

**Model MET-C1
Machine Code:
D146/D147/D148/D149/D150
Field Service Manual**

May, 2014

Revision Lists (V2.00)

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Product Information

Section	Item	Note
Product Overview	Component Layout > Duplex Unit	No.4, 7 and 9 are renamed.
Product Overview	Component Layout > Board / Switch	No.7 and 8 are renamed.

Installation

Section	Item	Note
Main Machine Installation	Important notice on security issues	This item is added.
	Installation Procedure > Removal of packing materials and shipping retainers / Removal of PCDU seal	"CAUTION for Removing the PCDU Preset Seal" is added to step 8.
		Picture "d146f0006" in step 11 is replaced.
	Installation Procedure > Attaching the optical cloth pocket	This item is added.
	Installation Procedure > Attaching the decals	This item is deleted.
	Image quality test / settings > Paper setting	Executing "SP5-181-001 to 017" is deleted.
	Transporting the Machine	This item is deleted.
Paper Feed Unit PB3160	Accessory Check	Quantity of No.2 is changed. Items other than 1 to 3 are deleted.

Section	Item	Note
Paper Feed Unit PB3150	Accessory Check	Rating label and Decal - EMC Address are deleted.
LCIT RT3030	Accessory Check	All items are revised.
LCIT RT3030	Installation procedure	New procedure is added to step7.
		Picture "d146z0017a" in step 8 is replaced.
Caster Table Type M3	Installation procedure	Step 2 is revised.
	Installation procedure > How to place MFP on the caster table	This item name is added.
	Installation procedure > How to place the Paper Feed Unit PB3150 on the caster table	This item is added.
SPDF DF3080	Accessory Check	No.10 is added. Picture "d1462501" is revised..
	Installation procedure > Adjust SP Settings	Picture "d1462518" in step2 is revised.
Bridge Unit BU3070	Accessory Check	Picture "d1465001" in Accessory Check is replaced.
1 Bin Tray BN3110	Accessory Check	Picture "d1462475" in Accessory Check is replaced.
Booklet Finisher SR3150 (D686)/ Finisher SR3140 (D687)	Accessory Check	All items are revised.
	Installation Procedure	New procedure is added to step 2.
		Step 6 is added.
		Step 8 is added.

Section	Item	Note
Internal Finisher SR3130	Installation Procedure	Number of screws in step 12 is revised.
		Picture "d1462565" in step 13 is revised.
		Step 14 is added.
		Note in step 23 is added.
Punch Unit PU3040	Accessory Check	All items and picture are revised.
	Installation Procedure	Picture "d1462573" in step 7 is replaced.
External Keyboard Bracket Type M3 (D739-10)	-	This procedure is added.
Smart Card Reader Built-in Unit Type M2 (D739-36)	-	This procedure is added.
Card Reader Bracket Type 3352 (D593)	-	This procedure is added.
Copy Data Security Unit Type G	Installation Procedure	Step 2 is revised.
	Installation Procedure > User Tool Setting	Notes for SC165 are added to step 4.
OCR Unit Type M2	Installation procedure	Caution sentences are deleted.
SD Card Appli Move	Move Exec	Note is added.
Browser Unit Type M4/M3	Installation procedure	Names of keys and buttons in this procedure are revised.
		Names of keys and buttons in this procedure are revised.
	Installation procedure > To update Browser/EXJS	This procedure is revised.
	Settings	Names of keys and buttons in this procedure are revised.

Section	Item	Note
Anti-Condensation Heater	-	This procedure is added.
Anti-Condensation Heater for LCT	-	This procedure is added.

Preventive Maintenance

Section	Item	Note
PM Parts Settings	Replacement procedure of the PM parts	SP tables are revised.

Replacement and Adjustment

Section	Item	Note
Scanner Unit	Modifying the Scanner (contact/contactless) when using ARDF	Setting value is revised.
	Modifying the Scanner (contact/contactless) when using SPDF	Clip in step 1 and 2 are deleted.
Laser Unit	Laser Unit > Adjustment after replacing the laser unit	Step 9 and 10 are revised. Step 11 is added.

Section	Item	Note
PCDU	Notes when replacing a PCDU	Caution about orange tapes is added.
	Notes when replacing a PCDU > D146/D147/D148	Note for spring pressure is added.
		Steps from 2 to 5 are added.
	Notes when replacing a PCDU > D149/D150 > Releasing the spring pressure and removing the component that prevents compatibility with D149/D150	Step 2 is revised.
	Notes when replacing a PCDU > Attaching the springs	New procedure is added.
	PCU/Development Unit > Before replacing a PCU or development unit	2nd caution about replacing a development unit is added.
	Imaging Temperature Sensor (Thermistor)	This item is moved from Laser Unit section.
Image Transfer Unit	Image Transfer Belt Unit	Caution is revised.
		Caution is added.
	Image Transfer Belt	Caution is added.
	Paper Transfer Roller > When reinstalling the paper transfer roller	New procedure is added.
		Caution is added.
	Fusing Entrance Sensor	Name is revised from Paper Transfer Exit Sensor.
	Temperature and Humidity Sensor	Picture "d146z0037" in step 4 is replaced.
	Image Transfer Lock Unit	This item is added.

Section	Item	Note
Fusing Unit	Fusing Unit > Replacement	Caution about clearing SC544-02 or SC554-02 is added.
	Heating Sleeve Belt Unit	Caution about clearing SC544-02 or SC554-02 is added.
		Caution about clearing SC544-02 or SC554-02 is revised.
		Note about the temperature sensor unit is added.
	Heating Sleeve Unit	Item name is changed from "Heating Sleeve Belt Unit".
	Heating Sleeve Belt Unit > To clear SC544-02 or SC554-02	New procedure is added.
	Heating Sleeve Belt Unit > How to cancel SC544-02/ SC554-02 with a new unit detection fuse	Item name is changed from "To clear SC544-02 or SC554-02". And procedure is revised.
	Pressure Roller > Replacement	Name of C-ring is changed from clip.
	Fusing Thermistor	Picture "d146z0022" in step 3 is replaced.
Paper Feed	Pick-up Roller, Paper Feed Roller, Separation Roller, Torque Limiter	This item is deleted.
	Separation Roller, Torque Limiter	This item is added.
	Pick-up Roller, Paper Feed Roller	This item is added.

Section	Item	Note
Electrical Components	BCU	Number of connectors in step 2 is revised.
	BCU > When installing the new BCU	Name of EEPROM is added just after NVRAM.
	BCU > Replacing the NVRAM (EEPROM) on the BCU	New procedure is added.
	Controller Board > NVRAMs on the controller board	This procedure is revised.
		This procedure is revised.
	PSU (AC Controller Board)	Number of connectors in step 2 is revised for each destination.
	PSU (DC Power)	Number of connectors in step 2 is revised.
Fans/Filters	PSU Cooling Fan	Number of screws, clamp and connector in step 2 is revised.
Image Adjustment	Auto Color Calibration	This item is added.
	Printer Gamma Correction	This item is revised.
	Color Registration	This item is revised.

Troubleshooting

Section	Item	Note
Self-Diagnostic Mode	Service Call Codes	"HDD-related message" is added.
Service Call 101-195	SC100 (Engine: Scanning) > SC101-01	Name of White guide plate is changed from white plate.
Service Call 202-285	SC200 (Engine: Image Writing) > SC201	SC201 is deleted.
	SC200 (Engine: Image Writing) > SC272	Name of LD driver is changed from G-MAC

Section	Item	Note
Service Call 312-396	SC300 (Engine: Charge, Development)	SC324-01 and SC324-05 are revised.
Service Call 501-584	SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport) > SC543-00	SC543-00 is added.
	SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport) > SC547-01	Name of PSU (AC Controller Board) is changed from PSU.
	SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport) > SC547-02	Name of paper transport IOB is changed from control board.
	SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport) > SC548	SC548 is deleted.
	SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport) > SC549-xx	SC549-01 to -04 are added.
Service Call 620-689	SC600 (Engine: Communication and Others) > SC681-xx	Name of toner bottle is changed from development unit.
	SC600 (Engine: Communication and Others) > SC682-xx	Suffix number information for each color is added.
	SC600 (Controller)	SC641-00 is added. SC673-10 is added.
Troubleshooting for SC Errors	When SC549 is displayed	New troubleshooting is added.
	Troubleshooting for SC640	New troubleshooting is added.
Jam Detection	Clearing a paper jam	This item is added.
	Paper Jam History	This item is added.

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.

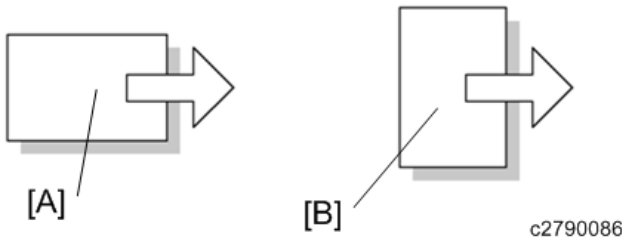
Note

- 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)

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TABLE OF CONTENTS

Revision Lists (V2.00).....	1
Product Information.....	1
Installation.....	1
Preventive Maintenance.....	4
Replacement and Adjustment.....	4
Troubleshooting.....	7
Important Safety Notices.....	9
Prevention of Physical Injury.....	9
Health Safety Conditions.....	9
Observance of Electrical Safety Standards.....	9
Safety and Ecological Notes for Disposal.....	10
Laser Safety.....	10
Warnings, Cautions, Notes.....	10
Symbols, Abbreviations and Trademarks.....	12
Trademarks.....	12

1. Product Information

Product Overview.....	31
Component Layout.....	31
Scanner Unit.....	32
Laser Exposure Unit.....	33
Image Transfer Unit.....	34
PCDU.....	35
Toner Supply / Waste Toner Bottle.....	36
Paper Feed Unit.....	37
Duplex Unit.....	38
By-pass unit	39
Fusing Unit.....	40
Paper Transfer / Paper Exit.....	41
Air Flow.....	42
Drive Unit.....	43
Board / Switch.....	44
Paper Path.....	45
Drive Layout.....	48

Machine Codes and Peripherals Configuration.....	50
Diagram.....	50
D146/D147 Options (mainly North America).....	50
D146/D147 Options (mainly Europe and Asia).....	52
D148/D149 Options (mainly North America).....	55
D148/D149 Options (mainly Europe and Asia).....	59
D150 Options (mainly North America).....	62
D150 Options (mainly Europe and Asia).....	64
Specifications.....	68
Guidance for Those Who are Familiar with Predecessor Products.....	69
Differences from predecessor.....	69
Scan, LD unit, Paper feed unit.....	69
Duplex, Driving, Main frame.....	70
PCDU.....	71
Toner supplement, Image transfer.....	72
Fusing.....	73
Electrical component.....	73
New features of D146/D147/D148/D149/D150.....	74
Important notice for machine.....	74

2. Installation

Installation Requirements.....	77
Environment.....	77
Machine Level.....	78
Machine Space Requirements.....	78
Machine Dimensions.....	79
Power Requirements.....	80
Input voltage level.....	80
Main Machine Installation.....	81
Important notice on security issues.....	81
Overview.....	81
Password setting procedure.....	82
Installation Flow Chart.....	87
Accessory Check.....	88

Installation Procedure.....	88
Removal of packing materials and shipping retainers / Removal of PCDU seal.....	89
For machines with preinstalled SPDF: Removal of protective sheet.....	100
Toner bottle installation.....	101
Attaching the optical cloth pocket.....	102
Attaching paper output tray parts.....	102
Connecting the power cord.....	103
Image quality test / settings.....	103
ACC execution and color registration adjustment.....	103
Image quality test.....	104
Checking the copy image with the test chart.....	104
Paper setting.....	104
Security Function Installation.....	104
Moving the Machine.....	113
Paper Feed Unit PB3160.....	114
Accessory Check.....	114
Installation procedure.....	114
Paper Feed Unit PB3150.....	118
Accessory Check.....	118
Installation procedure.....	118
LCIT PB3170.....	122
Accessory Check.....	122
Installation procedure.....	122
Changing the paper size.....	125
LCIT RT3030.....	128
Accessory Check.....	128
Installation procedure.....	128
Changing the Paper Size.....	134
Caster Table Type M3.....	136
Accessory Check.....	136
Installation procedure.....	136
How to place MFP on the caster table.....	137
How to place the Paper Feed Unit PB3150 on the caster table.....	137

Platen Cover PN2000.....	139
Accessory Check.....	139
Installation Procedure.....	139
ARDF DF3090.....	142
Accessory Check.....	142
Installation Procedure.....	142
When feeding thin paper.....	147
SPDF DF3080.....	148
Accessory Check.....	148
Installation Procedure.....	149
Attaching the SPDF.....	149
Attaching the Sub IPU / Replacing the BCU.....	153
Set serial number on new BCU.....	161
Adjust SP Settings.....	162
Bridge Unit BU3070.....	163
Accessory Check	163
Installation procedure.....	163
1 Bin Tray BN3110.....	169
Accessory Check.....	169
Installation Procedure.....	169
Internal Shift Tray SH3070.....	177
Accessory Check.....	177
Installation procedure.....	177
Side Tray Type M3.....	182
Accessory Check.....	182
Installation procedure.....	183
Booklet Finisher SR3170 (D688)/ Finisher SR3160 (D689).....	187
Accessory Check.....	187
Installation procedure.....	188
Auxiliary Tray.....	195
Punch Unit PU3060.....	197
Accessory Check.....	197
Installation Procedure.....	198

Booklet Finisher SR3150 (D686)/ Finisher SR3140 (D687).....	211
Accessory Check.....	211
Installation Procedure.....	212
Punch Unit PU3050.....	219
Accessory Check.....	219
Installation Procedure.....	220
Internal Finisher SR3130.....	233
Accessory Check.....	233
Installation Procedure.....	233
Punch Unit PU3040.....	245
Accessory Check.....	245
Installation Procedure.....	245
Key Counter Bracket Type M3.....	252
Installation procedure.....	252
Optional Counter Interface Unit Type A.....	254
Installation procedure.....	254
Key Counter.....	254
External Keyboard Bracket Type M3 (D739-10).....	256
Accessory Check.....	256
Installation Procedure.....	256
Smart Card Reader Built-in Unit Type M2 (D739-36).....	261
Accessory Check.....	261
Installation Procedure.....	261
Card Reader Bracket Type 3352 (D593).....	267
Component Check.....	267
Installation Procedure.....	267
Internal Options.....	271
List of Slots.....	271
D148/D149/D150.....	271
D146/D147.....	272
IEEE 1284 Interface Board Type A.....	273
Installation procedure.....	273
IEEE 802.11a/g/n Interface Unit Type M2.....	275

Accessory Check.....	275
Installation procedure.....	275
Attaching the boards.....	276
Attaching the antenna.....	277
User Tool Settings for IEEE 802.11 a/g/n.....	277
SP Mode Settings for IEEE 802.11 Wireless LAN.....	278
Bluetooth Interface Unit Type D.....	280
Accessory Check.....	280
Installation procedure.....	280
File Format Converter Type E.....	282
Accessory Check.....	282
Installation procedure.....	282
Data Overwrite Security Unit Type H (D377)/ I (D362).....	284
Overview.....	284
Component List.....	284
Before You Begin the Procedure.....	284
Seal Check and Removal.....	285
Installation Procedure.....	286
Copy Data Security Unit Type G.....	287
Accessory Check.....	287
Installation procedure.....	287
User Tool Setting.....	288
Check All Connections.....	289
Imageable Area Extension Unit Type M3.....	290
Accessory Check.....	290
Installation Procedure.....	290
When you forgot to change the SP.....	293
OCR Unit Type M2.....	294
Accessory Check.....	294
Searchable PDF function outline.....	294
Installation procedure.....	294
Recovery procedure.....	297
SD Card Option.....	299

SD Card Slots.....	299
List of Slots Used.....	300
SD Card Appli Move.....	301
Overview.....	301
Move Exec.....	302
Undo Exec.....	304
Browser Unit Type M4/M3.....	306
Accessory Check.....	306
Installation procedure.....	306
To update Browser/EXJS.....	309
When checking the version of EXJS.....	312
Browser unit uninstallation procedure.....	312
Settings.....	313
Browser default setting.....	313
SD card for NetWare printing Type M4/M3.....	314
Accessory Check.....	314
Installation procedure.....	314
PS3 Card Type M4/M3.....	317
Accessory Check.....	317
Installation procedure.....	317
Camera Direct Print Card Type M4/M3.....	320
Accessory Check.....	320
Installation procedure.....	320
Color Controller Connection Board Type M4/M3.....	323
Installation procedure.....	323
Anti-Condensation Heater.....	324
Anti-Condensation Heater (Scanner).....	324
Accessory Check.....	324
Installation procedure.....	325
Anti-Condensation Heater (PCDU).....	330
Accessory Check.....	330
Installation procedure.....	331
Anti-Condensation Heater for LCT.....	336

Connecting to Main Machine.....	336
Accessory Check.....	336
Installation procedure.....	336
Connecting to Paper Feed Unit PB3160 / LCIT RT PB3170.....	341
Accessory Check.....	341
Installation procedure.....	341
Connecting to Paper Feed Unit PB3150.....	343
Accessory Check.....	343
Installation procedure.....	343

3. Preventive Maintenance

PM Parts Settings.....	347
Replacement procedure of the PM parts.....	347
After installing the new PM parts.....	348
Preparation before operation check.....	348
Operation check.....	349
Image Quality Standards.....	350
Resolution.....	350
Color shift.....	350
Magnification ratio error margin.....	351
Magnification ratio error margin deviation.....	351
Pitch error margin.....	351
Perpendicularity.....	352
Linearity.....	352
Parallelism.....	352
Missing Image Area (D135/D136).....	353
Margin position.....	353
Paper Transfer Quality Standards.....	354
Registration.....	354
Skew.....	354
Exposure glass.....	354
ADF.....	354

4. Replacement and Adjustment

Notes on the Main Power Switch.....	355
-------------------------------------	-----

Push Switch.....	355
Characteristics of the Push Switch (DC Switch).....	355
Shutdown Method.....	356
Forced Shutdown.....	356
Beforehand.....	358
Special Tools.....	359
Exterior Covers.....	360
Front Cover.....	360
Controller Cover.....	362
Upper Left Cover.....	362
Left Rear Cover.....	363
Left Cover.....	363
Rear Cover.....	366
Rear Right Cover.....	367
Rear Lower Cover.....	367
Scanner Rear Cover.....	368
Scanner Rear Cover (Small).....	368
Right Rear Cover.....	368
Right Upper Cover	369
Main power switch cover.....	370
Waste Toner Cover.....	370
Reverse Tray.....	371
Paper Exit Tray.....	372
Paper Exit Cover.....	372
Paper Exit Lower Cover.....	372
Paper Exit Front Cover.....	374
Inner Upper Cover.....	375
Inner Lower Cover.....	375
Controller Unit.....	376
Operation Panel.....	376
Board A.....	377
Board B.....	379
Board C.....	380

LCD Panel.....	380
LCD.....	381
Notes when replacing the LCD.....	381
Replacement procedure.....	384
Scanner Unit.....	386
Scanner Exterior.....	386
Scanner Upper Cover.....	386
Scanner Right Cover.....	386
Scanner Front Cover.....	387
Scanner Left Cover.....	387
Exposure Glass.....	388
Exposure Lamp (LED).....	390
Scanner Motor.....	391
Lens Block.....	394
Original Size Sensor.....	394
SIO.....	395
Scanner HP Sensor.....	396
DF Position Sensor.....	397
Adjusting the Scanner Wire.....	398
Scanner Wire (Front).....	398
Scanner wire assembly (front side).....	401
Scanner position adjustment.....	403
Scanner Wire (Rear).....	404
Scanner Wire Assembly (rear side).....	407
Modifying the Scanner (contact/contactless) when using ARDF.....	408
Procedure for the ADF.....	408
Procedure for the scanner.....	411
Modifying the Scanner (contact/contactless) when using SPDF.....	411
Procedure for the SPDF.....	411
Procedure for the scanner.....	413
Laser Unit.....	415
Laser Unit.....	415
Before Replacement.....	416

Removing.....	416
Installing a New Laser Unit.....	417
Adjustment after replacing the laser unit.....	418
Polygon Motor.....	420
Adjustment after replacing the polygon motor.....	420
PCDU.....	422
Notes when replacing a PCDU.....	422
D146/D147/D148.....	422
D149/D150.....	425
Attaching the springs.....	431
PCDU.....	434
Adjustment before replacing the PCDU.....	434
Replacement.....	434
PCU/Development Unit.....	437
Before replacing a PCU or development unit.....	437
Replacement.....	437
Precautions when joining the PCU and the development Unit.....	440
Check procedure after replacing.....	440
Imaging Temperature Sensor (Thermistor).....	441
Waste Toner.....	443
Replacement.....	443
Adjustment after replacing.....	443
Image Transfer Unit.....	445
Image Transfer Belt Unit.....	445
Adjustment before replacing the image transfer belt unit.....	446
Replacement.....	447
Image Transfer Cleaning Unit.....	449
Adjustment before replacing the image transfer cleaning unit.....	450
Replacement.....	450
Image Transfer Belt.....	453
Adjustment after replacing the Image transfer belt.....	456
Paper Transfer Roller.....	456
When reinstalling the paper transfer roller.....	457

Paper Transfer Roller Unit	460
Adjustment before replacing the paper transfer roller unit.....	460
Replacement.....	460
Fusing Entrance Sensor.....	462
TM (ID) Sensor.....	463
Before Replacing the TM(ID) sensor.....	463
Replacement procedure.....	465
Adjustment after replacing the TM(ID) sensor.....	466
Temperature and Humidity Sensor.....	467
ITB Contact and Release Sensor.....	468
Image Transfer Lock Unit.....	469
Installing the Image Transfer Lock Unit.....	470
Drive Unit.....	473
Overview.....	473
Paper Feed Motor.....	474
Transport Motor.....	474
Transfer Motor Unit.....	475
Imaging Drive Unit.....	476
PCU Motor: CMY.....	478
Development Motor: CMY.....	479
Development Motor: Black.....	479
PCU: Black / Image Transfer Motor.....	479
Registration Motor.....	480
Fusing Motor.....	481
Paper Exit / Pressure Release Motor.....	481
Duplex Entrance Motor.....	481
Toner Transport Motor.....	482
Sub Hopper.....	483
K.....	483
C.....	484
M.....	486
Y.....	487
Toner End Sensor.....	488

Toner Bottle Drive Motor.....	489
K.....	489
C.....	489
M.....	490
Y.....	490
ID Chip.....	490
K.....	490
C.....	491
M.....	491
Y.....	492
Fusing Unit.....	493
Fusing Unit.....	493
Replacement.....	493
Fusing Entrance Guide Plate.....	494
Cleaning the Fusing Entrance Guide Plate.....	494
Fusing Exit Guide Plate.....	495
Cleaning the Fusing Exit Guide Plate.....	496
Fusing Upper Cover.....	496
Fusing Lower Cover.....	497
Fusing Front Cover.....	498
Fusing Rear Cover.....	498
Heating Sleeve Unit.....	499
Replacement.....	499
How to cancel SC544-02/SC554-02 with a new unit detection fuse.....	502
Pressure Roller.....	503
Adjustment before replacing the pressure roller.....	503
Replacement.....	503
Thermostat Unit.....	505
NC Sensor Unit.....	506
Fusing Thermistor.....	506
Fusing Thermopile Unit.....	507
Pressure Roller HP Sensor.....	507
Fusing Shield Position Sensor.....	508

Fusing Shield Drive Motor.....	509
Paper Exit.....	511
Paper Exit Unit.....	511
Paper Exit Switching Solenoid.....	511
Paper Exit Sensor.....	512
Reverse Sensor.....	514
Paper Exit Full Sensor.....	515
Reverse Motor.....	515
Fusing Exit Sensor.....	517
Paper Feed.....	518
Paper Feed Unit.....	518
1st Paper Feed Unit.....	518
2nd Paper Feed Unit.....	519
Paper Dust Collection Unit.....	521
Separation Roller, Torque Limiter.....	522
Pick-up Roller, Paper Feed Roller.....	524
1st Tray Lift Motor/ 2nd Tray Lift Motor.....	525
Paper Feed Solenoid.....	526
Paper Feed Sensor.....	526
Vertical Transport Sensor.....	527
Limit Sensor.....	528
Paper End Sensor.....	529
Registration Sensor.....	530
By-pass Tray Unit.....	531
By-pass Tray.....	531
By-pass Paper End Sensor.....	533
By-pass Pick-up Roller.....	534
By-pass Paper Feed Roller.....	535
By-pass Separation Roller.....	535
Torque Limiter.....	536
By-pass Tray Side Fence (D150 only).....	536
Duplex Unit.....	539
Duplex Unit.....	539

Duplex/By-pass Motor.....	542
Duplex Entrance Sensor.....	543
Duplex Jam Processing LED.....	545
Duplex Exit Sensor.....	546
Double Feed Sensor (D150 only).....	547
Electrical Components.....	550
Overview.....	550
Printed Circuits/Parts Inside the Controller Box.....	550
Printed Circuits Behind the Controller Box.....	551
Printed Circuit/Parts Inside the Power Box.....	552
Printed Circuits Behind the Power Box.....	552
IPU Sub (SPDF only).....	553
IPU.....	553
BCU.....	555
When installing the new BCU.....	555
Replacing the NVRAM (EEPROM) on the BCU.....	556
Controller Board.....	557
NVRAMs on the controller board.....	558
HDD.....	562
Adjustment after replacement.....	563
CPU Cooling Fan.....	563
Imaging IOB.....	564
HVP_TTS.....	565
PSU (AC Controller Board).....	566
PSU (DC Power).....	566
Paper Transport IOB.....	567
HVP-CB.....	568
Fans/Filters.....	570
Ozone filter/Dust filter.....	570
Adjustment before replacing the dust filter.....	570
Replacement.....	570
Odor Filter.....	571
Development Intake Fan/Right.....	571

Development Intake Fan/Left.....	572
Ozone Exhaust Fan.....	573
Paper Exit Cooling Fan.....	574
Fusing Exhaust Heat Fan.....	574
Drive Cooling Fan (D148/D149/D150).....	575
Main Exhaust Fan (D148/D149/D150).....	576
Toner Supply Cooling Fan.....	577
D148/D149/D150.....	577
D146/D147	578
PSU Cooling Fan.....	579
PSU Exhaust Heat Fan (D148/D149/D150).....	580
Power Box Cooling Fan.....	581
Image Adjustment.....	582
Auto Color Calibration.....	582
Scanning.....	582
Scanner sub-scan magnification.....	583
Scanner leading edge and side-to-side registration.....	583
ARDF.....	584
ARDF side-to-side, leading edge registration and trailing edge.....	584
ARDF sub-scan magnification.....	585
Registration.....	585
Image Area.....	585
Leading Edge.....	585
Side to Side.....	585
Adjustment Standard.....	586
Paper Registration Standard.....	586
Adjustment Procedure.....	586
Erase Margin Adjustment.....	586
Printer Gamma Correction.....	587
Color Registration.....	592
Check the occurrence of color registration errors.....	592
Judgment for type of color registration error.....	593

5. Troubleshooting

Self-Diagnostic Mode.....	603
Service Call Codes.....	603
Service Call Conditions	603
SC logging.....	604
SC automatic reboot.....	604
Controller self-diagnosis outline.....	607
Controller self-diagnosis flowchart.....	608
HDD-related message.....	611
Service Call 101-195.....	613
SC100 (Engine: Scanning).....	613
Service Call 202-285.....	625
SC200 (Engine: Image Writing).....	625
Service Call 312-396.....	631
SC300 (Engine: Charge, Development).....	631
Service Call 441-498.....	636
SC400 (Engine: Around the Drum).....	636
Service Call 501-584.....	643
SC500 (Engine: Paper transport 1: Paper Feed, Duplex, Transport).....	643
Service Call 620-689.....	690
SC600 (Engine: Communication and Others).....	690
SC600 (Controller).....	698
Service Call 700-792.....	710
SC700 (Engine: Peripherals).....	710
Service Call 816-899.....	733
SC800 (Controller).....	733
Service Call 900-998.....	795
SC900 (Engine: Others).....	795
SC900 (Controller).....	797
Troubleshooting for SC Errors.....	804
When SC549 is displayed.....	804
Troubleshooting Flowchart.....	804
Fusing Shield Check.....	805

Solution.....	808
Troubleshooting for SC640.....	809
Jam Detection.....	810
Jam Display.....	810
Clearing a paper jam.....	810
Paper Jam History.....	810
History checking method.....	810
Paper Jam Display.....	811
Jam Codes and Display Codes.....	811
Paper Size Code.....	822
Sensor Locations.....	823
Electrical Component Defects.....	824
Image Quality.....	827
When an abnormal image is generated.....	827

6. Energy Save

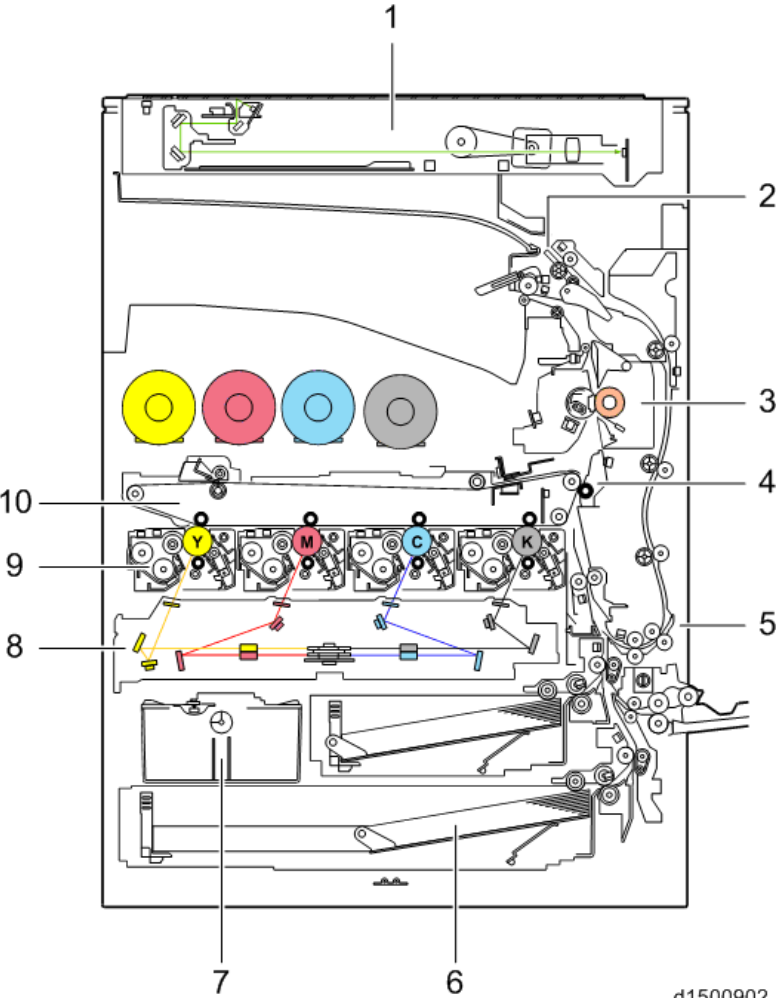
Energy Save.....	829
Energy Saver Modes.....	829
Timer Settings.....	829
Return to Stand-by Mode.....	830
Recommendation.....	830
Energy Save Effectiveness.....	830
Paper Save.....	832
Effectiveness of Duplex/Combine Function.....	832

1. Product Information

Product Overview

1

Component Layout

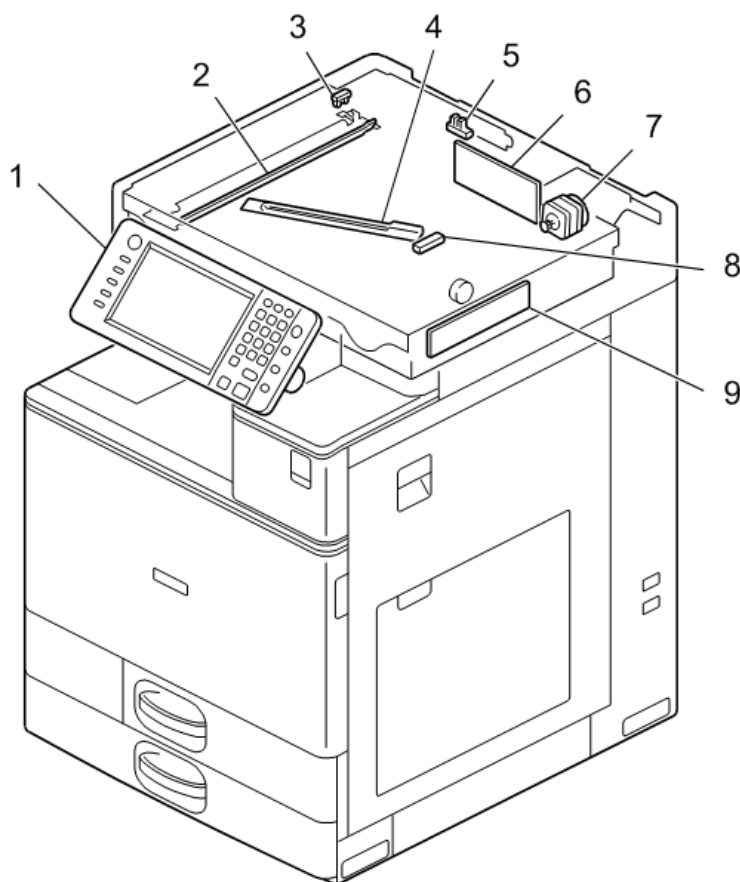


d1500902

No.	Description	No.	Description
1	Scanner Unit	6	Paper Feed Unit
2	Paper Exit Unit	7	Waste Toner Unit

No.	Description	No.	Description
3	Fusing Unit	8	Laser Exposure Unit
4	Paper Transfer Unit	9	PCDU
5	Duplex Unit	10	Image Transfer Unit

Scanner Unit



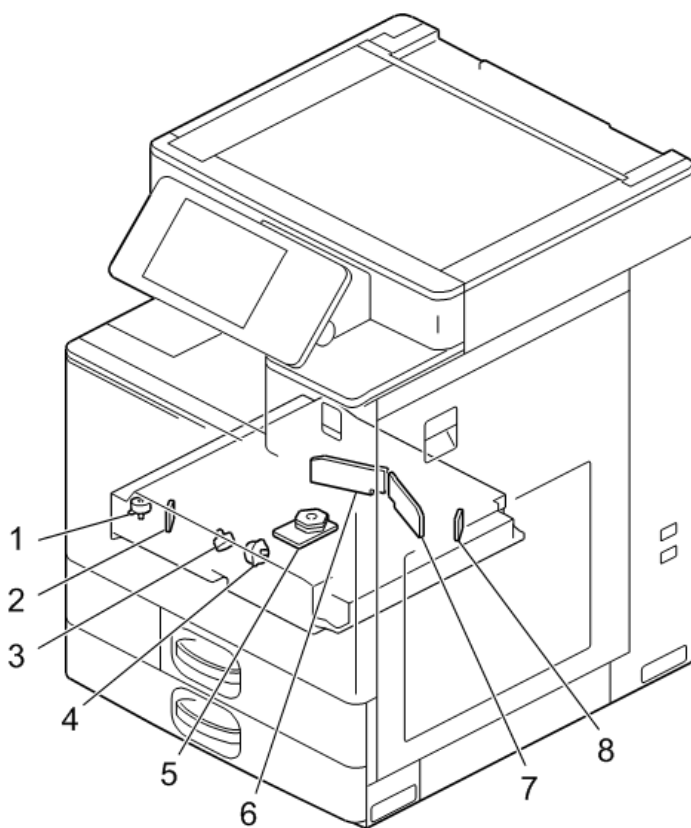
d1500912

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

No.	Description	No.	Description
4	Anti-condensation heater (Scanner heater) *1	9	Sensor Board Unit (SBU)
5	DF Position Sensor		

*1 Option

Laser Exposure Unit

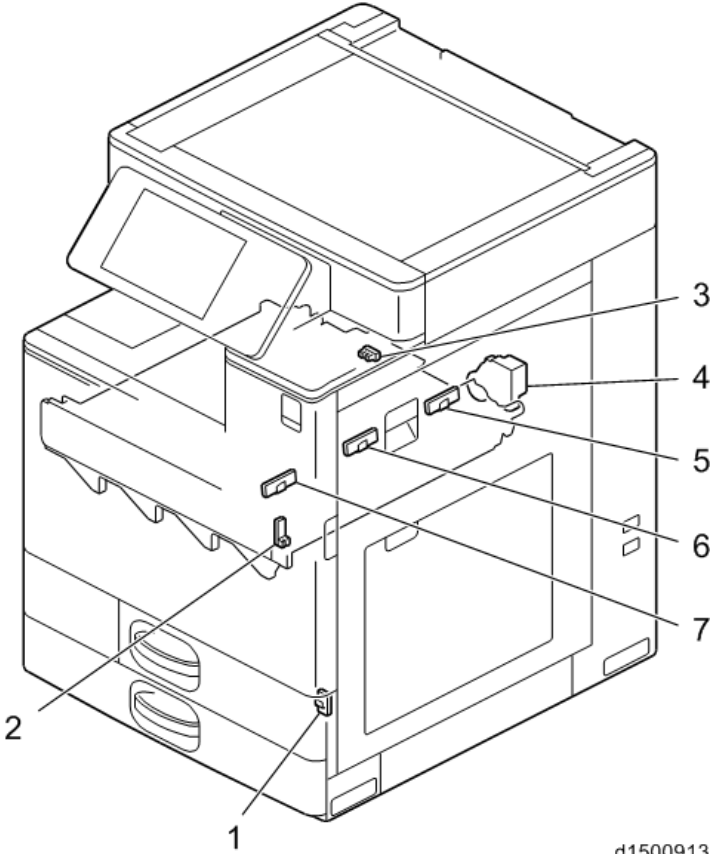


d1500914

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)

No.	Description	No.	Description
4	Skew motor	8	Synchronizing detector board: Bk/C-S

Image Transfer Unit

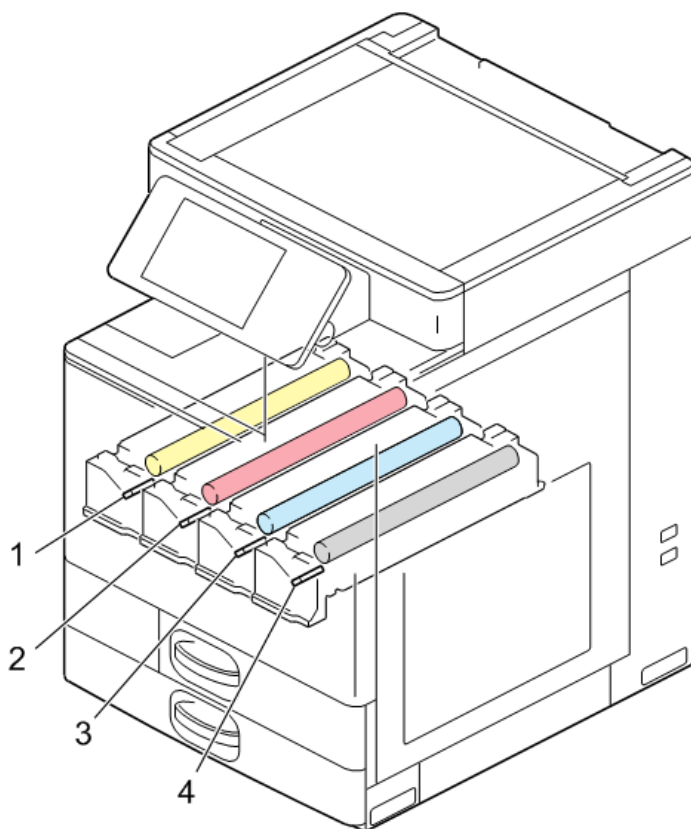


d1500913

No.	Description
1	Interlock switch: Front cover (LD Safety Switch)
2	Interlock switch: Duplex Unit (LD Safety Switch)
3	ITB contact and release sensor
4	TM/P sensor shutter solenoid
5	TM/P sensor (rear)
6	TM/P sensor (center)

No.	Description
7	TM/P sensor (front)

PCDU

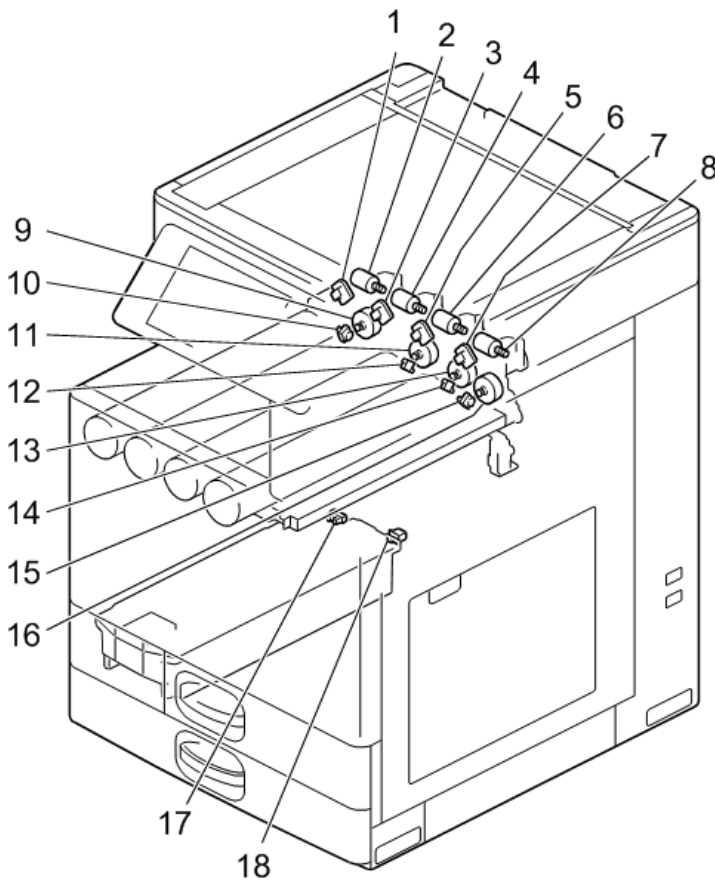


d1500915

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

Toner Supply / Waste Toner Bottle

1

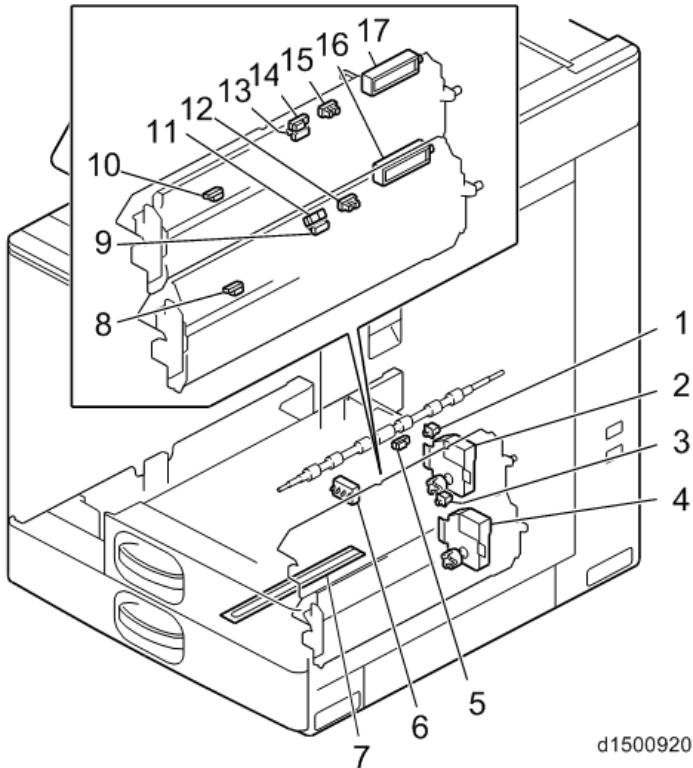


d1500919

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

No.	Description	No.	Description
9	Toner transport motor (Y)	18	Waste toner bottle set switch

Paper Feed Unit

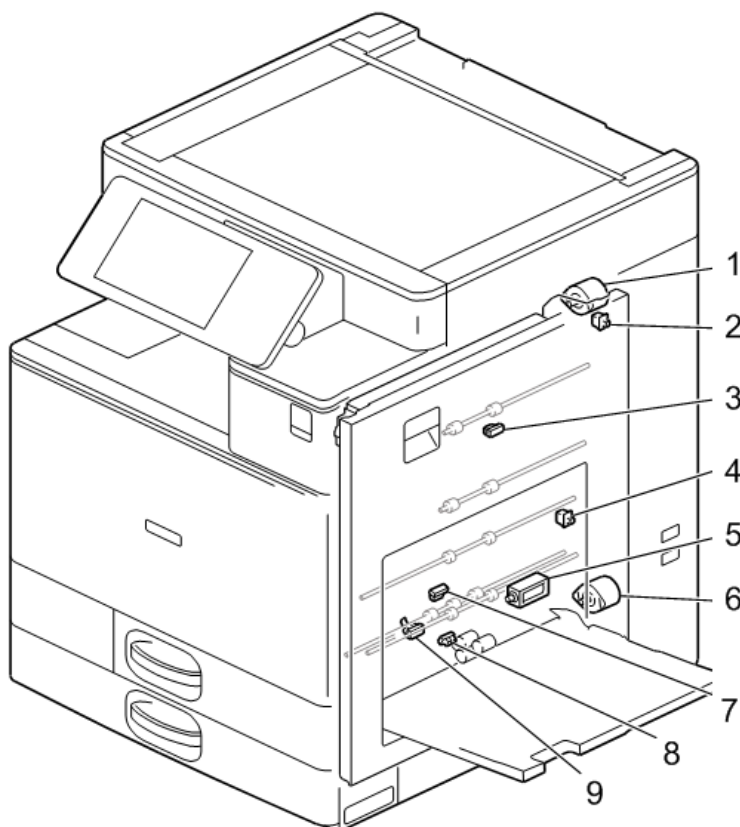


d1500920

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)

No.	Description	No.	Description
8	Paper feed sensor (2nd Feed Tray)	17	Pick-up solenoid (1st feed tray)
9	Transport sensor (2nd Feed Tray)		

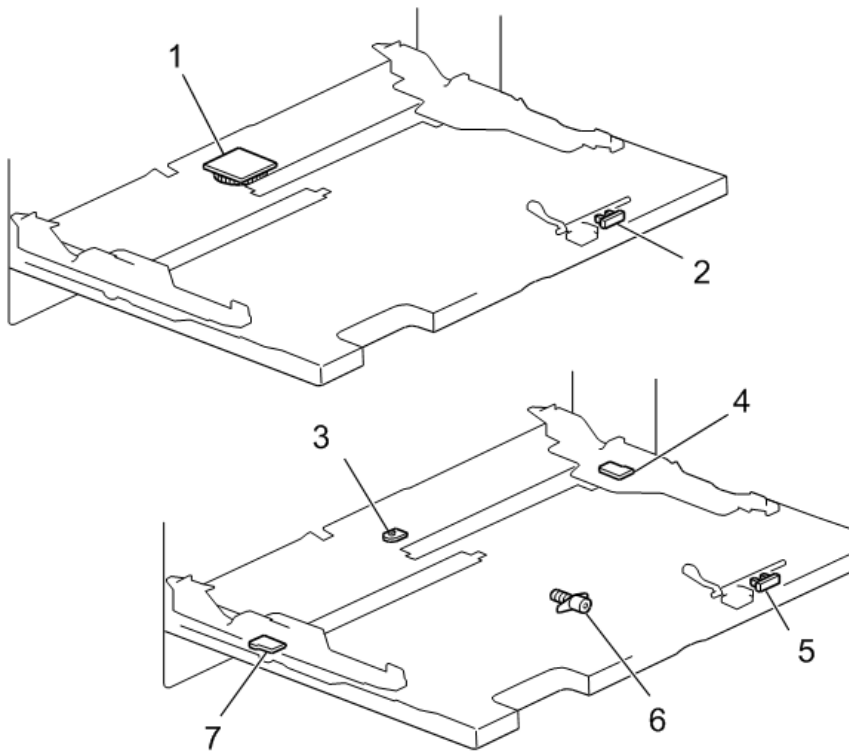
Duplex Unit



d1500917

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

By-pass unit



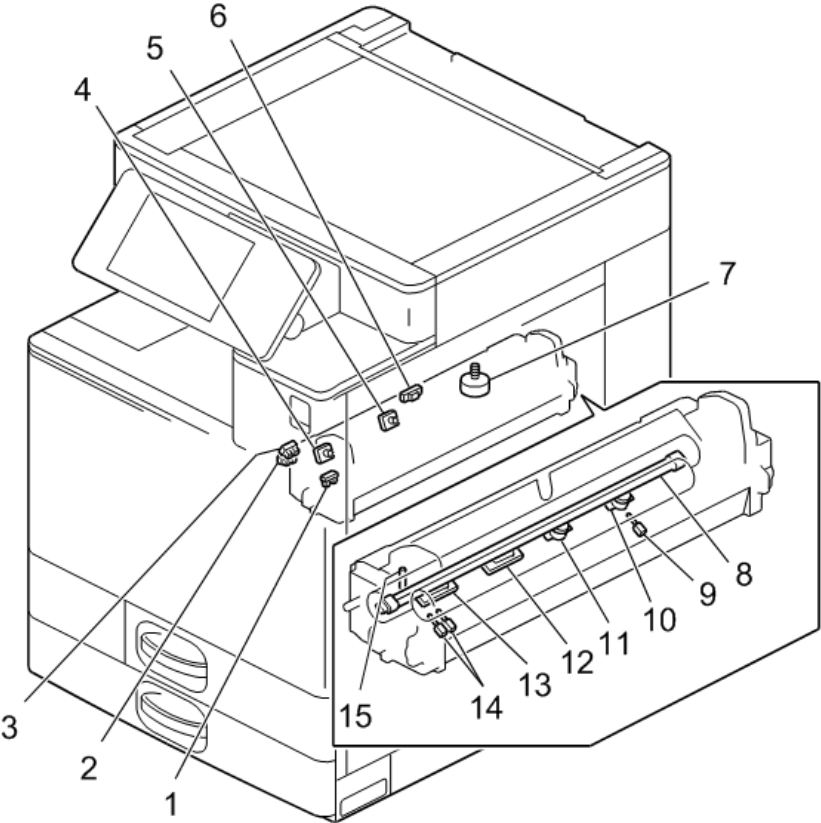
d1500918

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		

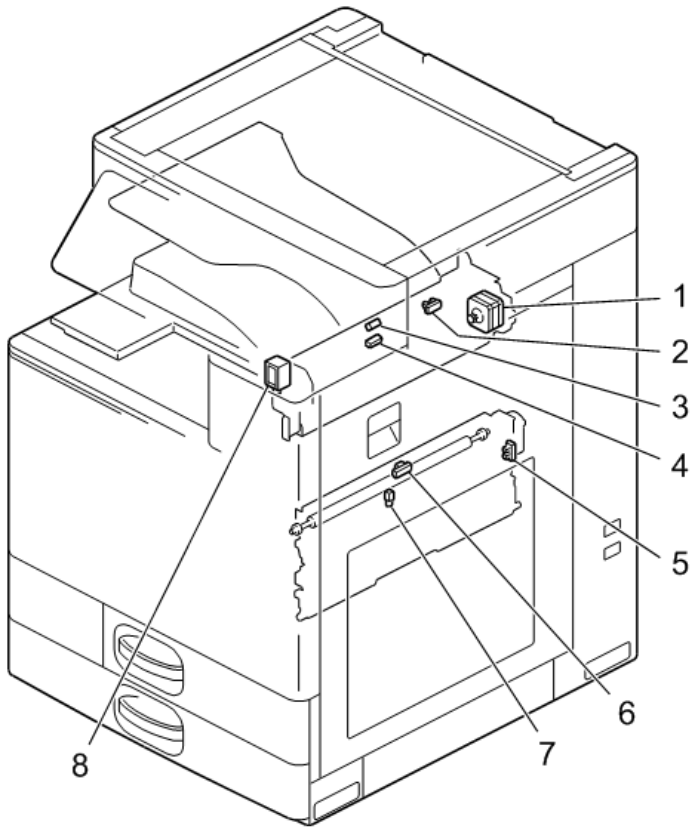
Fusing Unit



d1500916

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

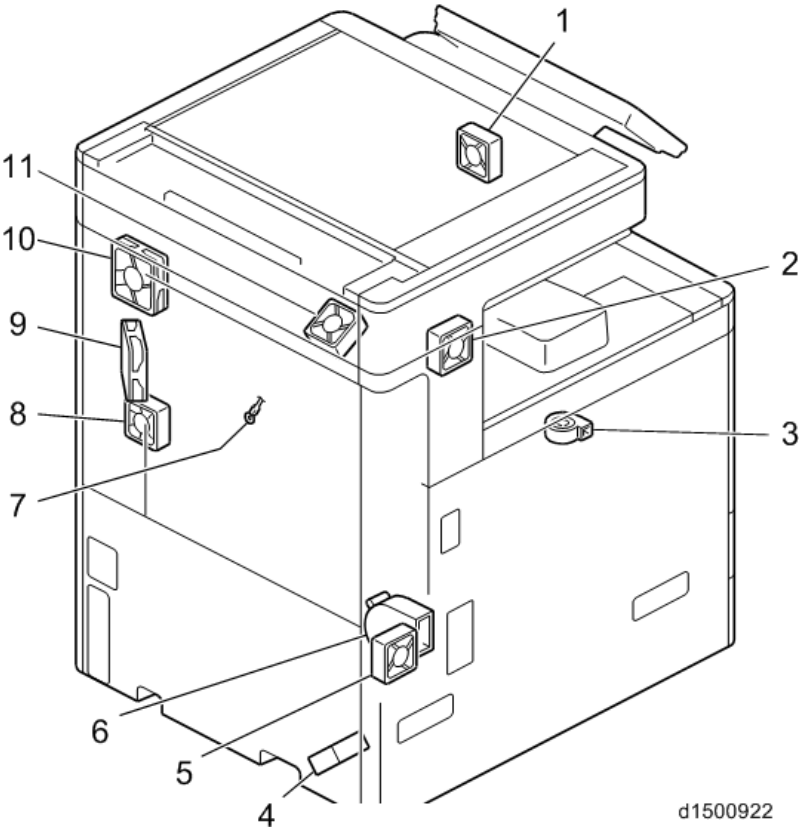


d1500921

No.	Description	No.	Description
1	Inversion Motor	5	PTR open/close 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

1

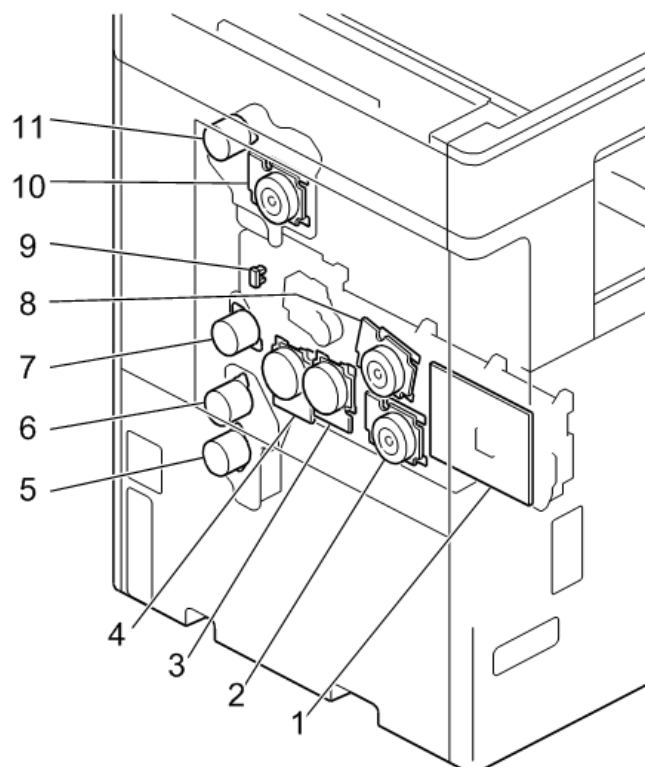


d1500922

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

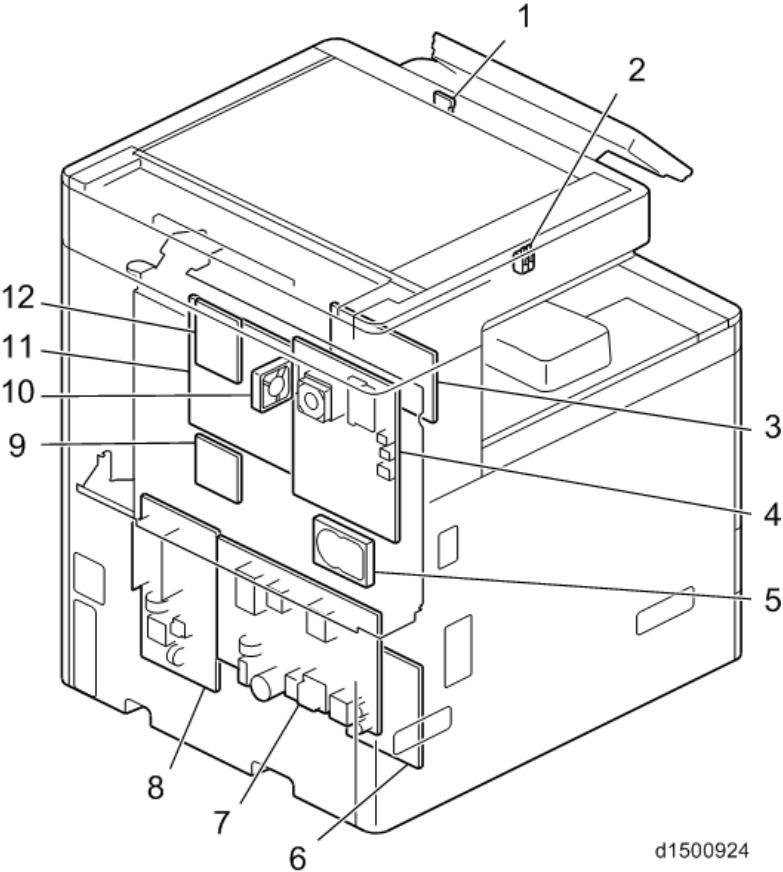


d1500923

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

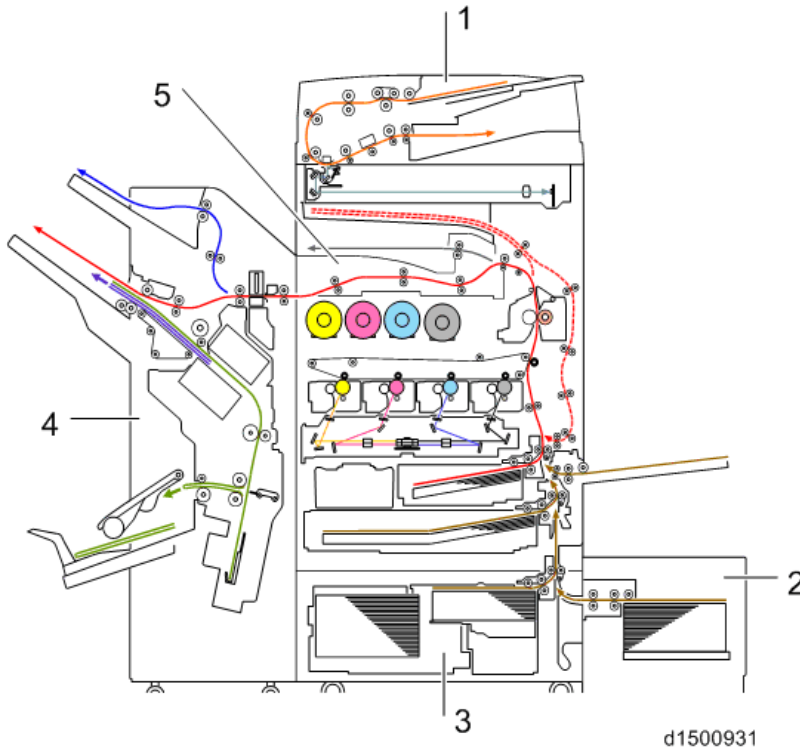
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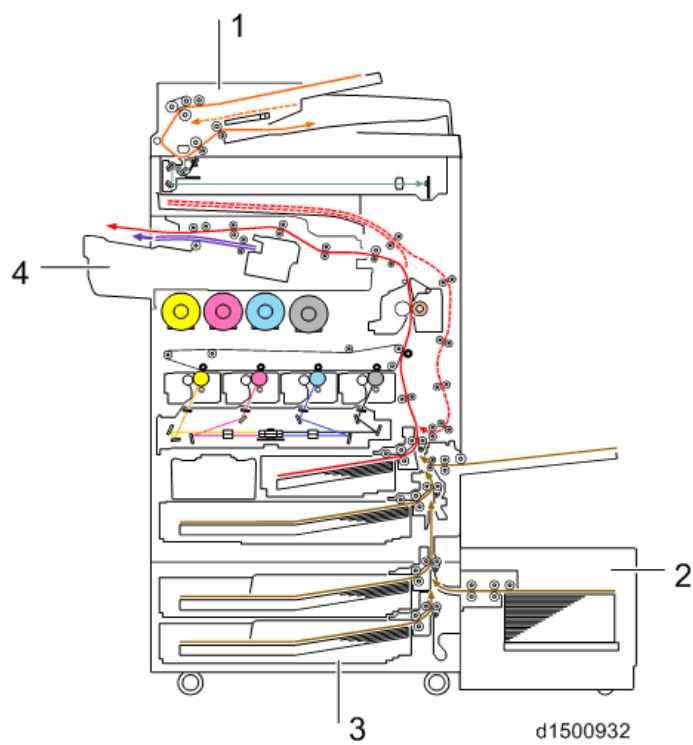
No.	Description	No.	Description
1	Power switch	7	PSU (DC Power)
2	Interlock switch: front cover	8	PSU (AC controller board)
3	HVP_TTS	9	BCU
4	Control board	10	Controller box cooling fan
5	HDD	11	IPU
6	Paper Transport IOB	12	IPU Sub *

* SPDF only

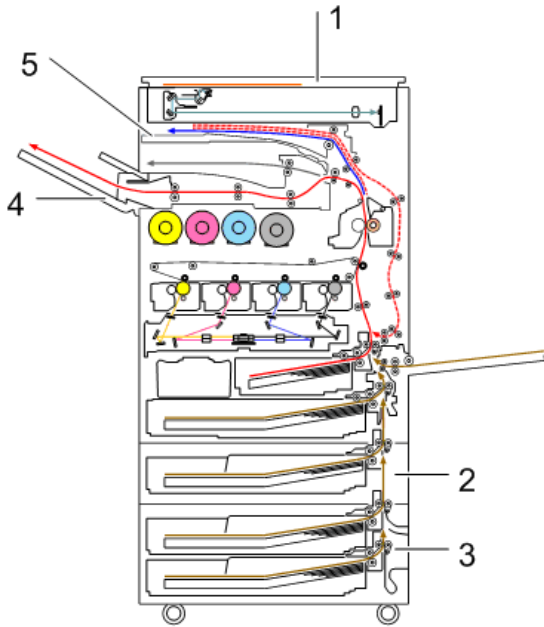
Paper Path



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



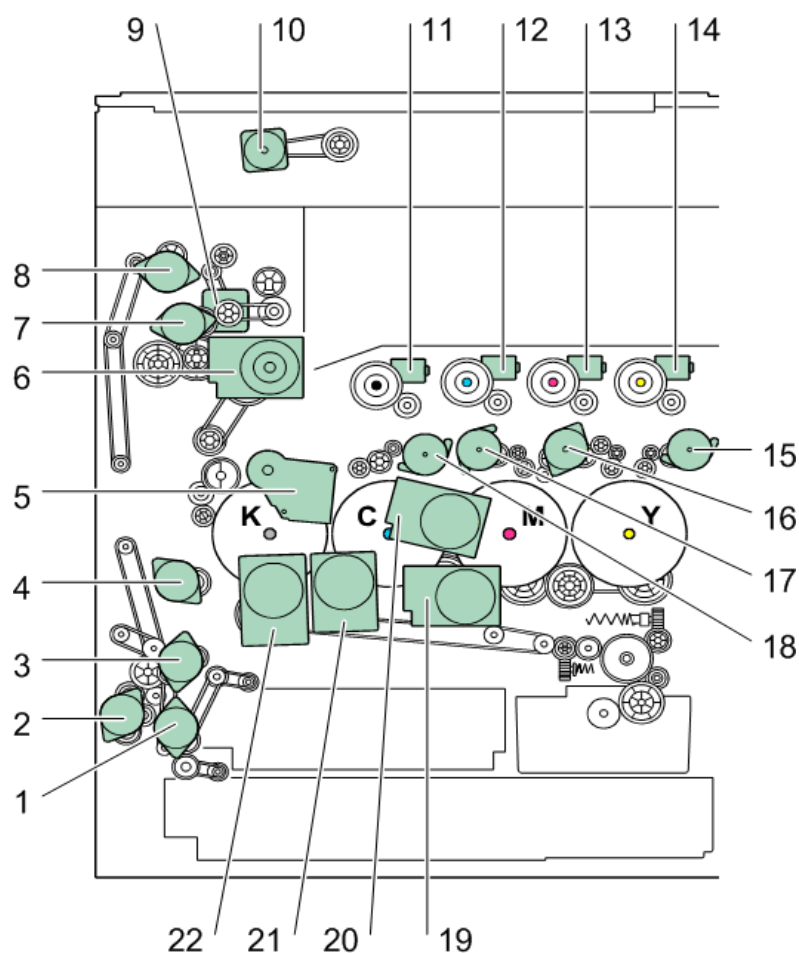
No.	Description	No.	Description
1	ARDF DF3090	3	Paper Feed Unit PB3160
2	LCIT RT3030	4	Internal Finisher SR3130



d1500933

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

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)

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

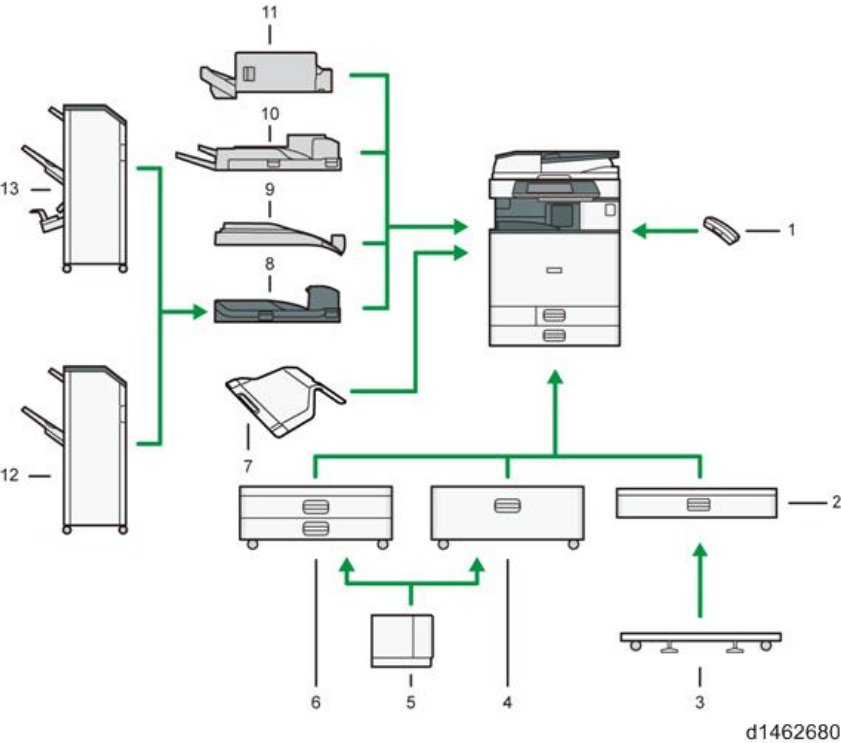
Machine Codes and Peripherals Configuration

1

Diagram

D146/D147 Options (mainly North America)

Mainframe (D146/D147): ARDF as standard



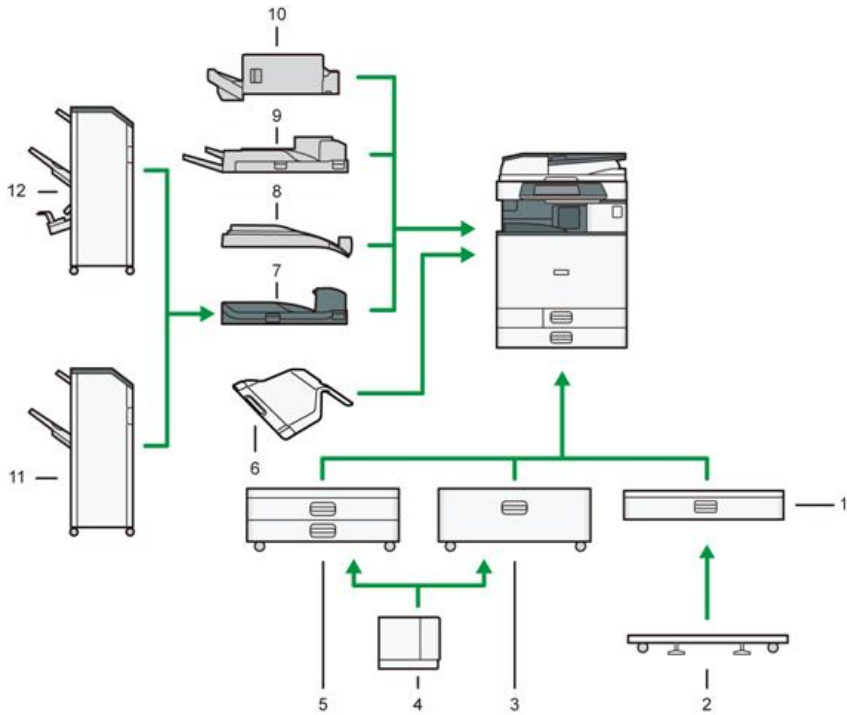
Item	Machine Code	Call out
Finisher SR3140	D687	12
Booklet Finisher SR3150	D686	13
Punch Unit PU3050	D717-17 (NA)	-
Internal Finisher SR3130	D690	11
Punch Unit PU3040	D716-17 (NA)	-
Paper Feed Unit PB3160	D693	6

Item	Machine Code	Call out
Paper Feed Unit PB3150	D694	2
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	-

Item	Machine Code	Call out
IEEE 1284 Interface Board Type A	B679	-
Bluetooth Interface 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



d1462681

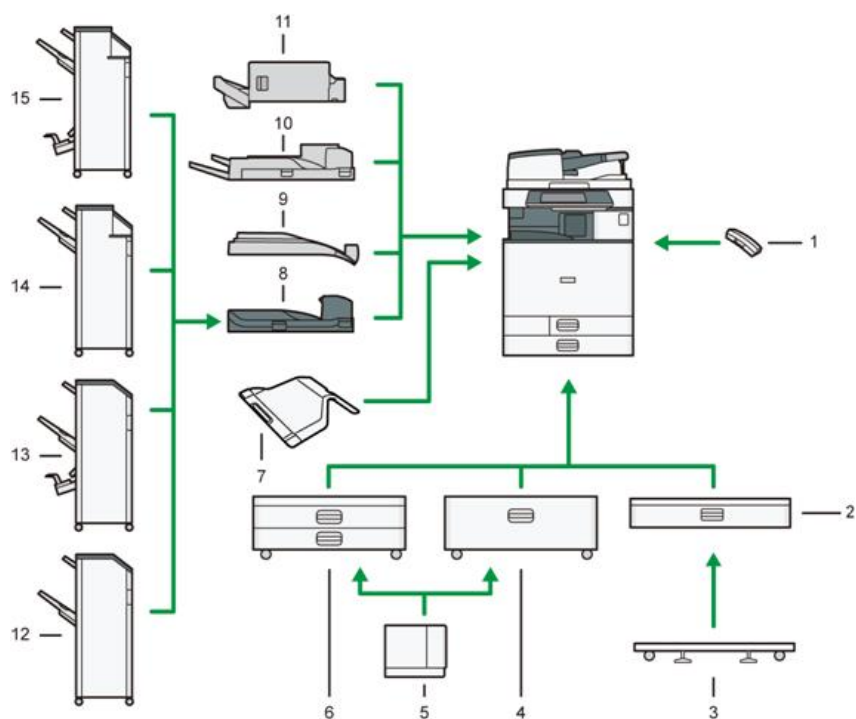
Item	Machine Code	Call out
Finisher SR3140	D687	11
Booklet Finisher SR3150	D686	12
Punch Unit PU3050	D717-27 (EU) D717-28 (SC)	-
Internal Finisher SR3130	D690	10
Punch Unit PU3040	D716-27 (EU) D716-28 (SC)	-
Paper Feed Unit PB3160	D693	5
Paper Feed Unit PB3150	D694	1
Caster Table Type M3	D178	2
LCIT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

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 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



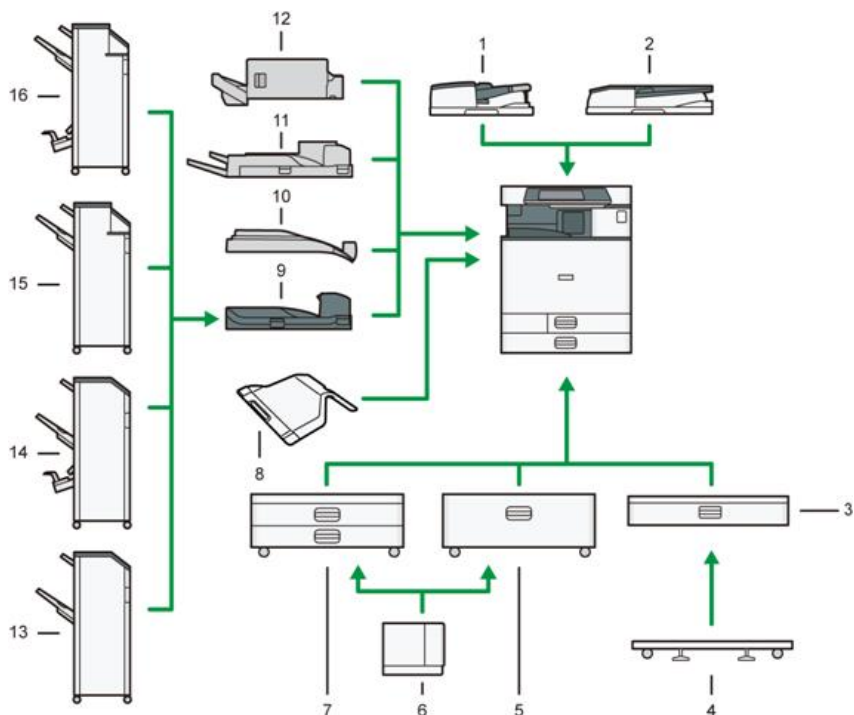
d1462682

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
LCIT PB3170	D695-17 (NA)	4

Item	Machine Code	Call out
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	-
File Format Converter Type E	D377-04	-

Item	Machine Code	Call out
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)



d1462683

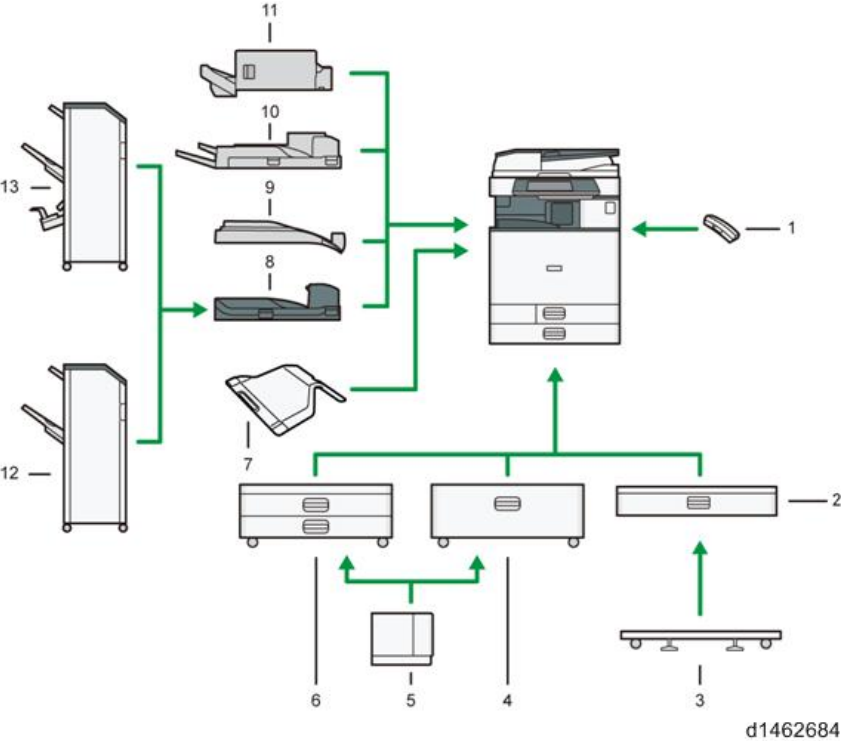
Item	Machine Code	Call out
Finisher SR3140	D687	13
Booklet Finisher SR3150	D686	14
Punch Unit PU3050	D717-27 (EU) D717-28 (SC)	-
Booklet Finisher SR3170	D688	16
Finisher SR3160	D689	15
Punch Unit PU3060	D706-01 (EU) D706-02 (SC)	-
Internal Finisher SR3130	D690	12
Punch Unit PU3040	D716-27 (EU) D716-28 (SC)	-

Item	Machine Code	Call out
Paper Feed Unit PB3160	D693	7
Paper Feed Unit PB3150	D694	3
Caster Table Type M3	D178	4
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	-

Item	Machine Code	Call out
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	-
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



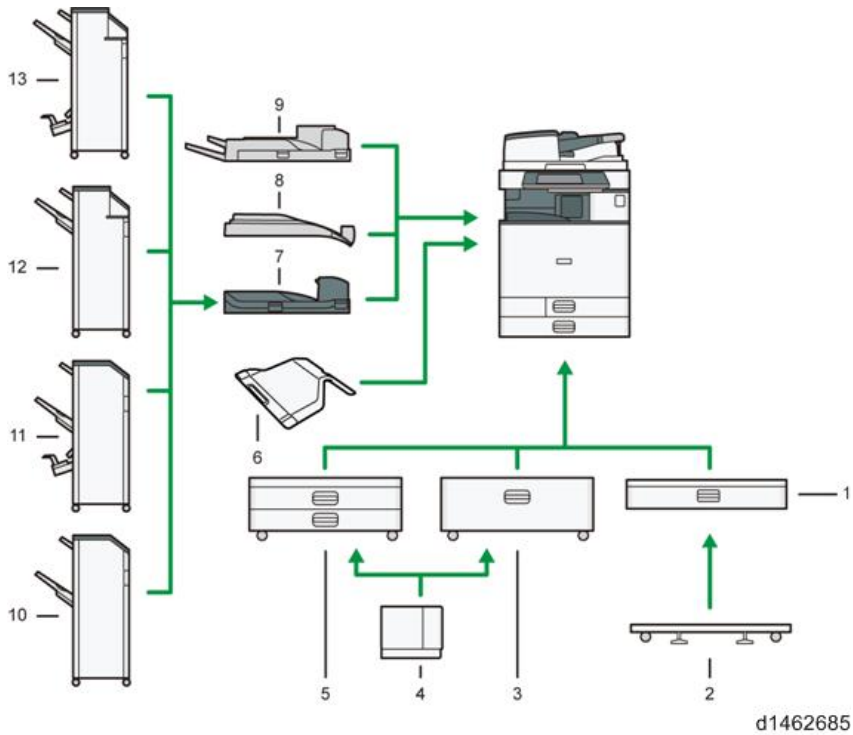
Item	Machine Code	Call out
Finisher SR3140	D687	11
Booklet Finisher SR3150	D686	12
Punch Unit PU3050	D717-17 (NA)	-
Booklet Finisher SR3170	D688	14
Finisher SR3160	D689	13
Punch Unit PU3060	D706-00 (NA)	-
Paper Feed Unit PB3160	D693	6
Paper Feed Unit PB3150	D694	2
Caster Table Type M3	D178	3
LCIT PB3170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

Item	Machine Code	Call out
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	-
File Format Converter Type E	D377-04	-

Item	Machine Code	Call out
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)	-

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	-

Item	Machine Code	Call out
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)	-

Specifications

1

See "Appendices" for the following information:

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

Guidance for Those Who are Familiar with Predecessor Products

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 <ul style="list-style-type: none"> • Download the SP value from the unit • 1 SP for coarse and fine adjustment 	Adjustment of original point after the unit replacement <ul style="list-style-type: none"> • Hand- input in reference of sheet included in the unit. • 2 SP for coarse and fine adjustment 	Serviceability improvement

Item	D146/D147/D148/D149/ D150	Predecessor	Purpose
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

Item	D146/D147/D148/D149/ D150	Predecessor	Purpose
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

1

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
PCU	PCU: $\phi 30\text{mm}$ Distance of PCU and Charger roller: $50\mu\text{m}$ Lubricant application blade in the trailing direction	PCU: $\phi 40\text{mm}$ Distance of PCU and Charger roller: $18\mu\text{m}$ 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: $\phi 20\text{mm}$ Dev screw upsizing: $\phi 22\text{mm}$ Air pressure filter upsizing	Two axis one way development Dev roller upsizing: $\phi 18\text{mm}$ Dev screw upsizing: $\phi 14\text{mm}$	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	<ul style="list-style-type: none"> Layout optimization
Image transfer	ITB cleaning unit position <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Cleaning ability up according to new lubricant in PCDU
Process control	Real time process control <ul style="list-style-type: none"> (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	<p>Fusing sleeve material change (Ni+Cu)</p> <ul style="list-style-type: none"> Two heaters + shield <p>Fusing unit replacement required only at SC544-02/554-02 occurrence</p> <p>Metal single purpose grease adopted (Fluotribo) on pressure roller and the bushing (this can be also used for the predecessors)</p> <p>Pressure release motor turn by one way</p>	<p>Fusing sleeve material (SUS: stainless)</p> <p>Three heaters (one is postcard purpose)</p> <p>Fusing unit replacement required at SC544-00/554-00/564-00/574-00 occurrence</p> <p>Plastic purpose grease on pressure roller and the bushing (Barrierta)</p> <p>Pressure release motor turn by both way</p>	<p>AC-TEC reduction</p> <p>Grease lubricant ability up</p> <p>Machine layout change</p>

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)

Item	D146/D147/D148/D149/ D150	Predecessor	Purpose
FAX	Bracket added in the replacement FCU part	No bracket for FCU to hold	Handle ability improvement

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

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)

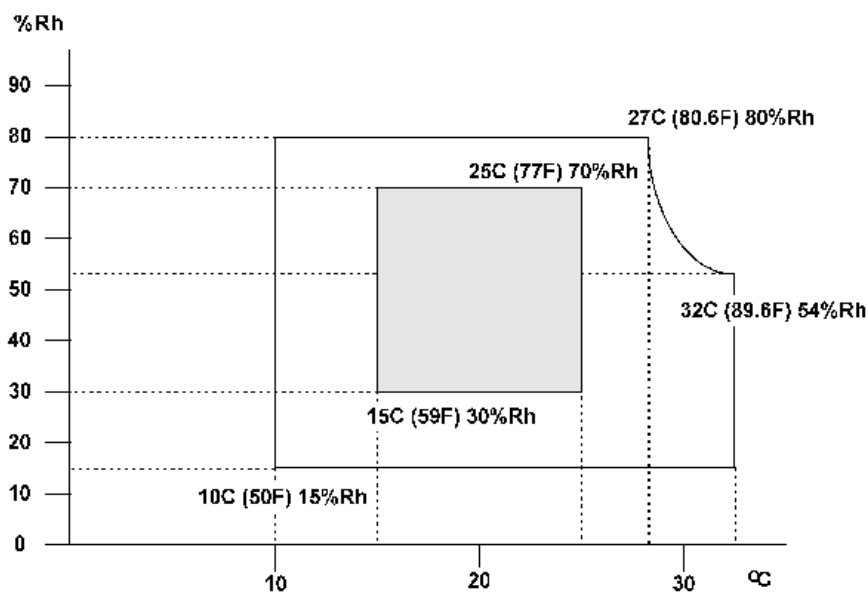
Item	D146/D147/D148/D149/D150	Predecessor
Release way for Fusing high temperature detection	Fusing unit replacement is required only at SC544/554 (Fusing high temperature detection) occurrence.	Fusing unit replacement is required at SC544/554/564/574 occurrence.
SRA3 option (Imageable Area Extension Unit Type M3)	<ul style="list-style-type: none">• SP setting is required at the option installation.• This have PM yield as well as normal PTR. Regular PM replacement is required.	-

2. Installation

Installation Requirements

Environment

2



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

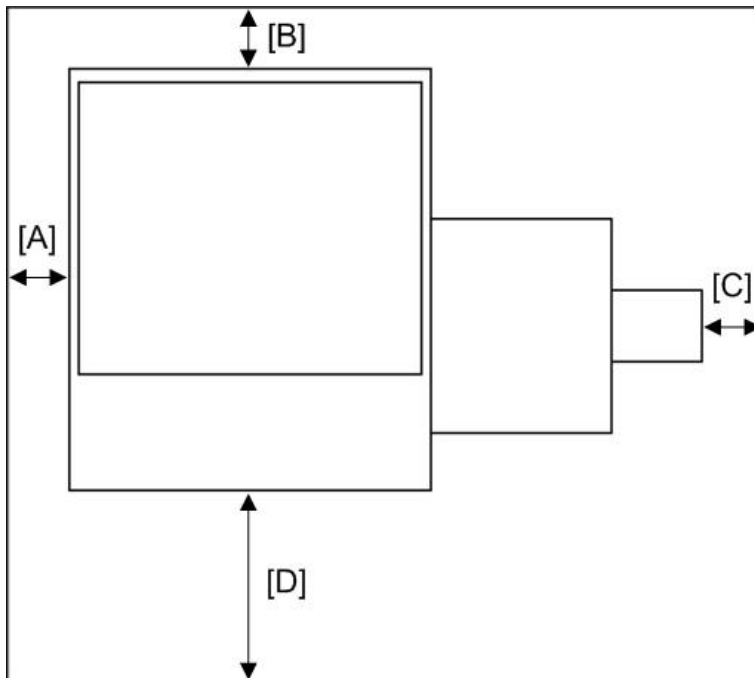
1. Avoid areas exposed to sudden temperature changes:
 - 1) Areas directly exposed to cool air from an air conditioner.
 - 2) Areas directly exposed to heat from a heater.
2. Do not place the machine where it will be exposed to corrosive gases.
3. Do not install the machine at any location over 2,000 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.

Machine Level

Front to back: Within 5 mm (0.2")

Right to left: Within 5 mm (0.2")

Machine Space Requirements

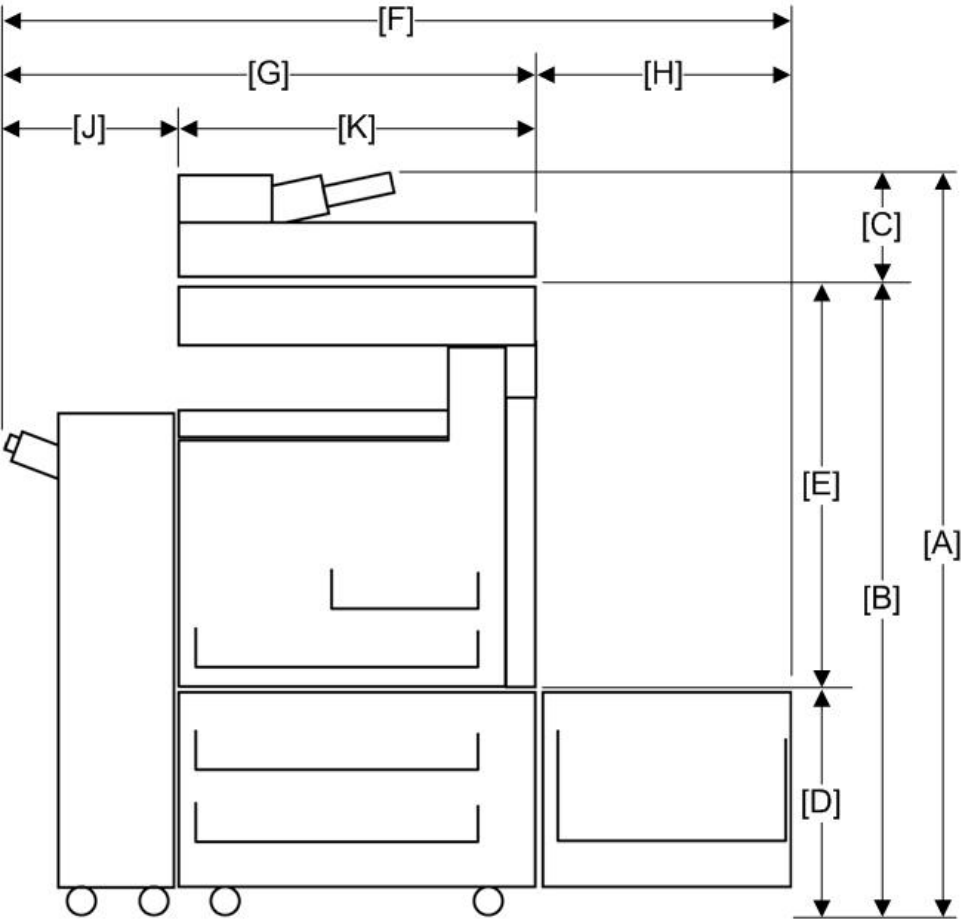


d1462236

[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.

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

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			

Main Machine Installation

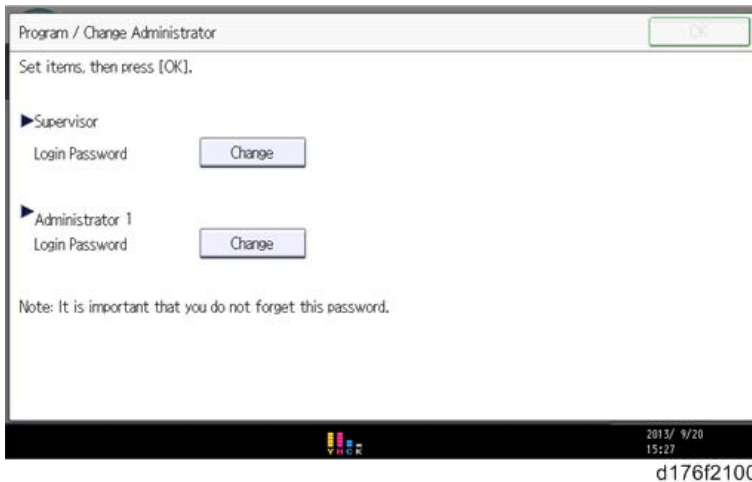
Important notice on security issues

In order to increase the security of the MFP, and to ensure that the customer sets the administrator password, an administrator set/change prompt display is shown up at the first power-up.

2

Overview

- The following Program/Change Administrator screen is displayed at the first power-up.



- When the customers set the administrator/supervisor login password, the display disappears and the home display will appear. The customers, however, can erase this screen with the following procedure in the case that they think there is no need to set the password.
- On the Program/Change Administrator screen, press [Change] next to Supervisor and then touch [OK] without inputting any password.
 - Touch [OK] again when the Confirm password display shows up.
 - For Administrator 1, do the same procedure as steps 1 and 2.
 - Press the [OK] button, then the home display appears.
- SP5-755-002 allows you to skip this screen temporarily and continue the installation procedure without setting an administrator password. However, the Program/Change Administrator screen appears every time you turn the power OFF/ON, if the password is not set.

Password setting procedure

Note

- For more details about this security issue, see "Notes on Using Multi-Function Printers Safely" supplied with the MFP.

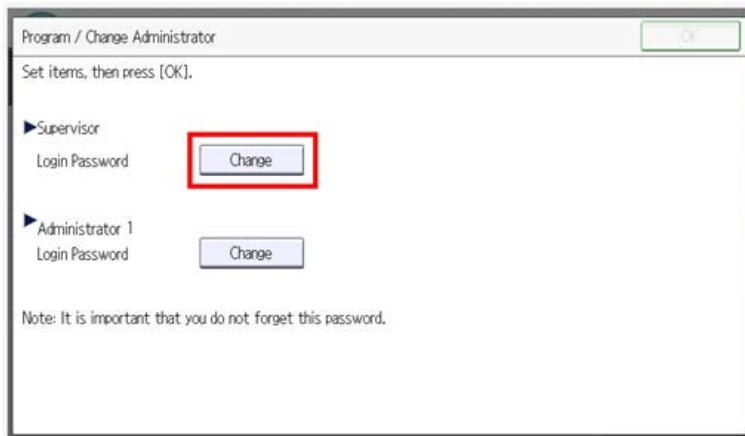
CAUTION

- When Supervisor / Administrator 1-4 passwords are configured via network, the "Change Supervisor login password" window won't display.
- The passwords for Supervisor or Administrator 1 to 4 can be set via "System Settings". But the Program/Change Administrator screen appears every time the power switch is turned ON if the passwords are input this way. So we recommend the customers to set the passwords via network or the Program/Change Administrator screen.

1. Install the MFP.

1. Turn the main power switch ON.

2. Change the Supervisor login password.



d176f2101

3. Input the password.



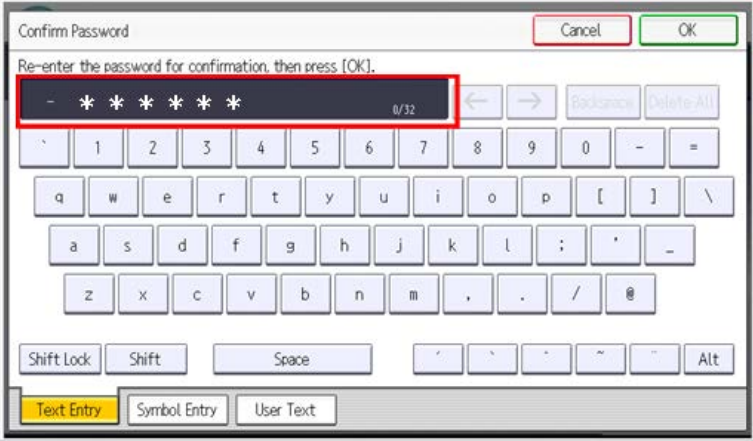
d176f2102

4. Press [OK].



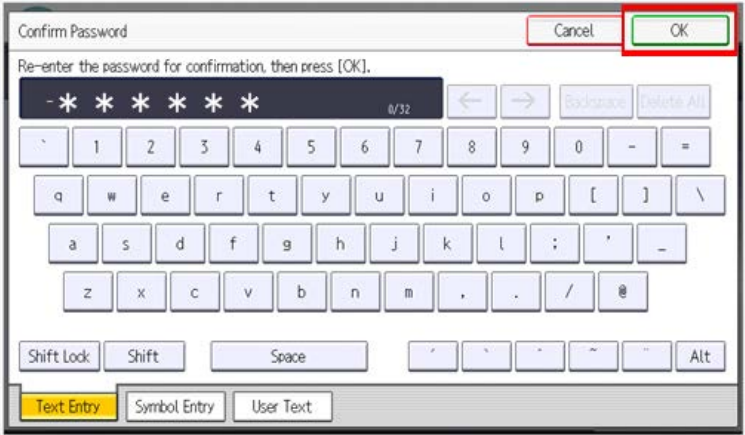
d176f2103

5. Confirm the Password.



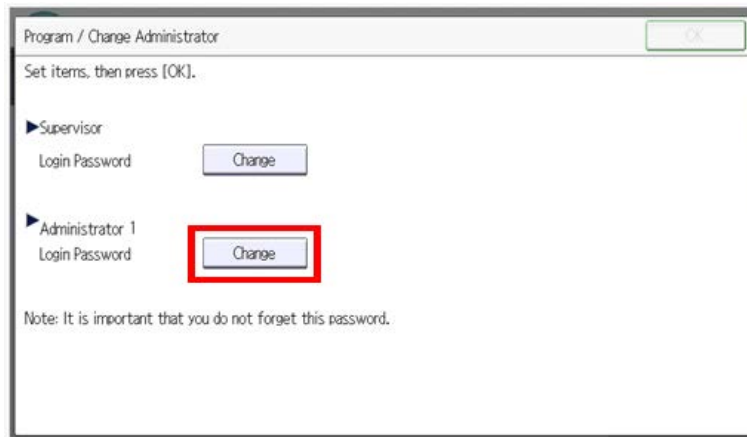
d176f2104

6. Press [OK].



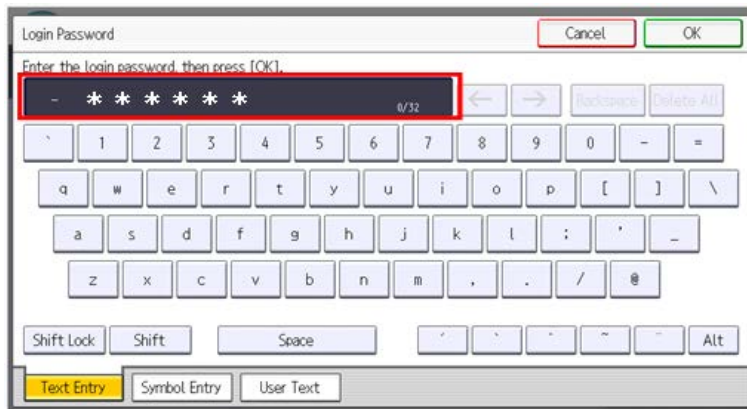
d176f2105

7. Change the Administrator 1 login password.



d176f2106

8. Input the password.

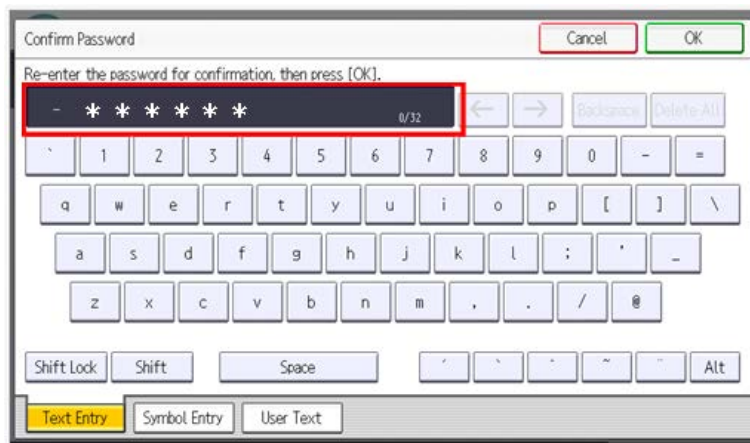


d176f2102

9. Press [OK].



d176f2103

10. Confirm the password.

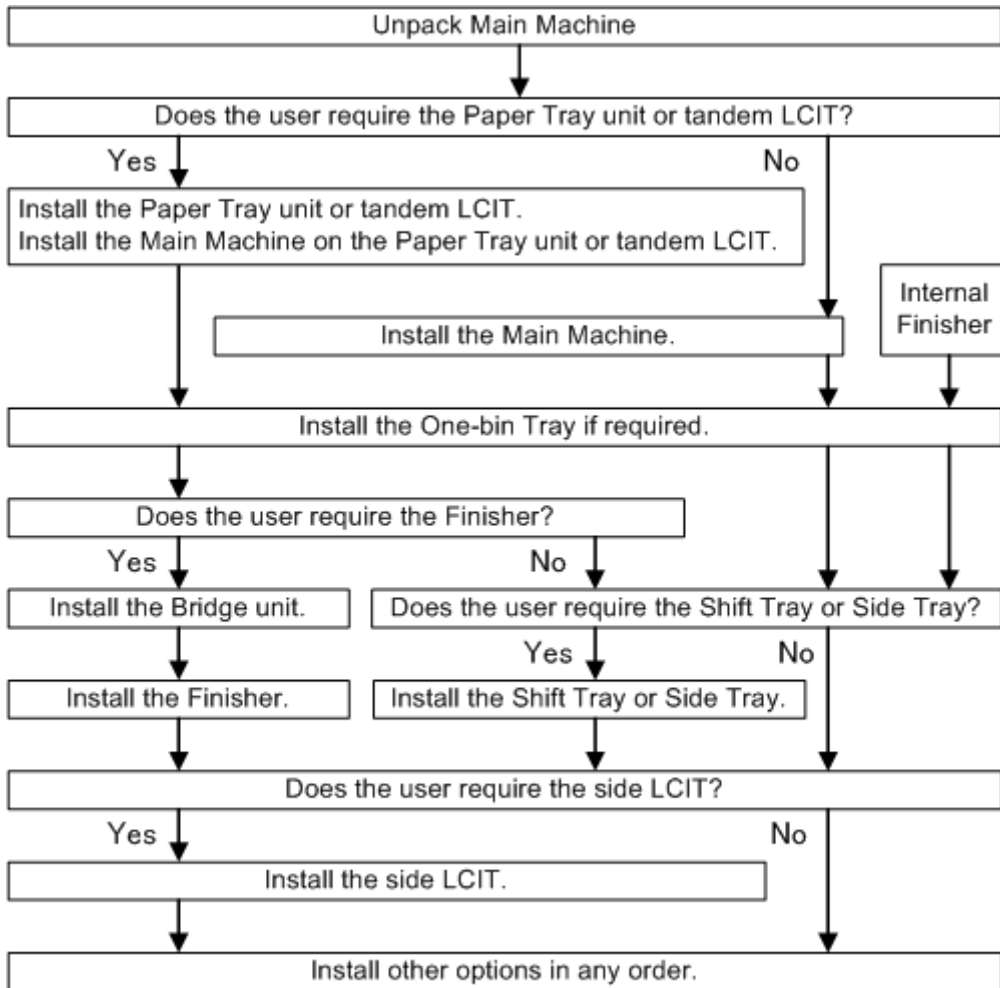
d176f2104

11. Press [OK].

d176f2105

12. Cycle the power OFF/ON.

Installation Flow Chart



w_d1465025

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).

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

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.

2

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.



d1462210

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



d1462211

RTB 165
Right rear cover

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



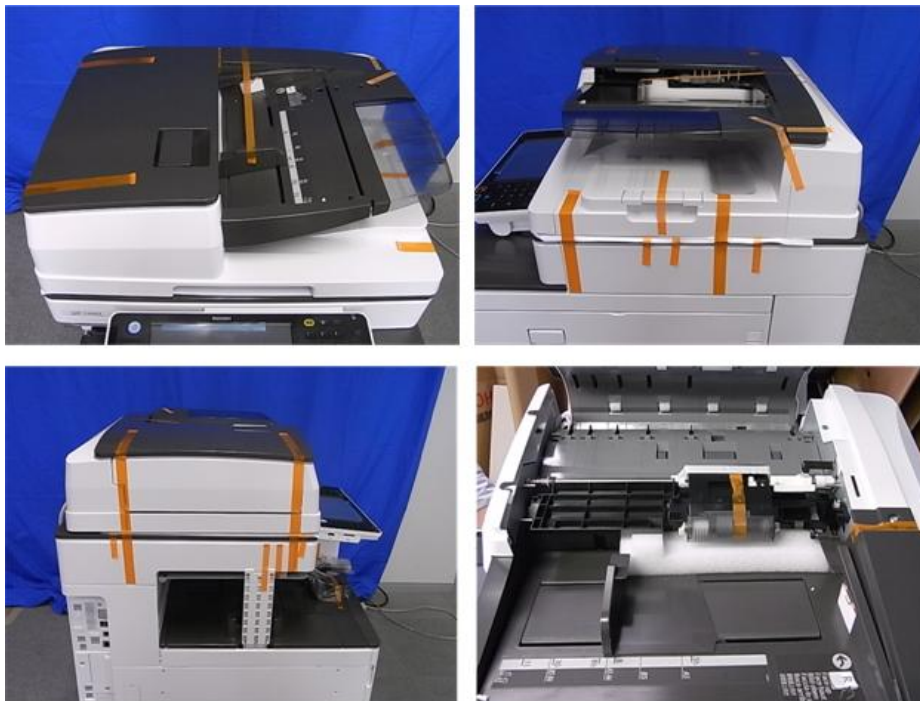
For a machine with preinstalled SPDF, remove the orange tape and retainers on the SPDF.

2. Installation

D147 RTB 29

Removing cardboard stabilizer at installation

2



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

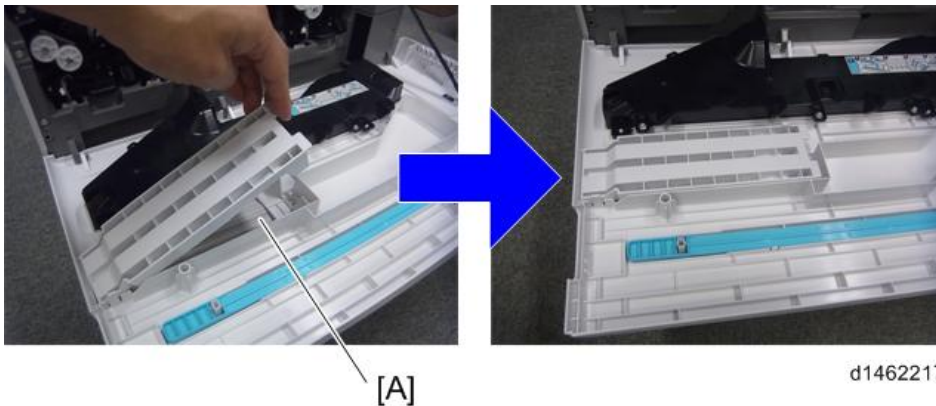
5. Pull out the 2nd paper feed tray, and remove the orange tape and retainers.

6. Remove the scanner support [A].



d1462216

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

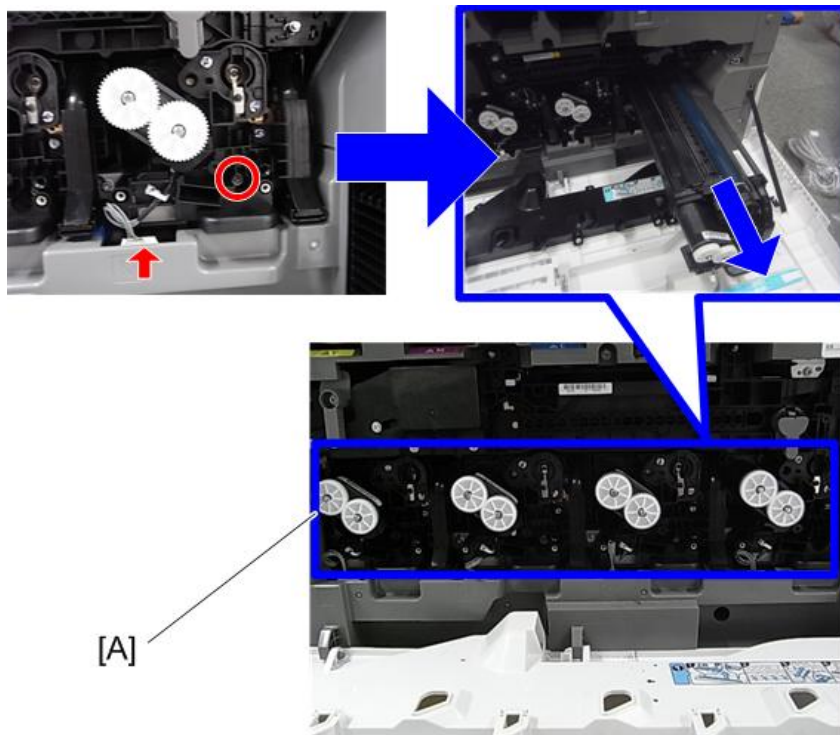


d1462217

Note

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

8. Remove the PCDU [A] from the machine. (⚙️ ×4, 📄 ×4)



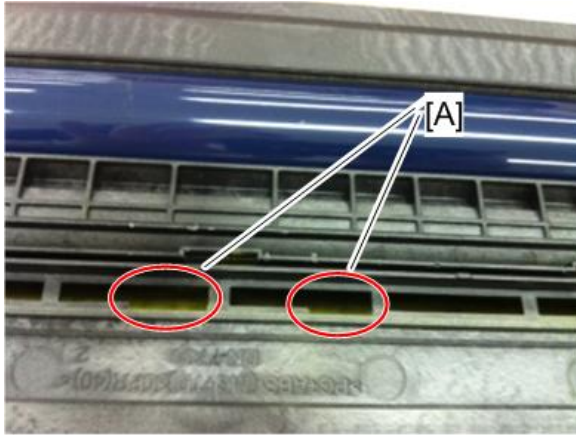
d1462218

⚠️ CAUTION

• **CAUTION for Removing the PCDU Preset Seal**

- Make sure to completely remove the orange tape. If you remove the preset seal without removing the orange tape, this may break the ribs inside the unit. As a result, broken ribs may fall into the development unit and cause white lines to appear on the printouts.

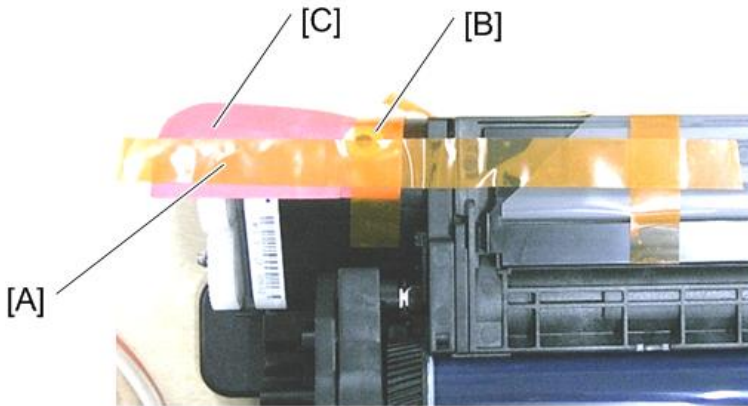
[A]: Broken part



d146z1001

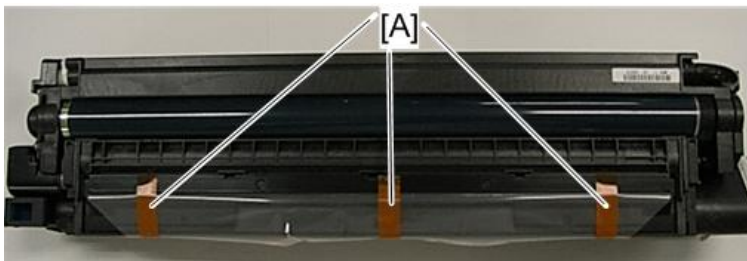
9. Remove the strips of orange tape (First [A], and then [B]).

10. Remove the red tag [C].



d1465014

11. Hold down the preset seal and slowly peel off the three strips of tape [A], one by one.

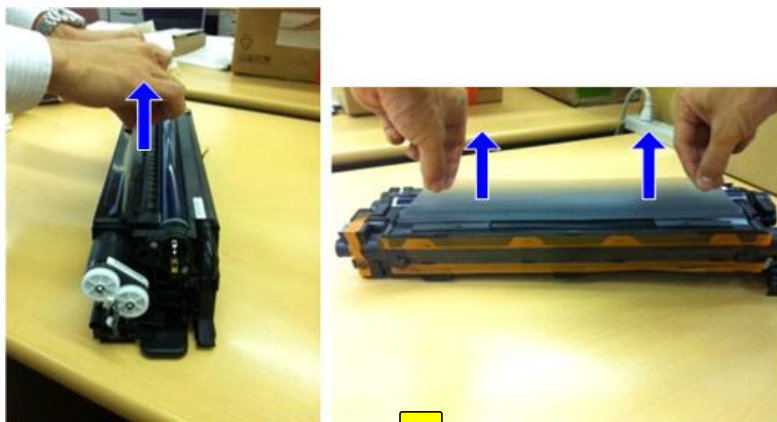


d146f0006



d146z1002

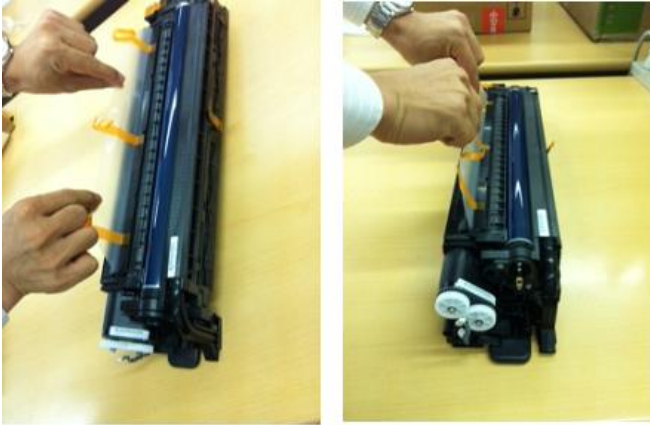
12. Hold the preset seal with both hands (one at each end), and slowly pull the seal straight up, so that there is no slack in the seal.



d146z1003

★ Important

- Make sure to remove the tape (Do Step 3) before you do this step.
DO NOT pull the preset seal with the tape still attached.

INCORRECT

d146z1004

- DO NOT pull the seal by force, or hold the seal only at one end. This is because the seal will skew or develop slack.

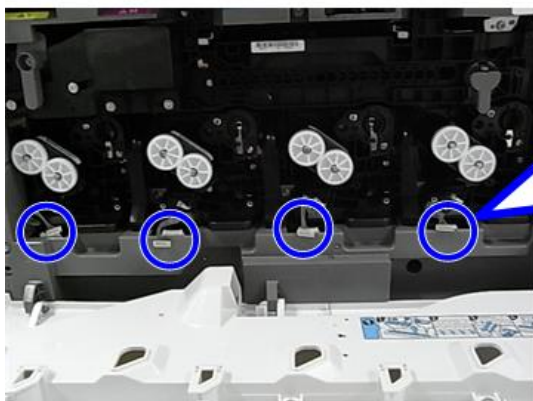
INCORRECT

d146z1005

13. 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.

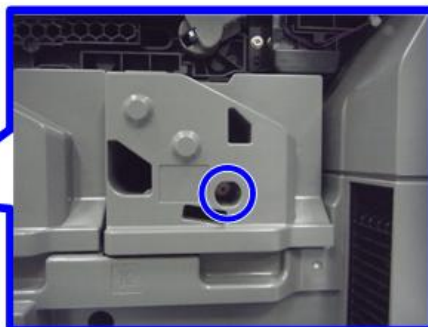


d1462219

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

[A]

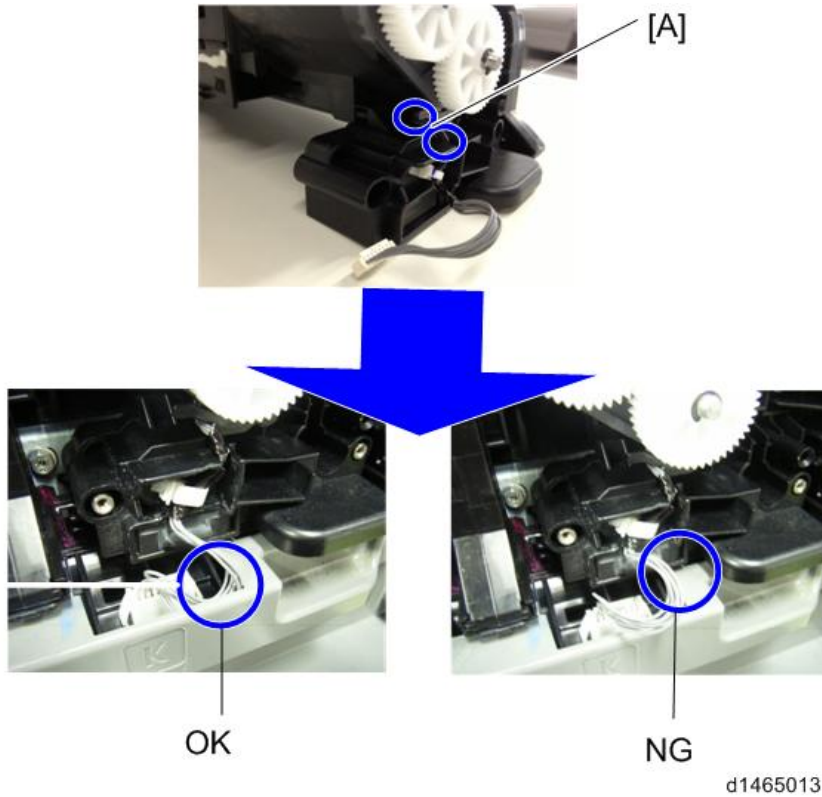
[B]



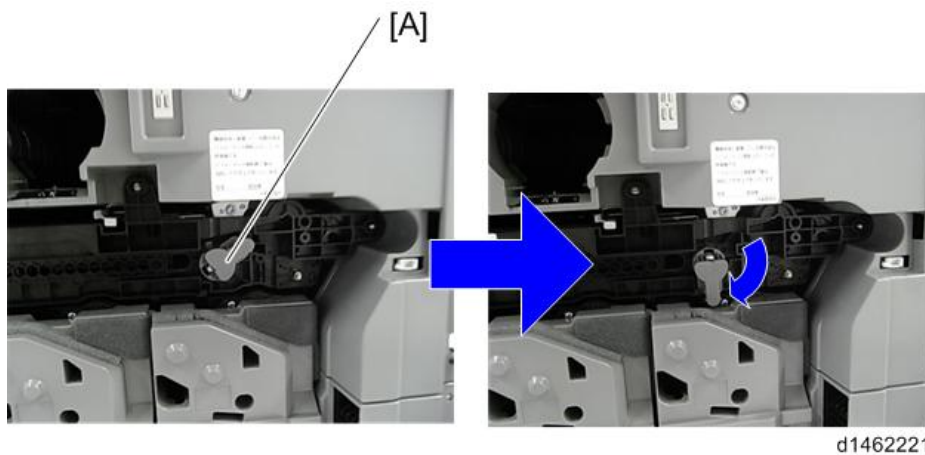
d1462220

CAUTION

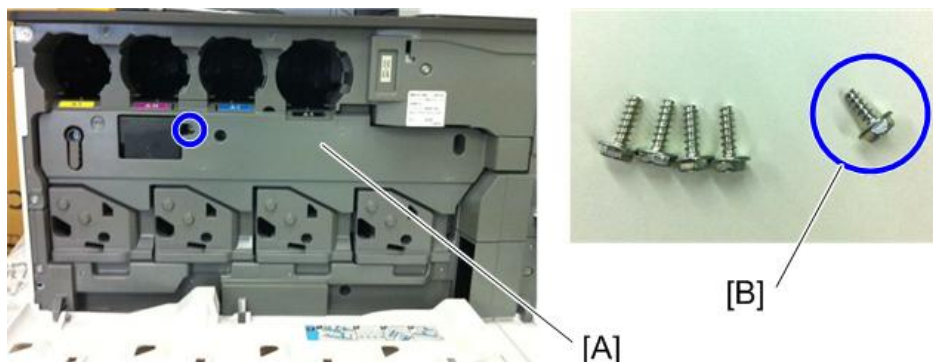
- Be careful not to trap the harness with the PCDU front cover. Place the excess portion of the harness on the inside of the inner cover. Also, hook the harness in two places [A].



