KYOCERA

TASKalfa 306ci
TASKalfa 356ci
TASKalfa 406ci
PF-5120/5130/5140
DP-5100/5110
AK-5100/JS-5100
DF-5100/5110/5120
PH-5100/5110/MT-5100
FAX System 10/11

SERVICE MANUAL

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BAT-
TERIES ACCORDING TO THE INSTRUCTIONS.

It may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste
officials for details in your area for proper disposal.

ATTENTION

IL Y A UN RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACEE PAR UN MODELE DE TYPE
INCORRECT. METTRE AU REBUT LES BATTERIES UTILISEES SELON LES INSTRUCTIONS DONNEES.

Il peut être illégal de jeter les batteries dans des eaux d'égout municipales. Vérifiez avec les fonctionnaires
municipaux de votre région pour les détails concernant des déchets solides et une mise au rebut appropriée.

Notation of products in the manual

For the purpose of this service manual, products are identified by print speed.

		100 V	120 V	220-240 V	Australia
TASKalfa 306ci	: 30 ppm	×	○	○	○
TASKalfa 356ci	: 35 ppm	○	○	○	○
TASKalfa 406ci	: 40 ppm	○	○	○	○

Revision history

Revision	Date	Pages	Revised contents
1	15 October 2015	contents	Correction: Added the contents and correct the title
		1-4	Correction:1200 dpi equivalent → 9600 dpi equivalent
		2-25, 2-27	Change:the level indicator of the loaded paper
		4-4	Added:Exchange time (MK-3140 / MK-5200)
		4-6 to 24	Added: Periodic maintenance Procedures
		4-62	Delete: *: When replacing the new drum unit,......
		4-136, 4-157 4-173, 4-201	Delete: FFC unlock procedure
		4-152, 4-160	Correction: imaging motor → transfer motor
		4-159, 4-167	Added:Grease applied to the gear portion
		4-212	Correction:Additional procedure for removing the connector
		4-186, 4-214	Added:FFC unlock procedure
		6-99, 6-319	Change:Folio size → 330 mm fixed
		6-103	Added:Display conditions of the items
		7-43	Correction: C3800 ("AEF" → "AFE")
		7-134	Added: Factor and corrective action
		9-5	Correction: Initial values of S3 and S4
2	4 November 2015	contents	Correction: title of contents of 1-4
		1-1	Delete: Hagaki in paper size / cassette Correction: Warm-up Time (50%→60%)
		1-3	Correction: Copy speed (40 ppm model) : Conditions of the first Copy time
		1-4	Correction: Conditions of the first print time : Conditions of the Scanner speed
		1-6	Added: Inch size in Paper size (Document processor)
		1-13, 1-15	Correction: Description of Job Accounting
		1-34	Added: 35/40ppm models only (UG-34)
		1-35, 1-36	Correction: title of contents of 1-4 : Unit description Delete: Toner
		3-33, 3-36 3-39 8-64, 9-26	Added: 40 ppm model only
		4-159	Correction: Motor mounting plate and screw the number (3 → 2)
		6-2, 6-35 6-196, 6-231	Delete: U039
		6-7, 6-190	Delete: U942 (30 ppm model)

Revision	Date	Pages	Revised contents
2	4 November 2015	6-420	Correction: U942 (35/40 ppm models)
		6-20, 6-214	Correction: U002
3	27 November 2015	contents	Correction: Content's pages of 1-7
		3-96, 3-97 3-99, 3-100	Correction: Figure 3-97 to 3-99, Figure 3-102 to 3-104
		6-117 to 119 6-337 to 342	Correction: Procedure of DP automatic adjustment
		7-4 to 99	Correction
		9-3	Correction: Initial values of N5
4	29 January 2016	contents	Correction: Page number
		1-1	Correction: Paper weight (Cassette) 163→220
		1-2	Correction: eKUIO: 2→1, FAX: 1
		1-8	Delete: Paper Weight
		2-29	Correction: The description of the setup wizard
		4-32, 4-33, 4-35, 4-37, 4-39, 4-43	Correction: Calib → Calib (Full)
		4-33	Correction: Figure4-15
		6-7, 6-193	Added: U964
		6-88, 6-303, 6-304	Correction: Rotation direction of the exit motor
		9-22	Delete: coin vender (YC32)
5	22 April 2016	2-2	Added:Annotation
		2-18, 2-69, 2-71	Correction: Changing the shape of the connector cover
		2-32	Correction: Procedure for 40 ppm model
		2-44	Added:Patrs number of the Key counter wire
		4-28, 4-31 4-49, 4-53 4-57	Correction: Procedure
		6-47	Correction:direction of setting values on U072
		6-199, 6-301, 6-302	Added: U224
		6-320	Added: Initial values in U250
		7-3	Added: J0300

KYOCERA

Safety precautions

This booklet provides safety warnings and precautions for our service personnel to ensure the safety of their customers, their machines as well as themselves during maintenance activities. Service personnel are advised to read this booklet carefully to familiarize themselves with the warnings and precautions described here before engaging in maintenance activities.

Safety warnings and precautions

Various symbols are used to protect our service personnel and customers from physical danger and to prevent damage to their property. These symbols are described below:

⚠ **DANGER:** High risk of serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

⚠ **WARNING:** Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

⚠ **CAUTION:** Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

Symbols

The triangle (△) symbol indicates a warning including danger and caution. The specific point of attention is shown inside the symbol.

⚠ General warning.   ⚡ Warning of risk of electric shock.

🔥 Warning of high temperature.

⊘ indicates a prohibited action. The specific prohibition is shown inside the symbol.

🚫 General prohibited action.   🚫 Disassembly prohibited.

● indicates that action is required. The specific action required is shown inside the symbol.

❗ General action required.   🔌 Remove the power plug from the wall outlet.

⏚ Always ground the copier.

1. Installation Precautions

⚠ WARNING

- Do not use a power supply with a voltage other than that specified. Avoid multiple connections to one outlet: they may cause fire or electric shock. When using an extension cable, always check that it is adequate for the rated current. .... ⊘

- Connect the ground wire to a suitable grounding point. Not grounding the copier may cause fire or electric shock. Connecting the earth wire to an object not approved for the purpose may cause explosion or electric shock. Never connect the ground cable to any of the following: gas pipes, lightning rods, ground cables for telephone lines and water pipes or faucets not approved by the proper authorities. .... ⏚

⚠ CAUTION:

- Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury. .... ⊘

- Do not install the copier in a humid or dusty place. This may cause fire or electric shock. .... ⊘

- Do not install the copier near a radiator, heater, other heat source or near flammable material. This may cause fire. .... ⊘

- Allow sufficient space around the copier to allow the ventilation grills to keep the machine as cool as possible. Insufficient ventilation may cause heat buildup and poor copying performance. .... ⊘

- Always handle the machine by the correct locations when moving it. .... ❶

- Always use anti-toppling and locking devices on copiers so equipped. Failure to do this may cause the copier to move unexpectedly or topple, leading to injury. .... ❶

- Avoid inhaling toner or developer excessively. Protect the eyes. If toner or developer is accidentally ingested, drink a lot of water to dilute it in the stomach and obtain medical attention immediately. If it gets into the eyes, rinse immediately with copious amounts of water and obtain medical attention. .... ❶

- Advice customers that they must always follow the safety warnings and precautions in the copier's instruction handbook. .... ❶

2. Precautions for Maintenance

⚠WARNING

- Always remove the power plug from the wall outlet before starting machine disassembly. ....

- Always follow the procedures for maintenance described in the service manual and other related brochures. ....

- Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits. ....

- Always use parts having the correct specifications. ....

- Always use the thermostat or thermal fuse specified in the service manual or other related brochure when replacing them. Using a piece of wire, for example, could lead to fire or other serious accident. ....

- When the service manual or other serious brochure specifies a distance or gap for installation of a part, always use the correct scale and measure carefully. ....

- Always check that the copier is correctly connected to an outlet with a ground connection. ....

- Check that the power cable covering is free of damage. Check that the power plug is dust-free. If it is dirty, clean it to remove the risk of fire or electric shock. ....

- Never attempt to disassemble the optical unit in machines using lasers. Leaking laser light may damage eyesight. ....

- Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly. ....

⚠ CAUTION

- Wear safe clothing. If wearing loose clothing or accessories such as ties, make sure they are safely secured so they will not be caught in rotating sections. ....

- Use utmost caution when working on a powered machine. Keep away from chains and belts. ....

- Handle the fixing section with care to avoid burns as it can be extremely hot. ....

- Check that the fixing unit thermistor, heat and press rollers are clean. Dirt on them can cause abnormally high temperatures. ....

• Do not remove the ozone filter, if any, from the copier except for routine replacement. ....

• Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself. ....

• Do not route the power cable where it may be stood on or trapped. If necessary, protect it with a cable cover or other appropriate item. ....

• Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks. ....

• Remove toner completely from electronic components. ....

• Run wire harnesses carefully so that wires will not be trapped or damaged. ....

• After maintenance, always check that all the parts, screws, connectors and wires that were removed, have been refitted correctly. Special attention should be paid to any forgotten connector, trapped wire and missing screws. ....

• Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary. ....

• Handle greases and solvents with care by following the instructions below: ....
  · Use only a small amount of solvent at a time, being careful not to spill. Wipe spills off completely.
  · Ventilate the room well while using grease or solvents.
  · Allow applied solvents to evaporate completely before refitting the covers or turning the power switch on.
  · Always wash hands afterwards.

• Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc. ....

• Should smoke be seen coming from the copier, remove the power plug from the wall outlet immediately. ....

3. Miscellaneous

⚠ WARNING

• Never attempt to heat the drum or expose it to any organic solvents such as alcohol, other than the specified refiner; it may generate toxic gas. ....

• Keep the machine away from flammable liquids, gases, and aerosols. A fire or an electric shock might occur. ....

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CONTENTS

4   Maintenance

5   Firmware

6   Maintenance mode

7   Troubleshooting

8   PWBs

9　Appendixes

Instaration Guide

   PF-5120 (500 sheets × 1 Paper Feeder)
   PF-5130 (500 sheets × 2 Paper Feeder)
   PF-5140 (2000 sheets Paper Feeder)
   DP-5100 (Document processor: RADF)
   DP-5110 (Document processor: CIS)
   DF-5100 (Inner Finisher)
   DF-5110 (1000 sheets Finisher)
   DF-5120 (3000 sheets Finisher)
   AK-5100 (Bridge Unit)
   MT-5100 (Mail Box)
   PH-5100/5110 (Punch Unit)
   JS-5100 (Job separator)
   FAX System 10 (FAX Kit)
   FAX System 11 (FAX Kit)

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1 Specifications
1-1 Specifications

(1) Common function

Items		Specifications		
Product name		30 ppm model	35 ppm model	40 ppm model
Type		Desktop		
Printing Method		Electrophotography by semiconductor laser		
Paper Weight	Cassette	60 to 220 g/m²		
	Multi Purpose Tray	60 to 220 g/m², 230 g/m² (Cardstock), 129 to 163 g/m²(Banner sheet)		
Paper type	Cassette	Plain, Rough, Recycled, Vellum, Preprinted, Bond, Color (Colour), Prepunched, Letterhead, Thick, High Quality, Envelope, Custom 1 to 8(Duplex: Same as Simplex)		
	Multi Purpose Tray	Plain, Transparency (OHP film), Rough, Vellum, Labels, Recycled,Preprinted, Bond, Cardstock, Coated, Color (Colour), Prepunched,Letterhead, Envelope, Thick, High Quality, Custom 1 to 8		
Paper Size	Cassette	A4, A5, A6, B5, Letter, Legal, B6, Folio, 216 × 340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, Youkei 4, Youkei 2, Custom (92 × 148 mm to 216 × 356 mm)		
	Multi Purpose Tray	A4, A5, A6, B5, Letter, Legal, B6, Folio, 216 × 340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, Hagaki (Cardstock), Oufuku Hagaki (Return postcard), Youkei 4, Youkei 2, Custom (70 × 148 mm to 216 × 356 mm)		
		---	Banner sheet (240×470.1 to 210×1220 mm)	
Printable Area		Print margin for top, bottom and both sides is 4 mm		
Warm-up Time (23°C/ 73.4°F, 60%)	Power on	20 seconds or less	24 seconds or less	
	Low Power	10 seconds or less	10 seconds or less	
	Sleep	17.6 seconds or less	19.7 seconds or less	21.8 seconds or less
Paper Capacity	Cassette	550 sheets(64g/m²), 500 sheets(80g/m²)*1		
	Multi Purpose Tray	110 sheets (A4/Letter or smaller) (64g/m²) 27 sheets (larger than A4/Letter) (64g/m²) 100 sheets (A4/Letter or smaller) (80 g/m²) 25 sheets (larger than A4/Letter) (80 g/m²)		
		---	1 sheet (Banner sheet (210 x 470.1 to 210 x 1220 mm))(129 to 163 g/m²)	
Output Tray Capacity	Inner tray	550 sheets(64g/m²), 500 sheets(80g/m²)*1		
Image Write System		Semiconductor laser and electrophotography		
Light source		LED		

Items		Specifications		
Product name		**30 ppm model**	**35 ppm model**	**40 ppm model**
Scanning method		Flat surface scanning by the CCD image sensor		
Photoconductor		OPC drum (diameter 30 mm)		a-Si drum (diameter 30 mm)
Charging system		Contact charger roller method		
Developer system		Touch down developing system Developer: 2-component Toner replenishing: Automatic from the toner container		
Transfer system		Primary: Transfer belt method Secondary: Transfer roller method		
Separation system		Small diameter separation, separation needle		
Cleaning system	**Drum**	Counter blade		Counter blade + Cleaning roller
	Transfer belt	Fur brush cleaning + Pre-brush system		
Charge erasing system		Exposure by cleaning lamp (LED)		
Fusing system		Heat and pressure fusing with the heat roller and the press roller Heat source: halogen heater Abnormally high temperature protection devices: thermostat		
Standard Memory (Max 2GB)		1.0GB	2.0GB	

High capacity storage	**Standard**	-	SSD 8GB:
			  (except 120 V model)
			HDD 320GB:
			  (120 V model only)
				HDD 320GB

	Option	SSD 32 GB/128 GB	HDD 320GB: (except 120 V model)	-
Interface	**Standard**	USB Interface Connector: 1 (Hi-Speed USB) *3 Network interface: 1 (10 BASE-T/100 BASE-TX/1000 BASE-T)		
		USB Port: 2 (Hi-Speed USB) (USB Memory Slot)	USB Port: 3 (Hi-Speed USB) (USB Memory Slot)	
	Option	eKUIO: 1 (Upper slot) FAX: 1 (Lower slot)	eKUIO: 2 (FAX: 2 *2)	
Operating Environment	**Temperature**	10 to 32.5°C/50 to 90.5°F		
	Humidity	10 to 80 %		
	Altitude	3,500 m/11,482 ft maximum		
	Brightness	1,500 lux maximum		
Dimension (W × D × H)		21.66" × 19.99" × 29" 550 × 507.5 × 736.6 mm (Including the Document Processor)	21.66" × 19.97" × 24.13" 550 × 507 × 612.8 mm (without Document Processor)	
Weight(without toner container)		Approx. 105.9 lb/Approx. 48 kg(Including the Document Processor)	Approx. 105.9 lb/Approx. 48 kg(without Document Processor)	

Items	Specifications		
Product name	**30 ppm model**	**35 ppm model**	**40 ppm model**
Space Required (W × D)	31.82" × 19.97"808 × 507 mm (Using multi purpose tray) 48.78" × 20.94"1239 × 532 mm (Using 3000-sheet finisher)		
Power source	100 V Model: 100 V 50/60 Hz 11.1 A 120 V Model: 120 V 60 Hz 9.5 A 230 V Model: 200 to 240 V 50 Hz 5.0 A	100 V Model: 100 V 50/60 Hz 12.3 A 120 V Model: 120 V 60 Hz 10.8A 230 V Model: 200 to 240 V 50 Hz 5.9A	
The power consumption of the product in networked standby(Ifall network ports are connected.)	AC100V: 1110W AC120V: 1150W AC220 to 240 V: 1150W	AC100V: 1230W AC120V: 1300W AC220 to 240 V: 1360W	

*1: Up to upper limit height line in the cassette.
*2: When one network interface is installed, only one fax line can be installed.
*3: 220-240 V 35/40ppm models: Option

(2) Copy Functions

Items		Description		
Product name		**30 ppm model**	**35 ppm model**	**40 ppm model**
Copy Speed	**B/W**	A4 30 sheets/min Letter 32 sheets/min Legal 26 sheets/min B5 27 sheets/min A5 27 sheets/min A6 27 sheets/min	A4 35 sheets/min Letter 37 sheets/min Legal 30 sheets/min B5 35 sheets/min A5 35 sheets/min A6 35 sheets/min	A4 40 sheets/min Letter 42 sheets/min Legal 34 sheets/min B5 40 sheets/min A5 40 sheets/min A6 40 sheets/min
	Color	A4 30 sheets/min Letter 32 sheets/min Legal 26 sheets/min B5 27 sheets/min A5 27 sheets/min A6 27 sheets/min	A4 35 sheets/min Letter 37 sheets/min Legal 30 sheets/min B5 35 sheets/min A5 35 sheets/min A6 35 sheets/min	A4 40 sheets/min Letter 42 sheets/min Legal 34 sheets/min B5 40 sheets/min A5 40 sheets/min A6 40 sheets/min
First Copy Time (A4)	**B/W**	6.4 seconds or less	5.9 seconds or less	5.8 seconds or less
	Color	7.8 seconds or less	7.3 seconds or less	6.9 seconds or less
Zoom Level		Manual mode: 25 to 400%, 1% increments Fixed zoom rate: 400%, 200%, 141%, 122%, 115%, 100%, 86%, 81%, 70%, 50%, 25%		
Continuous Copying		1 to 999 sheets		
Resolution		600 × 600 dpi		
Supported Original Types		Sheet, Book, 3-dimensional objects (maximum original size: Legal/Folio)		
Original Feed System		Fixed		

(3) Printer Functions

Items		Description		
Product name		30 ppm model	35 ppm model	40 ppm model
Printing Speed		Same as Copying Speed.		
First Print Time (A4)	Black and White	7.0 seconds or less	5.5 seconds or less	5.4 seconds or less
	Color	8.0 seconds or less	6.5 seconds or less	6.4 seconds or less
Resolution		600 × 600 dpi, 9600 dpi equivalent × 600 dpi	1200 × 1200 dpi, 9600 dpi equivalent × 600 dpi	
Operating System		Windows XP, Windows Server 2003, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows Server 2008/R2, Windows Server 2012/R2, Mac OS 10.5 or later		
Interface		USB Interface Connector: 1 (Hi-Speed USB) Network interface: 1 (10 BASE-T/100 BASE-TX/1000 BASE-T) Optional Interface (Option): 2 (For IB-50/IB-51 mounting)		
Page Description Language		PRESCRIBE		
Emulations		PCL6 (PCL-XL, PCL5c), KPDL3 (PostScript3 compatible), PDF, XPS, OpenXPS		

(4) Scanner Functions

Items	Description	
Resolution	600 dpi, 400 dpi, 300 dpi, 200×400 dpi, 200 dpi, 200×100 dpi	
File Format	TIFF (MMR/JPEG compression), JPEG, PDF (MMR/JPEG compression), XPS, PDF/A, High compressive PDF, Encrypted PDF, Open XPS	
Scanning Speed[1] (A4, 300 dpi, Image quality: Text/Photo original)	1-sided: B/W 40 images/min 　　　　　Color 30 images/min 2-sided B/W 17 Images/min 　　　　　Color 13 images/min	(When using DP-5110 (Simultaneous Duplex DP)) 1-sided B/W 60 images/min 　　　　　Color 40 images/min 2-sided B/W 120 Images/min 　　　　　Color 80 images/min
Interface	Ethernet (10 BASE-T/100 BASE-TX/1000 BASE-T), USB	
Transmission System	SMB, SMTP, FTP, FTP over SSL, USB, TWAIN[2], WIA[3], WSD	

*1 When using the document processor (Dual Scan DP) (except TWAIN and WIA scanning)

*2 Available Operating System: Windows XP/Windows Vista/Windows Server 2003/Windows Server 2008/Windows Server 2008 R2/Windows 7/Windows 8/Windows 8.1/Windows Server 2012/Windows Server 2012 R2

*3 Supported Operating Systems: Windows XP/Windows Vista/Windows Server 2003/Windows Server 2008/Windows Server 2008 R2/Windows 7/Windows 8/Windows 8.1/Windows Server 2012/Windows Server 2012

(5) Document Processor: 30ppm model standard

Items	Description
Supported Original Types	Sheet originals
Paper Size	Maximum: Legal/Folio
	Minimum: Statement/A6
Paper Weight	1-sided: 50 to 120 g/m² 2-sided: 50 to 120 g/m²
Loading Capacity	75 sheets (50 to 80 g/m²) maximum[1]
Dimensions (W) × (D) × (H)	21.66" × 19.97" × 24.13" 548 × 346.5 × 131 mm
Weight	Approx. 8.8 lbs / Approx. 4kg

*1 Up to upper limit height line in the document processor.

(6) Option

(6-1) Document Processor (DP-5100/5110) 35/40ppm models only

Items	Description	
Document scanning method	Document reversing method (DP-5100)	Simultaneous duplex scan (DP-5110)
Document feed method	Automatic feed	
Supported Original Types	Sheet originals	
Paper Size	Maximum: 8.5" × 14.01" 216 × 356 mm (Long-sized 216 x1900 mm / 8.5" × 74.8")	
	Minimum: 4.13" × 5.82" 105 mm × 148 mm	
Paper Weight	1-sided: 50 to 120 g/m² 2-sided: 50 to 120 g/m²	
Loading Capacity	75 sheets (50 to 80 g/m²) maximum[*1]	
Dimensions (W) × (D) × (H)	21.66" × 19.97" × 24.13" 548 × 346.5 × 131 mm	21.66" × 19.97" × 24.13" 548 × 364.5 × 131 mm
Weight	8.9 lbs. or less 4 kg or less	10.0 lbs. or less 4.5 kg or less

*1 Up to upper limit height line in the document processor.

(6-2) Paper Feeder (PF-5120)

Items	Description
Paper Supply Method	Friction roller feeder (No. of sheets: 550, 64 g/m², 1 cassette) (No. of sheets: 500, 80 g/m², 1 cassette)
Paper Size	A4, A5, B5, A6, Letter, Legal, B6, Folio, 216 × 340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, youkei 4, youkei 2, Custom (105 × 148 to 216 × 356 mm)
Supported Paper	Paper weight: 60 to 220 g/m² Media types: Plain, Recycled, Material
Dimensions (W) × (D) × (H)	21.66" × 19.97" × 6.19" 550 × 507 × 157 mm
Weight	Approx. 21.0 lbs Approx. 9.5 kg

(6-3) Paper Feeder (PF-5130)

Items	Description
Paper Supply Method	Friction roller feeder (No. Sheets: 550, 64 g/m², 2 cassette/ No. Sheets: 500, 80 g/m², 2 cassette)
Paper Size	A4, A5, B5, A6, Letter, Legal, B6, Folio, 216 × 340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, youkei 4, youkei 2, Custom (105 × 148 to 216 × 356 mm)
Supported Paper	Paper weight: 60 to 220 g/m² Media types: Plain, Recycled, Material
Dimensions (W) × (D) × (H)	21.66" × 19.97" × 13.51" 550 × 507 × 343 mm
Weight	Approx. 39.7 lbs Approx. 18 kg

(6-4) Paper Feeder (PF-5140)

Items	Description
Paper Supply Method	Friction roller feeder (No. Sheets: 2,200, 64 g/m²/No. Sheets: 2,000, 80 g/m²)
Paper Size	A4, Letter
Supported Paper	Paper weight: 60 to 220 g/m² Media types: Plain, Recycled, Material
Dimensions (W) × (D) × (H)	21.66" × 19.97" × 13.51" / 550 × 507 × 343 mm
Weight	Approx. 44.1 lbs Approx. 20 kg

(6-5) Inner finisher (DF-5100)

Items		Description	
Number of Trays		1 tray	
Paper Size(80 g/m²) **Finisher tray** **(no stapling)**		Legal, Folio, 216 x 340 mm, Custom (70 x 298 to 210 x 1020 mm): 250 sheets equivalent or 42 mm height (Thick: 20 sheets (129 to 220 g/m²)) A4, A5, B5, A6, Letter, Legal, B6, Folio, 216×340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Hagaki (Cardstock), Oufukuhagaki (Return postcard), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, youkei 4, youkei 2, Custom (70 x 148 to 210 x 297 mm): 300 sheets equivalent or 42 mm height (Thick: 20 sheets (129 to 220 g/m²))	
Stapling	**Number of sheets to limit**	Legal, Oficio II, 216 x340 mm	30 sheets (60 to 90 g/m²) 20 sheets (91 to 105 g/m²) 2 cover sheet only (106 g/m² to 128 g/m²)
		A4, B5, Letter, 16K	50 sheets (60 to 90 g/m²) 40 sheets (91 to 105 g/m²) 2 cover sheet only (106 to 128 g/m²)
	Media types	Plain, Recycled, Prepunched, Preprinted, Bond, Letterhead, Color,Coated, Thick, High Quality, Custom 1 to 8	
Dimensions **(W) × (D) × (H)** **(with the tray pulled out)**		25.08" × 15.60" × 6.23" 637 × 396 × 158 mm	
Weight		Approx. 26.5 lbs or less Approx. 12 kg or less	

(6-6) 1000-sheet Finisher (DF-5110): 35/40ppm models only

Items		Description	
Number of Trays		1 tray	
Paper Size(80 g/m²) Finisher tray (no stapling)		Legal, Oficio II, Folio, 216 × 340 mm, Custom (cassette: 92 × 148 mm to 216 × 356 mm/Multi Purpose tray: 70 × 148 mm to 216 × 356 mm): 500 sheets equivalent or 91 mm height A4, B5, A5, Letter, Statement, Executive, 16K: 1,000 sheets equivalent or 162 mm height	
Stapling	**Number of sheets to limit**	Legal, Oficio II, 216 × 340mm	30 sheets (52 to 90 g/m²) 20 sheets (91 to 105 g/m²) 2 cover sheet only (106 g/m² to 128 g/m²)
		A4, B5, Letter, 16K	50 sheets (52 to 90 g/m²) 40 sheets (91 to 105 g/m²) 2 cover sheet only (106 g/m² to 128 g/m²)
	Media types	Plain, Recycled, Prepunched, Preprinted, Bond, Letterhead, Color, Coated, Thick, High Quality, Rough, Custom 1 to 8	
Dimensions (W) × (D) × (H) (with the tray pulled out)		23.27" × 20.36" × 39.58" 591 × 517 × 1,005.3 mm	
Weight		Approx. 50.8 lbs. or less Approx. 23 kg or less	

(6-7) 3000-sheet Finisher (DF-5120): 35/40ppm models only

Items				Description	
Number of Trays				2 trays	
Paper Size (80 g/m²)	**Tray A (Non-Stapling)**			Legal, Oficio II, Folio, 216 × 340 mm, Custom (cassette: 92 × 148 mm to 216 × 356 mm/Multi Purpose tray: 70 × 148 mm to 216 × 356 mm): 1500 sheets equivalent or 227 mm height A4, B5, A5, Letter, Statement, Executive, 16K: 3,000 sheets equivalent or 412mm height	
	Tray B			Legal, Oficio II, Folio, 216 × 340 mm, Custom (cassette: 92 × 148 mm to 216 × 356 mm/Multi Purpose tray: 70 × 148mm to 216×356mm): 100 sheets equivalent or 14 mm height A4, B5, A5, B6, A6, B5(ISO), Cardstock, Oufuku hagaki (Return postcard), Letter, Statement, Executive, 16K: 200 sheets equivalent or 28 mm height	
Stapling	**Number of sheets to limit**			Legal, Oficio II, 216 × 340mm	30 sheets (52 to 90 g/m²) 20 sheets (91 to 105 g/m²) 2 cover sheet only (106 g/m² to 128 g/m²)
				A4, B5, Letter, 16K	50 sheets (52 to 90 g/m²) 40 sheets (91 to 105 g/m²) 2 cover sheet only (106 g/m² to 128 g/m²)
	Media types			Plain, Recycled, Prepunched, Preprinted, Bond, Letterhead, Color, Coated, Thick, High Quality, Custom 1 to 8	
Hole Punch Unit	**Paper Size**	**Inch**	**2 Hole**	A4, B5, A5, Folio, 16K, Letter, Legal, Statement	
			3 Hole	A4, 16K, Letter	
		cm	**2 Hole**	A4, B5, A5, Folio, 16K, Letter, Legal, Statement	
			4 Hole	A4	
	Paper Weight			60 to 220 g/m²	
	Media types			Plain, Preprinted, Bond, Recycled, Letterhead, Color, Thick, Coated, High Quality, Custom 1 to 8	
Dimensions (W) × (D) × (H)				25.6" × 20.95" × 42.36" 650 × 532 × 1,075.8 mm	
Weight				Approx.21.0 lbs or less Approx.31 kg or less	

(6-8) Punch Unit (PH-5100/5110): For DF-5110

Items			Description
Paper Size	**Inch**	**2 Hole**	A4, B5, A5, Folio, 16K, Letter, Legal, Statement
		3 Hole	A4, 16K, Letter
	cm	**2 Hole**	A4, B5, A5, Folio, 16K, Letter, Legal, Statement
		4 Hole	A4
Paper Weight			60 to 220 g/m²
Media types			Plain, Preprinted, Bond, Recycled, Letterhead, Color, Thick, Coated, High Quality, Custom 1 to 8

(6-9) Mailbox (MT-5100)

Items	Description
Number of Trays	6 trays
Paper Size(80 g/m²)	Tray 1 (to 5) 216 x 340mm, OficioII, Foolscap (8.5 x 13.5"), Legal, Folio: 50 sheets A4, B5, A5, Letter, Executive, 16K, Statement: 100 sheets Tray A 216 x 340 mm, OficioII, Foolscap (8.5 x 13.5"), Legal, Folio, Custom (70 x 298 to 210 x 1220 mm): 250 sheets A4, B5, A5, B6, A6, Letter, Executive, 16K, Statement, B5 (ISO), Hagaki (Cardstock), Oufukuhagaki (Return postcard), Custom (70 x 148 to 210 x 297 mm): 500 sheets
Dimensions (W) × (D) × (H)	16.3" × 14.18" × 29.93" 414 × 360 × 760 mm
Weight	Approx. 17.7 lbs / Approx. 8 kg

(6-10) Inner job separator (JS-5100)

Items	Description
Number of Trays	1 tray
Loadable sheets limit (80g/m²)	100 Sheets
Paper Size(80 g/m²)	A4, A5, B5, A6, Letter, Legal, B6, Folio, 216 x 340 mm, Statement, Executive, Oficio II, 16K, B5 (ISO), Envelope #10, Envelope #9, Envelope #6 3/4, Envelope Monarch, Envelope DL, Envelope C5, youkei 4, youkei 2, Hagaki (Cardstock), Oufukuhagaki (Return postcard), Custom (70 x 148 to 210 x 1220 mm)
Supported Paper	Paper weight: 60 to 220 g/m² Media types: Plain, Recycled, Material
Dimensions (W) × (D) × (H)	14.18" × 12.56" × 6.07" 360 × 319 × 154 mm
Weight	Approx. 0.9 lbs / Approx. 0.4 kg

(6-11) FAX System10: 35/40ppm models only

FAX function

Items	Description
Compatibility	G3
Communication Line	Subscriber telephone line
Transmission Time	Less than 3 seconds (33600 bps, JBIG, ITU-T A4-R #1 chart)
Transmission Speed	33600/31200/28800/26400/24000/21600/19200/16800/14400/12000/ 9600/7200/4800/2400 bps
Coding Scheme	JBIG/MMR/MR/MH
Error Correction	ECM
Paper Size	Max. width: 8 1/2"/216 mm, Max. length: 63"/1,600 mm
Number of originals to auto feed	Max. 75 sheets (with document processor)
Resolution	Scan: 200 × 100 dpi Normal (8 dot/mm × 3.85 line/mm) 200 × 200 dpi Fine (8 dot/mm × 7.7 line/mm) 200 × 400 dpi Super (Super Fine) (8 dot/mm × 15.4 line/mm) 400 × 400 dpi Ultra (Ultra Fine) (16 dot/mm × 15.4 line/mm) 600 × 600 dpi Print: 600 × 600 dpi
Gradations	256 shades (Error diffusion)
One Touch Key	1,000 keys
Multi-Station Transmission	Max. 500 destinations (Maximum number of stations: 500, maximum of 100 stations for i-Fax)
Substitute Memory Reception	700 sheets or more (when using ITU-T A4 #1)
Image Memory Capacity	16 MB (standard)(For fax transmission and reception)
Report Output	Send result report, FAX RX result report, Activity report, Status page
Option	Expansion memory, multi port, internet FAX kit

Network FAX functions

Items	Description
Hardware	IBM PC-AT compatible computer
Interface	10 BASE-T, 100 BASE-TX, 1000 BASE-T
Operating system	Windows XP, Windows Server 2003/2008/2008 R2/2012, Windows Vista, Windows 7, Windows 8 and Windows 8.1
Transmission Resolution	Ultra fine (400 × 400dpi), Fine (200 × 200dpi), Normal (100 × 200dpi), 600 × 600dpi
Dcument Size	Letter, Legal, Statement, A4, A5, Folio, B5(JIS)
Scheduled job	Time setting by Network FAX driver (within 24 hours, 1 minute increments)
Transmit and Print	Fax transmission and print out at the machine is available
Broadcast Transmission	Max. 500 destinations (Maximum number of stations: 500, maximum of100 stations for i-Fax)

Items	Description
Job Accounting	Requires the input of a Login User Name and Password in the Network FAX Driver when User Login, is turn ON in the fax machine. Requires the input of an Account ID in the Network FAX Driver when Job Accounting, is turned ON in the fax machine.
Cover Page	A format can be selected using the Network FAX Driver or a template can be created.

(6-12) FAX System11: 30ppm model only

FAX function

Items	Description
Compatibility	G3
Communication Line	Subscriber telephone line
Transmission Time	Less than 3 seconds (33600 bps, JBIG, ITU-T A4-R #1 chart)
Transmission Speed	33600/31200/28800/26400/24000/21600/19200/16800/14400/12000/9600/7200/4800/2400 bps
Coding Scheme	JBIG/MMR/MR/MH
Error Correction	ECM
Paper Size	Max. width: 8 1/2"/216 mm, Max. length: 14 1/32"/356 mm
Number of originals to auto feed	Max. 75 sheets (with document processor)
Resolution	Scan: 200 × 100 dpi Normal (8 dot/mm × 3.85 line/mm) 200 × 200 dpi Fine (8 dot/mm × 7.7 line/mm) 200 × 400 dpi Super (Super Fine) (8 dot/mm × 15.4 line/mm) 400 × 400 dpi Ultra (Ultra Fine) (16 dot/mm × 15.4 line/mm) Print: 600 × 600 dpi
Gradations	256 shades (Error diffusion)
One Touch Key	100 keys
Multi-Station Transmission	Max. 100 destinations
Substitute Memory Reception	256 sheets or more (when using ITU-T A4 #1)
Image Memory Capacity	3.5 MB (standard)(For fax transmission and reception)
Report Output	Send result report, FAX RX result report, Activity report, Status page
Option	Handset (100 V model only)

Network FAX functions

Items	Description
Hardware	IBM PC-AT compatible computer
Interface	10 BASE-T/100 BASE-TX/1000 BASE-T
Operating system	Windows XP, Windows Server 2003/2008/2008 R2/2012, Windows Vista, Windows 7, Windows 8 and Windows 8.1
Transmission Resolution	Ultra fine (400 × 400dpi), Fine (200 × 200dpi), Normal (100 × 200dpi)
Document Size	Letter, Legal, Statement, A4, A5, Folio, B5(JIS)
Scheduled job	Time setting by Network FAX driver (within 24 hours, 1 minute increments)
Transmit and Print	Fax transmission and print out at the machine is available
Broadcast Transmission	Max. 100 destinations

Items	Description
Job Accounting	Requires the input of a Login User Name and Password in the Network FAX Driver when User Login, is turn ON in the fax machine. Requires the input of an Account ID in the Network FAX Driver when Job Accounting, is turned ON in the fax machine.
Cover Page	A format can be selected using the Network FAX Driver or a template can be created.

1-2 Part Names

(1) 30 ppm model

(1-1) Machine Exterior
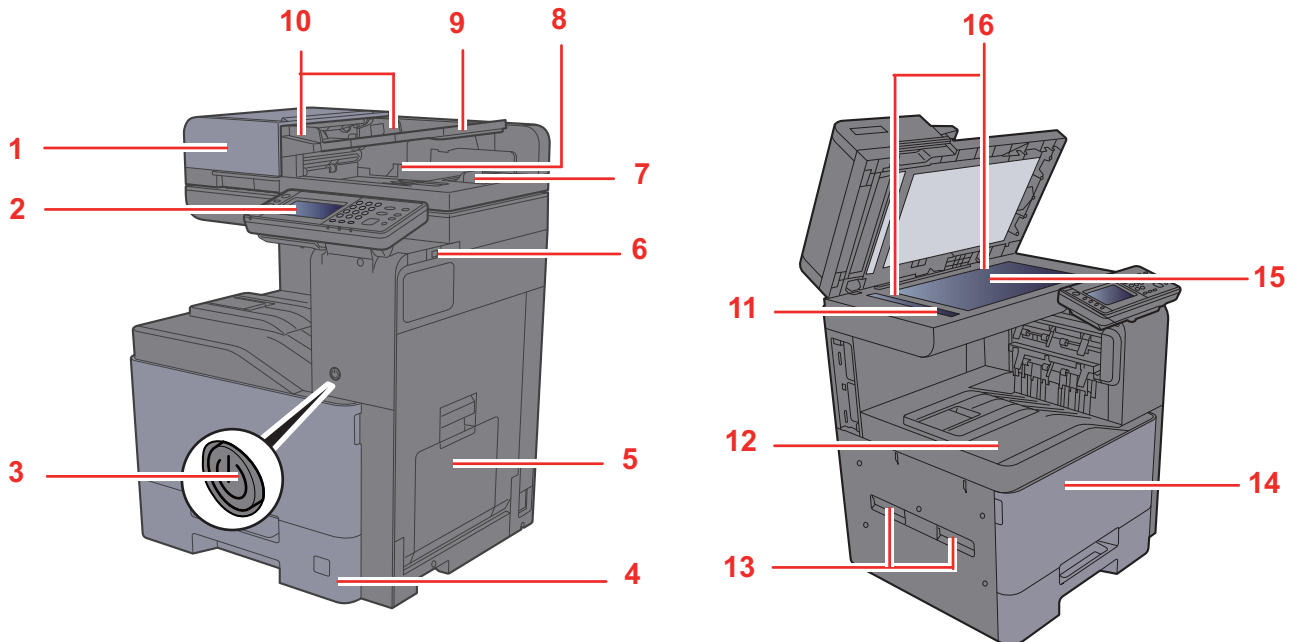
1. Document Processor	10. Original Width Guides
2. Operation Panel	11. Slit Glass
3. Power Switch	12. Inner Tray
4. Cassette 1	13. Handles
5. Multi Purpose Tray	14. Front Cover
6. USB Memory Slot	15. Platen
7. Original Stopper	16. Original Size Indicator Plates
8. Original Eject Table	
9. Original Table	
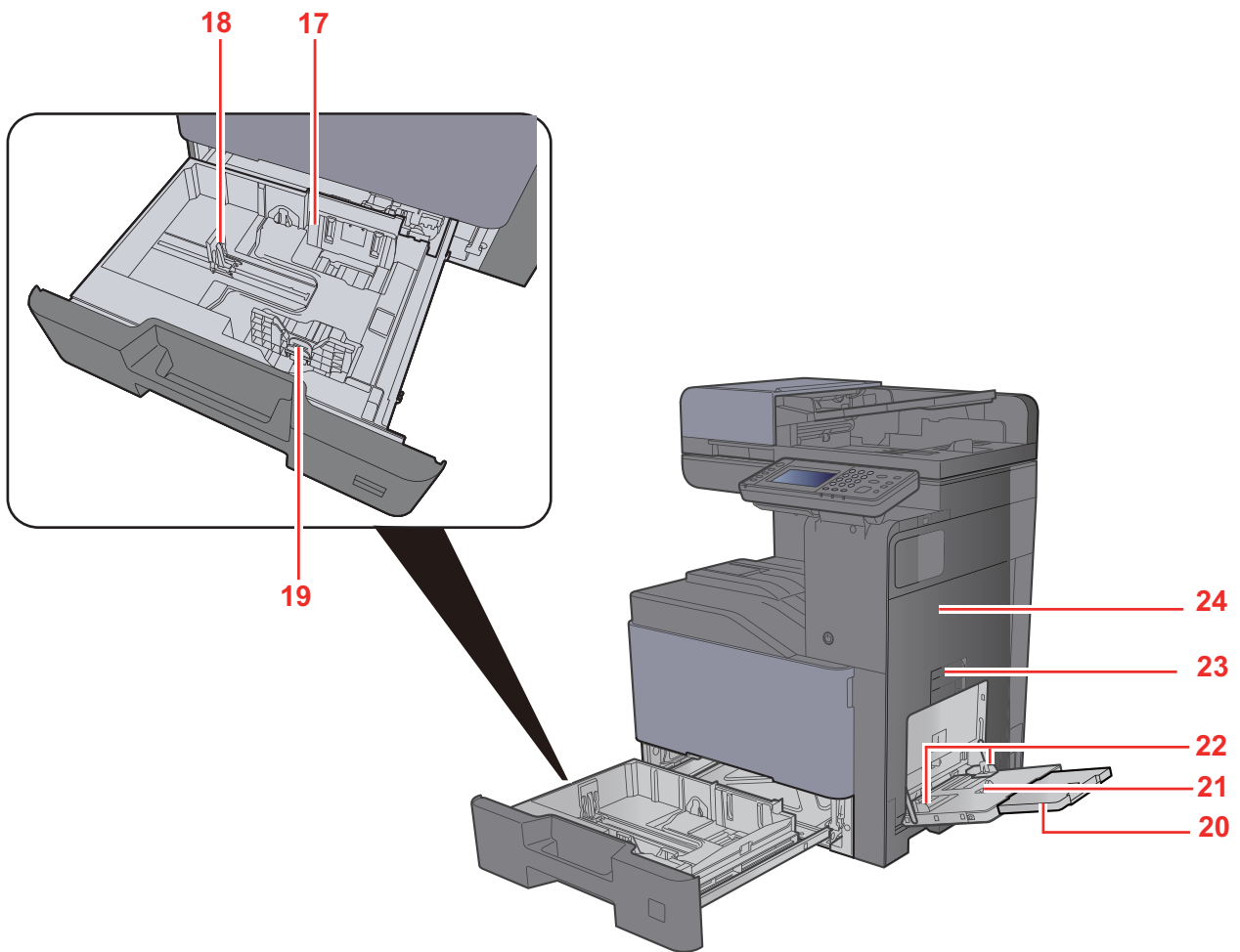
17. Paper Width Guides
18. Paper Length Guide
19. Paper Width Adjusting Tab
20. Support Tray Section of the Multi Purpose Tray

21. Multi Purpose Tray
22. Paper Width Guides
23. Right Cover 1 Lever
24. Right Cover 1

(1-2) Connectors/Interior
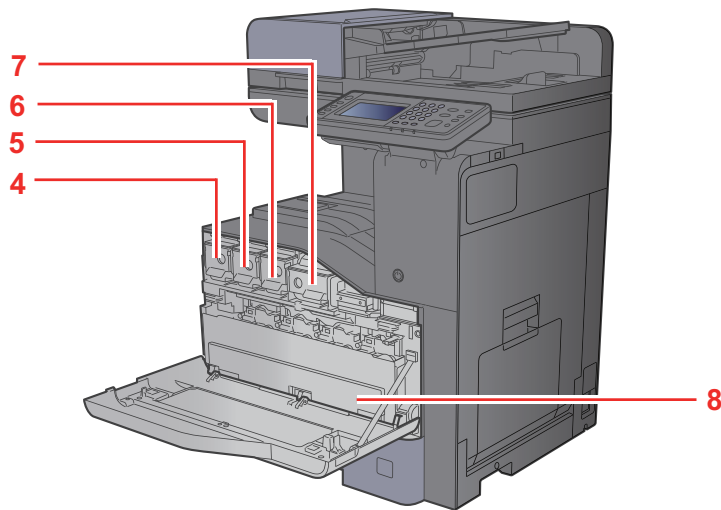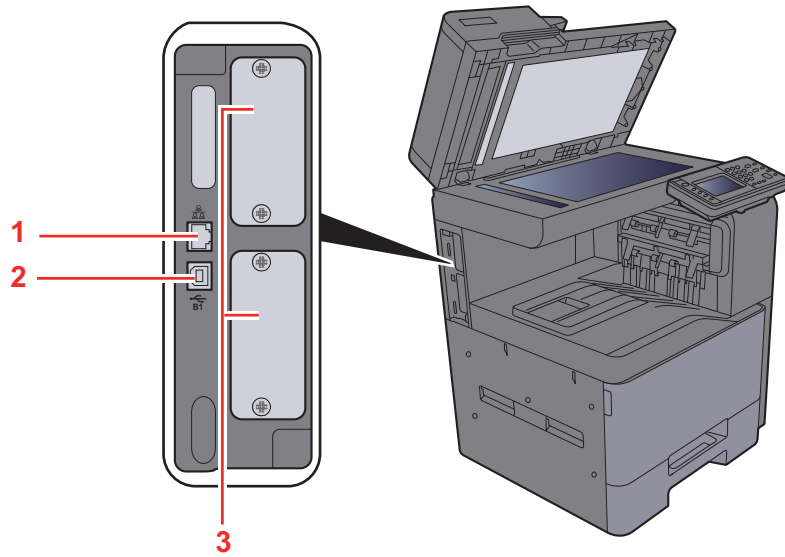
1. Network Interface Connector
2. USB Interface Connector
3. Option Interface Slot
4. Toner Container (Yellow)
5. Toner Container (Cyan)
6. Toner Container (Magenta)
7. Toner Container (Black)
8. Waste Toner Box

(1-3) With Optional Equipments Attached
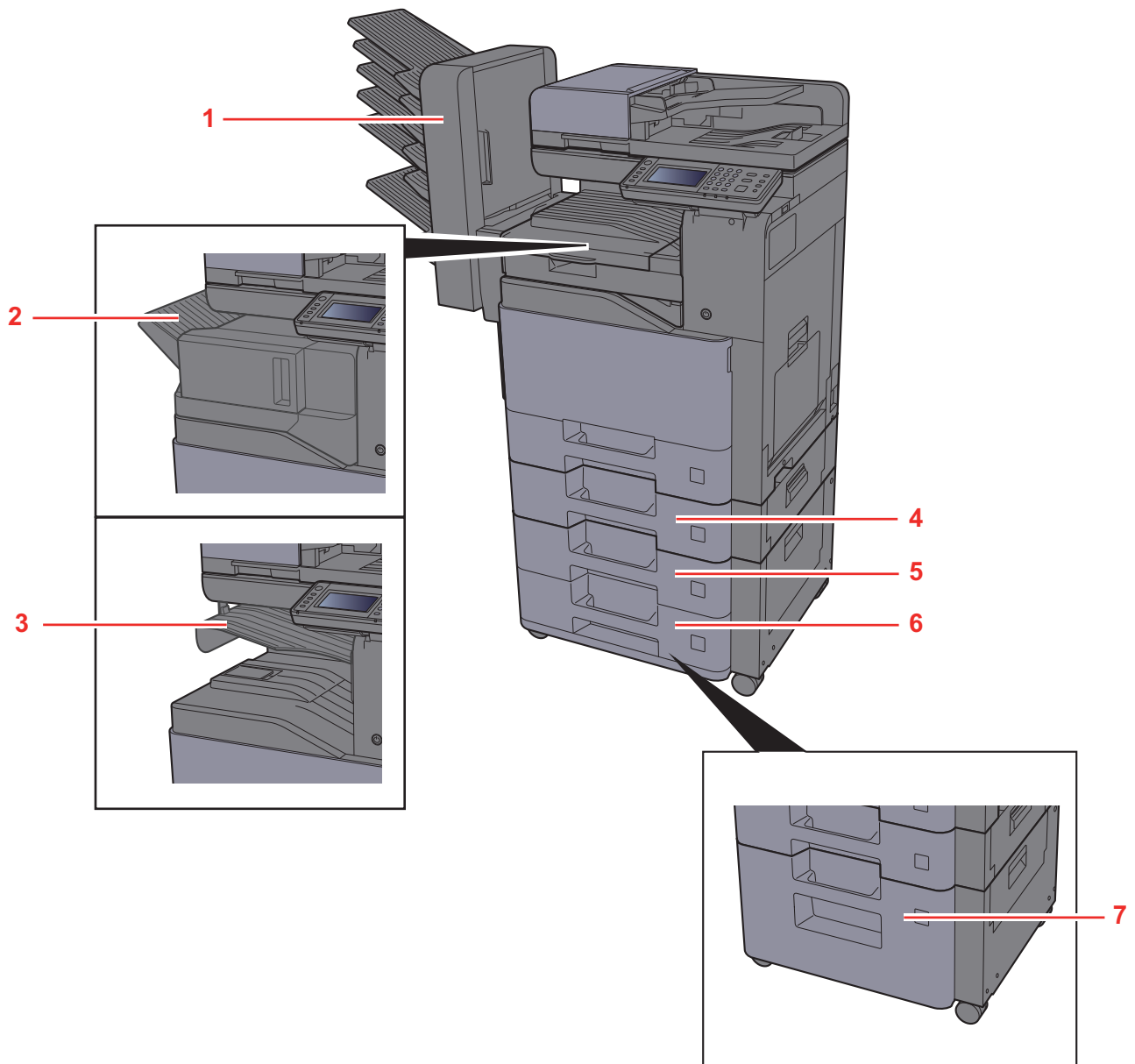
1. Mailbox (MT-5100)
2. Inner finisher (DF-5100)
3. Inner job separator (JS-5100)
4. Cassette3 (PF-5120)

5. Cassette3 (PF-5130)
6. Cassette4 (PF-5130)
7. High capacity paper feeder (PF-5140)

(1-4) FAX System 11
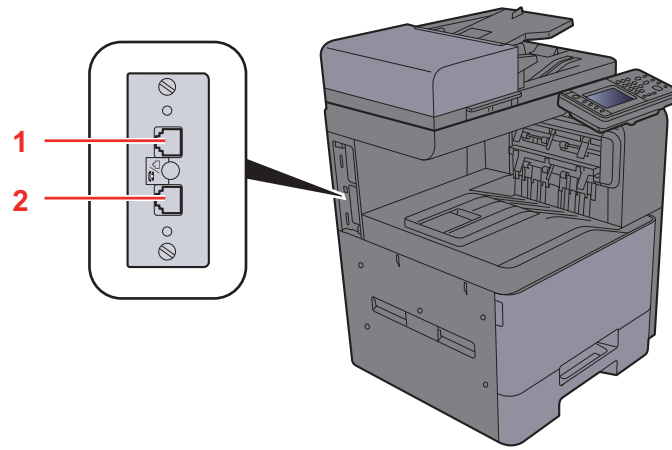
1. LINE Connector
   Connect the modular cords for telephone line.

2. TEL Connector
   When using an available telephone, connect it here.

(1-5) Operation Panel Keys

Home	Displays the Home screen.	Status/ Job Cancel	Displays the Status/Job Cancel screen.	Send	Displays the screen for sending. You can change it to display the Address Book screen.
		Copy	Displays the Copy screen.	FAX	Displays the FAX screen.

Lights when there is paper in the job separator tray.

Touch panel. Displays buttons for configuring machine settings.

Blinks while printing or sending/receiving.

Blinks while the machine is accessing the machine memory, fax memory or USB memory (general purpose item).

Lights or blinks when an error occurs and a job is stopped.

System Menu / Counter	Displays the System Menu/ Counter screen.	Authentication/ Logout	Authenticates user switching, and exits the operation for the current user (i.e. log out).	Energy Saver	Puts the machine into Sleep Mode. Recovers from Sleep if in Sleep Mode.
	Numeric keys. Enter numbers and symbols.	Clear	Clears entered numbers and characters.	Reset	Returns settings to their default states.
		Quick No. Search	Specifies registered information such as address numbers and user IDs by number.	Stop	Cancels or pauses the job in progress.
Interrupt	Displays the Interrupt Copy screen.	Enter	Finalizes numeric key entry, and finalizes details during setting of functions. Operates linked with the on-screen [OK].	Start	Starts copying and scanning operations and processing for setting operations.

(2) 35/40 ppm models

(2-1) Machine Exterior
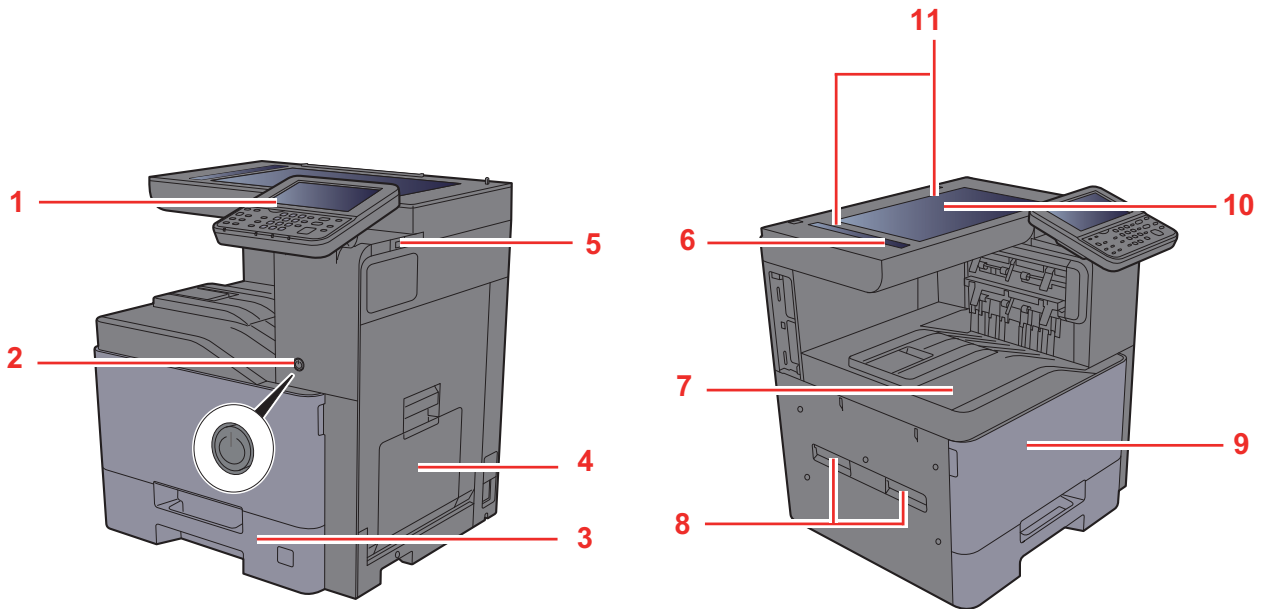
1. Operation Panel
2. Power Switch
3. Cassette 1
4. Multi Purpose Tray
5. USB Memory Slot
6. Slit Glass
7. Inner Tray

8. Handles
9. Front Cover
10. Platen
11. Original Size Indicator Plates
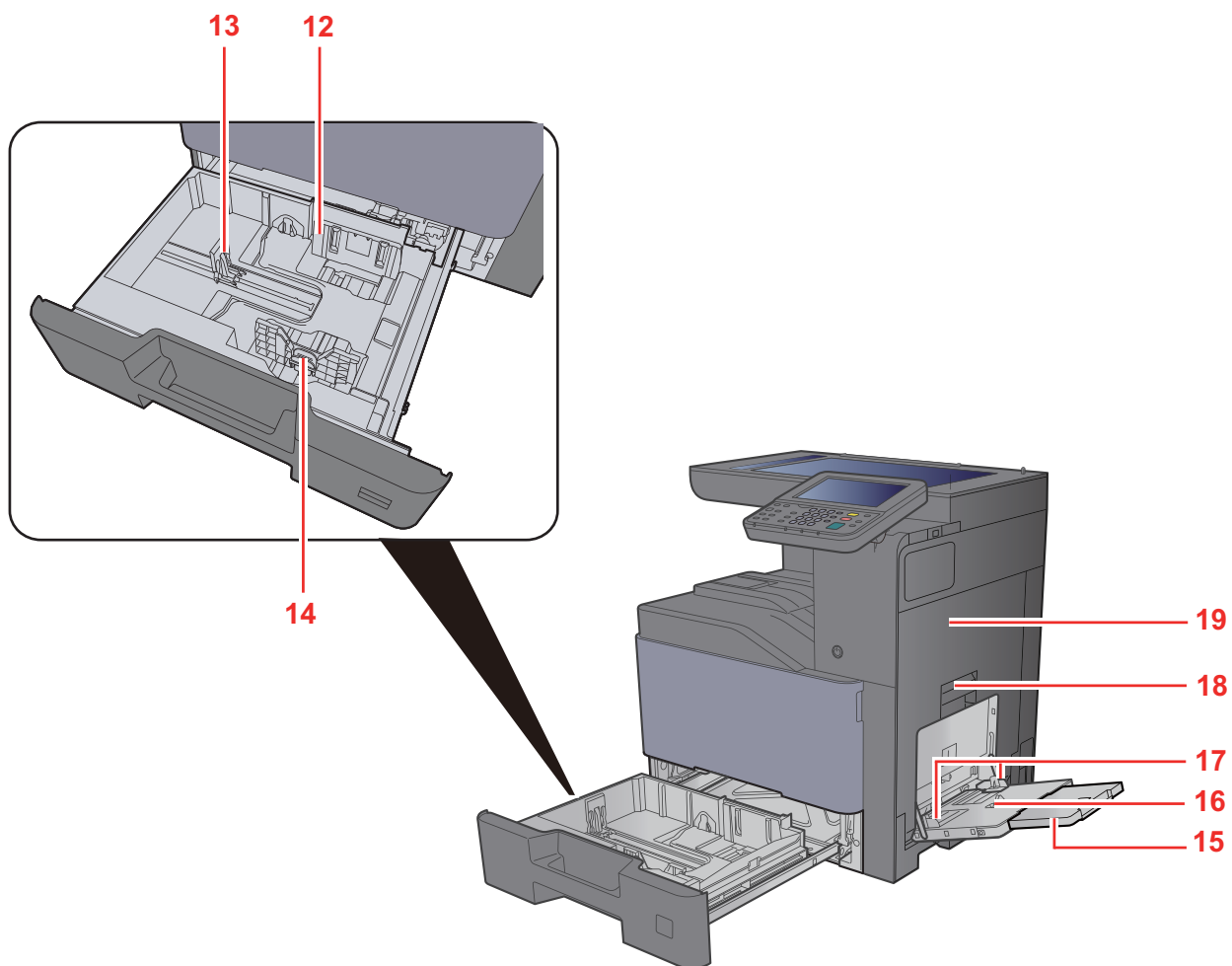
12. Paper Width Guides

13. Paper Length Guide

14. Paper Width Adjusting Tab

15. Support Tray Section of the Multi Purpose Tray

16. Multi Purpose Tray

17. Paper Width Guides

18. Right Cover 1 Lever

19. Right Cover 1

(2-2) Connectors/Interior
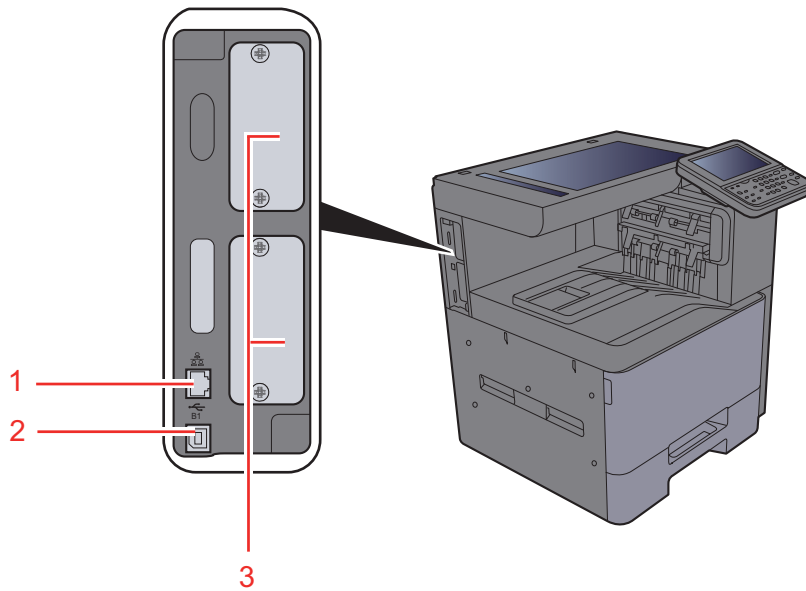
(35 ppm model)
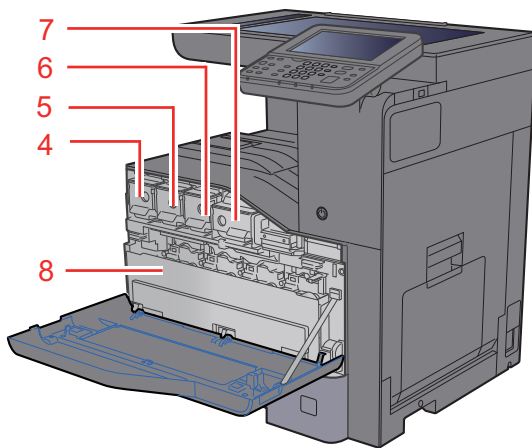
(40 ppm model)
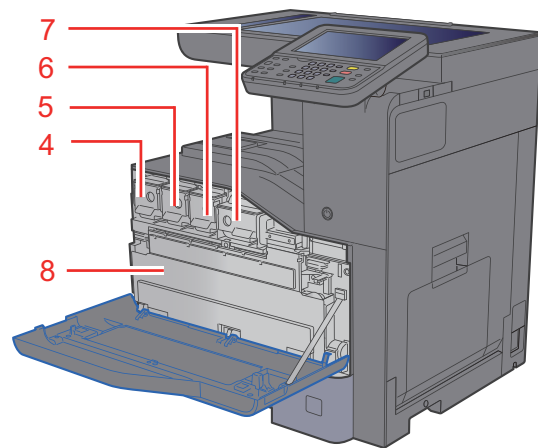
1. Network Interface Connector
2. USB Interface Connector *1
3. Option Interface Slot
4. Toner Container (Yellow)

5. Toner Container (Cyan)
6. Toner Container (Magenta)
7. Toner Container (Black)
8. Waste Toner Box

*1: 220-240 V model: Option

(2-3) With Optional Equipments Attached
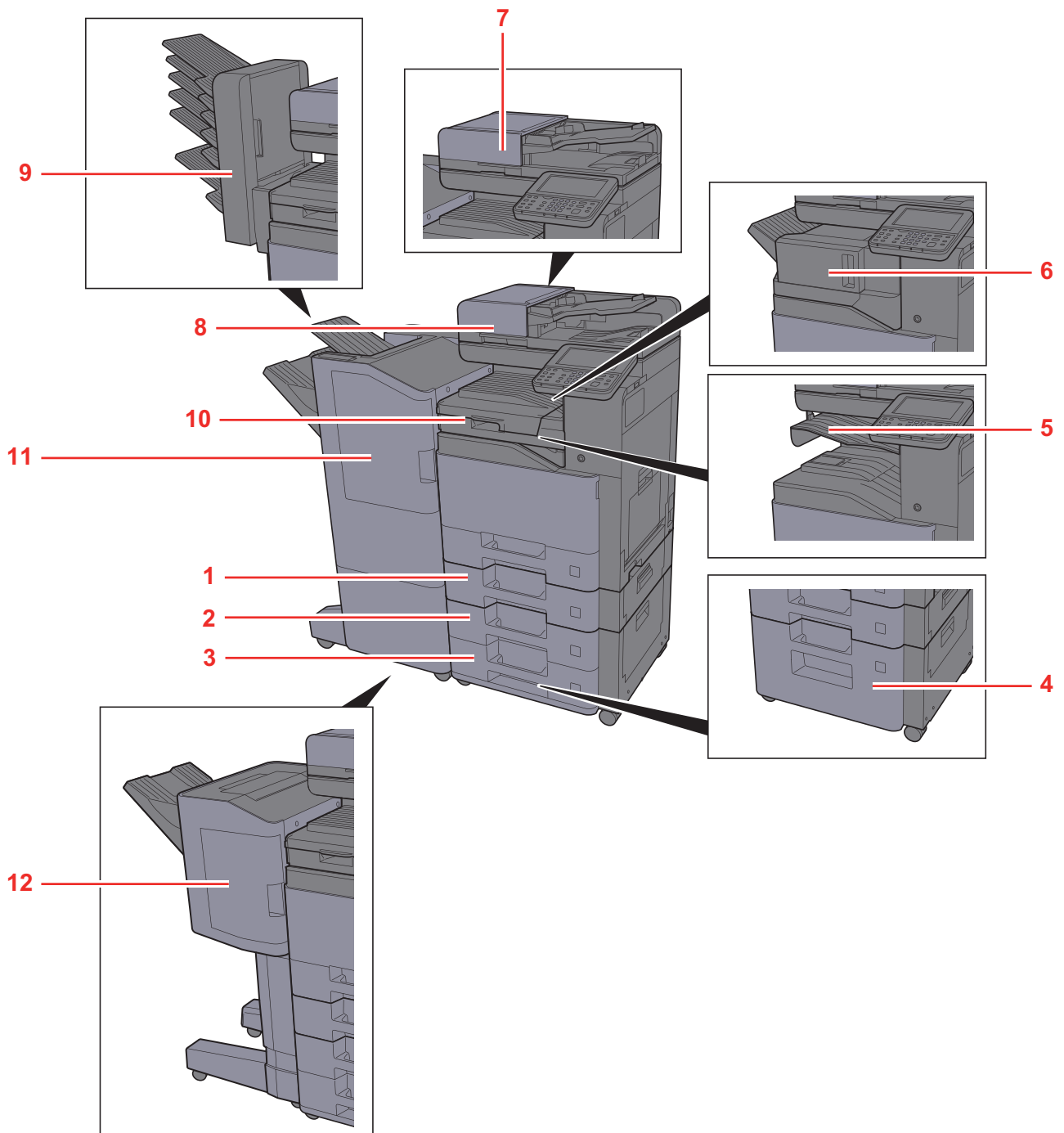
1. Cassette2 (PF-5120)
2. Cassette3 (PF-5130)
3. Cassette4 (PF-5130)
4. Cassette3 (PF-5140)
5. Inner job separator (JS-5100)
6. Inner finisher (DF-5100)
7. Document Processor (DP-5100)
8. Document Processor (DP-5110)
9. Mailbox (MT-5100)
10. Bridge Unit (AK-5100)
11. Finisher (DF-5120)
12. Finisher (DF-5110)

(2-4) FAX System 10
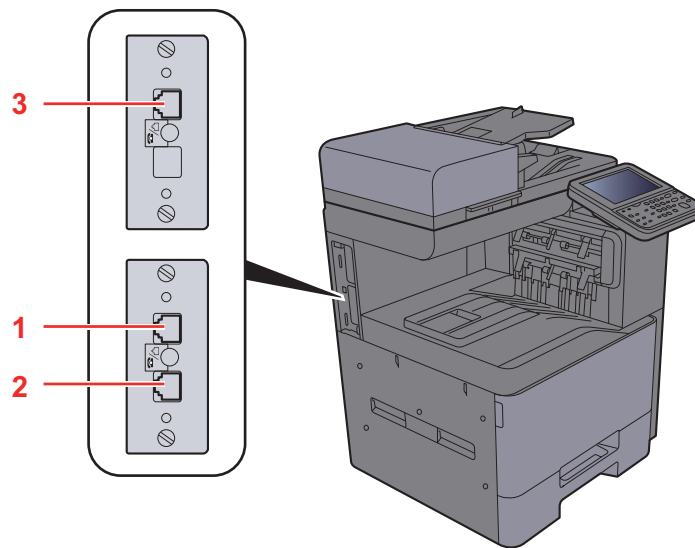
1. LINE Connector (L1)
   Connect the modular cords for telephone line. This connector is port 1.

