defective § Solenoid defective § Harness short- circuit
		§ Replace the PCB § Replace the short-circuited part (harness, motor, solenoid)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC780-01	D	Bank 2 (Lower optional paper tray) Protection Device Intercept Error
		When original source of 5V power supply is ON, protection device intercept of 24V power system is detected.
		In 24V power supply system: § Motor defective § Solenoid defective § Harness short- circuit
		§ Replace the PCB § Replace the short-circuited part (harness, motor, solenoid)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC791-00	D	No bridge unit when finisher is present
		When power supply is switched on or paper is transported, finisher set is detected but bridge unit set is not detected. (during internal finisher connection, not detected)
		§ Bridge unit not attached § Bridge unit defective
		§ Reset the bridge unit § Turn the power off/on

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC792-00	B	No finisher, bridge unit provided
		When power supply is switched on, it is recognized there is no finisher, and a bridge unit is fitted.
		§ Finisher connector set fault § In a machine which has a bridge unit connected, a finisher is not fitted § Finisher defective
		Connect finisher or disconnect bridge unit, and turn the power off/on

5.9 SERVICE CALL 816-899

5.9.1 SC800 (CONTROLLER)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC816	[0x0000]	Energy save I/O subsystem error
SC816-01	D	Subsystem error
SC816-02	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-03	D	Transition to STR was denied.
SC816-04	D	Interrupt in kernel communication driver
SC816-05	D	Preparation for transition to STR failed.
SC816-07	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-08	D	Sysarch (LPUX_ENGINE_TIMERCTRL) error
SC816-09	D	Sysarch (LPUX_RETURN_FACTOR_STR) error
SC816-10	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-11	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-12	D	Sysarch (LPUX_GET_PORT_INFO) error
SC816-13	D	open() error
SC816-14	D	Memory address error
SC816-15	D	open() error
SC816-16	D	open() error
SC816-17	D	open() error
SC816-18	D	open() error
SC816-19	D	Double open() error
SC816-20	D	open() error
SC816-22	D	Parameter error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC816-23	D	read() error
SC816-24	D	read() error
SC816-25	D	read() error
SC816-26	D	write() communication retry error
SC816-27	D	write() communication retry error
SC816-28	D	write() communication retry error
SC816-29	D	write() communication retry error
SC816-30	D	write() communication retry error
SC816-35	D	read() error
SC816-36	D	Subsystem error
SC816-37	D	Subsystem error
SC816-38	D	Subsystem error
SC816-39	D	Subsystem error
SC816-40	D	Subsystem error
SC816-41	D	Subsystem error
SC816-42	D	Subsystem error
SC816-43	D	Subsystem error
SC816-44	D	Subsystem error
SC816-45	D	Subsystem error
SC816-46	D	Subsystem error
SC816-47	D	Subsystem error
SC816--48	D	Subsystem error
SC816--49	D	Subsystem error
SC816--50	D	Subsystem error
SC816--51	D	Subsystem error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC816--52	D	Subsystem error
SC816--53	D	Subsystem error
SC816--54	D	Subsystem error
SC816--55	D	Subsystem error
SC816--56	D	Subsystem error
SC816--57	D	Subsystem error
SC816--58	D	Subsystem error
SC816--59	D	Subsystem error
SC816--60	D	Subsystem error
SC816--61	D	Subsystem error
SC816--62	D	Subsystem error
SC816--63	D	Subsystem error
SC816--64	D	Subsystem error
SC816--65	D	Subsystem error
SC816--66	D	Subsystem error
SC816--67	D	Subsystem error
SC816--68	D	Subsystem error
SC816--69	D	Subsystem error
SC816--70	D	Subsystem error
SC816--71	D	Subsystem error
SC816--72	D	Subsystem error
SC816--73	D	Subsystem error
SC816--74	D	Subsystem error
SC816--75	D	Subsystem error
SC816--76	D	Subsystem error

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC816--77	D	Subsystem error
SC816--78	D	Subsystem error
SC816--79	D	Subsystem error
SC816--80	D	Subsystem error
SC816--81	D	Subsystem error
SC816--82	D	Subsystem error
SC816--83	D	Subsystem error
SC816--84	D	Subsystem error
SC816--85	D	Subsystem error
SC816--86	D	Subsystem error
SC816--87	D	Subsystem error
SC816--88	D	Subsystem error
SC816--89	D	Subsystem error
SC816--90	D	Subsystem error
SC816--91	D	Subsystem error
SC816--92	D	Subsystem error
SC816--93	D	Subsystem error
SC816--94	D	Subsystem error
		Energy save I/O subsystem detected some abnormality.
		§ Energy save I/O subsystem defective § Energy save I/O subsystem detected a controller board error (non-response). § Error was detected during preparation for transition to STR.
		§ Turn the main power off/on. § Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC840-00	D	EEPROM access error
		An error occurred during I/O processing. § A read error occurred and 3 retries failed. § A write error occurred.
		EEPROM defective or end-of-life
		-

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC841-00	D	EEPROM read data error
		Compared the data from 3 areas of the EEPROM mirror data with the original data and all 3 of them were different from the original data.
		Data in the specific area of the EEPROM has been modified.
		-

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC842-00	C	Nand-Flash updating verification error
		During remote ROM update or ROM update, the SCS detected a write error (verify error) regarding the data written to the Nand-Flash.
		Nand-Flash damaged
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC842-01	B	Nand-Flash bad block number exceeding the threshold
		When the status of the Nand-Flash was checked at power-on or when returning from energy saver mode, the number of bad blocks exceeded the threshold.
		Nand-Flash bad block number exceeding the threshold
		Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC842-02	B	Number of times of Nand-Flash block erase exceeding the threshold
		When the status of the Nand-Flash was checked at power-on or when returning from energy saver mode, the number of times the block was erased exceeded the threshold.
		Number of times of Nand-Flash block erase exceeding the threshold
		Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC853-00	B	Bluetooth device connection error
		The Bluetooth hardware (USB type) was connected after the machine was turned on.
		The Bluetooth hardware (USB type) was connected after the machine was turned on.
		Turn the main power with the Bluetooth hardware (USB type) connected.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC854-00	B	Bluetooth device disconnected
		The Bluetooth hardware (USB type) was disconnected after the machine was turned on.
		The Bluetooth hardware (USB type) was disconnected after the machine was turned on.
		Turn the main power with the Bluetooth hardware (USB type) connected.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC855-01	B	Wireless LAN board error (driver attachment failure)
		Wireless LAN board error (wireless LAN card: 802.11 is covered)
		§ Defective wireless LAN board § Loose connection
		§ Turn the main power off/on. § Replace wireless LAN board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC855-02	B	Wireless LAN board error (driver initialization failure)
		Wireless LAN board error (wireless LAN card: 802.11 is covered)
		§ Defective wireless LAN board § Loose connection
		§ Turn the main power off/on. § Replace wireless LAN board

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC857-00	B	USB I/F Error
		The USB interface is unusable because of a driver error.
		USB driver error (There are three causes of USB error: RX error/CRC error/STALL. SC is issued only in the case of STALL.)
		§ Check USB connection. § Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC858-01	-	Data encryption conversion error (HDD Key Setting Error)
		A serious error occurred during an attempt to update the encryption key.
		§ Data in the USB Flash etc. corrupted § Communication error because of electromagnetic interference etc. § Controller board defective
		Replace the board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC858-02	A	Data encryption conversion error (NVRAM read/write error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		NVRAM defective
		Replace the board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC858-30	A	Data encryption conversion error (NVRAM Before Replace error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		Software error such as conversion parameters being invalid.
		Replace the board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC858-31	A	Data encryption conversion error (Other Error)
		A serious error occurred after data conversion during an attempt to update the encryption key.
		Controller board defective
		Replace the board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC859-01	B	Data encryption conversion HDD conversion error (HDD check error)
		HDD was not converted correctly during an attempt to update the encryption key. Only an error screen is displayed and no SC is issued during conversion. This SC is issued after machine restart.
		§ HDD conversion was selected in the Encryption key update function but the machine was turned on with the HDD removed. § Power failure occurred during encryption key update. § HDD was not successfully converted during encryption key update due to HDD errors or cable noises.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Check HDD connection. § Format the HDD. § If there is a problem with the HDD, it has to be replaced.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC859-02	B	Data encryption conversion HDD conversion error (Power failure during conversion)
		HDD was not converted correctly during an attempt to update the encryption key. Only an error screen is displayed and no SC is issued during conversion. This SC is issued after machine restart. Details: NVRAM/HDD conversion is incomplete.
		Power failure occurred during encryption key update.
		None The display after restart instructs the user to format the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC859-10	B	Data encryption conversion HDD conversion error (Data read/write command error)
		HDD was not converted correctly during an attempt to update the encryption key. Only an error screen is displayed and no SC is issued during conversion. This SC is issued after machine restart. Details: Abnormal DMAC return value has been received two or more times (DMAC timeout, serial communication error etc.)
		HDD was not successfully converted during encryption key update due to HDD errors or cable noises.
		§ Check HDD connection. § Format the HDD. § If there is a problem with the HDD, it has to be replaced.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC860-00	B	HDD startup error at main power on (HDD error)
		§ The HDD is connected but the driver detected the following errors. § SS_NOT_READY:/* (-2)HDD does not become READY*/ § SS_BAD_LABEL:/* (-4)Wrong partition type*/ § SS_READ_ERROR:/* (-5)Error occurred while reading or checking the label*/ § SS_WRITE_ERROR:/* (-6)Error occurred while writing or checking the label*/ § SS_FS_ERROR:/* (-7)Failed to repair the filesystem*/ § SS_MOUNT_ERROR:/* (-8)Failed to mount the filesystem*/ § SS_COMMAND_ERROR:/* (-9)Drive not responding to command*/ § SS_KERNEL_ERROR:/* (-10)Internal kernel error*/ § SS_SIZE_ERROR:/* (-11)Drive size too small*/ § SS_NO_PARTITION:/* (-12)The specified partition does not exist*/ § SS_NO_FILE:/* (-13)Device file does not exist*/ § Attempted to acquire HDD status through the driver but there has been no response for 30 seconds or more.
		§ Unformatted HDD § Label data corrupted § HDD defective
		Format the HDD through SP mode.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-01	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in an area that does not belong to a partition, such as the disklabel area.)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-02	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "a".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-03	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "b".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-04	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "c".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-05	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "d".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-06	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "e".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-07	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "f".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-08	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "g".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-09	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "h".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-10	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "i".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-11	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "j".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-12	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "k".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-13	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "l".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-14	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "m".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-15	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "n".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-16	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "o".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-17	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "p".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-18	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "q".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-19	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "r.)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-20	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "r.)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-21	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "t)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-22	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "u".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC863-23	D	HDD data read failure
		The data written to the HDD cannot be read normally.
		Bad sectors were generated during operation. (An error occurred in partition "y".)
		Guide for when to replace the HDD 1. When SC863 has occurred ten times or more § The interval is short. § Repeatedly occurs in the same situation (At power-on, etc.). § Startup takes a long time when the main power is turned on. 2. It takes a long time after main power on for the operation panel to become ready. HDD access may be consuming time. Normal HDD access time after main power on is about 5 seconds. If the machine is not waiting for the engine to be ready and it still takes 20 to 30 seconds or more, the HDD may be the cause. If there is a problem with the HDD, HDD-related SCs such as SC860 and SC863 will occur frequently. Print the SC log data and check them.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-01	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in an area that does not belong to a partition, such as the disklabel area.)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-02	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "a".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-03	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "b".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-04	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "c".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-05	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "d".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-06	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "e".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-07	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "f".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-08	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "g".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-09	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "h".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-10	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "i".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-11	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "j".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-12	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "k".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-13	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "l".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-14	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "m".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-15	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "n".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-16	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "o".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-17	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "p".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-18	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "q".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-19	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "r".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-20	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "s".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-21	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "t".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-22	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "u".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC864-23	D	HDD data CRC error
		During HDD operation, the HDD returned a CRC error.
		Bad sectors were generated during operation. (An error occurred in partition "v".)
		§ Format the HDD. § Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-00	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error).
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-01	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in an area that does not belong to a partition, such as the disklabel area.)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-02	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "a".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-03	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "b".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-03	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "c".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-05	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "d".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-06	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "e".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-07	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "f".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-08	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "g".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-09	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "h".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-10	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "i".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-11	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "j".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-12	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "k".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-13	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "l".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-14	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "m".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-15	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "n".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-16	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "o".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-17	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "p".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-18	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "q".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-19	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "r".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-20	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "s".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-21	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "t".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-22	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "u".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC865-23	D	HDD access error
		During HDD operation, the HDD returned an error.
		The HDD returned an error that does not constitute SC863 (bad sector) or SC864 (CRC error). (An error occurred in partition "v".)
		Replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC866-00	B	SD card authentication error
		A license error of an application that is started from the SD card was detected.
		Invalid program data is stored on the SD card.
		Store a valid program data on the SD card.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC867-00	D	SD card removed
		The SD card that starts an application was removed from the slot.
		The SD card that starts an application was removed from the slot (mount point of /mnt/sd0).
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC867-01	D	SD card removed
		The SD card that starts an application was removed from the slot.
		The SD card that starts an application was removed from the slot (mount point of /mnt/sd1).
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC867-02	D	SD card removed
		The SD card that starts an application was removed from the slot.
		The SD card that starts an application was removed from the slot (mount point of /mnt/sd2).
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC868-00	D	SD card access error
		The SD controller returned an error during operation. (Error occurred at the mount point of /mnt/sd0)
		§ SD card defective § SD controller defective
		§ Reformat the SD card (using the "SD Formatter" made by Panasonic).* § Check the SD card insertion status. § Replace the SD card. § Replace the controller board.

* Do not format an SD card supplied with the main machine or sold as an option. You may only format SD cards used for Firmware Update by a Customer Engineer.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC868-01	D	SD card access error
		The SD controller returned an error during operation. (Error occurred at the mount point of /mnt/sd1)
		§ SD card defective § SD controller defective
		SD card that starts an application § Turn the main power off and check the SD card insertion status. § If no problem is found, insert the SD card and turn the main power on. § If an error occurs, replace the SD card. § SD card for users § In case of a file system error, reformat the SD card (using the "SD Formatter" made by Panasonic).* § In case of a device access error, turn the main power off and check the SD card insertion status. § If no problem is found, insert the SD card and turn the main power on. § If an error occurs, use another SD card. § If the error persists

* Do not format an SD card supplied with the main machine or sold as an option. You may only format SD cards used for Firmware Update by a Customer Engineer.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC868-02	D	SD card access error
		The SD controller returned an error during operation. (Error occurred at the mount point of /mnt/sd1)
		§ SD card defective § SD controller defective

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		SD card that starts an application § Turn the main power off and check the SD card insertion status. § If no problem is found, insert the SD card and turn the main power on. § If an error occurs, replace the SD card. § SD card for users § In case of a file system error, reformat the SD card (using the "SD Formatter" made by Panasonic).* § In case of a device access error, turn the main power off and check the SD card insertion status. § If no problem is found, insert the SD card and turn the main power on. § If an error occurs, use another SD card. § If the error persists

* Do not format an SD card supplied with the main machine or sold as an option. You may only format SD cards used for Firmware Update by a Customer Engineer.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC870-00	B	Address Book data error (Anytime: Address Book Error.)
SC870-01	B	Address Book data error (On startup: Media required for storing the Address Book is missing.)
SC870-02	B	Address Book data error (On startup: encryption is configured but the module required for encryption (DESS) is missing.)
SC870-03	B	Address Book data error (Initialization: Failed to generate a file to store internal Address Book.)
SC870-04	B	Address Book data error (Initialization: Failed to generate a file to store delivery sender.)
SC870-05	B	Address Book data error (Initialization: Failed to generate a file to store delivery destination.)
SC870-06	B	Address Book data error (Initialization: Failed to generate a file to store information required for LDAP search.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC870-07	B	Address Book data error (Initialization: Failed to initialize entries required for machine operation.)
SC870-08	B	Address Book data error (Machine configuration: HDD is present but the space for storing the Address Book is unusable.)
SC870-09	B	Address Book data error (Machine configuration: Inconsistency in the NVRAM area used for storing settings required for Address Book configuration.)
SC870-10	B	Address Book data error (Machine configuration: Cannot make a directory for storing the Address Book in the SD/USB FlashROM.)
SC870-11	B	Address Book data error(On startup: Inconsistency in Address Book entry number.)
SC870-20	B	Address Book data error (File I/O: Failed to initialize file.)
SC870-21	B	Address Book data error (File I/O: Failed to generate file.)
SC870-22	B	Address Book data error (File I/O: Failed to open file.)
SC870-23	B	Address Book data error (File I/O: Failed to write to file.)
SC870-24	B	Address Book data error (File I/O: Failed to read file.)
SC870-25	B	Address Book data error (File I/O: Failed to check file size.)
SC870-26	B	Address Book data error (File I/O: Failed to delete data.)
SC870-27	B	Address Book data error (File I/O: Failed to add data.)
SC870-30	B	Address Book data error (Search: Failed to obtain data from cache when searching in the machine Address Book. delivery destination/sender.)
SC870-31	B	Address Book data error (Search:Failed to obtain data from cache during LDAP search.)
SC870-32	B	Address Book data error (Search:Failed to obtain data from cache while searching the WS-Scanner Address Book.)
SC870-41	B	Address Book data error (Cache: failed to obtain data from cache.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC870-50	B	Address Book data error (On startup: Detected abnormality of the Address Book encryption status.)
SC870-51	B	Address Book data error (Encryption settings: Failed to create directory required for conversion between plaintext and encrypted text.)
SC870-52	B	Address Book data error (Encryption settings: Failed to convert from plaintext to encrypted text.)
SC870-53	B	Address Book data error (Encryption settings: Failed to convert from encrypted text to plaintext.)
SC870-54	B	Address Book data error (Encryption settings: Detected data inconsistency when reading the encrypted Address Book.)
SC870-55	B	Address Book data error (Encryption settings: Failed to delete file when changing encryption setting.)
SC870-56	B	Address Book data error (Encryption settings: Failed to erase the file that records the encryption key during an attempt to change the encryption setting.)
SC870-57	B	Address Book data error (Encryption settings: Failed to move a file during an attempt to change the encryption setting.)
SC870-58	B	Address Book data error (Encryption settings: Failed to delete a directory during an attempt to change the encryption setting.)
SC870-59	B	Address Book data error (Encryption settings: Detected a resource shortage during an attempt to change the encryption setting.)
SC870-60	B	Address Book data error (Unable to obtain the on/off setting for administrator authentication (06A and later).)
		When an error related to the Address Book is detected during startup or operation.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		§ Software bug § Inconsistency of Address Book source location (machine/delivery server/LDAP server) § Inconsistency of Address Book encryption setting or encryption key (NVRAM or HDD was replaced individually without formatting the Address Book) § Address Book storage device (SD/HDD) was temporarily removed or hardware configuration does not match the application configuration. § Address Book data corruption was detected.
		§ Check the HDD connection. § Initialize all UCS settings and address/authentication information (SP5-846-046). § Initialize the Address Book partition (SP5-832-006).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC872-00	B	HDD mail reception error
		An error was detected on the HDD immediately after the machine was turned on.
		§ HDD defective § Power was turned of while the machine used the HDD.
		§ Format the HDD (SP5-832-007). § Replace the HDD. When you do the above, the following information will be initialized. § Partly received partial mail messages. § Already-read statuses of POP3-received messages (All messages on the mail server are handled as new messages).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC873-00	B	HDD mail reception error
		An error was detected on the HDD immediately after the machine was turned on.
		§ HDD defective § Power was turned of while the machine used the HDD.
		§ Format the HDD (SP5-832-007). § Replace the HDD. When you do the above, the following information will be initialized. § Default sender name/password (SMB/FTP/NCP) § Administrator mail address § Scanner delivery history

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC875-01	D	Delete all error (HDD erasure) (hddchack –i error)
SC875-02	D	Delete all error (HDD erasure) (Data deletion failure)
		An error was detected before HDD/data erasure starts. (Failed to erase data/failed to logically format HDD)
		§ HDD logical formatting failed. § The modules failed to erase data.
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-01	D	Log Data Error 1
		An error was detected in the handling of the log data at power on or during machine operation.
		Damaged log data file
		Initialize the HDD (SP5-832-004).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-02	D	Log Data Error 2
		An error was detected in the handling of the log data at power on or during machine operation.
		Log encryption is enabled but encryption module is not installed.
		§ Replace or set again the encryption module. § Disable the log encryption setting.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-03	D	Log Data Error 3
		An error was detected in the handling of the log data at power on or during machine operation.
		Inconsistency of encryption key between NV-RAM and HDD.
		§ Disable the log encryption setting. § Initialize LCS memory (SP5801-019). § Initialize the HDD (SP5-832-004).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-04	D	Log Data Error 4
		An error was detected in the handling of the log data at power on or during machine operation.
		§ Log encryption key is disabled but the log data file is encrypted. (NVRAM data corruption) § Log encryption key is enabled but the log data file is not encrypted. (NVRAM data corruption)
		Initialize the HDD (SP5-832-004).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-05	D	Log Data Error 5
		An error was detected in the handling of the log data at power on or during machine operation.
		§ Only the NV-RAM has been replaced with one previously used in another machine. § Only the HDD has been replaced with one previously used in another machine.
		§ Attach the original NV-RAM. § Attach the original HDD. § With the configuration that caused the SC, initialize the HDD (SP5-832-004).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC876-99	D	Log Data Error 99
		An error was detected in the handling of the log data at power on or during machine operation.
		Other causes
		-

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC877-00	B	Data Overwrite Security card error
		The "Auto Erase Memory" function of the Data Overwrite Security is set to on but it cannot be done.
		§ Data Overwrite Security option SD card is broken. § Data Overwrite Security option SD card has been removed.
		§ If the SD card is broken, prepare a new Data Overwrite Security option SD card and replace the NVRAM. § If the SD card has been removed, turn the main power off and reinstall a working Data Overwrite Security option SD card.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC878-00	D	TPM electronic authentication error
		The machine failed TPM electronic authentication. System hash registered in the TPM did not match the data on the USB flash.
		§ System module was updated in an unauthorized manner. § USB flash is not working correctly.
		Replace the board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC878-01	D	USB Flash error
		USB Flash file system error
		USB Flash file system has been destroyed.
		Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC878-02	D	TPM error
		Error occurred in the TPM or TPM driver.
		TPM defective
		Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC878-03	D	TCSD error
		Error occurred in TPM software stack.
		§ Unable to start TPM § Necessary files missing from the TPM.
		Replace the controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC880-00	D	MLB error
		Reply to MLB access was not returned within a specified time.
		MLB defective
		§ Replace the MLB. § Remove the MLB.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC881-01	D	Authentication area error
		§ Software error detected. § This error may occur even if IC card option (ERIE/AYU/Greenland etc.) is not installed.
		§ This is caused by accumulation of abnormal authentication information in the software. (User operation will not directly cause it.) § Occurs when authentication is done. Example: When a job is sent to the printer/when logged on from the operation panel/when logged on from a Web browser
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC882-01	D	Cheetah Operation Panel error (Cheetah Operation Panel Software Invalid error)
		Occurs when the validity of the operation unit is not observed.
		§ Memory corruption of the operation panel software. § Invalid applications are listed in the operation panel.
		§ Format the Operation panel through SP mode § Updating the firmware

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC899-00	D	Software performance error (signal reception end)
		-
		Occurs when an internal program behaves abnormally.
		In case of a hardware defect § Replace the hardware. In case of a software error § Turn the main power off/on. § Try updating the firmware.

5.10 SERVICE CALL 900-998

5.10.1 SC900 (ENGINE: OTHERS)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC995-01	D	CPM setting error 1
		Comparison of machine serial number (11 digits) and machine identification code. Details: § Machine serial number cannot be identified because of BICU replacement or malfunctioning. § Machine serial number cannot be identified because of NV-RAM replacement
		machine serial number (11 digits) or machine identification code does not match.
		§ Enter the machine serial number using SP5-811, and then turn the power on/off. § Attach the NV-RAM that was installed previously.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC995-02	D	CPM setting error 2
		Comparison of machine serial number (11 digits) and machine identification code. Details: Machine serial number cannot be identified because of NV-RAM replacement or malfunctioning.
		machine serial number (11 digits) or machine identification code does not match.
		§ Attach the NV-RAM that was installed previously. § Download data on the NV-RAM using SP5-825.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC995-03	D	CPM setting error 3
		Comparison of machine serial number (11 digits) and machine identification code. Details: Unable to recognize machine identification code because the controller was replaced incorrectly or is malfunctioning.
		machine serial number (11 digits) or machine identification code does not match.
		Replace it with a specified controller.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC995-04	D	CPM setting error 4
		Comparison of machine serial number (11 digits) and machine identification code.
		machine serial number (11 digits) or machine identification code does not match.
		Return the parts to the original configuration, and then replace them according to the manual.

5.10.2 SC900 (CONTROLLER)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC900-00	D	Electric counter error
		The electric total counter value is out of specification. Error is detected when increasing the total counter.
		§ Unexpected NV-RAM is attached. § NV-RAM defective § NV-RAM data corrupted. § Data written to unexpected area because of external factor etc. § The count requested by the SRM on receiving PRT is not completed.
		Replace the NV-RAM.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC910-00	B	External Controller Error 1
		Notification from external application (external controller)
		Subject to external application (external controller) specification
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC911-00	B	External Controller Error 2
		Notification from external application (external controller)
		Subject to external application (external controller) specification
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC912-00	B	External Controller Error 3
		Notification from external application (external controller)
		Subject to external application (external controller) specification
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC913-00	B	External Controller Error 4
		Notification from external application (external controller)
		Subject to external application (external controller) specification
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC914-00	B	External Controller Error 5
		Notification from external application (external controller)
		Subject to external application (external controller) specification
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC915-01	A	External Controller Error 6 (Egret board error)
SC915-02	A	External Controller Error 6 (HDD serial communication error)
SC915-03	A	External Controller Error 6 (CPU temperature rise)
SC915-04	A	External Controller Error 6 (Unable to communicate with GW controller because invalid command was received)
SC915-05	A	External Controller Error 6(Unable to communicate with GW controller because of an error)
		Notification from external application (external controller)
		Notification from external application (external controller)
		Replace the Egret controller board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC919-00	D	External controller down
		While EAC (External Application Converter), the conversion module, was operating normally, the receipt of a power line interrupt signal from the FLUTE serial driver was detected, of BREAK signal from the other station was detected.
		External controller and the machine had been operating correctly (*) but the external controller was turned off or rebooted, or the video bus was disconnected. * Printing or scanning using the external controller.
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC920-00	B	Printer application error (No response at PM startup)
SC920-01	B	Printer application error (Timeout during PM operation)
SC920-02	B	Printer application error (Unable to obtain work memory)
SC920-03	B	Printer application error (Unable to start filter process)
SC920-04	B	Printer application error (Abnormal termination of filter process)
		When an error is detected in the application, which makes continued operation impossible.
		§ Software bug § Unexpected hardware configuration (such as insufficient memory)
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC921-00	B	Printer application error (Resident font not found)
		Resident font was not found at printer startup.
		Preinstalled font files not found.
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC921-01	B	Printer application error (Optional font not found)
		Optional font required by an emulation was not found at printer startup.
		Optional emulation font not found
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC925-00	B	NetFile function error
SC925-01	B	NetFile function error
		The NetFile file management on the HDD cannot be used, or a NetFile management file is corrupted and operation cannot continue.
		§ HDD defective § HDD inconsistency caused by power failure during HDD access, etc. § Software bug
		If another SC related to HDD errors (SC860 to SC865) is issued at the same time, the HDD is the cause. Solve the other SC. § If SC860 to SC865 is not issued § Turn the main power off/on. § If this does not work, initialize the HDD NetFile partition (SP5-832-011). Approval by the customer is required because received fax message waiting to be delivered and documents waiting to be captured will be lost. Procedure: 1. Go into the User Tools mode and do "Delivery Settings" to print all received fax documents that are scheduled for delivery. Then erase them. 2. In the User Tools mode, do Document Management> Batch Delete Transfer Documents. 3. Do SP5832-011, then turn the machine power off and on. § If this does not solve the problem, initialize all partitions of the HDD (SP5-832-001), then turn the machine power off and on. Approval by the customer is required because documents and Address Book information in the HDD will be lost. Received fax messages stored are protected but the order may be changed. § If this does not solve the problem, replace the HDD.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC990-00	D	Software operation error
		Software attempted an unexpected operation.
		§ Parameter error § Internal parameter error § Insufficient work memory § Operation error caused by abnormalities that are normally undetectable.
		§ Turn the main power off/on. § Reinstall the software of the controller and BICU board.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC991-00	C	Recoverable software operation error
		Software attempted an unexpected operation. SC991 covers recoverable errors as opposed toCS990.
		§ Parameter error § Internal parameter error § Insufficient work memory § Operation error caused by abnormalities that are normally undetectable.
		Logging only

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC992-00	D	Undefined SC issued.
		An SC, that is not controlled by the system, occurred.
		§ An SC for the previous model was used mistakenly, etc. § Basically a software bug.
		Turn the main power off/on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC994-00	C	Operation error caused by abnormalities that are normally undetectable.
		An error occurred because the number of records exceeded the limit for images managed in the service layer of the firmware.
		This can occur if there are too many application screens open on the operation panel.
		Logging only.

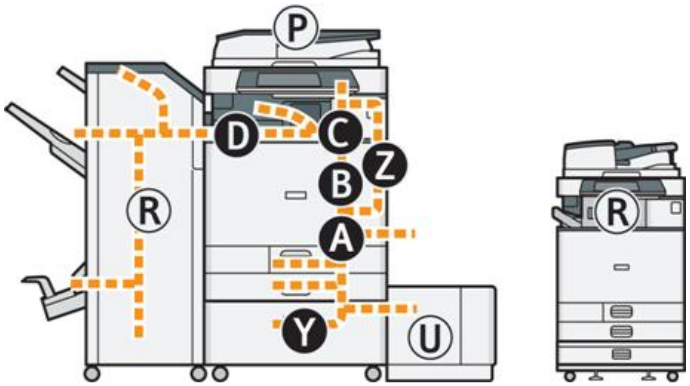
SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC997-00	D	Application function selection error
		The application selected by the operation panel key operated abnormally (No response, abnormal ending).
		Software bug (mainly the application)
		§ Check the optional RAM, DIMM, boards required by the application program. § Check if the combination of downloaded programs are correct.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC998-00	D	Application start error
		§ No application was registered to system within a specified time after the main power was turned on. (No application starts/All applications have been terminated abnormally) § Application started but cannot be drawn now for some reason.
		§ Software bug (mainly the application) § The optional RAM, DIMM, boards required by the application program. Are not installed correctly.
		§ Turn the main power off/on. § Check the optional RAM, DIMM, boards § Check the combination of programs § Replace the controller board.

5.11 JAM DETECTION

5.11.1 JAM DISPLAY

When a jam occurs, the cause position will blink.



d1462640

Paper Jam Display

```
CODE  :  011
SIZE  :  005
TOTAL :  0000334
DATE  :  Mon Jan 21 11:44:50 2008
```

§ CODE: Indicates the jam code.

§ SIZE: Indicates the paper size code.

§ TOTAL: Indicates the total counter (SP7-502-001).

§ DATE: Indicates the date when the jam occurred.

Note

§ The jam history of the 10 latest jams is displayed.

§ The first jam is not included in the history record.

5.11.2 JAM CODES AND DISPLAY CODES

Note

- Cause code: Jam cause code displayed by log data
- Display code: Jam position displayed on control panel

ARDF DF3090

Cause code	Cause of jam	Display code
14	Paper did not reach projection sensor	P
64	Paper held up at projection sensor	P
16	Paper did not reach registration sensor	P
66	Paper held up at registration sensor	P
17	Paper did not reach output sensor	P
67	Paper held up at output sensor	P
239	Misfeed:Original Removed	P

SPDF DF3080

Cause code	Cause of jam	Display code
13	Paper did not reach separating sensor	P
63	Paper held up at separating sensor	P
14	Paper did not reach projection sensor	P
64	Paper held up at projection sensor	P
15	Paper did not reach read inlet sensor	P
65	Paper held up at read inlet sensor	P
16	Paper did not reach registration sensor	P
66	Paper held up at registration sensor	P
17	Paper did not reach output sensor	P
67	Paper held up at output sensor	P

Cause code	Cause of jam	Display code
239	Misfeed:Original Removed	P
1	Initial jam	P
1	Overload jam	P

MFP

Cause code	Cause of jam	Display code
1	There is paper in first transport sensor	A
1	There is paper in second transport sensor	A
1	There is paper in registration sensor	B
1	There is paper in fixing inlet sensor	C
1	There is paper in fixing outlet sensor	C
1	There is paper in output sensor	C
1	There is paper in inversion sensor	C
1	There is paper in duplex outlet sensor	Z
1	There is paper in duplex inlet sensor	Z
3	Paper not fed from tray 1	A1
4	Paper not fed from tray 2	A2
8	Paper not supplied to bypass tray	A
9	Duplex not fed	Z
10	Timing disappearance	Only remaining paper position information displayed
11	Paper did not reach first transport sensor	A
12	Paper did not reach second transport sensor	A

Cause code	Cause of jam	Display code
17	Paper did not reach registration sensor	A
18	Fixing inlet sensor not reached	B
19	Paper did not reach fixing outlet sensor	C
20	Paper did not reach output sensor	C
51	Paper did not clear first transport sensor	A
52	Paper did not clear second transport sensor	A
57	Paper did not clear registration sensor	B
60	Paper did not clear output sensor	C
24	Paper did not reach inversion sensor	C
64	Paper did not clear inversion sensor	C
25	Paper did not reach duplex outlet sensor	Z
25	Paper did not reach duplex outlet sensor & there is no paper in duplex inlet sensor	Z
65	Paper did not clear duplex outlet sensor	Z
27	Paper did not reach duplex inlet sensor	C
27	Paper did not reach duplex inlet sensor & there is no paper in inversion sensor	Z
67	Paper did not clear duplex inlet sensor	A

Paper Feed Unit PB3150

Cause code	Cause of jam	Display code
5	Paper not fed from tray 3	Y1
13	Paper did not reach vertical transport sensor 3	Y
53	Paper did not clear vertical transport sensor 3	Y
1	There is paper in vertical transport sensor 3	Y

Paper Feed Unit PB3160

Cause code	Cause of jam	Display code
5	Paper not fed from tray 3	Y1
13	Paper did not reach vertical transport sensor 3	Y
53	Paper did not clear vertical transport sensor 3	Y
1	There is paper in vertical transport sensor 3	Y
6	Paper not fed from tray 4	Y2
14	Paper did not reach vertical transport sensor 4	Y
54	Paper did not clear vertical transport sensor 4	Y
1	There is paper in vertical transport sensor 4	Y

LCIT PB3170

Cause code	Cause of jam	Display code
5	Paper not fed from tray 3	Y1
13	Paper did not reach vertical transport sensor 3	Y
53	Paper did not clear vertical transport sensor 3	Y
1	There is paper in vertical transport sensor 3	Y

LCIT RT3030

Cause code	Cause of jam	Display code
5	Paper not fed from tray 3	Y1
6	Paper not fed from tray 4	Y2
13	Paper did not reach vertical transport sensor 3	Y
14	Paper did not reach vertical transport sensor 4	Y
53	Paper did not clear vertical transport sensor 3	Y
54	Paper did not clear vertical transport sensor 4	Y
1	There is paper in vertical transport sensor 3	Y
1	There is paper in vertical transport sensor 4	Y
5	Paper not fed from tray 3	Y1
13	Paper did not reach vertical transport sensor 3	Y

Cause code	Cause of jam	Display code
53	Paper did not clear vertical transport sensor 3	Y
1	There is paper in vertical transport sensor 3	Y
7	Paper not fed from LCT	U1
15	Paper did not reach LCT transport sensor	U
58	Paper did not clear LCT transport sensor	U
1	There is paper in LCT transport sensor	U

Bridge Unit BU3070

Cause code	Cause of jam	Display code
21	Paper did not reach relay output sensor	D
22	Paper did not reach relay transport sensor	D
61	Paper did not clear relay output sensor	D
62	Paper did not clear relay transport sensor	D

Internal Finisher SR3130

Cause code	Cause of jam	Display code
100	Paper did not reach inlet sensor	R1-R2
101	Paper held up at inlet sensor	R1-R2
102	Paper did not reach transport sensor	R1-R2
103	Paper held at transport sensor	R1-R2
104	Paper output unit	R1-R2
105	Front jogger motor	R1-R2
106	Rear jogger motor	R1-R2

Cause code	Cause of jam	Display code
107	Shift roller motor	R1-R2
108	Strike roller motor	R1-R2
109	Paper output guide plate open/close motor	R1-R2
110	Stapler displacement motor	R1-R2
111	Shift tray ascent/descent motor	R1-R2
112	Stapler motor	R1-R2
113	Paper press motor	R1-R2
114	Punch motor	R1-R2
115	Punch displacement motor	R1-R2
116	Horizontal registration displacement motor	R1-R2
148	Paper output end not responding	R1-R2
149	Main instruction data defect	R1-R2

Finisher SR3160

Cause code	Cause of jam	Display code
1	There is paper in inlet sensor	R1-R5
1	There is paper in horizontal transport sensor	R1-R5
1	There is paper in switchback transport sensor	R1-R5
1	There is paper in proof output sensor	R1-R5
1	There is paper in shift output sensor	R1-R5
150	Jam due to paper not reaching inlet sensor	R1-R5
151	Jam due to paper held up at inlet sensor	R1-R5
152	Jam due to paper not reaching horizontal transport sensor	R1-R5

Cause code	Cause of jam	Display code
153	Jam due to paper held up at horizontal transport sensor	R1-R5
154	Jam due to paper not reaching switchback transport sensor	R1-R5
155	Jam due to paper held up at switchback transport sensor	R1-R5
156	Jam in proof paper output unit	R1-R5
157	Jam in shift paper output unit	R1-R5
159	Jam in inlet transport motor	R1-R5
160	Jam in horizontal transport motor	R1-R5
161	Jam in pre-stack transport motor	R1-R5
162	Jam in intermediate transport motor	R1-R5
163	Jam in paper output motor	R1-R5
164	Jam in rear edge press motor	R1-R5
165	Jam in paper output open/close guide plate motor	R1-R5
166	Jam in punch hole motor	R1-R5
167	Jam in punch displacement motor	R1-R5
168	Jam in horizontal registration detection displacement motor	R1-R5
169	Jam in lower claw motor	R1-R5
170	Jam in jogger motor	R1-R5
171	Jam in strike roller drive motor	R1-R5
172	Jam in release motor	R1-R5
173	Jam in edge binding stapler displacement motor	R1-R5
174	Jam in edge binding stapler motor	R1-R5

Cause code	Cause of jam	Display code
183	Jam in tray ascent/descent motor	R1-R5
184	Jam in shift motor	R1-R5
185	Jam in shift jogger front motor	R1-R5
186	Jam in shift jogger rear motor	R1-R5
187	Jam in shift jogger retreat motor	R1-R5
188	Jam in return roller rocking motor	R1-R5
189	Jam in edge guide motor	R1-R5
190	Jam due to main instruction data defect	R1-R5

Booklet Finisher SR3170

Cause code	Cause of jam	Display code
1	There is paper in inlet sensor	R1-R5
1	There is paper in horizontal transport sensor	R1-R5
1	There is paper in switchback transport sensor	R1-R5
1	There is paper in proof output sensor	R1-R5
1	There is paper in shift output sensor	R1-R5
1	There is paper in saddle stitch output sensor	R6-R11
150	Jam due to paper not reaching inlet sensor	R1-R5
151	Jam due to hold up at inlet sensor	R1-R5
152	Jam due to paper not reaching horizontal transport sensor	R1-R5
153	Jam due to paper held up at horizontal transport sensor	R1-R5

Cause code	Cause of jam	Display code
154	Jam due to paper not reaching switchback transport sensor	R1-R5
155	Jam due to hold up at switchback transport sensor	R1-R5
156	Jam in proof output unit	R1-R5
157	Jam in shift output unit	R1-R5
158	Jam in saddle stitch output unit	R6-R11
159	Inlet-port transportation motor jam	R1-R5
160	Jam in horizontal transport motor	R1-R5
161	Jam in pre-stack transport motor	R1-R5
162	Jam in intermediate transport motor	R1-R5
163	Jam in paper output motor	R1-R5
164	Jam in rear edge press motor	R1-R5
165	Jam in paper output open/close guide plate motor	R1-R5
166	Jam in punch hole motor	R1-R5
167	Jam in punch displacement motor	R1-R5
168	Jam in horizontal resist detection displacement motor	R1-R5
169	Jam in lower claw motor	R1-R5
170	Jam in jogger motor	R1-R5
171	Jam in strike roller drive motor	R1-R5
172	Jam in release motor	R1-R5
173	Jam in edge binding stapler displacement motor	R1-R5
174	Jam in edge binding stapler motor	R1-R5

Cause code	Cause of jam	Display code
175	Jam in saddle stitch jogger motor	R6-R11
176	Jam in saddle stitch alignment claw displacement motor	R6-R11
177	Jam in saddle stitch reference fence motor	R6-R11
178	Jam in saddle stitch stapler motor	R6-R11
179	Jam in displacement roller transport motor	R6-R11
180	Jam in folding transport motor	R6-R11
182	Jam in press folding motor	R6-R11
183	Jam in tray ascent/descent motor	R1-R5
184	Jam in shift motor	R1-R5
185	Jam in shift jogger front motor	R1-R5
186	Jam in shift jogger rear motor	R1-R5
187	Jam in shift jogger retreat motor	R1-R5
188	Jam in return roll rocking motor	R1-R5
189	Jam in leading edge guide motor	R1-R5
190	Jam due to MP3 instruction data defect	R1-R5

Booklet Finisher SR3150

Cause code	Cause of jam	Display code
200	Paper did not reach inlet	R1-R4
201	Paper held up at inlet	R1-R4
202	Paper did not reach proof output	R1-R4
203	Paper held up and prove output	R1-R4
204	Paper did not reach intermediate transport right	R1-R4

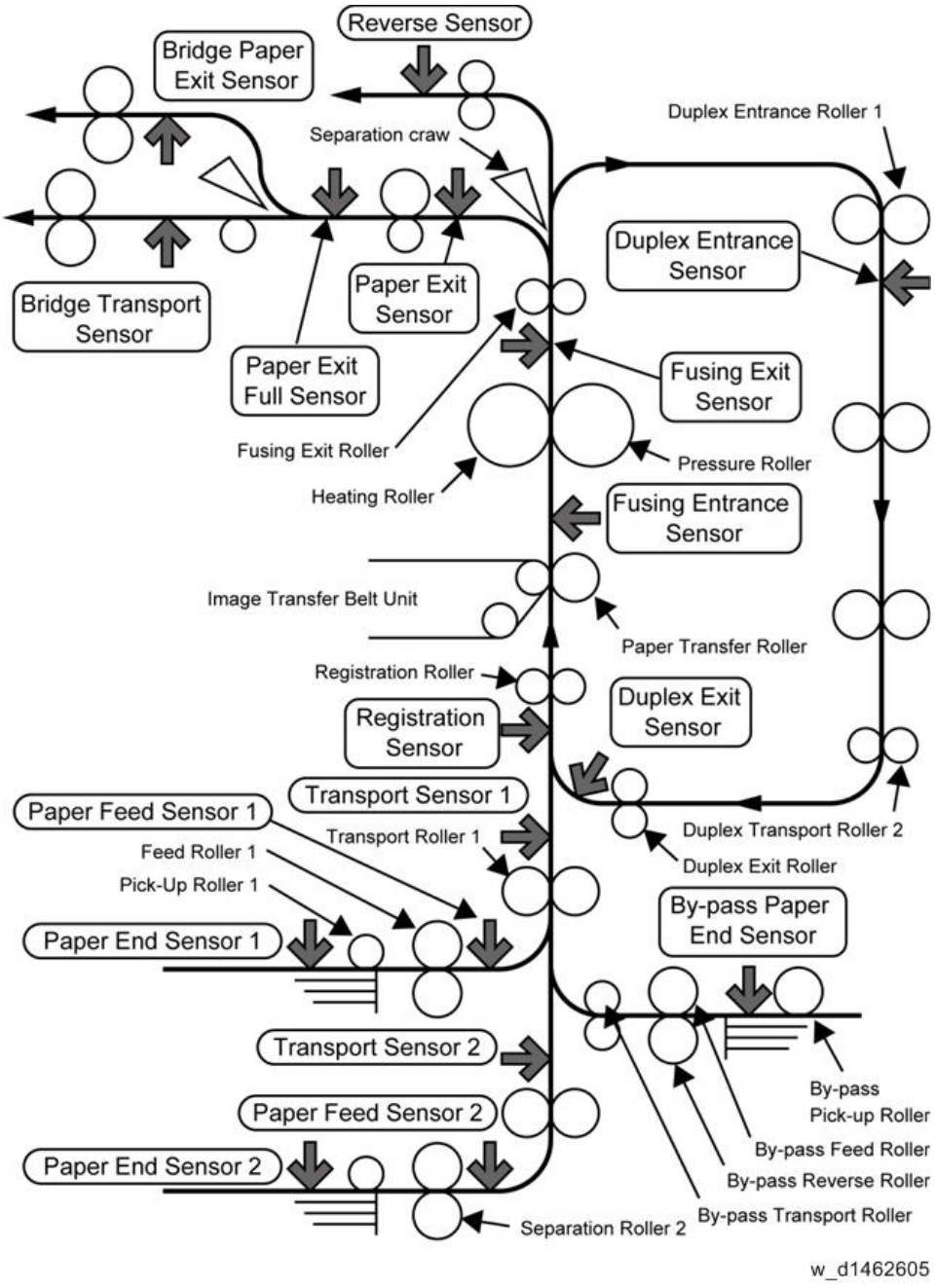
Cause code	Cause of jam	Display code
205	Paper did not reach intermediate transport left	R1-R4
206	Paper held up at intermediate transport left	R1-R4
207	Paper did not reach shift output	R1-R4
208	Paper held up at shift output	R1-R4
209	Paper did not reach stack transport	R5-R10
210	Paper did not reach rear edge stopper transport	R5-R10
211	Paper held up at rear edge stopper transport	R5-R10
212	Paper did not reach middle folding output	R5-R10
213	Paper held up at middle folding output	R5-R10
220	Jam in inlet transport motor	R1-R4
221	Jam in proof transport motor	R1-R4
222	Jam in output transport/strike/approach roller motor	R1-R4
223	Jam in shift motor	R1-R4
224	Jam in jogger motor	R1-R4
225	Jam in output guide plate open/close motor	R1-R4
226	Jam release motor	R1-R4
227	Jam in tray ascent/descent motor	R1-R4
228	Jam in strike roller motor	R1-R4
229	Jam in stapler displacement motor	R1-R4
230	Jam in stapler motor	R1-R4
231	Jam in punch system motor	R1-R4

Cause code	Cause of jam	Display code
232	Jam in stack transport motor	R5-R10
233	Jam in rear edge stopper motor	R5-R10
234	Jam in folding braid motor	R5-R10
248	Paper output end is not responding	R1-R4
249	Main instruction data defect	R1-R4

5.11.3 PAPER SIZE CODE

Size Code	Paper Size	Size Code	Paper Size
005	A4 LEF	141	B4 SEF
006	A5 LEF	142	B5 SEF
014	B5 LEF	160	DLT SEF
038	LT LEF	164	LG SEF
044	HLT LEF	166	LT SEF
132	A3 SEF	172	HLT SEF
133	A4 SEF	255	Others
134	A5 SEF		

5.11.4 SENSOR LOCATIONS



5.12 ELECTRICAL COMPONENT DEFECTS

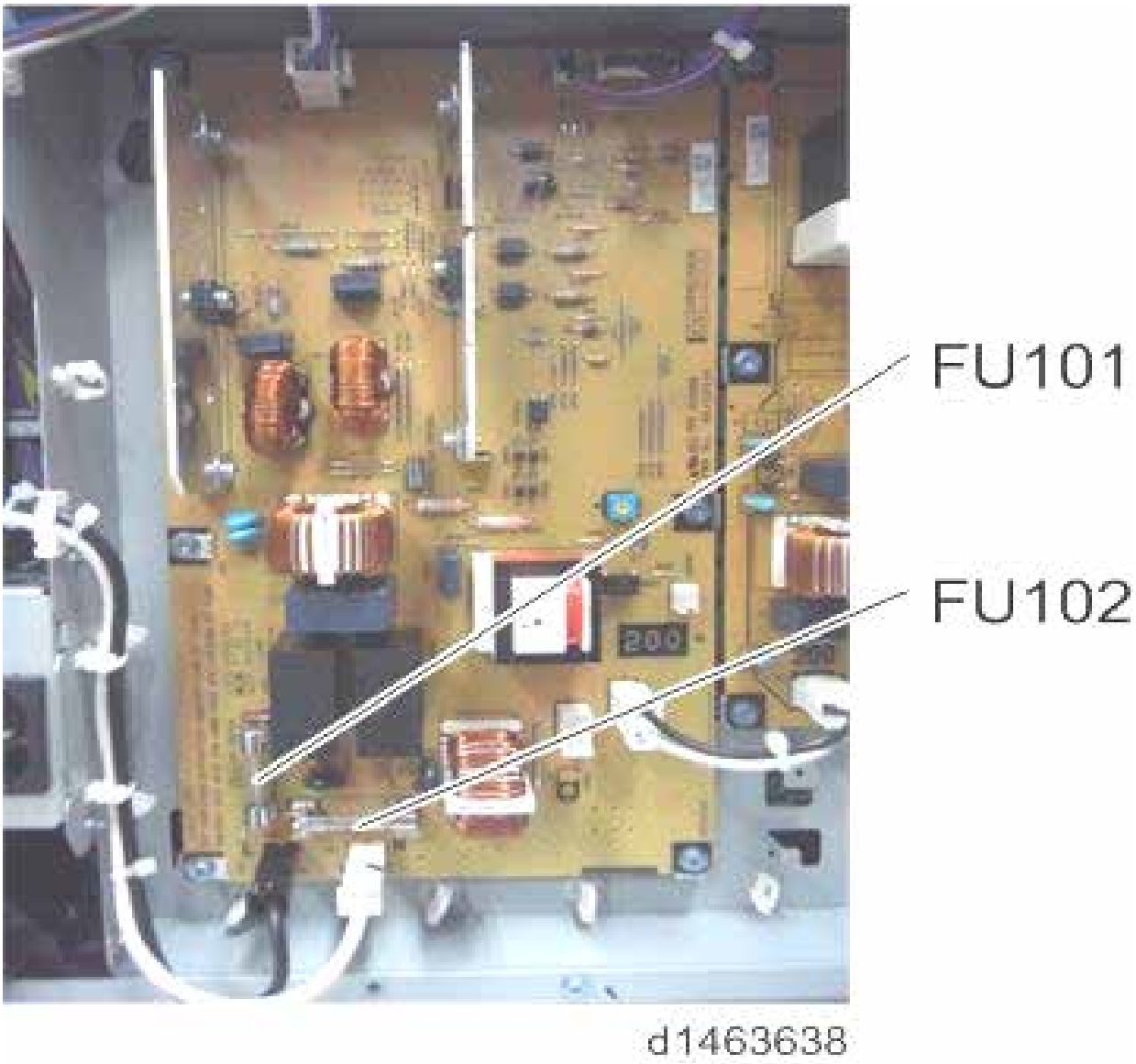
5.12.1 D148/D149/D150

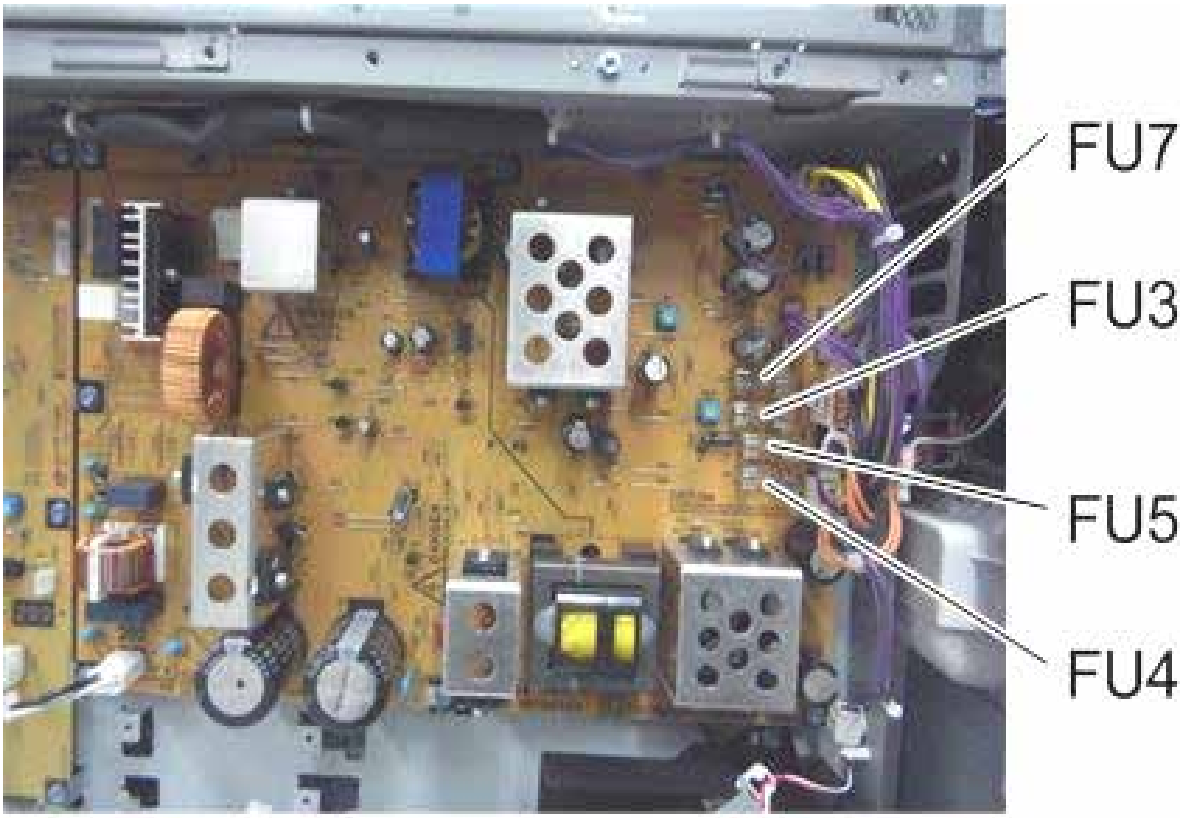
Name	Output connector	Capacity	Part number	Can be changed in the field or not
		Voltage	Part name	Remarks
FU101	CN985 (Fusing center heater) CN986 (Fusing edge heater)	15A	11071241	Yes
		AC	TLC-15A-N4	Installed on AC control board
FU102	CN988 (DC power supply)	15A	11071241	Yes
		AC	TLC-15A-N4	Installed on AC control board
FU3	CN912(IOB, SIO)	10A	11071216	Yes
		24V	FBT 250V 10A(EM)	Installed on DC power supply
FU4	CN917 (Interlock switch [IOB])	10A	11071216	Yes
		24V	FBT 250V 10A(EM)	Installed on DC power supply
FU5	CN917 (Interlock switch [IOB])	10A	11071216	Yes
		24V	FBT 250V 10A(EM)	Installed on DC power supply
FU7	CN913(FIN) CN914(BANK)	10A	11071216	Yes
		24V	FBT 250V 10A(EM)	Installed on DC power supply

5.12.2 D146/D147

Name	Output connector	Capacity	Part number	Can be changed in the field or not
		Voltage	Part name	Remarks
FU101	CN985 (Fusing center heater) CN986 (Fusing edge heater)	15A	11071241	Yes
		AC	TLC-15A-N4	Installed on AC control board
FU102	CN988 (DC power supply)	15A	11071241	Yes
		AC	TLC-15A-N4	Installed on AC control board
FU3	CN912(IOB, SIO)	8A	11071283	Yes
		24V	FBT 250V 8A(EM)	Installed on DC power supply
FU4	CN917 (Interlock switch [IOB])	8A	11071283	Yes
		24V	FBT 250V 8A(EM)	Installed on DC power supply
FU5	CN917 (Interlock switch [IOB])	8A	11071283	Yes
		24V	FBT 250V 8A(EM)	Installed on DC power supply
FU7	CN913(FIN) CN914(BANK)	8A	11071283	Yes
		24V	FBT 250V 8A(EM)	Installed on DC power supply

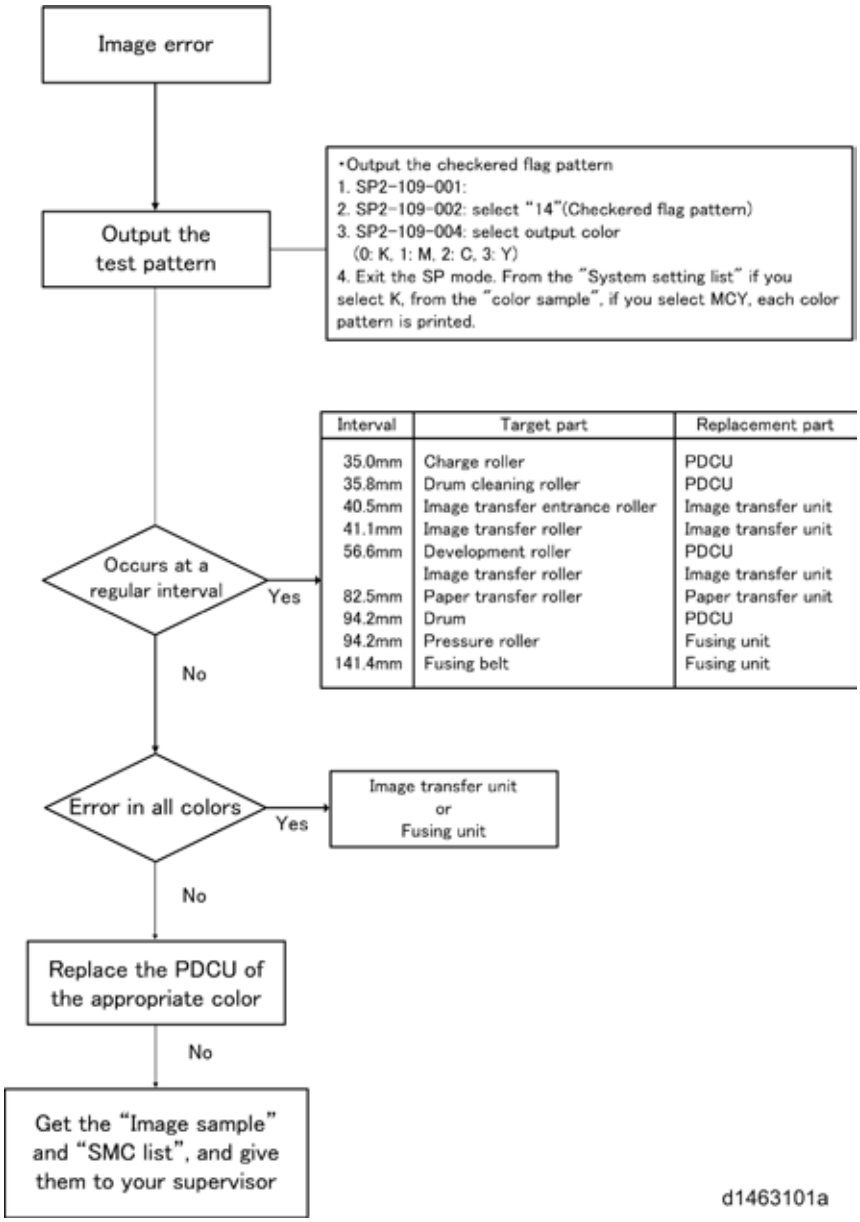
5.12.3 FUSE POSITION




FU7
FU3
FU5
FU4
d1463639

5.13 IMAGE QUALITY

5.13.1 WHEN AN ABNORMAL IMAGE IS GENERATED



ENERGY SAVE

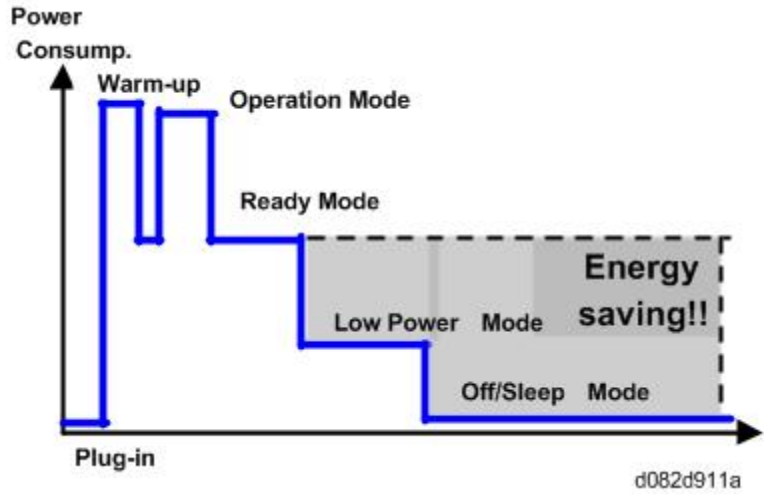
REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

6. ENERGY SAVE

6.1 ENERGY SAVE

6.1.1 ENERGY SAVER MODES

Customers should use energy saver modes properly, to save energy and protect the environment.



The area shaded grey in this diagram represents the amount of energy that is saved when the timers are at the default settings. If the timers are changed, then the energy saved will be different. For example, if the timers are all set to 240 min., the grey area will disappear, and no energy is saved before 240 min. expires.

Timer Settings

The user can set these timers with User Tools (System settings > Timer setting)

§ Energy saver timer (1 – 30 min for NA and EU/1-240 min for others): Low Power Mode. Default setting: 1 min. (D148/D149/D150 only)

§ Auto off timer (1 – 60 min for NA and EU/1-240 min for others): Off/Sleep Mode. Default setting: 1 min.

Normally, Energy Saver timer < Auto Off timer. But, for example, if Auto Off timer < or = Energy Saver timer, the machine goes immediately to Off mode when the Auto Off timer expires. It skips the Energy Saver mode.

Example

§ Low power: 15 min.

§ Auto Off: 1 min.

§ The machine goes to Off mode after 1 minute. Low Power mode is not used.

Return to Stand-by Mode

Low Power Mode

The recovery time depends on the model and the region.

§ 10 sec. or less (D148/D149/D150 only)

Off/Sleep Mode

Recovery time.

§ D146/D147: 5.6 sec. or less

§ D148: 6.2 sec. or less

§ D149/D150: 7.3 sec. or less

Recommendation

We recommend that the default settings should be kept.

§ If the customer requests that these settings should be changed, please explain that their energy costs could increase, and that they should consider the effects on the environment of extra energy use.

§ If it is necessary to change the settings, please try to make sure that the Auto Off timer is not too long. Try with a shorter setting first, such as 30 min., then go to a longer one (such as 60 min.) if the customer is not satisfied.

§ If the timers are all set to the maximum value, the machine will not begin saving energy until 240 minutes has expired after the last job. This means that after the customer has finished using the machine for the day, energy will be consumed that could otherwise be saved.

§ If you change the settings, the energy consumed can be measured using SP8941, as explained below.

6.1.2 ENERGY SAVE EFFECTIVENESS

SP 8941 (Machine Status) keeps a record of the amount of time that the machine spends in each mode.

- 8941-001: Operating mode
- 8941-002: Standby mode
- 8941-004: Low power mode
- 8941-005: Off/sleep mode

With this data, and the power consumption values from the specifications, we can estimate the amount of energy that is used by the machine.

This should only be used as a reference value, because the power consumption specifications are measured in a controlled environment with a constant power supply.

To get an exact measurement at the customers site, a watt meter must be used to measure the actual energy consumed.

To use SP8941 to calculate the energy consumed:

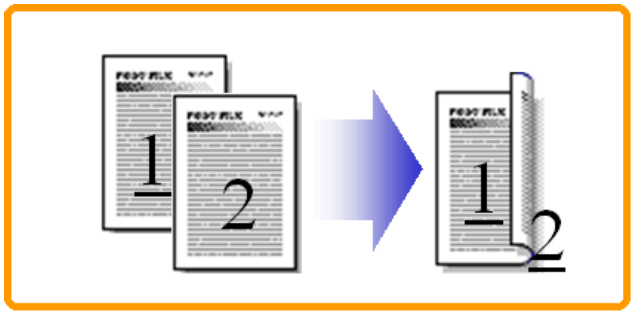
- At the start of the measurement period, read the values of SP8941 001 to 005.
- At the end of the measurement period, read the values of SP8941 001 to 005 again.
- Find the amount of time spent in each mode (subtract the earlier measurement from the later measurement).
- Multiply this by the power consumption spec for each mode.
- Convert the result to kWh (kilowatt hours)

6.2 PAPER SAVE

6.2.1 EFFECTIVENESS OF DUPLEX/COMBINE FUNCTION

Duplexing and the combine functions reduce the amount of paper used. This means that less energy overall is used for paper production, which improves the environment.

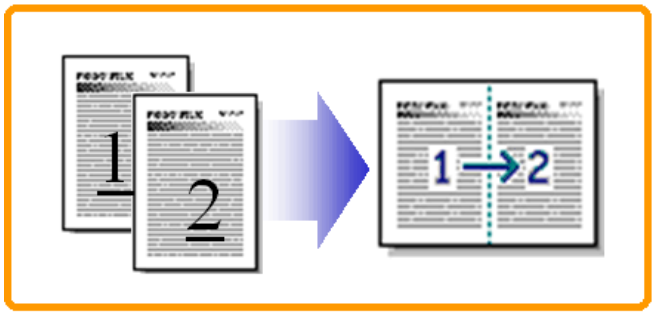
1. Duplex:



d1351966

Reduce paper volume in half!

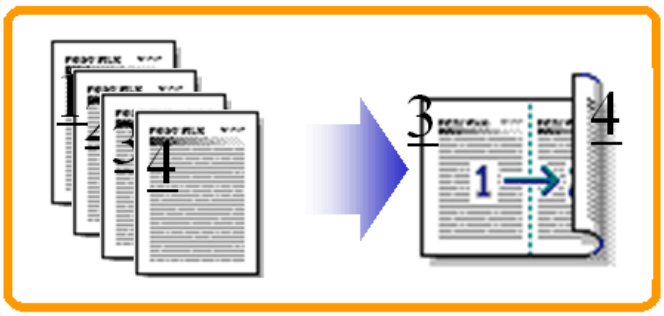
2. Combine mode:



d1351967

Reduce paper volume in half!

3. Duplex + Combine:



d1351968

Using both features together can further reduce paper volume by 3/4!

To check the paper consumption, look at the total counter and the duplex counter.

The total counter counts all pages printed.

§ For one duplex page, the total counter goes up by 2.

§ For a duplex job of a three-page original, the total counter goes up by 3.

§ The duplex counter counts pages that have images on both sides.

§ For one duplex page, the duplex counter goes up by 1.

§ For a duplex job of a three-page original, the duplex counter will only increase by 1, even though two sheets are used.

§

D146/D147/D148/D149/D150
SYSTEM MAINTENANCE SECTION

D146/D147/D148/D149/D150
SYSTEM MAINTENANCE SECTION

TABLE OF CONTENTS

1. SERVICE PROGRAM MODE 1-1

1.1 ENABLING AND DISABLING SERVICE PROGRAM MODE 1-1

1.1.1 ENTERING SP MODE 1-1

1.1.2 EXITING SP MODE 1-1

1.2 TYPES OF SP MODES 1-2

1.2.1 SP MODE BUTTON SUMMARY 1-2

1.2.2 SWITCHING BETWEEN SP MODE AND COPY MODE FOR TEST PRINTING 1-3

1.2.3 SELECTING THE PROGRAM NUMBER 1-4

1.2.4 EXITING SERVICE MODE 1-4

1.2.5 SERVICE MODE LOCK/UNLOCK 1-5

1.2.6 REMARKS 1-6

Others 1-7

1.3 REMARKS 1-8

1.3.1 OTHERS 1-9

2. SP MODE TABLES 2-1

2.1 SERVICE TABLE KEY 2-1

2.2 MAIN SP TABLES-1 2-2

2.2.1 SP1-XXX (FEED) 2-2

2.3 MAIN SP TABLES-2-1 2-146

2.3.1 SP2-005 TO 2-473 (DRUM) 2-146

2.4 MAIN SP TABLES-2-2 2-249

2.4.1 SP2-474 TO 2-990 (DRUM) 2-249

2.5 MAIN SP TABLES-3 2-349

2.5.1 SP3-XXX (PROCESS) 2-349

2.6 MAIN SP TABLES - 4 2-449

2.6.1 SP4-XXX (SCANNER) 2-449

2.7 MAIN SP TABLES-5 2-549

2.7.1 SP5-XXX (MODE) 2-549
2.8 MAIN SP TABLES-6 2-638
2.8.1 SP6-XXX (PERIPHERALS) 2-638
2.9 MAIN SP TABLES-7 2-674
2.9.1 SP7-XXX (DATA LOG) 2-674
2.10 MAIN SP TABLES-8 2-738
2.10.1 SP8-XXX (DATA LOG 2) 2-738
Keys and abbreviations in Data Log 2 2-739
2.11 PRINTER SP MODE 2-798
2.11.1 SP1-XXX (SERVICE MODE) 2-798
2.12 SCANNER SP MODE 2-814
2.12.1 SP1-XXX (SYSTEM AND OTHERS) 2-814
2.12.2 SP2-XXX (SCANNING-IMAGE QUALITY) 2-817

3. INPUT AND OUTPUT CHECK 3-1
3.1 INPUT CHECK TABLE 3-1
3.2 OUTPUT CHECK TABLE 3-31

4. TEST PATTERN PRINTING 4-1
4.1 TEST PATTERN PRINTING 4-1

5. UPDATING THE FIRMWARE 5-1
5.1 OVERVIEW 5-1
5.2 FIRMWARE TYPE 5-2
5.3 PROCEDURE 5-3
5.3.1 UPDATE PROCEDURE 5-4
5.4 ERROR SCREENS DURING UPDATING 5-9

6. UPDATING THE VM FIRMWARE 6-1
6.1 CREATING AN SD CARD FOR UPDATING 6-1
6.2 UPDATING PROCEDURE 6-2
6.3 LIST OF ERROR MESSAGES 6-3

7. UPDATING THE EXJS 7-1
7.1 TO UPDATE EXJS 7-1
7.2 WHEN CHECKING THE VERSION OF EXJS 7-3

8. UPLOADING/DOWNLOADING NV-RAM DATA 8-1
8.1 OUTLINE 8-1
8.2 UPLOAD TO SD CARD FROM NV-RAM 8-2

8.3 DOWNLOAD TO NV-RAM FROM SD CARD 8-3

9. ADDRESS BOOK UPLOAD/DOWNLOAD 9-1

9.1 BACKUP 9-1

9.2 RESTORE 9-2

9.3 SPECIFICATION 9-3

10. RFU UPDATING THE FIRMWARE 10-1

10.1 RFU UPDATING THE FIRMWARE 10-1

11. CAPTURING THE DEBUG LOGS 11-1

11.1 OVERVIEW 11-1

11.1.1 SECURITY OF THE OPERATION LOG 11-2

11.2 RETRIEVING THE DEBUG LOGS 11-3

11.2.1 PROCEDURE FOR RETRIEVING THE DEBUG LOG 11-4

SERVICE PROGRAM MODE

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

1. SERVICE PROGRAM MODE

1.1 ENABLING AND DISABLING SERVICE PROGRAM MODE

⚠CAUTION

§ Make sure that the data-in LED (⇨) is not on before you go into the SP mode. This LED indicates that some data is coming to the machine. When the LED is on, wait for the copier to process the data.

Note

§ The Service Program Mode is for use by service representatives only. If this mode is used by anyone other than service representatives for any reason, data might be deleted or settings might be changed. In such case, product quality cannot be guaranteed any more.

1.1.1 ENTERING SP MODE

For details, ask your supervisor.

1.1.2 EXITING SP MODE

Press "Exit" on the LCD twice to return to the copy window.

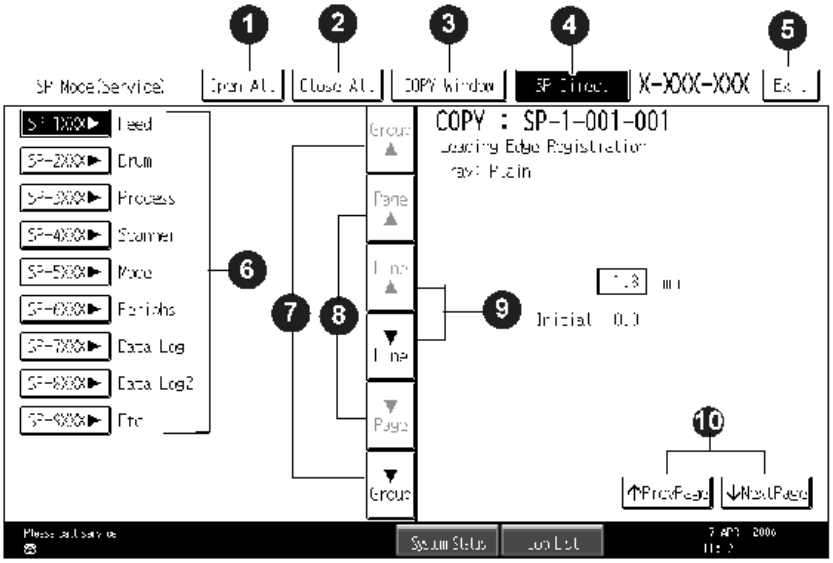
1.2 TYPES OF SP MODES

§ System SP: SP modes related to the engine functions
§ Printer SP: SP modes related to the controller functions
§ Scanner SP: SP modes related to the scanner functions
§ Fax SP: SP modes related to the fax functions

Select one of the Service Program modes (System, Printer, Scanner, or Fax) from the touch panel as shown in the diagram below after you access the SP mode. This section explains the functions of the System/Printer/Scanner SP modes. Refer to the Fax service manual for the Fax SP modes.

1.2.1 SP MODE BUTTON SUMMARY

Here is a short summary of the touch-panel buttons.



No.	Description
1	Opens all SP groups and sublevels.
2	Closes all open groups and sublevels and restores the initial SP mode display.
3	Opens the copy window (copy mode) so you can make test copies. Press SP Mode (highlighted) in the copy window to return to the SP mode screen,
4	Enter the SP code directly with the number keys if you know the SP number. Then press # (The required SP Mode number will be highlighted when pressing #. If not, just press the required SP Mode number.)
5	Press two times to leave the SP mode and return to the copy window to resume normal operation.
6	Press any Class 1 number to open a list of Class 2 SP modes.
7	Press to scroll the show to the previous or next group.
8	Press to scroll to the previous or next display in segments the size of the screen display (page).
9	Press to scroll the show the previous or next line (line by line).
10	Press to move the highlight on the left to the previous or next selection in the list.

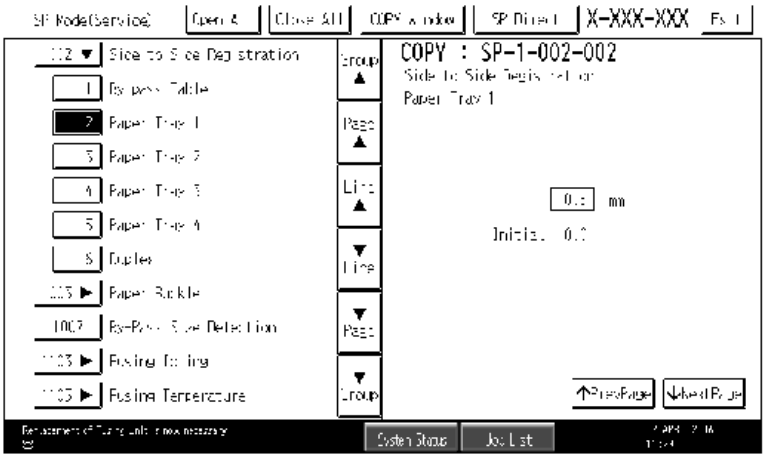
1.2.2 SWITCHING BETWEEN SP MODE AND COPY MODE FOR TEST PRINTING

1. In the SP mode, select the test print. Then press "Copy Window".
2. Use the copy window (copier mode), to select the appropriate settings (paper size, etc.) for the test print.
3. Press Start ◇ to start the test print.
4. Press SP Mode (highlighted) to return to the SP mode screen and repeat from step 1.

1.2.3 SELECTING THE PROGRAM NUMBER

Program numbers have two or three levels.

1. Refer to the Service Tables to find the SP that you want to adjust before you begin.
2. Press the Group number on the left side SP Mode window that contains the SP that you want to adjust.
3. Use the scrolling buttons in the center of the SP mode window to show the SP number that you want to open. Then press that number to expand the list.
4. Use the center touch-panel buttons to scroll to the number and title of the item that you want to set and press it. The small entry box on the right activates and shows the below default or the current settings.



Note

§ Refer to the Service Tables for the range of allowed settings.

5. Do this procedure to enter a setting:
   § Press ⁻ to toggle between plus and minus and use the keypad to enter the appropriate number. The number you enter writes over the previous setting.
   § Press # to enter the setting. (The value is not registered if you enter a number that is out of range.)
   § Press "Yes" when you are prompted to complete the selection.
6. If you need to perform a test print, press Copy Window to open the copy window and select the settings for the test print. Press Start and then press SP Mode (highlighted) in the copy window to return to the SP mode display.
7. Press Exit two times to return to the copy window when you are finished.

1.2.4 EXITING SERVICE MODE

Press the Exit key on the touch-panel.

1.2.5 SERVICE MODE LOCK/UNLOCK

At locations where the machine contains sensitive data, the customer engineer cannot operate the machine until the Administrator turns the service mode lock off. This function makes sure that work on the machine is always done with the permission of the Administrator.

1. If you cannot go into the SP mode, ask the Administrator to log in with the User Tool and then set "Service Mode Lock" to OFF after he or she logs in:
   User Tools > System Settings > Administrator Tools > Service Mode Lock > OFF
   - This unlocks the machine and lets you get access to all the SP codes.
   - The CE can service the machine and turn the machine off and on. It is not necessary to ask the Administrator to log in again each time the machine is turned on.
2. Go into the SP mode and set SP5169 to "1" if you must use the printer bit switches.
3. After machine servicing is completed:
   - Change SP5169 from "1" to "0".
   - Turn the machine off and on. Tell the administrator that you have completed servicing the machine.
   - The Administrator will then set the "Service Mode Lock" to ON.

1.2.6 REMARKS

The maximum number of characters which can show on the control panel screen is limited to 30 characters. For this reason, some of the SP modes shown on the screen need to be abbreviated. The following are abbreviations used for the SP modes for which the full description is over 20 characters.

Item	Description
Paper Weight	Thin paper: 52-59 g/m^2, 13.9-15.7lb. Plain Paper: 60-81 g/m^2, 16-21.6lb. Middle Thick: 82-105 g/m^2, 21.9-28lb. Thick Paper 1: 106-169 g/m^2, 28.5-44.9lb. Thick Paper 2: 170-220 g/m^2, 45-58lb. Thick Paper 3: 221-256 g/m^2, 59-68lb Thick 4: 257 g/m^2-300 g/m^2, 68.4-79.8lb
Paper Type	N: Normal paper MTH: Middle thick paper TH: Thick paper
Paper Feed Station	P: Paper tray B: By-pass table
Color Mode [Color]	[K]: Black in B&W mode [Y], [M], or [C]: Yellow, Magenta, or Cyan in Full Color mode [YMC]: Only for Yellow, Magenta, and Cyan [FC]: Full Color mode [FC, K], [FC, Y], [FC, M], or [FC, C]: Black, Yellow, Magenta, or Cyan in full color mode
Print Mode	S: Simplex D: Duplex
Process Speed	L: Low speed (73 mm/s) M: Middle speed (108 mm/s) H: High speed (D146/D147: 146, D148: 186, D149/D150: 256 mm/s)

Others

The following symbols are used in the SP mode tables.

FA: Factory setting

(Data may be adjusted from the default setting at the factory. Refer to the factory setting sheets enclosed. You can find it under the jammed paper removal decal.)

DFU: Design/Factory Use only

Do not touch these SP modes in the field.

A sharp (#) to the right hand side of the mode number column means that the main switch must be turned off and on to effect the setting change.

An asterisk (*) to the right hand side of the mode number column means that this mode is stored in the NVRAM. If you do a RAM clear, this SP mode will be reset to the default value. "ENG" and "CTL" show which NVRAM contains the data.

§ ENG: NVRAM on the BCU board

§ CTL: NVRAM on the controller board

The settings of each SP mode are explained in the right-hand column of the SP table in the following way.

[Adjustable range / **Default setting** / Step] Alphanumeric

Note

§ If "Alphanumeric" is written to the right of the bracket as shown above, the setting of the SP mode shows on the screen using alphanumeric characters instead of only numbers. However, the settings in the bracket in the SP mode table are explained by using only the numbers.

SSP: This denotes a "Special Service Program" mode setting.

1.3 REMARKS

The maximum number of characters which can show on the control panel screen is limited to 30 characters. For this reason, some of the SP modes shown on the screen need to be abbreviated. The following are abbreviations used for the SP modes for which the full description is over 20 characters.

Item	Description
Paper Weight	Thin paper: 52-59 g/m^2, 13.9-15.7lb. Plain Paper: 60-81 g/m^2, 16-21.6lb. Middle Thick: 82-105 g/m^2, 21.9-28lb. Thick Paper 1: 106-169 g/m^2, 28.5-44.9lb. Thick Paper 2: 170-220 g/m^2, 45-58lb. Thick Paper 3: 221-256 g/m^2, 59-68lb Thick 4: 257 g/m^2-300 g/m^2, 68.4-79.8lb
Paper Type	N: Normal paper MTH: Middle thick paper TH: Thick paper
Paper Feed Station	P: Paper tray B: By-pass table
Color Mode [Color]	[K]: Black in B&W mode [Y], [M], or [C]: Yellow, Magenta, or Cyan in Full Color mode [YMC]: Only for Yellow, Magenta, and Cyan [FC]: Full Color mode [FC, K], [FC, Y], [FC, M], or [FC, C]: Black, Yellow, Magenta, or Cyan in full color mode
Print Mode	S: Simplex D: Duplex
Process Speed	L: Low speed (73 mm/s) M: Middle speed (108 mm/s) H: High speed (D146/D147: 146, D148: 186, D149/D150: 256 mm/s)

1.3.1 OTHERS

The following symbols are used in the SP mode tables.

FA: Factory setting

(Data may be adjusted from the default setting at the factory. Refer to the factory setting sheets enclosed. You can find it in the front cover.)

DFU: Design/Factory Use only

Do not touch these SP modes in the field.

A sharp (#) to the right hand side of the mode number column means that the main switch must be turned off and on to effect the setting change.

An asterisk (*) to the right hand side of the mode number column means that this mode is stored in the NVRAM. If you do a RAM clear, this SP mode will be reset to the default value. "ENG" and "CTL" show which NVRAM contains the data.

§ ENG: NVRAM on the BCU board

§ CTL: NVRAM on the controller board

The settings of each SP mode are explained in the right-hand column of the SP table in the following way.

[Adjustable range / **Default setting** / Step] Alphanumeric

Note

§ If "Alphanumeric" is written to the right of the bracket as shown above, the setting of the SP mode shows on the screen using alphanumeric characters instead of only numbers. However, the settings in the bracket in the SP mode table are explained by using only the numbers.

SSP: This denotes a "Special Service Program" mode setting.

SP MODE TABLES

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

2. SP MODE TABLES

2.1 SERVICE TABLE KEY

Notation	What it means
[range / default/step]	Example: [-9 to +9 / 0 / 0.1 mm step]. The setting can be adjusted in the range ±9, value reset to +3.0 after an NVRAM reset, and the value can be changed in 0.1 mm steps with each key press.
*	Value stored in NVRAM. After a RAM reset, this default value (factory setting) is restored.
DFU	Denotes "Design or Factory Use". Do not change this value.
Japan only	The feature or item is for Japan only. Do not change this value.
SSP	This denotes a "Special Service Program" mode.
FSP	This denotes a "Factory Service Program" mode.

2.2 MAIN SP TABLES-1

2.2.1 SP1-XXX (FEED)

1001	**[Leading Edge Registration]** Adjust the image position against the transfer paper by adjusting timing of start registration. Reflects adjustment values with no change. "+" is the direction from which images come out. (Makes the registration start fast.) "-" is the direction which images disappear. (Makes the registration start slow.)		
001	Tray: Thin	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
002	Tray: Plain	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
003	Tray: Mid-thick	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
004	Tray: Thick 1	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
005	Tray: Thick 2	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
006	Tray: Thick 3	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
007	Tray: Thick 4	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
008	By-pass: Thin	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
009	By-pass: Plain	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
010	By-pass: Mid-thick	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
011	By-pass: Thick 1	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
012	By-pass: Thick 2	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
013	By-pass: Thick 3	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
014	By-pass: Thick 4	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
015	Duplex: Thin	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
016	Duplex: Plain	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
017	Duplex: Mid-thick	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]

018	Duplex: Thick 1	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
019	Duplex: Thick 2	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
020	Duplex: Thick 3	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
021	Tray: Thin:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
022	Tray: Plain:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
023	Tray: Mid-thick:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
024	Tray: Thick 1:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
025	Tray: Thick 2:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
026	Tray: Thick 3:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
027	Tray: Thick 4:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
028	By-pass: Thin:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
029	By-pass: Plain:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
030	By-pass: Mid-thick:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
031	By-pass: Thick 1:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
032	By-pass: Thick 2:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
033	By-pass: Thick 3:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
034	By-pass: Thick 4:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
035	Duplex: Thin:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
036	Duplex: Plain:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
037	Duplex: Mid-thick:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
038	Duplex: Thick 1:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
039	Duplex: Thick 2:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]
040	Duplex: Thick 3:1200	*ENG	[-9.0 to 9.0 / **0.0** / 0.1mm/step]

1002	**[Side-to-Side Registration]**		
	Adjust image position against the transfer paper by adjusting start position for writing. Reflects adjustment values with no change. "+" is the direction to which images shift. (Trimming area in the left increases.) "-" is the direction to which images shift. (Trimming area in the left decreases.)		
001	By-pass Tray	ENG	[-4.0 to 4.0 / **0.0** / 0.1mm/step]
002	Paper Tray 1	ENG	
003	Paper Tray 2	ENG	
004	Paper Tray 3	ENG	
005	Paper Tray 4	ENG	
006	Duplex	*ENG	[-4.0 to 4.0 / **0.0** / 0.1mm/step]
007	Large Capacity Tray	*ENG	[-4.0 to 4.0 / **0.0** / 0.1mm/step]

1003	**[Paper Buckle]**		
001	Paper Tray1: Thin	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
002	Paper Tray1: Plain	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
003	Paper Tray 1: Mid-thick	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
004	Paper Tray1: Thick1	*ENG	[-4.0 to 5.0 / **-2.0** / 0.1mm/step]
005	Tray2/3/4/5/LCT: Thin	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
006	Tray2/3/4/5/LCT: Plain	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
007	Tray 2/3/4/5/LCT: Mid-thick	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
008	Tray2/3/4/5/LCT: Thick 1	*ENG	[-4.0 to 5.0 / **-2.0** / 0.1mm/step]
009	By-pass: Thin	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
010	By-pass: Plain	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
011	By-pass: Mid-thick	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
012	By-pass:Thick1	*ENG	[-4.0 to 5.0 / **-1.0** / 0.1mm/step]

013	Duplex:Thin	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
014	Duplex:Plain	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
015	Duplex: Mid-thick	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
016	Duplex:Thick1	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
017	Paper Tray1: Thin:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
018	Paper Tray1: Plain:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
019	Paper Tray 1: Mid-thick:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
020	Paper Tray1: Thick1:1200	*ENG	[-4.0 to 5.0 / **-2.0** / 0.1mm/step]
021	Tray2/3/4/5/LCT: Thin:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
022	Tray2/3/4/5/LCT: Plain:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
023	Tray2/3/4/5/LCT: Mid:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
024	Tray2/3/4/5/LCT: Thick 1:1200	*ENG	[-4.0 to 5.0 / **-2.0** / 0.1mm/step]
025	By-pass: Thin:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
026	By-pass: Plain:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
027	By-pass: Mid-thick:1200	*ENG	[-4.0 to 5.0 / **0.0** / 0.1mm/step]
028	By-pass:Thick1:1200	*ENG	[-4.0 to 5.0 / **-1.0** / 0.1mm/step]
029	Duplex:Thin:1200	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
030	Duplex:Plain:1200	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
031	Duplex: Mid-thick:1200	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]
032	Duplex:Thick1:1200	*ENG	[-4.0 to 5.0 / **-1.5** / 0.1mm/step]

1007	**[By-Pass Size Detection]**		
	-		
001	Switch LT SEF/LG SEF	ENG	[0 or 1 / **0** / 1/step] 0:OFF 1:ON
	Select either LT SEF or LG SEF to detect preferentially when using bypass tray which can not auto detect size.		
002	By-Pass Jam Detection Set	ENG	[0 or 1 / **0** / 1/step] 0: Normal Detection 1: Simple Detection
	Special order function for old models: When receiving long length FAX, enter max. size of custom size for when setting receiving in bypass size, prevent from jamming shorter data than that. 0: Normal detect : when paper size is different form set size (longer of shorter), jam. 1: Simple detect: Jam when paper size is longer than set size.		

1008	**[SI By-Pass Size Detection Adj]**		
	-		
001	Sidefence Auto Adj	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	With one action bypass models, switches do or do not side fence auto fine tune when paper is set. But when setting auto fine tune off, detectable paper size will drop to same as regular bypass tray.		
003	Paper Set Fix Time	*ENG	[0 to 10 / **2** / 1sec/step]
	Set the waiting time to activate the side fence auto adjustment after a stack of paper has been set on the by-pass tray. Will have more time till side fence to star moving when setting waiting time longer, but time for setting paper will also be loner. If waiting time is short, side fence might star to move during setting paper. SC or malfunction or so will not occur.		

004	Sidefence Contact Detction:Timeout Adj Value	*ENG	[-200 to 4000 / **0** / 100msec/step]
	With one action bypass tray, displays an alert message when side fence and paper are more then 10mm apart due to not able to auto adjust. Adjust that distance. Plus make movable distance longer.		
005	Sidefence Adj Correction Value	*ENG	[0.00 to 4.00 / **0.00** / 0.01mm/step]
	Fine tunes the distance of paper and side fence for one action bypass tray. Plus makes more distance.		
006	Sidefence F adj1	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Side fence of one action bypass: enter value of front sensor touched down (papers exist).		
007	Sidefence F adj2	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Side fence of one action bypass: enter value of front sensor free (paper doesn't exist).		
008	Sidefence R adj1	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Side fence of one action bypass: enter value of rear sensor touched down (papers exist).		
009	Sidefence R adj2	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Side fence of one action bypass: enter value of rear sensor free (paper doesn't exist).		

010	Envelope Choukei 4_SEF/Postcard_SEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
011	Envelope Choukei 3_SEF/B6_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
012	B6_SEF/HLT_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
013	HLT_SEF/A5_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
014	A5_SEF/(C6/Envelope Youkei 2)_LEF,B5_SEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
015	(C6/Envelope Youkei 2)_LEF/Monarch_LEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		

016	Monarch_LEF/(F/GL)_SEF,DoublePostcard_LEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
017	(F/GL)_SEF,DoublePostc_LEF/A5_LEF,LT_SEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
018	A5_LEF/DL Env_LEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
019	LT_SEF/SRA4_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
020	DL Env_LEF/C5_LEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
021	SRA4_SEF/Envelope Youchou 3_LEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		

022	C5_LEF/COM10_LEF,Env Kaku 2_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
023	(EvYouc3,COM10)LEF,EvKa2SEF/10x14SEF,B5LEFTh	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
024	10 x 14_SEF/Exe_LEF, 8K_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
025	Exe_LEF, 8K_SEF/DLT_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
026	DLT_SEF/A3_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
027	A3_SEF/12 x 18_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		

028	12 x 18_SEF/SRA3_SEF Threshold	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
029	Switch Env Youchou 3 LEF/Env Youkei 4 LEF	*ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
030	Switch LT SEF/LG SEF	*ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
031	Switch C5 LEF/SRA4	*ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		
032	Main Scan Size Adj	ENG	[0 or 1 / **0** / 1/step]
	Fine tunes side fence position sensor of one action bypass tray.		
033	Main Scan Size Adj Result (0:Fail 1:Succeed)	ENG	[0 or 1 / **0** / 1/step]
	Displays result of fine tuning side fence position sensor of one action bypass tray.		
034	Paper Press Amt Adj Value	*ENG	[-1.6 to 3.0 / **0.0** / 0.1mm/step]

	Have pressuring time for side fence of one action bypass tray (for truing up the paper) When making this value larger than necessary, side effects might occur like thin paper buckling.		
035	Postcard_SEF/Envelope Choukei 3_SEF Th	*ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Adjoining paper width threshold with side fence position sensor of one action bypass tray.		

1009	**[Initial Operation Setting]**		
	Switches 1: ON 0: OFF of register back rush removal when recovering form sleep mode. With default setting, this is OFF prior less noise.		
001	Registration Gear Backlash Cut	*ENG	[0 or 1 / **0** / 1/step] 0:OFF 1:ON

1101	**[Reload Permit Setting]**		
001	Pre-rotation Start Temp.	*ENG	[0 to 200 / **0** / 1deg/step]
	Do not change. Temperature for when to switch form no rotate heating to stand up heating.		
002	Reload Target Temp.:Center	*ENG	[0 to 190 / **D146:123, D147:123, D148:141, D149:157, D150:157** / 1deg/step]
	Do not change. Reload permission target temperature: center		

003	Reload Target Temp.:Press	*ENG	[0 to 200 / **D146:120, D147:120, D148:150, D149:148, D150:148** / 1deg/step]
	Do not change. Reload permission target temperature: pressure		
004	Temp.:Delta:Cold:Center	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Difference value from reload permission target value: cold: center		
005	Temp.:Delta:Cold:End	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold: edge		
006	Temp.:Delta:Cold:Press	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Difference value from reload permission target value: cold: pressure		

007	Forced Reload Time:Cold	*ENG	[0.0 to 100.0 / **D146: 4.9, D147: 4.9, D148: 5.0, D149: 6.1, D150: 6.1** / 0.1sec/step]
	Do not change. Force reload time when cold		
008	Temp.:Delta:Low Power:Center	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Difference value from reload permission target value: warm: center		
009	Temp.:Delta:Low Power:End	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Reload permission temperature: difference: warm: edge		
010	Temp.:Delta:Low Power:Press	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Difference value from reload permission target value: warm: pressure		
011	Forced Reload Time:Low Power	*ENG	[0.0 to 100.0 / **D146: 49, D147: 49, D148: 50, D149: 61, D150: 61** / 0.1sec/step]
	Do not change. Force reload time when warm		
012	Temp.:Delta:Hot:Center	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Difference value from reload permission target value: hot: center		

013	Temp.:Delta:Hot:End	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Reload permission temperature: difference: hot: edge		
014	Temp.:Delta:Hot:Press	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Difference value from reload permission target value: hot: pressure		
015	Forced Reload Time:Hot	*ENG	[0.0 to 100.0 / **D146: 4.9, D147: 4.9, D148: 5.0, D149: 6.1, D150: 6.1** / 0.1sec/step]
	Do not change. Force reload time when hot		
016	Temp.:Delta:Cold:BW1/2:Center	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Difference value from reload permission target value: cold BW: center		
017	Temp.:Delta:Cold:BW1/2:End	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]

	Do not change. Difference value from reload permission target value: cold BW: edge		
018	Temp.:Delta:Cold:BW1/2:Press	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Difference value from reload permission target value: cold BW: pressure		
019	Forced Reload Time:Cold:BW1/2	*ENG	[0.0 to 100.0 / **D146:42, D147:42, D148:50, D149:61, D150:61** / 0.1sec/step]
	Do not change. Force reload time when cold BW		
101	Reload Target Temp.:Center:Energy Saving	*ENG	[0 to 200 / **D146: 115, D147: 115, D148: 125, D149: 127, D150: 127** / 1deg/step]
	Do not change. Reload permission target temperature: center BW2		
102	Reload Target Temp.:Press:Energy Saving	*ENG	[0 to 200 / **D146:120, D147:120, D148:120, D149:100, D150:100** / 1deg/step]
	Do not change. Reload permission target temperature: pressure BW2		

103	Temp.:Delta:Cold:Energy Saving:Center	*ENG	[0 to 200 / **40** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold: center		
104	Temp.:Delta:Cold:Energy Saving:End	*ENG	[0 to 200 / **100** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold BW2: edge		
105	Temp.:Delta:Cold:Energy Saving:Press	*ENG	[0 to 200 / **70** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold BW2: edge		
106	Forced Reload Time:Cold:Energy Saving	*ENG	[0.0 to 100.0 / **D146:300, D147:300, D148:200, D149:340, D150:340** / 0.1sec/step]
	Do not change. Force reload time when cold BW2		
151	Temp.:Delta:Low Temp.:Center	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Difference value from reload permission target value: low temp: center		
152	Temp.:Delta:Low Temp.:End	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Reload permission temperature: difference: low temp: edge		
153	Temp.:Delta:Low Temp.:Press	*ENG	[0 to 200 / **D146, D147:70, D148(NA, TW): 40, D148(EU, AS, CHN, KOR): 35, D149, D150: 33** / 1deg/step]

	Do not change. Difference value from reload permission target value: low temp: pressure		
154	Forced Reload Time:Low Temp.	*ENG	[0.0 to 100.0 / **60.0** / 0.1sec/step]
	Do not change. Force reload time when low temp.		
201	Temp.:Delta:Cold:Center:FIN-less/ADF-less	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold center: No FIN/No ADF		
202	Temp.:Delta:Cold:End:FIN-less/ADF-less	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold edge: No FIN/No ADF		
203	Temp.:Delta:Cold:Press:FIN-less/ADF-less	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold pressure: No FIN/No ADF		

204	Forced Reload Time:Cold:FIN-less/ADF-less	*ENG	[0.0 to 100.0 / **D146:4.9, D147:4.9, D148:5.0, D149:6.1, D150:6.1** / 0.1sec/step]
	Do not change. Reload permission force reload time: cold: No FIN/No ADF		
211	Temp:Delta:Cold:Center:FIN-less/ADF-attached	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold center: No FIN/With ADF		
212	Temp.:Delta:Cold:End:FIN-less/ADF-attached	*ENG	[0 to 200 / **D146:31, D147:31, D148:33, D149:32, D150:32** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold edge: No FIN/With ADF		
213	Temp.:Delta:Cold:Press:FIN-less/ADF-attached	*ENG	[0 to 200 / **D146:110, D147:110, D148:110, D149:90, D150:90** / 1deg/step]
	Do not change. Reload permission temperature: difference: cold pressure: No FIN/With ADF		

214	ForcedReloadTime:Cold:FIN-less/ADF-attached	*ENG	[0.0 to 100.0 / **D146:4.9, D147:4.9, D148:5.0, D149:6.1, D150:6.1** / 0.1sec/step]
	Do not change. Reload permission force reload time: cold: No FIN/With ADF		

1102	**[Feed Permit Setting]**		
001	Temp.:Lower Delta:Center	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
002	Temp.:Lower Delta:End	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge		
003	Temp.:Upper Delta:Center	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center		
004	Temp.:Upper Delta:End	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge		
005	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **D146, 147: 90, D148(NA, TW): 80, D148(EU, AS, CHN, KOR): 83, D149 and D150(NA, TW): 95, D149 and D150(EU, AS, CHN, KOR): 100** / 1deg/step]

	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
006	Rotation Time	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed start permission temp. : before decision rotate time		
007	Temp.:Lower Delta:Center:Sp.1	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center: special mode 1		
008	Temp.:Lower Delta:End:Sp.1	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge: special mode 1		
009	Temp.:Upper Delta:Center:Sp.1	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center: special mode 1		
010	Temp.:Upper Delta:End:Sp.1	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge: special mode 1		
011	Temp.:Lower Delta:Press:Sp.1	*ENG	[0 to 200 / **D146:45, D147:45, D148:5, D149:5, D150:5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure: special mode 1		
012	Rotation Time:Sp.1	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed permission setting rotate before decision time: special mode 1		
013	Temp.:Lower Delta:Center:Sp.2	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center: special mode 2		

014	Temp.:Lower Delta:End:Sp.2	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge: special mode 2		
015	Temp.:Upper Delta:Center:Sp.2	*ENG	[0 to 200 / **15** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center: special mode 2		
016	Temp.:Upper Delta:End:Sp.2	*ENG	[0 to 200 / **15** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge: special mode 2		
017	Temp.:Lower Delta:Press:Sp.2	*ENG	[0 to 200 / **100** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure: special mode 2		
018	Rotation Time:Sp2	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed permission setting rotate before decision time: special mode 2		
019	Feed Permit Time	*ENG	[0 to 100 / **60** / 1sec/step]
	Do not change. Setting time between Before paper feed action form paper feed permission.		
020	Temp.:Lower Delta:Center	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
021	Temp.:Lower Delta:End	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge		

022	Temp.:Upper Delta:Center	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center		
023	Temp.:Upper Delta:End	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge		
024	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **D146:26, D147:26, D148:8, D149:17, D150:17** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
025	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **D146:43, D147:43, D148:25, D149:34, D150:34** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
026	Rotation Time	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed start permission temp. : before decision rotate time		
027	Temp.:Lower Delta:Center	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
028	Temp.:Lower Delta:End	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge		
029	Temp.:Upper Delta:Center	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center		
030	Temp.:Upper Delta:End	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge		

031	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **D146:11, D147:11, D148:5, D149:11, D150:11** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
032	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **D146:28, D147:28, D148:22, D149:28, D150:28** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
033	Rotation Time	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed start permission temp. : before decision rotate time		
034	Temp.:Lower Delta:Center	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
035	Temp.:Lower Delta:End	*ENG	[0 to 200 / **5** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge		
036	Temp.:Upper Delta:Center	*ENG	[0 to 200 / **15** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center		
037	Temp.:Upper Delta:End	*ENG	[0 to 200 / **15** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge		
038	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **100** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
039	Temp.:Lower Delta:Press	*ENG	[0 to 200 / **15** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		

040	Rotation Time	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed start permission temp. : before decision rotate time		
041	Judgment Power A	*ENG	[0 to 2000 / **D146(NA, TW): 1405, D146(EU, AS, CHN, KOR): 1515, D147(NA, TW): 1400, D147(EU, AS, CHN, KOR):1510, D148(NA, TW): 1355, D148(EU, AS, CHN, KOR): 1615, D149(NA, TW): 1315, D149(EU, AS, CHN, KOR): 1575, D150(NA, TW): 1300, D150(EU, AS, CHN, KOR): 1560** / 1W/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
042	Temp.:Lower Delta:Center:Power A	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
043	Temp.:Lower Delta::Power A	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge		
044	Temp.:Upper Delta:Center:Power A	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : center		
045	Temp.:Upper Delta:End:Power A	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge		

046	Temp.:Lower Delta:Press:Power A	*ENG	[0 to 200 / **D146, D147:77, D148: 71, D149:NA TW: 37, D149(EU, AS, CHN, KOR): 63, D150(NA, TW): 25, D150(EU, AS, CHN, KOR): 45** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure		
047	Rotation Time:Power A	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed start permission temp. : before decision rotate time		
051	Judgment Power B	*ENG	[0 to 2000 / **D146(NA, TW): 1320, D146(EU, AS, CHN, KOR): 1430, D147(NA, TW): 1315, D147(EU, AS, CHN, KOR):1425, D148(NA, TW): 1270, D148(EU, AS, CHN, KOR): 1530, D149(NA, TW): 1225, D149(EU, AS, CHN, KOR): 1485, D150(NA, TW): 1215, D150(EU, AS, CHN, KOR): 1475** / 1W/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center		
052	Temp.:Lower Delta:Center:Power B	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : center: special mode 1		
053	Temp.:Lower Delta:End:Power B	*ENG	[0 to 200 / **D146:40, D147:40, D148:52, D149:40, D150:40** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : edge: special mode 1		
054	Temp.:Upper Delta:Center:Power B	*ENG	[0 to 200 / **30** / 1deg/step]

	Do not change. Paper feed start permission temp. lower diff from target temp. : edge: special mode 1		
055	Temp.:Upper Delta:End:Power B	*ENG	[0 to 200 / **30** / 1deg/step]
	Do not change. Paper feed start permission temp. upper diff from target temp. : edge: special mode 1		
056	Temp.:Lower Delta:Press:Power B	*ENG	[0 to 200 / **D146, D147:77, D148:71, D149(NA TW): 37, D149(EU, AS, CHN, KOR): 63, D150(NA, TW): 25, D150(EU, AS, CHN, KOR): 43** / 1deg/step]
	Do not change. Paper feed start permission temp. lower diff from target temp. : pressure: special mode 1		
057	Rotation Time:Power B	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Paper feed permission setting rotate before decision time: special mode 1		

1105	**[Print Target Temp.]**		
001	Plain1:FC:Center	*ENG	[100 to 180 / **D146:118, D147:118, D148:131, D149:147, D150:147** / 1deg/step]
	Paper through target temperature: Standard paper 1: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
002	Plain1:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:138, D150:138** / 1deg/step]
	Do not change. paper through target temperature: Standard paper 1: FC: pressure		

003	Plain1:BW:Center	*ENG	[100 to 180 / **D146:115, D147:115, D148:126, D149:142, D150:142** / 1deg/step]
	Paper through target temperature: Standard paper 1: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
004	Plain1:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:133, D150:133** / 1deg/step]
	Do not change. paper through target temperature: Standard paper 1: BW: pressure		
005	Plain2:FC:Center	*ENG	[100 to 180 / **D146:123, D147:123, D148:141, D149:157, D150:157** / 1deg/step]
	Paper through target temperature: Standard paper 2: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
006	Plain2:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:143, D150:143** / 1deg/step]
	Do not change. paper through target temperature: Standard paper 2: FC: pressure		
007	Plain2:BW:Center	*ENG	[100 to 180 / **D146:120, D147:120, D148:136, D149:148, D150:148** / 1deg/step]
	Paper through target temperature: Standard paper 2: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		

008	Plain2:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:120, D150:120** / 1deg/step]
	Do not change. paper through target temperature: Standard paper 2: BW: pressure		
009	Thin:FC:Center	*ENG	[100 to 180 / **D146:114, D147:114, D148:116, D149:132, D150:132** / 1deg/step]
	Paper through target temperature: thin paper: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
010	Thin:FC:Press	*ENG	[0 to 200 / **D146:114, D147:114, D148:116, D149:132, D150:132** / 1deg/step]
	Do not change. paper through target temperature: thin paper: FC: pressure		
011	Thin:BW:Center	*ENG	[100 to 180 / **D146:114, D147:114, D148:116, D149:132, D150:132** / 1deg/step]
	Paper through target temperature: thin paper: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
012	Thin:BW:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thin paper: BW: pressure		
013	M-thick:FC:Center	*ENG	[100 to 180 / **D146:135, D147:135, D148:141, D149:157, D150:157** / 1deg/step]
	Paper through target temperature: middle thick paper: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		

014	M-thick:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:140, D150:140** / 1deg/step]
	Do not change. paper through target temperature: middle thick paper: FC: pressure		
015	M-thick:BW:Center	*ENG	[100 to 180 / **D146:135, D147:135, D148:141, D149:152, D150:152** / 1deg/step]
	Paper through target temperature: middle thick paper: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
016	M-thick:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:140, D150:140** / 1deg/step]
	Do not change. paper through target temperature: middle thick paper: BW: pressure		
017	Thick1:FC:Center	*ENG	[100 to 180 / **D146:125, D147:125, D148:140, D149:140, D150:140** / 1deg/step]
	Paper through target temperature: thick paper 1: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
018	Thick1:FC:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 1: FC: pressure		
019	Thick1:BW:Center	*ENG	[100 to 180 / **D146:125, D147:125, D148:140, D149:140, D150:140** / 1deg/step]
	Paper through target temperature: thick paper 1: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		

020	Thick1:BW:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 1: BW: pressure		
021	Thick2:FC:Center	*ENG	[100 to 180 / **130** / 1deg/step]
	paper through target temperature: thick paper 2: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
022	Thick2:FC:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 2: FC: pressure		
023	Thick2:BW:Center	*ENG	[100 to 180 / **130** / 1deg/step]
	Paper through target temperature: thick paper 2: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
024	Thick2:BW:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 2: BW: pressure		
025	Thick3:FC:Center	*ENG	[100 to 180 / **135** / 1deg/step]
	Paper through target temperature: thick paper 3: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
026	Thick3:FC:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 3: FC: pressure		
027	Thick3:BW:Center	*ENG	[100 to 180 / **135** / 1deg/step]
	Paper through target temperature: thick paper 3: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
028	Thick3:BW:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 3: BW: pressure		

029	Special1:FC:Center	*ENG	[100 to 180 / **D146:129, D147:129, D148:131, D149:147, D150:147** / 1deg/step]
	Paper through target temperature: special paper 1: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
030	Special1:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:147, D150:147** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: FC: pressure		
031	Special1:BW:Center	*ENG	[100 to 180 / **D146:129, D147:129, D148:131, D149:147, D150:147** / 1deg/step]
	Paper through target temperature: special paper 1: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
032	Special1:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:147, D150:147** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: BW: pressure		
033	Special2:FC:Center	*ENG	[100 to 180 / **D146:139, D147:139, D148:141, D149:157, D150:157** / 1deg/step]
	Paper through target temperature: special paper 2: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		

034	Special2:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:143, D150:143** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: FC: pressure		
035	Special2:BW:Center	*ENG	[100 to 180 / **D146:139, D147:139, D148:141, D149:157, D150:157** / 1deg/step]
	Paper through target temperature: special paper 2: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
036	Special2:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:137, D150:137** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: BW: pressure		
037	Special3:FC:Center	*ENG	[100 to 180 / **D146:139, D147:139, D148:141, D149:157, D150:157** / 1deg/step]
	paper through target temperature: special paper 3: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
038	Special3:FC:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:137, D150:137** / 1deg/step]
	Do not change. paper through target temperature: special paper 3: FC: pressure		
039	Special3:BW:Center	*ENG	[100 to 180 / **D146:139, D147:139, D148:141, D149:157, D150:157** / 1deg/step]

	Paper through target temperature: special paper 3: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
040	Special3:BW:Press	*ENG	[0 to 200 / **D146:118, D147:118, D148:118, D149:140, D150:140** / 1deg/step]
	Do not change. paper through target temperature: special paper 3: BW: pressure		
041	Envelop:Center	*ENG	[100 to 180 / **142** / 1deg/step]
	Paper through target temperature: envelope: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
042	Envelop:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: envelope: FC: pressure		
051	Special1:FC:Center:Middle Speed	*ENG	[100 to 180 / **D146:122, D147:122, D148:141, D149:141, D150:141** / 1deg/step]
	paper through target temperature: special paper 1: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
052	Special1:FC:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: FC: pressure		
053	Special1:BW:Center:Middle Speed	*ENG	[100 to 180 / **D146:122, D147:122, D148:141, D149:141, D150:141** / 1deg/step]

	Paper through target temperature: special paper 1: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
054	Special1:BW:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: BW: pressure		
055	Special2:FC:Center:Middle Speed	*ENG	[100 to 180 / **D146:127, D147:127, D148:146, D149:146, D150:146** / 1deg/step]
	Paper through target temperature: special paper 2: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
056	Special2:FC:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: FC: pressure		
057	Special2:BW:Center:Middle Speed	*ENG	[100 to 180 / **D146:127, D147:127, D148:146, D149:146, D150:146** / 1deg/step]
	Paper through target temperature: special paper 2: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
058	Special2:BW:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: BW: pressure		
059	Special3:FC:Center:Middle Speed	*ENG	[100 to 180 / **D146: 132, D147: 132, D148: 151, D149: 151, D150: 151** / 1deg/step]

	Paper through target temperature: special paper 3: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
060	Special3:FC:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 3: FC: pressure		
061	Special3:BW:Center:Middle Speed	*ENG	[100 to 180 / **D146: 132, D147: 132, D148: 151, D149: 151, D150: 151** / 1deg/step]
	Paper through target temperature: special paper 3: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
062	Special3:BW:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 3: BW: pressure		
101	Plain1:FC:Center:Low Speed	*ENG	[100 to 180 / **115** / 1deg/step]
	Paper through target temperature: Standard 1: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
102	Plain1:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Standard 1: FC: pressure: low speed		
103	Plain1:BW:Center:Low Speed	*ENG	[100 to 180 / **115** / 1deg/step]
	Paper through target temperature: Standard 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		

104	Plain1:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Standard 1: BW: pressure: low speed		
105	Plain2:FC:Center:Low Speed	*ENG	[100 to 180 / **120** / 1deg/step]
	Paper through target temperature: Standard 2: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
106	Plain2:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Standard 2: FC: pressure: low speed		
107	Plain2:BW:Center:Low Speed	*ENG	[100 to 180 / **120** / 1deg/step]
	Paper through target temperature: Standard 2: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
108	Plain2:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Standard 2: BW: pressure: low speed		
109	M-thick:FC:Center:Low Speed	*ENG	[100 to 180 / **135** / 1deg/step]
	Paper through target temperature: middle thick paper: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
110	M-thick:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: middle thick paper: FC: pressure: low speed		
111	M-thick:BW:Center:Low Speed	*ENG	[100 to 180 / **135** / 1deg/step]

	Paper through target temperature: middle thick paper: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
112	M-thick:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: middle thick paper: BW: pressure: low speed		
113	Thick1:FC:Center:Low Speed	*ENG	[100 to 180 / **128** / 1deg/step]
	Paper through target temperature: Thick paper 1: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
114	Thick1:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Thick paper 1: FC: pressure: low speed		
115	Thick1:BW:Center:Low Speed	*ENG	[100 to 180 / **127** / 1deg/step]
	Paper through target temperature: Thick paper 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
116	Thick1:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: Thick paper 1: BW: pressure: low speed		
117	Special1:FC:Center:Low Spee	*ENG	[100 to 180 / **137** / 1deg/step]
	paper through target temperature: Thick paper 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
118	Special1:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]

	Do not change. paper through target temperature: special paper 1: FC: pressure: low speed		
119	Special1:BW:Center:Low Speed	*ENG	[100 to 180 / **137** / 1deg/step]
	Paper through target temperature: special paper 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
120	Special1:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: BW: pressure: low speed		
121	Special2:FC:Center:Low Speed	*ENG	[100 to 180 / **142** / 1deg/step]
	Paper through target temperature: special paper 2: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
122	Special2:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: FC: pressure: low speed		
123	Special2:BW:Center:Low Speed	*ENG	[100 to 180 / **142** / 1deg/step]
	Paper through target temperature: special paper 2: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
124	Special2:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 2: BW: pressure: low speed		

125	Plain1:Glossy:Center	*ENG	[100 to 180 / **132** / 1deg/step]
	Paper through target temperature: Standard paper 1: coat: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
126	Plain1:Glossy:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature coat: standard 1: pressure		
127	Plain2:Glossy:Center	*ENG	[100 to 180 / **137** / 1deg/step]
	Paper through target temperature: Standard paper 2: coat: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
128	Plain2:Glossy:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature coat: standard 2: pressure		
129	M-thick:Glossy:Center	*ENG	[100 to 180 / **142** / 1deg/step]
	Paper through target temperature: Standard paper 2: coat: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
130	M-thick:Glossy:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature coat: middle thick: pressure		
131	OHP:Center	*ENG	[100 to 180 / **160** / 1deg/step]
	paper through target temperature OHP: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
132	OHP:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature OHP: pressure		
133	Envelop:Center:Low Speed	*ENG	[100 to 180 / **142** / 1deg/step]

	Paper through target temperature: envelope: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
134	Envelop:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: envelope: pressure: low speed		
135	Thin:FC:Center:Low Speed	*ENG	[100 to 180 / **110** / 1deg/step]
	Paper through target temperature: thin paper: FC: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
136	Thin:FC:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thin paper: FC: pressure: low speed		
137	Thin:BW:Center:Low Speed	*ENG	[100 to 180 / **110** / 1deg/step]
	Paper through target temperature: thin paper: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
138	Thin:BW:Press:Low Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thin paper: BW: pressure: low speed		
139	Thick4:FC:Center	*ENG	[100 to 180 / **147** / 1deg/step]
	Paper through target temperature: thick paper 4: FC: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
140	Thick4:FC:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 4: FC: pressure		
141	Thick4:BW:Center	*ENG	[100 to 180 / **147** / 1deg/step]

	Paper through target temperature: thick paper 4: BW: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
142	Thick4:BW:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: thick paper 4: BW: pressure		
143	Postcard:Center	*ENG	[100 to 180 / **118** / 1deg/step]
	Paper through target temperature post card: center Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
144	Postcard:Press	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature post card: pressure		
145	Special3:FC:Center:Middle Speed	*ENG	[100 to 180 / **147** / 1deg/step]
	Paper through target temperature: Thick paper 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
146	Special3:FC:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]
	Do not change. paper through target temperature: special paper 1: FC: pressure: low speed		
147	Special3:BW:Center:Middle Speed	*ENG	[100 to 180 / **147** / 1deg/step]
	Paper through target temperature: special paper 1: BW: center: low speed Fusing malfunction might improve by setting value larger. Paper curl might improve by setting value smaller. Adjusting range is +/- 5 deg. celsius.		
148	Special3:BW:Press:Middle Speed	*ENG	[0 to 200 / **118** / 1deg/step]

	Do not change. paper through target temperature: special paper 1: BW: pressure: low speed

1106	**[Fusing Temp. Display]**		
001	Heat Center	ENG	[-10 to 250 / **0** / 1deg/step]
	Display fusing temperature: Displays detect temperature of heating center sensor.		
002	Heat End	ENG	[-10 to 250 / **0** / 1deg/step]
	Display fusing temperature: Displays detect temperature of heating edge sensor.		
003	Press Center	ENG	[-10 to 250 / **0** / 1deg/step]
	Display fusing temperature: Displays detect temperature of pressuring edge sensor.		
004	Press End	ENG	[-10 to 250 / **0** / 1deg/step]
	Display fusing temperature: Displays detect temperature of pressuring edge sensor.		
005	Press End	ENG	[-10 to 250 / **0** / 1deg/step]
	Display fusing temperature: Displays detect temperature of pressuring extension edge sensor.		

1107	**[Standby Target Temp. Setting]**		
001	Stanby/Preheat1:Center	*ENG	[0 to 200 / **90** / 1deg/step]
	Do not change. Ready/pre-heat 1 target temperature: center		
003	Preheat2:Center	*ENG	[0 to 200 / **90** / 1deg/step]
	Do not change. Pre-heat 2 target temperature: pressure		
005	Low Power:Center	*ENG	[0 to 200 / **60** / 1deg/step]
	Do not change. Energy save target temperature: pressure		

007	Print Ready:Center	*ENG	[100 to 180 / **D146, D147: 128, D148(NA, TW): 141, D148(EU, AS, CHN, KOR): 131, D149, D150(NA, TW): 157, D149, D150(EU, AS, CHN, KOR): 147** / 1deg/step]
	Do not change. Prepare printing target temperature: fusing		
008	Print Ready:Press	*ENG	[0 to 200 / **120** / 1deg/step]
	Do not change. Prepare printing target temperature: pressure		
011	Standby Heater Off Time	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. After switching to ready, turn heater 3 OFF until passes.		

1108	**[After Reload/Job Target Temp.]**		
001	Center	*ENG	[0 to 200 / **D146:123, D147:123, D148:141, D149:157, D150:157** / 1deg/step]
	Do not change. After reload/after paper through target temperature: center		
002	Press	*ENG	[0 to 200 / **120** / 1deg/step]
	Do not change. After reload/after paper through target temperature: pressure		
011	Center:Energy Saving	*ENG	[0 to 200 / **D146:112, D147:112, D148:118, D149:135, D150:135** / 1deg/step]
	Do not change. After reload/after paper through target temperature: center: BW2		
012	Press:Energy Saving	*ENG	[0 to 200 / **120** / 1deg/step]
	Do not change. After reload/after paper through target temperature: pressure: BW2		

1111	**[Environment Correction:Fusing]**		
001	Temp.: Threshold: Low	*ENG	[0 to 100 / **17** / 1deg/step]

	Do not change. Threshold to decide low temp. environment		
002	Temp.: Threshold: High	*ENG	[0 to 100 / **30** / 1deg/step]
	Do not change. Threshold to decide high temp. environment		
003	Low Temp. Correction	*ENG	[0 to 15 / **D146:5, D147:5, D148:15, D149:15, D150:15** / 1deg/step]
	Do not change. Correction temp. for stand up, standby when under low temp. environment		
004	High Temp. Correction	*ENG	[0 to 15 / **0** / 1deg/step]
	Do not change. Correction temp. for stand up, standby when under high temp. environment		
005	Job Low Temp. Correction	*ENG	[0.0 to 100.0 / **D146:5.0, D147:5.0, D148:10.0, D149:10.0, D150:10.0** / 0.1deg/step]
	Do not change. Correction temp. for pass trough paper when under low temp. environment		
006	Job High Temp. Correction	*ENG	[0.0 to 100.0 / **0.0** / 0.1deg/step]
	Do not change. Correction temp. for pass trough paper when under high temp. environment		
007	Job Low Temp. Correction:Sp.	*ENG	[0.0 to 100.0 / **D146:5.0, D147:5.0, D148:10.0, D149:10.0, D150:10.0** / 0.1deg/step]
	Do not change. Special mode correction temp. for pass trough paper when under low temp. environment		
008	Job High Temp. Correction:Sp.	*ENG	[0.0 to 100.0 / **0.0** / 0.1deg/step]
	Do not change. Special mode correction temp. for pass trough paper when under high temp. environment		
011	Standard Environment Temp.	*ENG	[10 to 30 / **23** / 1deg/step]
	Do not change. Standard environment temperature		

1112	[Image Processing Temp. Correct]		
001	Temp.:Plain:Center:Level1/2	*ENG	[-20 to 20 / **0** / 1deg/step]
	Do not change. Image process temperature correction: standard paper: Level 1		
002	Temp.:Plain:Center:Energy Saving	*ENG	[-30 to 20 / **D146:-7, D147:-7, D148:-15, D149:-16, D150:-16** / 1deg/step]
	Image process temperature correction: standard paper: Level 2 Fusing malfunction to standard paper, Bk monochrome images might improve by setting value larger. Adjustable range is between +/- 0 deg. Celsius to initial value.		

1113	[Curl Correction]		
001	Execute Pattern	*ENG	[0 to 2 / **0** / 1/step] 0: OFF 1: ON(No Decurl) 2: ON
	Enable/disable curl correction.		
002	Humidity:Threshold:M-humid	*ENG	[0 to 100 / **1** / 1%/step]
	Do not change. Curl correct humidity: threshold: middle humidity		
003	Humidity:Threshold:H-humid	*ENG	[0 to 100 / **65** / 1%/step]
	Do not change. Curl correct humidity: threshold: high humidity		
004	Permit Temp.:Delta:Press:M-humid	*ENG	[0 to 200 / **D146:60, D147:60, D148:40, D149:40, D150:40** / 1deg/step]
	Do not change. Curl correction approve temperature: diff.: pressure: middle humidity		
005	Permit Temp.:Delta:Press:H-humid	*ENG	[0 to 200 / **D146:60, D147:60, D148:40, D149:40, D150:40** / 1deg/step]
	Do not change. Curl correction approve temperature: diff.: pressure: high humidity		

006	Permit Temp.:Delta:Press:M-humid:No Decurl	*ENG	[0 to 200 / **D146:50, D147:50, D148:30, D149:30, D150:30** / 1deg/step]
	Do not change. Curl correction approve temperature: diff.: pressure: middle humidity: de-curler not went through		
007	Permit Temp.:Delta:Press:H-humid:No Decurl	*ENG	[0 to 200 / **D146:40, D147:40, D148:20, D149:20, D150:20** / 1deg/step]
	Do not change. Curl correction approve temperature: diff.: pressure: middle humidity: de-curler not went through		
008	CPM:M-humid	*ENG	[0 to 100 / **80** / 1%/step]
	Do not change. Curl correction CPM: middle humidity		
009	CPM:H-humid	*ENG	[0 to 100 / **65** / 1%/step]
	Do not change. Curl correction CPM: high humidity		
010	CPM:M-humid:No Decurl	*ENG	[0 to 100 / **80** / 1%/step]
	Do not change. Curl correction CPM: middle humidity: de-curler not went through		
011	CPM:H-humid:No Decurl	*ENG	[0 to 100 / **65** / 1%/step]
	Do not change. Curl correction CPM: high humidity: de-curler not went through		

1114	**[Heat Storage Status]**		
001	Temp.:Threshold:Press	*ENG	[0 to 200 / **80** / 1deg/step]
	Do not change. Pressuring temperature thresh to judge heat accumulation.		
002	Temp.:Threshold:Atmosphere	*ENG	[0 to 200 / **60** / 1deg/step]
	Do not change. Audience temperatures thresh to judge heat accumulation.		
003	Temp.:Threshold:CPM down	*ENG	[0 to 200 / **60** / 1deg/step]
	Do not change. Pressuring temperature thresh to judge heat accumulation.		
004	Temp.:Threshold:Voltage Detection	*ENG	[0 to 200 / **40** / 1deg/step]

	Do not change. Judge heat accumulation: voltage detecting pressure temperature thresh

1115	**[Target Temp. Correction]**		
001	Temp.:Delta:End	*ENG	[-100 to 100 / **0** / 1deg/step]
	Do not change. Target temperature differential value of center and edge		

1116	**[Heat Storage FB Control]**		
001	Execution mode	*ENG	[0 to 2 / **0** / 1/step] 0: OFF 1: ON(BW) 2: ON(BW/FC)
	Do not change. Applying area of heat accumulate amount FB control		
011	Time Out	*ENG	[0 to 500 / **10** / 1sec/step]
	Do not change. Time from start paper through to start temperature correct.		
021	Delay:Standard Speed:FC:1	*ENG	[0 to 20000 / **D146:3590, D147:3590, D148:2810, D149:2050, D150:2050** / 1msec/step]
	Do not change. Time to get pressure temperature from F GATE standard peed: FC: 1		
022	Delay:Standard Speed:BW:1	*ENG	[0 to 20000 / **D146:1320, D147:1320, D148:1040, D149:760, D150:760** / 1msec/step]
	Do not change. Time to get pressure temperature from F GATE standard peed: BW: 1		
031	Delay:Standard Speed:FC:2	*ENG	[0 to 20000 / **D146:3590, D147:3590, D148:2810, D149:2050, D150:2050** / 1msec/step]

	Do not change. Do not change. Time to get pressure temperature from F GATE standard peed: FC: 2		
032	Delay:Standard Speed:BW:2	*ENG	[0 to 20000 / **D146:1320, D147:1320, D148:1040, D149:760, D150:760** / 1msec/step]
	Do not change. Time to get pressure temperature from F GATE standard peed: BW: 2		
041	Press Reference Temp.	*ENG	[0 to 200 / **D146:70, D147:70, D148:75, D149:75, D150:75** / 1deg/step]
	Do not change. Pressuring temperature to calculate correction value		
042	Temp. Correction Lower Limit	*ENG	[-30 to 0 / **-1** / 1deg/step]
	Do not change. Lower limit of temperature correcting value		
043	Temp. Correction Upper Limit	*ENG	[0 to 30 / **0** / 1deg/step]
	Do not change. Upper limit of temperature correcting value		
051	Paper Thickness Coefficient:Plain1	*ENG	[0 to 100 / **30** / 1/step]
	Do not change. Coefficient to calculate temperature correction value standard paper 1		
052	Paper Thickness Coefficient:Plain2	*ENG	[0 to 100 / **30** / 1/step]
	Do not change. Coefficient to calculate temperature correction value standard paper 2		

1117	**[Repeat Temp. Correction]**		
	Do not change.		
001	Control Time 1:A3	*ENG	[0 to 300 / **0** / 1sec/step]
002	Control Time 2:A3	*ENG	[0 to 300 / **0** / 1sec/step]
003	Temp.:Center:1:A3	*ENG	[-30 to 30 / **0** / 1deg/step]

004	Temp.:End:1:A3	*ENG	[-30 to 30 / **0** / 1deg/step]
005	Temp.:Center:2:A3	*ENG	[-30 to 30 / **0** / 1deg/step]
006	Temp.:End:2:A3	*ENG	[-30 to 30 /**0** / 1deg/step]
011	Control Time 1:DLT	*ENG	[0 to 300 / **D146:60, D147:51 D148:40,D149:33, D150:30** / 1sec/step]
012	Control Time 2:DLT	*ENG	[0 to 300 / **D146:60, D147:51 D148:40,D149:33, D150:30** / 1sec/step]
013	Temp.:Center:1:DLT	*ENG	[-30 to 30 / **0** / 1deg/step]
014	Temp.:End:1:DLT	*ENG	[-30 to 30 / **D146:0, D147:0, D148:-5, D149:-5, D150:-5** / 1deg/step]
015	Temp.:Center:2:DLT	*ENG	[-30 to 30 / **0** / 1deg/step]
016	Temp.:End:2:DLT	*ENG	[-30 to 30 / **D146:0, D147:0, D148:-10, D149:-10, D150:-10** / 1deg/step]
021	Control Time 1:B4	*ENG	[0 to 300 / **0** / 1sec/step]
022	Control Time 2:B4	*ENG	[0 to 300 / **D146:10, D147:9, D148:7, D149:5, D150:5** / 1sec/step]
023	Temp.:Center:1:B4	*ENG	[-30 to 30 / **0** / 1deg/step]
024	Temp.:End:1:B4	*ENG	[-30 to 30 / **25** / 1deg/step]
025	Temp.:Center:2:B4	*ENG	[-30 to 30 / **0** / 1deg/step]
026	Temp.:End:2:B4	*ENG	[-30 to 30 / **25** / 1deg/step]
031	Control Time 1:LT	*ENG	[0 to 300 / **0** / 1sec/step]
032	Control Time 2:LT	*ENG	[0 to 300 / **0** / 1sec/step]
033	Temp.:Center:1:LT	*ENG	[-30 to 30 / **6** / 1deg/step]
034	Temp.:End:1:LT	*ENG	[-30 to 30 / **21** / 1deg/step]

035	Temp.:Center:2:LT	*ENG	[-30 to 30 / **6** / 1deg/step]
036	Temp.:End:2:LT	*ENG	[-30 to 30 / **21** / 1deg/step]
041	Control Time 1:A3,DLT:Energy Saving	*ENG	[0 to 300 / **D146:3, D147:3, D148:2, D149:0, D150:0** / 1sec/step]
042	Control Time 2:A3,DLT:Energy Saving	*ENG	[0 to 300 / **D146:40, D147:40, D148:60, D149:60, D150:60** / 1sec/step]
043	Temp.:Center:1:A3,DLT:Energy Saving	*ENG	[-30 to 30 / **D146:1, D147:1, D148:3, D149:3, D150:3** / 1deg/step]
044	Temp.:End:1:A3,DLT:Energy Saving	*ENG	[-30 to 30 / **0** / 1deg/step]
045	Temp.:Center:2:A3,DLT:Energy Saving	*ENG	[-30 to 30 / **D146:4, D147:4, D148:5, D149:6, D150:6** / 1deg/step]
046	Temp.:End:2:A3,DLT:Energy Saving	*ENG	[-30 to 30 / **3** / 1deg/step]
051	Control Time 1:A4	*ENG	[0 to 300 / **0** / 1sec/step]
052	Control Time 2:A4	*ENG	[0 to 300 / **0** / 1sec/step]
053	Temp.:Center:1:A4	*ENG	[-30 to 30 / **0** / 1deg/step]
054	Temp.:End:1:A4	*ENG	[-30 to 30 / **D146 and D147(NA, TW), D148, D149, D150(ALL):21, D146, D147(EU, AS, CHN, KOR): 0** / 1deg/step]
055	Temp.:Center:2:A4	*ENG	[-30 to 30 / **D146 and D147(NA, TW), D148, D149, D150(ALL):6, D146, D147(EU, AS, CHN, KOR): 0** / 1deg/step]
056	Temp.:End:2:A4	*ENG	[-30 to 30 / **0** / 1deg/step]
061	Control Time 1:A3:M-thick	*ENG	[0 to 300 / **0** / 1sec/step]

062	Control Time 2:A3:M-thick	*ENG	[0 to 300 / **0** / 1sec/step]
063	Temp.:Center:1:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
064	Temp.:End:1:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
065	Temp.:Center:2:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
066	Temp.:End:2:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
071	Control Time 1:DLT:M-thick	*ENG	[0 to 300 / **D146:60, D147:51, D148:40, D149:33, D150:30** / 1sec/step]
072	Control Time 2:DLT:M-thick	*ENG	[0 to 300 / **D146:60, D147:51, D148:40, D149:33, D150:30** / 1sec/step]
073	Temp.:Center:1:DLT:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
074	Temp.:End:1:DLT:M-thick	*ENG	[-30 to 30 / **D146:0, D147:0, D148:-5, D149:-5, D150:-5** / 1deg/step]
075	Temp.:Center:2:DLT:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
076	Temp.:End:2:DLT:M-thick	*ENG	[-30 to 30 / **D146:0, D147:0, D148:-10, D149:-10, D150:-10** / 1deg/step]
081	Control Time 1:Envelope:Long	*ENG	[0 to 300 / **0** / 1sec/step]
082	Control Time 2:Envelope:Long	*ENG	[0 to 300 / **0** / 1sec/step]
083	Temp.:Center:1:Envelope:Long	*ENG	[-30 to 30 / **0** / 1deg/step]
084	Temp.:End:1:Envelope:Long	*ENG	[-30 to 30 / **10** / 1deg/step]
085	Temp.:Center:2:Envelope:Long	*ENG	[-30 to 30 / **0** / 1deg/step]
086	Temp.:End:2:Envelope:Long	*ENG	[-30 to 30 / **10** / 1deg/step]
091	Control Time 1:Envelope:Short	*ENG	[0 to 300 / **0** / 1sec/step]
092	Control Time 2:Envelope:Short	*ENG	[0 to 300 / **0** / 1sec/step]
093	Temp.:Center:1:Envelope:Short	*ENG	[-30 to 30 / **0** / 1deg/step]

094	Temp.:End:1:Envelope:Short	*ENG	[-30 to 30 / **0** / 1deg/step]
095	Temp.:Center:2:Envelope:Short	*ENG	[-30 to 30 / **0** / 1deg/step]
096	Temp.:End:2:Envelope:Short	*ENG	[-30 to 30 / **0** / 1deg/step]
101	Control Time 1:B5	*ENG	[0 to 300 / **0** / 1sec/step]
102	Control Time 2:B5	*ENG	[0 to 300 / **0** / 1sec/step]
103	Temp.:Center:1:B5	*ENG	[-30 to 30 / **0** / 1deg/step]
104	Temp.:End:1:B5	*ENG	[-30 to 30 / **-30** / 1deg/step]
105	Temp.:Center:2:B5	*ENG	[-30 to 30 / **0** / 1deg/step]
106	Temp.:End:2:B5	*ENG	[-30 to 30 /**-30** / 1deg/step]
111	Control Time 1:12inch	*ENG	[0 to 300 / **0** / 1sec/step]
112	Control Time 2:12inch	*ENG	[0 to 300 / **0** / 1sec/step]
113	Temp.:Center:1:12inch	*ENG	[-30 to 30 / **0** / 1deg/step]
114	Temp.:End:1:12inch	*ENG	[-30 to 30 / **0** / 1deg/step]
115	Temp.:Center:2:12inch	*ENG	[-30 to 30 / **0** / 1deg/step]
116	Temp.:End:2:12inch	*ENG	[-30 to 30 / **0** / 1deg/step]
121	Control Time 1:12inch:M-thick	*ENG	[0 to 300 / **0** / 1sec/step]
122	Control Time 2:12inch:M-thick	*ENG	[0 to 300 / **0** / 1sec/step]
123	Temp.:Center:1:12inch:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
124	Temp.:End:1:12inch:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
125	Temp.:Center:2:12inch:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
126	Temp.:End:2:12inch:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
131	Control Time 1:SRA3	*ENG	[0 to 300 / **0** / 1sec/step]
132	Control Time 2:SRA3	*ENG	[0 to 300 / **D146:6, D147:6, D148:160, D149:132, D150:120** / 1sec/step]

133	Temp.:Center:1:SRA3	*ENG	[-30 to 30 / **D146:25, D147: 25, D148: 20, D149: 20, D150: 20** / 1deg/step]
134	Temp.:End:1:SRA3	*ENG	[-30 to 30 / **25** / 1deg/step]
135	Temp.:Center:2:SRA3	*ENG	[-30 to 30 / **0** / 1deg/step]
136	Temp.:End:2:SRA3	*ENG	[-30 to 30 / **0** / 1deg/step]
141	Control Time 1:SRA3:M-thick	*ENG	[0 to 300 / **0** / 1sec/step]
142	Control Time 2:SRA3:M-thick	*ENG	[0 to 300 / **D146:25, D147:25, D148:160, D149:132, D150:120** / 1sec/step]
143	Temp.:Center:1:SRA3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
144	Temp.:End:1:SRA3:M-thick	*ENG	[-30 to 30 / **D146:20, D147: 20, D148: 0, D149: 0, D150: 0** / 1deg/step]
145	Temp.:Center:2:SRA3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
146	Temp.:End:2:SRA3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
151	Control Time 1:DLT:Low	*ENG	[0 to 300 / **0** / 1sec/step]
152	Control Time 2:DLT:Low	*ENG	[0 to 300 / **0** / 1sec/step]
153	Temp.:Center:1:DLT:Low	*ENG	[-30 to 30 / **0** / 1deg/step]
154	Temp.:End:1:DLT:Low	*ENG	[-30 to 30 / **5** / 1deg/step]
155	Temp.:Center:2:DLT:Low	*ENG	[-30 to 30 / **0** / 1deg/step]
156	Temp.:End:2:DLT:Low	*ENG	[-30 to 30 / **5** / 1deg/step]
161	Control Time 1:DLT:M-thick:Low	*ENG	[0 to 300 / **0** / 1sec/step]
162	Control Time 2:DLT:M-thick:Low	*ENG	[0 to 300 / **0** / 1sec/step]
163	Temp.:Center:1:DLT:M-thick:Low	*ENG	[-30 to 30 / **0** / 1deg/step]
164	Temp.:End:1:DLT:M-thick:Low	*ENG	[-30 to 30 / **5** / 1deg/step]
165	Temp.:Center:2:DLT:M-thick:Low	*ENG	[-30 to 30 / **0** / 1deg/step]
166	Temp.:End:2:DLT:M-thick:Low	*ENG	[-30 to 30 / **5** / 1deg/step]

1118	**[Before Job Temp. Correct]**		
	Do not change.		
001	Temp.:Center:12inch	*ENG	[-30 to 30 / **0** / 1deg/step]
002	Temp.:End:12inch	*ENG	[-30 to 30 / **10** / 1deg/step]
003	Temp.:Center:A3	*ENG	[-30 to 30 / **0** / 1deg/step]
004	Temp.:End:A3	*ENG	[-30 to 30 / **0** / 1deg/step]
005	Temp.:Center:DLT	*ENG	[-30 to 30 / **0** / 1deg/step]
006	Temp.:End:DLT	*ENG	[-30 to 30 / **0** / 1deg/step]
007	Temp.:Center:SRA3	*ENG	[-30 to 30 / **0** / 1deg/step]
008	Temp.:End:SRA3	*ENG	[-30 to 30 / **20** / 1deg/step]
011	Temp.:Center:12inch:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
012	Temp.:End:12inch:M-thick	*ENG	[-30 to 30 / **10** / 1deg/step]
013	Temp.:Center:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
014	Temp.:End:A3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
015	Temp.:Center:DLT:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
016	Temp.:End:DLT:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
017	Temp.:Center:SRA3:M-thick	*ENG	[-30 to 30 / **0** / 1deg/step]
018	Temp.:End:SRA3:M-thick	*ENG	[-30 to 30 / **20** / 1deg/step]
021	Temp.:Center:12inch:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]
022	Temp.:End:12inch:Thick	*ENG	[-30 to 30 / **10** / 1deg/step]
023	Temp.:Center:A3:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]
024	Temp.:End:A3:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]
025	Temp.:Center:DLT:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]
026	Temp.:End:DLT:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]
027	Temp.:Center:SRA3:Thick	*ENG	[-30 to 30 / **0** / 1deg/step]

028	Temp.:End:SRA3:Thick	*ENG	[-30 to 30 / **20** / 1deg/step]

1119	**[Aging Temp. Correction]**		
001	Page(%)	*ENG	[0 to 100 / **10** / 1%/step]
002	Rotation(%)	*ENG	[0 to 100 / **10** / 1%/step]
011	Temp.:Plain:FC	*ENG	[0 to 20 / **0** / 1deg/step]
012	Temp.:Plain:BW	*ENG	[0 to 20 / **0** / 1deg/step]
013	Temp.:Plain:Energy Saving	*ENG	[0 to 20 / **10** / 1deg/step]

1121	**[Switch:Rotation Start/Stop]**		
001	Time:After Reload	*ENG	[0 to 100 / **60** / 1sec/step]
	Do not change. Time for to switch form reload to standby.		
002	Time:After Recovery	*ENG	[0 to 100 / **15** / 1sec/step]
	Do not change. Standby transition: Changes time out time till depressuring.		
003	Time:After Job	*ENG	[0 to 100 / **60** / 1sec/step]
	Do not change. Time for to switch form before paper through to standby.		
004	Press Temp.:After Reload	*ENG	[0 to 160 / **160** / 1deg/step]
	Do not change. Pressure thresh to apply time to switch from reload to standby		
005	End Temp.:After Job:SRA3	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part heat after paper through (A3<paper width, pressure edge part)		
006	-	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part heat after paper through (DLT<paper width<=A3, pressure edge part)		
007	-	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part heat after paper through (B4<paper width<=DLT, pressure edge part)		

008	Overshoot Prevent Temp.	*ENG	[0 to 250 / **D146:185, D147:185, D148:195, D149:200, D150:200** / 1deg/step]
	Do not change. Temperature to start avoid over heat		
009	Overshoot Prevent Time	*ENG	[0 to 100 / **10** / 1sec/step]
	Do not change. Time to continue avoid over heat		
010	End Temp.:After Job:B4	*ENG	[0 to 250 / **135** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B4		
011	End Temp.:After Job:LT	*ENG	[0 to 250 / **D146:210, D147:210, D148:170, D149:170, D150:170** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: LT		
012	End Temp.:After Job:B5	*ENG	[0 to 250 / **155** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B5		
013	End Temp.:After Job:A5	*ENG	[0 to 250 / **155** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: A5		
014	End Temp.:After Job:B6	*ENG	[0 to 250 / **155** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B6		
015	-	*ENG	[0 to 250 / **160** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: A6		
016	-	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: SRA3		

017	-	*ENG	[0 to 250 / **155** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: A3		
018	-	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: DLT		
019	-	*ENG	[0 to 250 / **140** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B4		
020	-	*ENG	[0 to 250 / **215** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: LT		
021	Time:After Main Switch On	*ENG	[0 to 250 / **60** / 1deg/step]
	Do not change. Shift time: after main power ON.		
022	-	*ENG	[0 to 250 / **160** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B5		
023	-	*ENG	[0 to 250 / **160** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: A5		
024	-	*ENG	[0 to 250 / **160** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: B6		
025	-	*ENG	[0 to 250 / **160** / 1deg/step]
	Do not change. Rotation start temperature for equaling edge part after paper through: A6		
031	-	*ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. Last job paper through time: FC: A3		

032	-	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: A3		
033	-	*ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. Last job paper through time: FC: DLT		
034	-	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: DLT		
035	-	*ENG	[0 to 10000 / **D146:235, D147:235, D148:50, D149:50, D150:50** / 1sec/step]
	Do not change. Last job paper through time: FC: B4		
036	-	*ENG	[0 to 100 / **D146:15, D147:15, D148:10, D149:10, D150:10** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: B4		
037	-	*ENG	[0 to 10000 / **D146:250, D147:250, D148:10000, D149:10000, D150:10000** / 1sec/step]
	Do not change. Last job paper through time: FC: LT		
038	-	*ENG	[0 to 100 / **D146:10, D147:10, D148:0, D149:0, D150:0** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: LT		
039	-	*ENG	[0 to 10000 / **D146:180, D147:180, D148:45, D149:45, D150:45** / 1sec/step]
	Do not change. Last job paper through time: FC: B5		
040	-	*ENG	[0 to 100 / **D146:15, D147:15, D148:10, D149:10, D150:10** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: B5		

041	-	*ENG	[0 to 10000 / **D146:31, D147:31, D148:20, D149:20, D150:20** / 1sec/step]
	Do not change. Last job paper through time: FC: A5		
042	-	*ENG	[0 to 100 / **25** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: A5		
043	-	*ENG	[0 to 10000 / **D146:27, D147:27, D148:17, D149:17, D150:17** / 1sec/step]
	Do not change. Last job paper through time: FC: B6		
044	-	*ENG	[0 to 100 / **25** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: B6		
045	-	*ENG	[0 to 10000 / **D146:80, D147:80, D148:17, D149:17, D150:17** / 1sec/step]
	Do not change. Last job paper through time: FC: A6		
046	-	*ENG	[0 to 100 / **D146:10, D147:10, D148:25, D149:25, D150:25** / 1sec/step]
	Do not change. Equaling heat rotate time: FC: A6		
051	-	*ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. Last job paper through time: Bk: A3		
052	-	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: A3		
053	-	*ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. Last job paper through time: Bk: DLT		
054	-	*ENG	[0 to 100 / **0** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: DLT		

055	-	*ENG	[0 to 10000 / **D146:235, D147:235, D148:50, D149:50, D150:50** / 1sec/step]
	Do not change. Last job paper through time: Bk: B4		
056	-	*ENG	[0 to 100 / **D146:10, D147:10, D148:5, D149:5, D150:5** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: B4		
057	-	*ENG	[0 to 10000 / **D146:250, D147:250, D148:10000, D149:10000, D150:10000** / 1sec/step]
	Do not change. Last job paper through time: Bk: LT		
058	-	*ENG	[0 to 100 / **D146:5, D147:5, D148:0, D149:0, D150:0** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: LT		
059	-	*ENG	[0 to 10000 / **D146:180, D147:180, D148:45, D149:45, D150:45** / 1sec/step]
	Do not change. Last job paper through time: Bk: B5		
060	-	*ENG	[0 to 100 / **D146:10, D147:10, D148:5, D149:5, D150:5** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: B5		
061	-	*ENG	[0 to 10000 / **D146:31, D147:31, D148:20, D149:20, D150:20** / 1sec/step]
	Do not change. Last job paper through time: Bk: A5		
062	-	*ENG	[0 to 100 / **20** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: A5		

063	-	*ENG	[0 to 10000 / **D146:27, D147:27, D148:17, D149:17, D150:17** / 1sec/step]
	Do not change. Last job paper through time: Bk: B6		
064	-	*ENG	[0 to 100 / **20** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: B6		
065	-	*ENG	[0 to 10000 / **D146:80, D147:80, D148:17, D149:17, D150:17** / 1sec/step]
	Do not change. Last job paper through time: Bk: A6		
066	-	*ENG	[0 to 100 / **D146:5, D147:5, D148:20, D149:20, D150:20** / 1sec/step]
	Do not change. Equaling heat rotate time: Bk: A6		
101	Heat Off Time:Start:Warm Up	*ENG	[0 to 60000 / **0** / 1msec/step]
	Do not change. Heater OFF time: start rotate: stand up		
102	Heat Off Time:Start:End of A Control	*ENG	[0 to 600000 / **100000** / 1msec/step]
	Do not change. Heater OFF time: start rotate: control A finish		
103	-	*ENG	[0 to 200 / **0** / 1sec/step]
	Do not change. Time from depressure filler edge detect to heater relay off.		
111	Heat Off Time:Stop:After Reload/Print Ready	*ENG	[0 to 60000 / **0** / 1msec/step]
	Do not change. Heater OFF time: stop rotate: after reload/prepare print.		
112	Heat Off Time:Stop:After Job	*ENG	[0 to 60000 / **0** / 1msec/step]
	Do not change. Heater OFF time: stop rotate: after paper through		
113	Heat Off Time:Stop:After Job:Energy Saving	*ENG	[0 to 60000 / **0** / 1msec/step]
	Do not change. Heater OFF time: stop rotate: after paper through: BW2		

114	Relay ON Temp.:Warm Up	*ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. Relay OFF temperature: stand up		

1122	**[Standby Rotation Setting]**		
001	Rotation Interval	*ENG	[0 to 240 / **60** / 1min]
	Do not change. Interval rotate interval for when standby.		
002	Rotation Time	*ENG	[0.0 to 60.0 / **8.0** / 0.1sec/step]
	Do not change. Interval rotate time for when standby.		

1123	**[Paper Jam Rotation Setting]**		
001	Normal Rotation Distance	*ENG	[0 to 10000 / **75** / 1mm/step]
	Do not change. Rotate when jammed setting: forward rotate distance.		
002	Reverse Rotation Distance	*ENG	[0 to 10000 / **75** / 1mm/step]
	Do not change. Rotate when jammed setting: reverse rotate distance.		

1124	**[CPM Down Setting]**		
	Do not change. Temp. to judge COM is down/up. Diff. between target temp.		
001	High:Down Temp.	*ENG	[-50 to 0 / **D146, D147(ALL) and D148, D149, D150(NA, TW):-12, D148, D149, D150(EU, AS, CHN, KOR):-20** / 1deg/step]
002	High:Up Temp.	*ENG	[-50 to 0 / **D146, D147(ALL) and D148, D149, D150(NA, TW):-7, D148, D149, D150(EU, AS, CHN, KOR):-15** / 1deg/step]
1124	**[CPM Down Setting]**		
	Do not change. 1st through 3rd CPM down rate of temp. drop/rise side.		
003	Low :1st CPM	*ENG	[10 to 100 / **80** / 1%/step]

004	Low :2nd CPM	*ENG	[10 to 100 / **65** / 1%/step]
005	Low :3rd CPM	*ENG	[10 to 100 / **50** / 1%/step]
006	High:1st CPM	*ENG	[10 to 100 / **80** / 1%/step]
007	High:2nd CPM	*ENG	[10 to 100 / **50** / 1%/step]
008	High:3rd CPM	*ENG	[10 to 100 / **30** / 1%/step]
1124	**[CPM Down Setting]**		
	Do not change. CPM down setting Hot: 1st through 3rd CPM down temp		
009	High:1st CPM Down Temp.:A3:Press End	*ENG	[100 to 250 / **205** / 1deg/step]
010	High:2nd CPM Down Temp.:A3:Press End	*ENG	[100 to 250 / **210** / 1deg/step]
011	High:3rd CPM Down Temp.:A3:Press End	*ENG	[100 to 250 / **215** / 1deg/step]
012	High:1st CPM Down Temp.:DLT:Press End	*ENG	[100 to 250 / **195** / 1deg/step]
013	High:2nd CPM Down Temp.:DLT:Press End	*ENG	[100 to 250 / **200** / 1deg/step]
014	High:3rd CPM Down Temp.:DLT:Press End	*ENG	[100 to 250 / **205** / 1deg/step]
015	High:1st CPM Down Temp.:B4:Press End	*ENG	[100 to 250 / **200** / 1deg/step]
016	High:2nd CPM Down Temp.:B4:Press End	*ENG	[100 to 250 / **210** / 1deg/step]
017	High:3rd CPM Down Temp.:B4:Press End	*ENG	[100 to 250 / **215** / 1deg/step]
018	High:1st CPM Down Temp.:LT:Fuser End	*ENG	[100 to 250 / **215** / 1deg/step]
019	High:2nd CPM Down Temp.:LT:Fuser End	*ENG	[100 to 250 / **220** / 1deg/step]

020	High:3rd CPM Down Temp.:LT:Fuser End	*ENG	[100 to 250 / **225** / 1deg/step]
021	High:1st CPM Down Temp.:A4:Fuser End	*ENG	[100 to 250 / **215** / 1deg/step]
022	High:2nd CPM Down Temp.:A4:Fuser End	*ENG	[100 to 250 / **220** / 1deg/step]
023	High:3rd CPM Down Temp.:A4:Fuser End	*ENG	[100 to 250 / **225** / 1deg/step]
024	High:1st CPM Down Temp.:B5:Press Center	*ENG	[100 to 250 / **D146:205, D147:205, D148:210, D149:205, D150:205** / 1deg/step]
025	High:2nd CPM Down Temp.:B5:Press Center	*ENG	[100 to 250 / **D146:210, D147:210, D148:220, D149:210, D150:210** / 1deg/step]
026	High:3rd CPM Down Temp.:B5:Press Center	*ENG	[100 to 250 / **220** / 1deg/step]
027	High:1st CPM Down Temp.:A5:Press Center	*ENG	[100 to 250 / **170** / 1deg/step]
028	High:2nd CPM Down Temp.:A5:Press Center	*ENG	[100 to 250 / **180** / 1deg/step]
029	High:3rd CPM Down Temp.:A5:Press Center	*ENG	[100 to 250 / **210** / 1deg/step]
030	High:1st CPM Down Temp.:B6:Press Center	*ENG	[100 to 250 / **170** / 1deg/step]
031	High:2nd CPM Down Temp.:B6:Press Center	*ENG	[100 to 250 / **180** / 1deg/step]
032	High:3rd CPM Down Temp.:B6:Press Center	*ENG	[100 to 250 / **210** / 1deg/step]
033	High:1st CPM Down Temp.:A6:Press Center	*ENG	[100 to 250 / **170** / 1deg/step]

034	High:2nd CPM Down Temp.:A6:Press Center	*ENG	[100 to 250 / **180** / 1deg/step]
035	High:3rd CPM Down Temp.:A6:Press Center	*ENG	[100 to 250 / **210** / 1deg/step]
036	High:1st CPM Down Temp.:SRA3:Press End	*ENG	[100 to 250 / **210** / 1deg/step]
037	High:2nd CPM Down Temp.:SRA3:Press End	*ENG	[100 to 250 / **215** / 1deg/step]
038	High:3rd CPM Down Temp.:SRA3:Press End	*ENG	[100 to 250 / **225** / 1deg/step]
1124	**[CPM Down Setting]**		
051	Judging Interval	*ENG	[1 to 250 / **4** / 1sec/step]
	Do not change. CPM down judging interval.		
1124	**[CPM Down Setting]**		
	Do not change. CPM down setting Hot: 1st through 3rd CPM down time.		
101	High:1st CPM Down Time:A3	*ENG	[0 to 10000 / **10000** / 1sec/step]
102	High:2nd CPM Down Time:A3	*ENG	[0 to 10000 / **10000** / 1sec/step]
103	High:3rd CPM Down Time:A3	*ENG	[0 to 10000 / **10000** / 1sec/step]
104	High:1st CPM Down Time:DLT	*ENG	[0 to 10000 / **10000** / 1sec/step]
105	High:2nd CPM Down Time:DLT	*ENG	[0 to 10000 / **10000** / 1sec/step]
106	High:3rd CPM Down Time:DLT	*ENG	[0 to 10000 / **10000** / 1sec/step]
107	High:1st CPM Down Time:B4	*ENG	[0 to 10000 / **D146:10000, D147:10000, D148:30, D149:30, D150:30** / 1sec/step]
108	High:2nd CPM Down Time:B4	*ENG	[0 to 10000 / **10000** / 1sec/step]

109	High:3rd CPM Down Time:B4	*ENG	[0 to 10000 / **10000** / 1sec/step]
110	High:1st CPM Down Time:LT	*ENG	[0 to 10000 / **10000** / 1sec/step]
111	High:2nd CPM Down Time:LT	*ENG	[0 to 10000 / **10000** / 1sec/step]
112	High:3rd CPM Down Time:LT	*ENG	[0 to 10000 / **10000** / 1sec/step]
113	High:1st CPM Down Time:A4	*ENG	[0 to 10000 / **10000** / 1sec/step]
114	High:2nd CPM Down Time:A4	*ENG	[0 to 10000 / **10000** / 1sec/step]
115	High:3rd CPM Down Time:A4	*ENG	[0 to 10000 / **10000** / 1sec/step]
116	High:1st CPM Down Time:B5	*ENG	[0 to 10000 / **10000** / 1sec/step]
117	High:2nd CPM Down Time:B5	*ENG	[0 to 10000 / **10000** / 1sec/step]
118	High:3rd CPM Down Time:B5	*ENG	[0 to 10000 / **10000** / 1sec/step]
119	High:1st CPM Down Time:A5	*ENG	[0 to 10000 / **10000** / 1sec/step]
120	High:2nd CPM Down Time:A5	*ENG	[0 to 10000 / **10000** / 1sec/step]
121	High:3rd CPM Down Time:A5	*ENG	[0 to 10000 / **10000** / 1sec/step]
122	High:1st CPM Down Time:B6	*ENG	[0 to 10000 / **10000** / 1sec/step]
123	High:2nd CPM Down Time:B6	*ENG	[0 to 10000 / **10000** / 1sec/step]
124	High:3rd CPM Down Time:B6	*ENG	[0 to 10000 / **10000** / 1sec/step]
125	High:1st CPM Down Time:A6	*ENG	[0 to 10000 / **D146:10000, D147:10000, D148:8, D149:8, D150:8** / 1sec/step]
126	High:2nd CPM Down Time:A6	*ENG	[0 to 10000 / **D146:10000, D147:10000, D148:10, D149:10, D150:10** / 1sec/step]
127	High:3rd CPM Down Time:A6	*ENG	[0 to 10000 / **10000** / 1sec/step]
128	High:1st CPM Down Time:SRA3	*ENG	[0 to 10000 / **10000** / 1sec/step]
129	High:2nd CPM Down Time:SRA3	*ENG	[0 to 10000 / **10000** / 1sec/step]

130	High:3rd CPM Down Time:SRA3	*ENG	[0 to 10000 / **10000** / 1sec/step]
1124	**[CPM Down Setting]**		
	Do not change. CPM down setting hot: 1st through 3rd CPM down time: low speed		
151	High:1st CPM Down Time:A3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
152	High:2nd CPM Down Time:A3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
153	High:3rd CPM Down Time:A3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
154	High:1st CPM Down Time:DLT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
155	High:2nd CPM Down Time:DLT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
156	High:3rd CPM Down Time:DLT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
157	High:1st CPM Down Time:B4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
158	High:2nd CPM Down Time:B4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
159	High:3rd CPM Down Time:B4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
160	High:1st CPM Down Time:LT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
161	High:2nd CPM Down Time:LT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
162	High:3rd CPM Down Time:LT:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
163	High:1st CPM Down Time:A4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]

164	High:2nd CPM Down Time:A4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
165	High:3rd CPM Down Time:A4:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
166	High:1st CPM Down Time:B5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
167	High:2nd CPM Down Time:B5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
168	High:3rd CPM Down Time:B5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
169	High:1st CPM Down Time:A5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
170	High:2nd CPM Down Time:A5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
171	High:3rd CPM Down Time:A5:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
172	High:1st CPM Down Time:B6:Low Speed	*ENG	[0 to 10000 / **D146:10000, D147:10000, D148:20, D149:20, D150:20** / 1sec/step]
173	High:2nd CPM Down Time:B6:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
174	High:3rd CPM Down Time:B6:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
175	High:1st CPM Down Time:A6:Low Speed	*ENG	[0 to 10000 / **D146:10000, D147:10000, D148:20, D149:20, D150:20** / 1sec/step]
176	High:2nd CPM Down Time:A6:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
177	High:3rd CPM Down Time:A6:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]

178	High:1st CPM Down Time:SRA3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
179	High:2nd CPM Down Time:SRA3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
180	High:3rd CPM Down Time:SRA3:Low Speed	*ENG	[0 to 10000 / **10000** / 1sec/step]
1124	**[CPM Down Setting]**		
	Do not change. Temp. to judge COM is down/up. Diff. between target temp.		
201	Low:Down Temp.	*ENG	[-50 to 0 / **-5** / 1deg/step]
202	Low:Up Temp.	*ENG	[-50 to 0 / **-2** / 1deg/step]

1125	**[CPM Down Setting]**		
	Do not change. CPM down setting hot: 1st through 3rd CPM: standard/middle/low speed.		
001	High:1st CPM:A3:Large Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
002	High:2nd CPM:A3:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
003	High:3rd CPM:A3:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
004	High:1st CPM:A3:Small Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
005	High:2nd CPM:A3:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
006	High:3rd CPM:A3:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
007	High:1st CPM:DLT:Large Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]

008	High:2nd CPM:DLT:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
009	High:3rd CPM:DLT:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
010	High:1st CPM:DLT:Small Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
011	High:2nd CPM:DLT:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
012	High:3rd CPM:DLT:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
013	High:1st CPM:B4:Large Size:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:93, D149:76, D150:70** / 1%/step]
014	High:2nd CPM:B4:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
015	High:3rd CPM:B4:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
016	High:1st CPM:B4:Small Size:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:93, D149:76, D150:70** / 1%/step]
017	High:2nd CPM:B4:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
018	High:3rd CPM:B4:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
019	High:1st CPM:LT:Large Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
020	High:2nd CPM:LT:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
021	High:3rd CPM:LT:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]

022	High:1st CPM:LT:Small Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
023	High:2nd CPM:LT:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
024	High:3rd CPM:LT:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
025	High:1st CPM:A4:Large Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
026	High:2nd CPM:A4:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
027	High:3rd CPM:A4:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
028	High:1st CPM:A4:Small Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
029	High:2nd CPM:A4:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
030	High:3rd CPM:A4:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
031	High:1st CPM:B5:Large Size:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:93, D149:95, D150:90** / 1%/step]
032	High:2nd CPM:B5:Large Size:Normal Speed	*ENG	[0 to 100 / **D146:50, D147:50, D148:50, D149:76, D150:70** / 1%/step]
033	High:3rd CPM:B5:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
034	High:1st CPM:B5:Small Size:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:93, D149:95, D150:90** / 1%/step]
035	High:2nd CPM:B5:Small Size:Normal Speed	*ENG	[0 to 100 / **D146:50, D147:50, D148:50, D149:76, D150:70** / 1%/step]

036	High:3rd CPM:B5:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
037	High:1st CPM:A5:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:94, D148:80, D149:82, D150:75** / 1%/step]
038	High:2nd CPM:A5:Normal Speed	*ENG	[0 to 100 / **D146:50, D147:50, D148:50, D149:60, D150:55** / 1%/step]
039	High:3rd CPM:A5:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
040	High:1st CPM:B6:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:94, D148:80, D149:82, D150:75** / 1%/step]
041	High:2nd CPM:B6:Normal Speed	*ENG	[0 to 100 / **D146:50, D147:50, D148:50, D149:60, D150:55** / 1%/step]
042	High:3rd CPM:B6:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
043	High:1st CPM:A6:Normal Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:93, D149:76, D150:70** / 1%/step]
044	High:2nd CPM:A6:Normal Speed	*ENG	[0 to 100 / **D146:50, D147:50, D148:50, D149:38, D150:36** / 1%/step]
045	High:3rd CPM:A6:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
046	High:1st CPM:SRA3:Large Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
047	High:2nd CPM:SRA3:Large Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
048	High:3rd CPM:SRA3:Large Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]

049	High:1st CPM:SRA3:Small Size:Normal Speed	*ENG	[0 to 100 / **80** / 1%/step]
050	High:2nd CPM:SRA3:Small Size:Normal Speed	*ENG	[0 to 100 / **50** / 1%/step]
051	High:3rd CPM:SRA3:Small Size:Normal Speed	*ENG	[0 to 100 / **30** / 1%/step]
101	High:1st CPM:A3:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
102	High:2nd CPM:A3:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
104	High:1st CPM:A3:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
105	High:2nd CPM:A3:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
107	High:1st CPM:DLT:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
108	High:2nd CPM:DLT:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
110	High:1st CPM:DLT:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
111	High:2nd CPM:DLT:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
113	High:1st CPM:B4:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
114	High:2nd CPM:B4:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
116	High:1st CPM:B4:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
117	High:2nd CPM:B4:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]

119	High:1st CPM:LT:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
120	High:2nd CPM:LT:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
122	High:1st CPM:LT:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
123	High:2nd CPM:LT:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
125	High:1st CPM:A4:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
126	High:2nd CPM:A4:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
128	High:1st CPM:A4:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
129	High:2nd CPM:A4:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
131	High:1st CPM:B5:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
132	High:2nd CPM:B5:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
134	High:1st CPM:B5:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
135	High:2nd CPM:B5:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
137	High:1st CPM:A5:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
138	High:2nd CPM:A5:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
140	High:1st CPM:B6:Middle Speed	*ENG	[0 to 100 / **60** / 1%/step]

141	High:2nd CPM:B6:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
143	High:1st CPM:A6:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
144	High:2nd CPM:A6:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
145	High:1st CPM:SRA3:Large Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
146	High:2nd CPM:SRA3:Large Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
147	High:1st CPM:SRA3:Small Size:Middle Speed	*ENG	[0 to 100 / **80** / 1%/step]
148	High:2nd CPM:SRA3:Small Size:Middle Speed	*ENG	[0 to 100 / **50** / 1%/step]
201	High:1st CPM:A3:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
204	High:1st CPM:A3:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
207	High:1st CPM:DLT:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
210	High:1st CPM:DLT:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
213	High:1st CPM:B4:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
216	High:1st CPM:B4:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
219	High:1st CPM:LT:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
222	High:1st CPM:LT:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]

225	High:1st CPM:A4:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
228	High:1st CPM:A4:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
231	High:1st CPM:B5:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
234	High:1st CPM:B5:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
237	High:1st CPM:A5:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
240	High:1st CPM:B6:Low Speed	*ENG	[0 to 100 / **50** / 1%/step]
243	High:1st CPM:A6:Low Speed	*ENG	[0 to 100 / **D146:80, D147:80, D148:55, D149:55, D150:55** / 1%/step]
244	High:1st CPM:SRA3:Large Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]
245	High:1st CPM:SRA3:Small Size:Low Speed	*ENG	[0 to 100 / **80** / 1%/step]

1126	**[Heating Start Delay]**		
	Do not change. Heating start delay control.		
001	Judgement Temp 1	ENG	[0 to 180 / **D146:30, D147:30, D148:28, D149:28, D150:28** / 1deg/step]
002	Judgement Temp 2	ENG	[0 to 180 / **D146:32, D147:32, D148:40, D149:40, D150:40** / 1deg/step]
003	Judgement Temp 3	ENG	[00 to 180 / **D146:45, D147:45, D148:70, D149:70, D150:70** / 1deg/step]

011	Set TimeA: Div 1	ENG	[0 to 10000 / **D146:100, D147:100, D148:0, D149:0, D150:0** / 1msec/step]
012	Set TimeA: Div 2	ENG	[0 to 10000 / **D146:1500, D147:1500, D148:0, D149:0, D150:0** / 1msec/step]
013	Set TimeA: Div 3	ENG	[0 to 10000 / **D146:2000, D147:2000, D148:0, D149:0, D150:0** / 1msec/step]
014	Set TimeA: Div 4	ENG	[0 to 10000 / **D146:100, D147:100, D148:0, D149:0, D150:0** / 1msec/step]
021	Delay Time: Div 1	ENG	[0 to 10000 / **D146:100, D147:100, D148:0, D149:0, D150:0** / 1msec/step]
022	Delay Time: Div 2	ENG	[0 to 10000 / **D146:1500, D147:1500, D148:0, D149:0, D150:0** / 1msec/step]
023	Delay Time: Div 3	ENG	[0 to 10000 / **D146:2000, D147:2000, D148:0, D149:0, D150:0** / 1msec/step]
024	Delay Time: Div 4	ENG	[0 to 10000 / **D146:100, D147:100, D148:0, D149:0, D150:0** / 1msec/step]

1127	**[Energy Saving PprFeed Judgment]**		
001	Judging Method Change	ENG	[0 or 1 / **1** / 1/step] 0: Off 1: On
	Do not change. Judge method switch of energy save judge control.		
002	Temp.: Threshold: Press	ENG	[0 to 200 / **D146:50, D147:60, D148:70, D149:70, D150:70** / 1deg/step]

	Do not change. Setting temperature of energy save judge control: threshold: pressure.		
003	Temp.: Threshold: Atmosphere	ENG	[0 to 200 / **60** / 1deg/step]
	Do not change. Setting temperature of energy save judge control: threshold: ambiance		
004	Power Supply Voltage: Lower	ENG	[0 to 300 / **NA, TW: 108, EU, AS, CHN, KOR: 220** / 1V/step]
	Do not change. Power source voltage of energy save judge control: lower limit setting		
005	Power Supply Voltage: Upper	ENG	[0 to 300 / **NA, TW: 126, EU, AS, CHN, KOR: 240** / 1V/step]
	Do not change. Power source voltage of energy save judge control: upper limit setting		
006	Judgment Time-Out	ENG	[0.0 to 10.0 / **2.0** / 0.1sec/step]
	Do not change. Judge time out time of energy save judge control.		

1131	**[Continuous Print Mode Switch]**		
	Do not change. Paper feed permission condition setting.		
001	Feed Permit Condition	*ENG	[0 to 2 / **0** / 1/step] 0: Productivity Mode 1: Fusing Quality Mode 2: Fusing Quality Mode 2

1132	**[Maximum Duty Switch]**		
001	Control Method Switch	*ENG	[0 or 1 / **1** / 1/step] 0: Fixed Duty 1: AutoOffstCtl
	Do not change. Switch between fixed duty and auto offset control of mix. lighting duty.		

1133	[Voltage Detection]		
001	Voltage Detection	*ENG	[0.0 to 350.0 / **0.0** / 0.1V/step]
	Do not change. Displays AC voltage detect result.		

1134	[Effective Duty Adjustment]		
001	Control Method Switch	*ENG	[0 or 1 / **D146, D147(ALL) and D148, D149, D150(NA, TW): 0, D148, D149, D150(EU, AS, CHN, KOR):1** / 1/step] 0: OFF 1: ON
	Do not change. Switch effective duty adjustment.		

1135	[Inrush Control]		
001	Inrush Control	*ENG	[0 or 1 / **0** / 1/step] 0: Normal (Do not) 1: Inrush current suppress (Do)
	Do not change. Select do or do not control inrush current suppress control.		

1141	[Fusing SC Error Time Info]		
001	SC Number	*ENG	[0 to 99999 / **0** / 1/step]
	Display occurring SC.		
101	Htg Roller:Ctr Det1	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: center: occurred time.		
102	Htg Roller:End Det1	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is detect temp.: center: occurred time.		
103	Press Roller:Ctr Det1	*ENG	[-5 to 300 / **0** / 1deg/step]

	Display detailed conditions when SC occur. Displayed content is ambiance temp.: center: occurred time.		
104	Press Roller:End Det1	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: edge: occurred time.		
151	Htg Roller:Ctr Det2	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: center: 1 cycle a head of occurred time.		
152	Htg Roller:End Det2	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is detect temp.: center: 1 cycle a head of occurred time.		
153	Press Roller:Ctr Det2	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is ambiance temp.: center: 1 cycle a head of occurred time.		
154	Press Roller:End Det2	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: edge: 1 cycle a head of occurred time.		
201	Htg Roller:Ctr Det3	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: center: 2 cycle a head of occurred time.		
202	Htg Roller:End Det3	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is detect temp.: center: 2 cycle a head of occurred time.		
203	Press Roller:Ctr Det3	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is ambiance temp.: center: 2 cycle a head of occurred time.		
204	Press Roller:End Det3	*ENG	[-5 to 300 / **0** / 1deg/step]
	Display detailed conditions when SC occur. Displayed content is calculate temp.: edge: 2 cycle a head of occurred time.		

1142	**[Fusing Jam Detection]**		
001	SC Display	*ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Display SC or not when detecting a fusing jam 3 times in a roll.		

1151	**[Pressure Setting]**		
001	Pressure Change ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Do not change. Switch welding pressure.		
002	Pressure Time1	*ENG	[0 to 10000 / **70** / 10msec/step]
	Do not change. Rotate time form pressure filler edge to pressure 1		
003	Pressure Time2	*ENG	[0 to 10000 / **70** / 10msec/step]
	Do not change. Rotate time form pressure filler edge to pressure 2		
005	Depressure Time	*ENG	[0 to 10000 / **0** / 10msec/step]
	Do not change. Rotate time form depressure filler edge to depressure position		
010	Shift Time:Energy Saving	*ENG	[0 to 3600 / **0** / 1sec/step]
	Do not change. Printer: Change depressure timing when standing by after paper trough of image process temperature correction level 2.		
011	Shift Time	*ENG	[0 to 3600 / **60** / 1sec/step]
	Do not change. Change depressure timing when standby.		
051	Rotary speed	*ENG	[-12.8 to 12.7 / **0** / 0.1%/step]
	Do not change. Adjusts rotate speed of fusing depressure drive. Rotate speed[pps]= basis rotate speed[pps]+basis rotate speed[pps] x SP set value [%}		
1151	**[Pressure Setting]**		
101	Pressure:Plain1/2	*ENG	[0 to 3 / **2** / 1/step]

	Do not change. Pressure setting welding pressure: standard paper 1/2		
102	Pressure:Thin	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thin paper		
103	Pressure:M-thick	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: middle thick		
104	Pressure:Thick1	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thick paper 1		
105	Pressure:Thick2	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thick paper 2:		
106	Pressure:Thick3	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thick paper 3:		
107	Pressure:Special1	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 1		
108	Pressure:Special2	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 2		
109	Pressure:Special3	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 3:		
110	Pressure:Envelope	*ENG	[0 to 3 / **1** / 1/step]
	Do not change. Pressure setting welding pressure: envelope		
131	Pressure:Special1:Middle Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 1		
132	Pressure:Special2:Middle Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 2		
133	Pressure:Special3:Middle Speed	*ENG	[0 to 3 / **2** / 1/step]

	Do not change. Pressure setting welding pressure: special paper 3:		
151	Pressure:Plain1/2:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: standard paper 1/2: low speed		
152	Pressure:M-thick:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: middle thick: low speed		
153	Pressure:Thick1:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thick paper 1: low speed		
154	Pressure:Special1:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 1: low speed		
155	Pressure:Special2:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 2: low speed		
156	Pressure:Plain1/2:Glossy	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting coat: standard paper 1/2		
157	Pressure:M-thick:Glossy	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting coat: middle thick		
158	Pressure:OHP	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: OHP		
159	Pressure:Envelope:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: envelope: low speed		
160	Pressure:Thin:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thin paper: low speed		
161	Pressure:Thick4	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: thick paper 4:		
162	Pressure:Postcard	*ENG	[0 to 3 / **2** / 1/step]

	Do not change. Pressure setting welding pressure: thick paper 4:		
163	Pressure:Special3:Low Speed	*ENG	[0 to 3 / **2** / 1/step]
	Do not change. Pressure setting welding pressure: special paper 2: low speed		
201	Filler Edge Detection Counter	ENG	[0 to 9000000 / **0** / 1/step]
	Do not change. Times detecting filler edge		

1152	**[Fusing Nip Band Check]**		
001	Execute	ENG	[0 or 1 / **0** / 1/step]
	Measure nip.		
002	Pre-idling Time	*ENG	[0 to 999 / **300** / 1sec/step]
	Do not change. Measuring fusing nip width before measure rotate time		
003	Stop Time	*ENG	[0 to 100 / **20** / 1sec/step]
	Do not change. Measuring fusing nip width stop time		
004	Pressure Position	*ENG	[1 to 2 / **2** / 1/step]
	Do not change. Measuring fusing nip width pressuring position		

1153	**[Abnormal Noise Confirmation]**		
001	Unit: Execute	ENG	[0 or 1 / **0** / 1/step]
	Do not change. Abnormal sound check control (Mode not available)		
003	Operation Line Speed	ENG	[0 to 2 / **0** / 1/step] 0: Std Speed 1: Mid Speed 2: Low Speed
	Do not change. Operating line speed of abnormal sound check control		
004	Operation Time	ENG	[0 to 240 / **60** / 1sec/step]
	Do not change. Operating time of abnormal sound check control		
005	Heat Center Target Temp	ENG	[100 to 180 / **130** / 1deg/step]

	Do not change. Heating center target temperature of abnormal sound check control		
006	Heat End Target Temp	ENG	[100 to 180 / **130** / 1deg/step]
	Do not change. Heating edge target temperature of abnormal sound check control		
007	Press Target Temp	ENG	[0 to 200 / **0** / 1deg/step]
	Do not change. Pressuring target temperature of abnormal sound check control		

1154	**[Switch:Rotation Start/Stop]**		
001	Judging Method Change	*ENG	[0 or 1 / **0** / 1/step] 0: On 1: Off
	Do not change. Switches Over heat prevent mode.		
005	-	*ENG	[0 to 250 / **50** / 10msec/step]
	Do not change. Heater On timing of start rotate/stop control		
006	Overshoot Prevent Temp.:SC	*ENG	[0 to 250 / **D146:185, D147:185, D148:195, D149:200, D150:200** / 1deg/step]
	Do not change. Rotate start temperature of over heat prevent mode when error occurs.		

1155	**[Small Size Paper Control]**		
	Do not change. Small size heater control.		
001	Print Width	ENG	[0 to 300 / **0** / 1mm/step]

1155	**[Short Heater Control]**		
	Do not change. Small size heater control.		
011	Feed Permit Temp.:delta:Center	ENG	[0 to 200 / **5** / 1deg/step]

012	Feed Permit Temp.:delta:Press	ENG	[0 to 200 / **100** / 1deg/step]
013	Feed Permit Rotation Time	ENG	[0 to 100 / **0** / 1deg/step]
021	After Job End Temp.:Center	ENG	[0 to 200 / **5** / 1sec/step]
022	After Job End Temp.:End	ENG	[0 to 200 / **5** / 1sec/step]
023	After Job End Time	ENG	[0 to 100 / **0** / 1sec/step]

1157	**[Overshoot Prevent Control]**		
	Do not change. Over shoot prevent control.		
001	Decision Time	*ENG	[0 to 100 / **5** / 1sec/step]
	Off sleep shift time		
002	Decision Temp.	*ENG	[0 to 250 / **D146:185, D147:185, D148:195, D149:200, D150:200** / 1deg/step]
	Judge temperature		
003	-	*ENG	[0 to 300 / **15** / 1sec/step]
	Off sleep shift time		

1161	**[Shading Plate Control]**		
001	Judgment Temp A	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. Temperature threshold of initial position judge		
002	Judgment Temp B	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. Temperature threshold of initial position judge		
003	Position Transition Time	ENG	[0 to 10000 / **1000** / 1msec/step]
	Do not change. Time from sensor temperature goes over threshold to position shift fixed.		
004	After Transition Time Out	ENG	[0 to 20000 / **0** / 1msec/step]
	Do not change. Time from after position shifted to next position shift judge.		

1162	**[Shading Position Temp: 12inch: 1]**		
001	Shading Position Temp: 12inch: 1	ENG	[0 to 250 / **D146:155, D147:155, D148:170, D149:170, D150:170** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of 12inch		
002	Shading Position Temp: 12inch: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:185, D149:185, D150:185** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of 12inch		
003	Shading Position Temp: 12inch: 3	ENG	[0 to 250 / **D146:175, D147:175, D148:195, D149:195, D150:195** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of 12inch		
004	Shading Position Temp: A3: 1	ENG	[0 to 250 / **D146:155, D147:155, D148:170, D149:170, D150:170** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of A3		
005	Shading Position Temp: A3: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:185, D149:185, D150:185** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of A3		
006	Shading Position Temp: A3: 3	ENG	[0 to 250 / **D146:175, D147:175, D148:195, D149:195, D150:195** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of A3		
007	Shading Position Temp: DLT: 1	ENG	[0 to 250 / **D146:150, D147:150, D148:130, D149:130, D150:130** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of DLT		

008	Shading Position Temp: DLT: 2	ENG	[0 to 250 / **D146:160, D147:160, D148:140, D149:140, D150:140** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of DLT		
009	Shading Position Temp: DLT: 3	ENG	[0 to 250 / **D146:170, D147:170, D148:150, D149:150, D150:150** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of DLT		
010	Shading Position Temp: B4: 1	ENG	[0 to 250 / **D146:150, D147:150, D148:130, D149:130, D150:130** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of B4		
011	Shading Position Temp: B4: 2	ENG	[0 to 250 / **D146:160, D147:160, D148:140, D149:140, D150:140** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of B4		
012	Shading Position Temp: B4: 3	ENG	[0 to 250 / **D146:170, D147:170, D148:150, D149:150, D150:150** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of B4		
013	Shading Position Temp: LT: 1	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of LT		
014	Shading Position Temp: LT: 2	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of LT		
015	Shading Position Temp: LT: 3	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of LT		
016	Shading Position Temp: A4: 1	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of A4		
017	Shading Position Temp: A4: 2	ENG	[0 to 250 / **250** / 1deg/step]

	Do not change. No 2 position (middle shade) Transitions temperature of A4		
018	Shading Position Temp: A4: 3	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of A4		
019	Shading Position Temp: B5: 1	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of B5		
020	Shading Position Temp: B5: 2	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of B5		
021	Shading Position Temp: B5: 3	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of B5		
022	Shading Position Temp: A5: 1	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of A5		
023	Shading Position Temp: A5: 2	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of A5		
024	Shading Position Temp: A5: 3	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of A5		
025	Shading Position Temp: B6: 1	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of B6		
026	Shading Position Temp: B6: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of B6		
027	Shading Position Temp: B6: 3	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of B6		

028	Shading Position Temp: DLEnv: 1	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of DLEnv		
029	Shading Position Temp: DLEnv: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of DLEnv		
030	Shading Position Temp: DLEnv: 3	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of DLEnv		
031	Shading Position Temp: COM10: 1	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of com10		
032	Shading Position Temp: COM10: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of com10		
033	Shading Position Temp: COM10: 3	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of com10		
034	Shading Position Temp: Postcard: 1	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of post card		

035	Shading Position Temp: Postcard: 2	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of post card		
036	Shading Position Temp: Postcard: 3	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of post card		
037	Shading Position Temp: 12inch: 4	ENG	[0 to 250 / **D146:180, D147:180, D148:200, D149:200, D150:200** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of 12inch		
038	Shading Position Temp: 12inch: 5	ENG	[0 to 250 / **D146:185, D147:185, D148:205, D149:205, D150:205** / 1deg/step]
	Do not change. No 5 position (middle shade) Transitions temperature of 12inch		
039	Shading Position Temp: 12inch: 6	ENG	[0 to 250 / **D146:190, D147:190, D148:210, D149:210, D150:210** / 1deg/step]
	Do not change. No 6 position (large shade) Transitions temperature of 12inch		
040	Shading Position Temp: 12inch: 7	ENG	[0 to 250 / **D146:195, D147:195, D148:215, D149:215, D150:215** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of 12inch		
041	Shading Position Temp: 12inch: 8	ENG	[0 to 250 / **D146:200, D147:200, D148:220, D149:220, D150:220** / 1deg/step]
	Do not change. No 8 position (middle shade) Transitions temperature of 12inch		

042	Shading Position Temp: A3: 4	ENG	[0 to 250 / **D146:180, D147:180, D148:200, D149:200, D150:200** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of A3		
043	Shading Position Temp: A3: 5	ENG	[0 to 250 / **D146:185, D147:185, D148:205, D149:205, D150:205** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of A3		
044	Shading Position Temp: A3: 6	ENG	[0 to 250 / **D146:190, D147:190, D148:210, D149:210, D150:210** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of A3		
045	Shading Position Temp: A3: 7	ENG	[0 to 250 / **D146:195, D147:195, D148:215, D149:215, D150:215** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of A3		
046	Shading Position Temp: A3: 8	ENG	[0 to 250 / **D146:200, D147:200, D148:220, D149:220, D150:220** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of A3		
047	Shading Position Temp: DLT: 4	ENG	[0 to 250 / **D146:180, D147:180, D148:160, D149:160, D150:160** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of DLT		
048	Shading Position Temp: DLT: 5	ENG	[0 to 250 / **D146:185, D147:185, D148:170, D149:170, D150:170** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of DLT		
049	Shading Position Temp: DLT: 6	ENG	[0 to 250 / **D146:190, D147:190, D148:180, D149:180, D150:180** / 1deg/step]

	Do not change. No 6 position (small shade) Transitions temperature of DLT		
050	Shading Position Temp: DLT: 7	ENG	[0 to 250 / **D146:195, D147:195, D148:190, D149:190, D150:190** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of DLT		
051	Shading Position Temp: DLT: 8	ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of DLT		
052	Shading Position Temp: B4: 4	ENG	[0 to 250 / **D146:180, D147:180, D148:160, D149:160, D150:160** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of B4		
053	Shading Position Temp: B4: 5	ENG	[0 to 250 / **D146:185, D147:185, D148:170, D149:170, D150:170** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of B4		
054	Shading Position Temp: B4: 6	ENG	[0 to 250 / **D146:190, D147:190, D148:180, D149:180, D150:180** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of B4		
055	Shading Position Temp: B4: 7	ENG	[0 to 250 / **D146:195, D147:195, D148:190, D149:190, D150:190** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of B4		
056	Shading Position Temp: B4: 8	ENG	[0 to 250 / **200** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of B4		
057	Shading Position Temp: LT: 4	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of LT		
058	Shading Position Temp: LT: 5	ENG	[0 to 250 / **250** / 1deg/step]

	Do not change. No 5 position (small shade) Transitions temperature of LT		
059	Shading Position Temp: LT: 6	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of LT		
060	Shading Position Temp: LT: 7	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of LT		
061	Shading Position Temp: LT: 8	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of LT		
062	Shading Position Temp: A4: 4	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 4 position (large shade) Transitions temperature of A4		
063	Shading Position Temp: A4: 5	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 5 position (large shade) Transitions temperature of A4		
064	Shading Position Temp: A4: 6	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 6 position (large shade) Transitions temperature of A4		
065	Shading Position Temp: A4: 7	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 7 position (large shade) Transitions temperature of A4		
066	Shading Position Temp: A4: 8	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 8 position (large shade) Transitions temperature of A4		
067	Shading Position Temp: B5: 4	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 4 position (large shade) Transitions temperature of B5		
068	Shading Position Temp: B5: 5	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 5 position (large shade) Transitions temperature of B5		
069	Shading Position Temp: B5: 6	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 6 position (large shade) Transitions temperature of B5		
070	Shading Position Temp: B5: 7	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 7 position (large shade) Transitions temperature of B5		
071	Shading Position Temp: B5: 8	ENG	[0 to 250 / **250** / 1deg/step]

	Do not change. No 8 position (large shade) Transitions temperature of B5		
072	Shading Position Temp: A5: 4	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of A5		
073	Shading Position Temp: A5: 5	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of A5		
074	Shading Position Temp: A5: 6	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of A5		
075	Shading Position Temp: A5: 7	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of A5		
076	Shading Position Temp: A5: 8	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of A5		
077	Shading Position Temp: B6: 4	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of B6		
078	Shading Position Temp: B6: 5	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of B6		
079	Shading Position Temp: B6: 6	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of B6		
080	Shading Position Temp: B6: 7	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of B6		

081	Shading Position Temp: B6: 8	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of B6		
082	Shading Position Temp: DLEnv: 4	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of DLEnv		
083	Shading Position Temp: DLEnv: 5	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of DLEnv		
084	Shading Position Temp: DLEnv: 6	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of DLEnv		
085	Shading Position Temp: DLEnv: 7	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of DLEnv		
086	Shading Position Temp: DLEnv: 8	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of DLEnv		
087	Shading Position Temp: COM10: 4	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of com10		
088	Shading Position Temp: COM10: 5	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]

	Do not change. No 5 position (small shade) Transitions temperature of com10		
089	Shading Position Temp: COM10: 6	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of com10		
090	Shading Position Temp: COM10: 7	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of com10		
091	Shading Position Temp: COM10: 8	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of com10		
092	Shading Position Temp: Postcard: 4	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of post card		
093	Shading Position Temp: Postcard: 5	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 5 position (small shade) Transitions temperature of post card		
094	Shading Position Temp: Postcard: 6	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 6 position (small shade) Transitions temperature of post card		
095	Shading Position Temp: Postcard: 7	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]

	Do not change. No 7 position (small shade) Transitions temperature of post card		
096	Shading Position Temp: Postcard: 8	ENG	[0 to 250 / **D146:165, D147:165, D148:250, D149:250, D150:250** / 1deg/step]
	Do not change. No 8 position (small shade) Transitions temperature of post card		
121	Shading Position Temp: SRA3: 1	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 1 position (small shade) Transitions temperature of SRA3		
122	Shading Position Temp: SRA3: 2	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 2 position (middle shade) Transitions temperature of 1SRA3		
123	Shading Position Temp: SRA3: 3	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 3 position (large shade) Transitions temperature of SRA3		
124	Shading Position Temp: SRA3: 4	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 4 position (small shade) Transitions temperature of SRA3		
125	Shading Position Temp: SRA3: 5	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 5 position (middle shade) Transitions temperature of 1SRA3		
126	Shading Position Temp: SRA3: 6	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 6 position (large shade) Transitions temperature of SRA3		
127	Shading Position Temp: SRA3: 7	ENG	[0 to 250 / **250** / 1deg/step]
	Do not change. No 7 position (small shade) Transitions temperature of SRA3		
128	Shading Position Temp: SRA3: 8	ENG	[0 to 250 / **250** / 1deg/step]

	Do not change. No 8 position (middle shade) Transitions temperature of 1SRA3		
201	Shading Position Temp: 12inch: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return 12inch position to HP		
202	Shading Position Temp: A3: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return A3 position to HP		
203	Shading Position Temp: DLT: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return DLT position to HP		
204	Shading Position Temp: B4: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return B4 position to HP		
205	Shading Position Temp: LT: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return LT position to HP		
206	Shading Position Temp: A4: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return A4 position to HP		
207	Shading Position Temp: B5: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return B5 position to HP		
208	Shading Position Temp: A5: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return A5 position to HP		
209	Shading Position Temp: B6: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return A6 position to HP		

210	Shading Position Temp: DLEnv: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return DLEnv position to HP		
211	Shading Position Temp: COM10: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return com10 position to HP		
212	Shading Position Temp: Postcard: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return post card position to HP		
213	Shading Position Temp: SRA3: Clear	ENG	[0 to 250 / **0** / 1deg/step]
	Do not change. Temperature threshold to return SRA3 position to HP		

1163	**[Shading Plate Control]**		
001	Shading Position Time: 12inch: 1	ENG	[0 to 10000 / **D146:14, D147:14, D148:8, D149:8, D150:8** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of 12inch		
002	Shading Position Time: 12inch: 2	ENG	[0 to 10000 / **D146:27, D147:27, D148:33, D149:33, D150:33** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of 12inch		
003	Shading Position Time: 12inch: 3	ENG	[0 to 10000 / **D146:53, D147:53, D148:60, D149:60, D150:60** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of 12inch		
004	Shading Position Time: A3: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of A3		
005	Shading Position Time: A3: 2	ENG	[0 to 10000 / **10000** / 1sec/step]

	Do not change. No 2 position (middle shade) Transitions time of A3		
006	Shading Position Time: A3: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of A3		
007	Shading Position Time: DLT: 1	ENG	[0 to 10000 / **D146:10000, D147:10000, D148:10, D149:10, D150:10** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of DLT		
008	Shading Position Time: DLT: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of DLT		
009	Shading Position Time: DLT: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of DLT		
010	Shading Position Time: B4: 1	ENG	[0 to 10000 / **D146:10000, D147:10000, D148:5, D149:5, D150:5** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of B4		
011	Shading Position Time: B4: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of B4		
012	Shading Position Time: B4: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of B4		
013	Shading Position Time: LT: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of LT		
014	Shading Position Time: LT: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of LT		
015	Shading Position Time: LT: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of LT		
016	Shading Position Time: A4: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of A4		

017	Shading Position Time: A4: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of A4		
018	Shading Position Time: A4: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of A4		
019	Shading Position Time: B5: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of B5		
020	Shading Position Time: B5: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of B5		
021	Shading Position Time: B5: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of B5		
022	Shading Position Time: A5: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of A5		
023	Shading Position Time: A5: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of A5		
024	Shading Position Time: A5: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of A5		
025	Shading Position Time: B6: 1	ENG	[0 to 10000 / **D146:5, D147:5, D148:10000, D149:10000, D150:10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of B6		
026	Shading Position Time: B6: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of B6		
027	Shading Position Time: B6: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of B6		
028	Shading Position Time: DLEnv: 1	ENG	[0 to 10000 / **D146:5, D147:5, D148:10000, D149:10000, D150:10000** / 1sec/step]

	Do not change. No 1 position (small shade) Transitions time of DLEnv		
029	Shading Position Time: DLEnv: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of DLEnv		
030	Shading Position Time: DLEnv: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of DLEnv		
031	Shading Position Time: COM10: 1	ENG	[0 to 10000 / **D146:5, D147:5, D148:10000, D149:10000, D150:10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of com10		
032	Shading Position Time: COM10: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of com10		
033	Shading Position Time: COM10: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of com10		
034	Shading Position Time: Postcard: 1	ENG	[0 to 10000 / **D146:5, D147:5, D148:10000, D149:10000, D150:10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of post card		
035	Shading Position Time: Postcard: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of post card		
036	Shading Position Time: Postcard: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of post card		
037	Shading Position Time: 12inch: 4	ENG	[0 to 10000 / **10000** / 1sec/step]

	Do not change. No 4 position (small shade) Transitions time of 12inch		
038	Shading Position Time: 12inch: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of 12inch		
039	Shading Position Time: 12inch: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of 12inch		
040	Shading Position Time: 12inch: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of 12inch		
041	Shading Position Time: 12inch: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of 12inch		
042	Shading Position Time: A3: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of A3		
043	Shading Position Time: A3: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of A3		
044	Shading Position Time: A3: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of A3		
045	Shading Position Time: A3: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of A3		
046	Shading Position Time: A3: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of A3		
047	Shading Position Time: DLT: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of DLT		
048	Shading Position Time: DLT: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of DLT		

049	Shading Position Time: DLT: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of DLT		
050	Shading Position Time: DLT: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of DLT		
051	Shading Position Time: DLT: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of DLT		
052	Shading Position Time: B4: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of B4		
053	Shading Position Time: B4: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of B4		
054	Shading Position Time: B4: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of B4		
055	Shading Position Time: B4: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of B4		
056	Shading Position Time: B4: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of B4		
057	Shading Position Time: LT: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 14 position (small shade) Transitions time of LT		
058	Shading Position Time: LT: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of LT		
059	Shading Position Time: LT: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of LT		
060	Shading Position Time: LT: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of LT		
061	Shading Position Time: LT: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of LT		

062	Shading Position Time: A4: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of A4		
063	Shading Position Time: A4: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of A4		
064	Shading Position Time: A4: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of A4		
065	Shading Position Time: A4: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of A4		
066	Shading Position Time: A4: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of A4		
067	Shading Position Time: B5: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of B5		
068	Shading Position Time: B5: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of B5		
069	Shading Position Time: B5: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of B5		
070	Shading Position Time: B5: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of B5		
071	Shading Position Time: B5: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of B5		
072	Shading Position Time: A5: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of A5		
073	Shading Position Time: A5: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of A5		
074	Shading Position Time: A5: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of A5		

075	Shading Position Time: A5: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of A5		
076	Shading Position Time: A5: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of A5		
077	Shading Position Time: B6: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of B6		
078	Shading Position Time: B6: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of B6		
079	Shading Position Time: B6: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of B6		
080	Shading Position Time: B6: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of B6		
081	Shading Position Time: B6: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of B6		
082	Shading Position Time: DLEnv: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of DLEnv		
083	Shading Position Time: DLEnv: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of DLEnv		
084	Shading Position Time: DLEnv: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of DLEnv		
085	Shading Position Time: DLEnv: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of DLEnv		

086	Shading Position Time: DLEnv: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of DLEnv		
087	Shading Position Time: COM10: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of com10		
088	Shading Position Time: COM10: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of com10		
089	Shading Position Time: COM10: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of com10		
090	Shading Position Time: COM10: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of com10		
091	Shading Position Time: COM10: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of com10		
092	Shading Position Time: Postcard: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 4 position (small shade) Transitions time of post card		
093	Shading Position Time: Postcard: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of post card		
094	Shading Position Time: Postcard: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of post card		
095	Shading Position Time: Postcard: 7	ENG	[0 to 10000 / **10000** / 1sec/step]

	Do not change. No 7 position (small shade) Transitions time of post card		
096	Shading Position Time: Postcard: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of post card		
121	Shading Position Time: SRA3: 1	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 1 position (small shade) Transitions time of 12inch		
122	Shading Position Time: SRA3: 2	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 2 position (middle shade) Transitions time of 12inch		
123	Shading Position Time: SRA3: 3	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 3 position (large shade) Transitions time of 12inch		
124	Shading Position Time: SRA3: 4	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 14 position (small shade) Transitions time of 12inch		
125	Shading Position Time: SRA3: 5	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 5 position (small shade) Transitions time of 12inch		
126	Shading Position Time: SRA3: 6	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 6 position (small shade) Transitions time of 12inch		
127	Shading Position Time: SRA3: 7	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 7 position (small shade) Transitions time of 12inch		
128	Shading Position Time: SRA3: 8	ENG	[0 to 10000 / **10000** / 1sec/step]
	Do not change. No 8 position (small shade) Transitions time of 12inch		

1164	**[Shading Plate Control]**		
001	Shading Position: 12inch: 1	ENG	[0 to 1000 / **D146:37, D147:37, D148:90, D149:90, D150:90** / 1pluse/step]
	Do not change. No 1 position (small shade) of 12inch		
002	Shading Position: 12inch: 2	ENG	[0 to 1000 / **D146:77, D147:77, D148:120, D149:120, D150:120** / 1pluse/step]
	Do not change. No 2 position (middle shade) of 12inch		
003	Shading Position: 12inch: 3	ENG	[0 to 1000 / **D146:117, D147:117, D148:150, D149:150, D150:150** / 1pluse/step]
	Do not change. No 3 position (large shade) of 12inch		
004	Shading Position: A3: 1	ENG	[0 to 1000 / **D146:37, D147:37, D148:90, D149:90, D150:90** / 1pluse/step]
	Do not change. No 1 position (small shade) of A3		
005	Shading Position: A3: 2	ENG	[0 to 1000 / **D146:77, D147:77, D148:120, D149:120, D150:120** / 1pluse/step]
	Do not change. No 2 position (middle shade) of A3		
006	Shading Position: A3: 3	ENG	[0 to 1000 / **D146:117, D147:117, D148:150, D149:150, D150:150** / 1pluse/step]
	Do not change. No 3 position (large shade) of A3		
007	Shading Position: DLT: 1	ENG	[0 to 1000 / **D146:77, D147:77, D148:110, D149:110, D150:110** / 1pluse/step]
	Do not change. No 1 position (small shade) of DLT		

008	Shading Position: DLT: 2	ENG	[0 to 1000 / **D146:127, D147:127, D148:140, D149:140, D150:140** / 1pluse/step]
	Do not change. No 2 position (middle shade) of DLT		
009	Shading Position: DLT: 3	ENG	[0 to 1000 / **D146:177, D147:177, D148:170, D149:170, D150:170** / 1pluse/step]
	Do not change. No 3 position (large shade) of DLT		
010	Shading Position: B4: 1	ENG	[0 to 1000 / **D146:77, D147:77, D148:110, D149:110, D150:110** / 1pluse/step]
	Do not change. No 1 position (small shade) of B4		
011	Shading Position: B4: 2	ENG	[0 to 1000 / **D146:127, D147:127, D148:140, D149:140, D150:140** / 1pluse/step]
	Do not change. No 2 position (middle shade) of B4		
012	Shading Position: B4: 3	ENG	[0 to 1000 / **D146:177, D147:177, D148:170, D149:170, D150:170** / 1pluse/step]
	Do not change. No 3 position (large shade) of B4		
013	Shading Position: LT: 1	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 1 position (small shade) of LT		
014	Shading Position: LT: 2	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of LT		
015	Shading Position: LT: 3	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 3 position (large shade) of LT		
016	Shading Position: A4: 1	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 1 position (small shade) of A4		
017	Shading Position: A4: 2	ENG	[0 to 1000 / **0** / 1pluse/step]

	Do not change. No 2 position (middle shade) of A4		
018	Shading Position: A4: 3	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 3 position (large shade) of A4		
019	Shading Position: B5: 1	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 1 position (small shade) of B5		
020	Shading Position: B5: 2	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of B5		
021	Shading Position: B5: 3	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 3 position (large shade) of B5		
022	Shading Position: A5: 1	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 1 position (small shade) of A5		
023	Shading Position: A5: 2	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of A5		
024	Shading Position: A5: 3	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 3 position (large shade) of A5		
025	Shading Position: B6: 1	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 1 position (small shade) of B6		
026	Shading Position: B6: 2	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of B6		
027	Shading Position: B6: 3	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 3 position (large shade) of B6		

028	Shading Position: DLEnv: 1	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 1 position (small shade) of DLEnv		
029	Shading Position: DLEnv: 2	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of DLEnv		
030	Shading Position: DLEnv: 3	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 3 position (large shade) of DLEnv		
031	Shading Position: COM10: 1	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 1 position (small shade) of com10		
032	Shading Position: COM10: 2	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 2 position (middle shade) of com10		
033	Shading Position: COM10: 3	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 3 position (large shade) of com10		
034	Shading Position: Postcard: 1	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 1 position (small shade) of post card		
035	Shading Position: Postcard: 2	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]

	Do not change. No 2 position (middle shade) of post card		
036	Shading Position: Postcard: 3	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 3 position (large shade) of post card		
037	Shading Position: 12inch: 4	ENG	[0 to 1000 / **D146:157, D147:157, D148:180, D149:180, D150:180** / 1pluse/step]
	Do not change. No 4 position (small shade) of 12inch		
038	Shading Position: 12inch: 5	ENG	[0 to 1000 / **D146:177, D147:177, D148:210, D149:210, D150:210** / 1pluse/step]
	Do not change. No 5 position (middle shade) of 12inch		
039	Shading Position: 12inch: 6	ENG	[0 to 1000 / **D146:177, D147:177, D148:240, D149:240, D150:240** / 1pluse/step]
	Do not change. No 6 position (large shade) of 12inch		
040	Shading Position: 12inch: 7	ENG	[0 to 1000 / **D146:177, D147:177, D148:270, D149:270, D150:270** / 1pluse/step]
	Do not change. No 7 position (small shade) of 12inch		
041	Shading Position: 12inch: 8	ENG	[0 to 1000 / **D146:177, D147:177, D148:300, D149:300, D150:300** / 1pluse/step]
	Do not change. No 8 position (small shade) of 12inch		
042	Shading Position: A3: 4	ENG	[0 to 1000 / **D146:157, D147:157, D148:180, D149:180, D150:180** / 1pluse/step]
	Do not change. No 4 position (small shade) of A3		

043	Shading Position: A3: 5	ENG	[0 to 1000 / **D146:177, D147:177, D148:210, D149:210, D150:210** / 1pluse/step]
	Do not change. No 5 position (small shade) of A3		
044	Shading Position: A3: 6	ENG	[0 to 1000 / **D146:177, D147:177, D148:240, D149:240, D150:240** / 1pluse/step]
	Do not change. No 6 position (small shade) of A3		
045	Shading Position: A3: 7	ENG	[0 to 1000 / **D146:177, D147:177, D148:270, D149:270, D150:270** / 1pluse/step]
	Do not change. No 7 position (small shade) of A3		
046	Shading Position: A3: 8	ENG	[0 to 1000 / **D146:177, D147:177, D148:300, D149:300, D150:300** / 1pluse/step]
	Do not change. No 8 position (small shade) of A3		
047	Shading Position: DLT: 4	ENG	[0 to 1000 / **D146:177, D147:177, D148:200, D149:200, D150:200** / 1pluse/step]
	Do not change. No 4 position (small shade) of DLT		
048	Shading Position: DLT: 5	ENG	[0 to 1000 / **D146:177, D147:177, D148:230, D149:230, D150:230** / 1pluse/step]
	Do not change. No 5 position (small shade) of DLT		
049	Shading Position: DLT: 6	ENG	[0 to 1000 / **D146:177, D147:177, D148:260, D149:260, D150:260** / 1pluse/step]
	Do not change. No 6 position (small shade) of DLT		
050	Shading Position: DLT: 7	ENG	[0 to 1000 / **D146:177, D147:177, D148:290, D149:290, D150:290** / 1pluse/step]

	Do not change. No 7 position (small shade) of DLT		
051	Shading Position: DLT: 8	ENG	[0 to 1000 / **D146:177, D147:177, D148:320, D149:320, D150:320** / 1pluse/step]
	Do not change. No 8 position (small shade) of DLT		
052	Shading Position: B4: 4	ENG	[0 to 1000 / **D146:177, D147:177, D148:200, D149:200, D150:200** / 1pluse/step]
	Do not change. No 4 position (small shade) of B4		
053	Shading Position: B4: 5	ENG	[0 to 1000 / **D146:177, D147:177, D148:230, D149:230, D150:230** / 1pluse/step]
	Do not change. No 5 position (small shade) of B4		
054	Shading Position: B4: 6	ENG	[0 to 1000 / **D146:177, D147:177, D148:260, D149:260, D150:260** / 1pluse/step]
	Do not change. No 6 position (small shade) of B4		
055	Shading Position: B4: 7	ENG	[0 to 1000 / **D146:177, D147:177, D148:290, D149:290, D150:290** / 1pluse/step]
	Do not change. No 7 position (small shade) of B4		
056	Shading Position: B4: 8	ENG	[0 to 1000 / **D146:177, D147:177, D148:320, D149:320, D150:320** / 1pluse/step]
	Do not change. No 8 position (small shade) of B4		
057	Shading Position: LT: 4	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 4 position (small shade) of LT		
058	Shading Position: LT: 5	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 5 position (small shade) of LT		
059	Shading Position: LT: 6	ENG	[0 to 1000 / **0** / 1pluse/step]

	Do not change. No 6 position (small shade) of LT		
060	Shading Position: LT: 7	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 7 position (small shade) of LT		
061	Shading Position: LT: 8	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 8 position (small shade) of LT		
062	Shading Position: A4: 4	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 4 position (small shade) of A4		
063	Shading Position: A4: 5	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 5 position (small shade) of A4		
064	Shading Position: A4: 6	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 6 position (small shade) of A4		
065	Shading Position: A4: 7	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 7 position (small shade) of A4		
066	Shading Position: A4: 8	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 8 position (small shade) of A4		
067	Shading Position: B5: 4	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 4 position (small shade) of B5		
068	Shading Position: B5: 5	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 5 position (small shade) of B5		
069	Shading Position: B5: 6	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 6 position (small shade) of B5		
070	Shading Position: B5: 7	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 7 position (small shade) of B5		
071	Shading Position: B5: 8	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 8 position (small shade) of B5		
072	Shading Position: A5: 4	ENG	[0 to 1000 / **0** / 1pluse/step]

	Do not change. No 4 position (small shade) of A5		
073	Shading Position: A5: 5	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 5 position (small shade) of A5		
074	Shading Position: A5: 6	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 6 position (small shade) of A5		
075	Shading Position: A5: 7	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 7 position (small shade) of A5		
076	Shading Position: A5: 8	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 8 position (small shade) of A5		
077	Shading Position: B6: 4	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 4 position (small shade) of B6		
078	Shading Position: B6: 5	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 5 position (small shade) of B6		
079	Shading Position: B6: 6	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 6 position (small shade) of B6		
080	Shading Position: B6: 7	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 7 position (small shade) of B6		
081	Shading Position: B6: 8	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 8 position (small shade) of B6		

082	Shading Position: DLEnv: 4	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 4 position (small shade) of DLEnv		
083	Shading Position: DLEnv: 5	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 5 position (small shade) of DLEnv		
084	Shading Position: DLEnv: 6	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 6 position (small shade) of DLEnv		
085	Shading Position: DLEnv: 7	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 7 position (small shade) of DLEnv		
086	Shading Position: DLEnv: 8	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 8 position (small shade) of DLEnv		
087	Shading Position: COM10: 4	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 4 position (small shade) of com10		
088	Shading Position: COM10: 5	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 5 position (small shade) of com10		
089	Shading Position: COM10: 6	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]

	Do not change. No 6 position (small shade) of com10		
090	Shading Position: COM10: 7	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 7 position (small shade) of com10		
091	Shading Position: COM10: 8	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 8 position (small shade) of com10		
092	Shading Position: Postcard: 4	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 4 position (small shade) of postcard		
093	Shading Position: Postcard: 5	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 5 position (small shade) of postcard		
094	Shading Position: Postcard: 6	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 6 position (small shade) of postcard		
095	Shading Position: Postcard: 7	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 7 position (small shade) of postcard		
096	Shading Position: Postcard: 8	ENG	[0 to 1000 / **D146:320, D147:320, D148:0, D149:0, D150:0** / 1pluse/step]
	Do not change. No 8 position (small shade) of postcard		
121	Shading Position: SRA3: 1	ENG	[0 to 1000 / **0** / 1pluse/step]

	Do not change. No 1 position (small shade) of SRA2		
122	Shading Position: SRA3: 2	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 2 position (small shade) of SRA2		
123	Shading Position: SRA3: 3	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 3 position (small shade) of SRA2		
124	Shading Position: SRA3: 4	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 4 position (small shade) of SRA2		
125	Shading Position: SRA3: 5	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 5 position (small shade) of SRA2		
126	Shading Position: SRA3: 6	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 6 position (small shade) of SRA2		
127	Shading Position: SRA3: 7	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 7 position (small shade) of SRA2		
128	Shading Position: SRA3: 8	ENG	[0 to 1000 / **0** / 1pluse/step]
	Do not change. No 8 position (small shade) of SRA2		

1165	**[Shading Plate Control]**		
001	-	*ENG	[0 or 1 / **0** / 1/step] 0: ON 1: OFF
	Do not change. Execute shading plate control.		
101	Continuous Error Times	*ENG	[0 to 3 / **0** / 1/step]
	Do not change. Count of continuously judged as abnormal		

1166	**[MBD-CPM Down Setting]**
	Do not change. Over heat prevent when continuously feeding paper.

001	Judging Method Change	*ENG	[0 to 3 / **3** / 1/step] 0: All Off 1: CPM Down:On 2: Job End Rotation:On 3: All On
002	Output Correction:MBD	*ENG	[80 to 120 / **100** / 1%/step]
003	Power Rate Control:MBD	*ENG	[0 to 100 / **NA, TW: 89, EU, AS, CHN, KOR: 51** / 1%/step]
004	Press Reference Temp.:MBD	*ENG	[0 to 250 / **85** / 1deg/step]
005	Calculation Cycle:MBD	*ENG	[1 to 5 / **NA, TW:1 , EU, AS, CHN, KOR: 2** / 1sec/step]
006	Correction Coefficient 1:MBD	*ENG	[0 to 99 / **14** / 1/step]
007	Correction Coefficient 2:MBD	*ENG	[0 to 99 / **83** / 1/step]
008	Correction Coefficient 3:MBD	*ENG	[0 to 99 / **8** / 1/step]
009	Correction Coefficient 4:MBD	*ENG	[0 to 99 / **28** / 1/step]
010	Correction Coefficient 5:MBD	*ENG	[0 to 99 / **83** / 1/step]
011	Correction Coefficient 6:MBD	*ENG	[0 to 99 / **17** / 1/step]
021	Judgement Temp:MBD	*ENG	[0 to 500 / **270** / 1deg/step]
022	Cooling Time Set:MBD	*ENG	[0 to 99 / **10** / 1sec/step]
031	1st CPM Down Temp.:MBD	*ENG	[0 to 500 / **320** / 1deg/step]
032	2nd CPM Down Temp.:MBD	*ENG	[0 to 500 / **330** / 1deg/step]
033	3rd CPM Down Temp.:MBD	*ENG	[0 to 500 / **350** / 1deg/step]
034	1st CPM:MBD	*ENG	[0 to 100 / **85** / 1%/step]
035	2nd CPM:MBD	*ENG	[0 to 100 / **75** / 1%/step]
036	3rd CPM:MBD	*ENG	[0 to 100 / **50** / 1%/step]

1302	[Dbl-Feed Detect]		
	-		
001	Tray1	ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
002	Tray2	ENG	
003	Tray3	ENG	
004	Tray4	ENG	
005	LCT	ENG	
006	Bypass Tray	ENG	

1306	[Paper Thickness Sensor Cal]		
	-		
001	Ave	*ENG	[-2000 to 2000 / **0** / 1um]
002	Max	*ENG	[-2000 to 2000 / **0** / 1um]
003	Min	*ENG	[-2000 to 2000 / **0** / 1um]

1311	[Paper Thikness Error Times]		
	-		
001	Tray1	ENG	[0 to 65535 / **0** / 1/step]
002	Tray2	ENG	[0 to 65535 / **0** / 1/step]
003	Tray3	ENG	[0 to 65535 / **0** / 1/step]
004	Tray4	ENG	[0 to 65535 / **0** / 1/step]
005	LCT	ENG	[0 to 65535 / **0** / 1/step]
006	Bypass Tray	ENG	[0 to 65535 / **0** / 1/step]

1313	**[Paper Thikness Detect]**		
	-		
001	ON/OFF	ENG	[0 or 1 / **1** / 0] 0: OFF 1: ON

1801	**[Relay Motor Speed Adjust]**		
	Setting for resolution of paper thickness sensor. (* No need to change)		
001	Feed CCW:Plain:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
002	Feed CCW:Plain:Std	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
003	Feed CCW:Mid-thick:Std	*ENG	[-2.0 to 2.0 / **1.1** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
004	Feed CCW:Thick 1:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
005	Feed CCW:Thick 1:Mid	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		

006	Feed CCW:Thick 2:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
007	Feed CCW:Thick 3:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
008	Feed CCW:Thick 4:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
009	Feed CW:Plain:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
010	Feed CW:Plain:Std	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
011	Feed CW:Mid-thick:Std	*ENG	[-2.0 to 2.0 / **1.1** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
012	Feed CW:Thick 1:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		

013	Feed CW:Thick 1:Mid	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
014	Feed CW:Thick 2:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
015	Feed CW:Thick 3:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
016	Feed CW:Thick 4:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
017	Vertical Feed:Plain:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
018	Vertical Feed:Plain:Std	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
019	Vertical Feed:Mid-thick:Std	*ENG	[-2.0 to 2.0 / **1.1** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		

020	Vertical Feed:Thick 1:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
021	Vertical Feed:Thick 1:Mid	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
022	Vertical Feed:Thick 2:Low	*ENG	[-2.0 to 2.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
023	Vertical Feed:Thick 3:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
024	Vertical Feed:Thick 4:Low	*ENG	[-2.0 to 2.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
025	Registration:Plain:Low	*ENG	[-2.0 to 2.0 / **0.3** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
026	Registration:Plain:Std	*ENG	[-2.0 to 2.0 / **0.3** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		

027	Registration:Mid-thick:Std	*ENG	[-2.0 to 2.0 / **0.3** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
028	Registration:Thick 1:Low	*ENG	[-2.0 to 2.0 / **0.4** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
029	Registration:Thick1:Mid	*ENG	[-2.0 to 2.0 / **0.4** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
030	Registration:Thick 2:Low	*ENG	[-2.0 to 2.0 / **0.4** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
031	Registration:Thick 3:Low	*ENG	[-2.0 to 2.0 / **0.3** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
032	Registration:Thick 4:Low	*ENG	[-2.0 to 2.0 / **0.3** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
033	Exit CCW:Plain:Low	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		

034	Exit CCW:Plain:Std	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
035	Exit CCW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
036	Exit CCW:Thick1:Low	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
037	Exit CCW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **-0.6** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
038	Exit CCW:Thick2:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
039	Exit CCW:Thick3:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
040	Exit CCW:Thick4:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
041	Reverse CW:Plain:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		

042	Reverse CW:Plain:Std	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
043	Reverse CW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **0.5** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
044	Reverse CW:Thick1:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
045	Reverse CW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
046	Reverse CW:Thick2:Low	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
047	Reverse CW:Thick3:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
048	Reverse CW:Thick4:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
049	Reverse CCW:Plain:Low	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		

050	Reverse CCW:Plain:Std	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
051	Reverse CCW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
052	Reverse CCW:Thick1:Low	*ENG	[-4.0 to 4.0 / **-0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
053	Reverse CCW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **-0.6** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
054	Reverse CCW:Thick2:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
055	Reverse CCW:Thick3:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
056	Reverse CCW:Thick4:Low	*ENG	[-4.0 to 4.0 / **-0.9** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
057	Duplex Enter CW:Plain:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
058	Duplex Enter CW:Plain:Std	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]

	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
059	Duplex Enter CW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **0.5** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
060	Duplex Enter CW:Thick1:Low	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
061	Duplex Enter CW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
062	Duplex Enter CW:Thick2:Low	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
063	Duplex Enter CW:Thick3:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevents coat strips, waving, image sore. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
064	Duplex CW:Plain:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
065	Duplex CW:Plain:Std	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		

066	Duplex CW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **0.5** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
067	Duplex CW:Thick1:Low	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
068	Duplex CW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
069	Duplex CW:Thick2:Low	*ENG	[-4.0 to 4.0 / **0.8** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
070	Duplex CW:Thick3:Low	*ENG	[-4.0 to 4.0 / **0.7** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
071	Duplex CCW:Plain:Low	*ENG	[-4.0 to 4.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflects adjusted value as they are. All: 73mm/s, 1200dpi mode		
072	Duplex CCW:Plain:Std	*ENG	[-4.0 to 4.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		

073	Duplex CCW:Mid-thick:Std	*ENG	[-4.0 to 4.0 / **1.1** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 146mm/s, Metis-C1b: 146mm/s, Metis-C1c: 186mm/s, Metis-C1d: 256mm/s, Metis-C1e: 256mm/s		
074	Duplex CCW:Thick1:Low	*ENG	[-4.0 to 4.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1a: 73mm/s, Metis-C1b: 73mm/s		
075	Duplex CCW:Thick1:Mid	*ENG	[-4.0 to 4.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1c: 108mm/s, Metis-C1d: 108mm/s, Metis-C1e: 108mm/s		
076	Duplex CCW:Thick2:Low	*ENG	[-4.0 to 4.0 / **1.2** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
077	Duplex CCW:Thick3:Low	*ENG	[-4.0 to 4.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		
078	Duplex CCW:Thick4:Low	*ENG	[-4.0 to 4.0 / **0.9** / 0.1%/step]
	Prevent shock jitter by adjusting sub scan scale, scale error rate declination, image position accuracy improve. Reflect adjusted value as they are Metis-C1 all: 73mm/s		

1801	[Relay Motor Speed Adjust]		
079	Low	ENG	[-4.0 to 4.0 / **-0.0** / 0.1%/step]
	Fine tunes relay motor speed. low speed (Process 73 mm/s, paper exit speed up 108 mm/s)		
080	Mid	ENG	[-4.0 to 4.0 / **-0.0** / 0.1%/step]
	Fine tunes relay motor speed. Middle speed (Process 108 mm/s, paper exit speed up 146 mm/s)		
081	Standard	ENG	[-4.0 to 4.0 / **-0.0** / 0.1%/step]
	Fine tunes relay motor speed. low peed (Process 146 mm/s, paper exit speed up 256 mm/s)		

1801	[Motor Speed Adj.]		
100	Drum Adjust	*ENG	[0 or 1 / **1** / 1/step] 0:Off 1:On
	Selects ON/OFF of drum motor speed fine tune control.		
101	Offset:ColorOpcMot:Standard	*ENG	[-40 to 40 / **0** / 1step/step]
	Sets offset amount of fine tuning drum motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
102	Offset:ColorOpcMot:Mid	*ENG	[-40 to 40 / **0** / 1step/step]
	Sets offset amount of fine tuning drum motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
103	Offset:ColorOpcMot:Low	*ENG	[-40 to 40 / **0** / 1step/step]
	Sets offset amount of fine tuning drum motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		
106	ColorOpcMot:Standard	*ENG	[-40 to 40 / **0** / 1step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		

107	ColorOpcMot:Mid	*ENG	[-40 to 40 / **0** / 1step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
108	ColorOpcMot:Low	*ENG	[-40 to 40 / **0** / 1step]
	Fine tunes motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		
109	BkDevMot:Standard	*ENG	[-20.0 to 20.0 / **1.5** / 0.1%/step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
110	BkDevMot:Mid	*ENG	[-20.0 to 20.0 / **1.5** / 0.1%/step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
111	BkDevMot:Low	*ENG	[-20.0 to 20.0 / **1.5** / 0.1%/step]
	Fine tunes motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		
115	ColorDevMot:Standard	*ENG	[-20.0 to 20.0 / **-4.6** / 0.1%/step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
116	ColorDevMot:Mid	*ENG	[-20.0 to 20.0 / **-4.6** / 0.1%/step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
117	ColorDevMot:Low	*ENG	[-20.0 to 20.0 / **-4.6** / 0.1%/step]
	Fine tunes motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		

118	Fusing:Standard	*ENG	[-10.00 to 10.00 / **-1.40** / 0.01%/step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
119	Fusing:Mid	*ENG	[-10.00 to 10.00 / **-1.00** / 0.01%/step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
120	Fusing:Low	*ENG	[-10.00 to 10.00 / **-1.00** / 0.01%/step]
	Fine tune motor speed when printing to paper with thickness except standard paper thickness C6003/C5503/C4503/C3503/C3003: 73mm/sec		
121	Fusing:Low:1200:Plain	*ENG	[-10.00 to 10.00 / **-1.40** / 0.01%/step]
	Fine tune motor speed when printing to paper with thickness except standard paper thickness C6003/C5503/C4503/C3503/C3003: 73mm/sec		
122	OPCTransferMot:Standard	*ENG	[-4.00 to 4.00 / **0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
123	OPCTransferMot:Mid	*ENG	[-4.00 to 4.00 / **0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
124	OPCTransferMot:Low	*ENG	[-4.00 to 4.00 / **0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		

133	ColorOpcMot:Standard:independence	*ENG	[-4.00 to 4.00 / **-0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503: 256mm/sec C4503: 186mm/sec C3503/C3003: 146mm/sec		
134	ColorOpcMot:Mid:independence	*ENG	[-4.00 to 4.00 / **-0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503/C4503: 108mm/sec C3503/C3003: N/A		
135	ColorOpcMot:Low:independence	*ENG	[-4.00 to 4.00 / **-0.20** / 0.01%/step]
	Fine tunes motor speed C6003/C5503/C4503/C3503/C3003: 73mm/sec		

1902	**[Export Ladder Pattern]**		
001	Execute	ENG	[0 or 1 / **0** / 1/step]
	Execution SP to write rudder pattern.		

1902	**[Drum Phase Adj.]**		
002	Result	*ENG	[0 to 3 / **0** / 1/step]
	Displays execution result of drum phase match		
003	Auto Execution	*ENG	[0 or 1 / **1** / 1/step] 0:Off 1:On
	Selects ON/OFF of drum phase matching control.		

1902	[BIT1 Control]		
004	Execute	ENG	[0 or 1 / **0** / 1/step]
	Execution SP of BIT1 control		
005	Result	ENG	[0 to 3 / **0** / 1/step]
	Displays execution result of BIT1 control		
008	Sensing position	*ENG	[0 to 3 / **1** / 1/step]
	Scanning position of BIT1 control pattern		

1903	[Amplitude Setting]		
001	Threshold Trsns Bkdrum	*ENG	[0.0 to 300.0 / **5.0** / 0.1um/step]
	Execution threshold of BIT1 control		
002	Threshold FC Drum	*ENG	[0.0 to 300.0 / **5.0** / 0.1um/step]
	Execution threshold of BIT1 control		
003	Trsns Bkdrum	*ENG	[0.0 to 300.0 / **0.0** / 0.1um/step]
	Displays amplitude value of BIT1 control		
004	FC Drum	*ENG	[0.0 to 300.0 / **0.0** / 0.1um/step]
	Displays amplitude value of BIT1 control		
005	Cy	*ENG	[0.0 to 300.0 / **0.0** / 0.1um/step]
	Displays amplitude value of BIT1 control check		
006	Ma	*ENG	[0.0 to 300.0 / **0.0** / 0.1um/step]
	Displays amplitude value of BIT1 control check		
007	Ye	*ENG	[0.0 to 100.0 / **0** / 0.1um/step]
	Displays amplitude value of BIT1 control check		
008	Bk Offset Amp	*ENG	[-300.0 to 300.0 / **0.0** / 0.1um/step]
	Off set amplitude of BIT1 control		

009	FC Offset Amp	*ENG	[-300.0 to 300.0 / **0.0** / 0.1um/step]
	Off set amplitude of BIT1 control		

1904	**[Phase Angle]**		
001	Trsns Bkdrum	*ENG	[0 to 359 / **0** / 1deg/step]
	Displays phase angle of BIT1 control		
002	FC Drum	*ENG	[0 to 359 / **0** / 1 deg/step]
	Displays phase angle of BIT1 control		
003	Cy	*ENG	[0 to 359 / **0** / 1deg/step]
	Displays phase angle of BIT1 control check		
004	Ma	*ENG	[0 to 359 / **0** / 1deg/step]
	Displays phase angle of BIT1 control check		
005	Ye	*ENG	[0 to 359 / **0** / 1deg/step]
	Displays phase angle of BIT1 control check		
006	Bk Offset Angle	*ENG	[0 to 359 / **0** / 1deg/step]
	Off set angle of BIT1 control		
007	FC Offset Angle	*ENG	[0 to 359 / **0** / 1deg/step]
	Off set angle of BIT1 control		

1907	**[Paper Feed Timing Adj.]**		
029	By-pass Size Decision Timing	*ENG	[1 to 3 / **3** / 1/step]
	Adjusts waiting time till fix a size from size detector's output when paper is set with standard bypass or one action bypass function is OFF. Will have more time till start button to turn green when setting waiting time longer, but time for setting paper will also be loner. Side effect might occur such as paper feed starts before finish setting paper if waiting time is set shot.		

1950	[Fan Cooling Time Set]		
	Sets fan operation time during after print standby.		
002	Dev Cooling Fan A	*ENG	[0.0 to 120.0 / **0.0** / 0.1min]
003	Dev Cooling Fan B	*ENG	
005	Ozone Fan	*ENG	
006	Fusing Fan	*ENG	
007	Paper Exit Cooling Fan	*ENG	
011	Electrical Cooling Fan	*ENG	

1951	[Fan Start Time Set]		
	Sets fan operation start time when recover from engine off mode.		
002	Dev Cooling Fan A	*ENG	[0 to 900 / **120** / 1sec/step]
003	Dev Cooling Fan B	*ENG	
005	Ozone Fan	*ENG	
006	Fusing Fan	*ENG	
007	Paper Exit Cooling Fan	*ENG	
011	Electrical Cooling Fan	*ENG	

1952	[Fan Control Off Mode Time Set]		
001	-	*ENG	[0 to 60 / **10** / 1min./step]
	Sets off mode time till start fan control.		

1953	[Extra Fan Control]		
001	Extra Fan Cooling State	*ENG	[0 or 1 / **0** / 1/step] 0: Disable 1: Enable
	Displays current fan extend operation		
002	Execution Temp. Threshold	*ENG	[0.0 to 100.0 / **D146:42.0, D147:42.0, D148:39.0, D149:39.0, D150:39.0** / 0.1deg/step]
	Sets judge time for to start fan extend operation.		
003	Cancellation Temp. Threshold	*ENG	[0.0 to 100.0 / **2.0** / 0.1deg/step]
	Sets temperature threshold (diff. value between fan extend start temp.) of when ending fan extend operation.		
004	Extra Fan Operation ON/OFF Setting	*ENG	[0 or 1 / **1** / 1/step] 0: disable 1: enable
	Sets enable/disable fan extend operation.		

1955	[Fan Control]		
003	Dev Cooling Fan A Op Sw Temp	*ENG	[0.0 to 100.0 / **1.0** / 0.1deg/step]
	Sets temperature threshold for when switching operation of imaging cooling fan A.		
004	Dev Cooling Fan B Op Sw Temp	*ENG	[0.0 to 100.0 / **36.0** / 0.1deg/step]
	Sets temperature threshold for when switching operation of imaging cooling fan B.		
006	Paper Exit Cooling Fan Low Temp Op Sw Temp	*ENG	[0.0 to 100.0 / **12.0** / 0.1deg/step]
	Sets temperature threshold for when switching operation during low temp. of paper exit cooling fan.		

007	Fusing Exit Fan Op Sw Temp	*ENG	[0.0 to 100.0 / **0.0**/ 0.1deg/step]
	Sets temperature threshold for when switching operation of fusing exhaust heat fan.		
009	Ozone Fan Low Speed Op Sw Temp	*ENG	[0.0 to 100.0 / **35.0** / 0.1deg/step]
	Sets temperature threshold for when switching to low speed operation of fusing exhaust heat fan.		
010	Ozone Fan Middle Speed Op Sw Temp	*ENG	[0.0 to 100.0 / **37.0** / 0.1deg/step]
	Sets temperature threshold for when switching to middle speed operation of fusing exhaust heat fan.		
011	Ozone Fan High Speed Op Sw Temp	*ENG	[0.0 to 100.0 / **40.0** / 0.1deg/step]
	Sets temperature threshold for when switching to high speed operation of fusing exhaust heat fan.		
012	Ozone Fan Low Noise Op DUTY	*ENG	[0 to 100 / **20** / 1%/step]
	Sets working duty when running ozone fan quiet.		
013	Ozone Fan Low Speed Op DUTY	*ENG	[0 to 100 / **30** / 1%/step]
	Sets working duty when running ozone fan low speed..		
014	Ozone Fan Middle Speed Op DUTY	*ENG	[0 to 100 / **40** / 1%/step]
	Sets working duty when running ozone fan middle speed.		
015	Ozone Fan High Speed Op DUTY	*ENG	[0 to 100 / **40** / 1%/step]
	Sets working duty when running ozone fan high speed.		
016	Paper Exit Cooling Fan Op Start Time	*ENG	[0 to 900 / **300** / 1sec/step]
	Sets start operation time of paper exit cooling fan.		

017	Electrical Cooling Fan Op Start Time	*ENG	[0 to 900 / **300** / 1sec/step]
	Sets start operation time of electric system cooling fan.		
018	Fan Op Sw Temp Thres	*ENG	[0.0 to 100.0 / **2.0** / 0.1deg/step]
	Sets temperature threshold (diff. value between switching temp.) of when switching each fan.		
019	Paper Exit Cooling Fan Control Off Mode Time	*ENG	[0 to 60 / **10** / 1min./step]
	Sets off mode time till start paper exit cooling fan.		
020	Electrical Cooling Fan Control Off Mode Time	*ENG	[0 to 60 / **10** / 1min./step]
	Sets off mode time till electric system cooling fan.		

2.3 MAIN SP TABLES-2-1

2.3.1 SP2-005 TO 2-473 (DRUM)

2005	**[Charge DC Voltage: Fixed]**		
	DC fixed voltage when Process control is off.		
001	Standard Speed: K	*ENG	[0 to 2000 / **650** / 10-V/step]
002	Standard Speed: C	*ENG	[0 to 2000 / **D146: 1300, D147: 1300, D148: 650, D149: 650, D150: 650** / 10-V/step]
003	Standard Speed: M	*ENG	
004	Standard Speed: Y	*ENG	
005	Middle Speed: K	*ENG	[0 to 2000 / **650** / 10-V/step]
006	Middle Speed: C	*ENG	[0 to 2000 / **D146: 1300, D147: 1300, D148: 650, D149: 650, D150: 650** / 10-V/step]
007	Middle Speed: M	*ENG	
008	Middle Speed: Y	*ENG	
009	Low Speed: K	*ENG	[0 to 2000 / **650** / 10-V/step]
010	Low Speed: C	*ENG	[0 to 2000 / **D146: 1300, D147: 1300, D148: 650, D149: 650, D150: 650** / 10-V/step]
011	Low Speed: M	*ENG	
012	Low Speed: Y	*ENG	
2005	**[Charge DC Voltage: Correction]**		
	Correction amount for AC center value.		
013	PCU: Standard Speed	*ENG	[-100 to 100 / **0** / 1-V/step]
014	PCU: Middle Speed	*ENG	
015	PCU: Low Speed	*ENG	
2005	**[Charge DC Voltage: Correction]**		
	Vc calculating coefficient of DC Electrify.		
018	Correction Coefficient a: K	*ENG	[0.000 to 2.000 / **1.000** / 0.001/step]

019	Correction Coefficient a: C	*ENG	
020	Correction Coefficient a: M	*ENG	
021	Correction Coefficient a: Y	*ENG	
022	Correction Coefficient b: K	*ENG	[0 to 2000 / **0** / 1/step]
023	Correction Coefficient b: C	*ENG	[0 to 2000 / **D146: 20, D147: 20, D148: 0, D149: 0, D150: 0** / 1/step]
024	Correction Coefficient b: M	*ENG	
025	Correction Coefficient b: Y	*ENG	
026	Correction Coefficient c: K	*ENG	[0 to 100 / **D146: 10, D147: 10, D148: 0, D149: 0, D150: 0** / 1/step]
027	Correction Coefficient c: C	*ENG	
028	Correction Coefficient c: M	*ENG	
029	Correction Coefficient c: Y	*ENG	
2005	**[Charge DC Voltage: Correction]**		
	Temperature threshold of Electrify DC Voltage.		
030	Temperature Threshold L: K	*ENG	[0 to 99 / **15** / 1deg/step]
031	Temperature Threshold L: C	*ENG	[0 to 99 / **15** / 1deg/step]
032	Temperature Threshold L: M	*ENG	[0 to 99 / **16** / 1deg/step]
033	Temperature Threshold L: Y	*ENG	[0 to 99 / **16** / 1deg/step]
034	Temperature Threshold M: K	*ENG	[0 to 99 / **22** / 1deg/step]
035	Temperature Threshold M: C	*ENG	[0 to 99 / **22** / 1deg/step]
036	Temperature Threshold M: M	*ENG	[0 to 99 / **23** / 1deg/step]
037	Temperature Threshold M: Y	*ENG	[0 to 99 / **23** / 1deg/step]
038	Temperature Threshold H: K	*ENG	[0 to 99 / **28** / 1deg/step]
039	Temperature Threshold H: C	*ENG	[0 to 99 / **28** / 1deg/step]
040	Temperature Threshold H: M	*ENG	[0 to 99 / **29** / 1deg/step]
041	Temperature Threshold H: Y	*ENG	[0 to 99 / **29** / 1deg/step]
2005	**[Charge DC Voltage: Correction]**		

	0: Set to correction value using table. 1: Set to Fixed Value: Electrify DC Voltage of SP.		
043	DC Bias Fixed Value Set	*ENG	[0 or 1 / **0** / 1/step]
2005	**[Charge DC Voltage: Correction]**		
	Fixed value of Vc calculating coefficient for DC Electrify.		
044	Correction Coefficient a: Fixed K	*ENG	[0.000 to 2.000 / **1.000** / 0.001/step]
045	Correction Coefficient a: Fixed C	*ENG	
046	Correction Coefficient a: Fixed M	*ENG	
047	Correction Coefficient a: Fixed Y	*ENG	
048	Correction Coefficient b: Fixed K	*ENG	[0 to 2000 / **0** / 1/step]
049	Correction Coefficient b: Fixed C	*ENG	[0 to 2000 / **D146: 20, D147: 20, D148: 0, D149: 0, D150: 0** / 1/step]
050	Correction Coefficient b: Fixed M	*ENG	
051	Correction Coefficient b: Fixed Y	*ENG	
052	Correction Coefficient c: Fixed K	*ENG	[0 to 100 / **0** / 1/step]
053	Correction Coefficient c: Fixed C	*ENG	[0 to 100 / **D146: 10, D147: 10, D148: 0, D149: 0, D150: 0** / 1/step]
054	Correction Coefficient c: Fixed M	*ENG	
055	Correction Coefficient c: Fixed Y	*ENG	
2005	**[Charge DC Voltage: Correction]**		

	Rotation distance considering by PCU life.		
056	Rotation: PCU: Bk	*ENG	[0 to 999999999 / **0** / 1mm/step]
057	Rotation: PCU: C	*ENG	
058	Rotation: PCU: M	*ENG	
059	Rotation: PCU: Y	*ENG	
2005	**[Charge DC: Correction]**		
	Rotation distance when detecting an old PCU.		
060	Old PCU Detection Distance: PCU: K	*ENG	[0 to 999999999 / **0** / 1mm/step]
061	Old PCU Detection Distance: PCU: C	*ENG	
062	Old PCU Detection Distance: PCU: M	*ENG	
063	Old PCU Detection Distance: PCU: Y	*ENG	
2005	**[Charge DC Voltage: Correction]**		
	Vc calculating coefficient of DC Electrify.		
089	Correction Coefficient Cd	*ENG	[-125 to 125 / **0** / 1-V/step]
090	Correction Coefficient Ce	*ENG	
091	Correction Coefficient Cf	*ENG	
092	Correction Coefficient Cg	*ENG	
093	Correction Coefficient Ch	*ENG	
094	Correction Coefficient Ci	*ENG	
095	Correction Coefficient Cj	*ENG	
096	Correction Coefficient Ck	*ENG	
097	Correction Coefficient Cl	*ENG	
098	Correction Coefficient Cm	*ENG	

099	Correction Coefficient Cn	*ENG	
100	Correction Coefficient Co	*ENG	
101	Correction Coefficient Cp	*ENG	
102	Correction Coefficient Cq	*ENG	
103	Correction Coefficient Cr	*ENG	
104	Correction Coefficient Cs	*ENG	
105	Correction Coefficient Ct	*ENG	
106	Correction Coefficient Cu	*ENG	[-125 to 125 / **0** / 1-V/step]
107	Correction Coefficient Cv	*ENG	
108	Correction Coefficient Cw	*ENG	
109	Correction Coefficient Cx	*ENG	
110	Correction Coefficient Cy	*ENG	
111	Correction Coefficient Cz	*ENG	
112	Correction Coefficient CAA	*ENG	
113	Correction Coefficient CAB	*ENG	[-125 to 125 / **0** / 1-V/step]
114	Correction Coefficient Md	*ENG	
115	Correction Coefficient Me	*ENG	
116	Correction Coefficient Mf	*ENG	
117	Correction Coefficient Mg	*ENG	
118	Correction Coefficient Mh	*ENG	
119	Correction Coefficient Mi	*ENG	
120	Correction Coefficient Mj	*ENG	[-125 to 125 / **0** / 1-V/step]
121	Correction Coefficient Mk	*ENG	
122	Correction Coefficient Ml	*ENG	
123	Correction Coefficient Mm	*ENG	
124	Correction Coefficient Mn	*ENG	[-125 to 125 / **0** / 1-V/step]

125	Correction Coefficient Mo	*ENG	
126	Correction Coefficient Mp	*ENG	
127	Correction Coefficient Mq	*ENG	
128	Correction Coefficient Mr	*ENG	
129	Correction Coefficient Ms	*ENG	
130	Correction Coefficient Mt	*ENG	
131	Correction Coefficient Mu	*ENG	
132	Correction Coefficient Mv	*ENG	
133	Correction Coefficient Mw	*ENG	
134	Correction Coefficient Mx	*ENG	[-125 to 125 / **0** / 1-V/step]
135	Correction Coefficient My	*ENG	
136	Correction Coefficient Mz	*ENG	
137	Correction Coefficient MAA	*ENG	
138	Correction Coefficient MAB	*ENG	
139	Correction Coefficient Yd	*ENG	
140	Correction Coefficient Ye	*ENG	
141	Correction Coefficient Yf	*ENG	
142	Correction Coefficient Yg	*ENG	
143	Correction Coefficient Yh	*ENG	
144	Correction Coefficient Yi	*ENG	[-125 to 125 / **0** / 1-V/step]
145	Correction Coefficient Yj	*ENG	
146	Correction Coefficient Yk	*ENG	
147	Correction Coefficient Yl	*ENG	
148	Correction Coefficient Ym	*ENG	
149	Correction Coefficient Yn	*ENG	
150	Correction Coefficient Yo	*ENG	

151	Correction Coefficient Yp	*ENG	[-125 to 125 / **0** / 1-V/step]
152	Correction Coefficient Yq	*ENG	
153	Correction Coefficient Yr	*ENG	
154	Correction Coefficient Ys	*ENG	
155	Correction Coefficient Yt	*ENG	
156	Correction Coefficient Yu	*ENG	
157	Correction Coefficient Yv	*ENG	
158	Correction Coefficient Yw	*ENG	
159	Correction Coefficient Yx	*ENG	
160	Correction Coefficient Yy	*ENG	
161	Correction Coefficient Yz	*ENG	
162	Correction Coefficient YAA	*ENG	
163	Correction Coefficient YAB	*ENG	

2006	**[Charge AC Voltage: Fixed]**		
	AC ampere target value when outputting fixed Electrify AC.		
001	Standard Speed: K	*ENG	[0.00 to 3.00 / **2.20** / 0.01kV/step]
002	Standard Speed: C	*ENG	
003	Standard Speed: M	*ENG	
004	Standard Speed: Y	*ENG	
005	Middle Speed: K	*ENG	
006	Middle Speed: C	*ENG	
007	Middle Speed: M	*ENG	
008	Middle Speed: Y	*ENG	
009	Low Speed: K	*ENG	
010	Low Speed: C	*ENG	

011	Low Speed: M	*ENG	
012	Low Speed: Y	*ENG	

2007	**[Charge AC Current: LL]**		
	AC ampere target value when Electrify AC.		
001	Environmental Target: Bk	*ENG	[0.00 to 3.00 / **D146: 0.88, D147: 0.88, D148: 1.19, D149: 1.65, D150: 1.65** / 0.01mA/step]
002	Environmental Target: C	*ENG	
003	Environmental Target: M	*ENG	
004	Environmental Target: Y	*ENG	

2008	**[Charge AC Current: ML]**		
	AC ampere target value when Electrify AC.		
001	Environmental Target: Bk	*ENG	[0.00 to 3.00 / **D146: 0.89, D147: 0.89, D148: 1.18, D149: 1.64, D150: 1.64** / 0.01mA/step]
002	Environmental Target: C	*ENG	
003	Environmental Target: M	*ENG	
004	Environmental Target: Y	*ENG	

2009	**[Charge AC Current: MM]**		
	AC ampere target value when Electrify AC.		
001	Environmental Target: Bk	*ENG	[0.00 to 3.00 / **D146: 0.90, D147: 0.90, D148: 1.16, D149: 1.62, D150: 1.62** / 0.01mA/step]
002	Environmental Target: C	*ENG	
003	Environmental Target: M	*ENG	
004	Environmental Target: Y	*ENG	

2010	**[Charge AC Current: MH]**		
	AC ampere target value when Electrify AC.		
001	Environmental Target: Bk	*ENG	[0.00 to 3.00 / **D146: 0.91, D147:**

002	Environmental Target: C	*ENG	**0.91, D148: 1.23, D149: 1.68, D150: 1.68** / 0.01mA/step]
003	Environmental Target: M	*ENG	
004	Environmental Target: Y	*ENG	

2011	**[Charge AC Current: HH]**		
	AC ampere target value when Electrify AC.		
001	Environmental Target: Bk	*ENG	[0.00 to 3.00 / **D146: 0.92, D147: 0.92, D148: 1.30, D149: 1.73, D150: 1.73** / 0.01mA/step]
002	Environmental Target: C	*ENG	
003	Environmental Target: M	*ENG	
004	Environmental Target: Y	*ENG	

2012	**[Charge Output Control]**		
001	AC Voltage	*ENG	[0 or 1 / **0** / 1/step]
	0: Set to environment correction value used when FB . 1: Electrify AC voltage of SP: Set to fixed setting value.		

2013	**[Environmental Correction: PCU]**		
001	Current Environmental FC : Display	*ENG	[0 to 0 / **0** / 1/step]
	Environment class divided based on the temperature / humidity sensor information when controlling Electrify AC of latest main & subs FC mode.		
002	Forced Setting	*ENG	[0 to 5 / **0** / 1/step]
	0: Detect with temperature / humidity sensor. 1 to 5: Force setting environment.		
003	Absolute Humidity: Threshold 1	*ENG	[0.00 to 100.00 / **3.00** / 0.01g/m^3/step]
	Threshold of LL environment and ML environment.		

004	Absolute Humidity: Threshold 2	*ENG	[0.00 to 100.00 / **8.00** / 0.01g/m^3/step]
	Threshold of ML environment and MM environment.		
005	Absolute Humidity: Threshold 3	*ENG	[0.00 to 100.00 / **15.00** / 0.01g/m^3/step]
	Threshold of MM environment and MH environment.		
006	Absolute Humidity: Threshold 4	*ENG	[0.00 to 100.00 / **22.00** / 0.01g/m^3/step]
	Threshold of MH environment and HH environment.		
007	Temp FC: Display	*ENG	[0 to 100 / **0** / 1deg/step]
	Temperature detected with temperature / humidity sensor when controlling Electrify AC of latest main and subs FC mode.		
008	Relative Humidity FC : Display	*ENG	[0 to 100 / **0** / 1%RH/step]
	Relative temperature detected with temperature / humidity sensor when controlling Electrify AC of latest main and subs FC mode.		
009	Absolute Humidity FC : Display	*ENG	[0.00 to 100.00 / **0.00** / 0.01g/m^3/step]
	Absolute temperature detected with temperature / humidity sensor when controlling Electrify AC of latest main and subs FC mode.		
010	Environmental Bk: Display	*ENG	[0 to 0 / **0** / 1/step]
	Environment class divided based on the temperature / humidity sensor information when controlling Electrify AC of latest main & subs monochrome Bk mode.		
011	Temp Bk.: Display	*ENG	[0 to 100 / **0** / 1deg/step]
	Temperature detected by the temperature / humidity sensor when controlling Electrify AC of latest main & subs monochrome Bk mode.		

012	Relative Humidity Bk : Display	*ENG	[0 to 100 / **0** / 1%RH/step]
	Relative temperature detected by the temperature / humidity sensor when controlling Electrify AC of latest main & subs monochrome Bk mode.		
013	Absolute Humidity Bk : Display	*ENG	[0.00 to 100.00 / **0.00** / 0.01g/m^3/step]
	Absolute temperature detected by the temperature / humidity sensor when controlling Electrify AC of latest main & subs monochrome Bk mode.		

2014	**[Charge AC Control: Setting]**		
001	Exec Interval: Power ON	*ENG	[0 to 2000 / **500** / 1page/step]
	Page interval to do main control when Power ON, recover from energy save mode, front door close.		
002	Exec Interval: Print	*ENG	[0 to 2000 / **0** / 1page/step]
	Page interval to do main control when printing, finish printing.		
003	Page Interval	*ENG	[0 to 500 / **10** / 1page/step]
	Page interval to decide to adjust sub when printing in standard speed.		
004	Temperature	*ENG	[0 to 99 / **35** / 1deg/step]
	Temperature threshold for sub control execute decision,		
005	Relative Humidity	*ENG	[0 to 99 / **50** / 1%RH/step]
	Threshold of relative humidity conditions to do sub adjustments.		
006	Absolute Humidity	*ENG	[0 to 99 / **12** / 1g/m^3/step]
	Threshold of absolute Temperature conditions to do sub adjustments.		

007	Temp Threshold M	*ENG	[0 to 99 / **10** / 1deg/step]
	Temperature variation threshold for deciding of executing main control. 0: Execute every time when set.		
008	RH Threshold M	*ENG	[0 to 99 / **50** / 1%RH/step]
	Relative humidity variation threshold for deciding of executing main adjust. 0: Execute every time.		
009	AH Threshold M	*ENG	[0 to 99 / **6** / 1g/m^3/step]
	Relative humidity variation threshold for deciding of executing main adjust. 0: Execute every time.		
010	Temp Threshold S	*ENG	[0.0 to 20.0 / **1.0** / 0.1deg]
	Temperature variation threshold to do sub adjust. 0: Do every time		
011	RH Threshold S	*ENG	[0 to 50 / **5** / 1%RH/step]
	Relative humidity variation threshold to do sub adjust. 0: Do every time		
012	AH Threshold S	*ENG	[0.0 to 20.0 / **1.0** / 0.1g/m^3/step]
	Absolute humidity variation threshold to do sub adjust. 0: Do every time if conditions match.		
013	Non-use Time	*ENG	[0 to 1440 / **360** / 10min./step]
	Threshold of time stopping photoreceptor continuously for main adjust. 0: Do not.		
014	AC Current Error Detection	*ENG	[0 or 1 / **0** / 1/step]
	Flag to decide whether to adjust AC when SC491 is detected.		

2015	[Charge AC Adj: Result]		
001	Bk	*ENG	[0 to 9 / **0** / 1/step]
	Result of AC adjust control for Bk (main / sub common)		
002	C	*ENG	[0 to 9 / **0** / 1/step]
	Result of AC adjust control for C (main / sub common)		
003	M	*ENG	[0 to 9 / **0** / 1/step]
	Result of AC adjust control for M (main / sub common)		
004	Y	*ENG	[0 to 9 / **0** / 1/step]
	Result of AC adjust control for Y (main / sub common)		

2020	[Background Pot Correction Set]		
001	Temperature	*ENG	[0 to 19 / **15** / 1deg/step]
	Temperature threshold for calculating Electrify roller fatigue.		
002	Absolute Humidity	*ENG	[0 to 99 / **6** / 1g/m^3/step]
	Absolute humidity threshold for calculating Electrify roller fatigue.		
003	Print Page Counter	*ENG	[0 to 999 / **0** / 1page/step]
	Printing counter for multi-step correction.		
004	Print Pages Threshold	*ENG	[0 to 999 / **10** / 1page/step]
	Printing pages threshold when Multi-step correction.		
005	Temp Thresh	*ENG	[20 to 99 / **20** / 1deg/step]
	Temperature threshold 2 for calculating Electrify roller fatigue.		
011	Coefficient a: K	*ENG	[0.00 to 1.00 / **0.06** / 0.01/step]
	Coefficient a, K for calculating Electrify roller fatigue.		
012	Coefficient a: C	*ENG	[0.00 to 1.00 / **0.06** / 0.01/step]
	Coefficient a, C for calculating Electrify roller fatigue.		

013	Coefficient a: M	*ENG	[0.00 to 1.00 / **0.06** / 0.01/step]
	Coefficient a, M for calculating Electrify roller fatigue.		
014	Coefficient a: Y	*ENG	[0.00 to 1.00 / **0.06** / 0.01/step]
	Coefficient a, Y for calculating Electrify roller fatigue.		
015	Coefficient b: K	*ENG	[0.00 to 9.00 / **0.50** / 0.01/step]
	Coefficient b, K for calculating Electrify roller fatigue.		
016	Coefficient b: C	*ENG	[0.00 to 9.00 / **0.50** / 0.01/step]
	Coefficient b, C for calculating Electrify roller fatigue.		
017	Coefficient b: M	*ENG	[0.00 to 9.00 / **0.50** / 0.01/step]
	Coefficient b, M for calculating Electrify roller fatigue.		
018	Coefficient b: Y	*ENG	[0.00 to 9.00 / **0.50** / 0.01/step]
	Coefficient b, Y for calculating Electrify roller fatigue.		

2021	**[Background Pot Correction]**		
001	Display:K	*ENG	[0 to 90 / **0** / 1V/step]
	DC bias correction value, K		
002	Display:C	*ENG	[0 to 90 / **0** / 1V/step]
	DC bias correction value, C		
003	Display:M	*ENG	[0 to 90 / **0** / 1V/step]
	DC bias correction value, M		
004	Display:Y	*ENG	[0 to 90 / **0** / 1V/step]
	DC bias correction value, Y		
005	Setting1:K	*ENG	[0 to 90 / **10** / 10V/step]
	Electric potential correction amount 1 against Electrify roller fatigue amount, K		
006	Setting1:C	*ENG	[0 to 90 / **10** / 10V/step]
	Electric potential correction amount 1 against Electrify roller fatigue amount, C		

007	Setting1:M	*ENG	[0 to 90 / **10** / 10V/step]
	Electric potential correction amount 1 against Electrify roller fatigue amount, M		
008	Setting1:Y	*ENG	[0 to 90 / **10** / 10V/step]
	Electric potential correction amount 1 against Electrify roller fatigue amount, Y		
009	Setting2:K	*ENG	[0 to 90 / **20** / 10V/step]
	Electric potential correction amount 1 against Electrify roller fatigue amount, K		
010	Setting2:C	*ENG	[0 to 90 / **20** / 10V/step]
	VC calculating coefficient DC Electrify.		
011	Setting2:M	*ENG	[0 to 90 / **20** / 10V/step]
	Electric potential correction amount 2 against Electrify roller fatigue amount, M		
012	Setting2:Y	*ENG	[0 to 90 / **20** / 10V/step]
	Electric potential correction amount 2 against Electrify roller fatigue amount, Y		
013	Setting3:K	*ENG	[0 to 90 / **30** / 5V/step]
	Electric potential correction amount 3 against Electrify roller fatigue amount, K		
014	Setting3:C	*ENG	[0 to 90 / **30** / 5V/step]
	Electric potential correction amount 3 against Electrify roller fatigue amount, C		
015	Setting3:M	*ENG	[0 to 90 / **30** / 5V/step]
	Electric potential correction amount 3 against Electrify roller fatigue amount, M		
016	Setting3:Y	*ENG	[0 to 90 / **30** / 5V/step]
	Electric potential correction amount 3 against Electrify roller fatigue amount, Y		
017	Setting4:K	*ENG	[0 to 90 / **40** / 5V/step]
	Electric potential correction amount 4 against Electrify roller fatigue amount, K		
018	Setting4:C	*ENG	[0 to 90 / **40** / 5V/step]
	Electric potential correction amount 4 against Electrify roller fatigue amount, C		
019	Setting4:M	*ENG	[0 to 90 / **40** / 5V/step]
	Electric potential correction amount 4 against Electrify roller fatigue amount, M		

020	Setting4:Y	*ENG	[0 to 90 / **40** / 5V/step]
	Electric potential correction amount 4 against Electrify roller fatigue amount, Y		
021	Setting5:K	*ENG	[0 to 90 / **10** / 1V/step]
	Variation amount 5 K, for correcting electric potential phase when environment changes.		
022	Setting5:C	*ENG	[0 to 90 / **10** / 1V/step]
	Variation amount 5 C, for correcting electric potential phase when environment changes.		
023	Setting5:M	*ENG	[0 to 90 / **10** / 1V/step]
	Variation amount 5 M, for correcting electric potential phase when environment changes.		
024	Setting5:Y	*ENG	[0 to 90 / **10** / 1V/step]
	Variation amount 5 Y, for correcting electric potential phase when environment changes.		
025	Setting6:K	*ENG	[-90 to 90 / **2** / 1V/step]
	Electric potential correction amount 6 K, against Electrify roller total rotating time.		
026	Setting6:C	*ENG	[-90 to 90 / **2** / 1V/step]
	Electric potential correction amount 6 C, against Electrify roller total rotating time.		
027	Setting6:M	*ENG	[-90 to 90 / **2** / 1V/step]
	Electric potential correction amount 6,M, against Electrify roller total rotating time.		
028	Setting6:Y	*ENG	[-90 to 90 / **2** / 1V/step]
	Electric potential correction amount 6 Y, against Electrify roller total rotating time.		
029	Display:Energized:K	*ENG	[0 to 90 / **0** / 1V/step]
	Voltage correction value K, from Electrify roller fatigue.		