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



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



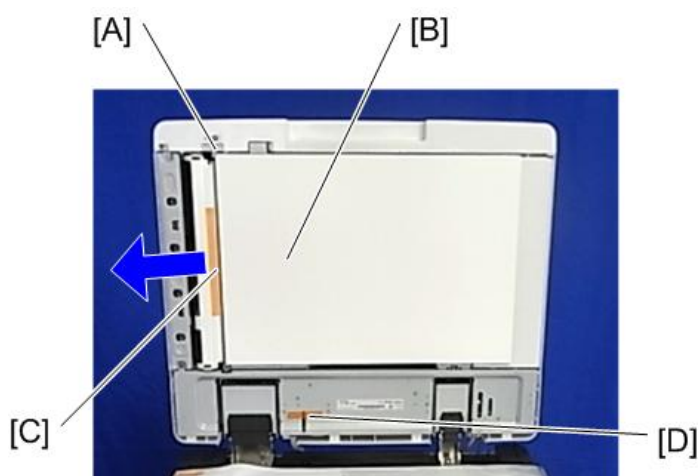
d1462222

17. 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].



d1462223

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.

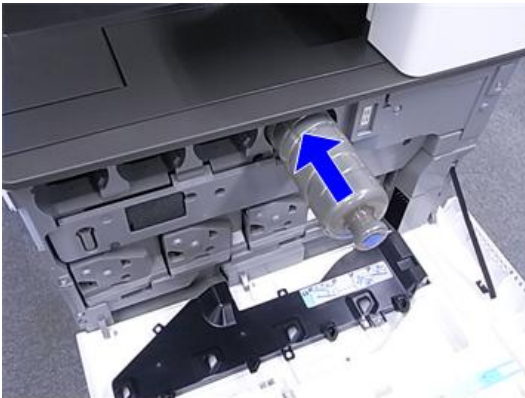
Toner bottle installation

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 the optical cloth pocket

1. Clean the adhesive surface of the optical cloth pocket with an alcohol-soaked cloth.
2. Attach the optical cloth pocket [A] to the left side of the scanner and put the optical cloth into the pocket.

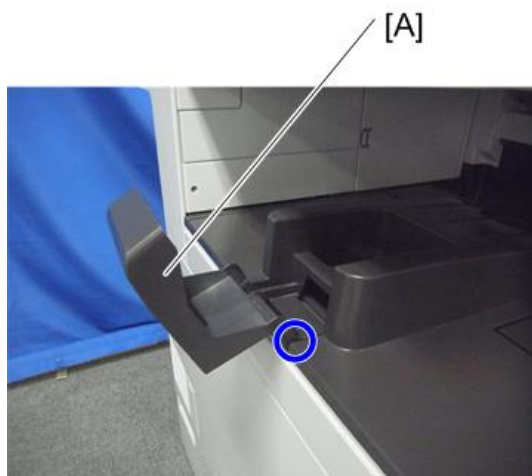
2



d1462226

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

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

General RTB 65

When power is turned on the first time, a password screen appears. To get rid of this, see this RTB.

RTB 124

When turning power on for the first time, if you need to update firmware, do ACC first

2

Image quality test / settings

ACC execution and color registration adjustment

1. 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.

2. Exit the User Tools mode, and then enter the SP mode.

3. 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.

4. Exit the SP mode.

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

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 are 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.

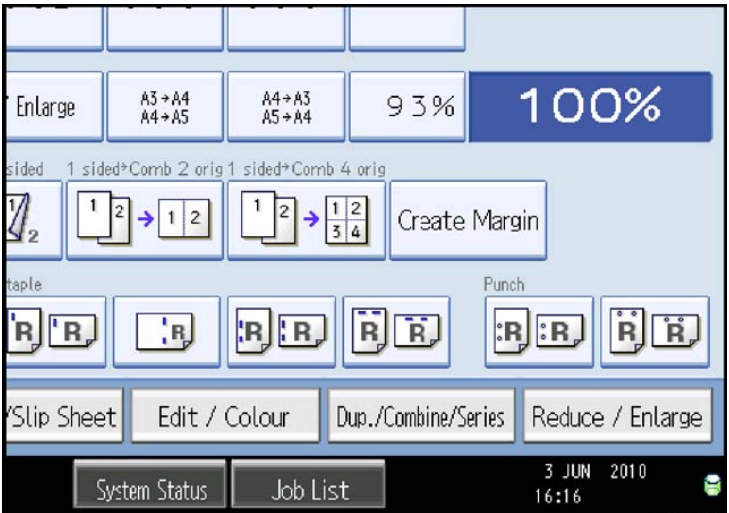
3. Make sure that "Administrator Tools" is enabled (selected).

[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.



d1420091

	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.

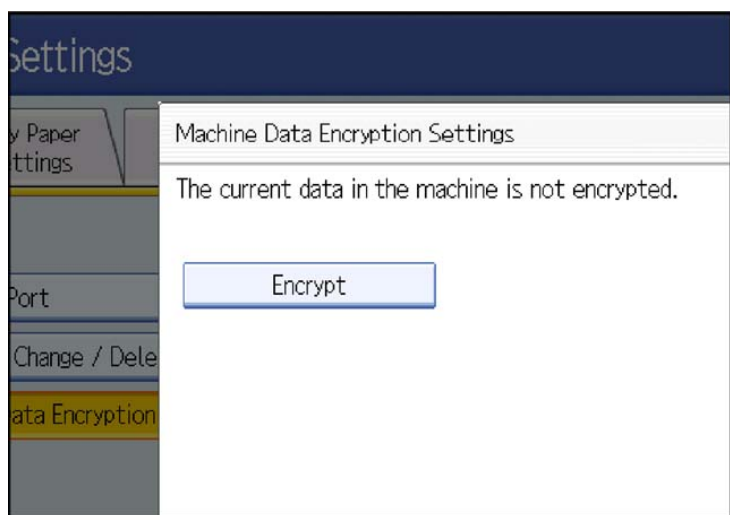
If this setting is not selected, tell the customer that this setting must be selected before you can do the installation procedure.

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.

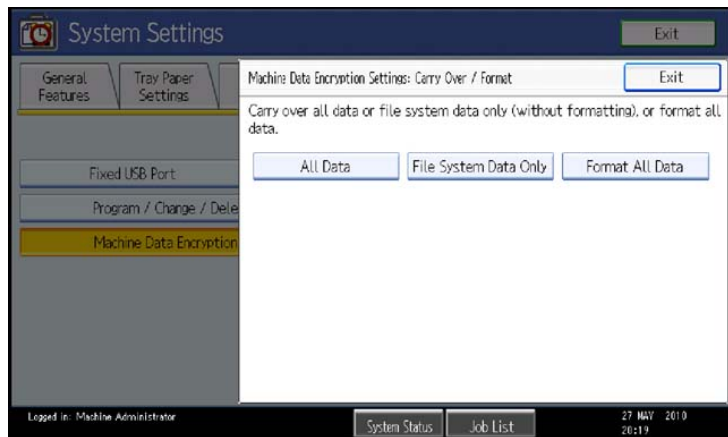
Enable Encryption Setting:

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].

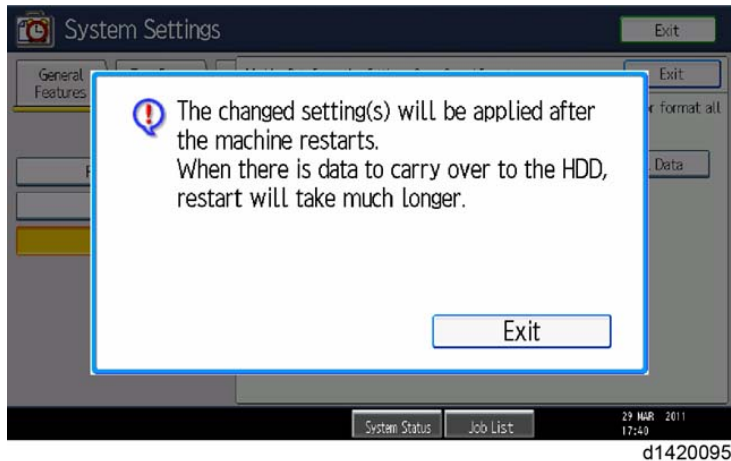


d1420093

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



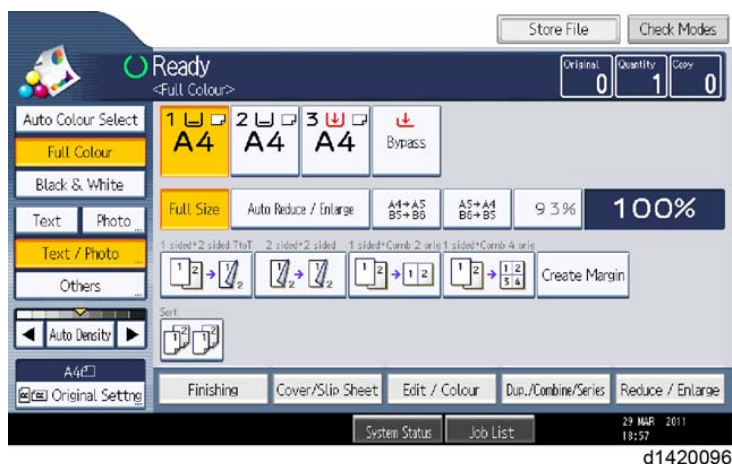
3. Press [Exit] to remove the following message.



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

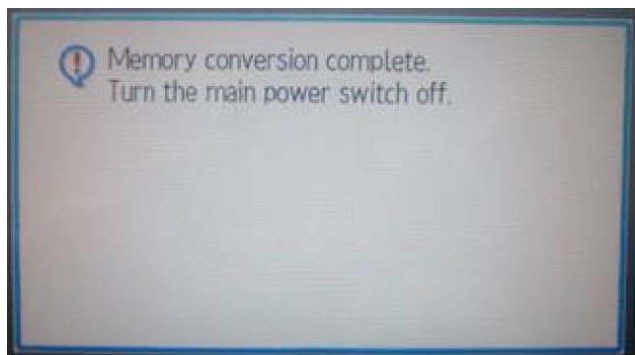
★ Important

- 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.



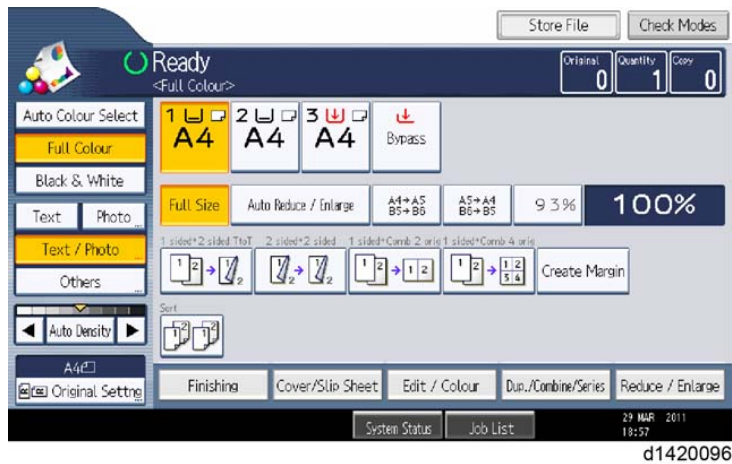
d1420096

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

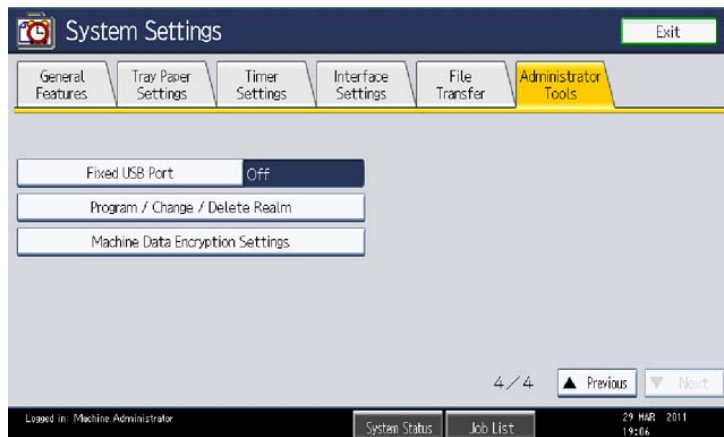
8. Then initial operation display appears again. After this step, HDD data encryption has already been completed.



d1420096

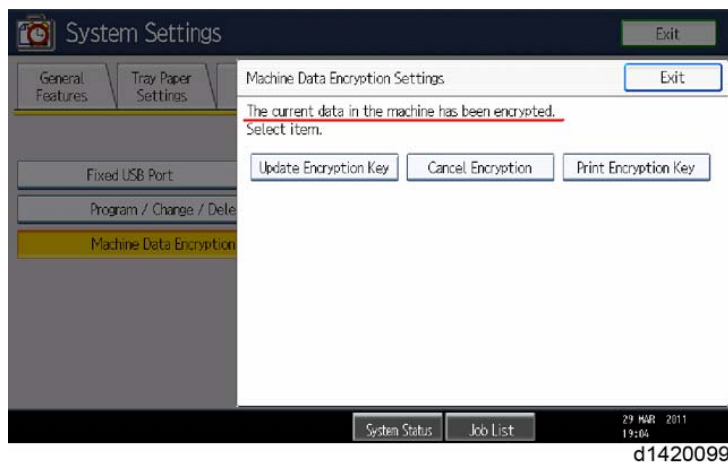
Check the Encryption Settings

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



d1420098

4. Press [Machine Data Encryption Settings].



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

Machine Data Encryption Key

This is an encryption key which allows you to protect confidential data stored in the machine.
It is essential that the safekeeping and destruction of this encryption key be under your direct responsibility.
Data saved and programmed on the machine (documents, image data, setting values, address book contents etc.) can be encrypted/decrypted with this encryption key.
If this machine breaks down, saved and programmed data in the machine can only be restored by entering this encryption key.
(Please note that it may not be possible to restore data in certain machine breakdown cases.)
This machine data encryption key will remain valid as long as the encryption is not cancelled or the encryption key is not changed.
After changing or cancelling the encryption key, please shred this document to destroy confidential data.

Output Date/Time:September 03,2010 08:55:25 AM
Machine Type:Aficio MP C400SR
Machine ID:S7500717004
Machine Data Encryption Key:
6pF1FFGH#EBiYkPafBJz6YE\$wYXk

d1420100

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.

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.

[D688 RTB 15](#)

[Moving the SR3160 or SR3170 finisher](#)

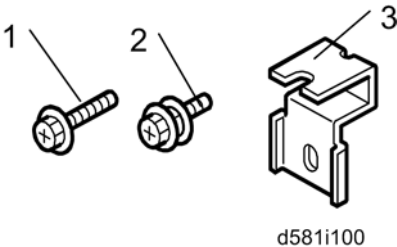
[D686 RTB 7](#)

[Moving the SR3140 or SR3150 finisher](#)

Paper Feed Unit PB3160

Accessory Check

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



Installation procedure

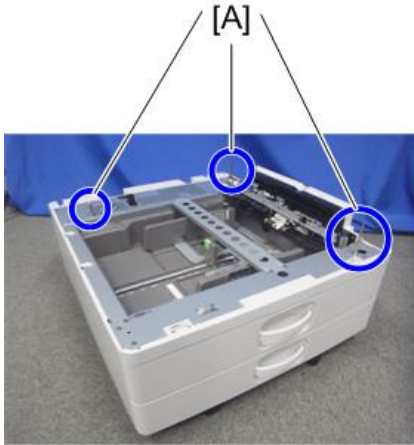
CAUTION

- 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.

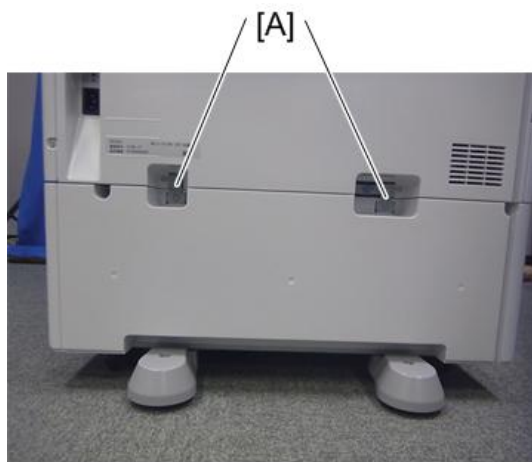
3. Pull out the 2nd paper feed tray.

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



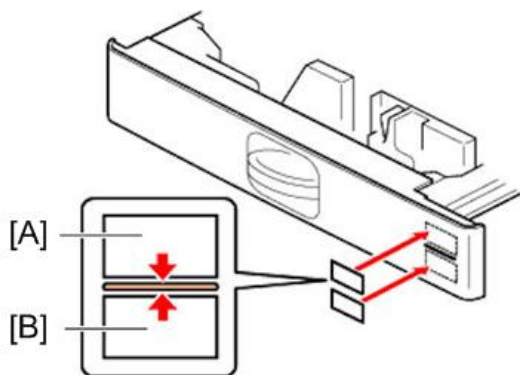
d1462443

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)

Paper Feed Unit PB3150

Accessory Check

2

Description	Q'ty
Securing Bracket	2
Screw with Spring Washer - M4 × 10	1
Screws - M4 × 10	2



d1462445

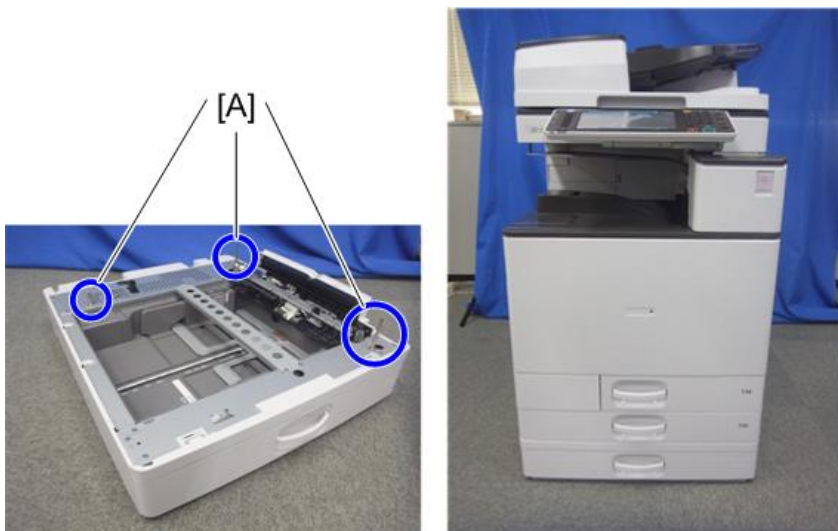
Installation procedure

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

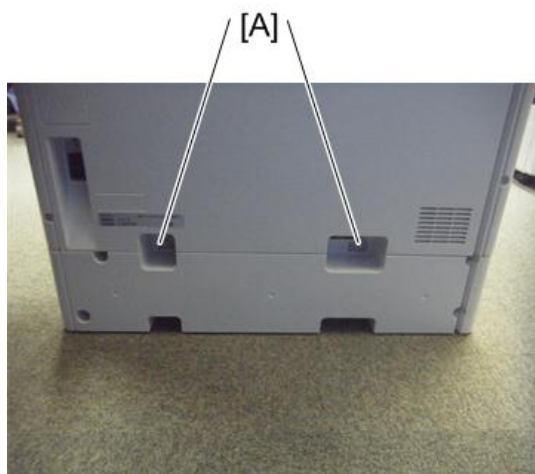
- When you lift the machine, hold the correct locations.
- In particular, do not lift the machine by holding the scanner unit, etc., because this may cause the machine to deform.
- Do not put the machine down on the paper feed unit as a temporary resting place. This may cause the paper feed unit to deform.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



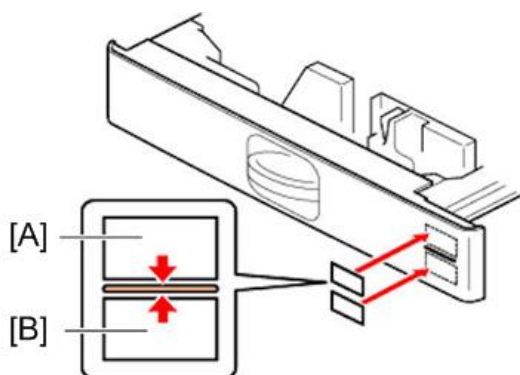
d1462448

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.

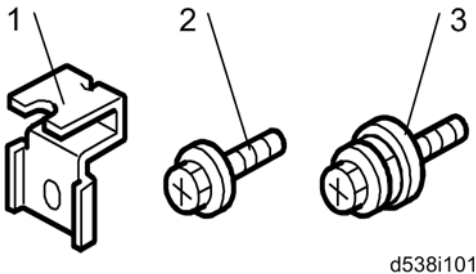
SP1-002-004 (Side-to-Side Registration Paper Tray 3)

LCIT PB3170

Accessory Check

2

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



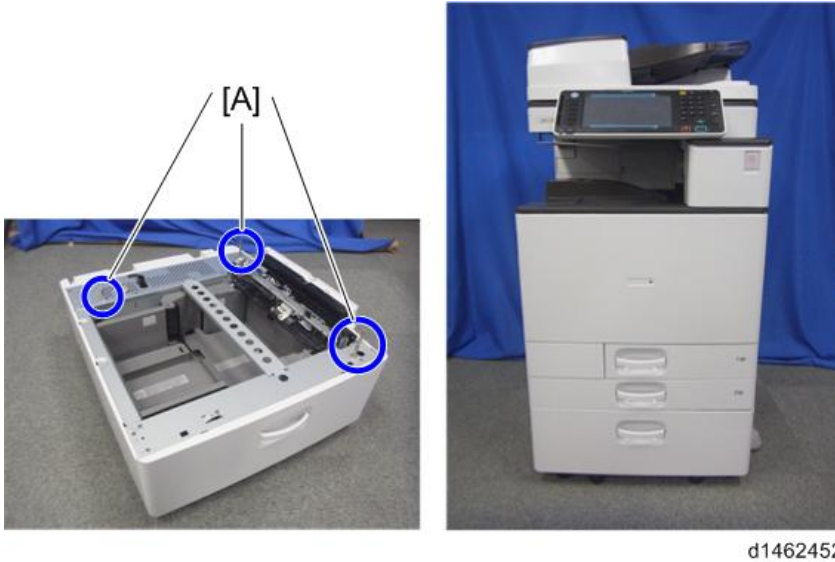
Installation procedure

⚠ CAUTION

- 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.



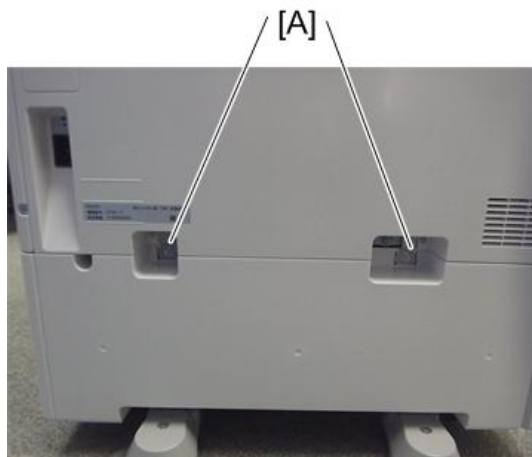
Note

- 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).

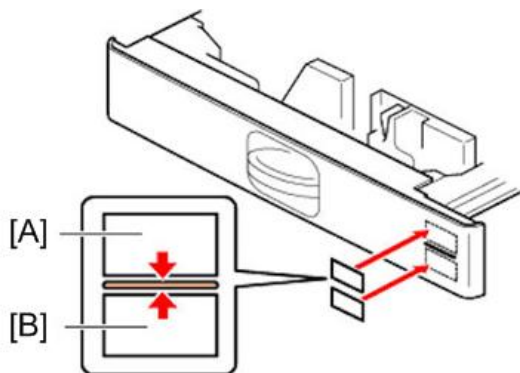


6. Attach the securing brackets [A] to two positions on the left and right at the rear of the machine (screws: 1 each).



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

- Caster stands are attached to the LCIT when it is shipped. Do not remove any of them.



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

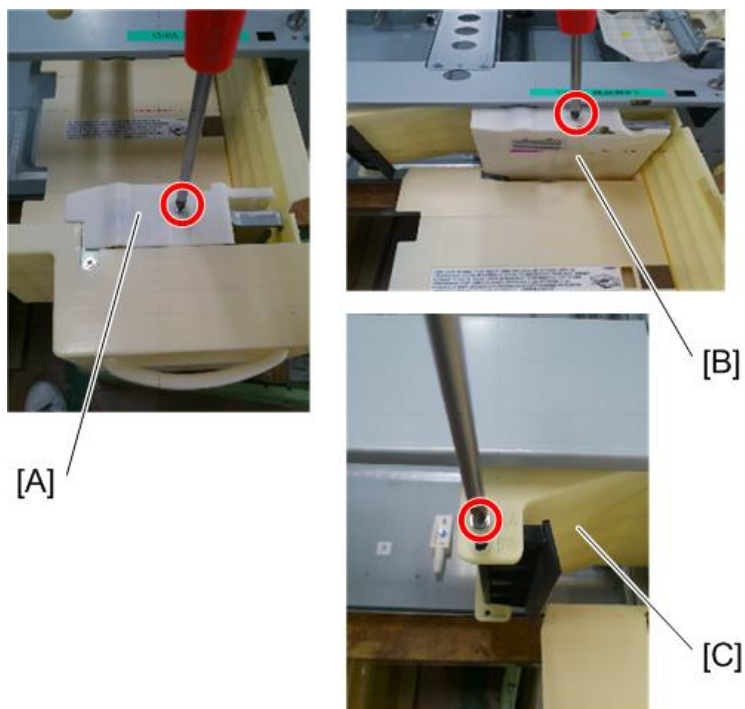
Paper size is set as shown below when the machine is shipped from the factory.

NA: LT LEF

EU.AA.CHN: A4 LEF

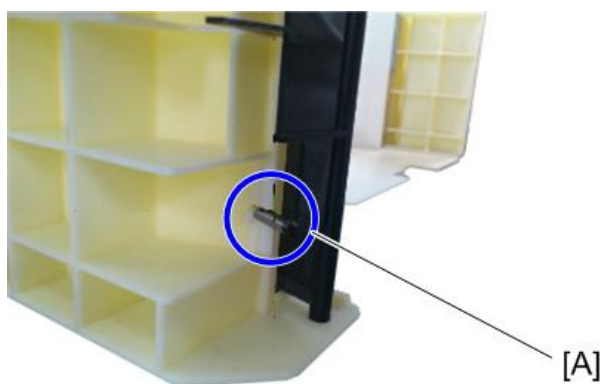
The paper size can be changed to A4 or LT.

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] (3x)



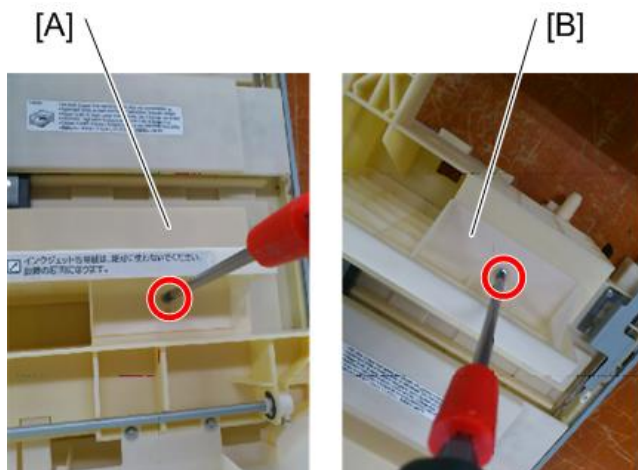
d1462600

3. Attach the fences to the required position (A4 or LT).
4. Make sure that the spring [A] is attached.



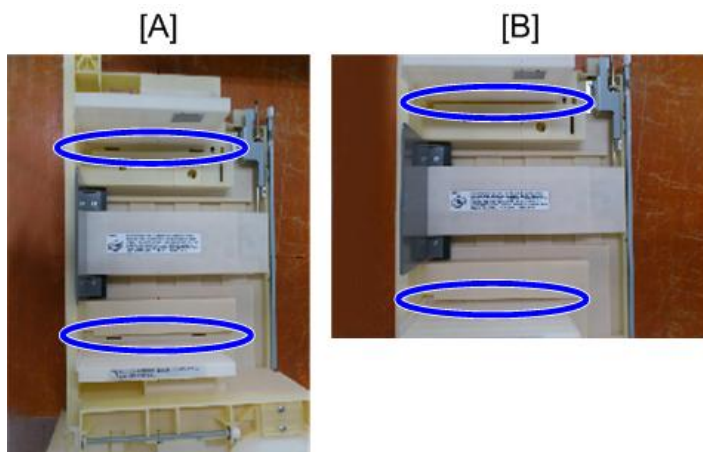
d1462601

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

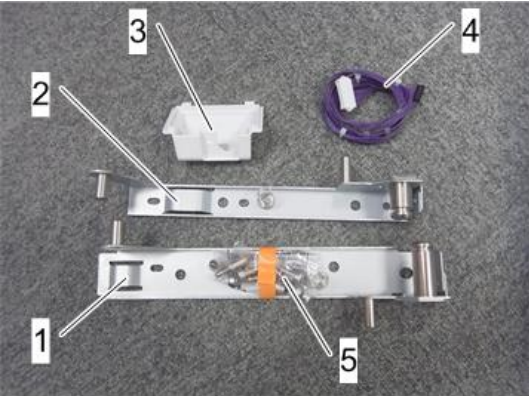
0: A4, 1: LT

LCIT RT3030

Accessory Check

2

No.	Description	Q'ty
1	Rear Bracket	1
2	Front Bracket	1
3	Connector Cover	1
4	Harness	1
5	Screws – M3 × 6	1
5	Tapping Screw – M3 × 6	1
5	Joint Pins	2
5	Stud screw	4
5	Joint Bracket	1



d1462455

Installation procedure

CAUTION

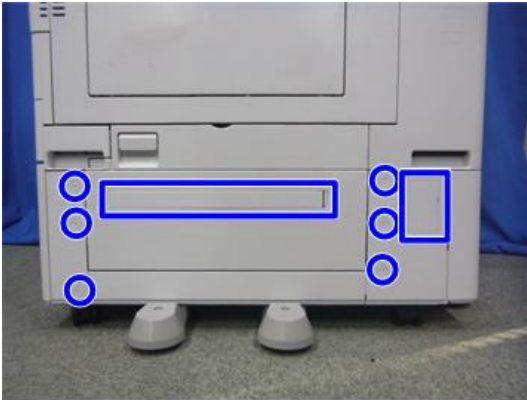
- When installing this option, turn the power of the machine off, and unplug the power plug from the wall socket.

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

Note

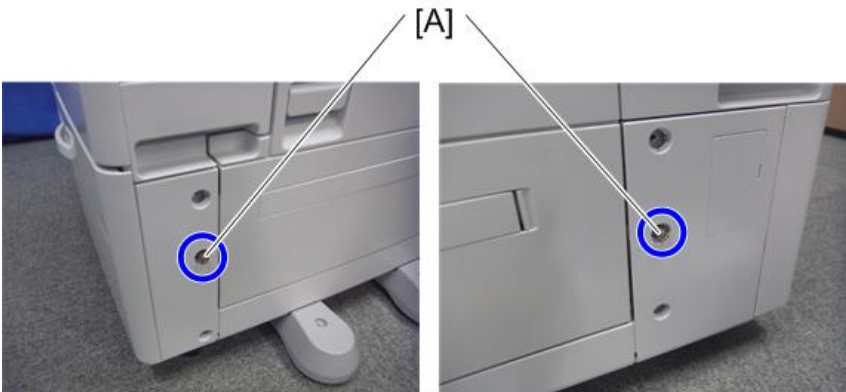
- Before installing this option, first attach the "Paper Feed Unit PB3160" or "LCIT PB3170".

1. Remove the orange tape and retainers.
2. Remove the enclosed items (stud screws, etc.).
3. Eight covers on the right of the paper feed table.



d1462457

4. Attach the joint 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 joint pins (⌀×4).



d1462459

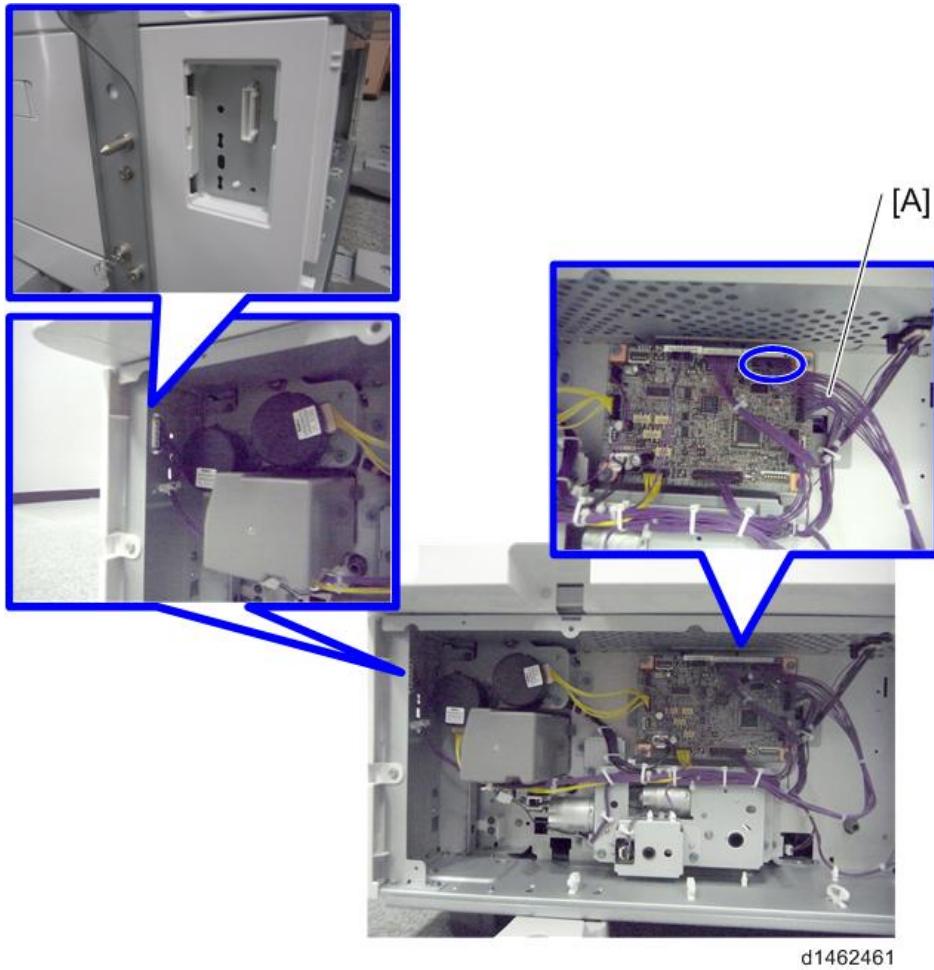
6. Paper feed table rear cover [A] (⌀×2).



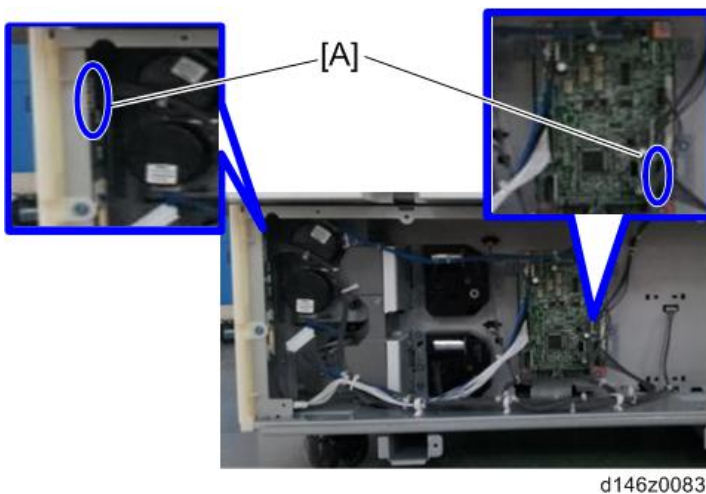
d1462460

7. Connect the harness [A].

For the machine with Paper Feed Unit PB3170

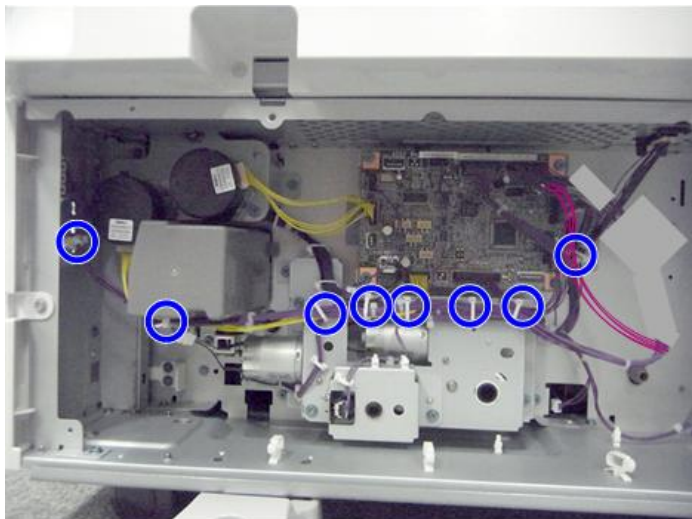


For the machine with Paper Feed Unit PB3160



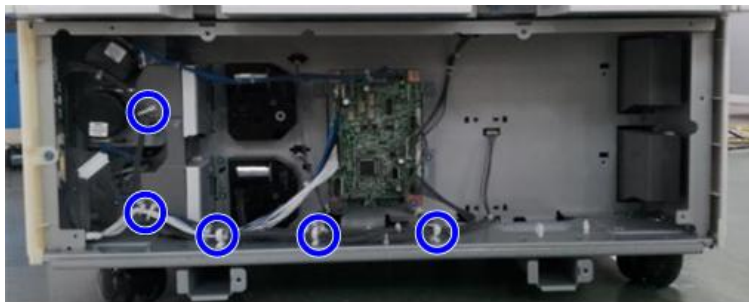
8. Clamp the harness.

For the machine with Paper Feed Unit PB3170



d146z0017a

For the machine with Paper Feed Unit PB3160



d146z0084

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.

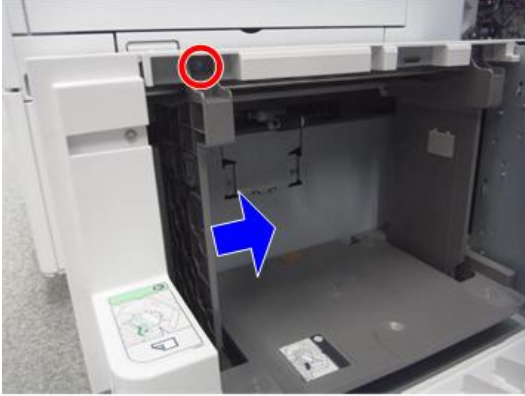
NA: LT LEF

EU.AA.CHN: A4 LEF

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

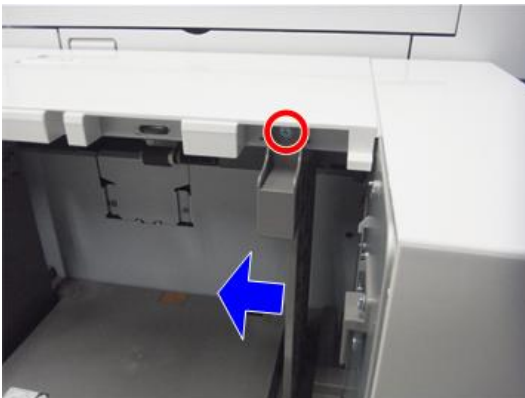
- 1. Open the tray cover.**

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)

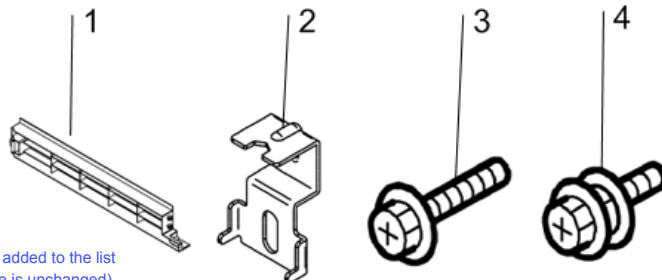
0: A4, 1: LT, 2: B5

Caster Table Type M3

Accessory Check

2

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



RTB 92
One part was added to the list
(the procedure is unchanged)

d1465005

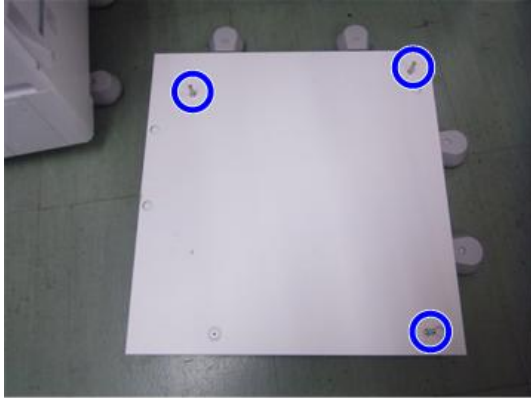
Installation procedure

CAUTION

- 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.

How to place MFP on the caster table

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.

How to place the Paper Feed Unit PB3150 on the caster table

1. Attach the 3 locating pins.
2. Place the paper feed unit on the caster table.
3. Pull out the 1st paper feed tray of the paper feed unit.
4. Using a securing bracket, fix the caster table to the paper tray unit (spring washer : screw: M4×10: 1).
5. Attach the securing brackets 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.
7. Holding the grips on the machine, align with the locating pins of the paper feed unit, and place the machine on the paper feed unit.

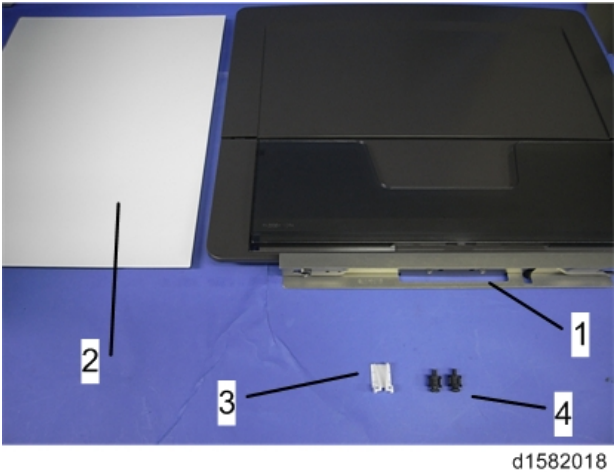
Platen Cover PN2000

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

2

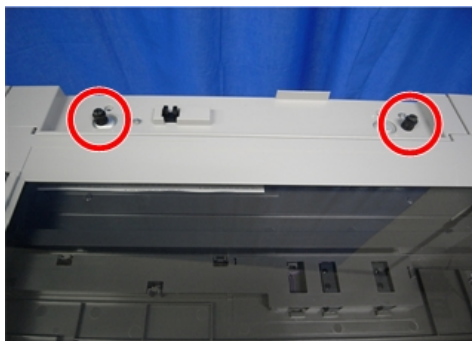


Installation Procedure

CAUTION

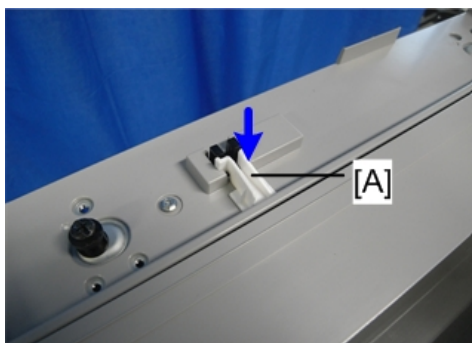
- Unplug the machine power cord before starting the following procedure.

1. Install the stepped screws (⑦× 2).



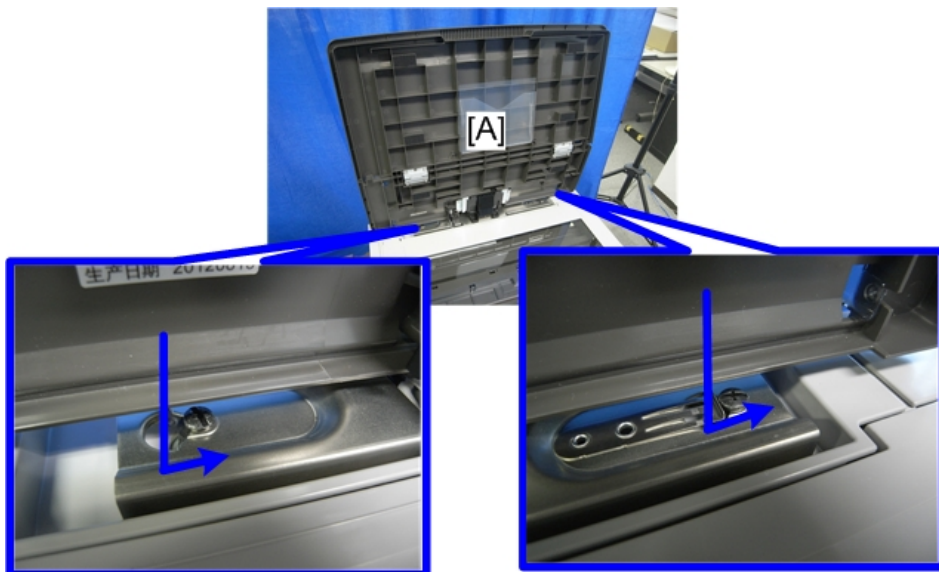
d1582019

2. Install the feeler guide [A].



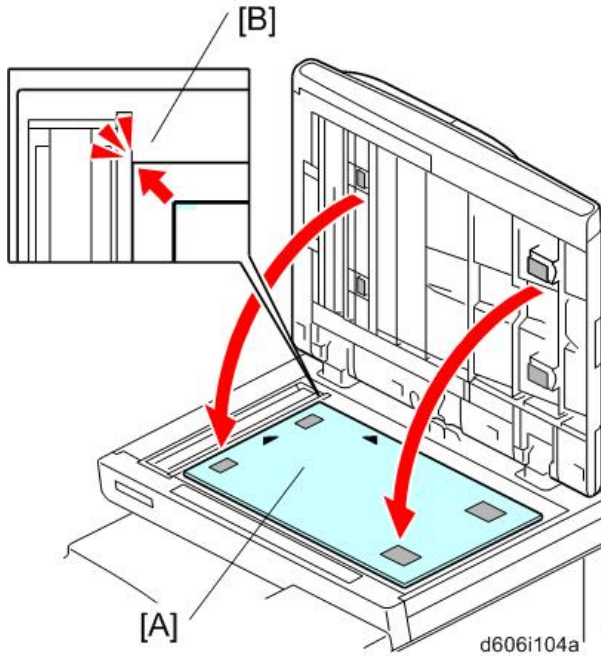
d1582020

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.



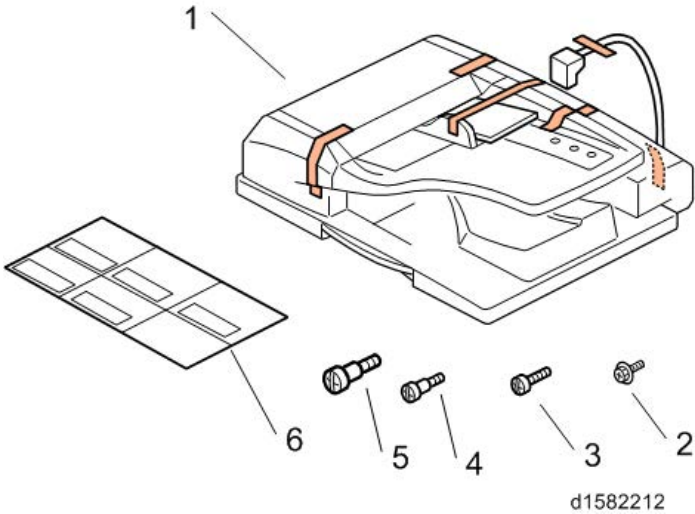
6. Close the platen cover.
7. Open the platen cover.
8. Press the surface of the platen sheet gently to fix it on the platen cover securely.

ARDF DF3090

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



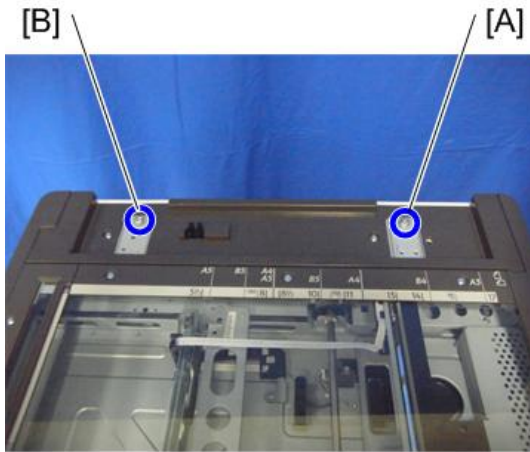
Installation Procedure

CAUTION

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

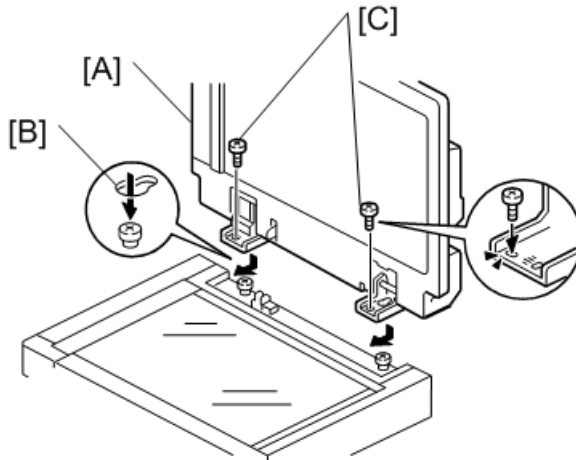
1. All tapes and shipping retainers.

2. Insert the two stud screws ([A] is the larger stud, [B] is the smaller stud).



d1463130

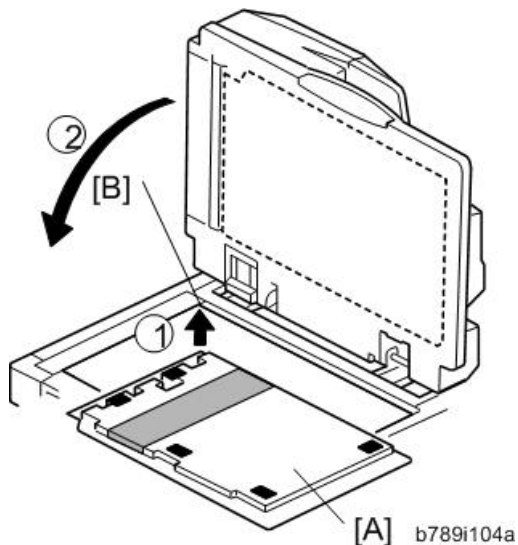
3. Mount the ARDF [A] by aligning the screw keyholes [B] of the ARDF support plate over the stud screws.
4. Slide the ARDF toward the front of the machine.
5. Secure the ARDF with the two knob screws [C].



b789i103a

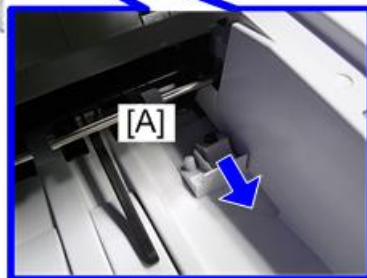
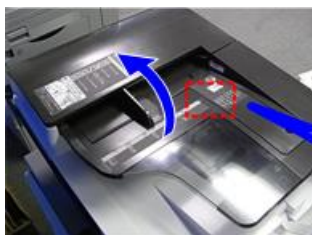
6. Align the rear left corner of the platen sheet [A] with the corner [B] on the exposure glass.
7. Close the ARDF.

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.

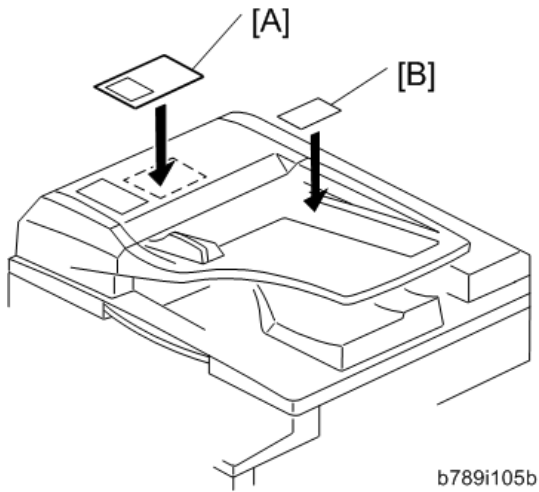


d1587033.jpg

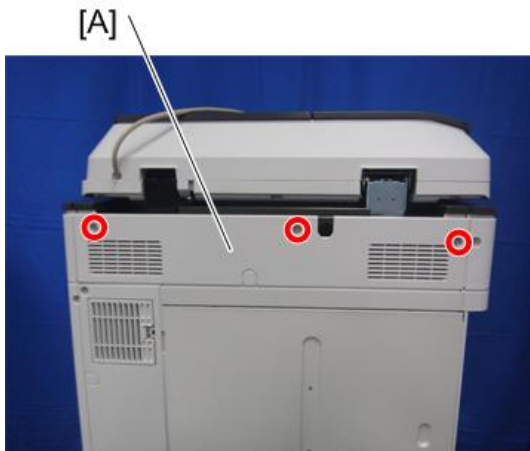
Note

- 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)



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

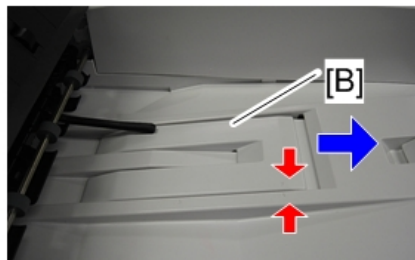
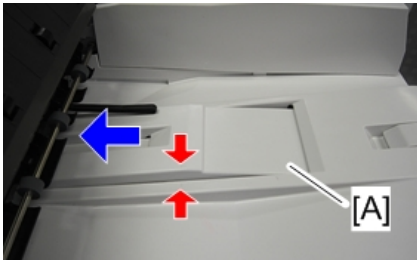
2

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

SPDF DF3080

Accessory Check

2

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	SPECER:SQ-12 (For other models)	1	Applied from Jan, 2014
11	FULL DUG POINT SCREW:FIX:HINGE	2	
12	DECAL:SET:ORIGINAL TABLE	1	
13	DECAL::ORIGINAL:DOM	1	



d1462501

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.

2

Attaching the SPDF

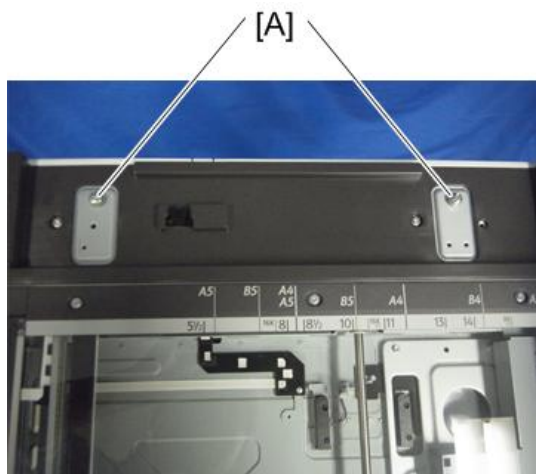
1. Place the unit on the machine temporarily, and remove the orange tape and shipping retainers.



d1462502

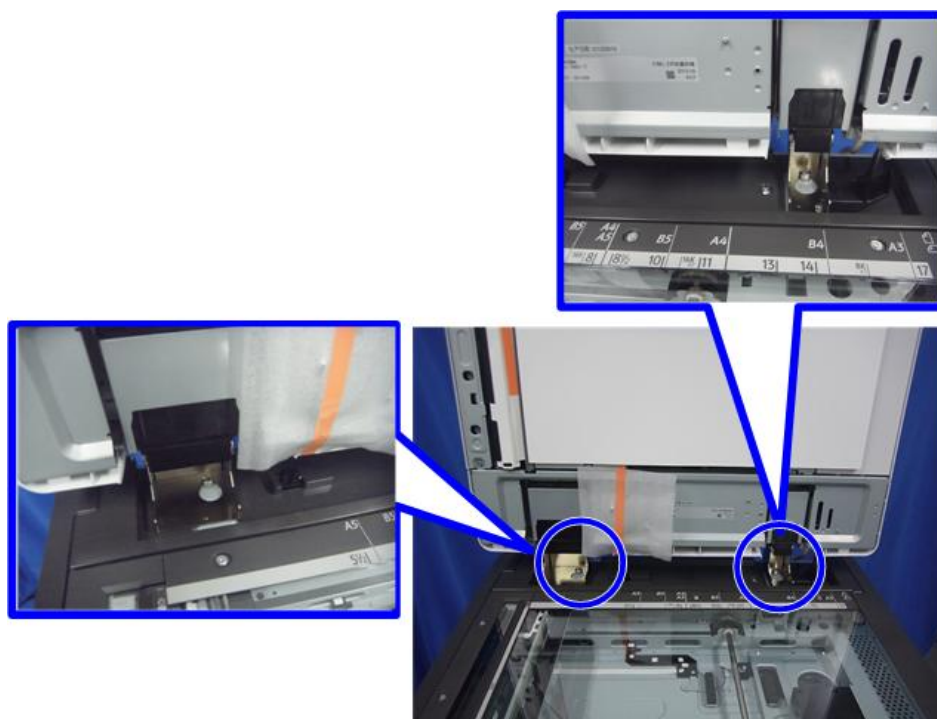
2. Remove the items in the package (boards, fixing screws, etc.).

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



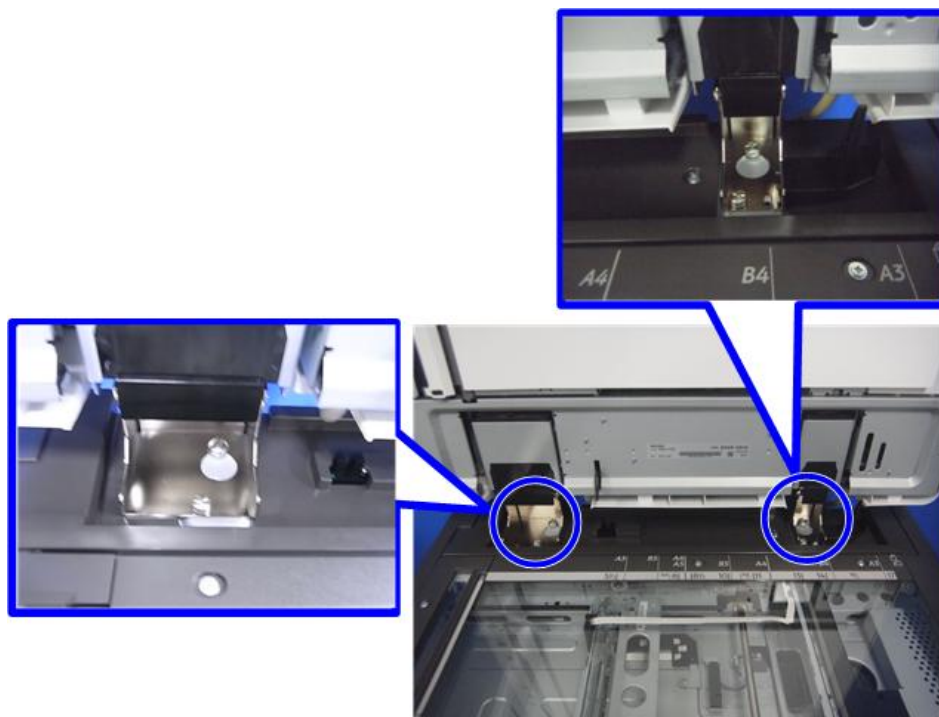
d1462503

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



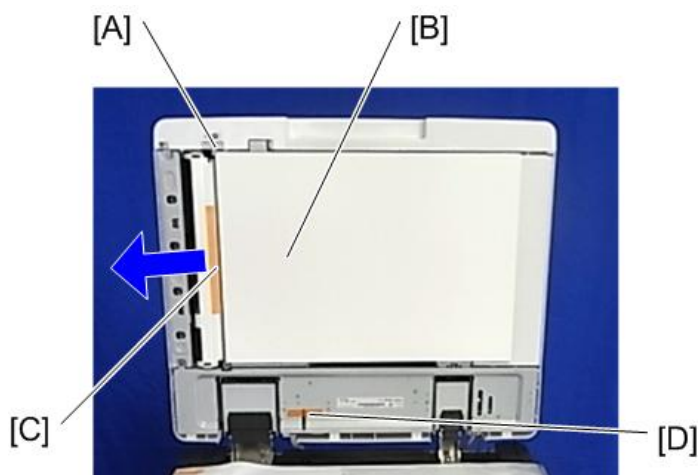
d1462504

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.

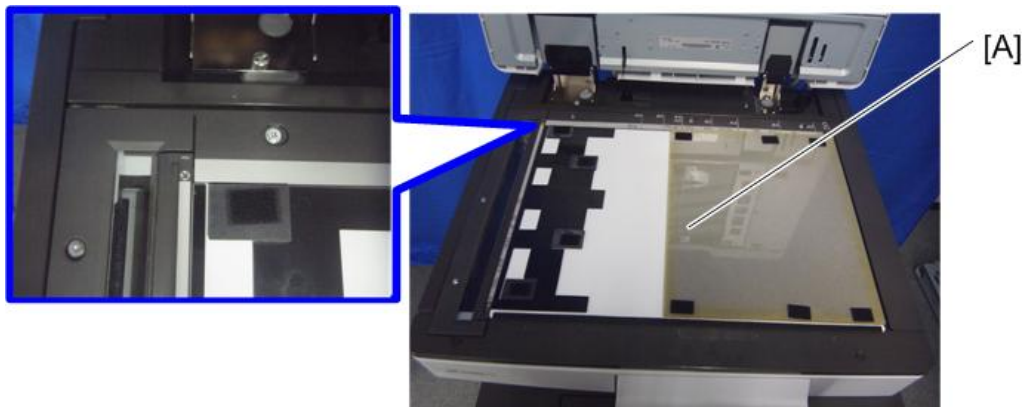


d1462223

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.



d1462520

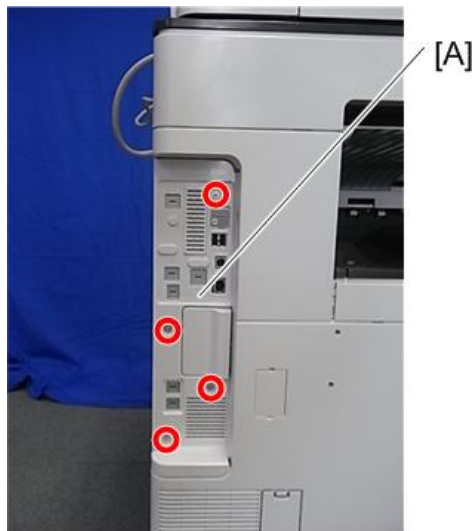
9. Close the SPDF slowly, and attach the platen sheet and SPDF.



d1462521

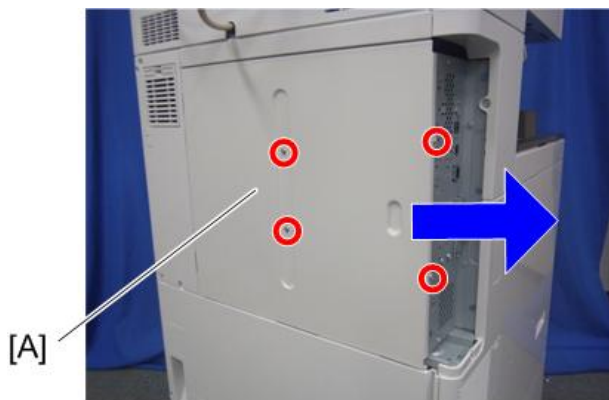
Attaching the Sub IPU / Replacing the BCU

1. Controller cover [A] (⚙️×4)



d1462007

1. Rear cover [A] (⚙️×4)



d1462013

2. Scanner rear cover [A] (⚙️×3)



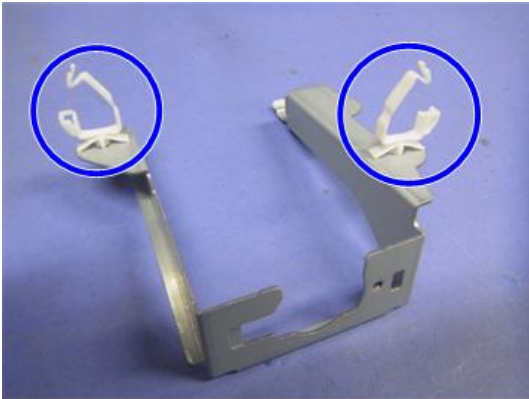
3. Scanner rear small cover [A] (⚙️×2)



4. Bracket [A] (⚙️×2)

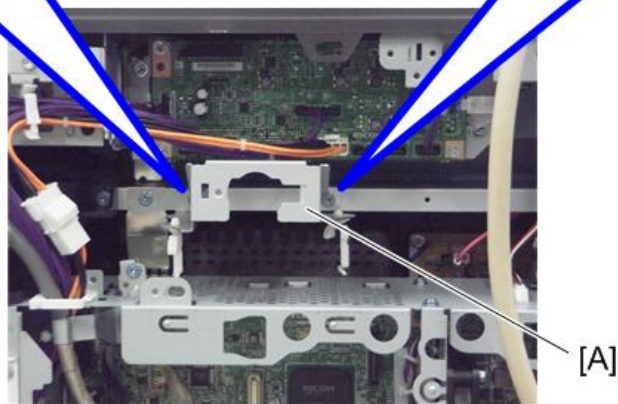


5. Attach the 2 clamps to the bracket provided.



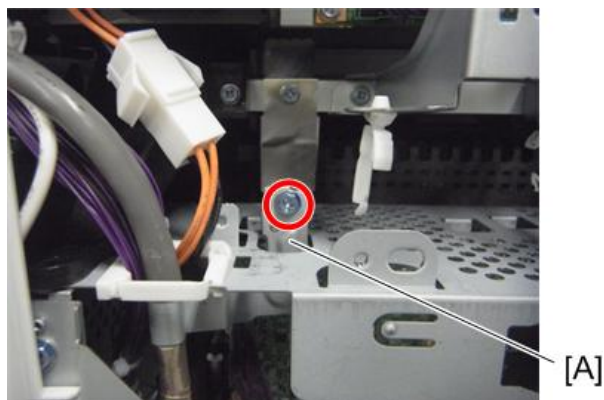
d1462506

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



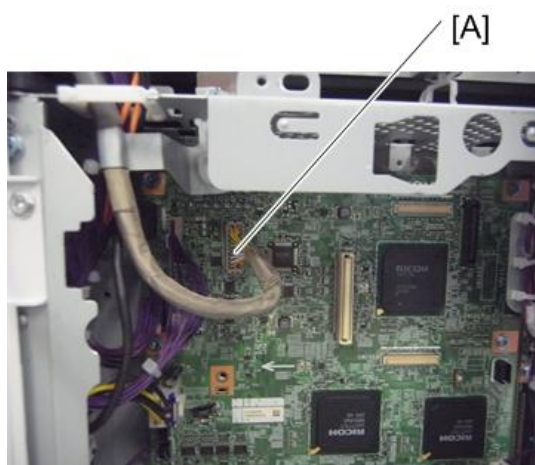
d1462507

7. Retaining bracket [A] (1×1)



d1462523

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



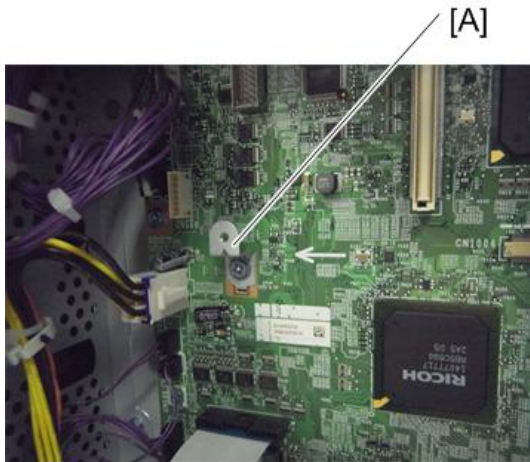
d1462508

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



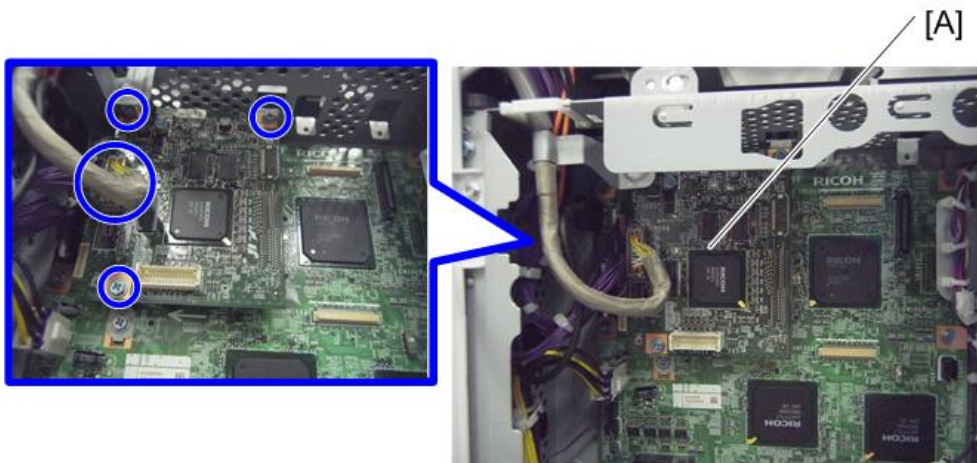
d1462511

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)

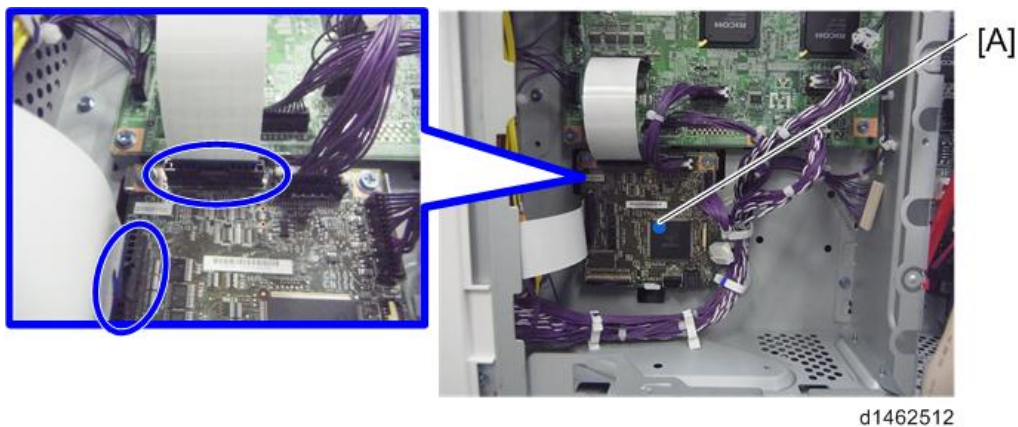


d1462510

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

⚠️ CAUTION

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



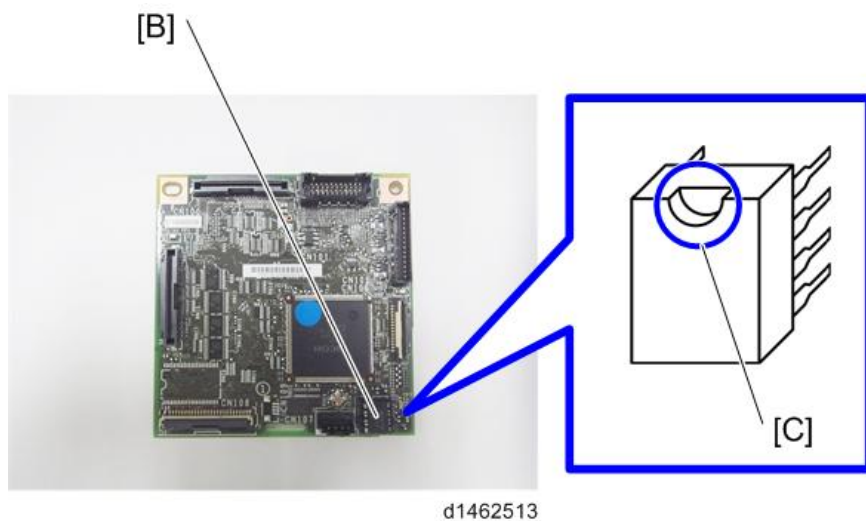
Remove the EEPROM [B] from the original BCU board with a knob screwdriver or tweezers, and replace with the BCU board in the accessories.

⚠ CAUTION

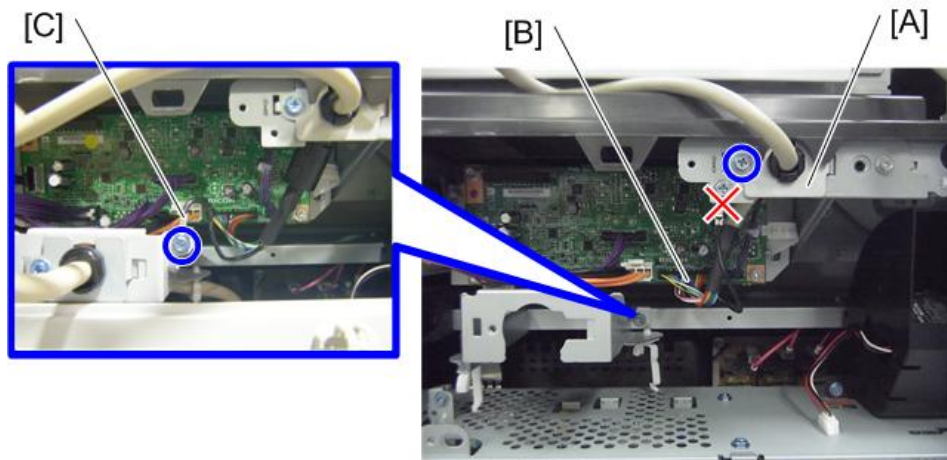
- Remove it with the knob screwdriver or tweezers so as not to bend the terminals of the EEPROM.

⚠ CAUTION

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

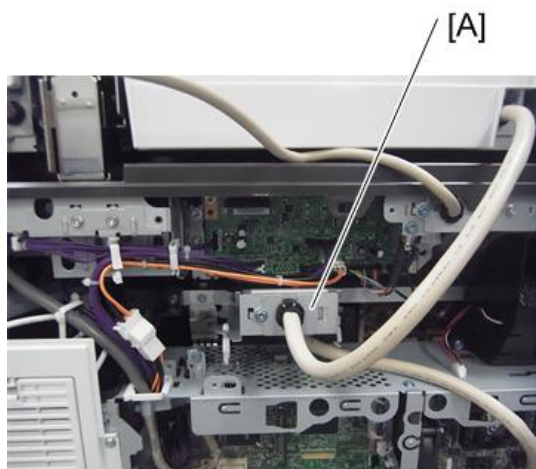


13. Attach the bracket [A] of the CIS image cable to the frame, insert the connector [B] in the SIO, and attach an earth wire [C] (⚙️×2)



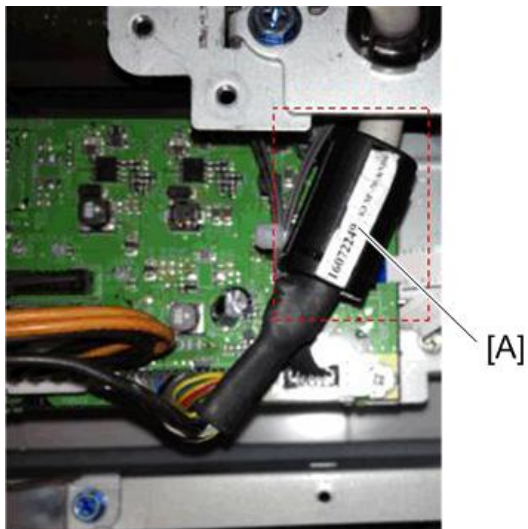
d1462515

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



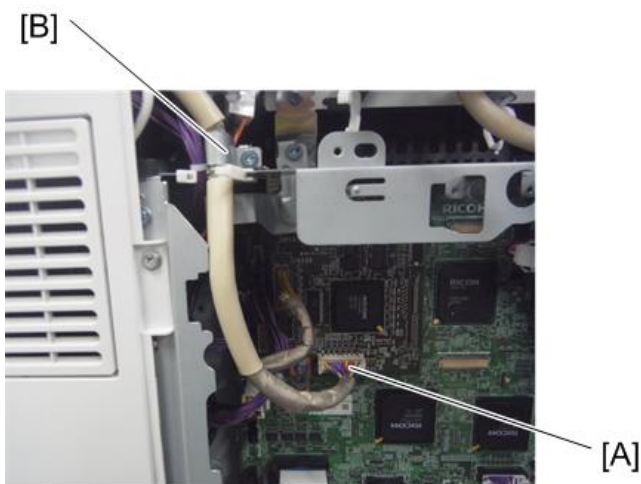
d1462516

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



d1462524

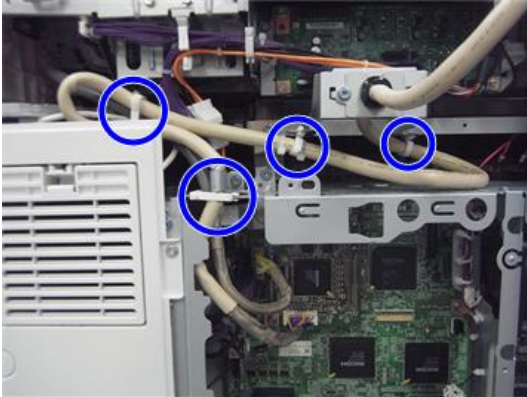
16. Insert the connector [A] of the I/F cable in the IPU small board, and fix the bracket [B] to the controller box.



d1462519

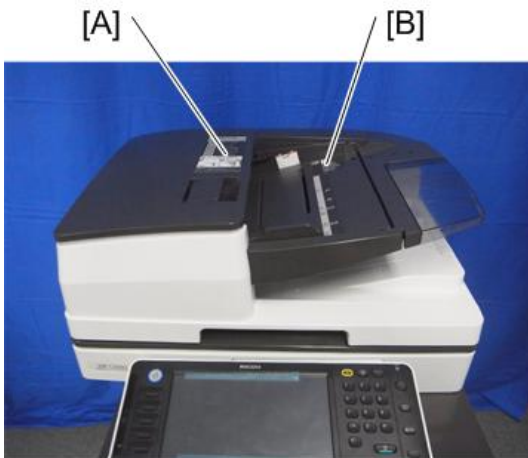
17. Attach the bracket that was removed in step 17.

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].



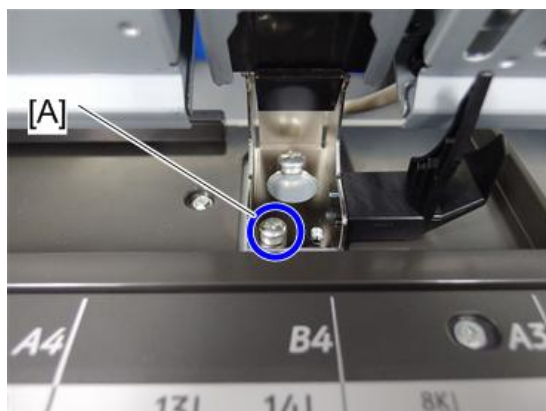
d1462499

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.



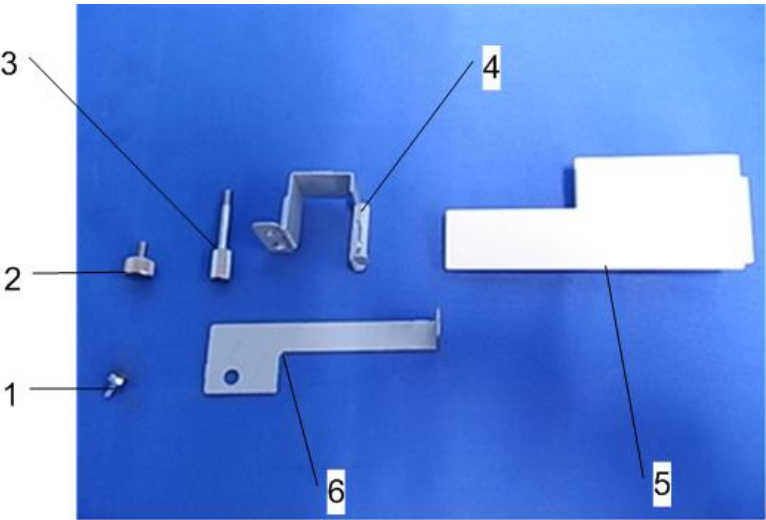
d1462518

Bridge Unit BU3070

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



d1465001

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.

2

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].

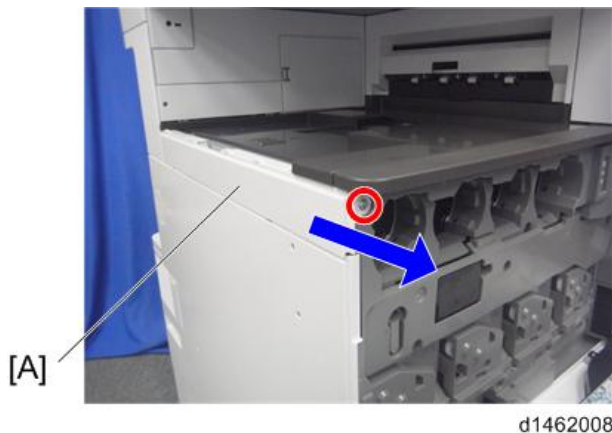


5. Open the front cover.

6. Upper left cover (⚙️×1).

↓ Note

- The screw removed is used again in step 13.

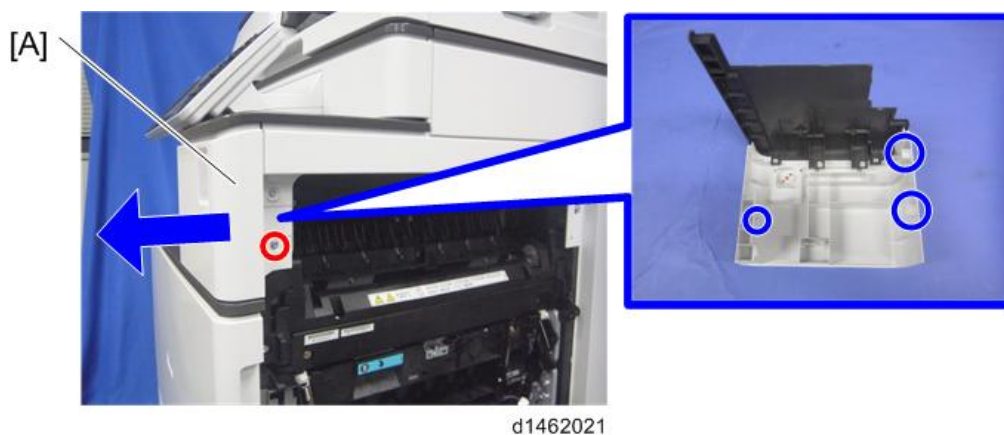


7. Open the right cover.

8. Main power switch cover [A] (⚙️×1).

⚠️ CAUTION

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

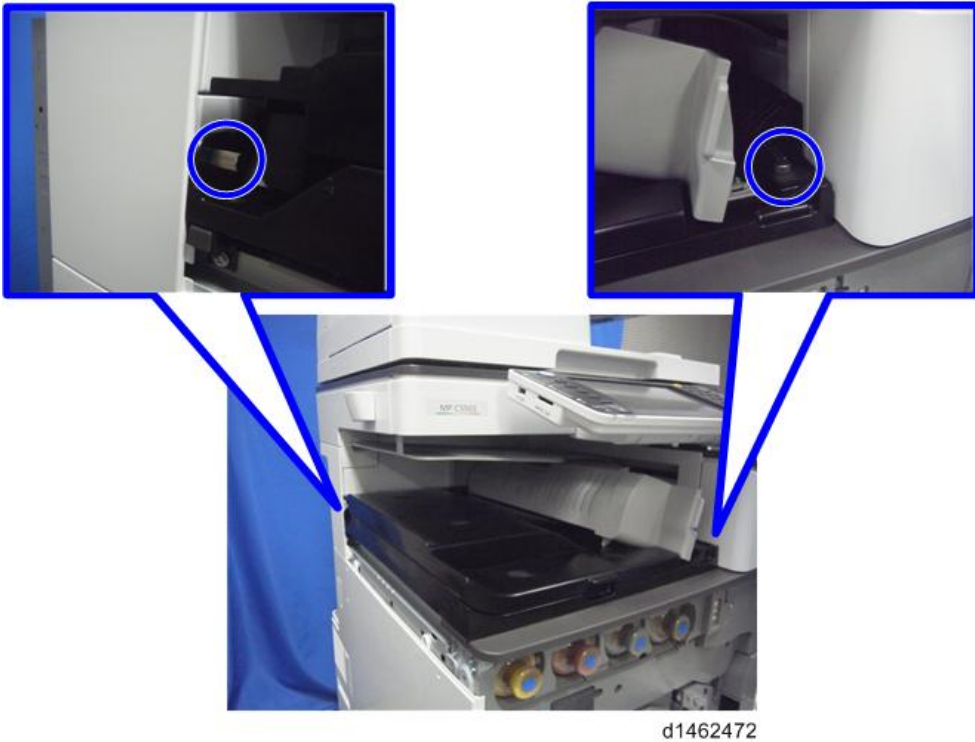


9. Attach the bracket [A] (1 × 1).

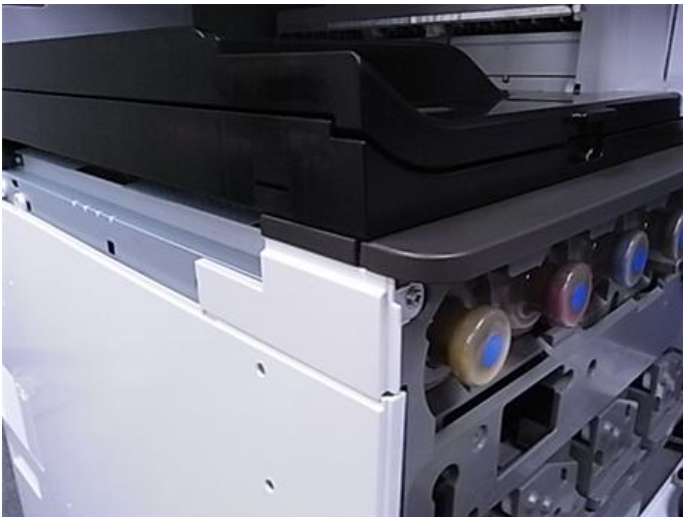


10. Attach the main power switch cover, and close the duplex unit.

11. Attach the bridge unit to the machine (⌀×2, left rear is a knob screw [A]).



12. Close the bridge unit right cover.
13. Attach the upper left cover provided.



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



d1465004

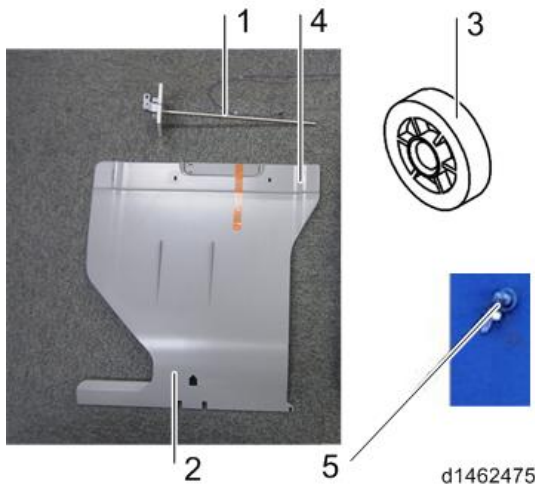
15. After the finisher is installed, turn the power switch ON.
16. Check that the finisher can be selected at the operation panel.

1 Bin Tray BN3110

Also see RTB 151

Accessory Check

No.	Description	Q'ty
1	Tray support bar	1
2	Tray	1
3	Gear	1
4	Harness cover	1
5	Screw: M3 x 8	2



Installation Procedure

⚠ CAUTION

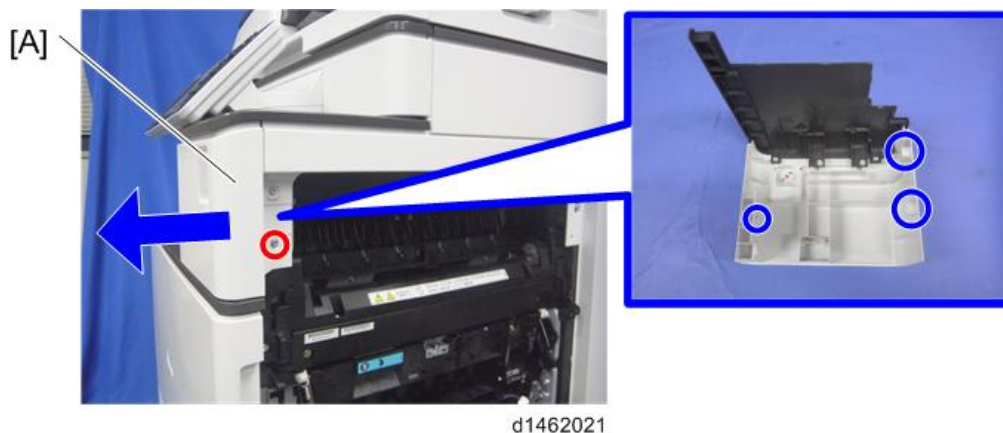
- When installing this option, turn the machine power off, and unplug the power plug from the wall socket.
- If it is installed with the power on, it will result in an electric shock or a malfunction.

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] (1×1).

⚠ CAUTION

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

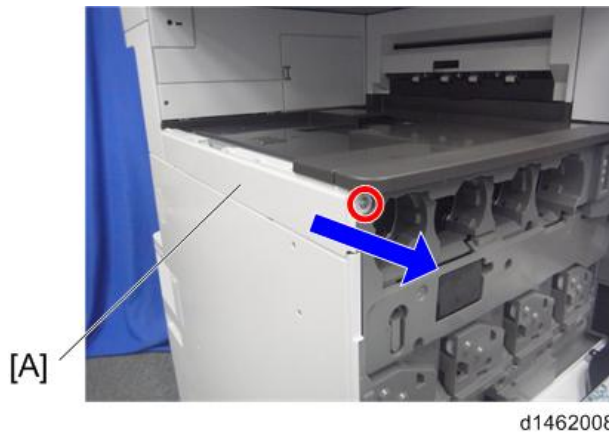


5. Paper output tray [A].



6. Open the front cover.

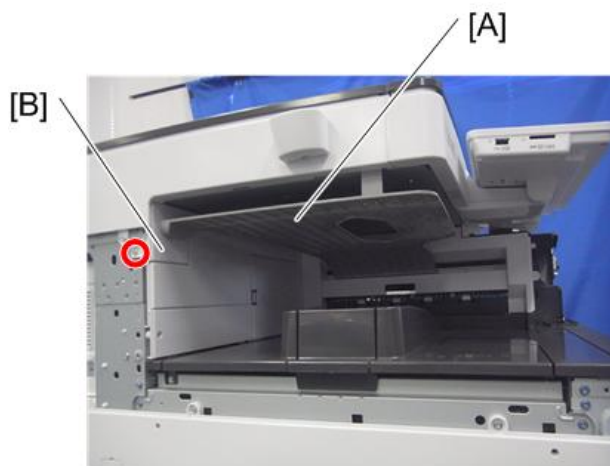
7. Upper left cover [A] (1/4x1).



8. Left rear cover [A] (1/4x2).

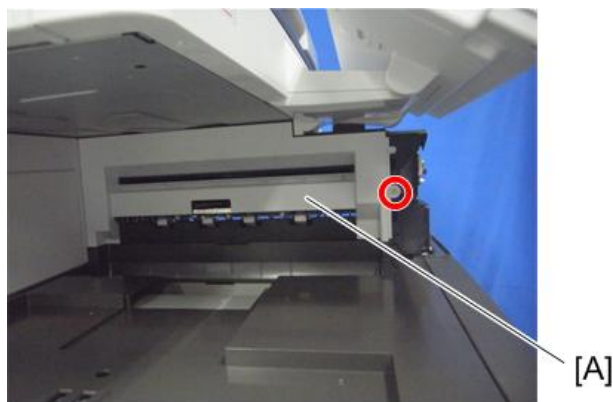


9. Inverter tray [A], tray support rod cover [B] (⚙️×1).



d1462478

10. Paper output cover [A] (⚙️×1).



d1462024

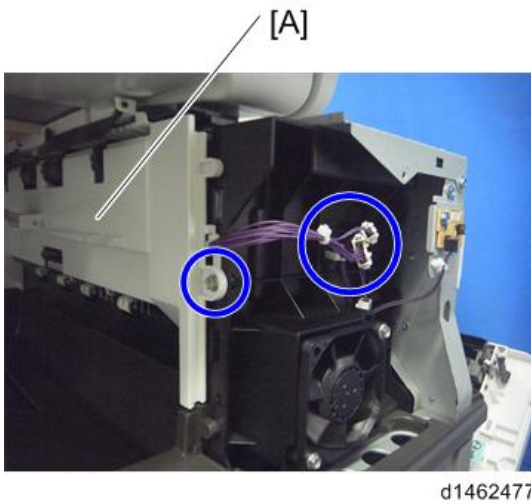
11. Attach the gear [A] provided.



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.



13. Attach the harness provided.

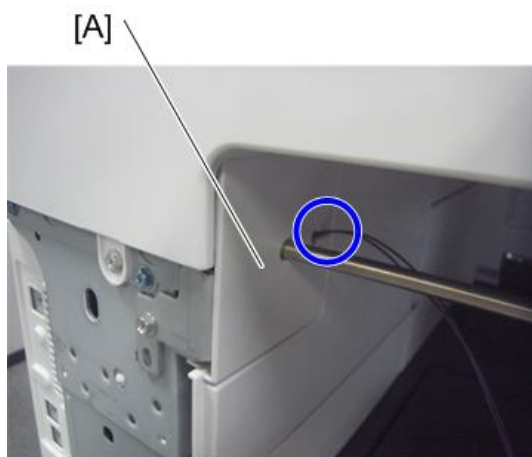


d1462479

14. Attach the tray support bar [A] (1/8" x 1).

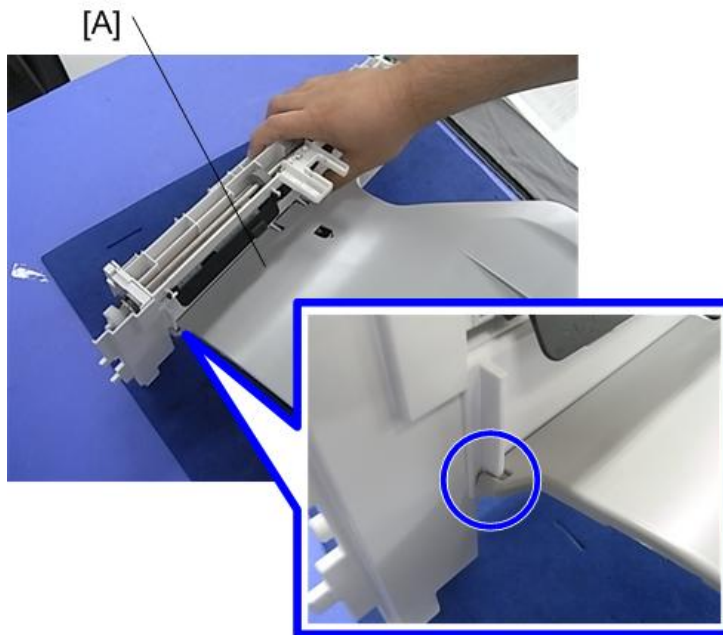
↓ Note

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



d1462480

15. Hook the 1 bin tray [A] onto 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 harness cover [A].



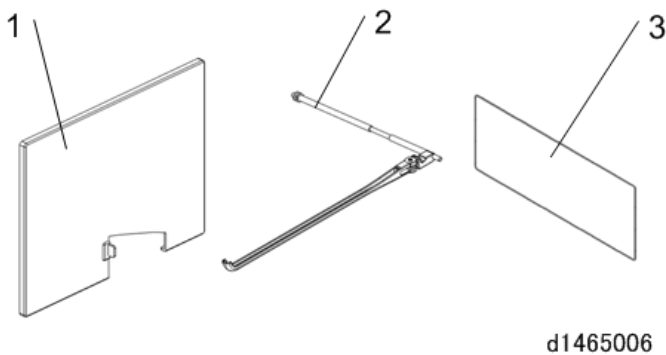
18. Attach the left rear cover, upper left cover and main power switch cover, and close the duplex unit.
19. Turn the power switch ON.
20. Check that output to this tray can be selected on the operation panel, and check operation.

Internal Shift Tray SH3070

Accessory Check

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

2



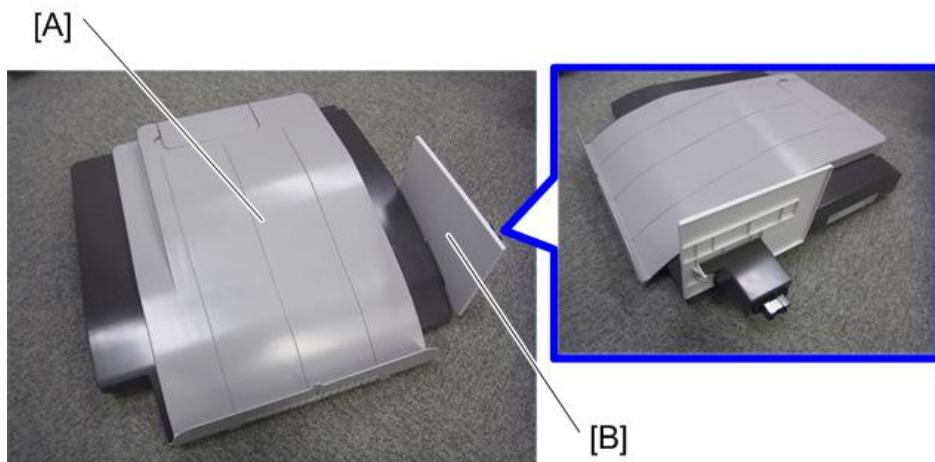
Installation procedure

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].



6. Attach the shift tray.

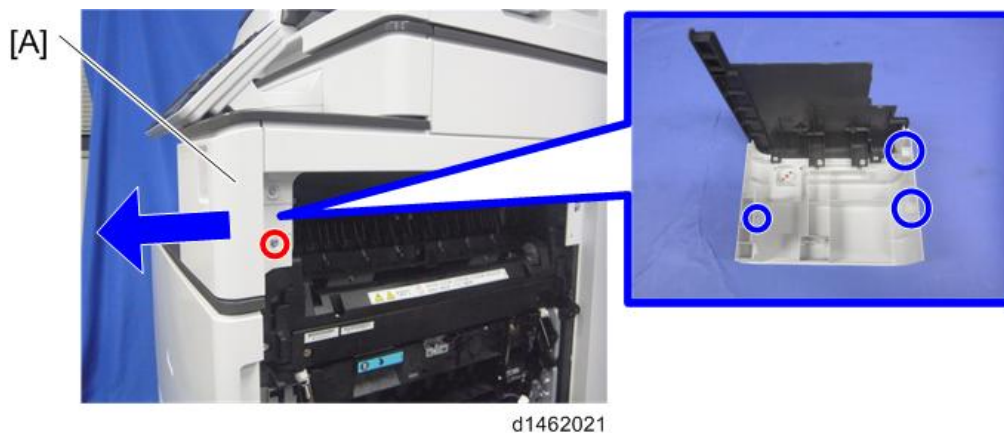


7. Open the right cover.

8. Main power switch cover [A] (⚙️×1).

⚠️ CAUTION

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



9. Paper output cover [A] (1/1).



10. Remove the feeler [A].

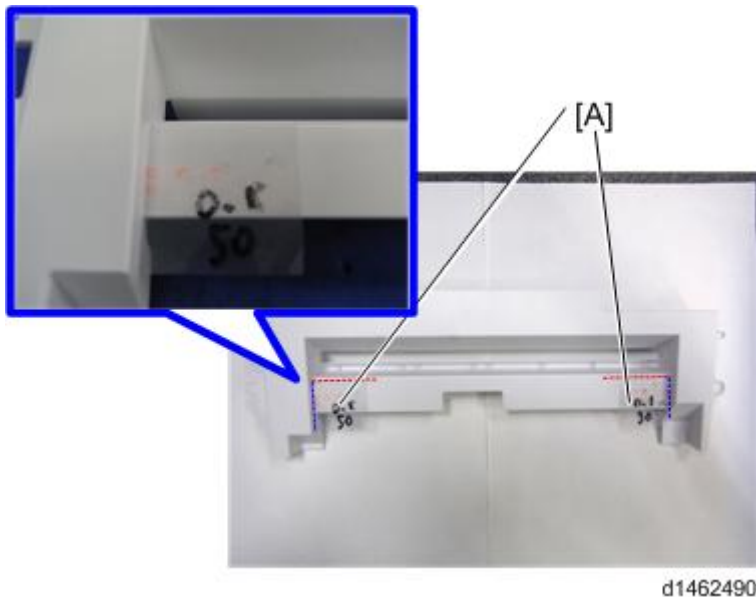


11. Attach the shift tray feeler [A].



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

RTB 126
Notes added

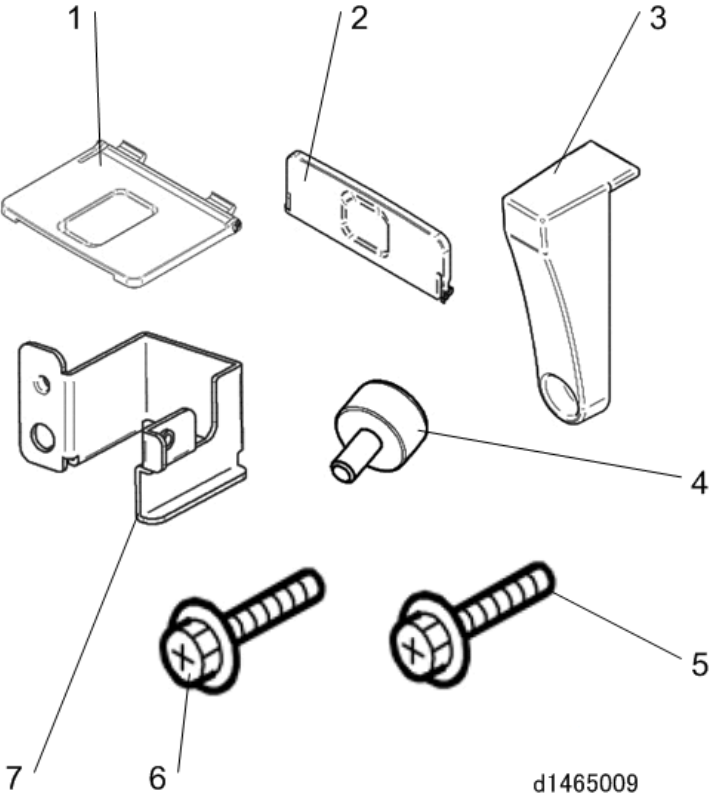


13. Attach the paper output cover and main power switch cover, and close the duplex unit.
14. Turn the power switch ON.
15. Check that paper output to the shift tray can be selected at the operation panel, and check the operation.

Side Tray Type M3

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



d1465009

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].

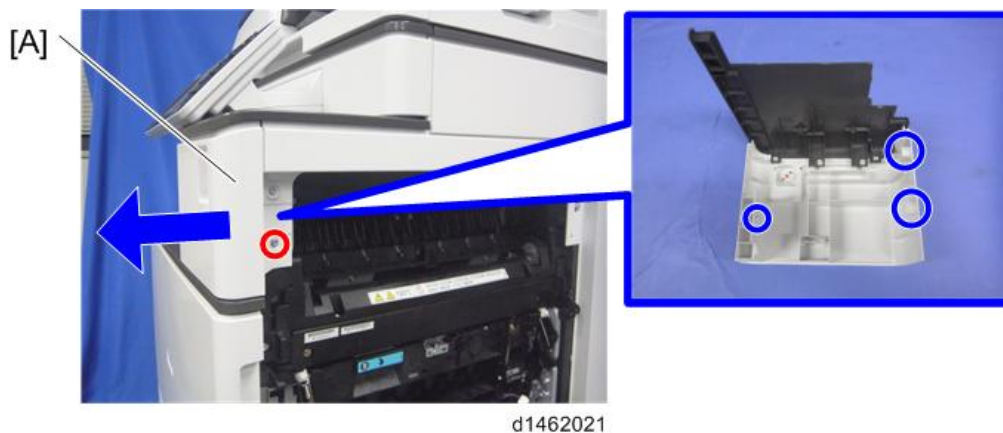


d1462023

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.



6. Connector cover [A].



7. Attach the bracket [A] (1×1).



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.

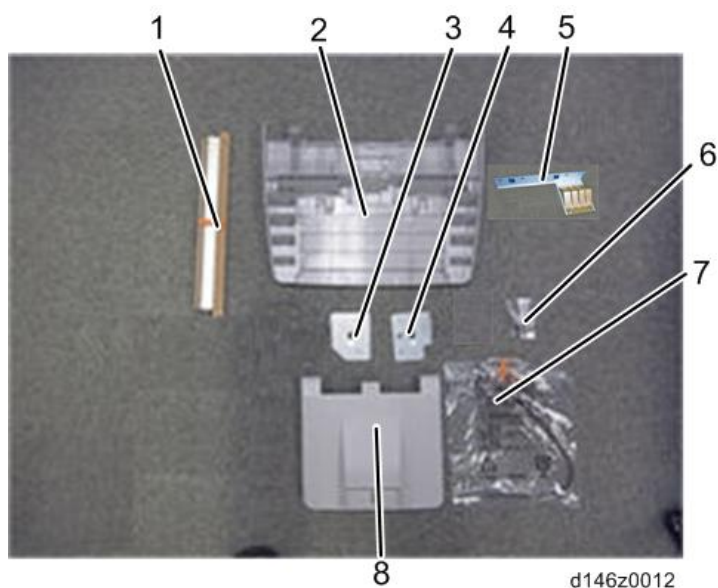
Booklet Finisher SR3170 (D688)/ Finisher SR3160 (D689)

Accessory Check

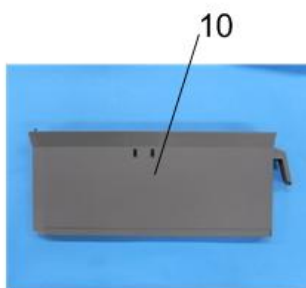
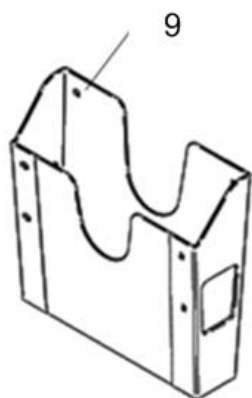
2

Booklet Finisher SR3170 / Finisher SR3160

No.	Description	Q'ty
1	Relay Guide Plate	1
2	Shift Tray	1
3	Front joint bracket	1
4	Rear 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	Booklet Tray (D688 only)	1
9	Tray Holder	1
10	Hopper	1



d146z0012



d146z0013

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

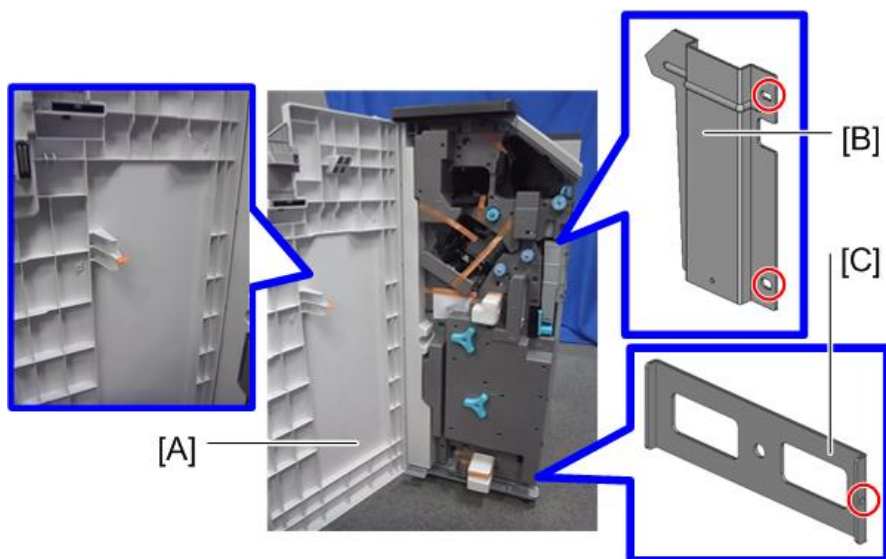
- Before installing this option, attach the "Bridge Unit BU3070" first.
- Attach the "LCIT PB3170" or "Paper Feed Unit PB3160" first before installing this option.

1. Remove the external orange tape and shipping retainers.



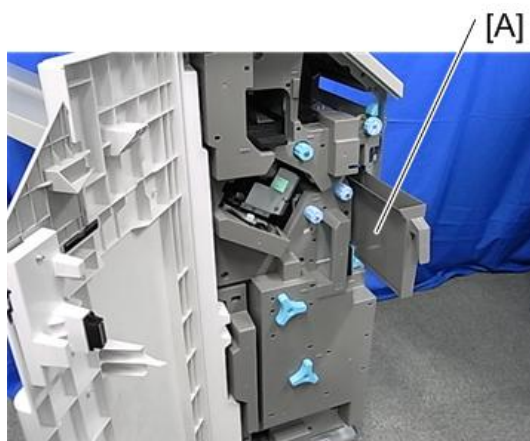
d1462541

2. Open the front cover [A], and remove the orange tapes, shipping retainers and fixing brackets [B] (⌀x2), [C] (⌀x1).



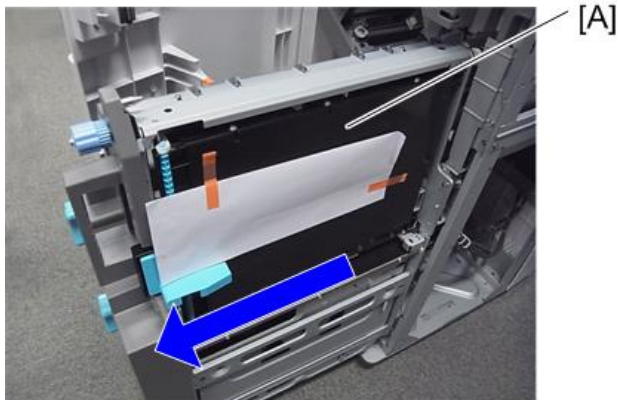
d177z4019

3. Install the hopper [A] in the punch unit.



d177z4018

4. Pull out the saddle stitch unit [A] or stapling unit, and remove the orange tape and shipping retainers (D688 only).



d1462543

5. Remove the items in the package (fixing screws, etc.).
6. Attach the shift tray [A] (1x1).



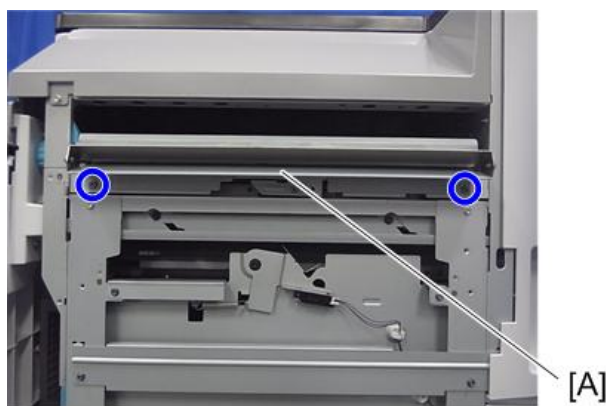
d1462544

7. Only for D688, attach the booklet tray [A].



d146z0024

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

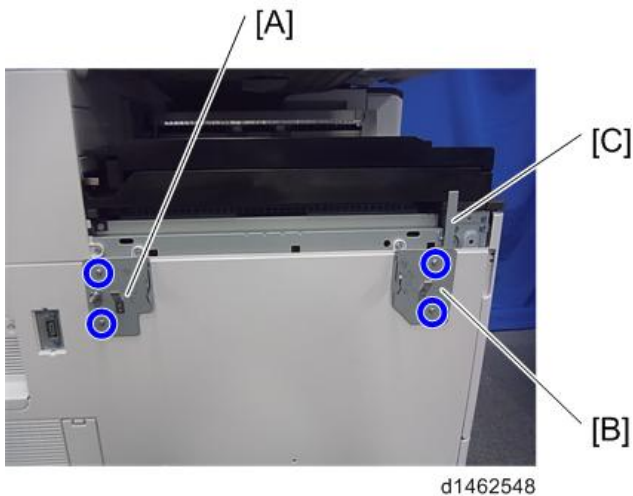


d1462546

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



10. Attach the front and rear joint brackets [A], [B] to the machine (⚙️×4).
At this time, tighten the bracket [B] and bracket [C] of the bridge unit together.



11. Clean the right side of the upper cover with a cloth moistened with alcohol, and then attach the cushion to the finisher.
- Make sure that the cushion is aligned with the rear-lower edge [A] of the upper cover.



d146z9001

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



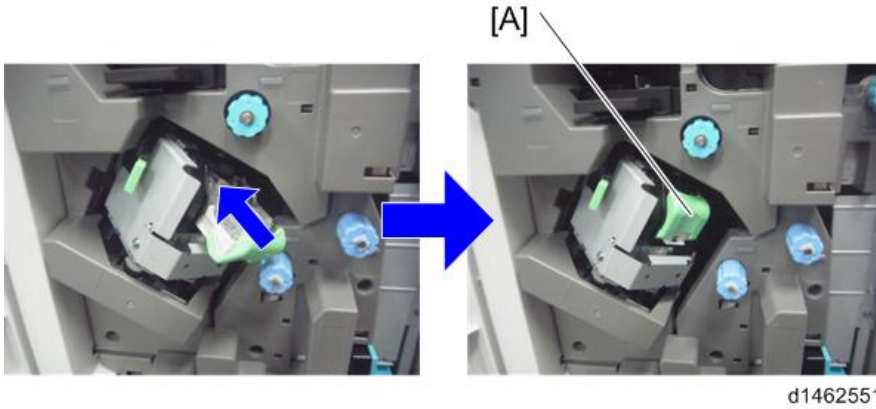
d1462549

13. Connect the interface cable to the machine.



d1462550

14. Set the stapler [A].



15. Attach the tray holder (⌀x2).



16. Turn the power switch on.

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

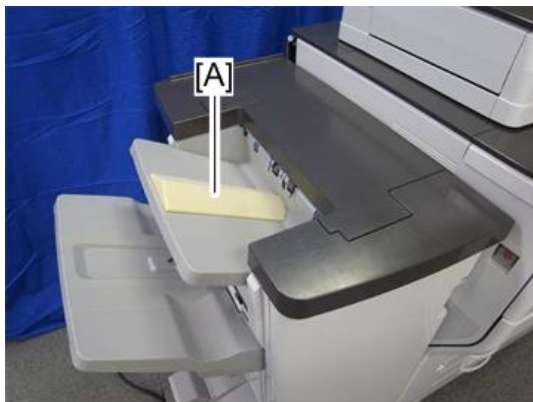
Auxiliary Tray

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.