2. TEL Connector (T1)
   When using an optional handset or available telephone, connect it here.

3. LINE Connector (L2)
   If installing 2 FAX kits, 2 ports are available. Connect the modular cords for telephone line.

(2-5) Operation Panel Keys

Home	Displays the Home screen.			**Energy Saver**	Puts the machine into Sleep Mode. Recovers from Sleep if in Sleep Mode.
System Menu	Displays the System Menu screen.	**Counter**	Displays the Counter screen.	**Authentication/ Logout**	Authenticates user switching, and exits the operation for the current user (i.e. log out).
Status/ Job Cancel	Displays the Status/Job Cancel screen.	**Copy**	Displays the Copy screen.	**Interrupt**	Displays the Interrupt Copy screen.
Help	Displays the help guidance.	**Send**	Displays the screen for sending. You can change it to display the Address Book screen.		
Accessibility Display	Switches the touch panel display on the Copy screen and the Send screen to a magnified view.	**FAX**	Displays the FAX screen.		

Auto Color / Full Color / Black & White — Select the color mode.

Auto Color: Automatically recognizes whether a document is color or black & white and then scans the document.

Full Color: Scans all documents in full color.

Black & White: Scans all documents in black & white.

Touch panel. Displays buttons for configuring machine settings.
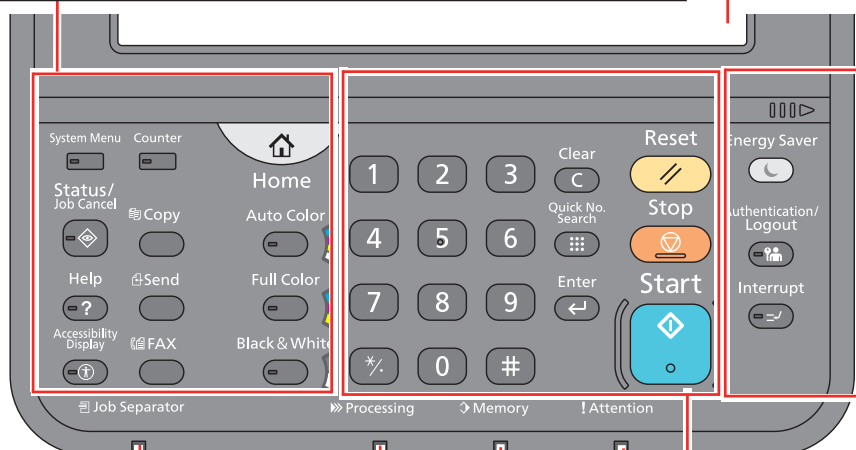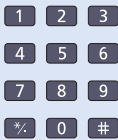
Lights when there is paper in the job separator tray.

Blinks while printing or sending/receiving.

Blinks while the machine is accessing the hard disk, fax memory or USB memory (general purpose item).

Lights or blinks when an error occurs and a job is stopped.

Numeric keys.	Numeric keys. Enter numbers and symbols.	**Clear**	Clears entered numbers and characters.	**Reset**	Returns settings to their default states.
		Quick No. Search	Specifies registered information such as address numbers, user IDs and program numbers by number.	**Stop**	Cancels or pauses the job in progress.
		Enter	Finalizes numeric key entry, and finalizes details during setting of functions. Operates linked with the on-screen [OK].	**Start**	Starts copying and scanning operations and processing for setting operations.

1-3 Optional Equipment

(1) 30 ppm model

The following options are available for this machine.

(2)DF-5100

(1)JS-5100

(3)MT-5100

(6)PF-5120

(4)PF-5130

(5)PF-5140

(7)Fax System 11

(11)Card Authentication Kit(B)

(8)IB-50

(9)IB-51

(10)HD-6/HD-7

(12)DT-5100
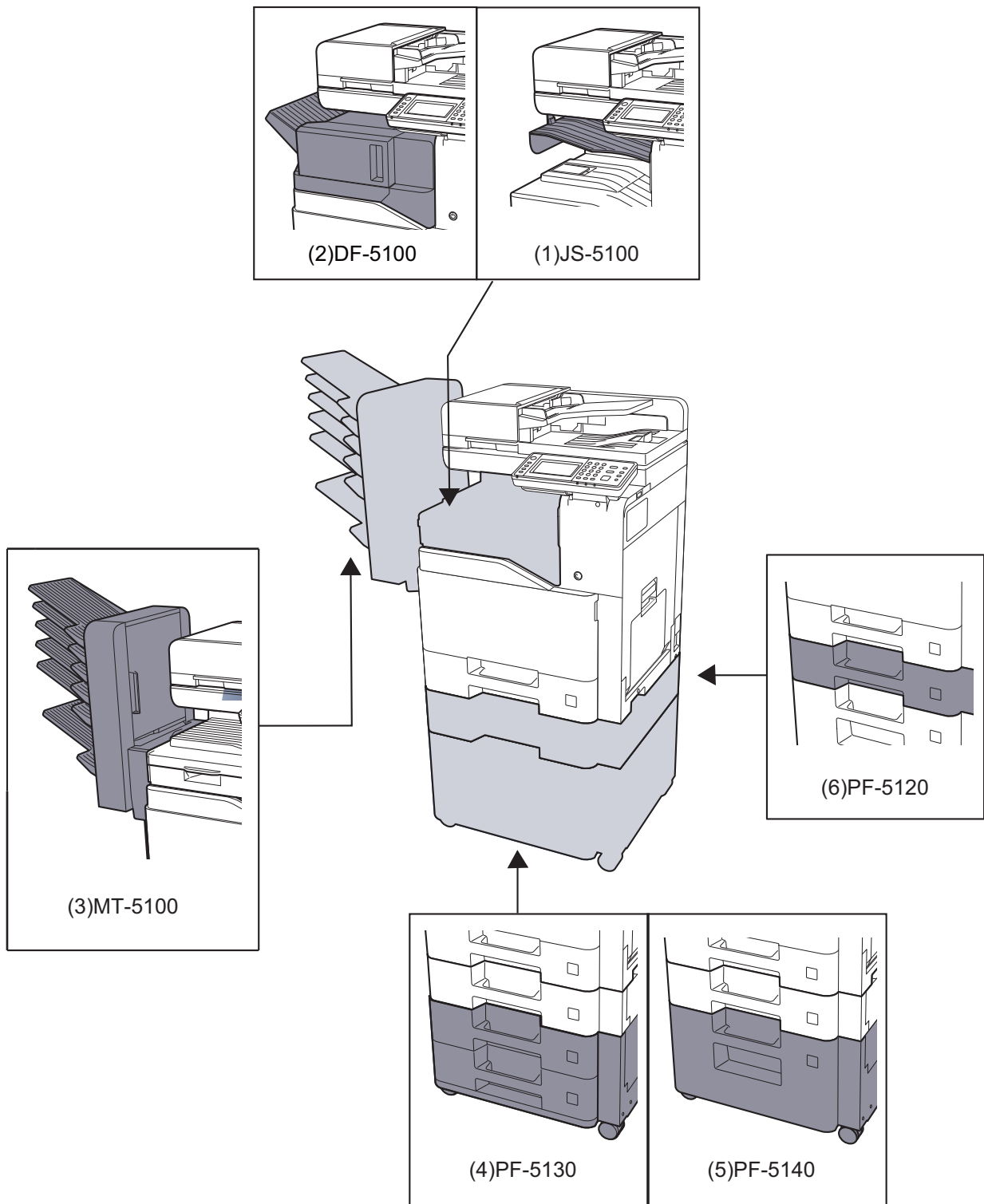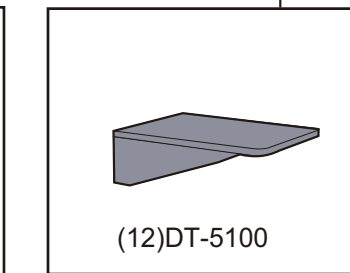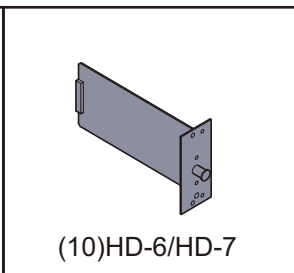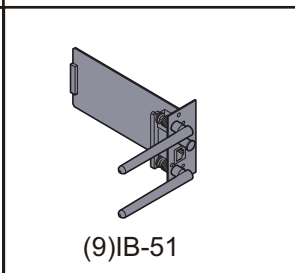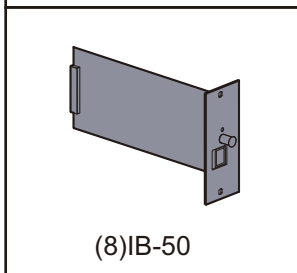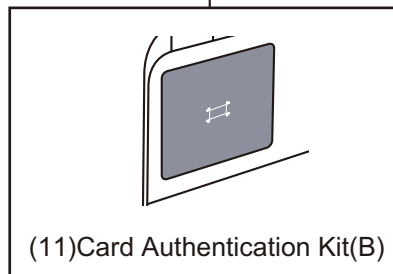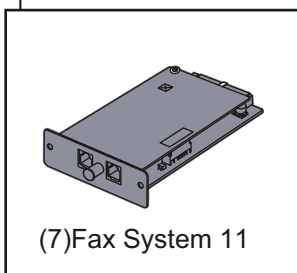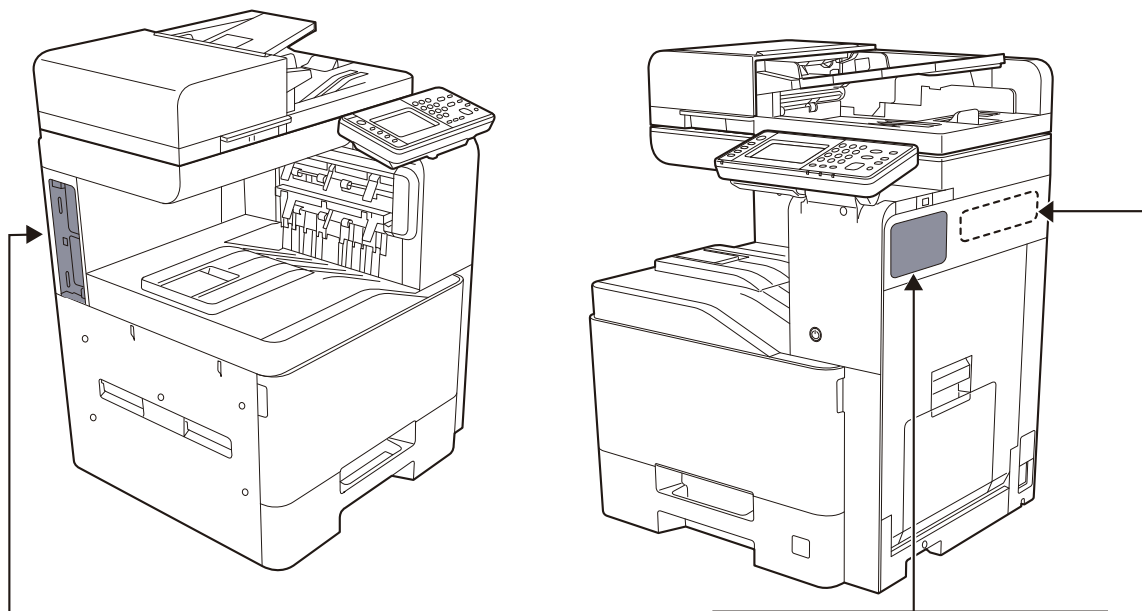
Software option

(13)UG-33

(14)Data Security Kit (E)

(2) 35/40 ppm models

The following options are available for this machine.

(2)MT-5100

(1)DP-5100

(1)DP-5110

(10)PH-5100 *1
PH-5110 *2

(3)DF-5110

(9)DF-5100

(8)JS-5100

(4)DF-5120

(5)PF-5130

(6)PF-5140

(7)PF-5120

*1: Inch,*2: Metric

(11)Fax System 10

(14)MM-16-128

(12)IB-50

(15)HD-11

(13)IB-51

(19)Card Authentication Kit(B)

(16)DT-5100

(17)Key Counter

(18)MK-2
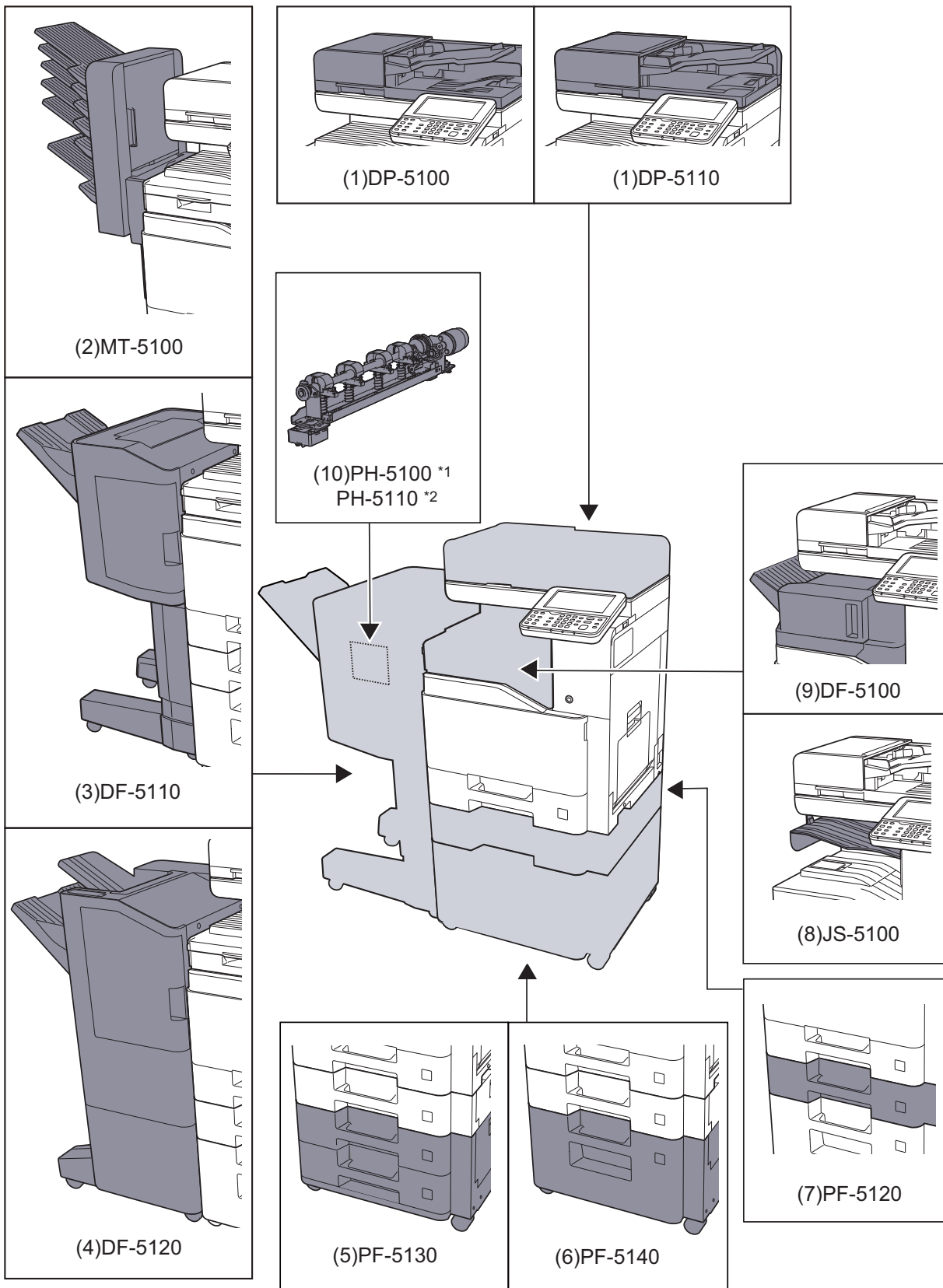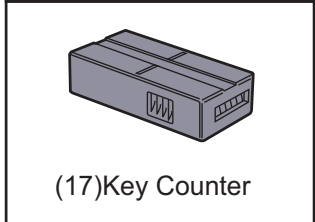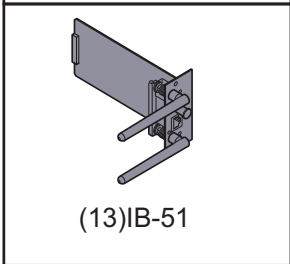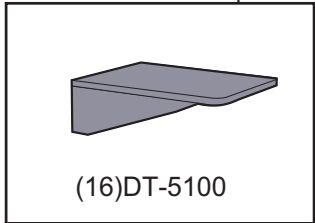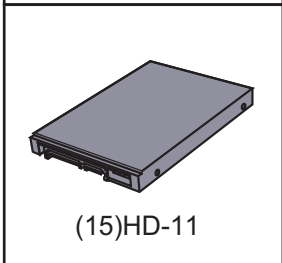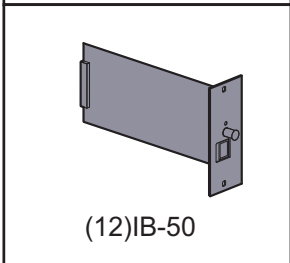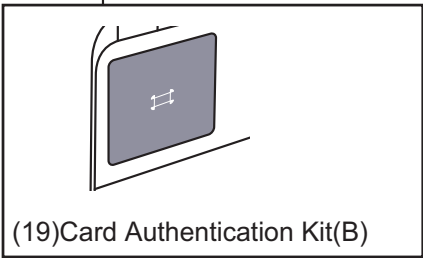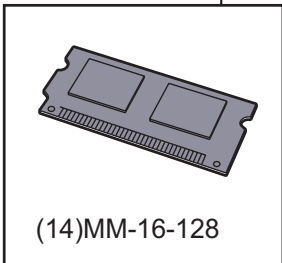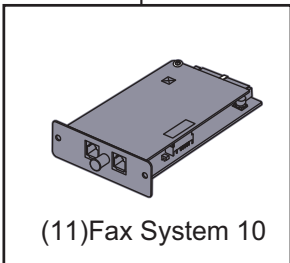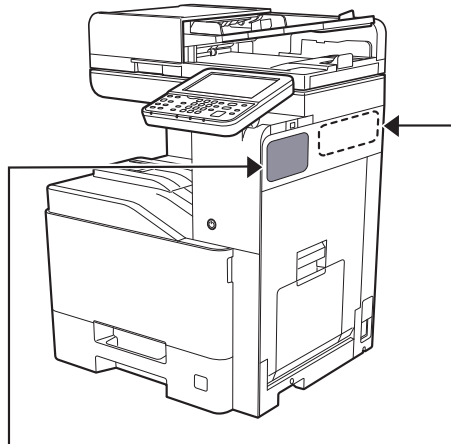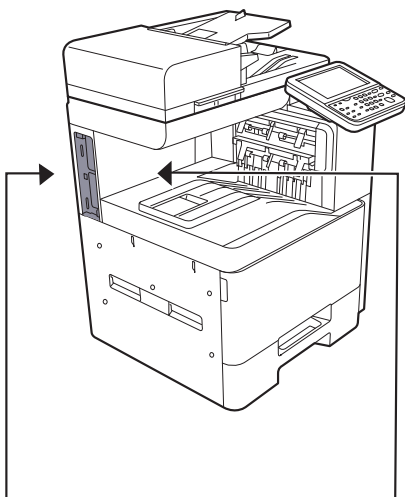
Software option

(20)Internet FAX Kit(A)

(21)Data Security kit(E)

(22)UG-33

(23)UG-34

(24)Scan extension kit(A)
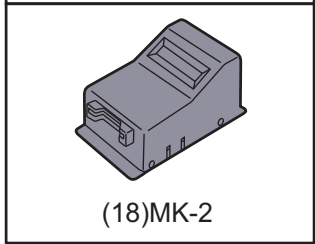
(3) Option

(3-1) DP-5100 "Document Processor (Reverse Automatic)": 35/40ppm models only

(3-2) DP-5110 "Document Processor (Dual Scan)": 35/40ppm models only

Automatically scans originals. Also you can perform duplex copying and split copying.

(3-3) MT-5100 "Mailbox"

This equipment separates the paper output tray destination to easily sort documents. Installing this option adds 6 output trays. When multiple computer users share the printer, each user can print to a specified tray.

(3-4) DF-5110 "1,000-Sheet Finisher": 35/40ppm models only

This equipment can stack high capacity paper and can offset each copy to sort. Sorted output documents can be stapled or hole punched (optional)

(3-5) DF-5120 "3,000-Sheet Finisher": 35/40ppm models only

This equipment can stack high capacity paper and can offset each copy to sort. Sorted output documents can be stapled or hole punched.

(3-6) PF-5120 "Paper Feeder (500-sheet)"

The number of sheets and setting method is same as for the standard cassette.

(3-7) PF-5130 "Paper Feeder (500-sheet x2)"

The number of sheets and setting method is same as for the standard cassette.

(3-8) PF-5140 "Large Capacity Feeder (2,000-sheet)"

In addition to the standard cassette, the high capacity feeder can be installed to load A4 or Letter 2,000 sheets of paper.

(3-9) JS-5100 "Job Separator"

This equipment separates the paper output tray destination to easily sort documents. Specify as the output tray for copy or print jobs. Or, specify as the default output tray for printing from the copy or Document Box screen, printing from the PC, and printing of the received fax data.
NOTE
Select the output tray at the copy screen or set the default setting to output documents to the inner job separator.

(3-10) DF-5100 "Inner Finisher"

This equipment can stack high capacity paper and can offset each copy to sort. Sorted output documents can be stapled.

(3-11) PH-5100[*1], 5110[*2] "Punch Unit": 35/40ppm models only (*1: inch, *2: metric)

Attaches to the 1,000-Sheet Finisher and is used to punch holes.

(3-12) FAX System 10 "FAX Kit": 35/40ppm models only

The FAX kit can be used as a FAX and network FAX that enables document transmission and reception from a PC. Installing 2 FAX kits enables connecting to 2 lines and multi- destination transmission in a short time. 1 port can be for reception only and it reduces the time unavailable for reception

(3-13) FAX System 11 "FAX Kit": 30ppm model only

The FAX kit can be used as a FAX and network FAX that enables document transmission and reception from a PC.

(3-14) IB-50 "Network Interface Kit"

The Network Interface Kit provides a high-speed connection for the Gigabit-per-second interface. Network printing is available with the network protocols such as TCP/IP and NetBUEI for a variety of OS of Windows, Macintosh and UNIX.

(3-15) IB-51 "Wireless Network Interface Kit"

This is a wireless LAN interface card which supports the wireless LAN specifications IEEE802.11n (Max 300Mbps) and 11g/b. With the utilities supplied, settings are possible for a variety of OS and network protocols.

(3-16) MM-16-128 "FAX Expansion Memory": 35/40ppm models only

Image storage memory (128 MB) that allows the machine to receive more pages of incoming faxed originals. Expansion memory is installed and uninstalled by our service technician.

(3-17) HD-11 "Hard Disk": 35ppm model only

With Hard Disk installed in the machine, received data can be rasterized and stored on this Hard Disk. This enables high-speed printing of multiple copies using an electric sort function. Also, you can use the Document Box functions.

(3-18) Key Counter "Key Counter": 35/40ppm models only

Use the key counter to monitor machine usage. This can be utilized for centralized management of departmental copy counts.
NOTE
When the key counter function is activated, copies can only be made when a key counter is inserted.
If the key counter is not inserted, "Insert the key counter." will be displayed.

(3-19) MK-2 "Key card": 35/40 ppm models only

Using a key card enables checking copy counts by its departmental card. The key card offers a convenient solution for centralized management of copy volume for different departments in a large company.

(3-20) Card Authentication Kit(B) "Card Authentication Kit"

User login administration can be performed using ID cards. To do so, it is necessary to register ID card information on the previously registered local user list. Refer to the operation guide of the ID card authentication kit for how to register.

(3-21) "Expansion Memory": 30ppm model only

The machine can perform more multiple jobs simultaneously by adding more memory. You can increase the machine's memory up to 2,048MB by plugging in the optional memory modules (2,048MB).

(3-22) "SD/SDHC Memory Card"

SD/SDHC memory card is a micro chip card that can save optional fonts, macros, forms.

(3-23) DT-5100 "Document Table"

Place original or other documents when using the machine.

(3-24) Internet FAX Kit(A) "Internet FAX Kit": 35/40ppm models only

Activating the Internet FAX Kit sends and receives faxes via the Internet without using a phone line. This can be extended only when the FAX kit is installed.

(3-25) Data Security Kit(E) "Data Security Kit"

The Data Security Kit overwrites all unnecessary data in the storage area of the hard disk so that it cannot be retrieved. The Data Security Kit encrypts data before storing it in the hard disk. It guarantees higher security because no data cannot be decoded by ordinary output or operations.

(3-26) UG-33 "ThinPrint Option"

Direct printing without a printer driver is also available.

(3-27) UG-34 "Emulation Upgrade Kit": 35/40ppm models only

Add an emulation to operate this machine with the commands of another printer. Installing this option enables IBM Proprinter, Line Printer, and EPSON LQ-850 emulation.

(3-28) Scan extension kit(A) "OCR Scan Activation Kit": 35/40ppm models only

This option enables the use of the OCR function in the pplications of the machine.

1-4 Unit Compatibility

Unit configuration of each model is as follows.

Unit	30 ppm model	35 ppm model	40 ppm model
Cassette, primary feed	CASSETTE ASSY (302R45872_) PARTS PRIMARY FEED ASSY SP (302R49421_) Common module		
Conveying, Duplex	PARTS CONVEYING ASSY SP (302R49406_) Common path line, 100% duplex productivity module		
Primary transfer	TR-5195 (302R49302_) 4-color developer separation module with primary transfer belt		
Secondary transfer	PARTS 2ND TRANS ASSY SP (302R49407_) Separation GND common module		
LSU	LK-5195 (302R49315_) One-way single polygon motor with a single beam		
Eject	PARTS EXIT ASSY SP (302R49405_) 500-sheet stack		
Drum	DK-5195 (302R49305_) OPC drum module		DK-5215 (302R69302_) a-Si drum module
Developing	DV-5195K (302R49307_) DV-5195M (302R49308_) DV-5195C (302R49309_) DV-5195Y (302R49310_)	DV-5205K (302R59301_) DV-5205M (302R59302_) DV-5205C (302R59303_) DV-5205Y (302R59304_)	DV-5215K (302R69304_) DV-5215M (302R69305_) DV-5215C (302R69306_) DV-5215Y (302R69307_)
Fuser	FK-5195 (302R49311_) : 240V FK-5196 (302R49312_) : 100V FK-5197 (302R49313_) : 120V Single heater module	FK-5205 (302R69308_) : 240V FK-5206 (302R69309_) : 100V FK-5207 (302R69310_) : 120V Twin heater module	
MPF	PARTS MPF TABLE ASSY L SP (302R49409_) 100 stack (without size detection)	PARTS MPF TABLE ASSY H SP (302R69402_) 100 stack (with size detection)	
ISU	ISU ASSY L SP (302R49314_) All-in-one carriage module Polaris common CCD equipped	ISU ASSY H SP (302R69312_) All-in-one carriage module High speed scanning CCD equipped	
Operation section	PARTS OPERATION UNIT L SP (302R49410_) Tiltable 4.3inch Color Touch Panel	PARTS OPERATION UNIT H JP (302R69403_) Tiltable 7inch color touch panel	

Unit	30 ppm model	35 ppm model	40 ppm model
Container	For 220-240 V model TK-5195K (1T02R40NL_) TK-5195M (1T02R4BNL_) TK-5195C (1T02R4CNL_) TK-5195Y (1T02R4ANL_) For 100 V model TK-5196K (1T02R40JP_) TK-5196M (1T02R4BJP_) TK-5196C (1T02R4CJP_) TK-5196Y (1T02R4AJP_) For 120 V model TK-5197K (1T02R40US_) TK-5197M (1T02R4BUS_) TK-5197C (1T02R4CUS_) TK-5197Y (1T02R4AUS_) For Australia TK-5199K (1T02R40AS_) TK-5199M (1T02R4BAS_) TK-5199C (1T02R4CAS_) TK-5199Y (1T02R4AAS_) Compatibility Toner capacity (K: 15K/MCY: 7K)	For 220-240 V model TK-5205K (1T02R50NL_) TK-5205M (1T02R5BNL_) TK-5205C (1T02R5CNL_) TK-5205Y (1T02R5ANL_) For 100 V model TK-5206K (1T02R50JP_) TK-5206M (1T02R5BJP_) TK-5206C (1T02R5CJP_) TK-5206Y (1T02R5AJP_) For 120 V model TK-5207K (1T02R50US_) TK-5207M (1T02R5BUS_) TK-5207C (1T02R5CUS_) TK-5207Y (1T02R5AUS_) For Australia TK-5209K (1T02R50AS_) TK-5209M (1T02R5BAS_) TK-5209C (1T02R5CAS_) TK-5209Y (1T02R5AAS_) Compatibility Toner capacity (K: 18K/MCY: 12K)	For 220-240 V model TK-5215K (1T02R60NL_) TK-5215M (1T02R6BNL_) TK-5215C (1T02R6CNL_) TK-5215Y (1T02R6ANL_) For 100 V model TK-5216K (1T02R60JP_) TK-5216M (1T02R6BJP_) TK-5216C (1T02R6CJP_) TK-5216Y (1T02R6AJP_) For 120 V model TK-5217K (1T02R60US_) TK-5217M (1T02R6BUS_) TK-5217C (1T02R6CUS_) TK-5217Y (1T02R6AUS_) For Australia TK-5219K (1T02R60AS_) TK-5219M (1T02R6BAS_) TK-5219C (1T02R6CAS_) TK-5219Y (1T02R6AAS_) Compatibility Toner capacity (K: 20K/MCY: 15K)

2 Installation
2-1 Environment

Installation environment

1. Temperature: 50 to 90.5°F (10 to 32.5°C)
   (But humidity should be 70% or less when the temperature is 90.5°F (32.5°C).)
2. Humidity: 10 to 80%
   (But the temperature should be 86°F (30°C) or less when humidity is 80%.)
3. Power requirements:(for 30 ppm model)   AC100V50/60Hz12.5A or more
                                          AC110V60Hz11.5A or more
                                          AC120V60Hz10.5A or more
                                          AC220 to 240V50Hz 5.5A or more
                  :(for 35/40 ppm models)   AC100V50/60Hz14.0A or more
                                          AC110V60Hz12.5A or more
                                          AC120V60Hz11.5A or more
                                          AC220 to 240V50Hz 6.0A or more
4. Frequency fluctuation: 50Hz+/-2% or 60Hz+/-2%

Installation location

The operative environmental conditions are as follows:

Adverse environmental conditions may affect the image quality. It is recommended to use the machine as follows:
Humidity: 36 to 65% Temperature: 60.8 to 80.6°F or less (16 to 27°C).
Avoid the following locations when selecting a site for the machine.
    Avoid locations near a window or with exposure to direct sunlight
    Avoid locations with vibrations
    Avoid locations with rapid temperature fluctuations
    Avoid locations with direct exposure to hot or cold air
    Avoid poorly ventilated locations
If the floor is delicate, when this machine is moved after installation, the floor material may be damaged by the casters.
During operation, some ozone is released, but the amount does not cause any ill effect to one's health.
If, however, the machine is used over a long period of time in a poorly ventilated room or when making an extremely large number of copies, the smell may become unpleasant. To maintain the appropriate environment for copy work, it is suggested that the room be properly ventilated.

Installation space

400mm

300mm   350mm   1000mm   100mm

Figure 2-1

2-2 Installing the main unit

Installation procedures

```
                    ┌─────────────┐
                    │    START    │
                    └─────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │ Unpacking and checking bundled items │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │      Attaching the sub tray      │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │   Setting up the Toner Container  │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │    Cassette heater connection    │
          │      (KDJ 40 ppm model only)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │     Optional unit installation   │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │   Connecting the Interface Cable  │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │     Connecting the FAX cable     │
          │      (FAX installation only)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │          Loading Paper           │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │     Connecting the Power Cord     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │        Turn the power on         │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │         Default Setting *1       │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │        Installing Software       │
          └──────────────────────────────────┘
```

```
          ┌──────────────────────────────────┐
          │     Maintenance mode workflow     │
          │      (Maintenance mode U952 )     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │  Setting the ID correction operation │
          │      (Maintenance mode U464)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │   Color registration adjustment   │
          │      (Maintenance mode U469)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │ IAdjusting the halftone automatically │
          │      (Maintenance mode U410)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │    Output an own-status report    │
          │      (Maintenance mode U000)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │        Clearing the counts        │
          │      (maintenance mode U927)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │     Setting the delivery date     │
          │      (Maintenance mode U278)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │  Checking LSU cleaning operation  │
          │      (Maintenance mode U474)     │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │  Exiting from the maintenance mode │
          └──────────────────────────────────┘
                           │
                           ▼
          ┌──────────────────────────────────┐
          │ Completion of installing the main unit │
          └──────────────────────────────────┘
```

IMPORTANT

    *1: Default setting: Approx. 2 minutes for 40ppm model
       It will take about 6 minutes for 30/35 models since the drum initial setting is necessary.

   Do not execute the maintenance mode during the initial setting drive.

(1) Unpacking and checking bundled items

Take out the main unit and accessories from the packing case.
Remove the tape and cushioning materials for packing from the main unit.

(1-1) 30 ppm model
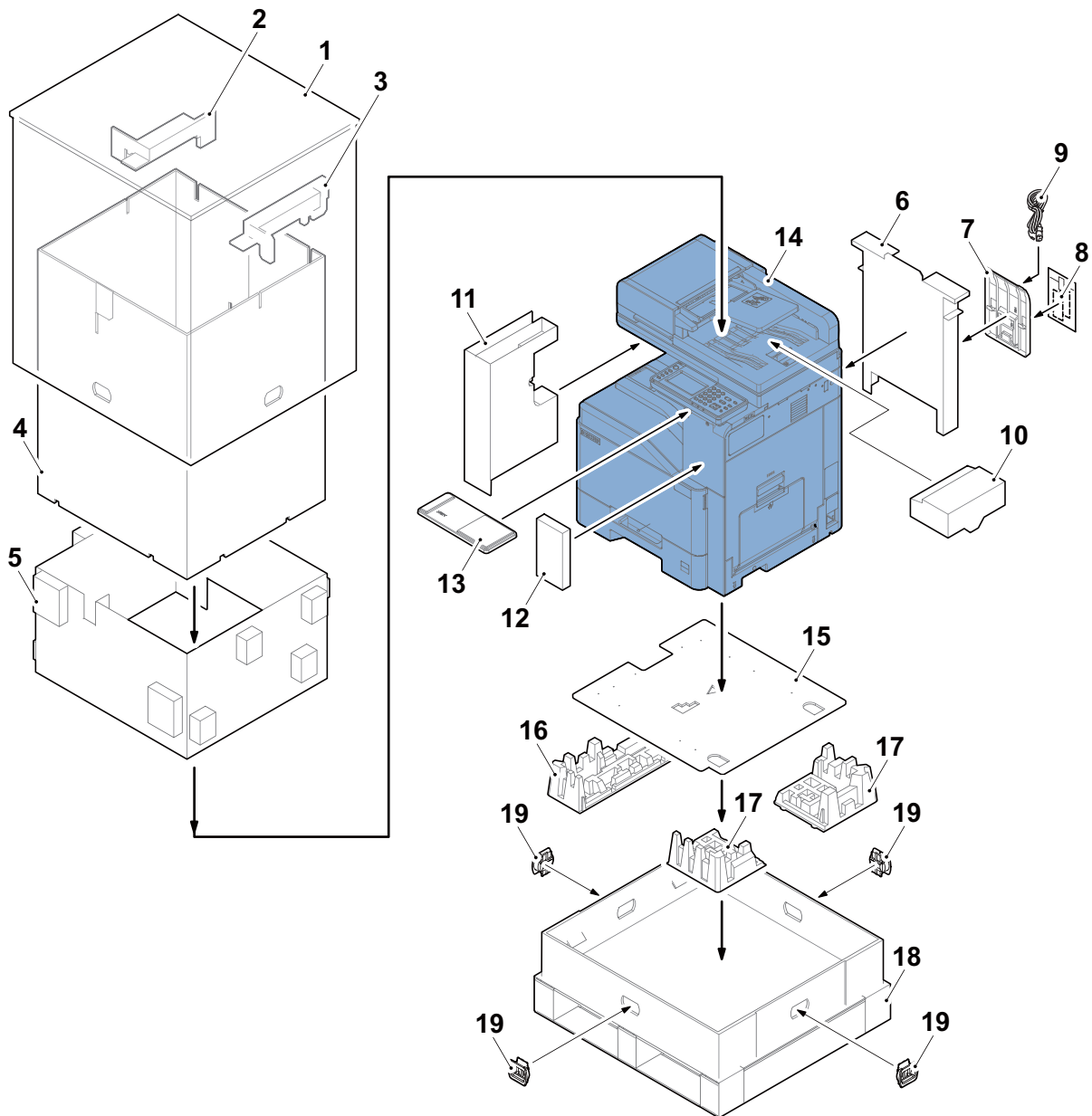
Figure 2-2

1. Outer case	8. Size label	15. Bottom case
2. Left upper pad	9. Power cord	16. Left bottom pad
3. Right upper pad	10. Original tray pad	17. Right bottom pad
4. Inner box	11. Left middle pad	18. Skid
5. Inner pad	12. Right front pad	19. Hinge
6. Accessories box	13. Operation cover	
7. Inner tray	14. Main unit	

Note: Make sure to install the main unit on a level surface.

(1-2) 35/40 ppm models
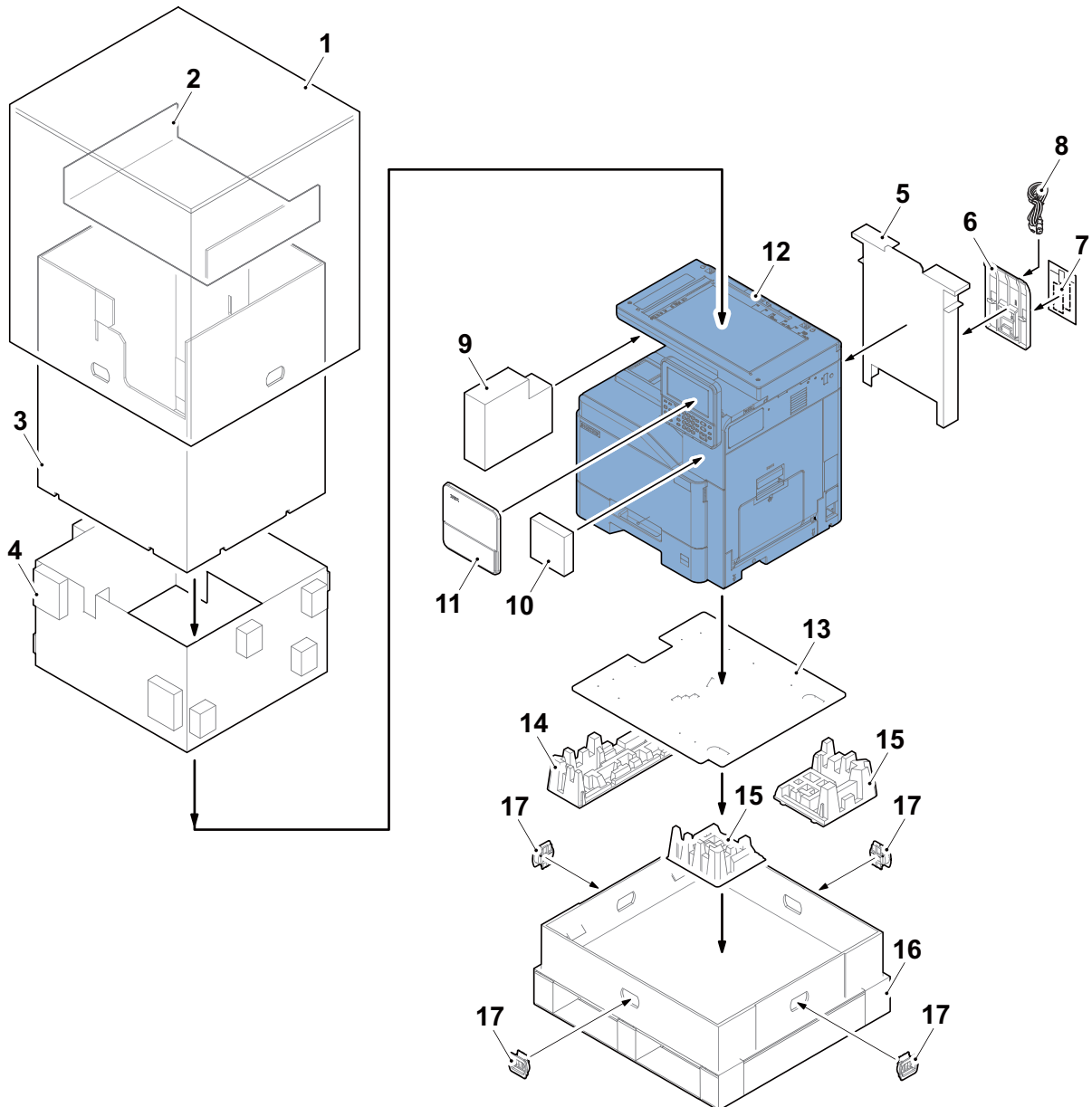
Figure 2-3

1. Outer case	7. Size label	13. Bottom case
2. Upper pad	8. Power cord	14. Left bottom pad
3. Inner box	9. Left middle pad	15. Right bottom pad
4. Inner pad	10. Right front pad	16. Skid
5. Accessories box	11. Operation cover	17. Hinge
6. Inner tray	12. Main unit	

Note: Make sure to install the main unit on a level surface.

(2) Unpacking and checking bundled items(option units)

(2-1) Paper Feeder(PF-5120)
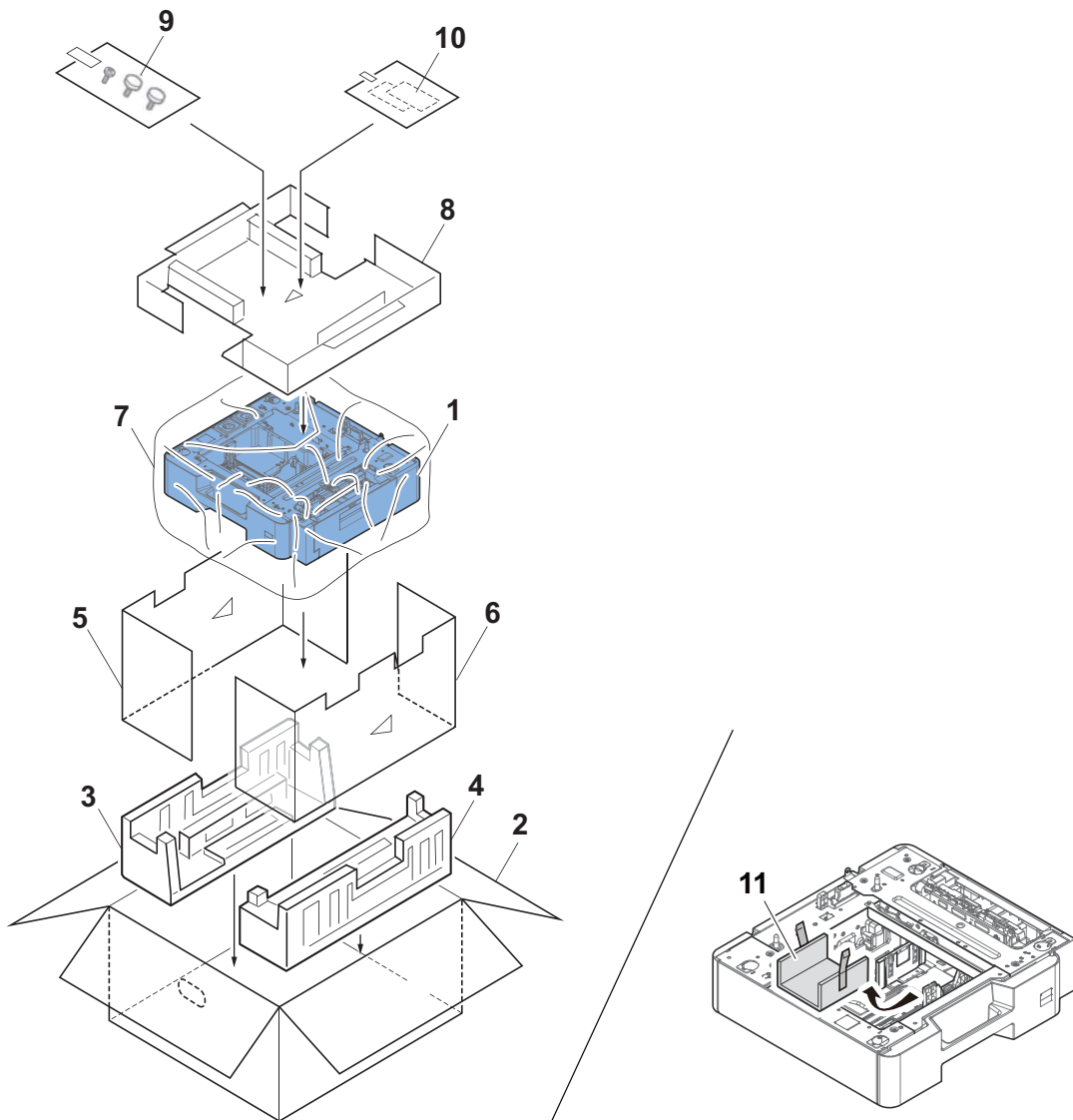
Figure 2-4

1. Main unit	6. Right of the inner frame	11. Guide protection plate
2. Outer case	7. Main unit cover	
3. Left bottom pad	8. Upper pad	
4. Right bottom pad	9. Pin/Screw	
5. Left of the inner frame	10. Size label	

(2-2) Paper Feeder(PF-5130)

Figure 2-5

1. Main unit
2. Outer case
3. Left bottom pad
4. Right bottom pad
5. Front of the inner frame
6. Rear of the inner frame

7. Main unit cover
8. Upper pad
9. Reinforcement plate
10. Size label
11. Screw
12. Front left upper pad

13. Rear left upper pad
14. Front right upper pad
15. Rear right upper pad
16. Guide protection plate

(2-3) Paper Feeder(PF-5140)

Figure 2-6

1. Main unit
2. Outer case
3. Left bottom pad
4. Right bottom pad
5. Front of the inner frame
6. Rear of the inner frame

7. Main unit cover
8. Upper pad
9. Reinforcement plate
10. Size label
11. Screw
12. Front left upper pad

13. Rear left upper pad
14. Front right upper pad
15. Rear right upper pad
16. Guide protection plate
17. Cushion

(2-4) Document processor(DP-5100): 35/40 ppm models only

Figure 2-7

1. Outer case	5. Poly sheet	9. Rear right upper pad
2. Rear bottom pad	6. Original mat holder	10. Front left upper pad
3. Front bottom pad	7. Original mat	11. Front right upper pad
4. Document processor	8. Rear left upper pad	

(2-5) Document processor(DP-5110): 35/40 ppm models only
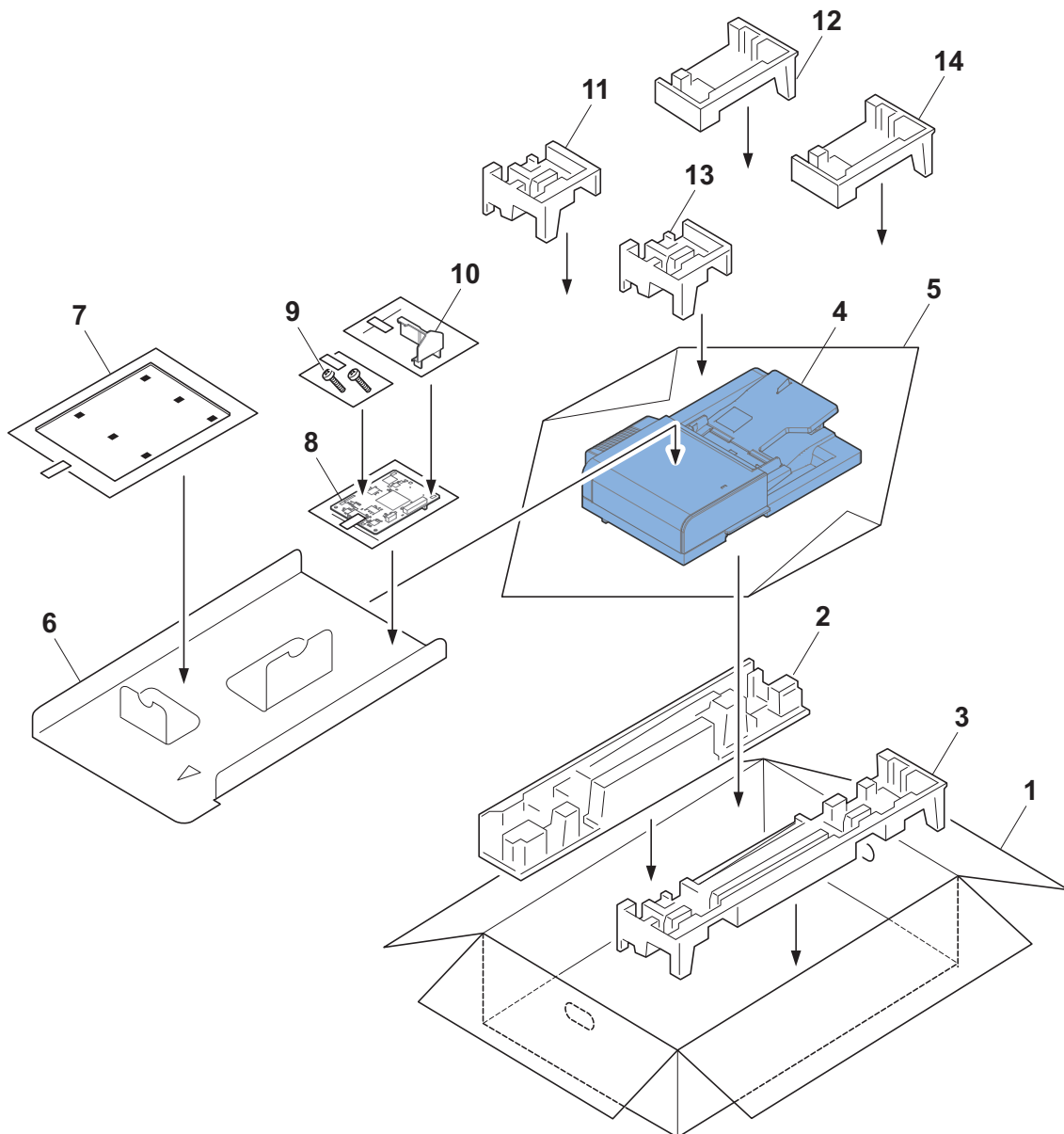
Figure 2-8

1. Outer case
2. Rear bottom pad
3. Front bottom pad
4. Document processor
5. Poly sheet
6. Original mat holder
7. Original mat
8. DP relay PWB
9. Screw
10. DP relay PWB holder
11. Rear left upper pad
12. Rear right upper pad
13. Front left upper pad
14. Front right upper pad

(2-6) Inner finisher(DF-5100)
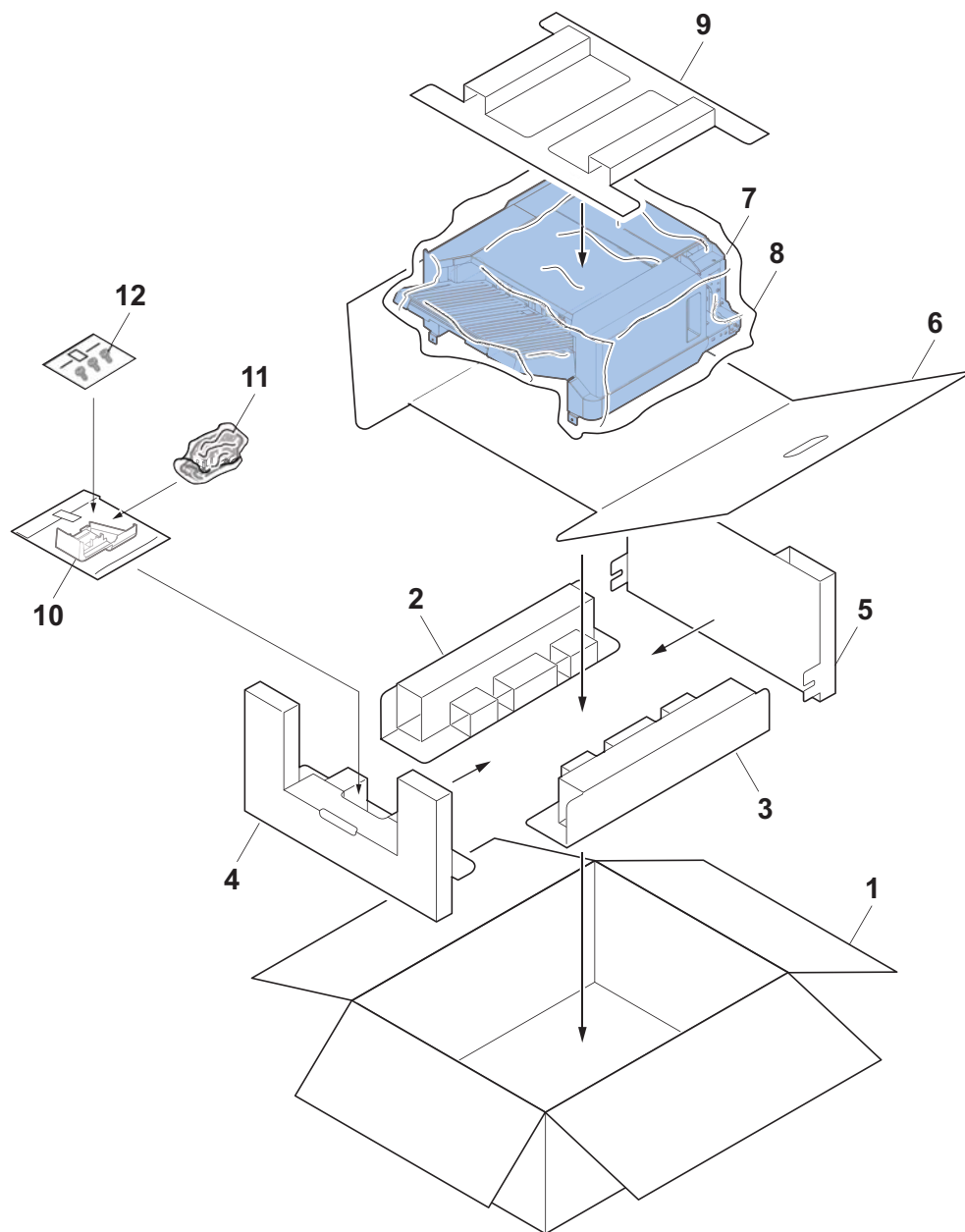
Figure 2-9