030	Display:Energized:C	*ENG	[0 to 90 / **0** / 1V/step]
	Voltage correction value C, from Electrify roller fatigue.		
031	Display:Energized:M	*ENG	[0 to 90 / **0** / 1V/step]
	Voltage correction value M, from Electrify roller fatigue.		
032	Display:Energized:Y	*ENG	[0 to 90 / **0** / 1V/step]
	Voltage correction value Y, from Electrify roller fatigue.		
033	Display:Total Rotation:K	*ENG	[0 to 30 / **0** / 1V/step]
	Voltage correction value K, from Electrify roller total electrification.		
034	Display:Total Rotation:C	*ENG	[0 to 30 / **0** / 1V/step]
	Voltage correction value C, from Electrify roller total electrification.		
035	Display:Total Rotation:M	*ENG	[0 to 30 / **0** / 1V/step]
	Voltage correction value M, from Electrify roller total electrification.		
036	Display:Total Rotation:Y	*ENG	[0 to 30 / **0** / 1V/step]
	Voltage correction value Y, from Electrify roller total electrification.		
037	Split Number n: K	*ENG	[1 to 99 / **15** / 1/step]
	Coefficient K, for setting electric potential to multiple steps from total electrification time.		
038	Split Number n: C	*ENG	[1 to 99 / **D146: 15, D147: 15, D148: 15, D149: 13, D150: 10** / 1/step]
	Coefficient C, for setting electric potential to multiple steps from total electrification time.		
039	Split Number n: M	*ENG	[1 to 99 / **D146: 15, D147: 15, D148: 15, D149: 13, D150: 10** / 1/step]
	Coefficient M, for setting electric potential to multiple steps from total electrification time.		

040	Split Number n: Y	*ENG	[1 to 99 / **D146: 15, D147: 15, D148: 15, D149: 13, D150: 10** / 1/step]
	Coefficient Y, for setting electric potential to multiple steps from total electrification time.		
041	Display:Energized for target value:K	*ENG	[0 to 90 / **0** / 1V/step]
	Target value K, for voltage correction from Electrify roller fatigue.		
042	Display:Energized for target value:C	*ENG	[0 to 90 / **0** / 1V/step]
	Target value C, for voltage correction from Electrify roller fatigue.		
043	Display:Energized for target value:M	*ENG	[0 to 90 / **0** / 1V/step]
	Target value M, for voltage correction from Electrify roller fatigue.		
044	Display:Energized for target value:Y	*ENG	[0 to 90 / **0** / 1V/step]
	Target value Y, for voltage correction from Electrify roller fatigue.		

2022	**[Charge R Running Par]**		
001	Display:K	*ENG	[0 to 999999 / **0** / 1/step]
	Value K, showing the electrification fatigue amount of Electrify roller.		
002	Display:C	*ENG	[0 to 999999 / **0** / 1/step]
	Value C, showing the electrification fatigue amount of Electrify roller.		
003	Display:M	*ENG	[0 to 999999 / **0** / 1/step]
	Value M, showing the electrification fatigue amount of Electrify roller.		
004	Display:Y	*ENG	[0 to 999999 / **0** / 1/step]
	Value Y, showing the electrification fatigue amount of Electrify roller.		
005	PCU Rotation Time After Correction: K	*ENG	[0 to 9999999 / **0** / 1/step]

	Calculation value K, for calculating temporary value when RTC can not be acquired.		
006	PCU Rotation Time After Correction: C	*ENG	[0 to 9999999 / **0** / 1/step]
	Calculation value C, for calculating temporary value when RTC can not be acquired.		
007	PCU Rotation Time After Correction: M	*ENG	[0 to 9999999 / **0** / 1/step]
	Calculation value M, for calculating temporary value when RTC can not be acquired.		
008	PCU Rotation Time After Correction: Y	*ENG	[0 to 9999999 / **0** / 1/step]
	Calculation value Y, for calculating temporary value when RTC can not be acquired.		
009	Threshold1:K	*ENG	[0 to 4000 / **30** / 1/step]
	Threshold 1 K, against Electrify roller fatigue amount.		
010	Threshold1:C	*ENG	[0 to 4000 / **30** / 1/step]
	Threshold 1 C, against Electrify roller fatigue amount.		
011	Threshold1:M	*ENG	[0 to 4000 / **30** / 1/step]
	Threshold 1 M, against Electrify roller fatigue amount.		
012	Threshold1:Y	*ENG	[0 to 4000 / **30** / 1/step]
	Threshold 1 Y, against Electrify roller fatigue amount.		
013	Threshold2:K	*ENG	[0 to 4000 / **70** / 1/step]
	Threshold 2 K, against Electrify roller fatigue amount.		
014	Threshold2:C	*ENG	[0 to 4000 / **70** / 1/step]
	Threshold 2 C, against Electrify roller fatigue amount.		
015	Threshold2:M	*ENG	[0 to 4000 / **70** / 1/step]
	Threshold 2 M, against Electrify roller fatigue amount.		

016	Threshold2:Y	*ENG	[0 to 4000 / **70** / 1/step]
	Threshold 2 Y, against Electrify roller fatigue amount.		
017	Threshold3:K	*ENG	[0 to 4000 / **150** / 1/step]
	Threshold 3 K, against Electrify roller fatigue amount.		
018	Threshold3:C	*ENG	[0 to 4000 / **150** / 1/step]
	Threshold 3 C, against Electrify roller fatigue amount.		
019	Threshold3:M	*ENG	[0 to 4000 / **150** / 1/step]
	Threshold 3 M, against Electrify roller fatigue amount.		
020	Threshold3:Y	*ENG	[0 to 4000 / **150** / 1/step]
	Threshold 3 Y, against Electrify roller fatigue amount.		
021	Threshold4:K	*ENG	[0 to 4000 / **250** / 1/step]
	Threshold 4 K, against Electrify roller fatigue amount.		
022	Threshold4:C	*ENG	[0 to 4000 / **250** / 1/step]
	Threshold 4 C, against Electrify roller fatigue amount.		
023	Threshold4:M	*ENG	[0 to 4000 / **250** / 1/step]
	Threshold 4 M, against Electrify roller fatigue amount.		
024	Threshold4:Y	*ENG	[0 to 4000 / **250** / 1/step]
	Threshold 4 Y, against Electrify roller fatigue amount.		
025	Prev Correction Calculation Bk:Year	*ENG	[0 to 99 / **0** / 1year/step]
	Calculation time of last correction: Year, K.		
026	Prev Correction Calculation Bk:Month	*ENG	[1 to 12 / **1** / 1month/step]
	Calculation time of last correction: Month, K.		
027	Prev Correction Calculation Bk:Day	*ENG	[1 to 31 / **1** / 1day/step]
	Calculation time of last correction: Day, K.		

028	Prev Correction Calculation Bk:Hour	*ENG	[0 to 23 / **0** / 1hour/step]
	Calculation time of last correction: Hour, K.		
029	Prev Correction Calculation Bk:Minute	*ENG	[0 to 59 / **0** / 1minute/step]
	Calculation time of last correction: Minute, K.		
030	Rotation At Prev Correction: PCU: Bk	*ENG	[0 to 999999999 / **0** / 1mm/step]
	PCU distance when last correction: Year, K.		
031	Rotation At Prev Correction: PCU: C	*ENG	[0 to 999999999 / **0** / 1mm/step]
	PCU distance when last correction: Year, C.		
032	Rotation At Prev Correction: PCU: M	*ENG	[0 to 999999999 / **0** / 1mm/step]
	PCU distance when last correction: Year, M.		
033	Rotation At Prev Correction: PCU: Y	*ENG	[0 to 999999999 / **0** / 1mm/step]
	PCU distance when last correction: Year, Y.		

2101	**[Registration Correction]**		
001	Color Main Dot: Bk	*ENG	[-512 to 511 / **0** / 1dot/step]
	Adjusts main scan register of BK color. § Value increase: image shifts to right facing the paper. § Value decrease: image shifts to left facing the paper. CMY colors can be adjusted to BK color position if execute MUSIC after operating this SP.		

002	Color Main Dot: Ma	*ENG	[-512 to 511 / **0** / 1dot/step]
	Adjusts main scan register of BK color. § Value increase: image shifts to right facing the paper. § Value decrease: image shifts to left facing the paper. By operating this SP, main scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		
003	Color Main Dot: Cy	*ENG	[-512 to 511 / **0** / 1dot/step]
	Adjusts main scan register of BK color. § Value increase: image shifts to right facing the paper. § Value decrease: image shifts to left facing the paper. By operating this SP, main scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		
004	Color Main Dot: Ye	*ENG	[-512 to 511 / **0** / 1dot/step]
	Adjusts main scan register of BK color. § Value increase: image shifts to right facing the paper. § Value decrease: image shifts to left facing the paper. By operating this SP, main scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		
005	Color Sub Line: Bk	*ENG	[-16384 to 16383 / **0** / 1line/step]
	For BK color, even using this SP, sub scan image position against paper will not change, mush be adjust with paper feed timing.		
006	Color Sub Line: Ma	*ENG	[-16384 to 16383 / **0** / 1line/step]
	§ Value increase: image shifts to downer facing the paper. § Value decrease: image shifts to upper facing the paper. By operating this SP, sub scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		
007	Color Sub Line: Cy	*ENG	[-16384 to 16383 / **0** / 1line/step]
	§ Value increase: image shifts to downer facing the paper. § Value decrease: image shifts to upper facing the paper. By operating this SP, sub scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		

008	Color Sub Line: Ye	*ENG	[-16384 to 16383 / **0** / 1line/step]
	§ Value increase: image shifts to downer facing the paper. § Value decrease: image shifts to upper facing the paper. By operating this SP, sub scan position can be changed, but if MUSIC is executed, automatically will be adjusted to BK position.		

2102	**[Magnification Adjustment]**		
	Adjusts main scan lower speed scale for BK color. § Value increase: image stretches. § Value decrease: image shrinks CMY color scale will fit to standard BK speed after executing MUSIC; only BK color will have a different scale in the image even with out executing MUSIC after this SP.		
001	Main Mag.: Standard Speed: Bk	*ENG	[-2.000 to 2.000 / **0.000** / 0.001%/step]
002	Main Mag.: Middle Speed: Bk	*ENG	
003	Main Mag.: Low Speed: Bk	*ENG	
2102	**[Magnification Adjustment]**		
	Adjusts main scan scale. § Value increase: image stretches. § Value decrease: image shrinks With operating this SP, scale can be changed, but if MUSIC is executed after, automatically will be adjusted so fit standard speed BK color scale.		
004	Main Mag.: Standard Speed: Ma	*ENG	[-2.000 to 2.000 / **0.000** / 0.001%/step]
005	Main Mag.: Middle Speed: Ma	*ENG	
006	Main Mag.: Low Speed: Ma	*ENG	
007	Main Mag.: Standard Speed: Cy	*ENG	
008	Main Mag.: Middle Speed: Cy	*ENG	
009	Main Mag.: Low Speed: Cy	*ENG	

010	Main Mag.: Standard Speed: Ye	*ENG	
011	Main Mag.: Middle Speed: Ye	*ENG	
012	Main Mag.: Low Speed: Ye	*ENG	
2102	**[Magnification Adjustment]**		
	Adjusts scale against standard speed BK. § Value increase: image stretches. § Value decrease: image shrinks With operating this SP, scale can be changed, but if MUSIC is executed after, automatically will be adjusted so to match standard speed BK color scale		
028	Color Main Mag.: High Speed: Ma	*ENG	[-2.000 to 2.000 / **0.000** / 0.001%/step]
031	Color Main Mag.: High Speed: Cy	*ENG	
034	Color Main Mag.: High Speed: Ye	*ENG	
2102	**[Main Scan Beam Pitch Adj.]**		
037	Bk: 1st-2nd	*ENG	[0.00 to 100.00 / **12.15** / 0.01dot/step]
	Adjusts main scan beam pitch against BK color LD1 Only for factory adjust.		
038	Bk: 1st-3rd	*ENG	[0.00 to 100.00 / **24.29** / 0.01dot/step]
	Adjusts main scan beam pitch against BK color LD1 Only for factory adjust.		
039	Bk: 1st-4th	*ENG	[0.00 to 100.00 / **36.44** / 0.01dot/step]
	Adjusts main scan beam pitch against BK color LD1 Only for factory adjust.		

040	Ma: 1st-2nd	*ENG	[0.00 to 100.00 / **12.15** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
041	Ma: 1st-3rd	*ENG	[0.00 to 100.00 / **24.29** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
042	Ma: 1st-4th	*ENG	[0.00 to 100.00 / **36.44** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
043	Cy: 1st-2nd	*ENG	[0.00 to 100.00 / **12.15** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
044	Cy: 1st-3rd	*ENG	[0.00 to 100.00 / **24.29** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
045	Cy: 1st-4th	*ENG	[0.00 to 100.00 / **36.44** / 0.01dot/step]
	Adjusts main scan beam pitch against M color LD1 Only for factory adjust.		
046	Ye: 1st-2nd	*ENG	[0.00 to 100.00 / **12.15** / 0.01dot/step]
	Adjusts main scan beam pitch against Y color LD1 Only for factory adjust.		

047	Ye: 1st-3rd	*ENG	[0.00 to 100.00 / **24.29** / 0.01dot/step]
	Adjusts main scan beam pitch against Y color LD1 Only for factory adjust.		
048	Ye: 1st-4th	*ENG	[0.00 to 100.00 / **36.44** / 0.01dot/step]
	Adjusts main scan beam pitch against Y color LD1 Only for factory adjust.		

2103	**[Erase Margin Adjustment]**		
001	Lead Edge Width	*ENG	[0.0 to 9.9 / **4.2** / 0.1mm/step]
	Adjusts trimming for sub scan lead edge. § Value increase: Trim wider. § Value decrease: Trim narrower.		
002	Trail. Edge Width	*ENG	[0.0 to 9.9 / **4.2** / 0.1mm/step]
	Adjusts trimming for sub scan trailing edge. § Value increase: Trim wider. § Value decrease: Trim narrower. When printing, follow margin set with application.		
003	Left	*ENG	[0.0 to 9.0 / **2.0** / 0.1mm/step]
	Adjusts trimming for sub scan left edge. § Value increase: Trim wider. § Value decrease: Trim narrower. When printing, follow margin set with application.		
004	Right	*ENG	[0.0 to 9.0 / **2.0** / 0.1mm/step]
	Adjusts trimming for sub scan right edge. § Value increase: Trim wider. § Value decrease: Trim narrower. When printing, follow margin set with application.		

2103	**[Erase Margin Adjustment]**		
	Sets trim for duplex.		
006	Duplex Trail. L Size	*ENG	[0.0 to 4.0 / **1.0** / 0.1mm/step]
007	Duplex Trail. M Size	*ENG	[0.0 to 4.0 / **0.8** / 0.1mm/step]
008	Duplex Trail. S Size	*ENG	[0.0 to 4.0 / **0.6** / 0.1mm/step]
009	Duplex Left Edge	*ENG	[0.0 to 1.5 / **0.3** / 0.1mm/step]
010	Duplex Right Edge	*ENG	[0.0 to 1.5 / **0.3** / 0.1mm/step]
011	Duplex Trail. L Size:Thick	*ENG	[0.0 to 4.0 / **1.0** / 0.1mm/step]
012	Duplex Trail. M Size:Thick	*ENG	[0.0 to 4.0 / **0.8** / 0.1mm/step]
013	Duplex Trail. S Size:Thick	*ENG	[0.0 to 4.0 / **0.6** / 0.1mm/step]
014	Duplex Left Edge:Thick	*ENG	[0.0 to 1.5 / **0.3** / 0.1mm/step]
015	Duplex Right Edge:Thick	*ENG	[0.0 to 1.5 / **0.3** / 0.1mm/step]

2106	**[Polygon Rotation Time]**		
	Sets pre-rotating time/ post-rotating time for polygon motor.		
001	Warming-Up	*ENG	[0 to 60 / **10** / 1sec/step]
	Sets pre-rotating time for polygon motor. With touching the operating during standby, polygon motor will pre-rotate. With this, waiting time will be shorter.		
002	Job End	*ENG	[0.0 to 60.0 / **0.1** / 0.1sec/step]
	Sets post-rotating time for polygon motor. Polygon motor will post-rotate after printing. If a print order come during post-rotation, printing will start faster.		

2107	[Image Parameter]		
001	Image Gamma Flag	ENG	[0 or 1 / **1** / 1/step]
	Turns writing Gamma property ON/OFF. For Design evaluation.		
002	Shading Correction Flag	*ENG	[0 or 1 / **0** / 1/step]
	Turns shading area correction ON/OFF. For Design evaluation.		

2109	[Test Pattern]			
003	Pattern Selection		ENG	[0 to 23 / **0** / 1/step]
	Select patterns.			
	0	None	12	Independent Pattern (2dot)
	1	Vertical Line (1dot)	13	Independent Pattern (4dot)
	2	Vertical Line (2dot)	14	Trimming Area
	3	Horizontal Line (1dot)	15	Hound's Tooth Check (Vertical)
	4	Horizontal Line (2dot)	16	Hound's Tooth Check (Horizontal)
	5	Grid Vertical Line	17	Band (Horizontal)
	6	Grid Horizontal Line	18	Band (Vertical)
	7	Grid Pattern Small	19	Checker Flag Pattern
	8	Grid Pattern Large	20	Grayscale (Vertical Margin)
	9	Argyle Pattern Small	21	Grayscale (Horizontal Margin)
	10	Argyle Pattern Large	22	Two Beam Density Pattern
	11	Independent Pattern (1dot)	23	Full Dot Pattern
005	Color Selection		ENG	[1 to 4 / **1** / 1/step] 1: All Color 2: Ma 3: Ye 4: Cy
	Selects output color for writing test pattern.			

006	Density: Bk	ENG	[0 to 15 / **15** / 1/step]
	Sets test patterns density. § Value increase: Deeper § Value decrease: Thinner		
007	Density: Ma	ENG	[0 to 15 / **15** / 1/step]
	Sets test patterns density. § Value increase: Deeper § Value decrease: Thinner		
008	Density: Cy	ENG	[0 to 15 / **15** / 1/step]
	Sets test patterns density. § Value increase: Deeper § Value decrease: Thinner		
009	Density: Ye	ENG	[0 to 15 / **15** / 1/step]
	Sets test patterns density. § Value increase: Deeper § Value decrease: Thinner		

2110	**[LD Driver]**		
	LD Driver error flag		
001	Error Bk	*ENG	[0x0000 to 0xFFFF / **0x0000** / 1/step]
	LD Driver error flag Bk color.		
002	Error Ma	*ENG	[0x0000 to 0xFFFF / **0x0000** / 1/step]
	LD Driver error flag Ma color (For only model D148/D149/D150. Abxyz models does not use)		
003	Error Cy	*ENG	[0x0000 to 0xFFFF / **0x0000** / 1/step]
	LD Driver error flag Cy color (For only model D148/D149/D150. Abxyz models does not use)		

004	Error Ye	*ENG	[0x0000 to 0xFFFF / **0x0000** / 1/step]
	LD Driver error flag Ye color (For abxyz/model D148/D149/D150)		
005	Writing Unit Adj. Transfer	ENG	[0 or 1 / **0** / 1/step]
	Execution flag to download adjustment values of writing unit to main units SP. Executes when replacing the writing unit or assembling main unit		

2111	**[Forced Line Position Adj.]**		
	Executes force correction of color match.		
001	Mode a	ENG	[0 or 1 / **0** / 1/step]
	Executes MUSIC mode a (fine-tune x 2)		
002	Mode b	ENG	[0 or 1 / **0** / 1/step]
	Executes MUSIC mode b (fine-tune x 1)		
003	Mode c	ENG	[0 or 1 / **0** / 1/step]
	Executes MUSIC mode c (rough-tune x 1)		
004	Mode d	ENG	[0 or 1 / **0** / 1/step]
	Executes MUSIC mode d (rough-tune then fine-tune)		

2112	**[TM/ID Sensor Check]**		
001	Execute	ENG	[0 or 1 / **0** / 1/step]
	Executes test mode for Image transfer belt / TMP sensor.		
010	General:FCR	*ENG	[0 to 999 / **0** / 1/step]
	Shows test results for Image transfer belt / TMP sensor test mode, with 3bits / in the order of [Front][Center][Rear].		
020	Threshold Setting	*ENG	[0.00 to 3.50 / **1.90** / 0.01V/step]

	Sets edge detecting threshold value of Image transfer belt / TMP sensor test mode. The results will turn out as following in Image transfer belt / TMP sensors test mode. § When TMP sensor detection value is larger than this setting value: No problems. § When TMP sensor detection value is smaller than this setting value: Edge detected.

2115	**[Gamma Correction]**		
001	Low CPP edge Correction	*ENG	[0 to 100 / **80** / 1%/step]
	Sets gamma correction value of valid pixel for low CPP edge process. § Value increase: Deeper density § Value decrease: thinner density		

2117	**[Skew Adjustment]**		
001	Pulse: M	*ENG	[-75 to 75 / **0** / 1pulse/step]
	M: skew adjust: input		
002	Pulse: C	*ENG	[-75 to 75 / **0** / 1pulse/step]
	C: skew adjust: input		
003	Pulse: Y	*ENG	[-99 to 99 / **0** / 1pulse/step]
	Y: skew adjust: input		

2118	**[Skew Adjustment]**		
001	Execute: M	ENG	[0 or 1 / **-** / -]
	M: skew adjust: execute		
002	Execute: C	ENG	[0 or 1 / **-** / -]
	C: skew adjust: execute		
003	Execute: Y	ENG	[0 or 1 / **-** / -]
	Y: skew adjust: execute		

2119	[Skew Adjustment Display]		
001	M	*ENG	[-75 to 75 / **0** / 1pulse/step]
	M: skew current location: display.		
002	C	*ENG	[-75 to 75 / **0** / 1pulse/step]
	C: skew current location: display.		
003	Y	*ENG	[-99 to 99 / **0** / 1pulse/step]
	Y: skew current location: display.		

2120	[Thick Paper Skew Adj]		
001	On/Off	*ENG	[0 or 1 / **0** / 1/step]
	Corrects thick paper skew.		

2121	[Skew Adjust Coefficient]		
001	Coefficient	*ENG	[0 to 2 / **0** / 1/step]
	Correcting coefficient for skew.		

2140	[TM/ID Sensor Check Result]		
005	PWM: Front	ENG	[0 to 1023 / **0** / 1/step]
	Saves / Refreshes PWM setting value of TMP sensor [Front] to this setting value when Vsg adjustment is done. From then on, PWM setting value will be this setting value during belt check. When Vsg adjust fails, saving / refreshing will not be done to this setting		

006	PWM: Center	*ENG	[0 to 1023 / **0** / 1/step]
	Saves / Refreshes PWM setting value of TMP sensor [Center] to this setting value when Vsg adjustment is done. From then on, PWM setting value will be this setting value during belt check. When Vsg adjust fails, saving / refreshing will not be done to this setting		
007	PWM: Rear	*ENG	[0 to 1023 / **0** / 1/step]
	Saves / Refreshes PWM setting value of TMP sensor [Rear] to this setting value when Vsg adjustment is done. From then on, PWM setting value will be this setting value during belt check. When Vsg adjust fails, saving / refreshing will not be done to this setting		

2141	**[TM/ID Sensor Check Result]**		
005	Average: Front	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves / Refreshes TMP sensor [Front] detecting result average data to this SP from result of Image transfer belt / TMP sensor check mode.		
006	Average: Center	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves / Refreshes TMP sensor [Center] detecting result average data to this SP from result of Image transfer belt / TMP sensor check mode.		
007	Average: Rear	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves / Refreshes TMP sensor [Rear] detecting result average data to this SP from result of Image transfer belt / TMP sensor check mode.		

2142	[TM/ID Sensor Check Result]		
005	Maximum: Front	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Front] detecting result data, and from of all sampling data, save / refresh this SP with the max. value.		
006	Maximum: Center	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Center] detecting result data, and from of all sampling data, save / refresh this SP with the max. value.		
007	Maximum: Rear	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Rear] detecting result data, and from of all sampling data, save / refresh this SP with the max. value.		

2143	[TM/ID Sensor Check Result]		
005	Minimum: Front	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Front] detecting result data, and from of all sampling data, save / refresh this SP with the min. value.		
006	Minimum: Center	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Center] detecting result data, and from of all sampling data, save / refresh this SP with the min. value.		
007	Minimum: Rear	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	With the image transfer belt / TMP sensor check mode result, take average of each 10 sampling data from TMP sensors [Rear] detecting result data, and from of all sampling data, save / refresh this SP with the min. value.		

2144	[TM/ID Sensor Check Result]		
005	Maximum 2: Front	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the max. value of all sampling data form TMP sensor [Front] detecting result data by image transfer belt / TMP sensor check mode result.		
006	Maximum 2: Center	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the max. value of all sampling data form TMP sensor [Center] detecting result data by image transfer belt / TMP sensor check mode result.		
007	Maximum 2: Rear	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the max. value of all sampling data form TMP sensor [Rear] detecting result data by image transfer belt / TMP sensor check mode result.		

2145	[TM/ID Sensor Check Result]		
005	Minimum 2: Front	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the min. value of all sampling data form TMP sensor [Front] detecting result data by image transfer belt / TMP sensor check mode result.		
006	Minimum 2: Center	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the min. value of all sampling data form TMP sensor [Center] detecting result data by image transfer belt / TMP sensor check mode result.		
007	Minimum 2: Rear	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Saves/ refreshes this SP with the min. value of all sampling data form TMP sensor [Rear] detecting result data by image transfer belt / TMP sensor check mode result.		

2146	**[TM-Sensor Test]**		
005	Number of Edge Detection:Front	*ENG	[0 to 16 / **0** / 1/step]
	When the TMP sensor [Front] detecting value from the image transfer belt / TMP sensor check mode result is checked as smaller (Edge detected) as then the edge detect threshold setting value (sp2-112-020), Save / refresh this PS with the times checked so.		
006	Number of Edge Detection:Center	*ENG	[0 to 16 / **0** / 1/step]
	When the TMP sensor [Center] detecting value from the image transfer belt / TMP sensor check mode result is checked as smaller (Edge detected) as then the edge detect threshold setting value (sp2-112-020), Save / refresh this PS with the times checked so.		
007	Number of Edge Detection:Rear	*ENG	[0 to 16 / **0** / 1/step]
	When the TMP sensor [Rear] detecting value from the image transfer belt / TMP sensor check mode result is checked as smaller (Edge detected) as then the edge detect threshold setting value (sp2-112-020), Save / refresh this PS with the times checked so.		

2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image shift to the right side on the print. § Value decrease: image shift to the left side on the print. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
027	Area 0: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]

2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image stretches topically. § Value decrease: image shrinks topically. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
028	Area 1: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
029	Area 2: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
030	Area 3: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
031	Area 4: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
032	Area 5: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
033	Area 6: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
034	Area 7: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
035	Area 8: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
036	Area 9: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
037	Area 10: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
038	Area 11: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
039	Area 12: Bk	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image shift to the right side on the print. § Value decrease: image shift to the left side on the print. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
079	Area 0: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]

2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image stretches topically. § Value decrease: image shrinks topically. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
080	Area 1: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
081	Area 2: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
082	Area 3: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
083	Area 4: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
084	Area 5: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
085	Area 6: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
086	Area 7: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
087	Area 8: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
088	Area 9: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
089	Area 10: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
090	Area 11: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
091	Area 12: Ma	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image shift to the right side on the print. § Value decrease: image shift to the left side on the print. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
131	Area 0: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]

2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image stretches topically. § Value decrease: image shrinks topically. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
132	Area 1: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
133	Area 2: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
134	Area 3: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
135	Area 4: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
136	Area 5: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
137	Area 6: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
138	Area 7: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
139	Area 8: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
140	Area 9: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
141	Area 10: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
142	Area 11: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
143	Area 12: Cy	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image shift to the right side on the print. § Value decrease: image shift to the left side on the print. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
183	Area 0: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]

2150	**[Area Mag. Correction]**		
	Corrects main scan color scale error, deflection. Adjusts start writing position (Register) with sub dot level. § Value increase: image stretches topically. § Value decrease: image shrinks topically. CMY color can be matched to adjusted BK color position by Using MUSIC after operating this SP.		
184	Area 1: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
185	Area 2: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
186	Area 3: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
187	Area 4: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
188	Area 5: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
189	Area 6: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
190	Area 7: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
191	Area 8: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
192	Area 9: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
193	Area 10: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
194	Area 11: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]
195	Area 12: Ye	*ENG	[-16.00 to 16.00 / **0** / 0.01dot/step]

2152	**[Shad. Correct Setting]**		
	Changes exposure light amount. § Value increase: Light amount increases, and image density gets deeper. § Value decrease: Light amount decreases, and image density gets thinner. Except, if Process control is executed, light amount / density will change.		
001	Standard Speed: Bk	*ENG	[50 to 120 / **100** / 1%/step]
002	Standard Speed: Ma	*ENG	[50 to 120 / **100** / 1%/step]
003	Standard Speed: Cy	*ENG	[50 to 120 / **100** / 1%/step]

004	Standard Speed: Ye	*ENG	[50 to 120 / **100** / 1%/step]
005	Middle Speed: Bk	*ENG	[50 to 120 / **100** / 1%/step]
006	Middle Speed: Ma	*ENG	[50 to 120 / **100** / 1%/step]
007	Middle Speed: Cy	*ENG	[50 to 120 / **100** / 1%/step]
008	Middle Speed: Ye	*ENG	[50 to 120 / **100** / 1%/step]
009	Low Speed: Bk	*ENG	[50 to 120 / **100** / 1%/step]
010	Low Speed: Ma	*ENG	[50 to 120 / **100** / 1%/step]
011	Low Speed: Cy	*ENG	[50 to 120 / **100** / 1%/step]
012	Low Speed: Ye	*ENG	[50 to 120 / **100** / 1%/step]

2154	**[Shad. Correct Setting]**		
	Changes exposure light amount form each beam. § Value increase: Light amount increases, and image density gets deeper. § Value decrease: Light amount decreases, and image density gets thinner. Except, if Process control is executed, light amount / density will change. Beam interval light amount: No need to operate.		
002	Front End Area: Bk: LD1	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
003	Front End Area: Bk: LD2	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
004	Front End Area: Bk: LD3	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
005	Front End Area: Bk: LD4	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
007	Front End Area: Ma: LD1	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
008	Front End Area: Ma: LD2	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
009	Front End Area: Ma: LD3	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
010	Front End Area: Ma: LD4	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
012	Front End Area: Cy: LD1	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
013	Front End Area: Cy: LD2	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
014	Front End Area: Cy: LD3	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]

015	Front End Area: Cy: LD4	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
017	Front End Area: Ye: LD1	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
018	Front End Area: Ye: LD2	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
019	Front End Area: Ye: LD3	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]
020	Front End Area: Ye: LD4	*ENG	[50.0 to 150.0 / **100.0** / 0.1%/step]

2160	**[Vertical Line Width]**		
	Adjusts vertical line width § Value increase: vertical line gets wider. § Value decrease: vertical line gets thinner Beware for side effects to image.		
001	600dpi: Bk	*ENG	[10 to 15 / **15** / 1/step]
002	600dpi: Ma	*ENG	[10 to 15 / **15** / 1/step]
003	600dpi: Cy	*ENG	[10 to 15 / **15** / 1/step]
004	600dpi: Ye	*ENG	[10 to 15 / **15** / 1/step]
005	1200dpi: Bk	*ENG	[10 to 15 / **15** / 1/step]
006	1200dpi: Ma	*ENG	[10 to 15 / **15** / 1/step]
007	1200dpi: Cy	*ENG	[10 to 15 / **15** / 1/step]
008	1200dpi: Ye	*ENG	[10 to 15 / **15** / 1/step]
2160	**[Vertical Line Width]**		
009	600dpi:Indet.:Bk	*ENG	[10 to 15 / **14** / 1/step]
	Vertical line width correction: isolated dot.		
010	1200dpi:Indet.:Bk	*ENG	[10 to 15 / **15** / 1/step]
	Adjusts density for isolated dot. § Value increases: Deeper § Value decreases: Thinner Beware for side effects to image.		

2180	**[Line Pos. Adj. Clear]**		
001	Color Regist.	ENG	[0 or 1 / **0** / 1/step]
	Clears SP value of SP2-101-001 to 004 [Registration Correction (Main Scan)] and SP2-101-005 to 008 [Registration Correction (Sub Scan)].		
002	Main Scan Length Detection	ENG	[0 or 1 / **0** / 1/step]
	Clears SP value of SP2-102-001 to 012[Magnification Adjustment].		
003	MUSIC Result	ENG	[0 or 1 / **0** / 1/step]
	Clears SP value of SP2-181-003 to 082 [Line Position Adj. Result].		
004	Area Magnification Correction	ENG	[0 or 1 / **0** / 1/step]
	Clears SP value of SP2-182-004 to 040 [Line Position Adj. Offset].		

2181	**[Line Position Adj. Result]**		
	Values will be set from MUSIC (Auto color match) detect result. Refreshes each time executed. No need to operate.		
003	Skew: M	*ENG	[-5000.000 to 5000.000 / **0.000** / 0.001um/step]
011	M. Cor.: Dot: M	*ENG	[-512 to 511 / **0** / 1dot/step]
012	M. Cor.: Subdot: M	*ENG	[-1.00 to 1.00/ **0.00** / 0.01dot/step]
013	S. Cor.: 1200 Line: Middle: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
014	S. Cor.: 1200 Sub: Middle: M	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
015	M. Left Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
016	M. Right Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
017	S. Cor.: 1200 Line: Standard: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
018	S. Cor.: 1200 Sub: Standard: M	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]

019	S. Cor.: 1200 Line: Low: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
020	S. Cor.: 1200 Sub: Low: M	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
021	Skew: C	*ENG	[-5000.000 to 5000.000 / **0.000** / 0.001um/step]
029	M. Cor.: Dot: C	*ENG	[-512 to 511 / **0** / 1dot/step]
030	M. Cor.: Subdot: C	*ENG	[-1.00 to 1.00/ **0.00** / 0.01dot/step]
031	S. Cor.: 1200 Line: Middle: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
032	S. Cor.: 1200 Sub: Middle: C	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
033	C. Left Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
034	C. Right Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
035	S. Cor.: 1200 Line: Standard: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
036	S. Cor.: 1200 Sub: Standard: C	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
037	S. Cor.: 1200 Line: Low: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
038	S. Cor.: 1200 Sub: Low: C	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
039	Skew: Y	*ENG	[-5000.000 to 5000.000 / **0.000** / 0.001um/step]
047	M. Cor.: Dot: Y	*ENG	[-512 to 511 / **0** / 1dot/step]
048	M. Cor.: Subdot: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
049	S. Cor.: 1200 Line: Middle: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
050	S. Cor.: 1200 Sub: Middle: Y	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]

051	Y. Left Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
052	Y. Right Mag.: Subdot: M	*ENG	[-32.00 to 32.00 / **0.00** / 0.01dot/step]
053	S. Cor.: 1200 Line: Standard: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
054	S. Cor.: 1200 Sub: Standard: Y	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
055	S. Cor.: 1200 Line: Low: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
056	S. Cor.: 1200 Sub: Low: Y	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
057	S. Cor.: 600 Sub	*ENG	[-1.000 to 1.000 / **0.000** / 0.001line/step]
059	S. Cor.: 1200 Sub :High	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
060	S. Cor.: 1200 Sub :Low	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
061	S. Cor.: 1200 Sub :Middle	*ENG	[-2.000 to 2.000 / **0.000** / 0.001line/step]
064	M. Cor.: Dot: K	*ENG	[-512 to 511 / **0** / 1dot/step]
072	LineSift: StandardSpeed: M	*ENG	[0 to 4 / **0** / 1line/step]
073	LineSift: LowSpeed: M	*ENG	[0 to 4 / **0** / 1line/step]
074	LineSift: StandardSpeed: C	*ENG	[0 to 4 / **0** / 1line/step]
075	LineSift: LowSpeed: C	*ENG	[0 to 4 / **0** / 1line/step]
076	LineSift: StandardSpeed: Y	*ENG	[0 to 4 / **0** / 1line/step]
077	LineSift: LowSpeed: Y	*ENG	[0 to 4 / **0** / 1line/step]
080	Detect Diff.: M	*ENG	[-1000.0 to 1000.0 / **0.0** / 0.1/step]
081	Detect Diff.: C	*ENG	[-1000.0 to 1000.0 / **0.0** / 0.1/step]
082	Detect Diff.: Y	*ENG	[-1000.0 to 1000.0 / **0.0** / 0.1/step]

2182	**[Line Position Adj. Offset]** Use when color shift remains even after MUSIC. Result of MUSIC will be added to this setting value. § Value increases: image shifts towards right facing paper. § Value decreases: image shifts towards left facing paper.		
004	M. Scan: Standard: Dot: M	*ENG	[-512 to 511 / **0** / 1dot/step]
005	M. Scan: Standard: Subdot: M	*ENG	[-1.00 to 1.00 / **0.0** / 0.01dot/step]
006	M. Scan: Middle: Dot: M	*ENG	[-512 to 511 / **0** / 1dot/step]
007	M. Scan: Middle: Subdot: M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
008	M. Scan: Low: Dot: M	*ENG	[-512 to 511 / **0** / 1dot/step]
009	M. Scan: Low: Subdot: M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
010	M. Scan: Standard: Dot: C	*ENG	[-512 to 511 / **0** / 1dot/step]
011	M. Scan: Standard: Subdot: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
012	M. Scan: Middle: Dot: C	*ENG	[-512 to 511 / **0** / 1dot/step]
013	M. Scan: Middle: Subdot: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
014	M. Scan: Low: Dot: C	*ENG	[-512 to 511 / **0** / 1dot/step]
015	M. Scan: Low: Subdot: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
016	M. Scan: Standard: Dot: Y	*ENG	[-512 to 511 / **0** / 1dot/step]
017	M. Scan: Standard: Subdot: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
018	M. Scan: Middle: Dot: Y	*ENG	[-512 to 511 / **0** / 1dot/step]
019	M. Scan: Middle: Subdot: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]
020	M. Scan: Low: Dot: Y	*ENG	[-512 to 511 / **0** / 1dot/step]
021	M. Scan: Low: Subdot: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01dot/step]

2182	**[Line Position Adj. Offset]**		
	Use when color shift remains even after MUSIC. Result of MUSIC will be added to this setting value. § Value increases: image shifts towards downer facing paper. § Value decreases: image shifts towards upper facing paper.		
022	S. Scan: Standard: Line: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
023	S. Scan: Standard: Subline: M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
024	S. Scan: Middle: Line: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
025	S. Scan: Middle: Subline: M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
026	S. Scan: Low: Line: M	*ENG	[-16384 to 16383 / **0** / 1line/step]
027	S. Scan: Low: Subline: M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
028	S. Scan: Standard: Line: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
029	S. Scan: Standard: Subline: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
030	S. Scan: Middle: Line: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
031	S. Scan: Middle: Subline: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
032	S. Scan: Low: Line: C	*ENG	[-16384 to 16383 / **0** / 1line/step]
033	S. Scan: Low: Subline: C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
034	S. Scan: Standard: Line: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
035	S. Scan: Standard: Subline: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
036	S. Scan: Middle: Line: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
037	S. Scan: Middle: Subline: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]
038	S. Scan: Low: Line: Y	*ENG	[-16384 to 16383 / **0** / 1line/step]
039	S. Scan: Low: Subline: Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01line/step]

2182	[Line Position Adj. Offset]		
040	M. Scan: Dot: K	*ENG	[-512 to 511 / **0** / 1dot/step]
	For setting main scan position of BK: MUSIC. No need to operate.		

2187	[Method Select]		
	MUSIC pattern setting. No need to operate.		
002	MUSIC Pattern Length Adj.	*ENG	[-300 to 300 / **0** / 1dot/step]
003	Pattern Width Adj.	*ENG	[-512 to 511 / **0** / 1dot/step]
004	Pattern Interval Adj.	*ENG	[-512 to 511 / **0** / 1dot/step]

2190	[Line Position Adj.]		
	Sets belt scratch misdetection avoiding level for color shift detection. No need to operate.		
012	SnSErr Range	*ENG	[0 to 3500 / **200** / 1um/step]

2193	[MUSIC Condition Set]		
002	Page: Job End: BW+FC	*ENG	[0 to 999 / **500** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed sheets from MUSIC when finish printing in B&W+Color mode.		
003	Page: Job End: FC	*ENG	[0 to 999 / **200** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed sheets from MUSIC when finish printing in Color mode.		
004	Page: Interrupt: BW+FC	*ENG	[0 to 999 / **200** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed sheets from MUSIC during printing in B&W+Color mode.		

005	Page: Interrupt: FC	*ENG	[0 to 999 / **200** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed sheets from MUSIC during printing in Color mode.		
006	Page: Stand-By: BW	*ENG	[0 to 999 / **100** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed B&W+Color sheets from MUSIC during stand-by.		
007	Page: Stand-By: FC	*ENG	[0 to 999 / **100** / 1page/step]
	Condition threshold to auto execute MUSIC or not based on last printed Color sheets from MUSIC during stand-by.		
008	Temp.	*ENG	[0 to 100 / **5** / 1deg/step]
	Condition threshold to auto execute MUSIC or not based on the variation of environment temperature (Temperature and humidity sensor) since last MUSIC.		
009	Time	*ENG	[1 to 1440 / **300** / 1minute/step]
	Condition threshold to auto execute MUSIC on recover from energy save mode / Power on or not based on the elapsed time since last MUSIC.		
010	Magnification	*ENG	[0.00 to 1.00 / **0.10** / 0.01%/step]
011	Temp. 2	*ENG	[0 to 100 / **5** / 1deg/step]
	Condition threshold (Threshold revel: Mid.) to auto execute MUSIC or not based on the variation of internal temperature (drum temp. sensor) since last MUSIC.		
012	Time 2	*ENG	[1 to 9999 / **600** / 1minute/step]
013	Temp. 3	*ENG	[0 to 100 / **10** / 1deg/step]
	Condition threshold (Threshold revel: Hi.) to auto execute MUSIC or not based on the variation of internal temperature (drum temp. sensor) since last MUSIC.		
016	Page: Power ON:BW+FC	*ENG	[0 to 999 / **200** / 1page/step]
	Condition threshold to auto execute MUSIC on recover from energy save mode / Power on or not based sheets printed during electrification.		

2194	[MUSIC Execution Result]		
001	Year	*ENG	[0 to 99 / **0** / 1year/step]
	Saves / Refreshes this SP with “Year” of last MUSIC.		
002	Month	*ENG	[1 to 12 / **1** / 1month/step]
	Saves / Refreshes this SP with “Month” of last MUSIC.		
003	Day	*ENG	[1 to 31 / **1** / 1day/step]
	Saves / Refreshes this SP with “Day” of last MUSIC.		
004	Hour	*ENG	[0 to 23 / **0** / 1hour/step]
	Saves / Refreshes this SP with “Hour” of last MUSIC.		
005	Minute	*ENG	[0 to 59 / **0** / 1minute/step]
	Saves / Refreshes this SP with “Minute” of last MUSIC.		
006	Temperature	*ENG	[0 to 100 / **0** / 1deg/step]
	Saves / Refreshes this SP with “temperature” (temperature and humidity sensor) of last MUSIC.		
007	Execution Result	*ENG	[0 or 1 / **0** / 1/step] 0: Success 1: Failure
008	Number of Execution	*ENG	[0 to 999999 / **0** / 1time/step]
	Saves / Refreshes this SP with the total count of MUSIC done since machine shipped.		
009	Number of Failure	*ENG	[0 to 999999 / **0** / 1time/step]
	Saves / Refreshes this SP with the total count of MUSIC failed since machine shipped.		
010	Error Result: C	*ENG	[0 to 9 / **0** / 1/step]
	Saves / Refreshes this SP with the Cyan result among the MUSIC execution result.		

011	Error Result: M	*ENG	[0 to 9 / **0** / 1/step]
	Saves / Refreshes this SP with the Magenta result among the MUSIC execution result.		
012	Error Result: Y	*ENG	[0 to 9 / **0** / 1/step]
	Saves / Refreshes this SP with the yellow result among the MUSIC execution result.		
013	Error Result: K	*ENG	[0 to 9 / **0** / 1/step]
	Saves / Refreshes this SP with the Black result among the MUSIC execution result.		
014	Temperature 2	*ENG	[-10 to 100 / **0** / 1deg/step]
	Saves / Refreshes this SP with the internal temperature (drum temp. sensor) of last MUSIC.		

2195	**[Realtime MUSIC Condition Set]**		
001	ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets whether to have real time MUSIC ON (1) or OFF (0).		
002	Page: Interrupt: BW+FC	*ENG	[0 to 999 / **50** / 1page/step]
	Condition threshold to auto execute real time MUSIC based on the sheets printed with last MUSIC during printing in B&W+Color.		
003	Page: Interrupt: FC	*ENG	[0 to 999 / **50** / 1page/step]
	Condition threshold to auto execute real time MUSIC based on the sheets printed with last MUSIC during printing in Color.		
004	Temperature 4	*ENG	[0 to 100 / **1** / 1deg/step]
	Condition threshold (Threshold revel: Mid.) to auto execute real time MUSIC or not based on the variation of internal temperature (drum temp. sensor) since last MUSIC.		

005	Temperature 5	*ENG	[0 to 100 / **1** / 1deg/step]
	Condition threshold (Threshold revel: Hi.) to auto execute real time MUSIC or not based on the variation of internal temperature (drum temp. sensor) since last MUSIC.		

2197	**[MUSIC Start Time]**		
001	MUSIC Start Time (EDT)	*ENG	[10 to 40 / **20** / 10ms/step]
	Sets margin time for starting scan to set starting position of scan MUSIC pattern accurately.		
002	TM Sensor Position	*ENG	[50.0 to 500.0 / **165.0** / 0.1mm/step]
	Sets physical distance information of TMP Sensor to set MUSIC pattern scanning start position accurately.		

2220	**[Skew Origin Set]**		
	-		
001	M: Skew Motor	ENG	[0 or 1 / **0** / -]
	M: skew original setting.		
002	C: Skew Motor	ENG	[0 or 1 / **0** / -]
	C: skew original setting.		
003	Y: Skew Motor	ENG	[0 or 1 / **0** / -]
	Y: skew original setting.		

2221	**[LD Power: Fixed]**		
	Decides output setting value as the value set to this SP when not controlling Process control.		
001	K	*ENG	[0 to 200 / **100** / 1%/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

2229	**[Develop DC Vias]**		
001	Standard Speed: Bk	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Std. speed: Bk)		
002	Standard Speed: C	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Std. speed: C)		
003	Standard Speed: M	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Std. speed: M)		
004	Standard Speed: Y	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Std. speed: Y)		
005	Middle Speed Bk	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set.		
006	Middle Speed C	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set.		

007	Middle Speed M	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set.		
008	Middle Speed Y	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set.		
009	Low Speed: Bk	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set.		
010	Low Speed: C	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Low speed: C)		
011	Low Speed: M	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Low speed: M)		
012	Low Speed: Y	*ENG	[0 to 800 / **550** / 1-V/step]
	Refers to develop bias set to this SP when electric potential control with Process control is not set. (Low speed: Y)		

2230	**[QL Power Setting]**		
001	Standard Speed	*ENG	[0 to 0 / **0** / 1%/step]
	Decides light amount to remove electricity at Std. speed.		
002	Middle Speed	*ENG	[0 to 0 / **0** / 1%/step]
	Decides light amount to remove electricity at Mid. Speed.		
003	Low Speed	*ENG	[0 to 0 / **0** / 1%/step]
	Decides light amount to remove electricity at Low. Speed.		

2241	[Temperature/Humidity: Display]		
003	Exec Interval: Extra Fan Control	*ENG	[1 to 3600 / **10** / 1sec/step]
	Sets interval time for temperature detection to decide whether to extend control.		
004	AIT Temperature	ENG	[0.0 to 70.0 / **0.0** / 0.1deg/step]
	Displays imaging temperature.		

2242	[TS Operation Env. Log]		
001	TS<=40	ENG	[0 to 99999999 / **0** / 1mm/step]
	TS: imaging temperature (Celsius): developing with each temperature division U: displays Bk rotation distance.		
002	40<TS<=45	ENG	[0 to 99999999 / **0** / 1mm/step]
	TS: imaging temperature (Celsius): developing with each temperature division U: displays Bk rotation distance.		
003	45<TS	ENG	[0 to 99999999 / **0** / 1mm/step]
	TS: imaging temperature (Celsius): developing with each temperature division U: displays Bk rotation distance.		
004	Log Clear	ENG	[0 or 1 / **0** / 1/step]
	Clears image temperature usage environment log.		

2302	**[Environmental Correction:Trans]**		
001	Current Environmental Display	ENG	[0 to 0 / **0** / 0/step]
	Displays current environment division of transfer.		
002	Forced Setting	*ENG	[0 to 6 / **0** / 1/step] 0: Sensor detect 1: LL 2: ML 3: MM 4: HM 5: HH 6: SLL
	Force sets current environment division of transfer.		
003	Absolute Humidity:Threshold 1	*ENG	[0.00 to 100.00 / **4.00** / 0.01g/m3/step]
	Sets environment division threshold (LL/ML)		
004	Absolute Humidity:Threshold 2	*ENG	[0.00 to 100.00 / **8.00** / 0.01g/m3/step]
	Sets environment division threshold (ML/MM)		
005	Absolute Humidity:Threshold 3	*ENG	[0.00 to 100.00 / **16.00** / 0.01g/m3/step]
	Sets environment division threshold (MM/HM)		
006	Absolute Humidity:Threshold 4	*ENG	[0.00 to 100.00 / **24.00** / 0.01g/m3/step]
	Sets environment division threshold (HM/HH)		
007	Temperature:Threshold	*ENG	[-5 to 30 / **5** / 1deg/step]
	Sets absolute temperature threshold (SLL)		

2303	**[Time-Lapse Correction]**		
001	Current Div K	*ENG	[0 to 3 / **0** / 1/step]
	Displays the current time-lapse division		
002	Current Div C	*ENG	[0 to 3 / **0** / 1/step]
	Displays the current time-lapse division		
003	Current Div M	*ENG	[0 to 3 / **0** / 1/step]
	Displays the current time-lapse division		
004	Current Div Y	*ENG	[0 to 3 / **0** / 1/step]
	Displays the current time-lapse division		
005	Correction Threshold 1_Bk	*ENG	[0 to 600000 / **5000** / 10page/step]
	Sets time-lapse correction threshold.		
006	Correction Threshold 1_Color	*ENG	[0 to 600000 / **5000** / 10page/step]
	Sets time-lapse correction threshold.		
007	Correction Threshold 2_Bk	*ENG	[0 to 600000 / **20000** / 10page/step]
	Sets time-lapse correction threshold.		
008	Correction Threshold 2_Color	*ENG	[0 to 600000 / **20000** / 10page/step]
	Sets time-lapse correction threshold.		
009	Correction Threshold 3_Bk	*ENG	[0 to 600000 / **50000** / 10page/step]
	Sets time-lapse correction threshold.		
010	Correction Threshold 3_Color	*ENG	[0 to 600000 / **50000** / 10page/step]
	Sets time-lapse correction threshold.		

2308	**[Paper Size Correction]**		
	Sets paper width threshold for paper size correction.		
001	Threshold 1	*ENG	[0 to 350 / **297** / 1mm/step]

002	Threshold 2	*ENG	[0 to 350 / **257** / 1mm/step]
003	Threshold 3	*ENG	[0 to 350 / **210** / 1mm/step]
004	Threshold 4	*ENG	[0 to 350 / **148** / 1mm/step]
2308	**[Paper Size Correction]**		
	Sets paper width threshold for paper size correction (when using optional roller.).		
005	Threshold 1	*ENG	[0 to 350 / **297** / 1mm/step]
006	Threshold 2	*ENG	[0 to 350 / **257** / 1mm/step]
007	Threshold 3	*ENG	[0 to 350 / **210** / 1mm/step]
008	Threshold 4	*ENG	[0 to 350 / **148** / 1mm/step]

2311	**[Non Image Area:Bias]**		
	Sets bias for non image area.		
001	Image Transfer	*ENG	[10 to 250 / **100** / 5%/step]
002	Paper Transfer	*ENG	[0 to 230 / **0** / 1-uA/step]
	* When between papers are close.		
003	Paper Transfer	*ENG	[0 to 2100 / **500** / 10V/step]

2316	**[Power ON:Bias]**		
	Sets bias for non image area.		
001	Image Transfer	*ENG	[0 to 80 / **5** / 1uA/step]

2326	**[Transfer Roller CL:Bias]**		
	Sets CL bias for corresponding operation.		
001	Positive:befor and after JOB	*ENG	[0 to 2100 / **250** / 10V/step]
002	Negative:befor and after JOB	*ENG	[10 to 995 / **100** / 10%/step]

003	Positive:befor and afterProcon	*ENG	[0 to 2100 / **2000** / 10V/step]
004	Negative:befor and afterProcon	*ENG	[10 to 995 / **100** / 10%/step]
005	Positive:prevention	*ENG	[0 to 2100 / **500** / 10V/step]

2351	**[Common:BW:Bias]**		
	Sets image transfer output value per line speed in BW mode.		
001	Image Transfer:standard	*ENG	[0 to 80 / **D146: 33, D147: 33, D148: 41, D149: 57, D150: 57** / 1uA/step]
002	Image Transfer:Middle	*ENG	[0 to 80 / **24** / 1uA/step]
003	Image Transfer:low	*ENG	[0 to 80 / **16** / 1uA/step]

2357	**[Common:FC:Bias]**		
	Sets image transfer output value per line speed in FC mode.		
001	ImageTransfer:standard:Bk	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **D146: 33, D147: 33, D148: 41, D149: 57, D150: 57** / 1uA/step]
002	ImageTransfer:standard:C	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **D146: 33, D147: 33, D148: 41, D149: 57, D150: 57** / 1uA/step]
003	ImageTransfer:standard:M	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **D146: 35, D147: 35, D148: 45, D149: 62, D150: 62** / 1uA/step]
004	ImageTransfer:standard:Y	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **D146: 38, D147: 38, D148: 49, D149: 67, D150: 67** / 1uA/step]

005	ImageTransfer:Middle:Bk	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **24** / 1uA/step]
006	ImageTransfer:Middle:C	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **24** / 1uA/step]
007	ImageTransfer:Middle:M	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **26** / 1uA/step]
008	ImageTransfer:Middle:Y	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **28** / 1uA/step]
009	Image Transfer:low:Bk	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **16** / 1uA/step]
010	Image Transfer:low:C	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **16** / 1uA/step]
011	Image Transfer:low:M	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **18** / 1uA/step]
012	Image Transfer:low:Y	*ENG	[0 to (D146: 60, D147: 60, D148: 80, D149: 80, D150: 80) / **19** / 1uA/step]

2360	**[Common:BW:Env.CorrectionTable]**		
	Sets image transfer output environment correction table per line speed in BW mode.		
001	Image Transfer:standard	*ENG	[1 to 100 / **2** / 1/step]
002	Image Transfer:Middle	*ENG	[1 to 100 / **2** / 1/step]
003	Image Transfer:low	*ENG	[1 to 100 / **2** / 1/step]

2360	**[Common:FC:Env.CorrectionTable]**		
	Sets image transfer output environment correction table per line speed in FC mode.		
004	ImageTransfer:standard:Bk	*ENG	[1 to 100 / **1** / 1/step]
005	ImageTransfer:standard:C	*ENG	[1 to 100 / **2** / 1/step]
006	ImageTransfer:standard:M	*ENG	[1 to 100 / **3** / 1/step]
007	ImageTransfer:standard:Y	*ENG	[1 to 100 / **4** / 1/step]
008	ImageTransfer:Middle:Bk	*ENG	[1 to 100 / **1** / 1/step]
009	ImageTransfer:Middle:C	*ENG	[1 to 100 / **2** / 1/step]
010	ImageTransfer:Middle:M	*ENG	[1 to 100 / **3** / 1/step]
011	ImageTransfer:Middle:Y	*ENG	[1 to 100 / **4** / 1/step]
012	Image Transfer:low:Bk	*ENG	[1 to 100 / **1** / 1/step]
013	Image Transfer:low:C	*ENG	[1 to 100 / **2** / 1/step]
014	Image Transfer:low:M	*ENG	[1 to 100 / **3** / 1/step]
015	Image Transfer:low:Y	*ENG	[1 to 100 / **4** / 1/step]

2361	**[Time-Lapse Correction: Div 1]**		
	Input table number of time-lapse correction.		
001	Standard Speed: Bk	*ENG	[1 to 60 / **2** / 1/step]
002	Mid Speed: Bk	ENG	
003	Low Speed: Bk	ENG	
004	Standard Speed: FC: K	*ENG	[1 to 60 / **1** / 1/step]
005	Standard Speed: FC: C	*ENG	
006	Standard Speed: FC: M	*ENG	
007	Standard Speed: FC: Y	*ENG	
008	Mid Speed: FC: K	ENG	

009	Mid Speed: FC: C	ENG	
010	Mid Speed: FC: M	ENG	
011	Mid Speed: FC: Y	ENG	
012	Low Speed: FC: K	ENG	
013	Low Speed: FC: C	ENG	
014	Low Speed: FC: M	ENG	
015	Low Speed: FC: Y	ENG	

2362	**[Time-Lapse Correction: Div 2]**		
	Input table number of time-lapse correction.		
001	Standard Speed: Bk	*ENG	[1 to 60 / **3** / 1/step]
002	Mid Speed: Bk	ENG	
003	Low Speed: Bk	ENG	
004	Standard Speed: FC: K	*ENG	[1 to 60 / **1** / 1/step]
005	Standard Speed: FC: C	*ENG	
006	Standard Speed: FC: M	*ENG	
007	Standard Speed: FC: Y	*ENG	
008	Mid Speed: FC: K	ENG	
009	Mid Speed: FC: C	ENG	
010	Mid Speed: FC: M	ENG	
011	Mid Speed: FC: Y	ENG	
012	Low Speed: FC: K	ENG	
013	Low Speed: FC: C	ENG	
014	Low Speed: FC: M	ENG	
015	Low Speed: FC: Y	ENG	

2363	**[Time-Lapse Correction: Div 3]**		
	Input table number of time-lapse correction.		
001	Standard Speed: Bk	*ENG	[1 to 60 / **4** / 1/step]
002	Mid Speed: Bk	ENG	
003	Low Speed: Bk	ENG	
004	Standard Speed: FC: K	*ENG	[1 to 60 / **1** / 1/step]
005	Standard Speed: FC: C	*ENG	
006	Standard Speed: FC: M	*ENG	
007	Standard Speed: FC: Y	*ENG	
008	Mid Speed: FC: K	ENG	
009	Mid Speed: FC: C	ENG	
010	Mid Speed: FC: M	ENG	
011	Mid Speed: FC: Y	ENG	
012	Low Speed: FC: K	ENG	
013	Low Speed: FC: C	ENG	
014	Low Speed: FC: M	ENG	
015	Low Speed: FC: Y	ENG	

2400	**[Paper Transfer Roller Settings]**		
001	Width of Paper Transfer Roller	*ENG	[0 or 1 / **0** / 1/step] 0: Default roller 1: Wide roller
	Width of Paper Transfer Roller		
002	Detatch timing in waiting	*ENG	[0 to 600 / **240** / 1min/step]
	Detach timing in waiting		

2403	**[Plain1:Bias:BW]**		
	Sets paper transfer ampere per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2407	**[Plain1:Bias:FC]**		
	Sets paper transfer ampere per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2411	**[Plain1:SizeCorrection:BW]**		
	Sets paper transfer ampere per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2411	**[Plain1:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (When using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]

038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2412	**[Plain1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]
2412	**[Plain1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (When using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]

037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]

2413	**[Plain1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]

018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]
2413	**[Plain1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (When using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]

036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]

2414	**[Plain1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]

017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]
2414	**[Plain1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (When using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]

035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]

2415	**[Plain1:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2416	**[Plain1:SwitchTimingLeadEdge]**		
	Sets output value [%] for paper transfer ampere leading edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2417	**[Plain1:TrailEdgeCorrection]**
	Sets output value [%] for paper transfer ampere leading edge correction per paper thickness / line speed / printing sides.

001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2418	**[Plain1:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction of paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2423	**[Plain2:Bias:BW]**		
	Sets paper transfer ampere per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2425	**[Hhsmall:LeadEdgeCorrection]**		
	*Un used		
001	PaperTransfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:2stSid	*ENG	[0 to 995 / **100** / 5%/step]

2427	**[Plain2:Bias:FC]**		
	Sets paper transfer ampere per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2431	**[Plain2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]
2431	**[Plain2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]

026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2432	**[Plain2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]
2432	**[Plain2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]

2433	**[Plain2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]

002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]
2433	**[Plain2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]

024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]

2434	**[Plain2:Size-Env.Correct:FC]**
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides.

001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]
2434	**[Plain2:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per paper thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]

023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]

2435	**[Plain2:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer leading edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2436	**[Plain2:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correct per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2437	**[Plain2:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer trailing edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2438	**[Plain2:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correct per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2443	**[Middle:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2447	**[Middle:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 30, D147: 30, D148: 39, D149: 53, D150: 53** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2451	**[Middle:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **106** / 1%/step]

009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **110** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **110** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **113** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **120** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **113** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **120** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **118** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **118** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
2451	**[Middle:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **106** / 1%/step]

029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **110** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **110** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **113** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **120** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **113** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **120** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **118** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **118** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **140** / 1%/step]

2452	**[Middle:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **132** / 1%/step]

007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **106** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **132** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **110** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **170** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **110** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **170** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **120** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **189** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **120** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **189** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **245** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **245** / 1%/step]
2452	**[Middle:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **132** / 1%/step]

027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **106** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **132** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **110** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **170** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **110** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **170** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **120** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **189** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **120** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **189** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **245** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **245** / 1%/step]

2453	**[Middle:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **41** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **41** / 1/step]

005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **39** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **42** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **39** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **42** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **40** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **43** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **40** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **43** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **40** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **44** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **40** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **44** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **40** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **45** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **40** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **45** / 1/step]
2453	**[Middle:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **41** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **41** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **39** / 1/step]

026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **42** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **39** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **42** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **40** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **43** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **40** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **43** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **40** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **44** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **40** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **44** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **40** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **45** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **40** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **45** / 1/step]

2454	**[Middle:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **49** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]

004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **49** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **46** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **50** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **46** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **50** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **47** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **51** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **47** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **51** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **48** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **52** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **48** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **52** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **48** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **53** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **48** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **53** / 1/step]
2454	**[Middle:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **49** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **49** / 1/step]

025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **46** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **50** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **46** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **50** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **47** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **51** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **47** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **51** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **48** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **52** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **48** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **52** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **48** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **53** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **48** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **53** / 1/step]

2455	**[Middle:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]

002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2456	**[Middle:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2457	**[Middle:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2458	**[Middle:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2463	**[Thin:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:Standard:2Sid	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	Paper Transfer:Low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	Paper Transfer:Low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2467	**[Thin:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:Standard:2Sid	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	Paper Transfer:Low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

004	Paper Transfer:Low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2471	**[Thin:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **111** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **140** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **111** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **140** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **121** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **175** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **121** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **175** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **211** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **211** / 1%/step]

2471	**[Thin:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **111** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **140** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **111** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **140** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **121** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **175** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **121** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **175** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]

038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **211** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **211** / 1%/step]

2472	**[Thin:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
006	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **130** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **106** / 1%/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **130** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **117** / 1%/step]
010	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **153** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **117** / 1%/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **153** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **128** / 1%/step]
014	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **177** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **128** / 1%/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **177** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **200** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **200** / 1%/step]
2472	**[Thin:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **106** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **130** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **106** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **130** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **117** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **153** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **117** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **153** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **128** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **177** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **128** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **177** / 1%/step]

037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **200** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **200** / 1%/step]

2473	**[Thin:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **30** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **30** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **31** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **31** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]

018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **32** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **32** / 1/step]
2473	**[Thin:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **30** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **30** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **31** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]

036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **31** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **32** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **32** / 1/step]

2.4 MAIN SP TABLES-2-2

2.4.1 SP2-474 TO 2-990 (DRUM)

2474	**[Thin:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **25** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **35** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **35** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **33** / 1/step]
010	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **36** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **33** / 1/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **36** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **34** / 1/step]
014	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **37** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **34** / 1/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **37** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **38** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **38** / 1/step]
2474	**[Thin:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **35** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **35** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **33** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **36** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **33** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **36** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **34** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **37** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **34** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **37** / 1/step]

037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **38** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **38** / 1/step]

2475	**[Thin:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2476	**[Thin:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2477	**[Thin:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per paper thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]

003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2478	**[Thin:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2483	**[Thick1:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **16** / 1-uA/step]
002	PaperTransfer:middle:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **13** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **9** / 1-uA/step]

2487	**[Thick1:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **23** / 1-uA/step]
002	PaperTransfer:middle:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **26** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **16** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **18** / 1-uA/step]

2491	**[Thick1:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **177** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **177** / 1%/step]
009	PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **100** / 1%/step]
010	PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **231** / 1%/step]

011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **231** / 1%/step]
013	PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **100** / 1%/step]
014	PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **270** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **270** / 1%/step]
017	PaperTransfer:middle:1Sid:S5	*ENG	[100 to 995 / **100** / 1%/step]
018	PaperTransfer:middle:2Sid:S5	*ENG	[100 to 995 / **308** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **308** / 1%/step]
2491	**[Thick1:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:middle:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:middle:2Sid:S2	*ENG	[100 to 995 / **177** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **177** / 1%/step]

029	Wide Roller:PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **100** / 1%/step]
030	Wide Roller:PaperTransfer:middle:2Sid:S3	*ENG	[100 to 995 / **231** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **231** / 1%/step]
033	Wide Roller:PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **100** / 1%/step]
034	Wide Roller:PaperTransfer:middle:2Sid:S4	*ENG	[100 to 995 / **270** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **270** / 1%/step]
037	Wide Roller:PaperTransfer:middle:1Sid:S5	*ENG	[100 to 995 / **100** / 1%/step]
038	Wide Roller:PaperTransfer:middle:2Sid:S5	*ENG	[100 to 995 / **308** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **308** / 1%/step]

2492	**[Thick1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]

003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **173** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **173** / 1%/step]
009	PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **100** / 1%/step]
010	PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **250** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **250** / 1%/step]
013	PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **100** / 1%/step]
014	PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **308** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **308** / 1%/step]
017	PaperTransfer:middle:1Sid:S5	*ENG	[100 to 995 / **100** / 1%/step]
018	PaperTransfer:middle:2Sid:S5	*ENG	[100 to 995 / **385** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **385** / 1%/step]
2492	**[Thick1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides. (With using optional wide unit)		
021	Wide Roller:PaperTransfer:middle:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:middle:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:middle:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:middle:2Sid:S2	*ENG	[100 to 995 / **173** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **173** / 1%/step]
029	Wide Roller:PaperTransfer:middle:1Sid:S3	*ENG	[100 to 995 / **100** / 1%/step]
030	Wide Roller:PaperTransfer:middle:2Sid:S3	*ENG	[100 to 995 / **250** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **250** / 1%/step]
033	Wide Roller:PaperTransfer:middle:1Sid:S4	*ENG	[100 to 995 / **100** / 1%/step]
034	Wide Roller:PaperTransfer:middle:2Sid:S4	*ENG	[100 to 995 / **308** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **308** / 1%/step]
037	Wide Roller:PaperTransfer:middle:1Sid:S5	*ENG	[100 to 995 / **100** / 1%/step]
038	Wide Roller:PaperTransfer:middle:2Sid:S5	*ENG	[100 to 995 / **385** / 1%/step]

039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **385** / 1%/step]

2493	**[Thick1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **54** / 1/step]
002	PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **57** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **54** / 1/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **57** / 1/step]
005	PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **55** / 1/step]
006	PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **58** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **55** / 1/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **58** / 1/step]
009	PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **56** / 1/step]
010	PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **59** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **56** / 1/step]
012	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **59** / 1/step]
013	PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **56** / 1/step]
014	PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **60** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **56** / 1/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **60** / 1/step]
017	PaperTransfer:middle:1Sid:S5	*ENG	[1 to 100 / **56** / 1/step]
018	PaperTransfer:middle:2Sid:S5	*ENG	[1 to 100 / **61** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **56** / 1/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **61** / 1/step]
2493	**[Thick1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.(With using optional wide unit)		
021	Wide Roller:PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **54** / 1/step]
022	Wide Roller:PaperTransfer:middle:2Sid:S1	*ENG	[1 to 100 / **57** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **54** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **57** / 1/step]
025	Wide Roller:PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **55** / 1/step]
026	Wide Roller:PaperTransfer:middle:2Sid:S2	*ENG	[1 to 100 / **58** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **55** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **58** / 1/step]
029	Wide Roller:PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **56** / 1/step]
030	Wide Roller:PaperTransfer:middle:2Sid:S3	*ENG	[1 to 100 / **59** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **56** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **59** / 1/step]
033	Wide Roller:PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **56** / 1/step]

034	Wide Roller:PaperTransfer:middle:2Sid:S4	*ENG	[1 to 100 / **60** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **56** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **60** / 1/step]
037	Wide Roller:PaperTransfer:middle:1Sid:S5	*ENG	[1 to 100 / **56** / 1/step]
038	Wide Roller:PaperTransfer:middle:2Sid:S5	*ENG	[1 to 100 / **61** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **56** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **61** / 1/step]

2494	**[Thick1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.		
001	PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **13** / 1/step]
002	PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **65** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **13** / 1/step]
004	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **65** / 1/step]
005	PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **63** / 1/step]
006	PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **66** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **63** / 1/step]
008	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **66** / 1/step]
009	PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **63** / 1/step]
010	PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **67** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **63** / 1/step]

012	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **67** / 1/step]
013	PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **64** / 1/step]
014	PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **68** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **64** / 1/step]
016	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **68** / 1/step]
017	PaperTransfer:middle:1Sid:S5	*ENG	[1 to 100 / **64** / 1/step]
018	PaperTransfer:middle:2Sid:S5	*ENG	[1 to 100 / **69** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **64** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **69** / 1/step]
2494	**[Thick1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size correction per thickness / mode (FC/BW) / line speed / printing sides.(With using optional wide unit)		
021	Wide Roller:PaperTransfer:middle:1Sid:S1	*ENG	[1 to 100 / **13** / 1/step]
022	Wide Roller:PaperTransfer:middle:2Sid:S1	*ENG	[1 to 100 / **65** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **13** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **65** / 1/step]
025	Wide Roller:PaperTransfer:middle:1Sid:S2	*ENG	[1 to 100 / **63** / 1/step]
026	Wide Roller:PaperTransfer:middle:2Sid:S2	*ENG	[1 to 100 / **66** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **63** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **66** / 1/step]

029	Wide Roller:PaperTransfer:middle:1Sid:S3	*ENG	[1 to 100 / **63** / 1/step]
030	Wide Roller:PaperTransfer:middle:2Sid:S3	*ENG	[1 to 100 / **67** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **63** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **67** / 1/step]
033	Wide Roller:PaperTransfer:middle:1Sid:S4	*ENG	[1 to 100 / **64** / 1/step]
034	Wide Roller:PaperTransfer:middle:2Sid:S4	*ENG	[1 to 100 / **68** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **64** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **68** / 1/step]
037	Wide Roller:PaperTransfer:middle:1Sid:S5	*ENG	[1 to 100 / **64** / 1/step]
038	Wide Roller:PaperTransfer:middle:2Sid:S5	*ENG	[1 to 100 / **69** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **64** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **69** / 1/step]

2495	**[Thick1:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:middle:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:middle:2Side	*ENG	[0 to 995 / **100** / 5%/step]

003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2496	**[Thick1:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge per thickness / line speed / printing speed.		
001	PaperTransfer:middle:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:middle:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2497	**[Thick1:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:middle:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:middle:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2498	**[Thick1:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / line speed / printing sides.		
001	PaperTransfer:middle:1Side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:middle:2Side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2503	**[Thick2:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2507	**[Thick2:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2511	**[Thick2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]

019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]
2511	**[Thick2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]

2512	**[Thick2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]
2512	**[Thick2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]

039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]

2513	**[Thick2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **71** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **71** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **71** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]
2513	**[Thick2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]

031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **71** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **71** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **71** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]

2514	**[Thick2:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]
2514	**[Thick2:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		

023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **74** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]

2515	**[Thick2:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2516	**[Thick2:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2517	**[Thick2:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / 100 / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / 100 / 5%/step]

2518	**[Thick2:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2523	**[Thick3:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2527	**[Thick3:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2531	**[Thick3:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]
2531	**[Thick3:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]

2532	**[Thick3:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]

016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]
2532	**[Thick3:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]

2533	**[Thick3:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **85** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **87** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **86** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **88** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **86** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **89** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **86** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **90** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **86** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **91** / 1/step]
2533	**[Thick3:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **85** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **87** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **86** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **88** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **86** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **89** / 1/step]

035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **86** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **90** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **86** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **91** / 1/step]

2534	**[Thick3:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **92** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **93** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **94** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **95** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **96** / 1/step]
2534	**[Thick3:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **92** / 1/step]

027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **93** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **94** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **95** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **96** / 1/step]

2535	**[Thick3:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2536	**[Thick3:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2537	**[Thick3:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2538	**[Thick3:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2543	**[OHP:Bias:BW]**		
	Sets paper transfer ampere per mode (FC/BW) of OHP.		
003	PaperTransfer	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2547	**[OHP:Bias:FC]**		
	Sets paper transfer ampere per mode (FC/BW) of OHP.		
003	PaperTransfer	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]

2551	**[OHP:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP.		
003	PaperTransfer:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:S2	*ENG	[100 to 995 / **100** / 1%/step]

011	PaperTransfer:S3	*ENG	[100 to 995 / **100** / 1%/step]
015	PaperTransfer:S4	*ENG	[100 to 995 / **100** / 1%/step]
019	PaperTransfer:S5	*ENG	[100 to 995 / **100** / 1%/step]
2551	**[OHP:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:S2	*ENG	[100 to 995 / **100** / 1%/step]
031	Wide Roller:PaperTransfer:S3	*ENG	[100 to 995 / **100** / 1%/step]
035	Wide Roller:PaperTransfer:S4	*ENG	[100 to 995 / **100** / 1%/step]
039	Wide Roller:PaperTransfer:S5	*ENG	[100 to 995 / **100** / 1%/step]

2552	**[OHP:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP.		
003	PaperTransfer:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:S3	*ENG	[100 to 995 / **229** / 1%/step]
015	PaperTransfer:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:S5	*ENG	[100 to 995 / **381** / 1%/step]
2552	**[OHP:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:S4	*ENG	[100 to 995 / **286** / 1%/step]

039	Wide Roller:PaperTransfer:S5	*ENG	[100 to 995 / **381** / 1%/step]

2553	**[OHP:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP.		
003	PaperTransfer:S1	*ENG	[1 to 100 / **70** / 1/step]
007	PaperTransfer:S2	*ENG	[1 to 100 / **71** / 1/step]
011	PaperTransfer:S3	*ENG	[1 to 100 / **72** / 1/step]
015	PaperTransfer:S4	*ENG	[1 to 100 / **72** / 1/step]
019	PaperTransfer:S5	*ENG	[1 to 100 / **72** / 1/step]
2553	**[OHP:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:S1	*ENG	[1 to 100 / **70** / 1/step]
027	Wide Roller:PaperTransfer:S2	*ENG	[1 to 100 / **71** / 1/step]
031	Wide Roller:PaperTransfer:S3	*ENG	[1 to 100 / **72** / 1/step]
035	Wide Roller:PaperTransfer:S4	*ENG	[1 to 100 / **72** / 1/step]
039	Wide Roller:PaperTransfer:S5	*ENG	[1 to 100 / **72** / 1/step]

2554	**[OHP:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP.		
003	PaperTransfer:S1	*ENG	[1 to 100 / **77** / 1/step]
007	PaperTransfer:S2	*ENG	[1 to 100 / **78** / 1/step]
011	PaperTransfer:S3	*ENG	[1 to 100 / **79** / 1/step]
015	PaperTransfer:S4	*ENG	[1 to 100 / **79** / 1/step]
019	PaperTransfer:S5	*ENG	[1 to 100 / **79** / 1/step]

2554	**[OHP:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) of OHP. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:S1	*ENG	[1 to 100 / **77** / 1/step]
027	Wide Roller:PaperTransfer:S2	*ENG	[1 to 100 / **78** / 1/step]
031	Wide Roller:PaperTransfer:S3	*ENG	[1 to 100 / **79** / 1/step]
035	Wide Roller:PaperTransfer:S4	*ENG	[1 to 100 / **79** / 1/step]
039	Wide Roller:PaperTransfer:S5	*ENG	[1 to 100 / **79** / 1/step]

2555	**[OHP:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction of OHP.		
003	Paper Transfer	*ENG	[0 to 995 / **100** / 5%/step]

2556	**[OHP:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction of OHP.		
003	Paper Transfer	*ENG	[0 to 50 / **0** / 2mm/step]

2557	**[OHP:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction of OHP.		
003	Paper Transfer	*ENG	[0 to 995 / **100** / 5%/step]

2558	**[OHP:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction of OHP.		
003	Paper Transfer	*ENG	[0 to 50 / **0** / 2mm/step]

2563	**[Special1:Bias:BW]**

	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2567	**[Special1:Bias:FC]**		
	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2571	**[Special1:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2571	**[Special1:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 1. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]

038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2572	**[Special1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]
2572	**[Special1:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 1. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]

037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]

2573	**[Special1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]

018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]
2573	**[Special1:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 1. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]

036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]

2574	**[Special1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 1.		
001	PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
005	PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
009	PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
010	PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
013	PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
014	PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]

017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]
2574	**[Special1:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 1. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]

035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]

2575	**[Special1:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per line speed / printing sides of special paper 1.		
001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2576	**[Special1:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per line speed / printing sides of special paper 1.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2577	**[Special1:TrailEdgeCorrection]**
	Sets output value [%] for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 1.

001	PaperTransfer:Standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:Standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2578	**[Special1:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 1.		
001	PaperTransfer:Standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:Standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2583	**[Special2:Bias:BW]**		
	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2587	**[Special2:Bias:FC]**		
	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2591	**[Special2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]

010	PaperTransfer:standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]
2591	**[Special2:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 2. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]

030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2592	**[Special2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]

009	PaperTransfer:standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]
2592	**[Special2:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 2. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]

029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]

2593	**[Special2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]

007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]
2593	**[Special2:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 2. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]

027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]

2594	**[Special2:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 2.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]

005	PaperTransfer:standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]
2594	**[Special2:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 2. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]

026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]

2595	**[Special2:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per line speed / printing sides of special paper 2.		
001	PaperTransfer:standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]

004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2596	**[Special2:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per line speed / printing sides of special paper 2.		
001	PaperTransfer:standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2597	**[Special2:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 2.		
001	PaperTransfer:standard:1Side	*ENG	[0 to 995 / **100** / 5%/step]
002	PaperTransfer:standard:2Side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2598	**[Special2:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 2.		
001	PaperTransfer:standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	PaperTransfer:standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2603	**[Special3:Bias:BW]**		
	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 22, D147: 22, D148: 28, D149: 38, D150: 38** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

2607	**[Special3:Bias:FC]**		
	Sets paper transfer ampere per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
002	PaperTransfer:standard:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **D146: 29, D147: 29, D148: 36, D149: 50, D150: 50** / 1-uA/step]
003	PaperTransfer:low:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

004	PaperTransfer:low:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **14** / 1-uA/step]

2611	**[Special3:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2611	**[Special3:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 3. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **100** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **105** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **105** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **105** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **105** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **118** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **131** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **118** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **131** / 1%/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **132** / 1%/step]

038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **184** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **132** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **184** / 1%/step]

2612	**[Special3:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]

020	PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]
2612	**[Special3:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size correction per mode (FC/BW) / printing sides of special paper 3. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[100 to 995 / **100** / 1%/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[100 to 995 / **120** / 1%/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[100 to 995 / **140** / 1%/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[100 to 995 / **120** / 1%/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[100 to 995 / **140** / 1%/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[100 to 995 / **118** / 1%/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[100 to 995 / **180** / 1%/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[100 to 995 / **118** / 1%/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[100 to 995 / **180** / 1%/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[100 to 995 / **130** / 1%/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[100 to 995 / **200** / 1%/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[100 to 995 / **130** / 1%/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[100 to 995 / **200** / 1%/step]

037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[100 to 995 / **140** / 1%/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[100 to 995 / **240** / 1%/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[100 to 995 / **140** / 1%/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[100 to 995 / **240** / 1%/step]

2613	**[Special3:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]

018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]
2613	**[Special3:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 3. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **10** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **15** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **10** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **15** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **11** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **16** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **11** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **16** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **12** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **17** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **12** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **17** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **13** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **18** / 1/step]
035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **13** / 1/step]

036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **18** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **14** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **19** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **14** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **19** / 1/step]

2614	**[Special3:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 3.		
001	PaperTransfer:standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
002	PaperTransfer:standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
003	PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
004	PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
005	PaperTransfer:standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
006	PaperTransfer:standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
007	PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
008	PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
009	PaperTransfer:standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
010	PaperTransfer:standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
011	PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
012	PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
013	PaperTransfer:standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
014	PaperTransfer:standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]
015	PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
016	PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]

017	PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
018	PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
019	PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
020	PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]
2614	**[Special3:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (FC/BW) / printing sides of special paper 3. (When using optional wide unit.)		
021	Wide Roller:PaperTransfer:Standard:1Sid:S1	*ENG	[1 to 100 / **20** / 1/step]
022	Wide Roller:PaperTransfer:Standard:2Sid:S1	*ENG	[1 to 100 / **25** / 1/step]
023	Wide Roller:PaperTransfer:Low:1Side:S1	*ENG	[1 to 100 / **20** / 1/step]
024	Wide Roller:PaperTransfer:Low:2Side:S1	*ENG	[1 to 100 / **25** / 1/step]
025	Wide Roller:PaperTransfer:Standard:1Sid:S2	*ENG	[1 to 100 / **21** / 1/step]
026	Wide Roller:PaperTransfer:Standard:2Sid:S2	*ENG	[1 to 100 / **26** / 1/step]
027	Wide Roller:PaperTransfer:Low:1Side:S2	*ENG	[1 to 100 / **21** / 1/step]
028	Wide Roller:PaperTransfer:Low:2Side:S2	*ENG	[1 to 100 / **26** / 1/step]
029	Wide Roller:PaperTransfer:Standard:1Sid:S3	*ENG	[1 to 100 / **22** / 1/step]
030	Wide Roller:PaperTransfer:Standard:2Sid:S3	*ENG	[1 to 100 / **27** / 1/step]
031	Wide Roller:PaperTransfer:Low:1Side:S3	*ENG	[1 to 100 / **22** / 1/step]
032	Wide Roller:PaperTransfer:Low:2Side:S3	*ENG	[1 to 100 / **27** / 1/step]
033	Wide Roller:PaperTransfer:Standard:1Sid:S4	*ENG	[1 to 100 / **23** / 1/step]
034	Wide Roller:PaperTransfer:Standard:2Sid:S4	*ENG	[1 to 100 / **28** / 1/step]

035	Wide Roller:PaperTransfer:Low:1Side:S4	*ENG	[1 to 100 / **23** / 1/step]
036	Wide Roller:PaperTransfer:Low:2Side:S4	*ENG	[1 to 100 / **28** / 1/step]
037	Wide Roller:PaperTransfer:Standard:1Sid:S5	*ENG	[1 to 100 / **24** / 1/step]
038	Wide Roller:PaperTransfer:Standard:2Sid:S5	*ENG	[1 to 100 / **29** / 1/step]
039	Wide Roller:PaperTransfer:Low:1Side:S5	*ENG	[1 to 100 / **24** / 1/step]
040	Wide Roller:PaperTransfer:Low:2Side:S5	*ENG	[1 to 100 / **29** / 1/step]

2615	**[Special3:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per line speed / printing sides of special paper 3.		
001	Paper Transfer:standard:1side	*ENG	[0 to 995 / **100** / 5%/step]
002	Paper Transfer:standard:2side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2616	**[Special3:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per line speed / printing sides of special paper 3.		
001	Paper Transfer:standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	Paper Transfer:standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2617	**[Special3:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 3.		
001	Paper Transfer:standard:1side	*ENG	[0 to 995 / **100** / 5%/step]
002	Paper Transfer:standard:2side	*ENG	[0 to 995 / **100** / 5%/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 995 / **100** / 5%/step]

2618	**[Special3:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per line speed / printing sides of special paper 3.		
001	Paper Transfer:standard:1side	*ENG	[0 to 50 / **0** / 2mm/step]
002	Paper Transfer:standard:2side	*ENG	[0 to 50 / **0** / 2mm/step]
003	Paper Transfer:Low:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:Low:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2623	**[Special1 Thick:Bias:BW]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2627	**[Special1 Thick:Bias:FC]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2631	**[Special1Thick:PaperSizeCorr:BW]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]
2631	**[Special1Thick:PaperSizeCorr:BW]**		

	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]

2632	**[Special1Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]

004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]
2632	**[Special1Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]

036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]

2633	**[Sp1Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **85** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **87** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **86** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **88** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **86** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **89** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **86** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **90** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **86** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **91** / 1/step]
2633	**[Sp1Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **85** / 1/step]

024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **87** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **86** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **88** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **86** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **89** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **86** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **90** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **86** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **91** / 1/step]

2634	**[Sp1Thick:PaperSizeEnvCorr:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **92** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **93** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **94** / 1/step]

015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **95** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **96** / 1/step]
2634	**[Sp1Thick:PaperSizeEnvCorr:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **92** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **93** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **94** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **95** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **96** / 1/step]

2635	**[Sp1Thick:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2636	**[Sp1Thick:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2637	**[Sp1Thick:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / 100 / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / 100 / 5%/step]

2638	**[Sp1Thick:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per printing sides of special paper 1 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2643	**[Special2 Thick:Bias:BW]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2647	**[Special2 Thick:Bias:FC]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2651	**[Special2Thick:PaperSizeCorr:BW]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]

011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]
2651	**[Special2Thick:PaperSizeCorr:BW]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]

040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]

2652	**[Special2Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]
2652	**[Special2Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]

028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]

2653	**[Sp2Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]

020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]
2653	**[Sp2Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]

2654	**[Sp2Thick:PaperSizeEnvCorr:FC]**

	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]
2654	**[Sp2Thick:PaperSizeEnvCorr:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]

032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]

2655	**[Sp2Thick:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2656	**[Sp2Thick:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2657	**[Sp2Thick:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	**[0 to 995 / 100 / 5%/step]**

2658	**[Sp2Thick:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per printing sides of special paper 2 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2663	**[Special3 Thick:Bias:BW]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2667	**[Special3 Thick:Bias:FC]**		
	Sets paper transfer ampere per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2671	**[Special3Thick:PaperSizeCorr:BW]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 5%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 5%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 5%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 5%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 5%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 5%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 5%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 5%/step]
2671	**[Special3Thick:PaperSizeCorr:BW]**		

	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 5%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 5%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 5%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 5%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 5%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 5%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 5%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 5%/step]

2672	**[Special3Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 5%/step]

004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 5%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 5%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 5%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 5%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 5%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 5%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 5%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 5%/step]
2672	**[Special3Thick:PaperSizeCorr:FC]**		
	Sets paper transfer ampere paper size correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 5%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 5%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 5%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 5%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 5%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 5%/step]

036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 5%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 5%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 5%/step]

2673	**[Sp3Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]
2673	**[Sp3Thick:PaperSizeEnvCorr:BW]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]

024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]

2674	**[Sp3Thick:PaperSizeEnvCorr:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]

015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]
2674	**[Sp3Thick:PaperSizeEnvCorr:FC]**		
	Sets paper transfer ampere paper size environment correction per mode (BW/FC) / printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]

2675	**[Sp3Thick:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2676	**[Sp3Thick:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2677	**[Sp3Thick:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2678	**[Sp3Thick:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per printing sides of special paper 3 using thick paper setting. “Thick paper” means thick paper 2 or upper with model D148/D149/D150, thick paper 1 or upper with model D146/D147.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2690	**[ITB Contact Setting]**		
001	Thick1	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 1.		
002	Thick2	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 2.		
003	Thick3	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 3.		
004	Thick4	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 4.		
014	Special1Thick1234	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 1234 and special paper 1.		
015	Special2Thick1234	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 1234 and special paper 2.		
016	Special3Thick1234	*ENG	[0 or 1 / **0** / 1/step]
	Enter 1 when outputting in B&W monochrome but using all OPC drum (FC mode) with Thick paper 1234 and special paper 3.		

2703	**[Thick4:Bias:BW]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **11** / 1-uA/step]

004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **15** / 1-uA/step]

2707	**[Thick4:Bias:FC]**		
	Sets paper transfer ampere per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **19** / 1-uA/step]
004	PaperTransfer:2side	*ENG	[0 to (D146: 200, D147: 200, D148: 250, D149: 250, D150: 250) / **21** / 1-uA/step]

2711	**[Thick4:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]
2711	**[Thick4:SizeCorrection:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		

023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **133** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **167** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **233** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **267** / 1%/step]

2712	**[Thick4:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
004	PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
007	PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
008	PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
011	PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
012	PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]

015	PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
016	PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
019	PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
020	PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]
2712	**[Thick4:SizeCorrection:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[100 to 995 / **100** / 1%/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[100 to 995 / **100** / 1%/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[100 to 995 / **181** / 1%/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[100 to 995 / **100** / 1%/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[100 to 995 / **229** / 1%/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[100 to 995 / **100** / 1%/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[100 to 995 / **286** / 1%/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[100 to 995 / **100** / 1%/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[100 to 995 / **381** / 1%/step]

2713	**[Thick4:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]
2713	**[Thick4:Size-Env.Correct:BW]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **70** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **72** / 1/step]
027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **71** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **73** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **72** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **74** / 1/step]

035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **72** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **75** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **72** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **76** / 1/step]

2714	**[Thick4:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides.		
003	PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
004	PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]
007	PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
008	PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
011	PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
012	PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
015	PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
016	PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
019	PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
020	PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]
2714	**[Thick4:Size-Env.Correct:FC]**		
	Sets paper transfer ampere paper size environment correction per thickness / mode (FC/BW) / printing sides. (When using optional wide unit.)		
023	Wide Roller:PaperTransfer:1Side:S1	*ENG	[1 to 100 / **77** / 1/step]
024	Wide Roller:PaperTransfer:2Side:S1	*ENG	[1 to 100 / **80** / 1/step]

027	Wide Roller:PaperTransfer:1Side:S2	*ENG	[1 to 100 / **78** / 1/step]
028	Wide Roller:PaperTransfer:2Side:S2	*ENG	[1 to 100 / **81** / 1/step]
031	Wide Roller:PaperTransfer:1Side:S3	*ENG	[1 to 100 / **79** / 1/step]
032	Wide Roller:PaperTransfer:2Side:S3	*ENG	[1 to 100 / **82** / 1/step]
035	Wide Roller:PaperTransfer:1Side:S4	*ENG	[1 to 100 / **79** / 1/step]
036	Wide Roller:PaperTransfer:2Side:S4	*ENG	[1 to 100 / **83** / 1/step]
039	Wide Roller:PaperTransfer:1Side:S5	*ENG	[1 to 100 / **79** / 1/step]
040	Wide Roller:PaperTransfer:2Side:S5	*ENG	[1 to 100 / **84** / 1/step]

2715	**[Thick4:LeadingEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / **100** / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / **100** / 5%/step]

2716	**[Thick4:SwitchTimingLeadEdge]**		
	Sets switch timing for paper transfer ampere leading edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2717	**[Thick4:TrailEdgeCorrection]**		
	Sets output value [%] for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 995 / 100 / 5%/step]
004	Paper Transfer:2side	*ENG	[0 to 995 / 100 / 5%/step]

2718	**[Thick4:SwitchTimingTrailEdge]**		
	Sets switch timing for paper transfer ampere trailing edge correction per thickness / printing sides.		
003	Paper Transfer:1side	*ENG	[0 to 50 / **0** / 2mm/step]
004	Paper Transfer:2side	*ENG	[0 to 50 / **0** / 2mm/step]

2901	**[OPC Drum Brake Time]**		
	Sets braking time when stopping drum (FC) motor.		
001	All	*ENG	[50 to 240000 / **50** / 10msec/step]

2902	**[OPC Drum Reverse Time]**		
001	All: BW	*ENG	[0 to 200 / **50** / 10msec/step]
	Sets reversing time when stopping drum (K) / image transfer motor.		
002	All: FC	*ENG	[0 to 200 / **50** / 10msec/step]
	Sets reversing time when stopping drum (FC) motor.		

2903	**[Image Transfer Brake Time]**		
	Sets braking time when stopping drum (K) / image transfer motor.		
003	All	*ENG	[50 to 240000 / **50** / 10msec/step]

2904	**[Image Transfer Reverse Time]**		
	No longer used due to hardware changes.		
003	All	*ENG	[0 to 200 / **40** / 10msec/step]

2905	**[Dev Rvs Time]**		
003	K	ENG	[0 to 200 / **80** / 10msec/step]
	Reversing time of when Bk drum motor reversing; Stripes occurring when toner density is high can might be solved by setting value larger.		
004	Cl	ENG	[0 to 200 / **80** / 10msec/step]
	Reversing time of when FC develop motor reversing; Stripes occurring when toner density is high can might be solved by setting value larger.		
005	ALL	ENG	[0 to 400000 / **4000** / 10mm/step]
	Interval of rotation distance till develop unit goes in to reverse; Stripes occurring when toner density is high can might be solved by setting value smaller.		
006	K	*ENG	[0 to 4294967295 / **0** / 1mm/step]
	Counter total value for reverse decision.		
007	Cl	*ENG	[0 to 4294967295 / **0** / 1mm/step]
	Counter total value for reverse decision.		

2906	**[Drum Stop Angle]**		
	Displays drum stopping degree.		
001	Color	*ENG	[0 to 359 / **0** / 1deg/step]
002	Bk	*ENG	[0 to 359 / **0** / 1deg/step]

2907	**[ACS Setting (FC to Bk)]**		
	Sets Bk image continues pages threshold for ACS.		
001	Continuous Bk Pages	*ENG	[0 to 10 / **0** / 1sheet/step]

2908	**[Motor Gain Adj.]**		
	Sets gain of drum transfer motor § 0: gain A_High gain B_High § 1: gain A_High gain B_Low § 2: gain A_Low gain B_High § 3: gain A_Low gain B_Low		
001	OPCTransferM:256mm/sec	*ENG	[0 to 3 / **0** / 1/step]
002	OPCTransferMot:186mm/sec	*ENG	[0 to 3 / **2** / 1/step]
003	OPCTransferMot:146mm/sec	*ENG	[0 to 3 / **1** / 1/step]
004	OPCTransferM:108mm/sec	*ENG	[0 to 3 / **3** / 1/step]
005	OPCTransferM:73mm/sec	*ENG	[0 to 3 / **3** / 1/step]
2908	**[Motor Gain Adj.]**		
	Sets gain of develop motor: Bk § 0: Low § 1:High		
010	BkDevM:256mm/sec	*ENG	[0 or 1 / **1** / 1/step]
011	BkDevM:186mm/sec	*ENG	[0 or 1 / **1** / 1/step]
012	BkDevM:108mm/sec	*ENG	[0 or 1 / **0** / 1/step]
013	BkDevM:73mm/sec	*ENG	[0 or 1 / **0** / 1/step]
2908	**[Motor Gain Adj.]**		
	Sets gain of drum motor: FC § 0: Low § 1:High		
016	ColorOpcM:256mm/sec	*ENG	[0 or 1 / **1** / 1/step]

017	ColorOpcM:186mm/sec	*ENG	[0 or 1 / **1** / 1/step]
018	ColorOpcM:108mm/sec	*ENG	[0 or 1 / **0** / 1/step]
019	ColorOpcM:73mm/sec	*ENG	[0 or 1 / **0** / 1/step]
2908	**[Motor Gain Adj.]**		
	Sets gain of develop motor: FC § 0: Low § 1:High		
020	ColorDevM:256mm/sec	*ENG	[0 or 1 / **1** / 1/step]
021	ColorDevM:186mm/sec	*ENG	[0 or 1 / **1** / 1/step]
022	ColorDevM:108mm/sec	*ENG	[0 or 1 / **0** / 1/step]
023	ColorDevM:73mm/sec	*ENG	[0 or 1 / **0** / 1/step]
2908	**[Motor Gain Adj.]**		
	Sets gain of fusing motor. § 0: Low § 1: High		
026	FusingM:256mm/sec	*ENG	[0 or 1 / **1** / 1/step]
027	FusingM:186mm/sec	*ENG	[0 or 1 / **1** / 1/step]
028	FusingM:146mm/sec	*ENG	[0 or 1 / **1** / 1/step]
029	FusingM:108mm/sec	*ENG	[0 or 1 / **0** / 1/step]
030	FusingM:73mm/sec	*ENG	[0 or 1 / **0** / 1/step]
2908	**[Motor Gain Adj.]**		
031	ColorOpcM:146mm/sec	*ENG	[0 or 1 / **1** / 1/step]
	Sets gain of drum motor: FC § 0: Low § 1:High		

032	ColorDevM:146mm/sec	*ENG	[0 or 1 / **1** / 1/step]
	Sets gain of develop motor: FC § 0: Low § 1:High		

2930	**[Transfer:Bias Limiter]**		
	Sets limiter voltage of image transfer output.		
001	Bias	*ENG	[0 to 7000 / **6000** / 10-V/step]

2960	**[Process Interval]**		
	Sets waiting time for till to switch to fall action after finish imaging.		
001	Additional Time	*ENG	[0 to 10 / **0** / 1sec/step]

2974	**[Trans. Contact Fgate Timing: Y]**		
	When a white horizontal stripe occurs on the first page leading edge within 10mm or so, the cause might be form having the image transfer bias ON. In that case, with add 100ms a step to this SP, problem will be solved. About from 100ms or more to 500ms will be the best.		
001	Fwait:Y std	*ENG	[0 to 3000 / **0** / 10msec/step]
002	Fwait:Y mid	*ENG	
003	Fwait:Y low	ENG	

2980	**[LubricantApplication Operation]**		
001	Lubricant Application Setting	*ENG	[0 to 300 / **100** / 10page/step]
	Decides whether to apply lubricant.		
002	Idle Time: BK	*ENG	[0 to 600 / **30** / 1sec/step]
	Operating time for applying lubricant for Bk (s)		

003	Idle Time: FC	*ENG	[0 to 600 / **30** / 1sec/step]
	Operating time for applying lubricant for FC (s)		

2990	**[Print Duty Control]**		
001	Duty Control State	*ENG	[0 or 1 / **0** / 1/step] 0: Non restricted 1: Restricted
	Displays current imaging Duty restrict status.		
002	Exec Interval: Duty Control	*ENG	[60 to 3600 / **60** / 10sec/step]
	Sets decision time interval for to decide whether to restrict imaging Duty.		
004	Forced CPM Down Thresh: No Duty Control	*ENG	[0 to 5000 / **0** / 1page/step]
	Sets force fall threshold for when imaging Duty is not restricted.		
005	Down-time_BW: No Duty Control	*ENG	[0 to 20000 / **0** / 10msec/step]
	Sets BW mode break time for when imaging Duty is not restricted.		
006	Down-time_FC: No Duty Control	*ENG	[0 to 20000 / **0** / 10msec/step]
	Sets FC mode break time for when imaging Duty is not restricted.		
007	Forced CPM Down Thresh: Duty Control	*ENG	[0 to 5000 / **20** / 1page/step]
	Sets force fall threshold for when imaging Duty is restricted.		
008	Down-time_BW: Duty Control	*ENG	[0 to 240000 / **25000** / 10msec/step]
	Sets BW mode break time for when imaging Duty is restricted.		
009	Down-time_FC: Duty Control	*ENG	[0 to 240000 / **25000** / 10msec/step]
	Sets FC mode break time for when imaging Duty is restricted.		

010	Ambient Temp Correction Coeff	*ENG	[-1.0 to 1.0 / **0.0** / 0.1/step]
	Sets coefficient for when correcting threshold of imaging Duty control with external temperature.		
011	Execution Temp. Threshold	*ENG	[20.0 to 70.0 / **D146: 42.0, D147: 42.0, D148: 39.0, D149: 39.0, D150: 39.0** / 0.1deg/step]
	Sets temperature threshold for to execute restricting imaging Duty. Does not execute when "0".		
012	Cancellation Temp. Threshold	*ENG	[0.1 to 20.0 / **0.1** / 0.1deg/step]
	Sets temperature threshold (differential value between imaging Duty restrict execution temperature) to call off imaging Duty restriction.		
013	ON/OFF Setting	*ENG	[0 or 1 / **1** / 1/step] 0: Not execute 1: Execute
	Sets whether to control imaging Duty.		
014	Duty Control_Down-time_BW	*ENG	[0 to 240000 / **0** / 10msec/step]
	Break time for BW mode of imaging Duty.		
015	Duty Control_Down-time_FC	*ENG	[0 to 240000 / **0** / 10msec/step]
	Break time for FC mode of imaging Duty.		

2.5 MAIN SP TABLES-3

2.5.1 SP3-XXX (PROCESS)

3011	**[Manual ProCon :Exe]**		
001	Normal ProCon	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Executes Pro-Con.		
002	Density Adjustment	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Executes toner density adjusting Pro-Con.		
003	ACC RunTime ProCon	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Executes pre-ACC Pro-Con.		
004	Full MUSIC	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Executes Pro-Con / full MUSIC.		
005	Normal MUSIC	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Executes Pro-Con / normal MUSIC.		

3012	**[ProCon OK?]**		
	2 digits per color from left, in the order of YMCK *Refer to below for execution result content.		
001	History:Last(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays latest Pro-Con execution result.		
002	History:Last 2(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for the time before last.		

003	History:Last 3(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 3 times before.		
004	History:Last 4(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 4 times before.		
005	History:Last 5(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 5 times before.		
006	History:Last 6(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 6 times before.		
007	History:Last 7(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 7 times before.		
008	History:Last 8(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 8 times before.		
009	History:Last 9(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 9 times before.		
010	History:Last 10(Front)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 10 times before.		
011	History:Last(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays latest Pro-Con execution result.		
012	History:Last 2(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 2 times before.		
013	History:Last 3(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 3 times before.		
014	History:Last 4(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 4 times before.		
015	History:Last 5(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 5 times before.		

016	History:Last 6(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 6 times before.		
017	History:Last 7(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 7 times before.		
018	History:Last 8(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 8 times before.		
019	History:Last 9(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 9 times before.		
020	History:Last 10(Center)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 10 times before.		
021	History:Last(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays latest Pro-Con execution result.		
022	History:Last 2(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for the time before last.		
023	History:Last 3(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 3 times before.		
024	History:Last 4(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 4 times before.		
025	History:Last 5(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 5 times before.		
026	History:Last 6(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 6 times before.		
027	History:Last 7(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 7 times before.		
028	History:Last 8(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 8 times before.		

029	History:Last 9(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 9 times before.		
030	History:Last 10(Rear)	*ENG	[0 to 99999999 / **0** / 1/step]
	Displays Pro-Con execution result for 10 times before.		

***SP3-012 Display result detail**

Category	Code	Result name	Description
00 and lager	00	Not executed	Factory default setting(SP default)
10 and lager Result(Normal)	11	Succeed	-
20 and lager ID Sensor	21	ID Sensor Vsg adjust error	Out of range from Vsg=4.0±x.x[V/step]
	22	ID Sensor LED Adjust error	Ifsg>Max
	23	ID Sensor Output error(Positive reflect)	Vsg_reg<Min(Max)
	24	ID Sensor output error(Diffusion reflect)	Vsg_dif<Min(Max)
	25	ID Sensor offset Voltage error(Positive reflect)	Voffset_reg>Max
	26	ID Sensor offset Voltage error(Diffusion reflect)	Voffset_dif>Max
45 and lager ID Pattern detect	45	ID Pattern extract error	Can not detect ID Pattern
	50	Vmin_Bk/K2 error(Max)	K:Vmin_Bk / CMY:K2>Max
	51	Vmin_Bk/K2 error(Min)	K:Vmin_Bk / CMY:K2<Min
	52	K5 error(Max)	K5>Max
	53	K5 error(Min)	K5<Min
	54	K5 calculated approximate point error	K5 calculated approximate point <Min

	55	Develop gamma error(Max)	Develop gamma >Max
	56	Develop gamma error(Min)	Develop gamma <Min
	57	Start developing voltage:Vk error(Max)	Start developing voltage:Vk>Max
	58	Start developing voltage:Vk error(Min)	Start developing voltage:Vk<Min
	59	Not enough valid data	Adhesion amount data for develop gamma calculation point is under 2
60 and lager Potential adjust	61	LD won't light	P patter is not written.
	62	Residual potential:Vr error	Vr>Max
	63	Electrified potential:Vd adjust error	Vd can not be adjusted in target range.
	64	Exposure potential:Vpl adjust error	Vpl can not be adjusted in target range
90 and lager Result(End)	90	Potential not adjust	Potential control method is set as [0:FIX]
	99	Kill	Kill by door open, power off, error. (Set when execute.)

Note

- Execute result sample (In order of YMCK from left)
- Factory default(SP default):[00,00,00,00]
- Starting adjust:[99,99,99,99]
- Fail Vsg adjust(Y):[21,99,99,99]
- Error of Develop gamma Max(C):[99,99,55,99]
- Succeed:[11,11,11,11]

3014	**[IBACC OK?]**		
	Displays latest IBACC execution result.		
001	History:Last	*ENG	[0 to 9999 / **0** / 1/step]
002	History:Last 2	*ENG	
003	History:Last 3	*ENG	
004	History:Last 4	*ENG	
005	History:Last 5	*ENG	
006	History:Last 6	*ENG	
007	History:Last 7	*ENG	
008	History:Last 8	*ENG	
009	History:Last 9	*ENG	
010	History:Last 10	*ENG	

3030	**[Init TD Sensor :Exe]**		
001	Execute: ALL	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting for all colors.		
002	Execute: Col	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting only for chromatic 3 colors.		
003	Execute: K	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting for only (K).		
004	Execute: C	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting for only (C).		

005	Execute: M	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting for only (M).		
006	Execute: Y	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Executes TD sensor initial setting for only (Y).		
020	Agitatiton Time	*ENG	[0 to 200 / **30** / 1sec/step]
	Sets developing powder stirring time for when TD sensor's setting is in initial.		
021	Initial TC	*ENG	[1.0 to 15.0 / **7.0** / 0.1wt%/step]
	Sets toner density for initial chemical.		
031	Vt Target:K	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Sets Vt target value (K) for when TD sensor's setting is in initial.		
032	Vt Target:C	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Sets Vt target value (C) for when TD sensor's setting is in initial.		
033	Vt Target:M	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Sets Vt target value (M) for when TD sensor's setting is in initial.		
034	Vt Target:Y	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Sets Vt target value (M) for when TD sensor's setting is in initial.		
041	Vt Target Corr:K	*ENG	[0.00 to 2.55 / **0.00** / 0.01V/step]
	Sets metachronic correcting amount (K) for when TD sensor's setting is in initial.		
042	Vt Target Corr:C	*ENG	[0.00 to 2.55 / **0.00** / 0.01V/step]
	Sets metachronic correcting amount (C) for when TD sensor's setting is in initial.		
043	Vt Target Corr:M	*ENG	[0.00 to 2.55 / **0.00** / 0.01V/step]
	Sets metachronic correcting amount (M) for when TD sensor's setting is in initial.		

044	Vt Target Corr:Y	*ENG	[0.00 to 2.55 / **0.00** / 0.01V/step]
	Sets metachronic correcting amount (Y) for when TD sensor's setting is in initial.		

3031	**[TD Sens Init OK?]**		
001	From Left:YMCK	ENG	[0 to 9999 / **0** / 1/step]
	Displays execution result of TD sensor initial setting.		

3050	**[Force Tnr Supply :Exe]**		
001	Execute: ALL	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (all colors)		
002	Execute: Col	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (only CMY)		
003	Execute: K	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (only K)		
004	Execute: C	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (only C)		
005	Execute: M	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (only M)		
006	Execute: Y	ENG	[0 or 1 / **0** / 1/step] [Execute]
	Forcedly supply toner (only Y)		
3050	**[Force Tnr Supply :Exe]**		
021	Supply Quantity:K	*ENG	[0.0 to 5.0 / **0.5** / 0.1wt%/step]

	Sets the amount [wt%/step] to supply toner (K) with Force toner supply.		
022	Supply Quantity:C	*ENG	[0.0 to 5.0 / **0.5** / 0.1wt%/step]
	Sets the amount [wt%/step] to supply toner (C) with Force toner supply.		
023	Supply Quantity:M	*ENG	[0.0 to 5.0 / **0.5** / 0.1wt%/step]
	Sets the amount [wt%/step] to supply toner (M) with Force toner supply.		
024	Supply Quantity:Y	*ENG	[0.0 to 5.0 / **0.5** / 0.1wt%/step]
	Sets the amount [wt%/step] to supply toner (Y) with Force toner supply.		
031	ON Time	*ENG	[10 to 1000 / **200** / 1msec/step]
	Sets supply ON time for 1time of force toner supplying process routine.		
032	OFF Time	*ENG	[0 to 1000 / **100** / 1msec/step]
	Sets supply OFF time for 1time of force toner supplying process routine.		
033	RepeatCount	*ENG	[0 to 255 / **8** / 1times/step]
	Sets repeating times for 1time of force toner supplying process routine.		

3072	**[T Sensor: Check]**		
	Executes testing mode to test TD sensor's output (Vt) without stating up the engine.		
001	Execute Check	ENG	[0 or 1 / **0** / 1/step] [Execute]

3073	**[T Sensor Measurement Value:]**		
	Displays output test value of TD sensor.		
001	Vt:K	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
002	Vt:C	*ENG	
003	Vt:M	*ENG	
004	Vt:Y	*ENG	

3100	**[Tonner End Detection: Set]**		
001	ON/OFF	*ENG	[0 or 1 / **0** / 1/step]
	Whether to decide NE/TE. 0: Enable 1: Disable		
002	NE Detection	*ENG	[0 or 1 / **0** / 1/step]
	NE decision method. 0: Counter & Toner End Sensor 1: Toner End Sensor Only		

3101	**[Toner Status :Disp]**		
	Displays remaining toner.		
001	K	ENG	[0 to 10 / **10** / 1/step] 10: Full 1: Near end 0: Toner end
002	C	ENG	
003	M	ENG	
004	Y	ENG	

3102	**[Toner Remain:Disp]**		
	Remaining toner calculated form motor running time.		
001	Bottle Motor: Bk	*ENG	[0.000 to 700.000 / **560.000** / 0.001g]
002	Bottle Motor: C	*ENG	[0.000 to 700.000 / **440.000** / 0.001g]
003	Bottle Motor: M	*ENG	
004	Bottle Motor: Y	*ENG	
3102	**[Toner Remain:Disp]**		
	Remaining toner calculated from imaging size.		
011	Pixel: Bk	*ENG	[0.000 to 700.000 / **560.000** / 0.001g]

012	Pixel: C	*ENG	[0.000 to 700.000 / **440.000** / 0.001g]
013	Pixel: M	*ENG	
014	Pixel: Y	*ENG	
3102	**[Toner Remaining: Display]**		
	Filler content of new bottle.		
021	Fill Amount: Bk	*ENG	[0 to 600 / **560** / 1g/step]
022	Fill Amount: C	*ENG	[0 to 600 / **440** / 1g/step]
023	Fill Amount: M	*ENG	
024	Fill Amount: Y	*ENG	
3102	**[Toner Remain:Disp]**		
	Consumption amount of toner.		
031	Pixel: Toner Consumption x 2: C	*ENG	[0.000 to 1000.000 / **0.000** / 0.001g]
032	Pixel: Toner Consumption x 2: Bk	*ENG	
033	Pixel: Toner Consumption x 2: M	*ENG	
034	Pixel: Toner Consumption x 2: Y	*ENG	
041	Drive Motor: Toner Consumption x 1: Bk	*ENG	
042	Drive Motor: Toner Consumption x 1: C	*ENG	
043	Drive Motor: Toner Consumption x 1: M	*ENG	
044	Drive Motor: Toner Consumption x 1: Y	*ENG	

3103	**[Bottle Off Time]**

	-		
001	Bk	*ENG	[0 to 4294967295 / 0 / 1/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3104	**[Flag: Display]**		
	Sets flag when replacing toner bottle.		
001	NE Toner: Bk	*ENG	[0 or 1 / **0** / 1/step]
002	NE Toner: C	*ENG	
003	NE Toner: M	*ENG	
004	NE Toner: Y	*ENG	
3104	**[Flag: Display]**		
	Sets Flag when Vt ends.		
011	Vt end:Bk	*ENG	[0 or 1 / **0** / 1/step]
012	Vt end:C	*ENG	
013	Vt end:M	*ENG	
014	Vt end:Y	*ENG	

3110	**[Near End Thresh]**		
	-		
001	Bk	*ENG	[0 to 500 / **65** / 1g/step]
002	C	*ENG	[0 to 500 / **45** / 1g/step]
003	M	*ENG	
004	Y	*ENG	

3111	**[Pixel NE: M/A]**		
	-		
001	Bk	*ENG	[0 to 1000 / **411** / 0.001mg/cm2/step]
002	C	*ENG	[0 to 1000 / **444** / 0.001mg/cm2/step]
003	M	*ENG	[0 to 1000 / **500** / 0.001mg/cm2/step]
004	Y	*ENG	[0 to 1000 / **444** / 0.001mg/cm2/step]

3120	**[TE Sn Detect Thresh]**		
	-		
001	Bk	*ENG	[0 to 100 / **50** / 1%/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3121	**[TE Counter: Disp]**		
	No toner decision times from end sensor.		
001	Bk	*ENG	[0 to 99 / **0** / 1times/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3122	**[TE Sn NE Thresh]**		
	-		
001	Bk	*ENG	[0 to 99 / **80** / 1times/step]

002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3131	**[Vt TE Thresh]**		
001	Delta Vt Thresh	*ENG	[0.00 to 5.00 / **0.50** / 0.01V/step]
	Threshold to start adding delta Vt after NE.		
002	Delta Vt Sum Thresh	*ENG	[0 to 99 / **10** / 1V/step]
	Threshold to decide TE after NE.		
011	Delta Vt Thresh BF NE	*ENG	[0.00 to 5.00 / **0.50** / 0.01V/step]
	Threshold to start adding delta Vt before NE.		
012	Delta Vt Sum Thresh BF NE	*ENG	[0 to 99 / **10** / 1V/step]
	Threshold to decide TE before NE.		

3132	**[Delta Vt Sum]**		
	Added value of delta Vt.		
001	Bk	*ENG	[0.00 to 99.00 / **0.00** / 0.01V/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3133	**[TE Detect :Set]**		
001	Set Sheets(Min)	*ENG	[0 to 50 / **10** / 1sheet/step]
	Sets min. assured sheets to display toner end after toner near end is fixed.		
002	Set Sheets(Max)	*ENG	[0 to 5000 / **1000** / 1sheet/step]
	Sets max. assured sheets to display toner end after toner near end is fixed.		

3133	**[TE Detect :Set]**		
	Displays the amount of sheets printed after toner near end is fixed.		
011	Page Cnt:K	*ENG	[0 to 5000 / **0** / 1sheet/step]
012	Page Cnt:C	*ENG	
013	Page Cnt:M	*ENG	
014	Page Cnt:Y	*ENG	
3133	**[TE Detect :Set]**		
	Sets dimension (cm2) in terms of blotted out A4 sized sheet to decide as toner end after near toner end is fixed.		
021	Set Pxl Cnt	*ENG	[0 to 1000000 / **7000** / 1cm2/step]
3133	**[TE Detect :Set]**		
	Displays the amount used with dimension (cm2) in terms of blotted out.		
031	Pxl Cnt:K	*ENG	[0 to 1000000 / **0** / 1cm2/step]
032	Pxl Cnt:C	*ENG	
033	Pxl Cnt:M	*ENG	
034	Pxl Cnt:Y	*ENG	

3150	**[TE Sensor :Set]**		
001	SamplingCount	*ENG	[4 to 20 / **10** / 1counts/step]
	Sets arrangement size of TE sensor.		
002	Judge:p	*ENG	[0.2 to 1.0 / **0.8** / 0.1/step]
	Sets threshold for to decide toner existing..		
3150	**[T TE Sensor :Set]**		
	Percentage for "No remaining toner" of storing arrangement.		
003	result:K	*ENG	[0.0 to 0.1 / **0.5** / 0.1/step]
004	result:C	*ENG	

005	result:M	*ENG	
006	result:Y	*ENG	

3160	**[Bottle Drive :Set]**		
	Select bottle driving method.		
001	Bottle Drive System	*ENG	[0 or 1 / **0** / 1/step] 0: TE Sensor Control 1: TonerSupplyMotor Track Control

3161	**[Bottle Drive :Set]**		
	-		
001	Drive ON Time:K		[0 to 2000 / **900** / 100msec/step]
002	Drive ON Time:C		
003	Drive ON Time:M		
004	Drive ON Time:Y		

3162	**[Bottle Drive :Set]**		
	-		
001	Drive OFF Time:K		[0 to 5000 / **100** / 100msec/step]
002	Drive OFF Time:C		
003	Drive OFF Time:M		
004	Drive OFF Time:Y		

3165	**[Hopper Drive :Set]**		
	-		
001	Speed Adjustment:K		[-58 to 50 / **18** / 1%/step]
002	Speed Adjustment:C		

003	Speed Adjustment:M		[-58 to 50 / **40** / 1%/step]
004	Speed Adjustment:Y		[-58 to 50 / **18** / 1%/step]

3200	**[TnrDensity]**		
	Displays toner density (wt%).		
001	K	*ENG	[0 to 25.5 / **0** / 0.1 wt%/step]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3201	**[TnrDensity]**		
	Sets min./max. density (wt%) for toner density controlling range.		
001	Upper TC	*ENG	[1.0 to 15.0 / **9.0** / 0.1wt%/step]
002	Lower TC	*ENG	[1.0 to 15.0 / **2.0** / 0.1wt%/step]

3205	**[TD.Sens Sensitivity]**		
	Displays TD sensor sensitivity HL calculated from test value of HST density control (SP3-711 to 714-***)		
001	HL:K	*ENG	[0.200 to 1.000 / **0.350** / 0.001-V/wt%/step]
002	HL:C	*ENG	
003	HL:M	*ENG	
004	HL:Y	*ENG	
3205	**[TD.Sens Sensitivity]**		
	Displays TD sensor sensitivity HM calculated from test value of HST density control (SP3-711 to 714-***)		
011	HM:K	*ENG	[0.200 to 1.000 / **0.350** / 0.001-V/wt%/step]
012	HM:C	*ENG	

013	HM:M	*ENG	
014	HM:Y	*ENG	
3205	**[TD.Sens Sensitivity]**		
	Displays TD sensor sensitivity ML calculated from test value of HST density control (SP3-711 to 714-***)		
021	ML:K	*ENG	[0.200 to 1.000 / **0.350** / 0.001-V/wt%/step]
022	ML:C	*ENG	
023	ML:M	*ENG	
024	ML:Y	*ENG	
3205	**[TD.Sens Sensitivity]**		
031	Upper Limit	*ENG	[0.200 to 0.500 / **0.440** / 0.001-V/wt%/step]
	Sets max. sensitivity for to calculate TD sensor sensitivity.		
032	Lower Limit	*ENG	[0.150 to 0.500 / **0.180** / 0.001-V/wt%/step]
	Sets min. sensitivity for to calculate TD sensor sensitivity.		
033	TC Between H-M:K	*ENG	[1.00 to 10.00 / **4.50** / 0.01wt%
	Sets HM interval as TC of K for to calculate TD sensor sensitivity.		
034	TC Between M-L:K	*ENG	[1.00 to 10.00 / **4.40** / 0.01wt%
	Sets ML interval as TC of K for to calculate TD sensor sensitivity.		
043	TC Between H-M:Col	*ENG	[1.00 to 10.00 / **4.20** / 0.01wt%
	Sets HM interval as TC of CMY for to calculate TD sensor sensitivity.		
044	TC Between H-M:Col	*ENG	[1.00 to 10.00 / **4.40** / 0.01wt%
	Sets ML interval as TC of CMY for to calculate TD sensor sensitivity.		

3210	**[TD.Sens:Vt :Disp]**
	Displays latest T sensor output.

001	Current: K	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
002	Current: C	*ENG	
003	Current: M	*ENG	
004	Current: Y	*ENG	

3211	**[Vt Limits Err :Disp]**		
002	Upper Threshold	*ENG	[0.00 to 5.00 / **4.70** / 0.01V/step]
	Sets Vt upper limit threshold to decide as Vt upper limit error.		
003	Thresh Num of UpperCounter	*ENG	[0 to 255 / **20** / 1times/step]
	Sets the number of times excessing Vt upper limit to set off SC360 to 363 (Vt upper limit error).		
004	Lower Threshold	*ENG	[0.00 to 5.00 / **0.50** / 0.01V/step]
	Sets Vt upper limit threshold to decide as Vt lower limit error.		
005	Threshold Num of LowerCounter	*ENG	[0 to 255 / **10** / 1times/step]
	Sets the number of times excessing Vt lower limit to set off SC365 to 363 (Vt upper limit error).		
3211	**[Vt Limits Err :Disp]**		
	Counts times of Vt(K/C/M/Y) excessing Vt upper limit threshol		
011	Upper Counter: Bk	*ENG	[0 to 255 / **0** / 1times/step]
012	Upper Counter: C	*ENG	
013	Upper Counter: M	*ENG	
014	Upper Counter: Y	*ENG	
3211	**[Vt Limits Err :Disp]**		
	Counts times of Vt(K/C/M/Y) excessing Vt lower limit threshold.		
021	Lower Counter: Bk	*ENG	[0 to 255 / **0** / 1times/step]
022	Lower Counter: C	*ENG	

023	Lower Counter: M	*ENG	
024	Lower Counter: Y	*ENG	

3212	**[Vt Shift :Set]**		
	Sets middle speed correction amount for correcting Vt shift caused by line speed.		
001	Mid Spd:K	*ENG	[0.00 to 2.55 / **D146, D147: 8 D148: 0 D149, D150: 3** / 0.01V/step]
002	Mid Spd:C	*ENG	[0.00 to 2.55 / **0.07** / 0.01V/step]
003	Mid Spd:M	*ENG	
004	Mid Spd:Y	*ENG	
3212	**[Vt Shift :Set]**		
	Sets low speed correction amount for correcting Vt shift caused by line speed.		
011	Low Spd:K	*ENG	[0.00 to 2.55 / **0.14** / 0.01V/step]
012	Low Spd:C	*ENG	
013	Low Spd:M	*ENG	
014	Low Spd:Y	*ENG	
3212	**[Vt Shift :Set]**		
	Sets ON/OFF TC correction amount of Vt shift.		
101	ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1:ON
3212	**[Vt Shift :Set]**		
	Displays TC correction amount of Vt shift.		
111	TC Mid Spd:K	*ENG	[-0.50 to 0.50 / **0.00** / 0.01V/step]
112	TC Mid Spd:C	*ENG	
113	TC Mid Spd:M	*ENG	

114	TC Mid Spd:Y	*ENG	
121	TC Low Spd:K	*ENG	
122	TC Low Spd:C	*ENG	
123	TC Low Spd:M	*ENG	
124	TC Low Spd:Y	*ENG	

3214	**[Vt Save :Set]**		
	Saves Vt based to image area ratio.		
001	Coverage Thresh	*ENG	[0 to 100 / **20** / 1%/step]

3218	**[Vt Err Flag :Disp]**		
001	UppErr Flag: K	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(K) excesses Vt upper limit error threshold (SP3-221-002) even 1 time.		
002	UppErr Flag: C	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(C) excesses Vt upper limit error threshold (SP3-221-002) even 1 time.		
003	UppErr Flag: M	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(M) excesses Vt upper limit error threshold (SP3-221-002) even 1 time.		
004	UppErr Flag: Y	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(Y) excesses Vt upper limit error threshold (SP3-221-002) even 1 time.		
011	LowErr Flag: K	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(K) excesses Vt lower limit error threshold (SP3-221-004) even 1 time.		
012	LowErr Flag: C	*ENG	[0 or 1 / **0** / 1/step]

	Sets flag "1" when Vt(C) excesses Vt lower limit error threshold (SP3-221-004) even 1 time.		
013	LowErr Flag: M	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(M) excesses Vt lower limit error threshold (SP3-221-004) even 1 time.		
014	LowErr Flag: Y	*ENG	[0 or 1 / **0** / 1/step]
	Sets flag "1" when Vt(Y) excesses Vt lower limit error threshold (SP3-221-004) even 1 time.		

3219	**[TD.Sens:Vt':Disp]**		
	Displays Vt before Vt shift correction.		
001	Vt'0Current: K	ENG	[0.00 to 5.00 / **0.00** / 0.01V/step]
002	Vt'0Current: C	ENG	
003	Vt'0Current: M	ENG	
004	Vt'0Current: Y	ENG	
011	Vt'1Current: K	ENG	
012	Vt'1Current: C	ENG	
013	Vt'1Current: M	ENG	
014	Vt'1Current: Y	ENG	
021	Vt'2Current: K	ENG	
022	Vt'2Current: C	ENG	
023	Vt'2Current: M	ENG	
024	Vt'2Current: Y	ENG	

3220	**[Vtcnt :Disp/Set]**		
001	Current: K	*ENG	[2.00 to 5.00 / **3.60** / 0.01V/step]
	Displays/Sets Current TD Sensor Control Voltage (K).		

002	Current: C	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays/Sets Current TD Sensor Control Voltage (C).		
003	Current: M	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays/Sets Current TD Sensor Control Voltage (M).		
004	Current: Y	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays/Sets Current TD Sensor Control Voltage (Y).		
011	Initial: K	*ENG	[2.00 to 5.00 / **3.60** / 0.01V/step]
	Displays control voltage of TD sensor when default setting TD sensor.		
012	Initial: C	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays control voltage of TD sensor when default setting TD sensor.		
013	Initial: M	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays control voltage of TD sensor when default setting TD sensor.		
014	Initial: Y	*ENG	[2.00 to 5.00 / **3.75** / 0.01V/step]
	Displays control voltage of TD sensor when default setting TD sensor.		

3230	**[Vtref :Disp/Set]**		
001	Current: K	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays / Sets current target value of TD sensor's output voltage: Vtref (K).		
002	Current: C	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays / Sets current target value of TD sensor's output voltage: Vtref (C).		
003	Current: M	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays / Sets current target value of TD sensor's output voltage: Vtref (M).		
004	Current: Y	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays / Sets current target value of TD sensor's output voltage: Vtref (Y).		
011	Initial: K	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]

	Displays target value of TD sensor's (K) output voltage when executing TD sensor initial setting.		
012	Initial: C	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays target value of TD sensor's (C) output voltage when executing TD sensor initial setting.		
013	Initial: M	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays target value of TD sensor's (M) output voltage when executing TD sensor initial setting.		
014	Initial: Y	*ENG	[0.00 to 5.00 / **2.50** / 0.01V/step]
	Displays target value of TD sensor's (Y) output voltage when executing TD sensor initial setting.		
3230	**[Vtref :Disp/Set]**		
	Displays pixel correction amount of Vtref correction by image area.		
021	Pixel Correction: K	*ENG	[-5.00 to 5.50 / **0.00** / 0.01V/step]
022	Pixel Correction: C	*ENG	
023	Pixel Correction: M	*ENG	
024	Pixel Correction: Y	*ENG	

3231	**[Vtref Limits :Set]**		
001	Upper:K	*ENG	[0.00 to 5.00 / **4.00** / 0.01V/step]
	Sets upper limit for target value of TD sensor's output voltage: Vtref (K).		
002	Upper:C	*ENG	[0.00 to 5.00 / **4.00** / 0.01V/step]
	Sets upper limit for target value of TD sensor's output voltage: Vtref (C).		
003	Upper:M	*ENG	[0.00 to 5.00 / **4.00** / 0.01V/step]
	Sets upper limit for target value of TD sensor's output voltage: Vtref (M).		
004	Upper:Y	*ENG	[0.00 to 5.00 / **4.00** / 0.01V/step]
	Sets upper limit for target value of TD sensor's output voltage: Vtref (Y).		

011	Lower:K	*ENG	[0.00 to 5.00 / **2.00** / 0.01V/step]
	Sets lower limit for target value of TD sensor's output voltage: Vtref (K).		
012	Lower:C	*ENG	[0.00 to 5.00 / **2.00** / 0.01V/step]
	Sets lower limit for target value of TD sensor's output voltage: Vtref (C).		
013	Lower:M	*ENG	[0.00 to 5.00 / **2.00** / 0.01V/step]
	Sets lower limit for target value of TD sensor's output voltage: Vtref (M).		
014	Lower:Y	*ENG	[0.00 to 5.00 / **2.00** / 0.01V/step]
	Sets lower limit for target value of TD sensor's output voltage: Vtref (Y).		

3232	**[Vtref Correct:Pixel]**		
001	ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Switches ON/OFF pixel Vtref correction.		
3232	**[Vtref Correct:Pixel]**		
	Sets coefficient to decide Vtref correction value of Vtref correction by image area. Vtref correction value: SP3-222-009 to 012 = calculated Vtref correction value small area coefficient (This SP) How to use this SP: Vtref correction by image area.		
011	Low Coverage Coef:K	*ENG	[0.0 to 5.0 / **1.0** / 0.1/step]
012	Low Coverage Coef:C	*ENG	
013	Low Coverage Coef:M	*ENG	
014	Low Coverage Coef:Y	*ENG	
3232	**[Vtref Correct:Pixel]**		

	Sets coefficient to decide Vtref correction value of Vtref correction by image area. Vtref correction value: SP3-222-009 to 012 = calculated Vtref correction value large area coefficient (This SP) How to use this SP: Vtref correction by image area.		
021	High Coverage Coeff:K	*ENG	[0.0 to 5.0 / **0.5** / 0.1/step]
022	High Coverage Coeff:C	*ENG	
023	High Coverage Coeff:M	*ENG	
024	High Coverage Coeff:Y	*ENG	
3232	**[Vtref Correct:Pixel]**		
040	Initial ProCon Thresh	*ENG	[0 to 255 / **100** / 1times/step]
	Executes Pro-Con by setting a Pro-Con flag when image area cumulative average M (SP3-224-009 to 012) is larger than the specified value and then so deciding that large area images are continuing. When large area images are continuing, specified		
041	High Coverage Thresh:H	*ENG	[0 to 100 / **100** / 1%/step]
	How to use this SP: Refer to this SP when printing large area images. When image area accumulate average M (SP3-224-009 to 012) is larger than this SP, judges that high area images are continuing, then set Pro-Con flag and,		
050	ProCon Thresh	*ENG	[0 to 255 / **100** / 1times/step]
	Executes Pro-Con by setting a Pro-Con flag when image area total average M (SP3-224-009 to 012) is larger than the specified value and then so deciding that large area images are continuing. When large area images are continuing, specified		
060	Low Coverage Thresh	*ENG	[0.0 to 20.0 / **3.0** / 0.1%/step]
	How to use this SP: Refer to this SP when printing small area images. When image area accumulate average L (SP3-224-013 to 016) is less than this SP, judges that low high area images are continuing, then temporarily dis		
3232	**[Vtref Correct:Pixel]**		

	Switches to a mode able to call off Vtref lower limit (Upper limit of TC) by deciding small area images are continuing when image area cumulative average L (SP3-224-013 to 016) is small. This SP		
070	TC Upper Limit Correction	*ENG	[0.0 to 5.0 / **0.5** / 0.1wt%/step]
071	TC Upper Limit:Display:Bk	*ENG	[1.0 to 15.0 / **8.5** / 0.1wt%/step]
072	TC Upper Limit:Display:C	*ENG	
073	TC Upper Limit:Display:M	*ENG	
074	TC Upper Limit:Display:Y	*ENG	

3233	**[RTP Vtref Corr :Disp/Set]**		
001	ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Controls ON/OFF the Vtref correction done based on RTP pattern deposit amount during print.		
3233	**[RTP Vtref Corr :Disp/Set]**		
	Sets Vtref correction value (K/C/M/Y) when RTP pattern deposit amount goes over deposit amount threshold (upper/lower limit).		
011	Corr Amt(+):K	*ENG	[0.00 to 1.00 / **0.03** / 0.01V/step]
012	Corr Amt(+):C	*ENG	
013	Corr Amt(+):M	*ENG	
014	Corr Amt(+):Y	*ENG	
021	Corr Amt(-):K	*ENG	
022	Corr Amt(-):C	*ENG	
023	Corr Amt(-):M	*ENG	
024	Corr Amt(-):Y	*ENG	
3233	**[RTP Vtref Corr :Disp/Set]**		

	Sets upper/lower limit threshold (K/C/M/Y) of RTP deposit amount.		
031	Corr Thresh:K	*ENG	[0.000 to 0.100 / **0.005** / 0.001mg/cm2/step]
032	Corr Thresh:C	*ENG	[0.000 to 0.100 / **0.010** / 0.001mg/cm2/step]
033	Corr Thresh:M	*ENG	
034	Corr Thresh:Y	*ENG	
3233	**[RTP Vtref Corr :Disp/Set]**		
041	Vtavg Weight Coeff (H)	*ENG	[0 to 100 / **30** / 1%/step]
	Sets the weight of Vtavg and Vtref used for Vtref Correction Standard Value when Paper Interval Adhesion Amount exceeds Adhesion Amount Threshold (Upper Limit).		
051	Vtavg Weight Coeff (M)	*ENG	[0 to 100 / **0** / 1%/step]
	Sets the weight of Vtavg and Vtref used for Vtref Correction Standard Value when Paper Interval Adhesion Amount exceeds Adhesion Amount Threshold (Lower Limit).		
061	Vtavg Weight Coeff (L)	*ENG	[0 to 100 / **5** / 1%/step]
	Sets the weight of Vtavg and Vtref used for Vtref Correction Standard Value when Paper Interval Adhesion Amount exceeds Adhesion Amount Threshold (Lower Limit).		

3234	**[Vtref Corr :Disp/Set]**		
001	ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Controls ON/OFF Vtref correction of electric potential control.		
3234	**[Vtref Corr :Disp/Set]**		
	Set when controlling to keep toner density low with electric potential based on develop gamma. Means Vtref correction (+) side correction amount.		
011	Corr Amt(+):K	*ENG	[0.00 to 1.00 / **0.00** / 0.01V/step]

012	Corr Amt(+):C	*ENG	
013	Corr Amt(+):M	*ENG	
014	Corr Amt(+):Y	*ENG	
3234	**[Vtref Corr :Disp/Set]**		
	Set when controlling to keep toner density low with electric potential based on develop gamma. Means Vtref correction (-) side correction amount.		
021	Corr Amt(-):K	*ENG	[0.00 to 1.00 / **0.00** / 0.01V/step]
022	Corr Amt(-):C	*ENG	
023	Corr Amt(-):M	*ENG	
024	Corr Amt(-):Y	*ENG	
3234	**[Vtref Corr :Disp/Set]**		
031	P Rank 1 Threshold	*ENG	[0.00 to 2.00 / **0.15** / 0.01/step]
	Meaning the threshold for P_Rank decision formula below, to decide develop gamma is "High" or "Little High" then the develop gamma target value and develop gamma detection value's diff (delta gamma) among the Vtref correct execution conditions. (Unit:		
032	P Rank 2 Threshold	*ENG	[0.00 to 2.00 / **0.05** / 0.01/step]
	Meaning the threshold for P_Rank decision formula below, to decide develop gamma is "Little High" or "Fair" then the develop gamma target value and develop gamma detection value's diff (delta gamma) among the Vtref correct execution conditions. (Unit:		
033	P Rank 3 Threshold	*ENG	[-2.00 to 0.00 / **-0.05** / 0.01/step]
	Meaning the threshold for P_Rank decision formula below, to decide develop gamma is "Little Low" or "Fair" then the develop gamma target value and develop gamma detection value's diff (delta gamma) among the Vtref correct execution conditions. (Unit:		
034	P Rank 4 Threshold	*ENG	[-2.00 to 0.00 / **-0.15** / 0.01/step]

	Meaning the threshold for P_Rank decision formula below, to decide develop gamma is "Low" or "Little Low" then the develop gamma target value and develop gamma detection value's diff (delta gamma) among the Vtref correct execution conditions. (Unit:		
041	T Rank 1 Threshold	*ENG	[-1.00 to 0.00 / **-0.20** / 0.01V/step]
	Threshold to decide toner density as "Deep" or "Fair" by Vt and Vtref's diff (delta Vt) among the Vtref correct execution conditions.		
042	T Rank 2 Threshold	*ENG	[0.00 to 1.00 / **0.20** / 0.01V/step]
	Threshold to decide toner density as "Thin" or "Fair" by Vt and Vtref's diff (delta Vt) among the Vtref correct execution conditions.		
050	Correction Coefficient	*ENG	[1.0 to 5.0 / **2.0** / 0.1/step]
	Sets correction coefficient for Vtref correction amount.		

3250	**[ImgArea :Disp]**		
	Displays image area for the latest page.		
001	ImgArea:K	*ENG	[0 to 9999 / **0** / 1cm2/step]
002	ImgArea:C	*ENG	
003	ImgArea:M	*ENG	
004	ImgArea:Y	*ENG	

3251	**[DotCoverage :Disp]**		
001	DotCoverage:K	*ENG	[0.00 to 100.00 / **0.00** / 0.01%/step]
	Displays image area rate (K) for the latest page.		
002	DotCoverage:C	*ENG	[0.00 to 100.00 / **0.00** / 0.01%/step]
	Displays image area rate (C) for the latest page.		
003	DotCoverage:M	*ENG	[0.00 to 100.00 / **0.00** / 0.01%/step]
	Displays image area rate (M) for the latest page.		

004	DotCoverage:Y	*ENG	[0.00 to 100.00 / **0.00** / 0.01%/step]
	Displays image area rate (Y) for the latest page.		
011	DC Avg.:S:K	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: S (K)		
012	DC Avg.:S:C	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: S (C)		
013	DC Avg.:S:M	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: S (M)		
014	DC Avg.:S:Y	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: S (Y)		
021	DC Avg.:M:K	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: M (K)		
022	DC Avg.:M:C	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: M (C)		
023	DC Avg.:M:M	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: M (M)		
024	DC Avg.:M:Y	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: M (Y)		
031	DC Avg.:L:K	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: L (K)		
032	DC Avg.:L:C	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: L (C)		
033	DC Avg.:L:M	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]
	Displays image area rate cumulative average: L (M)		
034	DC Avg.:L:Y	*ENG	[0.00 to 100.00 / **5.00** / 0.01%/step]

	Displays image area rate cumulative average: L (Y)		
041	TotalPage:S:Set	*ENG	[1 to 255 / **10** / 1sheet/step]
	Sets cumulative sheets: S		
042	TotalPage:M:Set	*ENG	[1 to 500 / **10** / 1sheet/step]
	Sets cumulative sheets: M		
043	TotalPage:L:Set	*ENG	[1 to 999 / **50** / 1sheet/step]
	Sets cumulative sheets: L		
051	TotalPage:S:Set	*ENG	[1 to 255 / **20** / 1sheet/step]
	Sets cumulative sheets: S		
052	TotalPage:M:Set	*ENG	[1 to 500 / **10** / 1sheet/step]
	Sets cumulative sheets: M		
053	TotalPage:S:Set	*ENG	[1 to 999 / **50** / 1sheet/step]
	Sets cumulative sheets: L		

3252	**[AccumImgArea :Disp]**		
	Displays cumulative image area.		
001	ImgArea:K	*ENG	[0 to 65535 / **0** / 1cm^2/step]
002	ImgArea:C	*ENG	
003	ImgArea:M	*ENG	
004	ImgArea:Y	*ENG	

3260	**[Temperature/Humidity: Display]**		
001	Temperature	ENG	[-5.0 to 45.0 / **0.0** / 0.1deg]
	Displays temperature of environment sensor output.		
002	Relative Humidity	ENG	[0.0 to 100.0 / **0.0** / 0.1%RH/step]
	Displays relative humidity of environment sensor output.		

003	Absolute Humidity	ENG	[0.00 to 100.00 / **0.00** / 0.01g/m3/step]
	Displays absolute humidity of environment sensor output.		

3300	**[RTP Pattern :Disp]**		
001	M/A(Latest):K	*ENG	[0.000 to 1.000 / **0.000** / 0.001mg/cm2/step]
	Displays latest RTP pattern sensor's deposit amount (K).		
002	M/A(Latest):C	*ENG	[0.000 to 1.000 / **0.000** / 0.001mg/cm2/step]
	Displays latest RTP pattern sensor's deposit amount (C).		
003	M/A(Latest):M	*ENG	[0.000 to 1.000 / **0.000** / 0.001mg/cm2/step]
	Displays latest RTP pattern sensor's deposit amount (M).		
004	M/A(Latest):Y	*ENG	[0.000 to 1.000 / **0.000** / 0.001mg/cm2/step]
	Displays latest RTP pattern sensor's deposit amount (Y).		
011	M/A(Target):K	*ENG	[0.000 to 1.000 / **0.220** / 0.001mg/cm2/step]
	Displays RTP pattern sensor's depositing target amount (K).		
012	M/A(Target):C	*ENG	[0.000 to 1.000 / **0.400** / 0.001mg/cm2/step]
	Displays RTP pattern sensor's depositing target amount (C).		
013	M/A(Target):M	*ENG	[0.000 to 1.000 / **0.450** / 0.001mg/cm2/step]
	Displays RTP pattern sensor's depositing target amount (M).		
014	M/A(Target):Y	*ENG	[0.000 to 1.000 / **0.400** / 0.001mg/cm2/step]
	Displays RTP pattern sensor's depositing target amount (Y).		

3301	**[RTP Pattern :Set]**		
001	Create Intrvl:BW	ENG	[0 to 200 / **10** / 1pages]
	Sets creating interval (K) for RTP pattern.		
002	Create Intrvl:FC	ENG	[0 to 200 / **10** / 1pages]
	Sets creating interval (C) for RTP pattern.		
011	Page Cnt:BW	*ENG	[0 to 200 / **0** / 1pages]
	Displays sheets counter value (K) for RTP pattern.		
012	Page Cnt:FC	*ENG	[0 to 200 / **0** / 1pages]
	Displays sheets counter value (C) for RTP pattern.		
021	M/A UppErr:K	ENG	[0.000 to 1.000 / **0.600** / 0.001mg/cm2/step]
	Sets error decision threshold (K) for SC380 RTP patter error.		
022	M/A UppErr:Col	ENG	[0.000 to 2.000 / **1.200** / 0.001mg/cm2/step]
	Sets error decision threshold (CMY) for SC381 to SC383 RTP patter error.		
023	M/A LowErr:K	ENG	[0.000 to 1.000 / **0.100** / 0.001mg/cm2/step]
	Sets error decision threshold (K) for SC385 RTP patter error.		
024	M/A LowErr:Col	ENG	[0.000 to 1.000 / **0.200** / 0.001mg/cm2/step]
	Sets error decision threshold (CMY) for SC386 to SC388 RTP patter error.		
031	Feed Cnt :Set	*ENG	[0 to 99999999 / **50000** / 1ms/step]
	Totals up ON time of sub hopper feed clutch (Reset when toner end sensor detects toner).		
041	Feed Cnt :K	*ENG	[0 to 99999999 / **0** / 1 ms/step]
	Totals up ON time of sub hopper feed clutch (K).		
042	Feed Cnt :C	*ENG	[0 to 99999999 / **0** / 1 ms/step]

	Totals up ON time of sub hopper feed clutch (C).		
043	Feed Cnt :M	*ENG	[0 to 99999999 / **0** / 1 ms/step]
	Totals up ON time of sub hopper feed clutch (M).		
044	Feed Cnt :Y	*ENG	[0 to 99999999 / **0** / 1 ms/step]
	Totals up ON time of sub hopper feed clutch (Y).v		
051	Vsg Detect Intrvl		[0 to 200 / 10 / 1pages/step]
061	Vsg Page Cnt		[0 to 200 / 0 / 1pages/step]
070	LowErr Thresh		[0 to 99 / 3 / 1times/step]
071	LowErr Cnt:K		[0 to 99 / 0 / 1times/step]
072	LowErr Cnt:C		
073	LowErr Cnt:M		
074	LowErr Cnt:Y		
081	M/A(RTP)_Std	*ENG	[0.000 to 1.000 / **0.220** / 0.001mg/cm2/step]
	Sets standard deposit amount of RTP pattern deposit amount target value (K).		
091	M/A Thresh_Upp:K	*ENG	[0.000 to 1.000 / **0.060** / 0.001mg/cm2/step]
	Sets upper limit threshold of RTP pattern deposit amount target value (K).		
092	M/A Thresh_Upp:C	*ENG	[0.000 to 1.000 / **0.050** / 0.001mg/cm2/step]
	Sets upper limit threshold of RTP pattern deposit amount target value (C).		
093	M/A Thresh_Upp:M	*ENG	[0.000 to 1.000 / **0.050** / 0.001mg/cm2/step]
	Sets upper limit threshold of RTP pattern deposit amount target value (M).		
094	M/A Thresh_Upp:Y	*ENG	[0.000 to 1.000 / **0.050** / 0.001mg/cm2/step]
	Sets upper limit threshold of RTP pattern deposit amount target value (Y).		

101	M/A Thresh_Low:K	*ENG	[0.000 to 1.000 / **0.050** / 0.001mg/cm2/step]
	Sets lower limit threshold of RTP pattern deposit amount target value (K).		
102	M/A Thresh_Low:C	*ENG	[0.000 to 1.000 / **0.100** / 0.001mg/cm2/step]
	Sets lower limit threshold of RTP pattern deposit amount target value (C).		
103	M/A Thresh_Low:M	*ENG	[0.000 to 1.000 / **0.100** / 0.001mg/cm2/step]
	Sets lower limit threshold of RTP pattern deposit amount target value (M).		
104	M/A Thresh_Low:Y	*ENG	[0.000 to 1.000 / **0.100** / 0.001mg/cm2/step]
	Sets lower limit threshold of RTP pattern deposit amount target value (Y).		
111	Weight Coeff:K	*ENG	[1 to 10 / **1** / 1/step]
	Adds weight to leveling process of RTP pattern deposit amount target value (K).		
112	Weight Coeff:Col	*ENG	[1 to 10 / **1** / 1/step]
	Adds weight to leveling process of RTP pattern deposit amount target value (Col).		

3310	**[ID.Sens :Voffset]**		
	Displays specular reflection light output voltage of ID sensor's LED OFF time.		
001	Voffset reg (Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
002	Voffset reg (Center)	*ENG	
003	Voffset reg (Rear)	*ENG	
3310	**[ID.Sens :Voffset]**		
	Displays diffuse reflection light output voltage of ID sensor's LED OFF time.		
011	Voffset dif (Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
012	Voffset dif (Center)	*ENG	
013	Voffset dif (Rear)	*ENG	

3310	**[ID.Sens :Voffset]**		
	Displays specular reflection light output voltage of TM_Front sensor's LED OFF time.		
021	Voffset TM(Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output voltage of TM_Front sensor's LED OFF time.		
022	Voffset TM(Center)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output voltage of TM_Center sensor's LED OFF tim		
023	Voffset TM(Rear)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output voltage of TM_Rear sensor's LED OFF time.		

3311	**[ID.Sens :Vmin]**		
	Displays Black Vmin output of tone pattern.		
001	Vmin_K(Front)	*ENG	[0.000 to 5.000 / **0.000** / 0.001V/step]
002	Vmin_K(Center)	*ENG	
003	Vmin_K(Rear)	*ENG	

3312	**[ID.Sens :Vct]**		
	Factory adjust value of ID sensor.		
001	Vct_reg(Front)	*ENG	[0.000 to 5.000 / **0.000** / 0.001V/step]
002	Vct_reg(Center)	*ENG	
003	Vct_reg(Rear)	*ENG	
011	Vct_dif(Front)	*ENG	
012	Vct_dif(Center)	*ENG	
013	Vct_dif(Rear)	*ENG	

3320	[Vsg Adj: Execute]		
001	P Sensor	ENG	[0 or 1 / 0 / 1/step] [Execute]
	Adjusts Vsg.		
012	Voffset Threshold	*ENG	[0.00 to 5.00 / **1.00** / 0.01V/step]
	Sets upper limit threshold of Voffset error.		
013	Vsg Upper Threshold	*ENG	[0.00 to 5.00 / **4.50** / 0.01V/step]
	Sets upper limit threshold of Vsg adjust error.		
014	Vsg Lower Threshold	*ENG	[0.00 to 5.00 / **3.50** / 0.01V/step]
	Sets lower limit threshold of Vsg adjust error.		
015	Ifsg UpperLimit	*ENG	[0.0 to 50.0 / **30.0** / 0.1mA/step]
	Sets error decision threshold of SC382 (If upper limit error).		
020	Interval :Set	*ENG	[0 to 2000 / **0** / 1page/step]
	Sets Vsg adjusting execute page interval to be decided after or during printing. Note § Will be executed when Pro-Con or MUSIC decides necessity. (Won't work alone)		
021	Page Cnt	*ENG	[0 to 2000 / **0** / 1page/step]
	Displays Page counter for Vsg execute decision.		
031	Vsg Error Counter (Front)	*ENG	[0 to 99 / **0** / 1times/step]
	Counts Vsg error.		
032	Vsg Error Counter (Center)	*ENG	[0 to 99 / **0** / 1times/step]
	Counts Vsg error.		
033	Vsg Error Counter (Rear)	*ENG	[0 to 99 / **0** / 1times/step]
	Counts Vsg error.		

3321	[Adjusted Vsg]

	Displays specular reflection light output of belt background area adjusted Vsg.		
001	Vsg reg (Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
002	Vsg reg (Center)	*ENG	
003	Vsg reg (Rear)	*ENG	
3321	**[Adjusted Vsg]**		
	Displays diffuse reflection light output of belt background area adjusted Vsg.		
011	Vsg dif (Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
012	Vsg dif (Center)	*ENG	
013	Vsg dif (Rear)	*ENG	
021	Vsg reg(BW)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output of belt background area adjusted Vs		
031	Vsg dif(BW)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays diffuse reflection light output of belt background area adjusted Vsg.		
041	Vsg TM(Front)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output of belt background area adjusted Vsg. (TM_Front sensor)		
042	Vsg TM(Center)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output of belt background area adjusted Vsg. (TM_Center sensor)		
043	Vsg TM(Rear)	*ENG	[0.00 to 5.50 / **0.00** / 0.01V/step]
	Displays specular reflection light output of belt background area adjusted Vsg. (TM_Rear sensor)		

3322	**[Adjusted Ifsg]**		
	LED ampere value for RTP.		
001	Ifsg RTP (Front)	*ENG	[0.0 to 50.0 / **10.0** / 0.1mA/step]
002	Ifsg RTP (Center)	*ENG	

003	Ifsg RTP (Rear)	*ENG	
3322	**[Adjusted Ifsg]**		
	LED ampere value min. value.		
011	Ifsg Min (Front)	*ENG	[0.0 to 50.0 / **27.0** / 0.1mA/step]
012	Ifsg Min (Center)	*ENG	
013	Ifsg Min (Rear)	*ENG	
3322	**[Adjusted Ifsg]**		
	LED ampere value for electric potential control;, MUSIC.		
021	Ifsg: TM(Front)	*ENG	[0.0 to 50.0 / **10.0** / 0.1mA/step]
022	Ifsg: TM(Center)	*ENG	
023	Ifsg: TM(Rear)	*ENG	

3323	**[Vsg Adj OK?]**		
	Displays Vsg adjustment result (SP assign for have compatibility with unification model sires) § Left digit: TM/P sensor (R) § Right digit: TM/P sensor (L) Displays result by each sensor from left in R, then L order.		
	Code	Result	detail
	0	Did not EXEC.	(SP default)
	1	Succeed	-
	2	ID sensor proofread error	Out of range from Vsg= Vsg_reg(target value)±x.x[V/step]
	3	Offset voltage error	Voffset_reg>Max. or Voffset_dif>Max.
	4	LED Ampere Max. error.	Ifsg>Max.
	5	ID sensor output error.	Vsg< Vsg_reg(error)
	9	Kill	Kill by error of door open, power off.
001	Latest	*ENG	[0 to 999 / **0** / 1/step]

002	Latest 2	*ENG	
003	Latest 3	*ENG	
004	Latest 4	*ENG	
005	Latest 5	*ENG	
006	Latest 6	*ENG	
007	Latest 7	*ENG	
008	Latest 8	*ENG	
009	Latest 9	*ENG	
010	Latest 10	*ENG	

3330	**[ID.Sens Coef :Disp]**		
001	K2(Latest) (Front)	*ENG	[0.0000 to 5.0000 / **0.0000** / 0.0001/step]
	Displays latest value of ID sensor sensitivity correction coefficient: K2.		
002	K2(Latest) (Center)	*ENG	[0.0000 to 5.0000 / **0.0000** / 0.0001/step]
	Displays latest value of ID sensor sensitivity correction coefficient: K3.		
003	K2(Latest) (Rear)	*ENG	[0.0000 to 5.0000 / **0.0000** / 0.0001/step]
	Displays latest value of ID sensor sensitivity correction coefficient: K4.		
011	K5(Latest) (Front)	*ENG	[0.0000 to 5.0000 / **1.2000** / 0.0001/step]
	Displays latest value of ID sensor sensitivity correction coefficient: K5		
012	K5(Latest) (Center)	*ENG	[0.0000 to 5.0000 / **1.2000** / 0.0001/step]
	Displays latest value of ID sensor sensitivity correction coefficient: K6.		
013	K5(Latest) (Rear)	*ENG	[0.0000 to 5.0000 / **1.2000** / 0.0001/step]

	Displays latest value of ID sensor sensitivity correction coefficient: K7.

3331	**[ID.Sens Coef :Set]**		
	Assign (no need with Tomahawk) for having compatibility with unification model sires (Ap/At, Diana, Zeus).		
001	K2: Upp Limit Corr	*ENG	[-0.20 to 0.40 / **0.17** / 0.01/step]
002	K2: Lwr Limit Corr	*ENG	[-0.40 to 0.20 / **0.03** / 0.01/step]
003	K2: Upp/Lwr Limit Coef1	*ENG	[0.00 to 1.00 / **0.00** / 0. 01]
3331	**[ID.Sens Coef :Set]**		
004	Kn: Upper	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets upper limit valid range of standardization value for specular reflection used for calculating sensitivity correction: K5.		
005	Kn: Lower	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets lower limit valid range of standardization value for specular reflection used for calculating sensitivity correction: K5		
006	K5: Upper	*ENG	[0.00 to 10.00 / **6.00** / 0.01/step]
	Sets upper limit value of calculated sensitivity correction coefficient: K5.		
007	K5: Lower	*ENG	[0.00 to 1.00 / **0.50** / 0.01/step]
	Sets lower limit value of calculated sensitivity correction coefficient: K5.		
008	K5: Target Point	*ENG	[0.00 to 1.00 / **0.15** / 0.01/step]
	Sets proofreading point (Kn) of sensitivity correction coefficient: K5.		
009	K5: Target Voltage	*ENG	[0.00 to 5.00 / **1.63** / 0.01V/step]
	Sets proofreading point (Kn) of sensitivity correction coefficient: K5.		
012	Corrct Coef:C	*ENG	[0.500 to 1.500 / **1.000** / 0.001/step]
	Sets color diff correction coefficient (C) of Delta Vsp_Dif_Dash.		
013	Corrct Coef:M	*ENG	[0.500 to 1.500 / **0.996** / 0.001/step]
	Sets color diff correction coefficient (M) of Delta Vsp_Dif_Dash.		

014	Corrct Coef:Y	*ENG	[0.500 to 1.500 / **1.111** / 0.001/step]
	Sets color diff correction coefficient (Y) of Delta Vsp_Dif_Dash.		

3332	**[M/A Calculation]**		
	Assign (no need with Tomahawk) for having compatibility with unification model sires (Ap/At, Diana, Zeus).		
001	Corrct Coef:K	*ENG	[0.50 to 2.00 / **1.00** / 0.01/step]
002	Corrct Coef:C	*ENG	
003	Corrct Coef:M	*ENG	
004	Corrct Coef:Y	*ENG	

3333	**[ID.Sens TestVal:F]**		
	Shipping test value of ID sensor. Factory inputs using process application. Service personal inputs when on the market.		
001	K2: Check	*ENG	[0.000 to 1.000 / **0.516** / 0.001/step]
002	Diffuse Corr	*ENG	[0.75 to 1.35 / **1.00** / 0.01/step]
003	Vct_reg Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA]
004	Vct_reg Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]
005	Vct_dif Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA]
006	Vct_dif Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]

3334	**[ID.Sens TestVal:C]**		
	Shipping test value of ID sensor. Factory inputs using process application. Service personal inputs when on the market.		
001	K2: Check	*ENG	[0.000 to 1.000 / **0.516** / 0.001/step]
002	Diffuse Corr	*ENG	[0.75 to 1.35 / **1.00** / 0.01/step]
003	Vct_reg Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA]

004	Vct_reg Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]
005	Vct_dif Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA]
006	Vct_dif Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]

3335	**[ID.Sens TestVal:R]**		
	Shipping test value of ID sensor. Factory inputs using process application. Service personal inputs when on the market.		
001	K2: Check	*ENG	[0.000 to 1.000 / **0.516** / 0.001/step]
002	Diffuse Corr	*ENG	[0.75 to 1.35 / **1.00** / 0.01/step]
003	Vct_reg Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA/step]
004	Vct_reg Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]
005	Vct_dif Check:Slope	*ENG	[0.0 to 200.0 / **0.0** / 0.1mV/mA/step]
006	Vct_dif Check:Xint	*ENG	[0.0 to 25.5 / **0.0** / 0.1mA/step]

3400	**[Toner Supply Type]**		
	Selects toner supply method.		
001	K	*ENG	[0 to 4 / **4** / 1/step] 0: Fixed 2: PID 4: DANC
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	

3411	**[Toner Supply Qty]**		
	Displays latest value of supply amount calculated from toner supply amount computation formula.		
001	K	ENG	[0.0 to 40000.0 / **0.0** / 0.1mg/step]
002	C	ENG	
003	M	ENG	

004	Y	ENG	

3420	**[DeveloperWeight]**		
	Sets amount of developer weight.		
001	Total_Weight:K	*ENG	[50 to 2000 / **380** / 1g/step]
002	Total_Weight:CMY	*ENG	

3421	**[TnrSplyAbility]**		
	Sets toner supply ability from sub hopper to develop unit.		
001	K	*ENG	[0.001 to 2.000 / **0.710** / 0.001mg/msec]
002	C	*ENG	
003	M	*ENG	
004	Y	*ENG	
3421	**[TnrSplyAbility]**		
	Corrects supply ability based on supplying time per time unit.		
011	TnrSplyAbilityCoef1	*ENG	[0.50 to 2.00 / **1.12** / 0.01/step]
012	TnrSplyAbilityCoef2	*ENG	
013	TnrSplyAbilityCoef3	*ENG	[0.50 to 2.00 / **1.10** / 0.01/step]
014	TnrSplyAbilityCoef4	*ENG	[0.50 to 2.00 / **1.06** / 0.01/step]
015	TnrSplyAbilityCoef5	*ENG	[0.50 to 2.00 / **1.00** / 0.01/step]
016	TnrSplyAbilityCoef6	*ENG	[0.50 to 2.00 / **0.99** / 0.01/step]
017	TnrSplyAbilityCoef7	*ENG	[0.50 to 2.00 / **0.98** / 0.01/step]
018	TnrSplyAbilityCoef8	*ENG	[0.50 to 2.00 / **0.95** / 0.01/step]
019	TnrSplyAbilityCoef9	*ENG	
020	TnrSplyAbilityCoef10	*ENG	
021	unit time		[0 to 60000 / 3000 / 1msec/step]

3421	**[TnrSplyAbility]**		
	Sets absolute humidity threshold 1 of supply ability correction.		
031	AbsHum Threshold:1	*ENG	[0.0 to 65.0 / **6.0** / 0.1g/m3/step]
032	AbsHum Threshold:2	*ENG	[0.0 to 65.0 / **12.0** / 0.1g/m3/step]
033	AbsHum Threshold:3	*ENG	[0.0 to 65.0 / **24.0** / 0.1g/m3/step]
3421	**[TnrSplyAbility]**		
	Corrects supply ability based on absolute humidity.		
041	Environ Coef1	*ENG	[0.50 to 2.00 / **1.00** / 0.01/step]
042	Environ Coef2	*ENG	
043	Environ Coef3	*ENG	
044	Environ Coef4	*ENG	

3422	**[Tnr Supply Limits :Set]**		
	Sets max. toner supplying rate.		
001	Max Supply Rate:K	*ENG	[0 to 255 / **100** / 1%/step]
002	Max Supply Rate:C	*ENG	
003	Max Supply Rate:M	*ENG	
004	Max Supply Rate:Y	*ENG	
3422	**[Tnr Supply Limits :Set]**		
	Sets min. supplying time.		
011	Min Supply Time: K	*ENG	[0 to 255 / **100** / 1msec/step]
012	Min Supply Time: C	*ENG	
013	Min Supply Time: M	*ENG	
014	Min Supply Time: Y	*ENG	

3423	**[TnrSplyCarryOver :Disp]**		
	Sets toner supplying rate for fixed amount supplying mode.		
001	Carry Over:K	*ENG	[0 to 10000 / **0** / 1msec/step]
002	Carry Over:C	*ENG	
003	Carry Over:M	*ENG	
004	Carry Over:Y	*ENG	

3428	**[TnrSplyDelay : Setting]**		
	Sets toner supply delay time.		
001	Delay	*ENG	[0 to 255 / **0** / 1msec/step]

3429	**[TnrSplyPosTime :Disp]**		
	Sets toner supplying rate for fixed amount supplying mode.		
001	Latest: K	*ENG	[0 to 20000 / **0** / 1msec/step]
002	Latest: C	*ENG	
003	Latest: M	*ENG	
004	Latest: Y	*ENG	

3431	**[DrvTime: Setting]**		
	Sets toner supplying rate for fixed amount supplying mode.		
001	Tmon:K	*ENG	[50 to 1000 / **200** / 50msec/step]
002	Tmon:C	*ENG	
003	Tmon:M	*ENG	
004	Tmon:Y	*ENG	

3432	**[DrvTime: Setting]**		
	Sets max. continuous supplying time.		
001	DriveTime(max)	*ENG	[0 to 1500 / **800** / 1msec/step]

3440	**[Fixed Supply Mode]**		
	Sets toner supplying rate for fixed amount supplying mode.		
001	Fixed Rate: K	*ENG	[0 to 100 / **10** / 1%/step]
002	Fixed Rate: C	*ENG	
003	Fixed Rate: M	*ENG	
004	Fixed Rate: Y	*ENG	

3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply proportion to Vt-Vtref with toner supply control. Uses PID control for toner supply.		
001	Vt Proportion: K	*ENG	[0 to 2550 / **50** / 1/step]
002	Vt Proportion: C	*ENG	
003	Vt Proportion: M	*ENG	
004	Vt Proportion: Y	*ENG	
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
011	Pixel Proportion: K	*ENG	[0.00 to 2.55 / **0.47** / 0.01/step]
012	Pixel Proportion: C	*ENG	
013	Pixel Proportion: M	*ENG	
014	Pixel Proportion: Y	*ENG	

3450	**[Toner Supply PID: Setting]**		
	Displays current value of pixel proportionality coefficient 2 for supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
021	Pixel Proportion 2: K	*ENG	[0.00 to 2.55 / **1.00** / 0.01/step]
022	Pixel Proportion 2: C	*ENG	
023	Pixel Proportion 2: M	*ENG	
024	Pixel Proportion 2: Y	*ENG	
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
031	Correction Coeffient: 1	*ENG	[0.00 to 2.55 / **1.00** / 0.01/step]
032	Correction Coeffient: 2	*ENG	[0.00 to 2.55 / **0.50** / 0.01/step]
033	Correction Coeffient: 3	*ENG	[0.00 to 2.55 / **0.00** / 0.01/step]
034	Correction Coeffient: 4	*ENG	[0.00 to 2.55 / **0.25** / 0.01/step]
035	Correction Coeffient: 5	*ENG	[0.00 to 2.55 / **0.50** / 0.01/step]
3450	**[Toner Supply PID: Setting]**		
	Displays current value of pixel proportionality coefficient 3 for supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
041	Pixel Proportion 3: K	*ENG	[0.70 to 1.30 / **1.00** / 0.01/step]
042	Pixel Proportion 3: C	*ENG	
043	Pixel Proportion 3: M	*ENG	
044	Pixel Proportion 3: Y	*ENG	
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		

051	Correction Value 1	*ENG	[-0.10 to 0.00 / **-0.01** / 0.01/step]
052	Correction Value 2	*ENG	[0.00 to 0.10 / **0.01** / 0.01/step]
3450	**[Toner Supply PID: Setting]**		
	Sets transformation coefficient transforming pixel (cm^2) to supply amount (g) for supplying proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
061	P_Pxl_Coef_Err	*ENG	[0.00 to 1.00 / **0.35** / 0.01/step]
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply proportion to output image's pixel (Pxl) with toner supply control. Uses PID control for toner supply.		
071	Vt Integral Control: K	*ENG	[0 to 2550 / **500** / 1/step]
072	Vt Integral Control: C	*ENG	
073	Vt Integral Control: M	*ENG	
074	Vt Integral Control: Y	*ENG	
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply in proportion to Diff. accumulate amount of Vt-Vtref with toner supply control. Uses PID control for toner supply.		
081	Vt Integral Value: K	*ENG	[-255.00 to 255.00 / **0.00** / 0.01/step]
082	Vt Integral Value: C	*ENG	
083	Vt Integral Value: M	*ENG	
084	Vt Integral Value: Y	*ENG	
3450	**[Toner Supply PID: Setting]**		
	Sets supplying coefficient to supply in proportion to Diff. accumulate amount of Vt-Vtref with toner supply control. Uses PID control for toner supply.		
091	Vt Sum Times: K	*ENG	[1 to 255 / **20** / 1times/step]
092	Vt Sum Times: C	*ENG	
093	Vt Sum Times: M	*ENG	

094	Vt Sum Times: Y	*ENG	

3460	**[TonerSupply :DANC]**		
011	Time_Min	*ENG	[0 to 250 / **0** / 1msec/step]
	Sets DANC min. supplying time.		
012	Time_Max	*ENG	[0 to 1000 / **200** / 1msec/step]
	Sets DANC max. supplying time.		
3460	**[TonerSupply :DANC]**		
	Sets supplying amount for when creating SMITH model.		
022	SMITH_Weight:K	*ENG	[1 to 500 / **140** / 1mg/step]
023	SMITH_Weight:CMY	*ENG	
3460	**[TonerSupply :DANC]**		
	Sets transferring rate for to compensate reverse transfer amount of ANC term (pixel term).		
111	Rev_Fix:K	*ENG	[1.00 to 1.50 / **1.00** / 0.01/step]
112	Rev_Fix:C	*ENG	
113	Rev_Fix:M	*ENG	
114	Rev_Fix:Y	*ENG	
3460	**[TonerSupply :DANC]**		
	Sets delay time of from toner supplying door to sensor for SMITH model, by control sample count.		
121	TnrSplyDelay:StdSpd:K	*ENG	[0 to 200 / **7** / 1/step]
122	TnrSplyDelay:MidSpd:K	*ENG	[0 to 200 / **13** / 1/step]
123	TnrSplyDelay:LowSpd:K	*ENG	[0 to 200 / **19** / 1/step]
131	TnrSplyDelay:StdSpd:CMY	*ENG	[0 to 200 / **7** / 1/step]
132	TnrSplyDelay:MidSpd:CMY	*ENG	[0 to 200 / **13** / 1/step]
133	TnrSplyDelay:LowSpd:CMY	*ENG	[0 to 200 / **19** / 1/step]

3461	[TonerSupply :DANC]		
001	PI:Power	*ENG	[5 to 200 / **100** / 1%/step]
	Changes all demand value of PI term.		
011	PI:P Gain:K	*ENG	[0.0000 to 1.0000 / **0.0100** / 0.0001/step]
	Sets P gain (K).		
012	PI:P Limits:Up:K	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against P term demanding value. (Supply plus side, K)		
013	PI:P Limits:Low:K	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against P term demanding value. (Supply minus side, K)		
021	PI:I Gain:K	*ENG	[0.0000 to 1.0000 / **0.0010** / 0.0001/step]
	Sets I gain (K).		
022	PI:I Limits:Up:K	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against I term demanding value. (Supply plus side, K)		
023	PI:I Limits:Low:K	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against I term demanding value. (Supply minus side, K)		
031	PI:P Gain:CMY	*ENG	[0.0000 to 1.0000 / **0.0100** / 0.0001/step]
	Sets P gain (CMY).		
032	PI:P Limits:Up:CMY	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against P term demanding value. (Supply plus side, CMY)		
033	PI:P Limits:Low:CMY	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against P term demanding value. (Supply minus side, CMY)		
041	PI:I Gain:CMY	*ENG	[0.0000 to 1.0000 / **0.0010** / 0.0001/step]

	Sets I gain (CMY).		
042	PI:I Limits:Up:CMY	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against I term demanding value. (Supply plus side, CMY)		
043	PI:I Limits:Low:CMY	*ENG	[0.00 to 1.00 / **0.10** / 0.01/step]
	Sets limit against I term demanding value. (Supply minus side, CMY)		
051	AW:AWIlow:K	*ENG	[0 to 10000 / **100** / 1/step]
	Sets AW gain (K). (Normally reciprocal of P gain)		
052	AW:AWIpni:K	*ENG	[0 to 2000 / **1000** / 1/step]
	Sets rate to rapidly decrease accumulate value of difference between toner density and target value. (K: Supply plus side)		
061	AW:AWIlow:CMY	*ENG	[0 to 10000 / **100** / 1/step]
	Sets AW gain (CMY). (Normally reciprocal of P gain)		
062	AW:AWIpni:CMY	*ENG	[0 to 2000 / **1000** / 1/step]
	Sets rate to rapidly decrease accumulate value of difference between toner density and target value. (CMY: Supply plus side)		
3461	**[TonerSupply :DANC]**		
	Corrects line speed for demand value of PI term.		
102	PI:LineSpdCoef:MidSpd:K	*ENG	[0.05 to 1.00 / **0.50** / 0.01/step]
103	PI:LineSpdCoef:LowSpd:K	*ENG	
112	PI:LineSpdCoef:StdSpd:CMY	*ENG	
113	PI:LineSpdCoef:LowSpd:CMY	*ENG	
3461	**[TonerSupply :DANC]**		
121	SMITH:Gain:K	*ENG	[0.00 to 2.00 / **1.00** / 0.01/step]
	Changes gain (amplitude of model) for SMITH model. (K)		
122	SMITH:MidSpd:K	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of SMITH model. (Middle speed, K)		

123	SMITH:LowSpd:K	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of SMITH model. (Low speed, K)		
131	SMITH:Gain:CMY	*ENG	[0.00 to 2.00 / **1.00** / 0.01/step]
	Changes gain (amplitude of model) for SMITH model. (CMY)		
132	SMITH:MidSpd:CMY	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of SMITH model. (Middle speed, CMY)		
133	SMITH:LowSpd:CMY	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of SMITH model. (Low speed, CMY)		

3462	**[TonerSupply :DANC]**		
001	ANC:Power	*ENG	[0 to 200 / **100** / 1%/step] 100: Standard control 0: No ANC
	Changes all ANC filters demand value of ANC term.		
101	ANC:Gain:K	*ENG	[0.00 to 2.00 / **1.00** / 0.01/step]
	Sets gain for all ANC filters. (K)		
102	ANC:MidSpd:K	*ENG	[0.05 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of all ANC filters. (Middle speed, K)		
103	ANC:LowSpd:K	*ENG	[0.05 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of all ANC filters. (Low speed, K)		
111	ANC:Gain:CMY	*ENG	[0.00 to 2.00 / **1.00** / 0.01/step]
	Sets gain for all ANC filters. (CMY)		
112	ANC:MidSpd:CMY	*ENG	[0.05 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of all ANC filters. (Middle speed, CMY)		
113	ANC:LowSpd:CMY	*ENG	[0.05 to 1.00 / **1.00** / 0.01/step]
	Corrects line speed for gain of all ANC filters. (Low speed, CMY)		

3463	**[TonerSupply :DANC]**		
	Saves I term corresponding to power OFF/ON.		
101	Int:I:K	*ENG	[-1000.0000 to 1000.0000 / **0.0000** / 0.0001/step]
102	Int:I:C	*ENG	
103	Int:I:M	*ENG	
104	Int:I:Y	*ENG	
3463	**[TonerSupply :DANC]**		
	Saves ANC term (pixel term) corresponding to power OFF/ON.		
111	ANC:ref Sum:K	*ENG	[-1000.0000 to 1000.0000 / **0.0000** / 0.0001/step]
112	ANC:ref Sum:C	*ENG	
113	ANC:ref Sum:M	*ENG	
114	ANC:ref Sum:Y	*ENG	
3463	**[TonerSupply :DANC]**		
	Displays image area for the latest page.		
201	ImgArea:K	*ENG	[0 to 9999 / **0** / 1cm2/step]
202	ImgArea:C	*ENG	
203	ImgArea:M	*ENG	
204	ImgArea:Y	*ENG	

3500	**[ImgQltyAdj :ON/OFF]**		
001	ALL	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets execution judge to OFF of all imaging system adjustments.		
002	ProCon	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON

	Sets execution judge to OFF of electric potential control.		
003	MUSIC Condition:Auto Exe	*ENG	[0 or 1 / **1** / 1/step]
	Forcedly sets MUSIC auto execution to OFF.		
004	Init TD Sensor	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets execution judge to OFF for initial setting of TD sensor.		

3510	**[ImgQltyAdj :ExeFlag]**		
	Sets execution flag for toner recovery (Executes toner recovery with setting to "1" and power OFF/ON, or close front cover.)		
001	Toner Recovery: K	*ENG	[0 to 3 / **0** / 1/step]
002	Toner Recovery: C	*ENG	
003	Toner Recovery: M	*ENG	
004	Toner Recovery: Y	*ENG	
3510	**[ImgQltyAdj :ExeFlag]**		
	Sets execution flag for initial setting of TD sensor. (TD sensor's initial setting will be executed by setting to "1" and power OFF/ON)		
011	Init TD Sensor :K	*ENG	[0 or 1 / **0** / 1/step]
012	Init TD Sensor :C	*ENG	
013	Init TD Sensor :M	*ENG	
014	Init TD Sensor :Y	*ENG	
3510	**[ImgQltyAdj :ExeFlag]**		
021	Process Control	*ENG	[0 to 2 / **0** / 1/step]
	Sets execution flag for Pro-Con (Executes Pro-Con with setting to "1" and power OFF/ON, or close front cover.)		
022	Developer Agitating	*ENG	[0 or 1 / **0** / 1/step]

	Sets execution flag for developer stir (Executes developer stir with setting to "1" and power OFF/ON, or close front cover.)		
023	Blade Damage Prevention	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for blade burr prevent mode (Executes blade burr prevent mode with setting to "1" and power OFF/ON or closing front cover.)		
024	MUSIC	*ENG	[0 to 3 / **0** / 1/step] 0: OFF 1: Mode:b 2: Mode:a 3: Mode:e
	Sets execution flag for MUSIC (MUSIC (1time) with setting "1" and power OFF/ON or closing font cover, MUSIC (2times) with setting "2", real time MUSIC with setting "3")		
025	Vsg Adj.	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for Vsg adjust (Executes Vsg adjust with setting to "1" and power OFF/ON, or close front cover.)		
026	Charge AC Adj.	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for Electrify roller cleaning (K) (Executes Electrify roller cleaning (K) with setting to "1" and power OFF/ON, or close from cover.)		
3510	**[ImgQltyAdj :ExeFlag]**		
031	Init Toner Replenish: K	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for toner initial filler (K) (Executes toner recovery (K) with setting to "1" and power OFF/ON, or close front cover.)		
032	Init Toner Replenish: C	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for toner initial filler (C) (Executes toner recovery (C) with setting to "1" and power OFF/ON, or close front cover.)		
033	Init Toner Replenish: M	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for toner initial filler (M) (Executes toner recovery (M) with setting to "1" and power OFF/ON, or close front cover.)		
034	Init Toner Replenish: Y	*ENG	[0 or 1 / **0** / 1/step]

	Sets execution flag for toner initial filler (Y) (Executes toner recovery (Y) with setting to "1" and power OFF/ON, or close front cover.)		
041	DEMS		[0 or 1 / **0** / 1/step]
042	IBACC	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for toner initial filler (Y) (Executes toner recovery (Y) with setting to "1" and power OFF/ON, or close front cover.)		
043	Vsg in TrnsBlt:corr	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for toner initial filler (Y) (Executes toner recovery (Y) with setting to "1" and power OFF/ON, or close front cover.)		
044	Dev. AC Adj.	*ENG	[0 or 1 / **0** / 1/step]
	Sets execution flag for develop AC adjust (Executes with setting to "1" and power OFF/ON, or close from cover.)		
045	BIT1	*ENG	[0 or 1 / **0** / 1/step]
	Execution flag for image adjust of BIT 1 control.		

3520	**[ImgQltyAdj :Interval]**		
001	During Job	*ENG	[0 to 100 / **30** / 1page/step]
	Sets image adjust judgment page interval for during print.		
002	During Stand-by	*ENG	[0 to 100 / **5** / 1minute/step]
	Sets image adjust judgment time interval for during standby.		

3521	**[Drum Stop Time :Disp]**		
	Displays finish imaging time.		
001	Year	*ENG	[0 to 99 / **0** / 1year/step]
002	Month	*ENG	[1 to 12 / **1** / 1month/step]
003	Day	*ENG	[1 to 31 / **1** / 1day/step/step]
004	Hour	*ENG	[0 to 23 / **0** / 1hour/step]
005	Minute	*ENG	[0 to 59/ **0** / 1 minutes/step]

3522	[Drum Stop Environ :Disp]		
001	Temperature	*ENG	[-1280.0 to 1270.0 / **0.0** / 0.1deg]
	Displays (temperature) of when imaging finished.		
002	Rel Humidity	*ENG	[0.0 to 1000.0 / **0.0** / 0.1%RH/step]
	Displays (relative humidity) of when imaging finished.		
003	Abs Humidity	*ENG	[0.0 to 1000.0 / **0.0** / 0.1g/m3/step]
	Displays (absolute humidity) of when imaging finished.		

3529	[ProCon Interval Control :Set]		
001	Gamma Corr	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets ON/OFF develop gamma correction for Pro-Con auto execute interval.		
002	Environ Corr	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets ON/OFF environment correction for Pro-Con auto execute interval.		
003	AbsHum Threshhold	*ENG	[0.0 to 99.0 / **4.3** / 0.1g/m3/step]
	Sets absolute humidity threshold of environment correction for Pro-Con auto execute interval.		
004	Max Cnt Threshhold	*ENG	[0 to 99 / **2** / 1counts/step]
	Sets max. count threshold of Interrupt Pro-Con/Job end Pro-Con.		
005	Exe Cnt	ENG	[0 to 255 / **0** / 1counts/step]
	Sets max. count counter of Interrupt Pro-Con/Job end Pro-Con.		
006	Page Cnt:BW	*ENG	[0 to 5000 / **0** / 1sheet/step]
	Displays Pro-Con (BW) sheets count.		
007	Page Cnt:FC	*ENG	[0 to 5000 / **0** / 1sheet/step]

	Displays Pro-Con (FC) sheets count.

3530	**[PowerON ProCon :Se]**		
001	Non-use Time Setting	*ENG	[0 to 1440 / **360** / 1minute/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
002	Temperature Range	*ENG	[0 to 99 / **10** / 1deg/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
003	Relative Humidity Range	*ENG	[0 to 99 / **50** / 1%RH/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
004	Absolute Humidity Range	*ENG	[0 to 99 / **6** / 1g/m3/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
005	Interval:BW	*ENG	[0 to 5000 / **250** / 1sheet/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
006	Interval:FC	*ENG	[0 to 5000 / **100** / 1sheet/step]
	Sets Pro-Con execute judgment threshold of when Power ON.		
007	Page Cnt:BW	*ENG	[0 to 5000 / **0** / 1 sheet/step]
	Sets sheets count for Power ON Pro-Con (BW).		
008	Page Cnt:FC	*ENG	[0 to 5000 / **0** / 1 sheet/step]
	Sets sheets count for Power ON Pro-Con (FC).		

3531	**[Non-useTime Procon :Set]**		
	Sets Pro-Con execute judgment threshold for during standby.		
001	Non-use Time Setting	*ENG	[0 to 1440 / **360** / 1minute/step]
002	Temperature Range	*ENG	[0 to 99 / **10** / 1deg/step]
003	Relative Humidity Range	*ENG	[0 to 99 / **50** / 1%RH/step]
004	Absolute Humidity Range	*ENG	[0 to 99 / **6** / 1g/m3/step]

3531	**[Non-useTime Procon :Set]**		
	Sets upper limit of continuously executing count for Pro-Con during standby.		
005	Maximum Execution Number	*ENG	[0 to 99 / **10** / 1times/step]

3533	**[Interrupt ProCon :Set]**		
001	Interval:Set:BW	*ENG	[0 to 5000 / **500** / 1sheet/step]
	Sets number of sheets interval for Interrupt Pro-Con (BW).		
002	Interval:Disp:BW	*ENG	[0 to 5000 / **500** / 1sheet/step]
	Displays number of sheets interval for Interrupt Pro-Con (BW).		
003	Corr(Short):BW	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Short) of number of sheets interval for Interrupt Pro-Con (BW).		
004	Corr(Mid):BW	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Mid) of number of sheets interval for Interrupt Pro-Con (BW).		
011	Interval:Set:FC	*ENG	[0 to 5000 / **200** / 1sheet/step]
	Sets number of sheets interval for Interrupt Pro-Con (FC).		
012	Interval:Disp:FC	*ENG	[0 to 5000 / **200** / 1sheet/step]
	Displays number of sheets interval for Interrupt Pro-Con (FC).		
013	Corr(Short):FC	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Short) of number of sheets interval for Interrupt Pro-Con (FC).		
014	Corr(Mid):FC	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Mid) of number of sheets interval for Interrupt Pro-Con (FC).		

3534	[JobEnd ProCon :Set]		
001	Interval:Set:BW	*ENG	[0 to 5000 / **500** / 1sheet/step]
	Sets number of sheets interval for Job end Pro-Con (BW).		
002	Interval:Disp:BW	*ENG	[0 to 5000 / **500** / 1sheet/step]
	Displays number of sheets interval for Job end Pro-Con (BW).		
003	Corr(Short):BW	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Short) of number of sheets interval for Job end Pro-Con (BW).		
004	Corr(Mid):BW	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Mid) of number of sheets interval for Job end Pro-Con (BW).		
011	Interval:Set:FC	*ENG	[0 to 1000 / **200** / 1sheet/step]
	Sets number of sheets interval for Job end Pro-Con (FC).		
012	Interval:Disp:FC	*ENG	[0 to 5000 / **200** / 1sheet/step]
	Displays number of sheets interval for Job end Pro-Con (FC).		
013	Corr(Short):FC	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Short) of number of sheets interval for Job end Pro-Con (FC).		
014	Corr(Mid):FC	*ENG	[0.00 to 1.00 / **1.00** / 0.01/step]
	Sets correcting coefficient (Mid) of number of sheets interval for Job end Pro-Con (FC).		

3539	[Dev Agitating Time :Set]		
001	Time	*ENG	[0 to 3000 / **10** / 1sec/step]
	Sets Developer Agitating Time.		
010	ON/OFF(by RelHum)	*ENG	[0 or 1 / **1** / 1/step]
	Sets ON/OFF for Absolute Humidity Correction for Developer Agitating Time.		

3539	**[Dev Agitating Time :Set]**		
	Sets stirring time based on relative humidity of developer stirring time.		
011	by RelHum:1	*ENG	[0 to 3000 / **0** / 1sec/step]
012	by RelHum:2	*ENG	[0 to 3000 / **5** / 1sec/step]
013	by RelHum:3	*ENG	
014	by RelHum:4	*ENG	
015	by RelHum:5	*ENG	
016	by RelHum:6	*ENG	
021	RelHum Threshold:1	*ENG	[0 to 1000 / **4** / 1%RH/step]
022	RelHum Threshold:2	*ENG	[0 to 1000 / **8** / 1%RH/step]
023	RelHum Threshold:3	*ENG	[0 to 1000 / **12** / 1%RH/step]
024	RelHum Threshold:4	*ENG	[0 to 1000 / **16** / 1%RH/step]
025	RelHum Threshold:5	*ENG	[0 to 1000 / **24** / 1%RH/step]
3539	**[Dev Agitating Time :Set]**		
030	ON/OFF(by Non-use Time)	*ENG	[0 or 1 / **1** / 1/step]
	Sets ON/OFF exposure time correction of developer stirring time.		
031	by Non-use Time:1		[0 to 3000 / 0 / 1sec/step]
032	by Non-use Time:2		
033	by Non-use Time:3		
034	by Non-use Time:4		
035	by Non-use Time:5		
036	by Non-use Time:6		
037	by Non-use Time:7		
038	by Non-use Time:8		
039	by Non-use Time:9		
040	by Non-use Time:10		

041	Non-use Time Threshhold:1		[0 to 5000 / **15** / 1min/step]
042	Non-use Time Threshhold:2		[0 to 5000 / **30** / 1min/step]
043	Non-use Time Threshhold:3		[0 to 5000 / **60** / 1min/step]
044	Non-use Time Threshhold:4		[0 to 5000 / **120** / 1min/step]
045	Non-use Time Threshhold:5		[0 to 5000 / **240** / 1min/step]
046	Non-use Time Threshhold:6		[0 to 5000 / **360** / 1min/step]
047	Non-use Time Threshhold:7		[0 to 5000 / **720** / 1min/step]
048	Non-use Time Threshhold:8		[0 to 5000 / **1440** / 1min/step]
049	Non-use Time Threshhold:9		[0 to 5000 / **2880** / 1min/step]
050	ON/OFF(by Non-use Time)	*ENG	[0 or 1 / **1** / 1/step]
	Sets ON/OFF image area correction of developer stirring time.		
3539	**[Dev Agitating Time :Set]**		
	Sets stirring time based on image area of developer stirring time.		
051	by DotCoverage :1	*ENG	[0 to 3000 / **0** / 1sec/step]
052	by DotCoverage :2	*ENG	
053	by DotCoverage :3	*ENG	[0 to 3000 / **5** / 1sec/step]
054	by DotCoverage :4	*ENG	
055	by DotCoverage :5	*ENG	
056	by DotCoverage :6	*ENG	
3539	**[Dev Agitating Time :Set]**		
	Sets image area threshold of developer stirring time.		
061	DotCoverage Threshhold:1	*ENG	[0 to 5000 / **10** / 1min/step]
062	DotCoverage Threshhold:2	*ENG	[0 to 5000 / **20** / 1min/step]
063	DotCoverage Threshhold:3	*ENG	[0 to 5000 / **30** / 1min/step]
064	DotCoverage Threshhold:4	*ENG	[0 to 5000 / **40** / 1min/step]
065	DotCoverage Threshhold:5	*ENG	[0 to 5000 / **50** / 1min/step]

3539	**[Dev Agitating Time :Set]**		
099	UpperLimit	*ENG	[0 to 3600 / **3600** / 1sec/step]
	Sets upper limit of developer stirring time.		

3540	**[PowerON Music :Set]**		
	Sets sheets count for Power ON MUSIC.		
001	Page Cnt:BW	*ENG	[0 to 5000 / **0** / 1sheet/step]
002	Page Cnt:FC	*ENG	

3541	**[Music Interval :Set]**		
	Sets sheets count for Power ON MUSIC.		
001	Page Cnt:BW	*ENG	[0 to 5000 / **0** / 1sheet/step]
002	Page Cnt:FC	*ENG	
3541	**[Realtime Music Interval :Set]**		
	Saves / Updates this SP with print count in B&W + color mode since the last MUSIC for to use with real time MUSIC.		
003	Page Cnt:BW+FC	*ENG	[0 to 5000 / **0** / 1sheet/step]

3550	**[Refresh Mode]**		
	Display image area needs to be refreshed. Consumes toner with density adjust or when print finished if this value is larger than set.		
001	Required Area: K	*ENG	[0 to 65535 / **0** / 1cm^2]
002	Required Area: C	*ENG	
003	Required Area: M	*ENG	
004	Required Area: Y	*ENG	
3550	**[Refresh Mode]**		
	Uses for to calculate discharge amount when discharging toner at end of print.		

011	Dev. Unit Rotation: Display: Bk	*ENG	[0.0 to 1000.0 / **0.0** / 0.1m/step]
012	Dev. Unit Rotation: Display: C	*ENG	
013	Dev. Unit Rotation: Display: M	*ENG	
014	Dev. Unit Rotation: Display: Y	*ENG	
3550	**[Refresh Mode]**		
021	Rotation Threshold	*ENG	[0.0 to 1000.0 / **0.1** / 0.1m/step]
	Uses for execute judging of discharging toner at end of print.		
3550	**[Refresh Mode]**		
	Uses for to calculate discharge amount when discharging toner at end of print. With increasing the value, more will be discharged.		
031	Reflesh Threshold: Bk	*ENG	[0 to 255 / **17** / 1cm^2/step]
032	Reflesh Threshold: C	*ENG	
033	Reflesh Threshold: M	*ENG	
034	Reflesh Threshold: Y	*ENG	
3550	**[Refresh Mode]**		
035	Mode Selection Coefficient	ENG	[0 or 1 / **1** / 1/step]
	Uses for to calculate discharge amount when discharging toner at end of print.		
3550	**[Refresh Mode]**		
	Uses for to calculate discharge amount when discharging toner at end of print. With increasing the value, more will be discharged.		
041	Job End Area Coefficient:K	*ENG	[0.1 to 25.5 / **1.0** / 0.1/step]
042	Job End Vb Coefficient:K	*ENG	[0 to 100 / **40** / 1%/step]
043	Job End Length:K	*ENG	[0 to 255 / **25** / 1mm/step]
044	Job End Supply	*ENG	[0.000 to 1.000 / **0.450** / 0.001mg/cm^2]

045	Job End Area Coefficient:YMC	*ENG	[0.1 to 25.5 / **1.0** / 0.1/step]
046	Job End Vb Coefficient:YMC	*ENG	[0 to 100 / **40** / 1%/step]
047	Job End Length:YMC	*ENG	[0 to 255 / **25** / 1mm/step]
3550	**[Refresh Mode]**		
081	TC Adj. Consume(Upp Limit)	*ENG	[0 to 255 / **20** / 1times/step]
	Sets consume counts (upper limit) for toner density adjusting Pro-Con.		

3552	**[Blade damage prevention mode]**		
001	Execution Temp. Threshold	*ENG	[0 to 50 / **40** / 1deg/step]
	Sets temperature threshold for creating blade Tear off prevent pattern.		

3553	**[Transfer belt cleaning]**		
001	TransferIdleTime Temperature:H	*ENG	[0.0 to 3.0 / **0.0** / 0.1revolutions/step]
	Prevents poor cleaning by racing the image transfer when going over temperature threshold t2 and poor cleaning occurred right after Pro-Con/MUSIC etc... adjust pattern was entered.		
002	TransferIdleTime Temperature:M	*ENG	[0.0 to 3.0 / **0.0** / 0.1revolutions/step]
	Prevents poor cleaning by racing the image transfer when between temperature threshold t1to t2 and poor cleaning occurred right after Pro-Con/MUSIC etc... adjust pattern was entered.		
003	TransferIdleTime Temperature:L	*ENG	[0.0 to 3.0 / **0.0** / 0.1revolutions/step]
	Prevents poor cleaning by racing the image transfer when smaller than temperature threshold t1 and poor cleaning occurred right after Pro-Con/MUSIC etc... adjust pattern was entered.		
004	TransferIdleTime Temperature:L:ON	*ENG	[0.0 to 3.0 / **0.0** / 0.1revolutions/step]

	Prevents poor cleaning by racing the image transfer when smaller than temperature threshold t1 and poor cleaning occurred right after Pro-Con/MUSIC etc... adjust pattern was entered when starting up machine fist in the morning.		
005	Temperature Threshold:T2	*ENG	[20 to 30 / **25** / 1deg/step]
	Adjusts temperature threshold of poor cleaning to occur after Pro-Con/MUSIC etc... adjusting pattern was entered.		
006	Temperature Threshold:T1	*ENG	[0 to 15 / **15** / 1deg/step]
	Adjusts temperature threshold of poor cleaning to occur after Pro-Con/MUSIC etc... adjusting pattern was entered.		
007	Temperature Threshold:T3	*ENG	[0 to 30 / **5** / 1deg/step]
	Adjusts threshold for wide stripes to occur in the image of the next job caused by image transfer belt cleaning after job stops.		

3554	**[TransBltCleanBladeReplMode:Exe]**		
001	Execute	ENG	[0 or 1 / **0** / 1/step]
	Executes replace mode of paper transfer cleaning blade. * Specification unapplied SP, No use.		
002	Idle Time	ENG	[0.1 to 60.0 / **10.0** / 0.1sec/step]
	Sets paper transfer racing time for when replace mode of paper transfer cleaning blade. * Specification unapplied SP, No use.		

3555	**[ImageQuality Adj. Counter:Disp]**		
001	Charge AC Control	*ENG	[0 to 2000 / **0** / 1page/step]
	For to use with adjusting control of electrify AC bias.		

3600	**[Select ProCon]**		
001	Potential Control	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON

	Sets electric potential control method.		
002	LD Control	*ENG	[0 to 3 / **1** / 1/step] 0: OFF 1: ON
	Sets LD control method.		
003	TC Adj. Mode	*ENG	[0 to 3 / **3** / 1/step] 0: Do Not Execute 1: 1st Power On 2: 1st Power On & Job End 3: 1st P_On & JE &printing
	Sets Execution timing of toner density adjusting Pro-Con.		
004	ACC Before ProCon	*ENG	[0 to 3 / **2** / 1/step] 0: NotExecute 1: ProcessControl 2: TCContorol
	Executes same action as Pro-Con executed before ACC, from SP.		
006	Pattern Cal. Method	*ENG	[0 to 3 / **0** / 1/step] 0: FIXED 1: INITIALIZED 2: CALCULATED
	Executes same action as Pro-Con executed before ACC, from SP.		
010	ActivePotentialControl	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets electric potential control method for during printing.		
030	IBACC:ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
	Sets execute ON/OFF of IBACC.		
060	Vsg ITB Internal Circumference Correction	*ENG	[0 or 1 / **1** / 1/step] 0: OFF 1: ON

	Sets execute ON/OFF of Vsg paper transfer internal rotate correction.

3610	**[Chrg AC Control]**		
	Displays electrify AC control value decided with electrify AC control.		
001	Std Speed: K	*ENG	[0.00 to 3.00 / **2.20** / 0.01kV]
002	Std Speed: C	*ENG	
003	Std Speed: M	*ENG	
004	Std Speed: Y	*ENG	

3611	**[Chrg DC Control]**		
	Displays electrify DC bias decided with Pro-Con.		
001	Std Speed: K	*ENG	[300 to 1000 / **690** / 1-V/step]
002	Std Speed: C	*ENG	
003	Std Speed: M	*ENG	
004	Std Speed: Y	*ENG	
011	Mid Speed: K	*ENG	
012	Mid Speed: C	*ENG	
013	Mid Speed: M	*ENG	
014	Mid Speed: Y	*ENG	
021	Low Speed: K	*ENG	
022	Low Speed: C	*ENG	
023	Low Speed: M	*ENG	
024	Low Speed: Y	*ENG	
3611	**[Chrg DC Control]**		
	Displays electrify DC bias decided with Pro-Con.		
031	Std Speed: K (Front)		[300 to 1000 / **690** / 1-V/step]

032	Std Speed: C (Front)		[300 to 1000 / **690** / 1-V/step]
033	Std Speed: M (Front)		[300 to 1000 / **690** / 1-V/step]
034	Std Speed: Y (Front)		[300 to 1000 / **690** / 1-V/step]
041	Mid Speed: K (Front)		[300 to 1000 / **690** / 1-V/step]
042	Mid Speed: C (Front)		[300 to 1000 / **690** / 1-V/step]
043	Mid Speed: M (Front)		[300 to 1000 / **690** / 1-V/step]
044	Mid Speed: Y (Front)		[300 to 1000 / **690** / 1-V/step]
051	Low Speed: K (Front)		[300 to 1000 / **690** / 1-V/step]
052	Low Speed: C (Front)		[300 to 1000 / **690** / 1-V/step]
053	Low Speed: M (Front)		[300 to 1000 / **690** / 1-V/step]
054	Low Speed: Y (Front)		[300 to 1000 / **690** / 1-V/step]
061	Std Speed: K (Center)		[300 to 1000 / **690** / 1-V/step]
062	Std Speed: C (Center)		[300 to 1000 / **690** / 1-V/step]
063	Std Speed: M (Center)		[300 to 1000 / **690** / 1-V/step]
064	Std Speed: Y (Center)		[300 to 1000 / **690** / 1-V/step]
071	Mid Speed: K (Center)		[300 to 1000 / **690** / 1-V/step]
072	Mid Speed: C (Center)		[300 to 1000 / **690** / 1-V/step]
073	Mid Speed: M (Center)		[300 to 1000 / **690** / 1-V/step]
074	Mid Speed: Y (Center)		[300 to 1000 / **690** / 1-V/step]
081	Low Speed: K (Center)		[300 to 1000 / **690** / 1-V/step]
082	Low Speed: C (Center)		[300 to 1000 / **690** / 1-V/step]
083	Low Speed: M (Center)		[300 to 1000 / **690** / 1-V/step]
084	Low Speed: Y (Center)		[300 to 1000 / **690** / 1-V/step]
091	Std Speed: K (Rear)		[300 to 1000 / **690** / 1-V/step]
092	Std Speed: C (Rear)		[300 to 1000 / **690** / 1-V/step]
093	Std Speed: M (Rear)		[300 to 1000 / **690** / 1-V/step]

094	Std Speed: Y (Rear)		[300 to 1000 / **690** / 1-V/step]
101	Mid Speed: K (Rear)		[300 to 1000 / **690** / 1-V/step]
102	Mid Speed: C (Rear)		[300 to 1000 / **690** / 1-V/step]
103	Mid Speed: M (Rear)		[300 to 1000 / **690** / 1-V/step]
104	Mid Speed: Y (Rear)		[300 to 1000 / **690** / 1-V/step]
111	Low Speed: K (Rear)		[300 to 1000 / **690** / 1-V/step]
112	Low Speed: C (Rear)		[300 to 1000 / **690** / 1-V/step]
113	Low Speed: M (Rear)		[300 to 1000 / **690** / 1-V/step]
114	Low Speed: Y (Rear)		[300 to 1000 / **690** / 1-V/step]
201	Now:Std Speed: K	ENG	[300 to 1000 / **690** / 1-V/step]
202	Now:Std Speed: C	ENG	[300 to 1000 / **690** / 1-V/step]
203	Now:Std Speed: M	ENG	[300 to 1000 / **690** / 1-V/step]
204	Now:Std Speed: Y	ENG	[300 to 1000 / **690** / 1-V/step]
3611	**[Chrg DC Control]**		
	Electrify bias to actually set including value corrected with RTP.		
211	Now:Mid Speed: K	ENG	[300 to 1000 / **690** / 1-V/step]
212	Now:Mid Speed: C	ENG	[300 to 1000 / **690** / 1-V/step]
213	Now:Mid Speed: M	ENG	[300 to 1000 / **690** / 1-V/step]
214	Now:Mid Speed: Y	ENG	[300 to 1000 / **690** / 1-V/step]
221	Now:Low Speed: K	ENG	[300 to 1000 / **690** / 1-V/step]
222	Now:Low Speed: C	ENG	[300 to 1000 / **690** / 1-V/step]
223	Now:Low Speed: M	ENG	[300 to 1000 / **690** / 1-V/step]
224	Now:Low Speed: Y	ENG	[300 to 1000 / **690** / 1-V/step]

3612	**[Dev DC Control]**		
	Displays develop bias decided with Pro-Con.		
001	Std Speed: K	*ENG	[200 to 800 / **550** / 1-V/step]
002	Std Speed: C	*ENG	[200 to 800 / **550** / 1-V/step]
003	Std Speed: M	*ENG	[200 to 800 / **550** / 1-V/step]
004	Std Speed: Y	*ENG	[200 to 800 / **550** / 1-V/step]
011	Mid Speed: K	*ENG	[200 to 800 / **550** / 1-V/step]
012	Mid Speed: C	*ENG	[200 to 800 / **550** / 1-V/step]
013	Mid Speed: M	*ENG	[200 to 800 / **550** / 1-V/step]
014	Mid Speed: Y	*ENG	[200 to 800 / **550** / 1-V/step]
021	Low Speed: K	*ENG	[200 to 800 / **550** / 1-V/step]
022	Low Speed: C	*ENG	[200 to 800 / **550** / 1-V/step]
023	Low Speed: M	*ENG	[200 to 800 / **550** / 1-V/step]
024	Low Speed: Y	*ENG	[200 to 800 / **550** / 1-V/step]
031	Std Speed: K (Front)		[200 to 800 / **550** / 1-V/step]
032	Std Speed: C (Front)		[200 to 800 / **550** / 1-V/step]
033	Std Speed: M (Front)		[200 to 800 / **550** / 1-V/step]
034	Std Speed: Y (Front)		[200 to 800 / **550** / 1-V/step]
041	Mid Speed: K (Front)		[200 to 800 / **550** / 1-V/step]
042	Mid Speed: C (Front)		[200 to 800 / **550** / 1-V/step]
043	Mid Speed: M (Front)		[200 to 800 / **550** / 1-V/step]
044	Mid Speed: Y (Front)		[200 to 800 / **550** / 1-V/step]
051	Low Speed: K (Front)		[200 to 800 / **550** / 1-V/step]
052	Low Speed: C (Front)		[200 to 800 / **550** / 1-V/step]
053	Low Speed: M (Front)		[200 to 800 / **550** / 1-V/step]

054	Low Speed: Y (Front)		[200 to 800 / **550** / 1-V/step]
061	Std Speed: K (Center)		[200 to 800 / **550** / 1-V/step]
062	Std Speed: C (Center)		[200 to 800 / **550** / 1-V/step]
063	Std Speed: M (Center)		[200 to 800 / **550** / 1-V/step]
064	Std Speed: Y (Center)		[200 to 800 / **550** / 1-V/step]
071	Mid Speed: K (Center)		[200 to 800 / **550** / 1-V/step]
072	Mid Speed: C (Center)		[200 to 800 / **550** / 1-V/step]
073	Mid Speed: M (Center)		[200 to 800 / **550** / 1-V/step]
074	Mid Speed: Y (Center)		[200 to 800 / **550** / 1-V/step]
081	Low Speed: K (Center)		[200 to 800 / **550** / 1-V/step]
082	Low Speed: C (Center)		[200 to 800 / **550** / 1-V/step]
083	Low Speed: M (Center)		[200 to 800 / **550** / 1-V/step]
084	Low Speed: Y (Center)		[200 to 800 / **550** / 1-V/step]
091	Std Speed: K (Rear)		[200 to 800 / **550** / 1-V/step]
092	Std Speed: C (Rear)		[200 to 800 / **550** / 1-V/step]
093	Std Speed: M (Rear)		[200 to 800 / **550** / 1-V/step]
094	Std Speed: Y (Rear)		[200 to 800 / **550** / 1-V/step]
101	Mid Speed: K (Rear)		[200 to 800 / **550** / 1-V/step]
102	Mid Speed: C (Rear)		[200 to 800 / **550** / 1-V/step]
103	Mid Speed: M (Rear)		[200 to 800 / **550** / 1-V/step]
104	Mid Speed: Y (Rear)		[200 to 800 / **550** / 1-V/step]
111	Low Speed: K (Rear)		[200 to 800 / **550** / 1-V/step]
112	Low Speed: C (Rear)		[200 to 800 / **550** / 1-V/step]
113	Low Speed: M (Rear)		[200 to 800 / **550** / 1-V/step]
114	Low Speed: Y (Rear)		[200 to 800 / **550** / 1-V/step]

3612	**[Dev DC Control]**		
120	Set:Vb Limit	*ENG	[0 to 500 / **50** / 1V/step]
	Controls bias variable amount when Pro-Con interrupting.		
3612	**[Dev DC Control]**		
	Sets upper limit develop Vb.		
121	Set:Limit TC1	*ENG	[1.0 to 15.0 / **6.5** / 0.1wt%/step]
122	Set:Limit TC2	*ENG	[1.0 to 15.0 / **7.0** / 0.1wt%/step]
123	Set:Page Thresh	*ENG	[0 to 999999 / **35000** / 1page/step]
131	Set:Upper Vb Current:K	*ENG	[0 to 800 / **600** / 1V/step]
132	Set:Upper Vb Current:C	*ENG	
133	Set:Upper Vb Current:M	*ENG	
134	Set:Upper Vb Current:Y	*ENG	
3612	**[Dev DC Control]**		
	Develop bias to actually set including value corrected with RTP.		
201	Now:Std Speed: K	ENG	[200 to 800 / **690** / 1-V/step]
202	Now:Std Speed: C	ENG	[200 to 800 / **690** / 1-V/step]
203	Now:Std Speed: M	ENG	[200 to 800 / **690** / 1-V/step]
204	Now:Std Speed: Y	ENG	[200 to 800 / **690** / 1-V/step]
211	Now:Mid Speed: K	ENG	[200 to 800 / **690** / 1-V/step]
212	Now:Mid Speed: C	ENG	[200 to 800 / **690** / 1-V/step]
213	Now:Mid Speed: M	ENG	[200 to 800 / **690** / 1-V/step]
214	Now:Mid Speed: Y	ENG	[200 to 800 / **690** / 1-V/step]
221	Now:Low Speed: K	ENG	[200 to 800 / **690** / 1-V/step]
222	Now:Low Speed: C	ENG	[200 to 800 / **690** / 1-V/step]
223	Now:Low Speed: M	ENG	[200 to 800 / **690** / 1-V/step]

224	Now:Low Speed: Y	ENG	[200 to 800 / **690** / 1-V/step]

3613	**[LD Power Control]**		
	Displays LD power decided with Pro-Con.		
001	Std Speed: K	*ENG	[0 to 200 / **100** / 1%/step]
002	Std Speed: C		[0 to 200 / **100** / 1%/step]
003	Std Speed: M		[0 to 200 / **100** / 1%/step]
004	Std Speed: Y		[0 to 200 / **100** / 1%/step]
011	Mid Speed: K		[0 to 200 / **100** / 1%/step]
012	Mid Speed: C		[0 to 200 / **100** / 1%/step]
013	Mid Speed: M		[0 to 200 / **100** / 1%/step]
014	Mid Speed: Y		[0 to 200 / **100** / 1%/step]
021	Std Speed: K		[0 to 200 / **100** / 1%/step]
022	Std Speed: C		[0 to 200 / **100** / 1%/step]
023	Std Speed: M		[0 to 200 / **100** / 1%/step]
024	Std Speed: Y		[0 to 200 / **100** / 1%/step]
031	Std Speed: K (Front)		[0 to 200 / **100** / 1%/step]
032	Std Speed: C (Front)		[0 to 200 / **100** / 1%/step]
033	Std Speed: M (Front)		[0 to 200 / **100** / 1%/step]
034	Std Speed: Y (Front)		[0 to 200 / **100** / 1%/step]
041	Mid Speed: K (Front)		[0 to 200 / **100** / 1%/step]
042	Mid Speed: C (Front)		[0 to 200 / **100** / 1%/step]
043	Mid Speed: M (Front)		[0 to 200 / **100** / 1%/step]
044	Mid Speed: Y (Front)		[0 to 200 / **100** / 1%/step]
051	Low Speed: K (Front)		[0 to 200 / **100** / 1%/step]
052	Low Speed: C (Front)		[0 to 200 / **100** / 1%/step]

053	Low Speed: M (Front)		[0 to 200 / **100** / 1%/step]
054	Low Speed: Y (Front)		[0 to 200 / **100** / 1%/step]
061	Std Speed: K (Center)		[0 to 200 / **100** / 1%/step]
062	Std Speed: C (Center)		[0 to 200 / **100** / 1%/step]
063	Std Speed: M (Center)		[0 to 200 / **100** / 1%/step]
064	Std Speed: Y (Center)		[0 to 200 / **100** / 1%/step]
071	Mid Speed: K (Center)		[0 to 200 / **100** / 1%/step]
072	Mid Speed: C (Center)		[0 to 200 / **100** / 1%/step]
073	Mid Speed: M (Center)		[0 to 200 / **100** / 1%/step]
074	Mid Speed: Y (Center)		[0 to 200 / **100** / 1%/step]
081	Low Speed: K (Center)		[0 to 200 / **100** / 1%/step]
082	Low Speed: C (Center)		[0 to 200 / **100** / 1%/step]
083	Low Speed: M (Center)		[0 to 200 / **100** / 1%/step]
084	Low Speed: Y (Center)		[0 to 200 / **100** / 1%/step]
091	Std Speed: K (Rear)		[0 to 200 / **100** / 1%/step]
092	Std Speed: C (Rear)		[0 to 200 / **100** / 1%/step]
093	Std Speed: M (Rear)		[0 to 200 / **100** / 1%/step]
094	Std Speed: Y (Rear)		[0 to 200 / **100** / 1%/step]
3613	**[LD Power Control]**		
	LD Power of Pro-Con pattern part.		
101	PrcsCntrlCorrect:K	ENG	[0 to 200 / **140** / 1%/step]
102	PrcsCntrlCorrect:C	ENG	[0 to 200 / **140** / 1%/step]
103	PrcsCntrlCorrect:M	ENG	[0 to 200 / **140** / 1%/step]
104	PrcsCntrlCorrect:Y	ENG	[0 to 200 / **140** / 1%/step]
111	Low Speed: K (Rear)		[0 to 200 / **140** / 1%/step]
112	Low Speed: C (Rear)		[0 to 200 / **140** / 1%/step]

113	Low Speed: M (Rear)		[0 to 200 / **140** / 1%/step]
114	Low Speed: Y (Rear)		[0 to 200 / **140** / 1%/step]
121	Mid Speed: K (Rear)		[0 to 200 / **140** / 1%/step]
122	Mid Speed: C (Rear)		[0 to 200 / **140** / 1%/step]
123	Mid Speed: M (Rear)		[0 to 200 / **140** / 1%/step]
124	Mid Speed: Y (Rear)		[0 to 200 / **140** / 1%/step]
3613	**[LD Power Control]**		
	Ld Power to actually set including value corrected with RTP.		
201	Now:Std Speed: K	ENG	[0 to 200 / **100** / 1%/step]
202	Now:Std Speed: C	ENG	[0 to 200 / **100** / 1%/step]
203	Now:Std Speed: M	ENG	[0 to 200 / **100** / 1%/step]
204	Now:Std Speed: Y	ENG	[0 to 200 / **100** / 1%/step]
211	Now:Mid Speed: K	ENG	[0 to 200 / **100** / 1%/step]
212	Now:Mid Speed: C	ENG	[0 to 200 / **100** / 1%/step]
213	Now:Mid Speed: M	ENG	[0 to 200 / **100** / 1%/step]
214	Now:Mid Speed: Y	ENG	[0 to 200 / **100** / 1%/step]
221	Now:Low Speed: K	ENG	[0 to 200 / **100** / 1%/step]
222	Now:Low Speed: C	ENG	[0 to 200 / **100** / 1%/step]
223	Now:Low Speed: M	ENG	[0 to 200 / **100** / 1%/step]
224	Now:Low Speed: Y	ENG	[0 to 200 / **100** / 1%/step]

3619	**[Bias:Spd Corr]**		
	Sets correction conditions per line speed of develop bias.		
001	VbCoef:Std Spd: K	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
002	VbCoef:Std Spd: C	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
003	VbCoef:Std Spd: M	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]

004	VbCoef:Std Spd: Y	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
011	VbCoef:Mid Spd: K	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
012	VbCoef:Mid Spd: C	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
013	VbCoef:Mid Spd: M	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
014	VbCoef:Mid Spd: Y	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
021	VbCoef:Low Spd: K	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
022	VbCoef:Low Spd: C	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
023	VbCoef:Low Spd: M	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
024	VbCoef:Low Spd: Y	*ENG	[0.50 to 1.50 / **1.00** / 0.01/step]
051	Offset: Std Spd: K	*ENG	[-128 to 127 / **39** / 1V/step]
052	Offset: Std Spd: C	*ENG	[-128 to 127 / **39** / 1V/step]
053	Offset: Std Spd: M	*ENG	[-128 to 127 / **39** / 1V/step]
054	Offset: Std Spd: Y	*ENG	[-128 to 127 / **39** / 1V/step]
061	Offset: Mid Spd: K	*ENG	[-128 to 127 / **39** / 1V/step]
062	Offset: Mid Spd: C	*ENG	[-128 to 127 / **39** / 1V/step]
063	Offset: Mid Spd: M	*ENG	[-128 to 127 / **39** / 1V/step]
064	Offset: Mid Spd: Y	*ENG	[-128 to 127 / **39** / 1V/step]
071	Offset: Low Spd: K	*ENG	[-128 to 127 / **39** / 1V/step]
072	Offset: Low Spd: C	*ENG	[-128 to 127 / **39** / 1V/step]
073	Offset: Low Spd: M	*ENG	[-128 to 127 / **39** / 1V/step]
074	Offset: Low Spd: Y	*ENG	[-128 to 127 / **39** / 1V/step]

3620	**[ProCon Target M/A]**		
001	Maximum M/A:K	*ENG	[0.250 to 0.750 / **0.370** / 0.001mg/cm2/step]
	Sets solid deposit (K).		

002	Maximum M/A:C	*ENG	[0.250 to 0.750 / **0.400** / 0.001mg/cm2/step]
	Sets solid deposit (C).		
003	Maximum M/A:M	*ENG	[0.250 to 0.750 / **0.450** / 0.001mg/cm2/step]
	Sets solid deposit (M).		
004	Maximum M/A:Y	*ENG	[0.250 to 0.750 / **0.400** / 0.001mg/cm2/step]
	Sets solid deposit (Y).		

3621	**[Backgroud Pot:Set]**		
	§ Sets background potential § Default: 100V, carrier deposit will occur when setting value too high.		
001	Slope:K	*ENG	[-1000 to 1000 / **0** / 1/step]
002	Slope:C	*ENG	
003	Slope:M	*ENG	
004	Slope:Y	*ENG	
011	intercept:K	*ENG	[0 to 255 / **120** / 1V/step]
012	intercept:C	*ENG	
013	intercept:M	*ENG	
014	intercept:Y	*ENG	
3621	**[Backgroud Pot:Set]**		
	Sets background potential. (Upper/lower limit).		
051	UpperLimit	*ENG	[100 to 1000 / **150** / 1V/step]
052	LowerLimit	*ENG	[0 to 100 / **100** / 1V/step]

3622	**[Dev Pot :Set]**		
001	Current:K	*ENG	[0 to 800 / **0** / 1V/step]

	Displays Development Potential: Current Value (K).		
002	Current:C	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (C).		
003	Current:M	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (M).		
004	Current:Y	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (Y).		
011	Current:F_K	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Target Value (K).		
012	Current:F_C	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Target Value (C).		
013	Current:F_M	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Target Value (M).		
014	Current:F_Y	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Target Value (Y).		
021	Current:C_K	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (K).		
022	Current:C_C	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (C).		
023	Current:C_M	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (M).		
024	Current:C_Y	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (Y).		
031	Current:R_K	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (K).		
032	Current:R_C	ENG	[0 to 800 / **0** / 1V/step]

	Displays develop potential (C).		
033	Current:R_M	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (M).		
034	Current:R_Y	ENG	[0 to 800 / **0** / 1V/step]
	Displays develop potential (Y).		
051	UpperLimit	*ENG	[400 to 800 / **700** / 1V/step]
	Sets Development Potential (Upper Limit) (K).		
052	UpperLimit	*ENG	[400 to 800 / **700** / 1V/step]
	Sets Development Potential (Upper Limit) (C).		
053	UpperLimit	*ENG	[400 to 800 / **700** / 1V/step]
	Sets Development Potential (Upper Limit) (M).		
054	UpperLimit	*ENG	[400 to 800 / **700** / 1V/step]
	Sets Development Potential (Upper Limit) (Y).		
061	LowerLimit	*ENG	[0 to 400 / **200** / 1V/step]
	Sets Development Potential (Lower Limit) (K).		
062	LowerLimit	*ENG	[0 to 400 / **200** / 1V/step]
	Sets Development Potential (Lower Limit) (C).		
063	LowerLimit	*ENG	[0 to 400 / **200** / 1V/step]
	Sets Development Potential (Lower Limit) (M).		
064	LowerLimit	*ENG	[0 to 400 / **200** / 1V/step]
	Sets Development Potential (Lower Limit) (Y).		
101	Target:K	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (K) according to paper.		
102	Target:C	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (C) according to paper.		
103	Target:M	*ENG	[0 to 800 / **0** / 1V/step]

	Displays Development Potential: Current Value (M) according to paper.		
104	Target:Y	*ENG	[0 to 800 / **0** / 1V/step]
	Displays Development Potential: Current Value (Y) according to paper.		
111	Target Corr:K	*ENG	[-128 to 127 / **0** / 1/step]
	Displays develop potential target value correction amount (K).		
112	Target Corr:C	*ENG	[-128 to 127 / **0** / 1/step]
	Displays develop potential target value correction amount (C).		
113	Target Corr:M	*ENG	[-128 to 127 / **0** / 1/step]
	Displays develop potential target value correction amount (M).		
114	Target Corr:Y	*ENG	[-128 to 127 / **0** / 1/step]
	Displays develop potential target value correction amount (Y).		
121	Vk:Upper_K	*ENG	[0 to 255 / **30** / 1-V/step]
	Regulates upper limit of start developing voltage value (K).		
122	Vk:Upper_Col	*ENG	[0 to 255 / **30** / 1-V/step]
	Regulates upper limit of start developing voltage value (Col).		
123	Vk:Lower_K	*ENG	[-128 to 0 / **-90** / 1-V/step]
	Regulates lower limit of start developing voltage value (K).		
124	Vk:Lower_Col	*ENG	[-128 to 0 / **-60** / 1-V/step]
	Regulates lower limit of start developing voltage value (Col).		

3623	**[LD Power :Set]**		
	Sets background potential § Default: 100V § Carrier deposit will occur when setting value too high.		
001	Std Speed Slope:K	*ENG	[-1000 to 1000 / **D146, D147: 213, D148: 221, D149, D150: 233** / 1/step]
002	Std Speed Slope:C	*ENG	
003	Std Speed Slope:M	*ENG	

004	Std Speed Slope:Y	*ENG	
011	Std Speed intercept:K	*ENG	[-1000 to 1000 / **-18** / 1/step]
012	Std Speed intercept:C	*ENG	
013	Std Speed intercept:M	*ENG	
014	Std Speed intercept:Y	*ENG	
021	Mid Speed Slope:K	*ENG	[-1000 to 1000 / **213** / 1/step]
022	Mid Speed Slope:C	*ENG	
023	Mid Speed Slope:M	*ENG	
024	Mid Speed Slope:Y	*ENG	
031	Mid Speed intercept:K	*ENG	[-1000 to 1000 / **-15** / 1/step]
032	Mid Speed intercept:C	*ENG	
033	Mid Speed intercept:M	*ENG	
034	Mid Speed intercept:Y	*ENG	
041	Low Speed Slope:K	*ENG	[-1000 to 1000 / **204** / 1/step]
042	Low Speed Slope:C	*ENG	
043	Low Speed Slope:M	*ENG	
044	Low Speed Slope:Y	*ENG	
051	Low Speed intercept:K	*ENG	[-1000 to 1000 / **-15** / 1/step]
052	Low Speed intercept:C	*ENG	
053	Low Speed intercept:M	*ENG	
054	Low Speed intercept:Y	*ENG	

3624	**[TC Adj. Mode]**		
001	Target(Upp Limit)	*ENG	[0.00 to 1.00 / **0.15** / 0.01 mg/cm2/-kV/step]
	Sets Development gamma Adjustment Target (Upp Limit) for Toner Density Adjustment.		

002	Target(Lwr Limit)	*ENG	[-1 to 0.00 / **-0.15** / 0.01 mg/cm2/-kV/step]
	Sets Development gamma Adjustment Target (Lwr Limit) for Toner Density Adjustment.		
005	Force Consume Threshold	*ENG	[1.00 to 6.00 / **1.50** / 0.01 mg/cm2/-kV/step]
	Sets Force Consume Threshold for Density Adjustment.		
006	Consume(Upp Limit)	*ENG	[10 to 2550 / **294** / 1cm^2]
	Sets Consume (Upp Limit) for Density Adjustment.		
007	Consume(Upp Limit)	*ENG	[0 to 255 / **20** / 1times/step]
	Sets Consume (Upp Limit) for Density Adjustment.		
008	Force Supply Threshold	*ENG	[0.00 to 1.00 / **0.50** / 0.01 mg/cm2/-kV/step]
	Sets Force Consume Threshold for Density Adjustment.		
009	Supply(Upp Limit)	*ENG	[0.0 to 50.0 / **3.0** / 0.1g/step]
	Sets Supply (Upp Limit) for Density Adjustment.		
010	Supply(Lwr Limit)	*ENG	[0.0 to 50.0 / **1.0** / 0.1g/step]
	Sets Supply (Lwr Limit) for Density Adjustment.		
021	Consumption Pat: DUTY: K	*ENG	[0 to 15 / **15** / 1/step]
022	Consumption Pat: DUTY: C	*ENG	
023	Consumption Pat: DUTY: M	*ENG	
024	Consumption Pat: DUTY: Y	*ENG	
3624	**[TC Adj. Mode]**		
031	Max Counts:PowerON	*ENG	[0 to 50 / **0** / 1/step]
	Sets consume counts (upper limit) for toner density adjusting Pro-Con.		
3624	**[TC Adj. Mode]**		
	Sets adjust counts for toner density adjusting Pro-Con.		

033	Max Counts:Printing	*ENG	[0 to 50 / **0** / 1/step]
034	Max Counts:Job End	*ENG	
035	Max Counts:ACC	*ENG	[0 to 50 / **3** / 1/step]
036	Max Counts:Initial Setting	*ENG	
037	Max Counts:Replenishment	*ENG	
038	Max Counts:Recovery	*ENG	
3624	**[TC Adj. Mode]**		
	Sets execute threshold for density adjust Pro-Con against absolute humidity.		
071	AbsHumThresh(Upp)	*ENG	[0.00 to 100.00 / **16.00** / 0.01g/m3/step]
072	AbsHumThresh(Low)	*ENG	[0.00 to 100.00 / **4.00** / 0.01g/m3/step]
073	AbsHumThresh(Range)	*ENG	[0.00 to 100.00 / **12.00** / 0.01g/m3/step]

3627	**[P Pattern Extraction :Set]**		
	Sets edge detect threshold for ID sensor.		
001	Edge Detection Threshold :K	*ENG	[0.0 to 5.0 / **2.5** / 0.1V/step]
002	Edge Detection Threshold :C	*ENG	
003	Edge Detection Threshold :M	*ENG	
004	Edge Detection Threshold :Y	*ENG	
011	Edge Upper Limit:Potential Control	*ENG	[7.0 to 10.0 / **9.0** / 0.1mm/step]
	Sets upper limit value of edge interval sampling count of P pattern by electric potential control. (Processes an error when exceeding upper limit)		

012	Edge Upper Limit:IBACC	*ENG	[10.0 to 13.0 / **12.0** / 0.1mm/step]
	Sets upper limit value of edge interval sampling count of P pattern by IBACC. (Processes an error when exceeding upper limit)		
013	Edge Upper Limit:RTP		[50 to 80 / 70 / 0.1mm/step]
021	Edge Lower Limit:Potential Control	*ENG	[4.0 to 7.0 / **5.0** / 0.1mm/step]
	Sets lower limit value of edge interval sampling count of P pattern by electric potential control. (Keeps searching when below lower limit value)		
022	Edge Lower Limit:IBACC	*ENG	[7.0 to 10.0 / **8.0** / 0.1mm/step]
	Sets lower limit value of edge interval sampling count of P pattern IBACC. (Keeps searching when below lower limit value)		
023	Edge Lower Limit:RTP	*ENG	[2.0 to 5.0 / **3.0** / 0.1mm/step]
	Sets lower limit value of edge interval sampling count of P pattern RTP. (Keeps searching when below lower limit value)		

3628	**[ID Pattern Timing :Set]**		
001	Scan: YCMK	*ENG	[-500.0 to 500.0 / **0.0** / 0.1mm/step]
	Adjusts timing of Pro-Con pattern detect by P sensor.		
002	Detection Delay Time	*ENG	[0 to 2500 / **0** / 1msec/step]
	Adjusts alienation start timing of paper transfer.		
003	Delay Time	*ENG	[0 to 2500 / **778** / 1msec/step]
	Adjusts start write timing of P pattern.		
004	MUSIC Delay Time	*ENG	[0 to 2500 / **150** / 1msec/step]
	Adjusts start write timing of MUSIC.		

3629	**[ProCon Pattern:Set]**		
	Sets imaging conditions for electric potential control pattern.		
001	ChargeDC: Pattern1: Bk	*ENG	[0 to 999 / **170** / 1V/step]
002	ChargeDC: Pattern2: Bk	*ENG	[0 to 999 / **210** / 1V/step]
003	ChargeDC: Pattern3: Bk	*ENG	[0 to 999 / **250** / 1V/step]
004	ChargeDC: Pattern4: Bk	*ENG	[0 to 999 / **290** / 1V/step]
005	ChargeDC: Pattern5: Bk	*ENG	[0 to 999 / **330** / 1V/step]
006	ChargeDC: Pattern6: Bk	*ENG	[0 to 999 / **370** / 1V/step]
007	ChargeDC: Pattern7: Bk	*ENG	[0 to 999 / **410** / 1V/step]
008	ChargeDC: Pattern8: Bk	*ENG	[0 to 999 / **450** / 1V/step]
009	ChargeDC: Pattern9: Bk	*ENG	[0 to 999 / **490** / 1V/step]
010	ChargeDC: Pattern10: Bk	*ENG	[0 to 999 / **530** / 1V/step]
011	ChargeDC: Pattern1: C	*ENG	[0 to 999 / **170** / 1V/step]
012	ChargeDC: Pattern2: C	*ENG	[0 to 999 / **230** / 1V/step]
013	ChargeDC: Pattern3: C	*ENG	[0 to 999 / **290** / 1V/step]
014	ChargeDC: Pattern4: C	*ENG	[0 to 999 / **350** / 1V/step]
015	ChargeDC: Pattern5: C	*ENG	[0 to 999 / **410** / 1V/step]
016	ChargeDC: Pattern6: C	*ENG	[0 to 999 / **470** / 1V/step]
017	ChargeDC: Pattern7: C	*ENG	[0 to 999 / **530** / 1V/step]
018	ChargeDC: Pattern8: C	*ENG	[0 to 999 / **590** / 1V/step]
019	ChargeDC: Pattern9: C	*ENG	[0 to 999 / **650** / 1V/step]
020	ChargeDC: Pattern10: C	*ENG	[0 to 999 / **710** / 1V/step]
021	ChargeDC: Pattern1: M	*ENG	[0 to 999 / **170** / 1V/step]
022	ChargeDC: Pattern2: M	*ENG	[0 to 999 / **230** / 1V/step]
023	ChargeDC: Pattern3: M	*ENG	[0 to 999 / **290** / 1V/step]

024	ChargeDC: Pattern4: M	*ENG	[0 to 999 / **350** / 1V/step]
025	ChargeDC: Pattern5: M	*ENG	[0 to 999 / **410** / 1V/step]
026	ChargeDC: Pattern6: M	*ENG	[0 to 999 / **470** / 1V/step]
027	ChargeDC: Pattern7: M	*ENG	[0 to 999 / **530** / 1V/step]
028	ChargeDC: Pattern8: M	*ENG	[0 to 999 / **590** / 1V/step]
029	ChargeDC: Pattern9: M	*ENG	[0 to 999 / **650** / 1V/step]
030	ChargeDC: Pattern10: M	*ENG	[0 to 999 / **710** / 1V/step]
031	ChargeDC: Pattern1: Y	*ENG	[0 to 999 / **170** / 1V/step]
032	ChargeDC: Pattern2: Y	*ENG	[0 to 999 / **230** / 1V/step]
033	ChargeDC: Pattern3: Y	*ENG	[0 to 999 / **290** / 1V/step]
034	ChargeDC: Pattern4: Y	*ENG	[0 to 999 / **350** / 1V/step]
035	ChargeDC: Pattern5: Y	*ENG	[0 to 999 / **410** / 1V/step]
036	ChargeDC: Pattern6: Y	*ENG	[0 to 999 / **470** / 1V/step]
037	ChargeDC: Pattern7: Y	*ENG	[0 to 999 / **530** / 1V/step]
038	ChargeDC: Pattern8: Y	*ENG	[0 to 999 / **590** / 1V/step]
039	ChargeDC: Pattern9: Y	*ENG	[0 to 999 / **650** / 1V/step]
040	ChargeDC: Pattern10: Y	*ENG	[0 to 999 / **710** / 1V/step]
101	DevelopmentDC: Pattern1: Bk	*ENG	[0 to 999 / **50** / 1V/step]
102	DevelopmentDC: Pattern2: Bk	*ENG	[0 to 999 / **90** / 1V/step]
103	DevelopmentDC: Pattern3: Bk	*ENG	[0 to 999 / **130** / 1V/step]
104	DevelopmentDC: Pattern4: Bk	*ENG	[0 to 999 / **170** / 1V/step]
105	DevelopmentDC: Pattern5: Bk	*ENG	[0 to 999 / **210** / 1V/step]
106	DevelopmentDC: Pattern6: Bk	*ENG	[0 to 999 / **250** / 1V/step]
107	DevelopmentDC: Pattern7: Bk	*ENG	[0 to 999 / **290** / 1V/step]
108	DevelopmentDC: Pattern8: Bk	*ENG	[0 to 999 / **330** / 1V/step]
109	DevelopmentDC: Pattern9: Bk	*ENG	[0 to 999 / **370** / 1V/step]

110	DevelopmentDC: Pattern10: Bk	*ENG	[0 to 999 / **410** / 1V/step]
111	DevelopmentDC: Pattern1: C	*ENG	[0 to 999 / **50** / 1V/step]
112	DevelopmentDC: Pattern2: C	*ENG	[0 to 999 / **110** / 1V/step]
113	DevelopmentDC: Pattern3: C	*ENG	[0 to 999 / **170** / 1V/step]
123	DevelopmentDC: Pattern3: M	*ENG	[0 to 999 / **170** / 1V/step]
124	DevelopmentDC: Pattern4: M	*ENG	[0 to 999 / **230** / 1V/step]
125	DevelopmentDC: Pattern5: M	*ENG	[0 to 999 / **290** / 1V/step]
133	DevelopmentDC: Pattern3: Y	*ENG	[0 to 999 / **170** / 1V/step]
134	DevelopmentDC: Pattern4: Y	*ENG	[0 to 999 / **230** / 1V/step]
135	DevelopmentDC: Pattern5: Y	*ENG	[0 to 999 / **290** / 1V/step]
136	DevelopmentDC: Pattern6: Y	*ENG	[0 to 999 / **350** / 1V/step]
137	DevelopmentDC: Pattern7: Y	*ENG	[0 to 999 / **410** / 1V/step]
138	DevelopmentDC: Pattern8: Y	*ENG	[0 to 999 / **470** / 1V/step]
139	DevelopmentDC: Pattern9: Y	*ENG	[0 to 999 / **530** / 1V/step]
140	DevelopmentDC: Pattern10: Y	*ENG	[0 to 999 / **590** / 1V/step]

3630	**[Dev gamma :Disp/Set]**		
001	Current:K	*ENG	[0.10 to 6.00 / **0.95** / 0.01 mg/cm2/-kV/step]
	Displays the latest Development gamma (K).		
002	Current:C	*ENG	[0.10 to 6.00 / **0.95** / 0.01 mg/cm2/-kV/step]
	Displays the latest Development gamma (C).		
003	Current:M	*ENG	[0.10 to 6.00 / **1.05** / 0.01 mg/cm2/-kV/step]
	Displays the latest Development gamma (M).		

004	Current:Y	*ENG	[0.10 to 6.00 / **0.95** / 0.01 mg/cm2/-kV/step]
	Displays the latest Development gamma (Y).		
011	Target:K	*ENG	[0.50 to 2.55 / **0.95** / 0.01 mg/cm2/-kV/step]
	Displays Target Value for Development gamma (K).		
	Displays environment correction amount of develop gamma.		
042	Environ Corr:Col	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Displays environment correction amount of develop gamma.		
051	TnrDensity Corr:K	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Displays toner density correction amount of develop gamma. (K)		
052	TnrDensity Corr:C	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Displays toner density correction amount of develop gamma. (C)		
053	TnrDensity Corr:M	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Displays toner density correction amount of develop gamma. (M)		
054	TnrDensity Corr:Y	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Displays toner density correction amount of develop gamma. (Y)		
061	TnrDensity:K	*ENG	[0.0 to 25.5 / **0.0** / 0.1 wt%/step]
	Displays Toner Density (K) converted based on TD Sensor output.		
062	TnrDensity:C	*ENG	[0.0 to 25.5 / **0.0** / 0.1 wt%/step]
	Displays Toner Density (C) converted based on TD Sensor output.		
063	TnrDensity:M	*ENG	[0.0 to 25.5 / **0.0** / 0.1 wt%/step]
	Displays Toner Density (M) converted based on TD Sensor output.		

064	TnrDensity:Y	*ENG	[0.0 to 25.5 / **0.0** / 0.1 wt%/step]
	Displays Toner Density (Y) converted based on TD Sensor output.		
071	Environ Corr1:K	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 1) of develop gamma.		
072	Environ Corr2:K	*ENG	[-1.00 to 1.00 / **0.04** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 2) of develop gamma.		
073	Environ Corr3:K	*ENG	[-1.00 to 1.00 / **0.06** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 3) of develop gamma.		
074	Environ Corr4:K	*ENG	[-1.00 to 1.00 / **0.08** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 4) of develop gamma.		
075	Environ Corr5:K	*ENG	[-1.00 to 1.00 / **0.10** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 5) of develop gamma.		
076	Environ Corr6:K	*ENG	[-1.00 to 1.00 / **0.10** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 6) of develop gamma		
081	Environ Corr1:Col	*ENG	[-1.00 to 1.00 / **0.00** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 1) of develop gamma.		

082	Environ Corr2:Col	*ENG	[-1.00 to 1.00 / **0.04** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 2) of develop gamma.		
083	Environ Corr3:Col	*ENG	[-1.00 to 1.00 / **0.06** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 3) of develop gamma.		
084	Environ Corr4:Col	*ENG	[-1.00 to 1.00 / **0.08** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 4) of develop gamma.		
085	Environ Corr5:Col	*ENG	[-1.00 to 1.00 / **0.10** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 5) of develop gamma.		
086	Environ Corr6:Col	*ENG	[-1.00 to 1.00 / **0.10** / 0.01 mg/cm2/-kV/step]
	Sets environment correction table value (environment section 6) of develop gamma.		
090	TC-Gamma	*ENG	[0.10 to 0.25 / **0.20** / 0.01/step]
	Slope of TC-develop gamma.		
091	TC Corr ThreshHold:K	*ENG	[7.0 to 12.0 / **9.0** / 0.1wt%/step]
	Sets toner density threshold for correction using TC correction term of develop gamma (target).		
092	TC Corr ThreshHold:C	*ENG	[7.0 to 12.0 / **9.0** / 0.1wt%/step]
	Sets toner density threshold for correction using TC correction term of develop gamma (target).		
093	TC Corr ThreshHold:M	*ENG	[7.0 to 12.0 / **9.0** / 0.1wt%/step]

	Sets toner density threshold for correction using TC correction term of develop gamma (target).		
094	TC Corr ThreshHold:Y	*ENG	[7.0 to 12.0 / **9.0** / 0.1wt%/step]
	Sets toner density threshold for correction using TC correction term of develop gamma (target).		
3630	**[Dev gamma :Disp/Set]**		
101	UpperLimit	*ENG	[1.00 to 5.00 / **5.00** / 0.01mg/cm2/-kV/step]
	Displays initial value of develop gamma (K).		
102	LowerLimit	*ENG	[0.10 to 1.00 / **0.15** / 0.01mg/cm2/-kV/step]
	Displays initial value of develop gamma (C).		
3630	**[Dev gamma :Disp/Set]**		
	Displays latest develop gamma.		
111	Current:F_K	ENG	[0.10 to 6.00 / **0.90** / 0.01mg/cm2/-kV/step]
112	Current:F_C	ENG	[0.10 to 6.00 / **0.80** / 0.01mg/cm2/-kV/step]
113	Current:F_M	ENG	
114	Current:F_Y	ENG	
121	Current:C_K	ENG	[0.10 to 6.00 / **0.90** / 0.01mg/cm2/-kV/step]
122	Current:C_C	ENG	[0.10 to 6.00 / **0.80** / 0.01mg/cm2/-kV/step]
123	Current:C_M	ENG	
124	Current:C_Y	ENG	
131	Current:R_K	ENG	[0.10 to 6.00 / **0.90** / 0.01mg/cm2/-kV/step]
132	Current:R_C	ENG	[0.10 to 6.00 / **0.80** / 0.01mg/cm2/-kV/step]
133	Current:R_M	ENG	

134	Current:R_Y	ENG	
3630	**[Dev gamma :Disp/Set]**		
	Regulates valid deposit amount range for calculating develop gamma.		
141	Range M/A Upp:K	*ENG	[0.20 to 1.00 / **0.40** / 0.01mg/cm2/step]
142	Range M/A Low:K	*ENG	[0.00 to 0.20 / **0.05** / 0.01mg/cm2/step]
143	Range M/A Upp:Col	*ENG	[0.20 to 1.00 / **0.50** / 0.01mg/cm2/step]
144	Range M/A Low:Col	*ENG	[0.00 to 0.20 / **0.05** / 0.01mg/cm2/step]

3631	**[Vk :Disp]**		
	Displays latest develop start voltage.		
001	Current:K	*ENG	[-300 to 300 / **0** / 1-V/step]
002	Current:C	*ENG	
003	Current:M	*ENG	
004	Current:Y	*ENG	
111	Current:F_K	ENG	[-300 to 300 / **0** / 1-V/step]
112	Current:F_C	ENG	
113	Current:F_M	ENG	
114	Current:F_Y	ENG	
121	Current:C_K	ENG	[-300 to 300 / **0** / 1-V/step]
122	Current:C_C	ENG	
123	Current:C_M	ENG	
124	Current:C_Y	ENG	
131	Current:R_K	ENG	[-300 to 300 / **0** / 1-V/step]

132	Current:R_C	ENG	
133	Current:R_M	ENG	
134	Current:R_Y	ENG	

3650	**[APC: Set]**		
001	Interval	*ENG	[0 to 200 / **0** / 1page/step]
	Sets executing interval of electric potential control during printing.		
3650	**[APC: Set]**		
	Sets deposit amount threshold (upper/lower limit) to start supplying with supply gain 3 of electric potential control during print.		
011	Page Cnt:K	*ENG	[0 to 200 / **0** / 1pages/step]
012	Page Cnt:C		[0 to 200 / **0** / 1pages/step]
013	Page Cnt:M		[0 to 200 / **0** / 1pages/step]
014	Page Cnt:Y		[0 to 200 / **0** / 1pages/step]
021	Maximum M/A Corr:K		[-150.000 to 150.000 / **1.000** / 0.001mg/cm2/step]
022	Maximum M/A Corr:C		[-150.000 to 150.000 / **1.000** / 0.001mg/cm2/step]
023	Maximum M/A Corr:M		[-150.000 to 150.000 / **1.000** / 0.001mg/cm2/step]
024	Maximum M/A Corr:Y		[-150.000 to 150.000 / **1.000** / 0.001mg/cm2/step]
031	M/A UpperLimit2:K	*ENG	[0.000 to 0.100 / **0.020** / 0.001mg/cm2/step]
032	M/A UpperLimit2:C	*ENG	[0.000 to 0.100 / **0.020** / 0.001mg/cm2/step]
033	M/A UpperLimit2:M	*ENG	
034	M/A UpperLimit2:Y	*ENG	

041	M/A LowerLimit2:K	*ENG	[0.000 to 0.100 / **0.020** / 0.001mg/cm2/step]
042	M/A LowerLimit2:C	*ENG	[0.000 to 0.100 / **0.020** / 0.001mg/cm2/step]
043	M/A LowerLimit2:M	*ENG	
044	M/A LowerLimit2:Y	*ENG	
3650	**[APC: Set]**		
051	Corr Gain(GAMMA)	*ENG	[0 to 99 / **5** / 1/step]
	Sets correction gain 1 of electric potential control during printing.		
052	Corr Gain(ASSIST)	*ENG	[0 to 99 / **4** / 1/step]
	Sets correction gain 2 of electric potential control during printing.		
053	Corr Gain(ADJUST)	*ENG	[0 to 99 / **6** / 1/step]
	Sets correction gain 3 of electric potential control during printing.		
054	Corr3MaxCnt	*ENG	[0 to 99 / **30** / 1time/step]
	Sets correction times for correction gain 3 of electric potential control during printing.		
055	Interval Coef	*ENG	[0.0 to 1.0 / **0.5** / 0.1/step]
	Correction coefficient to correct Paper interval P pattern create interval.		
056	ADJUSTMaxCnt	*ENG	[0 to 99 / **5** / 1time/step]
	Sets correction times for ASSIST of electric potential control during printing.		
3650	**[APC: Set]**		
	Sets execution flag for correction gain 3 of electric potential control during printing.		
061	ADJUST Flag:K	*ENG	[0 or 1 / **0** / 1/step]
062	ADJUST Flag:C	*ENG	
3650	**[APC: Set]**		
	Displays execution times counter for correction gain 3 of electric potential control during printing.		

071	ADJUST Exe Cnt:K	*ENG	[0 to 99 / **0** / 1pages]
072	ADJUST Exe Cnt:C	*ENG	
073	ADJUST Exe Cnt:M	*ENG	
074	ADJUST Exe Cnt:Y	*ENG	
3650	**[APC: Set]**		
	Sets delta Vt value to decide Vt threshold of electric potential during printing.		
081	Vt Thresh:Range:K	*ENG	[0.00 to 1.00 / **0.20** / 0.01V/step]
082	Vt Thresh:Range:C	*ENG	
083	Vt Thresh:Range:M	*ENG	
084	Vt Thresh:Range:Y	*ENG	
3650	**[APC: Set]**		
101	limit:LDP	*ENG	[0 to 10 / **10** / 1%/step]
	Upper limit threshold for LDP variable amount of APC.		
102	limit:Bias	*ENG	[0 to 30 / **10** / 1V/step]
	Upper limit threshold for bias variable amount of APC.		

3660	**[IBACC:Disp/Set]**		
	Density target value per IBACC pattern.		
001	TargetValue:K_P1	*ENG	[0 to 1023 / **869** / 1/step]
002	TargetValue:K_P2	*ENG	[0 to 1023 / **702** / 1/step]
003	TargetValue:K_P3	*ENG	[0 to 1023 / **522** / 1/step]
004	TargetValue:K_P4	*ENG	[0 to 1023 / **323** / 1/step]
005	TargetValue:K_P5	*ENG	[0 to 1023 / **196** / 1/step]
006	TargetValue:K_P6	*ENG	[0 to 1023 / **254** / 1/step]
021	TargetValue:C_P1	*ENG	[0 to 1023 / **965** / 1/step]
022	TargetValue:C_P2	*ENG	[0 to 1023 / **909** / 1/step]

023	TargetValue:C_P3	*ENG	[0 to 1023 / **832** / 1/step]

3800	**[Waste Toner Full Detection]**		
022	Background M/A		[0 to 1000000 / **20** / 0.000001mg/mm2/step]
023	Percentage of Transfer Ratio		[0 to 1000 / **810** / 0.1%/step]
024	Date of detection for near full	*ENG	[0 or 1 / **0** / 1/step]
	Displays latest date done mechanical detect.		

3810	**[Lubricant End Detection]**		
001	Near End Detection Distance: Thres1:Bk	*ENG	[0 to 999999999 / **D146,D147: 0, D148,D149,D150: 689336** / 1cm/step]
	*No use for this machine. Rotation distance threshold: Bk from near end detect to near end detect 2.		
003	End Detection Distance: Thres2:Bk	*ENG	[0 to 999999999 / **689336** / 1cm/step]
	*No use for this machine. Rotation distance threshold: Bk from near end detect to end detect.		
011	Conduction Detection Times Counter:K	*ENG	[0 to 9 / **0** / 1/step]
	*No use for this machine. Accumulation of continues detecting times.		
015	Near End Distance:K	*ENG	[0 to 999999999 / **0** / 1cm/step]
	*No use for this machine. PCU rotation distance of when detecting near end: saving SP		
021	Detection Flag:K	*ENG	[0 to 3 / **0** / 1/step] 0: Undetected 1: mechanically detected 2: Near end detected 3: End detected.

	*No use for this machine. Detect flag		
025	New Unit Detection Flag:K	*ENG	[0 or 1 / **0** / 1/step] 0: Normal state 1: New article detected
	*No use for this machine. New article detect flag		

3894	**[Engine Counter Clear]**		
001	Mainframe SP		[0 or 1 / **0** / 1/step]
002	AIT-ID chip		[0 or 1 / **0** / 1/step]
003	Toner tag		[0 or 1 / **0** / 1/step]
004	All		[0 or 1 / **0** / 1/step]

3905	**[Recycled Parts: New/Old Flag]**		
	Sets a flag able to recognize whether PCU is New or recycled per machine unit. (Set to "1" for recycled)		
001	OPC:K	*ENG	[0 or 1 / **0** / 1/step]
002	OPC:C	*ENG	
003	OPC:M	*ENG	
004	OPC:Y	*ENG	

2.6 MAIN SP TABLES - 4

2.6.1 SP4-XXX (SCANNER)

4008	**[Sub Scan Magnification Adj]**		
	Adjusts Sub Scan Magnification by 0.1% each step.		
001	-	*ENG	[-1.0 to 1.0 / **0.0** / 0.1 %/step] Picture will stretch as value increases. Picture will shrink as value decreases.

4010	**[Sub Scan Registration Adj]**		
	Adjusts Sub Scan Registration position of book scanner by 0.1mm each step.		
001	-	*ENG	[-2.0 to 2.0 / **0.0** / 0.1 mm/step] Picture will move to back edge of sub scan as value increases. Picture will move to front edge of sub scan as value decreases.

4011	**[Main Scan Reg]**		
	Adjust Main Scan Registration position by 0.1mm each step.		
001	-	*ENG	[-2.5 to 2.5 / **0.0** / 0.1 mm/step] Picture moves to right as value increases. Picture moves to left as value decreases.

4012	**[Set Scale Mask]**

	Adjusts scanning margins for the leading and trailing edges (sub scan) and right and left edge (main scan). Note § Do not adjust unless the customer desires a scanner margin greater than the printer margin. These settings are adjusted to erase shadows caused by the gap between the original and the scale of the scanner unit.		
001	Book:Sub LEdge	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of sub scan leading edge (left side or original table) when scanning with book scanner.		
002	Book:Sub TEdge	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of sub scan trailing edge (right side or original table) when scanning with book scanner.		
003	Book:Main:LEdge	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of main scan leading edge (rear side or original table) when scanning with book scanner.		
004	Book:Main:TEdge	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of main scan trailing edge (front side or original table) when scanning with book scanner.		
005	ADF: Leading Edge	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of sub scan leading edge when scanning with ADF.		
007	ADF: Right	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of main scan leading edge when scanning with ADF.		
008	ADF: left	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase scale shadow of main scan trailing edge when scanning with ADF.		

4013	**[Scanner Free Run]**		
	Note § Scan operation amount will depend of the latest scanning size		
001	Book mode :Lamp Off	ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Repeats carriage reciprocating motion with lamp off.		
002	Book mode :Lamp On	ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Repeats carriage reciprocating motion with lamp on.		

4014	**[Scan]**		
001	HP Detection Enable	ENG	[0 or 1 / **0** / 1/step] 0:OFF, 1:ON
	Runs Scanner (HP Detection Enable). Reading size, speed is same as the most recent run(Default is FC, A3, Actual size)		
002	HP Detection Disable	ENG	[0 or 1 / **0** / 1/step] 0:OFF, 1:ON
	Runs Scanner (HP Detection Disable). Reading size, speed is same as the most recent run(Default is FC, A3, Actual size)		

4020	**[Dust Check]**		
001	Dust Detect:On/Off	*ENG	[0 or 1 / **0** / 1/step] 0: OFF, 1: ON
	Sets DF Dust Detection ON/OFF.		

002	Dust Detect:Lvl	*ENG	[0 to 8 / **4** / 1/step] 0: lowest detection level 8: highest detection level
	Sets DF Dust Detect Level. Easier to Detect as Value increases.		
4020	**[Dust Check Lvl]**		
003	Dust Reject:Lvl	*ENG	[0 to 4 / **0** / 1/step]
	Sets ON/OFF and switches level of Vertical stripes correction. 0=OFF, sets level to 1 from 4. Stronger correction as value increases.		
4020	**[DF Dust Check]**		
011	Dust Detect Level:Rear	*ENG	[0 or 1 / **0** / 1/step] 0: OFF, 1: ON
	Sets ON/OFF DF: Rear dust detection setting.		
012	Correction Level:Rear	*ENG	[0 to 8 / **4** / 1/step] 0:Lowest level 8:Highest level
	Sets DF: Rear dust detection level. As the value enlarges, easier to detect.		

4201	**[LoCPP edge level:K]**		
001	600dpi 2bit edge1	*ENG	[0 to 15 / **11** / 1/step] Value increase: Tonner adhesion amount will increase for Bk picture edge. Toner decrease: Toner adhesion amount will decrease for Bk picture edge.
	Upper limit threshold parameter for smaller edge: 600dpi 2bit		

002	600dpi 2bit edge23	*ENG	[0 to 15 / **11** / 1/step] Value increase: Tonner adhesion amount will increase for Bk picture edge. Toner decrease: Toner adhesion amount will decrease for Bk picture edge
	Upper limit threshold parameter for larger edge: 600dpi 2bit		
003	600dpi 4bit edge1	*ENG	[0 to 15 / **11** / 1/step] Value increase: Tonner adhesion amount will increase for Bk picture edge. Toner decrease: Toner adhesion amount will decrease for Bk picture edge.
	Upper limit threshold parameter for smaller edge: 600dpi 4bit		
004	600dpi 4bit edge23	*ENG	[0 to 15 / **11** / 1/step] Value increase: Tonner adhesion amount will increase for Bk picture edge. Toner decrease: Toner adhesion amount will decrease for Bk picture edge.
	Upper limit threshold parameter for larger edge: 600dpi 4bit		
4201	**[LoCPP edge off/on:K]**		
	Off/on for Smaller/larger edge: 1200dpi 1bit		
011	1200dpi 1bit edge12	*ENG	[0 or 1 / **0** / 1/step]
	ON/OFF for smaller edge: 1200dpi 1bit Select ON/OFF for low CPP edge correction with 1200dpi 1bit.		
012	1200dpi 1bit edge345	*ENG	[0 or 1 / **0** / 1/step]
	ON/OFF for larger edge: 1200dpi 1bit Select ON/OFF for low CPP edge correction with 1200dpi 1bit.		

4301	[Operation Check APS Sensor]		
001	Operation Check APS Sensor	*ENG	[0 to 255 / **0** / 1/step] 0: Not detected 1: Detected
	SP for testing APS Sensor function.		

4303	[Min Size for APS]		
001	Min Size for APS	*ENG	[0 or 1 / **0** / 1/step] 0 : No Original 1: A5-Lengthwise
	Sets display when non-standard (small size) size original is detected. Note § Sets display when non-standard (small size) size original is detected. § When “2:EU” is selected at SP5-131-001 and “3:8K 16K” with SP4-305-001, Decision of SP4-303-001 will be “1:16K Vertical”		

4305	[8K/16K Detection]		
001	-	*ENG	[0 to 3 / **0** / 1/step] 0: Normal Detection 1: A4-Sideways LT-Lengthwise 2: LT-Sideways A4-Lengthwise 3: 8K 16K
	Sets assign of decision size when original size is detected. Note § When “0: JA” or “1: NA” is set at SP5-131-001, “3: 8K 16K series” can not be selected with SP4-305-001.		

4308	[Scan Size Detection]		
001	Detection ON/OFF	*ENG	[0 to 2 / **1** / 1/step] 0: OFF 1: ON 2: APS
	Switch Original size detection ON/OFF.		

4309	**[Scan Size Detect:Setting]**		
001	Original Density Thresh	*ENG	[0 to 255 / **12** / 1digit/step]
	Sets scan image density Thresh for Scan size detection.		
002	Detection Time	*ENG	[20 to 100 / **60** / 20 msecstep]
	Detection time for scan size detection.		
003	Lamp ON:Delay Time	*ENG	[40 to 200 / **40** / 10 msec/step]
	Adjusts lamp light timing for scan size detection.		
004	LED PWM Duty	*ENG	[0 to 100 / **45** / 1/step]
	Adjusts lamp light timing for scan size detection.		

4310	**[Scan Size Detect Value]**		
	Checks the density of scanning data for the scan size detection.		
001	S1:R	ENG	[0 to 255 / **0** / 1digit/step]
002	S1:G	ENG	
003	S1:B	ENG	
004	S2:R	ENG	
005	S2:G	ENG	
006	S2:B	ENG	
007	S3:R	ENG	
008	S3:G	ENG	
009	S3:B	ENG	

4350	[Intermittent Shading : BW]		
001	Switch On/Off	ENG	[0 or 1 / **1** / 1/step] 0: Every time shading 1: Interval shading
	Switches On/OFF for Intermittent Shading when scanning BW (Simplex/Duplex).		
002	Interval 1	ENG	[0 to 65535 / **180** / 1sec/step]
	Sets Intermittent Shading interval 1(from light on to the times done in Intermittent Shading interval set with SP4-350-003) when scanning BW.		
003	Interval 1 Repetitions	ENG	[1 to 60 / **1** / 1/step]
	Sets Shading time within Interval1 when scanning BW.		
004	Interval 2	ENG	[0 to 65535 / **180** / 1sec/step]
	Sets Intermittent Shading interval 2(Intermittent Shading interval after interval1 is dome) when scanning BW.		

4351	[Intermittent Shading : FC]		
001	Switch On/Off	ENG	[0 or 1 / **1** / 1/step] 0: Every time shading 1: Interval shading
	Selects shading operation for color scanning.		
002	Interval 1	ENG	[0 to 65535 / **180** / 1sec/step]
	Sets interval shading interval 1 for Color scanning (Duplex/Simplex).		
003	Interval 1 Repetitions	ENG	[1 to 60 / **1** / 1/step]
	Sets operating times of interval shading interval 1 for color scanning (Duplex/Simplex).		
004	Interval 2	ENG	[0 to 65535 / **180** / 1sec/step]
	Sets interval shading interval 2 for Color scanning (Duplex/Simplex).		

4400	**[Org Edge Mask]**		
001	Book:Sub:LEdge(Left)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of sub scan leading edge (left side or original table) when scanning with book scanner.		
002	Book:Sub:TEdge(Right)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of sub scan trailing edge (right side or original table) when scanning with book scanner.		
003	Book:Main:LEdge(Rear)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of main scan leading edge (rear side or original table) when scanning with book scanner.		
004	Book:Main:Tedge(Front)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of main scan trailing edge (front side or original table) when scanning with book scanner.		
4400	**[Scanner Erase Margin]**		
005	ADF:Sub:LEdge(Left)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of sub scan leading edge when scanning with ADF.		
007	ADF:Main:LEdge(Rear)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of main scan leading edge when scanning with ADF.		
008	ADF:Main:TEdge(Front)	*ENG	[0.0 to 3.0 / **0.0** / 0.1 mm/step]
	Sets mask area to erase original shadow of main scan trailing edge when scanning with ADF.		