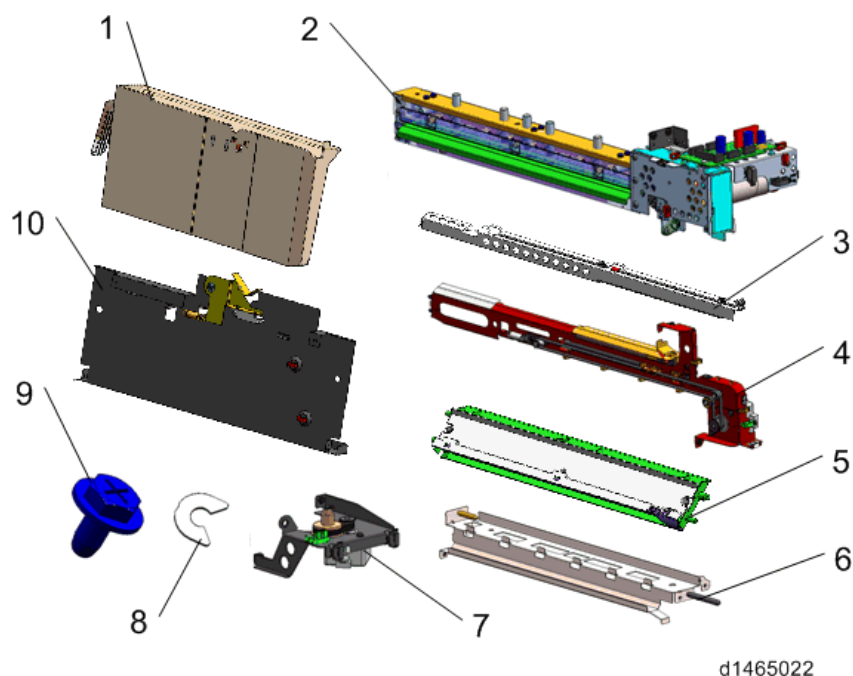


d1351199

Punch Unit PU3060

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



Installation Procedure

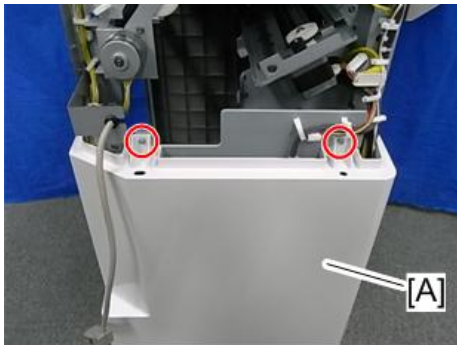
⚠ CAUTION

- 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)



2. Rear lower cover [A] (×2)

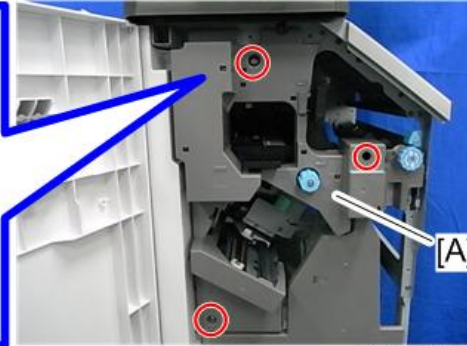


d7060012

3. Inner cover [A] (×3, ×1)

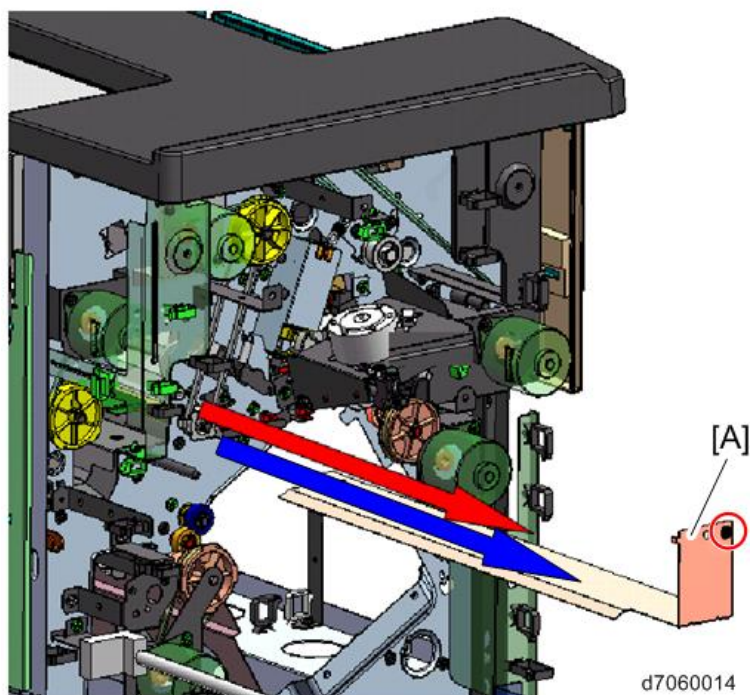
↓ Note

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

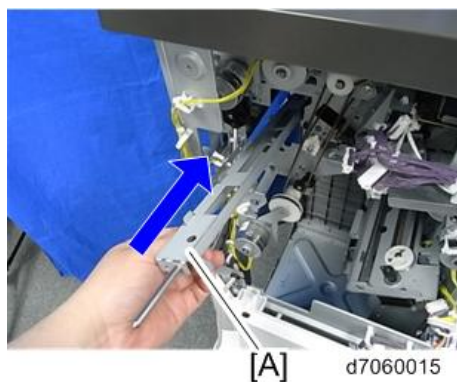


d7060013

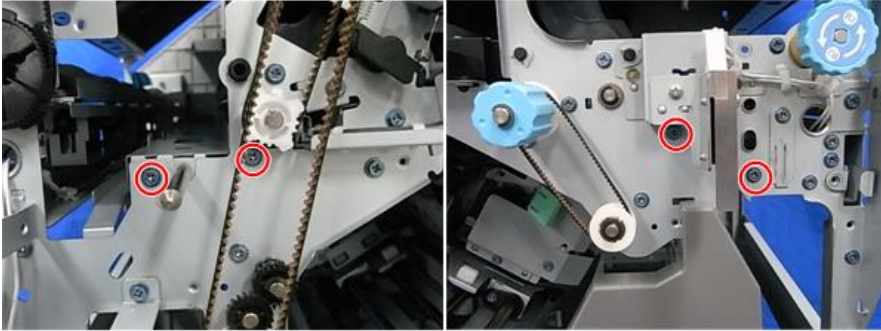
4. Punch guide plate [A] (1×1)



5. Attach the punch unit stay [A] (1×4).



Rear-----Front

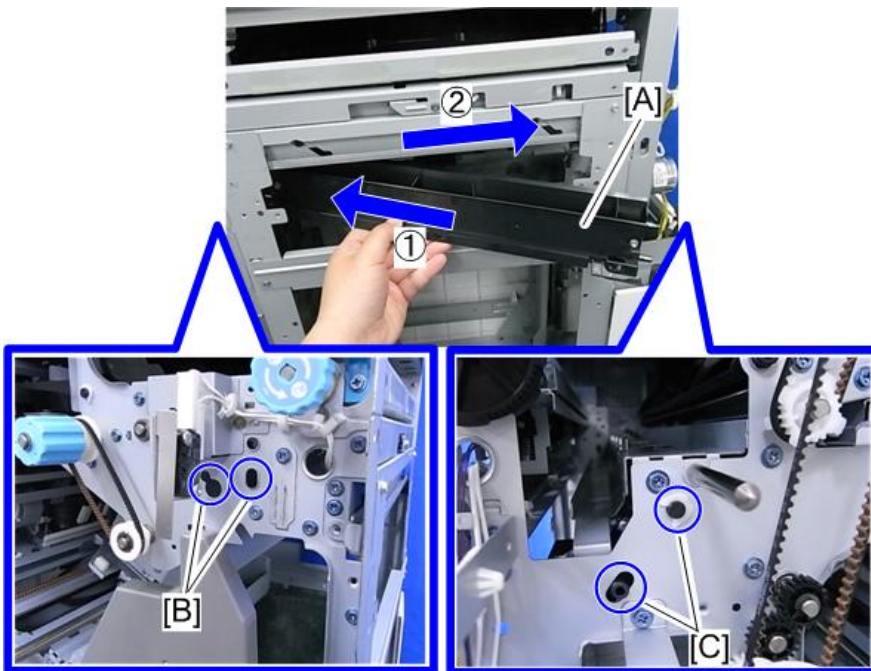


d7060016

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

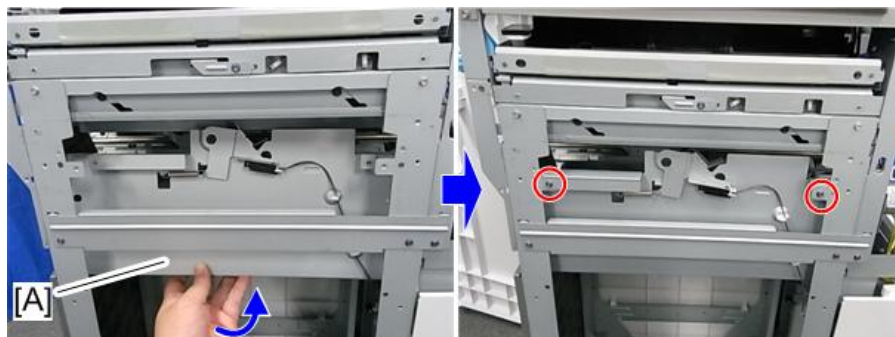
↓ Note

- 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

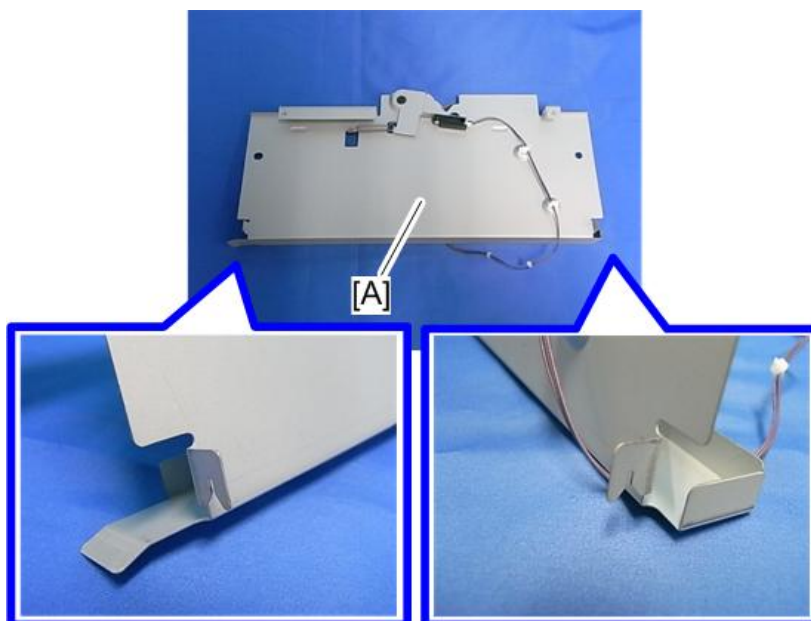
7. Attach the hopper bracket [A], inserting from the outside frame of the finisher. (⌀×2, 2 hooks)



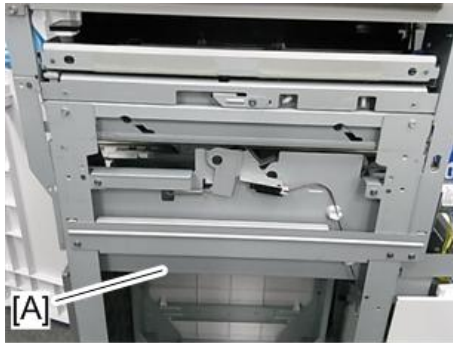
d7060018

↓ Note

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



d7060019



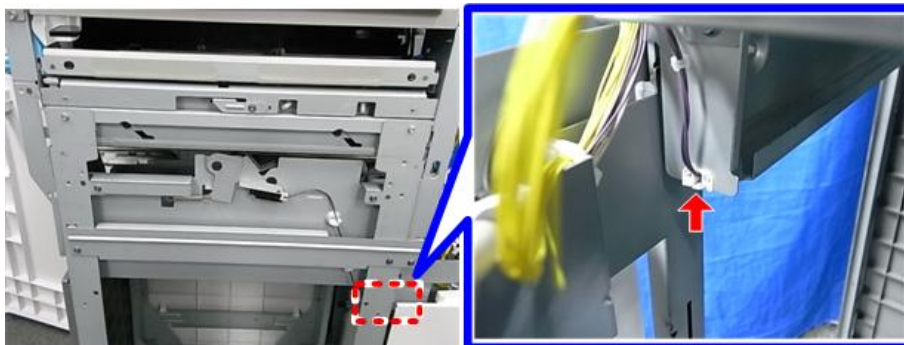
d7060020

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



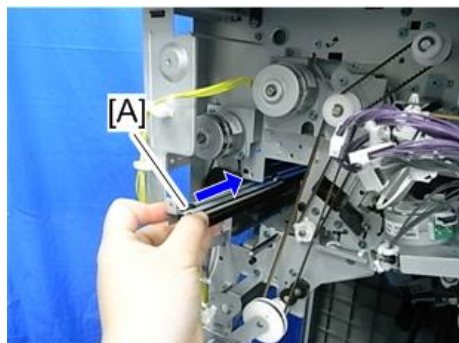
d7060021

8. Fix the harness of the hopper sensor. (x1)



d7060022

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



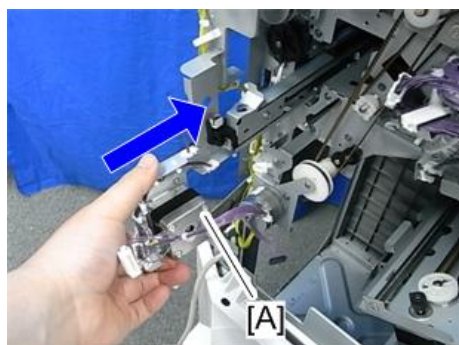
d7060023

Rear-----Front

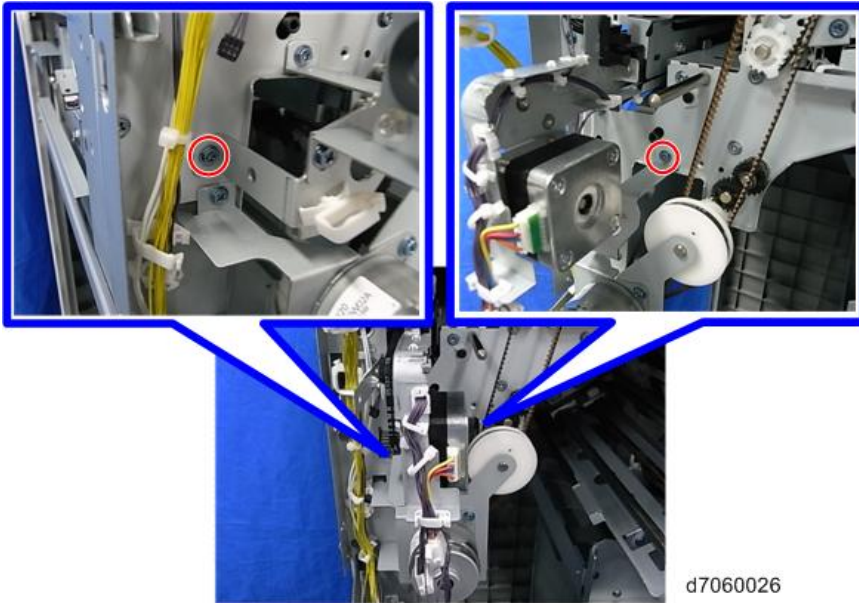


d7060024

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

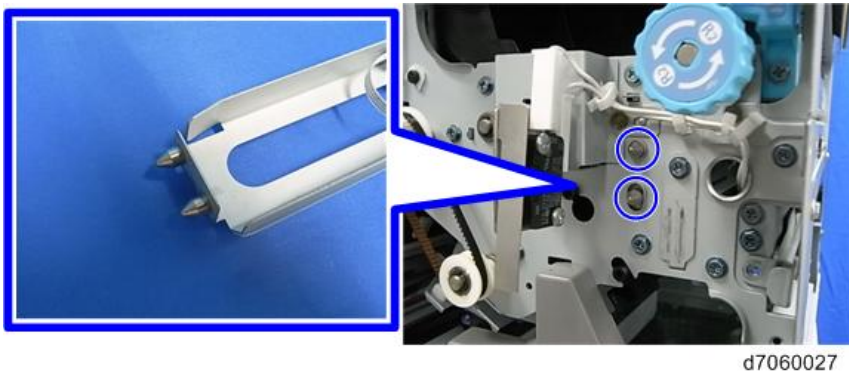


d7060025



↓ **Note**

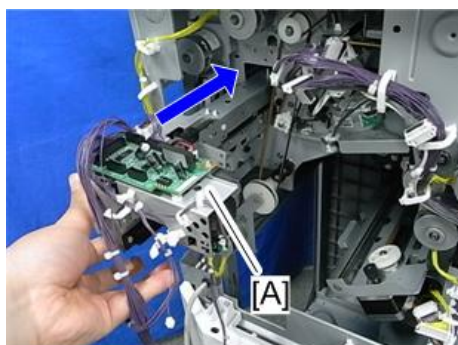
- Insert the front pins of the registration mobile unit into the holes of the frame.



11. Attach the punch unit [A]. (2×)

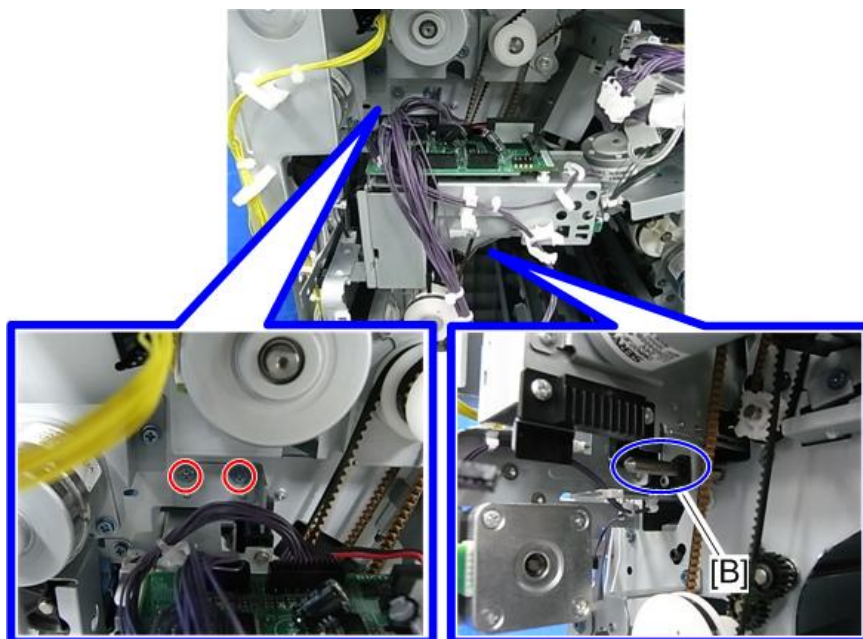
↓ **Note**

- 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



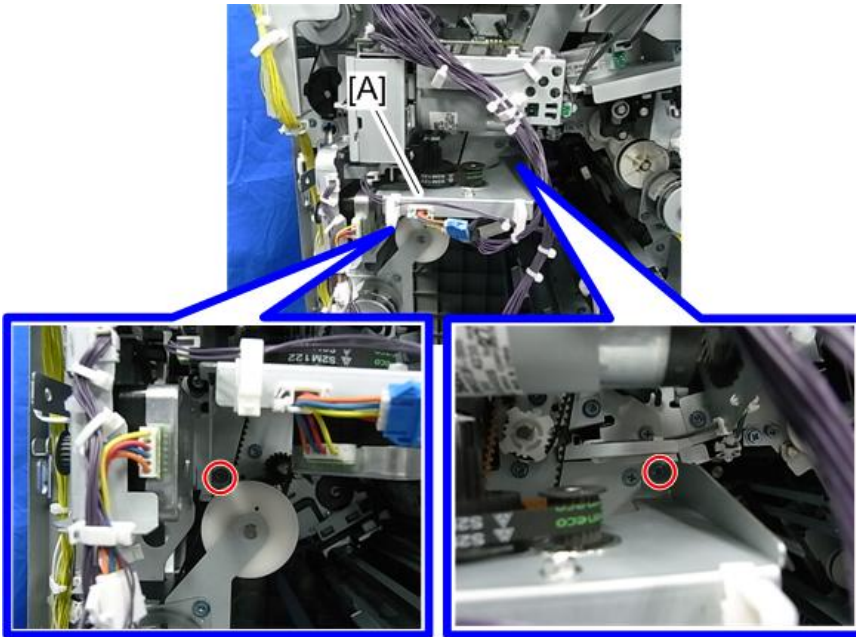
d7060029

- Front



d7060030

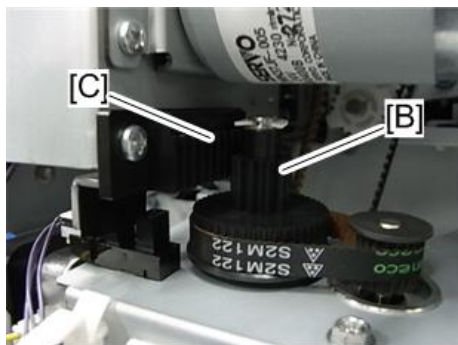
12. Attach the punch stepping motor unit [A]. (2x)



d7060031

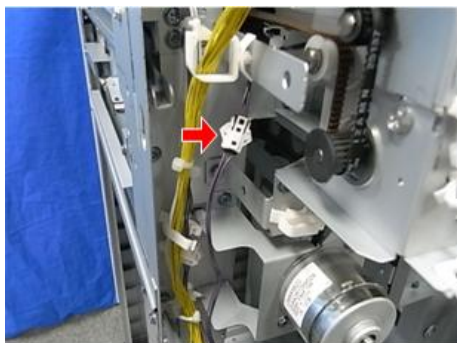
↓ Note

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



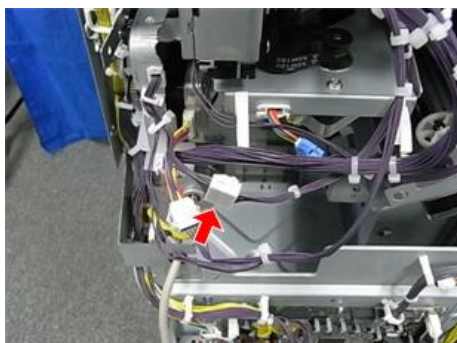
d7060032

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




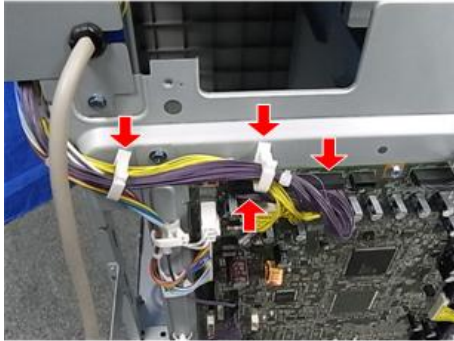
d7060033

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



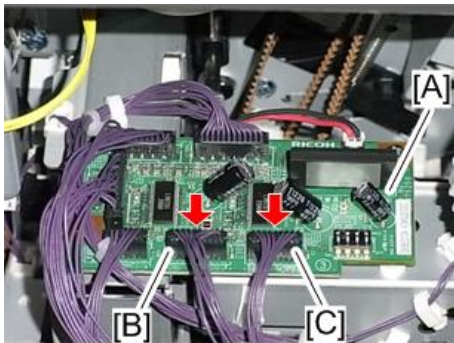
d7060034

15. Connect the harness of the punch unit to the connector of the main board, and then fix it. (x2, x2)



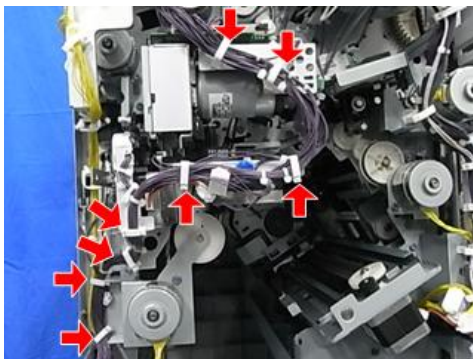
d7060035

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. (x8)



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.

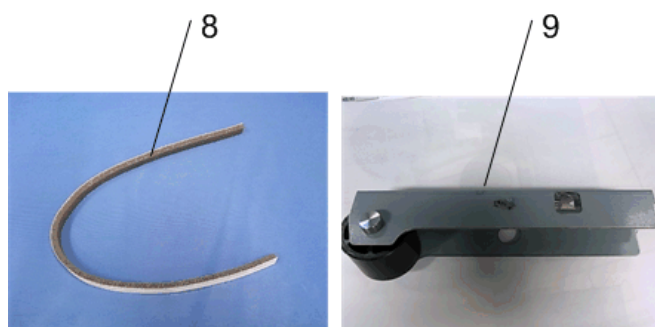
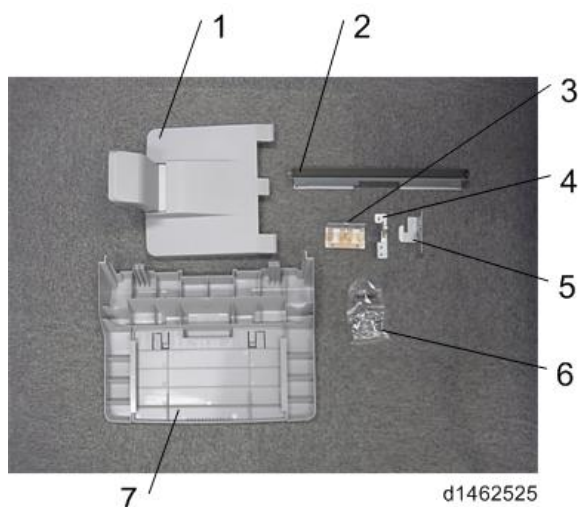
Booklet Finisher SR3150 (D686)/ Finisher SR3140 (D687)

Accessory Check

2

Booklet Finisher SR3150 / SR3140

No.	Description	Q'ty
1	Booklet Tray (D686 only)	1
2	Relay Guide Plate	1
3	Ground Plate	1
4	Front Joint Bracket	1
5	Rear Joint Bracket	1
6	Screws - M4 × 12	4
6	Tapping screws - M3 × 6	4
6	Tapping screw - M4 × 8	1
7	Shift Tray	1
8	Cushion	1
9	Caster Stand (D687 only)	1
-	Installation Instruction for Caster Stand (D687 only)	1



Installation Procedure

★ Important

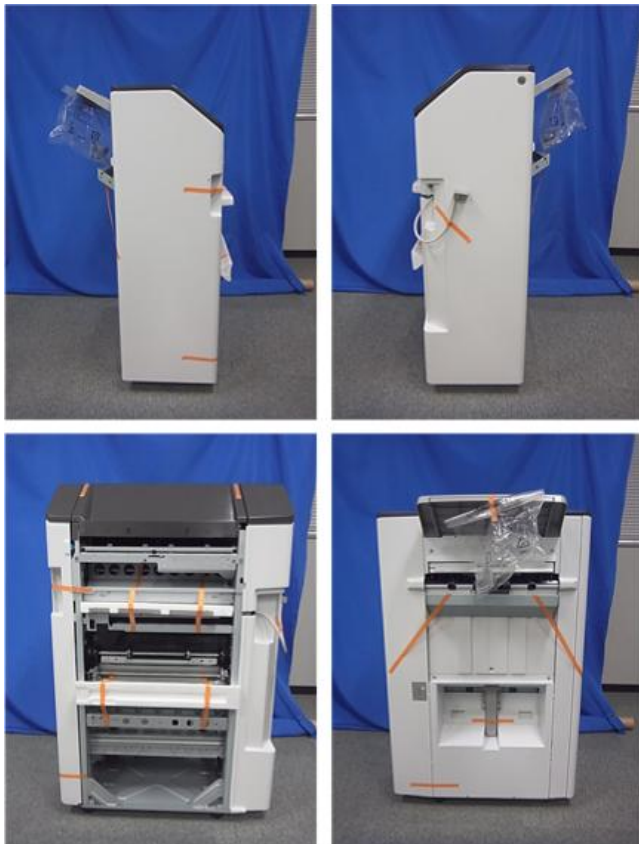
- Only for D687, the caster stand is included as an accessory.
- This part must be attached to the finisher just after it is taken out of the shipping box.

⚠ 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

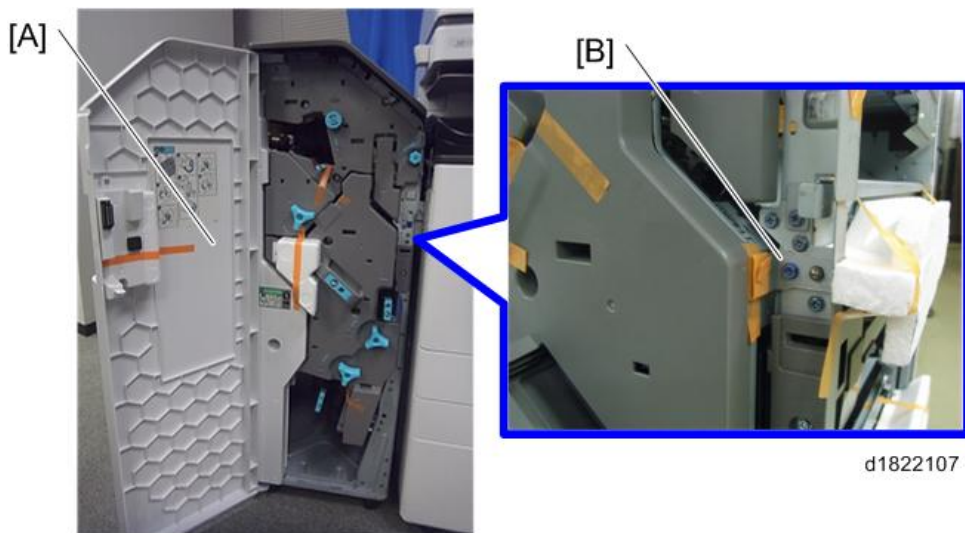
- Before installing this option, attach the "Bridge Unit BU3070" first.
- Attach the "LCIT PB3170" or "Paper Feed Unit PB3160" first before installing this option.

1. Remove the external orange tape and shipping retainers.

d1462526

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

- Only for D686, remove the fixing bracket [B] (1 x1).



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



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

5. Attach the shift tray [A] (🔩×1).



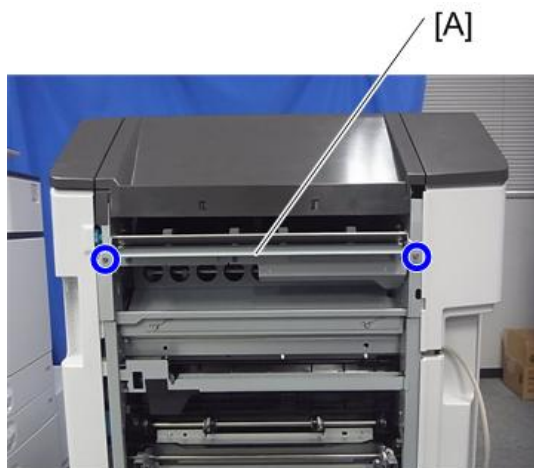
d1462529

6. Attach the booklet tray [A] (D686 only).



d1462530

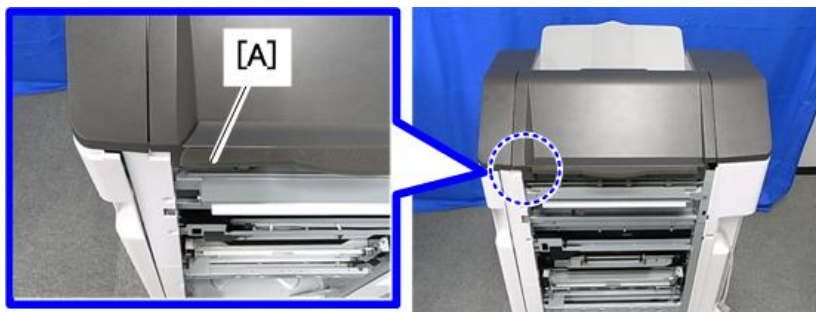
7. Attach the relay guide plate [A] (⚙️×2).



d1462531

8. Clean the right side of the upper cover with a cloth moistened with alcohol, and then attach the cushion to the finisher.

- Make sure that the cushion is aligned with the front-lower edge [A] of the upper cover.



d182z0002

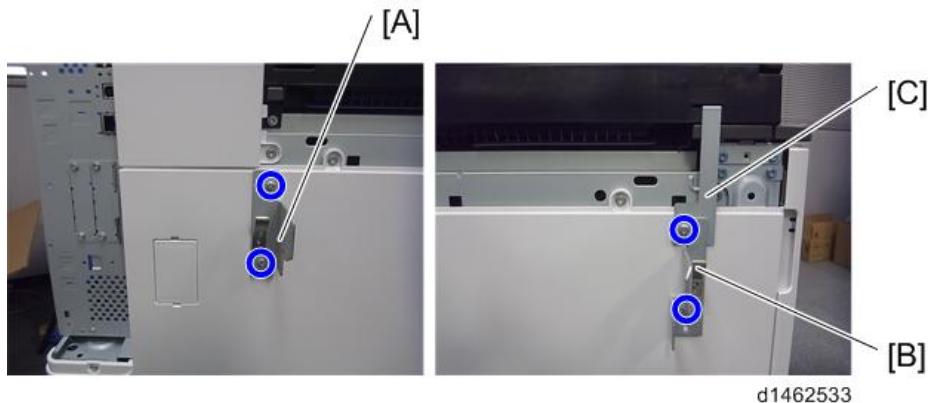
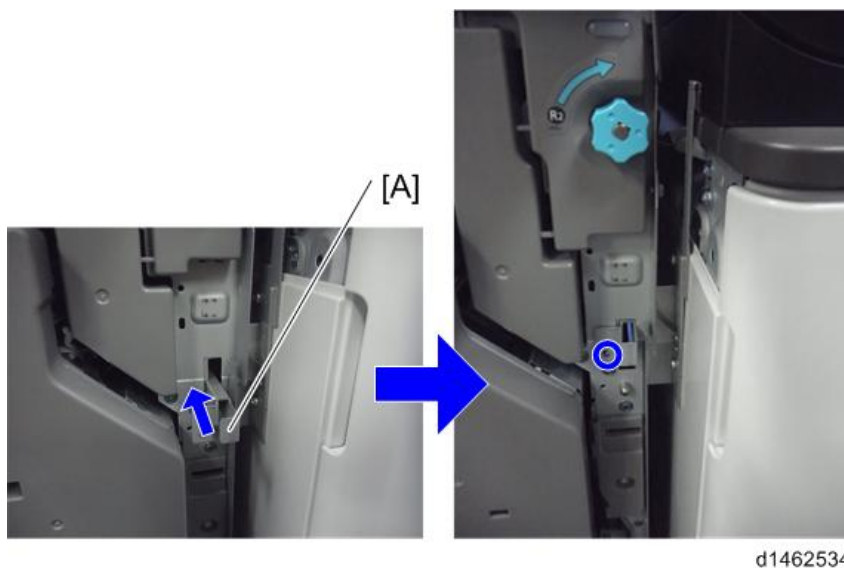
9. Attach the ground plate [A] (⚙️×2).



d1462532

10. Attach the front and rear joint brackets [A], [B] to the machine (⚙️×4).

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

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

12. Attach the caster stand [A] (8×1) (D687 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.

Punch Unit PU3050

Accessory Check


No.	Description	Q'ty
1	Harness	1
2	Hopper guide plate	1
3	Punch unit	1
4	Hopper	1
5	Stay	1
6	Guide plate	1
7	Registration Sensor unit	1
8	Stepping motor bracket	1
9	Tapping screws - M3 × 6	15



Installation Procedure

CAUTION

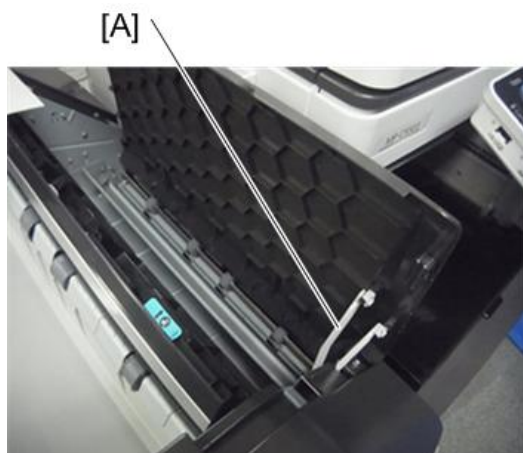
- When installing this option, turn the power source of the machine off, and unplug the power plug from the wall socket.
- If it is installed when the power is on, it will result in an electric shock or a malfunction.

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).

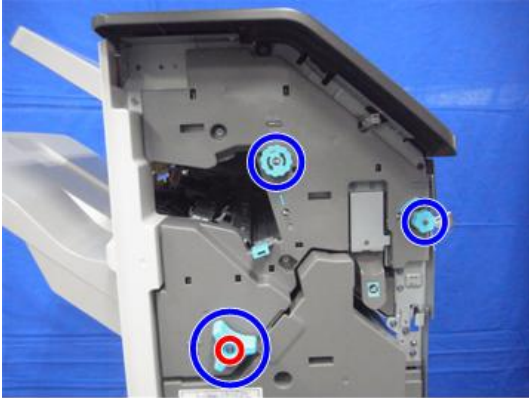


d1462582

5. Open the finisher front cover, remove the three knobs (🔑x1).

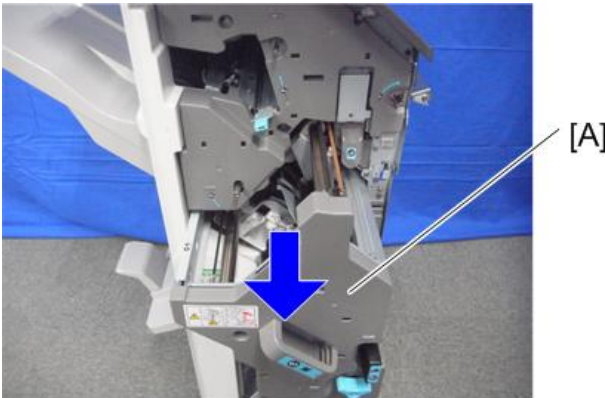
↓ Note

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



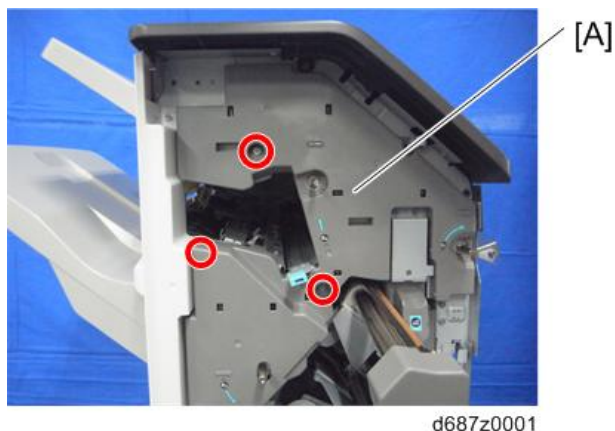
d6873232

6. Pull the saddle stitch unit [A] or stapling unit.

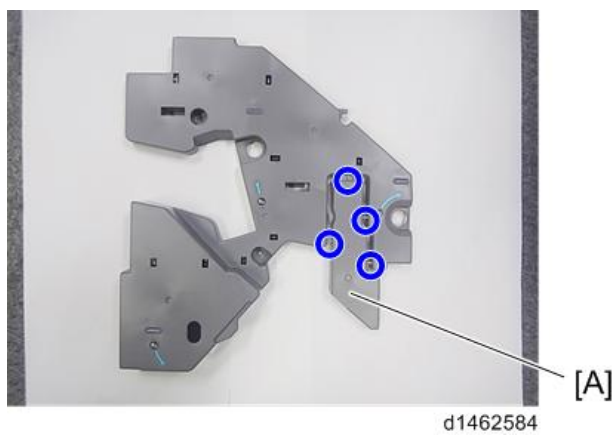


d6873233

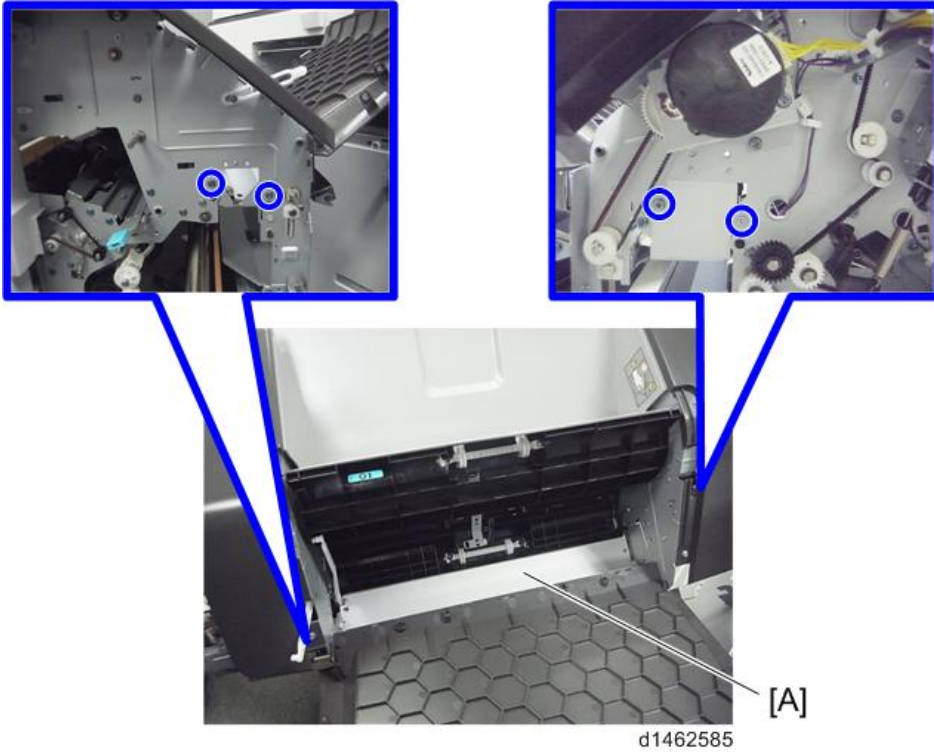
7. Remove the finisher inner cover [A] (⚙️×3)



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

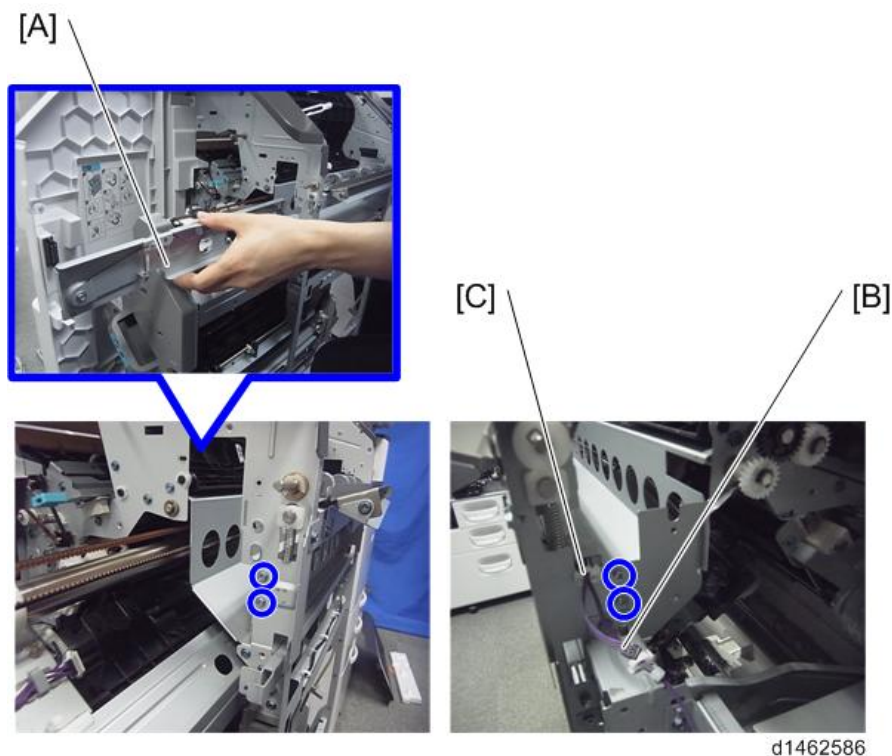


9. Guide plate [A] (⌀×4).



10. Insert and attach the hopper guide plate [A] from the front (⌀×4).

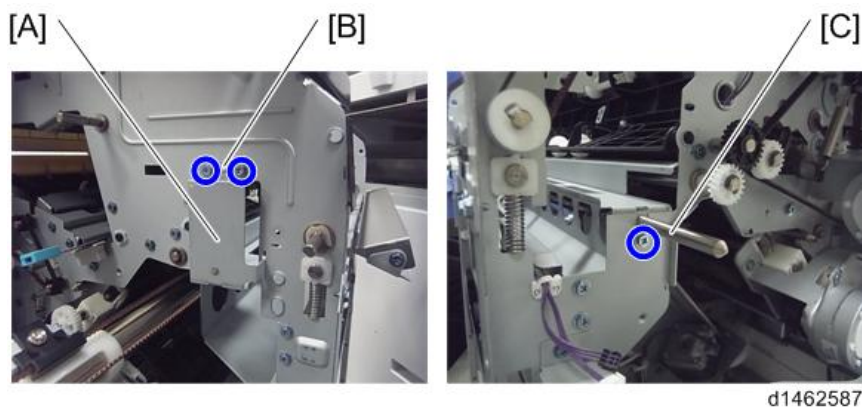
At this time, pass the harness [B] through the clamp [C].



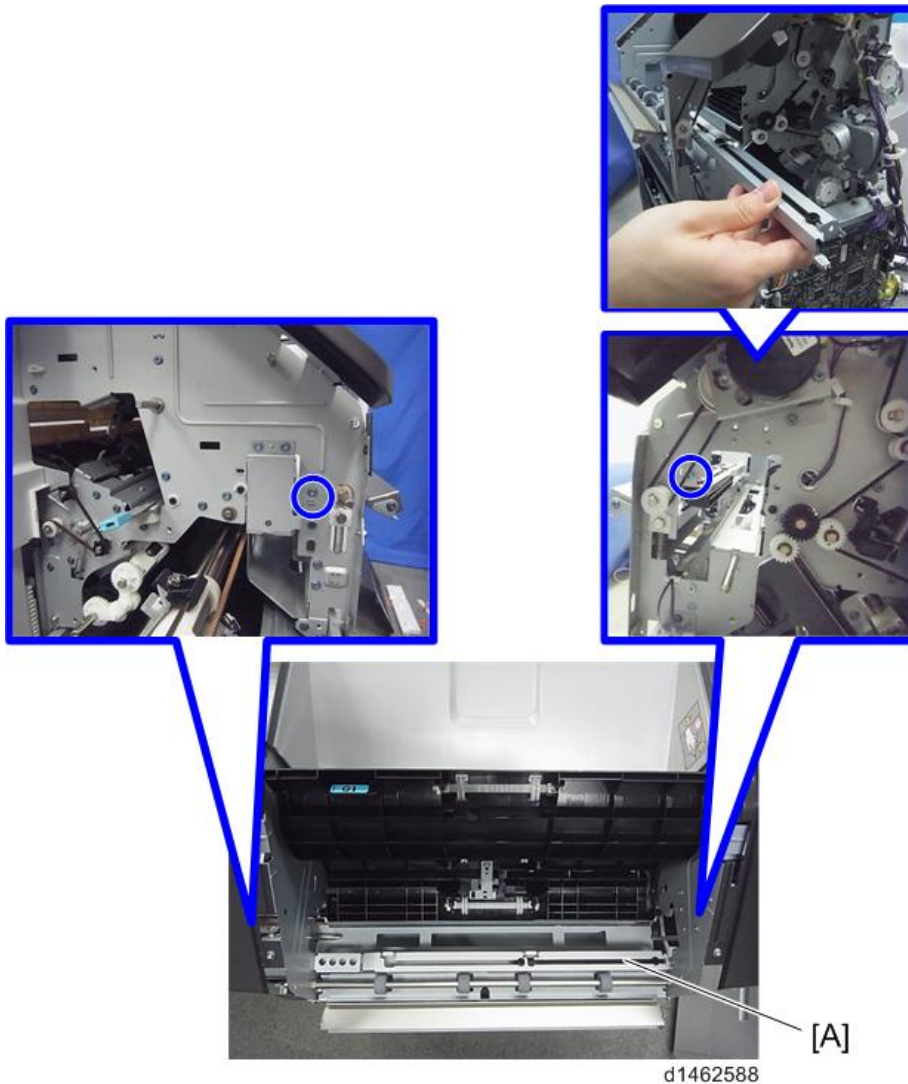
11. Attach the stay [A] (8×3).

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.

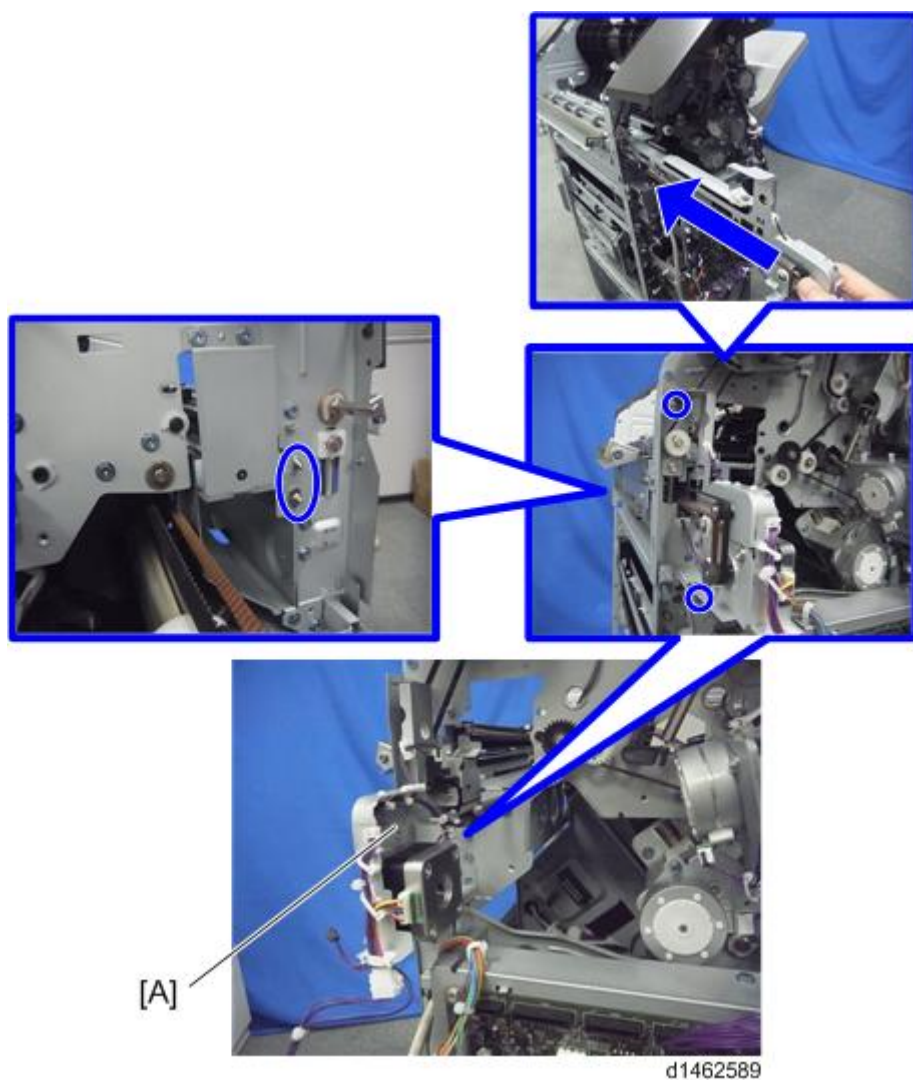


12. Insert and attach the guide plate [A] from the rear (⚙️×2).



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

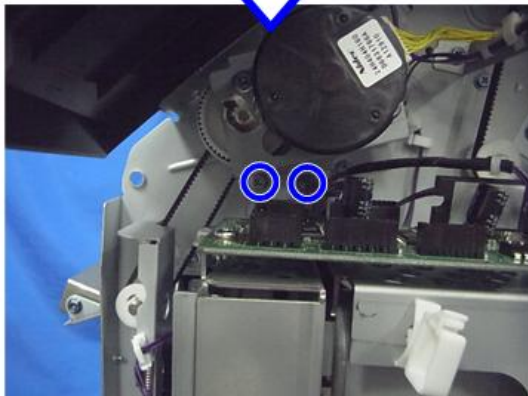
Front: The two shafts of the unit are passed through bearings in the finisher.



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

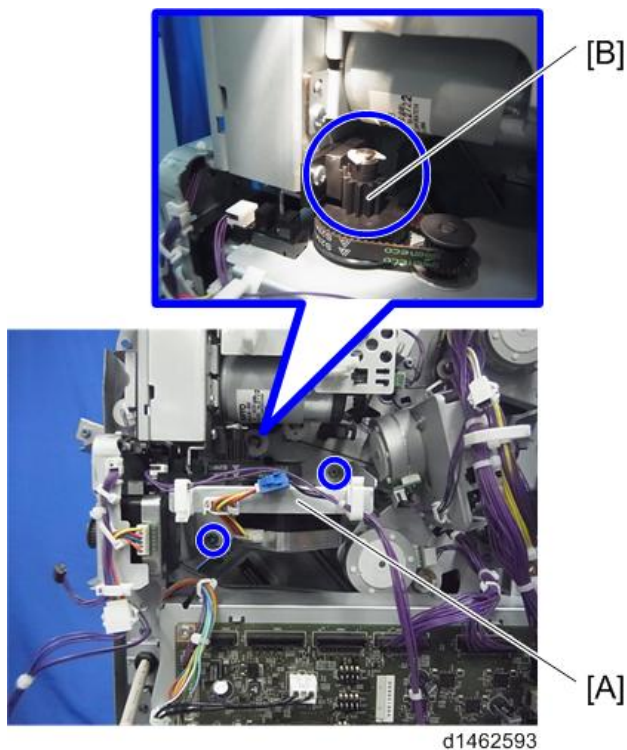


15. Insert and attach the punch unit [A] from the rear (⚙️×2).

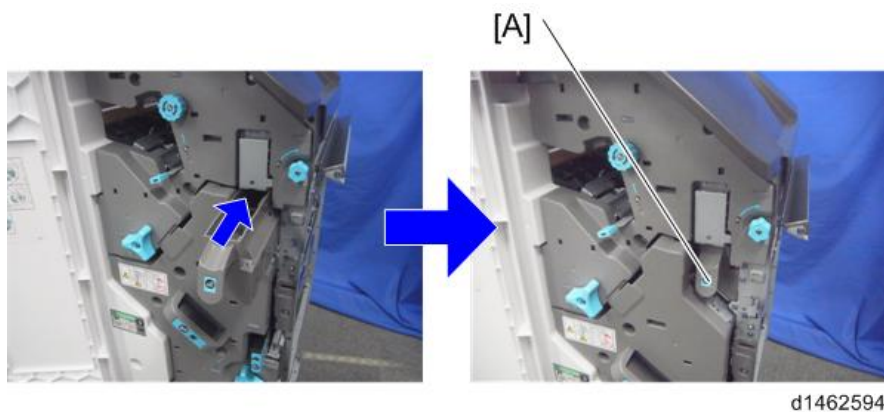


d1462591

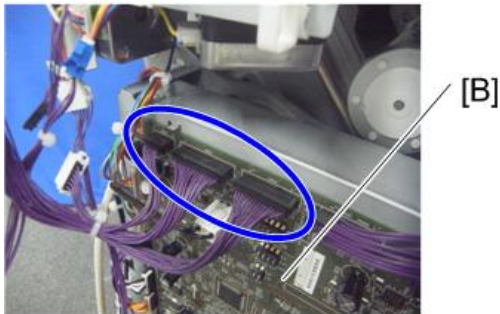
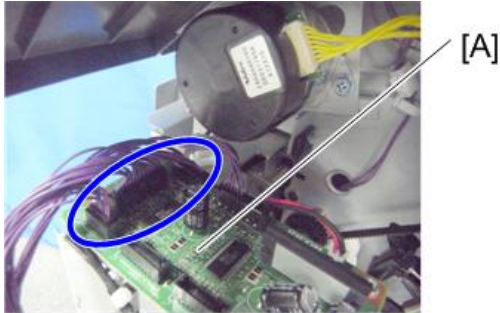
16. Attach the stepping motor bracket [A] so that the gear [B] meshes firmly (⌀×2).



17. Insert the hopper [A].

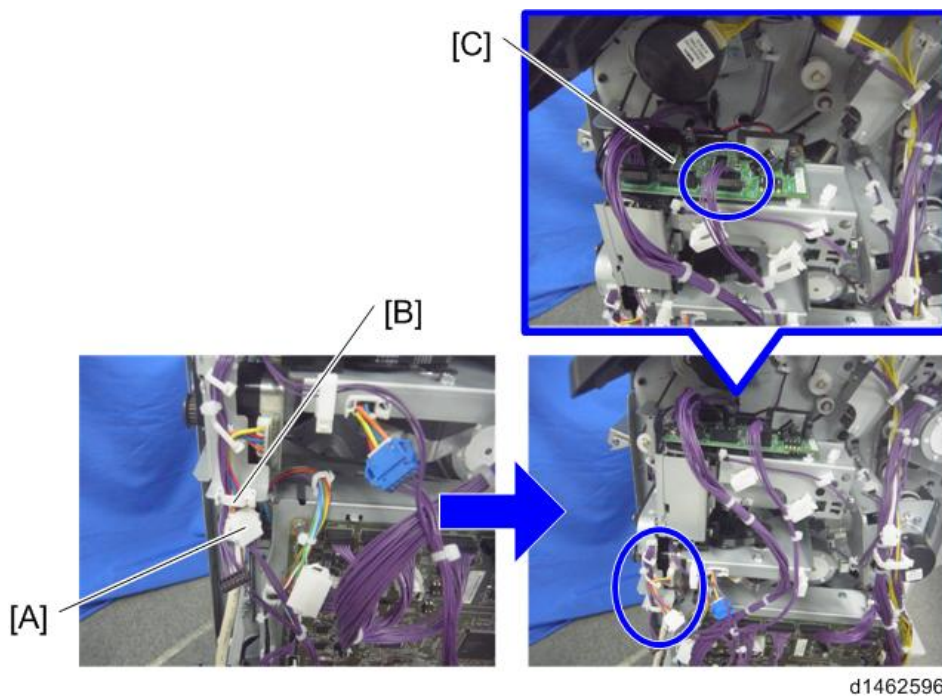


18. Connect the harness provided to the punch unit board [A] and the control board [B] of the finisher (④×6).

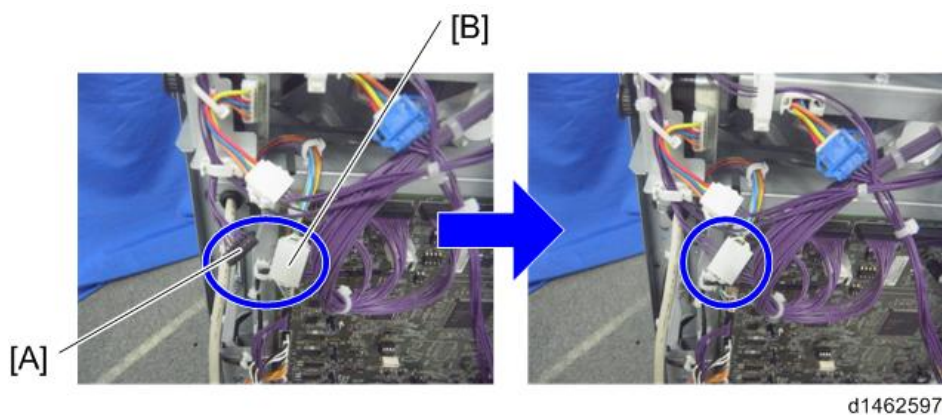


d1462595

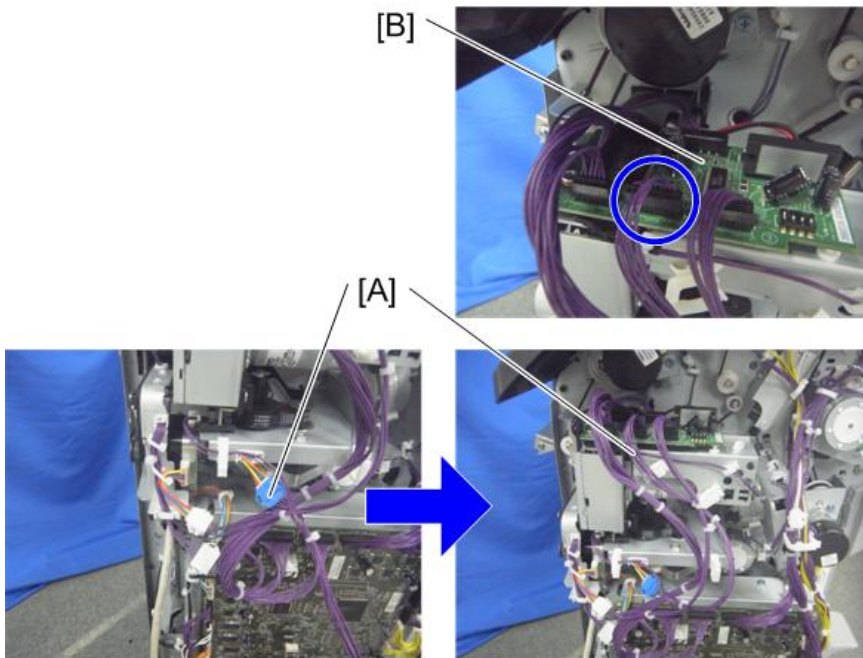
19. Remove the harness [A] from the clamp [B], and connect it to the punch unit board [C] (④×1).



20. Connect the harness [A] of the registration sensor unit to the relay connector [B] of the harness (④×1).

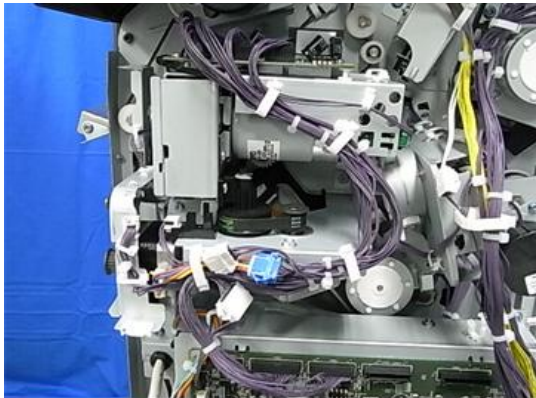


21. Connect the harness [A] of the stepping motor bracket to the punch unit board [B] (1x1).



d1462598

22. Clamp the harnesses.



d146z0068

23. Attach the finisher rear cover.
24. Attach the finisher inner cover and three knobs.
25. Close the front cover.
26. Close the top cover.
27. Attach the finisher to the machine, and connect the interface cable.
28. Turn the power switch on.

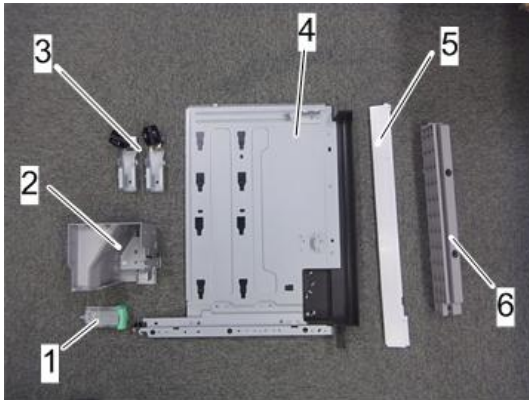
29. Check that the punch can be selected at the operation panel, and check the operation.

Internal Finisher SR3130

Accessory Check

No.	Description	Q'ty
1	Staple Cartridge	1
2	Front Right Cover	1
3	Caster Stand	2
4	Bottom Plate	1
5	Left Lower Cover	1
6	Entrance Guide Plate	1
-	Screw - M3 × 6	6
-	Tapping Screw – M4 x 6	1
-	Decal - EMC Address	1

2



d1462555a

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 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.).

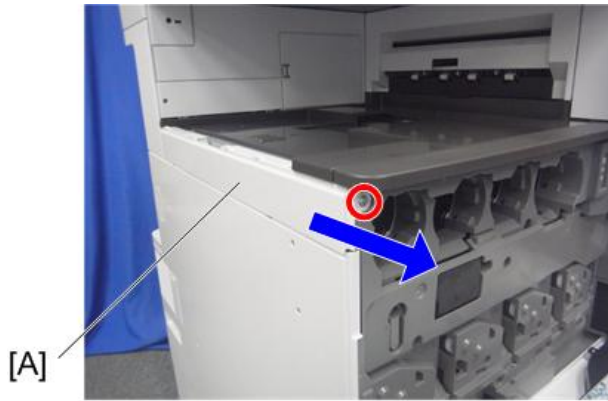
3. Open the front cover.

4. Paper output tray [A].



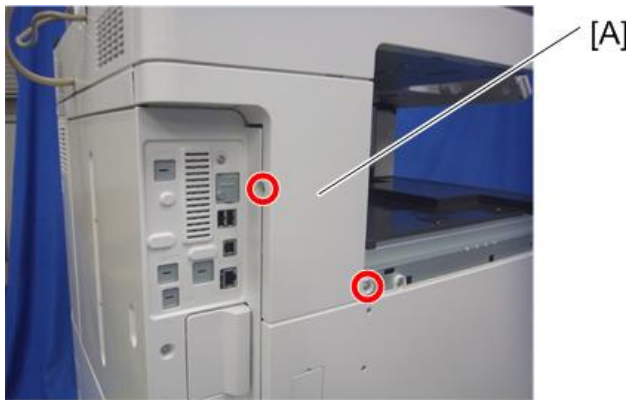
d1462023

5. Upper left cover [A] (1/4×1).



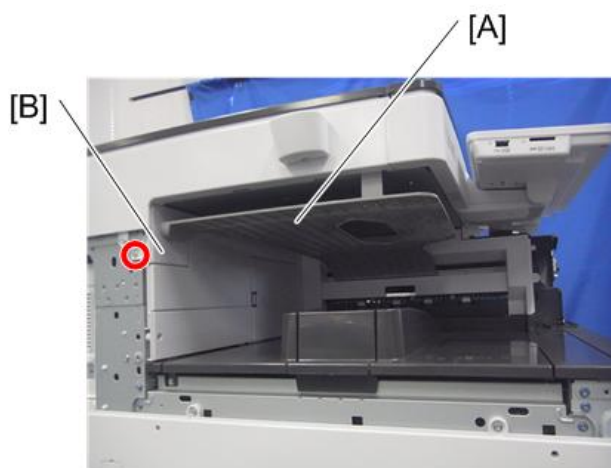
d1462008

6. Left rear cover [A] (1/4×2).



d1462010

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



d1462478

8. Open the right cover.

9. Main power switch cover [A] (⚙️×1).

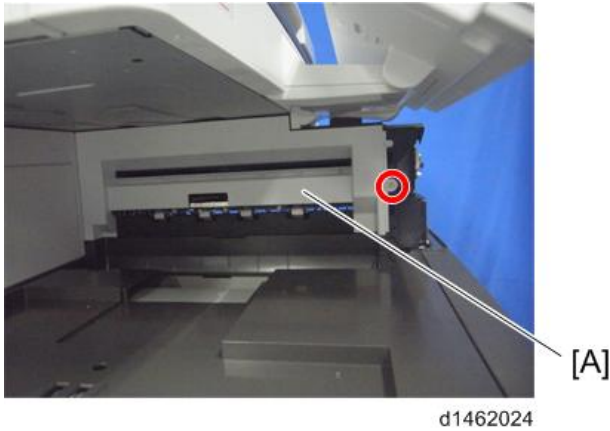
⚠️ CAUTION

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



d1462021

10. Paper output cover [A] (⚙️×1).



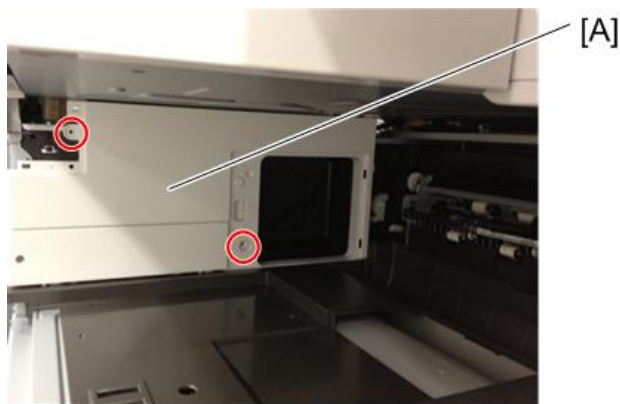
11. Connector cover [A].



12. Paper output lower cover [A] (⚙️×3).



13. Upper rear inner cover [A] (⌀×2)



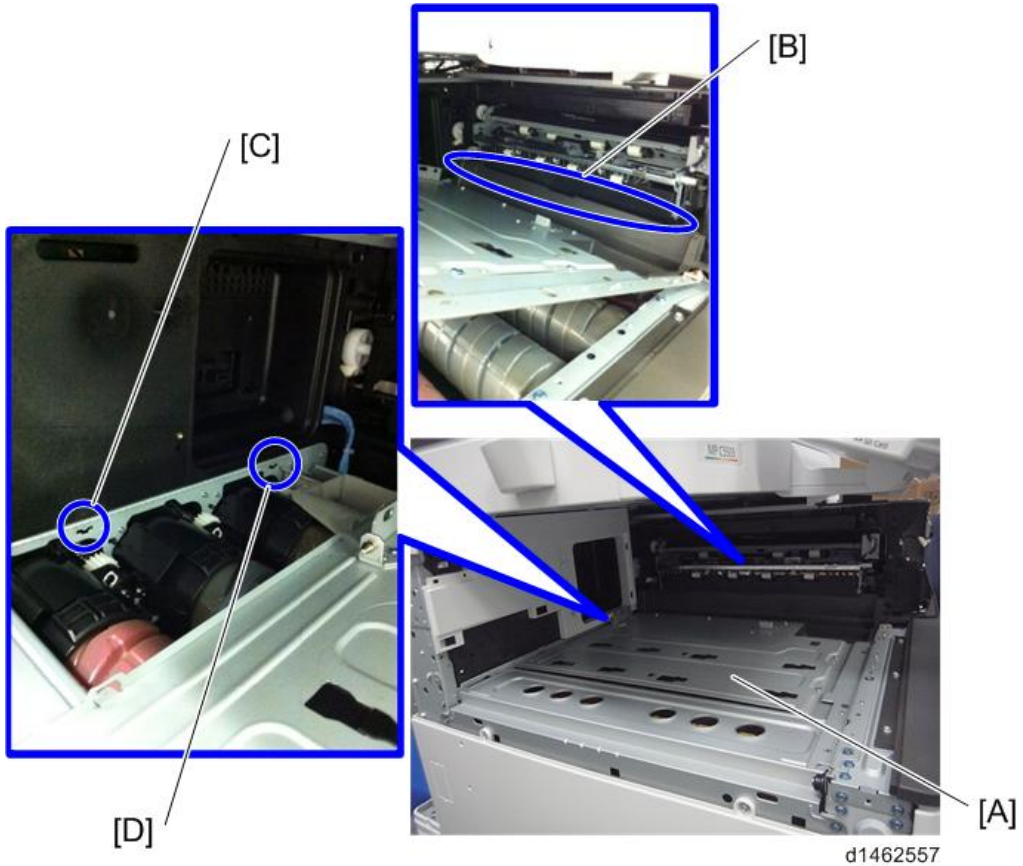
d1462565

14. Install a screw [A] removed in step 12.



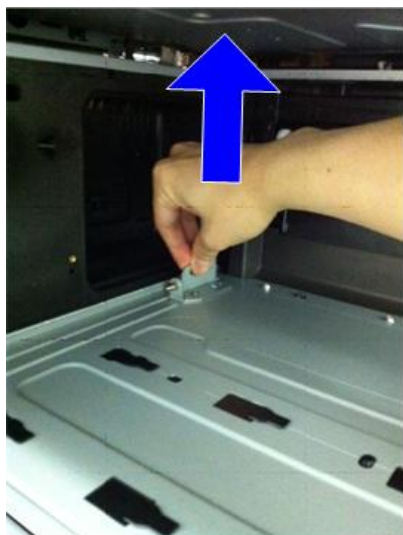
d1174012

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



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

16. Attach the upper rear inner cover.

17. Attach the paper output cover.

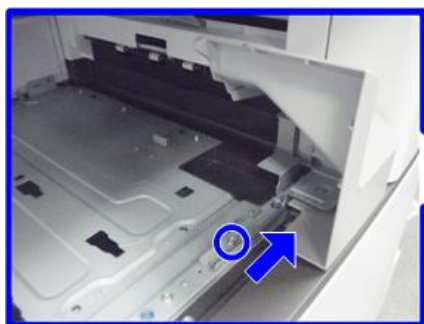
Note

- 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).

18. Attach the connector cover.

19. Attach the main power switch cover, and close the right cover.

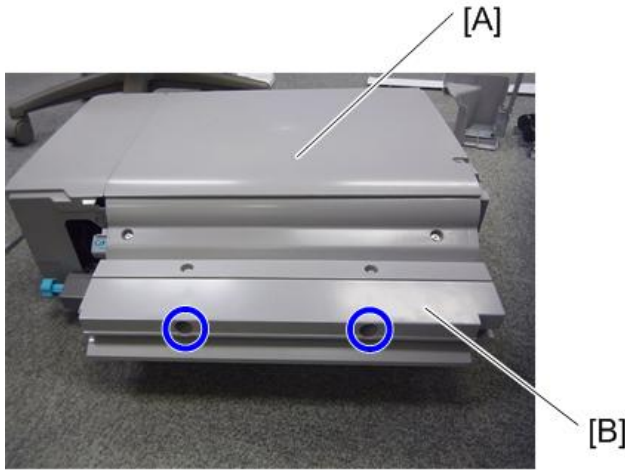
20. Slide the finisher right front cover [A] from left to right to attach it (⚙️×1).



d1462558

21. Attach the inverter tray.

22. Attach the entrance guide plate [B] to the finisher [A] (⚙️×2).



d1462559

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



d1462560

Note

- Hold the front side [A] of the inner finisher as shown below to check if the inner finisher is correctly set in the rail of the bottom plate.



d1774008

24. Attach the left rear cover.

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

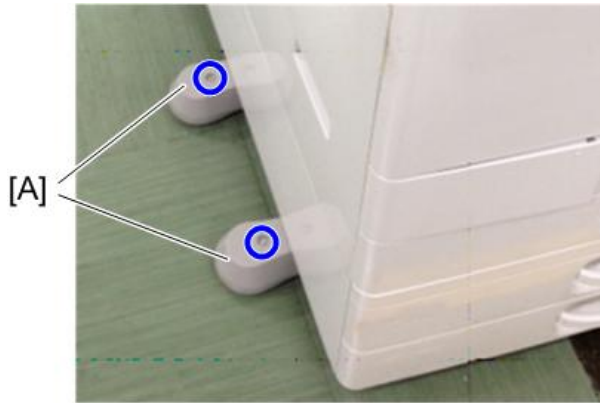


d1462561

26. Attach caster stands [A].

Note

- Because the weight is biased to the right of the machine if the inner finisher is installed, caster stands 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.



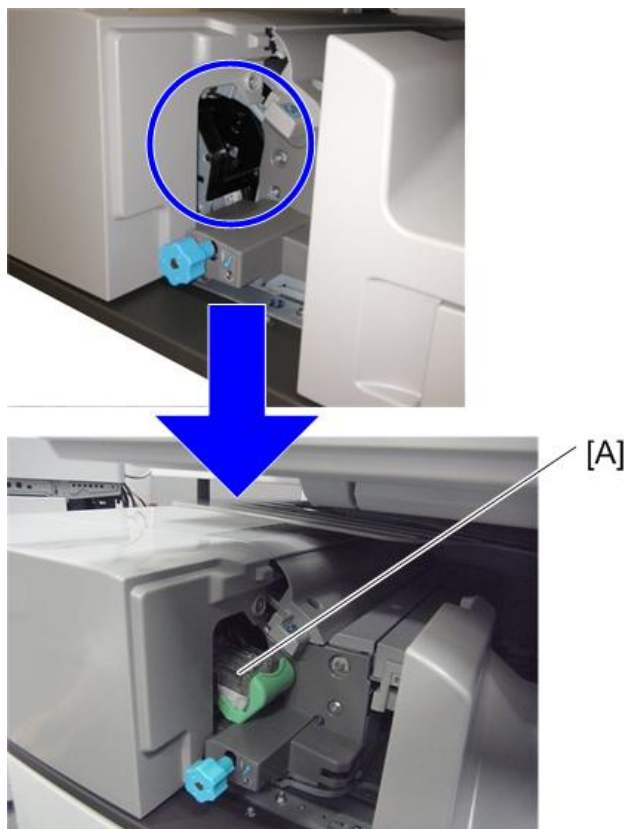
d1462945

27. Connect the interface cable to the machine.



D1462563

- 28.** Move forward the stapler unit, then set the staple cartridge [A].



d1462564

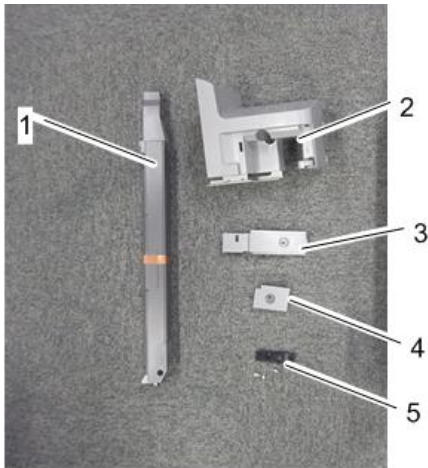
- 29.** Turn the power switch on.
- 30.** Check that the finisher can be selected at the operation panel, and check the finisher operation. Also when punch unit is installed, check the punching operation.

Punch Unit PU3040

Accessory Check

No.	Description	Q'ty
1	Hopper	1
2	Punch Unit Cover	1
3	Lower Front Cover	1
4	Lower Rear Cover	1
5	Holder	1
-	Knob Screw - M4	1
-	Tapping screws - M3x 6	3
-	Decal - EMC Address	1

2



d1462570

Installation Procedure

CAUTION

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

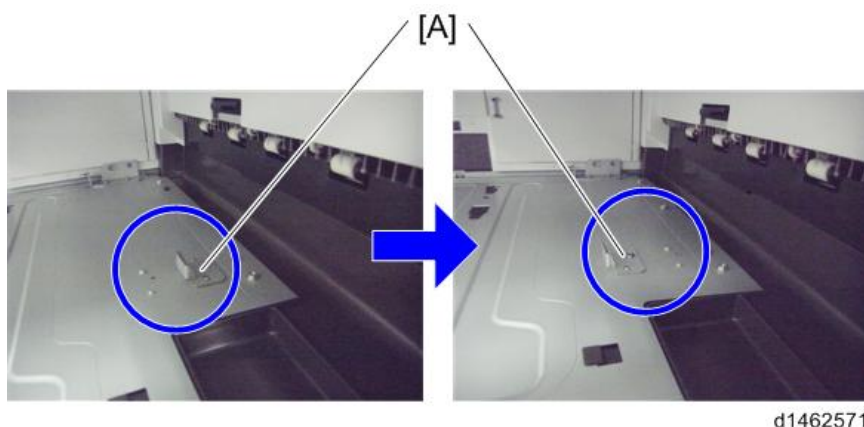
- If it is installed when the power is on, it will result in an electric shock or a malfunction.

↓ Note

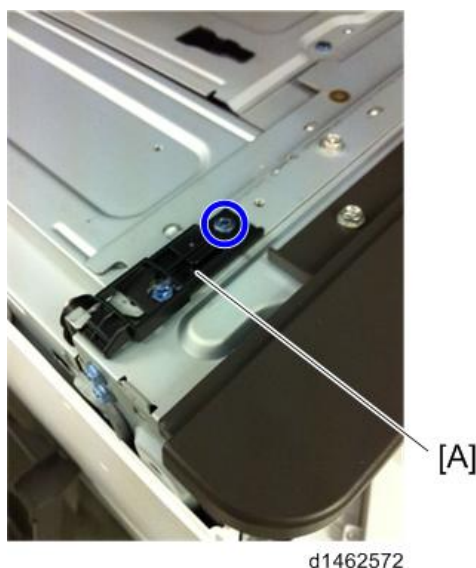
- When supplied together with the "Internal Finisher SR3130", attach this option before installing the "Internal Finisher SR3130"
- If the "Internal Finisher SR3130" is already attached, attach this option after removing the finisher.

2

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).



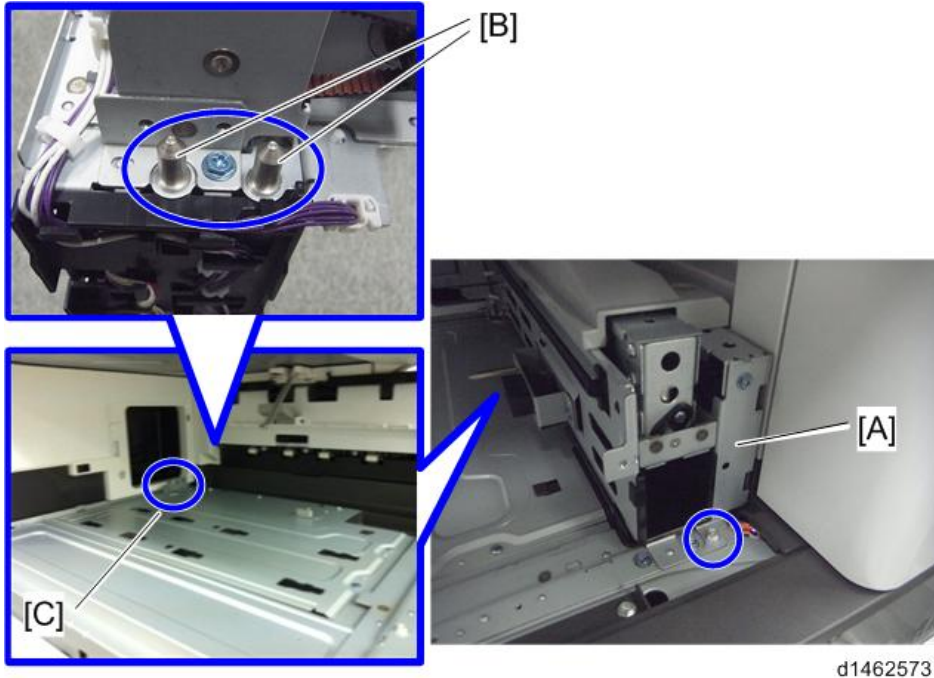
5. Replace the lock holder of the bottom plate with the lock holder [A] provided (⚙️×1).



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.



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].



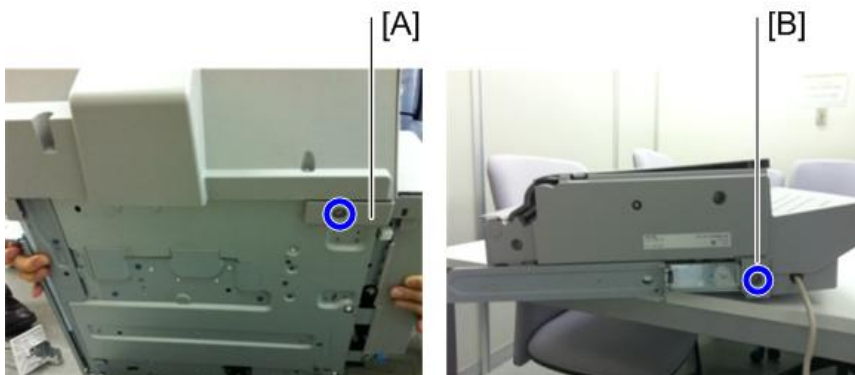
d1462576

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



d1462560

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



d1462577

13. Attach the left rear cover.

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

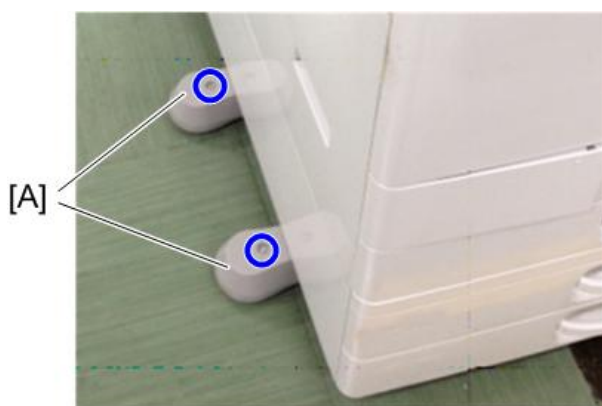


d1462561

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.



D1462563

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.

Key Counter Bracket Type M3

Installation procedure

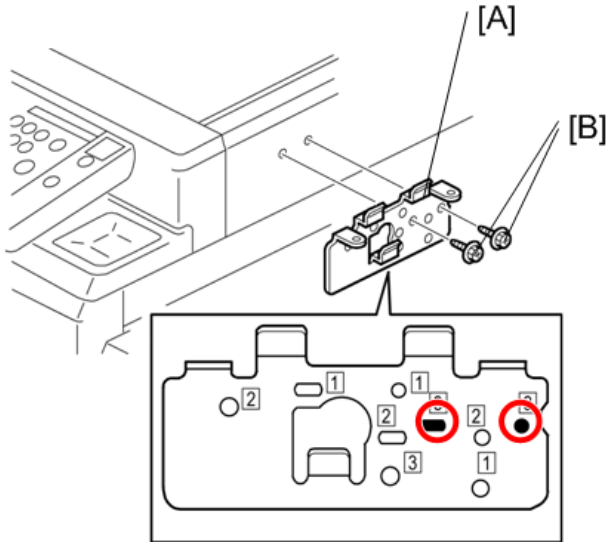
2

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



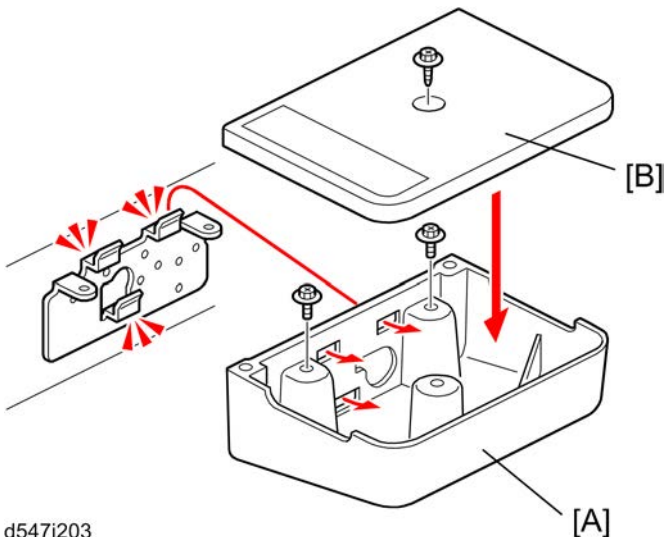
d1465010

3. Attach the tray bracket [A] to the scanner right cover (④[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.



d547i203

★ 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.

Optional Counter Interface Unit Type A

Installation procedure

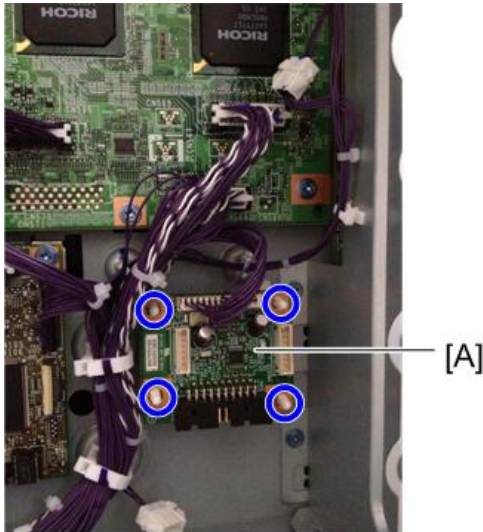
2

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 367 "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.



[A]

d1463076

External Keyboard Bracket Type M3 (D739-10)

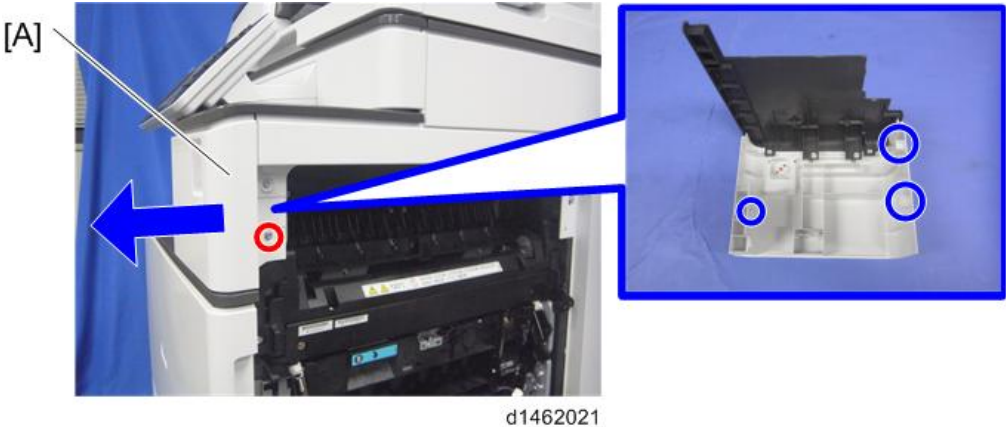
2

Accessory Check

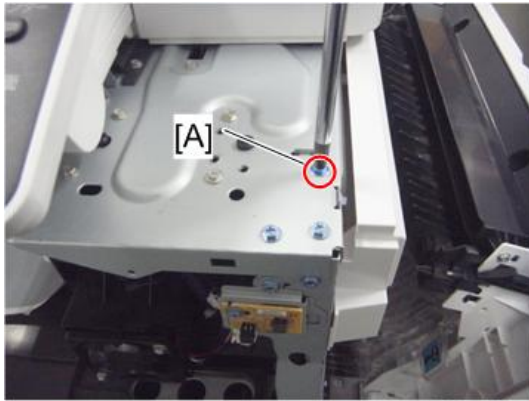
Description	Q'ty
Keyboard table bracket	1
Keyboard stand bracket	1
Keyboard stand	2
Screw: M4 x 12	2
Screw: M3 x 8	4
Screw: M3 x 12	1

Installation Procedure

1. Open the right cover.
2. Remove the main power switch cover [A] (⚙️×1, hooks).

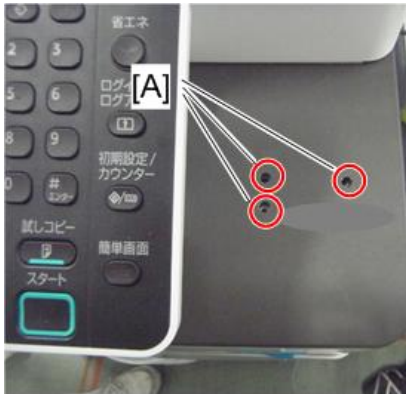


3. Remove the screw [A] on the frame of the machine.



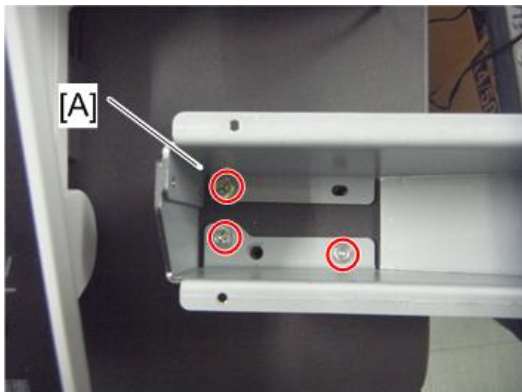
d739z0601

4. Make 3 screw holes [A] in the main power switch cover, and then reattach it to the machine (⌀×1, hooks).



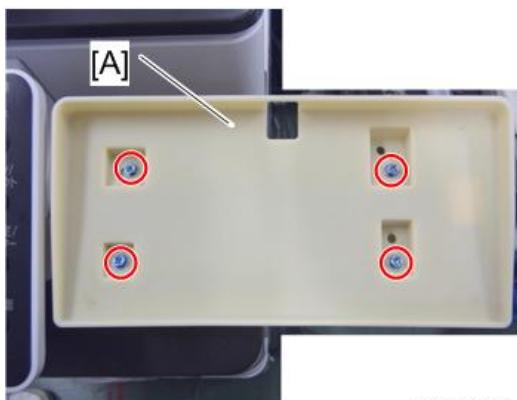
d739z0602

5. Attach the keyboard stand bracket [A] on the main power switch cover (⌀×3).



d739z0603

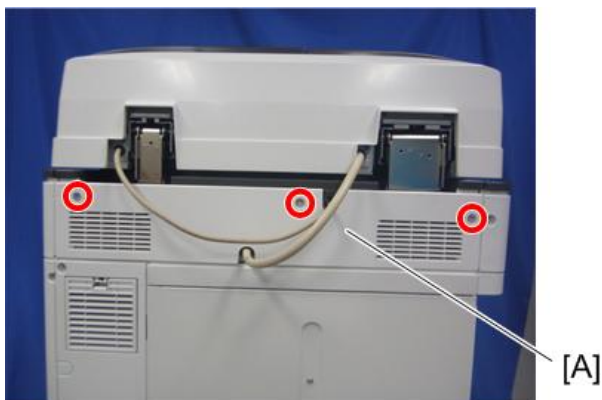
6. Attach the keyboard stand [A] on the keyboard stand bracket (⚙️x4).



d739z0604

7. Place a keyboard [A] on the keyboard stand, and then pass the keyboard cable through the hole [B] in the keyboard stand.

8. Scanner rear cover [A] (⚙️x3)



d1462016

9. Scanner right cover [A] (⚙️×1)



d1462300

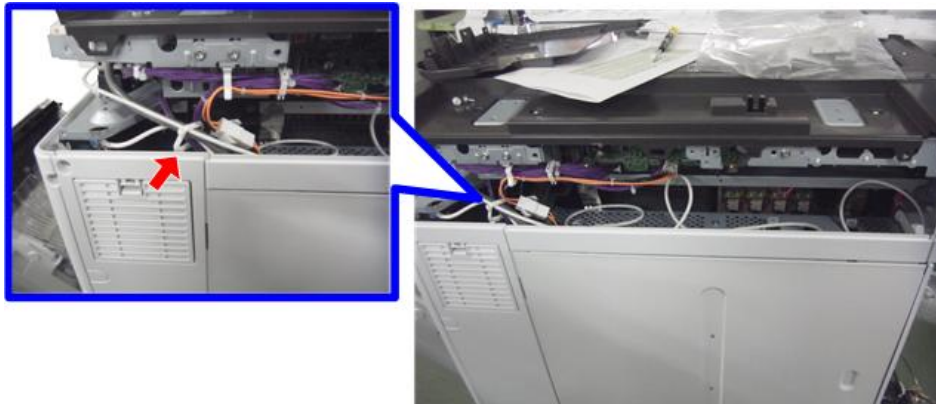
10. Route the keyboard cable along the right side of the scanner unit as shown below.



d739z0508a

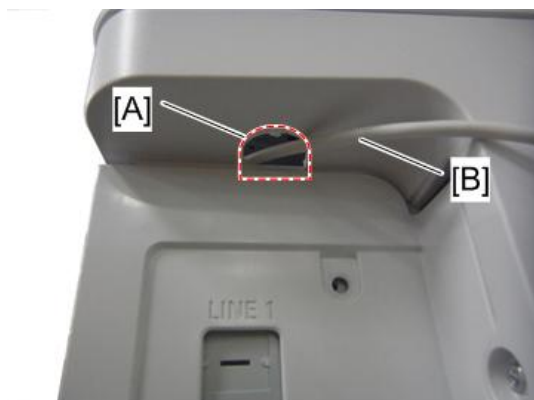
11. Route the keyboard cable along the rear side of the scanner unit (⚙️×1).

- Adjust the keyboard cable by making loops if the keyboard cable has too much slack.



d1463021a

12. Remove the cutout [A] in the left rear cover to make a cable hole, and then pass the keyboard cable [B] through it.



d1463019a

13. Connect the keyboard cable to the USB slot.



d1463020

14. Reattach the scanner right cover [A] (⚙️×1).
15. Reattach the scanner rear cover [A] (⚙️×3).
16. Close the right cover.

Smart Card Reader Built-in Unit Type M2 (D739-36)

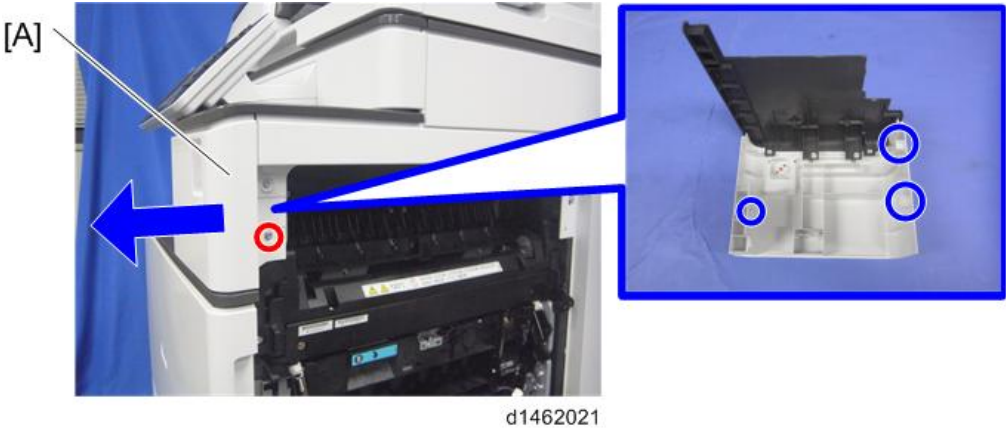
Accessory Check

2

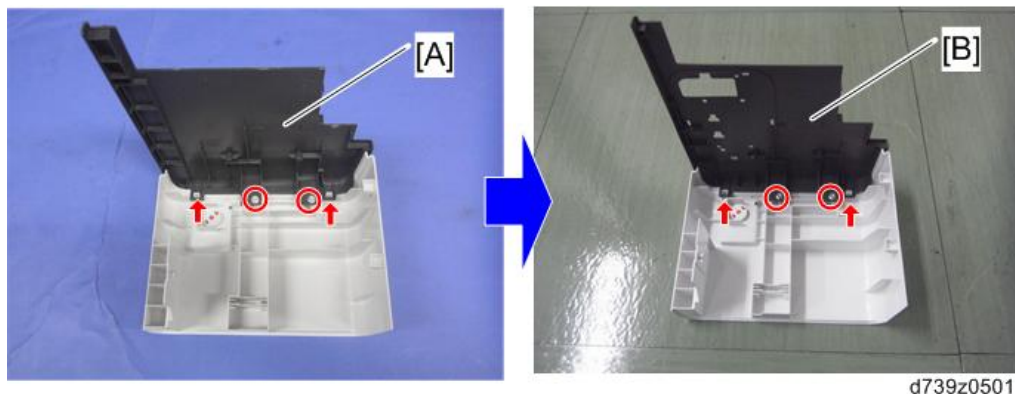
Description	Q'ty
Smart card reader cover	1
Lower cover	1
Double-faced adhesive tape	2
Clamp	3
Smart card reader/writer	1
USB cable	1

Installation Procedure

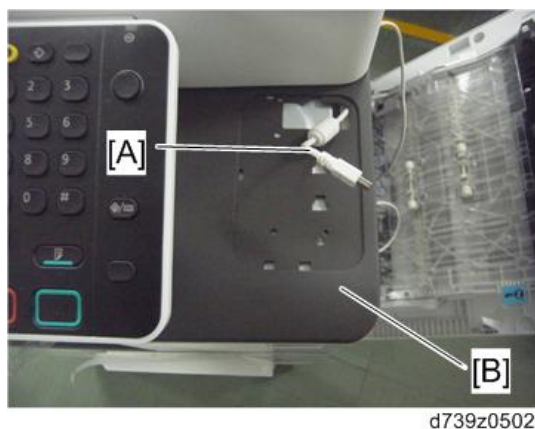
- 1. Open the right cover.
- 2. Main power switch cover [A] (1×1)



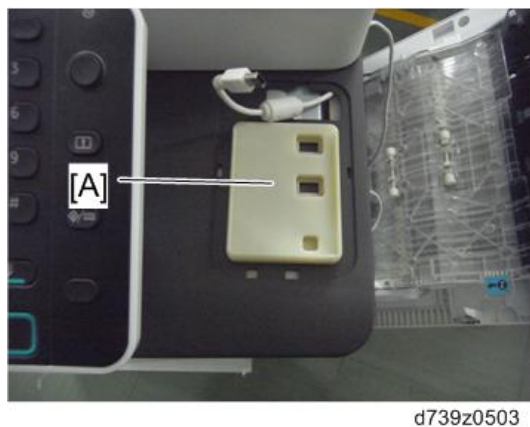
3. Replace the upper cover [A] of the main power switch cover [B] with the lower cover for the smart card reader built-in unit (⌀ x2, 2 hooks).



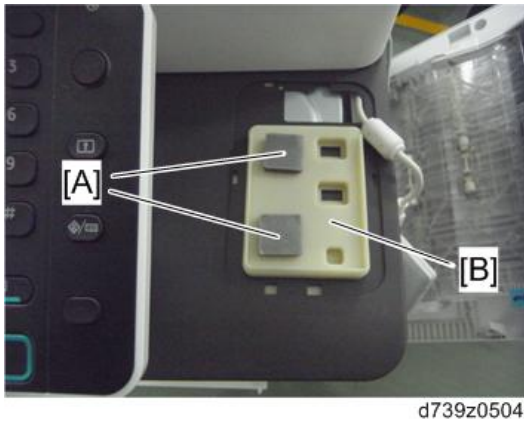
4. Pass the USB cable [A] for the smart card reader through the hole in the lower cover [B], and then attach the main power switch cover to the main machine (⌀ x1).



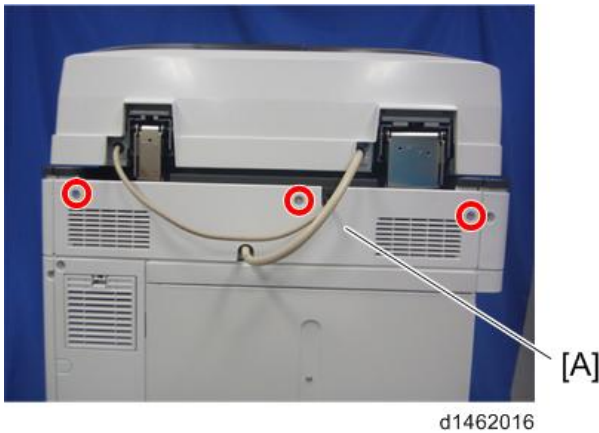
5. Attach the smart card reader stand to the lower cover [A] (2 hooks).



6. Attach two strips of double-faced adhesive tape [A] on the smart card stand [B].



7. Scanner rear cover [A] (⚙️×3)



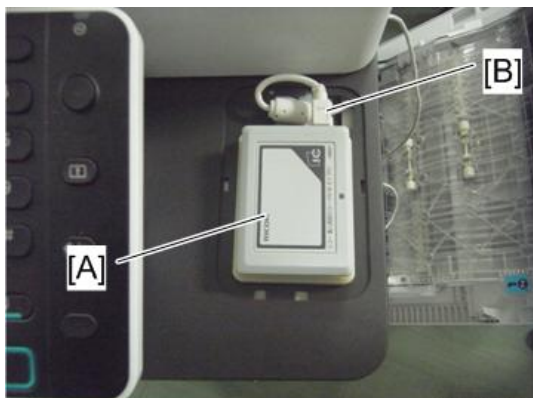
8. Scanner right cover [A] (⚙️×1)



9. Place the smart card reader/writer [A] on the smart card reader stand.

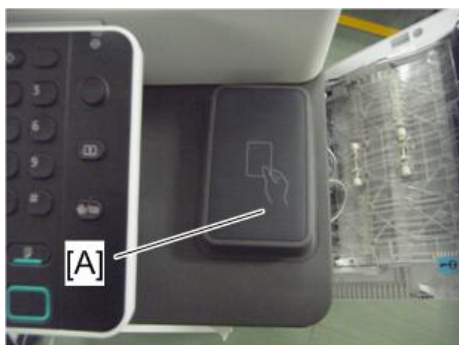
10. Connect the USB cable [B] to the smart card reader/writer.

- Make a loop with the USB cable when connecting.



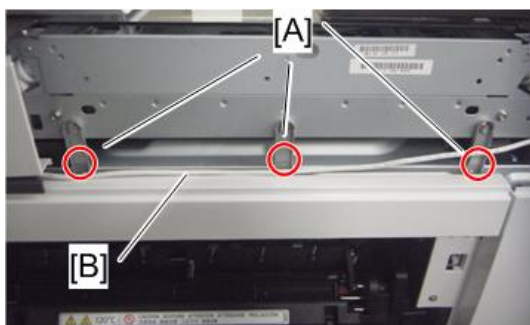
d739z0506

11. Attach the smart card reader cover on the smart card reader/writer.



d739z0507

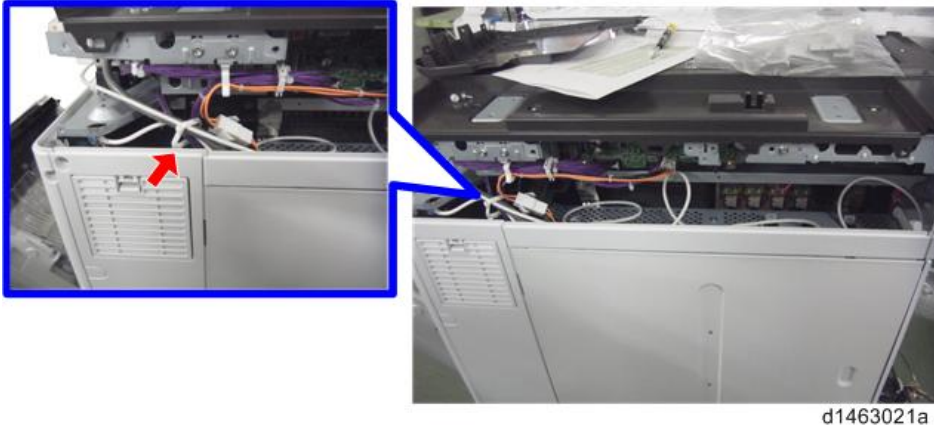
12. Attach the clamps [A] on the right side of the scanner unit, and then route the USB cable (x3).



d739z0508

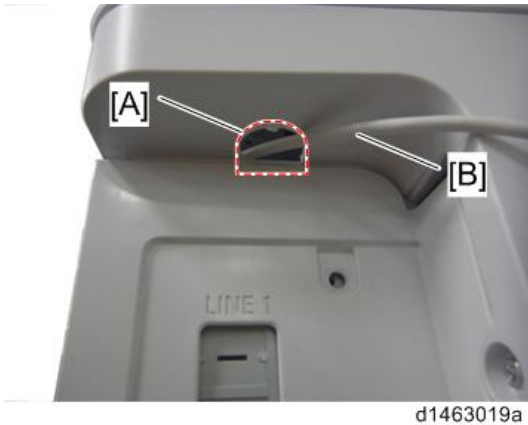
13. Route the USB cable along the rear side of the scanner unit (x1).

- Adjust the USB cable by making loops if the USB cable has too much slack.



2

14. Remove the cutout [A] in the left rear cover to make a cable hole, and then pass the USB cable [B] through it.



15. Connect the USB cable to the USB slot (the left side).



16. Reattach the scanner right cover [A] (⚙️×1).
 17. Reattach the scanner rear cover [A] (⚙️×3).

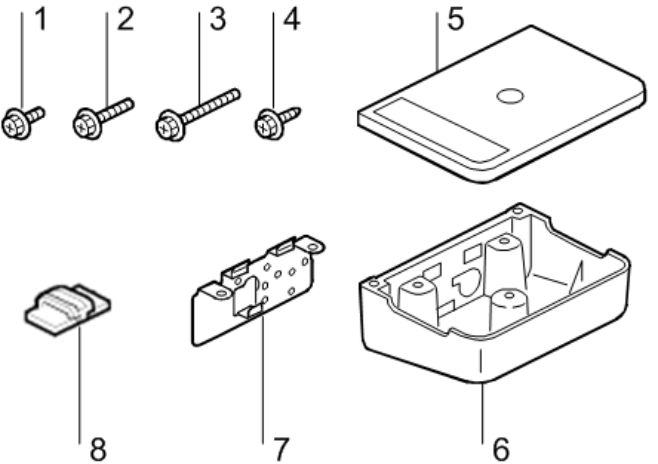
18. Close the right cover.

Card Reader Bracket Type 3352 (D593)

Component Check

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

No.	Description	Q'ty	For This Model
1	Screw: M3 x 8	2	Yes
2	Screw: M3 x 14	1	Not used
3	Screw: M4 x 25	1	Yes
4	Tapping Screw: M3 x 10	3	Yes
5	Upper Tray	1	Yes
6	Lower Tray	1	Yes
7	Tray Bracket	1	Yes
8	Clamp	5	Yes



d1822512

Installation Procedure

1. Remove the scanner right cover. (page 386)

2. Make 2 screw holes in the removed scanner right cover with a screwdriver or drill.

★ Important

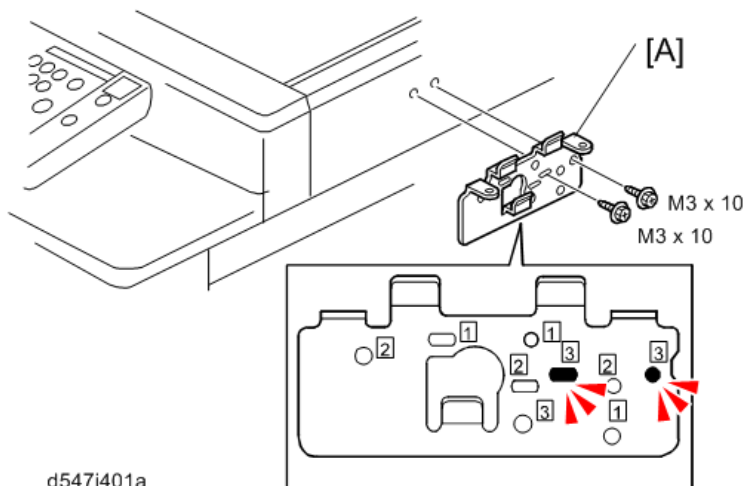
- Make the screw hole to be smaller than the screw size.



d146z1019

3. Reattach the scanner right cover (⚙️ x2).
4. Attach the tray bracket [A] to the upper right cover (⚙️ x2: M3x10 tapping screw).

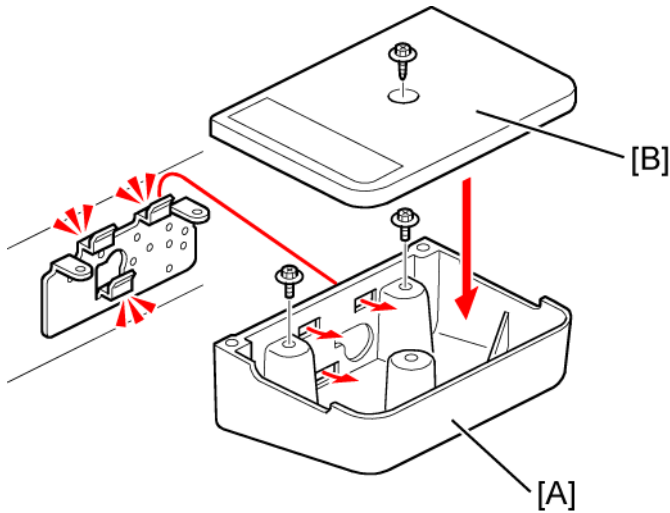
For this model, use the screw holes marked "3" on the table bracket.



d547i401a

5. Attach the lower tray [A] to the tray bracket (⚙️ x2: M3 x 8).

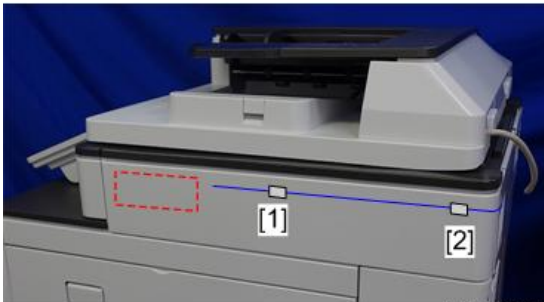
6. Attach the upper tray [B] to the tray bracket (x1: M3 x 10).



d120i577

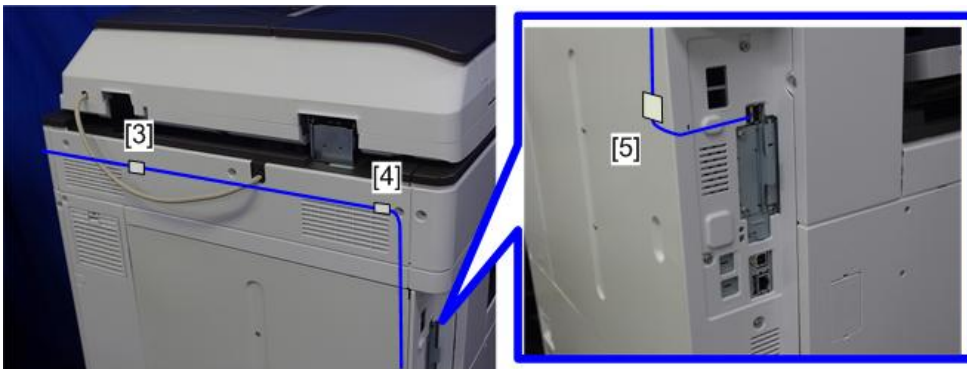
7. Attach the clamps ([1] to [5]) and route the harness around the machine as shown.

Scanner Right Cover



d146z1017

Rear Cover



d146z1018

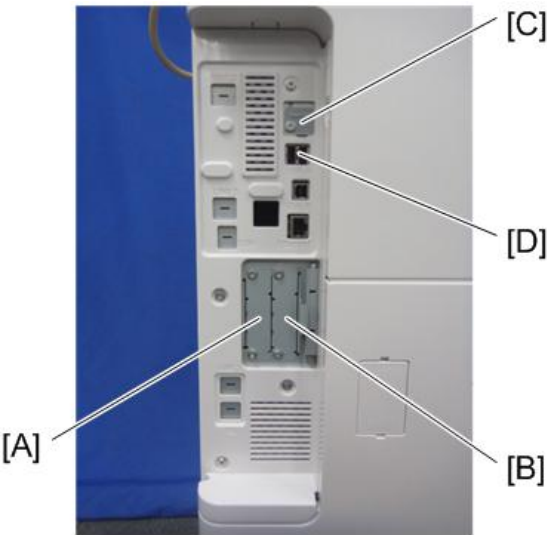
1. Connect the USB cable to the USB A slot.