1. Outer case
2. Rear bottom pad
3. Front bottom pad
4. Left bottom pad

5. Right bottom pad
6. Main pad
7. Inner finisher
8. Main unit cover

 9. Upper pad
10. Right front cover
11. Cartridge
12. Screw

(2-7) 1000-sheet finisher(DF-5110): 35/40 ppm models only

Figure 2-10

1. Skid
2. Rear bottom pad
3. Front bottom pad
4. Finisher
5. Main unit cover
6. Left spacer

7. Right spacer
8. Main tray
9. Interlock cover
10. Cartridge
11. Ground plate
12. Joint plate

13. Rear upper pad
14. Front upper pad
15. Outer case
16. Hinge

(2-8) 3000-sheet finisher(DF-5120): 35/40 ppm models
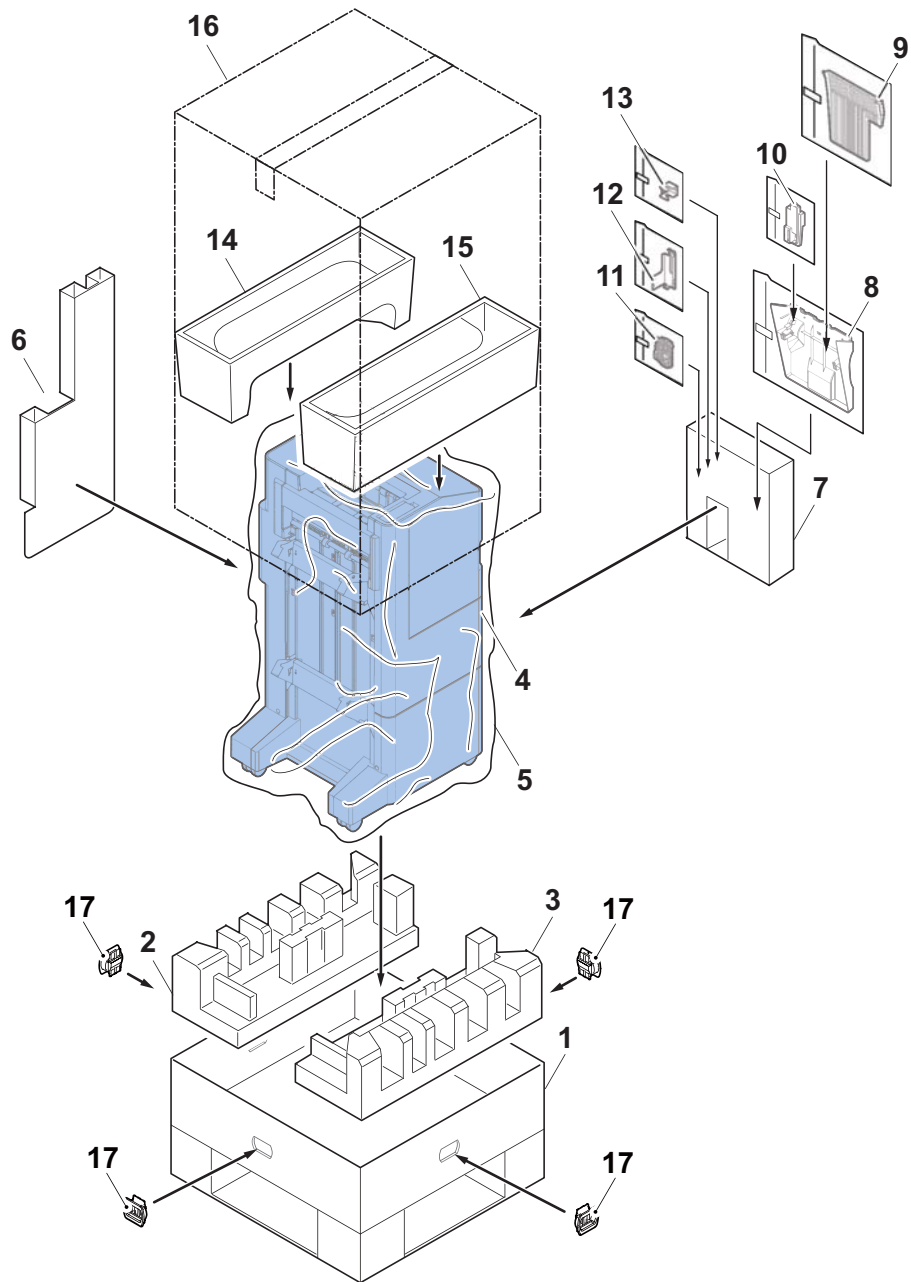
Figure 2-11

1. Skid
2. Rear bottom pad
3. Front bottom pad
4. Finisher
5. Main unit cover
6. Rear spacer

7. Right spacer
8. Main tray
9. Sub tray
10. Interlock cover
11. Cartridge
12. Ground plate

13. Joint plate
14. Rear upper pad
15. Front upper pad
16. Outer case
17. Hinge

(2-9) Mailbox(MT-5100)
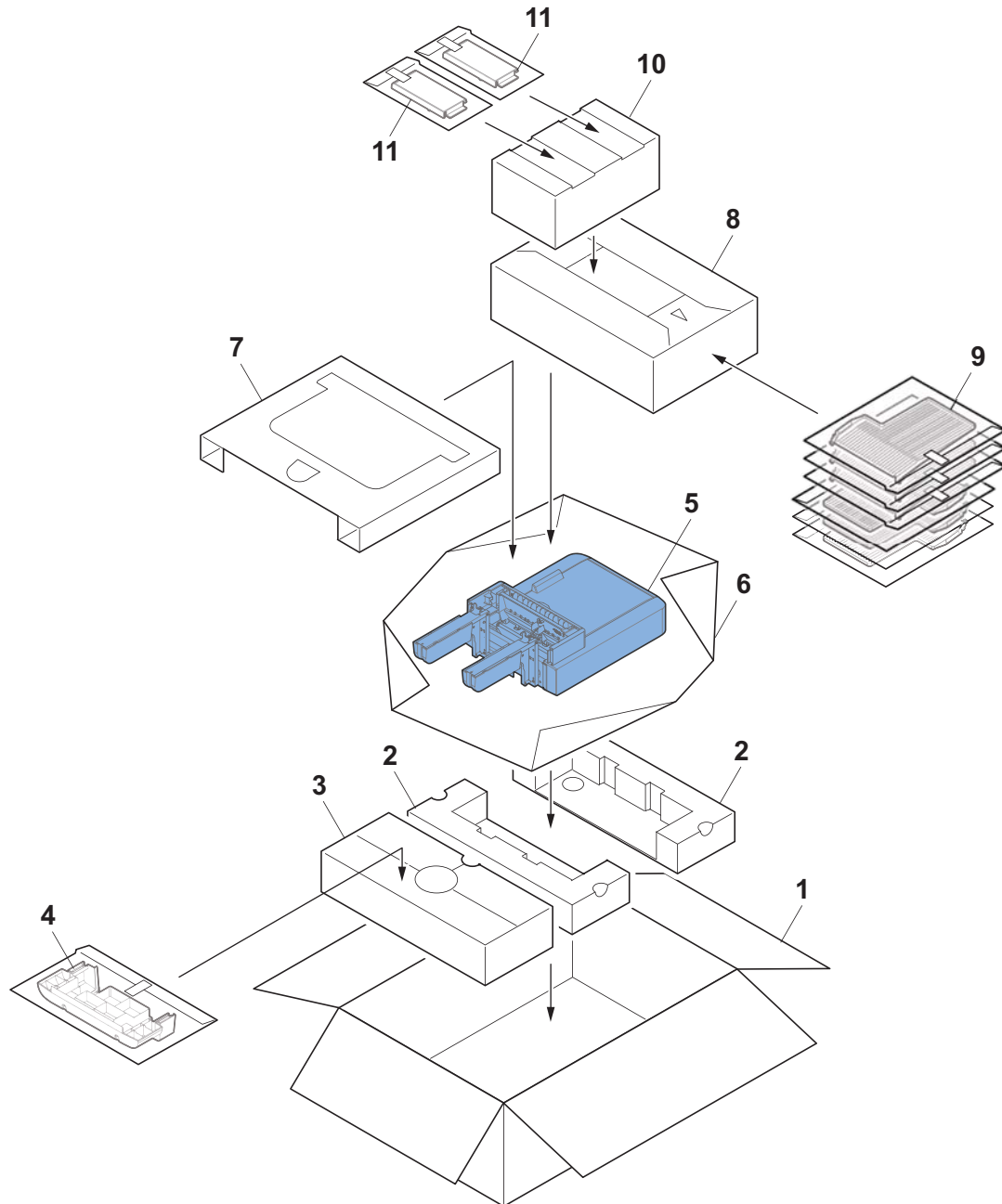
Figure 2-12

1. Outer case
2. Right lower spacer
3. Left lower spacer
4. Lower cover

5. Mailbox
6. Poly sheet
7. Left upper spacer
8. Right upper spacer

9. Eject tray
10. Upper pad
11. Side cover

(2-10) Punch unit(PH-5110)
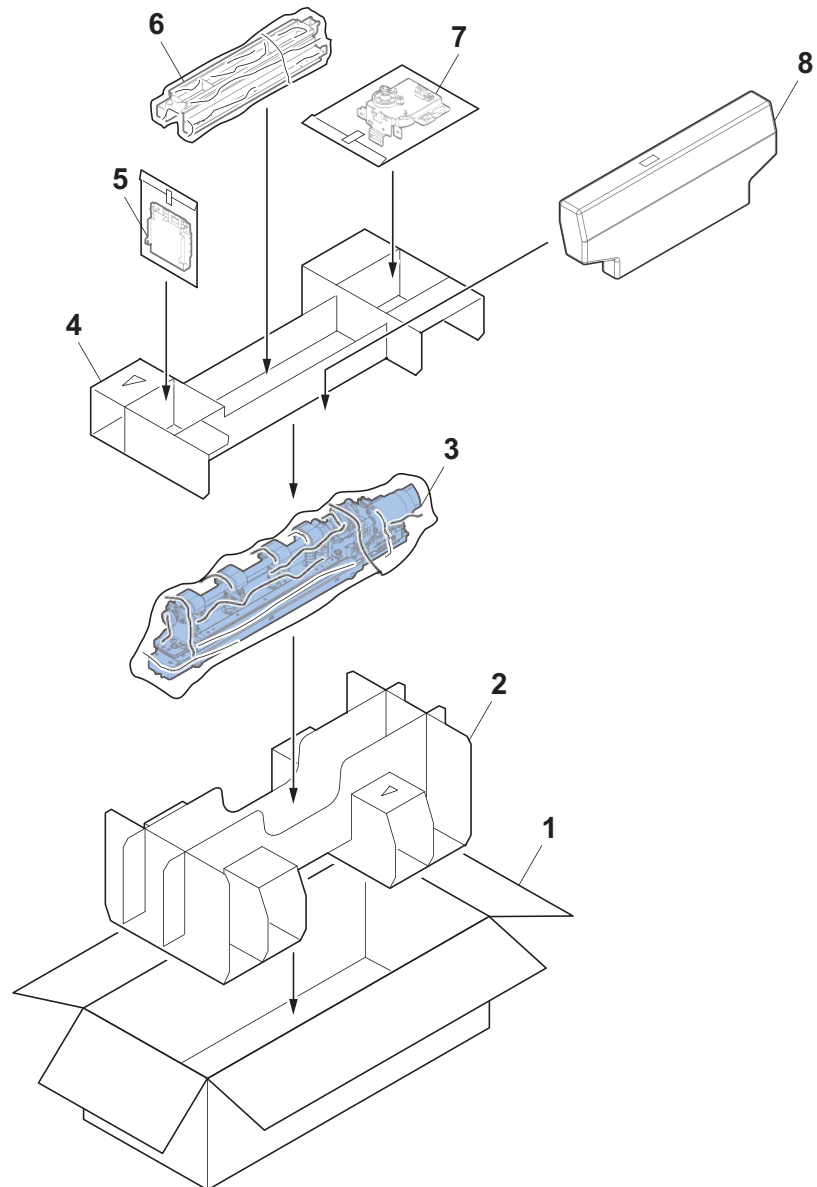
Figure 2-13

1. Outer case
2. Bottom pad
3. Punch unit

4. Upper pad
5. Punch PWB
6. Waste punch box guide

7. Drive unit
8. Waste punch box

(3) Notes on main unit transportation

*: When transporting the main unit, lift the left and right of the lower part the main unit base (as marked by red circles) with four people as shown in the figure.
Do not hold the operation unit because it will cause damage.
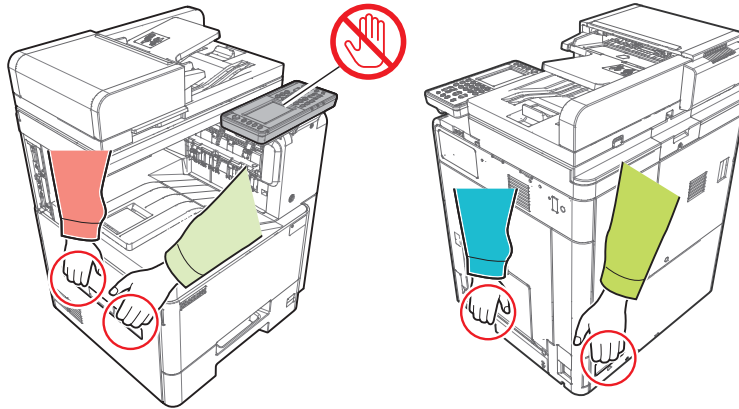
Figure 2-14

*: Carry the paper feeder (PF-5130/5140) with two people by holding the parts as shown in the figure.
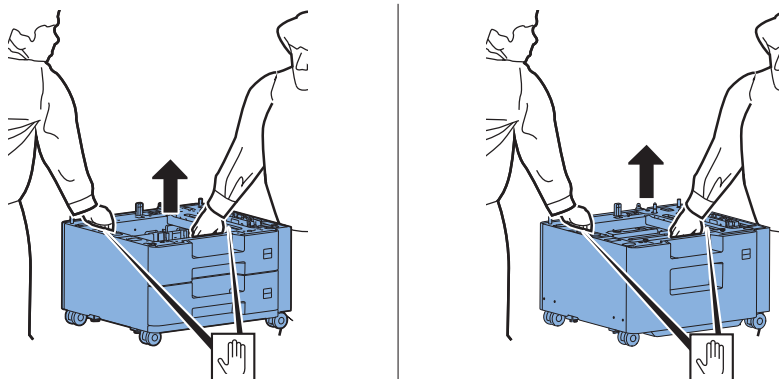
Figure 2-15

(4) Attaching the sub tray

Attach the bundled sub tray to the inner tray.
*: No sub tray is required when installing the DF-5100 inner finisher.

Procedures
1. Slide the sub tray (a) and insert four protrusions (b) into four apertures (c) on the inner tray.
2. Check two projections (d) are locked at two apertures (e) of the inner tray.
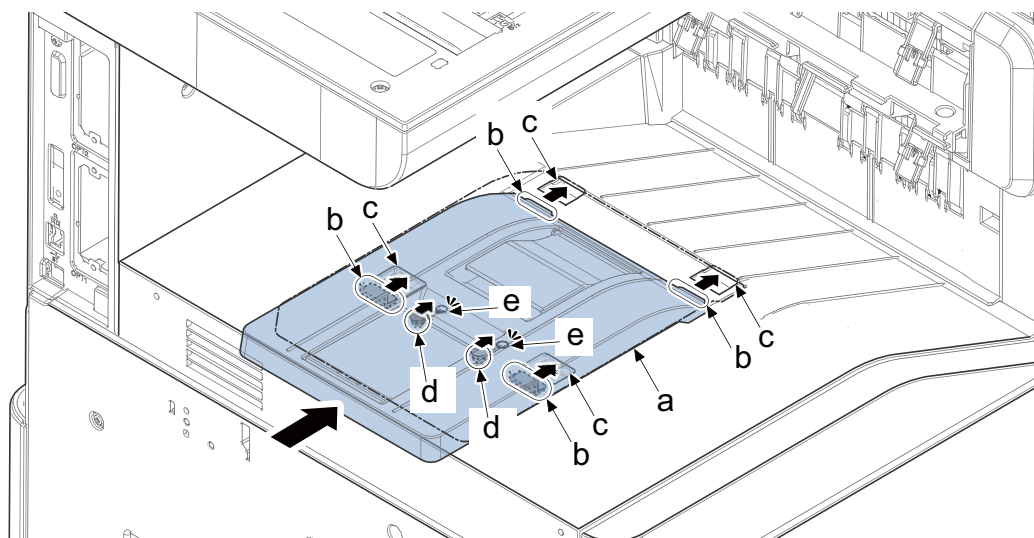
Figure 2-16

(5) Setting up the Toner Container

Set up 4 color toner containers of C, M, Y, and K.
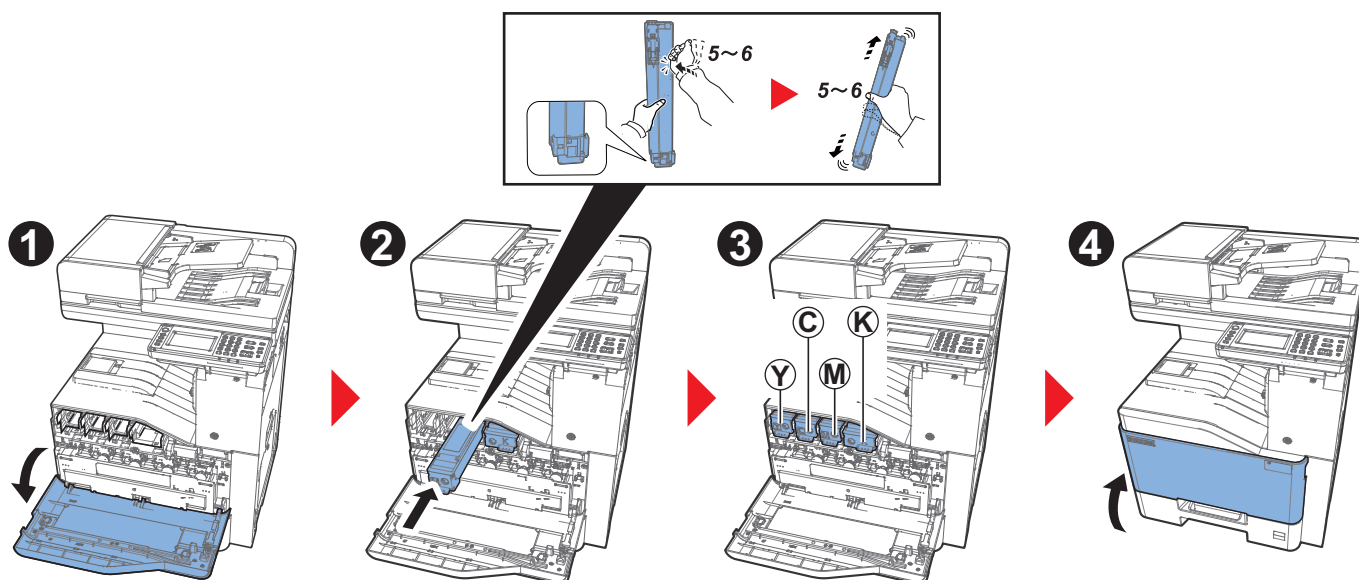
Figure 2-17

(6) Cassette heater connection (100 V 40 ppm model only)

*: Because the cassette heater connector is not connected at shipment, connect it to the main unit.

Procedures

1. Pull out the cassette (a) from the main unit (b) and remove it in the direction of the arrow.
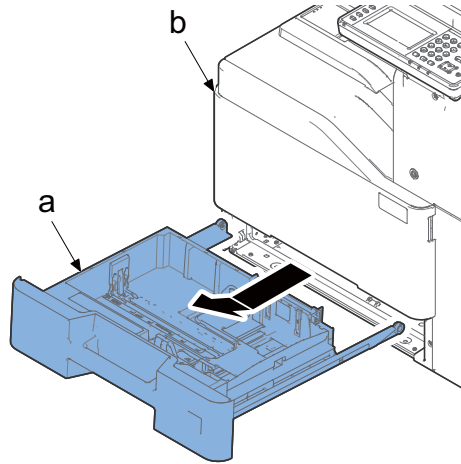
Figure 2-18

2. Press the lock lever (a) and pull out the primary feed unit (c) from the paper feeder (b).
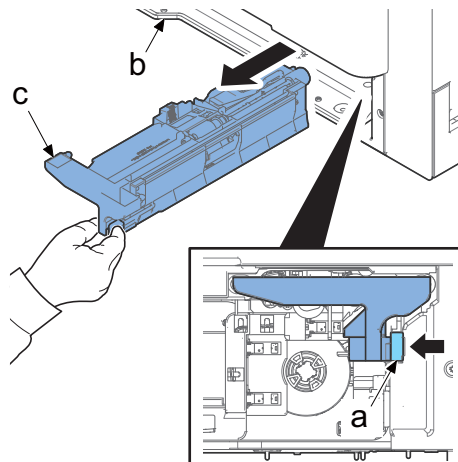
Figure 2-19

3. Lift up the protrusion (b) of the hook and unlatch it from the round hole (d). Slide the connector cover (a) in the direction of the arrow and unlatch two hooks (c) from the square hole (e) to remove it.
4. Connect the heater connector (g) to the main machine side connector (g).
5. Reattach the connector cover (a) in the original position.
 *: Make sure the wire (f) does not float.
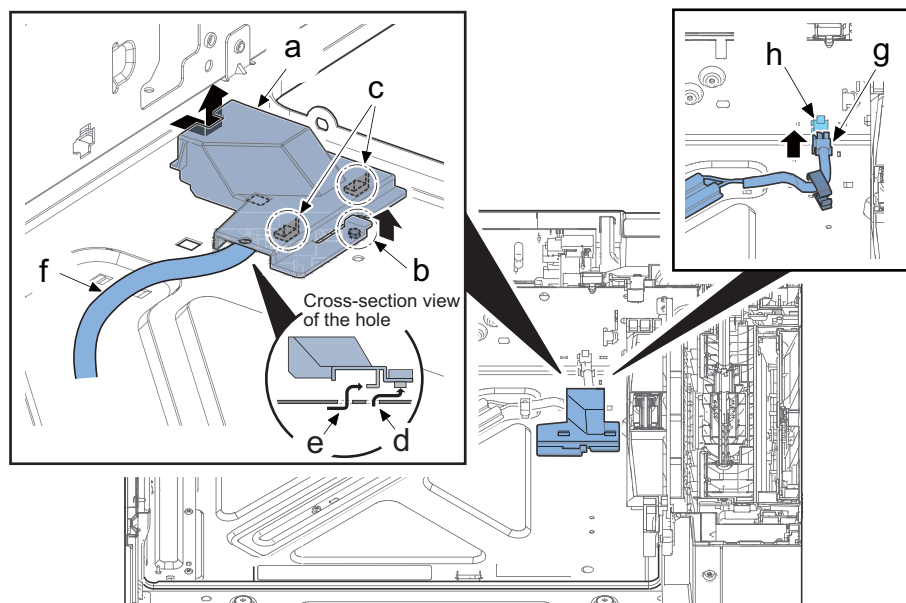
Figure 2-20

6. Reattach the parts in the original position.

IMPORTANT

Set maintenance mode U327 [Cassette heater On/Off] to [On] after turning the power on.
When connecting the cassette heater, do not unplug the power cord. (Power is supplied when the power is switched off)
Also, if unplugged for a prolonged time, it may cause blurred images depending on the environment. In this case, execute [System Menu] > [Adjustment/Maintenance] > [Drum Refresh] .

(7) Optional unit installation

Install necessary optional units in the main unit by referring to the installation procedures. (See page 10-1)
   *: When not in use of the optional paper feeder, attach the bundled shield plate as shown below.

Procedures
   1. Fit two hooks (a) into two holes (b) on the rear lower cover.
   2. Secure the shield plate (d) with the screw (c) (M4x20).
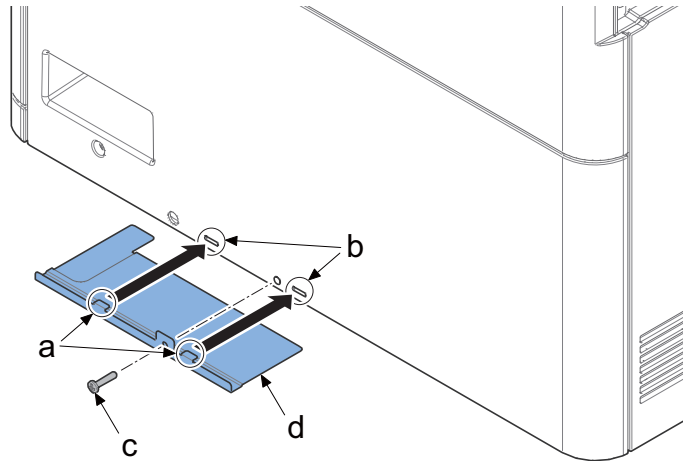
Figure 2-21

USB Interface (option) usage: 220-240 V 35/40ppm models only

Procedures
   1. Remove the screw (a) (M3x8).
   2. Release the hook (b) in the direction of the arrow and then remove the controller cover (c).
   3. Peel off the cover sheet (d) at the backside of the controller cover (c) and reattach it.
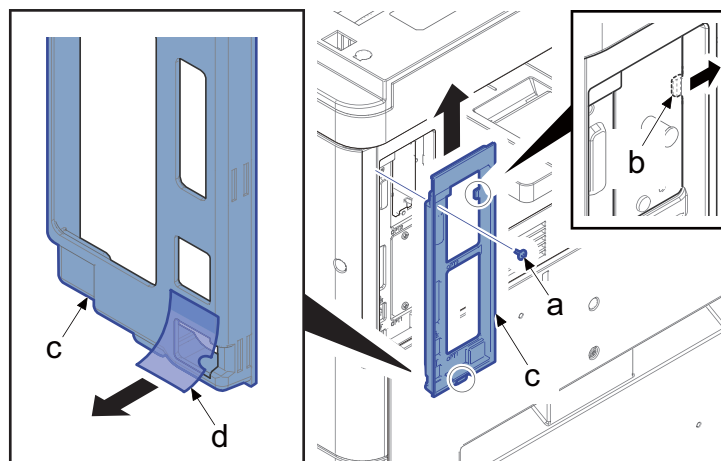
Figure 2-22

(8) Connecting the Interface Cable

Connection environment	Functions	Necessary Cable
Connect a LAN cable to the main unit	Printer/Scanner/Network FAX	LAN cable (10Base-T, 100Base-TX or100Base-T)
Connect a USB cable to the main unit	Printer/Scanner (TWAIN/ WIA)	USB2.0 compatible cable (Hi-Speed USB compliant, Max. 5.0m long)

In the case of the LAN connection
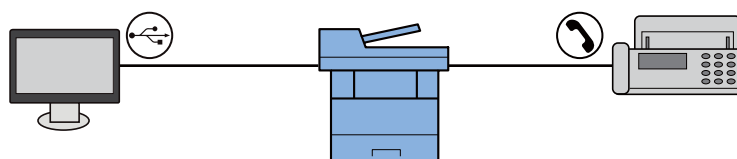
1. Connect the LAN cable to the network interface connector.
2. Connect the other end of the cable to the hub.

(30 ppm model)
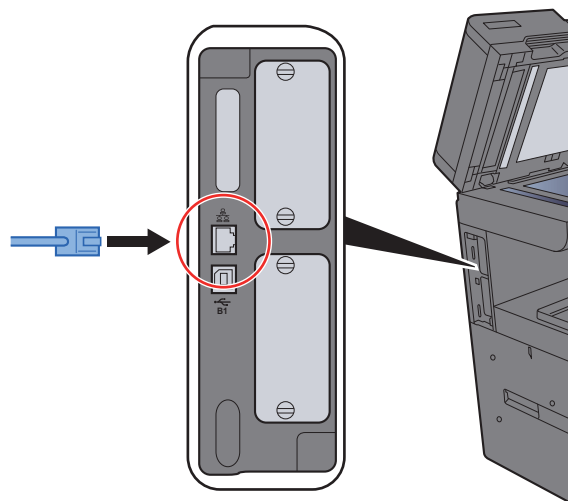
(35/40 ppm models)
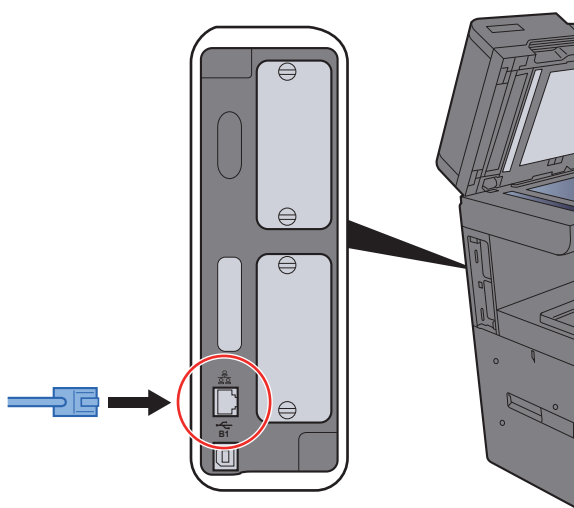
Figure 1-2-1

In the case of the USB connection
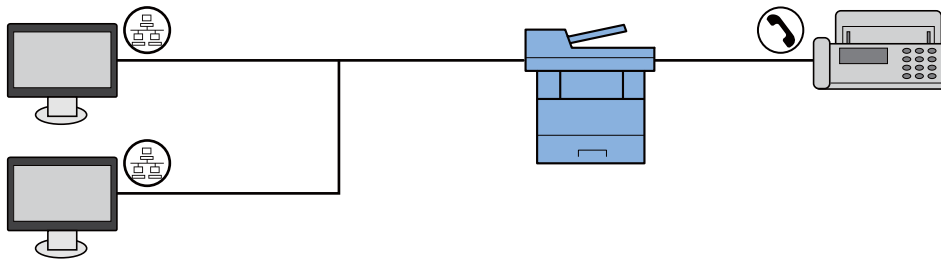
1. Connect the USB cable to the USB interface connector located on the rear side of the main unit.
2. Connect the other end of the cable to the PC.

(30 ppm model)
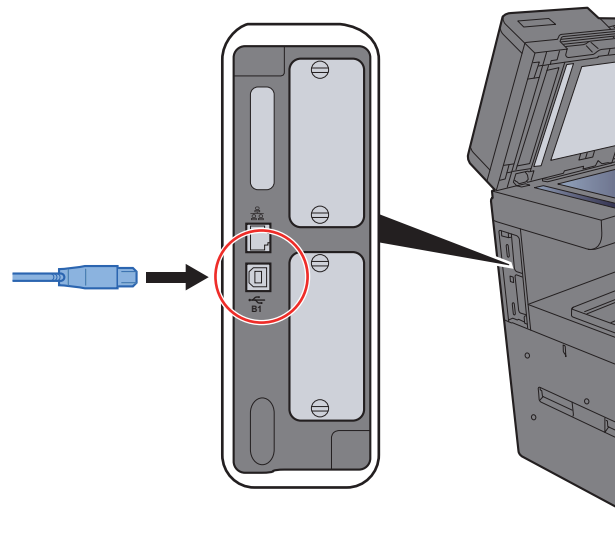
(35/40 ppm models)
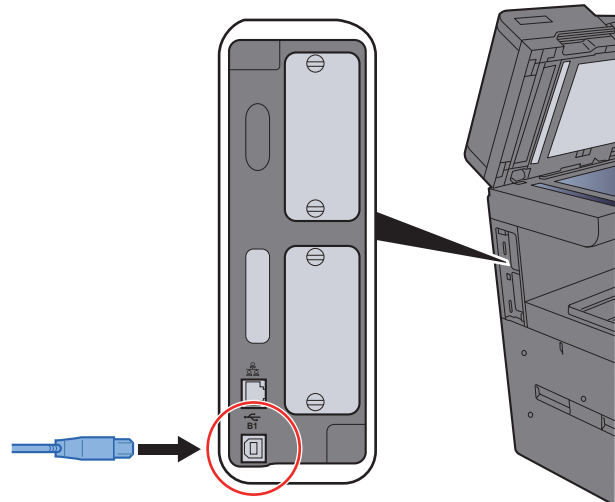
Figure 1-2-2

(9) Connecting the FAX cable (FAX installation only)

General FAX connection example
In the case of the general telephone line

a. Modular jack

Figure 1-2-3

ADSL
Connect a cord between the LINE connector of the main unit and the PHONE port of the splitter.

a. Modular jack
b. ADSL modem
c. Splitter (PHONE port)
d. PC
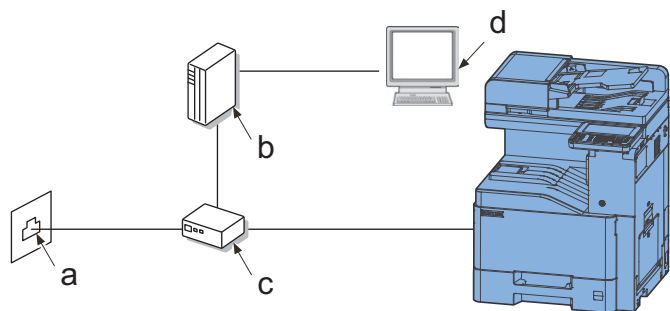
Figure 1-2-4

ISDN
Connect a cord between the LINE connector of the main unit and the analog port of the terminal adapter.

a. Modular jack
b. Terminal adapter
(Analog port)
c. PC
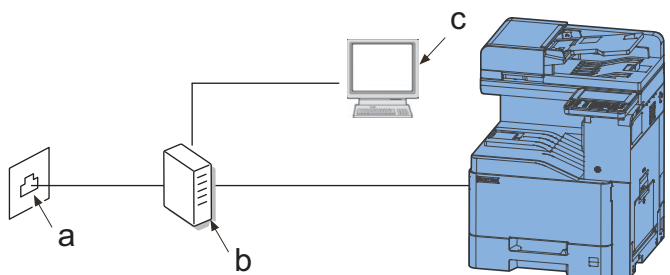
Figure 1-2-5

Modular cord connection
Connect a modular cord to the LINE connector of the main unit.
When using a commercially available telephone set, connect a modular cord to the TEL connector of the main unit.
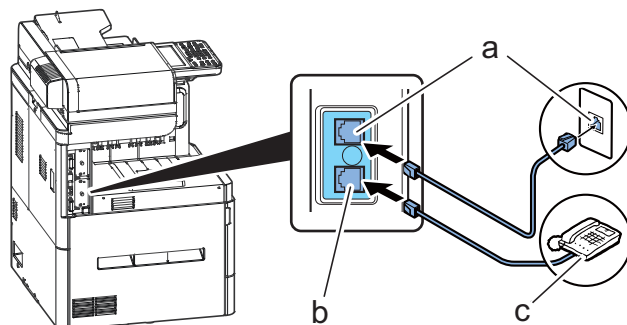
Figure 1-2-6

(10)Loading Paper

(10-1) Precaution for Loading Paper

Before loading paper in the cassette or MP tray, fan the paper taken from a package to separate it, and then tap it on a level surface to align the edges.
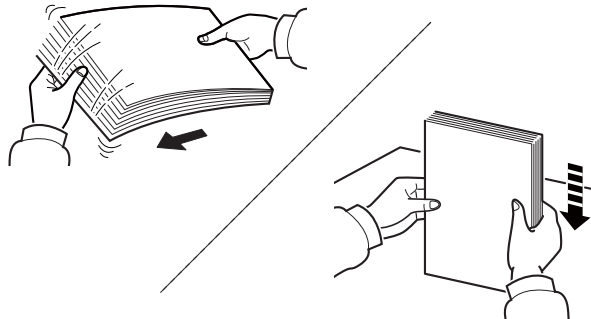
Figure 2-3

In addition, note the following points.

If the paper is curled or folded, straighten it before loading. Such paper may cause a jam.

If paper is left under high temperature and high humidity after taking it out of the package, it may cause trouble with paper absorbing moisture. After setting paper in the cassette, seal the rest of the paper in the paper storage bag. Also, seal the paper remaining on the MP tray in the paper storage bag.

If paper is left in the cassette for a long period, heat from the cassette heater may discolor it.

If the machine will not be used for a prolonged period, protect all paper from humidity by removing it from the cassettes and sealing it in the paper storage bag.

IMPORTANT

If you reuse paper already used for printing, remove staples or clips. Do not use paper with a staple or clip. This may cause poor image quality or malfunctions.

(10-2) Set paper in the cassette

The cassettes can hold plain paper, recycled paper, color paper, etc.

The cassette can hold 550 sheets of plain paper ($64g/m^2$) or 500 sheets of plain paper ($80g/m^2$).
The cassette can hold paper with the weight of 60 to 220g/m2.

Do not hold paper heavier than $220g/m^2$ in the cassette. Use the MP tray for a postcard of $230g/m^2$ weight.

1. Pull the cassette completely out of the main unit.
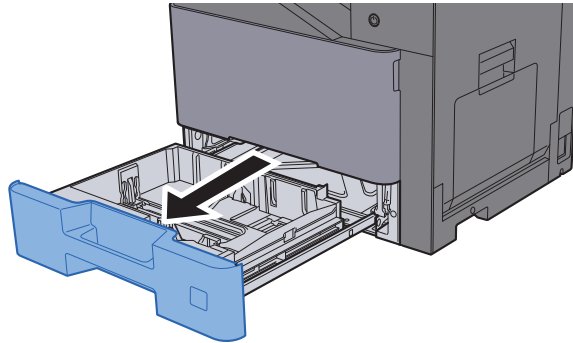
Figure 2-4

NOTE

Do not pull out multiple cassettes simultaneously.

2. Adjust the position of the paper guides.
 1.Adjust the paper width guides. Press the tab and slide the guides to the paper size to use.
 2.Adjust the paper length guide. Press the tab and slide the guides to the paper size to use.
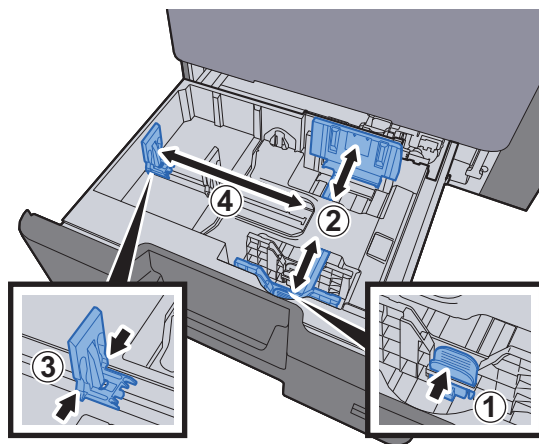
Figure 2-5

3. Load paper.
1.Fan the paper, then tap it on a level surface to align the edges.
2.Load the paper in the cassette after aligning its edges.
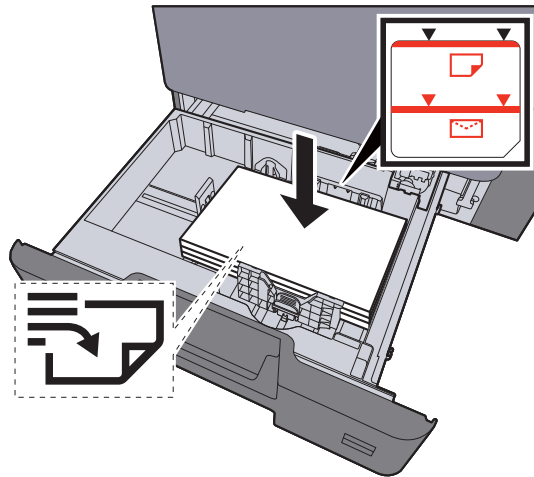
Figure 2-6

Note

Load the paper with the print side facing up.
Before loading paper in the cassette, fan the paper taken from a new package to separate it. (See page 2-23)
Before loading the paper, be sure that it is not curled or folded. Such paper may cause paper jams.
Make sure that the loaded paper does not exceed the level indicator (see the illustration above).
If paper is loaded without adjusting the paper length guide and paper width guides to the paper size to use, the paper may skew or become jammed.

4. Gently insert the cassette all the way into the main unit.
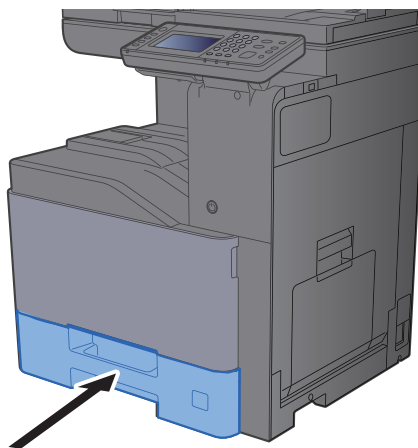
Figure 2-7

(10-3) Set paper in the high capacity feeder

The high capacity feeder can hold A4/Letter size plain paper, recycle paper or color paper.

The high capacity feeder can load 2,200 sheets of plain paper ($64g/m^2$) or 2,000 sheets of plain paper ($80g/m^2$).

The cassette can hold paper with the weight of 60 to $220g/m^2$.

1. Pull the cassette completely out of the main unit.
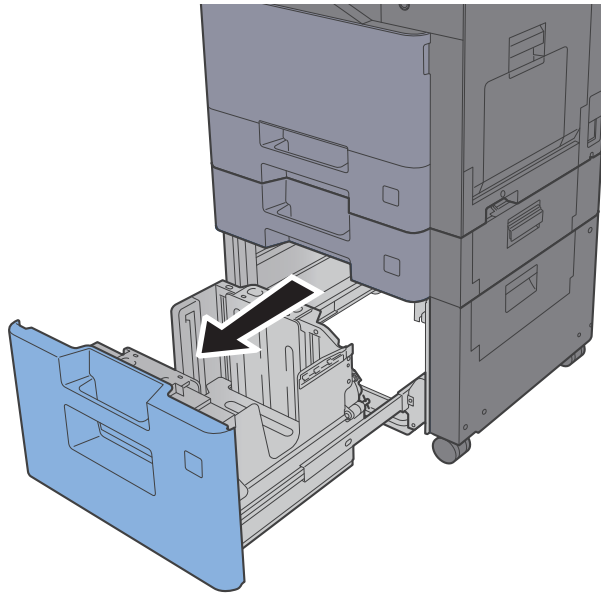
Figure 2-8

2. Load paper.
 1. Fan the paper, then tap it on a level surface to align the edges.
 2. Load the paper in the cassette after aligning its edges.
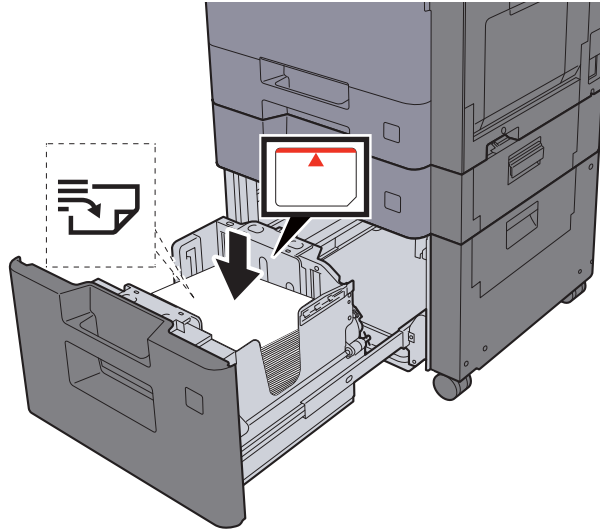
Figure 2-9

Note

Load the paper with the print side facing up.
Before loading paper in the high capacity paper feeder, fan the paper taken from a new package to separate it. (See page 2-23)
Before loading the paper, be sure that it is not curled or folded. Such paper may cause paper jams.
Make sure that the loaded paper does not exceed the level indicator (see the illustration above).

3. Gently insert the high capacity feeder all the way.
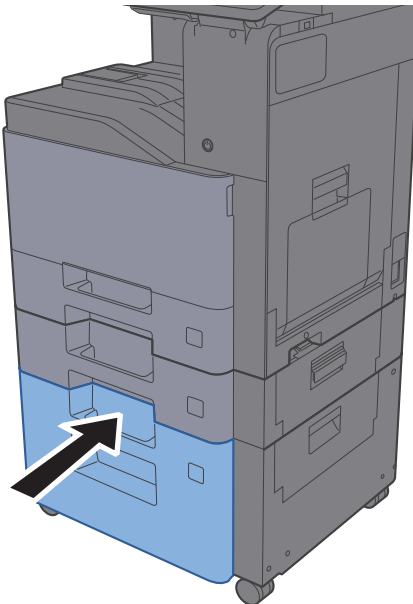
Figure 2-10

(11)Connecting the Power Cord

1. Connect one end of the supplied power cord to the main unit and the other end to a power outlet.

*: Only use the power cord that comes with the main unit.

*: 30ppm model due to its construction may indicate the operation display momentarily when connecting the power cord.
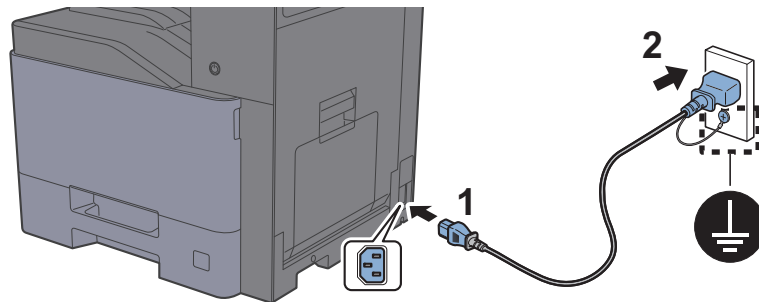
Figure 2-11

(12)Turn the power on

1. Turn the power switch on.
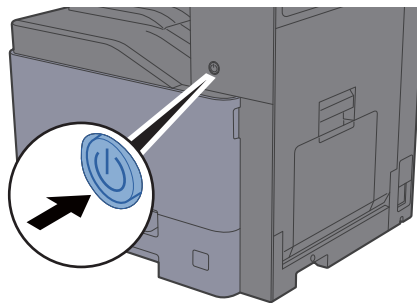
Figure 2-12

IMPORTANT

After turning off the power switch, do not turn on the power switch again immediately. Wait 5 seconds or more, and then turn on the power switch.

(13)Default Setting

Set up necessary items in the following procedures.
*: For 30ppm model, the set-up wizard starts up at the first power-up.

30 ppm model

[System Menu/Counter] key

Figure 2-13

35/40 ppm models

[System Menu] key

Figure 2-14

(13-1)Setting Date and Time

Follow the steps below to set the local date and time at the place of installation.

1. Display the screen

   [System Menu/Counter] key or [System Menu] key

   > [Date/Timer/Energy Saver]

2. Configure the settings

   Select [Time Zone] > [Date/Time] > [Date Format] in this order for settings.

Item	Descriptions
Time Zone	Set the time difference from GMT. Choose the nearest listed location from the list. If you select a region that utilizes summer time, configure settings for summer time.
Date/Time	Set the date and time for the location where you use the machine. If you perform Send as E-mail, the date and time set here will be displayed on the header. Value: Year (2000 to 2037), Month (1 to 12), Day (1 to 31), Hour (00 to 23), Minute (00 to 59), Second (00 to 59)
Date Format	Select the display format of year, month, and date. The year is displayed in Western notation. Value: Month/Day/Year, Day/Month/Year, Year/Month/Day

(13-2) Network Setup (LAN Cable Connection)

TCP/IP (IPv4) Settings

Set up TCP/IP (IPv4) to connect to the Windows network.
The default settings are as follows.
• TCP/IP: On
• DHCP: On
• Auto-IP: On
• IP Address: 0.0.0.0
• Subnet Mask: 0.0.0.0
• Default Gateway: 0.0.0.0

Setting procedures

1. Select [System Menu/Counter] key or [System Menu] key > [System/Network] > [Network] > [TCP/IP Setting].
2. Select [IPv4] for setting.
3. Restart the network from System Menu, or turn the power off and then on waiting 5 seconds or more.

When using DHCP server

[DHCP]: Set to [On]

When setting the static IP address

[DHCP]: Set to [Off]
[IP Address]: Enter the address.
[Subnet Mask]: Enter the address.
[Default Gateway]: Enter the address.
When setting Auto IP, set the IP address to 0.0.0.0.

*: The factory default login user name and login password are set as shown below.

Model name	30 ppm model	35 ppm model	40 ppm model
Login User Name	3000	3500	4000
Login Password	3000	3500	4000

(13-3) Altitude Adjustment Setting

Execute [Altitude Adjustment] from the System Menu when setting up at a high altitude place.
When the printing quality declines in the environment of an altitude higher than 1500m sea level, the setting of [Altitude Adjustment] mode can recover the printing quality.

Maintenance mode U140
1. Input "140" using the numeric keys and press the [Start] key.
2. Select [Altitude Adjustment].
3. Select the altitude range of [1001 to 2000m], [2001 to 3000m] or [3001 to 3500m].
4. Press the [Start] key.
5. Press the [Stop] key.

In case of [System Menu] (30ppm model only)
1. Displays the screen.
   [System Menu/Counter] key > [Adjustment/Maintenance] > [Service Setting] > [Altitude Adjustment]
2. Select the altitude range of [1001 to 2000m], [2001 to 3000m] or [3001 to 3500m].
 *: Standard: Altitude from 0 to 1000m
3. Press the [Start] key.

IMPORTANT
For 40ppm model, execute the U140 [Adjust Developing Bias] after high altitude adjustment.
1. Input "140" using the numeric keys and press the [Start] key.
2. Select [AC Calib].
3. Select [Calibration].
 *: Set the developer (All color) to On to execute AC calibration.
4. Select [Execute] and press the [Start] key.
 *: Calibration starts.
5. Turn the power switch off then on after completing Calibration. Wait more than 5 seconds between the power off and on.
 *: An error code appears when there is an error.
6. Execute [System Menu/Counter] key > [Adjustment/Maintenance] > [Magnification].

If the developer leak occurs at the above,
execute U140 [AC Calib] > [Calibration] for the developer unit where the leak has occurred again.
After that, lower U140 [AC Calib] > [Calibration].
Then, execute 1 through 6 as marked Important above.

(13-4) Paper size and media type setting
1. Select [System Menu/Counter] key or [System
   Menu] key >[Cassette/MP tray Settings].
2. Select [Cassette Setting] > [Cassette 1 (- 4)] or [MP Tray Setting].
3. Select [Paper Size] and [Media Type] to set them.

(14)Installing Software

Install appropriate software in your PC from the bundled DVD (Product Library) if you want to use the printer function of this machine or perform TWAIN / WIA transmission or Network FAX transmission from your PC. (See the Operation Guide supplied with the main unit)

(15)Maintenance mode workflow (Maintenance mode U952)

1. Input "10871087" using the numeric keys to enter the maintenance mode.
2. Input "952" using the numeric keys and press the [Start] key.
3. Select the place to save the data to execute.
4. Select the item to execute.
5. Press the [Start] key to execute the process.
6. Press the [Stop] key.

*: If not executing the U952, set it in the procedures below.

(15-1) Setting the ID correction operation (Maintenance mode U464)

1.Input "464" using the numeric keys and press the [Start] key.
2.Select [Calib].
3.Select [Full].
4.Press the [Start] key.
   *: Calibration starts.
5.Press the [Stop] key.

(15-2) Color registration adjustment (Maintenance mode U469)

1.Input "469" using the numeric keys and press the [Start] key.
2.Select [Auto]. Outputs the automatic adjustment chart.
3.Select [Execute].
4.Set the chart on the table and press the [Start] key.
   *: Execute the automatic adjustment. [OK] is indicated when adjustment is completed.
5.Press the [Stop] key.

(15-3) Adjusting the halftone automatically (Maintenance mode U410)
: 30 ppm model

1.Input "410" using the numeric keys and press the [Start] key.
2.Press the [Start] key.
   *: Test pattern 1 and Test pattern 2 are output on A4 paper.
3.Set the output Test Pattern 1 as the original.
   *: Set test pattern 1 and place approximately 20 sheets of white paper on it.
4.Press the [Start] key.
   *: The 1st auto adjustment is executed.
5.Set the output Test Pattern 2 as the original.
   *: Set test pattern 2 and place approximately 20 sheets of white paper on it.
6.Press the [Start] key.
   *: The 2nd auto adjustment is executed.
7.[Finish] appears after normal completion.
8.Press the [Stop] key.

(15-4) Adjusting the halftone automatically (Maintenance mode U410) : 35/40 ppm model

1. Input "410" using the numeric keys.
2. Press the [Start] key.
   *: Test pattern 1, Test pattern 2 and Test pattern 3 are output on A4 paper.
3. Set the output Test Pattern 1 as the original.
   *: Set test pattern 1 and place approximately 20 sheets of white paper on it.
4. Press the [Start] key.
   *: The 1st auto adjustment is executed.
5. Set the output Test Pattern 2 as the original.
   *: Set test pattern 2 and place approximately 20 sheets of white paper on it.
6. Press the [Start] key.
   *: The 2nd auto adjustment is executed.
7. Set the output Test Pattern 3 as the original.
   *: Set test pattern 3 and place approximately 20 sheets of white paper on it.
8. Press the [Start] key.
   *: The 3rd auto adjustment is executed.
   *: Test pattern 4 is output on A4 paper.
9. Set the output Test Pattern 4 as the original.
   *: Set test pattern 4 and place approximately 20 sheets of white paper on it.
10. Press the [Start] key.
   *: The 4th auto adjustment is executed.
11. [Finish] appears after normal completion.
12. Press the [Stop] key.

(15-5) Output an own-status report (Maintenance mode U000)

1. Input "000" using the numeric keys and press the [Start] key.
2. Select [Maintenance] and press the [Start] key to output the status report.
3. Press the [Stop] key.

(15-6) Clearing the counts (maintenance mode U927)

1. Input "927" using the numeric keys and press the [Start] key.
2. Select [Execute].
3. Press the [Start] key to clear the counter value.
4. Press the [Stop] key.

(15-7) Setting the delivery date (Maintenance mode U278)

1. Input "278" using the numeric keys and press the [Start] key.
2. Select [Today].
3. Press the [Start] key to set the delivery date.
4. Press the [Stop] key.

(16)Checking LSU cleaning operation (Maintenance mode U474)

     1.Input "474" using the numeric keys and press the [Start] key.
     2.Select [Execute].
     3.Press the [Start] key. Cleaning the LSU slit glass.
     4.Press the [Stop] key.

(17)Exiting from the maintenance mode

1. Input "001" using the numeric keys and press the [Start] key.
*: The maintenance mode is exited.

(18)Completion of installing the main unit (Turning the power off)

1. Make sure that each indicator is not flashing, and then turn the power switch off.
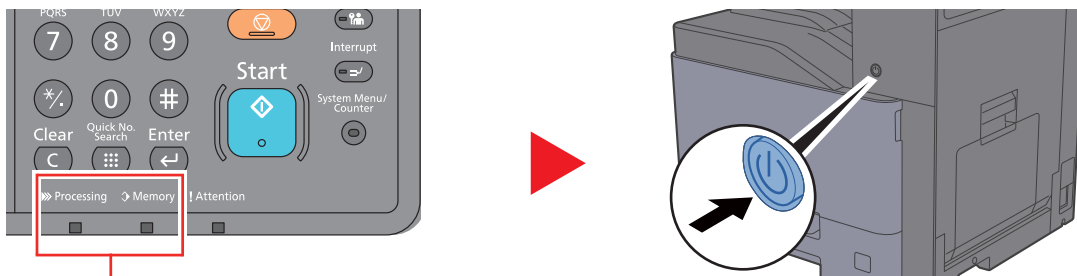
Check if the lamp is turned off.

Figure 2-15

IMPORTANT
When the "Processing" indicator or "Memory" indicator is lit up or blinking, the main unit is operating. Turning the power switch off while the main unit is operating may cause malfunctions.

2-3 Installing the optional equipment

(1) Memory Module: 30 ppm model only

The machine can perform more multiple jobs simultaneously by adding more memory. You can increase the machine's memory up to 2,048 MB by plugging in the optional memory modules (524 MB or 1024 MB).

Precautions for Handling the Memory Modules
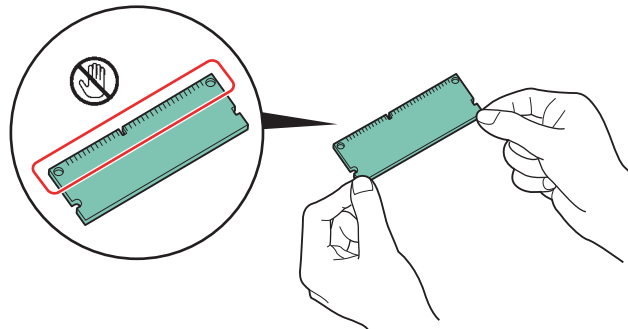
Figure 2-16

Static electricity that accumulates in your body through clothing or carpets may damage memory. To protect a memory, discharge static electricity from your body by touching a water pipe (faucet) or other large metal object. Wear the anti-static wrist band on the wrist.

Installing the Memory Modules

1. Turn off the main unit and disconnect the power cord and all interface cables.
2. Remove the two screws (a) (M3x8) and then remove the rear left cover (b).
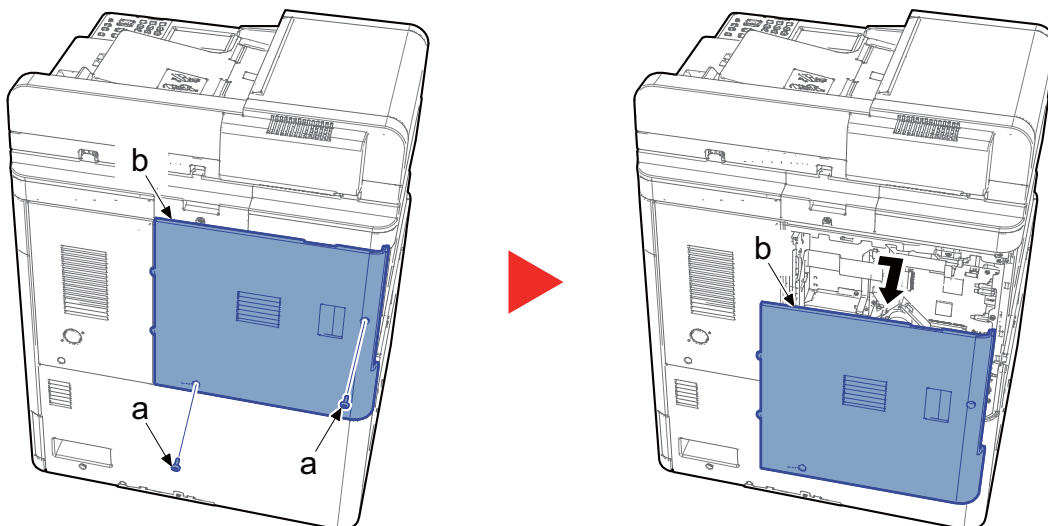
Figure 2-17

3. Remove the memory module (a) from it's package.
4. With the memory (a) connection terminal pointing toward the socket (b), align the cut-out part with the socket terminal and insert it straight in on an angle.
 *: Before inserting the memory module (a), make sure that the power switch is turned off.
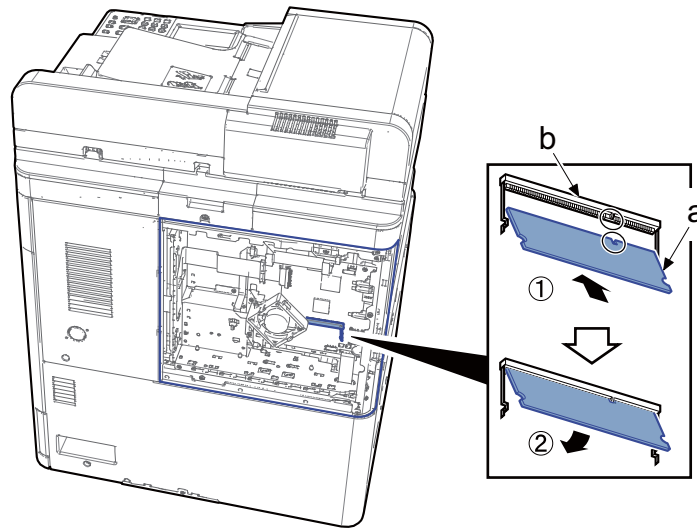
Figure 2-18

5. Carefully press the inserted memory module toward the main unit.
6. Reattach the covers.

Removing the Memory Module
To remove the memory module, remove the rear left cover and the memory slot cover from the main unit. Then, carefully push the two stoppers so that the memory module pops up from the socket.

Verifying the Memory Module
To verify that the memory module is working properly, print out a status page and check its content.

(2) SD/SDHC memory card

Reading the SD/SDHC memory Card
The contents of the SD/SDHC memory card are read into the main unit after turning the power on.