4417	[IPU Test Pattern]		
001	Test Pattern	ENG	[0 to 8 / **0** / 1/step] 0: Scanned image 1: Gradation main scan A 2: Patch 16C 3: Grid pattern A 4: Slant grid pattern B 5: Slant grid pattern C 6: Slant grid pattern D 7: Scanned+Slant Grid C 8: Scanned+Slant Grid D
	Selects test pattern packaged with IPU ASIC. Pattern is for design purpose, content of pattern will be omit,		

4429	[Select Copy Data Security]		
001	Copying	*ENG	[0 to 3 / **3** / 1/step]
	Switches unjust copy output pattern density for copy. As the value enlarges, gets deeper.		
002	Scanning	*ENG	[0 to 3 / **3** / 1/step]
	Switches unjust copy output pattern density for scan. As the value enlarges, gets deeper.		
003	Fax Operation	*ENG	[0 to 3 / **3** / 1/step]
	Switches unjust copy output pattern density for fax. As the value enlarges, gets deeper.		

4450	[Scan Image Pass Selection]		
001	Black Subtraction ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 0:OFF 1:ON(Normal)
	Switches IPU Scanner image pass ON/OFF (black reduction). Use to evaluate design, analyze cause of malfunction (image error).		

002	SH ON/OFF	*ENG	[0 or 1 / **0** / 1/step] 0: ON(Normal) 1: OFF
	Switches IPU Scanner image pass ON/OFF (shading). Use to evaluate design, analyze cause of malfunction (image error).		

4460	**[Digital AE]**		
001	Low Limit Value	*ENG	[0 to 1023 / **364** / 1/step]
	Sets lower limit threshold to detect background when scanning with DF front/ Book. Considers as background when an area of input image is brighter (larger value) than threshold.		
002	Background level	*ENG	[512 to 1535 / **932** / 1/step]
	Sets background level to decide output value of background erase when scanning DF front / Book. As the value enlarges, gets thinner.		

4501	**[ACC Target Den]**		
001	Copy:K:Text	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against letter (edge) part Black plate.		
002	Copy:C:Text	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against letter (edge) part Cyan plate.		
003	Copy:M:Text	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against letter (edge) part Magenta plate.		
004	Copy:Y:Text	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against letter (edge) part Yellow plate.		
005	Copy:K:Photo	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against photo (non edge) part Black plate.		
006	Copy:C:Photo	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against photo (non edge) part Cyan plate.		

007	Copy:M:Photo	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against photo (non edge) part Magenta plate.		
008	Copy:Y:Photo	*ENG	[0 to 10 / **5** / 1/step]
	Sets target value of copy ACC against photo (non edge) part Yellow plate.		

4505	**[ACC Cor:Bright]**		
001	Master:K	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Black plate (Highlight area) depending on setting value (-128 to 127).		
002	Master:C	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Cyan plate (Highlight area) depending on setting value (-128 to 127).		
003	Master:M	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Magenta plate (Highlight area) depending on setting value (-128 to 127).		
004	Master:Y	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Yellow plate (Highlight area) depending on setting value (-128 to 127).		
005	Slave:K	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Black plate (Highlight area) depending on setting value (-128 to 127).		
006	Slave:C	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Cyan plate (Highlight area) depending on setting value (-128 to 127).		
007	Slave:M	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Magenta plate (Highlight area) depending on setting value (-128 to 127).		
008	Slave:Y	*ENG	[-128 to 127 / **0** / 1/step]

	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Yellow plate (Highlight area) depending on setting value (-128 to 127).

4506	**[ACC Cor:Dark]**		
001	Master:K	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Black plate (Shadow area) depending on setting value (-128 to 127).		
002	Master:C	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Cyan plate (Shadow area) depending on setting value (-128 to 127).		
003	Master:M	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Magenta plate (Shadow area) depending on setting value (-128 to 127).		
004	Master:Y	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against letter (edge) part Yellow plate (Shadow area) depending on setting value (-128 to 127).		
005	Slave:K	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Black plate (Shadow area) depending on setting value (-128 to 127).		
006	Slave:C	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Cyan plate (Shadow area) depending on setting value (-128 to 127).		
007	Slave:M	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Magenta plate (Shadow area) depending on setting value (-128 to 127).		
008	Slave:Y	*ENG	[-128 to 127 / **0** / 1/step]
	Adjusts target value (larger, thinner) of copy ACC against photo (non edge) part Yellow plate (Shadow area) depending on setting value (-128 to 127).		

4520	[IBACC:DetectedValue]		
	Latest density detecting value per IBACC pattern.		
001	Latest:K_P1	*ENG	[0 to 1023 / **0** / 1/step]
002	Latest:K_P2	*ENG	
003	Latest:K_P3	*ENG	
004	Latest:K_P4	*ENG	
005	Latest:K_P5	*ENG	
006	Latest:K_P6	*ENG	
021	Latest:C_P1	*ENG	
022	Latest:C_P2	*ENG	
023	Latest:C_P3	*ENG	
024	Latest:C_P4	*ENG	
025	Latest:C_P5	*ENG	
026	Latest:C_P6	*ENG	
041	Latest:M_P1	*ENG	
042	Latest:M_P2	*ENG	
043	Latest:M_P3	*ENG	
044	Latest:M_P4	*ENG	
045	Latest:M_P5	*ENG	
046	Latest:M_P6	*ENG	
061	Latest:Y_P1	*ENG	
062	Latest:Y_P2	*ENG	
063	Latest:Y_P3	*ENG	
064	Latest:Y_P4	*ENG	
065	Latest:Y_P5	*ENG	
066	Latest:Y_P6	*ENG	

4520	[IBACC:DetectedValue]		
	Last density detecting value per IBACC pattern.		
101	Previous:K_P1	*ENG	[0 to 1023 / **0** / 1/step]
102	Previous:K_P2	*ENG	
103	Previous:K_P3	*ENG	
104	Previous:K_P4	*ENG	
105	Previous:K_P5	*ENG	
106	Previous:K_P6	*ENG	
121	Previous:C_P1	*ENG	
122	Previous:C_P2	*ENG	
123	Previous:C_P3	*ENG	
124	Previous:C_P4	*ENG	
125	Previous:C_P5	*ENG	
126	Previous:C_P6	*ENG	
141	Previous:M_P1	*ENG	
142	Previous:M_P2	*ENG	
143	Previous:M_P3	*ENG	
144	Previous:M_P4	*ENG	
145	Previous:M_P5	*ENG	
146	Previous:M_P6	*ENG	
161	Previous:Y_P1	*ENG	
162	Previous:Y_P2	*ENG	
163	Previous:Y_P3	*ENG	
164	Previous:Y_P4	*ENG	
165	Previous:Y_P5	*ENG	
166	Previous:Y_P6	*ENG	

4540	**[Print Coverage]**		
001	RY Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of R (to Y) Phase.		
002	RY Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding R (to Y) Phase. Larger the darker.		
003	RY Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding R (to Y) Phase. Larger the darker.		
004	RY Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding R (to Y) Phase. Larger the darker.		
005	YR Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of Y (to R) Phase.		
006	YR Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding Y (to R) Phase. Larger the darker.		
007	YR Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding Y (to R) Phase. Larger the darker.		
008	YR Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding Y (to R) Phase. Larger the darker.		

009	YG Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of Y (to G) Phase.		
010	YG Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding Y (to G) Phase. Larger the darker.		
011	YG Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding Y (to G) Phase. Larger the darker.		
012	YG Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding Y (to G) Phase. Larger the darker.		
013	GY Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of G (to Y) Phase.		
014	GY Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding G (to Y) Phase. Larger the darker.		
015	GY Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding G (to Y) Phase. Larger the darker.		
016	GY Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding G (to Y) Phase. Larger the darker.		

017	GC Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of G (to C) Phase.		
018	GC Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding G (to C) Phase. Larger the darker.		
019	GC Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding G (to C) Phase. Larger the darker.		
020	GC Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding G (to C) Phase. Larger the darker.		
021	CG Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of C (to G) Phase.		
022	CG Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding C (to G) Phase. Larger the darker.		
023	CG Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding C (to G) Phase. Larger the darker.		
024	CG Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding C (to G) Phase. Larger the darker.		

025	CB Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of C (to B) Phase.		
026	CB Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding C (to B) Phase. Larger the darker.		
027	CB Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding C (to B) Phase. Larger the darker.		
028	CB Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding C (to B) Phase. Larger the darker.		
029	BC Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of B (to C) Phase.		
030	BC Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding B (to C) Phase. Larger the darker.		
031	BC Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding B (to C) Phase. Larger the darker.		
032	BC Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding B (to C) Phase. Larger the darker.		

033	BM Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of B (to M) Phase.		
034	BM Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding B (to M) Phase. Larger the darker.		
035	BM Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding B (to M) Phase. Larger the darker.		
036	BM Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding B (to M) Phase. Larger the darker.		
037	MB Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of M (to B) Phase.		
038	MB Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding M (to B) Phase. Larger the darker.		
039	MB Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding M (to B) Phase. Larger the darker.		
040	MB Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding M (to B) Phase. Larger the darker.		

041	MR Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of M (to R) Phase.		
042	MR Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding M (to R) Phase. Larger the darker.		
043	MR Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding M (to R) Phase. Larger the darker.		
044	MR Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding M (to R) Phase. Larger the darker.		
045	RM Phase: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of R (to M) Phase.		
046	RM Phase: R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding R (to M) Phase. Larger the darker.		
047	RM Phase: G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding R (to M) Phase. Larger the darker.		
048	RM Phase: B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding R (to M) Phase. Larger the darker.		

049	WHITE: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of highlight area.		
050	WHITE:R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding highlight area. Larger the darker.		
051	WHITE:G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding highlight area. Larger the darker.		
052	WHITE:B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding highlight area. Larger the darker.		
053	BLACK: Option	*ENG	[0 to 255 / **0** / 1/step] 0:OFF 1:ON
	Sets ON/OFF (0: OFF, 1: ON) for copy output color adjust (each corresponding picture quality mode) of shadow area.		
054	BLACK:R	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (C ingredient) corresponding shadow area. Larger the darker.		
055	BLACK:G	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (M ingredient) corresponding shadow area. Larger the darker.		
056	BLACK:B	*ENG	[-256 to 255 / **0** / 1/step]
	Adjusts Value (-256 to +255) for copy output color (Y ingredient) corresponding shadow area. Larger the darker.		

4550	[Scan Apli:Txt/Print]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Text/Chart mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Text/ Chart mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Text/ Chart mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Text/ Chart mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text/ Chart mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4551	[Scan Apli:Txt]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Text mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Text mode. 0 is for OFF, Larger the value, the Smoother.		

007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Text mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Text mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4552	**[Scan Apli:Txt Dropout]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Text (Drop Out Color) mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Text (Drop Out Color) mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Text (Drop Out Color) mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Text (Drop Out Color) mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text (Drop Out Color) mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4553	[Scan Apli:Txt/Photo]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Text/Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Text/Photo mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Text/Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Text/Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Text/Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4554	[Scan Apli:Photo]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Photo mode. 0 is for OFF, Larger the value, the Smoother.		

007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4565	**[Scan Apli:GrayScale]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: GrayScale mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: GrayScale mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: GrayScale mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: GrayScale mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: GrayScale mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4570	[Scan Apli:Col Txt/Photo]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Color Text/Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Color Text/Photo mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Color Text/Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Color Text/Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Color Text/Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4571	[Scan Apli:Col Gloss Photo]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Color Gloss Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Color Gloss Photo mode. 0 is for OFF, Larger the value, the Smoother.		

007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Color Gloss Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Color Gloss Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Color Gloss Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4572	**[Scan Apli:AutoCol]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for Scan Apli: Auto Color mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for Scan Apli: Auto Color mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for Scan Apli: Auto Color mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for Scan Apli: Auto Color mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for Scan Apli: Auto Color mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4580	[Fax Apli:Txt/Chart]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Text/Chart mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for FAX Apli: Text/Chart mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Text/Chart mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Text/Chart mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Text/Chart mode. 0 is for OFF, Larger the value, Stronger the Erase.		
010	Texture Erase: 0	*ENG	[0 to 2 / **0** / 1/step]
	Sets Texture Erase for FAX Apli: Text/Chart mode. 0: Fixed Threshold, 1: Variable Threshold, 2: Variable Threshold (Threshold type used for 1 and 2 are different)		

4581	[Fax Apli:Txt]		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Text mode. 0 is for OFF, Larger the value, Stronger the emphasis.		

006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for FAX Apli: Text mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Text mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Text mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Text mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4582	**[Fax Apli:Txt/Photo]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Text/Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for FAX Apli: Text/Photo mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Text/Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Text/Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		

009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Text/Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		
010	Texture Erase: 0	*ENG	[0 to 2 / **0** / 1/step]
	Sets Texture Erase for FAX Apli: Text/Photo mode. 0: Fixed Threshold, 1: Variable Threshold, 2: Variable Threshold (Threshold type used for 1 and 2 are different)		

4583	**[Fax Apli:Photo]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Photo mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for FAX Apli: Photo mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Photo mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Photo mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Photo mode. 0 is for OFF, Larger the value, Stronger the Erase.		
010	Texture Erase: 0	*ENG	[0 to 2 / **0** / 1/step]

	Sets Texture Erase for FAX Apli: Photo mode. 0: Fixed Threshold, 1: Variable Threshold, 2: Variable Threshold (Threshold type used for 1 and 2 are different)

4584	**[Fax Apli:Original 1]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Special Original 1 mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]
	Sets Smoothing level for FAX Apli: Special Original 1 mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Special Original 1 mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Special Original 1 mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Ind Dot Erase: 0(Off) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Special Original 1 mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4585	**[Fax Apli:Original 2]**		
005	MTF: 0(Off) 1-15 (Weak-Strong)	*ENG	[0 to 15 / **8** / 1/step]
	Sets emphasis level for FAX Apli: Special Original 2 mode. 0 is for OFF, Larger the value, Stronger the emphasis.		
006	Smoothing: 0(x1) 1-7 (Weak-Strong)	*ENG	[0 to 7 / **4** / 1/step]

	Sets Smoothing level for FAX Apli: Special Original 2 mode. 0 is for OFF, Larger the value, the Smoother.		
007	Brightness: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Brightness level (1 to 255) for FAX Apli: Special Original 2 mode. 128 is for No Correction, Larger the value, the Brighter.		
008	Contrast: 1-255	*ENG	[1 to 255 / **128** / 1/step]
	Sets Contrast level (1 to 255) for FAX Apli: Special Original 2 mode. 128 is for No Correction, Larger the value, Stronger the Contrast.		
009	Independent Dot Erase (0)/ 1-7 (Strong)	*ENG	[0 to 7 / **0** / 1/step]
	Sets Independent Dot Erase level for FAX Apli: Special Original 2 mode. 0 is for OFF, Larger the value, Stronger the Erase.		

4600	**[SBU Version Display]**		
001	SBU ID	ENG	[0x00 to 0xFF / **0** / 1/step]
	In case of SBU's ID is irregular due to SBU malfunction, or wrong part is set, sets a cause flag to SP 4-647-001 and makes SC 144-00.		
002	SCAT ID	ENG	[0x00 to 0xFF / **0** / 1/step]
	Displays ID of SBU (SCAT). In case of SBU's ID is irregular due to SBU malfunction, or wrong part is set, sets a cause flag to SP 4-647-001 and makes SC 144-00.		

4602	**[Scanner Memory Access]**		
	Read/Writes register of ASIC: GASBU mount to SBU. Use for design evaluation/failure analysis.		
001	-	ENG	[0x000000 to 0xFFFFFF / **0x000000** / -]
002	Scanner Memory Access	ENG	[0x0 to 0x000000FF / **0x000000** / -]
003	Data Set	ENG	-

4603	**[Auto Adjustment Operation]**		
	Runs SBU adjustment (light quantity adjust, SSCG correct, checking back level, adjusting white level) normally done when scanner powers on from SP. Use for process adjust/design evaluation/error analyze.		
001	HP Detection Enable	ENG	[0 or 1 / **0** / 1/step]
002	HP Detection Disable	ENG	[0 or 1 / **0** / 1/step]

4604	**[FGATE Open/Close]**		
001		ENG	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Used for to forcedly open/close FGATE to input scanner image data when doing scanner optical adjustment during the process. Use for process adjust/design evaluation/error analyze.		

4609	**[Gray Balance Set: R]**		
001	Book Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (RED) of scanners face side (Book). Adjusted value during the scanner unit Warranty process is saved.		
002	DF Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (RED) of scanners face side (ADF). Adjusted value during the scanner unit Warranty process is saved. Note § Gray balance adjustment value of DF scan can be corrected with SP4-688-001/002: DF density adjust. (temperature difference correction of Book scan and DF face side scan)		

4610	[Gray Balance Set: G]		
001	Book Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (GREEN) of scanners face side (Book). Adjusted value during the scanner unit Warranty process is saved.		
002	DF Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (GREEN) of scanners face side (ADF). Adjusted value during the scanner unit Warranty process is saved. Note § Gray balance adjustment value of DF scan can be corrected with SP4-688-001/002: DF density adjust. (temperature difference correction of Book scan and DF face side scan)		

4611	[Gray Balance Set: B]		
001	Book Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (BLUE) of scanners face side (Book). Adjusted value during the scanner unit Warranty process is saved.		
002	DF Scan	*ENG	[-384 to 255 / **-100** / 1digit/step]
	Displays/Saves gray balance adjustment value (BLUE) of scanners face side (ADF). Adjusted value during the scanner unit Warranty process is saved. Note § Gray balance adjustment value of DF scan can be corrected with SP4-688-001/002: DF density adjust. (temperature difference correction of Book scan and DF face side scan)		

4635	[SSCG Correction Set]		
001	Mode Selection	*ENG	[0 to 3 / **1** / 1/step] 0: Do not noise correct SSCG. 1: Only adjust analog (initial value) 2: Only adjust digital 3: Adjust both analog/digital
	Selects SSCG noise correction mode. Use when setting SSCG adjust OFF as a temporally proceed when SSCG does not work correctly due to an unexpected malfunction. Temporally use if by changing settings improves wide stripes, side stripes caused by scanner when SSCG correction does not work correctly.		

4637	[SSCG Correction Value (Ana.)]		
001	Latest:RE	ENG	[-31 to 31 / **0** / 1digit/step]
	Displays SSCG analog correction value (F Side/RED/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
002	Latest:RO	ENG	[-31 to 31 / **0** / 1digit/step]
	Displays SSCG analog correction value (F Side/RED/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
003	Latest:GE	ENG	[-31 to 31 / **0** / 1digit/step]
	Displays SSCG analog correction value (F Side/GREEN/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
004	Latest:GO	ENG	[-31 to 31 / **0** / 1digit/step]
	Displays SSCG analog correction value (F Side/GREEN/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
005	Latest:BE	ENG	[-31 to 31 / **0** / 1digit/step]

	Displays SSCG analog correction value (F Side/BLUE/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
006	Latest:BO	ENG	[-31 to 31 / **0** / 1digit/step]
	Displays SSCG analog correction value (F Side/BLUE/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

4638	**[SSCG Correction Value (Dig.)]**		
001	Latest:RE	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/RED/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
002	Latest:RO	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/RED/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
003	Latest:GE	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/GREEN/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
004	Latest:GO	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/GREEN/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
005	Latest:BE	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/BLUE/EVEN pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

006	Latest:BO	*ENG	[-255 to 255 / **0** / 1digit/step]
	Displays SSCG Digital correction value (F Side/BLUE/ODD pixel). Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

4639	**[SSCG Noise Cancel (Analog)]**		
001	Factory Setting:RE	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/RED/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
002	Factory Setting:RO	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/RED/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
003	Factory Setting:GE	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/GREEN/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
004	Factory Setting:GO	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/GREEN/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		

005	Factory Setting:BE	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/BLUE/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
006	Factory Setting:BO	*ENG	[-31 to 31 / **0** / 1digit/step]
	Display/Saves Factory SSCG Analog correction value (F Side/BLUE/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		

4640	**[SSCG Correction Value (Dig.)]**		
001	Factory Setting:RE	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/RED/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
002	Factory Setting:RO	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/RED/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
003	Factory Setting:GE	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/GREEN/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		

004	Factory Setting:GO	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/GREEN/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
005	Factory Setting:BE	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/BLUE/EVEN pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		
006	Factory Setting:BO	ENG	[-255 to 255 / **0** / 1digit/step]
	Display/Saves Factory SSCG Digital correction value (F Side/BLUE/ODD pixel). Adjusted SSCG correction Value during the main unit warranty process is saved. Use for analyzing malfunction, comparing factory / current value.		

4641	**[SSCG Noise Amplitude]**		
001	RE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/RED/EVEN pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

002	RO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/RED/ODD pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
003	GE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/GREEN/EVEN pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
004	GO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/GREEN/ODD pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		
005	BE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/BLUE/EVEN pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

006	BO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays SSCG Nose Amplitude (F Side/BLUE/ODD pixel) when adjusting SSCG. Correction value will be decided depending on detected Noise Amplitude when adjusting. Adjustment will be done when scanner turns on. Use for design evaluation, analyzing malfunction (abnormal images).		

4646	**[Scan Adjust Error]**		
	Displays error value of scanning adjustment.		
001	White level	ENG	[0 to 65535 / **0** / 1/step] Bit15:Unused Bit14: Unused Bit13:White level abnormal (F side/RED/EVEN pixel) Bit12: White level abnormal (F side /RED/ODD pixel) Bit11: White level abnormal (F side /GREEN/EVEN pixel) Bit10: White level abnormal (F side /GREEN/ODD pixel) Bit9: White level abnormal (F side /BLUE/EVEN pixel) Bit8:White level abnormal (F side /BLUE/ODD pixel) Bit7: Unused Bit6: Unused Bit5:gain abnormal (F side /RED/EVEN pixel) Bit4: gain abnormal (F side /RED/ODD pixel) Bit3: gain abnormal (F side /GREEN/EVEN pixel) Bit2: gain abnormal (F side /GREEN/ODD pixel) Bit1: gain abnormal (F side /BLUE/EVEN pixel) Bit0: gain abnormal (F side /BLUE/ODD pixel)

	Shows cause of error when an error occurs during the white level adjustment when scanner turns on. When an error, SC142-00(F side/white level adjustment error)will be given.[format] binary Scan adjust error (F side/White level) flag= (b15,b14,b13,b12,b11,b10,b9,b8,b7,b6,b5,b4,b3,b2,b1,b0)		
002	Black level	ENG	[0 to 65535 / **0** / 1/step] Bit7: Unused Bit6: Unused Bit5: Black level abnormal (F side/RED/EVEN Pixel) Bit4: Black level abnormal (F side /RED/ODD Pixel) Bit3: Black level abnormal (F side /GREEN/EVEN Pixel) Bit2: Black level abnormal (F side /GREEN/ODD Pixel) Bit1: Black level abnormal (F side /BLUE/EVEN Pixel) Bit0: Black level abnormal (F side /BLUE/ODD Pixel)
	Shows cause of error when an error occurs With the Black level check when scanner turns on. When an error, SC141-00(F side/Black level adjustment error) will be given. [format] binary Scan adjust error (F side/Black level) flag=(b7,b6,b5,b4,b3,b2,b1,b0)		

003	SSCG Correction	ENG	[0 to 65535 / **0** / 1/step] Bit7: Unused Bit6: Unused Bit5: SSCG correction error (Fside/RED/EVEN Pixel) Bit4: SSCG correction error (Fside/RED/ODD Pixel) Bit3: SSCG correction error (Fside/GREEN/EVEN Pixel) Bit2: SSCG correction error (Fside/GREEN/ODD Pixel) Bit1: SSCG correction error (Fside/BLUE/EVEN Pixel) Bit0: SSCG correction error (Fside/BLUE/ODD Pixel)
	Shows cause of error when an error occurs With the SSCG Noise correction when scanner turns on. When an error, Correction turns off. [format] binary Scan adjust error (F side/SSCG correction) flag= (b7,b6,b5,b4,b3,b2,b1,b0)		

4647	**[Scanner Hard Error]**		
	Displays result of SBU connection check.		
001	Power-ON	ENG	[0 to 65535 / **0** / 1/step] Bit15: Unused Bit14:SBU hardware error (Power ON/un-reset error) Bit13:SBU hardware error (Serial communication error: F side) Bit12:SBU hardware error (Reset error: F side) Bit11: Unused Bit10: Unused Bit9:SBU hardware error (Version error) Bit8: Unused Bit7: Unused Bit6: Unused Bit5:SBU hardware error (Serial communication error: L side) Bit4:SBU hardware error (Reset error:Lside) Bit3: Unused Bit2: Unused Bit1: Unused
	Shows cause of error when an error occurs with the SBU connection detect when Scanner turns on.. When an error, SC144-00 (SBU Communication error) will be given. [format] binary Scan adjust error (SSCG correction) flag= (b15,b14,b13,b12,b11,b10,b9,b8,b7,b6,b5,b4,b3,b2,b1,b0)		

4651	[Black Level Adj. Value (Ana.)]		
001	Latest: RE Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (RED/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: RO Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (RED/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4652	[Black Level Adj. Value (Ana.)]		
001	Latest: GE Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (GREEN/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: GO Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (GREEN/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4653	[Black Level Adj. Value (Ana.)]		
001	Latest: BE Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (BLUE/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: BO Color	ENG	[0 to 127 / **0** / 1digit/step]
	Displays black level analog adjustment value (BLUE/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4654	[Black Level Adj. Value (Dig.)]		
001	Latest: RE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (RED/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: RO Color	*ENG	0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (RED/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4655	[Black Level Adj. Value (Dig.)]		
001	Latest: GE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (GREEN/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: GO Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (GREEN/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4656	[Black Level Adj. Value (Dig.)]		
001	Latest: BE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (BLUE/EVEN pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: BO Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays black level digital adjustment value (BLUE/ODD pixel). Black level adjust is regularly done hardwarely by ASIC (SCAT) of SBU. Adjusted value will be given from checking the black level when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4658	[Analog Gain Adjust]		
001	Latest: R Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays analog gain adjustment value (RED pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4659	[Analog Gain Adjust]		
001	Latest: G Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays analog gain adjustment value (GREEN pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4660	[Analog Gain Adjust]		
001	Latest: B Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays analog gain adjustment value (BLUE pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4661	[Digital Gain Adjust]		
001	Latest: RE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (RED/EVEN pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: RO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (RED/ODD pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4662	[Digital Gain Adjust]		
001	Latest: GE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (GREEN/EVEN pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

002	Latest: GO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (GREEN/ODD pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4663	**[Digital Gain Adjust]**		
001	Latest: BE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (BLUE/EVEN pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: BO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays digital gain adjustment value (BLUE/ODD pixel). White level adjust is done when scanner powers ON to keep the dynamic range of image signal. Image signal will be amplified or attenuated with white level adjust, therefore gain adjust will be done by ASIC (SCAT) of SBU hardwarely, and adjusted value will be given. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4670	[Black Level Adj. Value (Ana.)]		
001	Factory Setting: RE Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (RED/EVEN pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: RO Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (RED/ODD pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4671	[Black Level Adj. Value (Ana.)]		
001	Factory Setting: GE Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (GREEN/EVEN pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: GO Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (GREEN/ODD pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4672	[Black Level Adj. Value (Ana.)]		
001	Factory Setting: BE Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (BLUE/EVEN pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: BO Color	*ENG	[0 to 127 / **0** / 1digit/step]
	Displays/Saves factory default black level analog adjust value (BLUE/ODD pixel). Factory default black level analog adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4673	[Black Level Adj. Value (Dig.)]		
001	Factory Setting: RE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (RED/EVEN pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: RO Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (RED/ODD pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4674	[Black Level Adj. Value (Dig.)]		
001	Factory Setting: GE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (GREEN/EVEN pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: GO Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (GREEN/ODD pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4675	[Black Level Adj. Value (Dig.)]		
001	Factory Setting: BE Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (BLUE/EVEN pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: BO Color	*ENG	[0 to 16383 / **0** / 1digit/step]
	Displays/Saves factory default black level digital adjust value (BLUE/ODD pixel). Factory default black level digital adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4677	[Analog Gain Adjust]		
001	Factory Setting: R Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays/Saves factory default analog gain adjust value (RED pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4678	[Analog Gain Adjust]		
001	Factory Setting: G Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays/Saves factory default analog gain adjust value (GREEN pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4679	[Analog Gain Adjust]		
001	Factory Setting: B Color	*ENG	[0 to 14 / **0** / 1digit/step]
	Displays/Saves factory default analog gain adjust value (BLUE pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4680	[Digital Gain Adjust]		
001	Factory Setting: RE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (RED/EVEN pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: RO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (RED/ODD pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4681	[Digital Gain Adjust]		
001	Factory Setting: GE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (GREEN/EVEN pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: GO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (GREEN/ODD pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4682	**[Digital Gain Adjust]**		
001	Factory Setting: BE Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (BLUE/EVEN pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: BO Color	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves factory default digital gain adjust value (BLUE/ODD pixel). Factory default analog gain adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4688	**[DF Density Adjustment]**		
001	ARDF	*ENG	[80 to 120 / **102** / 1 %/step] Value increase: ADF density deeper. Value decrease: ADF density thinner.
	For Oversetters only. Adjusts density difference between Book and ADF.		
4688	**[Scan Image Density Adjustment]**		
002	1-pass DF	*ENG	[80 to 120 / 103 / 1 %/step]
	For Single-Pass simultaneous duplex models only. Adjusts density difference between Book and ADF.		

4690	[White Level Peak Read]		
001	RE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (RED/EVEN pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	RO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (RED/ODD pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4691	[White Level Peak Read]		
001	GE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (GREEN/EVEN pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

002	GO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (GREEN/ODD pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4692	**[White Level Peak Read]**		
001	BE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (BLUE/EVEN pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	BO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (BLUE/ODD pixel). White level adjust is done by scanning the white reference plate when scanner powers ON to keep the dynamic range of image signal. Scanning level of white reference plate from white level adjusting is given. When white level peak scanning value is an error (adjustment not finishing correctly) SC142-00 is given. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4693	[Black Level Peak Read]		
001	RE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (RED/EVEN pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	RO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (RED/ODD pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4694	[Black Level Peak Read]		
	-		
001	GE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (GREEN/EVEN pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

002	GO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (GREEN/EVEN pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4695	**[Black Level Peak Read]**		
	-		
001	BE	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (BLUE/EVEN pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-002. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	BO	ENG	[0 to 1023 / **0** / 1digit/step]
	Displays black level scanning value (BLUE/ODD pixel). Black level check is done when scanner powers ON, then offset level of image signal is checked and that value will be given. Check whether the offset adjustment of SBU (SCAT) is working correctly. Gives SC141-00 if the black level scanning value is an error. Cause of error will be displayed on SP4-646-002. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4698	**[Factory Setting Input]**		
	-		
001	On/Off	*ENG	[0 to 1 / **0** / 1/step]

4795	**[CIS Black Level Data: B]**		
	-		
	Displays black level; data of CIS. When DF powers ON, black level of CIS is checked, then detect the black level per chip and display scanning level. Cause of error will be displayed on SP4-745-001. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
001	Chip1	ENG	[0 to 255 / **0** / 1digit/step]
002	Chip2	ENG	[0 to 255 / **0** / 1digit/step]
003	Chip3	ENG	[0 to 255 / **0** / 1digit/step]
004	Chip4	ENG	[0 to 255 / **0** / 1digit/step]
005	Chip5	ENG	[0 to 255 / **0** / 1digit/step]
006	Chip6	ENG	[0 to 255 / **0** / 1digit/step]
007	Chip7	ENG	[0 to 255 / **0** / 1digit/step]
008	Chip8	ENG	[0 to 255 / **0** / 1digit/step]
009	Chip9	ENG	[0 to 255 / **0** / 1digit/step]
010	Chip10	ENG	[0 to 255 / **0** / 1digit/step]
011	Chip11	ENG	[0 to 255 / **0** / 1digit/step]
012	Chip12	ENG	[0 to 255 / **0** / 1digit/step]
013	Chip13	ENG	[0 to 255 / **0** / 1digit/step]
014	Chip14	ENG	[0 to 255 / **0** / 1digit/step]
015	Chip15	ENG	[0 to 255 / **0** / 1digit/step]

016	Chip16	ENG	[0 to 255 / **0** / 1digit/step]
017	Chip17	ENG	[0 to 255 / **0** / 1digit/step]
018	Chip18	ENG	[0 to 255 / **0** / 1digit/step]
019	Chip19	ENG	[0 to 255 / **0** / 1digit/step]
020	Chip20	ENG	[0 to 255 / **0** / 1digit/step]
021	Chip21	ENG	[0 to 255 / **0** / 1digit/step]
022	Chip22	ENG	[0 to 255 / **0** / 1digit/step]
023	Chip23	ENG	[0 to 255 / **0** / 1digit/step]
024	Chip24	ENG	[0 to 255 / **0** / 1digit/step]

4796	**[Low Density Color Correction]**		
	-		
001	Front Side	*ENG	[0 to 3 / **0** / 1/step] 0: OFF 1: WEAK 2: MEDIUM 3: STRONG
	Corrects low chroman area of front side. With Single-Pass duplex models, coloring might change between the front side and the rear side of the gray half tone area, due to scanning system difference. if user points out this difference, by changing this setting, difference can be reduced. Adjusts intensity of correction depending on coloring difference. For a side effect, low chroman area's reproducibility will spoil as stronger the intensity gets.		
002	Rear Side	*ENG	[0 to 3 / **0** / 1/step] 0: OFF 1: WEAK 2: MEDIUM 3: STRONG

	Corrects low chroman area of rear side. With Single-Pass duplex models, coloring might change between the front side and the rear side of the gray half tone area, due to scanning system difference. if user points out this difference, by changing this setting, difference can be reduced. Adjusts intensity of correction depending on coloring difference. For a side effect, low chroman area's reproducibility will spoil as stronger the intensity gets.

4797	**[Rear Side: Digital AE]**		
001	Low Limit Setting	*ENG	[0 to 1023 / **364** / 1/step]
	Sets lower limit threshold to detect background when scanning with DF rear. Considers as background when an area of input image is brighter (larger value) than threshold.		
002	Background Erase Level	*ENG	[512 to 1535 / **932** / 1/step]
	Sets background level to decide output value of background erase when scanning with DF rear. As the value enlarges, gets thinner.		

4798	**[CIS LED Duty]**		
001	-	*ENG	[0 to 65535 / **0** / 1/step]
	Displays/Saves LED lighting Duty of CIS. Value set with the shipping test of CIS is saved. Normally do not change setting.		

4799	**[CIS TEST Pattern]**		
001	select	ENG	[0 to 5 / **0** / 1/step] Sets CIS test pattern output. 0: Scanned Image 1: Fixed Value Pattern 2: EO Fixed Value Pattern 3: Main Scan Gradation 4: Sub Scan Gradation 5: Grid Pattern
	To print the test pattern selected with this SP, after setting SP, press the interrupt key, and set paper size, scale, image processing conditions etc... from the panel as like a regular copy job, then set original and press copy button. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Even Output Level Setting	ENG	[0 to 4095 / **0** / 1digit/step]
	Sets test pattern fixed value output level (Even) of CIS. Fixed value will be displayed / set when SP4-799-001-1: full side fixed value, or SP4-799-001-2: Fixed value per EO is selected.		
003	Odd Output Level Setting	ENG	[0 to 4095 / **0** / 1digit/step]
	Sets test pattern fixed value output level (ODD) of CIS. Fixed value will be displayed / set when SP4-799-001-1: full side fixed value, or SP4-799-001-2: Fixed value per EO is selected.		

4802	**[Scanner Free run]**		
001	DF mode :Lamp Off	ENG	[0 or 1 / **0** / 1/step]
	Repeat DF shading with lamp off.		
002	DF mode :Lamp On	ENG	[0 or 1 / **0** / 1/step]
	Repeat DF shading with lamp on.		

4803	[Home Position Adj Value]		
001	-	ENG	[-2 to 2 / 0 / 0.1mm/step]
	Run Home position operation (Homing).		

4804	[Home Position Operation]		
001	-	ENG	[0 or 1 / **0** / 1/step]
	Run Home position operation (Homing).		

4806	[Scan Carriage Retract Op]		
001	-	ENG	[0 or 1 / **0** / 1/step]
	Run Carriage retract operation.		

4807	[SBU Off Mode]		
001	On/Off	ENG	[0 or 1 / **1** / 0] 0:OFF 1:ON(default)
	Switch ON/OFF for stopping CCD drive clock of SBU when scanner is standby. Use for process adjustment/design evaluation.		

4813	**[ALC Selection]**		
	FC	*ENG	[0 or 1 / **1** / 1/step] 0:OFF 1:ON(default)
001	Sets ON/OFF variable correction for scanning level of original when continuously scanning multiple originals using ADF. For increasing productivity of ADF, creating correction data is done at a certain (3min) interval. If shade correcting data is not updated, original scanning level will change affected by the light source brightness changing, therefore, variable will be corrected by scanning the guide plate (white) of ADF from between originals. This SP setting (enable/disable) will apply to color scan. In an occasion of an unexpected malfunction and level correcting does not work, or background density disorderly changes among multiple scanned originals, and by changing setting these will improve; then temporarily set correction OFF. By setting interval shading OFF with SP4-351-001, even when ALC is set to OFF, shading will be done each time, and will prevent density change when having level correction OFF. But in this case, shading data is created (moving carriage) with original interval of ADF scanning, therefore Productivity will drop		

002	BW	*ENG	[0 or 1 / **1** / 1/step] 0:OFF 1:ON(default)
	Sets ON/OFF variable correction for scanning level of original when continuously scanning multiple originals using ADF. For increasing productivity of ADF, creating correction data is done at a certain (3min) interval. If shade correcting data is not updated, original scanning level will change affected by the light source brightness changing, therefore , variable will be corrected by scanning the guide plate (white) of ADF from between originals. This SP setting (enable/disable) will apply to B&W scan. In an occasion of an unexpected malfunction and level correcting does not work, or background density disorderly changes among multiple scanned originals, and by changing setting these will improve; then temporarily set correction OFF. By setting interval shading OFF with SP4-351-001, even when ALC is set to OFF, shading will be done each time, and will prevent density change when having level correction OFF. But in this case, shading data is created (moving carriage) with original interval of ADF scanning, therefore Productivity will drop		

4850	**[PMW]**		
001	Latest	*ENG	[0 to 8191 / **0** / 1digit/step]
	Displays LED lighting Duty (PWM) adjustment value of LED light quantity adjust. When output of CCD is overflowed from the amount of light, Reduces light quantity by adjusting LED light source lighting duty when scanner powers ON. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

002	Factory Setting	*ENG	[0 to 8191 / **0** / 1digit/step]
	Displays LED lighting Duty (PWM) adjustment value of factory default LED light quantity adjust. Factory default LED lighting Duty (PWM) adjustment value is saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4851	**[LED White Level Peak Read]**		
001	Latest: RE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (RED/EVEN pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Latest: RO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (RED/ODD pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
003	Latest: GE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (GREEN/EVEN pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

004	Latest: GO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (GREEN/ODD pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
005	Latest: BE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (BLUE/EVEN pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
006	Latest: BO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays white level peak scanning value (BLUE/ODD pixel) of LED light quantity adjustment. Displays scanning levels of White reference plate when scanner powers on and LED light source lighting duty (PWM) is adjusted. SC102-00 is given when LED light quantity does not complete. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4852	**[LED White Level Peak Read]**		
001	Factory Setting: RE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (RED/EVEN pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
002	Factory Setting: RO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (RED/ODD pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
003	Factory Setting: GE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (GREEN/EVEN pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
004	Factory Setting: GO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (GREEN/ODD pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

005	Factory Setting: BE	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (BLUE/EVEN pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		
006	Factory Setting: BO	*ENG	[0 to 1023 / **0** / 1digit/step]
	Displays/Saves white level peak scanning value (BLUE/ODD pixel) of factory default LED light quantity adjustment. Factory default white level peak scanning data will be saved during the main unit warranty process. Use for design evaluation/analyzing cause of malfunction (abnormal image, SC).		

4902	**[Disp ACC Data]**		
001	R_DATA1	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (R component) of scanner for AAC pattern (white background area)		
002	G_DATA1	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (G component) of scanner for AAC pattern (white background area)		
003	B_DATA1	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (B component) of scanner for AAC pattern (white background area)		
004	R_DATA2	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (R component) of scanner for AAC pattern (Cyan max. density area)		

005	G_DATA2	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (G component) of scanner for AAC pattern (Magenta max. density area)		
006	B_DATA2	*ENG	[0 to 255 / **0** / 1/step]
	Displays (0 to 255) scan value (B component) of scanner for AAC pattern (Yellow max. density area)		

4905	**[Select Gradation Level]**		
001	-	*ENG	[0 to 255 / **0** / 1/step]
	Sets when switching threshold matrix used for tone process.		

4909	**[Man Gamma:P ColK]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4910	**[Man Gamma:Txt:K]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4911	**[Man Gamma:Txt:C]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4912	**[Man Gamma:Txt:M]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]

002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4913	**[Man Gamma:Txt:Y]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4914	**[Man Gamma:T:ColK]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]

006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4915	**[Man Gamma:Pht:K]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4916	**[Man Gamma:Pht:C]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4917	**[Man Gamma:Pht:M]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]

4918	**[Man Gamma:Pht:Y]**		
	-		
001	Offset:Highlight	*ENG	[0 to 30 / **15** / 1/step]
002	Offset:Middle	*ENG	[0 to 30 / **15** / 1/step]
003	Offset:Shadow	*ENG	[0 to 30 / **15** / 1/step]
004	Offset:IDmax	*ENG	[0 to 30 / **15** / 1/step]
005	Option:Highlight	*ENG	[0 to 255 / **0** / 1/step]
006	Option:Middle	*ENG	[0 to 12 / **0** / 1/step]
007	Option:Shadow	*ENG	[0 to 255 / **0** / 1/step]
008	Option:IDmax	*ENG	[0 to 255 / **0** / 1/step]
4918	**[Man Gamma Adj]**		
009	-	ENG	[- / **-** / -]
	Adjusts manual gamma with setting value of "Option-IDmax" against highlight, middle, shadow, and IdMax.		

4930	[Coverage Ctrl: Text]		
001	Copy: Full Color 1	*ENG	[0 to 400 / **200** / 1/step]
	Sets text area total amount control value (0% to 400%) when full color copying with text/photo mode.		
002	Copy: Full Color 2	*ENG	[0 to 400 / **200** / 1/step]
	Sets text area total amount control value (0% to 400%) when full color copying with modes except text/photo mode.		
003	Copy: Single Color	*ENG	[0 to 400 / **100** / 1/step]
	Sets text area total amount control value (0% to 400%) when copying in color mode (B&W).		
004	Copy: Color Conversion	*ENG	[0 to 400 / **180** / 1/step]
	Sets text area total amount control value (0% to 400%) when copying in color mode (One color, Two colors).		
005	Coverage Ctrl OFF	*ENG	[0 to 400 / **400** / 1/step]
	Sets text area total amount control value (0% to 400%) when outputting image in other image output modes (normally, decontrolling total amount control)		

4931	[Coverage Ctrl: Photo]		
001	Copy: Full Color 1	*ENG	[0 to 400 / **240** / 1/step]
	Sets photo area total amount control value (0% to 400%) when full color copying with text/photo mode.		
002	Copy: Full Color 2	*ENG	[0 to 400 / **260** / 1/step]
	Sets photo area total amount control value (0% to 400%) when full color copying with modes except text/photo mode.		
003	Copy: Single Color	*ENG	[0 to 400 / **100** / 1/step]
	Sets photo area total amount control value (0% to 400%) when copying in color mode (B&W).		
004	Copy: Color Conversion	*ENG	[0 to 400 / **200** / 1/step]

	Sets photo area total amount control value (0% to 400%) when copying in color mode (One color, Two colors).		
005	Coverage Ctrl OFF	*ENG	[0 to 400 / **400** / 1/step]
	Sets photo area total amount control value (0% to 400%) when outputting image in other image output modes (normally, decontrolling total amount control)		

4940	**[Base Gamma Ctrl Pt:Txt K]**		
	-		
001	N.K.x1.y1	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4941	[Base Gamma Ctrl Pt: Text C]		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4942	[Base Gamma Ctrl Pt: Text M]		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4943	**[Base Gamma Ctrl Pt: Text Y]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4944	**[Base Gamma Ctrl Pt: Photo K]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4945	**[Base Gamma Ctrl Pt: Photo C]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4946	**[Base Gamma Ctrl Pt: Photo M]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4947	**[Base Gamma Ctrl Pt: Photo Y]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4948	**[ACC Execute Time:Present]**		
	-		
001	yy/mm/dd	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

002	hh/mm/ss	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4949	**[ACC Execute Time:Previous]**		
	-		
001	yy/mm/dd	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	hh/mm/ss	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4954	**[Restore Test Chart]**		
005	Chromaticity Rank	ENG	[0 to 255 / **0** / 1/step]
	Correct dispersion of scanner reading value among same models, based on the Color degree rank setting value of Scanner (front side).(Setting value0: Correction OFF)		

4958	**[Restore Test Chart: Rear]**		
005	Chromaticity Rank	ENG	[0 to 255 / **0** / 1/step]
	Correct dispersion of scanner reading value among same models, based on the Color degree rank setting value of Scanner (rear side).(Setting value0: Correction OFF)		

4960	**[BaseGamma Ctrl Pt:Def:TxtK]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4961	**[BaseGamma Ctrl Pt:Def:TxtC]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4962	**[BaseGamma Ctrl Pt:Def:TxtM]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4964	**[BaseGamma Ctrl Pt:Def:PhotoK]**		
	-		
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4965	**[BaseGamma Ctrl Pt:Def:PhotoC]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4966	**[BaseGamma Ctrl Pt:Def:PhotoM]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4967	[BaseGamma Ctrl Pt:Def:PhotoY]		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4970	[Base Gamma Ctrl Pt:Prev:TxtK]		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4971	**[Base Gamma Ctrl Pt:Prev:TxtC]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4972	**[Base Gamma Ctrl Pt:Prev:TxtM]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4973	**[Base Gamma Ctrl Pt:Prev:TxtY]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

003	x4 y4 x5 y5	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4974	**[Base Gamma Ctrl Pt:Prev:PhotoK]**		
	-		
001	N K x1 y1	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4975	**[Base Gamma Ctrl Pt:Prev:PhotoC]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4976	**[Base Gamma Ctrl Pt:Prev:PhotoM]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4977	**[Base Gamma Ctrl Pt:Prev:PhotoY]**		
	-		
001	N K x1 y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2 y2 x3 y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4 y4 x5 y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6 y6 x7 y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8 y8 x9 y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10 y10 x11 y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

007	x12 y12 x13 y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14 y14 x15 y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16 y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4980	**[IBACC Gamma Ctrl Pt: K]**		
	-		
001	N.K.x1.y1	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4981	**[IBACC Gamma Ctrl Pt: C]**		
	-		
001	N.K.x1.y1	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4982	**[IBACC Gamma Ctrl Pt: M]**		
	-		
001	N.K.x1.y1	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

004	x6.y6.x7.y7	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
009	x16.y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4983	**[IIBACC Gamma Ctrl Pt: Y]**		
	-		
001	N.K.x1.y1	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
002	x2.y2.x3.y3	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
003	x4.y4.x5.y5	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
004	x6.y6.x7.y7	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
005	x8.y8.x9.y9	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
006	x10.y10.x11.y11	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
007	x12.y12.x13.y13	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]
008	x14.y14.x15.y15	ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

009	x16.y16	*ENG	[0x00000000 to 0xFFFFFFFF / **0x00000000** / 1/step]

4984	**[IBACC Target Den]**		
	Sets reflecting rate (0 to 10) of copy IBACC correction against K, C, M, Y plate. As value enlarges, reflecting rate increases. Copy IBACC correction will not be done when setting to 0.		
001	IBACC notch K	*ENG	[0 to 10 / **5** / 1/step]
002	IBACC notch C	*ENG	
003	IBACC notch M	*ENG	
004	IBACC notch Y	*ENG	

4990	**[IPU Memory Access]**		
	-		
001	-	*ENG	[0x000000 to 0xFFFFFF / 0x000000 / **-** /step]
002	Address Setting	*ENG	[0x000000 to 0xFFFFFFFF / 0x000000 / **-** /step]
003	Data Setting	*ENG	[0x000000 to 0x000000 / 0x000000 / **-** /step]

4991	**[IPU Memory Access]**		
001	RGB Frame Memory	ENG	[0 to 19 / **2** / 1/step]
002	Filter test output	*ENG	[0 to 28 / **24** / 1/step]
003	Data Setting	*ENG	[0 to 15 / **1** / 1/step]
004	Filter CPR output	ENG	[0 to 15 / **0** / 1/step]

4993	**[High Light Correction]**		
001	Sensitivity Selection	*ENG	[0 to 9 / **4** / 1/step] 0: Weak 9: Strong
	Sets detect sensitivity for full color auto density. Larger the value, weaker (less background tracking) the sensitivity.		
002	Range Selection	*ENG	[0 to 9 / **4** / 1/step] 0: Weak 9: Strong
	Sets detect area for full color auto density. Larger the value, wider the area.		

4994	**[Adj Txt/Photo Recog Level]**		
001	High Compression PDF	*ENG	[0 to 2 / **1** / 1/step]
	Adjusts the guide for recognize images text area and image area. Settings are 0: textish, 1: basic 2:imageish		

4996	**[White Paper Detection Level]**		
001	-	*ENG	[0 to 6 / **3** / 1/step]
	Sets blank paper detect level. Larger the value, easier detecting.		

2.7 MAIN SP TABLES-5

2.7.1 SP5-XXX (MODE)

5009	**[Add Display Language]**		
	Adds language available in user choice. (Only the languages registered in the machine) Refer to the displayed language list to set in the way showed below. List Number Assigned Bit Switch No.1 to 8 BIT1 to 8 (SP5009-201) No.9 to 16BIT1 to 8 (SP5009-202) No.17 to 24BIT1 to 8 (SP5009-203) No.25 to 32BIT1 to 8 (SP5009-204) Example: To add American(No.3 in the list) or Czech (No.15) Turn Bit 3 of “SP5009-201” 0 to 1 for American. Turn Bit 7 of “SP5009-202” 0 to 1 for Czech. After setting, turn the main power switch off and on to make the setting valid.		
201	Bit SW	*CTL	[1 to 255 / **0** / 1/step]
202	Bit SW	*CTL	[1 to 255 / **0** / 1/step]
203	Bit SW	*CTL	[1 to 255 / **0** / 1/step]
204	Bit SW	*CTL	[1 to 255 / **0** / 1/step]

5024	**[mm/inch Display Selection]**		
	Display units (mm or inch) for custom paper sizes.		
001	0:mm 1:inch	*CTL	[0 or 1 / **1(USA), 0(Others)** / 1/step] 0: mm 1: inch

5045	**[Accounting counter]**		
	Selects the counting method. Note § The counting method can be changed only once, regardless of whether the counter value is negative or positive.		
001	Counter Method	*CTL	[0 to 7 / **1** / step] 0: Developments 1: Prints 2: Coverage 7: Coverage (YMC)

5047	**[Paper Display]**		
	Turns on or off the printed paper display on the LCD.		
001	-	*CTL	[0 or 1 / 0 / 1/step] 0: OFF 1: ON

5051	**[TonerRefillDisplay]**		
	Enables or disables the toner refill detection display.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: ON 1: OFF

5055	**[Display IP Address]**		
	Display or does not display the IP address on the operation panel.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON

5061	[Toner Remaining Icon Display Change]		
	Display or does not display the remaining toner display icon on the LCD.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display

5062	[Parts Replacement Alert Display]		
	Display or does not display the PM part yield on the LCD.		
002	#Drum unit:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
003	#Development unit:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
011	Coating Bar:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
025	#Drum unit :C	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
026	#Development unit:C	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
048	#Drum unit :M	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
049	Development unit:M	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display

071	#Drum unit:Y	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
072	#Development unit:Y	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
093	Image Transfer Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
102	Image Transfer Cleaning Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
109	Paper Transfer Roller Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
115	Fusing unit	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
116	Fusing Roller unit	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
118	Pressure Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
131	Filter Ozone Duct	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
132	Filter Heat Exhaust Duct	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
142	Wast Toner bottle	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display

206	ADF Pick-up Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
207	ADF Transfer Belt	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display
208	ADF Separation Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display

5066	**[PM Parts Display]**		
	Display or does not display the “PM parts” button on the LCD.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Not display 1: Display

5067	**[Part Replacement Operation Type]**		
	Selects the service maintenance or user maintenance for each PM parts. If the user service is selected, PM alert is displayed on the LCD		
002	#Drum unit:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
003	#Development unit:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
011	Coating Bar:Bk	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
025	#Drum unit:C	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User

026	#Development unit:C	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
048	#Drum unit:M	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
049	Development unit:M	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
071	#Drum unit:Y	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
072	#Development unit:Y	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
093	Image Transfer Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
102	Image Transfer Cleaning Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
109	Paper Transfer Roller Unit	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
115	Fusing unit	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
116	Fusing Roller unit	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
118	Pressure Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User

131	Filter Ozone Duct	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
132	Filter Heat Exhaust Duct	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
142	Wast Toner bottle	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
206	ADF Pick-up Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
207	ADF Transfer Belt	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User
208	ADF Separation Roller	*CTL	[0 or 1 / **0** / 1/step] 0: Service 1: User

5071	**[Set Bypass Paper Size Display]**		
	Turn on or off the paper size confirmation pop-up on the LED. This pop-up prevents mismatching between a paper size selected by the operation panel and an actual paper size on the by-pass tray.		
001	-	CTL	[0 or 1 / **0** / 1/step] 0: Off 1: On

5073	**[Supply Part Replacement Opration Type]**		
	Selects ether User or Service manages supply parts.		
001	Waste Tonner Bottle	*CTL	[0 or 1 / **0** / 1/step] 0:No Display 1:Display

5074	**[Home Screen Login]**		
	Sets the application that appears when the home key is pressed.		
091	(0:OFF 1:SDK 2:Reserve)	*CTL	[0 to 2 / **0** / 1/step] 0: Function disable 1: SDK application 2: Legacy application (reserved)
092	Product ID	*CTL	[0x00 to 0xffff / **-** / 1/step]
	Sets the Application product ID.		
093	Application ID	*CTL	[0 to 255 / **0** / 1/step]
	Sets the display category of the application that is specified in the SP5075-001,002.		

5075	**[USB Keyboard]**		
	Sets the function of the external keyboard.		
001	Function Setting	*CTL	[0 or 1 / **0** / 1/step] 0: Disable 1: Enable

5081	**[ServiceSP Entery Code Setting]**		
	DFU		
001	ServiceSP Entery Code Setting	-	-

5083	**[LED Light Switch Setting]**		
	Turns LED lighting ON and OFF at Toner Near End.		
001	Toner Near End	*CTL	[0 or 1 / **1** / 1/step] 0: OFF 1: ON

5114	[Optional Counter I/F]		
001	MF Key Card Extension	*CTL	[0 or 1 / **0** / 1/step] 0: Not installed 1: Installed (scanning accounting)

5118	[Disable Copying]		
	This program disables copying.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Not disabled 1: Disabled

5120	[Mode Clear Opt. Counter Removal]		
	This program updates the information on the optional counter. When you install or remove an optional counter, check the settings.		
001	-	*CTL	[0 to 2 / **0** / 1/step] 0: Yes (removed) 1: Standby (installed but not used) 2: No (not removed)

5121	[Counter Up Timing]		
	This program specifies when the counter goes up. The settings refer to “paper feed” and “paper exit” respectively.		
001	0:Feed 1:Exit	*CTL	[0 or 1 / **0** / 1/step] 0: Feed 1: Exit

5126	[Set F-size Document]
	Larger the value, easier the detecting.

001	-	ENG	[0 to 2 / **0** / 1/step] 0: 8 1/2 x13 1: 8 1/4 x13 2: 8 x13

5127	**[APS Mode]**		
	This program disables the APS.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Not disabled 1: Disabled

5131	**[Paper Size Type Selection]**		
	The program selects a paper size system from the following alternatives: the AB system (0), the LT system (1), and the AF system (2).		
001	-	*ENG	[0 to 2 / **1** / 1/step] 0: JP (Japan) 1: NA 2: EU

5148	**[Size Detection Off]**		
	0: Detect 1: Not Detect		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON

5150	**[Bypass Length Setting]**
	Normally the paper length for sub scanning paper from the by-pass tray is limited to 600 mm, but this can be extended with this SP to 1260 mm. Image quality is not assured for the length over 600mm. When printing/feeding over 600mm length paper, customization request is required for a customized printer driver.

001	0: OFF 1: ON	CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON

5162	**[App. Switch Method]**		
	Determines whether the application screen is switched with a hardware switch or software switch.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Soft Key Set 1: Hard Key Set

5167	**[Fax Printing Mode at Optional Counter Off]**		
	Enables or disables the automatic print out without an accounting device. This SP is used when the receiving fax is accounted by an external accounting device.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Automatic printing 1: No automatic printing

5169	**[CE Login]**		
	If you will change the printer bit switches, you must 'log in' to service mode with this SP before you go into the printer SP mode.		
001	CE Login	*CTL	[0 or 1 / **0** / 1/step] 0: Disabled 1: Enabled

5181	**[Size Adjust]**		
001	TRAY 1	*ENG	[0 to 3 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A4 LEF 1: LT LEF 2: B5 LEF 3: A5 LEF

	Fix size of tray 1 to appointed value 0: A4 LEF 1: LT LEF 2: B5 LEF 3: A5 LEF		
002	TRAY 2: 1	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A4 LEF 1: LT LEF
	Detects size of tray 2 to appointed value preferentially. 0: A4 LEF 1: LT LEF		
003	TRAY 2: 2	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A3 1: DLT
	Detects size of tray 2 to appointed value preferentially. 0: A3 1: DLT		
004	TRAY 2: 3	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B4 1: LG
	Detects size of tray 2 to appointed value preferentially. 0: B4 1: LG		
005	TRAY 2: 4	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B5LEF 1: ExeLEF
	Detects size of tray 2 to appointed value preferentially. 0: B5 LEF 1: Exe LEF		
006	TRAY 2: 5	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: SRA3 1: 12X18
	Detects size of tray 2 to appointed value preferentially. 0: SRA3 1: 12x18		
007	TRAY 3/T-LCT: 1	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A4LEF 1: LTLEF
	Switches auto detection size of 3rd paper feed tray 1(LCT). 0: A4 LEF 1: LT LEF		

008	TRAY 3: 2	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A3 1: DLT
	Switches auto detection size of 3rd paper feed tray 2. 0: A3 1: DLT		
009	TRAY 3: 3	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B4 1: LG
	Switches auto detection size of 3rd paper feed tray 3. 0: B4 1: LG		
010	TRAY 3: 4	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B5LEF 1: ExeLEF
	Switches auto detection size of 3rd paper feed tray 4. 0: B5 LEF 1: Exe LEF		
011	TRAY 3: 5	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: 12.6X17.7 1: 12X18
	Switches auto detection size of 3rd paper feed tray 5. 0: 12.6x17.7 1: 12x18		
012	TRAY 4: 1	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A4LEF 1: LTLEF
	Switches auto detection size of 4th paper feed tray 1. 0: A4 LEF 1: LT LEF		
013	TRAY 4: 2	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A3 1: DLT
	Switches auto detection size of 4th paper feed tray 2. 0: A3 1: DLT		

014	TRAY 4: 3	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B4 1: LG
	Switches auto detection size of 4th paper feed tray 3. 0: B4 1: LG		
015	TRAY 4: 4	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: B5LEF 1: ExeLEF
	Switches auto detection size of 4th paper feed tray 4. 0: B5 LEF 1: Exe LEF		
016	TRAY 4: 5	*ENG	[0 or 1 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: 12.6X17.7 1: 12X18
	Switches auto detection size of 4th paper feed tray 5. 0: 12.6x17.7 1: 12x18		
017	LCT	*ENG	[0 to 2 / **NA:1, EU, AS, CHN, TW, KOR:0** / 1/step] 0: A4LEF 1: LTLEF 2: B5LEF
	Switches auto detection size of Side set LCT 0: A4 LEF, 1: LT LEF 2: B5 LEF		

5186	**[RK4]**		
	Sets whether to do the jam operation when pulling out RK4.		
001	-	*ENG	[0 or 1 / **0** / 1/step]

5188	**[Copy Nv Version]**		
	Displays the version number of the NVRAM on the controller board.		
001	-	*CTL	[- / **-** / -]

5193	**[External Controller Info. Settings]**		
	External controler settings.		
001	-	CTL	[0 to 10 / **0** / 1/step] 0: External Controller is not installed 1: EFI 2: Ratio 3: Egret 4: GJ 5:Creo 6: QX-100 7: Kurofune 8 to 10: Reserved

5195	**[Limitless SW]**		
	Switches productivity precede limit less feed and use paper up limit less feed.		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: Productivity Precede 1: Use paper up

5196	**[Copier Vendor Mode]**		
	-		
001	90 deg. Rotation	CTL	[- / **-** / -]
002	Color and Tray Selection	CTL	[- / **-** / -]

5199	**[Paper Exit After Staple End]**
	Enables or disables the paper feeding out from the finisher without stapling. § If this setting is "1: ON", paper is fed out without stapling at the maximum number of the finisher stapling when the machine gets a multiple printing job (over maximum number). § If this setting is "0: OFF", paper is fed out with stapling at the maximum number of the finisher stapling when the machine gets a multiple printing job (over maximum number).

001	0: OFF 1: ON	CTL	[0 or 1 / **0** / 1/step] 0: OFF, 1: ON

5212	**[Page Numbering]**		
	This program adjusts the position of the second side page numbers. § "- value" moves the page number positions to the left edge. § "+ value" moves the page number positions to the right edge.		
003	Duplex Printout Right/Left Position	*CTL	[-10 to 10 / **0** / 1mm/step]
004	Duplex Printout High/Low Position	*CTL	[-10 to 10 / **0** / 1mm/step]

5227	**[Page numbering]**		
201	Allow Page No. Entry	*CTL	[2 to 9 / **9** / 1/step]
	Specify max. digits for “Job serial numbering start number” of optional text print.		
202	Zero Surplus Stting	*CTL	[0 or 1 / **0** / 1/step] 0:OFF 1:ON
	Specify zero suppress for “Job serial numbering start number” of optional text print.		

5302	**[Set Time]**		
	Adjusts the RTC (real time clock) time setting for the local time zone. Examples: For Japan (+9 GMT), enter 540 (9 hours x 60 min.) DOM: +540 (Tokyo) NA: -300 (New York) EU: + 60 (Paris) CH: +480 (Beijing) TW: +480 (Taipei) AS: +480 (Hong Kong)		
002	Time Difference	*CTL	[-1440 to 1440 / **-** / 1min./step]

5307	**[Summer Time]**		
001	Setting	*CTL	[0 to 1 / - / 1/step] 0: Disabled 1: Enabled (Default) 1: NA and EUR 0: ASIA and others
	Enables or disables the summer time mode. Note § Make sure that both SP5-307-3 and -4 are correctly set. Otherwise, this SP is not activated even if this SP is set to "1".		
003	Rule Set(Start)	*CTL	[0 to 0xffffffff / - / 1hex/step] (Default) NA: 0x11100200 EUR: 0x10500100 ASIA: 0x03100000 Other: 0x00000000
	Specifies the start setting for the summer time mode. There are 8 digits in this SP. For months 1 to 9, the "0" cannot be input in the first digit, so the eight-digit setting for -2 or -3 becomes a seven-digit setting. 1st and 2nd digits: The month. [1 to 12] 3rd digit: The week of the month. [1 to 5] 4th digit: The day of the week. [0 to 6 = Sunday to Saturday] 5th and 6th digits: The hour. [00 to 23] 7th digit: The length of the advanced time. [0 to 9 / 1 hour /step] 8th digit: The length of the advanced time. [0 to 5 / 10 minutes /step] § The digits are counted from the left. § Make sure that SP5-307-1 is set to "1".		

004	Rule Set (End)	-	-
	Specifies the end setting for the summer time mode. There are 8 digits in this SP. 1st and 2nd digits: The month. [1 to 12] 3rd digit: The week of the month. [0 to 5] 4th digit: The day of the week. [0 to 7 = Sunday to Saturday] 5th and 6th digits: The hour. [00 to 23] The 7th and 8 digits must be set to "00". § The digits are counted from the left. § Make sure that SP5-307-1 is set to "1".		

5401	**[Access Control]**		
230	SDK Certification Device	*CTL	[0 to 7 / **0** / power of 2/step] 0-1: SDK authentication available 0-0: Disable all functions 1-1: SKB Display 1-0: Disable 2-1: Administrator login 2-0: Disable 3 to 7-0: Reserved (set “0” only)
240	Detail Option	*CTL	[0 to 7 / **0x00** / 0x01/step]
	0: Logout confirm option -1: ON, 0: OFF 2 to 1: Auto-logout timer(retry timer) -11: 30sec, 10: 20sec, 01: 10sec, 00: 60sec 3: personal authority / Group authority and operation -1: ON, 0: OFF 4: Skip password entry -1: ON, 0: OFF 5: Set the display of the remaining Frequence -1: ON, 0: OFF 6 to 7: Set the display time -1: ON, 0: OFF		

5404	[User Code Count Clear]		
004	-	*CTL	[- / **-** / -] [Execute]
	-		

5411	[LDAP Certification]		
004	Easy Certification	*CTL	[0 or 1 / **1** / 1/step] 1: On 0: Off
	Determines whether easy LDAP certification is done.		
005	Password Null Not Permit	*CTL	[0 or 1 / **0** / 1/step] 0: Password NULL not permitted. 1: Password NULL permitted.
	This SP is referenced only when SP5411-4 is set to "1" (On).		
006	Detail Option	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Determines whether LDAP option (anonymous certification) is turned on or off.		

5413	[Lockout Setting]		
001	Lockout On/Off	*CTL	[0 or 1 / **0** / 1/step] 0: Off 1: On
	Switches on/off the lock on the local address book account.		
002	Lockout Threshold	*CTL	[1 to 10 / **5** / 1/step]
	Sets a limit on the frequency of lockouts for account lockouts.		

003	Cancellation On/Off	*CTL	[0 or 1 / **0** / 1/step] 0: Off (no wait time, lockout not cancelled) 1: On (system waits, cancels lockout if correct user ID and password are entered.
	Determines whether the system waits the prescribed time for input of a correct user ID and password after an account lockout has occurred.		
004	Cancellation Time	*CTL	[1 to 999 / **60** / 1 min./step]
	Determines the length of time that the system waits for correct input of the user ID and password after a lockout has occurred. This setting is used only if SP5413-3 is set to "1" (on).		

5414	**[Access Mitigation]**		
001	Mitigation On/Off	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	Switches on/off masking of continuously used IDs and passwords that are identical.		
002	Mitigation Time	*CTL	[0 to 60 / **15** / 1min./step]
	Sets the length of time for excluding continuous access for identical user IDs and passwords.		

5415	**[Password Attack]**		
001	Permissible Number	*CTL	[0 to 100 / **30** / 1 attempt/step]
	Sets the number of attempts to attack the system with random passwords to gain illegal access to the system.		
002	Detect Time	*CTL	[1 to 10 / **5** / 1 sec./step]
	Sets the time limit to stop a password attack once such an attack has been detected.		

5416	[Access Information]		
001	Access User Max Num	*CTL	[50 to 200 / **200** / 1 users/step]
	Limits the number of users used by the access exclusion and password attack detection functions.		
002	Access Password Max Num	*CTL	[50 to 200 / **200** / 1 password/step]
	Limits the number of passwords used by the access exclusion and password attack detection functions.		
003	Monitor Interval	*CTL	[1 to 10 / **3** / 1 sec./step]
	Sets the processing time interval for referencing user ID and password information.		

5417	[Access Attack]		
001	Access Permissible Number	*CTL	[0 to 500 / **100** / 1/step]
	Sets a limit on access attempts when an excessive number of attempts are detected for MFP features.		
002	Attack Detect Time	*CTL	[10 to 30 / **10** / 1 sec./step]
	Sets the length of time for monitoring the frequency of access to MFP features.		
003	Productivity Fall Wait	*CTL	[0 to 9 / **3** / 1 sec./step]
	Sets the wait time to slow down the speed of certification when an excessive number of access attempts have been detected.		
004	Attack Max Num	*CTL	[50 to 200 / **200** / 1 attempt/step]
	Sets a limit on the number of requests received for certification in order to slow down the certification speed when an excessive number of access attempts have been detected.		

5420	**[User Authentication]**		
	This setting should be done by System Administrators.		
001	Copy	*CTL	[0 to 1 / **0** / 1/step] 0: On 1: Off
	Determines whether certification is required before a user can use the copy applications.		
002	Color Security Setting	*CTL	[0x00 to 0xFF / **0x00** / 1/step]
011	DocumentServer	*CTL	[0 or 1/ **0** / 1/step] 0: On 1: Off
	Determines whether certification is required before a user can use the document server.		
021	Fax	*CTL	[0 or 1/ **0** / 1/step] 0: On 1: Off
	Determines whether certification is required before a user can use the fax application.		
031	Scanner	*CTL	[0 or 1/ **0** / 1/step] 0: On 1: Off
	Determines whether certification is required before a user can use the scan applications.		
041	Printer	*CTL	[0 or 1/ **0** / 1/step] 0: On 1: Off
	Determines whether certification is required before a user can use the printer applications.		
051	SDK1	*CTL	[0 or 1 / **0** / 1/step] 0: ON
061	SDK2	*CTL	

071	SDK3	*CTL	1: OFF

5481	**[Authentication Error Code]**		
	These SP codes determine how the authentication failures are displayed.		
001	System Log Disp	*CTL	[0 or 1 / **0** / 1/step] 0: Off 1: On
	Determines whether an error code appears in the system log after a user authentication failure occurs.		
002	Panel Disp	*CTL	[0 or 1 / **0** / 1/step] 1: On 0: Off
	Determines whether an error code appears on the operation panel after a user authentication failure occurs.		

5490	**[MF KeyCard (Japan only)]**		
001	Job Permit Setting	*CTL	[0 to 1 / **0** / 1/step] 0: Disabled. Cancels operation without a user code. 1: Enabled. Allows operation without a user code.
	Sets up operation of the machine with a keycard.		
002	Count Mode Setting	*CTL	-

5501	**[PM Alarm]**		
001	PM Alarm Level	*CTL	[0 to 9999 / **0** / 1/step] 0: Alarm off 1 to 9999: Alarm goes off when Value (1 to 9999) x 1000 > PM counter

5504	**[Jam Alarm Interval]**		
001	-	*CTL	[0 to 3 / **3** / 1/step] 0: Z 1: L 2: M 3: H
	Sets the alarm to sound for the specified jam level (document miss feeds are not included).		

5505	**[Error Alarm]**		
	Sets the error alarm level. The error alarm counter counts "1" when any SC is detected. However, the error alarm counter decreases by "1" when an SC is not detected during a set number of copied sheets (for example, default 700 sheets). The error alarm occurs when the SC error alarm counter reaches "5".		
001	Error Alarm	*CTL	[0 to 25500 / **D146: 2500, D147: 3500, D148: 5000, D149: 6000, D150: 7500 /**undred/step] 0: Alarm Off

5507	**[Supply/CC Alarm]**		
	Enables or disables the notifying a supply call via the @Remote.		
001	Paper Supply Alarm	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
002	Staple Supply Alarm	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
003	Toner Supply Alarm	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON
	If you select "1" the alarm will sound when the copier detects toner end.		

006	Toner Collection Bottle Alarm	*CTL	[0 or 1 / **0** / 1/step] 0:OFF 1: ON
080	Toner Call Timing	*CTL	[0 or 1 / **0** / 1/step] 0: At replacement 1: AtLessThanThresh
	Changes the timing of the "Toner Supply Call" via the @Remote, when the following conditions occur.		
081	Toner Call Threshold	*CTL	[10 or 90 / **0** / 10%/step]
128	Interval :Others	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
132	Interval :A3	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
133	Interval :A4	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
134	Interval :A5	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
141	Interval :B4	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		

142	Interval :B5	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
160	Interval :DLT	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
166	Interval :LT	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		
172	Interval :HLT	*CTL	[250 to 10000 / **1000** / 1page/step]
	The "Paper Supply Call Level: nn" SPs specify the paper control call interval for the referenced paper sizes.		

5508	**[CC Call]**		
001	Jam Remains	*CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables/disables initiating a call for an unattended paper jam.		
002	Continuous Jams	*CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables/disables initiating a call for consecutive paper jams.		
003	Continuous Door Open	*CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables/disables initiating a call when the front door remains open.		

011	Jam Detection: Time Length	*CTL	[3 to 30 / **10** / 1min./step]
	Sets the time a jam must remain before it becomes an “unattended paper jam”. This setting is enabled only when SP5508-004 is set to "1".		
012	Jam Detection: Continuous Count	*CTL	[2 to 10 / **5** / 1time/step]
	Sets the number of consecutive paper jams required to initiate a call. This setting is enabled only when SP5508-004 is set to "1".		
013	Door Open: Time Length	*CTL	[3 to 30 / **10** / 1min./step]
	Sets the length of time the door remains open before the machine initiates a call. This setting is enabled only when SP5-508-004 is set to "1".		

5515	**[SC/Alarm Setting]**		
	With @Remote in use, these SP codes can be set to issue an SC call when an SC error occurs. If this SP is switched off, the SC call is not issued when an SC error occurs.		
001	SC Call	*CTL	[0 or 1 / **1** / 1/step] 0: OFF 1: ON
002	Service Parts Near End Call	*CTL	
003	Service Parts End Call	*CTL	
004	User Call	*CTL	
006	Communication Test Call	*CTL	
007	Machine Information Notice	*CTL	
008	Alarm Notice	*CTL	
009	Non Genuine Tonner Ararm	*CTL	
010	Supply Automatic Ordering Call	*CTL	
011	Supply Management Report Call	*CTL	
012	Jam/Door Open Call	*CTL	

5516	**[Individual PM Part Alarm Call]**		
	With @Remote in use, these SP codes can be set to issue an PM alarm call when one of SP parts reaches its yield.		
001	Disable/Enable Setting (0: Not send, 1: Send)	*CTL	[0 or 1 / **1** / 1/step] 0: Not send 1: Send
004	Percent yield for triggering PM alert	*CTL	[1 to 255 / **75** / 1 %/step]

5517	**[Get Machine Information]**		
031	Get SMC Info Retry Internal	*CTL	[10 to 255 / **10** / 1min/step]
	When SMC info collect is interrupt, retries during the time between receving Request for obtaining SMC info, to value set with this setting.		

5610	**[Base Gamma Ctrl Pt:Execute]**		
004	Get Factory Default	ENG	[0 or 1 / **0** / 1/step]
	Factoryreset the ACC execution result (create base gamma with factory adjusted value).		
005	Set Factory Default	ENG	[0 or 1 / **0** / 1/step]
	Overwrites the factory adjusted value with base gamma control point (current value).		
006	Restore Orginal Value	ENG	[0 or 1 / **0** / 1/step]
	Reset the ACC execution result (create base gamma with last adjusted value).		

5611	[Toner Color in 2C]		
001	B-C	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (C component) from 0(%) to 128(%) when setting basic color (blue) to single color.		
002	B-M	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (M component) from 0(%) to 128(%) when setting basic color (blue) to single color.		
003	G-C	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (C component) from 0(%) to 128(%) when setting basic color (green) to single color.		
004	G-Y	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (Y component) from 0(%) to 128(%) when setting basic color (green) to single color.		
005	R-M	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (M component) from 0(%) to 128(%) when setting basic color (red) to single color.		
006	R-Y	*ENG	[0 to 128 / **100** / 1/step]
	Adjust (no correction: 100) output color (Y component) from 0(%) to 128(%) when setting basic color (red) to single color.		

5618	[Color Mode Display Selection]		
001	-	*CTL	[0 or 1 / **1** / 1/step] 0: ACS, Color, Black & White, Two Colors, Single colour 1: ACD, Full Color, Black & White
	Selects the color selection display on the LCD.		

5730	**[Extended Function Setting]**		
	-		
001	JavaTM Platform setting	*CTL	[1 to 24 char. / **NULL** / -]
	Input license codes to set JavaVM enabled / disabled.		
002	JavaTM Platform display	*CTL	[Read Only / **1** / -] 1(enable)[FIXED]
	Check whether JavaVM is enable of not.		
010	Expiration Prior Alarm Set	*CTL	[0 to 999 / **20** / 1day/step]

5745	**[PowerConsumption]**		
211	Controller Standby	*CTL	[0 to 9999 / **0** / 1/step]
212	STR	*CTL	[0 to 9999 / **0** / 1/step]
213	Main Power Off	*CTL	[0 to 9999 / **0** / 1/step]
214	Scanning and Printing	*CTL	[0 to 9999 / **0** / 1/step]
215	Printing	*CTL	[0 to 9999 / **0** / 1/step]
216	Scanning	*CTL	[0 to 9999 / **0** / 1/step]
217	Engine Standby	*CTL	[0 to 9999 / **0** / 1/step]
218	Low Power Consumption	*CTL	[0 to 9999 / **0** / 1/step]
219	Silent Consumption	*CTL	[0 to 9999 / **0** / 1/step]
220	Heater Off	*CTL	[0 to 9999 / **0** / 1/step]

5747	**[Browser Setting]**		
	-		
201	JPEG Quality	*CTL	[0 to 100 / **80** / 1%/step]
203	memory	*CTL	[0 or 1 / **0** / 1/step] 0: Use extended memory 1: Not use extended memory

204	Vertical Scroll Display Setting	*CTL	[0 or 1 / **0** / 1/step]
207	Browser4	CTL	[0 to 255 / **0** / 1/step]
208	Browser5	CTL	[0 to 255 / **0** / 1/step]
209	Browser6	CTL	[0 to 255 / **0** / 1/step]
210	Browser7	CTL	[0 to 255 / **0** / 1/step]
211	Browser8	CTL	[0 to 255 / **0** / 1/step]
212	Browser9	CTL	[0 to 255 / **0** / 1/step]
213	Browser10	CTL	[char. code + 0-255 bytechar. / **NULL** / -]

5749	**[Import/Export]**		
	Imports and exports preference information.		
001	Export	CTL	[- / **-** / -] Target: System, Printer, Fax, Scanner Option: Unique, Secret Copy config: Encryption, Encryption key(if selected) [Execute]
101	Import	CTL	[- / **-** / -] Option: Unique Copy config: Encryption, Encryption key(if selected) [Execute]

5752	**[Copy FlairAPIFunction Setting]**			
	CopyFlairAPI Function enable / disable.			
001	Copy FlairAPIFunction Setting	*CTL	* see BitSwitch below:	
bit	Setting	meanings		Description
		0	1	

bit 0	Start of FlairAPI Server	**Off (Do not Start)**	On (Start)	Sets whether to start exclusive FlairAPI http server. If it is 0, scanning FlairAPI function and simple UI function will be disabled. The machine installed Android operating panel option, set “1”, others set “0”.
bit 1	Access permission of FlairAPI from outside of the machine	**Disabled**	Enabled	If it is “0”, accessing is limited from the machine only, such as operating panel, SDK/J, MFP browsers etc... If it is “1”, accessing is allowed from outside of FlairAPI such as PC, Remote UI, IT-Box etc...
bit 2	Reserved	-	-	-
bit 3	Reserved	-	-	-
bit 4	Simple UI Function	**Disabled**	Enabled	If it is “1”, the machine can be used Scanner Simple UI. If it is “0”, requesting URL of Simple UI returns “404 Not Found”
bit 5	Accessing permission of Simple UI from outside of the machine	**Disabled**	Enabled	If it is “0”, accessing is limited from the machine only (operating panel and MFP browser). If it is “1”, accessing is allowed from outside of Simple UI such as PC, mobile devices, and so on.
bit 6	Reserved	-	-	-
bit 7	Reserved	-	-	-

5801	[Memory Clear]		
001	All Clear	CTL	[- / - / -] [Execute]
	Resets all correction data for process control and all software counters, and returns all modes and adjustments to their default values.		

5801	[Memory Clear]		
002	Engine	ENG	[- / - / -] [Execute]
	Clears non-volatile memory of engine.		

5801	[Memory Clear]		
	Select following SPs and press [Execute] on LCD. After executing, reboot the machine.		
003	SCS	CTL	[- / - / -] [Execute]
	Initializes default system settings, SCS (System Control Service) settings, operation display coordinates, and ROM update information.		
004	IMH Memory Clr	CTL	[- / - / -] [Execute]
	Initializes the IMH settings.		
005	Mcs	CTL	[- / - / -] [Execute]
	Initializes the Mcs settings.		
006	Copier Application	CTL	[- / - / -] [Execute]
	Initializes all copier application settings.		
007	Fax Application	CTL	[- / - / -] [Execute]

	Initializes the fax reset time, job login ID, all TX/RX settings, local storage file numbers, and off-hook timer.		
008	Printer Application	CTL	[- / - / -] [Execute]
	The following service settings: § Bit switches § Gamma settings (User & Service) § Toner Limit The following user settings: § Tray Priority § Menu Protect § System Setting except for setting of Energy Saver § I/F Setup (I/O Buffer and I/O Timeout) § PCL Menu		
009	Scanner Application	CTL	[- / - / -] [Execute]
	Initializes the scanner defaults for the scanner and all the scanner SP modes.		
	Deletes the network file application management files and thumbnails, and initializes the job login ID.		
010	Web Service	CTL	[- / - / -] [Execute]
	Deletes the network file application management files and thumbnails, and initializes the job login ID.		
011	NCS	CTL	[- / - / -] [Execute]
	All setting of Network Setup (User Menu) (NCS: Network Control Service)		
012	R-Fax	CTL	[- / - / -] [Execute]
	Initializes the job login ID, SmartDeviceMonitor for Admin, job history, and local storage file numbers.		

014	Clear DCS Setting	CTL	[- / - / -] [Execute]
	Initializes the DCS (Delivery Control Service) settings.		
015	Clear UCS Setting	CTL	[- / - / -] [Execute]
	Initializes the UCS (User Information Control Service) settings.		
016	MIRS Memory Clr	CTL	[- / - / -] [Execute]
	Initializes the MIRS (Machine Information Report Service) settings.		
017	CCS	CTL	[- / - / -] [Execute]
	Initializes the CCS (Certification and Charge-control Service) settings.		
018	SRM Memory Clr	CTL	[- / - / -] [Execute]
	Initializes the SRM (System Resource Manager) settings.		
019	LCS Memory Clr	CTL	[- / - / -] [Execute]
	Initializes the LCS settings.		
020	Web Uapli	CTL	[- / - / -] [Execute]
	Initializes the web user application settings.		
021	ECS	CTL	[- / - / -] [Execute]
	Initializes the ECS settings.		
024	BROWSER	CTL	[- / - / -] [Execute]
	Initializes the browser settings.		

5803	**[INPUT Check]**
	See page 3-1

5804	**[OUTPUT Check]**
	See page 3-31

5805	**[Anti-Condensation Heater]**		
	Switches ON/OFF dehumidify heater / dew condensation preventing heater during standby. 0: OFF... Switches OFF when standby (default setting) 1: ON... Switches ON when standby		
001	0:OFF / 1:ON	*ENG	[0 or 1 / **0** / 1/step] 0: OFF... Switches OFF when standby (default setting) 1: ON... Switches ON when standby

5810	**[SC Reset]**		
001	Fusing SC Reset	*ENG	[0 or 1 / **0** / 1/step]
002	Hard High Temp. Detection	*ENG	[0 or 1 / **0** / 1/step]

5811	**[MachineSerial]**		
002	Display	*ENG	[0 to 255 / **0** / 1/step]
	Displays serial number.		

5811	**[MachineSerial Set]**		
004	BCU	*ENG	[0 to 255 / **0** / 1/step]
	Displays/Enters serial number of BCU:FROM Same as SP5-811-001.		

5812	[Service Tel. No. Setting]		
001	Service	*CTL	[up to 20 / **-** / 1/step]
	Sets the telephone number for a service representative. This number is printed on the Counter List, which can be printed with the user's "Counter" menu. This can be up to 20 characters (both numbers and alphabetic characters can be input).		
002	Facsimile	*CTL	[up to 20 / **-** / 1/step]
	Sets the fax or telephone number for a service representative. This number is printed on the Counter List. This can be up to 20 characters (both numbers and alphabetic characters can be input).		
003	Supply	*CTL	[up to 20 / **-** / 1/step]
	Use this to input the telephone number of your supplier for consumables. Enter the number and press #.		
004	Operation	*CTL	[up to 20 / **-** / 1/step]
	Use this to input the telephone number of your sales agency. Enter the number and press #.		

5816	[Remote Service]		
001	I/F Setting	*CTL	[0 to 2 / **2** / 1/step] 0: Remote service off 1: CSS remote service on 2: NRS remote service on
	Selects the remote service setting.		
002	CE Call	*CTL	[0 or 1 / **0** / 1/step] 0: Start of the service 1: End of the service
	Performs the CE Call at the start or end of the service. Note § This SP is activated only when SP 5816-001 is set to "2".		

003	Function Flag	*CTL	[0 or 1 / **0** / 1/step] 0: Disabled 1: Enabled
	Enables or disables the remote service function.		
007	SSL Disable	*CTL	[0 or 1 / **0** / 1/step] 0: Yes. SSL not used. 1: No. SSL used.
	Controls if RCG (Remote Communication Gate) confirmation is done by SSL during an RCG send for the @Remote over a network interface.		
008	RCG Connect Timeout	*CTL	[1 to 90 / **30** / 1second/step]
	Sets the length of time (seconds) for the time-out when the RCG (Remote Communication Gate) connects during a call via the @Remote network.		
008	RCG Connect Timeout	*CTL	[1 to 90 / **30** / 1second/step]
	Sets the length of time (seconds) for the time-out when the RCG (Remote Communication Gate) connects during a call via the @Remote network.		
009	RCG Write Timeout	*CTL	[0 to 100 / **60** / 1second/step]
	Sets the length of time (seconds) for the time-out when the RCG (Remote Communication Gate) connects during a call via the @Remote network.		
010	RCG Read Timeout	*CTL	[0 to 100 / **60** / 1second/step]
	Sets the length of time (seconds) for the timeout when sent data is written from the RCG during a call over the @Remote network.		
011	Port 80 Enable	*CTL	[0 or 1 / **0** / 1/step] 0: No. Access denied 1: Yes. Access granted.
	Controls if permission is given to get access to the SOAP method over Port 80 on the @Remote network.		
013	RFU Timing	*CTL	[0 or 1 / **1** / 1/step] 0: Any status of a target machine 1: Sleep or panel off mode only
	Selects the timing for the remote firmware updating.		

014	RCG Error Cause	CTL	[0 or 1 / **0** / 1/step] 0: Initial state, normal condition 1: Error
	Displays RCG connection error. cause		
021	RCG – C Registed	*CTL	[0 or 1 / **0** / 1/step] 0: Installation not completed 1: Installation completed
	This SP displays and selects the RCG-N connection method.		
023	connect type(N/M)	*CTL	[0 or 1 / **0** / 1/step] 0: internet connection 1: Dial-up connection
	Displays the connection type of the NRS G/W and Cumin. The value will be changed after installation completed in the case of dial-up connection.		
061	Cert Expire Timing	*CTL	[0 to 0xffffffff / **0** / 1/step] 0: Not use 1: Use
	Sets the date for expiration notification.		
062	Use Proxy	*CTL	[0 or 1 / **0** / 1/step] 0: Not use 1: Use
	This SP setting determines if the proxy server is used when the machine communicates with the service center.		
063	Proxy Host	*CTL	[- / **-** / -]
	This SP sets the address of the proxy server used for communication between the RCG device and the gateway. Use this SP to set up or display the customer proxy server address. The address is necessary to set up the embedded RCG-N. Note § The address display is limited to 128 characters. Characters beyond the 128 character are ignored. § This address is customer information and is not printed in the SMC report.		

064	Proxy PortNumber	*CTL	[0 to 0xffff / **0** / 1/step]
	This SP sets the port number of the proxy server used for communication between the embedded RCG-N and the gateway. This setting is necessary to set up the embedded RC Gate-N. Note § This port number is customer information and is not printed in the SMC report.		
065	Proxy User Name	*CTL	[up to 31 / **-** / 1/step]
	This SP sets the HTTP proxy certification user name. The length of the name is limited to 31 characters. Any character beyond the 31st character is ignored. Note § This name is customer information and is not printed in the SMC report.		
066	Proxy Password	*CTL	[up to 31 / **-** / 1/step]
	This SP sets the HTTP proxy certification password. Note § The length of the password is limited to 31 characters. Any character beyond the 31st character is ignored. § This name is customer information and is not printed in the SMC report.		
067	Proxy Password	*CTL	[0 to 255 / **0** / 1/step]
	Displays status of the certification used for Cumin. If it is not installed as Cumin, the value of this SP will be set when it installed, after checking the certification status.		
	0	The certification adequately set on the machine.	
	1	Request for certification update in progress.	
	2	Certification Update completed and notification of the success status to the G/W in progress.	
	3	Certification Update failed and notification of the result to the G/W in progress.	
	4	Certification expiration date will be coming soon. Notifying the G/W to request for certification update.	
	11	Rescue certification setting for connecting to the rescue G/W in progress because update for rescue certification needed.	

	12	Setting for rescue certification has completed. Requesting to the rescue G/W for updating certification.
	13	Notification for certification updating request has completed. Waiting for the certification update request from the rescue G/W.
	14	Received the notification for certification updating request from the rescue G/W. Writing the certification.
	15	Writing the certification has completed. Notifying the result of certification update to the G/W.
	16	Writing the certification has failed. Notifying the result of certification update to the G/W.
	17	Writing a rescue certification because received a certification error again after completed the certification update request from the G/W and noticed the result of certification update with the updated certification.
	18	The writing operation mentioned in #17 has completed. Notifying the result of certification update to the rescue G/W.

068	CERT: Error	*CTL	[0 to 255 / **0** / 1/step]
	Displays a number code that describes the reason for the request for update of the certification.		
	0	Normal. There is no request for certification update in progress.	
	1	Request for certification update in progress. The current certification has expired.	
	2	An SSL error notification has been issued. Issued after the certification has expired.	
	3	Notification of shift from a common authentication to an individual certification.	
	4	Notification of a common certification without ID2.	
	5	Notification that no certification was issued.	
	6	Notification that GW URL does not exist.	

069	CERT: Up ID	*CTL	[- / - / -]
	-		
083	Firm Up Status	*CTL	[0 to 5 / 0 / 1/step] 0: Waiting for accepting firm update 1: Waiting for firm update start schedule 2: Waiting for user confirmation 3: In preparation for the machine firm update 4: processing the machine firm update 5: processing the closing operation of the machine firm update
085	Firm Up User Check	CTL	[- / - / -]
	This SP setting determines if the operator can confirm the previous version of the firmware before the firmware update execution. If the option to confirm the previous version is selected, a notification is sent to the system manager and the firmware update is done with the firmware files from the URL.		
086	Firmware Size	CTL	[- / - / -]
	Allows the service technician to confirm the size of the firmware data files during the firmware update execution.		
087	CERT:Macro Ver.	CTL	[8digits / - / 1digit/step]
	Displays the macro version of the @Remote certification. This SP displays 8-digit characters.		
088	CERT:PAC Ver.	CTL	[16digits / - / 1digit/step]
	Displays the PAC version of the @Remote certification. This SP displays 16-digit characters.		

089	CERT:ID2Code	CTL	[17digits / - / 1digit/step]
	Displays ID2 for the @Remote certification. Spaces are displayed as underscores (_). Asterisks (****) indicate that no @Remote certification exists. This SP displays 17-digit characters.		
090	CERT:Subject	CTL	[17digits / - / 1digit/step]
	Displays the common name of the @Remote certification subject. CN = the following 17 bytes. Spaces are displayed as underscores (_). Asterisks (****) indicate that no DESS exists.		
091	CERT:Serial No.	CTL	[16digits / - / 1digit/step]
	Displays serial number for the NRS certification. Asterisks (****) indicate that no DESS exists. This SP displays 16-digit characters		
092	CERT:Issuer	CTL	[30digits / - / 1digit/step]
	Displays the common name of the issuer of the @Remote certification. CN = the following 30 bytes. Asterisks (****)indicate that no DESS exists.		
093	CERT:Valid Start	CTL	[10digits / - / 1digit/step]
	Displays the start time of the period for which the current @Remote certification is enabled. This SP displays 10-digit characters.		
094	CERT:Valid End	CTL	[10digits / - / 1digit/step]
	Displays the end time of the period for which the current @Remote certification is enabled. This SP displays 10-digit characters.		
102	CERT:Encrypt Level	*CTL	[1 to 2 / **1** / 1/step]
	Displays the encryption strength of NRS certification.		

150	Selection Country	CTL	[0 to 10 / **1** / 1/step] 0: Japan 1: USA 2: Canada 3: UK 4: Germany 5: France 6: Italy 7: Netherlands 8: Belgium 9: Luxembourg 10: Spain
	Select the country where embedded RCG-M is installed in the machine. After selecting the country, you must also set the following SP codes for embedded RCG-M: § SP5816-153 § SP5816-154 § SP5816-161		
151	Line Type AutomaticJudgment	CTL	[- / **-** / -] [Execute]
	Press [Execute]. Setting this SP classifies the telephone line where embedded RCG-M is connected as either dial-up (pulse dial) or push (DTMF tone) type, so embedded RCG-M can automatically distinguish the number that connects to the outside line.		

152	Line Type Judgment Result	CTL	[0 to 9 / **-** / 1/step]
	Displays a number to show the result of the execution of SP5816 151. Here is a list of what the numbers mean. 0: Success 1: In progress (no result yet). Please wait. 2: Line abnormal 3: Cannot detect dial tone automatically 4: Line is disconnected 5: Insufficient electrical power supply 6: Line classification not supported 7: Error because fax transmission in progress – ioctl() occurred. 8: Other error occurred 9: Line classification still in progress. Please wait.		
153	Selection Dial / Push	CTL	[0 or 1 / **0** / 1 /step] 0: Tone Dialing Phone 1: Pulse Dialing Phone Inside Japan "2" may also be displayed: 0: Tone Dialing Phone 1: Pulse Dialing Phone 10PPS 2: Pulse Dialing Phone 20PPS
	This SP displays the classification (tone or pulse) of the telephone line to the access point for embedded RCG-M. The number displayed (0 or 1) is the result of the execution of SP5816-151. However, this setting can also be changed manually.		

154	Outside Line Outgoing Number	CTL	[- / - / -]
	The SP sets the number that switches to PSTN for the outside connection for embedded RCG-M in a system that employs a PBX (internal line). § If the execution of SP5816-151 has succeeded and embedded RCG-M has connected to the **external** line, this SP display is completely blank. § If embedded RCG-M has connected to an **internal** line, then the number of the connection to the external line is displayed. § If embedded RCG-M has connected to an external line, a comma is displayed with the number. The comma is inserted for a 2 sec. pause. The number setting for the external line can be entered manually (including commas).		
156	Dial Up User Name	CTL	[up to 32 / - / 1/step]
	Use this SP to set a user name for access to remote dial up. Follow these rules when setting a user name: § Name length: Up to 32 characters § Spaces and # allowed but the entire entry must be enclosed by double quotation marks (").		
157	Dial Up Password	CTL	[up to 32 / - / 1/step]
	Use this SP to set a password for access to remote dial up. Follow these rules when setting a user name: § Name length: Up to 32 characters § Spaces and # allowed but the entire entry must be enclosed by double quotation marks (").		
161	Local Phone Number	CTL	[up to 24 / - / 1/step]
	Use this SP to set the telephone number of the line where embedded RCG-M is connected. This number is transmitted to and used by the Call Center to return calls. Limit: 24 numbers (numbers only)		

162	Connection Timing Adjustment Incoming	CTL	[0 to 24 / 1 / 1/step]
	When the Call Center calls out to an embedded RCG-M modem, it sends a repeating ID tone (*#1#). This SP sets the time the line remains open to send these ID tones after the number of the embedded RCG-M modem is dialed up and connected. The actual amount of time is this setting x 2 sec. For example, if you set "2" the line will remain open for 4 sec.		
163	Access Point	CTL	[0 to 16 / **0** / 1/step]
	This is the number of the dial-up access point for RCG-M. If no setting is done for this SP code, then a preset value (determined by the country selected) is used. Default: 0 Allowed: Up to 16 alphanumeric characters		
164	Line Connecting	CTL	[0 to 1 / **0** / 1/step] 0: Sharing Fax 1: No Sharing Fax
	This SP sets the connection conditions for the customer. This setting dedicates the line to RCG-M only, or sets the line for sharing between RCG-M and a fax unit. Note § If this setting is changed, the copier must be cycled off and on. § SP5816 187 determines whether the off-hook button can be used to interrupt a RCG-M transmission in progress to open the line for fax transaction.		
173	Modem Serial No.	CTL	[- / **-** / -]
	This SP displays the serial number registered for the RCG-M.		

174	Retransmission Limit	CTL	[- / **-** / -]
	Normally, it is best to allow unlimited time for certification and ID2 update requests, and for the notification that the certification has been completed. However, RCG-M generates charges based on transmission time for the customer, so a limit is placed upon the time allowed for these transactions. If these transactions cannot be completed within the allowed time, do this SP to cancel the time restriction.		
187	FAX TX Priority	CTL	[0 or 1/ **0** / 1/step] 0: Disable 1: Enable
	This SP determines whether pushing the off-hook button will interrupt a RCG-M transmission in progress to open the line for fax transaction. This SP can be used only if SP5816 164 is set to "0".		
200	Manual Polling	CTL	[- / **-** / -] [Execute]
	Performs center polling when executed.		
201	Regist Status	CTL	[0 to 4 / **0** / 1/step] [Execute]
	Displays the installation status as the target of NRS services.		
	0	Not installed as NRS machines or Cumin.	
	1	Installing as Cumin. Box enrollment has completed. Unable to response for the machine serching from Basil at this status.	
	2	Installation has completed. Unable to response for the machine serching from Basil at this status.	
	3	As a NRS machine, installation has completed. It cannot install as Cumin.	
	4	NRS modules is not being launched.	
202	Letter Number	*CTL	[- / **-** / -]
	Sets the request number that is required to install Cumin.		

203	Confirm Ececute	*CTL	[- / **-** / -] [Execute]
	Executes the request number inquiry to NRS G/W.		
204	Confirm Result	CTL	[0 to 255 / **0** / 1/step] 0: Success Inquiry 1: Request number error 3: Communication error (Enabled Proxy) 4: Communication error (Disabled Proxy) 5: Proxy error (failed auth.) 6: Communication error 8: Other error (See SP5-816-208 for detail) 9: Processing inquiry 20: Failed Dial-up auth. 21: Failed answer tone detection 22: Failed career detection 23: Invalid modem value 24: Shortage of electrical current 25: Cable disconnected 26: Line occupied
	Displays the result of SP5-816-203.		

205	Confirm Place	CTL	[0 to 255 / **0** / 1/step] 0: Success registration 1: Request number error 3: Communication error (Enabled Proxy) 4: Communication error (Disabled Proxy) 5: Proxy error (failed auth.) 6: Communication error 8: Other error (See SP5-816-208 for detail) 9: Processing registration 20: Failed Dial-up auth. 21: Failed answer tone detection 22: Failed career detection 23: Invalid modem value 24: Shortage of electrical current 25: Cable disconnected 26: Line occupied
	Displays the installed section informed from G/W for response of request number inquiry if the section is enrolled on the G/W.		
206	Register Execute	CTL	[- / **-** / -] [Execute]
	Executes the registration of Cumin.		
207	Register Result	CTL	[0 to 255 / **0** / 1/step]
	Displays the registration result. Shows the executed status of SP5-816-206.		
208	Error Code	CTL	[-2147483647 to 2147483647 / **0** / -]
	Displays the registration result of SP5-816-204.		
208	**Invalid modem parameter**		
	-11001	Chat parameter error.	
	-11002	Chat execution error.	
	-11003	Unexpected error	

	-11004	Disconnect operation occurred during modem communication,
	-11005	NCS reboot occurred during modem communication.
208	**Errors with invalid procedure or settings**	
	-12002	Attempted to inquiry or registration without obtaining the installation status.
	-12003	Attempted to registrate without inquiry despite un-registered status.
	-12004	Attempted to install with invalid certification, ID2, and without input the machine number.
	-12005	Executed inquiry/ registration in a invalid Cumin function and prohibited @Remote communication.
208	-12006	Attempted to inquiry in BOX registration completed.
	-12007	Registration attempted with the different request number from the number used for the last inquiry.
	-12008	Certificaton update failed because Job processing etc.
	-12009	Mismatched between ID2 in NR-RAM and ID2 in the individual certification.
	-12010	Not initialized the certification area.
208	**Error with error response from G/W**	
	-2385	Inappropriate international dialing prefix
	-2387	Not supported in the center.
	-2389	DB failure
	-2390	Program failure
	-2391	Double registration of the machine
208	-2392	Parameter error
	-2393	Not managed Basil
	-2394	Not managed machine
	-2395	Invalid BOX ID of Basil

	-2396	Invalid Devic ID of Basil
	-2397	Different format of ID2 (includes invalid ID2)
	-2398	Different format of request number

209	CommLog Print	CTL	[- / **-** / -]
	Releases the machine from its embedded RCG setup.		
250	Commlog Print	CTL	[- / **-** / -]
	Prints the content of communication log (mmeg 8182) on @Remote.		

5821	**[Remote Service Address]**		
002	RCG IP Address	*CTL	[00000000h to FFFFFFFFh / **00000000h** / 1/step]
	Sets the IP address of the RCG (Remote Communication Gate) destination for call processing at the remote service center.		
003	RCG Port Number	*CTL	[0 to 65535/ **443** / 1/step]
	Sets the port number of the RCG (Remote Communication Gate) destination for call processing at the remote service center.		
004	RCG URL Path	*CTL	[0 to 16 characters (half characters) Default **/RCG/services/** -]

5824	**[NV-RAM Data Upload]**		
	Uploads the NVRAM data to an SD card. Push Execute.		
001	NV-RAM Data Upload	CTL	[- / **-** / -] [Execute]

5825	**[NV-RAM Data Download]**
	Downloads data from an SD card to the NVRAM in the machine. After downloading is completed, remove the card and turn the machine power off and on.

001	NV-RAM Data Download	CTL	[- / **-** / -] [Execute]

5828	**[Network Setting]**		
001	IPv4 Address(Ethernet/IEEE 802.11)	*CTL	[- / **-** / -]
050	1284 Compatibility (Centro)	*CTL	[0 or 1 / **1** / 1/step] 0: Disabled 1: Enabled
	Enables or disables 1284 Compatibility.		
052	ECP (Centro)	*CTL	[0 or 1 / **1** / 1/step] 0: Disabled 1: Enabled
	Enables or disables ECP Compatibility.		
065	Job Spooling	*CTL	[0 or 1 / **0** / 1/step] 0: Disabled 1: Enabled
	Enables/disables Job Spooling.		
066	Job Spooling Clear: Start Time	*CTL	[0 or 1 / **1** / 1/step] 0: ON (Data is cleared) 1: OFF (Automatically printed)
	Treatment of the job when a spooled job exists at power on.		

069	Job Spooling (Protocol)	*CTL	[0 or 1 / **0** / 1/step] 0: Validates 1: Invalidates bit0: LPR bit1: FTP bit2: IPP bit3: SMB bit4: BMLinkS bit5: DIPRINT bit6: sftp bit7: (Reserved)
	Validates or invalidates the job spooling function for each protocol.		
087	Protocol usage	* CTL	[0 or 1 / **0x00000000** / 1bit/step]
	Shows which protocols have been used with the network. 0: Off (Not used the network with the protocol.) 1: On (Used the network with the protocol once or more.) bit0: IPsec, bit1: IPv6, bit2: IEEE 802. 1X, bit3:Wireless LAN, bit4: Security mode level setting, bit5:Appletalk, bit6: DHCP, bit7: DHCPv6, bit8: telnet, bit9: SSL, bit10: HTTPS, bit11: BMLinkS printing, bit12: diprint printing, bit13: LPR printing, bit14: ftp printing, bit15: rsh printing, bit16: SMB printing, bit17: WSD-Printer, bit18: WSD-Scanner, bit19: Scan to SMB, bit20: Scan to NCP, bit21: Reserve, bit22: Bluetooth, bit23: IEEE 1284, bit24: USB printing, bit25: Dynamic DNS, bit26: Netware printing, bit27: LLTD, bit28: IPP printing, bit29: IPP printing (SSL), bit30: ssh, bit31: sftp		
090	TELNET (0: OFF 1: ON)	* CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables or disables the Telnet protocol.		
091	Web (0: OFF 1: ON)	* CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables or disables the Web operation.		

<table>
<tr><td>145</td><td>Active IPv6 Link Local Address</td><td>CTL</td><td>[- / - / -]</td></tr>
<tr><td></td><td colspan="3">This is the IPv6 local address link referenced on the Ethernet or wireless LAN (802.11b) in the format:
"Link Local Address" + "Prefix Length"
The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.</td></tr>
<tr><td>147</td><td>SettingActive IPv6 Stateless Address 1</td><td>CTL</td><td rowspan="3">[00000000000000000000000000000000h to FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF80h / 00000000000000000000000000000040h / -]
These SPs are the IPv6 status addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.11b) in the format:
"Status Address" + "Prefix Length"
The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.</td></tr>
<tr><td>149</td><td>SettingActive IPv6 Stateless Address 2</td><td>CTL</td></tr>
<tr><td>151</td><td>SettingActive IPv6 Stateless Address 3</td><td>CTL</td></tr>
<tr><td>153</td><td>SettingActive IPv6 Stateless Address 4</td><td>CTL</td><td rowspan="3">[00000000000000000000000000000000h to FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF80h / 00000000000000000000000000000040h / -]
These SPs are the IPv6 status addresses (1 to 5) referenced on the Ethernet or wireless LAN (802.11b) in the format:
"Status Address" + "Prefix Length"
The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.</td></tr>
<tr><td>155</td><td>SettingActive IPv6 Stateless Address 5</td><td>CTL</td></tr>
<tr><td>156</td><td>IPv6 Manual Address</td><td>*CTL</td></tr>
<tr><td rowspan="2">158</td><td>IPv6 Gateway Address</td><td>*CTL</td><td>[00000000000000000000000000000000h to FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFh / 00000000000000000000000000000000h / -]</td></tr>
<tr><td colspan="3">This SP is the IPv6 gateway address referenced on the Ethernet or wireless LAN (802.11b). The IPv6 address consists of a total 128 bits configured in 8 blocks of 16 bits each.</td></tr>
</table>

161	IPv6 Stateless Auto Setting	*CTL	[0 or 1 / **1** / 1/step] 0: Disable 1: Enable
	Enables or disables the automatic setting for IPv6 stateless.		
236	Web Item visible	*CTL	[0x0000 to 0xffff / **0xffff** / -]
	Displays or does not display the Web system items. bit0: Net RICOH bit1: Consumable Supplier bit2-15: Reserved (all)		
237	Web shopping link visible	*CTL	[0 or 1 / **1** / 1/step] 0: Not display 1:Display
	Displays or does not display the link to Net RICOH on the top page and link page of the web system.		
238	Web supplies Link visible	*CTL	[Up to 31char / **URL1** / 1/step] 0: Not display 1: Display
	Displays or does not display the link to Consumable Supplier on the top page and link page of the web system.		
239	Web Link1 Name	*CTL	[Up to 31char / **URL1** / 1/step]
	This SP confirms or changes the URL1 name on the link page of the web system. The maximum characters for the URL name are 31 characters.		
240	Web Link1 URL	*CTL	[Up to 127char / **URL1** / 1/step]
	This SP confirms or changes the link to URL1 on the link page of the web system. The maximum characters for the URL are 127 characters.		
241	Web Link1 visible	*CTL	[Up to 31 char / **URL2**/ -] 0: Not display 1: Display
	Sets/displays whether to display the link of URL1 for websys top page.		
242	Web Link2 Name	*CTL	[- / **-** / -]
243	Web Link2 URL	*CTL	[- / **-** / -]

244	Web Link2 visible	*CTL	[- / - / -]
249	DHCPv6 DUID	CTL	[- / - / -]

5832	**[HDD Formatting]**		
	Initializes the hard disk. Use this SP mode only if there is a hard disk error.		
001	HDD Formatting (ALL)	CTL	[- / - / -] [Execute]
002	HDD Formatting (IMH)	CTL	[- / - / -] [Execute]
003	HDD Formatting (Thumbnail)	CTL	[- / - / -] [Execute]
004	HDD Formatting (Job Log)	CTL	[- / - / -] [Execute]
005	HDD Formatting (Printer Fonts)	CTL	[- / - / -] [Execute]
006	HDD Formatting (User Info1)	CTL	[- / - / -] [Execute]
007	Mail RX Data	CTL	[- / - / -] [Execute]
008	Mail TX Data	CTL	[- / - / -] [Execute]
009	HDD Formatting (Data for a Design)	CTL	[- / - / -] [Execute]
010	HDD Formatting (Log)	CTL	[- / - / -] [Execute]
011	HDD Formatting (Ridoc I/F)	CTL	[- / - / -] [Execute]

5836	**[Capture Settings]**
	-

001	Capture Function (0:Off 1:On)	* CTL	[0 or 1 / **0** / 1/step] 0: Disable 1: Enable
	With this function disabled, the settings related to the capture feature cannot be initialized, displayed, or selected.		
002	Panel Setting	*CTL	[0 or 1 / **0**/ 1 /step] 0: Displayed 1: Not displayed
	Displays or does not display the capture function buttons.		

5836	**[Capture Settings]**		
071	Reduction for Copy Color	*CTL	[0 or 3 / **2** / 1/step] 0: 1to-1 1: 1/2 2: 1/3 3: 1/4
072	Reduction for Copy B&W Text	*CTL	[0 to 3, 6 / **0** / 1/step] 0: 1to-1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
073	Reduction for Copy B&W Other	*CTL	[0 to 3, 6 / **0** / 1/step] 0: 1to-1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
074	Reduction for Printer Color	*CTL	[0 or 3 / **2** / 1/step] 0: 1to-1 1: 1/2 2: 1/3 3: 1/4

075	Reduction for Printer B&W	*CTL	[0 to 3, 6 / **0** / 1/step] 0: 1to-1 1: 1/2 2: 1/3 3: 1/4 6: 2/3
077	Reduction for Printer Color 1200dpi	*CTL	[1, 3 to 5 / **0** / 1/step] 1:1/2 3:1/4 4:1/6 5:1/8
078	Reduction for Printer B&W 1200dpi	*CTL	[0 to 5 / **1** / 1/step] 0: 1 1: 1/2 2: 1/3 3: 1/4 4: 1/6 5: 1/8
081	Format for Copy Color	*CTL	[0 / **0** / 1/step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
082	Format for Copy B&W Text	*CTL	[0 to 3 / **1** / 1/step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
083	Format for Copy B&W Other	*CTL	[0 to 3 / **1** / 1/step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
084	Format for Printer Color	*CTL	[0 / **0** / 1/step]

085	Format for Printer B&W	*CTL	[0 to 3 / **1** / 1/step] 0: JFIF/JPEG 1: TIFF/MMR 2: TIFF/MH 3: TIFF/MR
091	Default for JPEG	*CTL	[5 to 95 / **50** / 1/step]
	Sets the JPEG format default for documents sent to the document management server via the MLB with JPEG selected as the format. Enabled only when optional MLB (Media Link Board) is installed.		
101	Primary srv IP address	*CTL	[000.000.000.000 to 255.255.255.255 / **-** / 1/step]
	Sets the IP address for the primary capture server. This is basically adjusted by the remote system.		
102	Primary srv scheme	*CTL	[0 to 6 char / **NULL** / -/step]
	This is basically adjusted by the remote system.		
103	Primary srv port number	*CTL	[1 to 65535 / **80** / 1/step]
	This is basically adjusted by the remote system.		
104	Primary srv URL path	*CTL	[0 to 16 char / **-** / 1/step]
	This is basically adjusted by the remote system.		
111	Secondary srv IP address	*CTL	[000.000.000.000 to 255.255.255.255 / **-** / 1/step]
	Sets the IP address for the secondary capture server. This is basically adjusted by the remote system.		
112	Secondary srv scheme	*CTL	[0 to 6 char / **NULL** / -/step]
	This is basically adjusted by the remote system.		
113	Secondary srv port number	*CTL	[1 to 65535 / **80** / 1/step]
	This is basically adjusted by the remote system.		
114	Secondary srv URL path	*CTL	[0 to 16 char / **-** / 1/step]
	This is basically adjusted by the remote system.		

120	Default Reso Rate Switch	*CTL	[0 or 1 / **0** / 1/step]
	This is basically adjusted by the remote system.		
121	Reso Copy(Color)	*CTL	[0 to 255 / **2** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	This is basically adjusted by the remote system.		
122	Reso: Copy(Mono)	*CTL	[0 to 255 / **3** / 1/step] 0: 600dpi/ 1: 400dpi/ 2: 300dpi/ 3: 200dpi/ 4: 150dpi/ 5: 100dpi/ 6: 75dpi
	This is basically adjusted by the remote system.		
123	Reso Print(Color)	*CTL	[0 to 255 / **2** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	-		

124	Reso: Print(Mono)	*CTL	[0 to 255 / **3** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	Selects the resolution for BW print mode. This is basically adjusted by the remote system.		
126	Reso: Fax(Mono)	*CTL	[0 to 255 / **3** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	Selects the resolution for BW fax mode. This is basically adjusted by the remote system.		
127	Reso: Scanner(Color)	*CTL	[0 to 255 / **4** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	Selects the resolution for color scanning mode. This is basically adjusted by the remote system.		

128	Reso: Scanner(Mono)	*CTL	[0 to 255 / **3** / 1/step] 0:600DPi 1:400DPi 2:300DPi 3:200DPi 4:150DPi 5:100DPi 6:75DPi
	Selects the resolution for BW scanning mode. This is basically adjusted by the remote system.		
141	All Addr Info Switch	*CTL	[0 or 1 / **1** / 1/step]
	-		
142	Stand-by Doc Max Number	*CTL	[10 to 10000 / **2000** / 1/step]

5840	**[IEEE 802.11]**		
006	Channel Max	*CTL	[1 to 11 or 13 / **11 or 13** / 1 /step] Europe/Asia: 1 to 13 NA/ Asia: 1 to 11
	Sets the maximum number of channels available for data transmission via the wireless LAN. The number of channels available varies according to location. The default settings are set for the maximum end of the range for each area. Adjust the upper 4 bits to set the maximum number of channels. **DFU** Note § Do not change the setting.		
007	Channel Min	*CTL	[1 to 11 or 13 / **1** / 1/step] Europe: 1 to 13 NA/ Asia: 1 to 11
	Sets the minimum number of channels available for data transmission via the wireless LAN. The number of channels available varies according to location. The default settings are set for the minimum end of the range for each area. Adjust the lower 4 bits to set the minimum number of channels. **DFU** Note § Do not change the setting.		

011	WEP key Select	*CTL	[00 to 11 / **00** / 1binary/step] 00: Key #1 01: Key #2 (Reserved) 10: Key #3 (Reserved) 11: Key #4 (Reserved)
	Selects the WEP key.		
045	WPA Debug Lvl	*CTL	[1 to 3 / **3** / 1/step] 1: Info 2: wArning 3: error
	Selects the debug level for WPA authentication application. This SP is displayed only when the IEEE802.11 card is installed.		

5841	**[Supply Name Setting]**		
001	Toner Name Setting:Black	*CTL	Specifies supply names. These appear on the screen when the user presses the Inquiry button in the user tools screen. [0 to 20 / **NULL** / 1byte/step]
002	Toner Name Setting:Cyan	*CTL	
003	Toner Name Setting:Yellow	*CTL	
004	Toner Name Setting:Magenta	*CTL	
007	OrgStamp	*CTL	
011	Staple Std1	*CTL	Specifies supply names. These appear on the screen when the user presses the Inquiry button in the user tools screen. [0 to 20 / **NULL** / 1byte/step]
012	Staple Std2	*CTL	
013	Staple Std3	*CTL	
014	Staple Std4	*CTL	
021	Staple Bind 1	*CTL	
022	Staple Bind 2	*CTL	Specifies supply names. These appear on the screen when the user presses the Inquiry button in the user tools screen. [0 to 20 / **NULL** / 1byte/step]
023	Staple Bind 3	*CTL	

5842	[GWWS Analysis]		
001	Setting 1	*CTL	[8bit assign / **00000000** / bit switch] 0bit[LSB]: system, other group 1bit: capture related group 2bit: authentication related group 3bit: address book related group 4bit: device management related group 5bit: output related(print, FAX, and delivery) group 6bit: repository, F0,etc. document related group 7bit: debug log level suppression
	Default: **00000000** – do not change Netfiles: Jobs to be printed from the document server using a PC and the DeskTopBinder software		
002	Setting 2	*CTL	[8bit assign / **00000000** / bit switch] 0~6bit: unused 7bit: time stamp setting for 5682mmesg log. (1: min./sec/msec, 0: day/hour/min./sec)
	Optional settings for debug output mode for each NFA process.		

5844	[USB]		
001	Transfer Rate	*CTL	[- / **0x04** / -] 0x01: Full speed 0x04: Auto Change
	Adjusts the USB transfer rate.		
002	Vendor ID	*CTL	[- / **-** / -]
	Displays the vendor ID. **DFU**		

003	Product ID	*CTL	[- / **-** / -]
	Displays the product ID. **DFU**		
004	Device Release Number	*CTL	[- / **-** / -]
	Displays the development release version number. **DFU**		

5845	**[Delivery Server Setting]**		
	Provides items for delivery server settings.		
001	FTP Port No.	*CTL	[0 to 65535 / **3670** / 1/step]
	Sets the FTP port number used when image files to the Scan Router Server.		
002	IP Address (Primary)	*CTL	[000.000.000.000 to 255.255.255.255 / **000.000.000.000** / -/step]
	Use this SP to set the Scan Router Server address. The IP address under the transfer tab can be referenced by the initial system setting.		
006	Delivery Error Display Time	*CTL	[0 to 999 / **300** / 1 second /step]
	Use this setting to determine the length of time the prompt message is displayed when a test error occurs during document transfer with the NetFile application and an external device.		
008	IP Address (Secondary)	*CTL	[000.000.000.000 to 255.255.255.255 / **000.000.000.000** / -/step]
	Specifies the IP address assigned to the computer designated to function as the secondary delivery server of Scan Router. This SP allows only the setting of the IP address without reference to the DNS setting.		
009	Delivery Server Model	*CTL	[0 to 4 / **0** / 1 /step] 0: Unknown 1: SG1 Provided 2: SG1 Package 3: SG2 Provided 4: SG2 Package
	Allows changing the model of the delivery server registered by the I/O device.		

010	Delivery Svr. Capability	*CTL	[0 to 255 / **-** / 1/step]
	Bit7	1 Comment information exits	
	Bit6	1 Direct specification of mail address possible	
	Bit5	1 Mail RX confirmation setting possible	
	Bit4	1 Address book automatic update function exists	
	Bit3	1 Fax RX delivery function exists	
	Bit2	1 Sender password function exists	
	Bit1	1 Function to link MK-1 user and Sender exists	
	Bit0	1 Sender specification required (if set to 1, Bit6 is set to “0”)	
	Changes the capability of the registered that the I/O device registered.		
011	Delivery Svr Capability (Ext)	*CTL	[0 to 255 / **-** / 1 /step]
	Changes the capability of the registered that the I/O device registered.		
	Bit7 = 1 Address book usage limitation (Limitation for each authorized user) Bit6 = 1 RDH authorization link Bit5 to 0: Not used		
013	Server Scheme (Primary)	*CTL	[Up to 6 char / **-** / -/step]
	This SP is used for the scan router program.		
014	Server Port Number (Primary)	*CTL	[- / **-** / -/step]
	This is used for the scan router program.		
015	Server URL Path (Primary)	*CTL	[- / **-** / -/step]
	This is used for the scan router program.		
016	Server Scheme (Secondary)	*CTL	[Up to 6 char / **-** / -/step]
	This SP is used for the scan router program.		
017	Server Port Number (Secondary)	*CTL	[1 to 65535 / **80** / 1/step]
	This SP is used for the scan router program.		
018	Server URL Path (Secondary)	*CTL	[Up to 16 byte / **-** / -/step]

	This SP is used for the scan router program.		
022	Rapid Sending Control	*CTL	[0 or 1 / **1** / -/step] 0: Control disabled 1: Control enabled
	Enables or disables the prevention function for the continuous data sending error.		

5846	**[UCS Setting]**		
001	Machine ID (for Delivery Server)	*CTL	[- / **-** / -]
	Displays the unique device ID in use by the delivery server directory. The value is only displayed and cannot be changed. This ID is created from the NIC MAC or IEEE 1394 EUI. The ID is displayed as either 6-byte or 8-byte binary.		
002	Machine ID Clear(for Delivery Server)	*CTL	[- / **-** / -] [Execute]
	Clears the unique ID of the device used as the name in the file transfer directory. Execute this SP if the connection of the device to the delivery server is unstable. After clearing the ID, the ID will be established again automatically by cycling the machine off and on.		
003	Maximum Entries	*CTL	[2000 to 20000 / **2000** / 1/step]
	Changes the maximum number of entries that UCS can handle. If a value smaller than the present value is set, the UCS managed data is cleared, and the data (excluding user code information) is displayed.		
006	Delivery Server Retry Timer	*CTL	[0 to 255 / **0** / 1/step]
	Sets the interval for retry attempts when the delivery server fails to acquire the delivery server address book.		
007	Delivery Server Retry Times	*CTL	[0 to 255 / **0** / 1/step]
	Sets the number of retry attempts when the delivery server fails to acquire the delivery server address book.		
008	Delivery Server Maximum Entries	*CTL	[2000 to 20000 / **2000** / 1/step]

	Sets the maximum number account entries of the delivery server user information managed by UCS.		
010	LDAP Search Timeout	*CTL	[1 to 255 / **60** / 1/step]
	Sets the length of the timeout for the search of the LDAP server.		
020	WSD Maximum Entries	*CTL	[50 to 250 / **250** / 1/step]
	Sets the maximum entries for the address book of the WSD (WS-scanner).		
021	Folder Auth Change	*CTL	[0 or 1 / **0** / 1/step] 0: Login User, 1: Destination
040	Addr Book Migration(USB->HDD)	*CTL	[- / **-** / -] [Execute]
041	Fill Addr Acl Info	*CTL	[- / **-** / -] [Execute]
	This SP must be executed immediately after installation of an HDD unit in a basic machine that previously had no HDD. The first time the machine is powered on with the new HDD installed, the system automatically takes the address book from the NVRAM and writes it onto the new HDD. However, the new address book on the HDD can be accessed only by the system administrator at this stage. Executing this SP by the service technician immediately after power on grants full address book access to all users. **Procedure** 1. Turn the machine off. 2. Install the new HDD. 3. Turn the machine on. 4. The address book and its initial data are created on the HDD automatically. 5. However, at this point the address book can be accessed by only the system administrator or key operator. 6. Enter the SP mode and do SP5846-041. After this SP executes successfully, any user can access the address book.		

043	Addr Book Media	*CTL	[0 to 30 / **0** /1/step] 0: Unconfirmed 1: SD Slot 1 2: SD Slot 2 3: SD Slot 3 4: USB Flash ROM 10: SD Slot 10 20: HDD 30: Nothing
	Displays the slot number where an address book data is in.		
047	Initialize Local Address Book	CTL	[- / **-** / -] [Execute]
	Clears the local address book information, including the user code.		
048	Initialize Delivery Addr Book	CTL	[- / **-** / -] [Execute]
	Clears the distribution address book information, except the user code.		
049	Initialize LDAP Addr Book	CTL	[- / **-** / -] [Execute]
	Clears the LDAP address book information, except the user code.		
050	Initialize All Addr Book	CTL	[- / **-** / -] [Execute]
	Clears all directory information managed by UCS, including all user codes.		
051	Backup All Addr Book	CTL	[- / **-** / -] [Execute]
	Uploads all directory information to the SD card.		
052	Restore All Addr Book	CTL	[- / **-** / -] [Execute]
	Downloads all directory information from the SD card.		

053	Clear Backup Info	CTL	[- / - / -] [Execute]
	Deletes the address book data from the SD card in the service slot. Deletes only the files that were uploaded from this machine. This feature does not work if the card is write-protected. Note § After you do this SP, go out of the SP mode, and then turn the power off. Do not remove the SD card until the Power LED stops flashing.		
060	Search Option	*CTL	[0x00 to 0xff / **0x0f**/ 1/step]
	This SP uses bit switches to set up the fuzzy search options for the UCS local address book. Bit: Meaning 0: Checks both upper/lower case characters 1: Japan Only 2: Japan Only 3: Japan Only 4 to 7: Not Used		
062	Complexity Option 1	*CTL	[0 to 32 / **0** / 1/step]
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to **upper case** and sets the length of the password. Note § This SP does not normally require adjustment. § This SP is enabled only after the system administrator has set up a group password policy to control access to the address book.		
063	Complexity Option 2	*CTL	[0 to 32 / **0** / 1/step]
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to lower case and defines the length of the password.		
064	Complexity Option 3	*CTL	[0 to 32 / **0** / 1/step]
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to numbers and defines the length of the password.		

065	Complexity Option 4	*CTL	[0 to 32 / **0** / 1/step]
	Use this SP to set the conditions for password entry to access the local address book. Specifically, this SP limits the password entry to symbols and defines the length of the password.		
091	FTP Auth Port Setting	*CTL	[0 to 65535 / **3671** / 1/step]
	Specifies the FTP port for getting a distribution server address book that is used in the identification mode.		
094	Encryption Stat	*CTL	[0 to 255 / **-** / 1/step]
	Shows the status of the encryption function for the address book data.		

5847	**[Rep Resolution Reduction]**		
	SP5847-1 through SP5847-8 changes the default settings of image data transferred externally by the Net File page reference function. SP5847-21 sets the default for JPEG image quality of image files handled by NetFile. “Net files” are jobs to be printed from the document server using a PC and the DeskTopBinder software.		
001	Rate for Copy Color	*CTL	[0 to 5 / **0** / 1 /step] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
002	Rate for Copy B&W Text	*CTL	
003	Rate for Copy B&W Other	*CTL	
004	Rate for Printer Color	*CTL	
005	Rate for Printer B&W	*CTL	
006	Rate for Printer Color 1200dpi	*CTL	[0 to 5 / **4** / 1 /step] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x

007	Rate for Printer B&W 1200dpi	*CTL	[0 to 5 / **1** / 1 /step] 0: 1x 1: 1/2x 2: 1/3x 3: 1/4x 4: 1/6x 5: 1/8x
021	Network Quality Default for JPEG	*CTL	[5 to 95 / **50** / 1 /step]
	Sets the default value for the quality of JPEG images sent as NetFile pages. This function is available only with the MLB (Media Link Board) option installed.		

5848	**[Web Service: Access Cnt]**		
	5848 2 sets the 4-bit switch assignment for the access control setting. Setting of 0001 has no effect on access and delivery from Scan Router. 5848 100 sets the maximum size allowed for downloaded images. The default is equal to 1 gigabyte.		
002	Access Ctrl: Repository (only Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder. 0010: No writing control
003	Access Control: Doc. Svr. Print (Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
004	Access Control: udirectory (Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		

007	Access Ctrl: Comm. Log Fax (Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
009	Access Ctrl: Job Ctrl (Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
011	Access Ctrl: Devicemanagement (Lower 4bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
021	Access Ctrl: Delivery (Lower 4 bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
022	Access Ctrl: uadministration (Lower 4bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
	Switches access control on and off.		
024	Access Ctrl: Log Service (Lower 4bits)	*CTL	[- / **-** / -] 0000: No access control 0001: Denies access to DeskTop Binder.
099	Repository: Download Image Setting	*CTL	**DFU**

100	Repository: Download Image Max. Size	*CTL	[1 to 2048 / **2048** / 1 MB /step]
217	Setting: Timing	*CTL	NIA

5849	**[Installation Date]**		
001	Display	*CTL	[- / **-** / -]
002	Switch to Print	*CTL	[0 or 1 / **1** / 1 /step] 0: OFF (No Print) 1: ON (Print)
003	Setup Count	*CTL	[0 to 99999999 / **0** / 1/step]

5850	**[Address Book Function]**		
003	Replacement of Circuit Classifications	*CTL	[0 to 13 / **1** / 1/step] 1: G3 2: EXT 3: G3-1 4: G3-1- EXT 5: G3-2 6: G3-2- EXT 7: G3-3 8: G3-3-EXT 9: G3-idle-EXT 10: idle-EXT 11: I-G3 12: I-G3-EXT 13: G4

5851	**[Bluetooth]**		
001	mode	*CTL	[0 or 1 / **0** / 1/step]
	Sets the operation mode for the Bluetooth Unit. Press either key.		

5853	**[Stamp Date Download]**		
	Push [Execute] to download the fixed stamp data from the machine ROM onto the hard disk. Then these stamps can be used by the system. If this is not done, the user will not have access to the fixed stamps ("Confidential", "Secret", etc.). You must always execute this SP after replacing the HDD or after formatting the HDD. Always switch the machine off and on after executing this SP.		
001	-	CTL	[- / **-** / -]

5856	**[Remote ROM Update]**		
	Allows the technician to upgrade the firmware using a local port (IEEE1284) when updating the remote ROM.		
002	Local Port	*CTL	[0 or 1 / **0** / 1/step] 0: Disable 1: Enable

5857	**[Debug Log Save]**		
	Do not use this SP to capture debug logs. Use the captured log function instead of this SP.		
001	Save Debug Log	*CTL	[0 to 2 / **0** / 1/Step]
	Enables log trace function or debug log saving function. The debug log cannot be captured until this feature is switched on. § 0: Enables log trace function § 1: Enables debug log saving function § 2: OFF Note § If “0” is selected, it disables the settings of SP5857-002 to 013 and gives executing failure. If “1” is selected, it disables ordinarily saving function; however, SP5857-101 to 112 are able to execute.		

002	Target (2:HDD 3:SD)	*CTL	[1 to 3 / **2** / 1/step] 1:IC Card 2: HDD 3: SD Card
	Sets the storage location for the debug log.		
005	Save to HDD	*CTL	[-999999 to 9999999 / **-** / 1/step]
	Saves the debug log of the input SC number in memory to the HDD. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card.		
006	Save to SD Card	*CTL	[-999999 to 9999999 / **-** / 1/step]
	Saves the debug log of the input SC number in memory to the SD card.		
009	Copy HDD to SD Card (Latest 4MB)	*CTL	[- / **-** / -] [Execute]
	Takes the most recent 4 MB of the log written to the hard disk and copies them to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card.		
010	Copy HDD to SD Card (Latest 4MB Any Key)	*CTL	[- / **-** / -] [Execute]
	Takes the log of the specified key from the log on the hard disk and copies it to the SD Card. A unique file name is generated to avoid overwriting existing file names on the SD Card. Up to 4 MB can be copied to an SD Card. 4 MB segments can be copied one by one to each SD Card. This SP does not execute if there is no log on the HDD with no key specified.		
011	Erase HDD Debug Data	*CTL	[- / **-** / -] [Execute]
	Erases all debug logs on the HDD		

012	Erase SD Card Debug Data	*CTL	[- / **-** / -] [Execute]
	Erases all debug logs on the SD Card. If the card contains only debugging files generated by an event specified by SP5858, the files are erased when SP5857 010 or 011 is executed. To enable this SP, the machine must be cycled off and on.		
013	Free Space on SD Card	*CTL	[- / **-** / -] [Execute]
	Displays the amount of space available on the SD card.		
014	Copy SD to SD (Latest 4MB)	*CTL	[- / **-** / -] [Execute]
	Copies the most recent 4 MB of the debug log from an SD card to a different SD card.		
015	Copy SD to SD (Latest 4MB Any Key)	*CTL	[- / **-** / -] [Execute]
	This SP copies the log on an SD card (the file that contains the information written directly from shared memory) to a log specified by key number.		
016	Make HDD Debug	*CTL	[- / **-** / -] [Execute]
	This SP creates a 32 MB file to store a log on the HDD.		
017	Make SD Debug	*CTL	[- / **-** / -] [Execute]
	This SP creates a 4 MB file to store a log on an SD card.		
101	Debug Logging Start Date	*CTL	[- / **20120101** / 1/step]
	Sets start date of the debug log output.		
102	Debug Logging End Date	*CTL	[- / **20371212** / 1/step]
	Sets end date of the debug log output.		
103	Acquire All Debug Logs	*CTL	[- / **-** / -] [Execute]
	Obtains all debug logs.		

104	Acquire Only Controller Debug	*CTL	[- / **-** / -] [Execute]
	Obtains controller debug log only.		
105	Acquire Only Engine Debug Logs	*CTL	[- / **-** / -] [Execute]
	Obtains engine debug log only.		
106	Acquire Only Snapshot Debug Logs	*CTL	[- / **-** / -] [Execute]
	Obtains snapshot debug log only.		
107	Acquire Only Opepanel Debug Logs	*CTL	[- / **-** / -] [Execute]
	Outputs the controller debug log to the media inserted front I/F.		

5858	**[Debug Log Save: SC]**		
	These SPs select the content of the debugging information to be saved to the destination selected by SP5857-002. SP5858-3 stores one SC specified by number. Refer to Section 4 for a list of SC error codes.		
001	Engine SC Error (0: OFF, 1: ON)	*CTL	[0 or 1 / **0** / 1/ step] 0: OFF 1: ON
	Turns on/off the debug save for SC codes generated by copier engine errors.		
002	Controller SC Error (0: OFF, 1: ON)	*CTL	[0 or 1 / **0** / 1/ step] 0: OFF 1: ON
	Turns on/off the debug save for SC codes generated by GW controller errors.		
003	Any SC Error	*CTL	[0 to 65535 / **0** / 1 /step]
	Sets the SC code whose logs are collected.		

004	Jam(0: OFF 1: ON)	*CTL	[0 or 1 / **0** / 1/ step] 0: OFF 1: ON
	Turns on/off the debug save for jam errors.		

5859	**[Debug Log SaveKey]**		
	These SPs allow you to set up to 10 keys for log files for functions that use common memory on the controller board.		
001	Key 1	*CTL	[–9999999 to 9999999 / **0** / 1 /step]
002	Key 2	*CTL	
003	Key 3	*CTL	
004	Key 4	*CTL	
005	Key 5	*CTL	
006	Key 6	*CTL	
007	Key 7	*CTL	
008	Key 8	*CTL	
009	Key 9	*CTL	
010	Key 10	*CTL	

5860	**[SMTP/POP3/IMAP4]**		
020	Partial Mail Receive Timeout	*CTL	[1 to 168 / **72** / 1 hour/step]
	Sets the amount of time to wait before saving a mail that breaks up during reception. The received mail is discarded if the remaining portion of the mail is not received during this prescribed time.		
021	MDN Response RFC2298 Compliance	*CTL	[0 or 1 / **1** / 1/step] 0: No 1: Yes
	Determines whether RFC2.5298 compliance is switched on for MDN reply mail.		

022	SMTP Auth. From Field Replacement	*CTL	[0 to 1 / **0** / 1/step] 0: No. “From” item not switched. 1: Yes. “From item switched.
	Determines whether the FROM item of the mail header is switched to the validated account after the SMTP server is validated.		
025	SMTP Auth. Direct Setting	*CTL	[0 to 255 / **0** / - /step]
	Selects the authentication method for SMPT. Bit switch: Bit 0: LOGIN Bit 1: PLAIN Bit 2: CRAM MD5 Bit 3: DIGEST MD5 Bit 4 to 7: Not used Note § This SP is activated only when SMTP authorization is enabled by UP mode.		
026	S/MIME: MIME Header	*CTL	[0 to 2 / **0** / 1 /step] 0: Microsoft Outlook Express standard 1: Internet Draft standard 2: RFC standard
	Selects the MIME header type of an E-mail sent by S/MIME.		
028	S/MIME: Authentication Check	*CTL	[0 to 1 / **0** / 1/step] 0: No (not check) 1: Yes (check)
	Specifys whether to check destination certificate when sending S/MIME mail.		

5866	**[Email Report]**		
001	Report Validity	CTL	[0 or 1 / **0** / 1/step] 0: Enabled 1: Disabled

005	Add Date Field	CTL	[0 or 1 / **0** / 1/step] 0: Enabled 1: Disabled

5870	**[Common Key Info Writing]**		
001	Writing	CTL	[- / **-** / -] [Execute]
	Writes the authentication data (used for NRS) in the memory.		
003	Initialize	CTL	[- / **-** / -] [Execute]
	Initializes the authentication data in the memory.		
004	Writing: 2048bit	CTL	[- / **-** / -] [Execute]
	Writes the authentication data 2048bit (used for NRS) in the memory.		

5873	**[SD Card Appli Move]**		
001	Move Exec	CTL	[- / **-** / -] [Execute]
	This SP copies the application programs from the original SD card in SD card slot 2 to an SD card in SD card slot 1.		
002	Undo Exec	CTL	[- / **-** / -] [Execute]
	This SP copies back the application programs from an SD card in SD Card Slot 2 to the original SD card in SD card slot 1. Use this menu when you have mistakenly copied some programs by using "Move Exec" (SP5873-1).		

5875	**[SC Auto Reboot]**		
	-		
001	Reboot Setting	* CTL	[0 or 1 / **0** / 1/step]

002	Reboot Type	*CTL	[0 or 1 / **0** / 1/step] 0: Manual reboot 1: Automatic reboot

5878	**[Option Setup]**		
001	Data Overwrite Security	CTL	[- / **-** / -] [Execute]
	Enables the Data Overwrite Security unit. Press "Execute" on the operation panel. Then turn the machine off and on.		
002	Data Overwrite Security	CTL	[- / **-** / -] [Execute]
	Executes the setup for encryption.		
004	OCR Dictionary	CTL	[- / **-** / -] [Execute]
	-		

5881	**[Fixed Phrase Block Erasing]**		
001	-	CTL	[- / **-** / -]
	Delets the fixed pharase		

5885	**[Set WIM Function]** Web Image Monitor Settings		
020	DocSvr Acc Ctrl	*CTL	[0 or 1 / **0** / 1/step] 0: OFF 1: ON Bit Meaning 0: Forbid all document server access (1) 1: Forbid user mode access (1) 2: Forbid print function (1) 3: Forbid fax TX (1) 4: Forbid scan sending (1) 5: Forbid downloading (1) 6: Forbid delete (1) 7: Reserved
050	DocSvr Format	*CTL	[0 to 2 / **0** / 1/step] 0: Thumbnail, 1: Icon, 2: Details
	Selects the display type for the document box list.		
051	DocSvr Trans	*CTL	[5 to 20 / **10** / 1/step]
	Sets the number of documents to be displayed in the document box list.		
100	Set Signature	*CTL	[0 to 2 / **0** / 1/step] 0: Setting for each e-mail 1: Signature for all 2: No signature
	Selects whether the signature is added to the scanned documents with the WIM when they are transmitted by an e-mail.		
101	Set Encrypsion	*CTL	[0 to 1 / **0** / 1] 0: Not encrypted 1: Encryption
	Determines whether the scanned documents with the WIM are encrypted when they are transmitted by an e-mail.		
200	Detect Mem Leak	*CTL	Not Used
201	DocSvr Timeout	*CTL	

5887	**[SD GetCounter]**		
	This SP sends a text file to an SD card inserted in SD card Slot 2 (lower slot). The operation stores. The file is stored in a folder created in the root directory of the SD card called SD_COUNTER. The file is saved as a text file (*.txt) prefixed with the number of the machine. 1. Insert the SD card in SD card Slot 2 (lower slot). 2. Select SP5887 then touch [Execute]. Touch [Execute] in the message when you are prompted. Note § "SD_COUNTER" folder must be created under the root directory of the SC card before this SP is executed.		
001	SD GetCounter	CTL	[- / - / -] [Execute]

5888	**[Personal Information Protect]**		
001	Personal Information Protect	*CTL	[0 or 1 / **0** / 1/step]
	Selects the protection level for logs. 0: No authentication, No protection for logs 1: No authentication, Protected logs (only an administrator can see the logs)		

5893	**[SDK Apli Cnt Name]**		
001	SDK-1	CTL	[- / - / -] [Display text]
002	SDK-2	CTL	[- / - / -] [Display text]
003	SDK-3	CTL	[- / - / -] [Display text]
004	SDK-4	CTL	[- / - / -] [Display text]
005	SDK-5	CTL	[- / - / -] [Display text]

006	SDK-6	CTL	[- / **-** / -] [Display text]

5894	**[External Counter Setting]**		
	Test Name1_1		
001	Switch Charge Mode	CTL	[0 to 2 / **0** / 1/step]

5895	**[Application invalidation]**		
	-		
001	Printer	CTL	[- / **-** / -]
002	Scanner	CTL	[- / **-** / -]

5900	**[Engine Log Upload]**		
001	Pattern	*ENG	[0 to 4 / **0** / 1/step]
	Specifies target module group for engine log up load.		
002	Trigger	*ENG	[0 to 3 / **0** / 1/step]
	Specifies target trigger group for engine log up load.		

5907	**[Plug & Play Maker/Model Name]**		
001	Plug & Play Maker/Model/Name	*CTL	[- / **-** / -]
	Selects the brand name and the production name for Windows Plug & Play. This information is stored in the NVRAM. If the NVRAM is defective, these names should be registered again. After selecting, press the "Original Type" key and "#" key at the same time. When the setting is completed, the beeper sounds five times.		

5913	**[Switchover Permission Time]**
	-

002	Print Application	*CTL	[3 to 30, immediate / **3** / 1sec/step]

5919	**[State of Encryption]**		
	-		
001	-	*CTL	[0 or 1 / **0** / 1/step] 0: OFF (Not working) 1: ON (Working)

5967	**[Copy Server: Set Function]**		
	Enables and disables the document server. This is a security measure that prevents image data from being left in the temporary area of the HDD. After changing this setting, you must switch the main switch off and on to enable the new setting.		
001	(0: ON 1: OFF)	*CTL	[0 or 1 / **0** / 1/step] 0: ON 1: OFF

5974	**[Cherry Server]**		
001	(0:Light 1:Full)	CTL	[0 or 1 / **0** / -]
	Switches Light or Full ver.of the cherry application.		

5985	**[Device Setting]**		
	The NIC and USB support features are built into the GW controller. Use this SP to enable and disable these features. In order to use the NIC and USB functions built into the controller board, these SP codes must be set to "1".		
001	On Board NIC	CTL	[0 to 2 / **0** / 1/step] 0: Disable 1: Enable 2: Function limitation

	Switches Light or Full ver.of the cherry application. When the "Function limitation" is set, "On board NIC" is limited only for the NRS or LDAP/NT authentication. Note § Other network applications than NRS or LDAP/NT authentication are not available when this SP is set to "2". Even though you can change the initial settings of those network applications, the settings do not work.		
002	On Board USB	CTL	[0 or 1 / **0** / 1/step]
	Switches Light or Full ver.of the cherry application.		

5990	**[SP Print Mode]**		
001	All (Data List)	CTL	[- / **-** / -]
002	SP (Mode Data List)	CTL	[- / **-** / -]
003	User Program	CTL	[- / **-** / -]
004	Logging Data	CTL	[- / **-** / -]
005	Diagnostic Report	CTL	[- / **-** / -]
006	Non-Default	CTL	[- / **-** / -]
007	NIB Summary	CTL	[- / **-** / -]
008	Capture Log	CTL	[- / **-** / -]
021	Copier User Program	CTL	[- / **-** / -]
022	Scanner SP	CTL	[- / **-** / -]
023	Scanner User Program	CTL	[- / **-** / -]
024	SDK/J Summary	CTL	[- / **-** / -]
025	SDK/J Application Info	CTL	[- / **-** / -]

5992	**[SP Text mode]**		
	Exports the SMC sheet data to the SD Card. Press “Execute” key to start exporting the SMC data in the SP mode display.		
001	All (Data List)	-	[- / **-** / -] [Execute]
002	SP (Mode Data List)	-	
003	User Program	-	
004	Logging Data	-	
005	Diagnostic Report	-	
006	Non-Default	-	
007	NIB Summary	-	
008	Capture Log	-	
021	Copier User Program	-	
022	Scanner SP	-	
023	Scanner User Program	-	
024	SDK/J Summary	-	
025	SDK/J Application Info	-	
026	Printer SP mode	-	

5998	**[Fusing Warm UP]**		
001	Warm Up In Advance ON/OFF	*ENG	[0 or 1 / **1** / 1/step] 1: Silent 0: Fast
	Fusing action when silently starting up ENG_ENABLE. (1: With fusing precede start up, 0:With out fusing precede start up)		

2.8 MAIN SP TABLES-6

2.8.1 SP6-XXX (PERIPHERALS)

6006	**[ADF Adjustment]**		
001	Side-to-Side Regist: Front	*ENG	[-3.0 to 3.0 / **0.0** / 0.1 mm/step]
	Adjusts front side main scan register for ADF.		
002	Side-to-Side Regist: Rear	*ENG	[-3.0 to 3.0 / **0.0** / 0.1 mm/step]
	Adjusts rear side main scan register for ADF.		
003	Leading Edge Registration	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]
	Adjusts DFGATE assert timing. § Value increase: Delays DFGATE assert timing. § Value decrease: Delays DFGATE assert timing.		
005	Buckle: Duplex Front	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]
	Adjusts front side buckle amount (skew correct amount). § Value increase: increases front side buckle amount. § Value decrease: decreases front side buckle amount.		
006	Buckle: Duplex Rear	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]
	Adjusts rear side buckle amount (skew correct amount). § Value increase: increases rear side buckle amount. § Value decrease: decreases rear side buckle amount.		
007	Rear Edge Erase	*ENG	[-10.0 to 10.0 / **0.0** / 0.1 mm/step]
	Adjusts DFGATE negate timing. § Value increase: Delays DFGATE negate timing. § Value decrease: Delays DFGATE negate timing. (Direction for erasing trailing edge of original)		

010	L-Edge Regist (1-Pass): Front	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts the front side sheet through register. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value.		
011	L-Edge Regist (1-Pass): Rear	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts the rear side sheet through register. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value.		
012	1st Buckle (1-Pass)	*ENG	[-3.0 to 3.0 / **0.0** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts pull out roller buckle amount. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value.		
013	2nd Buckle (1-Pass)	*ENG	[-2.0 to 3.0 / **0.0** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts scanning entrance roller buckle amount. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value.		
014	T-Edge Erase (1-Pass): Front	*ENG	[-5.0 to 5.0 / **-1.5** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts the front side trailing edge register. § Value increase: add trailing edge to image. § Value decrease: erases trailing edge of image. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value. Sets initial setting to -1.5mm instead of 0mm considering originals shadow.		

015	T-Edge Erase (1-Pass): Rear	*ENG	[-5.0 to 5.0 / **-1.5** / 0.1 mm/step]
	For 1 path simultaneous duplex models only. Adjusts the rear side trailing edge register. § Value increase: add trailing edge to image. § Value decrease: erases trailing edge of image. Adjusts to max. value in the adjustment range, when set value is larger than adjust range. When finishing setting without defining, remains as the last set value. Sets initial setting to -1.5mm instead of 0mm considering originals shadow.		

6007	**[ADF INPUT Check]**
	See page 3-1

6008	**[ADF OUTPUT Check]**
	See page 3-31

6009	**[ADF FreeRun]**		
001	Free Run Simplex Motion	ENG	[0 or 1 / **0** / 1/step]
	Runs simplex free run when setting original to ADF.		
002	Free Run Duplex Motion	ENG	[0 or 1 / **0** / 1/step]
	Runs duplex free run when setting original to ADF.		
003	Free Run Stamp Motion	ENG	[0 or 1 / **0** / 1/step]
	Runs simplex free run (with DONE stamp) when setting original to ADF.		
004	Free Run Simplex Motion(low speed)	ENG	[0 or 1 / **0** / 1/step]
	Runs paper existing simplex free run of ADF in low line speed.		
005	Free Run Simplex Motion(high speed)	ENG	[0 or 1 / **0** / 1/step]
	Runs paper existing simplex free run of ADF in low line speed.		

006	Free Run Duplex Motion(low speed)	ENG	[0 or 1 / **0** / 1/step]
	Runs paper existing duplex free run of ADF in high line speed.		
007	Free Run Duplex Motion(high speed)	ENG	[0 or 1 / **0** / 1/step]
	Runs paper existing duplex free run of ADF in high line speed.		

6010	**[Stamp Position Adj.]**		
	Adjusts stamping position of DONE stamp. § Value increase: Moves stamping position of DONE stamp towards original trailing edge. § Value decrease: Moves stamping position of DONE stamp towards original leading edge.		
001	-	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 mm/step]

6011	**[1-Pass ADF INPUT Check]**
	See page 3-1

6012	**[1-Pass ADF OUTPUT Check]**
	See page 3-31

6016	**[Original Size Detect Setting]**		
	Sets to judge as witch original size for two original sizes that can not be judged with ADF. Size of each bit is different depending on region. Set corresponding bit to "0" when to prior the default size. Set "1" to let the switching size judge.		
001	-	*ENG	[0 to 255 / **0** / 1/step]

6017	**[DF Magnification Adj.]**
	Fine-tunes scale error. Changes line speed corresponding to scale rate setting value.

001	-	*ENG	[-5.0 to 5.0 / **0.0** / 0.1 %/step]

6020	**[Skew Correction Moving Setting]**		
	With default setting, original buckling (Skew correct 2) to ADF scanning entrance roller is only done for small sizes (B6, A5, HLT). With setting "1", this buckling can be done to all sizes.		
001	-	*ENG	[0 or 1 / **0** / 1/step]

6100	**[Sub-scanPunchPosAdj:2K/3K FIN]**		
	§ Adjusts position of carry direction (sub scan direction) for punch. Adjusting value to -: hole position moves toward trailing edge of paper when intaking. § Adjusting value to +: hole position moves toward leading edge of paper when intaking.		
001	JPN/EU: 2-Hole	ENG	[-7.5 to 7.5 / **0.0** / 0.5mm/step]
002	NA: 3-Hole	ENG	
003	Europe: 4-Hole	ENG	
004	NEU: 4-Hole	ENG	
005	NA: 2-Hole	ENG	

6101	**[Main-scanPunchPosAdj:2K/3K FIN]**		
	Adjusts position of width direction (main scan direction) for punch. § Adjusting value to -: hole position moves toward front side of machine. § Adjusting value to +: hole position moves toward rear side of machine.		
001	JPN/EU: 2-Hole	ENG	[-2.0 to 2.0 / **0.0** / 0.4mm/step]
002	NA: 3-Hole	ENG	
003	Europe: 4-Hole	ENG	
004	NEU: 4-Hole	ENG	
005	NA: 2-Hole	ENG	

6102	**[SkewCorrectBuckleAdj:2K/3K FIN]**		
	Adjusts the skew correction bending amount when punching specified paper. § Adjusts value to -: buckling amount decreases § Adjusts value to +:buckling amount increases.		
001	A3 SEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	
006	B5 LEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
007	A5 LEF	ENG	
008	DLT SEF	ENG	
009	LG SEF	ENG	
010	LT SEF	ENG	
011	LT LEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
012	HLT LEF	ENG	
013	12"x18"	ENG	
014	8K SEF	ENG	
015	16K SEF	ENG	
016	16K LEF	ENG	
017	Other	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
	Adjusts the skew correction bending amount when punching except the specified paper. § Adjusts value to -: buckling amount decreases § Adjusts value to +:buckling amount increases.		

6103	**[SkewCorrectCtrlSW:2K/3K FIN]**		
	Switches way to control (Still buckling 0: enable / 1: disable) skew correction when punching specified paper.		
001	A3 SEF	ENG	[0 or 1 / **0** / 1/step] 0: With Buckle Adj 1: Without Buckle Adj
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	
006	B5 LEF	ENG	[0 or 1 / **0** / 1/step] 0: With Buckle Adj 1: Without Buckle Adj
007	A5 LEF	ENG	
008	DLT SEF	ENG	
009	LG SEF	ENG	
010	LT SEF	ENG	
011	LT LEF	ENG	[0 or 1 / **0** / 1/step] 0: With Buckle Adj 1: Without Buckle Adj
012	HLT LEF	ENG	
013	12"x18"	ENG	
014	8K SEF	ENG	
015	16K SEF	ENG	
016	16K LEF	ENG	[0 or 1 / **0** / 1/step] 0: With Buckle Adj 1: Without Buckle Adj
017	Other	ENG	
	Switches way to control (Still buckling 0: enable / 1: disable) skew correction when punching except the specified paper.		

6104	**[ShiftTrayJogPosAdj:2K/3K FIN]**		
	Adjusts position for moving direction (main scan direction) of setting unit jogger when sending through specified paper. § Adjusts value to -: move towards setting jogger width is tighter than base value. § Adjusts value to +: move towards setting jogger width is wider than base value. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
001	A3 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 LEF	ENG	
006	A5 LEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	HLT LEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
012	8K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]

	Adjusts position for moving direction (main scan direction) of setting unit jogger when sending through except the specified paper. § Adjusts value to -: move towards setting jogger width is tighter than base value. § Adjusts value to +: move towards setting jogger width is wider than base value. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.

6105	**[ShftTJogRtrctAngAdj:2K/3K FIN]**		
	Adjusts the setting jogger retract angel when passing through specified paper. § Adjusts value to +: towards up § Adjusts value to -: towards down * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
001	A3 SEF	ENG	[-10 to 10 / **0** / 5deg/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	DLT SEF	ENG	
005	LG SEF	ENG	
006	LT SEF	ENG	
007	8K SEF	ENG	
008	Other	ENG	[-10 to 10 / **0** / 5deg/step]
	Adjusts the setting jogger retract angel when passing through except the specified paper. § Adjusts value to +: towards up § Adjusts value to -: towards down * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		

6106	**[Use Paper Jogger: 2K/3K FIN]**		
	Decides whether to use the setting jogger when passing through specified paper. The setting jogger won't be used when selecting 1. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
001	A3 SEF	ENG	[0 or 1 / **0** / 1/step] 0: Jogging On 1: Jogging Off
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 LEF	ENG	[0 or 1 / **0** / 1/step] 0: Jogging On 1: Jogging Off
006	A5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	[0 or 1 / **0** / 1/step] 0: Jogging On 1: Jogging Off
011	HLT LEF	ENG	
012	8K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[0 or 1 / **0** / 1/step] 0: Jogging On 1: Jogging Off
	Decides whether to use the setting jogger when passing through except the specified paper. The setting jogger won't be used when selecting 1. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		

6107	**[JogPosAdj(CrnrStplr):2K/3K FIN]**		
	Adjusts width (main scan direction) of edge stitch when running specified paper conformity. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.		
001	A3 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	8K SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
012	16K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
	Adjusts width (main scan direction) of edge stitch jogger when running conformity to except the specified paper. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.		

6108	**[JogPosAdj(BookStplr):2K/3K FIN]**		
	Adjusts width (main scan direction) of saddle stitch when running specified paper conformity. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.		
001	A3 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	B5 SEF	ENG	
005	DLT SEF	ENG	
006	LG SEF	ENG	
007	LT SEF	ENG	
008	12"x18"	ENG	
009	8K SEF	ENG	
010	Other	ENG	

6109	**[CrnrStplrJogTimeAdj:2K/3K FIN]**		
	Adjusts jogging count of edge stitch jogger fence when running specified paper conformity (only last sheet).		
001	A3 SEF	*ENG	[0 to 2 / **0** / 1time/step]
002	B4 SEF	*ENG	
003	A4 SEF	*ENG	
004	A4 LEF	*ENG	
005	B5 SEF	*ENG	[0 to 2 / **0** / 1time/step]
006	B5 LEF	*ENG	
007	DLT SEF	*ENG	
008	LG SEF	*ENG	

009	LT SEF	*ENG	
010	LT LEF	*ENG	
011	8K SEF	*ENG	[0 to 2 / **0** / 1time/step]
012	16K SEF	*ENG	
013	16K LEF	*ENG	
014	Other	*ENG	[0 to 2 / **0** / 1time/step]
	Adjusts jogging count of edge stitch jogger fence running conformity to except the specified paper (only last sheet).		

6110	**[BookStplrJogTimeAdj:2K/3K FIN]**		
	Adjusts jogging count of saddle stitch jogger fence when running specified paper conformity (only last sheet).		
001	A3 SEF	ENG	[0 to 2 / **0** / 1time/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	B5 SEF	ENG	
005	DLT SEF	ENG	[0 to 2 / **0** / 1time/step]
006	LG SEF	ENG	
007	LT SEF	ENG	
008	12"x18"	ENG	
009	8K SEF	ENG	
010	Other	ENG	[0 to 2 / **0** / 1time/step]
	Adjusts jogging count of saddle stitch jogger fence running conformity to except the specified paper (only last sheet).		

6111	**[Staple Position Adj: 2K/3K FIN]**		
	Adjusts staple position (main scan direction) for 2K / 3K / FIN of specified paper. Adjusting value to -: staple position moves toward front side of machine. Adjusting value to +: staple position moves toward rear side of machine.		
001	A3 SEF	ENG	[-3.5 to 3.5 / **0.0** / 0.5mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[-3.5 to 3.5 / **0.0** / 0.5mm/step]
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	8K SEF	ENG	[-3.5 to 3.5 / **0.0** / 0.5mm/step]
012	16K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[-3.5 to 3.5 / **0.0** / 0.5mm/step]
	Adjusts staple position (main scan direction) for the near side parallel stitch/ far side parallel stitch / far side oblique stitch of paper except the specified paper. § Adjusting value to -: staple position moves toward front side of machine. § Adjusting value to +: staple position moves toward rear side of machine.		

6112	**[BookletStaplerPosAdj:2K/3K FIN]**		
	Adjusts saddle stitch staple position (sub scan direction) of specified paper. § Adjusting value to -: staple position moves toward trailing edge of paper when intaking. § Adjusting value to +: staple position moves toward leading edge of paper when intaking.		
001	A3 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
002	B4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
003	A4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
004	B5 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
005	DLT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
006	LG SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
007	LT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
008	12"x18"	ENG	[-1.8 to 1.8 / **0.0** / 0.2mm/step]
009	8K SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
010	Other	ENG	[-1.8 to 1.8 / **0.0** / 0.2mm/step]
	Adjusts saddle stitch staple position (sub scan direction) of except the specified paper. § Adjusting value to -: staple position moves toward trailing edge of paper when intaking. § Adjusting value to +: staple position moves toward leading edge of paper when intaking.		

6113	**[BookletFolderPosAdj:2K/3K FIN]**		
	Adjusts saddle stitch folding position (sub scan direction) of specified paper. § Adjusting value to -: folding position moves toward trailing edge of paper when intaking. § Adjusting value to +: folding position moves toward leading edge of paper when intaking.		
001	A3 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]

002	B4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
003	A4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
004	B5 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
005	DLT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
006	LG SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
007	LT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
008	12"x18"	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
009	8K SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
010	Other	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
	Adjusts saddle stitch folding position (sub scan direction) of except the specified paper. § Adjusting value to -: folding position moves toward trailing edge of paper when intaking. § Adjusting value to +: folding position moves toward leading edge of paper when intaking.		

6114	**[Fold Speed Adj.: 2K/3K FIN]**		
	Adjusts folding speed (extra folding time) of saddle stitch for specified paper. Adjust value: 0 (Standard) Adjust value: 1 (Middle speed: standard+2.6[sec] Adjust value: 2 (Low speed: standard+5.2[sec])		
001	A3 SEF	ENG	[0 to 2 / **0** / 1/step]
002	B4 SEF	ENG	[0 to 2 / **0** / 1/step]
003	A4 SEF	ENG	[0 to 2 / **0** / 1/step]
004	B5 SEF	ENG	[0 to 2 / **0** / 1/step]
005	DLT SEF	ENG	[0 to 2 / **0** / 1/step]
006	LG SEF	ENG	[0 to 2 / **0** / 1/step]
007	LT SEF	ENG	[0 to 2 / **0** / 1/step]
008	12"x18"	ENG	[0 to 2 / **0** / 1/step]

009	8K SEF	ENG	[0 to 2 / **0** / 1/step]
010	Other	ENG	[0 to 2 / **0** / 1/step]
	Adjusts folding speed (extra folding time) of saddle stitch for except the specified paper. Adjust value: 0 (Standard) Adjust value: 1 (Middle speed: standard+2.6[sec] Adjust value: 2 (Low speed: standard+5.2[sec])		

6115	**[Finisher Free Run: 2K/3K FIN]**		
001	Free Run 1	ENG	[0 or 1 / **0** / 1/step]
	Execute shift mode no paper free run.		
002	Free Run 2	ENG	[0 or 1 / **0** / 1/step]
	Execute edge stitch staple mode no paper free run.		
003	Free Run 3	ENG	[0 or 1 / **0** / 1/step]
	Execute saddle stitch staple mode no paper free run.		
004	Free Run 4	ENG	[0 or 1 / **0** / 1/step]
	Do not use with VOLGA-B.		

6116	**[CrnrStplrMxPrstkShAdj:2K/3KFIN]**		
	Adjusts max pre-stack sheets count when edge stitching specified paper. Adjust value: 0; 1sheet pre-stack (standard) Adjust value: -1; No pre-stack		
001	A3 SEF	ENG	[-1 to 0 / **0** / 1sheet/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[-1 to 0 / **0** / 1sheet/step]
006	B5 LEF	ENG	

007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	8K SEF	ENG	[-1 to 0 / **0** / 1sheet/step]
012	16K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[-1 to 0 / **0** / 1sheet/step]
	Adjusts max pre-stock sheets count when edge stitching except the specified paper. Adjust value: 0; 1sheet pre-stack (standard) Adjust value: -1; No pre-stack.		

6117	**[BookStplrMxPrstkShAdj:2K/3KFIN]**		
	Adjusts max. pre-stock sheets count when saddle stitching specified paper. Adjust value: 0; 3 sheets pre-stack (standard) Adjust value: -1; 2 sheets pre-stack Adjust value: -2; 1 sheet pre-stack Adjust value: -3 to -7; no pre-stack.		
001	A3 SEF	ENG	[-7 to 0 / **0** / 1sheet/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	B5 SEF	ENG	
005	DLT SEF	ENG	[-7 to 0 / **0** / 1sheet/step]
006	LG SEF	ENG	
007	LT SEF	ENG	
008	12"x18"	ENG	
009	8K SEF	ENG	

010	Other	ENG	[-7 to 0 / **0** / 1sheet/step]
	Adjusts max pre-stock sheets count when saddle stitching except the specified paper. Adjust value: 0; 3 sheets pre-stack (standard) Adjust value: -1; 2 sheets pre-stack Adjust value: -2; 1 sheet pre-stack, Adjust value: -3 to -7; no pre-stack.		

6118	**[CrnrStplrPrstkOffsAdj:2K/3KFIN]**		
	Adjusts pre-stack offset amount (sub scan direction shearing amount of 1st and 2nd sheet) when edge stitching specified paper. Default offset is 20mm, when adjusting value to +, offset amount enlarges, when adjusting value to -, reduces.		
001	A3 SEF	ENG	[-16 to 16 / **0** / 2mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[-16 to 16 / **0** / 2mm/step]
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	8K SEF	ENG	[-16 to 16 / **0** / 2mm/step]
012	16K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	[-16 to 16 / **0** / 2mm/step]

	Adjusts pre-stack offset amount (sub scan direction shearing amount of 1st and 2nd sheet) when edge stitching except the specified paper. Default offset is 20mm, when adjusting value to +, offset amount enlarges, when adjusting value to -, reduces.

6119	**[BookStplrPrstkOffsAdj:2K/3KFIN]**		
	Adjusts pre-stack offset amount (sub scan direction shearing amount of 1st and 2nd, 2nd and 3rd sheet) when saddle stitching specified paper. Default is No offset, when adjusting value to +, offset amount enlarges, when adjusting value to -, reduces.		
001	A3 SEF	ENG	[-30 to 30 / **0** / 2mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	B5 SEF	ENG	
005	DLT SEF	ENG	[-30 to 30 / **0** / 2mm/step]
006	LG SEF	ENG	
007	LT SEF	ENG	
008	12"x18"	ENG	
009	8K SEF	ENG	
010	Other	ENG	[-30 to 30 / **0** / 2mm/step]
	Adjusts pre-stack offset amount (sub scan direction shearing amount of 1st and 2nd, 2nd and 3rd sheet) when saddle stitching except the specified paper. Default is No offset, when adjusting value to +, offset amount enlarges, when adjusting value to -, reduces.		

6120	**[CrnStpPosExFeedAmtAdj:2K/3KFIN]**		
	Adjusts over sending amount (sub scan direction) of positioning roller when edge stitching specified paper.		
001	A3 SEF	ENG	[0 to 30 / **0** / 10mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[0 to 30 / **0** / 10mm/step]
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	8K SEF	ENG	[0 to 30 / **0** / 10mm/step]
012	16K SEF	ENG	
013	16K LEF	ENG	
014	Other	ENG	
	Adjusts over sending amount (sub scan direction) of positioning roller when edge stitching except the specified paper.		

6122	**[BkFoldJogSolMovAmtAdj:2K/3KFIN]**		
	Adjusts move amount of saddle stitch conformity claw when saddle stitching specified paper. § Adjusts value to +: towards up § Adjusts value to -: towards down		
001	A3 SEF	ENG	[-5 to 5 / **0** / 1mm/step]
002	B4 SEF	ENG	

003	A4 SEF	ENG	
004	B5 SEF	ENG	
005	DLT SEF	ENG	[-5 to 5 / **0** / 1mm/step]
006	LG SEF	ENG	
007	LT SEF	ENG	
008	12"x18"	ENG	
009	8K SEF	ENG	
010	Other	ENG	
	Adjusts move amount of saddle stitch conformity claw when saddle stitching except the specified paper. § Adjusts value to +: towards up § Adjusts value to -: towards down		

6123	**[INPUT Check: 2K/3K FIN]**
	See page 3-1

6124	**[OUTPUT Check: 2K/3K FIN]**
	See page 3-31

6130	**[Sub-scan PunchPosAdj:FrontFIN]**		
	Adjusts position of carry direction (sub scan direction) for punch. § Adjusting value to -: hole position moves toward trailing edge of paper when intaking. § Adjusting value to +: hole position moves toward leading edge of paper when intaking.		
001	Domestic 2Hole(Europe 2Hole)	*ENG	[-7.5 to 7.5 / **0.0** / 0.5mm/step]
002	North America 3Hole	*ENG	
003	Europe 4Hole	*ENG	

004	North Europe 4Hole	*ENG	
005	North America 2Hole	*ENG	

6131	**[Main-scan PunchPosAdj:FrontFIN]**		
	Adjusts position of width direction (main scan direction) for punch. § Adjusting value to -: hole position moves toward front side of machine. § Adjusting value to +: hole position moves toward rear side of machine.		
001	Domestic 2Hole(Europe 2Hole)	*ENG	[-2.0 to 2.0 / **0.0** / 0.4mm/step]
002	North America 3Hole	*ENG	
003	Europe 4Hole	*ENG	
004	North Europe 4Hole	*ENG	
005	North America 2Hole	*ENG	

6132	**[Jogger Fence Fine Adj:FrontFIN]**		
	Adjusts width (main scan direction) of edge stitch jogger when running specified paper conformity. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.		
001	A3T	*ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
002	B4T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
003	A4T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
004	A4Y	*ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
005	B5T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
006	B5Y	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
007	DLT-T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
008	LG-T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
009	LT-T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]

010	LT-Y	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
011	8K-T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
012	16K-T	*ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
013	16K-Y	ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]
014	Other	ENG	[-3.0 to 3.0 / **0.0** / 0.5mm/step]

6133	**[Staple Position Adj: FrontFIN]**		
	Adjusts staple position (main scan direction) for the near side parallel stitch/ far side parallel stitch of specified paper. § Adjusting value to -: staple position moves toward front side of machine. § Adjusting value to +: staple position moves toward rear side of machine.		
001	Finisher1	*ENG	[-2.0 to 2.0 / **0.0** / 0.5mm/step]

6134	**[Finisher Free Run: FrontFIN]**		
001	Free Run1	*ENG	[0 or 1 / **0** / 1/step]
	Execute shift mode no paper free run.		
002	Free Run2	*ENG	[0 or 1 / **0** / 1/step]
	Execute staple mode no paper free run.		
003	Free Run3	*ENG	[0 or 1 / **0** / 1/step]
	Tray package position move free run.		
004	Free Run4	*ENG	[0 or 1 / **0** / 1/step]
	Do not use with RUBICON-B.		

6135	**[INPUT Check: FrontFIN]**
	See page 3-1

6136	**[OUTPUT Check: FrontFIN]**
	See page 3-31

6140	**[Staple Position Adj: 1K FIN]**		
	Adjusts staple position (main scan direction) for near side trailing edge parallel stitch / far side trailing edge parallel stitch. § Adjusting value to -: staple position moves toward front side of machine. § Adjusting value to +: staple position moves toward rear side of machine.		
001	-	ENG	[-3.5 to 3.5 / **0.0** / 0.5mm/step]

6141	**[Booklet Stapler Pos Adj:1K FIN]**		
	Adjusts saddle stitch staple position (sub scan direction) of specified paper. § Adjusting value to -: staple position moves toward trailing edge of paper when intaking. § Adjusting value to +: folding position moves toward leading edge of paper when intaking.		
001	A3 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
002	B4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
003	A4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
004	B5 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
005	DLT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
006	LG SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
007	LT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
008	12"x18"	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]

6142	**[Sub-scan Punch Pos Adj:1K FIN]**		
	Adjusts position of carry direction (sub scan direction) for punch. § Adjusting value to -: hole position moves toward trailing edge of paper when intaking. § Adjusting value to +: hole position moves toward leading edge of paper when intaking.		
001	JPN/EU: 2-Hole	ENG	[-7.5 to 7.5 / **0.0** / 0.5mm/step]

002	NA: 3-Hole	ENG	
003	Europe: 4-Hole	ENG	
004	NEU: 4-Hole	ENG	
005	NA: 2-Hole	ENG	

6143	**[Jogger Pos Adj:1K FIN]**		
	Adjusts width (main scan direction) of jogger when running specified paper conformity. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.		
001	A3 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	12"x18"	ENG	
012	8K SEF	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]
013	16K SEF	ENG	
014	16K LEF	ENG	
015	Other	ENG	[-1.5 to 1.5 / **0.0** / 0.5mm/step]

	Adjusts width (main scan direction) of jogger when running conformity to except the specified paper. § Adjusts value to -: move towards jogger width is tighter than base value. § Adjusts value to +: move towards jogger width is wider than base value.

6144	**[Main-scan Punch Pos Adj:1K FIN]**		
	Adjusts position of width direction (main scan direction) for punch. § Adjusting value to -: hole position moves toward front side of machine. § Adjusting value to +: hole position moves toward rear side of machine.		
001	JPN/EU: 2-Hole	ENG	[-2.0 to 2.0 / **0.0** / 0.4mm/step]
002	NA: 3-Hole	ENG	
003	Europe: 4-Hole	ENG	
004	NEU: 4-Hole	ENG	
005	NA: 2-Hole	ENG	

6145	**[Skew Correct Buckle Adj:1K FIN]**		
	Adjusts the skew correction bending amount when punching specified paper. § Adjusts value to -: buckling amount decreases § Adjusts value to +:buckling amount increases.		
001	A3 SEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	
006	B5 LEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
007	A5 LEF	ENG	
008	DLT SEF	ENG	
009	LG SEF	ENG	
010	LT SEF	ENG	

011	LT LEF	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
012	HLT LEF	ENG	
013	12"x18"	ENG	
014	8K SEF	ENG	
015	16K SEF	ENG	
016	16K LEF	ENG	
017	Other	ENG	[-5.0 to 5.0 / **0.0** / 0.2mm/step]
	Adjusts the skew correction bending amount when punching except the specified paper. § Adjusts value to -: buckling amount decreases § Adjusts value to +: buckling amount increases.		

6146	**[Skew Correct Ctrl SW:1K FIN]**		
	Switches way to control (Still buckling 0: enable / 1: disable) skew correction when punching specified paper.		
001	A3 SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
002	B4 SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
003	A4 SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
004	A4 LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
005	B5 SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable

006	B5 LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
007	A5 LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
008	DLT SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
009	LG SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
010	LT SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
011	LT LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
012	HLT LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
013	12"x18"	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
014	8K SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
015	16K SEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
016	16K LEF	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable

017	Other	ENG	[0 or 1 / **0** / 1/step] 0: enable 1: disable
	Switches way to control (Still buckling 0: enable / 1: disable) skew correction when punching except the specified paper.		

6147	**[Booklet Folder Pos Adj:1K FIN]**		
	Adjusts saddle stitch folding position (sub scan direction) of specified paper. § Adjusting value to -: folding position moves toward trailing edge of paper when intaking. § Adjusting value to +: folding position moves toward leading edge of paper when intaking.		
001	A3 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
002	B4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
003	A4 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
004	B5 SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
005	DLT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
006	LG SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
007	LT SEF	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]
008	12"x18"	ENG	[-3.0 to 3.0 / **0.0** / 0.2mm/step]

6148	**[Fold Times Adj: 1K FIN]**		
	Adjusts extra folding times (time) for folding when saddle stitching.		
001	-	ENG	[0 to 29 / **0** / 1sec/step]

6149	**[Last Paper Pos Time Adj:1K FIN]**		
	Adjust positioning times to last paper of set.		
001	-	*ENG	[0 to 1 / **0** / 1time/step]

6150	**[PositioningStrtTimingAdj:1KFIN]**		
	Adjusts the positioning roller operation start timing when positioning specified paper. § Adjusts value to -: forwards the start timing § Adjusts value to +: delays the start timing		
001	A3 SEF	ENG	[-100 to 100 / **0** / 10msec/step]
002	B4 SEF	ENG	
003	A4 SEF	ENG	
004	A4 LEF	ENG	
005	B5 SEF	ENG	
006	B5 LEF	ENG	
007	DLT SEF	ENG	
008	LG SEF	ENG	
009	LT SEF	ENG	
010	LT LEF	ENG	
011	12"x18"	ENG	
012	8K SEF	ENG	
013	16K SEF	ENG	
014	16K LEF	ENG	
015	Other	ENG	
	Adjusts the positioning roller operation start timing when positioning except the specified paper. § Adjusts value to -: forwards the start timing § Adjusts value to +: delays the start timing		

6151	**[PosTimeAdj(LstPr2ndTime):1KFIN]**		
	Adjusts 2nd time to positioning the last sheet of the set. § Adjusts the value to -: shortens the positioning time § Adjusts the value to +: extends the positioning time The positioning for the last sheet is done when [Last Paper Pos Time Adj:1K FIN] adjust value is set to 1.		
001	-	ENG	[-100 to 100 / **0** / 10msec/step]

6152	**[PosTiAdj(ExcLstPr3rdTi):1KFIN]**		
	Adjust positioning time for specified paper except the last sheet 2nd time. § Adjusts the value to -: shortens the positioning time § Adjusts the value to +: extends the positioning time		
001	A3 SEF	ENG	[-100 to 100 / **0** / 10msec/step]
002	B4 SEF	ENG	[-100 to 100 / **0** / 10msec/step]
003	A4 SEF	ENG	[-100 to 100 / **0** / 10msec/step]
004	A4 LEF	ENG	[-100 to 100 / **0** / 10msec/step]
005	B5 SEF	ENG	[-100 to 100 / **0** / 10msec/step]
006	B5 LEF	ENG	[-100 to 100 / **0** / 10msec/step]
007	DLT SEF	ENG	[-100 to 100 / **0** / 10msec/step]
008	LG SEF	ENG	[-100 to 100 / **0** / 10msec/step]
009	LT SEF	ENG	[-100 to 100 / **0** / 10msec/step]
010	LT LEF	ENG	[-100 to 100 / **0** / 10msec/step]
011	12"x18"	ENG	[-100 to 100 / **0** / 10msec/step]
012	8K SEF	ENG	[-100 to 100 / **0** / 10msec/step]
013	16K SEF	ENG	[-100 to 100 / **0** / 10msec/step]
014	16K LEF	ENG	[-100 to 100 / **0** / 10msec/step]
015	Other	ENG	[-100 to 100 / **0** / 10msec/step]

	Adjust positioning time for other than the specified paper except the last sheet 2nd time. § Adjusts the value to -: shortens the positioning time § Adjusts the value to +: extends the positioning time

6154	**[Pos Time Adj By Sheet: 1K FIN]**		
	Adjusts the positioning time when stocked specified amount. § Adjusts the value to -: shortens the positioning time § Adjusts the value to +: extends the positioning time		
001	1 - 10 Sheets	ENG	[-100 to 100 / **0** / 10msec/step]
002	11 - 20 Sheets	ENG	
003	21 - 30 Sheets	ENG	
004	31 - 40 Sheets	ENG	
005	41 - 50 Sheets	ENG	

6160	**[Finisher Free Run: 1K FIN]**		
001	Free Run 1	ENG	[0 or 1 / **0** / 1/step]
	Executes shift mode no paper free run.		
002	Free Run 2	ENG	[0 or 1 / **0** / 1/step]
	Executes edge stitch (near side 1 point stitch) mode no paper free run.		
003	Free Run 3	ENG	[0 or 1 / **0** / 1/step]
	Executes saddle stitch mode no paper free run. (Does not execute with model with no saddle stitch unit)		
004	Free Run 4	ENG	[0 or 1 / **0** / 1/step]
	Executes saddle stitch mode no paper free run. (Does not execute with model with no saddle stitch unit)		

6161	**[FIN (1K FIN) INPUT Check]**
	See page 3-1

6162	**[FIN (1K FIN) OUTPUT Check]**
	See page 3-31

6170	**[Bridge: INPUT Check]**
	See page 3-1

6171	**[Bridge: OUTPUT Check]**
	See page 3-31

6172	**[Shift Tray: INPUT Check]**
	See page 3-1

6173	**[Shift Tray: OUTPUT Check]**
	See page 3-31

6174	**[1 Bin: INPUT Check]**
	See page 3-1

6800	**[Sheet Conversion (Thick Paper)]**		
	Permits punching, including tab sheets.		
001	-	CTL	[1 to 3 / **3** / 1/step] 1: 1 pages 2: 2 pages 3: 3 pages

6801	**[1-pass Stamp Unit]**		
001	-	*ENG	[0 or 1 / **0** / 1/step] 0: NO 1: YES
	For 1 path simultaneous duplex models only. Sets installed/not installed of DONE stamp unit.		

6810	**[Ring Bind Sheet Conversion (Thick Paper)]**		
	-		
001	-	CTL	[1 to 3 / **3** / 1/step] 1: 1 pages 2: 2 pages 3: 3 pages

6830	**[Extra Staples]**		
	More than the standard number of sheets can be stapled. This SP sets the additional number of sheets (This Setting + Standard Number = maximum number of sheets). § If the number of the maximum for staples is increased, and the mechanical warranty of the unit can be guaranteed, then the setting can take effect without changing the controller software. § However, assurance that mechanical performance can be guaranteed is required before changing the setting to increase the staple load for more than the maximum in the feed/exit specifications. Raising this setting without quality assurance could damage the machine.		
001	Staple positions other than booklet stapling	*CTL	[0 to 50 / **0** / 1/step]
002	2 Booklet stapling	*CTL	[0 to 50 / **0** / 1/step]
	Makes possible for staple to saddle stitch more sheets than basic amount. Saddle stitch staple max. amount will be recognized as the total of this SP's value and the basic amount.		

003	Finisher booklet max. paper count custom setting	*CTL	[0 to 50 / **0** / 1/step]
	Makes possivle for finisher to middle fold more than the basic foldable amount. Middle fold max. amount will be recognized as the total of this SP's value and basic Middle fold amunt.		

6890	**[Punch Function Enabled (Z Fold)]**		
001	-	CTL	[1 to 0 / **0** / 1/step] 0: No Punch 1: Punching OK

6900	**[ADF Bottom Plate Setting]**		
001	-	*ENG	[0 or 1 / **0** / 1/step] 0: Bottom plate rise on original set (default) 1: Bottom plate rise on paper exit signal.
	For 1 path simultaneous duplex models only. Changes bottom plate rising mode.		

2.9 MAIN SP TABLES-7

2.9.1 SP7-XXX (DATA LOG)

7401	**[Total SC]**		
	Stores total SC occurring count. If the same SC codes are detected continuously and total counter is not increasing, it only logs once in case of deleting other SC code logs.		
001	SC Counter	*CTL	[0 to 65535 / - / 1/step]
002	Total SC Counter	*CTL	[0 to 65535 / - / 1/step]

7403	**[SC History]**		
	Logs and displays the SC codes detected. The 10 most recently detected SC Codes are displayed on the screen, and also can be seen on the SMC (logging) outputs. Note § If the same SC codes are detected continuously and total counter is not increasing, it only logs once in case of deleting other SC code logs.		
001	Latest	*CTL	[- / - / -]
002	Latest 1	*CTL	
003	Latest 2	*CTL	
004	Latest 3	*CTL	
005	Latest 4	*CTL	
006	Latest 5	*CTL	
007	Latest 6	*CTL	
008	Latest 7	*CTL	
009	Latest 8	*CTL	
010	Latest 9	*CTL	

7404	**[SC990 / SC991 History]**		
	Logs and displays the SC990 / SC991 detected. The 10 most recently detected SC. Note § If the same SC codes are detected continuously and total counter is not increasing, it only logs once in case of deleting other SC code logs.		
001	Latest	*CTL	[- / - / -]
002	Latest 1	*CTL	
003	Latest 2	*CTL	
004	Latest 3	*CTL	
005	Latest 4	*CTL	
006	Latest 5	*CTL	
007	Latest 6	*CTL	
008	Latest 7	*CTL	
009	Latest 8	*CTL	
010	Latest 9	*CTL	

7502	**[Total Paper Jam]**		
	Displays the total number of jams detected.		
001	Jam Counter	*CTL	[00000 to 65535 / - / 1sheet/step]
	If the JAM occurred in multiple places, it logs as one SC.		
002	Total Jam Counter	*CTL	[00000 to 65535 / - / 1sheet/step]

7503	**[Manuscript Jam]**		
	-		
00*	-	*CTL	[00000 to 65535 / - / - /step]

7504	**[Paper Jam Location]**		
	Displays counts for transfer paper jam for each incidence place.		
001	At Power On	*CTL	Paper is not fed at power on. [0000 to 9999 / - / 1/step]
003	Tray1: On	*CTL	[0000 to 9999 / - / 1/step]
004	Tray2: On	*CTL	[0000 to 9999 / - / 1/step]
005	Tray3: On	*CTL	[0000 to 9999 / - / 1/step]
006	Tray4: On	*CTL	[0000 to 9999 / - / 1/step]
007	LCT: On	*CTL	[0000 to 9999 / - / 1/step]
008	Bypass: On	*CTL	[0000 to 9999 / - / 1/step]
009	Duplex: On	*CTL	[0000 to 9999 / - / 1/step]
010	Transport 1: On	*CTL	[0000 to 9999 / - / 1/step]
012	Transport 2:On	*CTL	[0000 to 9999 / - / 1/step]
013	Transport 3: On	*CTL	[0000 to 9999 / - / 1/step]
014	Transport 4: On	*CTL	[0000 to 9999 / - / 1/step]
015	LCT Transport: On	*CTL	[0000 to 9999 / - / 1/step]
016	LCT Exit: On	*CTL	[0000 to 9999 / - / 1/step]
017	LCT Relay: On	*CTL	[0000 to 9999 / - / 1/step]
018	Main Unit Relay: On	*CTL	[0000 to 9999 / - / 1/step]
019	Registration: On	*CTL	[0000 to 9999 / - / 1/step]
022	TH Transport: On	*CTL	[0000 to 9999 / - / 1/step]
024	Fusing Exit: On	*CTL	[0000 to 9999 / - / 1/step]
025	Inverter Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
026	Paper Exit Inverter: On	*CTL	[0000 to 9999 / - / 1/step]
028	Inverter Exit: On	*CTL	[0000 to 9999 / - / 1/step]

029	Paper Exit Relay: On	*CTL	[0000 to 9999 / - / 1/step]
030	Paper Exit: On	*CTL	[0000 to 9999 / - / 1/step]
031	Duplex Inverter: On	*CTL	[0000 to 9999 / - / 1/step]
033	Duplex Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
034	Dup Trans 1: On	*CTL	[0000 to 9999 / - / 1/step]
035	Dup Trans 2: On	*CTL	[0000 to 9999 / - / 1/step]
036	Dup Trans 3: On	*CTL	[0000 to 9999 / - / 1/step]
037	Dup Trans 4: On	*CTL	[0000 to 9999 / - / 1/step]
038	Duplex Exit: On	*CTL	[0000 to 9999 / - / 1/step]
057	LCT Feed: Off	*CTL	[0000 to 9999 / - / 1/step]
058	By-pass Feed: Off	*CTL	[0000 to 9999 / - / 1/step]
060	Transport 1: Off	*CTL	[0000 to 9999 / - / 1/step]
062	Transport 2: Off	*CTL	[0000 to 9999 / - / 1/step]
063	Transport 3: Off	*CTL	[0000 to 9999 / - / 1/step]
064	Transport 4: Off	*CTL	[0000 to 9999 / - / 1/step]
065	LCT Feed Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
066	LCT Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
067	LCT Relay: Off	*CTL	[0000 to 9999 / - / 1/step]
068	Main Unit Relay: Off	*CTL	[0000 to 9999 / - / 1/step]
069	Registration Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
072	TH Transport: Off	*CTL	[0000 to 9999 / - / 1/step]
074	Fusing Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
075	Inverter Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
076	Paper Exit Inverter: Off	*CTL	[0000 to 9999 / - / 1/step]
078	Inverter Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
079	Paper Exit Relay: Off	*CTL	[0000 to 9999 / - / 1/step]

080	Paper Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
081	Duplex Inverter: Off	*CTL	[0000 to 9999 / - / 1/step]
083	Duplex Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
084	Dup Trans 1: Off	*CTL	[0000 to 9999 / - / 1/step]
085	Dup Trans 2: Off	*CTL	[0000 to 9999 / - / 1/step]
086	Dup Trans 3: Off	*CTL	[0000 to 9999 / - / 1/step]
087	Dup Trans 4: Off	*CTL	[0000 to 9999 / - / 1/step]
088	Duplex Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
095	Double-Feed Detection: Front	*CTL	[0000 to 9999 / - / 1/step]
096	Timing: On	*CTL	[0000 to 9999 / - / 1/step]
097	Shift Over	*CTL	[0000 to 9999 / - / 1/step]
098	Paper Thickness Error	*CTL	[0000 to 9999 / - / 1/step]
099	Double-Feed Detection: Rear	*CTL	[0000 to 9999 / - / 1/step]
100	Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
101	Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
102	Proof Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
103	Proof Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
104	Shift Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
105	Shift Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
106	Stapler Exit: On	*CTL	[0000 to 9999 / - / 1/step]
107	Stapler Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
108	Pre-Stack: On	*CTL	[0000 to 9999 / - / 1/step]
109	Pre-Stack: Off	*CTL	[0000 to 9999 / - / 1/step]
110	Feed Out	*CTL	[0000 to 9999 / - / 1/step]

111	Motors	*CTL	[0000 to 9999 / - / 1/step]
112	Tray Lift Motor	*CTL	[0000 to 9999 / - / 1/step]
113	Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
114	Shift Motor	*CTL	[0000 to 9999 / - / 1/step]
115	Staple Motor	*CTL	[0000 to 9999 / - / 1/step]
116	Feed Out Motor	*CTL	[0000 to 9999 / - / 1/step]
117	Punch Motor	*CTL	[0000 to 9999 / - / 1/step]
118	Z-Fold Motor	*CTL	[0000 to 9999 / - / 1/step]
119	Pre-Stack	*CTL	[0000 to 9999 / - / 1/step]
120	Main Machine Setting Incorrect	*CTL	[0000 to 9999 / - / 1/step]
148	Plockmatic Booklet Processor	*CTL	[0000 to 9999 / - / 1/step]
149	GBC Punch Unit	*CTL	[0000 to 9999 / - / 1/step]
150	Entrance Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
151	Entrance Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
152	Horizontal Transport Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
153	Horizontal Transport Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
154	Switchback Transport Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
155	Switchback Transport Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
156	Proof Tray Exit	*CTL	[0000 to 9999 / - / 1/step]
157	Shift Tray Exit	*CTL	[0000 to 9999 / - / 1/step]
158	Booklet Staple Exit	*CTL	[0000 to 9999 / - / 1/step]
159	Entrance Motor	*CTL	[0000 to 9999 / - / 1/step]

160	Relay Motor	*CTL	[0000 to 9999 / - / 1/step]
161	Paper Exit Motor	*CTL	[0000 to 9999 / - / 1/step]
162	Trailing Edge Stack Plate Motor	*CTL	[0000 to 9999 / - / 1/step]
163	Paper Exit Open/Close Guide Plate Motor	*CTL	[0000 to 9999 / - / 1/step]
164	Punching Motor	*CTL	[0000 to 9999 / - / 1/step]
165	Punch Move Motor	*CTL	[0000 to 9999 / - / 1/step]
166	S-to-S Registration Detection	*CTL	[0000 to 9999 / - / 1/step]
167	Lower Junction Solenoid Motor	*CTL	[0000 to 9999 / - / 1/step]
168	Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
169	Positioning Roller Rotation Motor	*CTL	[0000 to 9999 / - / 1/step]
170	Feed Out Motor	*CTL	[0000 to 9999 / - / 1/step]
171	Corner Staple Move Motor	*CTL	[0000 to 9999 / - / 1/step]
172	Corner Stapler Motor	*CTL	[0000 to 9999 / - / 1/step]
173	Booklet Stapler Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
174	Booklet Stapler Jog Solenoid Motor	*CTL	[0000 to 9999 / - / 1/step]
175	Booklet Stapler Standard Fence Motor	*CTL	[0000 to 9999 / - / 1/step]
176	Booklet Stapler Motor	*CTL	[0000 to 9999 / - / 1/step]
177	Dynamic Roller Transport Motor	*CTL	[0000 to 9999 / - / 1/step]
178	Folder Transport Motor	*CTL	[0000 to 9999 / - / 1/step]

179	Bklt Stplr Positioning Roller	*CTL	[0000 to 9999 / - / 1/step]
180	Press-Fold Motor	*CTL	[0000 to 9999 / - / 1/step]
181	Tray Lift Motor	*CTL	[0000 to 9999 / - / 1/step]
182	Shift Motor	*CTL	[0000 to 9999 / - / 1/step]
183	Shift Jogger Front Motor	*CTL	[0000 to 9999 / - / 1/step]
184	Shift Jogger Rear Motor	*CTL	[0000 to 9999 / - / 1/step]
185	Shift Jogger Retraction Motor	*CTL	[0000 to 9999 / - / 1/step]
186	Drag Roller Oscillating Motor	*CTL	[0000 to 9999 / - / 1/step]
187	Leading Edge Guide Motor	*CTL	[0000 to 9999 / - / 1/step]
188	Job Data Error	*CTL	[0000 to 9999 / - / 1/step]
200	Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
201	Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
202	Top Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
203	Top Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
204	Horizontal Oath Exit: On	*CTL	[0000 to 9999 / - / 1/step]
205	Horizontal Path Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
206	Stopper 1: On	*CTL	[0000 to 9999 / - / 1/step]
207	Stopper 1: Off	*CTL	[0000 to 9999 / - / 1/step]
208	Stopper 2: On	*CTL	[0000 to 9999 / - / 1/step]
209	Stopper 2: Off	*CTL	[0000 to 9999 / - / 1/step]
210	Stopper 3: On	*CTL	[0000 to 9999 / - / 1/step]
211	Stopper 3: Off	*CTL	[0000 to 9999 / - / 1/step]
212	Registration Correction	*CTL	[0000 to 9999 / - / 1/step]

213	Top Tray Transport	*CTL	[0000 to 9999 / - / 1/step]
214	Entrance JG Motor Error	*CTL	[0000 to 9999 / - / 1/step]
215	Stopper Motor 1 Error	*CTL	[0000 to 9999 / - / 1/step]
216	Stopper Motor 2 Error	*CTL	[0000 to 9999 / - / 1/step]
217	Stopper Motor 3 Error	*CTL	[0000 to 9999 / - / 1/step]
218	Dynamic Roller Lift Mt Error	*CTL	[0000 to 9999 / - / 1/step]
219	Regist Roller Release Mt Error	*CTL	[0000 to 9999 / - / 1/step]
220	Fold Plate Motor Error	*CTL	[0000 to 9999 / - / 1/step]
221	Jogger Fence Motor Error	*CTL	[0000 to 9999 / - / 1/step]
222	Direct-Send JG Motor Error	*CTL	[0000 to 9999 / - / 1/step]
223	FM6 Pawl Motor Error	*CTL	[0000 to 9999 / - / 1/step]
249	Main Machine Setting Incorrect	*CTL	[0000 to 9999 / - / 1/step]
250	Paper Feed: Late	*CTL	[0000 to 9999 / - / 1/step]
251	Paper Feed: Lag	*CTL	[0000 to 9999 / - / 1/step]
252	Pressure Timing Sn: Late	*CTL	[0000 to 9999 / - / 1/step]
253	Pressure Timing Sn: Lag	*CTL	[0000 to 9999 / - / 1/step]
254	Contact Timing Sn: Late	*CTL	[0000 to 9999 / - / 1/step]
255	Contact Timing Sn: Lag	*CTL	[0000 to 9999 / - / 1/step]

7505	**[Original Jam Detection]**		
	-		
***	Original Jam Detection	*CTL	[0000 to 9999 / - / -/step]

7506	**[Jam Count by Paper Size]**		
	Displays the number of jams according to the paper size.		
005	A4 LEF	*CTL	[0 to 9999 / **0** / 1 sheet/step]
006	A5 LEF	*CTL	
014	B5 LEF	*CTL	
038	LT LEF	*CTL	
044	HLT LEF	*CTL	
132	A3 SEF	*CTL	
133	A4 SEF	*CTL	
134	A5 SEF	*CTL	
141	B4 SEF	*CTL	
142	B5 SEF	*CTL	
160	DLT SEF	*CTL	
164	LG SEF	*CTL	
166	LT SEF	*CTL	
172	HLT SEF	*CTL	
255	Others	*CTL	

7507	**[Plotter Jam History]**		
	Logs and displays the 10 most recent detected transfer paper jams. (CAUSE, SIZE, TOTAL, DATE)		
001	Latest	*CTL	[-/ **-** / -]
002	Latest 1	*CTL	
003	Latest 2	*CTL	
004	Latest 3	*CTL	
005	Latest 4	*CTL	

006	Latest 5	*CTL	
007	Latest 6	*CTL	
008	Latest 7	*CTL	
009	Latest 8	*CTL	
010	Latest 9	*CTL	

7508	**[Original Jam History]**		
	Logs and displays the 10 most recent detected transfer paper jams. (CAUSE, SIZE, TOTAL, DATE)		
001	Latest	*CTL	[- / - / -]
002	Latest 1	*CTL	
003	Latest 2	*CTL	
004	Latest 3	*CTL	
005	Latest 4	*CTL	
006	Latest 5	*CTL	
007	Latest 6	*CTL	
008	Latest 7	*CTL	
009	Latest 8	*CTL	
010	Latest 9	*CTL	

7514	**[Paper Jam Count by Location]** Total counter of transfer paper jam by each incidence place		
	Displays occurring count of transfer paper jams by each incidence place.		
001	At Power On	*CTL	Paper is not fed at power on. [0000 to 9999 / - / 1/step]
003	Tray1: On	*CTL	[0000 to 9999 / - / 1/step]
004	Tray2: On	*CTL	[0000 to 9999 / - / 1/step]

005	Tray3: On	*CTL	[0000 to 9999 / - / 1/step]
006	Tray4: On	*CTL	[0000 to 9999 / - / 1/step]
007	LCT: On	*CTL	[0000 to 9999 / - / 1/step]
008	Bypass: On	*CTL	[0000 to 9999 / - / 1/step]
009	Duplex: On	*CTL	[0000 to 9999 / - / 1/step]
010	Transport 1: On	*CTL	[0000 to 9999 / - / 1/step]
012	Transport 2:On	*CTL	[0000 to 9999 / - / 1/step]
013	Transport 3: On	*CTL	[0000 to 9999 / - / 1/step]
014	Transport 4: On	*CTL	[0000 to 9999 / - / 1/step]
015	LCT Transport: On	*CTL	[0000 to 9999 / - / 1/step]
016	LCT Exit: On	*CTL	[0000 to 9999 / - / 1/step]
017	LCT Relay: On	*CTL	[0000 to 9999 / - / 1/step]
018	Main Unit Relay: On	*CTL	[0000 to 9999 / - / 1/step]
019	Registration: On	*CTL	[0000 to 9999 / - / 1/step]
022	TH Transport: On	*CTL	[0000 to 9999 / - / 1/step]
024	Fusing Exit: On	*CTL	[0000 to 9999 / - / 1/step]
025	Inverter Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
026	Paper Exit Inverter: On	*CTL	[0000 to 9999 / - / 1/step]
028	Inverter Exit: On	*CTL	[0000 to 9999 / - / 1/step]
029	Paper Exit Relay: On	*CTL	[0000 to 9999 / - / 1/step]
030	Paper Exit: On	*CTL	[0000 to 9999 / - / 1/step]
031	Duplex Inverter: On	*CTL	[0000 to 9999 / - / 1/step]
033	Duplex Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
034	Dup Trans 1: On	*CTL	[0000 to 9999 / - / 1/step]
035	Dup Trans 2: On	*CTL	[0000 to 9999 / - / 1/step]
036	Dup Trans 3: On	*CTL	[0000 to 9999 / - / 1/step]

037	Dup Trans 4: On	*CTL	[0000 to 9999 / - / 1/step]
038	Duplex Exit: On	*CTL	[0000 to 9999 / - / 1/step]
057	LCT Feed: Off	*CTL	[0000 to 9999 / - / 1/step]
058	By-pass Feed: Off	*CTL	[0000 to 9999 / - / 1/step]
060	Transport 1: Off	*CTL	[0000 to 9999 / - / 1/step]
062	Transport 2: Off	*CTL	[0000 to 9999 / - / 1/step]
063	Transport 3: Off	*CTL	[0000 to 9999 / - / 1/step]
064	Transport 4: Off	*CTL	[0000 to 9999 / - / 1/step]
065	LCT Feed Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
066	LCT Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
067	LCT Relay: Off	*CTL	[0000 to 9999 / - / 1/step]
068	Main Unit Relay: Off	*CTL	[0000 to 9999 / - / 1/step]
069	Registration Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
072	TH Transport: Off	*CTL	[0000 to 9999 / - / 1/step]
074	Fusing Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
075	Inverter Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
076	Paper Exit Inverter: Off	*CTL	[0000 to 9999 / - / 1/step]
078	Inverter Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
079	Paper Exit Relay: Off	*CTL	[0000 to 9999 / - / 1/step]
080	Paper Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
081	Duplex Inverter: Off	*CTL	[0000 to 9999 / - / 1/step]
083	Duplex Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
084	Dup Trans 1: Off	*CTL	[0000 to 9999 / - / 1/step]
085	Dup Trans 2: Off	*CTL	[0000 to 9999 / - / 1/step]
086	Dup Trans 3: Off	*CTL	[0000 to 9999 / - / 1/step]
087	Dup Trans 4: Off	*CTL	[0000 to 9999 / - / 1/step]

088	Duplex Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
095	Double-Feed Detection: Front	*CTL	[0000 to 9999 / - / 1/step]
096	Timing: On	*CTL	[0000 to 9999 / - / 1/step]
097	Shift Over	*CTL	[0000 to 9999 / - / 1/step]
098	Paper Thickness Error	*CTL	[0000 to 9999 / - / 1/step]
099	Double-Feed Detection: Rear	*CTL	[0000 to 9999 / - / 1/step]
100	Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
101	Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
102	Proof Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
103	Proof Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
104	Shift Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
105	Shift Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
106	Stapler Exit: On	*CTL	[0000 to 9999 / - / 1/step]
107	Stapler Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
108	Pre-Stack: On	*CTL	[0000 to 9999 / - / 1/step]
109	Pre-Stack: Off	*CTL	[0000 to 9999 / - / 1/step]
110	Feed Out	*CTL	[0000 to 9999 / - / 1/step]
111	Motors	*CTL	[0000 to 9999 / - / 1/step]
112	Tray Lift Motor	*CTL	[0000 to 9999 / - / 1/step]
113	Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
114	Shift Motor	*CTL	[0000 to 9999 / - / 1/step]
115	Staple Motor	*CTL	[0000 to 9999 / - / 1/step]
116	Feed Out Motor	*CTL	[0000 to 9999 / - / 1/step]
117	Punch Motor	*CTL	[0000 to 9999 / - / 1/step]

118	Z-Fold Motor	*CTL	[0000 to 9999 / - / 1/step]
119	Pre-Stack	*CTL	[0000 to 9999 / - / 1/step]
120	Main Machine Setting Incorrect	*CTL	[0000 to 9999 / - / 1/step]
148	Plockmatic Booklet Processor	*CTL	[0000 to 9999 / - / 1/step]
149	GBC Punch Unit	*CTL	[0000 to 9999 / - / 1/step]
150	Entrance Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
151	Entrance Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
152	Horizontal Transport Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
153	Horizontal Transport Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
154	Switchback Transport Sensor: On	*CTL	[0000 to 9999 / - / 1/step]
155	Switchback Transport Sensor: Off	*CTL	[0000 to 9999 / - / 1/step]
156	Proof Tray Exit	*CTL	[0000 to 9999 / - / 1/step]
157	Shift Tray Exit	*CTL	[0000 to 9999 / - / 1/step]
158	Booklet Staple Exit	*CTL	[0000 to 9999 / - / 1/step]
159	Entrance Motor	*CTL	[0000 to 9999 / - / 1/step]
160	Relay Motor	*CTL	[0000 to 9999 / - / 1/step]
161	Paper Exit Motor	*CTL	[0000 to 9999 / - / 1/step]
162	Trailing Edge Stack Plate Motor	*CTL	[0000 to 9999 / - / 1/step]
163	Paper Exit Open/Close Guide Plate Motor	*CTL	[0000 to 9999 / - / 1/step]
164	Punching Motor	*CTL	[0000 to 9999 / - / 1/step]

165	Punch Move Motor	*CTL	[0000 to 9999 / - / 1/step]
166	S-to-S Registration Detection	*CTL	[0000 to 9999 / - / 1/step]
167	Lower Junction Solenoid Motor	*CTL	[0000 to 9999 / - / 1/step]
168	Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
169	Positioning Roller Rotation Motor	*CTL	[0000 to 9999 / - / 1/step]
170	Feed Out Motor	*CTL	[0000 to 9999 / - / 1/step]
171	Corner Staple Move Motor	*CTL	[0000 to 9999 / - / 1/step]
172	Corner Stapler Motor	*CTL	[0000 to 9999 / - / 1/step]
173	Booklet Stapler Jogger Motor	*CTL	[0000 to 9999 / - / 1/step]
174	Booklet Stapler Jog Solenoid Motor	*CTL	[0000 to 9999 / - / 1/step]
175	Booklet Stapler Standard Fence Motor	*CTL	[0000 to 9999 / - / 1/step]
176	Booklet Stapler Motor	*CTL	[0000 to 9999 / - / 1/step]
177	Dynamic Roller Transport Motor	*CTL	[0000 to 9999 / - / 1/step]
178	Folder Transport Motor	*CTL	[0000 to 9999 / - / 1/step]
179	Bklt Stplr Positioning Roller	*CTL	[0000 to 9999 / - / 1/step]
180	Press-Fold Motor	*CTL	[0000 to 9999 / - / 1/step]
181	Tray Lift Motor	*CTL	[0000 to 9999 / - / 1/step]
182	Shift Motor	*CTL	[0000 to 9999 / - / 1/step]
183	Shift Jogger Front Motor	*CTL	[0000 to 9999 / - / 1/step]
184	Shift Jogger Rear Motor	*CTL	[0000 to 9999 / - / 1/step]

185	Shift Jogger Retraction Motor	*CTL	[0000 to 9999 / - / 1/step]
186	Drag Roller Oscillating Motor	*CTL	[0000 to 9999 / - / 1/step]
187	Leading Edge Guide Motor	*CTL	[0000 to 9999 / - / 1/step]
188	Job Data Error	*CTL	[0000 to 9999 / - / 1/step]
200	Entrance: On	*CTL	[0000 to 9999 / - / 1/step]
201	Entrance: Off	*CTL	[0000 to 9999 / - / 1/step]
202	Top Tray Exit: On	*CTL	[0000 to 9999 / - / 1/step]
203	Top Tray Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
204	Horizontal Oath Exit: On	*CTL	[0000 to 9999 / - / 1/step]
205	Horizontal Path Exit: Off	*CTL	[0000 to 9999 / - / 1/step]
206	Stopper 1: On	*CTL	[0000 to 9999 / - / 1/step]
207	Stopper 1: Off	*CTL	[0000 to 9999 / - / 1/step]
208	Stopper 2: On	*CTL	[0000 to 9999 / - / 1/step]
209	Stopper 2: Off	*CTL	[0000 to 9999 / - / 1/step]
210	Stopper 3: On	*CTL	[0000 to 9999 / - / 1/step]
211	Stopper 3: Off	*CTL	[0000 to 9999 / - / 1/step]
212	Registration Correction	*CTL	[0000 to 9999 / - / 1/step]
213	Top Tray Transport	*CTL	[0000 to 9999 / - / 1/step]
214	Entrance JG Motor Error	*CTL	[0000 to 9999 / - / 1/step]
215	Stopper Motor 1 Error	*CTL	[0000 to 9999 / - / 1/step]
216	Stopper Motor 2 Error	*CTL	[0000 to 9999 / - / 1/step]
217	Stopper Motor 3 Error	*CTL	[0000 to 9999 / - / 1/step]
218	Dynamic Roller Lift Mt Error	*CTL	[0000 to 9999 / - / 1/step]

219	Regist Roller Release Mt Error	*CTL	[0000 to 9999 / **-** / 1/step]
220	Fold Plate Motor Error	*CTL	[0000 to 9999 / **-** / 1/step]
221	Jogger Fence Motor Error	*CTL	[0000 to 9999 / **-** / 1/step]
222	Direct-Send JG Motor Error	*CTL	[0000 to 9999 / **-** / 1/step]
223	FM6 Pawl Motor Error	*CTL	[0000 to 9999 / **-** / 1/step]
249	Main Machine Setting Incorrect	*CTL	[0000 to 9999 / **-** / 1/step]
250	Paper Feed: Late	*CTL	[0000 to 9999 / **-** / 1/step]
251	Paper Feed: Lag	*CTL	[0000 to 9999 / **-** / 1/step]
252	Pressure Timing Sn: Late	*CTL	[0000 to 9999 / **-** / 1/step]
253	Pressure Timing Sn: Lag	*CTL	[0000 to 9999 / **-** / 1/step]
254	Contact Timing Sn: Late	*CTL	[0000 to 9999 / **-** / 1/step]
255	Contact Timing Sn: Lag	*CTL	[0000 to 9999 / **-** / 1/step]

7515	**[Total Original Jam Detection]**		
	-		
***	Total Original Jam Detection	*CTL	[0 to 9999 / **-** / -]

7516	**[Jam Paper Size Cnt]**		
	Displays occurring count of transfer paper jams by each paper size.		
005	A4 LEF	*CTL	[0 to 9999 / **0** / 1 sheet/step]
006	A5 LEF	*CTL	
014	B5 LEF	*CTL	
038	LT LEF	*CTL	
044	HLT LEF	*CTL	

132	A3 SEF	*CTL	[0 to 9999 / **0** / 1 sheet/step]
133	A4 SEF	*CTL	
134	A5 SEF	*CTL	
141	B4 SEF	*CTL	
142	B5 SEF	*CTL	
160	DLT SEF	*CTL	[0 to 9999 / **0** / 1 sheet/step]
164	LG SEF	*CTL	
166	LT SEF	*CTL	
172	HLT SEF	*CTL	
255	Others	*CTL	

7621	**[PM Counter Display: Pages]**		
	-		
002	# PCU:K	ENG	[0 to 99999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 99999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 99999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 99999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 99999999 / **0** / 1page/step]

102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 99999999 / **0** / 1page/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	[0 to 999999999 / **0** / 1mg/step]
206	ADF Pick-up Roller	ENG	[0 to 99999999 / **0** / 1page/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7622	**[PM Counter Reset]**		
	-		
002	# PCU:K	ENG	[0 or 1 / **0** / 1/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 or 1 / **0** / 1/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 or 1 / **0** / 1/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 or 1 / **0** / 1/step]
072	# Dev Unit:Y	ENG	

073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 or 1 / **0** / 1/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 or 1 / **0** / 1/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 or 1 / **0** / 1/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 or 1 / **0** / 1/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	
245	PCU:All Colors	ENG	[0 or 1 / **0** / 1/step]
246	Development Unit:All Colors	ENG	
247	Developer:All Colors	ENG	
249	Toner Sub Hopper:All Colors	ENG	
250	SCS	ENG	[0 or 1 / **0** / 1/step]

7623	[PM Value Setting: Life Pages]		
	-		
002	# PCU:K	ENG	[0 to 99999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 99999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 99999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 99999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 99999999 / **600000** / 1page/step]
102	# ITB Cleaning Unit	ENG	[0 to 99999999 / **300000** / 1page/step]
109	# PTR Unit	ENG	[0 to 99999999 / **400000** / 1page/step]
115	# Fusing Unit	ENG	[0 to 99999999 / **400000** / 1page/step]
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 99999999 / **300000** / 1page/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	[0 to 999999999 / **1000000** / 1mg/step]
206	ADF Pick-up Roller	ENG	[0 to 99999999 / **120000** / 1page/step]
207	ADF Supply Belt	ENG	

208	ADF Reverse Roller	ENG	

7625	**[Previous Unit Counter: Pages]**		
	-		
002	# PCU:K	ENG	[0 to 99999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 99999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 99999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 99999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 99999999 / **0** / 1page/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 99999999 / **0** / 1page/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	[0 to 999999999 / **0** / 1mg/step]
206	ADF Pick-up Roller	ENG	[0 to 99999999 / **0** / 1page/step]

207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7626	**[Previous Unit Counter2: Pages]**		
	-		
002	# PCU:K	ENG	[0 to 99999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 99999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 99999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 99999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 99999999 / **0** / 1page/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 99999999 / **0** / 1page/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	[0 to 999999999 / **0** / 1mg/step]

206	ADF Pick-up Roller	ENG	[0 to 99999999 / **0** / 1page/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7628	**[PM Counter Reset]**		
	Resets all counts for PM Counter.		
002	SCS	ENG	[0 or 1 / **0** / 1/step]

7801	**[ROM No.]**		
002	Engine	CTL	[- / **-** / -]
	Engine ROM part number.		
005	ADF	CTL	[- / **-** / -]
	ADF ROM part number.		
007	Finisher	CTL	[- / **-** / -]
	Finisher ROM part number.		
009	PTU	CTL	[- / **-** / -]
	Bank ROM part number.		
010	LCT	CTL	[- / **-** / -]
	LCT ROM part number.		
019	PTU2	CTL	[- / **-** / -]
	Bank 2 ROM part number.		

7801	**[ROM No./ Firmware Version]**		
	Displays all version numbers, part numbers in machine.		
255	-	CTL	-

7803	**[PM Counter Display]**		
	Displays the PM counter for each unit.		
001	Paper	*CTL	[0 to 999999 / **0** / 1/step]
255	PM Counter Display	*CTL	[- / **-** / -]

7804	**[PM Counter Reset]**		
	Clears the PM counter. Press the Enter key after the machine asks “Execute?”, which will store the PM counter value in SP7-906 (PM Counter - Previous) and reset the value of the current PM counter (SP7-803) to “0”.		
001	Paper	CTL	[- / **-** / -] [Execute]
255	PM Counter Display	CTL	[- / **-** / -]

7807	**[SC/Jam Counter Reset]**		
	Resets the SC, paper, original, and total jam counters. When the program ends normally, the message "Completed" is displayed. Note § SP7-807-1 does not reset the following logs: SP7-507 (Display-Paper Jam History) and SP7-508 (Display-Original Jam History).		
001	-	*CTL	[- / **-** / -] [Execute]

7831	**[Clear Counter for Processing Appli.]**		
	-		
001	Clear Counter for Processing Appli.	CTL	[- / **-** / -] [Execute]

7832	**[Self-Diagnose Display]**		
	Displays the result of the diagnostics. To scroll the return codes, press the up-arrow key or the down-arrow key.		
001	-	CTL	[- / **-** / -] [Execute]

7835	**[ACC Counter]**		
	-		
001	Copy ACC	*CTL	[0 to 9999999 / **-** / - /step]

7836	**[Total Memory Size]**		
	Displays the memory capacity of the controller system.		
001	Total Memory Size	CTL	[- / **-** / -]

7840	**[Service SP Entry Code Chg Hist]**		
	Records dates and times of resetting / changing “Service SP mode switch code setting” for the recent 2 times. (Decides whether the record is for setting changes or resets by branch number.)		
001	Change Time :Latest	*CTL	[- / **-** / -]
002	Change Time : Last1	*CTL	[- / **-** / -]
101	Initialize Time : Latest	*CTL	[- / **-** / -]
102	Initialize Time : Last1	*CTL	[- / **-** / -]

7851	**[Unified Counter]**		
	SP8951-007 refers to this SP.		
001	Copy Program Number Registered	*CTL	[0 to 255 / **0** / 1 /step]

7852	[DF Glass Dust Check]		
001	Dust Detection Counter	*ENG	[0 to 65535 / **0** / 1/step]
	Records the times detecting dust at all points of front side scan position. When there is a dust even when before starting the next job, consider as same dust and doesn't count. Counts when SP4-020-001: DF scan glass part dust detect front is ON.		
002	Dust Counter Clear Counter	*ENG	[0 to 65535 / **0** / 1/step]
	For checking front side scan position move effect. Counts the times that strips were avoided by detecting dust and move the sheet thrugh DF scan position. Counts when SP4-020-001: DF scan glass part dust detect front is ON.		
003	Dust Detection Counter: Back	*ENG	[0 to 65535 / **0** / 1/step]
	For Single Path simultaneous duplex models only. Records the times detecting dust at all points of rear side scan position. When there is a same dust even when before starting the next job, consider as same dust and doesn't count. * Counts when SP4-020-011: DF		

7853	[Replace Counter]		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	

071	# PCU:Y	ENG	[0 to 255 / **0** / 1/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **0** / 1/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **0** / 1/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 to 255 / **0** / 1/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 255 / **0** / 1/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	

7901	**[Assert Info.]**		
	Records the location where a problem is detected in the program. The data stored in this SP is used for problem analysis.		
001	File Name	*CTL	[- / **-** / -]
002	Number of Lines	*CTL	[- / **-** / -]
003	Location	*CTL	[- / **-** / -]

7903	**[Internal Processing/Factor Setting for Key/Card Counter]**		
	-		
***		CTL	[0 to 1000 / **-** / - /step]

7906	**[Previous Unit Counter:Distance]**		
	-		
002	# PCU:K	ENG	[0 to 4294967295 / **0** / 1mm/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 4294967295 / **0** / 1mm/step]
026	# Dev Unit:C	ENG	
027	Developer: C	ENG	
048	# PCU:M	ENG	[0 to 4294967295 / **0** / 1mm/step]
049	# Dev Unit:M	ENG	
050	Developer: M	ENG	
071	# PCU:Y	ENG	[0 to 4294967295 / **0** / 1mm/step]
072	# Dev Unit:Y	ENG	
073	Developer: Y	ENG	
093	# ITB Unit	ENG	[0 to 4294967295 / **0** / 1mm/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 999999999 / **0** / 1/step]

221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	
230	Low Speed: # PCU:K	ENG	[0 to 4294967295 / **0** / 1mm/step]
231	Low Speed: # PCU:C	ENG	
232	Low Speed: # PCU:M	ENG	
233	Low Speed: # PCU:Y	ENG	
234	Middle Speed: # PCU:K	ENG	[0 to 4294967295 / **0** / 1mm/step]
235	Middle Speed: # PCU:C	ENG	
236	Middle Speed: # PCU:M	ENG	
237	Middle Speed: # PCU:Y	ENG	

7907	**[Previous Unit Cntr:Distance(%)]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1%/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1%/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1%/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **0** / 1%/step]
072	# Dev Unit:Y	ENG	

073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **0** / 1%/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 255 / **0** / 1%/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	

7908	**[Previous Unit Counter:Pages(%)]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1%/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1%/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1%/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **0** / 1%/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	

093	# ITB Unit	ENG	[0 to 255 / **0** / 1%/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **0** / 1%/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 to 255 / **0** / 1%/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7931	**[Toner Bottle Bk]**		
001	Machine Serial ID	*ENG	[0 to 255 / **0** / 1/step]
	Model code used with model code API.		
002	Cartridge Ver	*ENG	[0 to 255 / **0** / 1/step]
003	Brand ID	*ENG	[0 to 255 / **0** / 1/step]
004	Area ID	*ENG	[0 to 255 / **0** / 1/step]
005	Product ID	*ENG	[0 to 255 / **0** / 1/step]
	Records identification information of supply amount information.		
006	Color ID	*ENG	[0 to 255 / **0** / 1/step]
007	Maintenance ID	*ENG	[0 to 255 / **0** / 1/step]
008	New Product Information	*ENG	[0 to 255 / **0** / 1/step]
009	Recycle Counter	*ENG	[0 to 255 / **0** / 1/step]
010	Date	*ENG	[0 or 1 / **0** / 1/step]

	Use for the individual toner detect.		
011	SerialNo.	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
012	Toner Remaining	*ENG	[0 to 100 / **100** / 1%/step]
	Keeps data with 1% step.		
013	EDP Code	*ENG	[0 or 1 / **0** / 1/step]
	EDP code of toner.		
014	End History	*ENG	[0 or 1 / **0** / 1/step]
	Detect history or toner end, near end.		
015	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		
016	Attachment: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
017	Attachment: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner installed.		
018	End: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner ended. Write also when near end.		
019	End: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner ended. Write also when near end.		
020	Attachment Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
021	End Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner ended. Write also when near end.		

7932	**[Toner Bottle M]**		
001	Machine Serial ID	*ENG	[0 to 255 / **0** / 1/step]
	Model code used with model code API.		
002	Cartridge Ver	*ENG	[0 to 255 / **0** / 1/step]
003	Brand ID	*ENG	[0 to 255 / **0** / 1/step]
004	Area ID	*ENG	[0 to 255 / **0** / 1/step]
005	Product ID	*ENG	[0 to 255 / **0** / 1/step]
	Records identification information of supply amount information.		
006	Color ID	*ENG	[0 to 255 / **0** / 1/step]
007	Maintenance ID	*ENG	[0 to 255 / **0** / 1/step]
008	New Product Information	*ENG	[0 to 255 / **0** / 1/step]
009	Recycle Counter	*ENG	[0 to 255 / **0** / 1/step]
010	Date	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
011	SerialNo.	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
012	Toner Remaining	*ENG	[0 to 100 / **100** / 1%/step]
	Keeps data with 1% step.		
013	EDP Code	*ENG	[0 or 1 / **0** / 1/step]
	EDP code of toner.		
014	End History	*ENG	[0 or 1 / **0** / 1/step]
	Detect history or toner end, near end.		
015	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		
016	Attachment: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		

017	Attachment: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner installed.		
018	End: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner ended. Write also when near end.		
019	End: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner ended. Write also when near end.		
020	Attachment Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
021	End Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner ended. Write also when near end.		

7933	**[Toner Bottle C]**		
001	MachineSerialID	*ENG	[0 to 255 / **0** / 1/step]
	Model code used with model code API.		
002	Cartridge Ver	*ENG	[0 to 255 / **0** / 1/step]
003	Brand ID	*ENG	[0 to 255 / **0** / 1/step]
004	Area ID	*ENG	[0 to 255 / **0** / 1/step]
005	Product ID	*ENG	[0 to 255 / **0** / 1/step]
	Records identification information of supply amount information.		
006	Color ID	*ENG	[0 to 255 / **0** / 1/step]
007	Maintenance ID	*ENG	[0 to 255 / **0** / 1/step]
008	New Product Information	*ENG	[0 to 255 / **0** / 1/step]
009	Recycle Counter	*ENG	[0 to 255 / **0** / 1/step]
010	Date	*ENG	[0 or 1 / **0** / 1/step]

	Use for the individual toner detect.		
011	SerialNo.	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
012	Toner Remaining	*ENG	[0 to 100 / **100** / 1%/step]
	Keeps data with 1% step.		
013	EDP Code	*ENG	[0 or 1 / **0** / 1/step]
	EDP code of toner.		
014	End History	*ENG	[0 or 1 / **0** / 1/step]
	Detect history or toner end, near end.		
015	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		
016	Attachment: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
017	Attachment: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner installed.		
018	End: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner ended. Write also when near end.		
019	End: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner ended. Write also when near end.		
020	Attachment Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
021	End Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner ended. Write also when near end.		

7934	**[Toner Bottle Y]**		
001	MachineSerialID	*ENG	[0 to 255 / **0** / 1/step]
	Model code used with model code API.		
002	Cartridge Ver	*ENG	[0 to 255 / **0** / 1/step]
003	Brand ID	*ENG	[0 to 255 / **0** / 1/step]
004	Area ID	*ENG	[0 to 255 / **0** / 1/step]
005	Product ID	*ENG	[0 to 255 / **0** / 1/step]
	Records identification information of supply amount information.		
006	Color ID	*ENG	[0 to 255 / **0** / 1/step]
007	Maintenance ID	*ENG	[0 to 255 / **0** / 1/step]
008	New Product Information	*ENG	[0 to 255 / **0** / 1/step]
009	Recycle Counter	*ENG	[0 to 255 / **0** / 1/step]
010	Date	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
011	SerialNo.	*ENG	[0 or 1 / **0** / 1/step]
	Use for the individual toner detect.		
012	Toner Remaining	*ENG	[0 to 100 / **100** / 1%/step]
	Keeps data with 1% step.		
013	EDP Code	*ENG	[0 or 1 / **0** / 1/step]
	EDP code of toner.		
014	End History	*ENG	[0 or 1 / **0** / 1/step]
	Detect history or toner end, near end.		
015	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		
016	Attachment: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		

017	Attachment: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner installed.		
018	End: Total Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner ended. Write also when near end.		
019	End: Color Counter	*ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit color counter value in binary data when toner ended. Write also when near end.		
020	Attachment Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
021	End Date	*ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner ended. Write also when near end.		

7935	**[Toner Bottle Log 1: Bk]**		
001	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
002	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
003	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
004	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7935	**[Toner Bottle Log 2: Bk]**		
011	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		

012	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
013	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
014	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7935	**[Toner Bottle Log 3: Bk]**		
021	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
022	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
023	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
024	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7935	**[Toner Bottle Log 4: Bk]**		
031	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
032	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
033	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
034	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7935	[Toner Bottle Log 5: Bk]		
041	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
042	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
043	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
044	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7936	[Toner Bottle Log 1: M]		
001	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
002	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
003	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
004	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7936	[Toner Bottle Log 2: M]		
011	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
012	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
013	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]

	Writes main unit total counter value in binary data when toner installed.		
014	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7936	**[Toner Bottle Log 3: M]**		
021	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
022	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
023	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
024	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7936	**[Toner Bottle Log 4: M]**		
031	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
032	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
033	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
034	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7936	[Toner Bottle Log 5: M]		
041	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
042	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
043	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
044	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7937	[Toner Bottle Log 1: C]		
001	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
002	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
003	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
004	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7937	[Toner Bottle Log 2: C]		
011	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
012	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		

013	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
014	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7937	**[Toner Bottle Log 3: C]**		
021	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
022	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
023	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
024	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7937	**[Toner Bottle Log 4: C]**		
031	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
032	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
033	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
034	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7937	[Toner Bottle Log 5: C]		
041	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
042	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
043	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
044	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7938	[Toner Bottle Log 1: Y]		
001	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
002	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
003	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
004	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7938	[Toner Bottle Log 2: Y]		
011	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
012	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		

013	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
014	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7938	**[Toner Bottle Log 3: Y]**		
021	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
022	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
023	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
024	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7938	**[Toner Bottle Log 4: Y]**		
031	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
032	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
033	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
034	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7938	[Toner Bottle Log 5: Y]		
041	SerialNo.	ENG	[0 or 1 / **0** / 1/step]
	Display conventional ASCII 16 byte in 8byte BCD.		
042	Attachment Date	ENG	[0 or 1 / **0** / 1/step]
	Write year/month/day of toner installed.		
043	Attachment: Total Counter	ENG	[0 to 99999999 / **0** / 1/step]
	Writes main unit total counter value in binary data when toner installed.		
044	Refill Information	*ENG	[0 or 1 / **0** / 1/step]
	Refill detect, IS ware detect information.		

7940	[PM Value Setting:Life Distance]		
	-		
002	# PCU:K	ENG	[0 to 999999999 / **0** / 1mm/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	[0 to 999999999 / **201151581** / 1mm/step]
025	# PCU:C	ENG	[0 to 999999999 / **0** / 1mm/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 999999999 / **0** / 1mm/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 999999999 / **0** / 1mm/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	

093	# ITB Unit	ENG	[0 to 999999999 / **287359403** / 1mm/step]
102	# ITB Cleaning Unit	ENG	[0 to 999999999 / **143679701** / 1mm/step]
109	# PTR Unit	ENG	[0 to 999999999 / **191572935** / 1mm/step]
115	# Fusing Unit	ENG	[0 to 999999999 / **291305000** / 1mm/step]
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 999999999 / **3024000** / 1/step]
221	Toner Sub Hopper:C	ENG	[0 to 999999999 / **3024000** / 1/step]
222	Toner Sub Hopper:M	ENG	[0 to 999999999 / **3132000** / 1/step]
223	Toner Sub Hopper:Y	ENG	[0 to 999999999 / **3024000** / 1/step]

7942	**[PM Counter Display:Distance(%)]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1%/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1%/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1%/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **0** / 1%/step]

072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **0** / 1%/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 255 / **0** / 1%/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	

7944	**[PM Counter Display: Distance]**		
	-		
002	# PCU:K	*ENG	[0 to 4294967295 / **0** / 1mm/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	*ENG	[0 to 4294967295 / **0** / 1mm/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	*ENG	[0 to 4294967295 / **0** / 1mm/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	*ENG	[0 to 4294967295 / **0** / 1mm/step]

072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 4294967295 / **0** / 1mm/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 999999999 / **0** / 1/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	
230	Low Speed: # PCU:K	ENG	[0 to 4294967295 / **0** / 1mm/step]
231	Low Speed: # PCU:C	ENG	
232	Low Speed: # PCU:M	ENG	
233	Low Speed: # PCU:Y	ENG	
234	Middle Speed: # PCU:K	ENG	[0 to 4294967295 / **0** / 1mm/step]
235	Middle Speed: # PCU:C	ENG	
236	Middle Speed: # PCU:M	ENG	
237	Middle Speed: # PCU:Y	ENG	

7950	**[Unit Replacement Date]**		
	-		
002	# PCU:K	*ENG	[0 or 1 / **0** / 1/step]
003	# Dev Unit:K	*ENG	
004	Developer:K	*ENG	

011	Lubricant Bar:K	*ENG	
025	# PCU:C	*ENG	[0 or 1 / **0** / 1/step]
026	# Dev Unit:C	*ENG	
027	Developer:C	*ENG	
048	# PCU:M	*ENG	[0 or 1 / **0** / 1/step]
049	# Dev Unit:M	*ENG	
050	Developer:M	*ENG	
071	# PCU:Y	*ENG	[0 or 1 / **0** / 1/step]
072	# Dev Unit:Y	*ENG	
073	Developer:Y	*ENG	
093	# ITB Unit	*ENG	[0 or 1 / **0** / 1/step]
102	# ITB Cleaning Unit	*ENG	
109	# PTR Unit	*ENG	
115	# Fusing Unit	*ENG	
116	Fusing Belt	*ENG	
118	Pressure Roller	*ENG	
131	Dust Filter: Ozone Duct	*ENG	[0 or 1 / **0** / 1/step]
132	Dust Filter: Fan Duct	*ENG	
142	Waste Toner Bottle	*ENG	
206	ADF Pick-up Roller	*ENG	[0 or 1 / **0** / 1/step]
207	ADF Supply Belt	*ENG	
208	ADF Reverse Roller	*ENG	
220	Toner Sub Hopper:K	*ENG	[0 or 1 / **0** / 1/step]
221	Toner Sub Hopper:C	*ENG	
222	Toner Sub Hopper:M	*ENG	
223	Toner Sub Hopper:Y	*ENG	

7951	[Remain Day Counter: Pages]		
	-		
002	# PCU:K	ENG	[0 to 255 / **255** / 1day/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **255** / 1day/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **255** / 1day/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **255** / 1day/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **255** / 1day/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **255** / 1day/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 to 255 / **255** / 1day/step]

207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7952	**[Remain Day Counter: Distance]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **255** / 1day/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **255** / 1day/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **255** / 1day/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **255** / 1day/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **255** / 1day/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
220	Toner Sub Hopper:K	ENG	[0 to 255 / **255** / 1day/step]
221	Toner Sub Hopper:C	ENG	

222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	

7953	**[Operation Env. Log: PCU: K]**		
	T: Temperature (C), H Relative humidity (%). Displays PCU: K running distance in each temperature/humidity devision.		
001	T<=0	ENG	[0 to 999999999 / **0** / 1mm/step]
002	0<T<=5:0<=H<30	ENG	[0 to 999999999 / **0** / 1mm/step]
003	0<T<=5:30<=H<70	ENG	
004	0<T<=5:70<=H<=100	ENG	
005	5<T<15:0<=H<30	ENG	[0 to 999999999 / **0** / 1mm/step]
006	5<T<15:30<=H<55	ENG	
007	5<T<15:55<=H<80	ENG	
008	5<T<15:80<=H<=100	ENG	
009	15<=T<25:0<=H<30	ENG	[0 to 999999999 / **0** / 1mm/step]
010	15<=T<25:30<=H<55	ENG	
011	15<=T<25:55<=H<80	ENG	
012	15<=T<25:80<=H<=100	ENG	
013	25<=T<30:0<=H<30	ENG	[0 to 999999999 / **0** / 1mm/step]
014	25<=T<30:30<=H<55	ENG	
015	25<=T<30:55<=H<80	ENG	
016	25<=T<30:80<=H<=100	ENG	
017	30<=T:0<=H<30	ENG	[0 to 999999999 / **0** / 1mm/step]
018	30<=T:30<=H<55	ENG	
019	30<=T:55<=H<80	ENG	
020	30<=T:80<=H<=100	ENG	

021	35<=T:0<=H<=100	ENG	[0 to 999999999 / **0** / 1mm/step]

7953	**[Operation Env. Log Clear]**		
	Clear Operating environment log.		
100	-	ENG	[0 or 1 / **0** / 1/step]

7954	**[PM Counter Display: Pages (%)]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1%/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1%/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1%/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **0** / 1%/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **0** / 1%/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	

118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **0** / 1%/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 to 255 / **0** / 1%/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7955	**[Estimated Remain Pages]**		
	-		
002	# PCU:K	ENG	[0 to 9999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 9999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 9999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 9999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 9999999 / **0** / 1page/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	

116	Fusing Belt	ENG	
118	Pressure Roller	ENG	

7956	**[Estimated Remain Days]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **255** / 1day/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **255** / 1day/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **255** / 1day/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **255** / 1day/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **255** / 1day/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **255** / 1day/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	

206	ADF Pick-up Roller	ENG	[0 to 255 / **255** / 1day/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7957	**[Monthly Average Pages]**		
	-		
002	# PCU:K	ENG	[0 to 9999999 / **0** / 1page/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
025	# PCU:C	ENG	[0 to 9999999 / **0** / 1page/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 9999999 / **0** / 1page/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 9999999 / **0** / 1page/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 9999999 / **0** / 1page/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	

7958	[PM Value Setting:DaysThreshold]		
	-		
002	# PCU:K	ENG	[1 to 30 / **15** / 1day/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[1 to 30 / **15** / 1day/step]
026	# Dev Unit:C	ENG	
027	Developer:C	ENG	
048	# PCU:M	ENG	[1 to 30 / **15** / 1day/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[1 to 30 / **15** / 1day/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[1 to 30 / **15** / 1day/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[1 to 30 / **15** / 1day/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[1 to 30 / **15** / 1day/step]

207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	
220	Toner Sub Hopper:K	ENG	[1 to 30 / **15** / 1day/step]
221	Toner Sub Hopper:C	ENG	
222	Toner Sub Hopper:M	ENG	
223	Toner Sub Hopper:Y	ENG	

7959	**[Fusing: Stop]**		
001	Near End: Page	ENG	[0 to 99999999 / **415000** / 1page/step]
	Displays life deterioration near end threshold of fusing R.		
002	End: Page	ENG	[0 to 99999999 / **430000** / 1page/step]
	Displays life deterioration end threshold of fusing belt.		
003	Near End: Rotation	ENG	[0 to 999999999 / **302229000** / 1mm/step]
	Displays life deterioration near end running distance of fusing R.		
004	End: Rotation	ENG	[0 to 999999999 / **313153000** / 1mm/step]
	Displays life deterioration end running distance of fusing R.		

7960	**[Estimated Usage Rate]**		
	-		
002	# PCU:K	ENG	[0 to 255 / **0** / 1%/step]
003	# Dev Unit:K	ENG	
004	Developer:K	ENG	
011	Lubricant Bar:K	ENG	
025	# PCU:C	ENG	[0 to 255 / **0** / 1%/step]
026	# Dev Unit:C	ENG	

027	Developer:C	ENG	
048	# PCU:M	ENG	[0 to 255 / **0** / 1%/step]
049	# Dev Unit:M	ENG	
050	Developer:M	ENG	
071	# PCU:Y	ENG	[0 to 255 / **0** / 1%/step]
072	# Dev Unit:Y	ENG	
073	Developer:Y	ENG	
093	# ITB Unit	ENG	[0 to 255 / **0** / 1%/step]
102	# ITB Cleaning Unit	ENG	
109	# PTR Unit	ENG	
115	# Fusing Unit	ENG	
116	Fusing Belt	ENG	
118	Pressure Roller	ENG	
131	Dust Filter: Ozone Duct	ENG	[0 to 255 / **0** / 1%/step]
132	Dust Filter: Fan Duct	ENG	
142	Waste Toner Bottle	ENG	
206	ADF Pick-up Roller	ENG	[0 to 255 / **0** / 1%/step]
207	ADF Supply Belt	ENG	
208	ADF Reverse Roller	ENG	

7970	**[Cumulative Counter]**		
001	Rotation:Bk Opc Drive Unit	*ENG	[0 to 9999999 / **0** / 1m/step]
	Displays running distance count since first use.		
002	Rotation:Color Opc Drive Unit	*ENG	[0 to 9999999 / **0** / 1m/step]
	Displays running distance count since first use.		

008	Rotation:Fusing Drive Unit	*ENG	[0 to 9999999 / **0** / 1m/step]
	Displays running distance count since first use.		
010	Count:Paper Transfer On-Off Drive Unit	*ENG	[0 to 9999999 / **0** / 1/step]
	Displays operating time count since first use.		
011	Page:Feed Drive Unit	*ENG	[0 to 9999999 / **0** / 1page/step]
	Displays sheets count since first use.		
012	Page:Registration Drive Unit	*ENG	[0 to 9999999 / **0** / 1page/step]
	Displays sheets count since first use.		

7972	**[Yield Counter]**		
001	Bk Opc Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life running distance threshold.		
002	Color Opc Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life running distance threshold.		
008	Fusing Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life running distance threshold.		
010	Paper Transfer On-Off Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life operating times threshold.		
011	Feed Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life sheets threshold.		
012	Registration Drive Unit	*ENG	[0 to 200 / **0** / 1%/step]
	Displays reach level till life sheets threshold.		

7974	**[Yield Setting]**		
001	Bk Opc Drive Unit	*ENG	[0 to 9999999 / **D146: 548197, D147: 548197, D148: 1370493, D149: 1370493, D150: 1370493** / 1m/step]
	Displays life running distance threshold of unit.		
002	Color Opc Drive Unit	*ENG	[0 to 9999999 / **601098** / 1m/step]
	Displays life running distance threshold of unit.		
008	Fusing Drive Unit	*ENG	[0 to 9999999 / **913662** / 1m/step]
	Displays life running distance threshold of unit.		
010	Paper Transfer On-Off Drive Unit	*ENG	[0 to 9999999 / **1650000** / 1/step]
	Displays life operating times threshold of unit.		
011	Feed Drive Unit	*ENG	[0 to 9999999 / **3300000** / 1page/step]
	Displays life sheets threshold of unit.		
012	Registration Drive Unit	*ENG	[0 to 9999999 / **3300000** / 1page/step]
	Displays life sheets threshold of unit.		

7976	**[Guaranteed Parameter]**		
	Sets life warranty value of unit.		
001	Rotation:Bk Opc Drive Unit	*ENG	[0 to 9999999 / **D146: 548197, D147: 548197, D148: 1370493, D149: 1370493, D150: 1370493** / 1m/step]
002	Rotation:Color Opc Drive Unit	*ENG	[0 to 9999999 / **601098** / 1m/step]
008	Rotation:Fusing Drive Unit	*ENG	[0 to 9999999 / **913662** / 1m/step]
010	Count:Paper Transfer On-Off Drive Unit	*ENG	[0 to 9999999 / **1500000** / 1/step]
011	Page:Feed Drive Unit	*ENG	[0 to 9999999 / **3000000** / 1page/step]
012	Page:Registration Drive Unit	*ENG	[0 to 9999999 / **3000000** / 1page/step]

2.10 MAIN SP TABLES-8

2.10.1 SP8-XXX (DATA LOG 2)

Many of these counters are provided for features that are currently not available, such as sending color faxes, and so on. However, here are some Group 8 codes that when used in combination with others, can provide useful information.

SP Numbers	What They Do
SP8211 to SP8216	The number of pages scanned to the document server.
SP8401 to SP8406	The number of pages printed from the document server
SP8691 to SP8696	The number of pages sent from the document server

Specifically, the following questions can be answered:

§ How is the document server actually being used?

§ What application is using the document server most frequently?

§ What data in the document server is being reused?

Most of the SPs in this group are prefixed with a letter that indicates the mode of operation (the mode of operation is referred to as an "application"). Before reading the Group 8 Service Table, make sure that you understand what these prefixes mean.

<table>
<tr><th>Prefixes</th><th colspan="2">What it means</th></tr>
<tr><td>T:</td><td>Total: (Grand Total).</td><td>Grand total of the items counted for all applications (C, F, P, etc.).</td></tr>
<tr><td>C:</td><td>Copy application.</td><td rowspan="4">Totals (pages, jobs, etc.) executed for each application when the job was not stored on the document server.</td></tr>
<tr><td>F:</td><td>Fax application.</td></tr>
<tr><td>P:</td><td>Print application.</td></tr>
<tr><td>S:</td><td>Scan application.</td></tr>
</table>

L:	Local storage (document server)	Totals (jobs, pages, etc.) for the document server. The L: counters work differently case by case. Sometimes, they count jobs/pages stored on the document server; this can be in document server mode (from the document server window), or from another mode, such as from a printer driver or by pressing the Store File button in the Copy mode window. Sometimes, they include occasions when the user uses a file that is already on the document server. Each counter will be discussed case by case.
O:	Other applications (external network applications, for example)	Refers to network applications such as Web Image Monitor. Utilities developed with the SDK (Software Development Kit) will also be counted with this group in the future.

The Group 8 SP codes are limited to 17 characters, forced by the necessity of displaying them on the small LCDs of printers and faxes that also use these SPs. Read over the list of abbreviations below and refer to it again if you see the name of an SP that you do not understand.

Keys and abbreviations in Data Log 2

Abbreviation	What it means
/	"By", e.g. "T:Jobs/Apl" = Total Jobs "by" Application
>	More (2> "2 or more", 4> "4 or more"
AddBook	Address Book
Apl	Application
B/W	Black & White
Bk	Black
C	Cyan
ColCr	Color Create
ColMode	Color Mode

Abbreviation	What it means
Comb	Combine
Comp	Compression
Deliv	Delivery
DesApl	Designated Application. The application (Copy, Fax, Scan, Print) used to store the job on the document server, for example.
Dev Counter	Development Count, no. of pages developed.
Dup, Duplex	Duplex, printing on both sides
Emul	Emulation
FC	Full Color
FIN	Post-print processing, i.e. finishing (punching, stapling, etc.)
Full Bleed	No Margins
GenCopy	Generation Copy Mode
GPC	Get Print Counter. For jobs 10 pages or less, this counter does not count up. For jobs larger than 10 pages, this counter counts up by the number that is in excess of 10 (e.g., for an 11-page job, the counter counts up 11-10 =1)
IFax	Internet Fax
ImgEdt	Image Edit performed on the original with the copier GUI, e.g. border removal, adding stamps, page numbers, etc.
K	Black (YMCK)
LS	Local Storage. Refers to the document server.
LSize	Large (paper) Size
Mag	Magnification
MC	One color (monochrome)

Abbreviation	What it means
NRS	New Remote Service, which allows a service center to monitor machines remotely. "NRS" is used overseas, "CSS" is used in Japan.
Org	Original for scanning
OrgJam	Original Jam
Palm 2	Print Job Manager/Desk Top Editor: A pair of utilities that allows print jobs to be distributed evenly among the printers on the network, and allows files to moved around, combined, and converted to different formats.
PC	Personal Computer
PGS	Pages. A page is the total scanned surface of the original. Duplex pages count as two pages, and A3 simplex count as two pages if the A3/DLT counter SP is switched ON.
PJob	Print Jobs
Ppr	Paper
PrtJam	Printer (plotter) Jam
PrtPGS	Print Pages
R	Red (Toner Remaining). Applies to the wide format model A2 only. This machine is under development and currently not available.
Rez	Resolution
SC	Service Code (Error SC code displayed)
Scn	Scan
Sim, Simplex	Simplex, printing on 1 side.
S-to-Email	Scan-to-E-mail
SMC	SMC report printed with SP5990. All of the Group 8 counters are recorded in the SMC report.
Svr	Server

Abbreviation	What it means
TonEnd	Toner End
TonSave	Toner Save
TXJob	Send, Transmission
YMC	Yellow, Magenta, Cyan
YMCK	Yellow, Magenta, Cyan, Black

Note

§ All of the Group 8 SPs are able to reset by “SP5 801 1 Memory All Clear”.

8001	**[T:Total Jobs]**	*CTL	These SPs count the number of times each application is used to do a job. [0 to 99999999 / **-** / 1] **Note**: The L: counter is the total number of times the other applications are used to send a job to the document server, plus the number of times a file already on the document server is used.
8002	**[C:Total Jobs]**	*CTL	
8003	**[F:Total Jobs]**	*CTL	
8004	**[P:Total Jobs]**	*CTL	
8005	**[S:Total Jobs]**	*CTL	
8006	**[L:Total Jobs]**	*CTL	

§ These SPs reveal the number of times an application is used, not the number of pages processed.
§ When an application is opened for image input or output, this counts as one job.
§ Interrupted jobs (paper jams, etc.) are counted, even though they do not finish.
§ Only jobs executed by the customer are counted. Jobs executed by the customer engineer using the SP modes are not counted.
§ When using secure printing (when a password is required to start the print job), the job is counted at the time when either "Delete Data" or "Specify Output" is specified.
§ A job is counted as a fax job when the job is stored for sending.
§ When a fax is received to fax memory, the F: counter increments but the L: counter does not (the document server is not used).
§ A fax broadcast counts as one job for the F: counter (the fax destinations in the broadcast are not counted separately).
§ A fax broadcast is counted only after all the faxes have been sent to their destinations. If one transmission generates an error, then the broadcast will not be counted until the transmission

has been completed.

§ A printed fax report counts as one job for the F: counter.

§ The F: counter does not distinguish between fax sending or receiving.

§ When a copy job on the document server is printed, SP8022 also increments, and when a print job stored on the document server is printed, SP8024 also increments.

§ When an original is both copied and stored on the document server, the C: and L: counters both increment.

§ When a print job is stored on the document server, only the L: counter increments.

§ When the user presses the Document Server button to store the job on the document server, only the L: counter increments.

§ When the user enters document server mode and prints data stored on the document server, only the L: counter increments.

§ When an image received from Palm 2 is received and stored, the L: counter increments.

§ When the customer prints a report (user code list, for example), the O: counter increments. However, for fax reports and reports executed from the fax application, the F: counter increments.

8011	**[T:Jobs/LS]**	*CTL	These SPs count the number of jobs stored to the document server by each application, to reveal how local storage is being used for input. [0 to 9999999 / **0** / 1] The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8012	**[C:Jobs/LS]**	*CTL	
8013	**[F:Jobs/LS]**	*CTL	
8014	**[P:Jobs/LS]**	*CTL	
8015	**[S:Jobs/LS]**	*CTL	
8016	**[L:Jobs/LS]**	*CTL	
8017	**[O:Jobs/LS]**	*CTL	

§ When a scan job is sent to the document server, the S: counter increments. When you enter document server mode and then scan an original, the L: counter increments.

§ When a print job is sent to the document server, the P: counter increments.

§ When a network application sends data to the document server, the O: counter increments.

§ When an image from Palm 2 is stored on the document server, the O: counter increments.

§ When a fax is sent to the document server, the F: counter increments.

8021	**[T:Pjob/LS]**	*CTL	These SPs reveal how files printed from

8022	**[C:Pjob/LS]**	*CTL	the document server were stored on the document server originally. [0 to 9999999 / **0** / 1] The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel.
8023	**[F:Pjob/LS]**	*CTL	
8024	**[P:Pjob/LS]**	*CTL	
8025	**[S:Pjob/LS]**	*CTL	
8026	**[L:Pjob/LS]**	*CTL	
8027	**[O:Pjob/LS]**	*CTL	

§ When a copy job stored on the document server is printed with another application, the C: counter increments.
§ When an application like DeskTopBinder merges a copy job that was stored on the document server with a print job that was stored on the document server, the C: and P: counters both increment.
§ When a job already on the document server is printed with another application, the L: counter increments.
§ When a scanner job stored on the document server is printed with another application, the S: counter increments. If the original was scanned from within document server mode, then the L: counter increments.
§ When images stored on the document server by a network application (including Palm 2), are printed with another application, the O: counter increments.
§ When a copy job stored on the document server is printed with a network application (Web Image Monitor, for example), the C: counter increments.
§ When a fax on the document server is printed, the F: counter increments.

8031	**[T:Pjob/DesApl]**	*CTL	These SPs reveal what applications were used to output documents from the document server. [0 to 9999999 / **0** / 1] The L: counter counts the number of jobs printed from within the document server mode screen at the operation panel.
8032	**[C:Pjob/DesApl]**	*CTL	
8033	**[F:Pjob/DesApl]**	*CTL	
8034	**[P:Pjob/DesApl]**	*CTL	
8035	**[S:Pjob/DesApl]**	*CTL	
8036	**[L:Pjob/DesApl]**	*CTL	
8037	**[O:Pjob/DesApl]**	*CTL	

§ When documents already stored on the document server are printed, the count for the

application that started the print job is incremented.

§ When the print job is started from a network application (Desk Top Binder, Web Image Monitor, etc.) the L: counter increments.

8041	**[T:TX Jobs/LS]**	*CTL	These SPs count the applications that stored files on the document server that were later accessed for transmission over the telephone line or over a network (attached to an e-mail, or as a fax image by I-Fax). [0 to 9999999 / **0** / 1] **Note:** Jobs merged for sending are counted separately. The L: counter counts the number of jobs scanned from within the document server mode screen at the operation panel.
8042	**[C:TX Jobs/LS]**	*CTL	
8043	**[F:TX Jobs/LS]**	*CTL	
8044	**[P:TX Jobs/LS]**	*CTL	
8045	**[S:TX Jobs/LS]**	*CTL	
8046	**[L:TX Jobs/LS]**	*CTL	
8047	**[O:TX Jobs/LS]**	*CTL	

§ When a stored copy job is sent from the document server, the C: counter increments.

§ When images stored on the document server by a network application or Palm2 are sent as an e-mail, the O: counter increments.

8051	**[T:TX Jobs/DesApl]**	*CTL	These SPs count the applications used to send files from the document server over the telephone line or over a network (attached to an e-mail, or as a fax image by I-Fax). Jobs merged for sending are counted separately. [0 to 9999999 / **0** / 1] The L: counter counts the number of jobs sent from within the document server mode screen at the operation panel.
8052	**[C:TX Jobs/DesApl]**	*CTL	
8053	**[F:TX Jobs/DesApl]**	*CTL	
8054	**[P:TX Jobs/DesApl]**	*CTL	
8055	**[S:TX Jobs/DesApl]**	*CTL	
8056	**[L:TX Jobs/DesApl]**	*CTL	
8057	**[O:TX Jobs/DesApl]**	*CTL	

§ If the send is started from Desk Top Binder or Web Image Monitor, for example, then the O: counter increments.

8061	**[T:FIN Jobs]**		
	These SPs total the finishing methods. The finishing method is specified by the application.		
8062	**[P:FIN Jobs]**		
	These SPs total finishing methods for print jobs only. The finishing method is specified by the application.		
8063	**[F:FIN Jobs]**		
	These SPs total finishing methods for fax jobs only. The finishing method is specified by the application. **Note:** Finishing features for fax jobs are not available at this time.		
8064	**[P:FIN Jobs]**		
	These SPs total finishing methods for print jobs only. The finishing method is specified by the application.		
8065	**[S:FIN Jobs]**		
	These SPs total finishing methods for scan jobs only. The finishing method is specified by the application. **Note**: Finishing features for scan jobs are not available at this time.		
8066	**[L:FIN Jobs]**		
	These SPs total finishing methods for jobs output from within the document server mode screen at the operation panel. The finishing method is specified from the print window within document server mode.		
8067	**[O:FIN Jobs]**		
	These SPs total finishing methods for jobs executed by an external application, over the network. The finishing method is specified by the application.		
001	Sort	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started in Sort mode.		
002	Stack	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started out of Sort mode.		

003	Staple	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started in Staple mode.		
004	Booklet	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started in Booklet mode. If the machine is in staple mode, the Staple counter also increments.		
005	Z-Fold	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started In any mode other than the Booklet mode and set for folding (Z-fold).		
006	Punch	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of jobs started in Punch mode. When Punch is set for a print job, the P: counter increments. (See SP8-064-6.)		
007	Other	*CTL	[0 to 9999999 / **0** / 1 / step]
	(Reserved)		
008	Inside-Flod	*CTL	[0 to 9999999 / **0** / 1 / step]
009	Three-In-Fold	*CTL	[0 to 9999999 / **0** / 1 / step]
010	Three-OUT-Fold	*CTL	[0 to 9999999 / **0** / 1 / step]
011	Four-Fold	*CTL	[0 to 9999999 / **0** / 1 / step]
012	KANNON-Fold	*CTL	[0 to 9999999 / **0** / 1 / step]
013	Perfect-Bind	*CTL	[0 to 9999999 / **0** / 1 / step]
014	Ring-Bind	*CTL	[0 to 9999999 / **0** / 1 / step]

8071	**[T:Jobs/PGS]**
	These SPs count the number of jobs broken down by the number of pages in the job, regardless of which application was used.
8072	**[C:Jobs/PGS]**
	These SPs count and calculate the number of copy jobs by size based on the number of pages in the job.
8073	**[F:Jobs/PGS]**

	These SPs count and calculate the number of fax jobs by size based on the number of pages in the job.		
8074	**[P:Jobs/PGS]**		
	These SPs count and calculate the number of print jobs by size based on the number of pages in the job.		
8075	**[S:Jobs/PGS]**		
	These SPs count and calculate the number of scan jobs by size based on the number of pages in the job.		
8076	**[L:Jobs/PGS]**		
	These SPs count and calculate the number of jobs printed from within the document server mode window at the operation panel, by the number of pages in the job.		
8077	**[O:Jobs/PGS]**		
	These SPs count and calculate the number of "Other" application jobs (Web Image Monitor, Palm 2, etc.) by size based on the number of pages in the job.		
001	1 Page	*CTL	[0 to 99999999 / **0** / 1 / step]
002	2 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
003	3 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
004	4 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
005	5 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
006	6 to 10 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
007	11 to 20 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
008	21 to 50 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
009	51 to 100 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
010	101 to 300 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
011	301 to 500 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
012	501 to 700 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
013	701 to 1000 Pages	*CTL	[0 to 99999999 / **0** / 1 / step]

014	1001 to Pages	*CTL	[0 to 99999999 / **0** / 1 / step]

§ For example: When a copy job stored on the document server is printed in document server mode, the appropriate L: counter (SP8076 0xx) increments.
§ Printing a fax report counts as a job and increments the F: counter (SP 8073).
§ Interrupted jobs (paper jam, etc.) are counted, even though they do not finish.
§ If a job is paused and re-started, it counts as one job.
§ If the finisher runs out of staples during a print and staple job, then the job is counted at the time the error occurs.
§ For copy jobs (SP 8072) and scan jobs (SP 8075), the total is calculated by multiplying the number of sets of copies by the number of pages scanned. (One duplex page counts as 2.)
§ The first test print and subsequent test prints to adjust settings are added to the number of pages of the copy job (SP 8072).
§ When printing the first page of a job from within the document server screen, the page is counted.

8111	**[T:FAX TX Jobs]**		
	These SPs count the total number of jobs (color or black-and-white) sent by fax, either directly or using a file stored on the document server, on a telephone line. **Note:** Color fax sending is not available at this time.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]

8113	**[F: FAX TX Jobs]**		
	These SPs count the total number of jobs (color or black-and-white) sent by fax directly on a telephone line. **Note:** Color fax sending is not available at this time.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]

§ These counters count jobs, not pages.
§ This SP counts fax jobs sent over a telephone line with a fax application, including documents stored on the document server.
§ If the mode is changed during the job, the job will count with the mode set when the job

started.

§ If the same document is faxed to both a public fax line and an I-Fax at a destination where both are available, then this counter increments, and the I-Fax counter (8 12x) also increments.

§ The fax job is counted when the job is scanned for sending, not when the job is sent.

8121	**[T:IFAX TX Jobs]**		
	These SPs count the total number of jobs (color or black-and-white) sent, either directly or using a file stored on the document server, as fax images using I-Fax. **Note:** Color fax sending is not available at this time.		
8123	**[F: IFAX TX Jobs]**		
	These SPs count the number of jobs (color or black-and-white) sent (not stored on the document server), as fax images using I-Fax. **Note:** Color fax sending is not available at this time.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]

§ These counters count jobs, not pages.

§ The counters for color are provided for future use; the color fax feature is not available at this time.

§ The fax job is counted when the job is scanned for sending, not when the job is sent.

8131	**[T:S-to-Email Jobs]**		
	These SPs count the total number of jobs (color or black-and-white) scanned and attached to an e-mail, regardless of whether the document server was used or not.		
8135	**[S: S-to-Email Jobs]**		
	These SPs count the number of jobs (color or black-and-white) scanned and attached to e-mail, without storing the original on the document server.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]

003	ACS	*CTL	[0 to 9999999 / **0** / 1 / step]

§ These counters count jobs, not pages.
§ If the job is stored on the document server, after the job is stored it is determined to be color or black-and-white then counted.
§ If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be sent, the job is not counted.
§ If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
§ If several jobs are combined for sending to the Scan Router, Scan-to-Email, or Scan-to-PC, or if one job is sent to more than one destination. each send is counted separately. For example, if the same document is sent by Scan-to-Email as well as Scan-to-PC, then it is counted twice (once for Scan-to-Email and once for Scan-to-PC).