Internal Options

List of Slots

D148/D149/D150

2



d1462232

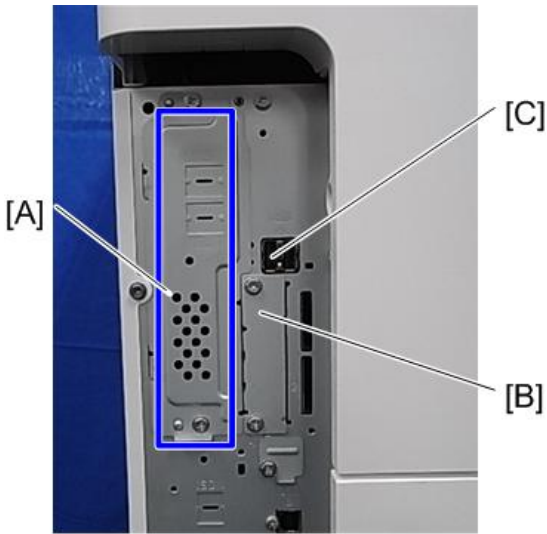
Slot		Option
[A]	I/F slot A *1	IEEE 1284 Interface Board Type A
		IEEE 802.11a/g/n Interface Unit Type M2
		Remote communication Gate
[B]	I/F slot B *1	File Format Converter Type E
		RC-GATE/LB
[C]	I/F slot C	Color Controller Connection Board Type M4
[D]	USB port *2	Bluetooth Interface Unit Type D
	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

2



d1462232

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.

IEEE 1284 Interface Board Type A



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

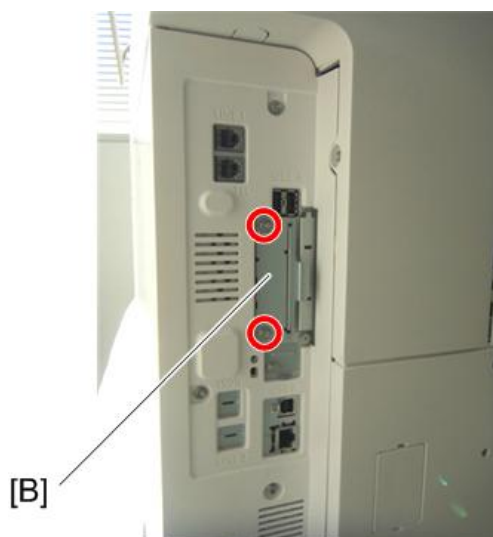
- Do not put your hand into the controller box. It will result in a malfunction or injury.
- Before doing any work, touch a metal object to discharge static electricity from the body. There is a possibility that the IEEE 1284 Interface Board may malfunction due to static electricity.

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

D148/D149/D150:



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

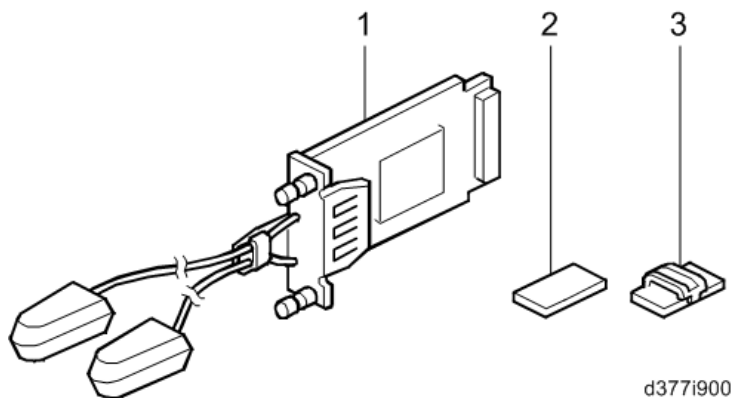
- The customer should keep the I/F card slot covers which were removed.

IEEE 802.11a/g/n Interface Unit Type M2

Accessory Check

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

2



★ 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.

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.

2

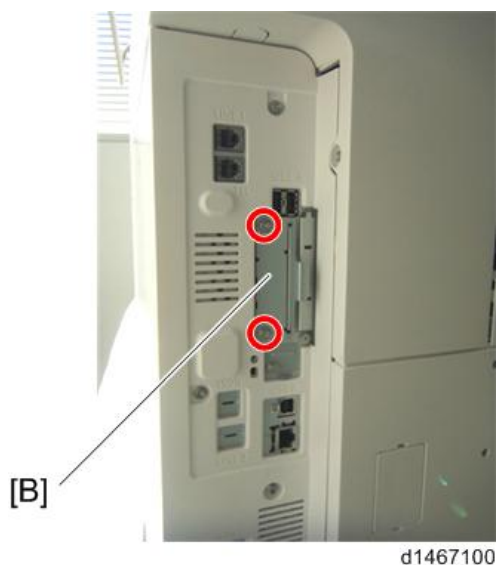
Attaching the boards

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

D148/D149/D150:



D146/D147:



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

2

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.

User Tool Settings for IEEE 802.11a/g/n

Go into the User Tools mode and do the procedure below. These settings take effect every time the machine is powered on.

↓ Note

- You cannot use IEEE 802.11a/g/n if you use Ethernet.

1. Press the "User Tools" key.
2. On the touch panel, touch "System Settings".

↓ Note

- Select "Interface Settings">"Network">"LAN Type". The "LAN Type" (default: Ethernet) must be set for either Ethernet or wireless LAN.
3. Select "Interface Settings">"Wireless LAN". Only the wireless LAN options show.
 4. Set the "Communication Mode".

5. Enter the "SSID setting". (The setting is case sensitive.)
6. Set the "Ad-hoc Channel". You need this setting when Ad Hoc Mode is selected. The allowed range for the channel settings may vary for different countries.

- Region A (mainly Europe and Asia)
2412 - 2462 MHz (1 - 11 channels)
5180 - 5240 MHz (36, 40, 44 and 48 channels)
(default: 11)

 **Note**

- In some countries, only the following channels are available: 2412 - 2462 MHz (1 - 11 channels)
 - Region B (mainly North America)
2412 - 2462 MHz (1 - 11 channels)
5180 - 5240 MHz (36, 40, 44 and 48 channels)
(default: 11)
7. Set the "Security Method" to specify the encryption of the Wireless LAN.
 - The "WEP" (Wired Equivalent Privacy) setting is designed to protect wireless data transmission. The same WEP key is required on the receiving side in order to unlock encoded data. There are 64 bit and 128 bit WEP keys.
 - Range of Allowed Settings:
64 bit: 10 characters
128 bit: 26 characters
 - Specify "WPA2" when "Communication Mode" is set to "Infrastructure Mode". Set the "WPA2 Authent. Method".
 - WPA2 Authent. Method:
Select either "WPA2-PSK" or "WPA2".
If you select "WPA2-PSK", enter the pre-shared key (PSK) of 8-63 characters in ASCII code.
When "WPA2" is selected, authentication settings and certificate installation settings are required.
 8. Press "Wireless LAN Signal" to check the machine's radio wave status using the operation panel.
 - Press "Restore Factory Defaults" to initialize the wireless LAN settings.

SP Mode Settings for IEEE 802.11 Wireless LAN

The following SP commands and UP modes can be set for IEEE 802.11

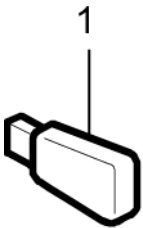
SP No.	Name	Function
5840 006	Channel MAX	Sets the maximum range of the channel settings for the country.
5840 007	Channel MIN	Sets the minimum range of the channels settings allowed for your country.
5840 008	Transmission Speed	Sets the transmission speed. Auto, 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps (default: Auto).
5840 011	WEP Key Select	Used to select the WEP key (Default: 00).
UP mode	Name	Function
	SSID	Used to confirm the current SSID setting.
	WEP Key	Used to confirm the current WEP key setting.
	WEP Mode	Used to show the maximum length of the string that can be used for the WEP Key entry.
	WPA2 Authent. Method	Used to confirm the current WPA authentication setting and preshared key.

Bluetooth Interface Unit Type D

Accessory Check

2

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



2-5-6_002.jpg

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].



Note

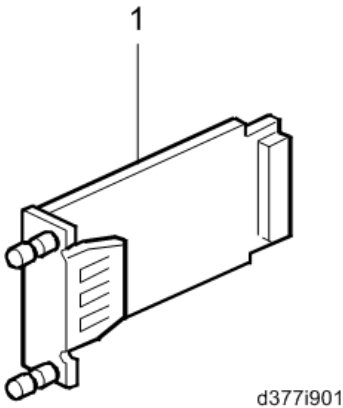
- There is no difference between the left and right USB ports.
2. Check the system settings list is output, and that the option is recognized correctly.

File Format Converter Type E

Accessory Check

2

No.	Description	Q'ty
1	File Format Converter	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.

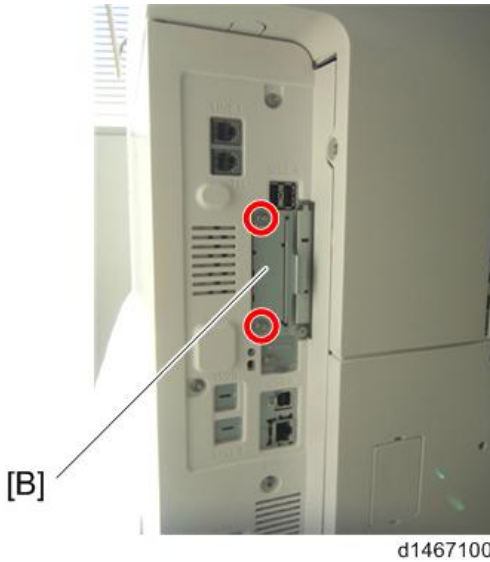
CAUTION

- 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 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.

Data Overwrite Security Unit Type H (D377)/ I (D362)

Overview

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

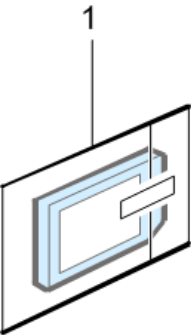
Type H is for D148/D149/D150 and **type I** is for D146/D147 .

The function of this option is completely the same as the Data Overwrite Security in Security Functions, which is standard on this machine. (page 103 "Image quality test / settings")

Component List

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

No.	Description	Q'ty
1.	SD Card	1



d1351921

Before You Begin the Procedure

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"** for D148/D149/D150 or **"Type I"** for D146/D147, 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]

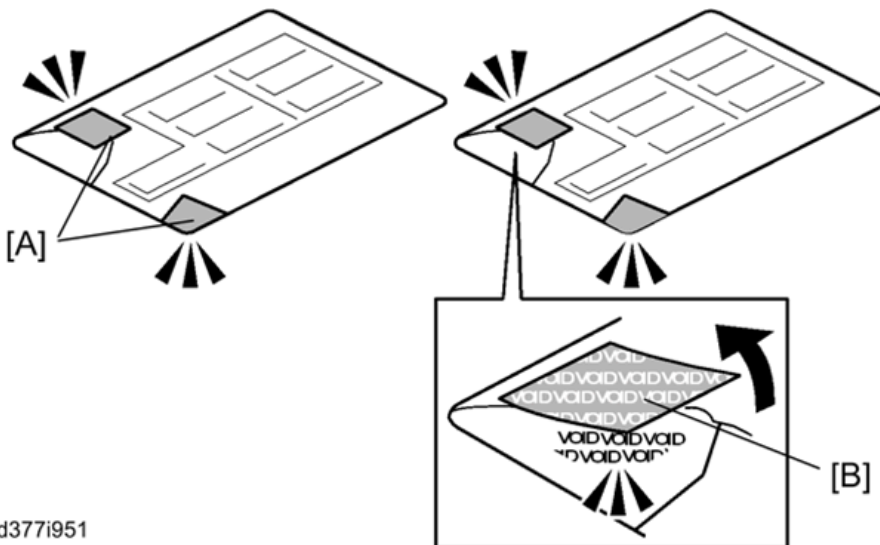
If this setting is OFF, tell the customer this setting must be ON before you do the installation procedure.

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.

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.

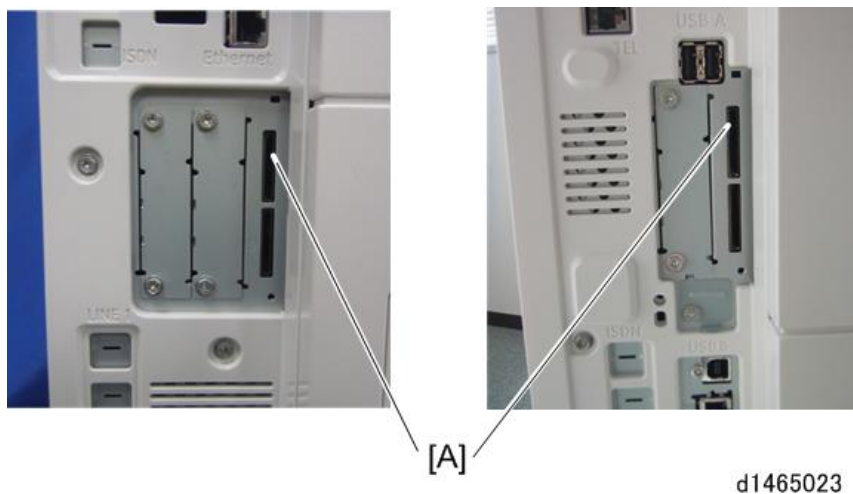
- The surfaces of the tapes must be blank. If you see "VOID" on the tapes, do not install the components in the box.
2. If the surfaces of the tapes do not show "VOID", remove them from the corners of the box.
 3. You can see the "VOID" marks [2] when you remove each seal. In this condition, they cannot be attached to the box again.

2

Installation Procedure

1. 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



1. Install the application using SP5-878-001.

Copy Data Security Unit Type G

Accessory Check

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

2



d1354023

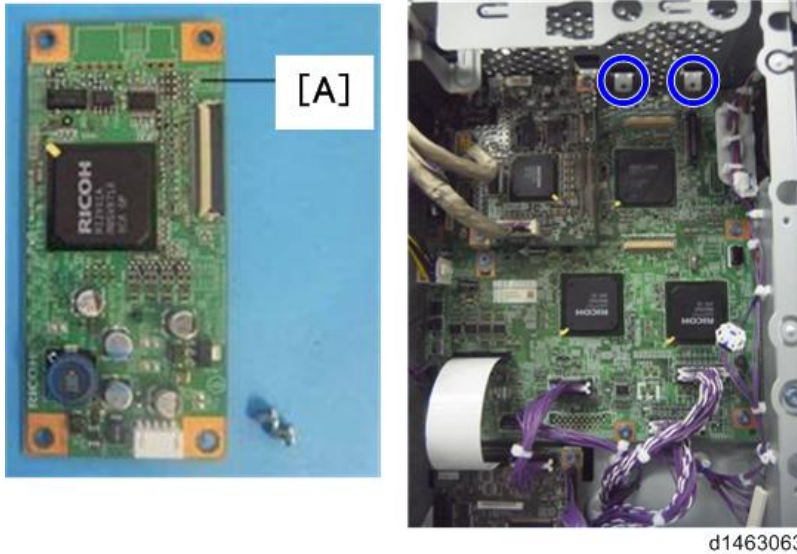
Installation procedure

⚠ 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 366 "Rear Cover")

2. Attach the copy data security module [A] to the IPU (⚙️×2).



3. Attach the rear cover.

User Tool Setting

1. Plug in and turn on the main power switch.
2. Go into the User Tools mode, and select System Settings > Administrator Tools > Copy Data Security Option > "On".
3. Exit User Tools.
4. Check the operation.

↓ Note

- The machine will issue an SC165-00 error if the machine is powered on with the Copy Data Security Unit Board removed and the "Data Security for Copying" feature set to "ON".
- The machine will issue an uncertain SC165-00 error if the machine is powered on with a defective Copy Data Security Unit Board and the "Data Security for Copying" feature set to "OFF".
- When you remove this option from the machine, first set the setting to "OFF" with the user tool before removing this board. If you forget to do this, the "Data Security for Copying" feature cannot appear in the user tool settings. And then SC165-00 will appear every time the machine is switched on, and the machine cannot be used.
- Make sure that the machine can recognize the option (see "Check All Connections" at the end of this section).

Check All Connections

Make sure that the machine can recognize the option.

1. **Plug in the power cord.**
2. **Turn on the main switch.**
3. **Enter the printer user mode. Then print the configuration page.**

User Tools > Printer Features > List Test Print > Configuration Page

4. **All installed options are shown in the "System Reference" column.**

Imageable Area Extension Unit Type M3

Accessory Check

2

Description	Q'ty
Paper transfer roller (Extended)	1

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

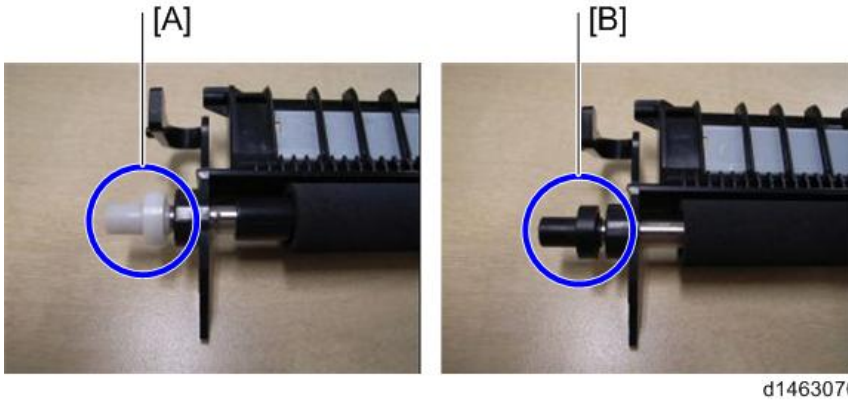
SP	Description	Default	Setting
SP3-533-003	Interrupt ProCon :Set Corr(Short):BW	1	0.1
SP3-533-013	Interrupt ProCon :Set Corr(Short):FC	1	0.25
SP3-534-001	JobEnd ProCon :Set Interval:Set:BW	500	250
SP3-534-003	JobEnd ProCon :Set Corr(Short):BW	1	0.2
SP3-534-011	JobEnd ProCon :Set Interval:Set:FC	200	100
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".

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



d1463070

[A]: Standard roller

[B]: Imageable Area Extension Unit Type M3

Note

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

- Turn the power on.
- 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.

OCR Unit Type M2

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

2

Accessory Check

No.	Description	Q'ty
1	SD Card	1



d595i900b

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.

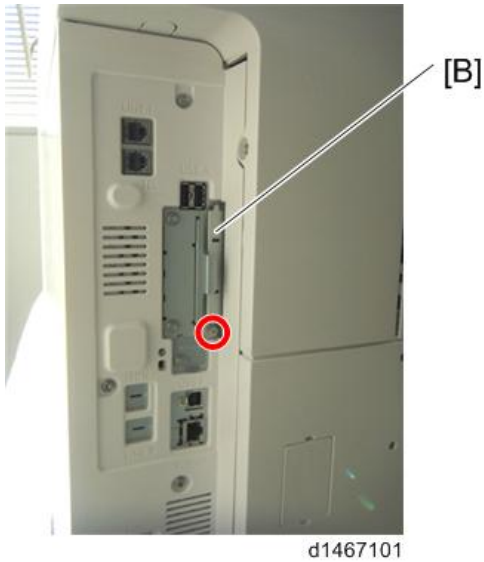
Installation procedure

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

D148/D149/D150:



D146/D147:

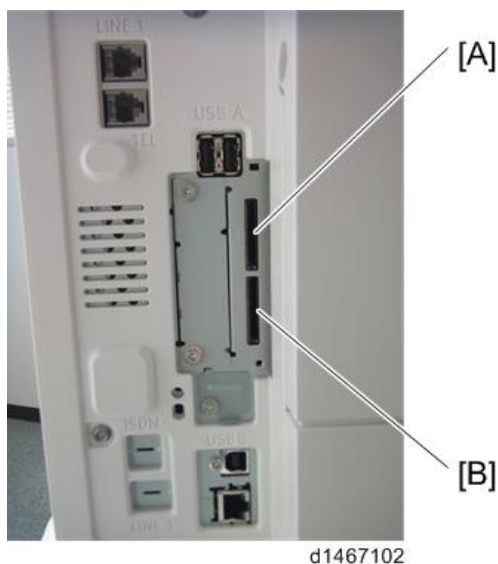


2. Insert the OCR module SD card in SD card slot 1 [A] or slot 2 [B].

D148/D149/D150:



D146/D147:



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])

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](#))

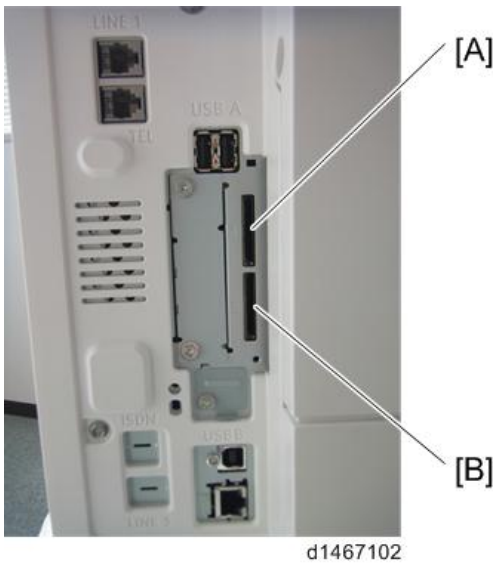
SD Card Option

SD Card Slots

D148/D149/D150



D146/D147



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

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

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).

SD Card Appli Move

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).

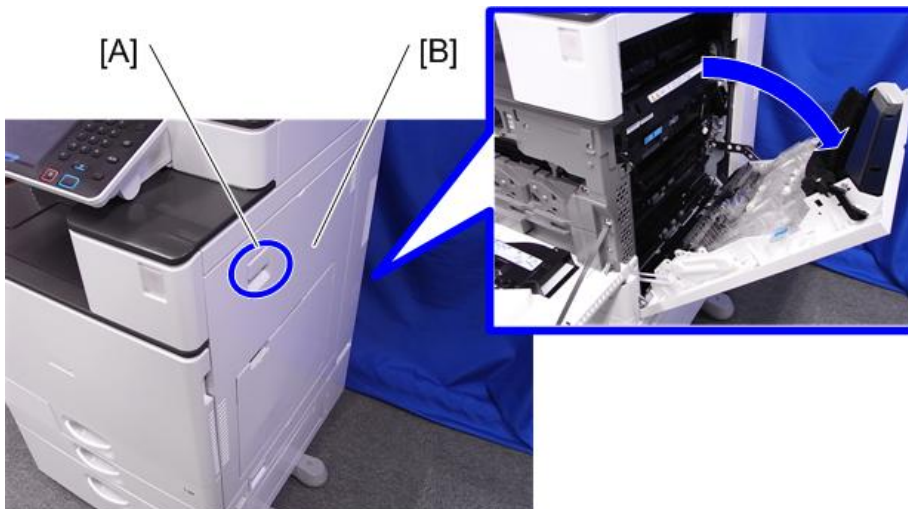
However, SD card applications are under license, therefore, since an SD card license after merge is transferred to the target SD card, it cannot be used even if it is moved to the target machine.

Also, a process to prevent illegal copying is performed.

Note

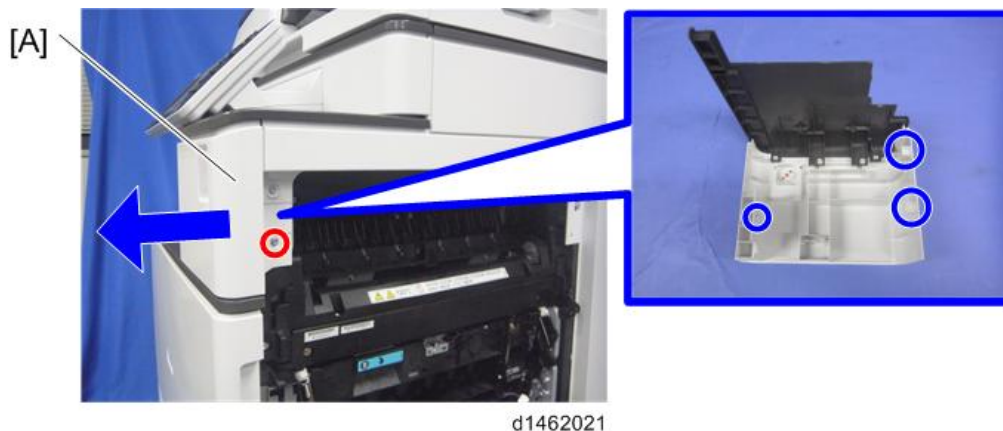
- After merge, store the empty SD card in the location shown below.

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

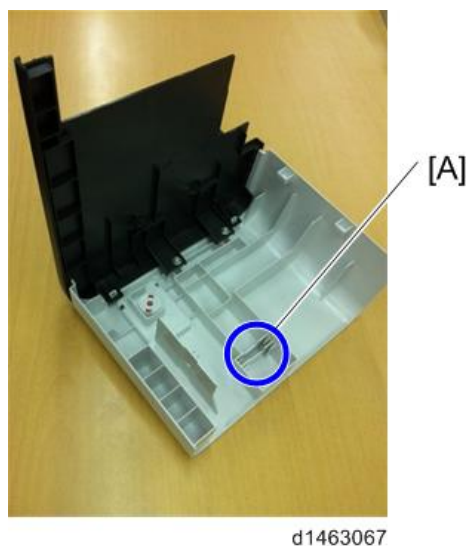


d1462241

2. Main power switch cover [A].



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



Move Exec

↓ Note

- When merging SD cards, an SD card to be merged is not specified.

1. Turn the power off.

2. SD card slot cover [A](×1).



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.

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.

Browser Unit Type M4/M3

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

2

Accessory Check

No.	Description	Q'ty
1	SD Card	1



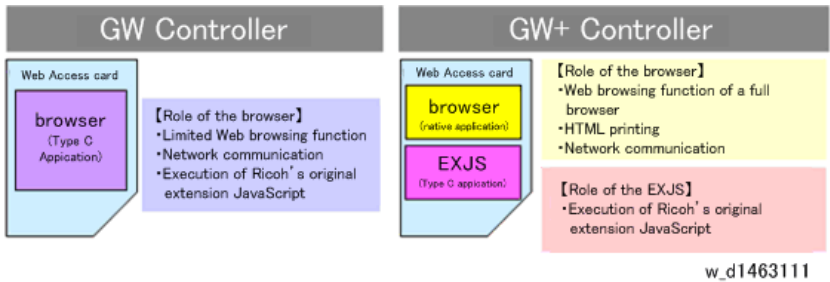
d595i900b

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 HDD from the SD card, 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

- When using this option, the Memory Unit Type M3 2GB must be installed on D146/147. Otherwise, the machine may not operate properly due to the lack of the memory on the controller.
- Additional 2GB memory is not required on D148/D149/D150 because they have 2 GB by default.

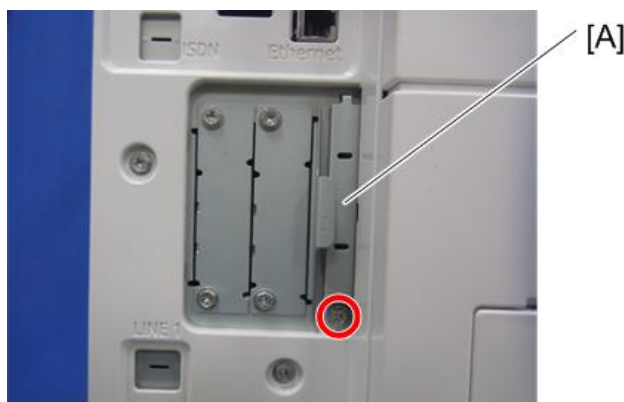
Note

- 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] (1×1)

D148/D149/D150:



d1463064

D146/D147:



d1467101

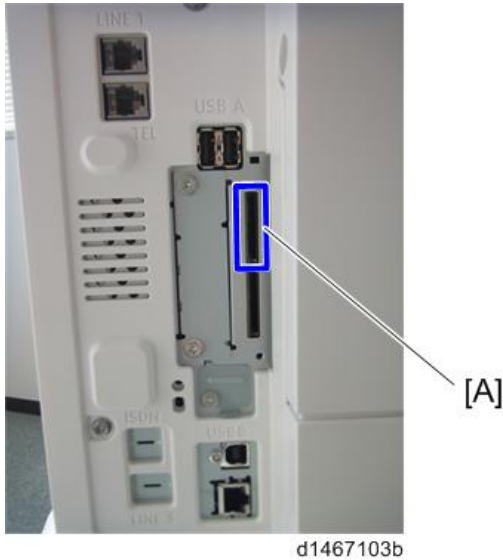
3. Insert the browser unit card in SD card slot 1 [A].

D148/D149/D150:



d1463065b

D146/D147:



↓ Note

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

4. Switch the power ON.
5. Press the [User Tools/Counter] key.
6. Press the [Extended Feature Settings] button.
7. Press the [Extended Feature Settings] button on the [Extended Feature Settings Menu] 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 [User Tools/Counter] key.
11. Press the [Edit Home] button.
12. Press the [Add Icon] button.
13. Press the [Browse] button displayed on the "Application" tab.
14. Select a blank square to set the location for the browser icon, and press the [OK] button.
15. Check that the [Browse] icon has been added to the Home screen.

To update Browser/EXJS

1. Switch the power ON.
2. Press the [User Tools/Counter] key.
3. Press the [Extended Feature Settings] button.

4. Press the [Extended Feature Settings] button on the [Extended Feature Settings Menu] screen.
5. Stop "Extended JS" on the "Startup Setting" tab.
6. Switch the power OFF.
7. Remove the slot cover [A].

2



d146z0072

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

Note

- This SD card should contain the browser firmware only. Never copy the EXJS firmware and browser firmware on the same SD card.

D148/D149/D150:



d1463065

D146/D147:



9. Wait until the update screen starts.
10. When the update screen is displayed, select [Browser], and press the [Update (#)] button.
11. 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.

12. Put the SD card containing the firmware to update with in SD card slot 2, and switch on the power.

Note

- This SD card should contain the EXJS firmware only. Never copy the browser firmware and EXJS firmware on the same SD card.

13. Switch the power ON.
14. Press the [User Tools/Counter] key.
15. Press the [Extended Feature Settings] button.
16. Press the [Extended Feature Settings] button on the [Extended Feature Settings Menu] screen.
17. Press the [Install] tab.
18. Press [SD card], and select "Extended JS" from the list of extension functions.
19. Select [Machine HDD] 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 [User Tools/Counter] key.
27. Press the [Extended Feature Settings] button.
28. Press the [Extended Feature Settings] button on the [Extended Feature Settings Menu] screen.
29. Check the version of [Extended JS] on the "Startup settings tab" is the latest version.

↓ Note

- If you do not plan to update Extension JavaScript, return the controller cover to the original position after performing Step 11.

When checking the version of EXJS

1. Switch the power ON.
2. Press the [User Tools/Counter] key.
3. Press the [Extended Feature Settings] button.
4. Press the [Extended Feature Settings] button on the [Extended Feature Settings Menu] screen.
5. Check the version of [Extended JS] on the "Startup Settings" is the latest version.

↓ Note

- If you do not follow the above procedure for the checking the EXJS firmware version, displayed firmware version may differ from the installed firmware version..

Browser unit uninstallation procedure

EXJS uninstallation procedure

1. Switch the power ON.
2. Press the [User Tools/Counter] key.
3. Press the [Login/Logout] key, and log in with an administrator account (login user name, login password).

4. Press [Extended Feature Settings], and when the screen changes, press [Extended Feature Settings] again.
5. Press [Uninstall]
6. When [Extended JS] 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 [User Tools/Counter] settings, and switch OFF the power.

Note

- Uninstall is completed only by removing the SD card.

Settings

Browser default setting

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

1. Switch ON the power.
2. Press the [User Tools/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.

SD card for NetWare printing Type M4/M3

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

2

Accessory Check

No.	Description	Q'ty
1	SD Card	1



d595i900b

Installation procedure

1. SD card slot covers [A] [B] (✂×1)

D148/D149/D150:



d1463064

D146/D147:



d1467101

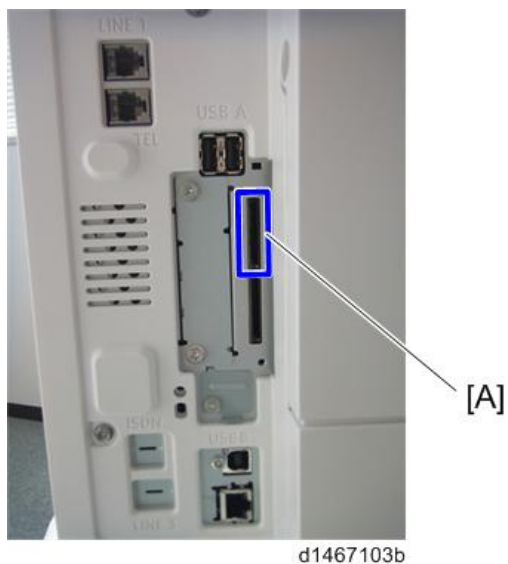
2. Put the SD card for NetWare printing in SD card slot 1 [A].

D148/D149/D150:



d1463065b

D146/D147:

**Note**

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

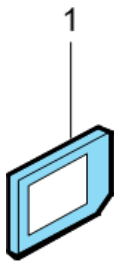
3. Switch the power ON.
4. Attach the SD card slot cover. (ⓘ ×1)
5. After switching the power ON, check that the system settings list is output, and that the option is recognized correctly.

PS3 Card Type M4/M3

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

Accessory Check

No.	Description	Q'ty
1	SD Card	1



d595i900b

Installation procedure

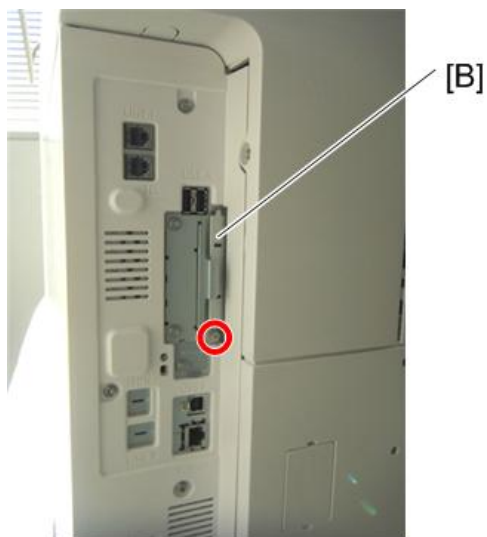
1. SD card slot covers [A] [B](x1)

D148/D149/D150:



d1463064

D146/D147:



d1467101

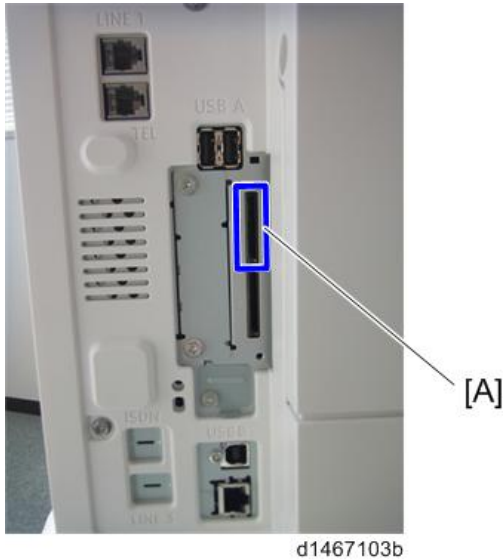
2. Insert the PS3 SD card in SD card slot 1 [A].

D148/D149/D150:



d1463065b

D146/D147:



↓ **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.

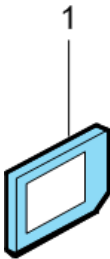
Camera Direct Print Card Type M4/M3

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

2

Accessory Check

No.	Description	Q'ty
1	SD Card	1



d595i900b

Installation procedure

1. SD card slot covers [A] [B] (各×1)

D148/D149/D150:



d1463064

D146/D147:



d1467101

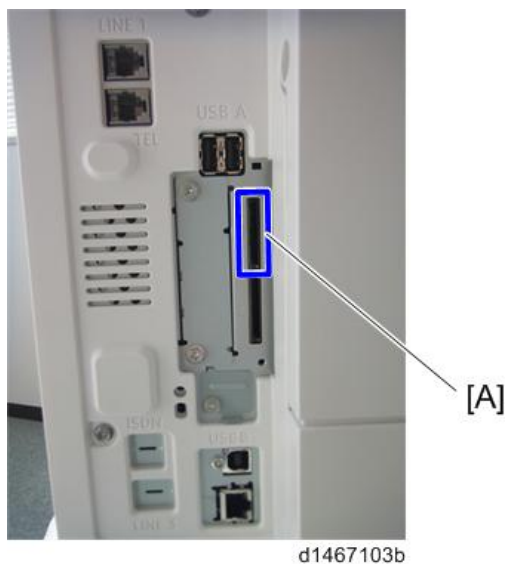
2. Put the camera direct print card in SD card slot 1 [A].

D148/D149/D150:



d1463065b

D146/D147:

**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.

Color Controller Connection Board Type M4/M3

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

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.

Anti-Condensation Heater

⚠ CAUTION

- Unplug the machine power cord before starting the following procedure.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

Anti-Condensation Heater (Scanner)

⬇ Note

- This option is provided as a service part.
- If you want to install Anti-Condensation Heater (Scanner), heater for scanner and electrical part should be ordered.

Accessory Check

< Heater for scanner >

Description	Q'ty
SCREW:M3X3	2
HEATER:230V:9W	1
BRACKET:DEHUMIDIFIER:HEATER	1

< Electrical part >

Description	Q'ty
TAPPING SCREW:3X6	3
CLAMP:LWSM-0605A	4
PCB:DHB	1
HARNESS:SCANNER:PCU:HEATER:EXP	1
HARNESS:DC:HEATER:DHB	1
HARNESS:AC:HEATER:DHB:EU	1

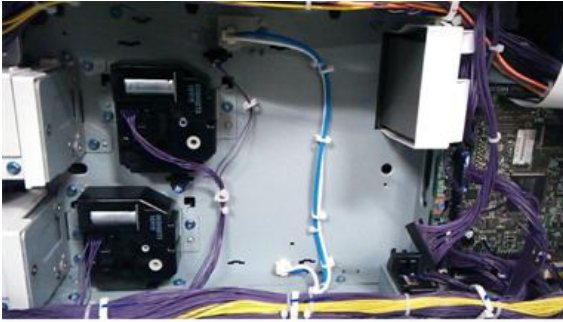
RTB 137
New information

RTB 157
RTB 158
Updated

RTB 137
This section
was modified

Installation procedure

1. Remove the power supply box (page 567).
2. Remove the HVP-CB unit (page 568).
3. Route the combined Blue/White harness.



d146f002

Note

- The harness will connect to the relay unit. See the details in step 5.

4. Re-install the HVP-CB unit and power supply box.
5. Secure the relay board to the main machine and connect the Blue/White harness to the socket on the board (⚙️ × 2).

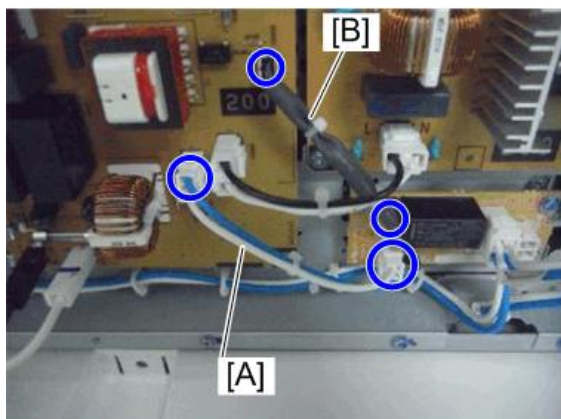


d146f003

6. Connect the harnesses on the relay board to the sockets on the PSU.

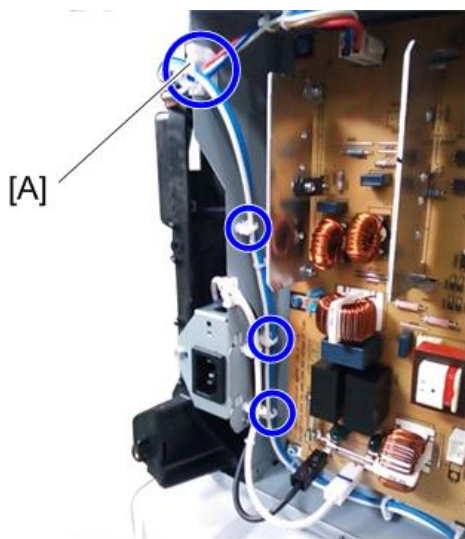
Note

- Two types of harnesses are packed with the heater. Both the Blue/White one [A] and the Gray one [B] must be connected as below.



d146f001

7. Route the harness around the outside of the PSU and pull the harness out of the electrical box through the hole [A] (Fig. 4).



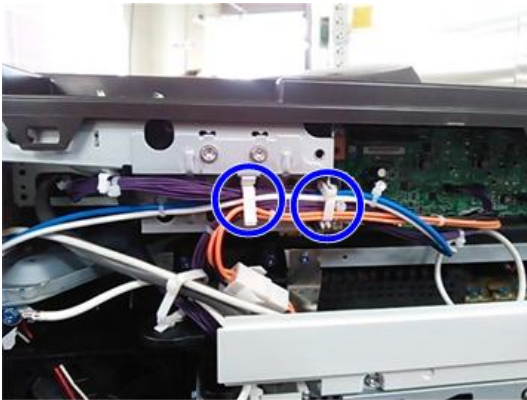
d1463036

8. Route the harness in the direction of the scanner (🖨️ x 5).



d1463037

9. Route the harness in the rear side of the scanner.



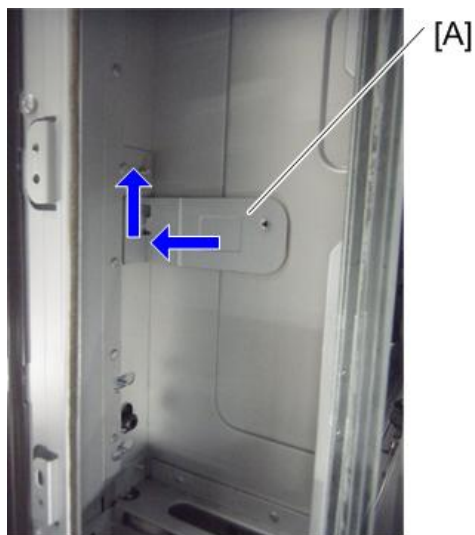
d1463038

⬇️ Note

- Do not connect the harness at this time. It will be connected in a later procedure.

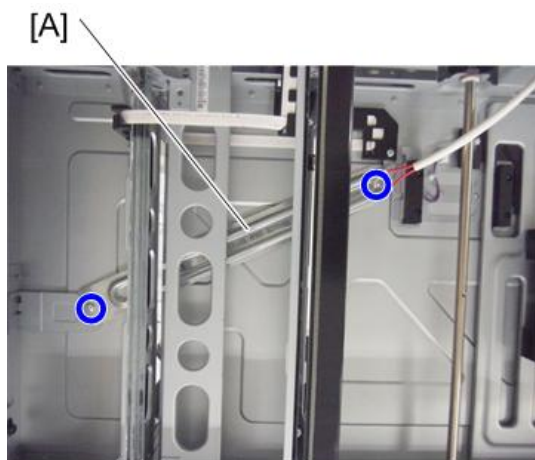
10. Rear right cover (page 367).
11. Scanner rear cover (page 386).
12. Exposure Glass (page 388).
13. Move the carriage to the center.

14. Attach the bracket [A] to the left side of the scanner.



d1463039

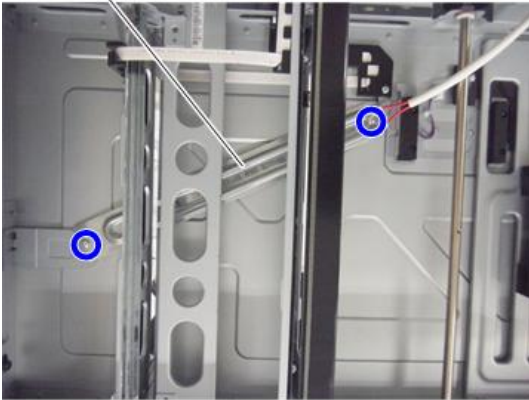
15. Install the scanner heater [A] (2 × 2).



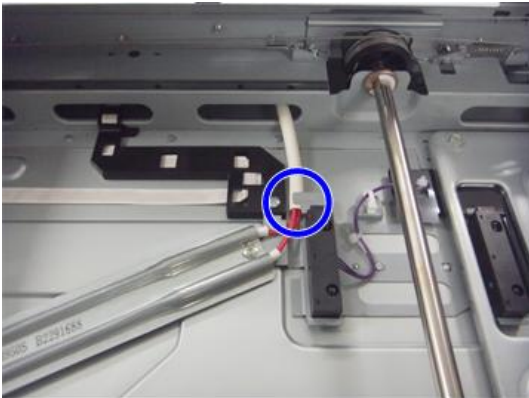
d1463040

16. Route the harness while inserting into the claw.

[A]



d1463040



d1463041

17. Pull the harness out of the frame hole.



d1463042

18. Connect the harness with the other harness shown in step 9.



d1463043

19. Reattach all the removed covers.

Anti-Condensation Heater (PCDU)

Note

- This option is provided as a service part.
- If you want to install Anti-Condensation Heater (PCDU), heater for PCDU and electrical part should be ordered.

RTB 137, p4
New information

Accessory Check

< Heater for PCDU >

Description	Q'ty
TAPPING SCREW:WASHER:3X8	1
HEATER:PHOTOCONDUCTOR:EU:ADHESION	1
DECAL:H-TEMP WARNING:HEATER:OPTION	1

< Electrical part >

Description	Q'ty
TAPPING SCREW:3X6	3
CLAMP:LWSM-0605A	4

RTB 137, p5
Tables
modified

Description	Q'ty
PCB:DHB	1
HARNESS:SCANNER:PCU:HEATER:EXP	1
HARNESS:DC:HEATER:DHB	1
HARNESS:AC:HEATER:DHB:EU	1

Installation procedure

1. Remove the power supply box (page 567).
2. Remove the HVP-CB unit (page 568).
3. Route the combined Blue/White harness.



d146f002

Note

- The harness will connect to the relay unit. See the details in step 5.

4. Re-install the HVP-CB unit and power supply box.

5. Secure the relay board to the main machine and connect the Blue/White harness to the socket on the board (2).

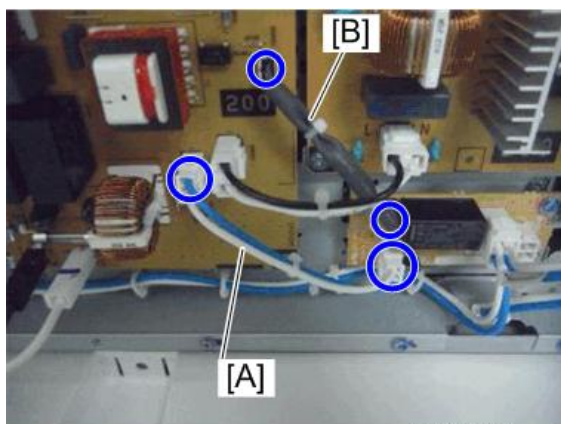


d146f003

6. Connect the harnesses on the relay board to the sockets on the PSU.

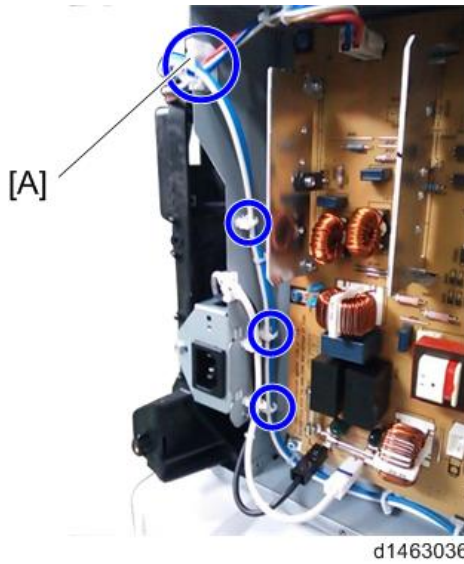
Note

- Two types of harnesses are packed with the heater. Both the Blue/White one [A] and the Gray one [B] must be connected as below.



d146f001

7. Route the harness around the outside of the PSU and pull the harness out of the electrical box through the hole [A] (🔧 x 4).



8. Route the harness in the direction of the scanner (🔧 x 5).



9. Route the harness in the rear side of the scanner.



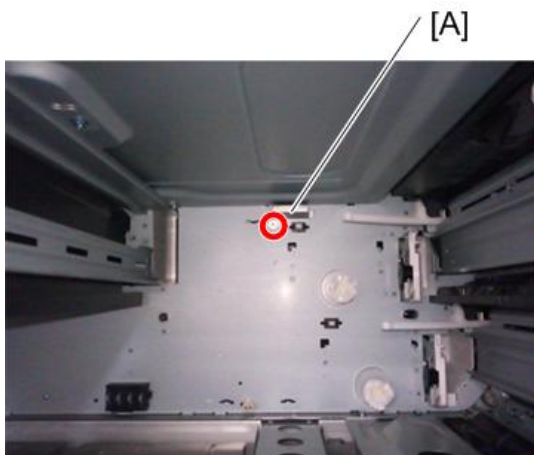
d1463038

Note

- Do not connect the harness at this time. It will be connected in a later procedure.

10. Remove Feed Trays 1 and 2.

11. The connector cover located inside the machine [A] (⌀ × 1).



d1463044

12. Temporarily tighten a screw at the top.



d1463045

13. Install the heater [A] by connecting the connector to the inside of the machine, then tighten the screw completely.

Note

- Hold the heater against the inside during final tightening.



d1463046

14. Re-install the connector cover (1 × 1).
15. Reassemble the machine.

Anti-Condensation Heater for LCT

⚠ CAUTION

- Unplug the machine power cord before starting the following procedure.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

Connecting to Main Machine

Accessory Check

No.	Description	Q'ty
1	Tray heater	1
2	Tapping screw: M3 X 8	1
3	PCB: DHB	1
4	Harness for tray	1
5	Harness for DC	1
6	Harness for AC	1
7	Tapping screw: M3 X 6	3

Installation procedure

< Steps for heater attachment >

RTB 157
RTB 158
Parts lists

1. Remove trays 1 and 2 from the machine.



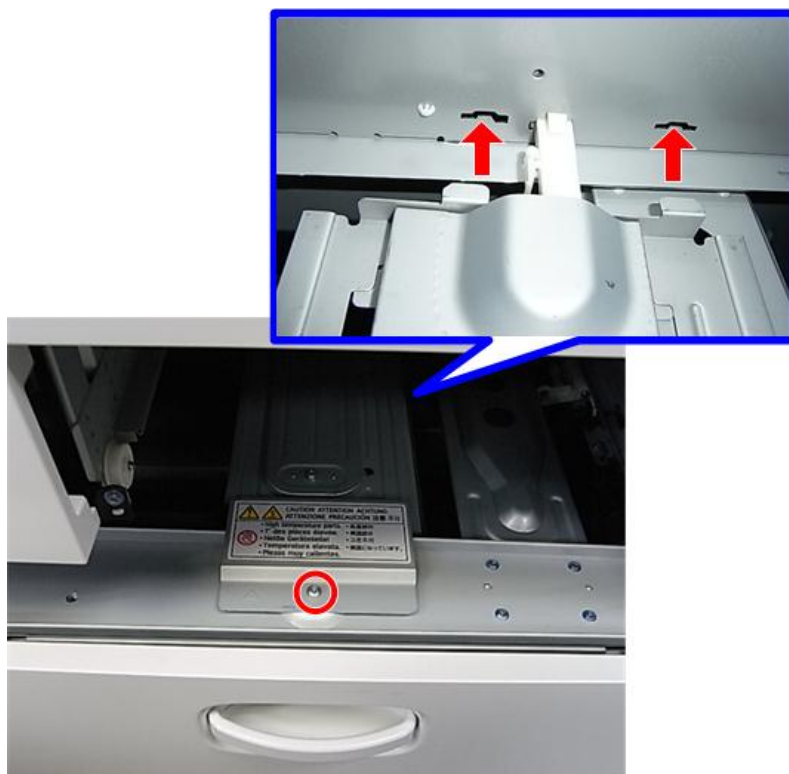
d146f102

2. Connect the connector of the heater to the connector of the main machine.



d146f103

3. Install the heater inside the machine (⚙ x 1).



d146f105

4. Reassemble the machine.

< Steps for PCB and harness attachment >

1. Remove the rear lower cover. (page 367)

2. Attach PCB: DHB(⚙ X 3)



d1469001

3. Connect the two harnesses between "PCB: DHB " and "PSU"



d1469002

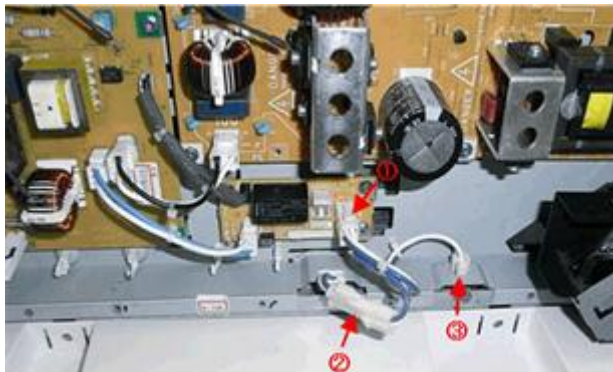
Note

- Red dashed circled cable is only white for NA, red for EU/AA



d1469007

4. Connect the connector 1.
5. Connect the connector 2 to the harness already attached.

6. Attach the connector 3 for optional paper bank.

d1469003

Note

- This cable is only white for NA/EU/AA.



d1469008

7. Remove the bracket (X 1) when additional heater is attached on optional paper bank.**Note**

- The removed bracket is not be used.



d1469004

Connecting to Paper Feed Unit PB3160 / LCIT RT PB3170

Accessory Check

No.	Description	Q'ty
1	Tray heater	1
2	Harness	1
3	Spring screw:M4 X 10	1

2

Installation procedure

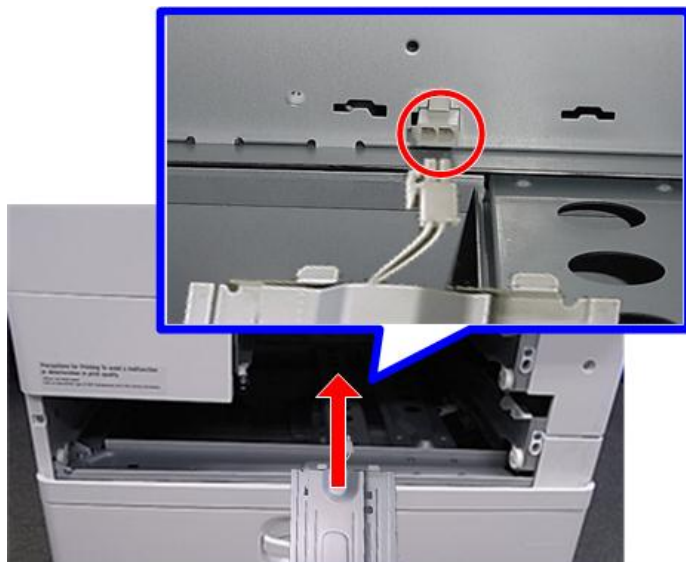
< Steps for heater attachment >

- 1. Remove trays from the machine.



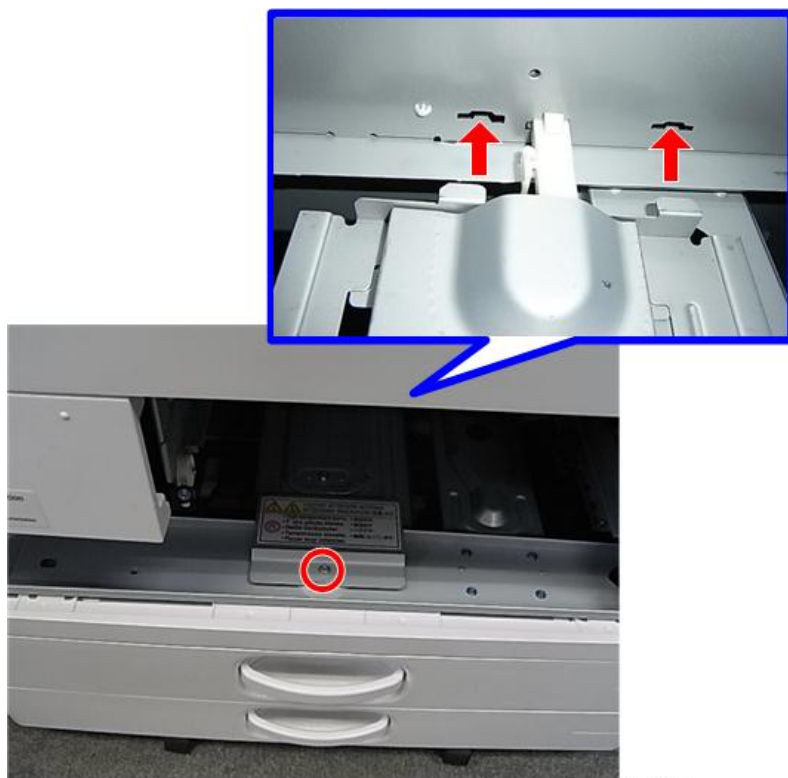
d146f107

2. Connect the connector of the heater to the connector of the main machine.



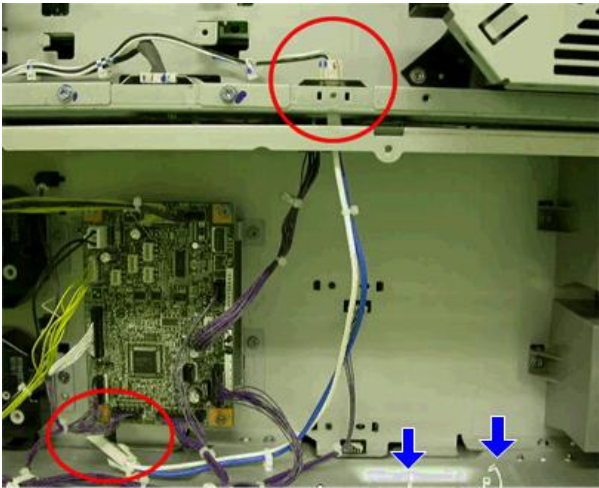
d146f108

3. Install the heater inside the machine (⌀ x 1).



d146f109

- 4. Reassemble the machine.
- 5. Rear cover (page 114)(page 122)
- 6. Release clamps and connect the harness to these two points. (1x2)



- 7. Reassemble the machine.
- 8. Power on the main switch.
- 9. Turn on the heater switch.

Note

- To keep the heater on all the time, modify SP5-805-01 (Anti-Condensation Heater) to [1].

Connecting to Paper Feed Unit PB3150

Accessory Check

No.	Description	Q'ty
1	Tray heater	1
2	Harness	1
3	Spring screw:M4 X 10	1

Installation procedure

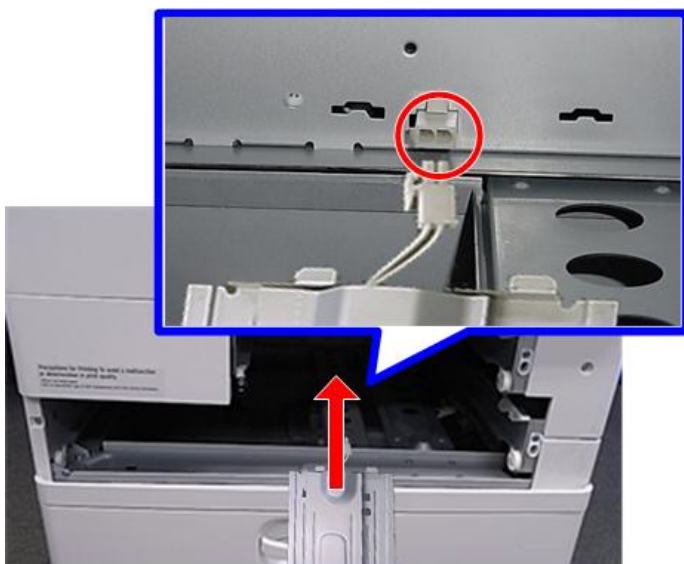
< Steps for heater attachment >

1. Remove trays from the machine.



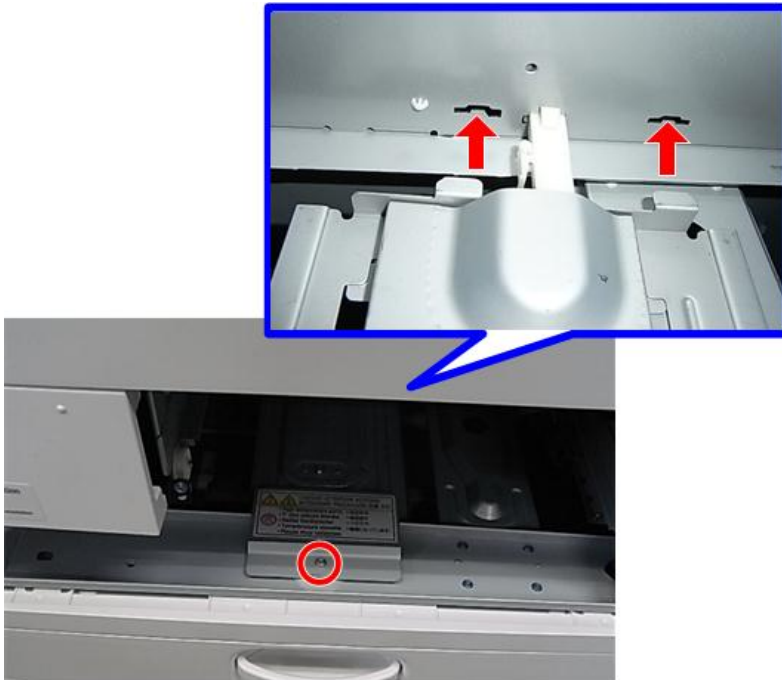
d146f110

2. Connect the connector of the heater to the connector of the main machine.



d146f108

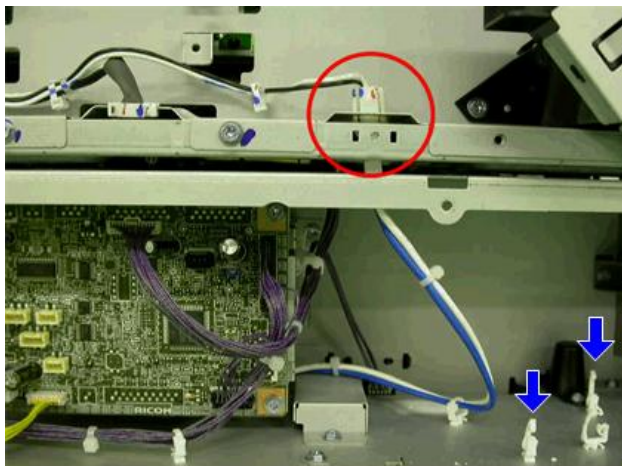
3. Install the heater inside the machine (1 x 1).



d146f112

4. Reassemble the machine.
5. Rear cover (Paper Feed Unit PB3150)
6. Controller board (Paper Feed Unit PB3150)
7. Connect the harness.
8. Reattach the controller board.

9. Release clamps and connect the harness. (🖨️ x 2)



d146f101

10. Reassemble the machine.
11. Power on the main switch.
12. Turn on the heater switch.

⬇️ Note

- To keep the heater on all the time, modify SP5-805-01 (Anti-Condensation Heater) to [1].

3. Preventive Maintenance

PM Parts Settings

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.

3

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: 3701-072 Cyan: 3701-026 Magenta: 3701-049
PCU	Black: 3701-002 Yellow: 3701-071 Cyan: 3701-025 Magenta: 3701-048
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

Item	SP
PTR Unit	3701-109
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.

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.

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.

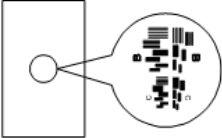
3

Operation check

Check if the sample image has been copied normally.

Image Quality Standards

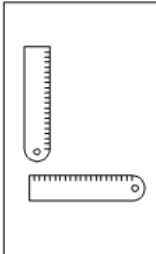
Resolution

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.
Copy (Reduction), Black and White (1C)	Min 4.5×M lines/mm or more	DF: S-5Y (revised)	 d1354027

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.

Magnification ratio error margin

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

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.

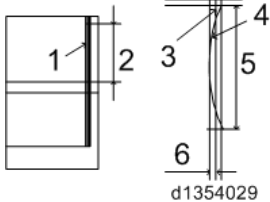
Pitch error margin

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.

Perpendicularity

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	$\pm 1.25\text{mm}/200\text{mm}$ or less ($90^\circ \pm 0.35^\circ$)	Mono_CCD	Measure with the full length and width of the image.
Copy (100%), Black and White (1C)	$\pm 1.75\text{mm}/200\text{mm}$ or less ($90^\circ \pm 0.5^\circ$)	Scale chart	

Linearity

Item	Specification	Chart	Measuring method
Engine, Black and White(1C)	$\pm 0.20\text{mm}/100\text{mm}$ or less	Mono_CCD	Measure with the full length and width of the image.
Copy, Black and White (1C)	$\pm 0.50\text{mm}/100\text{mm}$ or less	Scale chart	 <ul style="list-style-type: none">1. Inner line2. 100mm3. Base line4. Copy5. 100mm6. 0.5mm

Parallelism

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

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)		

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		

Paper Transfer Quality Standards

Registration

Item	Specification	Note
Simplex (1 st print side), 100% or reduction	0±2mm (Vertically and horizontally)	
Simplex (1 st 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

Skew

Exposure glass

Item	Specification	Note
1 st side, Less than B5 SEF	±1.3mm/100mm or less	
1 st 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
1 st side, Less than B5 SEF	±2.0mm/100mm or less	
1 st side, B5 SEF or more	±1.5mm/100mm or less	
2nd side, All size	±2.5mm/100mm or less	

4. Replacement and Adjustment

Notes on the Main Power Switch

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.

4

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.



⚠ 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.

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.

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.

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

Front Cover

1. Open the front cover [A].

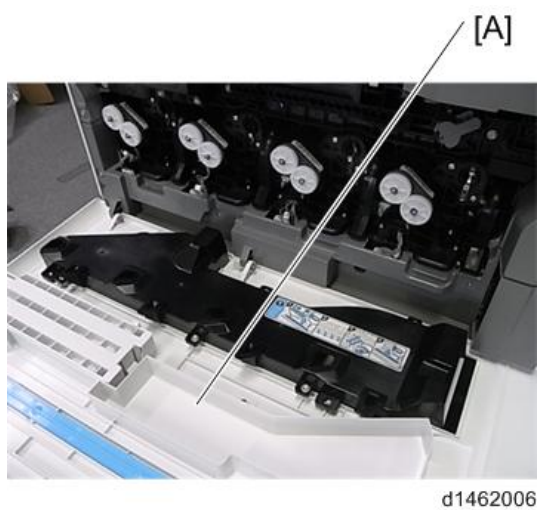


d1462004

2. Belt [A]

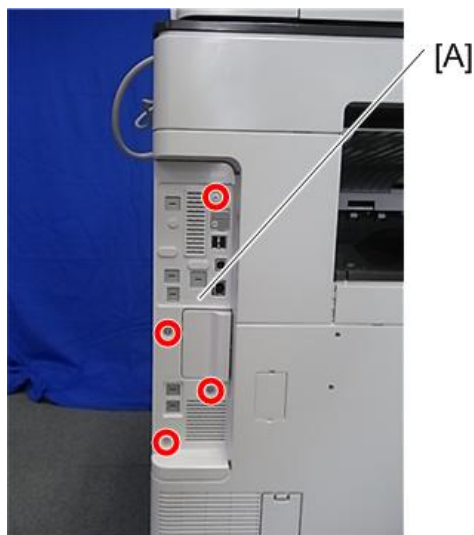


3. Front cover [A]



Controller Cover

1. Controller cover [A] (8×4)

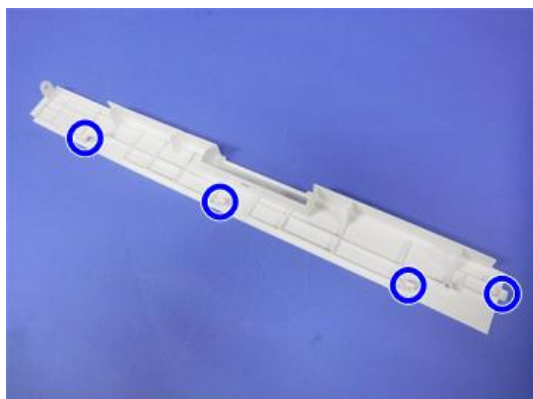


d1462007

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 360 "Front Cover")
2. Paper exit tray (page 372 "Paper Exit Tray")

3. Upper left cover [A] (1×1)

Slide the cover in the direction of the blue arrow.



d1462008

4

Left Rear Cover

1. Upper left cover (page 362 "Upper Left Cover")

2. Left Rear Cover [A] (1×2)

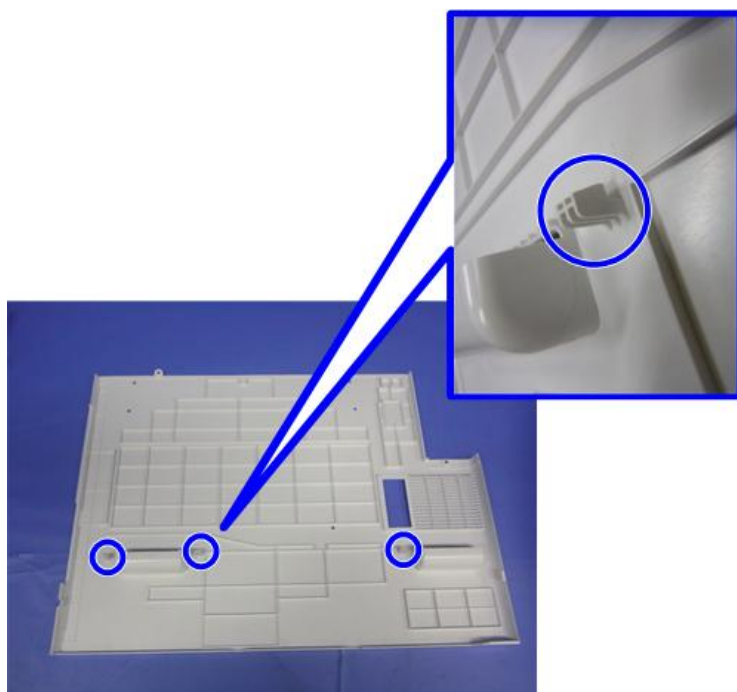


d1462010

Left Cover

⚠ CAUTION

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



d1462038

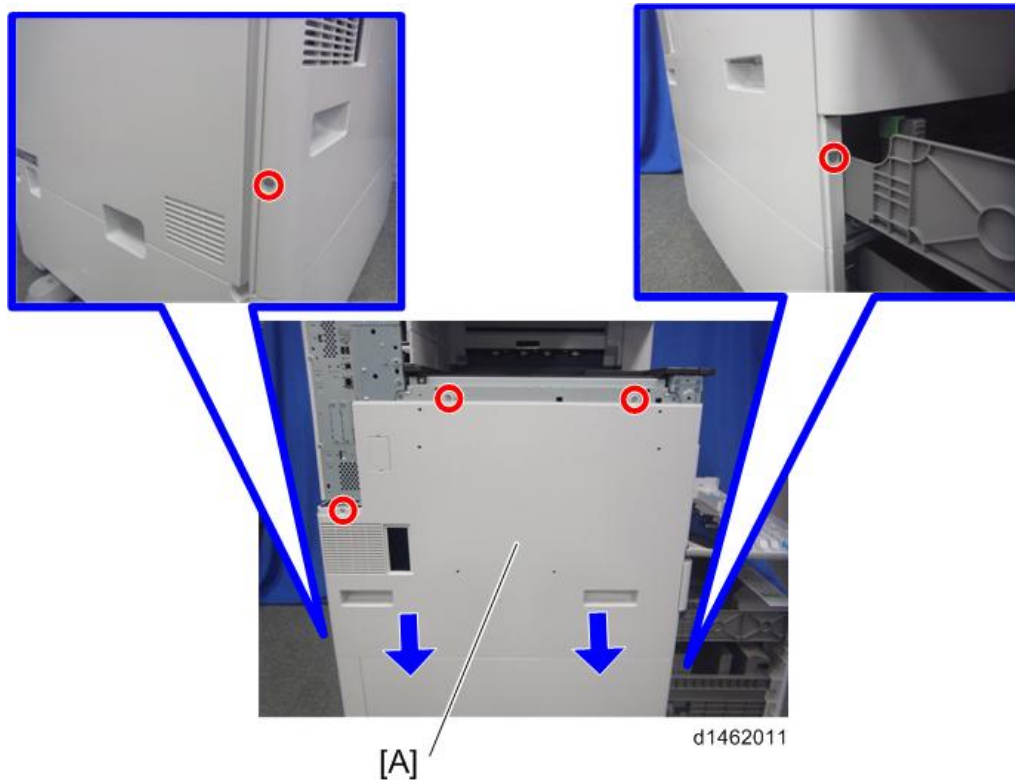
1. Controller cover (page 362 "Controller Cover")
2. Ozone filter/Dust-shield filter box (page 570 "Ozone filter/Dust filter")
3. Upper left cover (page 362 "Upper Left Cover")
4. Left rear cover (page 363 "Left Rear Cover")
5. Open the 2nd paper feed tray slightly.



d1462036

6. Left cover [A] (⚙️×5)

Remove it while pressing down.



Order to remove



1. Paper exit tray
2. Controller cover
3. Ozone filter/Dust-shield filter box
4. Front cover

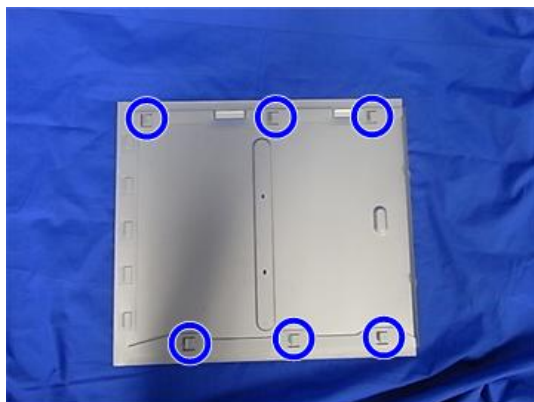
5. Upper left cover
6. Left rear cover
7. 2nd paper feed tray
8. Left cover

Rear Cover

CAUTION

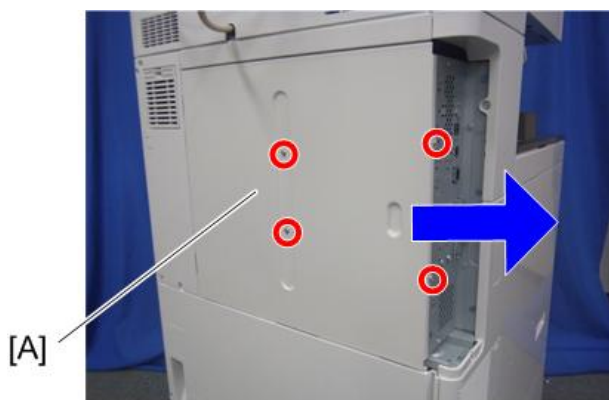
- There is a claw (left-facing) on the back face of the rear cover. When fitting or removing the cover, take care not to damage it.

4



d1462012

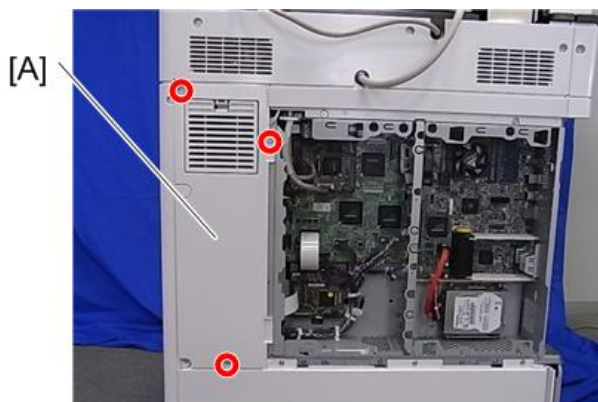
1. Controller cover (page 362 "Controller Cover")
2. Rear cover [A] ( ×4)



d1462013

Rear Right Cover

1. Rear cover (page 366 "Rear Cover")
2. Rear Right Cover [A] (⌀×3)

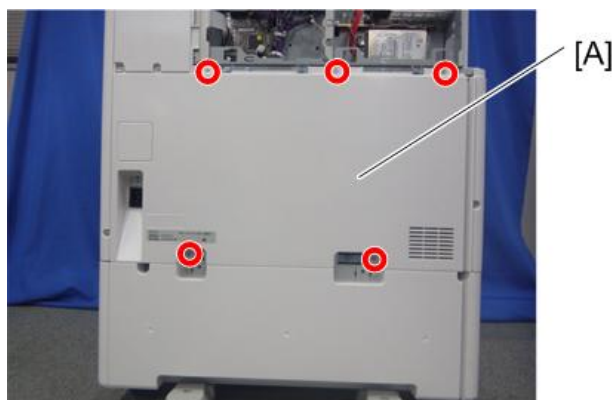


d1462014

4

Rear Lower Cover

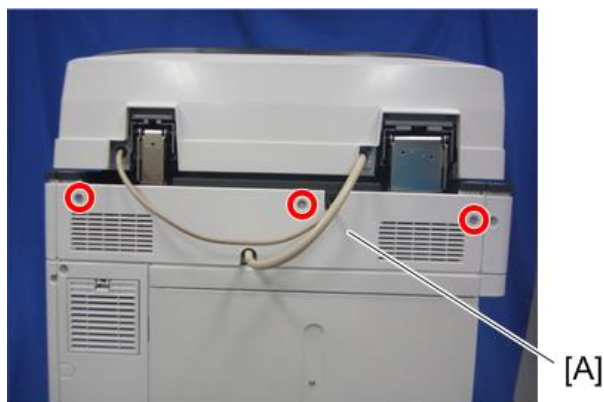
1. Rear cover (page 366 "Rear Cover")
2. Rear lower cover [A] (⌀×5)



d1462015

Scanner Rear Cover

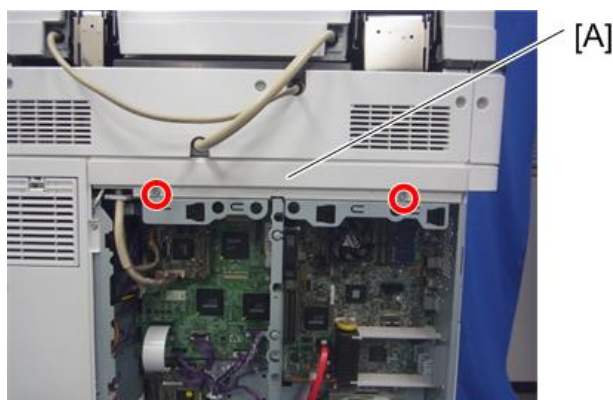
1. Scanner rear cover [A] (⌀×3)



d1462016

Scanner Rear Cover (Small)

1. Rear cover (page 366 "Rear Cover")
2. Scanner rear cover (Small) [A] (⌀×2)



d1462017

Right Rear Cover

1. Open the right cover. (page 539 "Duplex Unit")

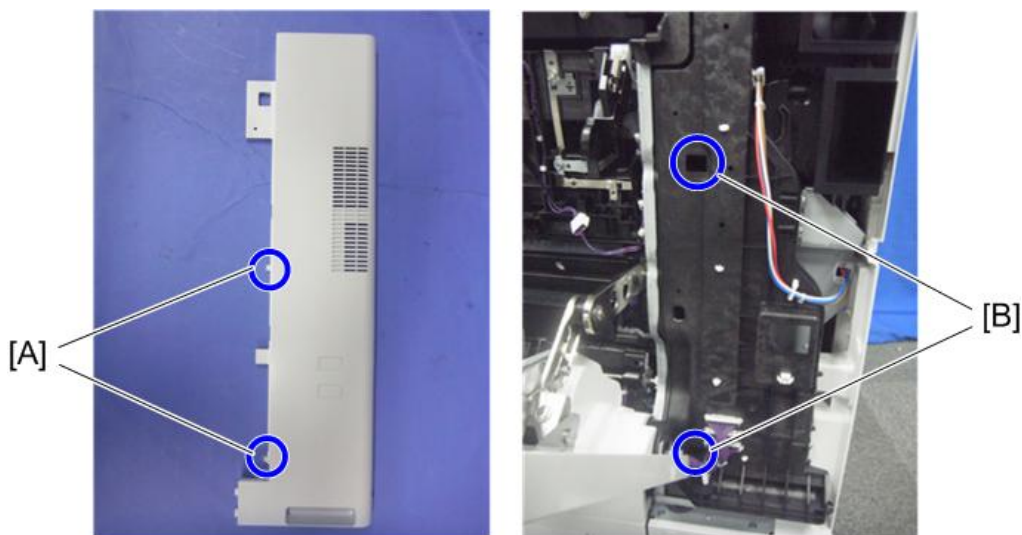
2. Right rear cover [A] (⚙️×4, Among them, tapping screw×1)



d1462019

↓ Note

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



d1462035

Right Upper Cover

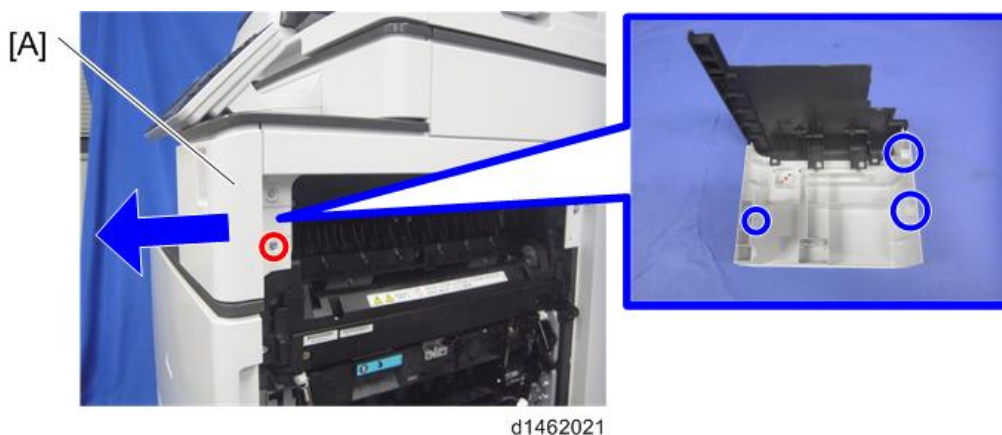
1. Main power switch cover (page 370 "Main power switch cover")

2. Right upper cover [A] (⚙️×2)



Main power switch cover

1. Open the right cover. (page 539 "Duplex Unit")
2. Main power switch cover [A] (⚙️×1)



Waste Toner Cover

1. Front cover (page 360 "Front Cover")

2. Waste Toner Cover [A]

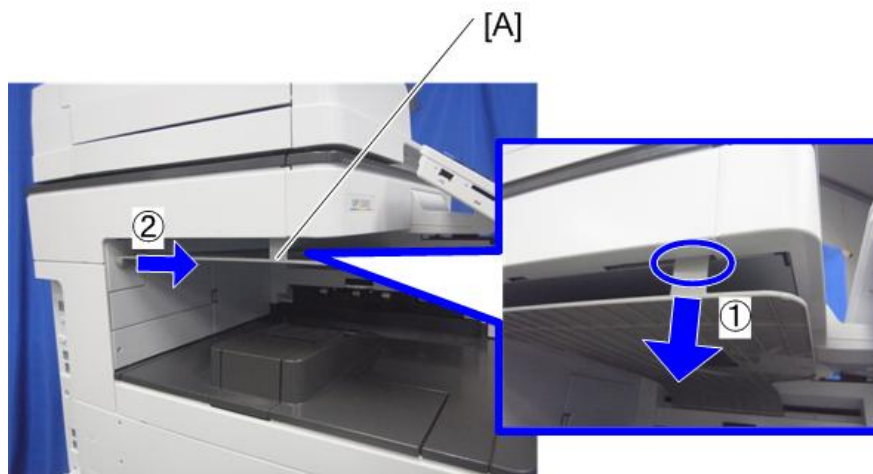


d1462022

4

Reverse Tray

1. Reverse Tray [A]



d1462037

Paper Exit Tray

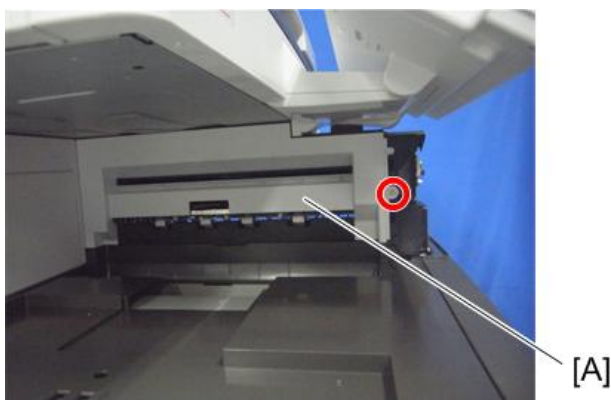
1. Paper Exit Tray [A]



d1462023

Paper Exit Cover

1. Main power switch cover (page 370 "Main power switch cover")
2. Paper exit tray (page 372 "Paper Exit Tray")
3. Reverse Tray (page 371 "Reverse Tray")
4. Paper exit cover [A] (🔧×1)



d1462024

Paper Exit Lower Cover

1. Left rear cover (page 363 "Left Rear Cover")

2. Paper exit cover (page 372 "Paper Exit Cover")

3. Connector cover [A].



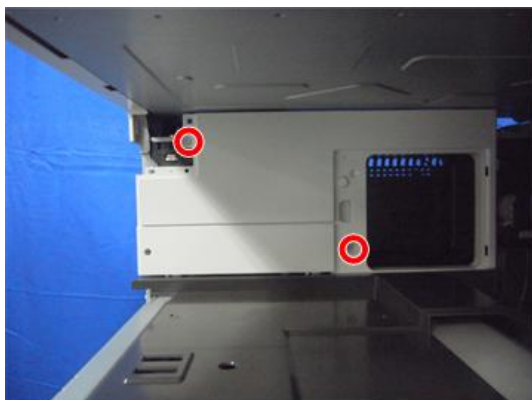
d1462090

4. Upper rear small cover [A].



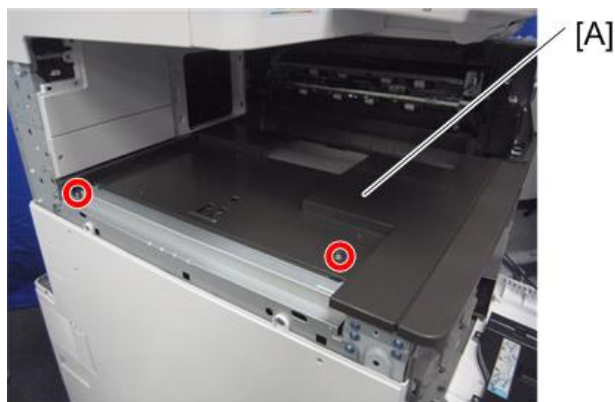
d1462091

5. 2 screws



d1462092

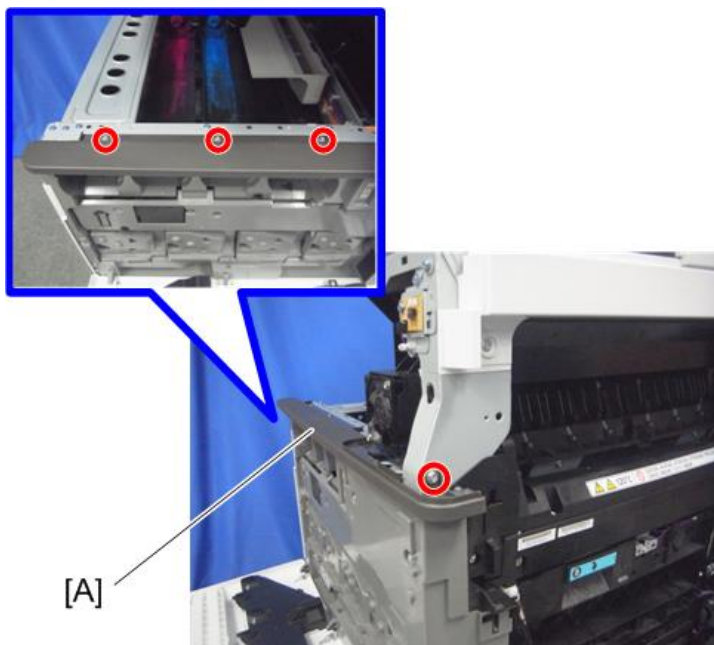
6. Paper exit lower cover [A] (⚙️×2)



d1462093

Paper Exit Front Cover

1. Paper exit lower cover (page 372 "Paper Exit Lower Cover")
2. Paper exit front cover [A] (⚙️×4)



d1462027

Inner Upper Cover

1. Open the front cover, and remove the belt. (page 360 "Front Cover")
2. Open the right cover. (page 539 "Duplex Unit")
3. Paper exit front cover (page 374 "Paper Exit Front Cover")
4. Image transfer unit (page 445 "Image Transfer Unit")
5. Inner upper cover [A] (⚙️×3)

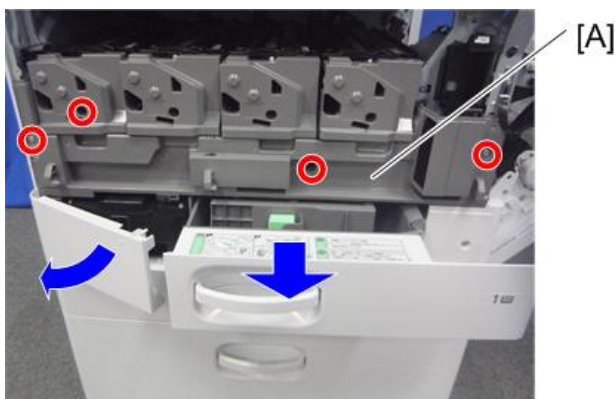


d1462028

4

Inner Lower Cover

1. Front cover (page 360 "Front Cover")
2. Inner upper cover (page 375 "Inner Upper Cover")
3. PCPU front cover (Y) (page 434 "PCPU")
4. Inner lower cover [A] (⚙️×4)

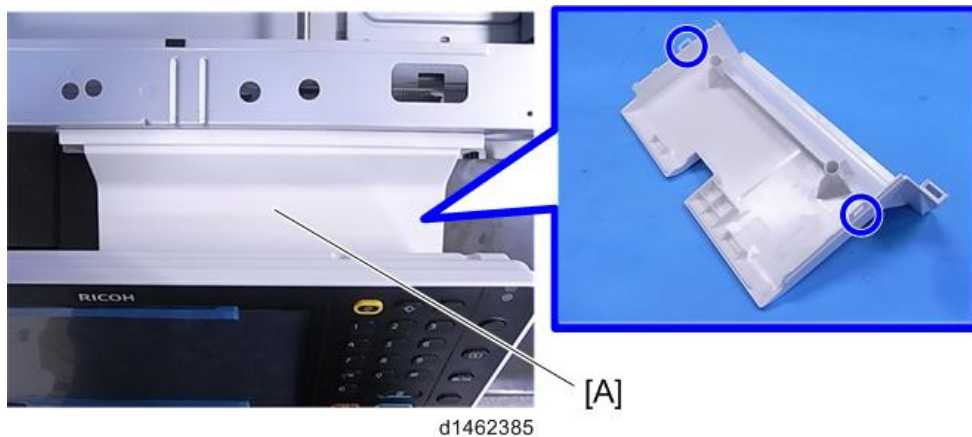


d1462029

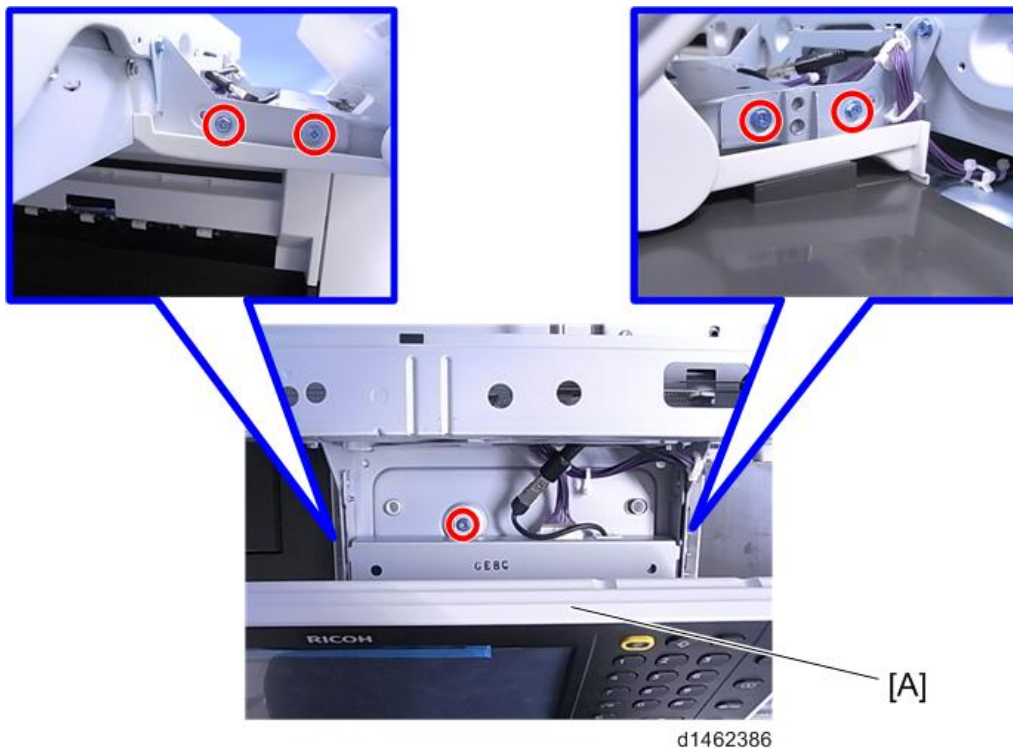
Controller Unit

Operation Panel

1. Scanner front cover (page 387 "Scanner Front Cover")
2. Operation panel upper cover [A]



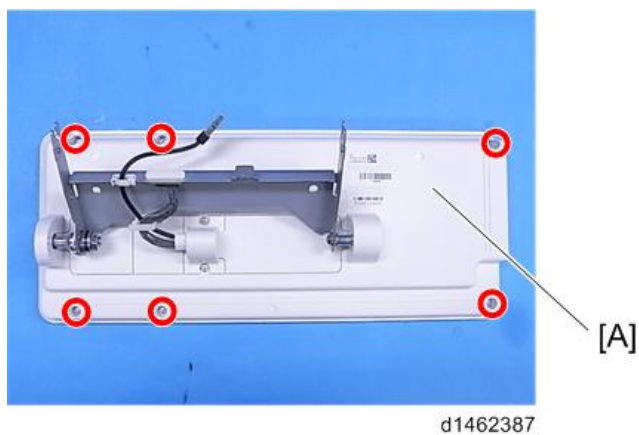
3. Operation panel [A] (⌀×5, ⌀×2)



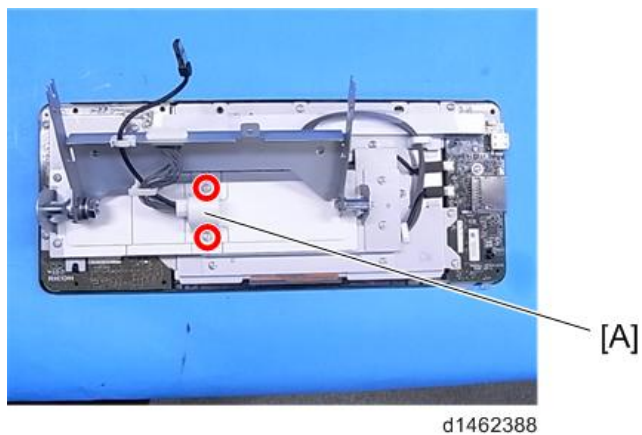
4

Board A

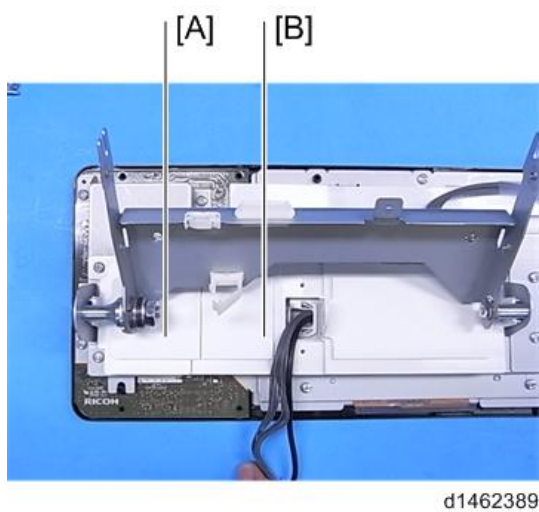
1. Operation panel (page 376 "Operation Panel")
2. Operation panel lower cover [A] (⌀×6)



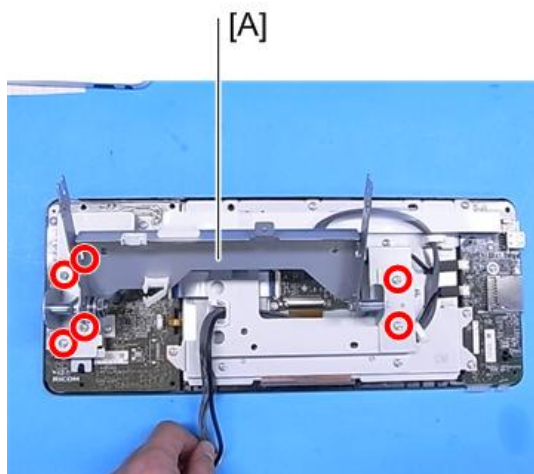
3. Harness guide [A] (2)



4. Bracket covers [A] [B]

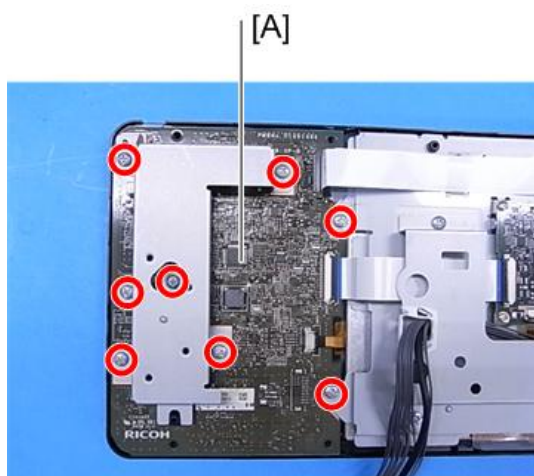


5. Operation panel arm bracket [A] (⌀×6)



d1462390

6. Board A [A] (⌀×8, ⌀×3)

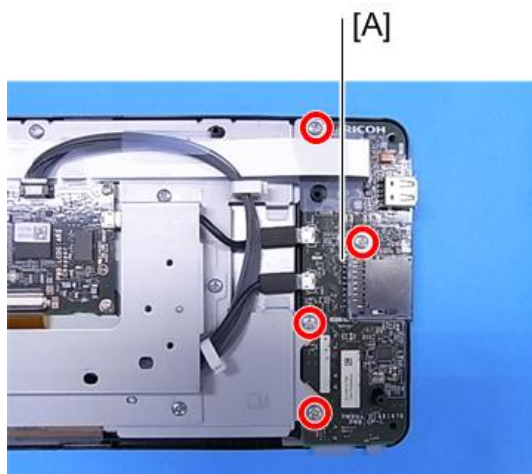


d1462391

Board B

1. Operation panel arm bracket (page 376 "Operation Panel")

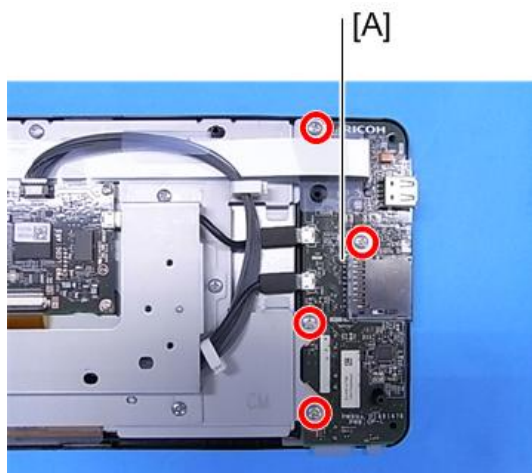
2. Board B [A] (⚙️×4, 📶×1, USB×2)



d1462392

Board C

1. Operation panel arm bracket (page 376 "Operation Panel")
2. Board C [A] (⚙️×4, 📶×1, USB×2)

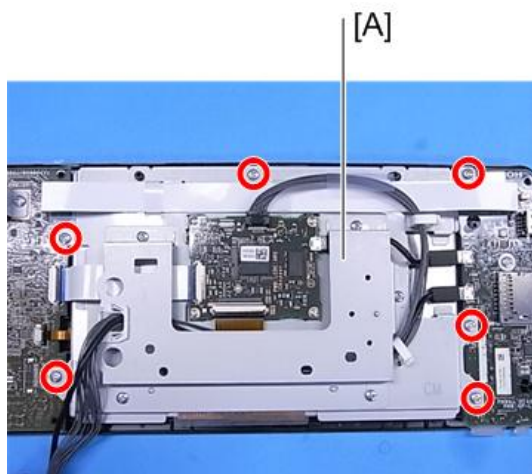


d1462392

LCD Panel

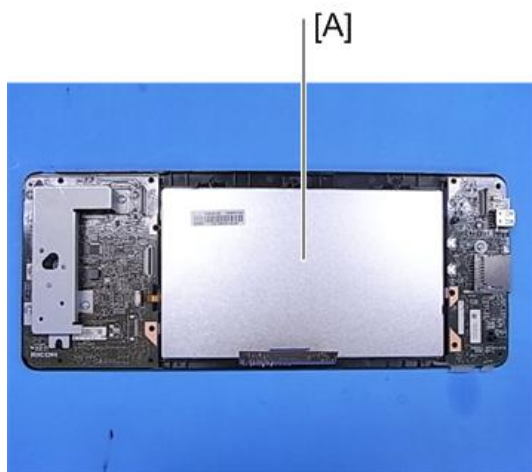
1. Operation panel arm bracket (page 376 "Operation Panel")

2. Bracket [A] (⚙️×6, 📶×5, USB×2)



d1462394

3. LCD panel unit [A]



d1462395

LCD

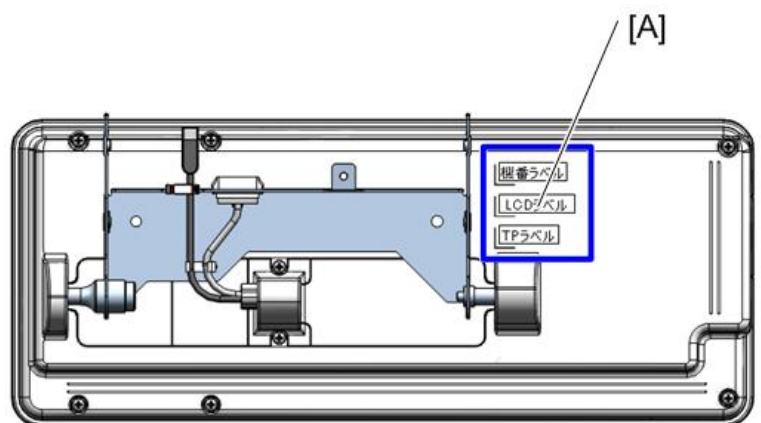
Notes when replacing the LCD

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



[A]



[B]

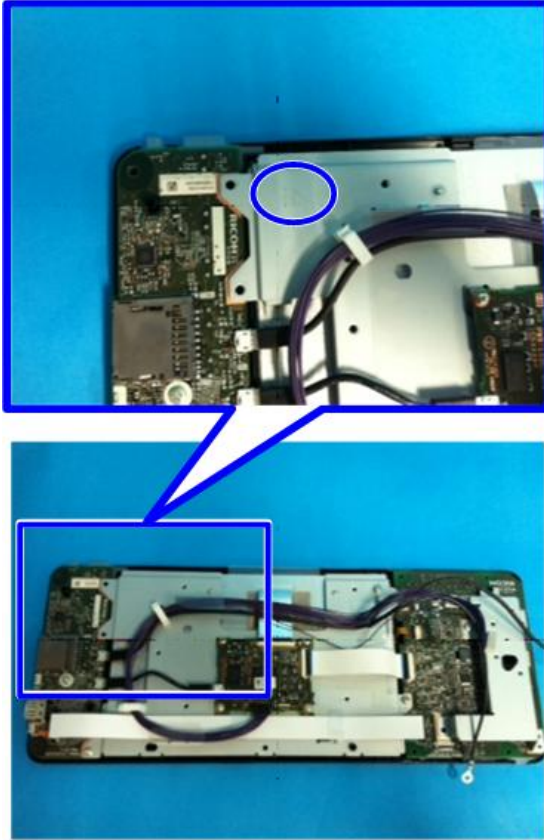
d1462397

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

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

Differences between operation panels from 2 vendors

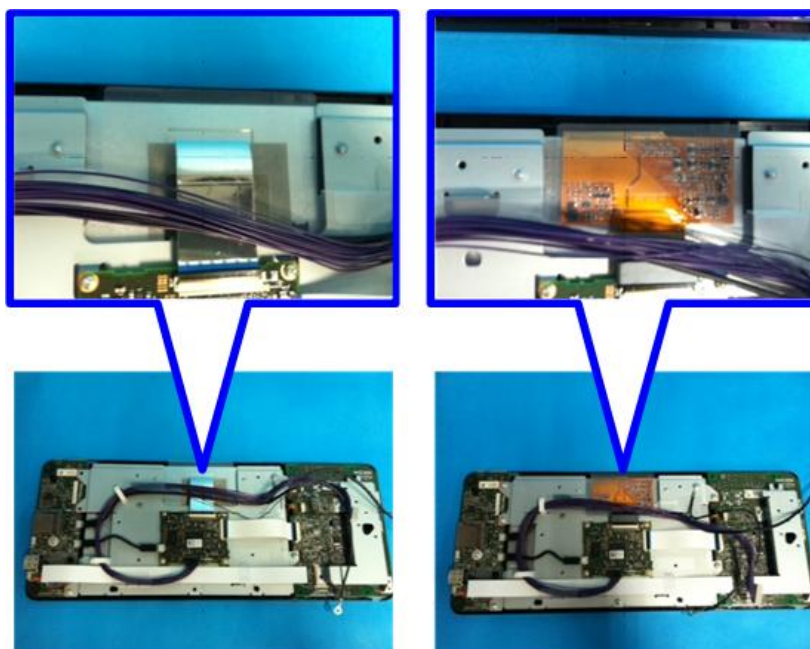
- Operation panel upper cover
There is no difference in appearance, but there is a difference in internal layout.
- LCD bracket
There is a difference in the shape of the bracket and the stamp inside the blue circle.
S Co.: S stamp
C Co.: CM stamp



d1462398

- Use of FFC (Flexible Flat Cable)

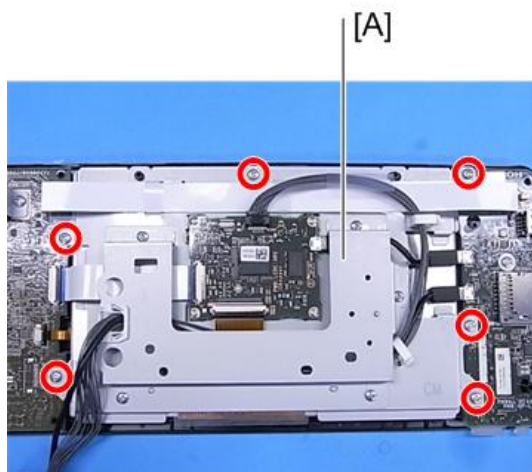
For S Co., FFC is used, but for C Co., instead of an FFC, a cable integrated with the LCD (orange) is used.



d1462399

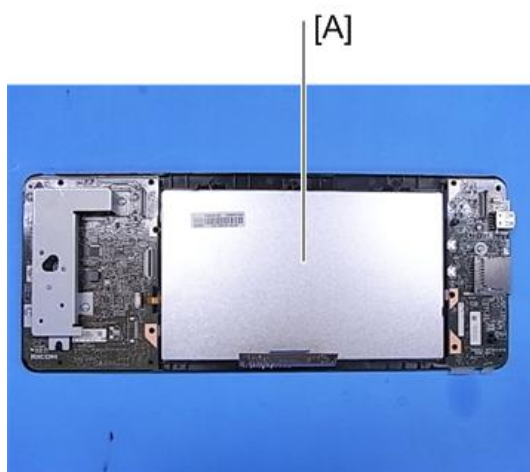
Replacement procedure

1. Operation panel arm bracket (page 376 "Operation Panel")
2. Bracket [A] (⚙️×6, 📏×5, USB×2)



d1462394

3. LCD panel unit [A]



d1462395

Scanner Unit

Note

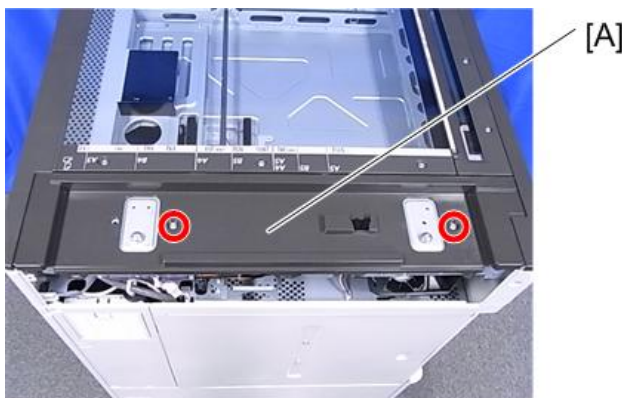
- When you replace the scanner wire, use the standard positioning pins.

Scanner Exterior

Scanner Upper Cover

4

1. Platen cover or ADF
2. Scanner rear cover (page 368 "Scanner Rear Cover")
3. Scanner Upper Cover [A] (⚙️×2)



d1462301

Scanner Right Cover

1. Scanner rear cover (page 368 "Scanner Rear Cover")

2. Scanner right cover [A] (⚙️×1)



4

Scanner Front Cover

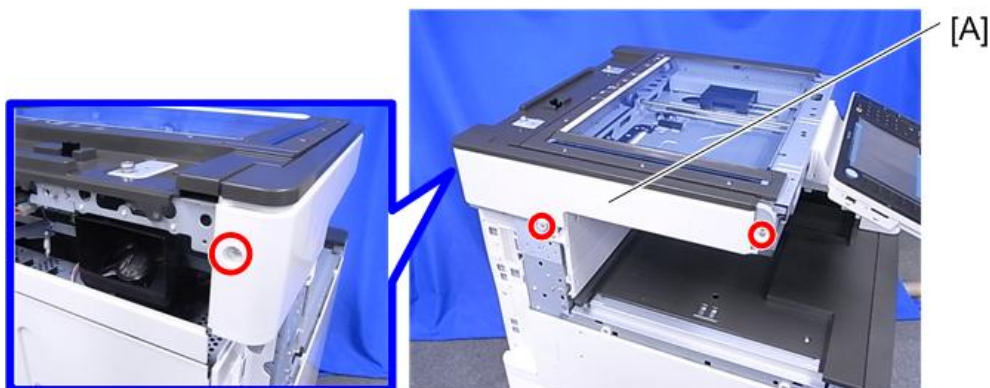
1. Scanner front cover [A] (⚙️×2)



Scanner Left Cover

1. Left rear cover (page 363 "Left Rear Cover")
2. Scanner front cover (page 387 "Scanner Front Cover")

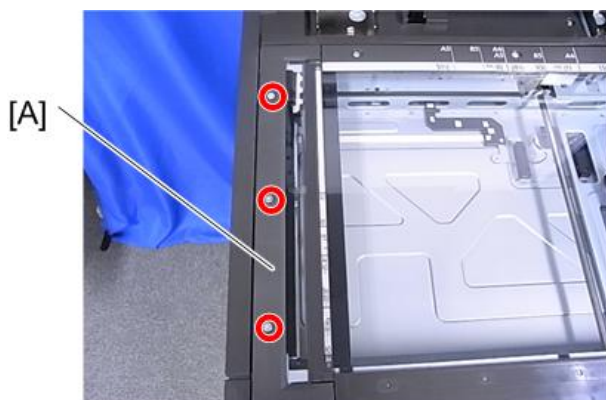
3. Scanner left cover [A] (⚙️×3)



d1462303

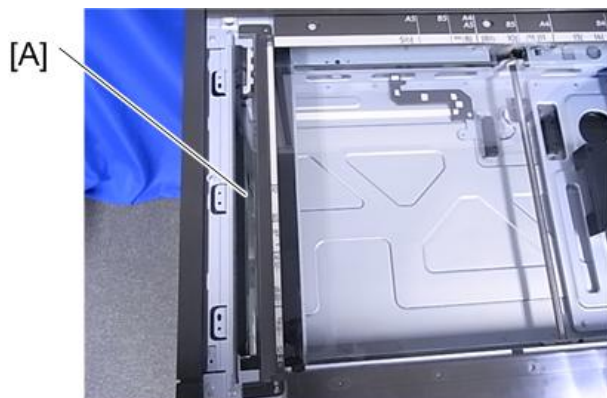
Exposure Glass

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



d1462304

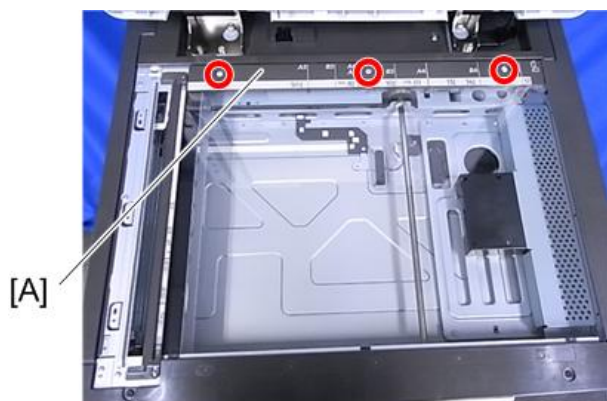
2. ADF exposure glass [A]



d1462305

4

3. Rear scale [A] (3x)

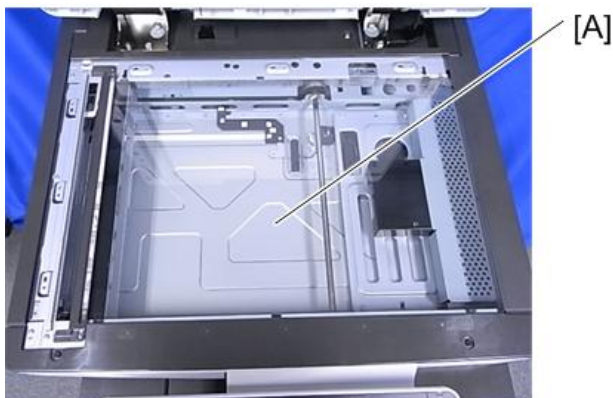


d1462306

4. Left scale and exposure glass [A]

CAUTION

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

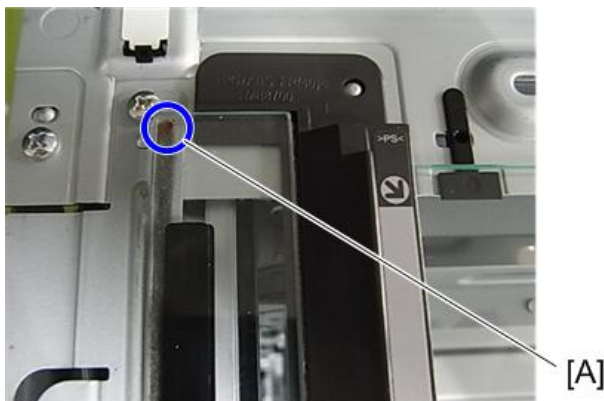


d1462307

4

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.