SD/SDHC memory card installation
1. Turn off the main unit and disconnect the power cord and all interface cables.
 *: Before inserting the memory card, make sure that the power switch is turned off.
2. Remove the screw (a) (M3x8).
3. Release the hook (b) in the direction of the arrow and then remove the controller cover (c).
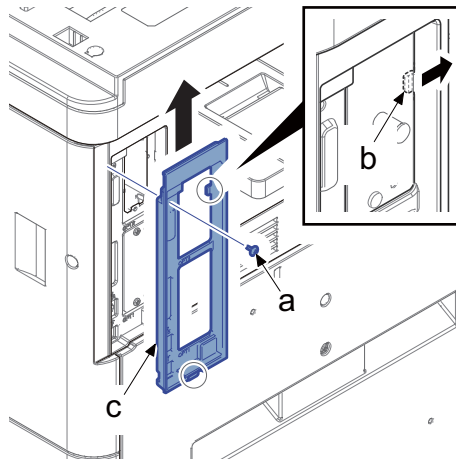
Figure 2-19
4. Install an SD/SDHC memory card (a) in the memory card slot (b).
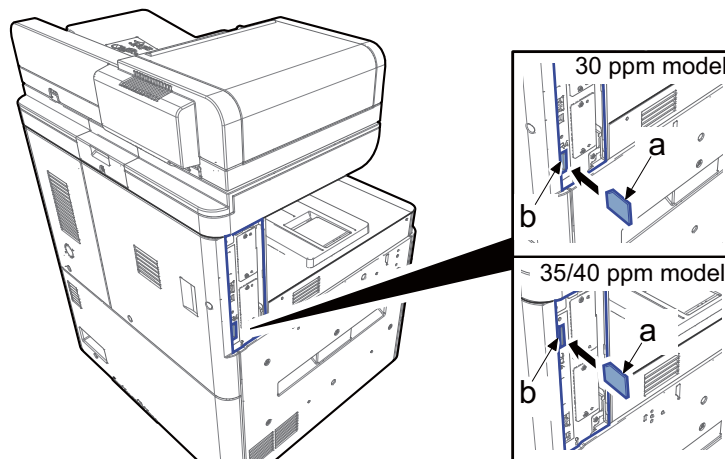
Figure 2-20
5. Reattach the covers.

Formatting an SD/SDHC Memory Card
To use an unused SD/SDHC card, you must first format it with the main unit.
 *: Formatting will delete all existing data on the SD card.
 If you have installed an application, do not format the SD card to avoid the removal of the application in the SD card.

All models common
Format it with a PC or Prescribe command in advance.

30 ppm model can format it from [System Menu].
1. [System Menu/Counter] key > [Common Settings] > [Format SD Card]
2. Format the SD/SDHC memory card.

(3) Hard disk (HD-11): 35 ppm model (Standard in some Markets)

Procedures
1. Turn off the main unit and disconnect the power cord and all interface cables.
2. Remove two screws (a) (M3x8) and then remove the rear left cover by sliding in the direction of the arrow.
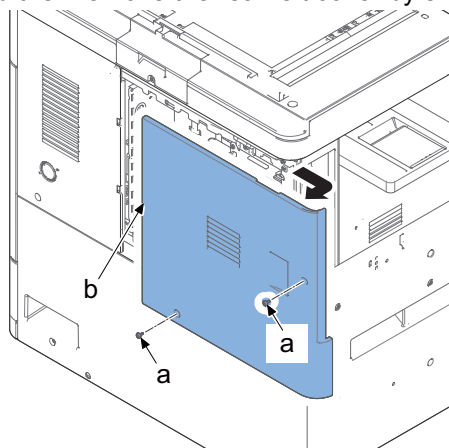
Figure 2-21

3. Secure the hard disk (c) with three screws (b) (M3x8).
4. Connect two connectors (a) of the hard disk to two connectors (d) of the main PWB.
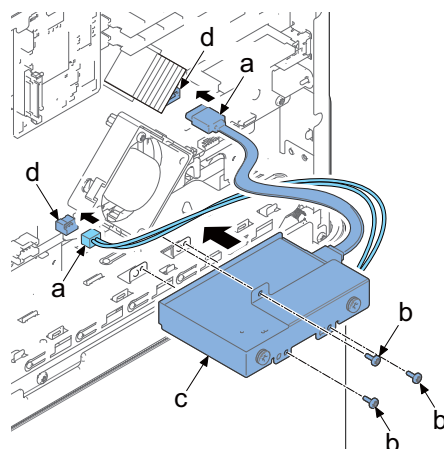
Figure 2-22

5. Reattach the parts in the original position.
 *: When installing a new HDD, it is automatically formatted at the first start-up.
 *: The memory LED blinks when forming a preview image in an HDD after restart if data exists in the FAX box.

Formatting a hard disk
1. Input "10871087" using the numeric keys to enter the maintenance mode.
2. Input "024" using the numeric keys and press the [Start] key.
3. Select [Format].
4. Select [Full].
5. Select [Execute].
6. Press the [Start] key to initialize.
7. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
 *: When an optional HDD is inserted into the main unit for the first time, it must be formatted before use.
  Formatting will delete all existing data on the HDD.

(4) SSD (HD-6/HD-7): 30 ppm model only

(5) Gigabit Ethernet extension kit (IB-50)

(6) Wireless LAN interface (IB-51)

Procedures
1. Turn off the main unit and disconnect the power cord and all interface cables.
2. Remove two screws (a) (M3x8) and then remove the option slot cover (b).
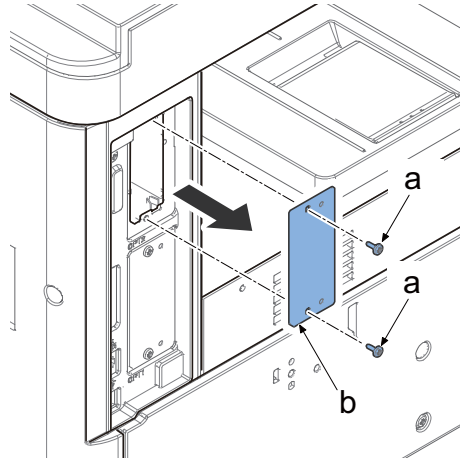
Figure 2-23

3. Insert the PWB unit (b) straight into the option slot (c).
4. Secure the PWB unit (b) with two screws (a) (M3x8) once removed.
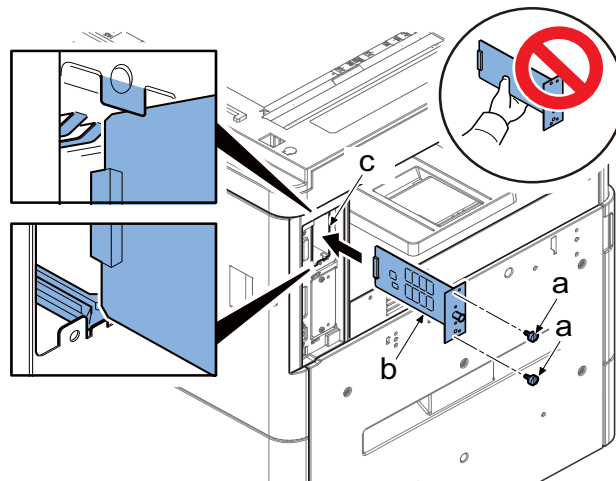
Figure 2-24

*: Install it in the upper slot for the 30pppm model (The lower slot is for FAX only)
*: When installing a new SSD, it is automatically formatted at the first start-up.

Formatting an SSD
1. [System Menu/Counter] key > [Common Settings] > [Format SSD]
2. Format an optional SSD.
*: When an optional SSD is inserted into the main unit for the first time, it must be formatted before use. Formatting will delete all existing data on an SSD.
*: This setting does not appear if the optional security kit is installed.

(7) Document table DT-5100

Bundled parts of Document table DT-5100 (1902R60UN1)

Original tray.. 1 pc
tray lower cover... 1 pc
tray mounting plate.. 1 pc
Reinforcement plate .... 1 pc
Hook-and-loop fastener[*1] .... 2 pc
Label .... 2 pc
Edgings[*1] .... 1 pc
Wire saddles[*1] .... 1 pc
Screw (M3x8 screw with the binding head)............. 3 pc
Screw (M3x20 screw with the binding head)........... 2 pc

[*1]: Not used in this model.
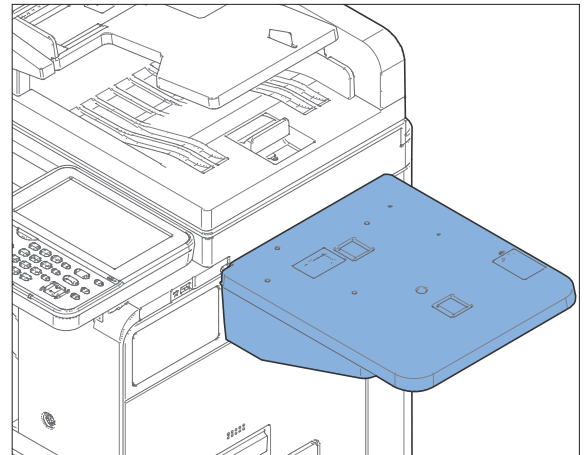
Procedures

1. Remove the right cover (a).
2. Remove the screw (b) (M3x8).
3. Slide the right upper cover (c) in the direction of the arrow and detach it.
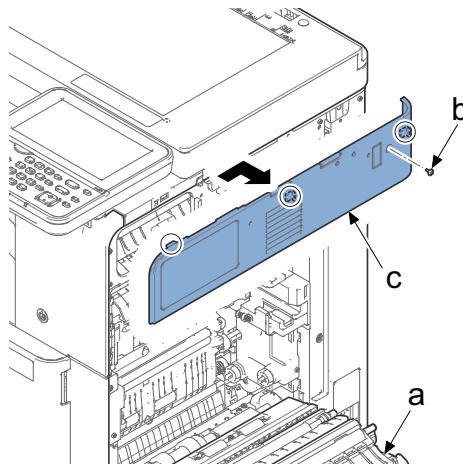
Figure 2-25

4. Hang the hook (c) of the reinforcement plate (b) at the backside of the right upper stay (a) and secure it with the screw (d) (M3x8).
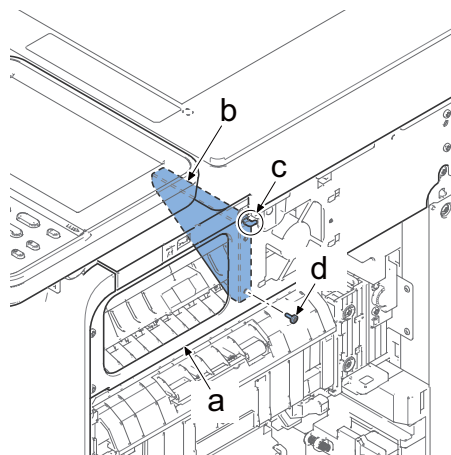
Figure 2-26

5. Cut out two cut-out pieces (c) from the right upper cover (a) with pliers (b).
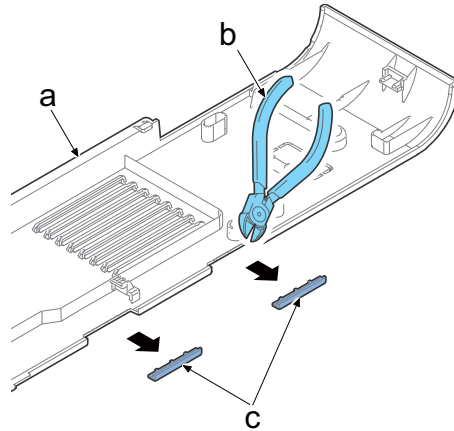
Figure 2-27

6. Reattach the right upper cover to the original position in the main unit.
7. Hang two hooks(b) of the tray fixing plate (a) and secure it to the main unit (d) with two screws (c) (M3x20).
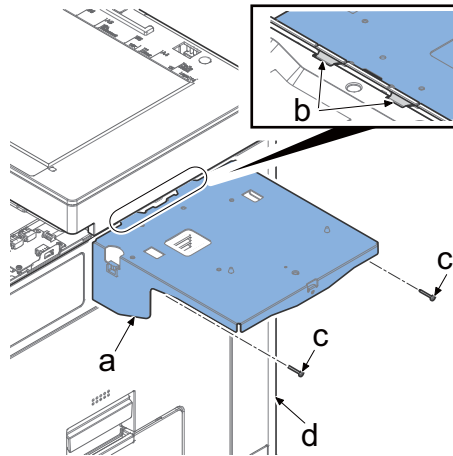
Figure 2-28

8. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
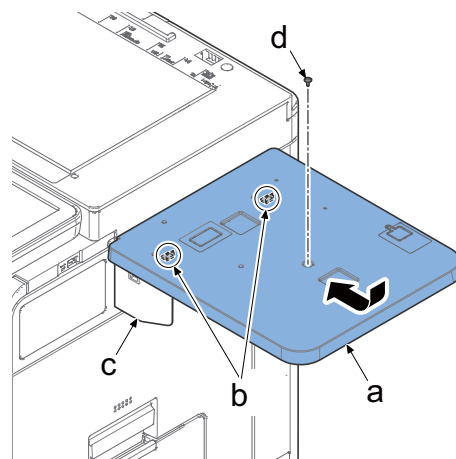
Figure 2-29

9. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
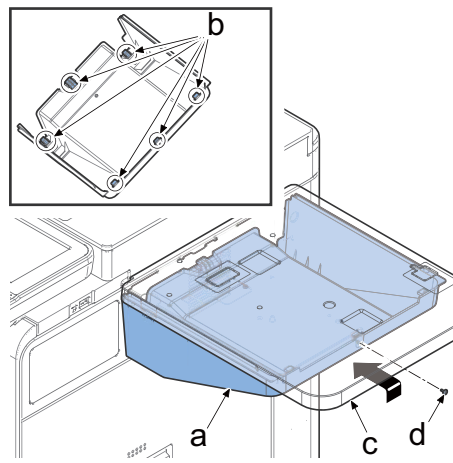
Figure 2-30

10. Affix the concealing labels (b) to two concaves of the document tray (a).
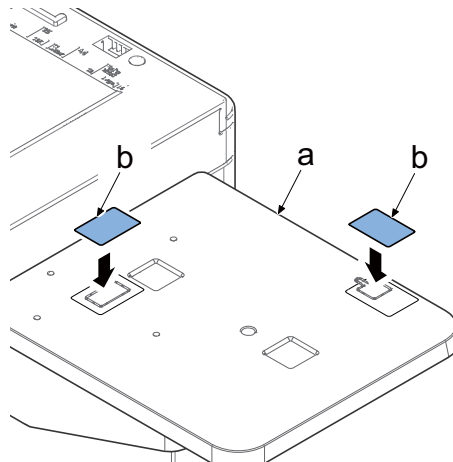
Figure 2-31

(8) Key counter: 35/40 ppm models only

Key counter installation requires the following parts:

Key counter (3025418011) .... 1 pc
Key counter set (302A369709) .... 1 pc
Key counter wire (302K946AJ0) .... 1 pc
Document table DT-5100 (1902R60UN1) .... 1 pc

Bundled parts of key counter set (302A369709)

Key counter set .... 1 pc
Key counter cover fixing plate .... 1 pc
Key counter fixing plate.. 1 pc
Key counter cover .... 1 pc
Key counter mounting plate .... 1 pc
Edgings[*1] .... 2 pc
Bands[*1] .... 1 pc
Screws (M3x8 P-tite)[*1] .... 1 pc
Screws (M4x10 P-tite)[*1] .... 2 pc
Screws (M4x10 S-tite).. 2 pc
Screws (M3x6 Bronze)... 2 pc
Screws (M4x20 S-tite)[*1] .... 2 pc
Nut M3[*1] .... 1 pc
Screw (M3x8 screw with the binding head)[*1] .... 1 pc
Screws (M4x30 S-tite)[*1] .... 1 pc
Screws (M4x6 TP chrome)...................................... 5 pc
Screws (M4x10 TP chrome)[*1] .... 2 pc

Bundled parts of Document table DT-5100 (1902R60UN1)

Original tray.. 1pc
tray lower cover.. 1pc
tray mounting plate... 1pc
Reinforcement plate 1pc
Hook-and-loop fastener[*1] 2pc
Label[*2].. 2pc
Edgings[*1] 1pc
Wire saddles[*1].. 2pc
Screw (M3x8 screw with the TP binding head)....... 3pc
Screw (M3x20 screw with the binding head).......... 2pc

[*1]: Not used in this model.

[*2]: 1 pc is used for this model.
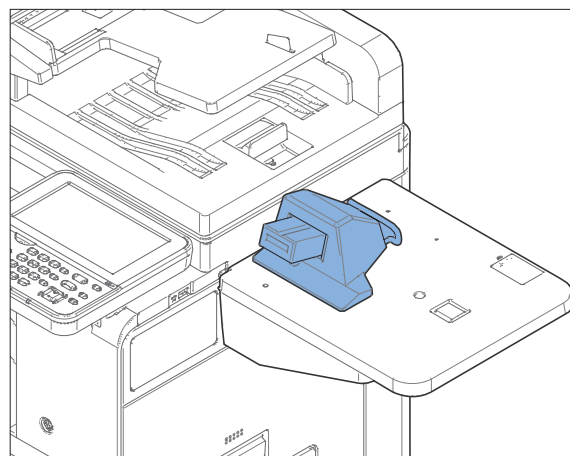
Procedures

1. Turn the power switch off and disconnect the power plug.
2. Secure the key counter set (d) to the key counter mounting plate (c) with two screws (a) (M3x6) and one nut (b) (M3).
 *: Take out the wire (h) from the center of the key counter mounting plate as shown in the figure.
3. Secure the key counter mounting plate (g) to the key counter cover (f) with two screws (e)(M4x6).
4. Secure the key counter fixing plate (c) to the key counter mounting plate (g) with two screws (j) (M4x6).
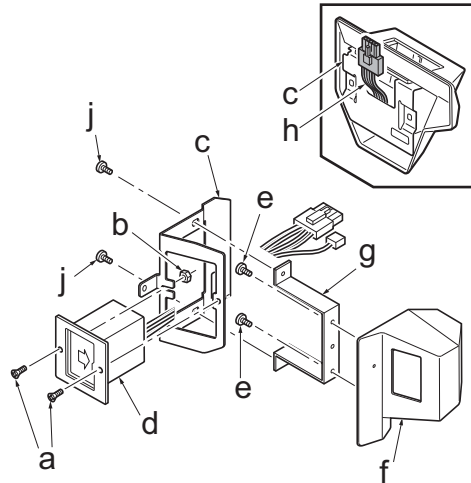
Figure 2-32

5. Remove the right cover (a).
6. Remove the screw (b) (M3x8).
7. Slide the right upper cover (c) in the direction of the arrow and detach it.
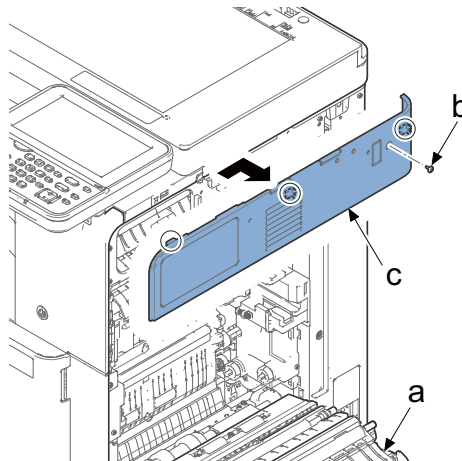
Figure 2-33

8. Cut out three cut-out pieces (c) from the right upper cover (a) with pliers (b).
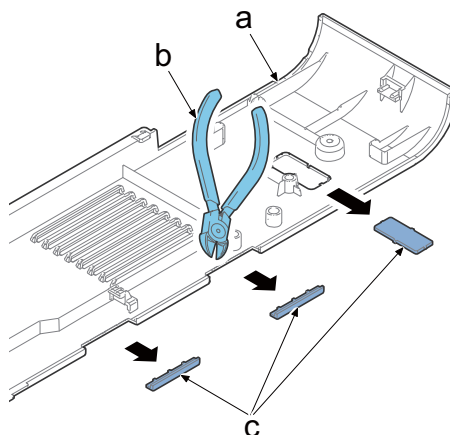
Figure 2-34

9. Reattach the right upper cover to the main unit (a).
10. Hang two hooks(c) of the tray fixing plate (b) and secure it with two screws (d) (M3x20).
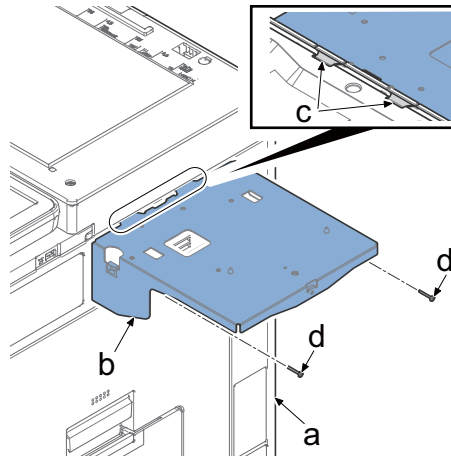
Figure 2-35

11. Cut off the cut-off piece (c) for the aperture (b) of the document tray (a) with pliers (d).
12. Hang two hooks (e) of the document tray (a) on the tray mounting plate (f) and secure it with the screw (g) (M3x8).
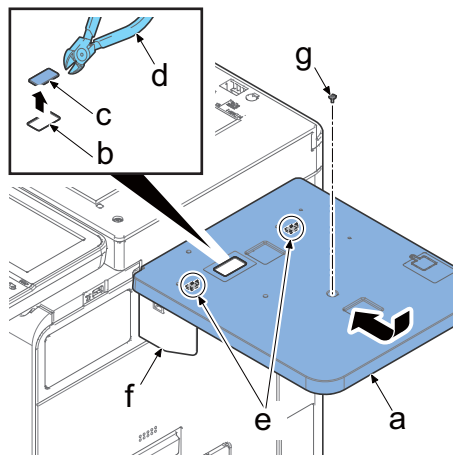
Figure 2-36

13. Secure the key counter cover fixing plate (b) to the document tray (c) with two screws (a) (M4x10).
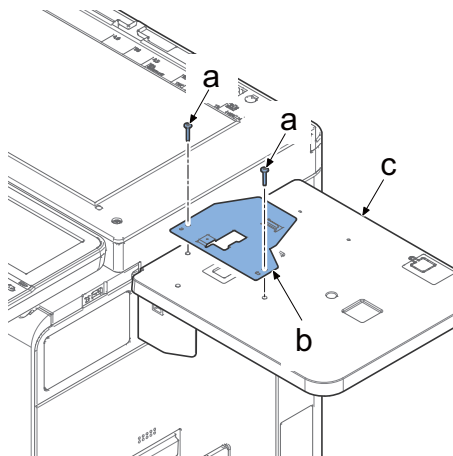
Figure 2-37

14. Connect the connector (b) of the key counter wire (a) to the engine PWB (c).
15. Align the key counter wire (a) through three apertures (d).
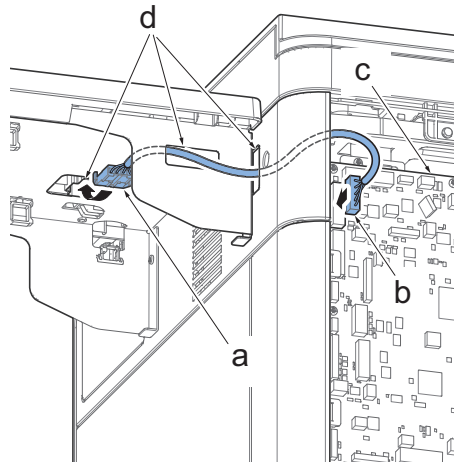
Figure 2-38

16. Connect the key counter signal wire (a) to the key counter wire (b).
17. Secure the key counter cover (c) to the key counter fixing plate (e) with a screw (d) (M4x6).
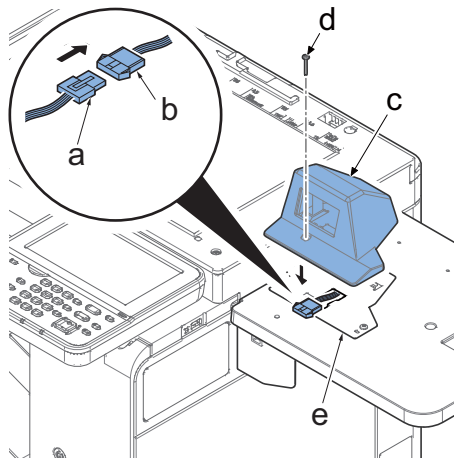
Figure 2-39

18. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
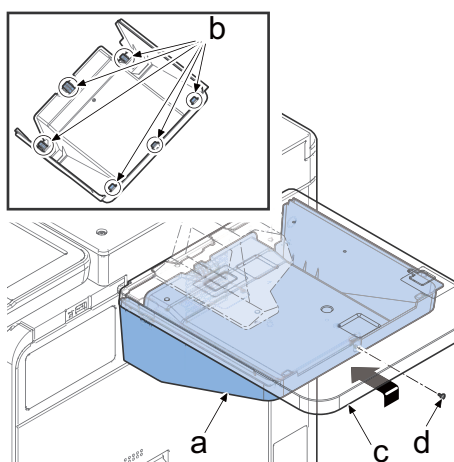
Figure 2-40

19. Affix the concealing labels (b) to concave of the document tray (a).
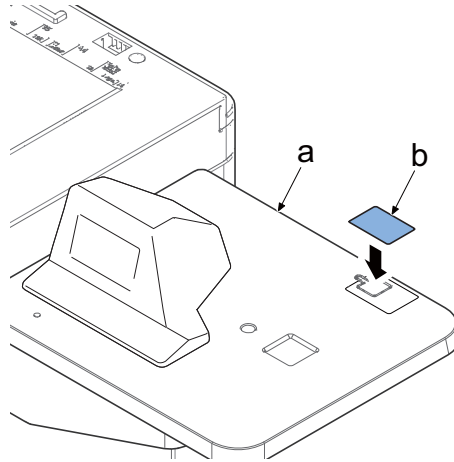
Figure 2-41

20. Reattach the rear right cover to the main unit.
21. Set the key counter to the key counter socket.
22. Turn the power switch on and enter the maintenance mode.
23. Execute maintenance mode U204 to set [Key-Counter]. (See page 6-297)
24. Exiting from the maintenance mode.
25. If the key counter is disconnected, check [Set key counter] message is indicated.
26. Check that the key counter operates properly for each copy.

(9) ID card reader

ID card reader installation requires the following parts:

ID card reader holder(F) (1702R60UN1) .... 1 pc

Supplied parts of ID card reader holder (F) (1702R60UN1)

ID card reader holder .... 1 pc
ID card cover.. 1 pc
Sponge .... 1 pc
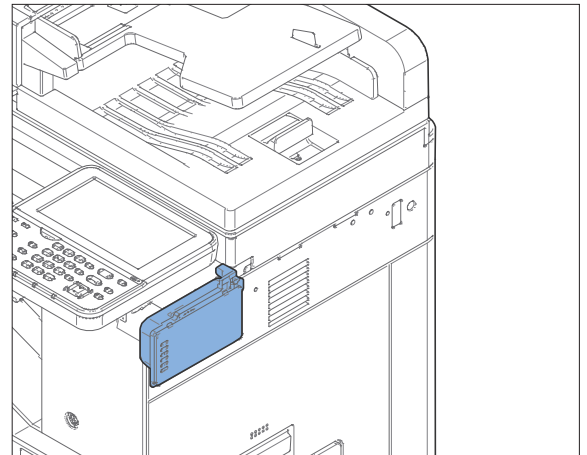
Procedures

1. Turn the power switch off and disconnect the power plug.
2. Attach the ID card reader (a) to the ID card reader holder (b) while aligning the USB cable (d) aligning the rib (d).
3. Hung the USB cable (c) on the hook (e).
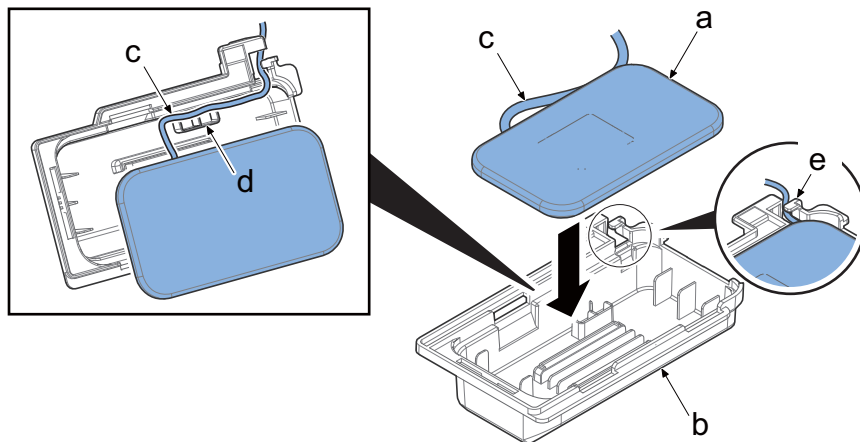
Figure 2-42

4. Pull up the operation unit (a).
5. Remove the screw (b) (M3x8).
6. Remove the operation lid (c) from the operation unit (a) in the direction of the arrow.
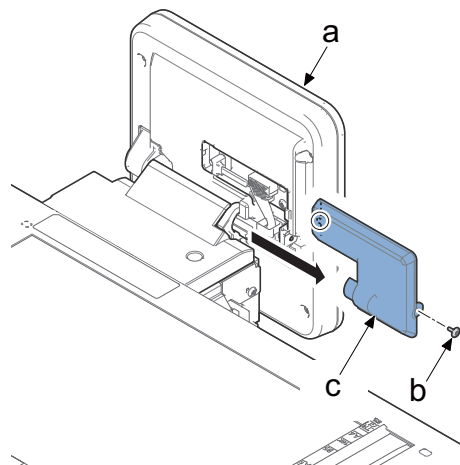
Figure 2-43

7. Remove one screw (b) (M3x8) and then remove the upper exit cover (c).
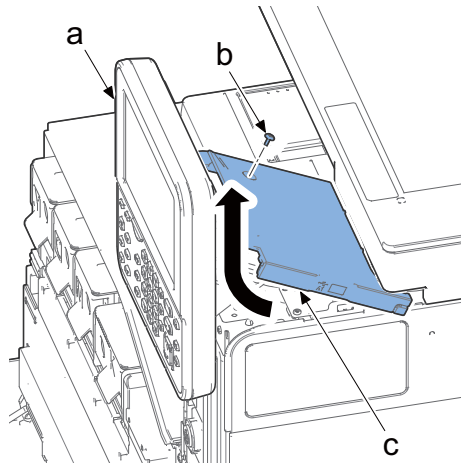
Figure 2-44

8. Remove the right cover (a).
9. Remove the screw (b) (M3x8).
10. Slide the right upper cover (c) in the direction of the arrow and detach it.
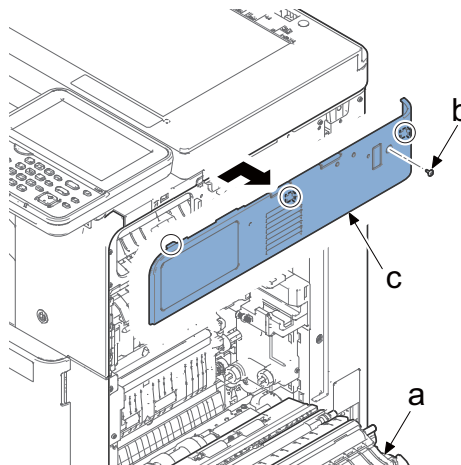
Figure 2-45

11. Release two hooks (b) and remove the auxiliary cover (c) from the right upper cover (a).
12. Attach the ID card cover (d) to the right upper cover (a).
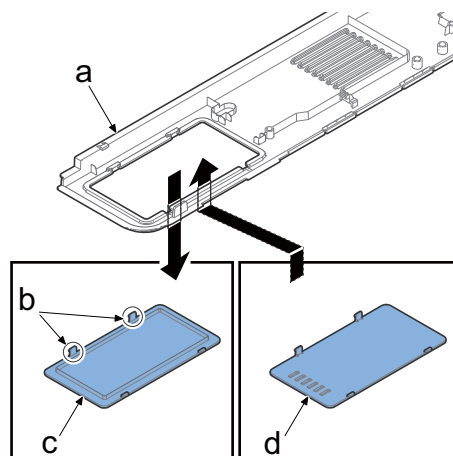
Figure 2-46

2R4/2R5/2R6

13. Insert the ID card reader holder (a) into the right upper stay (b) and attach it.
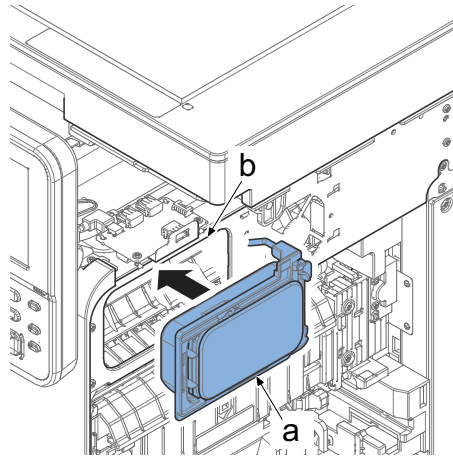
Figure 2-47

14. Reattach the right upper cover to the original position.
15. Close the right cover.
16. Connect the USB connector (a).
17. Wind the excess portion of the USB cable (b) and push it under the image scanner unit (c).
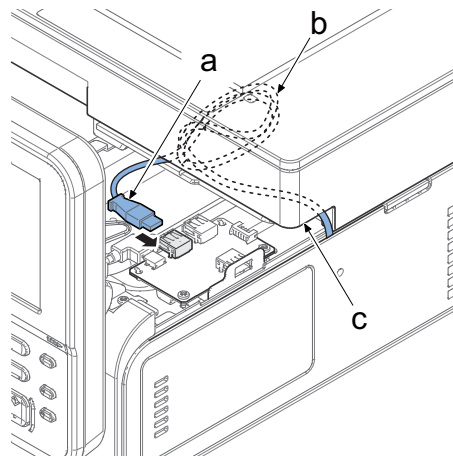
Figure 2-48

18. Cut out the cutout piece (b) on the upper eject cover (a) with pliers (c).
19. Reattach the upper eject cover (a) with the screw (d) (M3x8).

Figure 2-49

2-51
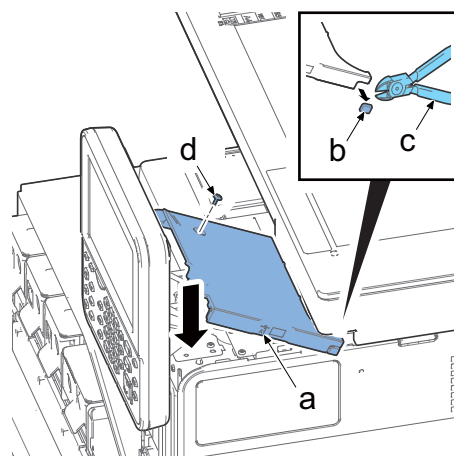
20. Reattach the operation lid (c) to the operation unit (a) with the screw (b) (M3x8).
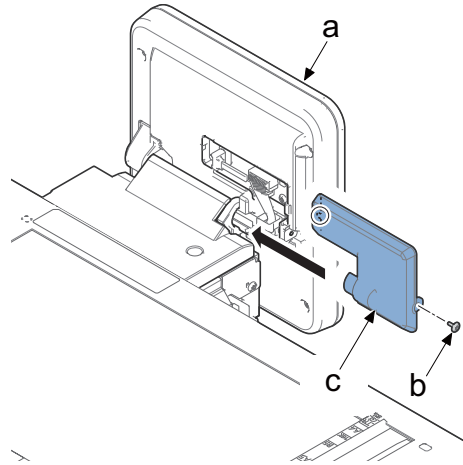
Figure 2-50

Activating Card Authentication

To install the optional function, you need the License Key. Please access the designated website of your dealer or service representative, and register the "Machine No." indicated on your machine and the "Product ID" indicated on the License Certificate supplied with the product to issue the License Key.
Refer to [2-4 Optional Application] when starting the trial. (See page 2-77)

(10)Key card MK-2: 35/40ppm models only (100 V model only)

Key counter installation requires the following parts:

Key card MK-2 (8J272002) .... 1 pc
Document table DT-5100 (1902R60UN1) .... 1 pc
Bushing (M12034901).. 1 pc
Mounting plate (78660130) .... 1 pc
Screws (M3x8 P-tite TP) (7BB202308H) .... 2 pc

Bundled parts of key card MK-2 (8J272002)

Key card MK-2 .... 1 pc
MK-2 mounting plate .... 1 pc
Screws (M4x16) .... 2 pc

Bundled parts of Document table DT-5100 (1902R60UN1)

Original tray... 1 pc
tray lower cover... 1 pc
tray mounting plate.. 1 pc
Reinforcement plate .... 1 pc
Hook-and-loop fastener[1]...................................... 2 pc
Label[1].. 2 pc
Edgings[1] .... 1 pc
Wire saddles[1].. 2 pc
Screw (M3x8 screw with the binding head)............. 3 pc
Screw (M3x20 screw with the binding head).......... 2 pc

[1]: Not used in this model.

[2]: 1 pc is used for this model.
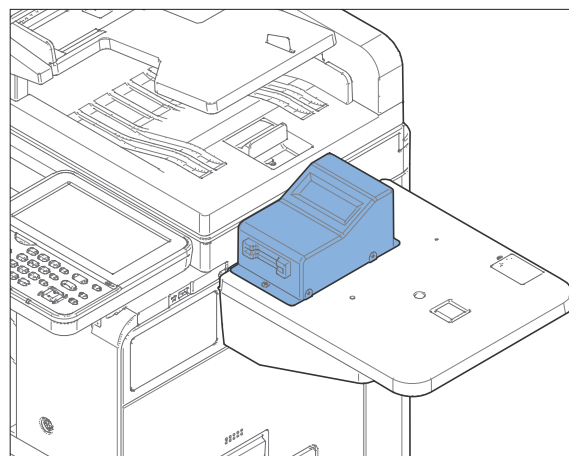
Procedures

1. Turn the power switch off and disconnect the power plug.
2. Attach the document table (a) to the main unit (b).
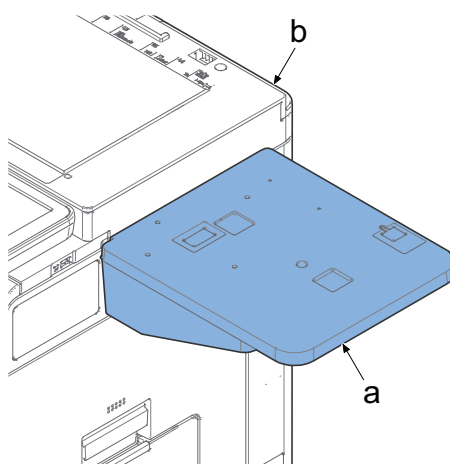
Figure 2-51

3. Remove four screws (b) (M3x8) from MK-2 (a).

4. Secure the MK-2 mounting plate (c) with four screws (b) (M3x8) that are removed from MK-2 (a).
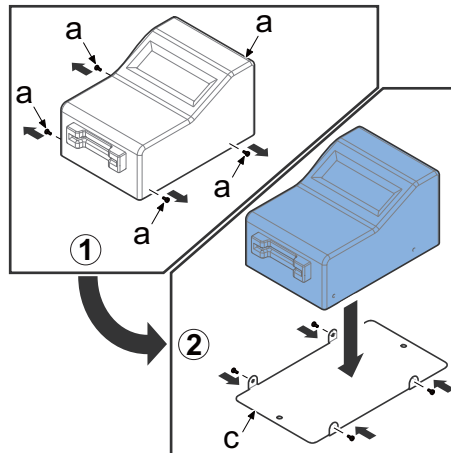
Figure 2-52

5. Secure the MK-2 (b) to the document table (a) with two screws (c) (M4x16).

6. Affix the concealing label (d) to the convex of the document table (a).
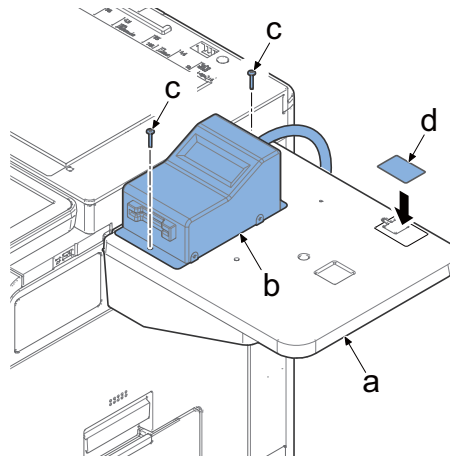
Figure 2-53

7. Remove the screws (a) (M3x8) and then remove the rear right cover (b).

8. Cut out the cut-out piece (d) from the rear right cover (b) with pliers (c).
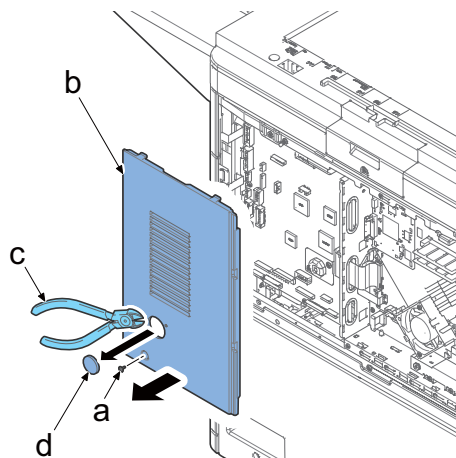
Figure 2-54

9. Pass the key counter wire (a) through the hole on the rear right cover (b) and connect it to the connector (c).
10. Attach the rear right cover (b).
11. Pull out the excess portion of the key card wire (a) to the machine rear side to position the bushing (d).
12. Secure the mounting plate (e) with two screws (f) (M3x8).
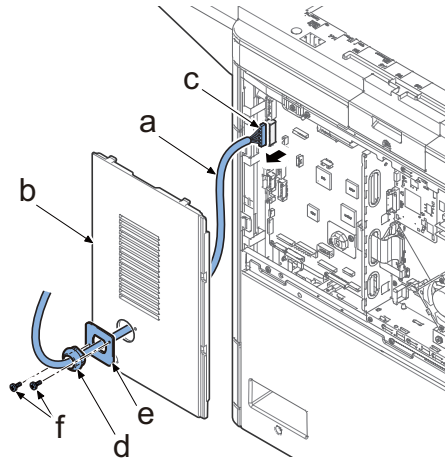
Figure 2-55

(11)USB Keyboard

USB keyboard installation requires the following parts:
Document table DT-5100 (1902R60UN1) .... 1 pc
USB Keyboard .... 1 pc

Bundled parts of Document table DT-5100 (1902R60UN1)
Original tray.. 1 pc
Tray lower cover... 1 pc
Tray mounting plate.. 1 pc
Reinforcement plate .... 1 pc
Hook-and-loop fastener.. 2 pc
Label .... 2 pc
Edgings .... 1 pc
Wire saddles .... 2 pc
Screw (M3x8 screw with the binding head)............. 3 pc
Screw (M3x20 screw with the binding head)........... 2 pc
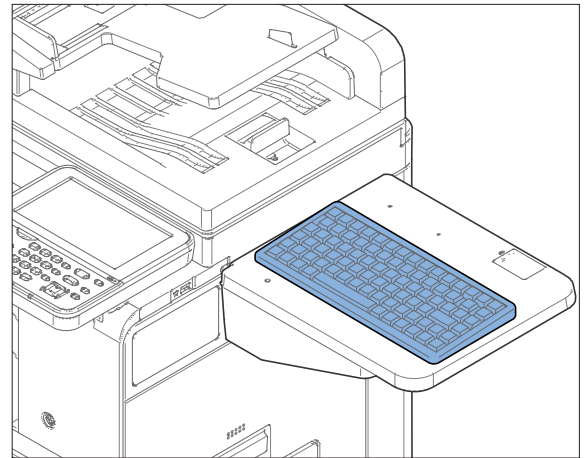
Procedures
1. Turn the power switch off and disconnect the power plug.
2. Pull up the operation unit (a).
3. Remove the screw (b) (M3x8).
4. Remove the operation lid (c) from the operation unit (a) in the direction of the arrow.
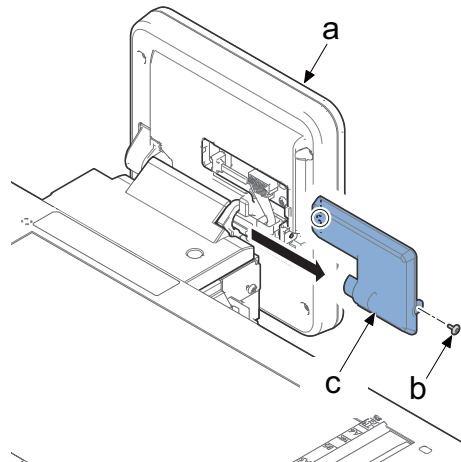
Figure 2-56

5. Remove one screw (b) (M3x8) and then remove the upper exit cover (c).
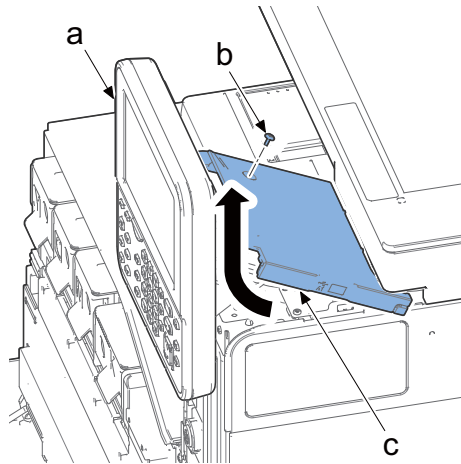
Figure 2-57

6. Remove the right cover (a).
7. Remove the screw (b) (M3x8).
8. Slide the right upper cover (c) in the direction of the arrow and detach it.
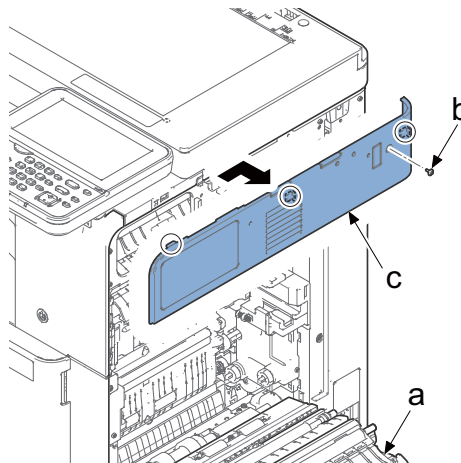
Figure 2-58

9. Hang the hook (c) of the reinforcement plate (b) at the backside of the right upper stay (a) and secure it with the screw (d) (M3x8).
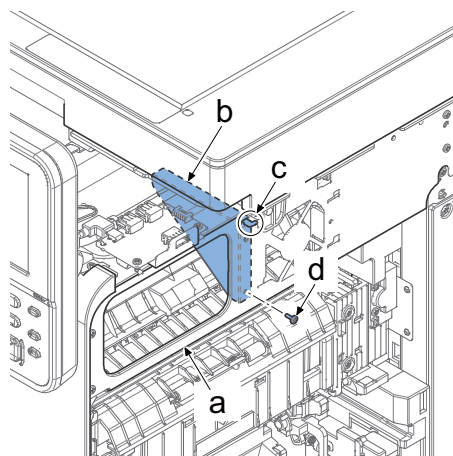
Figure 2-59

10. Cut out two cut-out pieces (c) from the right upper cover (a) with pliers (b).
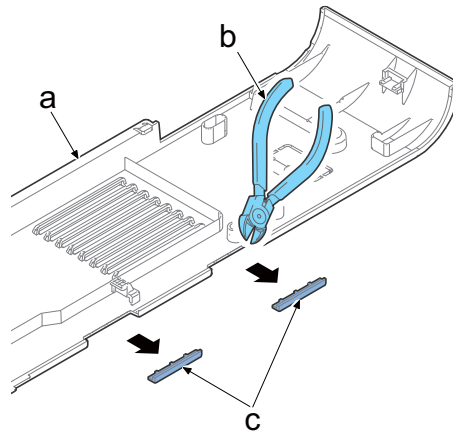
Figure 2-60

11. Reattach the right cover to the original position in the main unit.
12. Hang two hooks(b) of the tray fixing plate (a) and secure it to the main unit (d) with two screws (c) (M3x20).
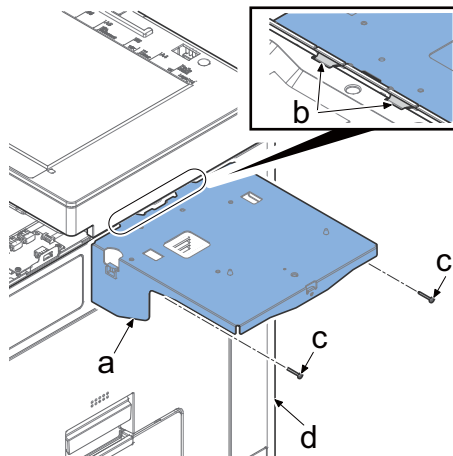
Figure 2-61

13. Cut off the cut-off piece (c) for the aperture (b) of the document tray (a) with pliers (d).
14. Hang two hooks (e) of the document tray (a) on the tray mounting plate (f) and secure it with the screw (g) (M3x8).
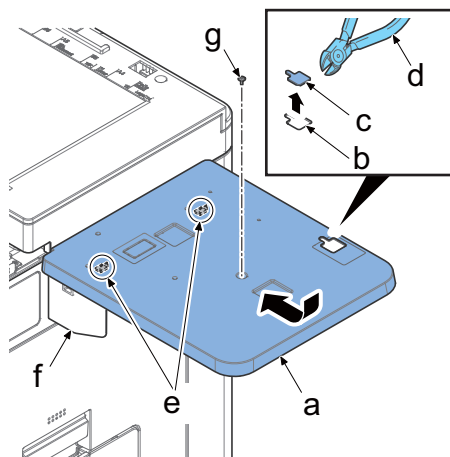
Figure 2-62

15. Affix a pair of hook-and-loop fasteners (b) to two concaves (a) of the document tray.
16. Affix the concealing label (d) over the apertures (c) of the document tray.
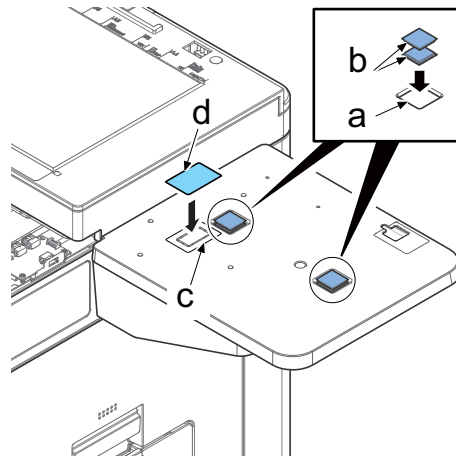
Figure 2-63

17. Place the keyboard (a) on the hook-and-loop fastener(b) and press it to fix.
18. Pass the USB connector (c) through the aperture(d) of the document tray.
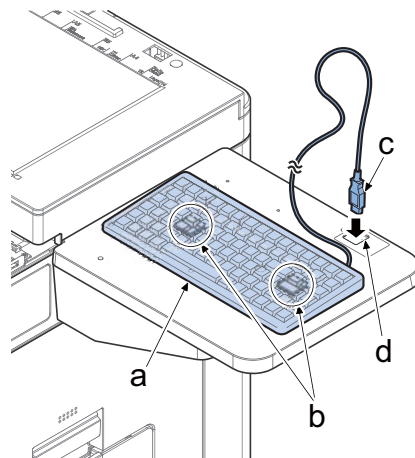
Figure 2-64

19. Connect the USB connector (a) to the main unit.
20. Align the USB cable (b) through the edging (c) and wind the excess cable to two wire saddles (d).
21. Affix the concealing label (e) over the apertures (f) of the document tray.
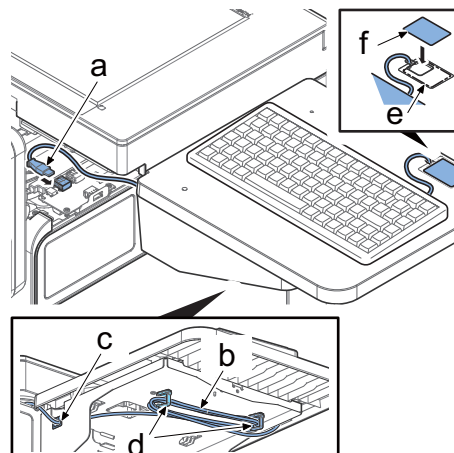
Figure 2-65

22. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
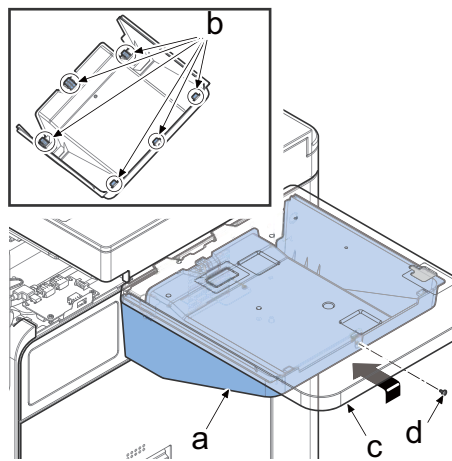
Figure 2-66

23. Cut out the cutout piece (b) on the upper eject cover (a) with pliers (c).
24. Reattach the upper eject cover (a) with the screw (d) (M3x8).
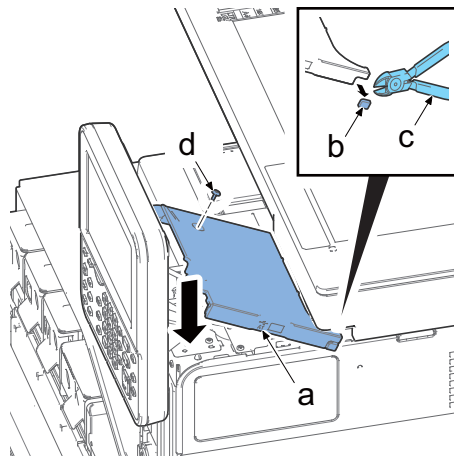
Figure 2-67

25. Reattach the operation lid (c) to the operation unit (a) with the screw (b) (M3x8).
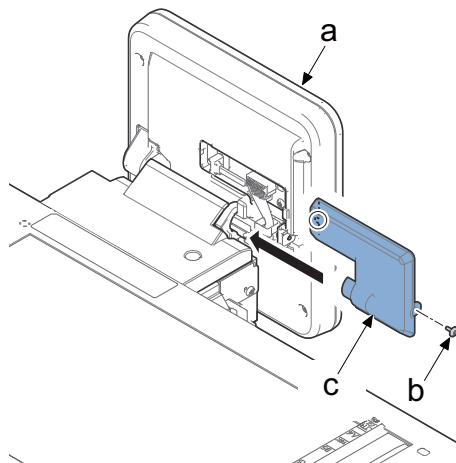
Figure 2-68

(12)Handset (100 V model only)

(12-1) When attaching the main unit directly

Handset installation requires the following parts:
Handset (1909AG9JP0)... 1 pc

Bundled parts of handset (1909AG9JP0)
Handset... 1 pc
Handset holder.. 1 pc
Handset mounting plate .... 1 pc
Protection cover .... 1 pc
Pins .... 2 pc
Telephone wire .... 1 pc
Modular cord .... 1 pc
Nut M4.. 2 pc
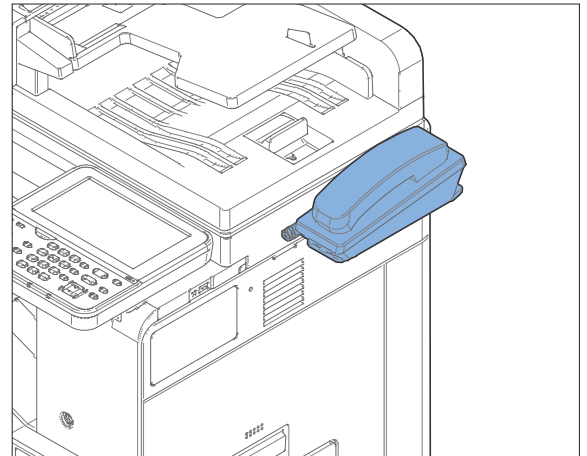
Procedures
1. Turn the power switch off and disconnect the power plug.
2. Secure the handset mounting plate (a) to the main unit (c) with two pins (b).
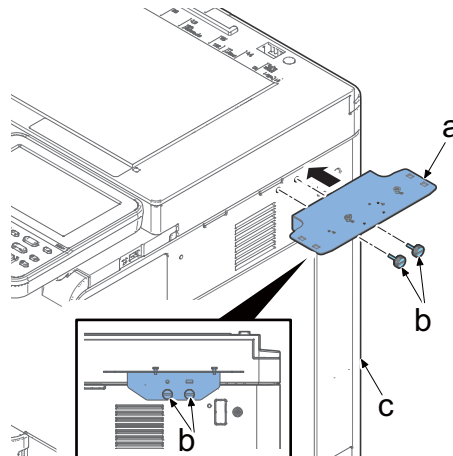
Figure 2-69

3. Connect the connector (c) of the telephone wire (b) to the handset holder (a).
4. Stretch the telephone wire (d) and insert it into the cable guide (d).
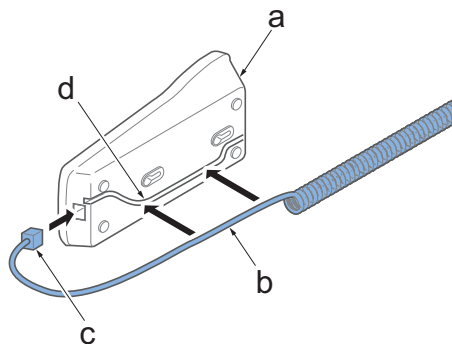
Figure 2-70

5. Put the catches (c) at the backside of the handset holder (b) on two pins and slide it toward you to secure it.
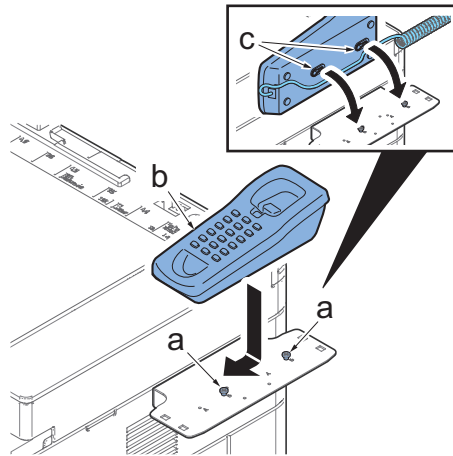
Figure 2-71

6. Attach the protection cover (a) to the handset mounting plate (b).
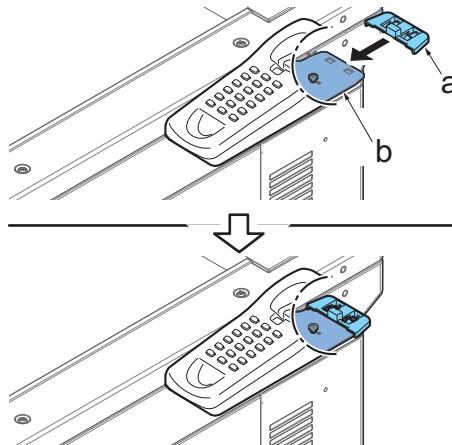
Figure 2-72

7. Connect the phone wire (a) to the handset (b).

 *: Insert the telephone wire (a) between the handset holder (c) and main unit (d).
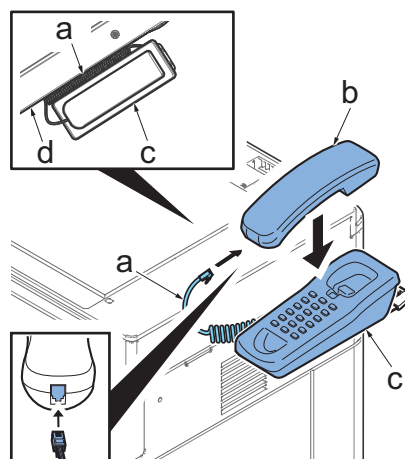
Figure 2-73

8. Connect the modular cord (a) to the handset holder (b).
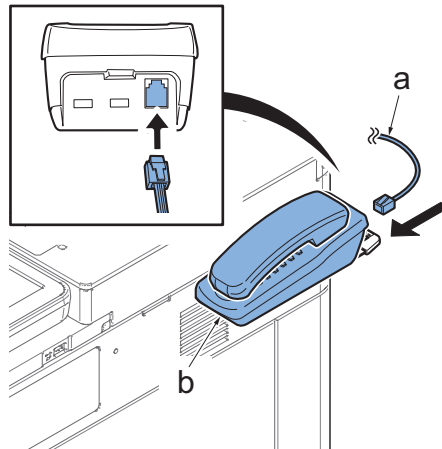
Figure 2-74

9. Connect one end of the connector (b) of the modular cord (a) to the machine left side (c).
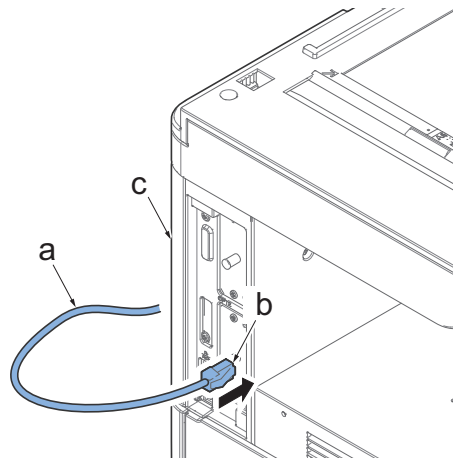
Figure 2-75

(12-2) In case installing the document table

Handset installation requires the following parts:
handset (1909AC9JP0).. 1 pc
Document table DT-5100 (1902R60UN1).............. 1 pc

Bundled parts of handset (1909AC9JP0)
Handset.. 1 pc
Handset holder.. 1 pc
Handset mounting plate[*1] .... 1 pc
Protection cover[*1] .... 1 pc
Pins .... 2 pc
Telephone wire .... 1 pc
Modular cord .... 1 pc
Nut M4... 2 pc

Bundled parts of Document table DT-5100 (1902R60UN1)
Original tray... 1 pc
Tray lower cover.. 1 pc
Tray mounting plate... 1 pc
Reinforcement plate .... 1 pc
Hook-and-loop fastener[*1] .... 2 pc
Label .... 2 pc
Edgings[*1] .... 1 pc
Wire saddles[*1] .... 2 pc
Screw (M3x8 screw with the binding head)............. 3 pc
Screw (M3x20 screw with the binding head).......... 2 pc

[*1]: Not used in this model.