8141	**[T:Deliv Jobs/Svr]**		
	These SPs count the total number of jobs (color or black-and-white) scanned and sent to a Scan Router server.		
8145	**[S: Deliv Jobs/Svr]**		
	These SPs count the number of jobs (color or black-and-white) scanned in scanner mode and sent to a Scan Router server.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]
003	ACS	*CTL	[0 to 9999999 / **0** / 1 / step]

§ These counters count jobs, not pages.
§ The jobs are counted even though the arrival and reception of the jobs at the Scan Router server cannot be confirmed.
§ If even one color image is mixed with black-and-white images, then the job is counted as a "Color" job.
§ If the job is cancelled during scanning, or if the job is cancelled while the document is waiting to be delivered, the job is not counted.
§ If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
§ Even if several files are combined for sending, the transmission counts as one job.

8151	**[T:Deliv Jobs/PC]**		
	These SPs count the total number of jobs (color or black-and-white) scanned and sent to a folder on a PC (Scan-to-PC). **Note:** At the present time, 8 151 and 8 155 perform identical counts.		
8155	**[S:Deliv Jobs/PC]**		
	These SPs count the total number of jobs (color or black-and-white) scanned and sent with Scan-to-PC.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]
003	ACS	*CTL	[0 to 9999999 / **0** / 1 / step]

§ These counters count jobs, not pages.
§ If the job is cancelled during scanning, it is not counted.
§ If the job is cancelled while it is waiting to be sent, the job is not counted.
§ If the job is cancelled during sending, it may or may not be counted, depending on what stage of the process had been reached when the job was cancelled.
§ Even if several files are combined for sending, the transmission counts as one job.

8161	**[T:PCFAX TX Jobs]**	*CTL	These SPs count the number of PC Fax transmission jobs. A job is counted from when it is registered for sending, not when it is sent. [0 to 9999999 / **0** / 1 / step] **Note:** At the present time, these counters perform identical counts.
8163	**[F:PCFAX TX Jobs]**	*CTL	

§ This counts fax jobs started from a PC using a PC fax application, and sending the data out to the destination from the PC through the copier.

8171	**[T:Deliv Jobs/WSD]**
	These SPs count the pages scanned by WS.
8175	**[S:Deliv Jobs/WSD]**
	These SPs count the pages scanned by WS.

001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]
003	ACS	*CTL	[0 to 9999999 / **0** / 1 / step]

8181	**[T:Scan to Media Jobs]**		
	These SPs count the scanned pages in a media by the scanner application.		
8185	**[S:Scan to Media Jobs]**		
	These SPs count the scanned pages in a media by the scanner application.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 / step]
003	ACS	*CTL	[0 to 9999999 / **0** / 1 / step]

8191	**[T:Total Scan PGS]**	*CTL	These SPs count the pages scanned by each application that uses the scanner to scan images. [0 to 9999999 / **0** / 1]
8192	**[C:Total Scan PGS]**	*CTL	
8193	**[F:Total Scan PGS]**	*CTL	
8195	**[S:Total Scan PGS]**	*CTL	
8196	**[L:Total Scan PGS]**	*CTL	

§ SP 8 191 to 8 196 count the number of scanned sides of pages, not the number of physical pages.

§ These counters do not count reading user stamp data, or reading color charts to adjust color.

§ Previews done with a scanner driver are not counted.

§ A count is done only after all images of a job have been scanned.

§ Scans made in SP mode are not counted.

Examples

§ If 3 B5 pages and 1 A3 page are scanned with the scanner application but not stored, the S: count is 4.

§ If both sides of 3 A4 sheets are copied and stored to the document server using the Store File button in the Copy mode window, the C: count is 6 and the L: count is 6.

§ If both sides of 3 A4 sheets are copied but not stored, the C: count is 6.

§ If you enter document server mode then scan 6 pages, the L: count is 6.

8201	**[T:LSize Scan PGS]**	*CTL	[0 to 9999999 / **0** / 1 / step]
	These SPs count the total number of large pages input with the scanner for scan and copy jobs. Large size paper (A3/DLT) scanned for fax transmission are not counted. **Note:** These counters are displayed in the SMC Report, and in the User Tools display.		
8203	**[F: LSize Scan PGS]**	*CTL	[0 to 9999999 / **0** / 1 / step]
	These SPs count the total number of large pages input with the scanner for fax transmission. **Note:** These counters are displayed in the SMC Report, and in the User Tools display.		
8205	**[S:LSize Scan PGS]**	*CTL	[0 to 9999999 / **0** / 1 / step]
	These SPs count the total number of large pages input with the scanner for scan jobs only. Large size paper (A3/DLT) scanned for fax transmission are not counted. **Note:** These counters are displayed in the SMC Report, and in the User Tools display.		

8211	**[T:Scan PGS/LS]**	*CTL	These SPs count the number of pages scanned into the document server. [0 to 9999999 / **0** / 1] The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen
8212	**[C:Scan PGS/LS]**	*CTL	
8213	**[F:Scan PGS/LS]**	*CTL	
8215	**[S:Scan PGS/LS]**	*CTL	
8216	**[L:Scan PGS/LS]**	*CTL	

§ Reading user stamp data is not counted.

§ If a job is cancelled, the pages output as far as the cancellation are counted.

§ If the scanner application scans and stores 3 B5 sheets and 1 A4 sheet, the S: count is 4.

§ If pages are copied but not stored on the document server, these counters do not change.

§ If both sides of 3 A4 sheets are copied and stored to the document server, the C: count is 6 and the L: count is 6.

§ If you enter document server mode then scan 6 pages, the L: count is 6.

8221	**[ADF Org Feeds]**		
	These SPs count the number of pages fed through the ADF for front and back side scanning.		
001	Front	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of front sides fed for scanning: With an ADF that can scan both sides simultaneously, the Front side count is the same as the number of pages fed for either simplex or duplex scanning. With an ADF that cannot scan both sides simultaneously, the Front side count is the same as the number of pages fed for duplex front side scanning. (The front side is determined by which side the user loads face up.)		
002	Back	*CTL	[0 to 9999999 / **0** / 1 / step]
	Number of rear sides fed for scanning: With an ADF that can scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex scanning. With an ADF that cannot scan both sides simultaneously, the Back count is the same as the number of pages fed for duplex rear-side scanning.		

§ When 1 sheet is fed for duplex scanning the Front count is 1 and the Back count is 1.

§ If a jam occurs during the job, recovery processing is not counted to avoid double counting. Also, the pages are not counted if the jam occurs before the first sheet is output.

8231	**[Scan PGS/Mode]**		
	These SPs count the number of pages scanned by each ADF mode to determine the work load on the ADF.		
001	Large Volume	*CTL	[0 to 9999999 / **0** / 1 / step]
	Selectable. Large copy jobs that cannot be loaded in the ADF at one time.		
002	SADF	*CTL	[0 to 9999999 / **0** / 1 / step]
	Selectable. Feeding pages one by one through the ADF.		
003	Mixed Size	*CTL	[0 to 9999999 / **0** / 1 / step]
	Selectable. Select "Mixed Sizes" on the operation panel.		
004	Custom Size	*CTL	[0 to 9999999 / **0** / 1 / step]

	Selectable. Originals of non-standard size.		
005	Platen	*CTL	[0 to 9999999 / **0** / 1 / step]
	Book mode. Raising the ADF and placing the original directly on the platen.		
006	Mixed 1side/ 2side	*CTL	[0 to 9999999 / **0** / 1 / step]
	Simplex and Duplex mode.		

§ If the scan mode is changed during the job, for example, if the user switches from ADF to Platen mode, the count is done for the last selected mode.

§ The user cannot select mixed sizes or non-standard sizes with the fax application so if the original's page sizes are mixed or non-standard, these are not counted.

§ If the user selects "Mixed Sizes" for copying in the platen mode, the Mixed Size count is enabled.

§ In the SADF mode if the user copies 1 page in platen mode and then copies 2 pages with SADF, the Platen count is 1 and the SADF count is 3.

8241	**[T:Scan PGS/Org]**	*CTL	[0 to 9999999 / **0** / 1 / step
	These SPs count the total number of scanned pages by original type for all jobs, regardless of which application was used.		
8242	**[C:Scan PGS/Org]**	*CTL	[0 to 9999999 / **0** / 1 / step
	These SPs count the number of pages scanned by original type for Copy jobs.		
8243	**[F:Scan PGS/Org]**	*CTL	[0 to 9999999 / **0** / 1 / step
	These SPs count the number of pages scanned by original type for Fax jobs.		
8245	**[S:Scan PGS/Org]**	*CTL	[0 to 9999999 / **0** / 1 / step
	These SPs count the number of pages scanned by original type for Scan jobs.		
8246	**[L:Scan PGS/Org]**	*CTL	[0 to 9999999 / **0** / 1 / step
	These SPs count the number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen		

		8241	**8242**	**8243**	**8245**	**8246**
001	Text	Yes	Yes	Yes	Yes	Yes

002	Text/Photo	Yes	Yes	Yes	Yes	Yes
003	Photo	Yes	Yes	Yes	Yes	Yes
004	GenCopy, Pale	Yes	Yes	No	Yes	Yes
005	Map	Yes	Yes	No	Yes	Yes
006	Normal/Detail	Yes	No	Yes	No	No
007	Fine/Super Fine	Yes	No	Yes	No	No
008	Binary	Yes	No	No	Yes	No
009	Grayscale	Yes	No	No	Yes	No
010	Color	Yes	No	No	Yes	No
011	Other	Yes	Yes	Yes	Yes	Yes

§ If the scan mode is changed during the job, for example, if the user switches from ADF to Platen mode, the count is done for the last selected mode.

8251	**[T:Scan PGS/ImgEdt]**	*CTL	These SPs show how many times Image Edit features have been selected at the operation panel for each application. Some examples of these editing features are: Erase> Border Erase> Center Image Repeat Centering Positive/Negative [0 to 9999999 / **0** / 1 / step] Note: The count totals the number of times the edit features have been used. A detailed breakdown of exactly which features have been used is not given.
8252	**[C:Scan PGS/ImgEdt]**	*CTL	
8254	**[P:Scan PGS/ImgEdt]**	*CTL	
8255	**[S:Scan PGS/ImgEdr]**	*CTL	
8256	[L:Scan PGS/ImgEdt]	*CTL	
8257	**[O:Scan PGS/ImgEdt]**	*CTL	

The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen.

8261	**[T:Scan PGS/ColCr]**		
8262	**[C:Scan PGS/ ColCr]**		
8265	**[S:Scn PGS/Color]**		
8266	**[L:Scn PGS/ColCr]**		
	These SPs show how many times color creation features have been selected at the operation panel.		
001	Color Conversion	*CTL	[0 to 9999999 / **0** / 1 / step]
002	Color Erase	*CTL	[0 to 9999999 / **0** / 1 / step]
003	Background	*CTL	[0 to 9999999 / **0** / 1 / step]
004	Other	*CTL	[0 to 9999999 / **0** / 1 / step]

8281	**[T:Scan PGS/TWAIN]**	*CTL	These SPs count the number of pages scanned using a TWAIN driver. These counters reveal how the TWAIN driver is used for delivery functions. [0 to 9999999 / **0** / 1 / step] **Note:** At the present time, these counters perform identical counts.
8285	**[S:Scan PGS/TWAIN]**	*CTL	

8291	**[T:Scan PGS/Stamp]**	*CTL	These SPs count the number of pages stamped with the stamp in the ADF unit. [0 to 9999999 / **0** / 1 / step] The L: counter counts the number of pages stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen
8293	**[F:Scan PGS/Stamp]**	*CTL	
8295	**[S:Scan PGS/Stamp]**	*CTL	

8301	**[T:Scan PGS/Size]**		
	These SPs count by size the total number of pages scanned by all applications. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-441].		
8302	**[C:Scan PGS/Size]**		
	These SPs count by size the total number of pages scanned by the Copy application. Use these totals to compare original page size (scanning) and output (printing) page size [SP 8-442].		
8303	**[F:Scan PGS/Size]**		
	These SPs count by size the total number of pages scanned by the Fax application. Use these totals to compare original page size (scanning) and output page size [SP 8-443].		
8305	**[S:Scan PGS/Size]**		
	These SPs count by size the total number of pages scanned by the Scan application. Use these totals to compare original page size (scanning) and output page size [SP 8-445].		
8306	**[L:Scan PGS/Size]**		
	These SPs count by size the total number of pages scanned and stored from within the document server mode screen at the operation panel, and with the Store File button from within the Copy mode screen. Use these totals to compare original page size (scanning) and output page size [SP 8-446].		
001	A3	*CTL	[0 to 9999999 / **0** / 1 / step]
002	A4	*CTL	[0 to 9999999 / **0** / 1 / step]
003	A5	*CTL	[0 to 9999999 / **0** / 1 / step]
004	B4	*CTL	[0 to 9999999 / **0** / 1 / step]
005	B5	*CTL	[0 to 9999999 / **0** / 1 / step]
006	DLT	*CTL	[0 to 9999999 / **0** / 1 / step]
007	LG	*CTL	[0 to 9999999 / **0** / 1 / step]
008	LT	*CTL	[0 to 9999999 / **0** / 1 / step]

009	HLT	*CTL	[0 to 9999999 / **0** / 1 / step]
010	Full Bleed	*CTL	[0 to 9999999 / **0** / 1 / step]
254	Other (Standard)	*CTL	[0 to 9999999 / **0** / 1 / step]
255	Other (Custom)	*CTL	[0 to 9999999 / **0** / 1 / step]

8311	T:Scan PGS/Rez	*CTL	[0 to 9999999/ 0 / 1]
	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings.		
8315	S: Scan PGS/Rez	*CTL	[0 to 9999999/ 0 / 1]
	These SPs count by resolution setting the total number of pages scanned by applications that can specify resolution settings. Note: At the present time, SP8-311 and SP8-315 perform identical counts.		
001	1200dpi <	*CTL	[0 to 9999999 / **0** / 1 / step]
002	600dpi to 1199dpi	*CTL	[0 to 9999999 / **0** / 1 / step]
003	400dpi to 599dpi	*CTL	[0 to 9999999 / **0** / 1 / step]
004	200dpi to 399dpi	*CTL	[0 to 9999999 / **0** / 1 / step]
005	< 199dpi	*CTL	[0 to 9999999 / **0** / 1 / step]

§ Copy resolution settings are fixed so they are not counted.

§ The Fax application does not allow finely-adjusted resolution settings so no count is done for the Fax application.

8381	**[T:Total PrtPGS]**	*CTL	These SPs count the number of pages printed by the customer. The counter for the application used for storing the pages increments. [0 to 99999999 / **0** / 1 / step]
8382	**[C:Total PrtPGS]**	*CTL	
8383	**[F:Total PrtPGS]**	*CTL	
8384	**[P:Total PrtPGS]**	*CTL	
8385	**[S:Total PrtPGS]**	*CTL	
8386	**[L:Total PrtPGS]**	*CTL	
8387	**[O:Total PrtPGS]**	*CTL	

§ When the A3/DLT double count function is switched on with SP5104, 1 A3/DLT page is counted as 2.

§ When several documents are merged for a print job, the number of pages stored are counted for the application that stored them.

§ These counters are used primarily to calculate charges on use of the machine, so the following pages are not counted as printed pages:
- Blank pages in a duplex printing job.
- Blank pages inserted as document covers, chapter title sheets, and slip sheets.
- Reports printed to confirm counts.
- All reports done in the service mode (service summaries, engine maintenance reports, etc.)
- Test prints for machine image adjustment.
- Error notification reports.
- Partially printed pages as the result of a copier jam.

8391	LSize PrtPGS	*CTL	[0 to 99999999 / **0** / 1 / step]
	These SPs count pages printed on paper sizes A3/DLT and larger. **Note:** In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.		

8401	**[T:PrtPGS/LS]**	*CTL	These SPs count the number of pages printed from the document server. The counter for the application used to print the pages is incremented. The L: counter counts the number of jobs stored from within the document server mode screen at the operation panel. [0 to 9999999 / **0** / 1 / step]
8402	**[C:PrtPGS/LS]**	*CTL	
8403	**[F:PrtPGS/LS]**	*CTL	
8404	**[P:PrtPGS/LS]**	*CTL	
8405	**[S:PrtPGS/LS]**	*CTL	
8406	**[L:PrtPGS/LS]**	*CTL	

§ Print jobs done with Web Image Monitor and Desk Top Binder are added to the L: count.

§ Fax jobs done with Web Image Monitor and Desk Top Binder are added to the F: count.

8411	Prints/Duplex	*CTL	This SP counts the amount of paper (front/back counted as 1 page) used for duplex printing. Last pages printed only on one side are not counted. [0 to 99999999 / **0** / 1]

8421	**[T:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing. This is the total for all applications.		
8422	**[C:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the copier application.		
8423	**[F:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the fax application.		
8424	**[P:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the printer application.		
8425	**[S:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by the scanner application.		
8426	**[L:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing from within the document server mode window at the operation panel.		
8427	**[O:PrtPGS/Dup Comb]**		
	These SPs count by binding and combine, and n-Up settings the number of pages processed for printing by Other applications		
001	Simplex> Duplex	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Duplex> Duplex	*CTL	[0 to 99999999 / **0** / 1 / step]

003	Book> Duplex	*CTL	[0 to 99999999 / **0** / 1 / step]
004	Simplex Combine	*CTL	[0 to 99999999 / **0** / 1 / step]
005	Duplex Combine	*CTL	[0 to 99999999 / **0** / 1 / step]
006	2in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	2 pages on 1 side (2-Up)		
007	4 in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	4 pages on 1 side (4-Up)		
008	6 in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	6 pages on 1 side (6-Up)		
009	8 in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	8 pages on 1 side (8-Up)		
010	9 in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	9 pages on 1 side (9-Up)		
011	16 in1	*CTL	[0 to 99999999 / **0** / 1 / step]
	16 pages on 1 side (16-Up)		
012	Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
013	Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]
014	2-in-1 + Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
015	4-in-1 + Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
016	6-in-1 + Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
017	8-in-1 + Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
018	9-in-1 + Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
019	2-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]
020	4-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]
021	6-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]
022	8-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]

023	9-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]
024	16-in-1 + Magazine	*CTL	[0 to 99999999 / **0** / 1 / step]

§ These counts (SP8 421 to SP8 427) are especially useful for customers who need to improve their compliance with ISO standards for the reduction of paper consumption.

§ Pages that are only partially printed with the n-Up functions are counted as 1 page.

§ Here is a summary of how the counters work for Booklet and Magazine modes:

Booklet		Magazine	
Original Pages	Count	Original Pages	Count
1	1	1	1
2	2	2	2
3	2	3	2
4	2	4	2
5	3	5	4
6	4	6	4
7	4	7	4
8	4	8	4

8431	**[T:PrtPGS/ImgEdt]**
	These SPs count the total number of pages output with the three features below, regardless of which application was used.
8432	**[C:PrtPGS/ImgEdt]**
	These SPs count the total number of pages output with the three features below with the copy application.
8434	**[P:PrtPGS/ImgEdt]**
	These SPs count the total number of pages output with the three features below with the print application.
8436	**[L:PrtPGS/ImgEdt]**

	These SPs count the total number of pages output from within the document server mode window at the operation panel with the three features below.		
8437	**[O:PrtPGS/ImgEdt]**		
	These SPs count the total number of pages output with the three features below with Other applications.		
001	Cover/Slip Sheet	*CTL	[0 to 99999999 / **0** / 1 / step]
	Total number of covers or slip sheets inserted. The count for a cover printed on both sides counts 2.		
002	Series/Book	*CTL	[0 to 99999999 / **0** / 1 / step]
	The number of pages printed in series (one side) or printed as a book with booklet right/left pagination.		
003	User Stamp	*CTL	[0 to 99999999 / **0** / 1 / step]
	The number of pages printed where stamps were applied, including page numbering and date stamping.		

8441	**[T:PrtPGS/Ppr Size]**
	These SPs count by print paper size the number of pages printed by all applications.
8442	**[C:PrtPGS/Ppr Size]**
	These SPs count by print paper size the number of pages printed by the copy application.
8443	**[F:PrtPGS/Ppr Size]**
	These SPs count by print paper size the number of pages printed by the fax application.
8444	**[P:PrtPGS/Ppr Size]**
	These SPs count by print paper size the number of pages printed by the printer application.
8445	**[S:PrtPGS/Ppr Size]**

	These SPs count by print paper size the number of pages printed by the scanner application.		
8446	**[L:PrtPGS/Ppr Size]**		
	These SPs count by print paper size the number of pages printed from within the document server mode window at the operation panel.		
8447	**[O:PrtPGS/Ppr Size]**		
	These SPs count by print paper size the number of pages printed by Other applications.		
001	A3	*CTL	[0 to 99999999 / **0** / 1 / step]
002	A4	*CTL	[0 to 99999999 / **0** / 1 / step]
003	A5	*CTL	[0 to 99999999 / **0** / 1 / step]
004	B4	*CTL	[0 to 99999999 / **0** / 1 / step]
005	B5	*CTL	[0 to 99999999 / **0** / 1 / step]
006	DLT	*CTL	[0 to 99999999 / **0** / 1 / step]
007	LG	*CTL	[0 to 99999999 / **0** / 1 / step]
008	LT	*CTL	[0 to 99999999 / **0** / 1 / step]
009	HLT	*CTL	[0 to 99999999 / **0** / 1 / step]
010	Full Bleed	*CTL	[0 to 99999999 / **0** / 1 / step]
254	Other (Standard)	*CTL	[0 to 99999999 / **0** / 1 / step]
255	Other (Custom)	*CTL	[0 to 99999999 / **0** / 1 / step]

§ These counters do not distinguish between LEF and SEF.

8451	**[PrtPGS/Ppr Tray]**		
	These SPs count the number of sheets fed from each paper feed station.		
001	Bypass Tray	*CTL	Bypass Tray [0 to 99999999 / **0** / 1 / step]
002	Tray 1	*CTL	Copier

003	Tray 2	*CTL	[0 to 99999999 / **0** / 1 / step]
004	Tray 3	*CTL	Paper Tray Unit (Option) [0 to 99999999 / **0** / 1 / step]
005	Tray 4	*CTL	
006	Tray 5	*CTL	LCT (Option) [0 to 99999999 / **0** / 1 / step]
007	Tray 6	*CTL	Currently not used.
008	Tray 7	*CTL	Currently not used.
009	Tray 8	*CTL	Currently not used.
010	Tray 9	*CTL	Currently not used.
011	Tray 10	*CTL	Currently not used.
012	Tray 11	*CTL	Currently not used.
013	Tray 12	*CTL	Currently not used.
014	Tray 13	*CTL	Currently not used.
015	Tray 14	*CTL	Currently not used.
016	Tray 15	*CTL	Currently not used.

8461	**[T:PrtPGS/Ppr Type]**
	These SPs count by paper type the number pages printed by all applications. § These counters are not the same as the PM counter. The PM counter is based on feed timing to accurately measure the service life of the feed rollers. However, these counts are based on output timing. § Blank sheets (covers, chapter covers, slip sheets) are also counted. § During duplex printing, pages printed on both sides count as 1, and a page printed on one side counts as 1.
8462	**[C:PrtPGS/Ppr Type]**
	These SPs count by paper type the number pages printed by the copy application.
8463	**[F:PrtPGS/Ppr Type]**

	These SPs count by paper type the number pages printed by the fax application.		
8464	**[P:PrtPGS/Ppr Type]**		
	These SPs count by paper type the number pages printed by the printer application.		
8466	**[L:PrtPGS/Ppr Type]**		
	These SPs count by paper type the number pages printed from within the document server mode window at the operation panel.		
001	Normal	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Recycled	*CTL	[0 to 99999999 / **0** / 1 / step]
003	Special	*CTL	[0 to 99999999 / **0** / 1 / step]
004	Thick	*CTL	[0 to 99999999 / **0** / 1 / step]
005	Normal (Back)	*CTL	[0 to 99999999 / **0** / 1 / step]
006	Thick (Back)	*CTL	[0 to 99999999 / **0** / 1 / step]
007	OHP	*CTL	[0 to 99999999 / **0** / 1 / step]
008	Other	*CTL	[0 to 99999999 / **0** / 1 / step]

8471	**[PrtPGS/Mag]**		
	These SPs count by magnification rate the number of pages printed.		
001	< 49%	*CTL	[0 to 99999999 / **0** / 1 / step]
002	50% to 99%	*CTL	
003	100%	*CTL	
004	101% to 200%	*CTL	
005	201% <	*CTL	

Counts are done for magnification adjusted for pages, not only on the operation panel but performed remotely with an external network application capable of performing magnification adjustment as well.

Magnification adjustments done with printer drivers with PC applications such as Excel are also

counted.
Magnification adjustments done for adjustments after they have been stored on the document server are not counted.
Magnification adjustments performed automatically during Auto Reduce/Enlarge copying are counted.
The magnification rates of blank cover sheets, slip sheets, etc. are automatically assigned a rate of 100%.

8481	**[T:PrtPGS/TonSave]**	*CTL	[0 to 99999999 / **0** / 1 / step]
8484	**[P:PrtPGS/TonSave]**	*CTL	
	These SPs count the number of pages printed with the Toner Save feature switched on. **Note:** These SPs return the same results as this SP is limited to the Print application.		

8491	**[T:PrtPGS/Col Mode]**		
8492	**[C:PrtPGS/Col Mode]**		
8493	**[F:PrtPGS/Col Mode]**		
8496	**[L:PrtPGS/Col Mode]**		
8497	**[O:PrtPGS/Col Mode]**		
001	B/W	*CTL	These SPs count the number of pages printed in the Color Mode by each application.
002	Single Color	*CTL	
003	Two Color	*CTL	
004	Full Color	*CTL	

8501	**[T:PrtPGS/Col Mode]**		
8504	**[P:PrtPGS/Col Mode]**		
8507	**[O:PrtPGS/Col Mode]**		
001	B/W	*CTL	These SPs count the number of pages printed in the Color Mode by the print application.
002	Mono Color	*CTL	
003	Full Color	*CTL	
004	Single Color	*CTL	
005	Two Color	*CTL	

8511	**[T:PrtPGS/Emul]**		
	These SPs count by printer emulation mode the total number of pages printed.		
8514	**[P:PrtPGS/Emul]**		
	These SPs count by printer emulation mode the total number of pages printed.		
001	RPCS	*CTL	[0 to 99999999 / **0** / 1 / step]
002	RPDL	*CTL	[0 to 99999999 / **0** / 1 / step]
003	PS3	*CTL	[0 to 99999999 / **0** / 1 / step]
004	R98	*CTL	[0 to 99999999 / **0** / 1 / step]
005	R16	*CTL	[0 to 99999999 / **0** / 1 / step]
006	GL/GL2	*CTL	[0 to 99999999 / **0** / 1 / step]
007	R55	*CTL	[0 to 99999999 / **0** / 1 / step]
008	RTIFF	*CTL	[0 to 99999999 / **0** / 1 / step]
009	PDF	*CTL	[0 to 99999999 / **0** / 1 / step]
010	PCL5e/5c	*CTL	[0 to 99999999 / **0** / 1 / step]
011	PCL XL	*CTL	[0 to 99999999 / **0** / 1 / step]

012	IPDL-C	*CTL	[0 to 99999999 / **0** / 1 / step]
013	BM-Links	*CTL	Japan Only
014	Other	*CTL	[0 to 99999999 / **0** / 1 / step]
015	IPDS	*CTL	[0 to 99999999 / **0** / 1 / step]

§ SP8 511 and SP8 514 return the same results as they are both limited to the Print application.

§ Print jobs output to the document server are not counted.

8521	**[T:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed by all applications.		
8522	**[C:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed by the Copy application.		
8523	**[F:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed by the Fax application. **NOTE**: Print finishing options for received faxes are currently not available.		
8524	**[P:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed by the Print application.		
8525	**[S:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed by the Scanner application.		
8526	**[L:PrtPGS/FIN]**		
	These SPs count by finishing mode the total number of pages printed from within the document server mode window at the operation panel.		
001	Sort	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Stack	*CTL	[0 to 99999999 / **0** / 1 / step]

003	Staple	*CTL	[0 to 99999999 / **0** / 1 / step]
004	Booklet	*CTL	[0 to 99999999 / **0** / 1 / step]
005	Z-Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
006	Punch	*CTL	[0 to 99999999 / **0** / 1 / step]
007	Other	*CTL	[0 to 99999999 / **0** / 1 / step]
008	Inside Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
	Half-Fold (FM2) (Multi Fold Unit)		
009	Three-IN-Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
	Letter Fold-in (FM4) (Multi Fold Unit)		
010	Three-OUT-Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
	Letter Fold-out (FM3) (Multi Fold Unit)		
011	Four Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
	Double Parallel Fold (FM5) (Multi Fold Unit)		
012	KANNON-Fold	*CTL	[0 to 99999999 / **0** / 1 / step]
	Gate Fold (FM6) (Multi Fold Unit)		
013	Perfect-Bind	*CTL	[0 to 99999999 / **0** / 1 / step]
	Perfect Binder		
014	Ring-Bind	*CTL	[0 to 99999999 / **0** / 1 / step]
	Ring Binder		

Note

§ If stapling is selected for finishing and the stack is too large for stapling, the unstapled pages are still counted.

§ The counts for staple finishing are based on output to the staple tray, so jam recoveries are counted.

8531	**[Staples]**	*CTL	This SP counts the amount of staples used by the machine. [0 to 9999999 / **0** / 1 / step]

8551	**[T:FIN Books]**		
001	Perfect-Bind	*CTL	Booklet finishing Not used
002	Ring-Bind	*CTL	

8552	**[C:FIN Books]**		
001	Perfect-Bind	*CTL	Booklet finishing Not used
002	Ring-Bind	*CTL	

8554	**[P:FIN Books]**		
001	Perfect-Bind	*CTL	Booklet finishing Not used
002	Ring-Bind	*CTL	

8556	**[L:FIN Books]**		
001	Perfect-Bind	*CTL	Booklet finishing Not used
002	Ring-Bind	*CTL	

8561	**[T:A Sheet Of Paper]**		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8562	[C:A Sheet Of Paper]		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8563	[F:A Sheet Of Paper]		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8564	[P:A Sheet Of Paper]		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8566	[L:A Sheet Of Paper]		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8567	**[O:A Sheet Of Paper]**		
001	Total: Over A3/DLT	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Under A3/DLT	*CTL	
003	Duplex: Over A3/DLT	*CTL	
004	Duplex: Under A3/DLT	*CTL	

8581	**[T:Counter]**		
	These SPs count the total output broken down by color output, regardless of the application used. In addition to being displayed in the SMC Report, these counters are also displayed in the User Tools display on the copy machine.		
001	Total	*CTL	[0 to 99999999 / **0** / 1]
002	Total: Full Color	*CTL	
003	B&W/Single Color	*CTL	
004	Development: CMY	*CTL	
005	Development: K	*CTL	
008	Print: Color	*CTL	
009	Print: B/W	*CTL	
010	Total: Color	*CTL	
011	Total: B/W	*CTL	[0 to 99999999 / **0** / 1]
012	Full Color: A3	*CTL	
013	Full Color: -B4	*CTL	
014	Full Color Print	*CTL	
015	Mono Color Print	*CTL	
017	Twin Color Mode Print	*CTL	
018	Full Color Print (Twin)	*CTL	
019	Mono Color Print (Twin)	*CTL	

020	Full Color Total (CV)	*CTL	
021	Mono Color Total (CV)	*CTL	[0 to 99999999 / **0** / 1]
022	Full Color Print (CV)	*CTL	
023	Eco Color Print (FC)	*CTL	
024	Eco Color Print (Bk)	*CTL	
025	Total: Color (Eco Bk)	*CTL	
026	Total: B/W (Eco Bk)	*CTL	
027	Total: Color (Eco FC)	*CTL	[0 to 99999999 / **0** / 1]
028	Development: CMY (A3)	*CTL	
029	Development: K (A3)	*CTL	
030	Total: Color (A3)	*CTL	
031	Total: B/W (A3)	*CTL	

8582	**[C:Counter]**		
	These SPs count the total output of the copy application broken down by color output.		
001	B/W	*CTL	[0 to 99999999 / **0** / 1]
002	Mono Color	*CTL	
003	Full Color	*CTL	
004	Single Color	*CTL	
005	Two Color	*CTL	

8583	**[F:Counter]**		
	These SPs count the total output of the fax application broken down by color output.		
001	B/W	*CTL	[0 to 99999999 / **0** / 1]
002	Mono Color	*CTL	

003	Full Color	*CTL	
004	Single Color	*CTL	
005	Two Color	*CTL	

8584	**[P:Counter]**		
	These SPs count the total output of the print application broken down by color output.		
001	B/W	*CTL	[0 to 99999999 / **0** / 1]
002	Mono Color	*CTL	
003	Full Color	*CTL	
004	Single Color	*CTL	
005	Two Color	*CTL	

8586	**[L:Counter]**		
	These SPs count the total output of the local storage broken down by color output.		
001	B/W	*CTL	[0 to 99999999 / **0** / 1]
002	Mono Color	*CTL	
003	Full Color	*CTL	
004	Single Color	*CTL	
005	Two Color	*CTL	

8591	**[O:Counter]**		
	These SPs count the totals for A3/DLT paper use, number of duplex pages printed, and the number of staples used. These totals are for Other (O:) applications only.		
001	A3/DLT	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Duplex	*CTL	

8601	[T:CvgCounter]		
	These SPs count the total coverage for each color and the total printout pages for each printing mode.		
001	Cvg: BW %	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Cvg: FC %	*CTL	
011	Cvg: BW Pages	*CTL	[0 to 9999999 / **0** / 1 / step]
012	Cvg: FC Pages	*CTL	[0 to 9999999 / **0** / 1 / step]
021	CvgCounter 1	*CTL	[0 to 9999999 / **0** / 1 / step]
022	CvgCounter 2	*CTL	
023	CvgCounter 3	*CTL	
031	CvgCounter 1(YMC)	*CTL	[0 to 9999999 / **0** / 1 / step]
032	CvgCounter 2(YMC)	*CTL	
033	CvgCounter 3(YMC)	*CTL	

8602	[C:CvgCounter]		
	-		
001	Cvg: B/W %	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Cvg: Single Color %	*CTL	
003	Cvg: Two Color %	*CTL	
004	Cvg: Full Color %	*CTL	

8603	[F:CvgCounter]		
	-		
001	Cvg: B/W %	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Cvg: Single Color %	*CTL	

8604	[P:CvgCounter]		
	-		
001	Cvg: B/W %	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Cvg: Single Color %	*CTL	
003	Cvg: Two Color %	*CTL	
004	Cvg: Full Color %	*CTL	

8606	[L:CvgCounter]		
	-		
001	Cvg: B/W %	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Cvg: Single Color %	*CTL	
003	Cvg: Two Color %	*CTL	
004	Cvg: Full Color %	*CTL	

8617	[SDK Apli Counter]		
	These SPs count the total printout pages for each SDK application.		
001	SDK-1	*CTL	[0 to 99999999 / **0** / 1 / step]
002	SDK-2	*CTL	
003	SDK-3	*CTL	
004	SDK-4	*CTL	
005	SDK-5	*CTL	
006	SDK-6	*CTL	

8621	Func Use Counter		
	-		
001	Function-001	*CTL	[0 to 99999999 / **0** / 1 / step]

002	Function-002	*CTL	
003	Function-003	*CTL	
004	Function-004	*CTL	
005	Function-005	*CTL	
006	Function-006	*CTL	[0 to 99999999 / **0** / 1 / step]
007	Function-007	*CTL	
008	Function-008	*CTL	
009	Function-009	*CTL	
010	Function-010	*CTL	
011	Function-011	*CTL	[0 to 99999999 / **0** / 1 / step]
012	Function-012	*CTL	
013	Function-013	*CTL	
014	Function-014	*CTL	
015	Function-015	*CTL	
016	Function-016	*CTL	[0 to 99999999 / **0** / 1 / step]
017	Function-017	*CTL	
018	Function-018	*CTL	
019	Function-019	*CTL	
020	Function-020	*CTL	
021	Function-021	*CTL	[0 to 99999999 / **0** / 1 / step]
022	Function-022	*CTL	
023	Function-023	*CTL	
024	Function-024	*CTL	
025	Function-025	*CTL	
026	Function-026	*CTL	[0 to 99999999 / **0** / 1 / step]
027	Function-027	*CTL	

028	Function-028	*CTL	
029	Function-029	*CTL	
030	Function-030	*CTL	
031	Function-031	*CTL	[0 to 99999999 / **0** / 1 / step]
032	Function-032	*CTL	
033	Function-033	*CTL	
034	Function-034	*CTL	
035	Function-035	*CTL	
036	Function-036	*CTL	
037	Function-037	*CTL	
038	Function-038	*CTL	
039	Function-039	*CTL	
040	Function-040	*CTL	
041	Function-041	*CTL	[0 to 99999999 / **0** / 1 / step]
042	Function-042	*CTL	
043	Function-043	*CTL	
044	Function-044	*CTL	
045	Function-045	*CTL	
046	Function-046	*CTL	
047	Function-047	*CTL	
048	Function-048	*CTL	
049	Function-049	*CTL	
050	Function-050	*CTL	
051	Function-051	*CTL	[0 to 99999999 / **0** / 1 / step]
052	Function-052	*CTL	
053	Function-053	*CTL	

054	Function-054	*CTL	
055	Function-055	*CTL	
056	Function-056	*CTL	
057	Function-057	*CTL	
058	Function-058	*CTL	
059	Function-059	*CTL	
060	Function-060	*CTL	
061	Function-061	*CTL	[0 to 99999999 / **0** / 1 / step]
062	Function-062	*CTL	
063	Function-063	*CTL	
064	Function-064	*CTL	

8631	**[T:FAX TX PGS]**		
	These SPs count by color mode the number of pages sent by fax to a telephone number.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

8633	**[F:FAX TX PGS]**		
	These SPs count by color mode the number of pages sent by fax to a telephone number.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

§ If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.

§ At the present time, this feature is provided for the Fax application only so SP8631 and SP8633 are the same.

§ The counts include error pages.

§ If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
§ Polling transmissions are counted but polling RX are not.
§ Relay, memory, and confidential mailbox transmissions and are counted for each destination.

8641	**[T:IFAX TX PGS]**		
	These SPs count by color mode the number of pages sent by fax to as fax images using I-Fax.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

8643	**[F:IFAX TX PGS]**		
	These SPs count by color mode the number of pages sent by Fax as fax images using I-Fax.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

§ If a document has color and black-and-white pages mixed, the pages are counted separately as B/W or Color.
§ At the present time, this feature is provided for the Fax application only so SP8641 and SP8643 are the same.
§ The counts include error pages.
§ If a document is sent to more than one destination with a Group transmission, the count is done for each destination.
§ Polling transmissions are counted but polling RX are not.
§ Relay, memory, and confidential mailbox transmissions and are counted for each destination.

8651	**[T:S-to-Email PGS]**		
	These SPs count by color mode the total number of pages attached to an e-mail for both the Scan and document server applications.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

8655	**[S:S-to-Email PGS]**		
	These SPs count by color mode the total number of pages attached to an e-mail for both the Scan and document server applications.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

Note

§ The count for B/W and Color pages is done after the document is stored on the HDD. If the job is cancelled before it is stored, the pages are not counted.

§ If Scan-to-Email is used to send a 10-page document to 5 addresses, the count is 10 (the pages are sent to the same SMTP server together).

§ If Scan-to-PC is used to send a 10-page document to 5 folders, the count is 50 (the document is sent to each destination of the SMB/FTP server).

§ Due to restrictions on some devices, if Scan-to-Email is used to send a 10-page document to a large number of destinations, the count may be divided and counted separately. For example, if a 10-page document is sent to 200 addresses, the count is 10 for the first 100 destinations and the count is also 10 for the second 100 destinations, for a total of 20.).

8661	**[T:Deliv PGS/Svr]**		
	These SPs count by color mode the total number of pages sent to a Scan Router server by both Scan and LS applications.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

8665	**[S:Deliv PGS/Svr]**		
	These SPs count by color mode the total number of pages sent to a Scan Router server by the Scan application.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

Note

§ The B/W and Color counts are done after the document is stored on the HDD of the Scan Router server.

§ If the job is canceled before storage on the Scan Router server finishes, the counts are not done.

§ The count is executed even if regardless of confirmation of the arrival at the Scan Router server.

8671	**[T:Deliv PGS/PC]**		
	These SPs count by color mode the total number of pages sent to a folder on a PC (Scan-to-PC) with the Scan and LS applications.		
8675	**[S: Deliv PGS/PC]**		
	These SPs count by color mode the total number of pages sent with Scan-to-PC with the Scan application.		
001	B/W	*CTL	[0 to 9999999 / **0** / 1 step]
002	Color	*CTL	[0 to 9999999 / **0** / 1 step]

8681	**[T:PCFAX TXPGS]**	*CTL	These SPs count the number of pages sent by PC Fax. These SPs are provided for the Fax application only, so the counts for SP8 681 and SP8 683 are the same. [0 to 9999999 / **0** / 1 / step]
8683	**[F:PCFAX TXPGS]**	*CTL	

§ This counts pages sent from a PC using a PC fax application, from the PC through the copier to the destination.

§ When sending the same message to more than one place using broadcasting, the pages are only counted once. (For example, a 10-page fax is sent to location A and location B. The counter goes up by 10, not 20.)

8691	**[T:TX PGS/LS]**	*CTL	These SPs count the number of pages sent from the document server. The counter for the application that was used to store the pages is incremented. [0 to 9999999/ **0** / 1 / step] The L: counter counts the number of pages stored from within the document server mode screen at the operation panel. Pages stored with the Store File button from within the Copy mode screen go to the C: counter.
8692	**[C:TX PGS/LS]**	*CTL	
8693	**[F:TX PGS/LS]**	*CTL	
8694	**[P:TX PGS/LS]**	*CTL	
8695	**[S:TX PGS/LS]**	*CTL	
8696	**[L:TX PGS/LS]**	*CTL	

Note

§ Print jobs done with Web Image Monitor and Desk Top Binder are added to the count.

§ If several documents are merged for sending, the number of pages stored are counted for the application that stored them.

§ When several documents are sent by a Fax broadcast, the F: count is done for the number of pages sent to each destination.

8701	**[TX PGS/Port]**		
	These SPs count the number of pages sent by the physical port used to send them. For example, if a 3-page original is sent to 4 destinations via ISDN G4, the count for ISDN (G3, G4) is 12.		
001	PSTN-1	*CTL	[0 to 9999999/ **0** / 1 / step]
002	PSTN-2	*CTL	[0 to 9999999/ **0** / 1 / step]
003	PSTN-3	*CTL	[0 to 9999999/ **0** / 1 / step]
004	ISDN (G3,G4)	*CTL	[0 to 9999999/ **0** / 1 / step]
005	Network	*CTL	[0 to 9999999/ **0** / 1 / step]

8711	**[T:Scan PGS/Comp]**		
8715	**[S:Scan PGS/Comp]**		
	These SPs count the number of pages sent by each compression mode.		
001	JPEG/JPEG2000	*CTL	[0 to 9999999/ **0** / 1 / step]
002	TIFF(Multi/Single)	*CTL	[0 to 9999999/ **0** / 1 / step]
003	PDF	*CTL	[0 to 9999999/ **0** / 1 / step]
004	Other	*CTL	[0 to 9999999/ **0** / 1 / step]
005	PDF/Comp	*CTL	[0 to 9999999/ **0** / 1 / step]
006	PDF/A	*CTL	[0 to 9999999/ **0** / 1 / step]
007	PDF(OCR)	*CTL	[0 to 9999999/ **0** / 1 / step]
008	PDF/Comp(OCR)	*CTL	[0 to 9999999/ **0** / 1 / step]

8721	**[T:Deliv PGS/WSD]**		
8725	**[S: Dvliv PGS/WSD]**		
	These SPs count the number of pages scanned by each scanner mode.		
001	B/W	*CTL	[0 to 9999999/ **0** / 1 / step]
002	Color	*CTL	[0 to 9999999/ **0** / 1 / step]

8731	**[T:Scan PGS/Media]**		
8735	**[S:Scan PGS/Media]**		
	These SPs count the number of pages scanned and saved in a meia by each scanner mode.		
001	B/W	*CTL	[0 to 9999999/ **0** / 1 / step]
002	Color	*CTL	[0 to 9999999/ **0** / 1 / step]

8741	**[RX PGS/Port]**		
	These SPs count the number of pages received by the physical port used to receive them.		
001	PSTN-1	*CTL	[0 to 9999999/ **0** / 1 / step]
002	PSTN-2	*CTL	[0 to 9999999/ **0** / 1 / step]
003	PSTN-3	*CTL	[0 to 9999999/ **0** / 1 / step]
004	ISDN (G3,G4)	*CTL	[0 to 9999999/ **0** / 1 / step]
005	Network	*CTL	[0 to 9999999/ **0** / 1 / step]

8771	**[Dev Counter]**		
	These SPs count the frequency of use (number of rotations of the development rollers) for black and other color toners.		
001	Total	*CTL	[0 to 99999999 / **0** / 1 / step]
002	K	*CTL	
003	Y	*CTL	
004	M	*CTL	
005	C	*CTL	

8781	Toner_Bottle_Info.	*ENG	[0 to 9999999 / **0** / 1 / step]
	These SPs display the number of already replaced toner bottles. NOTE: Currently, the data in SP7-833-011 through 014 and the data in SP8-781-001 through 004 are the same.		
001	Toner: BK	The number of black-toner bottles	
002	Toner: Y	The number of yellow-toner bottles	
003	Toner: M	The number of magenta-toner bottles	
004	Toner: C	The number of cyan-toner bottles	

8791	**[LS Memory Remain]**	*CTL	This SP displays the percent of space available on the document server for storing documents. [0 to 100 / **0** / 1 / step]

8801	**[Toner Remain]**		
	These SPs display the percent of toner remaining for each color. This SP allows the user to check the toner supply at any time. Note: This precise method of measuring remaining toner supply (1% steps) is better than other machines in the market that can only measure in increments of 10 (10% steps).		
001	K	*CTL	[0 to 100 / **0** / 1% / step]
002	Y	*CTL	
003	M	*CTL	
004	C	*CTL	

8811	**[Eco Counter]**		
	-		
001	Eco Total	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Color	*CTL	
003	Full Color	*CTL	
004	Duplex	*CTL	
005	Combine	*CTL	
006	Color (%)	*CTL	[0 to 100 / **0** / 1% / step]
007	Full Color (%)	*CTL	
008	Duplex (%)	*CTL	
009	Combine (%)	*CTL	
010	Paper Cut (%)	*CTL	
101	Eco Totalr:Last	*CTL	[0 to 99999999 / **0** / 1 / step]

102	Color:Last	*CTL	
103	Full Color:Last	*CTL	
104	Duplex:Last	*CTL	
105	Combine:Last	*CTL	
106	Color(%):Last	*CTL	[0 to 100 / **0** / 1% / step]
107	Full Color (%):Last	*CTL	
108	Duplex (%):Last	*CTL	
109	Combine (%):Last	*CTL	
110	Paper Cut (%):Last	*CTL	

8851	**[Cvr Cnt: 0-10%]**		
	These SPs display the number of scanned sheets on which the coverage of each color is from 0% to 10%.		
011	0 to 2%: BK	*ENG	[0 to 99999999 / **0** / 1 / step]
012	0 to 2%: Y	*ENG	
013	0 to 2%: M	*ENG	
014	0 to 2%: C	*ENG	
021	3 to 4%: BK	*ENG	[0 to 99999999 / **0** / 1 / step]
022	3 to 4%: Y	*ENG	
023	3 to 4%: M	*ENG	
024	3 to 4%: C	*ENG	
031	5 to 7%: BK	*ENG	[0 to 99999999 / **0** / 1 / step]
032	5 to 7%: Y	*ENG	
033	5 to 7%: M	*ENG	
034	5 to 7%: C	*ENG	
041	8 to 10%: BK	*ENG	[0 to 99999999 / **0** / 1 / step]

042	8 to 10%: Y	*ENG	
043	8 to 10%: M	*ENG	
044	8 to 10%: C	*ENG	

8861	**[Cvr Cnt: 11-20%]**		
	These SPs display the number of scanned sheets on which the coverage of each color is from 11% to 20%.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8871	**[Cvr Cnt: 21-30%]**		
	These SPs display the number of scanned sheets on which the coverage of each color is from 21% to 30%.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8881	**[Cvr Cnt: 31%-]**		
	These SPs display the number of scanned sheets on which the coverage of each color is 31% or higher.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8891	**[Page/Toner Bottle]**		
	These SPs display the amount of the remaining current toner for each color.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8901	**[Page/Ink_prev1]**		
	These SPs display the amount of the remaining previous toner for each color.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8911	**[Page/Ink_prev2]**		
	These SPs display the amount of the remaining 2nd previous toner for each color.		
001	BK	*ENG	[0 to 99999999 / **0** / 1 / step]
002	Y	*ENG	
003	M	*ENG	
004	C	*ENG	

8921	**[Cvr Cnt/Total]**		
	Displays the total coverage and total printout number for each color.		
001	Coverage (%) Bk	*CTL	[0 to 2147483647 / **0** / 1% / step]
002	Coverage (%) Y	*CTL	
003	Coverage (%) M	*CTL	

004	Coverage (%) C	*CTL	
011	Coverage /P: Bk	*CTL	[0 to 99999999 / **0** / 1 / step]
012	Coverage /P: Y	*CTL	
013	Coverage /P: M	*CTL	
014	Coverage /P: C	*CTL	

8941	**[Machine Status]**		
	These SPs count the amount of time the machine spends in each operation mode. These SPs are useful for customers who need to investigate machine operation for improvement in their compliance with ISO Standards.		
001	Operation Time	*CTL	[0 to 99999999 / **0** / 1 / step]
	Engine operation time. Does not include time while controller is saving data to HDD (while engine is not operating).		
002	Standby Time	*CTL	[0 to 99999999 / **0** / 1 / step]
	Engine not operating. Includes time while controller saves data to HDD. Does not include time spent in Energy Save, Low Power, or Off modes.		
003	Energy Save Time	*CTL	[0 to 99999999 / **0** / 10 / step]
	Includes time while the machine is performing background printing.		
004	Low Power Time	*CTL	[0 to 99999999 / **0** / 1 / step]
	Includes time in Energy Save mode with Engine on. Includes time while machine is performing background printing.		
005	Off Mode Time	*CTL	[0 to 99999999 / **0** / 1 / step]
	Includes time while machine is performing background printing. Does not include time machine remains powered off with the power switches.		
006	SC	*CTL	[0 to 99999999 / **0** / 1 / step]
	Total time when SC errors have been staying.		
007	PrtJam	*CTL	[0 to 99999999 / **0** / 1 / step]
	Total time when paper jams have been staying during printing.		

008	OrgJam	*CTL	[0 to 99999999 / **0** / 1 / step]
	Total time when original jams have been staying during scanning.		
009	Supply PM Unit End	*CTL	[0 to 99999999 / **0** / 1 / step]
	Total time when toner end has been staying		

8951	**[AddBook Register]**		
	These SPs count the number of events when the machine manages data registration.		
001	User Code/User ID	*CTL	[0 to 9999999/ **0** / 1 / step]
	User code registrations.		
002	Mail Address	*CTL	[0 to 9999999/ **0** / 1 / step]
	Mail address registrations.		
003	Fax Destination	*CTL	[0 to 9999999/ **0** / 1 / step]
	Fax destination registrations.		
004	Group	*CTL	[0 to 9999999/ **0** / 1 / step]
	Group destination registrations.		
005	Transfer Request	*CTL	[0 to 9999999/ **0** / 1 / step]
	Fax relay destination registrations for relay TX.		
006	F-Code	*CTL	[0 to 9999999/ **0** / 1 / step]
	F-Code box registrations.		
007	Copy Program	*CTL	[0 to 255 / **0** / 255 / step]
	Copy application registrations with the Program (job settings) feature.		
008	Fax Program	*CTL	[0 to 255 / **0** / 255 / step]
	Fax application registrations with the Program (job settings) feature.		
009	Printer Program	*CTL	[0 to 255 / **0** / 255 / step]
	Printer application registrations with the Program (job settings) feature.		

010	Scanner Program	*CTL	[0 to 255 / **0** / 255 / step]
	Scanner application registrations with the Program (job settings) feature.		

8961	**[Electricity Status]**		
	-		
001	Ctrl Standby Time	*CTL	[0 to 99999999 / **0** / 1 / step]
002	STR Time	*CTL	
003	Main Power Off Time	*CTL	
004	Reading and Printing Time	*CTL	
005	Printing Time	*CTL	[0 to 99999999 / **0** / 1 / step]
006	Reading Time	*CTL	
007	Eng Waiting Time	*CTL	
008	Low Power State Time	*CTL	
009	Silent State Time	*CTL	
010	Heater Off State Time	*CTL	
011	LCD on Time	*CTL	

8971	**[Unit Control]**		
	-		
001	Engine Off Recovery Count	*CTL	[0 to 99999999 / 0 / 1 / step]
002	Power Off Count	*CTL	
003	Force Power Off Count	*CTL	

8999	[AdminCounter]		
	Displays each total print out and total coverage.		
001	Total	*CTL	[0 to 99999999 / **0** / 1 / step]
002	Copy:FC	*CTL	[0 to 99999999 / **0** / 1 / step]
003	Copy:BW	*CTL	[0 to 99999999 / **0** / 1 / step]
004	Copy:OneC	*CTL	[0 to 99999999 / **0** / 1 / step]
005	Copy:TwoC	*CTL	[0 to 99999999 / **0** / 1 / step]
006	Printer:FC	*CTL	[0 to 99999999 / **0** / 1 / step]
007	Printer:BW	*CTL	[0 to 99999999 / **0** / 1 / step]
008	Printer:OneC	*CTL	[0 to 99999999 / **0** / 1 / step]
009	Printer:TwoC	*CTL	[0 to 99999999 / **0** / 1 / step]
010	FaxP:BW	*CTL	[0 to 99999999 / **0** / 1 / step]
011	FaxP:OneC	*CTL	[0 to 99999999 / **0** / 1 / step]
012	A3/DLT	*CTL	[0 to 99999999 / **0** / 1 / step]
013	Duplex	*CTL	[0 to 99999999 / **0** / 1 / step]
014	Cvg:FC %	*CTL	[0 to 2147483647 / **0** / 1% / step]
015	Cvg:BW %	*CTL	[0 to 2147483647 / **0** / 1% / step]
016	Cvg:FC Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
017	Cvg:BW Pages	*CTL	[0 to 99999999 / **0** / 1 / step]
018	GPC	*CTL	[0 to 99999999 / **0** / 1 / step]
019	GPC Printer	*CTL	[0 to 99999999 / **0** / 1 / step]
020	Full Color GPC	*CTL	[0 to 99999999 / **0** / 1 / step]
021	A2	*CTL	[0 to 99999999 / **0** / 1 / step]
022	SendTtl:FC	*CTL	[0 to 2147483647 / **0** / 1% / step]
023	SendTtl:BW	*CTL	[0 to 2147483647 / **0** / 1% / step]

024	FaxSend	*CTL	[0 to 2147483647 / **0** / 1% / step]
0250	ScanSend:FC	*CTL	[0 to 2147483647 / **0** / 1% / step]
026	ScanSend:BW	*CTL	[0 to 2147483647 / **0** / 1% / step]
027	Total	*CTL	[0 to 2147483647 / **0** / 1% / step]
028	Copy:FC	*CTL	[0 to 2147483647 / **0** / 1% / step]
029	Copy:BW	*CTL	[0 to 2147483647 / **0** / 1% / step]
030	Copy:OneC	*CTL	[0 to 2147483647 / **0** / 1% / step]
031	Copy:TwoC	*CTL	[0 to 2147483647 / **0** / 1% / step]
101	Printer:FC	*CTL	[0 to 99999999 / **0** / 1 / step]
102	Printer:BW	*CTL	[0 to 99999999 / **0** / 1 / step]
103	Printer:OneC	*CTL	[0 to 99999999 / **0** / 1 / step]
104	Printer:TwoC	*CTL	[0 to 99999999 / **0** / 1 / step]
105	FaxP:BW	*CTL	[0 to 99999999 / **0** / 1 / step]

2.11 PRINTER SP MODE

2.11.1 SP1-XXX (SERVICE MODE)

1001	[Bit Switch]			
001	Bit Switch 1		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	**No I/O Timeout**	**Disabled**	Enabled
		Enables/Disables MFP I/O Timeouts. If enabled, the MFP I/O Timeout setting will have no affect. I/O Timeouts will never occur.		
	bit 4	**SD Card Save Mode**	**Disabled**	Enabled
		If this bit switch is enabled, print jobs will be saved to the GW SD slot and not output to paper.		
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	**[RPCS,PCL]: Printable area frame border**	**Disabled**	Enabled
		Prints all RPCS and PCL jobs with a border around the printable area.		

1001	[Bit Switch]			
002	Bit Switch 2		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	**Applying a Collate Type**	**Shift Collate**	Normal Collate

		A collate type (shift or normal) will be applied to all jobs that do not explicitely define a collate type. **Note:** If #5-0 is enabled, this BitSwitch has no effect.		
	bit 3	**[PCL5e/c,PS]: PDL Auto Switching**	**Enabled**	Disabled
		Enables/Disables the MFPs ability to change the PDL processor mid-job. Some host systems submit jobs that contain both PS and PCL5e/c. If Auto PDL switching is disabled, these jobs will not be printed properly.		
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	**Switch dither**	**Use normal dither**	Use alternative dither
		*Please refer to RTB#RD014018		
	bit 7	DFU	-	-

1001	**[Bit Switch]**			
003	Bit Switch 3		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	**[PCL5e/c]: Legacy HP compatibility**	**Disabled**	Enabled
		Uses the same left margin as older HP models such as HP4000/HP8000. In other words, the left margin defined in the job (usually "<ESC>*r0A") will be changed to "<ESC>*r1A".		
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]			
004	Bit Switch 4		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	**IPDS print-side reversal**	**Disabled**	Enabled
		If enabled, the simplex pages of IPDS jobs will be printed on the front side because of printing on the back side of the page. This might reduce printing speed.		
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]			
005	Bit Switch 5		0	1
	bit 0	**Show "Collate Type", "Staple Type" and "Punch Type" buttons on the operation panel.**	**Disabled**	Enabled
		If enabled, users will be able to configure a Collate Type, Staple Type, and Punch Type from the operation panel. The available Types will depend on the device and configured options. After enabling this BitSw, the settings will appear under: "User Tools > Printer Features > System"		
	bit 1	**Multiple copies if a paper size or type mismatch occurs**	**Disabled (single copy)**	Enabled (multiple)

		If a paper size or type mismatch occurs during the printing of multiple copies, only a single copy is output by default. Using this BitSw, the device can be configured to print all copies even if a paper mismatch occurs.		
	bit 2	**Prevent SDK applications from altering the contents of a job.**	**Disabled**	Enabled
		If this BitSw is enabled, SDK applications will not be able to alter print data. This is achieved by preventing SDK applications from accessing a module called the "GPS Filter". Note: The main purpose of this BitSw is for troubleshooting the effects of SDK applications on data.		
	bit 3	**[PS] PS Criteria**	**Pattern3**	Pattern1
		Change the number of PS criterion used by the PS interpereter to determine whether a job is PS data or not.		
	bit 4	**Increase max. number of stored jobs.**	**Disabled (100)**	Enabled (750)
		Changes the maximum number of jobs that can be stored on the HDD. The default (disabled) is 100. If this is enabled, the max. will be raised to 750 or 1000 depending on the model.		
	bit 5	DFU	-	-
	bit 6	**Method for determining the image rotation for the edge to bind on.**	**Disabled**	Enabled
		If enabled, the image rotation will be performed as they were in the specifications of older models for the binding of pages of mixed orientation jobs. The old models are below: - PCL: Pre-04A models - PS/PDF/RPCS:Pre-05S models		
	bit 7	**Letterhead mode printing**	**Disabled**	Enabled (Duplex)

		Routes all pages through the duplex unit. If this is disabled, simplex pages or the last page of an odd-paged duplex job, are not routed through the duplex unit. This could result in problems with letterhead/pre-printed pages. Only affects pages specified as Letterhead paper.

1001	**[Bit Switch]**			
006	Bit Switch 6		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	**[Bit Switch]**			
007	Bit Switch 7		0	1
	bit 0	**Print path**	**Disabled**	Enabled
		If enabled, simplex pages (in mixed simplex/duplex PS/PCL5 jobs only) and the last page of an odd paged duplex job (PS, PCL5, PCL6), are always routed through the duplex unit. Not having to switch paper paths increases the print speed slightly.		
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-

	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	**[Bit Switch]**			
008	Bit Switch 8		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	**[PCL,PS]: Allow BW jobs to print without requiring User Code**	**Disabled**	Enabled (allow BW jobs to print without a user code)
		BW jobs submitted without a user code will be printed even if usercode authentication is enabled. **Note:** Color jobs will not be printed without a valid user code.		
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	**PCL, RPCS, PS: Forced BW print**	**Enabled**	Disabled
		Switches whether to ignore PDL color command.		
	bit 7	**[PDF]: Orientation Auto Detect Fuction**	**Enabled**	Disabled
		Automatically chooses page orientations of PDF jobs (Landscape or Portrait) based on the content.		

1001	**[Bit Switch]**			
009	Bit Switch 9		0	1
	bit 0	**PDL Auto Detection timeout of jobs submitted via USB or Parallel Port (IEEE 1284).**	**Disabled (Immediately)**	Enabled (10 seconds)
		To be used if PDL auto-detection fails. A failure of PDL autodetection doesn't necessarily mean that the job can't be printed. This bit switch tells the device whether to time-out immediately (default) upon failure or to wait 10 seconds.		
	bit 1	DFU	-	-
	bit 2	**Job Cancel**	**Disabled (Not cancelled)**	Enabled (Cancelled)
		If this bit switch, all jobs will be cancelled after a jam occurs. **Note:** If this bitsw is enabled, printing under the following conditions might result in problems: - Job submission via USB or Parallel Port - Spool printing (WIM >Configuration > Device Settings > System)		
	bit 3	**PCL/PS bypass tray paper rotation (SEF/LEF)**	**Disabled**	Enabled
		This bitsw causes the device to revert to the behavior of previous generations. It only takes effect if "Bypass Tray Setting Priority" = "Driver/Command". Previous spec (bitsw=1): If a standard sized paper mismatch occurred in the bypass tray, the MFP always prompted for SEF paper. If this bitsw=0 (default) then in the event of a standard sized paper mismatch, the MFP will always prompt for paper of the rotation (SEF/LEF) determined by the MFP bypass tray paper setting or by the bypass tray sensor.		

	bit 4	**Timing of the PJL Status ReadBack (JOB END) when printing multiple collated copies.**	**Disable**	Enable
		This bitsw determines the timing of the PJL USTATUS JOB END sent when multiple collated copies are being printed. 0 (default): JOB END is sent by the device to the client after the first copy has completed printing. This causes the page counter to be incremented after the first copy and then again at the end of the job. 1: JOB END is sent by the device to the client after the last copy has finished printing. This causes the page counter to be incremented at the end of each job.		
	bit 5	**Display UTF-8 text in the operation panel**	**Enabled**	Disabled
		Enabled (=0): Text composed of UTF-8 characters can be displayed in the operation panel. Disabled (=1): UTF-8 characters cannot be displayed in the operation panel. For example, job names are sometimes stored in the MIB using UTF-8 encoded characters. When these are displayed on the operation panel, they will be garbled unless this BitSw is enabled (=0).		
	bit 6	**Disable super option**	**Enabled**	Disabled
		Switches super option disable on / off. It this is On, multiple jobs are grouped at LPR port. PJL settings are enabled even jobs that are specified queue names are sent.		
	bit 7	**Enable/Disable Print from USB/SD's Preview function**	Enabled	**Disabled**
		Determines whether Print from USB/SD will have the Preview function. Enabled (=0): Print from USB/SD will have the Preview function. Disabled (=1): Print from USB/SD will not have the Preview function.		

1001	**[Bit Switch]**			
010	Bit Switch A		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	**Store and Skip Errored Job locks the queue**	**Queue is not locked after SSEJ**	Queue locked after SSEJ
		If this is 1, then after a job is stored using Store and Skip Errored Job (SSEJ), new jobs cannot be added to the queue until the stored job has been completely printed.		
	bit 6	**Allow use of Store and Skip Errored Job if connected to an external charge device.**	**Does not allow SSEJ with ECD**	Allows SSEJ with ECD
		If this is 0, Store and Skip Errored Job (SSEJ) will be automatically disabled if an external charge device is connected. **Note:** We do not officially support enabling this bitsw (1). Use it at your own risk.		
	bit 7	**Job cancels remaining pages when the paid-for pages have been printed on an external charge device**	**Job does not cancel**	Job cancels
		When setting 1 is enabled, after printing the paid-for pages on an external charge device, the job that includes any remaining pages will be canceled. This setting will prevent the next user from printing the unnecessary pages from the previous user's print job.		

1001	[Bit Switch]			
011	Bit Switch B		0	1
	bit 0	**Show Menu List**	**Hide Menu List**	Show Menu List
		If this is 0, the Menu List button will be removed from Printer Features.		
	bit 1	**Print job interruption**	**Does not allow interruption**	Allow interruption
		0 (default): Print jobs are not interrupted. If a job is promoted to the top of the print queue, it will wait for the currently printing job to finish. 1: If a job is promoted to the top of the queue, it will interrupt the currently printing job and start printing immediately.		
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-
	bit 6	DFU	-	-
	bit 7	DFU	-	-

1001	[Bit Switch]			
012	Bit Switch C		0	1
	bit 0	DFU	-	-
	bit 1	DFU	-	-
	bit 2	DFU	-	-
	bit 3	DFU	-	-
	bit 4	DFU	-	-
	bit 5	DFU	-	-

	bit 6	DFU	-	-
	bit 7	DFU	-	-

1003	**[Clear Setting]**		
001	Initialize System	*CTL	[- / **-** / -] [Execute]
	Initializes settings in the "System" menu of the user mode.		
003	Delete Program	*CTL	[- / **-** / -] [Execute]

1004	**[Print Summary]**		
	Prints the service summary sheet (a summary of all the controller settings).		
001	Print Summary	*CTL	[- / **-** / -] [Execute]
002	Print Summary2	*CTL	[- / **-** / -] [Execute]

1005	**[Display Version]**		
002	Printer Version	*CTL	[- / **-** / -]
	Displays the version of the controller firmware.		

1006	**[Sample / Proof Print]**		
002	Sample / Proof Print	*CTL	[0 or 1 / **1** / 1 /step] 0: Linked, 1: On
	Enables and disables the document server. When you select "0," the document server is enabled or disabled in accordance with Copy Service Mode SP5-967. When you select "1," the document server is enabled regardless of Copy Service Mode SP5-967.		

1101	**[Data Recall]**		
	Recalls a set of gamma settings. This can be either a) the factory setting, b) the previous setting, or c) the current setting.		
001	Factory	*CTL	[- / **-** / -] [Execute]
002	Previous	*CTL	
003	Current	*CTL	

1102	**[Resolution Setting]**		
	Selects the printing mode (resolution) for the printer gamma adjustment.		
001	Resolution Setting	CTL	[0 to 9 / **0** / 1/step] 0: 1200x1200 Photo (2bit/4col) 1: 1200x1200 Photo (1bit/4col) 2: 600x600 Photo (4bit/4col) 3: 600x600 Photo (2bit/4col) 4: 600x600 Photo (1bit/4col) 5: 1200x1200 Text (2bit/4col) 6: 1200x1200 Text (1bit/4col) 7: 600x600 Text (4bit/4col) 8: 600x600 Text (2bit/4col) 9: 600x600 Text (1bit/4col)

1103	**[Test Page]**		
	Prints the test page to check the color balance before and after the gamma adjustment.		
001	Color Gray Scale	CTL	[- / **-** / -] [Execute]
002	Color Pattern	CTL	

1104	**[Gamma Adjustment]**		
	Adjusts the printer gamma for the mode selected in the "Mode Selection" menu.		
001	Set Black 1	CTL	[0 to 30 / **00** / 1/step]
002	Set Black 2	CTL	
003	Set Black 3	CTL	
004	Set Black 4	CTL	
005	Set Black 5	CTL	
006	Set Black 6	CTL	
007	Set Black 7	CTL	
008	Set Black 8	CTL	
009	Set Black 9	CTL	
010	Set Black 10	CTL	
011	Set Black 11	CTL	
012	Set Black 12	CTL	
013	Set Black 13	CTL	
014	Set Black 14	CTL	
015	Set Black 15	CTL	
016	Set Black 16	CTL	
021	Set Cyan 1	CTL	[0 to 30 / **00** / 1/step]
022	Set Cyan 2	CTL	
023	Set Cyan 3	CTL	
024	Set Cyan 4	CTL	
025	Set Cyan 5	CTL	
026	Set Cyan 6	CTL	

027	Set Cyan 7	CTL	
028	Set Cyan 8	CTL	
029	Set Cyan 9	CTL	
030	Set Cyan 10	CTL	
031	Set Cyan 11	CTL	
032	Set Cyan 12	CTL	
033	Set Cyan 13	CTL	
034	Set Cyan 14	CTL	
035	Set Cyan 15	CTL	
036	Set Cyan 16	CTL	
041	Set Magenta 1	CTL	[0 to 30 / **00** / 1/step]
042	Set Magenta 2	CTL	
043	Set Magenta 3	CTL	
044	Set Magenta 4	CTL	
045	Set Magenta 5	CTL	
046	Set Magenta 6	CTL	
047	Set Magenta 7	CTL	
048	Set Magenta 8	CTL	
049	Set Magenta 9	CTL	
050	Set Magenta 10	CTL	
051	Set Magenta 11	CTL	
052	Set Magenta 12	CTL	
053	Set Magenta 13	CTL	
054	Set Magenta 14	CTL	
055	Set Magenta 15	CTL	
056	Set Magenta 16	CTL	

061	Set Yellow 1	CTL	[0 to 30 / **00** / 1/step]
062	Set Yellow 2	CTL	
063	Set Yellow 3	CTL	
064	Set Yellow 4	CTL	
065	Set Yellow 5	CTL	
066	Set Yellow 6	CTL	
067	Set Yellow 7	CTL	
068	Set Yellow 8	CTL	
069	Set Yellow 9	CTL	
070	Set Yellow 10	CTL	
071	Set Yellow 11	CTL	
072	Set Yellow 12	CTL	
073	Set Yellow 13	CTL	
074	Set Yellow 14	CTL	
075	Set Yellow 15	CTL	
076	Set Yellow 16	CTL	

1105	**[Save Tone Control Value]**		
	Stores the print gamma adjusted with the "Gamma Adj." menu item as the current setting. Before the machine stores the new "current setting", it moves the data currently stored as the "current setting" to the "previous setting" memory storage location.		
001	Save Tone Control Value	*CTL	[- / **-** / -] [Execute]

1106	**[Toner Limit]**		
	Adjusts the maximum toner amount for image development.		
001	Toner Limit Value	*CTL	[0 to 400 / **0** / 1 %/step]

1110	**[Media Print Device Setting]**		
	Selects the setting for the media print device.		
002	0: Disable 1: Enable	*CTL	[0 or 1 / **1** / 1 / step]

1111	**[All Job Delete Mode]**		
001	-	*CTL	[0 or 1 / **0** / 1 / step] 0: Excluding New Job 1: Including New Job
	Selects whether to include an image processing job in jobs subject to full cancellation from the SCS job list.		

2.12 SCANNER SP MODE

2.12.1 SP1-XXX (SYSTEM AND OTHERS)

1001	**[Scan Nv Version]**		
	Displays the scanner firmware version stored in NVRAM in a 9-digit format: Func. Name_Model Name_History No.		
005	-	*CTL	[- / **-** / -]

1005	**[Erase Margin(Remote scan)]**		
	Creates an erase margin for all edges of the scanned image. If the machine has scanned the edge of the original, create a margin. This SP is activated only when the machine uses TWAIN scanning.		
001	Range from 0 to 5 mm	*CTL	[0 to 5 / **0** / 1 mm / step]

1009	**[Remote scan disable]**		
001	-	*CTL	[0 or 1 / **0** / 1 / step] 0: ON (enabled) 1: OFF (disabled)
	This SP switches the TWAIN scanner function on/off. This is one of the scanner application functions.		

1010	**[Non Display Clear Light PDF]**		
001	-	*CTL	[0 or 1 / **0** / 1 / step] 0: Display, 1: No display
	Display or Non display remote scan.		

1011	[Org Count Display]		
001	-	*CTL	[0 or 1 / **0** / 1 / step] 0: OFF (no display) 1: ON (count displays)
	This SP codes switches the original count display on/off.		

1012	[User Info Release]		
001	-	*CTL	[0 or 1 / **1** / 1 / step] 1: Release 0: Do not release
	This SP code sets the machine to release or not release the following items at job end. § Destination (E-mail/Folder/CS) § Sender name § Mail Text § Subject line § File name		

1013	[Multi Media Function]		
002	-	*CTL	[0 or 1 / **1** / 1 / step] 0: Disable 1: Enable
	This SP code enables/disables the multi-media function option (USB 2.0/SD Slot) mounted on the front of the machine. Operators can scan documents to either an SD card or a USB memory device inserted into this unit. This SP must be enabled (set to "1") in order for the device to function.		

1014	[-]		
001	-	*CTL	[0 or 1 / **0** / 1 / step] 0: Disable 1: Enable
	Enables / Disables to input password for Scan To Folder.		

1041	[Scanner FlairAPI Function Setting]			
001	-	*CTL	* see BitSwitch below:	
	Sets Scanner FlairAPI Function enable / disable. This SP is set by BitSwitch and needs to reboot the machine after making changes.			
bit	Setting	meanings		Description
		0	1	
bit 0	Start of FlairAPI Server	**Off (Do not Start)**	On (Start)	Sets whether to start exclusive FlairAPI http server. If it is 0, scanning FlairAPI function and simple UI function will be disabled. The machine installed Android operating panel option, set “1”, others set “0”.
bit 1	Access permission of FlairAPI from outside of the machine	**Disabled**	Enabled	If it is “0”, accessing is limited from the machine only, such as operating panel, SDK/J, MFP browsers etc… If it is “1”, accessing is allowed from outside of FlairAPI such as PC, Remote UI, IT-Box etc…
bit 2	Reserved	-	-	-
bit 3	Reserved	-	-	-
bit 4	Simple UI Function	**Disabled**	Enabled	If it is “1”, the machine can be used Scanner Simple UI. If it is “0”, requesting URL of Simple UI returns “404 Not Found”

bit 5	Accessing permission of Simple UI from outside of the machine	**Disabled**	Enabled	If it is “0”, accessing is limited from the machine only (operating panel and MFP browser). If it is “1”, accessing is allowed from outside of Simple UI such as PC, mobile devices, and so on.
bit 6	Reserved	-	-	-
bit 7	Reserved	-	-	-

2.12.2 SP2-XXX (SCANNING-IMAGE QUALITY)

2021	**[Compression Level (Gray-scale)]**		
	Selects the compression ratio for grayscale processing mode (JPEG) for the five settings that can be selected at the operation panel.		
001	Comp1:5-95	*CTL	[5 to 95 / **20** / 1 / step]
002	Comp2:5-95	*CTL	[5 to 95 / **40** / 1 / step]
003	Comp3:5-95	*CTL	[5 to 95 / **65** / 1 / step]
004	Comp4:5-95	*CTL	[5 to 95 / **80** / 1 / step]
005	Comp5:5-95	*CTL	[5 to 95 / **95** / 1 / step]

2024	**[Compression ratio of ClearLight PDF]**		
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
001	Compression Ratio (Normal image)	*CTL	[5 to 95 / **20** / 1 / step]
002	Compression Ratio (High)	*CTL	[5 to 95 / **20** / 1 / step]

2025	**[Compression ratio of ClearLightPDF JPEG2000]**		
	Selects the compression ratio for clearlight PDF for the two settings that can be selected at the operation panel.		
001	Compression Ratio (Normal) JPEG2000	*CTL	[5 to 95 / **20** / 1 / step]
002	Compression Ratio (High) JEPG2000	*CTL	[5 to 95 / **20** / 1 / step]

2030	**[-]**		
001	Level5:	*CTL	[0 to 255 / **250** / 1 / step]
002	Level5:	*CTL	[0 to 100 / **80** / 1 / step]
003	Level5:	*CTL	[0 to 100 / **80** / 1 / step]

9001	**[BitSwitch]**		
	Sets module debug output mode.		
001	cmm	*CTL	[0 to 255 / **0** / by a factor of two]
002	jcm	*CTL	[0 to 255 / **0** / by a factor of two]
003	ucm	*CTL	[0 to 255 / **0** / by a factor of two]
004	rsp	*CTL	[0 to 255 / **0** / by a factor of two]
005	rsp2	*CTL	[0 to 255 / **0** / by a factor of two]
006	nas	*CTL	[0 to 255 / **0** / by a factor of two]
007	miw	*CTL	[0 to 255 / **0** / by a factor of two]
008	mib	*CTL	[0 to 255 / **0** / by a factor of two]
009	itm	*CTL	[0 to 255 / **0** / by a factor of two]

INPUT AND OUTPUT CHECK

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

3. INPUT AND OUTPUT CHECK

3.1 INPUT CHECK TABLE

5803	**[INPUT Check]**		
001	Registration Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on register sensor position. (0: paper exist, 1: paper non exist)		
002	Paper Feed Sensor 1	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on 1st paper feed sensor position. (0: paper exist, 1: paper non exist)		
003	Transport Sensor 1	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on 1st carry sensor position. (0: paper exist, 1: paper non exist)		
004	Paper Feed Sensor 2	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on 2nd paper feed sensor position. (0: paper exist, 1: paper non exist)		
005	Transport Sensor 2	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on 2nd carry sensor position. (0: paper exist, 1: paper non exist)		

006	Fusing Entrance Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on fusing entrance sensor position. (0: paper exist, 1: paper non exist)		
007	Fusing Exit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on fusing exit sensor position. (0: paper exist, 1: paper non exist)		
008	Paper Exit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on paper exit sensor position. (0: paper exist, 1: paper non exist)		
009	Inverter Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on reverse sensor position. (0: paper exist, 1: paper non exist)		
010	Duplex Exit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on duplex exit sensor position. (0: paper exist, 1: paper non exist)		
011	Duplex Entrance Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on duplex entrance sensor position. (0: paper exist, 1: paper non exist)		

012	Tray Full Exit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Not full 1: full
	Detects paper full of main unit paper exit tray. (0: Not full, 1: full)		
013	Tray 1: Paper Height Sensor	ENG	[0 to 3 / **0** / 1/step] When full is 100%, 11: 71 to 100% 01: 31 to 70% 00: 11 to 30% 10: 1 to 10%
	Detects remaining paper amount of 1st paper feed tray. (When full is 100%, 11: 71 to 100%, 01: 31 to 70%, 00: 11 to 30%, 10: 1 to 10%) *Check SP5-803-015 for paper end.		
014	Tray 1: Upper Limit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: less then limit 1: high then limit
	Detects the hight of paper loaded in 1st paper feed tray. (0: less then limit, 1: high then limit)		
015	Tray 1: Paper End Detection	ENG	[0 or 1 / **0** / 1/step] 0: No paper 1: paper remaining
	Detects paper is running out on 1st paper feed tray. (0: No paper, 1: paper remaining)		
016	Tray 1: Set Sensor	ENG	[0 or 1 / **0** / 1/step] 0: set 1:not set
	Detects that 1st paper feed tray is set to main unit. (0: set, 1:not set)		

017	Tray 2: Paper Height Sensor	ENG	[0 to 3 / **0** / 1/step] When full is 100%, 11: 71 to 100% 01: 31 to 70% 00: 11 to 30% 10: 1 to 10%
	Detects remaining paper amount of 2nd paper feed tray. (When full is 100%, 11: 71 to 100%, 01: 31 to 70%, 00: 11 to 30%, 10: 1 to 10%) *Check SP5-803-019 for paper end.		
018	Tray 2: Paper End Sensor	ENG	[0 or 1 / **0** / 1/step] 0: less then limit 1: high then limit
	Detects the hight of paper loaded in 2nd paper feed tray. (0: less then limit, 1: high then limit)		
019	Tray 2: Paper End Detection	ENG	[0 or 1 / **0** / 1/step] 0: No paper 1: paper remaining
	Detects paper running out of 2nd paper feed tray. (0: No paper, 1: paper remaining)		
020	Tray 2: Set Sensor	ENG	[0 or 1 / **0** / 1/step] 0: set 1: not set
	Detects that 2nd paper feed tray is set to main unit. (0: set, 1:not set)		
021	Tray 2: Size Sensor	ENG	[0 to 15 / **0** / 1/step]
	Value changes depending on paper size (fence position) set to 2nd paper feed tray.		
022	By-pass: Paper End Sensor	ENG	[0 or 1 / **0** / 1/step] 0: No paper 1: paper remaining
	Detects paper is running out on bypass tray. (0: No paper, 1: paper remaining)		

023	By-pass: Main Scan Length Sensor	ENG	[0 to 31 / **0** / 1/step]
	Value changes depending on main scan direction of paper set to bypass tray.		
024	By-pass: Sub Scan Length Sensor	ENG	[0 or 1 / **0** / 1/step]
	Value changes depending on sub scan direction of paper set to bypass tray.		
025	Interlock Release Detection	ENG	[0 to 1 / **0** / 1/step] 00: Unlocked 11: Locked
	Detects open/close of interlock switch (front cover/right cover). (00: Unlocked, 11: Locked)		
026	Right Door Open/Close Sensor	ENG	[0 or 1 / **0** / 1/step] 0: close 1: open
	Detects right door status. (0: close, 1: open)		
027	Duplex Guide Plate Open/Close Sensor	ENG	[0 or 1 / **0** / 1/step] 0: close 1: open
	Detects duplex guide plate status. (0: close, 1: open)		
028	PTR Open/Close Sensor	ENG	[0 or 1 / **0** / 1/step] 0: open 1: close
	Detects paper transfer unit status. (0: open, 1: close)		
029	ITB Contact Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Abutting 1: Alienate
	Detects image transfer roller (Y, M, C) and photoreceptors distance. (0: Abutting, 1: Alienate)		

030	PTR Contact Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Abutting 1: Alienate
	Detects image transfer belt and paper transfer rollers distance. (0: Abutting, 1: Alienate)		
031	New ITB Unit Detection	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		
032	Toner Collection Full Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Not full 1: full
	Detects full of waste toner bottle. (0: Not full, 1: full)		
033	Toner Collection Bottle Set Sensor	ENG	[0 or 1 / **0** / 1/step] 0: set 1: not set
	Detects that waste toner bottle is set to main unit. (0: set, 1:not set)		
034	Toner End Sensor:Y	ENG	[0 or 1 / **0** / 1/step] 0: End 1: Not End
	Detects remaining toner amount. *Power with SP5-804-173 before checking. (0: End, 1: Not End)		
035	Toner End Sensor:M	ENG	[0 or 1 / **0** / 1/step] 0: End 1: Not End
	Detects remaining toner amount. *Power with SP5-804-173 before checking. (0: End, 1: Not End)		
036	Toner End Sensor:C	ENG	[0 or 1 / **0** / 1/step] 0: End 1: Not End

	Detects remaining toner amount. *Power with SP5-804-173 before checking. (0: End, 1: Not End)		
037	Toner End Sensor:K	ENG	[0 or 1 / **0** / 1/step] 0: End 1: Not End
	Detects remaining toner amount. *Power with SP5-804-172 before checking. (0: End, 1: Not End)		
038	Fusing:Area Detection	ENG	[0 to 15 / **0** / 1/step] 0111:200V system 1011:100V System
	Detects region of fusing unit. (0111: 200V system, 1011: 100V System)		
039	Fusing:New Unit Detection	ENG	[0 or 1 / **0** / 1/step] 0: New 1: Old
	Detects New/Old of fusing unit. (0: New, 1: Old)		
040	Fusing Temp Detect	ENG	[0 or 1 / **0** / 1/step] 0: Normal 1: High temperature
	Detects whether high temperature is detected from fusing unit. (0: Normal, 1: High temperature)		
041	Fusing Temp Detect 2	ENG	[0 or 1 / **0** / 1/step] 0: Normal 1: High temperature
	Detects whether high temperature is detected from fusing unit. (0: Normal, 1: High temperature)		

042	NC Sensor Temp Detection: 1	ENG	[0 or 1 / **0** / 1/step] 0: Normal 1: High temperature
	Detects whether high temperature is detected from fusing unit. (0: Normal, 1: High temperature)		
045	Drum Phase Sensor: K	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		
046	Drum Phase Sensor: FC	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		
047	Nip Pres. Release Home Position Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Not pressured 1: pressured
	Detects state of fusing nip pressure. (0: Not pressured, 1: pressured)		
048	Fusing Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of fusing exhaust heat fan. (0: Running, 1: Stopped, or locked)		
049	Dev Fan: Right: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of developer air intake fan (right). (0: Running, 1: Stopped, or locked)		
050	Dev Fan: Left: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of developer air intake fan (left). (0: Running, 1: Stopped, or locked)		

051	PSU Cooling Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of PSU cooling fan. (0: Running, 1: Stopped, or locked)		
052	Ozone Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of ozone exhaust air fan. (0: Running, 1: Stopped, or locked)		
054	PSU Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of PSU exhaust heat fan. (0: Running, 1: Stopped, or locked)		
055	PCB Box Cooling Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of electric box cooling fan. (0: Running, 1: Stopped, or locked)		
056	Drive Cooling Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of drive cooling fan. (0: Running, 1: Stopped, or locked)		
057	Ventilation Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of main unit exhaust heat fan. (0: Running, 1: Stopped, or locked)		

058	Paper Exit Cooling Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of paper exit cooling fan. (0: Running, 1: Stopped, or locked)		
060	Toner Supply Cooling Fan: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of toner supply cooling fan. (0: Running, 1: Stopped, or locked)		
061	Development Motor K: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of developer motor (K). (0: Running, 1: Stopped, or locked)		
063	Development Motor FC: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of developer motor (FC). (0: Running, 1: Stopped, or locked)		
064	Drum Motor FC: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of drum motor (FC). (0: Running, 1: Stopped, or locked)		
065	Fusing Motor: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of fusing motor. (0: Running, 1: Stopped, or locked)		

066	Transfer Drum Motor K: Lock	ENG	[0 or 1 / **0** / 1/step] 0: Running 1: Stopped, or locked
	Detects locking of transfer drum motor K. (0: Running, 1: Stopped, or locked)		
067	PP:D:SC Detection	ENG	[0 or 1 / **0** / 1/step] 0: SC detected 1: Normal
	Detects SC of HVP (secession). (0: SC detected, 1: Normal)		
068	PP:CB:SC Detection	ENG	[0 or 1 / **0** / 1/step] 0: SC detected 1: Normal
	Detects SC of HVP (electrify/develop). (0: SC detected, 1: Normal)		
069	PP:TTS:SC Detection	ENG	[0 or 1 / **0** / 1/step] 0: SC detected 1: Normal
	Detects SC of HVP (transfer). (0: SC detected, 1: Normal)		
072	Key Counter: Set 1	ENG	[0 or 1 / **0** / 1/step] 0: set 1:unset key counter: set 1=0, 2=1 for set, others for unset
	Detects setting of key counter. (0: set, 1:unset) (key counter: set 1=0, 2=1 for set, others for unset)		
073	Key Counter: Set 2	ENG	[0 or 1 / **0** / 1/step] 0: set 1:unset key counter: set 1=0, 2=1 for set, others for unset

	Detects setting of key counter. (0: unset, 1:set) (key counter: set 1=0, 2=1 for set, others for unset)		
074	Key Card Set	ENG	[0 or 1 / **0** / 1/step] 0: set 1: not set
	Detects that key card is set to main unit. (0: set, 1:not set)		
075	1 Bin Tray: Paper Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Detects that paper is left upon the tray. (0: paper exist, 1: paper non exist)		
076	1 Bin Tray: Set Detection System	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Detects that tray is set to main unit. (0: set, 1:not set)		
077	Bridge Relay Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper exist 1: paper non exist
	Responds to paper existence on carry sensor position or bridge unit. (0: paper exist, 1: paper non exist)		
078	Bridge Exit Sensor	ENG	[0 or 1 / **0** / 1/step] 0: Paper exist 1: Paper do not exist
	Responds to paper existence on paper exit sensor position or bridge unit. (0: paper exist, 1: paper non exist)		

079	Bridge Set Detection System	ENG	[0 or 1 / **0** / 1/step] 10: set 11:not set
	Detects that bridge unit is set to main unit. (10: set, 11:not set)		
080	24VS1 Open Detection System	ENG	[0 or 1 / **0** / 1/step] 0: broke 1: continued
	Detects continuity (whether a harness is broken of short circuited) of 24VS1 line on IOB circuit board. (0: broke, 1: continued)		
081	24VS2 Open Detection System	ENG	[0 or 1 / **0** / 1/step] 0: broke 1: continued
	Detects continuity (whether a harness is broken of short circuited) of 24VS2 line on IOB circuit board. (0: broke, 1: continued)		
082	Bridge Relay/Left Exit Cover Sensor	ENG	[0 or 1 / **0** / 1/step] 0: close 1: open
	Detects open/close of the left carry cover open/close sensor (left paper exit tray) and the relay carry cover open/close sensor (bridge unit). (0: close, 1: open)		
083	Bridge Exit/Upper Exit Cover Sensor	ENG	[0 or 1 / **0** / 1/step] 0: close 1: open
	Detects open/close of the upper carry cover open/close sensor (left paper exit tray) and the relay paper exit cover open/close sensor (bridge unit). (0: close, 1: open)		

084	Shift Tray: Set Detection System	ENG	[0 or 1 / **0** / 1/step] 01: set 11:not set
	Detects that shift tray is set to main unit. (01: set, 11:not set)		
085	Shift Tray: Position Sensor 1	ENG	[0 or 1 / **0** / 1/step] 0: Stop on this side. during moving towards inner 1: Stop on inner side. during moving towards this side
	Detects shift tray position. (0: Stop on this side. during moving towards inner, 1: Stop on inner side. during moving towards this side)		
086	Shift Tray: Position Sensor 2	ENG	[0 or 1 / **0** / 1/step]
	*It its a backup sensor with this machine, so "1" is always displayed)		
087	SI Bypass SF Paper Contact Sensor: Front	ENG	[0.000 to 3.300 / **0.000** / 0.001V]
	Detects side fence position of one action bypass in analog value, and displays sensor output value.		
088	SI Bypass SF Paper Contact Sensor: Rear	ENG	[0.000 to 3.300 / **0.000** / 0.001V]
	Detects side fence position of one action bypass in analog value, and displays sensor output value.		
089	SI Bypass SF Position Sensor	ENG	[88 to 325 / **88** / 1/step]
	Displays output value for side fence position sensor of one action bypass.		
090	PCU Lubricant End Sensor:Y	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		
091	PCU Lubricant End Sensor:M	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		

092	PCU Lubricant End Sensor:C	ENG	[0 or 1 / **0** / 1/step]
	Not available with C1		
093	PCU Lubricant End Sensor:K	ENG	[0 or 1 / **0** / 1/step] 0: Not end 1: End
	Detects whether lubricant of PCU(K) is end or not. (0: Not end, 1: End) *Only available with c/d/e models.		
094	GAVD Open/Close Detection	ENG	[0 or 1 / **0** / 1/step]
	For checking door open/close during process. No need to operate.		
095	Bridge 24V Fuse Detection	ENG	[0 or 1 / **0** / 1/step] 0: Not cut 1: Cut
	Detects state of 24V fuse on the bridge unit. (0: Not cut, 1: Cut)		
096	Bridge 5V Fuse Detection	ENG	[0 or 1 / **0** / 1/step] 0: Not cut 1: Cut
	Detects state of 5V fuse on the bridge unit. (0: Not cut, 1: Cut)		
097	Fusing Shading Plate Sensor /1	ENG	[0 or 1 / **0** / 1/step] 0: Not shading 1: shading
	Detects position of fusing shade plate. (0: Not shading 1: shading)		
098	Fusing Shading Plate Sensor /2	ENG	[0 or 1 / **0** / 1/step] 0: Not shading 1: shading
	Detects position of fusing shade plate. (0: Not shading 1: shading)		

200	HP Senser	ENG	[0 or 1 / **0** / 1/step]
	Tests the scanner HP sensor.		
201	Platen Cover Sensor	ENG	[0 or 1 / **0** / 1/step]
	Tests the book open/close sensor.		
202	SI Bypass Side Fence Position Sensor-	ENG	[0.000 to 3.300 / **0.000** / 0.001V/step]
	Displays output for side fence position sensor of one action bypass.		
5803	**[INPUT Check]**		
	Gets information of specified sensor.		
211	Bank: Tray3: Feed Sensor	ENG	[0 or 1 / **0** / 1/step] 0: paper not detected 1: paper detected.
212	Bank: Tray4: Feed Sensor	ENG	
213	Bank: Tray5: Feed Sensor	ENG	
214	Bank: Tray3: Transport Sensor	ENG	
215	Bank: Tray4: Transport Sensor	ENG	
216	Bank: Tray5: Transport Sensor	ENG	
217	Bank: Feed Cover Open Detection 1	ENG	[0 or 1 / **0** / 1/step] 0: cover open 1: cover closed
218	Bank: Feed Cover Open Detection 2	ENG	
219	LCT Paper Supply Open/Close	ENG	
220	LCT Slide Open/Close	ENG	[0 or 1 / **0** / 1/step] 0: slide open 1: slide closed

6007	[ADF INPUT Check]		
	Gets sensor information from ADF. Displays signal level of sensor as it is.		
001	Original Length 1 (B5 Detection Sensor)	ENG	[0 or 1 / **0** / 1/step]
002	Original Length 2 (A4 Detection Sensor)	ENG	[0 or 1 / **0** / 1/step]
003	Original Length 3 (LG Detection Sensor)	ENG	[0 or 1 / **0** / 1/step]
004	Original Width 1	ENG	[0 or 1 / **0** / 1/step]
005	Original Width 2	ENG	[0 or 1 / **0** / 1/step]
006	Original Width 3	ENG	[0 or 1 / **0** / 1/step]
007	Original Width 4	ENG	[0 or 1 / **0** / 1/step]
008	Original Width 5	ENG	[0 or 1 / **0** / 1/step]
009	Original Detection	ENG	[0 or 1 / **0** / 1/step]
011	Skew Correction	ENG	[0 or 1 / **0** / 1/step]
013	Registration Sensor	ENG	[0 or 1 / **0** / 1/step]
014	Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
015	Feed Cover Sensor	ENG	[0 or 1 / **0** / 1/step]
016	Lift Up Sensor	ENG	[0 or 1 / **0** / 1/step]
023	Rear Edge Detection	ENG	[0 or 1 / **0** / 1/step]

6011	**[1-Pass ADF INPUT Check]**		
	For Single-Pass simultaneous duplex models only.		
001	Original Length 1 (B5 Sensor)	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
002	Original Length 2 (A4 Sensor)	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
003	Original Length 3 (LG Sensor)	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
004	Original Width 1	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
005	Original Width 2	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
006	Original Width 3	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
007	Original Width 4	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		

008	Original Width 5	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
009	Original Detection	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when original is set.		
010	Separation Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
011	Skew Correction	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
012	Scan Entrance Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
013	Registration Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
014	Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		
015	Feed Cover Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when cover is open.		
016	Lift Up Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when lift up.		
018	Pick-Up Roller HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when pick up roller is not in home position.		

021	Bottom Plate HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when bottom plate is not in home position.		
022	Bottom Plate Position Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when pick up roller is not in the correct position.		
023	Original Length 4 (LT/A4 Tail Sensor)	ENG	[0 or 1 / **0** / 1/step]
	Gets sensor information from ADF. Gives 1 when there is a paper at sensor area.		

6123	**[INPUT Check: 2K/3K FIN]**		
001	Entrance Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
002	Horizontal Transport Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
003	Switchback Transport Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
004	Proof Tray Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
005	Shift Tray Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
006	Booklet Stapler Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
007	Paper Exit Open/Close Guide HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		

008	Punch HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
009	Punch Move HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
010	S-to-S Registration Detection HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
011	Lower Junction Solenoid HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
012	Jogger HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
013	Positioning Roller HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
014	Feed-out HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
015	Stapler Moving HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
016	Booklet Stapler HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
017	Booklet Jogger HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
018	Booklet Jog Solenoid HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		

019	Booklet Standard Fence HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
020	Booklet Stapler HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
022	Folder Blade Cam HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
023	Folder Blade HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
024	Shift Roller HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
025	Shift Jogger HP Sensor: Front	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
026	Shift Jogger HP Sensor: Rear	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
027	Shift Jogger Retraction HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
028	Drag Roller Vibrating HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
029	LE Guide HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		

030	TE Stack Plate HP Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
031	Staple Tray Paper Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
032	ITB Paper Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
033	Booklet Stapler Transport Paper Sn: Upper	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
034	Booklet Stapler Transport Paper Sn: Lower	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
035	Paper Height Sensor: Shift	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
036	Corner Stapler Paper Height Sensor 1	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
037	Corner Stapler Paper Height Sensor 2	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
038	Proof Tray Full Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
039	Booklet Stapler Full Sensor 1	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
040	Booklet Stapler Full Sensor 2	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		

041	S-to-S Registration Detection Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
042	Punch RPS Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
043	Corner Stapler Leading Edge Detection Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
044	Corner Stapler Staple End Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
045	Booklet Stapler Staple End Sensor: Front	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
046	Booklet Stapler Staple End Sensor: Rear	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
047	Shift Tray Lower Limit Sensor 1	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
048	Shift Tray Lower Limit Sensor 2	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
049	Shift Tray Lower Limit Sensor 3	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		

050	Shift Tray Lower Limit Sensor 4	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
051	Shift Tray Lower Limit Sensor 5	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
052	Punch Chad Full Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified sensor. Displays signal level of sensor as it is.		
053	Punch Set Detection	ENG	[0 or 1 / **0** / 1/step] 0: connected 1: not connected
	Gets connection status of punch unit.		
054	Shift Jogger Set Detection	ENG	[0 or 1 / **0** / 1/step] 0: connected 1: not connected
	Gets connection status of setting jogger unit. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
055	Booklet Stapler Set Detection	ENG	[0 or 1 / **0** / 1/step] 0: not connected 1: connected
	Gets connection status of saddle stitch unit.		
056	Front Door SW	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		
057	Dynamic Roller Open/Close Guide Plate Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		
058	Tray Upper Limit SW	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		

059	Paper Exit Open/Close Guide Plate Limit SW	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		
060	Punch Selection DIPSW 1	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		
061	Punch Selection DIPSW 2	ENG	[0 or 1 / **0** / 1/step]
	Gets information of specified switch. Displays signal level of switch as it is.		

6135	**[INPUT Check: FrontFIN]**		
	Gets information of specified sensor. Displays signal level of sensor as it is.		
001	Entrance Sensor	*ENG	[0 or 1 / **0** / 1/step]
002	Carry Sensor	*ENG	[0 or 1 / **0** / 1/step]
003	Exit Sensor	*ENG	[0 or 1 / **0** / 1/step]
004	Staple Tray Paper Sensor	*ENG	[0 or 1 / **0** / 1/step]
005	Front Jogger HP Sensor	*ENG	[0 or 1 / **0** / 1/step]
006	Rear Jogger HP Sensor	*ENG	[0 or 1 / **0** / 1/step]
007	Sft Roller HP Sensor	*ENG	[0 or 1 / **0** / 1/step]
008	Hitroll HP Sensor	*ENG	[0 or 1 / **0** / 1/step]
009	Ext Guide Plate HP Sensor	*ENG	[0 or 1 / **0** / 1/step]
010	Staple Moving HP Sensor	ENG	[0 or 1 / **0** / 1/step]
011	Shift Tray Paper Sensor	ENG	[0 or 1 / **0** / 1/step]
012	Shift Tray Limit Sensor	ENG	[0 or 1 / **0** / 1/step]
013	Staple Rotation Sensor	ENG	[0 or 1 / **0** / 1/step]
014	Staple Near End Sensor	ENG	[0 or 1 / **0** / 1/step]
015	Self Priming Sensor	ENG	[0 or 1 / **0** / 1/step]
016	Stopper HP Sensor	ENG	[0 or 1 / **0** / 1/step]

017	Punch HP Sensor	ENG	[0 or 1 / **0** / 1/step]
018	Punch Pluse Count Sensor	ENG	[0 or 1 / **0** / 1/step]
019	Punch Chad Full Sensor	ENG	[0 or 1 / **0** / 1/step]
020	Punch Moving HP Sensor	ENG	[0 or 1 / **0** / 1/step]
021	Punch Registration Detection HP Sensor	ENG	[0 or 1 / **0** / 1/step]
022	Punch Registration Detection Sensor	ENG	[0 or 1 / **0** / 1/step]
6135	**[INPUT Check: FrontFIN]**		
	Gets information of specified switch. Displays signal level of switch as it is.		
023	Slide Door SW	ENG	[0 or 1 / **0** / 1/step]
024	Shift Tray Upper Limit SW	ENG	[0 or 1 / **0** / 1/step]

6161	**[FIN (1K FIN) INPUT Check]**		
	Gets information of specified sensor. Displays signal level of sensor as it is.		
001	Entrance Sensor	ENG	[0 or 1 / **0** / 1/step]
002	Upper Cover Open/Close Sensor	ENG	[0 or 1 / **0** / 1/step]
003	Proof Tray Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
004	Proof Tray Full Sensor	ENG	[0 or 1 / **0** / 1/step]
005	Shift HP Sensor	ENG	[0 or 1 / **0** / 1/step]
006	Exit Guide Plate Open/Close HP Sensor	ENG	[0 or 1 / **0** / 1/step]
007	Shift Paper Exit (Lift Tray Exit) Sensor	ENG	[0 or 1 / **0** / 1/step]
008	Positioning Roller HP Sensor	ENG	[0 or 1 / **0** / 1/step]
009	Lift Tray Paper Sensor	ENG	[0 or 1 / **0** / 1/step]
010	Jogger HP Sensor	ENG	[0 or 1 / **0** / 1/step]

011	Feed Out HP Sensor	ENG	[0 or 1 / **0** / 1/step]
012	Lift Tray Lower Limit Sensor (Upper)	ENG	[0 or 1 / **0** / 1/step]
013	Lift Tray Lower Limit Sensor (Lower)	ENG	[0 or 1 / **0** / 1/step]
014	Staple Tray Paper Sensor	ENG	[0 or 1 / **0** / 1/step]
015	Stapler Moving HP Sensor	ENG	[0 or 1 / **0** / 1/step]
016	Near End Sensor (Common: Corner/Bklt Stplr)	ENG	[0 or 1 / **0** / 1/step]
017	Self Priming Sensor (Common:Crnr/Bklt Stplr)	ENG	[0 or 1 / **0** / 1/step]
018	Driver HP Sensor (Corner/Booklet Stapler)	ENG	[0 or 1 / **0** / 1/step]
019	Driver Timing Sensor(Corner/Booklet Stapler)	ENG	[0 or 1 / **0** / 1/step]
020	Clincher HP Sensor (Corner/Booklet Stapler)	ENG	[0 or 1 / **0** / 1/step]
021	Clincher Timing Sensor (Corner/Bklt Stapler)	ENG	[0 or 1 / **0** / 1/step]
022	Stapler Retraction Sensor	ENG	[0 or 1 / **0** / 1/step]
023	Punch HP Sensor	ENG	[0 or 1 / **0** / 1/step]
024	Punch RP Sensor	ENG	[0 or 1 / **0** / 1/step]
025	Punch Hopper Full Sensor	ENG	[0 or 1 / **0** / 1/step]
026	Punch Move HP Sensor	ENG	[0 or 1 / **0** / 1/step]
027	S-to-S Registration Detection HP Sensor	ENG	[0 or 1 / **0** / 1/step]
028	S-to-S Registration Detection Sensor	ENG	[0 or 1 / **0** / 1/step]

6161	**[FIN (1K FIN) INPUT Check]**		
	Gets information of specified switch. Displays signal level of switch as it is.		
029	Punch Selection DIPSW 1	ENG	[0 or 1 / **0** / 1/step]
030	Punch Selection DIPSW 2	ENG	[0 or 1 / **0** / 1/step]
6161	**[FIN (1K FIN) INPUT Check]**		
	Gets information of specified sensor. Displays signal level of sensor as it is.		
031	ITB Transport Sensor: Right	ENG	[0 or 1 / **0** / 1/step]
032	ITB Transport Sensor: Left	ENG	[0 or 1 / **0** / 1/step]
033	Stack Transport Sensor	ENG	[0 or 1 / **0** / 1/step]
034	Stack Trans Upper Pressure Release HP Sensor	ENG	[0 or 1 / **0** / 1/step]
035	Stack Trans Lower Pressure Release HP Sensor	ENG	[0 or 1 / **0** / 1/step]
036	Fold Blade HP Sensor	ENG	[0 or 1 / **0** / 1/step]
037	Fold Cam HP Sensor	ENG	[0 or 1 / **0** / 1/step]
038	TE Stopper Transport Sensor	ENG	[0 or 1 / **0** / 1/step]
039	TE Stopper HP Sensor	ENG	[0 or 1 / **0** / 1/step]
040	Booklet Folder Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
041	Booklet Folder Tray Full Sensor: Upper	ENG	[0 or 1 / **0** / 1/step]
042	Booklet Folder Tray Full Sensor: Lower	ENG	[0 or 1 / **0** / 1/step]
6161	**[FIN (1K FIN) INPUT Check]**		
	Gets information of specified switch. Displays signal level of switch as it is.		
043	Door Open/Close SW	ENG	[0 or 1 / **0** / 1/step]
044	Lift Tray Upper Limit SW	ENG	[0 or 1 / **0** / 1/step]

6170	[Bridge: INPUT Check]		
001	Bridge Exit Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information from sensor (relay paper exit sensor... internal paper exit part) of bridge unit.		
002	Bridge Relay Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets information from sensor (relay carry sensor... relay carry to finisher) of bridge unit.		
003	Bridge Set Detection	ENG	[0 or 1 / **0** / 1/step]
	Gets connection information of bridge unit and main unit. When connected, 1.		
004	Bridge Exit Cover	ENG	[0 or 1 / **0** / 1/step]
	Gets micro SW information of bridge unit. When cover open, 1. Main unit paper exit cover.		
005	Bridge Relay Cover	ENG	[0 or 1 / **0** / 1/step]
	Gets micro SW information of bridge unit. When cover open, 1. Finisher side cover.		

6172	[Shift Tray: INPUT Check]		
001	Shift Tray Set Detection	ENG	[0 or 1 / **0** / 1/step]
	Gets connection information of shift tray and main unit. When connected, 1.		
002	Shift Tray Position Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets shift tray position sensor information.		

6174	[1 Bin: INPUT Check]		
001	1 Bin Set Detection	ENG	[0 or 1 / **0** / 1/step]
	Gets connection information of 1 bin and main unit. When connected, 1.		
002	1bin Paper Detection Sensor	ENG	[0 or 1 / **0** / 1/step]
	Gets paper existence sensor information from 1 bin.		

3.2 OUTPUT CHECK TABLE

5804	**[OUTPUT Check]**		
001	Feed Pickup Solenoid 1	ENG	[0 or 1 / **0** / 1/step]
	Moves 1st paper feed tray pick up solenoid.		
002	Feed Pickup Solenoid 2	ENG	[0 or 1 / **0** / 1/step]
	Moves 2nd paper feed tray pick up solenoid.		
003	Bypass Pickup Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Moves bypass pick up solenoid.		
004	Exit Junction Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Moves output paper divide solenoid.		
5804	**[OUTPUT Check]**		
	Moves paper feed tray rising motor.		
005	Tray 1 Lift Motor:CW	ENG	[0 or 1 / **0** / 1/step]
006	Tray 1 Lift Motor:CCW	ENG	
007	Tray 2 Lift Motor:CW	ENG	
008	Tray 2 Lift Motor:CCW	ENG	
5804	**[OUTPUT Check]**		
	Moves register motor.		
009	Regist Motor:CCW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
010	Regist Motor:CCW:Middle Speed	ENG	
011	Regist Motor:CCW:Low Speed	ENG	

5804	**[OUTPUT Check]**		
015	Regist Motor:Position Hold	ENG	[0 or 1 / **0** / 1/step]
	Holds position of register motor.		
5804	**[OUTPUT Check]**		
	Moves paper feed motor.		
016	Feed Motor:CW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
017	Feed Motor:CW:Middle Speed	ENG	
018	Feed Motor:CW:Low Speed	ENG	
022	Feed Motor:CCW:Standard Speed	ENG	
023	Feed Motor:CCW:Middle Speed	ENG	
024	Feed Motor:CCW:Low Speed	ENG	
5804	**[OUTPUT Check]**		
	Moves vertical carry motor.		
028	Bypass V-Transport Motor:CW:Std Speed	ENG	[0 or 1 / **0** / 1/step]
029	Bypass V-Transport Motor:CW:Middle Speed	ENG	
030	Bypass V-Transport Motor:CW:Low Speed	ENG	
5804	**[OUTPUT Check]**		
034	Bypass V-Transport Motor:Position Hold	ENG	[0 or 1 / **0** / 1/step]
	Holds position of vertical carry motor.		
037	Exit Motor: CW: Fusing Pressure Release	ENG	[0 or 1 / **0** / 1/step]

	Moves fusing dis-pressure.		
5804	**[OUTPUT Check]**		
	Moves paper exit motor.		
041	Exit Motor:CCW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
042	Exit Motor:CCW:Middle Speed	ENG	
043	Exit Motor:CCW:Low Speed	ENG	
5804	**[OUTPUT Check]**		
	Moves reverse motor.		
047	Inverter Motor:CW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
048	Inverter Motor:CW:Middle Speed	ENG	
049	Inverter Motor:CW:Low Speed	ENG	
052	Inverter Mt: CW: Normal Speed: Duplex	ENG	
054	Inverter Mt: CW: Low Speed: Duplex	ENG	
056	Inverter Motor:CCW:Standard Speed	ENG	
057	Inverter Motor:CCW:Middle Speed	ENG	
058	Inverter Motor:CCW:Low Speed	ENG	
061	Inverter Mt: CCW: Normal Speed: Inc Speed	ENG	

5804	**[OUTPUT Check]**		
	Moves duplex entrance motor.		
065	Duplex Entrance Motor:CW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
066	Duplex Entrance Motor:CW:Middle Speed	ENG	
067	Duplex Entrance Motor:CW:Low Speed	ENG	
068	Duplex Entrance Motor: Normal Speed: Duplex	ENG	
069	Duplex Entrance Motor: Low Speed: Duplex	ENG	
5804	**[OUTPUT Check]**		
	Moves duplex bypass motor.		
071	Duplex Bypass Motor:CW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
072	Duplex Bypass Motor:CW:Middle Speed	ENG	
073	Duplex Bypass Motor:CW:Low Speed	ENG	
074	Duplex Bypass Motor: CW: Normal Speed: Dup	ENG	
075	Duplex Bypass Motor: CW: Low Speed: Duplex	ENG	
077	Duplex Bypass Motor:CCW:Standard Speed	ENG	
078	Duplex Bypass Motor:CCW:Middle Speed	ENG	

079	Duplex Bypass Motor:CCW:Low Speed	ENG	
080	Duplex Bypass Motor: CCW: Normal Speed: Feed	ENG	
081	Duplex Bypass Motor: CCWr: Low Speed: Feed	ENG	
5804	**[OUTPUT Check]**		
083	Duplex Bypass Motor:Position Hold	ENG	[0 or 1 / **0** / 1/step]
	Holds position of duplex bypass motor.		
084	SI Bypass SF Drive Motor:CW (500pps)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor.		
085	SI Bypass SF Dr M:CW:PlsCnt:460Pls(2mm)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor for 2mm.		
086	SI Bypass SF Dr M:CW:PlsCnt:920Pls(4mm)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor for 4mm.		
087	SI Bypass SF Drive Motor:CCW (500pps)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor.		
088	SI Bypass SF Dr M:CCW:PlsCnt:920Pls(2mm)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor for 2mm.		
089	SI Bypass SF Dr M:CCW:PlsCnt:920Pls(4mm)	ENG	[0 or 1 / **0** / 1/step]
	Moves SI bypass SF drive motor for 4mm.		

5804	**[OUTPUT Check]**		
	Moves fusing motor. ***See Important below**		
092	Fusing Motor:CW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
093	Fusing Motor:CW:Middle Speed	ENG	
094	Fusing Motor:CW:Low Speed	ENG	
098	Fusing Motor:CCW:Low Speed	ENG	

Important: Use the procedure below to do the output checks for the fusing exit motor. If you do not follow this procedure, a kink will form in the fusing belt sleeve, and the fusing sleeve belt unit will need to be replaced.

1. Do one of the following:

§ Open the right cover of the paper bank

§ Remove one of the toner bottles

§ Pull out the waste toner bottle half-way

§ Remove the fusing unit

2. Enter SP mode.

3. Do the following out output checks:

§ SP5-804-092 (Fusing Motor:CW:Standard Speed)

§ SP5-804-093 (Fusing Motor:CW:Middle Speed)

§ SP5-804-094 (Fusing Motor:CW:Low Speed)

§ SP5-804-098 (Fusing Motor:CCW:Low Speed)

4. Without exiting SP mode, turn the main power switch off and then on again.

Important: If you exit SP mode before you turn the main power switch off, the fusing exit motor will stay off when the machine warms up. Heat will be concentrated in one area of the fusing belt sleeve and cause a kink to form. If this happens, you will need to replace the fusing sleeve belt unit.

5. Do the reverse of what you did in step 1 (for example, reattach the fusing unit).

5804	**[OUTPUT Check]**		
104	Polygon Motor: L	ENG	[0 or 1 / **0** / 1/step]
	Runs motor with 21969 rpm.		

105	Polygon Motor: M	ENG	[0 or 1 / **0** / 1/step]
	Runs motor with 25512 rpm.		
106	Polygon Motor: H	ENG	[0 or 1 / **0** / 1/step]
	Runs motor with 30236 rpm.		
107	Polygon Motor: HH	ENG	[0 or 1 / **0** / 1/step]
	Runs motor with 34488 rpm.		
110	Fusing Fan: Full Speed	ENG	[0 or 1 / **0** / 1/step]
	Moves fusing exhaust heat fan.		
111	Fusing Fan: Half Speed	ENG	[0 or 1 / **0** / 1/step]
	Moves fusing exhaust heat fan.		
112	Dev Fan: Left/Toner Supply Cooling Fan	ENG	[0 or 1 / **0** / 1/step]
	Moves develop left exhaust air fan and toner supply cooling fan.		
113	PSU Cooling/Exhaust Heat Fan	ENG	[0 or 1 / **0** / 1/step]
	Moves PSU cooling fan and exhaust heat fan.		
114	Ozone Fan	ENG	[0 or 1 / **0** / 1/step]
	Moves ozone exhaust heat fan.		
115	PCB Box Cooling Fan: Full Speed	ENG	[0 or 1 / **0** / 1/step]
	Moves electric BOX cooling fan.		
116	PCB Box Cooling Fan: Half Speed	ENG	[0 or 1 / **0** / 1/step]
	Moves electric BOX cooling fan.		
117	Development: Right/DriveCooling/MainFan	ENG	[0 or 1 / **0** / 1/step]
	Moves main unit exhaust heat fan, develop right exhaust air fan, driver cooler.		

118	ExhaustCooling Fan	ENG	[0 or 1 / **0** / 1/step]
	Moves paper exit cooling fan.		
119	Development Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Moves develop solenoid.		
5804	**[OUTPUT Check]**		
	Moves develop motor.		
120	Development Motor K: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
121	Development Motor K: Middle Speed	ENG	
122	Development Motor K: Low Speed	ENG	
128	Development Motor FC: Standard Speed	ENG	
129	Development Motor FC: Middle Speed	ENG	
130	Development Motor FC: Low Speed	ENG	
5804	**[OUTPUT Check]**		
	Moves drum motor FC.		
132	Drum Motor FC: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
133	Drum Motor FC: Middle Speed	ENG	
134	Drum Motor FC: Low Speed	ENG	
5804	**[OUTPUT Check]**		
	Moves transfer drum motor K.		
136	Transfer Drum Motor K: Standard Speed	ENG	[0 or 1 / **0** / 1/step]

137	Transfer Drum Motor K: Middle Speed	ENG	
138	Transfer Drum Motor K: Low Speed	ENG	
5804	**[OUTPUT Check]**		
	Moves paper transfer divide motor.		
140	PTR Contact Motor:CW	ENG	[0 or 1 / **0** / 1/step]
141	PTR Contact Motor:CCW	ENG	
5804	**[OUTPUT Check]**		
	Moves toner supply motor.		
142	Toner Supply Motor Y: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
146	Toner Supply Motor M:CCW:Standard Speed	ENG	[0 or 1 / **0** / 1/step]
150	Toner Supply Motor M:CW:(ITB Contact)	ENG	[0 or 1 / **0** / 1/step]
	Moves image transfer divide motor (reverse to toner supply motor M).		
151	Toner Supply Motor C: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
155	Toner Supply Motor K: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
5804	**[OUTPUT Check]**		
	Moves toner bottle drive motor.		
159	Toner Bottle Drive Motor Y	ENG	[0 or 1 / **0** / 1/step]
160	Toner Bottle Drive Motor M	ENG	
161	Toner Bottle Drive Motor C	ENG	
162	Toner Bottle Drive Motor K	ENG	

5804	**[OUTPUT Check]**		
	Moves relay carry motor (bridge unit)/left paper exit carry motor (left paper exit tray).		
163	Bridge Relay/Left Exit Motor: Normal Speed	ENG	[0 or 1 / **0** / 1/step]
164	Bridge Relay/Left Exit Motor: Middle Speed	ENG	
165	Bridge Relay/Left Exit Motor: Low Speed	ENG	
166	Bridge Relay/Left Ex Mt: Normal Speed Upper	ENG	
5804	**[OUTPUT Check]**		
169	Bridge Junction/Left Exit Junction Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Moves relay divide solenoid (bridge unit)/left paper exit divide solenoid (left paper exit tray).		
170	Shift Tray Motor:CW	ENG	[0 or 1 / **0** / 1/step]
	Moves shift tray motor.		
171	Shift Tray Motor:CCW	ENG	[0 or 1 / **0** / 1/step]
	Moves shift tray motor.		
172	Toner End Sensor: K Power	ENG	[0 or 1 / **0** / 1/step]
	Supples power to toner end sensor (K).		
173	Toner End Sensor: FC Power	ENG	[0 or 1 / **0** / 1/step]
	Supples power to toner end sensor (FC).		
175	Drum PCL: FC	ENG	[0 or 1 / **0** / 1/step]
	Lights (PWM drive) the drum PCL (FC).		

5804	**[OUTPUT Check]**		
	Outputs PWM for electrify HVP (DC/AC:Y/M/C/K).		
176	PP: Charge DC: Y	ENG	[0 or 1 / **0** / 1/step]
177	PP: Charge DC: M	ENG	
178	PP: Charge DC: C	ENG	
179	PP: Charge DC: K	ENG	
180	PP: Charge AC: Y	ENG	
181	PP: Charge AC: M	ENG	
182	PP: Charge AC: C	ENG	
183	PP: Charge AC: K	ENG	
5804	**[OUTPUT Check]**		
	Outputs PWM for develop HVP.		
184	PP: Development: Y	ENG	[0 or 1 / **0** / 1/step]
185	PP: Development: M	ENG	
186	PP: Development: C	ENG	
187	PP: Development: K	ENG	
5804	**[OUTPUT Check]**		
	Outputs PWM for divide HVP.		
194	PP: Separation	ENG	[0 or 1 / **0** / 1/step]
5804	**[OUTPUT Check]**		
	Outputs PWM for transfer HVP (image transfer: Y/M/C/K).		
195	PP: ITB: Y	ENG	[0 or 1 / **0** / 1/step]
196	PP: ITB: M	ENG	
197	PP: ITB: C	ENG	
198	PP: ITB: K	ENG	

5804	**[OUTPUT Check]**		
	Outputs PWM for transfer HVP (paper transfer: +/-).		
199	PP: PTR: +	ENG	[0 or 1 / **0** / 1/step]
200	PP: PTR: -	ENG	
5804	**[OUTPUT Check]**		
201	Duplex Guide Plate Open/Close LED	ENG	[0 or 1 / **0** / 1/step]
	Lights duplex guide plate open/close LED.		
5804	**[OUTPUT Check]**		
202	Scanner Lamp	ENG	[0 or 1 / **0** / 1/step]
	Checks output of scanner lamp. Use to check light source malfunction when SC101-01, SC101-02, SC102-00, SC142-00 occurs.		
206	PTR Open/Close LED	ENG	[0 or 1 / **0** / 1/step]
	Lights paper transfer open/close LED.		
208	TM/P Sensor: F	ENG	[0 or 1 / **0** / 1/step]
	Lights TM/P sensor: Front glowing part.		
209	TM/P Sensor: C	ENG	[0 or 1 / **0** / 1/step]
	Lights TM/P sensor: Center glowing part.		
210	TM/P Sensor: R	ENG	[0 or 1 / **0** / 1/step]
	Lights TM/P sensor: Rear glowing part.		
211	HST Sensor Power	ENG	[0 or 1 / **0** / 1/step]
	Powers the HST sensor.		
5804	**[OUTPUT Check]**		
	Outputs PWM (Vcnt) to HST sensor: Y/M/C/K		
212	HST Sensor: Y	ENG	[0 or 1 / **0** / 1/step]
213	HST Sensor: M	ENG	

214	HST Sensor: C	ENG	
215	HST Sensor: K	ENG	
5804	**[OUTPUT Check]**		
	output check: LD1~LD4:Bk,Ma,Cy,Ye: Bk. Means that polygon lights when rotating.		
216	LD1: K	ENG	[0 or 1 / **0** / 1/step]
217	LD2: K	ENG	
218	LD3: K	ENG	
219	LD4: K	ENG	
220	LD1: M	ENG	
221	LD2: M	ENG	
222	LD3: M	ENG	
223	LD4: M	ENG	
224	LD1: C	ENG	
225	LD2: C	ENG	
226	LD3: C	ENG	
227	LD4: C	ENG	
228	LD1: Y	ENG	
229	LD2: Y	ENG	
230	LD3: Y	ENG	
231	LD4: Y	ENG	

5804	**[OUTPUT Check]**		
235	Fusing Shading Plate M: Stop Pos 1(HP)	ENG	[0 or 1 / **0** / 1/step]
	Moves shade plate of fusing Md to home position.		
236	Fusing Shading Plate M: Stop Pos 2(A3 3rd)	ENG	[0 or 1 / **0** / 1/step]
	Moves shade plate of fusing Md to A3 3rd position.		
237	Fusing Shading Plt M: Stop Pos 3(Pstcrd 3)	ENG	[0 or 1 / **0** / 1/step]
	Moves shade plate of fusing Md to JP post card 3rd position.		
5804	**[OUTPUT Check]**		
	Continuously drives specified motor for operation test.		
241	Bank: Tray3: Feed Mt: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
242	Bank: Tray4: Feed Mt: Standard Speed	ENG	
243	Bank: Tray5: Feed Mt: Standard Speed	ENG	
244	Bank: Tray3: Transport Mt: Standard Speed	ENG	
245	Bank: Tray4: Transport Mt: Standard Speed	ENG	
246	Bank: Tray5: Transport Mt: Standard Speed	ENG	
5804	**[OUTPUT Check]**		
	Drives specified motor for a certain period of time to test operation.		
247	Bank: Tray3: PU Solenoid	ENG	[0 or 1 / **0** / 1/step]
248	Bank: Tray4: PU Solenoid	ENG	

249	Bank: Tray5: PU Solenoid	ENG	

6008	**[ADF OUTPUT Check]**		
	Checks operation of the load of ADF.		
003	Feed Motor Forward	ENG	[0 or 1 / **0** / 1/step]
	Rotates paper feed motor forward.		
004	Feed Motor Reverse	ENG	[0 or 1 / **0** / 1/step]
	Rotates paper feed motor backward.		
005	Relay Motor Forward	ENG	[0 or 1 / **0** / 1/step]
	Rotates carry motor forward.		
006	Relay Motor Reverse	ENG	[0 or 1 / **0** / 1/step]
	Rotates carry motor backward.		
011	Inverter Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Interval drives reverse solenoid.		
012	Stamp	ENG	[0 or 1 / **0** / 1/step]
	Interval drives DONE stamp.		
013	Fan Motor	ENG	[0 or 1 / **0** / 1/step]
	Interval drives FAN motor.		
014	Feed Clutch	ENG	[0 or 1 / **0** / 1/step]
	Interval drives paper feed clutch.		
015	Feed Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Interval drives paper feed solenoid.		

6012	**[1-Pass ADF OUTPUT Check]**		
	For Single-Pass simultaneous duplex models only.		
001	Pick-Up Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF pick up motor.		
003	Feed Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF paper feed motor.		
005	Relay Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF paper carry motor.		
009	Exit Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF paper exit motor.		
010	Bottom Plate Motor For/Rev	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Moves up/down the bottom plate by driving the ADF bottom plate motor forward, backward.		
012	Stamp	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Stamps the DONE stamp.		

015	Pull-Out Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF pull out motor.		
016	Middle Motor Forward	ENG	[0 or 1 / **0** / 1/step] 0:Off 1:On
	Forwardly rotates ADF middle motor.		

6124	**[OUTPUT Check: 2K/3K FIN]**		
001	Entrance Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
002	Horizontal Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
003	Pre-Stack Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
004	ITB Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
005	Paper Exit Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
006	Upper Junction Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Turns NO/OFF specified solenoid for validation.		
007	TE Stack Plate Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
008	Paper Exit Open/Close Guide Plate Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		

009	Punching Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
010	Punch Move Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
011	S-to-S Registration Detection Move Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
012	Lower Junction Solenoid Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
013	Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
014	Positioning Roller Rotation Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
015	Feed-out Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
016	Booklet Stapler Move Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
017	Corner Stapler Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
018	Booklet Stapler Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
019	Booklet Stapler Jog Solenoid Move Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		

020	Booklet Stapler Standard Fence Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
021	Booklet Stapler Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
022	Dynamic Roller Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
023	Folder Transport Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
025	Press-fold Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
026	Tray Lift Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
027	Shift Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
028	Front Shift Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
029	Rear Shift Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		
030	Shift Jogger Retraction Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation. * Not use: currently, VOLGA-B does not have setting jogger in system configuration.		

031	Drag Roller Vibrating Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
032	LE Guide Motor	ENG	[0 or 1 / **0** / 1/step]
	Drives specified motor for a certain period of time to test operation.		
033	Navigation LED (All)	ENG	[0 or 1 / **0** / 1/step]
	Lights all guide LED.		

6136	**[OUTPUT Check: FrontFIN]**		
	Continuously drives specified motor for operation test.		
001	Entrance Motor	*ENG	[0 or 1 / **0** / 1/step]
002	Carry Motor	ENG	[0 or 1 / **0** / 1/step]
003	Exit Motor	ENG	[0 or 1 / **0** / 1/step]
6136	**[OUTPUT Check: FrontFIN]**		
	Drives specified motor for a certain period of time to test operation.		
004	Front Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
005	Rear Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
006	Shift Motor	ENG	[0 or 1 / **0** / 1/step]
007	Hitroll Motor	ENG	[0 or 1 / **0** / 1/step]
008	Exit Guide Plate Motor	ENG	[0 or 1 / **0** / 1/step]
009	Staple Moving Motor	ENG	[0 or 1 / **0** / 1/step]
010	Tray Motor	ENG	[0 or 1 / **0** / 1/step]
011	Staple Motor	ENG	[0 or 1 / **0** / 1/step]
012	Stopper Motor	ENG	[0 or 1 / **0** / 1/step]
013	Punch Motor	ENG	[0 or 1 / **0** / 1/step]
014	Punch Moving Motor	ENG	[0 or 1 / **0** / 1/step]

015	Punch Registration Moving Motor	ENG	[0 or 1 / **0** / 1/step]

6162	**[FIN (1K FIN) OUTPUT Check]**		
	Continuously runs specified motor for operation test.		
001	Entrance Transport Motor	ENG	[0 or 1 / **0** / 1/step]
002	Proof Transport Motor	ENG	[0 or 1 / **0** / 1/step]
003	Paper Feed/Positioning & Move Roller Motor	ENG	[0 or 1 / **0** / 1/step]
6162	**[FIN (1K FIN) OUTPUT Check]**		
	Drives specified motor for a certain period of time to test operation.		
004	Junction Solenoid	ENG	[0 or 1 / **0** / 1/step]
005	Shift Motor	ENG	[0 or 1 / **0** / 1/step]
006	Jogger Motor	ENG	[0 or 1 / **0** / 1/step]
007	Exit Guide Plate Open/Close Motor	ENG	[0 or 1 / **0** / 1/step]
008	Feed-out Motor	ENG	[0 or 1 / **0** / 1/step]
009	Tray Lift Motor	ENG	[0 or 1 / **0** / 1/step]
011	Positioning Roller Motor	ENG	[0 or 1 / **0** / 1/step]
012	Stapler Shift Motor	ENG	[0 or 1 / **0** / 1/step]
013	Stapler Motor	ENG	[0 or 1 / **0** / 1/step]
014	Punch Motor	ENG	[0 or 1 / **0** / 1/step]
015	Punch Move Motor	ENG	[0 or 1 / **0** / 1/step]
016	S-to-S Registration Detection Move Motor	ENG	[0 or 1 / **0** / 1/step]
017	Stack Transport Motor: Upper	ENG	[0 or 1 / **0** / 1/step]
018	Stck Trns Uppr Prss Rls/Stndrd Fence Rtrct M	ENG	[0 or 1 / **0** / 1/step]

019	Stack Lower Pressure Release Motor	ENG	[0 or 1 / **0** / 1/step]
6162	**[FIN (1K FIN) OUTPUT Check]**		
	Continuously runs specified motor for operation test.		
020	Folder Transport Motor	ENG	[0 or 1 / **0** / 1/step]
6162	**[FIN (1K FIN) OUTPUT Check]**		
	Drives specified motor for a certain period of time to test operation.		
021	TE Stopper Motor	ENG	[0 or 1 / **0** / 1/step]
022	Folder Blade Motor	ENG	[0 or 1 / **0** / 1/step]
6162	**[FIN (1K FIN) OUTPUT Check]**		
	Lights all guide LED.		
023	Navigation LED (All)	ENG	[0 or 1 / **0** / 1/step]

6171	[Bridge: OUTPUT Check]		
009	Bridge Relay Motor: Low Speed	ENG	[0 or 1 / **0** / 1/step]
	Checks operation of the load of relay motor. Rotates forward the carry motor for 73 mm/s.		
010	Bridge Relay Motor: Middle Speed	ENG	[0 or 1 / **0** / 1/step]
	Checks operation of the load of relay motor. Rotates forward the carry motor for 256 mm/s.		
011	Bridge Relay Motor: Standard Speed	ENG	[0 or 1 / **0** / 1/step]
	Checks operation of the load of relay motor. Rotates forward the carry motor for 450 mm/s.		
012	Junction Solenoid	ENG	[0 or 1 / **0** / 1/step]
	Checks operation of the load of solenoid. Turns ON the solenoid.		

6173	[Shift Tray: OUTPUT Check]		
001	Shift Tray Motor	ENG	[0 or 1 / **0** / 1/step]
	Checks operation of the load of shift tray motor. Rotates forward.		

TEST PATTERN PRINTING

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

4. TEST PATTERN PRINTING

4.1 TEST PATTERN PRINTING

Printing Test pattern: SP2-109

Some of these test patterns are used for copy image adjustments but most are used primarily for design testing.

Note

§ Do not operate the machine until the test pattern is printed out completely. Otherwise, SC will occur.

1. Enter the SP mode then select **SP2-109-003**.
2. Select test pattern for print from the list then press [OK].
3. When selecting color for Printing; Full Color or either CMYK, go to SP2-109-005 (1: Full Color, 2: Cyan, 3: Magenta, 4: Yellow, 5: Black) to select.
4. When changing density of test pattern, select density with SP2-109-006 through 009 for each color.

   Note

   § If select "0" with SP2-109-006 through 009, the color adjusted so will not show up in the test pattern.
5. To Print, Touch "Copy Window", then set settings within the following window for test print (paper size etc…).

   Note

   § When using black and white printing, touch "Black & White" on the LCD. When using color printing, touch "Full Color" on the LCD.
6. Press "Start" key to start test print.
7. After checking test pattern, touch "SP Mode" on the LCD to return to SP mode display.
8. Reset all settings to default values.
9. Exit SP mode.

No.	Pattern	No.	Pattern
0	Copy image	14	Trimmed area
1	V 1dot	15	V Grid 1
2	V 2dot	16	V Grid 2
3	H 1dot	17	H Belt
4	H 2dot	18	H Belt
5	Grid V line	19	Checker flag
6	Grid H line	20	Gray V
7	Grid: Small	21	Gray H
8	Grid: Large	22	4800dpi step pattern 1(1dot)
9	S Grid: Small	23	4800dpi step pattern 1(2dot)
10	S Grid:Large	24	4800dpi step pattern 2(1dot)
11	1dot independent	25	4800dpi step pattern 2(2dot)
12	2dot independent	26	Full side colored
13	4dot independent	27	Full side White

UPDATING THE FIRMWARE

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

5. UPDATING THE FIRMWARE

5.1 OVERVIEW

In order to update the firmware of this machine, it is necessary to download the latest version of firmware on a SD card.
Insert the SD card in SD card slot 2 beside the left rear of the controller box.

5.2 FIRMWARE TYPE

Firmware type	Function	Firmware position	Message display
System/Copy	Operating system	Controller board	System/Copy
Engine		BCU	Engine
Control panel		Control panel	Lcdc
Network support		Controller board	Network Support
Language 1		Control panel	Language 1
Language 2		Controller board	Language 2
RPCS		Controller board	RPCS
PCL (PCLXL)		Controller board	PCL (PCLXL)
Media print JPEG/TIFF		Controller board	MediaPrint:JPEG/TIF
Font		Controller board	FONT
Font 1		Controller board	FONT1
Network document box		Controller board	NetworkDocBox
Printer		Controller board	Printer
Scanner		Controller board	Scanner
Web support		Controller board	Websupport
Web Application		Controller board	WebUapl

Note

§ Even when not using a RPCS driver, the XPS driver requires RPCS firmware.

5.3 PROCEDURE

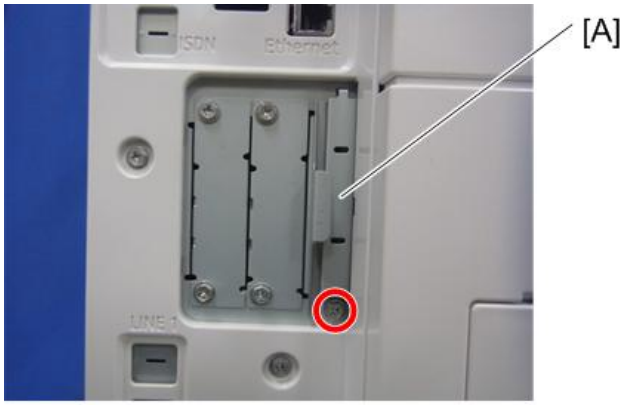
Important

- A SD card is a precision device, so when you handle an SD card, respect the following.
- When the power is switched ON, do not insert or remove a card.
- During installation, do not switch the power OFF.
- Since the card is manufactured to high precision, do not store it in a hot or humid location, or in direct sunlight.
- Do not bend the card, scratch it, or give it a strong shock.
- Before downloading firmware on an SD card, check whether write-protection of the SD card is canceled. If write-protection is enabled, an error code (error code 44, etc.) will be displayed during download, and the download will fail.
- Before updating firmware, remove the network cable from this machine.
- If SC818 is generated during software update, switch the power OFF -> ON, and complete the update which was interrupted.
- During software update, network cables, remove interface cables, wireless boards, etc., (so that they are not accessed during update).

5.3.1 UPDATE PROCEDURE

1. First download the software to be updated to the SD card.
2. Switch the power OFF.
3. Remove the SD card slot cover [A][B]. (×1)

   D148/D149/D150:



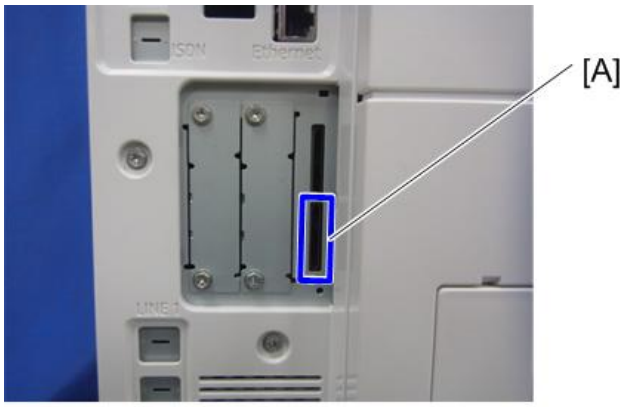
d1463064

   D146/D147:

d1467101

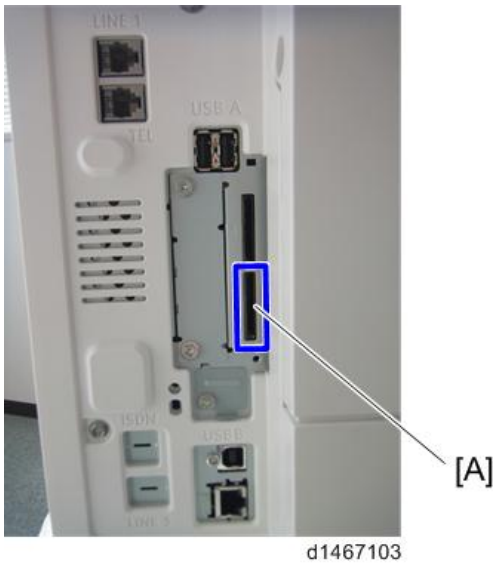
4. Insert the SD card [A] straight in slot 2.

   D148/D149/D150:



d1463065

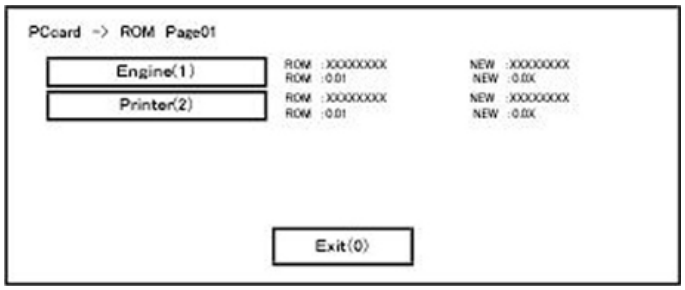
D146/D147:



Note

- § Check whether the card is properly in the SD card slot. When a SD card is inserted, a click is heard, and it is locked.
- § To remove the card, release by pressing once in the set state.

5. Switch the power ON.
6. Wait until the update screen starts (about 45 seconds).
   When it appears, "Please Wait" is displayed.
7. Check whether a program installation screen is displayed. (English display) When two or more software modules are contained in the SD card, they are displayed as follows.



When two or more software names are displayed

1. **Press the module selection button or 10 keypad [1] - [5].**
2. **Choose the appropriate module. (If already selected, cancel the selection)**

Operation of keys or buttons

Keys or buttons to press	Contents
[Exit] or 10 key [0]	Returns to normal screen.
[Start] Key	Select all modules.
[Clear/Stop] key	Cancel all selection states.

Display contents

On the above screen, two programs, i.e., engine firmware and printer application are displayed. (The screen may change depending on the firmware or application).
The display contents are as follows:

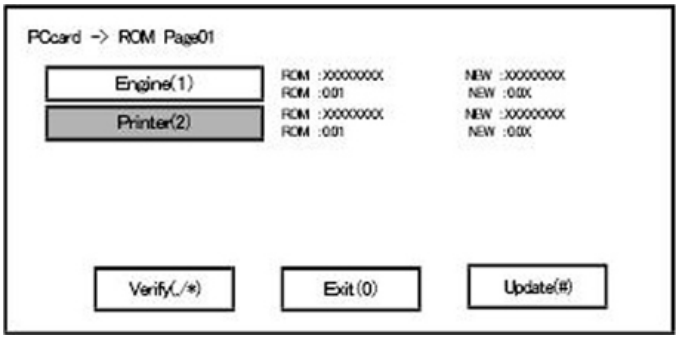
Display	Contents
ROM:	Display installed module number / version information.
NEW:	Display module number / version information in the card.

* The upper row corresponds to the module number, the lower row corresponds to the version name.

8. Select the module with the module selection button or 10 key operation. The selected module is highlighted, and [Verify] and [Update] are displayed.

Note

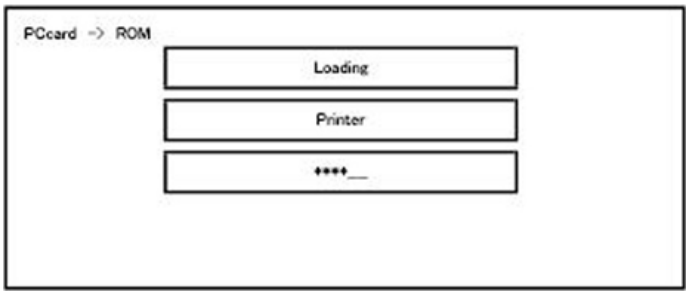
§ Depending on the combination of update software, it may not be possible to select simultaneously.



Key or button operations

Keys or buttons to press	Contents
[Update] or [#] key	Update the ROM of the selected module.
[Verify] button or [./*] key	Perform verification of the selected module.

9. Press the [Update] or [#] key, and perform software update.
10. During firmware update, a “firmware update/ verification progress screen" is displayed. When firmware update is complete, a “firmware update end screen" is displayed.

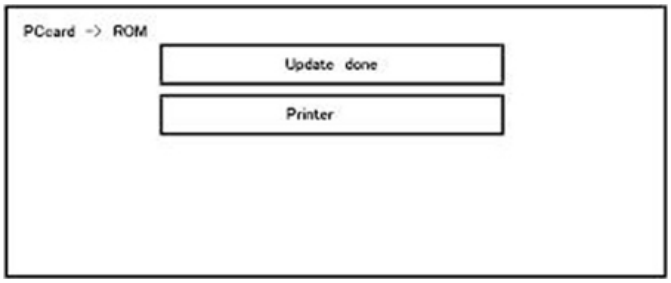


§ In the middle row, the name of the module currently being updated is displayed. (in this case, the printer is being updated)

§ In the lower row, a progress bar is displayed in ten steps. (The more *, the more the progress.)

§ When updating the control unit program, since progress cannot be displayed on the screen, the ROM update process is determined when the LED of the [Start] key changes from red to green.

Firmware update end screen



§ This screen is displayed when all selected firmware modules are to be updated. "printer" in the second row shows that the module updated last is the printer. (When more than one are updated simultaneously, only what was updated last is displayed.)

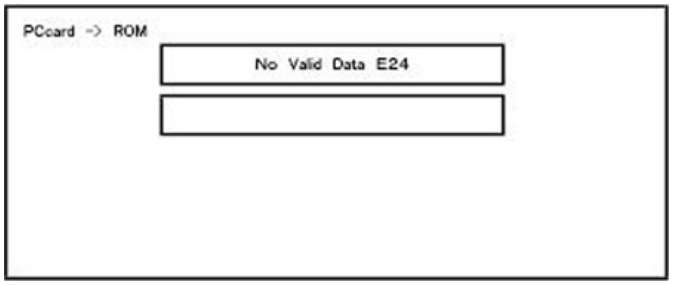
§ When Verify has completed normally, the Update done display of the above screen is "Verify done." If "Verify Error" is displayed, reinstall the software of the application displayed in the lower row.

11. After switching power OFF, remove the SD card.
12. Again, switch the power ON, and check whether the machine is operating normally.
13. Return the SD card slot cover to the original position.

Note

- When the power supply is switched OFF during firmware update, update is interrupted, and the power is switched ON again, normal operation cannot be guaranteed.
- To guarantee operation, an update error continues to be displayed until update is successful.
- In this case, insert the SD card again, switch the power ON, and continue download of firmware from the SD card automatically.
- Web access card software: EXJS (EXtended Java Script) is a Type-C ESA application, and like a conventional Web access card, update using an sdk folder is required.
- The PS3 firmware program is included in the preinstalled PDF firmware.
- In the default state, although the PS3 firmware program is hidden in the disabled state, the function is enabled by installing the PS3 card.
- (The program installed in the PS3 card is a dongle (key) for enabling PS3 function).
- Due to the above specification, the self-diagnosis result report shows the ROM module number / software version of the PDF firmware at the PS location.

5.4 ERROR SCREENS DURING UPDATING



EXX shows an error code.

(This error is generated if update was performed when a printer application startup card is removed after system startup. An error indicating failure of card access is displayed on the screen.)

For error codes, refer to the following table:

Error Code List

Code	Contents	Solutions
20	Physical address mapping cannot be performed.	1. Reinsert the SD card. 2. Replace the SD card.
21	Memory acquisition cannot be performed.	1. Connect the HDD correctly. 2. Replace the HDD.
22	Compressed data decompression failure.	The ROM update data in the SD card is incorrect or damaged.
23	ROM update program startup error	Controller program fault. Controller program reinstallation, or controller board replacement
24	Card access error	1. Reinsert the SD card. 2. Replace the SD card.
30	During print download, there is no HDD.	1. Connect the HDD correctly. 2. Replace the HDD.
31	Data during download continuation is not correct.	Insert the SD card containing continuation target module data. Reinstallation required.
32	Data during download interrupt is not correct.	Insert the SD card containing recovery target module data after interruption. Reinstallation required.

Error screens during updating

Code	Contents	Solutions
33	Card version is not correct.	ROM data in the SD card is incorrect or damaged.
34	There is no module which matches the destination.	Re-enter ROM update data with correct destination (domestic/overseas/OEM) in the SD card.
35	There is no module corresponding to the module.	Re-enter ROM update data for the correct device in the SD card.
36	For another reason, there is no rewrite target module.	Re-enter ROM update data for the correct device in the SD card.
40	Motor download execution malfunction	Re-enter the data in the SD card. Alternatively, replace the engine circuit board. Reinstallation required.
42	Control unit download execution malfunction	Re-enter data in the SD card. Alternatively, replace the control unit board. Reinstallation required.
43	Print download execution malfunction	Re-enter data in the SD card. Alternatively, replace the HDD. Reinstallation required.
44	Controller download execution malfunction	Re-enter data in the SD card. Alternatively, replace the controller board. Reinstallation required.
50	Electronic authentication check NG	Re-enter ROM update data for the correct device in the SD card.

Note

§ The PDF firmware installed as standard contains a program required to print PS3 data as default. However, this PS3 program is normally disabled.

§ The PS3 firmware is a dongle (key) which enables PS3 data printing functions. When the PS3 firmware is installed, the PS3 program in the PDF firmware is enabled. Due to this specification, the self-diagnosis result report shows the ROM part number/software version of the PDF firmware contained in the PS3 program.

UPDATING THE VM FIRMWARE

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

6. UPDATING THE VM FIRMWARE

6.1 CREATING AN SD CARD FOR UPDATING

Important

§ Depending on the ESA application installed in the machine, there might be some special notes or procedure when updating Java platform. See the manual for the ESA application.

Important

§ Conventionally, Java VM was provided by a SD card, but it is now installed as standard on the MFP controller board (NAND flash).

§ As components are increasingly implemented on-board, version upgrade of the VM card, which was previously done on a PC, is now done on the MFP.

1. Download the update modules from Firmware Download Center. As one of the model modules, "Java VM v11 UpdateTool" is available for download. (The version differs depending on the model.)
2. Unzip the downloaded file. Copy the whole "sdk" folder to the root of the SD card directly below.

Note

§ When unzipping the downloaded file, two subfolders ("update" and "sdk") exist in the "sdk" folder. Rather than just copying the subfolder "sdk", copy the whole folder "sdk".

6.2 UPDATING PROCEDURE

⚠CAUTION

- § SD card can be inserted with the machine power off.
- § During the updating process, do not turn off the power.
- § If you turn off the power during the updating, the machine performance is not guaranteed. (There is a possibility that an SC and boot failure occurs.)
- § If you accidentally turn off the power during the updating, retry the updating procedure from the beginning. (If the update fails again, you will need to replace the controller board.)

1. If the boot priority application is set to the ESA application, switch to the copy application. ([System Settings]-[General Features]-[Function Priority])
2. Insert the SD card you created into the service slot, and then turn ON the main power switch.
3. After booting Java VM, update of the application is started. "Updating SDK/J" appears in the banner message of the touch panel display. (Estimated time: about 2 minutes)

1. When the update is complete, "Update SDK / J done SUCCESS" will appear in the banner message of the touch panel display. After turning off the power, remove the SD card from the slot.
   When you fail to update, "Update SDK/J done FAIL" is displayed. You can confirm the cause of the error message below.
2. Reconfigure the Heap size. ([Extended Feature Settings]-[Administrator Tools]-[Heap/Stack Size Settings]). See the manual for the ESA application to know what value to set for the heap size.
3. Return to the previous setting for the boot priority application.

6.3 LIST OF ERROR MESSAGES

Update results are output as a text file on the SD card called "sdkjversionup.log" in the "¥sdk ¥update" folder.

Result	File contents	Description of the output
Success	script file = /mnt/sd0/sdk/update/bootscript 2012/08/22 17:57:47 start 2012/08/22 17:59:47 end SUCCESS	Boot script path Boot scripts processing start time End time boot script processing, the results
Failure	script file = /mnt/sd0/sdk/update/bootscript 2012/08/22 17:57:47 start XXXX Error 2012/08/22 17:57:57 end FAIL	Boot script path Boot scripts processing start time Error message (Possibly multiple) End time boot script processing, the results

Error Message	Cause	Remedy
PIECEMARK Error,machine=XXXXX	Applied the wrong updating tool (Using the updating tool of a different model)	Use the correct updating tool for this model.
pasePut() - error : The file of the copy origin is not found Put Error!	Inadequacy with the SD card for updating (Files are missing in the updating tool)	Re-create the SD card for updating.
paseCopy() - error : The file of the copy origin is not found. Copy Error!	Inadequacy SD card for updating (Files in the updating tool are missing)	Inadequacy SD card for updating (Files in the updating tool are missing)

Error Message	Cause	Remedy
[file name: XX] error,No space left on device pasePut() - error : The destination directory cannot be made. pasePut() - error : fileCopy Error. Put Error!	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation, stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."
[file name: XX] error,No space left on device paseCopy() - error : The destination directory cannot be made. paseCopy() - error : fileCopy Error. Copy Error!	Writing destination is full. (The NAND flash memory on the controller board is full.)	Uninstall the unnecessary SDK applications. If you can not uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file."
Put Error! *1	Error, not normally expected to occur	If you cannot uninstall it, implement escalation stating the "model name, application configuration, SMC sheet (SP5-990-006/024/025), and error file." *1 Without the foregoing error message, only "Put Error / Copy Error" will be displayed
Copy Error! *1		
Delete Error!		
[XXXXX] is an unsupported command.		
Version Error		

UPDATING THE EXJS

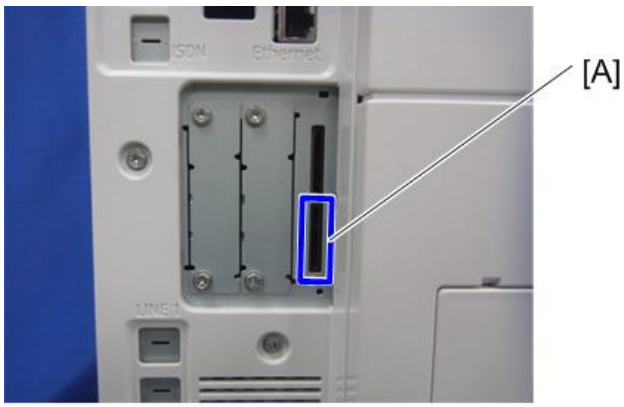
REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

7. UPDATING THE EXJS

7.1 TO UPDATE EXJS

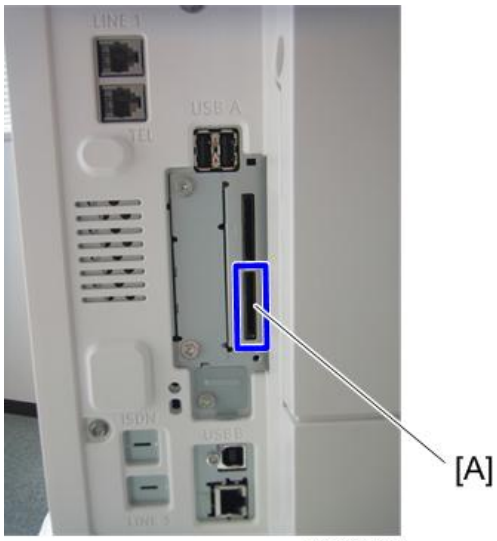
1. Put the SD card containing the firmware to install in SD card slot 2 [A], and switch on the power.

   D148/D149/D150:



d1463065

   D146/D147:



d1467103

2. Wait until the update screen starts.
3. When the update screen is displayed, select [browser], and press the [Update (#)] button.
4. When "Update done." is displayed, switch the power OFF, and remove the SD card from SD card slot 2.

   <When updating Extension JavaScript, add the following steps>
5. Switch the power ON.
6. Press the [Default setting/counter] key.
7. Press the [Extension function default setting] button.

8. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
9. Stop "Extended JS" on the “Startup setting” condition with a tab.
10. Switch the power OFF.
11. Insert the Extended JavaScript upgrade SD card in SD card slot 2.
12. Switch the power ON.
13. Press the [Default setting/counter] key.
14. Press the [Extension function default setting] button.
15. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
16. Press the [Install] tab.
17. Press [SD card], and select "Extended JS" from the list of extension functions.
18. Select [MFP hard disk] as the installation location, and press [Next].
19. After checking extension function information on the “Installation preparation complete” screen, press the [Enter] button.
20. "The following extension functions are already installed. The message “Overwrite extension function?” is displayed. Press the [Continue] button.
21. When installation is complete, the message “Extension function has been installed" is displayed. Press the [OK] button.
22. On the [Startup settings] tab, set [Extended JS] to the startup standby state, and switch the power OFF.
23. Remove the SD card from SD card slot 2, and return the controller cover.
24. Switch the power ON.
25. Press the [Default setting/counter] key.
26. Press the [Extension function default setting] button.
27. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
28. Check the version of [Extended JS] on the [Startup settings] tab is the latest version.

Note

- § If the power is ON before starting Step 1, switch the power OFF after first performing Steps 5-9, and perform Step 1 and subsequent steps. In that case, skip Steps 5-10. (This saves time.)
- § If you do not plan to update Extension JavaScript, return the controller cover to the original position after performing Step 5.

7.2 WHEN CHECKING THE VERSION OF EXJS

1. Switch the power ON.
2. Press the [Default setting/counter] key.
3. Press the [Extension function default setting] button.
4. Press the [Extension function default setting] button on the [Extension function default menu setting] screen.
5. Check the version of [Extended JS] on the [Startup settings] tab is the latest version.

Note

§ If checked apart from the above procedure (firmware version displayed in system default settings), a different version from the actual version may be displayed.

UPLOADING/DOWNLOADING NV-RAM DATA

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

8. UPLOADING/DOWNLOADING NV-RAM DATA

8.1 OUTLINE

In this machine, SP data can be uploaded to a SD card from the NV-RAM, or it can be downloaded from a SD card to the NV-RAM.

8.2 UPLOAD TO SD CARD FROM NV-RAM

1. When the power is OFF, set the SD card in a SD card slot (for service), and switch the power ON.
2. Go into SP5-824-001 (upload of NV-RAM<EEPROM> contents).
3. Press key [1] under conditions where execution is possible. Upload starts.
4. Check that there a NV-RAM¥ [machine number] .nv has been created for the NV-RAM folder of the SD card.
   - § For machine number B1790017, it is NV-RAM¥B1790017.nv. Data cannot be uploaded to a copier to which a machine number has not been input NV data of plural copiers can be stored in one SD card.

Note

- § SMC print (SP5-990) is output in SP mode. Prepare for the case where upload/download of NV-RAM data fails. Record the model number on an uploaded SD card.

8.3 DOWNLOAD TO NV-RAM FROM SD CARD

When download fails due to a fault with the NV-RAM card, or a fault with the communication line between the controller <=>BCU(s), repeat the download. If still not successful, manually enter the SP/UP preset value based on the SMC print outputted previously.

1. When the power is OFF, set the SD card containing NV-RAM data in the SD card slot (for service), and switch the power ON.
2. Go into SP5-825-001 (NV-RAM contents download).
3. Press key [1] under conditions where execution is possible.
   * When there is a nv file corresponding to a machine model number, it is downloaded. When the model number is not correct, it is not downloaded.
   - Data except for download target
     - Total counters
     - C/O, P/O counters
     - Accounting counters for default settings counter display
     - Copy option setting by customer support system

ADDRESS BOOK
UPLOAD/DOWNLOAD

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

9. ADDRESS BOOK UPLOAD/DOWNLOAD

9.1 BACKUP

Backup address book information on SD card formatted with the specified software.

1. Switch the power OFF.
2. After removing the SD slot cover of the controller unit, set the SD card in the service slot.
3. Switch the power ON.
4. Execute SP5-846-051 full address book backup.
5. Switch the power OFF.
6. Remove the SD card.
7. Return the SD slot cover to the original position.

Note

- When local user information to be uploaded is not contained in the SD card, an execute malfunction is displayed. It cannot be used in the write-protect state.
- Since the address book is the customer's information, take care about handling it, and never bring it back.

9.2 RESTORE

1. Switch the power OFF.
2. After removing the SD slot cover of the controller unit, set the SD card in the service slot.
3. Switch the power ON.
4. Execute SP5-846-052 (address book information restore).
5. Switch the power OFF.
6. Remove the SD card.
7. Return the SD card slot cover to the original position.
8. Switch the power ON, and check that the address book has been restored.

Note

- User code counter information is initialized.
- Administrator and supervisor information is not backed up. Also, it is not erased during restore.
- If a download file does not exist, or if erasure is complete, execution malfunction is displayed.

9.3 SPECIFICATION

The information which can be backed up / restored is the following items.

- § Entry information
- § User code information
- § E-mail information
- § Protection code information
- § Fax information
- § Fax additional information
- § Group information
- § Title information
- § Title position information
- § Folder information
- § SMTP attestation
- § Local authorization
- § Folder authorization information
- § Account ACL information
- § New document initial ACL information
- § LDAP authorization information

RFU UPDATING THE FIRMWARE

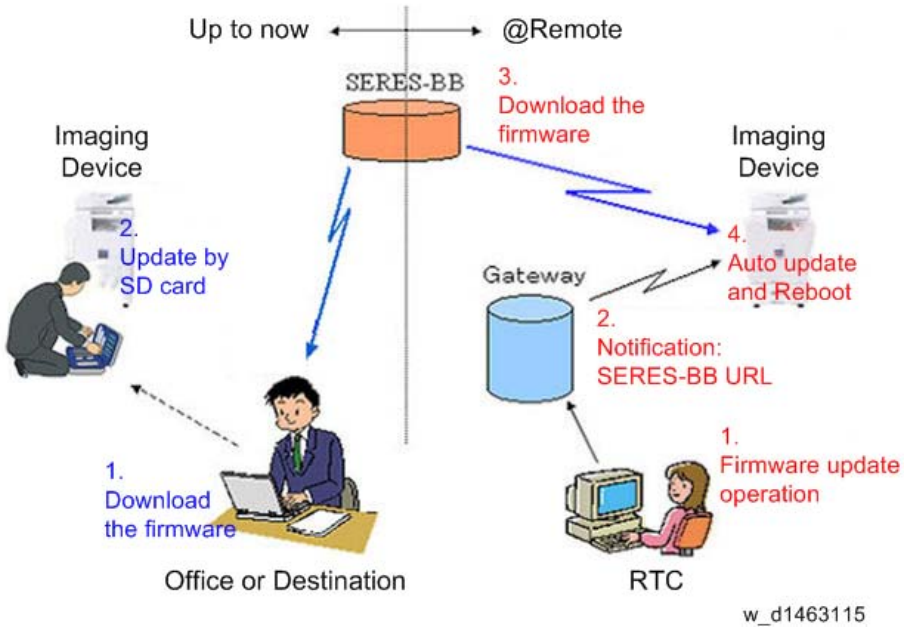
REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

10. RFU UPDATING THE FIRMWARE

10.1 RFU UPDATING THE FIRMWARE

In this machine, software can be updated by remote control using @Remote.

Unmanned RFU using @Remote



RFU-compliant firmware

Compliant firmware is ordinary firmware with a recovery function (in this system, for custom /individual firmware, RFU [remote firmware update] is not performed).

Select firmware with high urgency/priority, such as commercial machine update firmware, and firmware guided by TI.

Error correspondence method

If any trouble accompanying unmanned RFU occurs, it should handled by the following flowchart:

1. Check the result of unmanned RTC

   Check the machine startup situation on the morning after unmanned RFU by RTC.

   If the machine is not operating normally, arrange a telephone consultation with the user from RTC, and request the user to perform a machine reboot.

1. CE Visit

   If the machine does not recover on a reboot, and if the customer cannot be contacted by telephone, a CE visit request is made from RTC.

<Disposal method>

During a visit accompanying unmanned RFU trouble, perform the following steps in order.

1. Switch the power OFF/ON.

2. Download the same firmware as the firmware supplied to the SD card by RFU, and perform upgrade with the SD card
   (It may take about 5 minutes until upgrade by the SD card starts).
1. Replace the firmware storage destination board.
   [Example]
   In the case of System/Document: Controller board
   In the case of Engine: Engine board

CAPTURING THE DEBUG LOGS

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

11. CAPTURING THE DEBUG LOGS

11.1 OVERVIEW

With this feature, you can save debug logs that are stored in the machine (HDD or operation panel) on an SD card. It allows the Customer Engineer to save and retrieve error information for analysis.

The Capturing Log feature saves debug logs for the following three.

§ Controller debug log
§ Engine debug log
§ Debug log of the operation panel

Important

§ In older models, a technician enabled the logging tool after a problem occurred. After that, when the problem had been reproduced, the technician was able to retrieve the debug log.
§ However, this new feature saves the debug logs at the time that problems occur. Then you can copy the logs to an SD card.
§ You can retrieve the debug logs using a SD card without a network.
§ Analysis of the debug log is effective for problems caused by the software. Analysis of the debug log is not valid for the selection of defective parts or problems caused by hardware.

Types of debug logs that can be saved

Type	Storage Timing	Destination (maximum storage capacity)
Controller debug log (GW debug log)	Saved at all times	HDD (4 GB) Compressed when written to an SD card from the HDD (from 4 GB to about 300 MB)
Engine debug log	§ When an engine SC occurs § When paper feeding/output stop by jams § When the machine doors are opened during normal operation	

Type	Storage Timing	Destination (maximum storage capacity)
Operation panel debug log	§ When a controller SC occurs § When saving by manual operation with the Number keys and the Reset key (Press “Reset”, “0”, "1” and “C”(hold for 3 seconds)) § When the operation unit detects an error § When the operation panel detects an error	Operation panel (400 MB /Up to 30 times) When updating the firmware for the operation panel, the debug logs are erased.

Note

- § Debug logs are not saved in the following conditions.
- § While erasing all memory
- § While data encryption equipment is installed
- § While changing the firmware configuration
- § Forced power OFF (accidentally disconnecting the outlet)
- § Engine debug log in shutdown
- § When the power supply to the HDD is off because of energy saving (engine OFF mode /STR mode)

11.1.1 SECURITY OF THE OPERATION LOG

The following operation logs related to security are not saved.

- § User ID
- § Password
- § IP address
- § Telephone number
- § Encryption key
- § Transition to SP mode

Also the following operation logs are not saved.

- § Number keys (0 to 9) on the operation panel
- § Soft keyboard on the touch panel display
- § External keyboard

11.2 RETRIEVING THE DEBUG LOGS

Important

- Retrieve debug logs to identify the date of occurrence of the problems and to find details of the problems
- e.g.: At around 8:00 am on March 10, an engine stall occurred. The operation panel does not respond. Turn the main power supply off / on.
- You need to retrieve the debug logs dating back three days from the date of the problem.
- Analysis of the debug log is effective for problems caused by the software. Analysis of the debug log is not valid for the selection of defective parts or problems caused by hardware.

11.2.1 PROCEDURE FOR RETRIEVING THE DEBUG LOG

1. **Insert the SD card into the slot [A] on the side of the operation panel.**

d1462643

2. **Enter SP mode.**
3. **Set the start date of the log with SP5-857-101 (Start date of debug log output)**
   e.g.: March 28, 2013: input 20130328 (yyyymmdd)

   Note

   § Set the date three days earlier than the occurrence of the problems.
4. **Set the end date of the log with SP5-857-102 (End date of debug log output)**
   e.g.: March 31, 2013: input 20130331 (yyyymmdd)
5. **Execute SP5-857-103 (Get a debug log of all) to write the debug log to the SD card.**
   If the transfer is finished successfully, 'completed' is displayed on the touch panel display.

   Note

   § The approximate time it takes to transfer the debug log is as follows. Transfer time may be affected by the type or format of the SD card. (It is recommended that you format the SD card using the Panasonic SD Formatter (freeware)).
   § Controller debug log (GW debug log): 2 - 20 minutes
   § Engine debug log: 2 minutes
   § Operation panel debug log: 2 - 20 minutes
   § You can use the following service programs to obtains individual logs.
   § SP5-857-104 (Obtains the controller debug log)
   § SP5-857-105 (Obtains the engine debug log)
   § SP5-857-106 (Obtains the snapshot debug log)
   § SP5-857-107 (Obtains the control panel debug log)
   § The SD access LED flashes while logs are being obtained.

6. “Finish” appears on the touch panel display, then remove the SD card.

Note

§ If ‘failed’ appears on the touch panel display, turn the power off, and then recover from step 1 again.

The debug logs are saved with the following file names.

Controller debug log (GW debug log)	/LogTrace/machine number/watching/yyyymmdd_hhmmss_unique identification number.gz
Engine debug log	/LogTrace/machine number/engine/yyyymmdd_hhmmss.gz
Operation panel debug log	/LogTrace/machine number/opepanel/yyyymmdd_hhmmss.tar.gz

D146/D147/D148/D149/D150
SERVICE MANUAL APPENDICES

D146/D147/D148/D149/D150
APPENDICES

TABLE OF CONTENTS

1. APPENDICES: SPECIFICATIONS 1-1

1.1 SPECIFICATIONS 1-1

1.1.1 GENERAL SPECIFICATIONS 1-1

1.1.2 PRINTER SPECIFICATIONS 1-5

1.1.3 SCAN SPECIFICATIONS 1-7

1.1.4 OTHER SPECIFICATIONS 1-9

HDD Specifications 1-9

Speed Specification 1-10

OFF / Sleep Mode Shift Time 1-11

OFF/Sleep mode Watts, Recovering time 1-12

Noise (Sound Power Level) 1-12

1.2 SUPPORTED PAPER SIZES 1-13

1.2.1 ORIGINAL SIZE DETECTION 1-13

1.2.2 PAPER FEED 1-15

Tray 1 Through 3 1-15

LCT, Bypass Trays 1-19

1.2.3 PAPER EXIT 1-23

Main unit tray, 1 bin tray, Inner shit tray, Side tray 1-23

Finisher 1 1-26

Finisher 2 1-29

Finisher 3 1-36

Bridge Unit 1-44

1.3 SOFTWARE ACCESSORIES 1-48

1.3.1 PRINTER DRIVERS 1-48

1.3.2 SCANNER AND LAN FAX DRIVERS 1-49

1.4 OPTIONAL EQUIPMENT 1-50

1.4.1 ARDF DF2020 (D684) 1-50

1.4.2 SPDF DF3080 (D683) 1-51

1.4.3 INTERNAL FINISHER SR3130 (D690) 1-52

1.4.4 FINISHER SR3140 (D687) 1-54
1.4.5 BOOKLET FINISHER SR3150 (D686) 1-56
1.4.6 FINISHER SR3160 (D689) 1-58
1.4.7 BOOKLET FINISHER SR3170 (D688) 1-60
1.4.8 SIDE TRAY TYPE M3 (D725)..... 1-64
1.4.9 INTERNAL SHIFT TRAY SH3070 (D691) 1-65
1.4.10 1 BIN TRAY BN3110 (D692)..... 1-66
1.4.11 BRIDGE UNIT BU3070 (D685) 1-66
1.4.12 PUNCH UNIT PU3040 NA/EU/SC (D716) 1-67
1.4.13 PUNCH UNIT PU3050 NA/EU/SC (D717) 1-68
1.4.14 PUNCH UNIT PU3060 NA/EU/SC (D706) 1-69
1.4.15 PAPER FEED UNIT PB3150 (D964)..... 1-70
1.4.16 PAPER FEED UNIT PB3160 (D963)..... 1-70
1.4.17 LCIT PB 3170 (D965)..... 1-71
1.4.18 LCIT RT 3030 (D696)..... 1-71

2. APPENDICES: PREVENTIVE MAINTENANCE TABLES 2-1
2.1 PREVENTIVE MAINTENANCE 2-1
2.1.1 PREVENTIVE MAINTENANCE ITEMS 2-1
Yield Parts..... 2-1
Mainframe 2-1

APPENDIX:

SPECIFICATIONS

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

1. APPENDICES: SPECIFICATIONS

1.1 SPECIFICATIONS

1.1.1 GENERAL SPECIFICATIONS

Item	Spec.
Configuration:	Desk Top
CPU:	D146/D147: PMC-Sierra RM7035-600MHz D148/D149/D150: Intel R Celeron R Processor U3405 1.07GHz
RAM:	D146/D147: 1.5GB (Standard), 2GB(Extend) D148/D149/D150: 2GB (Standard)
Color Support:	Full color
Photoconductor Type:	OPC Drum
Copy System:	Laser Beam scan + Dry Two-component (Toner + Developer)
Develop System:	4 Drum Tandem System
Fusing System:	QSU-DH Fusing System

Item	Spec.
First copy time*1:	<D146> Black & White: 4.6Sec. or less Color: 7.3 Sec. or less <D147> Black & White: 4.6Sec. or less Color: 7.3 Sec. or less <D148> Black & White: 4.0Sec. or less Color: 5.7 Sec. or less <D149> Black & White: 3.1Sec. or less Color: 4.6 Sec. or less <D150> Black & White: 3.1 Sec. or less Color: 4.6Sec. or less
Copy Speed:	D146: Color 30Sheets/Min., Black & White 30 Sheets/Min. D147: Color 35 Sheets/Min., Black & White 35 Sheets/Min. D148: Color 45 Sheets/Min., Black & White 45 Sheets/Min. D149: Color 55 Sheets/Min., Black & White 55 Sheets/Min. D150: Color 60 Sheets/Min., Black & White 60 Sheets/Min.
Warm-Up-Time: (Normal Temperature 20C/68F, NRP)	D146: 19 Sec. or less (With adjust operation) D147: 19 Sec. or less (With adjust operation) D148: 20 Sec. or less (With adjust operation) D149: 17 Sec. or less (With adjust operation) D150: 17 Sec. or less (With adjust operation)
Originals:	Sheet/Book/Object
Maximum original size:	A3 SEF (297 x 420mm), 11 x 17 SEF (279 x 432mm): A3/DLT full size

Item	Spec.
Copy Size:	Main Unit upper tray (1st tray): A4 LEF/LTLEF Main Unit lower tray (2nd tray): 12.6"x17.7"/12"x18" to A6SEF Bunk lower tray: 12.6"x17.7"/12"x18" to A5 LEF Tandem LCT: A4 LEF/LTLEF Side set LCT:A4LEF/B5LEF/LTLEF Bypass tray: 12.6"x17.7"/12"x18"/320x457mm to A6SEF Custom size Width: 90 mm to 320 mm (Bypass) Length: 148 mm to 600 mm
Paper Thickness:	§ Tray 1: 52 to 300g/m2 § Tray 2: 52 to 256 g/m2 § Bypass tray: 52 to 300g/m2 § Duplex: 52 to 256g/m2
Mask image area:	§ Leading edge: 4.2±1.5mm § Left/Right: 0.5 to 4.0mm § Trailing edge: 0.5 to 6.0mm
Copy Scale (Zoom):	25 to 400%(1% step)
Resolution (Scanning):	600dpi x 600dpi
Resolution(Writing):	§ D146/D147: 1200 x 600dpi(Standard Speed) 1200 x 1200dpi(Half Speed) § D148/D149/D150: 1200 x 1200dpi(Full Line Speed)
Gradation:	256
Feeding System / Paper Capacity:	§ 550x2+550x2+100 Sheets (4 Drawers paper feed model) § 550x2+550x2+1500+100 Sheets (4 Drawers paper feed + side set LCT model) § 550x2+1000x2+100 Sheets (Tandem paper feed model) § 550x2+1000x2+1500+100 Sheets (Tandem paper feed + side set LCT model)
Continuous Copy:	1 to 999 Sheets

Item	Spec.
Power Source:	NA: 120-127V, 60Hz EU, AA, CN: 220-240V, 50/60Hz TW: 110V, 60Hz KO: 220V, 60Hz
Max. Watts:	1.5kW or less
Dimensions (W x D x H):	§ 587 x 685 x 788mm or less (Main Unit) § 668 x 738 x 1030mm or less (With 2 drawer bank (Anti tip component Inc.)) Height: To contact glass.
Unit Occupation Dimensions (W x D):	Main Unit: 1149 x 1236mm (With Bypass table opened + Main unit paper exit drawer)
Weight:	§ D146/D147: 81.0kg or less § D148/D149: 86.0kg or less § D150: 86.5kg or less

*1 A4 LEF, 1st paper feed tray, with book scanner.

1.1.2 PRINTER SPECIFICATIONS

Item	Spec.
Print Size:	Fixed size: Max. A3 SEF(297 x 420mm), 12 x 18 SEF (304.8 x 457.2mm) Custom: Max. 305 x 600mm (bypass tray)
Print Speed(A3 LEF):	§ D146: Color 30Sheets/Min., Black & White 30Sheets/Min. § D147: Color 35Sheets/Min., Black & White 35Sheets/Min. § D148: Color 45Sheets/Min., Black & White 45Sheets/Min. § D149: Color 55Sheets/Min., Black & White 55Sheets/Min. § D150: Color 60Sheets/Min., Black & White 60Sheets/Min.
Resolution:	1200 x 1200dpi, 600 x 600dpi, 400 x 400dpi, 300 x 300dpi, 200 x 200/dpi
PDL:	§ Standard: PDF Direct, MediaPrint: JPEG, MediaPrint: TIFF § Optional: PS3, IPDS, PictBridge
Interface:	§ Standard: USB2.0 Type A / Type B SD Slot Ethernet(1000BASE-T/100BASE-TX/10BASE-T) § Optional: Wireless LAN (IEEE802.11a/b/g/n) IEEE1284 Gigabit Ether (Optional for EFI) Bluetooth Ver2.0+EDR

Item	Spec.
Protocol:	§ Standard: TCP/IP (IPv4/IPv6), SMB, IPP, FTP, NCP, bonjour, RSH, LPD, DIPRINT, NetBIOS, WSD (Device/Printer/Scanner), UDP, ICMP, SSL, TSL, Ipsec, HTTP, SMTP, POP3, IMAP4, SNMP v1/v2/v3, DNS, Dynamic DNS, LDAP, DHCP, RCP, SNTP, IEEE802.1X, HTTPS, RHPP, NTLM, Kerberos, LLTD, TELNET, WINS, sftp, ssh, SSDP (UpnP) § Optional: IPX/SPX (NetWare)
USB Interface (Standard):	§ Available Operating Systems: Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, Mac OS 10.3.3 or later. § communication mode: Corresponded to USB2.0 Standard § Connecting mode: Devices corresponded to USB2.0 Standard
Available Operating Systems:	WindowsXP/Server2003/Vista/Server2008/7(32/64bit)
Built-in Fonts:	§ PCL 5c : 45 fonts + International fonts 13 fonts § PS 3 : 136 fonts § IPDS: 108 fonts (Option)
Scale:	20% to 400%

1.1.3 SCAN SPECIFICATIONS

Item	Spec.
Originals:	Sheet, Book, Object
Available Original Size for Scanning:	SEF (10 to 297mm) x LEF (10 to 432mm)
Auto Detectable Size for Originals Set to Book scanner:	A3SEF, B4SEF, A4LEF, A4SEF, B5LEF, B5SEF, A5LEF
Auto Detectable Size for Originals Set to ADF:	A3SEF, B4SEF, A4LEF, A4SEF, B5LEF, B5SEF, A5LEF, A5SEF, B6LEF, B6SEF, 11 x 17SEF, $8^1/_2$" x 11"LEF, $8^1/_2$" x 11"SEF
Original Scanning Speed:	Send email/Send to folder/Send email with using network delivery scanner/Send to folder/WSD scanner (Push type)/When using network delivery scanner (original size: A4 LEF, resolution: 200 dpi/300 dpi, scanning simplex), Original scanning speed will be as following: Black & White: 67 sheets / Min. (Original type: Text/Chart, Compress setting (MH): Do so (Compress), ITU-T No.1 Chart) Color: 67 sheets / Min. (Original type: Text/photo, Compress setting (Gray scale / Color): Compress level initial value (JPEG Standard), our company's Chart) Depending on: machine operating conditions, PC use environment, scanning conditions, original content, the scan speed might change.
Gradation:	Black & White: 2 Color/Gray scale: 256
Basic Scanning Resolution:	200 dpi
Compress Format for Binary B&W Image:	MH/MR/MMR/JBIG

Item	Spec.
Compress Format for Gray Scale / Full Color:	JPEG
Interface:	§ Ethernet (1000BASE-T/100BASE-TX/10BASE-T) § Wireless LAN (IEEE802.11a/b/g/n) § USB2.0 Type A § SD Card Slot
Protocol for Network Connection:	TCP/IP
Scanning Resolution for Sending email:	100dpi, 200dpi, 300dpi, 400dpi, 600dpi
Available Protocol for Sending email:	POP, SMTP, IMAP4
Output Format for Sending email*1:	TIFF, JPEG, PDF, Clear Light PDF, PDF/A
Scanning Resolution for Scan to Folder:	100 dpi, 200 dpi, 300 dpi, 400 dpi, 600 dpi
Available Protocol for Send to Folder:	SMB, FTP, NCP
Output Format for Send to Folder*1:	TIFF, JPEG, PDF, Clear Light PDF, PDF/A
Available Protocol for WSD Scanner Sending:	Web Services on Devices for Scanning
Scan Resolution for Network TWAIN Scanner:	100 to 1200 dpi
Available Protocol for Network TWAIN Scanner:	TCP/IP
Available Operating Systems for Network TWAIN Scanner:	WindowsXP/Server2003/Vista/Server2008/7 (Network TWAIN Scanner does not work with 64 bit operating systems)

Item	Spec.
Scanning Resolution for Scan to Network (Main Scan x Sub Scan):	100 dpi, 200 dpi, 300 dpi, 400 dpi, 600 dpi
Scan Resolution for when Using WIA Scanner (main Scan x Sub Scan):	100 to 1200dpi
Available Protocol for when Using WIA Scanner:	TCP/IP
Available Operating Systems for WIA Scanner:	Windows Vista (SP1 or later) / 7, Windows Server 2008 /2008 R2 (WIA Scanner does work with 64 bit operating Systems)

*1 Electric certificate can be attached when selecting [PDF], [Clear light PDF], or [PDF/A] as file format. For [PDF] or [Clear light PDF], Security Settings are available.

1.1.4 OTHER SPECIFICATIONS

HDD Specifications

Item	Spec.
Capacity for Document Box:	188GB Max. Pages per File: 2,000 Pages Max.: 9,000 Pages (Storable pages of all storage) Stored File retention period: 1 to 180 Days, or unlimited Max. Folders: .200
Document Box Manageable File numbers:	Max. 3,000 Files
Memory Sortable Pages:	Max. 2,000 Pages Copy / B&W Mode / With A4 Original: Appox. 2,000 Pages Printer / B&W / A4 / When 600 dpi 2bit: Appox. 2,000 Pages (With printer sort, depends on printing image)

Speed Specification

Book First Copy Time (A4 / LT LEF)

D146	D147	D148	D149	D150
BW: 4.6Sec. or less FC: 7.3Sec. or less	BW: 4.6Sec. or less FC: 7.3Sec. or less	BW: 4.0Sec. or less FC: 5.7Sec. or less	BW: 3.1Sec. or less FC: 4.6Sec. or less	BW: 3.1Sec. or less FC: 4.6Sec. or less

Copy Speed: Simplex (Standard Mode, A4 / LTLEF)

D146	D147	D148	D149	D150
BW: 30Sec. or less FC: 30Sec. or less	BW: 35Sec. or less FC: 35Sec. or less	BW: 45Sec. or less FC: 45Sec. or less	BW: 55Sec. or less FC: 55Sec. or less	BW: 60Sec. or less FC: 60Sec. or less

ARDF 1 to 1 Speed: Single Sided Original (Standard Mode, A4 / LT LEF)

D146	D147	D148	D149	D150
BW: 30Sec. or less FC: 30Sec. or less	BW: 35Sec. or less FC: 35Sec. or less	BW: 45Sec. or less FC: 45Sec. or less	BW: 55Sec. or less FC: 55Sec. or less	BW: 60Sec. or less FC: 60Sec. or less

Copy Speed: Duplex (Standard Mode, A4 / LT LEF)

D146	D147	D148	D149	D150
BW: 30Sec. or less FC: 30Sec. or less	BW: 35Sec. or less FC: 35Sec. or less	BW: 45Sec. or less FC: 45Sec. or less	BW: 55Sec. or less FC: 55Sec. or less	BW: 60Sec. or less FC: 60Sec. or less

ARDF 1 to 1 Speed: Double Sided Original (Standard Mode, A4 / LT LEF)

D146	D147	D148	D149	D150
BW: 30Sec. or less FC: 30Sec. or less	BW: 35Sec. or less FC: 35Sec. or less	BW: 45Sec. or less FC: 45Sec. or less	BW: 55Sec. or less FC: 55Sec. or less	BW: 60Sec. or less FC: 60Sec. or less

Electric Sort Copy Speed: Duplex Single sided to Double Sided (A4 / LT LEF)

D146	D147	D148	D149	D150
BW: 30Sec. or less FC: 30Sec. or less	BW: 35Sec. or less FC: 35Sec. or less	BW: 45Sec. or less FC: 45Sec. or less	BW: 55Sec. or less FC: 55Sec. or less	BW: 60Sec. or less FC: 60Sec. or less

OFF / Sleep Mode Shift Time

Item	Spec.
Off / Sleep Mode Shift Time:	Standard: 1 Min., With initial setting 1 to 240 Min. (1 Min. Per Step)
System All Reset Time:	Standard: 60 Sec., 10 to 999 Sec. (1 Sec. Per Step), or “Do not clear” can be selected.

OFF/Sleep mode Watts, Recovering time

Item	Watts	Recovering time
Off / Sleep Mode:	0.8W or less (SP / SPF)	D146/D147/D148: 5.6Sec. or less D149: 6.7Sec. or less D150: 7.2Sec. or less

Note

§ Due to operating environment, usage status, Watts of OFF/Sleep mode might change. (Such cases as power change for to control fuse temperature when under low temperature environment, or network environment obstructs to switch to STR mode)

Noise (Sound Power Level)

Running:

Models	D146	D147	D148	D149	D150
Basic Equipment:	64.4dB	64.5dB	66.2dB	68.0dB	68.0dB
System Equipment:	70.1dB	70.1dB	72.2dB	73.3dB	73.3dB

Standby:

Models	D146	D147	D148	D149	D150
Basic Equipment / System Equipment	35.0dB	35.0dB	35.0dB	35.0dB	35.0dB

1.2 SUPPORTED PAPER SIZES

1.2.1 ORIGINAL SIZE DETECTION

Size (W x L) [mm]	NA		EU/AP	
	Book	ADF	Book	ADF
A3 SEF (297 x 420)	-	Y	Y*4	Y
B4 SEF (257 x 364)	-	-	Y*4	Y
A4 SEF (210 x 297)	Y*5	Y	Y*4, 5	Y
A4 LEF (297 x 210)	Y*5	Y	Y*4, 5	Y
B5 SEF (182 x 257)	-	-	Y*4	Y
B5 LEF (257 x 182)	-	-	Y*4	Y
A5 SEF (148 x 210)	-	-	Y*2, 4	Y
A5 LEF (210 x 148)	-	-	Y*4	Y
B6 SEF (128 x 182)	-	-	-	Y
B6 LEF (182 x 128)	-	-	-	Y
DLT SEF (11" x 17")	Y	Y*Db	-	Y*Df
LG SEF ($8^1/_2$" x 14")	Y	Y*Dc	-	-
LT SEF ($8^1/_2$" x 11")	Y*5	Y*Dd	Y*5	Y*Di
LT LEF (11" x $8^1/_2$")	Y*5	Y*De	Y*5	Y*Dg
HLT SEF ($5^1/_2$" x $8^1/_2$")	Y*2	Y	-	-
HLT LEF ($8^1/_2$" x $5^1/_2$")	Y	Y	-	-
F SEF (8" x 13")	-	-	Y*S3	Y*S3
Foolscap SEF ($8^1/_2$" x 13")	-	Y*Sc	Y*D3	Y*D3
Folio SEF ($8^1/_4$" x 13")	-	-	Y*S3	Y*S3

Size (W x L) [mm]	NA		EU/AP	
	Book	ADF	Book	ADF
Folio SEF (11" x 15")	-	Y*Sb	-	-
Folio SEF (10" x 14")	-	Y	-	-
Folio SEF (8" x 10")	-	Y*Sd	-	-
US EXE SEF ($7^1/_4$" x $10^1/_2$")	-	Y	-	-
US EXE LEF ($10^1/_2$ x $7^1/_4$")	-	Y*Se	-	-
8K SEF (267 x 390)	-	-	Y*4	Y*Sf
16K SEF (195 x 267)	-	-	Y*4	Y*Si
16K LEF (267 x 195)	-	-	Y*4v	Y*Sg

Sizes with letters (a, b, c) means only either size with the corresponding letter can be selected for size detection. “D” is for default set sizes, and when setting “S” sizes for size detection from SP mode, “D” sizes can no longer be detected.

(*2)For detected originals smaller then A5 size, with SP mode either “detect as A5” or “Detect as Unknown” can be selected. (Default is “Detect as unknown”)

(*3)F Sizes (8.5” x 13” SEF, 8.25” x 13” SEF, 8” x 13” SEF) will be available by SP mode settings.

(*4)Switch Book scanner original detection between “K” series and ”A/B” series from SP mode. (Can not set both to detect, but 8K/16K detect can de set from SO mode)

8K SEF -> Switch between A3, B4 SEF

16K SEF -> Switch between A4, A5, B5 SEF

16K LEF -> Switch between A4, A5, B5 LEF *Can not switch only either size.

(*5)Can be selected with switching A4/LT from SP mode:

§ Standard detect (default)

§ When placing A4/LT size LEF, detect as A4 LEF. When placing SEF, detect as LT SEF.

§ When placing A4/LT size LEF, detect as LT LEF. When placing SEF, detect as A4 SEF.

Remarks:

Y	Yes; available
-	Not available

1.2.2 PAPER FEED

Tray 1 Through 3

Size (W x L) [mm]	Tray 1		Tray 2		Tray 3/4 1 drawer /2 drawers bank		Tray 3 Tandem LCT	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA	NA	EU/AA
A3 SEF (297 x 420)	-	-	G2	A2	G2	A2	-	-
A4 SEF (210 x 297)	-	-	A	A	A	A	-	-
A4 LEF (297 x 210)	K	H	G1	A1	G1	A1	K	H
A5 SEF (148 x 210)	-	-	B	B			-	-
A5 LEF (210 x 148)	K	K	A	A	A	A	-	-
A6 SEF (105 x 148)	-	-	B	B			-	-
B4 SEF (257 x 364)	-	-	G3	A3	G3	A3	-	-
B5 SEF (182 x 257)	-	-	A	A	A	A	-	-
B5 LEF (257 x 182)	K	K	G4	A4	G4	A4	-	-
B6 SEF (128 x 182)	-	-	B	B			-	-
DLT SEF (11" x 17")	-	-	A2	G2	A2	G2	-	-
Legal SEF ($8^1/_2$" x 14")	-	-	A3	G3	A3	G3	-	-
Foolscap SEF ($8^1/_2$" x 13")	-	-	B	B	B	B	-	-
LT SEF ($8^1/_2$" x 11")	-	-	A	A	A	A	-	-
LT LEF (11" x $8^1/_2$")	H	K	A1	G1	A1	G1	H	K
Gov. LG SEF ($8^1/_4$" x 14")	-	-	B	B	B	B	-	-
Folio SEF ($8^1/_4$" x 13")	-	-	B	B	B	B	-	-
F/GL SEF (8" x 13")	-	-	B	B	B	B	-	-
GLT SEF (8" x $10^1/_2$")	-	-	-	-			-	-

Size (W x L) [mm]	Tray 1		Tray 2		Tray 3/4 1 drawer /2 drawers bank		Tray 3 Tandem LCT	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA	NA	EU/AA
GLT LEF ($10^1/_2$" x 8")	-	-	-	-			-	-
Eng Quatro SEF (8" x 10")	-	-	B	B	B	B	-	-
Eng Quatro LEF (10" x 8")	-	-	-	-		-	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	-	-	B	B	B	B	-	-
Executive LEF ($10^1/_2$" x $7^1/_4$")	-	-	A4	G4	A4	G4	-	-
HLT SEF ($5^1/_2$" x $8^1/_2$")	-	-	B	B	-	-	-	-
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-	-	-	-	-	-	-
SRA3 SEF (420 x 320)	-	-	G5	A5	G5	A5	-	-
SRA4 SEF	-	-	-	-	-	-	-	-
SRA4 LEF	-	-	-	-	-	-	-	-
Line slider 1 SEF	-	-	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-	-	-
Line slider 2 SEF	-	-	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	-	-	B	B	-	-	-	-
Com10 LEF (241.3 x 104.8)	-	-	B	B	B	B	-	-
Monarch SEF (98.4 x 190.5)	-	-	B	B	-	-	-	-
Monarch LEF (190.5 x 98.4)	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Tray 1		Tray 2		Tray 3/4 1 drawer /2 drawers bank		Tray 3 Tandem LCT	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA	NA	EU/AA
C5 SEF (162 x 229)	-	-	B	B	-	-	-	-
C5 LEF (229 x 162)	-	-	B	B	B	B	-	-
C6 SEF (114 x 162)	-	-	B	B	-	-	-	-
C6LEF (162 x 114)		-	B	B	-	-	-	-
DL Env SEF (110 x 220)	-	-	B	B	-	-	-	-
DL Env LEF (220 x 110)	-	-	B	B	-	-	-	-
8K SEF (267 x 390)	-	-	B	B	B	B	-	-
16K SEF (195 x 267)	-	-	B	B	B	B	-	-
16K LEF (267 x 195)	-	-	B	B	B	B	-	-
13” x 19.2” SEF	-	-	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-	-	-
12" x 18" SEF	-	-	A5	G5	A5	G5	-	-
12" x 18" LEF	-	-	-	-	-	-	-	-
11" x 15" SEF	-	-	B	B	B	B	-	-
11” x 14” SEF	-	-	-	-	-	-	-	-
10" x 15" SEF	-	-	-	-	-	-	-	-
10" x 14" SEF	-	-	B	B	B	B	-	-

Remarks:

A	Auto detectable. Also can be selected with size button of initial setting.
B	Can be selected with size button from initial setting.
C	Select this size by setting the dial.
D	Set dial to “*”, then select with size button from initial setting.
E	<Bypass setting> Copy window/Bypass/Standard size/Size select or select with the print bypass paper size/size button from initial setting.
F	Select with SP from preset paper sizes. Can not be selected from printer driver.
G	Switches witch size to set as auto detect with SP. *Example: The combination of A1-G1. G (When not auto detectable) will be as same as B. Combinations are only made from same region same tray. *Example: The combination of G1 and J1. G (When not auto detectable) will be as same as E. Combinations are only made from same region same tray.
H	Size fixed when shipping.
I	<Bypass setting> With bypass tray, after 1st sheet trailing edge goes through, auto detects size, then fixed to size detected from the 2nd sheet.
J	<Bypass setting> Auto detect of Copy window/Bypass/Standard size/Select with size button.
K	Select with SP from preset paper sizes. Can be selected from printer driver.
-	Not available

LCT, Bypass Trays

Size (W x L) [mm]	LCT		Bypass		One Action Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA
A3 SEF (297 x 420)	-	-	E	J	J	J
A4 SEF (210 x 297)	-	-	E	J	E	J
A4 LEF (297 x 210)	K	H	E	J	J	J
A5 SEF (148 x 210)	-	-	E	J	J	J
A5 LEF (210 x 148)	-	-	E	J	J	J
A6 SEF (105 x 148)	-	-	E	J	J	J
B4 SEF (257 x 364)	-	-	E	J	E	E
B5 SEF (182 x 257)	-	-	E	J	J	J
B5 LEF (257 x 182)	K	K	E	J	J	J
B6 SEF (128 x 182)	-	-	E	J	J	J
DLT SEF (11" x 17")	-	-	J	E	J	J
Legal SEF ($8^1/_2$" x 14")	-	-	G1	E	G1	E
Foolscap SEF ($8^1/_2$" x 13")	-	-	E	E	E	E
LT SEF ($8^1/_2$" x 11")	-	-	J1	E	J1	E
LT LEF (11" x $8^1/_2$")	H	K	J	E	J	J
Gov. LG SEF ($8^1/_4$" x 14")	-	-	E	E	E	E
Folio SEF ($8^1/_4$" x 13")	-	-	E	E	E	E
F/GL SEF (8" x 13")	-	-	E	E	J	J
GLT SEF (8" x $10^1/_2$")	-	-	-	-	-	-
GLT LEF ($10^1/_2$" x 8")	-	-	-	-	-	-
Eng Quatro SEF (8" x 10")	-	-	E	E	E	E

Size (W x L) [mm]	LCT		Bypass		One Action Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA
Eng Quatro LEF (10" x 8")	-	-	-	-	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	-	-	E	E	E	E
Executive LEF ($10^1/_2$" x $7^1/_4$")	-	-	E	E	J	J
HLT SEF ($5^1/_2$" x $8^1/_2$")	-	-	J	E	J	J
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-	-	-	-	-
SRA3 SEF (420 x 320)	-	-	J	J	J	J
SRA4 SEF	-	-	E	E	G3	G3
SRA4 LEF	-	-	E	E	J	J
Line slider 1 SEF	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-
Line slider 2 SEF	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	-	-	E*1	E*1	E*1	E*1
Com10 LEF (241.3 x 104.8)	-	-	E*1	E*1	J*1	J*1
Monarch SEF (98.4 x 190.5)	-	-	E*1	E*1	E*1	E*1
Monarch LEF (190.5 x 98.4)	-	-	E*1	E*1	J*1	J*1
C5 SEF (162 x 229)	-	-	E*1	E*1	E*1	E*1
C5 LEF (229 x 162)	-	-	E*1	E*1	J3*1	J3*1
C6 SEF (114 x 162)	-	-	E*1	E*1	E*1	E*1

Size (W x L) [mm]	LCT		Bypass		One Action Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA	NA	EU/AA
C6LEF (162 x 114)	-	-	E*1	E*1	J*1	J*1
DL Env SEF (110 x 220)	-	-	E*1	E*1	E*1	E*1
DL Env LEF (220 x 110)	-	-	E*1	E*1	J*1	J*1
8K SEF (267 x 390)	-	-	E	E	J	J
16K SEF (195 x 267)	-	-	E	E	E	E
16K LEF (267 x 195)	-	-	E	E	E	E
13” x 19.2” SEF	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-
12" x 18" SEF	-	-	J	E	J	J
12" x 18" LEF	-	-	-	-	-	-
11" x 15" SEF	-	-	E	E	E	E
11” x 14” SEF	-	-	-	-	-	-
10" x 15" SEF	-	-	-	-	-	-
10" x 14" SEF	-	-	E	E	J	J

Remarks:

A	Auto detectable. Also can be selected with size button of initial setting.
B	Can be selected with size button from initial setting.
C	Select this size by setting the dial.
D	Set dial to "*", then select with size button from initial setting.
E	<Bypass setting> Copy window/Bypass/Standard size/Size select or select with the print bypass paper size/size button from initial setting.
F	Select with SP from preset paper sizes. Can not be selected from printer driver.
G	Switches witch size to set as auto detect with SP. *Example: The combination of A1-G1. G (When not auto detectable) will be as same as B. Combinations are only made from same region same tray. *Example: The combination of G1 and J1. G (When not auto detectable) will be as same as E. Combinations are only made from same region same tray.
H	Size fixed when shipping.
I	<Bypass setting> With bypass tray, after 1st sheet trailing edge goes through, auto detects size, then fixed to size detected from the 2nd sheet.
J	<Bypass setting> Auto detect of Copy window/Bypass/Standard size/Select with size button.
K	Select with SP from preset paper sizes. Can be selected from printer driver.
-	Not available

*1	Even the paper size is in the range or available sizes for duplex, envelopes can not be done so.

1.2.3 PAPER EXIT

Main unit tray, 1 bin tray, Inner shit tray, Side tray

Size (W x L) [mm]	Main unit tray	1 bin tray	Inner shit tray		Side Tray	
	Main unit tray	Upper tray	shift	shifting	Bridge upper exit	Side tray
A3 SEF (297 x 420)	A	A	A	A	A	A
A4 SEF (210 x 297)	A	A	A	A	A	A
A4 LEF (297 x 210)	A	A	A	A	A	A
A5 SEF (148 x 210)	A	A	A	A	A	A
A5 LEF (210 x 148)	A	A	A	A	A	A
A6 SEF (105 x 148)	A	A*1	A	A	A	A
B4 SEF (257 x 364)	A	A	A	A	A	A
B5 SEF (182 x 257)	A	A	A	A	A	A
B5 LEF (257 x 182)	A	A	A	A	A	A
B6 SEF (128 x 182)	A	A*1	A	A	A	A
DLT SEF (11" x 17")	A	A	A	A	A	A
Legal SEF ($8^1/_2$" x 14")	A	A	A	A	A	A
Foolscap SEF ($8^1/_2$" x 13")	A	A	A	A	A	A
LT SEF ($8^1/_2$" x 11")	A	A	A	A	A	A
LT LEF (11" x $8^1/_2$")	A	A	A	A	A	A
Gov. LG SEF ($8^1/_4$" x 14")	A	A	A	A	A	A
Folio SEF ($8^1/_4$" x 13")	A	A	A	A	A	A
F/GL SEF (8" x 13")	A	A	A	A	A	A

Size (W x L) [mm]	Main unit tray	1 bin tray	Inner shit tray		Side Tray	
	Main unit tray	Upper tray	shift	shifting	Bridge upper exit	Side tray
GLT SEF (8" x $10^1/_2$")	-	-	-	-	-	-
GLT LEF ($10^1/_2$" x 8")	-	-	-	-	-	-
Eng Quatro SEF (8" x 10")	A	A	A	A	A	A
Eng Quatro LEF (10" x 8")	-	-	-	-	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	A	A	A	A	A	A
Executive LEF ($10^1/_2$" x $7^1/_4$")	A	A	A	A	A	A
HLT SEF ($5^1/_2$" x $8^1/_2$")	A	A	A	A	A	A
HLT LEF ($8^1/_2$" x $5^1/_2$")						
SRA3 SEF (420 x 320)	A	A	A	A	A	A
SRA4 SEF	A	A	A	A	A	A
SRA4 LEF	A	A	A	A	A	A
Line slider 1 SEF	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-
Line slider 2 SEF	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	A	A*1	A	A	A	A
Com10 LEF (241.3 x 104.8)	A	A*1	A	A	A*1,3,4	-
Monarch SEF (98.4 x 190.5)	A	A*1	A	A	A	A

Size (W x L) [mm]	Main unit tray	1 bin tray	Inner shit tray		Side Tray	
	Main unit tray	Upper tray	shift	shifting	Bridge upper exit	Side tray
Monarch LEF (190.5 x 98.4)	A	A*1	A	A	A*1,3,4	-
C5 SEF (162 x 229)	A	A*1	A	A	A	A
C5 LEF (229 x 162)	A	A*1	A	A	A	A
C6 SEF (114 x 162)	A	A*1	A	A	A	A
C6LEF (162 x 114)	A	A*1	A	A	A*1,3,4	-
DL Env SEF (110 x 220)	A	A*1	A	A	A	A
DL Env LEF (220 x 110)	A	A*1	A	A	A*1,3,4	-
8K SEF (267 x 390)	A	A	A	A	A	A
16K SEF (195 x 267)	A	A	A	A	A	A
16K LEF (267 x 195)	A	A	A	A	A	A
13” x 19.2” SEF	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-
12" x 18" SEF	-	-	-	-	-	-
12" x 18" LEF	A	A	A	A	A	A
11" x 15" SEF	A	A	A	A	A	A
11” x 14” SEF	-	-	-	-	-	-
10" x 15" SEF	-	-	-	-	-	-
10" x 14" SEF	A	A	A	A	A	A

Finisher 1

Size (W x L) [mm]	Paper exit		Staple		Punch		
	Shift	Shifting	Single/Double size	Stapling amount	EU 2 SC 4 Holes	NA 3 EU 4 Holes	NA 2 Holes
A3 SEF (297 x 420)	A	A	A	30	A	A	A
A4 SEF (210 x 297)	A	A	A	50	A	-	B
A4 LEF (297 x 210)	A	A	A	50	A	A	A
A5 SEF (148 x 210)	A*1	A*1	-	-	-	-	-
A5 LEF (210 x 148)	A*1	A*1	-	-	-	-	-
A6 SEF (105 x 148)	A*1	-	-	-	-	-	-
B4 SEF (257 x 364)	A	A	A	30	A	-	-
B5 SEF (182 x 257)	A	A	A	50	A	-	-
B5 LEF (257 x 182)	A	A	A	50	A	-	-
B6 SEF (128 x 182)	A*1	-	-	-	-	-	-
DLT SEF (11" x 17")	A	A	A	30	A	CA	A
Legal SEF ($8^1/_2$" x 14")	A	A	A	30	A	-	A
Foolscap SEF ($8^1/_2$" x 13")	A	A	A	30	A	-	A
LT SEF ($8^1/_2$" x 11")	A	A	A	50	A	-	A
LT LEF (11" x $8^1/_2$")	A	A	A	50	A	A	A
Gov. LG SEF ($8^1/_4$" x 14")	A	A	A	30	-	-	-
Folio SEF ($8^1/_4$" x 13")	A	A	A	30	-	-	-
F/GL SEF (8" x 13")	A*1	A*1	-	-	-	-	-
GLT SEF (8" x $10^1/_2$")	-	-	-	-	-	-	-
GLT LEF ($10^1/_2$" x 8")	-	-	-	-	-	-	-
Eng Quatro SEF (8" x 10")	A*1	A*1	-	-	-	-	-

Size (W x L) [mm]	Paper exit		Staple		Punch		
	Shift	Shifting	Single/Double size	Stapling amount	EU 2 SC 4 Holes	NA 3 EU 4 Holes	NA 2 Holes
Eng Quatro LEF (10" x 8")	-	-	-	-	-	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	A	A	A	50	A	-	A
Executive LEF ($10^1/_2$" x $7^1/_4$")	A	A	A	50	-	-	-
HLT SEF ($5^1/_2$" x $8^1/_2$")	A*1	-	-	-	-	-	-
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-	-	-	-	-	-
SRA3 SEF (420 x 320)	A*1	-	-	-	-	-	-
SRA4 SEF	A*1	A*1	-	-	-	-	-
SRA4 LEF	A*1	-	-	-	-	-	-
Line slider 1 SEF	-	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-	-
Line slider 2 SEF	-	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	A*1	-	-	-	-	-	-
Com10 LEF (241.3 x 104.8)	A*1,3,4	-	-	-	-	-	-
Monarch SEF (98.4 x 190.5)	A*1	-	-	-	-	-	-
Monarch LEF (190.5 x 98.4)	A*1,3,4	-	-	-	-	-	-
C5 SEF (162 x 229)	A*1	A*1	-	-	-	-	-
C5 LEF (229 x 162)	A*1	A*1	-	-	-	-	-

Size (W x L) [mm]	Paper exit		Staple		Punch		
	Shift	Shifting	Single/Double size	Stapling amount	EU 2 SC 4 Holes	NA 3 EU 4 Holes	NA 2 Holes
C6 SEF (114 x 162)	A*1	-	-	-	-	-	-
C6LEF (162 x 114)	A*1,3,4	-	-	-	-	-	-
DL Env SEF (110 x 220)	A*1	-	-	-	-	-	-
DL Env LEF (220 x 110)	A*1,3,4	-	-	-	-	-	-
8K SEF (267 x 390)	A	A	A	30	A	-	-
16K SEF (195 x 267)	A	A	A	50	A	-	-
16K LEF (267 x 195)	A	A	A	50	A	-	-
13” x 19.2” SEF	-	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-	-
12" x 18" SEF	-	-	-	-	-	-	-
12" x 18" LEF	A*1	-	-	-	-	-	-
11" x 15" SEF	A*1	A*1	-	-	-	-	-
11” x 14” SEF	-	-	-	-	-	-	-
10" x 15" SEF	-	-	-	-	-	-	-
10" x 14" SEF	A*1	A*1	-	-	-	-	-

Finisher 2

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
A3 SEF (297 x 420)	A	A	A	A*2	A	50	A	20	A	A	A
A4 SEF (210 x 297)	A	A	A	A*2	A	50	A	20	A	B	-
A4 LEF (297 x 210)	A	A	-	-	A	50	-	-	A	A	A
A5 SEF (148 x 210)	A	A	-	-	-		-	-	A	A	-
A5 LEF (210 x 148)	A	A	-	-	-		-	-	A	B	-
A6 SEF (105 x 148)	A	-	-	-	-		-	-	-	-	-
B4 SEF (257 x 364)	A	A	A	A*2	A	50	A	20	A	A	A
B5 SEF (182 x 257)	A	A	A	A*2	A	50	A	20	A	A	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
B5 LEF (257 x 182)	A	A	-	-	A	50	-	-	A	A	A
B6 SEF (128 x 182)	A	-	-	-	-	-	-	-	-	-	-
DLT SEF (11" x 17")	A	A	A	A*2	A	50	A	20	A	A	A
Legal SEF ($8^1/_2$" x 14")	A	A	A	A*2	A	50	A	20	A	A	
Foolscap SEF ($8^1/_2$" x 13")	A	A	-	-	A	50	-	-	A	A	-
LT SEF ($8^1/_2$" x 11")	A	A	A	A*2	A	50	A	20	A	A	
LT LEF (11" x $8^1/_2$")	A	A	-	-	A	50	-	-	A	A	A

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
Gov. LG SEF ($8^1/_4$" x 14")	A	A	A	A*2	A	50	A	20	A	A	-
Folio SEF ($8^1/_4$" x 13")	A	A	A	A*2	A	50	A	20	A	A	-
F/GL SEF (8" x 13")	A	A	-	-	A	50	-		A	A	-
GLT SEF (8" x $10^1/_2$")	-	-	-	-	-	-	-	-	-	-	-
GLT LEF ($10^1/_2$" x 8")	-	-	-	-	-	-	-	-	-	-	-
Eng Quatro SEF (8" x 10")	A	A	-	-	A	50	-	-	A	A	-
Eng Quatro LEF (10" x 8")	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
Executive SEF ($7^1/_4$" x $10^1/_2$")	A	A	-	-	A	50	-	-	A	A	-
Executive LEF ($10^1/_2$" x $7^1/_4$")	A	A	-	-	A	50	-	-	A	A	A
HLT SEF ($5^1/_2$" x $8^1/_2$")	-	-	-	-	-	-	-	-	A	A	-
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-	-	-	-	-	-	-	-	-	-
SRA3 SEF (420 x 320)	A	-	-	-	-	-	-	-	-	-	-
SRA4 SEF	A	A	-	-	-	-	-	-	-	-	-
SRA4 LEF	A	-	-	-	-	-	-	-	-	-	-
Line slider 1 SEF	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
Line slider 1 LEF	-	-	-	-	-	-	-	-	-	-	-
Line slider 2 SEF	-	-	-	-	-	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	A	-	-	-	-	-	-	-	-	-	-
Com10 LEF (241.3 x 104.8)	-	-	-	-	-	-	-	-	-	-	-
Monarch SEF (98.4 x 190.5)	A	-	-	-	-	-	-	-	-	-	-
Monarch LEF (190.5 x 98.4)	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
C5 SEF (162 x 229)	-	-	-	-	-	-	-	-	-	-	-
C5 LEF (229 x 162)	-	-	-	-	-	-	-	-	-	-	-
C6 SEF (114 x 162)	-	-	-	-	-	-	-	-	-	-	-
C6LEF (162 x 114)	-	-	-	-	-	-	-	-	-	-	-
DL Env SEF (110 x 220)	A	-	-	-	-	-	-	-	-	-	-
DL Env LEF (220 x 110)		-	-	-	-	-	-	-	-	-	-
8K SEF (267 x 390)	A	-	A	A*2	A	50	A	20	A	A	A
16K SEF (195 x 267)	A	-	A	A*2	A	50	A	20	A	A	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
16K LEF (267 x 195)	A	-	A	A*2	A	50	A	20	A	A	A
13” x 19.2” SEF	-	-	-	-	-	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-	-	-	-	-	-
12" x 18" SEF	A	A	-	-	-	-	-	-	-	-	-
12" x 18" LEF	-	-	-	-	-	-	-	-	-	-	-
11" x 15" SEF	A	A	-	-	A	50	-	-	A	A	A
11” x 14” SEF	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit			Half fold	Staple				Punch		
	Proof/shift	shifting	Half fold	Middle fold	Single/Double stitch	Stapling amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
10" x 15" SEF	-	-	-	-	-	-	-	-	-	-	-
10" x 14" SEF	A	A	-	-	A	50	-	-	A	A	A

Finisher 3

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
A3 SEF (297 x 420)	A	A	A	A	A*5	A	30	A	15	A	A	A
A4 SEF (210 x 297)	A	A	A	A	A*5	A	50	A	15	A	B	-
A4 LEF (297 x 210)	A	A	A	-	-	A	50	-	-	A	A	A

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
A5 SEF (148 x 210)	A	B	B	-	-	-	-	-	-	A	A	-
A5 LEF (210 x 148)	A	A	A	-	-	-	-	-	-	A	B	-
A6 SEF (105 x 148)	A	B	-	-	-	-	-	-	-	-	-	-
B4 SEF (257 x 364)	A	A	A	A	A*5	A	30	A	15	A	A	A
B5 SEF (182 x 257)	A	B	B	A	A*5	A	50	A	15	A	A	-
B5 LEF (257 x 182)	A	A	A	-	-	A	50	-	-	A	A	A
B6 SEF (128 x 182)	A	B	A	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
DLT SEF (11" x 17")	A	A	A	A	A*5	A	30	A	15	A	A	A
Legal SEF (8 1/2" x 14")	A	A	A	A	A*5	A	30	A	15	A	A	-
Foolscap SEF (8 1/2" x 13")	A	A	A	-	-	A	30	-	-	A	A	-
LT SEF (8 1/2" x 11")	A	A	A	A	A*5	A	50	A	15	A	A	-
LT LEF (11" x 8 1/2")	A	A	A	-	-	A	50	-	-	A	A	A
Gov. LG SEF (8 1/4" x 14")	A	A	A	-	-	A	30	-	-	A	A	-
Folio SEF (8 1/4" x 13")	A	A	A	-	-	A	30	-	-	A	A	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
F/GL SEF (8" x 13")	A	A	A	-	-	A	30	-	-	A	A	-
GLT SEF (8" x $10^1/_2$")	-	-	-	-	-	-	-	-	-	-	-	-
GLT LEF ($10^1/_2$" x 8")	-	-	-	-	-	-	-	-	-	-	-	-
Eng Quatro SEF (8" x 10")	A	A	A	-	-	A	50	-	-	A	A	-
Eng Quatro LEF (10" x 8")	-	-	-	-	-	-	-	-	-	-	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	A	A	A	-	-	A	50	-	-	A	A	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
Executive LEF ($10^1/_2$" x $7^1/_4$")	A	A	A	-	-	A	50	-	-	A	A	A
HLT SEF ($5^1/_2$" x $8^1/_2$")	A	B	B	-	-	-	-	-	-	A	A	-
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-	-	-	-	-	-	-	-	-	-	-
SRA3 SEF (420 x 320)	A	A	-	-	-	-	-	-	-	-	-	-
SRA4 SEF	A	A	A	-	-	-	-	-	-	-	-	-
SRA4 LEF	A	A	-	-	-	-	-	-	-	-	-	-
Line slider 1 SEF	-	-	-	-	-	-	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
Line slider 2 SEF	-	-	-	-	-	-	-	-	-	-	-	-
Line slider 2 LEF	-	-	-	-	-	-	-	-	-	-	-	-
Com10 SEF (104.8 x 241.3)	-	-	-	-	-	-	-	-	-	-	-	-
Com10 LEF (241.3 x 104.8)	-	-	-	-	-	-	-	-	-	-	-	-
Monarch SEF (98.4 x 190.5)	-	-	-	-	-	-	-	-	-	-	-	-
Monarch LEF (190.5 x 98.4)	-	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
C5 SEF (162 x 229)	-	-	-	-	-	-	-	-	-	-	-	-
C5 LEF (229 x 162)	-	-	-	-	-	-	-	-	-	-	-	-
C6 SEF (114 x 162)	-	-	-	-	-	-	-	-	-	-	-	-
C6LEF (162 x 114)	-	-	-	-	-	-	-	-	-	-	-	-
DL Env SEF (110 x 220)	-	-	-	-	-	-	-	-	-	-	-	-
DL Env LEF (220 x 110)	-	-	-	-	-	-	-	-	-	-	-	-
8K SEF (267 x 390)	A	A	A	-	-	A	30	-	-	A	A	A

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
16K SEF (195 x 267)	A	A	A	-	-	A	50	-	-	A	A	-
16K LEF (267 x 195)	A	A	A	-	-	A	50	-	-	A	A	A
13” x 19.2” SEF	-	-	-	-	-	-	-	-	-	-	-	-
13” x 19” SEF	-	-	-	-	-	-	-	-	-	-	-	-
13” x 18” SEF	-	-	-	-	-	-	-	-	-	-	-	-
12.6” x 19.2 SEF	-	-	-	-	-	-	-	-	-	-	-	-
12.6” x 18.5” SEF	-	-	-	-	-	-	-	-	-	-	-	-
12" x 18" SEF	A	A	A	A	A*5	A	50	A	15	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Proof	Shift	Shifting	Saddle stitch	Middle fold	Single/Double stitch	Staple amount	Saddle stitch	Saddle stitch amount	EU2 SC4 Holes	NA2 Holes	NA3 EU4 Holes
12" x 18" LEF	-	-	-	-	-	-	-	-	-	-	-	-
11" x 15" SEF	A	A	A	-	-	A	50	-	-	A	A	A
11” x 14” SEF	-	-	-	-	-	-	-	-	-	-	-	-
10" x 15" SEF	-	-	-	-	-	-	-	-	-	-	-	-
10" x 14" SEF	A	A	A	-	-	A	50	-	-	A	A	A

Bridge Unit

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
A3 SEF (297 x 420)	A	A
A4 SEF (210 x 297)	A	A
A4 LEF (297 x 210)	A	A
A5 SEF (148 x 210)	A	A

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
A5 LEF (210 x 148)	A	A
A6 SEF (105 x 148)	A	A
B4 SEF (257 x 364)	A	A
B5 SEF (182 x 257)	A	A
B5 LEF (257 x 182)	A	A
B6 SEF (128 x 182)	A	A
DLT SEF (11" x 17")	A	A
Legal SEF ($8^1/_2$" x 14")	A	A
Foolscap SEF ($8^1/_2$" x 13")	A	A
LT SEF ($8^1/_2$" x 11")	A	A
LT LEF (11" x $8^1/_2$")	A	A
Gov. LG SEF ($8^1/_4$" x 14")	A	A
Folio SEF ($8^1/_4$" x 13")	A	A
F/GL SEF (8" x 13")	A	A
GLT SEF (8" x $10^1/_2$")	-	-
GLT LEF ($10^1/_2$" x 8")	-	-
Eng Quatro SEF (8" x 10")	A	A
Eng Quatro LEF (10" x 8")	-	-
Executive SEF ($7^1/_4$" x $10^1/_2$")	A	A
Executive LEF ($10^1/_2$" x $7^1/_4$")	A	A
HLT SEF ($5^1/_2$" x $8^1/_2$")	A	A
HLT LEF ($8^1/_2$" x $5^1/_2$")	-	-

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
SRA3 SEF (420 x 320)	A	A
SRA4 SEF	A	A
SRA4 LEF	A	A
Line slider 1 SEF	-	-
Line slider 1 LEF	-	-
Line slider 2 SEF	-	-
Line slider 2 LEF	-	-
Com10 SEF (104.8 x 241.3)	A	-
Com10 LEF (241.3 x 104.8)	A*1,3,4	-
Monarch SEF (98.4 x 190.5)	A	-
Monarch LEF (190.5 x 98.4)	A*1,3,4	-
C5 SEF (162 x 229)	A	-
C5 LEF (229 x 162)	A*1,3,4	-
C6 SEF (114 x 162)	A	-
C6LEF (162 x 114)	A*1,3,4	-
DL Env SEF (110 x 220)	A	-
DL Env LEF (220 x 110)	A*1,3,4	-
8K SEF (267 x 390)	A	A
16K SEF (195 x 267)	A	A
16K LEF (267 x 195)	A	A
13” x 19.2” SEF	-	-

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
13” x 19” SEF	-	-
13” x 18” SEF	-	-
12.6” x 19.2 SEF	-	-
12.6” x 18.5” SEF	-	-
12" x 18" SEF	-	-
12" x 18" LEF	A	A
11" x 15" SEF	A	A
11” x 14” SEF	-	-
10" x 15" SEF	-	-
10" x 14" SEF	A	A

Remarks:

A	Paper through, paper exit available.
B	Will not guarantee, but paper can go through or exit.
-	Not available.

*1	Out of the true up precision guarantee.
*2	Multi folding can be done up to 5 sheets.
*3	Envelopes can only go through each at a time.
*4	Except envelops with triangle flap.
*5	Only one sheet can be half folded with saddle stitch mode. Therefore, multi sheets/sets must be paginated and exit each at a time.

1.3 SOFTWARE ACCESSORIES

The printer drivers and utility software are provided on one CD-ROM. An auto-run installer allows you to select which components to install.

1.3.1 PRINTER DRIVERS

Printer Language	Windows XP[*1*6]	Windows Vista[*2*6]	Windows 7[*3*6]	Windows 8[*6*8]
PCL 5c /PCL 6	Yes	Yes	Yes	Yes
PS3	Yes	Yes	Yes	Yes

Printer Language	Windows Server 2003[*4*6]	Windows Server 2008[*5*6]	Windows Server 2012[*9]	Macintosh[*7]
PCL 5c /PCL 6	Yes	Yes	Yes	No
PS3	Yes	Yes	Yes	Yes

*1 Microsoft Windows XP Professional Edition / Home Edition / Media Center Edition / Tablet PC Edition

*2 Microsoft Windows Vista Ultimate / Enterprise / Business / Home Premium / Home Basic

*3 Microsoft Windows 7 Home Premium / Professional / Ultimate / Enterprise

*4 Microsoft Windows Server 2003 Standard Edition / Enterprise Edition / Microsoft Windows Server 2003 R2 Standard Edition / Enterprise Edition

*5 Microsoft Windows Server 2008 Standard / Enterprise / Microsoft Windows Server 2008 R2 Standard / Enterprise

*6 Supports both 32bit, 64bit

*7 Supports Mac OS X 10.4 or later

*8 Microsoft Windows 8 (Core Edition) / Pro / Enterprise

*9 Microsoft Windows Server 2012 Standard / Datacenter / Essentials

Note

- § All other Drivers except ones for Windows XP / 2003 / Vista / 7 / 8 are Adobe genuine PostScript driver.
- § PPD file for each operation systems is included in the driver.

1.3.2 SCANNER AND LAN FAX DRIVERS

Driver	Windows XP*1*6	Windows Vista*2*6	Windows 7*3*6	Windows 8*6*7
TWAIN	Yes	Yes	Yes	Yes
PC-FAX	Yes	Yes	Yes	Yes

Driver	Windows Server 2003*4*6	Windows Server 2008*5*6	Windows Server 2012*8	Macintosh
TWAIN	Yes	Yes	Yes	No
PC-FAX	Yes	Yes	Yes	No

*1 Microsoft Windows XP Professional Edition / Home Edition / Media Center Edition / Tablet PC Edition

*2 Microsoft Windows Vista Ultimate / Enterprise / Business / Home Premium / Home Basic

*3 Microsoft Windows 7 Home Premium / Professional / Ultimate / Enterprise

*4 Microsoft Windows Server 2003 Standard Edition / Enterprise Edition / Microsoft Windows Server 2003 R2 Standard Edition / Enterprise Edition

*5 Microsoft Windows Server 2008 Standard / Enterprise / Microsoft Windows Server 2008 R2 Standard / Enterprise

*6 Supports both 32bit, 64bit (Scanner driver works on 32bit compatible mode)

*7 Microsoft Windows 8 (Core Edition) / Pro / Enterprise

*8 Microsoft Windows Server 2012 Standard / Datacenter / Essentials

Note

- With LAX Fax driver, sending documents directly from PC will be available.
- Also Address Book Editor and Cover Sheet Editor will installed along.
- Network TWAIN driver will be provided on the scanner driver CD-ROM.

1.4 OPTIONAL EQUIPMENT

1.4.1 ARDF DF2020 (D684)

Mode:	Batch mode, SADF mode, Mixed Sizes mode, Original Orientation mode, and Custom Size originals mode
Original Size:	EU/AA § One-sided originals: A3 LEF-B6 JIS SEF/LEF, 11 x 17 LEF-8 1/2 x 11 SEF/LEF § Two-sided originals: A3 LEF-A5 SEF/LEF, 11 x 17 LEF-8 1/2 x 11 SEF/LEF NA § One-sided originals: 11 x 17 LEF-5 1/2 x 8 1/2 SEF/LEF, A3 LEF-A4 SEF/LEF § Two-sided originals: 11 x 17 LEF-5 1/2 x 8 1/2 SEF/LEF, A3 LEF-A4 SEF/LEF
Original weight:	§ One-sided originals: 40-128 g/m2 (11-34 lb. Bond) § Two-sided originals: 52-128 g/m2 (14-34 lb. Bond)
Number of originals to be set (81 g/m2, 20 lb. Bond):	100 sheets
Maximum power consumption:	42 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	565 x 500 x 125 mm (22.3 x 19.7 x 5.0 inches)
Weight:	Approx. 9 kg (19.9 lb.)

1.4.2 SPDF DF3080 (D683)

Mode:	Batch mode, SADF mode, Mixed Sizes mode, Custom Size originals mode, Original Orientation mode
Original Size:	EU/AA § One-sided originals: A3 LEF–B6 JIS SEF/LEF, 11 x 17 LEF–8 1/2 x 11 SEF/LEF § Two-sided originals: A3 LEF–A5 SEF/LEF, 11 x 17 LEF–8 1/2 x 11SEF/LEF NA § One-sided originals: 11 x 17 LEF–5 1/2 x 8 1/2 SEF/LEF, A3 LEF–A4 SEF/LEF § Two-sided originals: 11 x 17 LEF–5 1/2 x 8 1/2 SEF/LEF, A3 LEF–A4 SEF
Original weight:	§ One-sided originals: 40-128 g/m2 (11-34 lb. Bond) § Two-sided originals: 52-128 g/m2 (14-34 lb. Bond)
Number of originals to be set (80 g/m2, 20 lb. Bond):	220 sheets
Maximum power consumption:	73 W or less
Dimensions (W x D x H):	587 x 520 x 175 mm (23.2 x 20.5 x 6.9 inches)
Weight:	Approx. 14 kg (30.9 lb.)

1.4.3 INTERNAL FINISHER SR3130 (D690)

Paper size:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, A6 LEF, B4 JIS LEF, B5 JIS SEF/LEF, B6 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 5 1/2 x 8 1/2 LEF, 4 1/8 x 9 1/2 SEF/LEF, 3 7/8 x 7 1/2 SEF/LEF, C5 Env SEF/LEF, C6 Env SEF/LEF, DL Env SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight:	60–300 g/m^2 (16 lb. Bond–110 lb. Cover)
Paper sizes that can be shifted:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, C5 Env SEF/LEF, 8K LEF, 16K SEF/LEF, 11 x 15 LEF, 10 x 14 LEF, SRA4 LEF, custom size
Paper weight that can be shifted:	64–105 g/m^2 (17–28 lb. Bond)
Stack capacity (80 g/m2, 20 lb. Bond):	§ 500 sheets: A4, 81/2 x 11 or smaller § 250 sheets: B4 JIS, 81/2 x 14 or larger
Staple paper size:	A3 LEF, A4 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF
Staple paper weight:	64–105 g/m^2 (17–28 lb. Bond)

Staple capacity (80 g/m^2, 20 lb. Bond):	§ Without Mixed Size: **30 sheets:** A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8K LEF **50 sheets:** A4 SEF/LEF, B5 JIS SEF/LEF, 8 1/2 x 11 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 16K SEF/LEF § With Mixed Size: **30 sheets:** A3 LEF/ A4 SEF, B4 JIS LEF/ B5 JIS SEF, 11 x 17 LEF/8 1/2 x 11 SEF
Stack capacity after stapling (80 g/m^2, 20 lb. Bond):	§ 2–9 sheets: 55–46 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11 SEF) § 10–50 sheets: 45–10 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11SEF) § 2–9 sheets: 55–27 sets (A4 LEF, B5 JIS LEF, 8 1/2 x 11 LEF) § 10– 50 sheets: 25–8 sets (A4 LEF, B5 JIS LEF, 8 1/2 x 11 LEF) § 2–9 sheets: 55–27 sets (A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF) § 10–30 sheets: 25–8 sets (A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF)
Staple position:	Top 1, Bottom 1, Left 2, Top 2
Power consumption:	§ 50 W or less (without punch unit) (Power is supplied from the main unit.) § 60 W or less (with punch unit) (Power is supplied from the main unit.)
Dimensions (W x D x H):	546 x 523 x 170 mm (21.5 x 20.6 x 6.7 inches)
Weight:	Approx. 13 kg (28.7 lb.) (without punch unit) Approx. 17 kg (37.5 lb.) (with punch unit)

1.4.4 FINISHER SR3140 (D687)

Paper size for the finisher upper tray:	A3 LEF B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, A5 SEF/LEF, B6 JIS LEF, A6 LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher upper tray:	52–169 g/m^2 (14 lb. Bond–90 lb. Index)
Stack capacity for the finisher upper tray (80 g/m^2, 20 lb. Bond):	250 sheets: A4, 81/2 x 11 or smaller 50 sheets: B4 JIS, 81/2 x 14 or larger
Paper size for the finisher shift tray:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF, A5 SEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb.Cover)
Paper sizes that can be shifted when delivered to the finisher shift tray:	A3 LEF, A4 SEF/LEF, A5 SEF, B4 JIS LEF, B5 JIS SEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SLF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA4 LEF, custom size
Paper weight that can be shifted when delivered to the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb.Cover)
Stack capacity for the finisher shift tray (80 g/m^2, 20 lb. Bond):	1,000 sheets: A4, 81/2 x 11 or smaller 500 sheets: B4 JIS, 81/2 x 14 or larger

Staple paper size:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 10 LEF, 12 x 18 LEF, 8K LEF, 16K SEF/LEF, custom size
Staple paper weight:	52–105 g/m^2 (14–28 lb. Bond)
Staple capacity (80 g/m^2, 20 lb. Bond):	§ Without Mixed Size: **30 sheets:** A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 11 x 15 LEF, 10 x 14 LEF, 8K LEF, 12 x 18 LEF **50 sheets:** A4 SEF/LEF, B5 JIS SEF/LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 16K SEF/LEF § With Mixed Size: **22 sheets:** A3 LEF/A4 SEF, B4 JIS LEF/B5 JIS SEF, 11 x 17 LEF/8 1/2 x 11SEF
Stack capacity after stapling (80 g/m^2, 20 lb. Bond):	§ 2–9 sheets: 100 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11 SEF) § 10–50 sheets: 100–20 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11SEF) § 10–50 sheets: 50–10 sets (A4 LEF, B5 JIS LEF, 8 1/2 x 11LEF) § 2–9 sheets: 50 sets (A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF) § 10–30 sheets: 50–10 sets (A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF)
Staple position:	3 positions (Top, Bottom, 2 Staples)
Power consumption:	35 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	646 x 620 x 960 mm (25.5 x 24.5 x 37.8 inches)
Weight:	§ Approx. 27 kg (59.6 lb.) (without punch unit) § Approx. 31 kg (68.4 lb.) (with punch unit)

1.4.5 BOOKLET FINISHER SR3150 (D686)

Paper size for the finisher upper tray	A3 LEF, B4 JIS LEF, A4 SEF/LEF B5 JIS SEF/LEF, A5 SEF/LEF, B6 JIS LEF, A6 LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher upper tray:	52–169 g/m^2 (14 lb. Bond–90 lb. Index)
Stack capacity for the finisher upper tray (80 g/m^2, 20 lb. Bond):	250 sheets: A4, 81/2 x 11 or smaller 50 sheets: B4 JIS, 81/2 x 14 or larger
Paper size for the finisher shift tray:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF, A5 SEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LRF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb.Cover)
Paper sizes that can be shifted when delivered to the finisher shift tray:	A3 LEF, A4 SEF/LEF, A5 SEF, B4 JIS LEF, B5 JIS SEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF
Paper weight that can be shifted when delivered to the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb.Cover)
Stack capacity for the finisher shift tray (80 g/m^2, 20 lb. Bond):	1,000 sheets: A4, 81/2 x 14 or smaller 500 sheets: B4 JIS, 81/2 x 14 or larger

Staple paper size:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 x 13 LEF, 8B 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 10 LEF, 12 x 18 LEF, 8K LEF, 16K SEF/LEF, custom size
Staple paper weight:	52–105 g/m^2 (14-28 lb.Bond)
Staple capacity (80 g/m^2, 20 lb. Bond):	§ Without Mixed Size: **30 sheets:** A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 11 x 15 LEF, 10 x 14 LEF, 8K LEF, 12 x 18 LEF **50 sheets:** A4 SEF/LEF, B5 JIS SEF/LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 16K SEF/LEF § With Mixed Size: **22 sheets:** A3 LEF/A4 SEF, B4 JIS LEF/B5 JIS SEF, 11 x 17 LEF/8 1/2 x 11 SEF
Stack capacity after stapling (80 g/m^2, 20 lb. Bond):	§ 2–9 sheets: 100 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11 SEF) § 10–50 sheets: 100–20 sets (A4 SEF, B5 JIS SEF, 8 1/2 x 11 SEF) § 10–50 sheets: 50–10 sets (A4 LEF, B5 JIS LEF, 8 1/2 x 11 LEF) § 2–9 sheets: 50 sets (A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF) § 10–30 sheets: 50–10 sets (A3 LEF, B4 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF)
Staple position:	3 positions (Top, Bottom, 2 Staples)
Saddle stitch paper size:	A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF, 12 x 18 LEF
Saddle stitch paper weight:	52–105 g/m^2 (14–28 lb. Bond)
Saddle stitch capacity (80 g/m^2, 20 lb. Bond):	1 set (15 sheets)

Stack capacity after saddle stitching (80 g/m^2, 20 lb. Bond):	2–5 sheets: approx. 20 sets 6–10 sheets: approx. 10 sets 11–15 sheets: approx. 7 sets
Saddle stitch position:	Center 2 positions
Types of folds:	Half Fold
Paper size:	§ With Half Fold: A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF, 12 x 18 LEF
Paper weight:	§ With Half Fold: 52–105 g/m2 (14–28 lb.Bond)
Power consumption:	35 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	646 x 620 x 960 mm (25.5 x 24.5 x 37.8 inches)
Weight:	§ Approx. 40 kg (88.2 lb.) (without punch unit) § Approx. 44 kg (97.1 lb.) (with punch unit)

1.4.6 FINISHER SR3160 (D689)

Paper size for the finisher upper tray:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, A5 SEF/LEF, B6 JIS LEF, A6 LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher upper tray:	52–220 g/m^2 (14 lb. Bond–80 lb. Cover)
Stack capacity for the finisher upper tray (80 g/m^2, 20 lb. Bond):	250 sheets: A4, 81/2 x 11 or smaller 50 sheets: B4 JIS, 81/2 x 14 or larger

Paper size for the finisher shift tray:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, A5 SEF/LEF, B6 JIS LEF, A6 LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper sizes that can be shifted when delivered to the finisher shift tray:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA4 LEF, custom size
Paper weight that can be shifted when delivered to the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Stack capacity for the finisher shift tray (80 g/m^2, 20 lb. Bond):	§ 3,000 sheets: A4 SEF, 8 1/2 x 11 SEF § 1,500 sheets: A3 LEF, B4 JIS LEF, A4 LEF, B5 JIS SEF/LEF, 12 x 18 LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF, SRA3LEF § 500 sheets: A5 SEF § 100 sheets: A5 LEF, B6 JIS LEF, A6 LEF, 5 1/2 x 8 1/2 LEF
Staple paper size:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 10 LEF, 8K LEF, 16K SEF/LEF, custom size
Staple paper weight:	52–105 g/m^2 (14–28 lb. Bond)

Staple capacity (80 g/m^2, 20 lb. Bond):	§ Without Mixed Size: **50 sheets:** A3 LEF, A4 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 11 x 15 LEF, 10 x 14 LEF, 8K LEF, 16K SEF/LEF § With Mixed Size: **30 sheets:** A3 LEF/A4 SEF, B4 JIS LEF/B5 JIS SEF, 11 x 17 LEF/8 1/2 x 11 SEF
Stack capacity after stapling (80 g/m^2, 20 lb. Bond):	**Without Mixed Size:** § 2–19 sheets: 150 sets (A4 SEF, 8 1/2 x 11 SEF) § 20–50 sheets: 150–60 sets (A4 SEF, 8 1/2 x 11 SEF) § 2–14 sheets: 100 sets (A4 LEF, B5 JIS SEF/LEF, 8 1/2 x 11 LEF) § 15–50 sheets: 100–30 sets (A4 LEF, B5 JIS SEF/LEF, 8 1/2 x 11 ;LEF) § 2–14 sheets: 100 sets (other size paper) § 15–50 sheets: 100–30 sets (other size paper) **With Mixed Size:** § 2–50 sheets: 30 sets (A3 LEF/A4 SEF, B4 JIS LEF/B5 JIS SEF, 11 x 17 LEF/8 1/2 x 11 SEF)
Staple position:	4 positions (Top, Top Slant, Bottom, 2 Staples)
Power consumption:	56 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	657 x 613 x 960 mm (25.9 x 24.2 x 37.8 inches)
Weight:	§ Approx. 34 kg (75.0 lb.) (without punch unit) § Approx. 38 kg (83.8 lb.) (with punch unit)

1.4.7 BOOKLET FINISHER SR3170 (D688)

Paper size for the finisher upper tray:	A3 LEF, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, A5 SEF/LEF, B6 JIS LEF, A6 LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher upper tray:	52–220 g/m^2 (14 lb. Bond–80 lb. Cover)
Stack capacity for the finisher upper tray (80 g/m^2, 20 lb. Bond):	§ 250 sheets: A4, 81/2 x 11 or smaller § 50 sheets: B4 JIS, 81/2 x 14 or larger
Paper size for the finisher shift tray:	A3 SEF 1, B4 JIS LEF, A4 SEF/LEF, B5 JIS SEF/LEF, A5, B6 JIS LEF, A6, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 81/2 x 14 LEF, 81/2 x 13 LEF, 81/2 x 11 SEF/LEF, 81/4 x 14 LEF, 81/4 x 13, 8 x 13 LEF, 8 x 10 LEF, 51/2 x 81/2 LEF, 71/4 x 101/2 SEF/LEF, 8K LEF, 16K SEF/LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight for the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper sizes that can be shifted when delivered to the finisher shift tray:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 12 x 18 LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 5 1/2 x 8 1/2 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF SRA4 LEF, custom size
Paper weight that can be shifted when delivered to the finisher shift tray:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)

Stack capacity for the finisher shift tray (80 g/m^2, 20 lb. Bond):	§ 2,000 sheets: A4 SEF, 8 1/2 x 11 SEF § 1,000 sheets: A3 SEF, B4 JIS SEF, A4 SEF, B5 JIS SEF/LEF, 11 x 17 SEF, 8 1/2 x 14 SEF, 8 1/2 x 11 SEF, 12 x 18 SEF, SRA3 SEF § 500 sheets: A5 SEF § 100 sheets: A5 SEF, B6 JIS SEF, A6 SEF, 5 1/2 x 8 1/2 SEF
Staple paper size:	A3 LEF, B4 JIS LEF, A4 SEF/LEF B5 JIS SEF/LEF, 11 x 17 LEF, 11 x 15 LEF, 10 x 14 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 10 LEF, 8K LEF, 16K SEF/LEF, custom size
Staple paper weight:	52–105 g/m^2 (14–28 lb. Bond)
Staple capacity (80 g/m^2, 20 lb. Bond):	§ Without Mixed Size: **50 sheets:** A3 LEF, A4 SEF/LEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 x 13 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 11 x 15v, 10 x 14 LEF, 8K LEF, 16K SEF/LEF § With Mixed Size: **30 sheets:** A3 LEF /A4 SEF, B4 JIS LEF /B5 JIS SEF, 11 x 17 LEF /81/2 x 11 SEF
Stack capacity after stapling (80 g/m^2, 20 lb. Bond):	**Without Mixed Size:** § 2–12 sheets: 150 sets (A4 SEF, 81/2 x 11 SEF) § 13–50 sheets: 150–40 sets (A4 SEF, 8 1/2 x 11 SEF) § 2–9 sheets: 100 sets (A4 LEF, B5 JIS SEF/LEF, 8 1/2 x 11 LEF) § 10–50 sheets: 100–20 sets (A4 LEF, B5 JIS SEF/LEF, 8 1/2 x 11 LEF) § 2–9 sheets: 100 sets (other size paper) § 10–50 sheets: 100–20 sets (other size paper) **With Mixed Size:** § 2–50 sheets: 30 sets (A3 LEF /A4 SEF, B4 JIS LEF /B5 JIS SEF, 11 x 17 LEF /8 1/2 x 11 SEF)

Staple position:	4 positions (Top, Top Slant, Bottom, 2 Staples)
Saddle stitch paper size:	A3 LEF, B4 JIS LEF, A4 LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, custom size
Saddle stitch paper weight:	64–105 g/m^2 (17–28 lb. Bond)
Saddle stitch capacity (80 g/m^2, 20 lb. Bond):	1 set (20 sheets)
Stack capacity after saddle stitching (80 g/m^2, 20 lb. Bond):	§ 2–5 sheets: approx. 30 sets § 6–10 sheets: approx. 15 sets § 11–15 sheets: approx. 10 sets § 16–20 sheets: approx. 6 sets
Saddle stitch position:	Center 2 positions
Types of folds:	Half Fold
Paper size:	§ With Half Fold: A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF § With Multi-sheet Fold: A3 LEF, A4 LEF, B4 JIS LEF, B5 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 11 LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF
Paper weight:	§ With Half Fold: § 64–216 g/m2 (17 lb. Bond–80 lb. Cover) § With Multi-sheet Fold: § 64–90 g/m2 (17–24 lb. Bond)
Power consumption:	56 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	657 x 613 x 960 mm (25.9 x 24.2 x 37.8 inches)
Weight:	§ Approx. 53 kg (116.9 lb.) (without punch unit) § Approx. 57 kg (125.7 lb.) (with punch unit)

1.4.8 SIDE TRAY TYPE M3 (D725)

Paper size:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, A6 LEF, B4 JIS LEF, B5 JIS SEF/LEF, B6 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 5 1/2 x 8 1/2 LEF, 4 1/8 x 9 1/2 SEF/LEF, 3 7/8 x 7 1/2 SEF/LEF, C5 Env SEF/LEF, C6 Env SEF/LEF, DL Env SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	§ Internal tray 1: 250 sheets: A4, 81/2 x 11 or smaller 125 sheets: B4 JIS, 81/2 x 14 or larger § External tray: 125 sheets
Power consumption:	15 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	800 x 549 x 156 mm (31.5 x 21.7 x 6.2 inches)
Weight:	Approx. 4 kg (8.9 lb.)

1.4.9 INTERNAL SHIFT TRAY SH3070 (D691)

Paper size:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, A6 LEF, B4 JIS LEF, B5 JIS SEF/LEF, B6 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 5 1/2 x 8 1/2 LEF, 4 1/8 x 9 1/2 SEF/LEF, 3 7/8 x 7 1/2 SEF/LEF, C5 Env SEF/LEF, C6 Env SEF/LEF, DL Env SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight:	60–300 g/m^2 (16 lb. Bond–110 lb. Cover)
Paper sizes that can be shifted:	A3 LEF, A4 SEF/LEF, A5 SEF/LEF, A6 LEF, B4 JIS LEF, B5 JIS SEF/LEF, B6 JIS LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 5 1/2 x 8 1/2 LEF, 4 1/8 x 9 1/2 SEF/LEF, 3 7/8 x 7 1/2 SEF/LEF, C5 Env SEF/LEF, C6 Env SEF/LEF, DL Env SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight that can be shifted:	60–300 g/m^2 (16 lb. Bond–110 lb. Cover)
Stack capacity (80 g/m^2, 20 lb. Bond):	§ 250 sheets: A4, 81/2 x 11 or smaller § 125 sheets: B4 JIS, 81/2 x 14 or larger
Power consumption:	5 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	420 x 489 x 107 mm (16.6 x 19.3 x 4.3 inches)
Weight:	Approx. 2 kg (4.5 lb.)

1.4.10 1 BIN TRAY BN3110 (D692)

Number of bins:	1
Paper size:	A3 LEF A4 SEF/LEF, A5 SEF/LEF, B4 JIS LEF B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 51/2 x 8 1/2 LEF, 8K LEF, 16K SEF/LEF, 11 x 15 LEF, 10 x 14 LEF, SRA3 LEF, SRA4 SEF/LEF, custom size
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	125 sheets
Power consumption:	1 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	444 x 450 x 150 mm (17.5 x 17.8 x 6.0 inches)
Weight:	Approx. 2 kg (4.5 lb.)

1.4.11 BRIDGE UNIT BU3070 (D685)

Stack capacity (80 g/m^2, 20 lb. Bond):	§ 250 sheets: A4, 81/2 x 11 or smaller § 125 sheets: B4 JIS, 81/2 x 14 or larger
Power consumption:	15 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	412 x 466 x 143 mm (16.3 x 18.4 x 5.7 inches)
Weight:	Approx. 4 kg (8.9 lb.)

1.4.12 PUNCH UNIT PU3040 NA/EU/SC (D716)

Paper size:	Punch unit type	Paper size
	2 & 4 holes type: 2 holes	LEF: A3, A4, B4 JIS, B5 JIS, 11 x 17, 8 1/2 x 14, 8 1/2 x 13, 8 1/2 x 11, 7 1/4 x 10 1/2, 8K, 16K
	2 & 4 holes type: 2 holes	SEF: A4, B5 JIS, 8 1/2 x 11, 16K
	2 & 4 holes type: 4 holes	LEF: A3, 11 x 17
	2 & 4 holes type: 4 holes	SEF: A4, 8 1/2 x 11
	4 holes type: 4 holes	LEF: A3, A4, B4 JIS, B5 JIS, 11 x 17, 8 1/2 x 14, 8 1/2 x 13, 8 1/2 x 11, 7 1/4 x 10 1/2
	4 holes type: 4 holes	SEF: A4, B5 JIS, 8 1/2 x 11
	2 & 3 holes type: 2 holes	LEF: A3, 11 x 17, 8 1/2 x 14, 8 1/2 x 13, 8 1/2 x 11, 7 1/4 x 10 1/2
	2 & 3 holes type: 2 holes	SEF: A4, 8 1/2 x 11
	2 & 3 holes type: 3 holes	LEF: A3, 11 x 17
	2 & 3 holes type: 3 holes	SEF: A4, 8 1/2 x 11

Paper weight:	60–169 g/m^2 (16 lb. Bond –90 lb. Index)

1.4.13 PUNCH UNIT PU3050 NA/EU/SC (D717)

Paper size:	Punch unit type	Paper size
	2 & 4 holes type: 2 holes	LEF: A3, B4 JIS, A4, B5 JIS, A5, 11 x 17, 8 1/2 x 14, 8 1/2 x 11, 5 1/2 x 8 1/2, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 8K, 16K, 8 1/4 x 14, 8 x 10, 11 x 15, 10 x 14
	2 & 4 holes type: 2 holes	SEF: A4, B5 JIS, A5, 8 1/2 x 11, 7 1/4 x 10 1/2, 16K
	2 & 4 holes type: 4 holes	LEF: A3, B4 JIS, 11 x 17, 11 x 15, 8K
	2 & 4 holes type: 4 holes	SEF: A4, B5 JIS, 8 1/2 x 11, 7 1/4 x 10 1/2, 16K
	4 holes type: 4 holes	LEF: A3, B4 JIS, A4, B5 JIS, A5, 11 x 17, 8 1/2 x 14, 8 1/2 x 11, 5 1/2 x 8 1/2, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 8K, 16K, 8 1/4 x 14, 8 x 10, 11 x 15, 10 x 14
	4 holes type: 4 holes	SEF: A4, B5 JIS, A5, 8 1/2 x 11, 7 1/4 x 10 1/2, 16K
	2 & 3 holes type: 2 holes	LEF: A3, B4 JIS, B5 JIS, A5, 11 x 17, 8 1/2 x 14, 8 1/2 x 11, 5 1/2 x 8 1/2, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 8K, 16K, 8 1/4 x 14, 8 x 10, 11 x 15, 10 x 14
	2 & 3 holes type: 2 holes	SEF: A4, B5 JIS, 8 1/2 x 11, 7 1/4 x 10 1/2, 16K
	2 & 3 holes type: 3 holes	LEF: A3, B4 JIS, 11 x 17, 11 x 15, 10 x 14, 8K
	2 & 3 holes type: 3 holes	SEF: A4, B5 JIS, 8 1/2 x 11, 7 1/4 x 10 1/2, 16K

Paper weight:	52–256 g/m^2 (14 lb. Bond–140 lb. Index)

1.4.14 PUNCH UNIT PU3060 NA/EU/SC (D706)

Paper size:	Punch unit type	Paper size
	2 & 4 holes type: 2 holes	LEF: A3, B4 JIS, A4, B5 JIS, A5, 11 x 17, $8^1/_2$ x 14, $8^1/_2$ x 11, $5^1/_2$ x $8^1/_2$, $7^1/_4$ x $10^1/_2$, 8 x 13, $8^1/_2$ x 13, $8^1/_4$ x 13, 8K, 16K, $8^1/_4$ x 14, 8 x 10, 11 x 15, 10 x 14, custom size
	2 & 4 holes type: 2 holes	SEF: A4, B5 JIS, A5, $8^1/_2$ x 11, $7^1/_4$ x $10^1/_2$, 16K, custom size
	2 & 4 holes type: 4 holes	LEF: A3, B4 JIS, 11 x 17, 11 x 15, 8K, custom size
	2 & 4 holes type: 4 holes	SEF: A4, B5 JIS, $8^1/_2$ x 11, $7^1/_4$ x $10^1/_2$, 16K, custom size
	4 holes type: 4 holes	LEF: A3, B4 JIS, A4, B5 JIS, A5, 11 x 17, $8^1/_2$ x 14, $8^1/_2$ x 11, $5^1/_2$ x $8^1/_2$, $7^1/_4$ x $10^1/_2$, 8 x 13, $8^1/_2$ x 13, $8^1/_4$ x 13, 8K, 16K, $8^1/_4$ x 14, 8 x 10, 11 x 15, 10 x 14, custom size
	4 holes type: 4 holes	SEF: A4, B5 JIS, A5, $8^1/_2$ x 11, $7^1/_4$ x $10^1/_2$, 16K, custom size
	2 & 3 holes type: 2 holes	LEF: A3, B4 JIS, B5 JIS, A5, 11 x 17, $8^1/_2$ x 14, $8^1/_2$ x 11, $5^1/_2$ x $8^1/_2$, $7^1/_4$ x $10^1/_2$, 8 x 13, $8^1/_2$ x 13, $8^1/_4$ x 13, 8K, 16K, $8^1/_4$ x 14, 8 x 10, 11 x 15, 10 x 14, custom size
	2 & 3 holes type: 2 holes	SEF: A4, B5 JIS, $8^1/_2$ x 11, $7^1/_4$ x $10^1/_2$, 16K, custom size
	2 & 3 holes type: 3 holes	LEF: A3, B4 JIS, 11 x 17, 11 x 15, 10 x 14, 8K, custom size
	2 & 3 holes type: 3 holes	SEF: A4, B5 JIS, $8^1/_2$ x 11, $7^1/_4$ x $10^1/_2$, 16K, custom size

Paper weight:	52–256 g/m^2 (14 lb. Bond–140 lb. Index)

1.4.15 PAPER FEED UNIT PB3150 (D964)

Paper size:	A3 LEF, A4 SEF/LEF, A5 SEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, 4 1/8 x 9 1/2 SEF, C5 Env SEF, SRA3 LEF, custom size
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	550 sheets x 1 tray
Power consumption:	19 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	587 x 685 x 120 mm (23.2 x 27.0 x 4.8 inches)
Weight:	Approx. 11 kg (24.3 lb.)

1.4.16 PAPER FEED UNIT PB3160 (D963)

Paper size:	A3 LEF, A4 SEF/LEF, A5 SEF, B4 JIS LEF, B5 JIS SEF/LEF, 11 x 17 LEF, 8 1/2 x 14 LEF, 8 1/2 x 13 LEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 LEF, 8 1/4 x 13 LEF, 8 x 13 LEF, 8 x 10 LEF, 7 1/4 x 10 1/2 SEF/LEF, 8K LEF, 16K SEF/LEF, 12 x 18 LEF, 11 x 15 LEF, 10 x 14 LEF, 4 1/8 x 9 1/2 SEF, C5 Env SEF, SRA3 LEF, custom size
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	550 sheets x 2 trays
Power consumption:	21 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	587 x 685 x 247 mm (23.2 x 27.0 x 9.8 inches)
Weight:	Approx. 21 kg (46.3 lb.)

1.4.17 LCIT PB 3170 (D965)

Paper size:	A4 SEF, 8 1/2 x 11 SEF
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	1,000 sheets x 2 trays
Power consumption:	15 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	587 x 685 x 247 mm (23.2 x 27.0 x 9.8 inches)
Weight:	Approx. 20 kg (44.1 lb.)

1.4.18 LCIT RT 3030 (D696)

Paper size:	A4 SEF, B5 JIS SEF, 8 1/2 x 11 SEF
Paper weight:	52–300 g/m^2 (14 lb. Bond–110 lb. Cover)
Paper capacity (80 g/m^2, 20 lb. Bond):	1,500 sheets
Power consumption:	13 W or less (Power is supplied from the main unit.)
Dimensions (W x D x H):	340 x 540 x 290 mm (13.4 x 21.3 x 11.5 inches)
Weight:	Approx. 10 kg (22.1 lb.)

APPENDICES:

PREVENTIVE MAINTENANCE TABLES

2. APPENDICES: PREVENTIVE MAINTENANCE TABLES

2.1 PREVENTIVE MAINTENANCE

2.1.1 PREVENTIVE MAINTENANCE ITEMS

Preventive Maintenance Items

Yield Parts

The parts mentioned in these tables have a target yield. However, the total copy/print volume made by the machine will not reach the target yield within the machine's targeted lifetime if the machine is used under the target usage conditions (ACV, color ratio, P/J, and C/O). So, these parts are categorized not as PM parts but as yield parts (EM parts). The parts with “(R)” in this table are yield parts.

Chart: A4 (LT)/5%

Mode: 4 copies / original (prints/job)

Ratio 30%

Environment: Normal temperature and humidity

Yield may change depending on circumstances and print conditions.

Symbol keys: C: Clean, R: Replace, L: Lubricant, I: Inspect

Mainframe

Item	60K	120K	300K	400K	600K	EM	Remarks
Scanner							
Reflector			C				Optics cloth
1st mirror			C				Optics cloth
2nd mirror			C				Optics cloth
3rd mirror			C				Optics cloth
Exposure Glass			C			C	Exposure glass cleaner

Item	60K	120K	300K	400K	600K	EM	Remarks
Guide Rail(Both sides 2 steps)			C				Dry cloth
ADF Exposure Glass			C			C	Exposure glass cleaner
PCU							
PCU(K)				R			
PCU(C,M,Y)							Logging counts to replace: 270K
Waste Toner Bottle							Upper limit counts to replace: 100K *Replace when full of waste toner bottle detected.
Development Unit (K)					R		
Development Unit (C,M,Y)							Logging counts to replace: 270K
Transfer							
ITB Cleaning Unit			R				
ITB unit					R		
Paper transfer roller unit				R			

Item	60K	120K	300K	400K	600K	EM	Remarks
Fusing							
Fusing sleeve belt unit				R			
Entrance guide plate						C	Clean deposit toner
Exit guide plate						C	Clean deposit toner
Separation Plate						C	Clean deposit toner
Pressure Roller				R			
Bearing: Fusing Roller				R			Lubricating grease
Thermopile				C		C	Dry cloth
Gears						C	Replace if it worn out
idler gear						C	Replace if it worn out
Miscellaneous							
Exhaust Filter			R				
Dust Glass						C	Exposure glass cleaner
TM/P sensor						C	

Item	60K	120K	300K	400K	600K	EM	Remarks
Paper Feed (Mainframe)							
Registration Roller						C	Damp cloth
Registration Sensor						C	Remove toner and paper dust, Dry cloth
Paper powder removal container						C	Remove toner and paper dust, Dry cloth
Transport roller						C	Damp cloth
Transfer Sensor						C	Remove toner and paper dust, Dry cloth
paper feed sensor						C	Remove toner and paper dust, Dry cloth
Feed roller						C	Remove toner and paper dust, Dry cloth
Separation Roller						C	Remove toner and paper dust, Dry cloth
Pick-up roller						C	Remove toner and paper dust, Dry cloth

Item	60K	120K	300K	400K	600K	EM	Remarks
Paper Feed (Paper Trays)							
Transport roller						C	Damp cloth
Transfer Sensor						C	Remove toner and paper dust, Dry cloth
paper feed sensor						C	Remove toner and paper dust, Dry cloth
Feed roller						C	Remove toner and paper dust, Dry cloth
Separation Roller						C	Remove toner and paper dust, Dry cloth
Pick-up roller						C	Remove toner and paper dust, Dry cloth

Item	60K	120K	300K	400K	600K	EM	Remarks
Duplex							
Duplex transport roller						C	Damp cloth
Duplex inlet sensor						C	Remove toner and paper dust, Dry cloth
Duplex outlet sensor						C	Remove toner and paper dust, Dry cloth
Duplex outlet roller						C	Damp cloth
Duplex inlet roller						C	Damp cloth
By-pass paper feed roller						C	Damp cloth
By-pass Separation Roller						C	Damp cloth
By-pass pick-up roller						C	Damp cloth
By-pass transport roller						C	Damp cloth

Item	60K	120K	300K	400K	600K	EM	Remarks
Paper Exit							
Inverter Roller						C	Damp cloth
Inverter Sensor						C	Remove toner and paper dust, Dry cloth
Paper eject roller						C	Damp cloth
Paper eject sensor						C	Remove toner and paper dust, Dry cloth

D148

SMART OPERATION PANEL TYPE M3

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

SMART OPERATION PANEL TYPE M3 (D148)

TABLE OF CONTENTS

1. INSTALLATION 1

1.1 INSTALLATION PROCEDURE 1

2. REPLACEMENT AND ADJUSTMENT 3

2.1 OPERATION PANEL UNIT 3

2.1.1 OPERATION PANEL 3

2.1.2 PCB-L 4

2.1.3 LCD 6

2.1.4 PCB-R 7

2.1.5 SPEAKER 1 7

2.1.6 LCD PANEL 8

2.1.7 SPEAKER 2 9

3. MECHANISM 10

3.1 OVERVIEW 10

3.1.1 SYSTEM COMPONENTS 10

Specification 10

Available languages 11

3.1.2 APPEARANCE/SCREEN LAYOUT 12

1. 12

2. LED specification 13

3. E 13

4. Screen layout 14

3.1.3 ELECTRICAL COMPONENTS 15

3.2 POWER SUPPLY CONTROL 16

3.2.1 ENERGY-SAVE RECOVERY OPERATION 16

3.2.2 SCREEN STARTUP MODE 17

3.2.3 SPECIAL SHUTDOWN 18

4. SYSTEM MAINTENANCE 19

4.1 SYSTEM MAINTENANCE 19

4.1.1 BASIC OPERATION 19

Switching the Power OFF before Performing Maintenance (before Disconnecting the Power Supply Plug) 19
Switching the Power OFF before Upgrading the MFP (Controller/Engine) Version 19
Reset Procedure If the Android Screen Freezes 19
4.1.2 MAINTENANCE MODES 20
4.1.3 VERSION UPDATE 20
4.1.4 APPLICATION INSTALLATION/VERSION UPDATE 22
4.1.5 SELF-DIAGNOSIS 23
4.2 SP MODE LIST 27
4.2.1 SETTINGS MENU LIST 27
4.3 RECOVERY MENU 29

READ THIS FIRST

Safety and Symbols

Replacement Procedure Safety

⚠CAUTION

- Turn off the main power switch and unplug the machine before beginning any of the procedures in this manual.