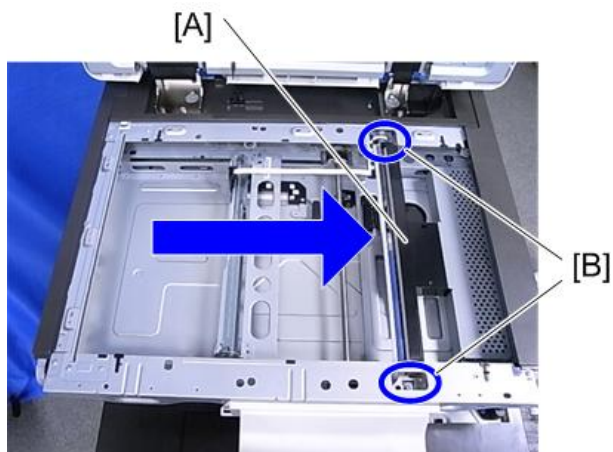


d1462308

Exposure Lamp (LED)

1. Exposure glass (page 388 "Exposure Glass")

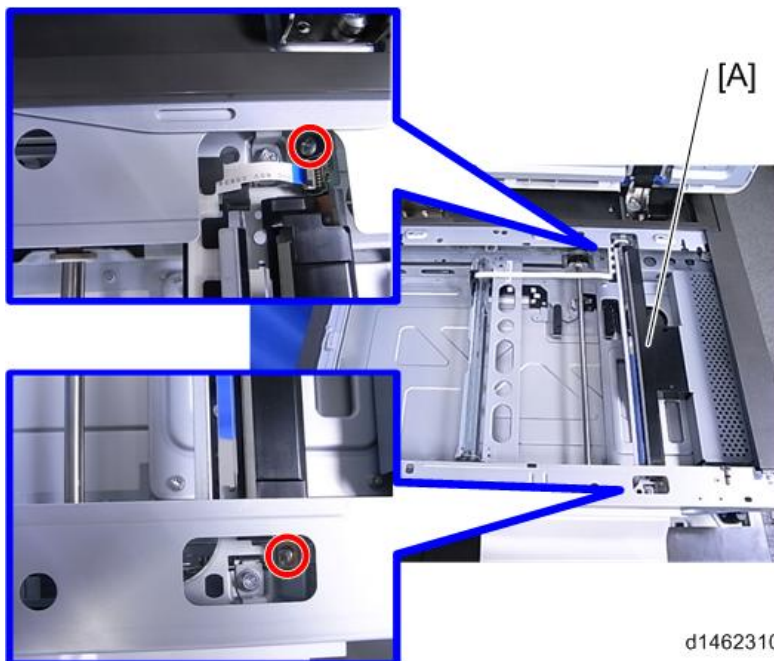
2. Move the exposure lamp (1st scanner carriage) [A] to position [B].



d1462309

4

3. Exposure lamp [A] (⚙️×2, 🛠️×1)



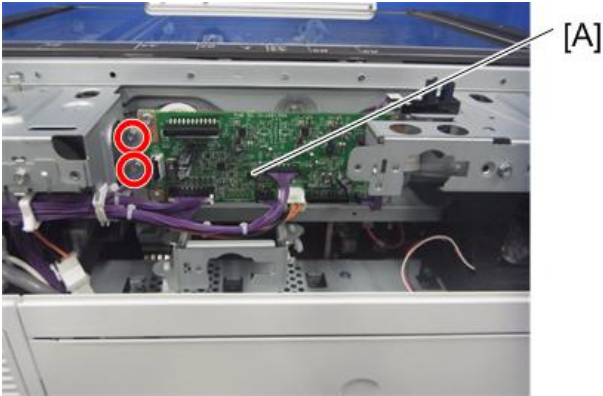
d1462310

Scanner Motor

1. Scanner upper cover (page 386 "Scanner Upper Cover")

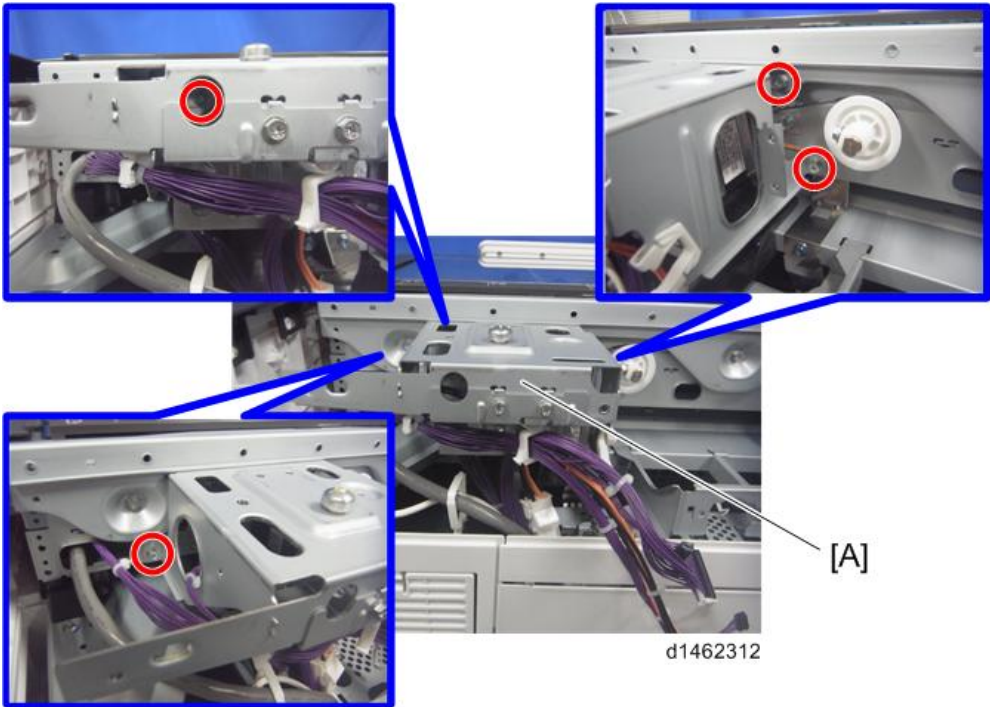
4

2. SIO unit [A] (⚙️×2, 📡×7)



d1462311

3. Bracket [A] (⚙️×4, 📡×3)

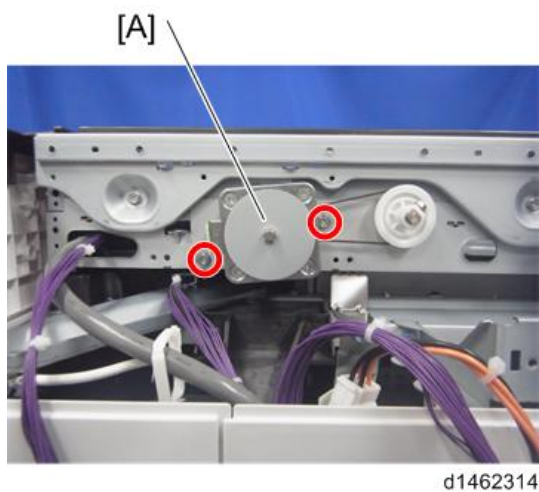


d1462312

4. Spring [A]



5. Scanner motor unit [A] (⚙️×2, 📡×1)

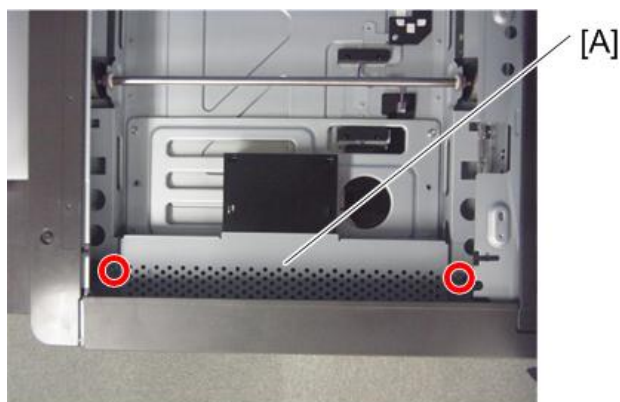


6. Scanner motor [A] (⚙️×2)



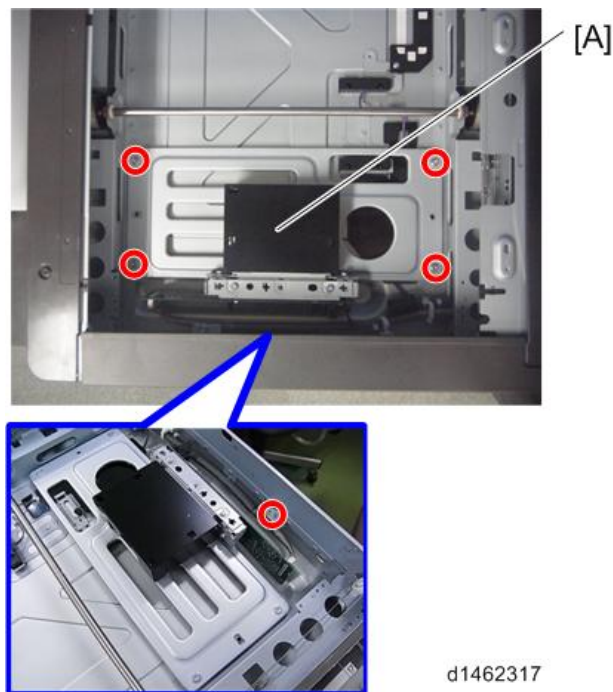
Lens Block

1. Exposure Glass (page 388 "Exposure Glass")
2. Lens block cover [A] (🔧×2)



d1462316

3. Lens block [A] (🔧×5, 📏×2)



d1462317

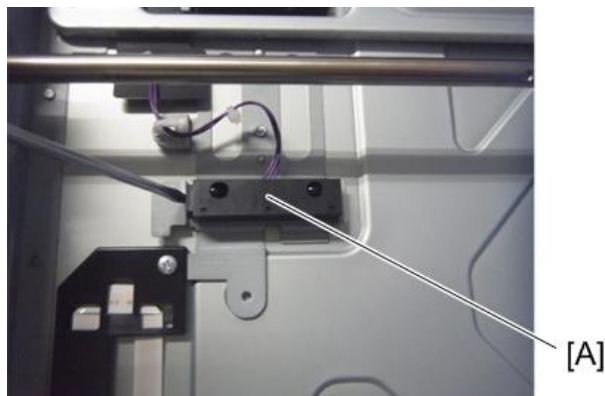
Original Size Sensor

1. Exposure glass (page 388 "Exposure Glass")

2. Original size sensor [A] (1×1)

↓ Note

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

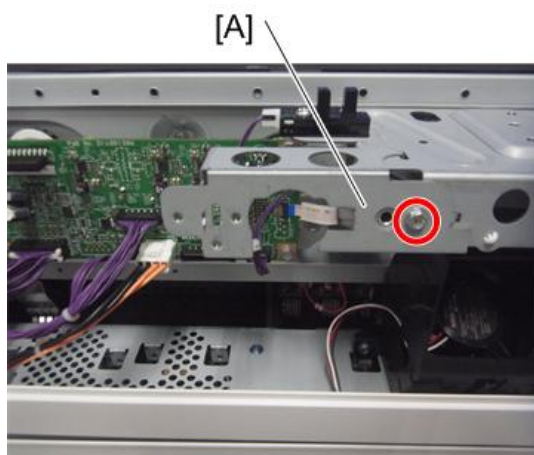


d1462318

4

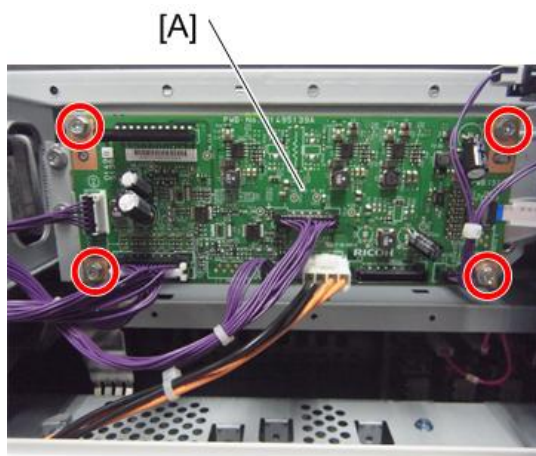
SIO

1. Scanner rear cover (page 368 "Scanner Rear Cover")
2. Scanner upper cover (page 386 "Scanner Upper Cover")
3. Bracket [A] (1×1)



d1462337

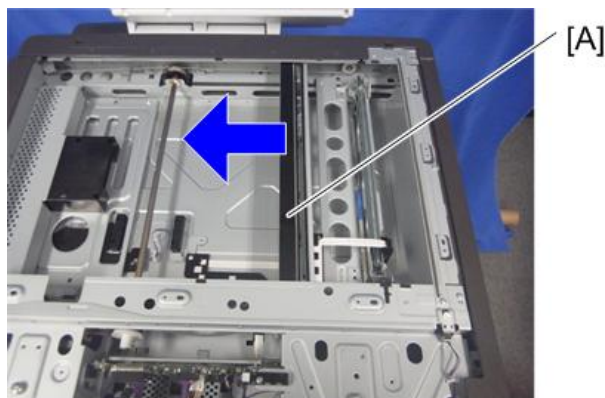
4. SIO [A] (⚙️×4, 📡×7)



d1462319

Scanner HP Sensor

1. Scanner upper cover (page 386 "Scanner Upper Cover")
2. Exposure glass (page 388 "Exposure Glass")
3. Slide the exposure lamp (1st scanner carriage) [A] in the direction of the arrow a little.

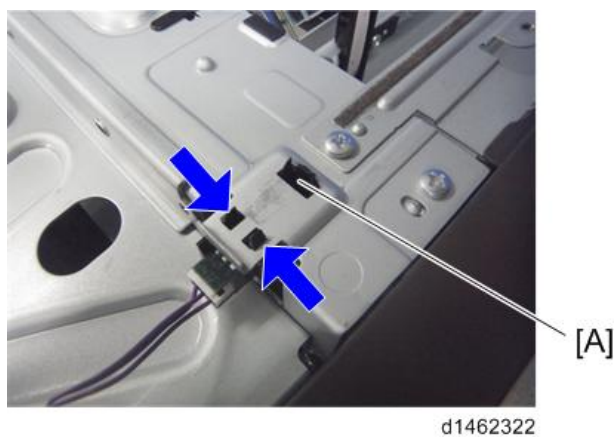


d1462320

4. Peel off the sensor stopper [A].



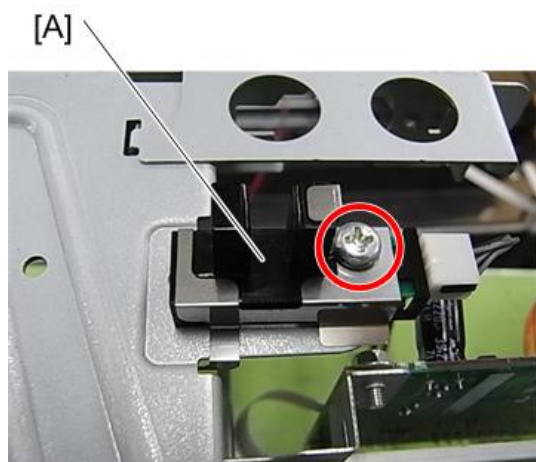
5. Scanner HP Sensor [A] (1x1)



DF Position Sensor

1. Scanner upper cover (page 386 "Scanner Upper Cover")

2. DF Position sensor [A] (⚙️×1, 📡×1)

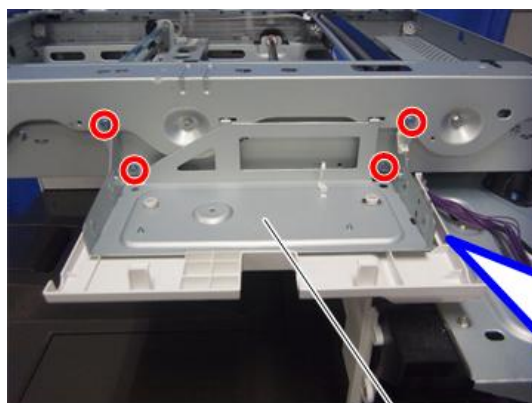


d1462323

Adjusting the Scanner Wire

Scanner Wire (Front)

1. Exposure glass (page 388 "Exposure Glass")
2. Scanner right cover (page 386 "Scanner Right Cover")
3. Operation panel (page 376 "Operation Panel")
4. Main power switch cover (page 370 "Main power switch cover")
5. Lower bracket [A] of the operation panel (⚙️×6, 📡×3).

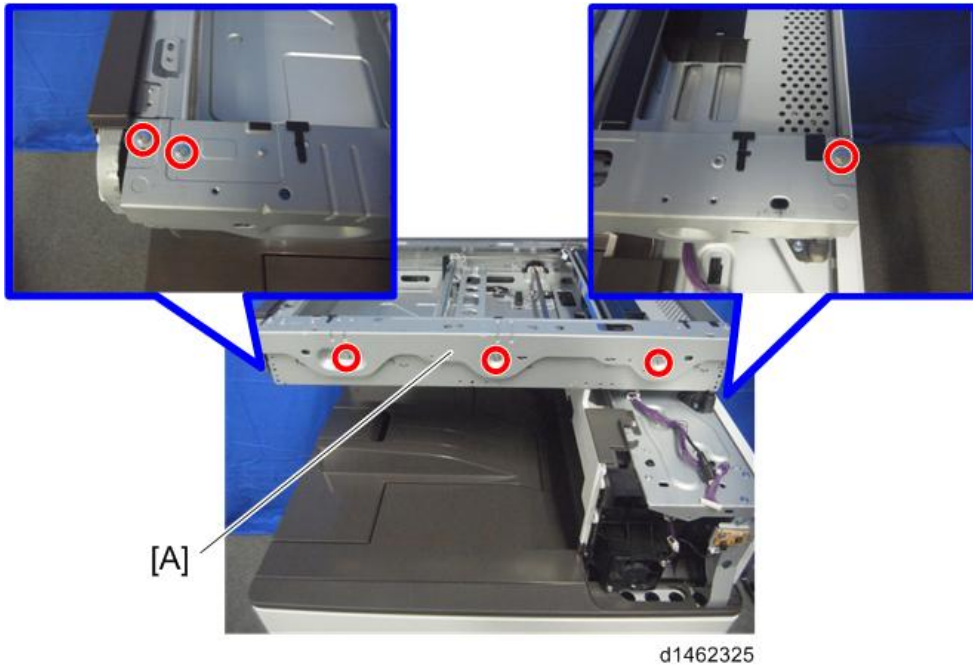


d1462324

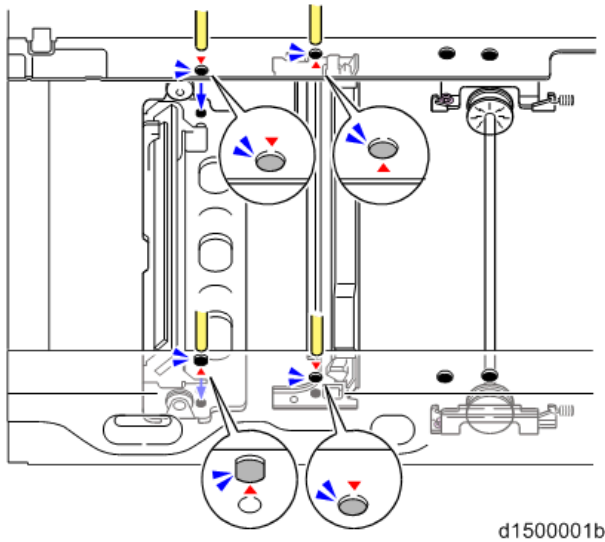
[A]



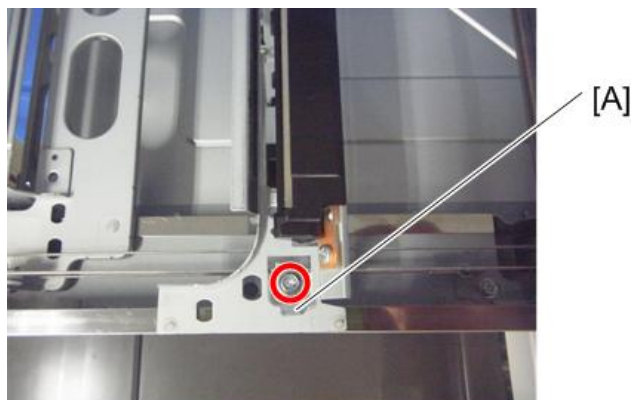
6. Scanner front frame [A] (4×6)



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

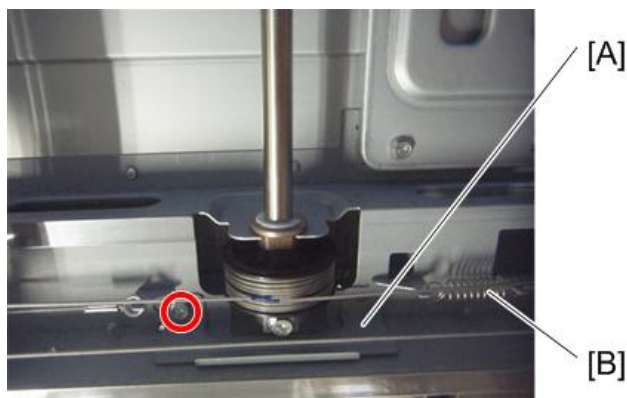


8. Wire clamp [A] (🔧×1)



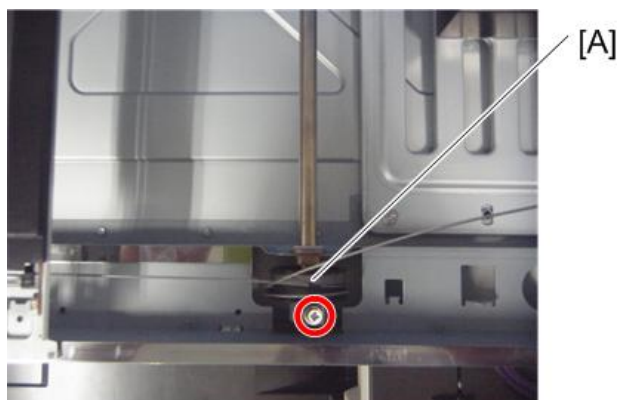
d1462326

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



d1462327

10. Wire pulley [A] (🔧×1, 🌀×1)

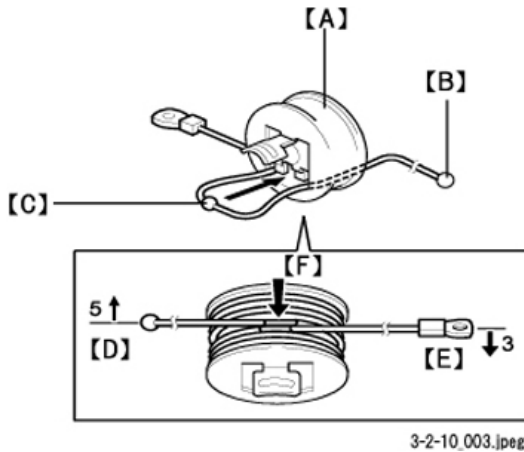


d1462328

Note

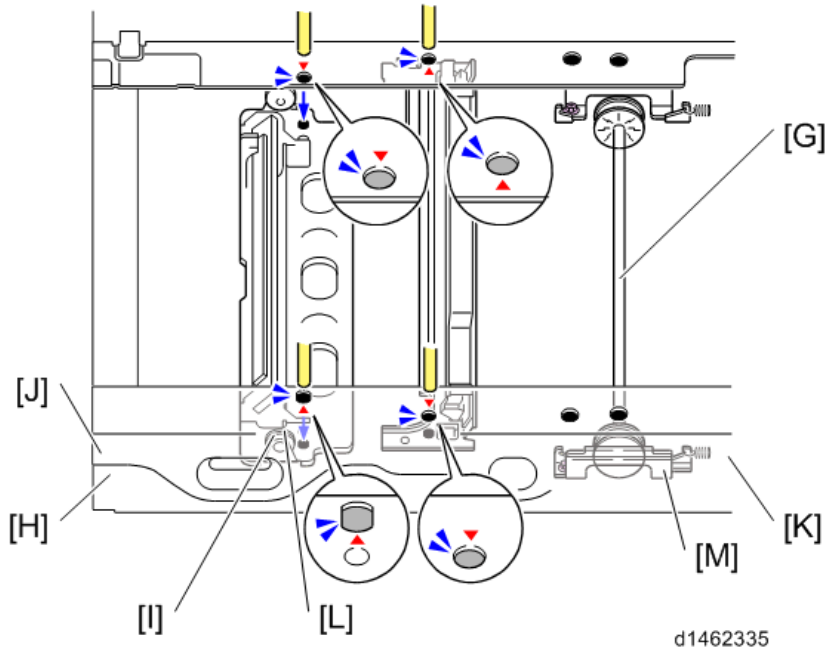
- Do not touch the mirror and the lamp.
- When you move the carriage, hold the central part and move it gently.

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] 3.5 times 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.

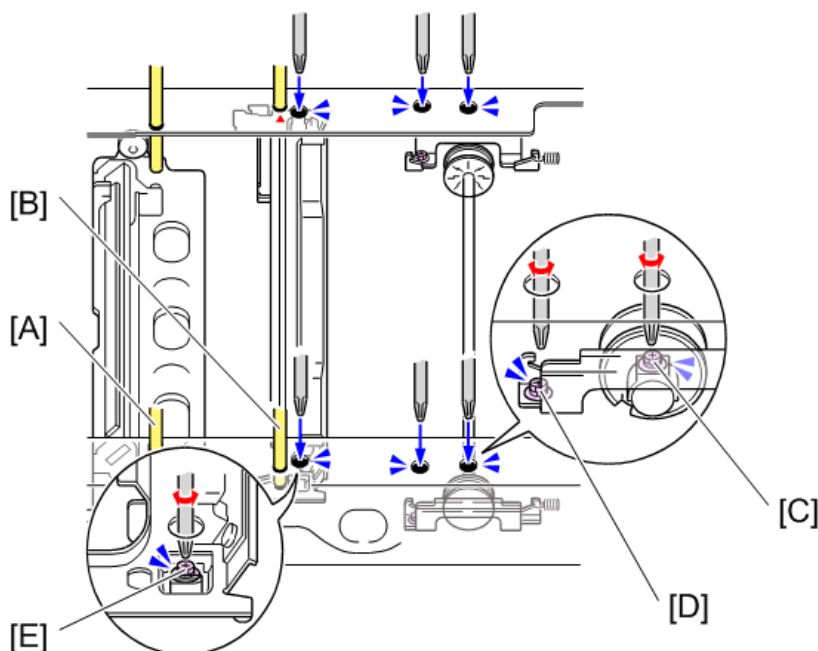
1. Right frame pulley (outside) [K]
1. 2nd scanner carriage (inside) [L]
2. Scanner retaining bracket [M]

(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



d1462336

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.

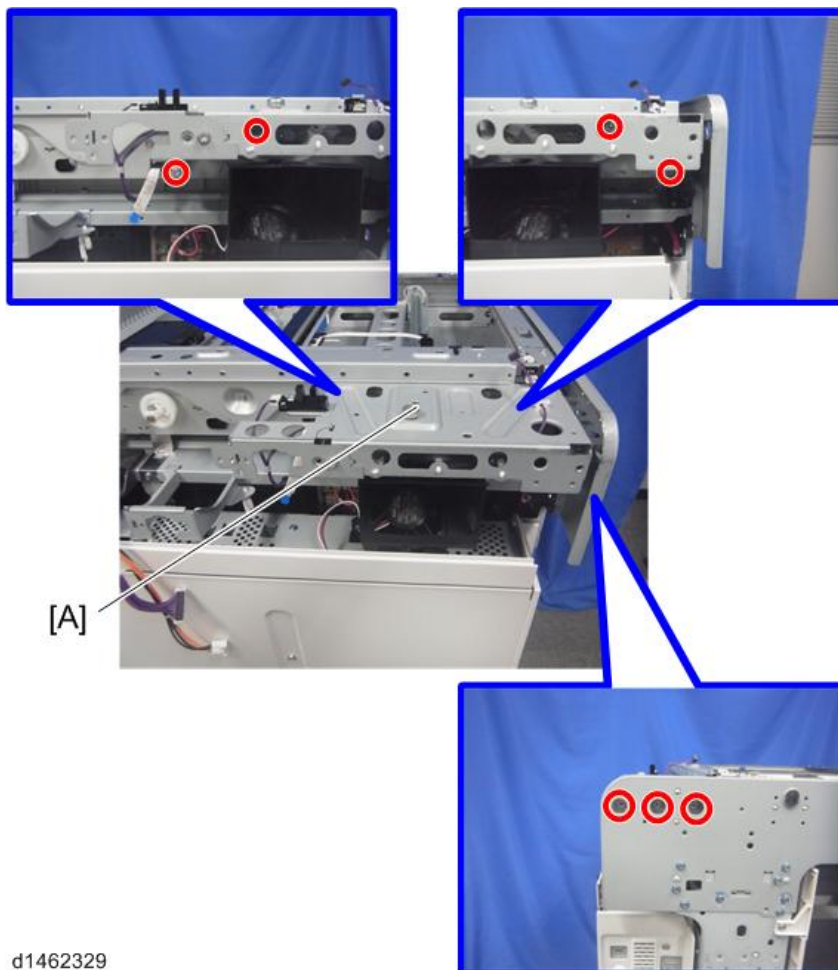
If it does not move smoothly, loosen the scanner wire, and perform the scanner position adjustment procedure again.

Note

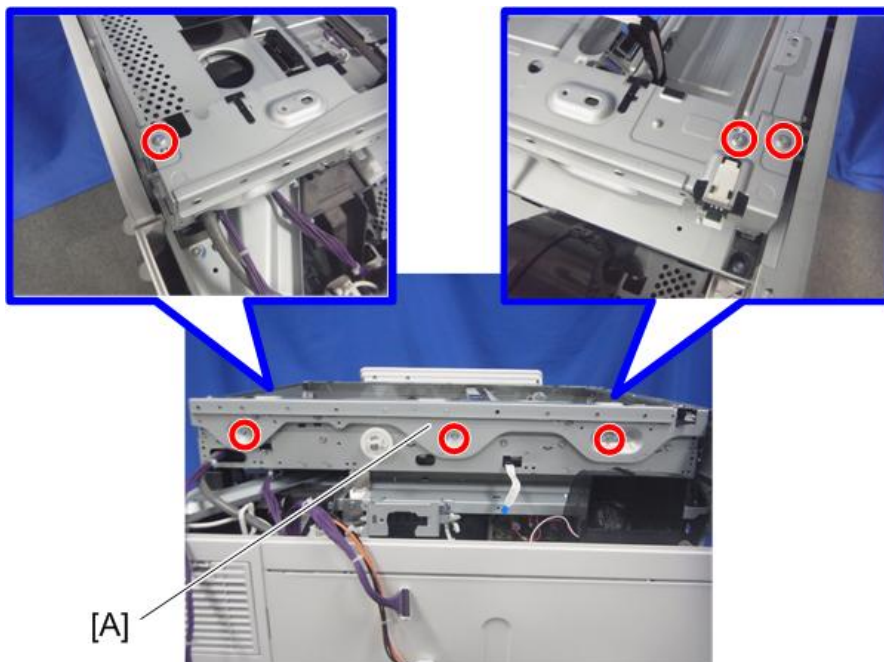
- After replacing the wire, make a test copy, and check skew, magnification, and whether there is a registration gap. If there is a gap, adjust the scanner wire position again, or perform Scan Registration Adjustment (SP4010-SP4011).

Scanner Wire (Rear)

1. Scanner right cover (page 386 "Scanner Right Cover")
2. Scanner left cover (page 387 "Scanner Left Cover")
3. Exposure glass (page 388 "Exposure Glass")
4. Scanner motor (page 391 "Scanner Motor")
5. Bracket [A] (⚙️×7, 📌×1)

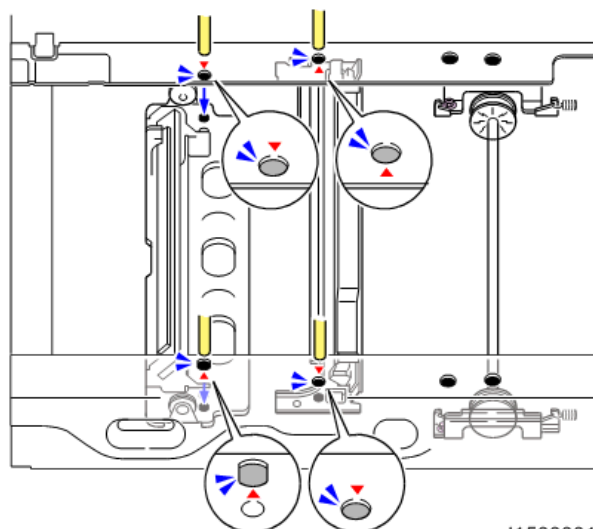


6. Rear frame [A] (4×6)



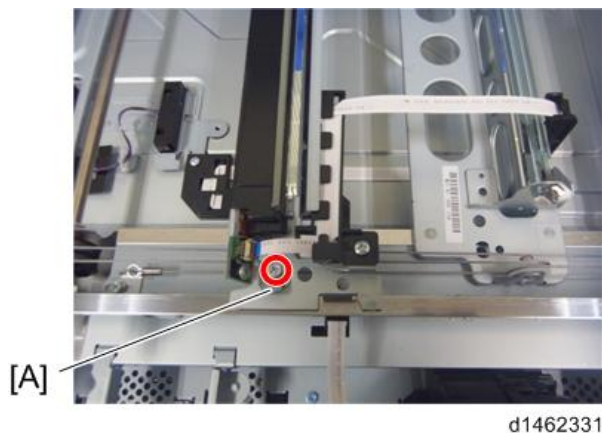
d1462330

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

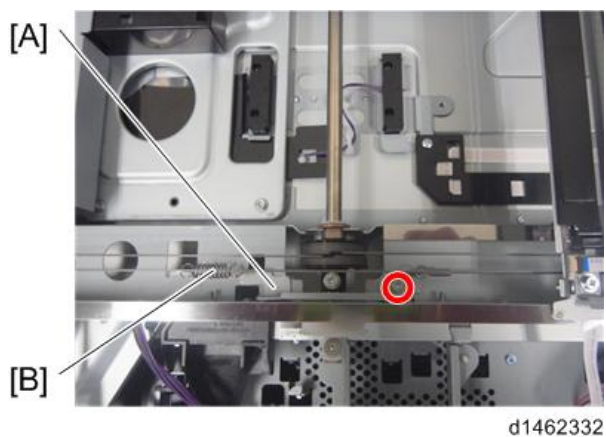


d1500001b

8. Wire clamp [A] (⌀×1)



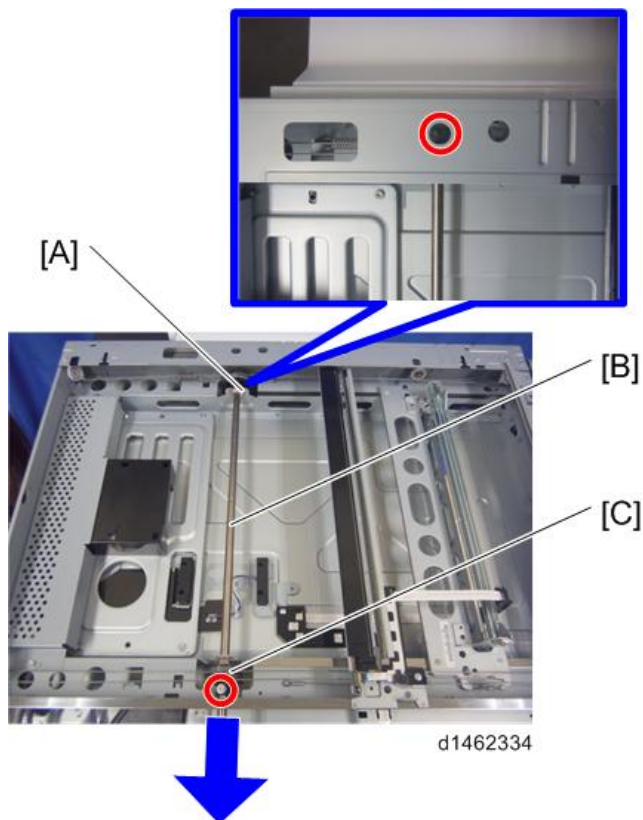
9. Wire fixing bracket [A], spring [B] (⌀×1)



10. Scanner drive gear [A] (⌀×1)

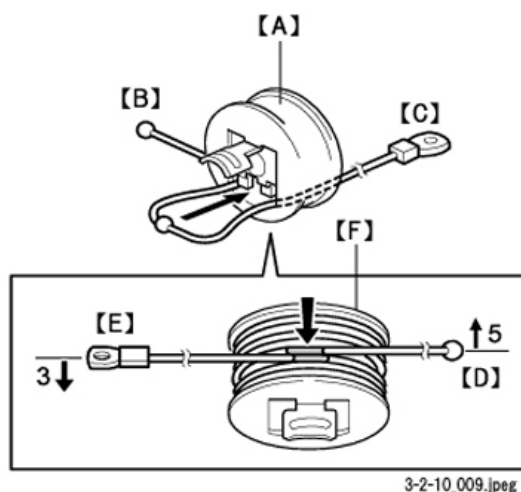


11. Remove the screw and the clip ring of the wire pulley (front) [A] and wire pulley (rear) [C], draw out the scanner drive shaft [B] in the direction of the arrow, and remove the wire pulley (rear) [C] (⚙️×1, 〰️×2).



4

Scanner Wire Assembly (rear side)



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).

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]. (1x1)



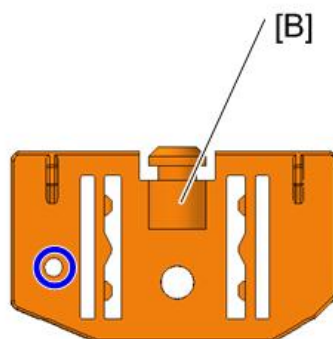
d1463141

3. Replace the contactless guide plate (front) [A] with the contact guide plate (front) [B]. (1x1)

There is a hole in the contact guide plate (front).

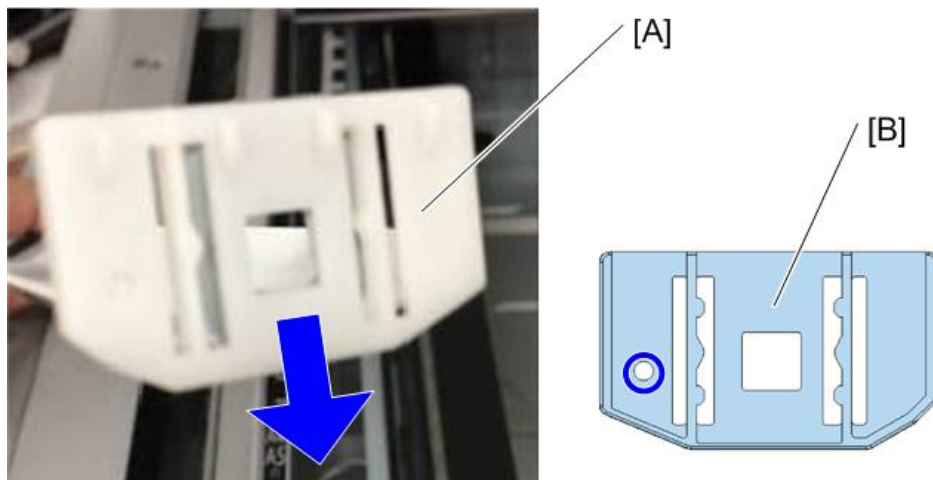


d1463142



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).



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

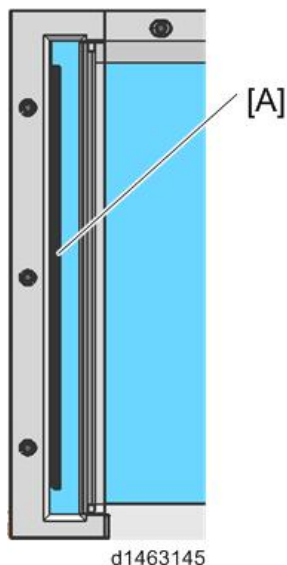


6. Attach the ADF front cover, and return the ADF to its original position.

7. From the SP mode, change the DF density setting (SP4-688-001) from [102%] to [97%].

Procedure for the scanner

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



4

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.

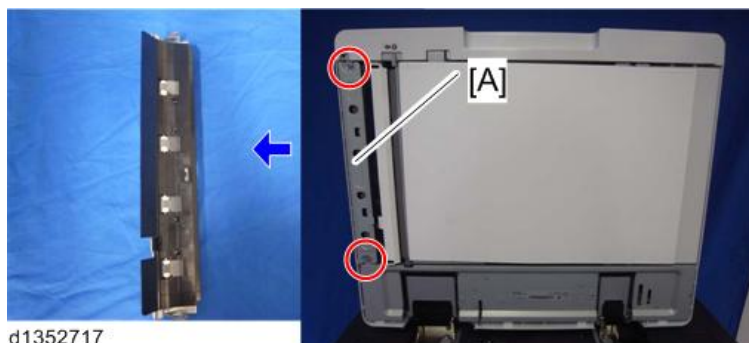
Modifying the Scanner (contact/contactless) when using SPDF

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

Procedure for the SPDF

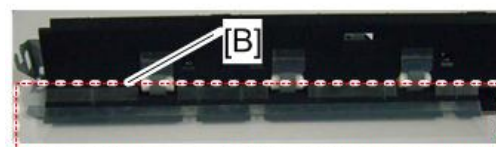
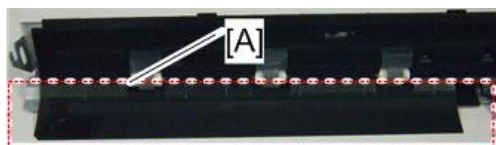
1. Open the SPDF

2. Lower entrance guide unit [A] (2)



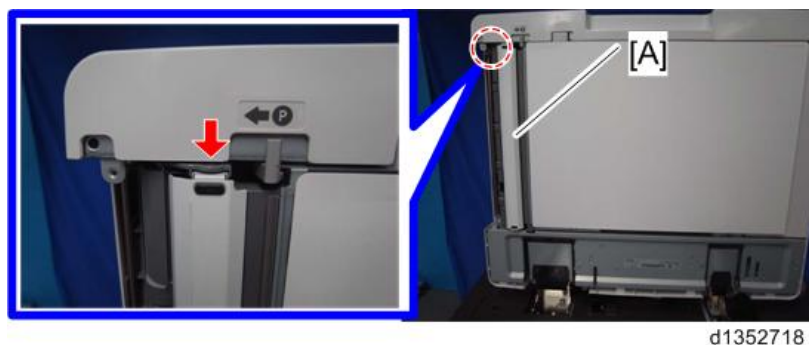
Note

- 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].



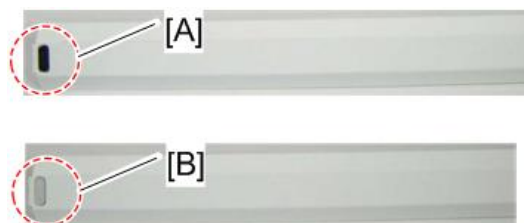
d1352723

3. Document reader guide plate [A].



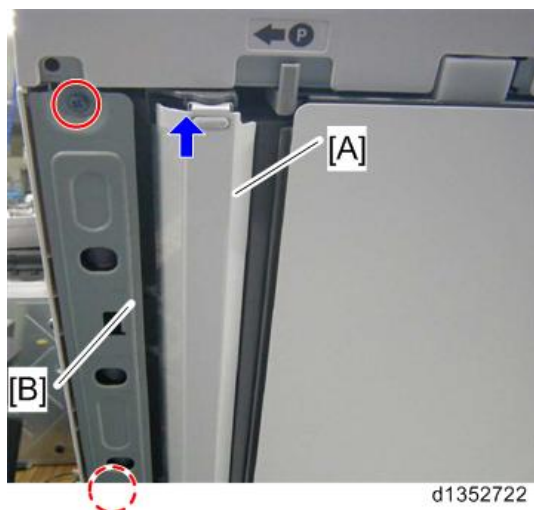
Note

- The part below the contactless document reader guide plate is black [A].
- The part below the contact document reader guide plate is white [B].



d1352721

4. Attach the contact document reader guide plate [A]
5. Attach the contact lower entrance guide unit [A] (8×2)



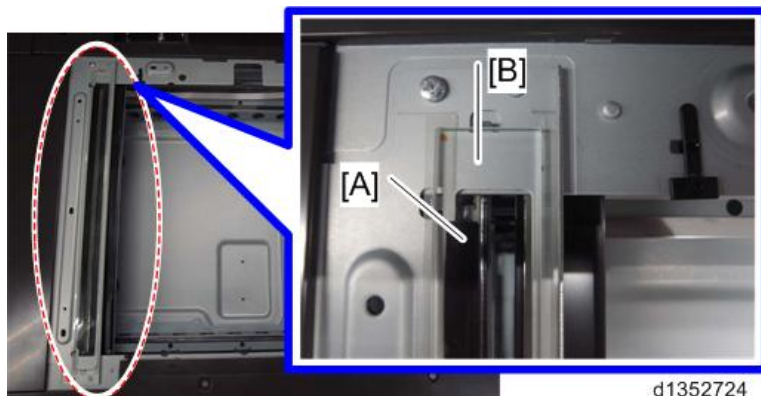
d1352722

6. 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 388 "Exposure Glass")

2. Peel off the gap sheet (black) [A] from the sheet-through glass [B].

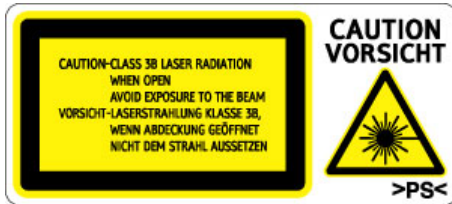


3. Wipe the exposure glass with alcohol, etc., so that no glue remains from the double-sided tape.

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

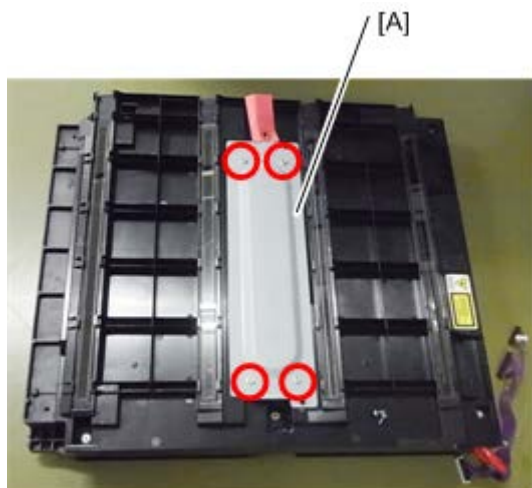
Laser Unit

⚠ 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.

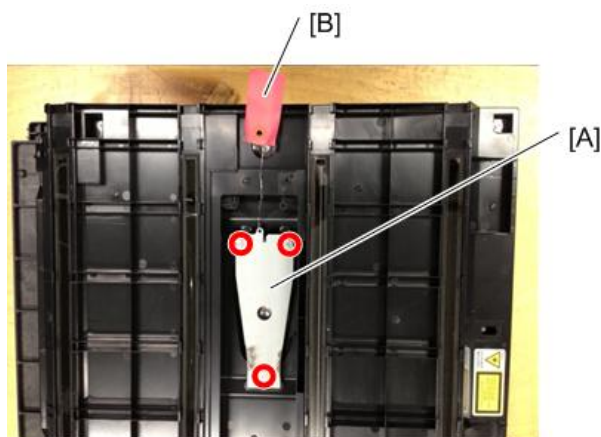
Before Replacement

1. Polygon motor cover [A] (⚙️×4)



d1468004

2. Polygon motor bracket [A], Red tag [B] (⚙️×3)

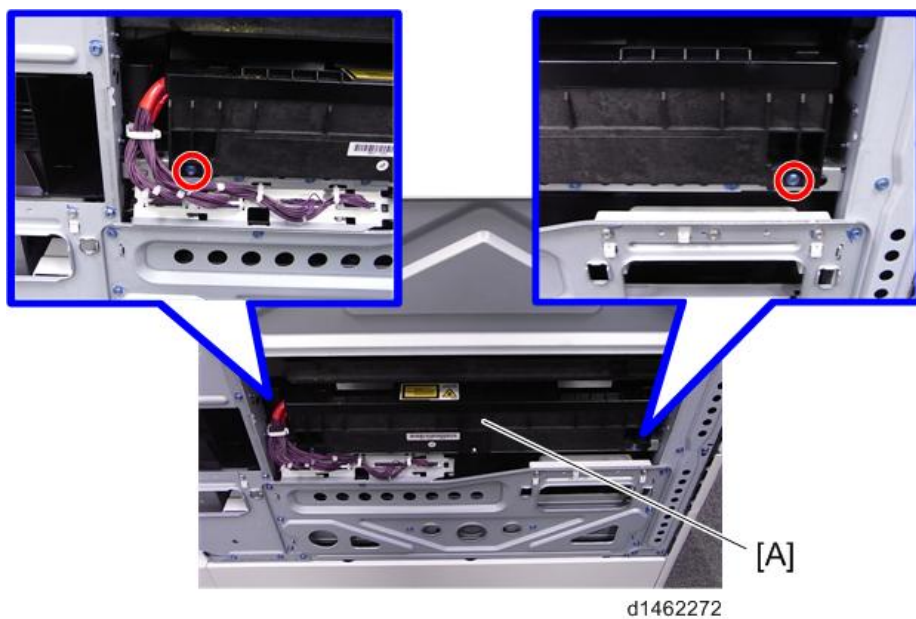


d1468005

3. Reattach the polygon motor cover.

Removing

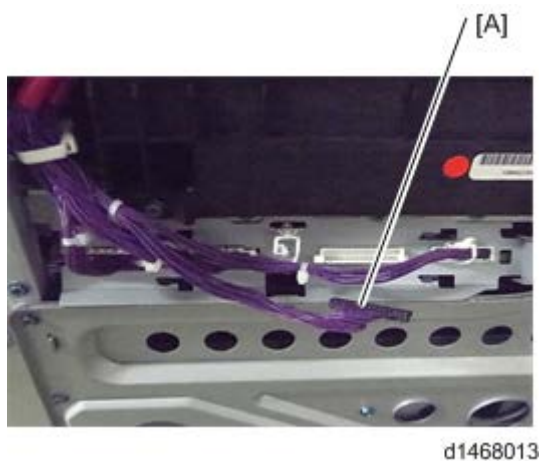
1. Left cover (page 363 "Left Cover")
2. Laser unit [A] (⚙️×2, 📦×4, 📦×3)



4

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.



For D146/D147, connect two harnesses.



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.

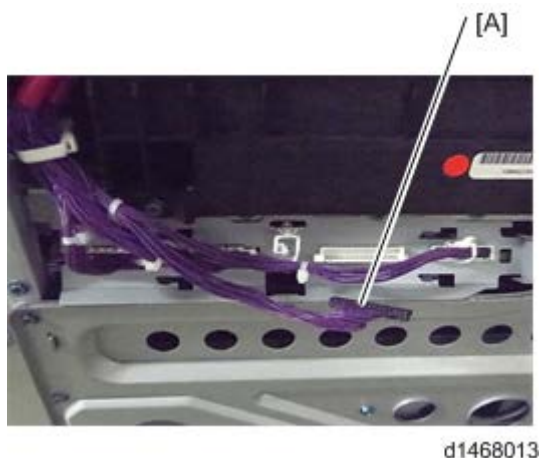
4. Check that SP2-119-001 to 003 is "0."

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



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 "7: Grid Pattern Small" is printed.
 - Check if the margin on either side on the output (Grid Pattern Small) is less than 4 ± 1 mm or not. If it is not within these limits, change the reference value (Bk) of the main scanning magnification adjustment (SP2-102-001 to -003).

Note

- Adjust the values of the main scanning magnification only for Bk (black). It is not necessary to adjust other color's value (cyan, magenta, yellow) because other colors are automatically adjusted.

- Input same value for each SPs (SP2-102-001 to -003) even though there are three SPs of the main scanning magnification adjustment for the standard, middle and low line speed which are used for each paper type.
- Check if the margin on the left side on the output (Grid Pattern Small) is less than 2 ± 1 mm or not. If it is not within these limits, change the reference value (Bk) of the registration adjustment (SP2-101-001).

10. Set the SP2-109-003 to "0: None" after adjusting the main scanning magnification and registration.

11. 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).

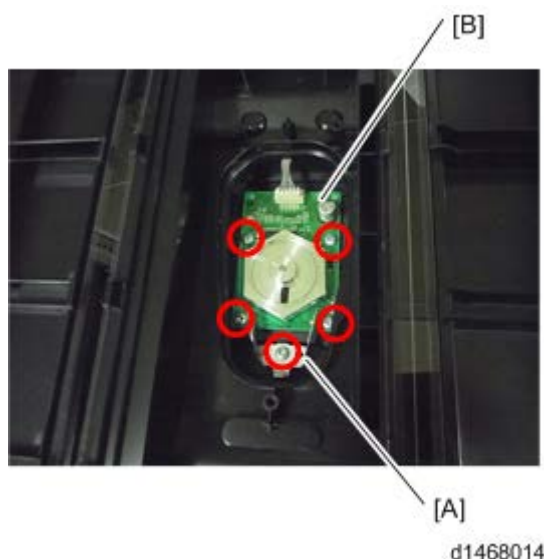
Also, results for each color can be checked with SP2-194-010 to 013.

12. Exit the SP mode.

4

Polygon Motor

1. Polygon motor cover (page 415 "Laser Unit")
2. Polygon motor holder [A], Polygon motor [B] (⚙️×5, 📦×1)



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).

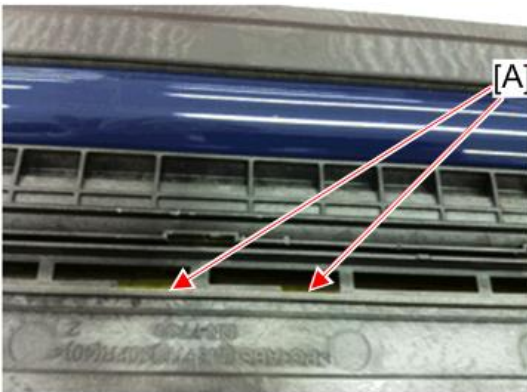
Also, results for each color can be checked with SP2-194-010 to 013.

PCDU

Notes when replacing a PCDU

⚠ CAUTION

- Make sure to completely remove the orange tapes before removing the preset seal on a new PCDU. Otherwise, the ribs [A] inside the unit may be broken and fall into the development unit. This causes white lines to appear on outputs.



d146z0001

RTB 164

Agitate the developer by shaking the unit

D146/D147/D148

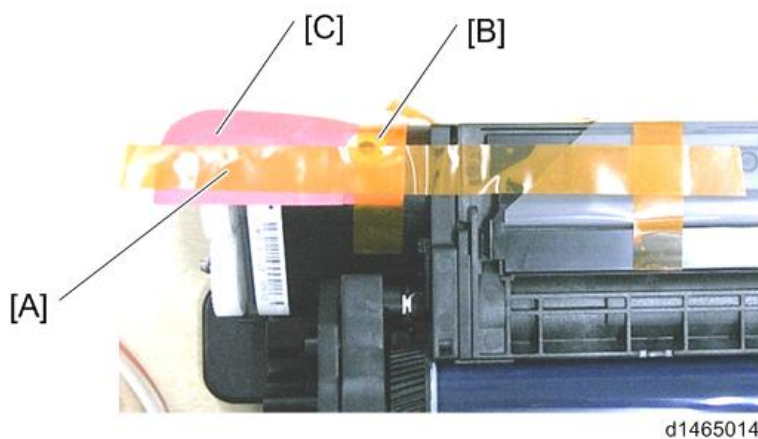
Remove the preset seal from the new PCDU before installing a new PCDU in the machine.

↓ Note

- Do not release the spring pressure in the PCDU for D146/D147/D148. If you have mistakenly released the spring pressure, attach the springs (Attaching the springs).

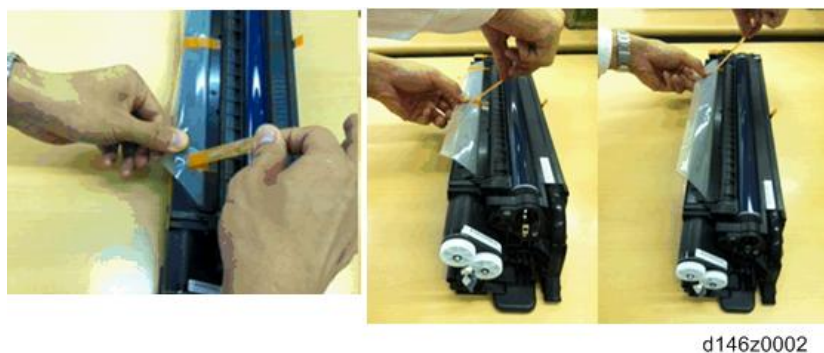
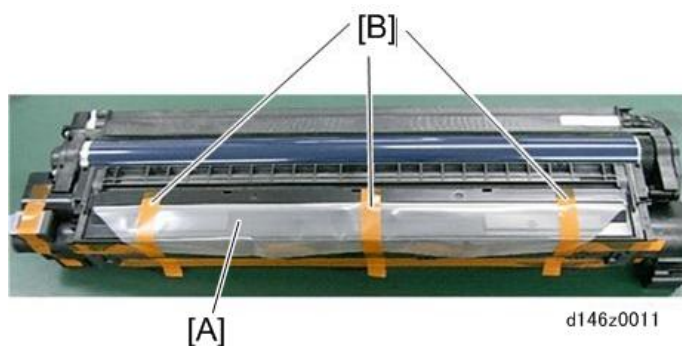
1. Remove the strips of orange tape (First [A], and then [B]).

2. Remove the red tag [C].



4

3. Hold down the preset seal [A] and slowly peel off the three strips of orange tape [B], one by one.



Important

DO NOT pull the preset seal with the strips of orange tape attached on the preset seal as shown below.



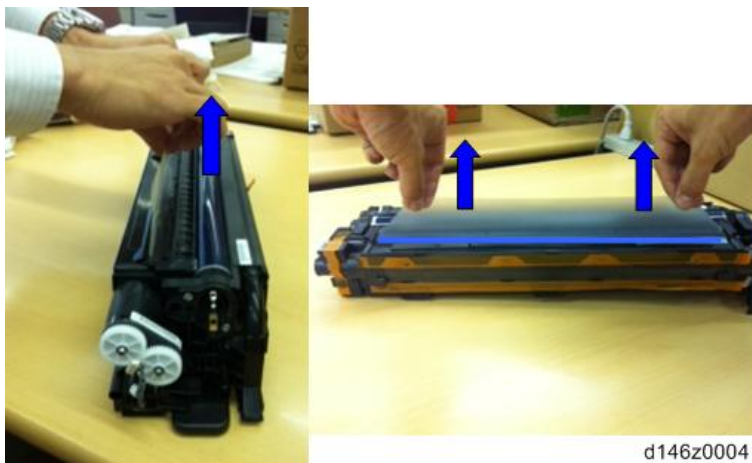
d146z0003

DO NOT pull the seal by force, or hold the seal only at one end as shown below. This is because the seal will skew or develop slack.



d146z0005

4. Hold the preset seal with both hands (one at each end), and slowly pull the seal straight up, so that there is no slack in the seal.



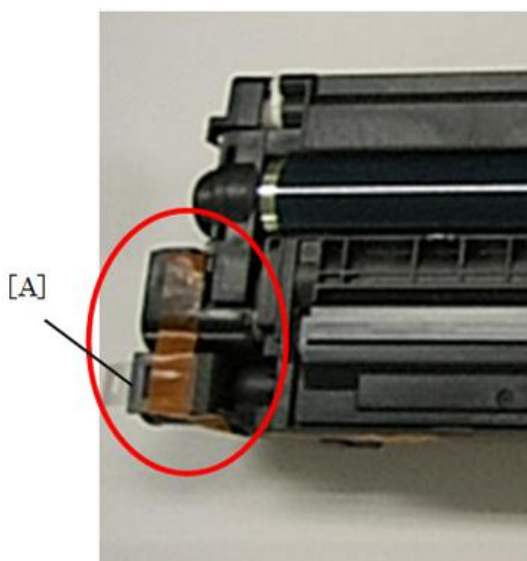
d146z0004

4

5. Remove the strip of orange tape, and then the cap [A] of the toner supply opening.

★ Important

- Make sure that the cap of the toner supply opening is removed before installing a new PCDU in the machine. Otherwise, toner may be scattered inside the machine.



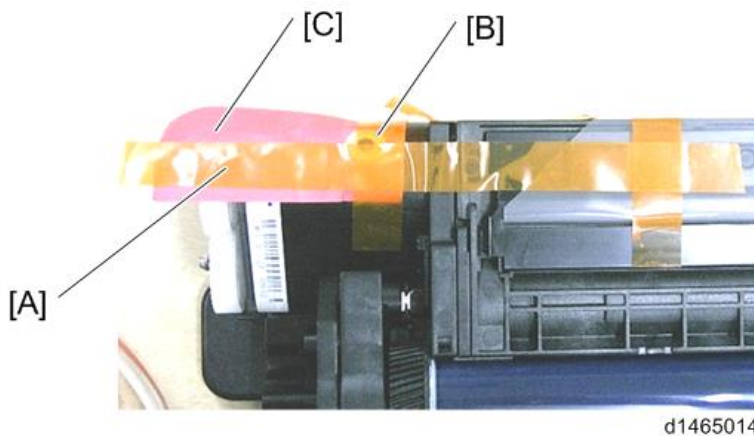
d146z0070

D149/D150

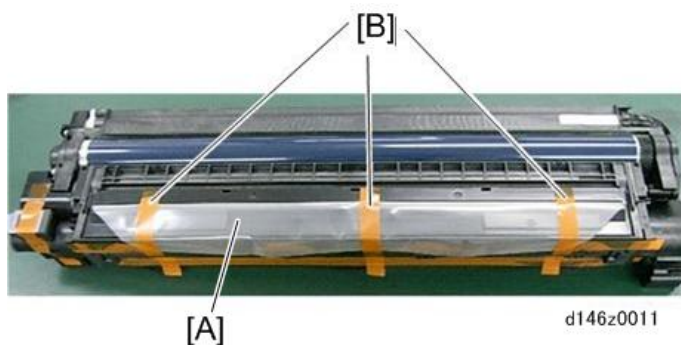
From the new PCDU, remove the preset seal and one component that prevents compatibility with the D149/D150, and adjust the spring pressure, before installing a new PCDU in the machine.

Removing the preset seal

1. Remove the strips of orange tape (First [A], and then [B]).
2. Remove the red tag [C].



3. Hold down the preset seal [A] and slowly peel off the three strips of orange tape [B], one by one.



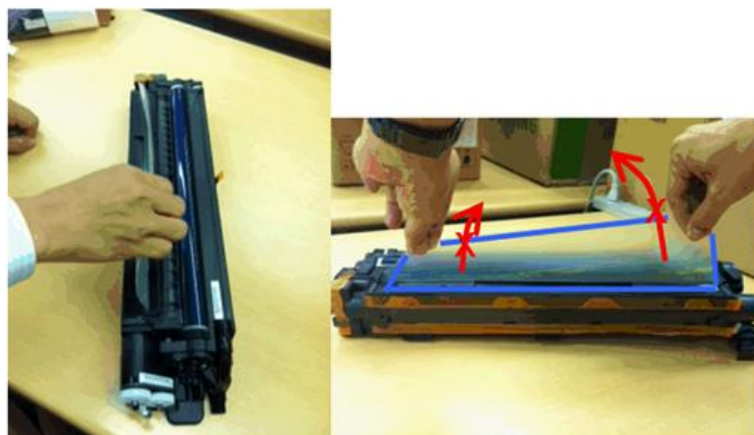
Important

DO NOT pull the preset seal with the strips of orange tape attached on the preset seal as shown below.



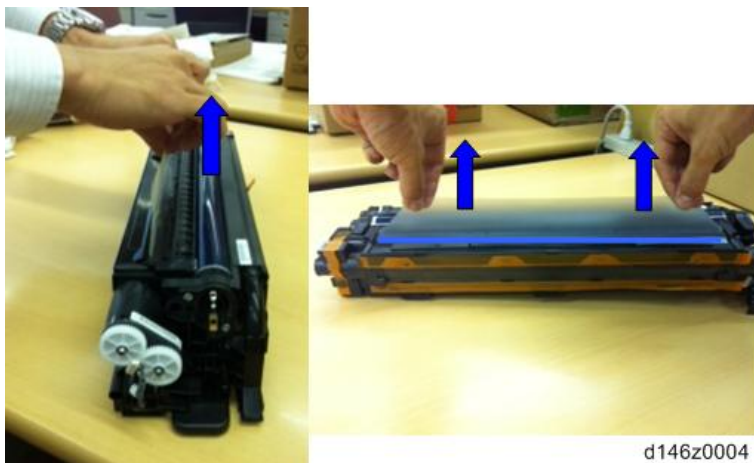
d146z0003

DO NOT pull the seal by force, or hold the seal only at one end as shown below. This is because the seal will skew or develop slack.



d146z0005

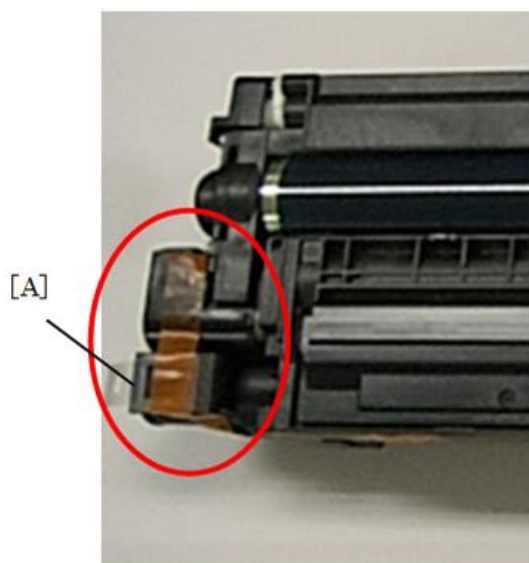
4. Hold the preset seal with both hands (one at each end), and slowly pull the seal straight up, so that there is no slack in the seal.



5. Remove the strip of orange tape, and then the cap [A] of the toner supply opening.

★ Important

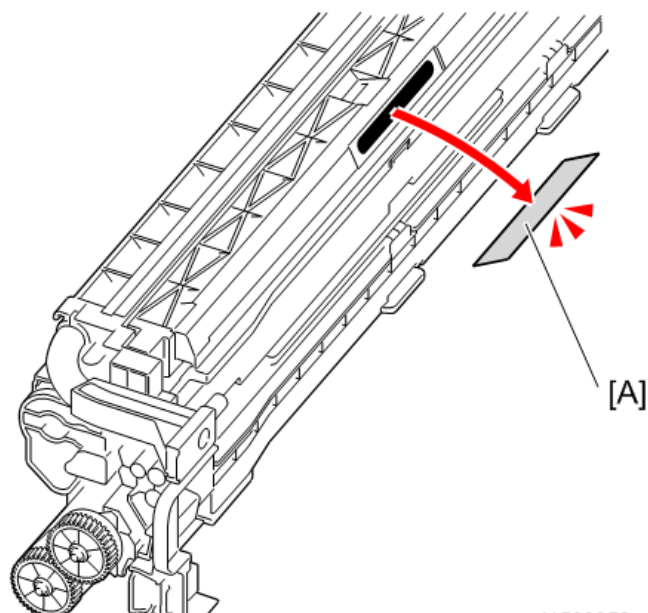
- Make sure that the cap of the toner supply opening is removed before installing a new PCDU in the machine. Otherwise, toner may be scattered inside the machine.



d146z0070

Releasing the spring pressure and removing the component that prevents compatibility with D149/
D150

1. Seal [A]



d1500952

4

2. Insert a small screwdriver deeply in the bent part of the pin so that the bent tip of the pin is under the driver, and then release the spring pressure slowly.

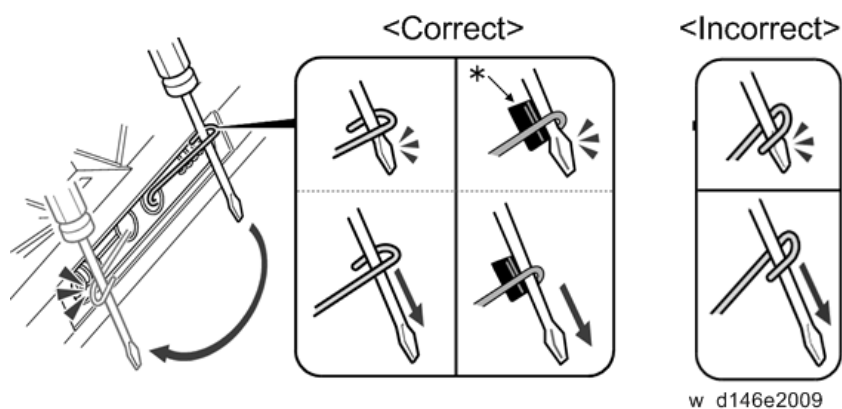
- Pull out the screwdriver slowly after the spring pressure is released.

⚠ CAUTION

- The spring pressure is extremely strong. For that reason, always use a small screwdriver when releasing the spring pressure. Never try to release the spring pressure with your finger. Otherwise, your finger may get caught.

★ Important

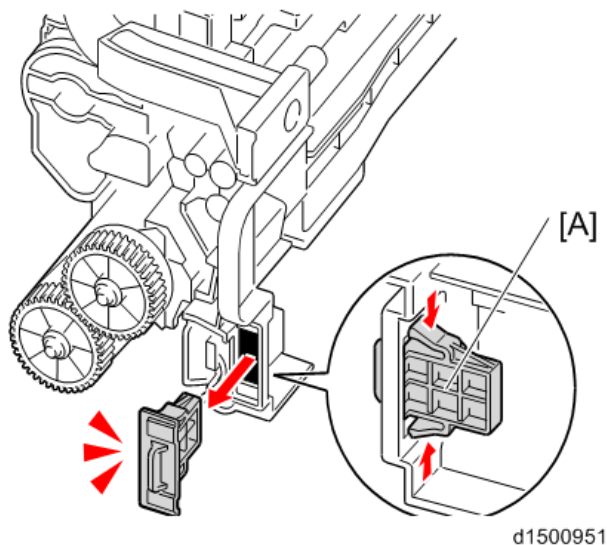
- Do not insert a small screwdriver so that the bent tip of the pin is over the screwdriver. If you do so, the screwdriver slips off the pin when releasing the spring pressure and then it may damage parts inside the unit.



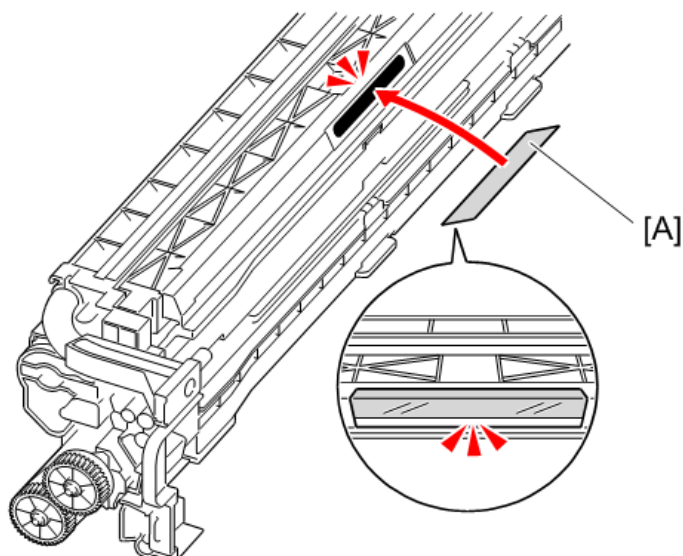
4

- There are two types of the pins for the spring pressure. One is with the direction regulation (* black seal) at the tip of a pin, another is without the direction regulation. This procedure is effective for both types of pins.

3. When the spring is released, gently pull the knob out.
4. Component [A], which prevents compatibility with D149/D150.



5. Affix the seal [A] provided to the unit.

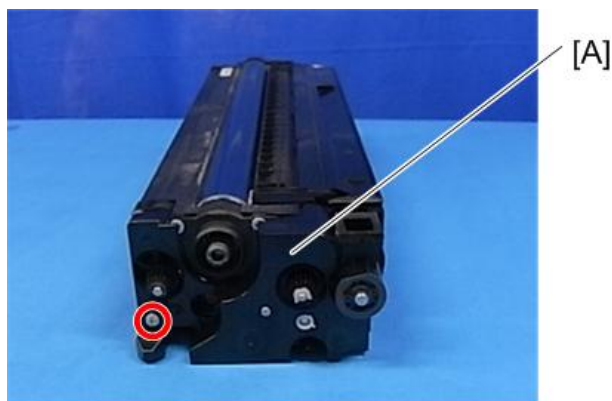


d1500954

6. Reattaching the springs (Attaching the springs).
7. Install the PCDU in the machine (page 434).

Attaching the springs

1. Rear end block [A] (⚙️×1)



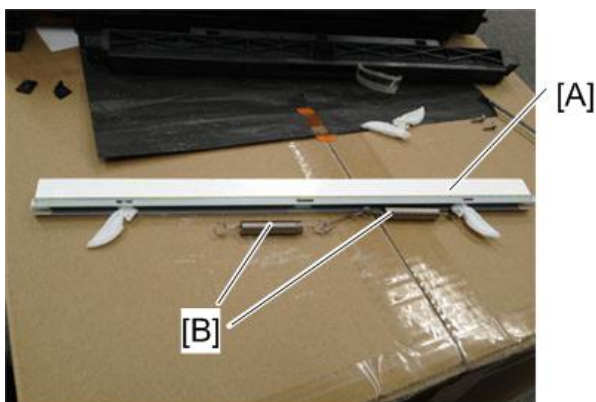
d1462163

2. PCU Cover [A] (⚙️×2, 3 hooks)



d1464013

3. Lubricant bar [A] and springs [B]



d146z0071

4. Attach the pin between springs as shown below, and then reinstall the springs in the lubricant bar.

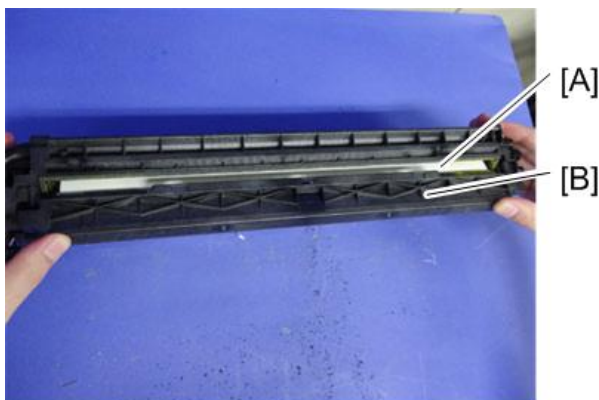


d1464015



d1464016

5. Reinstall the lubricant bar [A] in the PCU, and then reattach the PCU cover [B] to the PCU (⚙️×2, 3 hooks).



d1464017

6. Reattach the rear end block [A] (⚙️×1).



d1462163

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.

RTB 124

When turning power on after replacement, if you need to update firmware, do ACC first

Replacement

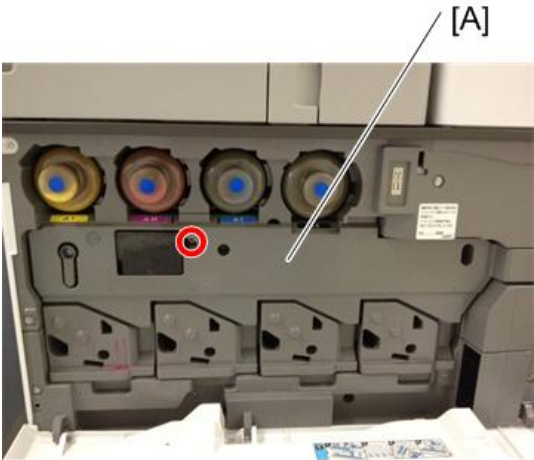
4

1. Open the front cover [A].



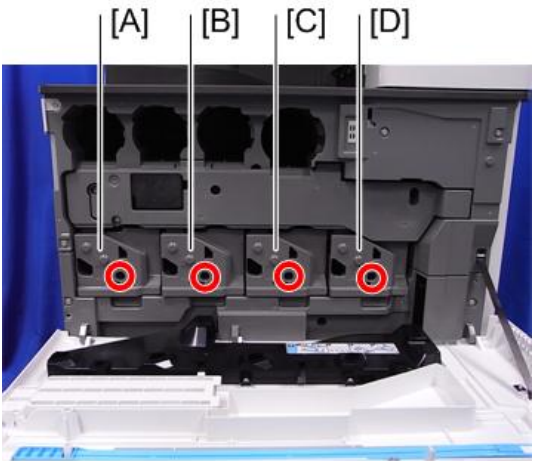
d1462004

2. Image transfer front cover [A] (🔑×1)



d1462240

3. PCDU cover



d1462160

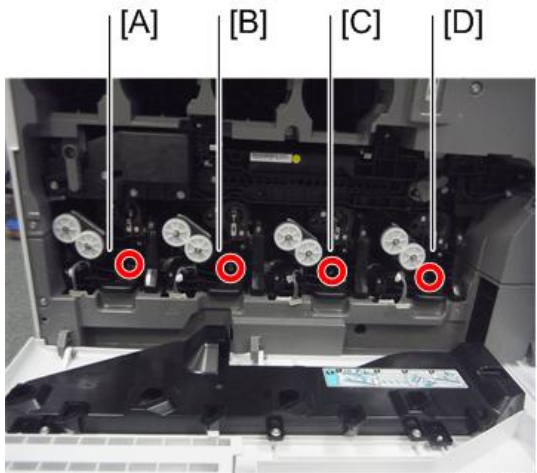
[A]	Y	🔑×1
[B]	M	🔑×1
[C]	C	🔑×1
[D]	K	🔑×1

4. Release the lock of the image transfer contact lever [A].











d1462171

5. PCDU



d1462161

[A]	Y	 x1,  x1
[B]	M	 x1,  x1
[C]	C	 x1,  x1
[D]	K	 x1,  x1

PCU/Development Unit

Before replacing a PCU or development unit

RTB 164

Agitate the developer by shaking the 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. If you do not change SP3-701 before replacing the development unit, PM Counter and Remain Day Counter of other parts (PCU and PCDU) are cleared.

RTB 124

When turning power on after replacement, if you need to update firmware, do ACC first

Replacement

⚠ CAUTION

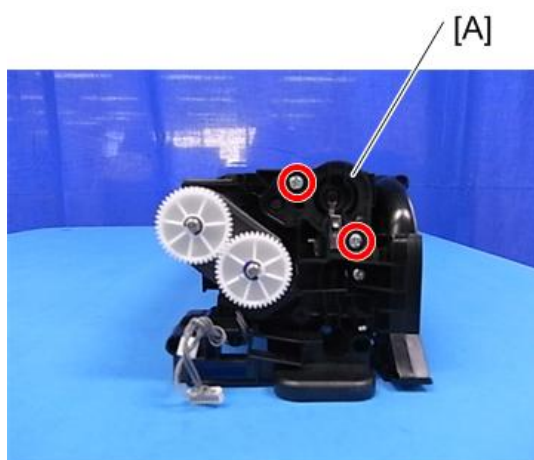
- Remove carefully so as not to damage the part of the rear end block shown by the blue circle (removed in Step 3). If the parts are bent or deformed, electrical contact may become poor, and this may cause poor image quality.



d1462167

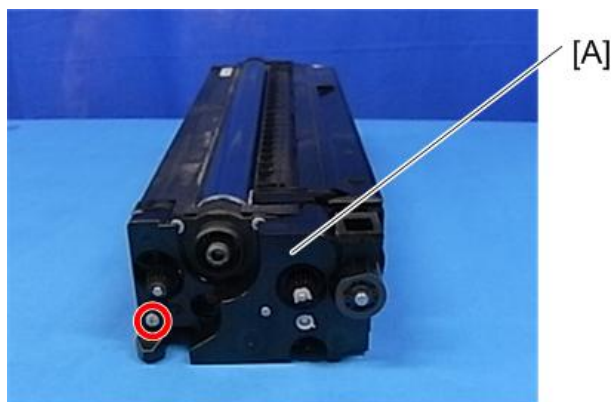
1. PCDU (page 434 "PCDU")

2. Front end block [A] (⚙️×2)



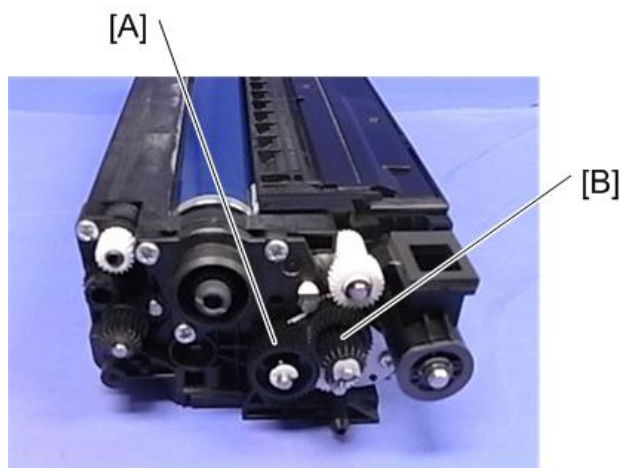
d1462162

3. Rear end block [A] (⚙️×1)



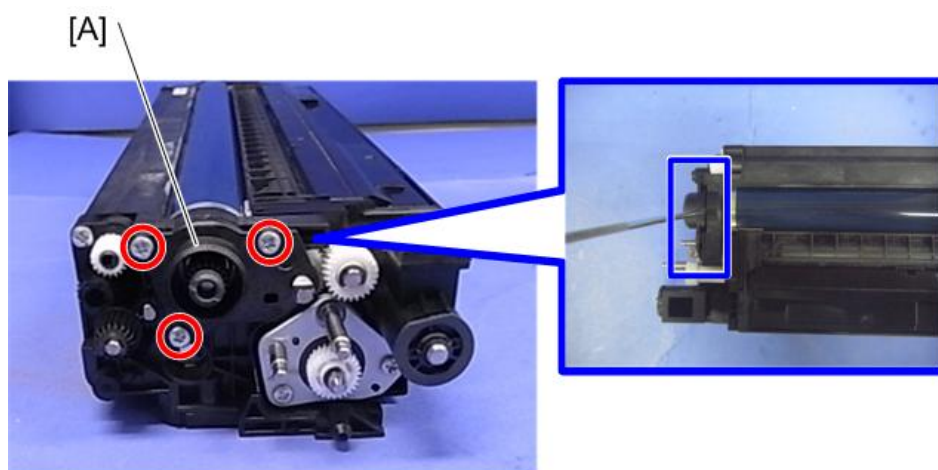
d1462163

4. Gears [A] [B] (⌘×2)



d1462164

5. Remove the joint (rear side) [A] (⌘×3).



d1462165

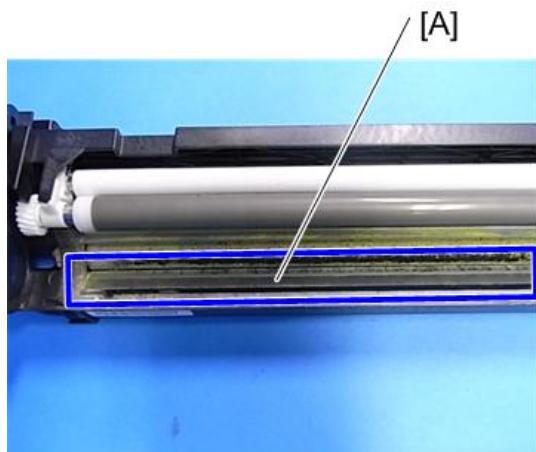
6. Separate the PCU [A] and Development Unit [B].



d1462166

Precautions when joining the PCU and the development Unit

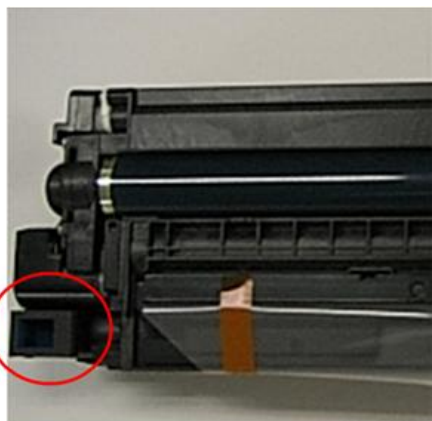
Note that if these are joined while pressing the charge roller, the cleaning blade may turn over in the opposite direction to the original. If this happens, toner lines may appear on prints.



d1462169

★ Important

- Make sure that the cap of the toner supply opening is removed before installing a new PCDU in the machine. Otherwise, toner may be scattered inside the machine.



d146z1006

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

Imaging Temperature Sensor (Thermistor)

1. Open the controller box (page 564)
2. Connector [A]



d1462273

3. Imaging temperature sensor harness guide [A] and Imaging temperature sensor [B] (🔧
x2)



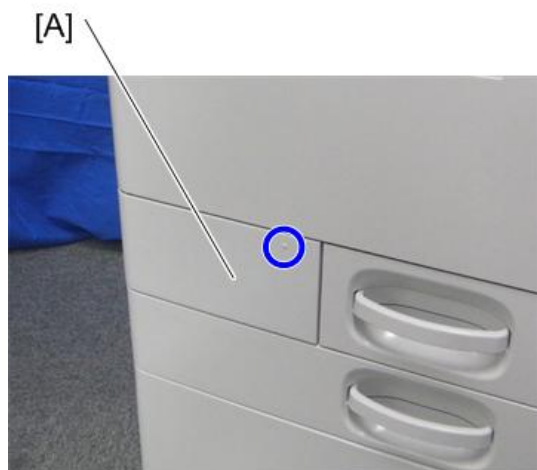
d1462274

Waste Toner

Replacement

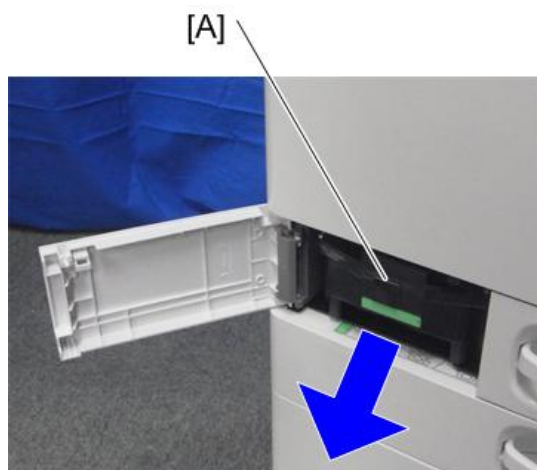
1. Open the waste toner cover [A].

Push the blue circle area, then open the cover.



d1462040

2. Pull out the waste toner bottle [A].



d1462041

Adjustment after replacing

The counter for the Waste Toner Bottle is reset automatically.

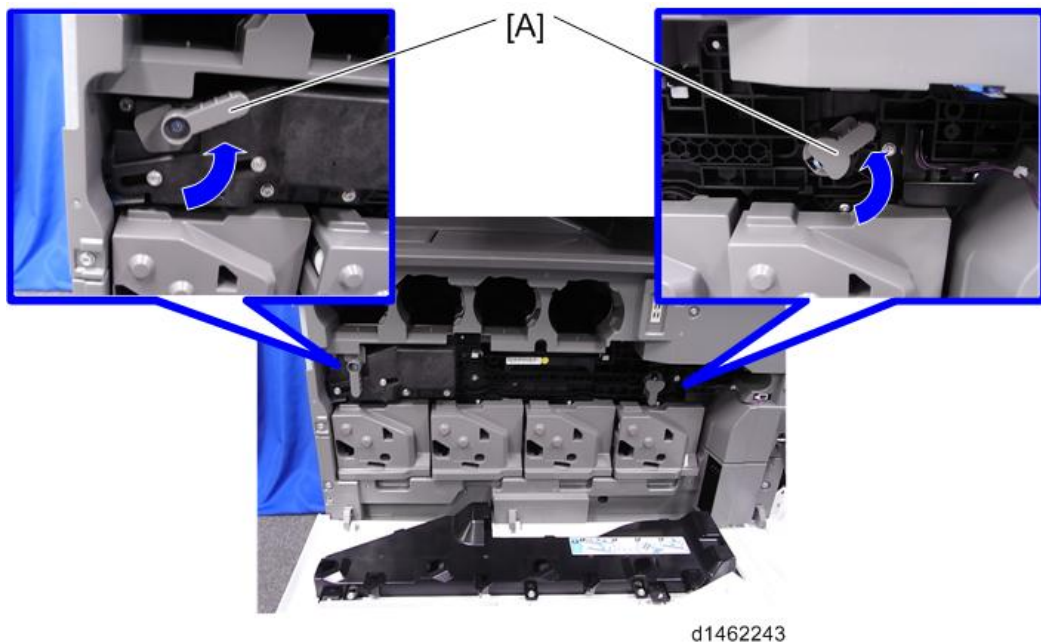
The counter isn't reset with SP3-701-142 (Manual New Unit Set: Waste Toner Bottle) and SP7-622-142 (PM Counter reset: Waste Toner Bottle).

Image Transfer Unit

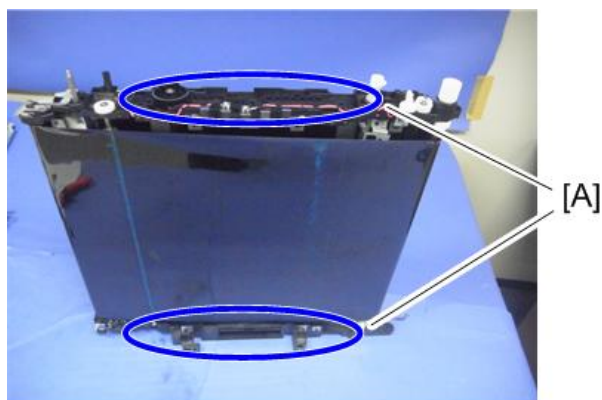
Image Transfer Belt Unit

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.



- Do not touch the rollers but hold the upper/lower resin part [A] when you lift the Image Transfer Unit. Touching the rollers may cause poor image quality.



d1464005

4

CAUTION

- **Precautions when attaching the image transfer belt unit:**
 - When attaching the image transfer belt unit, insert the image transfer belt unit into the machine, and then push the unit firmly once more as shown in the picture below. Check that the unit is inserted as far as it will go, and then lock the ITB lock lever and ITB contact lever. If the ITB contact lever is locked with the image transfer belt unit fully inserted into machine, the paper transfer roller is not set in the correct position when the paper transfer roller unit is closed. This causes the shadows on the image, paper jam or failure of the paper transfer roller unit opening.



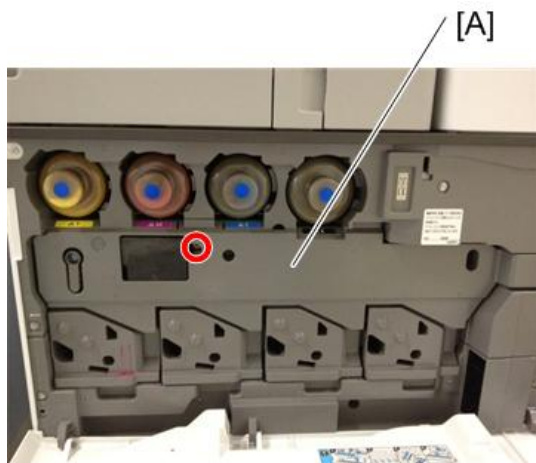
d146e2101

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.

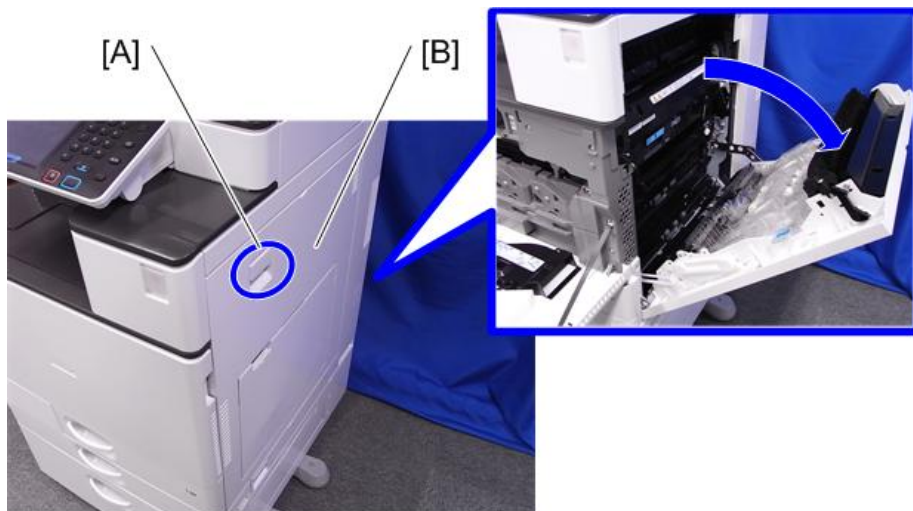
Replacement

1. Open the front cover. (page 360 "Front Cover")
2. Image transfer front cover [A] (1x1)



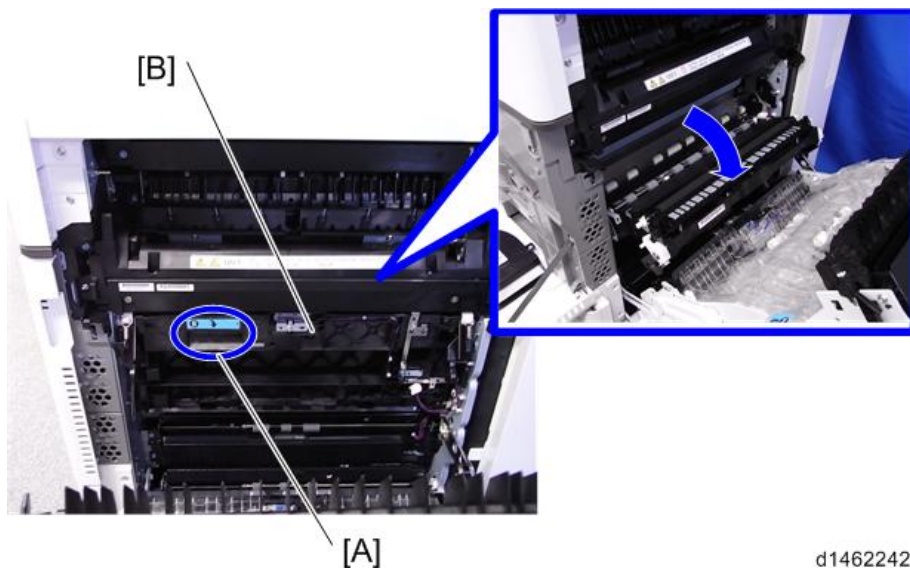
d1462240

3. Release the lock [A] and open the right cover [B].

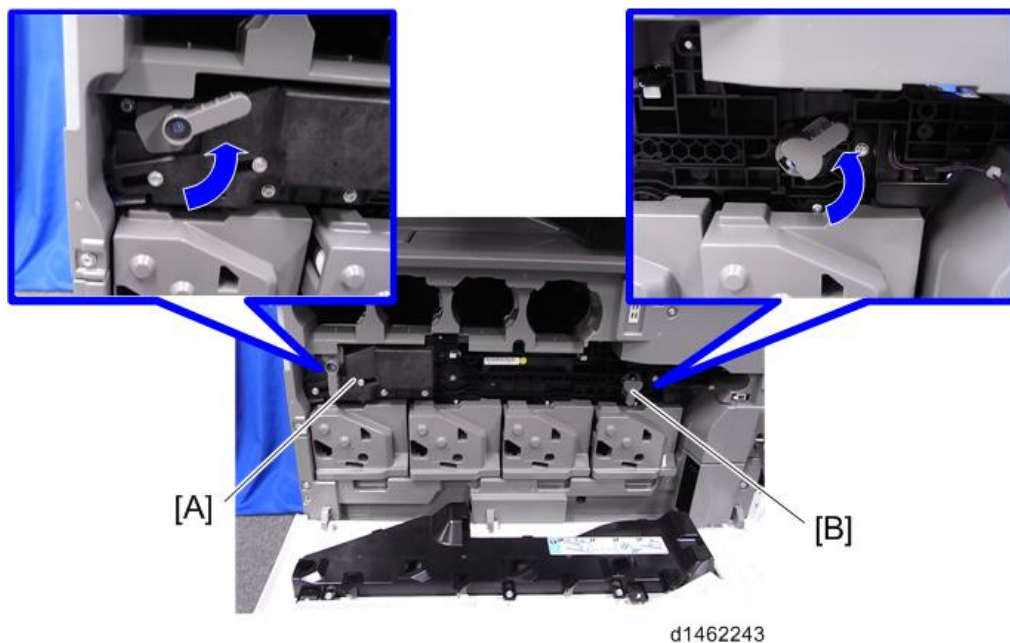


d1462241

4. Pull the handle [A] and open the paper transfer unit [B].



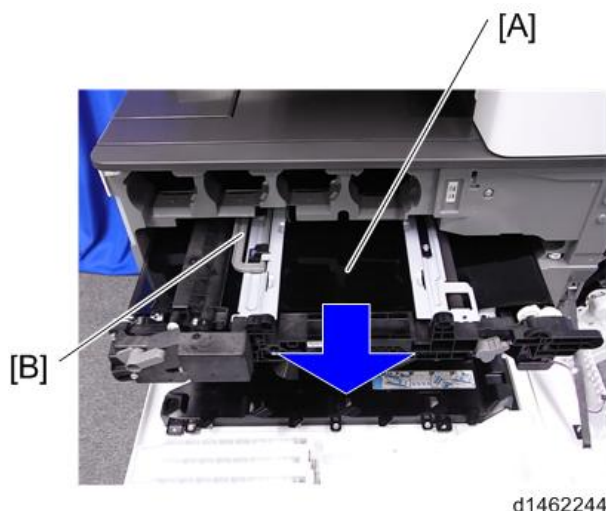
5. Release the ITB lock lever [A] and ITB contact lever [B].



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.



Locking mechanism by handle

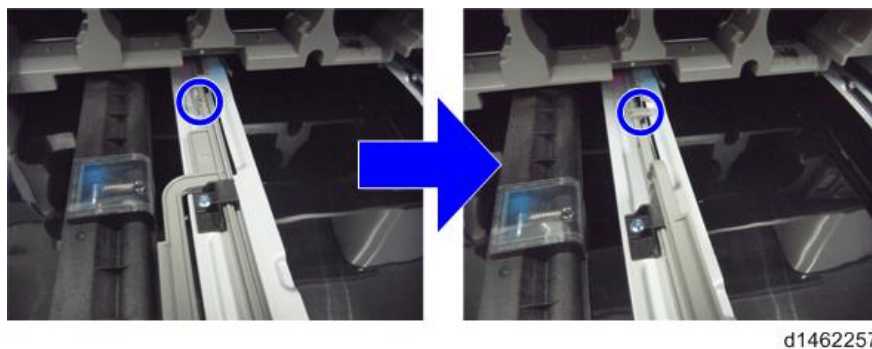
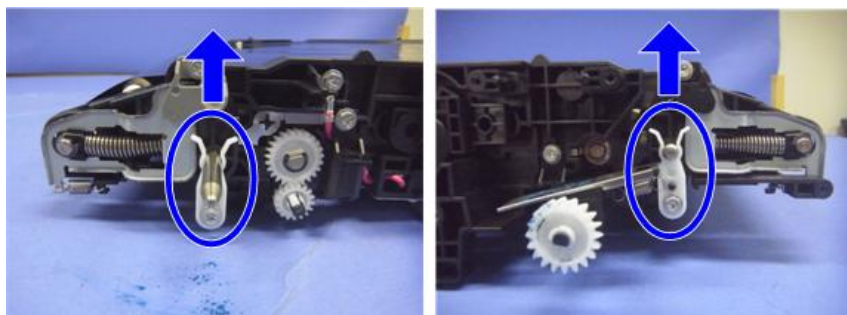


Image Transfer Cleaning Unit

⚠ 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

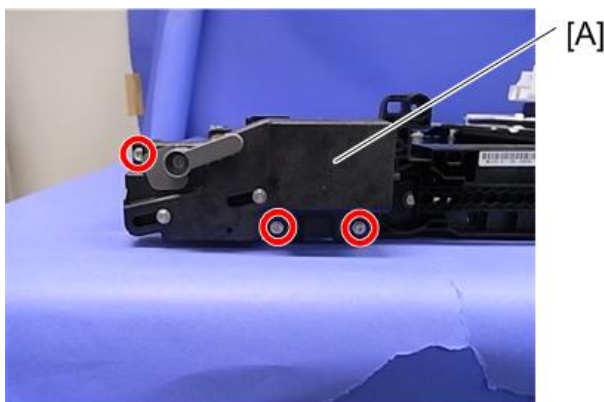
4

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.

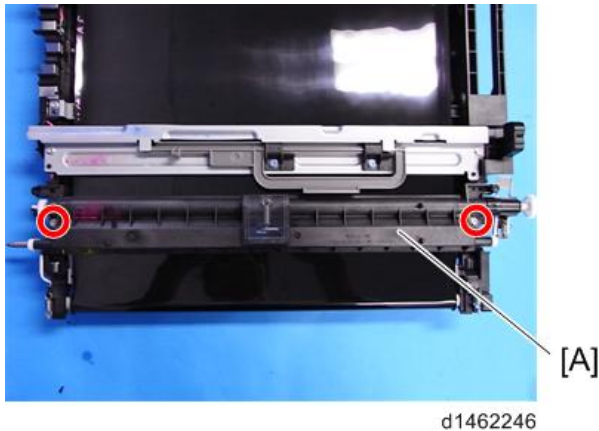
Replacement

1. Image transfer unit (page 445 "Image Transfer Unit")
2. Image transfer lock unit [A] (⌀×3, Among them, stepping screw ×1)

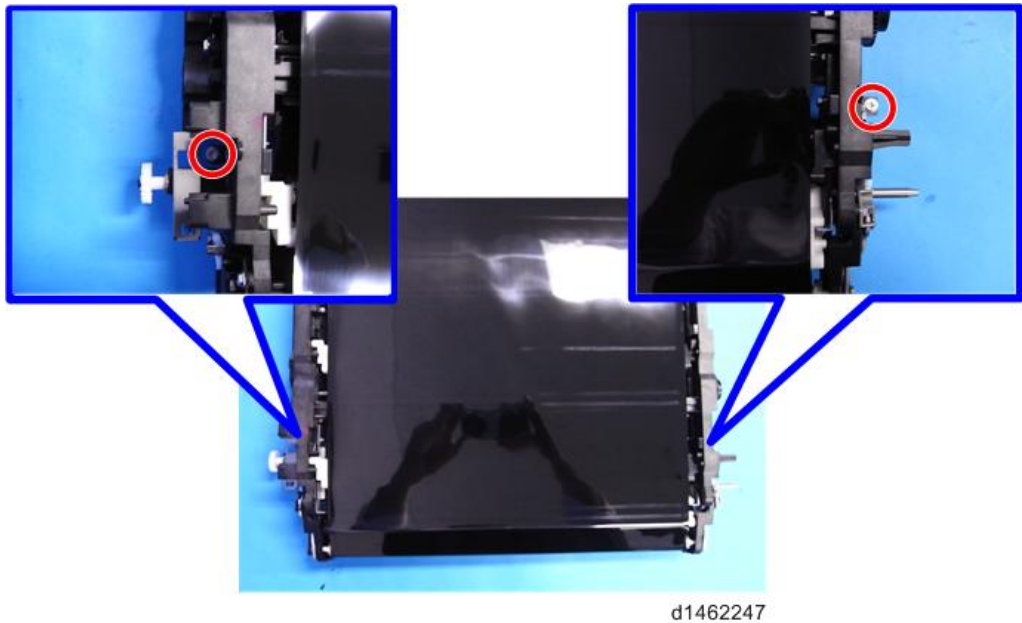


d1462245

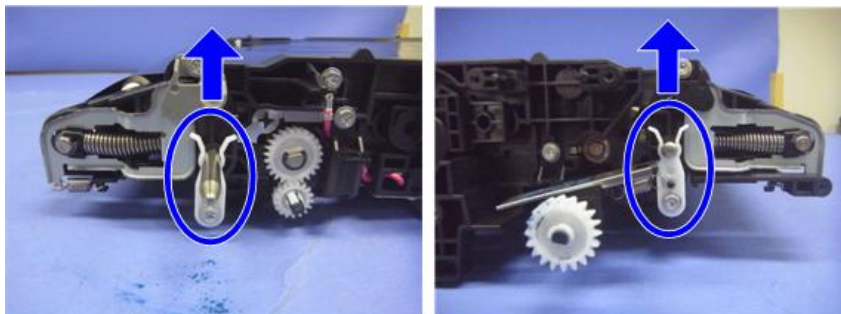
3. Remove the screw above the image transfer cleaning unit [A] (⌀×2).



4. Turn the whole image transfer belt unit over, and remove the screw below the image transfer cleaning unit (⌀×2).



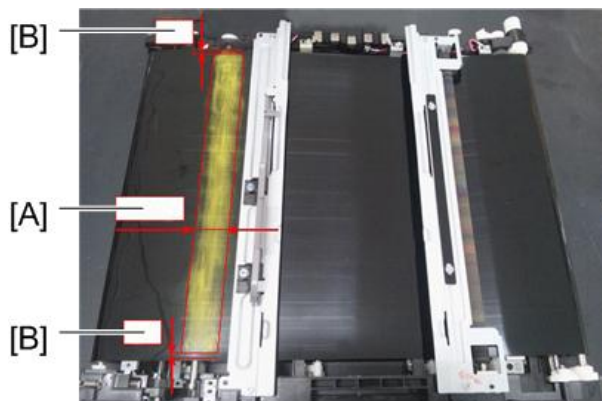
5. While releasing the hook, lift the image transfer belt unit gently, and remove the image transfer cleaning unit.



d1462255

4

6. Put toner on the image transfer belt.



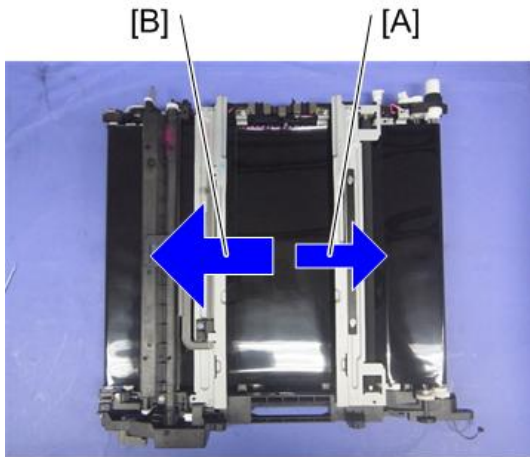
d1462176

[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].



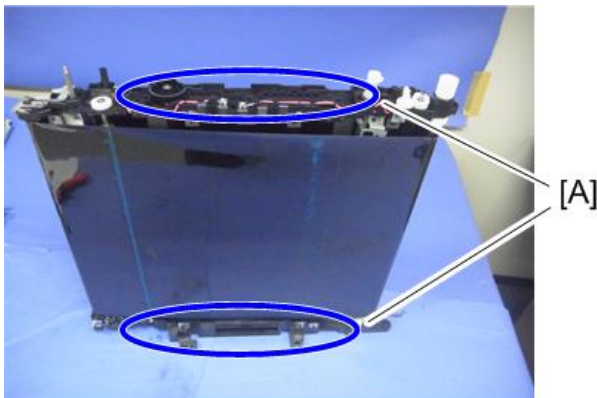
d1462175

4

Image Transfer Belt

⚠ CAUTION

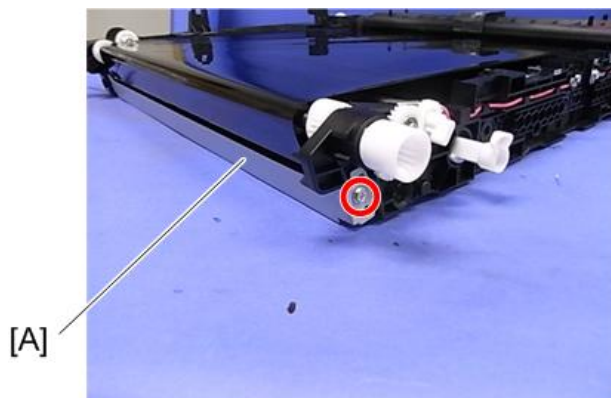
- Do not touch the rollers but hold the upper/lower resin part [A] when you lift the Image Transfer Unit. Touching the rollers may cause poor image quality.



d1464005

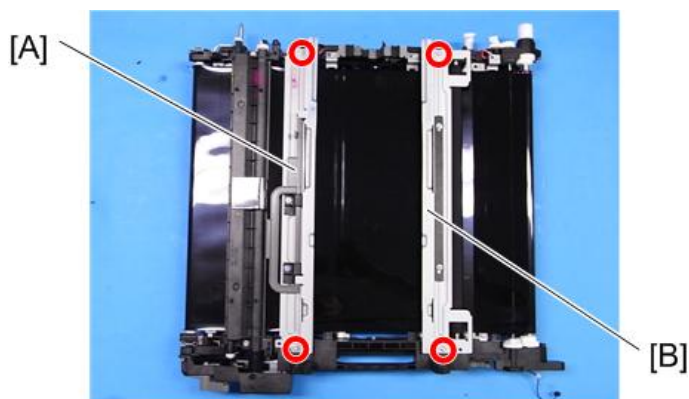
1. Image transfer unit (page 445 "Image Transfer Unit")

2. Bracket [A] (🔩×1)



d1462248

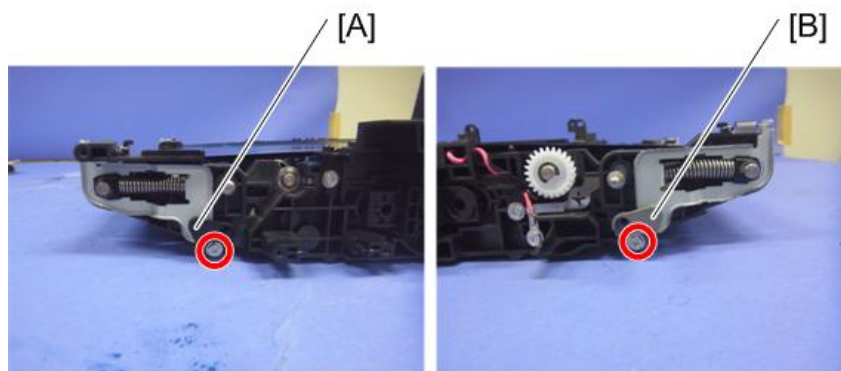
3. Brackets [A] [B] (🔩×4)



d1462249

4. Image transfer cleaning unit (page 449 "Image Transfer Cleaning Unit")

5. Remove the tension fixing frames [A] and [B] (front side: black, rear side: gray).



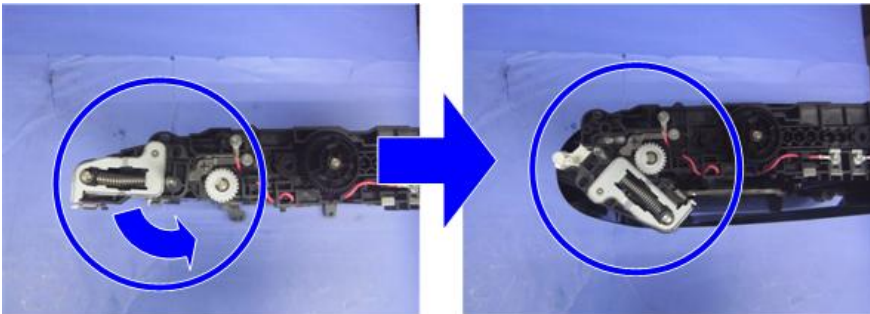
d1462256

6. Position the image transfer unit with the front side underneath.



d1462250

7. Release the tension, and remove the belt.



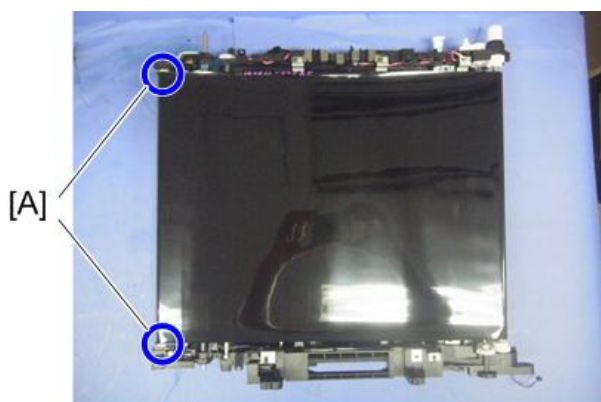
d1462251



d1462252

Note

- When you install a new image transfer belt, install it under the guide [A].



d1462177

4

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.

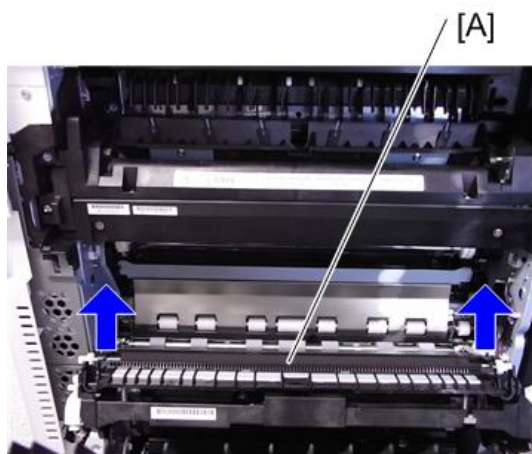


d1462254

Paper Transfer Roller

1. Open the paper transfer roller unit. (page 445 "Image Transfer Unit")

2. Paper transfer roller [A]

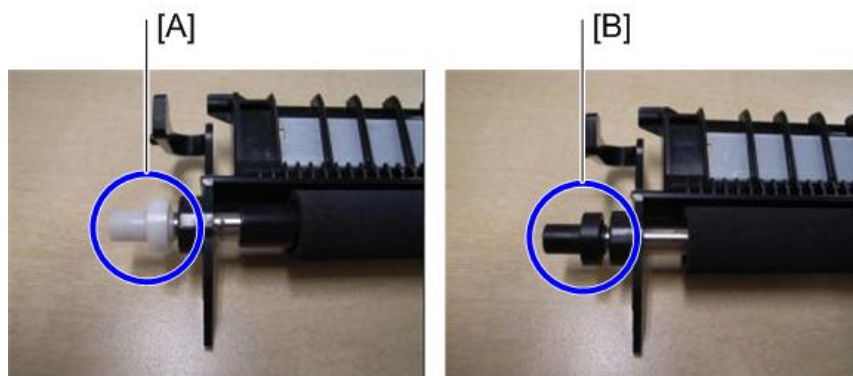


d1462260

4

When reinstalling the paper transfer roller

When reinstalling the paper transfer roller, do not install the wrong type of roller.



d1463070

[A]: Standard roller

[B]: Imageable Area Extension Unit Type M3

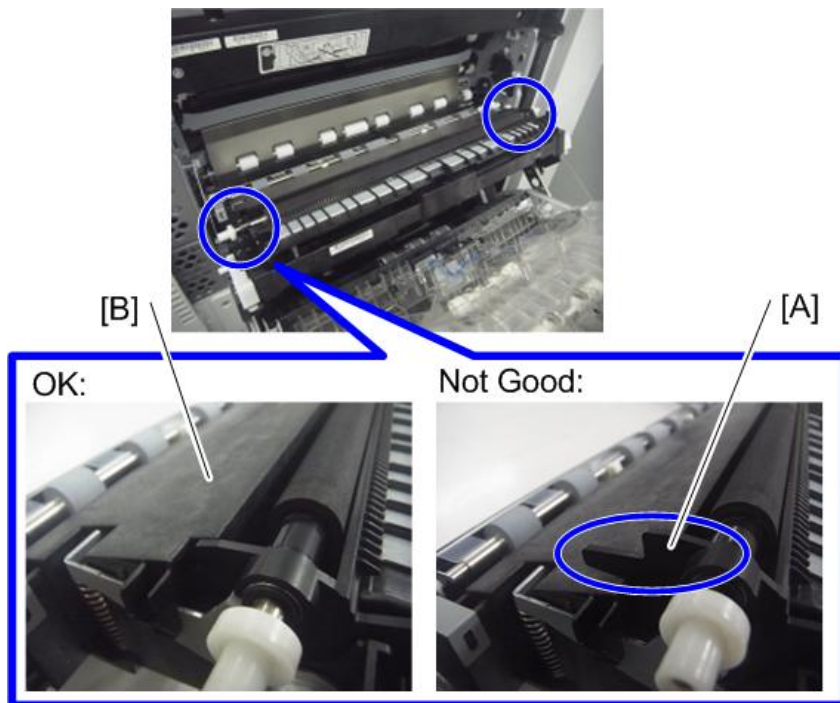
When attaching the paper transfer roller, make sure that the roller is set in the correct position with referring to the three points described below.