Procedures
1. Turn the power switch off and disconnect the power plug.
2. Remove the right cover (a).
3. Remove the screw (b) (M3x8).
4. Slide the right upper cover (c) in the direction of the arrow and detach it.
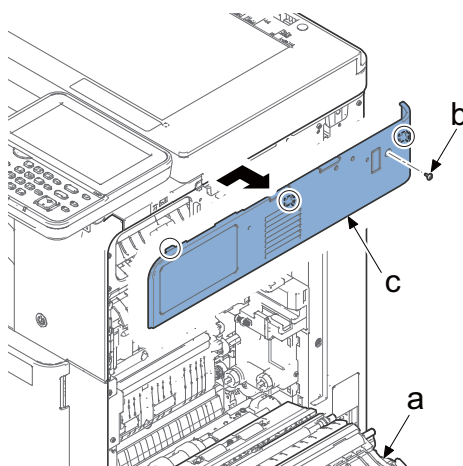
Figure 2-76

5. Hang the hook (c) of the reinforcement plate (b) at the backside of the right upper stay (a) and secure it with the screw (d) (M3x8).
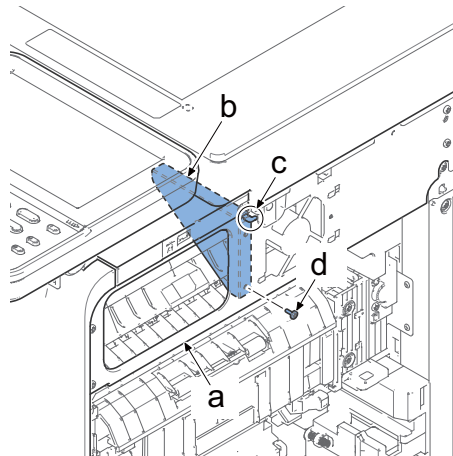
Figure 2-77

6. Cut out two cut-out pieces (c) from the right upper cover (a) with pliers (b).
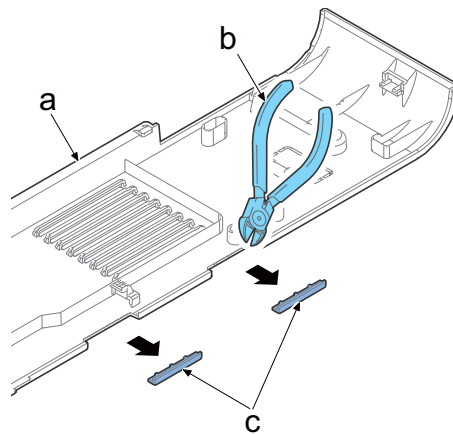
Figure 2-78

7. Reattach the right upper cover to the main unit.
8. Hang two hooks(b) of the tray fixing plate (a) and secure it to the main unit (d) with two screws (c) (M3x20).
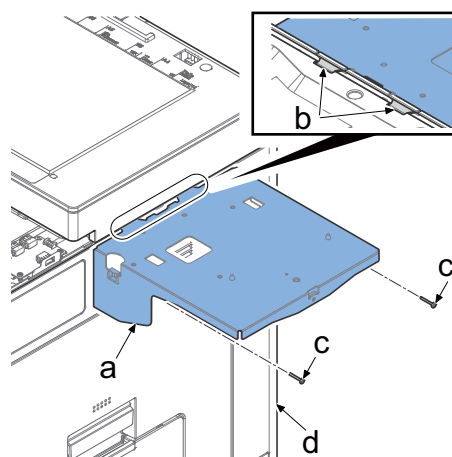
Figure 2-79

9. Remove two pins (b) and two nuts (c) from the handset mounting plate (a).
10. Secure the original tray (d) with two pins and two nuts once removed.
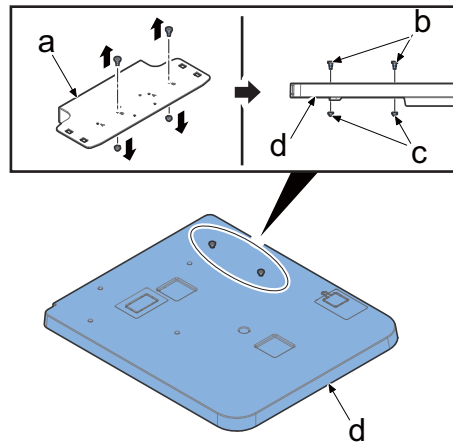
Figure 2-80

11. Put two catches (c) at the backside of the handset holder (b) into two pins (a) and slide it toward you to fix it on the document tray (d).
12. Connect the modular cord (e) to the handset holder (b).
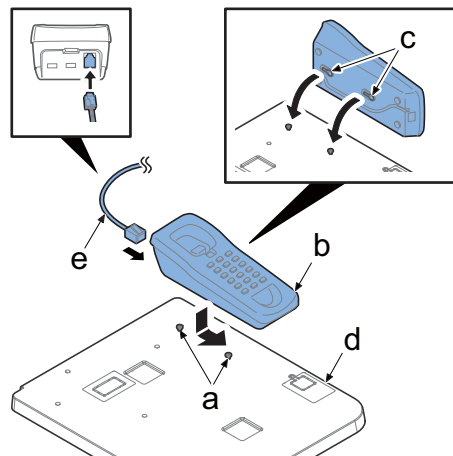
Figure 2-81

13. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
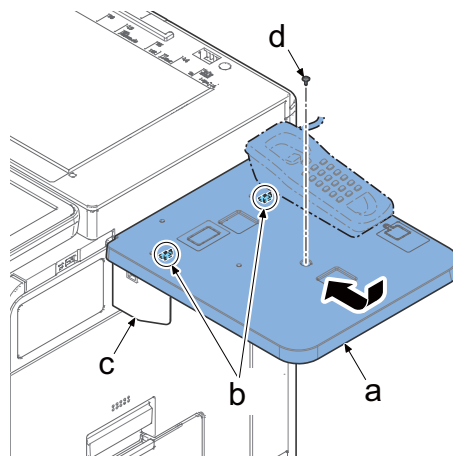
Figure 2-82

14. Hang six hooks of the tray lower cover (a) on the document tray (c) and secure it with the screw (d) (M3x8).
15. Affix the concealing label (f) over 2 points of the apertures (e) of the document tray.
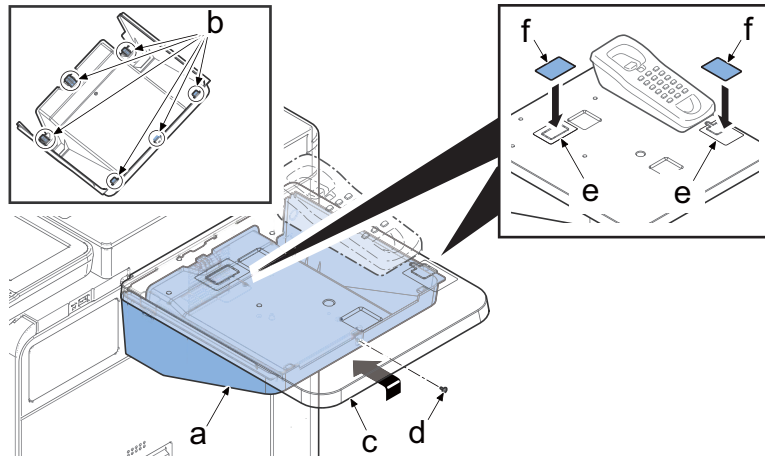
Figure 2-83

16. Connect the telephone wire (a) to the handset (b) and handset holder (c).
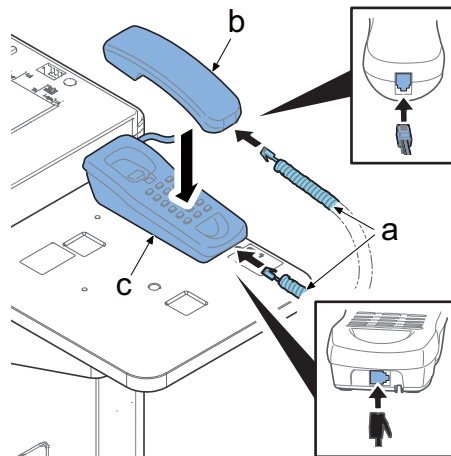
Figure 2-84

17. Connect one end of the connector (b) of the modular cord (a) to the machine left side (c).
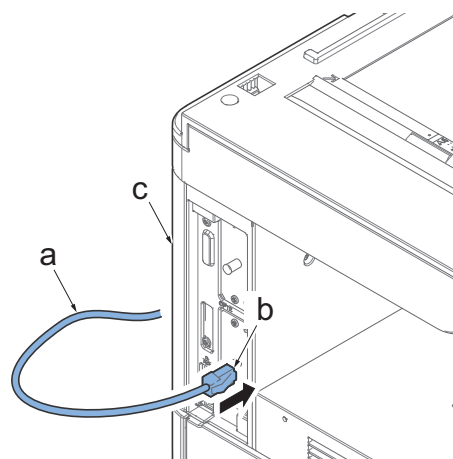
Figure 2-85

(13)Cassette heater

(13-1) In case of the main unit cassette (standard for 100 V 40ppm model)

Cassette heater installation requires the following parts:
Cassette heater 100 set (302R49401_) .... 1 pc
Cassette heater 120 set (302R49402_) .... 1 pc
Cassette heater 240 set (302R49403_) .... 1 pc

Bundled parts of cassette heater 100/120/240
Cassette heater 100 .... 1 pc
Cassette heater 120
Cassette heater 240
High temperature caution label .... 1 pc
Heater connector cover .... 1 pc
Wire saddles .... 2 pc
Screw (M3x4 screw with the binding head) .... 2 pc
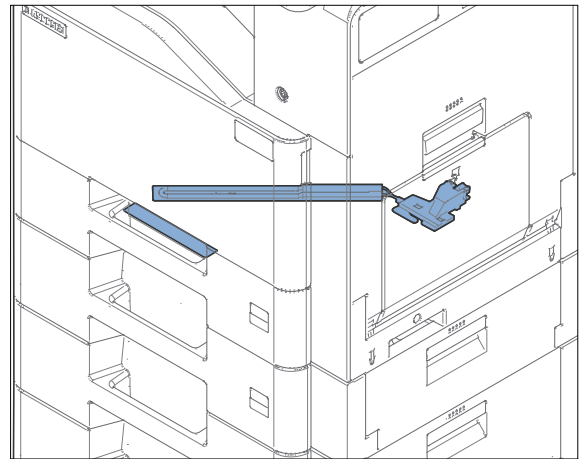
Procedures
1. Turn the power switch off and disconnect the power plug.
2. Pull out the cassette (a) from the main unit (b) and remove it in the direction of the arrow.
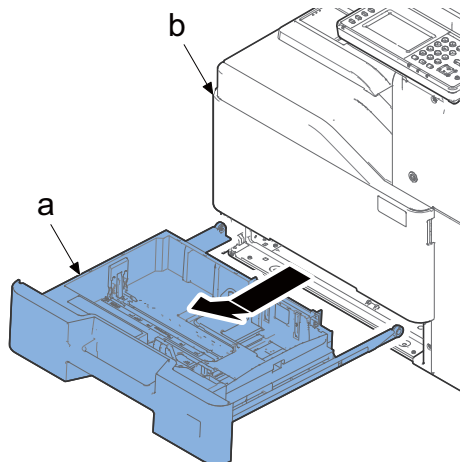
Figure 2-86

3. Press the lock lever (a) and pull out the primary feed unit (c) from the paper feeder (b).
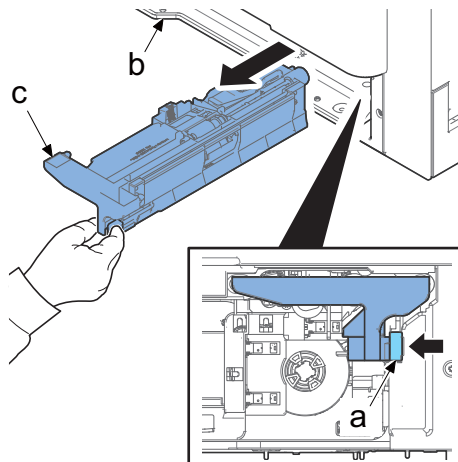
Figure 2-87

4. Secure the cassette heater (a) to the base (b) with two screws (c) (M3x4).
5. Connect the heater connector (d) to the main machine side connector (e).
6. Attach the wire saddle (f) to the base (b) and secure the wire.
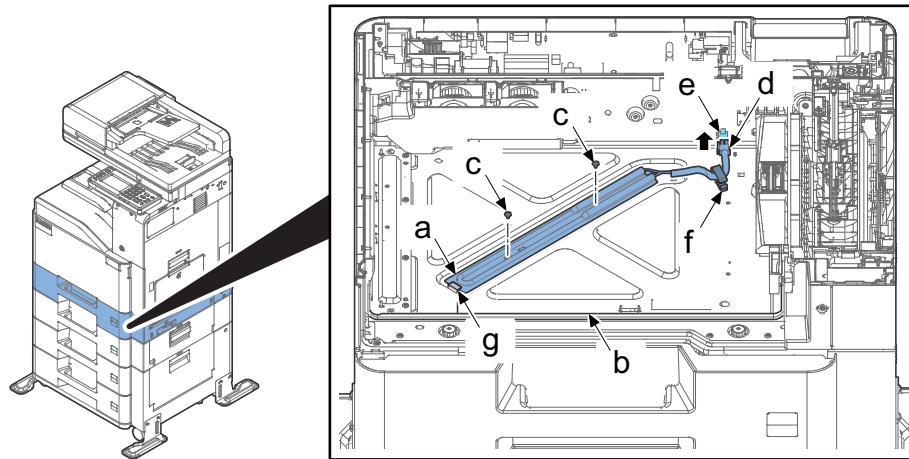
Figure 2-88

7. Insert two hooks (c) into the square hole (e) and attach the connector cover (a) by sliding it in the direction of the arrow.
8. Slide the protrusion (b) of the hook back and forth to check it is secured at the round hole (d).
*: Make sure the wire (f) does not float.
9. Affix the caution label (g), aligning it with the mark-off line (h) on the base.

Cross-section view of the hole
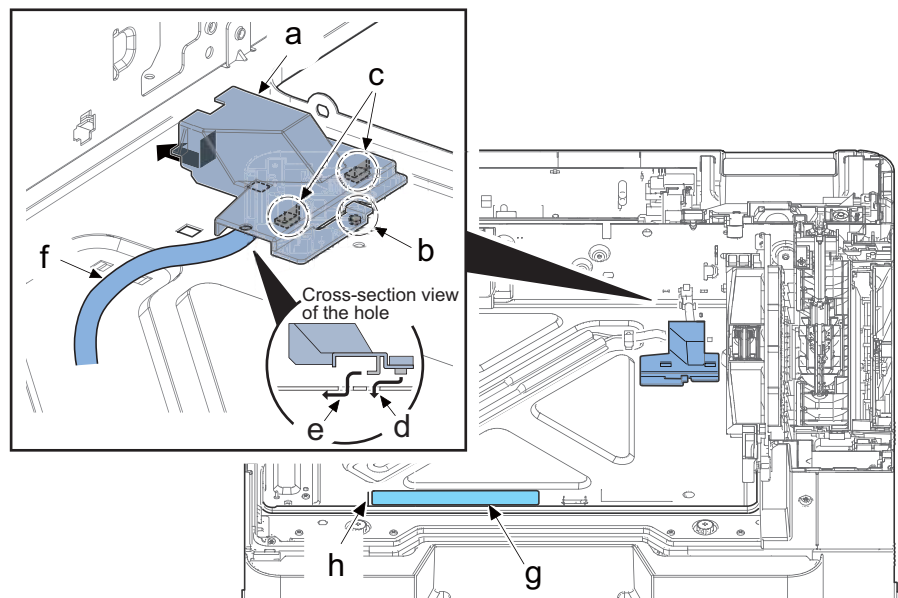
Figure 2-89

10. Reattach the parts in the original position.
11. Turn the power on and set maintenance mode U327 [Cassette heater On/Off] to [On].

IMPORTANT
When connecting the cassette heater, do not unplug the power cord. (Power is supplied when the power is switched off) Also, if unplugged for a prolonged time, it may cause blurred images depending on the environment. In this case, execute [System Menu] > [Adjustment/Maintenance] > [Drum Refresh] .

(13-2) In case of paper feeder (PF-5120)

Cassette heater installation requires the following parts:
Cassette heater 100 set (303PS9401_).................. 1 pc
Cassette heater 120 set (303PS9402_)
Cassette heater 240 set (303PS9403_)

Bundled parts of cassette heater 100/120/240
Cassette heater 100 set.. 1 pc
Cassette heater 120 set
Cassette heater 240 set
Heater connector cover.. 1 pc
Wire saddles .... 1 pc
Screw (M3x4 screw with the binding head)............. 4 pc
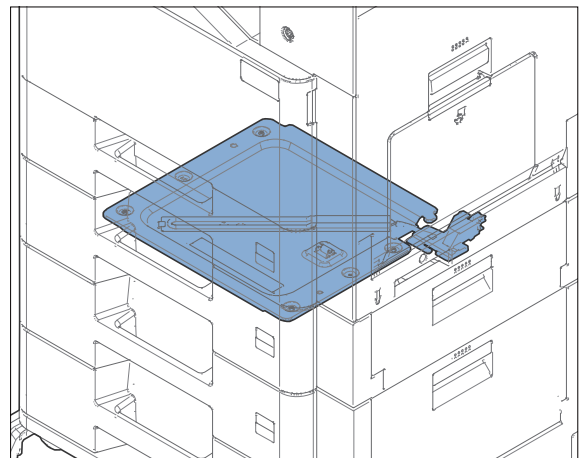
Procedures
1. Turn the power switch off and disconnect the power plug.
2. Pull out the cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
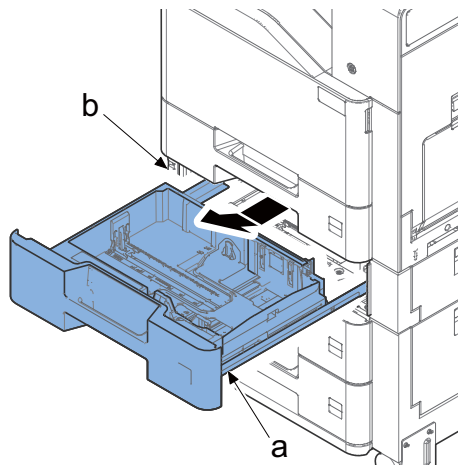
Figure 2-90

3. Press the lock lever (a) and pull out the primary feed unit (c) from the paper feeder (b).
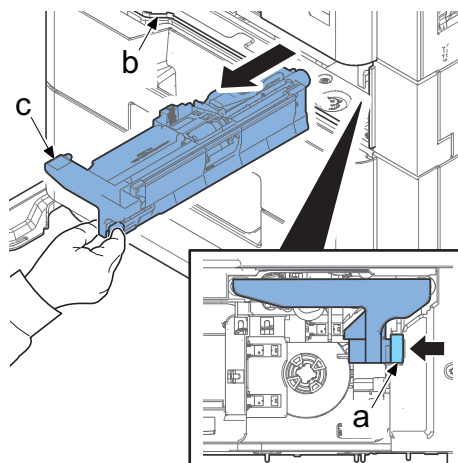
Figure 2-91

4. Insert the cassette heater set (b) into the lancing section (g) and secure it to the base (a) with four screws (c) (M3x4).
5. Connect the heater connector (d) to the main machine side connector (e).
6. Attach the wire saddle (f) to the base (a) and secure the wire.
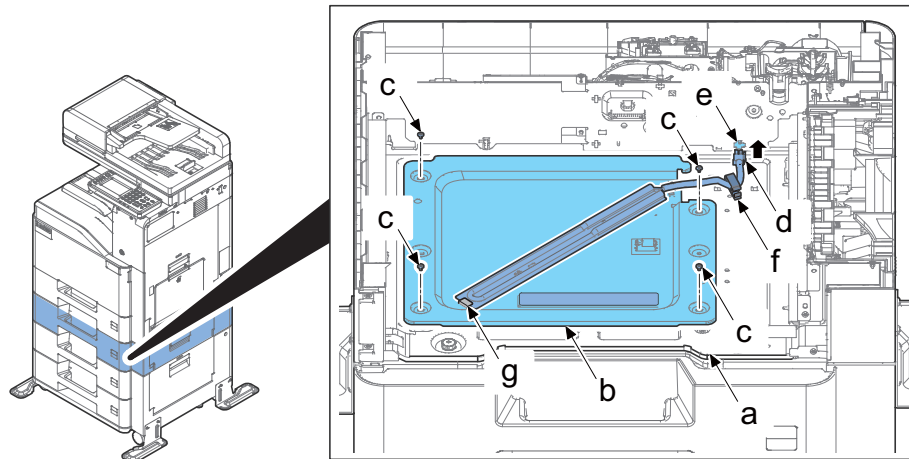
Figure 2-92

7. Insert two hooks (c) into the square hole (e) and attach the connector cover (a) by sliding it in the direction of the arrow.
8. Slide the protrusion (b) of the hook back and forth to check it is secured at the round hole (d).
 *: Make sure the wire (f) does not float.
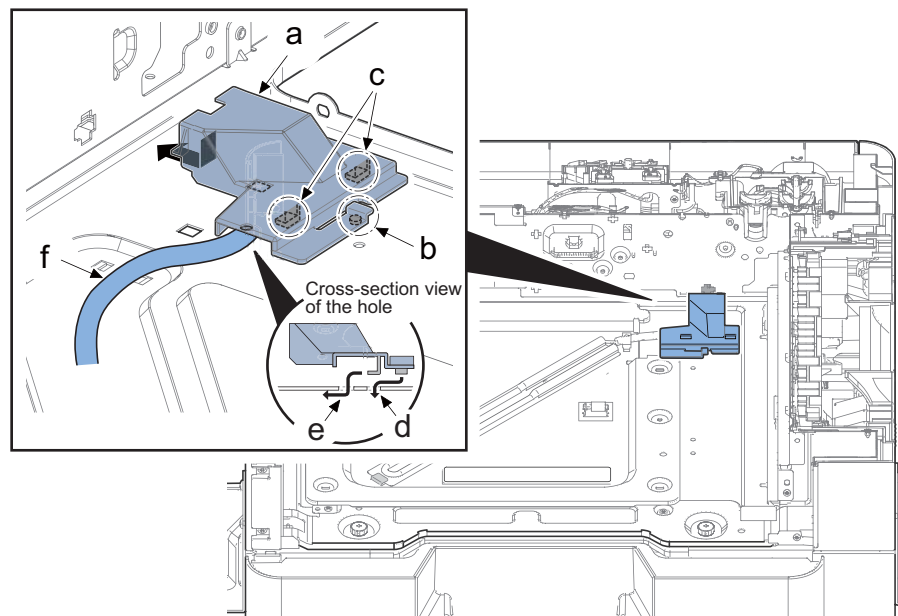
Figure 2-93

9. Reattach the parts in the original position.
10. Turn the power on and set maintenance mode U327 [Cassette heater On/Off] to [On].

IMPORTANT

When connecting the cassette heater, do not unplug the power cord. (Power is supplied when the power is switched off) Also, if unplugged for a prolonged time, it may cause blurred images depending on the environment. In this case, execute [System Menu] > [Adjustment/Maintenance] > [Drum Refresh] .

(13-3) In case of paper feeder (PF-5130)

Cassette heater installation requires the following parts:

Cassette heater 100 set (303PZ9401_) .... 1 pc
Cassette heater 120 set (303PZ9402_)
Cassette heater 240 set (303PZ9403_)

Bundled parts of cassette heater 100/120/240

Cassette heater 100 .... 1 pc
Cassette heater 120
Cassette heater 240
High temperature caution label .... 1 pc
Heater connector cover .... 1 pc
Cassette mounting plate set .... 1 pc
Wire saddles .... 5 pc
Screw (M3x8 screw with the binding head) .... 4 pc
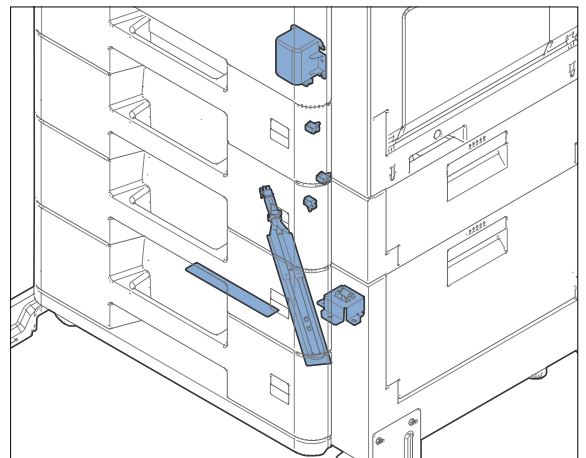
Procedures

1. Turn the power switch off and disconnect the power plug.
2. Pull out the upper cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
3. Pull out the lower cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
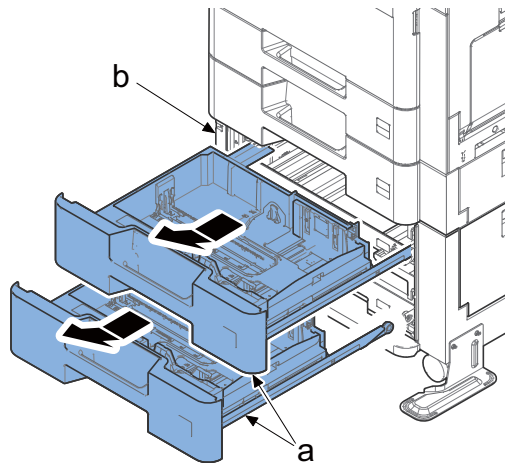
Figure 2-94

4. Secure the cassette heater (a) to the base with two screws (b) (M3x8).
5. Connect the heater connector (c) to the main unit side connector and secure the wire with five wire saddles (d).
*: Make sure the wire does not float.
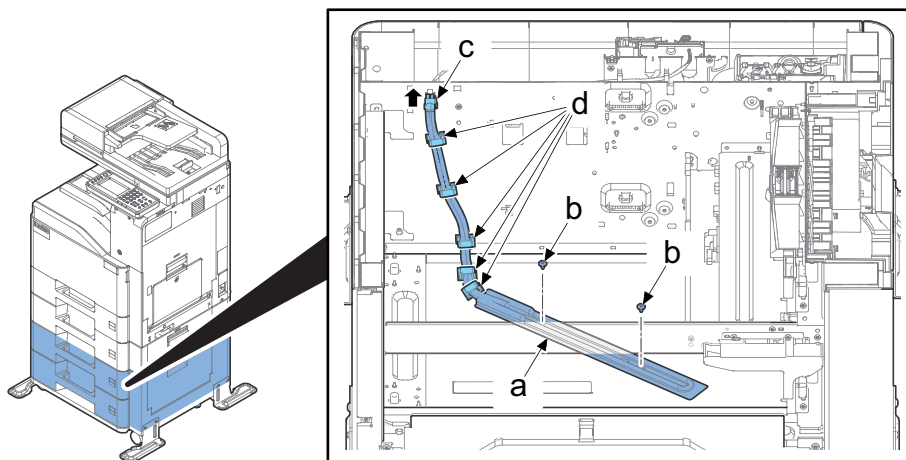
Figure 2-95

6. Secure the cassette mounting plate set (b) to the base with a screw (a) (M3x4).
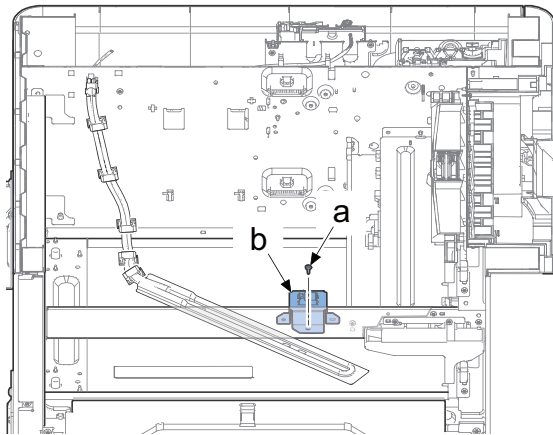
Figure 2-96

7. Hang the three projections of the connector cover (a) on the square holes (b) of the side plate in the direction of the arrow.
8. Secure the connector cover (a) to the rear side plate with the screw (c) (M3x8).
9. Affix the caution label (f), aligning it with the mark-off line (g) on the base.
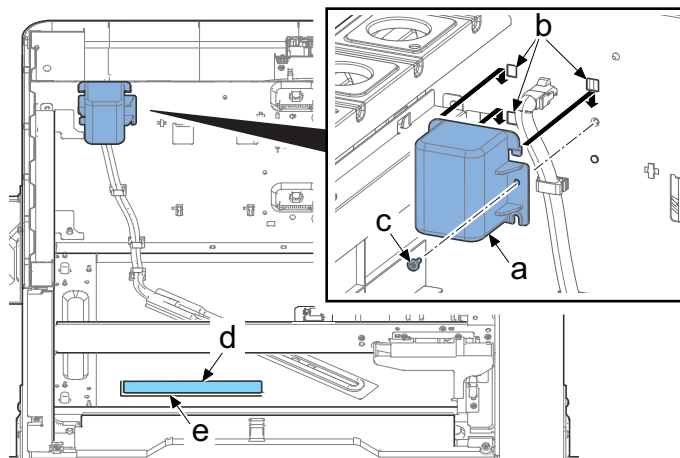
Figure 2-97

10. Reattach the parts in the original position.
11. Turn the power on and set maintenance mode U327 [Cassette heater On/Off] to [On].

IMPORTANT

When connecting the cassette heater, do not unplug the power cord. (Power is supplied when the power is switched off) Also, if unplugged for a prolonged time, it may cause blurred images depending on the environment. In this case, execute [System Menu] > [Adjustment/Maintenance] > [Drum Refresh] .

(13-4) In case of paper feeder (PF-5140)

Cassette heater installation requires the following parts:

Cassette heater 100 set (303PT9402_) .... 1 pc
Cassette heater 120 set (303PT9403_)
Cassette heater 240 set (303PT9404_)

Bundled parts of cassette heater 100/120/240

Cassette heater 100 .... 1 pc
Cassette heater 120
Cassette heater 240
High temperature caution label .... 1 pc
Heater connector cover .... 1 pc
Wire saddles .... 4 pc
Screws (M3x8 screw with the binding head) .... 3 pc

Procedures

1. Turn the power switch off and disconnect the power plug.
2. Remove the cassette (a) from the paper feeder (b).
3. Pull out the paper deck (c) from the paper feeder (d).
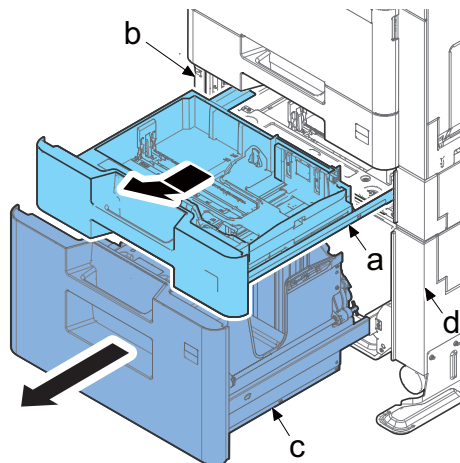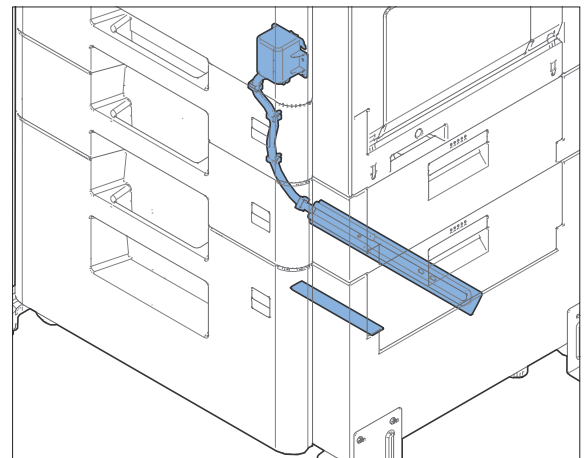
Figure 2-98

4. Secure the cassette heater (a) to the inclined portion of the end of the base with two screws (b) (M3x8).
5. Connect the heater connector (c) to the main unit side connector and secure the wire with four wire saddles (d).
6. Make sure the wire does not float.
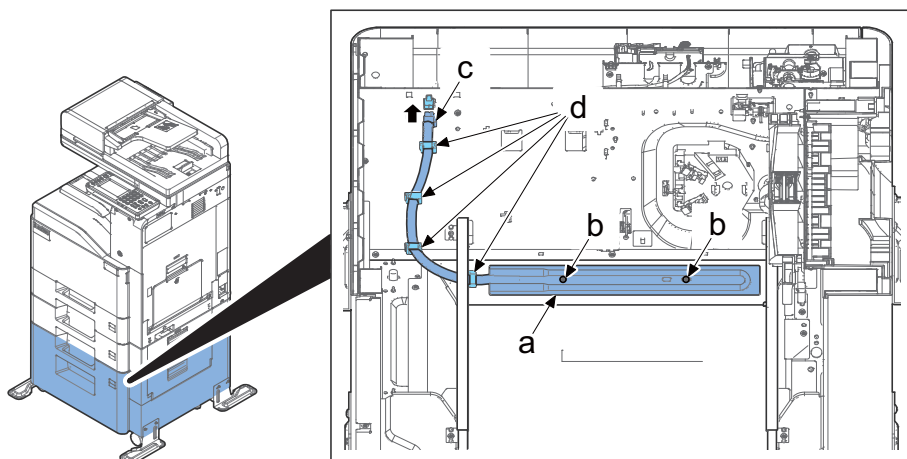
Figure 2-99

7. Hang the three projections of the connector cover (a) on the square holes (b) of the side plate in the direction of the arrow.
8. Secure the connector cover (a) to the rear side plate with the screw (c) (M3x8).
*: Hold the excess portion of wires in the connector cover (a).
9. Affix the caution label (d), aligning it with the mark-off line (e) on the base.
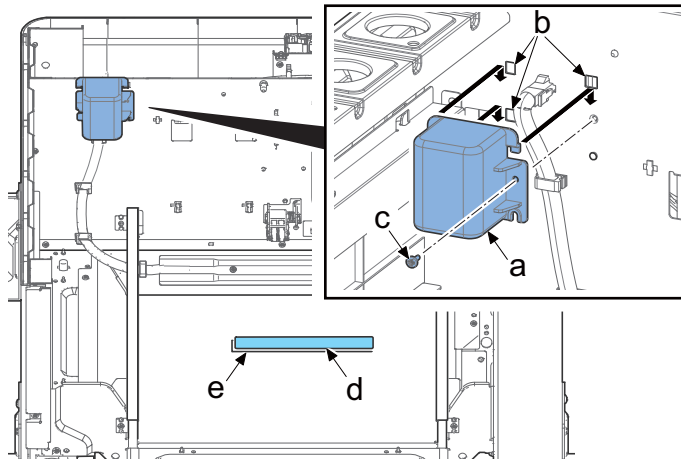
Figure 2-100

10. Reattach the parts in the original position.
11. Turn the power on and set maintenance mode U327 [Cassette heater On/Off] to [On].

IMPORTANT

When connecting the cassette heater, do not unplug the power cord. (Power is supplied when the power is switched off) Also, if unplugged for a prolonged time, it may cause blurred images depending on the environment. In this case, execute [System Menu] > [Adjustment/Maintenance] > [Drum Refresh] .

2-4 About Optional Applications

application	
Data Security Kit	Internet FAX kit[*2]
Card Authentication Kit[*1]	Emulation upgrade kit[*2]
ThinPrint Option[*1]	OCR extension kit[*1, *2]

[*1]: This can be used on a trial basis for a limited time.

[*2]: 35/40 ppm models only

*: Restrictions such as the number of times the application can be used during the trial period differ depending on the application.

*: If you change the date/time while using the trial version of an application, you will no longer be able to use the application.

Starting Use of an Application

Use the procedure below to start using an application.

1. Select [System Menu/Counter] key > [System/Network] > [Optional Function].

NOTE

If the login user name entry screen appears during operations, enter a login user name and password, and select [Login]. Login with administrator privileges.
The factory default login user name and login password are set as shown below.

Model name	30 ppm model	35 ppm model	40 ppm model
Login User Name	3000	3500	4000
Login Password	3000	3500	4000

2. Select the desired application to start use and select [Activate].

*: You can view detailed information on the selected application by selecting [🔵] or [Details].

Item
Function Name
License
Trial Counts
Date of Trial
Status

3. Select [Official] and enter a license key.
Some applications do not require you to enter a license key. If the license key entry screen does not appear, go to Step 4.
To use the application as a trial, select [Trial] without entering the license key.

4. Select [Yes] in the confirmation screen.
Icons of activated application are displayed in the Home screen.

NOTE

If you started the Security Kit or Thin Print option and entered the license key, turn the power OFF/ON. Icons of activated application are displayed in the Home screen.

2-5 Initializing procedures after installing the FAX system

1. Connect the power plug of the main unit to the
   outlet and turn the power on.
2. Input "10871087" using the numeric keys to enter the maintenance mode.
3. Input "600" using the numeric keys and press the [Start] key.
4. Select [Country Code] and enter a destination code using the numeric keys.
 *: Refer to the following destination code list.
5. Select [Execute].
6. Press the [Start] key to start data initialization.
 *: Press the [Stop] key to cancel the data initialization.

Destination code list

Destination code	Destination	Destination code	Destination
000	Japan	253	CTR21 (European nations)
007	Argentina	↑	Italy
009	Australia	↑	Germany
022	Brazil	↑	Spain
038	China	↑	U.K.
080	Hong Kong	↑	Netherlands
084	Indonesia	↑	Sweden
088	Israel	↑	France
097	Korea	↑	Austria
181	U.S.A.	↑	Switzerland
250	Russia	↑	Belgium
108	Malaysia	↑	Denmark
115	Mexico	↑	Finland
126	New Zealand	↑	Portugal
136	Peru	↑	Ireland
137	Philippines	↑	Norway
152	Middle East	254	Taiwan
156	Singapore		
159	South Africa		
169	Thailand		

7. After completing installation, execute communication test to check if FAX normally operates.

IMPORTANT

Note the following points when installing the FAX system in the line via ISDN or PBX.
Check if the line to connect supports the V.34 (Super G3) FAX communication.
Especially, when communicating between extensions in PBX (private line via TDM), only 14400bps or 9600bps of FAX communication speed is guaranteed and communication errors or TX/RX image failure may occur at V.34 communication in such a line.

Corrective Measures

Set the following maintenance mode if the communication speed guaranteed on the line is 14400bps.
U633 [Enables or disables the V.34 communication]: Off (See page 6-165,6-395)
U630 [Setting TX speed and RX speed] (See page 6-160,6-390)

3 Machine Design
3-1 Mechanical Configuration

(1) Cross-section view (30 ppm model)
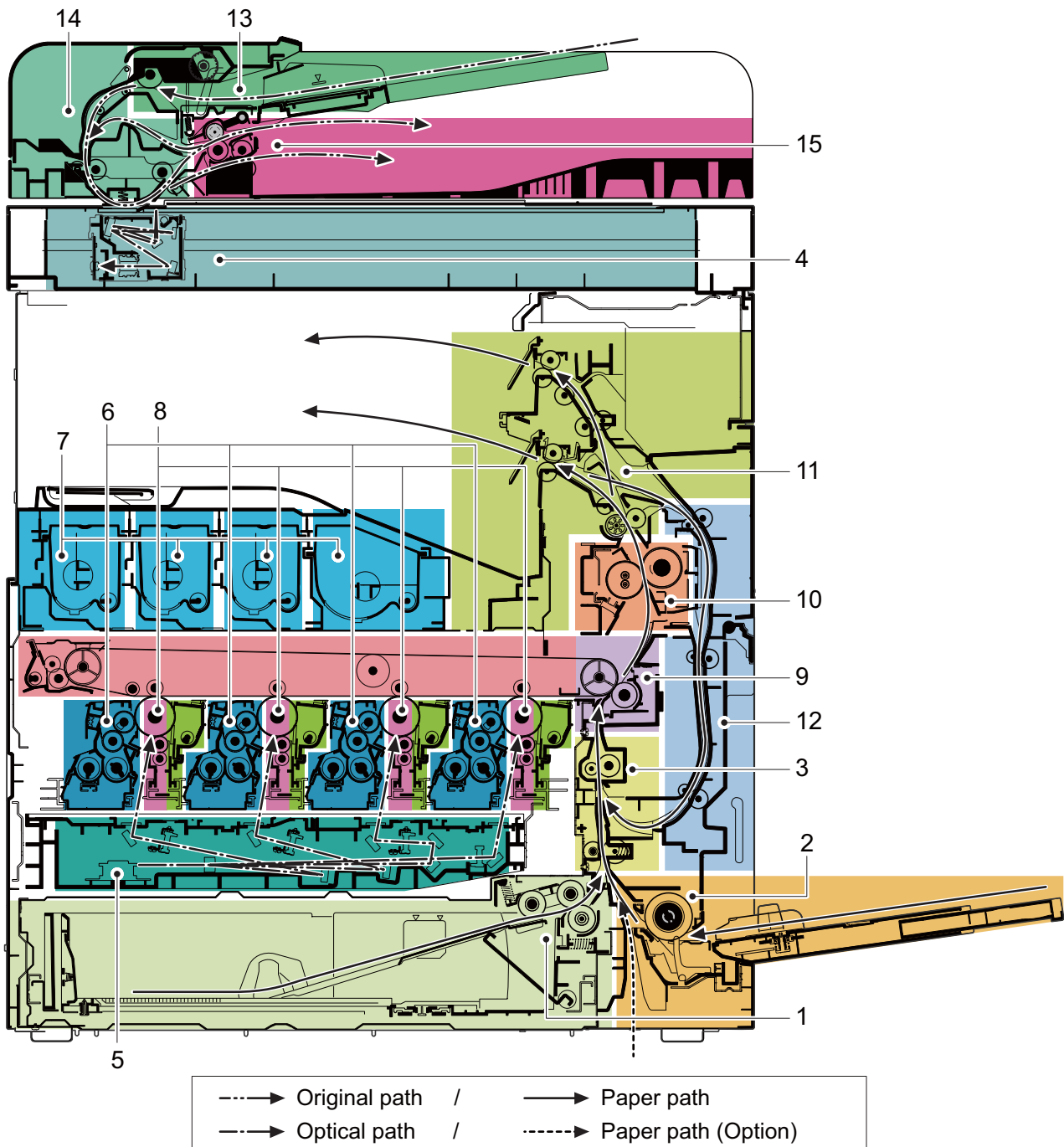
Figure 3-1

1. Cassette paper feed section
2. MP paper feed section
3. Paper conveying section
4. Image scanner unit
5. Laser scanner unit
6. Developer unit
7. Toner container
8. Drum unit

9. Transfer and separation section
10. Fuser section
11. Feedshift and eject section
12. Duplex conveying section
13. DP document feed section
14. DP original conveying section
15. DP original reversing/eject section

(2) Cross-section view (35/40 ppm models)

--·--►	Optical path	/	────►	Paper path
		/	------►	Paper path (Option)
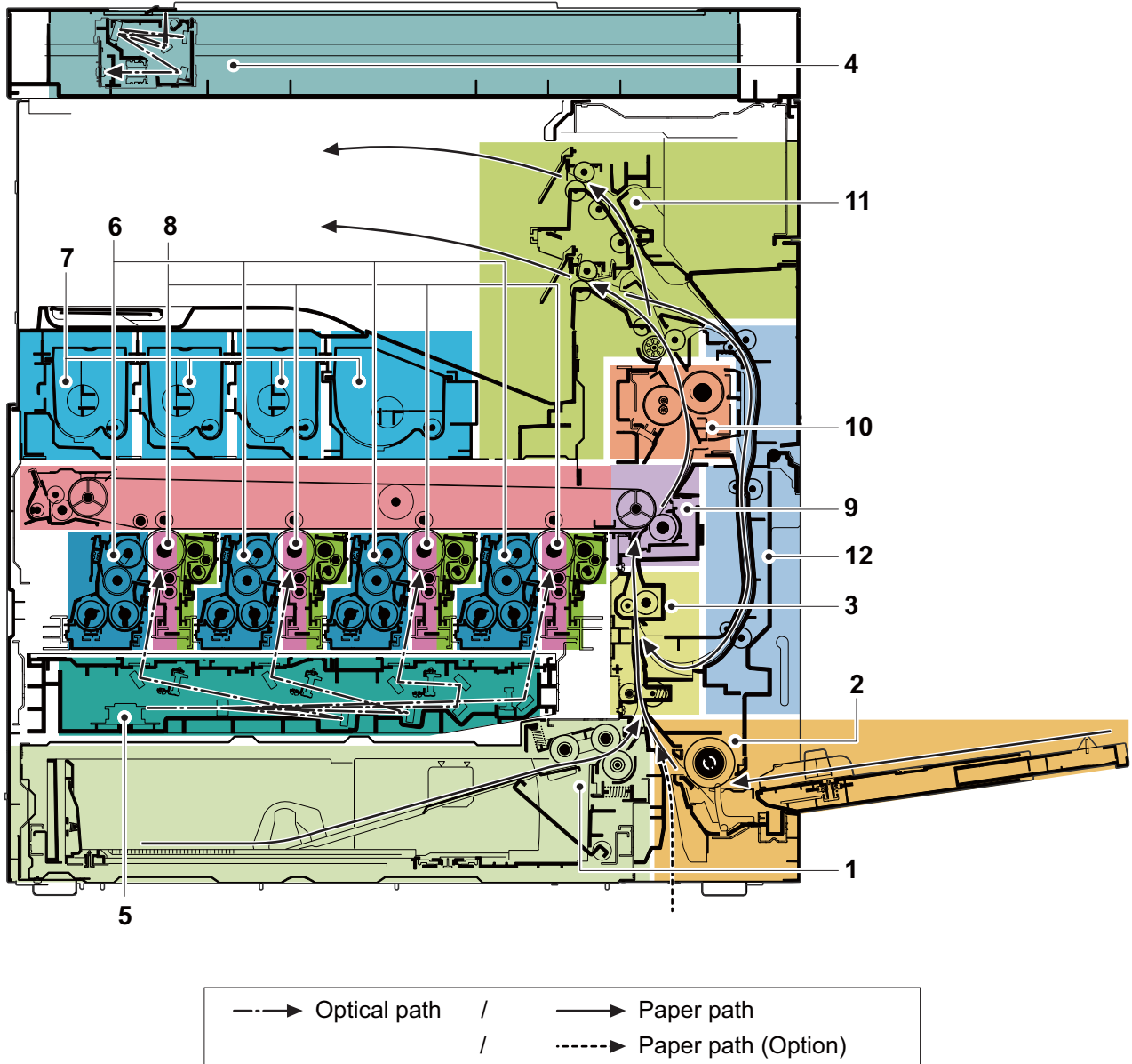
Figure 3-2

1. Cassette paper feed section
2. MP paper feed section
3. Paper conveying section
4. Image scanner unit
5. Laser scanner unit
6. Developer unit
7. Toner container

8. Drum unit
9. Transfer and separation section
10. Fuser section
11. Feedshift and eject section
12. Duplex conveying section

3-2 Extension device construction (option)

(1) Paper feeder cross-section view (PF-5120)

———►	Paper path
-----►	Paper path (Option)
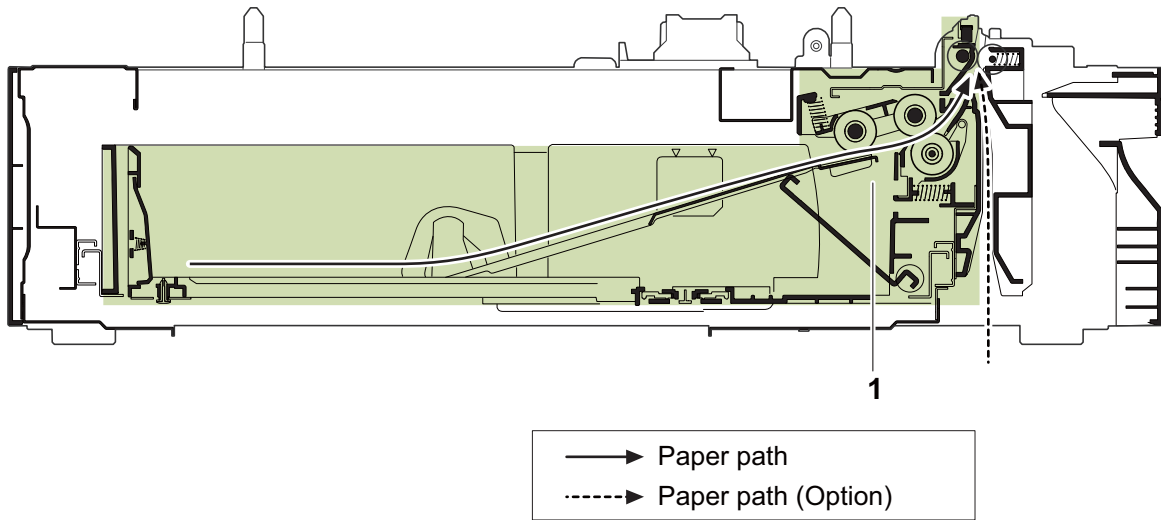
Figure 3-3

1. Cassette paper feed section

(2) Paper feeder cross-section view (PF-5130)

———►	Paper path
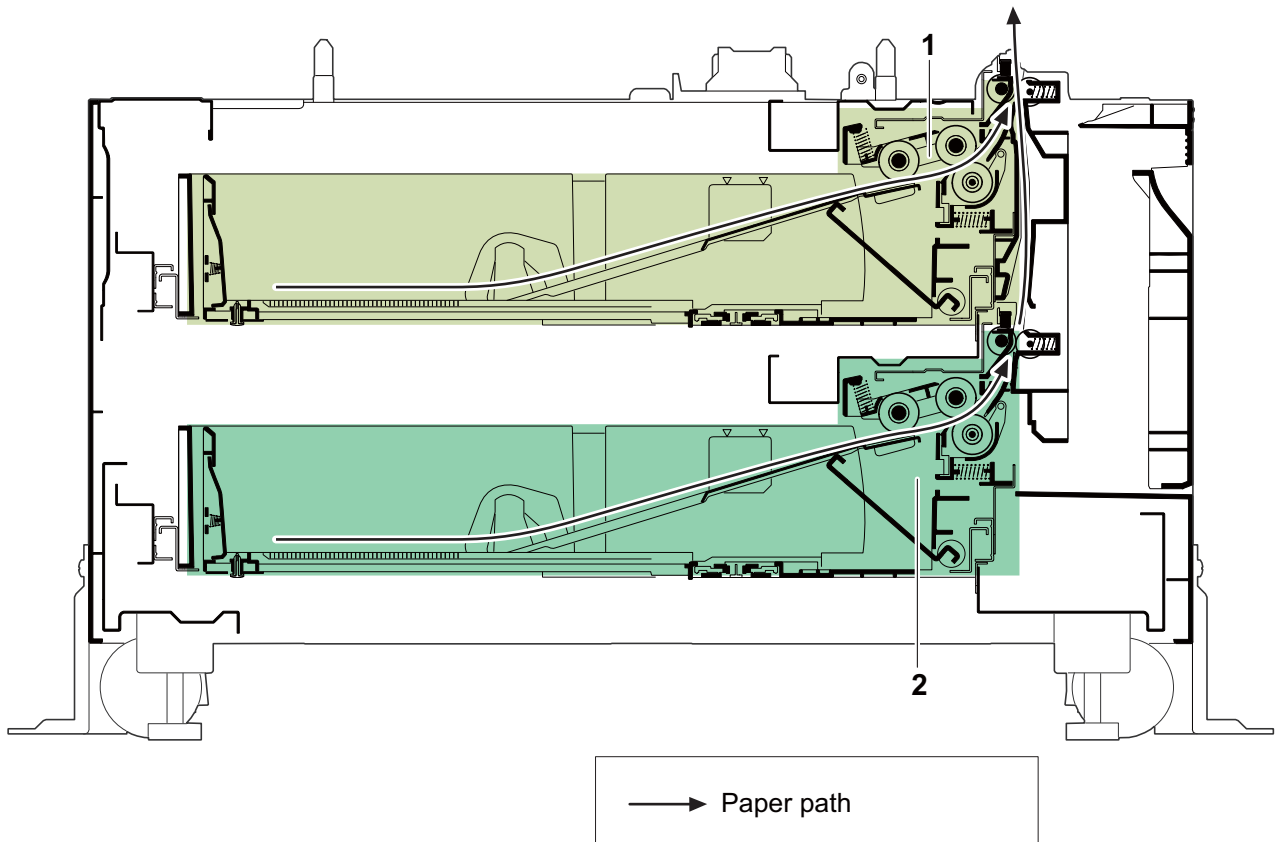
Figure 3-4

1.Upper cassette paper feed section   2. Lower cassette paper feed section

(3) Paper feeder cross-section view (PF-5140)

⟶ Paper path
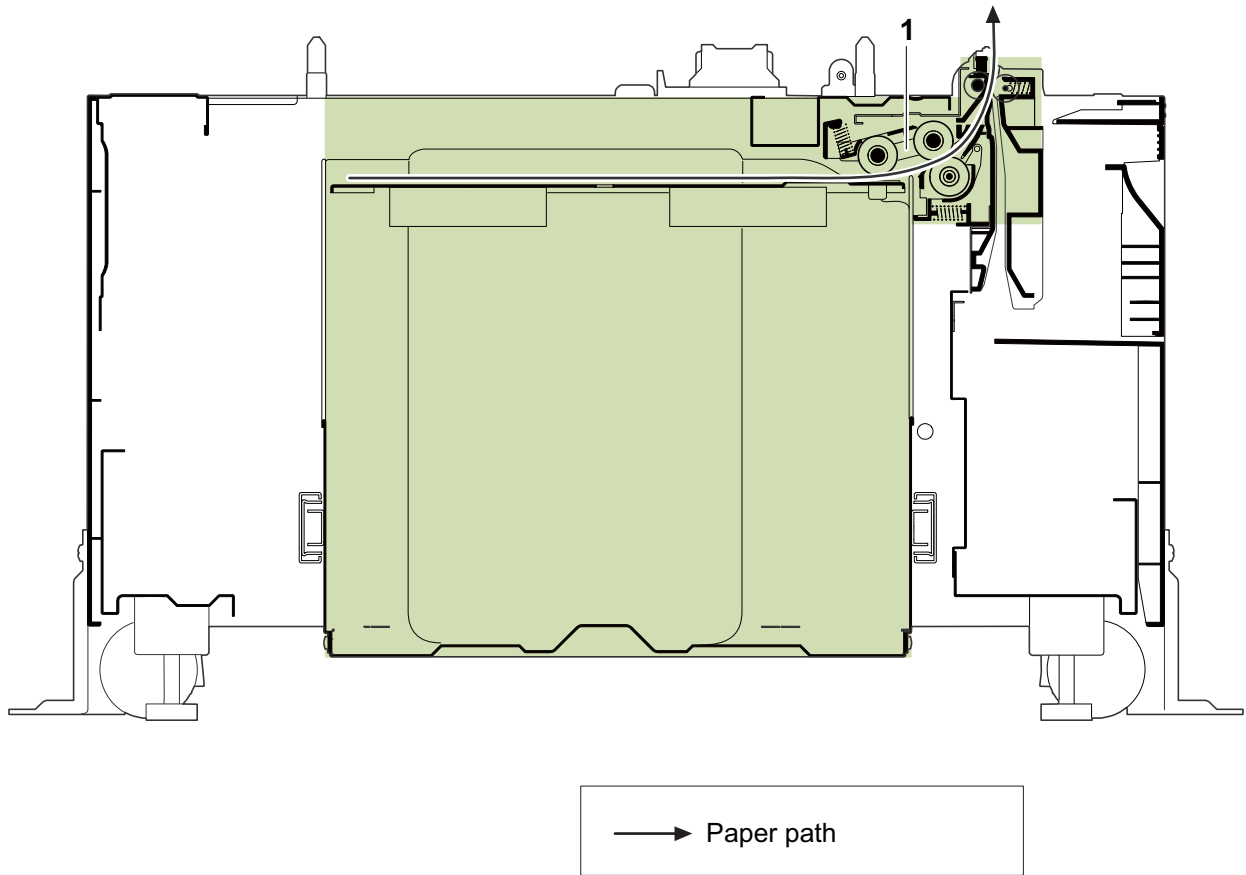
Figure 3-5

1. Paper deck feed section

(4) Document processor cross-section view (DP-5100) : for 35/40ppm models only


```
        -- --> Original path
```
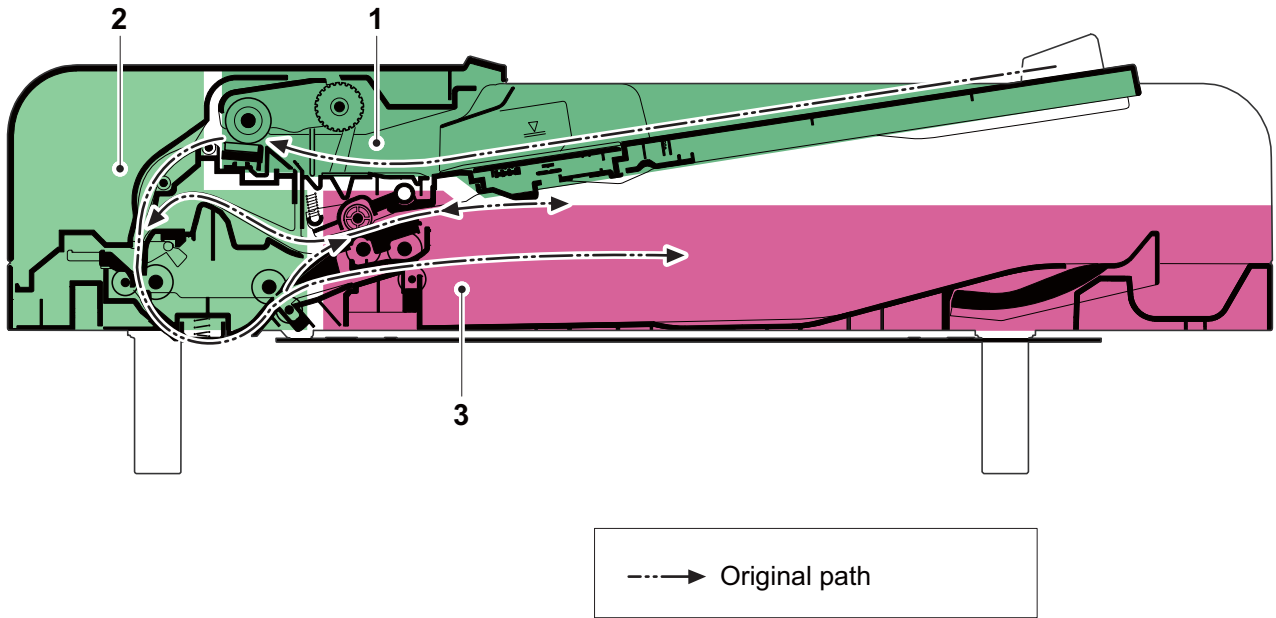
Figure 3-6

1. DP document feed section   3. DP original reversing/eject section
2. DP original conveying section

(5) Document processor cross-section view (DP-5110) : for 35/40ppm models only


```
        -- --> Original path
```
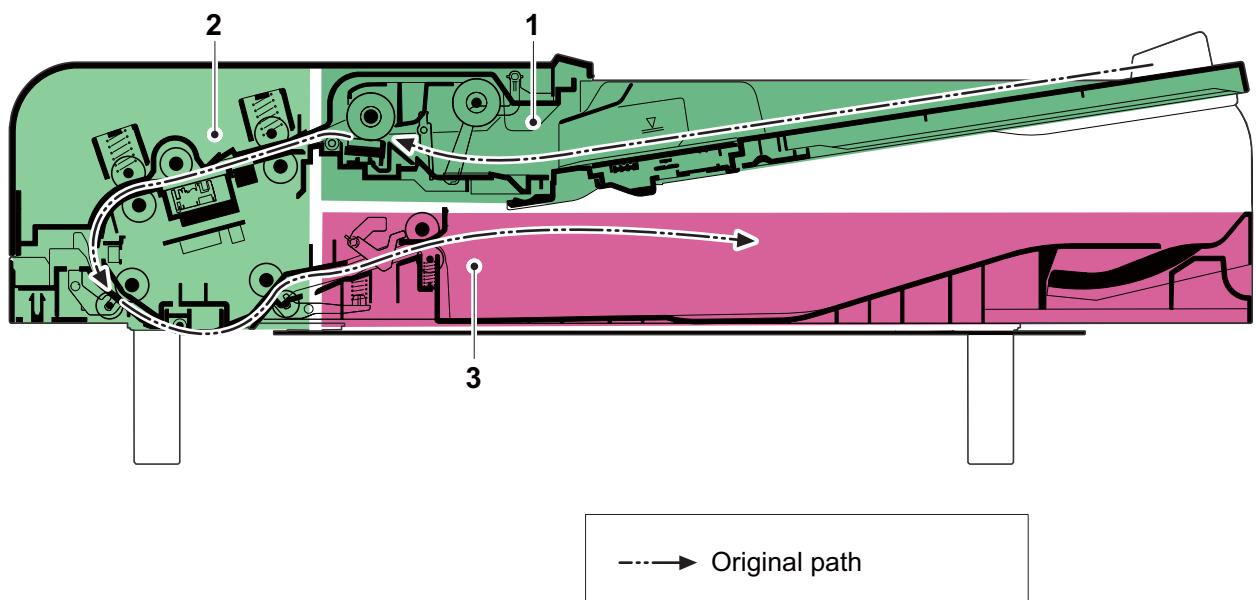
Figure 3-7