Symbols

This manual uses the following symbols.

Symbol	What it means
	Bushings
	C-ring
	Connector
	E-ring
	Harness clamp
	Pointer
	Screw
	Standoff
	Hook
	Spring

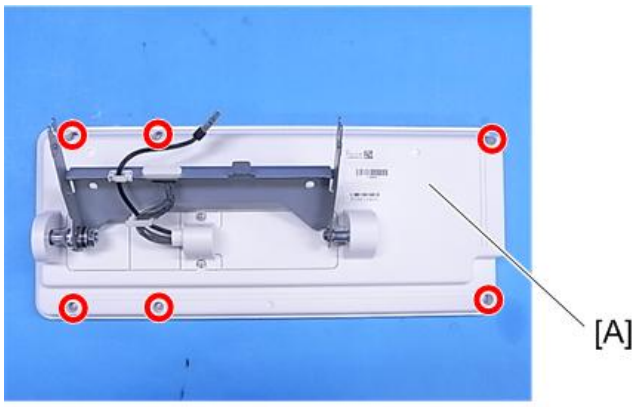
1. INSTALLATION

1.1 INSTALLATION PROCEDURE

Note

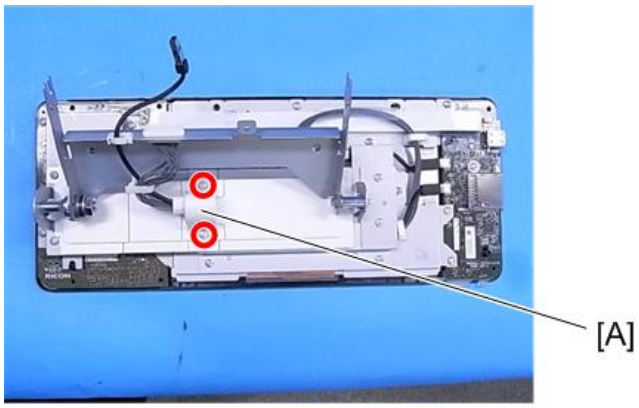
- When changing the screen on the market (standard screen→ Android screen), perform the following steps.
- Smart Operation Panel Type M3 is not the option for EU region. (Standard model)

1. **Change the SP modes below before changing the operation panel.**
   - Change SP5-748-101 bit0 to 1
   - Change SP5-748-201 to 1
2. **Turn the main power OFF.**
3. **Operation panel (page 3 "Operation Panel")**
4. **Operation panel lower cover [A] (×6)**



d1462387

5. **Harness guide [A] (×2)**



d1462388

6. **Attach the Smart Operation Panel Type M3.**
7. **Turn the main power ON.**
8. **Change the SP modes below.**
   - Change SP5-752-001 bit0 to 1
   - Change Scanner SP1-041-001 bit0 to 1

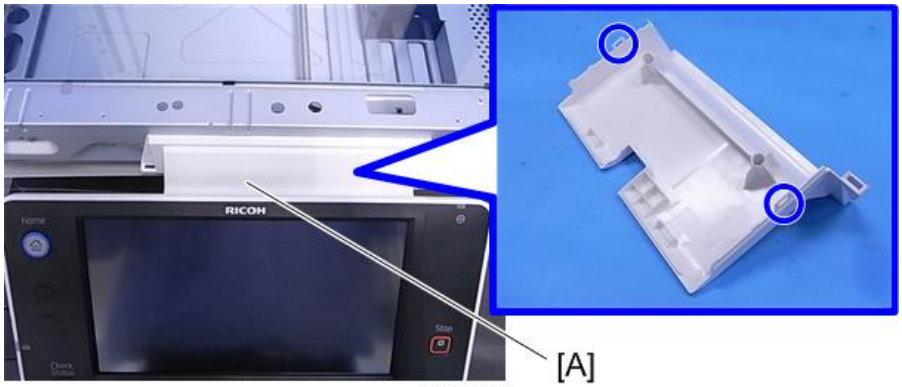
   If fax option is installed,
   - Change Fax SP3-301-001 bit0 to 1
9. **Turn the main power OFF/ON. If it is connected normally, the default setting icons are displayed.**

2. REPLACEMENT AND ADJUSTMENT

2.1 OPERATION PANEL UNIT

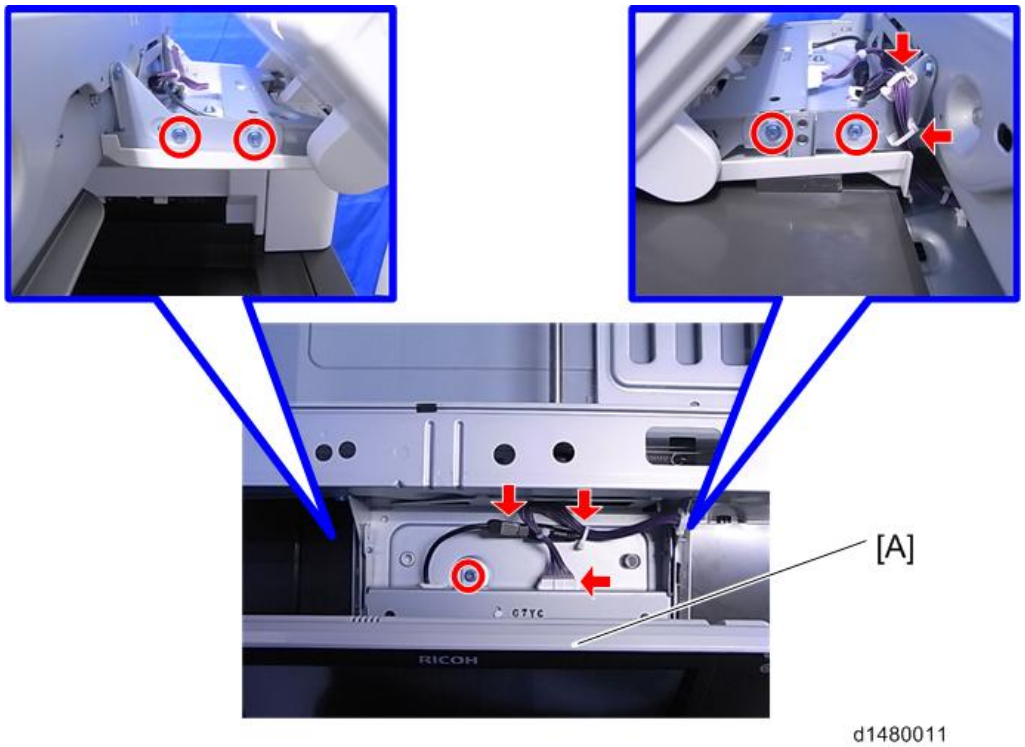
2.1.1 OPERATION PANEL

1. **Scanner front cover (Refer to Main Frame SM)**
2. **Operation panel upper cover [A] (hook×2)**



d1480010

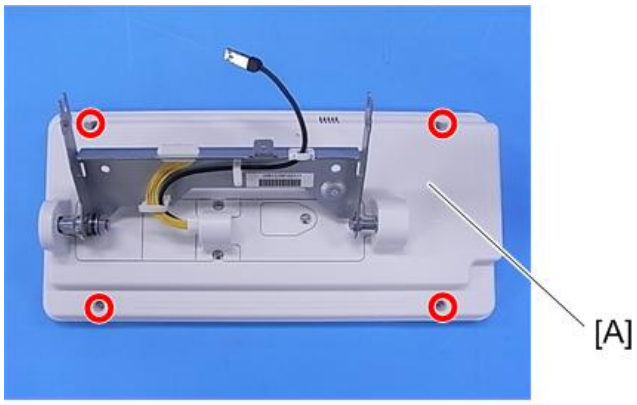
3. **Operation panel [A] (×5, ×3, ×2)**



d1480011

2.1.2 PCB-L

1. **Operation panel (page 3 "Operation Panel")**
2. **Operation panel rear cover [A] (×4, hook×4)**



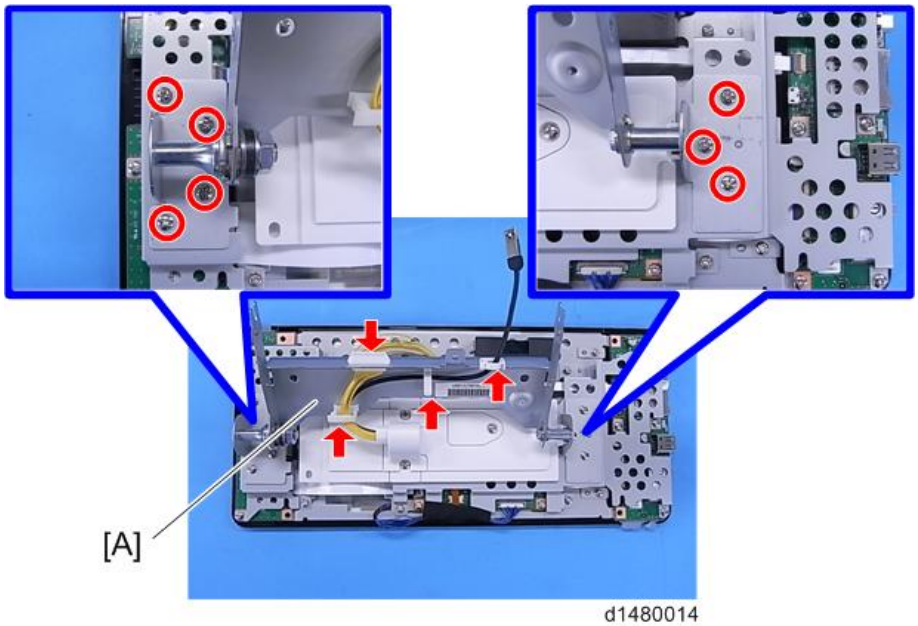
d1480012

Note

- There are 4 hooks inside the operation panel. Before removing the operation panel rear cover, see the photos below.

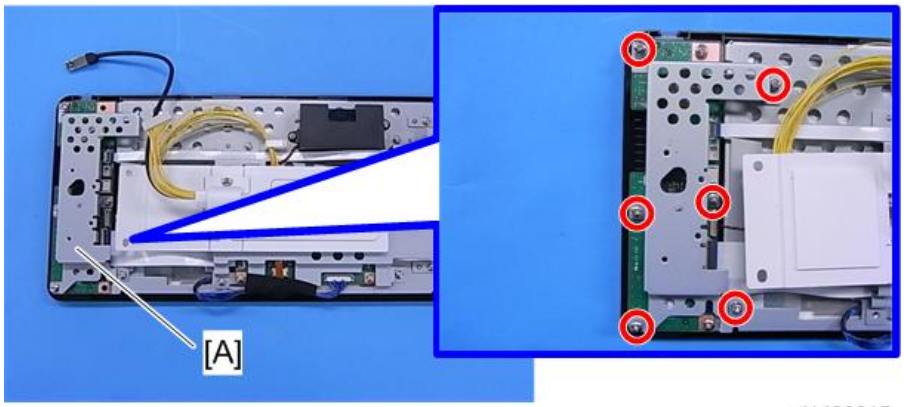
d1480013

3. **Operation panel arm bracket [A] (×7, ×3, ×1)**



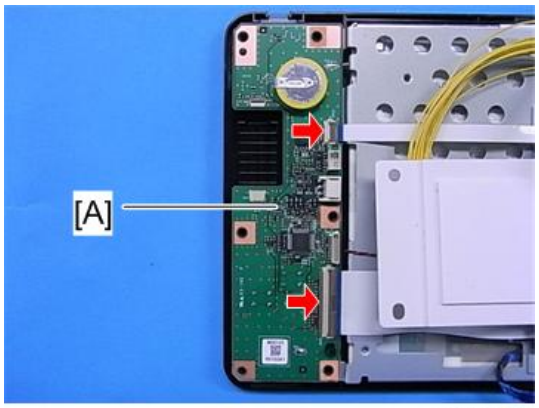
d1480014

4. **Bracket [A] (×6)**



d1480015

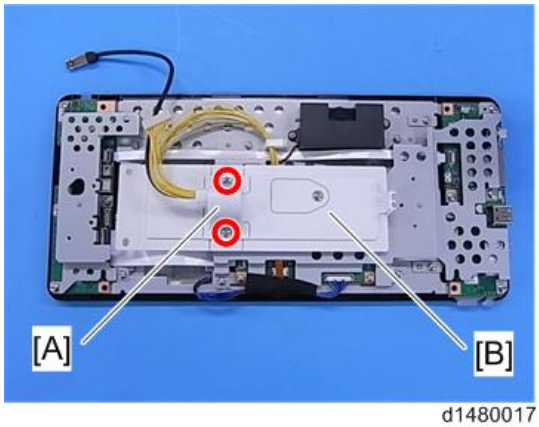
5. **PCB-L [A] (×2)**



d1480016

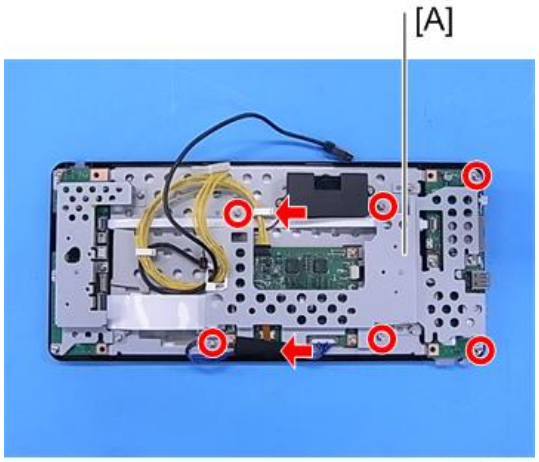
2.1.3 LCD

1. **Operation panel (page 3 "Operation Panel")**
2. **Operation panel rear cover (page 4 "PCB-L")**
3. **Operation panel arm bracket (page 4 "PCB-L")**
4. **Remove the harness guide [A] and bracket cover [B]. (×2)**



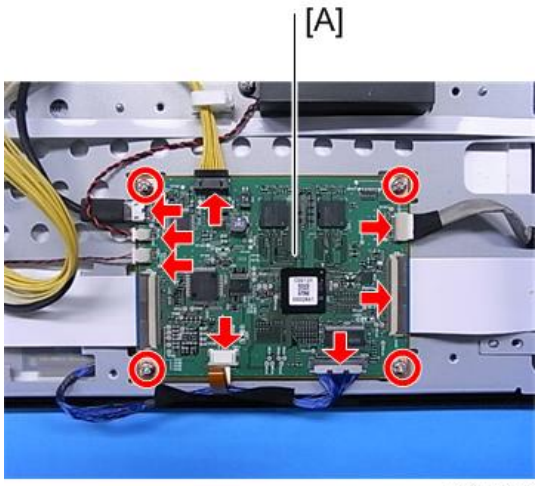
d1480017

5. **Bracket [A] (×6, ×1,tape×1)**



d1480018

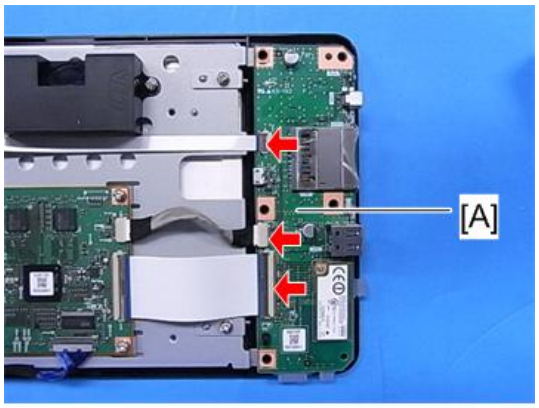
6. **LCD [A] (×4, ×1, ×7)**



d1480019

2.1.4 PCB-R

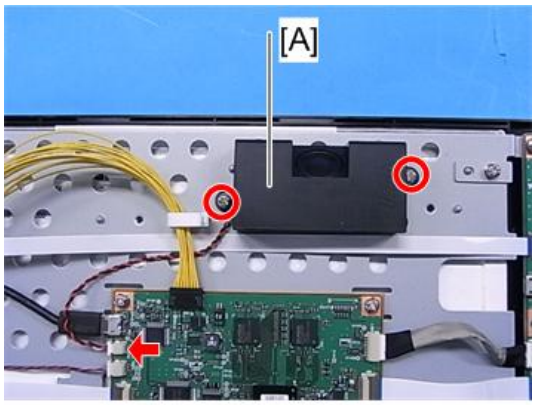
1. Operation panel (page 3 "Operation Panel")
2. Operation panel rear cover (page 4 "PCB-L")
3. Operation panel arm bracket (page 4 "PCB-L")
4. Remove the harness guide and bracket cover. (page 6 "LCD")
5. Bracket (page 6 "LCD")
6. PCB-R [A] (×3)



d1480020

2.1.5 SPEAKER 1

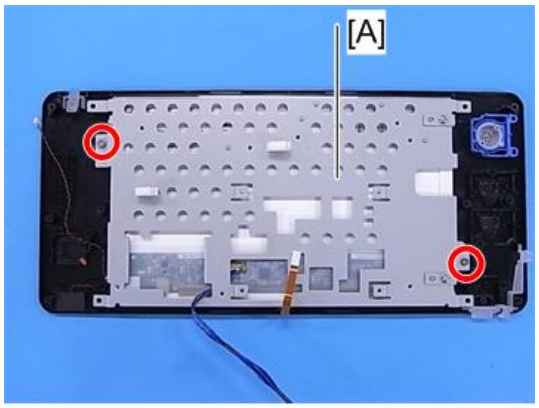
1. Operation panel (page 3 "Operation Panel")
2. Operation panel rear cover (page 4 "PCB-L")
3. Operation panel arm bracket (page 4 "PCB-L")
4. Remove the harness guide and bracket cover. (page 6 "LCD")
5. Bracket (page 6 "LCD")
6. Speaker 1 [A] (×2, ×1)



d1480021

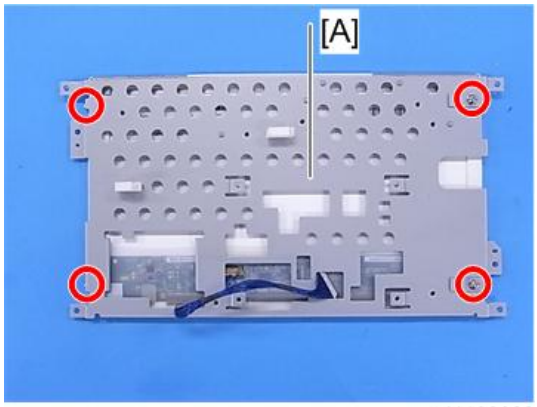
2.1.6 LCD PANEL

1. **PCB-L (page 4 "PCB-L")**
2. **LCD (page 6 "LCD")**
3. **PCB-R (page 7 "PCB-R")**
4. **Speaker1 (page 7 "Speaker 1")**
5. **Remove the LCD panel with the bracket [A]. (×2)**



d1480022

6. **Remove the bracket [A] from the LCD panel. (×4)**



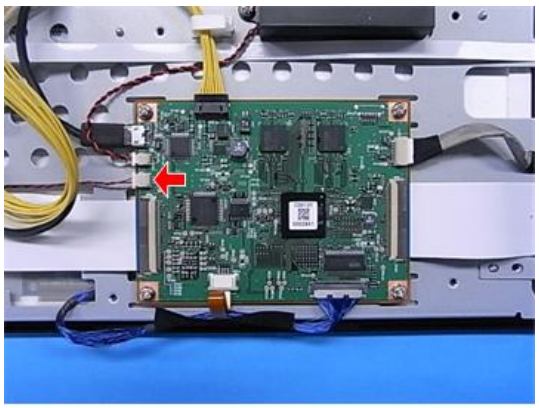
d1480023

7. **LCD panel [A] (×1)**

d1480024

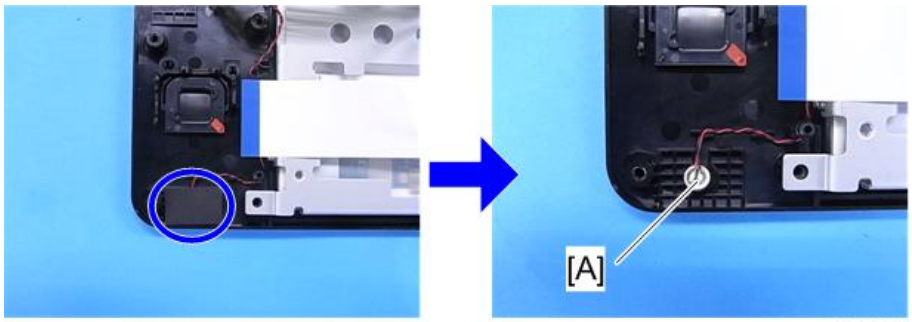
2.1.7 SPEAKER 2

1. **PCB-L (page 4 "PCB-L")**
2. **LCD bracket (page 6 "LCD")**
3. **Disconnect a connector.**



d1480025

4. **Speaker 2 [A] (cushioning×1)**



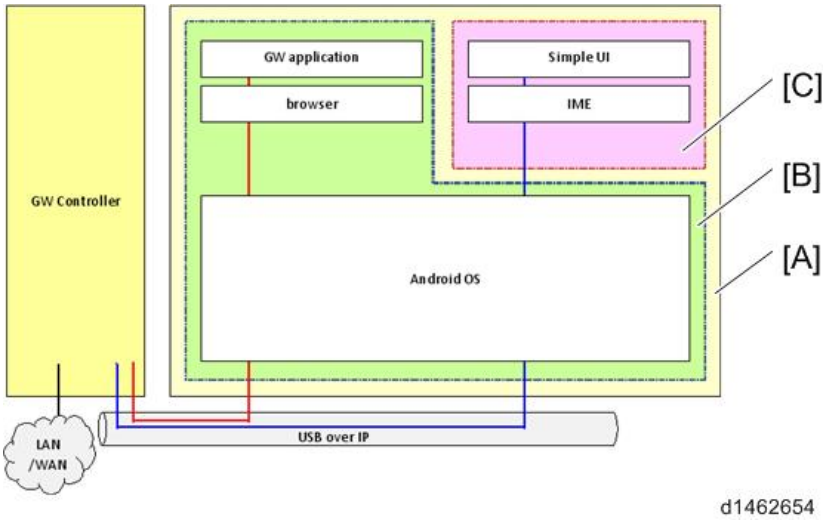
d1480026

3. MECHANISM

3.1 OVERVIEW

3.1.1 SYSTEM COMPONENTS

The Android control unit is a control unit in which the Android OS connected with the MFP by USB, is installed.



[A]: Android screen

[B]: Android firmware (update from recovery mode)

[C]: Android application (perform installation version update from screen SP mode)

Specification

Category	Item	Contents	Remarks
LCD	Size	10.1 inch panel	
	No. of pixels	WSVGA (1024×600)	
	Bit width	RGB666	18-bit color
	Brightness	200cd/m^2(typ.)	
	Back light	LED rear light (lifetime 15000h)	
Touch panel		Light load touch panel, 2 -point touch detection	
Memory	Volatile memory	RAM: 1GB	

Category	Item	Contents	Remarks
	Non-volatile memory	NAND: 2GB	Program area and data area for the OS and applications
External I/F	USB memory	USB2.0 Host Type-A	
	SD card	SD card slot 1ch (SD/SDHC)	
	USB	USB2.0 Host Type-mini AB	Not available
Network	Wireless LAN	802.11b/g/n	
Audio input/output	Speaker/microphone	Monophonic speaker 1ch (power 1-2W) Microphone	
Power consumption	When active	During regular time: Less than 4W During wireless-LAN high-load operation: Less than 4.6W	Excluding external I/F and internal function expansion.
	During sleep	Less than 350 mW	In sleep mode or while the power is off, do not supply power to an extension USB device connected to an external USB port.

Available languages

Japanese, American English, German, French, Italian, Spanish, Dutch, Spanish, Russian, Chinese (simplified Chinese characters) and Chinese (traditional Chinese characters)

3.1.2 APPEARANCE/SCREEN LAYOUT

The Android control unit is a control unit in which the Android OS connected with the MFP by USB, is installed.

No.	Description	No.	Description
1	USB slot	9	"Data In" LED
2	USB LED	10	FAXLED
3	SD slot	11	Menu key (Only used for Android Apps)
4	SD LED	12	Back key (Only used for Android Apps)
5	mini USB slot	13	Home key
6	reset key	14	Main power / Energy save LED
7	Check status key	15	Stop key
8	Status LED		

1.

Key specification

Key	Description
Home	Change to home screen.
Status check	Change to status display screen.
Stop	Change to stop screen.
Back	Return to previous screen. (The return destination may be the home screen).
Menu	Change to the menu screen of a displayed application. In case of an application without a menu screen, it does not operate.
Reset button	Reboot the control unit.

* The Return and menu keys are used for operation of Android applications (browser, gallery, etc.).

2. LED specification

LED	Description
Power supply	Shows the OFF/ON status of the power supply.
Home	Shows the HOME screen.
FAX	Displays the fax status. ▪ During communication: Blinks ▪ Proxy receive (FAX): Lights ▪ Confidential receipt (FAX): Lights
Data-in	Displays the printer data status.
Status check	Displays the device status.
Main power supply	Shows energy-save and power supply status.
SD access	Shows SD access status.
USB access	Shows USB access status.

3. E

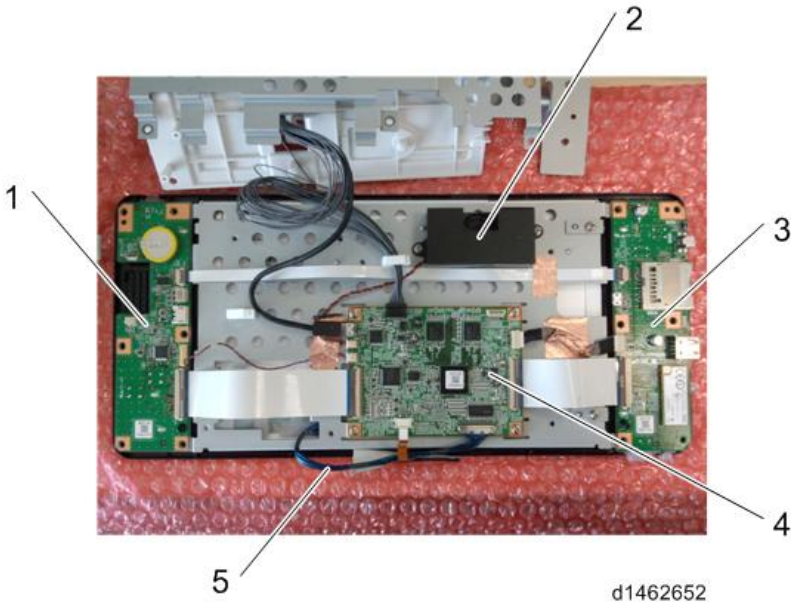
xternal I/F specification

External I/F	Description
SD card slot	Available from both GW application/Android application. (to use, change over).
USB slot	Available only from GW application
mini USB slot	Not available

4. Screen layout

No.	Part name	Description
[A]	Application screen area	This is the application display area.
[B]	Login banner	Display login information.
[C]	System banner	Perform banner display.
[D]	Energy-save button	Perform energy-save shift and recovery.

3.1.3 ELECTRICAL COMPONENTS



No.	Item	Description
1	Microcomputer substrate	Board with microcomputer which performs (energy-save) power supply control of the control unit (Ricoh: Corresponds to right of key board)
2	Speaker	
3	I/O board	Board with external IF connector (also, a WLAN module) (Ricoh: Corresponds to left of key board)
4	CPU board	Main board with main control CPU (Ricoh: corresponds to LCDC board)
5	LCD (liquid crystal) I/F cable	Small gauge coaxial

3.2 POWER SUPPLY CONTROL

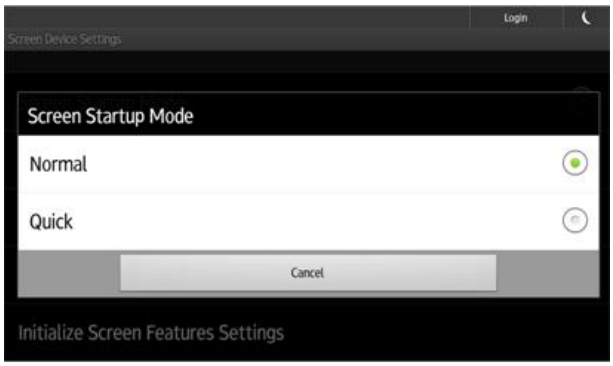
3.2.1 ENERGY-SAVE RECOVERY OPERATION

An Android screen is different from a conventional screen (standard screen) in the method of recovery from energy-saving mode.

Key	Android control unit	Standard control unit
HOME	Perform energy-save recovery, and display home screen. (Equivalent to standard control unit [Energy-save] key)	Does not recover.
Status check	Perform energy-save recovery, and display status confirmation screen.	Same left
Energy-save	No key	Perform energy-save recovery, and display priority application screen. * During recovery from low power mode, display application screen before shift.
LCD touch	Perform energy-save recovery, and display status confirmation screen. (Equivalent to standard control unit [Energy-save] key)	Does not recover.
Returns	Perform energy-save recovery, and display status confirmation screen. (Equivalent to standard control unit [Energy-save] key)	No corresponding key
MENU	Perform energy-save recovery, and display status confirmation screen. (Equivalent to standard control unit [Energy-save] key)	No corresponding key
STOP	Perform energy-save recovery, and display status confirmation screen. (Equivalent to standard control unit [Energy-save] key). (Equivalent to standard control unit [Energy-save] key).	Does not recover.
Login/logout	No key	Does not recover.

3.2.2 SCREEN STARTUP MODE

As control unit start-up modes, a Normal Startup Mode (power-saving mode) and Quick Startup Mode are provided. Each mode can be changed over from Screen Features → Screen Device Settings → Screen Startup Mode.



d1462656

1. Normal Startup Mode (power-saving mode): Default
   This is a mode with minimum power. Since the power is reduced to the minimum, normal startup will take time (start-up time guide: 68 seconds).
2. Quick Startup Mode
   In this mode, a minute amount of power is supplied to the screen even when the power is OFF, and the home screen is displayed immediately when the power is switched ON. (start-up time guideline: 17 seconds)
   In Quick Startup Mode, preparations for the next startup are performed even during shutdown. Therefore, shutdown takes longer than in Normal Startup Mode.

   Note

   - When shutdown is performed in Quick Startup Mode, the screen changes in the following order:
     1. The screen turns off.
     2. The screen turns off.
     3. The power LED blinks.
   - The power LED turns off.

3.2.3 SPECIAL SHUTDOWN

To facilitate maintenance, the following two shutdown procedures are provided:

1. Maintenance shutdown (shortens shutdown time)
   When the Quick Startup Mode is set, preparations for the next start-up are performed during shutdown, so shutdown takes more time than in normal start-up mode. If the power is switched OFF by the following steps, even if the Quick Startup Mode is set, the same shutdown is performed as in normal mode (shutdown time is shortened).
2. MFP version update shutdown (screen remains energized)
   When the MFP controller or engine firmware version is updated, if shutdown and start-up of the Android screen take time, working efficiency decreases. Therefore, by performing the following procedure, the MFP controller/engine can be powered off alone without completely shutting down the Android screen.

   Note

   - After shutdown is completed by this procedure, when the MFP is left for 5 minutes or longer, it starts up in normal start up mode the next time that the power is switched ON.

4. SYSTEM MAINTENANCE

4.1 SYSTEM MAINTENANCE

4.1.1 BASIC OPERATION

Switching the Power OFF before Performing Maintenance (before Disconnecting the Power Supply Plug)

1. **Press the power switch while pressing the [STOP] key.**
   Continue pressing the [STOP] key until "Shutting Down" is displayed.

Note

- Shutdown can be performed in a short time even when the Quick Startup Mode is set.

Switching the Power OFF before Upgrading the MFP (Controller/Engine) Version

1. **Press the power switch while pressing the [STOP] key.**
   Continue pressing the [STOP] key until "Shutting Down" is displayed.

Note

- When upgrading the Android screen firmware version, switch the power OFF by the normal procedure.

Reset Procedure If the Android Screen Freezes

⚠CAUTION

- If reset is performed when the Android screen is in operation, data stored in the Android screen may be corrupted.

1. **Press the reset button on the left side of the control unit in order to reboot the control unit.**

4.1.2 MAINTENANCE MODES

The different service modes and their roles are as follows.

* For security reasons, the specific methods for switching between service modes are not given here. Please check according to the usual procedure.

Mode	Application	Remarks
MFP SP mode	MFP (engine) ▪ Conventional SP mode	Since a 10-keypad is used for mode shift, mode shift must be performed from a GW application.
Screen service mode	Android-specific screen service mode ▪ Android application installation and version update ▪ Screen self-diagnosis check	Idem
Recovery mode	Android OS maintenance ▪ OS update ▪ Full data format	-

4.1.3 VERSION UPDATE

Android firmware (OS) version update is performed from recovery mode.

Note

- If Quick Startup is set, it is not possible to shift to recovery mode. It is necessary to perform either shutdown from Normal Startup Mode, or shutdown by the power OFF procedure prior to maintenance (before disconnecting the power supply plug).

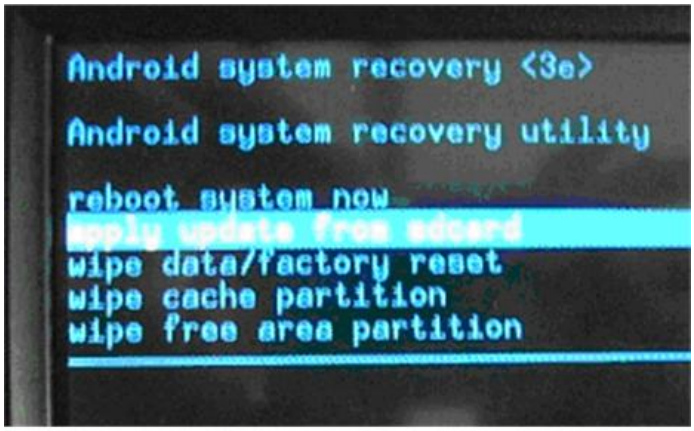
Note

- If extended security for firmware update is set to "prohibit", it is not possible to shift to recovery mode. (System Settings>Administrator Tools>Extended Security is displayed in log-on screen for machine administrator)
- If firmware update is required with the above settings, ask customer (machine administrator) to request a change of the setting.

1. **Turn off the main power.**
2. **Insert the SD card in the control unit SD slot, and start the recovery mode.**
3. **Select "apply update from sdcard.", and press [Home] key.**

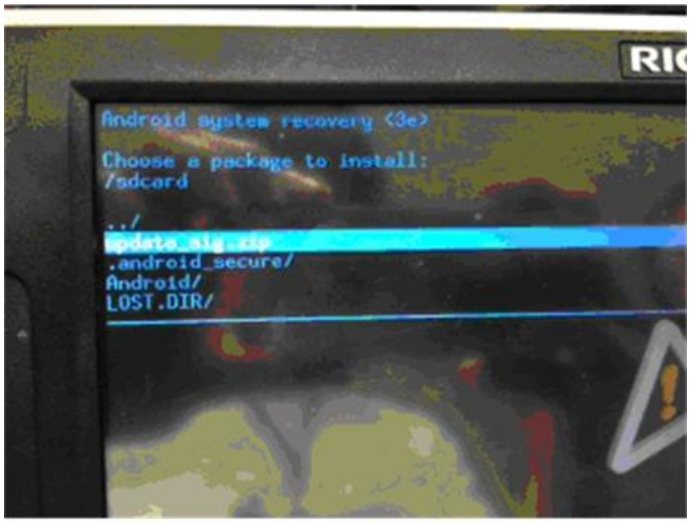
Note

- Screen operations are as follows.
- OK: [HOME] key.
- UP: [Return] key.



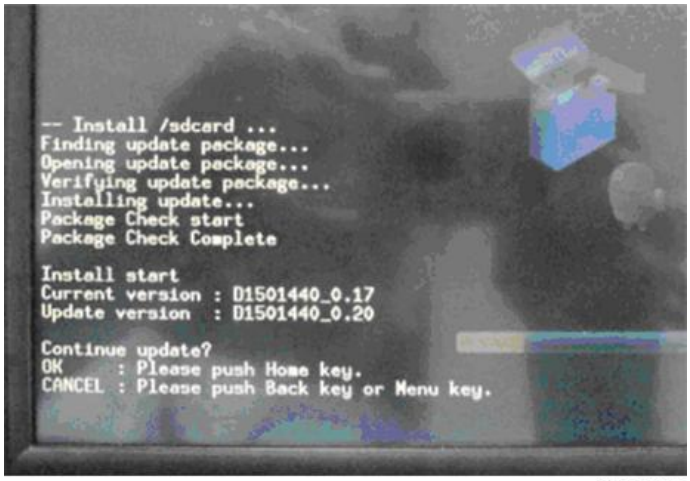
d1480001

4. **Select "update.sig.zip", and press the [HOME] key.**



d1480002

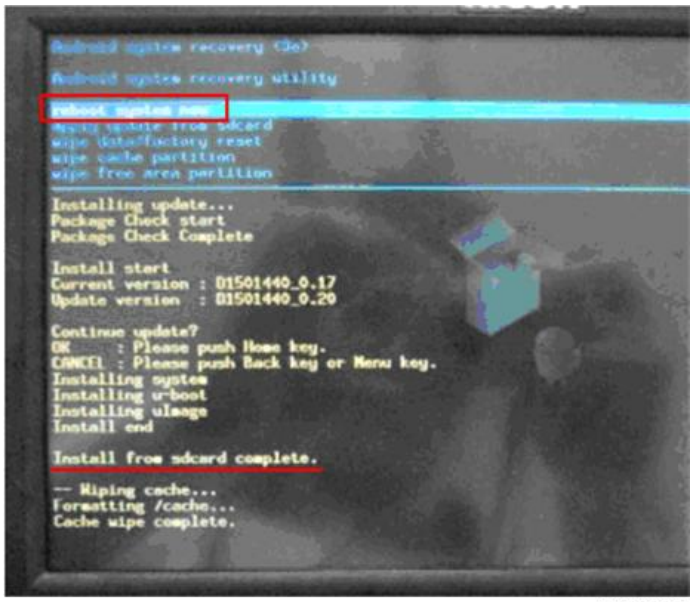
5. **The installation screen is displayed.**



d1480003

6. **The current version of the firmware, and the update version of the firmware in the SD card are displayed. Check that the version is correct.**
7. **When "Continue Update?" is displayed, press OK ([HOME] key).**
8. **Version Update is started.**

9. **When "Install from SD card complete." is displayed, select "reboot system now", press the [HOME] key, and perform a system reboot.**



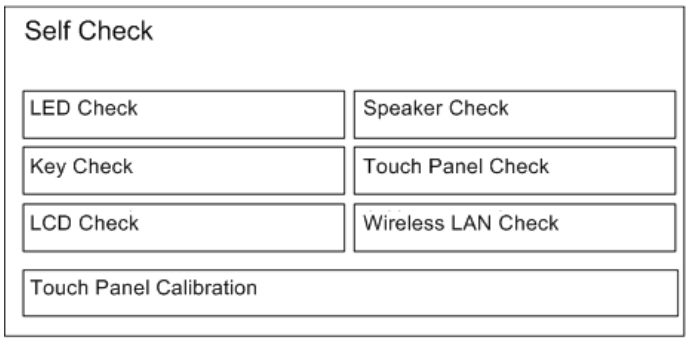
d1480004

4.1.4 APPLICATION INSTALLATION/VERSION UPDATE

1. **Shift to screen service mode.**
2. **Set a version update SD card in the screen SD slot.**
3. **Select "Application" → "Install" → "Install from SD card", and start installation.**
4. **Select the application for which the version is to be updated, and press the "Install Button".**
5. **The version update result is displayed.**
6. **Check the version update result, and press down the "Panel reboot" button.**

4.1.5 SELF-DIAGNOSIS

The following menus can be performed as self-diagnosis functions of the control unit. Either Japanese or English can be displayed.



w_d1462660

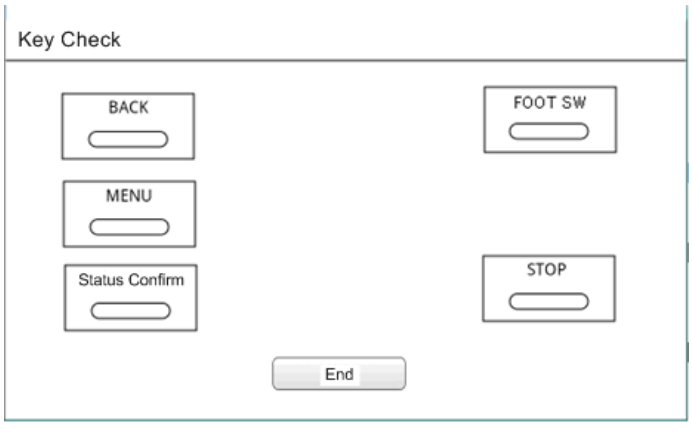
1. LED Check

   The following control unit LED can be changed over between all on/all off.

   - Data in
   - USB access
   - HOME
   - Status check (When lit, R->G->B->R->G->B is repeated at 500 ms intervals)
   - BACK/MENU
   - FAX
   - SD access

2. Key check

   Check pressing hard keys other than the [HOME] key on the control unit. When a key is depressed, the corresponding key displayed on the control unit is shown highlighted.
   If a foot switch is fitted, while the switch is depressed, the "FOOT SW" column is highlighted.
   When the [End] key is depressed, the display returns to the self-diagnosis top screen (the Return key works as a key check, so it cannot be used as a key to return to the self-diagnosis top screen).



w_d1462661

3. LCD Check

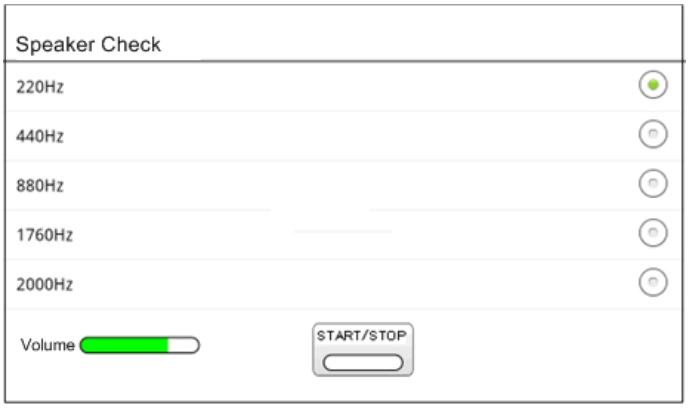
Whenever the screen is touched, the display cycles through All-white -> All-black -> All-green -> All-blue -> End in full screen view, and the display status of each color is visually verified. By cycling through all the colors, the LCD check is completed, and the display returns to the self-diagnosis top screen.

d1462662

4. Speaker check

The following standard sounds are generated according to the button instructions on the screen.

- Frequency: 220 Hz, 440 Hz, 880 Hz, 1760 Hz, 2000 Hz
- Sound volume: 16 levels from minimum to maximum
- Sounds standard sound by START/STOP toggle switch



w_d1462663

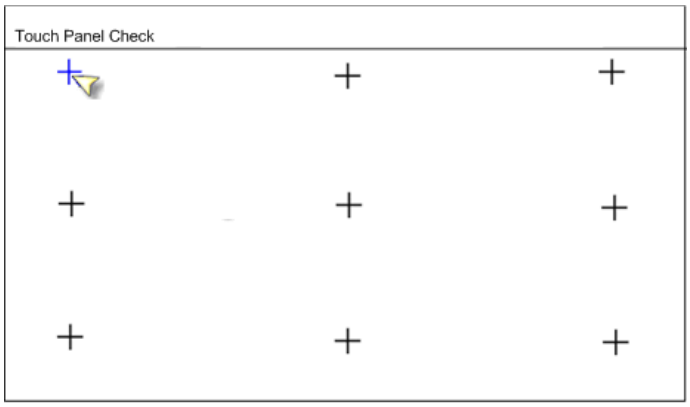
5. Wireless LAN check

Changes to a screen for searching wireless LAN access points with Android as standard, and a communication status check is displayed.

d1462664

6. Touch panel check

   Displays the difference of a detection coordinate value from the nearest reference point relative to a standard 9 points on the screen.



w_d1462665

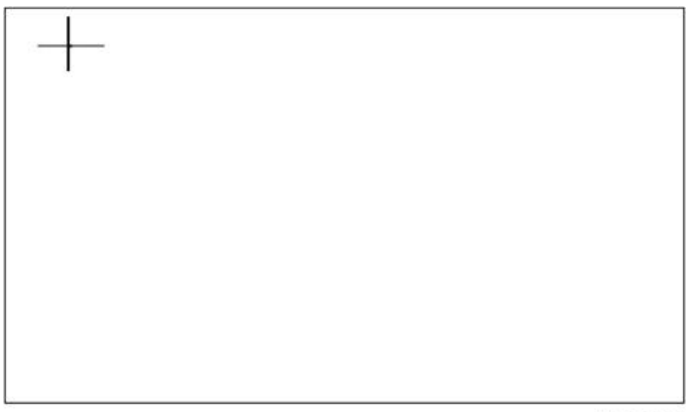
7. Touch panel calibration

   Perform a touch-panel calibration, and set a value.

   One + mark after another is displayed at locations (5 points) required for calibration. Press the center point.

   When input of 5 points is complete, a display for set/reset appears.

   - OK: Press Menu key
   - Retry: Press Back key



d1462666

When it is desired to set the current value, the operation is completed by pressing the "Menu" key, and the display returns to the self-diagnosis screen.
To repeat the setting, or to stop touch panel calibration, press the Return key.
When the Return key is pressed, a + mark is displayed in the first position for performing calibration.
When this display appears, by pressing the Return key again, the display returns to the self-diagnosis screen.

4.2 SP MODE LIST

4.2.1 SETTINGS MENU LIST

Menu level			Description
Level 1	Level 2	Level 3	
Application	Install from SD card (installation of application).		Update by installing application from SD card.
	Installation / update / activation		Activation can be performed using a SD card.
Storage	(SD card) Sum total capacity		When SD card is inserted, display the sum total capacity.
	(SD card) Free space		Display the free space when SD card is inserted.
	Erase the data in the SD card.		Erase the data in the SD card.
	(Internal storage) free space		Display the free space of the internal storage.
Voice input/output	Setting of text read-aloud	Play back a sample	Play back a short sample of speech synthesis with the present setting.
		Always use your own settings (ON/OFF).	When not using the speech synthesis setting of each application and using the setting of this screen, switch ON.
		Default engine (engine: Select)	A dialog for setting the text read-aloud application to be used is displayed (when having installed plural text read-aloud applications).
		Install speech data	Select from the SD card, and install speech synthesis data.
		Audio speed (speed: 5 selection levels)	Select audio speed.
		Language	
		Engine	

Menu level			Description
Level 1	Level 2	Level 3	
Terminal information	Terminal state	wi-fi MAC address (display)	
		Interface setting	
		wi-fi setting	
		Device IP address	
	Legal information (display)		
	Firmware version list		
Device setting	Server setting	Port number (input: 1-65535)	
	Control unit self-diagnosis	-	Perform self-diagnosis of control unit.

4.3 RECOVERY MENU

Menu	Description
Reboot system now	System reboot (used to come out of recovery mode)
apply update from sdcard	Android firmware (OS) version update
wipe data/factory reset	Full format
wipe cache partition	-
wipe free area partition	-

D163

FAX OPTION TYPE M4/M3

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

FAX OPTION TYPE M4/M3 (D163)

TABLE OF CONTENTS

1. INSTALLATION 1

1.1 FAX OPTION TYPE M4 (D167) 1
1.1.1 COMPONENT CHECK 1
1.1.2 INSTALLATION PROCEDURE 2
1.1.3 FAX ICON ADDITION 5
1.2 FAX OPTION TYPE M3 (D163) 7
1.2.1 COMPONENT CHECK 7
1.2.2 INSTALLATION PROCEDURE 8
1.2.3 FAX ICON ADDITION 11
1.3 G3 INTERFACE UNIT TYPE M4 (D167) 13
1.3.1 COMPONENT CHECK 13
1.3.2 INSTALLATION PROCEDURE 14
For Installing the single G3 Board 14
For Installing the Double G3 Boards 16
1.4 G3 INTERFACE UNIT TYPE M3 (D163) 20
1.4.1 COMPONENT CHECK 20
1.4.2 INSTALLATION PROCEDURE 20
For Installing the single G3 Board 21
For Installing the Double G3 Boards 23
1.5 FAX UNIT OPTIONS 28
1.5.1 MEMORY UNIT (G578) 28
For D148/D149/D150 models 28
For D146/D147 models 29
1.5.2 HANDSET (D645) 31
1.6 REMOTE FAX INSTALLATION 35
1.6.1 INSTALLATION PROCEDURE 35
Installing the application 35
Registering the Remote Machine 36
Registering the Client-side Machine(s) 37
Configuring the Remote Reception Settings 37
Remote Fax Icon Addition for Remote Machine 38

2. REPLACEMENT AND ADJUSTMENT 41

2.1 FCU 41
2.1.1 SRAM DATA TRANSFER PROCEDURE 41

For D148/D149/D150 models....41
For D146/D147 models....44

3. TROUBLESHOOTING....48
3.1 ERROR CODES....48
3.2 IFAX TROUBLESHOOTING....70
3.3 IP-FAX TROUBLESHOOTING....73
3.3.1 IP-FAX TRANSMISSION....73
Cannot send by IP Address/Host Name....73
Cannot send via VoIP Gateway....74
Cannot send by Alias Fax number....75
3.3.2 IP-FAX RECEPTION....77
Cannot receive via IP Address/Host Name....77
Cannot receive by VoIP Gateway....78
Cannot receive by Alias Fax number....79

4. SERVICE TABLES....81
4.1 CAUTIONS....81
4.2 SERVICE PROGRAM TABLES....82
4.2.1 SP1-XXX (BIT SW)....82
4.2.2 SP2-XXX (RAM)....84
4.2.3 SP3-XXX (MACHINE SET)....85
4.2.4 SP4-XXX (ROM VERSIONS)....87
4.2.5 SP5-XXX (RAM CLEAR)....88
4.2.6 SP6-XXX (REPORTS)....89
4.2.7 SP7-XXX (TESTS)....92
4.3 BIT SWITCHES - 1....94
4.3.1 SYSTEM SWITCHES....94
4.4 BIT SWITCHES - 2....110
4.4.1 I-FAX SWITCHES....110
4.4.2 PRINTER SWITCHES....119
4.5 BIT SWITCHES - 3....127
4.5.1 COMMUNICATION SWITCHES....127
4.6 BIT SWITCHES - 4....138
4.6.1 G3 SWITCHES....138
4.7 BIT SWITCHES - 5....148
4.7.1 G3-2 AND G3-3 SWITCHES....148
4.7.2 G4 INTERNAL SWITCHES....156
4.7.3 G4 PARAMETER SWITCHES....156
4.8 BIT SWITCHES - 6....157

4.8.1 IP FAX SWITCHES....157
4.9 NCU PARAMETERS....166
4.10 DEDICATED TRANSMISSION PARAMETERS....181
4.10.1 PROGRAMMING PROCEDURE....181
4.10.2 PARAMETERS....182
Fax Parameters....182
E-mail Parameters....185
4.11 SERVICE RAM ADDRESSES....189

5. DETAILED SECTION DESCRIPTIONS....200
5.1 OVERVIEW....200
5.2 BOARDS....201
5.2.1 FCU....201
5.2.2 SG3 BOARD....202
5.3 VIDEO DATA PATH....204
5.3.1 TRANSMISSION....204
Memory Transmission and Parallel Memory Transmission....204
Immediate Transmission....205
JBIG Transmission....205
Adjustments....205
5.3.2 RECEPTION....206
5.4 FAX COMMUNICATION FEATURES....207
5.4.1 MULTI-PORT....207
5.4.2 DOCUMENT SERVER....207
5.4.3 INTERNET MAIL COMMUNICATION....209
Mail Transmission....209
Mail Reception....211
Handling Mail Reception Errors....212
Secure Internet Reception....213
Transfer Request: Request By Mail....213
E-Mail Options (Sub TX Mode)....215
5.5 IP-FAX....219
5.5.1 WHAT IS IP-FAX?....219
5.5.2 T.38 PACKET FORMAT....219
UDP Related Switches....219
5.5.3 SETTINGS....219

6. SPECIFICATIONS....220
6.1 GENERAL SPECIFICATIONS....220
6.1.1 FCU....220

6.2 CAPABILITIES OF PROGRAMMABLE ITEMS 222
6.3 IFAX SPECIFICATIONS 223
6.4 IP-FAX SPECIFICATIONS.....225
6.5 FAX UNIT CONFIGURATION.....226
6.5.1 G3 INTERFACE UNIT TYPE M3 (D146/D147).....226
6.5.2 G3 INTERFACE UNIT TYPE M4 (D148/D149/D150) 227

READ THIS FIRST

Important Safety Notices

⚠WARNING

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use a telephone or cellular phone to report a gas leak in the vicinity of the leak.

⚠CAUTION

- Before installing the fax unit, switch off the main switch, and disconnect the power cord.
- The fax unit contains a lithium battery. The danger of explosion exists if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer. Discard batteries in accordance with the manufacturer's instructions and local regulations.

Note

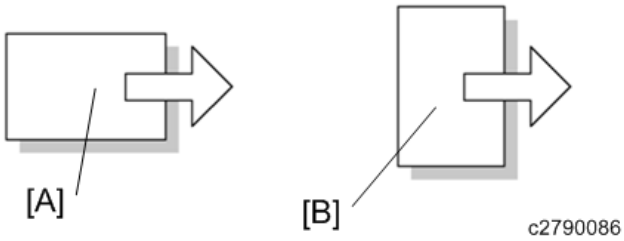
- **Note for Australia**:
- Unit must be connected to Telecommunication Network through a line cord that meets the requirements of ACA Technical Standard TS008.

Symbols and Abbreviations

Conventions Used in this Manual

This manual uses several symbols.

Symbol	What it means
	Screw
	Connector
	Clip ring
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Cautions, Notes, etc.

The following headings provide special information:

⚠WARNING

- Failure to obey warning information could result in serious injury or death.

⚠CAUTION

- Obey these guidelines to ensure safe operation and prevent minor injuries.

Important

- Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.
- Always obey these guidelines to avoid serious problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine. bold is added for emphasis.

Note

- This document provides tips and advice about how to best service the machine.

1. INSTALLATION

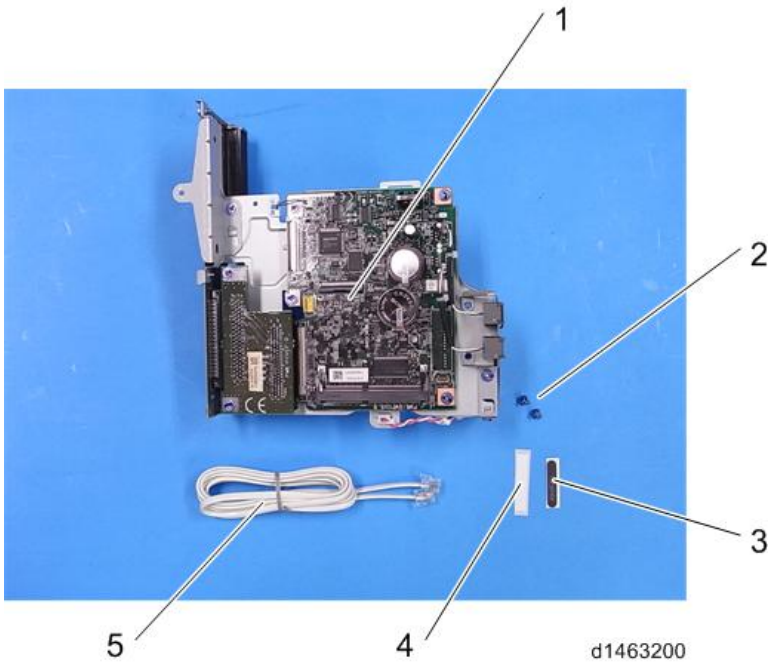
1.1 FAX OPTION TYPE M4 (D167)

This fax option is used only for D148/D149/D150 models.

1.1.1 COMPONENT CHECK

Check the quantity and condition of the components against the following list.

No.	Description	Q'ty
1	FCU	1
2	Screw: M3x6	2
3	Fax Key top decal	1
4	Serial number decal	1
5	Telephone Cable (NA only)	1
-	Clamp	2
-	Ferrite Core	1
-	FCC Decal (NA only)	1
-	EMC Address Decal (EU only)	1

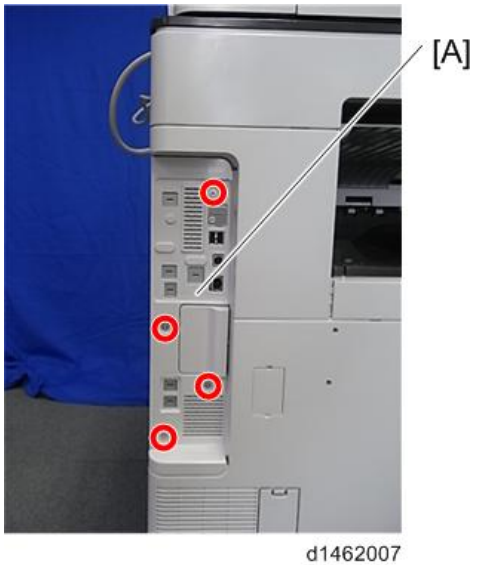


1.1.2 INSTALLATION PROCEDURE

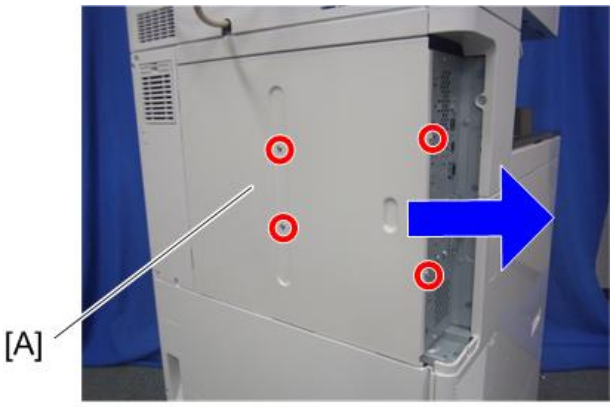
⚠CAUTION

- **Before installing this fax unit:**
- Print out all data in the printer buffer.
- Turn off the main power switch and disconnect the power cord and the network cable.

1. **Remove the controller box cover [A] (x 4).**

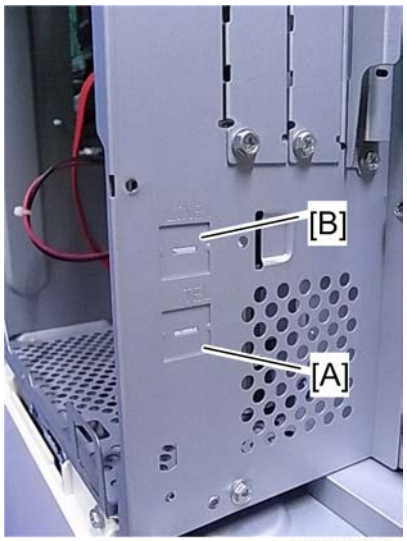


2. **Remove the rear cover [A] (x 4).**



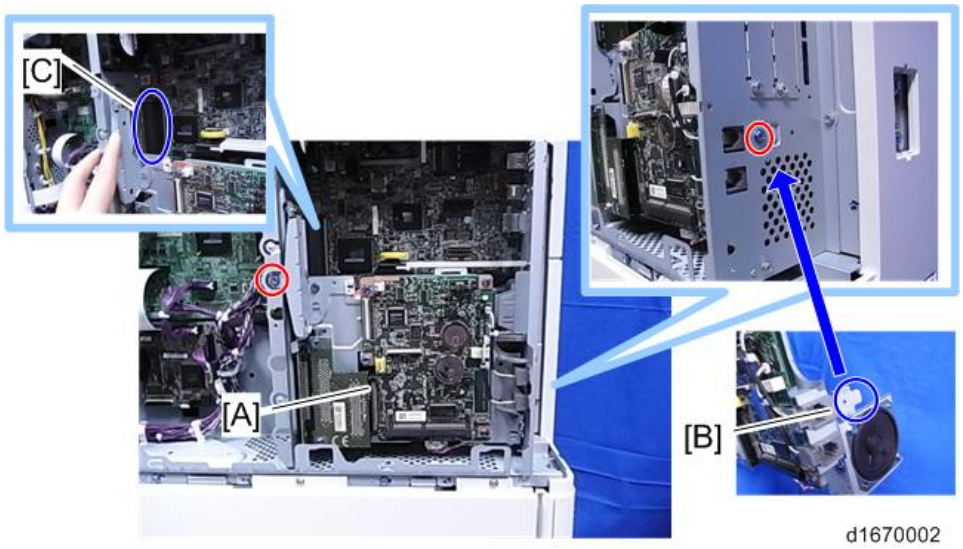
d1462013

3. **Remove the "TEL" [A] and "LINE1" [B] covers with a screw driver.**



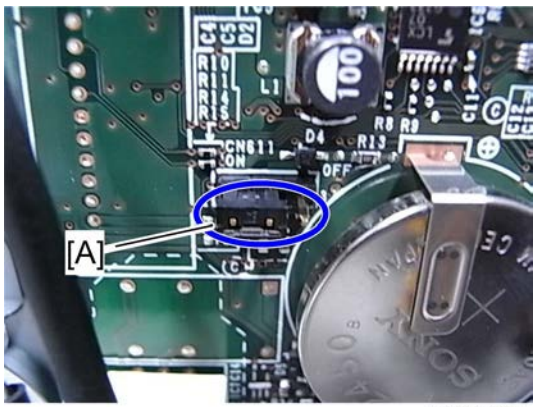
d1670001

4. **Install the FCU [A] on the controller (x 2).**
   - Insert the tab [B] of the FCU bracket in the cutout on the left of the controller box.
   - Make sure that both connectors [C] are connected.



d1670002

5. **Switch the battery jumper switch [A] to the "ON" position.**



d1670003

Note

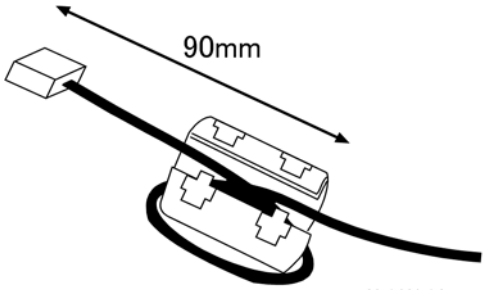
- If you don‘t switch the battery jumper switch position, SC820 will occur.

6. **Reinstall the rear cover and controller box cover.**
7. **Attach the handset support bracket and handset bracket to the copier, and then connect the handset cord with the ferrite core to the "TEL" jack if you install the handset to the machine.**

Note

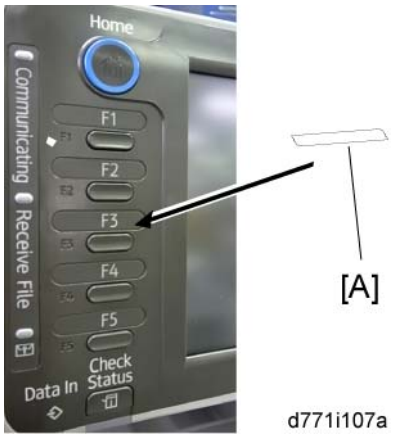
- For details, refer to "Handset Installation" in the Service Manual for the Fax Unit (D167).

8. **Attach the ferrite core to the telephone cord.**



d346i912a

9. **Connect the telephone cord to the "LINE 1" jack.**
10. **Attach the fax key decal [A] to the third key top from bottom.**



d771i107a

11. **Attach the serial number decal under the copier serial number decal on the rear cover of the machine.**

12. **Attach the FCC decal on the rear cover of the machine (NA only).**
13. **Put the power plug into the outlet and turn on the main power of the machine.**

Note

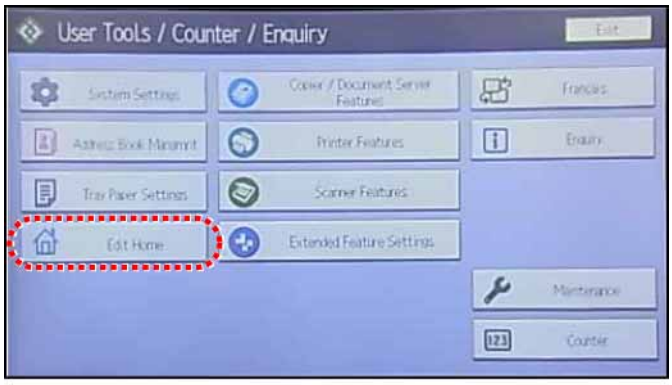
- Make sure that the outlet is grounded.
- "SRAM formatted" shows on the operation panel after you have turned the main switch on. Turn the main switch off and on again for normal use.

14. **Make sure that the date and time are correctly set.**

1.1.3 FAX ICON ADDITION

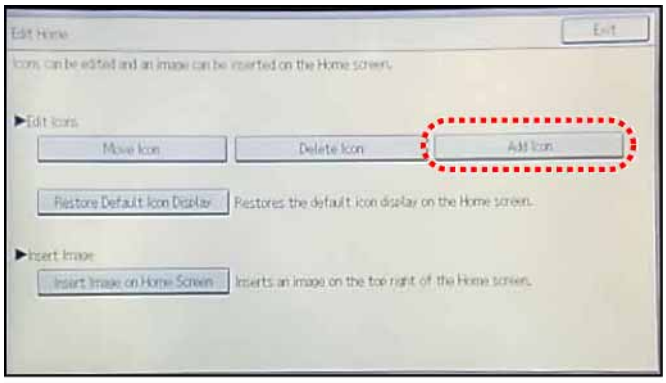
This procedure allows the fax icon to appear on the home screen of the operation panel.

1. **Press [User Tools].**
2. **Press [Edit Home].**



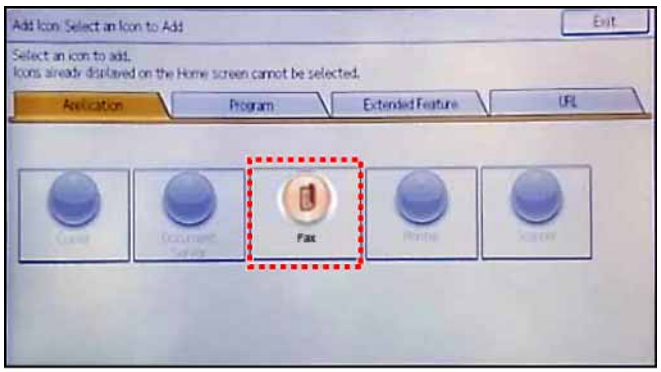
d1440144

3. **Press [Add Icon].**



d1440145

4. **Press [Fax].**



d1440146

5. **Press a [Blank] to set a location for the fax icon.**

d1440147

6. **Press [Exit] to end the fax icon addition.**

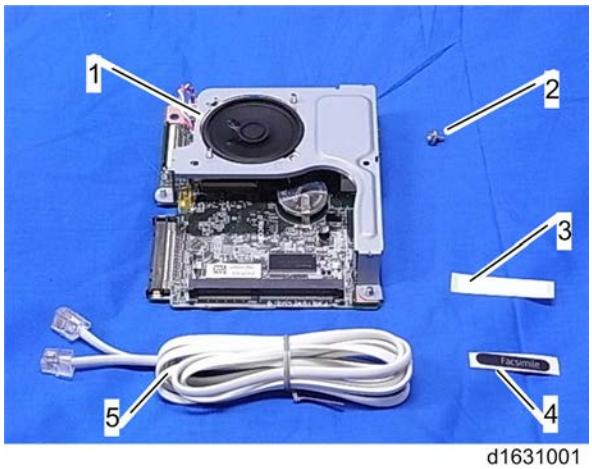
1.2 FAX OPTION TYPE M3 (D163)

This fax option is used only for D146/D147 models.

1.2.1 COMPONENT CHECK

Check the quantity and condition of the components against the following list.

No.	Description	Q'ty
1	FCU	1
2	Screw: M3x6	1
3	Serial Number Decal	1
4	Fax Key top decal	1
5	Telephone Cable (NA only)	1
-	Clamp	2
-	Ferrite Core	1
-	FCC Decal (NA only)	1
-	EMC Address Decal (EU Only)	1



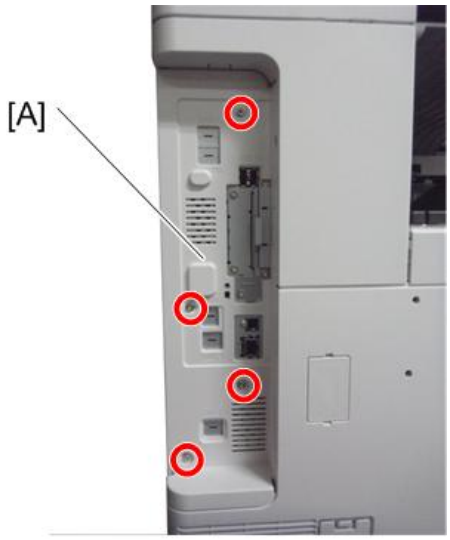
d1631001

1.2.2 INSTALLATION PROCEDURE

⚠CAUTION

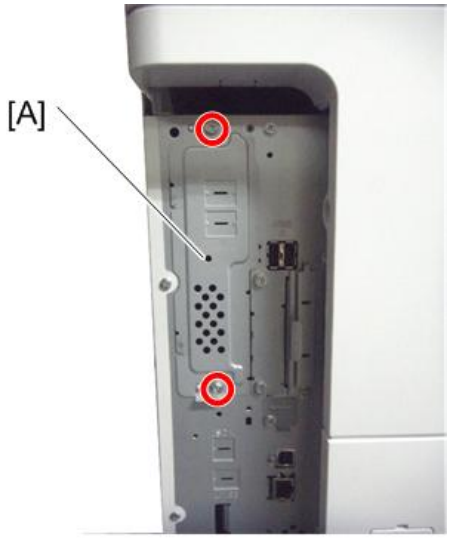
- **Before installing this fax unit:**
- Print out all data in the printer buffer.
- Turn off the main power switch and disconnect the power cord and the network cable.

1. **Remove the controller box cover [A] (x 4).**



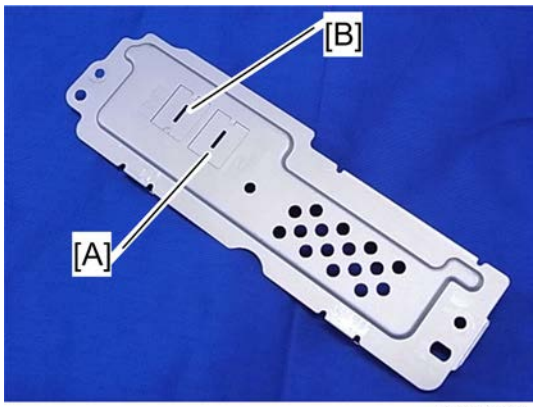
d1463211

2. **Remove the interface slot cover [A] (x 2).**



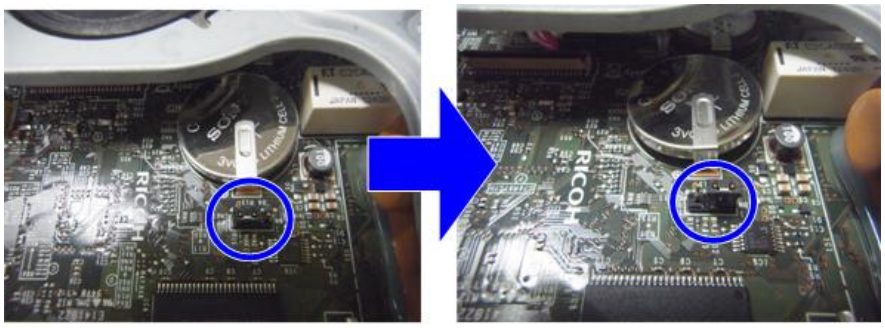
d1463212

3. **Remove the "TEL" [A] and "LINE1" [B] covers on the interface slot cover with a screw driver.**



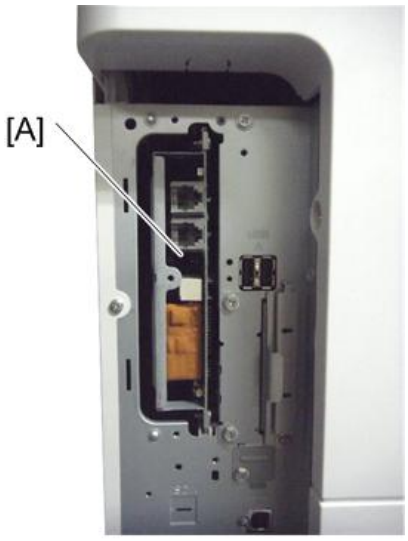
d1632013

4. **Switch the battery jumper switch to the "ON" position.**



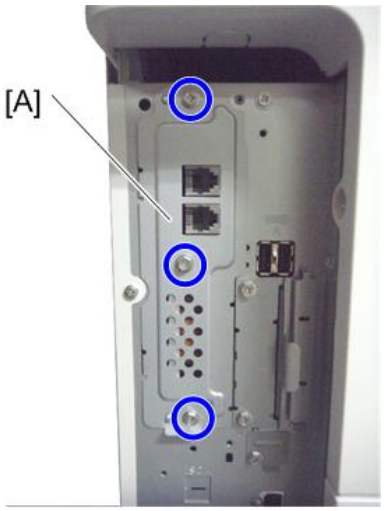
d1463214

5. **Install the FCU [A] fully into the interface slot.**



d1463215

6. **Reattach the interface slot cover [A] (x 3).**



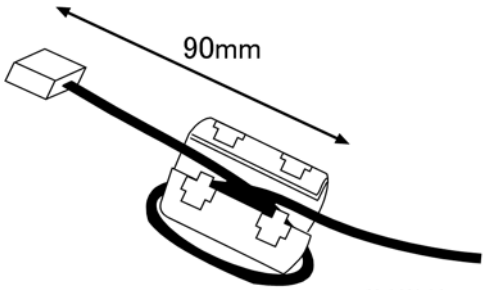
d1463216

7. **Reinstall the controller box cover (x 4).**
8. **Attach the handset support bracket and handset bracket to the copier, and then connect the handset cord with the ferrite core to the "TEL" jack if you install the handset to the machine.**

Note

- For details, refer to "Handset Installation" in the Service Manual for the Fax Unit (D163).

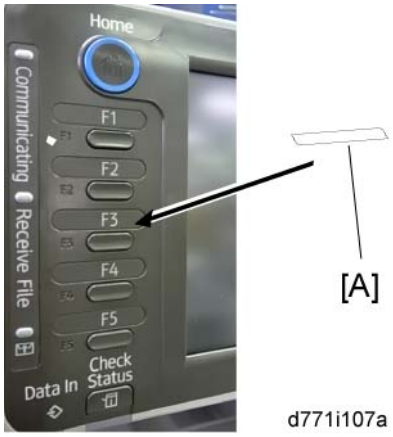
9. **Attach the ferrite core to the telephone cord.**



d346i912a

10. **Connect the telephone cord to the "LINE 1" jack.**

11. **Attach the fax key decal [A] to the third key top from bottom.**



d771i107a

12. **Attach the serial number decal under the copier serial number decal on the rear cover of the machine.**
13. **Attach the FCC decal on the rear cover of the machine (NA only).**
14. **Put the power plug into the outlet and turn on the main power of the machine.**

Note

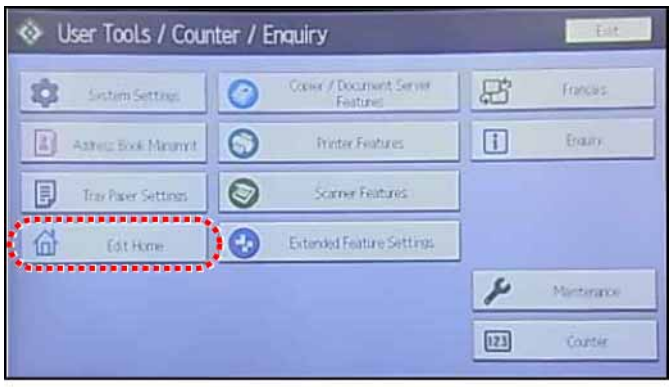
- Make sure that the outlet is grounded.
- "SRAM formatted" shows on the operation panel after you have turned the main switch on. Turn the main switch off and on again for normal use.

15. **Make sure that the date and time are correctly set.**

1.2.3 FAX ICON ADDITION

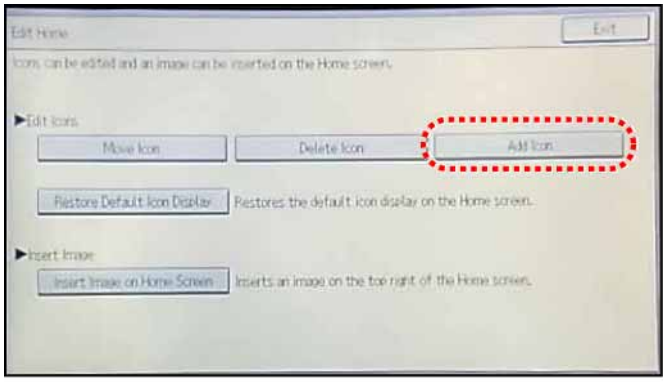
This procedure allows the fax icon to appear on the home screen of the operation panel.

1. **Press [User Tools].**
2. **Press [Edit Home].**



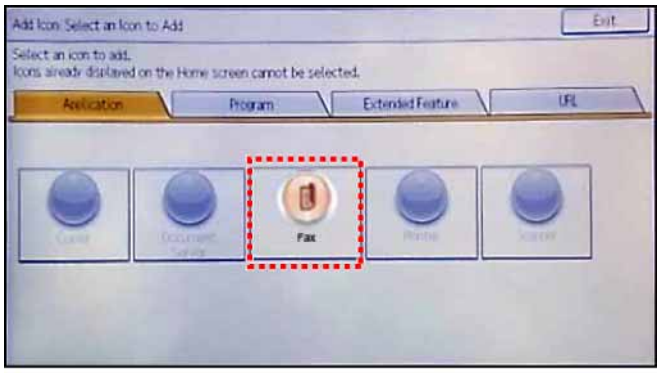
d1440144

3. **Press [Add Icon].**



d1440145

4. **Press [Fax].**



d1440146

5. **Press a [Blank] to set a location for the fax icon.**

d1440147

6. **Press [Exit] to end the fax icon addition.**

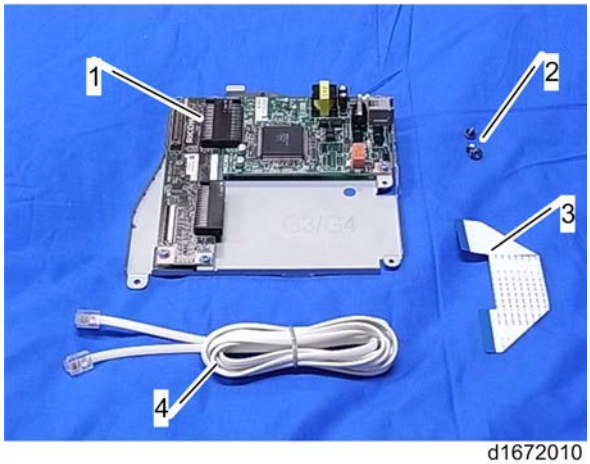
1.3 G3 INTERFACE UNIT TYPE M4 (D167)

This G3 interface unit option is used only for Fax Option Type M4 (D167).

1.3.1 COMPONENT CHECK

Check the quantity and condition of the components against the following list.

No.	Description	Q'ty
1	SG3 Interface Unit	1
2	Screw: M3x6	3
3	Flat Cable	1
4	Telephone Cable (NA only)	1
-	Harness Clamp	2
-	Ferrite Core	1
-	EMC Address Decal (EU only)	1
-	FCC Decal (NA only)	1



1.3.2 INSTALLATION PROCEDURE

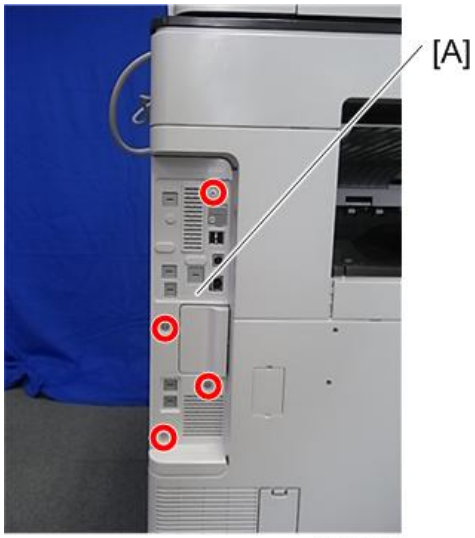
⚠CAUTION

- **Before installing this optional unit:**
- Print out all data in the printer buffer.
- Turn off the main switch and disconnect the power cord and the network cable.

You can add two more SG3 boards to this model. Follow the procedures for adding the single SG3 board installation or double SG3 board installation as the customer needs.

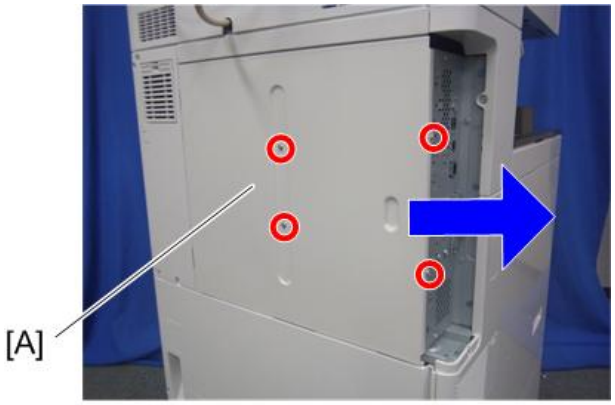
For Installing the single G3 Board

1. **If the FCU is not installed in the machine, install the FCU (D167) in the machine first (page 1 "Fax Option Type M4 (D167)").**
2. **Remove the controller box cover [A] (x 4).**



d1462007

3. **Remove the rear cover [A] (x 4).**

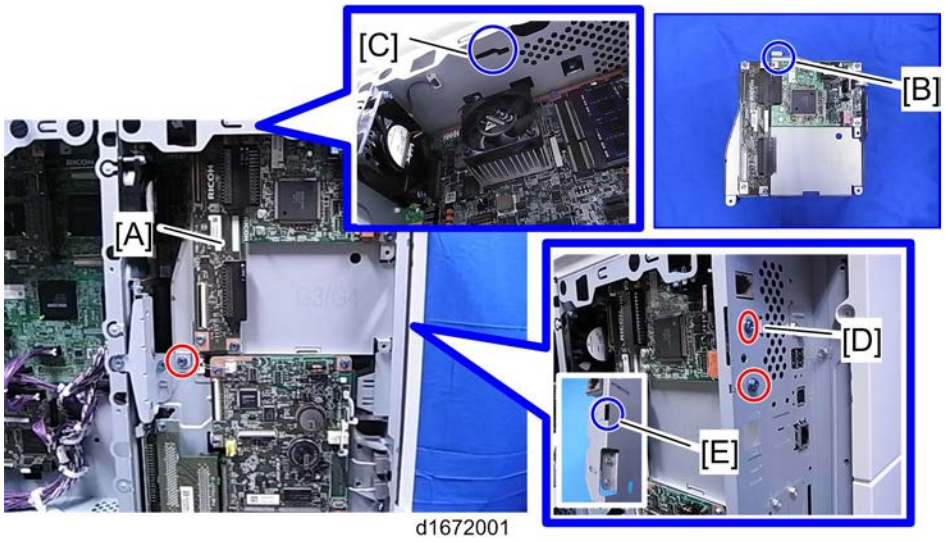


d1462013

4. **Remove the "TEL2" [A] cover with a screw driver.**

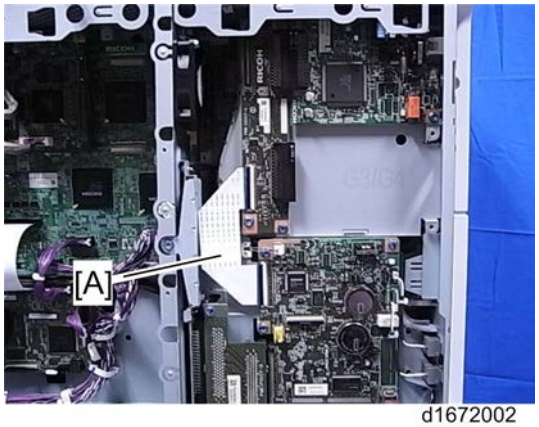
d1672006

5. **Install the SG3 interface unit [A] (x 3).**
   - Insert the tab [B] of the SG3 interface unit bracket in the cutout [C] on the top of the controller box and the tab [D] of the controller box in the cutout [E] of the SG3 interface unit.



d1672001

6. **Attach one end of the flat cable [A] to CN603 on the FCU board and the other end of the flat cable [A] to CN660 on the CCU I/F board of the SG3 interface unit.**
   - Make sure that the blue tapes of the flat cable face outward.



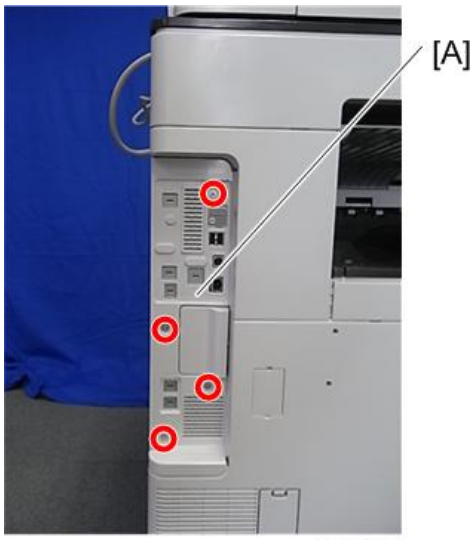
d1672002

7. **Reinstall the rear cover and controller box cover.**

8. Attach the ferrite core to the telephone cord for single SG3 board installation.
9. Connect the telephone cord to the "LINE 2" jack for single SG3 board installation.
10. Connect the power plug to a power outlet and turn on the main power switch.
11. Enter the service mode. Set bit 1 of communication switch 16 to "1" (SP1-104-023).
12. Exit the service mode.
13. Turn the main power switch off and on.
14. Print out the system parameter list. Then check that "G3" shows as an option.
15. Set up and program the items required for PSTN-2 communications.

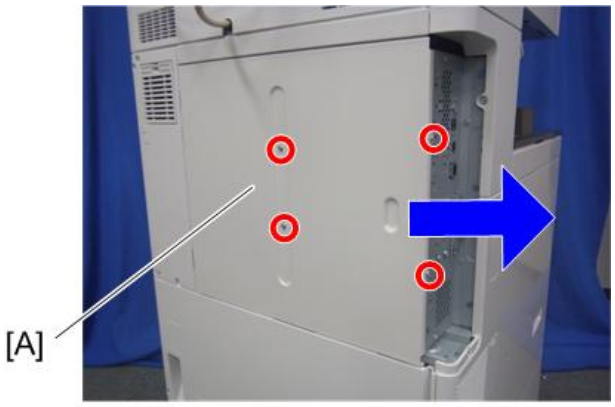
For Installing the Double G3 Boards

1. If the FCU is not installed in the machine, install the FCU (D167) in the machine first (page 1 "Fax Option Type M4 (D167)").
2. Remove the controller box cover [A] (x 4).



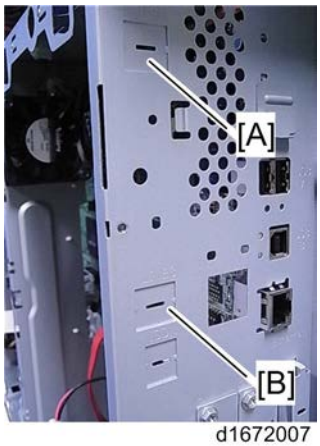
d1462007

3. Remove the rear cover [A] (x 4).



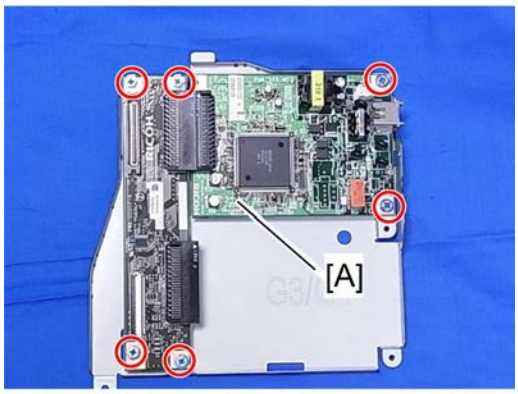
d1462013

4. Remove the "LINE2" [A] and "LINE3" [B] covers with a screw driver.



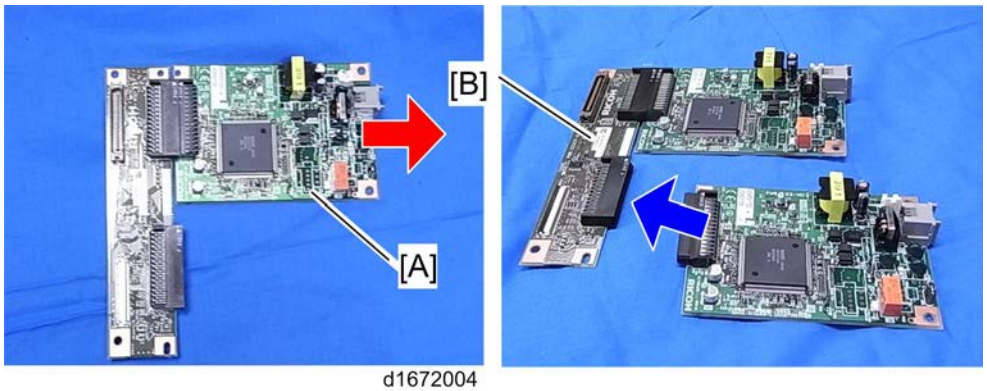
d1672007

5. **Remove the CCU I/F board and SG3 board [A] from the SG3 interface unit (x 6).**
   - Do the same procedure as shown above for the second SG3 interface unit.



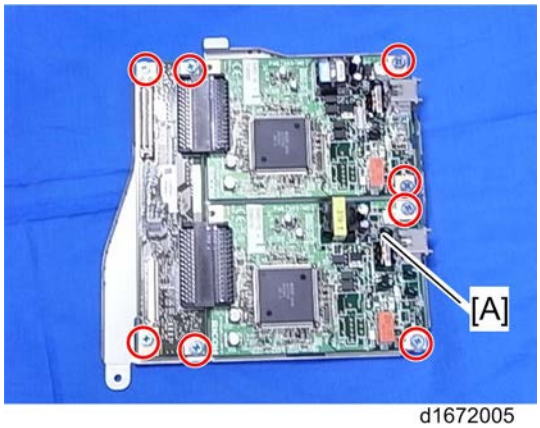
d1672003

6. **Remove the SG3 board [A] from one of the CCU I/F and SG3 board assemblies that you removed in step 5.**
7. **Attach the SG3 board removed in step 6 to the other CCU I/F and SG3 board assembly [B].**



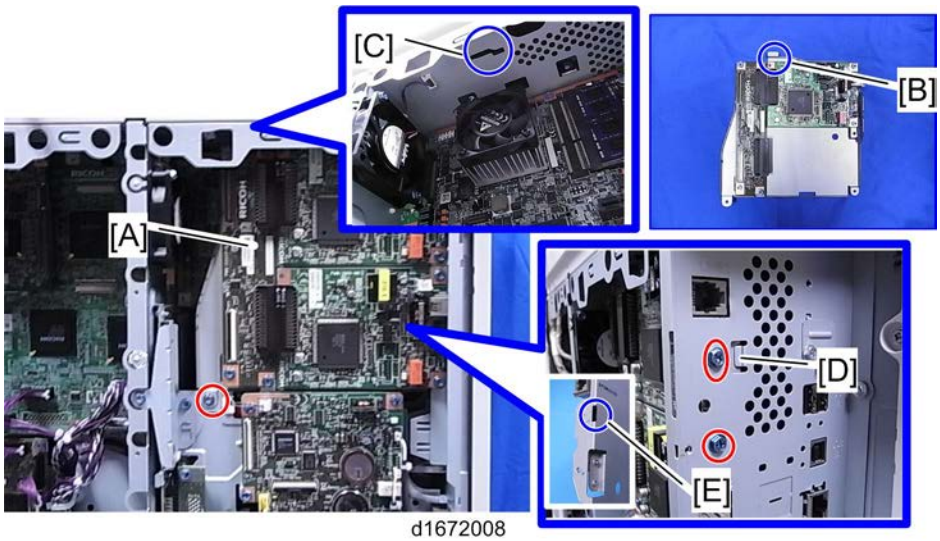
d1672004

8. **Attach the boards (CCU I/F board and two SG3 boards) to the SG3 interface unit bracket (x 6).**
   - Use two screws from the six screws that were removed in step 5



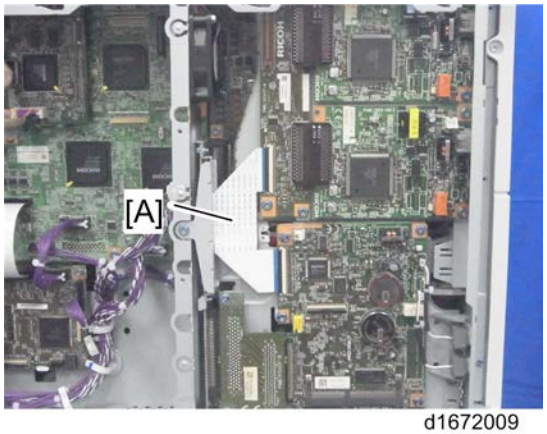
d1672005

9. **Install the SG3 interface unit [A] (x 3).**
   - Insert the tab [B] of the SG3 interface unit bracket in the cutout [C] on the top of the controller box and the tab [D] of the controller box in the cutout [E] of the SG3 interface unit.



d1672008

10. **Attach one end of the flat cable [A] to CN603 on the FCU board and the other end of the flat cable [A] to CN660 on the CCU I/F board of the SG3 interface unit.**
    - Make sure that the blue tapes of the flat cable face outward.



d1672009

11. **Reinstall the rear cover and controller box cover.**
12. **Attach the two ferrite cores to the telephone cords for double-SG3 board installation.**

13. **Connect the telephone cords to the "LINE2" and "LINE3" jacks.**
14. **Connect the power plug to a power outlet and turn on the main power switch.**
15. **Enter the service mode. Set bit 1 of communication switch 16 to "1" (SP1-104-023).**
16. **Set bit 3 of communication switch 16 to "1" (SP1-104-023).**
17. **Exit the service mode.**
18. **Turn the main power switch off and on.**
19. **Print out the system parameter list. Then check that "G3" shows as an option.**
20. **Set up and program the items required for PSTN-2 communications.**

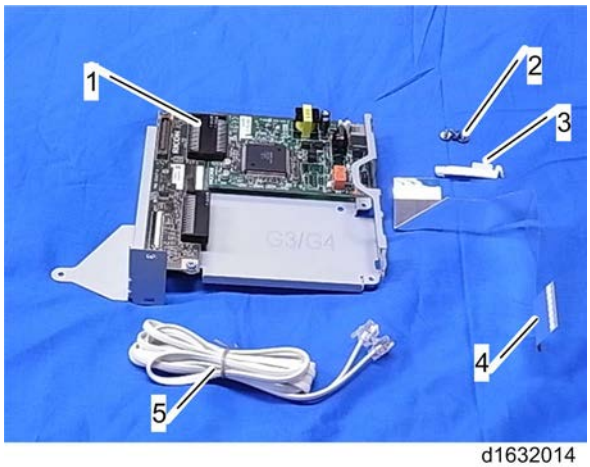
1.4 G3 INTERFACE UNIT TYPE M3 (D163)

This G3 interface unit option is used only for Fax Option Type M3 (D163) models.

1.4.1 COMPONENT CHECK

Check the quantity and condition of the components against the following list.

No.	Description	Q'ty
1	SG3 Interface Unit	1
2	Screw: M3x6	3
3	Harness Clamp	2
4	Flat Cable	1
5	Telephone Cable (NA only)	1
-	Ferrite Core	1
-	EMC Address Decal (EU only)	1
-	FCC Decal (NA only)	1



d1632014

1.4.2 INSTALLATION PROCEDURE

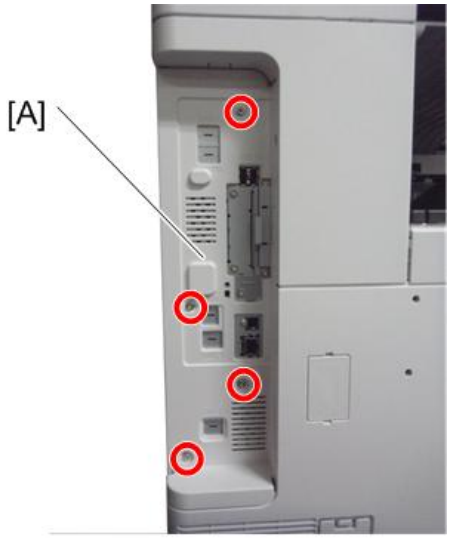
⚠CAUTION

- **Before installing this optional unit:**
- Print out all data in the printer buffer.
- Turn off the main switch and disconnect the power cord and the network cable.

You can add two more SG3 boards to this model. Follow the procedures for adding the single SG3 board installation or double SG3 board installation as the customer needs.

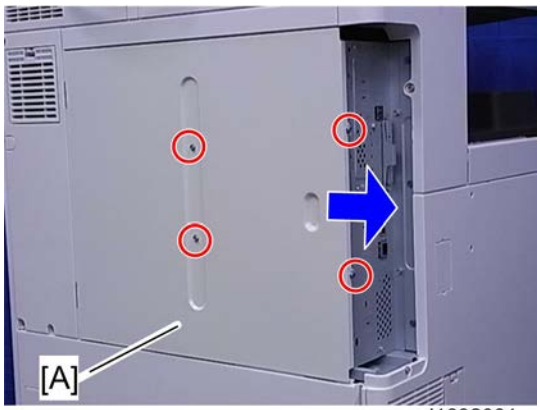
For Installing the single G3 Board

1. **If the FCU is not installed in the machine, install the FCU (D163) in the machine first (page 7 "Fax Option Type M3 (D163)").**
2. **Remove the controller box cover [A] (x 4).**



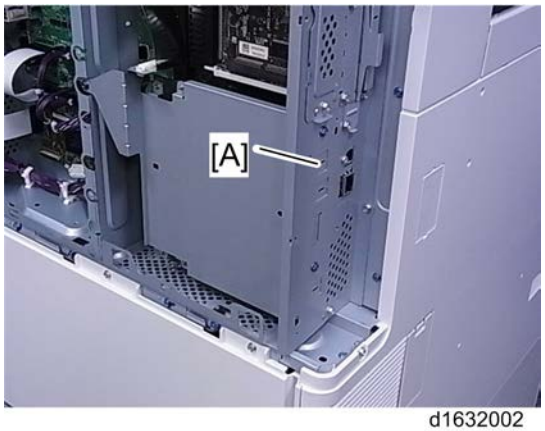
d1463211

3. **Remove the rear cover [A] (x 4).**



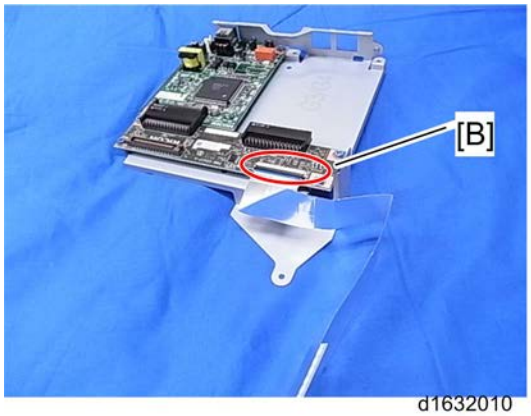
d1632001

4. **Remove the "TEL2" [A] cover with a screw driver.**

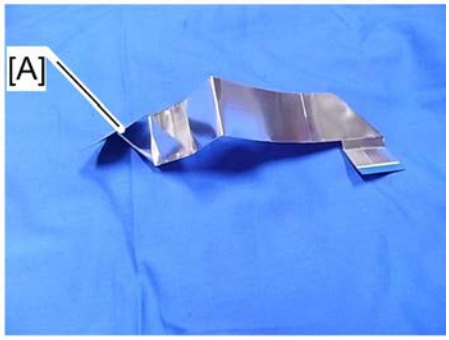


d1632002

5. **Attach one end [A] of the flat cable to CN660 on the CCU I/F board of the SG3 interface unit.**
   - Make sure that the blue tape of the flat cable faces outward.

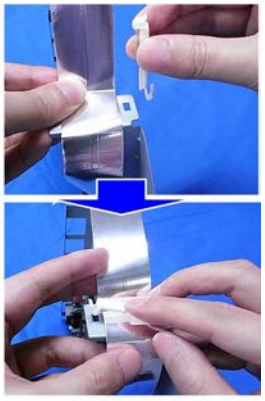


d1632010

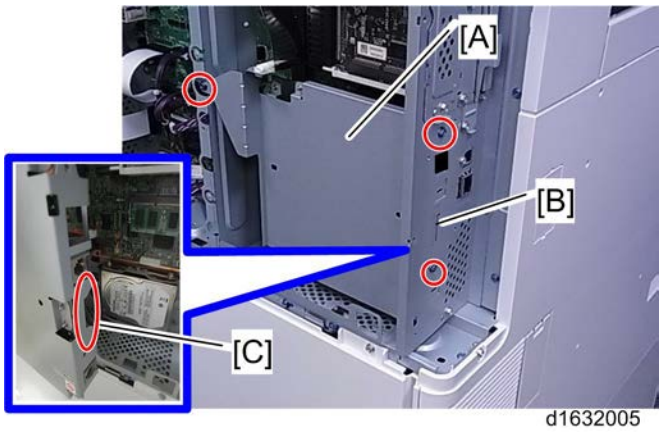


6. **Attach the flat cable [A] to the bracket of the SG3 interface unit with the clamp [B].**

d1632011



7. **Install the SG3 interface unit [A] (x 3).**
   - Insert the tab [B] of the controller box in the cutout [C] of the SG3 interface unit.



d1632005

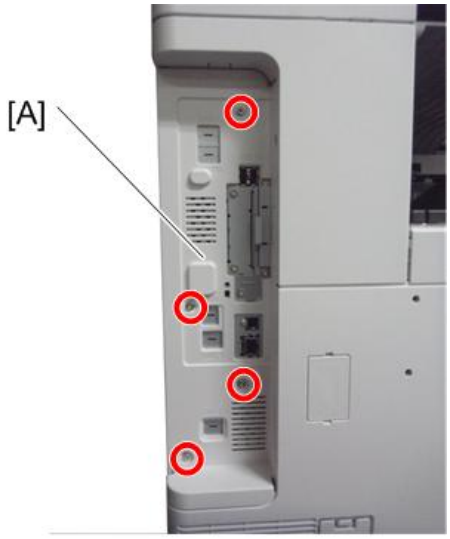
8. Connect the other end [A] of the flat cable to CN603 on the FCU board.

d1632012

9. Reinstall the rear cover and controller box cover.
10. Attach the ferrite core to the telephone cord for single SG3 board installation.
11. Connect the telephone cord to the "LINE 2" jack for single SG3 board installation.
12. Connect the power plug to a power outlet and turn on the main power switch.
13. Enter the service mode. Set bit 1 of communication switch 16 to "1" (SP1-104-023).
14. Exit the service mode.
15. Turn the main power switch off and on.
16. Print out the system parameter list. Then check that "G3" shows as an option.
17. Set up and program the items required for PSTN-2 communications.

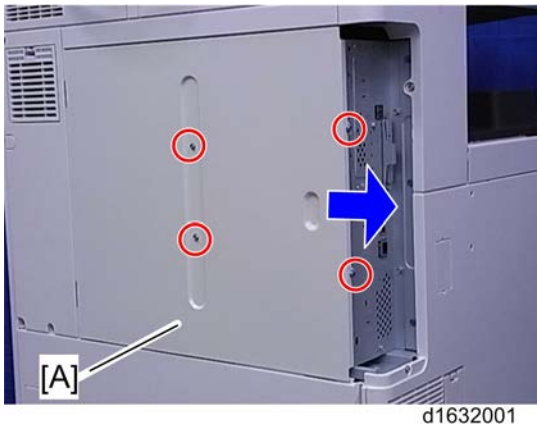
For Installing the Double G3 Boards

1. If the FCU is not installed in the machine, install the FCU (D163) in the machine first (page 7 "Fax Option Type M3 (D163)").
2. Remove the controller box cover [A] (x 4).



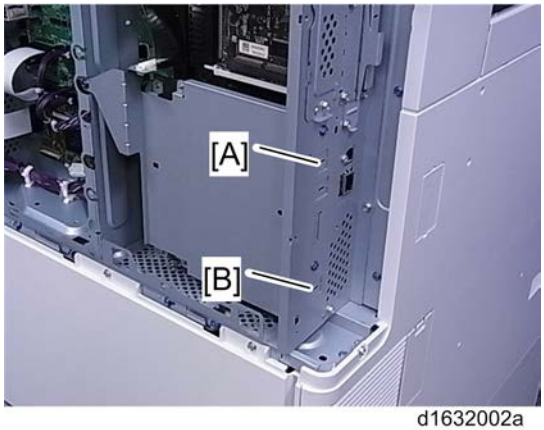
d1463211

3. **Remove the rear cover [A] (x 4).**



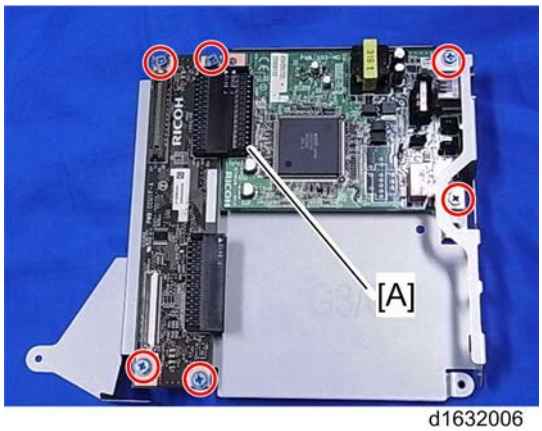
d1632001

4. **Remove the "LINE2" [A] and "LINE3" [B] covers with a screw driver.**



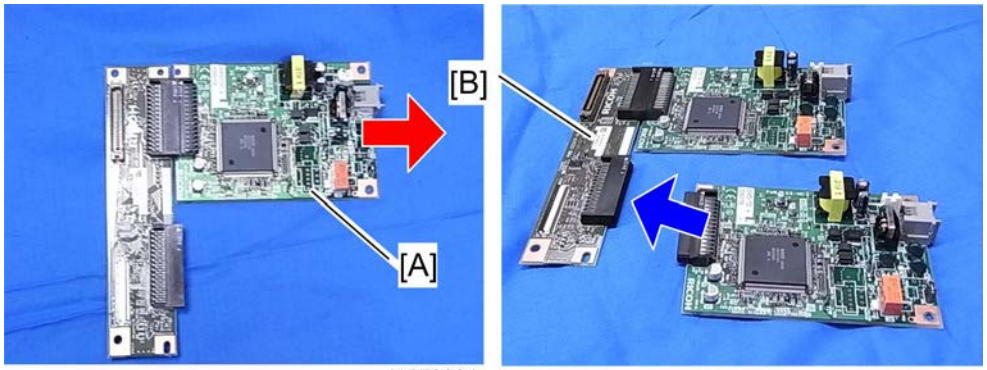
d1632002a

5. **Remove the CCU I/F board and SG3 board [A] from the SG3 interface unit (x 6).**
   - Do the same procedure as shown above for the second SG3 interface unit.



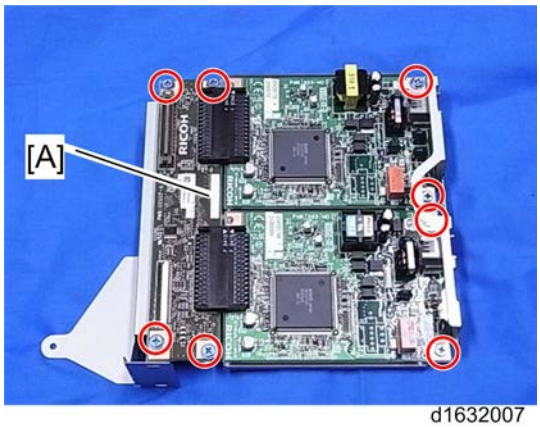
d1632006

6. **Remove the SG3 board [A] from one of the CCU I/F and SG3 board assemblies that you removed in step 5.**
7. **Attach the SG3 board removed in step 6 to the other CCU I/F and SG3 board assembly [B].**



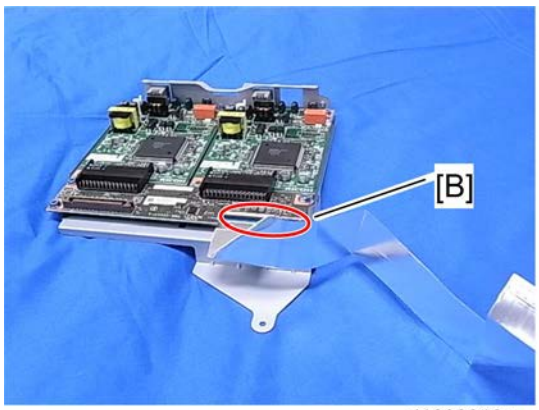
d1672004

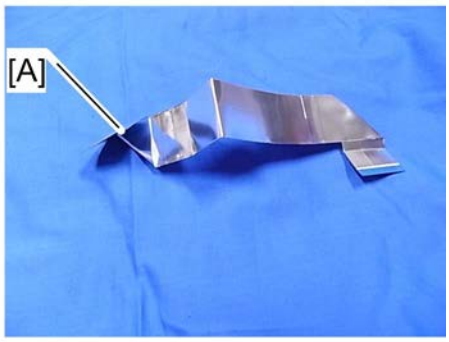
8. **Attach the boards (CCU I/F board and two SG3 boards) to the SG3 interface unit bracket (x 8).**
   - Use two screws from the six screws that were removed in step 5.



d1632007

9. **Attach one end [A] of the flat cable to CN660 [B] on the CCU I/F board of the SG3 interface unit.**
   - Make sure that the blue tape of the flat cable faces outward.

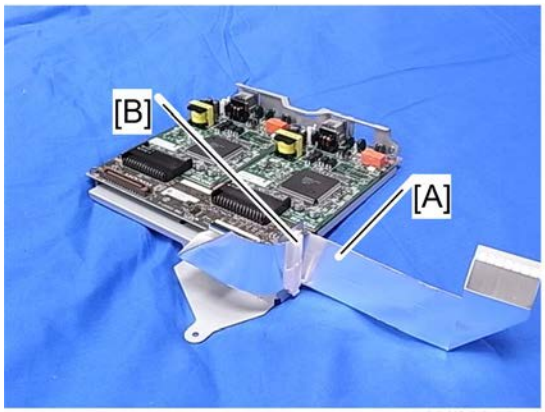


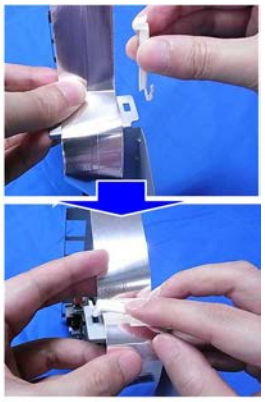


d1632010a

10. Attach the flat cable [A] to the bracket of the SG3 interface unit with the clamp [B].

- Make sure that the blue tape of the flat cable faces outward.

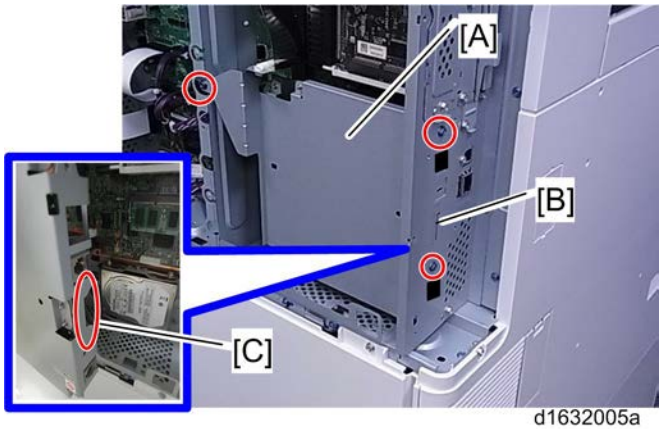




d1632011a

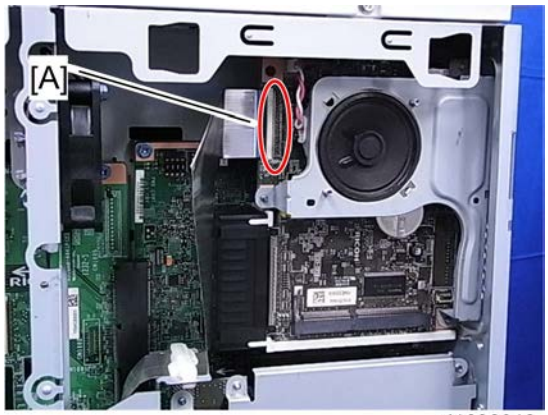
11. Install the SG3 interface unit [A] (x 3).

- Insert the tab [B] of the controller box in the cutout [C] of the SG3 interface unit.



d1632005a

12. Connect the other end [A] of the flat cable to CN603 on the FCU board.



d1632012

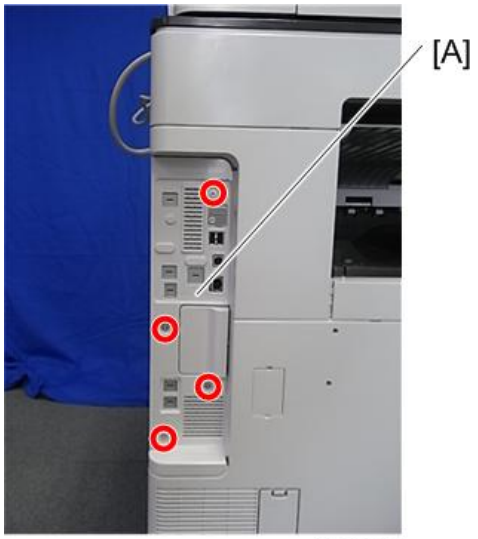
13. **Reinstall the rear cover and controller box cover.**
14. **Attach the two ferrite cores to the telephone cords for double-SG3 board installation.**
15. **Connect the telephone cords to the "LINE2" and "LINE3" jacks.**
16. **Connect the power plug to a power outlet and turn on the main power switch.**
17. **Enter the service mode. Set bit 1 of communication switch 16 to "1" (SP1-104-023).**
18. **Set bit 3 of communication switch 16 to "1" (SP1-104-023).**
19. **Exit the service mode.**
20. **Turn the main power switch off and on.**
21. **Print out the system parameter list. Then check that "G3" shows as an option.**
22. **Set up and program the items required for PSTN-2 communications.**

1.5 FAX UNIT OPTIONS

1.5.1 MEMORY UNIT (G578)

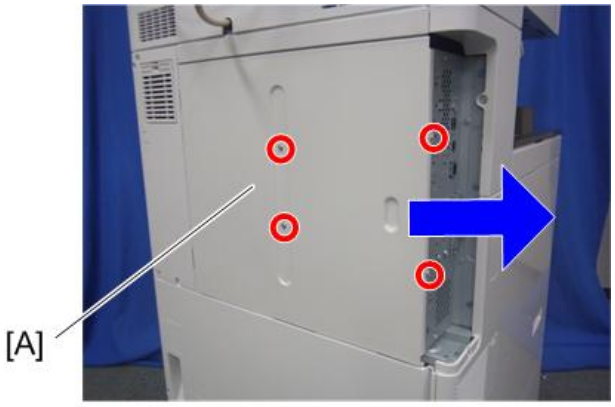
For D148/D149/D150 models

1. **Remove the controller box cover [A] (x 4).**



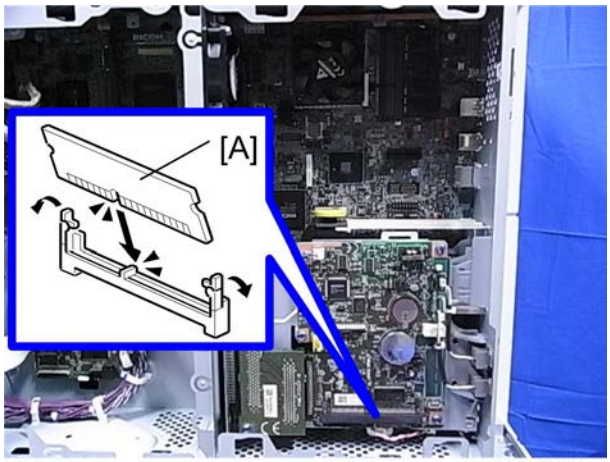
d1462007

2. **Remove the rear cover [A] (x 4).**



d1462013

3. **Install the memory option [A] on the FCU.**

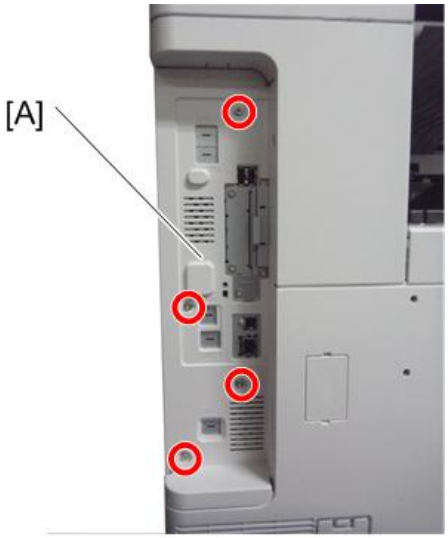


d1673001

4. **Re-aasemble the machine.**

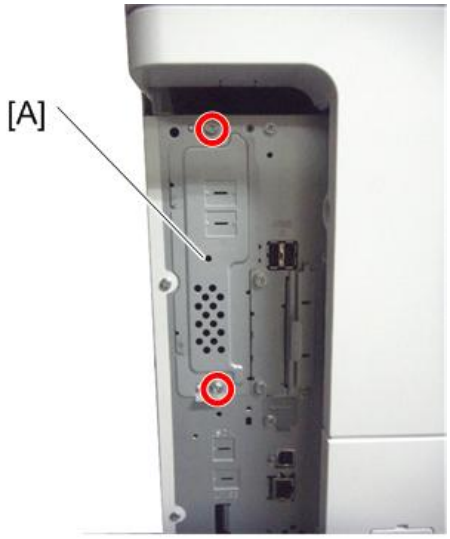
For D146/D147 models

1. **Remove the controller box cover (x 4).**



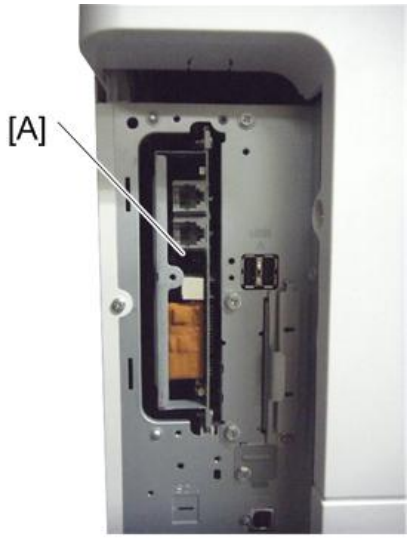
d1463211

2. **Remove the slot cover [A] (x 2).**



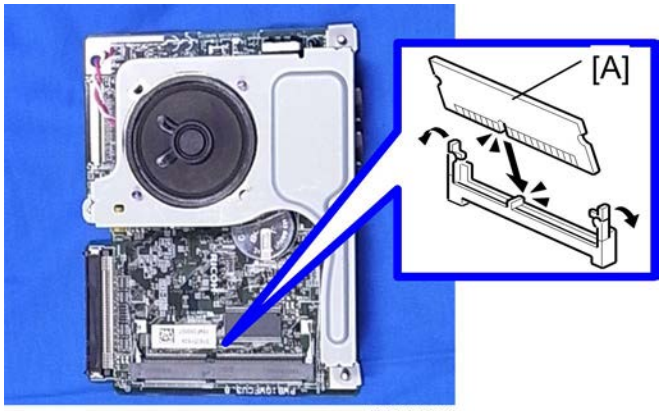
d1463212

3. **Pull out the FCU [A].**



d1463215

4. **Install the memory option [A] on the FCU.**



d1633001

5. **Reinstall the FCU in the interface slot.**
6. **Re-aasemble the machine.**

1.5.2 HANDSET (D645)

Note

- The optional handset is available for the U.S. version only.

1. **Open the front cover.**

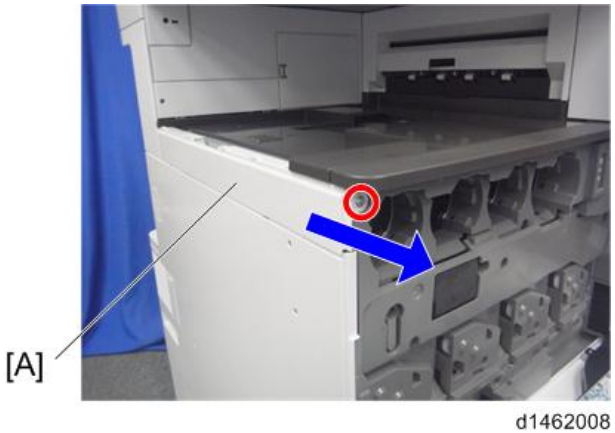
d1462004

2. **Remove the paper exit tray [A].**

d1462023

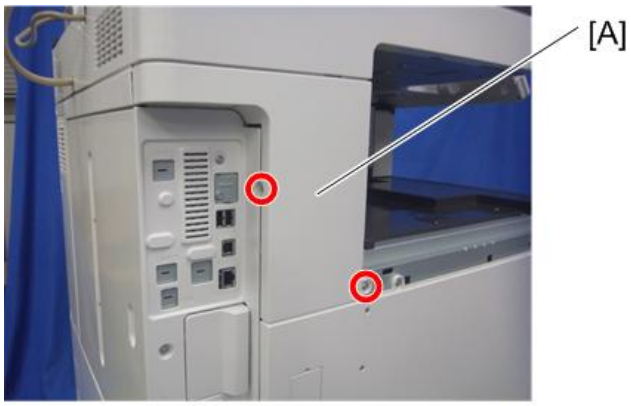
3. **Rmove the upper left cover [A] (×1).**

- Slide the cover in the direction of the blue arrow.



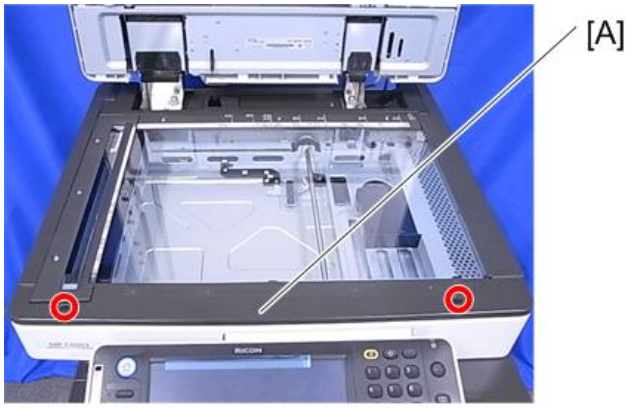
d1462008

4. **Remove the left rear cover [A] (×2).**



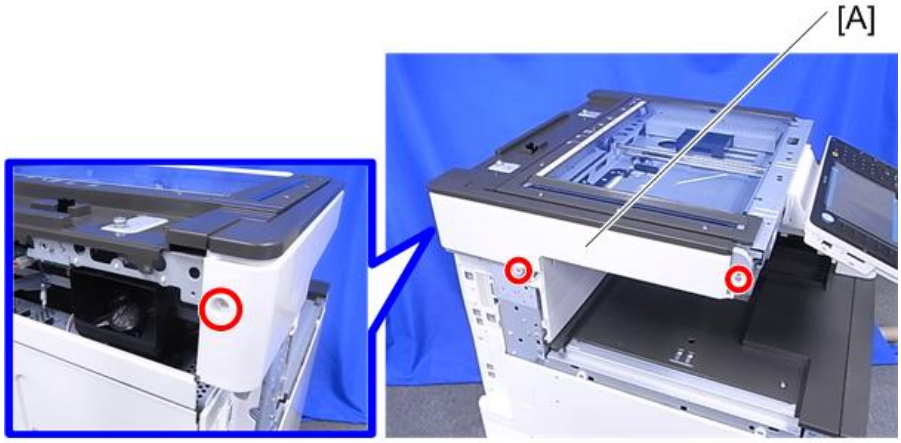
d1462010

5. **Remove the scanner front cover [A] (×2).**



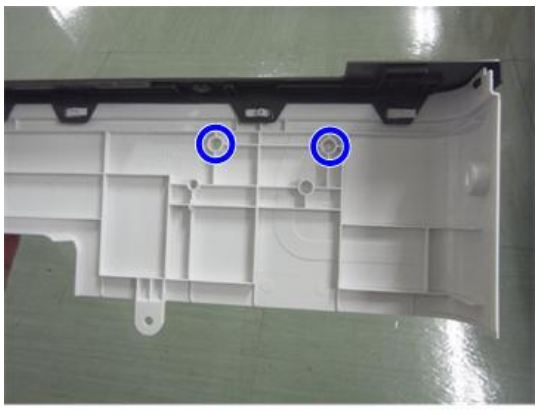
d1462302

6. **Remove the scanner left cover [A] (x 3).**



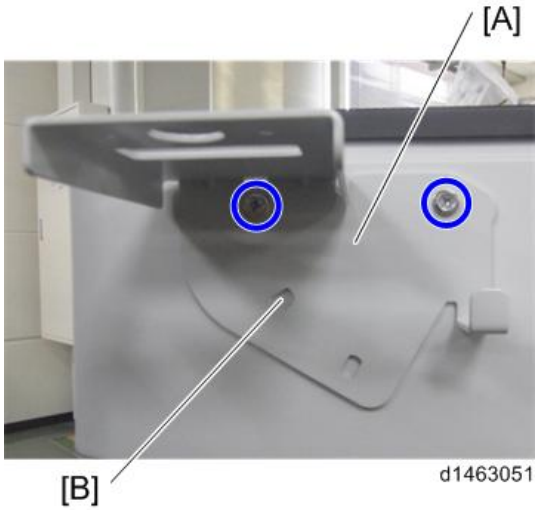
d1462303

7. **Make two holes in the scanner left cover.**



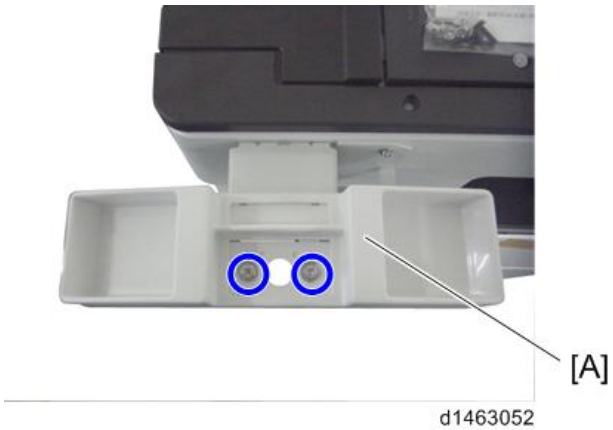
d1463050

8. **Reattach the scanner left cover (x 3).**
9. **Re-assemble the machine.**
10. **Attach the bracket [A] enclosed with the fax unit (x 2: M3 x 12) as shown.**
    - Only for the machine with the single pass ADF, use the hole [B] to tilt the bracket.



d1463051

11. **Attach the cradle [A] to the handset bracket (x 2).**



d1463052

12. **Attach the ferrite core [A] to the cable.**

d1463054

13. **Connect the cable to the "TEL" jack on the left side of the controller box.**

1.6 REMOTE FAX INSTALLATION

1.6.1 INSTALLATION PROCEDURE

This unit allows a machine without the FAX unit installed (“Client-side Machine”) to send and receive faxes via a machine with the FAX unit installed (“Remote Machine”).

Requirements:

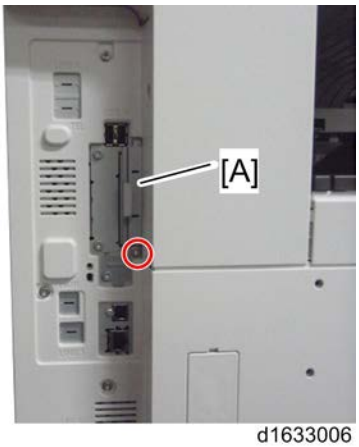
- Up to six machines can be registered as the Client-side Machines.
- Machines that have the FAX unit installed cannot be used as the Client-side Machine.
- Only one machine can be registered as the Remote Machine.
- Firmware for this unit: “aics” (software number: D1655759 forType M3/ D1665759 for Type M4)
- Remote Fax transmissions are possible on a G3 line.
- The remote fax function does not support User Code Authentication. Disable the User Code Authentication on the Remote machine.
- Use this function to check the contents of a file that is stored in memory and not yet sent. Also, use this function to cancel a transmission from the Client-side Machine.

Installing the application

1. **Only for D148/D149/D150, remove the slot cover.**
2. **Remove the SD card slot cover from the SD card slots [A] (x 1).**

D148/D149/D150:

D146/D147:



d1633006

3. **Insert the SD card (Fax Connection Unit Type M3 for D146/D147 or M4 for D148/D149/D150) in SD slot 2 (lower) with its label face [B] towards the front of the machine. Then push it slowly into SD slot 2 (lower) until you hear a click.**
4. **Plug in, and then turn on the machine.**
5. **Move the Fax Connection Unit Type M3 (for D146/D147) or (M4 for D148/D149/D150) application from the SD card in SD slot 2 (lower) to the SD card in SD slot 1 (upper) with SP5-873-001.**
6. **Turn off the machine.**
7. **Remove the SD card from SD slot 2 (lower), and then keep it in a safe place (see "SD Card Appli Move" in the manual for the main frame).**
8. **Attach the SD-card slot cover, and then turn on the machine (x 1)**
9. **Make sure that the machine can recognize the option (See 'Self-Diagnosis Report' and check whether the aics (D1655759 for Type M3/ D1665759 for Type M4) is listed in [Loading Program].)**

Registering the Remote Machine

Note

- Only one machine can be registered as the Remote Machine.

On the Client-side Machine(s):

1. **Press the [User Tools/Counter] key on the operation panel**
2. **Press [System Settings] to select.**
3. **Press [Administrator Tools] to select.**
4. **Press [Program/Change/Delete Remote Machine] to select.**
5. **Enter the IP address or host name of the Remote Machine.**
6. **Press [Set] to set after "connection test".**
7. **Press [Exit] to exit from the set-up procedure.**

Registering the Client-side Machine(s)

Note

- Up to six machines can be registered as the Client-side Machines.

On the Remote Machine:

1. **Press the [User Tools/Counter] key on the operation panel**
2. **Press [System Settings] to select.**
3. **Press [Administrator Tools] to select.**
4. **Press [Program//Change/Delete Remote Machine] to select.**
5. **Enter the IP address or host name of the Client-side Machines.**
6. **Press [Set] to set after "connection test".**

Configuring the Remote Reception Settings

Do the following procedure to enable the Client-side Machine(s) to receive faxes via the Remote Machine. You can forward or route received documents per line or special sender.

Note

- By performing procedures #1-3 above, the Client-side Machines can **send** faxes via the Remote Machine. The procedures shown below are necessary to enable the Client-side Machines to **receive** faxes.

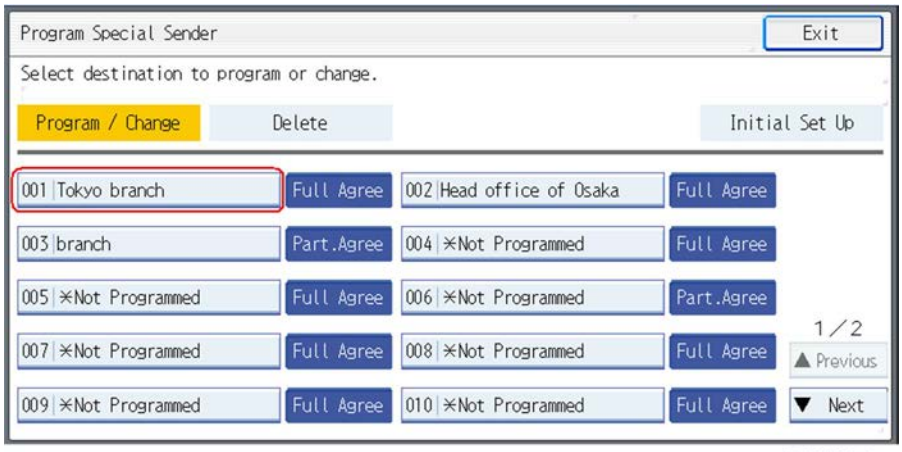
On the Remote Machine:

1) If you use "Remote Reception Setting per Line"

1. **Press [Facsimile Features] to select.**
2. **Press [Remote Reception Setting per Line] in [Reception Settings] to select.**
3. **Enter an IP address or a host name of the client-side machine to connect.**
4. **Press [Set], and [Exit] to exit from the setting.**

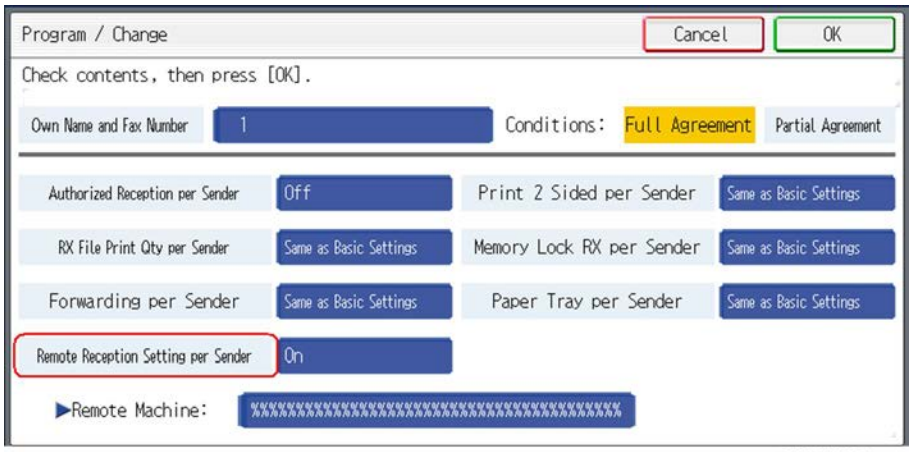
2) If you use "Remote Reception per Sender"

1. **Press [Facsimile Features] to select.**
2. **Press [Program Special Sender] in [Reception Settings] to select.**
3. **Select the Special Sender.**



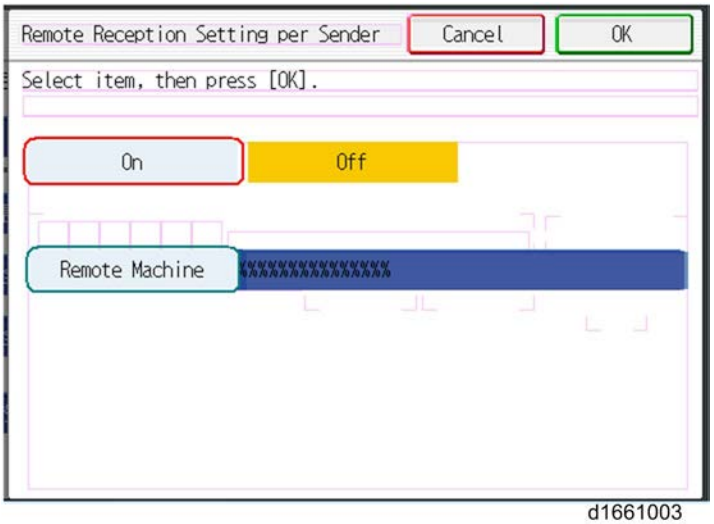
d1661001

4. **Press [Remote Reception Setting per Sender] to select.**



d1661002

5. **Press [On] and [Remote Machine] to select.**



d1661003

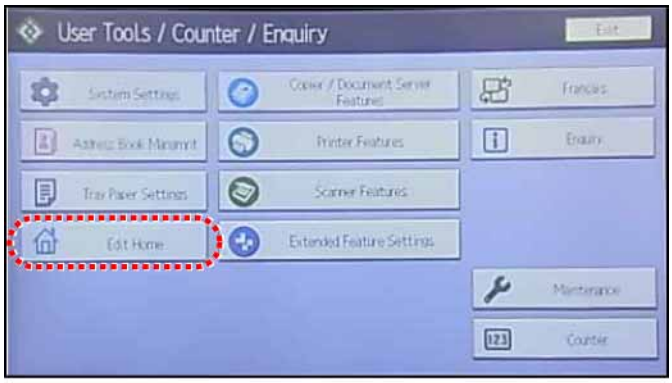
6. **Enter an IP address or a host name of the client-side machine to connect.**
7. **Press [OK] to exit from the setting.**

Remote Fax Icon Addition for Remote Machine

This procedure allows the remote fax icon to appear on the home screen of the operation panel.

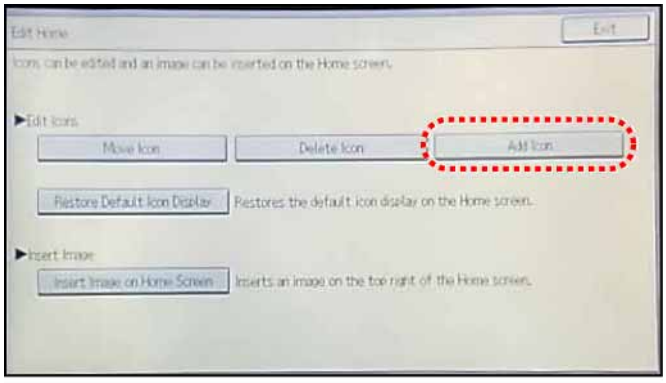
On both the Remote Machine and the Client-side Machines:

1. **Press [User Tools].**
2. **Press [Edit Home].**



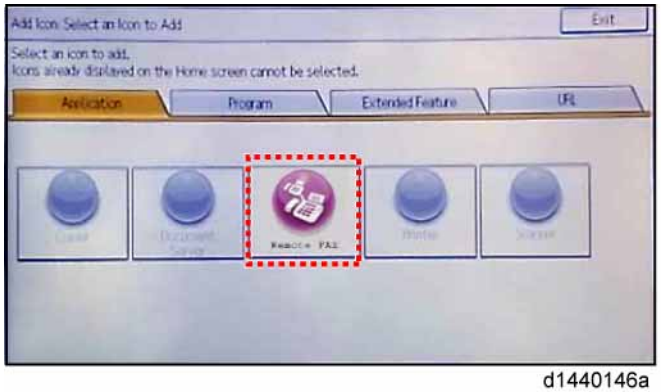
d1440144

3. **Press [Add Icon].**



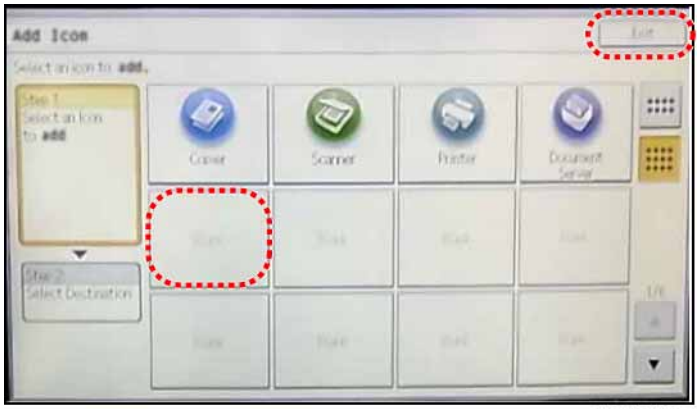
d1440145

4. **Press [Remote Fax].**



d1440146a

5. **Press a [Blank] to set a location for the remote fax icon.**



d1440147

6. **Press [Exit] to exit from the set-up procedure.**

2. REPLACEMENT AND ADJUSTMENT

2.1 FCU

2.1.1 SRAM DATA TRANSFER PROCEDURE

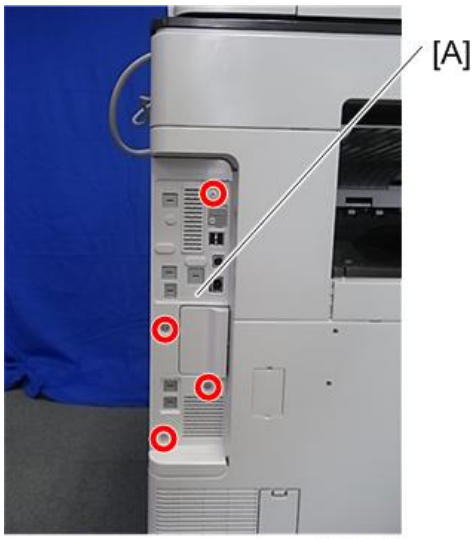
When you replace the FCU board, transfer the SRAM data from the old FCU board to the new FCU board. Do the following procedure to back up the SRAM data.

Note

- The following data can be transfered: TTI, RTI, CSI, Fax bit switch settings, RAM address settings, NCU parameter settings

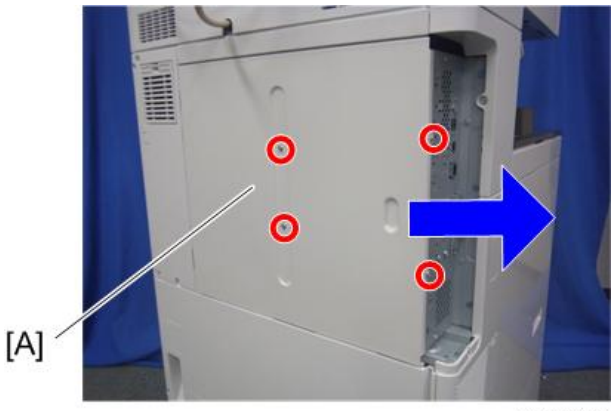
For D148/D149/D150 models

1. **Remove the controller box cover [A] (x 4).**



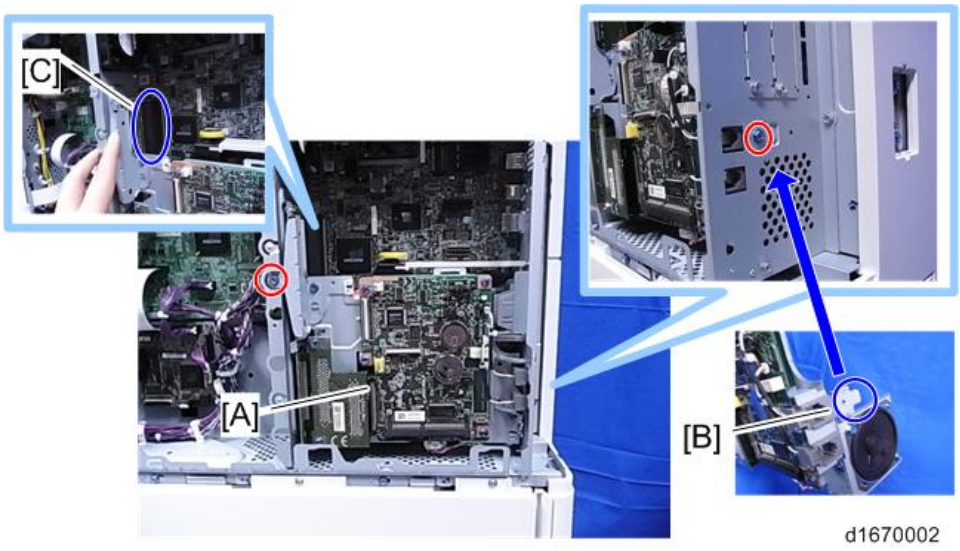
d1462007

2. **Remove the rear cover [A] (x 4).**

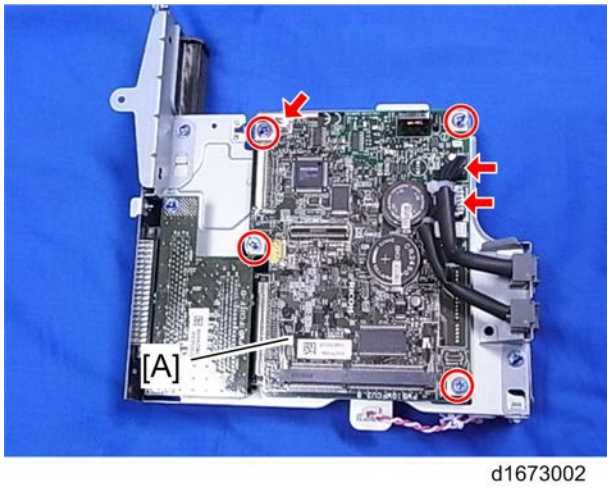


d1462013

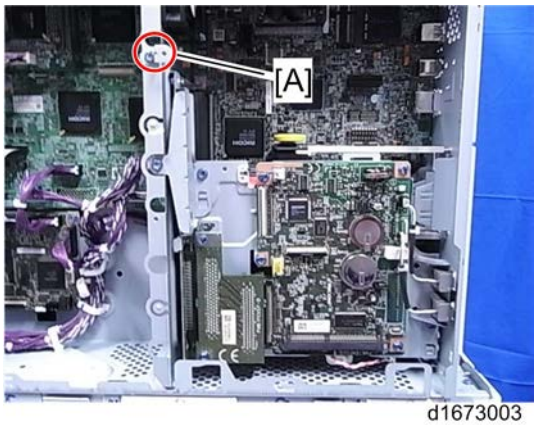
3. **Remove the fax unit [A] (x 2).**



4. **Replace the installed FCU board [A] with a new FCU board (x 4, x 3).**



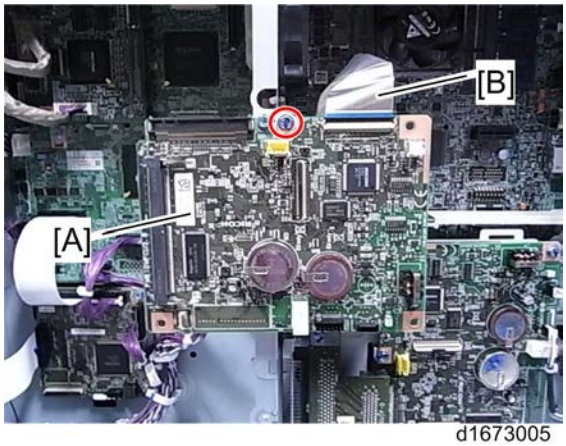
5. **Reinstall the new fax unit (x 2).**
6. **Attach the bracket [A] provided with the new fax unit to the center frame of the controller box (x 1).**



7. **Attach the flat cable [A] to CN603 of the new fax unit.**
   - Make sure that the blue tape of the flat cable faces outward.

d1673004

8. **Attach the FCU board removed in step 4 to the bracket. Then attach the flat cable to CN603 of the removed FCU board (x 1).**
   - Make sure that the blue tape of the flat cable faces outward.



d1673005

CAUTION

- The removed FCU board must be away from the metal frames. Otherwise, the removed FCU board may get a short circuit.

9. **Turn on the main power switch.**
10. **SRAM data transmission starts. When the transmission is completed, you will hear a beeper sound.**

Note

- The beeper sound is the same volume as the speaker sound.
- The beeper sounds even if the sperker sound is turned off.
- If the beeper does not sound, turn the main power switch on and off repeatedly and do the transmission procedure 2 or 3 times.
- If the beeper does not sound after turning the main switch on and off 3 times, you need to input the settings stored in SRAM memory manually.

11. **When "Ready" appears on the copy display, turn off the main power switch, and then disconnect the flat cable from the removed FCU board.**
12. **Remove the removed FCU board (x 1).**
13. **Remove the bracket from the center frame of the controller box (x 1).**

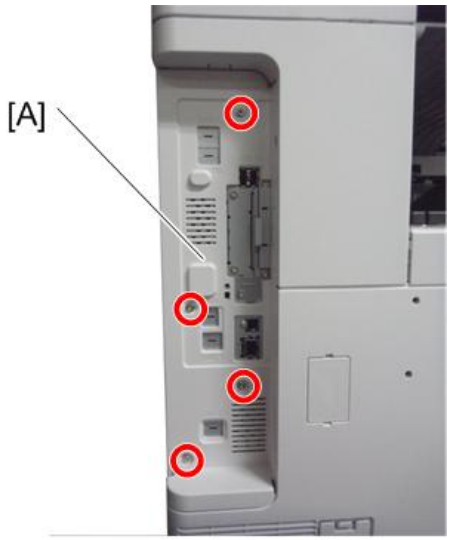
14. **Disconnect the flat cable from the new FCU board.**
15. **Re-assemble the machine.**
16. **Turn on the main power switch, then do SP6-101 to print the system parameter list.**
17. **Check the system parameter list to make sure that the data is transferred correctly.**
18. **Set the correct date and time with the User Tools: User Tools > System Settings > Timer Setting > Set Date/Time.**

Note

- If any of the SRAM data was not transferred, input those settings manually.

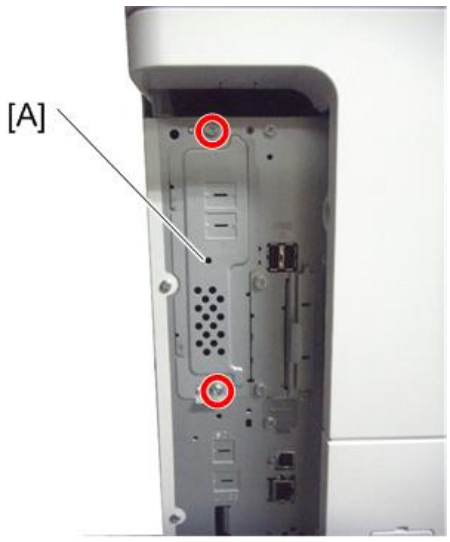
For D146/D147 models

1. **Remove the controller box cover [A] (x 4).**



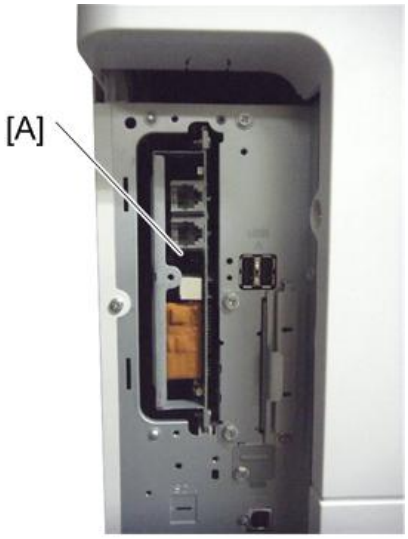
d1463211

2. **Remove the interface slot cover [A] (x 2).**



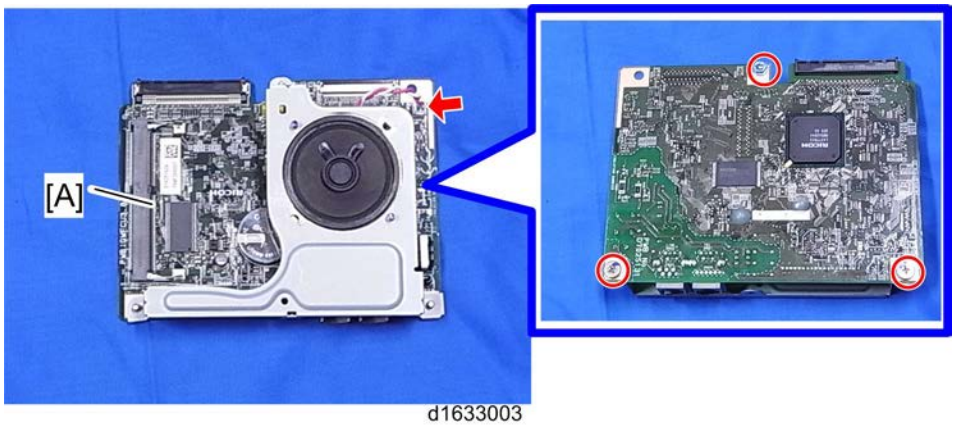
d1463212

3. **Pull out the FCU [A] from the interface slot.**



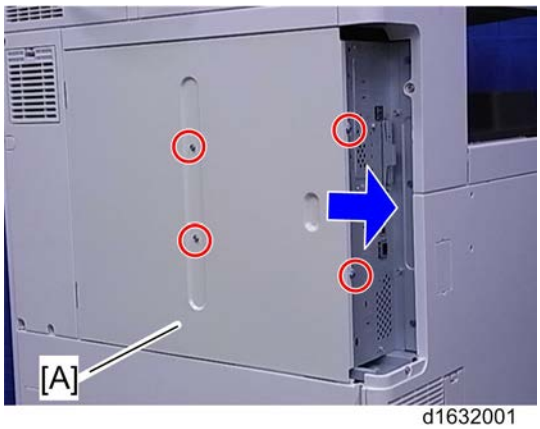
d1463215

4. **Replace the installed FCU board [A] with a new FCU board (x 1, stepped screw x 2, x 1).**



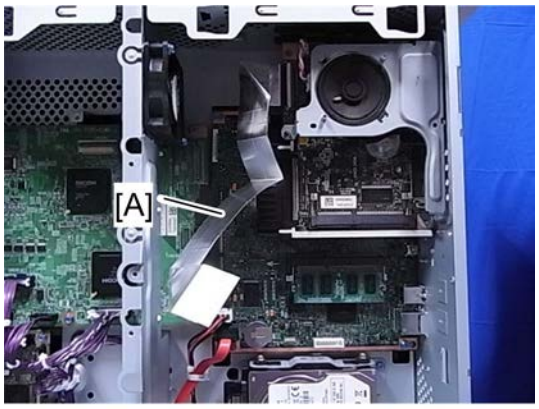
d1633003

5. **Reinstall the new fax unit, and then the slot cover (x 2).**
6. **Remove the rear cover [A] (x 4).**



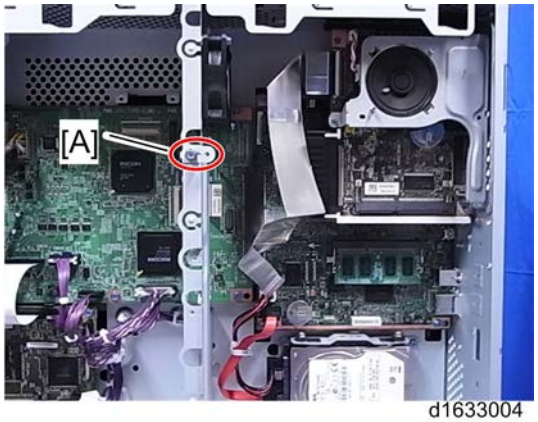
d1632001

7. **Attach the flat cable [A] to CN603 of the new fax unit.**
   - Make sure that the blue tapes of the flat cable face outward.



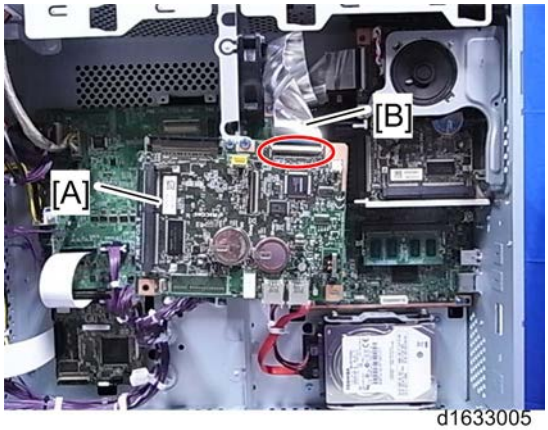
d1633002

8. **Attach the bracket [A] provided with the new fax unit to the center frame of the controller box (x 1).**



d1633004

9. **Attach the FCU board removed in step 4 to the bracket. Then attach the flat cable to CN603 of the removed FCU board (x 1).**
   - Make sure that the blue tape of the flat cable faces outward.



d1633005

CAUTION

- The removed FCU board must be away from the metal frames. Otherwise, the removed FCU board may get a short circuit.

10. **Turn on the main power switch.**
11. **SRAM data transmission starts. When the transmission is completed, you will hear a beeper sound.**

Note

- The beeper sound is the same volume as the speaker sound.
- The beeper sounds even if the sperker sound is turned off.
- If the beeper does not sound, turn the main power switch on and off repeatedly and do the transmission procedure 2 or 3 times.
- If the beeper does not sound after turning the main switch on and off 3 times, you need to input the settings stored in SRAM memory manually.

12. **When "Ready" appears on the copy display, turn off the main power switch, and then disconnect the flat cable from the removed FCU board.**
13. **Remove the removed FCU board (x 1).**
14. **Remove the bracket from the center frame of the controller box (x 1).**
15. **Disconnect the flat cable from the new FCU board.**
16. **Re-assemble the machine.**
17. **Turn on the main power switch, then do SP6-101 to print the system parameter list.**
18. **Check the system parameter list to make sure that the data is transferred correctly.**
19. **Set the correct date and time with the User Tools: User Tools > System Settings > Timer Setting > Set Date/Time.**

3. TROUBLESHOOTING

3.1 ERROR CODES

If an error code occurs, retry the communication. If the same problem occurs, try to fix the problem as suggested below. Note that some error codes appear only in the error code display and on the service report.

Code	Meaning	Suggested Cause/Action
0-00	DIS/NSF not detected within 40 s of Start being pressed	▪ Check the line connection. ▪ The machine at the other end may be incompatible. ▪ Replace the FCU. ▪ Check for DIS/NSF with an oscilloscope. ▪ If the rx signal is weak, there may be a bad line.
0-01	DCN received unexpectedly	▪ The other party is out of paper or has a jammed printer. ▪ The other party pressed Stop during communication.
0-03	Incompatible modem at the other end	The other terminal is incompatible.
0-04	CFR or FTT not received after modem training	▪ Check the line connection. ▪ Try changing the tx level and/or cable equalizer settings. ▪ Replace the FCU. ▪ The other terminal may be faulty; try sending to another machine. ▪ If the rx signal is weak or defective, there may be a bad line. **Cross reference** Tx level - NCU Parameter 01 (PSTN) Cable equalizer - G3 Switch 07 (PSTN) Dedicated Tx parameters in Service Program Mode

Code	Meaning	Suggested Cause/Action
0-05	Modem training fails even G3 shifts down to 2400 bps.	▪ Check the line connection. ▪ Try adjusting the tx level and/or cable equalizer. ▪ Replace the FCU. ▪ Check for line problems. **Cross reference** See error code 0-04.
0-06	The other terminal did not reply to DCS	▪ Check the line connection. ▪ Try adjusting the tx level and/or cable equalizer settings. ▪ Replace the FCU. ▪ The other end may be defective or incompatible; try sending to another machine. ▪ Check for line problems. **Cross reference** See error code 0-04.
0-07	No post-message response from the other end after a page was sent	▪ Check the line connection. ▪ Replace the FCU. ▪ The other end may have jammed or run out of paper. ▪ The other end user may have disconnected the call. ▪ Check for a bad line. ▪ The other end may be defective; try sending to another machine.

Code	Meaning	Suggested Cause/Action
0-08	The other end sent RTN or PIN after receiving a page, because there were too many errors	▪ Check the line connection. ▪ Replace the FCU. ▪ The other end may have jammed, or run out of paper or memory space. ▪ Try adjusting the tx level and/or cable equalizer settings. ▪ The other end may have a defective modem/FCU; try sending to another machine. ▪ Check for line problems and noise. **Cross reference** ▪ Tx level - NCU Parameter 01 (PSTN) ▪ Cable equalizer - G3 Switch 07 (PSTN) ▪ Dedicated Tx parameters in Service Program Mode
0-14	Non-standard post message response code received	▪ Incompatible or defective remote terminal; try sending to another machine. ▪ Noisy line: resend. ▪ Try adjusting the tx level and/or cable equalizer settings. ▪ Replace the FCU. **Cross reference** See error code 0-08.
0-15	The other terminal is not capable of specific functions.	The other terminal is not capable of accepting the following functions, or the other terminal's memory is full. ▪ Confidential rx ▪ Transfer function ▪ SEP/SUB/PWD/SID

Code	Meaning	Suggested Cause/Action
0-16	CFR or FTT not detected after modem training in confidential or transfer mode	▪ Check the line connection. ▪ Replace the FCU. ▪ Try adjusting the tx level and/or cable equalizer settings. ▪ The other end may have disconnected, or it may be defective; try calling another machine. ▪ If the rx signal level is too low, there may be a line problem. **Cross reference** See error code 0-08.
0-17	Communication was interrupted by pressing the Stop key	If the Stop key was not pressed and this error keeps occurring, replace the operation panel or the operation panel drive board.
0-20	Facsimile data not received within 6 s of retraining	▪ Check the line connection. ▪ Replace the FCU. ▪ Check for line problems. ▪ Try calling another fax machine. ▪ Try adjusting the reconstruction time for the first line and/or rx cable equalizer setting. **Cross reference** Reconstruction time - G3 Switch 0A, bit 6 Rx cable equalizer - G3 Switch 07 (PSTN)
0-21	EOL signal (end-of-line) from the other end not received within 5 s of the previous EOL signal	▪ Check the connections between the FCU and line. ▪ Check for line noise or other line problems. ▪ Replace the FCU. ▪ The remote machine may be defective or may have disconnected. **Cross reference** Maximum interval between EOLs and between ECM frames - G3 Bit Switch 0A, bit 4

Code	Meaning	Suggested Cause/Action
0-22	The signal from the other end was interrupted for more than the acceptable modem carrier drop time (default: 200 ms)	▪ Check the line connection. ▪ Replace the FCU. ▪ Defective remote terminal. ▪ Check for line noise or other line problems. ▪ Try adjusting the acceptable modem carrier drop time. **Cross reference** Acceptable modem carrier drop time - G3 Switch 0A, bits 0 and 1
0-23	Too many errors during reception	▪ Check the line connection. ▪ Replace the FCU. ▪ Defective remote terminal ▪ Check for line noise or other line problems. ▪ Try asking the other end to adjust their tx level. ▪ Try adjusting the rx cable equalizer setting and/or rx error criteria. **Cross reference** Rx cable equalizer - G3 Switch 07 (PSTN) Rx error criteria - Communication Switch 02, bits 0 and 1
0-29	Data block format failure in ECM reception	▪ Check for line noise or other line problems. ▪ Check the FCU - NCU connectors. ▪ Replace the NCU or FCU.
0-30	The other terminal did not reply to NSS(A) in AI short protocol mode	▪ Check the line connection. ▪ Try adjusting the tx level and/or cable equalizer settings. ▪ The other terminal may not be compatible. **Cross reference** Dedicated tx parameters - Section 4
0-32	The other terminal sent a DCS, which contained functions that the receiving machine cannot handle.	▪ Check the protocol dump list. ▪ Ask the other party to contact the manufacturer.

Code	Meaning	Suggested Cause/Action
0-33	The data reception (not ECM) is not completed within 10 minutes.	▪ Check the line connection. ▪ The other terminal may have a defective modem/FCU.
0-52	Polarity changed during communication	▪ Check the line connection. Retry communication.
0-55	FCU does not detect the SG3.	▪ FCU firmware or board defective. ▪ SG3 firmware or board defective.
0-56	The stored message data exceeds the capacity of the mailbox in the SG3.	SG3 firmware or board defective.
0-70	The communication mode specified in CM/JM was not available (V.8 calling and called terminal)	▪ The other terminal did not have a compatible communication mode (e.g., the other terminal was a V.34 data modem and not a fax modem.) ▪ A polling tx file was not ready at the other terminal when polling rx was initiated from the calling terminal.
0-74	The calling terminal fell back to T.30 mode, because it could not detect ANSam after sending CI.	▪ The calling terminal could not detect ANSam due to noise, etc. ▪ ANSam was too short to detect. ▪ Check the line connection and condition. ▪ Try making a call to another V.8/V.34 fax.
0-75	The called terminal fell back to T.30 mode, because it could not detect a CM in response to ANSam (ANSam timeout).	▪ The terminal could not detect ANSam. ▪ Check the line connection and condition. ▪ Try receiving a call from another V.8/V.34 fax.
0-76	The calling terminal fell back to T.30 mode, because it could not detect a JM in response to CM (CM timeout).	▪ The called terminal could not detect a CM due to noise, etc. ▪ Check the line connection and condition. ▪ Try making a call to another V.8/V.34 fax.

Code	Meaning	Suggested Cause/Action
0-77	The called terminal fell back to T.30 mode, because it could not detect a CJ in response to JM (JM timeout).	▪ The calling terminal could not detect a JM due to noise, etc. ▪ A network that has narrow bandwidth cannot pass JM to the other end. ▪ Check the line connection and condition. ▪ Try receiving a call from another V.8/V.34 fax.
0-79	The called terminal detected CI while waiting for a V.21 signal.	▪ Check for line noise or other line problems. ▪ If this error occurs, the called terminal falls back to T.30 mode.
0-80	The line was disconnected due to a timeout in V.34 phase 2 – line probing.	▪ The guard timer expired while starting these phases. Serious noise, narrow bandwidth, or low signal level can cause these errors. If these errors happen at the transmitting terminal: ▪ Try making a call at a later time. ▪ Try using V.17 or a slower modem using dedicated tx parameters. ▪ Try increasing the tx level. ▪ Try adjusting the tx cable equalizer setting. If these errors happen at the receiving terminal: ▪ Try adjusting the rx cable equalizer setting. ▪ Try increasing the tx level. ▪ Try using V.17 or a slower modem if the same error is frequent when receiving from multiple senders.
0-81	The line was disconnected due to a timeout in V.34 phase 3 – equalizer training.	
0-82	The line was disconnected due to a timeout in the V.34 phase 4 – control channel start-up.	
0-83	The line was disconnected due to a timeout in the V.34 control channel restart sequence.	
0-84	The line was disconnected due to abnormal signaling in V.34 phase 4 – control channel start-up.	▪ The signal did not stop within 10 s. ▪ Turn off the main power switch, then turn it back on. ▪ If the same error is frequent, replace the FCU.

Code	Meaning	Suggested Cause/Action
0-85	The line was disconnected due to abnormal signaling in V.34 control channel restart.	▪ The signal did not stop within 10 s. ▪ Turn off the main power switch, then turn it back on. ▪ If the same error is frequent, replace the FCU.
0-86	The line was disconnected because the other terminal requested a data rate using MPh that was not available in the currently selected symbol rate.	▪ The other terminal was incompatible. ▪ Ask the other party to contact the manufacturer.
0-87	The control channel started after an unsuccessful primary channel.	▪ The receiving terminal restarted the control channel because data reception in the primary channel was not successful. ▪ This does not result in an error communication.
0-88	The line was disconnected because PPR was transmitted/received 9 (default) times within the same ECM frame.	▪ Try using a lower data rate at the start. ▪ Try adjusting the cable equalizer setting.
2-11	Only one V.21 connection flag was received	▪ Replace the FCU.
2-12	Modem clock irregularity	▪ Replace the FCU.
2-13	Modem initialization error	▪ Turn off the machine, then turn it back on. ▪ Update the modem ROM. ▪ Replace the FCU.
2-22	Counter overflow error of JBIG chip	If error occurs frequently, change the settings for resolution, paper size, compression type.
2-23	JBIG compression or reconstruction error	Turn off the machine, then turn it back on.
2-24	JBIG ASIC error	▪ Turn off the machine, then turn it back on.

Code	Meaning	Suggested Cause/Action
2-25	JBIG data reconstruction error (BIH error)	▪ JBIG data error ▪ Check the sender's JBIG function. ▪ Update the FCU ROM.
2-26	JBIG data reconstruction error (Float marker error)	
2-27	JBIG data reconstruction error (End marker error)	
2-28	JBIG data reconstruction error (Timeout)	
2-29	JBIG trailing edge maker error	▪ FCU defective ▪ Check the destination device.
2-50	The machine resets itself for a fatal FCU system error	▪ If this is frequent, update the ROM, or replace the FCU.
2-51	The machine resets itself because of a fatal communication error	▪ If this is frequent, update the ROM, or replace the FCU.
2-53	Snd msg() in the manual task is an error because the mailbox for the operation task is full.	▪ The user did the same operation many times, and this gave too much load to the machine.
4-01	Line current was cut	▪ Check the line connector. ▪ Check for line problems. ▪ Replace the FCU.
4-10	Communication failed because of an ID Code mismatch (Closed Network) or Tel. No./CSI mismatch (Protection against Wrong Connections)	▪ Get the ID Codes the same and/or the CSIs programmed correctly, then resend. ▪ The machine at the other end may be defective.
5-00	Data reconstruction not possible	Replace the FCU.
5-10	DCR timer expired	▪ Replace the FCU.

Code	Meaning	Suggested Cause/Action
5-20	Storage impossible because of a lack of memory	▪ Temporary memory shortage. ▪ Test the SAF memory.
5-21	Memory overflow	
5-23	Print data error when printing a substitute rx or confidential rx message	▪ Test the SAF memory. ▪ Ask the other end to resend the message.
5-25	SAF file access error	▪ Replace an SD card or HDD. ▪ Replace the FCU.
6-00	G3 ECM - T1 time out during reception of facsimile data	▪ Try adjusting the rx cable equalizer. ▪ Replace the FCU.
6-01	G3 ECM - no V.21 signal was received	
6-02	G3 ECM - EOR was received	
6-04	G3 ECM - RTC not detected	▪ Check the line connection. ▪ Check for a bad line or defective remote terminal. ▪ Replace the FCU.
6-05	G3 ECM - facsimile data frame not received within 18 s of CFR, but there was no line fail	▪ Check the line connection. ▪ Check for a bad line or defective remote terminal. ▪ Replace the FCU. ▪ Try adjusting the rx cable equalizer **Cross reference** ▪ Rx cable equalizer - G3 Switch 07 (PSTN)
6-06	G3 ECM - coding/decoding error	▪ Defective FCU. ▪ The other terminal may be defective.
6-08	G3 ECM - PIP/PIN received in reply to PPS.NULL	▪ The other end pressed Stop during communication. ▪ The other terminal may be defective.

Code	Meaning	Suggested Cause/Action
6-09	G3 ECM - ERR received	▪ Check for a noisy line. ▪ Adjust the tx levels of the communicating machines. ▪ See code 6-05.
6-10	G3 ECM - error frames still received at the other end after all communication attempts at 2400 bps	▪ Check for line noise. ▪ Adjust the tx level (use NCU parameter 01 or the dedicated tx parameter for that address). ▪ Check the line connection. ▪ Defective remote terminal.
6-21	V.21 flag detected during high speed modem communication	▪ The other terminal may be defective or incompatible.
6-22	The machine resets the sequence because of an abnormal handshake in the V.34 control channel	▪ Check for line noise. ▪ If the same error occurs frequently, replace the FCU. ▪ Defective remote terminal.
6-99	V.21 signal not stopped within 6 s	Replace the FCU.
13-17	SIP user name registration error	▪ Double registration of the SIP user name. ▪ Capacity for user-name registration in the SIP server is not sufficient.
13-18	SIP server access error	▪ Incorrect initial setting for the SIP server. ▪ Defective SIP server.
13-24	SIP authentication error	▪ Registered password in the device does not match the password in the SIP server.
13-25	Network I/F setting error	▪ IPV4 is not active in the active protocol setting. ▪ IP address of the device is not registered.
13-26	Network I/F setting error at power on	▪ Active protocol setting does not match the I/F setting for SIP server. ▪ IP address of the device is not registered.
13-27	IP address setting error	▪ IP address of the device is not registered.

Code	Meaning	Suggested Cause/Action
14-00	SMTP Send Error	▪ Error occurred during sending to the SMTP server. Occurs for any error other than 14-01 to 16. For example, the mail address of the system administrator is not registered.
14-01	SMTP Connection Failed	▪ Failed to connect to the SMTP server (timeout) because the server could not be found. ▪ The PC is not ready to transfer files. ▪ SMTP server not functioning correctly. ▪ The DNS IP address is not registered. ▪ Network not operating correctly. ▪ Destination folder selection not correct.
14-02	No Service by SMTP Service (421)	▪ SMTP server operating incorrectly, or the destination for direct SMTP sending is not correct. ▪ Contact the system administrator and check that the SMTP server has the correct settings and operates correctly. ▪ Contact the system administrator for direct SMTP sending and check the sending destination.

Code	Meaning	Suggested Cause/Action
14-03	Access to SMTP Server Denied (450)	▪ Failed to access the SMTP server because the access is denied. ▪ SMTP server operating incorrectly. Contact the system administrator to determine if there is a problem with the SMTP server and to check that the SMTP server settings are correct. ▪ Folder send destination is incorrect. Contact the system administrator to determine that the SMTP server settings and path to the server are correct. ▪ Device settings incorrect. Confirm that the user name and password settings are correct. ▪ Direct SMTP destination incorrect. Contact the system administrator to determine if there is a problem at the destination at that the settings at the destination are correct.
14-04	Access to SMTP Server Denied (550)	▪ SMTP server operating incorrectly ▪ Direct SMTP sending not operating correctly

Code	Meaning	Suggested Cause/Action
14-05	SMTP Server HDD Full (452)	▪ Failed to access the SMTP server because the HDD on the server is full. ▪ Insufficient free space on the HDD of the SMTP server. Contact the system administrator and check the amount of space remaining on the SMTP server HDD. ▪ Insufficient free space on the HDD where the destination folder is located. Contact the system administrator and check the amount of space remaining on the HDD where the target folder is located. ▪ Insufficient free space on the HDD at the target destination for SMTP direct sending. Contact the system administrator and check the amount of space remaining on the target HDD.
14-06	User Not Found on SMTP Server (551)	▪ The designated user does not exist. ▪ The designated user does not exist on the SMTP server. ▪ The designated address is not for use with direct SMTP sending.
14-07	Data Send to SMTP Server Failed (4XX)	▪ Failed to access the SMTP server because the transmission failed. ▪ PC not operating correctly. ▪ SMTP server operating incorrectly ▪ Network not operating correctly. ▪ Destination folder setting incorrect. ▪ Direct SMTP sending not operating correctly.

Code	Meaning	Suggested Cause/Action
14-08	Data Send to SMTP Server Failed (5XX)	▪ Failed to access the SMTP server because the transmission failed. ▪ SMTP server operating incorrectly ▪ Destination folder setting incorrect. ▪ Direct SMTP sending not operating correctly. ▪ Software application error.
14-09	Authorization Failed for Sending to SMTP Server	▪ POP-Before-SMTP or SMTP authorization failed. ▪ Incorrect setting for file transfer
14-10	Addresses Exceeded	▪ Number of broadcast addresses exceeded the limit for the SMTP server.
14-11	Buffer Full	▪ The send buffer is full so the transmission could not be completed. Buffer is full due to using Scan-to-Email while the buffer is being used send mail at the same time.
14-12	Data Size Too Large	▪ Transmission was cancelled because the detected size of the file was too large.
14-13	Send Cancelled	▪ Processing is interrupted because the user pressed Stop.
14-14	Security Locked File Error	▪ Update the software because of the defective software.
14-15	Mail Data Error	▪ The transmitting a mail is interrupted via DCS due to the incorrect data. ▪ Update the software because of the defective software.
14-16	Maximum Division Number Error	▪ When a mail is divided for the mail transmission and the division number of a mail are more than the specified number, the mail transmission is interrupted. ▪ Update the software because of the defective software.

Code	Meaning	Suggested Cause/Action
14-17	Incorrect Ticket	▪ Update the software because of the defective software.
14-18	Access to MCS File Error	▪ The access to MCS file is denied due to the no permission of access. ▪ Update the software because of the defective software.
14-20	SMTP Authentication error	Make sure the administrator's e-mail address is same as the SMTP authentication address or POP before SMTP address.
14-21	Transmission error of S/MIME	Register the correct user certificate and device certificate.
14-30	MCS File Creation Failed	Failed to create the MCS file because: ▪ The number of files created with other applications on the Document Server has exceeded the limit. ▪ HDD is full or not operating correctly. ▪ Software error.
14-31	UFS File Creation Failed	UFS file could not be created: ▪ Not enough space in UFS area to handle both Scan-to-Email and IFAX transmission. ▪ HDD full or not operating correctly. ▪ Software error.
14-32	Cancelled the Mail Due to Error Detected by NFAX	▪ Error detected with NFAX and send was cancelled due to a software error.
14-33	No Mail Address For the Machine	▪ Neither the mail address of the machine nor the mail address of the network administrator is registered.
14-34	Address designated in the domain for SMTP sending does not exist	▪ Operational error in normal mail sending or direct SMTP sending. ▪ Check the address selected in the address book for SMTP sending. ▪ Check the domain selection.

Code	Meaning	Suggested Cause/Action
14-50	Mail Job Task Error	Due to an FCU mail job task error, the send was cancelled: ▪ Address book was being edited during creation of the notification mail. ▪ Software error.
14-51	UCS Destination Download Error	Not even one return notification can be downloaded: ▪ The address book was being edited. ▪ The number for the specified destination does not exist (it was deleted or edited after the job was created).
14-60	Send Cancel Failed	▪ The cancel operation by the user failed to cancel the send operation.
14-61	Notification Mail Send Failed for All Destinations	▪ All addresses for return notification mail failed.
14-62	Transmission Error due to the existence of zero line page	▪ When the 0 line page exists in received pages with G3 communication, the transmission is interrupted.
15-01	POP3/IMAP4 Server Not Registered	▪ At startup, the system detected that the IP address of the POP3/IMAP4 server has not been registered in the machine.
15-02	POP3/IMAP4 Mail Account Information Not Registered	▪ The POP3/IMAP4 mail account has not been registered.
15-03	Mail Address Not Registered	▪ The mail address has not been registered.
15-10	DCS Mail Receive Error	▪ Error other than 15-11 to 15-18.
15-11	Connection Error	The DNS or POP3/IMAP4 server could not be found: ▪ The IP address for DNS or POP3/IMAP4 server is not stored in the machine. ▪ The DNS IP address is not registered. ▪ Network not operating correctly.

Code	Meaning	Suggested Cause/Action
15-12	Authorization Error	POP3/IMAP4 send authorization failed: ▪ Incorrect IFAX user name or password. ▪ Access was attempted by another device, such as the PC. ▪ POP3/IMAP4 settings incorrect.
15-13	Receive Buffer Full	▪ Occurs only during manual reception. Transmission cannot be received due to insufficient buffer space. The buffer is being used for mail send or Scan-to-Email.
15-14	Mail Header Format Error	▪ The mail header is not standard format. For example, the Date line description is incorrect.
15-15	Mail Divide Error	▪ The e-mail is not in standard format. There is no boundary between parts of the e-mail, including the header.
15-16	Mail Size Receive Error	▪ The mail cannot be received because it is too large.
15-17	Receive Timeout	▪ May occur during manual receiving only because the network is not operating correctly.
15-18	Incomplete Mail Received	▪ Only one portion of the mail was received.
15-31	Final Destination for Transfer Request Reception Format Error	▪ The format of the final destination for the transfer request was incorrect.
15-39	Send/Delivery Destination Error	The transmission cannot be delivered to the final destination: ▪ Destination file format is incorrect. ▪ Could not create the destination for the file transmission.
15-41	SMTP Receive Error	▪ Reception rejected because the transaction exceeded the limit for the “Auth. E-mail RX” setting.

Code	Meaning	Suggested Cause/Action
15-42	Off Ramp Gateway Error	▪ The delivery destination address was specified with Off Ramp Gateway OFF.
15-43	Address Format Error	▪ Format error in the address of the Off Ramp Gateway.
15-44	Addresses Over	▪ The number of addresses for the Off Ramp Gateway exceeded the limit of 30.
15-61	Attachment File Format Error	▪ The attached file is not TIFF format.
15-62	TIFF File Compatibility Error	Could not receive transmission due to: ▪ Resolution error ▪ Image of resolution greater than 200 dpi without extended memory. ▪ Resolution is not supported. ▪ Page size error ▪ The page size was larger than A3. ▪ Compression error ▪ File was compressed with other than MH, MR, or MMR.
15-63	TIFF Parameter Error	The TIFF file sent as the attachment could not be received because the TIFF header is incorrect: ▪ The TIFF file attachment is a type not supported. ▪ The TIFF file attachment is corrupted. ▪ Software error.
15-64	TIFF Decompression Error	The file received as an attachment caused the TIFF decompression error: ▪ The TIFF format of the attachment is corrupted. ▪ Software error.
15-71	Not Binary Image Data	▪ The file could not be received because the attachment was not binary image data.

Code	Meaning	Suggested Cause/Action
15-73	MDN Status Error	▪ Could not find the Disposition line in the header of the Return Receipt, or there is a problem with the firmware.
15-74	MDN Message ID Error	▪ Could not find the Original Message ID line in the header of the Return Receipt, or there is a problem with the firmware.
15-80	Mail Job Task Read Error	▪ Could not receive the transmission because the destination buffer is full and the destination could not be created (this error may occur when receiving a transfer request or a request for notification of reception).
15-81	Repeated Destination Registration Error	▪ Could not repeat receive the transmission because the destination buffer is full and the destination could not be created (this error may occur when receiving a transfer request or a request for notification of reception).
15-91	Send Registration Error	Could not receive the file for transfer to the final destination: ▪ The format of the final destination or the transfer destination is incorrect. ▪ Destinations are full so the final and transfer destinations could not be created.
15-92	Memory Overflow	▪ Transmission could not be received because memory overflowed during the transaction.
15-93	Memory Access Error	▪ Transaction could not complete due to a malfunction of SAF memory.
15-94	Incorrect ID Code	▪ The machine rejected an incoming e-mail for transfer request, because the ID code in the incoming e-mail did not match the ID code registered in the machine.

Code	Meaning	Suggested Cause/Action
15-95	Transfer Station Function	▪ The machine rejected an incoming e-mail for transfer because the transfer function was unavailable.
16-00	No IP address registered	▪ The machine does not get an IP address because the DNS server has not been registered for the remote machine or IP address of the remote machine has not been registered. ▪ Register the DNS server for the remote machine or configure an IP address of the remote machine.
22-00	Original length exceeded the maximum scan length	▪ Divide the original into more than one page. ▪ Check the resolution used for scanning. Lower the scan resolution if possible. ▪ Add optional page memory.
22-01	Memory overflow while receiving	▪ Wait for the files in the queue to be sent. ▪ Delete unnecessary files from memory. ▪ Transfer the substitute reception files to an another fax machine, if the machine's printer is busy or out of order. ▪ Add an optional SAF memory card or hard disk.
22-02	Tx or rx job stalled due to line disconnection at the other end	▪ The job started normally but did not finish normally; data may or may not have been received fully. ▪ Restart the machine.
22-04	The machine cannot store received data in the SAF	▪ Update the ROM ▪ Replace the FCU.
22-05	No G3 parameter confirmation answer	▪ Defective FCU board or firmware.
23-00	Data read timeout during construction	▪ Restart the machine. ▪ Replace the FCU.

Code	Meaning	Suggested Cause/Action
25-00	The machine software resets itself after a fatal transmission error occurred	▪ Update the ROM ▪ Replace the FCU.
F0-xx	V.34 modem error	▪ Replace the FCU.
F6-xx	SG3 modem error	▪ Update the SG3 modem ROM. ▪ Replace the SG3 board. ▪ Check for line noise or other line problems. ▪ Try communicating another V.8/V.34 fax.

3.2 IFAX TROUBLESHOOTING

Use the following procedures to determine whether the machine or another part of the network is causing the problem.

Communication Route	Item	Action [Remarks]
General LAN	1. Connection with the LAN	▪ Check that the LAN cable is connected to the machine. ▪ Check that the LEDs on the hub are lit.
	2. LAN activity	Check that other devices connected to the LAN can communicate through the LAN.
Between IFAX and PC	1. Network settings on the PC	▪ Check the network settings on the PC. [Is the IP address registered in the TCP/IP properties in the network setup correct? Check the IP address with the administrator of the network.]
	2. Check that PC can connect with the machine	▪ Use the “ping” command on the PC to contact the machine. [At the MS-DOS prompt, type ping then the IP address of the machine, then press Enter.]
	3. LAN settings in the machine	▪ Check the LAN parameters ▪ Check if there is an IP address conflict with other PCs. [Use the “Network” function in the User Tools. If there is an IP address conflict, inform the administrator.]

Communication Route	Item	Action [Remarks]
Between machine and e-mail server	1. LAN settings in the machine	▪ Check the LAN parameters ▪ Check if there is an IP address conflict with other PCs. [Use the “Network” function in the User Tools. If there is an IP address conflict, inform the administrator.]
	2. E-mail account on the server	▪ Make sure that the machine can log into the e-mail server. ▪ Check that the account and password stored in the server are the same as in the machine. [Ask the administrator to check.]
	3. E-mail server	▪ Make sure that the client devices which have an account in the server can send/receive e-mail. [Ask the administrator to check. Send a test e-mail with the machine’s own number as the destination. The machine receives the returned e-mail if the communication is performed successfully.]
Between e-mail server and internet	1. E-mail account on the Server	▪ Make sure that the PC can log into the e-mail server. ▪ Check that the account and password stored in the server are the same as in the machine. [Ask the administrator to check.]

Communication Route	Item	Action [Remarks]
	2. E-mail server	▪ Make sure that the client devices which have an account in the server can send/receive e-mail. [Ask the administrator to check. Send a test e-mail with the machine's own number as the destination. The machine receives the returned e-mail if the communication is performed successfully.]
	3. Destination e-mail address	▪ Make sure that the e-mail address is actually used. ▪ Check that the e-mail address contains no incorrect characters such as spaces.
	4. Router settings	▪ Use the "ping" command to contact the router. ▪ Check that other devices connected to the router can sent data over the router. [Ask the administrator of the server to check.]
	5. Error message by e-mail from the network of the destination.	▪ Check whether e-mail can be sent to another address on the same network, using the application e-mail software. ▪ Check the error e-mail message. [Inform the administrator of the LAN.]

3.3 IP-FAX TROUBLESHOOTING

3.3.1 IP-FAX TRANSMISSION

Cannot send by IP Address/Host Name

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	Specified IP address/host name correct?	Check the IP address/host name.
3	Firewall/NAT is installed?	Cannot breach the firewall. Send by using another method (Fax, Internet Fax)
4	Transmission sent manually?	Manual sending not supported.
5	IP address of local machine registered?	Register the IP address.
6	Remote terminal port number setting other than 1720 (when using H.323) or 5060 (when using SIP)?	Send by specifying the port number.
7	Specified port number correct?	Confirm the port number of the remote fax.
8	DNS server registered when host name specified?	Contact the network administrator.
9	Remote fax a T.38 terminal?	Check whether the remote fax is a T38 terminal.
10	Remote fax switched off or busy?	Check that the remote fax is switched on.

11	Network bandwidth too narrow?	Request the network administrator to increase the bandwidth.
		Raise the delay level. IPFAX SW 01 Bit 0 to 3
		IP-Fax bandwidth is the same as the DCS speed. Set IP-Fax SW00 Bit 6 to 1.
12	Remote fax cancelled transmission?	Check whether the remote fax cancelled the transmission.

Cannot send via VoIP Gateway

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	VoIP Gateway T.38 standard?	Contact the network administrator.
3	VoIP Gateway installed correctly?	Contact the network administrator.
4	VoIP Gateway power switched on?	Contact the network administrator.
5	Is the IP address/host name of the specified Gateway correct?	Check the IP address/host name.
6	Number of the specified fax correct?	Check the remote fax number.
7	Firewall/NAT is installed?	Cannot breach the firewall. Send by using another method (Fax, Internet Fax)
8	Transmission sent manually?	Manual sending not supported.
9	IP address of local fax registered?	Register the IP address.
10	DNS registered when host name specified?	Contact the network administrator.
11	Remote fax a G3 fax?	Check that the remote fax is a G3 fax.

12	G3 fax is connected to VoIP gateway?	Check that G3 fax is connected.
13	Remote G3 fax turned on?	Check that G3 fax is switched on.
14	Network bandwidth too narrow?	Request the network administrator to increase the bandwidth.
		Raise the network delay level. IPFAX SW 01 Bit 0 to 3
		IP-Fax bandwidth is the same as the DCS speed. Set IP-Fax SW00 Bit 6 to 1.

Cannot send by Alias Fax number.

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	Number of specified Alias fax correct?	Confirm the Alias of the remote fax. Error Code: 13-14
3	Firewall/NAT installed?	Cannot breach the firewall. Send by using another method (Fax, Internet Fax)
4	Transmission sent manually?	Manual sending not supported.
5	Gatekeeper/SIP server installed correctly?	Contact the network administrator.
6	Gatekeeper/SIP server power switched on?	Contact the network administrator.
7	IP address/host name of Gatekeeper/SIP server correct?	Check the IP address/host name.
8	DNS server registered when Gatekeeper/SIP server host name specified?	Contact the network administrator.

9	Enable H.323/Enable SIP SW is set to on?	Check the settings. See User Parameter SW 34 Bit 0/SW 34 Bit 1
10	IP address of local fax registered?	Register the IP address of the local fax.
11	Alias number of local fax registered?	Register the Alias number of the local fax.
12	Remote fax registered in Gatekeeper?	Contact the network administrator.
13	Remote fax a T.38 terminal?	Check whether the remote fax is a T38 terminal.
14	Remote fax switched off or busy?	Contact the network administrator.
15	Network bandwidth too narrow?	Request the system administrator to increase the bandwidth.
		Raise the delay level. IPFAX SW 01 Bit 0 to 3
		Lower the modem transmission baud rate. IPFAX SW 05
16	Remote fax cancelled transmission?	Check whether the remote fax cancelled the transmission.

3.3.2 IP-FAX RECEPTION

Cannot receive via IP Address/Host Name.

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	Firewall/NAT is installed?	Cannot breach the firewall. Send by using another method (Fax, Internet Fax)
3	IP address of local fax registered?	Register the IP address.
4	Port number specified at remote sender fax (if required)?	Request the sender to specify the port number.
5	Specified port number correct (if required)?	Request the sender to check the port number.
6	DNS server registered when host name specified on sender side?	Contact the network administrator. Note ▪ The sender machine displays this error code if the sender fax is a Ricoh model.
7	Network bandwidth too narrow?	Request the system administrator to increase the bandwidth.
		Lower the start modem reception baud rate on the receiving side. IPFAX SW06
8	Remote fax cancelled transmission?	Check whether the remote fax cancelled the transmission.

Cannot receive by VoIP Gateway.

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	Firewall/NAT is installed?	Cannot breach the firewall. Request the remote fax to send by using another method (Fax, Internet Fax)
3	VoIP Gateway installed correctly?	Contact the network administrator.
4	VoIP Gateway power switched on?	Contact the network administrator.
5	IP address/host name of specified VoIP Gateway correct on sender's side?	Request the remote fax to check the IP address/host name.
6	DNS server registered when host name specified on sender side?	Contact the network administrator.
7	Network bandwidth too narrow?	Request the network administrator to increase the bandwidth.
8	G3 fax connected?	Check that G3 fax is connected.
9	G3 fax power switched on?	Check that G3 fax is switched on.

Cannot receive by Alias Fax number.

Check Point		Action
1	LAN cable connected?	Check the LAN cable connection.
2	Firewall/NAT is installed?	Cannot the breach firewall. Request the remote fax to send by using another method (Fax, Internet Fax)
3	Gatekeeper/SIP server installed correctly?	Contact the network administrator. Note ▪ The sender machine displays this error code when the sender fax is a Ricoh model.
4	Power to Gatekeeper/SIP server switched on?	Contact the network administrator. Note ▪ The sender machine displays this error code when the sender fax is a Ricoh model.
5	IP address/host name of Gatekeeper/SIP server correct on the sender's side?	Request the sender to check the IP address/host name. Note ▪ The sender machine displays this error code when the sender fax is a Ricoh model.
6	DNS server registered when Gatekeeper/SIP server host name specified on sender's side?	Contact the network administrator. Note ▪ The sender machine displays this error code when the sender fax is a Ricoh model.
7	Enable H.323/Enable SIP SW is set to on?	Request the sender to check the settings. User Parameter SW 34 Bit 0/SW 34 Bit 1 Note ▪ Only if the remote sender fax is a Ricoh fax.

8	Local fax IP address registered?	Register the IP address.
9	Local fax Alias number registered?	Register the Alias number.
10	Network bandwidth too narrow?	Request the system administrator to increase the bandwidth.
		Lower the start modem reception baud rate on the receiving side. IPFAX SW06
11	Remote fax cancelled transmission?	Check whether the remote fax cancelled the transmission.
12	Local fax registered in Gatekeeper/SIP server?	Contact the network administrator. Note ▪ The sender machine displays this error code when the sender fax is a Ricoh model.

4. SERVICE TABLES

4.1 CAUTIONS

Important

- Never turn off the main power switch when the power LED is lit or flashing. To avoid damaging the hard disk or memory, press the operation power switch to switch the power off, wait for the power LED to go off, and then switch the main power switch off.

Note

- The main power LED lights or flashes while the platen cover or ARDF is open, while the main machine is communicating with a facsimile or the network server, or while the machine is accessing the hard disk or memory for reading or writing data.

4.2 SERVICE PROGRAM TABLES

4.2.1 SP1-XXX (BIT SW)

page 94 "Bit Switches - 1"

1	Mode No.		Function
101	System Switch		
	001 – 032	00 – 1F	Change the bit switches for system settings for the fax option "page 94 "Bit Switches - 1"" : "System Switches"
102	Ifax Switch		
	001 – 016	00 – 0F	Change the bit switches for internet fax settings for the fax option "page 110 "Bit Switches - 2"" : "I-Fax Switches"
103	Printer Switch		
	001 – 016	00 – 0F	Change the bit switches for printer settings for the fax option "page 110 "Bit Switches - 2"" : "Printer Switches"
104	Communication Switch		
	001 – 032	00 – 1F	Change the bit switches for communication settings for the fax option "page 127 "Bit Switches - 3"" : "Communication Switches"
105	G3-1 Switch		
	001 – 016	00 – 0F	Change the bit switches for the protocol settings of the standard G3 board "page 138 "Bit Switches - 4"" : "G3 Switches"
106	G3-2 Switch		

	001 – 016	00 – 0F	Change the bit switches for the protocol settings of the optional G3 board "page 148 "Bit Switches - 5"" : "G3-2 and G3-3 Switches"
107	G3-3 Switch		
	001 – 016	00 – 0F	Change the bit switches for the protocol settings of the optional G3 board "page 148 "Bit Switches - 5"" : "G3-2 and G3-3 Switches"
108	G4 Internal Switch		
	001 – 032	00 – 1F	**Not used** (Do not change the bit switches)
109	G4 Parameter Switch		
	001 – 016	00 – 0F	**Not used** (Do not change the bit switches)
111	IP fax Switch		
	001 – 016	00 – 0F	Change the bit switches for optional IP fax parameters "page 157 "Bit Switches - 6"" : "IP Fax Switches"

4.2.2 SP2-XXX (RAM)

2	Mode No.		Function
101	RAM Read/Write		
	001		Change RAM data for the fax board directly. page 189 "Service RAM Addresses"
102	Memory Dump		
	001	G3-1 Memory Dump	Print out RAM data for the fax board. page 189 "Service RAM Addresses"
	002	G3-2 Memory Dump	Print out RAM data for the optional SG3 board.
	003	G3-3 Memory Dump	Print out RAM data for the optional SG3 board.
	004	G4 Memory Dump	Not used
103	G3-1 NCU Parameters		
	001 – 023	CC, 01 – 22	NCU parameter settings for the standard G3 board. page 166 "NCU Parameters"
104	G3-2 NCU Parameters		
	001 – 023	CC, 01 – 22	NCU parameter settings for the optional G3 board. page 166 "NCU Parameters"
105	G3-3 NCU Parameters		
	001 – 023	CC, 01 – 22	NCU parameter settings for the optional G3 board. page 166 "NCU Parameters"

4.2.3 SP3-XXX (MACHINE SET)

3	Mode No.		Function
101	Service Station		
	001	Fax Number	Enter the fax number of the service station.
	002	Select Line	Select the line type.
102	Serial Number		
	000		Enter the fax unit's serial number.
103	PSTN-1 Port Settings		
	001	Select Line	Select the line type setting for the G3-1 line. If the machine is installed on a PABX line, select "PABX", "PABX(GND)" or "PABX(FLASH)".
	002	PSTN Access Number	Enter the PSTN access number for the G3-1 line.
	003	Memory Lock Disabled	Not used
104	PSTN-2 Port Settings		
	001	Select Line	Select the line setting for the G3-2 line. If the machine is installed on a PABX line, select "PABX", "PABX(GND)" or "PABX(FLASH)".
	002	PSTN Access Number	Enter the PSTN access number for the G3-2 line.
	003	Memory Lock Disabled	Not used
	004	Transmission Disabled	If you turn this SP on, the machine does not send any fax messages on the G3-2 line.

105	PSTN-3 Port Settings		
	001	Select Line	Select the line setting for the G3-3 line. If the machine is installed on a PABX line, select “PABX”, “PABX(GND)” or “PABX(FLASH)”.
	002	PSTN Access Number	Enter the PSTN access number for the G3-3 line.
	003	Memory Lock Disabled	Not used
	004	Transmission Disabled	If you turn this SP on, the machine does not send any fax messages on the G3-3 line.
106	ISDN Port Settings		
	001	Select Line	**Not used** (Do not change the settings.)
	002	PSTN Access Number	
	003	Memory Lock Disabled	
	004	Transmission Disabled	
107	IPFAX Port Settings		
	001	H323 Port	Sets the H323 port number.
	002	SIP Port	Sets the SIP port number.
	003	RAS Port	Sets the RAS port number.
	004	Gatekeeper port	Sets the Gatekeeper port number.
	005	T.38 Port	Sets the T.38 port number.
	006	SIP Server Port	Sets the SIP port number.
	007	IPFAX Protocol Priority	Select "H323" or "SIP".

201	FAX SW		
	001 – 032	00 – 1F	

4.2.4 SP4-XXX (ROM VERSIONS)

4	Mode No.		Function
101	001	FCU ROM Version	Displays the FCU ROM version.
102	001	Error Codes	Displays the latest 64 fax error codes.
103	001	G3-1 ROM Version	Displays the G3-1 modem version.
104	001	G3-2 ROM Version	Displays the G3-2 modem version.
105	001	G3-3 ROM Version	Displays the G3-3 modem version.
106	001	G4 ROM Version	**Not used** (Do not change the settings.)

4.2.5 SP5-XXX (RAM CLEAR)

5	Mode No.	Function
101	Initialize SRAM (except Secure)	
	000	Initializes the bit switches and user parameters, user data in the SRAM, files in the SAF memory, and clock.
102	Erase All Files	
	000	Erases all files stored in the SAF memory.
103	Reset Bit Switches (except Secure)	
	000	Resets the bit switches and user parameters.
104	Factory Setting	
	000	Resets the bit switches and user parameters, user data in the SRAM and files in the SAF memory.
105	Reset All Bit Switches	
	000	Resets all the current bit switch settings.
106	Reset Security Bit Switches	
	000	Resets only the security bit switches. If you select automatic output/display for the user parameter switches, the security settings are initialized.

4.2.6 SP6-XXX (REPORTS)

6	Mode No.		Function
101	System Parameter List		
	000	-	Touch the “ON” button to print the system parameter list.
102	Service Monitor Report		
	000	-	Touch the “ON” button to print the service monitor report.
103	G3 Protocol Dump List		
	001	G3 All Communications	Prints the protocol dump list of all communications for all G3 lines.
	002	G3-1 (All Communications)	Prints the protocol dump list of all communications for the G3-1 line.
	003	G3-1 (1 Communication)	Prints the protocol dump list of the last communication for the G3-1 line.
	004	G3-2 (All Communications)	Prints the protocol dump list of all communications for the G3-2 line.
	005	G3-2 (1 Communication)	Prints the protocol dump list of the last communication for the G3-2 line.
	006	G3-3 (All Communications)	Prints the protocol dump list of all communications for the G3-3 line.
	007	G3-3 (1 Communication)	Prints the protocol dump list of the last communication for the G3-3 line.

104	G4 Protocol Dump List		
	001	Dch + Bch 1	**Not used** (Do not change the settings.)
	002	Dch	
	003	Bch 1 Link Layer	
	004	Dch Link Layer	
	005	Dch +Bch 2	
	006	Bch 2 Link Layer	
105	All Files print out		
	000	-	Prints out all the user files in the SAF memory, including confidential messages. Note ▪ Do not use this function, unless the customer is having trouble printing confidential messages or recovering files stored using the memory lock feature.
106	Journal Print out		
	001	All Journals	The machine prints all the communication records on the report.
	002	Specified Date	The machine prints all communication records after the specified date.

107	Log List Print out		
	001	All log files	These log print out functions are for designer use only.
	002	Printer	
	003	SC/TRAP Stored	
	004	Decompression	
	005	Scanner	
	006	JOB/SAF	
	007	Reconstruction	
	008	JBIG	
	009	Fax Driver	
	010	G3CCU	
	011	Fax Job	
	012	CCU	
	013	Scanner Condition	
108	IP Protocol Dump List		
	001	All Communications	Prints the protocol dump list of all communications for the IP fax line.
	002	1 Communication	Prints the protocol dump list of the last communication for the IP fax line.

4.2.7 SP7-XXX (TESTS)

These are the test modes for PTT approval.

7	Function
101	G3-1 Modem Tests
102	G3-1 DTMF Tests
103	Ringer Test
104	G3-1 V34 (S2400baud)
105	G3-1 V34 (S2800baud)
106	G3-1 V34 (S3000baud)
107	G3-1 V34 (S3200baud)
108	G3-1 V34 (S3429baud)
109	Recorded Message Test
110	G3-2 Modem Tests
111	G3-2 DTMF Tests
112	G3-2 V34 (S2400baud)
113	G3-2 V34 (S2800baud)
114	G3-2 V34 (S3000baud)
115	G3-2 V34 (S3200baud)
116	G3-2 V34 (S3429baud)
117	G3-3 Modem Tests
118	G3-3 DTMF Tests
119	G3-3 V34 (S2400baud)
120	G3-3 V34 (S2800baud)
121	G3-3 V34 (S3000baud)
122	G3-3 V34 (S3200baud)

123	G3-3 V34 (S3429baud)
124	IG3-1 Modem Tests - **Not used**
125	IG3-1 DTMF Tests - **Not used**
126	IG3-1 V34 (S2400baud) - **Not used**
127	IG3-1 V34 (S2800baud) - **Not used**
128	IG3-1 V34 (S3000baud) - **Not used**
129	IG3-1 V34 (S3200baud) - **Not used**
130	IG3-1 V34 (S3429baud) - **Not used**
131	IG3-2 Modem Tests - **Not used**
132	IG3-2 DTMF Tests - **Not used**
133	IG3-2 V34 (S2400baud) - **Not used**
134	IG3-2 V34 (S2800baud) - **Not used**
135	IG3-2 V34 (S3000baud) - **Not used**
136	IG3-2 V34 (S3200baud) - **Not used**
137	IG3-2 V34 (S3429baud) - **Not used**

4.3 BIT SWITCHES - 1

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.3.1 SYSTEM SWITCHES

System Switch 00 (SP No. 1-101-001)		
No	**Function**	**Comments**
0	Dedicated transmission parameter programming 0: Disabled 1: Enabled	Set this bit to 1 before changing any dedicated transmission parameters. This setting is automatically reset to "0" after turning off and on.
1	Not used	Do not change
2	Technical data printout on the Journal 0: Disabled 1: Enabled	1: Instead of the personal name, the following data are listed on the Journal for each G3 communication.

	Example: **0000 32V34 288/264 L0100 03 04** (1) (2)(3) (4) (5) (6) (7) (8) (1): EQM value (Line quality data). A larger number means more errors. (2): Symbol rate (V.34 only) (3): Final modem type used (4): Starting data rate (for example, 288 means 28.8 kbps) (5): Final data rate (6): Rx revel (see below for how to read the rx level) (7): Total number of error lines that occurred during non-ECM reception. (8): Total number of burst error lines that occurred during non-ECM reception. Note ▪ EQM and rx level are fixed at "FFFF" in tx mode. ▪ The seventh and eighth numbers are fixed at "00" for transmission records and ECM reception records.	
	Rx level calculation Example: **0000 32V34 288/264 L0100 03 04** (1) (2)(3) (4) (5) (6) (7) (8) The four-digit hexadecimal value (N) after "L" indicates the rx level. The **high** byte is given first, followed by the **low** byte. Divide the decimal value of N by -16 to get the rx level. In the above example, the decimal value of N (= 0100 [H]) is 256. So, the actual rx level is 256/-16 = -16 dB	
3	Not used	Do not change this setting.
4	Line error mark print 0: OFF, 1: ON (print)	When "1" is selected, a line error mark is printed on the printout if a line error occurs during reception. This shows error locations when ECM is turned off.
5	G3/G4 communication parameter display 0: Disabled 1: Enabled	This is a fault-finding aid. The LCD shows the key parameters (see "G3 Communication Parameters" below this table). This is normally disabled because it cancels the CSI display for the user. Be sure to reset this bit to "0" after testing.

6	Protocol dump list output after each communication 0: Off 1: On	This is only used for communication troubleshooting. It shows the content of the transmitted facsimile protocol signals. Always reset this bit to 0 after finishing testing. If system switch 09 bit 6 is at "1", the list is only printed if there was an error during the communication.
7	Not used	Do not change the setting.

G3 Communication Parameters

Modem rate	336: 33600 bps 312: 31200 bps 288: 28800 bps 264: 26400 bps 240: 24000 bps 216: 21600 bps 192: 19200 bps	168: 16800 bps 144: 14400 bps 120: 12000 bps 96: 9600 bps 72: 7200 bps 48: 4800 bps 24: 2400 bps
Resolution	S: Standard (8 x 3.85 dots/mm) D: Detail (8 x 7.7 dots/mm) F: Fine (8 x 15.4 dots/mm) SF: Superfine (16 x 15.4 dots/mm) 21: Standard (200 x 100 dpi) 22: Detail (200 x 200 dpi) 44: Superfine (400 x 400 dpi)	
Compression mode	MMR: MMR compression MR: MR compression MH: MH compression JBO: JBIG compression (Optional mode) JBB: JBIG compression (Basic mode)	
Communication mode	ECM: With ECM NML: With no ECM	

Width and reduction	A4: A4 (8.3"), no reduction B4: B4 (10.1"), no reduction A3: A3 (11.7"), no reduction
I/O rate	0: 0 ms/line 5: 5 ms/line 10: 10 ms/line 20: 20 ms/line 25: 2.5 ms/line 40: 40 ms/line Note ▪ "40" is displayed while receiving a fax message using AI short protocol.

System Switch 01 - Not used (Do not change the factory settings.)

System Switch 02 (SP No. 1-101-003)		
No	**Function**	**Comments**
0-1	Not used	Do not change these settings.
2	Forced reset after transmission stalls 0: Off 1: On	With this setting on, the machine resets itself automatically if a transmission stalls and fails to complete the job.
3	Not used	Do not change these settings.
4	File retention time 0: Depends on User Parameter 24 [18(H)] 1: No limit	1: A file that had a communication error will not be erased unless the communication is successful.
5	Not used	Do not change this setting.

<table>
<tr><td rowspan="8">6-7</td><td colspan="3">Memory read/write by RDS</td><td rowspan="8">(0,0): All RDS systems are always locked out.
(0,1), (1,0): Normally, RDS systems are locked out, but the user can temporarily switch RDS on to allow RDS operations to take place. RDS will automatically be locked out again after a certain time, which is stored in System Switch 03. Note that if an RDS operation takes place, RDS will not switch off until this time limit has expired.
(1,1): At any time, an RDS system can access the machine.</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Always disabled</td></tr>
<tr><td>0</td><td>1</td><td>User selectable</td></tr>
<tr><td>1</td><td>0</td><td>User selectable</td></tr>
<tr><td>1</td><td>1</td><td>Always enabled</td></tr>
<tr><td colspan="3"></td></tr>
</table>

System Switch 03 (SP No. 1-101-004)		
No	**Function**	**Comments**
0 to 7	Length of time that RDS is temporarily switched on when bits 6 and 7 of System Switch 02 are set to "User selectable"	00 - 99 hours (BCD). This setting is only valid if bits 6 and 7 of System Switch 02 are set to "User selectable". The default setting is 24 hours.

System Switch 04 (SP No. 1-101-005)		
No	**Function**	**Comments**
0-2	Not used	Do not change these settings.
3	Printing dedicated tx parameters on Quick/Speed Dial Lists 0: Disabled 1: Enabled	1: Each Quick/Speed dial number on the list is printed with the dedicated tx parameters (10 bytes each). The first 10 bytes of data are the programmed dedicated tx parameters; 34 bytes of data are printed (the other 24 bytes have no use for service technicians).
4-7	Not used	Do not change these settings.

System Switch 05 - Not used (Do not change the factory settings.)
System Switch 06 - Not used (Do not change the factory settings.)
System Switch 07 - Not used (Do not change the factory settings.)
System Switch 08 - Not used (Do not change the factory settings.)

System Switch 09 (SP No. 1-101-010)		
No	**Function**	**Comments**
0	Addition of image data from confidential transmissions on the transmission result report 0: Disabled 1: Enabled	If this feature is enabled, the top half of the first page of confidential messages will be printed on transmission result reports.
1	Print timing of communication reports on the Journal when no image data was exchanged. 0: After DCS/NSS communication (default), 1: After polling	0: The Journal is printed only when image data is sent. 1: The Journal is printed when any data is sent.
2	Automatic error report printout 0: Disabled 1: Enabled	0: Error reports will not be printed. 1: Error reports will be printed automatically after failed communications.
3	Printing of the error code on the error report 0: No 1: Yes	1: Error codes are printed on the error reports. This can be used for detecting an error which occurs rarely.
4	Not used	Do not change this setting.
5	Power failure report 0: Disabled 1: Enabled (default)	1: A power failure report will be automatically printed after the power is switched on if a fax message disappeared from the memory when the power was turned off last. **NOTE:** If "0" is selected, no reports are printed and no one may recognize that fax data is gone due to a power failure.

6	Conditions for printing the protocol dump list 0: Print for all communications 1: Print only when there is a communication error	This switch becomes effective only when system switch 00 bit 6 is set to 1. 1: Set this bit to 1 when you wish to print a protocol dump list only for communications with errors. **NOTE:** The memory size is limited. Use this bit switch only when some log reports are necessary.
7	Priority given to various types of remote terminal ID when printing reports 0: RTI > CSI > Dial label > Tel. number 1: Dial label > Tel. number > RTI > CSI	This bit determines which set of priorities the machine uses when listing remote terminal names on reports. Dial Label: The name stored, by the user, for the Quick/Speed Dial number.

System Switch 0A (SP No. 1-101-011)		
No	**Function**	**Comments**
0	Automatic port selection 0: Disabled, 1: Enabled	When "1" is selected, a suitable port is automatically selected if the selected port is not used. **NOTE:** This bit is useful if all communication lines at a customer site are not the same quality
1-3	Not used	Do not change these settings.
4	Dialing on the ten-key pad when the external telephone is off-hook 0: Disabled 1: Enabled	0: Prevents dialing from the ten-key pad while the external telephone is off-hook. Use this setting when the external telephone is not by the machine, or if a wireless telephone is connected as an external telephone. 1: The user can dial on the machine's ten-key pad when the handset is off-hook.
5	On hook dial 0: Disabled 1: Enabled	0: On hook dial is disabled.

6-7	Not used	Do not change the factory settings

System Switch 0B - Not used (Do not change the factory settings.)
System Switch 0C - Not used (Do not change the factory settings.)
System Switch 0D - Not used (Do not change the factory settings.)

System Switch 0E (SP No. 1-101-015)		
No	**Function**	**Comments**
0-1	Not used	Do not change the settings.
2	Enable/disable for direct sending selection 0: Direct sending off 1: Direct sending on	Direct sending cannot operate when the capture function is on during sending. Setting this switch to "1" enables direct sending without capture. Setting this switch to "0" masks the direct sending function on the operation panel so direct sending with ScanRouter cannot be selected.
3	Action when the external handset goes off-hook 0: Manual tx and rx operation 1: Memory tx and rx operation (the display remains the same)	0: Manual tx is possible while the external handset is off-hook. However, manual tx during handset off-hook may not be sent to a correct direction. Manual tx is not possible. 1: The display stays in standby mode even when the external handset is used, so that other people can use the machine for memory tx operation. Note that manual tx and rx are not possible with this setting.
4-7	Not used	Do not change these settings.

System Switch 0F (SP No. 1-101-016)		
No	**Function**	**Comments**
0 to	Country/area code for functional settings (Hex)	This country/area code determines the factory settings of bit switches and RAM

7	00: France	12: Asia	addresses. However, it has no effect on the NCU parameter settings and communication parameter RAM addresses. Cross reference NCU country code: SP No. 2-103-001 for G3-1 SP No. 2-104-001 for G3-2 SP No. 2-105-001 for G3-3
	01: Germany	13: Japan	
	02: UK	14: Hong Kong	
	03: Italy	15: South Africa	
	04: Austria	16: Australia	
	05: Belgium	17: New Zealand	
	06: Denmark	18: Singapore	
	07: Finland	19: Malaysia	
	08: Ireland	1A: China	
	09: Norway	1B: Taiwan	
	0A: Sweden	1C: Korea	
	0B: Switz.	1D: Brazil	
	0C: Portugal	20: Turkey	
	0D: Holland	21: Greece	
	0E: Spain	22: Hungary	
	0F: Israel	23: Czech	
	10: ---	24: Poland	
	11: USA		

System Switch 10 (SP No. 1-101-017)		
No	**Function**	**Comments**
0-7	Threshold memory level for parallel memory transmission	Threshold = N x 128 KB + 256 KB N can be between 00 - FF(H) Default setting: 02(H) = 512 KB

System Switch 11 (SP No. 1-101-018)		
No	**Function**	**Comments**
0	TTI printing position 0: Superimposed on the page data 1: Printed before the data leading edge	Change this bit to 1 if the TTI overprints information that the customer considers to be important (G3 transmissions). **NOTE:** If "1" is selected, it is possible that sent data is printed on two sheets of paper.
1-2	Not used	Do not change the factory settings.
3	TTI used for broadcasting 0: The TTIs selected for each Quick/Speed dial are used 1: The same TTI is used for all destinations	1: The TTI (TTI_1 or TTI_2) which is selected for all destinations during broadcasting.
4-7	Not used	Do not change the factory settings.

System Switch 12 (SP No. 1-101-019)		
No	**Function**	**Comments**
0-7	TTI printing position in the main scan direction	TTI: 08 to 92 (BCD) mm Input even numbers only. This setting determines the print start position for the TTI from the left edge of the paper. If the TTI is moved too far to the right, it may overwrite the file number which is on the top right of the page. On an A4 page, if the TTI is moved over by more than 50 mm, it may overwrite the page number.

System Switch 13 - Not used (do not change these settings)
System Switch 14 - Not used (do not change these settings)

<table>
<tr><th colspan="5">System Switch 15 (SP No. 1-101-022)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>1</td><td colspan="3">Going into the Energy Saver mode automatically
0: Enabled
1: Disabled</td><td>1: The machine will restart from the Energy Saver mode quickly, because the +5V power supply is active even in the Energy Saver mode. The LED of the operation switch is flashing instead of entering Energy Saver mode.
Use this setting if an external telephone has to be used when the machine is in the Energy Saver mode.</td></tr>
<tr><td>2-3</td><td colspan="3">Not used</td><td>Do not change these settings.</td></tr>
<tr><td rowspan="6">4-5</td><td colspan="3">Interval for preventing the machine from entering Energy Saver mode if there is a pending transmission file.</td><td rowspan="6">If there is a file waiting for transmission, the machine does not go to Energy Saver mode during the selected period.
After transmitting the file, if there is no file waiting for transmission, the machine goes to the Energy Saver mode.</td></tr>
<tr><td>Bit 5</td><td>Bit 4</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>1 min</td></tr>
<tr><td>0</td><td>1</td><td>30 min</td></tr>
<tr><td>1</td><td>0</td><td>1 hour</td></tr>
<tr><td>1</td><td>1</td><td>24 hours</td></tr>
<tr><td>6-7</td><td colspan="3">Not used</td><td>Do not change</td></tr>
</table>

System Switch 16 (SP No. 1-101-023)		
No	**Function**	**Comments**
0	Parallel Broadcasting 0: Disabled 1: Enabled	1: The machine sends messages simultaneously using all available ports during broadcasting. **NOTE:** If a customer wants to keep a line available for fax reception or other reasons, select "0" (Disable).
1	Priority setting for the G3 line. 0: PSTN-1 > PSTN-2 or 3 1: PSTN-2 or 3 > PSTN-1	This function allows the user to select the default G3 line type. The optional SG3 units are required to use the PSTN-2 or 3 setting.
2-7	Not used	Do not change these settings.

System Switch 17 - Not used (do not change these settings)
System Switch 18 - Not used (do not change these settings)

System Switch 19 (SP No. 1-101-026)		
No	**Function**	**Comments**
0-5	Not used	Do not change the settings.
6	Extended scanner page memory after memory option is installed 0: Disabled 1: Enabled	0: After installing the memory expansion option, the scanner page memory is extended to 4 MB from 2 MB. 1: If this bit is set to 1 after installing the memory expansion option, the scanner page memory is extended to 12 MB. But the SAF memory decreases to 18 MB.
7*	Special Original mode 0: Disabled 1: Enabled	1: If the customer frequently wishes to transmit a form or letterhead which has a colored or printed background, change this bit to "1". "Original 1" and "Original 2" can be selected in addition to the "Text", "Text/Photo" and "Photo" modes.

* This setting can be used for the remote machine.

System Switch 1A (SP No. 1-101-027)		
No	**Function**	**Comments**
0 to 7	LS RX memory capacity threshold setting 00-FF (0-1020 Kbyte: Hex)	Sets the value to x4KB. When the amount of available memory drops below this setting, RX documents are printed to conserve memory. Initial setting 0x80 (512 KB) **NOTE:** If a customer wants available memory size to be larger, decrease this threshold

System Switch 1B - Not used (do not change these settings)
System Switch 1C - Not used (do not change these settings)

System Switch 1D (SP No. 1-101-030)		
No	**Function**	**Comments**
0	RTI/CSI/CPS code display 0: Enable 1: Disable	0: RTI, CSI, CPS codes are displayed on the top line of the LCD panel during communication. 1: Codes are switched off (no display)
1-7	Not used	Do not change these settings.

System Switch 1E (SP No. 1-101-031)		
No	**Function**	**Comments**
0	Communication after the Journal data storage area has become full 0: Impossible 1: Possible	0: When this switch is on and the journal history becomes full, the next report prints. If the journal history is not deleted, the next transmission cannot be received. This prevents overwriting communication records before the machine can print them. 1: If the buffer memory of the communication records for the Journal is full, fax communications are still possible. But the machine will overwrite the oldest communication records. Note ▪ This setting is effective only when Automatic Journal printout is enabled but the machine cannot print the report (e.g., no paper).
1*	Action when the SAF memory has become full during scanning 0: The current page is erased. 1: The entire file is erased.	0: If the SAF memory becomes full during scanning for a memory transmission, the successfully scanned pages are transmitted. 1: If the SAF memory becomes full during scanning for a memory transmission, the file is erased and no pages are transmitted. Note ▪ This setting is effective only when Automatic Journal printout is enabled but the machine cannot print the report (e.g., no paper).
2	RTI/CSI display priority 0: RTI 1: CSI	This bit determines which identifier, RTI or CSI, is displayed on the LCD while the machine is communicating in G3 non-standard mode.

3	File No. printing 0: Enabled 1: Disabled	1: File numbers are not printed on any reports. **NOTE:** The file numbers may not be printed in the sequential order. If a customer does not like this numbering, select "0".
4	Action when authorized reception is enabled but authorized RTIs/CSIs are not yet programmed 0: Faxes can be received if the sender has an RTI or CSI 1: All fax reception is disabled	0: If the user has stored no acceptable sender RTIs or CSIs, the user can select “ON” in the authorized reception setting but the setting becomes invalid (“OFF”). The machine will not be able to receive any fax messages. If the customer wishes to receive messages from any sender that includes an RTI or CSI, and to block messages from senders that do not include an RTI or CSI, change this bit to "0", then enable Authorized Reception. Otherwise, keep this bit at "1 (default setting)".
5-7	Not used	Do not change the settings

* This setting can be used for the remote machine.

System Switch 1F (SP No. 1-101-032)		
No	**Function**	**Comments**
0	Not used	Do not change the settings.
1	Report printout after an original jam during SAF storage or if the SAF memory fills up 0: Enabled 1: Disabled	0: When an original jams, or the SAF memory overflows during scanning, a report will be printed. Change this bit to "1" if the customer does not want to have a report in these cases. Memory tx – Memory storage report Parallel memory tx – Transmission result report
2	Not used	Do not change the settings.
3	Received fax print start timing (G3 reception) 0: After receiving each page 1: After receiving all pages	0: The machine prints each page immediately after the machine receives it. 1: The machine prints the complete message after the machine receives all the pages in the memory.
4-6	Not used	Do not change the factory settings.
7	Action when a fax SC has occurred 0: Automatic reset 1: Fax unit stops	0: When the fax unit detects a fax SC code other than SC1201 and SC1207, the fax unit automatically resets itself. 1: When the fax unit detects any fax SC code, the fax unit stops. **Cross Reference** Fax SC codes - See "Troubleshooting"

4.4 BIT SWITCHES - 2

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.4.1 I-FAX SWITCHES

I-fax Switch 00 (SP No. 1-102-001)		
No	**Function**	**Comments**
Original Width of TX Attachment File		This setting sets the maximum size of the original that the destination can receive. (Bits 3~7 are reserved for future use or not used.)
0	A4	-
1	B4	
2	A3	
3-6	Reserved	
7	Not used	
	0: Off (not selected), 1: On (selected) If more than one of these three bits is set to "1", the larger size has priority. For example, if both Bit 2 and Bit 1 are set to "1" then the maximum size is "A3" (Bit 2). When mail is sent, there is no negotiation with the receiving machine at the destination, so the sending machine cannot make a selection for the receiving capabilities (original width setting) of the receiving machine. The original width selected with this switch is used as the RX machine's original width setting, and the original is reduced to this size before sending. The default is A4. If the width selected with this switch is higher than the receiving machine can accept, the machine detects this and this causes an error.	

<table>
<tr><th colspan="3">I-fax Switch 01 (SP No. 1-102-002)</th></tr>
<tr><th>No</th><th>Function</th><th>Comments</th></tr>
<tr><td colspan="2">Original Line Resolution of TX Attachment File</td><td>These settings set the maximum resolution of the original that the destination can receive.</td></tr>
<tr><td>0</td><td>200x100 Standard</td><td rowspan="7">0: Not selected
1: Selected
If more than one of these three bits is set to "1", the higher resolution has priority. For example, if both Bit 0 and Bit 2 are set to "1" Then The Resolution is set for "Bit 2 200 x 400.</td></tr>
<tr><td>1</td><td>200x200 Detail</td></tr>
<tr><td>2</td><td>200x400 Fine</td></tr>
<tr><td>3</td><td>300 x 300 Reserve</td></tr>
<tr><td>4</td><td>400 x 400 Super Fine</td></tr>
<tr><td>5</td><td>600 x 600 Reserve</td></tr>
<tr><td>6</td><td>Reserve</td></tr>
<tr><td>7</td><td colspan="2">mm/inch</td></tr>
<tr><td></td><td colspan="2">This setting selects mm/inch conversion for mail transmission.
0: Off (No conversion), 1: On (Conversion)
When on (set to "1"), the machine converts millimeters to inches for sending mail. There is no switch for converting inches to millimeters.
Unlike G3 fax transmissions which can negotiate between sender and receiver to determine the setting, mail cannot negotiate between terminals; the mm/inch selection is determined by the sender fax.
When this switch is Off (0):
▪ Images scanned in inches are sent in inches.
▪ Images scanned in mm are sent in mm.
▪ Images received in inches are transmitted in inches.
▪ Images received in mm are transmitted in mm.
When this switch is On (1):
▪ Images scanned in inches are sent in inches.
▪ Images scanned in mm are converted to inches.
▪ Images received in inches are transmitted in inches.
▪ Images received in mm are converted to inches.</td></tr>
</table>

I-fax Switch 02 (SP No. 1-102-003)		
No	**Function**	**Comments**
0	RX Text Mail Header Processing	
	This setting determines whether the header information is printed with text e-mails when they are received. 0: Prints only text mail. 1: Prints mail header information attached to text mail. When a text mail is received with this switch On (1), the "From" address and "Subject" address are printed as header information. When a mail with only binary data is received (a TIFF-F file, for example), this setting is ignored and no header is printed.	
1	Output from Attached Document at E-mail TX Error	
	This setting determines whether only the first page or all pages of an e-mail attachment are printed at the sending station when a transmission error occurs. This allows the customer to see which documents have not reached their intended destinations if sent to the wrong e-mail addresses, for example. 0: Prints 1st page only. 1: Prints all pages.	
2-3	Text String for Return Receipt	
	This setting determines the text string output for the Return Receipt that confirms the transmission was received normally at the destination.	

	00: "Dispatched" Sends from PC mail a request for a Return Receipt. Receives the Return Receipt with "dispatched" in the 2nd part: Disposition: Automatic-action/MDN-send automatically; dispatched The "dispatched" string is included in the Subject string. 01: "Displayed" Sends from PC mail a request for a Return Receipt. Receives the Return Receipt with "displayed" in the 2nd part: Disposition: Automatic-action/MDN-send automatically; displayed The "displayed" string is included in the Subject string. 10: Reserved 11: Reserved A mail requesting a Return Receipt sent from an IFAX with this switch set to "00" (for "dispatched") received by Microsoft Outlook 2000 may cause an error. If any setting other than "displayed" (01) causes a problem, change the setting to "01" to enable normal sending of the Return Receipt.
4	Media accept feature
	This setting adds or does not add the media accept feature to the answer mail to confirm a reception. 0: Does not add the media accept feature to the answer mail 1: Adds the media accept feature to the answer mail. Use this bit switch if a problem occurs when the machine receives an answer mail, which contains the media accept feature field.
5-6	Not Used
7	Image Resolution of RX Text Mail
	This setting determines the image resolution of the received mail. 0: 200 x 200 1: 400 x 400 The "1" setting requires installation of the Memory Unit in order to have enough SAF (Store and Forward) memory to receive images at 400 x 400 resolution.

I-fax Switch 03 - Not used (do not change these settings)

I-fax Switch 04 (SP No. 1-102-005)		
No	**Function**	**Comments**
0	Subject for Delivery TX/Memory Transfer	
	This setting determines whether the RTI/CSI registered on this machine or the RTI/CSI of the originator is used in the subject lines of transferred documents. 0: Puts the RTI/CSI of the originator in the Subject line. If this is used, either the RTI or CSI is used. Only one of these can be received for use in the subject line. 1: Puts the RTI/CSI registered on this machine in the Subject line. When this switch is used to transfer and deliver mail to a PC, the information in the Subject line that indicates where the transmission originated can be used to determine automatically the destination folder for each e-mail.	
1	Subject corresponding to mail post database 0: Standard subject 1: Mail post database subject The standard subject is replaced by the mail post database subject in the following three cases: 1) When the service technician sets the service (software) switch. 2) When memory sending or delivery specified by F code is applied by the SMTP server 3) With relay broadcasting (1st stage without the Schmidt 4 function). Note ▪ This switch does not apply for condition 3) when the RX system is set up for memory sending, delivery by F-code, sending with SMTP RX and when operators are using FOL (to prevent problems when receiving transmissions).	
2-7	Not Used	

I-fax Switch 05 (SP No. 1-102-006)		
No	**Function**	**Comments**
0	Mail Addresses of SMTP Broadcast Recipients	
	Determines whether the e-mail addresses of the destinations that receive transmissions broadcasted using SMTP protocol are recorded in the Journal. For example: "1st destination + Total number of destinations: 9" in the Journal indicates a broadcast to 9 destinations. 0: Not recorded 1: Recorded	
1	IFAXTX Retries	
	Determines whether the machine retries sending IFAX when connection and transmission fails due to errors. 0: Disabled 1: Enabled	
2-7	Not Used	

I-fax Switch 06 - Not used (do not change the settings)
I-fax Switch 07 - Not used (do not change the settings)

I-fax Switch 08 (SP No. 1-102-009)		
No	**Function**	**Comments**
0-7	Memory Threshold for POP Mail Reception	
	This setting determines the amount of SAF (Store and Forward) memory. (SAF stores fax messages to send later for transmission to more than one location, and also holds incoming messages if they cannot be printed.) When the amount of SAF memory available falls below this setting, mail can no longer be received; received mail is then stored on the mail server. 00-FF (0 to 1024 KB: HEX) The hexadecimal number you enter is multiplied by 4 KB to determine the amount of memory.	

I-fax Switch 09 (SP No. 1-102-010)		
No	**Function**	**Comments**
0-3	Not used	Do not change the settings
4-7	Restrict TX Retries	This setting determines the number of retries when connection and transmission fails due to errors. 01-F (1-15 Hex)

I-fax Switch 0A - Not used (do not change the settings)
I-fax Switch 0B - Not used (do not change the settings)
I-fax Switch 0C - Not used (do not change the settings)

I-fax Switch 0D (SP No. 1-102-014)				
No	**Function**			**Comments**
0-1	Not used			Do not change the settings
2-3	Select the signature when sending mail notification of the send results			In response to IEEE2600.1.
	Bit 2	Bit 3	Setting	
	0	0	No sign	
	0	1	No setting	
	1	**0**	Individual setting	
	1	1	Always sign	
4-5	Select the signature when sending mail.			In response to IEEE2600.1.
	Bit 5	Bit 4	Setting	
	0	0	No sign	
	0	1	No setting	
	1	**0**	Individual setting	
	1	1	Always sign	
6-7	Not used			Do not change the settings.

I-fax Switch 0E - Not used (do not change the settings)

I-fax Switch 0F (SP No. 1-102-016)		
No	**Function**	**Comments**
0	Delivery Method for SMTP RX Files	
	This setting determines whether files received with SMTP protocol are delivered or output immediately. 0: Off. Files received via SMTP are output immediately without delivery. 1: On. Files received via SMTP are delivered immediately to their destinations.	
1	Set to select the signature when receiving SMTP mail.	
	0: No sign 1: Always sign	
2	Set to encrypt the data when receiving SMTP mail.	
	0: No encryption 1: Encryption	
3-7	Not used	

4.4.2 PRINTER SWITCHES

Printer Switch 00 (SP No. 1-103-001)		
No	**Function**	**Comments**
0	Select page separation marks 0: Off 1: On	0: If a 2 page RX transmission is split, [*] is printed in the bottom right corner of the 1st page and only a [2] is printed in the upper right corner of the 2nd page. 1: If a 2 page RX transmission is split into two pages, for example, [*] [2] is printed in the bottom right corner of the 1st page and only a [2] is printed in the upper right corner of the 2nd page. Note ▪ This helps the user to identify pages that have been split because the size of the paper is smaller than the size of the document received. (When A5 is used to print an A4 size document, for example.)
1	Repetition of data when the received page is longer than the printer paper 0: Off 1: On	1: Default. 10 mm of the trailing edge of the previous page are repeated at the top of the next page. 0: The next page continues from where the previous page stopped without any repeated text.
2	Prints the date and time on received fax messages 0: Disabled 1: Enabled	This switch is only effective when user parameter 02 - bit 2 (printing the received date and time on received fax messages) is enabled. 1: The machine prints the received and printed date and time at the bottom of each received page.
3-7	Not used	Do not change the settings.

<table>
<tr><th colspan="5">Printer Switch 01 (SP No. 1-103-002)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0-2</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td rowspan="6">3-4</td><td colspan="3">Maximum print width used in the setup protocol</td><td rowspan="6">These bits are only effective when bit 7 of printer switch 01 is "1".</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Not used</td></tr>
<tr><td>0</td><td>1</td><td>A3</td></tr>
<tr><td>1</td><td>0</td><td>B4</td></tr>
<tr><td>1</td><td>1</td><td>A4</td></tr>
<tr><td>5-6</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>7</td><td colspan="3">Received message width restriction in the protocol signal to the sender
0: Disabled
1: Enabled</td><td>0: The machine informs the transmitting machine of the print width depending on the paper size available from the paper feed stations.
Refer to the table on the next page for how the machine chooses the paper width used in the setup protocol (NSF/DIS).
1: The machine informs the transmitting machine of the fixed paper width which is specified by bits 3 and 4 above.</td></tr>
</table>

Relationship between available paper sizes and printer width used in the setup protocol

Available Paper Size	Printer width used in the Protocol (NSF/DIS)
A4 or 8.5" x 11"	297 mm width
B5	256 mm width
A5 or 8.5" x 5.5"	216 mm width
No paper available (Paper end)	216 mm width

Printer Switch 02 (SP No. 1-103-003)		
No	**Function**	**Comments**
0*	1st paper feed station usage for fax printing 0: Enabled 1: Disabled	0: The paper feed station can be used to print fax messages and reports. 1: The specified paper feed station will not be used for printing fax messages and reports. Note ▪ Do not disable usage for a paper feed station which has been specified by User Parameter Switch 0F (15), or which is used for the Specified Cassette Selection feature.
1*	2nd paper feed station usage for fax printing 0: Enabled 1: Disabled	
2*	3rd paper feed station usage for fax printing 0: Enabled 1: Disabled	
3*	4th paper feed station usage for fax printing 0: Enabled 1: Disabled	
4*	LCT usage for fax printing 0: Enabled 1: Disabled	
5-7	Not used	Do not change the settings.

* This setting can be used for the remote machine.

Printer Switch 03 (SP No. 1-103-004)		
No	**Function**	**Comments**
0*	Length reduction of received data 0: Disabled 1: Enabled	0: Incoming pages are printed without length reduction. (Page separation threshold: Printer Switch 03, bits 4 to 7) 1: Incoming page length is reduced when printing. (Maximum reducible length: Printer Switches 04, bits 0 to 4)
1-3	Not used	Do not change the settings
4 to 7	Page separation setting when sub scan compression is forbidden 00-0F (0-15 mm: Hex) Default: 6 mm	Page separation threshold (with reduction disabled with switch 03-0 above). For example, if this setting is set to "10", and A4 is the selected paper size: If the received document is 10 mm or less longer than A4, then the 10 mm are cut and only 1 page prints. If the received document is 10 mm longer than A4, then the document is split into 2 pages.

* This setting can be used for the remote machine.

Printer Switch 04 (SP No. 1-103-005)						
No	**Function**			**Comments**		
0 to 4	Maximum reducible length when length reduction is enabled with switch 03-0 above. [Maximum reducible length] = [Paper length] + (N x 5mm) "N" is the decimal value of the binary setting of bits 0 to 4.					
	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	Setting
	0	0	0	0	0	0 mm
	0	0	0	0	1	5 mm

<table>
<tr><td></td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>20 mm</td></tr>
<tr><td></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>155 mm</td></tr>
<tr><td></td><td colspan="6">For A5 sideways and B5 sideways paper
[Maximum reducible length] = [Paper length] + 0.75 x (N x 5mm)</td></tr>
<tr><td rowspan="6">5
6</td><td colspan="6">Length of the duplicated image on the next page, when page separation has taken place.</td></tr>
<tr><td colspan="2">Bit 6</td><td colspan="2">Bit 5</td><td colspan="2">Setting</td></tr>
<tr><td colspan="2">0</td><td colspan="2">0</td><td colspan="2">4 mm</td></tr>
<tr><td colspan="2">0</td><td colspan="2">1</td><td colspan="2">10 mm</td></tr>
<tr><td colspan="2">1</td><td colspan="2">0</td><td colspan="2">15 mm</td></tr>
<tr><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">Not used</td></tr>
<tr><td>7</td><td colspan="3">Not used.</td><td colspan="3">Do not change the setting.</td></tr>
</table>

Printer Switch 05 - Not used (do not change the settings)

Printer Switch 06 (SP No. 1-103-007)		
No	**Function**	**Comments**
0*	Printing while a paper cassette is pulled out, when the Just Size Printing feature is enabled. 0: Printing will not start 1: Printing will start if another cassette has a suitable size of paper, based on the paper size selection priority tables.	Cross reference Just size printing on/off – User switch 05, bit 5
1-7	Not used.	Do not change the settings.

* This setting can be used for the remote machine.

Printer Switch 07 (SP No. 1-103-008)		
No	**Function**	**Comments**
0-3	Not used.	Do not change the settings.
4	List of destinations in the Communication Failure Report for broadcasting 0: All destinations 1: Only destinations where communication failure occurred	1: Only destinations where communication failure occurred are printed on the Communication Failure Report.
5-7	Not used.	Do not change the settings.

Printer Switch 08 - Not used (do not change the settings)
Printer Switch 09 - Not used (do not change the settings)
Printer Switch 0A - Not used (do not change the settings)
Printer Switch 0B - Not used (do not change the settings)
Printer Switch 0C - Not used (do not change the settings)

Printer Switch 0E (SP No. 1-103-015)		
No	**Function**	**Comments**
0*	Paper size selection priority 0: Width 1: Length	0: A paper size that has the same width as the received data is selected first. 1: A paper size which has enough length to print all the received lines without reduction is selected first.
1*	Paper size selected for printing A4 width fax data 0: 8.5" x 11" size 1: A4 size	This switch determines which paper size is selected for printing A4 width fax data, when the machine has both A4 and 8.5" x 11" size paper.

<table>
<tr><td>2</td><td>Page separation
0: Enabled
1: Disabled</td><td>1: If all paper sizes in the machine require page separation to print a received fax message, the machine does not print the message (Substitute Reception is used). After a larger size of paper is set in a cassette, the machine automatically prints the fax message.</td></tr>
<tr><td rowspan="6">3-4</td><td colspan="3">Printing the sample image on reports</td><td rowspan="6">"Same size" means the sample image is printed at 100%, even if page separation occurs.
User Parameter Switch 19 (13H) bit 4 must be set to "0" to enable this switch.
Refer to Detailed Section Descriptions for more on this feature.</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>The upper half only</td></tr>
<tr><td>0</td><td>1</td><td>50% reduction
(sub-scan only)</td></tr>
<tr><td>1</td><td>0</td><td>Same size</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>5-6</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>7</td><td colspan="3">Equalizing the reduction ratio among separated pages
(Page Separation)
0: Enabled
1: Disabled</td><td>0: When page separation has taken place, all the pages are reduced with the same reduction ratio.
1: Only the last page is reduced to fit the selected paper size when page separation has taken place. Other pages are printed without reduction.</td></tr>
</table>

* This setting can be used for the remote machine.

<table>
<tr><th colspan="5">Printer Switch 0F (SP No. 1-103-016)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-1*</td><td colspan="3">Smoothing feature</td><td rowspan="6">(0, 0) (0, 1): Disable smoothing if the machine receives halftone images from other manufacturers fax machines frequently.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Disabled</td></tr>
<tr><td>0</td><td>1</td><td>Disabled</td></tr>
<tr><td>1</td><td>0</td><td>Enabled</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>2*</td><td colspan="3">Duplex printing
0: Disabled
1: Enabled</td><td>1: The machine always prints received fax messages in duplex printing mode:</td></tr>
<tr><td>3</td><td colspan="3">Binding direction for Duplex printing
0: Left binding
1: Top binding</td><td>0: Sets the binding for the left edge of the stack.
1: Sets the binding for the top of the stack.</td></tr>
<tr><td>4-7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

* This setting can be used for the remote machine.

4.5 BIT SWITCHES - 3

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.5.1 COMMUNICATION SWITCHES

<table>
<tr><th colspan="5">Communication Switch 00 (SP No. 1-104-001)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-1</td><td colspan="3">Compression modes available in receive mode</td><td rowspan="6">These bits determine the compression capabilities to be declared in phase B (handshaking) of the T.30 protocol.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Modes</td></tr>
<tr><td>0</td><td>0</td><td>MH only</td></tr>
<tr><td>0</td><td>1</td><td>MH/MR</td></tr>
<tr><td>1</td><td>0</td><td>MH/MR/MMR</td></tr>
<tr><td>1</td><td>1</td><td>MH/MR/MMR/JBIG</td></tr>
<tr><td rowspan="6">2-3</td><td colspan="3">Compression modes available in transmit mode</td><td rowspan="6">These bits determine the compression capabilities to be used in the transmission and to be declared in phase B (handshaking) of the T.30 protocol.</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Modes</td></tr>
<tr><td>0</td><td>0</td><td>MH only</td></tr>
<tr><td>0</td><td>1</td><td>MH/MR</td></tr>
<tr><td>1</td><td>0</td><td>MH/MR/MMR</td></tr>
<tr><td>1</td><td>1</td><td>MH/MR/MMR/JBIG</td></tr>
<tr><td>4</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

5	JBIG compression method: Reception 0: Only basic supported 1: Basic and optional both supported	Change the setting when communication problems occur using JBIG compression.
6	JBIG compression method: Transmission 0: Basic mode priority 1: Optional mode priority	Change the setting when communication problems occur using JBIG compression.
7	Closed network (reception) 0: Disabled 1: Enabled	1: Reception will not go ahead if the polling ID code of the remote terminal does not match the polling ID code of the local terminal. This function is only available in NSF/NSS mode.

<table>
<tr><th colspan="5">Communication Switch 01 (SP No. 1-104-002)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">ECM
0: Off 1: On</td><td>If this bit is set to 0, ECM is switched off for all communications.
In addition, V.8 protocol and JBIG compression are switched off automatically.</td></tr>
<tr><td>1</td><td colspan="3">Not used</td><td>Do not change the setting.</td></tr>
<tr><td rowspan="6">2-3</td><td colspan="3">Wrong connection prevention method</td><td rowspan="6">(0,1): The machine will disconnect the line without sending a fax message, if the last 8 digits of the received CSI do not match the last 8 digits of the dialed telephone number. This does not work when manually dialed.
(1,0): The same as above, except that only the last 4 digits are compared.
(1,1): The machine will disconnect the line without sending a fax message, if the other end</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>None</td></tr>
<tr><td>0</td><td>1</td><td>8 digit CSI</td></tr>
<tr><td>1</td><td>0</td><td>4 digit CSI</td></tr>
<tr><td>1</td><td>1</td><td>CSI/RTI</td></tr>
</table>

<table>
<tr><td></td><td></td><td>does not identify itself with an RTI or CSI.
(0,0): Nothing is checked; transmission will always go ahead.
Note
▪ This function does not work when dialing is done from the external telephone.</td></tr>
<tr><td>4-5</td><td colspan="3">Not used</td><td>Do not change the setting.</td></tr>
<tr><td rowspan="5">6-7</td><td colspan="3">Maximum printable page length available</td><td rowspan="5">The setting determined by these bits is informed to the transmitting terminal in the pre-message protocol exchange (in the DIS/NSF frames).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>No limit</td></tr>
<tr><td>0</td><td>1</td><td>B4 (364 mm)</td></tr>
<tr><td>1</td><td>0</td><td>A4 (297 mm)</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
</table>

<table>
<tr><th colspan="4">Communication Switch 02 (SP No. 1-104-003)</th></tr>
<tr><th>No</th><th>Function</th><th colspan="2">Comments</th></tr>
<tr><td rowspan="5">0</td><td rowspan="5">G3 Burst error threshold
0: Low 1: High</td><td colspan="2">If there are more consecutive error lines in the received page than the threshold, the machine will send a negative response. The Low and High threshold values depend on the sub-scan resolution, and are as follows.</td></tr>
<tr><td>100 dpi</td><td>6(L) →12(H)</td></tr>
<tr><td>200 dpi</td><td>12(L) →24(H)</td></tr>
<tr><td>300 dpi</td><td>18(L) →36(H)</td></tr>
<tr><td>400 dpi</td><td>24(L) →48(H)</td></tr>
<tr><td>1</td><td>Acceptable total error line ratio
0: 5% 1: 10%</td><td colspan="2">If the error line ratio for a page exceeds the acceptable ratio, RTN will be sent to the other end.</td></tr>
</table>

2	Treatment of pages received with errors during G3 reception 0: Deleted from memory without printing 1: Printed	0: Pages received with errors are not printed.
3	Hang-up decision when a negative code (RTN or PIN) is received during G3 immediate transmission 0: No hang-up, 1: Hang-up	0: The next page will be sent even if RTN or PIN is received. 1: The machine will send DCN and hang up if it receives RTN or PIN. This bit is ignored for memory transmissions or if ECM is being used.
4-7	Not used	Do not change the settings.

Communication Switch 03 (SP No. 1-104-004)		
No	**Function**	**Comments**
0-7	Maximum number of page retransmissions in a G3 memory transmission	00 - FF (Hex) times. This setting is not used if ECM is switched on. Default setting - 03(H)

Communication Switch 04 (SP No. 1-104-005)		
No	**Function**	**Comments**
0	Remote mode switch (TEL mode) 0: Disable 1: Enable (Active)	Set this bit to ON when you wish to switch TEL mode to FAX mode remotely.
1	Remote mode switch (FAX mode) 0: Disable 1: Enable (Active)	Set this bit to ON when you wish to turn on the remote mode switch after automatic reception with FAX mode.
2	Remote mode switch (AUTO mode) 0: Disable 1: Enable (Active)	Set this bit to ON when you wish to turn on the remote mode switch after automatic reception with AUTO mode.
3-7	Not used	Do not change the settings.

Communication Switch 05 (SP No. 1-104-006)		
No	**Function**	**Comments**
0-3	Remote mode switch number 00-09 (0-9:HEX)	Enter the number to switch between TEL/FAX modes using the external phone.
4-7	Not used	Do not change the settings.

Communication Switch 06 - Not used (do not change the settings)
Communication Switch 07 - Not used (do not change the settings)
Communication Switch 08 - Not used (do not change the settings)

Communication Switch 09 (SP No. 1-104-009)		
No	**Function**	**Comments**
0-7	Minimum interval between automatic dialing attempts	This value is the minimum time that the machine waits before it dials the next destination.

Communication Switch 0A (SP No. 1-104-011)		
No	**Function**	**Comments**
0	Point of resumption of memory transmission upon redialing 0: From the error page 1: From page 1	0: The transmission begins from the page where transmission failed the previous time. 1: Transmission begins from the first page, using normal memory transmission.
1-7	Not used	Do not change the settings.

Communication Switch 0B (SP No. 1-104-012)		
No	**Function**	**Comments**
0-2	Not used	Do not change the settings.

3	Conditions required for Transfer Result Report transmission 0: Always transmitted 1: Only transmitted if there was an error	0: When acting as a Transfer Station, the machine will always send a Transfer Result Report back to the Requesting Station after completing the Transfer Request, even if there were no problems. 1: The machine will only send back a Transfer Result Report if there were errors during communication, meaning one or more of the End Receivers could not be contacted.
4	Printout of the message when acting as a Transfer Station 0: Disabled, 1: Enabled	When the machine is acting as a Transfer Station, this bit determines whether the machine prints the fax message coming in from the Requesting Terminal.
5-7	Not used	Do not change the settings.

Communication Switch 0C - Not used (do not change the settings)

Communication Switch 0D (SP No. 1-104-014)		
No	**Function**	**Comments**
0-7	The available memory threshold, below which ringing detection (and therefore reception into memory) is disabled	00 to FF (Hex), unit = 4 kbytes (e.g., 06(H) = 24 kbytes) One page is about 24 kbytes. The machine refers to this setting before each fax reception. If the amount of remaining memory is below this threshold, the machine cannot receive any fax messages. If this setting is kept at 0, the machine will detect ringing signals and go into receive mode even if there is no memory available. This will result in communication failure.

Communication Switch 0E (SP No. 1-104-015)		
No	**Function**	**Comments**
0-7	Minimum interval between automatic dialing attempts	06 to FF (Hex), unit = 2 s (e.g., 06(H) = 12 s) This value is the minimum time that the machine waits before it dials the next destination.

Communication Switch 0F – Not used (do not change the settings.)

Communication Switch 10 (SP No. 1-104-017)		
No	**Function**	**Comments**
0-7	Memory transmission: Maximum number of dialing attempts to the same destination	01 – FE (Hex) times

Communication Switch 11 – Not used (do not change the settings.)

Communication Switch 12 (SP No. 1-104-019)		
No	**Function**	**Comments**
0-7	Memory transmission: Interval between dialing attempts to the same destination	01 – FF (Hex) minutes

Communication Switch 13 – Not used (do not change the settings.)

<table>
<tr><th colspan="5">Communication Switch 14 (SP No. 1-104-021)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">Inch-to-mm conversion during transmission
0: Disabled, 1: Enabled</td><td>0: In immediate transmission, data scanned in inch format are transmitted without conversion.
In memory transmission, data stored in the SAF memory in mm format are transmitted without conversion.
Note: When storing the scanned data into SAF memory, the fax unit always converts the data into mm format.
1: The machine converts the scanned data or stored data in the SAF memory to the format which was specified in the set-up protocol (DIS/NSF) before transmission.</td></tr>
<tr><td>1-5</td><td colspan="3">Not used</td><td>Do not change the factory settings.</td></tr>
<tr><td rowspan="6">6-7</td><td colspan="3">Available unit of resolution in which fax messages are received</td><td rowspan="6">For the best performance, do not change the factory settings.
The setting determined by these bits is informed to the transmitting terminal in the pre-message protocol exchange (in the DIS/NSF frames).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Unit</td></tr>
<tr><td>0</td><td>0</td><td>mm</td></tr>
<tr><td>0</td><td>1</td><td>inch</td></tr>
<tr><td>1</td><td>0</td><td>mm and inch</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
</table>

Communication Switch 15 – Not used (do not change the settings)

Communication Switch 16 (SP No. 1-104-023)		
No	**Function**	**Comments**
0	Not used	Do not change the settings.
1	Optional G3 unit (G3-2) 0: Not installed 1: Installed	Change this bit to 1 when installing the first optional G3 unit.
2	Not used	
3	Select PSTN connection 0: Off 1: On	This switch enables the G3-2. 0: Off, no connection 1: Recognizes and enables G3-2. This switch can be used only after G3-2 has been installed.
4-7	Not used	Do not change the settings.

Communication Switch 17 (SP No. 1-104-024)		
No	**Function**	**Comments**
0	SEP reception 0: Disabled 1: Enabled	0: Polling transmission to another maker's machine using the SEP (Selective Polling) signal is disabled.
1	SUB reception 0: Disabled 1: Enabled	0: Confidential reception to another maker's machine using the SUB (Sub-address) signal is disabled.
2	PWD reception 0: Disabled 1: Enabled	0: Disables features that require PWD (Password) signal reception.
3-4	Not used	Do not change the settings.
5	PSTN dial-in routing setting 0: OFF 1: ON	1: The machine sets multiple PSTN dial-in numbers in the PSTN dial-in line and transfers received data from each PSTN dial-in number to each address.

6	Not used	Do not change the settings.
7	Action when there is no box with an F-code that matches the received SUB code 0: Disconnect the line 1: Receive the message (using normal reception mode)	Change this setting when the customer requires.

Communication Switch 18 (SP No. 1-104-025)		
No	**Function**	**Comments**
0-4	Not used	Do not change the settings.
5	IP-Fax dial-in routing selection 0: Off 1: On	1: Transfers received data to each IP-Fax dial-in number. IP-Fax dial-in number is a 4-digit number.
6	PSTN 2 dial-in routing 0: Off 1: On	Enables or disables dial-in routing for the PSTN 2 connection.
7	PSTN 3 dial-in routing 0: Off 1: On	Enables or disables dial-in routing for the PSTN 3 connection.

Communication Switch 19 - Not used (do not change the settings)
Communication Switch 1A - Not used (do not change the settings)

Communication Switch 1B (SP No. 1-104-028)		
No	**Function**	**Comments**
0-7	Extension access code (0 to 7) to turn V.8 protocol On/Off 0: On 1: Off	If the PABX does not support V.8/V.34 protocol procedure, set this bit to "1" to disable V.8. Example: If "0" is the PSTN access code, set bit 0 to 1. When the machine detects "0" as the first dialed number, it automatically disables V.8 protocol. (Alternatively, if "3" is the PSTN access code, set bit 3 to 1.)

Communication Switch 1C (SP No. 1-104-029)		
No	**Function**	**Comments**
0-1	Extension access code (8 and 9) to turn V.8 protocol On/Off 0: On 1: Off	Refer to communication switch 1B. Example: If "8" is the PSTN access code, set bit 0 to 1. When the machine detects "8" as the first dialed number, it automatically disables V.8 protocol. (If "9" is the PSTN access code, use bit 1.)
2-7	Not used	Do not change the settings.