⚠ CAUTION

- If the paper transfer roller is set incorrectly, the following problems may occur.
 - Damage to the image transfer belt
 - Roller detachment when opening and closing the paper transfer roller unit to remove a paper jam

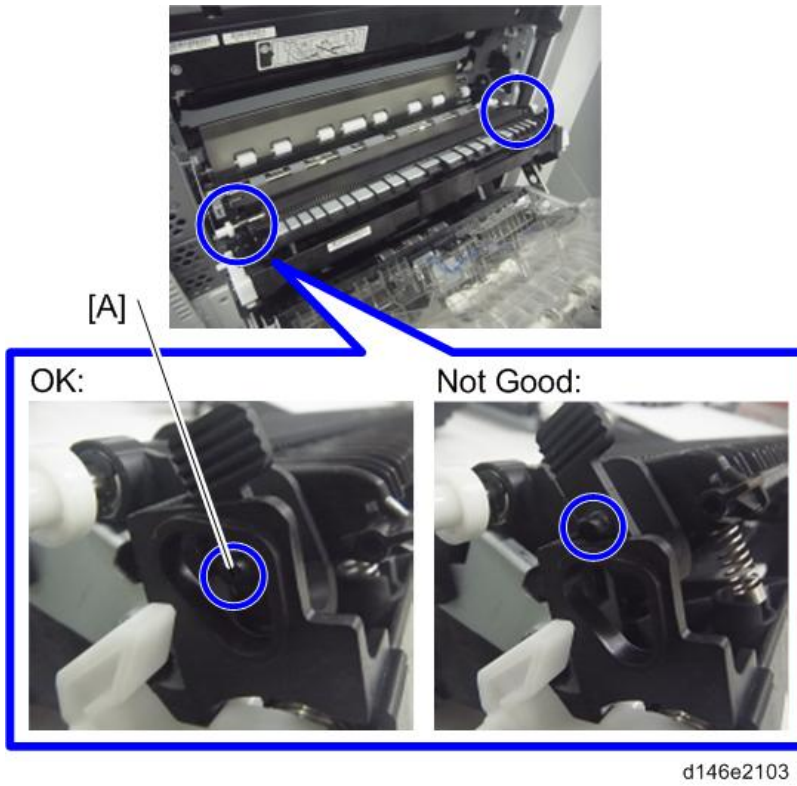
- Failure of the paper transfer roller unit opening

1. Check that the claw [A] on the roller holder is under the guide board [B].

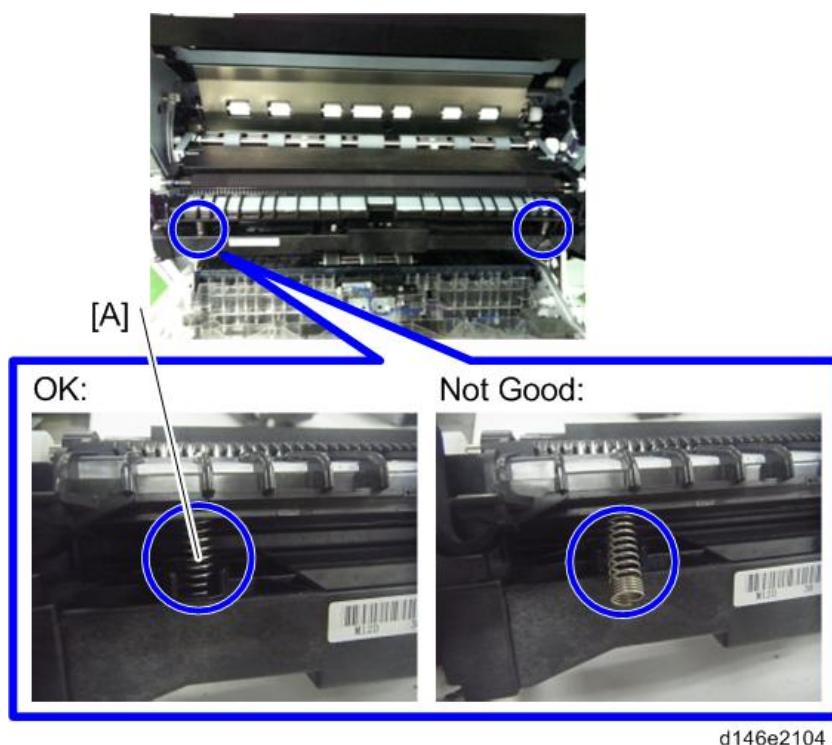


d146e2102

2. Check that the pin [A] on either end of the paper transfer roller is inserted correctly.



3. Check that the spring [A] at either end of the paper transfer roller unit is in the correct position at each end.



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 445 "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] (🔧x2, 🛠x1).

⚠ CAUTION

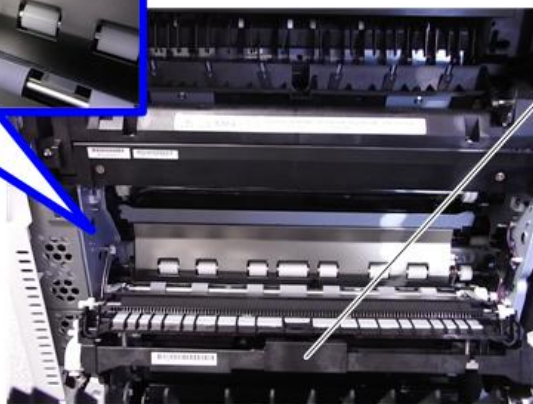
- Note that the sizes of the clip ring differ on the left and right.

Note

- When attaching a paper transfer roller unit, first attach the stops [B] to the paper transfer roller unit.

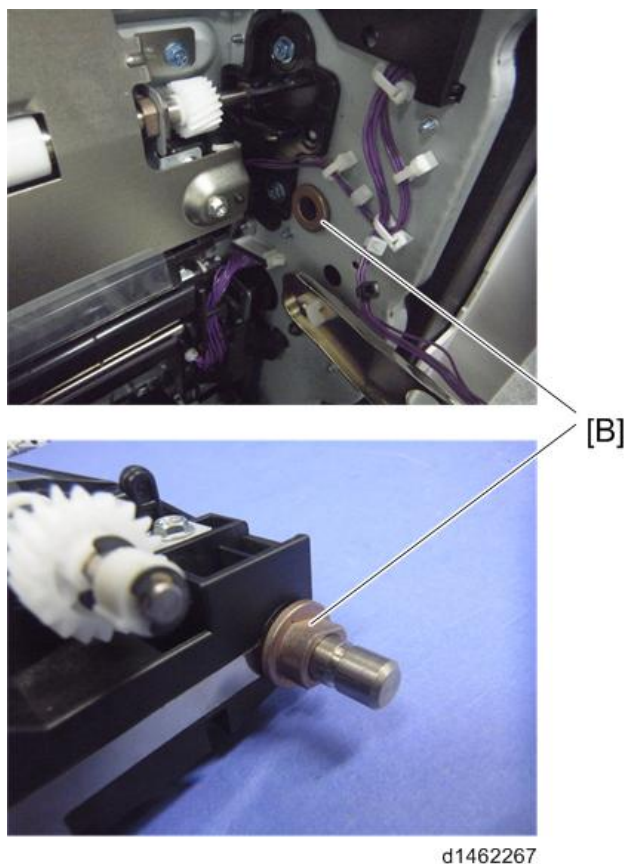


d1462261



d1462262

4



d1462267

Fusing Entrance Sensor

1. Open the right cover. (page 445 "Image Transfer Unit")

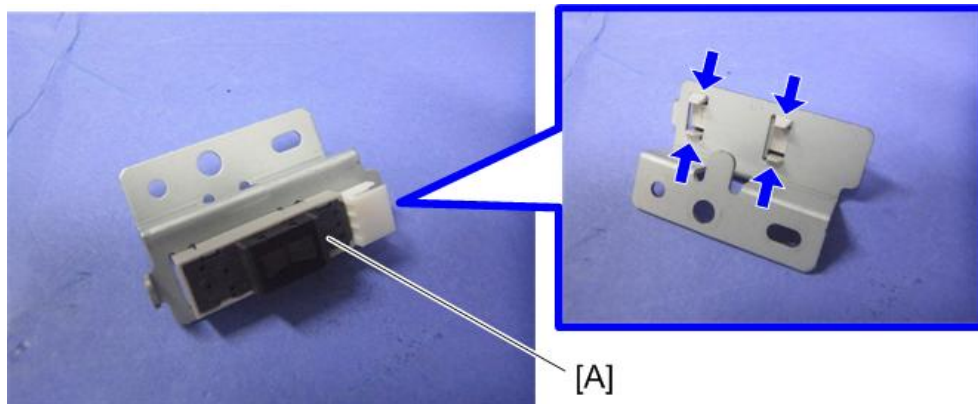
2. Fusing entrance sensor unit [A] (⚙️×1, 📡×1)



d1462263

4

3. Fusing entrance sensor [A]



d1462264

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]

SP No.	Classification 1	Classification 2	Value
3-334-00 2	ID.Sens TestVal:C	Diffuse Corr	TM/P sensor: C, value of [2]
3-334-00 3	ID.Sens TestVal:C	Vct_reg Check:Slope	TM/P sensor: C, value of [3]
3-334-00 4	ID.Sens TestVal:C	Vct_reg Check:Xint	TM/P sensor: C, value of [4]
3-334-00 5	ID.Sens TestVal:C	Vct_dif Check:Slope	TM/P sensor: C, value of [5]
3-334-00 6	ID.Sens TestVal:C	Vct_dif Check:Xint	TM/P sensor: C, value of [6]
3-335-00 1	ID.Sens TestVal:R	K2: Check	TM/P sensor: R, value of [1]
3-335-00 2	ID.Sens TestVal:R	Diffuse Corr	TM/P sensor: R, value of [2]
3-335-00 3	ID.Sens TestVal:R	Vct_reg Check:Slope	TM/P sensor: R, value of [3]
3-335-00 4	ID.Sens TestVal:R	Vct_reg Check:Xint	TM/P sensor: R, value of [4]
3-335-00 5	ID.Sens TestVal:R	Vct_dif Check:Slope	TM/P sensor: R, value of [5]
3-335-00 6	ID.Sens TestVal:R	Vct_dif Check:Xint	TM/P sensor: R, value of [6]

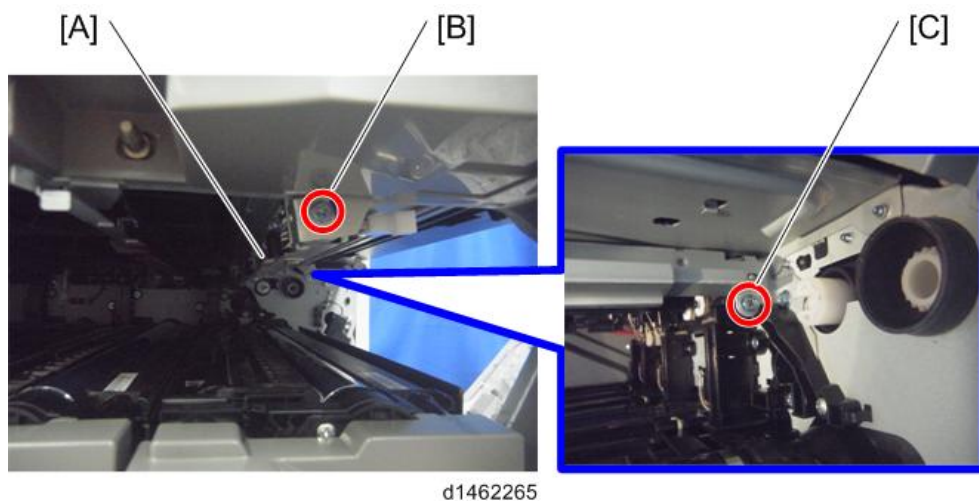
Replacement procedure

1. Image transfer belt unit (page 445 "Image Transfer Belt Unit")
2. Paper transfer roller unit (page 460 "Paper Transfer Roller Unit")
3. Fusing unit (page 493 "Fusing Unit")
4. Fusing dowser position sensor unit (page 508 "Fusing Shield Position Sensor")

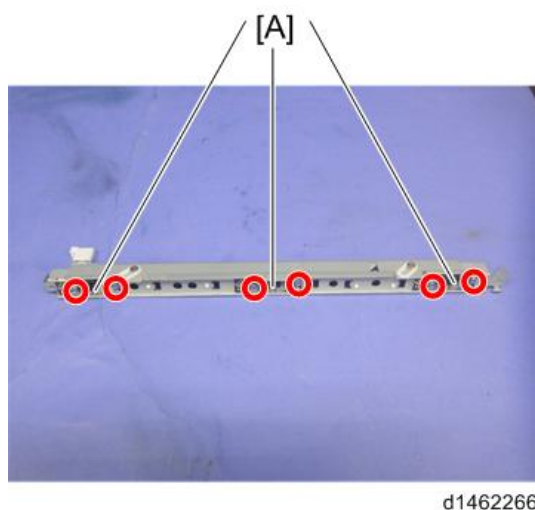
5. TM(ID) sensor unit [A] (⚙️×2, 📡×3, 📡×5)

⚠️ 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.



6. TM(ID) sensor [A] (⚙️×6)



Adjustment after replacing the TM(ID) sensor

1. Turn on the main power switch, and then go into the SP mode.

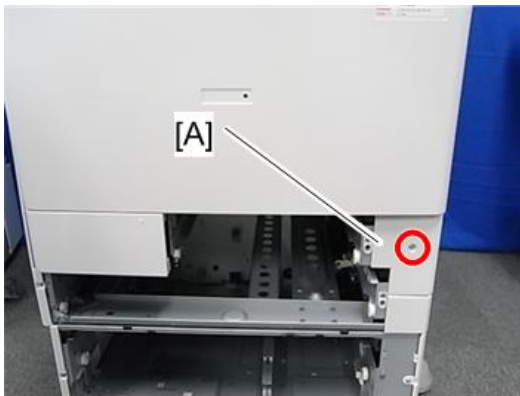
2. Run SP3-011-004 (Manual Procon: Exe Full MUSIC).

↓ Note

- If the SP3-011-004 can't finish successfully, make sure you are entering the correct value to the SP.

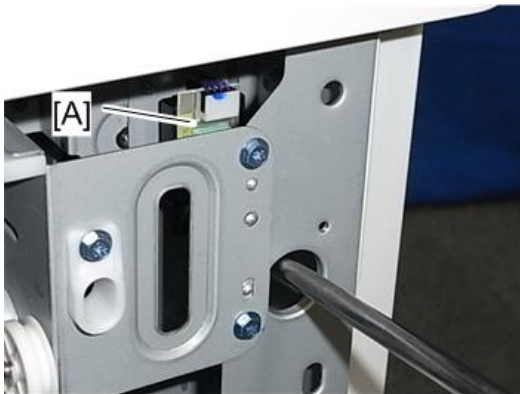
Temperature and Humidity Sensor

1. 1st and 2nd paper tray (page 526 "Paper Feed Sensor")
2. Right lower cover (⚙️ x1)



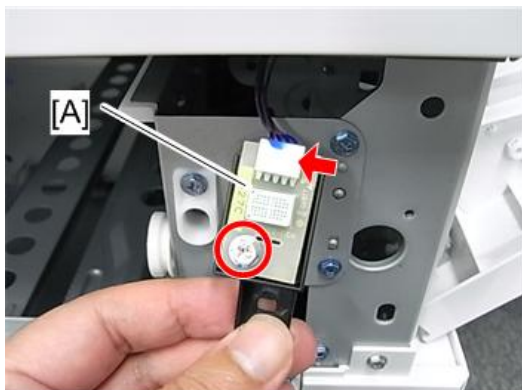
d146z0035

3. Temperature and humidity sensor bracket (⚙️ x1)



d146z0036

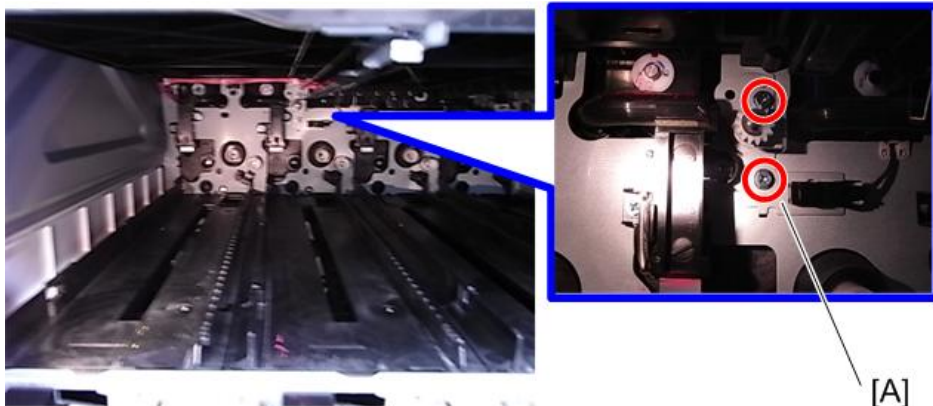
4. Temperature and humidity sensor (🔌 x1, 🔧 x1)



d146z0037

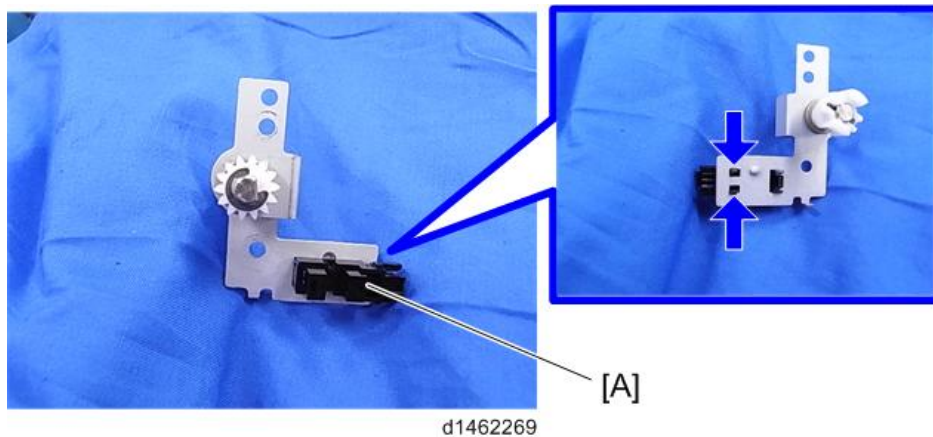
ITB Contact and Release Sensor

1. PCDUs (page 434 "PCDU")
2. ITB contact and release sensor bracket [A] (🔧 x2)



d1462259

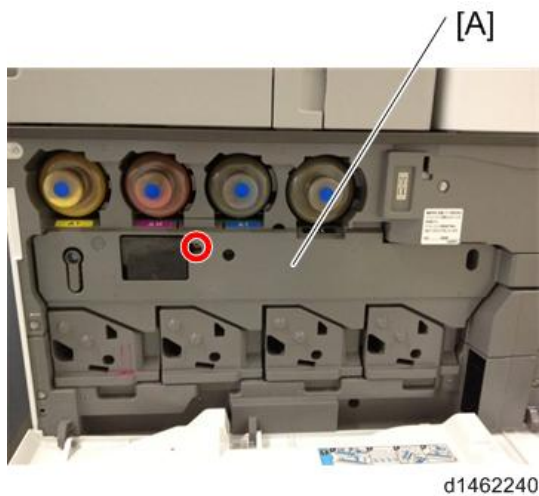
3. ITB contact and release sensor [A]



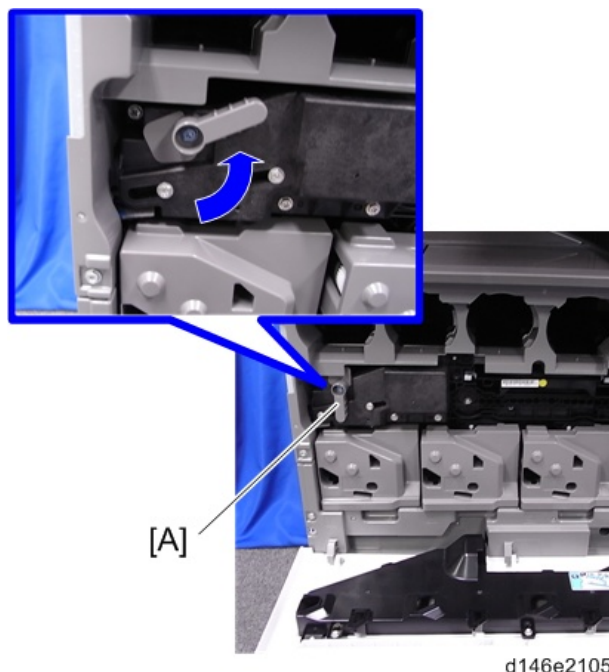
4

Image Transfer Lock Unit

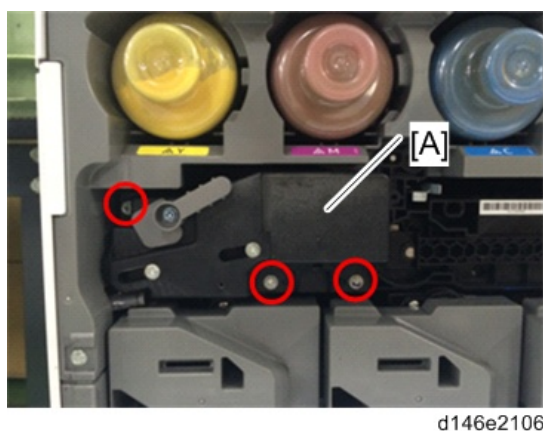
1. Open the front cover. (page 360 "Front Cover")
2. Image transfer front cover [A] (⚙️×1)



3. Release the ITB lock lever [A].



4. Image transfer lock unit [A] (⌀×3, Among them, stepping screw ×1)

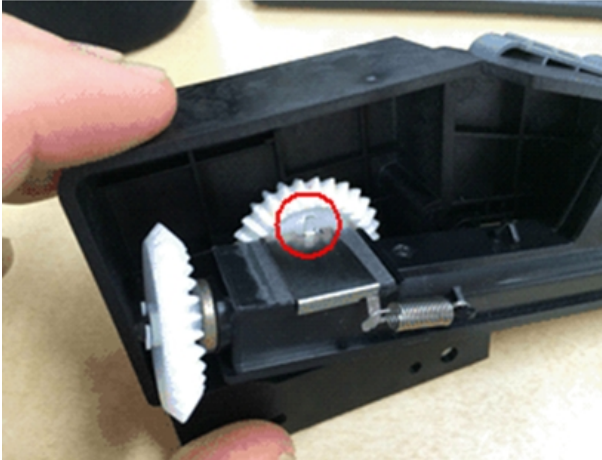


Installing the Image Transfer Lock Unit

⚠ CAUTION

- When installing the image transfer lock unit, release the ITB lock lever and follow the procedures below, taking care to avoid deformation of the pin inside the unit.
If the pin is deformed, the shutter on the waste toner recovery path may not open and waste toner may clog the cleaning unit.

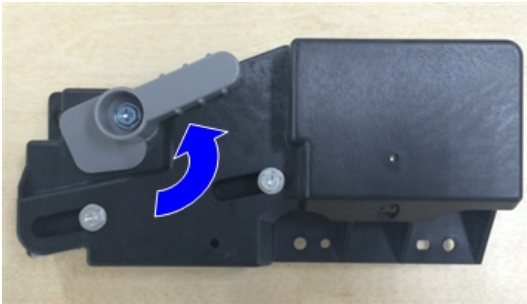
-
- Pin inside the image transfer lock unit (circled in red below)



4

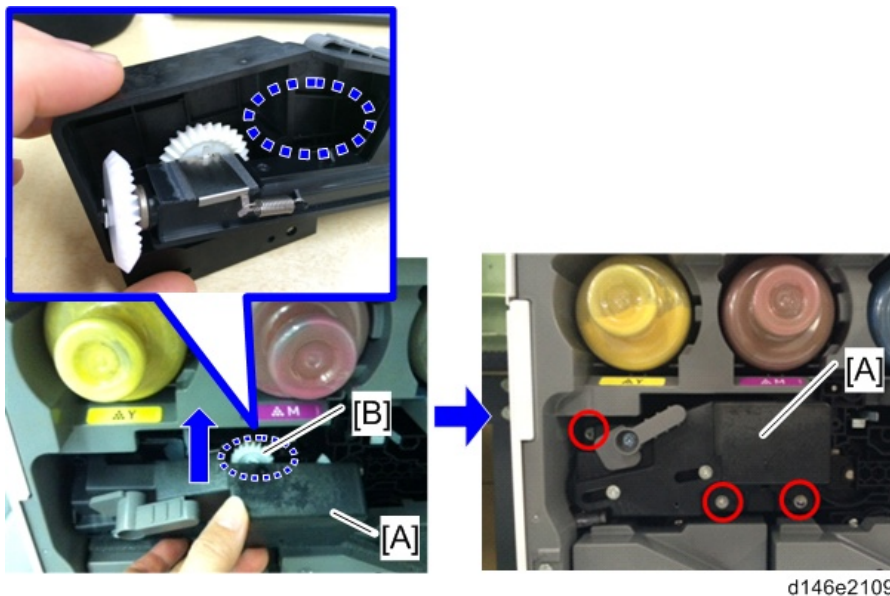
1. Before installing, check that the lever on the image transfer lock unit is in the unlocked position.

Unlocked position:

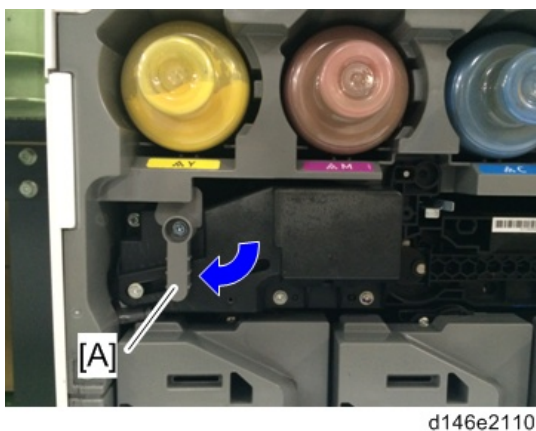


d146e2108

2. Install the image transfer lock unit [A] so that the gear [B] on the image transfer unit side fits into the space in the image transfer lock unit circled in blue below (⌀×3, Among them, stepping screw ×1).

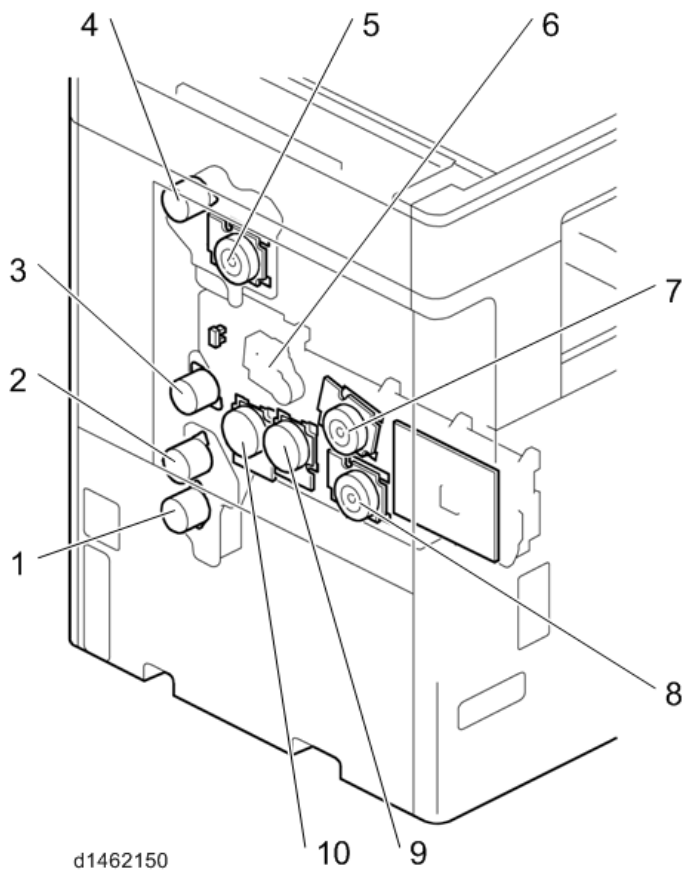


3. Return the ITB lock lever [A] to the locked position.



Drive Unit

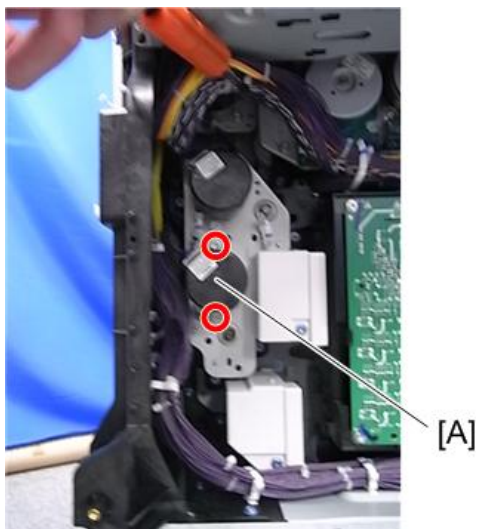
Overview



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

Paper Feed Motor

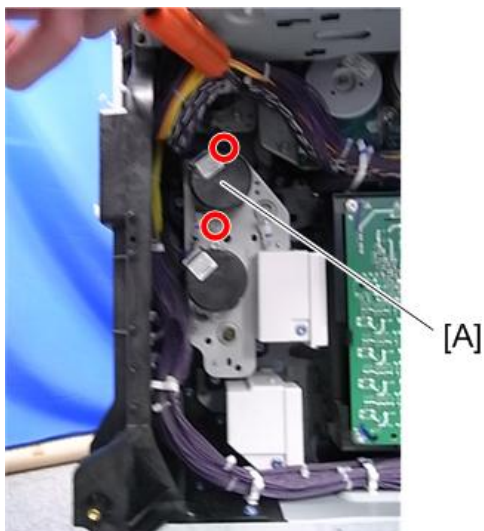
1. Power supply box (page 567 "Paper Transport IOB")
2. Paper Feed Motor [A] (⚙️x2, 📦x1)



d1462102

Transport Motor

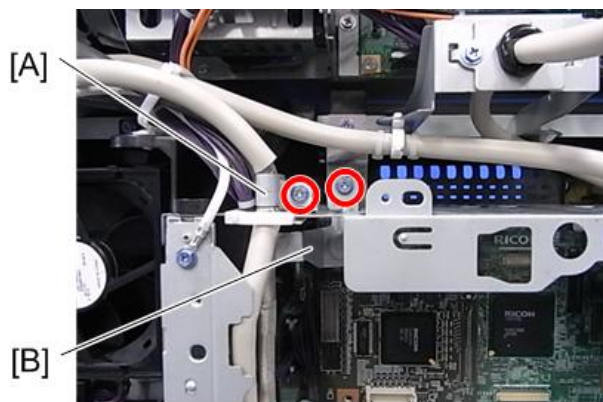
1. Power supply box (page 567 "Paper Transport IOB")
2. Transport motor [A] (⚙️x2, 📦x1)



d1462103

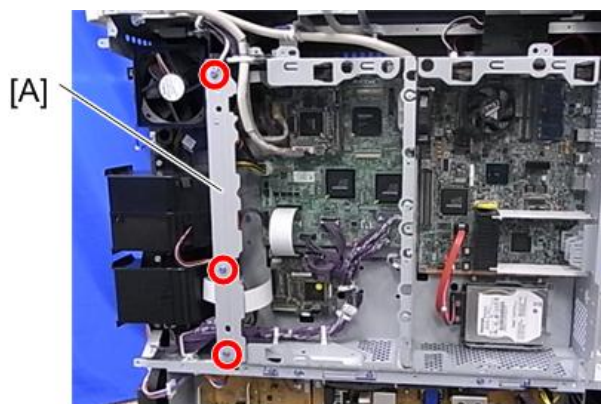
Transfer Motor Unit

1. Rear right cover (page 367 "Rear Right Cover")
2. Scanner rear lower cover (page 368 "Scanner Rear Cover (Small)")
3. Bracket [A] [B] (⌀×2)



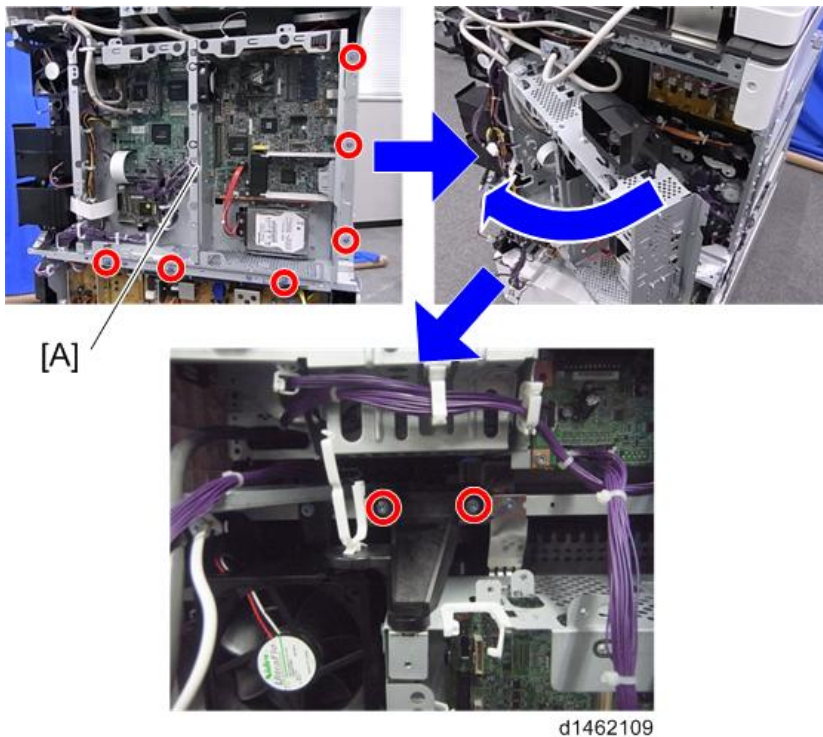
d1462107

4. Bracket [A] (⌀×3)

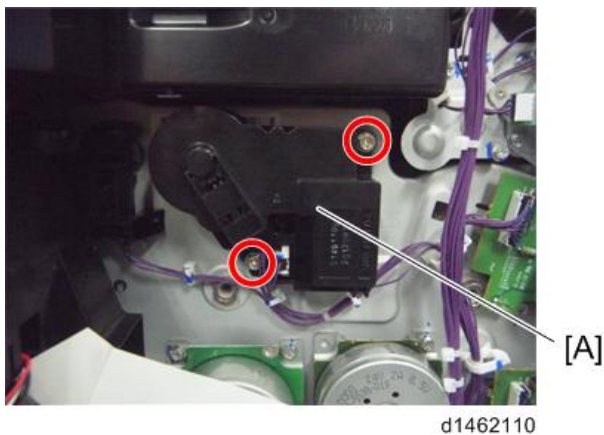


d1462108

5. Controller box [A] (⚙️×8, 🖨️×16, 🖱️×17, USB×1)



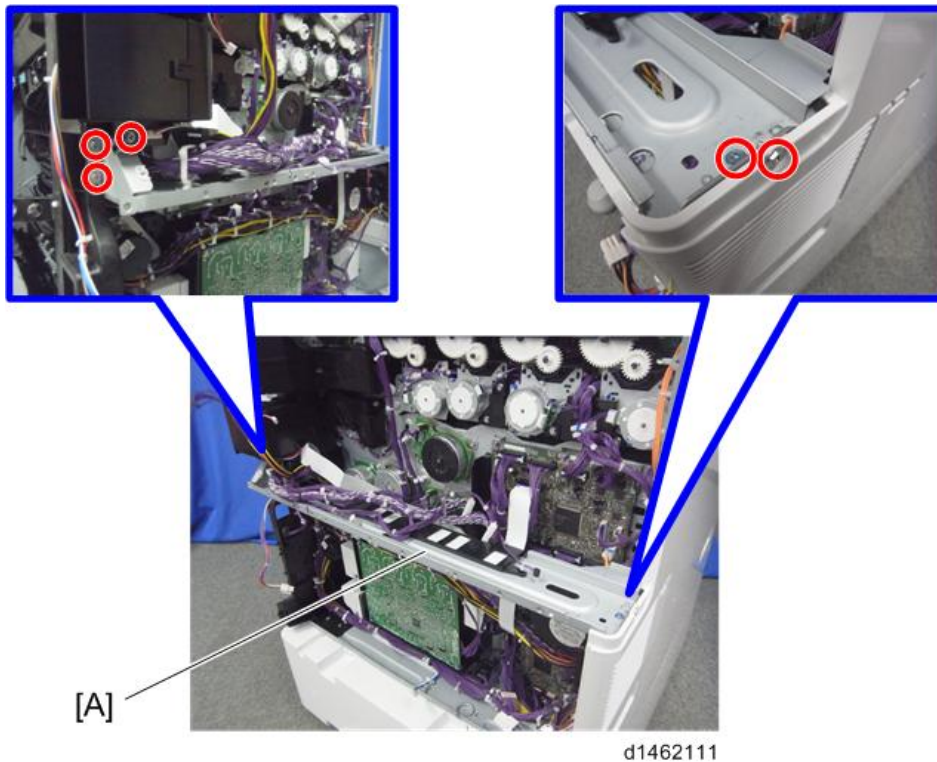
6. Paper transfer contact motor unit [A] (⚙️×2)



Imaging Drive Unit

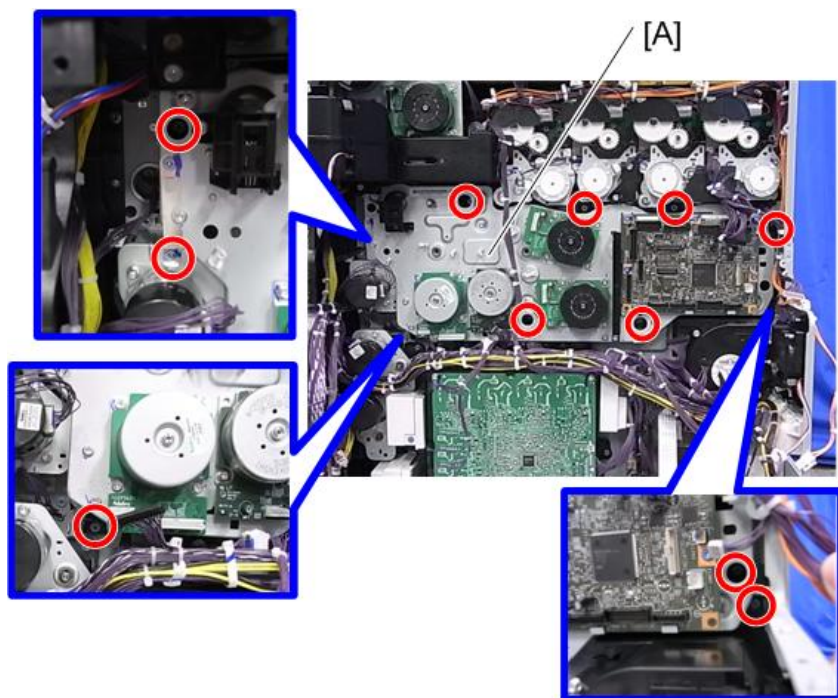
1. Paper transfer contact motor unit (page 475 "Transfer Motor Unit")
2. Power supply box (page 567 "Paper Transport IOB")

3. Bracket [A] (4)



4. Drive cooling fan (page 575 "Drive Cooling Fan (D148/D149/D150)")

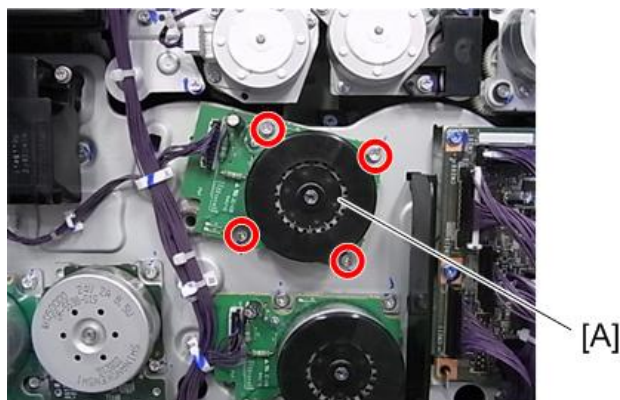
5. Imaging drive unit [A] (⚙️×11)



d1462112

PCU Motor: CMY

1. Controller box (page 475 "Transfer Motor Unit")
2. Color drum motor [A] (⚙️×4)



d1462113

Development Motor: CMY

1. Bracket (page 476 "Imaging Drive Unit")
2. Color Development motor [A] (4)

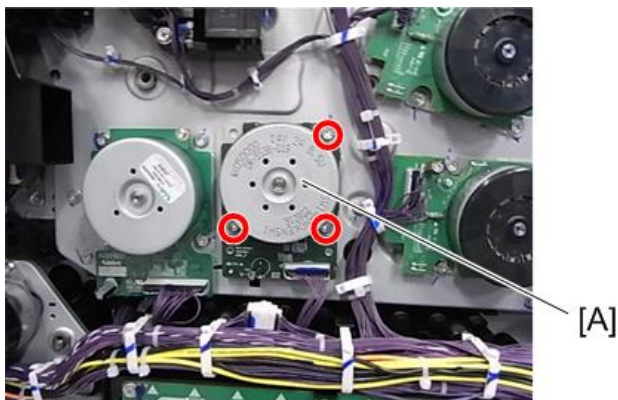


d1462114

4

Development Motor: Black

1. Bracket (page 476 "Imaging Drive Unit")
2. Development Motor: Black [A] (3)

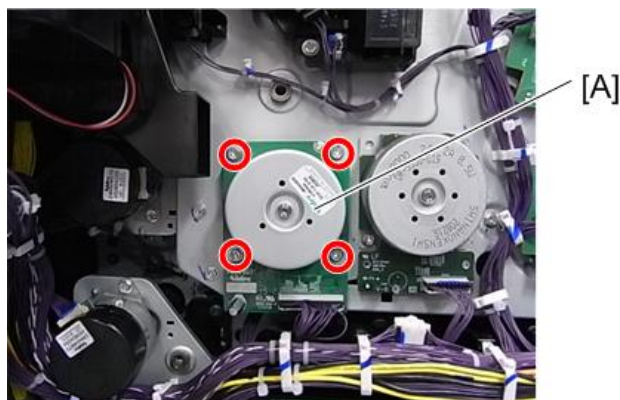


d1462115

PCU: Black / Image Transfer Motor

1. Bracket (page 476 "Imaging Drive Unit")

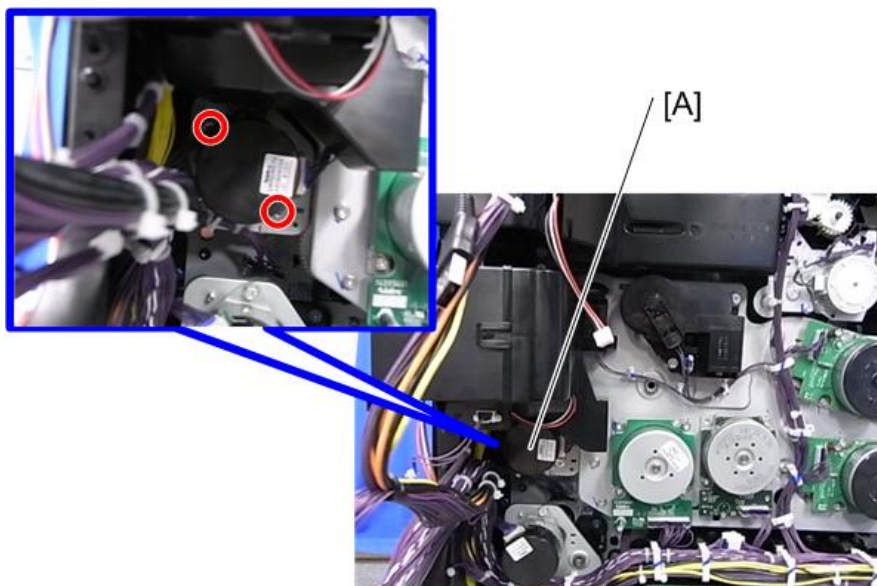
2. PCU: Black / Image Transfer Motor [A] (⚙️×4)



d1462116

Registration Motor

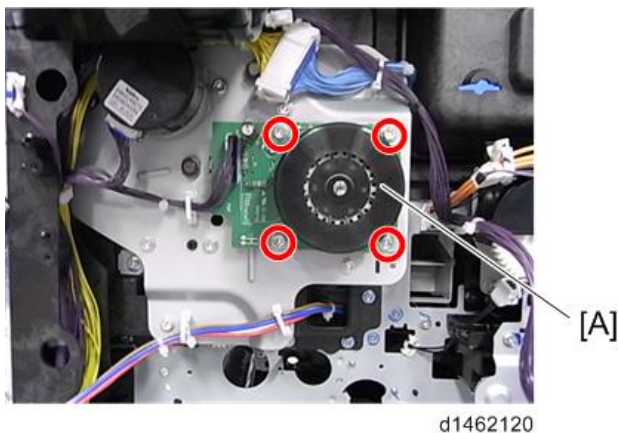
1. Power supply box (page 567 "Paper Transport IOB")
2. Drive cooling fan (page 575 "Drive Cooling Fan (D148/D149/D150)")
3. Registration motor [A] (⚙️×2, 📄×1)



d1462117

Fusing Motor

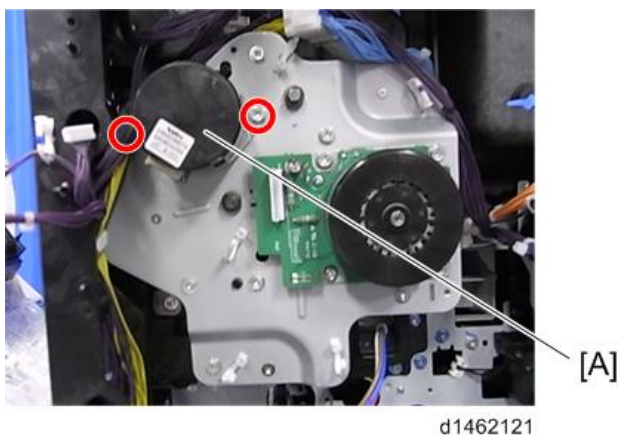
1. Rear right cover (page 367 "Rear Right Cover")
2. Fusing motor [A] (⚙️×4, 📺×1)



4

Paper Exit / Pressure Release Motor

1. Fusing exhaust heat fan (page 574 "Fusing Exhaust Heat Fan")
2. Paper exit / Pressure release motor [A] (⚙️×2, 📺×1)



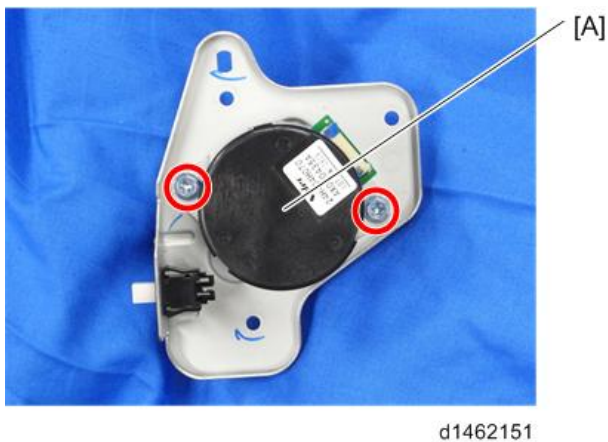
Duplex Entrance Motor

1. Paper exit unit (page 511 "Paper Exit Unit")
2. Fusing exhaust heat fan (page 574 "Fusing Exhaust Heat Fan")

3. Duplex entrance motor unit [A] (⚙️×3, 📡×2)



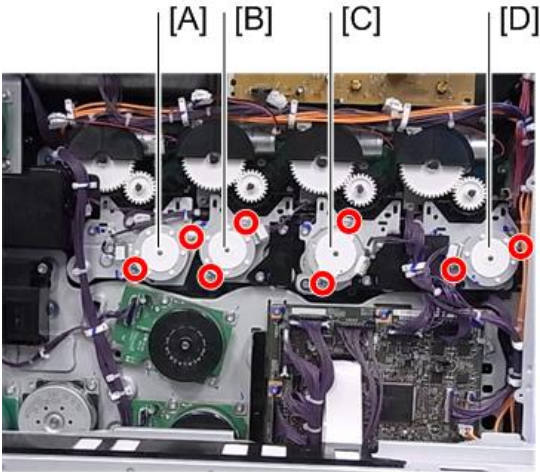
4. Duplex entrance motor [A] (⚙️×2)











Toner Transport Motor

1. Controller box (page 476 "Imaging Drive Unit")

2. Toner transport motor



d1462123

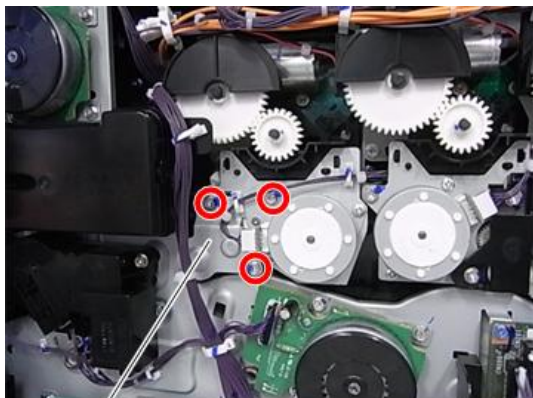
[A]	K	 x2,  x1
[B]	C	 x2,  x1
[C]	M	 x2,  x1
[D]	Y	 x2,  x1

Sub Hopper

K

- 1. Pull out the image transfer unit about 5cm.
- 2. Controller box. (page 475 "Transfer Motor Unit")

3. Toner transport motor unit (K) [A] (8×3)



d1462124

4. Sub hopper (K) [A]

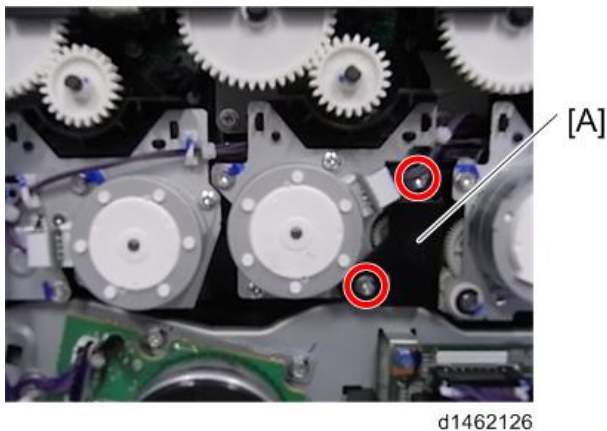


d1462125

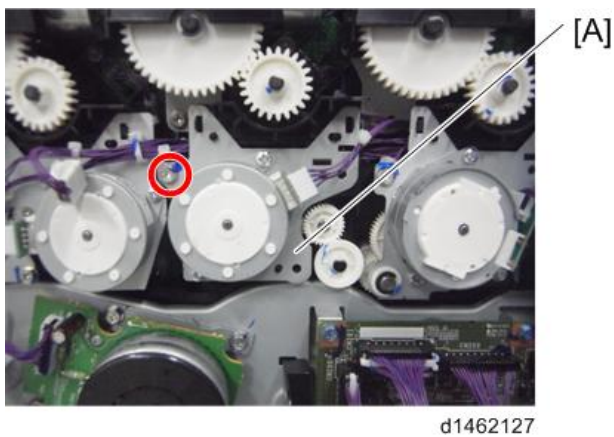
C

1. Pull out the image transfer unit about 5cm.
2. Controller box. (page 475 "Transfer Motor Unit")

3. Harness guide [A] (8×2)



4. Toner transport motor unit (C) [A] (8×1)

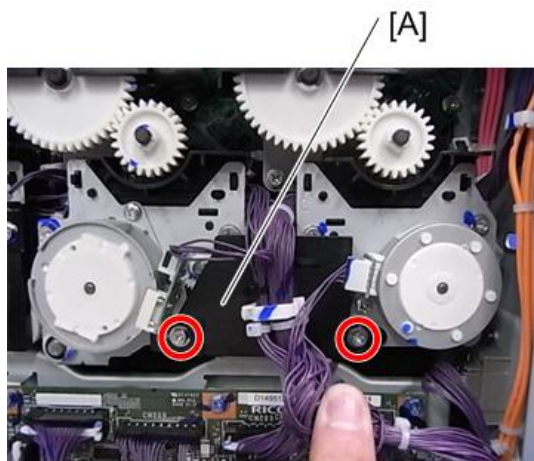


5. Hopper (C) [A]



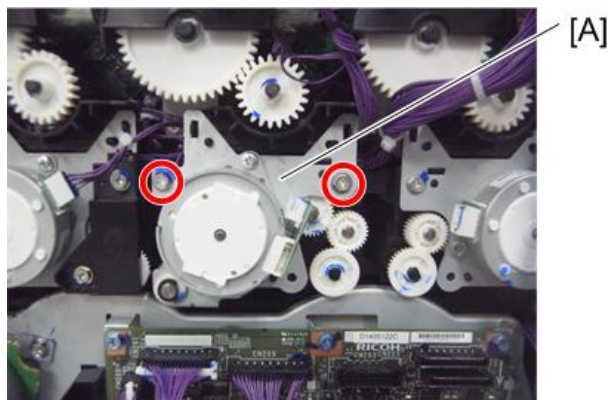
M

1. Controller box (page 475 "Transfer Motor Unit")
2. Harness guide [A] (⚙️×2)



d1462129

3. Toner transport motor unit (M) [A] (⚙️×3)



d1462130

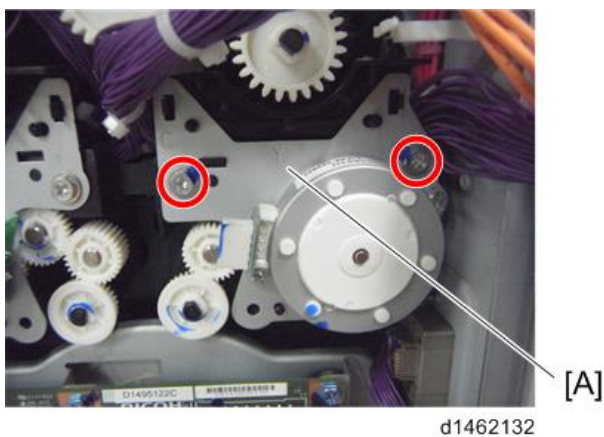
4. Hopper (M) [A]



4

Y

1. Harness guide (page 486 "M")
2. Toner transport motor unit (Y) [A] (8×3)



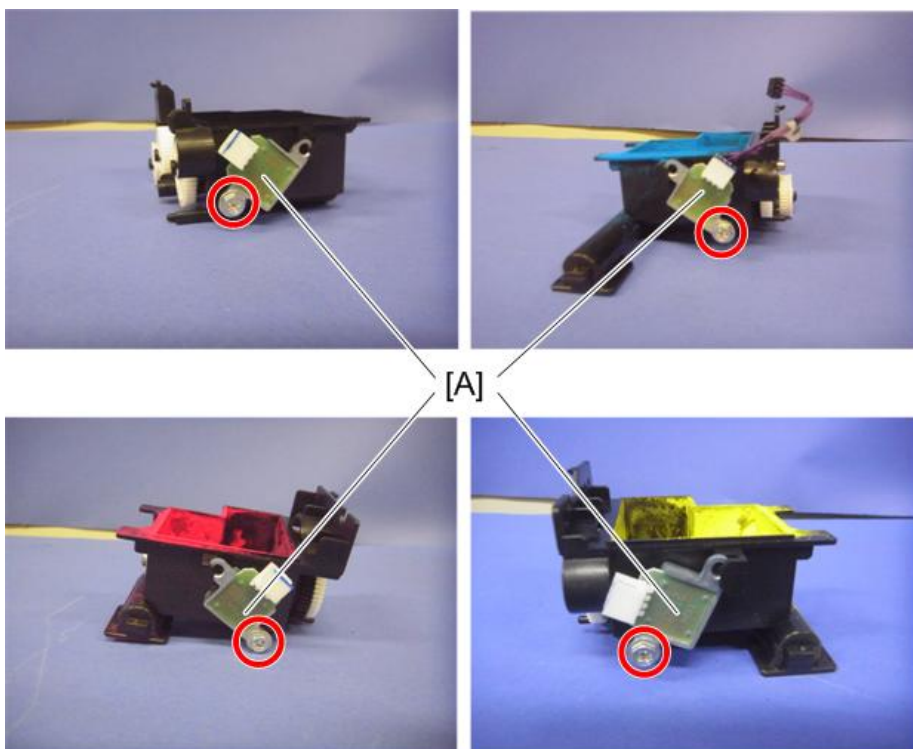
3. Hopper (Y) [A]



4

Toner End Sensor

1. Hopper (page 483 "Sub Hopper")
2. Toner end sensor [A]



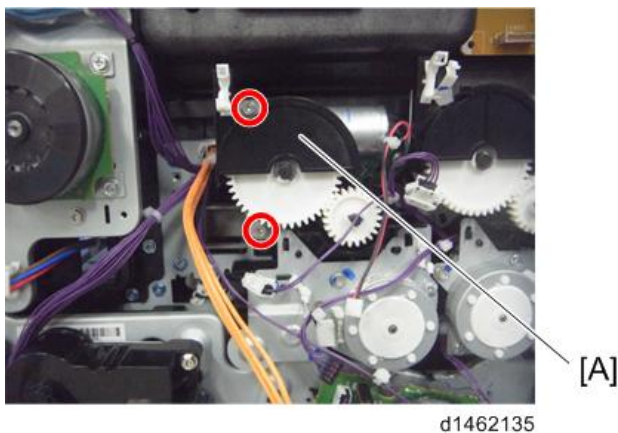
Note

- The toner end sensor, there is no difference between each color.

Toner Bottle Drive Motor

K

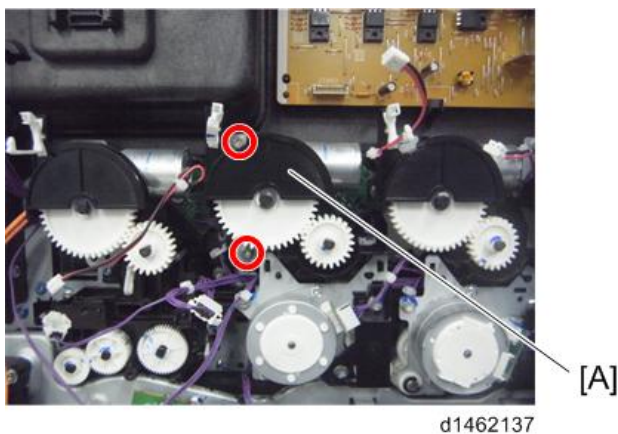
1. Toner transport motor (K) (page 482 "Toner Transport Motor")
2. Toner bottle drive motor (K) [A] (⚙️×2)



4

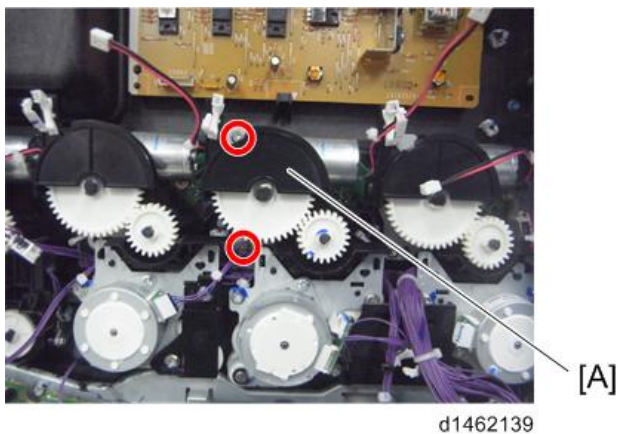
C

1. Toner transport motor (C) (page 482 "Toner Transport Motor")
2. Toner bottle drive motor (C) [A] (⚙️×2)



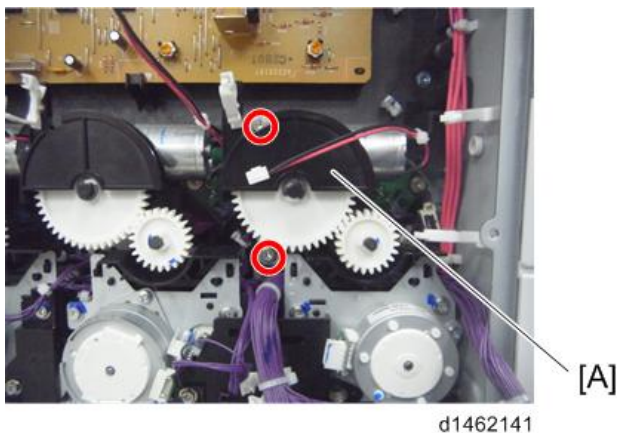
M

1. Toner transport motor (M) (page 482 "Toner Transport Motor")
2. Toner bottle drive motor (M) [A] (⚙️×2)



Y

1. Toner transport motor (Y) (page 482 "Toner Transport Motor")
2. Toner bottle drive motor (Y) [A] (⚙️×2)

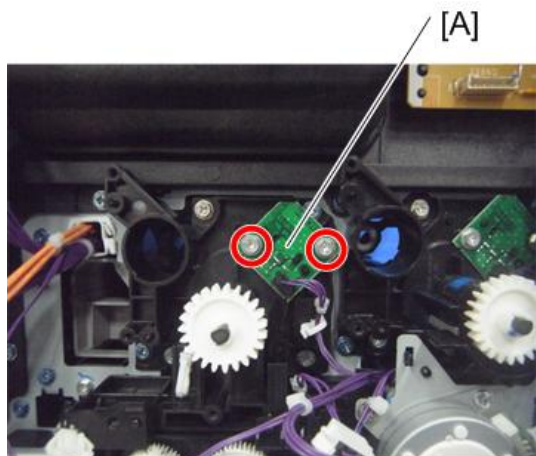


ID Chip

K

1. Toner bottle drive motor (K) (page 489 "K")

2. Toner bottle drive motor (C) (page 489 "C")
3. ID chip (K) [A] (🔧×2)

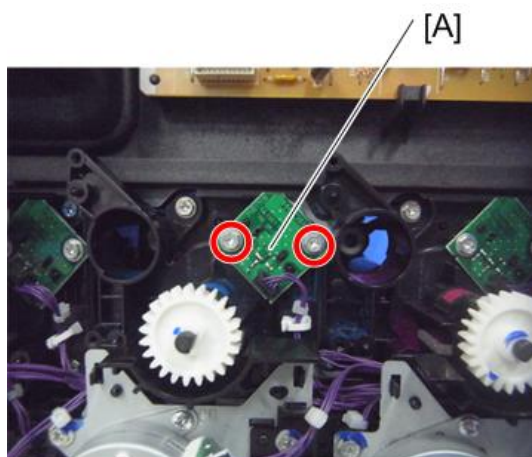


d1462143

4

C

1. Toner bottle drive motor (C) (page 489 "C")
2. Toner bottle drive motor (M) (page 490 "M")
3. ID chip (C) [A] (🔧×2)



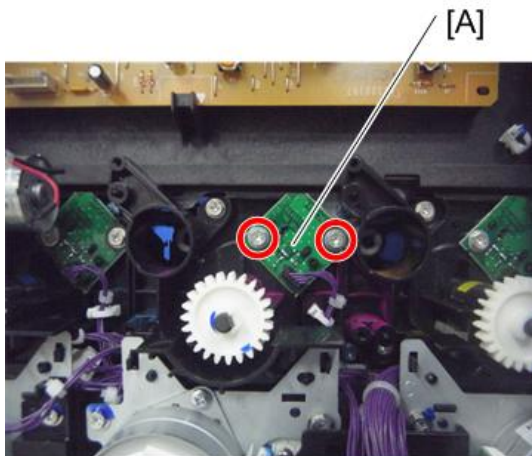
d1462144

M

1. Toner bottle drive motor (M) (page 490 "M")

2. Toner bottle drive motor (Y) (page 490 "Y")

3. ID chip (M) [A] (⚙️×2)

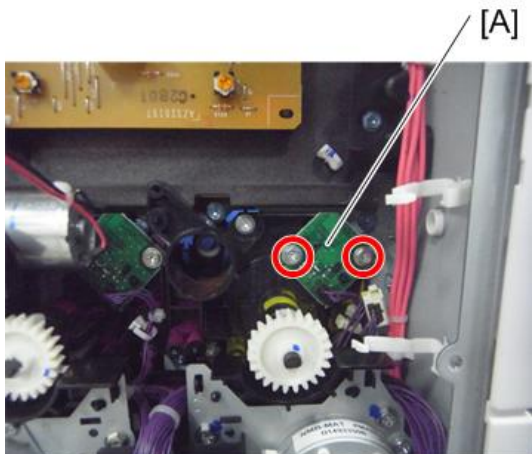


d1462145

Y

1. Toner bottle drive motor (Y) (page 490 "Y")

2. ID chip (Y) [A] (⚙️×2)



d1462146

Fusing Unit

Fusing Unit

Replacement

CAUTION

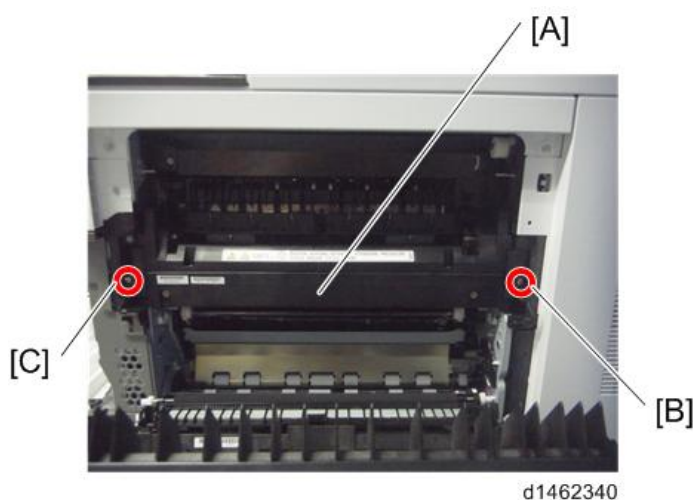
- Because there is a danger of burns on contact with hot parts of the fusing unit, start work when the temperature drops to a low enough temperature.
- To clear SC544-02 or SC554-02, replacing the fusing unit or installing a fuse (provided in the heating sleeve belt unit) in the fusing unit must be required. Follow the procedure below to clear SC544-02 or SC554-02.
- 1. Installing a new fusing unit.
- 2. Clear SC544-02 or SC554-02 with SP5-810-002
- 3. Turn off and on the machine.

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 445 "Image Transfer Unit")

2. Fusing unit [A] (x2)

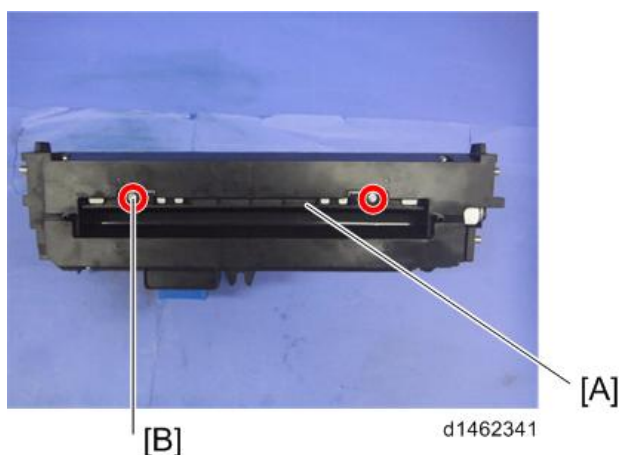


Note

- To attach the fusing unit, fasten the screws in the order [B] (rear), [C] (front).

Fusing Entrance Guide Plate

1. Fusing unit (page 493 "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

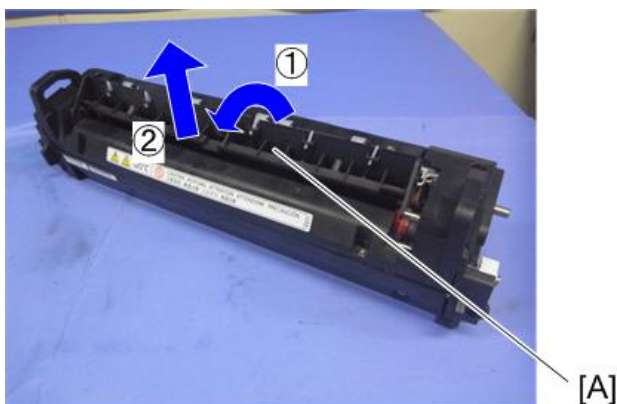
Carefully remove toner adhering as shown in the diagram below with a dry cloth. Then, wipe with a cloth moistened with alcohol.



d088r374

Fusing Exit Guide Plate

1. Fusing unit (page 493 "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

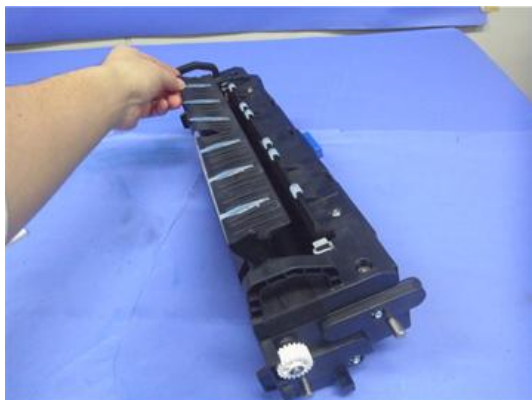
Cleaning the Fusing Exit Guide Plate

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.

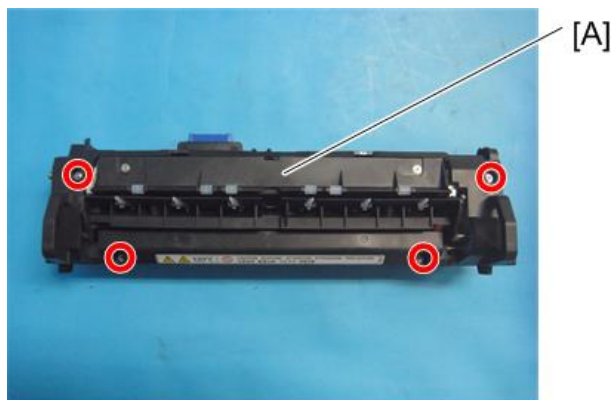


d1462344

Fusing Upper Cover

1. Fusing unit (page 493 "Fusing Unit")

2. Fusing upper cover [A] (⚙️×4)



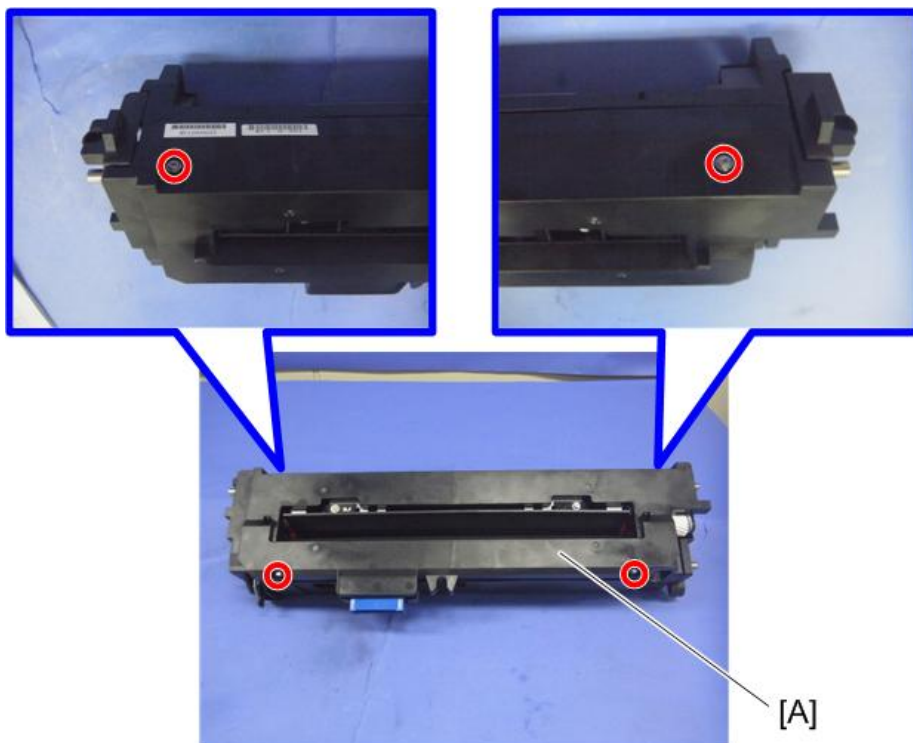
d1462345

4

Fusing Lower Cover

1. Fusing unit (page 493 "Fusing Unit")

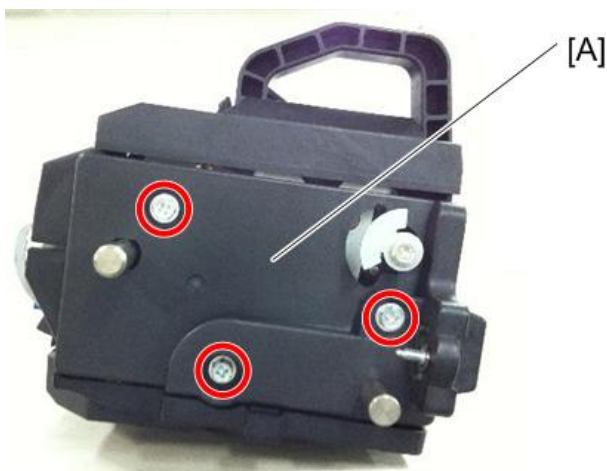
2. Fusing lower cover [A] (⚙️×4)



d1462346

Fusing Front Cover

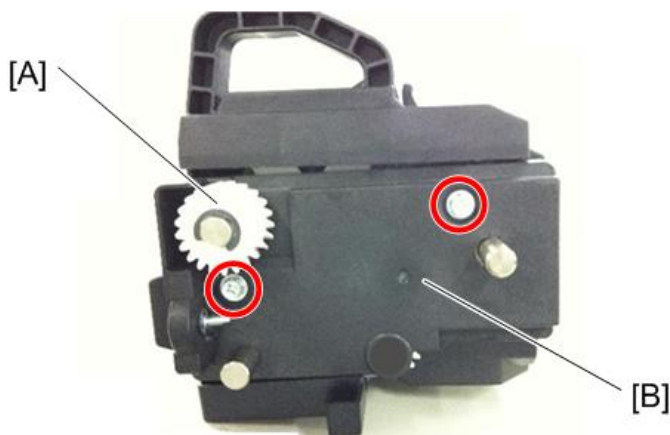
1. Fusing unit (page 493 "Fusing Unit")
2. Fusing front cover [A] (⚙️×3)



d1462347

Fusing Rear Cover

1. Fusing unit (page 493 "Fusing Unit")
2. Gear [A] (⚙️×1), Fusing rear cover [B] (⚙️×2)



d1462348

Heating Sleeve Unit


Replacement

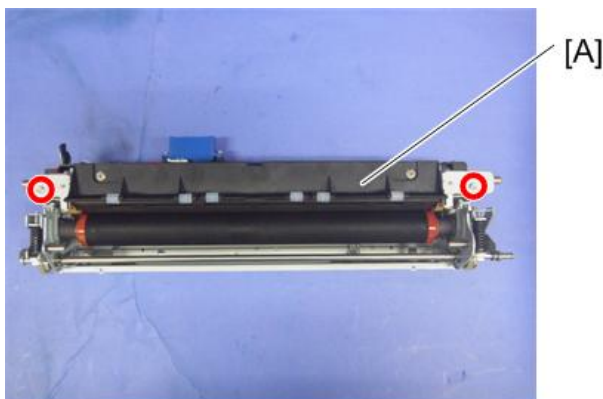
CAUTION

- The heating sleeve unit is designed with a highly soft material. Do not touch the sleeve belt unit with your hands to prevent dents during replacement. If you have touched it and a dent has been made, the dent will gradually become larger during operation and it can cause a fusing malfunction or sleeve belt breakage.

CAUTION

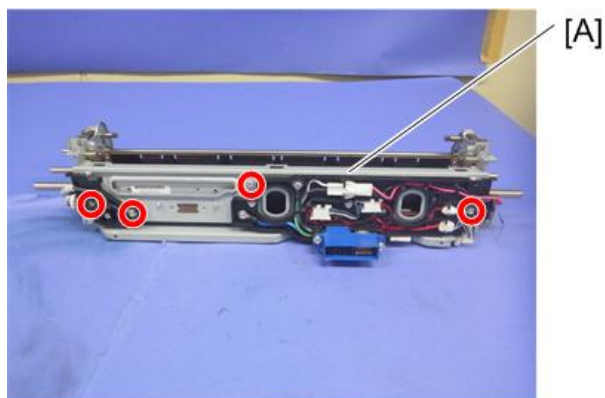
- To cancel SC544-02/554-02, it is necessary to replace the fusing unit or install an intact new unit detection fuse. If you will cancel these SCs by installing a new unit detection fuse, follow the instruction at the end of this procedure.
- If you are replacing the heating sleeve unit for PM or any reason other than canceling these SCs, you can discard the fuse that is packed with the new heating sleeve unit.

1. Fusing upper cover (page 496 "Fusing Upper Cover")
2. Fusing lower cover (page 497 "Fusing Lower Cover")
3. Fusing front cover (page 498 "Fusing Front Cover")
4. Fusing rear cover (page 498 "Fusing Rear Cover")
5. Exit guide plate (left) unit [A] (x2)



d1462350

6. Left frame [A] (⚙️×4, 📺×4)



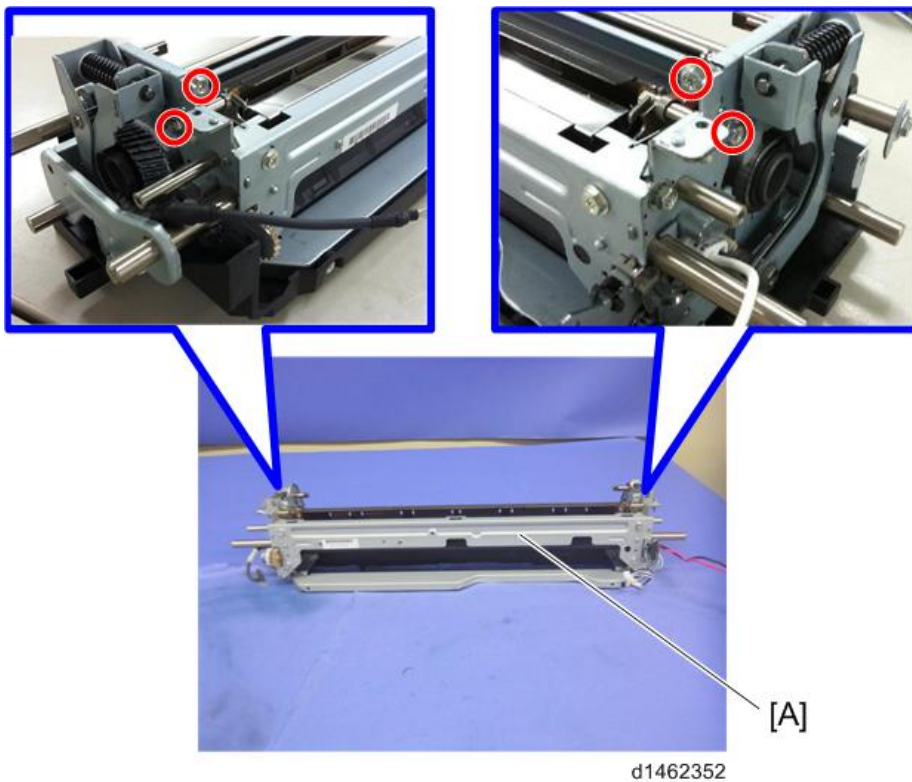
d1462351

7. Side plate [A] (⚙️×1)



d1462365

8. Heating sleeve unit [A] (4)



Note

- Be careful not to touch the temperature sensor unit [A] against the heating sleeve unit when installing the electrical unit in the fusing unit.

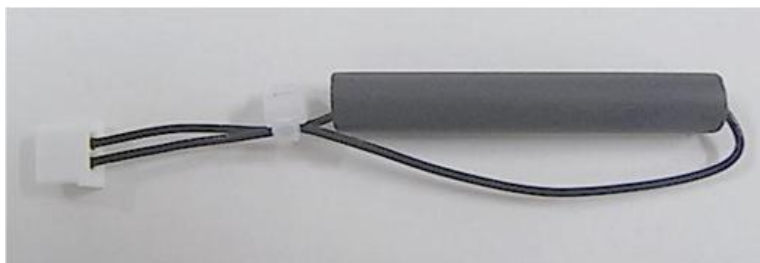


How to cancel SC544-02/SC554-02 with a new unit detection fuse

⚠ CAUTION

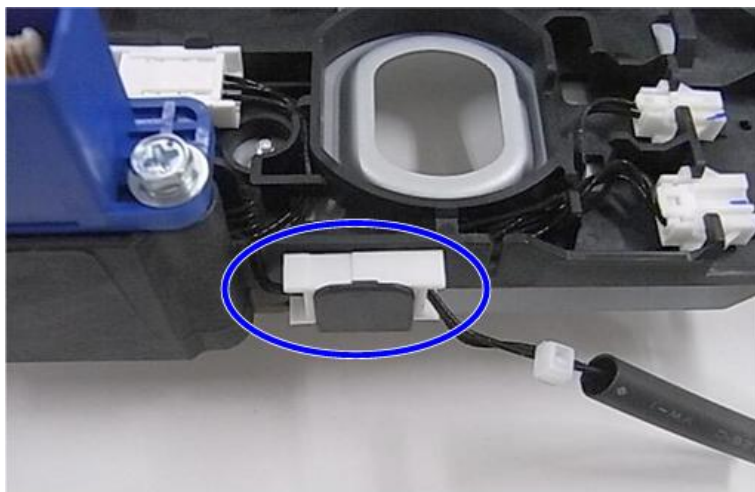
- To cancel SC544-02/554-02, it is necessary to replace the fusing unit or install an intact new unit detection fuse. If you will cancel these SCs by installing a new unit detection fuse, follow the instruction below.
- If you are replacing the heating sleeve unit for PM or any reason other than canceling these SCs, you can discard the fuse that is packed with the new heating sleeve unit.

1. There is a new unit detection fuse packed with the new heating sleeve unit.



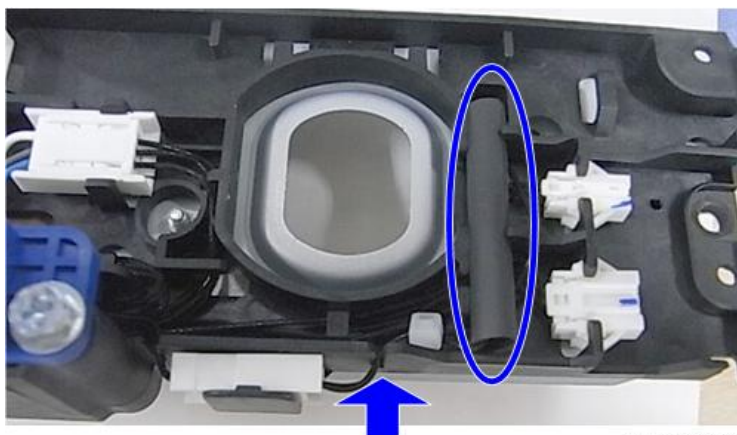
d146f00007

2. Connect the new unit detection fuse to the connector.



d146f00008

3. Pass the fuse harness through the slit located next to the connector (blue arrow) and place the fuse in the empty space (blue circle).



4

4. Execute SP5-810-002 [SC Reset: Hard High Temp. Detection].
5. Execute SP3-701-116 [Manual New Unit Set: #Fusing Belt].

Pressure Roller

Adjustment before replacing the pressure roller

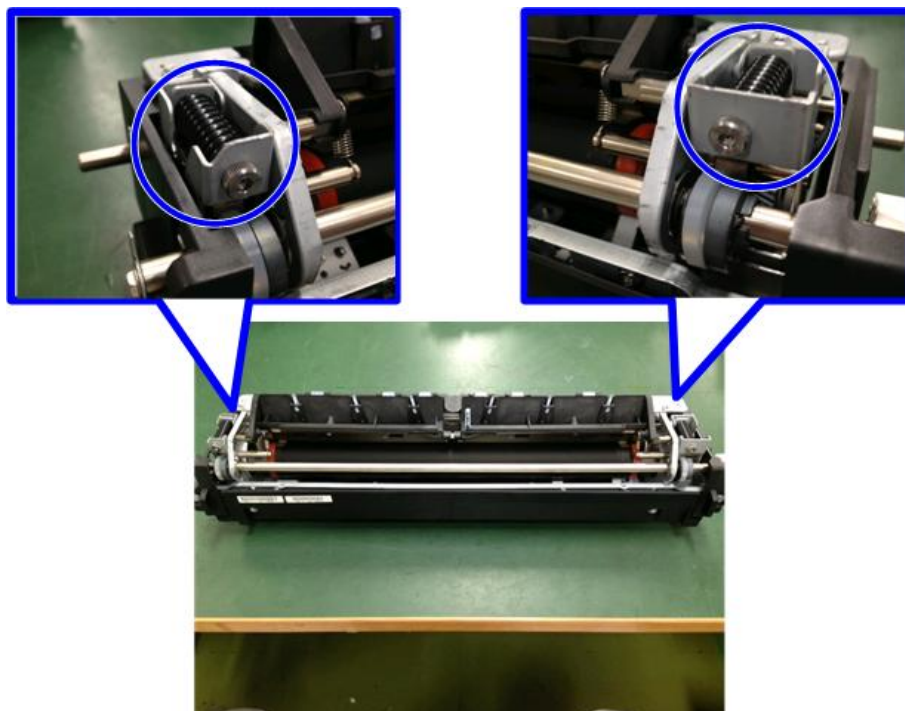
Before replacing the Pressure Roller, set SP3-701-118 to "1" and switch the power OFF. Then replace the Pressure Roller and switch the power ON.

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.

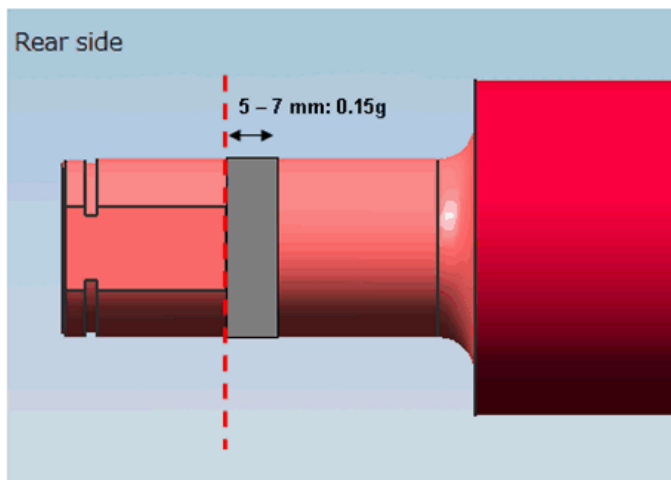
1. Heating sleeve belt unit (Heating sleeve belt unit)

2. Pressure roller [A] (C-ring ×2)



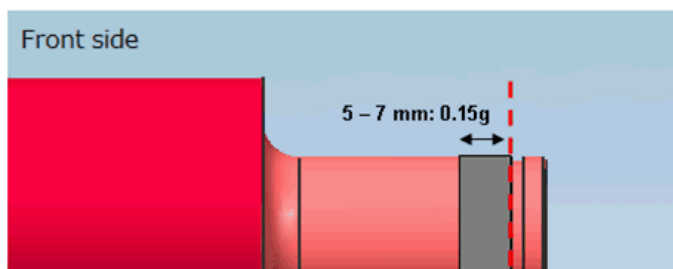
d1462353

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.

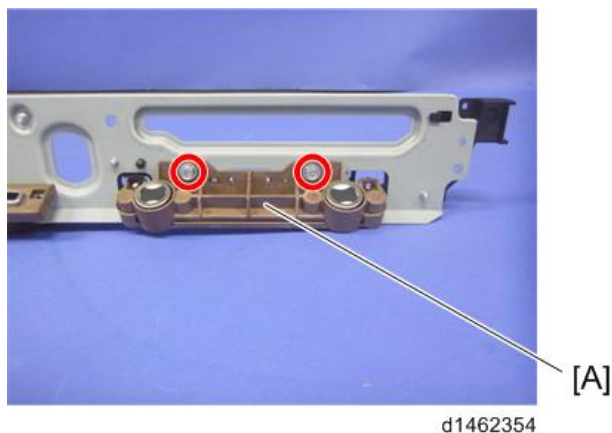


W_d1465021

Thermostat Unit

1. Left frame (Heating sleeve belt unit)

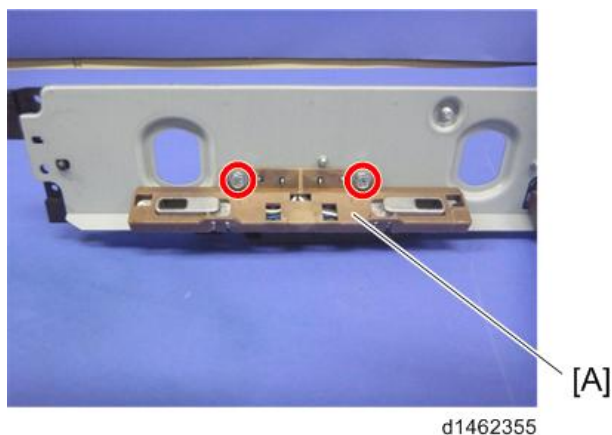
2. Thermostat unit [A] (🔩×2)



NC Sensor Unit

1. Left frame (Heating sleeve belt unit)

2. NC sensor unit [A] (🔩×2, 📱×2)

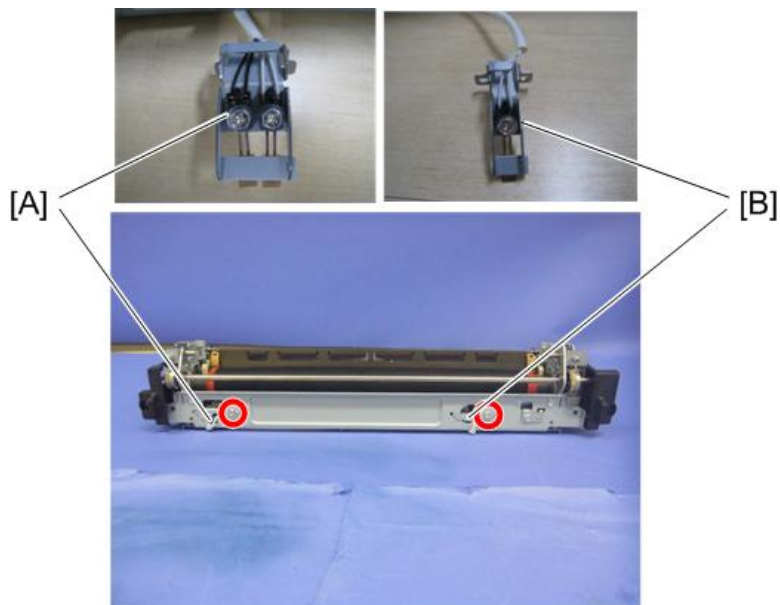


Fusing Thermistor

1. Fusing upper cover (page 496 "Fusing Upper Cover")

2. Fusing lower cover (page 497 "Fusing Lower Cover")

3. Fusing thermistor (edge) [A], fusing thermistor (center) [B] (🔧×2, 📏×2, 🖨️×1)

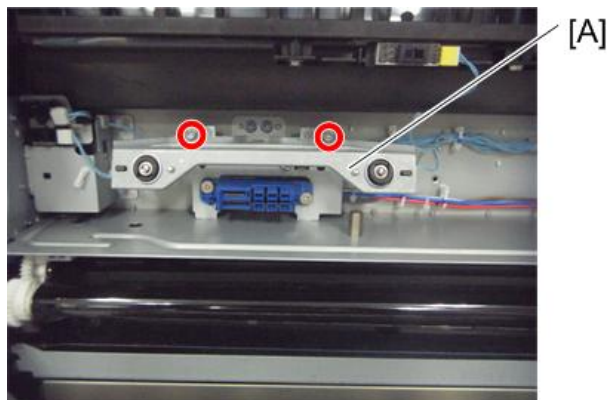


d146z0022

4

Fusing Thermopile Unit

1. Fusing unit (page 493 "Fusing Unit")
2. Fusing thermopile unit [A] (🔧×2, 📏×2)

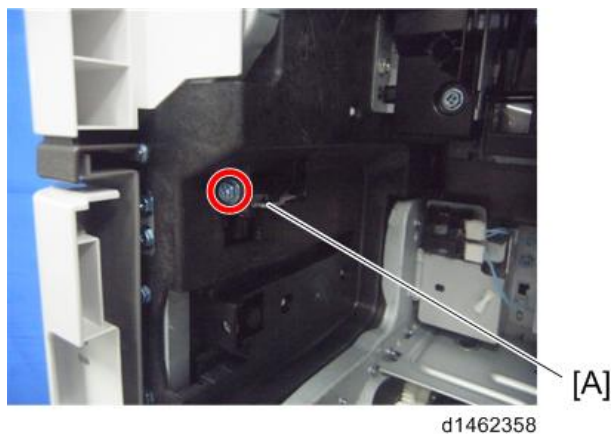


d1462357

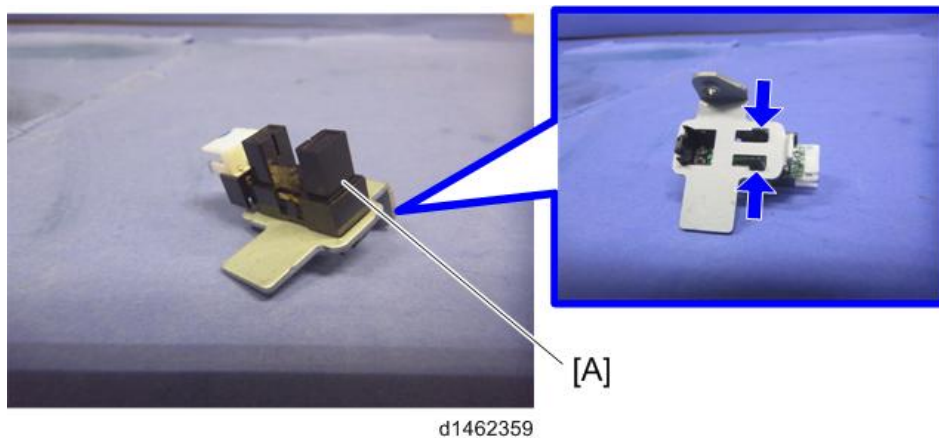
Pressure Roller HP Sensor

1. Fusing unit (page 493 "Fusing Unit")

2. Pressure roller HP sensor unit [A] (⚙️×1, 📡×1)



3. Pressure roller HP sensor [A]



Fusing Shield Position Sensor

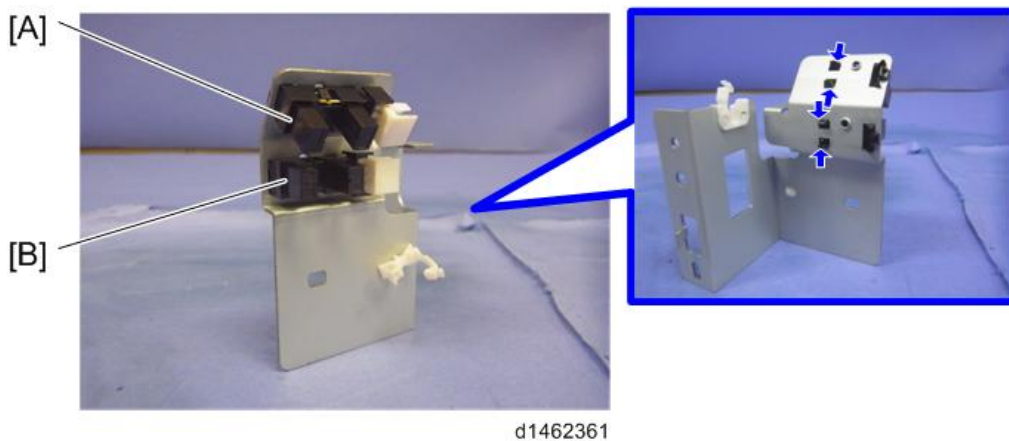
1. Fusing unit (page 493 "Fusing Unit")

2. Fusing shield position sensor unit [A] (⚙️×1, 📏×2)



4

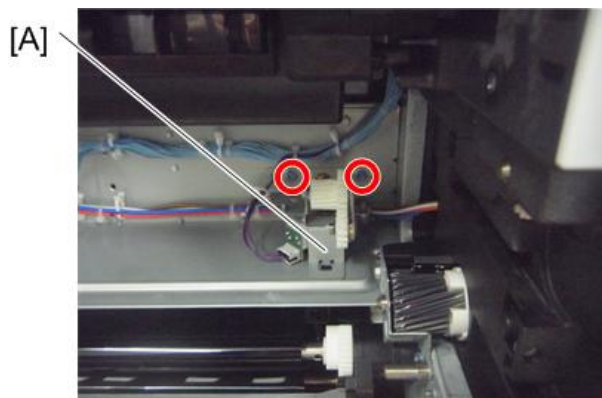
3. Fusing shield position sensor (upper) [A], Fusing shield position sensor (lower)[B]



Fusing Shield Drive Motor

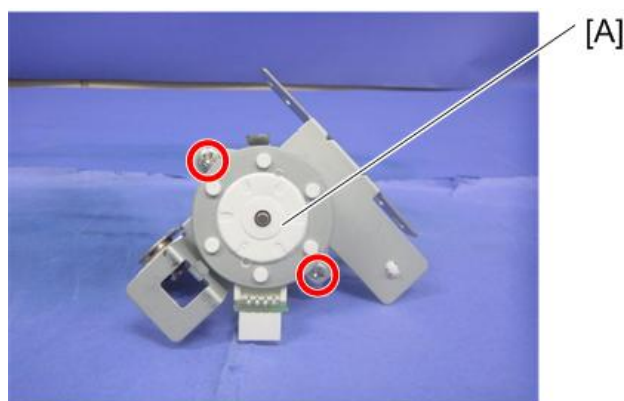
1. Fusing unit (page 493 "Fusing Unit")

2. Fusing shield drive motor unit [A] (⚙️×2, 📡×1)



d1462362

3. Fusing shield drive motor [A] (⚙️×2)



d1462363

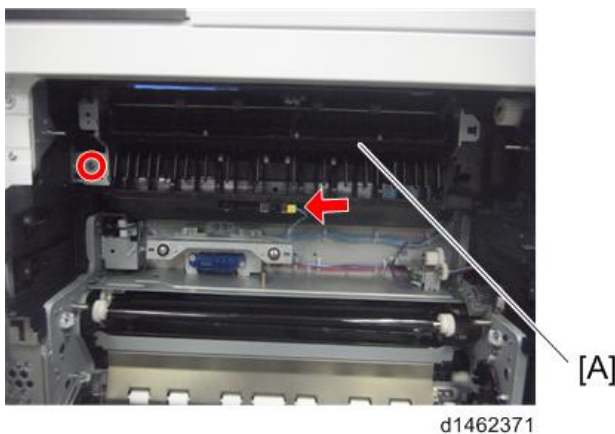
Paper Exit

Paper Exit Unit

1. Open the right cover (page 539 "Duplex Unit")
2. Fusing unit (page 493 "Fusing Unit")
3. Inner cover [A] (🔧×2)



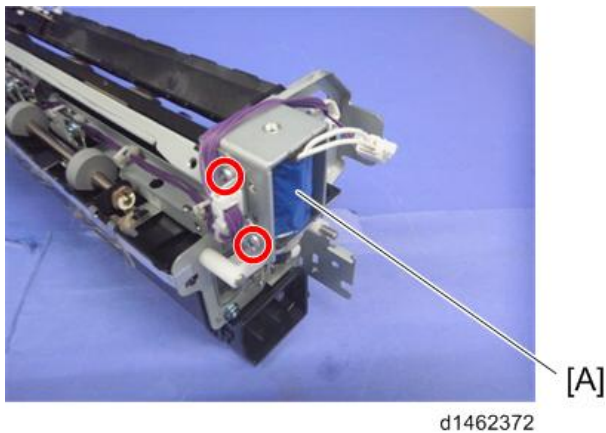
4. Paper exit unit [A] (🔧×1, 📎×2)



Paper Exit Switching Solenoid

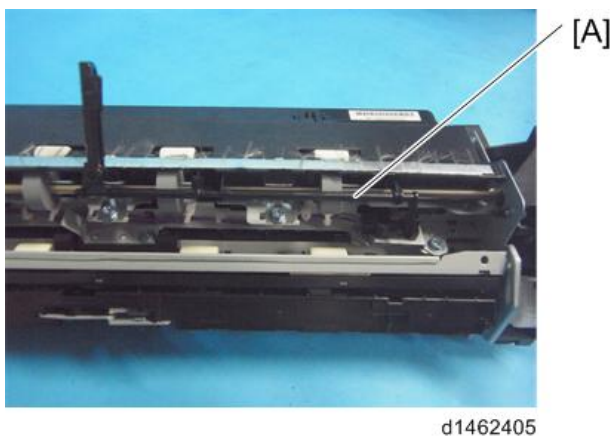
1. Paper exit unit (page 511 "Paper Exit Unit")

2. Paper exit switching solenoid [A] (⚙️×2, 📁×1, 📄×1)

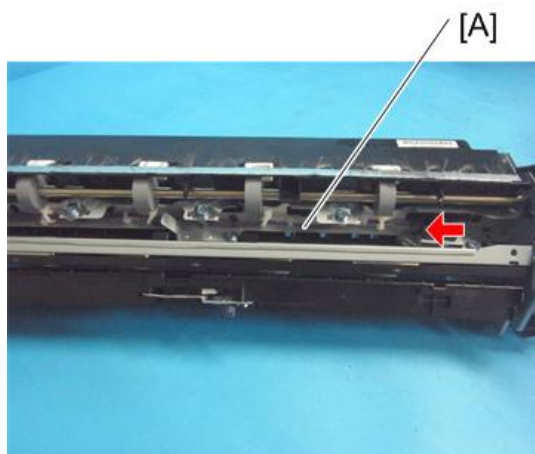


Paper Exit Sensor

1. Paper exit unit
2. Feeler [A]

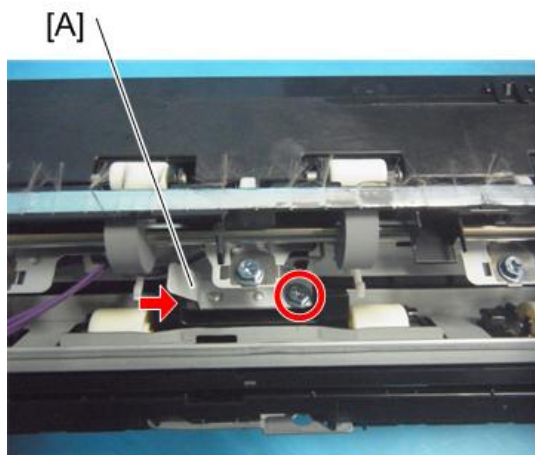


3. Harness [A] (🔌×1, 📡×3)



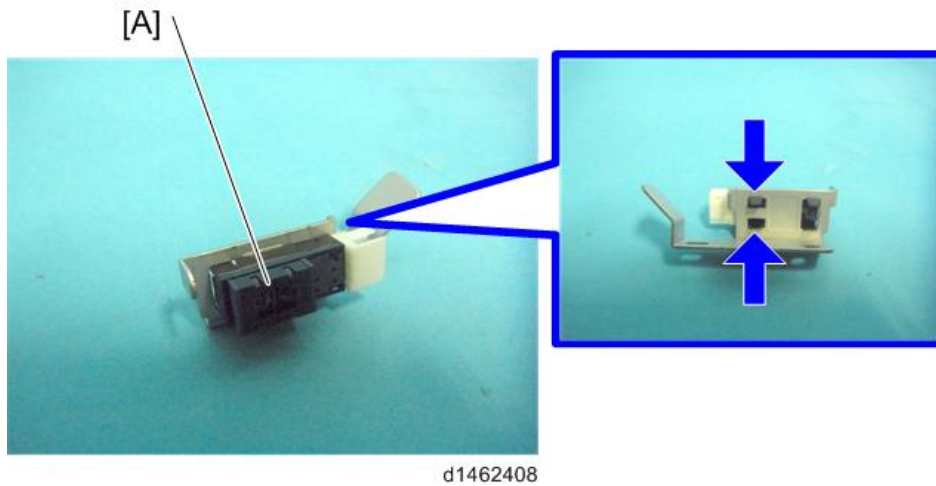
d1462406

4. Paper exit sensor unit [A] (🔧×1, 🔌×1)



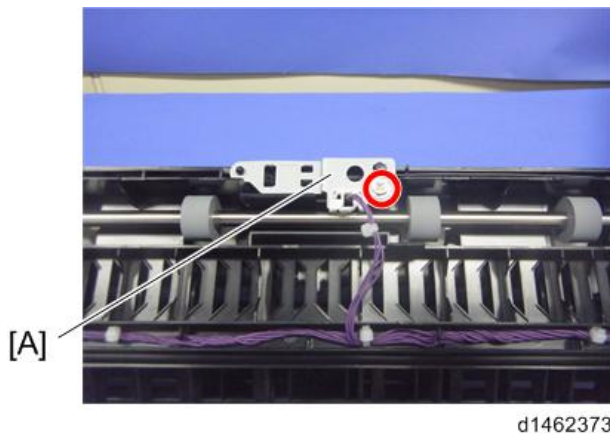
d1462407

5. Paper exit sensor [A]

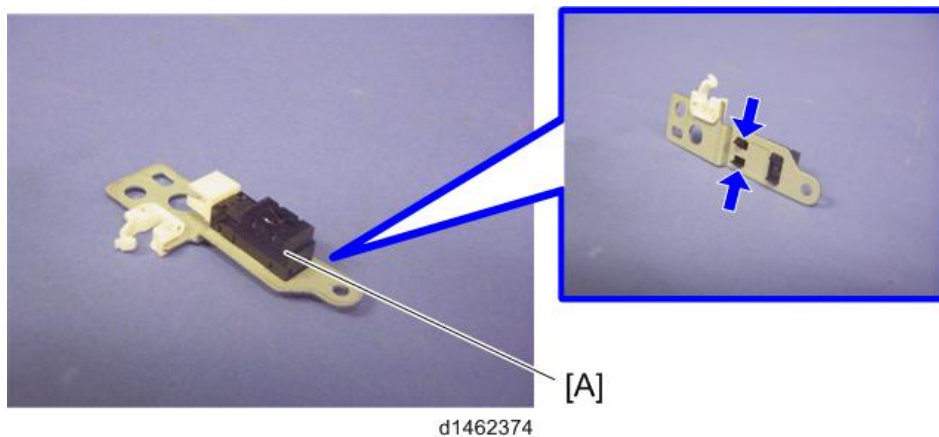


Reverse Sensor

1. Paper exit unit
2. Reverse sensor unit [A] (🔧×1, 📏×1, 📏×1)



3. Reverse sensor [A]



4

Paper Exit Full Sensor

1. Paper exit unit (page 511 "Paper Exit Unit")
2. Paper exit full sensor unit [A] (8×2)



3. Paper exit full sensor [A]

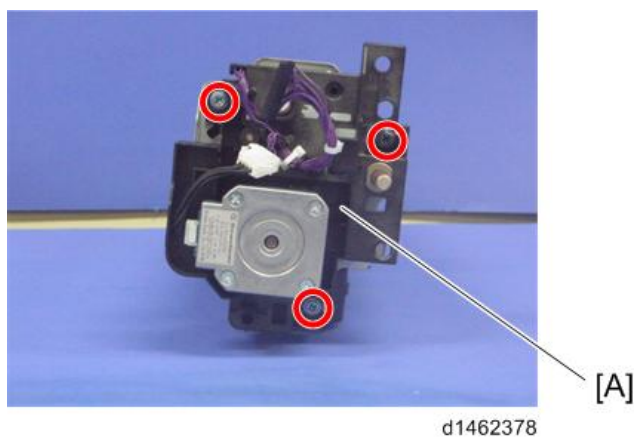
Reverse Motor

1. Paper exit unit (page 511 "Paper Exit Unit")

2. Gear [A]



3. Reverse motor unit [A] (⚙️×3, ⚙️×1, ⚙️×1, ⚙️×1)

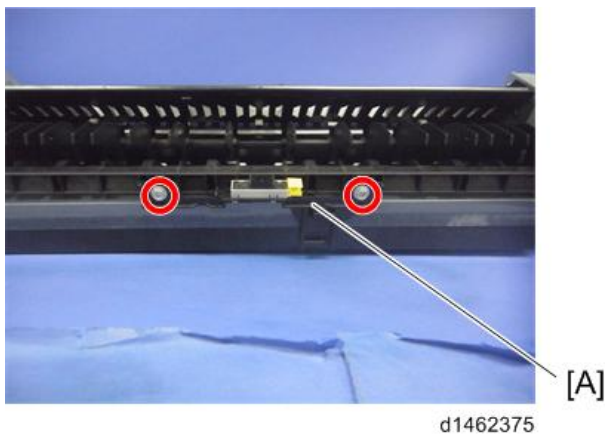


4. Reverse motor [A] (⚙️×2, ⚙️×1)

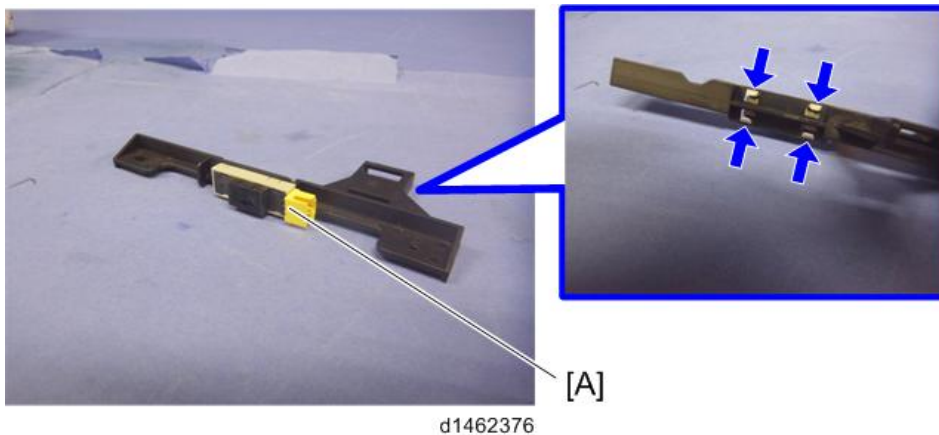


Fusing Exit Sensor

1. Paper exit unit (page 511 "Paper Exit Unit")
2. Fusing exit sensor unit [A] (⚙️×1, 📄×1, 🖨️×1)



3. Fusing exit sensor [A]



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

Paper Feed Unit

1st Paper Feed Unit

1. Open the right cover [A] wide (🔓×2).



d1462180

2. Pull out the 1st paper tray [A].

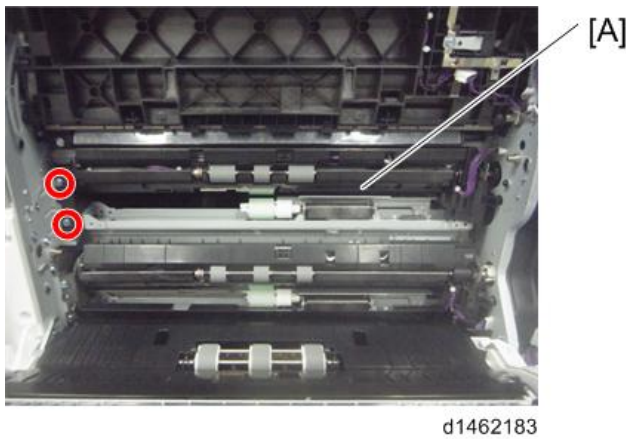


d1462181

3. Paper feed guide plate [A]



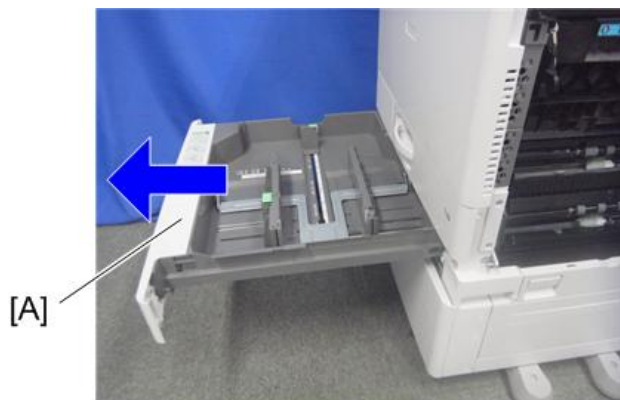
4. 1st paper feed unit [A] (⚙️×2, 📄×1)



2nd Paper Feed Unit

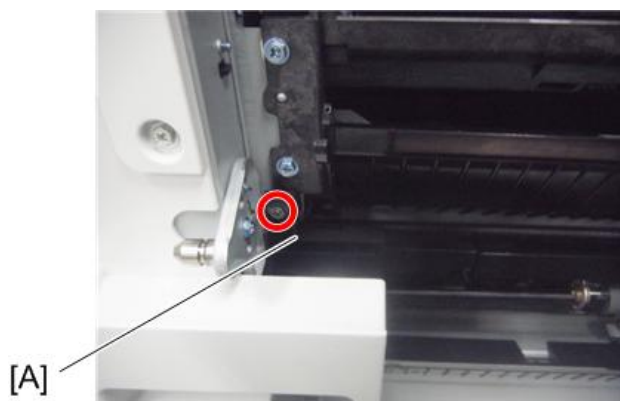
1. Duplex unit (page 539 "Duplex Unit")

2. Pull out the 2nd paper tray [A].



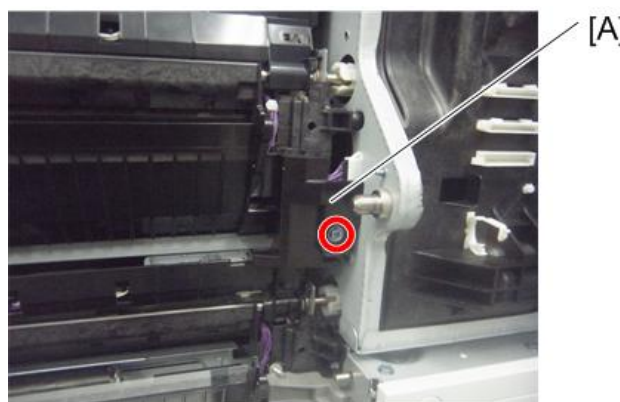
d1462184

3. Transport guide [A] (8×1)



d1462185

4. Harness guide [A] (8×1)



d1462186

5. Paper feed guide plate [A]



6. 2nd paper feed unit [A] (⚙️×2, 📄×1)



Paper Dust Collection Unit

1. Open the right cover (page 539 "Duplex Unit").

2. Paper dust collection unit [A] (⚙️×1)



4

Separation Roller, Torque Limiter

1. Pull out the paper tray [A].

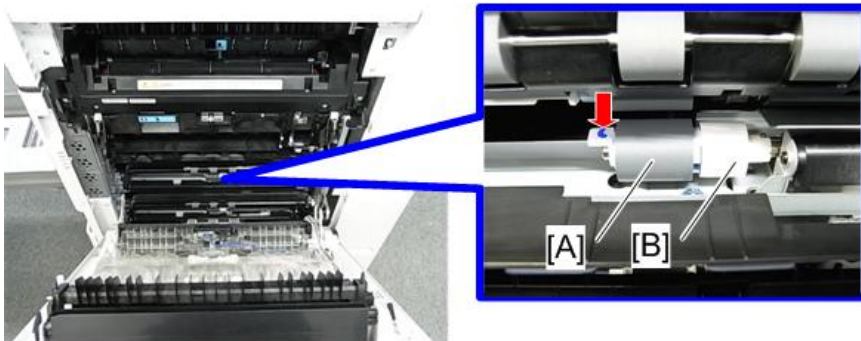


2. Open the right cover [A] (page 539 "Duplex Unit").



d177z4586

3. Separation Roller [A], Torque Limiter [B] (⌚×1)



d177z4584

Pick-up Roller, Paper Feed Roller

1. Pull out the paper tray [A].



d177z4585

2. Open the right cover [A] (page 539 "Duplex Unit").



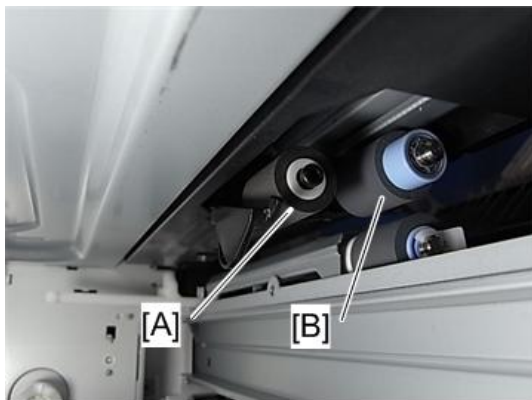
d177z4586

3. Retainer [A] (⌀ \times 1)



d177z4587

4. Pick-up Roller [A], Paper Feed Roller [B]

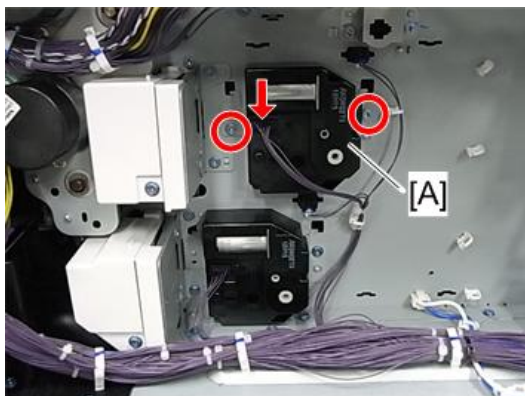


d177z4588

4

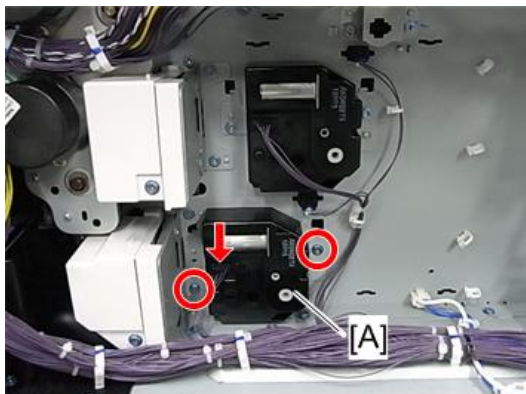
1st Tray Lift Motor/ 2nd Tray Lift Motor

1. HVP CB (page 568 "HVP-CB")
2. 1st Tray Lift Motor [A] (⚙️×2, 📏×1)



d146z0089

3. 2nd Tray Lift Motor [A] (⚙️×2, 📡×1)



d146z0090

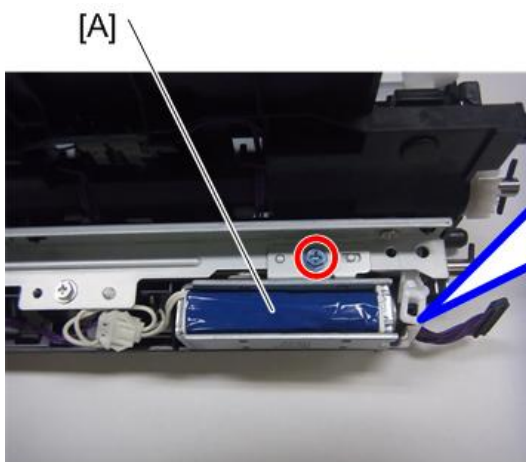
Paper Feed Solenoid

↓ 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 518 "Paper Feed Unit")

2. Paper feed solenoid [A] (⚙️×1, 📡×1)



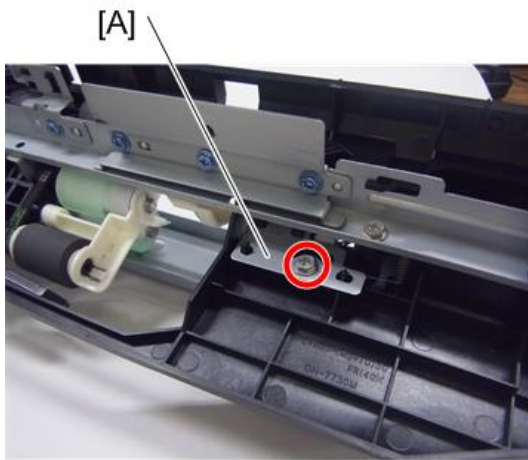
d1462193



Paper Feed Sensor

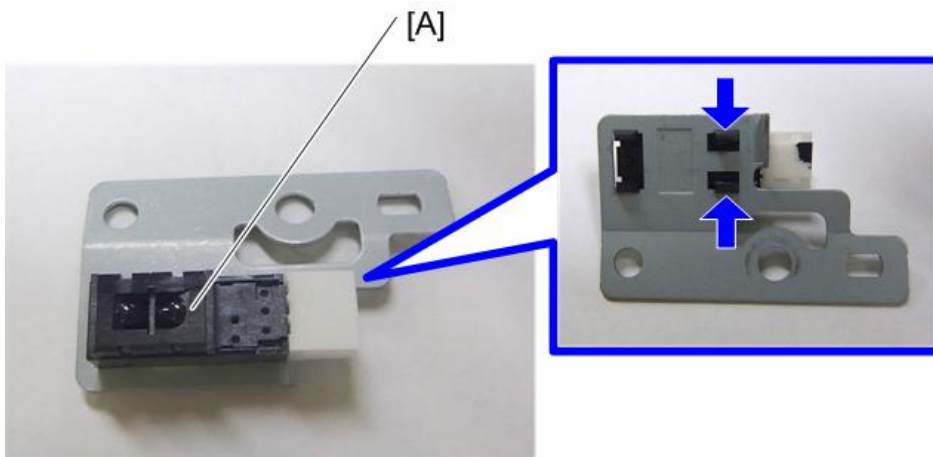
1. Paper feed unit (page 518 "Paper Feed Unit")

2. Paper feed sensor unit [A] (⚙️×1, 📄×1)



d1462194

3. Paper feed sensor [A]

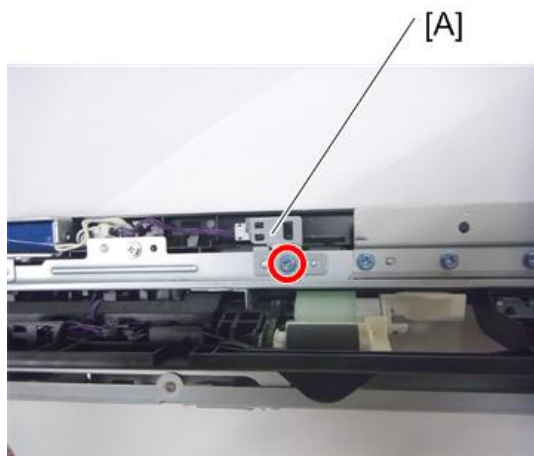


d1462195

Vertical Transport Sensor

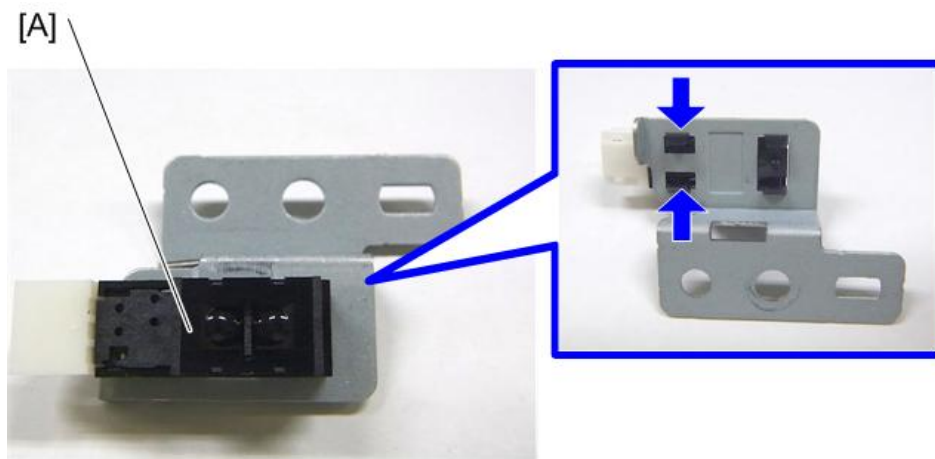
1. Paper feed unit (page 518 "Paper Feed Unit")

2. Vertical transport sensor unit [A] (⚙️×1, 📌×1)



d1462196

3. Vertical transport sensor [A]

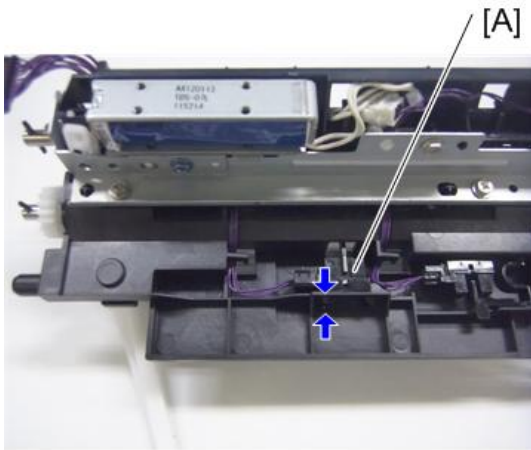


d1462197

Limit Sensor

1. Paper feed unit (page 518 "Paper Feed Unit")

2. Limit sensor [A]

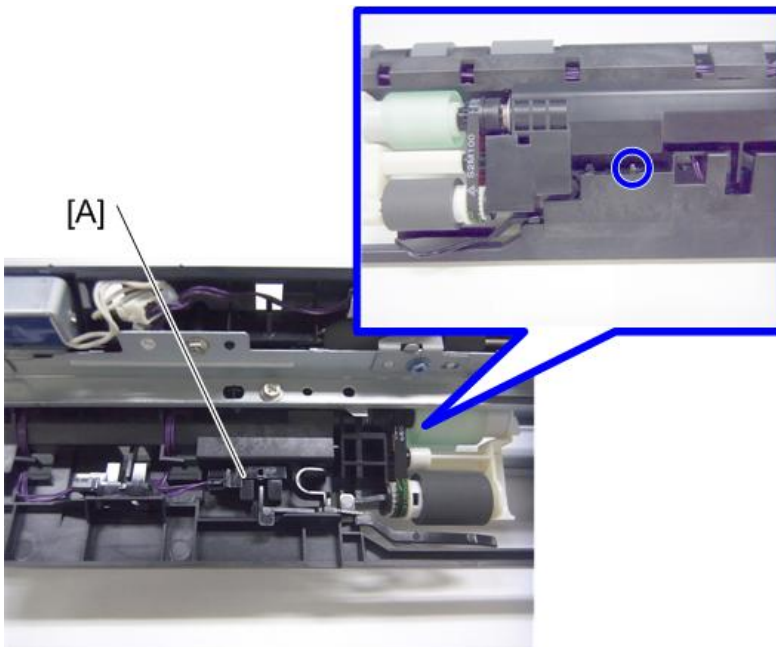


d1462198

4

Paper End Sensor

1. Paper feed unit (page 518 "Paper Feed Unit")
2. While pressing the tab enclosed by the blue circle, remove the paper end sensor [A] (Harness×1).