1. DP document feed section   3. DP original eject section
2. DP original conveying section

(6) Attachment kit cross-section view (AK-5100)
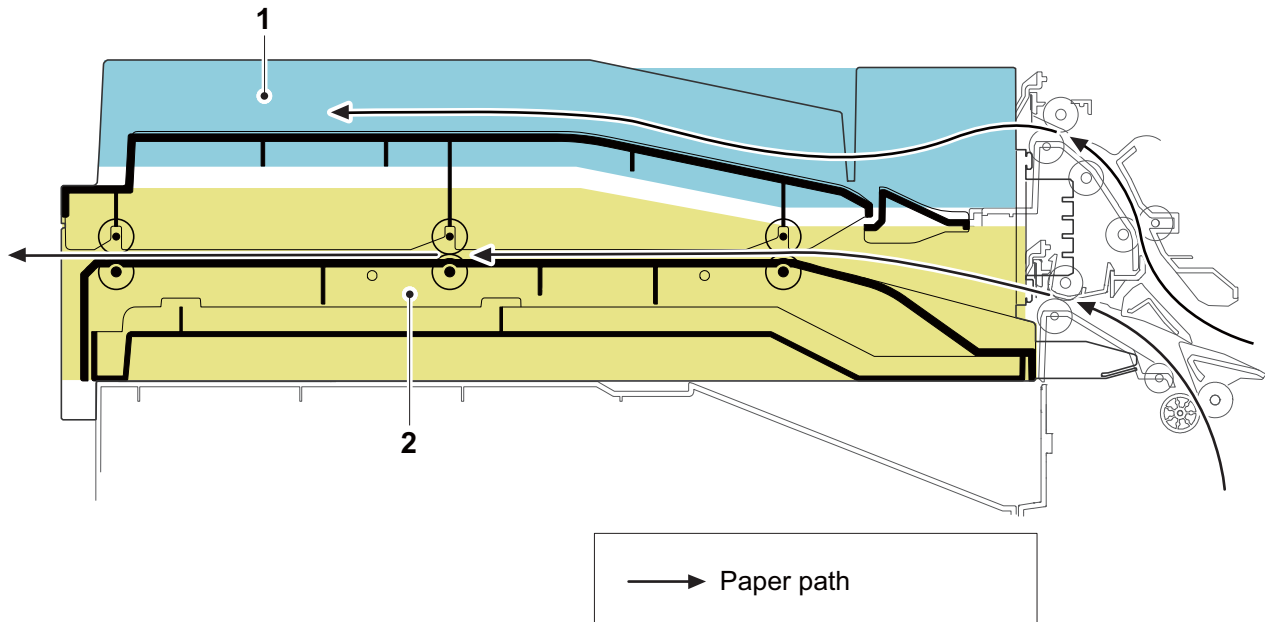
Figure 3-8

1. Exit section   2. Paper conveying section

(7) Finisher cross-section view (DF-5100)
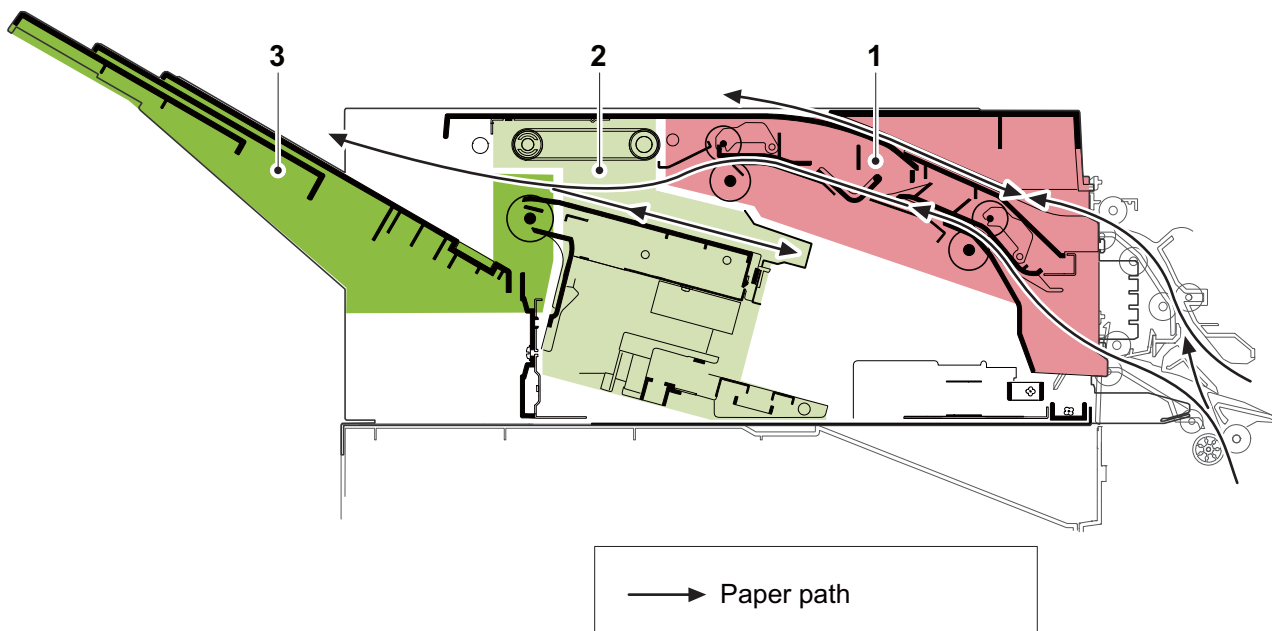
Figure 3-9

1. Paper conveying section   3. Exit section
2. Staple unit

(8) Finisher cross-section view (DF-5110) : 35/40ppm models only

Figure 3-10

Paper path →	
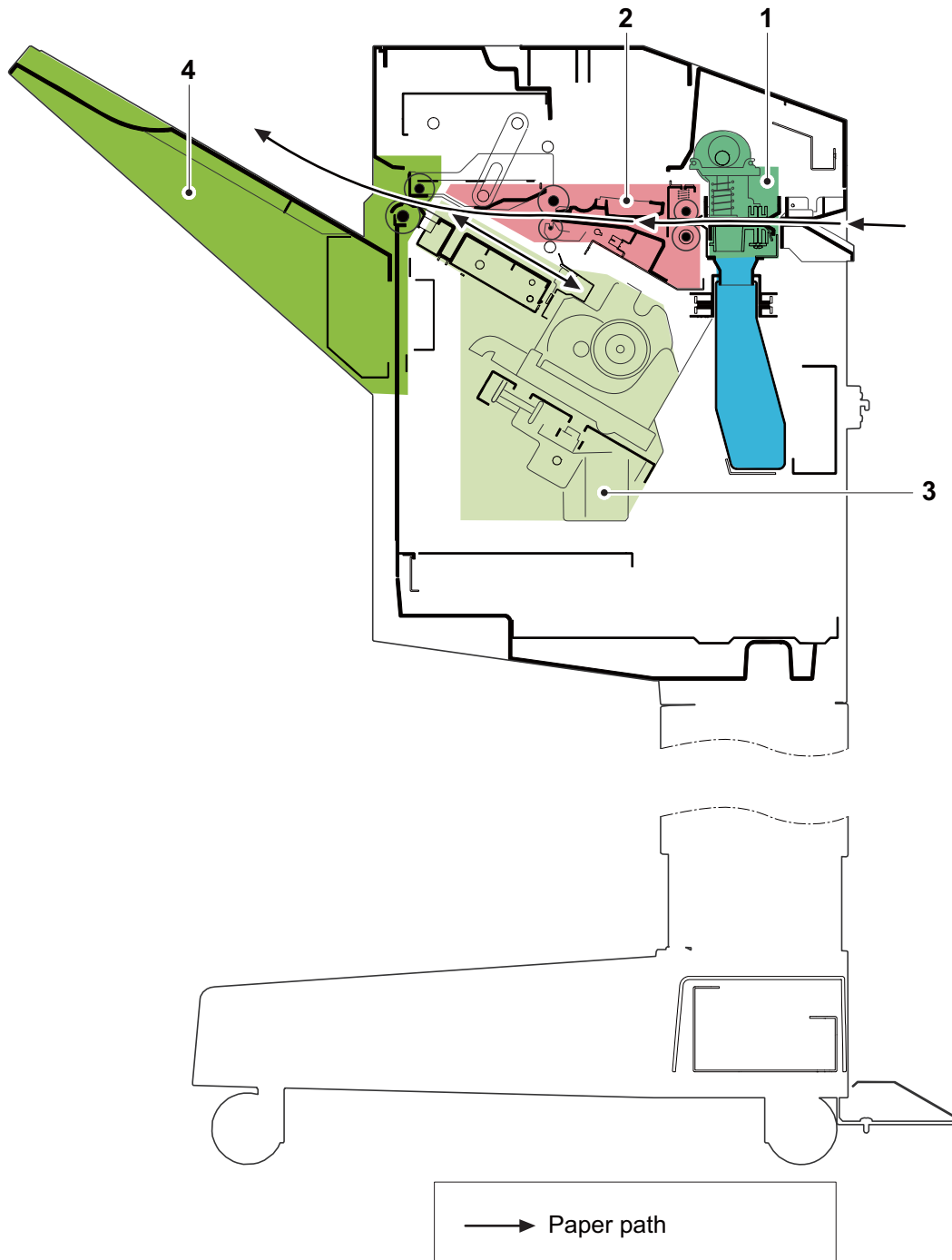
1. Punch unit
2. Paper conveying section

3. Staple unit
4. Eject section (main tray)

(9) Finisher cross-section view (DF-5120) : 35/40ppm models only

Paper path
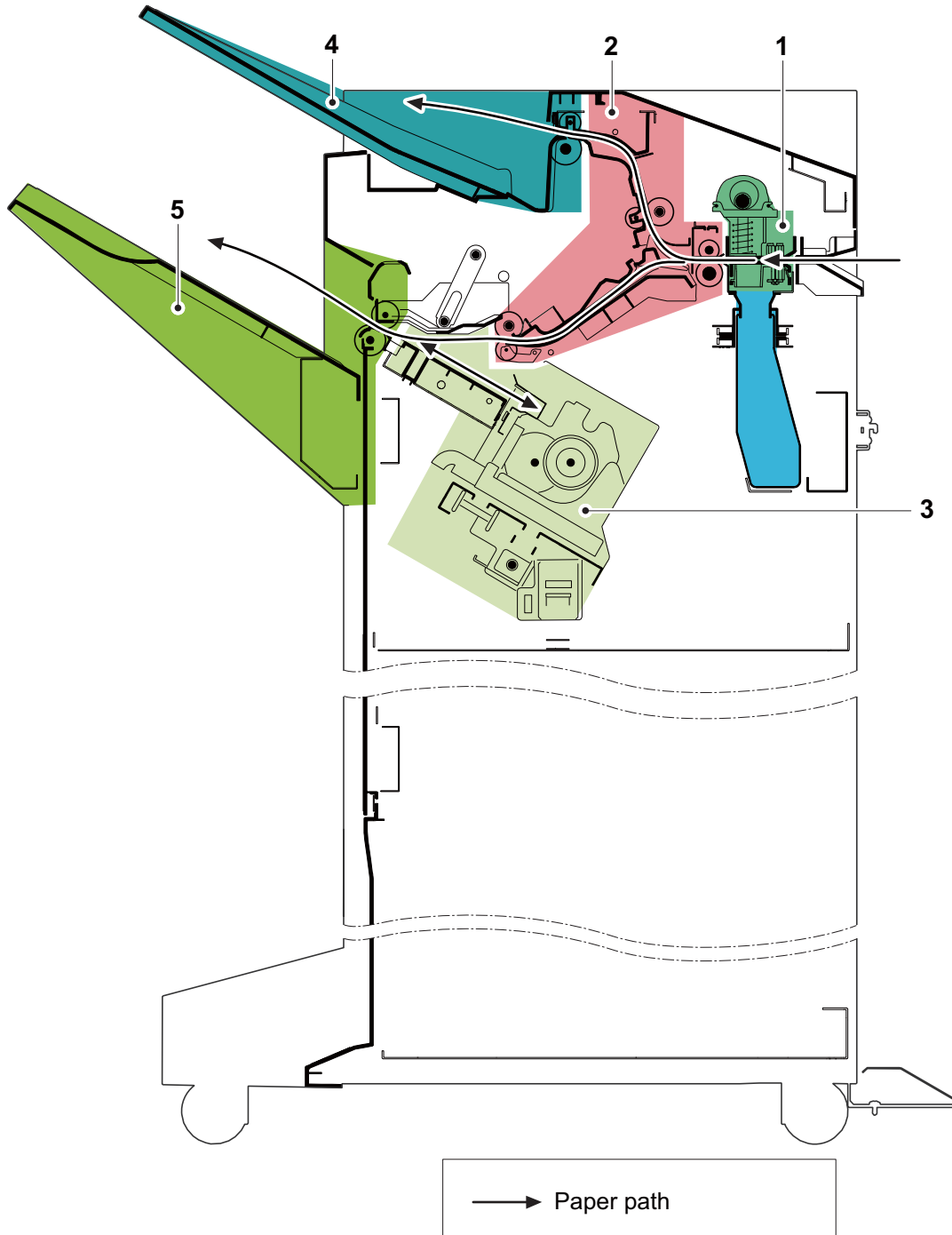
Figure 3-11

1. Punch unit
2. Paper conveying section
3. Staple unit

4. Eject section (upper tray)
5. Eject section (main tray)

(10) Mailbox cross-section view (MT-5100)


```
                              Paper path
```
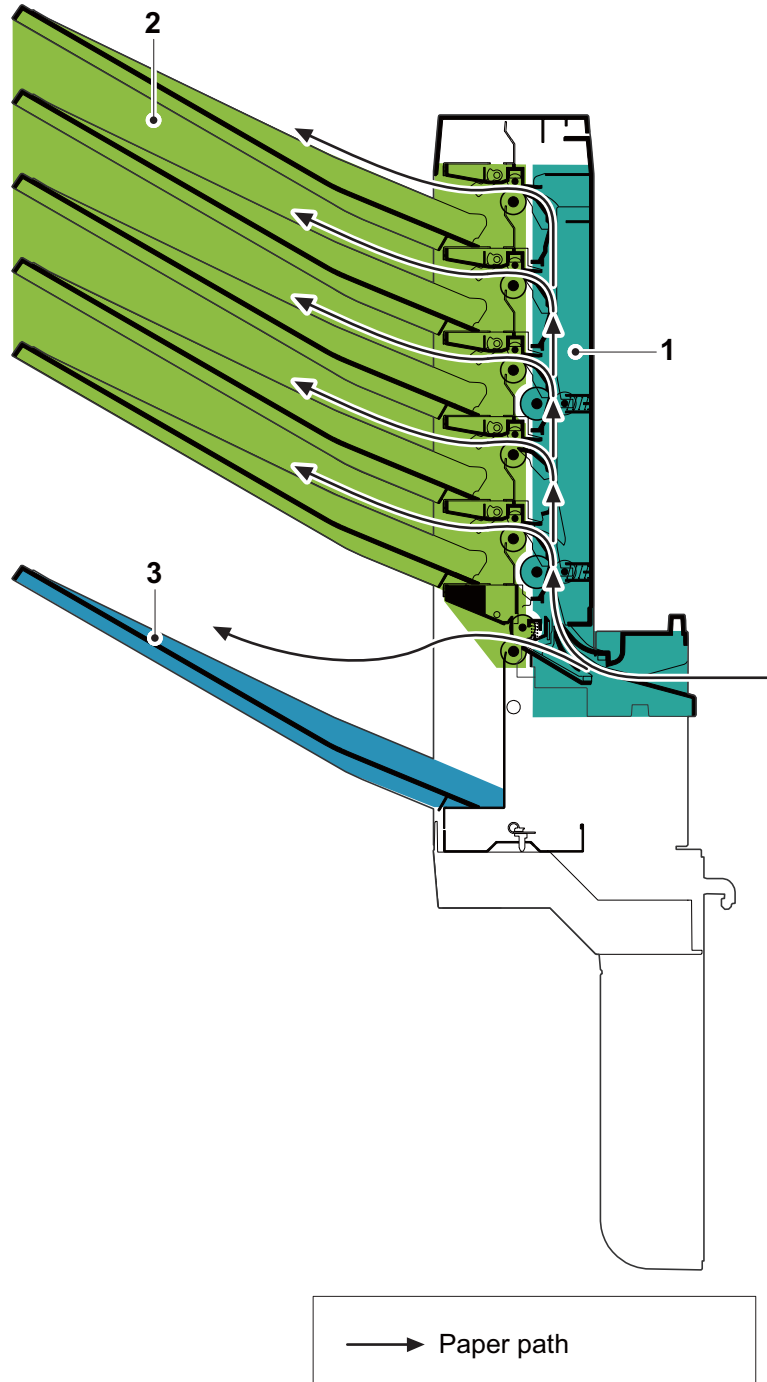
Figure 3-12

1. Paper conveying section
2. Eject section (mail tray)

3. Eject section (main tray)

(11) Job separator cross-section view (JS-5100)

→	Paper path
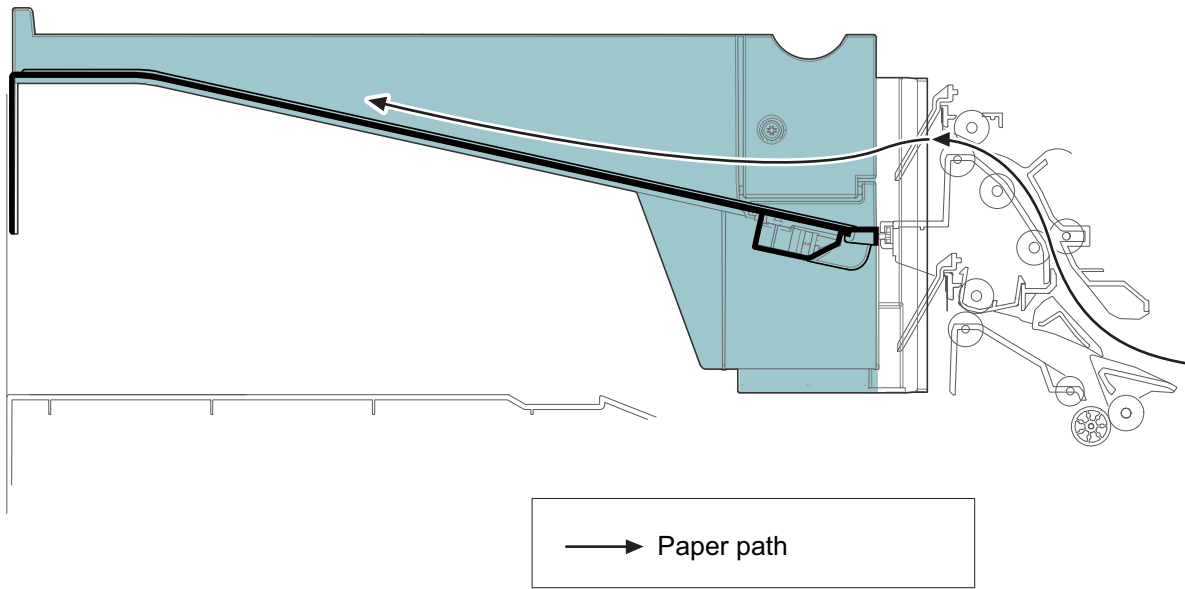
Figure 3-13

3-3 Paper conveying and Paper detection

(1) Main unit (30ppm) +PF-5120 +PF-5130 +DF-5100
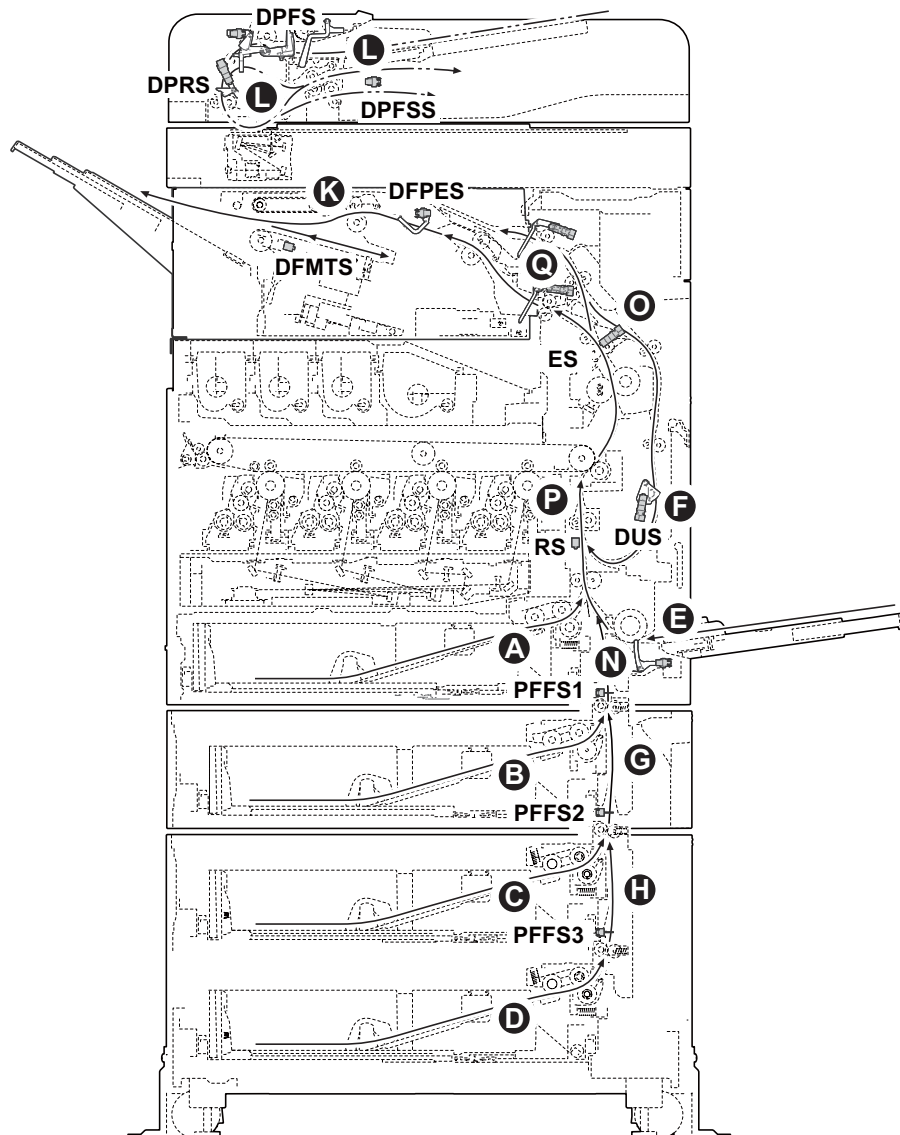
Figure 3-14

[Paper jam]

A. Paper jam at cassette 1
B. Paper jam at 500-sheet×1 cassette 2
C. Paper jam at 500-sheet×2 cassette 3
C. Paper jam at 500-sheet×2 cassette 4
E. Paper jam at the MP tray
F. Paper jam at right cover 1
G. Paper jam at right cover 2
H. Paper jam at right cover 3
K. Paper jam at the inner finisher
L. Paper jam at the document processor
N. Paper jam at the conveying section
O. Paper jam at the duplex unit
P. Paper jam at the registration section
Q. Paper jam at the job separator

[Sensor (Paper conveying)]

PFFS1:	PF feed sensor 1
PFFS2:	PF feed sensor 2
PFFS3:	PF feed sensor 3
RS:	Registration sensor
ES:	Eject sensor
DUS:	Duplex sensor
DPFS:	DP paper feed sensor
DPRS:	DP registration sensor
DPFSS:	DP feedshift sensor
DFPES:	DF entry sensor
DFMTS:	DF eject sensor

(2) Main unit (35/40 ppm) +DP-5110+PF-5120+PF-5140 +AK-5100+DF-5120
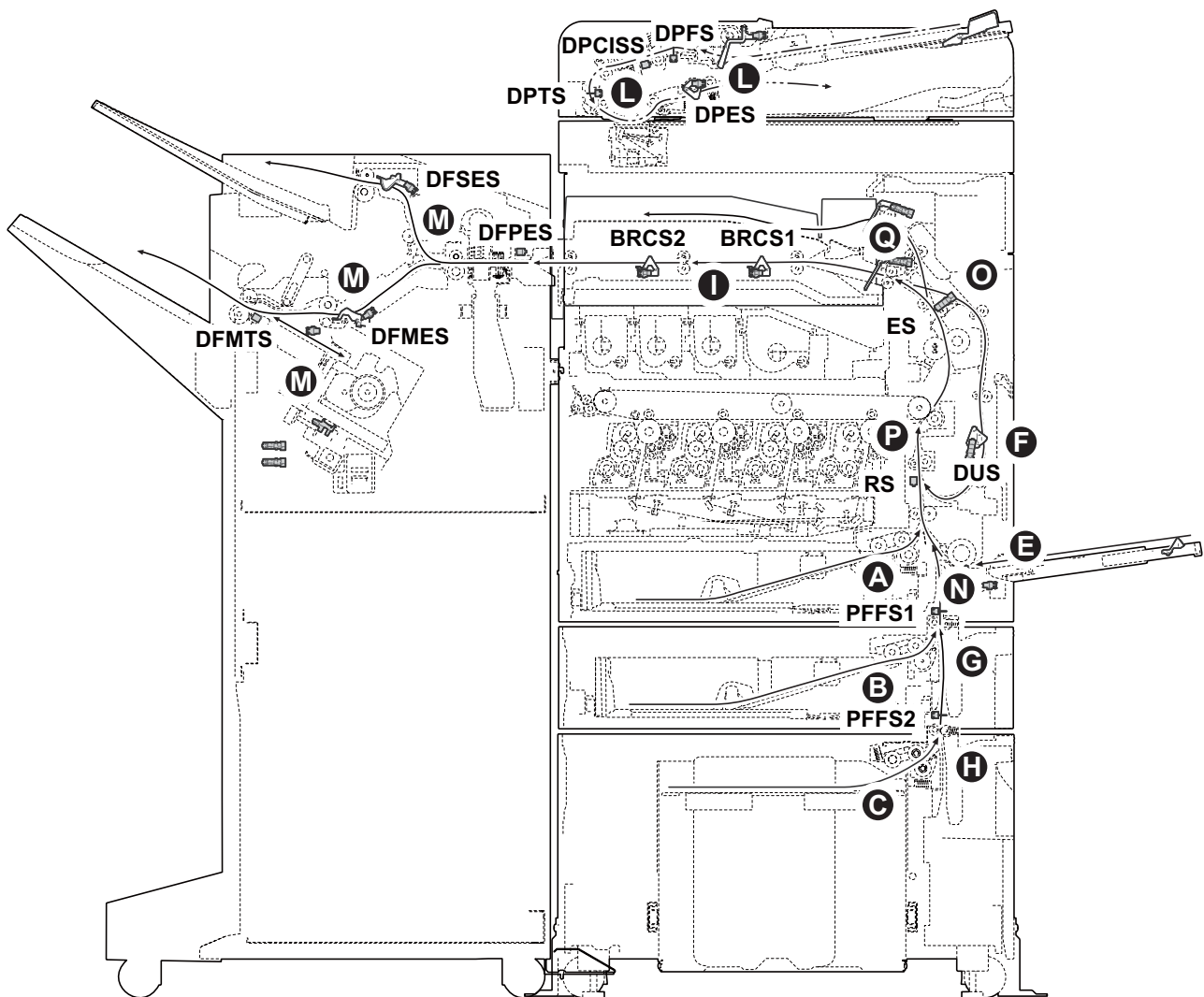
Figure 3-15

[Paper jam]
A. Paper jam at cassette 1
B. Paper jam at 500-sheet×1 cassette 2
C. Paper jam at 2200-sheet×1 cassette 3
E. Paper jam at the MP tray
F. Paper jam at right cover 1
G. Paper jam at right cover 2
H. Paper jam at right cover 3
I. Paper jam at the bridge conveying section
L. Paper jam at the document processor
M. Paper jam at the 1000-sheet finisher
M. Paper jam at the 3000-sheet finisher
N. Paper jam at the conveying section
O. Paper jam at the duplex unit
P. Paper jam at the registration section
Q. Paper jam at the job separator

[Sensor (Paper conveying)]
PFFS1: PF feed sensor 1
PFFS2: PF feed sensor 2
RS: Registration sensor
ES: Eject sensor
DUS: Duplex sensor
DPFS: DP paper feed sensor
DPTS: DP timing sensor
DPCISS: DPCIS sensor
DPES: DP eject sensor
BRCS1: BR conveying sensor 1
BRCS2: BR conveying sensor 2
DFPES: DF entry sensor
DFMES: DF middle sensor
DFMTS: DF eject sensor
DFSES: DF sub eject sensor

(3) Main unit (35/40 ppm) +DP-5100 +PF-5120+PF-5140 +AK-5100 +MT5100
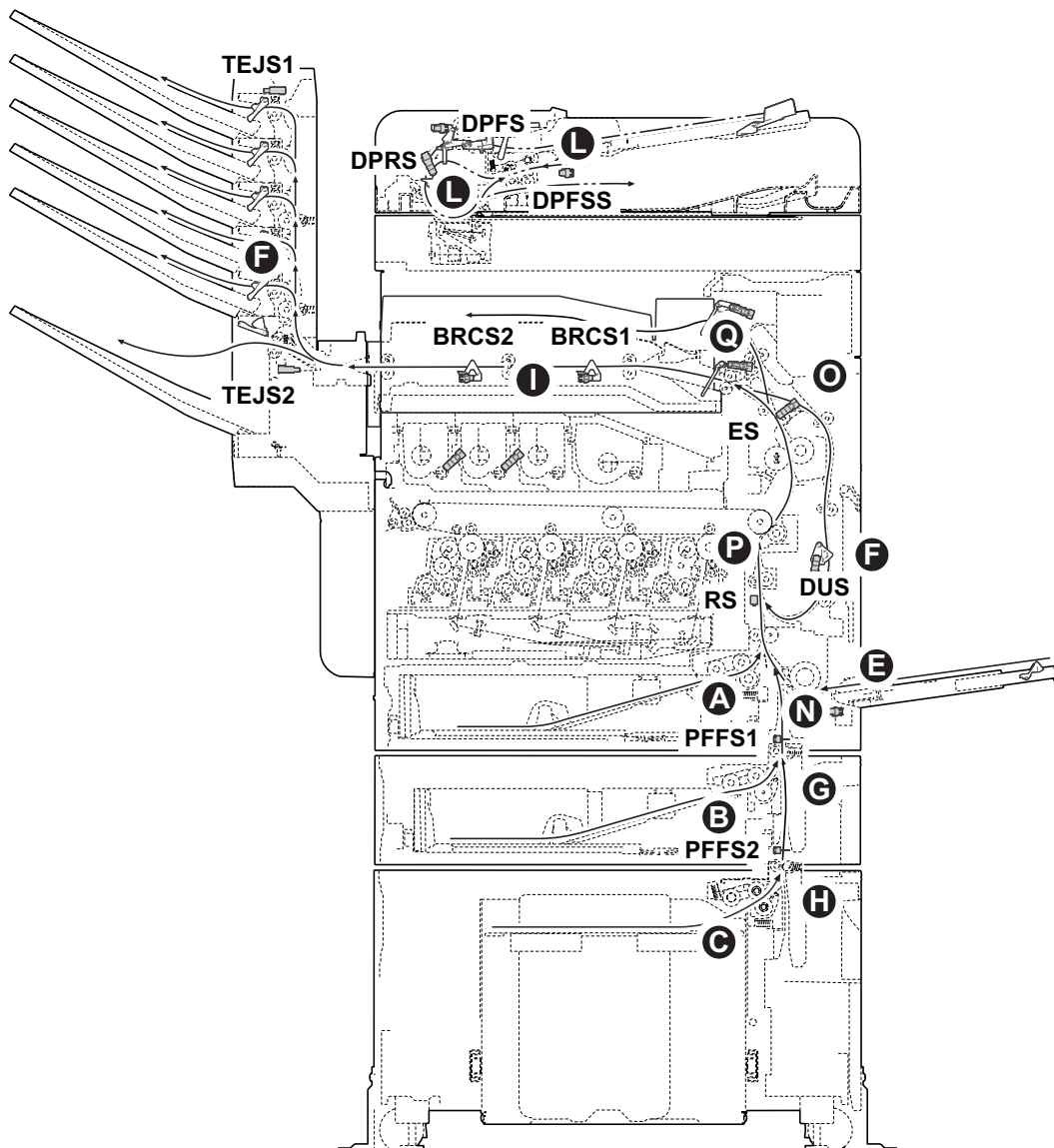
Figure 3-16

[Paper jam]
  A. Paper jam at cassette 1
  B. Paper jam at 550-sheet×1 cassette 2
  C. Paper jam at 2200-sheet×1 cassette 3
  E. Paper jam at the MP tray
  F. Paper jam at right cover 1
  G. Paper jam at right cover 2
  H. Paper jam at right cover 3
   I. Paper jam at the bridge conveying section
  J. Paper jam at the mailbox
  L. Paper jam at the document processor
  N. Paper jam at the conveying section
  O. Paper jam at the duplex unit
  P. Paper jam at the registration section
  Q. Paper jam at the job separator

[Sensor (Paper conveying)]
PFFS1:   PF feed sensor 1
PFFS2:   PF feed sensor 2
RS: Registration sensor
ES: Eject sensor
DUS: Duplex sensor
DPFS: DP paper feed sensor
DPTS: DP timing sensor
DPES: DP eject sensor
TEJS1:   Tray eject sensor 1
TEJS2:   Tray eject sensor 2

3-4 Electric parts (30ppm)

(1) Wire connection

(1-1) (Machine rear side)
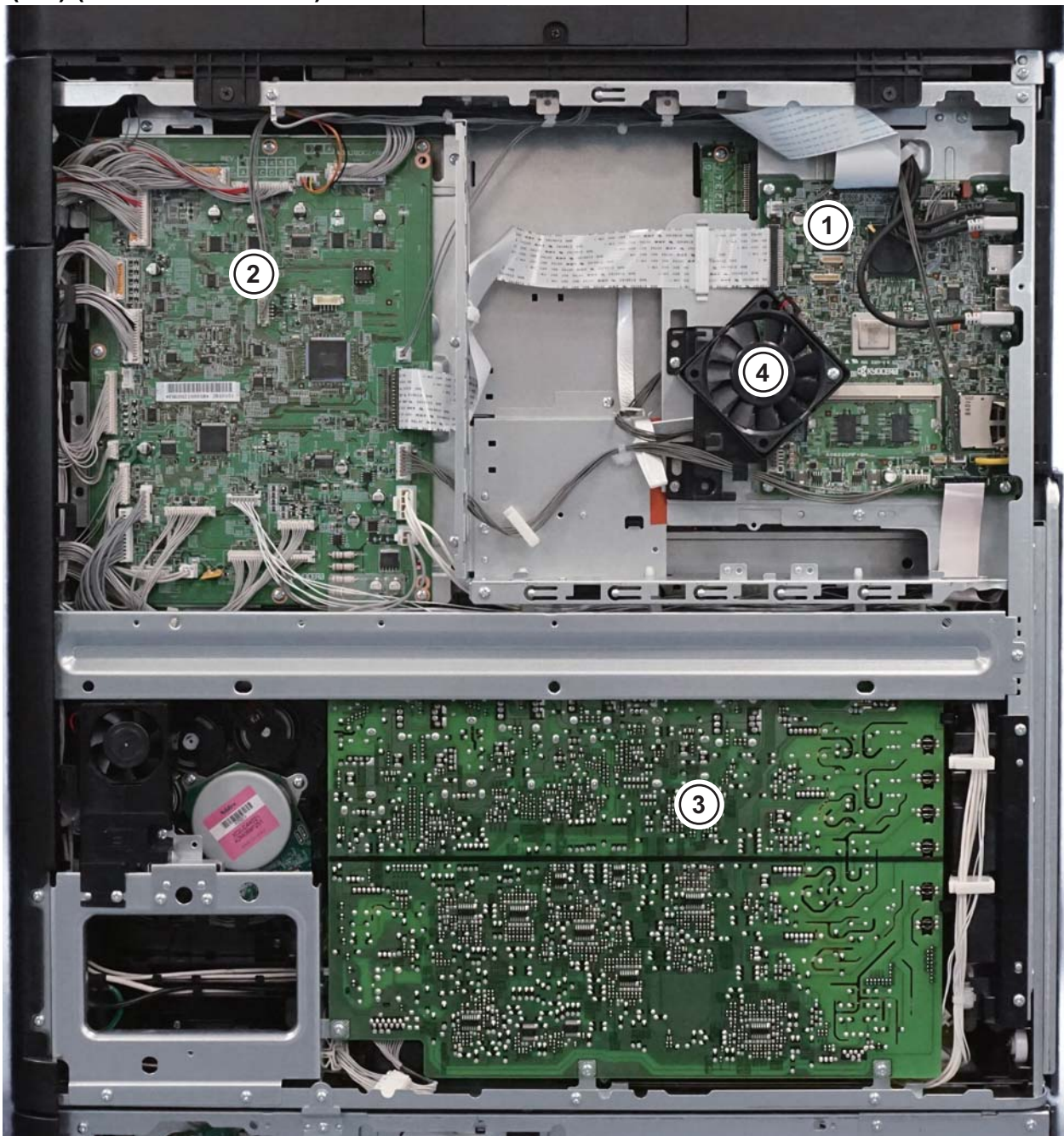
Figure 3-17

1. Main PWB	3. High-voltage PWB
2. Engine PWB	4. Controller fan motor

(1-2) Backside of the High-voltage PWB

Figure 3-18

5. Power source PWB
6. Power source fan motor
7. Developer motor (BK)

8. Drum motor (BK)
9. Drum motor (M/C/Y)
10. Developer motor (M/C/Y)

(2) Descriptions about the major PWBs

(2-1) Main PWB

It controls the software for the interface and image data processing, and the hardware generating the image scanner unit and operation section.

Figure 3-19

(2-2) Engine PWB

It controls the hardware for the generation of the high-voltage and the bias, and the paper conveying system.

Figure 3-20

(2-3) High-voltage PWB

Generating the main charger high-voltage and the developer bias, the transfer bias, separation bias and the transfer cleaning bias.
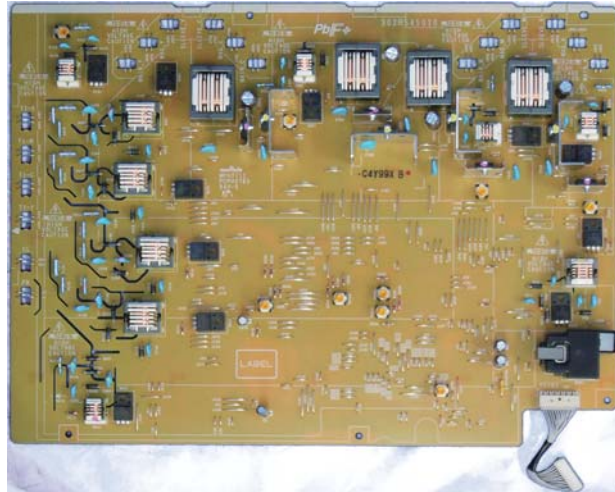
Figure 3-21

(2-4) Power source PWB

The input voltage (AC) from the AC power supply is changed to DC such as DC24V, and it controls the fuser heater.

Figure 3-22

(2-5) Operation panel PWB

It consists of the wiring relay circuit for the main PWB, the panel-left PWB, the panel-right PWB and the LCD.
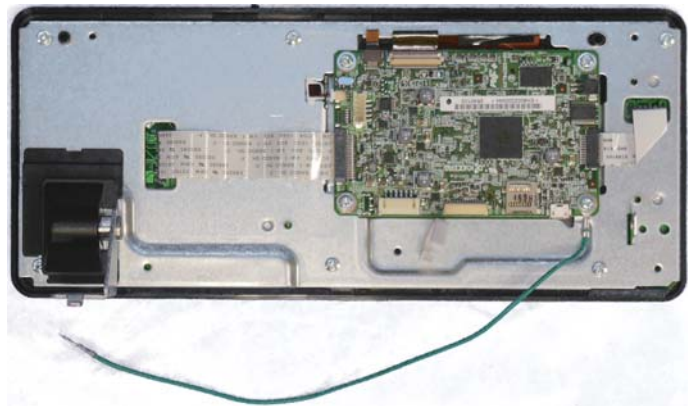
Figure 3-23

(3) Electric parts layout

(3-1) PWBs

Laser scanner unit
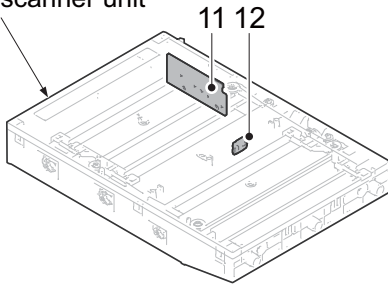
Primary transfer unit
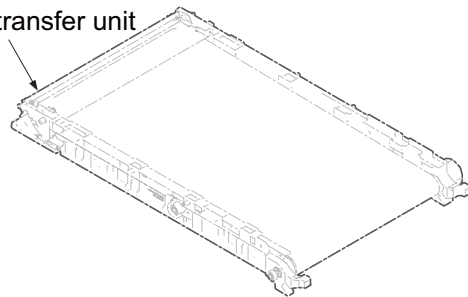
Toner container
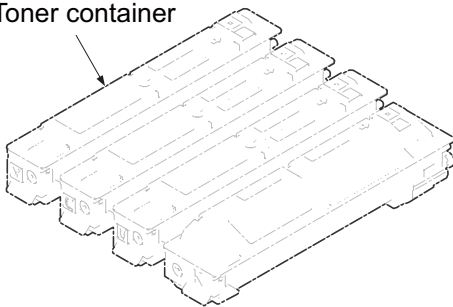
Document processor
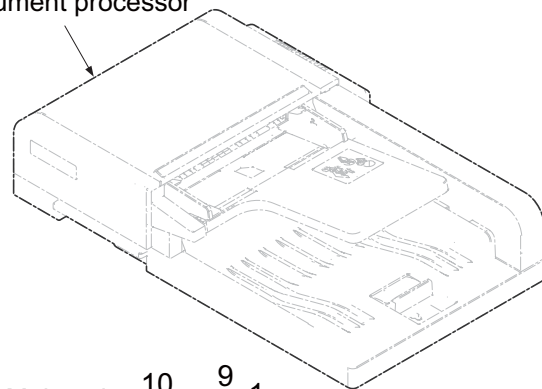
Developer unit

Drum unit

Fuser unit

Main unit

| Front side | / | Inside | / | Rear side |
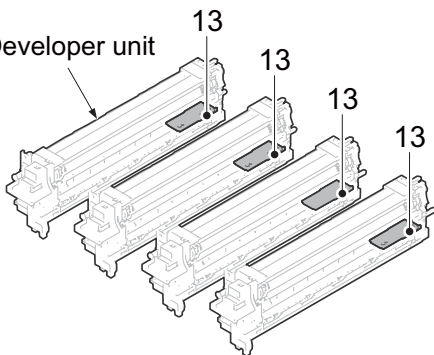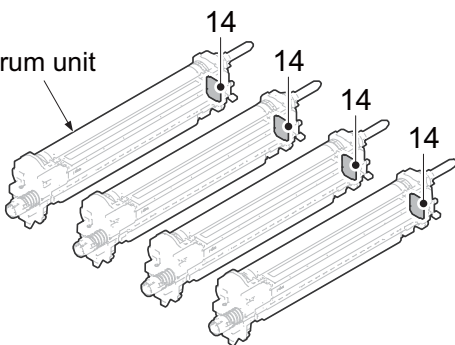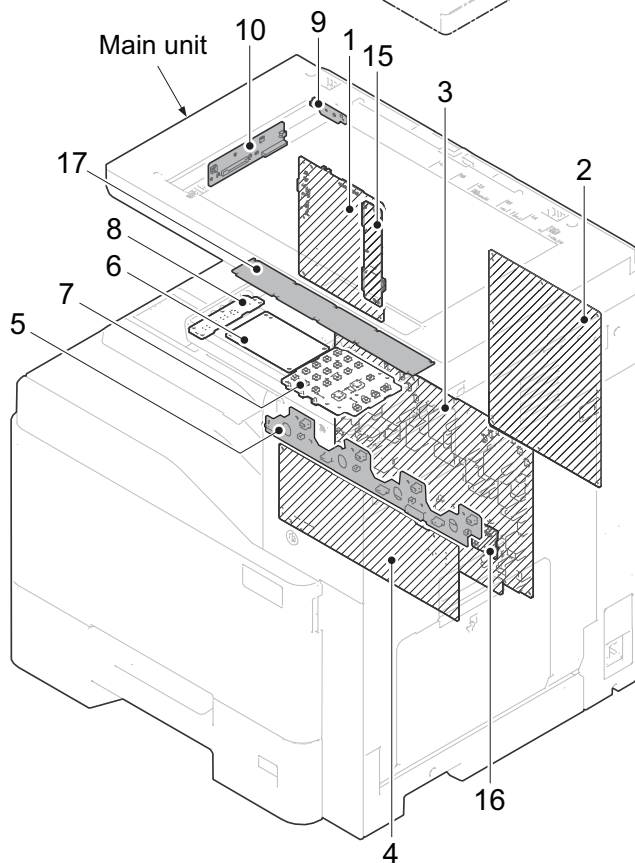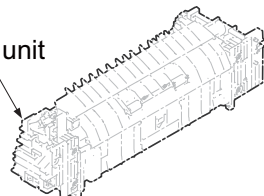
Figure 3-24

1. Main PWB (MPWB) .... Controlling the entire software to control the interface to the PC and network and image data process, etc. Controlling the entire hardware to control the image scanner unit and operation section.

2. Engine PWB (EPWB)........................... Controlling the hardware such as electric parts drive, high voltage, bias output, paper conveying, fuser temperature, etc.

3. High-voltage PWB (HVPWB) .... Generating the main charger high-voltage, the developer bias, the transfer bias and the separation bias.

4. Power source PWB (PSPWB) .... Rectifying the AC power input to the full-wave and converting it to DC24V. It controls the fuser heater.

5. Drum/developer relay PWB
   (DR/DLPRPWB).................................. Consisting of the wiring relay circuit to the engine PWB, drum units and developer units.

6. Operation panel PWB (OPPWB) .... It consists of the wiring relay circuit for the main PWB, panel-left PWB, panel-right PWB and LCD.

7. Operation panel-right PWB
   (OPPWB-R) .... Consisting of the LED indicator and the key switches.

8. Operation panel-left PWB
   (OPPWB-L) .... Consisting of the LED indicator and the key switches.

9. LED PWB (LEDPWB) .... Controlling the LED.

10. CCD PWB (CCDPWB)......................... Scanning the original image.

11. APC PWB (APCPWB) .... Emitting and controlling the laser beam.

12. PD PWB (PDPWB) .... Controlling the synchronous lateral laser beam.

13. Developer PWB (DLPPWB)................. Wiring relay to the electric parts inside developer unit.

14. Drum PWB (DRPWB) .... Wiring relay to the electric parts inside drum unit. Storing the drum unique data in an EEPROM.

15. KUIO relay PWB (KUIORPWB) .... Consisting of the relay circuit for the engine PWB, FAX PWB, network PWB, etc.

16. Cassette heater PWB (CHPWB).......... Consisting of the relay circuit for the engine PWB, power source PWB and option cassette heater.

17. RFID PWB (RFIDPWB) .... Reading the toner container information.

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Main PWB (MPWB)	PARTS PWB MAIN ASSY SP PARTS PWB MAIN ASSY EU SP	302R49427_ 302R49428_
2	Engine PWB(EPWB)	PARTS PWB ENGINE ASSY SP	302R49426_
3	High-voltage PWB (HVPWB)	PARTS UNIT HIGH VOLTAGE MAIN SP	302R59404_
4	Power source PWB (PSPWB)	PARTS SWITCHING REGULATOR 100V SP PARTS SWITCHING REGULATOR 200V SP	302R49432_ 302R49433_
5	Drum/Developer relay PWB (DR/DLPRPWB)	PARTS PWB DRUM DLP CONNECT ASSY SP	302R69404_
6	Operation panel PWB (OPPWB)	PARTS OPERATION UNIT L SP PARTS PWB PANEL MAIN ASSY SP	302R49410_ 302R49423_
7	Operation panel right PWB (OPPWB-R)	PARTS OPERATION UNIT L SP PARTS OPERATION L RIGHT ASSY SP	302R49410_ 302R49425_
8	Operation panel left PWB (OPPWB-L)	PARTS OPERATION UNIT L SP PARTS OPERATION L LEFT ASSY SP	302R49410_ 302R49424_
9	LED PWB (LEDPWB)	ISU ASSY L SP (PWB LED ASSY)	302R49314_ (3V2R60115_)
10	CCD PWB (CCDPWB)	ISU ASSY L SP (P.W.BOARD ASSY CCD)	302R49314_ (3V2NM0107_)
11	APC PWB (APCPWB)	LK-5195 (PWB APC ASSY)	302R49315_ (302R60112_)
12	PD PWB (PDPWB)	LK-5195 (PWB PD ASSY)	302R49315_ (302NP0105_)
13	Developer PWB (DLPPWB)	DV-5195K DV-5195M DV-5195C DV-5195Y (PWB DLP K ASSY) (PWB DLP M ASSY) (PWB DLP C ASSY) (PWB DLP Y ASSY)	302R49307_ 302R49308_ 302R49309_ 302R49310_ (302R60121_) (302R60120_) (302R60119_) (302R60118_)
14	Drum PWB (DRPWB)	DK-5195 (PWB DRUM ASSY)	302R49305_ (302K00107_)
15	KUIO relay PWB (KUIORPWB)	PARTS PWB KUIO ASSY SP	302K99427_
16	Cassette heater PWB (CHPWB)	PARTS PWB HEATER RELAY ASSY SP	302R69405_
17	RFID PWB (RFIDPWB)	PARTS PWB RFID ASSY SP	302R69411_

(3-2) Sensors and Switches

Laser scanner unit — **42**
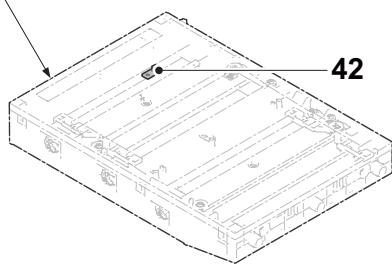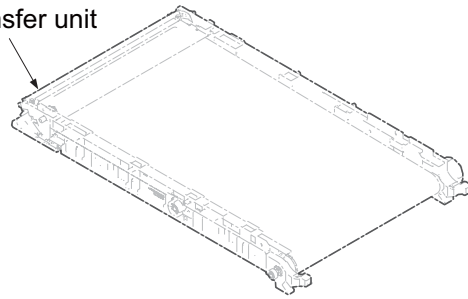
Primary transfer unit

Toner container

Document processor — **39 38 41 37 40**

Developer unit — **32 31 30 29**

Main unit — **21 20 19 18 17 24**

Drum unit

12 11 23 16 15 4 14 10

13 6 5

26 27 28 22 25 8 7 9 2 1 3

35 33 36 34

Fuser unit

| Front side / | Inside / | Rear side |
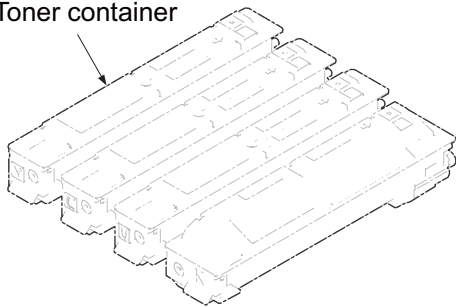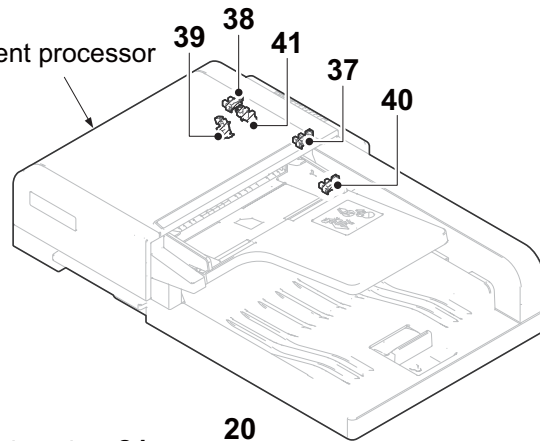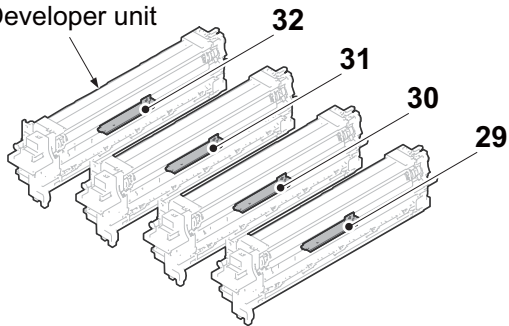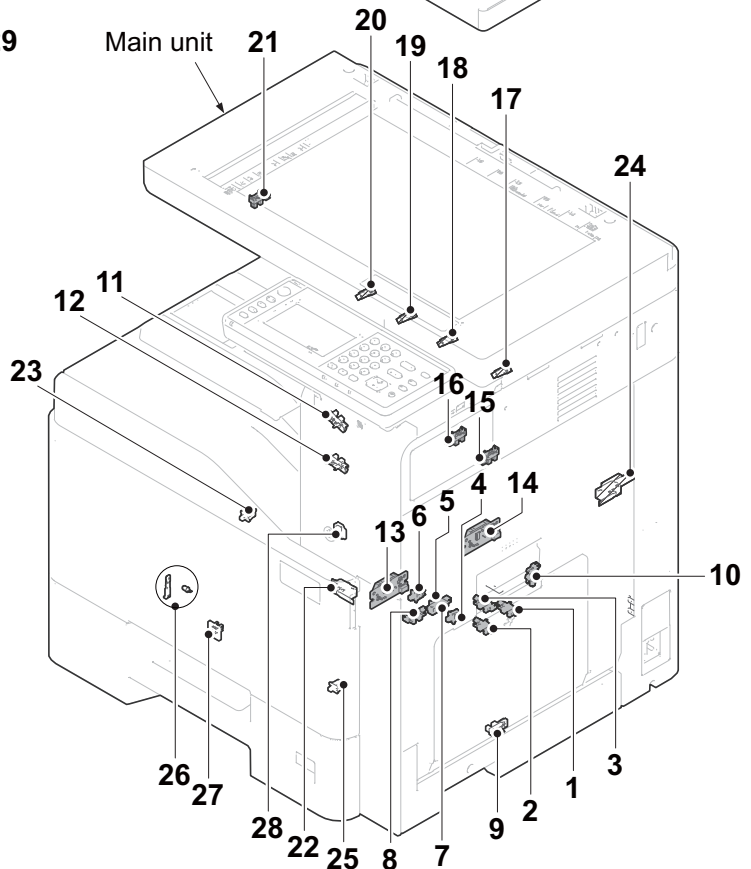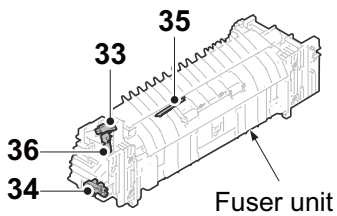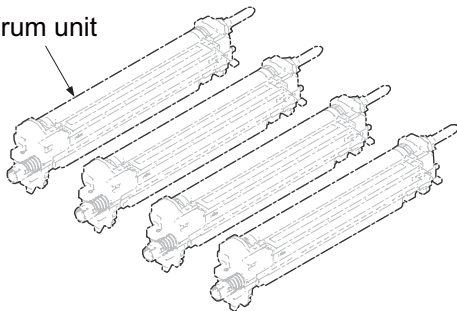
Figure 3-25

1. Paper sensor (PS) .... Detecting the presence of paper in the cassette.
2. Paper gauge sensor 1 (PGS1).............. Detecting the level of the remaining paper inside the cassette.
3. Paper gauge sensor 2 (PGS2).............. Detecting the level of the remaining paper inside the cassette.
4. Paper length sensor 1 (PLSW1) .... Detecting cassette paper size and presence of cassette.
5. Paper length sensor 2 (PLSW2) .... Detecting cassette paper size and presence of cassette.
6. Paper length sensor 3 (PLSW3) .... Detecting cassette paper size and presence of cassette.
7. Registration sensor (RS)...................... Controlling the timing to start the secondary paper feeding.
8. Lift sensor (LS).................................... Detecting the upper limit when lifting the bottom plate inside the cassette.
9. MP paper sensor (MPPS) .... Detecting the presence of paper on the MP tray.
10. Duplex sensor (DUS).......................... Detecting paper jam at the duplex section.
11. Upper eject full sensor (EFS1)............. Detecting the paper-full on the job separator or attachment kit.
12. Lower eject full sensor (EFS2)............. Detecting the paper-full on the inner tray.
13. ID sensor front (IDSF)......................... Measuring the toner density at the calibration.
14. ID sensor rear (IDSR) .... Measuring the toner density at the calibration.
15. TC belt release sensor 1 (TCBRS1) ..... Detecting the transfer belt release position.
16. TC belt release sensor 2 (TCBRS2) ..... Detecting the transfer belt release position.
17. Container sensor (BK)(CS-BK) .... Detecting the toner container rotation. (Black)
18. Container sensor (M)(CS-M)................. Detecting the toner container rotation. (Magenta)
19. Container sensor (C)(CS-M) .... Detecting the toner container rotation. (Cyan)
20. Container sensor (Y)(CS-M) .... Detecting the toner container rotation. (Yellow)
21. Home position sensor (HPS) .... Detecting the position of the image scanner unit.
22. Front cover switch 1 (FCSW1).............. Shutting off the 24V power supply line when the front cover is opened and reset. Interlock switch.
23. Front cover switch 2 (FCSW2)............. Detecting the front cover (left side) open.
24. Right cover switch (RCSW) .... Shutting off the 24V power supply line when the right cover is opened. Interlock switch.
25. Waste toner box switch (WTSSW)........ Detecting presence of the waste toner box.
26. Waste toner sensor (WTS)................... Detecting the waste toner amount inside the waste toner box.
27. Temperature and humidity sensor (TEMS).. Detecting the temperature and humidity outside the main unit.
28. Power switch (PSSW).......................... Turning on and off the main/engine PWB, the engine relay PWB and the operation panel PWB, etc.
29. Toner sensor (BK)(TS-M)...................... Detecting the toner amount inside developer unit BK. (Black)
30. Toner sensor (M)(TS-M)....................... Detecting the toner amount inside developer unit M. (Magenta)
31. Toner sensor (C)(TS-C) .... Detecting the toner amount inside developer unit C. (Cyan)
32. Toner sensor (Y)(TS-Y)........................ Detecting the toner amount inside developer unit Y. (Yellow)
33. Eject sensor (ES)................................. Detecting the paper jam at the fuser section.
34. Press-release sensor (FUPRS) .... Detecting the mode of the fuser pressure.
35. Fuser thermistor 1 (TH1)...................... Detecting the heat roller temperature. (Center)
36. Fuser thermistor 2 (TH2)...................... Detecting the heat roller temperature. (Edge)
37. DP original sensor (DPOS)................... Detecting the presence of the original in the document processor.
38. DP feed sensor (DPFS) .... Detects the primary feed timing of the document processor.
39. DP registration sensor (DPRS)............. Detects the primary feed timing of the document processor.
40. DP feedshift sensor (DPSBS).............. Detecting the position of the feedshift guide in the document processor.
41. DP open/close sensor (DPOCS) .... Detecting the opening and closing of the document processor.
42. LSU thermistor (LSUTH)...................... Detecting the LSU temperature.