Communication Switch 1D - Not used (do not change the settings)
Communication Switch 1E - Not used (do not change the settings)
Communication Switch 1F - Not used (do not change the settings)

4.6 BIT SWITCHES - 4

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.6.1 G3 SWITCHES

<table>
<tr><th colspan="5">G3 Switch 00 (SP No. 1-105-001)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="7">0
1</td><td colspan="3">Monitor speaker during communication (tx and rx)</td><td rowspan="7">(0, 0): The monitor speaker is disabled all through the communication.
(0, 1): The monitor speaker is on up to phase B in the T.30 protocol.
(1, 0): Used for testing. The monitor speaker is on all through the communication. Make sure that you reset these bits after testing.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Disabled</td></tr>
<tr><td>0</td><td>1</td><td>Up to Phase B</td></tr>
<tr><td>1</td><td>0</td><td>All the time</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>2</td><td colspan="3">Monitor speaker during memory transmission
0: Disabled 1: Enabled</td><td>1: The monitor speaker is enabled during memory transmission.</td></tr>
<tr><td>3-7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

G3 Switch 01 (SP No. 1-105-002)		
No	**Function**	**Comments**
0-3	Not used	Do not change the settings.
4	DIS frame length 0: 10 bytes 1: 4 bytes	1: The bytes in the DIS frame after the 4th byte will not be transmitted (set to 1 if there are communication problems with PC-based faxes which cannot receive the extended DIS frames).
5	Not used	Do not change the setting.
6	Forbid CED/AMsam output 0: Off 1: On (Forbid output)	Do not change this setting (Default: 0: Off), unless communication problem is caused by a CED or ANSam transmission.
7	Not used	Do not change the setting.

G3 Switch 02 (SP No. 1-105-003)		
No	**Function**	**Comments**
0	G3 protocol mode used 0: Standard and non-standard 1: Standard only	Change this bit to 1 only when the other end can only communicate with machines that send T.30-standard frames only. 1: Disables NSF/NSS signals (these are used in non-standard mode communication)
1-6	Not used	Do not change the settings.
7	Short preamble 0: Disabled 1: Enabled	Refer to Appendix B in the Group 3 Facsimile Manual for details about Short Preamble.

G3 Switch 03 (SP No. 1-105-004)		
No	**Function**	**Comments**
0	DIS detection number (Echo countermeasure) 0: 1 1: 2	0: The machine will hang up if it receives the same DIS frame twice. 1: Before sending DCS, the machine will wait for the second DIS which is caused by echo on the line.
1	Not Used	Do not change the settings.
2	V.8 protocol 0: Disabled 1: Enabled	0: V.8/V.34 communications will not be possible. Note ▪ Do not set to 0 unless the line condition is always bad enough to slow down the data rate to 14.4 kbps or lower.
3	ECM frame size 0: 256 bytes 1: 64 bytes	Keep this bit at "0" in most cases.
4	CTC transmission conditions 0: After one PPR signal received 1: After four PPR signals received (ITU-T standard)	0: When using ECM in non-standard (NSF/NSS) mode, the machine sends a CTC to drop back the modem rate after receiving a PPR, if the following condition is met in communications at 14.4, 12.0, 9.6, and 7.2 kbps. $\sqrt{NTransmit \leq NResend}$ NTransmit- Number of transmitted frames NResend- Number of frames to be retransmitted 1: When using ECM, the machine sends a CTC to drop back the modem rate after receiving four PPRs. PPR, CTC: These are ECM protocol signals. This bit is not effective in V.34 communications.
5	Modem rate used for the next page after receiving a negative code (RTN or PIN) 0: No change 1: Fallback	1: The machine's tx modem rate will fall back before sending the next page if a negative code is received. This bit is ignored if ECM is being used.

6	Not used	Do not change the settings
7	Select detection of reverse polarity in ringing 0: Off 1: On	This switch is used to prevent reverse polarity in ringing on the phone line (applied to PSTN-G3 ringing). Do not change this setting 0: No detection 1: Detection (Japan and Korea only)

G3 Switch 04 (SP No. 1-105-005)

No	Function	Comments
0-3	Training error detection threshold	0 - F (Hex); 0 - 15 bits If the number of error bits in the received TCF is below this threshold, the machine informs the sender that training has succeeded.
4-7	Not used	Do not change the settings.

G3 Switch 05 (SP No. 1-105-006)

No	Function					Comments
0-3	Initial Tx modem rate (kbps)					These bits set the initial starting modem rate for transmission. Use the dedicated transmission parameters if you need to change this for specific receivers. If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually. Cross reference V.8 protocol on/off - G3 switch 03, bit 2
	Bit 3	Bit 2	Bit 1	Bit 0	kbps	
	0	0	0	1	2.4	
	0	0	1	0	4.8	
	0	0	1	1	7.2	
	0	1	0	0	9.6	
	0	1	0	1	12.0	
	0	1	1	0	14.4	
	0	1	1	1	16.8	
	1	0	0	0	19.2	
	1	0	0	1	21.6	

<table>
<tr><td></td><td>1</td><td>0</td><td>1</td><td>0</td><td>24.0</td><td></td></tr>
<tr><td></td><td>1</td><td>0</td><td>1</td><td>1</td><td>26.4</td><td></td></tr>
<tr><td></td><td>1</td><td>1</td><td>0</td><td>0</td><td>28.8</td><td></td></tr>
<tr><td></td><td>1</td><td>1</td><td>0</td><td>1</td><td>31.2</td><td></td></tr>
<tr><td></td><td>0</td><td>0</td><td>1</td><td>1</td><td>33.6</td><td></td></tr>
<tr><td></td><td colspan="5">Other settings - Not used</td><td></td></tr>
<tr><td rowspan="6">4-5</td><td colspan="5">Initial modem type for 9.6 k or 7.2 kbps.</td><td rowspan="6">These bits set the initial modem type for 9.6 and 7.2 kbps, if the initial modem rate is set at these speeds.</td></tr>
<tr><td colspan="2">Bit 5</td><td colspan="2">Bit 4</td><td>Setting</td></tr>
<tr><td colspan="2">0</td><td colspan="2">0</td><td>V.29</td></tr>
<tr><td colspan="2">0</td><td colspan="2">1</td><td>V.17</td></tr>
<tr><td colspan="2">1</td><td colspan="2">0</td><td>V.34</td></tr>
<tr><td colspan="2">1</td><td colspan="2">1</td><td>Not used</td></tr>
<tr><td>6-7</td><td colspan="5">Not used</td><td>Do not change the settings.</td></tr>
</table>

<table>
<tr><th colspan="7">G3 Switch 06 (SP No. 1-105-007)</th></tr>
<tr><th>No</th><th colspan="5">Function</th><th>Comments</th></tr>
<tr><td rowspan="11">0-3</td><td colspan="5">Initial Rx modem rate(kbps)</td><td rowspan="11">These bits set the initial starting modem rate for reception.
Use a lower setting if high speeds pose problems during reception.
If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually.
Cross reference
V.8 protocol on/off - G3 switch 03, bit2</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>kbps</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2.4</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>4.8</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7.2</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9.6</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12.0</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14.4</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>16.8</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>19.2</td></tr>
</table>

	1	0	0	1	21.6	
	1	0	1	0	24.0	
	1	0	1	1	26.4	
	1	1	0	0	28.8	
	1	1	0	1	31.2	
	Other settings - Not used					

4-7

Modem types available for reception
The setting of these bits is used to inform the transmitting terminal of the available modem type for the machine in receive mode.
If V.34 is not selected, V.8 protocol must be disabled manually.
Cross reference
V.8 protocol on/off - G3 switch 03, bit 2

Bit 7	Bit 6	Bit 5	Bit 4	Types
0	0	0	1	V.27ter
0	0	1	0	V.27ter, V.29
0	0	1	1	V.27ter, V.29, V.33
0	1	0	0	V.27ter, V.29, V.17/V.33
0	1	0	1	V.27ter, V.29, V.17/V33, V.34
Other settings - Not used				

G3 Switch 07 (SP No. 1-105-008)

No	Function			Comments
0-1	PSTN cable equalizer (tx mode: Internal)			Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange. Use the dedicated transmission parameters for specific receivers. Also, try using the cable equalizer if one or more of the following symptoms
	Bit 1	Bit 0	Setting	
	0	0	None	
	0	1	Low	
	1	0	Medium	

<table>
<tr><td rowspan="2"></td><td>1</td><td>1</td><td>High</td><td rowspan="2">occurs.
Communication error
Modem rate fallback occurs frequently.
Note
▪ This setting is not effective in V.34 communications.</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="7">2-3</td><td colspan="3">PSTN cable equalizer
(rx mode: Internal)</td><td rowspan="7">Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange.
Also, try using the cable equalizer if one or more of the following symptoms occurs.
Communication error with error codes such as 0-20, 0-23, etc.
Modem rate fallback occurs frequently.
Note
▪ This setting is not effective in V.34 communications.</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>None</td></tr>
<tr><td>0</td><td>1</td><td>Low</td></tr>
<tr><td>1</td><td>0</td><td>Medium</td></tr>
<tr><td>1</td><td>1</td><td>High</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>4</td><td colspan="3">PSTN cable equalizer
(V.8/V.17 rx mode: External)
0: Disabled
1: Enabled</td><td>Keep this bit at "1".</td></tr>
<tr><td>5</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>6</td><td colspan="3">Parameter selection for dial tone detection
0: Normal parameter
1: Specific parameter</td><td>0: This uses the fixed table in the ROM for dial tone detection.
1: This uses the specific parameter adjusted with SRAM (69ECBEH - 69ECDEH). Select this if the dial tone cannot be detected when the "Normal parameter: 0" is selected.</td></tr>
<tr><td>7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

G3 Switch 08 - Not used (do not change the settings)
G3 Switch 09 - Not used (do not change the settings)

<table>
<tr><th colspan="5">G3 Switch 0A (SP No. 1-105-011)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-1</td><td colspan="3">Maximum allowable carrier drop during image data reception</td><td rowspan="6">These bits set the acceptable modem carrier drop time.
Try a longer setting if error code 0-22 is frequent.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Value (ms)</td></tr>
<tr><td>0</td><td>0</td><td>200</td></tr>
<tr><td>0</td><td>1</td><td>400</td></tr>
<tr><td>1</td><td>0</td><td>800</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>2</td><td colspan="3">Select cancellation of high-speed RX if carrier signal lost while receiving
0: Off
1: On</td><td>This switch setting determines if high-speed receiving ends if the carrier signal is lost when receiving during non-ECM mode</td></tr>
<tr><td>3</td><td colspan="3">Not used</td><td>Do not change the settings</td></tr>
<tr><td>4</td><td colspan="3">Maximum allowable frame interval during image data reception.
0: 5 s 1: 13 s</td><td>This bit set the maximum interval between EOL (end-of-line) signals and the maximum interval between ECM frames from the other end.
Try using a longer setting if error code 0-21 is frequent.</td></tr>
<tr><td>5</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

6	Reconstruction time for the first line in receive mode 0: 6 s 1: 12 s	When the sending terminal is controlled by a computer, there may be a delay in receiving page data after the local machine accepts set-up data and sends CFR. This is outside the T.30 recommendation. But, if this delay occurs, set this bit to 1 to give the sending machine more time to send data. Refer to error code 0-20. ITU-T T.30 recommendation: The first line should come within 5 s of CFR.
7	Not used	Do not change the settings.

G3 Switch 0B Not used (do not change the settings).
G3 Switch 0C Not used (do not change the settings).
G3 Switch 0D Not used (do not change the settings).

G3 Switch 0E (SP No. 1-105-015)		
No	**Function**	**Comments**
0-7	Set CNG send time interval Some machines on the receiving side may not be able to automatically switch the 3-second CNG interval.	
	High order bit	3000-2250ms: 3000-50xNms 3000 – 50 x Nms 0F (3000 ms) <= N <= FF (2250 ms)
	Low order bit	00-0E(3000-3700ms: 3000+50xNms 3000 – 50 x Nms 0F (3000 ms) <= N <= 0F (3700 ms)

G3 Switch 0F (SP No. 1-105-016)		
No	**Function**	**Comments**
0	Alarm when an error occurred in Phase C or later 0: Disabled 1: Enabled	If the customer wants to hear an alarm after each error communication, change this bit to "1".
1	Alarm when the handset is off-hook at the end of communication 0: Disabled 1: Enabled	If the customer wants to hear an alarm if the handset is off-hook at the end of fax communication, change this bit to "1".
2-3	Not used	Do not change the settings.
4	Sidaa manual calibration setting 0: Off 1: On	1: manually calibrates for communication with a line whose current change occurs such as an optical fiber line.
5-7	Not used	Do not change the settings.

4.7 BIT SWITCHES - 5

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.7.1 G3-2 AND G3-3 SWITCHES

These switches require an optional G3 interface unit.
G3-3 switches are the same as for G3-2 switches.

<table>
<tr><th colspan="5">G3-2 Switch 00 (SP No. 1-106-001)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="8">0
1</td><td colspan="3">Monitor speaker during communication (tx and rx)</td><td rowspan="8">(0, 0): The monitor speaker is disabled all through the communication.
(0, 1): The monitor speaker is on up to phase B in the T.30 protocol.
(1, 0): Used for testing. The monitor speaker is on all through the communication. Make sure that you reset these bits after testing.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Disable</td></tr>
<tr><td>0</td><td>1</td><td>Up to Phase B</td></tr>
<tr><td>1</td><td>0</td><td>All the time</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>2</td><td colspan="3">Monitor speaker during memory transmission
0: Disabled 1: Enabled</td><td>1: The monitor speaker is enabled during memory transmission.</td></tr>
<tr><td>3-7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

G3-2 Switch 01 (SP No. 1-106-002)		
No	**Function**	**Comments**
0-3	Not used	Do not change the settings.
4	DIS frame length 0: 10 bytes 1: 4 bytes	1: The bytes in the DIS frame after the 4th byte will not be transmitted (set to 1 if there are communication problems with PC-based faxes which cannot receive the extended DIS frames).
5	Not used	Do not change the setting.
6	Forbid CED/AMsam output 0: Off 1: On (Forbid output)	Do not change this setting (Default: 0: Off), unless communication problem is caused by a CED or ANSam transmission.
7	Not used	Do not change the setting.

G3-2 Switch 02 (SP No. 1-106-003)		
No	**Function**	**Comments**
0	G3 protocol mode used 0: Standard and non-standard 1: Standard only	Change this bit to 1 only when the other end can only communicate with machines that send T.30-standard frames only. 1: Disables NSF/NSS signals (these are used in non-standard mode communication)
1-6	Not used	Do not change the settings.
7	Short preamble 0: Disabled 1: Enabled	Refer to Appendix B in the Group 3 Facsimile Manual for details about Short Preamble.

G3-2 Switch 03 (SP No. 1-106-004)		
No	**Function**	**Comments**
0	DIS detection number (Echo countermeasure) 0: 1 1: 2	0: The machine will hang up if it receives the same DIS frame twice. 1: Before sending DCS, the machine will wait for the second DIS which is caused by echo on the line.
1	Not Used	Do not change the settings.
2	V.8 protocol 0: Disabled 1: Enabled	0: V.8/V.34 communications will not be possible. Note ▪ Do not set to 0 unless the line condition is always bad enough to slow down the data rate to 14.4 kbps or lower.
3	ECM frame size 0: 256 bytes 1: 64 bytes	Keep this bit at "0" in most cases.
4	CTC transmission conditions 0: After one PPR signal received 1: After four PPR signals received (ITU-T standard)	0: When using ECM in non-standard (NSF/NSS) mode, the machine sends a CTC to drop back the modem rate after receiving a PPR, if the following condition is met in communications at 14.4, 12.0, 9.6, and 7.2 kbps. $\sqrt{N\,Transmit \leq N\,Re\,send}$ Ntransmit = Number of transmitted frames Nresend = Number of frames to be retransmitted 1: When using ECM, the machine sends a CTC to drop back the modem rate after receiving four PPRs. PPR, CTC: These are ECM protocol signals. This bit is not effective in V.34 communications.
5	Modem rate used for the next page after receiving a negative code (RTN or PIN) 0: No change 1: Fallback	1: The machine's tx modem rate will fall back before sending the next page if a negative code is received. This bit is ignored if ECM is being used.

6	Not used	Do not change the settings
7	Select detection of reverse polarity in ringing 0: Off 1: On	This switch is used to prevent reverse polarity in ringing on the phone line (applied to PSTN-G3 ringing). Do not change this setting 0: No detection 1: Detection (Japan and Korea only)

G3-2 Switch 04 (SP No. 1-106-005)

No	Function	Comments
0-3	Training error detection threshold	0 - F (Hex); 0 - 15 bits If the number of error bits in the received TCF is below this threshold, the machine informs the sender that training has succeeded.
4-7	Not used	Do not change the settings.

<table>
<tr><th colspan="7">G3-2 Switch 05 (SP No. 1-106-006)</th></tr>
<tr><th>No</th><th colspan="5">Function</th><th>Comments</th></tr>
<tr><td rowspan="16">0-3</td><td colspan="5">Initial Tx modem rate (kbps)</td><td rowspan="16">These bits set the initial starting modem rate for transmission.
Use the dedicated transmission parameters if you need to change this for specific receivers.
If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually.
Cross reference
V.8 protocol on/off - G3 switch 03, bit 2</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>kbps</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2.4</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>4.8</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7.2</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9.6</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12.0</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14.4</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>16.8</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>19.2</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td>21.6</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>0</td><td>24.0</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>1</td><td>26.4</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>0</td><td>28.8</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>1</td><td>31.2</td></tr>
<tr><td colspan="5">Other settings - Not used</td></tr>
<tr><td rowspan="6">4-5</td><td colspan="5">Initial modem type for 9.6 k or 7.2 kbps.</td><td rowspan="6">These bits set the initial modem type for 9.6 and 7.2 kbps, if the initial modem rate is set at these speeds.</td></tr>
<tr><td>Bit 5</td><td colspan="3">Bit 4</td><td>Setting</td></tr>
<tr><td>0</td><td colspan="3">0</td><td>V.29</td></tr>
<tr><td>0</td><td colspan="3">1</td><td>V.17</td></tr>
<tr><td>1</td><td colspan="3">0</td><td>V.34</td></tr>
<tr><td>1</td><td colspan="3">1</td><td>Not used</td></tr>
<tr><td>6-7</td><td colspan="5">Not used</td><td>Do not change the settings.</td></tr>
</table>

G3-2 Switch 06 (SP No. 1-106-007)

<table>
<tr><th>No</th><th>Function</th><th>Comments</th></tr>
<tr><td>0-3</td><td>
Initial Rx modem rate(kbps)
<table>
<tr><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th><th>Bit 0</th><th>kbps</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2.4</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>4.8</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7.2</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9.6</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12.0</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14.4</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>16.8</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>19.2</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td>21.6</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>0</td><td>24.0</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>1</td><td>26.4</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>0</td><td>28.8</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>1</td><td>31.2</td></tr>
</table>
Other settings - Not used
</td><td>These bits set the initial starting modem rate for reception.
Use a lower setting if high speeds pose problems during reception.
If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually.
Cross reference
V.8 protocol on/off - G3 switch 03, bit2</td></tr>
<tr><td>4-7</td><td colspan="2">
Modem types available for reception
The setting of these bits is used to inform the transmitting terminal of the available modem type for the machine in receive mode.
If V.34 is not selected, V.8 protocol must be disabled manually.
Cross reference
V.8 protocol on/off - G3 switch 03, bit 2
<table>
<tr><th>Bit 7</th><th>Bit 6</th><th>Bit 5</th><th>Bit 4</th><th>Types</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>V.27ter</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>V.27ter</td></tr>
</table>
</td></tr>
</table>

	0	0	1	1	V.27ter
	0	1	0	0	V.27ter
	0	1	0	1	V.27ter
	Other settings - Not used				

G3-2 Switch 07 (SP No. 1-106-008)

No	Function			Comments
0-1	PSTN cable equalizer (tx mode: Internal)			Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange. Use the dedicated transmission parameters for specific receivers. Also, try using the cable equalizer if one or more of the following symptoms occurs. Communication error Modem rate fallback occurs frequently. Note ▪ This setting is not effective in V.34 communications.
	Bit 1	Bit 0	Setting	
	0	0	None	
	0	1	Low	
	1	0	Medium	
	1	1	High	
2-3	PSTN cable equalizer (rx mode: Internal)			Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange. Also, try using the cable equalizer if one or more of the following symptoms occurs. Communication error with error codes such as 0-20, 0-23, etc. Modem rate fallback occurs frequently. Note ▪ This setting is not effective in V.34 communications.
	Bit 3	Bit 2	Setting	
	0	0	None	
	0	1	Low	
	1	0	Medium	
	1	1	High	

4	PSTN cable equalizer (V.8/V.17 rx mode: External) 0: Disabled 1: Enabled	Keep this bit at "1".
5-7	Not used	Do not change the settings.

G3-2 Switch 08 - Not used (do not change the settings)
G3-2 Switch 09 - Not used (do not change the settings)

<table>
<tr><th colspan="5">G3-2 Switch 0A (SP No. 1-106-011)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-1</td><td colspan="3">Maximum allowable carrier drop during image data reception</td><td rowspan="6">These bits set the acceptable modem carrier drop time.
Try a longer setting if error code 0-22 is frequent.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Value (ms)</td></tr>
<tr><td>0</td><td>0</td><td>200</td></tr>
<tr><td>0</td><td>1</td><td>400</td></tr>
<tr><td>1</td><td>0</td><td>800</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>2-3</td><td colspan="3">Not used</td><td>Do not change the settings</td></tr>
<tr><td>4</td><td colspan="3">Maximum allowable frame interval during image data reception.
0: 5 s 1: 13 s</td><td>This bit set the maximum interval between EOL (end-of-line) signals and the maximum interval between ECM frames from the other end.
Try using a longer setting if error code 0-21 is frequent.</td></tr>
<tr><td>5</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

6	Reconstruction time for the first line in receive mode 0: 6 s 1: 12 s	When the sending terminal is controlled by a computer, there may be a delay in receiving page data after the local machine accepts set-up data and sends CFR. This is outside the T.30 recommendation. But, if this delay occurs, set this bit to 1 to give the sending machine more time to send data. Refer to error code 0-20. ITU-T T.30 recommendation: The first line should come within 5 s of CFR.
7	Not used	Do not change the settings.

G3-2 Switch 0B- Not used (do not change the settings)
G3-2 Switch 0C- Not used (do not change the settings)
G3-2 Switch 0E- Not used (do not change the settings)
G3-2 Switch 0F- Not used (do not change the settings)

4.7.2 G4 INTERNAL SWITCHES

The G4 internal switches (SW00 to 1F) are displayed but do not change these settings.

4.7.3 G4 PARAMETER SWITCHES

The G4 parameter switches (SW00 to 0F) are displayed but do not change these settings.

4.8 BIT SWITCHES - 6

Note

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

4.8.1 IP FAX SWITCHES

IP Fax Switch 00 (SP No. 1-111-001)		
No.	**Function**	**Comments**
0	Not used	Do not change this setting.
1	IP Fax Transport 0: TCP, 1: UDP	Selects TCP or UDP protocol for IP-Fax
2	IP Fax single port selection 0: OFF, 1: ON (enable)	Selects single data port.
3	IP Fax double ports (single data port) selection 0: OFF, 1: ON (enable)	Selects whether IP-Fax uses a double port.
4	IP Fax Gatekeeper 0: OFF, 1: ON (enable)	Enables/disables the gatekeeper for IP-Fax.
5	IP Fax T30 bit signal reverse 0: LSB first, 1: MSB first	Reverses the T30 bit signal.
6	IP Fax max bit rate setting 0: Not affected, 1: Affected	When "0" is selected, the max bit rate does not affect the value of the DIS/DCS. When "1" is selected, the max bit rate affects the value of the DIS/DCS.

7	IP Fax received telephone number confirmation 0: No confirmation, 1: Confirmation	When "0" is selected, fax data is received without checking the telephone number. When "1" is selected, fax data is received only when confirming that the telephone number from the sender matches the registered telephone number in this machine. If this confirmation fails, the line is disconnected.

IP Fax Switch 01 (SP No. 1-111-002)

No.	Function				Comments
0-3	IP Fax delay level setting Selects the acceptable delay level. Level 0 is the highest quality Default is "0000" (level 0).				
	Bit 3	Bit 2	Bit 1	Bit 0	
	0	0	0	0	Level 0
	0	0	0	1	Level 1
	0	0	1	0	Level 2
	0	0	1	1	Level 3
4-7	IP Fax preamble wait time setting				Selects the preamble wait time. [00 to 0f] There are 16 values in this 4-bit binary switch combination. Waiting time: set value level x 100 ms Max: 0f (1500 ms) Min: 00 (No wait time) The default is "0000" (00H).

IP Fax Switch 02 (SP No. 1-111-003)		
No.	**Function**	**Comments**
0	IP Fax bit signal reverse setting 0: Maker code setting 1: Internal bit switch setting	When "0" is selected, the bit signal reverse method is decided by the maker code. When "1" is selected, the bit signal reverse method is decided by the internal bit switch. When communicating between IP Fax devices, LSB first is selected.)
1	IP Fax transmission speed setting 0: Modem speed 1: No limitation	Selects the transmit speed for IP Fax communication.
2	SIP transport setting 0: TCP 1: UDP	This bit switch sets the transport that has priority for receiving IP Fax data. This function is activated only when the sender has both TCP and UDP.
3	CCM connection 0: No CCM connection 1: CCM connection	When "1" is selected, only the connection call message with H.323 or no tunneled H.245 is transmitted via CCM.
4	Message reception selection from non-registered SIP server 0: Answer 1: Not answer	0: This answers the INVITE message from the SIP server not registered for the machine. 1: This does not receive the INVITE message from the SIP server not registered for the machine and send a refusal message.
5	ECM communication setting 0: No limit for image compression 1: Limit for image compression	0: This does not limit the type of the image compression with ECM communication. 1: When the other end machine is Ciscco, this permits the image compression other than JBIG or MMR with ECM communication.
6-7	Not used	Do not change these settings.

IP Fax Switch 03 (SP No. 1-111-004)		
No.	**Function**	**Comments**
0	Effective field limitation for G3 standard function information 0: OFF, 1: 4byte (DIS)	Limits the effective field for standard G3 function information.
1	Switching between G3 standard and G3 non standard 0: Enable switching 1: G3 standard only	Enables/disables switching between G3 standard and G3 non-standard.
2	Not used	Do not change this setting.
3	ECM frame size selection at transmitting 0: 256byte, 1: 64byte	Selects the ECM frame size for sending.
4	DIS detection times for echo prevention 0: 1 time, 1: 2 times	Sets the number of times for DIS to detect echoes.
5	CTC transmission selection 0: PPRx1 1: PPRx4	When "0" is selected, the transmission condition is decided by error frame numbers. When "1" is selected, the transmission condition is based on the ITU-T method.
6	Shift down setting at receiving negative code 0: OFF, 1: ON	Selects whether to shift down when negative codes are received.
7	Not used	Do not change this setting.

IP Fax Switch 04 (SP No. 1-111-005)		
No.	**Function**	**Comments**
0-3	TCF error threshold	Sets the TCF error threshold level. [00 to 0f] The default is "1111" (0fH).
4-7	Not used	Do not change these settings.

IP Fax Switch 05 (SP No. 1-111-006)						
No.	**Function**					**Comments**
0-3	Modem bit rate setting for transmission (kbps)					Sets the modem bit rate for transmission. The default is "0110" (14.4K bps).
	Bit 3	Bit 2	Bit 1	Bit 0	kbps	
	0	0	0	1	2.4	
	0	0	1	1	4.8	
	0	0	1	1	7.2	
	0	1	0	0	9.6	
	0	1	0	1	12.0	
	0	1	1	0	14.4	
4-5	Modem setting for transmission					Sets the modem type for transmission. The default is "00" (V29).
	Bit 5	Bit 4	Types			
	0	0	V29			
	0	1	V17			
	1	0	Not used			
	1	1	Not used			
6-7	Not used					Do not change these settings.

<table>
<tr><th colspan="7">IP Fax Switch 06 (SP No. 1-111-007)</th></tr>
<tr><th>No.</th><th colspan="5">Function</th><th>Comments</th></tr>
<tr><td>0-3</td><td colspan="6">Modem bit rate setting for reception
Sets the modem bit rate for reception. The default is "0110" (14.4K bps).</td></tr>
<tr><td rowspan="7">4-7</td><td colspan="6">Modem setting for reception
Sets the modem type for reception. The default is "0100" (V27ter, V29, V17).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Bit 5</td><td>Bit 4</td><td colspan="2">Types</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td colspan="2">V.27ter</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td colspan="2">V.27ter, V.29</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td colspan="2">V.27ter, V.29, V.33</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td colspan="2">V.27ter, V.29, V.17/V.33</td></tr>
<tr><td colspan="6">Other settings - Not used</td></tr>
</table>

IP Fax Switch 07 (SP No. 1-111-008)		
No.	**Function**	**Comments**
0	TSI information 0: Not added, 1: Added	Adds or does not add TSI information to NSS(S).
1	DCN transmission setting at T1 timeout 0: Not transmitted 1: Transmitted	Transmits or does not transmit DCN at T1 timeout.
2	Not used	Do not change this setting.
3	Hang up setting at DIS reception disabled 0: No hang up 1: Hang up after transmitting DCN	Sets whether the machine disconnects after DIS reception.
4	Number of times for training 0: 1 time, 1: 2 times	Selects the number of times training is done at the same bit rate.

5	Space CSI transmission setting at no CSI registration 0: Not transmitted 1: Transmitted	When "0" is selected, frame data is enabled. When "1" is selected, the transmitted data is all spaces.
6-7	Not used	Do not change these settings.

IP Fax Switch 08 (SP No. 1-111-009)				
No.	**Function**			**Comments**
0-1	T1 timer adjustment			Adjusts the T1 timer. The default is "00" (35 seconds).
	Bit 1	Bit 0		
	0	0	35 s	
	0	1	40 s	
	1	0	50 s	
	1	1	60 s	
2-3	T4 timer adjustment			Adjust the T4 timer. The default is "00" (3 seconds).
	Bit 3	Bit 2		
	0	0	3 s	
	0	1	3.5 s	
	1	0	4 s	
	1	1	5 s	
4-5	T0 timer adjustment			Adjusts the fail safe timer. This timer sets the interval between "setup" data transmission and T.38 phase decision. If your destination return is late on the network or G3 fax return is late, adjust the longer interval timer. The default is "00" (75 seconds).
	Bit 5	Bit 4		
	0	0	75 s	
	0	1	120 s	
	1	0	180 s	
	1	1	240 s	
6-7	Not used			Do not change these settings.

<table>
<tr><th colspan="5">IP Fax Switch 09 (SP No. 1-111-010)</th></tr>
<tr><th>No.</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">Network I/F setting for SIP connection
0: IPv4
1: IPv6.</td><td>Selects the connection type (IPV4 or IPV6) to connect to the SIP server.</td></tr>
<tr><td>1</td><td colspan="3">Network I/F setting for Fax communication
0: Same setting as SIP server connection
1: Automatic setting</td><td>0: The I/F setting for fax communication follows the setting for SIP server connection.
1: The negotiation between the SIP server and the device decides whether IPv4 or IPv6 is used for the I/F setting for fax communication.</td></tr>
<tr><td>2</td><td colspan="3">Record-route setting
0: Disable
1: Enable</td><td>0: Disables the record-route function of the SIP server.
1: Enables the record-route function of the SIP server.</td></tr>
<tr><td rowspan="5">3-4</td><td colspan="3">re-INVITE transmission delay timer setting</td><td rowspan="5">This changes the interval for transmit re-INVITE after receiving the ACK message transmitted by T.38 device.</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td></td></tr>
<tr><td>0</td><td>0</td><td>No delay</td></tr>
<tr><td>0</td><td>1</td><td>1 sec</td></tr>
<tr><td>1</td><td>0</td><td>2 sec</td></tr>
<tr><td>1</td><td>1</td><td>3 sec</td></tr>
<tr><td>5</td><td colspan="3">SIP-IPFAX: Adding vender information selection
0: Declare T38VendorInfo=RICOH
1: Not declare T38VendorInfo=RICOH</td><td>0: Use this setting normally.
1: This setting is used only when a customer wants to connect the machine with SIP server + VOIP-GW provided by AVAYA Inc.</td></tr>
<tr><td>6-7</td><td colspan="3">Not used.</td><td>Do not change these settings.</td></tr>
</table>

IP Fax Switch 0A - Not used (do not change the settings)
IP Fax Switch 0B - Not used (do not change the settings)
IP Fax Switch 0C - Not used (do not change the settings)
IP Fax Switch 0D - Not used (do not change the settings)

IP Fax Switch 0E (SP No. 1-111-013)		
No.	**Function**	**Comments**
0-1	SIP: IP-FAX port mode (UDP) 00: 3 port mode 01: 2 port mode 10: 1 port mode	Switch the port mode for IP-FAX (T38 transport: UDP) at SIP call control.
2-3	SIP: IP-FAX port mode (TCP) 00: 3 port mode 01: 2 port mode 10: 1 port mode	Switch the port mode for IP-FAX (T38 transport: TCP) at SIP call control.
4-7	Not used.	Do not change these settings.

4.9 NCU PARAMETERS

The following tables give the RAM addresses and the parameter calculation units that the machine uses for ringing signal detection and automatic dialing. The factory settings for each country are also given. Most of these must be changed by RAM read/write (SP2-102), but some can be changed using NCU Parameter programming (SP2-103, 104 and 105); if SP2-103, 104 and 105 can be used, this will be indicated in the Remarks column. The RAM is programmed in hex code unless (BCD) is included in the Unit column.

Note

- The following addresses describe settings for the standard NCU.
- Change the fourth digit from "5" to "6" (e.g. 680500 to 680600) for the settings for the first optional G3 interface unit and from "5" to "7" (e.g. 680700) for the settings for the second optional G3 interface unit.

Address	Function					
680500	Country/Area code for NCU parameters					
	Use the Hex value to program the country/area code directly into this address, or use the decimal value to program it using SP2-103-001					
	Country /Area	**Decimal**	**Hex**	**Country /Area**	**Decimal**	**Hex**
	France	00	00	Asia	18	12
	Germany	01	01	Japan	19	13
	UK	02	02	Hong Kong	20	14
	Italy	03	03	South Africa	21	15
	Austria	04	04	Australia	22	16
	Belgium	05	05	New Zealand	26	17
	Denmark	06	06	Singapore	24	18
	Finland	07	07	Malaysia	25	19
	Ireland	08	08	China	26	1A
	Norway	09	09	Taiwan	27	1B

Address	Function					
	Sweden	10	0A	Korea	28	1C
	Switzerland	11	0B	Brazil	29	1D
	Portugal	12	0C	Turkey	32	20
	Holland	13	0D	Greece	33	21
	Spain	14	0E	Hungary	34	22
	Israel	15	0F	Czech	35	23
	USA	17	11	Poland	36	24

Address	Function	Unit	Remarks
680501	Line current detection time	20 ms	Line current detection is disabled. Line current is not detected if 680501 contains FF.
680502	Line current wait time		
680503	Line current drop detect time		
680504	PSTN dial tone frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680505	PSTN dial tone frequency upper limit (low byte)		
680506	PSTN dial tone frequency lower limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680507	PSTN dial tone frequency lower limit (low byte)		
680508	PSTN dial tone detection time	20 ms	If 680508 contains FF(H), the machine pauses for the pause time (address 68050D / 68050E). Italy: See Note 2.
680509	PSTN dial tone reset time (LOW)		
68050A	PSTN dial tone reset time (HIGH)		
68050B	PSTN dial tone continuous tone time		

Address	Function	Unit	Remarks
68050C	PSTN dial tone permissible drop time		
68050D	PSTN wait interval (LOW)		-
68050E	PSTN wait interval (HIGH)		
68050F	PSTN ring-back tone detection time	20 ms	Detection is disabled if this contains FF.
680510	PSTN ring-back tone off detection time	20 ms	-
680511	PSTN detection time for silent period after ring-back tone detected (LOW)	20 ms	-
680512	PSTN detection time for silent period after ring-back tone detected (HIGH)	20 ms	-
680513	PSTN busy tone frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680514	PSTN busy tone frequency upper limit (low byte)		
680515	PSTN busy tone frequency lower limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680516	PSTN busy tone frequency lower limit (low byte)		
680517	PABX dial tone frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680518	PABX dial tone frequency upper limit (low byte)		
680519	PABX dial tone frequency lower limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
68051A	PABX dial tone frequency lower limit (low byte)		

Address	Function	Unit	Remarks
68051B	PABX dial tone detection time	20 ms	If 68051B contains FF, the machine pauses for the pause time (680520 / 680521).
68051C	PABX dial tone reset time (LOW)		
68051D	PABX dial tone reset time (HIGH)		
68051E	PABX dial tone continuous tone time		
68051F	PABX dial tone permissible drop time		
680520	PABX wait interval (LOW)		-
680521	PABX wait interval (HIGH)		
680522	PABX ringback tone detection time	20 ms	If both addresses contain FF(H), tone detection is disabled.
680523	PABX ringback tone off detection time	20 ms	
680524	PABX detection time for silent period after ringback tone detected (LOW)	20 ms	If both addresses contain FF(H), tone detection is disabled.
680525	PABX detection time for silent period after ringback tone detected (HIGH)	20 ms	
680526	PABX busy tone frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680527	PABX busy tone frequency upper limit (low byte)		
680528	PABX busy tone frequency lower limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680529	PABX busy tone frequency lower limit (low byte)		
68052A	Busy tone ON time: range 1	20 ms	-
68052B	Busy tone OFF time: range 1		

Address	Function	Unit	Remarks
68052C	Busy tone ON time: range 2		
68052D	Busy tone OFF time: range 2		
68052E	Busy tone ON time: range 3		
68052F	Busy tone OFF time: range 3	20 ms	
680530	Busy tone ON time: range 4		
680531	Busy tone OFF time: range 4		
680532	Busy tone continuous tone detection time		
680533	Busy tone signal state time tolerance for all ranges, and number of cycles required for detection (a setting of 4 cycles means that ON-OFF-ON or OFF-ON-OFF must be detected twice). Tolerance (±) Bit 1: 0, Bit 0: 0 = 75% Bits 2 and 3 must always be kept at 0. Bit 1: 0, Bit 0: 0 = 50% Bits 2 and 3 must always be kept at 0. Bit 1: 0, Bit 0: 0 = 25% Bit 1: 0, Bit 0: 0 = 12.5% Bits 7, 6, 5, 4 - number of cycles required for cadence detection		
680534	International dial tone frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680535	International dial tone frequency upper limit (low byte)		
680536	International dial tone frequency lower limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680537	International dial tone frequency lower limit (low byte)		
680538	International dial tone detection time	20 ms	If 680538 contains FF, the machine pauses for the pause time (68053D / 68053E).
680539	International dial tone reset time (LOW)		

Address	Function	Unit	Remarks
68053A	International dial tone reset time (HIGH)		Belgium: See Note 2.
68053B	International dial tone continuous tone time		
68053C	International dial tone permissible drop time		
68053D	International dial wait interval (LOW)		-
68053E	International dial wait interval (HIGH)		
68053F	Country dial tone upper frequency limit (HIGH)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
680540	Country dial tone upper frequency limit (LOW)		
680541	Country dial tone lower frequency limit (HIGH)		If both addresses contain FF(H), tone detection is disabled.
680542	Country dial tone lower frequency limit (LOW)		
680543	Country dial tone detection time	20 ms	If 680543 contains FF, the machine pauses for the pause time (680548 / 680549).
680544	Country dial tone reset time (LOW)		
680545	Country dial tone reset time (HIGH)		
680546	Country dial tone continuous tone time	-	-

680547	Country dial tone permissible drop time	20 ms	-
680548	Country dial wait interval (LOW)		
680549	Country dial wait interval (HIGH)		
68054A	Time between opening or closing the DO relay and opening the OHDI relay	1 ms	See Notes 3, 6 and 8. SP2-103-012 (parameter 11).
68054B	Break time for pulse dialing	1 ms	See Note 3. SP2-103-013 (parameter 12).
68054C	Make time for pulse dialing	1 ms	See Note 3. SP2-103-014 (parameter 13).
68054D	Time between final OHDI relay closure and DO relay opening or closing	1 ms	See Notes 3, 6 and 8. SP2-103-015 (parameter 14). This parameter is only valid in Europe.
68054E	Minimum pause between dialed digits (pulse dial mode)	20 ms	See Note 3 and 8. SP2-103-016 (parameter 15).
68054F	Time waited when a pause is entered at the operation panel		SP2-103-017 (parameter 16). See Note 3.
680550	DTMF tone on time	1 ms	SP2-103-018 (parameter 17).
680551	DTMF tone off time		SP2-103-019 (parameter 18).

680552	Tone attenuation level of DTMF signals while dialing	-N x 0.5 –3.5 dBm	SP2-103-020 (parameter 19). See Note 5.
680553	Tone attenuation value difference between high frequency tone and low frequency tone in DTMF signals	-dBm x 0.5	SP2-103-021 (parameter 20). The setting must be less than –5dBm, and should not exceed the setting at 680552h above. See Note 5.
680554	PSTN: DTMF tone attenuation level after dialling	-N x 0.5 –3.5 dBm	SP2-103-022 (parameter 21). See Note 5.
680555	ISDN: DTMF tone attenuation level after dialling	-dBm x 0.5	See Note 5
680556	Not used	-	Do not change the settings.
680557	Time between 68054Dh (NCU parameter 14) and 68054Eh (NCU parameter 15)	1 ms	This parameter takes effect when the country code is set to France.
680558	Not used	-	Do not change the setting.
680559	Grounding time (ground start mode)	20 ms	The Gs relay is closed for this interval.
68055A	Break time (flash start mode)	1 ms	The OHDI relay is open for this interval.
68055B	International dial access code (High)	BCD	For a code of 100: 68055B - F1 68055C - 00
68055C	International dial access code (Low)		

68055D	PSTN access pause time	20 ms	This time is waited for each pause input after the PSTN access code. If this address contains FF[H], the pause time stored in address 68054F is used. Do not set a number more than 7 in the UK.
68055E	Progress tone detection level, and cadence detection enable flags	Bit 7: 0, Bit 6: 0, Bit 5: 0 = -25.0 dBm Bit 7: 0, Bit 6: 0, Bit 5: 1 = -35.0 dBm Bit 7: 0, Bit 6: 1, Bit 5: 0 = -30.0 dBm Bit 7: 1, Bit 6: 0, Bit 5: 0 = -40.0 dBm Bit 7: 1, Bit 6: 1, Bit 5: 0 = -49.0 dBm Bits 2, 0 - See Note 2.	
68055F To 680564	**Not used**	-	Do not change the settings.
680565	Long distance call prefix (HIGH)	BCD	For a code of 0: 680565 – FF 680566 - FF
680566	Long distance call prefix (LOW)	BCD	
680567 to 680571	**Not used**	-	Do not change the settings.
680572	Acceptable ringing signal frequency: range 1, upper limit	1000/ N (Hz).	SP2-103-003 (parameter 02).
680573	Acceptable ringing signal frequency: range 1, lower limit		SP2-103-004 (parameter 03).
680574	Acceptable ringing signal frequency: range 2, upper limit		SP2-103-005 (parameter 04).
680575	Acceptable ringing signal frequency: range 2, lower limit		SP2-103-006 (parameter 05).

680576	Number of rings until a call is detected	1	SP2-103-007 (parameter 06). The setting must not be zero.
680577	Minimum required length of the first ring	20 ms	See Note 4. SP2-103-008 (parameter 07).
680578	Minimum required length of the second and subsequent rings	20 ms	SP2-103-009 (parameter 08).
680579	Ringing signal detection reset time (LOW)	20 ms	SP2-103-010 (parameter 09).
68057A	Ringing signal detection reset time (HIGH)		SP2-103-011 (parameter 10).
68057B to 680580	**Not used**	-	Do not change the settings.
680581	Interval between dialing the last digit and switching the Oh relay over to the external telephone when dialing from the operation panel in handset mode.	20 ms	Factory setting: 500 ms
680582	Bits 0 and 1 - Handset off-hook detection time Bit 1:0, Bit 0: 0 = 200 ms Bit 1:0, Bit 0: 1 = 800 ms Other Not used Bits 2 and 3 - Handset on-hook detection time Bit 3: 0, Bit 2: 0 = 200 ms Bit 3: 0, Bit 2: 1 = 800 ms Other Not used Bits 4 to 7 - **Not used**		-

680583 To 6805A0	**Not used**	-	Do not change the settings.
6805A1	Acceptable CED detection frequency upper limit (high byte)	BCD (Hz)	If both addresses contain FF(H), tone detection is disabled.
6805A2	Acceptable CED detection frequency upper limit (low byte)		
6805A3	Acceptable CED detection frequency lower limit (high byte)	BCD (Hz)	If both addresses contain FF(H), tone detection is disabled.
6805A4	Acceptable CED detection frequency lower limit (low byte)		
6805A5	CED detection time	20 ms ± 20 ms	Factory setting: 200 ms
6805A6	Acceptable CNG detection frequency upper limit (high byte)	BCD (Hz)	If both addresses contain FF(H), tone detection is disabled.
6805A7	Acceptable CNG detection frequency upper limit (low byte)		
6805A8	Acceptable CNG detection frequency lower limit (high byte)	BCD (Hz)	If both addresses contain FF(H), tone detection is disabled.
6805A9	Acceptable CNG detection frequency lower limit (low byte)		
6805AA	**Not used**	-	Do not change the setting.
6805AB	CNG on time	20 ms	Factory setting: 500 ms
6805AC	CNG off time	20 ms	Factory setting: 3000 ms
6805AD	Number of CNG cycles required for detection	-	The data is coded in the same way as address 680533.
6805AE	**Not used**	-	Do not change the settings.

6805AF	Acceptable AI short protocol tone (800Hz) detection frequency upper limit (high byte)	Hz (BCD)	If both addresses contain FF(H), tone detection is disabled.
6805B0	Acceptable AI short protocol tone (800Hz) detection frequency upper limit (low byte)		
6805B1	Acceptable AI short protocol tone (800Hz) detection frequency lower limit (high byte)	Hz(BCD)	If both addresses contain FF(H), tone detection is disabled.
6805B2	Acceptable AI short protocol tone (800Hz) detection frequency lower limit (low byte)		
6805B3	Detection time for 800 Hz AI short protocol tone	20 ms	Factory setting: 360 ms
6805B4	PSTN: Tx level from the modem	-N – 3 dBm	SP2-103-002 (parameter 01).
6805B5	PSTN: 1100 Hz tone transmission level	- N 6805B4 - 0.5N 6805B5 –3.5 (dB) See Note 7.	
6805B6	PSTN: 2100 Hz tone transmission level	- N6805B4 - 0.5N 6805B6 –3 (dB) See Note 7.	
6805B7	PABX: Tx level from the modem	- dBm	
6805B8	PABX: 1100 Hz tone transmission level	- N 6805B7 - 0.5N 6805B8 (dB)	
6805B9	PABX: 2100 Hz tone transmission level	- N 6805B7 - 0.5N 6805B9 (dB)	
6805BD	Modem turn-on level (incoming signal detection level)	-37-0.5N (dBm)	

6805BE to 6805C6	**Not used**	-	Do not change the settings.
6805C7	Bits 0 to 3 – **Not used** Bit 4 = V.34 protocol dump 0: Simple, 1: Detailed (default) Bits 5 to 7 – **Not used.**		
6805C8 to 6805D9	**Not used**	-	Do not change the settings.
6805DA	T.30 T1 timer	1 s	
6805E0 bit 3	Maximum wait time for post message	0: 12 s 1: 30 s	1: Maximum wait time for post message (EOP/EOM/MPS) can be changed to 30 s. Change this bit to “1” if communication errors occur frequently during V.17 reception.
6805E3	Bits 0 and 1 – DCV (TIP/RING) Voltage Bit 1:0, Bit 0: 0 = 3.1 V Bit 1:0, Bit 0: 1 = 3.2 V Bit 1:1, Bit 0: 0 = 3.35 V Bit 1:1, Bit 0: 1 = 3.5 V Bits 2 and 3 – MINI (minimum loop electric current) Bit 2:0, Bit 3: 0 = 10 mA Bit 2:0, Bit 2: 1 = 12 mA Bit 2:1, Bit 3: 0 = 14 mA Bit 2:1, Bit 3: 1 = 16 mA Bits 6 and 7 – ACIM (AC impedance) Bit 7:0, Bit 6: 0 Bit 5:0, Bit 4: 0= 600 Bit 7:0, Bit 6: 0 Bit 5:1, Bit 4: 0= TBR21		

6805E4	Bit 0 – OHS (on hook speed) 0: OHS=0 1: OHS=1 Bit 1 – SQ (spark quench) 0: SQ=00 1: SQ=11 Bit 2 – RZ (call signal Impedance) 0: RZ=0 (high) 1: RZ=1 (low) Bit 3 – RT (call signal detection level) 0: RT=0 (low) 1: RT=1 (high) Bit 4 – ILIM (DC limitation) 0: ILIM=0 (CTR 21) 1: ILIM=1 (other than CTR 21) Bit 5 –FILTER 0: FILTER=0 (around 5Hz) 1: FILTER=1 (around 200Hz) Bits 6 to 7 – Calibration in off hook state Bit 6:0, Bit 7: 0 = off hook to ACAL:128 ms, off hook to MCAL: 1000 ms Bit 6:1, Bit 7: 0 = off hook to ACAL:128 ms, off hook to MCAL: 500 ms Bit 6:0, Bit 7: 1 = off hook to ACAL:128 ms (no MCAL) Bit 6:1, Bit 7: 1 = off hook to ACAL:8 ms (no MCAL)
6805E5	Bits 0 to 6 – **Not used** Bits 7 – Energy saving for DSP, COMBLK, SiDAA 0: Does not save energy 1: Saves energy

NOTES

1. If a setting is not required, store FF in the address.
2. Italy and Belgium only

   RAM address 68055E: the lower four bits have the following meaning.

   Bit 2 - 1: International dial tone cadence detection enabled (Belgium)

   Bit 1 - Not used

   Bit 0 - 1: PSTN dial tone cadence detection enabled (Italy)

   If bit 0 or bit 2 is set to 1, the functions of the following RAM addresses are changed.

   680508 (if bit 0 = 1) or 680538 (if bit 2 = 1): tolerance for on or off state

duration (%), and number of cycles required for detection, coded as in address 680533.
68050B (if bit 0 = 1) or 68053B (if bit 2 = 1): on time, hex code (unit = 20 ms)
68050C (if bit 0 = 1) or 68053C (if bit 2 = 1): off time, hex code (unit = 20 ms)

3. Pulse dial parameters (addresses 68054A to 68054F) are the values for 10 pps. If 20 pps is used, the machine automatically compensates.
4. The first ring may not be detected until 1 to 2.5 wavelengths after the time specified by this parameter.
5. The calculated level must be between 0 and 10.
   The attenuation levels calculated from RAM data are:
   High frequency tone:
   - $-0.5 \times N_{680552}/_{680554} - 3.5$ dBm
   - $-0.5 \times N_{680555}$ dBm

   Low frequency tone:
   - $-0.5 \times (N_{680552}/_{680554} + N_{680553}) - 3.5$ dBm
   - $-0.5 \times (N_{680555} + N_{680553})$ dBm

   Note
   - N_{680552}, for example, means the value stored in address 680552(H)
6. 68054A: Europe - Between Ds opening and Di opening, France - Between Ds closing and Di opening
   68054D: Europe - Between Ds closing and Di closing, France - Between Ds opening and Di closing
7. Tone signals which frequency is lower than 1500Hz (e.g., 800Hz tone for AI short protocol) refer to the setting at 6805B5h. Tones which frequency is higher than 1500Hz refer to the setting at 6805B6h.
8. 68054A, 68054D, 68054E: The actual inter-digit pause (pulse dial mode) is the sum of the period specified by the RAM addresses 68054A, 68054D, and 68054E.

4.10 DEDICATED TRANSMISSION PARAMETERS

There are two sets of transmission parameters: Fax and E-mail
Each Quick Dial Key and Speed Dial Code has eight bytes of programmable parameters allocated to it. If transmissions to a particular machine often experience problems, store that terminal's fax number as a Quick Dial or Speed Dial, and adjust the parameters allocated to that number.
The programming procedure will be explained first. Then, the eight bytes will be described.

4.10.1 PROGRAMMING PROCEDURE

1. Set the bit 0 of System Bit Switch 00 to 1.
2. Enter Address Book Management mode ([User Tools]> System Settings> Key Operator> Address Book Management).
3. Select the address book that you want to program.
4. For the fax parameter, select "Fax Dest.", for the E-mail parameter, select "E-mail", then press "Start". Make sure that the LED of the Start button lights green.
5. The settings for the switch 00 are now displayed. Press the bit number that you wish to change.
6. To scroll through the parameter switches, either:
7. Select the next switch: press "Next" or Select the previous switch: "Prev." until the correct switch is displayed. Then go back to step 6.
8. After the setting is changed, press "OK".
9. After finishing, reset bit 0 of System Bit Switch 00 to 0.

4.10.2 PARAMETERS

Fax Parameters

The initial settings of the following fax parameters are all FF(H) - all the parameters are disabled.

Switch 00
FUNCTION AND COMMENTS
ITU-T T1 time (for PSTN G3 mode) If the connection time to a particular terminal is longer than the NCU parameter setting, adjust this byte. The T1 time is the value stored in this byte (in hex code), multiplied by 1 second. **Range:** 0 to 120 s (00h to 78h) FFh - The local NCU parameter factory setting is used. Do not program a value between 79h and FEh.

Switch 01

No	FUNCTION						COMMENTS
0-4	Tx level						If communication with a particular remote terminal often contains errors, the signal level may be inappropriate. Adjust the Tx level for communications with that terminal until the results are better. If the setting is "Disabled", the NCU parameter 01 setting is used. Note ▪ Do not use settings other than listed on the left.
	Bit4	Bit3	Bit2	Bit1	Bit0		
	0	0	0	0	0	0	
	0	0	0	0	1	–1	
	0	0	0	1	0	–2	
	0	0	0	1	1	–3	
	0	0	1	0	0	–4	
	↓	↓	↓	↓	↓	↓	
	0	1	1	1	1	–15	
	1	1	1	1	1	Disabled	

5-7	Cable equalizer Bit 7: 0, Bit 6: 0, Bit 5: 0 = None Bit 7: 0, Bit 6: 0, Bit 5: 1 = Low Bit 7: 0, Bit 6: 1, Bit 5: 0 = Medium Bit 7: 0, Bit 6: 1, Bit 5: 1 = High Bit 7: 1, Bit 6: 1, Bit 5: 1 = Disabled	Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange when calling the number stored in this Quick/Speed Dial. Also, try using the cable equalizer if one or more of the following symptoms occurs. Communication error with error codes such as 0-20, 0-23, etc. Modem rate fallback occurs frequently. Note ▪ Do not use settings other than listed on the left. If the setting is "Disabled", the bit switch setting is used.

Switch 02

No	FUNCTION					COMMENTS
0-3	Initial Tx modem rate					If training with a particular remote terminal always takes too long, the initial modem rate may be too high. Reduce the initial Tx modem rate using these bits. For the settings 14.4 or kbps slower, Switch 04 bit 4 must be changed to 0. Note ▪ Do not use settings other than listed on the left. If the setting is "Disabled", the bit switch setting is used.
	Bit3	Bit2	Bit1	Bit0	bps	
	0	0	0	0	Not used	
	0	0	0	1	2400	
	0	0	1	0	4800	
	0	0	1	1	7200	
	0	1	0	0	9600	
	0	1	0	1	12000	
	0	1	1	0	14400	
	0	1	1	1	16800	
	1	0	0	0	19200	

	1	0	0	1	21600	
	1	0	1	0	24000	
	1	0	1	1	26400	
	1	1	0	0	28800	
	1	1	0	1	31200	
	1	1	1	0	33600	
	1	1	1	1	Disabled	
	Other settings: **Not used**					
4-7	**Not used**					Do not change the settings.

Switch 03		
No	**FUNCTION**	**COMMENTS**
0-1	Inch-mm conversion before tx Bit 1: 0, Bit 0: 0 = Inch-mm conversion available Bit 1: 0, Bit 0: 1 = Inch only Bit 1: 1, Bit 0: 0 = Not used Bit 1: 1, Bit 0: 1 = Disabled	If "inch only" is selected on the machine uses inch-based resolutions for scanning, the printed copy may be slightly distorted at the other end if that machine uses mm-based resolutions. If the setting is "Inch-mm conversion available ", Inch-mm conversion become effective to the special senders. If the setting is "Disabled", the bit switch setting is used.
2-3	DIS/NSF detection method Bit 3: 0, Bit 2: 0 = First DIS or NSF Bit 3: 0, Bit 2: 1 = Second DIS or NSF Bit 3: 1, Bit 2: 0 = Not used Bit 3: 1, Bit 2: 1 = Disabled	(0, 1): Use this setting if echoes on the line are interfering with the set-up protocol at the start of transmission. The machine will then wait for the second DIS or NSF before sending DCS or NSS. If the setting is "Disabled", the bit switch setting is used.

4	V.8 protocol 0: Off 1: Disabled	If transmissions to a specific destination always end at a lower modem rate (14,400 bps or lower), disable V.8 protocol so as not to use V.34 protocol. 0: V.34 communication will not be possible. If the setting is "Disabled", the bit switch setting is used.
5	Compression modes available in transmit mode 0: MH only 1: Disabled	This bit determines the capabilities that are informed to the other terminal during transmission. If the setting is "Disabled", the bit switch setting is used.
6-7	ECM during transmission Bit 7: 0, Bit 6: 0 = Off Bit 7: 0, Bit 6: 1 = On Bit 7: 1, Bit 6: 0 = Not used Bit 7: 1, Bit 6: 1 = Disabled	For example, if ECM is switched on but is not wanted when sending to a particular terminal, use the (0, 0) setting. Note ▪ V.8/V.34 protocol and JBIG compression are automatically disabled if ECM is disabled. ▪ If the setting is "Disabled", the bit switch setting is used.

Switch 04 - Not used (do not change the settings)
Switch 05 - Not used (do not change the settings)
Switch 06 - Not used (do not change the settings)
Switch 07 - Not used (do not change the settings)
Switch 08 - Not used (do not change the settings)
Switch 09 - Not used (do not change the settings)

E-mail Parameters

The initial settings of the following e-mail parameters are all "0" (all parameters disabled).

Switch 00		
No	**FUNCTION**	**COMMENTS**

0	MH Compression mode for e-mail attachments **0**: Off 1: On	Switches MH compression on and off for files attached to e-mails for sending.
1	MR Compression mode for e-mail attachments **0**: Off 1: On	Switches MR compression on and off for files attached to e-mails for sending.
2	MMR Compression mode for e-mail attachments **0**: Off 1: On	Switches MMR compression on and off for files attached to e-mails for sending.
3-6	**Not used**	Do not change these settings.
7	Designates the bits to reference for compression method of e-mail attachments **0**: Registered (Bit 0 to 6) 1: No registration.	The "0" selection (default) references the settings for Bits 00, 01, 02 above. The "1" selection ignores the selections of Bits 00, 01, 02.

Switch 01		
No	**FUNCTION**	**COMMENTS**
0	Original width of e-mail attachment: A4 **0**: Off 1: On	Sets the original width of the e-mail attachment as A4.
1	Original width of e-mail attachment: B4 **0**: Off 1: On	Sets the original width of the e-mail attachment as B4.
2	Original width of e-mail attachment: A3 **0**: Off 1: On	Sets the original width of the e-mail attachment as A3.

3-6	**Not used**	Do not change these settings.
7	Designates the bits to reference for original size of e-mail attachments **0**: Registered (Bit 0 to 6) 1: No registration.	The "0" selection (default) references the settings for Bits 00, 01, 02 above. The "1" selection ignores the selections of Bits 00, 01, 02.

Switch 02		
No	**FUNCTION**	**COMMENTS**
0	Line resolution of e-mail attachment: 200 x 100 **0**: Off 1: On	Sets the line resolution of the e-mail attachment as 200 x100.
1	Line resolution of e-mail attachment: 200 x 200 **0**: Off 1: On	Sets the line resolution of the e-mail attachment as 200 x 200.
2	Line resolution of e-mail attachment: 200 x 400 **0**: Off 1: On	Sets the line resolution of the e-mail attachment as 200 x 400.
3	Not used	Do not change these settings.
4	Line resolution of e-mail attachment: 400 x 400 **0**: Off 1: On	Sets the line resolution of the e-mail attachment as 400 x 400.
5-6	**Not used**	Do not change these settings.
7	Designates the bits to reference for original size of e-mail attachments **0**: Registered (Bit 0 to 6) 1: No registration.	The "0" selection (default) references the settings for Bits 00, 01, 02, 04 above. The "1" selection ignores the selections of Bits 00, 01, 02, 04.

Switch 03 - Not used (do not change the settings)

Switch 04		
No	**FUNCTION**	**COMMENTS**
0	Full mode address selection 0: Full mode address 1: No full mode (simple mode)	If the other ends have the addresses, which have the full mode function flag ("0"), this machine determines them as full mode standard machines. ▪ This machine attaches the "demand of reception confirmation" to a message when transmitting. ▪ This machine updates the reception capability to the address book when receiving.
1-7	**Not used**	Do not change these settings.

Switch 05		
No	**FUNCTION**	**COMMENTS**
0	Directr transmission selection to SMTP server 0: ON 1: OFF	Allows or does not allow the direct transmission to SMTP server.
1-7	Not used	Do not change these settings.

Switch 06 - Not used (do not change the settings)
Switch 07 - Not used (do not change the settings)
Switch 08 - Not used (do not change the settings)
Switch 09 - Not used (do not change the settings)

4.11 SERVICE RAM ADDRESSES

⚠CAUTION

- Do not change the settings which are marked as “Not used” or “Read only.”

680001 to 680004(H) - ROM version (Read only)

680001(H) - Revision number (BCD)

680002(H) - Year (BCD)

680003(H) - Month (BCD)

680004(H) - Day (BCD)

680006 to 680015(H) - Machine’s serial number (16 digits - ASCII)

680016(H) - Language code

0: Japanese, 1: UK English, 2: US English, 3: French, 4: German, 5: Spanish, 6: Italian, 7: Dutch, 8: Swedish, 9: Norwegian, 10: Danish, 11: Finnish, 12: Czech, 13: Hungarian, 14: Polish, 15: Portuguese, 16: Russian, 17: Traditional Chinese, 18: Simplified Chinese, 19: Korean

680018(H) - Total program checksum (low)

680019(H) - Total program checksum (high)

680020 to 68003F(H) - System bit switches

680050 to 68005F(H) - Printer bit switches

680060 to 68007F(H) - Communication bit switches

680080 to 68008F(H) - G3 bit switches

680090 to 68009F(H) - G3-2 bit switches: Not used

6800A0 to 6800AF(H) - G3-3 bit switches: Not used

6800D0(H) - User parameter switch 00 (SWUER_00) : Not used

6800D1(H) - User parameter switch 01 (SWUSR_01) : Not used

6800D2(H) - User parameter switch 02 (SWUSR_02)

Bit 0: Forwarding mark printing on forwarded messages 0: Disabled, 1: Enabled

Bit 1: Center mark printing on received copies

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 2: Reception time printing

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 3: TSI print on received messages 0: Disabled, 1: Enabled

Bit 4: Checkered mark printing

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 5: Not used

Bit 6: Not used

Bit 7: Not used

6800D3(H) - User parameter switch 03 (SWUSR_03: Automatic report printout)

Bit 0: Transmission result report (memory transmissions) 0: Off, 1: On

Bit 1: Not used

Bit 2: Memory storage report 0: Off, 1: On

Bit 3: Polling reserve report (polling reception) 0: Off, 1: On

Bit 4: Polling result report (polling reception) 0: Off, 1: On

Bit 5: Transmission result report (immediate transmissions) 0: Off, 1: On

Bit 6: Not used

Bit 7: Journal 0: Off, 1: On

6800D4(H) - User parameter switch 04 (SWUSR_04: Automatic report printout)

Bit 0: Not used

Bit 1: Automatic communication failure report and transfer result report output 0: Off, 1: On

Bits 2 to 3: Not used

Bit 4: Indicates the parties 0: Not indicated, 1: Indicated

Bit 5: Include sender's name on reports 0: Off, 1: On

Bit 6: Not used

Bit 7: Inclusion of a sample image on reports 0: Off, 1: On

6800D5(H) - User parameter switch 05 (SWUSR_05)

Bit 0: Substitute reception when the base copier is in an SC condition

0: Enabled, 1: Disabled

Bits 1 and 2: Condition for substitute rx when the machine cannot print messages (Paper end, toner end, jam, and during night mode)

Bit 2: 0, Bit 1: 0 = The machine receives all the fax messages.

Bit 2: 0, Bit 1: 1 = The machine receives the fax messages with RTI or CSI.

Bit 2: 1, Bit 1: 0 = The machine receives the fax messages with the same ID code.

Bit 2: 1, Bit 1: 1 = The machine does not receive anything.

Bit 3: Not used

Bit 4: Not used

Bit 5: Just size printing 0: Off, 1: On

Bit 6: Not used

Bit 7: Add paper display when a cassette is empty 0: Off, 1: On

6800D6(H) - User parameter switch 06 (SWUSR_06): Not used

6800D7(H) - User parameter switch 07 (SWUSR_07)

Bit 0 Ringing 0: Off, 1: On

Bit1: Automatic answering message 0: Off, 1: On

Bit 2: Parallel memory transmission 0: Off, 1: On

Bits 3 and 4: Not used

Bit 5: Remote control 0: Off, 1: On

Bits 6 and 7: Not used

6800D8(H) - User parameter switch 08 (SWUSR_08)

Bits 0 and 1: Not used.

Bit 2: Authorized reception

0: Only faxes from senders whose RTIs/CSIs are specified for this feature are accepted.

1: Only faxes from senders whose RTIs/CSIs are not specified for this feature are accepted.

Bits 3 to 7: Not used.

6800D9(H) - User parameter switch 09 (SWUSR_09): Not used

6800DA(H) - User parameter switch 10 (SWUSR_0A)

Bits 0 to 2: Not used

Bit 3: Page reduction 0: Off, 1: On

Bits 4 and 5: Not used

Bit 6: Use both e-mail notification and printed reports to confirm the transmission results 0: Off, 1: On

Bit 7: Not used

6800DB(H) - User parameter switch 11 (SWUSR_0B)

Bits 0 and 1: Not used

Bit 2: White original detection 0: Off, 1: On (alarm and alert message on the LCD)

Bit 3: Receive rejection for 1300 Hz transmission 0: Off (receive), 1: On (not receive)

Bit 5: Not used

Bit 6: Printout of messages received while acting as a forwarding station 0: Off, 1: On

Bit 7: Not used

6800DC(H) - User parameter switch 12 (SWUSR_0C): Not used

6800DD(H) - User parameter switch 13 (SWUSR_0D): Not used

6800DE(H) - User parameter switch 14 (SWUSR_0E)

Bit 0: Message printout while the machine is in Night Printing mode 0: On, 1: Off

Bit 1: Maximum document length detection 0: Double letter, 1: Longer than double-letter (well log) – up to 1,200 mm

Bit 2: Not used

Bit 3: Fax mode settings, such as resolution, before a mode key (Copy/Fax/Printer/Scanner) is pressed 0: Not cleared, 1: Cleared

Bits 4 to 6: Not used

Bit 7: Not used

6800DF(H) - User parameter switch 15 (SWUSR_0F)

(This switch is not printed on the user parameter list.)

Bits 0, 1 and 2: Cassette for fax printout

Bit 2: 0, Bit 1: 0, Bit 0: 1 = 1st paper feed station

Bit 2: 0, Bit 1: 1, Bit 0: 0 = 2nd paper feed station

Bit 2: 0, Bit 1: 1, Bit 0: 1 = 3rd paper feed station

Bit 2: 1, Bit 1: 0, Bit 0: 0 = 4th paper feed station

Bit 2: 1, Bit 1: 0, Bit 0: 1 = LCT

Other settings Not used

Bits 3 and 4: Not used

Bit 5: Using the cassette specified by bits 0, 1 and 2 above only 0: On, 1: Off

Bits 6 and 7: Not used

6800E0(H) – User parameter switch 16 (SWUSR_10)

(This switch is not printed on the user parameter list.)

Bits 0 and 1: Not used

Bit 2: Paper size selection priority for an A4 size fax message when A4/LT size paper is not available. 0: A3 has priority, 1: B4 has priority

Bits 3 to 7: Not used

6800E1(H) – User parameter switch 17 (SWUSR_11)

Bit 0: Not used

Bit 1: Not used

Bit 2: Inclusion of the “Add” button when a sequence of Quick/Speed dials is selected for broadcasting 0:Not needed, 1: Needed

Bits 3 to 6: Not used

Bit 7: Press “Start” key without an original when using the on hook dial or the external telephone, 0: displays “Cannot detect original size”. 1: Receives fax messages.

6800E2(H) - User parameter switch 18 (SWUSR_12)

Bit 0: TTI date 0: Off, 1: On

Bit 1: TTI sender 0: Off, 1: On

Bit 2: TTI file number 0: Off, 1: On

Bit 3: TTI page number 0: Off, 1: On

Bits 4 to 6: Not used

Bit 7: Japan only

6800E3(H) - User parameter switch 19 (SWUSR_13)

Bit 0: Not used

Bit 1: Journal format

0: The Journal is separated into transmissions and receptions

1: The Journal is separated into G3-1, G3-2, and G3-3 communications

Bit 2: Not used

Bit 3: 90° image rotation during B5 portrait Tx (This switch is not printed on the user parameter list.) 0: Off, 1: On

Bit 4: Reduction of sample images on reports to 50% in the main scan and sub-scan directions. (This switch is not printed on the user parameter list.) 0: Technician adjustment (printer switch 0E bits 3 and 4), 1: 50% reduction

Bit 5: Use of A5 size paper for reports (This switch is not printed on the user parameter list.) 0: Off, 1: On

Bits 6 and 7: Not used

6800E4(H) - User parameter switch 20 (SWUSR_14)

Bit 0: Automatic printing of the LAN fax result report 0: Off, 1: On

Bit 1: Not used.

Bits 2 to 5: Store documents in memory which could not be printed from PC fax (LAN fax) driver

Bit 5	Bit 4	Bit 3	Bit 2	Setting
0	0	0	0	0 min.
0	0	0	1	1 min.
↓	↓	↓	↓	↓
1	1	1	0	14 min.
1	1	1	1	15 min.

Bits 6 and 7: Not used.

6800E5(H) - User parameter switch 21 (SWUSR_15)

Bit 0: Print results of sending reception notice request message 0: Disabled (print only when error occurs), 1: Enabled

Bit 1: Respond to e-mail reception acknowledgment request 0: Disabled, 1: Enabled

Bit 2: Not used

Bit 3: File format for forwarded folders 0: TIFF, 1:PDF

Bit 4: Transmit Journal by E-mail 0: Disabled, 1: Enabled

Bit 5: Not used

Bit 6: Network error display 0: Displayed, 1: Not displayed

Bit 7: Transmit error mail notification 0: Enabled, 1: Disabled

6800E6(H) - User parameter switch 22 (SWUSR_16)

(This switch is not printed on the user parameter list.)

Bit 0: Dial tone detection (PSTN 1) 0: Disabled, 1: Enabled

Bits 1 to 7: Not used

6800E7(H) – User parameter switch 23 (SWUSR_17): Not used

6800E8(H) - User parameter switch 24 (SWUSR_18): Not used

6800E9(H) - User parameter switch 25 (SWUSR_19)

Bit 0: Not used

Bit 1: Reception mode switch timer 0: Off, 1: On (switching Fax or Fax/Tel)

Bit 2: Mode priority switch 0: Fax first, 1: Tel first

Bit 3: Dial in function (Japan Only)

Bit 4: RDS operation 0: Not acceptable, 1: Acceptable for the limit specified by system switch 03

Note

- This bit is only effective when RDS operation can be selected by the user (see system switch 02).

Bits 5 to 7: Not used

6800EA(H) and 6800EB(H) - User parameter switches 26 and 27 (SWUSR_1A and 1B): Not used

6800EC(H) - User parameter switch 28(SWUSR_1C): Not used

6800ED(H) - User parameter switch 29(SWUSR_1D): Not used

6800EE(H) and 6800EF(H) - User parameter switches 30 and 31 (SWUSR_1E and 1F): Not used

6800F0(H) - User parameter switch 32 (SWUSR_20)

Bit 0: Quotation priority for a destination when there is no destination of the specified type

0: Paper output priority = Priority order: 1. IP-fax destination, 2. Fax Number, 3. E-mail address, 4. Folder

1: Electric putout order = Priority order: 1. E-mail address, 2. Folder, 3. IP-fax destination, 4. Fax number

Bits 1 to 7: Not used

6800F1(H) - User parameter switch 33 (SWUSR_21): Not used

6800F2(H) - User parameter switch 34 (SWUSR_22)

Bit 0: Gatekeeper server used with IP-Fax 0: Disabled, 1: Enabled

Bit 1: SIP server used with IP-Fax 0: Disabled, 1: Enabled

Bits 2 to 7: Not used

6800F3(H) - User parameter switch 35 (SWUSR_23)

Redial interval when sending a backup file

6800F4(H) - User parameter switch 36 (SWUSR_24)

Maximum number of redials when sending a backup file

6800F5(H) - User parameter switch 37 (SWUSR_25)

Bit 0: Whether to stop sending a backup file if the destination folder becomes full while the machine is sending or waiting to send a fax or the backup file. 0: No, • 1: Yes

Bit 2 and 3: Backup file is printed along with the TX communication failure report when a backup file transmission failure occurs. 00: Do not print, 01: Print first page only, 10: Print whole file

Bit 4: Display the sender's information in the file name of documents that are forwarded to folder destinations. 0: Disabled, 1: Enabled

Bit 5: Limit the file names of documents that are forwarded to folder destinations to plain characters only. 0: Disabled, 1: Enabled

Bit 6: When using the remote fax function, the sub-machine beeps to let you know when it has printed a received document (If you specify "On", the machine will beep according to the setting of [Panel Key Sound] under [System Settings].) 0: On, 1: Off

Bit 7: Not used

6800F6(H) - User parameter switch 38 (SWUSR_26)

Maximum number of transmissions the machine attempts before determining that a fax cannot be forwarded from a sender (including special senders) to a folder destination

6800F7(H) - User parameter switch 39 (SWUSR_27)

Interval (in minutes) between resend attempts after failing to forward a fax from a sender (including special senders) to a folder destination

6800F8(H) - User parameter switch 40 (SWUSR_28)

Bit 0: When memory space is insufficient, the machine prints and then deletes the oldest faxes, creating memory space for storage of new faxes. 0: Disabled, 1: Enabled

Bit 1 to 7: Not used

6800FF(H) - User parameter switch 45 (SWUSR_2D)

Bit 0 and 1:

Bit 2: File format for files transmitted to e-mail addresses and folders registered as forwarding, destinations of backup file transmission, receivers for Personal Box, or end receivers for Transfer Box. 0: PDF 1: PDF/A

Bit 3:

Bit 4 to 7: Not used

680100 to 68010F(H) - G4 Parameter Switches – Not used

680110 to 68012F(H) - G4 Internal Switches – Not used

680130 to 68016F(H) - Service Switches

680170 to 68017F(H) - IFAX Switches

680180 to 68018F(H) - IP-FAX Switches

680190 to 6801A3(H) - PSTN-1 RTI (Max. 20 characters - ASCII) - See the following note.

6801A4 to 6801B7(H) - PSTN-2 RTI (Max. 20 characters - ASCII)

6801B8 to 6801CB(H) - PSTN-3 RTI (Max. 20 characters - ASCII)

6801CF to 68020E(H) - TTI 1 (Max. 64 characters - ASCII) - See the following note.

68020F to 68024E(H) - TTI 2

68024F to 68028E(H) - TTI 3

68028F to 6802CE(H) - TTI 4

6802CF to 68030E(H) - TTI 5

68030F to 68034E(H) - TTI 6

68034F to 68038E(H) - TTI 7

68038F to 6803CE(H) - TTI 8

6803CF to 68040E(H) - TTI 9

68040F to 68044E(H) - TTI 10

Note

- If the number of characters is less than the maximum (20 for RTI, 32 for TTI), add a stop code (00[H]) after the last character.

68044F(H)

Printing format for TTI 1

0: DOM (Japan), 1:EXP (Export)

680450(H)

Printing format for TTI 2

0: DOM, 1:EXP

680451(H)

Printing format for TTI 3

0: DOM, 1:EXP

680452(H)

Printing format for TTI 4

0: DOM, 1:EXP

680453(H)

Printing format for TTI 5

0: DOM, 1:EXP

680454(H)

Printing format for TTI 6

0: DOM, 1:EXP

680455(H)

Printing format for TTI 7

0: DOM, 1:EXP

680456(H)

Printing format for TTI 8

0: DOM, 1:EXP

680457(H)

Printing format for TTI 9

0: DOM, 1:EXP

680458(H)

Printing format for TTI 10

0: DOM, 1:EXP

680459 to 68046C(H) - PSTN-1 CSI (Max. 20 characters - ASCII)

68046D to 680480(H) - PSTN-2 CSI (Max.20 characters - ASCII)

680481 to 680494(H) - PSTN-3 CSI (Max.20 characters - ASCII)

680495(H) - Number of PSTN-1 CSI characters (Hex)

680496(H) - Number of PSTN-2 CSI characters (Hex)

680497(H) - Number of PSTN-3 CSI characters (Hex)

6804C6(H) - Memory Lock ID (BCD)

6804D2 to 6804D9(H) - Last power off time (Read only)

6804D2(H) - 01(H) - 24-hour clock, 00(H) - 12-hour clock (AM), 02(H) - 12-hour clock (PM)

6804D3(H) - Year (BCD)

6804D4(H) - Month (BCD)

6804D5(H) - Day (BCD)

6804D6 (H) – Hour

6804D7 (H) – Minute

6804D8(H) – Second

6804D8 (H) - 00: Monday, 01: Tuesday, 02: Wednesday, /// , 06: Sunday

6804E6(H) - Optional equipment (Read only – Do not change the settings)

Bit 0: Page Memory 0: Not installed, 1: Installed

Bit 1: SAF Memory (4M) 0: Not installed, 1: Installed

Bit 2: SAF Memory 0: Not installed, 1: Installed

Bits 3 to 7; Not used

6804E7(H) - Optional equipment (Read only – Do not change the settings)

Bits 0 to 3: Not used

Bit 4: G3-2 0: Not installed, 1: Installed

Bit 5: G3-3 0: Not installed, 1: Installed

Bit 6 and 7: Not used

6804EE(H) - Machine code (Check ram 3)

680500(H) - Start address of G3 table for G3-1

680600(H) - Start address of G3 table for G3-2

680700(H) - Start address of G3 table for G3-3

680820 to 68083F(H) - Service station's fax number (SP3-101)

680840 to 680849(H) - Own fax PABX extension number – Not used

68084A to 680853(H) - Own fax number (PSTN) – Not used

680854 to 680867(H) - Own fax number (ISDN G4) – Not used

680868 to 680873(H) - The first subscriber number (ISDN G3) – Not used

680874 to 68087F(H) - The second subscriber number (ISDN G3) – Not used

680880 to 68088B(H) - The first subscriber number (ISDN G4) – Not used

68088C to 680897(H) - The second subscriber number (ISDN G4) – Not used

6808C0 to 6808D7(H) - G4TID registered information (Max.24 characters - ASCII)

6808D8 to 6808EB(H) - ISDN CSI (Max.20 characters - ASCII)

6808EC(H) - Number of ISDN CSI characters (Hex)

6808F1 to 6808F4(H) - ISDN G3 subaddress registered information

6808F5 to 6808F8(H) - G4 subaddress registered information

6808FE to 680902 – Option G3 board (G3-2) ROM information (Read only)

6808FE(H) - Suffix (BCD)

6808FF(H) - Version (BCD)

680900(H) - Year (BCD)

680901(H) - Month (BCD)

680902(H) - Day (BCD)

680903 to 680907 – Option G3 board (G3-3) ROM information (Read only)

680903(H) - Suffix (BCD)

680904(H) - Version (BCD)

680905(H) - Year (BCD)

680906(H) - Month (BCD)

680907(H) - Day (BCD)

680908(H) - G3-1 Modem ROM version (Read only)

68090A(H) - G3-2 Modem ROM version (Read only)

68090C(H) - G3-3 Modem ROM version (Read only)

680918(H) - Number of multiple sets print (Read only)

68096E(H) - Time for economy transmission (hour in 24h clock format - BCD)

68096F(H) - Time for economy transmission (minute - BCD)

68098A(H) - Transmission monitor volume 00 - 07(H)

68098B(H) - Reception monitor volume 00 - 07(H)

68098C(H) - On-hook monitor volume 00 - 07(H)

68098D(H) - Dialing monitor volume 00 - 07(H)

68098E(H) - Buzzer volume 00 - 07(H)

68098F(H) - Beeper volume 00 - 07(H)

6809A0(H) - Machine code (Check ram 4)

6809CA(H) - Machine serial number (ASCII)

680D98 to 680D9B(H) - Transmission counter (Max.24 characters - ASCII)

680D9C to 680D9F(H) - Reception counter (Max.24 characters - ASCII)

680E08 to 680E0B(H) - Mail transmission counter (Max.24 characters - ASCII)

680E0C to 680E0F(H) - Mai reception counter (Max.24 characters - ASCII)

6A69EE(H) to 6A6CED(H) - SIP server address (Read only)

6A69EE(H) - Proxy server - Main (Max. 128 characters - ASCII)

6A6A6E(H) - Proxy server - Sub (Max. 128 characters - ASCII)

6A6AEE(H) - Redirect server - Main (Max. 128 characters - ASCII)

6A6B6E(H) - Redirect server - Sub (Max. 128 characters - ASCII)

6A6BEE(H) - Registrar server - Main (Max. 128 characters - ASCII)

6A6C6E(H) - Registrar server - Sub (Max. 128 characters - ASCII)

6A6CEE(H) - Gatekeeper server address - Main (Max. 128 characters - ASCII)

6A6D6E(H) - Gatekeeper server address - Sub (Max. 128 characters - ASCII)

6A6DEE(H) - Alias Number (Max. 128 characters - ASCII)

6A6E6E(H) - SIP user name (Max. 128 characters - ASCII)

6A6EEE(H) - **SIP digest authentication password** (Max. 128 characters - ASCII)

6A6F6E(H) - Gateway address information (Max. 7100 characters - ASCII)

6A8B2A(H) - NGN initial setting method 0: Simple, 1: Manual

6A8B2B(H) - SIP digest authentication user name (Max. 128 characters - ASCII)

6A8BAB(H) - NGN-SIP domain name (Max. 64 characters - ASCII)

6A8B2B(H) - NGN-home gateway address (Max. 128 characters - ASCII)

6A8C6C(H) - Stand-by port number for H.323 connection

6A8C6E(H) - Stand-by port number for SIP connection

6A8C70(H) - RAS port number

6A8C72(H) - Gatekeeper port number

6A8C74(H) - Port number of data waiting for T.38

6A8C76(H) - Port number of SIP server

6A8C78(H) - Priority for SIP and H.323 0: H.323, 1: SIP

6A8C79(H) - SIP function 0: Disabled, 1: Enabled

6A8C7A(H) - H.323 function 0: Disabled, 1: Enabled

6A8C7B(H) - **SIP digest authentication function** 0: Disabled, 1: Enabled

6B35A4(H) - 6B35C5 (H) - Dial tone detection parameter (Max. 11 x 3 lines)

This initializes following order. [0x04, 0x40, 0x03, 0x60, 0x64, 0xf4, 0x01,0x64, 0x04, 0xc8, 0x00]

6B35A4(H) – Dial tone detection frequency – Upper limit (High)

Defaults: NA: 06, EU: 06, ASIA: 06

6B35A5(H) – Dial tone detection frequency – Upper Limit (Low)

Defaults: NA: 50, EU: 50, ASIA: 50

6B35A6(H) – Dial tone detection frequency – Lower Limit (High)

Defaults: NA: 03, EU: 02, ASIA: 02

6B35A7(H) – Dial tone detection frequency – Lower Limit (Low)

Defaults: NA: 60, EU: 90, ASIA: 90

6B35A8(H) –Dial tone detection waiting time (20 ms)

Defaults: NA: 64, EU 64, ASIA: 64

6B35A9 to 6B35AA – Dial tone detection monitoring time (20 ms)

Defaults

Area	6B35A9	6B35AA
NA	F4	01
EU	F4	01
ASIA	F4	01

6B35AB(H) – Dial tone detect judge time (20 ms)

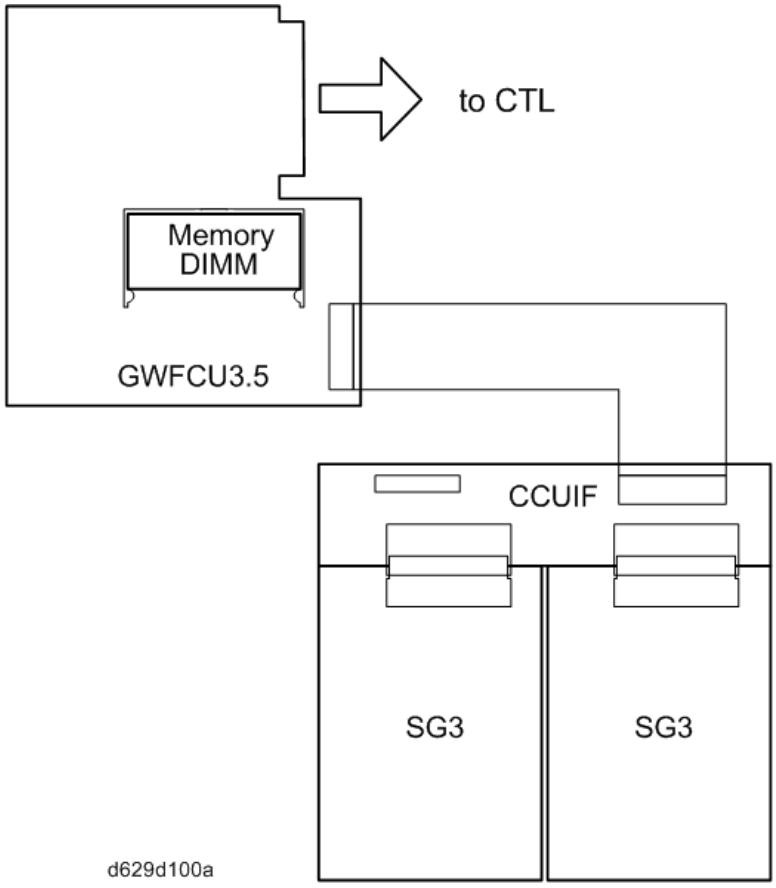
Defaults: NA: 64, EU: 1B, ASIA: 32

6B35AC(H) – Dial tone disconnect permission time (20 ms)

Defaults: NA: 11, EU: 0F, ASIA: 11

5. DETAILED SECTION DESCRIPTIONS

5.1 OVERVIEW



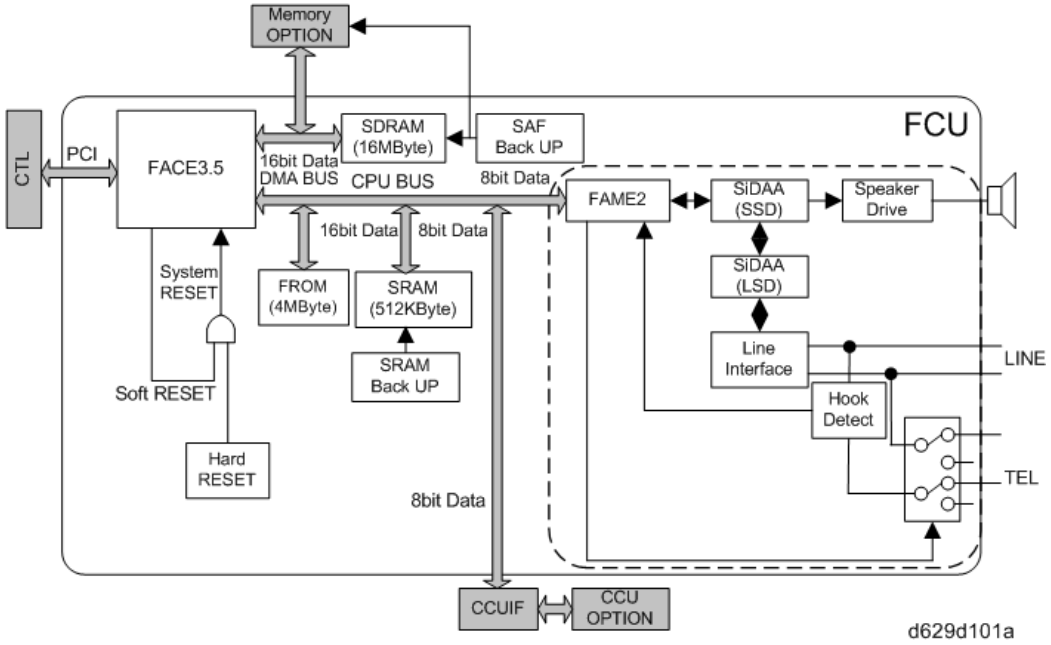
The FCU controls all the fax communications and fax features, in cooperation with the controller board. Also, the FCU contains the ROM, SRAM and NCU circuits.

Fax Options:

- Extra G3 Interface option: This provides one more analog line interface. This allows full dual access. Two extra G3 interface options can be installed.
- Memory Expansion: This expands the SAF memory and the page memory (used for image rotation); without this expansion, the page memory is not big enough for image rotation at 400 dpi, so transmission at 400 dpi is not possible.

5.2 BOARDS

5.2.1 FCU



The FCU (Facsimile Control Unit) controls fax communications, the video interface to the base copier's engine, and all the fax options.

FACE3.5 (Fax Application Control Engine)

- CPU
- Data compression and reconstruction (DCR)
- DMA control
- Clock generation
- DRAM backup control

Modem (FAME2)

- V.34, V33, V17, V.29, V.27ter, V.21, and V.8

DRAM

- The 16 MB of DRAM is shared as follows.
  - SAF memory: 4MB
  - Working memory: 4MB
  - Page memory: 8MB
  - The SAF memory is backed up by a rechargeable battery.

ROM

- 4MB flash ROMs for system software storage

SRAM

- The 512 KB SRAM for system and user parameter storage is backed up by a lithium battery.

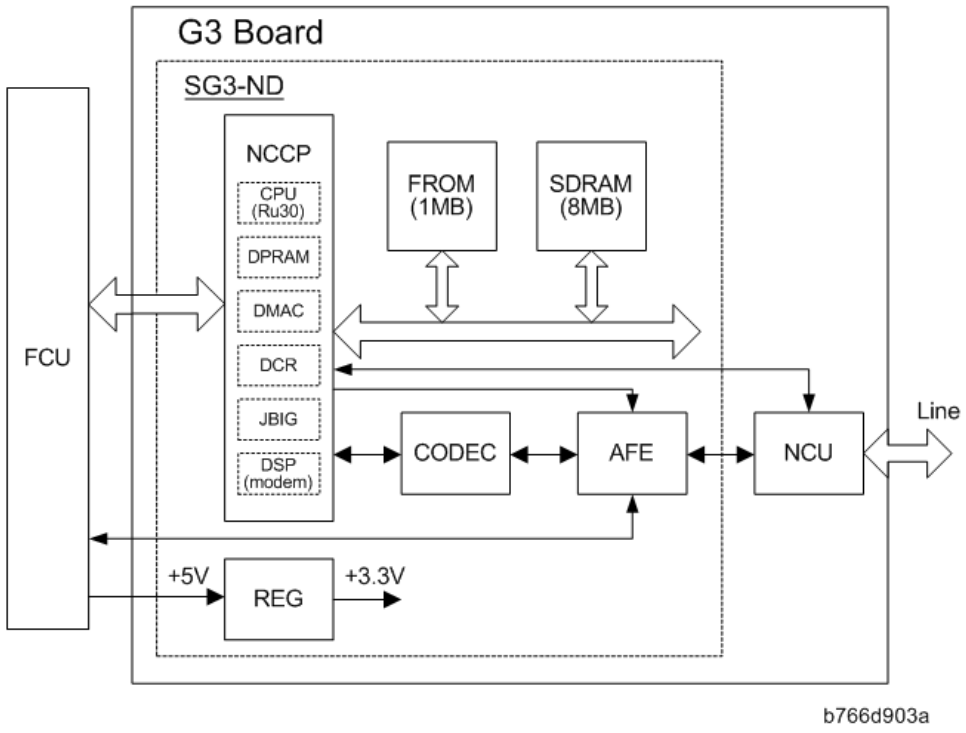
Memory Back-up

- A rechargeable battery backs up the SAF memory (DRAM) for 12 hours.
- A lithium battery backs up the system parameters and programmed items in the SRAM, in case the base copier's main switch is turned off.

Switches

Item	Description
SW1	Switches the SRAM backup battery on/off.

5.2.2 SG3 BOARD



The SG3 board allows up to three simultaneous communications when used in combination with the FCU and optional G3 boards. The NCU is on the same board as the common SG-3 board. This makes the total board structure smaller. But, the specifications of the SG3 board do not change.

NCCP (New Communication Control Processor)

- Controls the SG3 board.
- CPU (RU30)
- DPRAM (Dual Port RAM): Handshaking with the FCU is done through this block.
- DMA controller
- JBIG
- DSP V34 modem (RL5T892): Includes the DTMF Receiver function
- DCR for MH, MR, MMR, and JBIG compression and decompression

FROM

- 1Mbyte flash ROM for SG3 software storage and modem software storage

SDRAM

- 4Mbyte DRAM shared between ECM buffer, line buffer, and working memory

AFE (Analog Front End)

- Analog processing

CODEC (COder-DECoder)

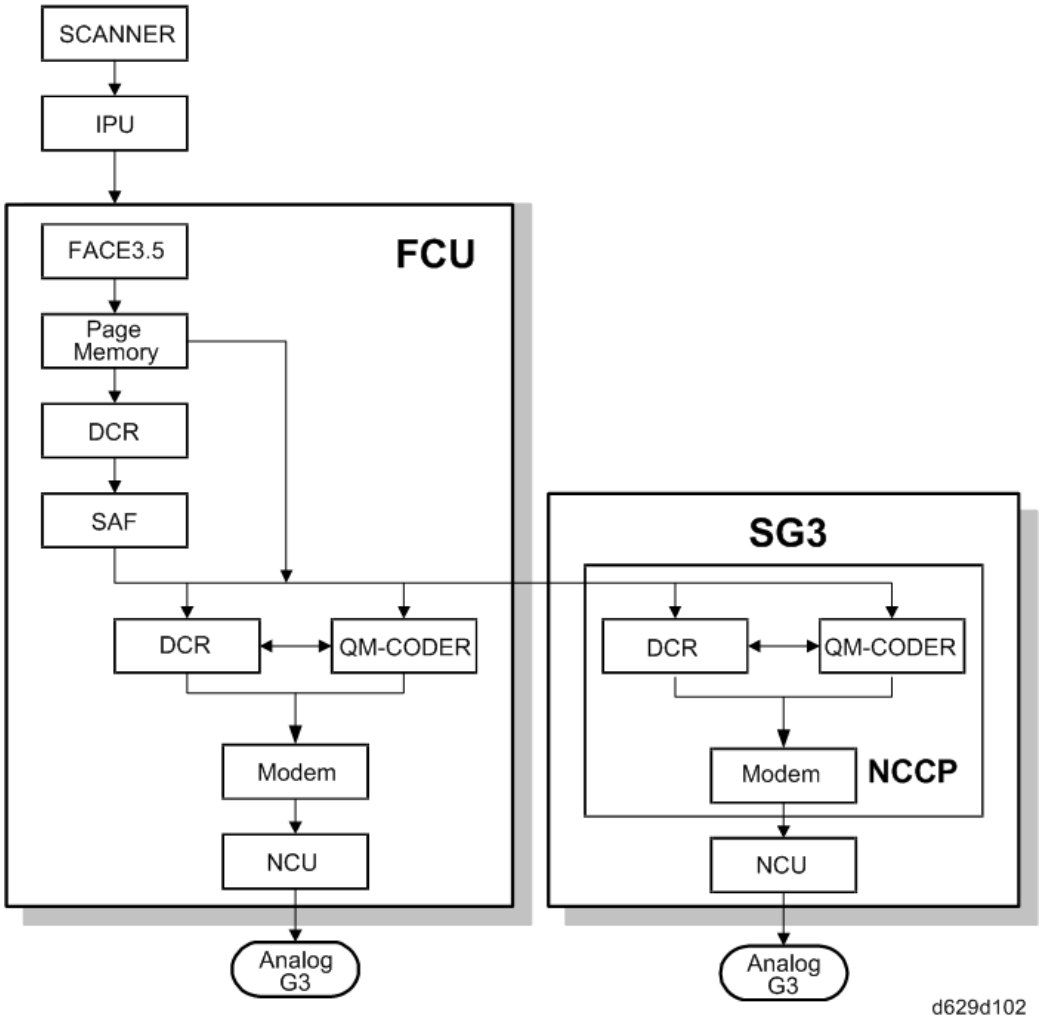
- A/D & D/A conversions for modem

REG

- Generates +3.3 V from the +5V from the FCU

5.3 VIDEO DATA PATH

5.3.1 TRANSMISSION



Memory Transmission and Parallel Memory Transmission

The base copier's scanner scans the original at the selected resolution in inch format. The IPU processes the data and transfers it to the FCU.

Note

- When scanning a fax original, the IPU uses the MTF, independent dot erase and thresholding parameter settings programmed in the fax unit's scanner bit switches, not the copier's SP modes.

Then, the FCU converts the data to mm format, and compresses the data in MMR or raw format to store it in the SAF memory. If image rotation will be done, the image is rotated in page memory before compression.

At the time of transmission, the FCU decompresses the stored data, then re-compresses and/or reduces the data if necessary for transmission. The NCU transmits the data to the line.

Immediate Transmission

The base copier's scanner scans the original at the resolution agreed with the receiving terminal. The IPU video processes the data and transfers it to the FCU.

Note

- When scanning a fax original, the IPU uses the MTF, independent dot erase and thresholding parameter settings programmed in the fax unit's scanner bit switches, not the copier's SP modes.

Then the FCU stores the data in page memory, and compresses the data for transmission. The NCU transmits the data to the line.

JBIG Transmission

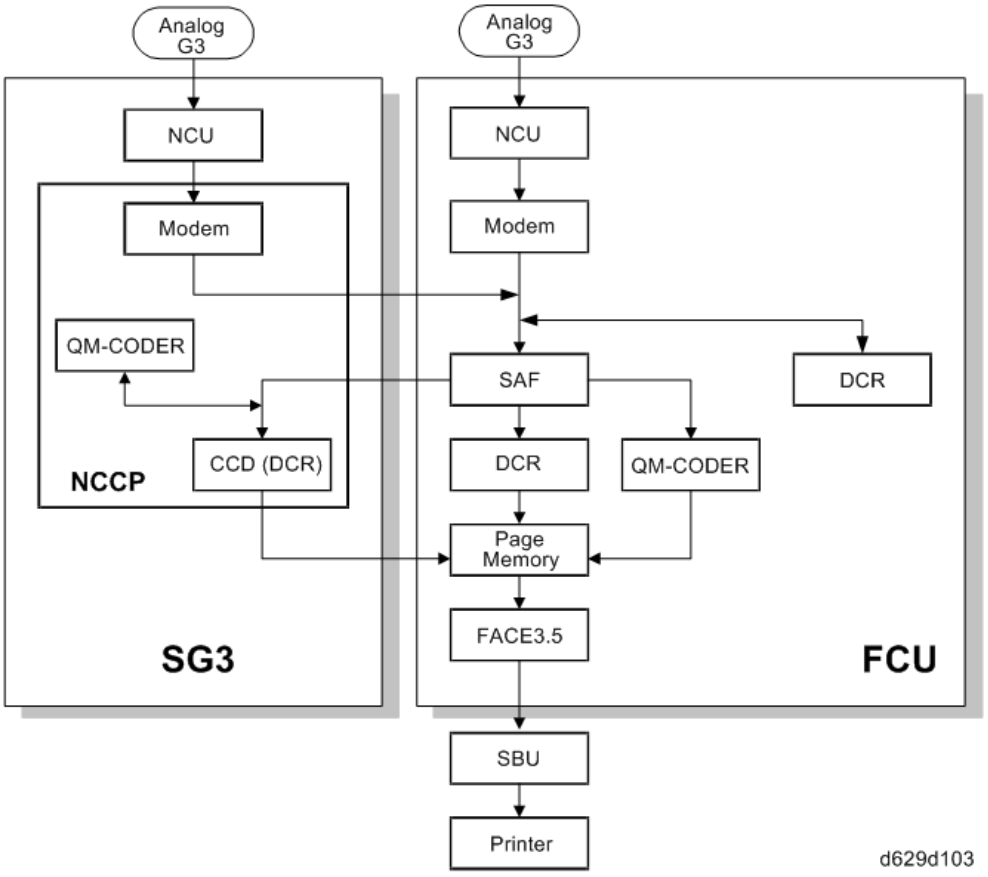
Memory transmission: If the receiver has JBIG compression, the data goes from the DCR to the QM-Coder. Then the NCU transmits the data to the line. When an optional G3 unit (SG3) is installed and PSTN2 is selected as the line type, JBIG compression is available, but only for the PSTN-2 line.

Immediate transmission: If the receiver has JBIG compression, the data goes from the page memory to the QM-Coder. Then the NCU transmits the data to the line. When an optional G3 unit (SG3) is installed and PSTN2 is selected as the line type, JBIG compression is available, but only for the PSTN-2 line.

Adjustments

- Priority for the line used for G3 transmissions (PSTN 1/PSTN 2 or 3): System switch 16 bit 1

5.3.2 RECEPTION



First, the FCU stores the incoming data from either an analog line to the SAF memory. (The data goes to the FACE3 at the same time, and is checked for error lines/frames.)
The FCU then decompresses the data and transfers it to page memory. If image rotation will be done, the image is rotated in the page memory. The data is transferred to the IPU.
If the optional G3 unit is installed, the line that the message comes in on depends on the telephone number dialled by the other party (the optional G3 unit has a different telephone number from the main fax board).

JBIG Reception

When data compressed with JBIG comes in on PSTN-1 (the standard analog line), the data is sent to the QM-CODER for decompression. Then the data is stored in the page memory, and transferred to the IPU.
When data compressed with JBIG comes in on PSTN-2 (optional extra analog line), the data is sent to the QM-CODER on the SG3 board for decompression.

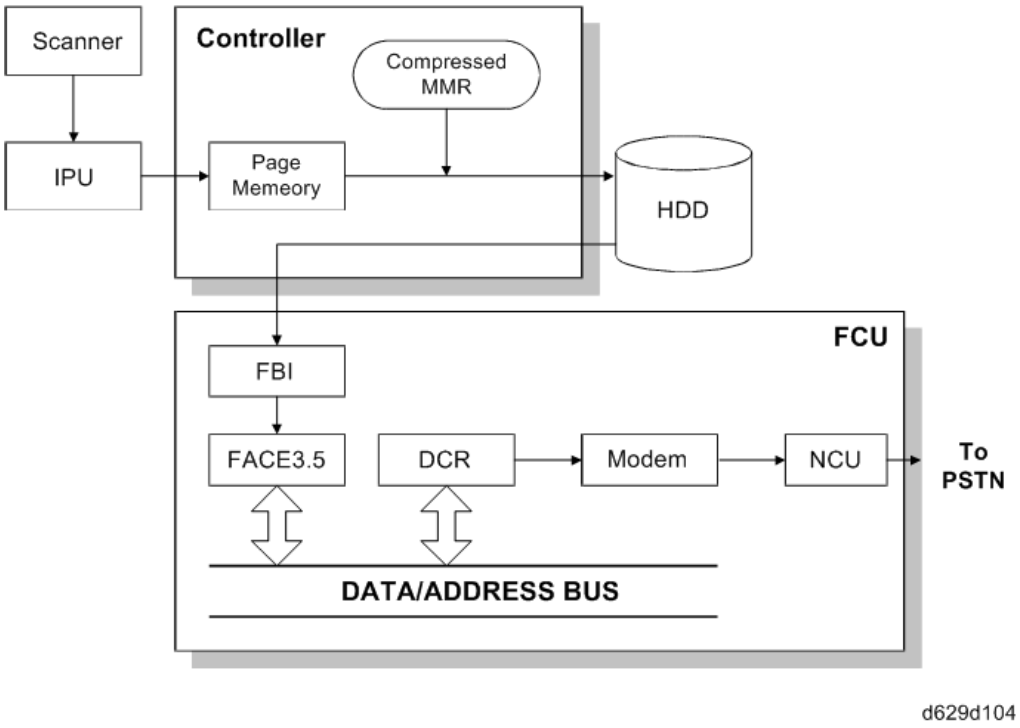
5.4 FAX COMMUNICATION FEATURES

5.4.1 MULTI-PORT

When the optional extra G3 Interface Unit is installed, communication can take place at the same time through the two or three lines at once.

Option	Available Line Type	Available protocol Combinations
Standard only	PSTN	G3
Extra G3 Interface Unit (single)	PSTN + PSTN	G3 + G3
Extra G3 Interface Unit (double)	PSTN + PSTN +PSTN	G3 + G3 +G3

5.4.2 DOCUMENT SERVER



The base copier's scanner scans the original at the selected resolution. The IPU video processes the data and transfers it to the controller board.

Then the controller stores the data in the page memory for the copier function, and compresses the data in MMR (by software) to store it in the HDD. If image rotation will be done, the image is rotated in the page memory before compression.

For transmission, the stored image data is transferred to the FCU. The FCU decompresses the image data, then recompresses and/or reduces the data if necessary for transmission. The NCU transmits the data to the line.

The documents can be stored in the HDD (Document Server) from the fax application. The stored documents in the document sever can be used for the fax transmission in many times. More than one document and the scanned document can be combined into one file and then the file can be transmitted.

- When using the document server, the SAF memory is not used.
- The document is compressed with MMR and stored.
- Up to 9,000 pages can be stored (1 file: Up to 1,000 pages) from the fax application.
- Only stored documents from the fax application can be transmitted.
- Scanned documents are given a name automatically, such as "FAX001". But it is possible to change the file name, user name and password.
- Up to 30 files can be selected at once.

Note

- The compression method of the fax application is different from the copy application. The storing time is longer than the copier storing.
- When selecting "Print 1st page", the stored document will be reduced to A4 size.

5.4.3 INTERNET MAIL COMMUNICATION

Mail Transmission

T.37 simple and full modes

This machine supports T.37 full mode. (ITU-T Recommendation, RFC2532). The difference between T.37 simple mode and full mode is as follows.

Function	T.37 Simple Mode	T.37 Full Mode
Resolution	200 x 100 200 x 200	200 x100 200 x 200 200 x 400 400 x 400 (if available)
RX Paper Width	A4	A4, B4, A3
RX Data Compression Method	MH	MH (default), MR, MMR,
Signals	Image data transmission only	Image data transmission, exchange of capability information between the two terminals, and acknowledgement of receipt of fax messages

Data Formats

The scanned data is converted into a TIFF-F formatted file.

The fields of the e-mail and their contents are as follows:

Field	Content
From	Mail address of the sender
Reply To	Destination requested for reply
To	Mail address of the destination
Bcc	Backup mail address
Subject	From CSI or RTI (Fax Message No. xxxx)

Field	Content
Content Type	Multipart/mixed Attached files: image/tiff
Content Transfer Encoding	Base 64, 7-bit, 8-bit, Quoted Printable
Message Body	MIME-converted TIFF-F (MIME standards specify how files are attached to e-mail messages)

Direct SMTP Transmission

Internet Fax documents can be sent directly to their destinations without going through the SMTP server. (Internet Faxes normally transmit via the SMTP server.)

For example:

e-mail address:	gts@ricoh.co.jp
SMTP server address:	gts.abcd.com

In this case, this feature destination e-mail address (gts@ricoh.co.jp) is read as the SMTP server address "gts.abcd.com", and the transmissions bypass the SMTP server.

Selectable Options

These options are available for selection:

- With the default settings, the scan resolution can be either standard or detail. Inch-mm conversion before TX depends on IFAX SW01 Bit 7. Detail resolution will be used if Super Fine resolution is selected, unless Fine resolution is enabled with IFAX SW01.
- The requirements for originals (document size, scan width, and memory capacity) are the same as for G3 fax memory TX.
- The default compression is TIFF-F format.
- IFAX SW00: Acceptable paper widths for sending
- IFAX SW09: Maximum number of attempts to the same destination

Secure Internet Transmission

SMTP Authentication:

- User Tools> System Settings> File Transfer> SMTP Authentication

POP Before SMTP:

- User Tools> System Settings> File Transfer> POP Before SMTP

Mail Reception

Three Types

This machine supports three types of e-mail reception:

- POP3 (Post Office Protocol Ver. 3.)
- IMAP4 (Internet Messaging Access Protocol)
- SMTP (Simple Mail Transfer Protocol)

Note

- For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – Mail Reception

POP3/IMAP4 Mail Reception Procedure

The machine automatically picks up e-mail from the server at an interval which is adjustable in the range 2 to 1440 min. in 1-minute steps:

- User Tools> System Settings> File Transfer> E-mail Reception Interval

SMTP Reception

1. The IFAX must be registered as an SMTP server in the MX record of the DNS server, and the address of the received mail must specify the IFAX.
2. To enable SMTP reception: User Tools> System Settings> File Transfer> Reception Protocol
   - Even if the MX record on the DNS server includes the IFAX, mail cannot be received with SMTP until SMTP reception is enabled:
   - However, if SMTP reception is selected and the machine is not registered in the MX record of the DNS server, then either IMAP4 or POP3 is used, depending on the setting: User Tools> System Settings> File Transfer> Reception Protocol

Mail Delivery Conditions: Transferring Mail Received With SMTP

1. The machine must be set up for SMTP mail delivery:
   - User Tools> Facsimile Features> Reception Settings> SMTP RX File Delivery Settings
2. If the user wishes to limit this feature so that the machine will only deliver mail from designated senders, the machine's "Auth. E-mail RX" feature must be set (User Tools> Facsimile Features> Reception Settings> SMTP RX File Delivery Settings).
3. If the "SMTP RX File Delivery Setting" is set to “Off” to prohibit SMTP receiving, and if there is mail designated for delivery, then the machine responds with an error. (User Tools> Facsimile Features> Reception Settings> SMTP RX File Delivery Settings)
4. If the quick dial, speed dial, or group dial entry is incorrect, the mail transmission is lost, and the IFAX issues an error to the SMTP server and outputs an error report.

Auth. E-mail RX

In order to limit access to mail delivery with IFAX, the addresses of senders must be limited using the Access Limit Entry. Only one entry can be registered.

1. Access Limit Entry

For example, to limit access to @IFAX.ricoh.co.jp:

gts@IFAX.ricoh.co.jp	Matches and is delivered.
gts@IFAX.abcde.co.jp	Does not match and is not delivered.
IFAX@ricoh.co.jp	Does not match and is not delivered.

1. Conditions
   - The length of the Access Limit Entry is limited to 127 characters.
   - If the Access Limit Entry address and the mail address of the incoming mail do not match, the incoming mail is discarded and not delivered, and the SMTP server responds with an error. However, in this case an error report is not output.
   - If the Access Limit Entry address is not registered, and if the incoming mail specifies a delivery destination, then the mail is delivered unconditionally.

Handling Mail Reception Errors

Abnormal files

When an error of this type occurs, the machine stops receiving and commands the server to erase the message. Then the machine prints an error report and sends information about the error by e-mail to the sender address (specified in the "From" or "Reply-to" field of the message). If there is an incomplete received message in the machine memory, it will be erased.

The machine prints an error message when it fails to send the receive error notification after a certain number of attempts.

The following types of files are judged to be abnormal if one or more of the following are detected:

1. Unsupported MIME headers.
   Supported types of MIME header

Header	Supported Types
Content-Type	Multipart/mixed, text/plain, message/rfc822 Image/tiff
Charset	US-ASCII, ISO 8859 X. Other types cannot be handled, and some garbage may appear in the data.
Content-Transfer-Encoding	Base 64, 7-bit, 8-bit, Quoted Printable

2. MIME decoding errors
3. File format not recognized as TIFF-F format
4. Resolution, document size, or compression type cannot be accepted

Remaining SAF capacity error

The machine calls the server but does not receive e-mail if the remaining SAF capacity is less than a certain value (the value depends on IFAX Switch 08. The e-mail will be received when the SAF capacity increases (for example, after substitute reception files have been printed). The error handling method for this type of error is the same as for "Abnormal files".

If the capacity of the SAF memory drops to zero during reception, the machine operates in the same way as when receiving an abnormal file (refer to "Abnormal files" above).

Secure Internet Reception

To enable password encryption and higher level security: User Tools> System Settings> File Transfer> POP3/IMAP4 Settings> Encryption (set to "On")

Transfer Request: Request By Mail

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – Transfer Request

The fields of the e-mail and their contents are as follows:

Field	Content
From	E-mail address of the requesting terminal
To	Destination address (Transfer Station address)
Bcc	Backup mail address
Subject	From TSI (Fax Message No. xxxx)
Content-Type	Multipart/mixed Text/Plain (for a text part), image/tiff (for attached files)
Content-Transfer-Encoding	Base 64, 7-Bit, 8-bit, Quoted Printable
Mail body (text part)	RELAY-ID-: xxxx (xxxx: 4 digits for an ID code) RELAY: #01#*X#**01….
Message body	MIME-converted TIFF-F.

E-Mail Options (Sub TX Mode)

The following features are available as options for mail sending: entering a subject, designating the level of importance, confirming reception of the mail.

Subject and Level of Importance

You can enter a subject message with: TX Mode> Subject

The Subject entry for the mail being sent is limited to 128 characters. The subject can also be prefixed with an "Confidential", "Urgent", "Please phone" or "Copy to corres. Section" notation.

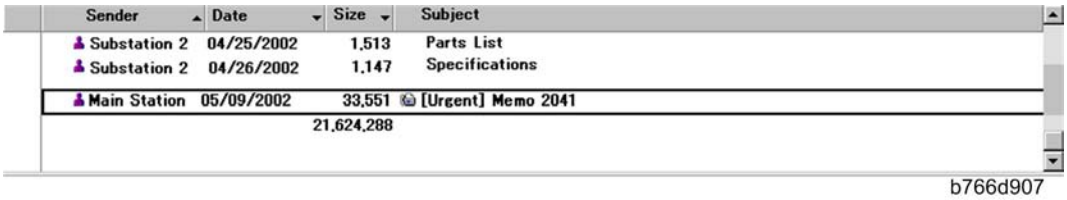
- How the Subject Differs According to Mail Type -

<table>
<tr><th>Mail Type</th><th>Item 1</th><th colspan="2">Item 2</th><th>Item 3</th></tr>
<tr><td>Subject Entry</td><td>---</td><td colspan="2">Entry Condition</td><td rowspan="5">Fax Message No.
+
File No.</td></tr>
<tr><td rowspan="4">No Subject Entry</td><td rowspan="4"></td><td colspan="2">1. "CSI" ("RTI")</td></tr>
<tr><td>2. "RTI"</td><td>CSI not registered</td></tr>
<tr><td>3. "CSI"</td><td>RTI not registered</td></tr>
<tr><td>4. None</td><td>CSI, RTI not registered</td></tr>
<tr><td rowspan="4">Confirmation of Reception</td><td rowspan="4">From</td><td colspan="2">1. "CSI" ("RTI")</td><td rowspan="2">Normal:
Return Receipt (dispatched).
You can select "displayed" with IFAX SW02 Bits 2 and 3.</td></tr>
<tr><td>2. "RTI"</td><td>CSI not registered</td></tr>
<tr><td>3. "CSI"</td><td>RTI not registered</td><td rowspan="2">Error:
Return Receipt (processed/error)</td></tr>
<tr><td>4. None</td><td>CSI, RTI not registered</td></tr>
<tr><td rowspan="2">Mail delivery, memory transfer, SMTP receiving and delivery</td><td rowspan="2">From</td><td>RTI or CSI of the station designated for delivery</td><td>Mail delivery</td><td rowspan="2">Fax Message No. +
File Number</td></tr>
<tr><td>RTI or CSI of sender</td><td>Mail sending from G3 memory</td></tr>
</table>

Mail Type	Item 1	Item 2		Item 3
		Mail address of sender	Memory sending	
		Mail address of sender	SMTP receiving and delivery (Off Ramp Gateway)	
Mail error notification	---	Error Message No. xxxx From CSI (RTI)		

Items 1, 2, and 3 in the table above are in the Subject.

- Subjects Displayed on the PC -



E-mail Messages

After entering the subject, you can enter a message with: TX Mode> Text

An e-mail message (up to 5 lines) can be pre-registered with: User Tools> System Settings> File Transfer> Program/Change/Delete E-mail Message

- Limitations on Entries -

Item	Maximum
Number of Lines	5 lines
Line Length	80 characters
Name Length	20 characters

Message Disposition Notification (MDN)

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – E-mail Options

The network system administrator can confirm whether a sent mail has been received correctly or not. This confirmation is done in four steps.

1. Send request for confirmation of mail reception. To enable or disable this request (known as MDN): TX Mode> Reception Notice
2. Mail reception (receive confirmation request)

3. Send confirmation of mail reception
4. Receive confirmation of mail reception

The other party's machine will not respond to the request unless the two conditions below are met:

- The other party's machine must be set up to respond to the confirmation request.
- The other party's machine must support MDN (Message Disposition Notification).

- Setting up the Receiving Party -

The receiving party will respond to the confirmation request if:

1. The "Disposition Notification To" field is in the received mail header (automatically inserted in the 4th line in the upper table on the previous page, if MDN is enabled), and
2. Sending the disposition notification must be enabled (User Parameter Setting SW21 (15 [H]) Bit 1 for this model). The content of the response is as follows:

Normal reception:	"Return Receipt (dispatched)" in the Subject line
IFAX SW02 (Bit 2, 3)	"Return Receipt (displayed)" in the Subject line
Error:	"Return Receipt (processed/error)" in the Subject line

Handling Reports

- Sending a Request for a Return Receipt by Mail -

After the mail sender transmits a request for a return receipt, the mail sender's journal is annotated with two hyphens (--) in the Result column and a "Q" in the Mode column.

- Mail Receipt (Request for Receipt Confirmation) and Sending Mail Receipt Response -

After the mail receiver sends a response to the request for a return receipt, the mail receiver's journal is annotated with two hyphens (--) in the Result column and an "A" in the Mode column.

- Receiving the Return Receipt Mail -

- After the mail sender receives a return receipt, the information in the mail sender's journal about the receipt request is replaced, i.e. the journal is annotated with "OK" in the Result column.
- When the return receipt reports an error, the journal is annotated with an "E" in the Result column.
- The arrival of the return receipt is not recorded in the journal as a separate communication. Its arrival is only reported by the presence of "OK" or "E" in the Result column.
- If the mail address used by the sender specifies a mailing list (i.e., a Group destination; the machine sends the mail to more than one location. See "How to set up Mail Delivery"), the Result column of the Journal is updated every time a return receipt is received. For example, if the mailing list was to 5 destinations, the Result column indicates the result of the communication with the 5th destination only. The results of the communications to the first 4 destinations are not shown.

Exceptions:

If one of the communications had an error, the Result column will indicate E, even if subsequent communications were OK.

If two of the communications had an error, the Journal will indicate the destination for the first error only.

- Report Sample -

DATE	TIME	ADDRESS	MODE	TIME	PAGE	RESULT
MAY. 5	10:15	fuser_01@dom1g. ricoh. co.	Mail SM	0'09"	2	--
	10:16	fuser_01@dom1g. ricoh. co.	Mail SMQ	0'05"	1	--
	10:17	s_tadashi@dom1g. ricoh. co.	Mail SMQ	0'09"	2	OK
	10:19	m_masataka@dom1g. ricoh. co.	Mail SMA	0'05"	1	--

b771d506

5.5 IP-FAX

5.5.1 WHAT IS IP-FAX?

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – IP-FAX

5.5.2 T.38 PACKET FORMAT

TCP is selected by default for this machine, but you can change this to UDP with IPFAX SW 00 Bit 1.

UDP Related Switches

<table>
<tr><th colspan="7">IP-Fax Switch 01</th></tr>
<tr><th>No.</th><th colspan="5">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-3</td><td colspan="5">Select IP FAX Delay Level</td><td rowspan="6">Raise the level by selecting a higher setting if too many transmission errors are occurring on the network.
If TCP/UDP is enabled on the network, raise this setting on the T.30 machine. Increasing the delay time allows the recovery of more lost packets.
If only UDP is enabled, increase the number of redundant packets.
Level 1~2: 3 Redundant packets
Level 3: 4 Redundant packets</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>Level</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>2</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>3</td></tr>
</table>

5.5.3 SETTINGS

User parameter switch 34 (22[H]), bit 0

IP-Fax Gate Keeper usage, 0: No, 1: Yes

IP Fax Switches: Various IP-FAX settings (see the bit switch table)

6. SPECIFICATIONS

6.1 GENERAL SPECIFICATIONS

6.1.1 FCU

Type:	Desktop type transceiver
Circuit:	PSTN (max. 3ch.) PABX
Connection:	Direct couple
Original Size:	Book (Face down) Maximum Length: 432 mm [17 ins] Maximum Width: 297 mm [11.7 ins] ARDF (Face up) (Single-sided document) Length: 128 - 1200 mm [5.0 - 47.2 ins] Width: 105 - 297 mm [4.1 - 11.7 inch] (Double-sided document) Length: 128 - 432 mm [5.0 - 17 inch] Width: 105 - 297 mm [4.1 - 11.7 inch]
Scanning Method:	Flat bed, with CCD
Resolution:	G3 8 x 3.85 lines/mm (Standard) 8 x 7.7 lines/mm (Detail) 8 x 15.4 line/mm (Fine) See Note1 16 x15.4 line/mm (Super Fine) See Note 1 200 x 100 dpi (Standard) 200 x 200 dpi (Detail) 400 x 400 dpi (Super Fine) See Note 1 Note ▪ Optional Expansion Memory required
Transmission Time:	G3: 3 s at 28800 bps; Measured with G3 ECM using memory for an ITU-T #1 test document (Slerexe letter) at standard resolution

Data Compression:	MH, MR, MMR, JBIG
Protocol:	Group 3 with ECM
Modulation:	V.34, V.33, V.17 (TCM), V.29 (QAM), V.27ter (PHM), V.8, V.21 (FSK)
Data Rate:	G3: 33600/31200/28800/26400/24000/21600/ 19200/16800/14400/12000/9600/7200/4800/2400 bps Automatic fallback
I/O Rate:	With ECM: 0 ms/line Without ECM: 2.5, 5, 10, 20, or 40 ms/line
Memory Capacity:	SAF Standard: 4 MB With optional Expansion Memory: 28 MB (4 MB+ 24 MB) Page Memory Standard: 8 MB (Print: 4 MB + Scanner: 4 MB) With optional Expansion Memory: 16 MB (8 MB + 8 MB) (Print 8 MB + Scanner: 8 MB)

6.2 CAPABILITIES OF PROGRAMMABLE ITEMS

The following table shows the capabilities of each programmable items.

Item	Standard
Quick Dial	2000
Groups	100
Destination per Group	500
Destinations dialed from the ten-key pad overall	500
Programs	100
Auto Document	6
Communication records for Journal stored in the memory	200
Specific Senders	30

The following table shows how the capabilities of the document memory will change after the Expansion Memory are installed.

	Without the Expansion Memory	With the Expansion Memory
Memory Transmission file	400	400
Maximum number of page for memory transmission	1000	1000
Memory capacity for memory transmission (Note1)	320	2240

Note

- Measured using an ITU-T #1 test document (Slerexe letter) at the standard resolution, the auto image density mode and the Text mode.

6.3 IFAX SPECIFICATIONS

Connectivity:	Local area network Ethernet 100base-Tx/10base-T Gigabit Ethernet 1000 Base-T IEEE802.11a/g, g (wireless LAN),
Resolution:	200 × 100 dpi (Standard resolution), 200 × 200 dpi (Detail resolution), 200 × 400 dpi (Fine resolution)*1, 400 × 400 dpi (Super Fine resolution)*1 Note ▪ To use 200 × 400 dpi and 400 × 400 dpi, IFAX SW01 Bit 2 and/or bit 4 must be set to “1”.
Transmission Time:	1 s (through a LAN to the server) Condition: ITU-T #1 test document (Selerexe Letter) MTF correction: OFF TTI: None Resolution: 200 x 100 dpi Communication speed: 10 Mbps Correspondent device: E-mail server Line conditions: No terminal access
Document Size:	Maximum Original Size: A3/DLT. Note ▪ To use B4 and A3 width, IFAX SW00 Bit 1 (B4) and/or Bit 2 (A3) must be set to “1”.
E-mail File Format:	Single/multi-part MIME conversion Image: TIFF-F (MH, MR, MMR)
Protocol:	**Transmission:** SMTP, TCP/IP **Reception:** POP3, SMTP, IMAP4, TCP/IP
Data Rate:	1000 Mbps (1000 Base-T) 100 Mbps (100base-Tx) 10 Mbps (10base-T)

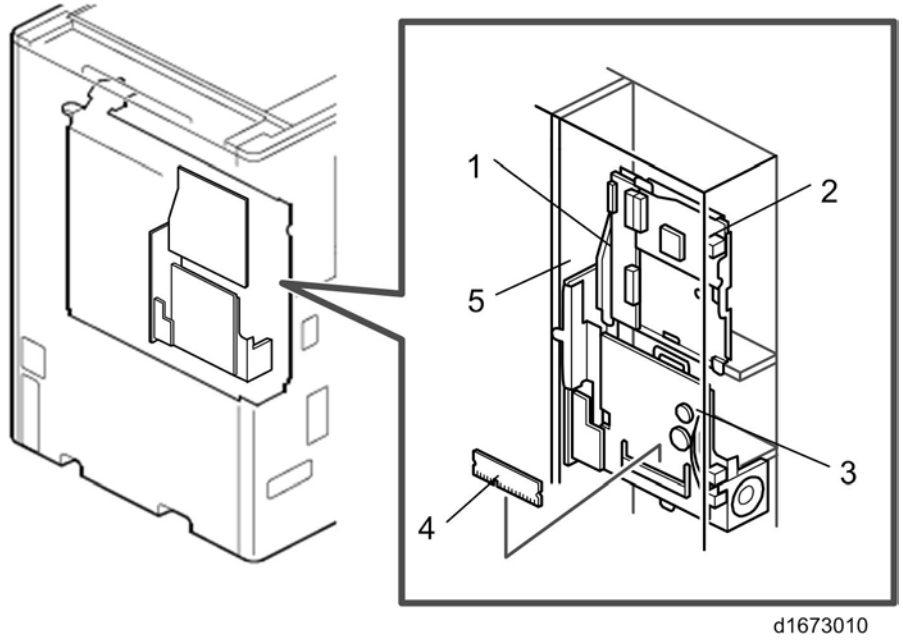
Authentication Method:	SMTP-AUTH POP before SMTP A-POP
Remark:	The machine must be set up as an e-mail client before installation. Any client PCs connected to the machine through a LAN must also be e-mail clients, or some features will not work (e.g. Autorouting).

6.4 IP-FAX SPECIFICATIONS

Network:	Local Area Network Ethernet/10base-T, 100base-TX Gigabit Ethernet/1000 Base-T IEEE802.11a/g, g (wireless LAN)
Scan line density:	8 x 3.85 lines/mm, 200x100dpi (standard character), 8 x 7.7lines/mm, 200x200dpi (detail character), 8 x 15.4lines/mm (fine character: optional expansion memory required), 16 x 15.4lines/mm, 400x400dpi (super fine character: optional expansion memory required)
Maximum Original size:	A3 or 11" x 17" (DLT) Custom: 297mm x 1200mm (11.7” x 47.3”)
Maximum scanning size:	297mm x 1200mm (11.7” x 47.3”)
Transmission protocol:	Recommended: T.38 Annex protocol, TCP, UDP/IP communication, SIP (RFC 3261 compliant), H.323 v2
Compatible machines:	IP-Fax compatible machines
IP-Fax transmission function:	Specify IP address and send faxes to an IP-Fax compatible fax through a network. Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.
IP-Fax reception function:	Receive faxes sent from an IP-Fax compatible fax through a network. Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway.

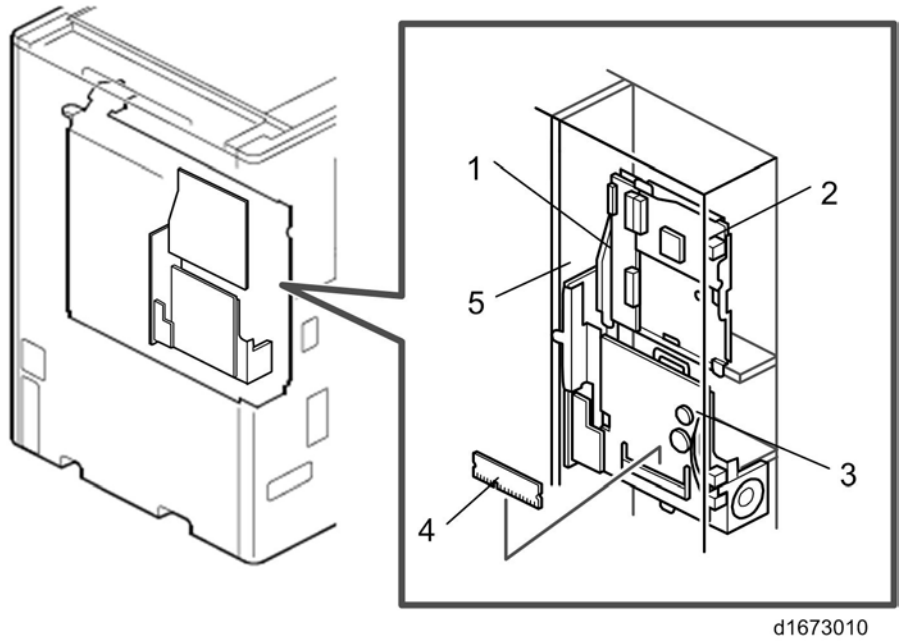
6.5 FAX UNIT CONFIGURATION

6.5.1 G3 INTERFACE UNIT TYPE M3 (D146/D147)



Component	Code	No.	Remarks
FCU	D163	1	Included with the fax unit
GWFCU I/F		5	
Expansion Memory	G578	2	Optional
SG3 Board	D163	3	Included with optional G3 unit
CCU I/F Board		4	

6.5.2 G3 INTERFACE UNIT TYPE M4 (D148/D149/D150)



Component	Code	No.	Remarks
FCU	D167	3	Included with the fax unit
GWFCU I/F		5	
Expansion Memory	G578	4	Optional
SG3 Board	D167	2	Included with optional G3 unit
CCU I/F Board		1	

D683

SPDF DF3080

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

SPDF DF3080 (D683)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

1.1 ADF REMOVAL 1
1.2 ADJUSTMENT AFTER REPLACING THE ADF 4
1.2.1 CIS RGB ADJUSTMENT 4
1.2.2 CHECKING THE VERTICAL REGISTRATION 4
1.2.3 CHECKING THE HORIZONTAL REGISTRATION 5
1.2.4 CHECKING THE SKEW 5
1.2.5 CHECKING THE MAGNIFICATION 5
1.3 PLATEN ADJUSTMENT 6
1.4 ADF FRONT COVER 7
1.5 ADF REAR COVER 8
1.6 FEED COVER 9
1.7 ORIGINAL FEED UNIT 10
1.8 PICK-UP ROLLER / TRANSPORT BELT 11
1.9 ADF SEPARATION ROLLER 13
1.10 ORIGINAL REGISTRATION SENSOR 14
1.11 ORIGINAL EXIT SENSOR 16
1.12 ADF CONTROL BOARD 18
1.13 SEPARATION SENSOR / SKEW CORRECTION SENSOR 19
1.14 ORIGINAL WIDTH SENSOR / INTERVAL SENSOR 20
1.15 B5 WIDTH SENSOR / A4 WIDTH SENSOR / LG WIDTH SENSOR 21
1.16 APS FEELER 22
1.17 ADF LIFT-UP INTERLOCK SW / LIFT-UP SENSOR 23
1.18 ORIGINAL SET SENSOR 24
1.19 A4 LEF/LT LEF SENSOR 25
1.20 BOTTOM PLATE HP SENSOR 26
1.21 BOTTOM PLATE POSITION SENSOR 27
1.22 ADF FEED COVER INTERLOCK SWITCH / PICK-UP ROLLER HP SENSOR 28
1.23 ADF ENTRANCE MOTOR 30
1.24 ADF SCANNING MOTOR 31
1.25 ADF EXIT MOTOR 32
1.26 ADF BOTTOM PLATE LIFT MOTOR 33

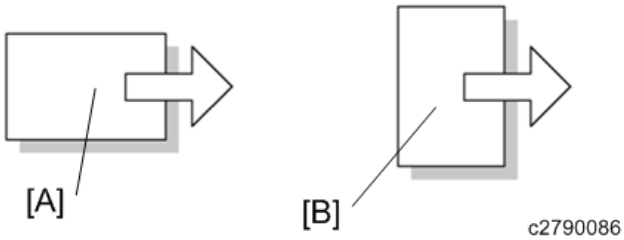
1.27 ADF PICK-UP ROLLER LIFT MOTOR / ADF TRANSPORT MOTOR ...34
1.28 ADF FEED MOTOR ...36
1.29 CIS UNIT ...38

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

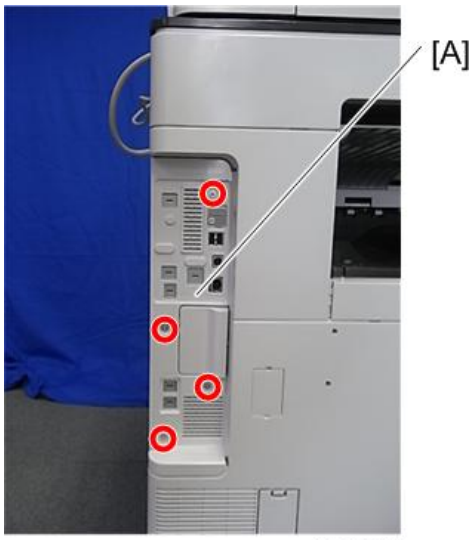
PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

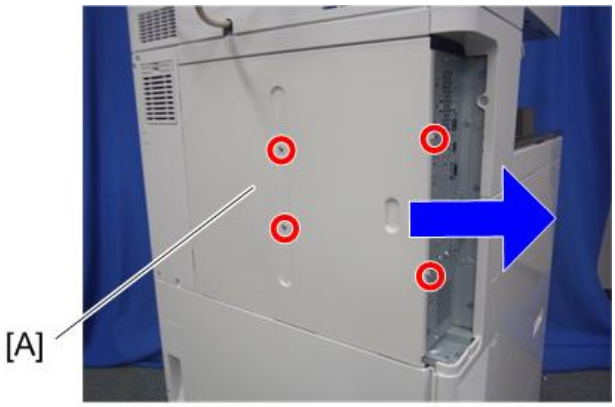
1.1 ADF REMOVAL

1. **Controller cover [A] (×4)**



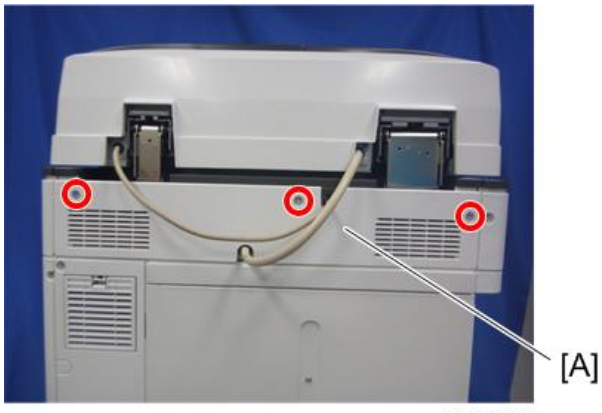
d1462007

2. **Rear cover [A] (×4)**



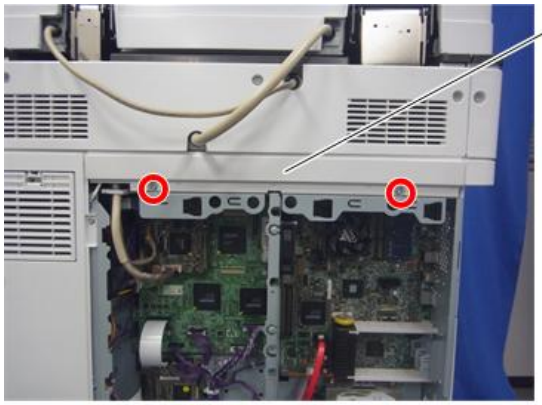
d1462013

3. **Scanner rear cover [A] (×3)**



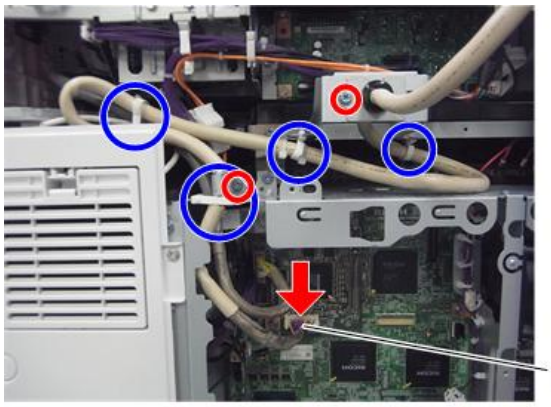
d1462016

4. **Scanner rear cover (small) [A] (×2)**



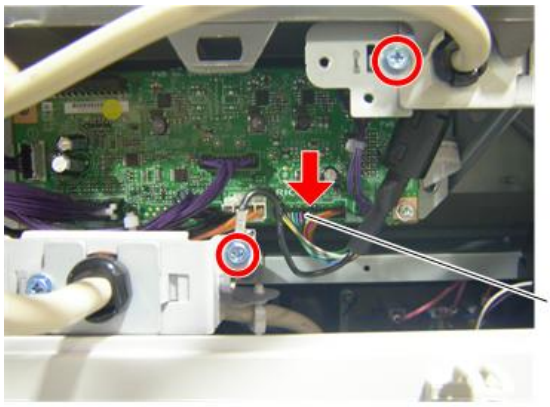
d1462017

5. **Disconnect the I/F cable [A] (×2, ×1, ×4)**



d1463150

6. **CIS image cable [A] (×2, ×1)**

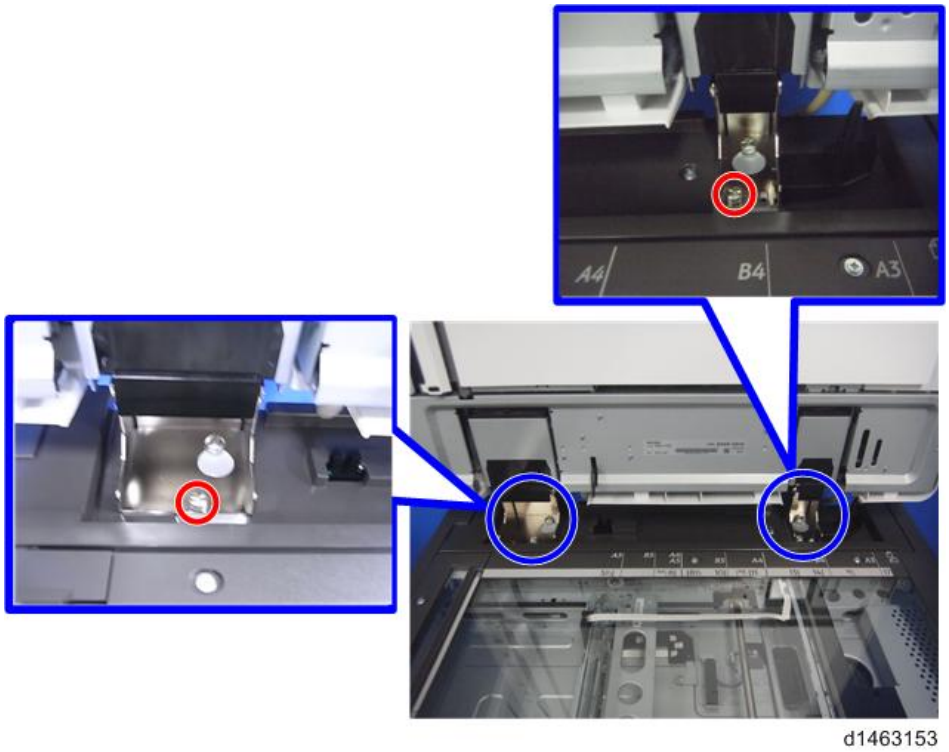


d1463151

7. **Open the ADF [A]**

d1463152

8. **Remove the fixing screws of the ADF (×2)**



d1463153

9. **While holding the left and right sides of the ADF, lift up to remove it.**

Note

- Because of the weight of the ADF, handle with care.

1.2 ADJUSTMENT AFTER REPLACING THE ADF

1.2.1 CIS RGB ADJUSTMENT

Enter the four-digit numeric values for RGB that are listed on the paper that comes with the ADF into the following SP.

R: SP4-712-001 (CIS GB Adj Value: R)

G: SP4-713-001 (CIS GB Adj Value: G)

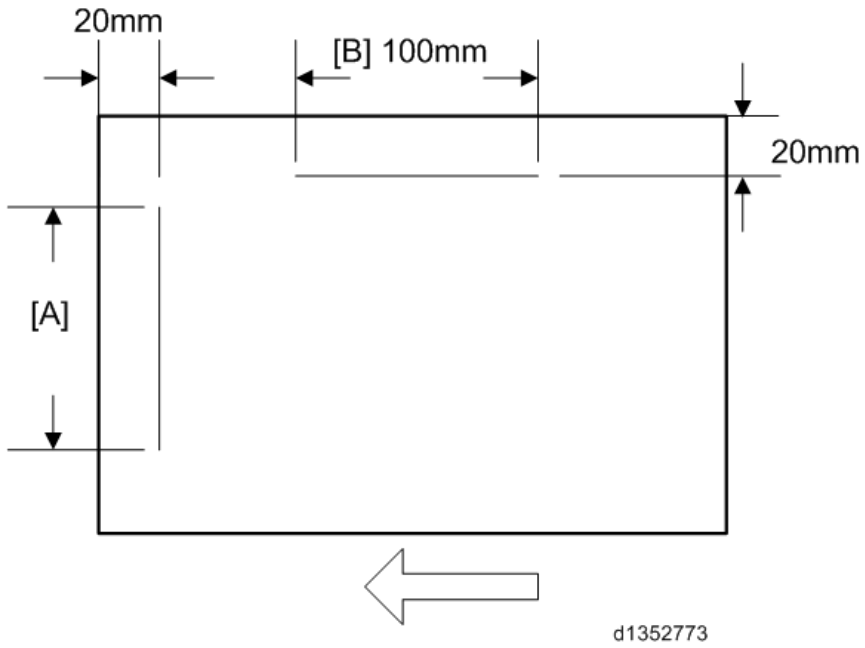
B: SP4-714-001 (CIS GB Adj Value: B)

1.2.2 CHECKING THE VERTICAL REGISTRATION

SP6-006-001 (ADF Adjustment Side-to-Side Regist: Front)

SP6-006-002 (ADF Adjustment Side-to-Side Regist: Rear)

1. Create an original as shown in the following picture.



*The arrows indicate the direction of feed.

2. Copy the original and make sure that the position of the line [A] is within 0±1mm
3. If not within the standard, adjust with the SP modes.

1.2.3 CHECKING THE HORIZONTAL REGISTRATION

SP6-006-010 (ADF Adjustment L-Edge Regist (1-Pass): Front)

SP6-006-011 (ADF Adjustment L-Edge Regist (1-Pass): Rear)

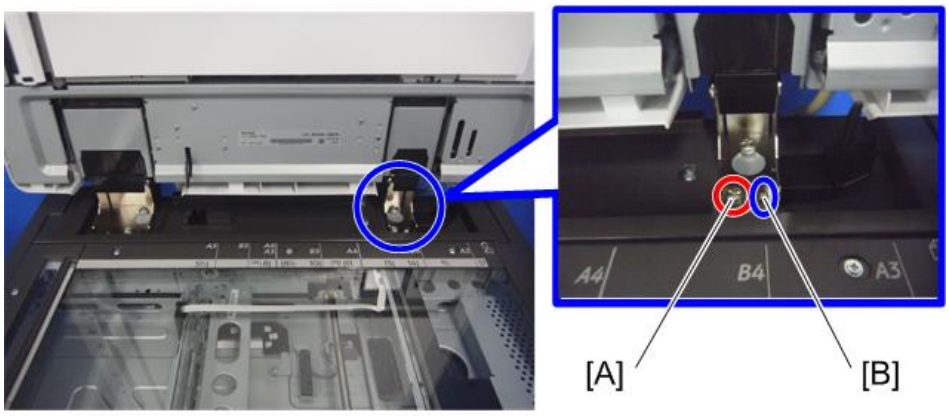
1. Copy the original and make sure that the position of the line [B] is within 0±2mm.
2. If not within the standard, adjust with the SP modes.

1.2.4 CHECKING THE SKEW

SP6-006-012 (ADF Adjustment 1st Buckle (1-Pass))

SP6-006-013 (ADF Adjustment 2nd Buckle (1-Pass))

1. Make sure that the difference between both end positions of the line [A] is within 0±2mm.
2. If not within the standard, change the position of the fixing screw [A] to the long hole [B] at the right hinge.



d1463154

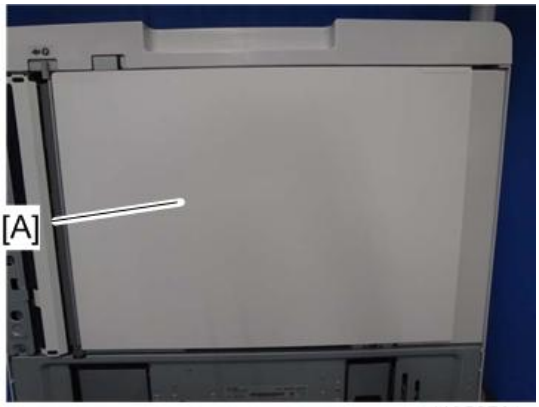
1.2.5 CHECKING THE MAGNIFICATION

SP6-017-001 (DF Magnification Adj.)

1. Copy the original and make sure that the length of the line [B] is within 100±1mm.
2. If not within the standard, adjust with the SP mode.

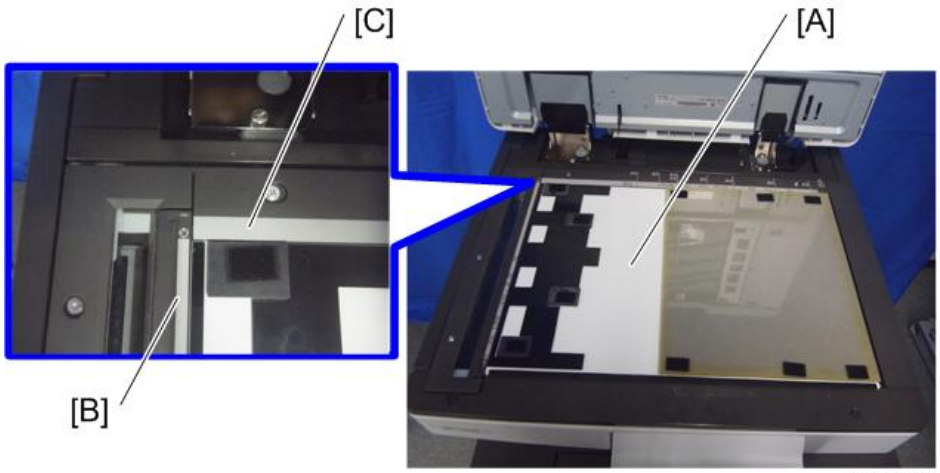
1.3 PLATEN ADJUSTMENT

1. **Open the ADF and remove the white cover (magic tape×10)**



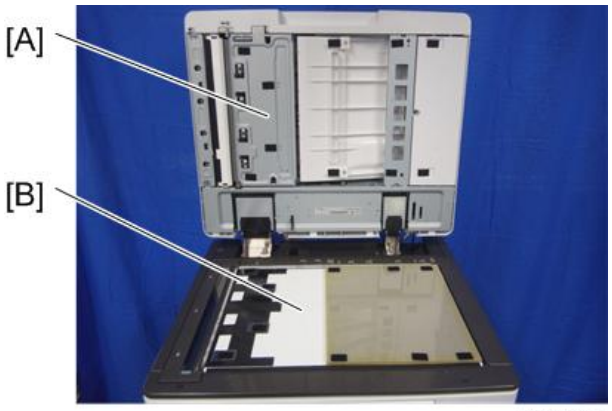
d1352781

2. **Put the white cover [A] in the correct position on the exposure glass, aligning it with the glass cover [B] and the rear scale [C].**



d1463155

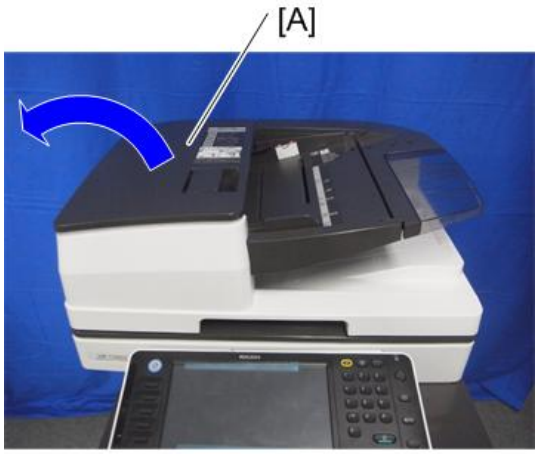
3. **Close the ADF [A] slowly and paste the ADF and the white cover [B] with the magic tapes.**



d1463156

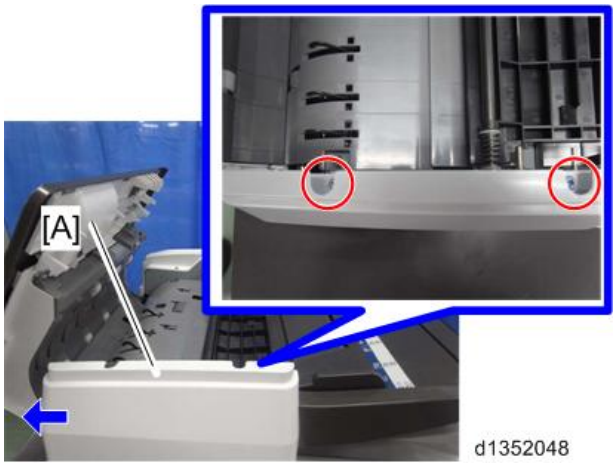
1.4 ADF FRONT COVER

1. **Open the feed cover [A].**



d1463157

2. **Slide the ADF front cover [A] to the left (×2, hook×4)**



d1352048

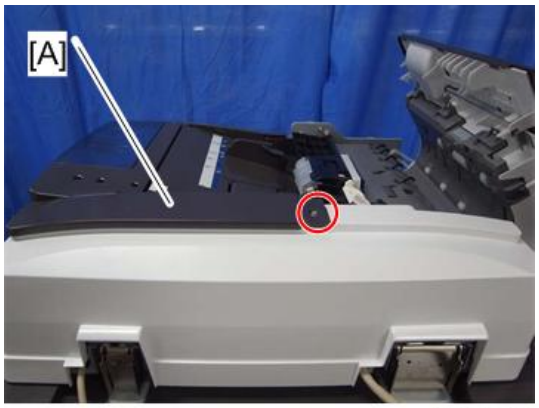
Note

- Check the position of the hooks in the photo below before removing.

d1352049

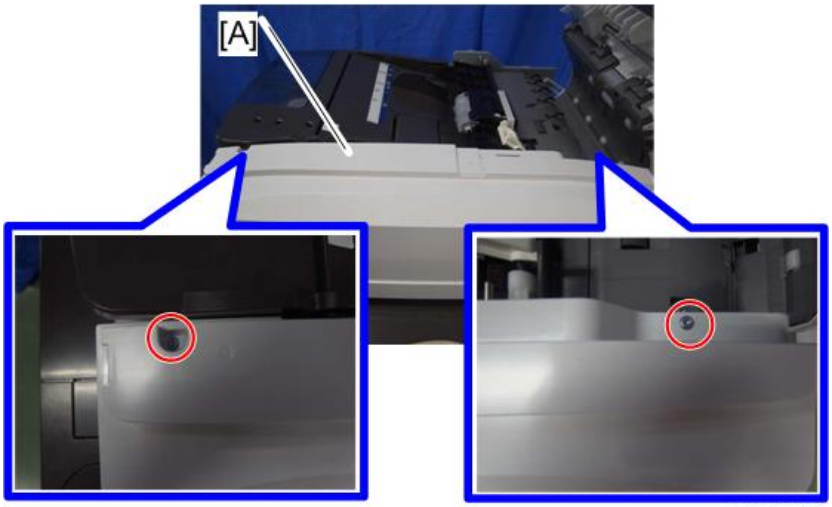
1.5 ADF REAR COVER

1. **Open the feed cover [A].**
2. **Cover [A] (×1)**



d1352050

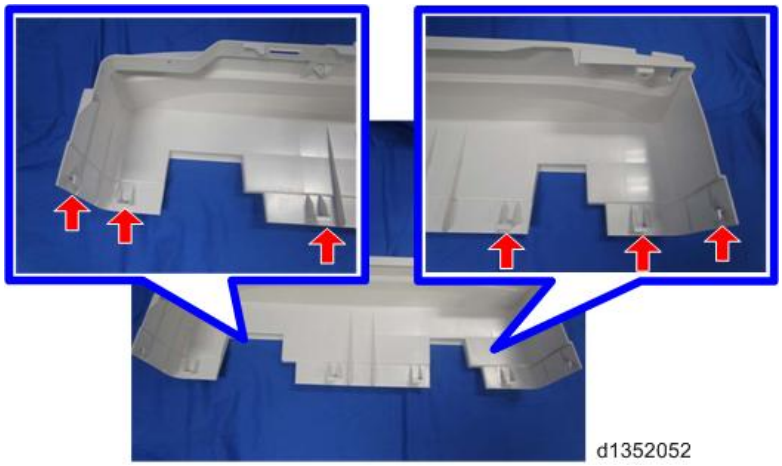
3. **Lift off the rear cover [A] (×2, hook×4)**



d1352051

Note

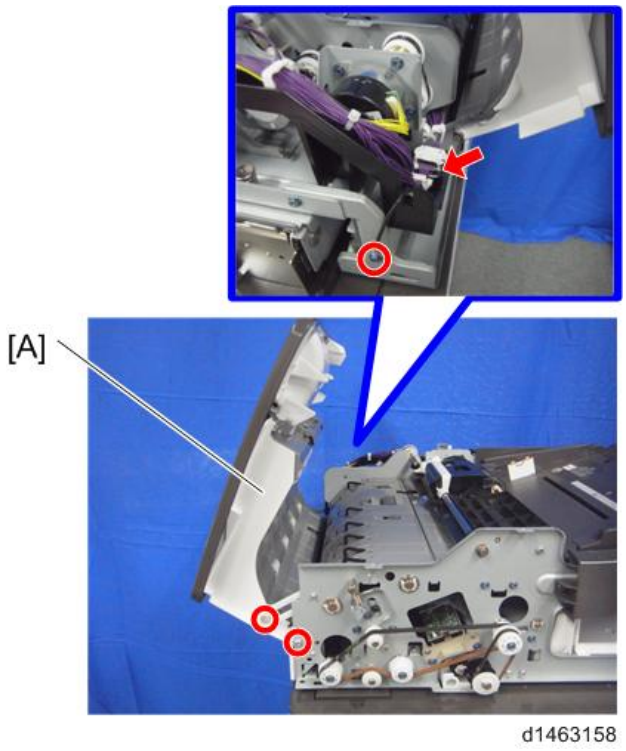
- Check the position of the hooks in the photo below before removing.



d1352052

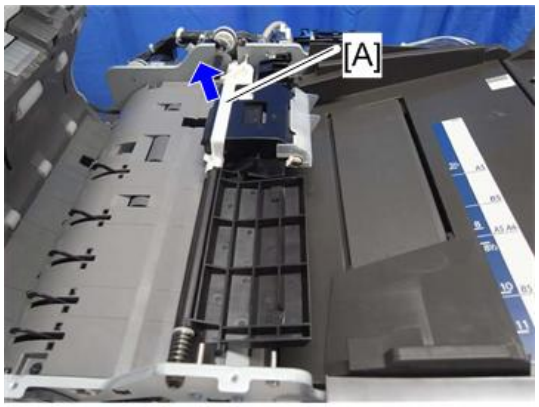
1.6 FEED COVER

1. **ADF front cover (page 7 "ADF Front Cover")**
2. **ADF rear cover (page 8 "ADF Rear Cover")**
3. **Feed cover [A] (×3, ×1, ×2)**



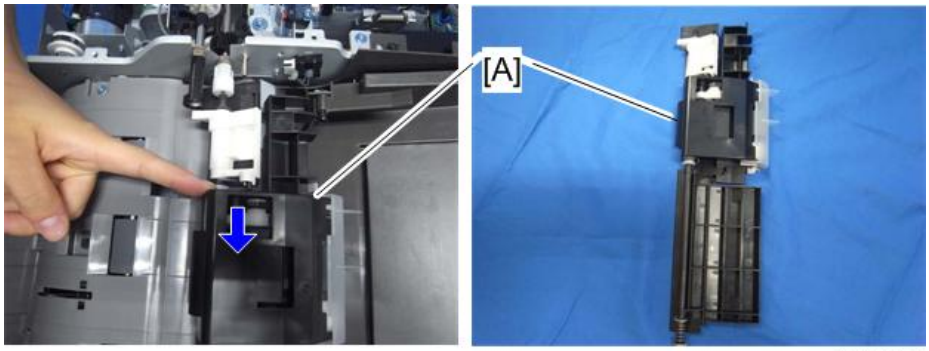
1.7 ORIGINAL FEED UNIT

1. **Open the feed cover.**
2. **Remove the snap-fit [A].**



d1352054

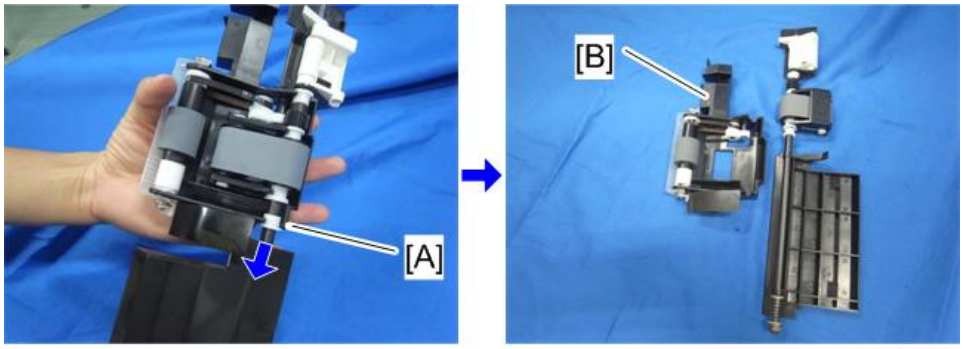
3. **Original feed unit [A] (Pull the original feed unit, remove the back side of the shaft. Then, remove the bushing in the foreground.)**



d1352055

1.8 PICK-UP ROLLER / TRANSPORT BELT

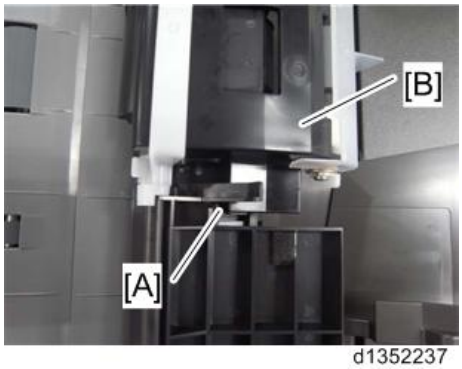
1. **Original feed unit (page 10 "Original Feed Unit")**
2. **Slide the resin bushing [A], and then remove the pick-up roller unit [B].**



d1352058

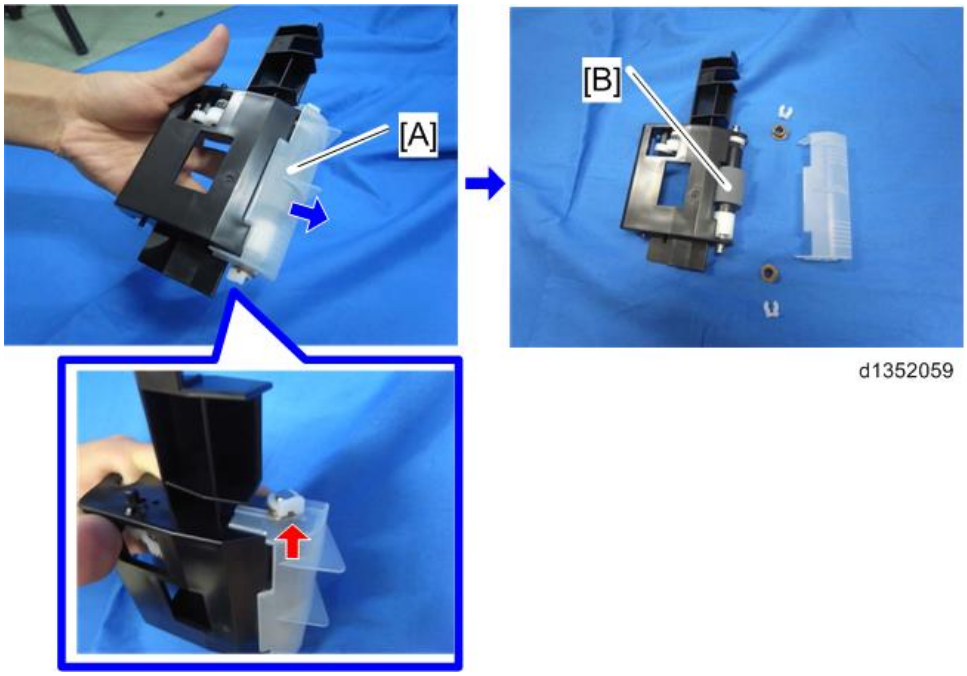
Note

- At re-assembly, make sure that the tab on the front guide plate [A] is above the pick-up roller [B].



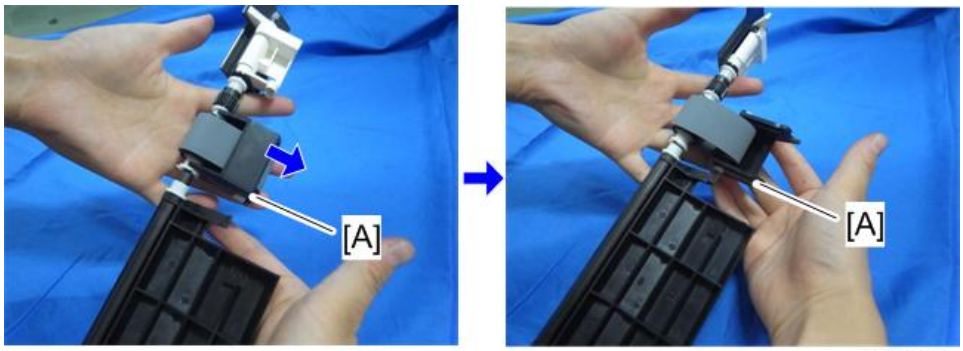
d1352237

3. **Pick-up roller cover [A] and pick-up roller [B] (×2, bushing×2, one-way clutch×1)**



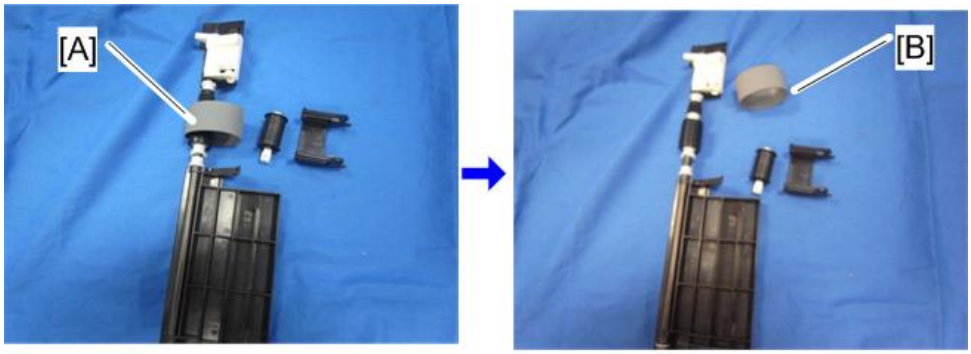
d1352059

4. **Lift the left and right sides of the feed belt holder [A], then remove it.**



d1352060

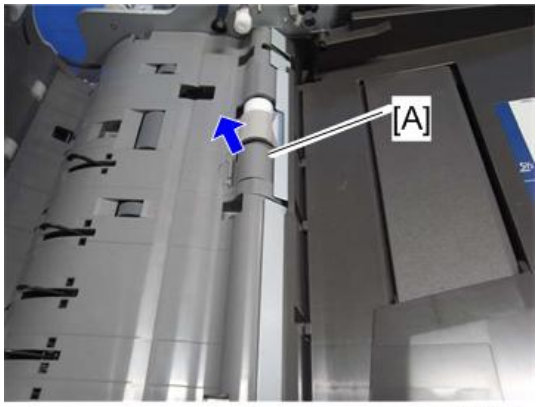
5. **Remove the feed belt [B] from the feed belt holder [A].**



d1352061

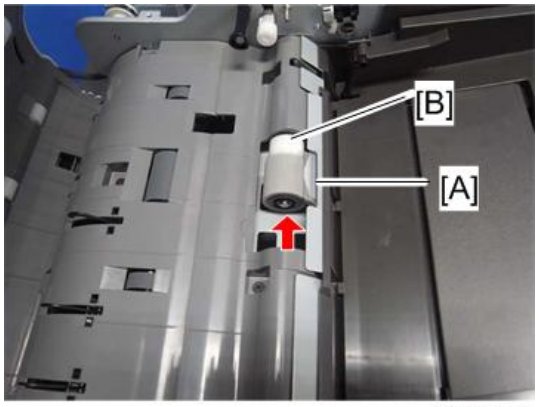
1.9 ADF SEPARATION ROLLER

1. **Open the feed cover.**
2. **Original feed unit (page 10 "Original Feed Unit")**
3. **ADF separation roller cover [A].**



d1352056

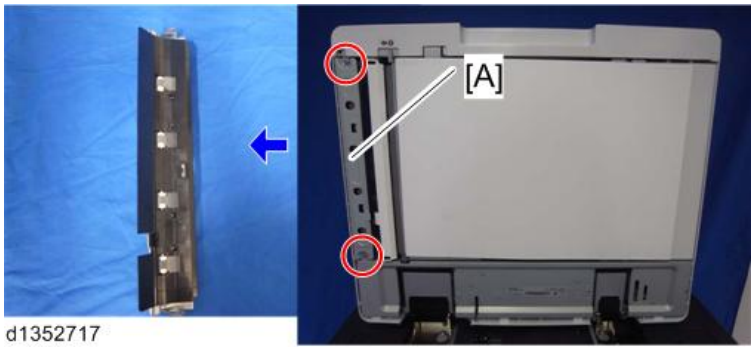
4. **ADF separation roller [A] and torque limiter clutch [B] (×1)**



d1352057

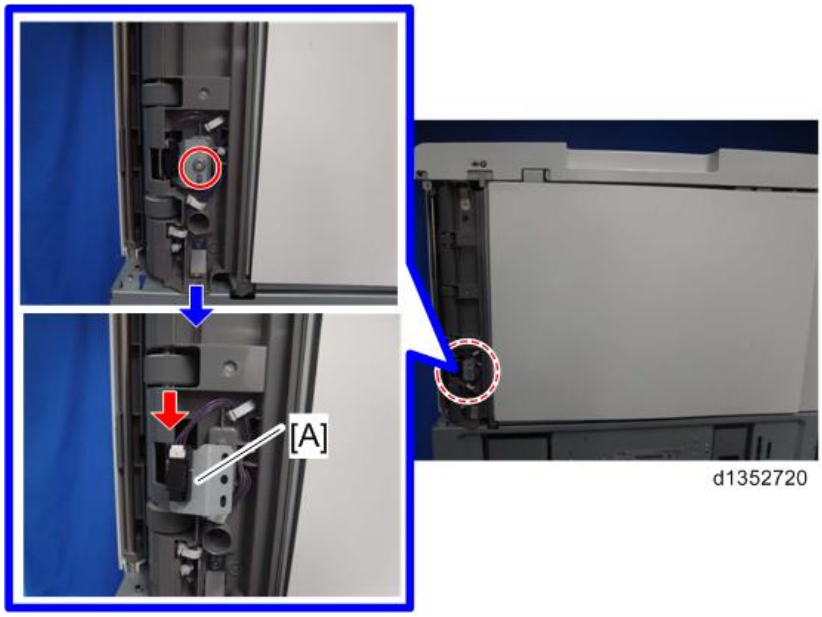
1.10 ORIGINAL REGISTRATION SENSOR

1. **Entrance lower guide [A] (×2)**

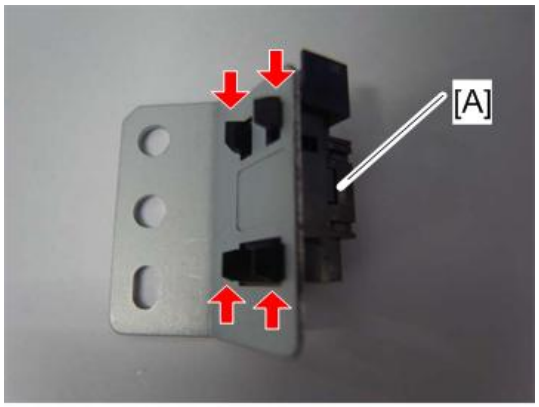


2. **Scanning guide plate [A] (hook×1)**

3. **Original registration sensor [A] along with the bracket (×1, ×1)**



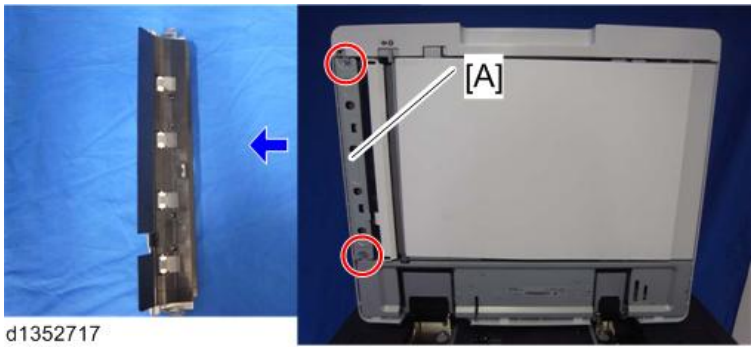
4. Original Registration Sensor [A] (hook×4)



d1352064

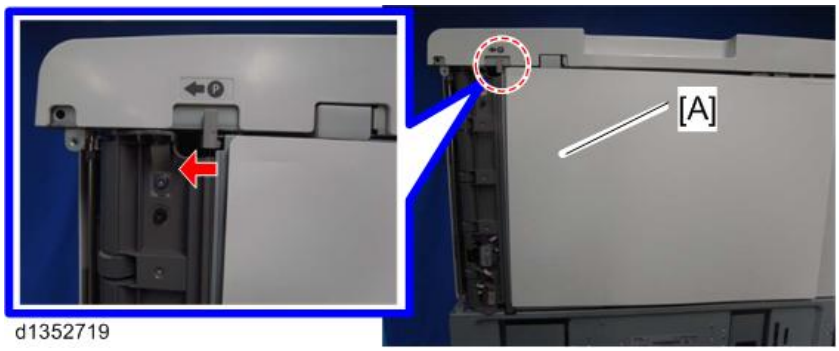
1.11 ORIGINAL EXIT SENSOR

1. **Entrance lower guide [A] (×2)**

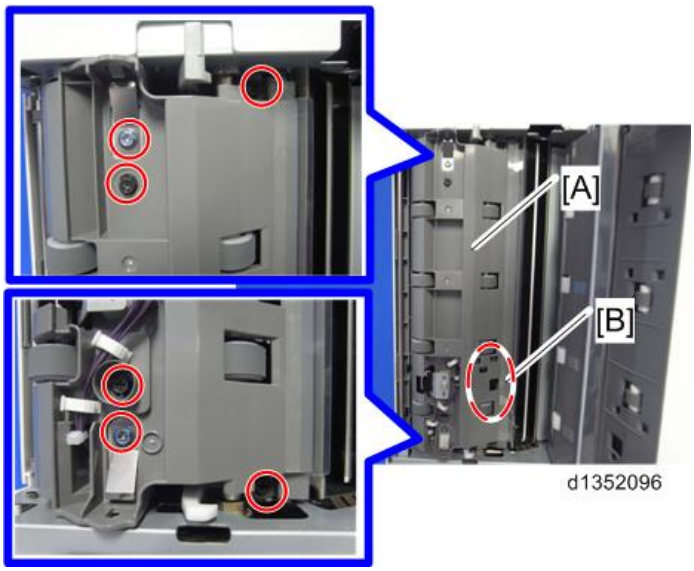


2. **Scanning guide plate [A] (hook×1)**

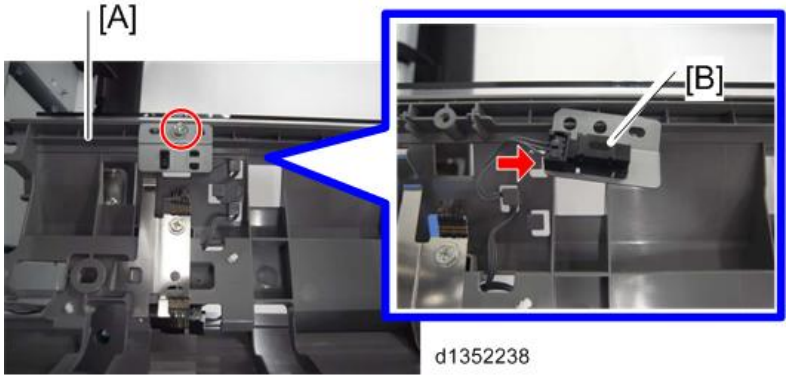
3. **Open the white cover [A].**



4. **Remove the original exit sensor [B], which is mounted on the upper guide [A] (×6)**

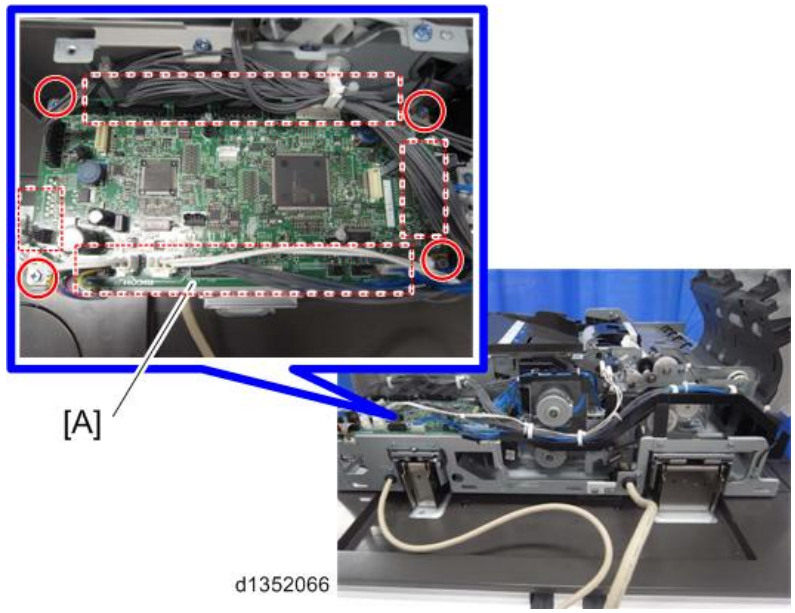


5. **Remove the original exit sensor [B] from the upper guide [A] (×1, ×1)**



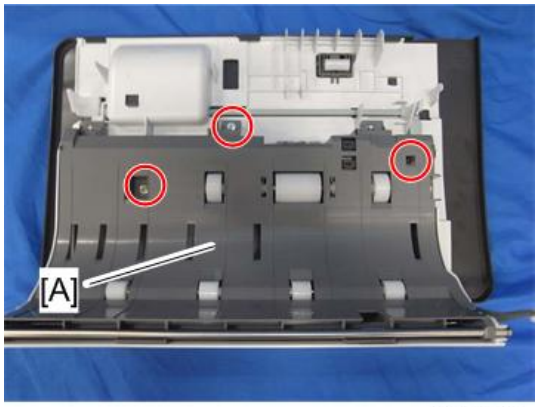
1.12 ADF CONTROL BOARD

1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **ADF control board [A] (×4, all s)**



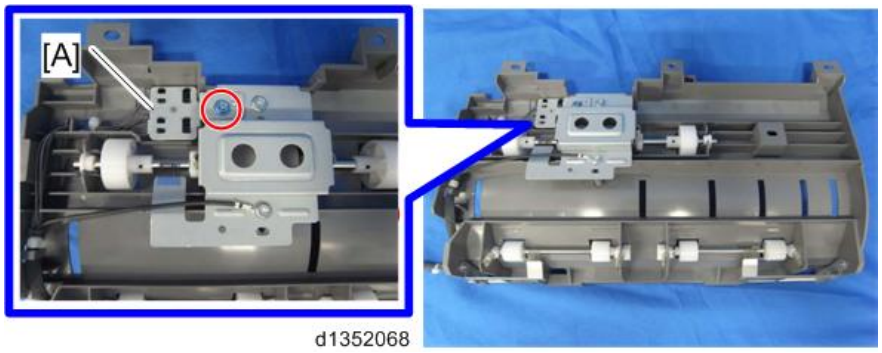
1.13 SEPARATION SENSOR / SKEW CORRECTION SENSOR

1. **Feed upper guide [A] in the feed cover (×3)**



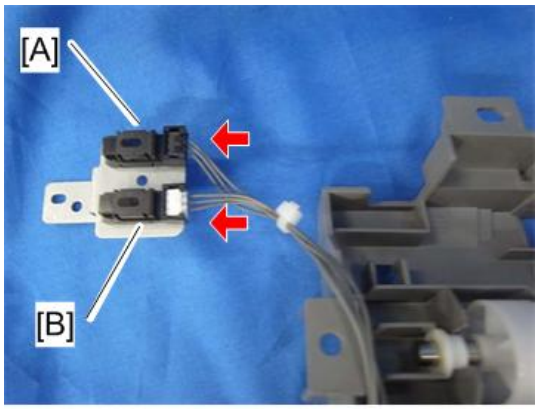
d1352067

2. **Remove the sensors along with the bracket [A] (×1)**



d1352068

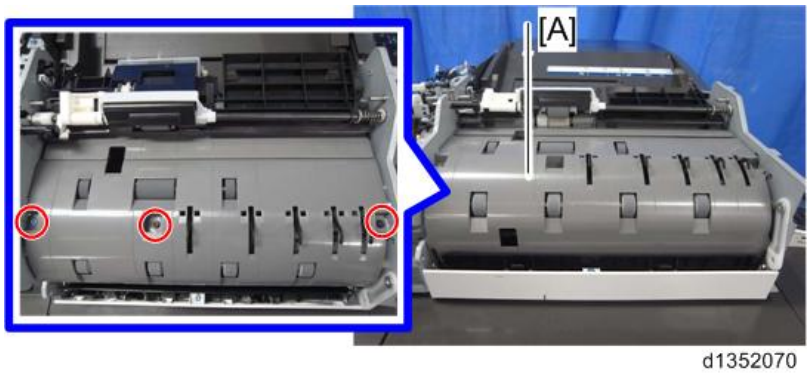
3. **Separation Sensor [A] and Skew Correction Sensor [B] (×1 each)**



d1352069

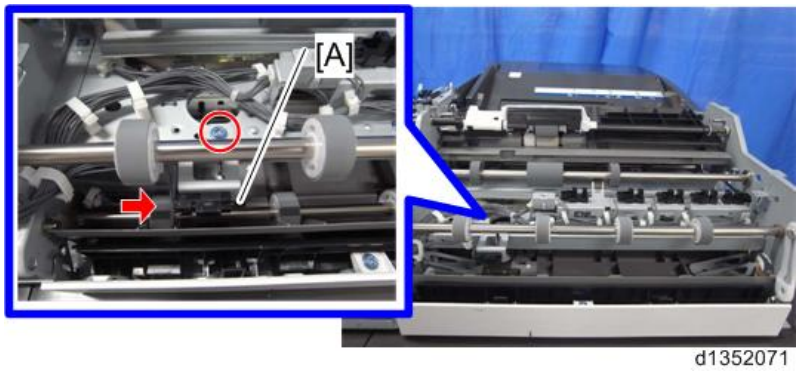
1.14 ORIGINAL WIDTH SENSOR / INTERVAL SENSOR

1. **Feed cover (page 9 "Feed Cover")**
2. **Guide plate [A] (×3)**



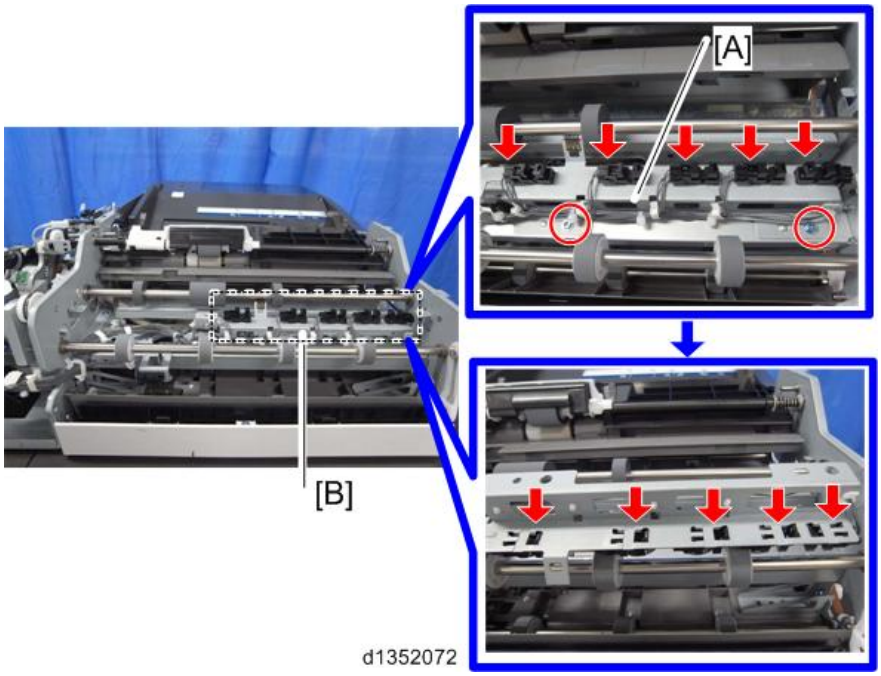
d1352070

3. **Interval sensor [A] (×1, ×1)**



d1352071

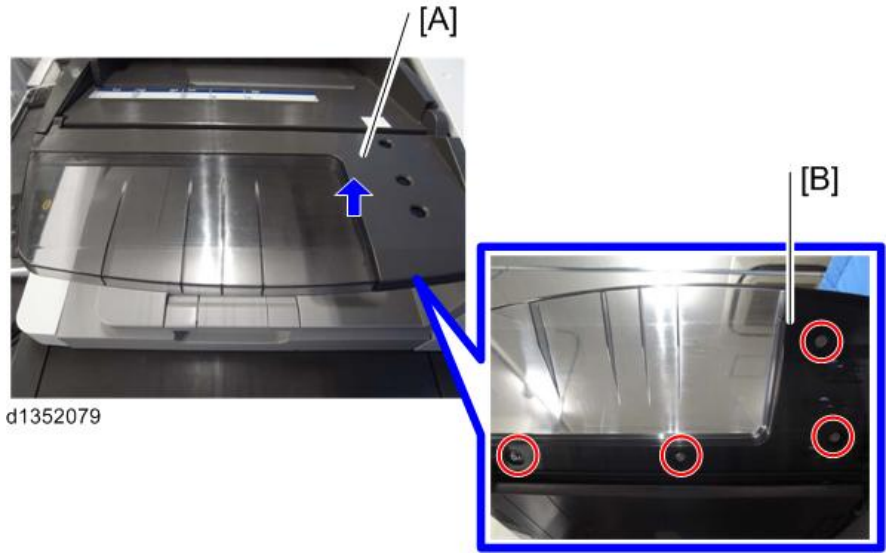
4. **Remove the original width sensor guide plate [A] (×2), then remove the original width sensors (×5) [B] (hook×1 each)**



d1352072

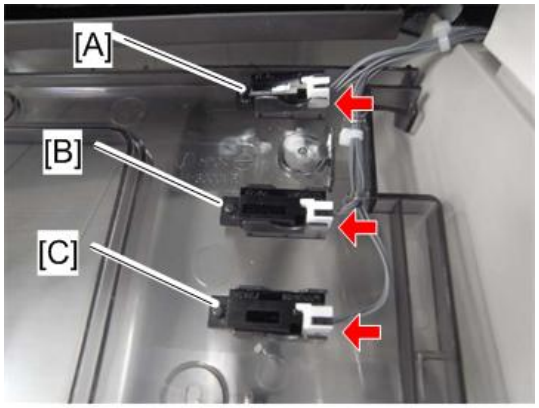
1.15 B5 WIDTH SENSOR / A4 WIDTH SENSOR / LG WIDTH SENSOR

1. **Raise the document tray [A], then remove the lower cover [B] (×4)**



d1352079

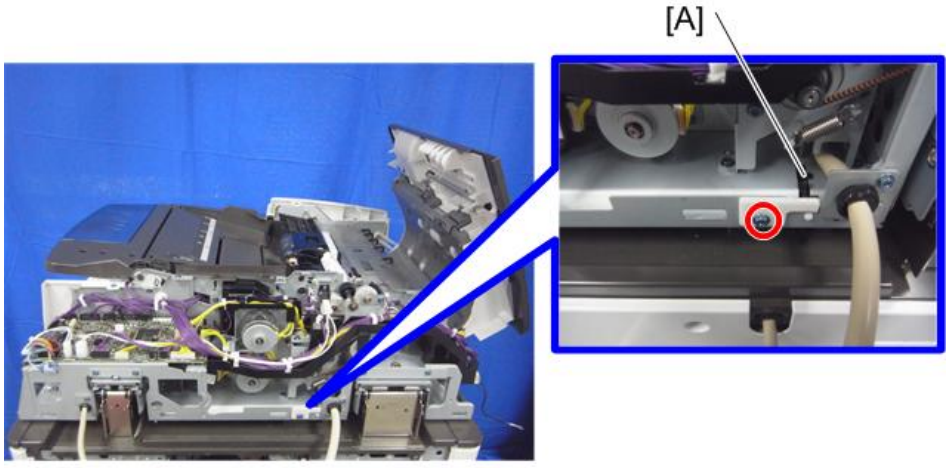
2. **B5 Width Sensor [A] (×1)**
3. **A4 Width Sensor [B] (×1)**
4. **LG Width Sensor[C] (×1)**



d1352080

1.16 APS FEELER

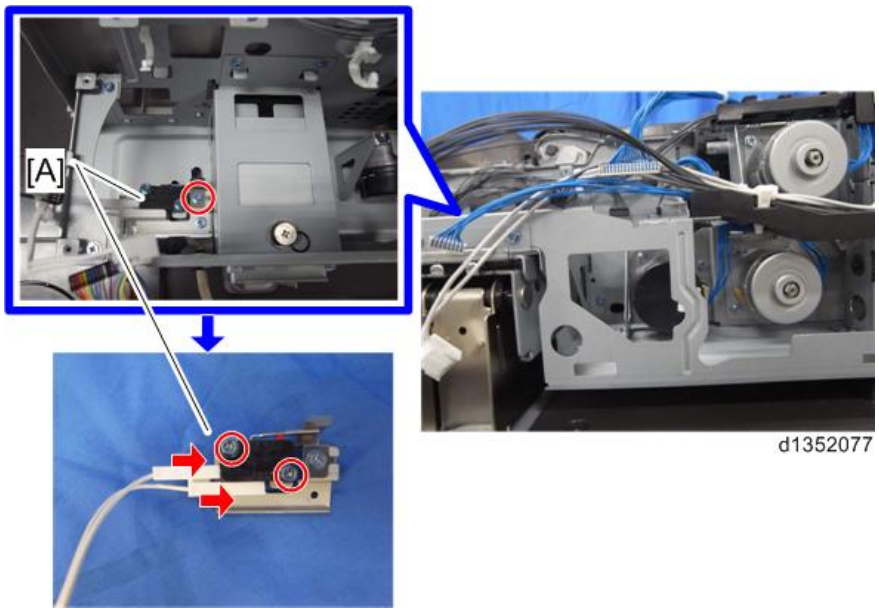
1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **APS Feeler [A] (×1)**



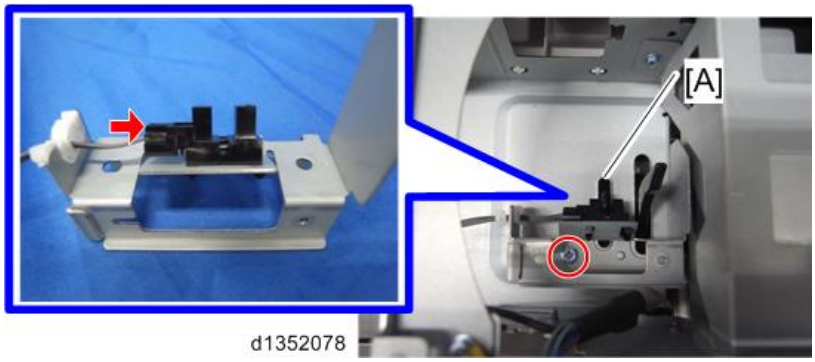
d1463159

1.17 ADF LIFT-UP INTERLOCK SW / LIFT-UP SENSOR

1. **ADF Control Board (page 18 "ADF Control Board")**
2. **ADF lift-up interlock SW [A] along with the bracket (×3, ×2)**

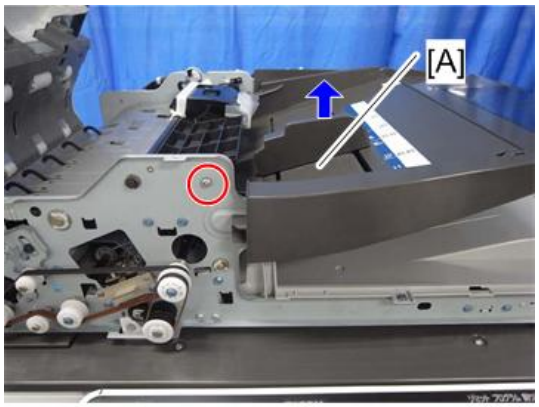


3. **Lift-Up Sensor [A] along with the bracket (×1, ×1)**



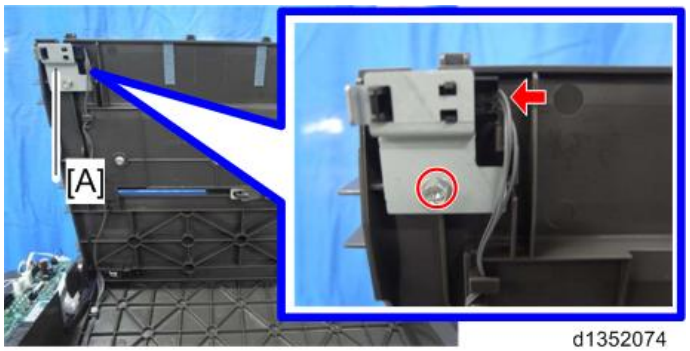
1.18 ORIGINAL SET SENSOR

1. **ADF front cover (page 7 "ADF Front Cover")**
2. **Remove the screw and raise the original tray [A] (×1)**



d1352073

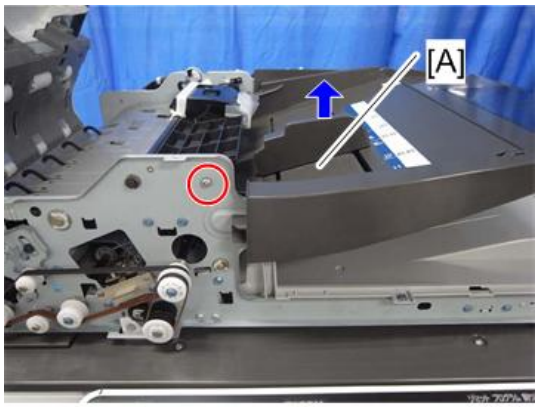
3. **Original set sensor [A] (×1, ×1)**



d1352074

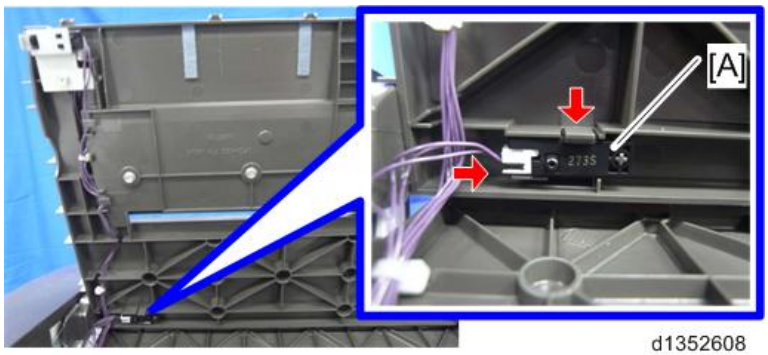
1.19 A4 LEF/LT LEF SENSOR

1. **ADF front cover (page 7 "ADF Front Cover")**
2. **Remove the screw and raise the original tray [A] (×1)**



d1352073

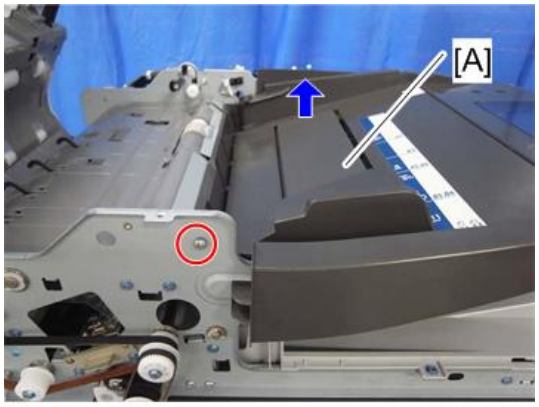
3. **A4 LEF/LT LEF Sensor [A] (hook×1, ×1)**



d1352608

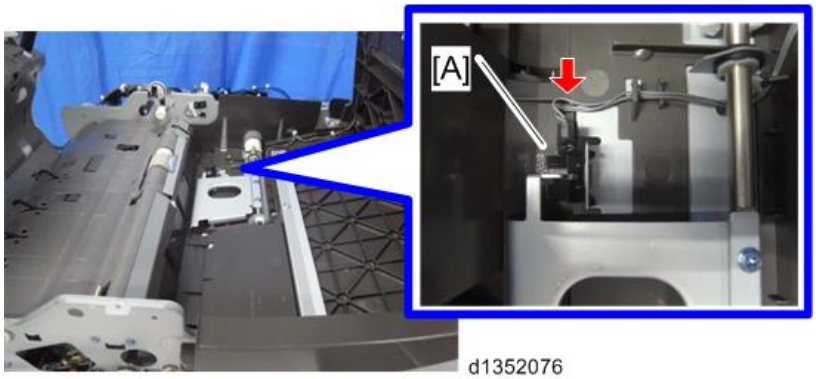
1.20 BOTTOM PLATE HP SENSOR

1. **Original feed unit (page 10 "Original Feed Unit")**
2. **ADF front cover (page 7 "ADF Front Cover")**
3. **Remove the screw and raise the original tray [A] (×1)**



d1352075

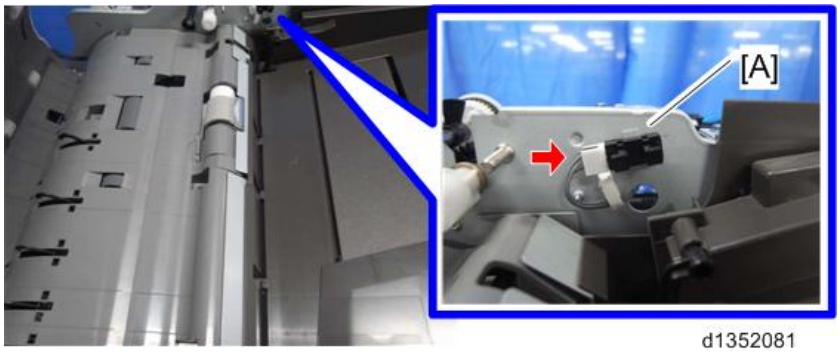
4. **Bottom plate HP sensor [A] (×1)**



d1352076

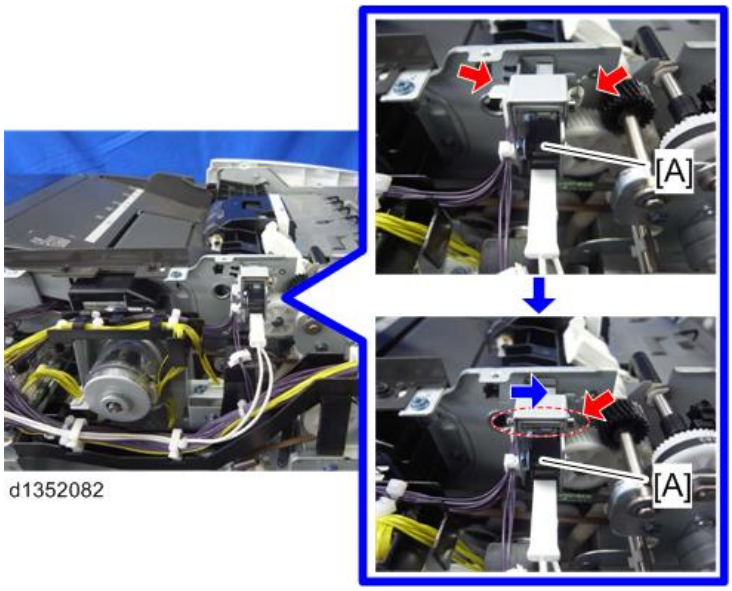
1.21 BOTTOM PLATE POSITION SENSOR

1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **Original feed unit (page 10 "Original Feed Unit")**
3. **Bottom plate position sensor [A] (×1)**



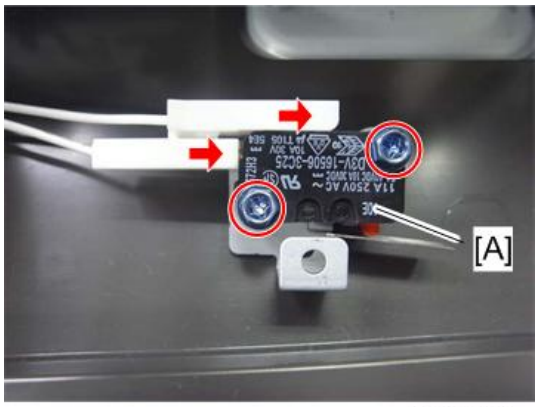
1.22 ADF FEED COVER INTERLOCK SWITCH / PICK-UP ROLLER HP SENSOR

1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **Remove the ADF feed cover interlock switch [A] from the retaining bracket (×1, spring×1, pin×1)**



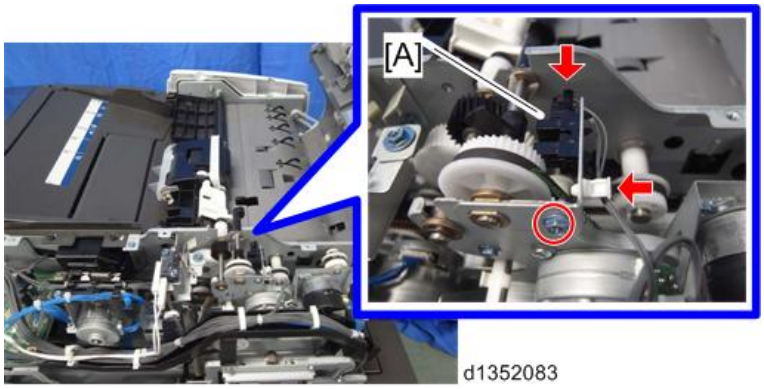
d1352082

3. **ADF feed cover interlock switch [A] (×2, ×2)**



d1352610

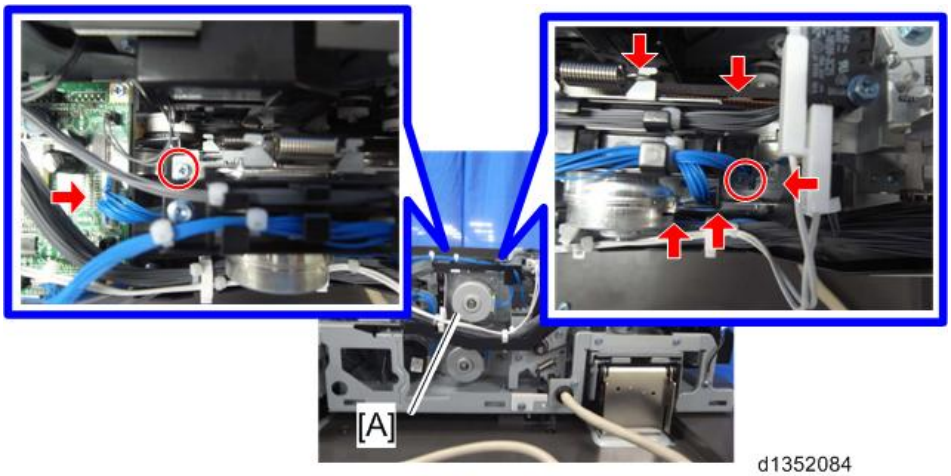
4. **Pick-up roller HP sensor [A] along with the bracket (×1, ×1, ×1)**



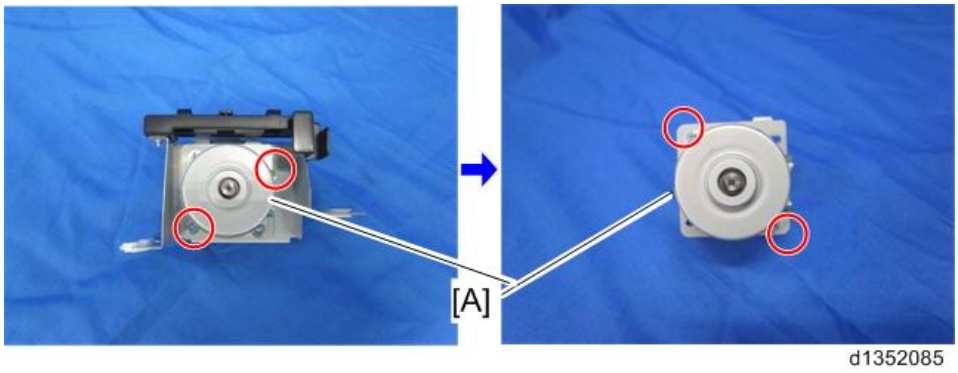
d1352083

1.23 ADF ENTRANCE MOTOR

1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **ADF entrance motor [A] along with the frame (×2, ×2, ×2, spring×1, timing belt×1)**

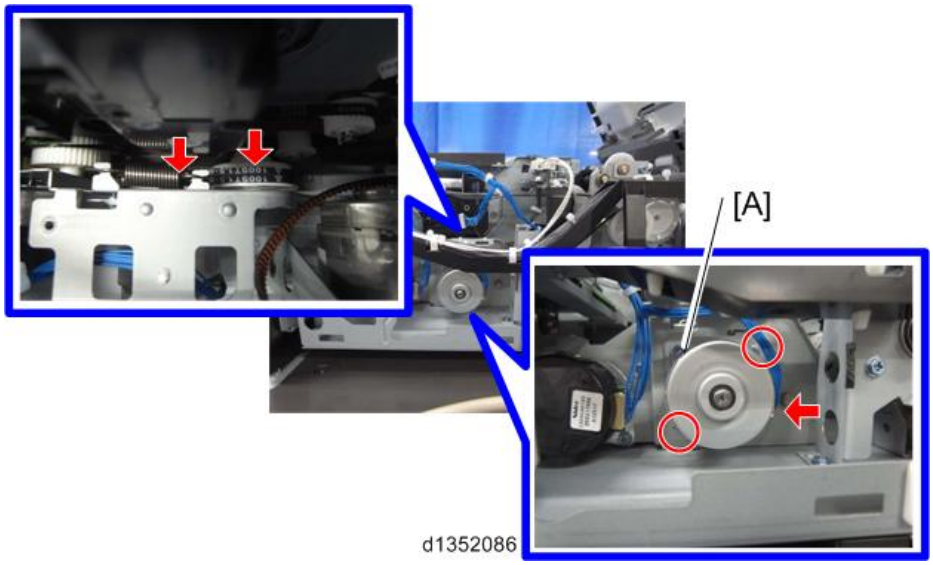


3. **ADF entrance motor [A] (×4)**

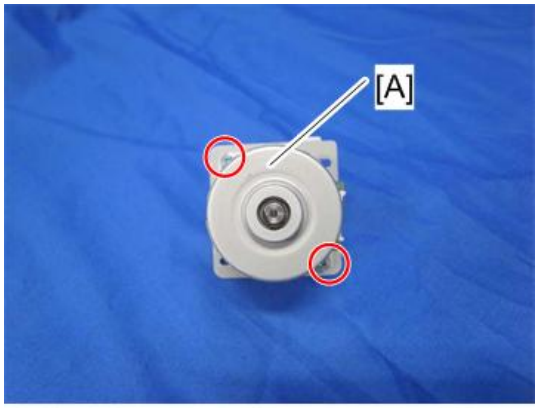


1.24 ADF SCANNING MOTOR

1. **ADF entrance motor along with the frame (page 30 "ADF Entrance Motor")**
2. **ADF read motor [A] along with the bracket (×2, ×1 , spring×1, timing belt×1)**

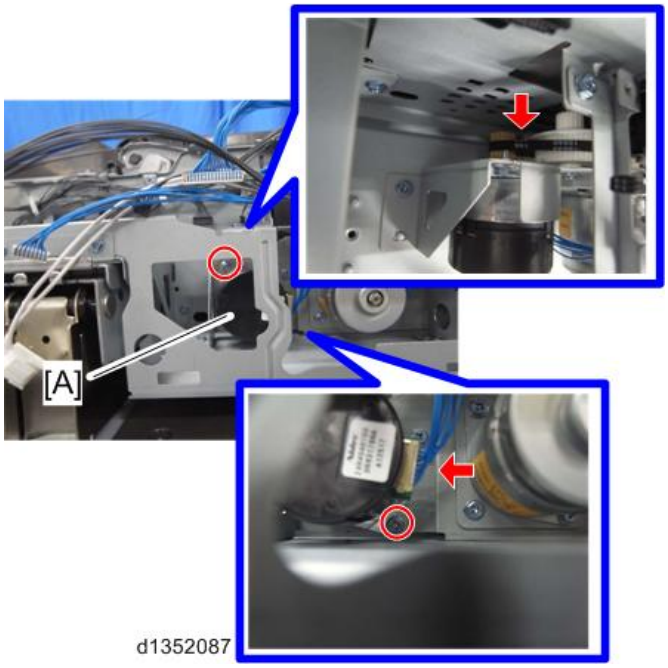


3. **ADF scanning motor [A] (×2)**

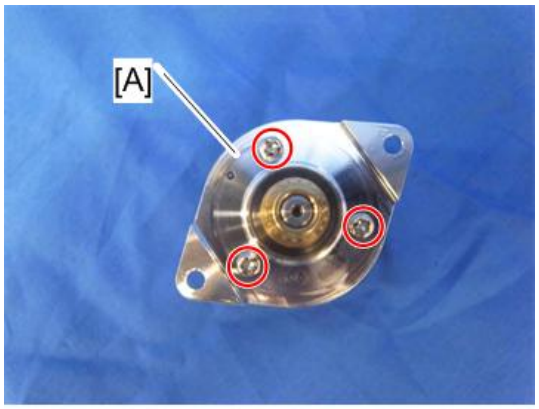


1.25 ADF EXIT MOTOR

1. **ADF Control Board (page 18 "ADF Control Board")**
2. **ADF exit motor [A] along with the bracket (×2, ×1, spring×1, timing belt×1)**

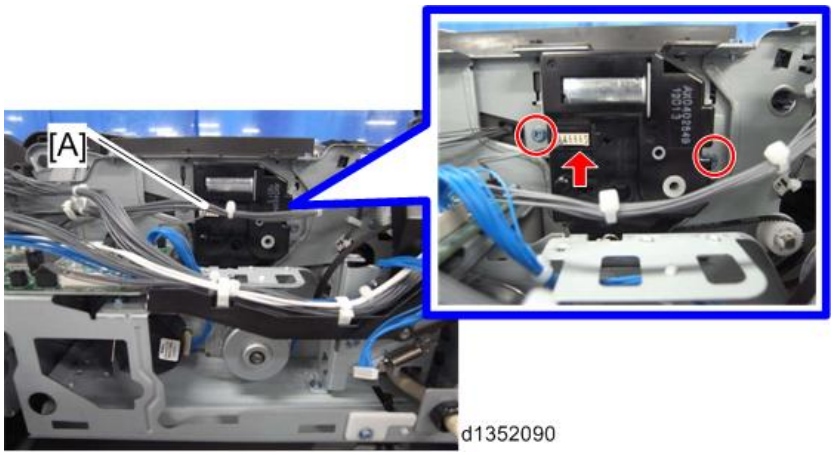


3. **ADF exit motor [A] (×3)**



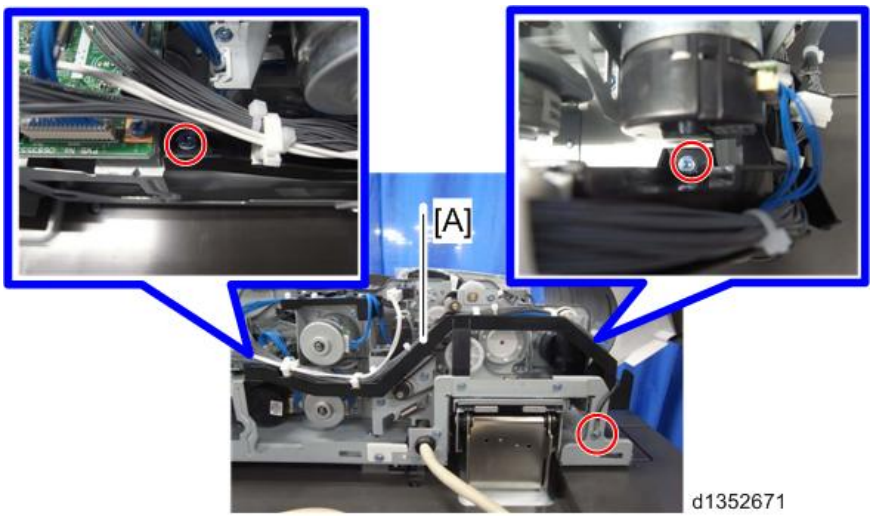
1.26 ADF BOTTOM PLATE LIFT MOTOR

1. **ADF entrance motor along with the frame (page 30 "ADF Entrance Motor")**
2. **ADF bottom plate lift motor [A] (×2, ×1)**

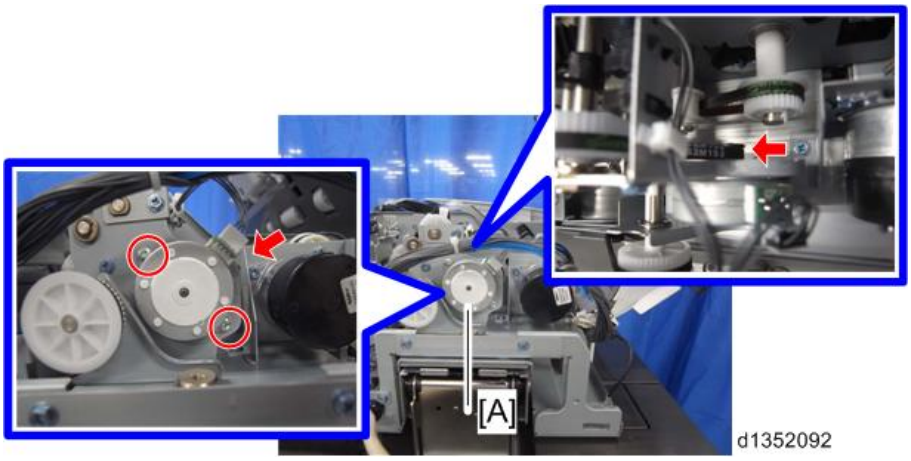


1.27 ADF PICK-UP ROLLER LIFT MOTOR / ADF TRANSPORT MOTOR

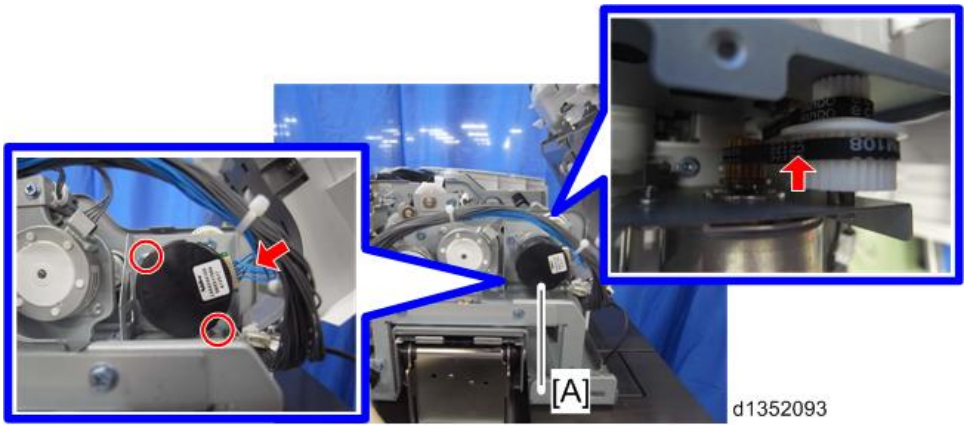
1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **Frame (black) [A] (×3)**



3. **ADF pick-up roller lift motor [A] (×2, ×1, timing belt×1)**

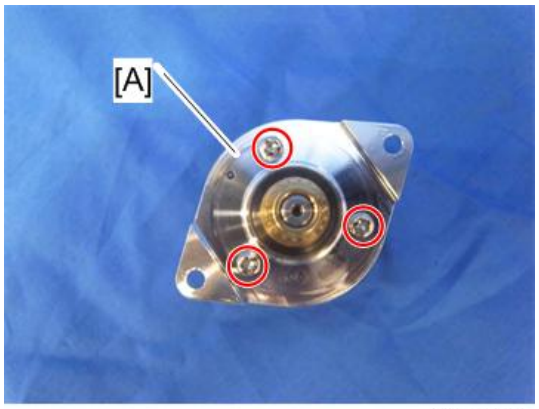


4. **ADF transport motor [A] along with the bracket (×2, ×1, timing belt×1)**



d1352093

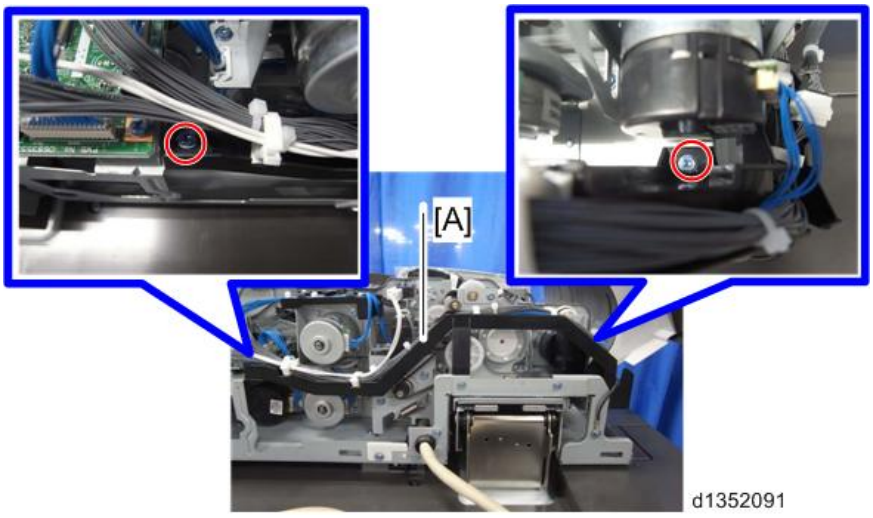
5. **ADF transport motor [A] (×3)**



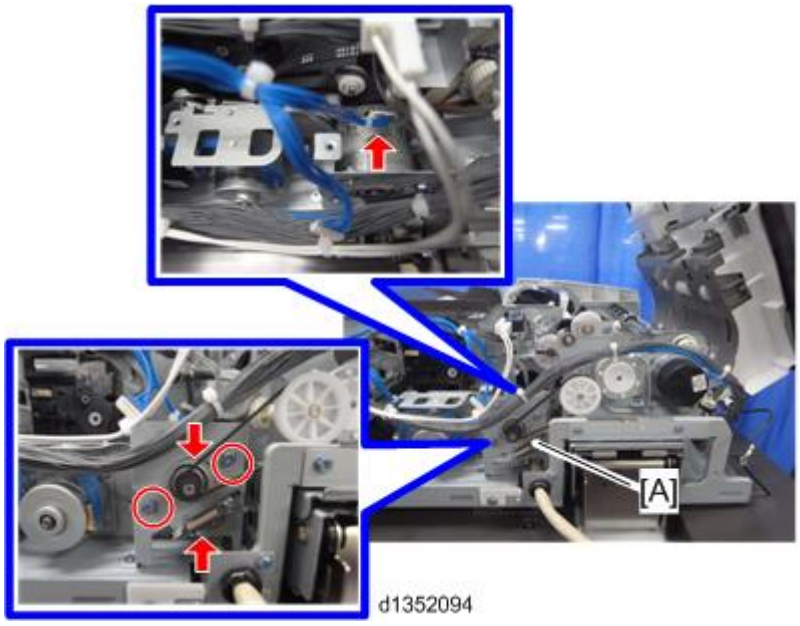
d1352088

1.28 ADF FEED MOTOR

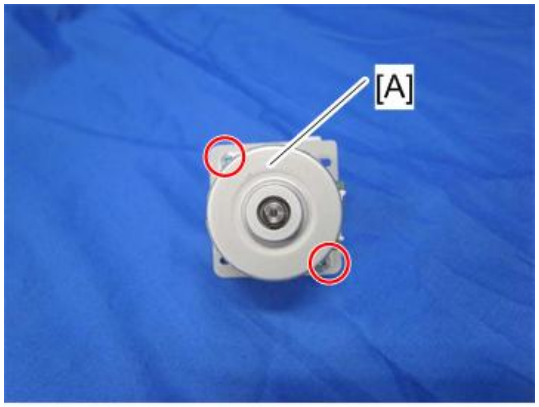
1. **ADF rear cover (page 8 "ADF Rear Cover")**
2. **Remove the fixing screws of the frame (black) [A] (×2).**



3. **ADF entrance motor along with the frame (page 30 "ADF Entrance Motor")**
4. **ADF feed motor [A] along with the bracket (×2, ×1, spring×1, timing belt×1)**



5. **ADF feed motor [A] (×2)**



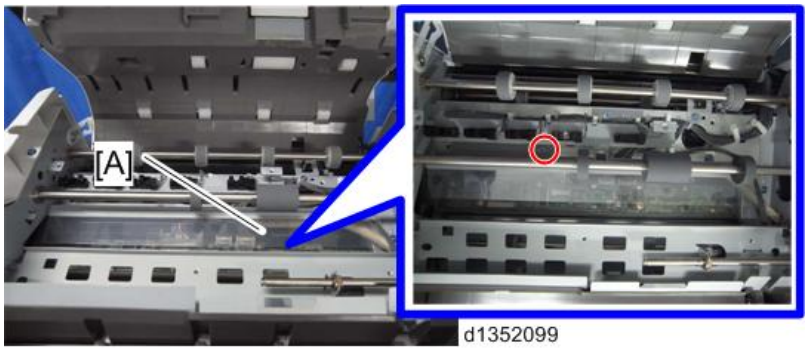
d1352089

1.29 CIS UNIT

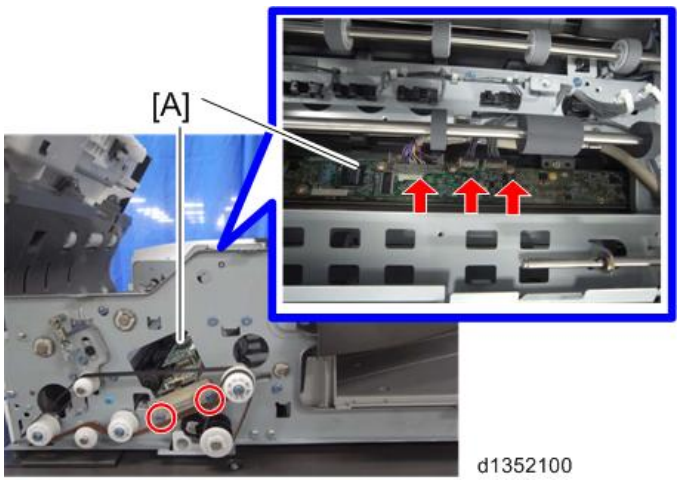
1. **Original Feed Unit (page 10 "Original Feed Unit")**
2. **ADF Separation Roller (page 13 "ADF Separation Roller")**
3. **ADF front cover (page 7 "ADF Front Cover")**
4. **Guide plate (large) [A] (×3)**

5. **Guide plate (small) [A] (×2)**

6. **Guide plate [A] (×1)**



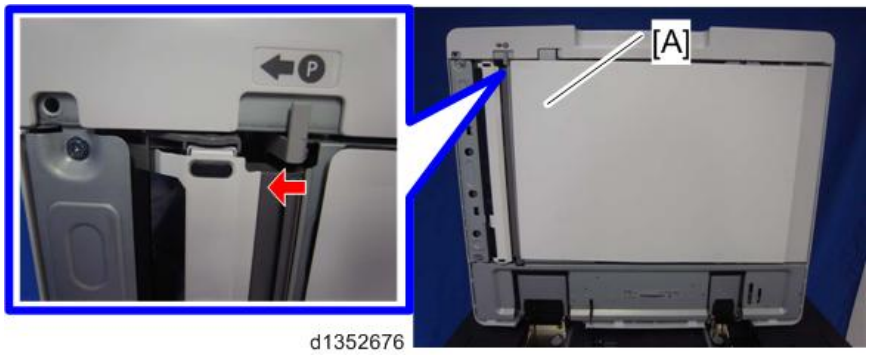
7. **CIS unit [A] (×2, ×3)**



d1352100

Note

- To prevent scratches on the surface of the CIS glass, removal of the CIS unit must be done with the white cover [A] open.



d1352676

D685

BRIDGE UNIT BU3070

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

BRIDGE UNIT BU3070 (D685)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

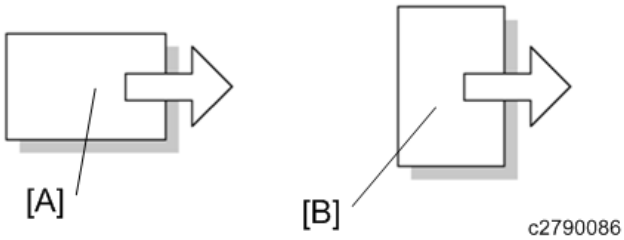
1.1 DRIVE MOTOR UNIT 1
1.2 PAPER EXIT SENSOR.....4
1.3 BRIDGE UNIT TRANSPORT SENSOR.....7
1.4 PAPER EXIT TRAY SET DETECTION SWITCH.....8
1.5 PAPER EXIT SWITCHING UNIT SET SWITCH 9

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

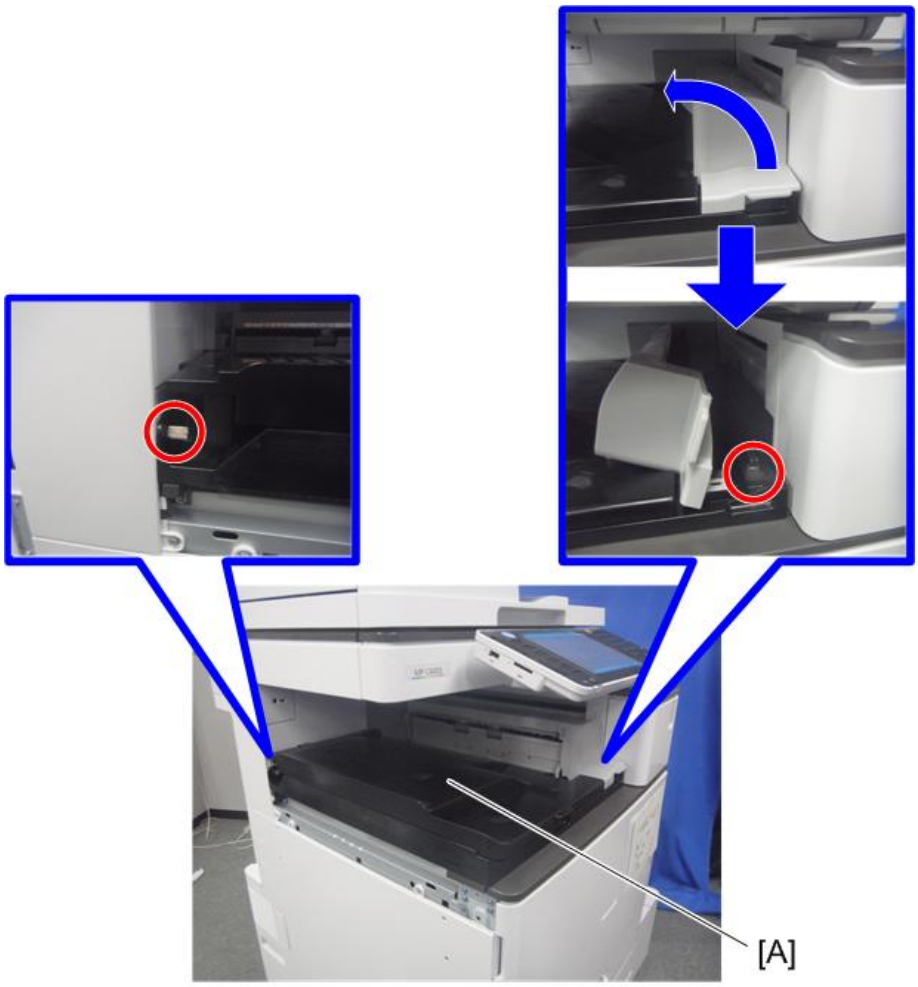
PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

1.1 DRIVE MOTOR UNIT

1. **Separate the finisher, and remove the connecting bracket.**
2. **Bridge unit [A] (×2)**

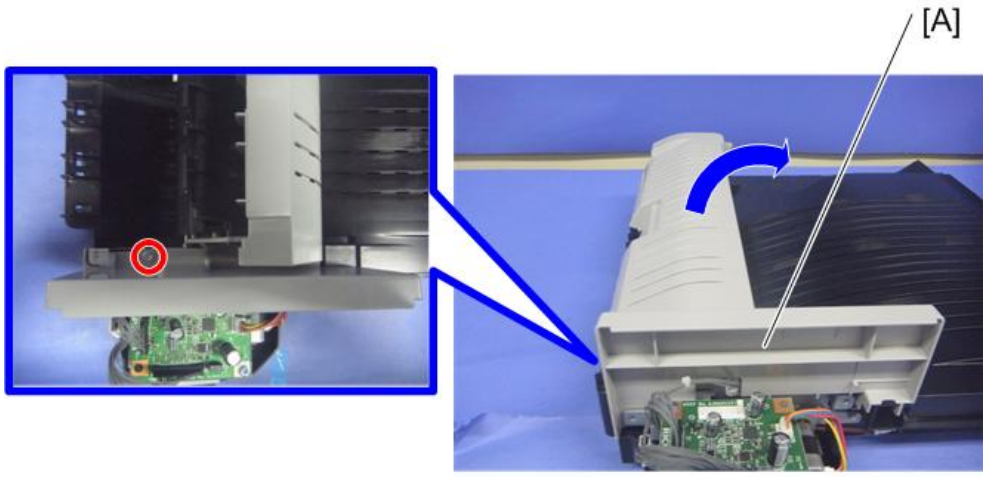


d1462820

3. **Drive motor unit cover [A] (×2)**

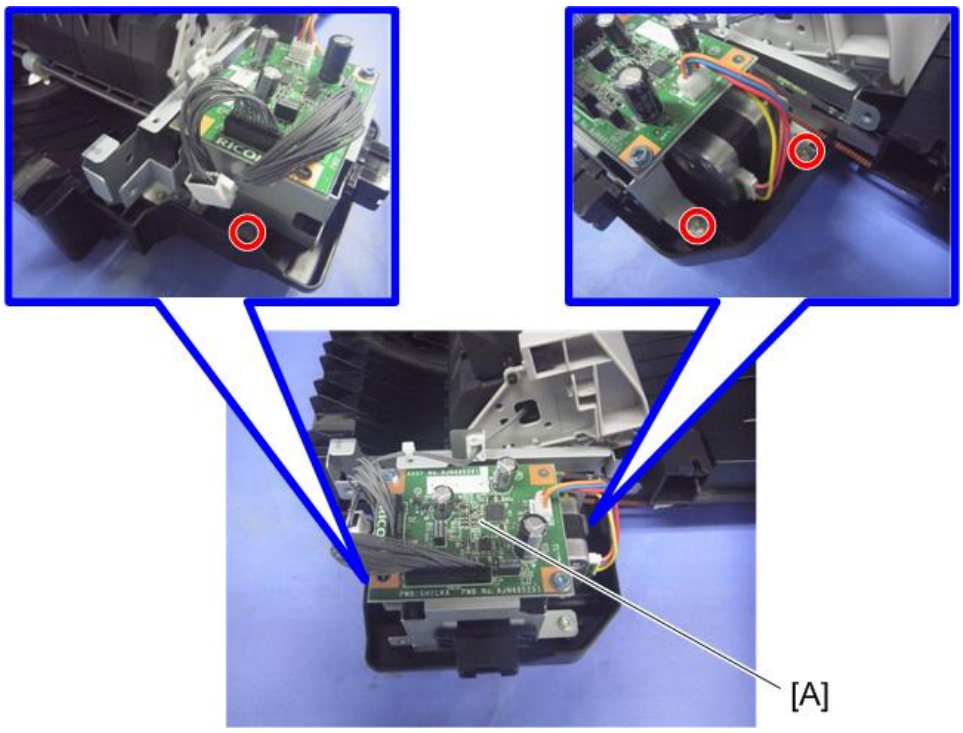
d1462821

4. **Bridge unit rear cover [A] (×1)**



d1462822

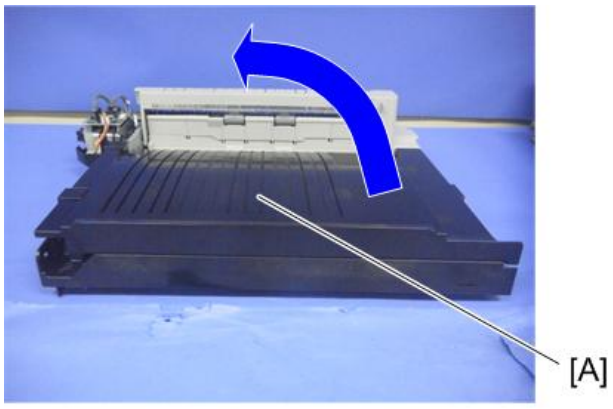
5. **Drive motor unit [A] (×3,×2)**



d1462823

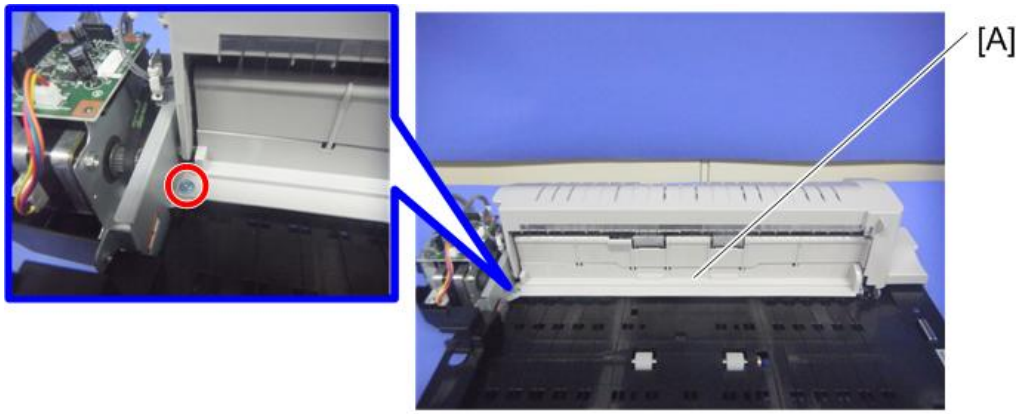
1.2 PAPER EXIT SENSOR

1. **Bridge unit (☛page 1 "Drive Motor Unit")**
2. **Drive motor unit cover (☛page 1 "Drive Motor Unit")**
3. **Bridge unit rear cover (☛page 1 "Drive Motor Unit")**
4. **Paper exit tray [A]**



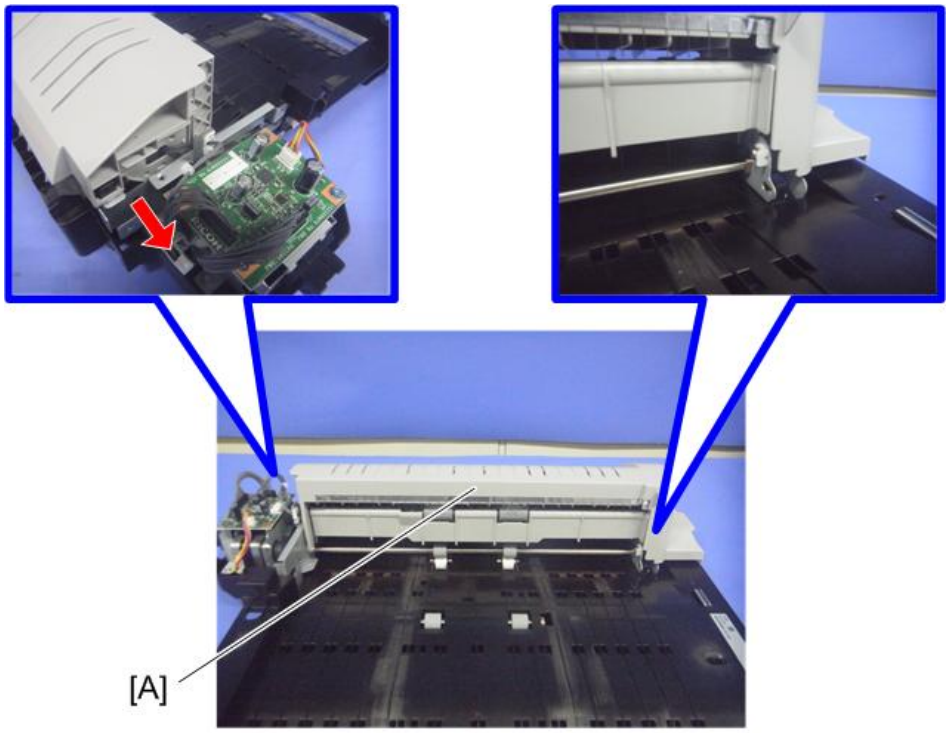
d1462824

5. **Paper exit cover [A] (×1)**



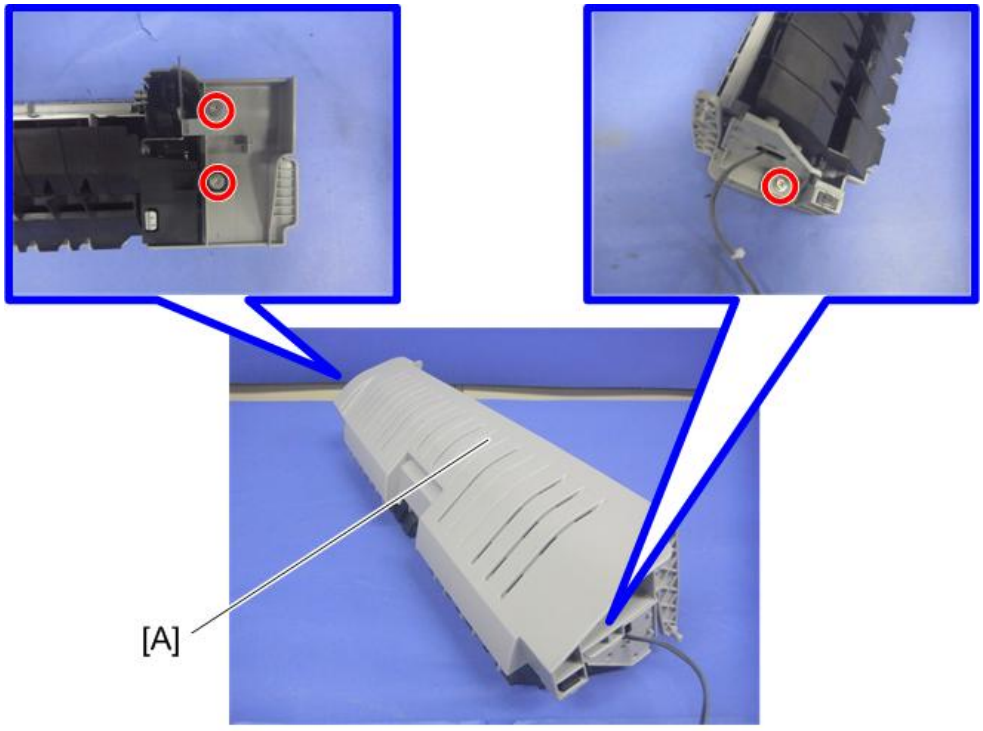
d1462825

6. **Paper exit switching unit [A] (×1,×1,×1)**



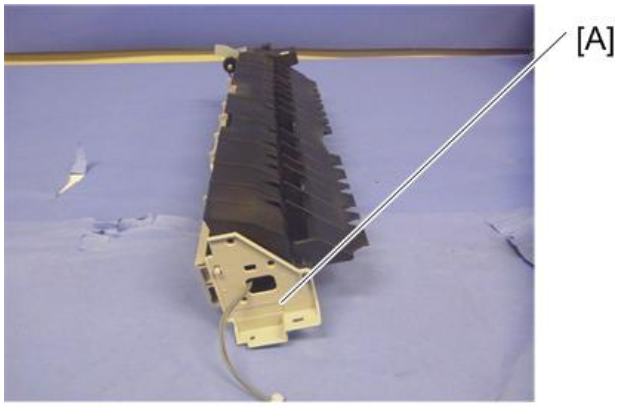
d1462826

7. **Paper exit switching unit cover [A] (×3)**



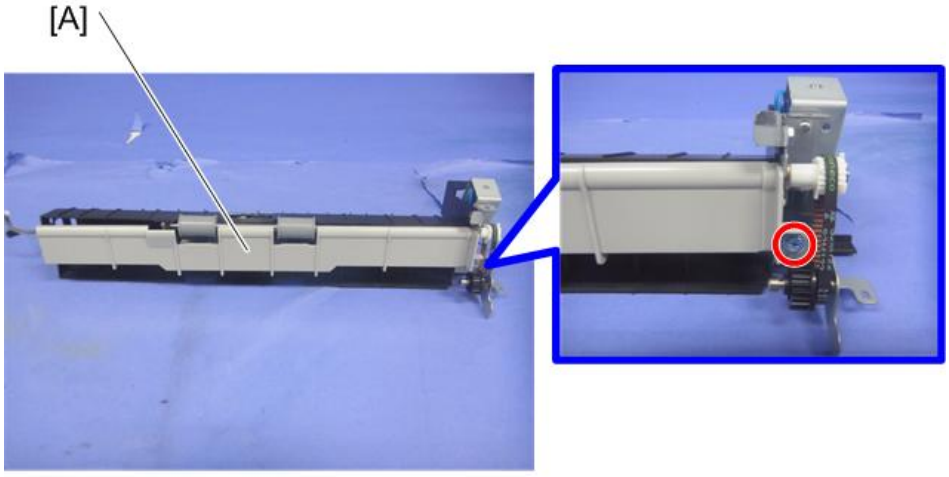
d1462827

8. **Guide plate [A]**



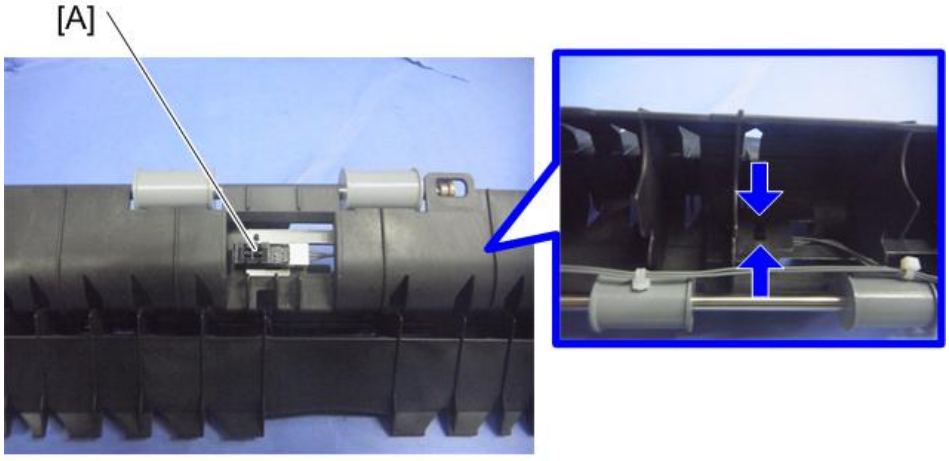
d1462828

9. Guide plate [A] (×1)



d1462829

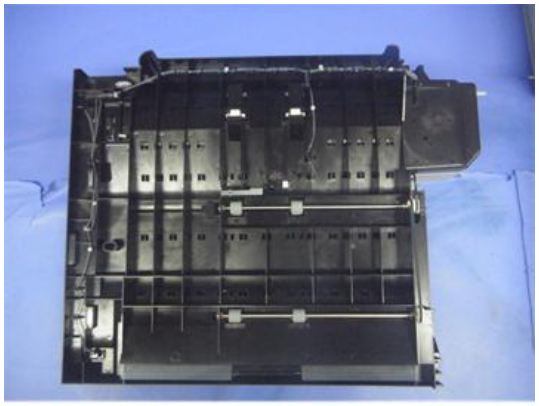
10. Paper exit sensor [A]



d1462830

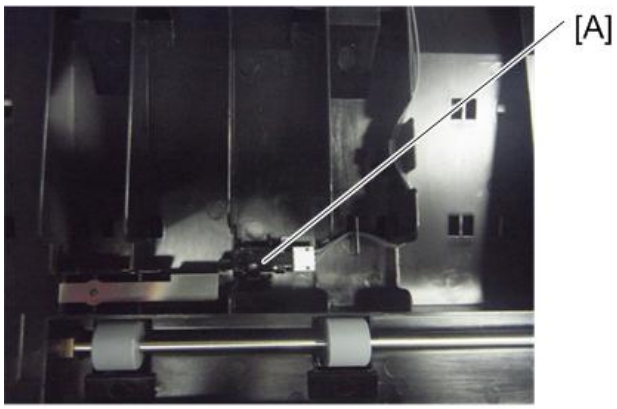
1.3 BRIDGE UNIT TRANSPORT SENSOR

1. **Bridge unit (☛page 1 "Drive Motor Unit")**
2. **Upside down.**



d1462831

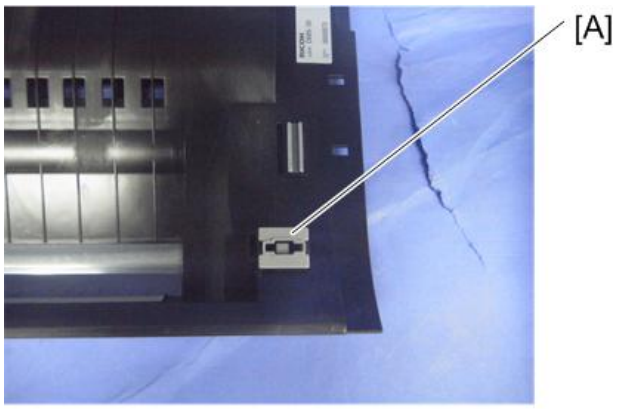
3. **Bridge unit transport sensor [A] (×1)**



d1462832

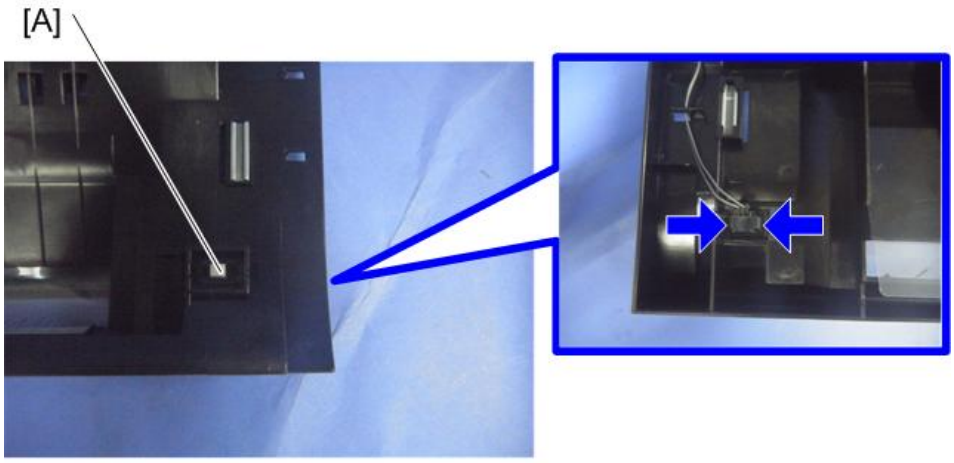
1.4 PAPER EXIT TRAY SET DETECTION SWITCH

1. **Paper exit tray**
2. **Paper exit tray set switch cover [A]**



d1462833

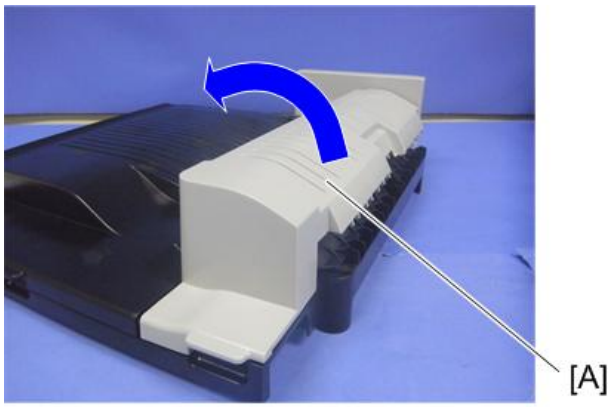
3. **Paper exit tray set switch [A]**



d1462834

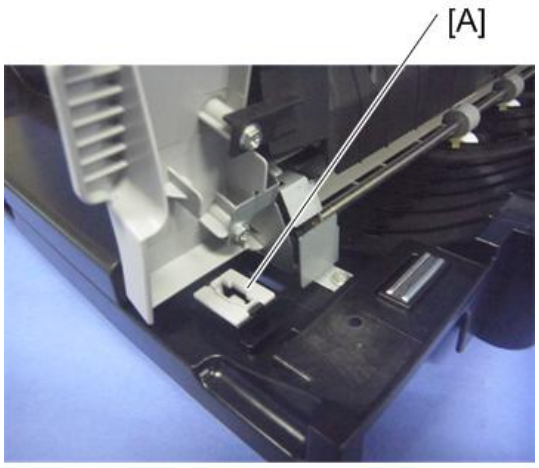
1.5 PAPER EXIT SWITCHING UNIT SET SWITCH

1. **Open the Paper exit switching unit [A]**



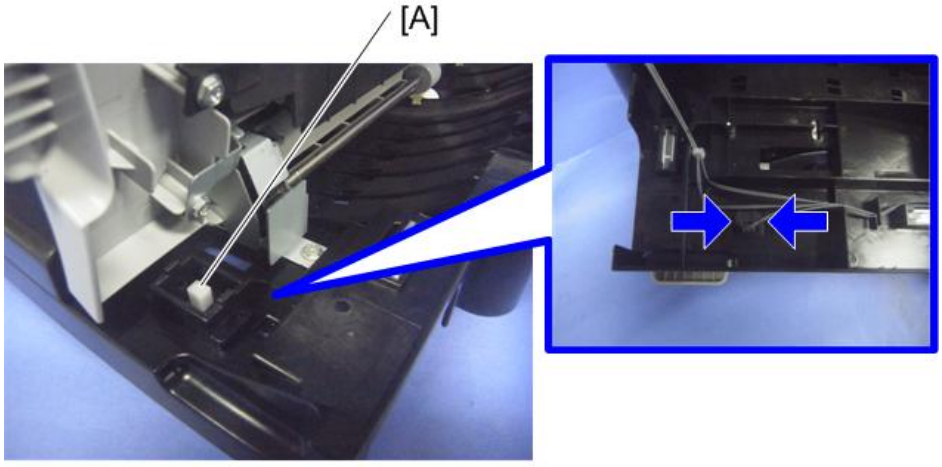
d1462835

2. **Paper exit switching unit set switch cover [A]**



d1462836

3. **Paper exit switching unit set switch [A]**



d1462837

D686/D687

BOOKLET FINISHER SR3150 / FINISHER SR3140

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

BOOKLET FINISHER SR3150 / FINISHER SR3140 (D686/D687)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

1.1 EXTERIOR PART 1
1.1.1 FRONT COVER 1
1.1.2 INNER COVER 2
1.1.3 REAR COVER 3
1.1.4 FRONT LEFT COVER 3
1.1.5 UPPER COVER 4
1.1.6 UPPER FRONT COVER 5
1.1.7 UPPER REAR COVER 6
1.1.8 PROOF TRAY 7
1.1.9 SHIFT TRAY 7
1.1.10 BOOKLET TRAY 8
1.1.11 UPPER LEFT COVER 8
1.1.12 LEFT CENTER COVER 9
1.1.13 LEFT LOWER COVER 10
1.2 PAPER EJECT COVER OPEN/CLOSE MOTOR 11
1.3 PAPER EJECT COVER HP SENSOR 12
1.4 PROOF TRAY FULL SENSOR 13
1.5 PROOF PAPER EJECT SENSOR 14
1.6 ENTRANCE PAPER SURFACE SENSOR 16
1.7 INTERMEDIATE TRANSPORT (RIGHT) PAPER SURFACE SENSOR 17
1.8 INTERMEDIATE TRANSPORT (LEFT) PAPER SURFACE SENSOR 18
1.9 SHIFT TRAY PAPER SURFACE SENSOR 19
1.10 SHIFT TRAY UPPER LIMIT SWITCH 21
1.11 SHIFT PAPER EJECT SENSOR 22
1.12 BOOKLET STITCH UNIT 23
1.13 CENTER-FOLDING UNIT 25
1.14 CENTER-FOLDING PAPER EJECT SENSOR 28
1.15 EDGE STOPPER PAPER SURFACE SENSOR 29
1.16 EDGE STOPPER HP SENSOR 30

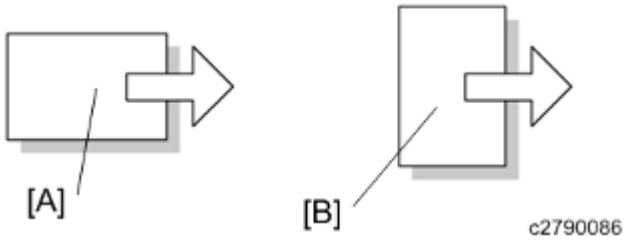
1.17 CENTER-FOLDING BLADE HP SENSOR....31
1.18 CENTER-FOLDING CAM HP SENSOR....32
1.19 EDGE STOPPER MOTOR....33
1.20 FOLDING BLADE MOTOR....34
1.21 FOLDING TRANSPORT MOTOR....35
1.22 CENTER-FOLDING FULL SENSORS 1, 2....36
1.23 MAIN CONTROL BOARD....37
1.24 PROOF TRANSPORT MOTOR....38
1.25 STRIKE MOTOR....39
1.26 SHIFT MOTOR....40
1.27 PAPER EJECT TRANSPORT MOTOR....41
1.28 BOOKLET STITCH BUNDLE TRANSPORT (UPPER) MOTOR....42
1.29 STAPLER TRANSFER MOTOR....44
1.30 BOOKLET TRANSPORT (LOWER) PRESSURE RELEASE MOTOR....45
1.31 STAPLER RETREAT SENSOR....46
1.32 STAPLER TRAY....47
1.33 STAPLER TRAY PAPER SURFACE SENSOR....49
1.34 BOOKLET STITCH BUNDLE TRANSPORT (UPPER) HP SENSOR....50
1.35 RELEASE CLAW HP SENSOR....51
1.36 JOGGER HP SENSOR....52
1.37 JOGGER DRIVE MOTOR....53
1.38 BOOKLET TRANSPORT (UPPER) PRESSURE RELEASE MOTOR....54
1.39 RELEASE CLAW MOTOR....55
1.40 STAPLER UNIT....56

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

1. REPLACEMENT AND ADJUSTMENT

1.1 EXTERIOR PART

1.1.1 FRONT COVER

1. **Open the front cover [A].**

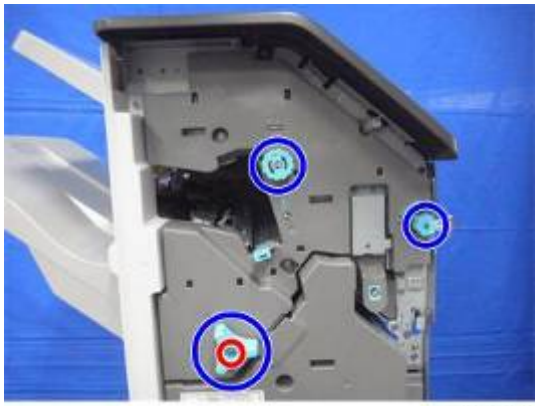
d6873230

2. **Front cover (×1)**

d6873231

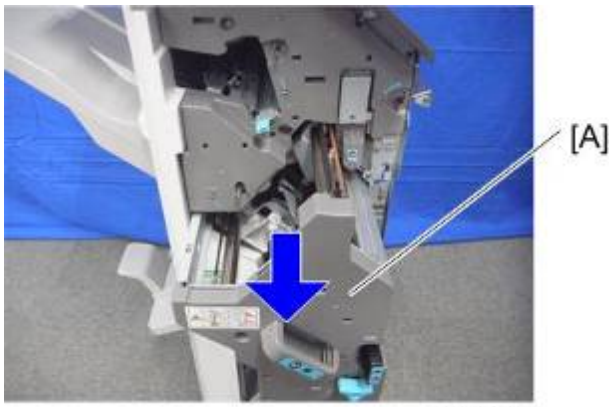
1.1.2 INNER COVER

1. **Open the front cover (☛page 1)**
2. **Remove the three knobs.**



d6873232

3. **Pull out the booklet stitch unit [A] a little.**



d6873233

4. **Inner cover [A] (×2)**

d6873234

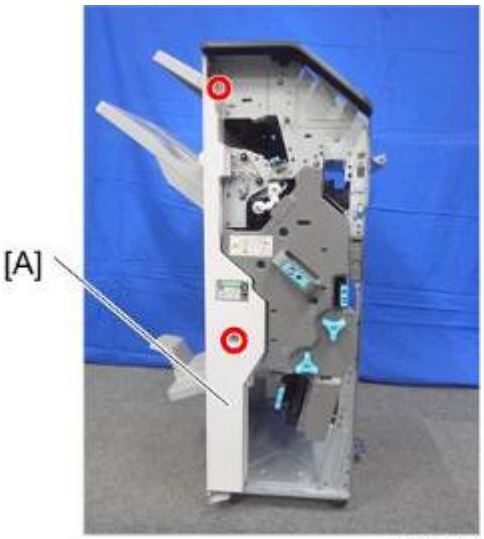
1.1.3 REAR COVER

1. **Rear cover [A] (×2)**

d6873235

1.1.4 FRONT LEFT COVER

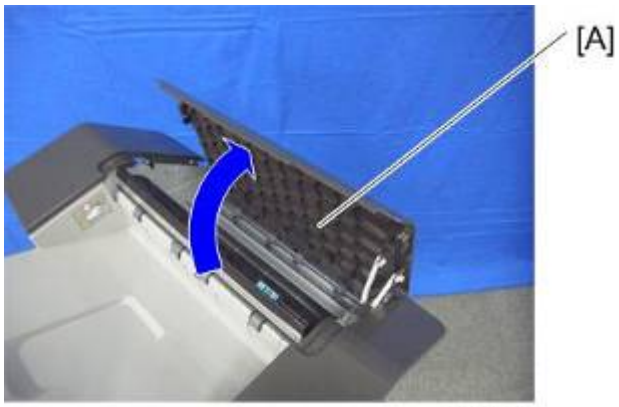
1. **Front cover (page 1)**
2. **Inner cover (page 2)**
3. **Front left cover [A] (×2)**



d6873236

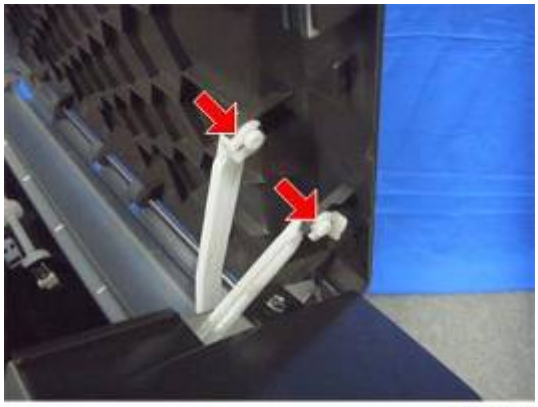
1.1.5 UPPER COVER

1. **Open the upper cover [A].**



d6873237

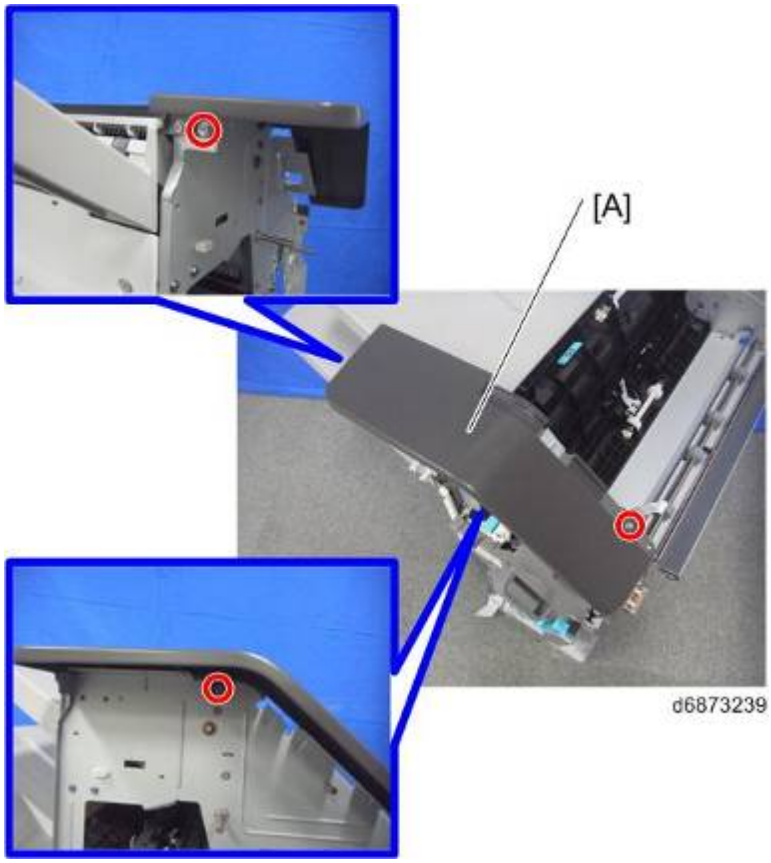
2. **Upper cover (×2)**



d6873238

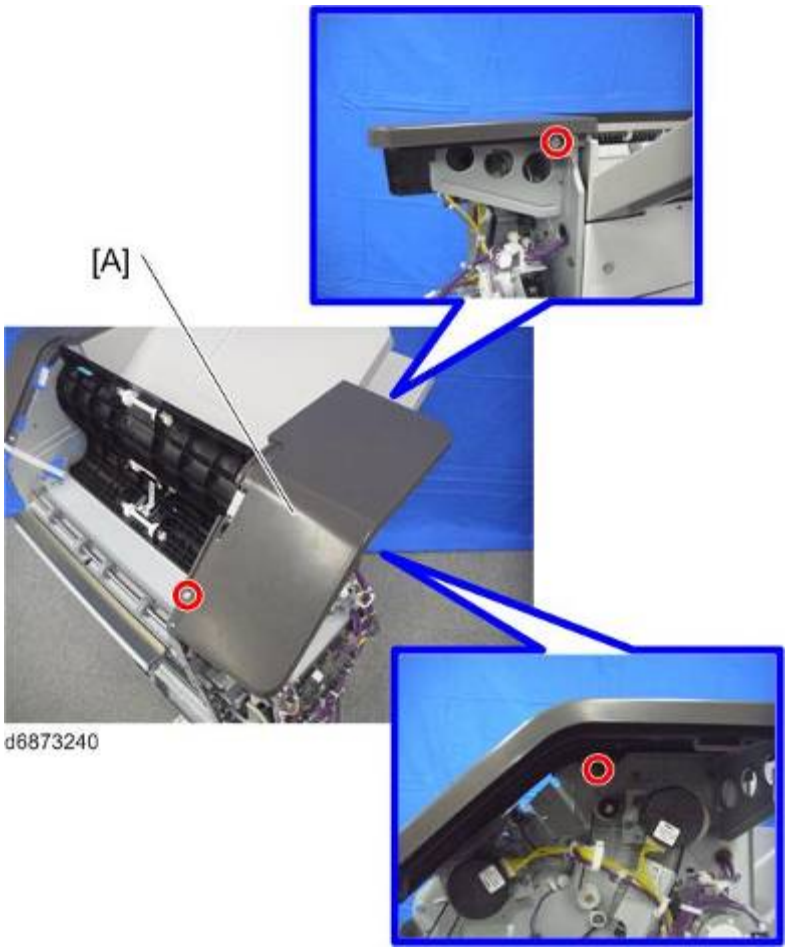
1.1.6 UPPER FRONT COVER

1. **Front left cover (☛page 3)**
2. **Upper cover (☛page 4)**
3. **Upper front cover [A] (×3)**



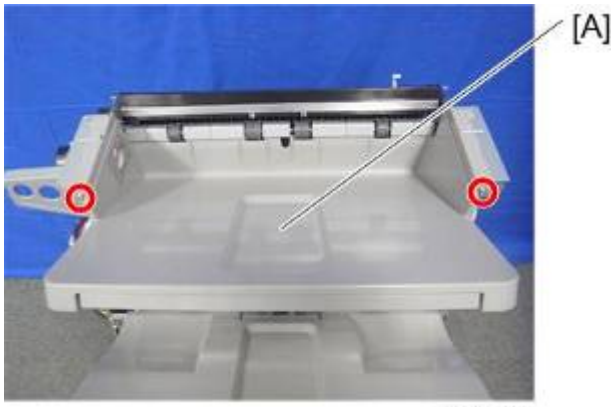
1.1.7 UPPER REAR COVER

1. **Rear cover (☛page 3)**
2. **Upper cover (☛page 4)**
3. **Upper rear cover [A] (×3)**



1.1.8 PROOF TRAY

1. **Upper front cover (☛page 5)**
2. **Upper rear cover (☛page 6)**
3. **Proof tray [A] (×2)**



d6873241

1.1.9 SHIFT TRAY

1. **Shift tray [A] (×1)**

d6873242

1.1.10 BOOKLET TRAY

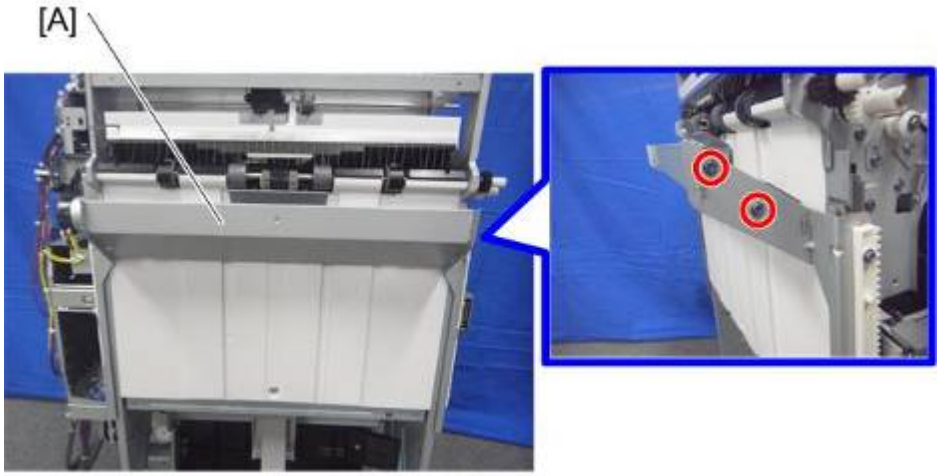
1. Booklet tray [A]

1.1.11 UPPER LEFT COVER

1. Upper left cover [A] (×2)

1.1.12 LEFT CENTER COVER

1. Front cover (☛page 1)
2. Rear cover (☛page 3)
3. Shift tray (☛page 7)
4. Shift tray bracket [A] (×2)



d6873245

5. Left center cover [A] (×2)

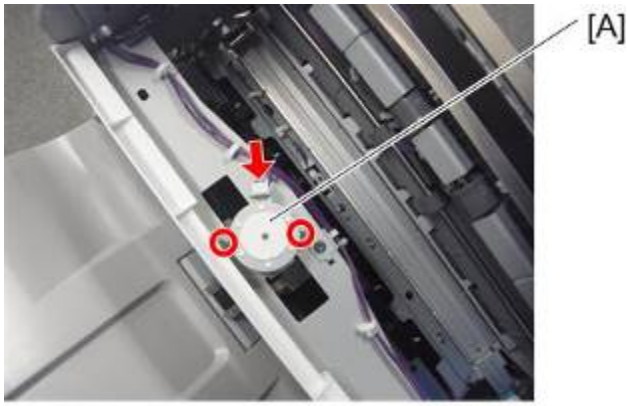
d6873246

1.1.13 LEFT LOWER COVER

1. **Front cover (☛page 1)**
2. **Rear cover (☛page 3)**
3. **Booklet tray (☛page 8)**
4. **Left lower cover [A] (×2)**

1.2 PAPER EJECT COVER OPEN/CLOSE MOTOR

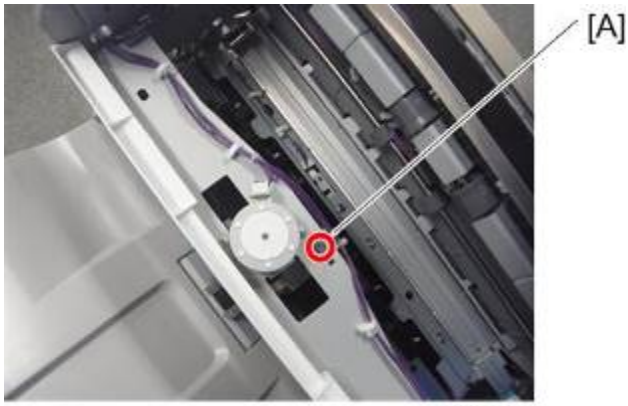
1. **Proof tray (☛page 7)**
2. **Paper eject cover open/close motor [A] (×2, ×1)**



d6873248

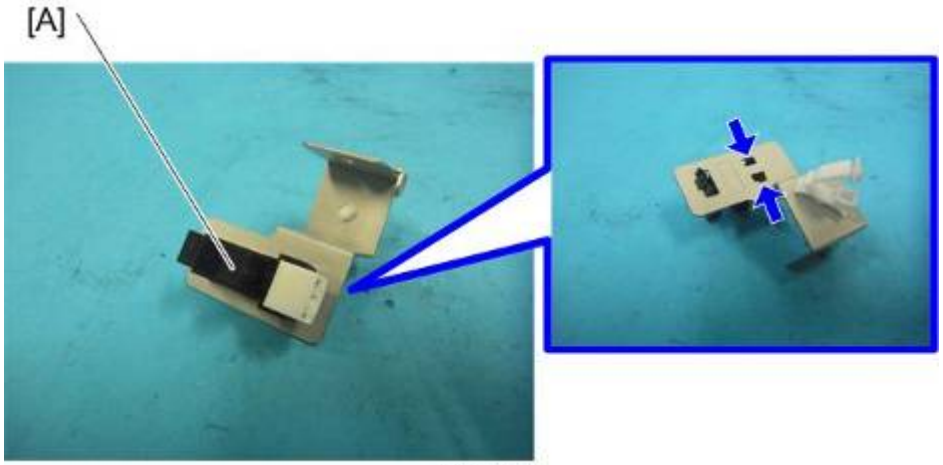
1.3 PAPER EJECT COVER HP SENSOR

1. **Proof tray (☛page 7)**
2. **Paper eject cover HP sensor bracket [A] (×1)**



d6873249

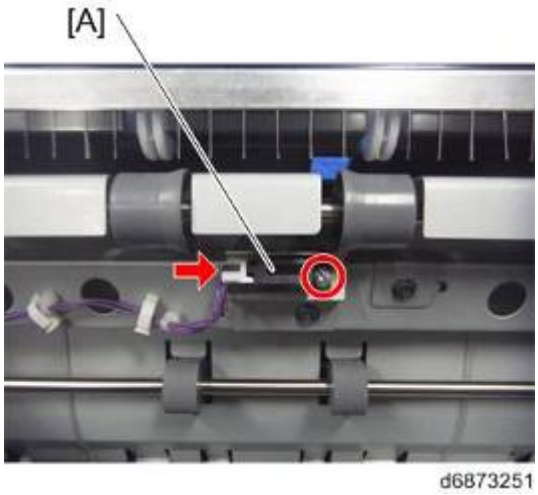
3. **Paper eject cover HP sensor [A]**



d6873250

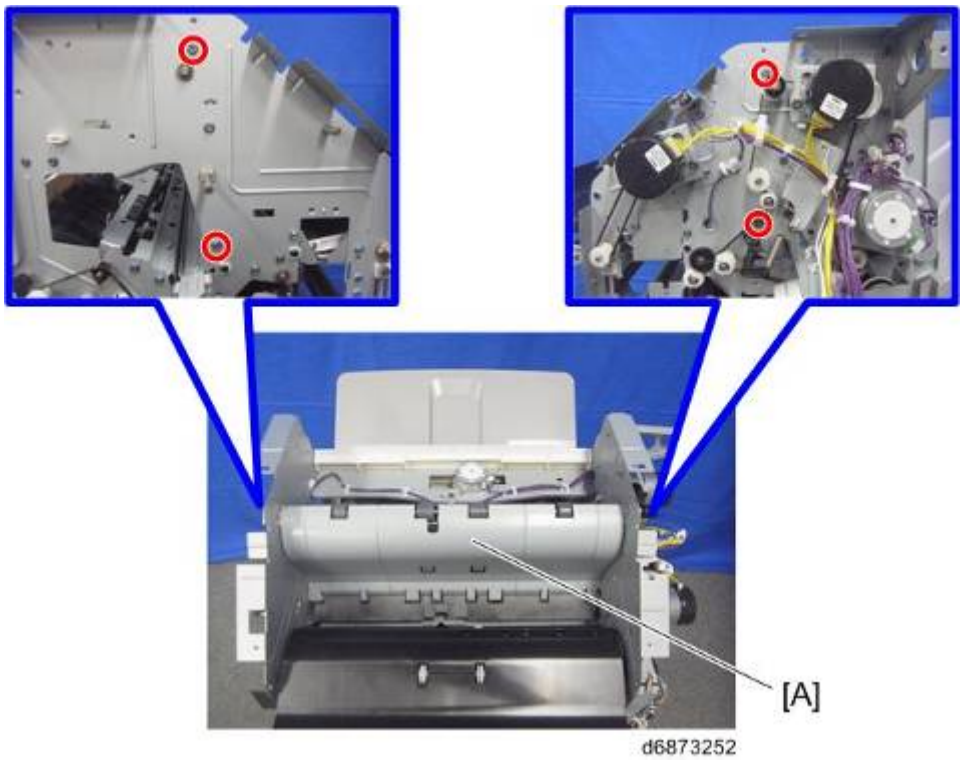
1.4 PROOF TRAY FULL SENSOR

1. **Proof tray (☛page 7)**
2. **Proof tray full sensor [A] (×1, ×1)**



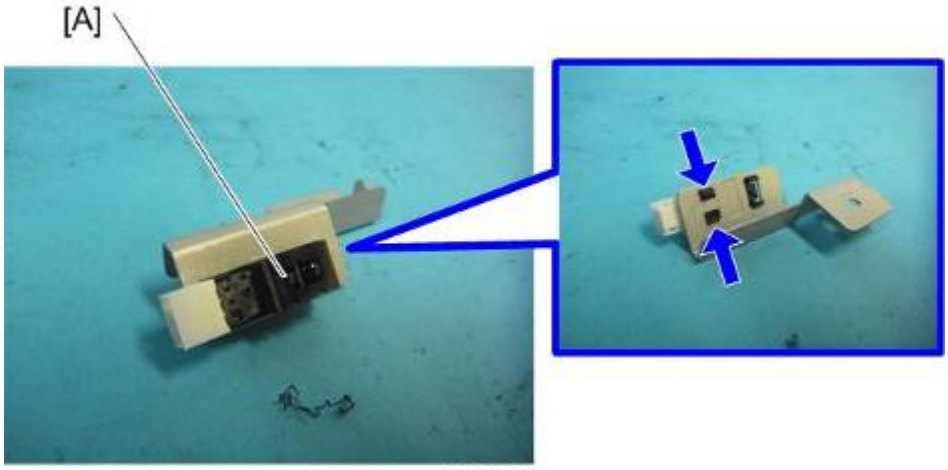
1.5 PROOF PAPER EJECT SENSOR

1. **Proof tray (☛page 7)**
2. **Proof transport bracket [A] (×4)**



3. **Proof paper eject sensor bracket [A] (×1, ×1)**

4. **Proof paper eject sensor [A]**

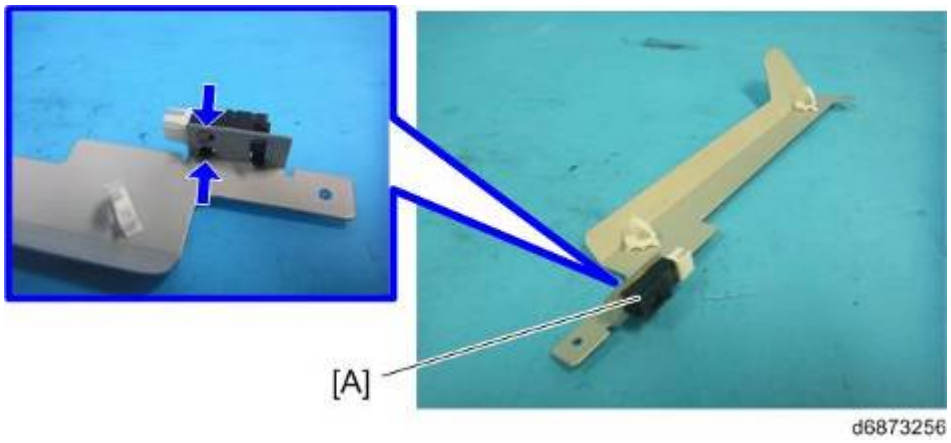


d6873254

1.6 ENTRANCE PAPER SURFACE SENSOR

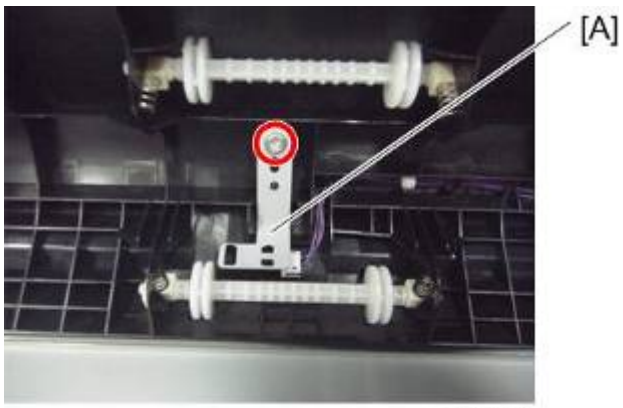
1. **Entrance paper surface sensor bracket [A] (×2, ×1, ×2)**

2. **Entrance paper surface sensor [A]**

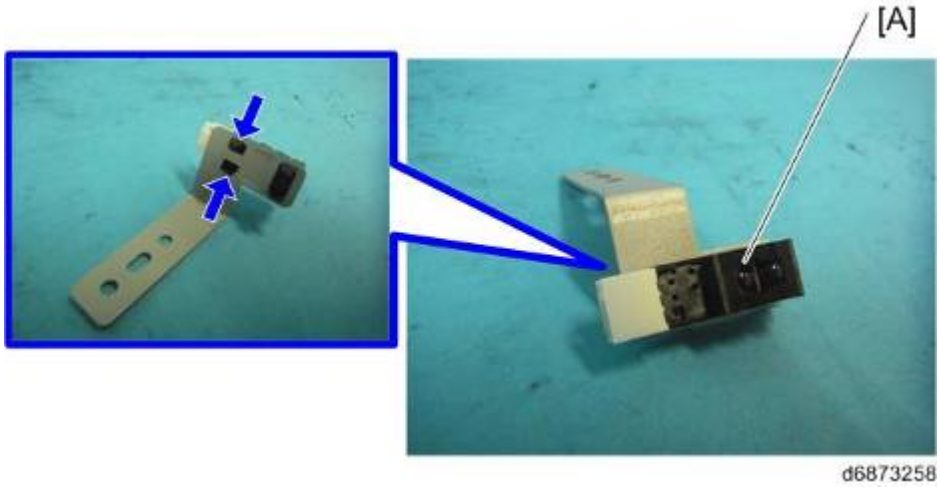


1.7 INTERMEDIATE TRANSPORT (RIGHT) PAPER SURFACE SENSOR

1. **Open the upper cover (☛page 4)**
2. **Intermediate transport (right) paper surface sensor bracket [A] (×1, ×1)**

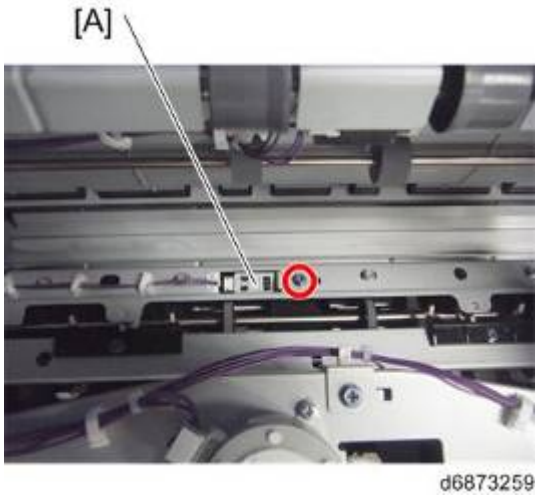


3. **Intermediate transport (right) paper surface sensor [A]**

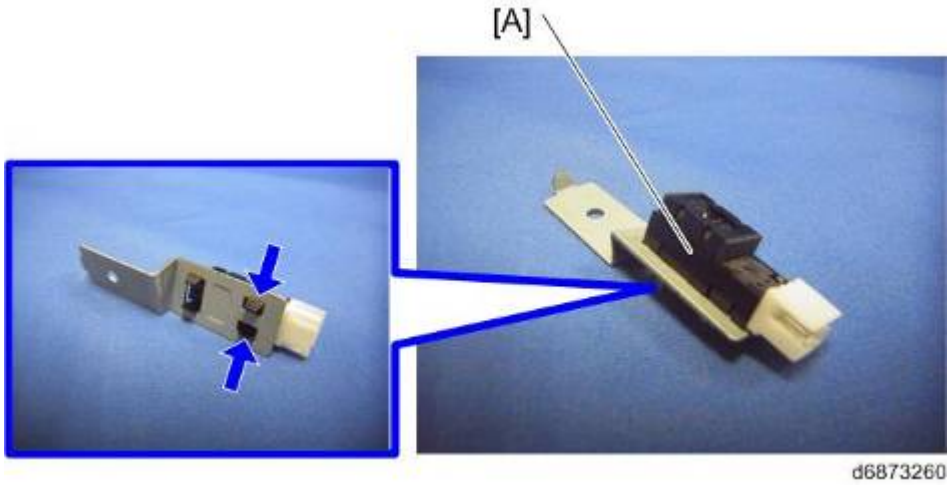


1.8 INTERMEDIATE TRANSPORT (LEFT) PAPER SURFACE SENSOR

1. **Proof tray (☛page 7)**
2. **Intermediate transport (left) paper surface sensor bracket [A] (×1, ×1, ×1)**

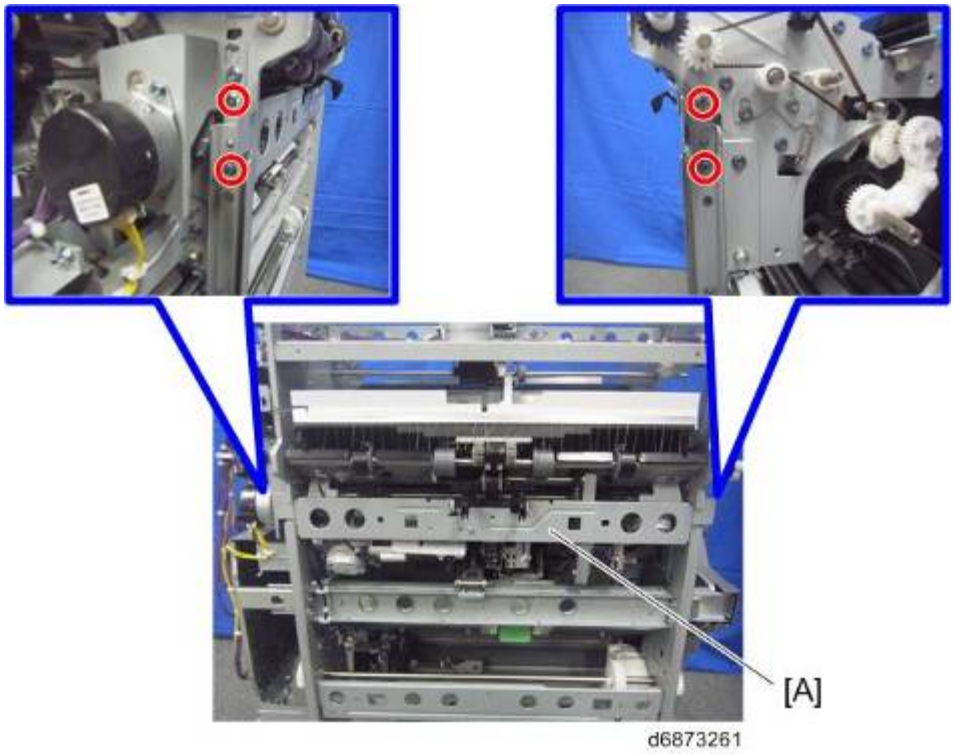


3. **Intermediate transport (left) paper surface sensor [A]**

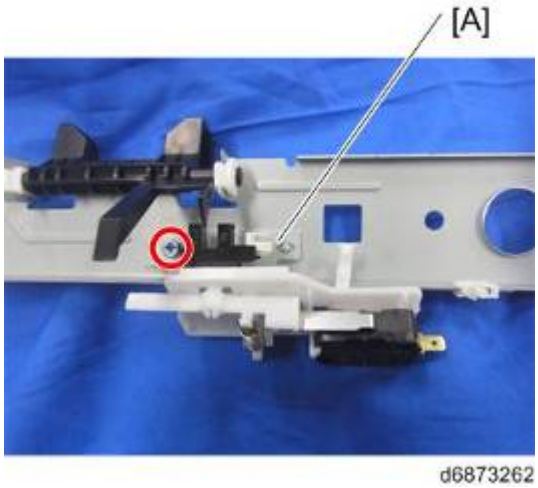


1.9 SHIFT TRAY PAPER SURFACE SENSOR

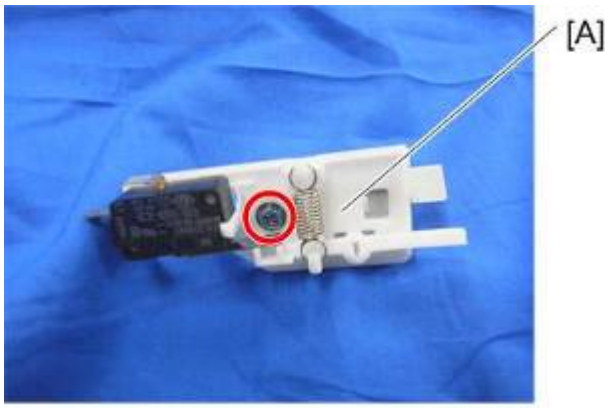
1. **Left center cover (☛page 9)**
2. **Bracket [A] (×4, ×3, ×3)**



3. **Shift tray paper surface sensor bracket [A] (×1)**

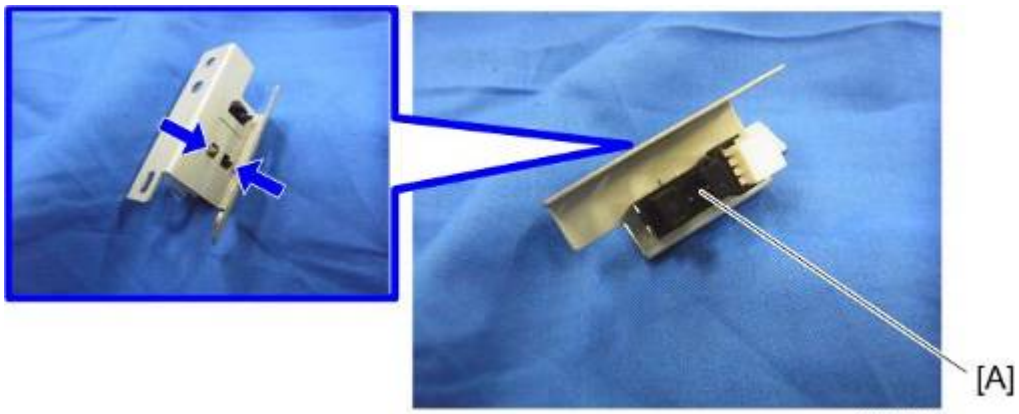


4. **Shift tray upper limit switch unit [A] (×1)**



d6873263

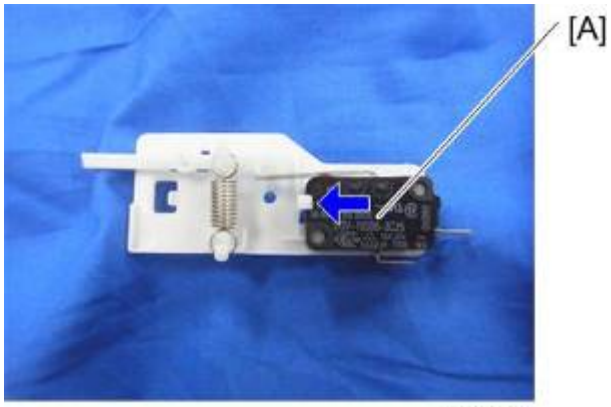
5. Shift tray paper surface sensor [A]



d6873264

1.10 SHIFT TRAY UPPER LIMIT SWITCH

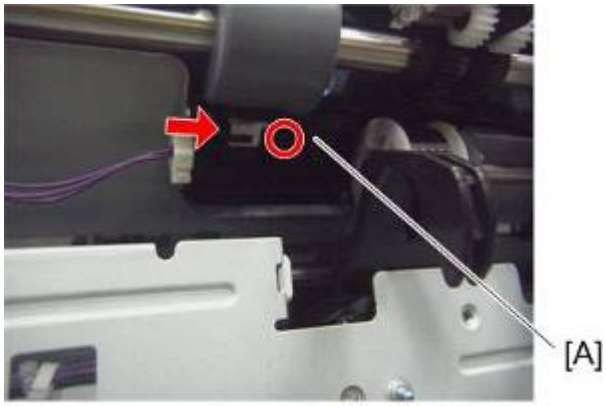
1. **Shift tray upper limit switch unit (☛page 19 "Shift tray paper surface sensor")**
2. **Shift tray upper limit switch [A]**



d6873265

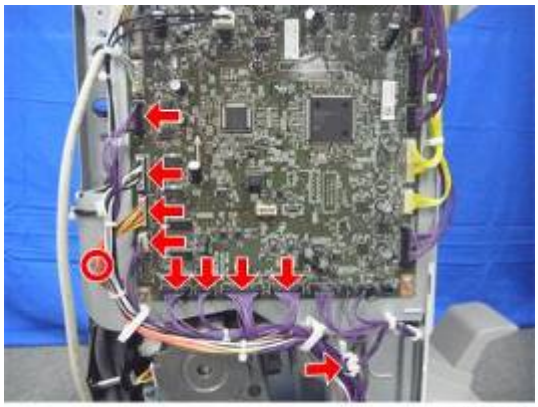
1.11 SHIFT PAPER EJECT SENSOR

1. **Left center cover (☛page 9)**
2. **Shift paper eject sensor [A] (×1, ×1)**



1.12 BOOKLET STITCH UNIT

1. **Rear cover (☛page 3)**
2. **Open front cover (☛page 1)**
3. **Remove connectors (×9, ×3, ground plate×1)**

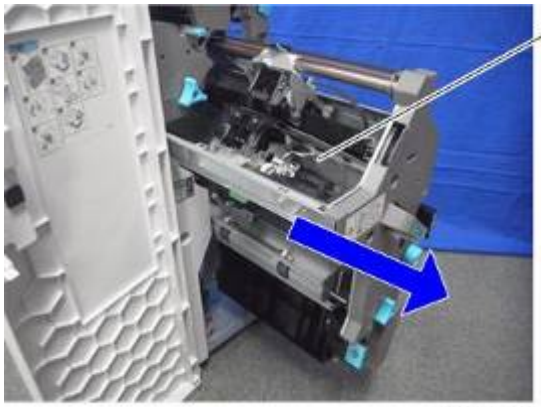


d6873267

4. **Stopper [A] (×2)**

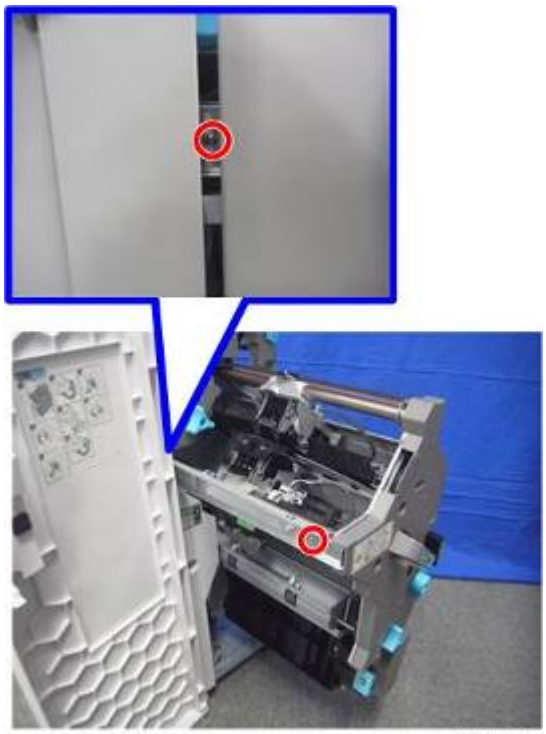
d6873268

5. **Pull out booklet stitch unit [A].**



d6873269

6. **Booklet stitch unit (×2)**

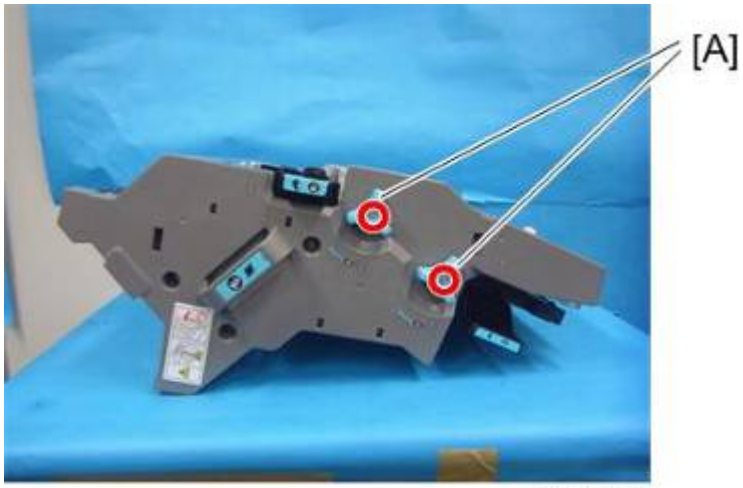


Note

- When you remove the booklet stitch unit from the mainmachine frame, be careful not to catch the cable on the frame.