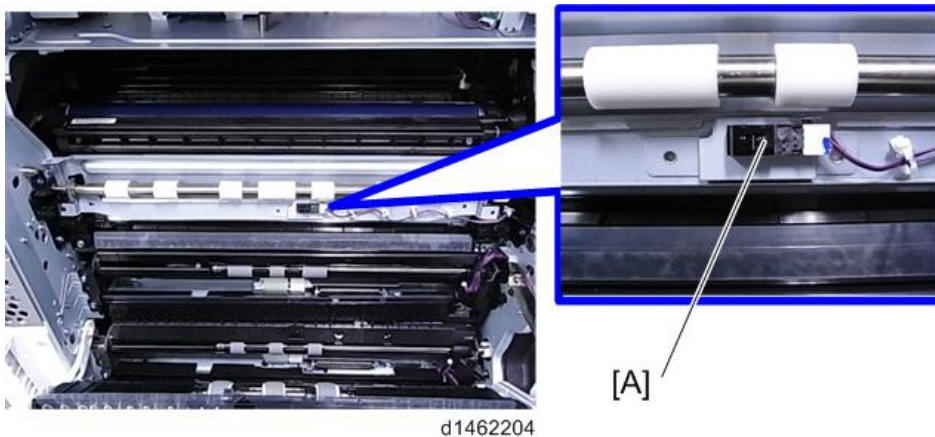
d1462200

Registration Sensor

1. Open the right cover (page 539 "Duplex Unit")
2. Paper transfer roller unit (page 460 "Paper Transfer Roller Unit ")
3. Inner bracket [A] (🔧×3)



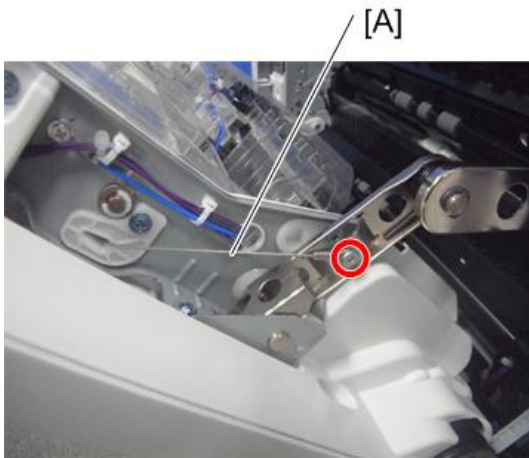
4. Remove the registration sensor from the stay gap using a slotted screwdriver (🔧×1)



By-pass Tray Unit

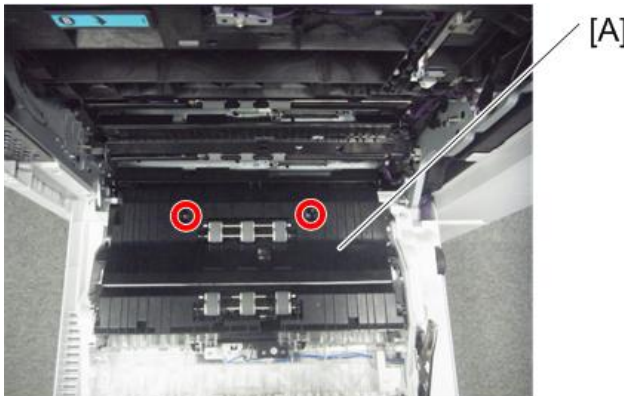
By-pass Tray

1. Open the right cover (page 539 "Duplex Unit")
2. Wire [A] (🔧×1)



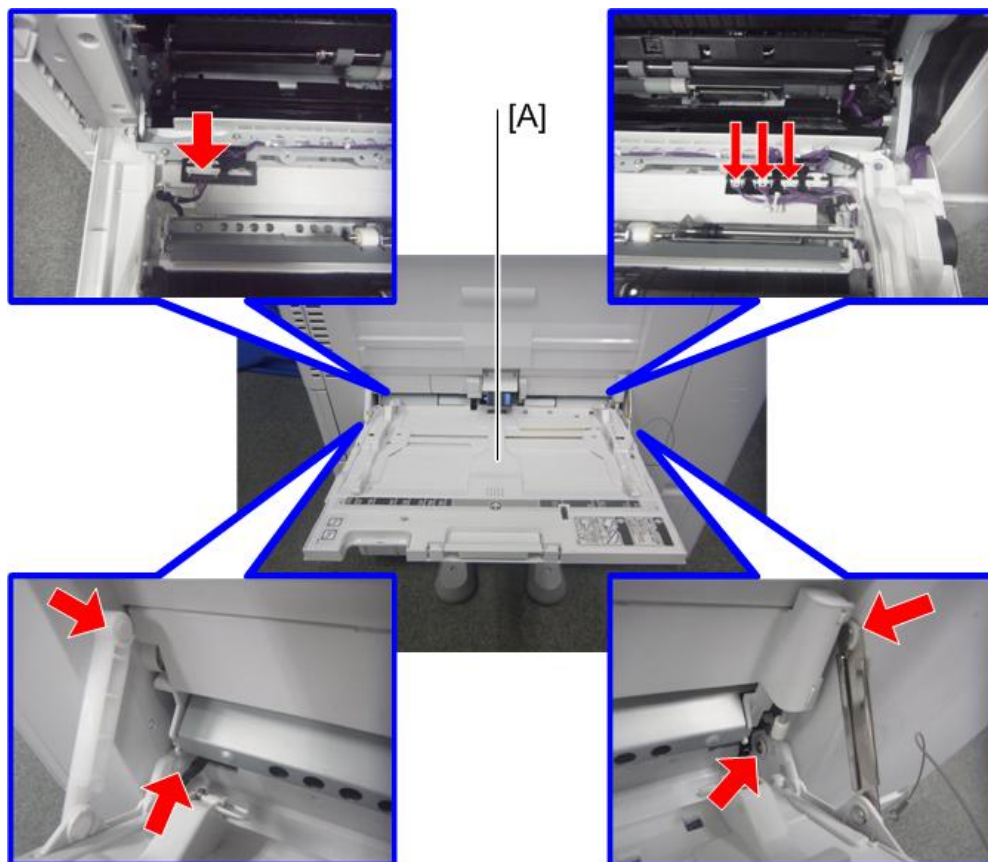
d1462410

3. Open the duplex unit wide. (page 518 "Paper Feed Unit")
4. Paper transport guide [A] (🔧×2)



d1462411

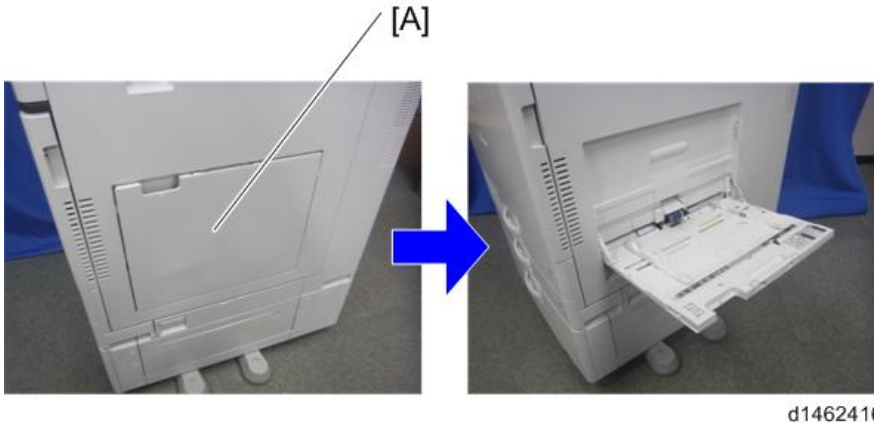
5. By-pass tray [A] (□x4, □x3, □x4)



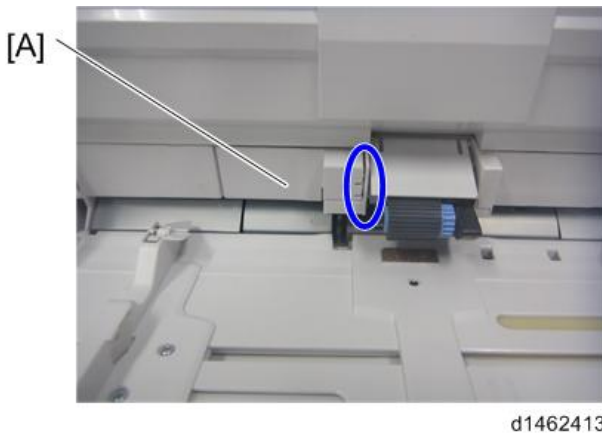
d1462412

By-pass Paper End Sensor

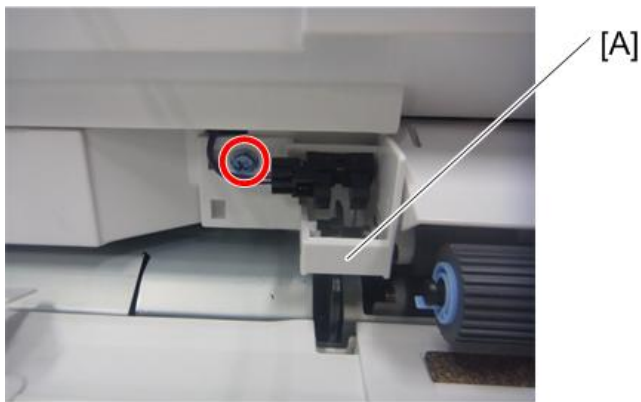
1. Open the by-pass tray [A].



2. By-pass paper end sensor cover [A]

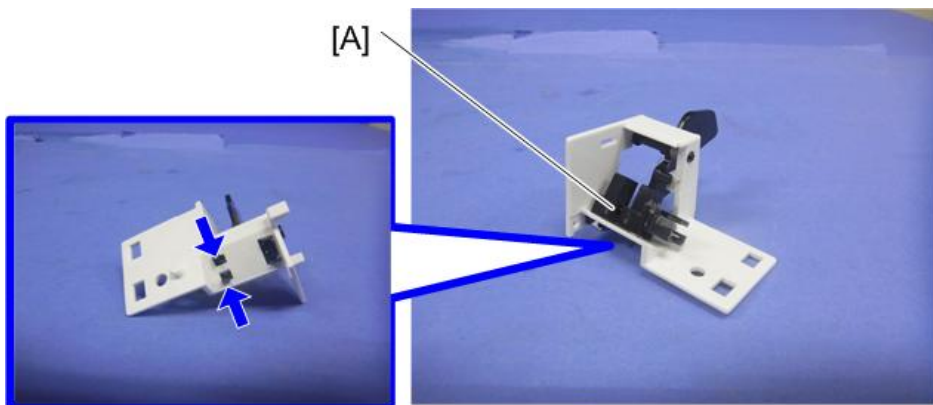


3. By-pass paper end sensor unit [A] (⚙️×1, 📄×1)



d1462414

4. By-pass paper end sensor [A]

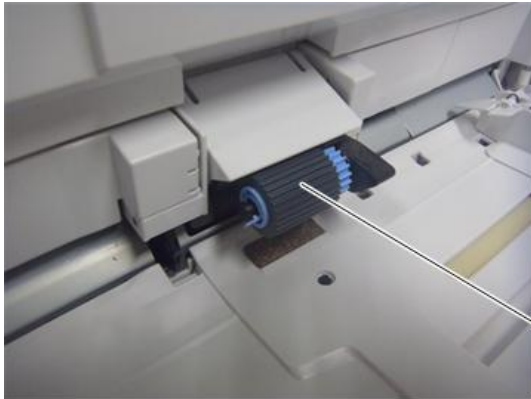


d1462415

By-pass Pick-up Roller

1. Open the by-pass tray. (page 531 "By-pass Tray")

2. By-pass pick-up roller [A] (Ⓐ×1)

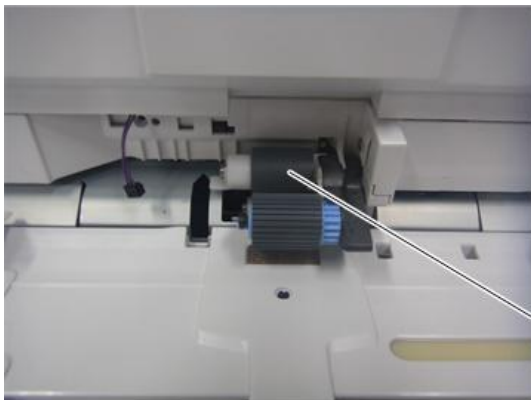


d1462417

4

By-pass Paper Feed Roller

1. Paper End Sensor (page 529 "Paper End Sensor")
2. By-pass paper feed roller [A] (Ⓐ×1)



d1462418

By-pass Separation Roller

1. Paper transport guide (page 531 "By-pass Tray")

2. By-pass separation roller [A] (1x1)



d1462419

Torque Limiter

1. By-pass separation roller (page 535 "By-pass Separation Roller")
2. Torque limiter [A]



d1462420

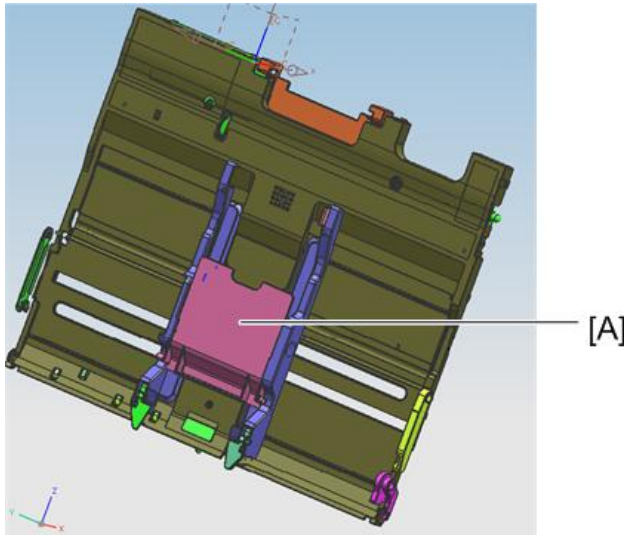
By-pass Tray Side Fence (D150 only)

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).

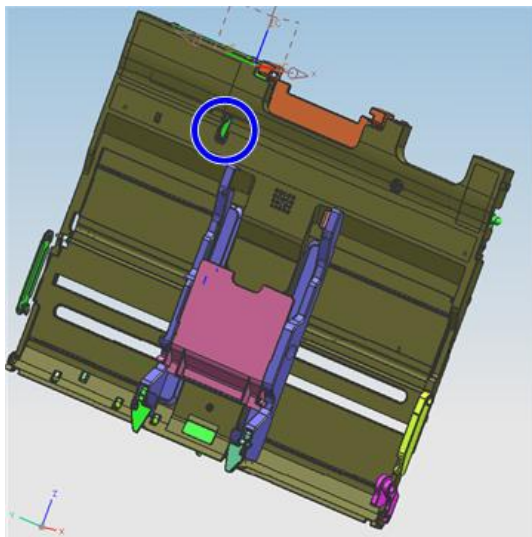
- Input the output value from SP5-803-088 (INPUT Check SI Bypass SF Paper Contact Sensor: Rear) to SP1-008-009 (SI By-Pass Size Detection Adj Sidefence R adj2).
- 2. Remove the extension tray [A] of the by-pass tray, make the side fence slightly wider than the width of the extension tray, and set it 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).



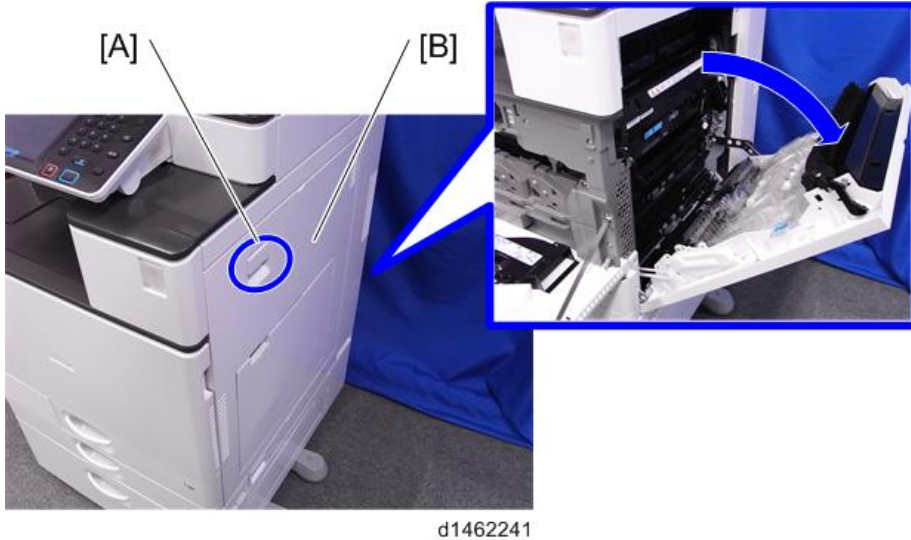
d1462422

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.

Duplex Unit

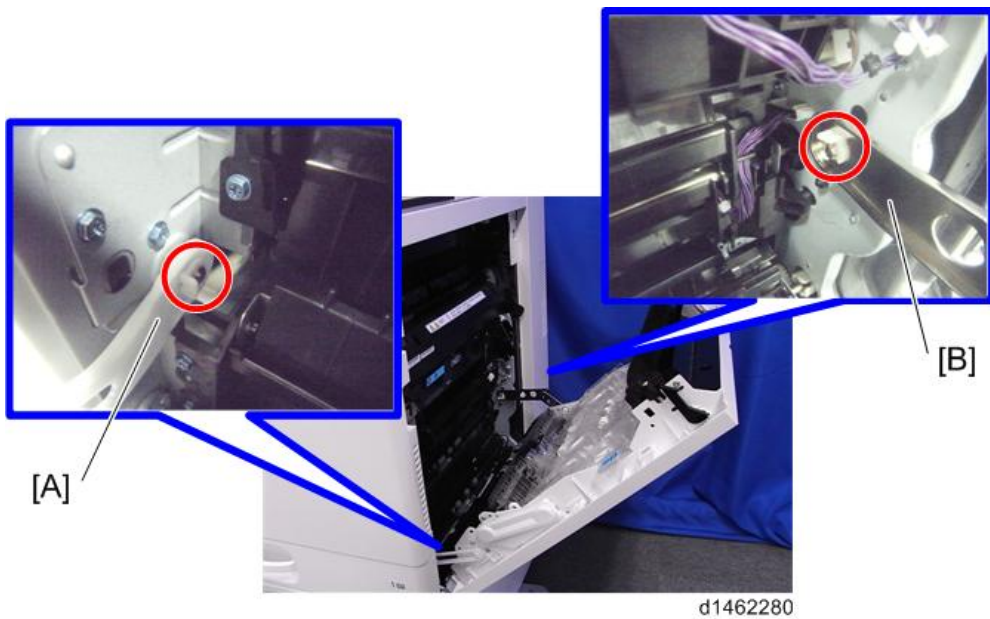
Duplex Unit

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



4

2. Arm [A] [B] (⌀×2)



3. Right rear cover (page 368 "Right Rear Cover")

4. Open the 1st paper feed tray [A] and 2nd paper feed tray [B].



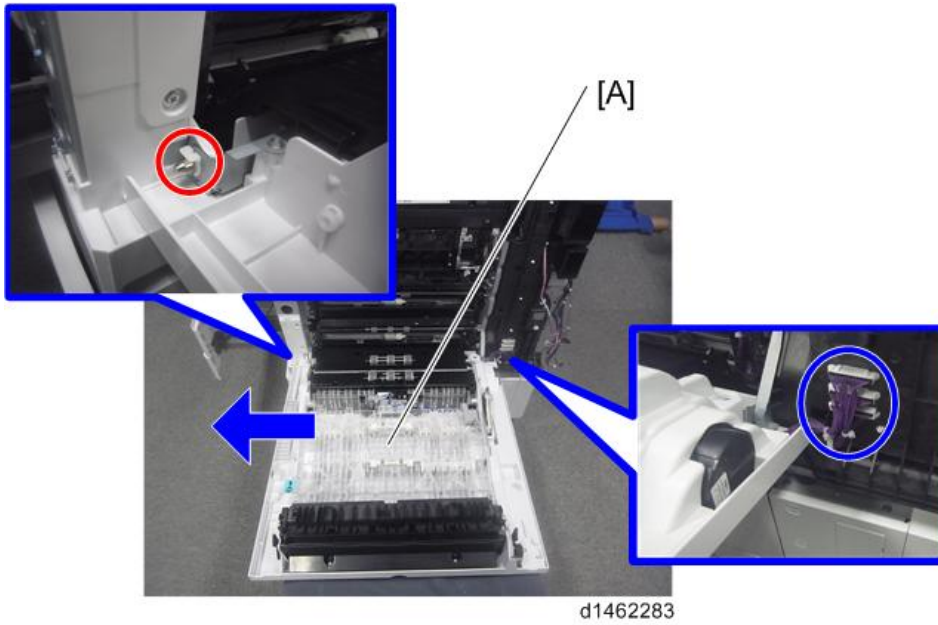
d1462281

5. Cover [A] (⌀×1)



d1462282

6. Duplex unit [A] (⌘×1, ⌘×3)



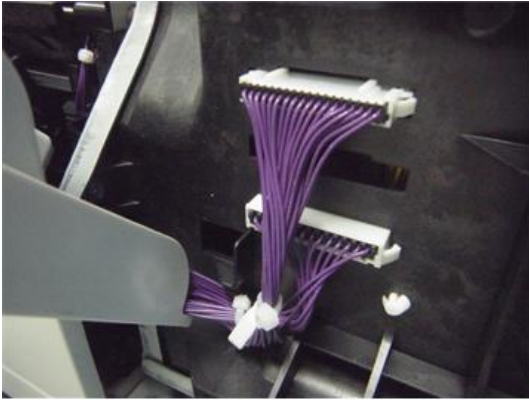
↓ Note

- To attach the duplex unit, loop the harness around as shown in the diagram.

MP C6003



MP C5503/C4503/C3503/C3003

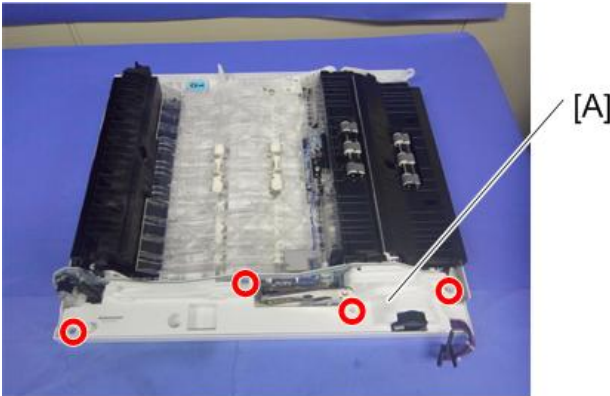


d1462279

4

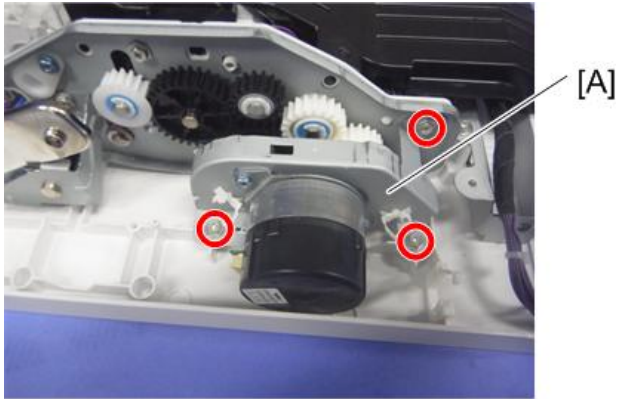
Duplex/By-pass Motor

1. Duplex unit (page 539 "Duplex Unit")
2. Harness guide [A] (⚙️x4)



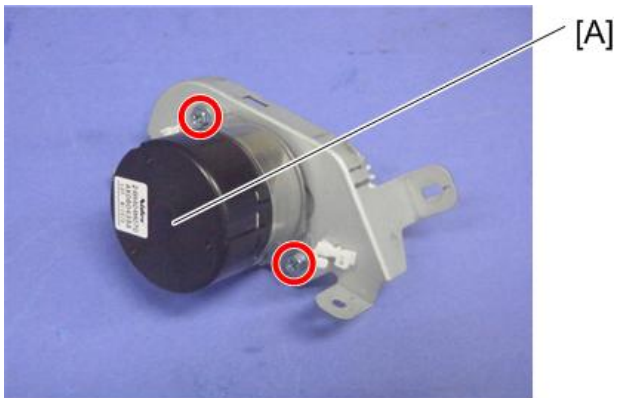
d1462284

3. Duplex/by-pass motor unit [A] (⚙️×3, 📡×1, 📡×3)



d1462297

4. Duplex/By-pass Motor [A] (⚙️×2)

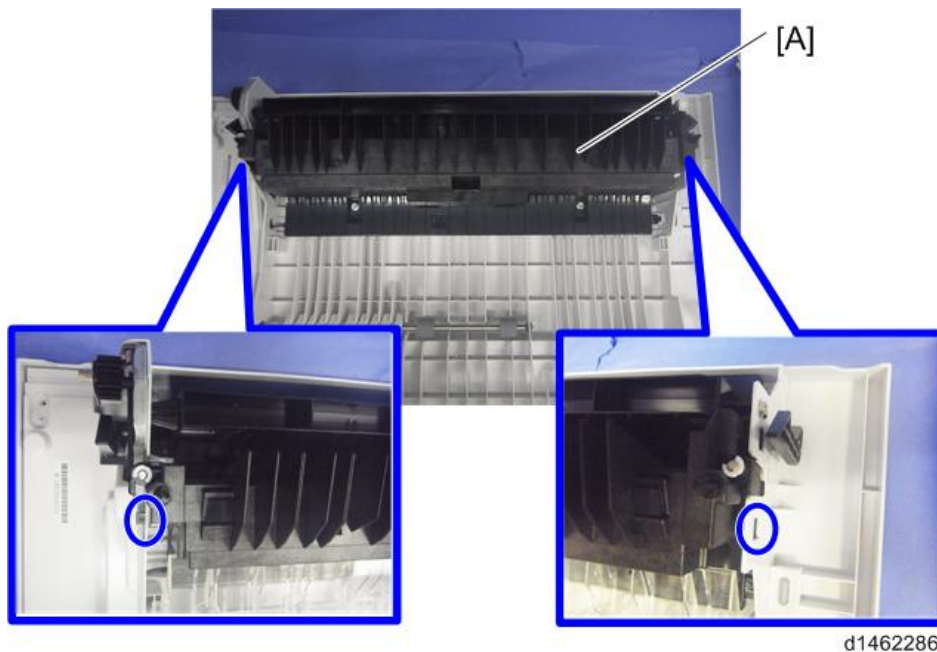


d1462285

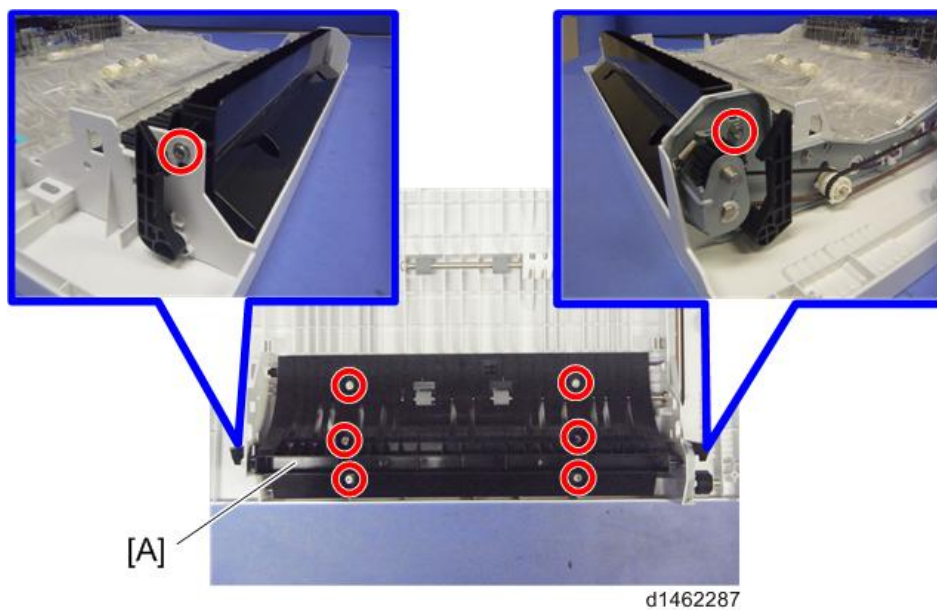
Duplex Entrance Sensor

1. Harness guide (page 539 "Duplex Unit")

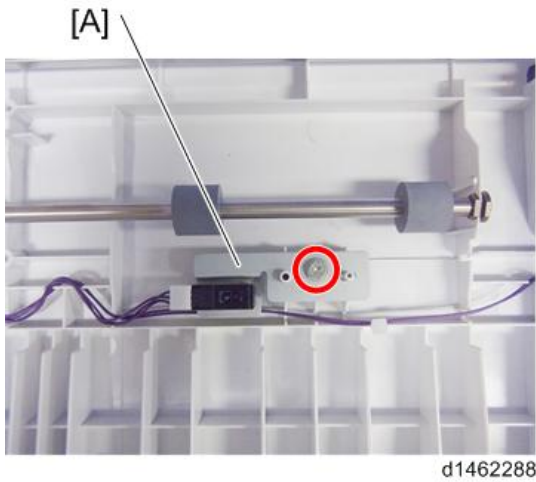
2. Remove two tabs, and remove the transport guide [A].



3. Duplex entrance unit [A] (⌀×8)



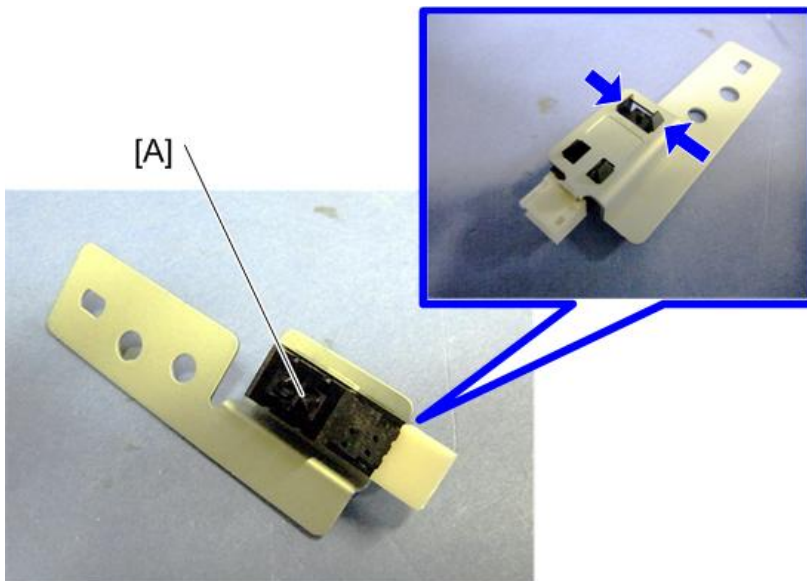
4. Duplex entrance sensor unit [A] (1x1)



d1462288

4

5. Duplex entrance sensor [A] (1x1)

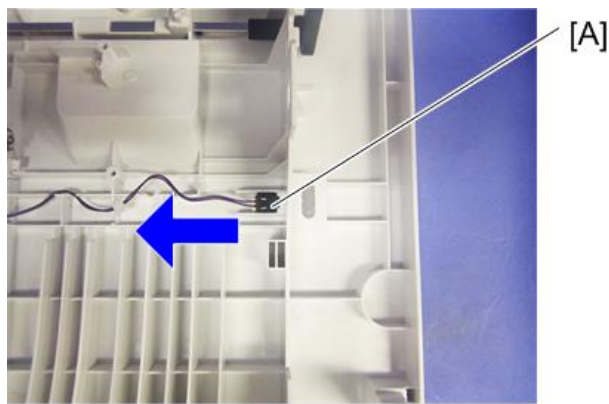


d1462289

Duplex Jam Processing LED

1. Duplex entrance unit (page 543 "Duplex Entrance Sensor")

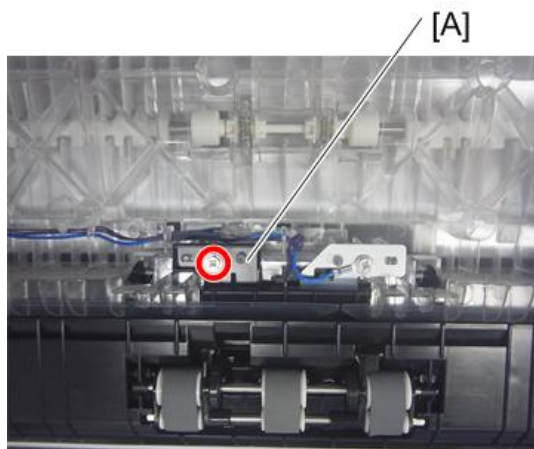
2. Duplex jam processing LED [A] (🔧×1)



d1462290

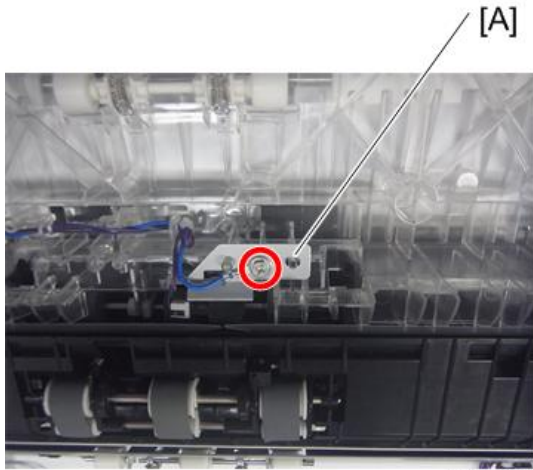
Duplex Exit Sensor

1. Duplex unit (page 539 "Duplex Unit")
2. Harness guide [A] (🔧×1)



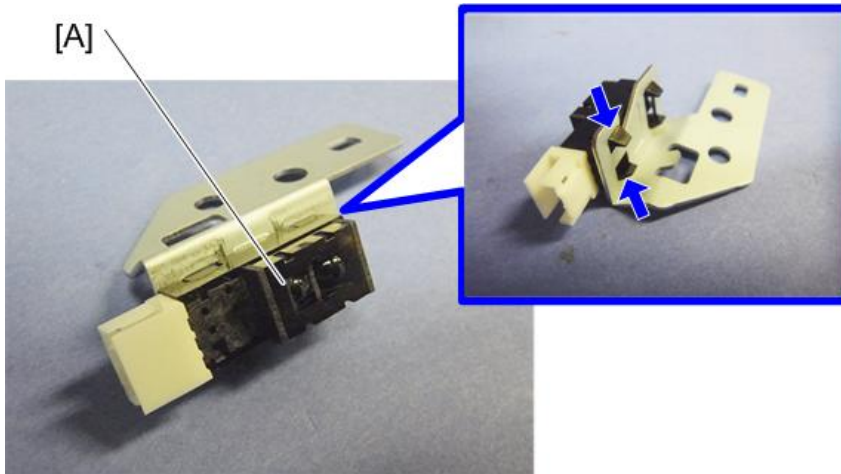
d1462291

3. Duplex exit sensor unit [A] (1x1)



d1462292

4. Duplex exit sensor [A] (1x1)

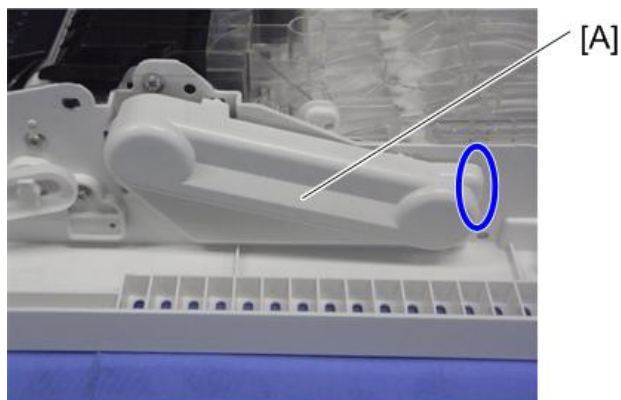


d1462293

Double Feed Sensor (D150 only)

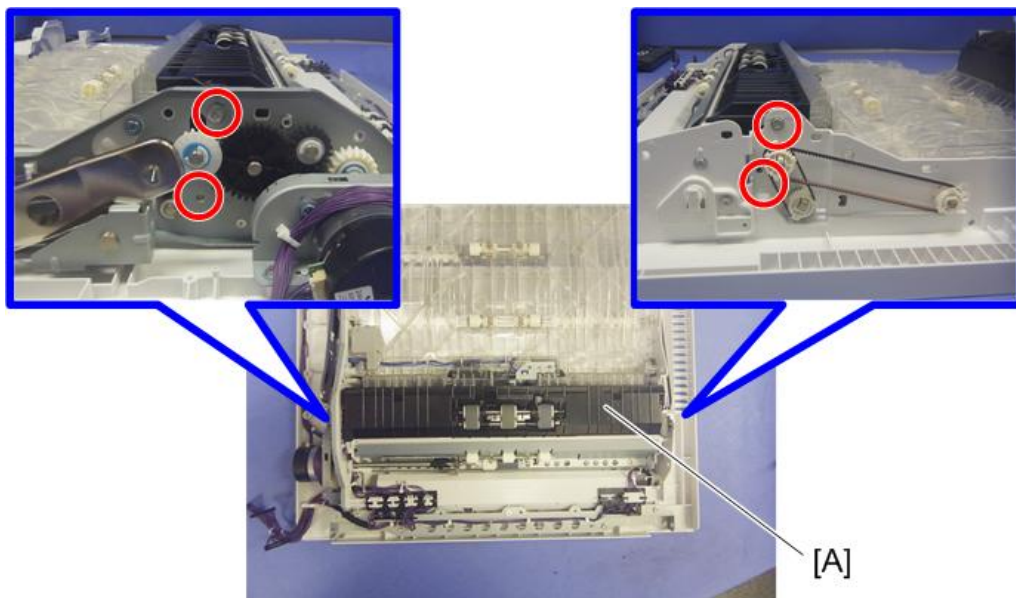
1. Duplex unit (page 539 "Duplex Unit")
2. Harness guide (page 542 "Duplex/By-pass Motor")

3. Gear cover [A]



d1462298

4. Remove two tabs, and remove the vertical transport guide plate [A] (8×4).

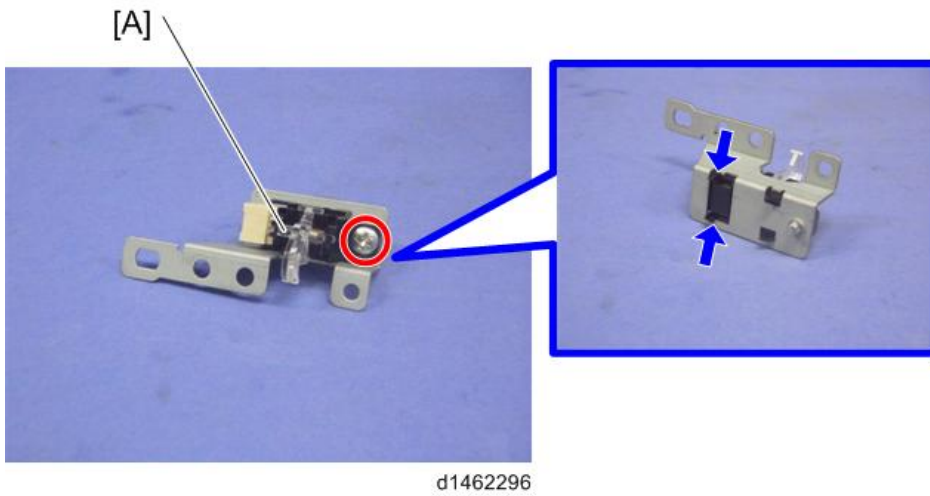


d1462294

5. Double feed sensor unit [A] (🔩×2)



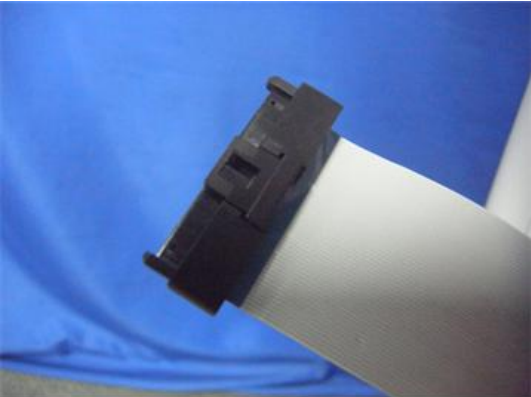
6. Double feed sensor [A] (🔩×1)



Electrical Components

⚠ CAUTION

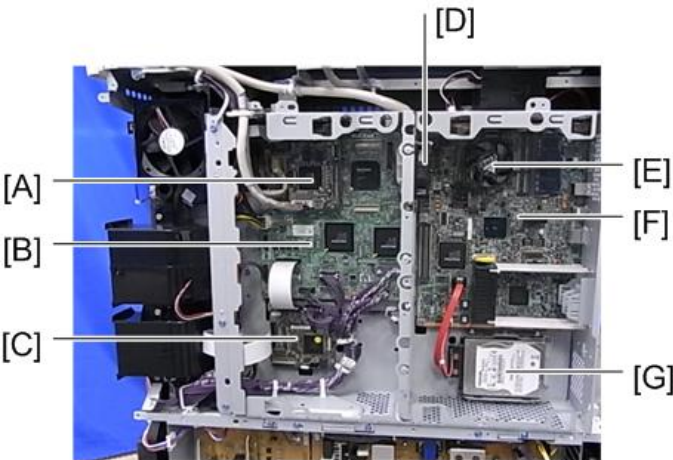
- There is a FFC with tabs. Release the tabs to remove.



d1462076

Overview

Printed Circuits/Parts Inside the Controller Box

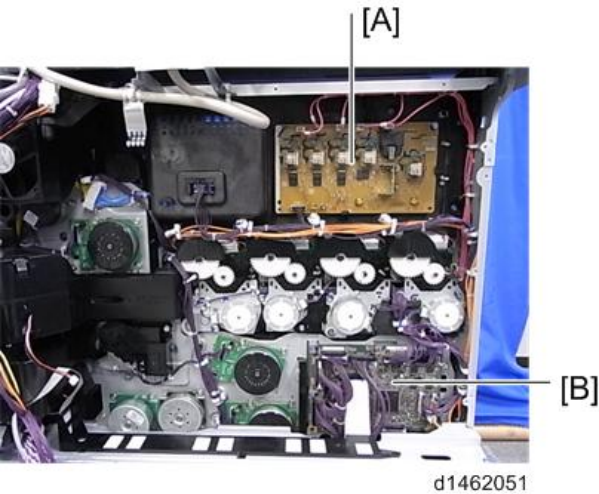


d1462050

[A]	IPU Sub (SPDF only)
[B]	IPU

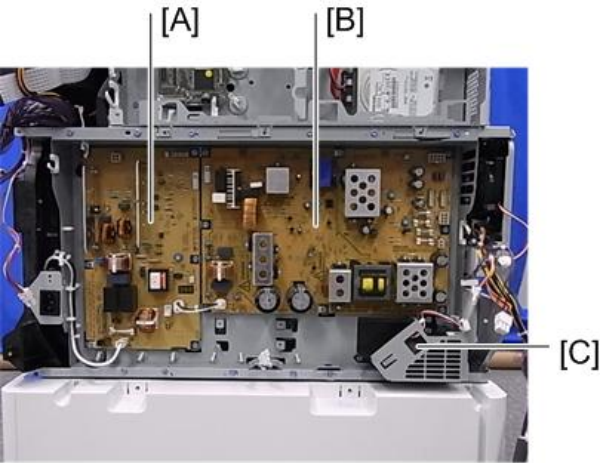
[C]	BCU
[D]	Controller Box Cooling Fan
[E]	CPU Cooling Fan
[F]	Controller Board
[G]	HDD

Printed Circuits Behind the Controller Box.



[A]	HVP_TTS
[B]	Imaging IOB

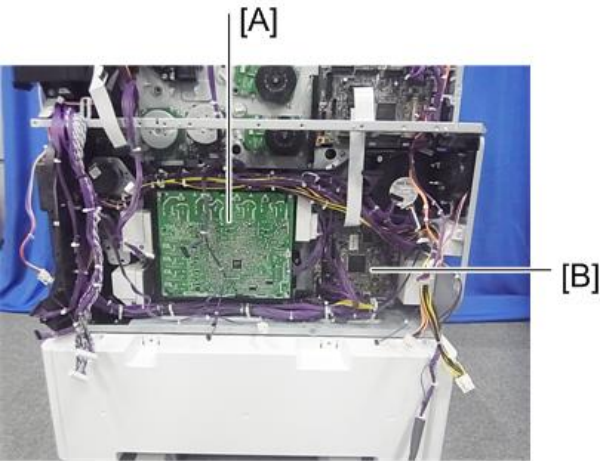
Printed Circuit/Parts Inside the Power Box



RTB 146
Caution: Some parts of the PSU retain charge for a long period after disconnecting the power.
See the diagrams in this RTB for details.

[A]	PSU (AC controller board)
[B]	PSU (DC Power)
[C]	PSU Cooling Fan

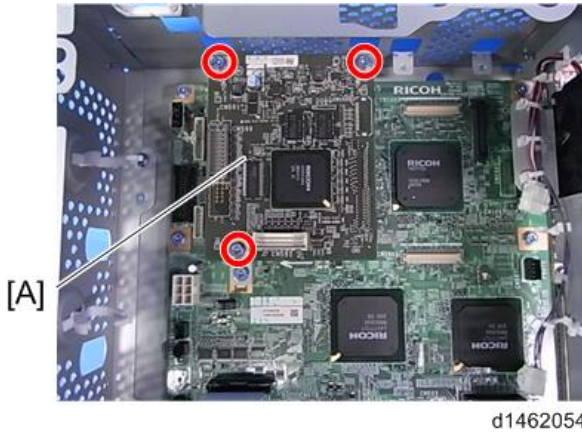
Printed Circuits Behind the Power Box.



[A]	HVP_CB
[B]	Paper Transport IOB

IPU Sub (SPDF only)

1. Rear cover (page 366 "Rear Cover")
2. IPU Sub [A] (🔧×3, 📏×2)



4

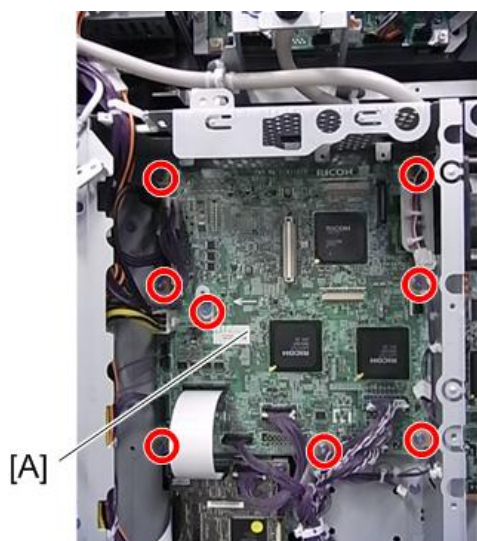
IPU

⚠ CAUTION

- The FFC connector has a lock mechanism. Do not use force to pull it out.

1. IPU Sub (page 553 "IPU Sub (SPDF only)")
2. IPU [A]
D150:
(🔧×8, 📏×12)

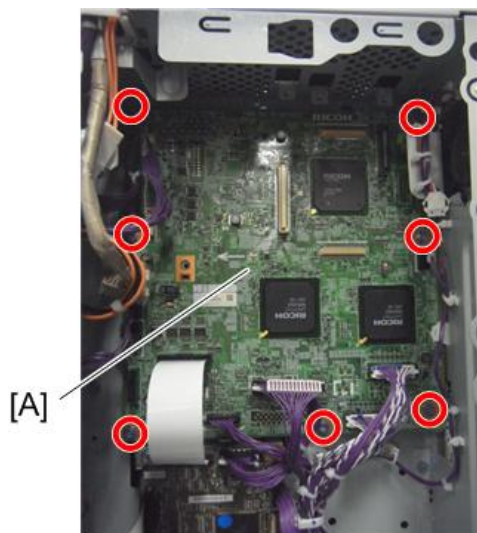
4



d1462055



D149/D148:

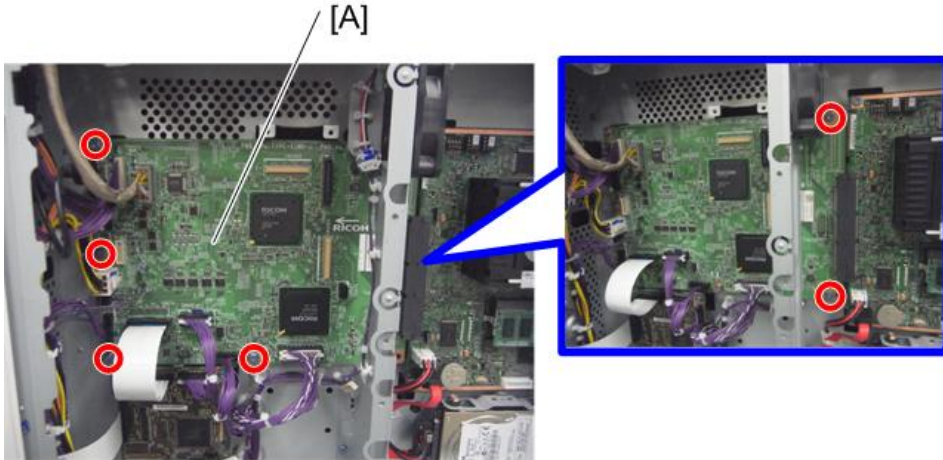
(×7, ×12)



d1462081

D147/D146:

(×6, ×12)



d1462082

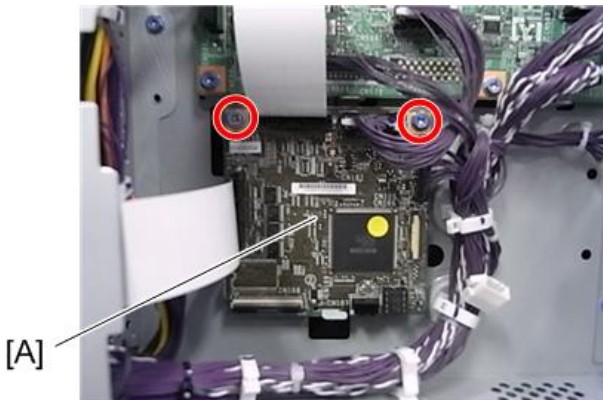
4

BCU

⚠ CAUTION

- The FFC connector has a lock mechanism. Do not use force to pull it out.

- Rear cover (page 366 "Rear Cover")
- BCU [A] (⚙️ x2, 📁 x4)



d1462056

When installing the new BCU

Remove the NVRAM (EEPROM) from the old BCU. Then install it on the new BCU after you replace the BCU.

Replace the NVRAM (page 556 "Replacing the NVRAM (EEPROM) on the BCU") if the NVRAM on the old BCU is defective.

Note

- Make sure you print out the SMC reports ("SP Mode Data" and "Logging Data") before you replace the NVRAM (EEPROM).

CAUTION

- Keep NVRAMs (EEPROM) away from any objects that can cause static electricity. Static electricity can damage NVRAM data.
- Make sure the serial number is input in the machine for the NVRAM data with SP5-811-004, if not, SC995-001 occurs

4

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.

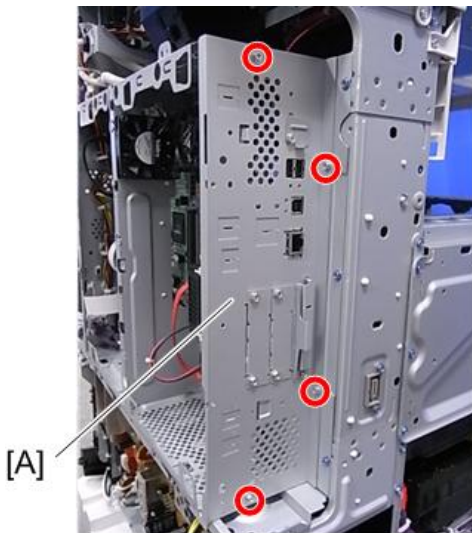
14. From the SD card where you saved the NV-RAM data in step 5, download the NV-RAM data.
15. Turn off the machine, and then remove the SD card from slot #2.
16. Turn on the main switch.
17. Check the factory setting sheet and the SMC data printout from step 2, and set the user tool and SP settings so they are the same as before.
18. Do ACC (Copier function and Printer function).

Controller Board

↓ Note

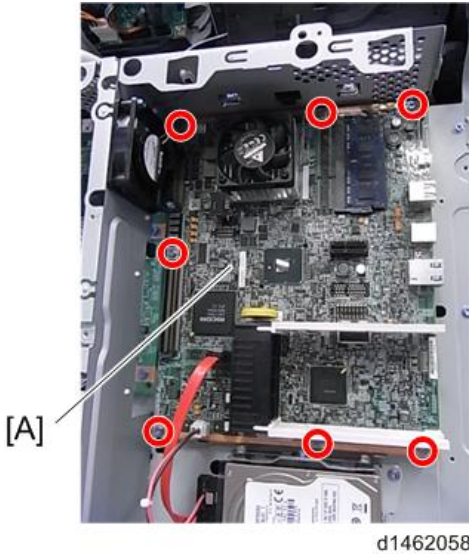
- Keep NVRAMs away from any objects that can cause static electricity. Static electricity can damage NVRAM data.

1. Rear cover (page 366 "Rear Cover")
2. Controller bracket [A] (⚙️×4)



d1462057

3. Controller Board [A] (⚙️×7, 📁×**)



[RTB 74: Replace the procedure](#)

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.

- Make sure you have the SMC report (factory settings). This report comes with the machine.
- Output all the SMC data using SP5-990-001 (SP Print Mode: All (Data List)).
- Make sure the customer has a backup of their address book data. If not, obtain the backup by referring to the following procedure.

- Turn the power OFF.
- Insert a SD card into slot 2 and turn the power ON.
- Save the address book data in the SD card using SP5-846-051.

★ Important

- The address data stored in the machine will be discarded later during this procedure. So be sure to obtain a backup of the customer's address book data.

- Note that the counters for the user will be reset when doing the backup/restore of the address book data.
 - If they have a backup of the address book data, use their own backup data for restoring. This is because there is a risk that the data cannot be backed up properly depending on the NV-RAM condition.
4. Print the Box List by pressing these buttons in the following order: [Facsimile Features] - [General Setting] - [Box Setting: Print List]
 5. Print the Special Sender List by pressing these buttons in the following order: [Facsimile Features] - [Reception] - [Program Special Sender: Print List]
 6. Write down the following fax settings.
 - [Receiver] in [Facsimile Features] - [Reception] - [Reception File Settings] - [Forwarding].
 - [Notify Destination] in [Facsimile Features] - [Reception] - [Reception File Settings] - [Store].
 - [Specify User] in [Facsimile Features] - [Reception] - [Stored Reception File User Setting].
 - [Notify Destination] in [Facsimile Features] - [Reception] - [Folder Transfer Result Report].
 - Specified folder in [Facsimile Features] - [Send] - [Backup File TX Setting].
 - [Receiver] in [Facsimile Features] - [Reception] - [Reception File Settings] - [Output Mode Switch Timer].
 - [Store: Notify Destination] in [Facsimile Features] - [Reception] - [Output Mode Switch Timer].
 - All the destination information shown on the display.
 7. Make sure that there is no transmission standby file. If any standby file exists, ask the customer to delete it or complete the transmission.
 8. Turn the power OFF and unplug the power supply cord.
 9. Push the power switch ON again to discharge the residual charge.
 10. Replace the NV-RAM with a brand-new one.
 11. Turn the power ON.

 **Note**

- In the fax settings, address book data is stored with entry IDs, which the system internally assigns to each data. The entry IDs may be changed due to re-assigning in backup/restore operations.

 **Important**

- After turning the power ON, SC995 will be displayed except for machines that have a smart operation panel.
- For machines that have a smart operation panel, SC673 will occur and SC995 might be internally issued after turning the power ON.
- After turning the power ON, SC870 will occur and the address book data will be cleared.

<Additional procedure only for machines that have the Smart Operation Panel installed>

↓ Note

- SC673 will be displayed at start-up, but this is normal behavior. This is because the controller and the smart operation panel cannot communicate with each other due to changing the SP settings for the operation panel.

1. Change the SP settings for the operation panel.

- SP5-748-101: (OpePanel Setting: Op Type Action Setting): Change bit 0 from 0 to 1.
- SP5-748-201: (OpePanel Setting: Cheetah Panel Connect Setting): Change the value from 0 to 1.

2. Change the Flair API SP values.

- SP5-752-001 (Copy FlairAPIFunction Setting): Change the value from 0 to 1.
- SP1-041-001 (Scan:FlairAPI Setting): Change the value from 0 to 1.
- SP3-301-001 (FAX:FlairAPI Setting) Change the value from 0 to 1.

3. Cycle the power OFF/ON.

4. Turn the power ON, with the SD card where the NV-RAM data has been uploaded in slot 2. Then download the NV-RAM data stored in the SD card to the brand-new NV-RAM using SP5-825-001 (NV-RAM Data Download).

↓ Note

- The download will take a couple of minutes.

5. Turn the power OFF and remove the SD card from slot 2.

6. Turn the power ON.

7. Restore the original settings of the following SPs, referring to the SMC data obtained in step 2.

↓ Note

- SP5-825-001 does not download the following SP data to the new NV-RAM. So you must set them manually.

- a. SP5-985-001 (Device Setting: On Board NIC)
- b. SP5-985-002 (Device Setting: On Board USB)
- c. SP5-193-001 (External Controller Info. Settings)
- d. SP5-895-001 (Application invalidation: Printer)
- f. SP5-895-002 (Application invalidation: Scanner)
- g. SP5-730-001 (Extended Function Setting: JavaTM Platform setting)

8. If the security functions (e.g. Stored file encryption/ Auto Erase Memory Setting) were applied, set the functions again.

9. Ask the customer to restore their address book. Or restore the address book data using SP5-846-052 (UCS Setting: Restore All Addr Book), and ask the customer to ensure the address book data has been restored properly.

★ Important

- If you obtained the backup of the customer's address book data in step 3, delete the backup immediately after the NV-RAM replacement to avoid accidentally taking out the customer's data.

10. Output all the SMC data with SP5-990-001 and make sure all the SP/UP settings except for counter information are properly restored, by checking the SMC data obtained in step 2.

↓ Note

- The counters will be reset.

11. Make sure that the list output in steps 4 to 6 matches the destination information in step 6. If not, set it to the setting before replacement.

12. Execute the process control (SP3-011-001).

13. Execute the ACC (Copy).

14. Execute the ACC (Printer).

★ Important

- If you cannot execute SP5-824-001 or SP5-825-001 for some reason, try all the following things.
- Check the changed SP value on the SMC which was output in step 2 and set it manually. Especially, ensure that the values of the following SPs are same as the setting before the replacement.
 - SP5-045-001 (Accounting counter: Counter Method)
 - SP5-302-002 (Set Time: Time Difference)
- Because the PM counters have been reset during NV-RAM replacement, it is necessary to replace all the PM parts for proper PM management.

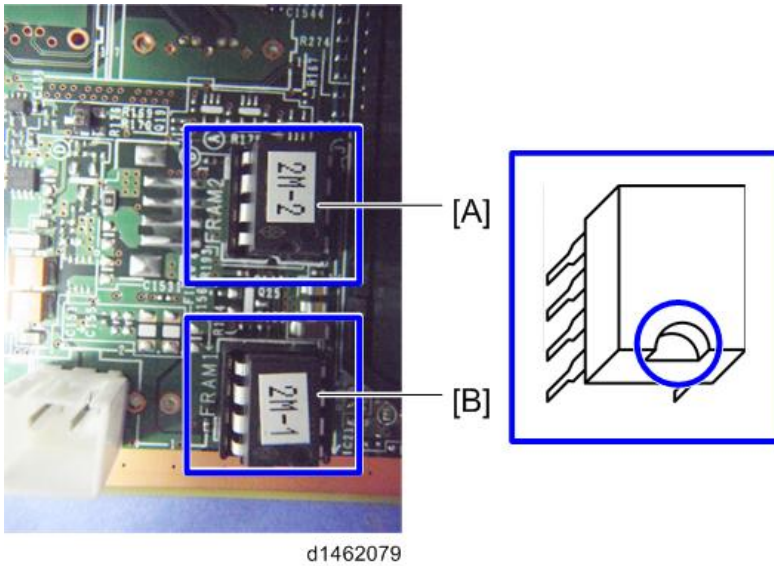
↓ Note

- If a message tells you need a SD card to restore displays after the NV-RAM replacement, create a "SD card for restoration" and restore with the SD card.

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



- 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).

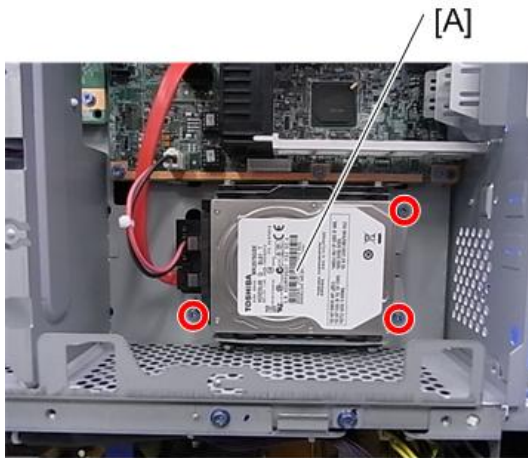
HDD

↓ 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 366 "Rear Cover")

2. HDD [A] (🔧×3, 📀×2)



d1462059

4

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.

CPU Cooling Fan

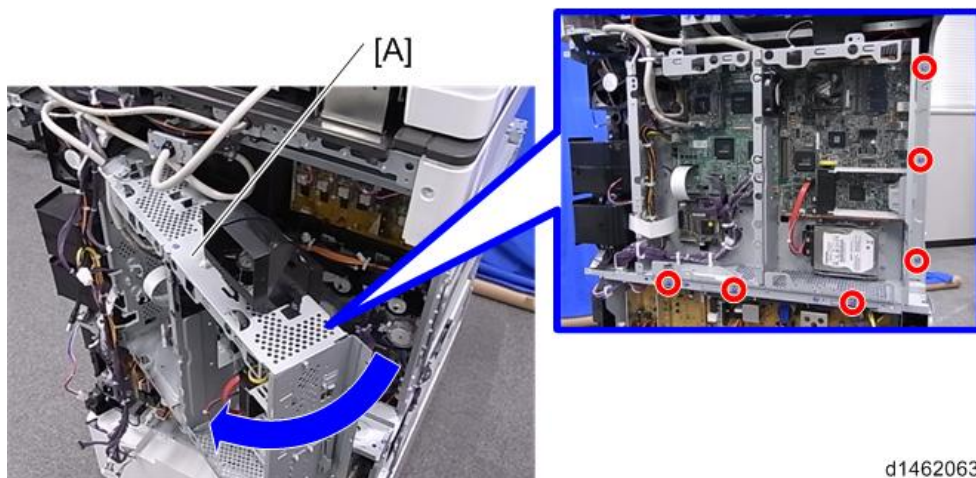
1. Rear cover (page 366 "Rear Cover")

2. CPU cooling fan [A] (⚙️×4)

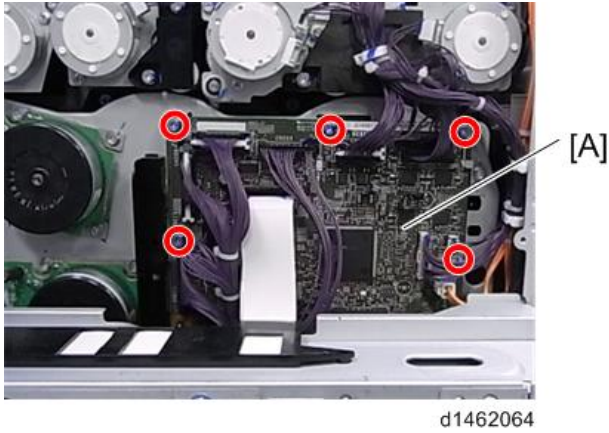


Imaging IOB

1. Scanner rear cover (page 368 "Scanner Rear Cover")
2. Scanner rear small cover (page 368 "Scanner Rear Cover (Small)")
3. Rear right cover (page 367 "Rear Right Cover")
4. Open the controller box [A]. (⚙️×6)



5. Imaging IOB [A] (⚙️×5, 📡×14)



4

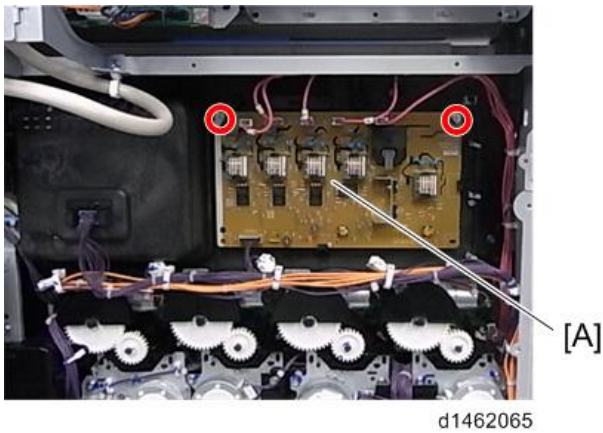
HVP_TTS

1. Open the controller box. (page 564 "Imaging IOB")

2. HVP_TTS [A]

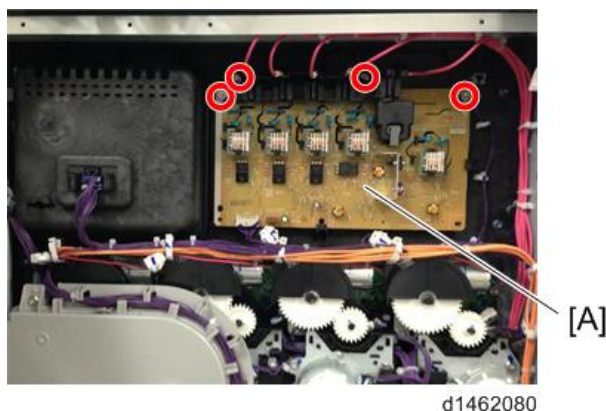
D148/D149/D150

(⚙️×2, 📡×6)



D146/D147

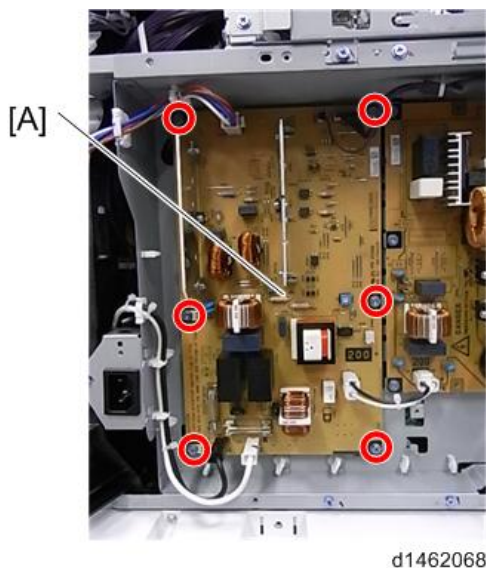
(⚙️×4, 📡×6)



4

PSU (AC Controller Board)

1. Rear lower cover (page 367 "Rear Lower Cover")
2. PSU (AC Controller Board) [A] (⚙️×6, 📏×7 for NA, x 6 for EU/AA)



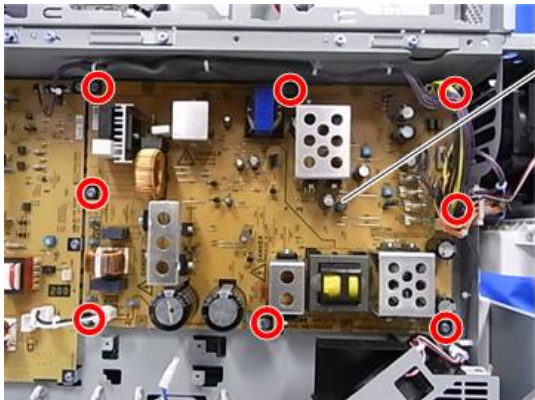
PSU (DC Power)

⚠️ Note

- PSU (DC) for D146/D147 is different from the PSU (DC) for D148/D149/D150.

1. Rear lower cover (page 367 "Rear Lower Cover")

2. PSU (DC Power) [A] (⚙️×8, 🔌×8)



d1462067

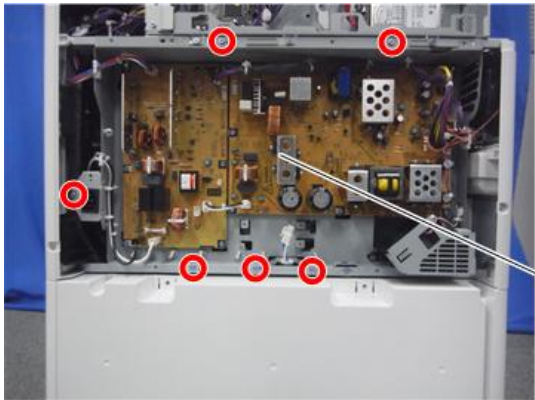
[A]

RTB 146
Caution: Some parts of the PSU retain charge for a long period after disconnecting the power.
See the diagrams in this RTB for details.

4

Paper Transport IOB

1. Rear lower cover (page 367 "Rear Lower Cover")
2. Power supply box [A] (⚙️×6, Among them, tapping screw×1, 🔌×10, 🔌×4)

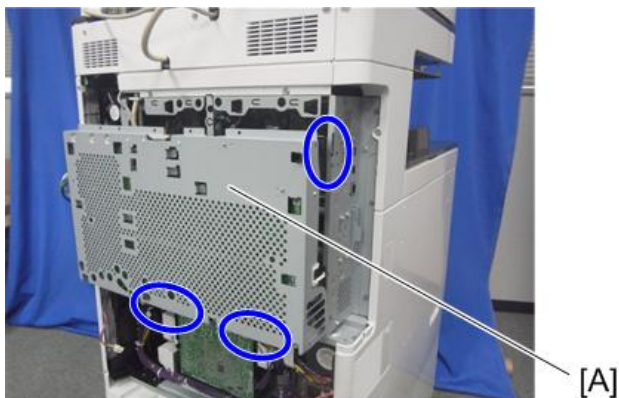


d1462070

[A]

↓ Note

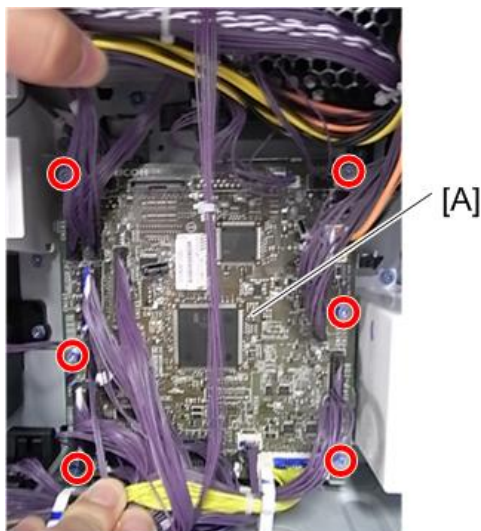
- The power box [A] is hooked onto the machine at the locations in the blue circles.



d1462075

4

3. Paper transport IOB [A] (⚙️×6, 📄×22)

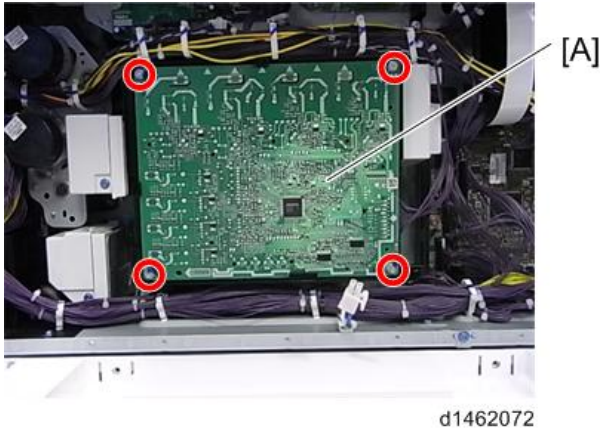


d1462071

HVP-CB

1. Power supply box (page 567 "Paper Transport IOB")

2. HVP_CB [A] (⚙️×4, 📡×1)



Fans/Filters

Ozone filter/Dust filter

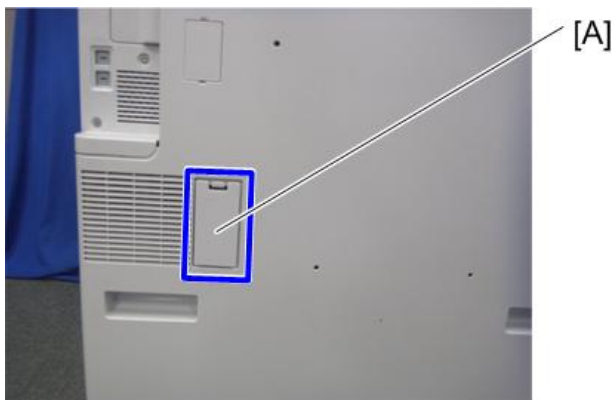
Adjustment before replacing the dust filter

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.

4

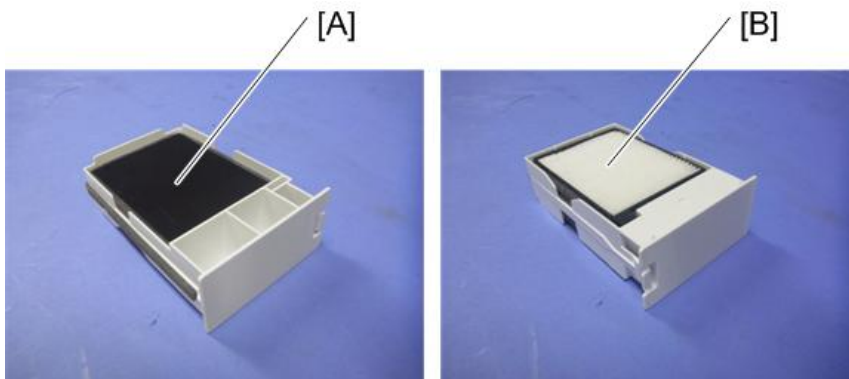
Replacement

1. Pull out the ozone filter and dust filter [A].



d1462031

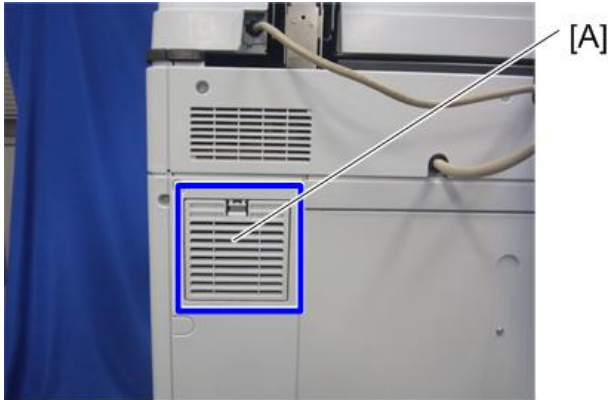
2. Ozone filter[A], Dust filter [B]



d1462032

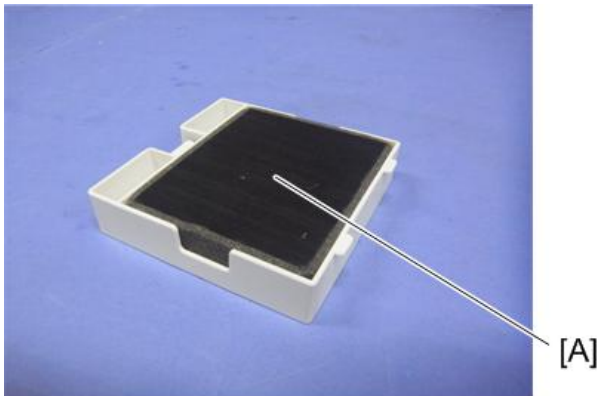
Odor Filter

1. Odor filter box [A]



d1462033

2. Odor filter [A]

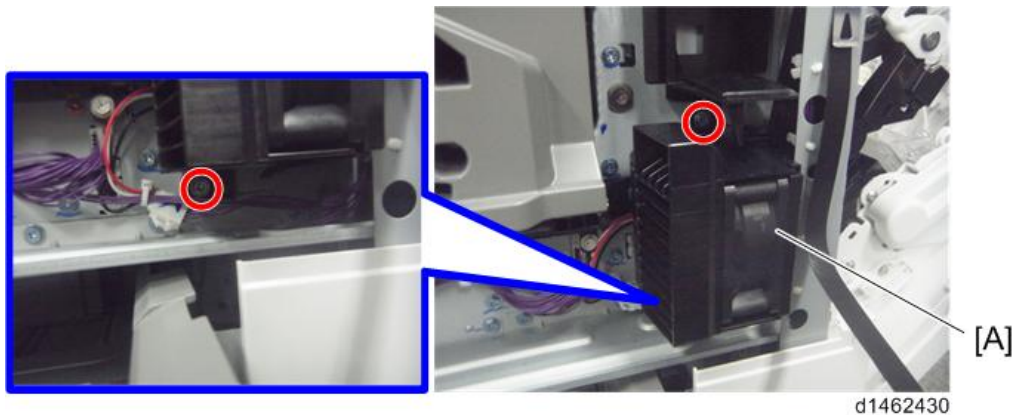


d1462034

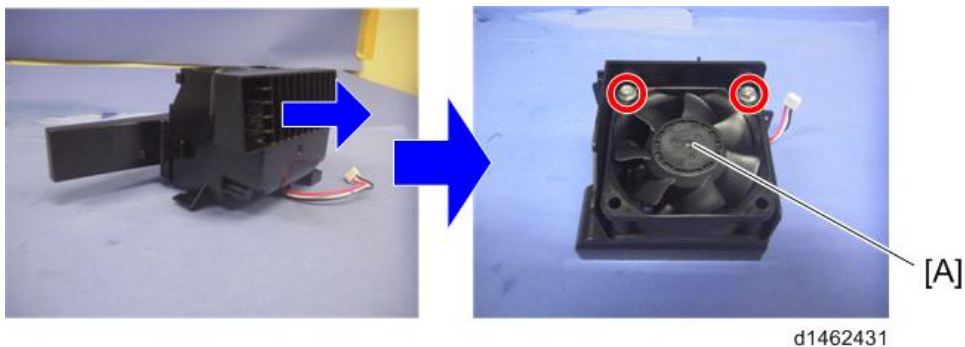
Development Intake Fan/Right

1. Inner lower cover (page 375 "Inner Lower Cover")

2. Development intake fan/Right unit [A] (⚙️×2, 📏×1, 📏×1)



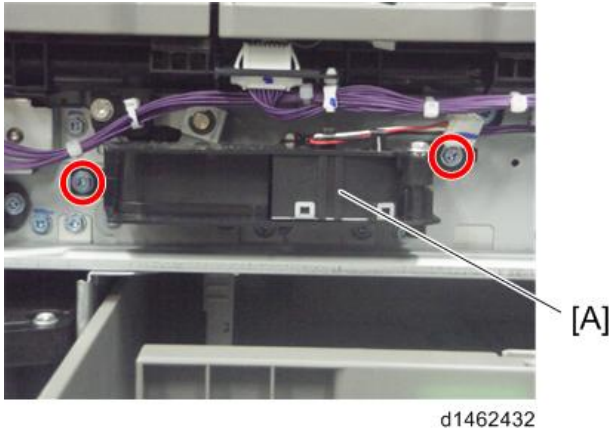
3. Development intake fan/Right [A] (⚙️×2)



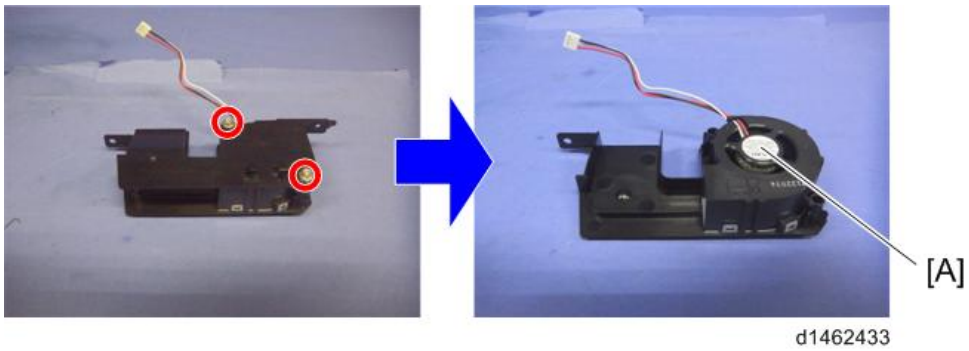
Development Intake Fan/ Left

1. Inner lower cover (page 375 "Inner Lower Cover")

2. Development Intake Fan/Left unit [A] (⚙️×2, 📡×1)



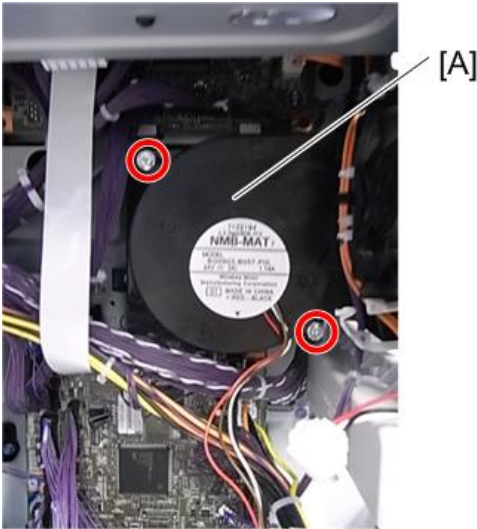
3. Development Intake Fan/Left [A] (⚙️×2)



Ozone Exhaust Fan

1. Power supply box (page 567 "Paper Transport IOB")

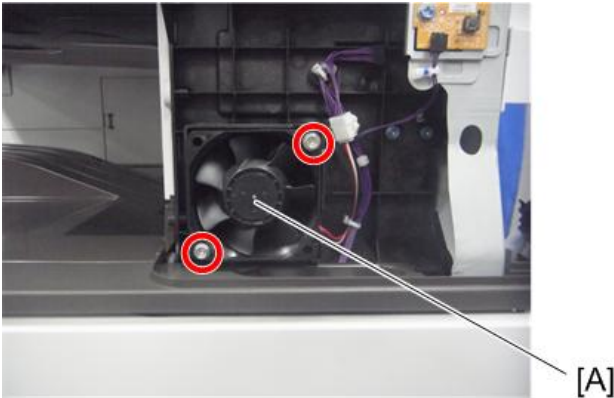
2. Ozone exhaust fan [A] (⚙️×2, 📺×1)



d1462074

Paper Exit Cooling Fan

1. Main power switch cover (page 370 "Main power switch cover")
2. Paper exit cooling fan [A] (⚙️×2, 📺×1)

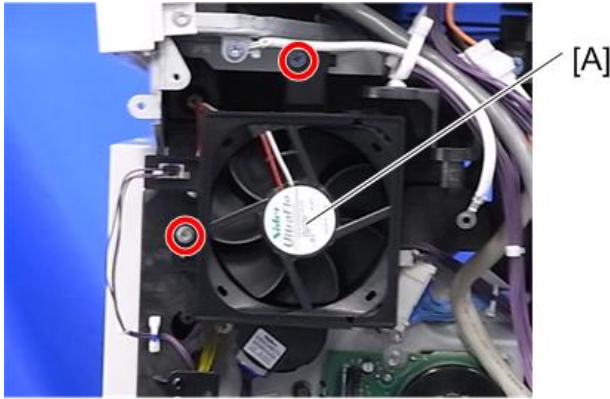


d1462434

Fusing Exhaust Heat Fan

1. Rear right cover (page 367 "Rear Right Cover")

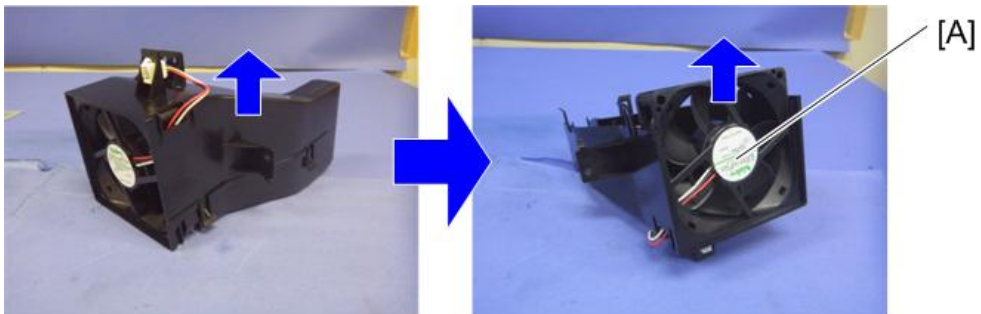
2. Fusing exhaust heat fan unit [A] (⚙️×2, 📏×1, 📏×1)



d1462104

4

3. Fusing exhaust heat fan [A]

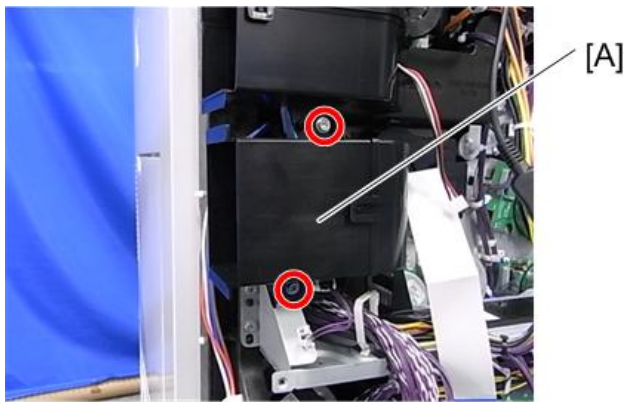


d1462147

Drive Cooling Fan (D148/D149/D150)

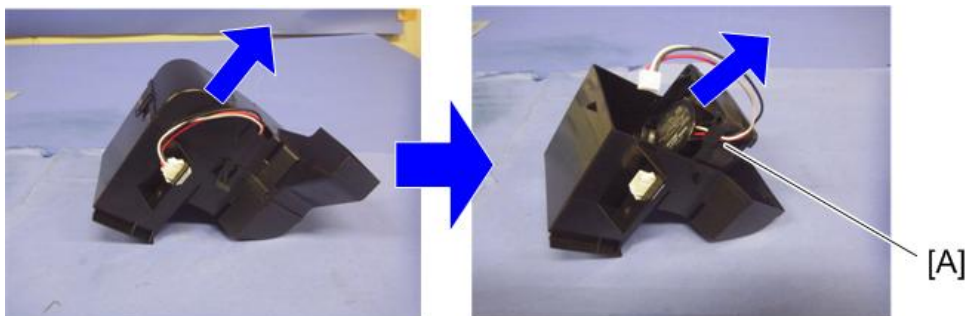
1. Rear right cover (page 367 "Rear Right Cover")
2. Right rear cover (page 368 "Right Rear Cover")

3. Drive cooling fan unit [A] (⚙️×2, 📡×1)



d1462105

4. Drive cooling fan

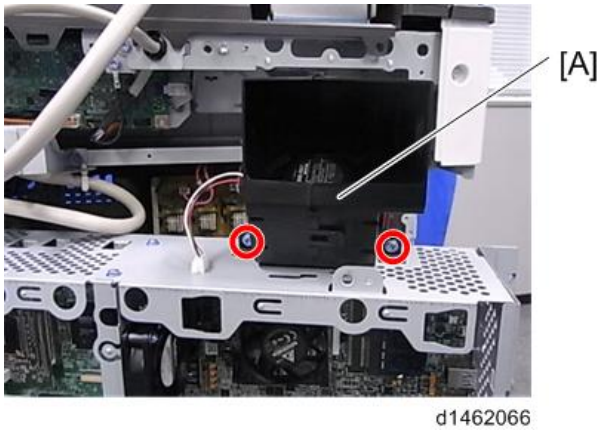


d1462148

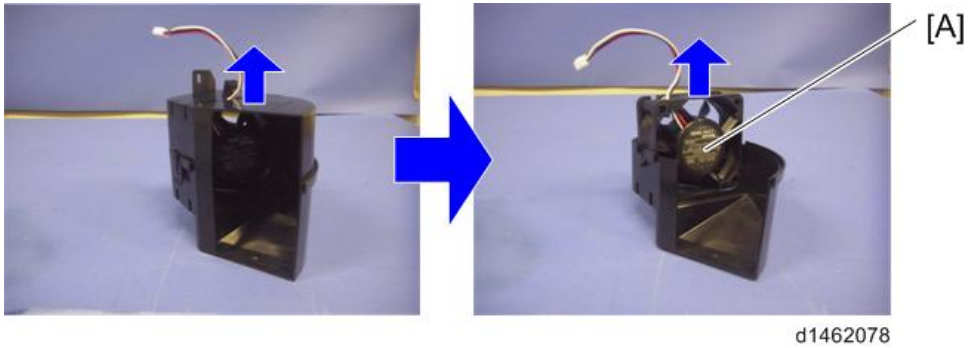
Main Exhaust Fan (D148/D149/D150)

1. Scanner rear cover (page 368 "Scanner Rear Cover")
2. Scanner rear small cover (page 368 "Scanner Rear Cover (Small)")

3. Main exhaust fan unit [A] (⚙️×2, 📦×1)



4. Main exhaust fan [A]

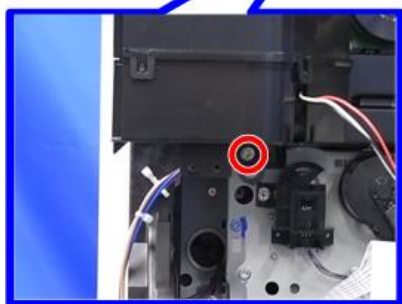


Toner Supply Cooling Fan

D148/D149/D150

1. Drive cooling fan (page 575 "Drive Cooling Fan (D148/D149/D150)")

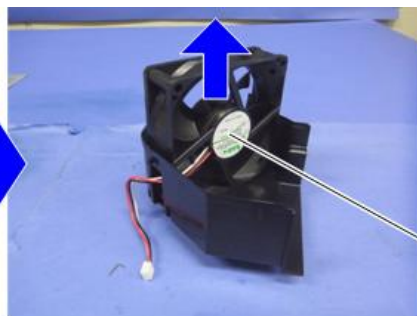
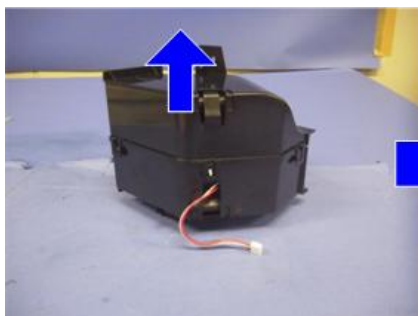
2. Toner supply cooling fan unit [A] (⚙️×2, 📡×1)



[A]

d1462106

3. Toner supply cooling fan [A]



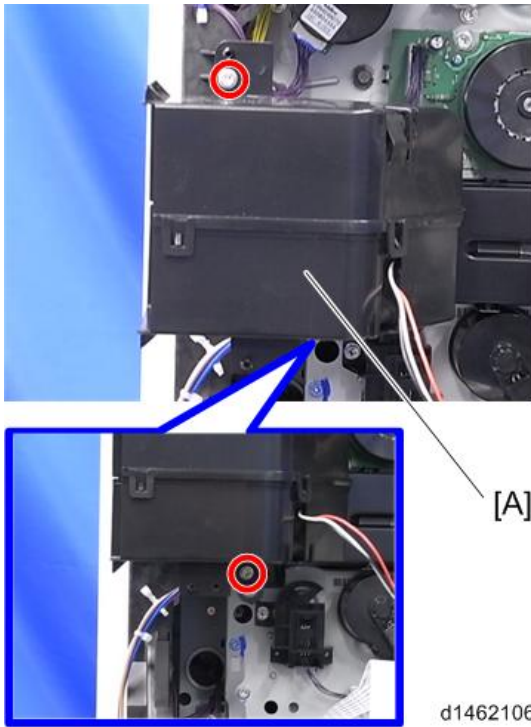
[A]

d1462149

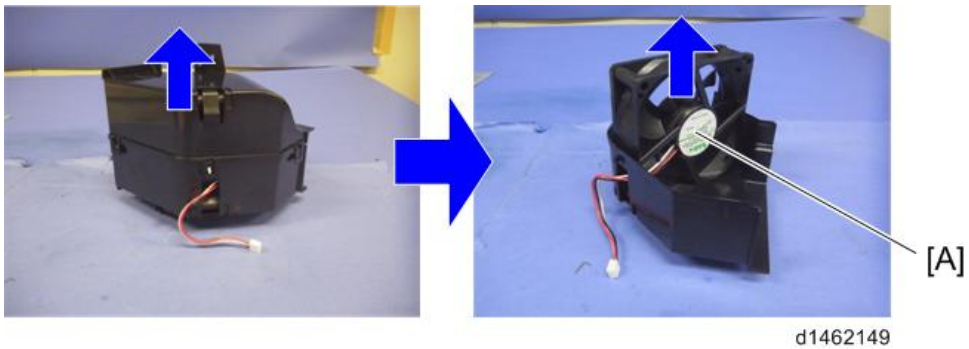
D146/D147

1. Rear right cover (page 367 "Rear Right Cover")
2. Right rear cover (page 368 "Right Rear Cover")

3. Toner supply cooling fan unit [A] (⚙️×2, 📡×1)



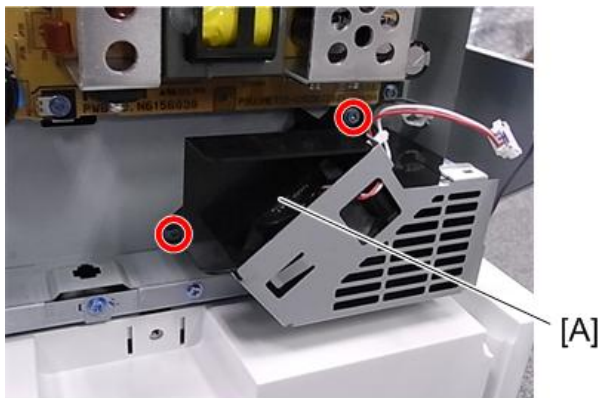
4. Toner supply cooling fan [A]



PSU Cooling Fan

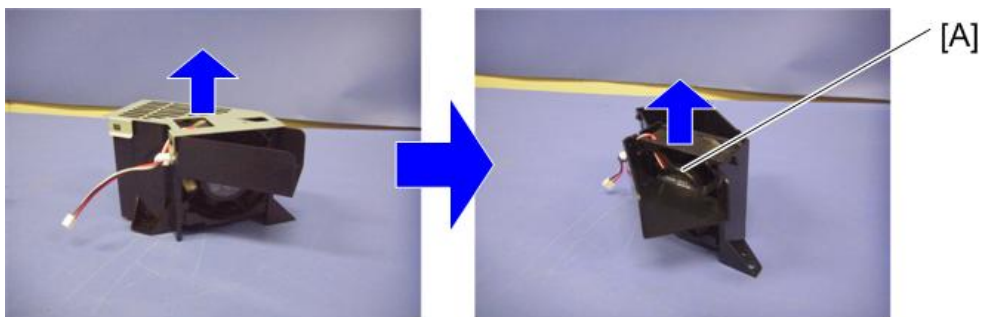
1. Rear lower cover (page 367 "Rear Lower Cover")

2. PSU cooling fan unit [A] (⚙️x2, 📡x1, 📡x1)



d1462069

3. PSU cooling fan [A]

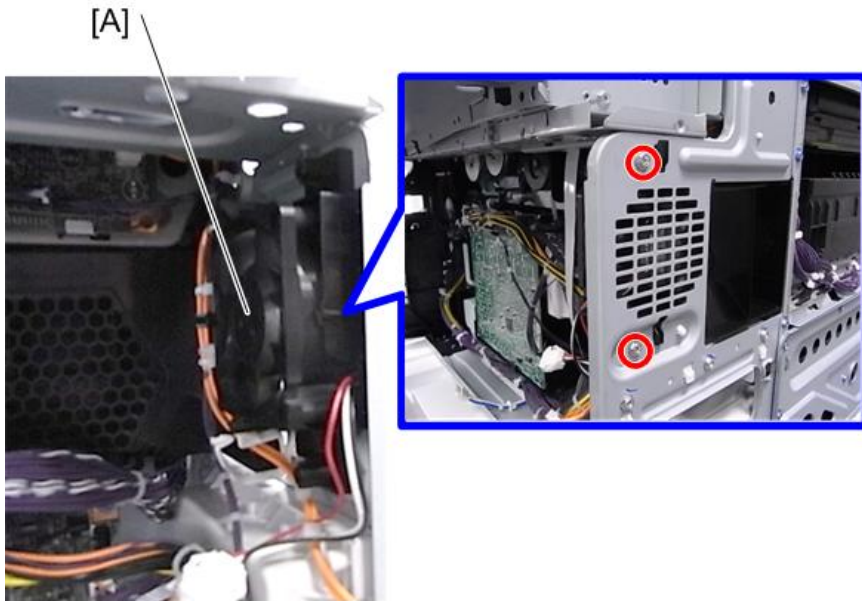


d1462077

PSU Exhaust Heat Fan (D148/D149/D150)

1. Power supply box (page 567 "Paper Transport IOB")
2. Left cover (page 363 "Left Cover")

3. PSU exhaust heat fan [A] (⚙️×2, 📏×1)



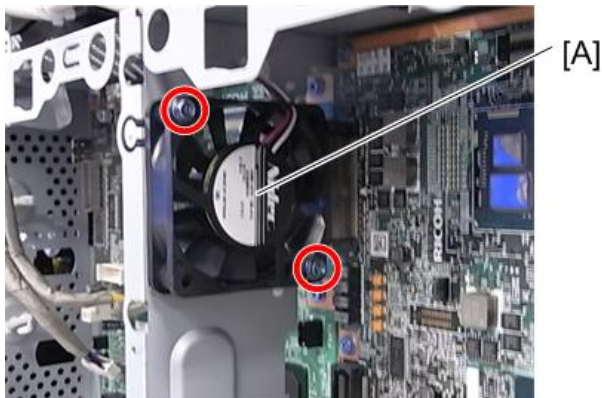
d1462073

4

Power Box Cooling Fan

1. Rear cover (page 366 "Rear Cover")

2. Power box cooling fan [A] (⚙️×2)



d1462062

Image Adjustment

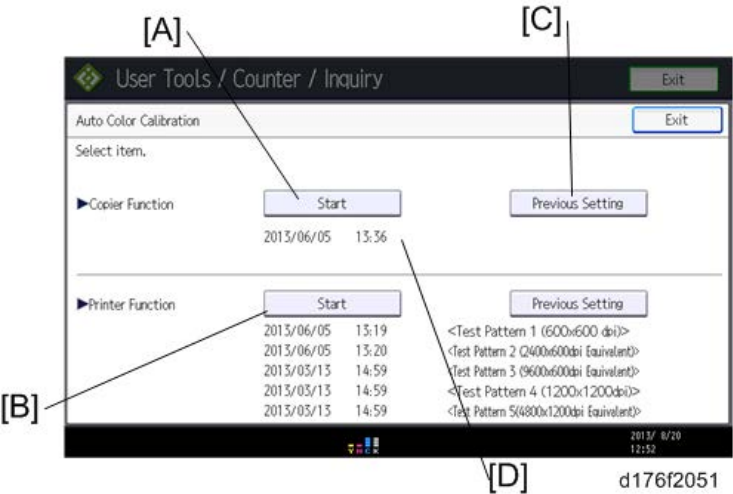
Auto Color Calibration

Image adjustment is performed by setting the Auto Color Calibration (ACC) during installation.

Note

- When you set the adjustment sheet on the exposure glass, put about 10 pieces of white paper on the adjustment sheet in order for the original to contact the exposure glass sufficiently. Instruct the customer to periodically execute the ACC.

4



	Description
[A]	is used to output adjustment sheets.
[B]	You must execute both copy and printer.
[C]	is used to roll back to the previous value.
[D]	Displays the last date/time ACC was executed.

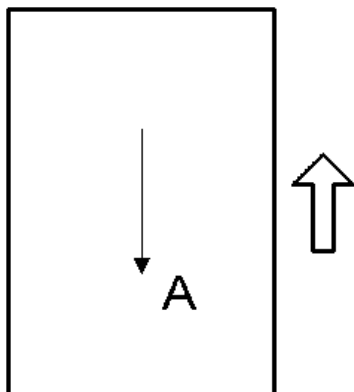
Scanning

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



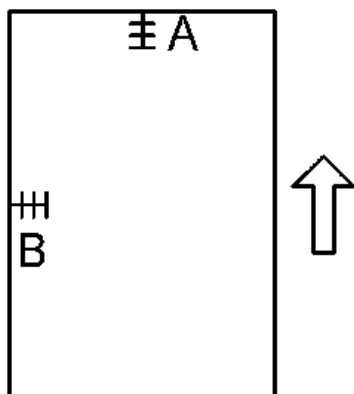
4

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: $\pm 1.0\%$.

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: $0 \pm 2\text{mm}$ for the leading edge registration, $0 \pm 2.5\text{mm}$ for the side-to-side registration.

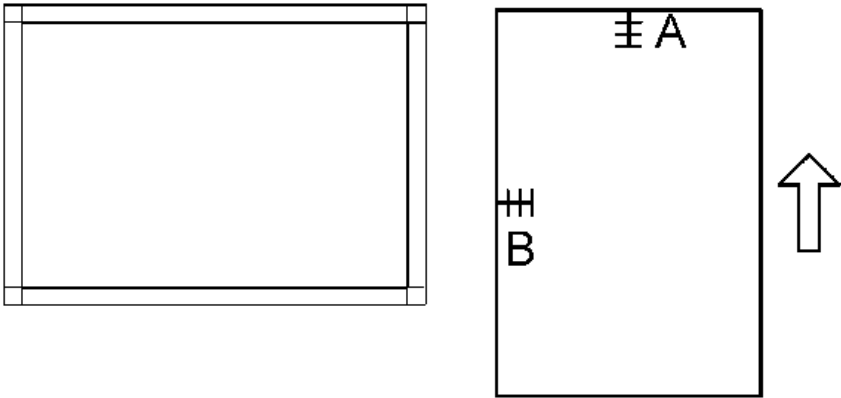
	SP mode
--	---------

Leading Edge Registration	SP4-010-001
Side-to-Side Registration	SP4-011-001

ARDF

ARDF side-to-side, leading edge registration and trailing edge

4



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

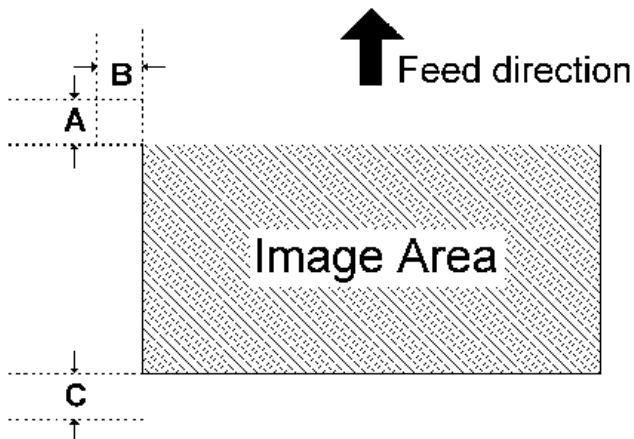
ARDF sub-scan magnification

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: $\pm 5.0\%$
 - Reduction mode: $\pm 1.0\%$
 - Enlargement mode: $\pm 1.0\%$

Registration

Image Area

4



$A = C = 5.2 \text{ mm (0.2")}$, $B = 2.0 \text{ mm}$

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

4

Adjustment Procedure

1. Enter SP2-109-003.
2. Print out the test pattern (14: 1-dot trimming pattern) with SP2-109-003.

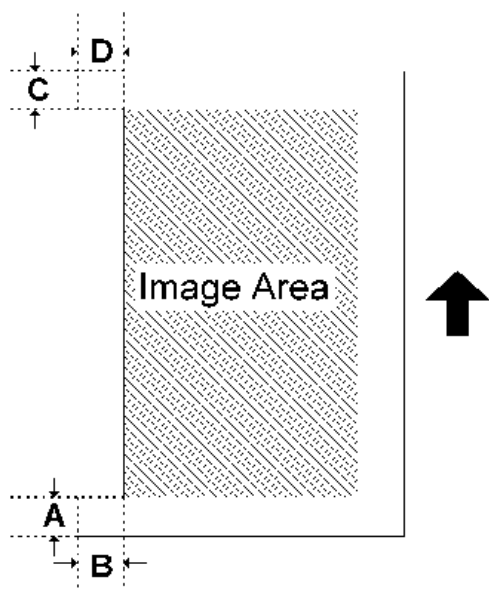
↓ Note

- 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 \oplus 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 \oplus key.
 - 4) Generate a trim pattern to check the leading edge adjustment.

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)

Printer Gamma Correction

↓ Note

- We recommend that you keep the printer gamma correction values at the default values.
 - After adjusting/saving the values in the printer SP mode, the changes are reflected only by performing the Auto Color Calibration (ACC) [User Tool > Maintenance > Auto Color Calibration].
 - *To change multiple resolutions, perform this procedure for each resolution.
1. Select the mode you want to change in the printer SP1 102-001: Resolution Setting.

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)
-----	--------------------	-----	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2. Change the gamma correction value for each color in the printer SP1104: Gamma Adjustment.

 **Note**

- When adjusting the value, be sure to follow the sequence: I (IDmax) → M (Middle) → S (Shadow) → H (Highlight).
- To lower the print density, reduce and save the H/M/S/I value for each color.
- To heighten the print density, increase and save the H/M/S/I value for each color.

1104	[Gamma Adjustment]
	Adjusts the printer gamma for the mode selected in the "Mode Selection" menu.