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Paper sensor (PS)	PARTS SENSOR OPT.SP	302P79401_
2	Paper gauge sensor 1 (PGS1)	PARTS SENSOR OPT.SP	302P79401_
3	Paper gauge sensor 2 (PGS2)	PARTS SENSOR OPT.SP	302P79401_
4	Paper length sensor 1 (PLSW1)	SW.PUSH	7SP01000004+H01
5	Paper length sensor 2 (PLSW2)	SW.PUSH	7SP01000004+H01
6	Paper length sensor 3 (PLSW3)	SW.PUSH	7SP01000004+H01
7	Registration sensor (RS)	PARTS SENSOR OPT.SP	303NW9404_
8	Lift sensor (LS)	PARTS SENSOR OPT.SP	302P79401_
9	MP paper sensor (MPPS)	PARTS SENSOR OPT.SP	302P79401_
10	Duplex sensor (DUS)	PARTS SENSOR OPT.SP	302P79401_
11	Upper eject full sensor (EFS1)	PARTS SENSOR OPT.SP	302P79401_
12	Lower eject full sensor (EFS2)	PARTS SENSOR OPT.SP	302P79401_
13	ID sensor front (IDSF)	PARTS ID SENSOR ASSY SP	302R69406_
14	ID sensor rear (IDSR)	PARTS ID SENSOR ASSY SP	302R69406_
15	TC belt release sensor 1 (TCBRS1)	PARTS SENSOR OPT.SP	302P79401_
16	TC belt release sensor 2 (TCBRS2)	PARTS SENSOR OPT.SP	302P79401_
17	Container sensor (BK)(CS-BK)	PARTS SENSOR OPT.SP	302P79401_
18	Container sensor (M)(CS-M)	PARTS SENSOR OPT.SP	302P79401_
19	Container sensor (C)(CS-C)	PARTS SENSOR OPT.SP	302P79401_
20	Container sensor (Y)(CS-Y)	PARTS SENSOR OPT.SP	302P79401_
21	Home position sensor (HPS)	PARTS SENSOR OPT.SP	302P79401_
22	Front cover switch 1 (FCSW1)	INTER LOCK SWITCH	2FB27160
23	Front cover switch 2 (FCSW2)	SW.PUSH	7SP01000004+H01
24	Right cover switch (RCSW)	INTER LOCK SWITCH	2FB27160
25	Waste toner box switch (WTSSW)	SW.PUSH	7SP01000004+H01
26	Waste toner sensor (WTS)	SW.PUSH	7SP01000004+H01
27	Temperature and humidity sensor (TEMS)	PARTS PWB THERMISTOR ASSY SP	302R69419_
28	Power switch (PSSW)	PARTS PWB SWITCH ASSY SP	302NG9430_
29	Toner sensor (BK)(TS-M)	DV-5195K (TONER SENSOR ASSY K)	302R49307_
30	Toner sensor (M)(TS-M)	DV-5195N (TONER SENSOR ASSY M)	302R49308_
31	Toner sensor (C)(TS-C)	DV-5195C (TONER SENSOR ASSY C)	302R49309_
32	Toner sensor (Y)(TS-Y)	DV-5195Y (TONER SENSOR ASSY Y)	302R49310_

No.	Name used in service manual	Name used in parts list	Part. No.
33	Eject sensor (ES)	FK-5195 FK-5196 FK-5197 (SENSOR OPT.)	302R49311_ 302R49312_ 302R49313_
34	Press-release sensor (FUPRS)	FK-5195 FK-5196 FK-5197 (SENSOR OPT.)	302R49311_ 302R49312_ 302R49313_
35	Fuser thermistor 1 (TH1)	FK-5195 FK-5196 FK-5197 (THERMISOR ASSY)	302R49311_ 302R49312_ 302R49313_
36	Fuser thermistor 2 (TH2)	FK-5195 FK-5196 FK-5197 (THERMISTOR FUSER)	302R49311_ 302R49312_ 302R49313_
37	DP original sensor (DPOS)	DP ASSY SP (SENSOR OPT.)	302R49301_ (7NXSG2A241++H01)
38	DP paper feed sensor (DPFS)	DP ASSY SP (SENSOR OPT.)	302R49301_ (7NXSG2A241++H01)
39	DP registration sensor (DPRS)	DP ASSY SP (SENSOR OPT.)	302R49301_ (7NXSG2A241++H01)
40	DP feedshift sensor(DPFSS)	DP ASSY SP (SENSOR OPT.)	302R49301_ (7NXSG2A241++H01)
41	DP open/close sensor (DPOCS)	DP ASSY SP (SENSOR OPT.)	302R49301_ (7NXSG2A241++H01)
42	LSU thermistor (LSUTH)	LK-5195 (PWB THERMISTOR ASSY)	302R49315_

(3-3) Motors

Laser scanner unit
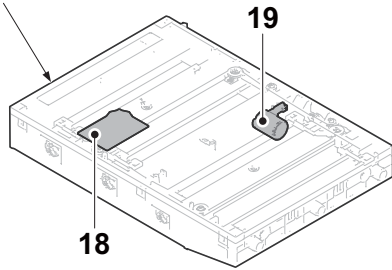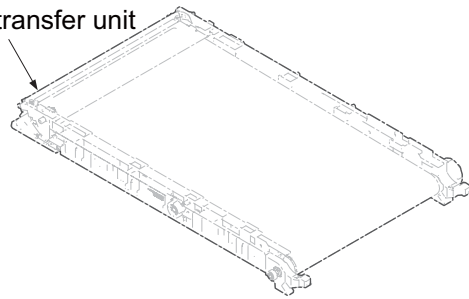
19

18

Primary transfer unit

Toner container

Document processor

31 **30** **32**

29

Developer unit

28

27

26

Main unit

13 **12** **20** **11**

8 **9**

5 **4** **10**

23 **24**

14

7

17

2

25

Drum unit

21 **22**

1

15 **16** **3** **6**

Fuser unit

| Front side / | Inside / | Rear side |
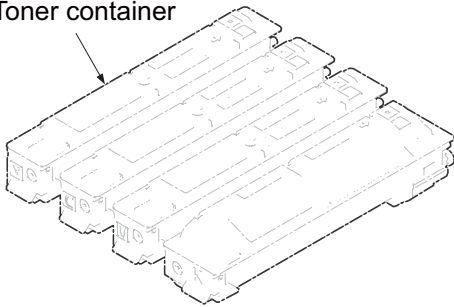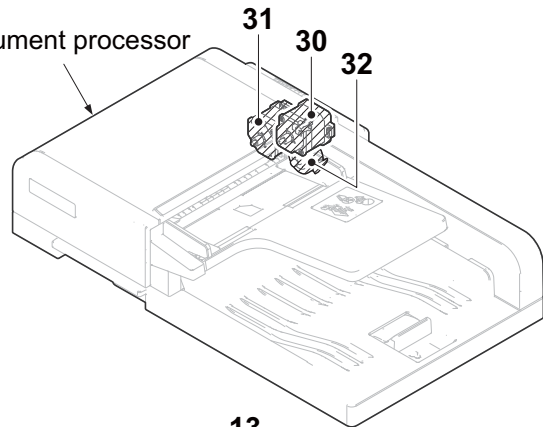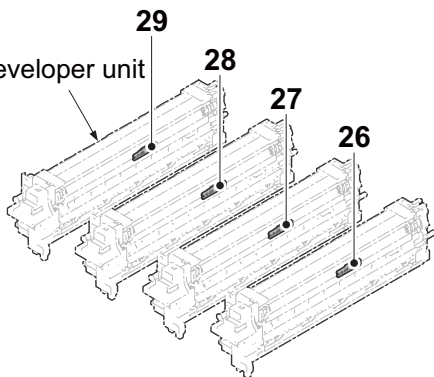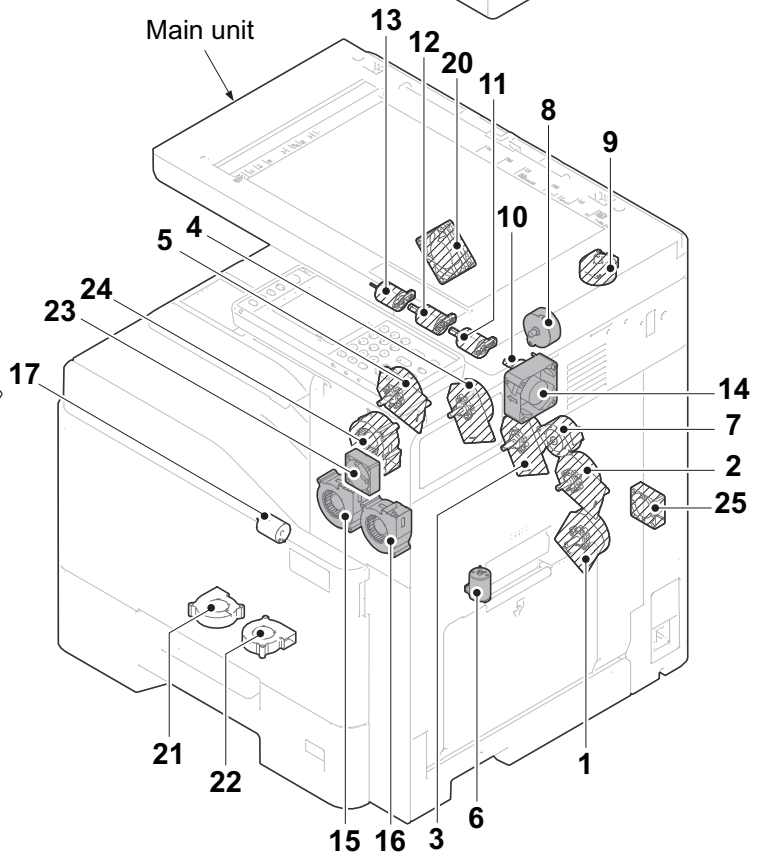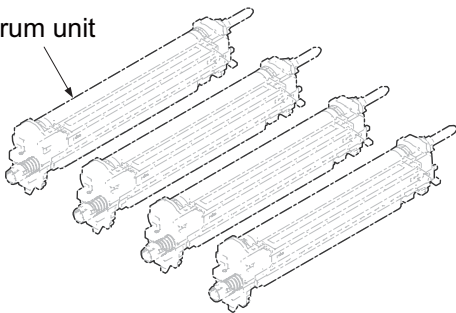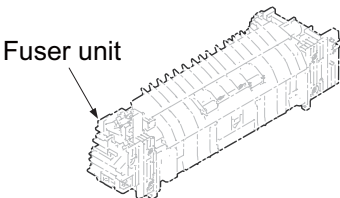
Figure 3-26

1. Developer motor (BK)(DLPM-BK)......... Driving the paper feeding and developer unit BK.
2. Transfer motor (TRM) .... Driving the primary transfer unit.
3. Drum motor (BK)(DRM-BK) .... Driving the drum unit. (Black)
4. Drum motor (M/C/Y)(DRM-M/C/Y)........ Driving the drum units. (Color)
5. Developer motor
   (M/C/Y)(DLPM-M/C/Y) .... Driving the developer units. (Color)
6. Lift motor (LM)...................................... Operating the bottom plate inside the cassette.
7. Fuser motor (FUM) .... Driving the fuser section.
8. Eject motor (EM) .... Driving the eject section.
9. Scanner motor (SM)............................. Driving the optical section.
10. Toner motor (BK)(TM-K) .... Supplying the toner to developer unit. (Black)
11. Toner motor (M)(TM-M)........................ Supplying the toner to developer unit. (Magenta)
12. Toner motor (C)(TM-C) .... Supplying the toner to developer unit. (Cyan)
13. Toner motor (Y)(TM-K)......................... Supplying the toner to developer unit. (Yellow)
14. Eject fan motor (EFM).......................... Cooling the eject section.
15. Developer fan motor 1(DLPFM1).......... Cooling the developer.
16. Developer fan motor 2(DLPFM2).......... Cooling the developer.
17. Transfer release motor (TCBRM).......... Driving the primary transfer roller separation.
18. Polygon motor (PM).............................. Driving polygon mirror.
19. Cleaning motor (CLM)........................... Driving the LSU glass cleaning mechanism.
20. Controller fan motor (CONTFM) .... Cooling the main PWB.
21. Developer fan motor 3(DLPFM3).......... Cooling the developer.
22. Developer fan motor 4(DLPFM4).......... Cooling the developer.
23. Steam removal fan motor (SFM)........... Removing the steam.
24. PWB fan motor (PWBFM).................... Cooling the power source PWB and high-voltage PWB.
25. Clutch fan motor (CLFM) .... Cooling the clutch.
26. Vibration motor BK (VIBM-BK).............. Vibrating the developer unit BK.
27. Vibration motor M(VIBM-M) .... Vibrating the developer unit M.
28. Vibration motor C(VIBM-C) .... Vibrating the developer unit C.
29. Vibration motor Y(VIBM-Y) .... Vibrating the developer unit Y.
30. DP feed motor (DPFM) .... Driving the original feed section in the document processor.
31. DP conveying motor (DPCM)................ Driving the original conveying section in the document processor
32. DP feedshift motor (DPFSM) .... Driving the original feed section in the document processor.

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Developer motor (BK)(DLPM-BK)	PARTS FEED DRIVE ASSY SP (MOTOR-BL W20)	302R49408_ (302K94414_)
2	Transfer motor (TCM)	IMAGE DRIVE ASSY (MOTOR-BL W20)	302R45841_ (302K94414_)
3	Drum motor (BK)(DRM-BK)	DR-5195 (MOTOR-BL W20 DRUM Z11)	302R49304_
4	Drum motor (M/C/Y)(DRM-M/C/Y)	DR-5195 (MOTOR-BL W20 DRUM Z11)	302R49304_
5	Developer motor (M/C/Y)(DLPM-M/C/Y)	DR-5195 (MOTOR-BL W20)	302R49304_
6	Lift motor (LM)	PARTS LIFT MOTOR ASSY SP	302R49422_
7	Fuser motor (FUM)	PARTS MOTOR FUSER ASSY SP	302R49422_
8	Duplex eject motor (EM)	PARTS EXIT ASSY SP (MOTOR EJECT)	302R49405_ (302P74407_)
9	Image scanner motor (ISUM)	PARTS MOTOR ISU SP	302LW9406_
10	Container motor (BK)(CM-BK)	PARTS DC MOTOR ASSY B SP	302R49420_
11	Container motor (M)(CM-M)	PARTS DC MOTOR ASSY B SP	302R49420_
12	Container motor (C)(CM-C)	PARTS DC MOTOR ASSY B SP	302R49420_
13	Container motor (Y)(CM-Y)	PARTS DC MOTOR ASSY B SP	302R49420_
14	Eject fan motor (EFM)	FAN LSU 60-25	302GR4408_
15	Developer fan motor 1(DLPFM1)	PARTS FAN COOLING LSU 60 SP	302LC9438_
16	Developer fan motor 2(DLPFM1)	PARTS FAN COOLING LSU 60 SP	302LC9438_
17	Transfer release motor (TCBRM)	PARTS DC MOTOR ASSY B SP DC MOTOR ASSY B	302R49420_ 302R40005_
18	Polygon motor (PM)	LK-5195 (MOTOR POLYGON)	302R49315_
19	Cleaning motor (CLM)	PARTS DC MOTOR ASSY B SP	302R49420_
20	Controller fan motor (CONFM)	PARTS,FAN COOLING CONVEYING SP	302FZ9442_
21	Developer fan motor 3 (DLPFM3)	PARTS,FAN IMAGE SP	302FZ9466_
22	Developer fan motor 4 (DLPFM4)	PARTS,FAN IMAGE SP	302FZ9466_
23	Steam removal fan motor (SFM)	PARTS EXIT ASSY SP (FAN COOLING 40-15)	302R49405_ (302H04412_)
24	PWB fan motor (PWBFM)	PARTS FAN COOLING LSU 60 SP	302LC9438_
25	Clutch fan motor (CLFM)	FAN COOLING 40-15	302H04412
26	Vibration motor BK (VIBM-BK)	DV-5195K (MOTOR VIBRATION)	302R49307_
27	Vibration motor M(VIBM-M)	DV-5195M (MOTOR VIBRATION)	302R49308_

No.	Name used in service manual	Name used in parts list	Part. No.
28	Vibration motor C(VIBM-C)	DV-5195C (MOTOR VIBRATION)	302R49309_
29	Vibration motor Y(VIBM-Y)	DV-5195Y (MOTOR VIBRATION)	302R49310_
30	DP feed motor (DPFM)	DP ASSY SP (MOTOR-HB PAPER FEED)	302R49301_ (302NM4404_)
31	DP conveying motor (DPCM)	DP ASSY SP (MOTOR-HB PAPER FEED)	302R49301_ (302NM4404_)
32	DP feedshift motor (DPFSM)	DP ASSY SP (MOTOR ROTARY)	302R49301_ (302KY4409_)

(3-4) Others

Laser scanner unit

Primary transfer unit

Toner container

Document processor

Developer unit

Main unit

13

Drum unit

11 **10**

9

8

7

5 **4**

3

2

6

1

Fuser unit

12

| Front side | / | Inside | / | Rear side |
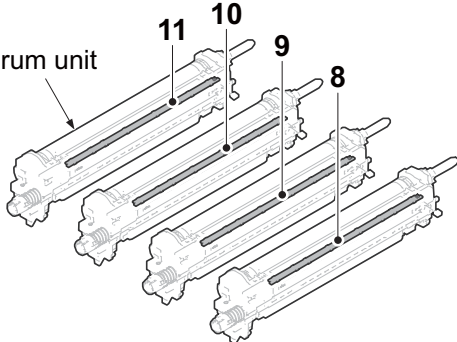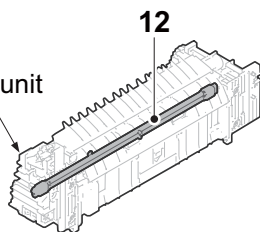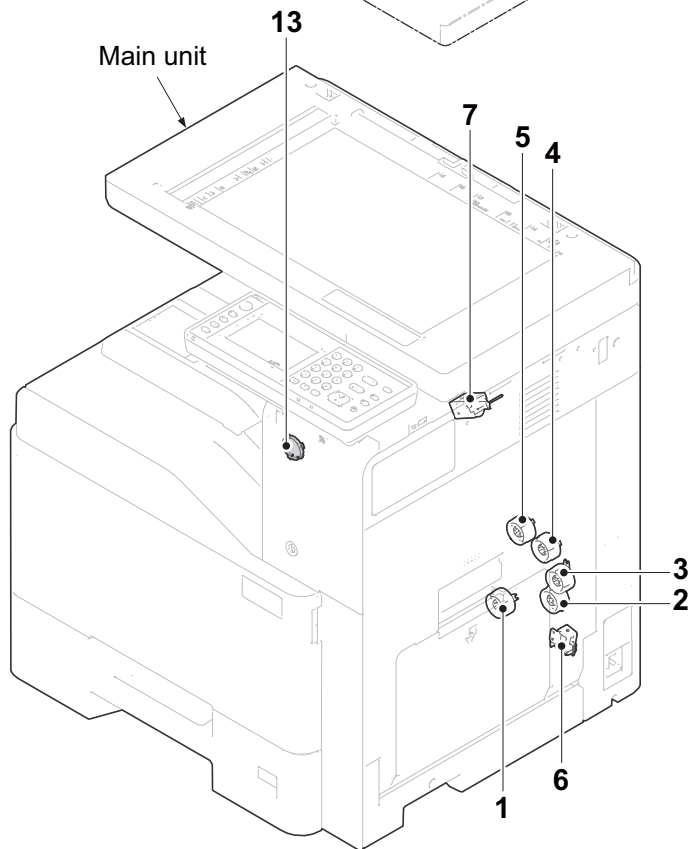
Figure 3-27

 1. Paper feed clutch (PCL)........................ Controlling the primary paper feeding from the cassette.
 2. Middle clutch (MCL) .... Controlling the conveying section drive.
 3. Duplex clutch (DUCL) .... Controlling the duplex drive.
 4. Registration clutch (RCL)...................... Controlling the secondary paper feeding from the cassette.
 5. Developer clutch (DLPCL) .... Controlling the drive to developer unit. (Black)
 6. MP solenoid (MPSOL) .... Controlling the primary paper feeding from the MP tray.
 7. Feedshift solenoid (FSSOL).................. Operates the feedshift guide.
 8. Cleaning lamp (BK)(CL-K) .... Removing the remaining electric charge on the drum. (Black)
 9. Cleaning lamp (M)(CL-M) .... Removing the remaining electric charge on the drum. (Magenta)
10. Cleaning lamp (C)(CL-C) .... Removing the remaining electric charge on the drum. (Cyan)
11. Cleaning lamp (Y) (CL-Y)...................... Removing the remaining electric charge on the drum. (Yellow)
12. Fuser heater (FH) .... Heating the heat roller.
13. Speaker (SPK) .... Outputting sounds.

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Paper feed clutch (FCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
2	Middle clutch (MCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
3	Duplex clutch (DUCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
4	Registration clutch (RCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
5	Developer clutch (DLPCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
6	MP solenoid (MPSOL)	PARTS FEED DRIVE ASSY SP (SOLENOID MPF)	302R49408_ (302HN4416_)
7	Feedshift solenoid (FSSOL)	PARTS EXIT ASSY SP (SOLENOID PRIMARY FEED)	302R49405_ (302K94417_)
8	Cleaning lamp (BK)(CL-BK)	DK-5195 (PWB ERASER ASSY)	302R49305_
9	Cleaning lamp (M)(CL-M)	DK-5195 (PWB ERASER ASSY)	302R49305_
10	Cleaning lamp (C)(CL-C)	DK-5195 (PWB ERASER ASSY)	302R49305_
11	Cleaning lamp (Y)(CL-Y)	DK-5195 (PWB ERASER ASSY)	302R49305_
12	Fuser heater (FH)	FK-5195 FK-5196 FK-5197 HEATER LAMP 240 HEATER LAMP 100 HEATER LAMP 120	302R49311_ 302R49312_ 302R49313_
13	Speaker (SPK)	PARTS SPEAKER SP	302LC9437_

3-5 Electric parts (35/40 ppm models)

(1) Wire connection

(1-1) (Machine rear side)

(40 ppm model)
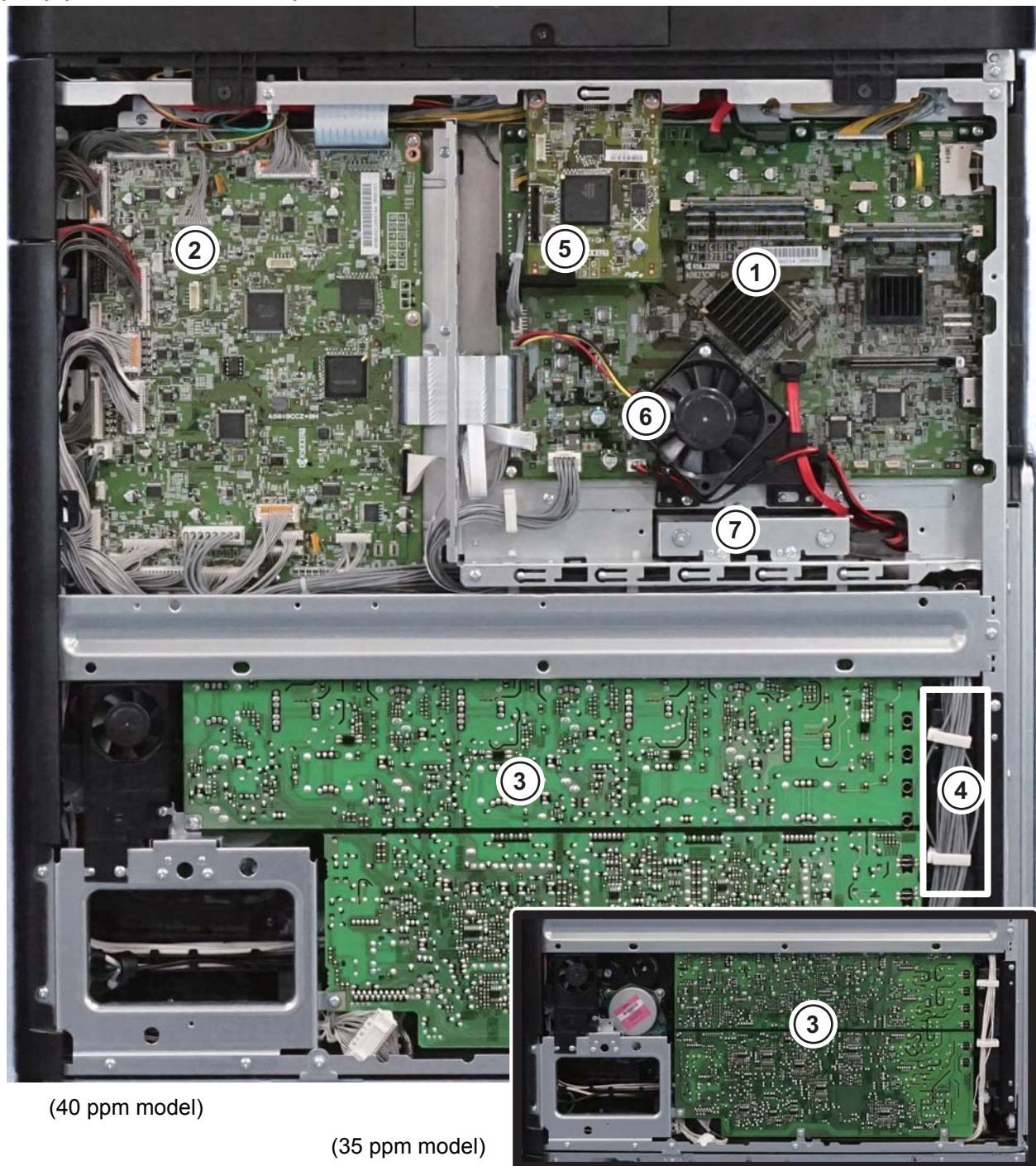
(35 ppm model)

Figure 3-28

1. Main PWB
2. Engine PWB
3. High-voltage PWB
4. Transfer high-voltage PWB *1

5. DP relay PWB
6. Controller fan motor
7. Hard disk

*1: 40 ppm model only

(1-2) Backside of the High-voltage PWB

Figure 3-29

8. Power source PWB

9. Power source fan motor

10. Developer motor (BK)

11. Drum motor (BK)

12. Drum motor (M/C/Y)

13. Developer motor (M/C/Y)

14. Clutch cooling fan

(2) Descriptions about the major PWBs

(2-1) Main PWB

It controls the software for the interface and image data processing, and the hardware generating the image scanner unit and operation section.

Figure 3-30

(2-2) Engine PWB

It controls the hardware for the generation of the high-voltage and the bias, and the paper conveying system.

Figure 3-31

(2-3) High-voltage PWB

Generating the main charger high-voltage and the developer bias, the transfer bias, separation bias and the transfer cleaning bias.
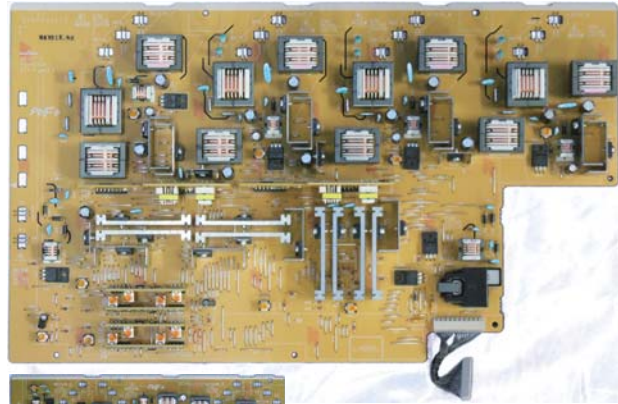
(40 ppm model)

(35 ppm model)

Figure 3-32

(2-4) Transfer high-voltage PWB

Output the transfer bias and separation bias.

* : 40 ppm model only
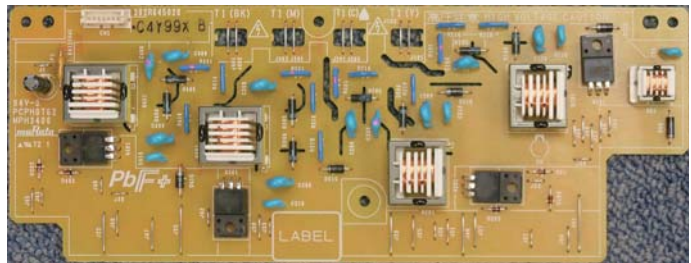
Figure 3-33

(2-5) Power source PWB

The input voltage (AC) from the AC power supply is changed to DC such as DC24V, and it controls the fuser heater.

Figure 3-34

(2-6) Operation panel PWB

It consists of the wiring relay circuit for the main PWB, the operation panel sub PWB and the LCD.

Figure 3-35

(3) Electric parts layout

(3-1) PWBs
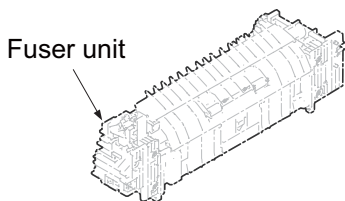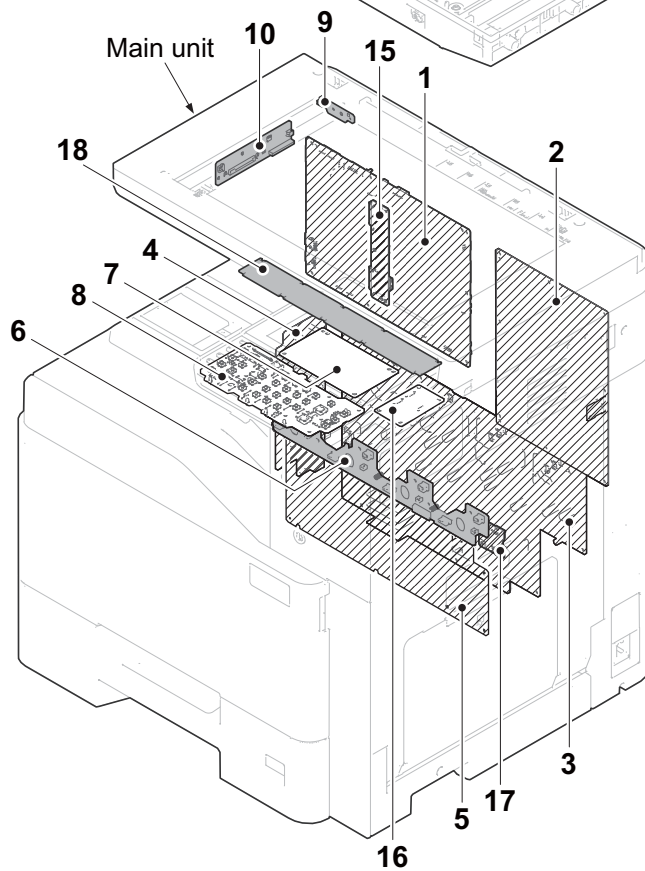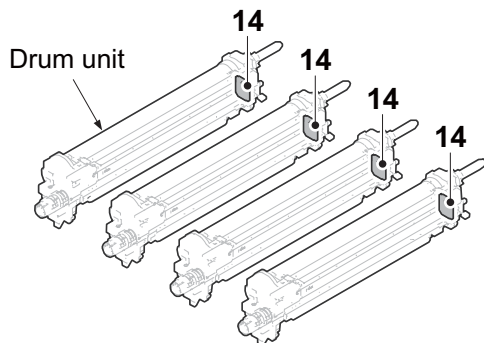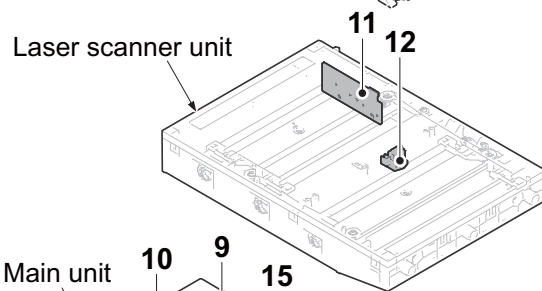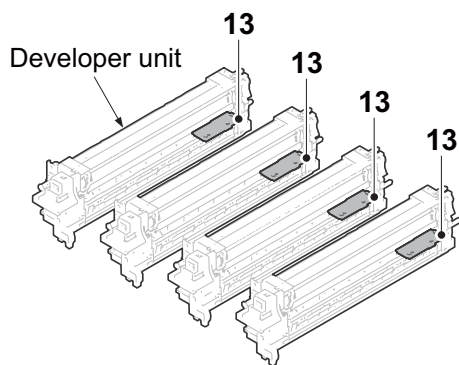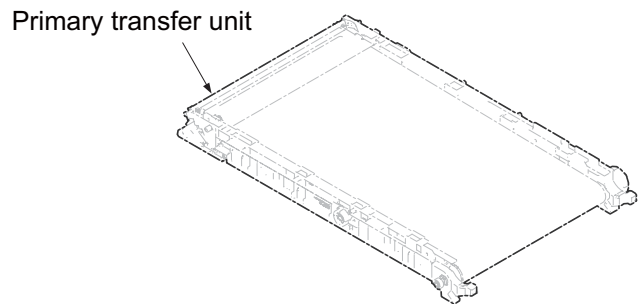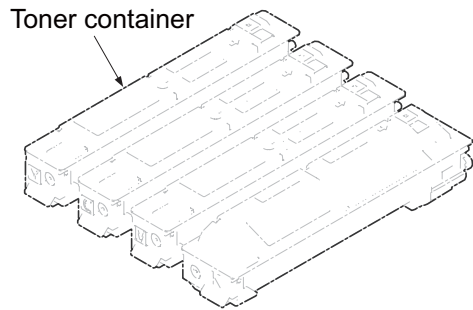
Figure 3-36

1. Main PWB (MPWB) .... Controlling the entire software to control the interface to the PC and network and image data process, etc. Controlling the entire hardware to control the image scanner unit and operation section.

2. Engine PWB (EPWB).......................... Controlling the hardware such as electric parts drive, high voltage, bias output, paper conveying, fuser temperature, etc.

3. High-voltage PWB (HVPWB) .... Generating the main charger high-voltage and the developer bias.

4. Transfer high-voltage PWB (TCHVPWB) [*1]..................................... Generating the transfer bias and separation bias.

5. Power source PWB (PSPWB) .... Rectifying the AC power input to the full-wave and converting it to DC24V. It controls the fuser heater.

6. Drum/developer relay PWB (DR/DLPRPWB).................................. Consisting of the wiring relay circuit to the engine PWB, drum units and developer units.

7. Operation panel PWB (OPPWB) .... It consists of the wiring relay circuit for the main PWB, panel-left PWB, panel-right PWB and LCD.

8. Operation panel sub PWB (OPPWB-S)... Consisting of the LED indicator and the key switches.

9. LED PWB (LEDPWB) .... Controlling the LED.

10. CCD PWB (CCDPWB)......................... Scanning the original image.

11. APC PWB (APCPWB) .... Emitting and controlling the laser beam.

12. PD PWB (PDPWB) .... Controlling the synchronous lateral laser beam.

13. Developer PWB (DLPPWB)................. Wiring relay to the electric parts inside developer unit.

14. Drum PWB (DRPWB) .... Wiring relay to the electric parts inside drum unit. Storing the drum unique data in an EEPROM.

15. KUIO relay PWB (KUIORPWB) .... Consisting of the relay circuit for the engine PWB, FAX PWB, network PWB, etc.

16. USB PWB (USBPWB) .... USB hub PWB.

17. Cassette heater PWB (CHPWB)........... Consisting of the relay circuit for the engine PWB, power source PWB and option cassette heater.

18. RFID PWB (RFIDPWB) .... Reading the toner container information.

[*1]: 40 ppm model only

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Main PWB (MPWB)	PARTS PWB MAIN ASSY SP PARTS PWB MAIN ASSY EU SP	302R59402_ *1 302R69409_ *2 302R59403_ *1 302R69410_ *2
2	Engine PWB(EPWB)	PARTS PWB ENGINE ASSY SP	302R59403_ *1 302R69408_ *2
3	High-voltage PWB (HVPWB)	PARTS UNIT HIGH VOLTAGE MAIN SP	302R59404_ *1 302R69415_ *2
4	Transfer high-voltage PWB (TCHVPWB)	PARTS UNIT HIGH VOLTAGE TRANS-FER SP	302R69416_ *2
5	Power source PWB (PSPWB)	PARTS UNIT LOW VOLTAGE 100 SP PARTS UNIT LOW VOLTAGE 200 SP	302R69417_ 302R69418_
6	Drum/Developer relay PWB (DR/DLPRPWB)	PARTS PWB DRUM DLP CONNECT ASSY SP	302R69404_
7	Operation panel PWB (OPPWB)	PARTS OPERATION UNIT H SP PARTS PWB PANEL MAIN ASSY SP	302R69403_ 302R69412_
8	Operation panel PWB SUB (OPPWB-S)	PARTS OPERATION UNIT H SP PARTS PWB OPERATION H ASSY SP	302R69403_ 302R69413_
9	LED PWB (LEDPWB)	ISU ASSY H SP (PWB LED ASSY)	302R69312_
10	CCD PWB (CCDPWB)	ISU ASSY H SP (PWB CCD ASSY)	302R69312_
11	APC PWB (APCPWB)	LK-5195 (PWB APC ASSY)	302R49315_
12	PD PWB (PDPWB)	LK-5195 (PWB PD ASSY)	302R49315_
13	Developer PWB (DLPPWB)	DV-5205K DV-5205M DV-5205C DV-5205Y DV-5215K DV-5215M DV-5215C DV-5215Y (PWB DLP K ASSY) (PWB DLP M ASSY) (PWB DLP C ASSY) (PWB DLP Y ASSY)	302R59301_ *1 302R59302_ *1 302R59303_ *1 302R59304_ *1 302R69304_ *2 302R69305_ *2 302R69306_ *2 302R69307_ *2
14	Drum PWB (DRPWB)	DK-5195 DK-5215 (PWB DRUM ASSY)	302R49305_ *1 602R69302_ *2
15	KUIO relay PWB (KUIORPWB)	PARTS PWB KUIO ASSY SP	302K99427_
16	USB PWB (USBPWB)	PARTS PWB USB HUB ASSY SP	302R69407_

No.	Name used in service manual	Name used in parts list	Part. No.
17	Cassette heater PWB (CHPWB)	PARTS PWB HEATER RELAY ASSY SP	302R69405_
18	RFID PWB (RFIDPWB)	PARTS PWB RFID ASSY SP	302R69411_

[*1]: 35 ppm model, [*2]: 40 ppm model

(3-2) Sensors and Switches

Toner container

Primary transfer unit

Developer unit

32
31
30
29

Laser scanner unit

40

Drum unit

Main unit

21
20
19
18
17
24

23
12 **11**
16
15
14
4
10

13 **6** **5**
35
33

36
34

Fuser unit

26 **27**
28 **22** **25** **8** **7** **37** **38** **9** **2** **39** **1** **3**

| Front side | / | Inside | / | Rear side |
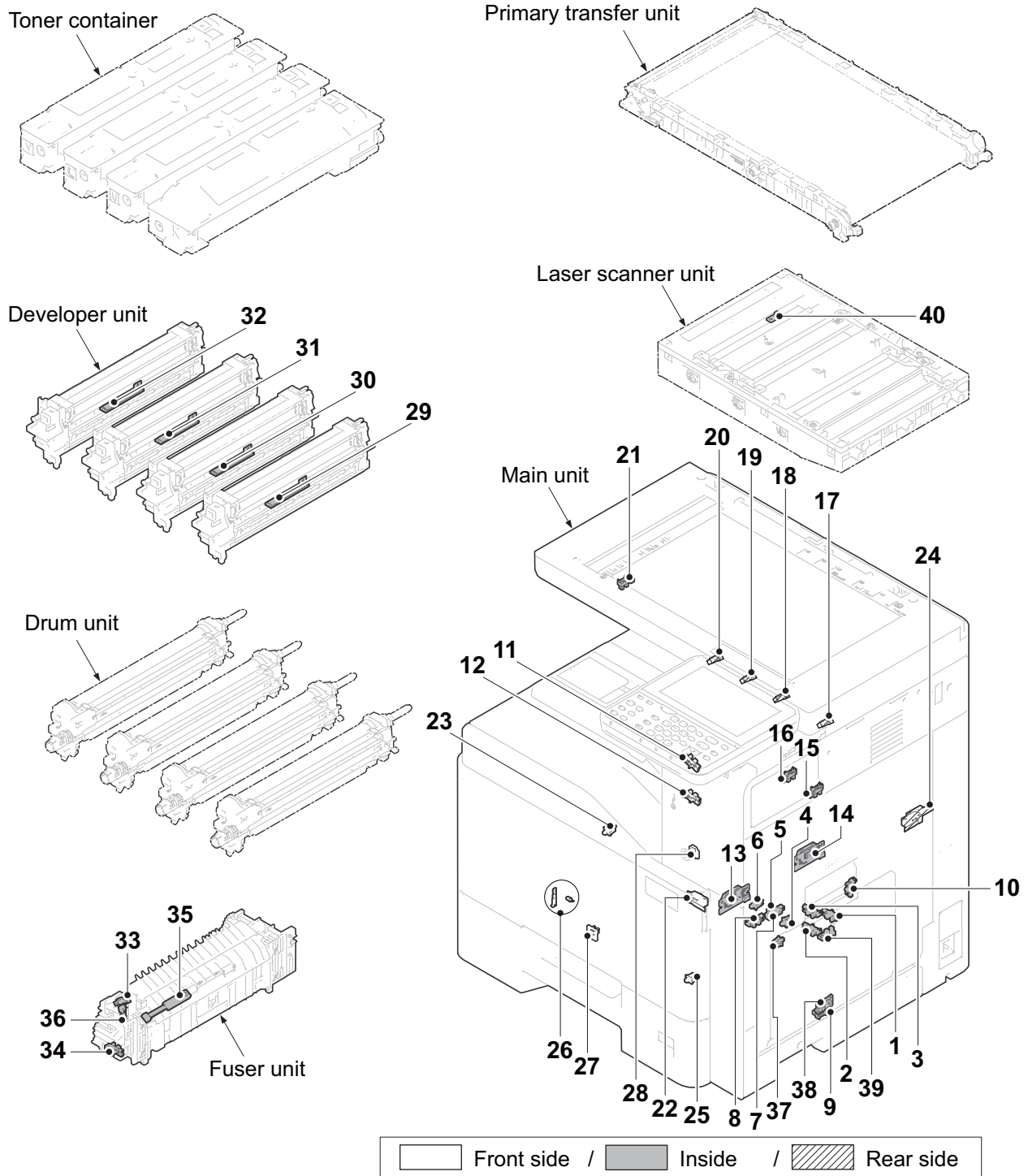
Figure 3-37

  1. Paper sensor (PS) .... Detecting the presence of paper in the cassette.
  2. Paper gauge sensor 1 (PGS1).............. Detecting the level of the remaining paper inside the cassette.
  3. Paper gauge sensor 2 (PGS2).............. Detecting the level of the remaining paper inside the cassette.
  4. Paper length sensor 1 (PLSW1) .... Detecting cassette paper size and presence of cassette.
  5. Paper length sensor 2 (PLSW2) .... Detecting cassette paper size and presence of cassette.
  6. Paper length sensor 3 (PLSW3) .... Detecting cassette paper size and presence of cassette.
  7. Registration sensor (RS)...................... Controlling the timing to start the secondary paper feeding.
  8. Lift sensor (LS).................................... Detecting the upper limit when lifting the bottom plate inside the cassette.
  9. MP paper sensor (MPPS) .... Detecting the presence of paper on the MP tray.
10. Duplex sensor (DUS).......................... Detecting paper jam at the duplex section.
11. Upper eject full sensor (EFS1)............. Detecting the paper-full on the job separator or attachment kit.
12. Lower eject full sensor (EFS2)............. Detecting the paper-full on the inner tray.
13. ID sensor front (IDSF).......................... Measuring the toner density at the calibration.
14. ID sensor rear (IDSR) .... Measuring the toner density at the calibration.
15. TC belt release sensor 1 (TCBRS1) ..... Detecting the transfer belt release position.
16. TC belt release sensor 2 (TCBRS2) ..... Detecting the transfer belt release position.
17. Container sensor (BK)(CS-BK) .... Detecting the toner container rotation. (Black)
18. Container sensor (M)(CS-M)................. Detecting the toner container rotation. (Magenta)
19. Container sensor (C)(CS-M) .... Detecting the toner container rotation. (Cyan)
20. Container sensor (Y)(CS-M) .... Detecting the toner container rotation. (Yellow)
21. Home position sensor (HPS) .... Detecting the position of the image scanner unit.
22. Front cover switch 1 (FCSW1).............. Shutting off the 24V power supply line when the front cover is opened and reset. Interlock switch.
23. Front cover switch 2 (FCSW2).............. Detecting the front cover (left side) open.
24. Right cover switch (RCSW) .... Shutting off the 24V power supply line when the right cover is opened. Interlock switch.
25. Waste toner box switch (WTSSW)........ Detecting presence of the waste toner box.
26. Waste toner sensor (WTS)................... Detecting the waste toner amount inside the waste toner box.
27. Temperature and humidity sensor (TEMS).. Detecting the temperature and humidity outside the main unit.
28. Power switch (PSSW).......................... Turning on and off the main/engine PWB, the engine relay PWB and the operation panel PWB, etc.
29. Toner sensor (BK)(TS-M)...................... Detecting the toner amount inside developer unit BK. (Black)
30. Toner sensor (M)(TS-M)....................... Detecting the toner amount inside developer unit M. (Magenta)
31. Toner sensor (C)(TS-C) .... Detecting the toner amount inside developer unit C. (Cyan)
32. Toner sensor (Y)(TS-Y)........................ Detecting the toner amount inside developer unit Y. (Yellow)
33. Eject sensor (ES) .... Detecting the paper jam at the fuser section.
34. Press-release sensor (FUPRS) .... Detecting the mode of the fuser pressure.
35. Fuser thermistor 1 (TH1)...................... Detecting the heat roller temperature. (Center)
36. Fuser thermistor 2 (TH2)...................... Detecting the heat roller temperature. (Edge)
37. MP tray switch (MPTSW)...................... Detecting the MP tray is pulled out.
38. MP paper width sensor (MPWS)........... Detecting the MP paper width.
39. MP paper length sensor (MPLS)........... Detecting the MP paper length.
40. LSU thermistor (LSUTH)...................... Detecting the LSU temperature.

2R4/2R5/2R6

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Paper sensor (PS)	PARTS SENSOR OPT.SP	302P79401_
2	Paper gauge sensor 1 (PGS1)	PARTS SENSOR OPT.SP	302P79401_
3	Paper gauge sensor 2 (PGS2)	PARTS SENSOR OPT.SP	302P79401_
4	Paper length sensor 1 (PLSW1)	SW.PUSH	7SP01000004+H01
5	Paper length sensor 2 (PLSW2)	SW.PUSH	7SP01000004+H01
6	Paper length sensor 3 (PLSW3)	SW.PUSH	7SP01000004+H01
7	Registration sensor (RS)	PARTS SENSOR OPT.SP	303NW9404_
8	Lift sensor (LS)	PARTS SENSOR OPT.SP	302P79401_
9	MP paper sensor (MPPS)	PARTS SENSOR OPT.SP	302P79401_
10	Duplex sensor (DUS)	PARTS SENSOR OPT.SP	302P79401_
11	Upper eject full sensor (EFS1)	PARTS SENSOR OPT.SP	302P79401_
12	Lower eject full sensor (EFS2)	PARTS SENSOR OPT.SP	302P79401_
13	ID sensor front (IDSF)	PARTS ID SENSOR ASSY SP	302R69406_
14	ID sensor rear (IDSR)	PARTS ID SENSOR ASSY SP	302R69406_
15	TC belt release sensor 1 (TCBRS1)	PARTS SENSOR OPT.SP	302P79401_
16	TC belt release sensor 2 (TCBRS2)	PARTS SENSOR OPT.SP	302P79401_
17	Container sensor (BK)(CS-BK)	PARTS SENSOR OPT.SP	302P79401_
18	Container sensor (M)(CS-M)	PARTS SENSOR OPT.SP	302P79401_
19	Container sensor (C)(CS-C)	PARTS SENSOR OPT.SP	302P79401_
20	Container sensor (Y)(CS-Y)	PARTS SENSOR OPT.SP	302P79401_
21	Home position sensor (HPS)	PARTS SENSOR OPT.SP	302P79401_
22	Front cover switch 1 (FCSW1)	INTER LOCK SWITCH	2FB27160
23	Front cover switch 2 (FCSW2)	SW.PUSH	7SP01000004+H01
24	Right cover switch (RCSW)	INTER LOCK SWITCH	2FB27160
25	Waste toner box switch (WTSSW)	SW.PUSH	7SP01000004+H01
26	Waste toner sensor (WTS)	SW.PUSH	7SP01000004+H01
27	Temperature and humidity sensor (TEMS)	PARTS PWB THERMISTOR ASSY SP	302R69419_
28	Power switch (PSSW)	RARTS PWB SWITCH ASSY SP	302NG9430_
29	Toner sensor (BK)(TS-M)	DV-5205K (TONER SENSOR ASSY K) DV-5215K (TONER SENSOR ASSY K)	302R59301_ [*1] 302R69304_ [*2]
30	Toner sensor (M)(TS-M)	DV-5205M (TONER SENSOR ASSY M) DV-5215M (TONER SENSOR ASSY M)	302R59302_ [*1] 302R69305_ [*2]

No.	Name used in service manual	Name used in parts list	Part. No.
31	Toner sensor (C)(TS-C)	DV-5205C (TONER SENSOR ASSY C) DV-5215C (TONER SENSOR ASSY C)	302R59303_ *1 302R69306_ *2
32	Toner sensor (Y)(TS-Y)	DV-5205Y (TONER SENSOR ASSY Y) DV-5215Y (TONER SENSOR ASSY Y)	302R59304_ *1 302R69307_ *2
33	Eject sensor (ES)	FK-5205 FK-5206 FK-5207 (SENSOR OPT.)	302R69308_ 302R69309_ 302R69310_
34	Press-release sensor (FUPRS)	FK-5205 FK-5206 FK-5207 (SENSOR OPT.)	302R69308_ 302R69309_ 302R69310_
35	Fuser thermistor 1 (TH1)	FK-5205 FK-5206 FK-5207 (THERMISTOR FUSER NC)	302R69308_ 302R69309_ 302R69310_
36	Fuser thermistor 2 (TH2)	FK-5205 FK-5206 FK-5207 (THERMISTOR FUSER)	302R69308_ 302R69309_ 302R69310_
37	MP tray switch (MPTSW)	SW.PUSH	7SP01000004+H01
38	MP paper width sensor (MPWS)	PARTS PWB PAPER SIZE SENSOR ASSY SP	303R39405_
39	MP paper length sensor (MPLS)	PARTS SENSOR OPT.SP	302P79401_
40	LSU thermistor (LSUTH)	LK-5195 (PWB THERMISTOR ASSY)	302R49315_

*1: 35 ppm model

*2: 40 ppm model

(3-3) Motors

Toner container

Primary transfer unit

31

Developer unit

30

29

28

Laser scanner unit

21

20

Main unit

13

12

22

11

8

9

5 **4**

18

10

Drum unit

26

25

14

17

7

2

27

Fuser unit

23

24

19

15 **16** **32**

6

3

1

| Front side | / | Inside | / | Rear side |
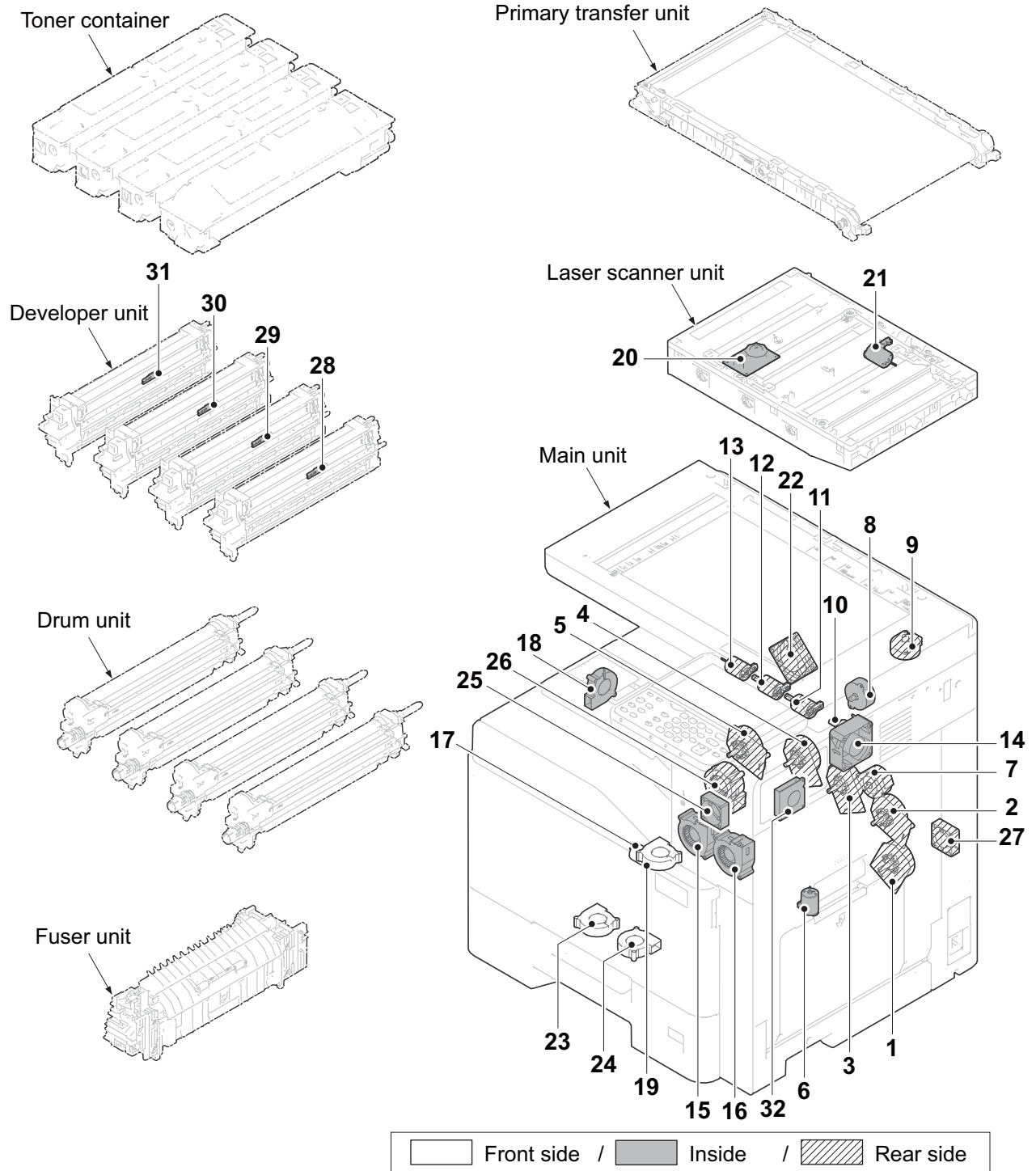
Figure 3-38

1. Developer motor (BK)(DLPM-BK)......... Driving the paper feeding and developer unit BK.
2. Transfer motor (TRM) .... Driving the primary transfer unit.
3. Drum motor (BK)(DRM-BK) .... Driving the drum unit. (Black)
4. Drum motor (M/C/Y)(DRM-M/C/Y)........ Driving the drum units. (Color)
5. Developer motor
    (M/C/Y)(DLPM-M/C/Y) .... Driving the developer units. (Color)
6. Lift motor (LM)...................................... Operating the bottom plate inside the cassette.
7. Fuser motor (FUM) .... Driving the fuser section.
8. Eject motor (EM) .... Driving the eject section.
9. Scanner motor (SM).............................. Driving the optical section.
10. Toner motor (BK)(TM-K) .... Supplying the toner to developer unit. (Black)
11. Toner motor (M)(TM-M)........................ Supplying the toner to developer unit. (Magenta)
12. Toner motor (C)(TM-C) .... Supplying the toner to developer unit. (Cyan)
13. Toner motor (Y)(TM-K)......................... Supplying the toner to developer unit. (Yellow)
14. Eject fan motor (EFM).......................... Cooling the eject section.
15. Developer fan motor 1(DLPFM1).......... Cooling the developer.
16. Developer fan motor 2(DLPFM2).......... Cooling the developer.
17. Transfer release motor (TCBRM).......... Driving the primary transfer roller separation.
18. Transfer belt fan motor (TBFM)............ Cooling the transfer section.
19. Toner sucking fan motor (TFM)[*] .... Sucking scattering waste toner.
20. Polygon motor (PM)............................. Driving polygon mirror.
21. Cleaning motor (CLM).......................... Driving the LSU glass cleaning mechanism.
22. Controller fan motor (CONTFM) .... Cooling the main PWB.
23. Developer fan motor 3(DLPFM3).......... Cooling the developer.
24. Developer fan motor 4(DLPFM4).......... Cooling the developer.
25. Steam removal fan motor (SFM)........... Removing the steam.
26. PWB fan motor (PWBFM).................... Cooling the power source PWB and high-voltage PWB.
27. Clutch fan motor (CLFM) .... Cooling the clutch.
28. Vibration motor BK (VIBM-BK)............. Vibrating the developer unit BK.
29. Vibration motor M(VIBM-M) .... Vibrating the developer unit M.
30. Vibration motor C(VIBM-C) .... Vibrating the developer unit C.
31. Vibration motor Y(VIBM-Y) .... Vibrating the developer unit Y.
32. Eject paper fan motor (EPFM) .... Cooling the eject paper.

[*]: for 40 ppm model only

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Developer motor (BK)(DLPM-BK)	PARTS FEED DRIVE ASSY SP (MOTOR-BL W20)	302R49408_ (302K94414_)
2	Transfer motor (TCM)	IMAGE DRIVE ASSY (MOTOR-BL W20)	302R45841_ (302K94414_)
3	Drum motor (BK)(DRM-BK)	DR-5205 (MOTOR-BL W20 DRUM Z11)	302R69301_
4	Drum motor (M/C/Y)(DRM-M/C/Y)	DR-5205 (MOTOR-BL W20 DRUM Z11)	302R69301_
5	Developer motor (M/C/Y)(DLPM-M/C/Y)	DR-5205 (MOTOR-BL W20)	302R69301_
6	Lift motor (LM)	PARTS LIFT MOTOR ASSY SP	302R49422_
7	Fuser motor (FUM)	PARTS MOTOR FUSER ASSY SP	302R49422_
8	Duplex eject motor (EM)	PARTS EXIT ASSY SP (MOTOR EJECT)	302R49405_ (302P74407_)
9	Image scanner motor (ISUM)	PARTS MOTOR ISU SP	302LW9406_
10	Container motor (BK)(CM-BK)	PARTS DC MOTOR ASSY B SP	302R49420_
11	Container motor (M)(CM-M)	PARTS DC MOTOR ASSY B SP	302R49420_
12	Container motor (C)(CM-C)	PARTS DC MOTOR ASSY B SP	302R49420_
13	Container motor (Y)(CM-Y)	PARTS DC MOTOR ASSY B SP	302R49420_
14	Eject fan motor (EFM)	FAN LSU 60-25	302GR4408_
15	Developer fan motor 1(DLPFM1)	PARTS FAN COOLING LSU 60 SP	302LC9438_
16	Developer fan motor 2(DLPFM1)	PARTS FAN COOLING LSU 60 SP	302LC9438_
17	Transfer release motor (TCBRM)	PARTS DC MOTOR ASSY B SP	302R49420_
18	Transfer belt fan motor (TBFM)	PARTS,FAN IMAGE SP	302FZ9466_
19	Toner sucking fan motor (TFM)	PARTS,FAN COOLING LSU 60 SP	302LC9438_ [*2]
20	Polygon motor (PM)	LK-5195 (MOTOR POLYGON)	302R49315_
21	Cleaning motor (CLM)	PARTS DC MOTOR ASSY B SP	302R49420_
22	Controller fan motor (CONTFM)	FAN BOX COOLING	302FZ4404_
23	Developer fan motor 3 (DLPFM3)	PARTS,FAN IMAGE SP	302FZ9466_
24	Developer fan motor 4 (DLPFM4)	PARTS,FAN IMAGE SP	302FZ9466_
25	Steam removal fan motor (SFM)	PARTS EXIT ASSY SP (FAN COOLING 40-15)	302R49405_ (302H04412_)
26	PWB fan motor (PWBFM)	FAN COOLING LSU 60	302LC9438_
27	Clutch fan motor (CLFM)	FAN COOLING 40-15	302H04412
28	Vibration motor BK (VIBM-BK)	DV-5205K DV-5215K (MOTOR VIBRATION)	302R59301_ [*1] 302R69304_ [*2]

No.	Name used in service manual	Name used in parts list	Part. No.
29	Vibration motor M(VIBM-M)	DV-5205M DV-5215M (MOTOR VIBRATION)	302R59302_ *1 302R69305_ *2
30	Vibration motor C(VIBM-C)	DV-5205C DV-5215C (MOTOR VIBRATION)	302R59303_ *1 302R69306_ *2
31	Vibration motor Y(VIBM-Y)	DV-5205Y DV-5215Y (MOTOR VIBRATION)	302R59304_ *1 302R69307_ *2

*1: 35 ppm model
*2: 40 ppm model

(3-4) Others
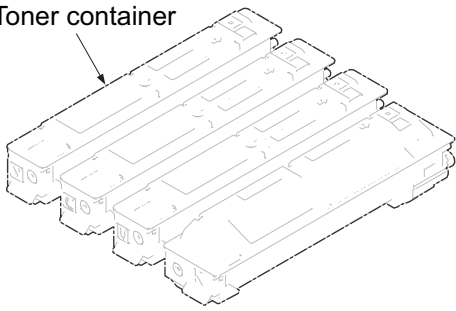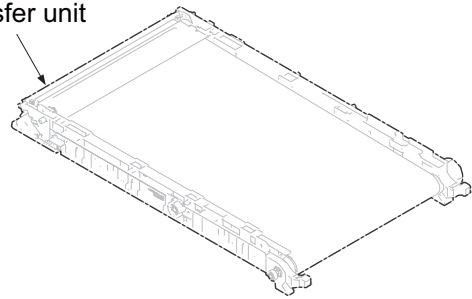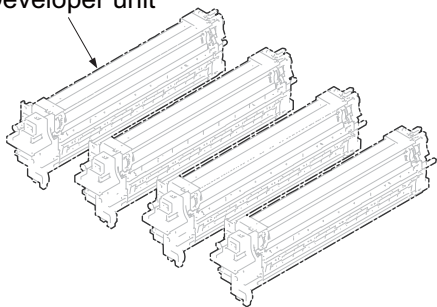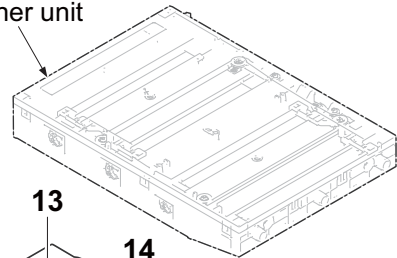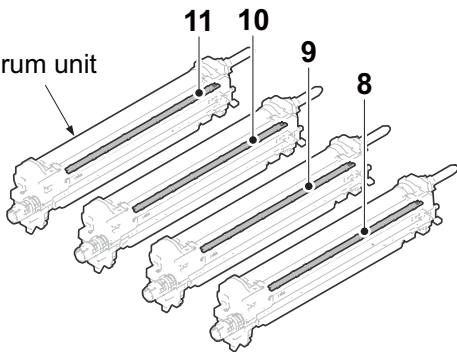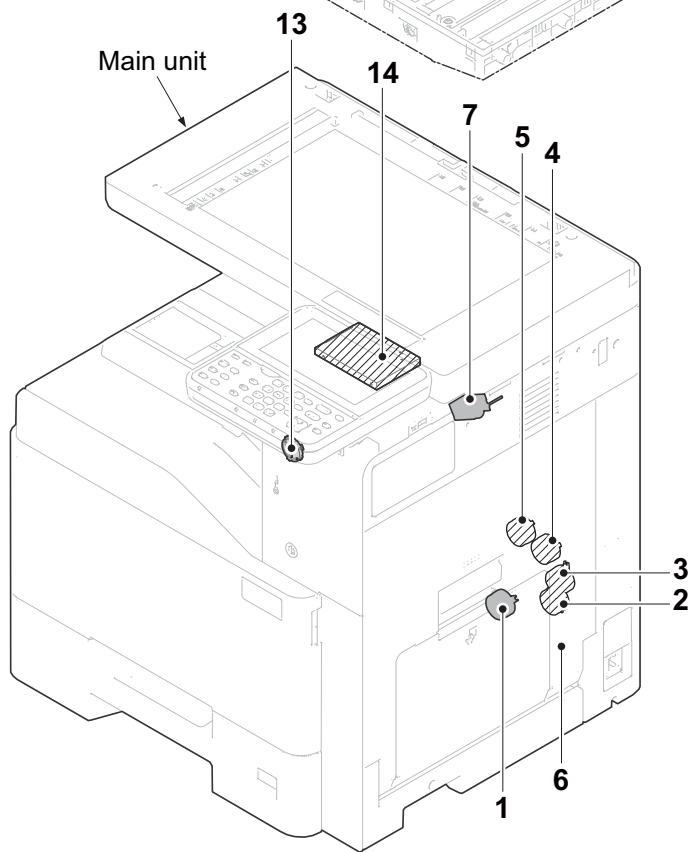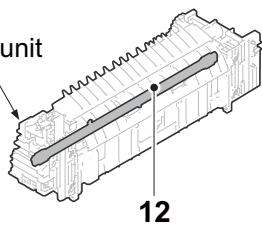
Figure 3-39

 1. Paper feed clutch (PCL)........................ Controlling the primary paper feeding from the cassette.
 2. Middle clutch (MCL) .... Controlling the conveying section drive.
 3. Duplex clutch (DUCL) .... Controlling the duplex drive.
 4. Registration clutch (RCL)...................... Controlling the secondary paper feeding from the cassette.
 5. Developer clutch (DLPCL) .... Controlling the drive to developer unit. (Black)
 6. MP solenoid (MPSOL) .... Controlling the primary paper feeding from the MP tray.
 7. Feedshift solenoid (FSSOL)................. Operates the feedshift guide.
 8. Cleaning lamp (BK)(CL-K) .... Removing the remaining electric charge on the drum. (Black)
 9. Cleaning lamp (M)(CL-M) .... Removing the remaining electric charge on the drum. (Magenta)
10. Cleaning lamp (C)(CL-C) .... Removing the remaining electric charge on the drum. (Cyan)
11. Cleaning lamp (Y) (CL-Y)..................... Removing the remaining electric charge on the drum. (Yellow)
12. Fuser heater (FH) .... Heating the heat roller.
13. Speaker (SPK) .... Outputting sounds.
14. Hard disk (HDD)* .... Storing image data and job accounting data.