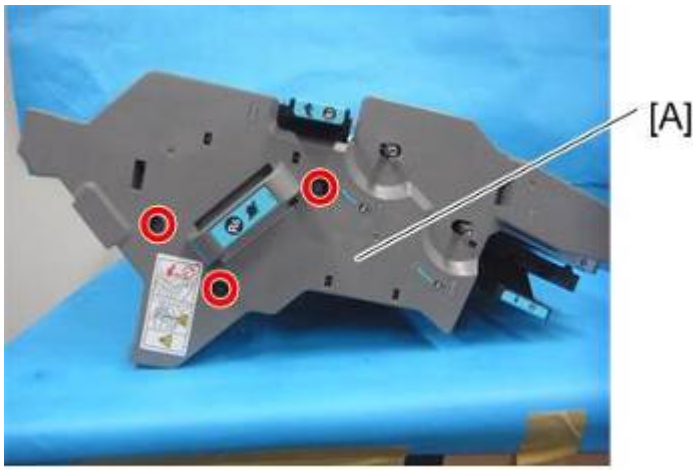
1.13 CENTER-FOLDING UNIT

1. **Booklet stitch unit (☛page 23)**
2. **Knob [A] (×2)**



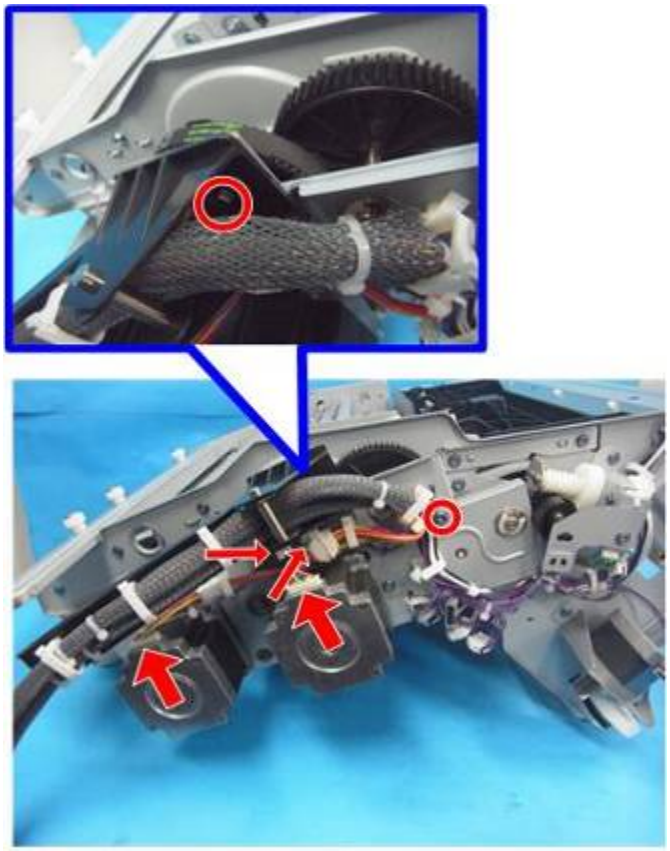
d6873271

3. **Booklet stitch unit cover [A] (×3, ×1)**



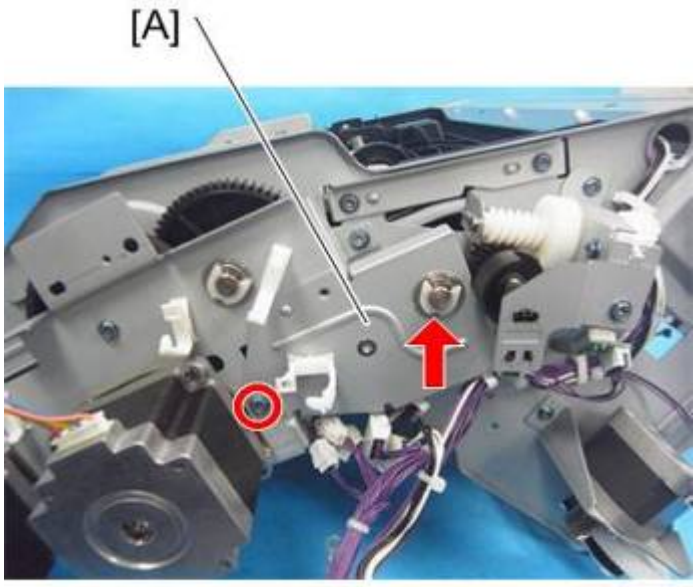
d6873272

4. **Remove connectors (×1, ×4, ×4, ground plate×1)**



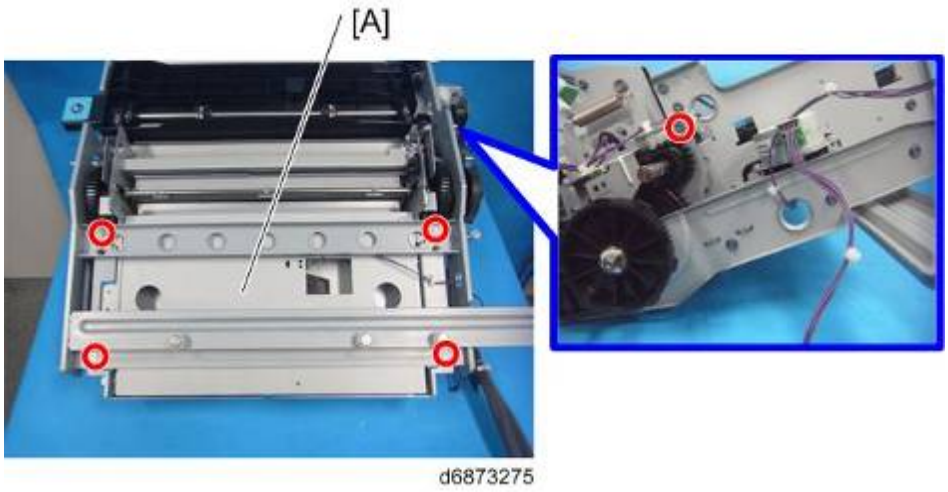
d6873273

5. **Bracket [A] (×1, ×3, ×1)**



d6873274

6. Center-folding unit [A] (×5)

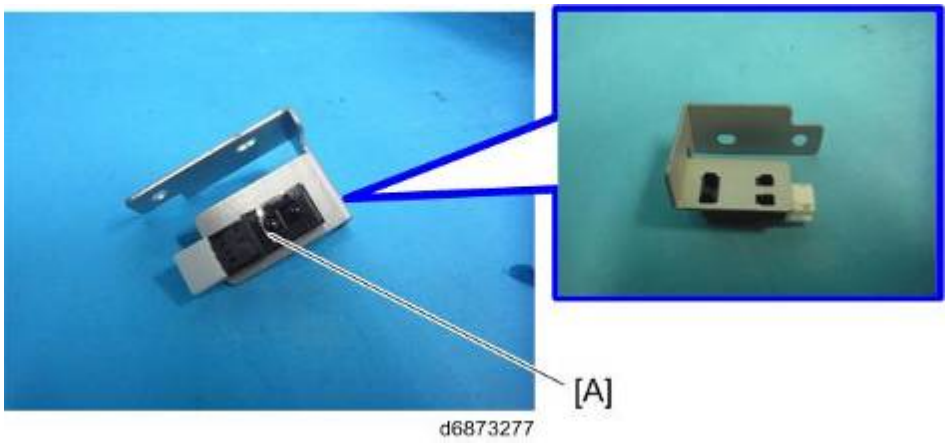


d6873275

1.14 CENTER-FOLDING PAPER EJECT SENSOR

1. **Center-folding unit (☛page 25)**
2. **Center-folding paper eject sensor bracket [A] (×1, ×1)**

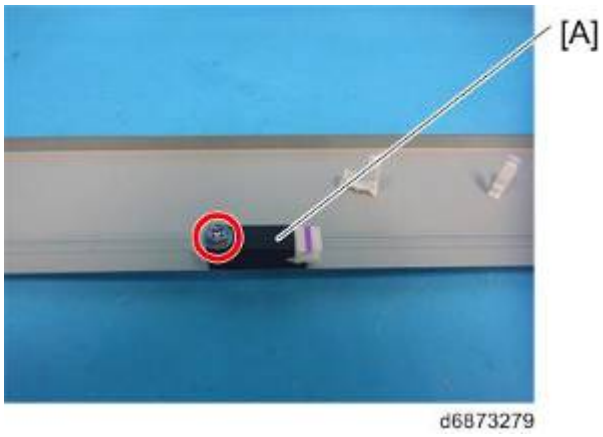
3. **Center-folding paper eject sensor [A]**



1.15 EDGE STOPPER PAPER SURFACE SENSOR

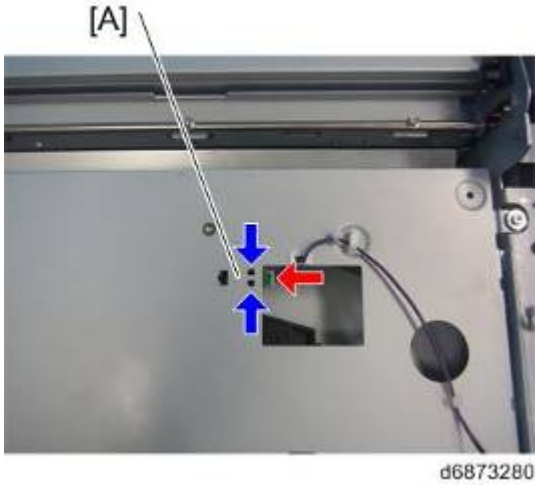
1. **Center-folding unit (☛page 25)**
2. **Leading edge stopper paper surface sensor bracket [A] (×2, ×1, ×4)**

3. **Edge stopper paper surface sensor [A] (×1)**



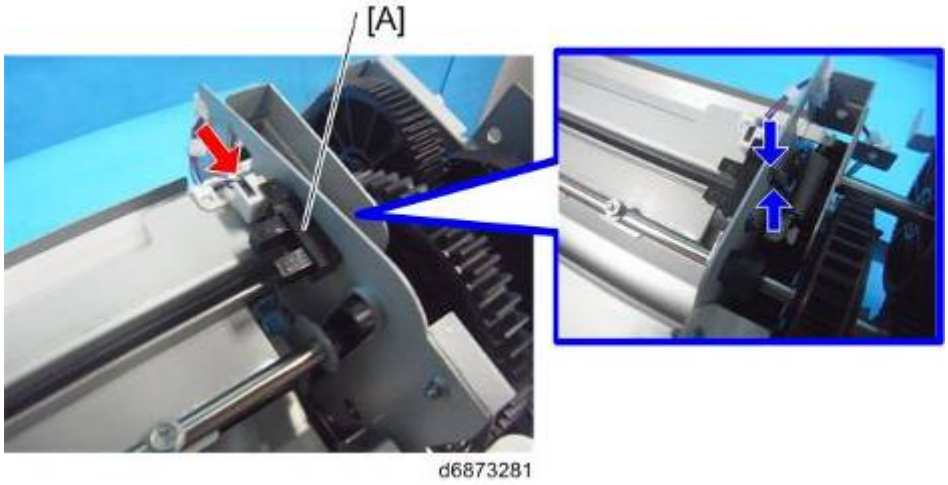
1.16 EDGE STOPPER HP SENSOR

1. **Center-folding unit (☛page 25)**
2. **Edge stopper HP sensor [A] (×1)**



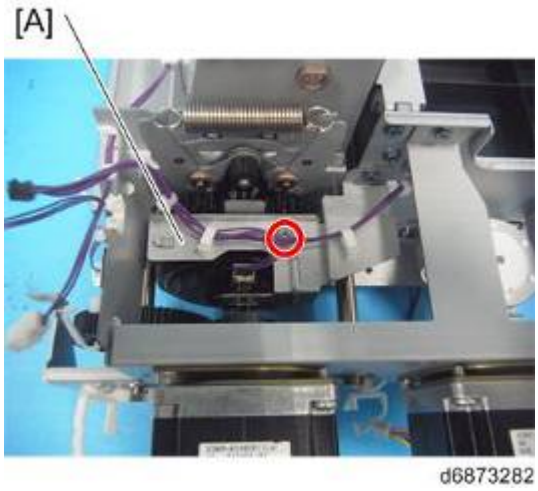
1.17 CENTER-FOLDING BLADE HP SENSOR

1. **Center-folding unit (☛page 25)**
2. **Center-folding blade HP sensor [A] (×1)**

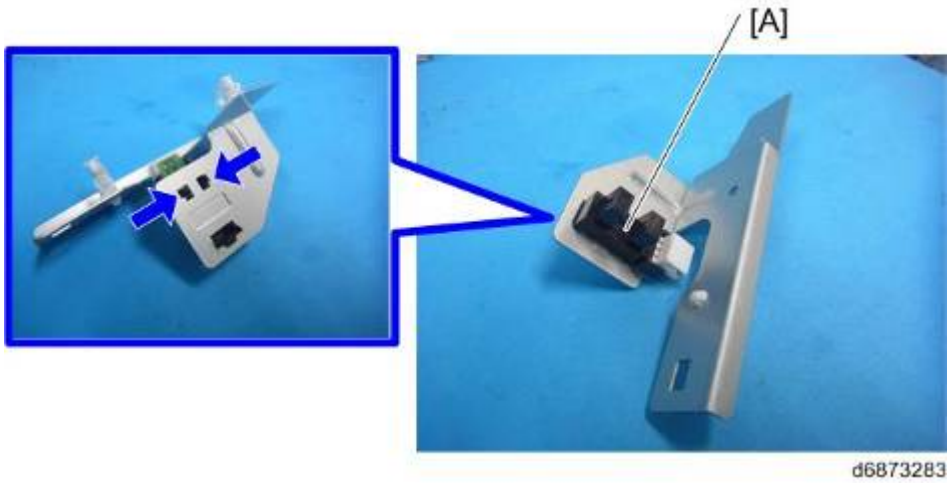


1.18 CENTER-FOLDING CAM HP SENSOR

1. **Center-folding unit (☛page 25)**
2. **Center-folding cam HP sensor bracket [A] (×1, ×2)**

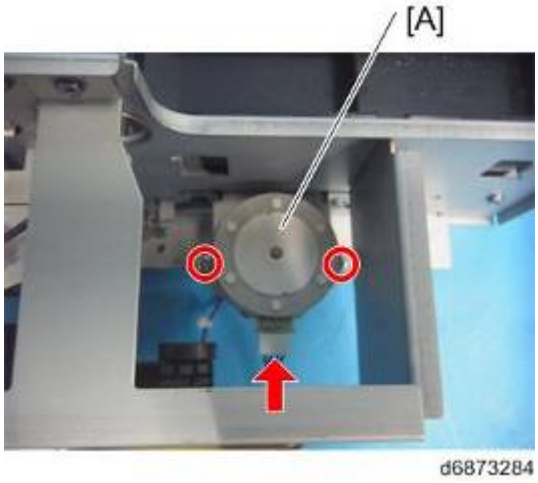


3. **Center-folding cam HP sensor [A] (×1)**



1.19 EDGE STOPPER MOTOR

1. **Center-folding unit (☛page 25)**
2. **Edge stopper motor [A] (×2)**

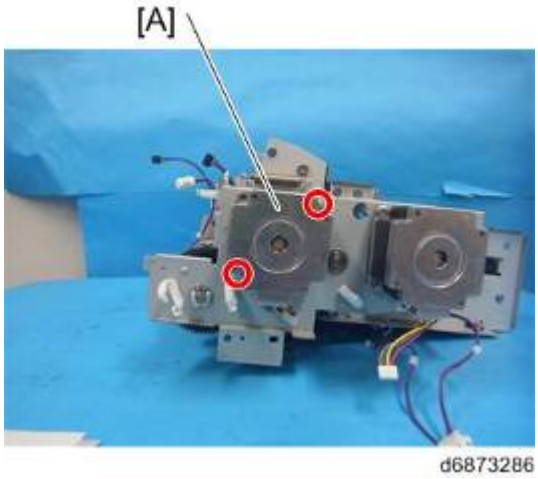


1.20 FOLDING BLADE MOTOR

1. **Center-folding unit (☛page 25)**
2. **Edge stopper motor [A] (×2)**

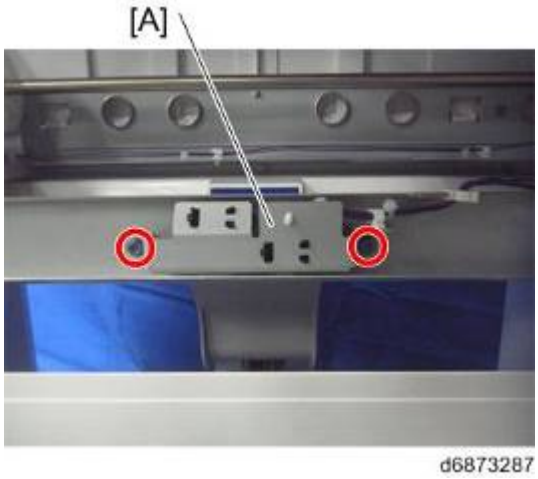
1.21 FOLDING TRANSPORT MOTOR

1. **Center-folding unit (☛page 25)**
2. **Folding transport motor [A] (×2)**

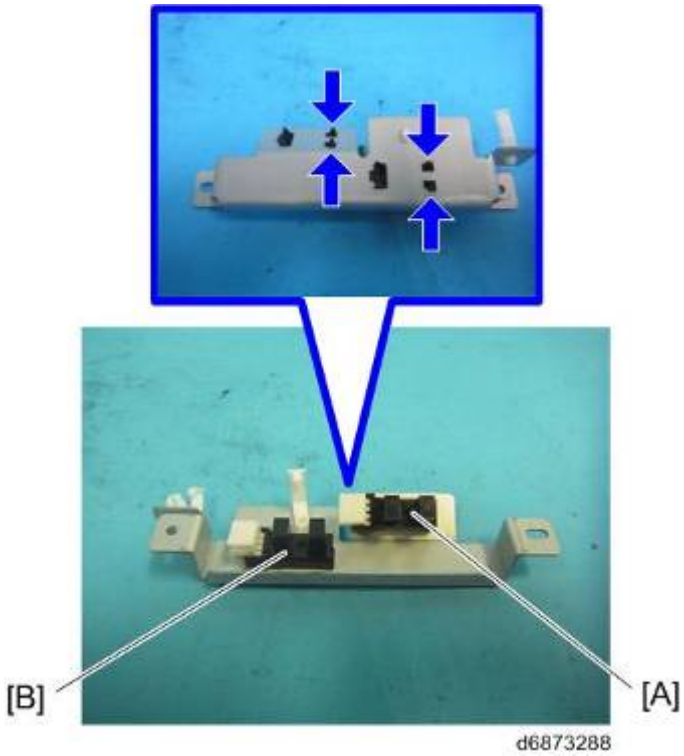


1.22 CENTER-FOLDING FULL SENSORS 1, 2

1. **Pull out the booklet stitch unit (☛page 23)**
2. **Center-folding full sensor bracket [A] (×2, ×2, ×2)**



3. **Center-folding full sensor 1 [A], 2 [B]**

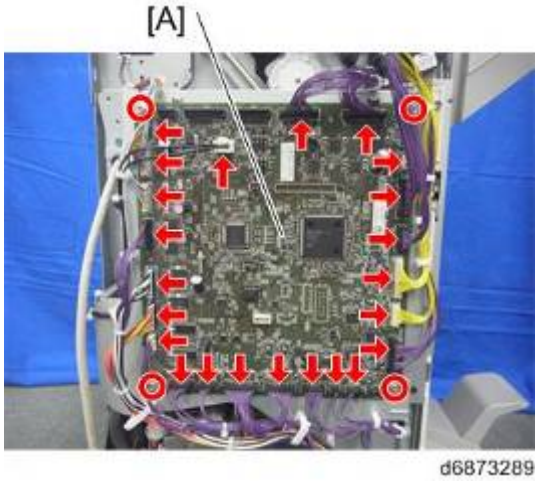


1.23 MAIN CONTROL BOARD

Note

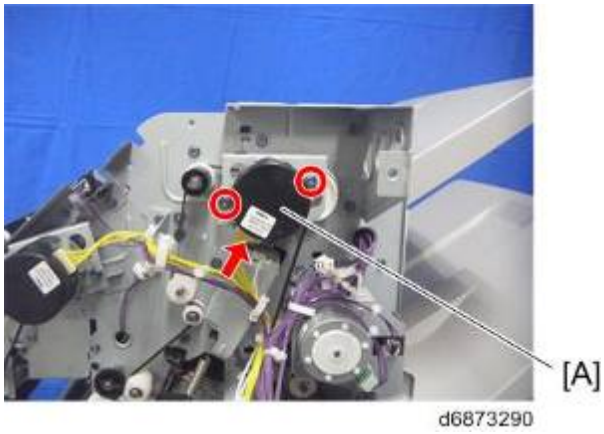
- An EEPROM is installed in the control board to record the drive frequency and no. of sheets.
- When the control board is replaced, the EEPROM is replaced at the same time.
- The new EEPROM is installed on a service parts control board.

1. **Rear cover (☛page 3)**
2. **Main control board [A] (×4, ×23)**



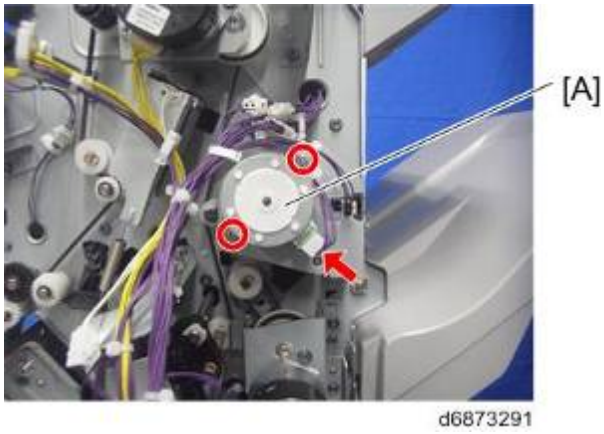
1.24 PROOF TRANSPORT MOTOR

1. **Rear cover (☛page 3)**
2. **Proof transport motor [A] (×2, ×1)**



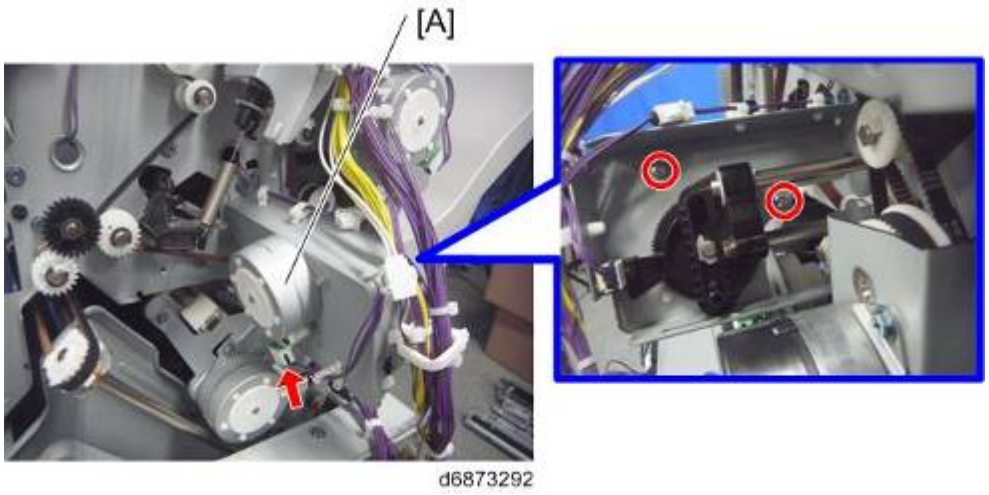
1.25 STRIKE MOTOR

1. **Rear cover (☛page 3)**
2. **Strike motor [A] (×2, ×1)**



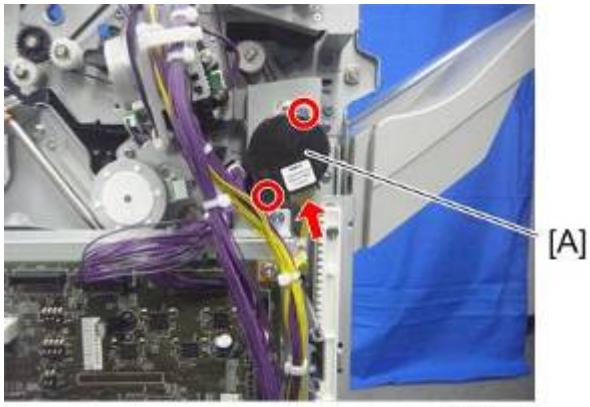
1.26 SHIFT MOTOR

1. **Rear cover (☛page 3)**
2. **Shift motor [A] (×2)**



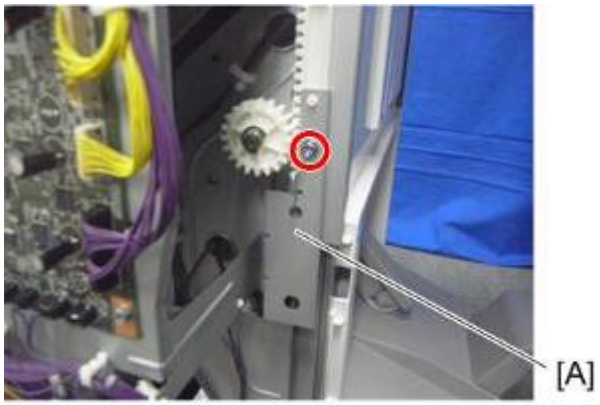
1.27 PAPER EJECT TRANSPORT MOTOR

1. **Rear cover (☛page 3)**
2. **Paper eject transport motor [A] (×2, ×1)**

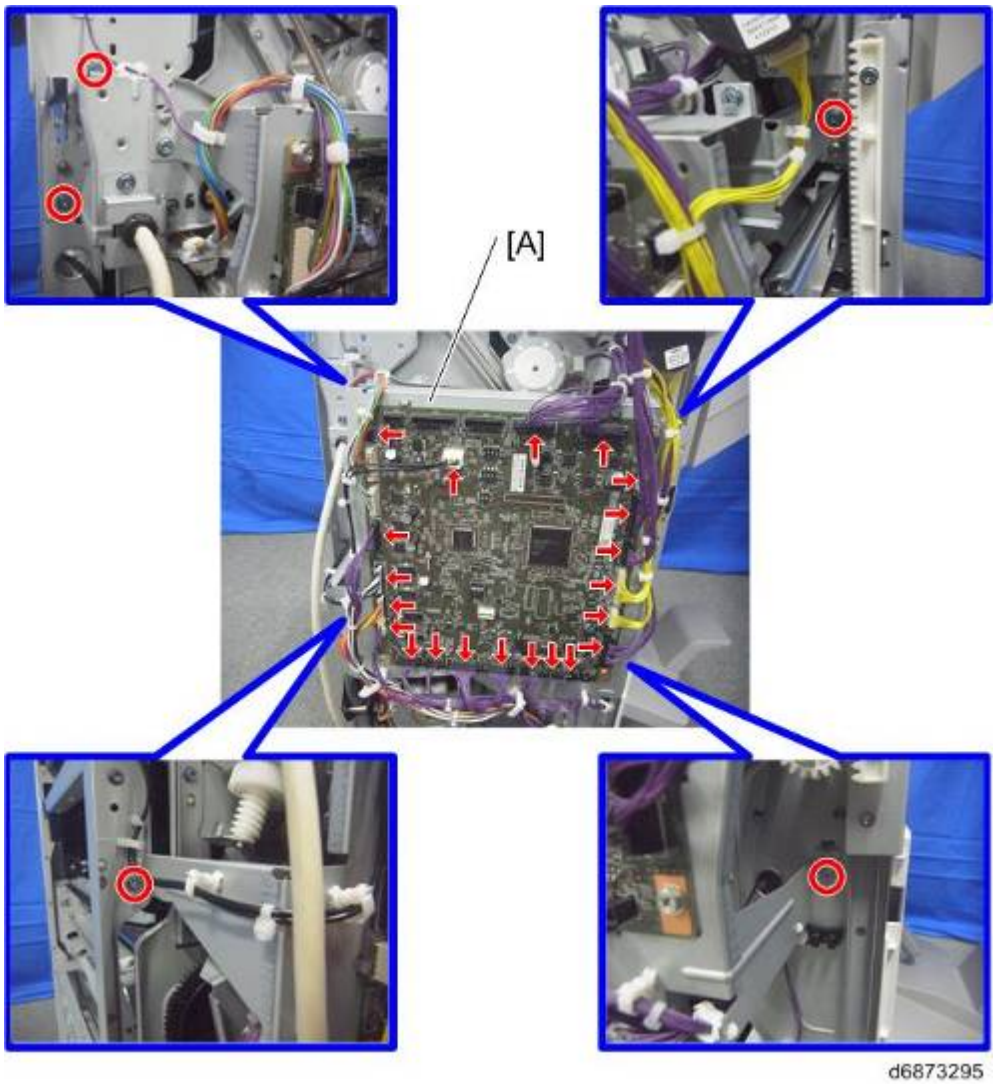


1.28 BOOKLET STITCH BUNDLE TRANSPORT (UPPER) MOTOR

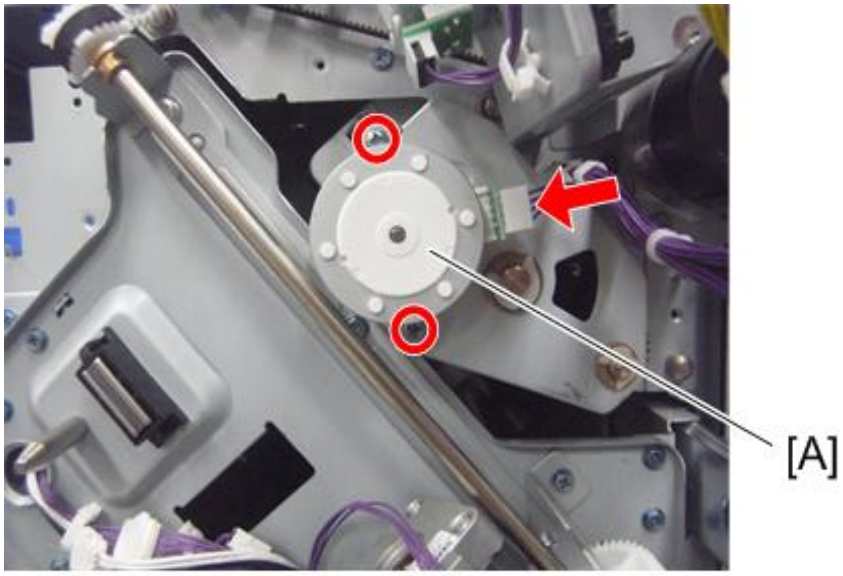
1. **Rear cover (☛page 3)**
2. **Filler [A] (×1)**



3. **Control board bracket [A] (×5, ×21, ×17, ground plate×1)**



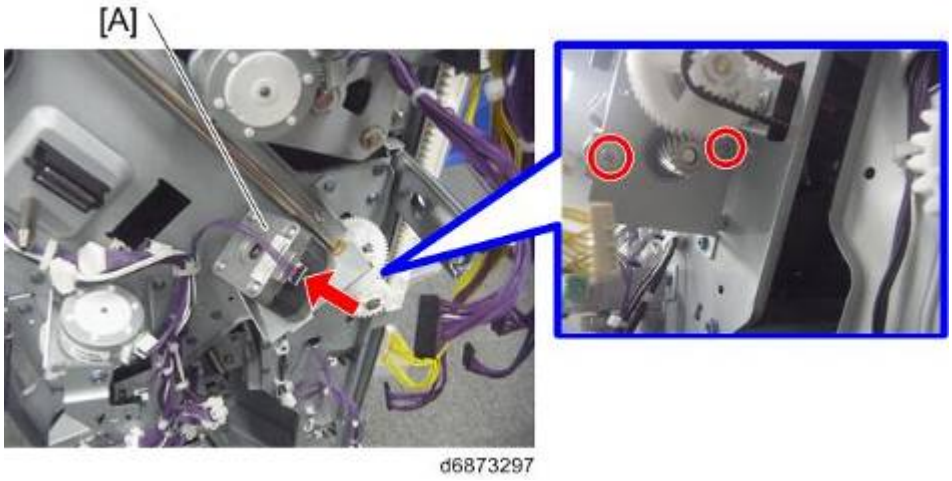
4. Booklet stitch bundle transport (upper) motor [A] (×2, ×1)



d6873296

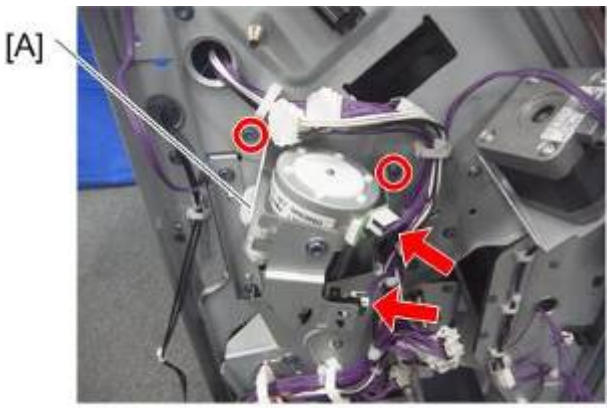
1.29 STAPLER TRANSFER MOTOR

1. **Control board bracket (☛page 42 "Booklet stitch bundle transport (upper) motor")**
2. **Stapler transfer motor [A] (×2, ×1)**



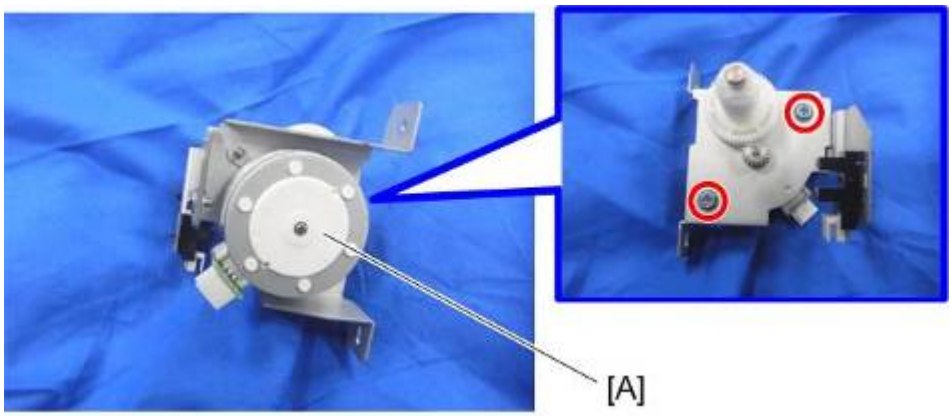
1.30 BOOKLET TRANSPORT (LOWER) PRESSURE RELEASE MOTOR

1. **Control board bracket (☛page 42 "Booklet stitch bundle transport (upper) motor")**
2. **Booklet transport (lower) pressure release motor bracket [A] (×2, ×2)**



d6873298

3. **Booklet transport (lower) pressure release motor [A] (×2)**

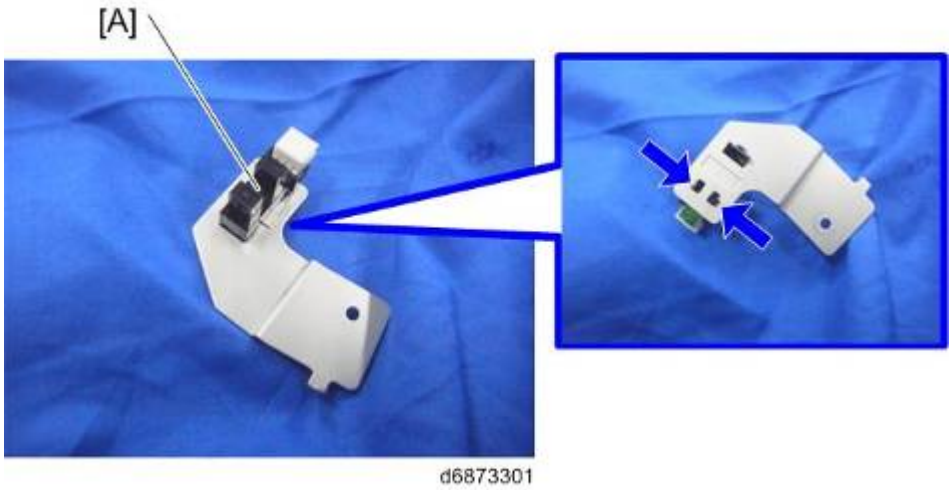


d6873299

1.31 STAPLER RETREAT SENSOR

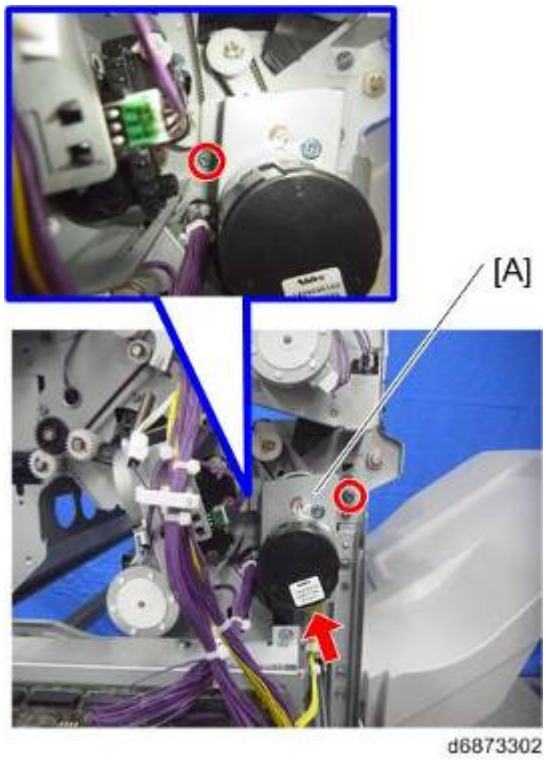
1. **Control board bracket (☛page 42 "Booklet stitch bundle transport (upper) motor")**
2. **Stapler retreat sensor bracket [A] (×1, ×1)**

3. **Stapler retreat sensor [A]**



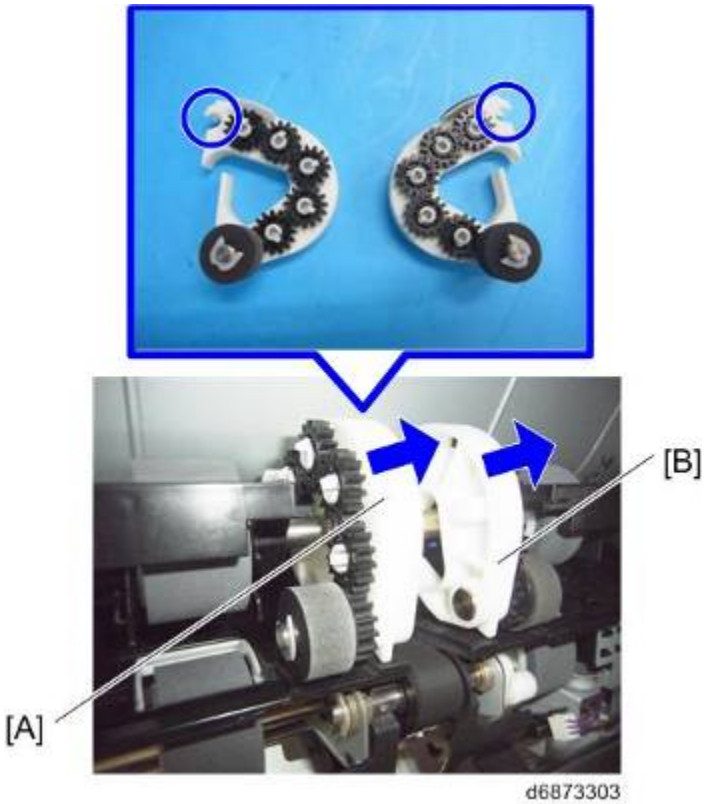
1.32 STAPLER TRAY

1. **Booklet stitch unit (☛page 23)**
2. **Paper eject transport motor bracket [A] (×2, ×1)**



d6873302

3. **Approach roller (front) [A], approach roller (rear) [B]**

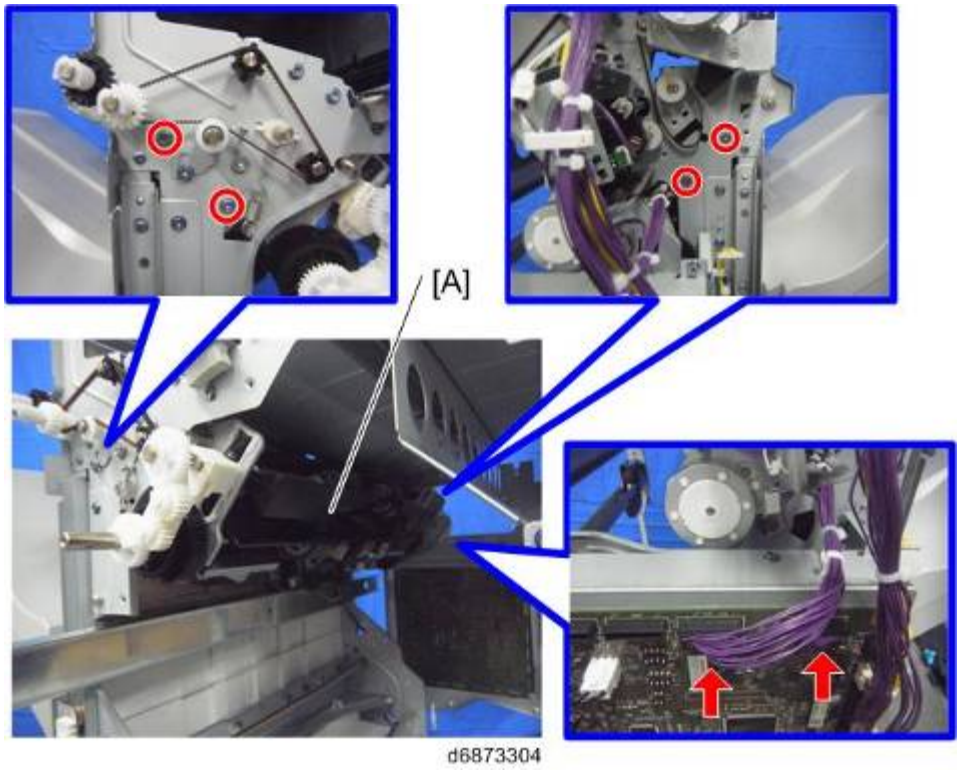


d6873303

Note

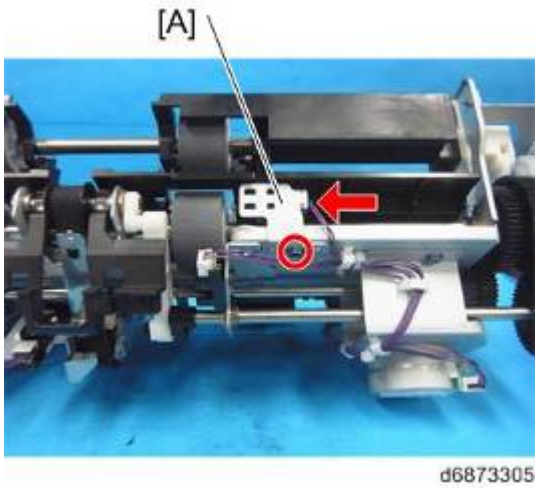
- Remove so as not to damage, paying attention to the shape of the claw enclosed by the blue circle.

4. Stapler tray [A] (×4, ×2, ×1)

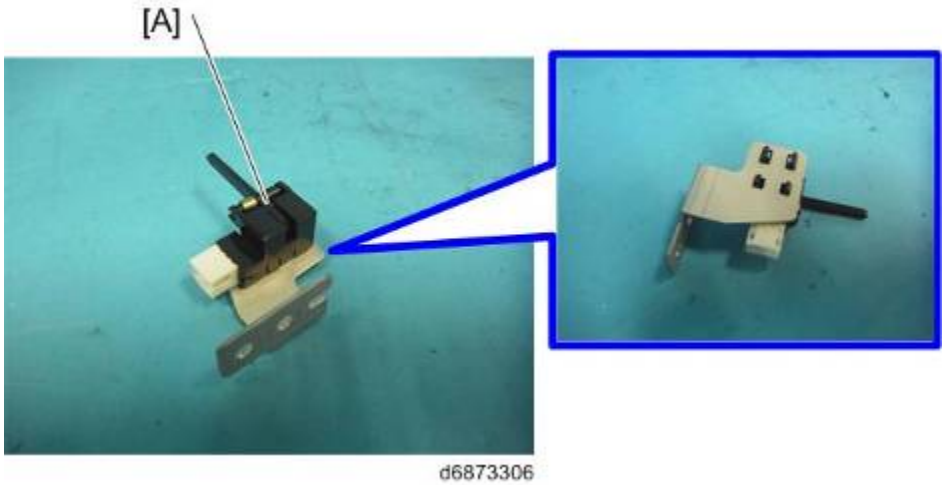


1.33 STAPLER TRAY PAPER SURFACE SENSOR

1. **Stapler tray (☛page 47)**
2. **Stapler tray paper surface sensor bracket [A] (×1, ×1, ×1)**

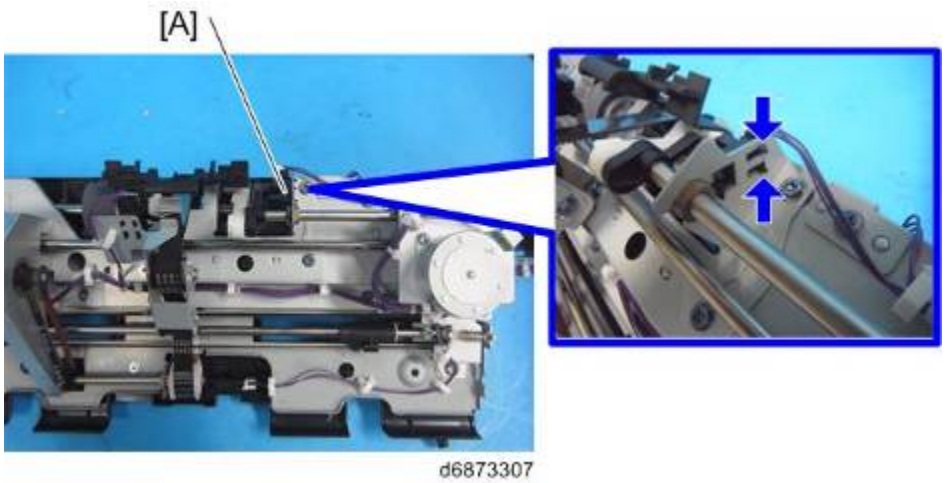


3. **Stapler tray paper surface sensor [A]**



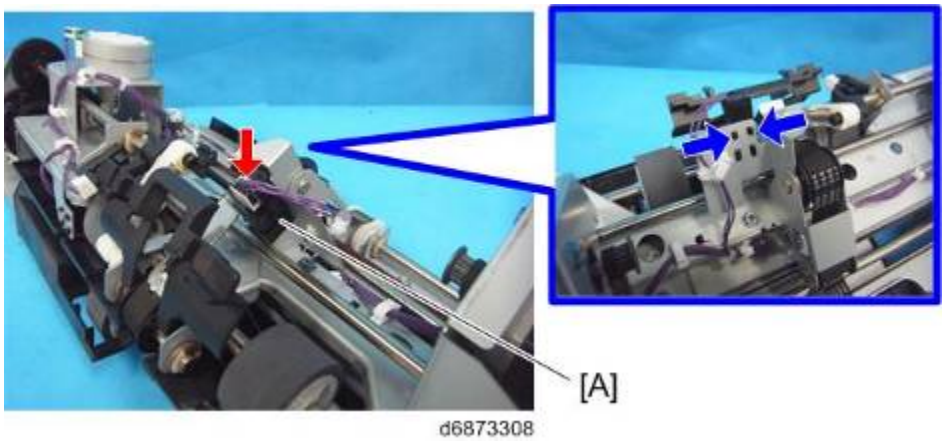
1.34 BOOKLET STITCH BUNDLE TRANSPORT (UPPER) HP SENSOR

1. **Stapler tray (☛page 47)**
2. **Booklet stitch bundle transport (upper) HP sensor [A] (×1)**



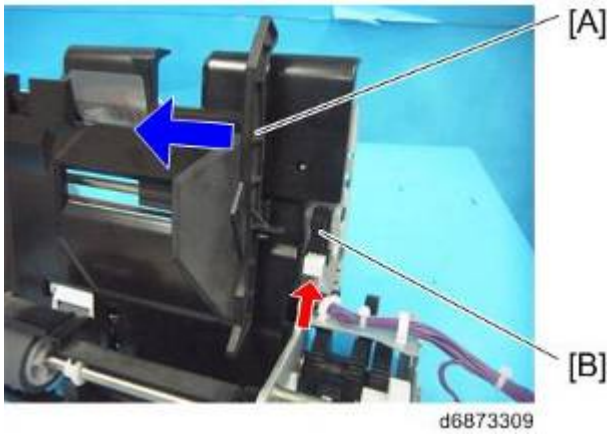
1.35 RELEASE CLAW HP SENSOR

1. **Stapler tray (☛page 47)**
2. **Release claw HP sensor [A]**



1.36 JOGGER HP SENSOR

1. **Stapler tray (☛page 47)**
2. **Separate the jogger fence [A] from the jogger HP sensor [B].**



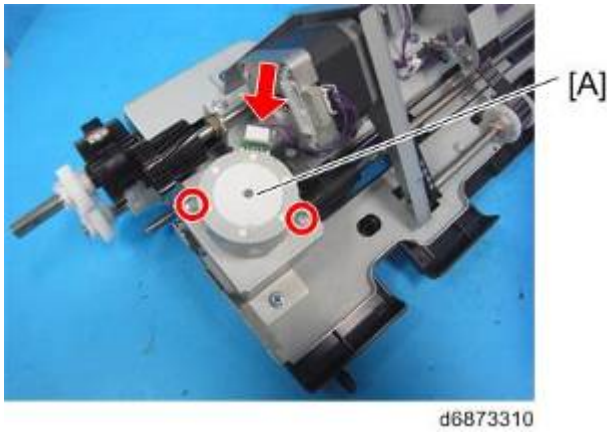
3. **Jogger HP sensor (×1)**

Note

- Release and remove the claw with a small driver, etc.

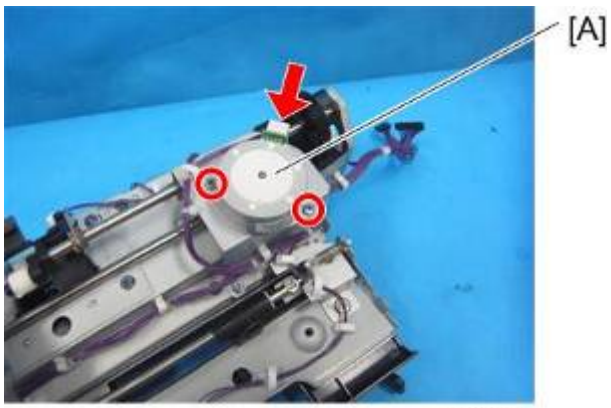
1.37 JOGGER DRIVE MOTOR

1. **Stapler tray (☛page 47)**
2. **Jogger drive motor [A] (×2, ×1)**



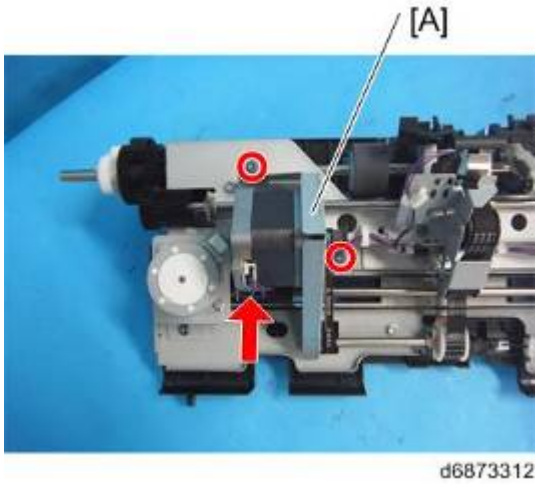
1.38 BOOKLET TRANSPORT (UPPER) PRESSURE RELEASE MOTOR

1. **Stapler tray (☛page 47)**
2. **Booklet transport (upper) pressure release motor [A] (×2, ×1)**



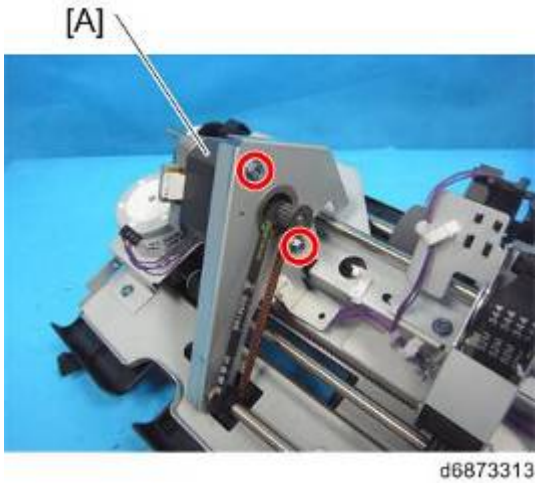
1.39 RELEASE CLAW MOTOR

1. **Stapler tray (☛page 47)**
2. **Release claw motor bracket [A] (×2, ×1, ×2)**



d6873312

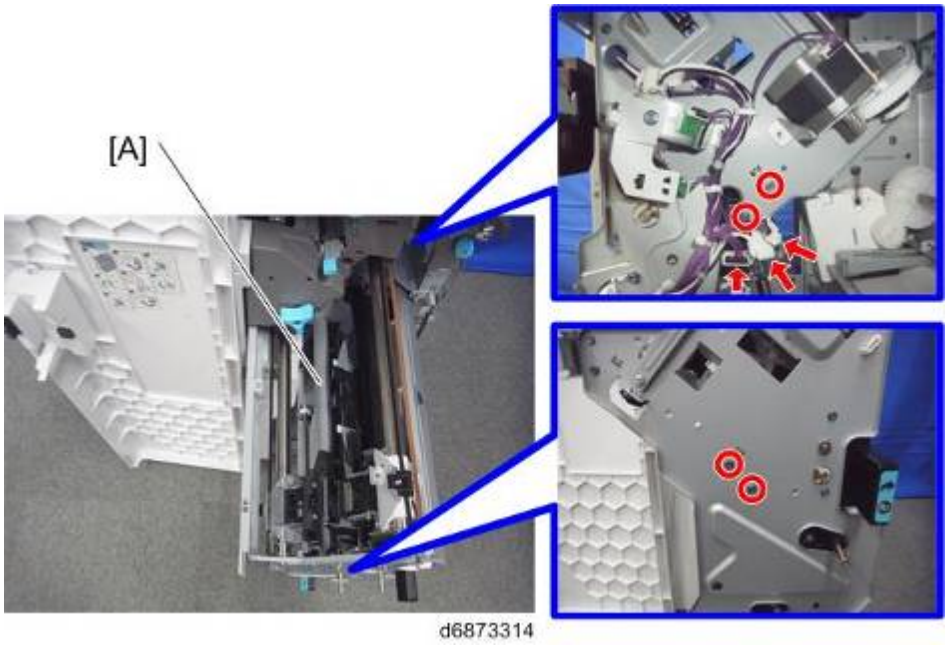
3. **Release claw motor [A] (×2)**



d6873313

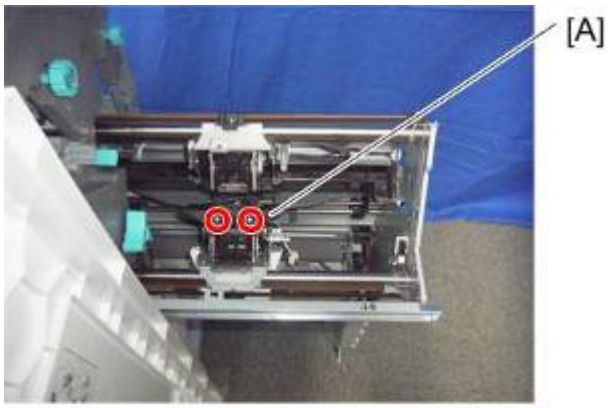
1.40 STAPLER UNIT

1. **Rear cover (☛page 3)**
2. **Open the front cover (☛page 1)**
3. **Pull out the booklet stitch unit (☛page 23)**
4. **Booklet stitch unit cover (☛page 25 "Center-folding unit")**
5. **Bracket [A] (×4, ×3, ×1)**



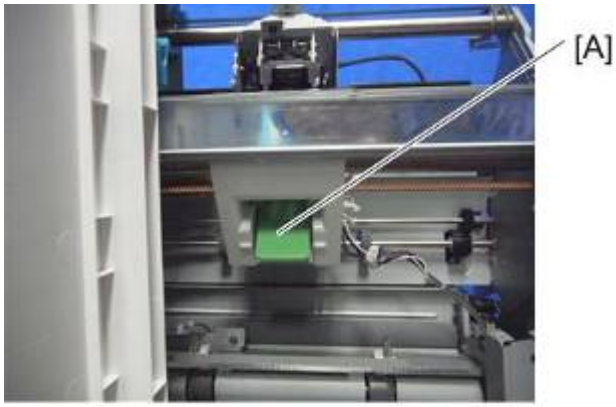
6. **Bring the stapler unit [A] near the center.**

7. **Guide plate [A] (×2)**



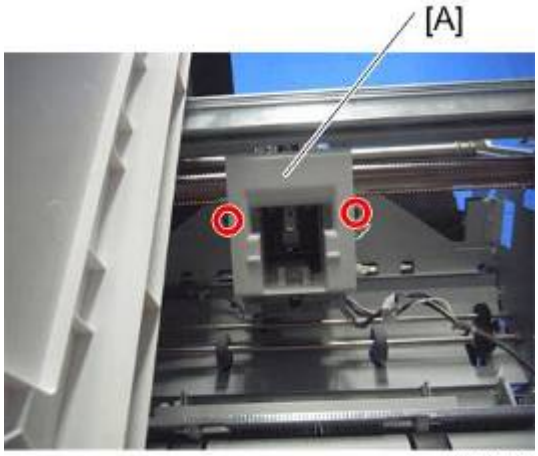
d6873316

8. **Stapler cartridge [A]**



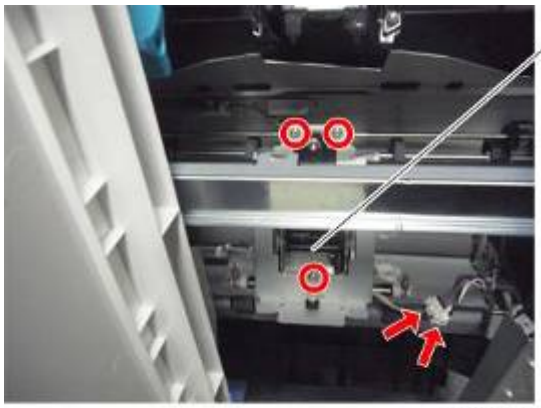
d6873317

9. **Cover [A] (×2)**



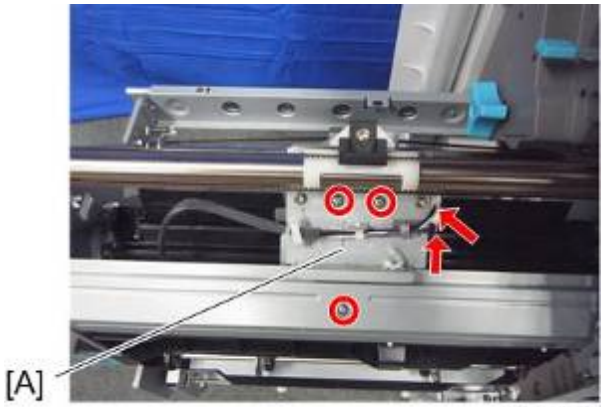
d6873318

10. **Stapler unit (clincher side) [A] (×3, ×1)**



d6873319

11. Stapler unit (driver side) [A] (×3, ×2, ×1)



d6873320

D688/D689

BOOKLET FINISHER SR3170 / FINISHER SR3160

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

BOOKLET FINISHER SR3170 / FINISHER SR3160 (D688/D689)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

1.1 EXTERIOR COVERS 1
1.1.1 REAR UPPER COVER, REAR LOWER COVER, UPPER COVER 1
1.1.2 FRONT COVER, FRONT LEFT SIDE COVER 4
1.1.3 PAPER EXIT COVER 5
1.1.4 LOWER TRAY 5
1.1.5 PROOF TRAY 6
1.1.6 UPPER TRAY 6
1.1.7 END FENCE (D688 ONLY) 6
1.1.8 LEFT COVER (D689 ONLY) 9
1.2 BOARDS 11
1.2.1 MAIN BOARD 11
When replacing the main board 11
1.3 MAIN UNIT (MOTOR) 13
1.3.1 CORNER STAPLING UNIT 13
1.3.2 PAPER EXIT GATE MOTOR 18
1.3.3 LEADING EDGE GUIDE MOTOR 19
1.3.4 TRAILING EDGE PRESSURE PLATE MOTOR 19
1.3.5 STACKING ROLLER MOTOR 20
1.3.6 FEED OUT MOTOR 20
1.3.7 JOGGER MOTOR 21
1.4 MAIN UNIT (SENSOR) 22
1.4.1 SHIFT TRAY PAPER SENSOR 22
1.4.2 TRAILING EDGE PRESSURE PLATE HP SENSOR 23
1.4.3 STACKING ROLLER HP SENSOR 24
1.4.4 STAPLE TRAY PAPER SENSOR 26
1.5 BOOKLET UNIT 27
1.5.1 BOOKLET UNIT 27
1.5.2 PRESS FOLDING MOTOR 29
1.5.3 BOOKLET JOGGER MOTOR 32

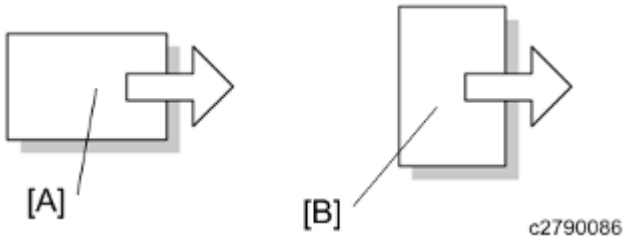
1.6 PUNCH UNIT.....33
1.7 ADJUSTMENT OF THE FLAT FOLD BOOKLET UNIT 35
1.7.1 ADJUSTING THE ALIGNMENT OF THE FLAT FOLD ROLLERS.....35
1.7.2 ADJUSTING THE FOLDING SPEED 38
1.8 STAPLER UNIT 39

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

1. REPLACEMENT AND ADJUSTMENT

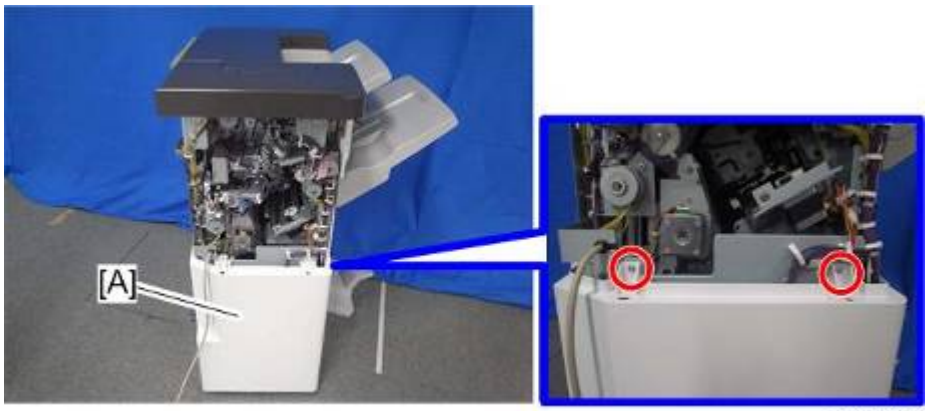
1.1 EXTERIOR COVERS

1.1.1 REAR UPPER COVER, REAR LOWER COVER, UPPER COVER

1. **Rear upper cover [A] (×2)**

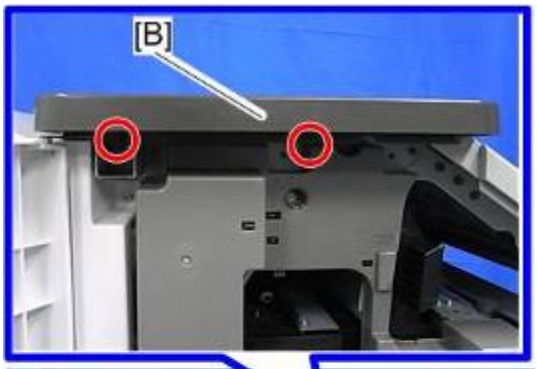
d1351253

2. **Rear lower cover [A] (×2)**



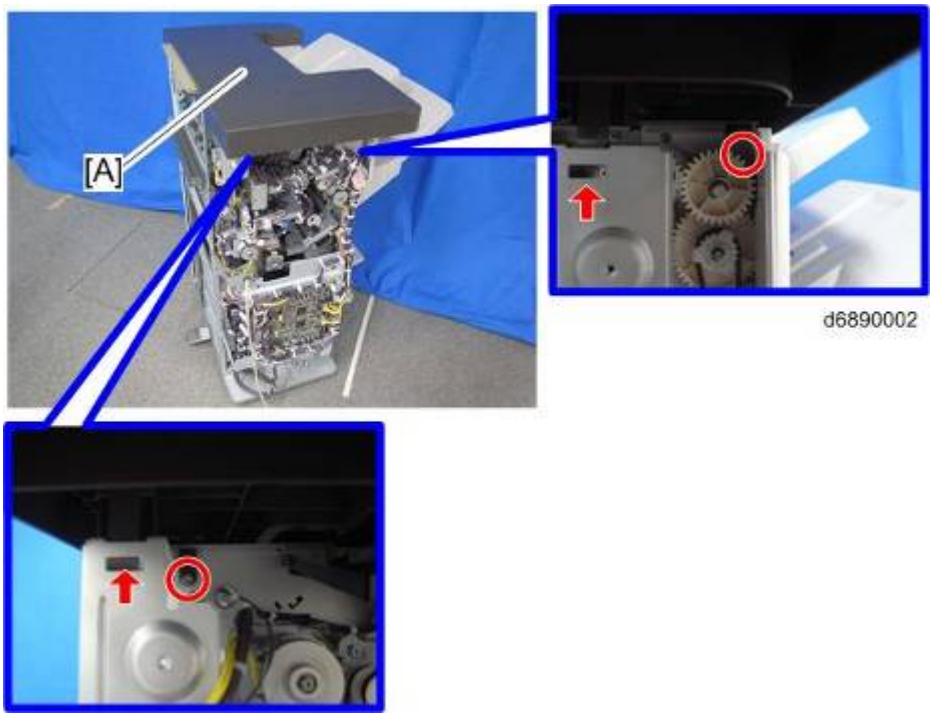
d1351254

3. **Open the front door [A], and remove the upper cover (front) [B] (×2)**



d6890001

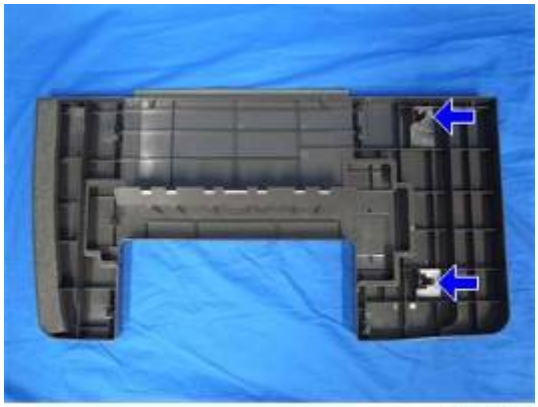
4. **Upper cover [A] (×2, hook×2)**



d6890002

Note

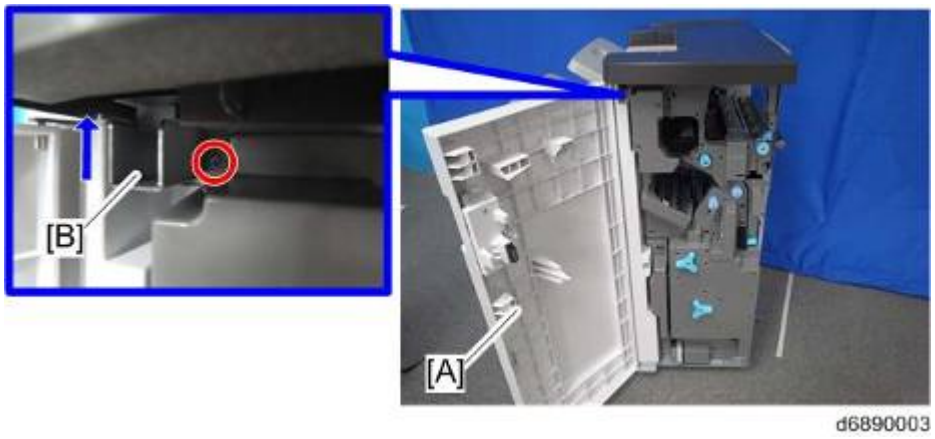
- Check the positions of the bosses and hooks before removing the upper cover.



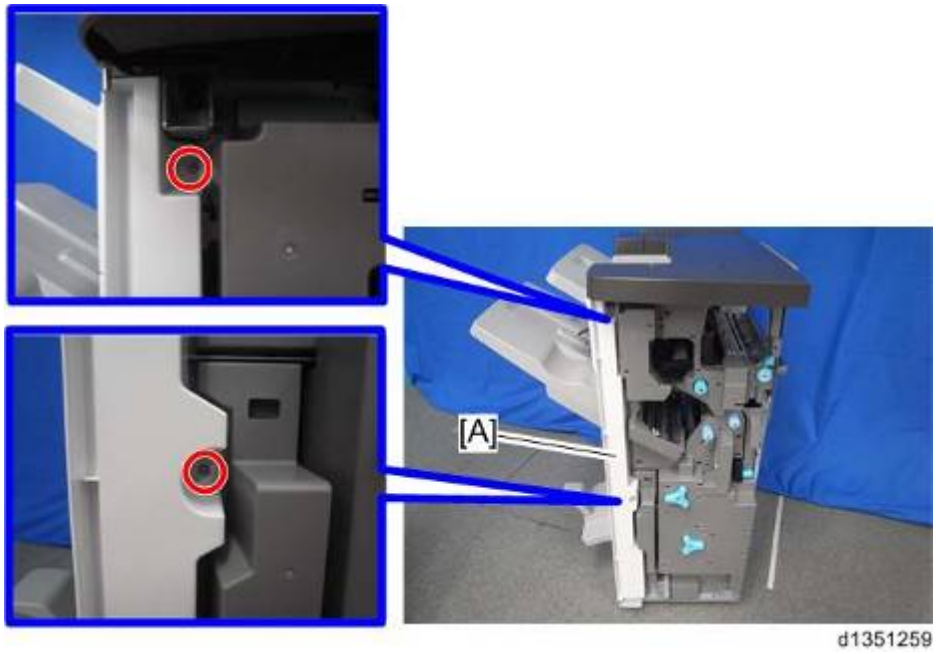
d1351257

1.1.2 FRONT COVER, FRONT LEFT SIDE COVER

1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Rear Upper Cover
   - Rear Lower Cover,
   - Upper Cover
2. **Open the front cover [A].**
3. **Release the Shaft bracket [B] (upper direction) (×1)**
4. **Front cover [A].**

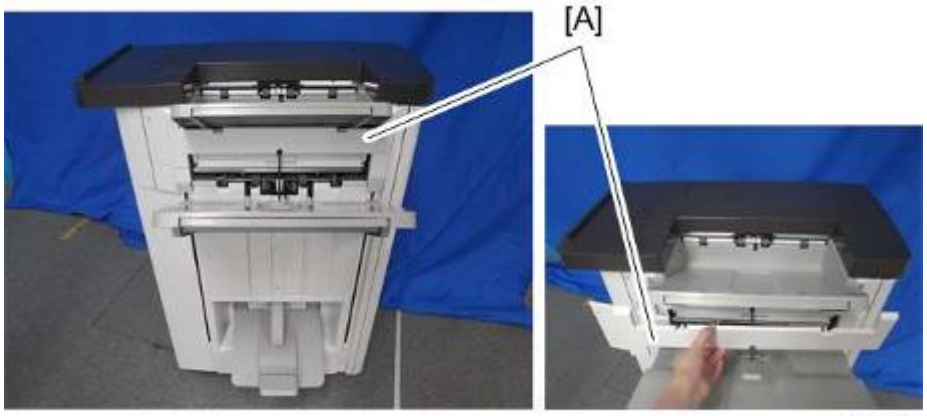


5. **Front left side cover [A] (×2)**



1.1.3 PAPER EXIT COVER

1. Paper exit cover [A] (hook×4)



d1351260

Note

- Check the positions of the bosses and hooks before removing the paper exit cover.

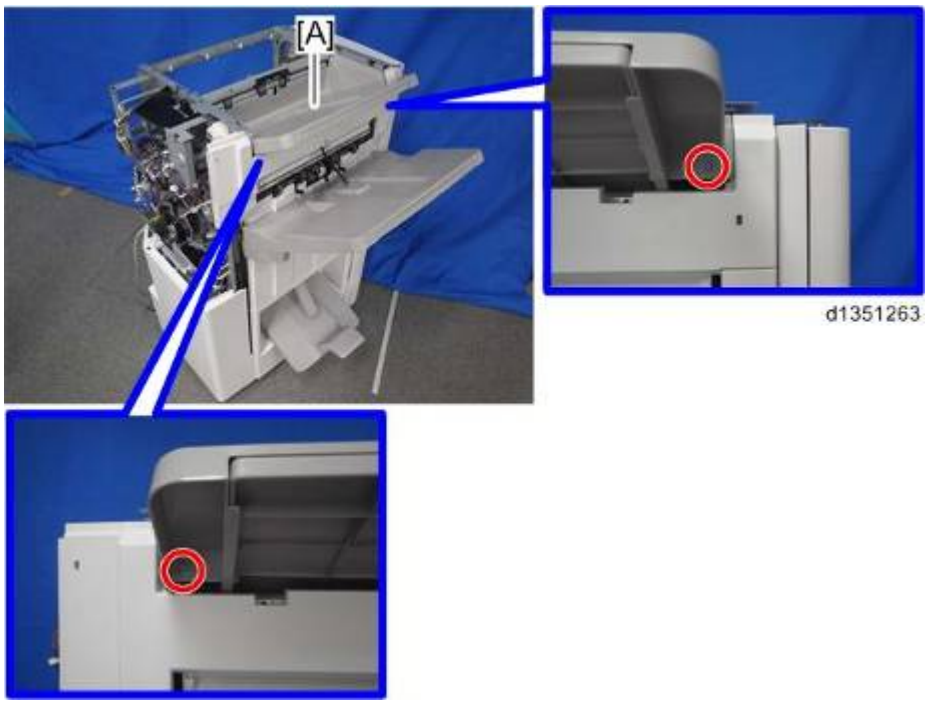
1.1.4 LOWER TRAY

1. Lower tray [A]

d1351262

1.1.5 PROOF TRAY

1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Rear upper cover
   - Upper cover
2. **Proof tray [A] (×2)**



1.1.6 UPPER TRAY

1. **Upper tray [A] (×1)**

1.1.7 END FENCE (D688 ONLY)

1. **Remove the following covers (page 4 "Front Cover, Front Left Side Cover")**
   - Front cover
   - Front left side cover

- Rear upper cover

2. **Upper tray [A] (×1)**

d6890004

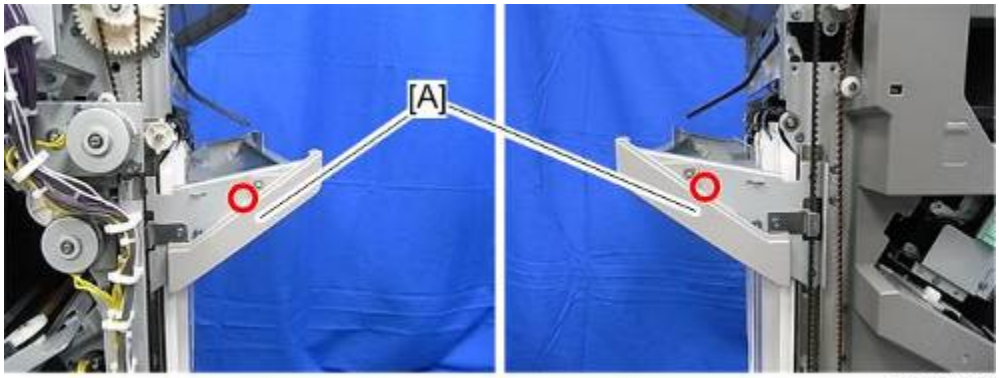
3. **Proof lower cover [A] (hook×4)**

d6890005

4. **Left upper cover [A](×2)**

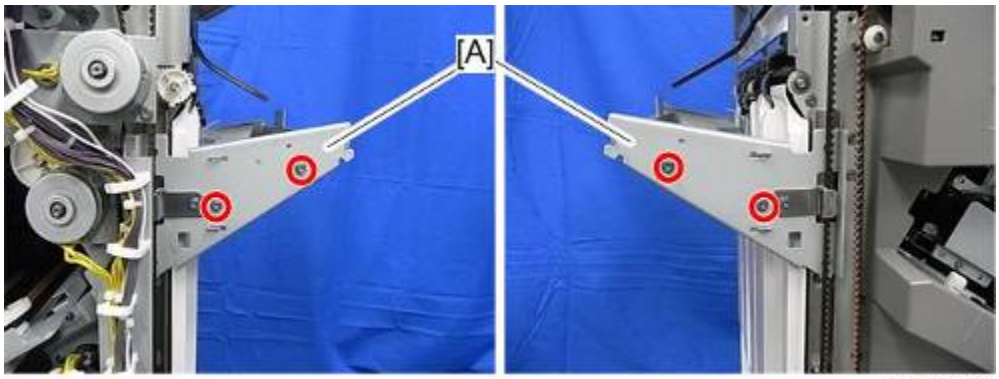
d6890027

5. **Mold bracket (front, rear) [A] (×2)**



d6890006

6. **Shift tray bracket (front, rear) [A] (×4)**

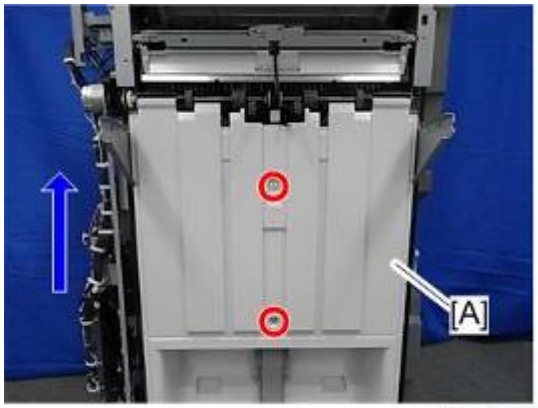


d6890007

7. **Shift tray bracket [A].**

d6890008

8. **End fence [A] (×2)**



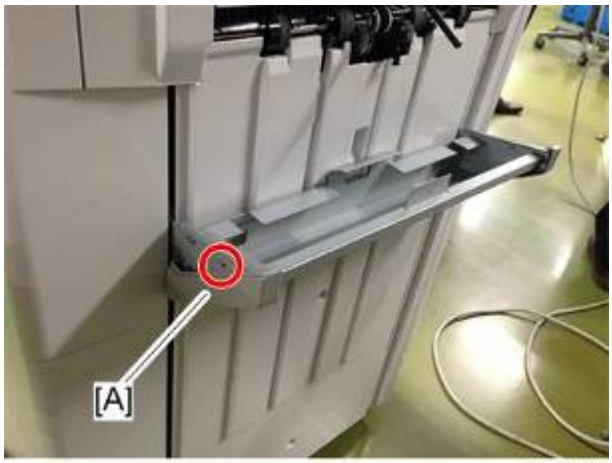
d6890009

1.1.8 LEFT COVER (D689 ONLY)

1. **Upper tray [A] (×1)**

d1351777

2. **Rear mold bracket [A] (×1)**

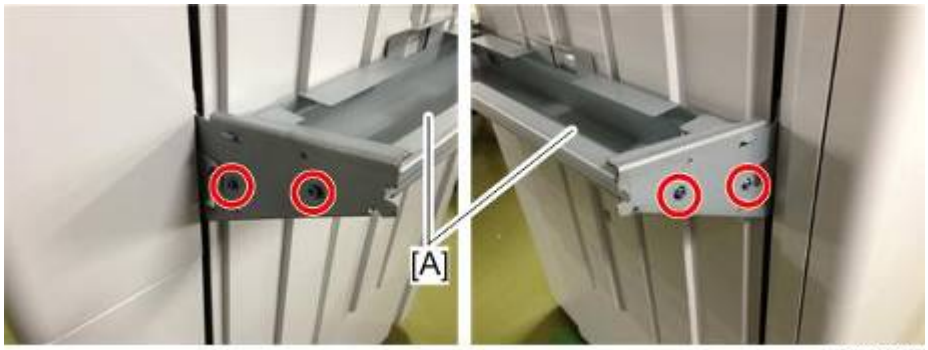


d1351778

3. **Front mold bracket [A] (×1)**

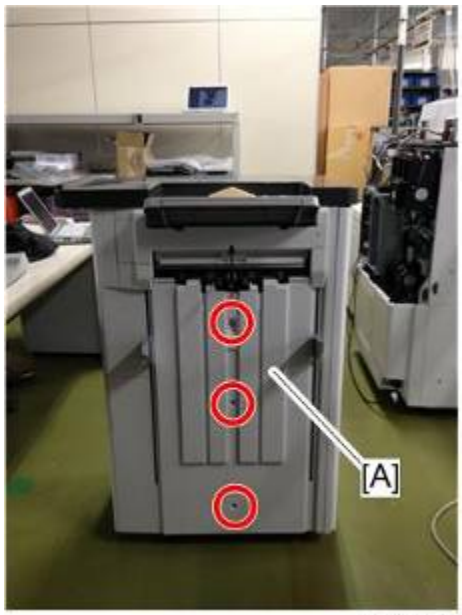
d1351779

4. **Shift tray bracket [A] (×4)**



d1351780

5. Left cover [A] (×3)

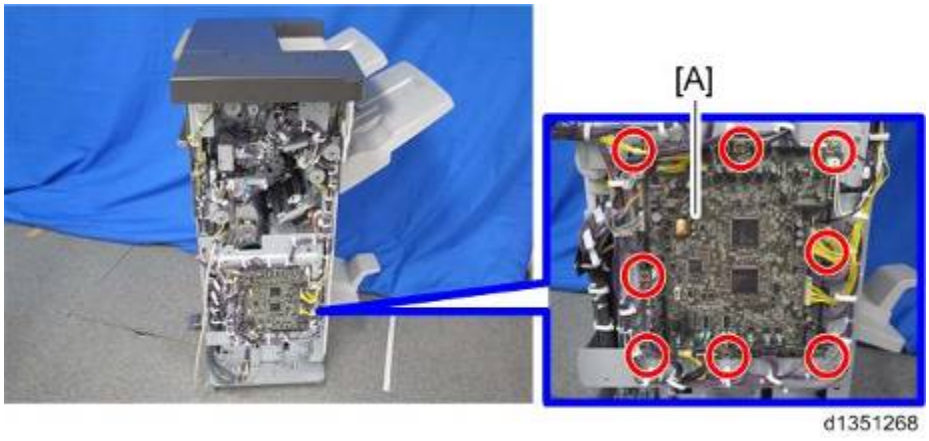


d1351781

1.2 BOARDS

1.2.1 MAIN BOARD

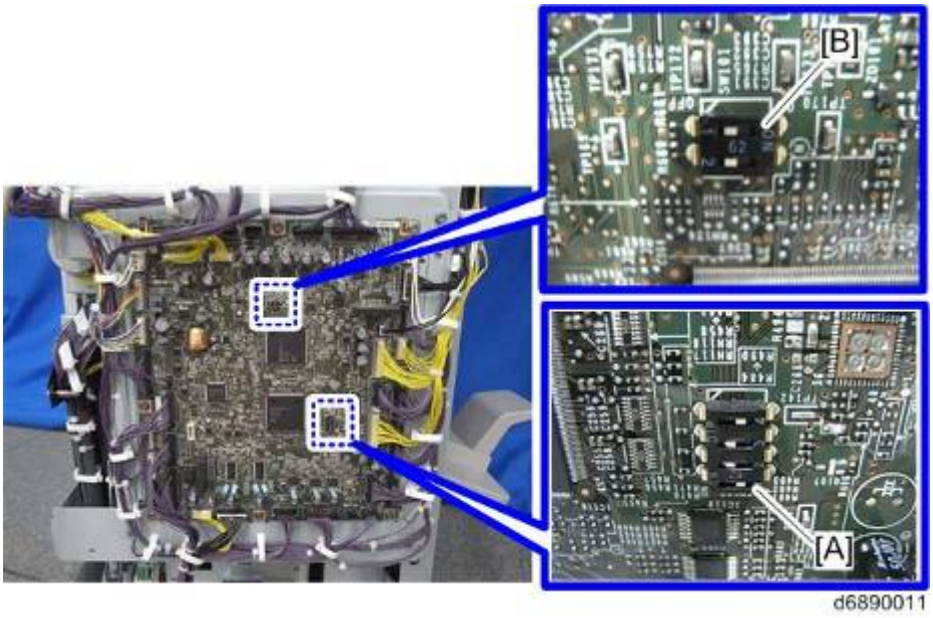
1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Rear upper cover
   - Rear lower cover
2. **Main board [A] (×8, ×all)**



When replacing the main board

This board has two blocks of dip switches. When you reinstall the main board, follow the procedure below regarding the dip switch settings.

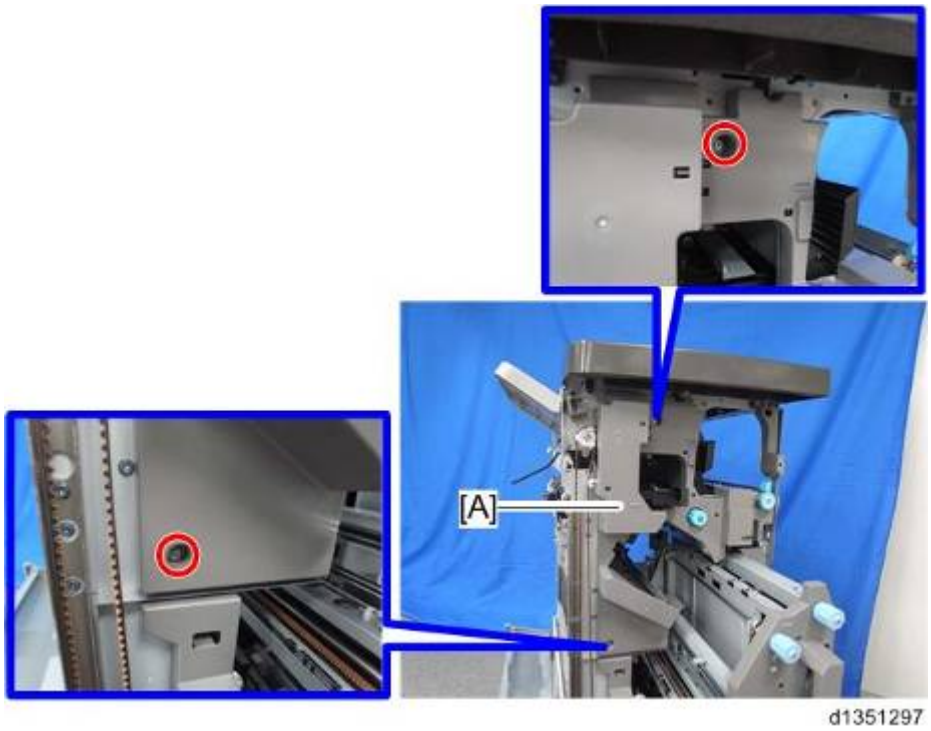
1. Check the settings of dip switch [A] on the old main board.
2. Replace the main board.
3. Change the settings of dip switch [A] on the new main board to match the settings on the old main board.
4. Make sure the switches of dip switch [B] on the new main board are all OFF.


[B]
[A]
d6890011

1.3 MAIN UNIT (MOTOR)

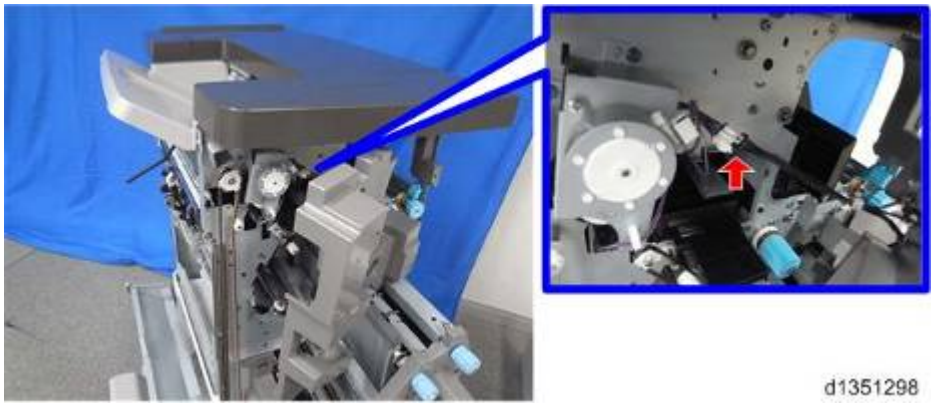
1.3.1 CORNER STAPLING UNIT

1. **Remove the following covers (page 4 "Front Cover, Front Left Side Cover")**
   - Front door
   - Front left side cover
   - End fence
   - Rear upper cover
   - Rear lower cover
2. **Pull out the booklet unit.**
3. **Inner upper cover [A] (×2)**

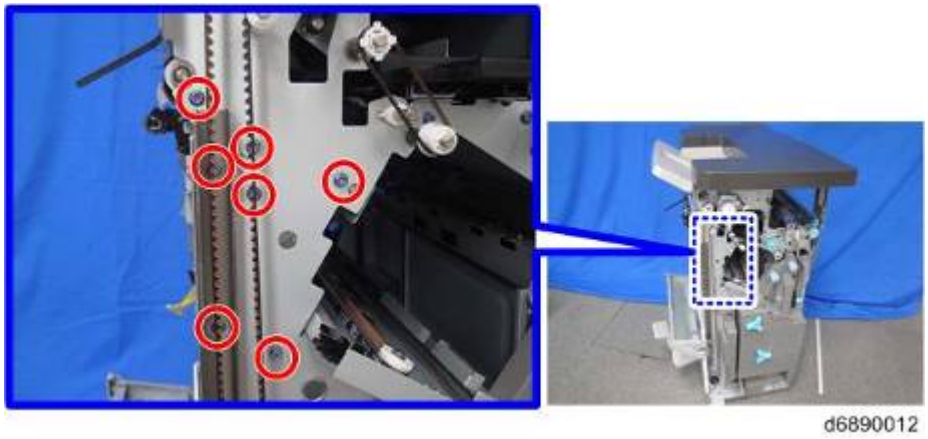


Note

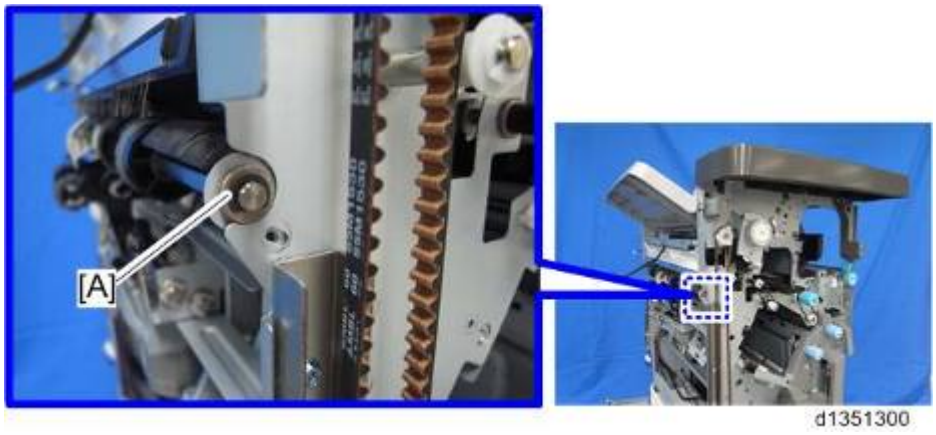
- Disconnect the harness from the back side of the inner upper cover when you remove the inner upper cover.



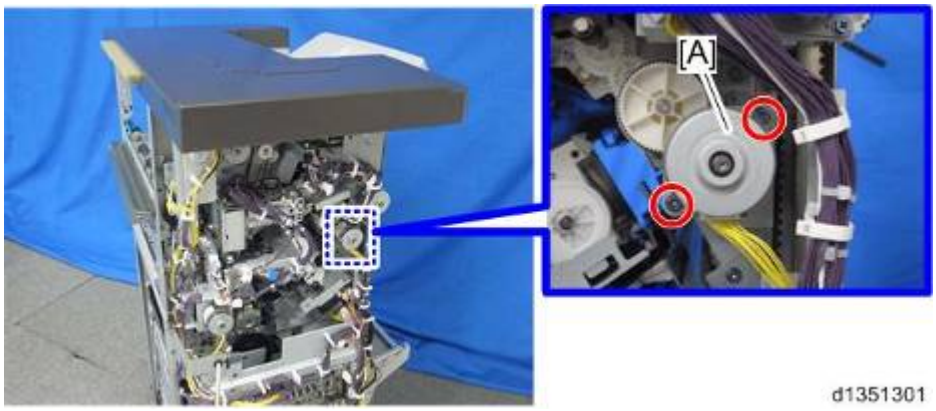
4. **Remove the screws from the front side of the finisher (×7)**



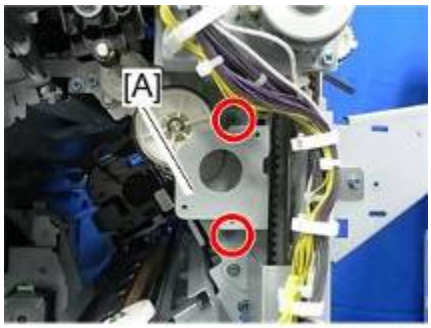
5. **Remove the bushing [A] from the front side of the finisher (×1)**



6. **Pressure release motor [A] (×2)**



7. **Pressure release motor bracket [A] (×2)**

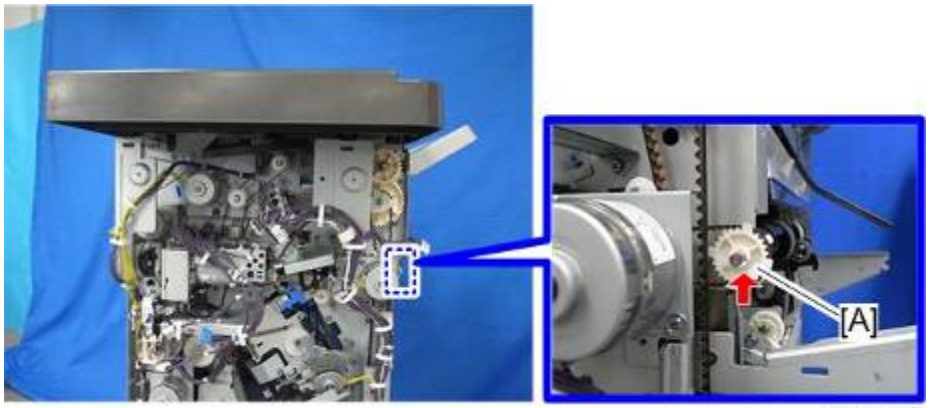


d6890013

8. **Gear [A] (×1, belt×1)**

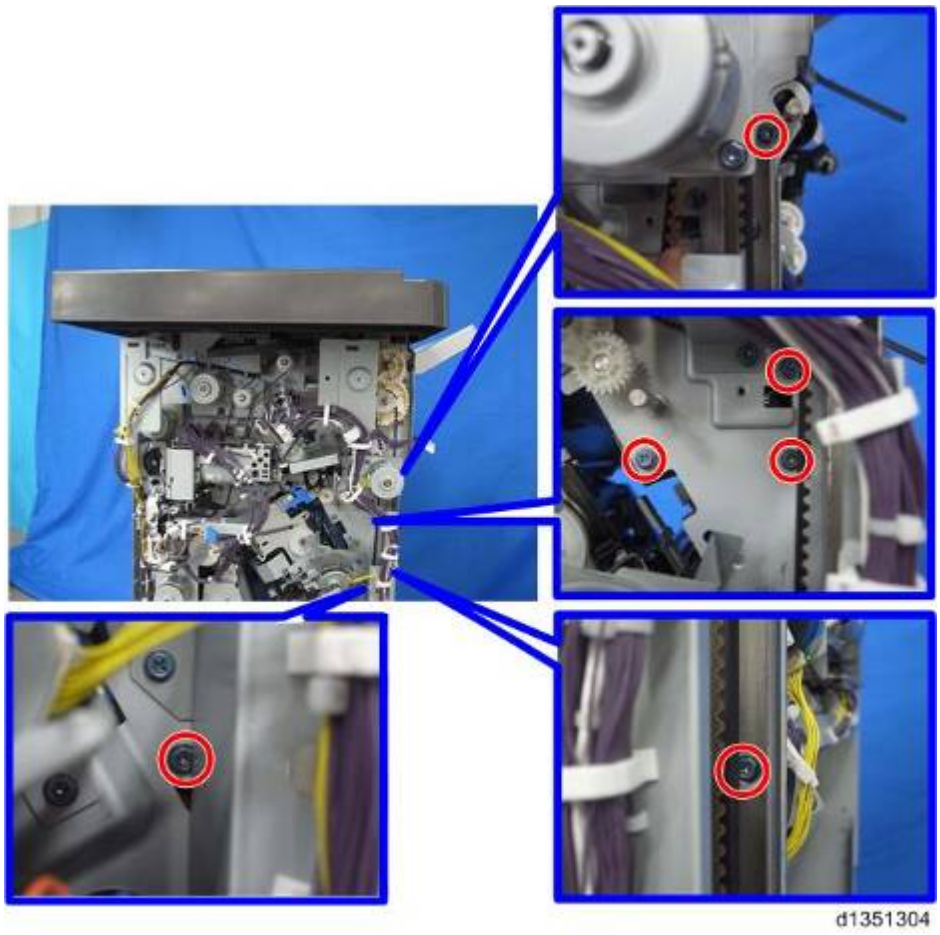
d6890028

9. **Pulley [A] (hook×1)**

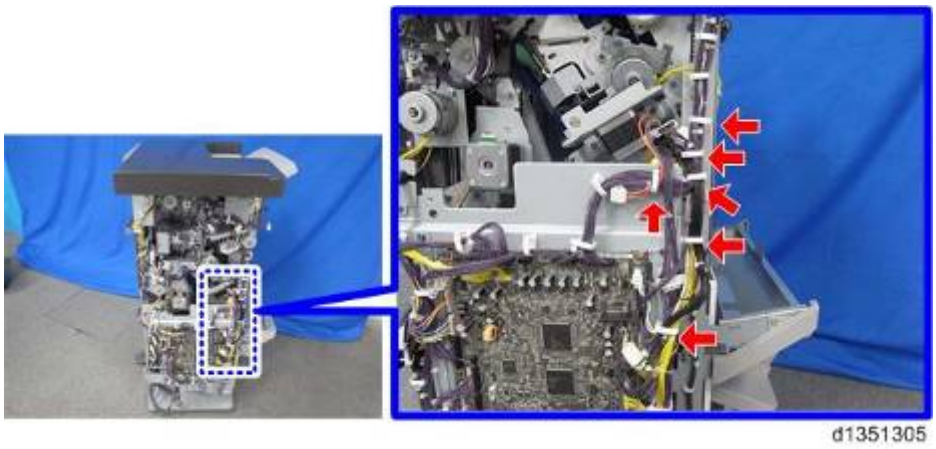


d6890015

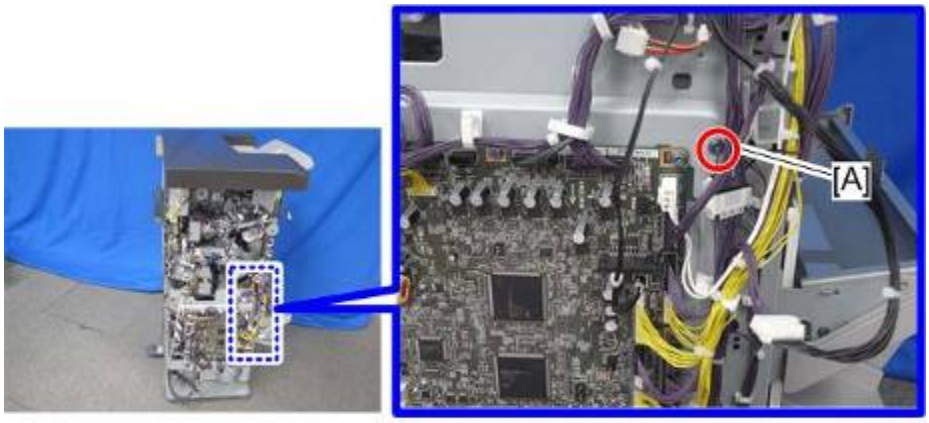
10. **Remove screws from the rear side of the finisher (×6)**



11. **Remove the clamps shown below (×6)**

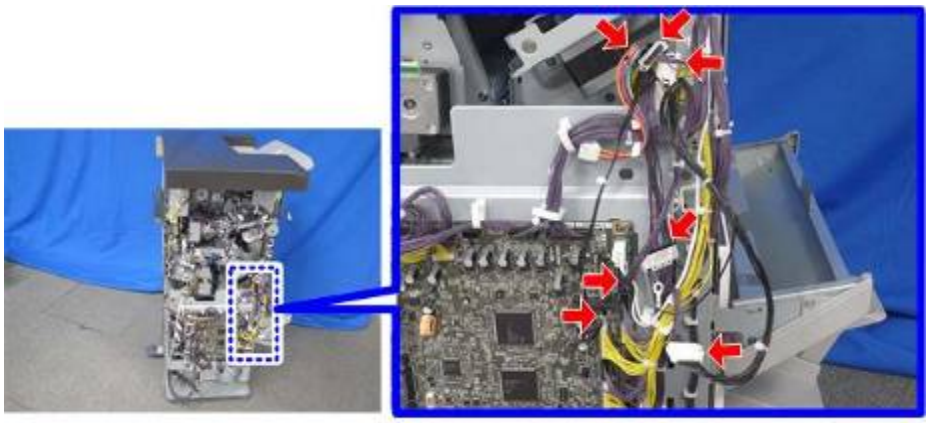


12. **Remove the ground wire [A] of the main board (×1)**



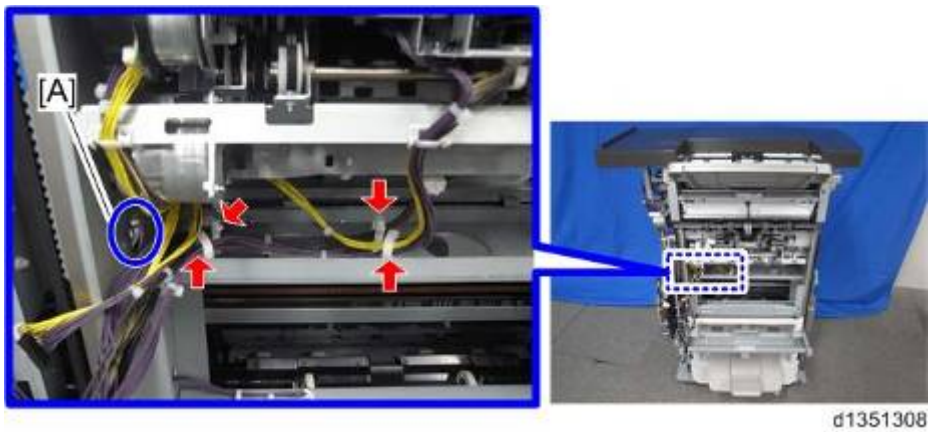
d1351306

13. **Disconnect the connectors shown below (×7)**



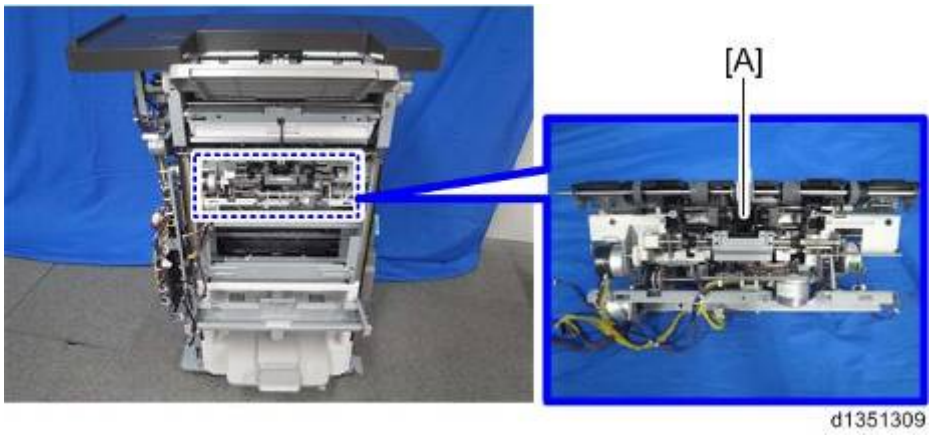
d6890017

14. **Pull out the harnesses disconnected in step 13 to the right side of the finisher through the hole [A].**
15. **Remove the harness from the clamps (×4)**



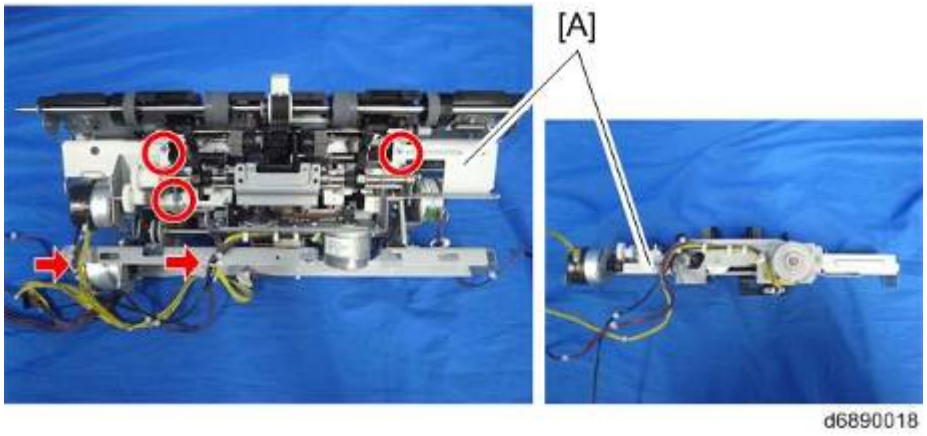
d1351308

16. **Remove the corner stapling unit [A] from between the front and left plate.**

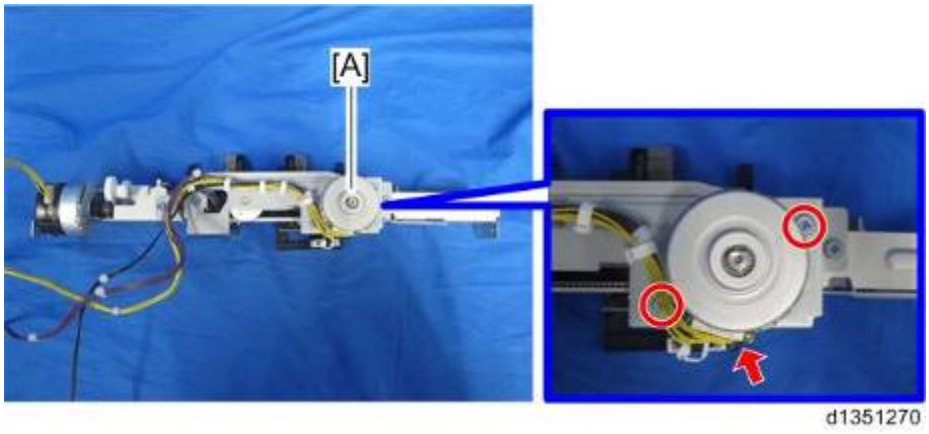


1.3.2 PAPER EXIT GATE MOTOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×2)**

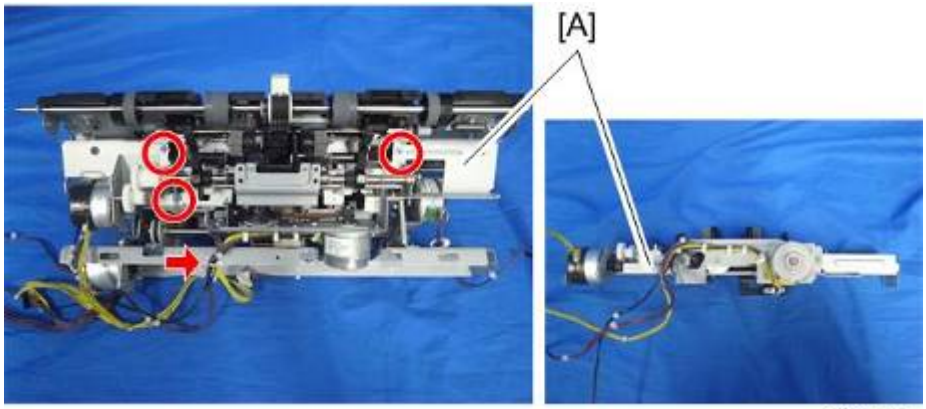


3. **Paper exit gate motor [A] (×2, ×1)**



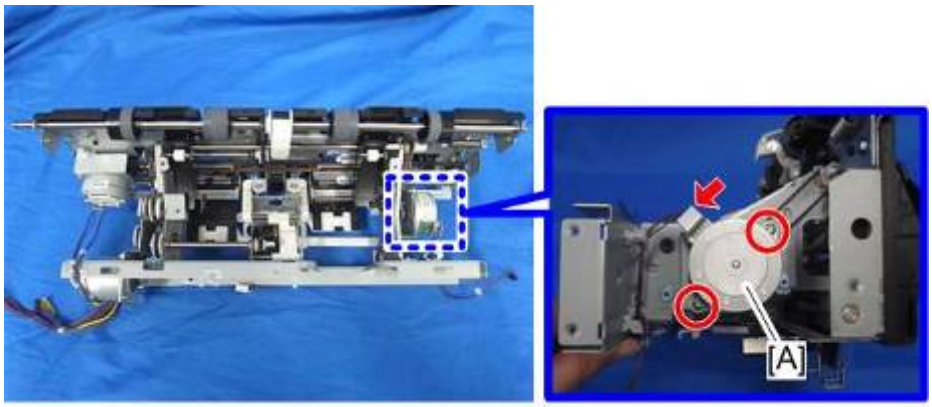
1.3.3 LEADING EDGE GUIDE MOTOR

1. Corner stapling unit (page 13 "Corner Stapling Unit")
2. Stapler bracket [A] (×3, ×1)



d1351269

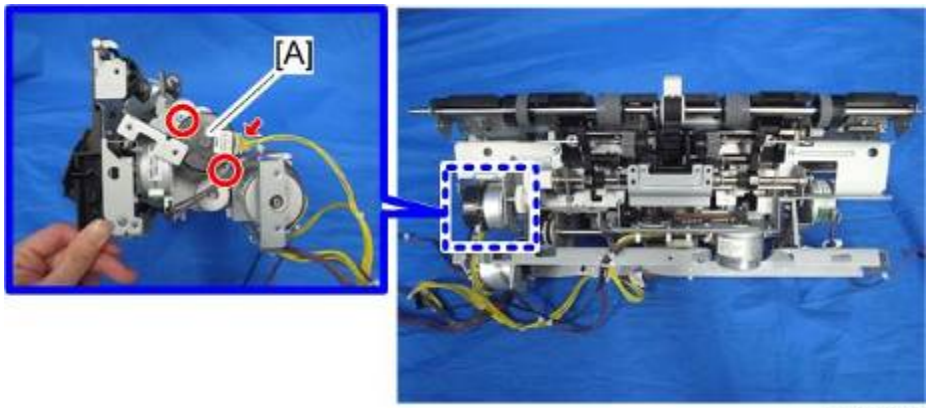
3. Leading edge guide motor [A] (×2, ×1)



d1351271

1.3.4 TRAILING EDGE PRESSURE PLATE MOTOR

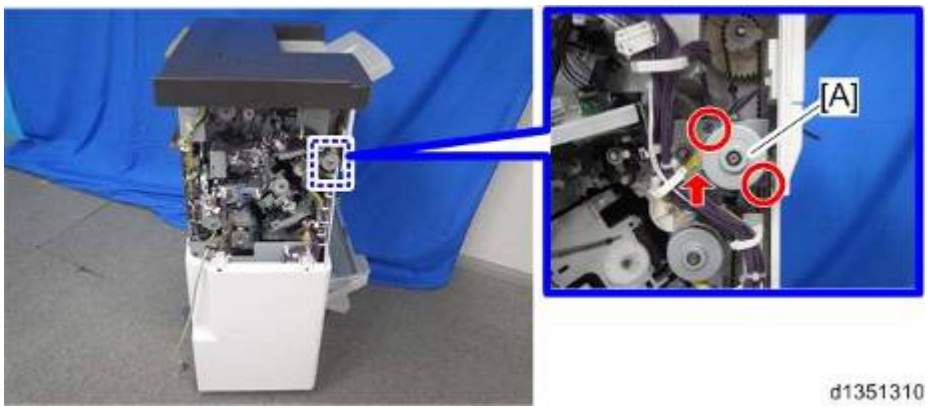
1. Corner stapling unit (page 13 "Corner Stapling Unit")
2. Trailing edge pressure plate motor [A] (×2, ×1)



d1351272

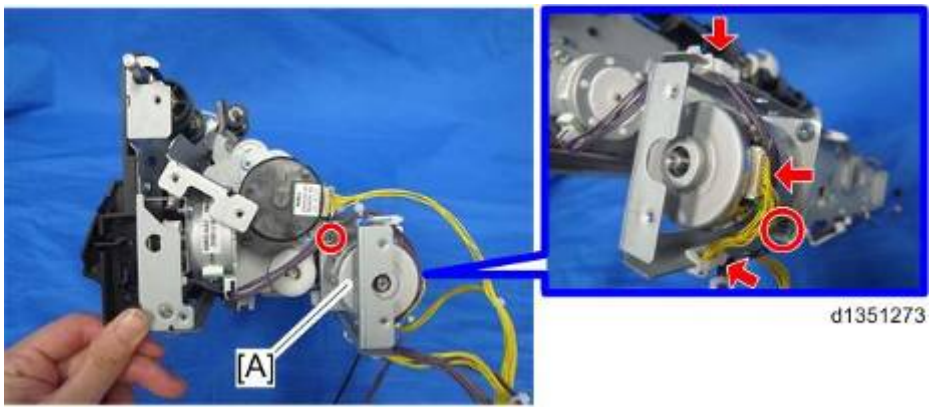
1.3.5 STACKING ROLLER MOTOR

1. **Rear upper cover (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
2. **Stacking roller motor [A] (×2, ×1)**



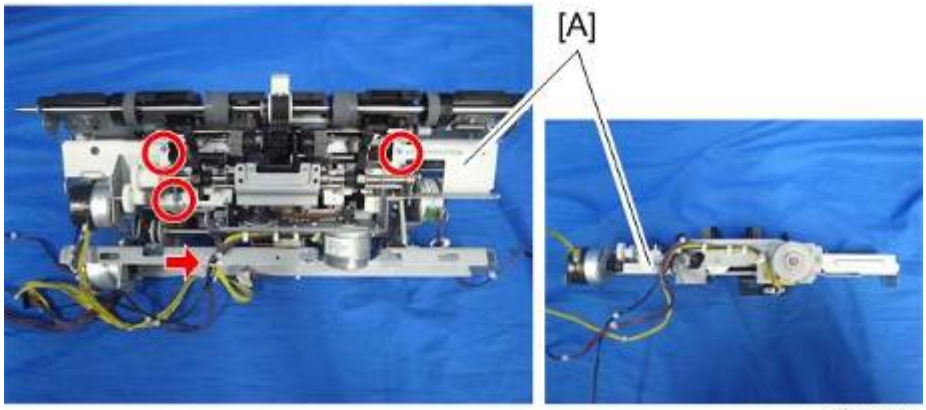
1.3.6 FEED OUT MOTOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Feed out motor [A] (×2, ×1, ×2)**



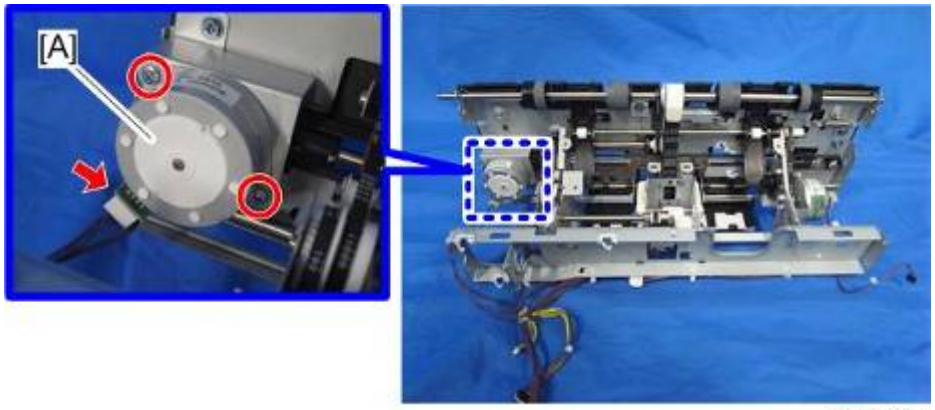
1.3.7 JOGGER MOTOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×1)**



d1351269

3. **Feed out motor (page 20 "Feed Out Motor")**
4. **Jogger motor [A] (×2, ×1)**

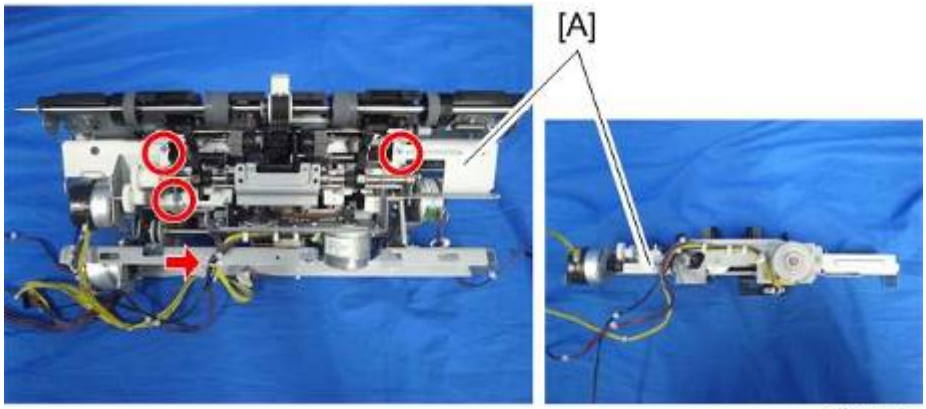


d1351274

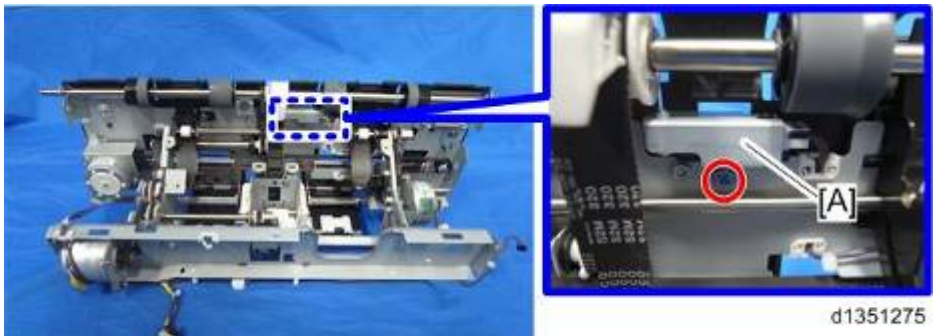
1.4 MAIN UNIT (SENSOR)

1.4.1 SHIFT TRAY PAPER SENSOR

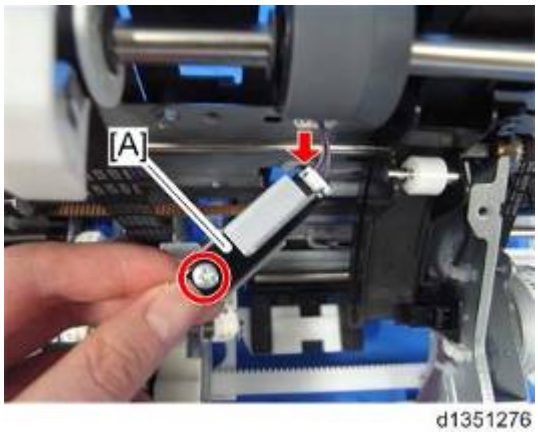
1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×1)**



3. **Shift tray paper sensor bracket [A] (×1)**

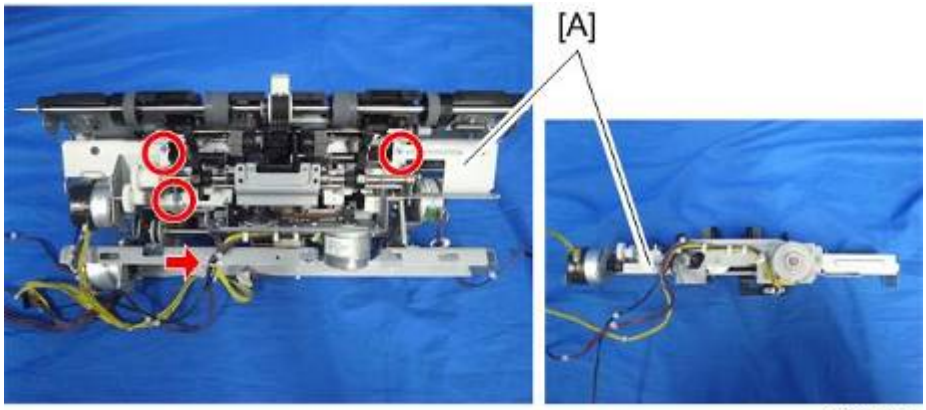


4. **Shift tray paper sensor [A] (×1, ×1)**



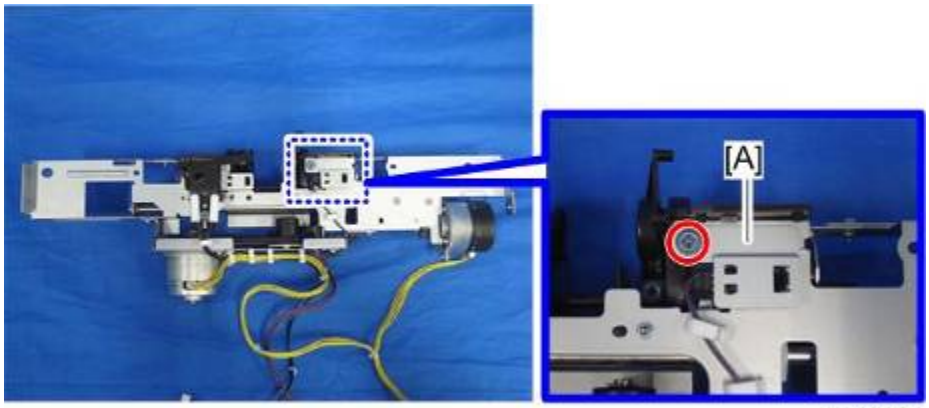
1.4.2 TRAILING EDGE PRESSURE PLATE HP SENSOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×1)**



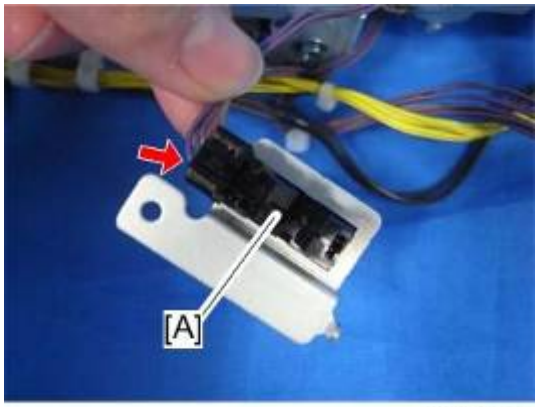
d1351269

3. **Turn back the stapler bracket, and remove the trailing edge pressure plate HP sensor bracket [A] (×1)**



d1351290

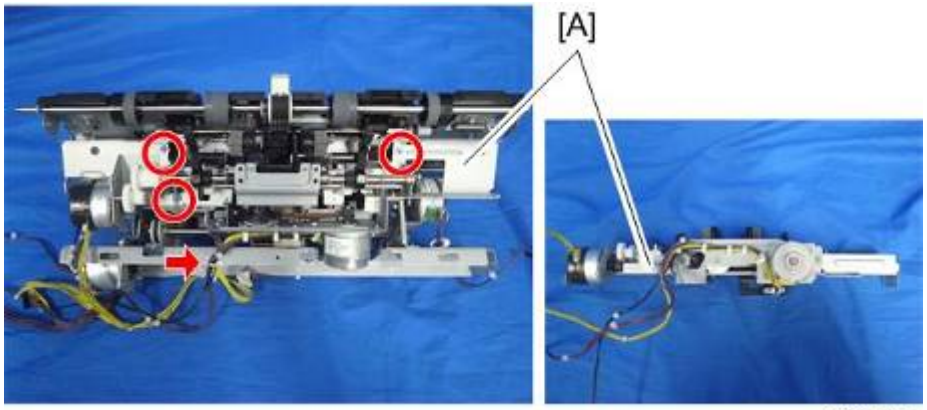
4. **Trailing edge pressure plate HP sensor [A] (×1)**



d1351291

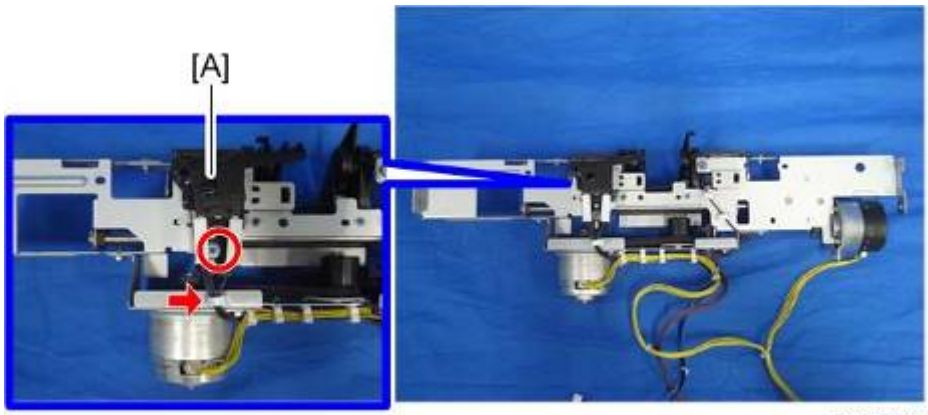
1.4.3 STACKING ROLLER HP SENSOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×1)**



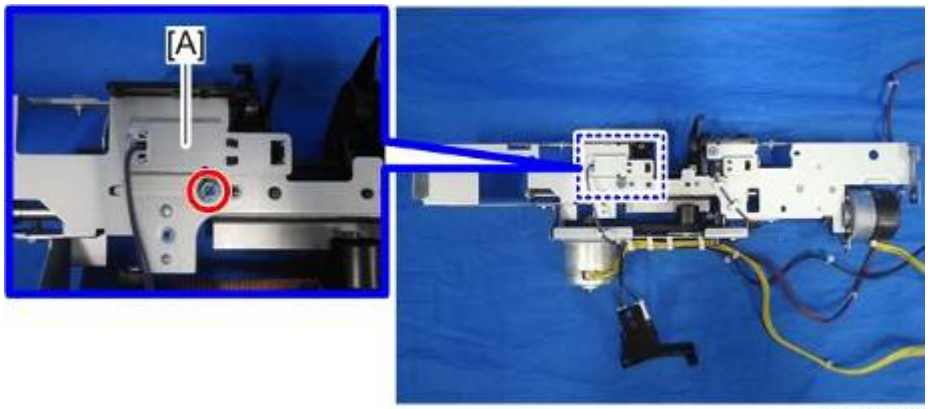
d1351269

3. **Turn back the stapler bracket, and remove the paper exit gate motor bracket [A] (×1, ×1)**



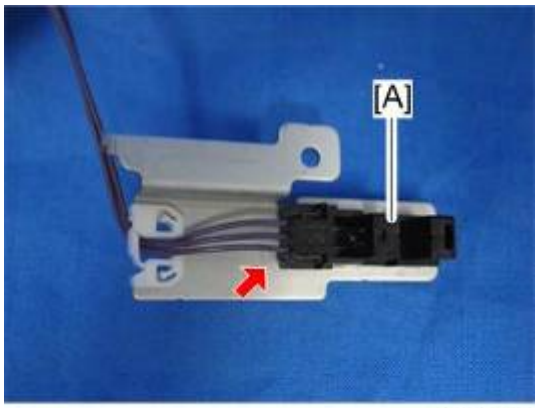
d1351292

4. **Stacking roller HP sensor bracket [A] (×1)**



d1351293

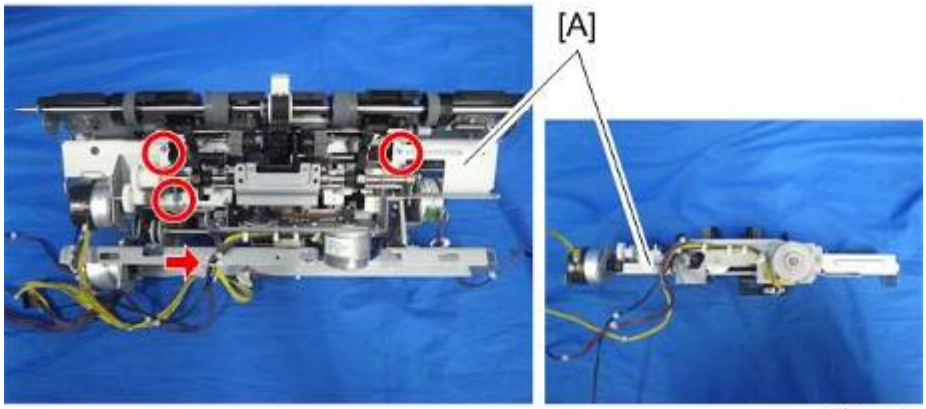
5. **Stacking roller HP sensor [A] (×1)**



d1351294

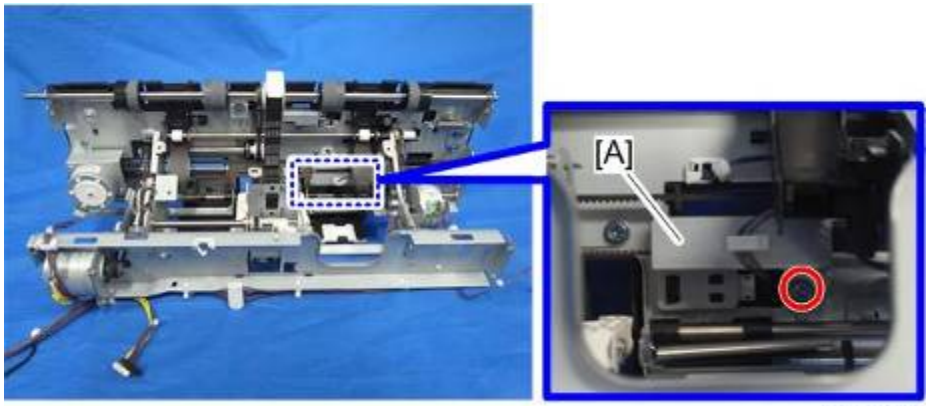
1.4.4 STAPLE TRAY PAPER SENSOR

1. **Corner stapling unit (page 13 "Corner Stapling Unit")**
2. **Stapler bracket [A] (×3, ×1)**



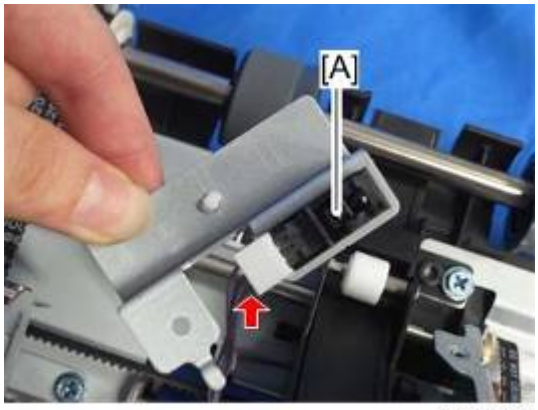
d1351269

3. **Staple tray paper sensor bracket [A] (×1, ×1)**



d1351295

4. **Staple tray paper sensor [A] (×1)**

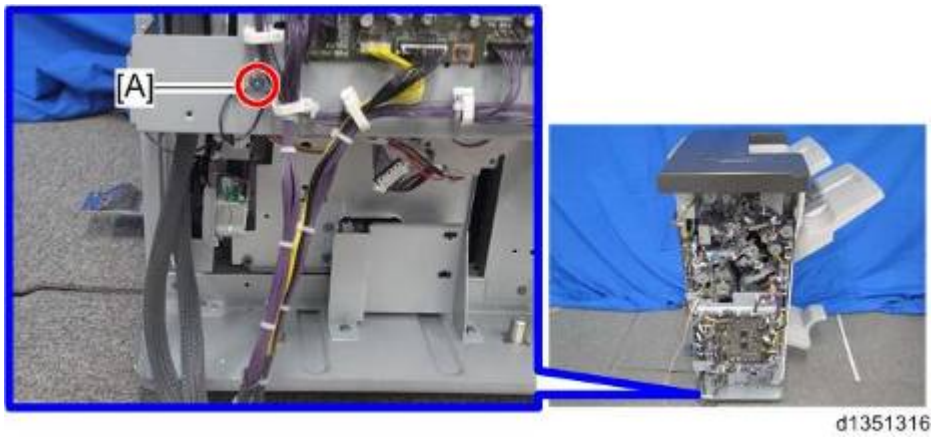


d1351296

1.5 BOOKLET UNIT

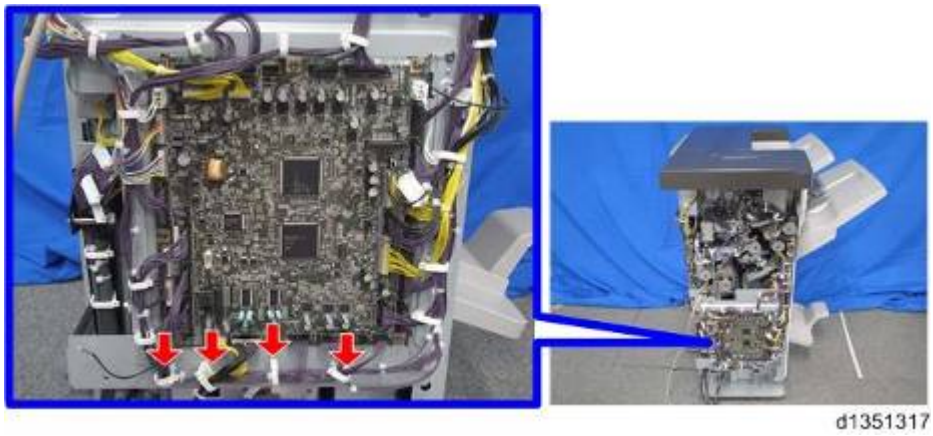
1.5.1 BOOKLET UNIT

1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Rear Upper Cover
   - Rear Lower Cover
2. **Remove the ground wire [A] in the left lower side of the main unit (×1)**



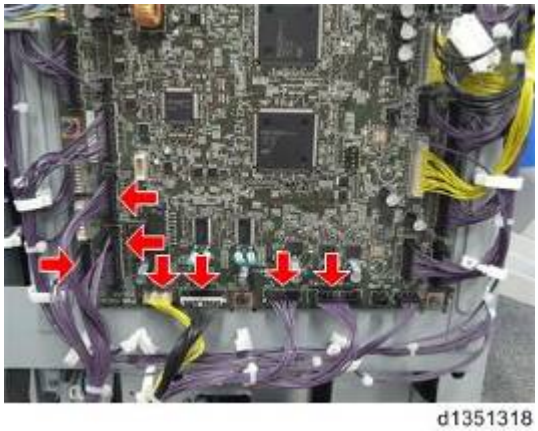
d1351316

3. **Release the harness from the 4 clamps shown below (×4)**



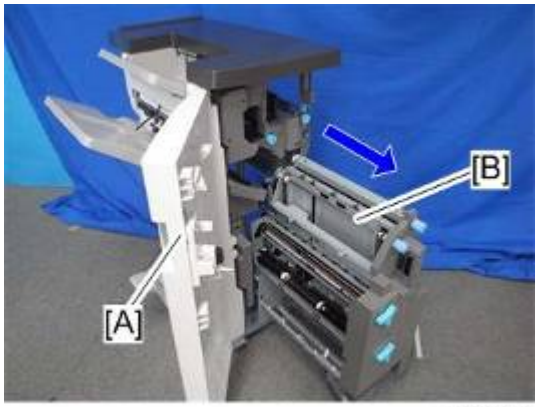
d1351317

4. **Disconnect the 7 connectors of the booklet unit from the main board as shown below (×7)**



d1351318

5. **Open the front door [A] and pull out the stapling unit [B].**



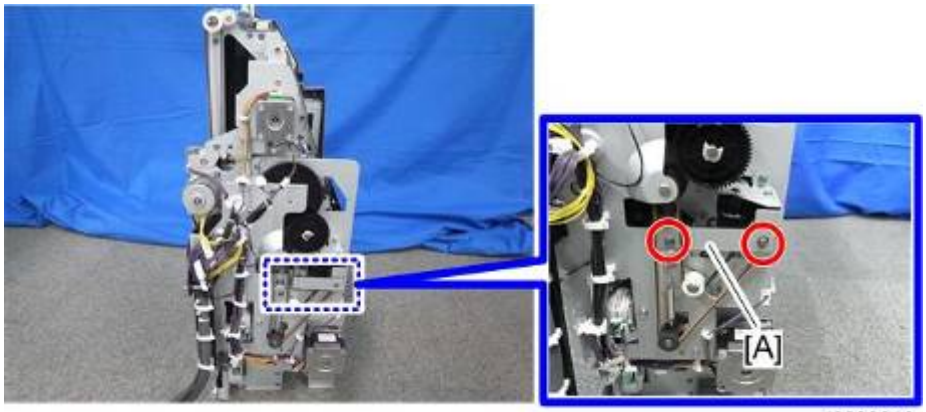
d1351319

6. **Remove the screws that hold the finisher and booklet unit. (×6)**

d1351320

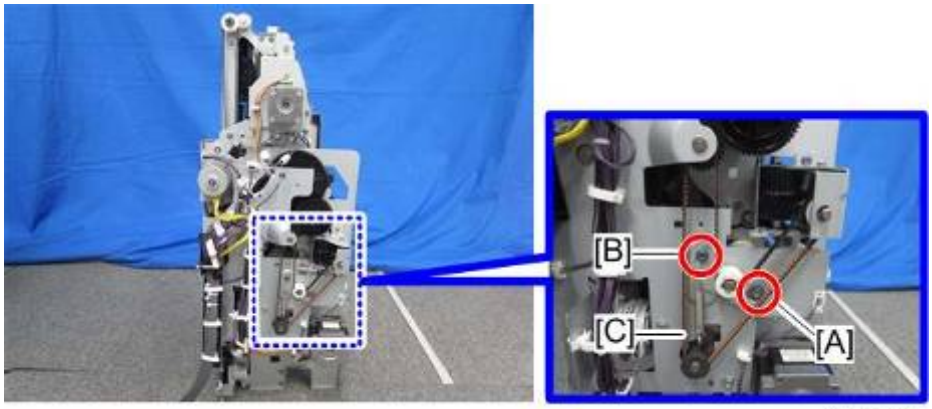
1.5.2 PRESS FOLDING MOTOR

1. **Booklet unit (page 27 "Booklet unit")**
2. **Remove the bracket [A] from the booklet unit (×1, ×1)**



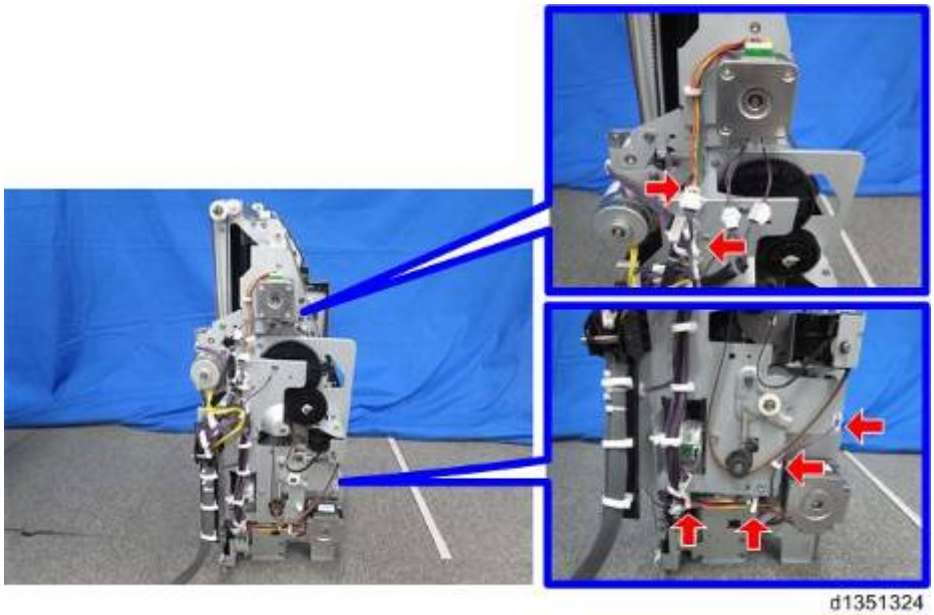
d6890019

3. **Remove the screw [A] of the belt holding bracket (×1)**
4. **Loosen the screw [B] of the belt holding bracket, and then loosen the press folding motor belt [C].**

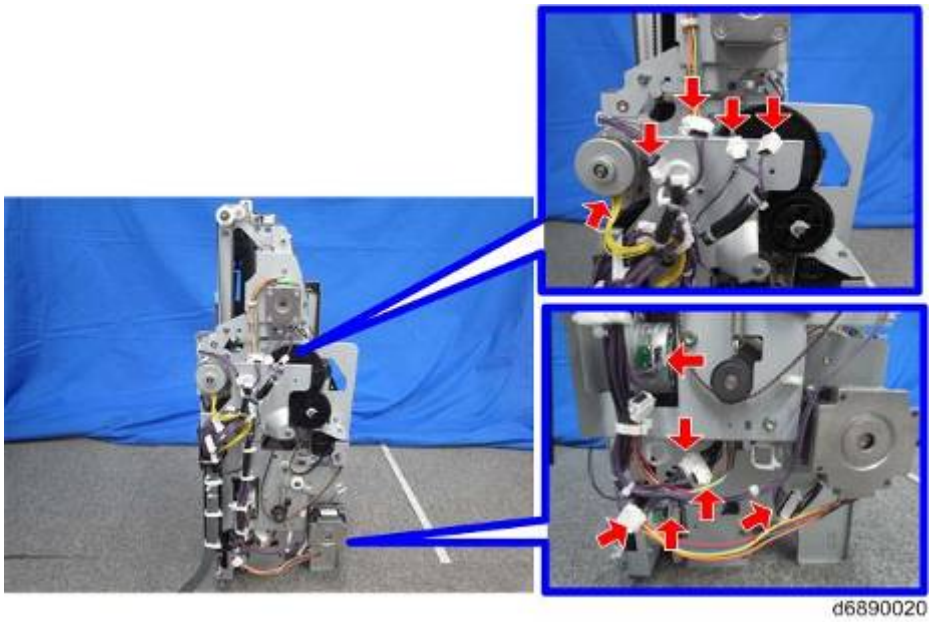


d1351323

5. **Release the harness from the clamps shown below (×6)**

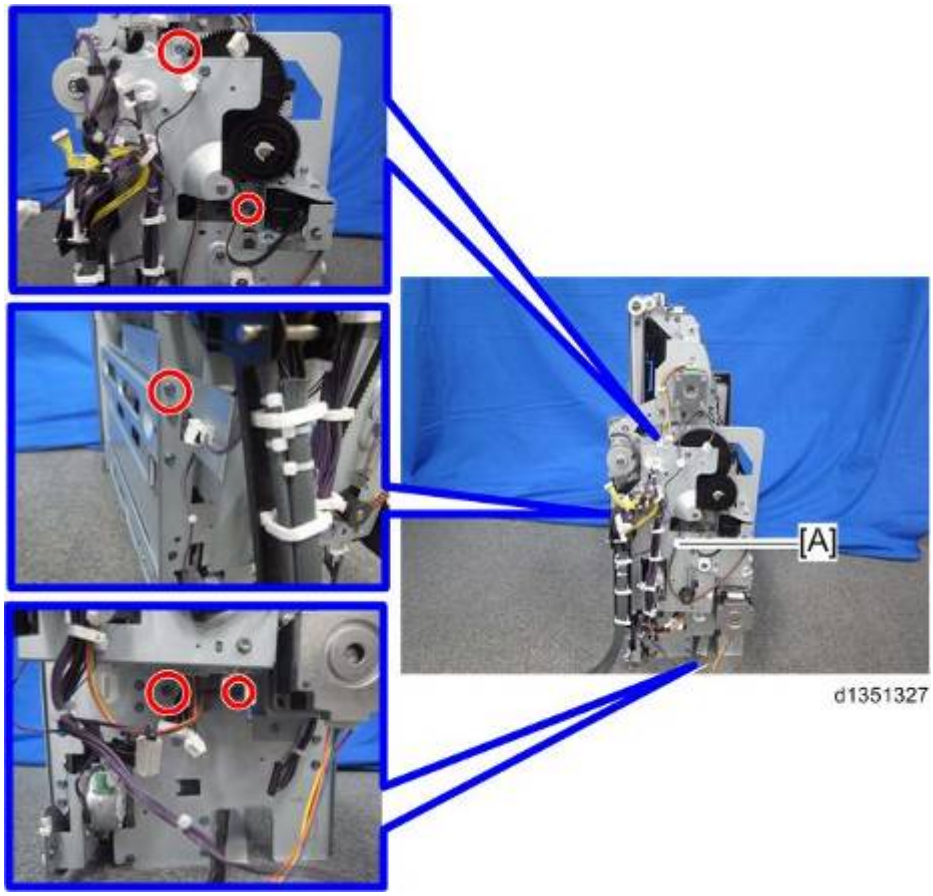

d1351324

6. **Disconnect the connectors shown below (×11)**

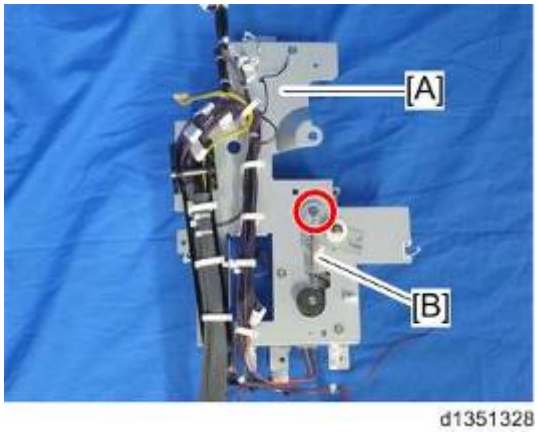


7. **Disconnect the connectors shown below (×2)**

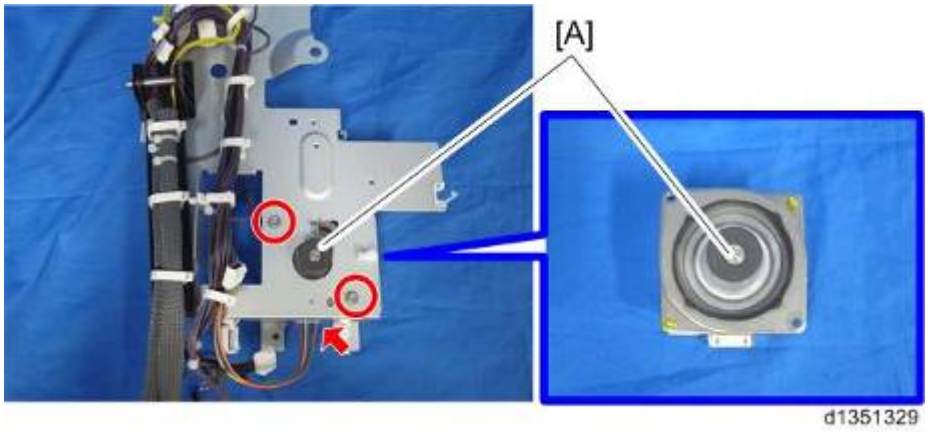
8. **Press folding motor bracket [A] (×5)**



9. **Remove the spring [B] from the press folding motor bracket [A] (×1, spring×1)**

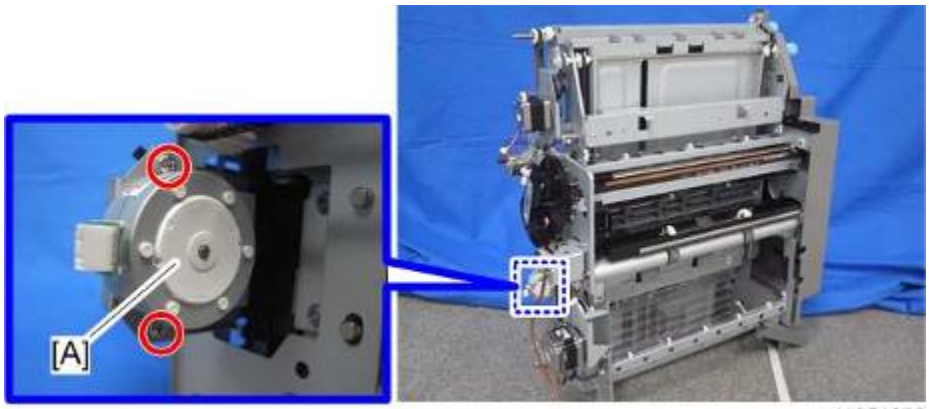


10. **Remove the press folding motor [A] (×2, ×1)**



1.5.3 BOOKLET JOGGER MOTOR

1. **Booklet unit (page 27 "Booklet unit")**
2. **Press folding motor bracket.**
3. **Booklet Jogger Motor [A] (×2)**



d1351330

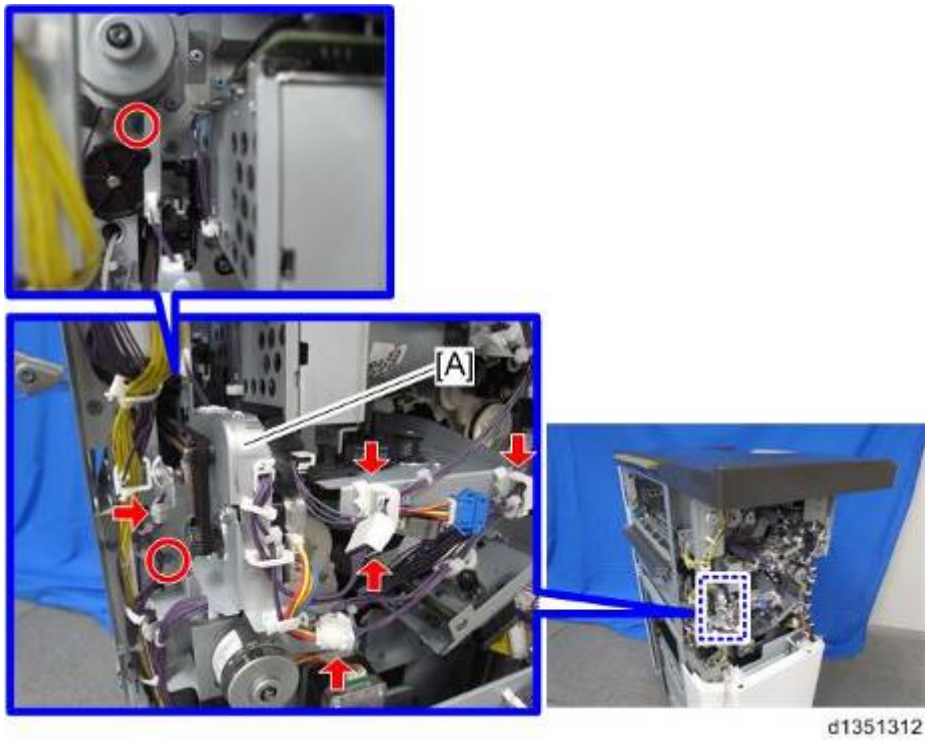
1.6 PUNCH UNIT

The punch unit is already adjusted in the factory, so you don't need to adjust it. When you need to replace the parts of the punch unit, replace the whole unit.

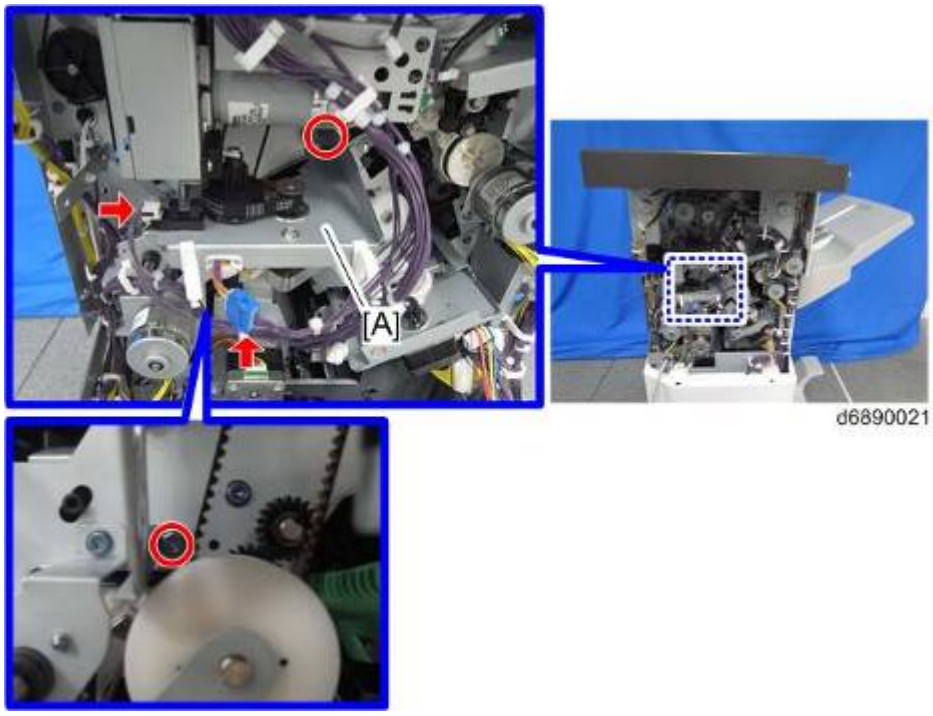
Note

- Do not disassemble the punch unit. This unit is precisely adjusted in the factory.
- Do not drop or give a shock to the unit when you replace it. The unit could be damaged.

1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Rear Upper Cover
   - Rear Lower Cover
2. **Registration sensor bracket [A] (×2, ×3, ×2)**

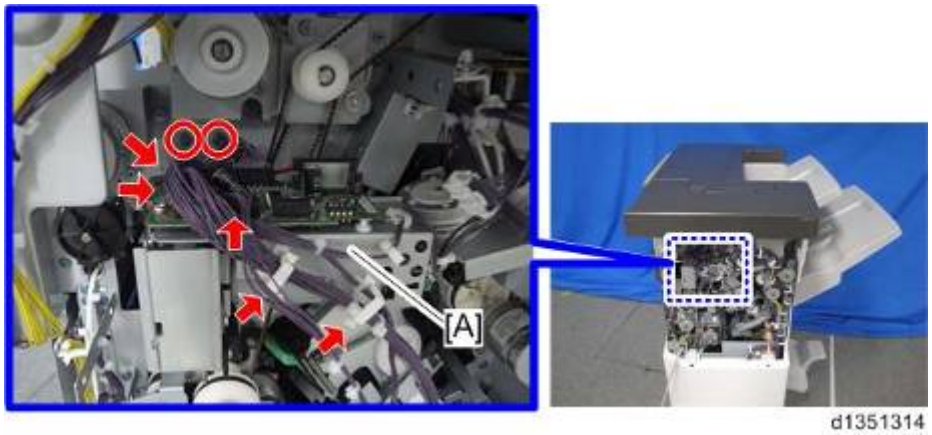


3. **Stepper motor bracket [A] (×2, ×2)**



d6890021

4. **Pull out the punch unit [A] (×2, ×2, ×2)**



d1351314

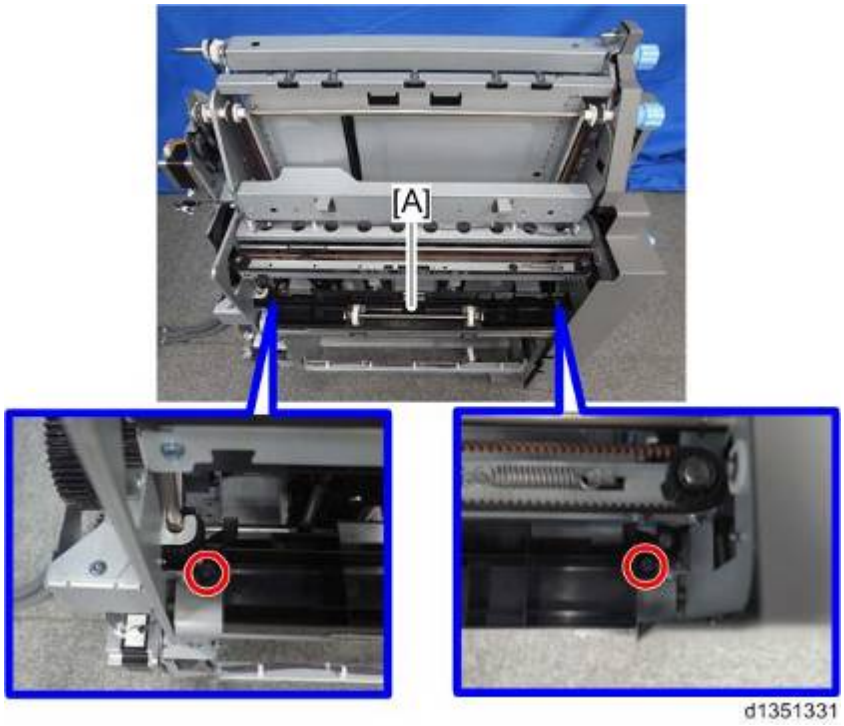
d1351315

1.7 ADJUSTMENT OF THE FLAT FOLD BOOKLET UNIT

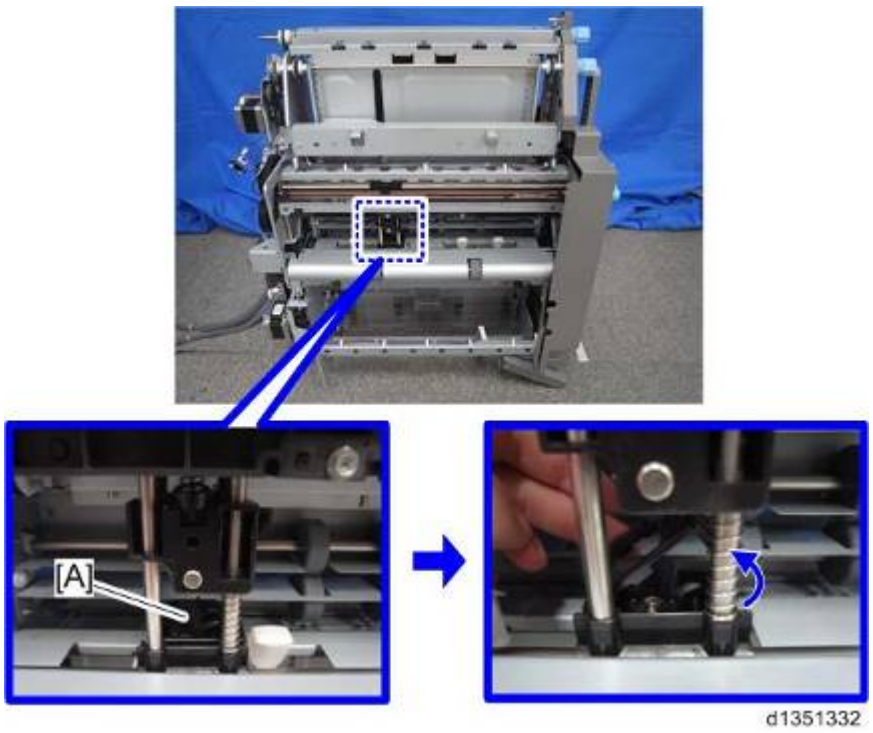
1.7.1 ADJUSTING THE ALIGNMENT OF THE FLAT FOLD ROLLERS

To adjust the folding strength, adjust the difference in vertical alignment between the flat fold rollers.

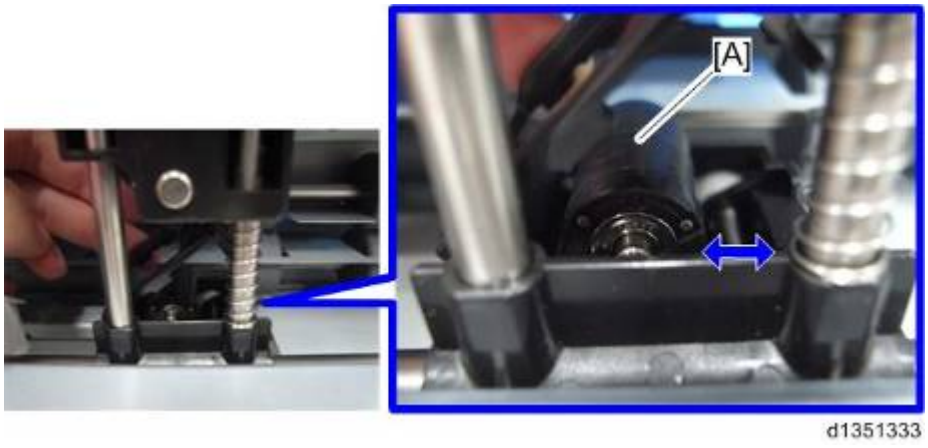
1. **Booklet unit (page 27 "Booklet unit")**
2. **Fold plate bracket [A] (×2)**



3. **Open the bracket [A] of the flat fold roller.**



4. **Adjust the position of the flat fold lower roller [A] to adjust the difference in alignment between the upper and lower rollers of the flat fold booklet unit.**



Note

- To lower the booklet fold height (increase folding strength), roller offset is increased. To raise the booklet fold height (decrease folding strength), roller offset is decreased. When the machine is shipped from the factory, the booklet fold height is set low by offsetting the rollers. However, since the folding strength is high, toner cracking may occur at fold lines. In such a case, toner cracking at fold lines may be reduced by adjusting the offset amount to 0 mm.

Difference in Alignment and Folding Strength

Difference in Alignment	Folding Strength	Thickness of the booklet	The amount of toner sticking to the folding line
3mm (default)	Strong	Thin	OK
0mm	Weak	Thick	Good

5. **Close the bracket after the adjustment.**
6. **Reassemble the machine.**

1.7.2 ADJUSTING THE FOLDING SPEED

You can adjust the thickness of the booklet by adjusting the moving speed of the flat fold booklet unit.

If you want to make the booklet thinner, set a slower speed. If you want to make the booklet thicker, set a faster speed.

1. **Enter the SP mode.**
2. **Set the moving speed of the flat fold booklet unit for each paper size with SP6-114-001 to 010 (Fold Speed Adj.: 2K/3K FIN).**

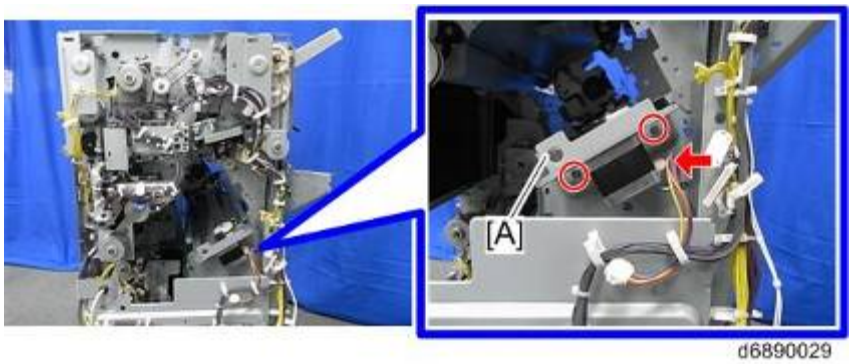
SP	Setting Items	Selection	Default Value
SP6-114-001	Fold Speed Adj.: 2K/3K FIN: A3 SEF	0: Standard* 1: Middle 2: Low	0: Standard
SP6-114-002	Fold Speed Adj.: 2K/3K FIN: B4 SEF		
SP6-114-003	Fold Speed Adj.: 2K/3K FIN: A4 SEF		
SP6-114-004	Fold Speed Adj.: 2K/3K FIN: B5 SEF		
SP6-114-005	Fold Speed Adj.: 2K/3K FIN: DLT SEF		
SP6-114-006	Fold Speed Adj.: 2K/3K FIN: LG SEF		
SP6-114-007	Fold Speed Adj.: 2K/3K FIN: LT SEF		
SP6-114-008	Fold Speed Adj.: 2K/3K FIN: 12"×18"		
SP6-114-009	Fold Speed Adj.: 2K/3K FIN: 8K SEF		
SP6-114-010	Fold Speed Adj.: 2K/3K FIN: Other		

* [0: Standard] is faster than [1: Middle].

3. **Exit the SP mode.**

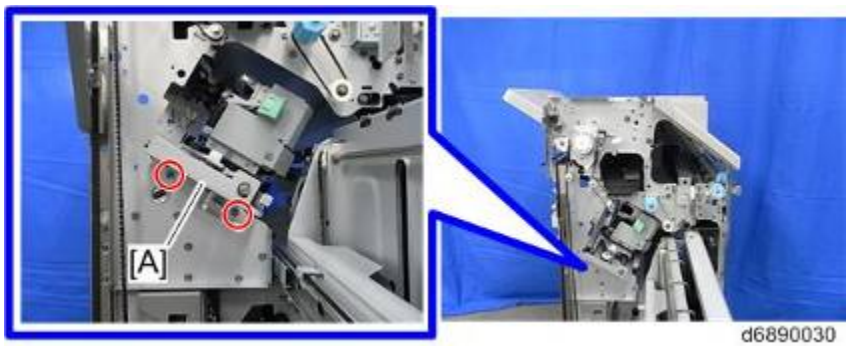
1.8 STAPLER UNIT

1. **Remove the following covers (page 1 "Rear Upper Cover, Rear Lower Cover, Upper Cover")**
   - Front left side cover
   - Rear upper cover
2. **Stapler Unit rear side [A] (×2, ×1)**



d6890029

3. **Stapler Unit front side [A] (×2)**



d6890030

4. **Stapler Unit [A]**

d6890031

D690

INTERNAL FINISHER SR3130

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

INTERNAL FINISHER SR3130 (D690)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

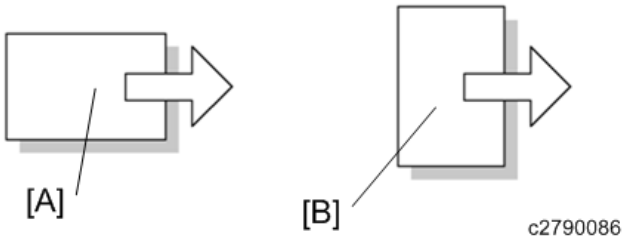
1.1 INNER FINISHER 1
1.2 FINISHER FRONT COVER 3
1.3 FINISHER UPPER COVER 4
1.4 PAPER EXIT TRAY 5
1.5 PAPER EXIT COVER 6
1.6 CONTROL BOARD 7
1.7 ENTRANCE SENSOR 8
1.8 ENTRANCE MOTOR 10
1.9 TRAY LIFT MOTOR 11
1.10 PAPER EXIT FULL SENSOR 12
1.11 PAPER BAIL HOME POSITION SENSOR 13
1.12 PAPER SURFACE DETECTION SENSOR 14
1.13 PAPER BAIL MOTOR 15
1.14 TRANSPORT SENSOR 16
1.15 STRIKE ROLLER HOME POSITION SENSOR 17
1.16 PAPER EXIT GUIDE PLATE MOTOR 19
1.17 PAPER EXIT GUIDE PLATE HOME POSITION SENSOR 20
1.18 STRIKE ROLLER MOTOR 21
1.19 SHIFT MOTOR 22
1.20 SHIFT ROLLER HOME POSITION SENSOR 24
1.21 STAPLER HOME POSITION SENSOR 25
1.22 STAPLER DISPLACEMENT MOTOR 27
1.23 STAPLER UNIT 29
1.24 JOGGER FENCE MOTOR (FRONT / REAR) 32
1.25 JOGGER FENCE HOME POSITION SENSOR (FRONT) 34
1.26 JOGGER FENCE HOME POSITION SENSOR (REAR) 35
1.27 STAPLER TRAY JAM DETECTION SENSOR 36
1.28 PAPER DETECTION SENSOR 37
1.29 PAPER EXIT MOTOR (FRONT) 39
1.30 PAPER EXIT MOTOR (REAR) 40

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

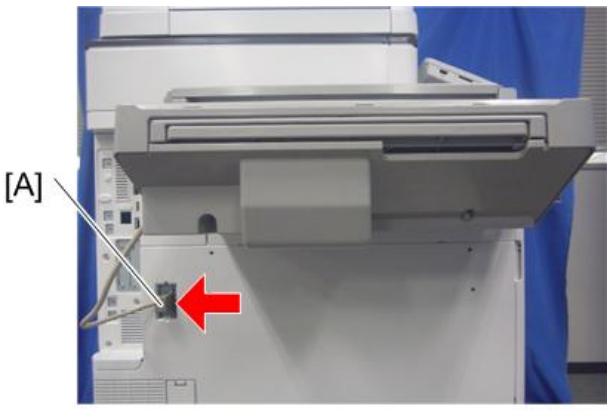
Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

1. REPLACEMENT AND ADJUSTMENT

1.1 INNER FINISHER

1. **Interface cable [A]**

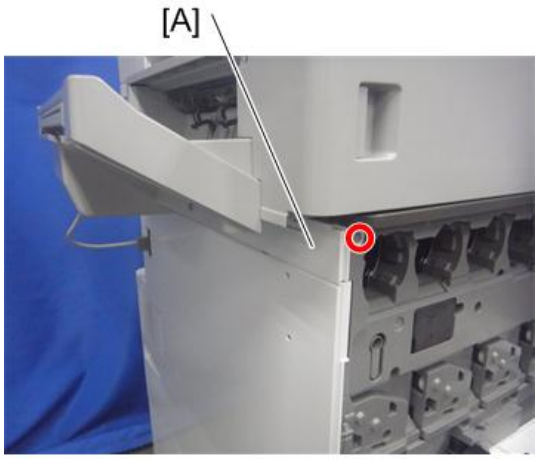


d1462873

2. **Open the front cover [A]**

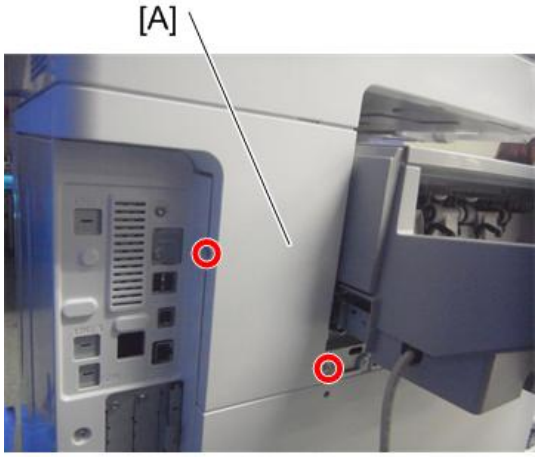
d1462870

3. **Upper left cover [A] (×1)**



d1462871

4. **Left rear cover [A] (×2)**



d1462872

5. **Finisher [A] (×1)**

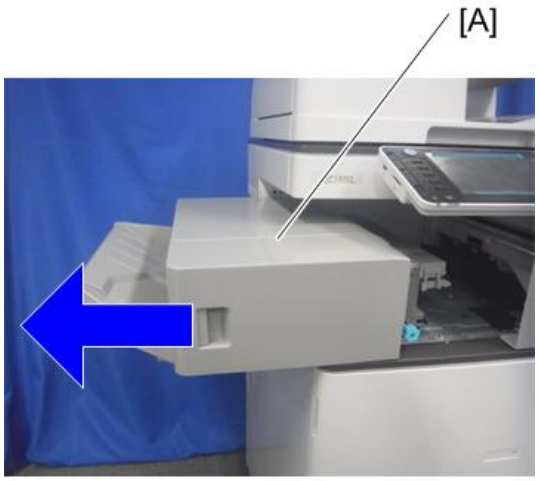
d1462874

6. **Bridge guide plate [A] (×2)**

d1462875

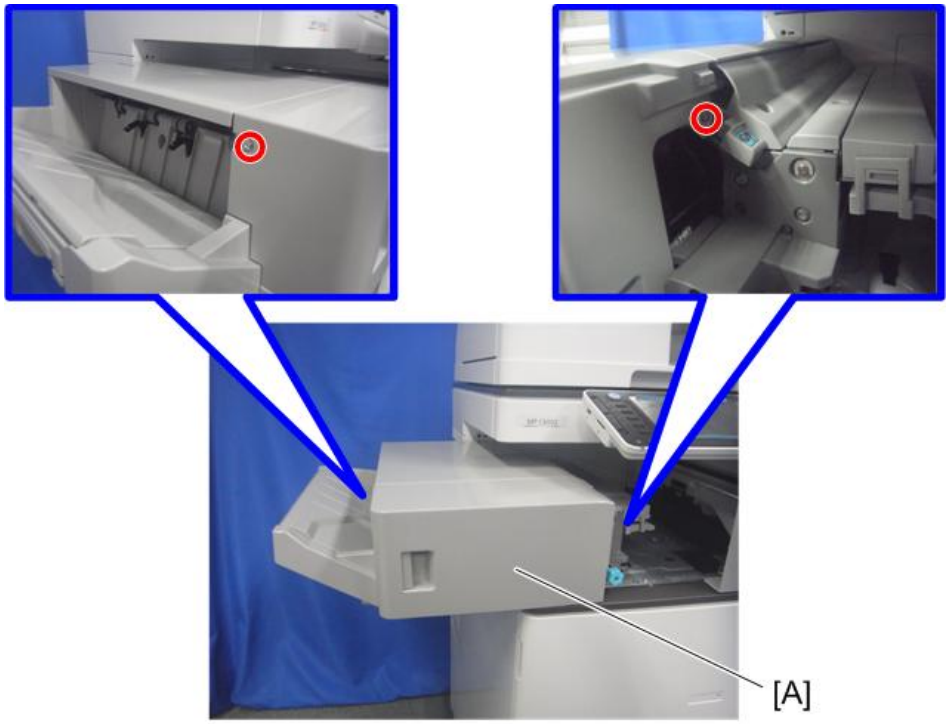
1.2 FINISHER FRONT COVER

1. **Pull the finisher [A]**



d1462876

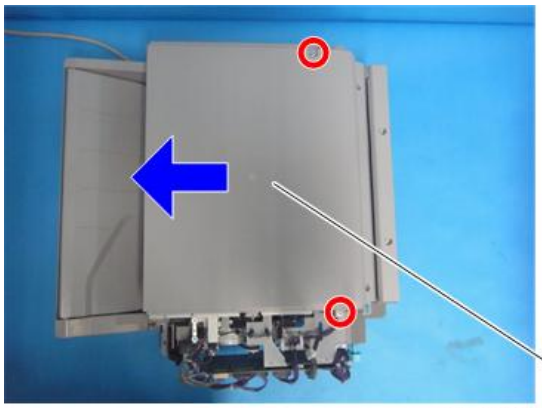
2. **Finisher front cover [A] (×2)**



d1462877

1.3 FINISHER UPPER COVER

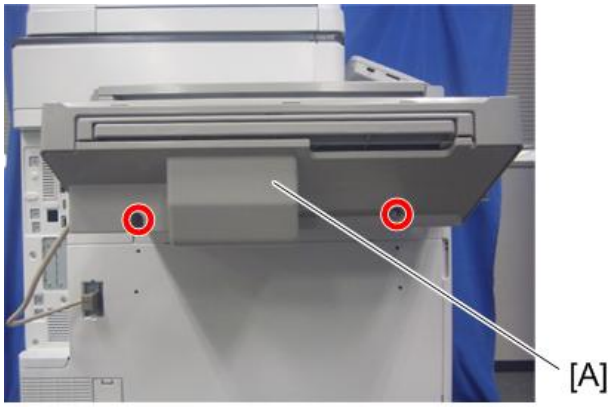
1. **Finisher (☛page 1 "Inner Finisher")**
2. **Finisher front cover (☛page 3)**
3. **Finisher upper cover [A] (×2)**



d1462878

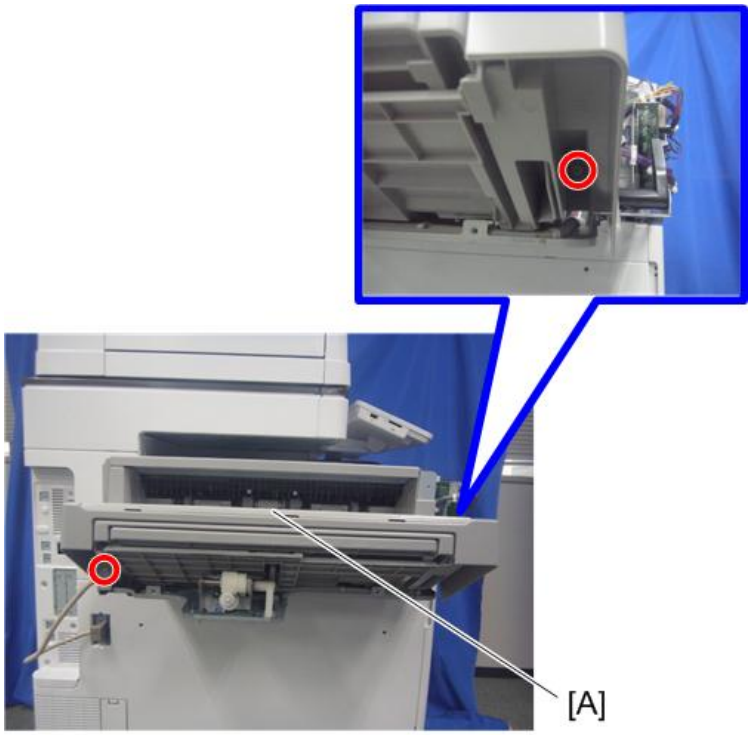
1.4 PAPER EXIT TRAY

1. **Finisher front cover (☛page 3)**
2. **Left lower cover [A] (×2)**



d1462879

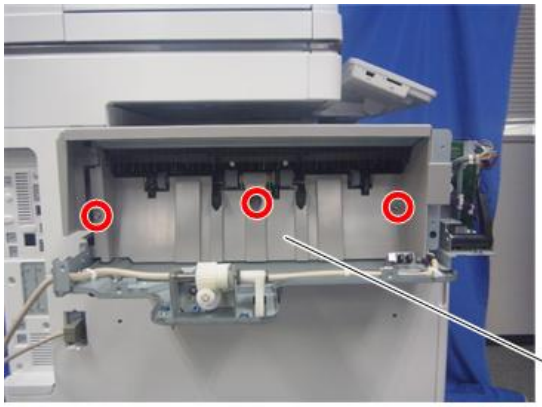
3. **Paper exit tray [A] (×2)**



d1462880

1.5 PAPER EXIT COVER

1. **Paper exit tray (☛page 5)**
2. **Paper exit cover [A] (×3,×3,×2)**



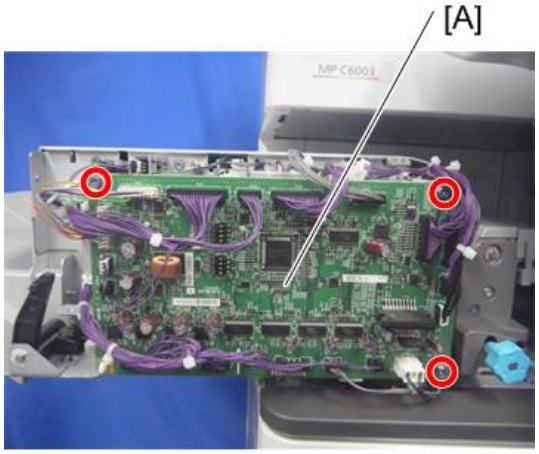
d1462881

1.6 CONTROL BOARD

⚠CAUTION

- When a control board is replaced, use the same DIP switch settings as those of the control board before replacement.

1. **Finisher front cover (☛page 3)**
2. **Control board [A] (×3, ×17)**



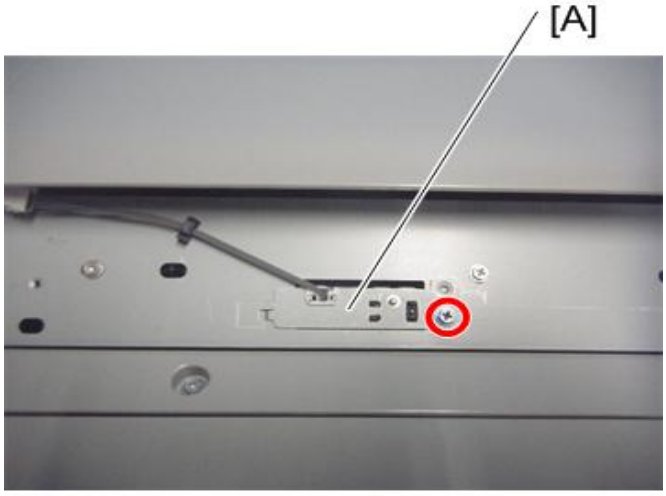
d1462882

1.7 ENTRANCE SENSOR

1. **Finisher (☛page 1 "Inner Finisher")**
2. **Open/Close upper cover [A] (×2)**

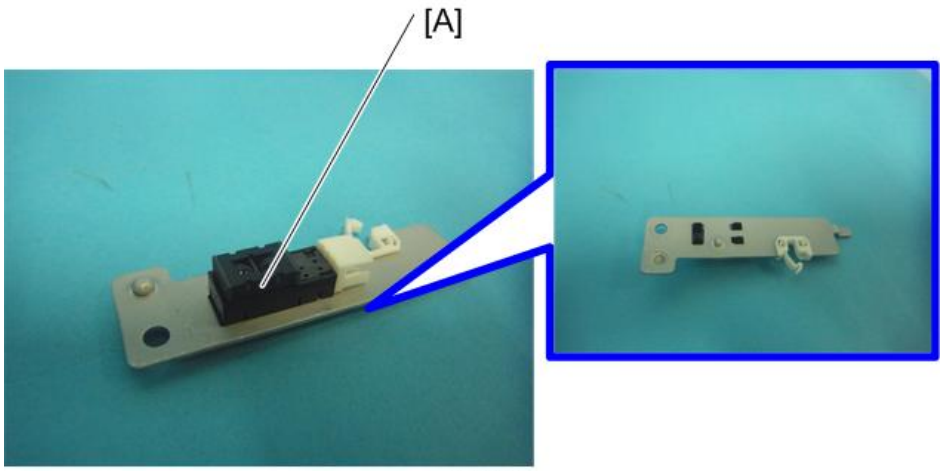
d1462883

3. **Entrance sensor unit [A] (×1, ×1)**



d1462884

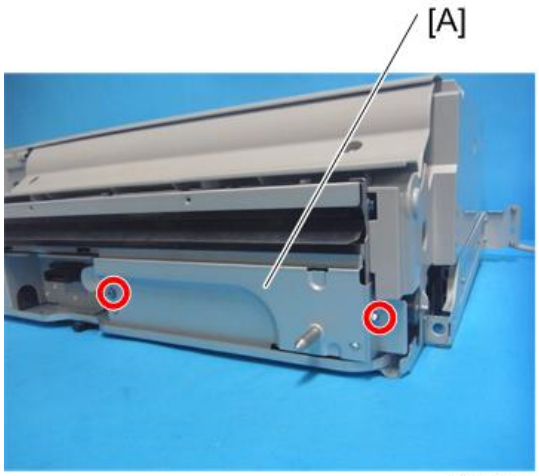
4. Entrance sensor [A]



d1462885

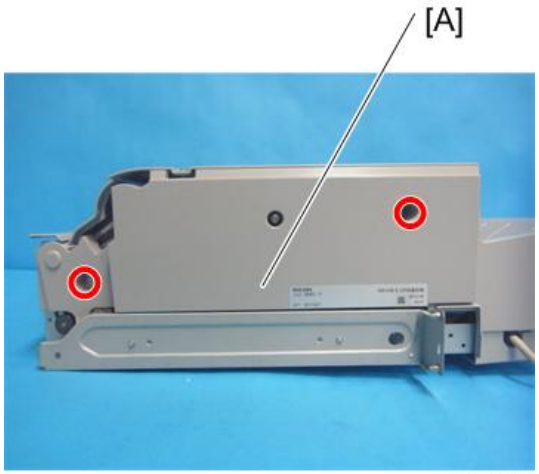
1.8 ENTRANCE MOTOR

1. **Finisher (☛page 1 "Inner Finisher")**
2. **Finisher right rear bracket [A] (×2)**



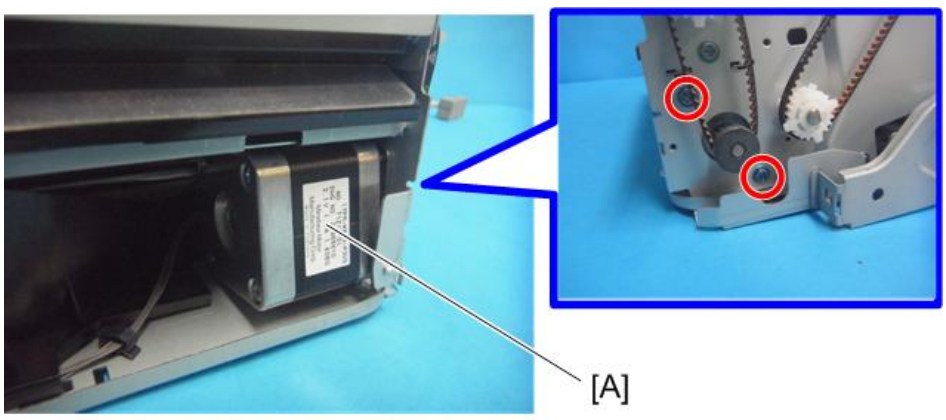
d1462886

3. **Finisher rear cover [A] (×2)**



d1462887

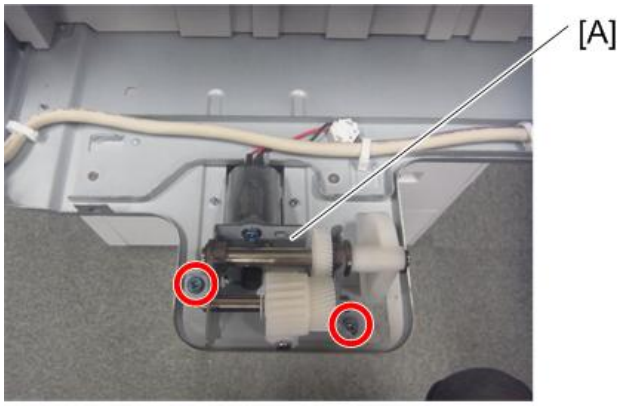
4. **Entrance motor [A] (×2, ×1)**



d1462888

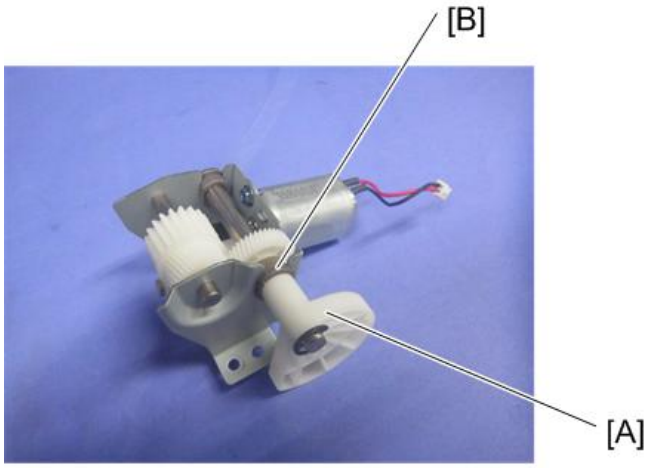
1.9 TRAY LIFT MOTOR

1. **Paper exit tray (☛ page 5)**
2. **Tray lift motor unit [A] (×2, ×1, ×1)**



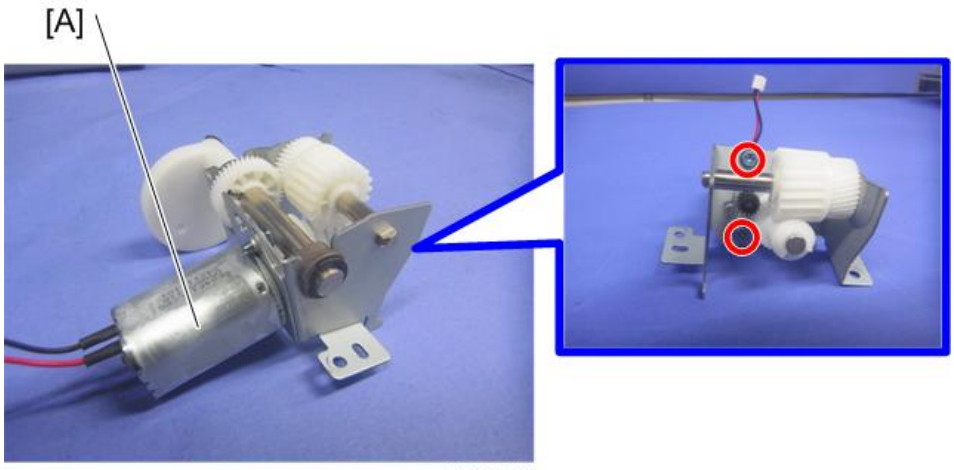
d1462889

3. **Cam [A], shaft [B] (×1)**



d1462890

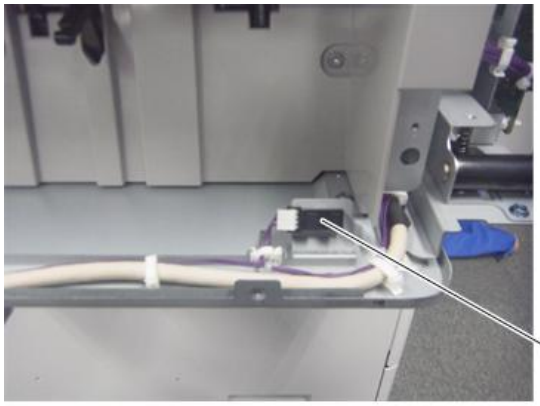
4. **Tray lift motor [A] (×2)**



d1462891

1.10 PAPER EXIT FULL SENSOR

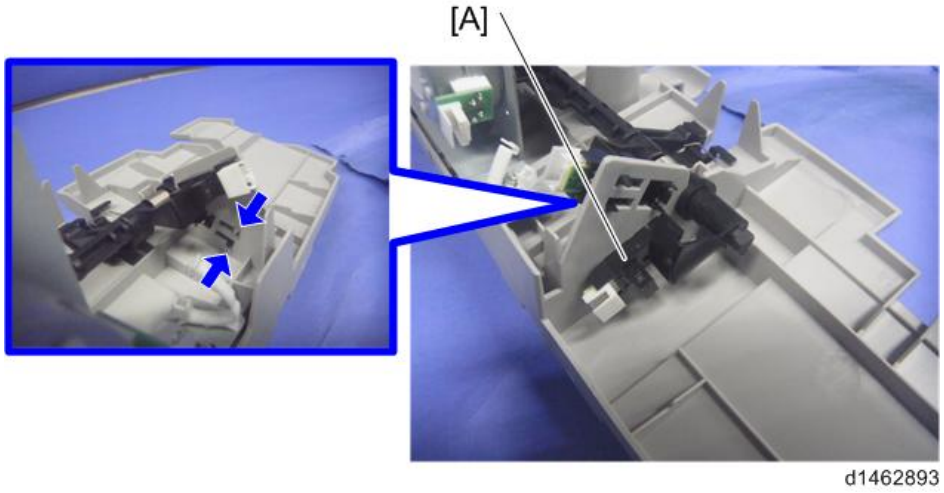
1. **Paper exit tray (☛page 5)**
2. **Paper exit full sensor [A] (×1, ×1)**



d1462892

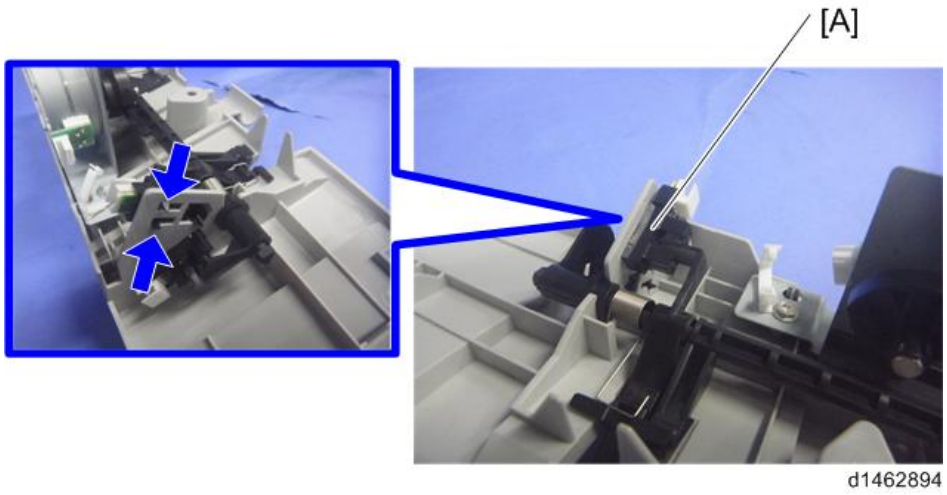
1.11 PAPER BAIL HOME POSITION SENSOR

1. **Paper exit cover (☛ page 6)**
2. **Paper bail home position sensor [A]**



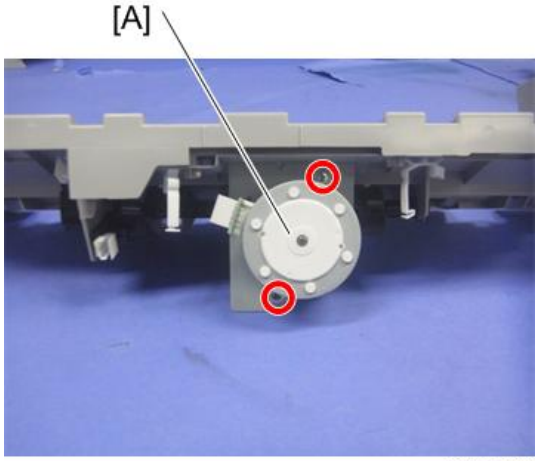
1.12 PAPER SURFACE DETECTION SENSOR

1. **Paper exit cover (☛ page 6)**
2. **Paper surface detection sensor [A]**



1.13 PAPER BAIL MOTOR

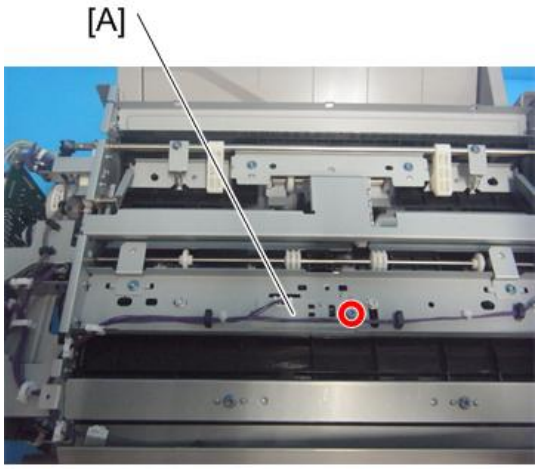
1. **Paper exit cover(☛ page 6)**
2. **Paper bail motor [A] (×2, ×1)**



d1462895

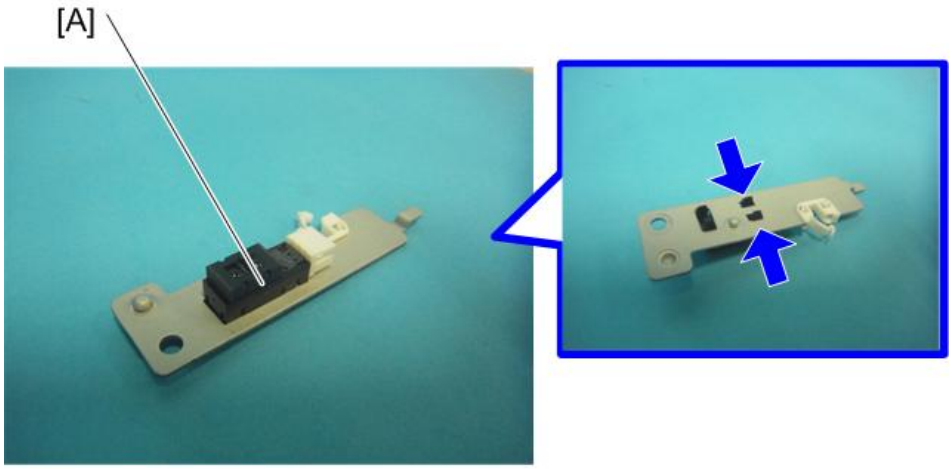
1.14 TRANSPORT SENSOR

1. **Upper cover (☛page 4 "Finisher Upper Cover")**
2. **Transport sensor unit [A] (×1, ×1, ×1)**



d1462896

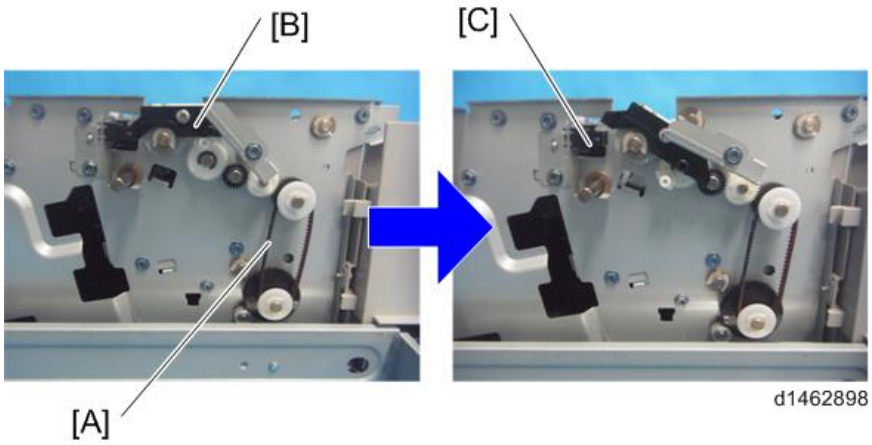
3. **Transport sensor [A]**



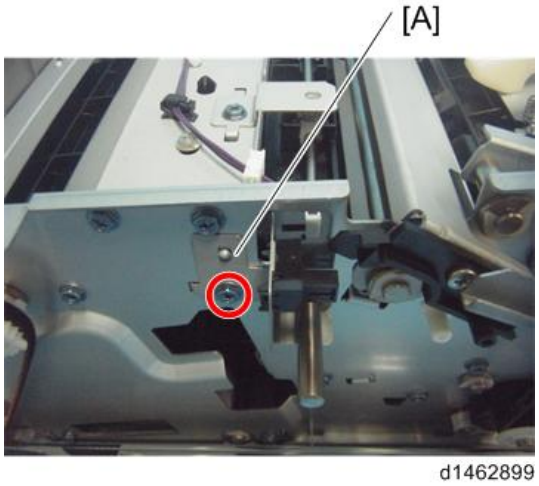
d1462897

1.15 STRIKE ROLLER HOME POSITION SENSOR

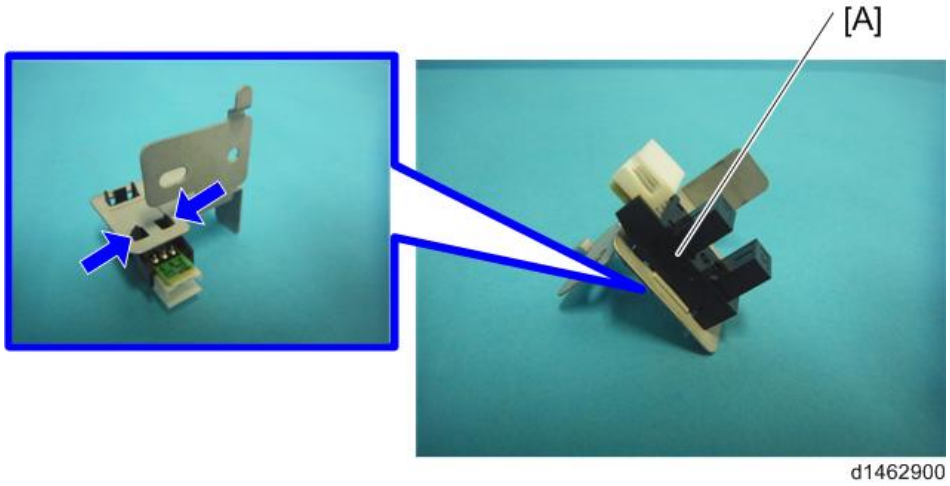
1. **Upper cover (☛page 4 "Finisher Upper Cover")**
2. **Rear cover (☛page 10 "Entrance Motor")**
3. **Rotate the timing belt [A], and release the strike roller arm unit [B] from the strike roller HP sensor [C].**



4. **Strike roller home position sensor unit [A] (×1, ×1, ×1)**

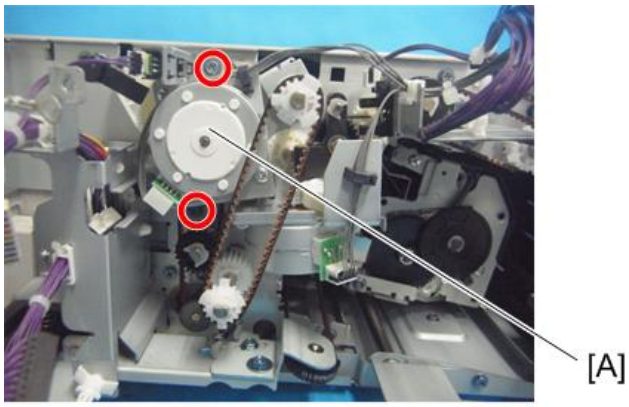


5. Strike roller home position sensor [A]



1.16 PAPER EXIT GUIDE PLATE MOTOR

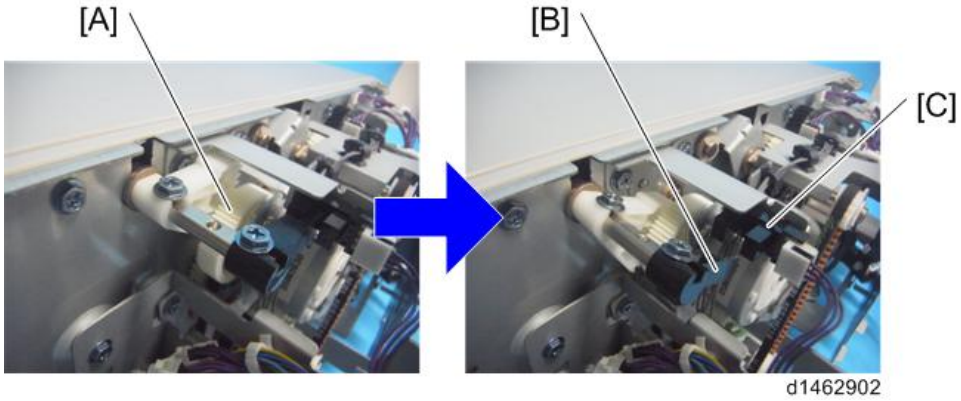
1. **Control board (☛page 7)**
2. **Paper exit guide plate motor [A] (×2, ×1, ×3)**



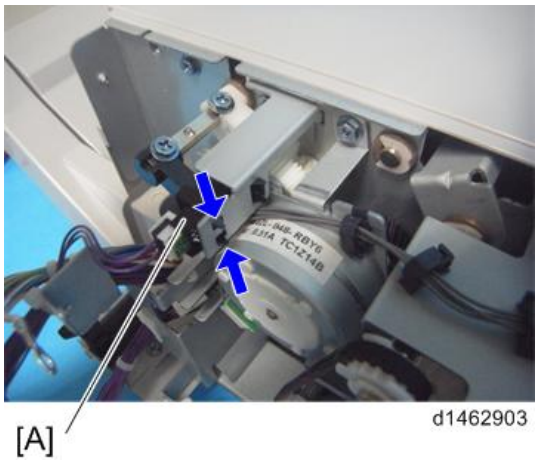
d1462901

1.17 PAPER EXIT GUIDE PLATE HOME POSITION SENSOR

1. **Control board (☛page 7)**
2. **Rotate the paper output guide plate gear [A] counterclockwise, and release the paper output guide plate [B] from the paper output guide plate HP sensor [C].**

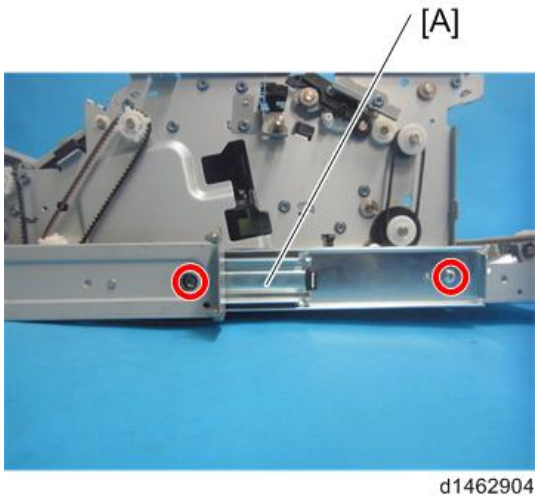


3. **Paper exit guide plate home position sensor [A] (×1)**



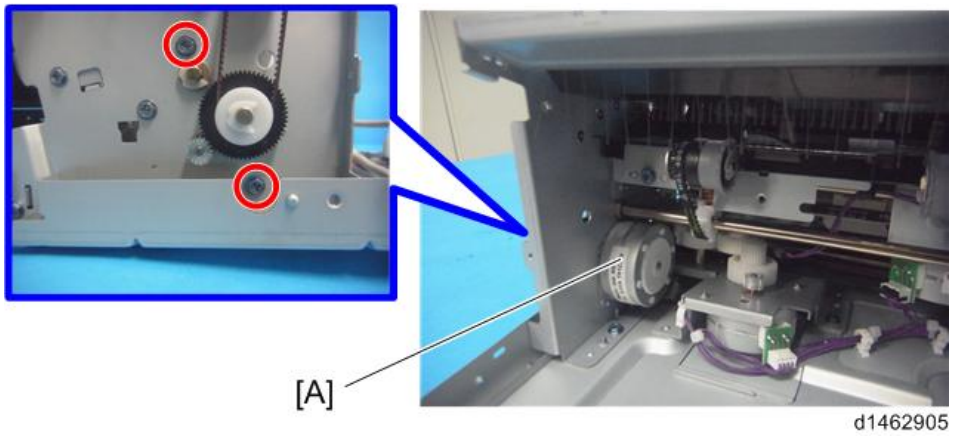
1.18 STRIKE ROLLER MOTOR

1. **Paper exit cover (☛page 6)**
2. **Rear cover (☛page 10 "Entrance Motor")**
3. **Rear rail [A] (×2)**



d1462904

4. **Strike roller motor [A] (×2, ×1)**

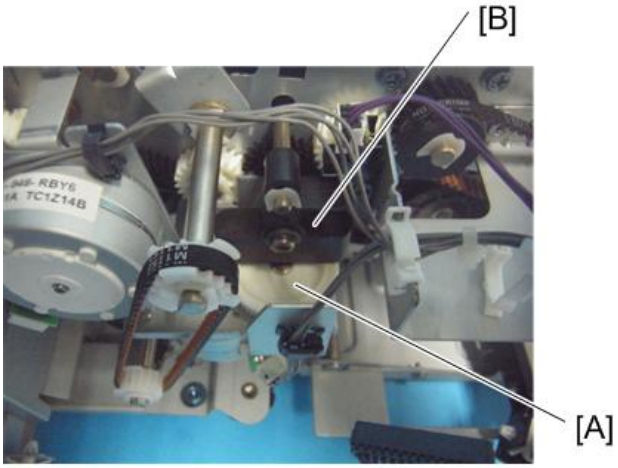


d1462905

1.19 SHIFT MOTOR

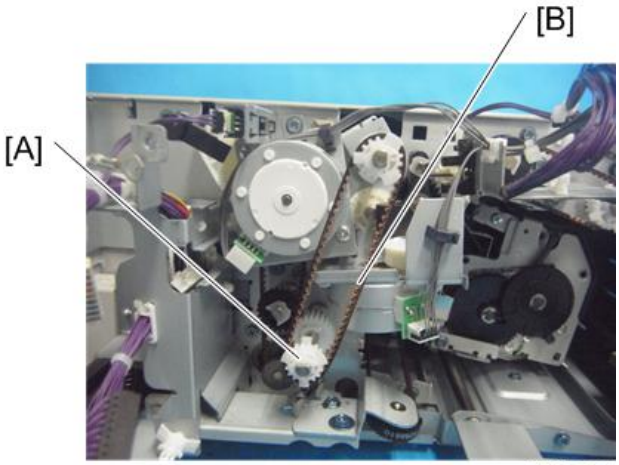
⚠CAUTION

- After attaching, rotate the knob, and check that all gear trains can rotate.
- After attachment, when the cam is rotated, check that the link interlocks.



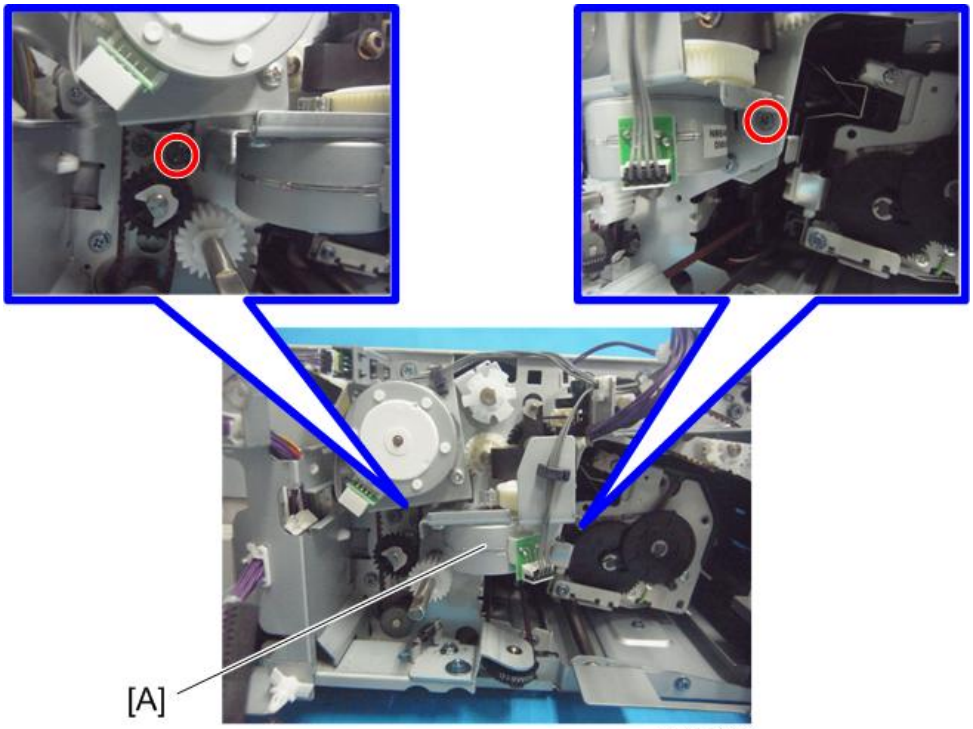
d1462909

1. **Open/Close upper cover (☛page 4 "Finisher Upper Cover")**
2. **Control board bracket (☛ page 7 "Control Board")**
3. **Pulley [A], Timing belt [B] (×1)**

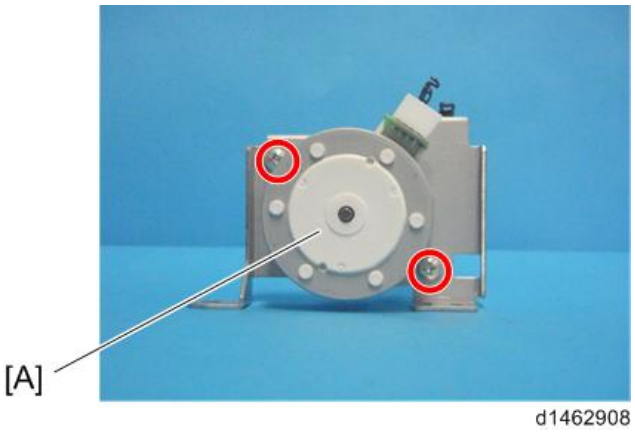


d1462906

4. **Shift motor unit [A] (×2, ×1, ×1)**

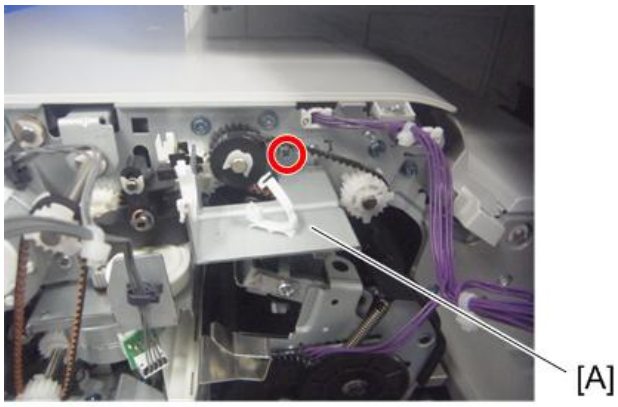


5. **Shift motor [A] (×2)**



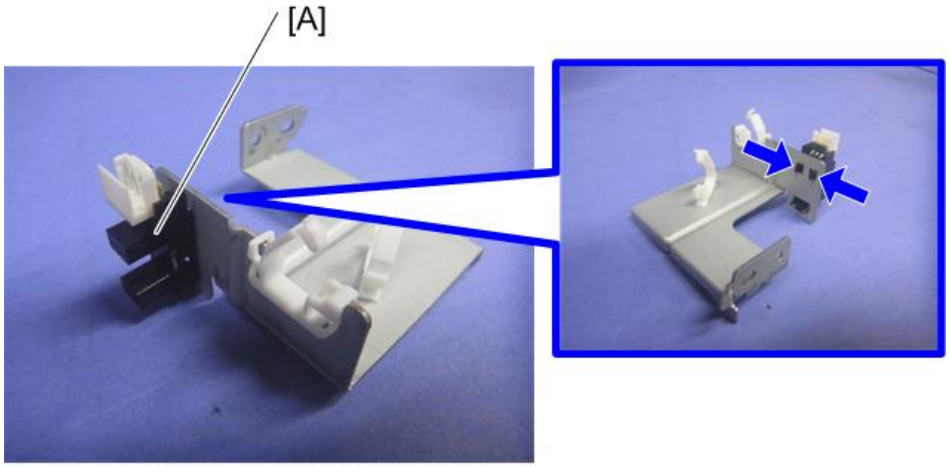
1.20 SHIFT ROLLER HOME POSITION SENSOR

1. **Control board bracket (☛page 7 "Control Board")**
2. **Shift roller home position sensor unit [A] (×1, ×2, ×1)**



d1462910

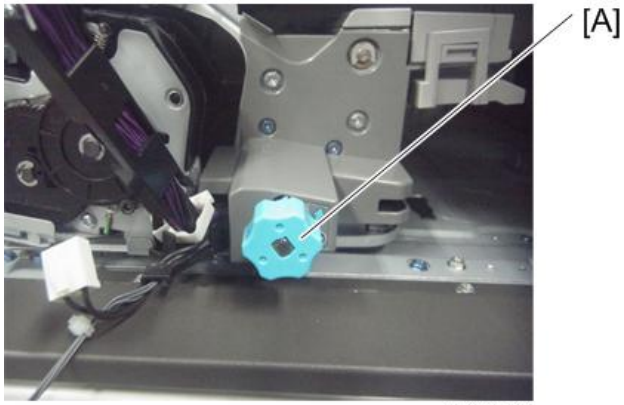
3. **Shift roller home position sensor [A]**



d1462911

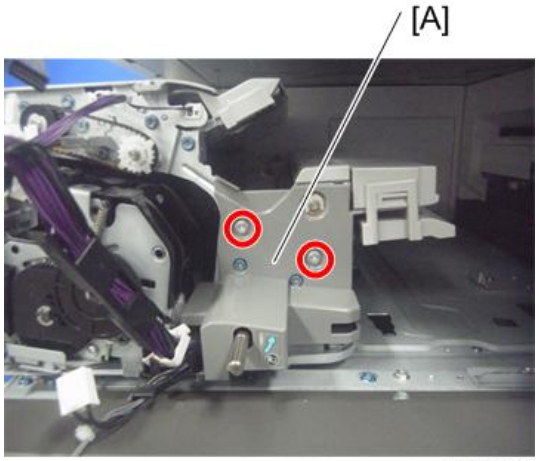
1.21 STAPLER HOME POSITION SENSOR

1. **Control board bracket (☛page 7 "Control Board")**
2. **Open/Close upper cover (☛page 4 "Finisher Upper Cover")**
3. **Knob [A]**



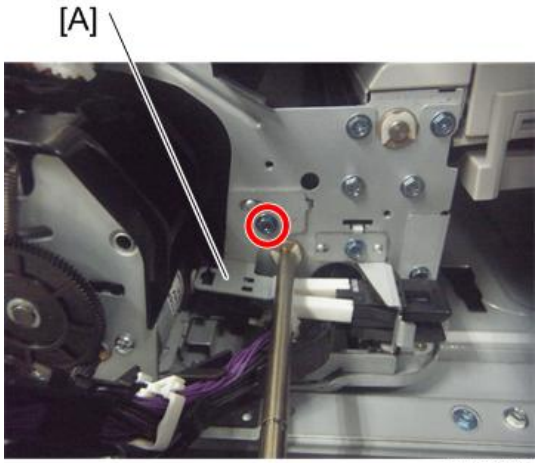
d1462912

4. **Entrance cover [A] (×2)**



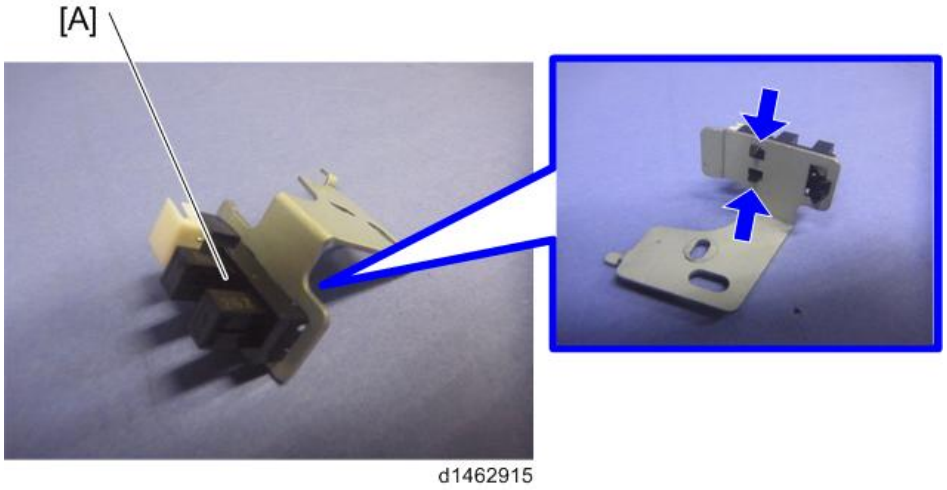
d1462913

5. **Stapler home position sensor unit [A] (×1, ×1)**



d1462914

6. **Stapler home position sensor [A]**



d1462915

Note

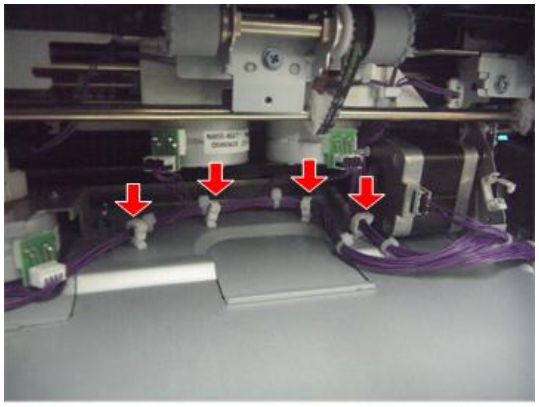
- If it is difficult to remove and attach, insert the stapler unit into the rear.