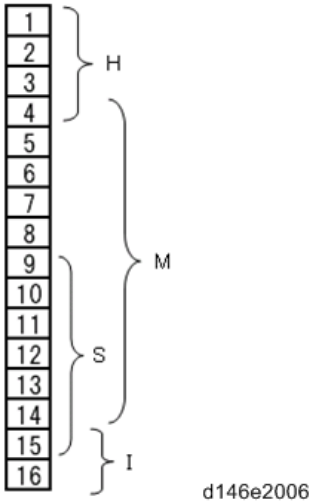
001	Black: Highlight	CTL	[0 to 30 / 00 / 1/step]
002	Black: Shadow	CTL	
003	Black: Middle	CTL	
004	Black: IDmax	CTL	
021	Cyan: Highlight	CTL	
022	Cyan: Shadow	CTL	
023	Cyan: Middle	CTL	
024	Cyan: IDmax	CTL	
041	Magenta: Highlight	CTL	
042	Magenta: Shadow	CTL	
043	Magenta: Middle	CTL	
044	Magenta: IDmax	CTL	
061	Yellow: Highlight	CTL	
062	Yellow: Shadow	CTL	
063	Yellow: Middle	CTL	
064	Yellow: IDmax	CTL	

Gamma Correction Sheet

1	1	1	1	1	600×600 dpi 1 bit Photo(1)				
2	2	2	2	2	Color	Highlight	Shadow	Middle	ID
3	3	3	3	3	Black	15	15	15	15
4	4	4	4	4	Cyan	15	15	15	15
5	5	5	5	5	Magenta	15	15	15	15
6	6	6	6	6	Yellow	15	15	15	15
7	7	7	7	7					
8	8	8	8	8					
9	9	9	9	9					
10	10	10	10	10					
11	11	11	11	11					
12	12	12	12	12					
13	13	13	13	13					
14	14	14	14	14					
15	15	15	15	15					
16	16	16	16	16					
3C	K	C	M	Y					

w_d146e2005

Range where each value affects



3. Execute the SP1105-001: Save Tone Control Value.

Note

- If you exit the SP mode without saving the values, any changes made in the printer SP1104: Gamma Adjustment will be lost.
- You can check the color balance before and after the gamma adjustment in the printer SP1103-001: Test Page - Color Gray Scale.

4. Perform the Auto Color Calibration (ACC) of the relevant resolution.

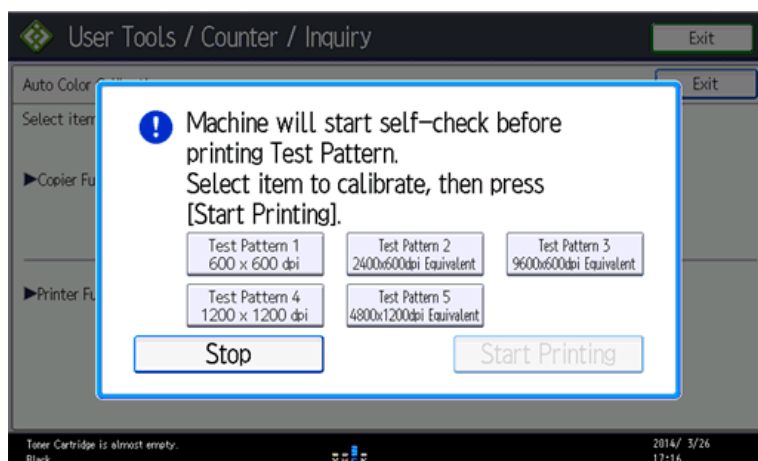
[User Tool > Maintenance > Auto Color Calibration].

*The settings are reflected by performing the above steps.

↓ Note

- The resolution indicated in the Auto Color Calibration (ACC) differs from that in the printer SP. Refer to the correspondence table below.

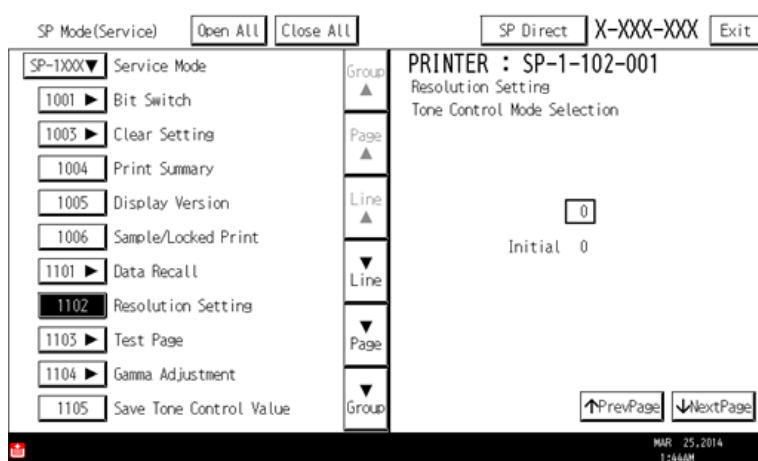
Display: User Tool > Maintenance > Auto Color Calibration



w_d146e2007

- The items on the ACC screen is the left column of the table described below.

Display: printer SP



w_d146e2008

- The items of the printer SP is the right column of the table described below.
- .

Correspondence table

Item of the ACC	Selected item of the printer SP
[Test Pattern 1 (600x600 dpi)]	4: 600x600 Photo (1bit/4col) / 9: 600x600 Text (1bit/4col)
[Test Pattern 2 (2400x600 dpi Equivalent)]	3: 600x600 Photo (2bit/4col) / 8: 600x600 Text (2bit/4col)
[Test Pattern 3 (9600x600 dpi Equivalent)]	2: 600x600 Photo (4bit/4col) / 7: 600x600 Text (4bit/4col)
[Test Pattern 4 (1200x1200 dpi)]	1: 1200x1200 Photo (1bit/4col) / 6: 1200x1200 Text (1bit/4col)
[Test Pattern 5 (4800x1200 dpi Equivalent)]	0: 1200x1200 Photo (2bit/4col) / 5: 1200x1200 Text (2bit/4col)

5. Check the output image and repeat steps 1 - 4 until the desired image is obtained.

Color Registration

Adjust color registration with the following procedure when color registration errors occurred.

Check the occurrence of color registration errors

Prepare some A3 sheets.

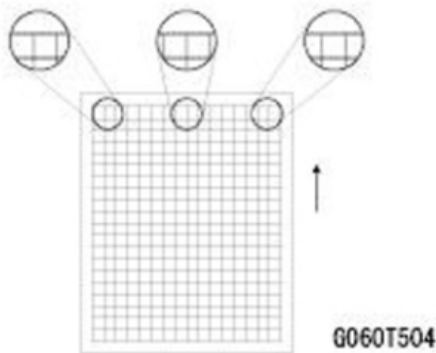
1. Execute SP2-111-004 (Forced line Position Adj.: Mode d)
2. Make sure that execution completed successfully with using SP2-194-007 (MUSIC). If the value of SP2-194-007 is "0", it indicates that the result of SP2-111-004 was successful. If the value of SP2-194-007 is "1", it indicates that the result of SP2-111-004 was a failure, which you need to fix the color registration errors (See "Ways to fix color registration errors" page 593 "Judgment for type of color registration error").
3. Execute SP2-109-003 (Test Pattern: Pattern Selection)
4. With a loupe, check the details of the color registration errors on the printed test pattern (page 593 "Judgment for type of color registration error").
 - Specification: Main/Sub is smaller than 180.0um
 - No color registration errors: Adjustment completed.
 - Color registration errors occurred: Adjust the color registration errors (See "Ways to fix color registration errors" page 593 "Judgment for type of color registration error")

Judgment for type of color registration error

In the following diagrams, solid lines represent "K" and dotted lines indicate any of "C", "M" or "Y".

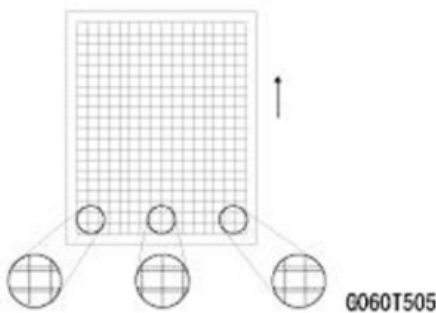
1. Pattern 1

This is a case in which there is a shift in the sub-scan direction at the leading edge of the paper. The following diagram shows "C", "M" or "Y" lines closer to the leading edge than "K" lines.



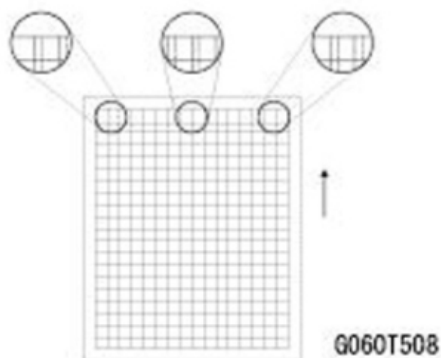
2. Pattern 2

This is a case in which there is a shift in the sub-scan direction at the trailing edge of the paper. The following diagram shows "C", "M" or "Y" lines farther away from the leading edge than "K" lines.



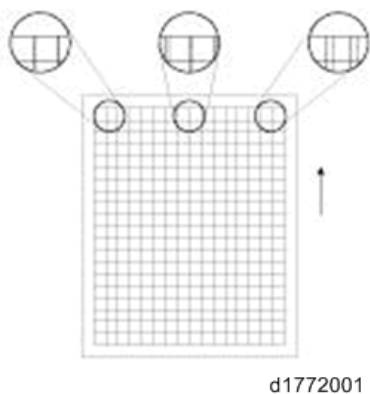
3. Pattern 3

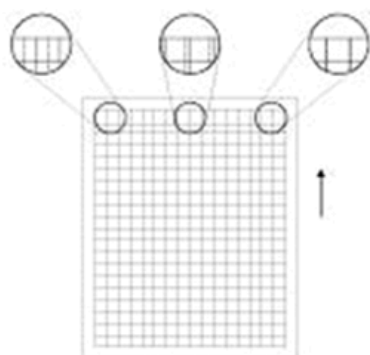
This is a case in which a color registration error is found in the main-scan direction and size of the error is the same at the left, center and right.



4. Pattern 4

This is a case in which a color registration error is found in the main-scan direction and the size of the error is different at the left, center and right. For "M", the largest error will be at the right, followed by the center and then the left. For "C" or "Y", the order will be reversed. This is because the writing direction of the laser beam for "K" and "M" is different from "C" and "Y".

Case "M"**Case "C" or "Y"**



d1772002

5. Pattern 5

This is a case in which a color registration error is found in the sub-scan direction, but it is not the same as the Pattern 1 or 2. The error appears and disappears at intervals down the page.

Ways to fix color registration errors

SP2-111-004 (Forced Line Position Adj. : Mode D) Execution		
Result: Failed Case: SP2-194-007: 1 (Failed)		
SP2-194-010, 011, 012 shows "2" or "3"	Result of Check	Blank image, abnormal image, low image density
	Causes	1. Image Processing failure 2. Pattern density low 3. BCU(IPU) failure
	Solution	1. Replace PCU, Intermediate Transfer Belt, Power pack 2. Execute process control, supply toner 3. Replace BCU(IPU)
	Pattern	-

Failed to read the pattern of Line position Adj.	Result of Check	Normal (but color registration errors occur)
	Causes	1. ID Sensor shutter failure 2. ID Sensor failure 3. BCU(IPU) failure
	Solution	1. Replace ID Sensor shutter 2. Replace ID Sensor 3. Replace BCU(IPU)
	Pattern	-
Any of SP2-194-010 or 011 or 012 shows "5"	Result of Check	Image density low
	Causes	Pattern density low
	Solution	Execute the process control Supply toner
	Pattern	-
	Result of Check	Leading edge registration for "M", "C", and/or "Y" shifts over ± 1.4 mm from that of "K".
	Causes	1. Normal 2. Laser unit failure 3. BCU(IPU) failure
	Solution	1. Execute SP2-111-003 (Forced Line Position Adj.: Mode c) 2. Replace Laser unit 3. Replace BCU(IPU)
	Pattern	3

Out of line position correction range	Result of Check	Leading edge registration of "M", "C", and/or "Y" shifts over $\pm 1.4\text{mm}$ from that of "K".
	Causes	1. Normal 2. Image Transfer Belt failure 3. Drive Section failure 4. BCU(IPU) failure
	Solution	1. Execute SP2-111-003 (Forced Line Position Adj.: Mode c) 2. Replace Image Transfer Belt 3. Replace PCU/Drum motor 4. Replace BCU(IPU)
	Pattern	1, 2
	Result of Check	The main scan magnification is OK, but the color registration in the center of the image shifts over 0.66mm.
	Causes	1. ID Sensor(Center) failure 2. Significant movement of Image Transfer Belt (Center) 3. BCU(IPU) failure
	Solution	1. Replace ID Sensor 2. Replace Image Transfer Belt 3. Replace BCU(IPU)
	Pattern	-

Out of line position correction range	Result of Check	Skew of "M", "C" and/or "Y" shifts over $\pm 0.75\text{mm}$ against that of "K"
	Causes	1. PCU installation failure 2. Laser Unit failure 3. BCU(IPU) failure
	Solution	1. Reset/Replace PCU 2. Replace Laser Unit 3. Replace BCU(IPU)
	Pattern	-
	Result of Check	Other
	Causes	1. The upper skew correction value is abnormal 2. BCU(IPU) failure
	Solution	1. Reset skew correction value (* 1) 2. Replace BCU(IPU)
	Pattern	-

* 1 Method for resetting the skew correction value.

1. Turn the power OFF.
2. Remove the harness of the skew correction motor (A second part from the front side) attached to the laser unit.
3. Turn the power ON, and then execute SP2-110-005 to set the skew correction mechanism to the origin.
4. Make sure SP2-119-001 to -003 is set to "0".
5. Turn the power OFF.
6. Connect the harness (A second part from the front side) of the skew correction motor to the laser unit.
7. Turn the power ON

SP2-111-001 (Forced Line Position Adj.: Mode A) execution (or Color Registration Error Adjustment via the Maintenance menu)
Result: OK Case: SP2-194-007: 0 (Success)

No color registration errors	Result of Check	Side-to-side registration for K shifted
	Causes	Abnormal SP value of main scan color registration (K)
	Solution	Adjust SP2-101-001
	Pattern	-
	Result of Check	The main-scan magnification for "K" is not correct.
	Causes	Abnormal SP value of standard sync value between two points (K)
	Solution	Adjust SP2-185-001
	Pattern	-
Color registration errors found	Result of Check	Image density low
	Causes	Pattern density low
	Solution	Execute process control, Supply toner
	Pattern	-
Color registration errors found	Result of Check	The main scan magnification of "M", "C" and/or "Y" is not correct.
	Causes	1. Laser Unit failure 2. ID Sensor failure 3. BCU(IPU) failure 4. Normal
	Solution	1. Replace Laser Unit 2. Replace ID Sensor 3. Replace BCU(IPU) 4. Adjust the target SP(s) from among SP2-182-001 to -003
	Pattern	4

Color registration errors found	Result of Check	Although main scan magnification is OK, the color registration in the center of the image is shifted
	Causes	1. Significant movement of Image Transfer Belt (Center) 2. ID Sensor (Center) failure 3. BCU(IPU) failure
	Solution	1. Replace Image Transfer Belt 2. Replace ID Sensor 3. Replace BCU(IPU)
	Pattern	-
Color registration errors found	Result of Check	The side-to-side registration of "M", "C", and/or "Y" is not correct.
	Causes	1.ID Sensor(Center) failure 2. Significant movement of Image Transfer Belt (Center) 3.BCU(IPU) failure
	Solution	1. Replace Laser Unit 2. Replace ID Sensor 3. Replace BCU(IPU) 4. Adjust the target SP(s) from among SP2-1 82-004 to -021
	Pattern	3


Color registration errors found	Result of Check	The leading edge registration of "M", "C" and/or "Y" is not correct.
	Causes	1. Image Transfer Belt failure 2. Drive Section failure 3. ID Sensor failure 4. BCU(IPU) failure 5. Normal
	Solution	1. Replace Image Transfer Belt 2. Replace PCU, Drum motor 3. Replace ID Sensor 4. Replace BCU(IPU) 5. Adjust the target SP(s) from among SP2-182-022 to -039
	Pattern	1, 2
Color registration errors found	Result of Check	The skew of "M", "C" and/or "Y" is not correct.
	Causes	1. PCU installation failure 2. Laser Unit failure 3. IOB failure
	Solution	1. Reset/Replace PCU 2. Replace Laser Unit 3. Replace IOB
	Pattern	-
Color registration errors found	Result of Check	Shifted Drum phase.
	Causes	1. PCU installation failure 2. Drive Section failure 3. Phase adjustment failure
	Solution	1. Reset/Replace PCU 2. Check/Replace Drive Section 3. Execute SP1-902-001
	Pattern	5

5. Troubleshooting

Self-Diagnostic Mode

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 <ul style="list-style-type: none">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").

When a type D occurs, automatic reboot is done or the machine display asks the customer if it can reboot. However, when the SC occurs twice in a short time, the machine sends a report to the @Remote server without rebooting. This is because just rebooting may not be a good solution if an SC occurs twice.

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 @Remote is enabled, and when a NRS alarm* 1 is not generated, the corresponding SC is the object of an automatic reboot.

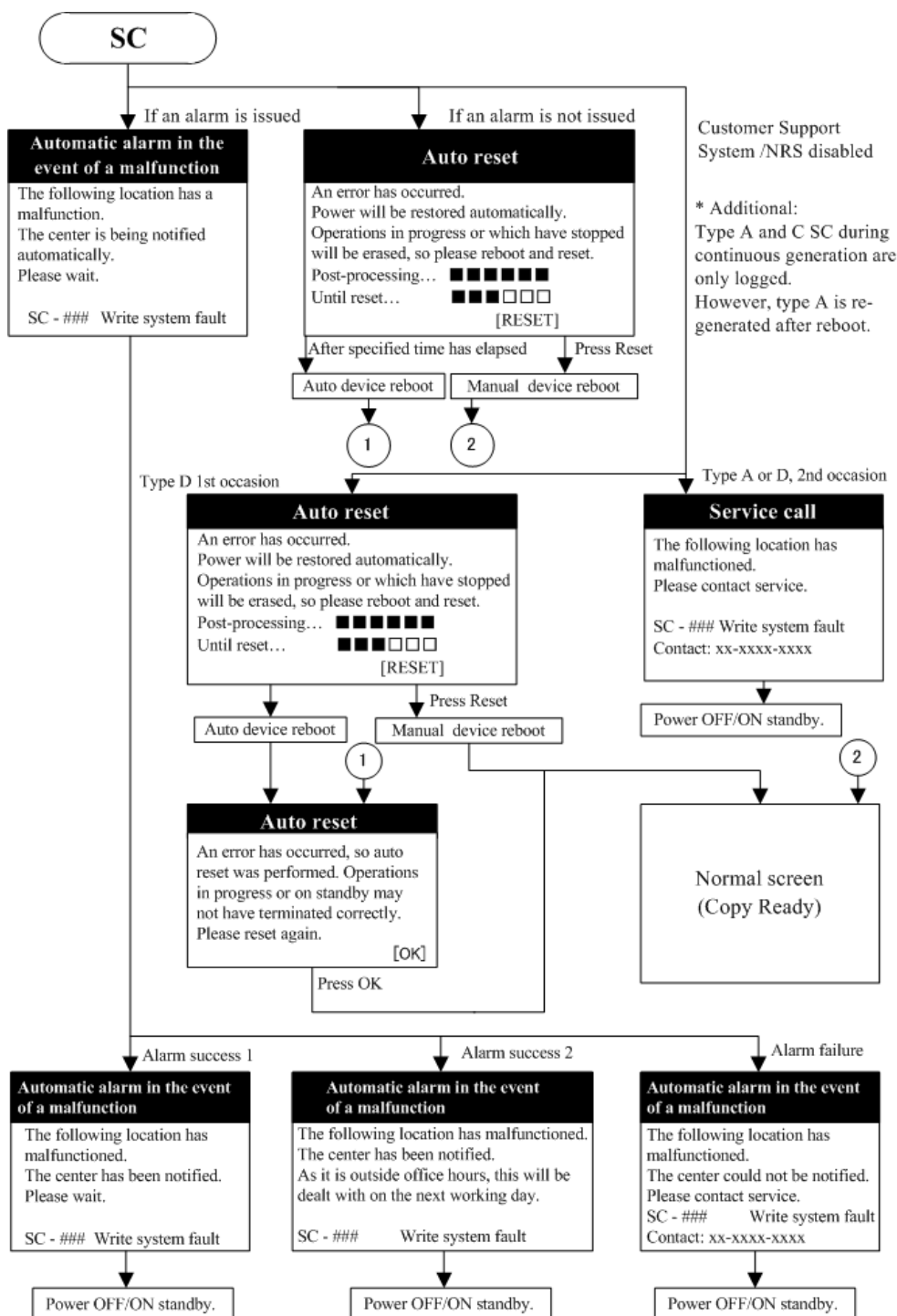
* 1 NRS alarm: Issued when an ordinary SC (type D) is generated twice while the total counter counts 10 times.

- 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.



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.

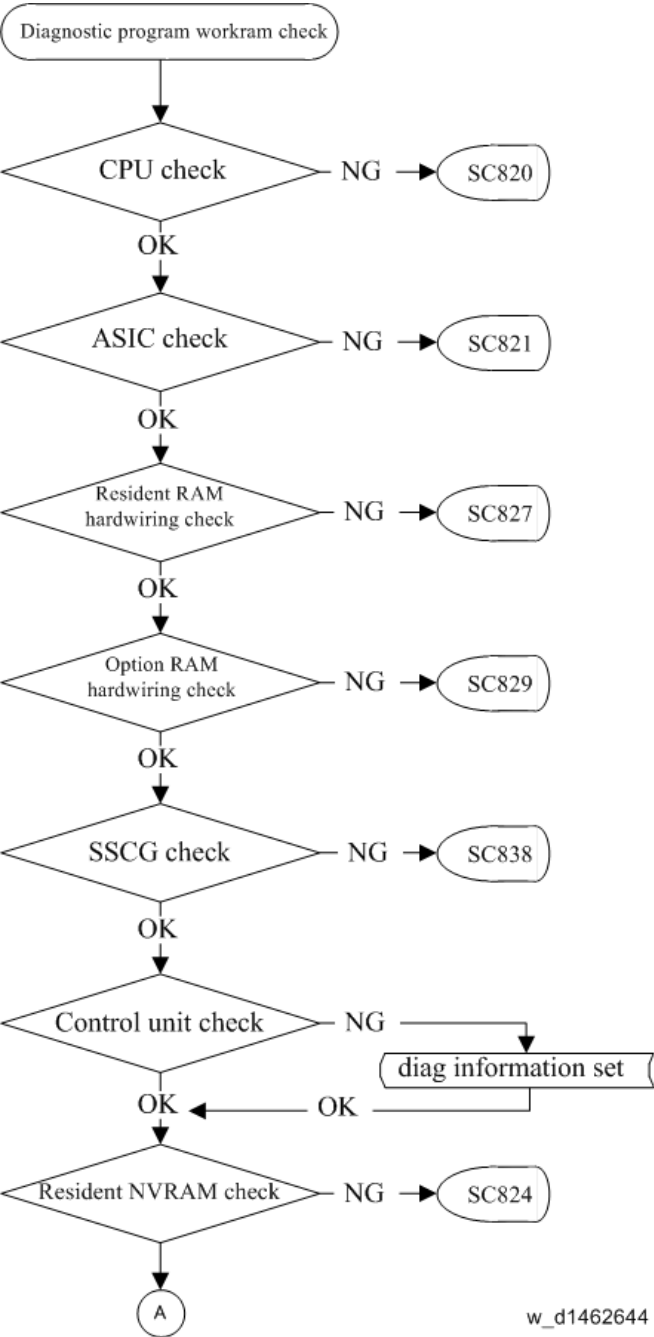


4. After the end of detailed self-diagnosis, a "Self-diagnosis results report" is automatically printed.

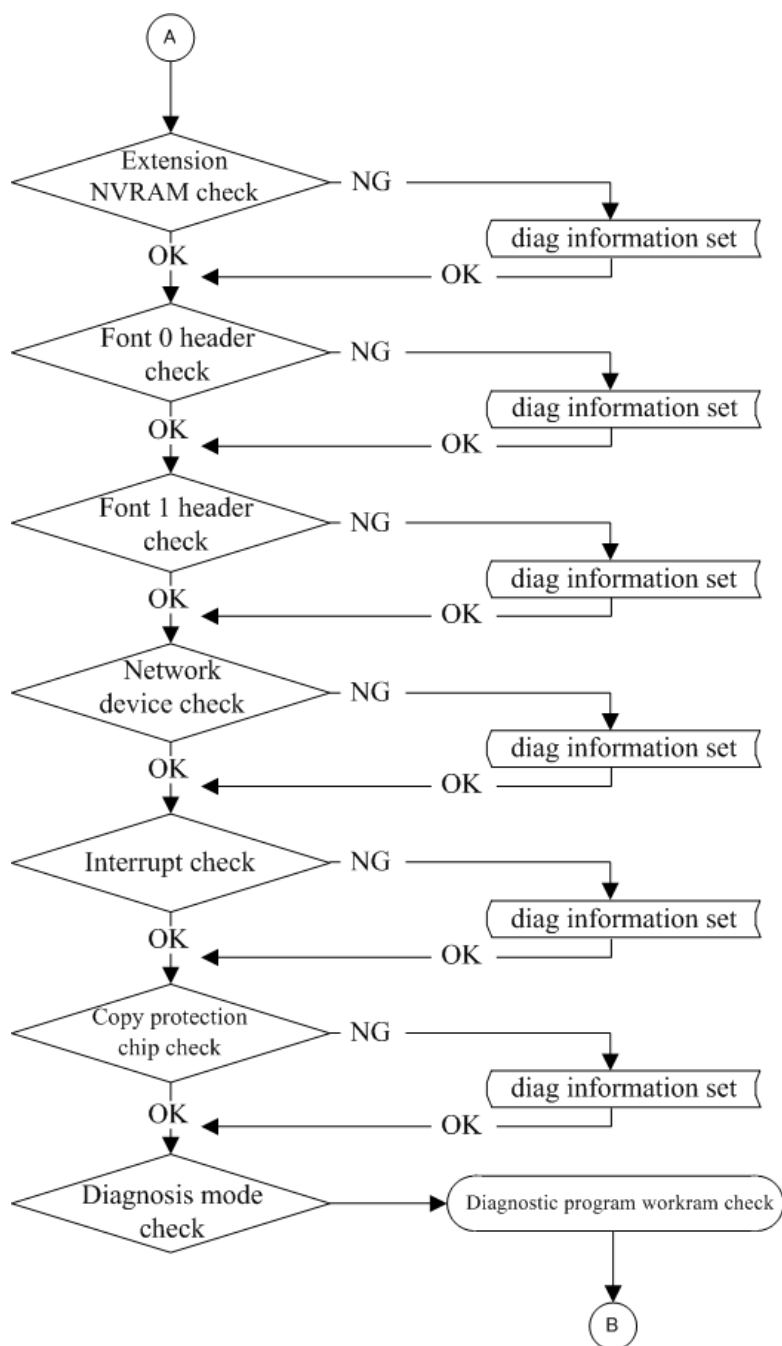
Note

- If a Centronics loopback connector is not fitted, a Centronics diagnosis error (SC 835) is generated.
- Loop-back connector: G0219350

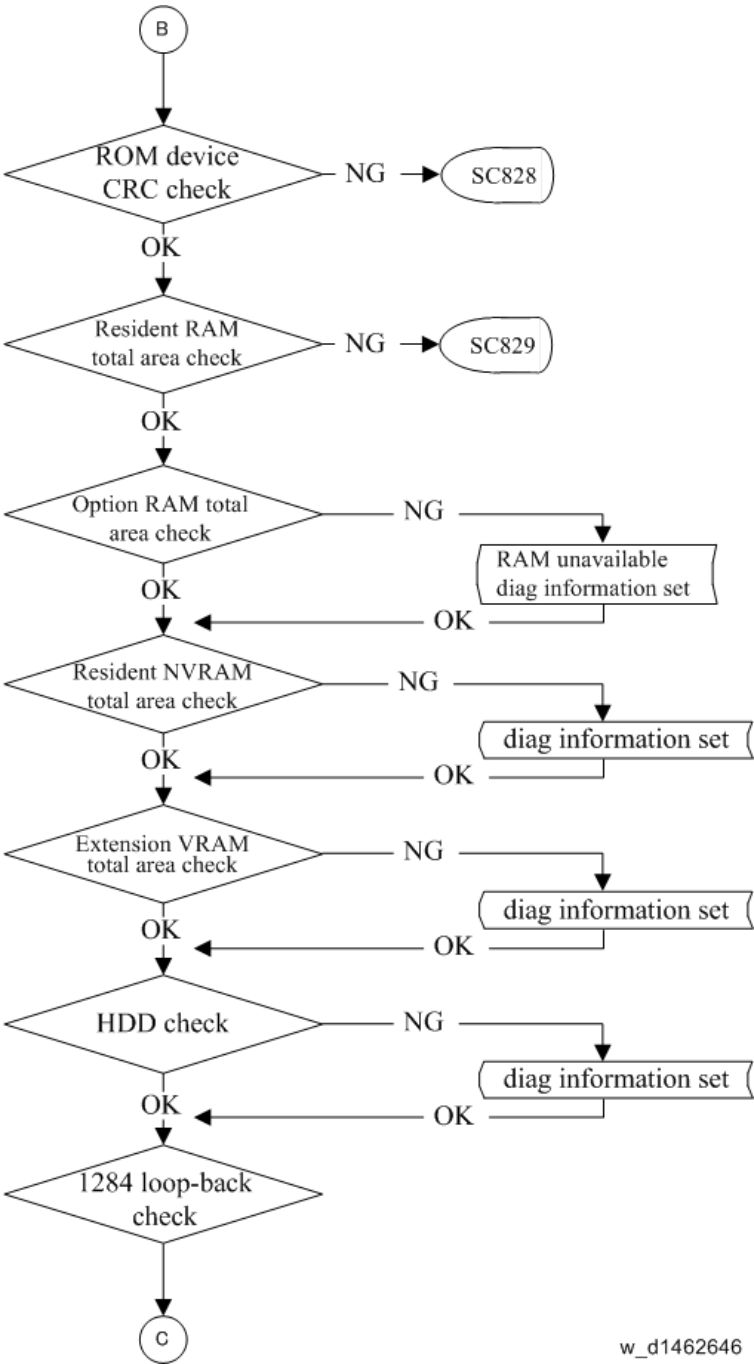
Controller self-diagnosis flowchart



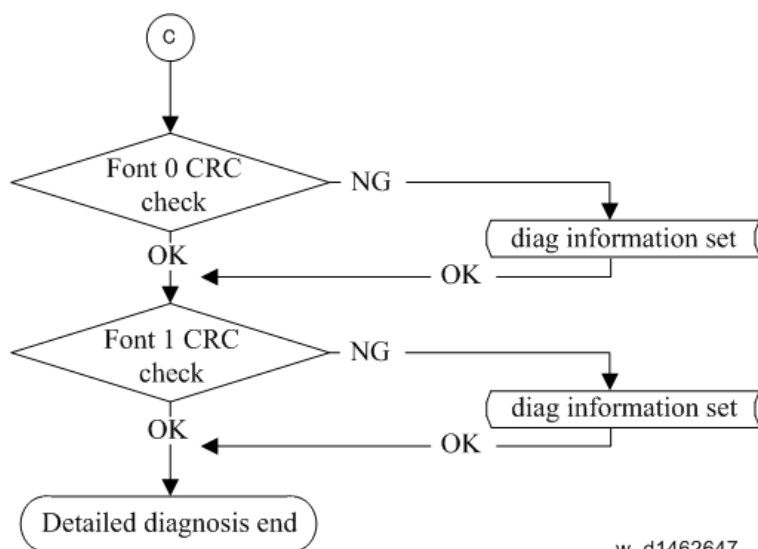
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HDD-related message

When an error occurs to the HDD, the HDD abnormality message appears on the operation panel and the screen for formatting is displayed. Also when replacing the HDD, a message "Hard Disk is replaced." appears on the operation panel and the screen for formatting is displayed.

Refer to the table shown below for the conditions of the message display.

Even when replacing the controller board, a banner "Hard Disk is replaced." appears. It is because the machine recognizes HDD has been replaced when the controller board that does not hold the HDD identification information is attached.

Message list

Message	Display Type	Normal/ Abnormal	Error Condition/ Major Cause/ Solution
SC870	banner	abnormal	The HDD cannot be accessed at power-on.
			NVRAM defective
			Turn the main power off/on to initialize the machine. *When replacing the NVRAM, if possible, back up the address book before replacing the NVRAM and restore it after replacing the NVRAM.

Message	Display Type	Normal/ Abnormal	Error Condition/ Major Cause/ Solution
Hard Disk will be formatted due to problem with Hard Disk.	pop-up formatting button	abnormal	Management file on the HDD can not be read. Or the file system can not be mounted.
			HDD defective
			Replace the HDD.
Problem with the Encryption Key for Hard Disk. Format Hard Disk.	pop-up formatting button	abnormal	The encryption key for the HDD is abnormal.
			HDD defective
			Replace the HDD.
Hard Disk is replaced. Format Hard Disk.	pop-up formatting button	normal	A new HDD is attached.
			A new HDD attached
			Push the formatting button.
Hard Disk is replaced.	banner	abnormal	The HDD is replaced (Data can be read).
			<ul style="list-style-type: none"> Controller board replaced After starting the machine without an HDD, a new HDD is attached to the machine and then restart the machine.
			Turn the main power off/on.
Formatting Hard Disk... Please wait, also make sure the main power switch is not turned off.	pop-up	abnormal	Pushing the formatting button.
			Formatting the HDD
			-
Hard Disk is formatted. Turn main power switch off then on.	pop-up	abnormal	Formatting the HDD is finished.
			Formatting the HDD
			Turn the main power off/on.

Service Call 101-195

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 guide plate was scanned.
		<ul style="list-style-type: none">• 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 guide plate dirty or installed incorrectly
		<p>1. Turn the power off/on.</p> <p>2. Perform the following operations:</p> <ul style="list-style-type: none">• Reconnect the power/signal harness.• Reattach/clean the mirrors/lenses.• Reattach/clean the white plate.• Clean the white guide plate. <p>3. Replace the following parts:</p> <ul style="list-style-type: none">• Replace the LED board.• Replace the IDB board or SIO board.• Replace the SBU board.• Replace the IPU board.• Replace the power/signal harness.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
-02	D	Lamp Error (LED illumination adjustment)
		LED error was detected.
		<ul style="list-style-type: none"> • LED defective • IDB (LED driver) defective • Power/signal harness defective
		<ol style="list-style-type: none"> 1. Turn the power off/on. 2. Perform the following operations: <ul style="list-style-type: none"> • Reconnect the power/signal harness. 3. Replace the following parts: <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • LED defective • IDB (LED driver) defective • SBU defective • IPU defective • Power/signal harness defective
		<ol style="list-style-type: none"> 1. Turn the power off/on. 2. Reconnect the power/signal harness. 3. Replace the following parts: <ul style="list-style-type: none"> • 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
		<p>The scanner home position sensor does not go OFF.</p> <p>Details:</p> <p>Error detection timing</p> <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Scanner motor driver defective • Scanner motor defective • Scanner HP sensor defective • Harness defective • Timing belt, pulley, wire, or carriage not installed correctly
		<p>Replace the following parts:</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • During homing • During an automatic adjustment • During a scan from the ADF or exposure glass.
		<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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
		<ol style="list-style-type: none"> 1. Turn the power off/on. 2. Perform the following operations: <ul style="list-style-type: none"> • Reconnect the power/signal harness. • Reattach/clean the mirrors/lenses. • Reattach/clean the white plate. 3. Replace the following parts: <ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Connection to SBU cannot be confirmed. (Connection detection error) • Cannot communicate with the SBU, or the communication result is abnormal.
		<ul style="list-style-type: none"> • SBU defective • The other side of the communication (BCU, IPU etc.) defective • Power/signal harness defective
		<ol style="list-style-type: none"> 1. Turn the power off/on. 2. Reconnect the power/signal harness. 3. Replace the following parts: <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • IPU (BiCU, iCTL) board defective (ASIC-LEO connection failure, LSYNC abnormal, etc.) • Cable between SBU and IPU (or BiCU) defective
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Copy data security unit board not installed correctly • Copy data security unit board defective
		<ul style="list-style-type: none"> • 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
		<p>The data read from the ASIC register on the CIS were not as expected.</p> <p>Details:</p> <ul style="list-style-type: none"> 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. <p>(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)</p>
		<ul style="list-style-type: none"> 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
		<ol style="list-style-type: none"> 1. Reconnect the power/signal harness. 2. Replace the following parts: <ul style="list-style-type: none"> • 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
		<p>During initialization:</p> <ul style="list-style-type: none"> • 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. <p>During scanning:</p> <ul style="list-style-type: none"> • Shading data peak value is below specification. <p>Details:</p> <p>During initialization:</p> <ul style="list-style-type: none"> • 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). <p>During scanning:</p> <ul style="list-style-type: none"> • 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. <p>(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)</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>During initialization:</p> <ul style="list-style-type: none"> One or two out of two CIS LEDs are defective <p>During scanning:</p> <ul style="list-style-type: none"> Both of the CIS LEDs are defective.
		<p>1. Reconnect the power/signal harness.</p> <p>2. Replace the following parts:</p> <ul style="list-style-type: none"> 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
		<p>The black level scanned by CIS is abnormal.</p> <p>Details:</p> <ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> 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. <p>Details:</p> <ul style="list-style-type: none"> 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
		<ol style="list-style-type: none"> 1. Reconnect the power/signal harness. 2. Replace the following parts: <ul style="list-style-type: none"> 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
		<p>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).</p> <p>Details:</p> <ul style="list-style-type: none"> 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.

Service Call 202-285

SC200 (Engine: Image Writing)

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.
		<ul style="list-style-type: none">• 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)
		<ul style="list-style-type: none">• 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.
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • The interface harness to the polygon motor driver damaged or not connected correctly. • Polygon motor or polygon motor driver defective
		<ul style="list-style-type: none"> • 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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>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.</p> <ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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
		<p>The FGATE signal did not turn ON within T1 sec. after the writing process of the corresponding color started.</p> <ul style="list-style-type: none"> • GAVD defective • Image processing ASIC defective • BCU, controller board not connected correctly or defective • Harness between IPU and LDB defective
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • GAVD defective • Image processing ASIC defective
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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 lth/lcta of LD of corresponding color.
		<ul style="list-style-type: none"> • LD degradation (LD broken, shift of output characteristics etc.) • The interface harness damaged or not connected correctly. • LD driver defective
		<ul style="list-style-type: none"> • 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	LD driver communication error: Bk
SC272-02	D	LD driver communication error: Cy
SC272-03	D	LD driver communication error: Ma
SC272-04	D	LD driver communication error: Ye
SC272-10	D	LD driver communication error: Other
		In view of parity, 3 retries were performed
		<ul style="list-style-type: none"> • IPU defective • Harness defective • LDB defective
		<ul style="list-style-type: none"> • Cycle the main power off/on • Replace the LD unit • Replace the harness • Replace the IPU board

SC285
RTB 134

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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))
		<ul style="list-style-type: none">• TM sensor defective• ITB defective• PCU defective• LD unit defective• MUSIC pattern density thin
		<ul style="list-style-type: none">• ITB reset• PCU reset• Toner replenishment• Replace the TM (ID) sensor• Replace the ITB• Replace the PCU• Replace the LD unit

Service Call 312-396

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.
		<ul style="list-style-type: none"> • High voltage harness defective or shorted. • PCU setting fault or damage • HVP_CB fault • Connector disconnected • Harness broken
		<ul style="list-style-type: none"> • High voltage harness reset/replacement • PCU reset/replacement • Replace the HVP_CB • Connector reset • Replace the harness

SC324-01
RTB 164

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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
		<ul style="list-style-type: none">• Motor defective• Connector disconnected• Harness broken• IOB defective• Development unit torque increased
		<ul style="list-style-type: none">• Replace the motor• Reconnect the connector• Replace the harness• Replace the IOB RTB 134• Replace the development unit• Replace the drive unit

SC324-05
RTB 164

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
		<ul style="list-style-type: none">• Motor defective• Connector disconnected• Harness broken• IOB defective• Development unit torque increased
		<ul style="list-style-type: none">• Replace the motor• Reconnect the connector• Replace the harness• Replace the IOB RTB 134• Replace the development 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)
		<p>During TD sensor initialization, the TD sensor output voltage (Vt) cannot be adjusted to the target range (target value $\pm 0.2V$, SP3-030-031 to 034) for 3 times consecutively.</p> <ul style="list-style-type: none"> • TD sensor defective • Loose connection • Harness broken • Developer toner density differs from initial developer <p>• Replace the development unit.</p>

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)
		<p>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).</p> <p>TD sensor connector dropout (connection fault)</p> <ol style="list-style-type: none"> 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)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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: V_t (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
		<ol style="list-style-type: none"> 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)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>Regular reflection optical output voltage of the Front or Center or Rear TM (ID) sensor: Vsg_reg cannot be adjusted to within target range.</p> <p>Upper limit (SP3-320-013: initial value 4.5V)</p> <p>Lower limit (SP3-320-014: initial value 3.5V)</p>
		<ul style="list-style-type: none"> • TM (ID) sensor connector missing/ connection fault • TM (ID) sensor detection window dirt • TM (ID) sensor malfunction • Undulation in the ITB, or belt slippage
		<ul style="list-style-type: none"> • 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 the 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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective • Unit torque increased.
		<ul style="list-style-type: none"> • Replace the motor • Reconnect the connector • Replace the harness • Replace the IOB RTB 134 • Replace the PCDU

Service Call 441-498

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.
		<ul style="list-style-type: none">• Motor defective• Connector disconnected• Harness broken• IOB defective• Unit torque increased.
		<ul style="list-style-type: none">• Replace the motor• Reconnect the connector• Replace the harness• Replace the IOB RTB 134• 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
		<p>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.</p> <ul style="list-style-type: none"> • Contact/separation operation: If not detected in 2000msec • Home position operation: If not detected in 5000msec <p>Signal detection sampling period: 10msec</p>
		<ul style="list-style-type: none"> • Image transfer unit not set/faulty setting • Sensor dirt • Sensor defective • Motor defective • Unit load large
		<ul style="list-style-type: none"> • 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
		<p>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.</p> <p>This error does not occur in this machine, because it does not have an encoder.</p>
		<ul style="list-style-type: none">• Encoder defective• Transfer motor defective• Connector disconnected• Harness broken
		<ul style="list-style-type: none">• 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.
		<ul style="list-style-type: none"> • Sensor dirt • Sensor defective • Connector disconnected • Harness broken
		<ul style="list-style-type: none"> • 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
		<p>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.</p> <ul style="list-style-type: none"> • Contact operation: If not detected in 2000msec • Home position operation: If not detected in 5000msec <p>Signal detection sampling period: 10msec</p>
		<ul style="list-style-type: none"> • Sensor dirt • Sensor defection • Motor defection • Unit load large
		<ul style="list-style-type: none"> • 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.
		<p>H/W error</p> <ul style="list-style-type: none"> • 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 <p>Load error</p> <ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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 RTB 134

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.
		<p>H/W error</p> <ul style="list-style-type: none"> • 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 <p>Load error</p> <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 RTB 134

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
		<ul style="list-style-type: none"> • Leak harness fault • Unit fault • High voltage power source fault
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • Connector disconnection or broken • Sensor defective
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Sensor not setting (disconnection or broken) • Sensor defective
		<ul style="list-style-type: none"> • Check the sensor setting • Replace the sensor

Service Call 501-584

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)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• Reset the paper.• Remove the foreign matter. 1st tray limit sensor, 1st tray lift motor <ul style="list-style-type: none">• Check the harness.• Reset the connector.• Replacement 1st paper feed unit, 1st tray <ul style="list-style-type: none">• Replacement Paper transport IOB <ul style="list-style-type: none">• Replacement

D147 RTB 83

D147 RTB 83

5

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC501-02	B	1st Tray Lowering Error
		The 1st tray descent motor error detection count reaches 5. (Up to 4, reset is displayed.)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• Reset the paper.• Remove the foreign matter. 1st tray limit sensor, 1st tray lift motor <ul style="list-style-type: none">• Check the harness.• Reset the connector.• Replacement 1st paper feed unit, 1st tray <ul style="list-style-type: none">• Replacement Paper transport IOB <ul style="list-style-type: none">• Replacement

D147 RTB 83

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.)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• Reset the paper.• Remove the foreign matter. 2nd tray limit sensor, 2nd tray lift motor <ul style="list-style-type: none">• Check the harness.• Reset the connector.• Replacement 2nd paper feed unit, 2nd tray <ul style="list-style-type: none">• Replacement Paper transport IOB <ul style="list-style-type: none">• Replacement

D147 RTB 83

5

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• Reset the paper.• Remove the foreign matter. 2nd tray limit sensor, 2nd tray lift motor <ul style="list-style-type: none">• Check the harness.• Reset the connector.• Replacement 2nd paper feed unit, 2nd tray <ul style="list-style-type: none">• Replacement Paper transport IOB <ul style="list-style-type: none">• Replacement

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-01	B	3rd Tray Lift Error (single bank)
		<ul style="list-style-type: none">Lift motor ascent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">Lift motor error/connector missingLimit sensor error/connector missingHarness brokenBank control board defectiveForeign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motorPaper set fault
		<ul style="list-style-type: none">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
SC503-02	B	3rd Tray Lowering Error (single bank)
		<ul style="list-style-type: none">• Lift motor descent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

D147 RTB 83

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-11	B	3rd Tray Lift Error (double bank, upper tray)
		<ul style="list-style-type: none">Lift motor ascent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">Lift motor error/connector missingLimit sensor error/connector missingHarness brokenBank control board defectiveForeign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motorPaper set fault
		<ul style="list-style-type: none">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.

D147 RTB 83

5

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-12	B	3rd Tray Lowering Error (double bank, upper tray)
		<ul style="list-style-type: none">• Lift motor descent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-31	B	3rd Tray Lift Error (LCIT)
		<ul style="list-style-type: none">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.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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.

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-32	B	3rd Tray Lowering Error (LCIT)
		<ul style="list-style-type: none">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
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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
SC503-34	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.)
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

D147 RTB 83

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-35	B	3rd Tray Transfer Error (LCIT)
		<ul style="list-style-type: none"> Transfer end detection error <p>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.</p> <p>(Up to 2 times consecutively, LCIT transmits "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> 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 end fence of the left tray.

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC503-36	B	3rd Tray Transfer HP Error (LCIT)
		<ul style="list-style-type: none">• 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.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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 end fence of the left tray.

D147 RTB 83

5

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC504-21	B	4th Tray Lift Error (double bank, lower tray)
		<ul style="list-style-type: none">Lift motor ascent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">Lift motor error/connector missingLimit sensor error/connector missingHarness brokenBank control board defectiveForeign matter, such as paper scrap, is caught between the paper feed tray and the tray lift motorPaper set fault
		<ul style="list-style-type: none">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
SC504-22	B	4th Tray Lowering Error (double bank, lower tray)
		<ul style="list-style-type: none">• Lift motor descent error detection <p>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.</p> <p>(Up to 2 times consecutively, the bank transmits a "tray set fault" to the main machine.)</p>
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

D147 RTB 83

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC505-41	B	Side LCIT Limit Detection Error
		<ul style="list-style-type: none">• 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. <p>*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.</p> <p>Up to 2 times consecutively, the side LCIT transmits a "tray set fault" to the main machine.</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none">• 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.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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).
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none">• 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	<p>SI By-pass Side Fence Drive Motor Error</p> <p>SI by-pass tray performs control to drive the side fence, and bring it against the paper.</p> <p>If the drive does not stop after the maximum drive time set for each operation mode, the error is detected.</p> <ol style="list-style-type: none"> Side fence contact operation <ul style="list-style-type: none"> Drive stop trigger: One side of the fence will be a non-contact state. Maximum drive time: 1350 msec Side fence drive motor: CW Side fence pushing operation <ul style="list-style-type: none"> Drive stop trigger: Both of the fences will be a contact state. Maximum drive time: 4200 msec Side fence drive motor: CCW <p>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.</p> <p>Accumulated count of error detection are 3 (CW) or 13 (CCW), the SC is displayed on the operation panel.</p> <p>In addition, the accumulated count is reset under the following conditions.</p> <ol style="list-style-type: none"> Turn the power off/on If the by-pass side fence is back correct adjustment Return from sleep
		<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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)
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5

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.
		<ul style="list-style-type: none"> Motor defective Connector disconnected Harness broken IOB defective Encoder defective
		<ul style="list-style-type: none"> Replace the motor. Reset the connector. Replace the harness. Replace the IOB. RTB 134

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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>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.</p> <ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective • Encoder defective <ul style="list-style-type: none"> • Replace the motor. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC522-00	C	<p>Paper Exit Motor: Lock</p> <p>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.</p> <ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective • Encoder defective <ul style="list-style-type: none"> • Replace the motor. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective
		<ul style="list-style-type: none"> • Replace the fusing exhaust heat fan. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective
		<ul style="list-style-type: none"> • Replace the development intake fan/right for SC531-01, development intake fan/left for SC531-02 or drive cooling fan for SC531-03. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective
		<ul style="list-style-type: none"> • Replace the PSU exhaust fan for SC533-01, PSU cooling fan for SC533-04 or controller box cooling fan for SC533-04. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective
		<ul style="list-style-type: none"> • Replace the development intake fan/right for SC531-01, development intake fan/left for SC531-02 or drive cooling fan for SC531-03. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective
		<ul style="list-style-type: none"> • Replace the paper exit cooling fan. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • IOB defective • Unit torque increased
		<ul style="list-style-type: none"> • Replace the fusing motor. • Reset the connector. • Replace the harness. • Replace the IOB. RTB 134

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.
		<ul style="list-style-type: none"> • disconnection • Connector disconnected
		<ul style="list-style-type: none"> • Replace the thermopile. • Reset the connector. • Replace the connector.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.
		<ul style="list-style-type: none"> • NC sensor disconnection • Connector disconnected
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.
		<ul style="list-style-type: none"> • NC short-circuit • Connector disconnected
		<ul style="list-style-type: none"> • Reset the NC sensor. • Reset the connector. • Replace the connector.

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.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • Thermopile lens dirt • Thermopile modification/float • Outside input voltage guarantee • After excessive temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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
SC543-00	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.
		<ul style="list-style-type: none"> • Triac short-circuit • IOB board defective • BCU board defective
		<ul style="list-style-type: none"> • Replace the IOB board. RTB 134 • 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
		<ul style="list-style-type: none"> • Triac defective (short-circuit) • Engine controller defective • Heating central thermopile defective • Fusing control software: out of control
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Triac defective (short-circuit) • Engine controller defective • Heating central thermopile defective • Fusing control software: out of control
		<ul style="list-style-type: none"> • 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
		<p>After waiting for full power for more than (t6) seconds continuously, not detected for (t8) seconds.</p> <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Thermistor deformation/float • Heater disconnection • After excessive temperature rise prevention unit operates
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> Fusing relay defective (contact soldering) Fusing relay drive circuit fault
		<ul style="list-style-type: none"> Turn the main power supply switch OFF/ON If the fusing relay is damaged, replace the PSU (AC Controller Board). Check the connection between PSU (AC Controller Board) 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
		<ul style="list-style-type: none"> Fusing relay damage (contact open) Fusing relay drive circuit fault PSU fuse (24VS) blowout
		<ul style="list-style-type: none"> Turn the main power supply switch OFF/ON. If the fusing relay is damaged, replace the PSU (AC Controller Board). Check the connection between PSU (AC Controller Board) and paper transport IOB, and replace harness and board if necessary. If the PSU (AC Controller Board) 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
		<ul style="list-style-type: none"> Turn the main power supply switch OFF/ON. Check the power source. Check the connection between PSU (AC Controller Board) and control board, and replace harness and board if necessary.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC549-01	D	Shield Operation Error Detection
		During HP detection operation, shield sensors 1 and 2 detect "High" for (t30) seconds continuously.
SC549-02	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.
SC549-03	D	Shield Operation Error Detection
		During shield basic operation, shield motor does not stop even if (t32) seconds elapsed from rotation start.
SC549-04	D	Shield Operation Error Detection
		During HP detection operation, HP detection fails 3 times consecutively.
		<ul style="list-style-type: none"> • Motor defective • Sensor defective • Sensor actuator/feeler modification/defective • Shield modification/defective
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Thermopile disconnection • Connector disconnected
		<ul style="list-style-type: none"> • Replace the thermopile. • Reset the connector. • Replace the connector. • Replace the fusing unit.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.
		<ul style="list-style-type: none"> • NC sensor disconnection • Connector disconnected
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.
		<ul style="list-style-type: none"> • NC sensor short-circuit • Connector disconnected
		<ul style="list-style-type: none"> • 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 (t3 12) seconds.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • Thermopile lens dirt • Thermopile modification, float • Outside input voltage guarantee • After excessive temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Triac short-circuit • IOB defective • BCU defective
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • 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
		<ul style="list-style-type: none"> • Triac defective (short-circuit) • Engine controller defective • Heating edge thermopile defective • Fusing control software: out of control
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Triac defective (short-circuit) • Engine controller defective • Heating edge thermopile defective • Fusing control software: out of control
		<ul style="list-style-type: none"> • 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
		<p>After waiting for full power for more than (t6) seconds continuously, not detected for (t8) seconds.</p> <ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Thermistor deformation/float • Heater disconnection • After excess temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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
		<p>Fusing jam (does not reach fusing exit sensor) is detected for 3 times consecutively.</p> <ul style="list-style-type: none"> • 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 <ol style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> • Thermistor disconnection • Connector disconnected
		<ul style="list-style-type: none"> • 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 1 ON for (t3) seconds.
		<ul style="list-style-type: none"> • Thermistor dirt • Thermistor deformation, float • Outside input voltage guarantee • After excess temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Triac short-circuit • IOB defective • BCU defective
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • Replace the BCU. • Replace the fusing unit.

5

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
		<ul style="list-style-type: none"> • Triac short-circuit • IOB controller defective • BCU controller defective • Fusing control: out of control
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • Replace the BCU. • Replace the fusing unit.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC569-00	D	Paper Exit/ Pressure Release Motor Error Detection
		Retry operation fails 3 times consecutively.
		<ul style="list-style-type: none"> • Motor defective • Sensor defective • Filler modification, defective
		<ul style="list-style-type: none"> • Replace the paper exit/ pressure release motor. • Replace the pressure roller HP 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.
		<ul style="list-style-type: none"> • Thermistor disconnection • Connector disconnected
		<ul style="list-style-type: none"> • 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 (t3 13) seconds.
		<ul style="list-style-type: none"> • Thermistor dirt • Thermistor deformation, float • Outside input voltage guarantee • After excess temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Triac short-circuit • IOB defective • BCU defective
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • 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
		<ul style="list-style-type: none"> • Triac short-circuit • IOB defective • BCU defective • Fusing control: out of control
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • 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.
		<ul style="list-style-type: none"> • Thermistor disconnection • Connector disconnected
		<ul style="list-style-type: none"> • 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 (t3 13) seconds.
		<ul style="list-style-type: none"> • Thermistor dirt • Thermistor deformation, float • Outside input voltage guarantee • After excess temperature rise prevention unit operation
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Triac short-circuit • IOB defective • BCU defective
		<ul style="list-style-type: none"> • Replace the IOB. RTB 134 • 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
		<ul style="list-style-type: none">• Triac short-circuit• IOB controller defective• BCU controller defective• Fusing control: out of control
		<ul style="list-style-type: none">• Replace the IOB. RTB 134• Replace the BCU.• Replace the fusing unit.

Service Call 620-689

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)
		<ul style="list-style-type: none">• ADF connection fault• ADF defection• IPU board defection• Noise contamination
		<ul style="list-style-type: none">• 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
		<ul style="list-style-type: none"> • Detected an error when connecting the communication line. • Received a communication error notification from the URAT.
		<ul style="list-style-type: none"> • Finisher control board defective. • BCU defective • IOB defective RTB 134 • Connection fault between finisher and main machine.
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Detected an error when connecting the communication line. • Received a communication error notification from the URAT.
		<ul style="list-style-type: none"> • Paper bank control board defective • BCU defective • IOB defective RTB 134 • Paper bank-main machine connection fault
		<ul style="list-style-type: none"> • 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
		<p>During superposition of single bank - double bank, double bank - side LICT, and LCIT - side LCIT,</p> <ol style="list-style-type: none"> 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 <p>(Bank/LCIT transmits "between bank 1 - bank 2: communication error" to the main machine.)</p>
		<ul style="list-style-type: none"> • Bank control board fault • Connector disconnected
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Noise • Hardware defection
		<ul style="list-style-type: none"> • Replace the imaging IOB and paper transport IOB. RTB 134 • Check the harness.

RTB 134a
SC664

RTB 74b
SC664

SC665
RTB 134aSC664
RTB 74b

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
		<ul style="list-style-type: none"> • 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

5

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
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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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
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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • Electrical noise • EEPROM not connected fully • EEPROM not installed • EEPROM damaged • BCU damaged
		<ul style="list-style-type: none"> • 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

D147 RTB 103

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> When abnormality occurs at cable connection When error notification was received during communication with the tag and operation is not resumed after 3 retries.
		There was an error during (wired) communication with the ID chip on the toner bottle.
		<ul style="list-style-type: none"> Replace the toner bottle. <p>SC branch number:</p> <p>01, 06, 11, 16, 21, 26, 31, 36: K</p> <p>02, 07, 12, 17, 22, 27, 32, 37: M</p> <p>03, 08, 13, 18, 23, 28, 33, 38: C</p> <p>04, 09, 14, 19, 24, 29, 34, 39: Y</p>

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
		<ul style="list-style-type: none"> • HST sensor defective • EEPROM defective • PCU set error <p>Suffix number (right edge) shows each color described below: 1, 6: K, 2, 7: Magenta, 3, 8: Cyan, 4, 9: Yellow 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 Example: 682-21 is for black PCDU. 01 – 04 <ul style="list-style-type: none"> • Device ID data corruption 06 – 09 <ul style="list-style-type: none"> • Connection fault (bus disconnect, etc.) 11 – 14 <ul style="list-style-type: none"> • No ID chip 16 – 19, 21 – 24, 26 – 29 <ul style="list-style-type: none"> • Noise 31 – 34, 36 – 39 <ul style="list-style-type: none"> • Software defection </p>
		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.

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.
		<ul style="list-style-type: none"> • Turn the main power off/on. • Check the serial communication line.

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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.
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • 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)
		<p>Issued when expanded authentication management is set to "ON" but either of the following occur.</p> <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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 (ldissuer.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.
		<ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> • Network error • tracking management server error • Tracking SDK application error
		Turn the main power off/on.

SC No.	Level	Details (Symptom, Possible Cause, Troubleshooting Procedures)
SC641-00	D	Communication error between BCU and Controller board.
		Controller board does not respond after BCU tries to communicate three times.
		<ul style="list-style-type: none"> • Controller board software error • Connect error between BCU and Controller board • Engine board software error
		<ul style="list-style-type: none"> • Check connections between Controller board and BCU. • Turn the main switch off and on.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC650-01	B	Remote Service Modem Communication Error (Dialup authentication failure)
		<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> 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 M was installed but modem is not present (detected during operation))
		<ul style="list-style-type: none"> 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 M was installed but modem is not present (detected during operation)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none">• Used controller board installed• Used NVRAM installed (such action is not allowed.)
		<ul style="list-style-type: none">• 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. <ul style="list-style-type: none">• 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.

SC666
D147 RTB 121

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC670-00	D	Engine start up error
		<ul style="list-style-type: none">• Case 1<ul style="list-style-type: none">• /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<ul style="list-style-type: none">• Unexpected down status was detected after /ENGRDY assertion.
		<ul style="list-style-type: none">• Case 1<ul style="list-style-type: none">• Engine board does not start up.• Case 2<ul style="list-style-type: none">• Engine board reset unexpectedly.
		<p>Check the connection between the engine board and the controller board.</p> <ul style="list-style-type: none">• 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.

D147 RTB 74
D149 RTB 47

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.
		<ul style="list-style-type: none"> • Controller stalled • Board installed incorrectly • Controller board defective • Operation panel connector loose, broken, or defective • Controller late
		<ul style="list-style-type: none"> • Turn the main power off/on. • Check the connection of the controller board. • Replace the controller board. • Check the control panel harness.

SC672-11
D147 RTB 144
D149 RTB 80

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.
		<ul style="list-style-type: none"> • Controller stalled • Board installed incorrectly • Controller board defective • Operation panel connector loose, broken, or defective • Controller late
		<ul style="list-style-type: none"> • Turn the main power off/on. • Check the connection of the controller board. • Replace the controller board. • Check the control panel harness.

SC672-12
D147 RTB 144
D149 RTB 80

5

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.
		<ul style="list-style-type: none">• Controller stalled• Board installed incorrectly• Controller board defective• Operation panel connector loose, broken, or defective• Controller late
		<ul style="list-style-type: none">• 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.
		<ul style="list-style-type: none">• Controller stalled• Board installed incorrectly• Controller board defective• Operation panel connector loose, broken, or defective• Controller late
		<ul style="list-style-type: none">• 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.
		<ul style="list-style-type: none"> • Controller stalled • Board installed incorrectly • Controller board defective • Operation panel connector loose, broken, or defective • Controller late
		<ul style="list-style-type: none"> • 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
SC673-10	D	Connection error of the Smart Operation Panel
		The main machine does not respond to the smart operation panel.
		The SP setting for the smart operation panel is mismatch.
		<ul style="list-style-type: none"> • Set the SP5748-201 (OpePanel Setting) to [1: ON].

Service Call 700-792

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)
		<p>-01</p> <p>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.</p> <p>Even if the base plate motor is rotated in the base plate descent direction, the base plate home position sensor does not detect.</p> <p>-02</p> <p>Even if the pick up arm motor is rotated, the pick up arm home position sensor does not detect.</p> <p>-04, 05, 06, 07, 09</p> <p>When an error notification signal is detected during the motor drive period.</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>-01</p> <ul style="list-style-type: none"> • 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 <p>-02</p> <ul style="list-style-type: none"> • Pick-up home position sensor error (output error) • Pick-up motor error (does not rotate) • Controller error <p>-04, 05, 06, 07, 09</p> <ul style="list-style-type: none"> • Motor defective • Connector disconnected • Harness broken • Overload
		<p>-01, 02</p> <ul style="list-style-type: none"> • Check the sensor harness and motor harness connection • Replace the sensor harness and motor harness • Replace the sensor • Replace the motor • Replace the controller <p>-04, 05, 06, 07, 09</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Over current • Heating and an error is output
		Motor driver IC detects an error
		<ul style="list-style-type: none"> • 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
		<ul style="list-style-type: none"> • Encoder disconnection • Encoder connector dropout • Encoder defective • Overload • Motor deterioration
		<ul style="list-style-type: none"> • Replace the encoder harness • Check the harness connection • Replace the motor

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC701-08	D	Paper Exit Motor Driver Error (ARDF)
		Detection of error signal from motor driver.
		<ul style="list-style-type: none"> Encoder disconnection Encoder connector dropout Encoder defective Overload Motor deterioration
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> Replace the blown fuse or circuit board Replace the short-circuited parts

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.
		<ul style="list-style-type: none"> • 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.
		Motor defective or a harness short-circuit occurs in the non-interlocking power supply system.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC720-03	B	Protection Device Intercept Error 1 (2K/3K sheet finisher)
		Protection device intercept error state (fuse break) is detected.
		<ul style="list-style-type: none"> • Short-circuit defective • Overload defective • Motor defective • Solenoid defective
		<ul style="list-style-type: none"> • Check the harness • Replace the controller • Replace the motor • Replace the solenoid

5

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)
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)
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Overload • Encoder defective
		<ul style="list-style-type: none"> • 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)
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)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> 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).
		<ul style="list-style-type: none"> Motor defective Connector disconnected Overload Encoder defective (* SC720-25 only) Home position sensor defective
		<ul style="list-style-type: none"> 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)

SC720-51
RTB 175SC720-78
RTB 156

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> 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 (t1 sec) (1st time is jam notification, 2nd time is SC notification).
		<ul style="list-style-type: none"> Motor defective Connector disconnected Overload Home position sensor defective
		<ul style="list-style-type: none"> 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)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none">• 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).
		<ul style="list-style-type: none">• Motor defective• Connector disconnected• Overload• Encoder defective
		<ul style="list-style-type: none">• 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)
		<ul style="list-style-type: none"> • 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 (t1 sec) elapses (1st time is jam notification, 2nd time is SC notification).
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Overload • Home position sensor defective
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
SC721-33	B	Strike Roller Motor Error (1K sheet finisher)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-41	B	Release Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>
SC721-42	B	Stapler Displacement Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-44	B	Stapler Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>
SC721-52	B	Folding Plate Drive Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-53	B	Rear End Fence Displacement Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>
SC721-54	B	Bundle Transport Upper unit motor error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>
SC721-58	B	Bundle Transport 1 Release Motor Error (1K sheet finisher)
SC721-59	B	Bundle Transport 2 Release Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> 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). <p>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.</p>
SC721-80	B	Folding Transport Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> Motor driver detects an error (short-circuit or overheating) (1st time is SC)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC721-70	B	Tray 1 Lift Motor Error (1K sheet finisher)
		<ul style="list-style-type: none"> • 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). <p>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.</p>
SC721-71	B	Shift Motor 1 Error (1K sheet finisher)
		<ul style="list-style-type: none"> • 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). <p>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.</p>

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • 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) <ul style="list-style-type: none"> • 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).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC724-25	B	Punch Motor Error (Internal finisher)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC724-32	B	Jogger Rear Motor Error (Internal finisher)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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).

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC724-70	B	Shift Tray Ascent/Descent Motor Error (Internal finisher)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> 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).

SC724-71
RTB 134

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<ul style="list-style-type: none"> • Motor defective • Connector disconnected • Motor overload • Home position sensor error • Paper surface sensor error (*SC724-38, 70 only) • Staple jam (*SC724-86 only)
		<ul style="list-style-type: none"> • 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).
		<ul style="list-style-type: none"> • Over current of bridge unit motor • Over current due to short-circuit in PCB
		<ul style="list-style-type: none"> • 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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		When original source of 5V power supply is ON, protection device intercept of 24V power system is detected.
		In 24V power supply system: <ul style="list-style-type: none"> • Motor defective • Solenoid defective • Harness short- circuit
		<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Motor defective • Solenoid defective • Harness short- circuit
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • Bridge unit not attached • Bridge unit defective
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none">• 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

Service Call 816-899

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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> Defective wireless LAN board Loose connection
		<ul style="list-style-type: none"> 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)
		<ul style="list-style-type: none"> Defective wireless LAN board Loose connection
		<ul style="list-style-type: none"> 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.)
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none">• 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)
		<ul style="list-style-type: none"> The HDD is connected but the driver detected the following errors. <ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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 <ul style="list-style-type: none">• 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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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 "I".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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.")
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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.")
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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")
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none">When SC863 has occurred ten times or more<ul style="list-style-type: none">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.It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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".)
		<p>Guide for when to replace the HDD</p> <ol style="list-style-type: none"> When SC863 has occurred ten times or more <ul style="list-style-type: none"> 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. It takes a long time after main power on for the operation panel to become ready. <p>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.</p>

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.)
		<ul style="list-style-type: none"> 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none">• 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".)
		<ul style="list-style-type: none">• 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".)
		<ul style="list-style-type: none">• 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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 "r".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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".)
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • SD card defective • SD controller defective
		<ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • SD card defective • SD controller defective
		SD card that starts an application <ul style="list-style-type: none"> • Turn the main power off and check the SD card insertion status. <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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.

* 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)
		<ul style="list-style-type: none"> • SD card defective • SD controller defective
		SD card that starts an application <ul style="list-style-type: none"> • Turn the main power off and check the SD card insertion status. <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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.

* 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.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
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.)
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.)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC870-41	B	Address Book data error (Cache: failed to obtain data from cache.)
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).)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		When an error related to the Address Book is detected during startup or operation.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • HDD defective • Power was turned of while the machine used the HDD.
		<ul style="list-style-type: none"> • Format the HDD (SP5-832-007). • Replace the HDD. <p>When you do the above, the following information will be initialized.</p> <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • HDD defective • Power was turned of while the machine used the HDD.
		<ul style="list-style-type: none"> • Format the HDD (SP5-832-007). • Replace the HDD. <p>When you do the above, the following information will be initialized.</p> <ul style="list-style-type: none"> • 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)
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> Data Overwrite Security option SD card is broken. Data Overwrite Security option SD card has been removed.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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
		<ul style="list-style-type: none"> • Replace the MLB. • Remove the MLB.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC881-01	D	Authentication area error
		<ul style="list-style-type: none"> • Software error detected. • This error may occur even if IC card option (ERIE/AYU/Greenland etc.) is not installed.
		<ul style="list-style-type: none"> • This is caused by accumulation of abnormal authentication information in the software. (User operation will not directly cause it.) • Occurs when authentication is done. <p>Example: When a job is sent to the printer/when logged on from the operation panel/when logged on from a Web browser</p>
		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.
		<ul style="list-style-type: none"> • Memory corruption of the operation panel software. • Invalid applications are listed in the operation panel.
		<ul style="list-style-type: none"> • Format the Operation panel through SP mode • Updating the firmware

D147 RTB 80

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 <ul style="list-style-type: none">• Replace the hardware. In case of a software error <ul style="list-style-type: none">• Turn the main power off/on.• Try updating the firmware.

Service Call 900-998

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: <ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.

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.
		<ul style="list-style-type: none"> • 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)

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		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.
		<ul style="list-style-type: none"> • 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

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
		<p>The NetFile file management on the HDD cannot be used, or a NetFile management file is corrupted and operation cannot continue.</p> <ul style="list-style-type: none"> • HDD defective • HDD inconsistency caused by power failure during HDD access, etc. • Software bug <p>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.</p> <ul style="list-style-type: none"> • If SC860 to SC865 is not issued <ul style="list-style-type: none"> • 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. <p>Procedure:</p> <ol style="list-style-type: none"> 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. <ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> Parameter error Internal parameter error Insufficient work memory Operation error caused by abnormalities that are normally undetectable.
		<ul style="list-style-type: none"> 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 to SC990.
		<ul style="list-style-type: none"> 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.
		<ul style="list-style-type: none"> 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.

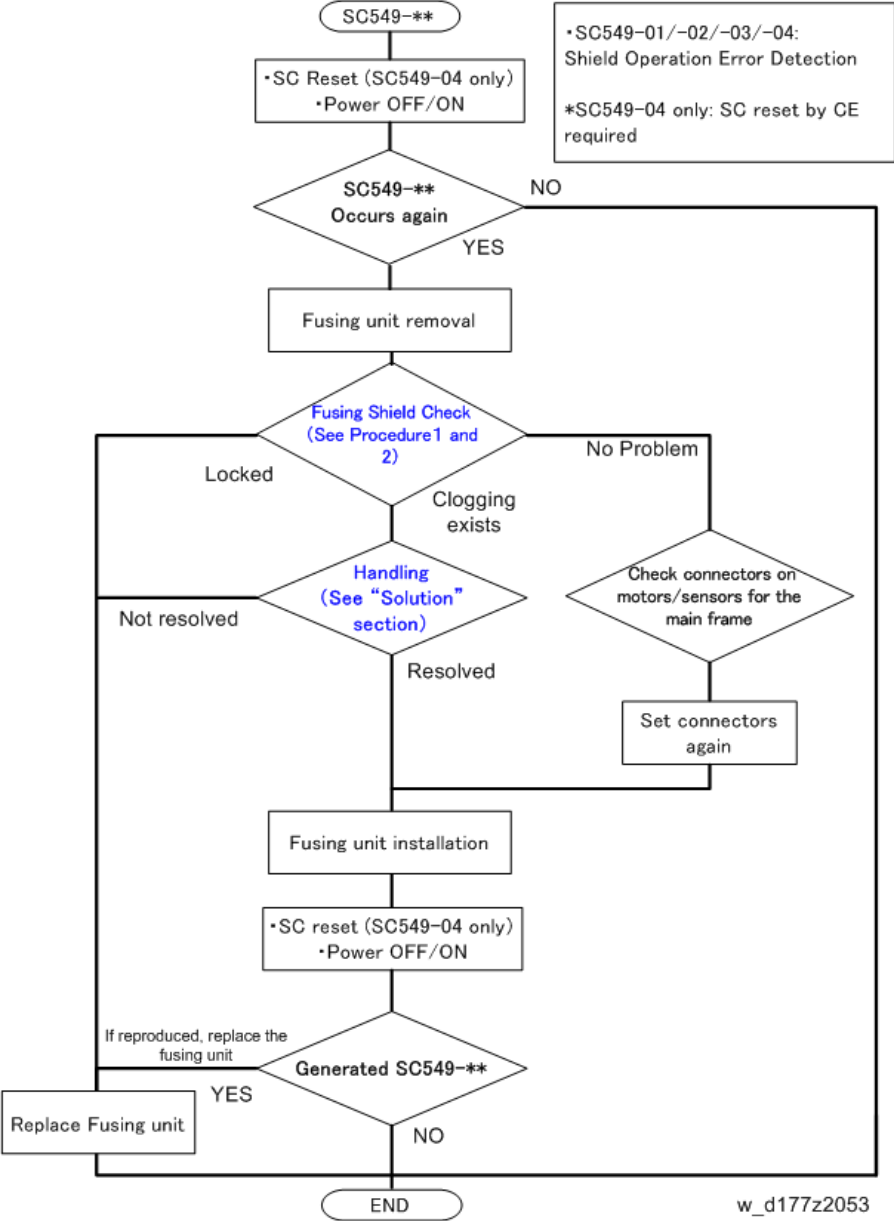
SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC997-00	D	Application function selection error
		The application selected by the operation panel key operated abnormally (No response, abnormal ending).
		Software bug (mainly the application)
		<ul style="list-style-type: none"> • Check the 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
		<ul style="list-style-type: none"> • 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.
		<ul style="list-style-type: none"> • Software bug (mainly the application) • The optional RAM, DIMM, boards required by the application program. Are not installed correctly.
		<ul style="list-style-type: none"> • Turn the main power off/on. • Check the optional RAM, DIMM, boards • Check the combination of programs • Replace the controller board.

Troubleshooting for SC Errors

When SC549 is displayed

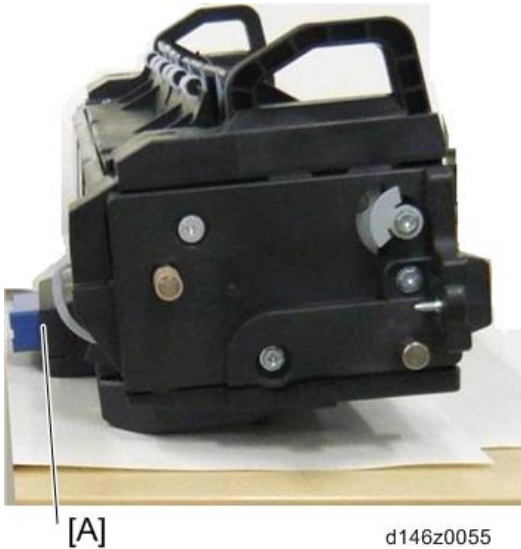
Troubleshooting Flowchart



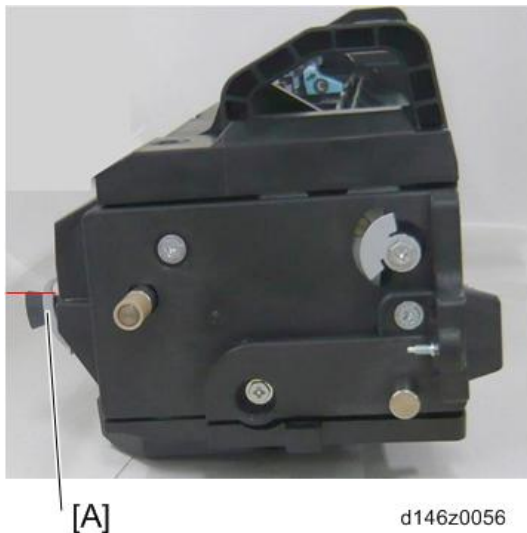
Fusing Shield Check

<Procedure 1: Operation check for the lower side of the shield detection feeler>

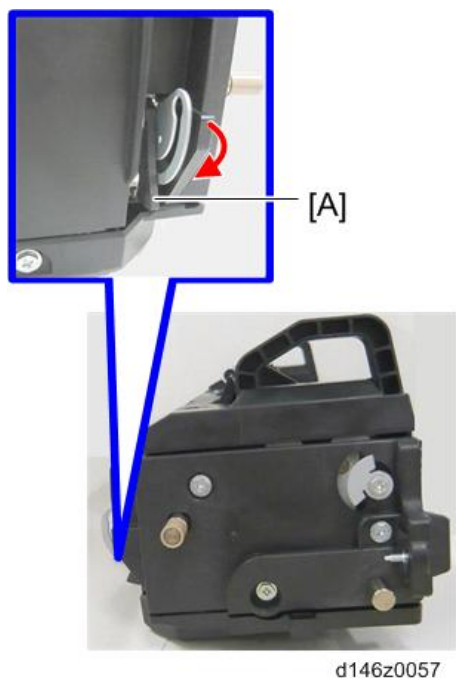
1. Place the fusing unit on a flat place and tilt it towards the drawer connector [A].



2. Move the shield drive gear with your hands to put the upper surface of the feeler [A] in a horizontal position.



3. Keep your fingers off the shield drive gear.
4. Make sure that the shield detection feeler [A] moves down to the lowest point by its own weight.

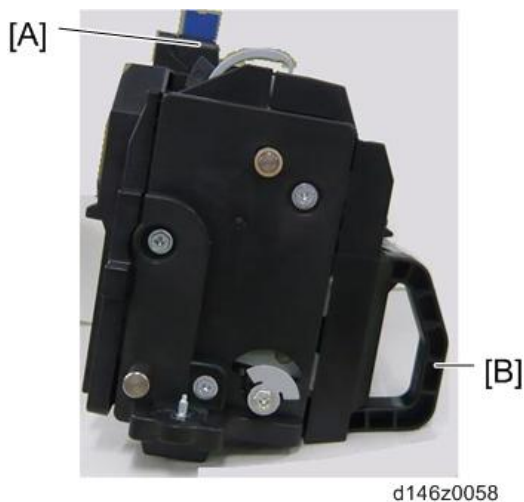


d146z0057

- The feeler moves smoothly: OK
- The feeler does not move / stops during moving / moves but slowly: NG

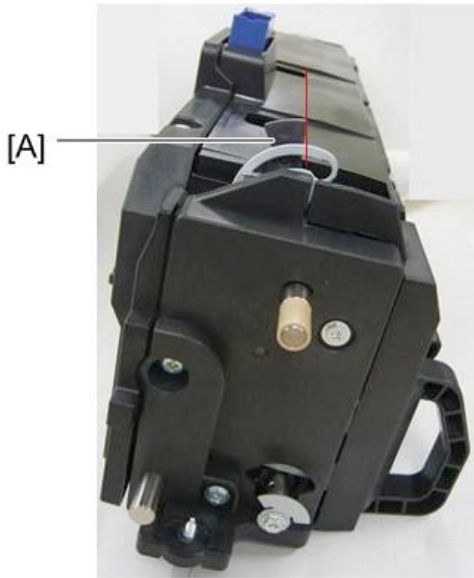
<Procedure 2: Operation check for the upper side of the shield detection feeler>

1. Place the fusing unit on a flat place with the drawer connector [A] turned up and the handle [B] touching a flat surface.



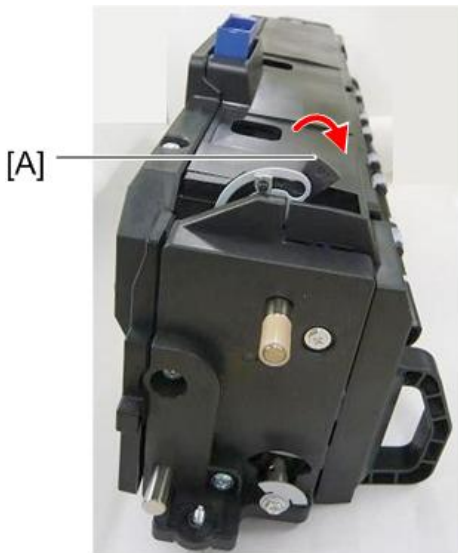
d146z0058

2. Move the shield drive gear with your hands to put the upper surface of the feeler [A] in a vertical position.



d146z0059

3. Keep your fingers off of the shield drive gear.
4. Make sure that the shield detection feeler [A] moves up to the highest point by its own weight.



d146z0060

- The feeler moves smoothly: OK
- The feeler does not move / stops during moving / moves but slowly: NG

<Results>

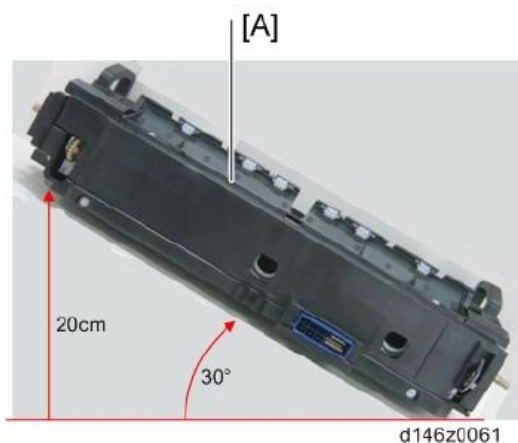
- Both Procedure 1 and 2 are OK: No problem.
- Either Procedure 1 or 2 is NG: The mechanism is blocked.

- The shield detection feeler never moves while moving the shield drive gear by hands or fingers:
Locked.

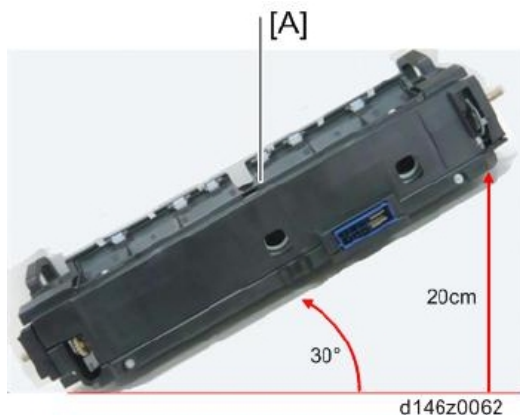
Solution

By tilting the fusing unit, you can check whether the feeler does not move smoothly due to burrs on a part in the unit, and remove the burrs.

1. Tilt the fusing unit [A] approx. 30°.



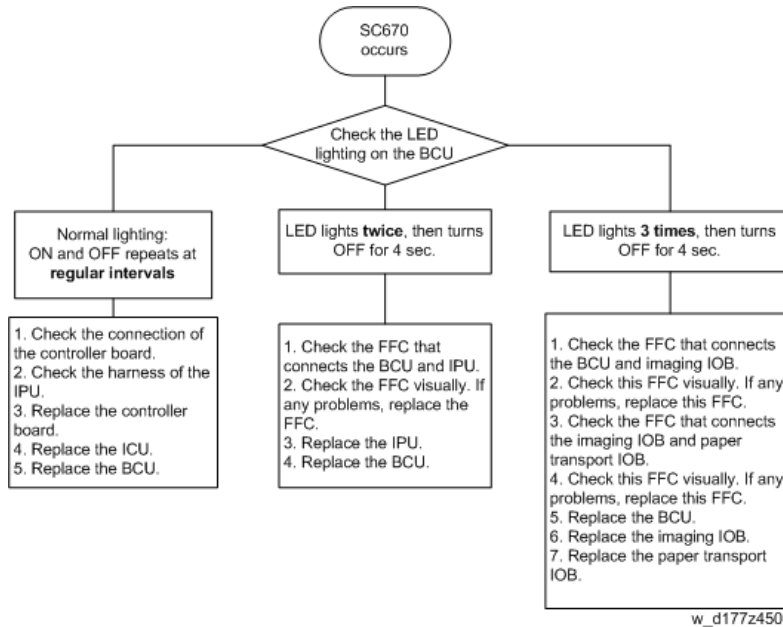
2. Put the fusing unit back to the horizontal position.
3. Perform the checking procedures (Fusing Shield Check).
There is no blockage: Resolved
There is some blockage: Not resolved
4. Tilt the fusing unit [A] approx. 30° in the opposite direction from step 1.



There is no blockage: Resolved
There is some blockage: Not resolved

Troubleshooting for SC640

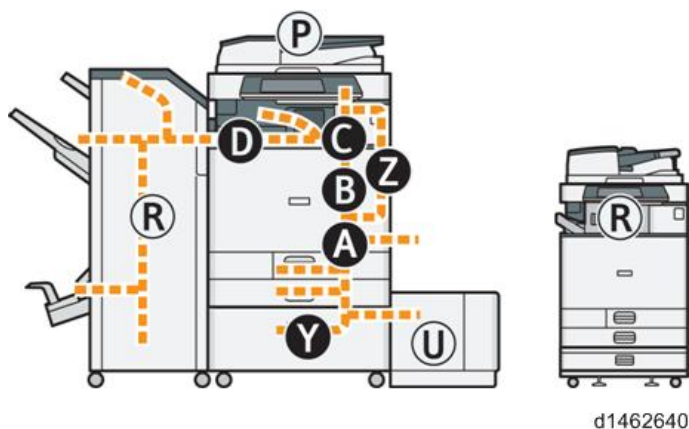
Follow the flowchart below to recover SC640.



Jam Detection

Jam Display

When a jam occurs, the cause position will blink.



Clearing a paper jam

⚠ CAUTION

- Do not touch any components except the specified parts for removing jammed paper. Some parts can burn you because they become hot during operation.

↓ Note

- Do not turn the power off during removal of jammed paper. If you turned the power off, functions or values that were previously set will be deleted.
- Be sure not to tear paper up, and that you remove all pieces. Remaining scraps of paper in the machine could cause another paper jam or machine failure.
- If there are multiple jam locations, check all the locations that are displayed at the same time.

See the decals on the machine for how to remove jammed paper.

Paper Jam History

History checking method

Plotter Jam History can be displayed using SP7-507.

- SP7-507-001 Plotter Jam History Latest
- SP7-507-002 Plotter Jam History Latest1
- SP7-507-003 Plotter Jam History Latest2
- SP7-507-004 Plotter Jam History Latest3
- SP7-507-005 Plotter Jam History Latest4
- SP7-507-006 Plotter Jam History Latest5
- SP7-507-007 Plotter Jam History Latest6
- SP7-507-008 Plotter Jam History Latest7
- SP7-507-009 Plotter Jam History Latest8
- SP7-507-010 Plotter Jam History Latest9

Paper Jam Display

5

```
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.

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

5

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
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
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

Cause code	Cause of jam	Display code
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

Cause code	Cause of jam	Display code
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

5

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
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

Cause code	Cause of jam	Display code
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
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

Cause code	Cause of jam	Display code
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
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

Cause code	Cause of jam	Display code
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
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
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

Cause code	Cause of jam	Display code
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
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

Cause code	Cause of jam	Display code
189	Jam in leading edge guide motor	R1-R5
190	Jam due to MP3 instruction data defect	R1-R5

Booklet Finisher SR3150

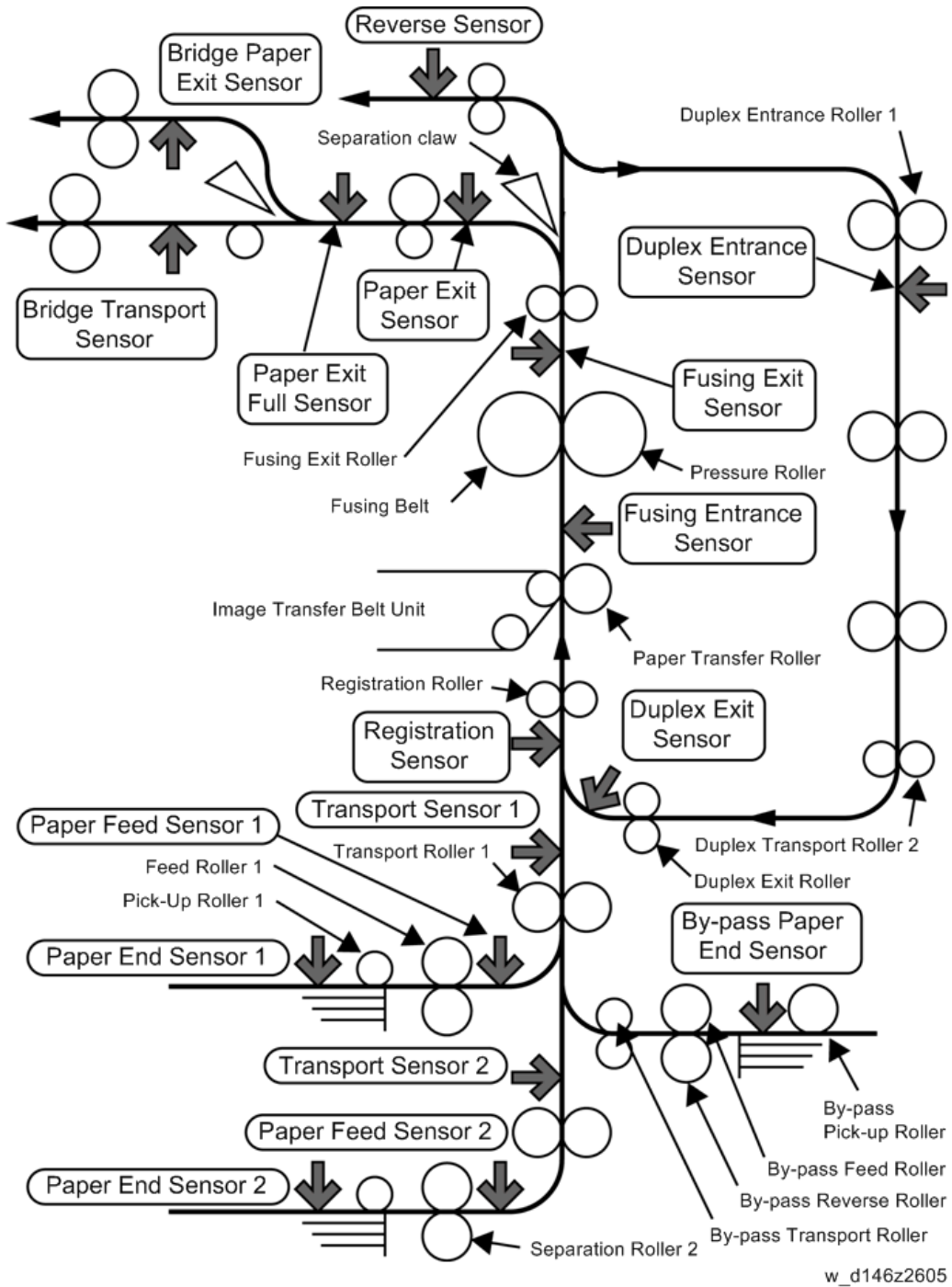
Cause code	Cause of jam	Display code
200	Paper did not reach inlet	R1-R4
201	Paper held up at inlet	R1-R4
202	Paper did not reach proof output	R1-R4
203	Paper held up and prove output	R1-R4
204	Paper did not reach intermediate transport right	R1-R4
205	Paper did not reach intermediate transport left	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

Cause code	Cause of jam	Display code
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
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

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		

Sensor Locations



Electrical Component Defects

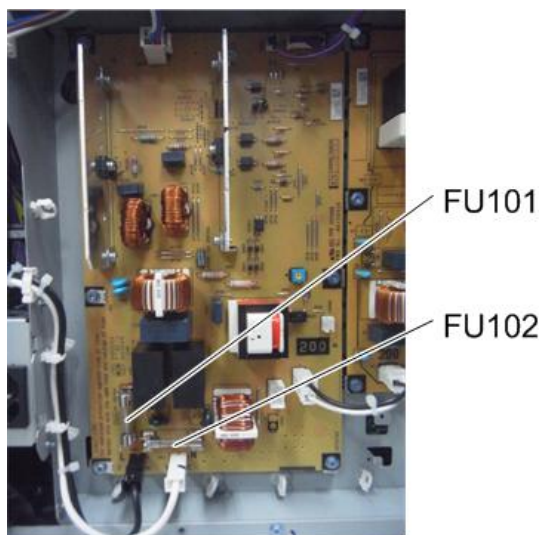
D148/D149/D150

Name	Output connector	Capacit y	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

D146/D147

Name	Output connector	Capacit y	Part number	Can be changed in the field or not
		Voltage	Part name	Remarks
FU101	CN985 (Fusing center heater)	15A	11071241	Yes
	CN986 (Fusing edge heater)	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

Fuse position



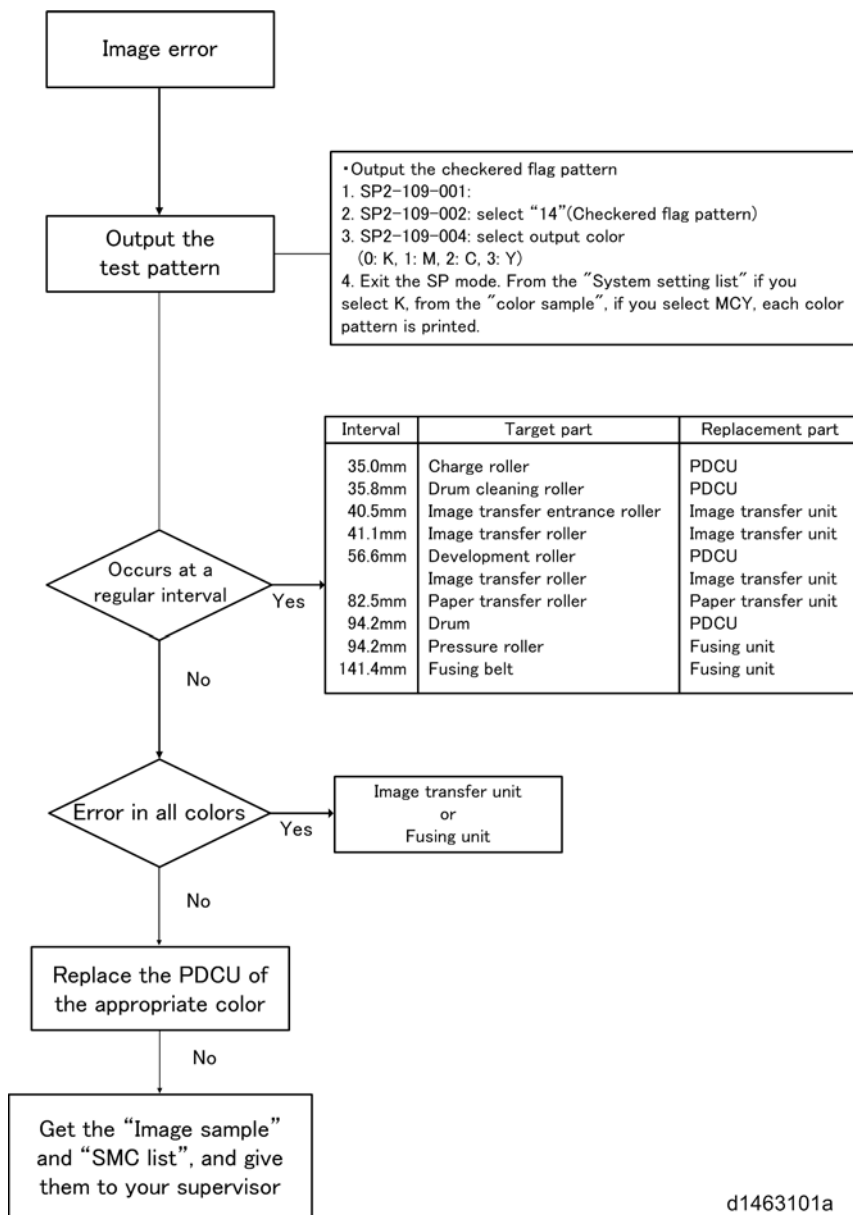
d1463638



d1463639

Image Quality

When an abnormal image is generated



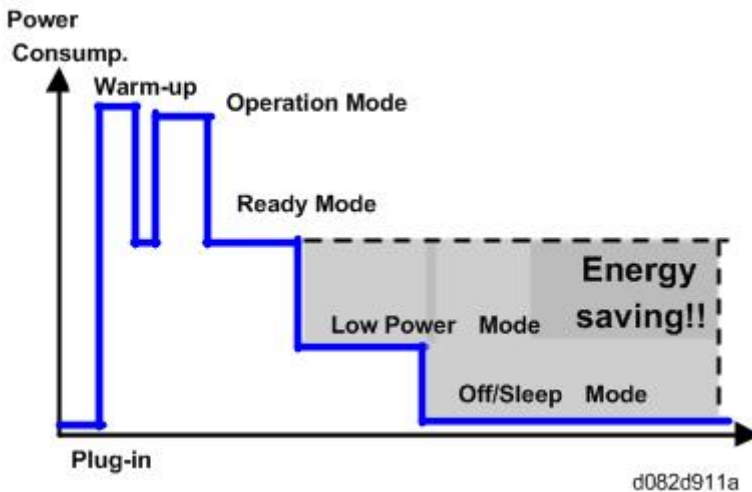
RTB 132
Modified

6. Energy Save

Energy Save

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

6

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.

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:

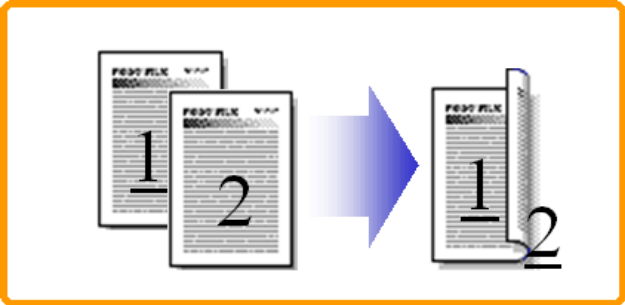
- At the start of the measurement period, read the values of SP8941 001 to 005.
- At the end of the measurement period, read the values of SP8941 001 to 005 again.
- Find the amount of time spent in each mode (subtract the earlier measurement from the later measurement).
- Multiply this by the power consumption spec for each mode.
- Convert the result to kWh (kilowatt hours)

Paper Save

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.

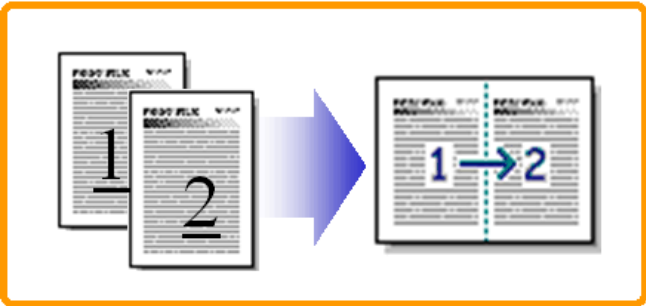
1. Duplex:



d1351966

Reduce paper volume in half!

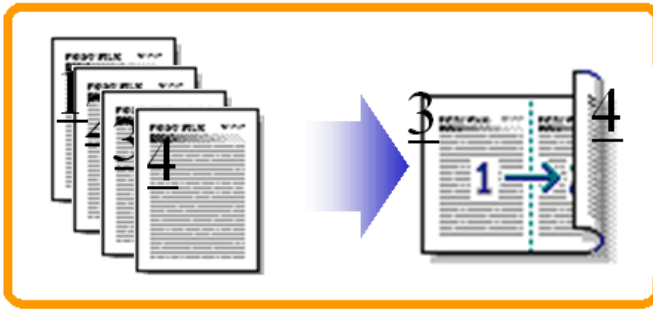
2. Combine mode:



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.

MEMO

**Model MET-C1
Machine Code:
D146/D147/D148/D149/D150
Appendices**

May, 2014

Revision Lists (V2.00)

Revision Date: 22.05.2014

Appendices: Specifications

Section	Item	Note
Specifications	Scan Specifications	Specifications in "Original Scanning Speed" are revised.
		Specifications in "Black & White" are revised.
		Specifications in "Color" are revised.
		Specifications in "Original Scanning Speed" are revised.
Optional Equipment	Finisher SR3160 (D689)	Specifications in "Staple capacity (80 g/m ² , 20 lb. Bond)" is revised.

TABLE OF CONTENTS

Revision Lists (V2.00).....	1
Appendices: Specifications.....	1
1. Appendices:Specifications	
Specifications.....	5
General Specifications.....	5
Printer Specifications.....	8
Scan Specifications.....	10
Other Specifications.....	13
HDD Specifications.....	13
Speed Specification.....	13
OFF / Sleep Mode Shift Time.....	15
OFF/Sleep mode Watts, Recovering time.....	15
Noise (Sound Power Level).....	15
Supported Paper Sizes.....	16
Original Size Detection	16
Paper Feed.....	18
Tray 1 Through 3.....	18
Bypass Trays.....	22
Paper Exit	25
Main unit tray, 1 bin tray, Inner shit tray, Side tray.....	25
Finisher 1.....	28
Finisher 2.....	31
Finisher 3.....	35
Bridge Unit.....	40
Software Accessories.....	44
Printer Drivers.....	44
Scanner and LAN fax drivers.....	45
Optional Equipment.....	46
ARDF DF2020 (D684).....	46
SPDF DF3080 (D683).....	46
Internal Finisher SR3130 (D690).....	47
Finisher SR3140 (D687).....	49
Booklet Finisher SR3150 (D686).....	51

Finisher SR3160 (D689).....	53
Booklet Finisher SR3170 (D688).....	56
Side Tray Type M3 (D725).....	59
Internal Shift Tray SH3070 (D691).....	59
1 Bin Tray BN3110 (D692).....	60
Bridge Unit BU3070 (D685).....	61
Punch Unit PU3040 NA/EU/SC (D716).....	61
Punch Unit PU3050 NA/EU/SC (D717).....	62
Punch Unit PU3060 NA/EU/SC (D706).....	63
Paper Feed Unit PB3150 (D964).....	64
Paper Feed Unit PB3160 (D963).....	64
LCIT PB 3170 (D965).....	65
LCIT RT 3030 (D696).....	65

2. Appendices:Preventive Maintenance Tables

Preventive Maintenance.....	67
Preventive Maintenance Items.....	67
Yield Parts.....	67
Mainframe.....	67

1. Appendices:Specifications

Specifications

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:	<p><D146> Black & White: 4.6Sec. or less Color: 7.3 Sec. or less</p> <p><D147> Black & White: 4.6Sec. or less Color: 7.3 Sec. or less</p> <p><D148> Black & White: 4.0Sec. or less Color: 5.7 Sec. or less</p> <p><D149> Black & White: 3.1 Sec. or less Color: 4.6 Sec. or less</p> <p><D150> Black & White: 3.1 Sec. or less Color: 4.6Sec. or less</p>
Copy Speed:	<p>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.</p>
Warm-Up-Time: (Normal Temperature 20C/68F, NRP)	<p>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)</p>
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 (1 st tray): A4 LEF/LTLEF Main Unit lower tray (2 nd 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:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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):	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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):	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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.

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):	<ul style="list-style-type: none"> • 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

Item	Spec.
PDL:	<ul style="list-style-type: none"> Standard: PDF Direct, MediaPrint: JPEG, MediaPrint: TIFF Optional: PS3, IPDS, PictBridge
Interface:	<ul style="list-style-type: none"> 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
Protocol:	<ul style="list-style-type: none"> Standard: TCP/IP (IPv4/IPv6), SMB, IPP, FTP, NCP, Bonjour, RSH, LPD, DIPRINT, NetBIOS, WSD (Device/Printer/Scanner), UDP, ICMP, SSL, TLS, 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):	<ul style="list-style-type: none"> 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)

Item	Spec.
Built-in Fonts:	<ul style="list-style-type: none">• PCL 5c : 45 fonts + International fonts 13 fonts• PS 3 : 136 fonts• IPDS: 108 fonts (Option)
Scale:	20% to 400%

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

Item	Spec.
Original Scanning Speed:	<p>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:</p> <p>Black & White: DF3090: 70 sheets / Min (Simplex) DF3080 (Single pass DF): 100 sheets / Min (Simplex), 180 sheets / Min (Duplex) (Original type: Text/Chart, Compress setting (MH): Do so (Compress), ITU-T No.1 Chart)</p> <p>Color: DF3090: 70 sheets / Min (Simplex) DF3080 (Single pass DF): 100 sheets / Min (Simplex), 180 sheets / Min (Duplex) (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.</p>
Gradation:	<p>Black & White: 2 Color/Gray scale: 256</p>
Basic Scanning Resolution:	200 dpi
Compress Format for Binary B&W Image:	MH/MR/MMR/JBIG
Compress Format for Gray Scale / Full Color:	JPEG
Interface:	<ul style="list-style-type: none"> • Ethernet (1000BASE-T/100BASE-TX/10BASE-T) • Wireless LAN (IEEE802.11a/b/g/n) • USB2.0 Type A • SD Card Slot

Item	Spec.
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)
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

Item	Spec.
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.

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

Supported Paper Sizes

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}
Folio SEF (11" x 15")	-	Y ^{*Sb}	-	-

Size (W x L) [mm]	NA		EU/AP	
	Book	ADF	Book	ADF
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 than 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 be 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

Paper Feed

1

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	-	-

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 SEF (8" x 10 ¹ / ₂ ")	-	-	-	-			-	-
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)	-	-	-	-	-	-	-	-
C5 SEF (162 x 229)	-	-	B	B	-	-	-	-

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 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 with 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 1 st sheet trailing edge goes through, auto detects size, then fixed to size detected from the 2 nd 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

Bypass Trays

Size (W x L) [mm]	LCT		Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA
A3 SEF (297 x 420)	-	-	E	J
A4 SEF (210 x 297)	-	-	E	J
A4 LEF (297 x 210)	K	H	E	J
A5 SEF (148 x 210)	-	-	E	J
A5 LEF (210 x 148)	-	-	E	J
A6 SEF (105 x 148)	-	-	E	J
B4 SEF (257 x 364)	-	-	E	J
B5 SEF (182 x 257)	-	-	E	J
B5 LEF (257 x 182)	K	K	E	J
B6 SEF (128 x 182)	-	-	E	J
DLT SEF (11" x 17")	-	-	J	E
Legal SEF (8 ¹ / ₂ " x 14")	-	-	G1	E
Foolscap SEF (8 ¹ / ₂ " x 13")	-	-	E	E
LT SEF (8 ¹ / ₂ " x 11")	-	-	J1	E
LT LEF (11" x 8 ¹ / ₂ ")	H	K	J	E
Gov. LG SEF (8 ¹ / ₄ " x 14")	-	-	E	E
Folio SEF (8 ¹ / ₄ " x 13")	-	-	E	E
F/GL SEF (8" x 13")	-	-	E	E
GLT SEF (8" x 10 ¹ / ₂ ")	-	-	-	-
GLT LEF (10 ¹ / ₂ " x 8")	-	-	-	-
Eng Quatro SEF (8" x 10")	-	-	E	E
Eng Quatro LEF (10" x 8")	-	-	-	-

Size (W x L) [mm]	LCT		Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA
Executive SEF ($7\frac{1}{4}" \times 10\frac{1}{2}"$)	-	-	E	E
Executive LEF ($10\frac{1}{2}" \times 7\frac{1}{4}"$)	-	-	E	E
HLT SEF ($5\frac{1}{2}" \times 8\frac{1}{2}"$)	-	-	J	E
HLT LEF ($8\frac{1}{2}" \times 5\frac{1}{2}"$)	-	-	-	-
SRA3 SEF (420 x 320)	-	-	J	J
SRA4 SEF	-	-	E	E
SRA4 LEF	-	-	E	E
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}
Com10 LEF (241.3 x 104.8)	-	-	E ^{*1}	E ^{*1}
Monarch SEF (98.4 x 190.5)	-	-	E ^{*1}	E ^{*1}
Monarch LEF (190.5 x 98.4)	-	-	E ^{*1}	E ^{*1}
C5 SEF (162 x 229)	-	-	E ^{*1}	E ^{*1}
C5 LEF (229 x 162)	-	-	E ^{*1}	E ^{*1}
C6 SEF (114 x 162)	-	-	E ^{*1}	E ^{*1}
C6LEF (162 x 114)	-	-	E ^{*1}	E ^{*1}
DL Env SEF (110 x 220)	-	-	E ^{*1}	E ^{*1}
DL Env LEF (220 x 110)	-	-	E ^{*1}	E ^{*1}
8K SEF (267 x 390)	-	-	E	E
16K SEF (195 x 267)	-	-	E	E
16K LEF (267 x 195)	-	-	E	E

Size (W x L) [mm]	LCT		Bypass	
Region (EU/AA)	NA	EU/AA	NA	EU/AA
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
12" x 18" LEF	-	-	-	-
11" x 15" SEF	-	-	E	E
11" x 14" SEF	-	-	-	-
10" x 15" SEF	-	-	-	-
10" x 14" SEF	-	-	E	E

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	<p>Switches witch size to set as auto detect with SP.</p> <p>*Example: The combination of A1-G1.</p> <p>G (When not auto detectable) will be as same as B.</p> <p>Combinations are only made from same region same tray.</p> <p>*Example: The combination of G1 and J1.</p> <p>G (When not auto detectable) will be as same as E.</p> <p>Combinations are only made from same region same tray.</p>
H	Size fixed when shipping.
I	<p><Bypass setting></p> <p>With bypass tray, after 1st sheet trailing edge goes through, auto detects size, then fixed to size detected from the 2nd sheet.</p>
J	<p><Bypass setting></p> <p>Auto detect of Copy window/Bypass/Standard size/Select with size button.</p>
K	<p>Select with SP from preset paper sizes.</p> <p>Can be selected from printer driver.</p>
-	Not available

* 1	Even the paper size is in the range or available sizes for duplex, envelopes can not be done so.
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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

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
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
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

Size (W x L) [mm]	Main unit tray	1 bin tray	Inner shift tray		Side Tray	
	Main unit tray	Upper tray	shift	shifting	Bridge upper exit	Side tray
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
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

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
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	-	-	-	-	-

Size (W x L) [mm]	Paper exit		Staple		Punch		
	Shift	Shifting	Single/ Double size	Staplin g amount	EU 2 SC 4 Holes	NA 3 EU 4 Holes	NA 2 Holes
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}	-	-	-	-	-
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 ")	-	-	-	-	-	-	-

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
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}	-	-	-	-	-
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	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit		Staple		Punch		
	Shift	Shifting	Single/ Double size	Staplin g amount	EU 2 SC 4 Holes	NA 3 EU 4 Holes	NA 2 Holes
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	Mid dle fold		Singl e / Dou ble stitch	Staplin g amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
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	-

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	EU 2 SC 4 Holes	NA 2 Holes	NA 3 EU 4 Holes
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	-
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
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	-

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	EU 2 SC 4 Holes	NA 2 Holes	NA 3 EU 4 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	-	-	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	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-

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	EU 2 SC 4 Holes	NA 2 Holes	NA 3 EU 4 Holes
Monarch LEF (190.5 x 98.4)	-	-	-	-	-	-	-	-	-	-	-
C5 SEF (162 x 229)	-	-	-	-	-	-	-	-	-	-	-
C5 LEF (229 x 162)	-	-	-	-	-	-	-	-	-	-	-
C6 SEF (114 x 162)	-	-	-	-	-	-	-	-	-	-	-
C6 LEF (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	-
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

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	EU 2 SC 4 Holes	NA 2 Holes	NA 3 EU 4 Holes
11" x 14" SEF	-	-	-	-	-	-	-	-	-	-	-
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		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h	Mid dle fold	Single/ Double stitch	Stap le amount	Sad dle stitch h	Sad dle stitch amount	EU 2 SC 4 Holes	NA 2 Holes	NA 3 EU 4 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
A5 SEF (148 x 210)	A	B	B	-	-	-	-	-	-	A	A	-
A5 LEF (210 x 148)	A	A	A	-	-	-	-	-	-	A	B	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h	Mid dle fold	Single/ Double stitch	Stap le amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
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	-	-	-	-	-	-	-	-	-
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		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h		Single/ Double stitch	Stap le amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
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	-
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	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h	Mid dle fold	Single/ Double stitch	Stap le amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
Line slider 1 SEF	-	-	-	-	-	-	-	-	-	-	-	-
Line slider 1 LEF	-	-	-	-	-	-	-	-	-	-	-	-
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)	-	-	-	-	-	-	-	-	-	-	-	-
C5 SEF (162 x 229)	-	-	-	-	-	-	-	-	-	-	-	-
C5 LEF (229 x 162)	-	-	-	-	-	-	-	-	-	-	-	-
C6 SEF (114 x 162)	-	-	-	-	-	-	-	-	-	-	-	-

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h		Single/ Double stitch	Stap le amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
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
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	-	-	-
12" x 18" LEF	-	-	-	-	-	-	-	-	-	-	-	-
11" x 15" SEF	A	A	A	-	-	A	50	-	-	A	A	A

Size (W x L) [mm]	Paper exit				Half fold	Staple				Punch		
	Pro of	Sh ift	Shifti ng	Sad dle stitch h		Single/ Double stitch	Stap le amo unt	Sad dle stitch h	Sad dle stitch amo unt	EU 2 SC 4 Hol es	NA 2 Hol es	NA 3 EU 4 Hol es
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
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

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
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 "	-	-
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	-

Size (W x L) [mm]	Paper exit	Bridge
	Bridge upper paper exit	Finisher Bridge
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	-	-
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.

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.

Printer Drivers

Printer Language	Windows XP ^{*1*}	Windows Vista ^{*2*}	Windows 7 ^{*3*}	Windows 8 ^{*6*}
PCL 5c / PCL 6	Yes	Yes	Yes	Yes
PS3	Yes	Yes	Yes	Yes

Printer Language	Windows Server 2003 ^{*4*}	Windows Server 2008 ^{*5*}	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.

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.

Optional Equipment

1

ARDF DF2020 (D684)

Mode:	Batch mode, SADF mode, Mixed Sizes mode, Original Orientation mode, and Custom Size originals mode
Original Size:	EU/AA <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> 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/m ² , 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.)

SPDF DF3080 (D683)

Mode:	Batch mode, SADF mode, Mixed Sizes mode, Custom Size originals mode, Original Orientation mode
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Original Size:	<p>EU/AA</p> <ul style="list-style-type: none"> 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 <p>NA</p> <ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> 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/m ² , 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.)

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/m ² , 20 lb. Bond):	<ul style="list-style-type: none"> • 500 sheets: A4, 8 1/2 x 11 or smaller • 250 sheets: B4 JIS, 8 1/2 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):	<ul style="list-style-type: none"> • 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):	<ul style="list-style-type: none"> • 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 11 SEF) • 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:	<ul style="list-style-type: none"> • 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)

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, 8 1/2 x 11 or smaller 50 sheets: B4 JIS, 8 1/2 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 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, 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, 8 1/2 x 11 or smaller 500 sheets: B4 JIS, 8 1/2 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):	<ul style="list-style-type: none"> 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):	<ul style="list-style-type: none"> 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)
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:	<ul style="list-style-type: none"> • Approx. 27 kg (59.6 lb.) (without punch unit) • Approx. 31 kg (68.4 lb.) (with punch unit)

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, 8 1/2 x 11 or smaller 50 sheets: B4 JIS, 8 1/2 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, 8 1/2 x 14 or smaller 500 sheets: B4 JIS, 8 1/2 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):	<ul style="list-style-type: none"> 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):	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> Approx. 40 kg (88.2 lb.) (without punch unit) Approx. 44 kg (97.1 lb.) (with punch unit)

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, 8 1/2 x 11 or smaller 50 sheets: B4 JIS, 8 1/2 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):	<ul style="list-style-type: none"> • 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, SRA3 LEF • 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 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):	<ul style="list-style-type: none"> 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: 50 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):	<p>Without Mixed Size:</p> <ul style="list-style-type: none"> 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) <p>With Mixed Size:</p> <ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> Approx. 34 kg (75.0 lb.) (without punch unit) Approx. 38 kg (83.8 lb.) (with punch unit)

Booklet Finisher SR3170 (D688)

1

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):	<ul style="list-style-type: none"> • 250 sheets: A4, 8 1/2 x 11 or smaller • 50 sheets: B4 JIS, 8 1/2 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, 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, 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):	<ul style="list-style-type: none"> 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):	<ul style="list-style-type: none"> 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 / 8 1/2 x 11 SEF
Stack capacity after stapling (80 g/m ² , 20 lb. Bond):	<p>Without Mixed Size:</p> <ul style="list-style-type: none"> 2–12 sheets: 150 sets (A4 SEF, 8 1/2 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) <p>With Mixed Size:</p> <ul style="list-style-type: none"> 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):	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Approx. 53 kg (116.9 lb.) (without punch unit) • Approx. 57 kg (125.7 lb.) (with punch unit)

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):	<ul style="list-style-type: none"> Internal tray 1: 250 sheets: A4, 8 1/2 x 11 or smaller 125 sheets: B4 JIS, 8 1/2 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.)

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):	<ul style="list-style-type: none"> 250 sheets: A4, 8 1/2 x 11 or smaller 125 sheets: B4 JIS, 8 1/2 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 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, 5 1/2 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.)

Bridge Unit BU3070 (D685)

Stack capacity (80 g/m ² , 20 lb. Bond):	<ul style="list-style-type: none"> • 250 sheets: A4, 8 1/2 x 11 or smaller • 125 sheets: B4 JIS, 8 1/2 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.)

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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)
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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)
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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)

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.)

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.)

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.)

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.)

2. Appendices:Preventive Maintenance Tables

Preventive Maintenance

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
1 st 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 RTB 141
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			
Fusing							
Fusing sleeve belt unit				R			

Item	60K	120K	300K	400K	600K	EM	Remarks
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

Item	60K	120K	300K	400K	600K	EM	Remarks
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
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
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

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