1.22 STAPLER DISPLACEMENT MOTOR

⚠CAUTION

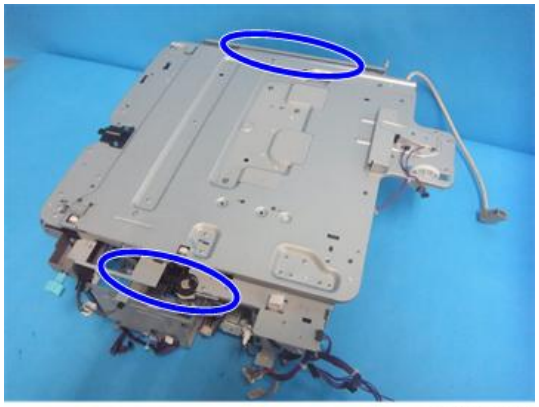
- When the finisher is inverted, be careful not to deform the frame.

1. **Paper exit cover (☛page 6)**
2. **Clamps (4)**



d1462916

3. **Upside down.**

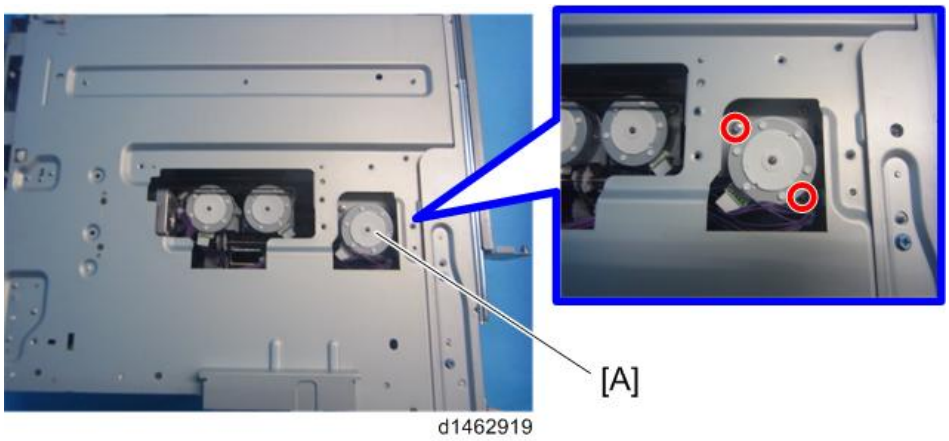


d1462917

4. **Base cover [A] (×3)**

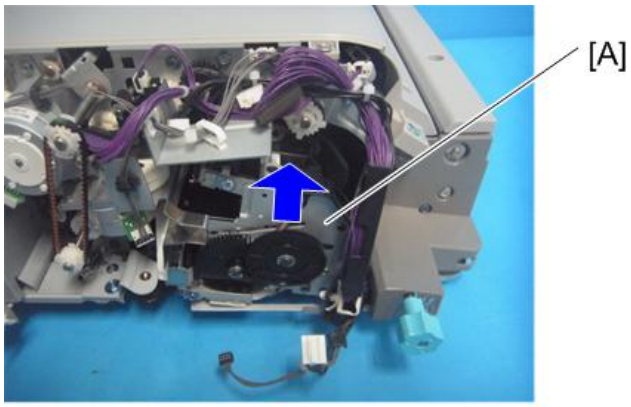
d1462918

5. Stapler displacement motor [A](×2, ×1)



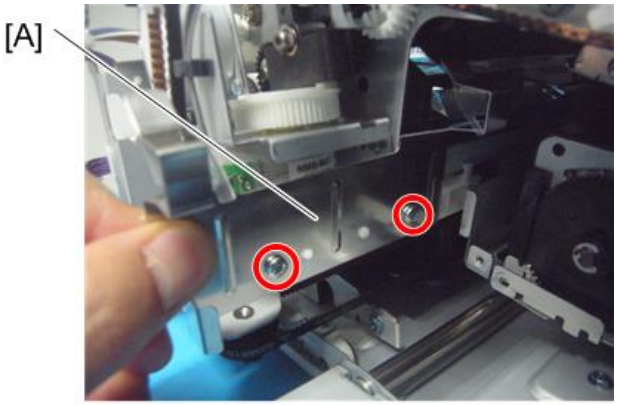
1.23 STAPLER UNIT

1. Control board bracket (☛ page 7 "Control Board")
2. Insert the stapler unit [A] into the rear.



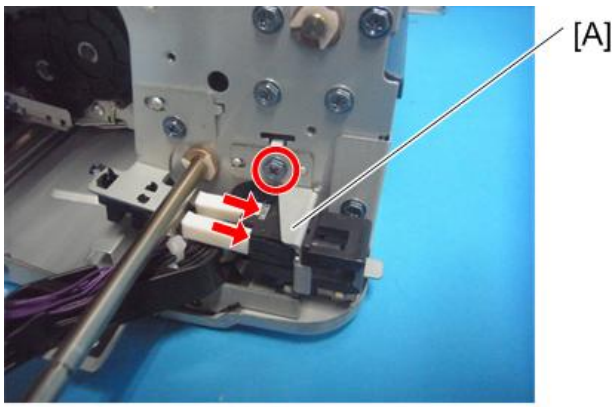
d1462920

3. Rear end reference fence [A] (×2)



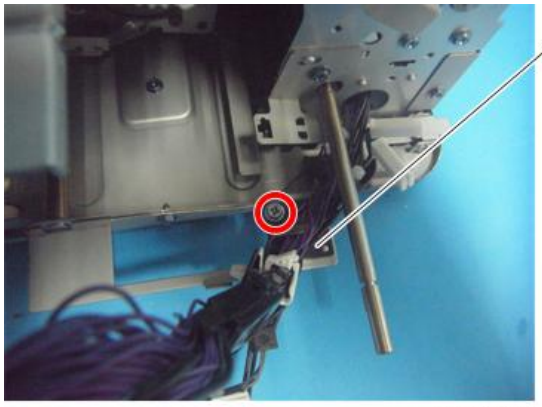
d1462921

4. Entrance cover (☛page 25 "Stapler Home Position Sensor")
5. Cover open/close switch unit [A] (×1, ×2)



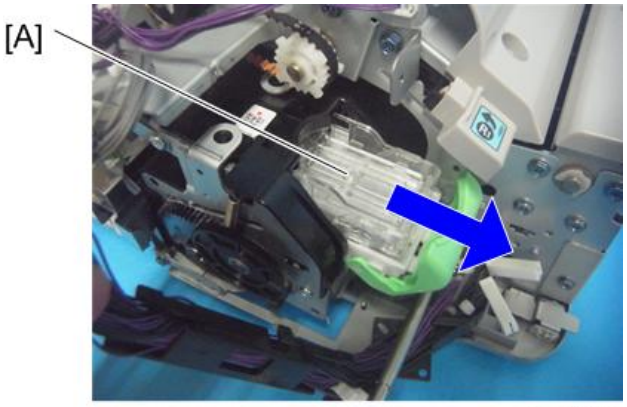
d1462922

6. Harness guide unit [A] (×1)



d1462923

7. **Move the stapler unit to the front, and remove the cartridge [A].**

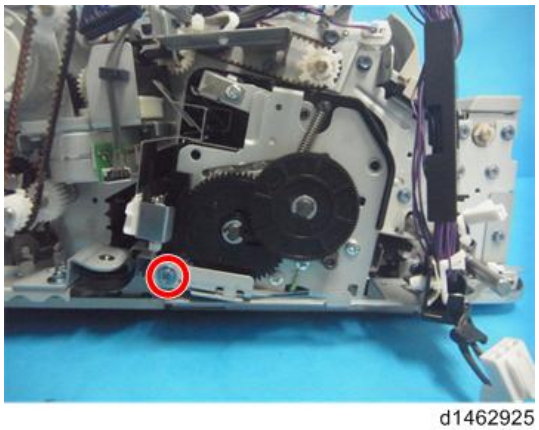


d1462924

Note

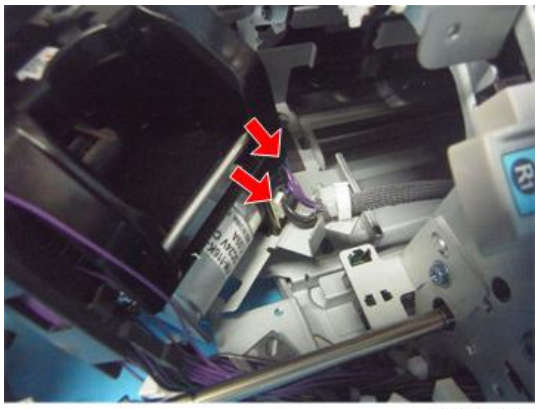
- During installation, install the cartridge last.

8. **Remove the unit fixing screw of the stapler unit (×1)**



d1462925

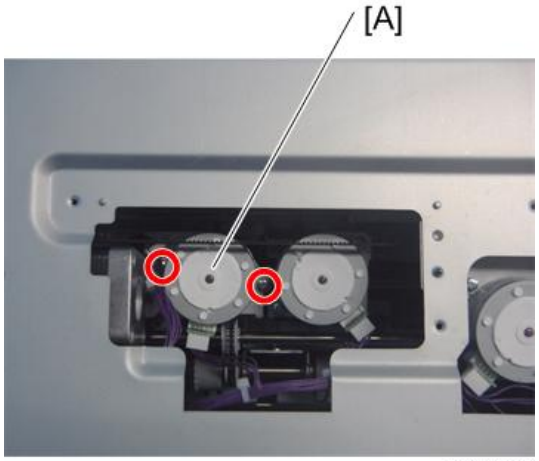
9. **Stapler unit [A] (×1, ×2)**



d1462926

1.24 JOGGER FENCE MOTOR (FRONT / REAR)

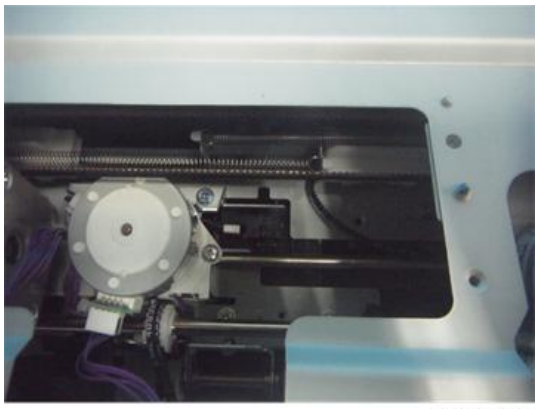
1. **Base cover (☛ page 27 "Stapler Displacement Motor")**
2. **Jogger fence motor (front) [A] (×2, ×1)**



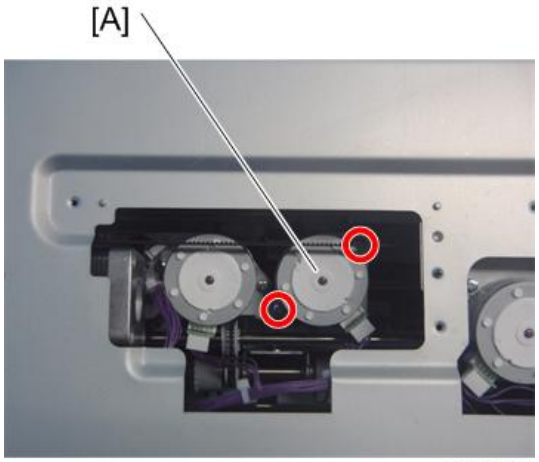
d1462927

Note

- During attachment, remove the jogger fence motor (rear) bracket [A], and check that the motor pulley has not separated from the timing belt.


d1462928

3. **Jogger fence motor (rear) [A] (×2, ×1)**



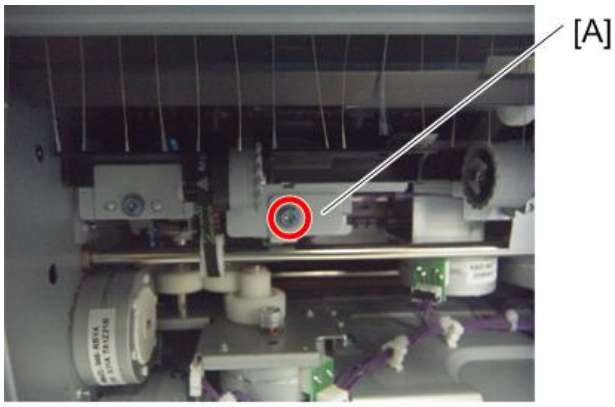
d1462929

Note

- During attachment, check that the motor pulley has not separated from the timing belt.

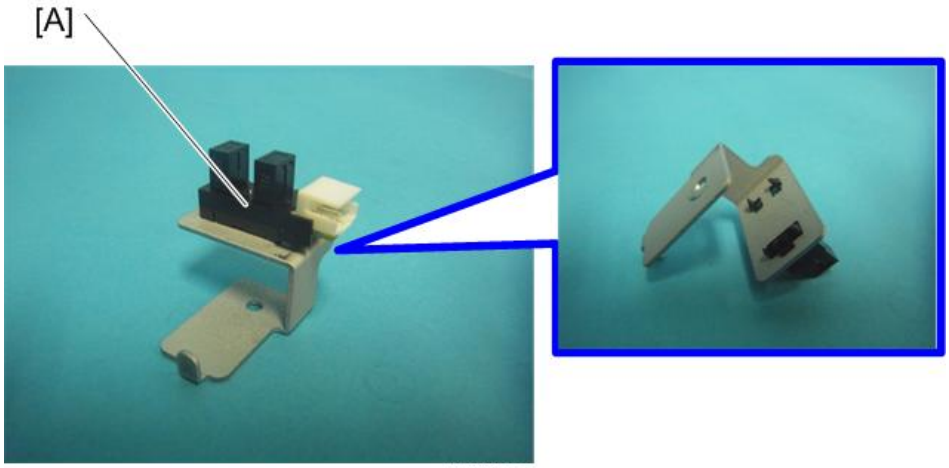
1.25 JOGGER FENCE HOME POSITION SENSOR (FRONT)

1. **Paper exit cover (☛ page 6)**
2. **Jogger fence home position sensor (front) unit [A] (×1, ×1, ×1)**



d1462930

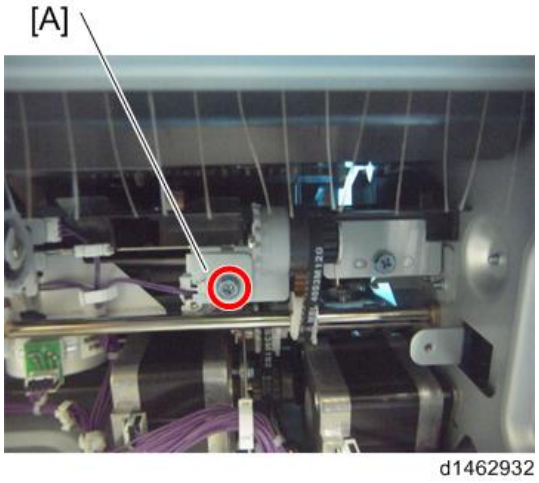
3. **Jogger fence home position sensor (front) [A]**



d1462931

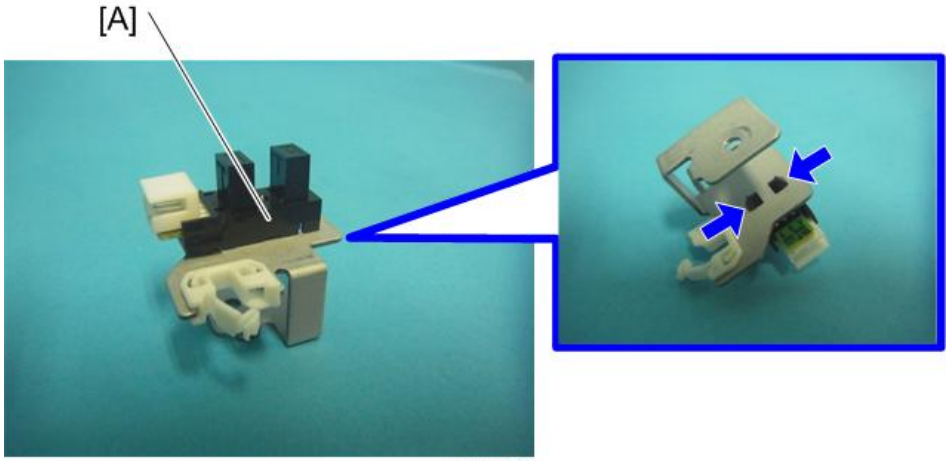
1.26 JOGGER FENCE HOME POSITION SENSOR (REAR)

1. **Paper exit cover (☛ page 6)**
2. **Jogger fence home position sensor (rear) unit [A] (×1, ×1)**



d1462932

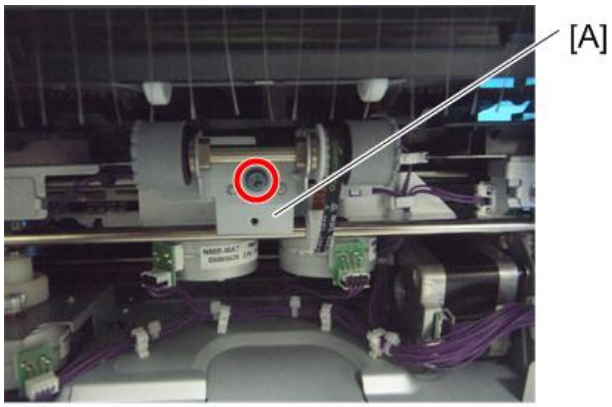
3. **Jogger fence home position sensor (rear) [A]**



d1462933

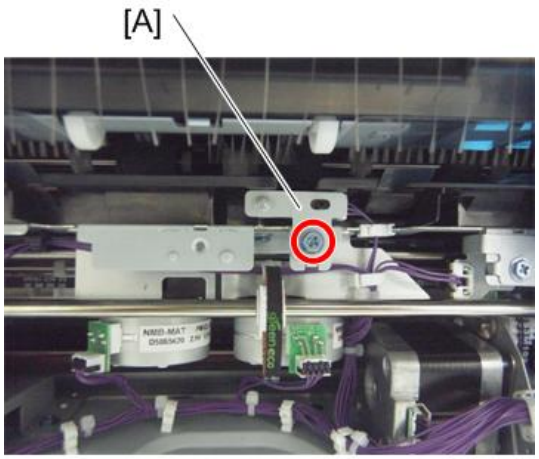
1.27 STAPLER TRAY JAM DETECTION SENSOR

1. **Paper exit cover (☛page 6)**
2. **Paper exit roller unit [A] (×1)**



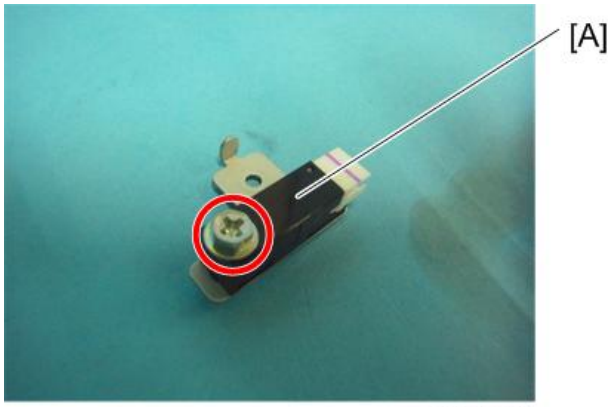
d1462934

3. **Stapler tray jam detection sensor unit [A] (×1, ×1, ×1)**



d1462935

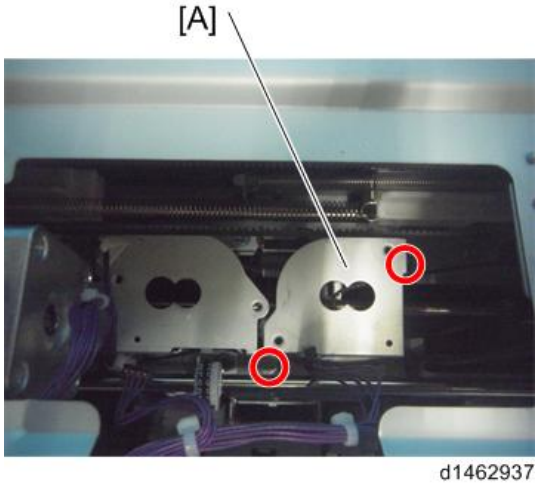
4. **Stapler tray jam detection sensor [A]**



d1462936

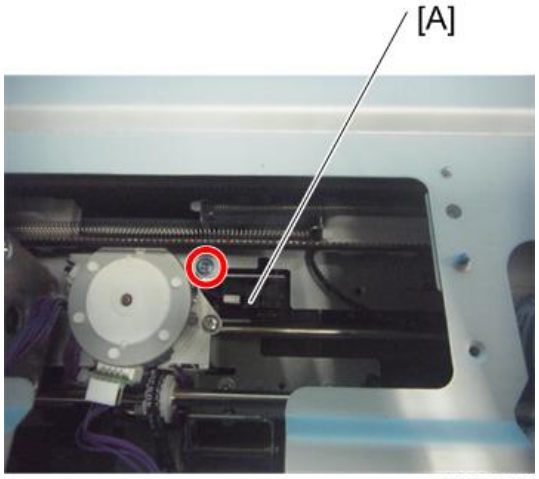
1.28 PAPER DETECTION SENSOR

1. **Jogger fence motor (rear) (☛page 32)**
2. **Jogger fence motor (rear) bracket [A] (×2, ×3)**



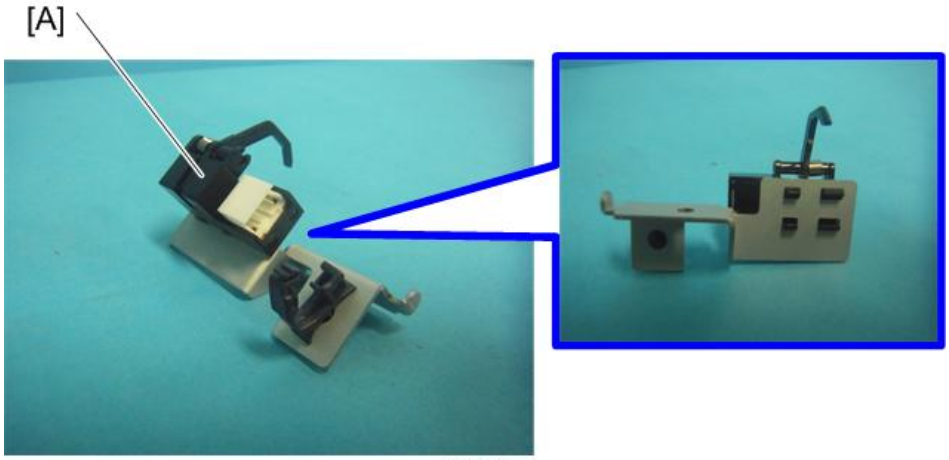
d1462937

3. **Paper detection sensor unit [A] (×2, ×1,×1)**



d1462938

4. Paper detection sensor [A]

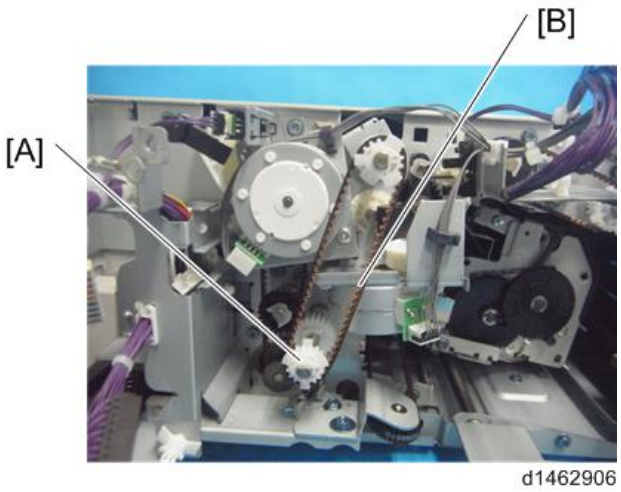


Note

- During attachment, stop the sensor actuator from being caught.

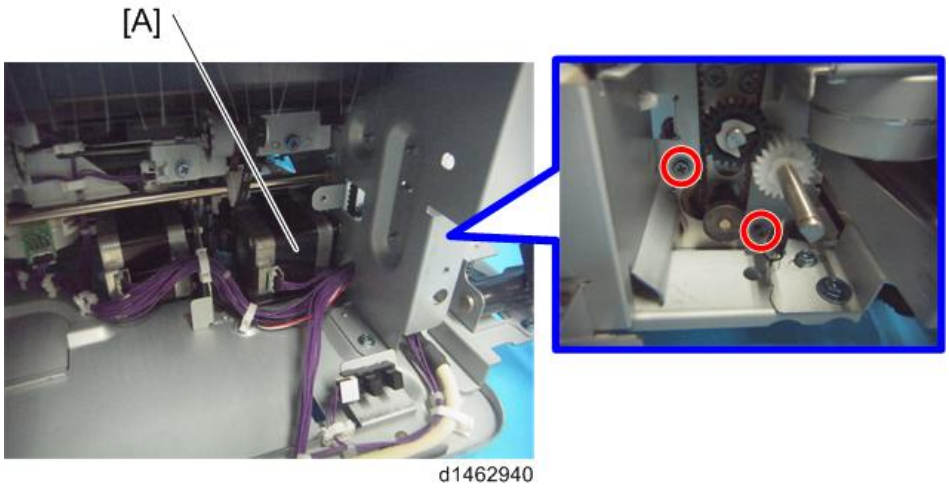
1.29 PAPER EXIT MOTOR (FRONT)

1. **Paper exit cover (☛page 6)**
2. **Control board (☛page 7)**
3. **Rear cover (☛page 10 "Entrance Motor")**
4. **Pulley [A], Timing belt [B]**



d1462906

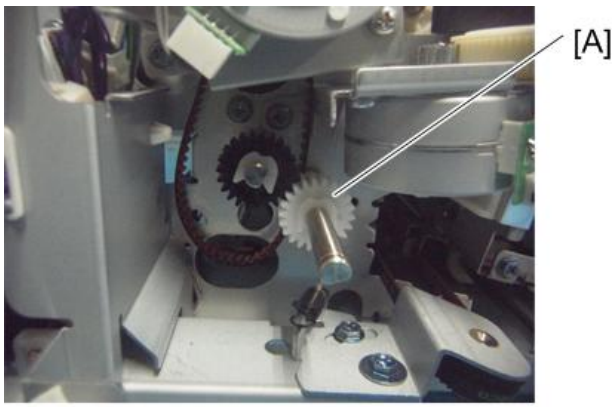
5. **Paper exit motor (front) [A] (×2, ×1, ×2)**



d1462940

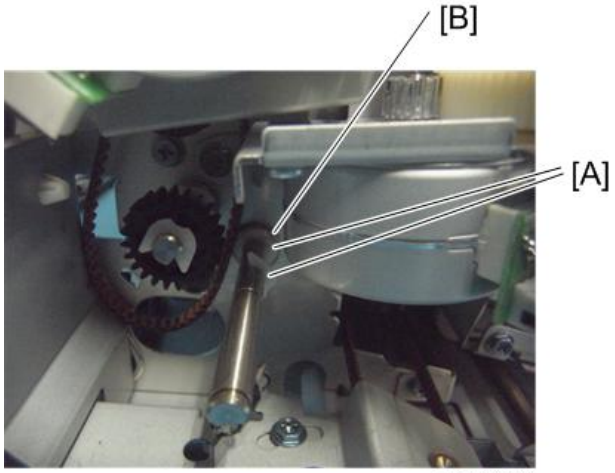
1.30 PAPER EXIT MOTOR (REAR)

1. **Paper exit motor (front) (☛page 39)**
2. **Control board bracket (☛page 7 "Control Board")**
3. **Gear [A] (×1)**



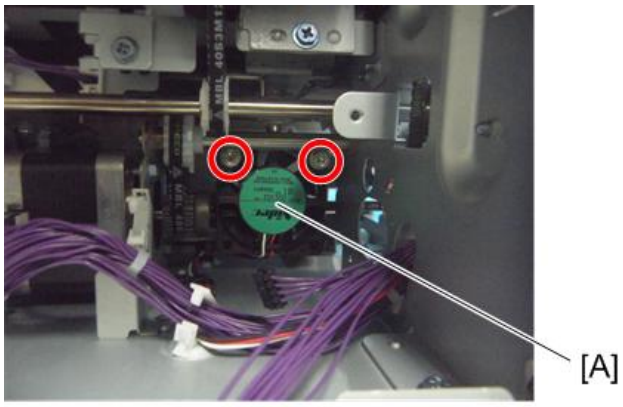
d1462941

4. **Clip ring [A] (2), Shaft bracket [B]**



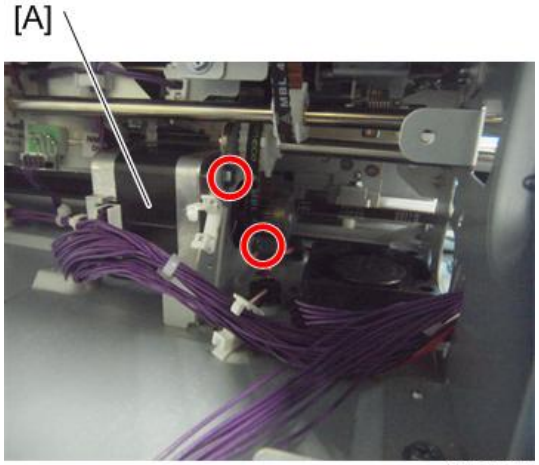
d1462942

5. **Remove the fan, fan defeat (×2)**



d1462943

6. Paper exit motor (rear) [A] (×2, ×1)



d1462944

D691

INTERNAL SHIFT TRAY SH3070

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

INTERNAL SHIFT TRAY SH3070 (D691)

TABLE OF CONTENTS

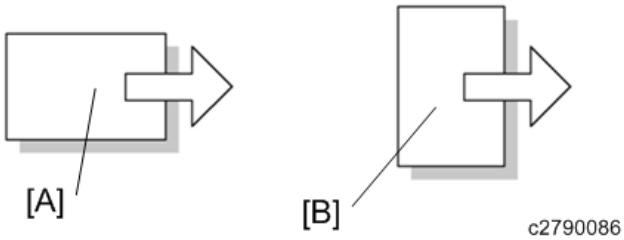
1. REPLACEMENT AND ADJUSTMENT 1
1.1 CONTROLLER BOARD 1
1.2 SHIFT MOTOR 2

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)
[B] Long Edge Feed (LEF)

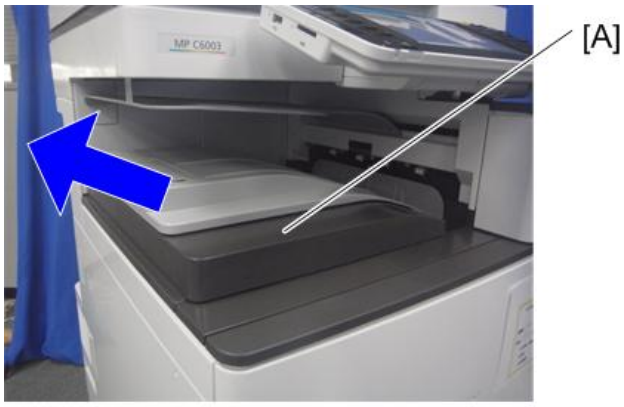
Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.
PostScript® is a registered trademark of Adobe Systems, Incorporated.
PCL® is a registered trademark of Hewlett-Packard Company.
Ethernet® is a registered trademark of Xerox Corporation.
PowerPC® is a registered trademark of International Business Machines Corporation.
Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

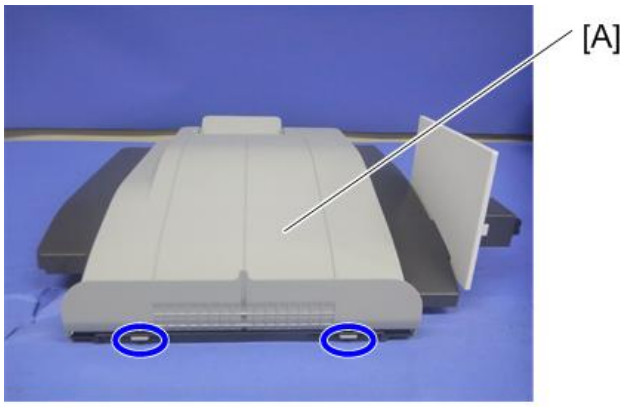
1.1 CONTROLLER BOARD

1. **Shift tray [A]**



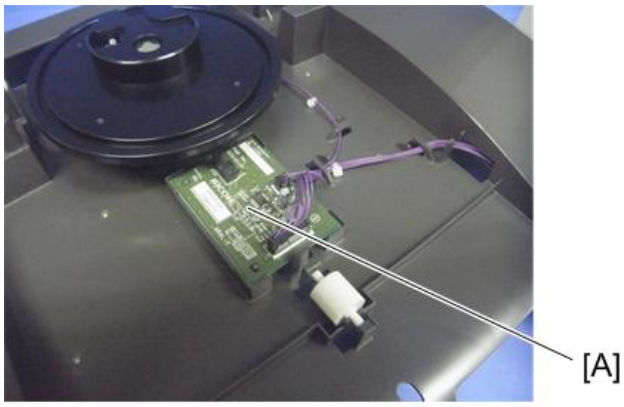
d1462810

2. **Upper tray [A]**



d1462811

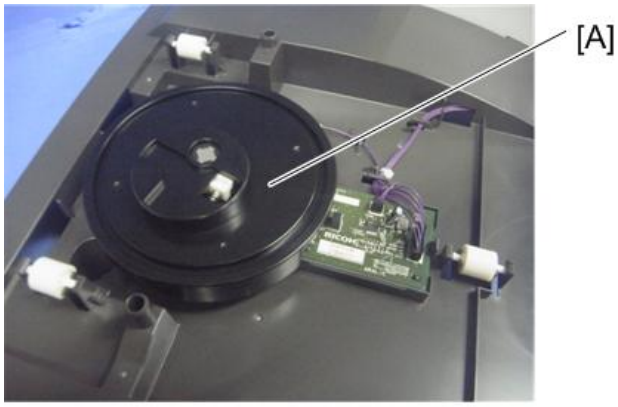
3. **Controller board [A]**



d1462812

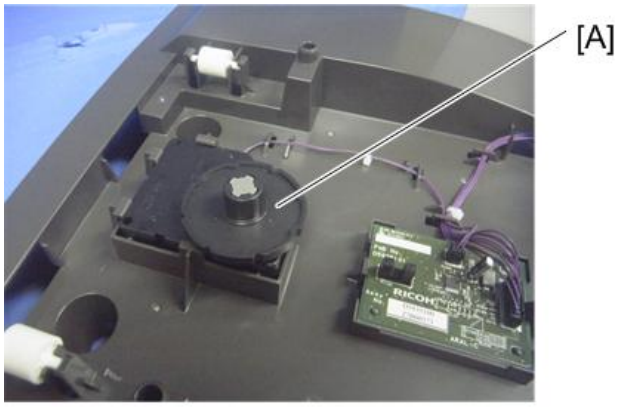
1.2 SHIFT MOTOR

1. **Upper tray (☛page 1 "Controller Board")**
2. **Interlocking plate [A]**



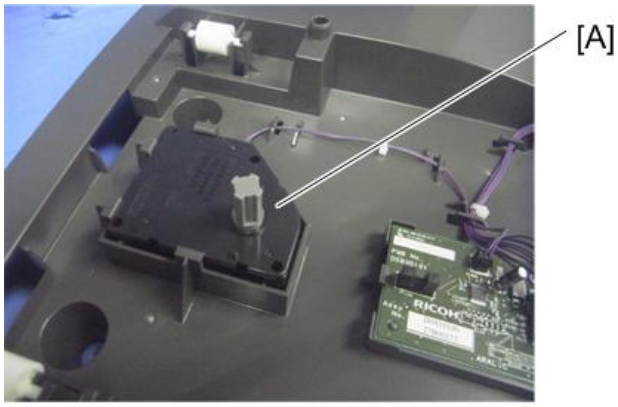
d1462813

3. **Rotating plate [A]**



d1462814

4. **Shift motor [A] (×1)**



d1462815

D692

1 BIN TRAY BN3110

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

1 BIN TRAY BN3110 (D692)

TABLE OF CONTENTS

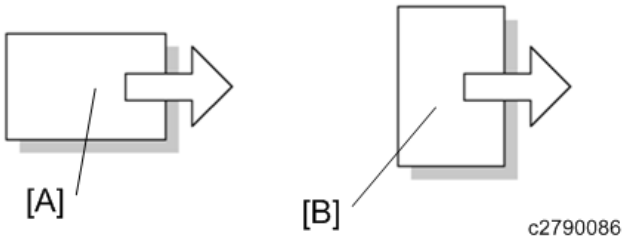
1. REPLACEMENT AND ADJUSTMENT 1
1.1 PAPER SENSOR.....1
1.2 CONTROLLER BOARD.....4

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

1.1 PAPER SENSOR

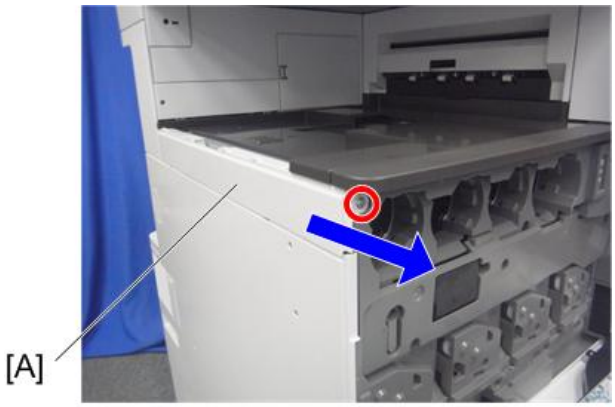
1. Open the duplex unit.
2. Power supply cover [A]

d1462021

3. Paper exit tray [A]

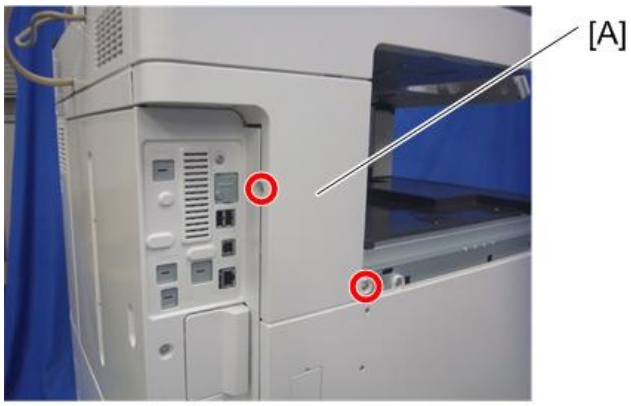
d1462023

4. Upper left cover [A] (×1)



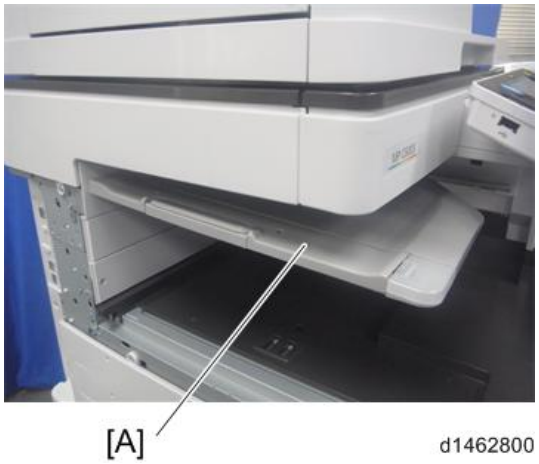
d1462008

5. Left rear cover [A] (×2)



d1462010

6. **Cover [A]**



d1462800

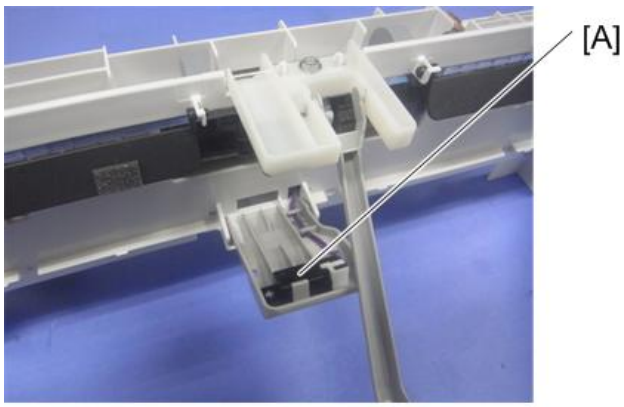
7. **1 bin tray [A] (×1)**

d1462801

8. **1 bin tray unit [A] (×1, ×2)**

d1462802

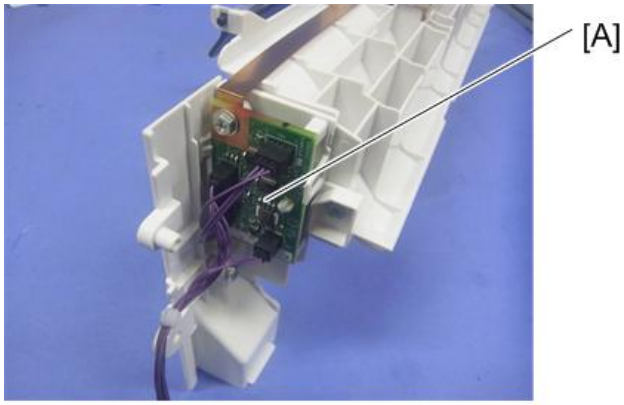
9. Paper sensor [A]



d1462803

1.2 CONTROLLER BOARD

1. 1 bin tray unit (☛page 1 "Paper Sensor")
2. Controller board [A] (×1, ×3)



d1462804

D693

PAPER FEED UNIT PB3160

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

PAPER FEED UNIT PB3160 (D693)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

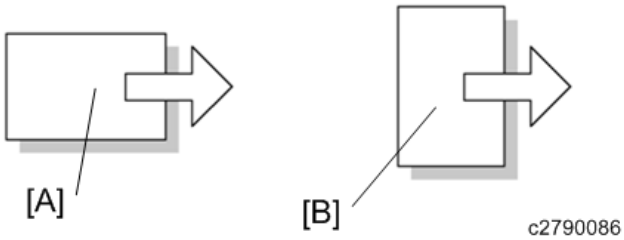
1.1 REAR COVER 1
1.2 TRAY LIFT MOTOR (UPPER) 2
1.3 TRAY LIFT MOTOR (LOWER) 3
1.4 TRANSPORT MOTOR.....4
1.5 PAPER FEED MOTOR 5
1.6 CONTROLLER BOARD.....6
1.7 TRANSPORT SENSOR, LIMIT SENSOR, PAPER END SENSOR, PAPER FEED SENSOR 7
1.8 2ND PAPER FEED UNIT.....10
1.9 1ST PAPER FEED UNIT 14
1.10 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER 16

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

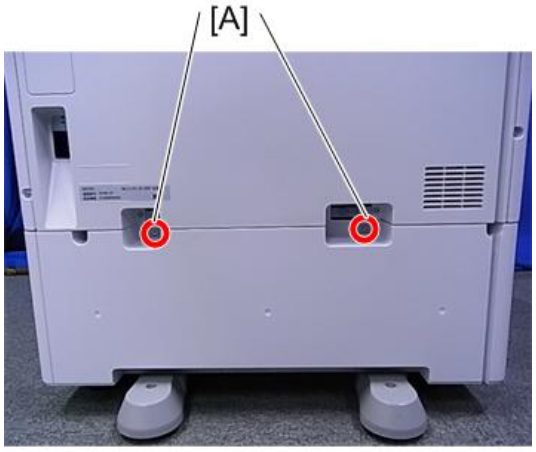
Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

1. REPLACEMENT AND ADJUSTMENT

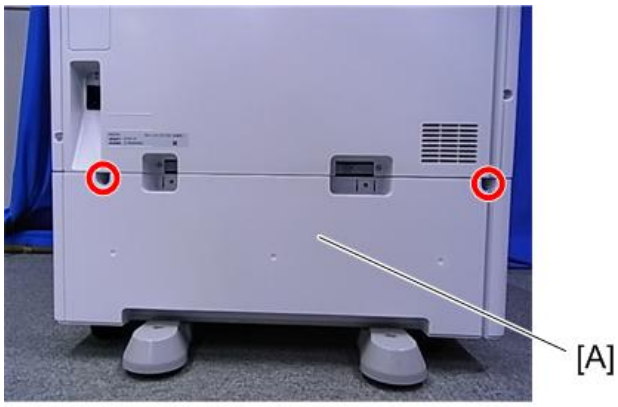
1.1 REAR COVER

1. **Consolidated bracket [A] (2,×2)**



d1462700

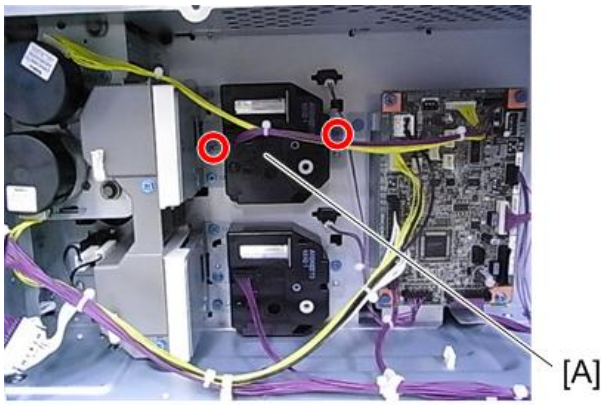
2. **Rear cover [A] (×2)**



d1462701

1.2 TRAY LIFT MOTOR (UPPER)

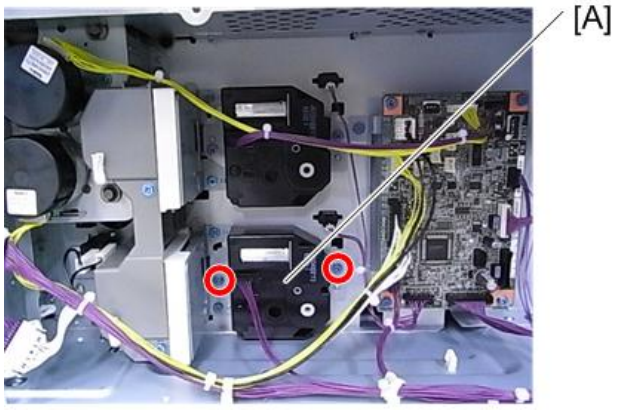
1. **Rear cover (☛ page 1)**
2. **Tray lift motor (upper) [A] (×2,×1)**



d1462702

1.3 TRAY LIFT MOTOR (LOWER)

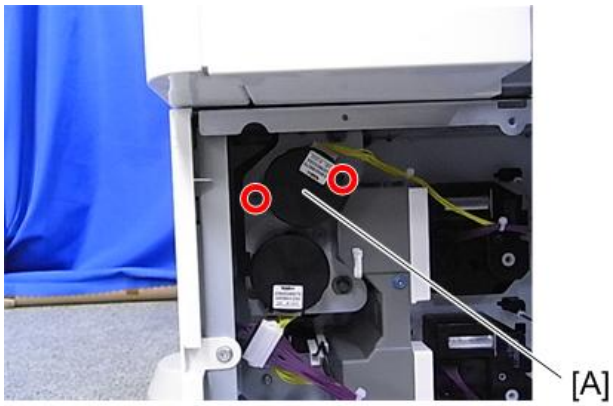
1. **Rear cover (☛page 1)**
2. **Tray lift motor (lower) [A] (×2,×1)**



d1462703

1.4 TRANSPORT MOTOR

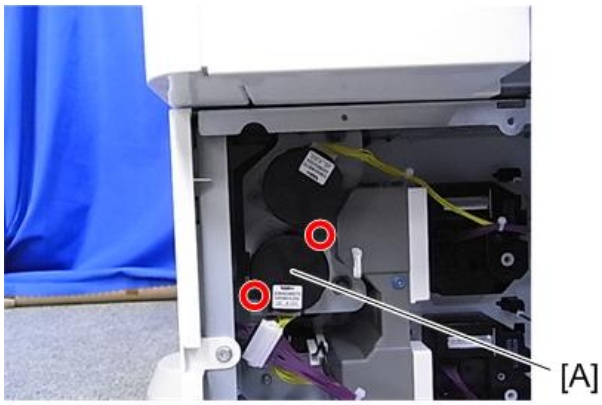
1. **Rear cover (☛page 1)**
2. **Transport motor [A] (×2,×1)**



d1462704

1.5 PAPER FEED MOTOR

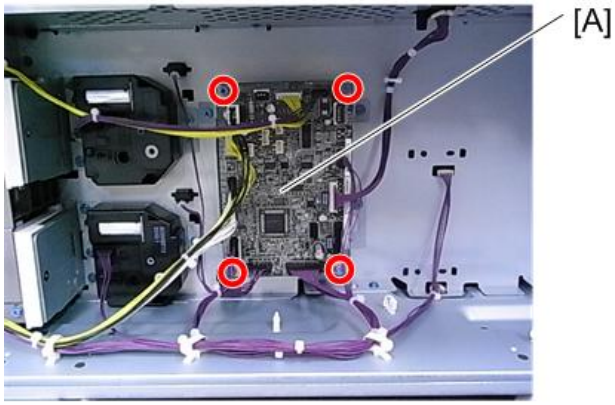
1. **Rear cover (☛ page 1)**
2. **Paper feed motor [A] (×2,×1)**



d1462705

1.6 CONTROLLER BOARD

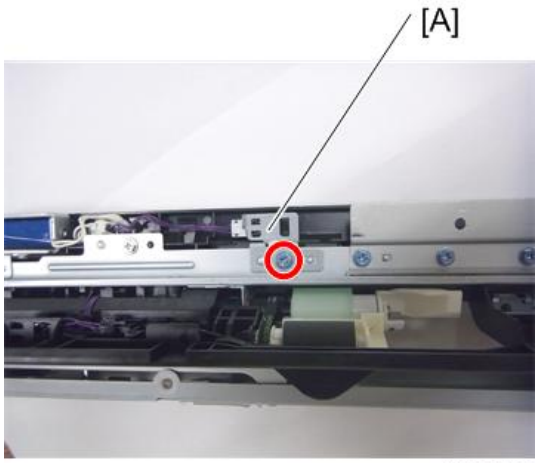
1. **Rear cover (☛ page 1)**
2. **Controller board [A] (×4,×10)**



d1462706

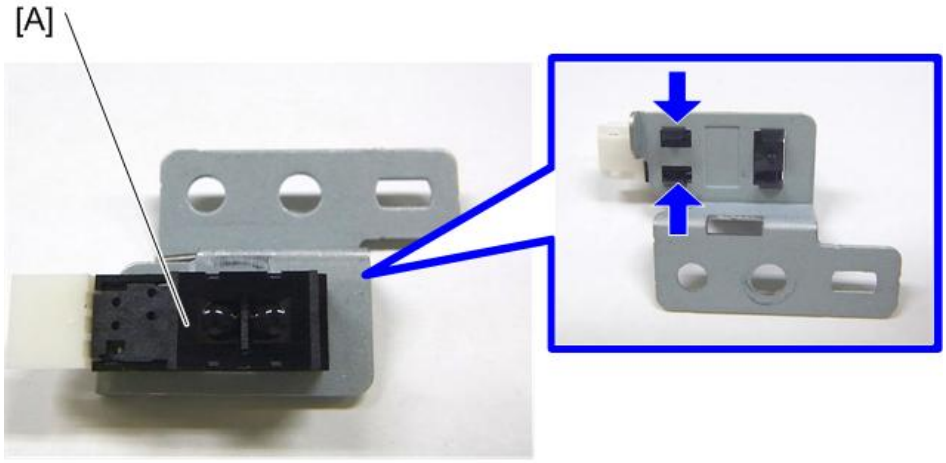
1.7 TRANSPORT SENSOR, LIMIT SENSOR, PAPER END SENSOR, PAPER FEED SENSOR

1. **Paper feed unit (☛page 10 , ☛page 14)**
2. **Transport sensor bracket [A] (×1)**



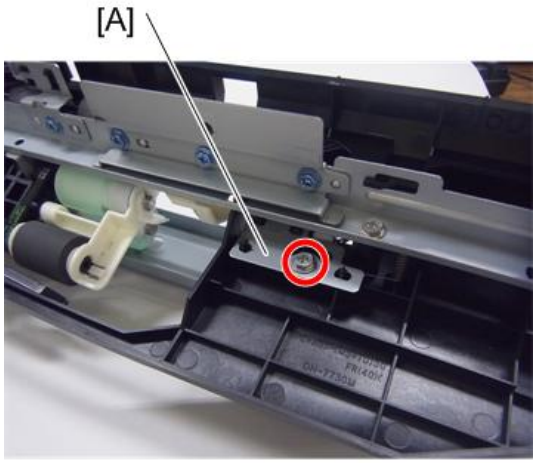
d1462196

3. **Transport sensor [A] (×1)**



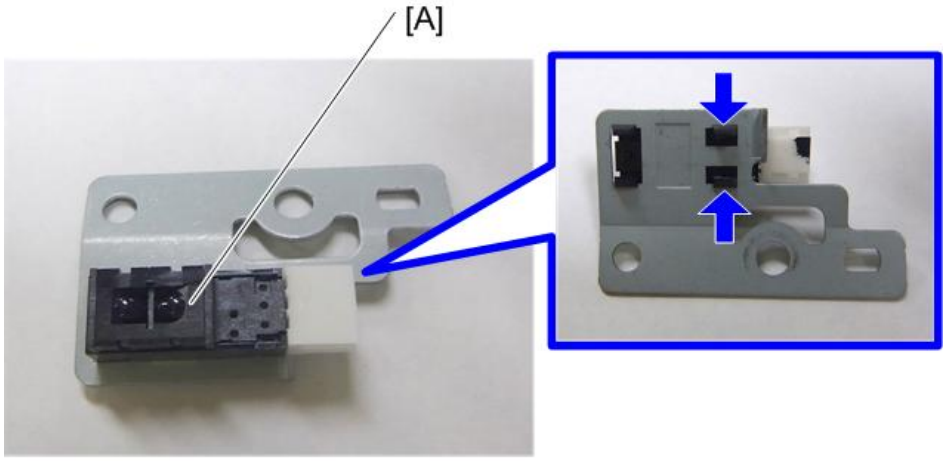
d1462197

4. **Paper feed sensor bracket [A] (×1)**



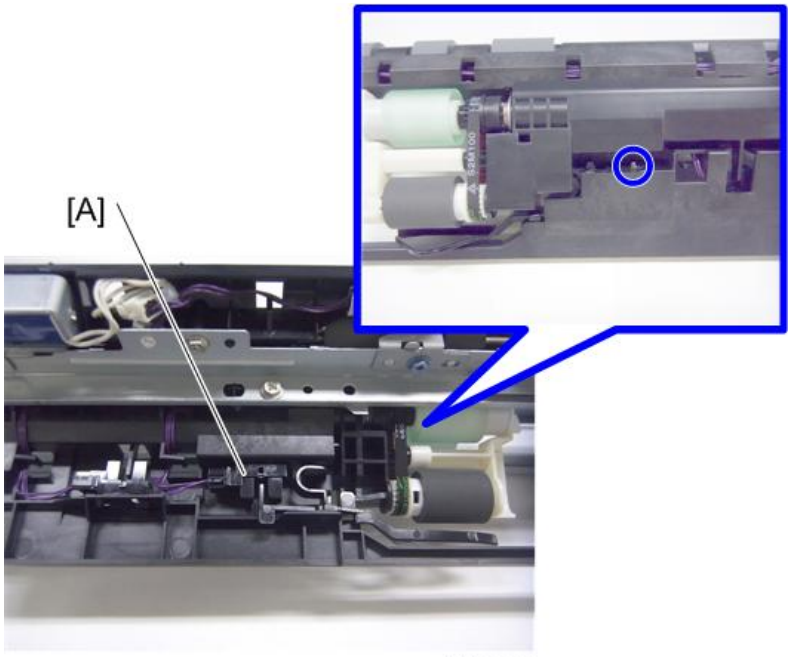
d1462194

5. Paper feed sensor [A] (×1)



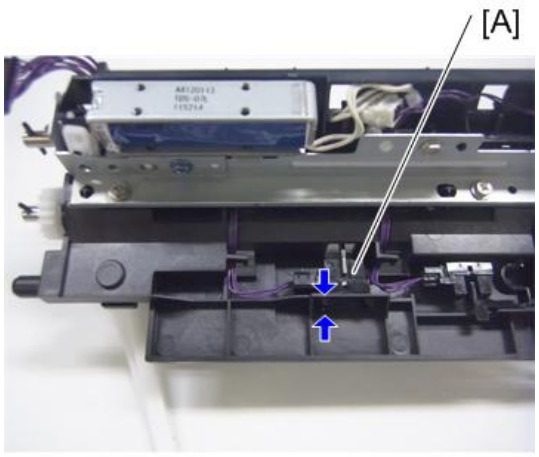
d1462195

6. Paper end sensor [A] (×1)



d1462200

7. Limit sensor [A] (×1)



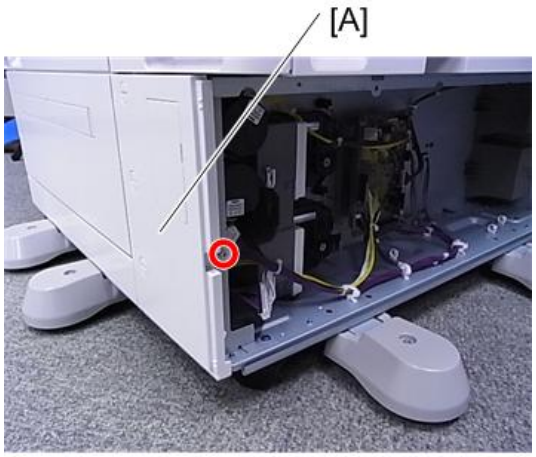
d1462198

1.8 2ND PAPER FEED UNIT

1. **Pull out the paper trays.**
2. **Rear cover (☛ page 1)**
3. **Right front cover [A] (×1)**

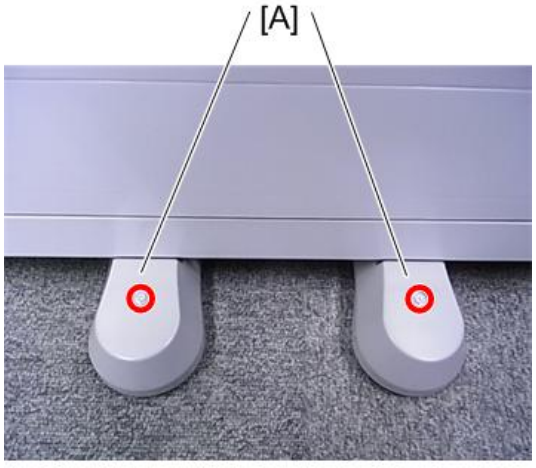
d1462707

4. **Right rear cover [A] (×1)**



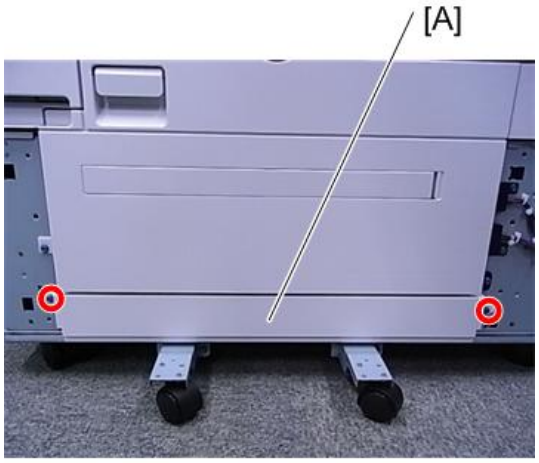
d1462708

5. **Anti-tip components cover [A] (×2)**



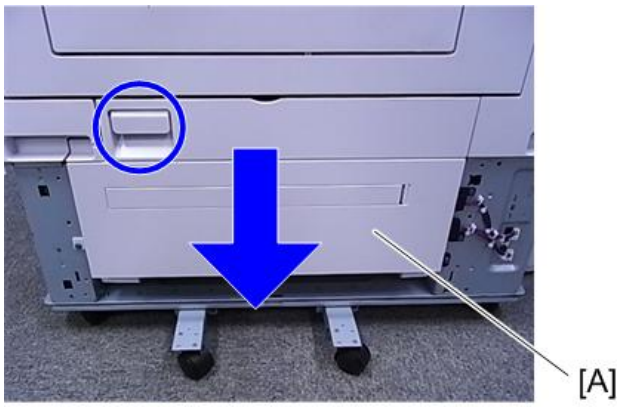
d1462709

6. **Right lower cover [A] (×2)**



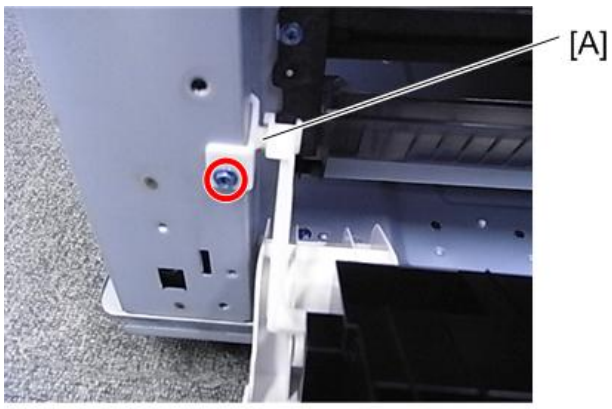
d1462710

7. **Open the Transport cover [A].**



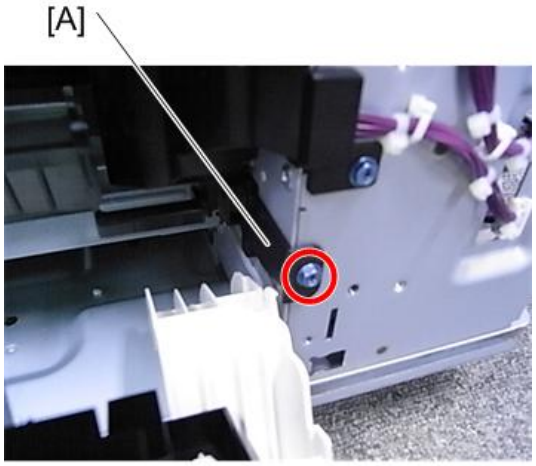
d1462711

8. **Stopper [A] (×1)**



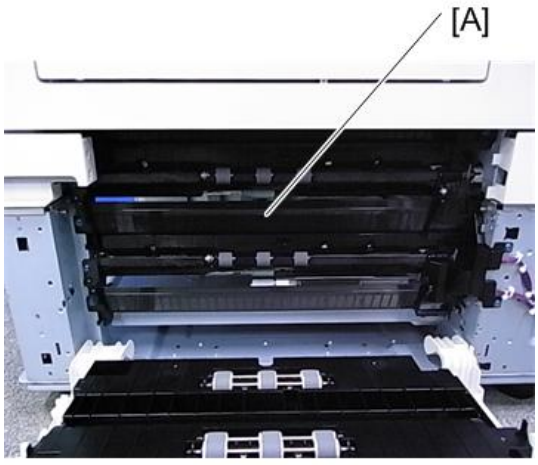
d1462712

9. **Interlock switch cover [A] (×1)**



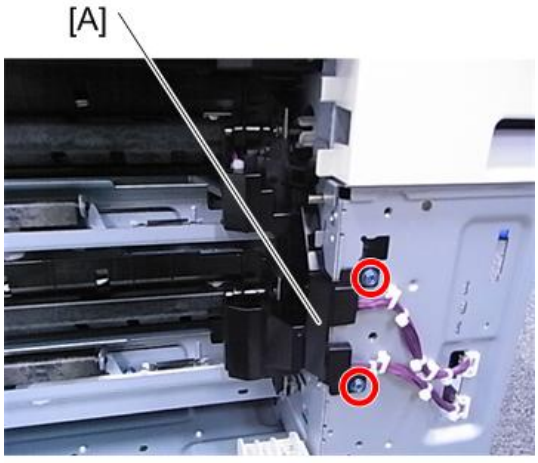
d1462713

10. Paper feed guide plate [A] (2)



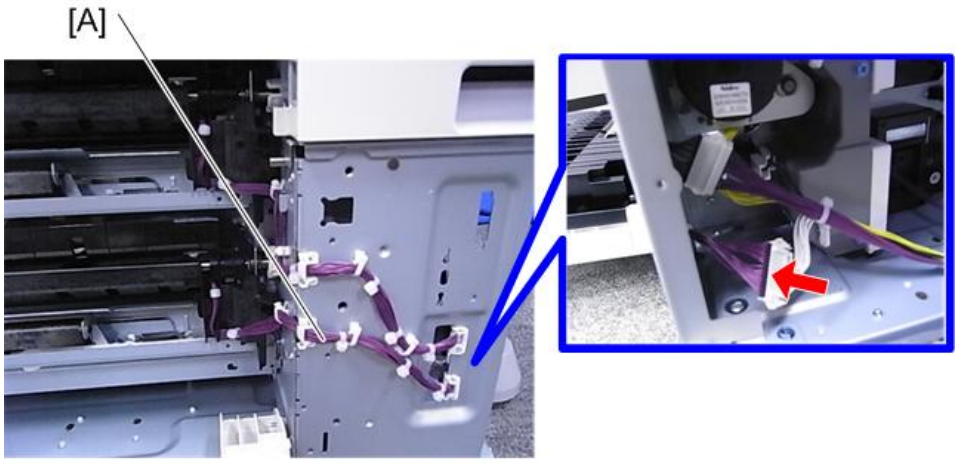
d1462714

11. Harness cover [A]



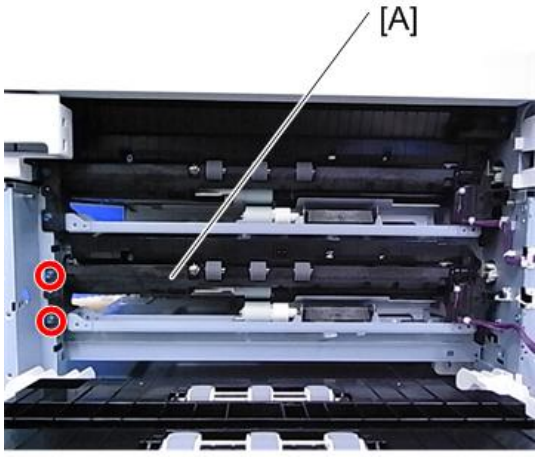
d1462715

12. Harness [A] (×1,×4)



d1462716

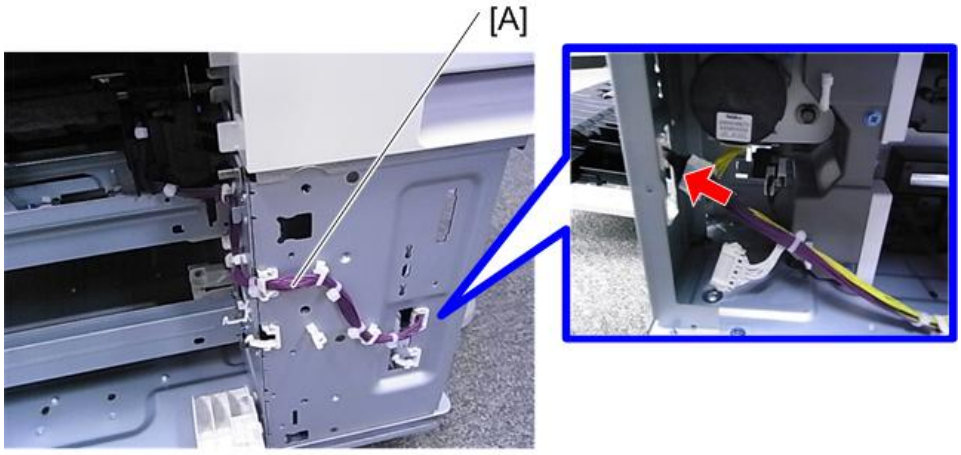
13. 2nd Paper feed unit [A] (×2)



d1462717

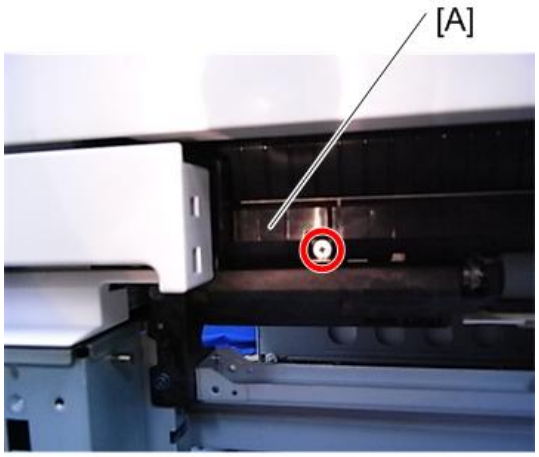
1.9 1ST PAPER FEED UNIT

1. **2nd Paper feed unit (☛ page 10)**
2. **Harness [A] (×1,×6)**



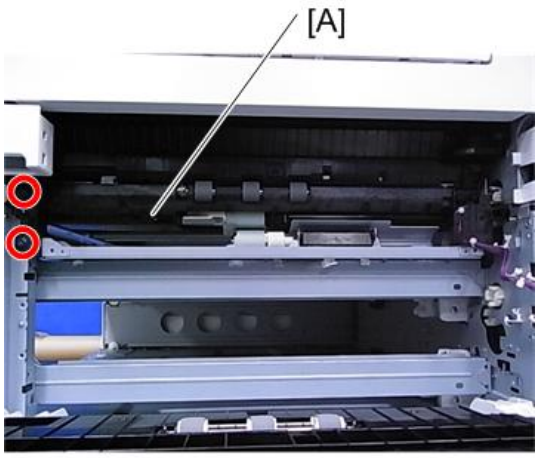
d1462718

3. **Guide plate [A](×1)**



d1462719

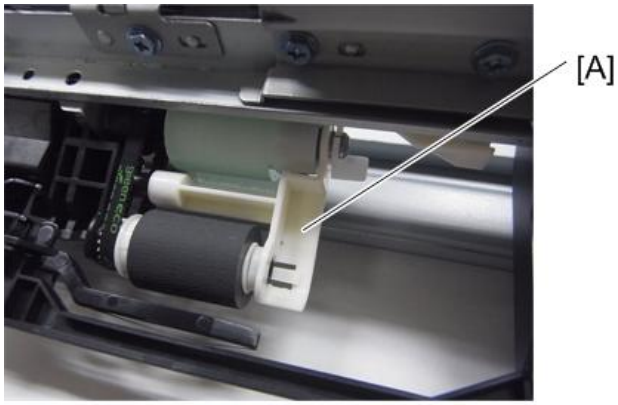
4. 1st Paper feed unit [A] (×2)



d1462720

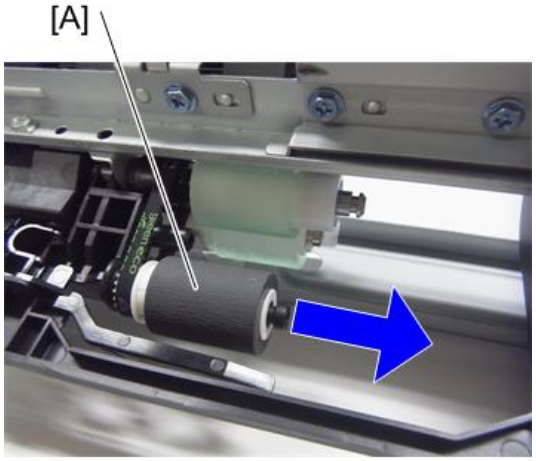
1.10 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER

1. **Paper feed unit (☛page 10, ☛page 14)**
2. **Holder [A] (×1)**



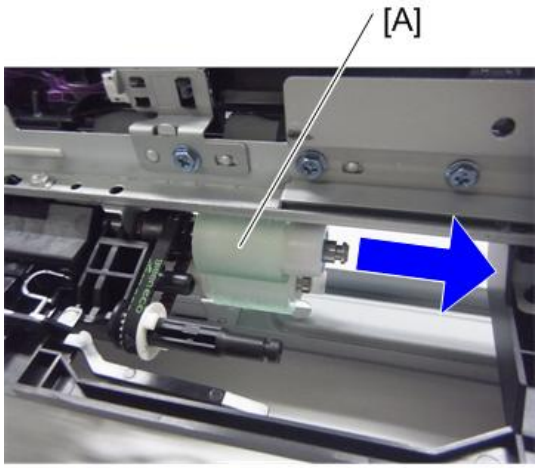
d1462188

3. **Pick-up roller [A]**



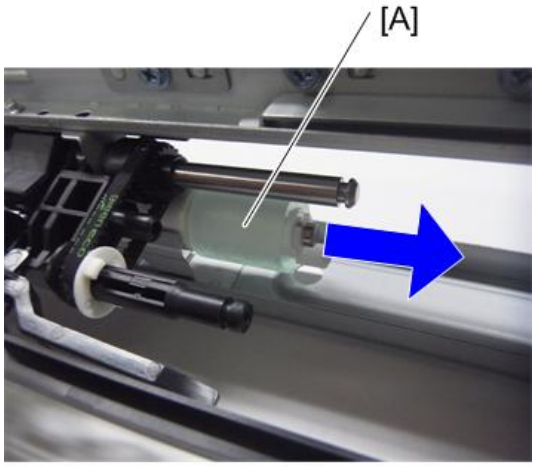
d1462189

4. **Feed roller [A]**



d1462190

5. **Friction roller [A] (×1)**



d1462191

D694

PAPER FEED UNIT PB3150

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

PAPER FEED UNIT PB3150 (D694)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

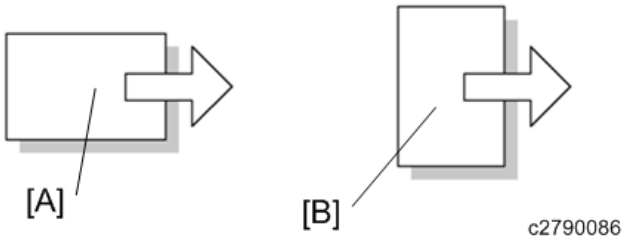
1.1 REAR COVER 1
1.2 TRAY LIFT MOTOR (UPPER) 2
1.3 TRANSPORT MOTOR.....3
1.4 PAPER FEED MOTOR 4
1.5 CONTROLLER BOARD.....5
1.6 TRANSPORT SENSOR, LIMIT SENSOR, PAPER END SENSOR, PAPER FEED SENSOR 6
1.7 PAPER FEED UNIT 9
1.8 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER 13

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

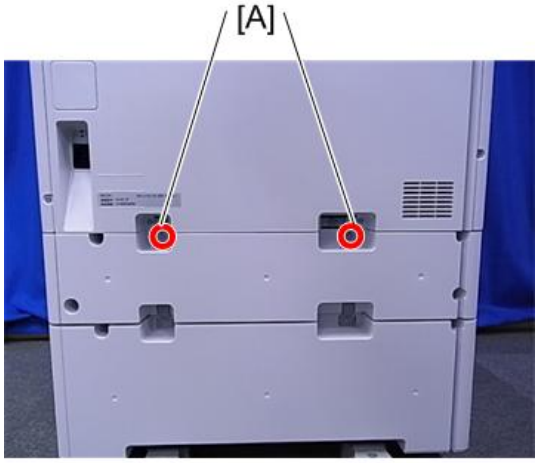
1. REPLACEMENT AND ADJUSTMENT

1.1 REAR COVER

Note

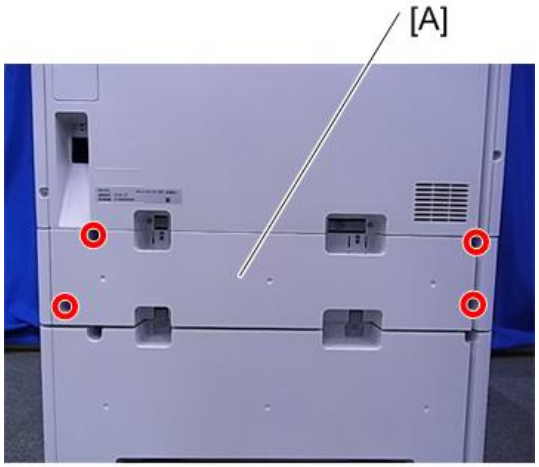
- The photograph of the procedure has some elements which use a combination with the "Paper Feed Unit PB3160."

1. **Consolidated bracket [A] (2, ×2)**



d1462725

2. **Rear cover [A] (×4)**



d1462726

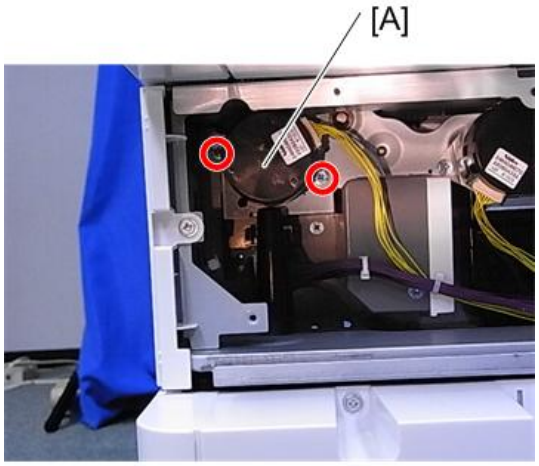
1.2 TRAY LIFT MOTOR (UPPER)

1. **Rear cover (☛page 1)**
2. **Tray lift motor (upper) [A] (×2, ×1)**

d1462727

1.3 TRANSPORT MOTOR

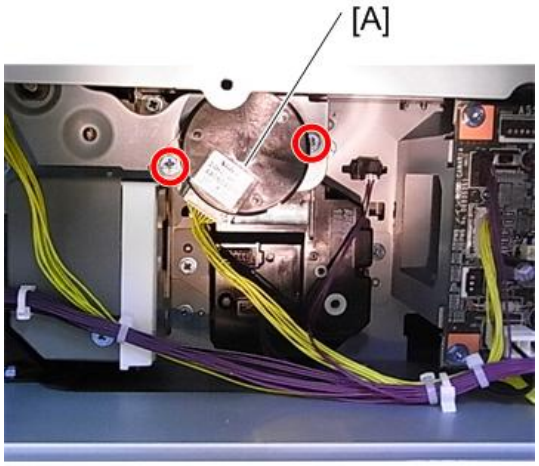
1. **Rear cover (☛page 1)**
2. **Transport motor [A] (×2, ×1)**



d1462728

1.4 PAPER FEED MOTOR

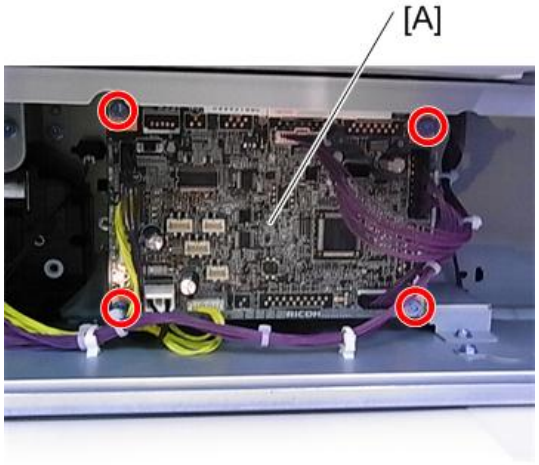
1. **Rear cover (☛page 1)**
2. **Paper feed motor [A] (×2, ×1)**



d1462729

1.5 CONTROLLER BOARD

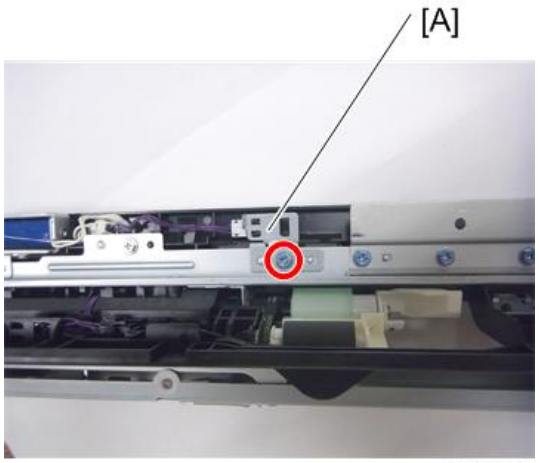
1. **Rear cover (☛page 1)**
2. **Controller board [A] (×4, ×7)**



d1462730

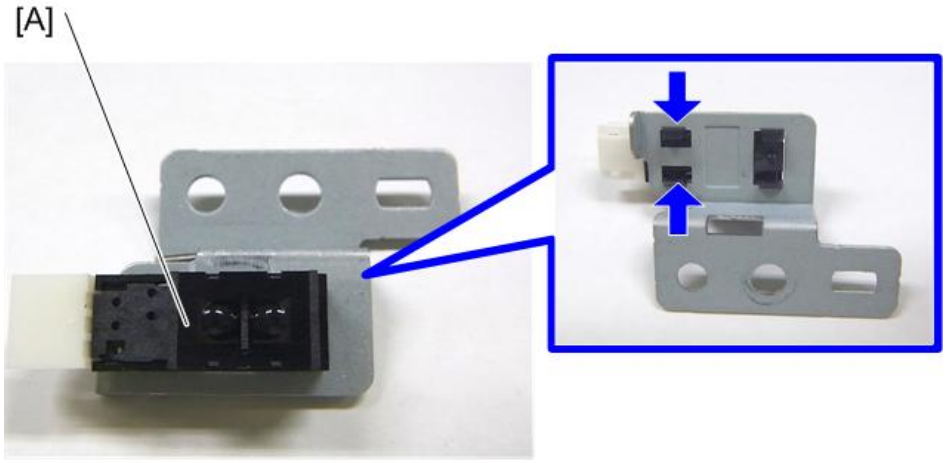
1.6 TRANSPORT SENSOR, LIMIT SENSOR, PAPER END SENSOR, PAPER FEED SENSOR

1. **Paper feed unit (☛page 9)**
2. **Transport sensor bracket [A] (×1)**



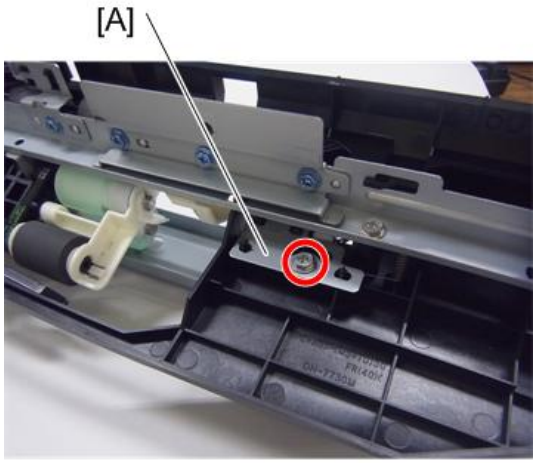
d1462196

1. **Transport sensor [A] (×1)**



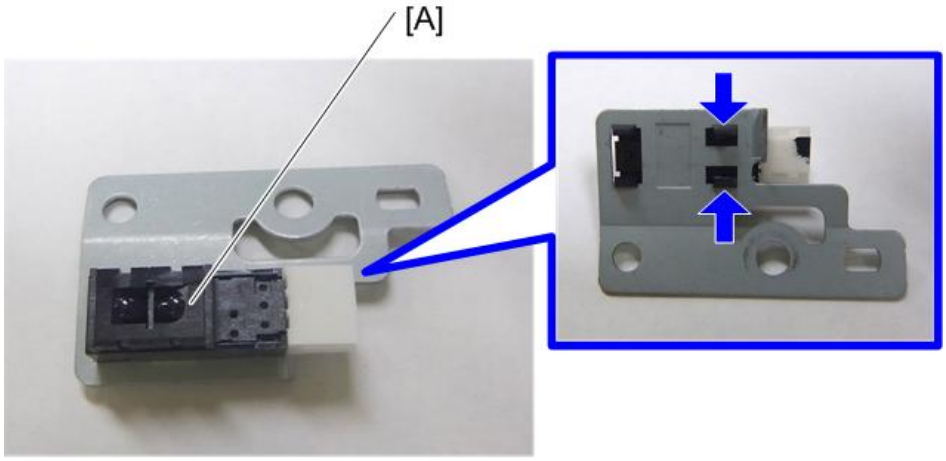
d1462197

2. **Paper feed sensor bracket [A] (×1)**



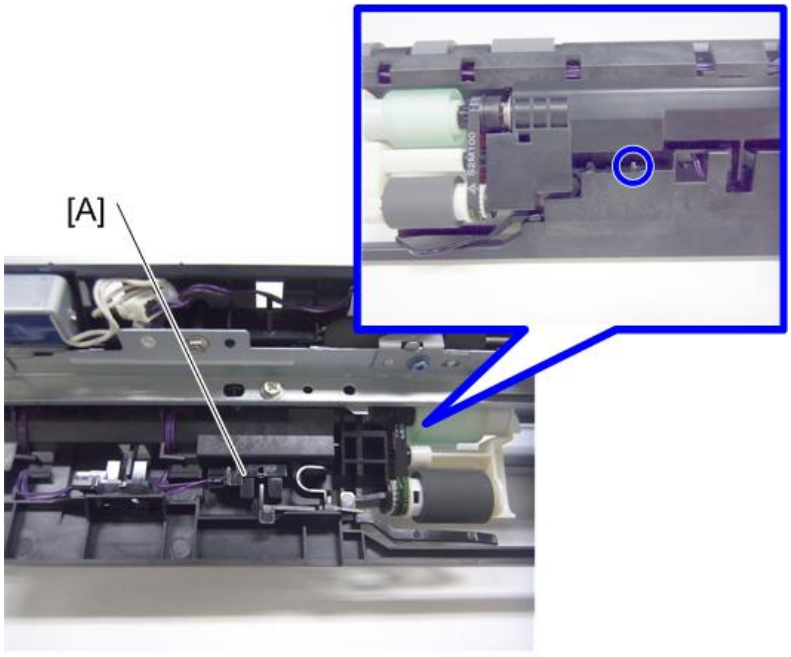
d1462194

3. **Paper feed sensor [A] (×1)**



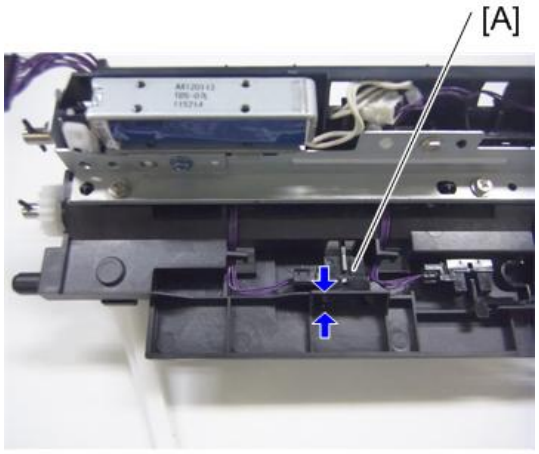
d1462195

4. **Paper end sensor [A] (×1)**



d1462200

5. Limit sensor [A] (×1)



d1462198

1.7 PAPER FEED UNIT

1. **Pull out the paper tray.**
2. **Rear cover (☛page 1)**
3. **Right lower cover**

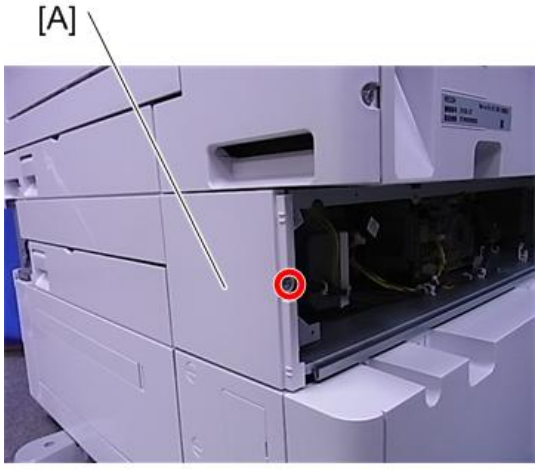
Note

- When the "Paper Feed Unit PB3160" and "LCIT PB3170" are combined, it has already been removed.

4. **Right front [A] (×1)**

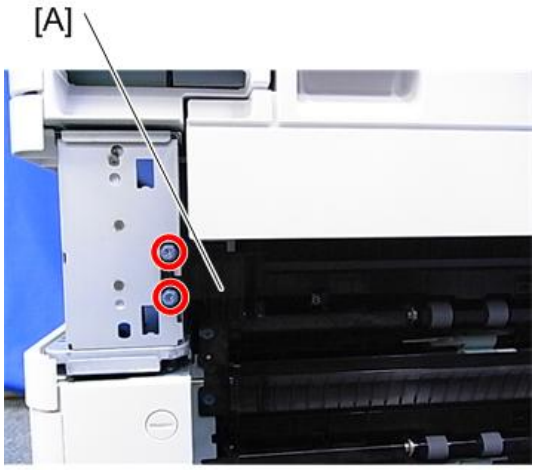
d1462732

5. **Right rear cover [A] (×1)**



d1462733

6. **Transport guide [A] (×2)**

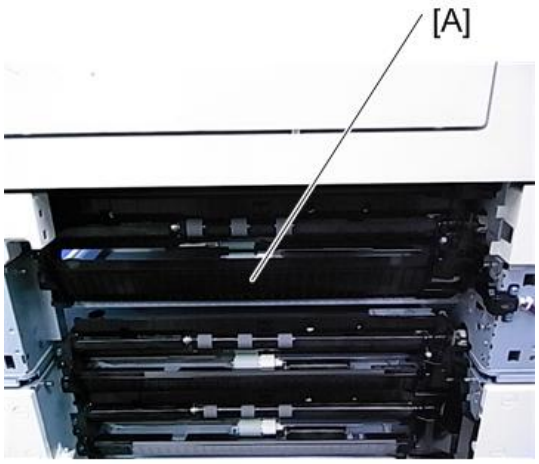


d1462735

7. **Transport cover [A]**

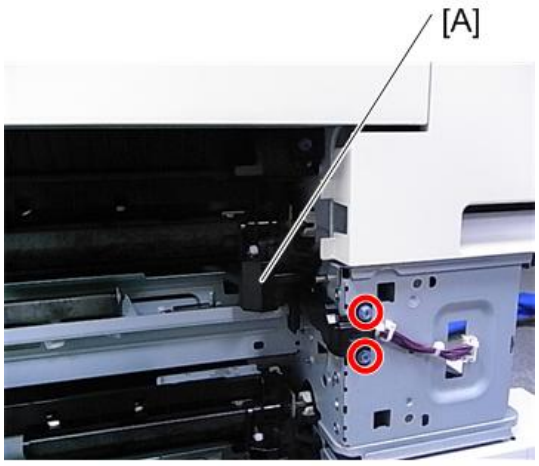
d1462736

8. **Paper feed guide plate [A]**



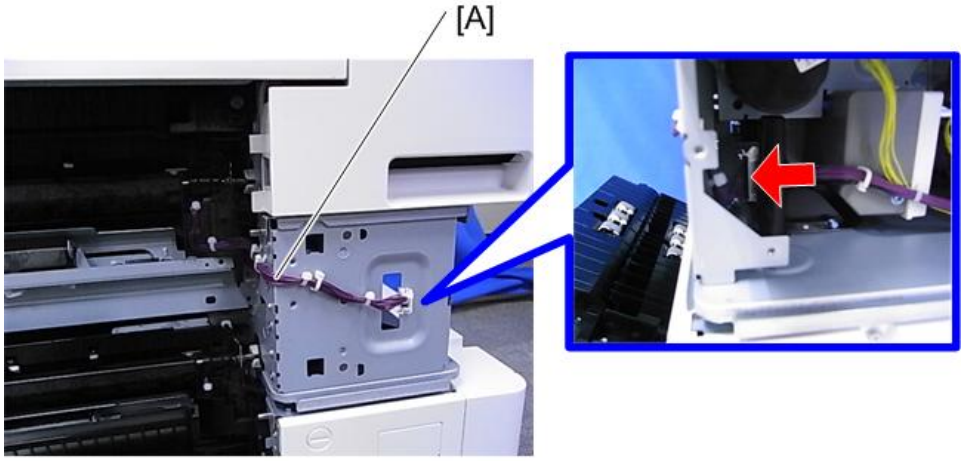
d1462737

9. **Harness cover [A] (×2)**



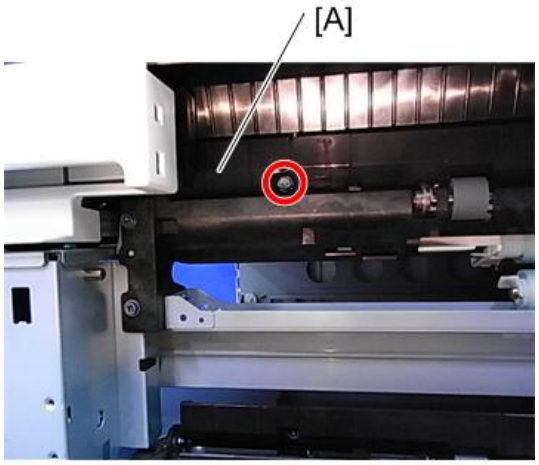
d1462738

10. Harness [A] (×1, ×4)



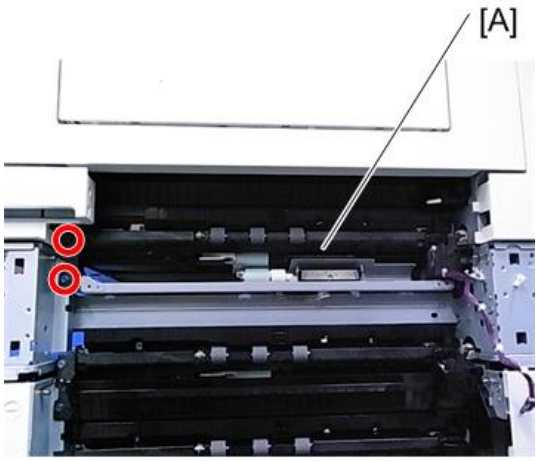
d1462739

11. Guide plate [A] (×1)



d1462740

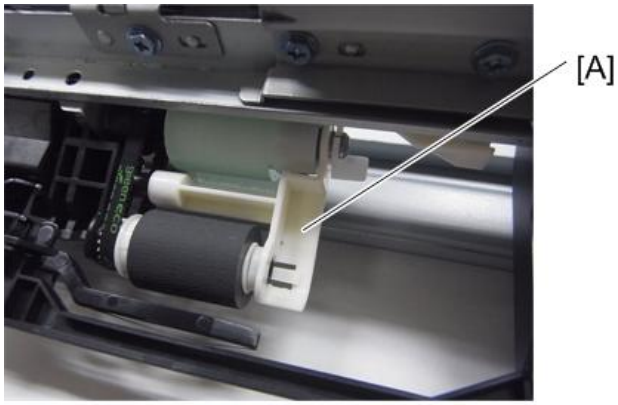
12. Paper feed unit [A] (×2)



d1462741

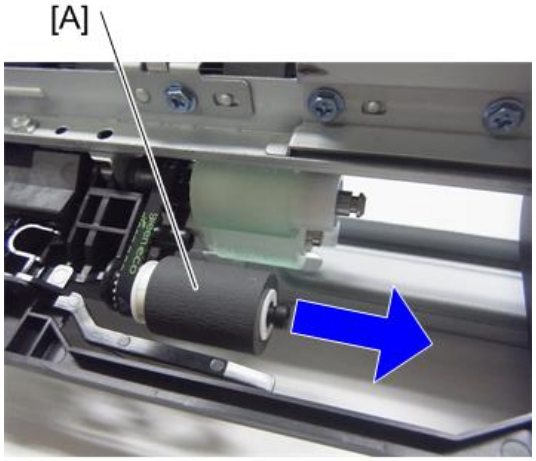
1.8 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER

1. **Paper feed unit (☛page 9)**
2. **Holder [A] (×1)**



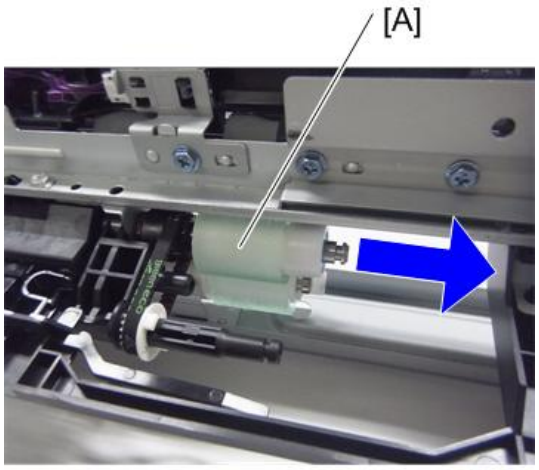
d1462188

3. **Pick-up roller [A]**



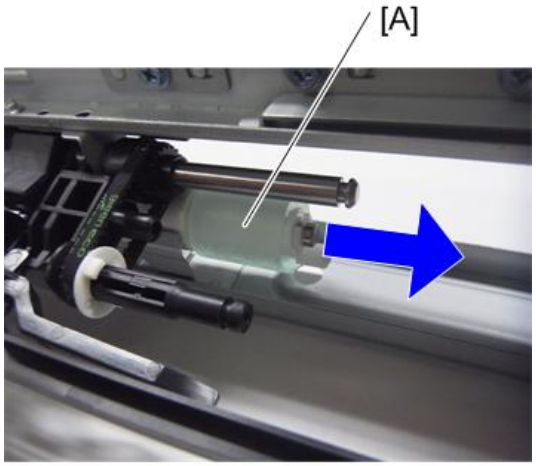
d1462189

4. Feed roller [A]



d1462190

5. Friction roller [A] (×1)



d1462191

D695

LCIT PB3170

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

LCIT PB3170 (D695)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

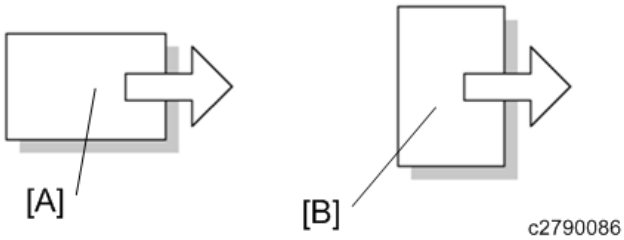
1.1 REAR COVER 1
1.2 RIGHT TRAY, LEFT TRAY 2
1.3 LEFT TRAY PAPER SENSOR 3
1.4 TRANSFER HOME POSITION SENSOR 4
1.5 CONTROLLER BOARD 6
1.6 PAPER FEED UNIT 7
1.7 LOWER LIMIT SENSOR 9
1.8 TRAY SET SWITCH (LEFT) 10
1.9 TRAY SET SWITCH (RIGHT) 11
1.10 TRAY LIFT-TRANSPORT UNIT 12
1.11 LIFT MOTOR 13
1.12 TRANSFER MOTOR 14
1.13 REMAINING PAPER SENSOR 15
1.14 PAPER FEED MOTOR 16
1.15 TRANSPORT MOTOR 17
1.16 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER 18
1.17 TRANSPORT SENSOR, PAPER FED SENSOR, PAPER END SENSOR, LIMIT SENSOR 20
1.18 SIDE FENCE 23

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

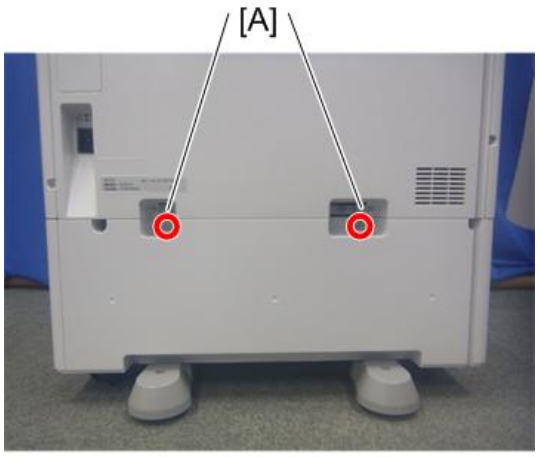
Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

1. REPLACEMENT AND ADJUSTMENT

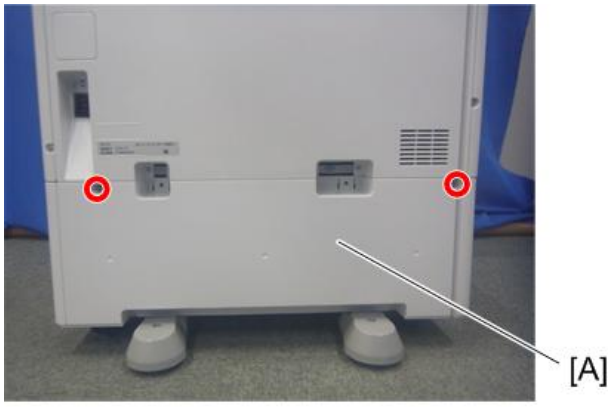
1.1 REAR COVER

1. **Consolidated bracket [A] (2, ×2)**



d1462745

2. **Rear cover [A] (×2)**



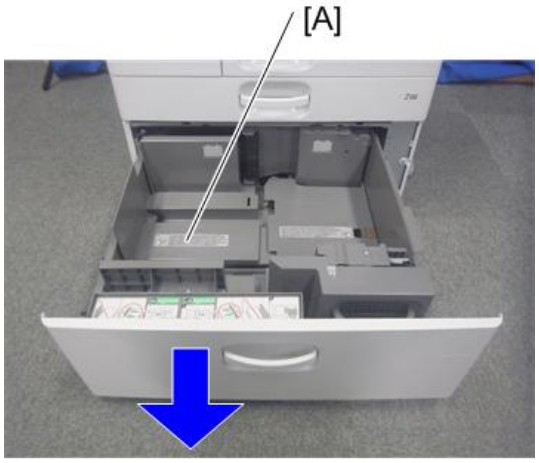
d1462746

1.2 RIGHT TRAY, LEFT TRAY

1. **Pull out the paper tray.**

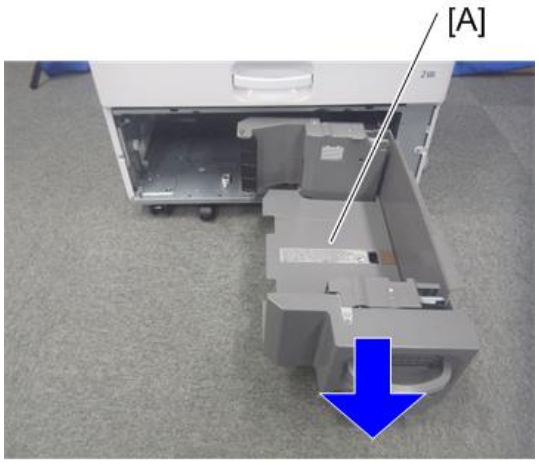
d1462747

2. **Left Tray [A]**



d1462748

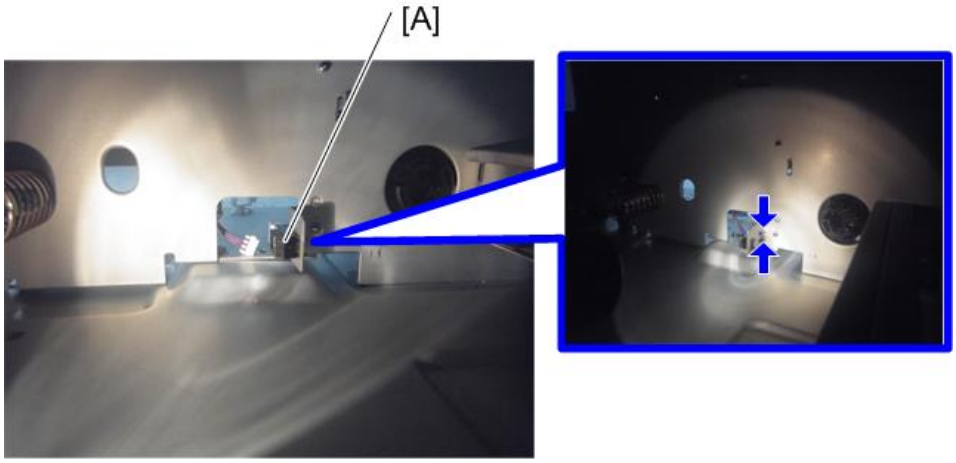
3. **Right Tray [A]**



d1462749

1.3 LEFT TRAY PAPER SENSOR

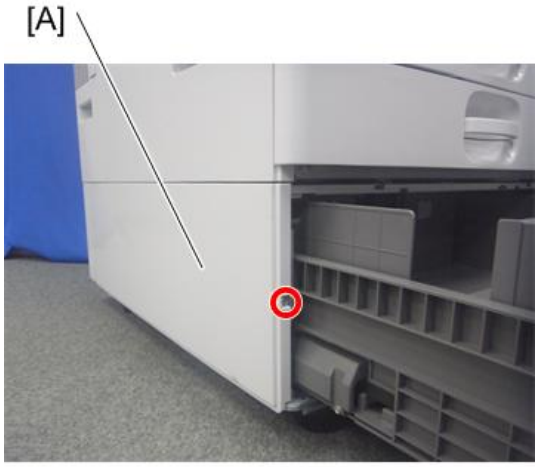
1. **Left tray (☛ page 2)**
2. **Rear cover (☛ page 1)**
3. **Left tray paper sensor [A] (×1)**



d1462750

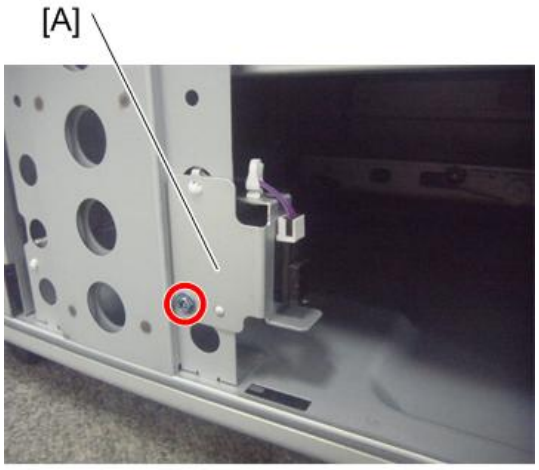
1.4 TRANSFER HOME POSITION SENSOR

1. **Pull out the paper tray.**
2. **Left cover [A] (×1)**



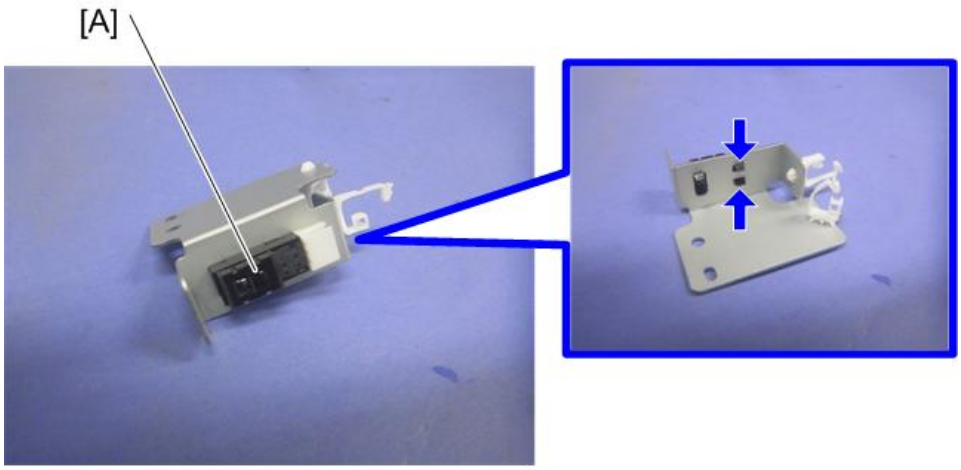
d1462751

3. **Transfer home position sensor unit [A] (×1, ×1, ×2)**



d1462752

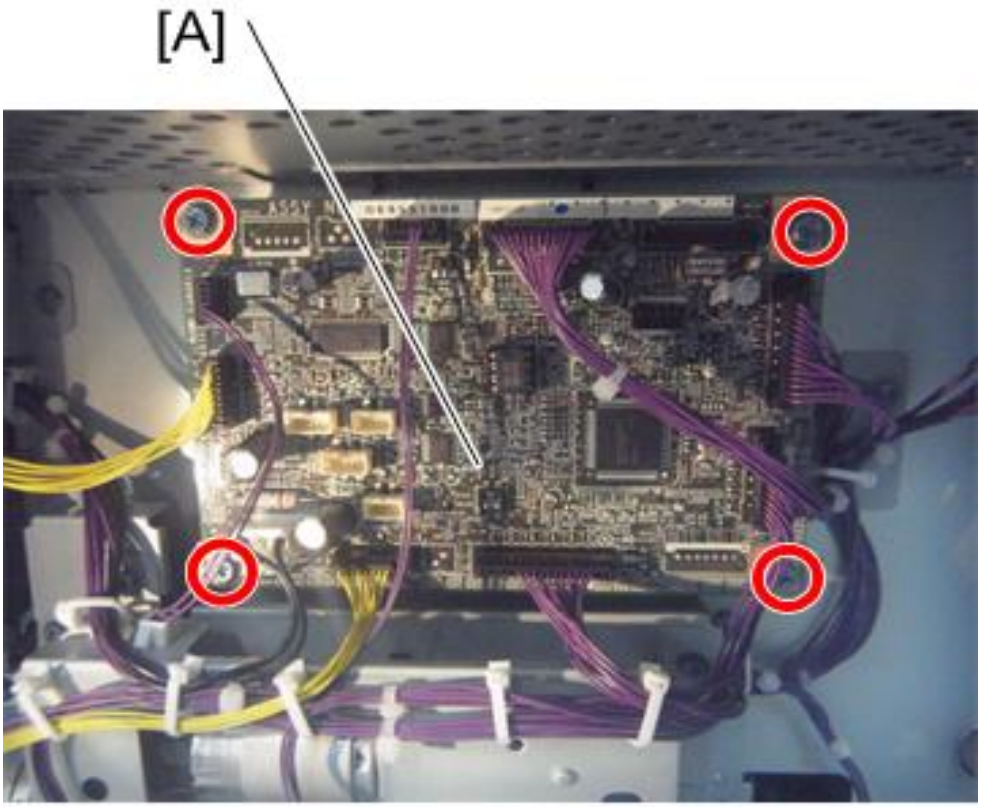
4. Transfer home position sensor [A]



d1462753

1.5 CONTROLLER BOARD

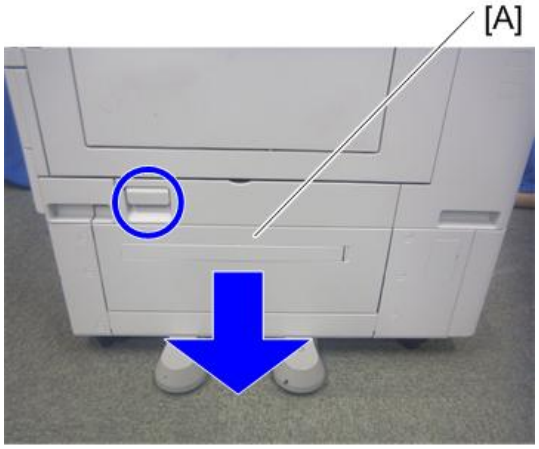
1. **Rear cover (☛ page 1)**
2. **Controller board [A] (×4, ×9)**



d1462754

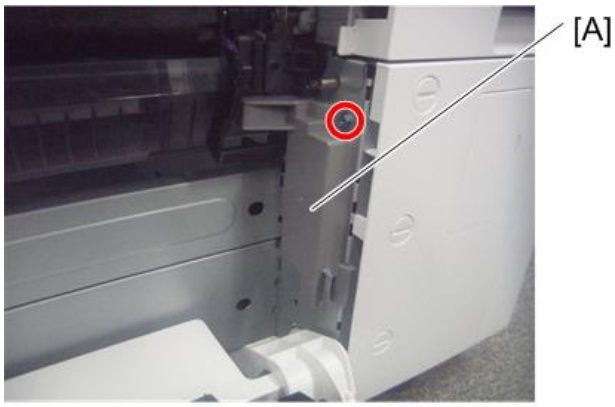
1.6 PAPER FEED UNIT

1. **Pull out the paper tray.**
2. **Open the Transport cover [A].**



d1462767

3. **Interlock switch cover [A] (×1)**

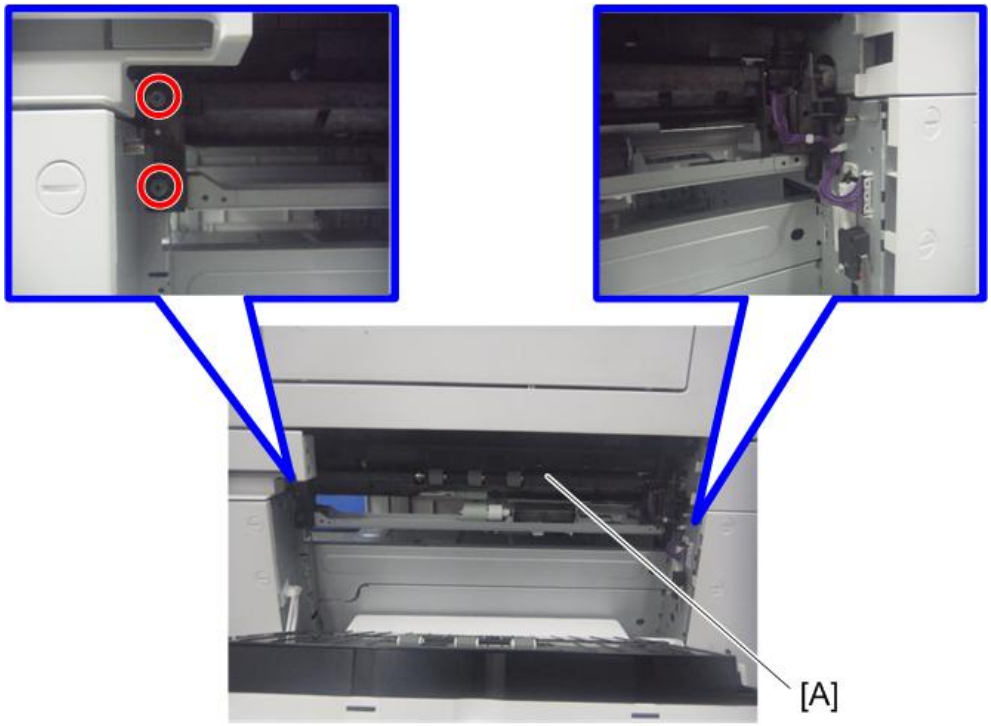


d1462768

4. **Paper feed guide plate [A]**

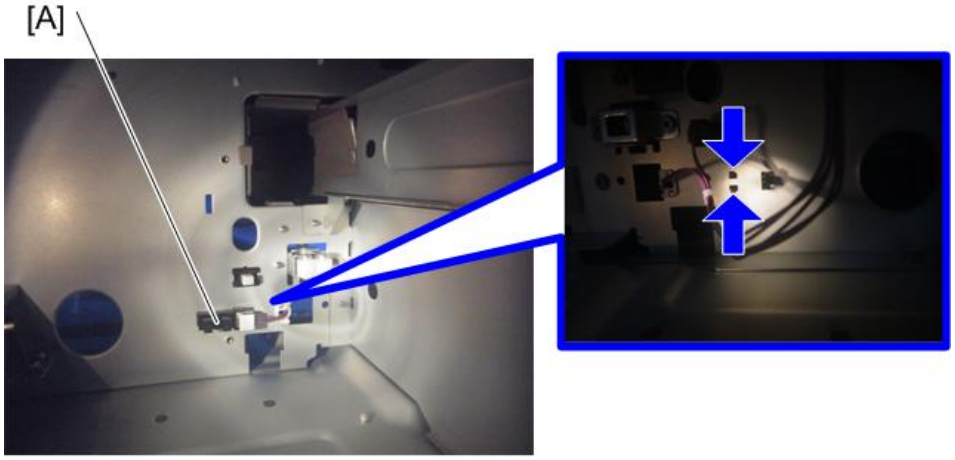
d1462769

5. Paper feed unit [A] (×2, ×1, ×1)



1.7 LOWER LIMIT SENSOR

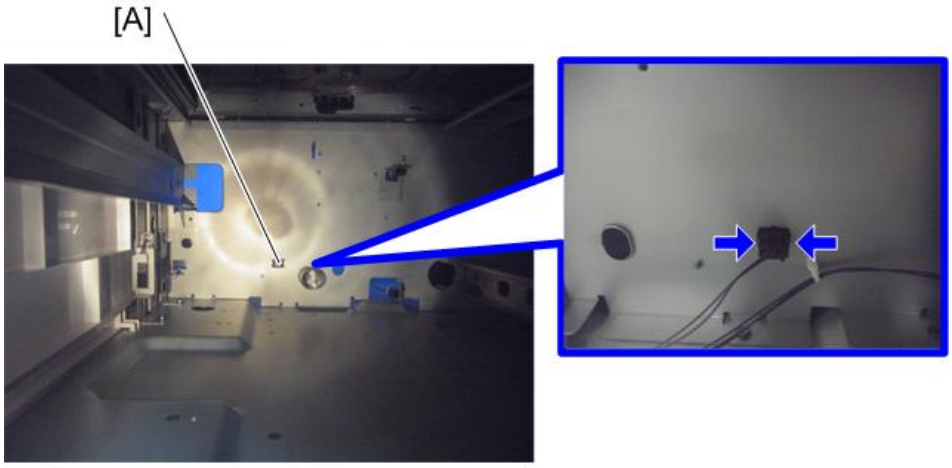
1. **Right tray (☛ page 2)**
2. **Rear cover (☛ page 1)**
3. **Tray lift-transport unit (☛ page 12)**
4. **Lower limit sensor [A] (×1)**



d1462762

1.8 TRAY SET SWITCH (LEFT)

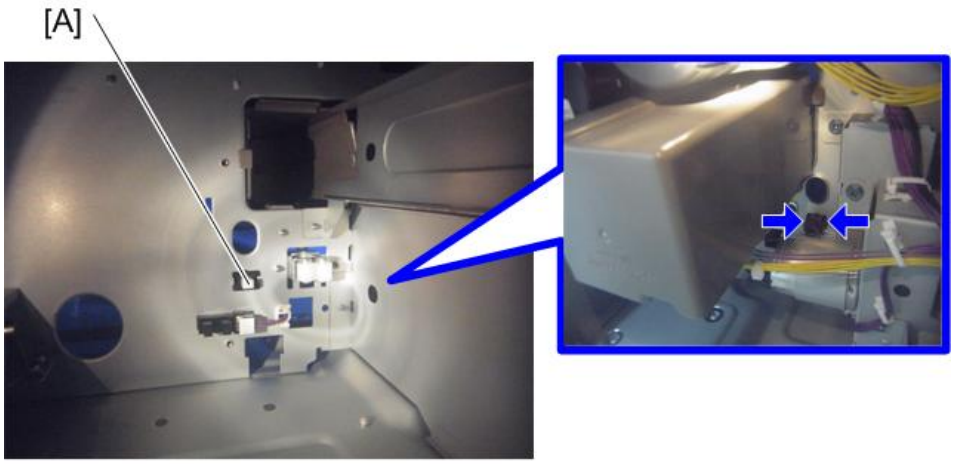
1. **Left tray (☛ page 2**
2. **Rear cover (☛ page 1)**
3. **Tray set switch (left) [A] (×1)**



d1462763

1.9 TRAY SET SWITCH (RIGHT)

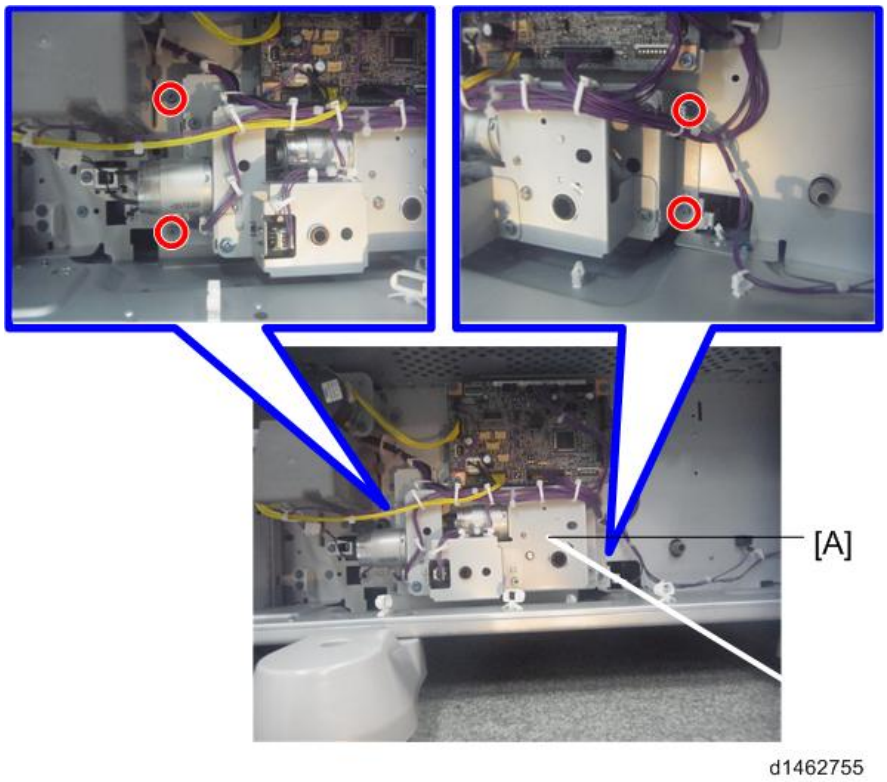
1. **Right tray (☛ page 2)**
2. **Rear cover (☛ page 1)**
3. **Tray set switch (right) [A] (×1)**



d1462764

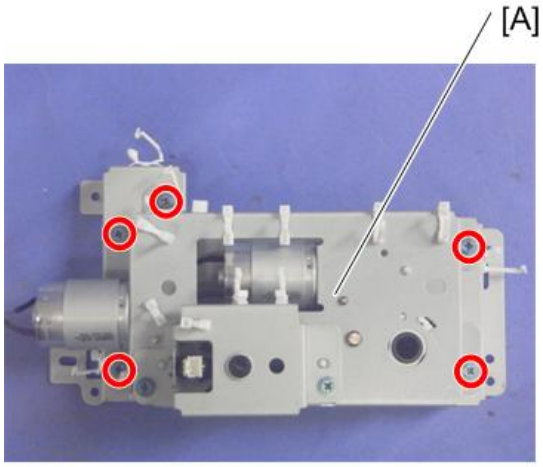
1.10 TRAY LIFT-TRANSPORT UNIT

1. **Rear cover (☛ page 1)**
2. **Tray lift-transport unit [A] (×4, ×3, ×14)**



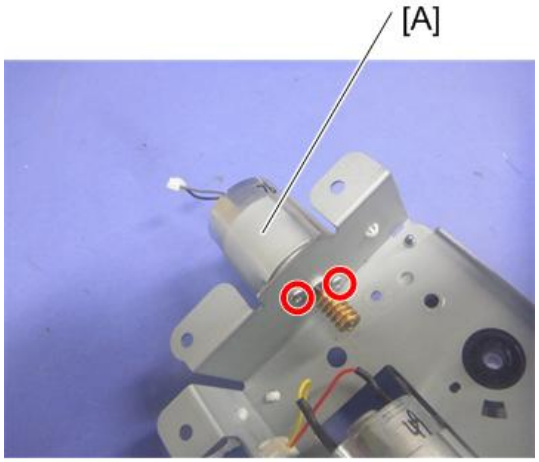
1.11 LIFT MOTOR

1. **Tray lift-transport unit (☛page 12)**
2. **Motor unit [A] (×5)**



d1462756

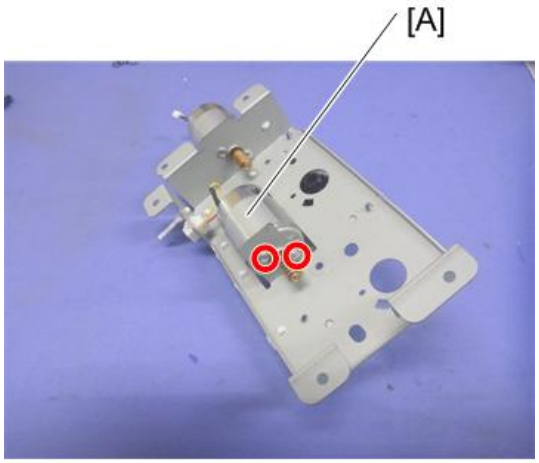
3. **Lift motor [A] (×2)**



d1462757

1.12 TRANSFER MOTOR

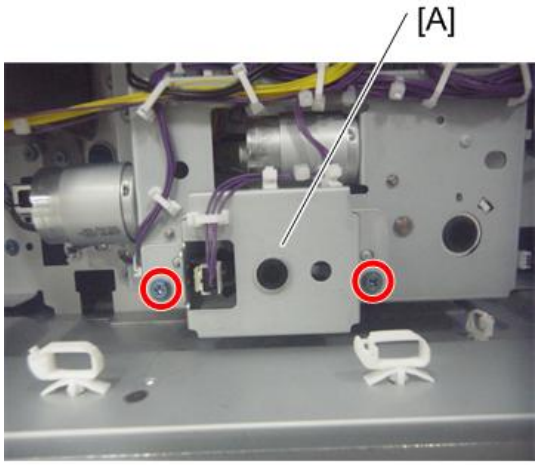
1. **Motor unit (☛ page 13 "Lift Motor")**
2. **Transfer motor [A] (×2, ×1)**



d1462758

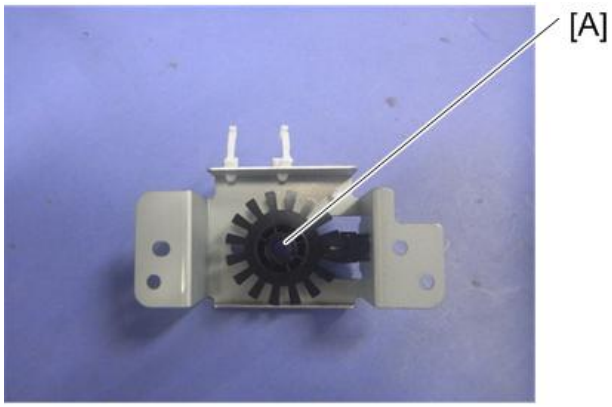
1.13 REMAINING PAPER SENSOR

1. **Rear cover (☛ page 1)**
2. **Remaining paper sensor unit [A] (×2, ×1, ×3)**



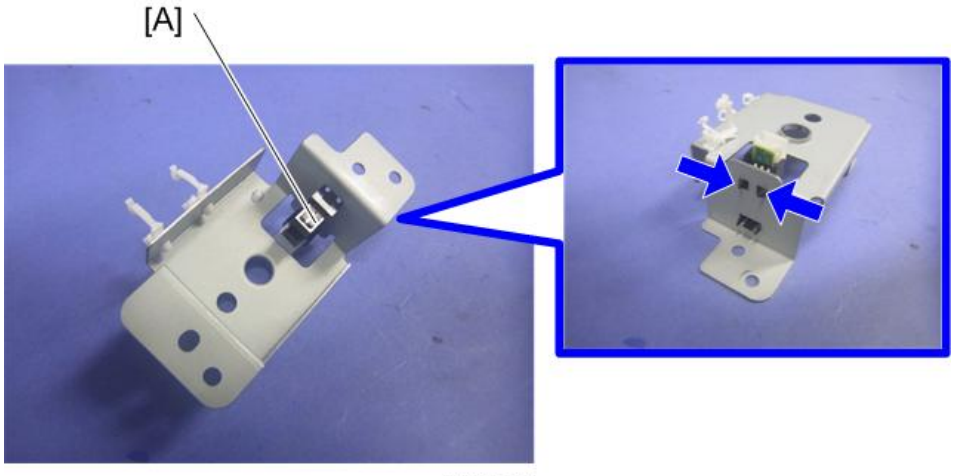
d1462759

3. **Actuator [A]**



d1462760

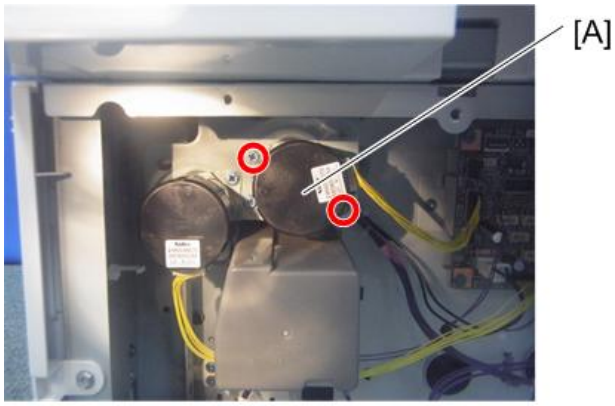
4. **Remaining paper sensor [A]**



d1462761

1.14 PAPER FEED MOTOR

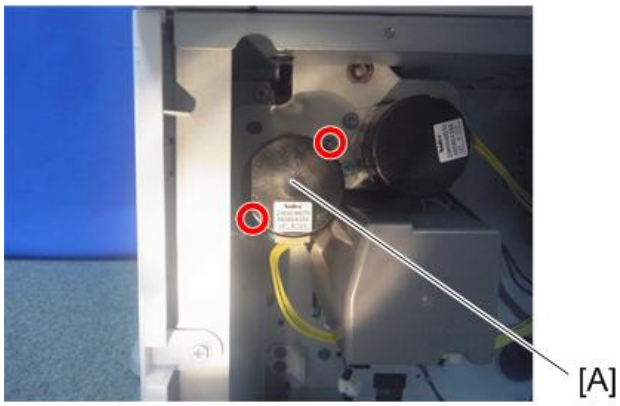
1. **Rear cover (☛ page 1)**
2. **Paper feed motor [A] (×2, ×1)**



d1462765

1.15 TRANSPORT MOTOR

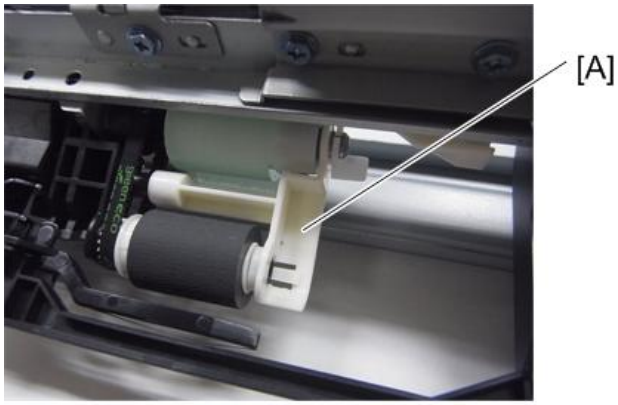
1. **Rear cover (☛ page 1)**
2. **Transport motor [A] (×2, ×1)**



d1462766

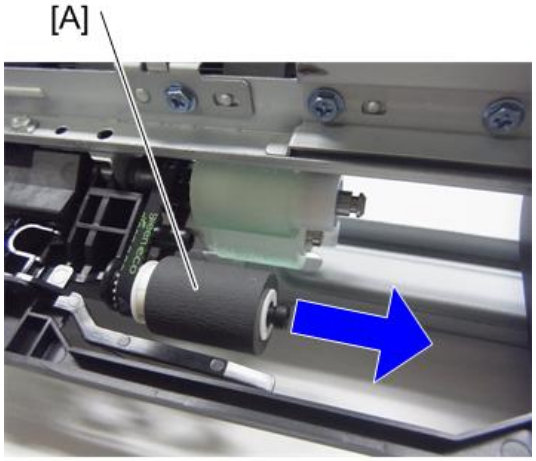
1.16 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER

1. **Paper feed unit (☛ page 7)**
2. **Holder [A] (×1)**



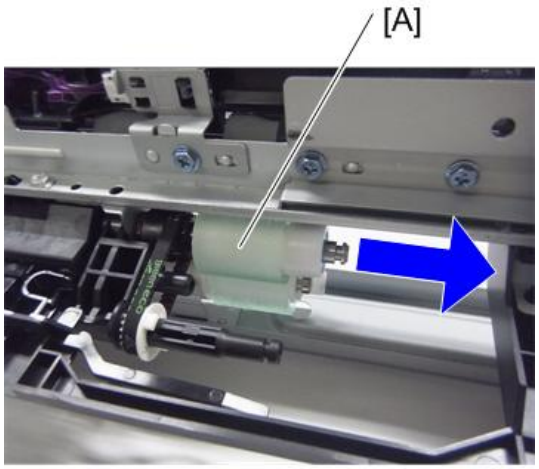
d1462188

3. **Pick-up roller [A]**



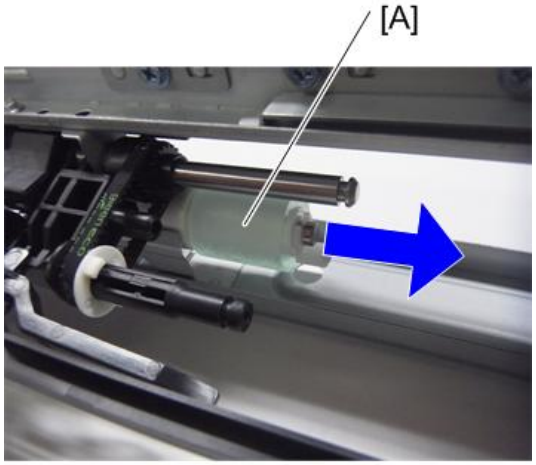
d1462189

4. **Feed roller [A]**



d1462190

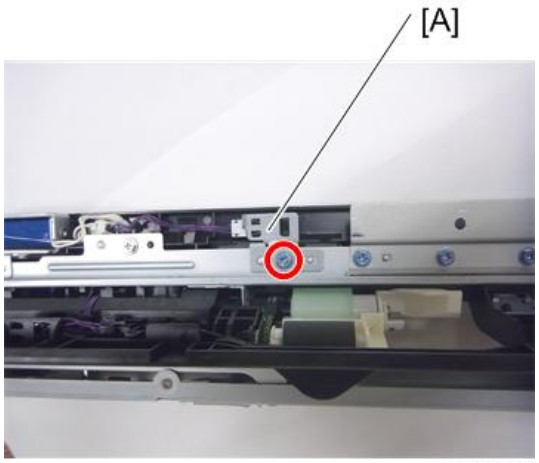
5. **Friction roller [A] (×1)**



d1462191

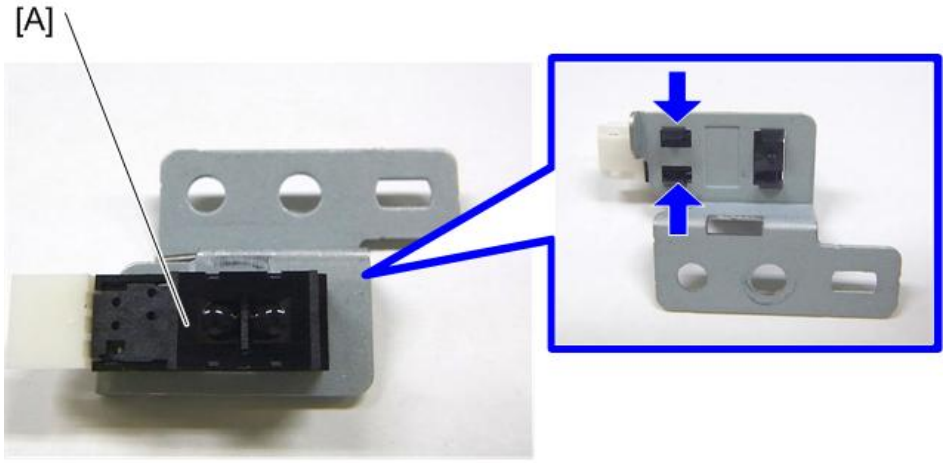
1.17 TRANSPORT SENSOR, PAPER FED SENSOR, PAPER END SENSOR, LIMIT SENSOR

1. **Paper feed unit (☛ page 7)**
2. **Transport sensor unit [A] (×1, ×1)**



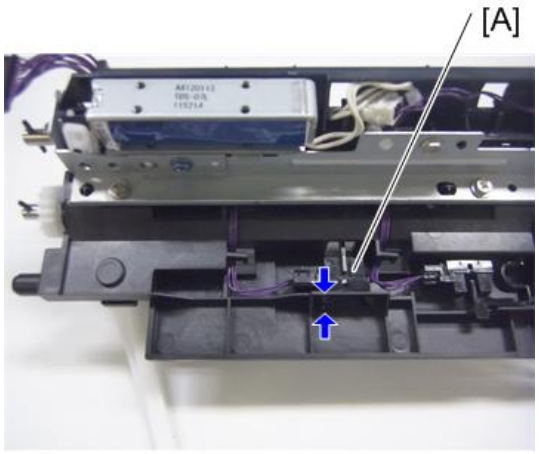
d1462196

3. **Transport sensor [A]**



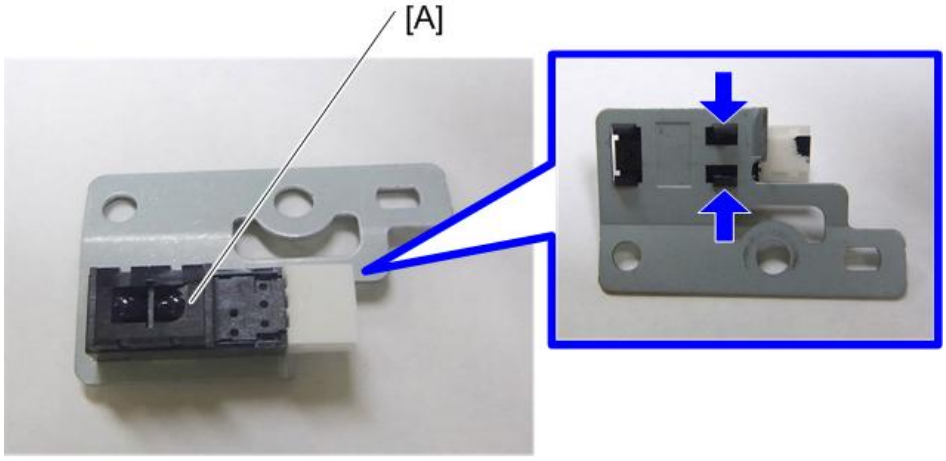
d1462197

4. **Paper feed sensor unit [A] (×1)**



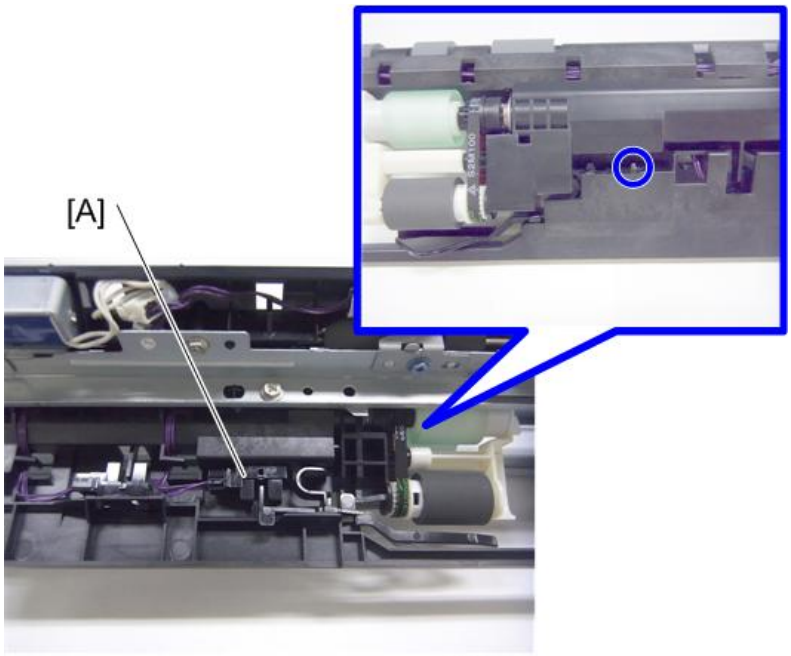
d1462198

5. **Paper feed sensor [A]**



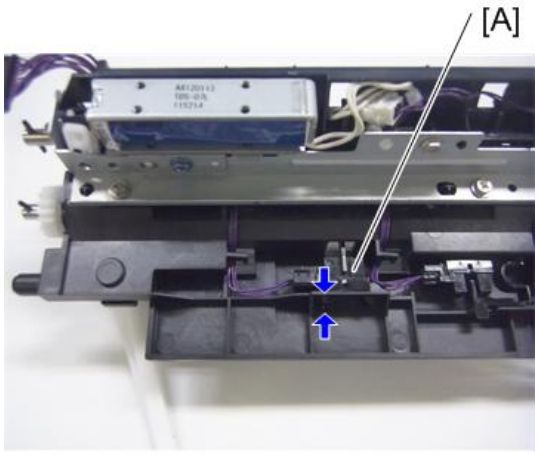
d1462195

6. **Press the claw shown by the blue circle, and remove the paper end sensor [A] (×1)**



d1462200

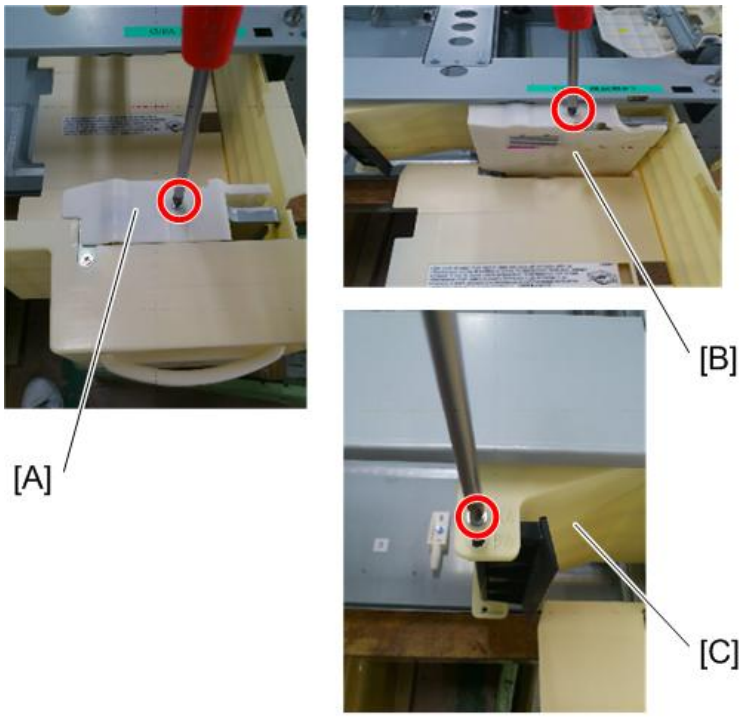
7. **Limit sensor [A] (×1)**



d1462198

1.18 SIDE FENCE

1. **Pull out the left tray and right tray.**
2. **Right tray side fence (front), [A], right tray side fence (rear) [B] and right tray end fence [C] (×3)**



d1462600

D696

LCIT RT3030

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

LCIT RT3030 (D696)

TABLE OF CONTENTS

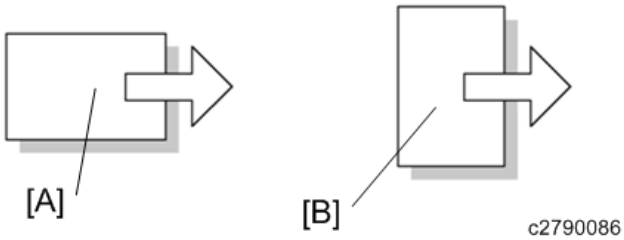
1.1 REAR COVER 1
1.2 FRONT COVER 3
1.3 UPPER COVER 4
1.4 RIGHT COVER 5
1.5 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER 6
1.6 PAPER FEED MOTOR 8
1.7 TRANSPORT MOTOR 9
1.8 TRAY LIFT UNIT 10
1.9 CONTROLLER BOARD 11
1.10 LCT SET SWITCH (FRONT) 12
1.11 LCT SET SWITCH (REAR) 13
1.12 PAPER FEED SENSOR, PAPER END SENSOR, LIMIT SENSOR, TRANSPORT SENSOR 14

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

The Aim of Anti-tip Components and Precautions

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

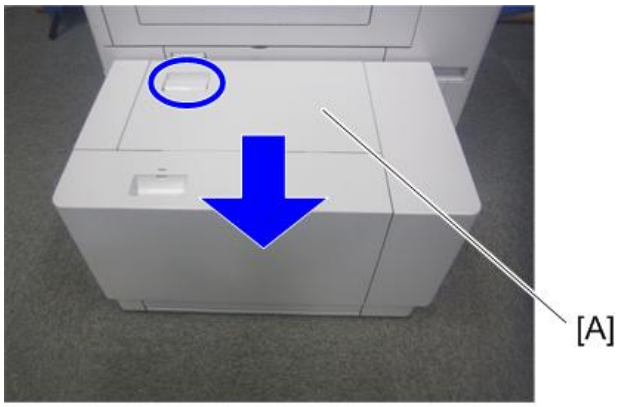
The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

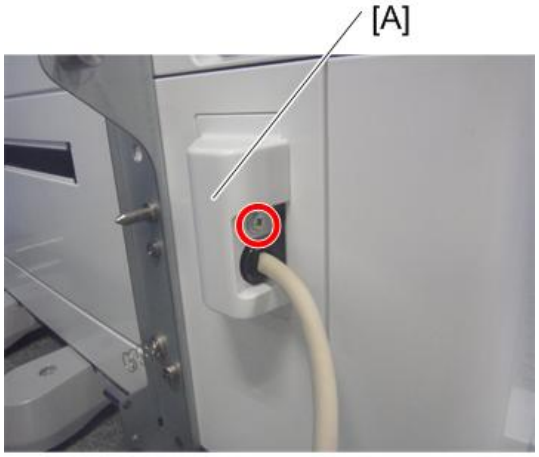
1.1 REAR COVER

1. **Pull out the LCT [A].**



d1462775

2. **Cable cover [A] (×1)**

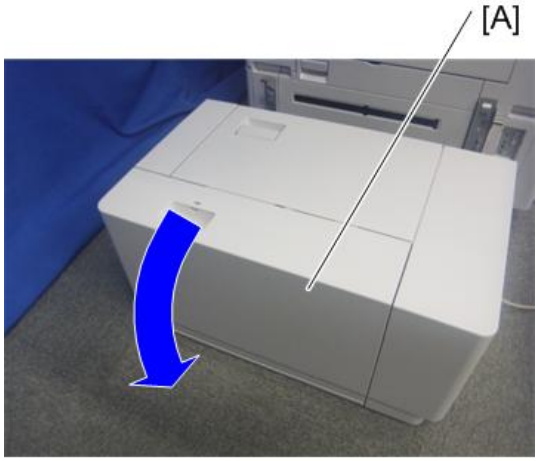


d1462776

3. **Cable bracket [A] (×1,×1)**

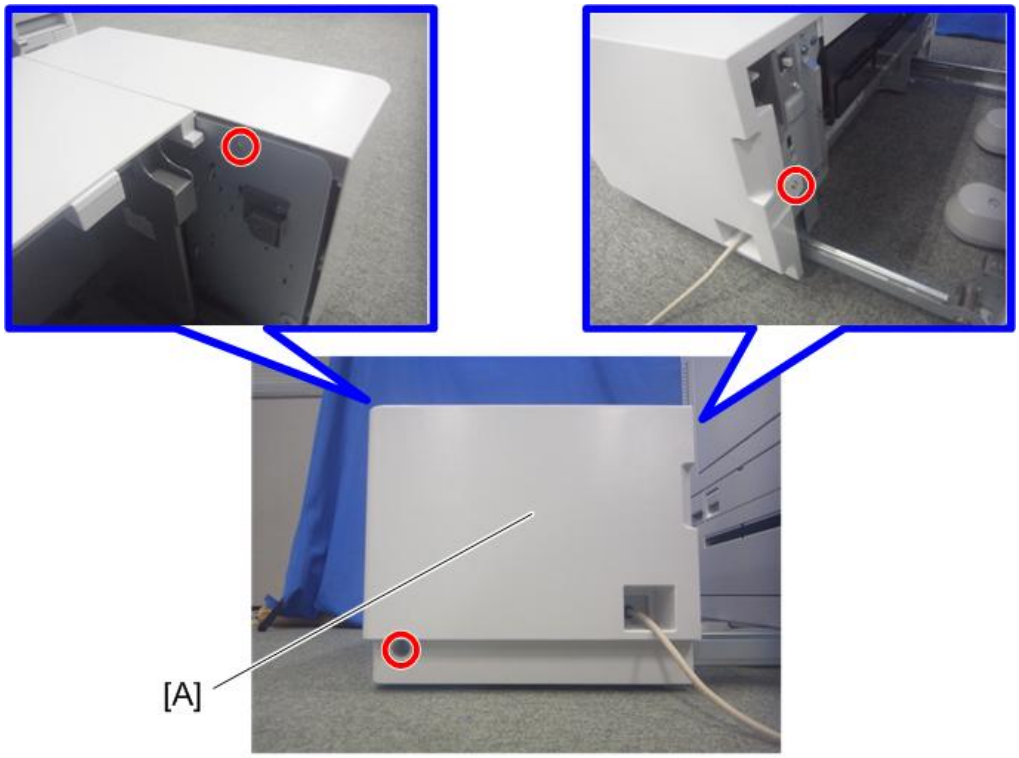
d1462777

4. **Open the right cover [A].**



d1462778

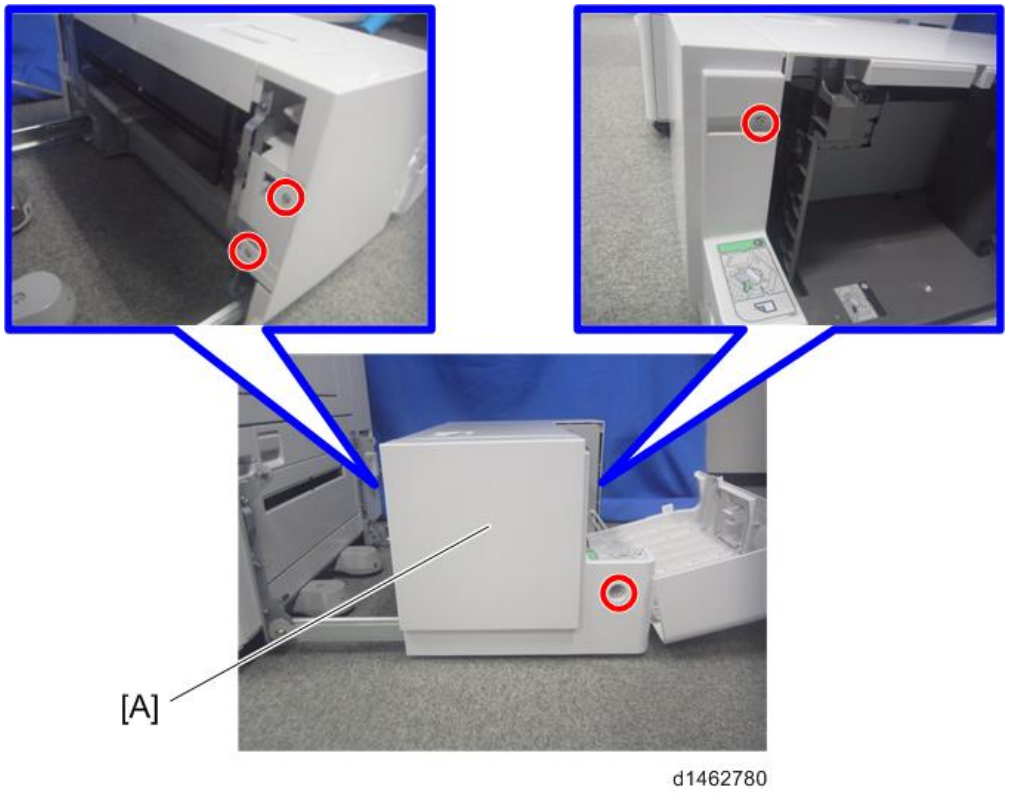
5. Rear cover [A] (×3)



d1462779

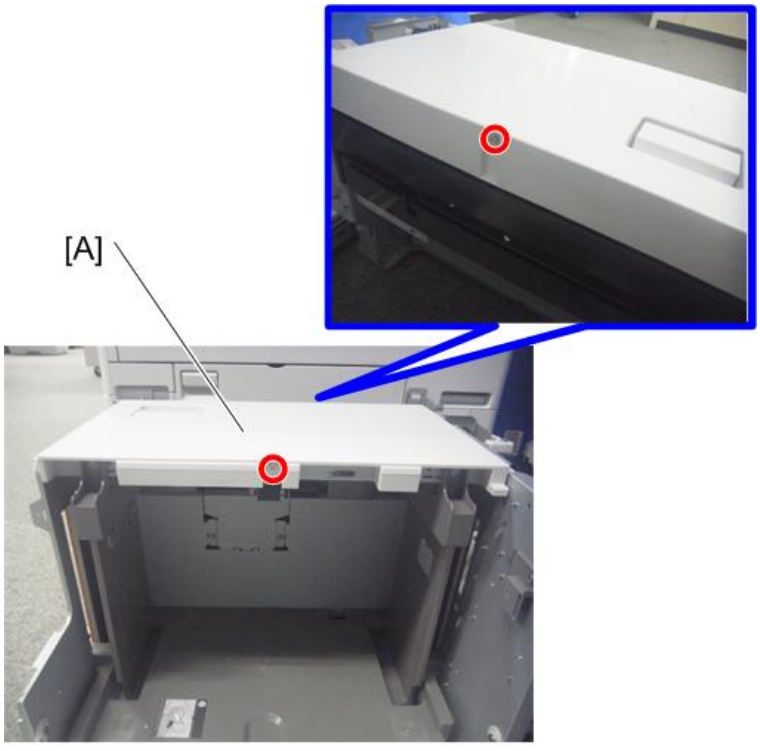
1.2 FRONT COVER

1. **Open the right cover (page 5)**
2. **Front cover [A] (×4)**



1.3 UPPER COVER

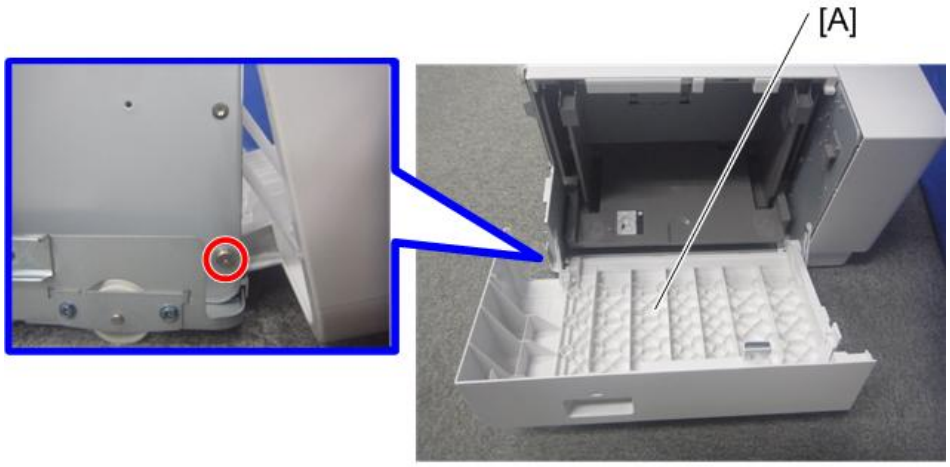
1. **Front cover (☛ page 3)**
2. **Rear cover (☛ page 1)**
3. **Upper cover [A] (×2)**



d1462781

1.4 RIGHT COVER

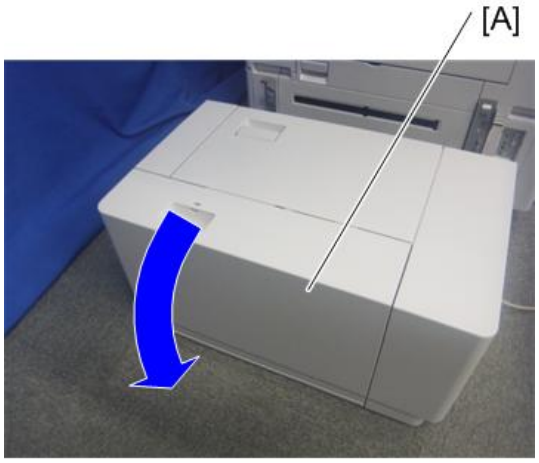
1. **Front cover (☛ page 3)**
2. **Right cover [A] (×1,×1)**



d1462782

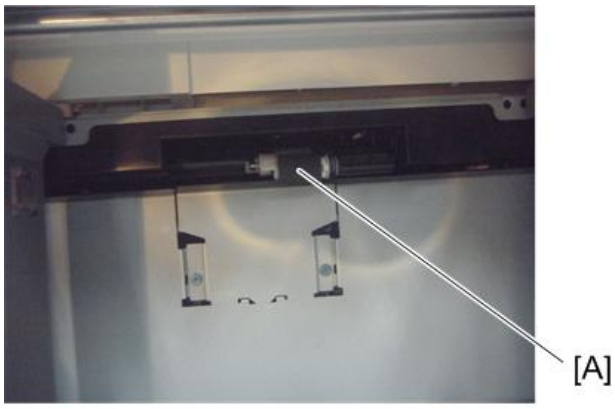
1.5 PICK-UP ROLLER, FEED ROLLER, FRICTION ROLLER

1. **Open the right cover.**



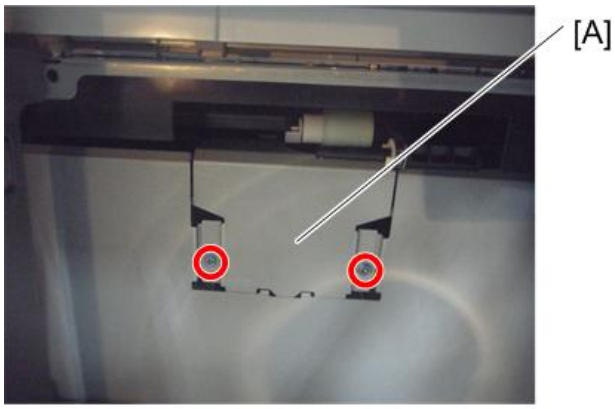
d1462778

2. **Pick-up roller [A] (×1)**



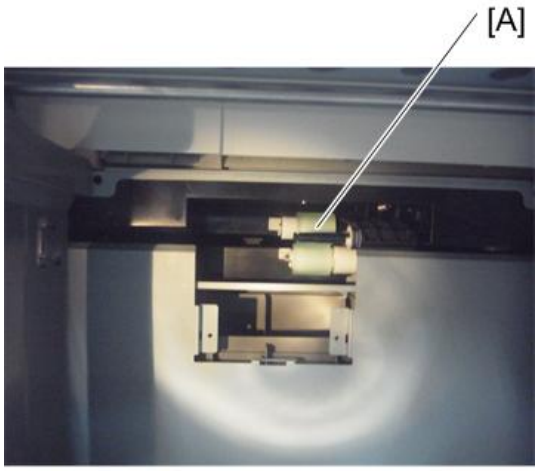
d1462794

3. **Sensor bracket [A] (×2)**



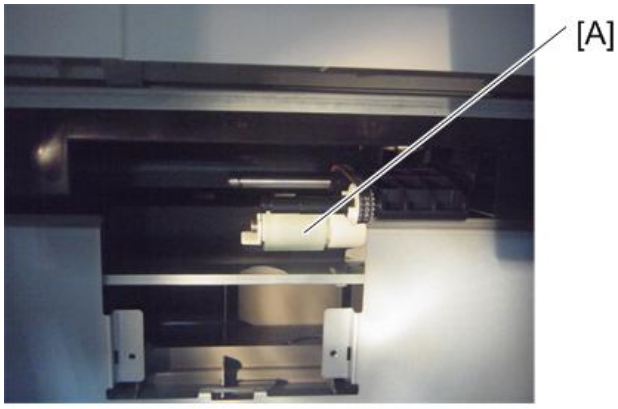
d1462795

4. **Feed roller [A] (×1)**



d1462796

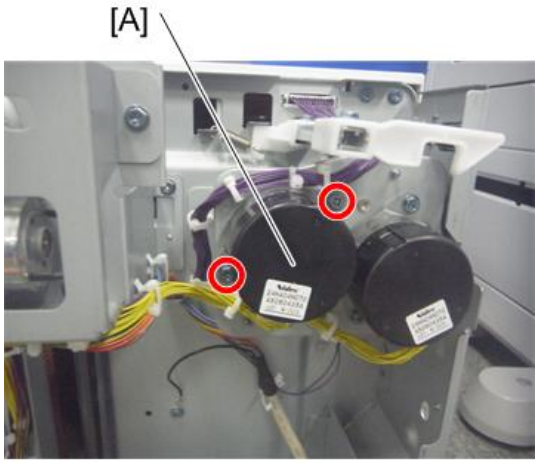
5. Friction roller [A] (×1)



d1462797

1.6 PAPER FEED MOTOR

1. **Rear cover (☛ page 1)**
2. **Paper feed motor [A] (×2, ×1)**



d1462783

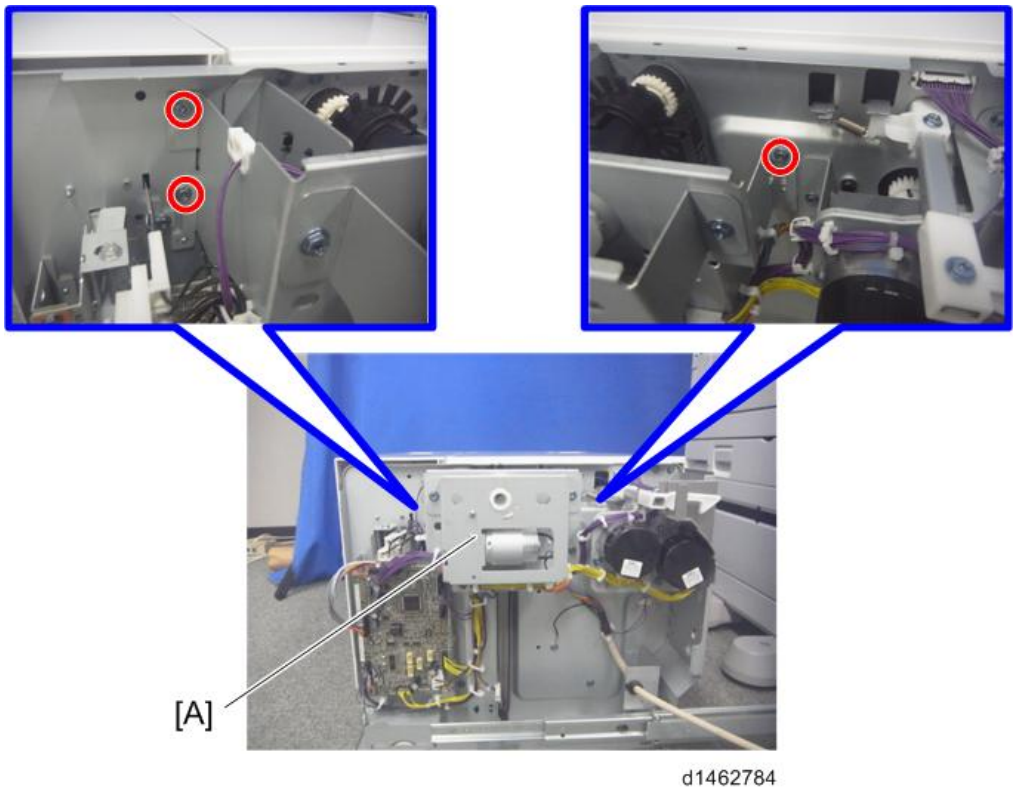
1.7 TRANSPORT MOTOR

1. **Rear cover (☛ page 1)**
2. **Transport motor [A] (×2, ×1)**

d1462798

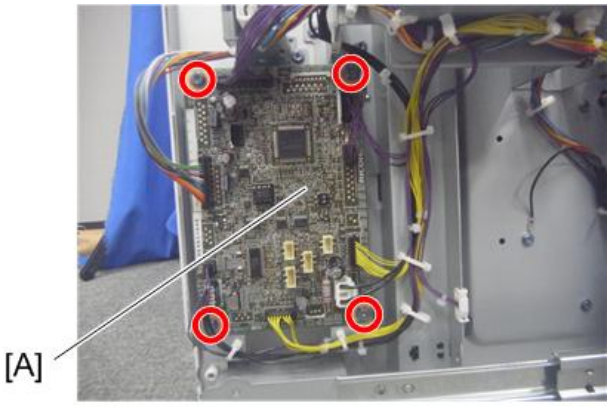
1.8 TRAY LIFT UNIT

1. **Rear cover (☛ page 1)**
2. **Tray lift unit [A] (×3, ×1, ×10)**



1.9 CONTROLLER BOARD

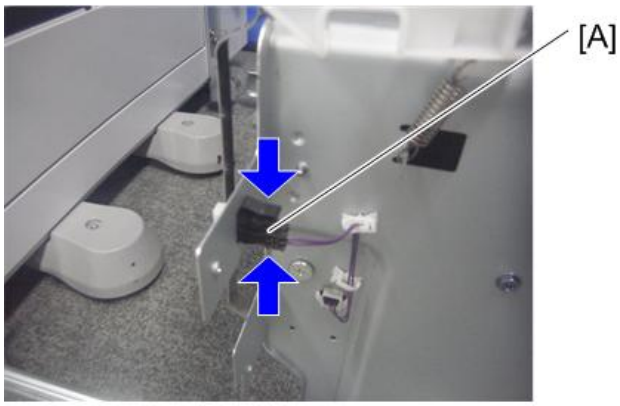
1. **Rear cover (☛ page 1)**
2. **Controller board [A] (×4, ×9, ×2)**



d1462785

1.10 LCT SET SWITCH (FRONT)

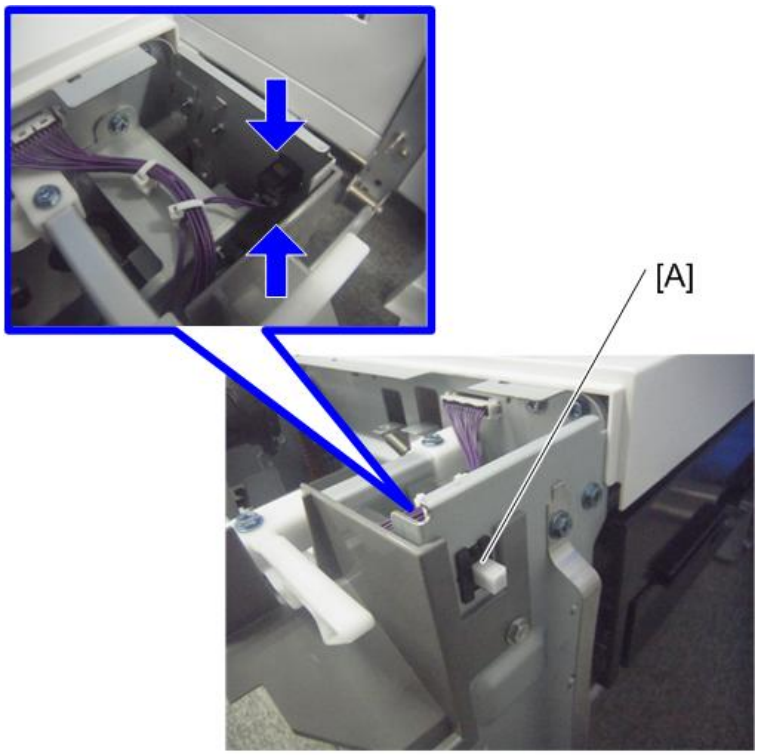
1. **Front cover (☛ page 1)**
2. **LCT set switch (front) [A] (×1)**



d1462786

1.11 LCT SET SWITCH (REAR)

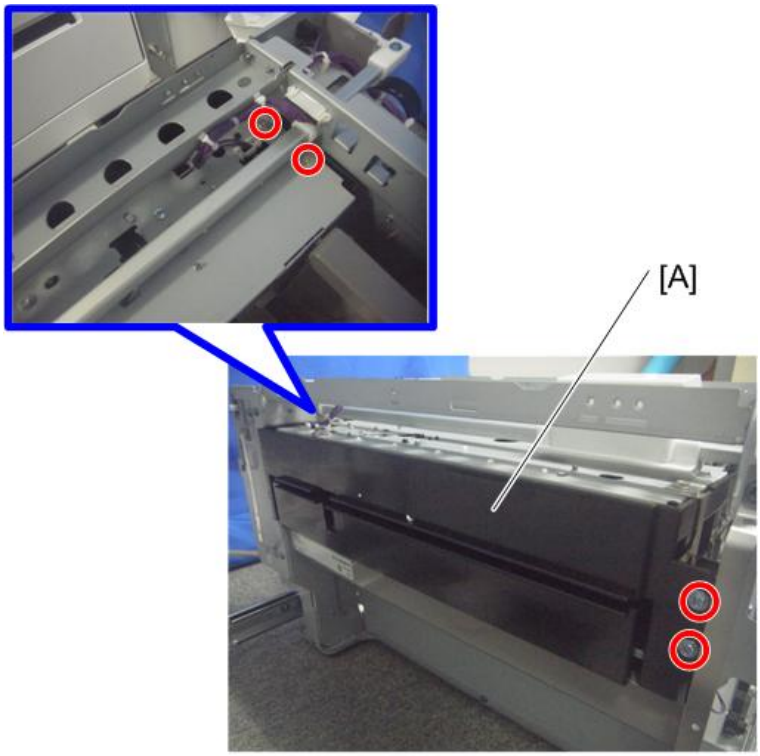
1. **Front cover (☛page 3)**
2. **LCT set switch (rear) [A] (×1)**



d1462787

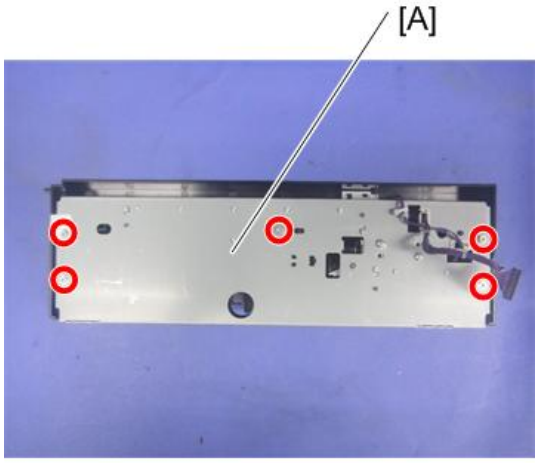
1.12 PAPER FEED SENSOR, PAPER END SENSOR, LIMIT SENSOR, TRANSPORT SENSOR

1. **Upper cover (☛page 4)**
2. **Paper feed unit [A] (×2, ×1, ×2)**



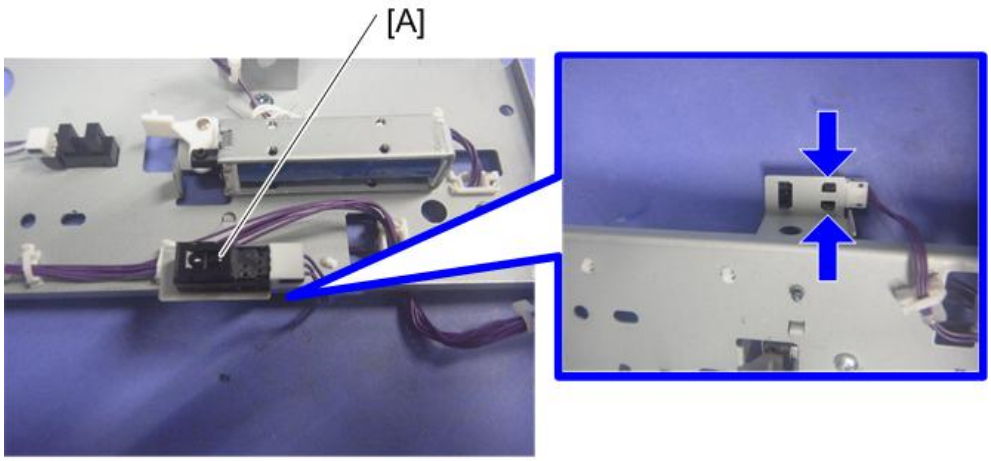
d1462788

3. **Paper feed unit cover [A] (×5)**



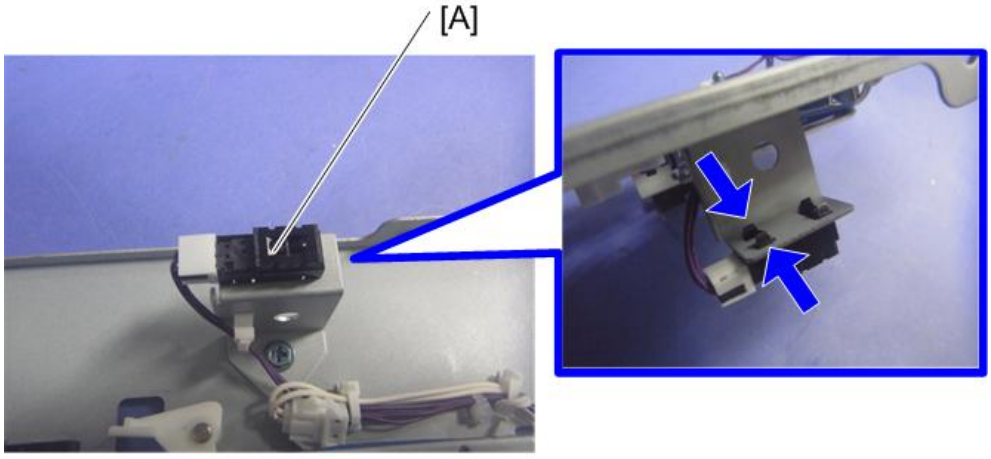
d1462789

4. **Paper feed sensor [A] (×1)**



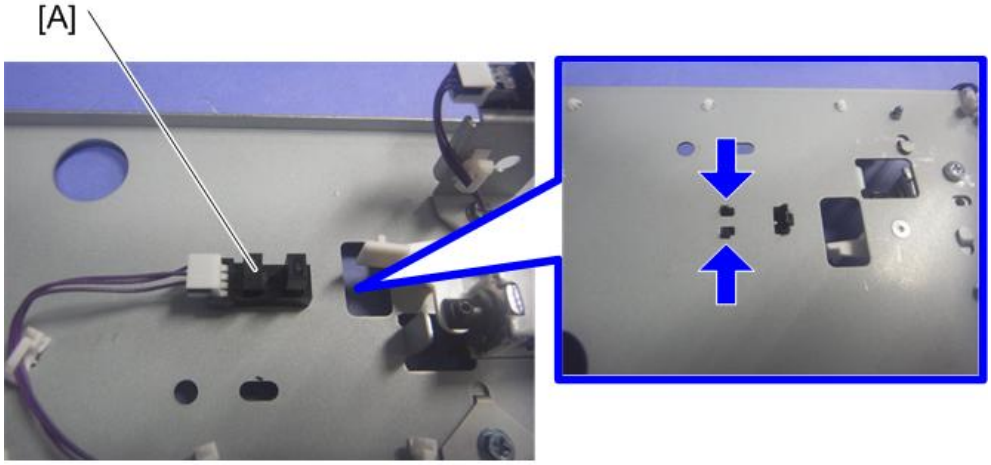
d1462790

5. **Paper end sensor [A] (×1)**



d1462791

6. **Limit sensor [A] (×1)**



d1462792

7. **Transport sensor [A] (×1)**

D725

SIDE TRAY TYPE M3

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

SIDE TRAY TYPE M3 (D725)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

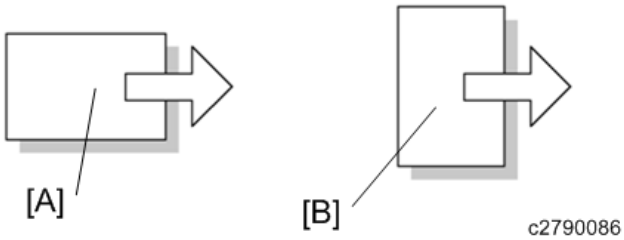
1.1 DRIVE MOTOR UNIT 1
1.2 UPPER PAPER EXIT SENSOR 4
1.3 LEFT PAPER EXIT SENSOR 7
1.4 UPPER PAPER EXIT TRAY SET SWITCH 8
1.5 PAPER EXIT SWITCHING UNIT SET SWITCH 9

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

1.1 DRIVE MOTOR UNIT

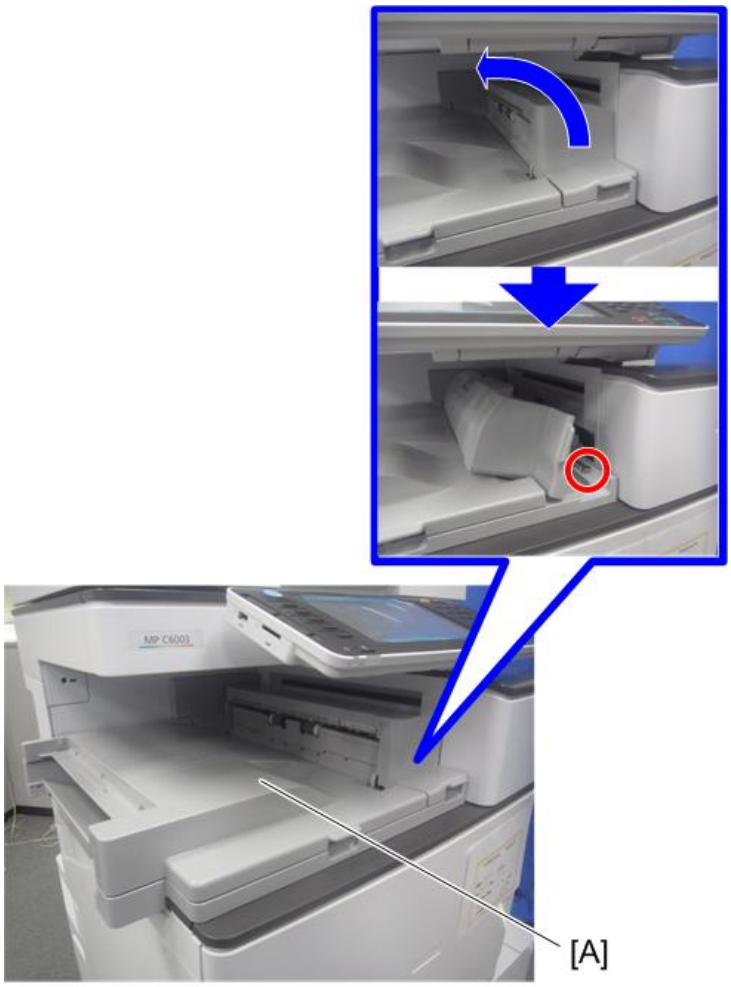
1. **Upper extension tray [A], Left extension tray [B]**

d1462840

2. **Fixing plate [A] (×1)**

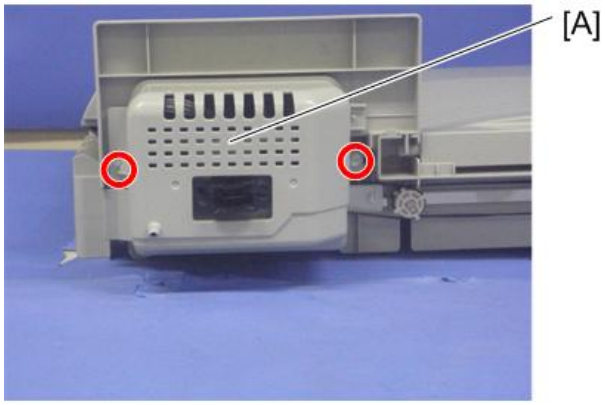
d1462493

3. **Side tray [A]**



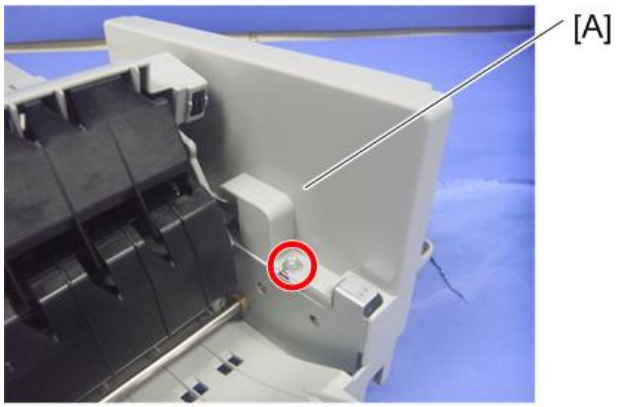
d1462842

4. Drive motor unit cover [A] (×2)



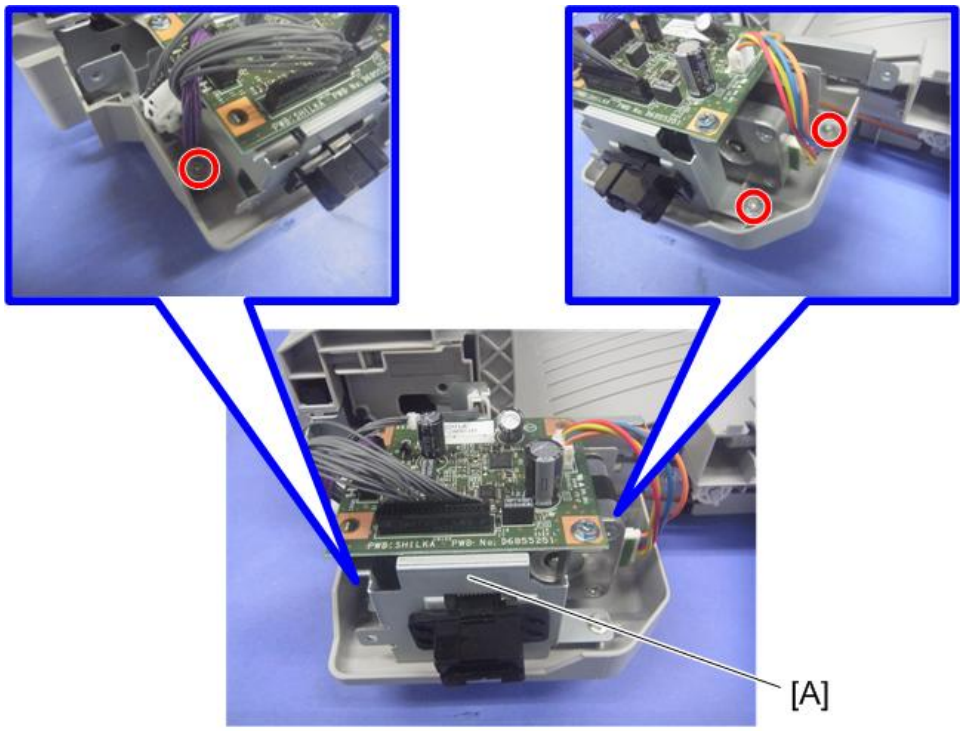
d1462843

5. **Side tray rear cover [A] (×1)**



d1462844

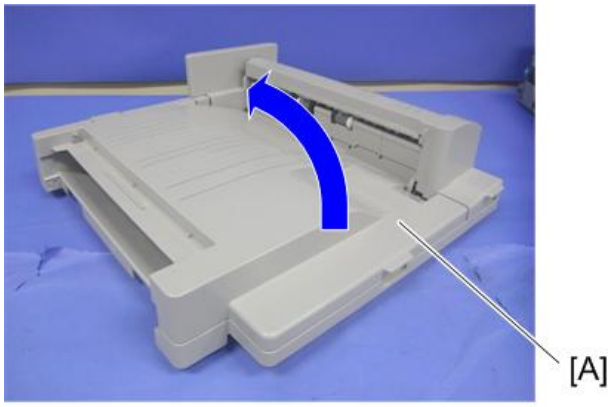
6. **Drive motor unit [A] (×3,×2)**



d1462845

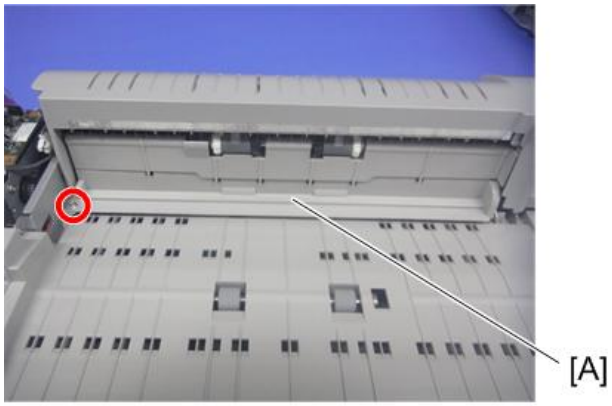
1.2 UPPER PAPER EXIT SENSOR

1. **Side tray (☛ page 1 "Drive Motor Unit")**
2. **Upper paper exit tray [A]**



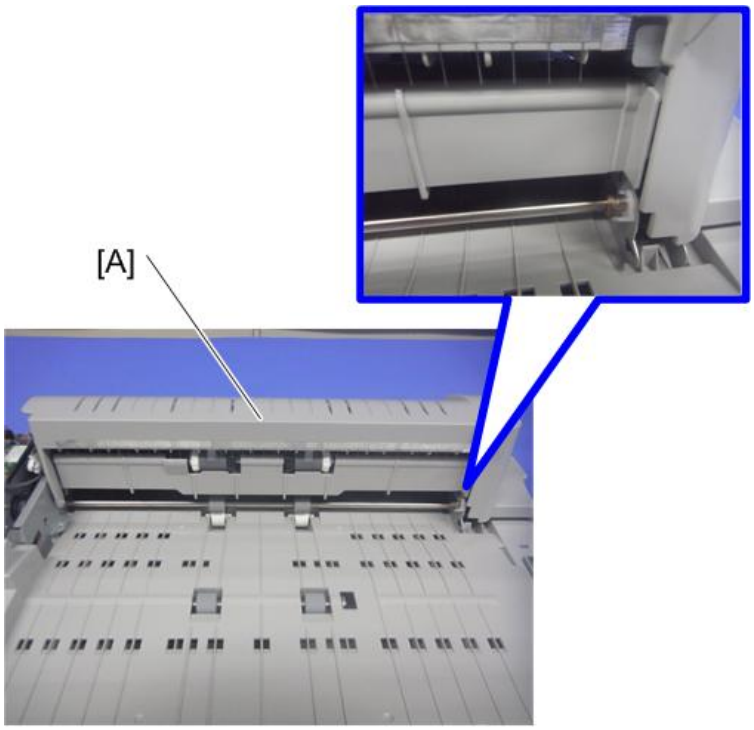
d1462846

3. **Drive motor unit cover (☛ page 1 "Drive Motor Unit")**
4. **Side tray rear cover (☛page 1 "Drive Motor Unit")**
5. **Left paper exit cover [A] (×1)**



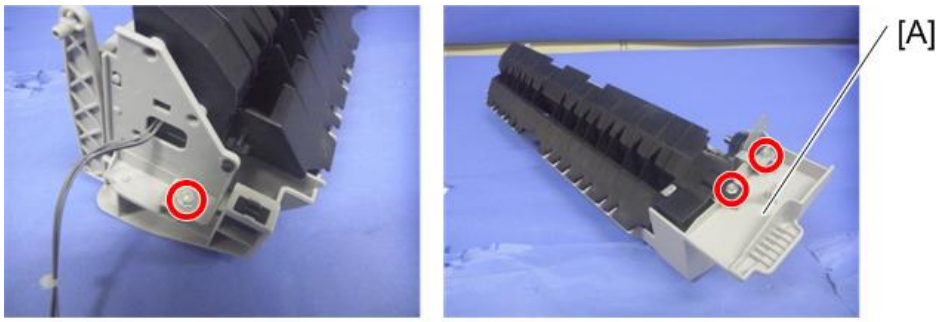
d1462847

6. **Paper exit switching unit [A] (×1)**



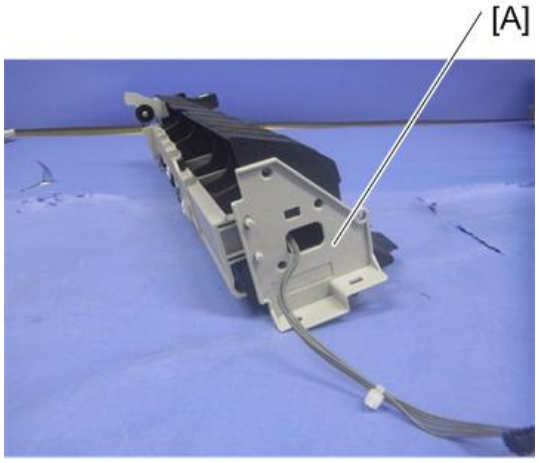
d1462848

7. **Paper exit switching unit cover [A] (×3)**



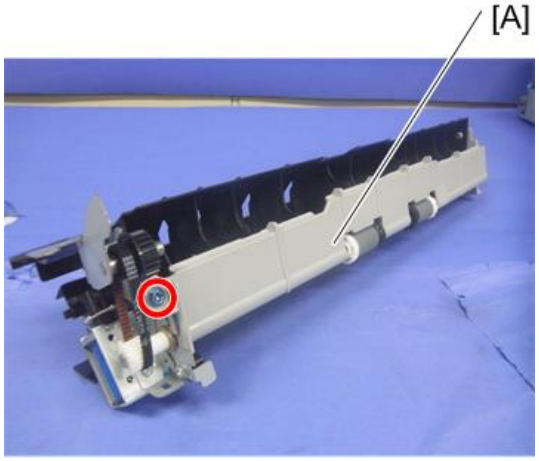
d1462849

8. **Guide plate [A]**



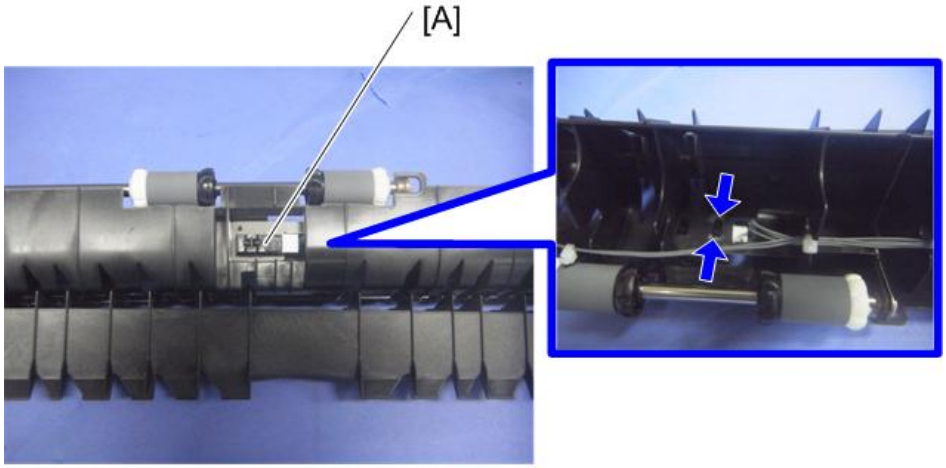
d1462850

9. **Guide plate [A] (×1)**



d1462851

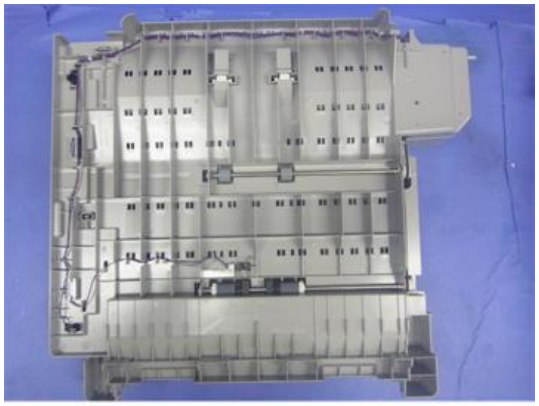
10. **Upper paper exit sensor [A]**



d1462852

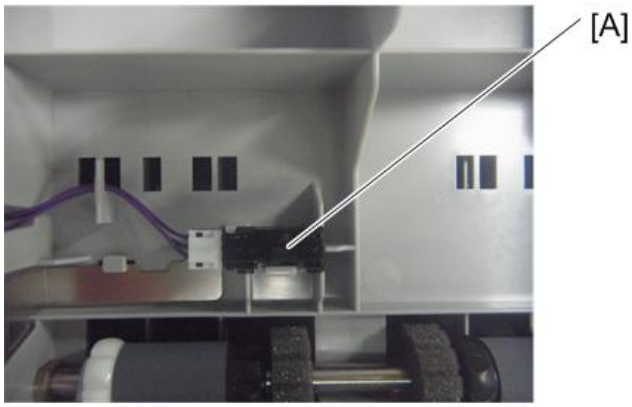
1.3 LEFT PAPER EXIT SENSOR

1. **Paper exit tray (☛ page 4 "Upper Paper Exit Sensor")**
2. **Turn it upside down.**



d1462853

3. **Left paper exit sensor [A] (×1)**



d1462854

1.4 UPPER PAPER EXIT TRAY SET SWITCH

1. **Upper paper exit tray (☛ page 4 "Upper Paper Exit Sensor")**
2. **Upper paper exit tray set switch cover [A]**

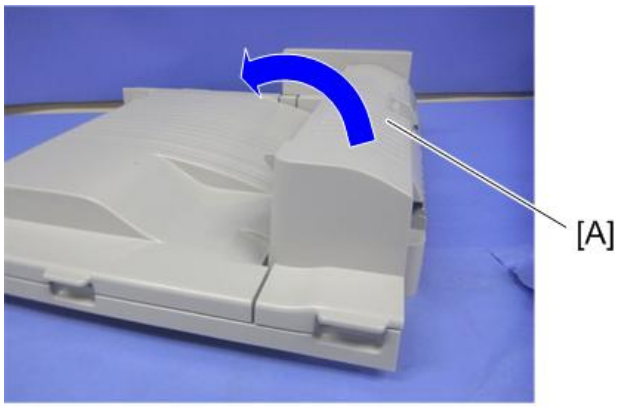
d1462855

3. **Upper paper exit tray set switch [A]**

d1462856

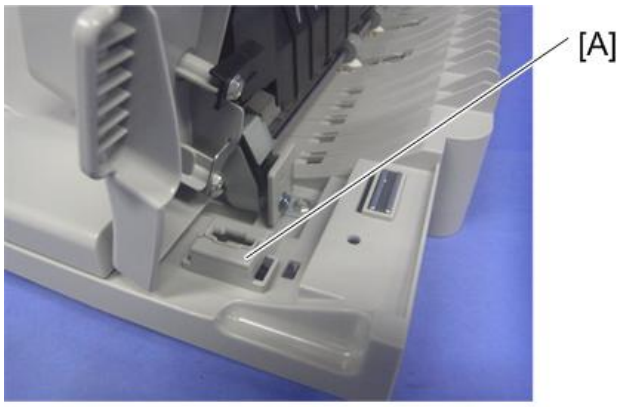
1.5 PAPER EXIT SWITCHING UNIT SET SWITCH

1. **Open the Paper exit switching unit [A]**



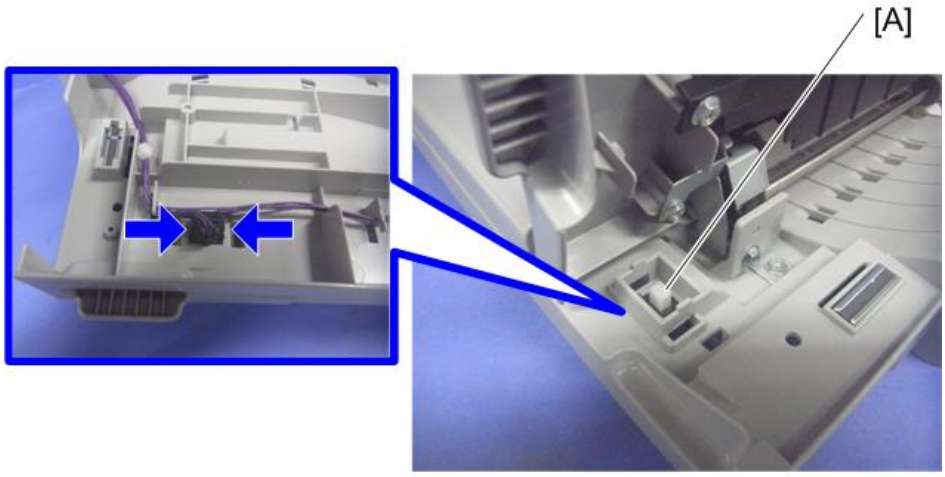
d1462857

2. **Paper exit switching unit set switch cover [A]**



d1462858

3. **Paper exit switching unit set switch [A]**



d1462859

D779

ARDF DF3090

REVISION HISTORY		
Page	**Date**	**Added/Updated/New**
		None

ARDF DF3090 (D779)

TABLE OF CONTENTS

1. REPLACEMENT AND ADJUSTMENT 1

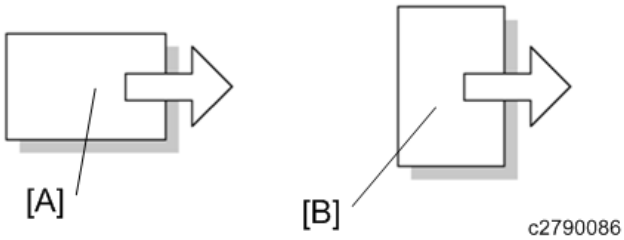
1.1 REAR COVER 1
1.2 FRONT COVER AND ORIGINAL TRAY 2
1.3 ORIGINAL FEED UNIT 3
1.4 PICK-UP ROLLER 4
1.5 FEED BELT 5
1.6 SEPARATION ROLLER 7
1.7 ARDF DRIVE BOARD AND DF POSITION SENSOR 8
1.8 ORIGINAL LENGTH SENSORS AND ORIGINAL SENSOR 9
1.9 ORIGINAL SET SENSOR 10
1.10 ORIGINAL SIZE SENSORS AND SKEW CORRECTION SENSOR 12
1.11 STAMP SOLENOID 14
1.12 ORIGINAL EXIT SENSOR 16
1.13 REGISTRATION SENSOR 17
1.14 ARDF COVER SWITCH 18
1.15 FEED MOTOR 19
1.16 PICK-UP SOLENOID 21
1.17 INVERTER SOLENOID 22
1.18 FEED CLUTCH 23
1.19 TRANSPORT MOTOR 24

READ THIS FIRST

Safety and Symbols

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Trademarks

Microsoft®, Windows®, and MS-DOS® are registered trademarks of Microsoft Corporation in the United States and /or other countries.

PostScript® is a registered trademark of Adobe Systems, Incorporated.

PCL® is a registered trademark of Hewlett-Packard Company.

Ethernet® is a registered trademark of Xerox Corporation.

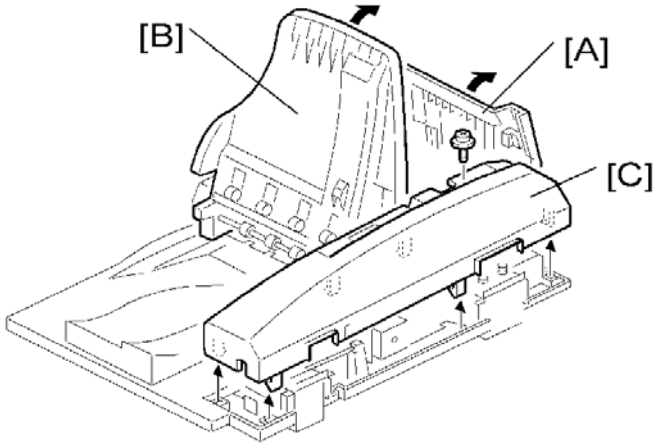
PowerPC® is a registered trademark of International Business Machines Corporation.

Other product names used herein are for identification purposes only and may be trademarks of their respective companies. We disclaim any and all rights involved with those marks.

1. REPLACEMENT AND ADJUSTMENT

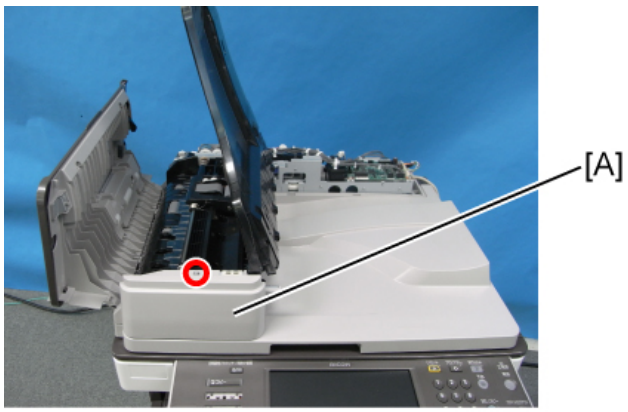
1.1 REAR COVER

1. **Open the left cover [A].**
2. **Open the original tray [B].**
3. **Rear cover [C] (x 1, hook x 6)**



1.2 FRONT COVER AND ORIGINAL TRAY

1. **Open the left cover.**
2. **Rear cover (☛page 1)**
3. **Front cover [A] (x 1)**

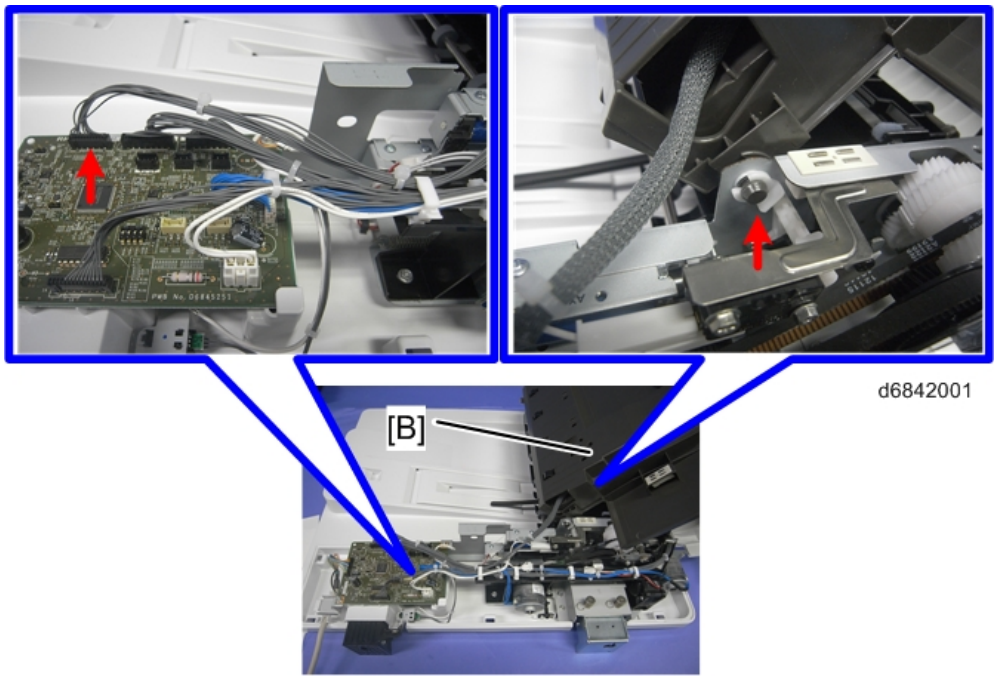


d578r500

Note

- Keep the original tray open when you remove the front cover.

4. **Original tray [B] (x 1, x 1)**



d6842001

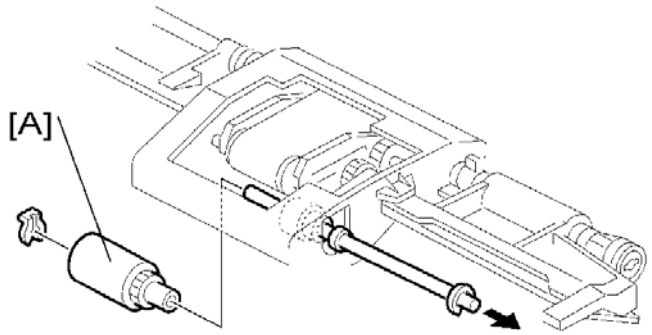
1.3 ORIGINAL FEED UNIT

1. **Open the left cover.**
2. **Original feed unit [A].**

d578r502

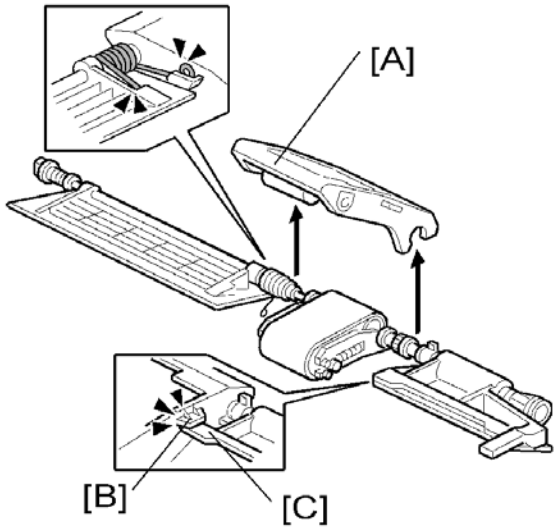
1.4 PICK-UP ROLLER

1. **Open the left cover.**
2. **Original feed unit (☛page 3)**
3. **Pick-up roller [A] (x 1)**



1.5 FEED BELT

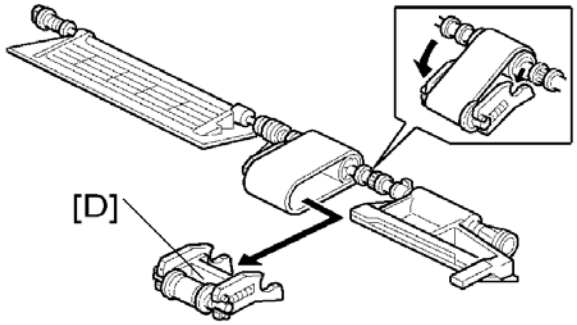
1. **Open the left cover.**
2. **Original feed unit (☛page 5)**
3. **Feed belt cover [A] (spring x 1)**



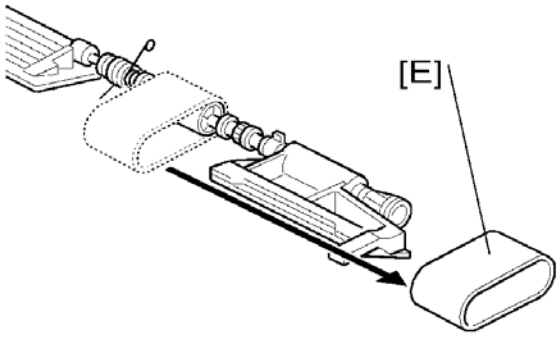
Note

- When reassembling the feed belt cover, make sure that the projection [B] of the feed belt cover is on the guide plate rear [C].

4. **Belt tension unit [D]**

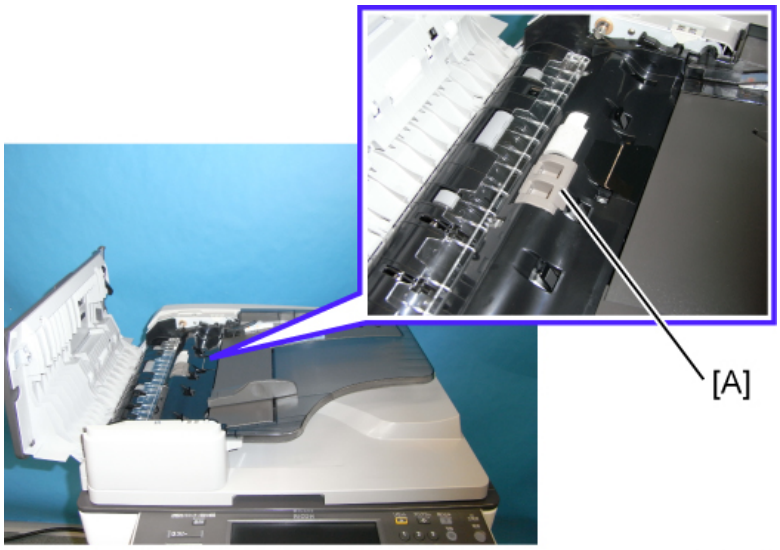


5. Feed belt [E].



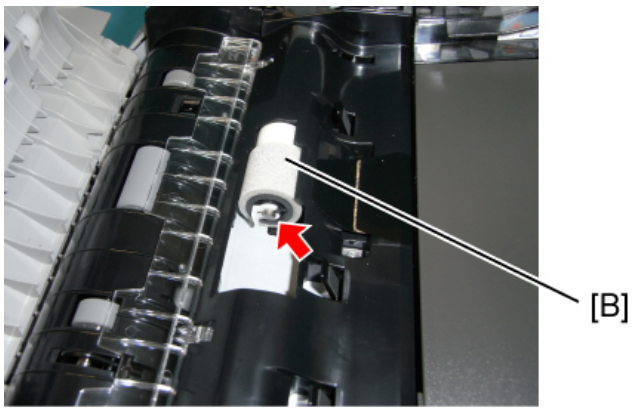
1.6 SEPARATION ROLLER

1. **Original Feed Unit (☛page 3)**
2. **Separation roller cover [A].**



d578r503

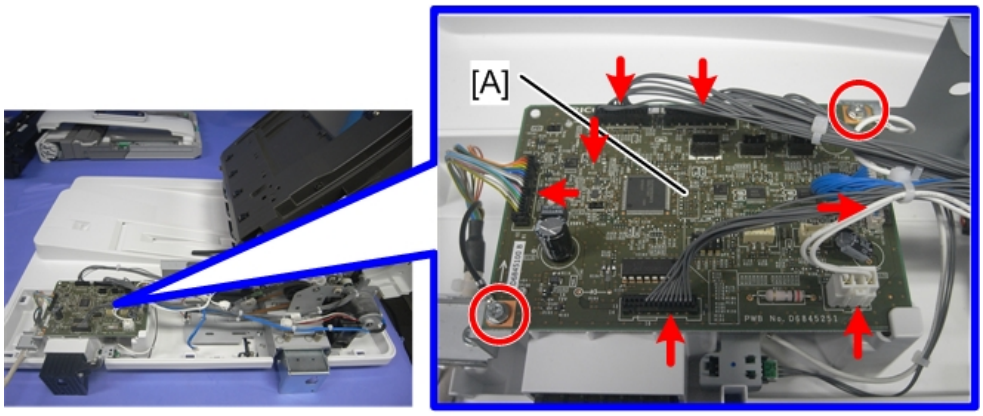
3. **Separation roller [B] (x 1)**



d578r504

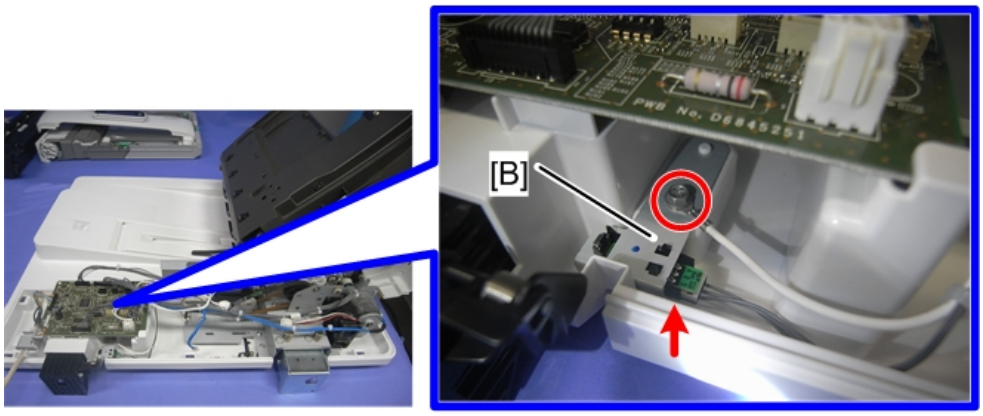
1.7 ARDF DRIVE BOARD AND DF POSITION SENSOR

1. **Rear cover (☛page 1)**
2. **ARDF drive board [A] (x 3, all s)**



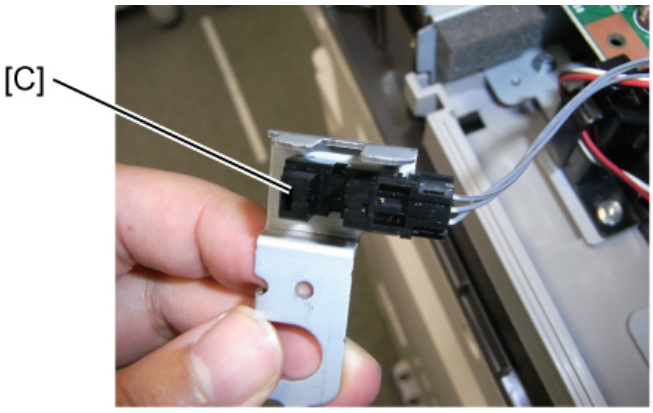
d6842007

3. **DF position sensor with bracket [B] (x 1, x 1)**



d6842008

4. **DF position sensor [C] (hook x 2)**



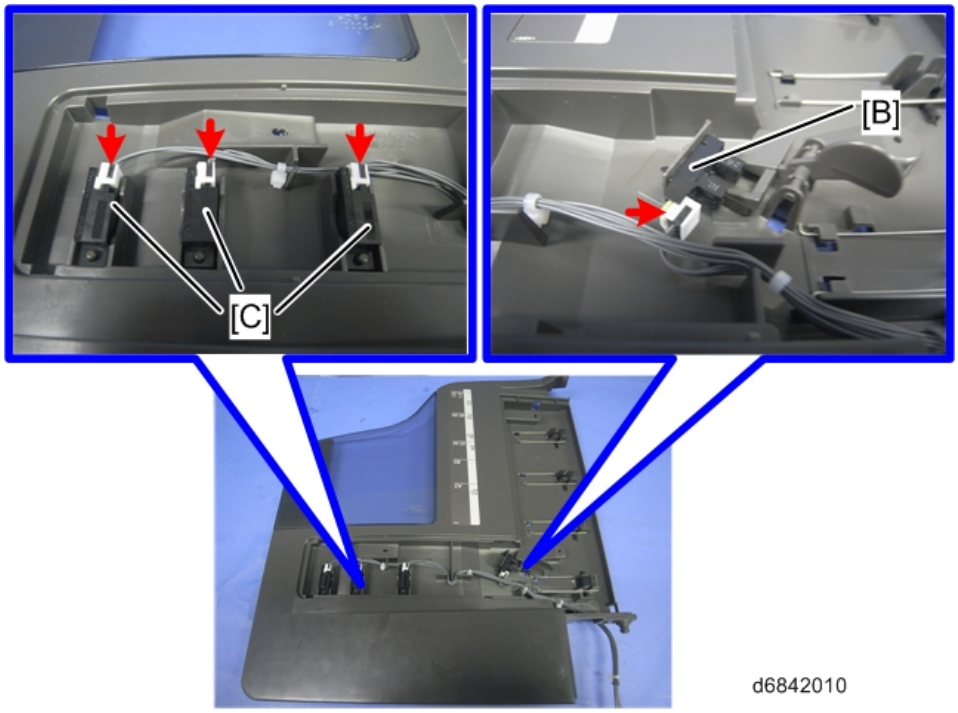
d578r507

1.8 ORIGINAL LENGTH SENSORS AND ORIGINAL SENSOR

1. **Original Tray (☛page 2 "Front Cover and Original Tray")**
2. **Tray cover [A] (x 3)**

d6842009

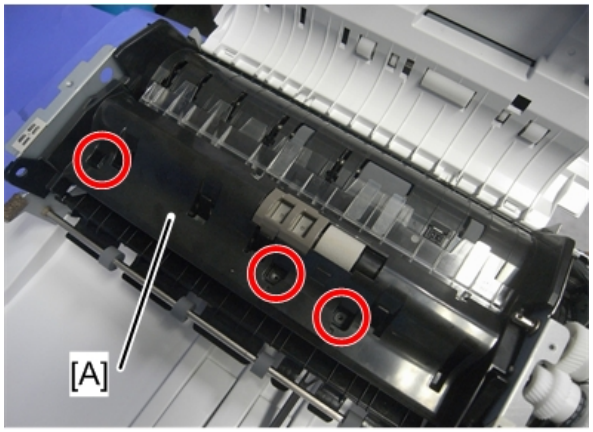
3. **Original sensor [B] (x 1)**
4. **Original length sensors [C] (x 1 each)**



d6842010

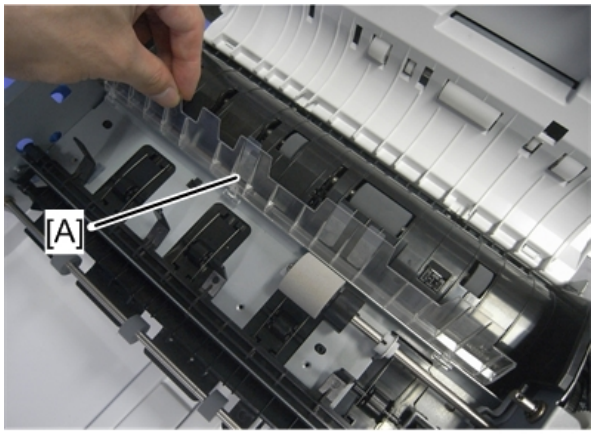
1.9 ORIGINAL SET SENSOR

1. **Open the left cover.**
2. **Original feed unit (☛page 3)**
3. **Original tray (☛page 2)**
4. **Original feed-in guide plate [A] (x 3).**



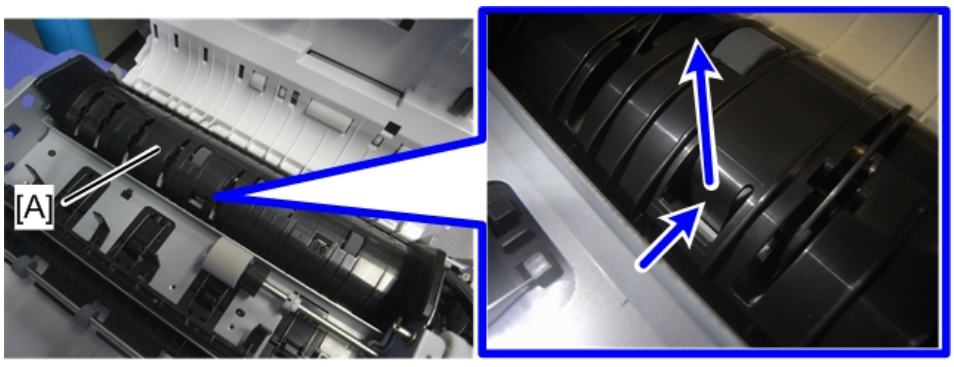
d6842012

5. **Feed guide [A]**

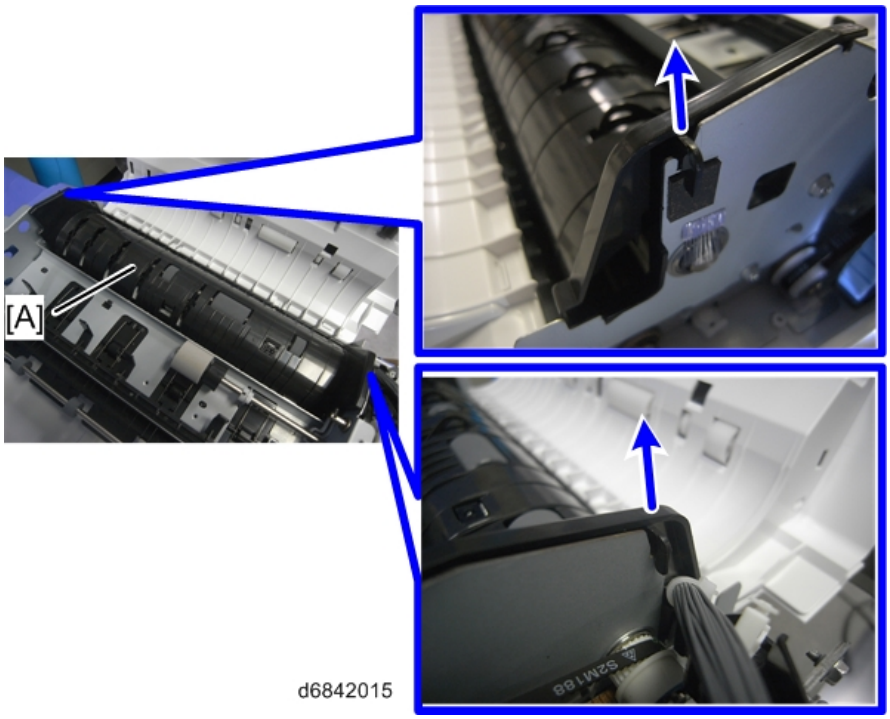


d6842013

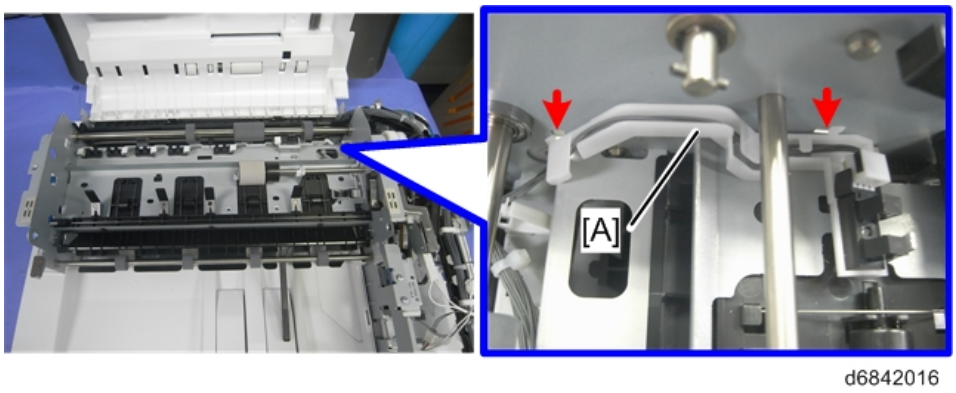
6. **Original turn guide plate [A] (hook x 1).**



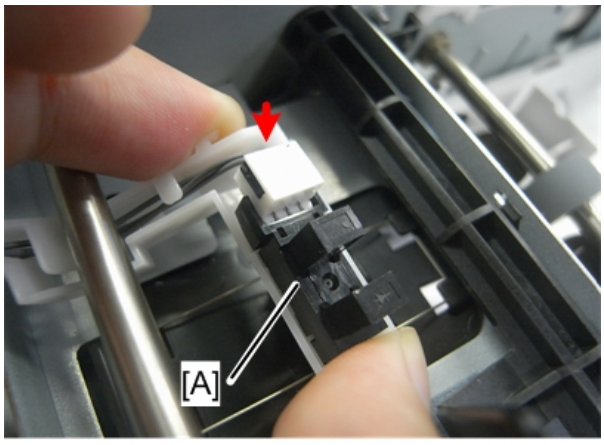
d6842014



7. **Original set sensor bracket [A] (x 1)**

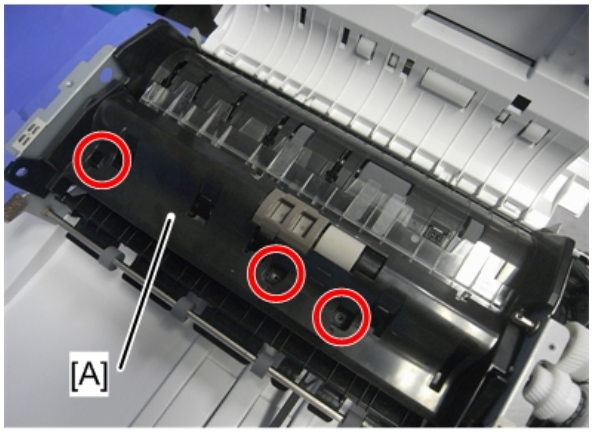


8. **Original set sensor [A]**



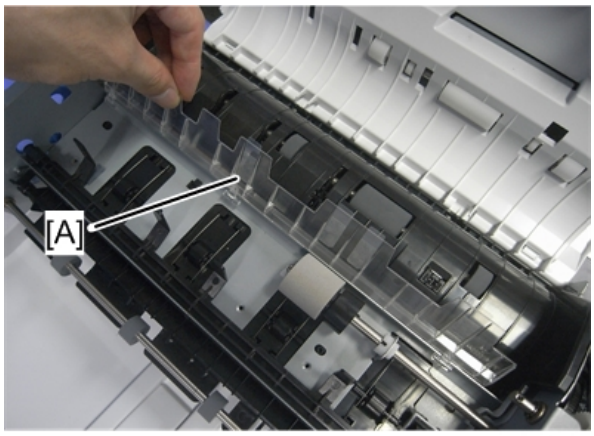
1.10 ORIGINAL SIZE SENSORS AND SKEW CORRECTION SENSOR

1. **Open the left cover.**
2. **Original feed unit (☛page 3)**
3. **Original tray (☛page 2)**
4. **Original feed-in guide plate [A] (x 3).**



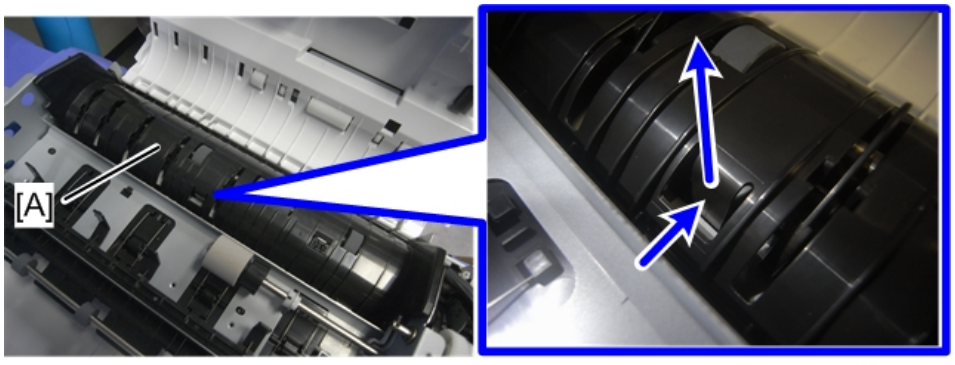
d6842012

5. **Feed guide [A]**

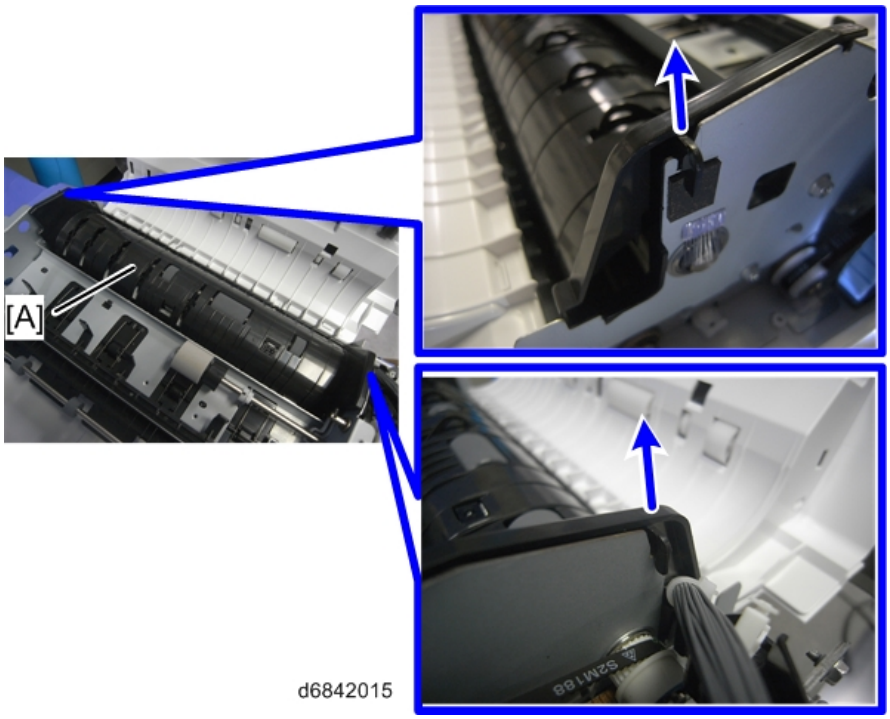


d6842013

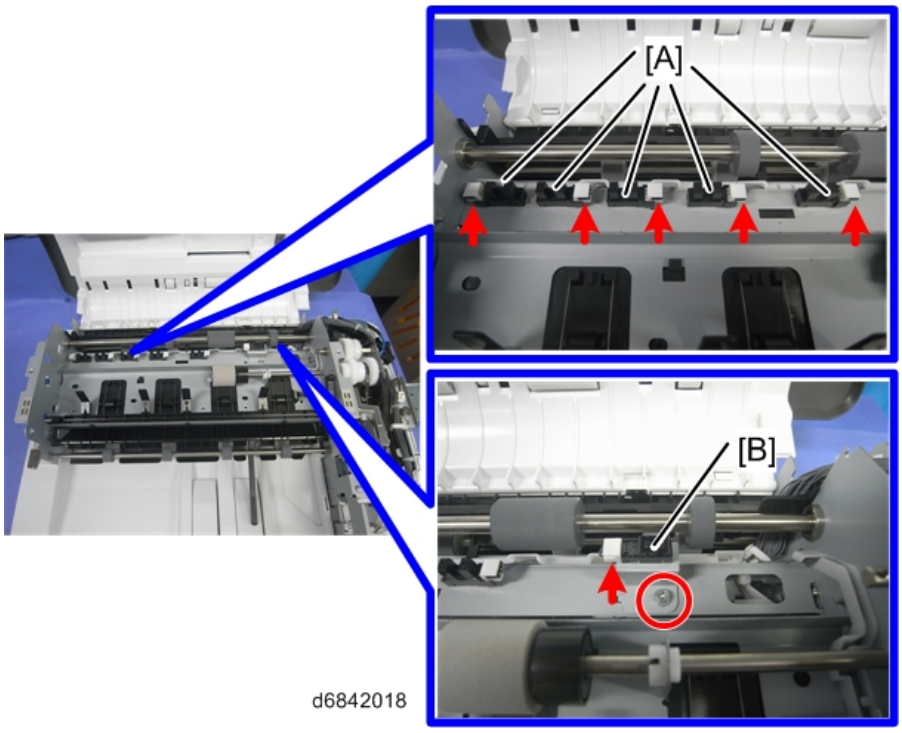
6. **Original turn guide plate [A] (hook x 1).**



d6842014

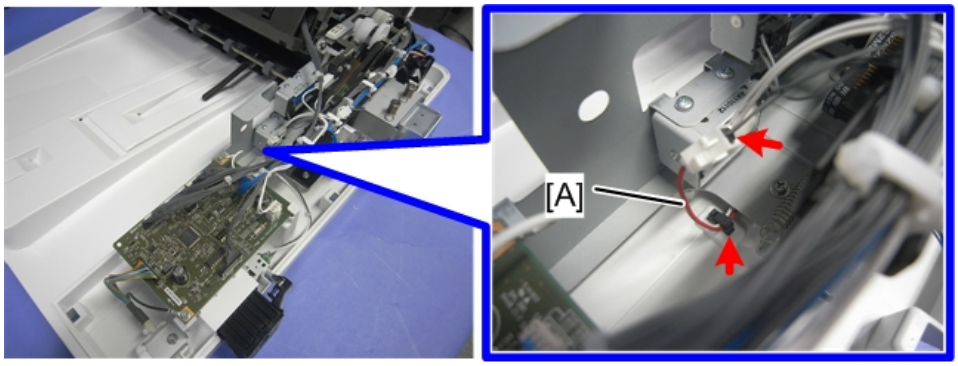


7. **Original width sensors [A] (x 1 each) and skew correction sensor [B] with bracket (x 1, x 1)**



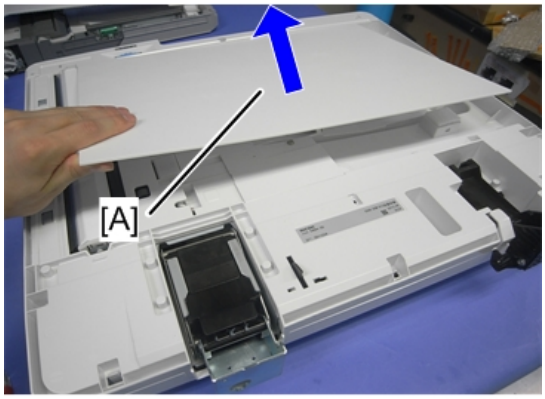
1.11 STAMP SOLENOID

1. **Rear cover (☛page 1)**
2. **Stamp solenoid harness [A] (x 1, x 1)**



d6842023

3. **Open the ARDF.**
4. **Remove the platen sheet [A].**

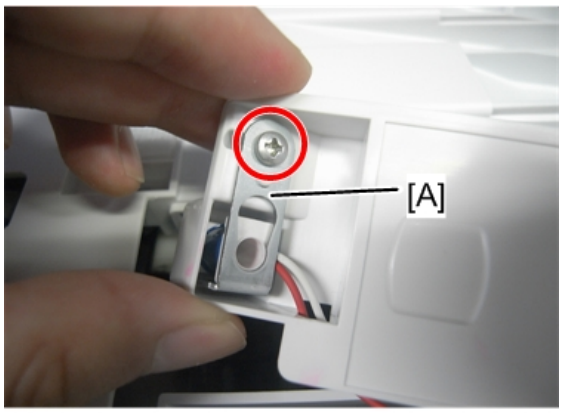


d6842020

5. **Stamp solenoid cover [A] (x 1)**

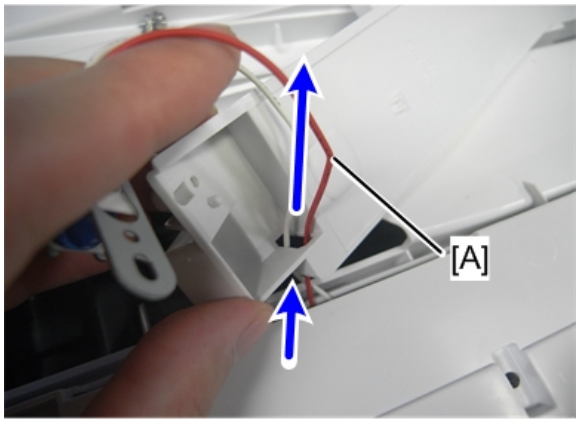
d6842021

6. **Stamp solenoid [A] (x 1)**



d6842022

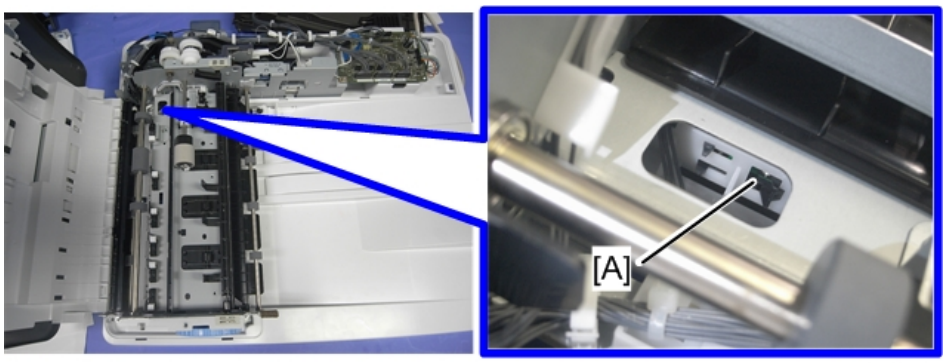
7. **Pull out the harness [A].**



d6842030

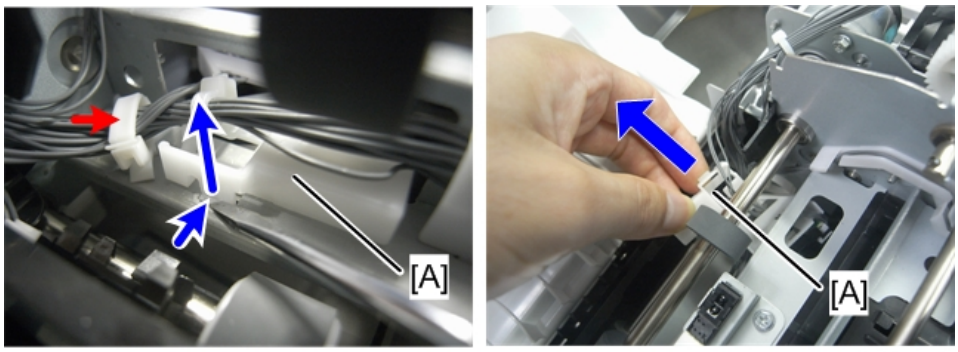
1.12 ORIGINAL EXIT SENSOR

1. **Open the left cover.**
2. **Original feed unit (☛page 3)**
3. **Original tray (☛page 2)**
4. **Original feed-in guide plate (☛page 10)**
5. **The Original Exit Sensor is located in the ARDF mainframe [A].**



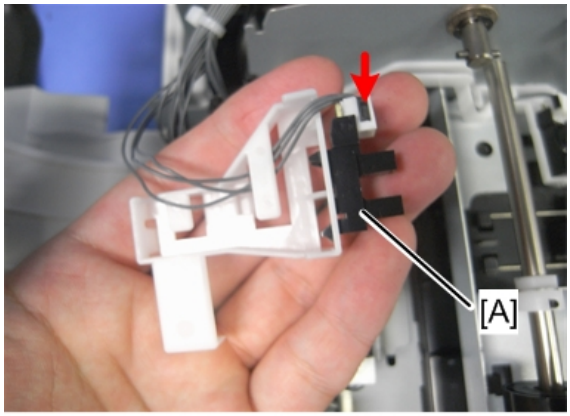
d6842026

6. **Original exit sensor bracket [A]**



d6842027

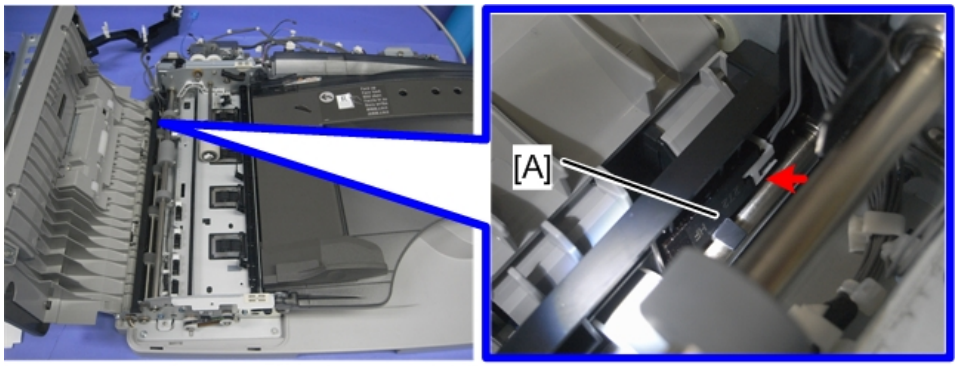
7. **Original exit sensor [A]**



d6842028

1.13 REGISTRATION SENSOR

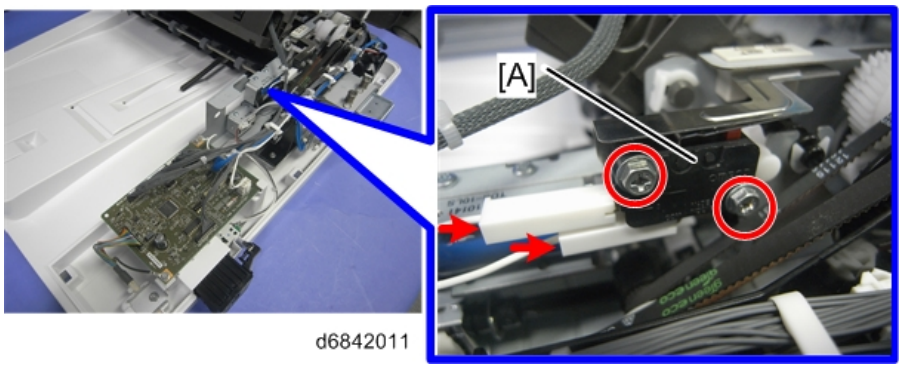
1. **Open the left cover.**
2. **Original feed unit (☛page 3)**
3. **Original tray (☛page 2)**
4. **Original feed-in guide plate (☛page 10)**
5. **Registration sensor [A] (x 1)**



d7242002

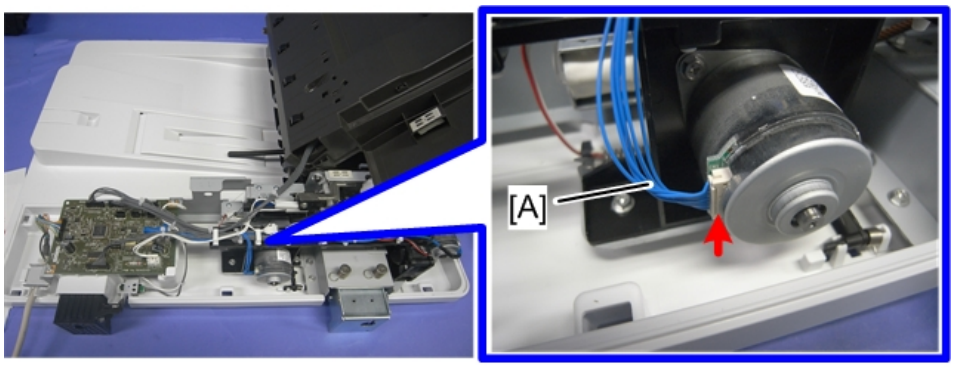
1.14 ARDF COVER SWITCH

1. **Rear cover (☛page 1)**
2. **ARDF Cover Switch [A] (x 2)**



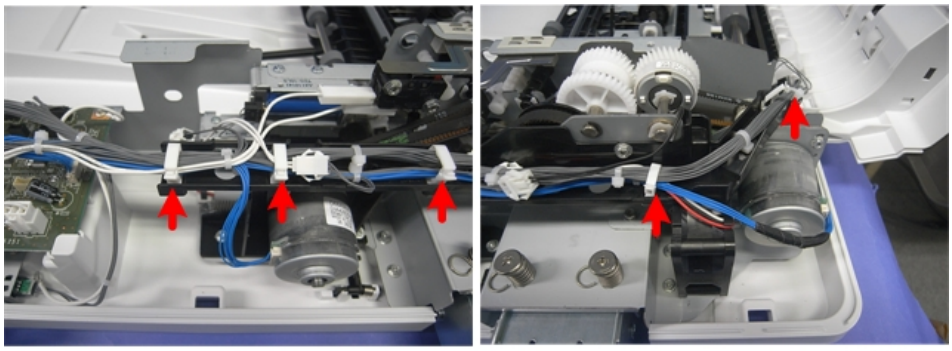
1.15 FEED MOTOR

1. **Rear cover (☛page 1)**
2. **Feed motor harness [A] (x 1)**

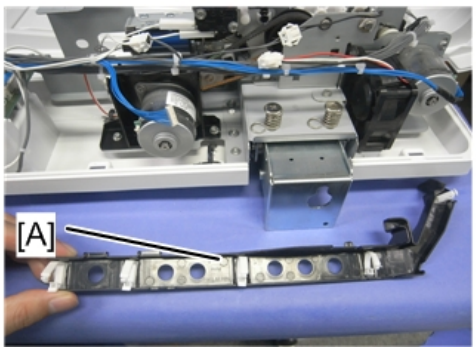


d6842003

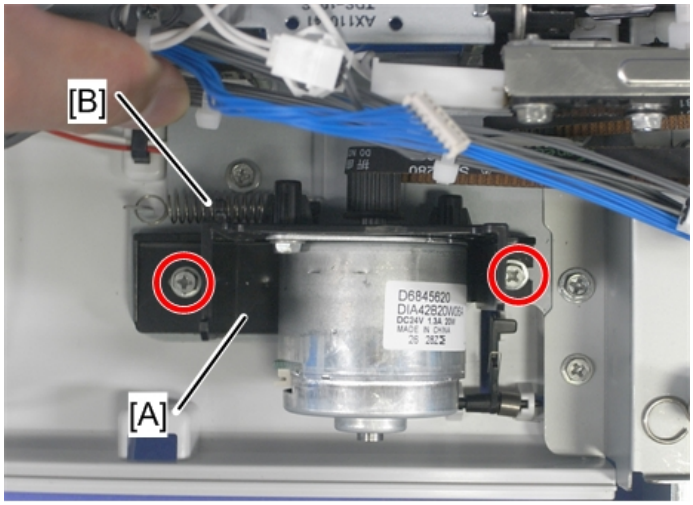
3. **Harness guide [A] (x 5)**



d6842002

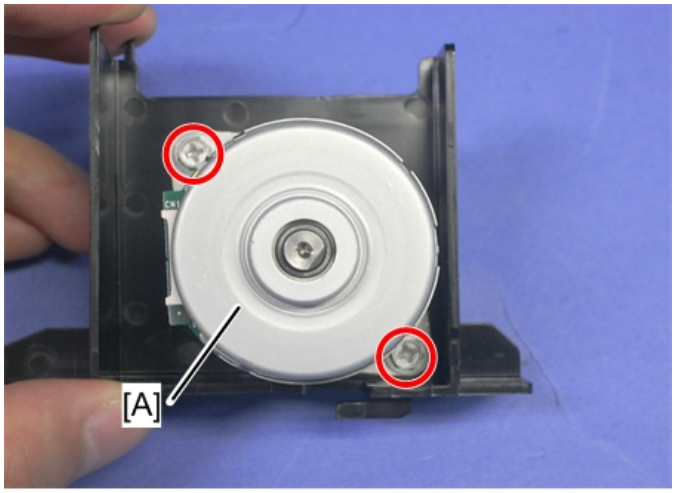


4. **Feed motor with bracket [A] (x 2, spring [B] x 1)**



d6842004

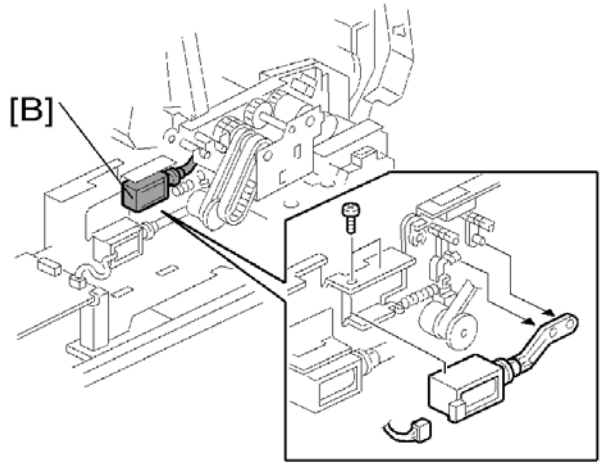
5. Feed motor [A] (x 2)



d6842005

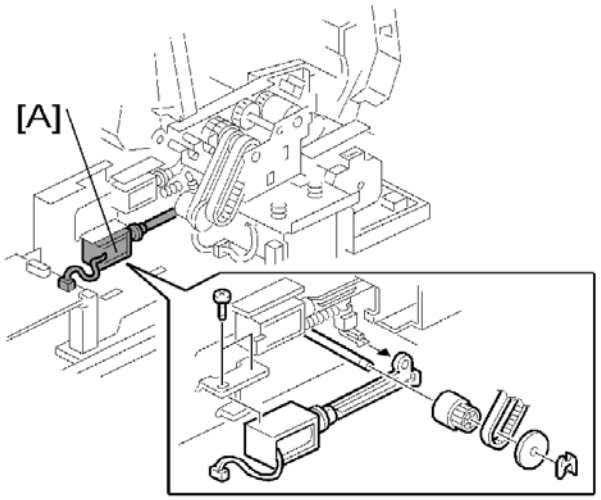
1.16 PICK-UP SOLENOID

1. **Rear cover (☛page 1)**
2. **Harness guide (☛page 19)**
3. **Pick-up solenoid [B] (x 2, x 1)**



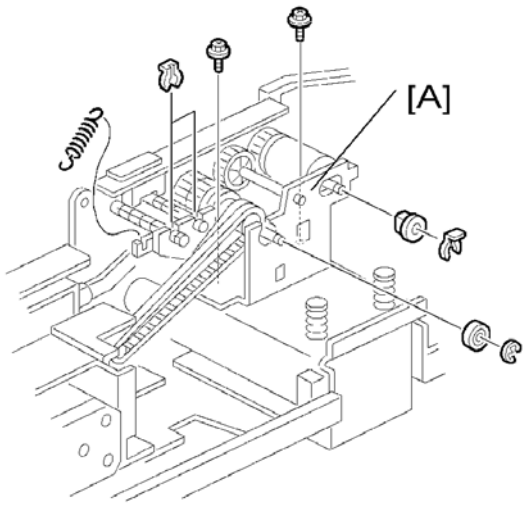
1.17 INVERTER SOLENOID

1. **Rear cover (☛page 1)**
2. **Harness guide (☛page 19)**
3. **Inverter solenoid [A] (x 2, x 1, x 1, gear x 1, gear cover x 1)**

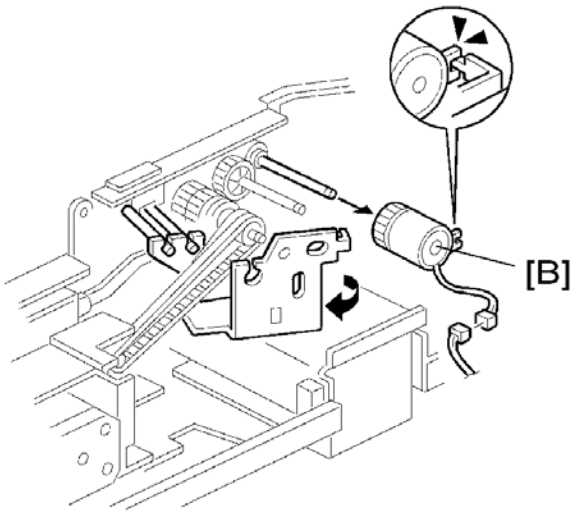


1.18 FEED CLUTCH

1. **Rear cover (☛page 1)**
2. **Harness guide (☛page 19)**
3. **Bracket [A] (x 2, x 3, x 1, bushing x 1, spring x 1)**

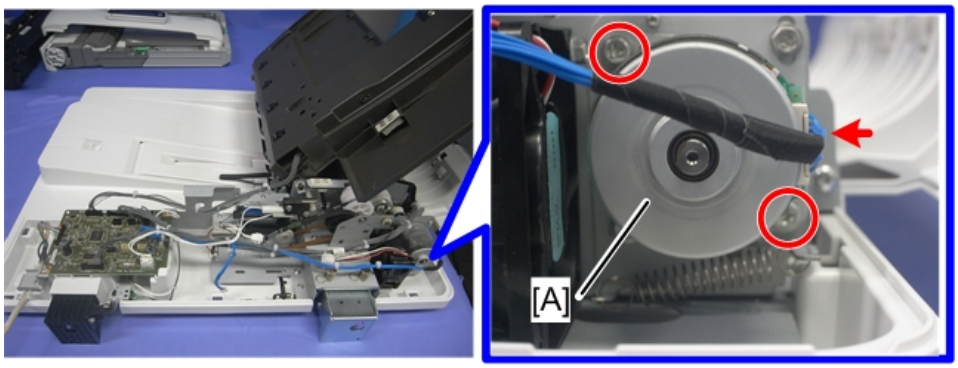


4. **Slide the bracket.**
5. **Feed clutch [B] (x 1)**



1.19 TRANSPORT MOTOR

1. **Rear cover (☛page 1)**
2. **Harness guide (☛page 19)**
3. **Transport motor [A] (x 2, x 1)**



d6842006