*: 35ppm model option / 40ppm model standard

Part name table

No.	Name used in service manual	Name used in parts list	Part. No.
1	Paper feed clutch (FCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
2	Middle clutch (MCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
3	Duplex clutch (DUCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
4	Registration clutch (RCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
5	Developer clutch (DLPCL)	PARTS FEED DRIVE ASSY SP (CLUTCH 35 Z35R)	302R49408_ (302NR4404_)
6	MP solenoid (MPSOL)	PARTS FEED DRIVE ASSY SP (SOLENOID MPF)	302R49408_ (302HN4416_)
7	Feedshift solenoid (FSSOL)	PARTS EXIT ASSY SP (SOLENOID PRIMARY FEED)	302R49405_ (302K94417_)
8	Cleaning lamp (BK)(CL-BK)	DK-5195 (PWB ERASER ASSY) DK-5215 (PWB ERASER ASSY)	302R49305_ [*1] 303R69302_ [*2]
9	Cleaning lamp (M)(CL-M)	DK-5195 (PWB ERASER ASSY) DK-5215 (PWB ERASER ASSY)	302R49305_ [*1] 303R69302_ [*2]
10	Cleaning lamp (C)(CL-C)	DK-5195 (PWB ERASER ASSY) DK-5215 (PWB ERASER ASSY)	302R49305_ [*1] 303R69302_ [*2]
11	Cleaning lamp (Y)(CL-Y)	DK-5195 (PWB ERASER ASSY) DK-5215 (PWB ERASER ASSY)	302R49305_ [*1] 303R69302_ [*2]
12	Fuser heater (FH)	FK-5205 FK-5206 FK-5207 HEATER LAMP 240 HEATER LAMP 100 HEATER LAMP 120	302R69308_ 302R69309_ 302R69310_
13	Speaker (SPK)	PARTS SPEAKER SP	302LC9437_
14	Hard disk (HDD)*	HDD ASSY SP	302R69311_

*: 35ppm model option / 40ppm model standard

*1: 35 ppm model

*2: 40 ppm model

3-6 Electric parts (Optional unit)

(1) Electric parts layout

(1-1) Paper feeder (PF-5120)
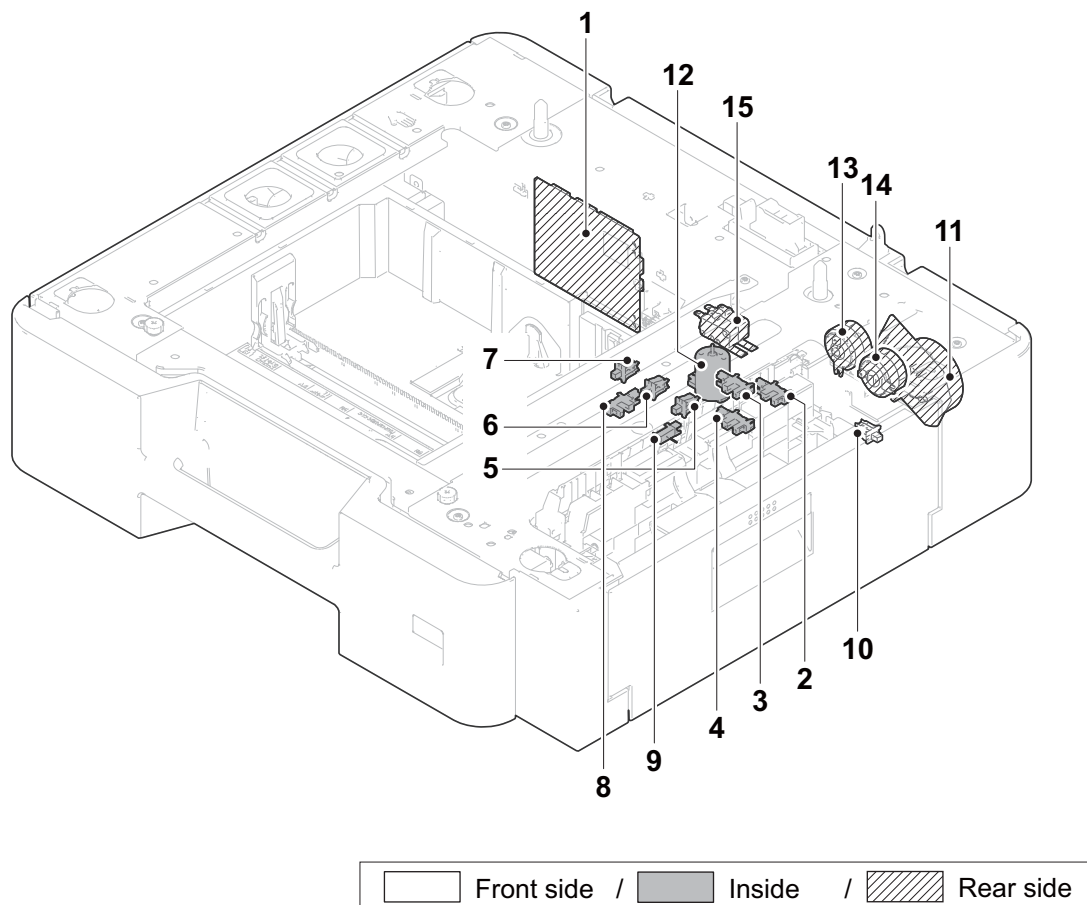
Figure 3-40

1. PF main PWB (PFMPWB) .... Controlling the electric parts in the PF.
2. PF paper sensor (PFPS)...................... Detecting presence of paper in the paper deck.
3. PF paper gauge sensor 1 (PFPGS1).... Detecting the level of the remaining paper inside the cassette.
4. PF paper gauge sensor 2 (PFPGS2).... Detecting the level of the remaining paper inside the cassette.
5. PF paper length switch 1 (PFPLSW1) .. Detecting the cassette paper size and presence of cassette.
6. PF paper length switch 2 (PFPLSW2) .. Detecting the cassette paper size and presence of cassette.
7. PF paper length switch 3 (PFPLSW3) .. Detecting the cassette paper size and presence of cassette.
8. PF lift sensor (PFLS)............................ Detecting the upper limit when lifting the bottom plate inside the cassette.
9. PF feed sensor (PFFS) .... Detecting the paper conveying after cassette feed.
10. PF right cover switch (PFRCSW).......... Detecting the right cover open.
11. PF paper feed motor (PFPFM) .... Driving the paper feeding system.
12. PF lift motor (PFLM)............................. Operating the bottom plate inside the cassette.
13. PF paper feed clutch (PFFCL) .... Controlling the primary paper feeding from the cassette.
14. PF conveying clutch(PFCCL)................ Controlling the paper conveying.
15. Cassette heater switch (CHSW) .... Interlock switch for the cassette heater.

(1-2) Paper feeder (PF-5130)

| Front side / | Inside / | Rear side |
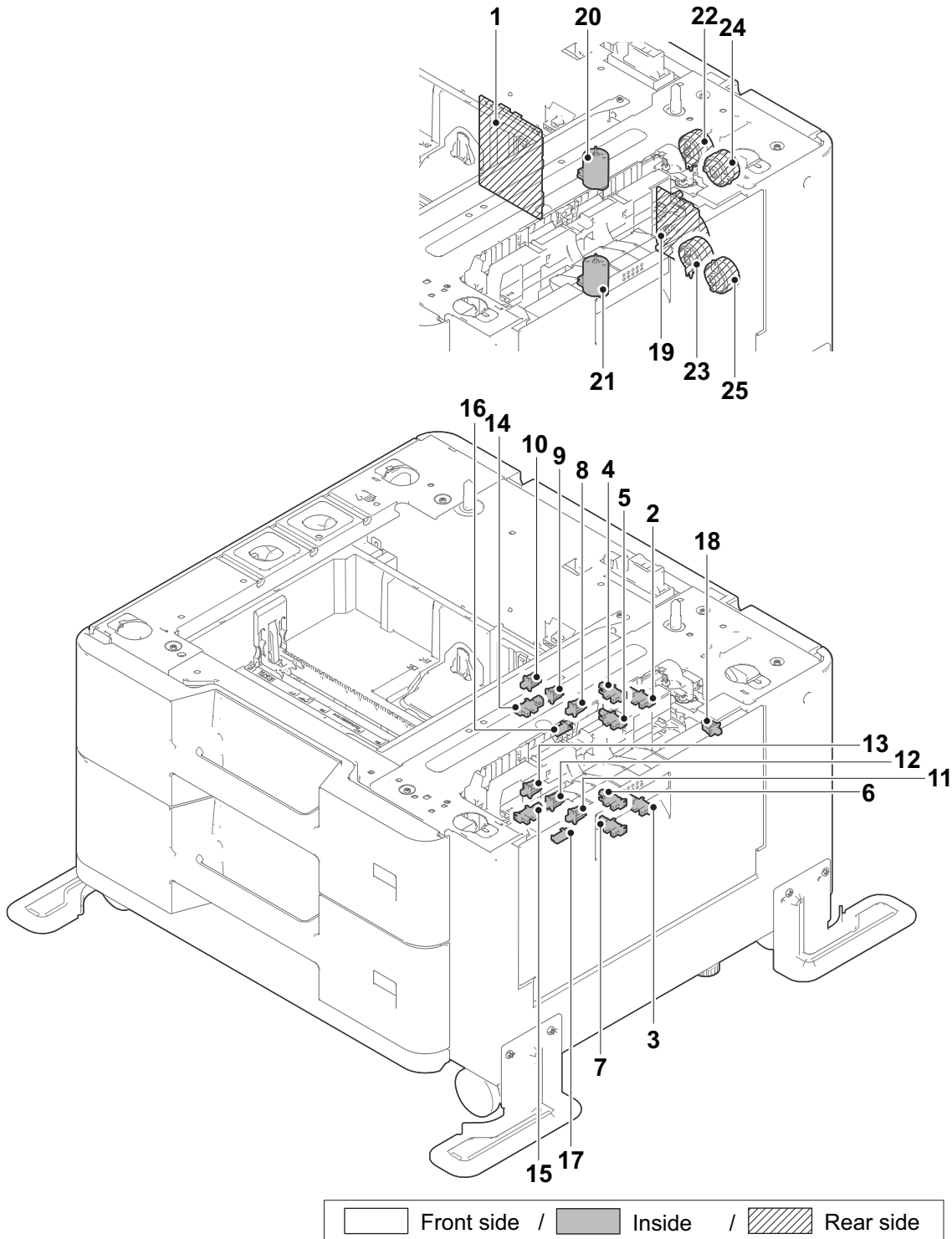
Figure 3-41

1. PF main PWB (PFMPWB) .... Controlling the electric parts in the PF.
2. PF paper sensor 1 (PFPS1).................. Detecting presence of paper in the upper cassette.
3. PF paper sensor 2 (PFPS2).................. Detecting presence of paper in the lower cassette.
4. PF paper gauge sensor 1 (PFPGS1).... Detecting the level of the remaining paper inside the upper cassette.

5. PF paper gauge sensor 2 (PFPGS2).... Detecting the level of the remaining paper inside the upper cassette.

6. PF paper gauge sensor 3 (PFPGS3).... Detecting the level of the remaining paper inside the lower cassette.

7. PF paper gauge sensor 4 (PFPGS4).... Detecting the level of the remaining paper inside the lower cassette.

8. PF paper length switch 1 (PFPLSW1) .. Detecting the cassette paper size and presence of upper cassette.

9. PF paper length switch 2 (PFPLSW2) .. Detecting the cassette paper size and presence of upper cassette.

10. PF paper length switch 3 (PFPLSW3) .. Detecting the cassette paper size and presence of upper cassette.

11. PF paper length switch 4 (PFPLSW4) .. Detecting the cassette paper size and presence of lower cassette.

12. PF paper length switch 5 (PFPLSW5) .. Detecting the cassette paper size and presence of lower cassette.

13. PF paper length switch 6 (PFPLSW6) .. Detecting the cassette paper size and presence of lower cassette.

14. PF lift sensor 1 (PFLS1)........................ Detecting the upper limit when lifting the bottom plate inside the upper cassette.

15. PF lift sensor 2 (PFLS2)........................ Detecting the upper limit when lifting the bottom plate inside the lower cassette.

16. PF feed sensor 1 (PFFS1) .... Detecting the paper conveying after upper cassette feed.

17. PF feed sensor 2 (PFFS2) .... Detecting the paper conveying after lower cassette feed.

18. PF right cover switch (PFRCSW)......... Detecting the right cover open.

19. PF paper feed motor (PFPFM) .... Driving the paper feeding system.

20. PF lift motor 1 (PFLM1)........................ Operating the bottom plate inside the upper cassette.

21. PF lift motor 2 (PFLM2)........................ Operating the bottom plate inside the lower cassette.

22. PF paper feed clutch 1 (PFCL1) .... Controlling the primary paper feeding from the upper cassette.

23. PF paper feed clutch 2 (PFCL2) .... Controlling the primary paper feeding from the lower cassette.

24. PF conveying clutch 1 (PFCCL1)......... Controlling the paper conveying section.

25. PF conveying clutch 2 (PFCCL2)......... Controlling the paper conveying section.

(1-3) Paper feeder (PF-5140)
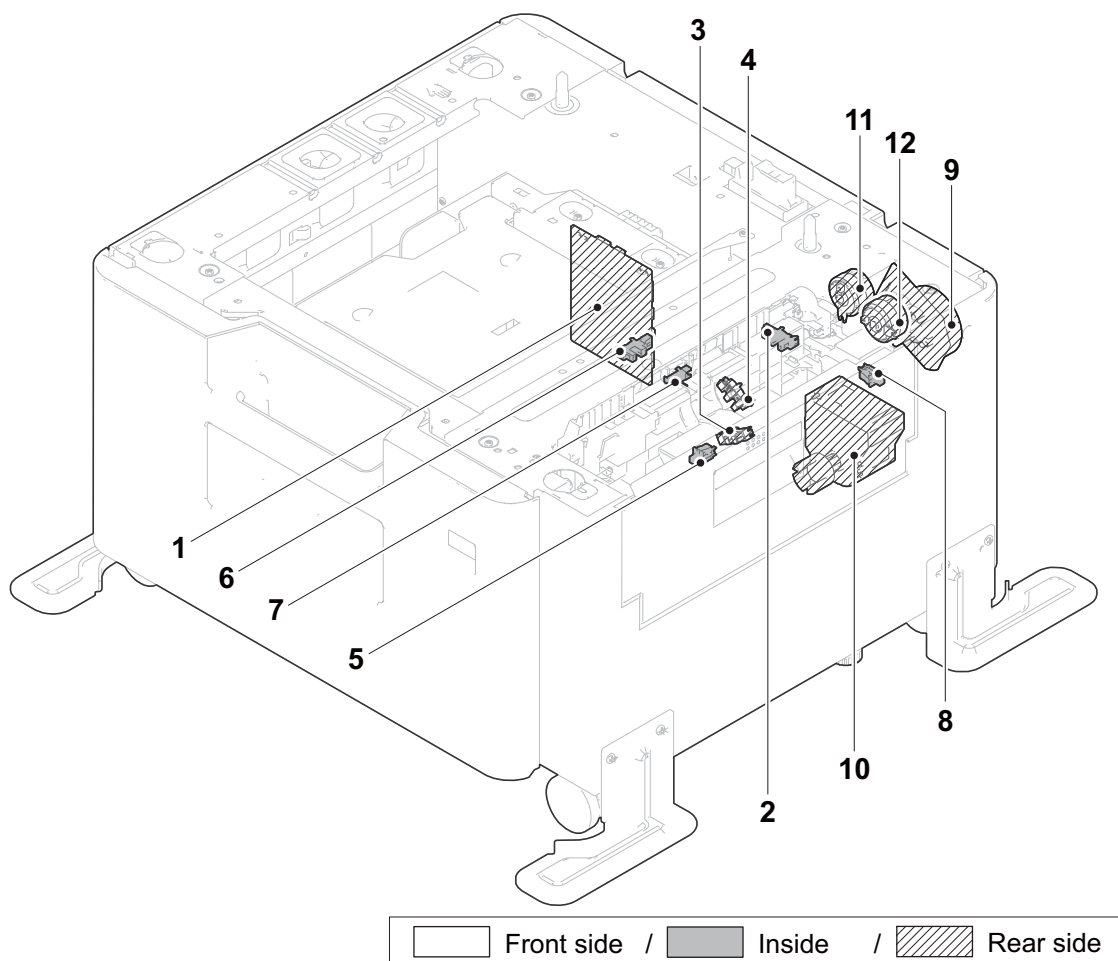
Figure 3-42

1. PF main PWB (PFMPWB) .... Controlling the electric parts in the PF.
2. PF paper sensor (PFPS)....................... Detecting presence of paper in the paper deck.
3. PF paper gauge sensor 1 (PFPGS1).... Detecting the level of the remaining paper inside the deck.
4. PF paper gauge sensor 2 (PFPGS2).... Detecting the level of the remaining paper inside the deck.
5. PF deck detection switch (PFDDSW) ... Detecting the PF deck installation.
6. PF lift sensor (PFLS)............................ Detecting the upper limit when lifting the bottom plate inside the deck.
7. PF feed sensor (PFFS) .... Detecting the paper conveying after deck feed.
8. PF right cover switch (PFRCSW).......... Detecting the right cover open.
9. PF paper feed motor (PFPFM) .... Driving the paper feeding system.
10. PF lift motor (PFLM)............................. Operating the bottom plate inside the deck.
11. PF paper feed clutch (PFFCL) .... Controlling the primary paper feeding from the deck.
12. PF conveying clutch(PFCCL)................ Controlling the paper conveying.

(1-4) Document processor (DP-5100) : for 35/40 ppm model only

Front side / Inside / Rear side
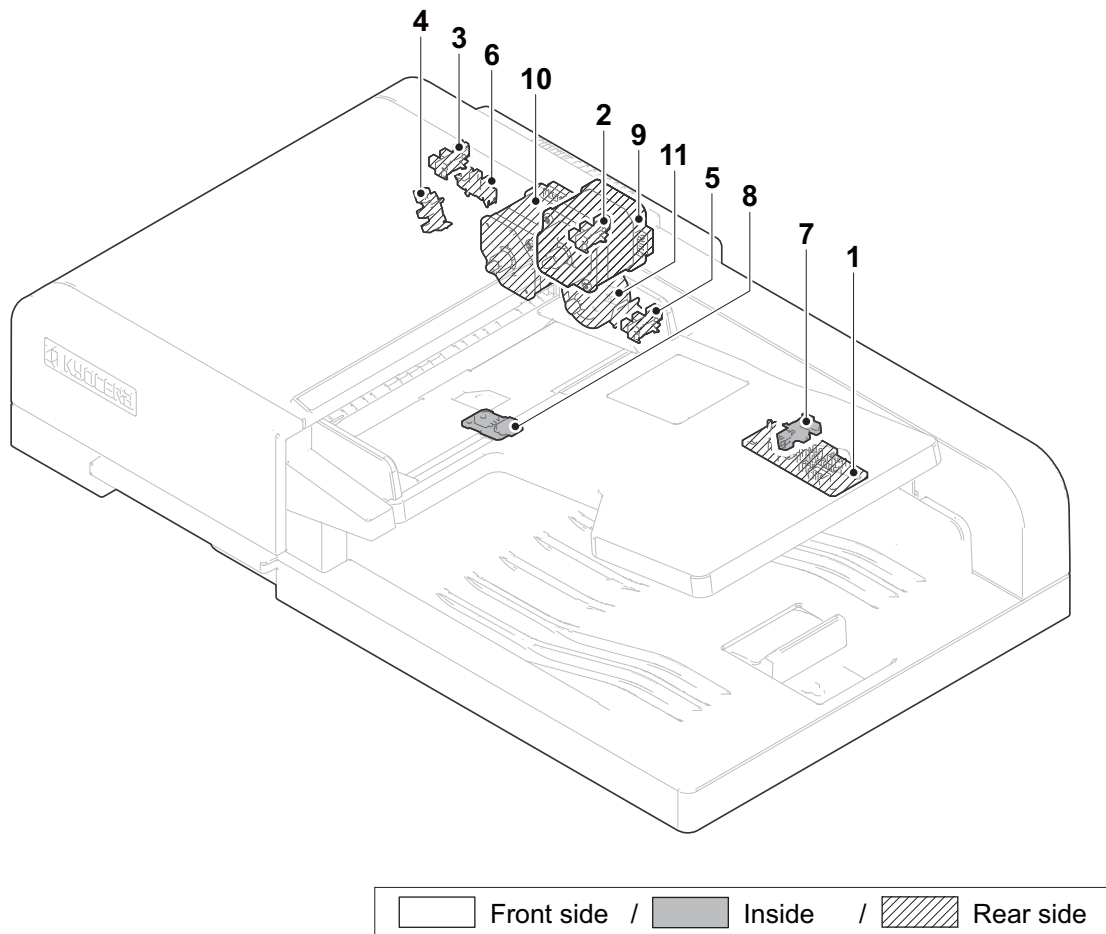
Figure 3-43

1. DP main PWB (DPMPWB) .... Consisting of the engine PWB and relay circuit for the DP electric parts.
2. DP original sensor (DPOS) .... Detecting the presence of the original in the document processor.
3. DP feed sensor (DPFS) .... Detects the primary feed timing of the document processor.
4. DP registration sensor (DPRS) .... Detecting the timing to convey the original in the document processor.
5. DP feedshift sensor (DPSBS) .... Detecting the position of the feedshift guide in the document processor.
6. DP open/close sensor (DPOCS) .... Detecting the opening and closing of the document processor.
7. DP original length sensor (DPOLS) ...... Detecting the original length in the document processor.
8. DP original width sensor (DPOWS) ...... Detecting the original width in the document processor.
9. DP feed motor (DPFM) .... Driving the original feed section in the document processor.
10. DP conveying motor (DPCM)................ Driving the original conveying section in the document processor
11. DP feedshift motor (DPFSM) Driving the original feed section in the document processor.

(1-5) Document processor (DP-5110) : for 35/40 ppm model only


```
[ ] Front side  /  [▒] Inside  /  [///] Rear side
```
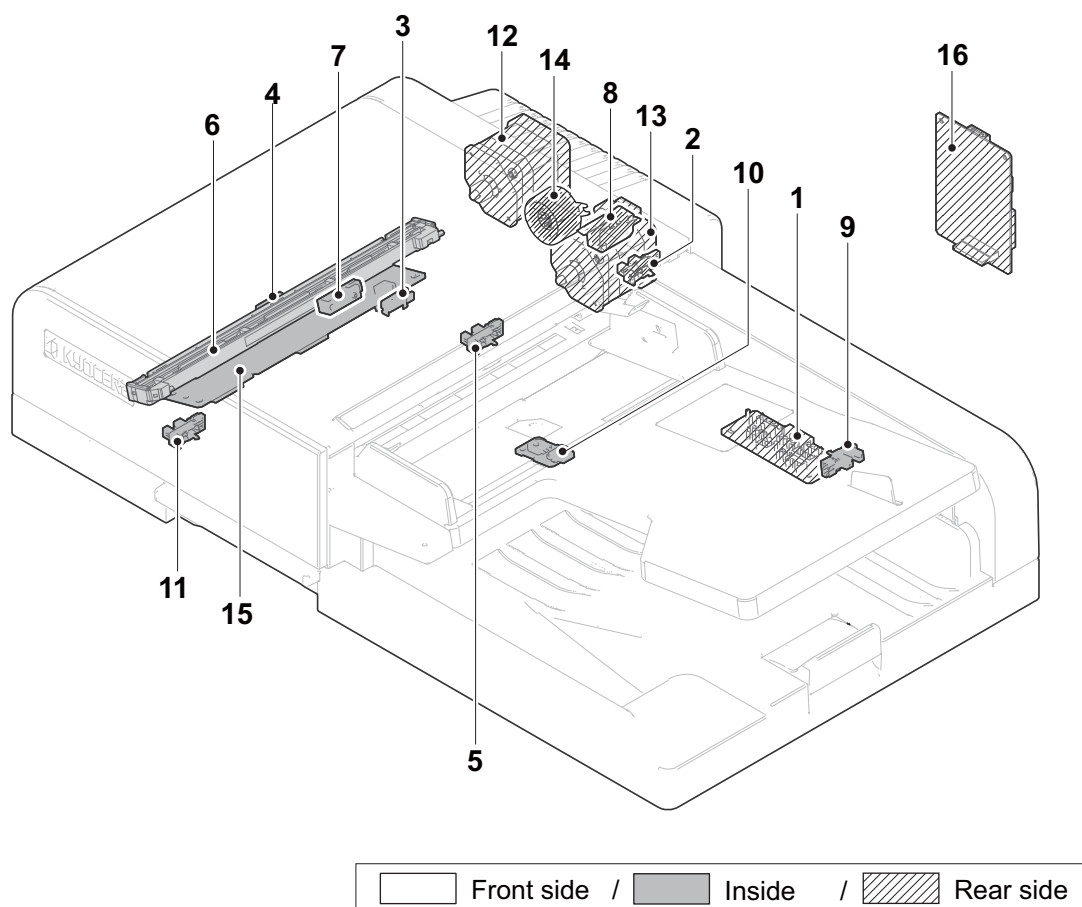
Figure 3-44

1. DP main PWB (DPMPWB) .... Consisting of the engine PWB and relay circuit for the DP electric parts.
2. DP original sensor (DPOS) .... Detecting the presence of the original in the document processor.
3. DP feed sensor (DPFS) .... Detects the primary feed timing of the document processor.
4. DP timing sensor (DPTS)..................... Detecting the timing to scan the original in the document processor. (Front page)
5. DP eject sensor (DPES) .... Detecting the document processor eject paper.
6. DPCIS unit (DPCIS)............................. Scanning the backside original data.
7. DPCIS sensor (DPCISS) .... Detecting the original scanning timing. (Back page)
8. DP top cover switch (DPTCSW) .... Shutting off the 24V power supply line when the top cover is opened. Interlock switch.
9. DP original length sensor (DPOLS) ...... Detecting the original length in the document processor.
10. DP original width sensor (DPOWS) ...... Detecting the original width in the document processor.
11. DP open/close sensor (DPOCS) .... Detecting the opening and closing of the document processor.
12. DP feed motor (DPFM) .... Driving the original feed section in the document processor.
13. DP conveying motor (DPCM)................ Driving the original conveying section in the document processor
14. DP feed clutch (DPFCL) .... Controlling drive of the original feed section in the document processor.
15. DPSHD PWB (DPSPWB) .... Processing the scanned image data.
16. DP relay PWB (DPRPWB) Relaying the scanned image data.

(1-6) Attachment kit (AK-5100)

| Front side | / | Inside | / | Rear side |
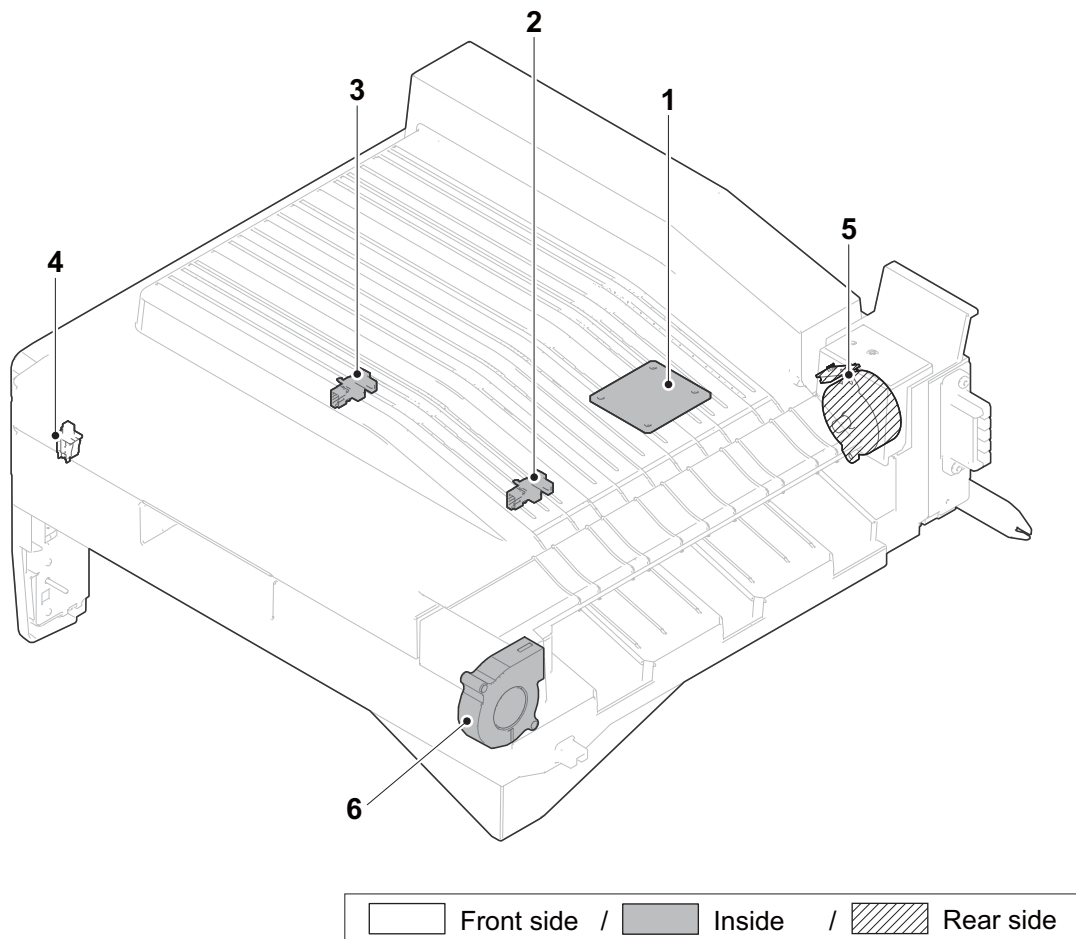
Figure 3-45

1. BR main PWB (BRMPWB) .... Controlling the electric parts in the BR.
2. BR conveying sensor 1 (BRCS1).......... Detecting paper conveyed in the bridge.
3. BR conveying sensor 2 (BRCS2).......... Detecting paper conveyed in the bridge.
4. BR cover open/close switch
   (BRCOCSW)....................................... Detecting the bridge cover open.
5. BR conveying motor (BRCM)................ Controlling the paper conveying to the bridge.
6. BR fan motor (BRFM) .... Cooling the paper conveyed in the bridge.

(1-7) Inner finisher (DF-5100)
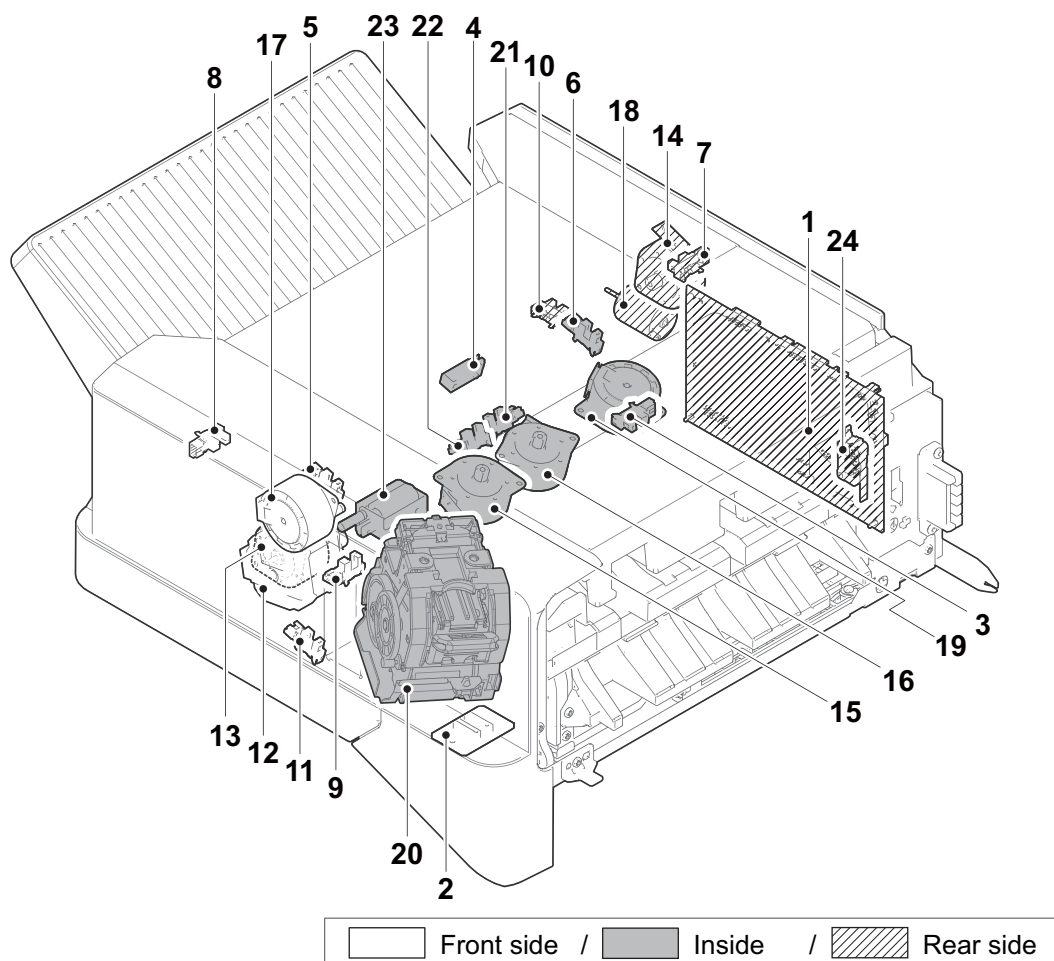
Figure 3-46

1. DF main PWB (DFMPWB).................... Controlling the electric parts.
2. DF staple relay PWB (DFSTPWB)........ Relaying the staple unit control signals.
3. DF paper entry sensor (DFPES)........... Detecting presence of paper at the paper entry section.
4. DF eject paper sensor (DFMTS)........... Detecting presence of paper the eject section.
5. DF side registration sensor 1
   (DFSRS1) .... Detecting the adjusting plate front home position.
6. DF side registration sensor 2
   (DFSRS2) .... Detecting the adjusting plate rear home position.
7. DF adjusting sensor (DFADS)............... Detecting the paper guides home position.
8. DF bundle eject sensor (DFBDS) .... Detecting the bundle eject unit position.
9. DF paddle sensor (DFPDS) .... Detecting the paddle home position.
10. DF tray sensor (DFTS)......................... Detecting the eject tray lower limit.
11. DF slide sensor (DFSLS) .... Detecting the staple unit slide position.
12. DF middle motor (DFMM) .... Driving the middle roller.
13. DF paddle motor (DFPDM) .... Driving the paper guides.
14. DF eject release motor (DFERM) .... Driving the bundle eject unit.
15. DF side registration motor 1
    (DFSRM1)... Driving the adjusting plate front.
16. DF side registration motor 2
    (DFSRM2)... Driving the adjusting plate rear.
17. DF eject motor (DFEM)........................ Driving the DF eject roller.

18. DF tray motor (DFTM)........................... Ascending and descending the eject tray.

19. DF slide motor (DFSLM)....................... Driving the staple unit.

20. DF staple unit (DFSTP)......................... Paper stapler.

21. DF paper press sensor 1 (DFPPS1) ..... Detecting the bundle eject paper pressure. (Upper limit)

22. DF paper press sensor 2 (DFPPS2) ..... Detecting the bundle eject paper pressure. (Lower limit)

23. DF paper press solenoid (DFPPSOL)... Switching the bundle paper pressure.

24. DF setting switch (DFSSW) .... Detecting the DF setting. (Interlock detection)

(1-8) Document finisher (DF-5110) : for 35/40ppm models only

Front side / Inside / Rear side
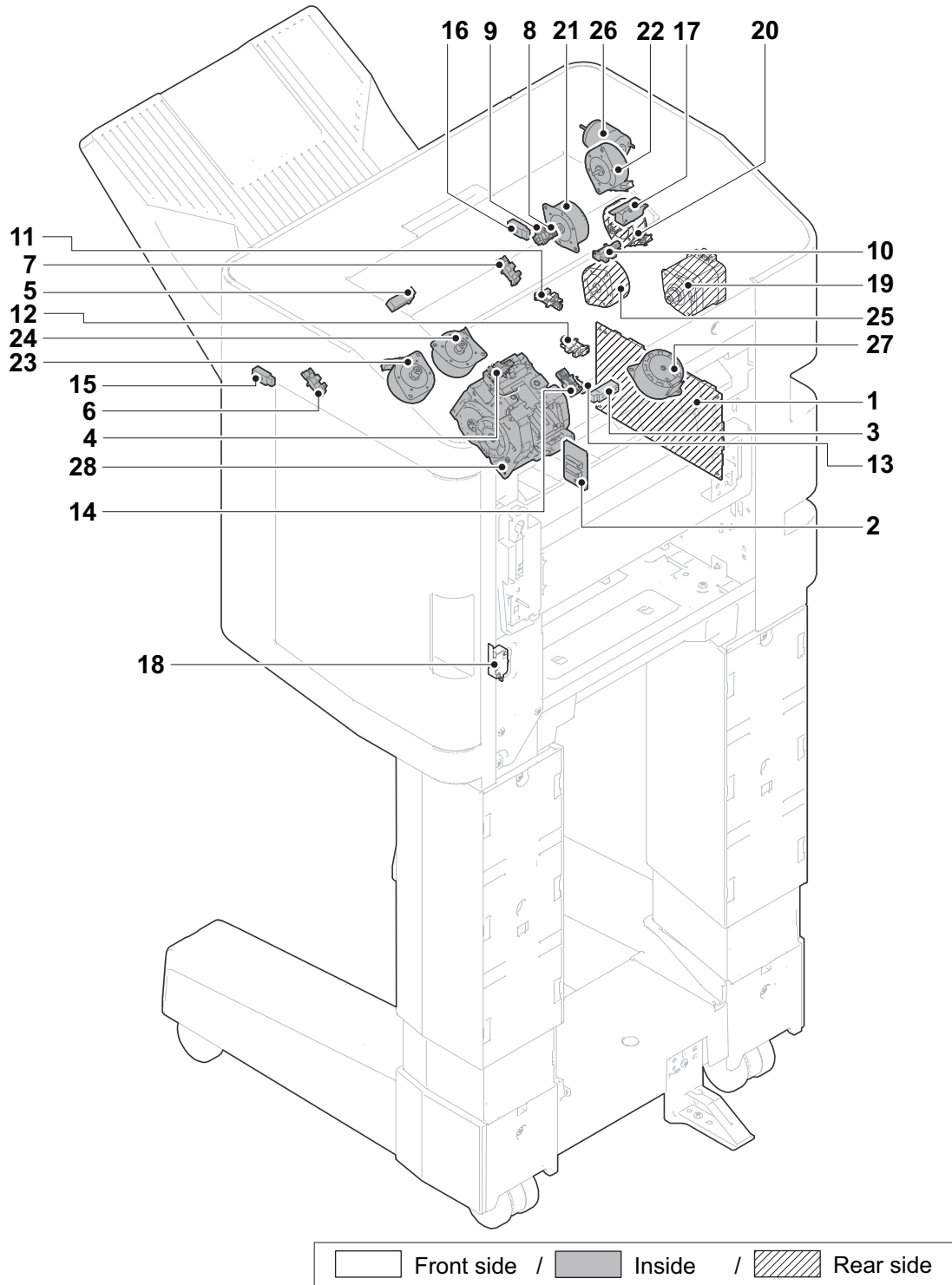
Figure 3-47

 1. DF main PWB (DFMPWB)..................... Controlling the electric parts.
 2. DF staple relay PWB (DFSTPWB)........ Relaying the staple unit control signals.
 3. DF paper entry sensor (DFPES)........... Detecting presence of paper at the paper entry section.
 4. DF middle sensor (DFMES)................. Detecting presence of paper in the conveying section.
 5. DF eject paper sensor (DFMTS)........... Detecting presence of paper the eject section.
 6. DF side registration sensor 1
    (DFSRS1) .... Detecting the adjusting plate front home position.
 7. DF side registration sensor 2
    (DFSRS2) .... Detecting the adjusting plate rear home position.
 8. DF adjusting sensor (DFADS).............. Detecting the paper guides home position.
 9. DF bundle eject sensor (DFBDS) .... Detecting the bundle eject unit position.
10. DF paddle sensor (DFPDS) .... Detecting the paddle home position.
11. DF tray sensor 1 (DFTS1).................... Detecting the eject tray home position.
12. DF tray sensor 2 (DFTS2).................... Detecting the eject tray middle position.
13. DF tray sensor 3 (DFTS3).................... Detecting the eject tray lower limit.
14. DF slide sensor (DFSLS) .... Detecting the staple unit slide position.
15. DF tray upper surface sensor 1
    (DFTUSS1) .... Detecting the DF main tray paper upper surface.
16. DF tray upper surface sensor 2
    (DFTUSS2) .... Detecting the DF main tray paper upper surface.
17. DF top cover switch (DFTCSW)............ Detecting the DF top cover open/close.
18. DF front cover switch (DFFCSW) .... Detecting the DF front cover open/close.
19. DF paper entry motor (DFPEM)............ Driving the entry roller.
20. DF middle motor (DFMM) .... Driving the middle roller.
21. DF paddle motor (DFPDM) .... Driving the paper guides.
22. DF eject release motor (DFERM) .... Driving the bundle eject unit.
23. DF side registration motor 1
    (DFSRM1).. Driving the adjusting plate front.
24. DF side registration motor 2
    (DFSRM2).. Driving the adjusting plate rear.
25. DF eject motor (DFEM)........................ Driving the DF eject roller.
26. DF tray motor (DFTM).......................... Ascending and descending the eject tray.
27. DF slide motor (DFSLM) .... Driving the staple unit.
28. DF staple unit (DFSTP)........................ Paper stapler.

(1-9) Document finisher (DF-5120) : for 35/40ppm models only

Figure 3-48

| Front side | / | Inside | / | Rear side |

1. DF main PWB (DFMPWB).................... Controlling the electric parts.
2. DF staple relay PWB (DFSTPWB)........ Relaying the staple unit control signals.
3. DF paper entry sensor (DFPES).......... Detecting presence of paper at the paper entry section.
4. DF middle sensor (DFMES).................. Detecting presence of paper in the conveying section.
5. DF eject paper sensor (DFMTS).......... Detecting presence of paper the eject section.
6. DF side registration sensor 1
   (DFSRS1) .... Detecting the adjusting plate front home position.
7. DF side registration sensor 2
   (DFSRS2) .... Detecting the adjusting plate rear home position.
8. DF adjusting sensor (DFADS).............. Detecting the paper guides home position.
9. DF bundle eject sensor (DFBDS) .... Detecting the bundle eject unit position.
10. DF paddle sensor (DFPDS) .... Detecting the paddle home position.
11. DF tray sensor 1 (DFTS1).................... Detecting the eject tray home position.
12. DF tray sensor 2 (DFTS2).................... Detecting the eject tray middle position.
13. DF tray sensor 3 (DFTS3).................... Detecting the eject tray lower limit.
14. DF slide sensor (DFSLS) .... Detecting the staple unit slide position.
15. DF tray upper surface sensor 1
    (DFTUSS1) .... Detecting the DF main tray paper upper surface.
16. DF tray upper surface sensor 2
    (DFTUSS2) .... Detecting the DF main tray paper upper surface.
17. DF sub eject sensor (DFSES).............. Detecting paper ejected to the DF sub tray left.
18. DF front cover switch (DFFCSW) .... Detecting the DF front cover open/close.
19. DF front cover switch (DFFCSW) .... Detecting the DF eject cover open/close.
20. DF paper entry motor (DFPEM)............ Driving the entry roller.
21. DF middle motor (DFMM) .... Driving the middle roller.
22. DF paddle motor (DFPDM) .... Driving the paper guides.
23. DF eject release motor (DFERM) .... Driving the bundle eject unit.
24. DF side registration motor 1
    (DFSRM1)... Driving the adjusting plate front.
25. DF side registration motor 2
    (DFSRM2)... Driving the adjusting plate rear.
26. DF eject motor (DFEM)........................ Driving the DF eject roller.
27. DF tray motor (DFTM).......................... Ascending and descending the eject tray.
28. DF slide motor (DFSLM) .... Driving the staple unit.
29. DF eject clutch (DFECL) .... Driving the eject roller.
30. DF Feedshift solenoid (DFFSSOL) .... Operates the feedshift guide.
31. DF operation PWB (DFOPPWB) .... Consisting of LEDs and keys.
32. DF staple unit (DFSTP)........................ Paper stapler.

(1-10) Mailbox (MT-5100)

| Front side | / | Inside | / | Rear side |
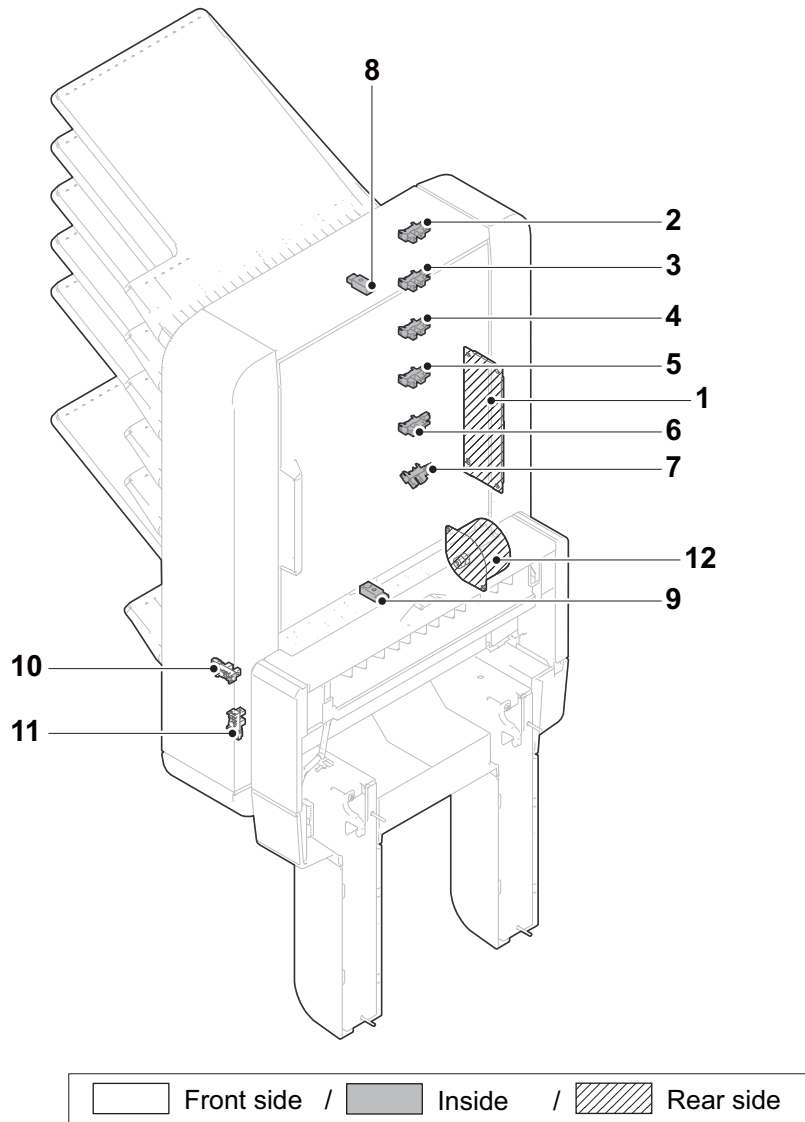
Figure 3-49

1. Mailbox main PWB (MBPWB)............... Controlling electric parts of the mailbox.
2. Tray overflow sensor 1
   (TOFSW1).. Detecting overflow of paper ejected to the sub tray 1.
3. Tray overflow sensor 2
   (TOFSW2).. Detecting overflow of paper ejected to the sub tray 2.
4. Tray overflow sensor 3
   (TOFSW3).. Detecting overflow of paper ejected to the sub tray 3.
5. Tray overflow sensor 4
   (TOFSW4).. Detecting overflow of paper ejected to the sub tray 4.
6. Tray overflow sensor 5
   (TOFSW5).. Detecting overflow of paper ejected to the sub tray 5.
7. Tray overflow sensor 6
   (TOFSW6).. Detecting overflow of paper ejected to the main tray 6.
8. Tray eject sensor 1 (photo receptor)
   (TEJS1).. Detecting paper jam.
9. Tray eject sensor 2 (photo emitter)
   (TEJS2).. Emitting LED pulses.
10. Mail home position switch
    (MHPSW).. Controlling the mailbox drive motor.
11. Mailbox cover open/close switch
    (MCOSW) .... Detecting the mailbox cover open/close.
12. Mailbox drive motor
    (MBDM).. Driving the mailbox paper conveying.

(1-11) Punch unit (PH-5100/5110)
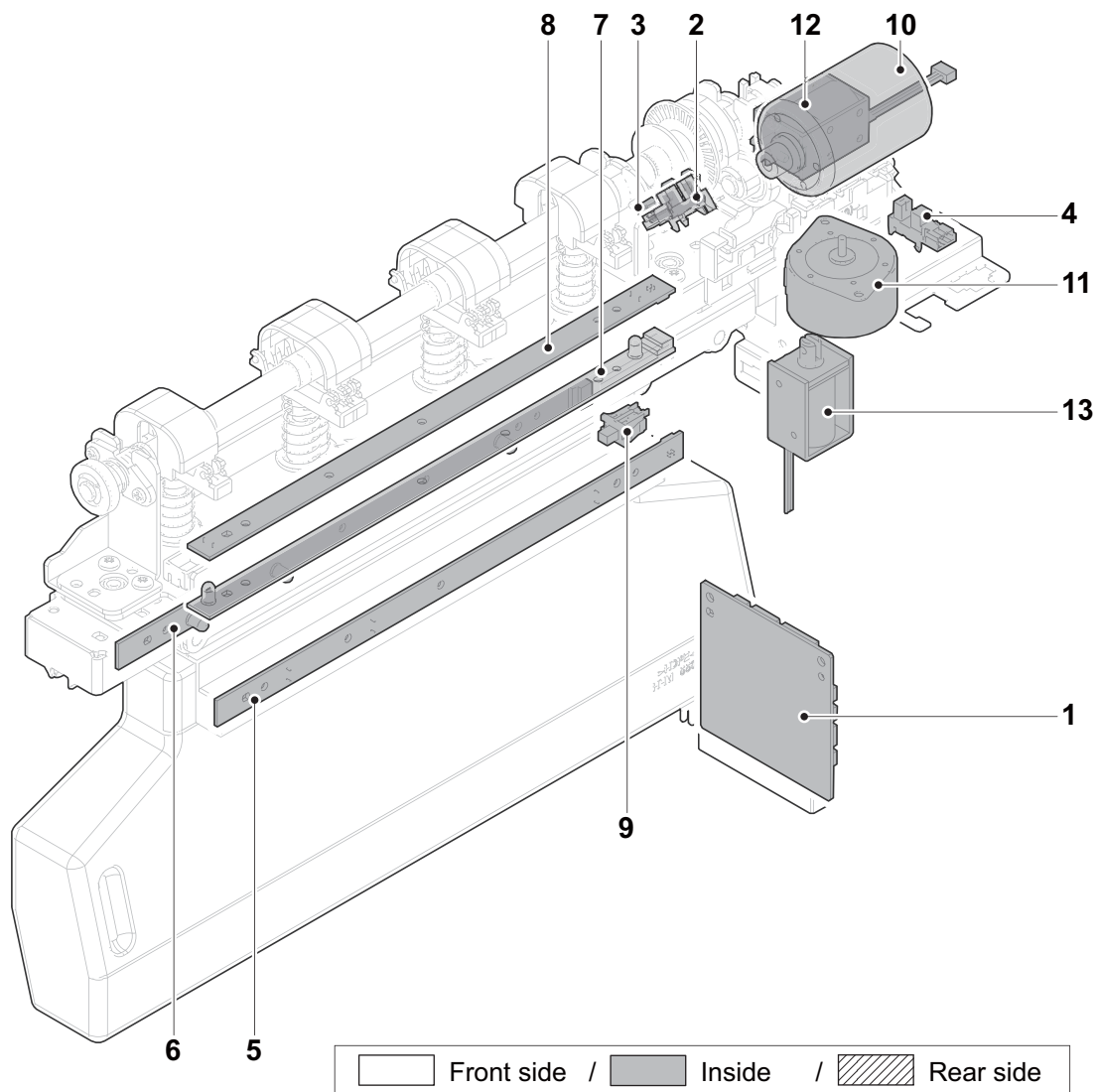
Figure 3-50

1. Punch main PWB (PUMPWB) .... Controlling the electric parts of the punch unit.
2. Punch home position sensor
   (PUHPS) .... Detecting the punch cam home position.
3. Punch pulse sensor (PUPS) .... Controlling the punch cam rotation.
4. Punch slide sensor (PUSLS) .... Detecting the punch unit home position.
5. Punch dust tank full sensor 1
   (PUTFS1) .... Detecting the punch dust tank full.
6. Punch dust tank full sensor 2
   (PUTFS2) .... Detecting the punch dust tank full.
7. Punch paper edge sensor 1
   (PUPES1) .... Detecting the paper edge.
8. Punch paper edge sensor 2
   (PUPES2) .... Detecting the paper edge.
9. Punch dust tank switch
   (PUTSSW) .... Detecting the presence of the punch dust tank.
10. Punch motor (PUM) .... Driving the punch unit.

11. Punch slide motor (PUSLM) .... Driving the punch unit.
12. Punch solenoid (PUSOL)..................... Switching the punch holes. (Except 100 V model)
13. Punch conveying switch solenoid
    (PUCSSOL) .... Switching the paper entry guide.

(1-12) Job separator (JS-5100)

| | Front side / | | Inside / | | Rear side |
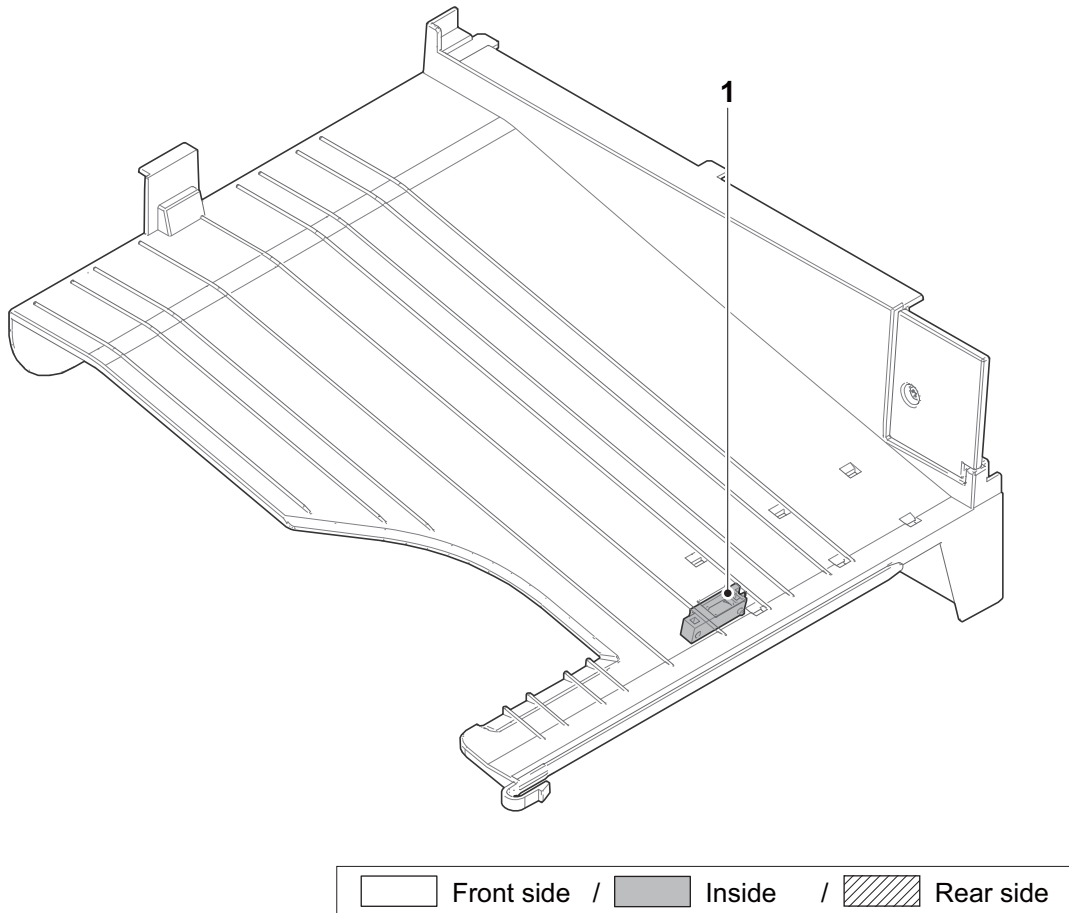
Figure 3-51

1. JS eject paper sensor (JSEPS) .... Detecting presence of the job tray paper.

3-7 Drive system

(1) Drive system for the paper conveying
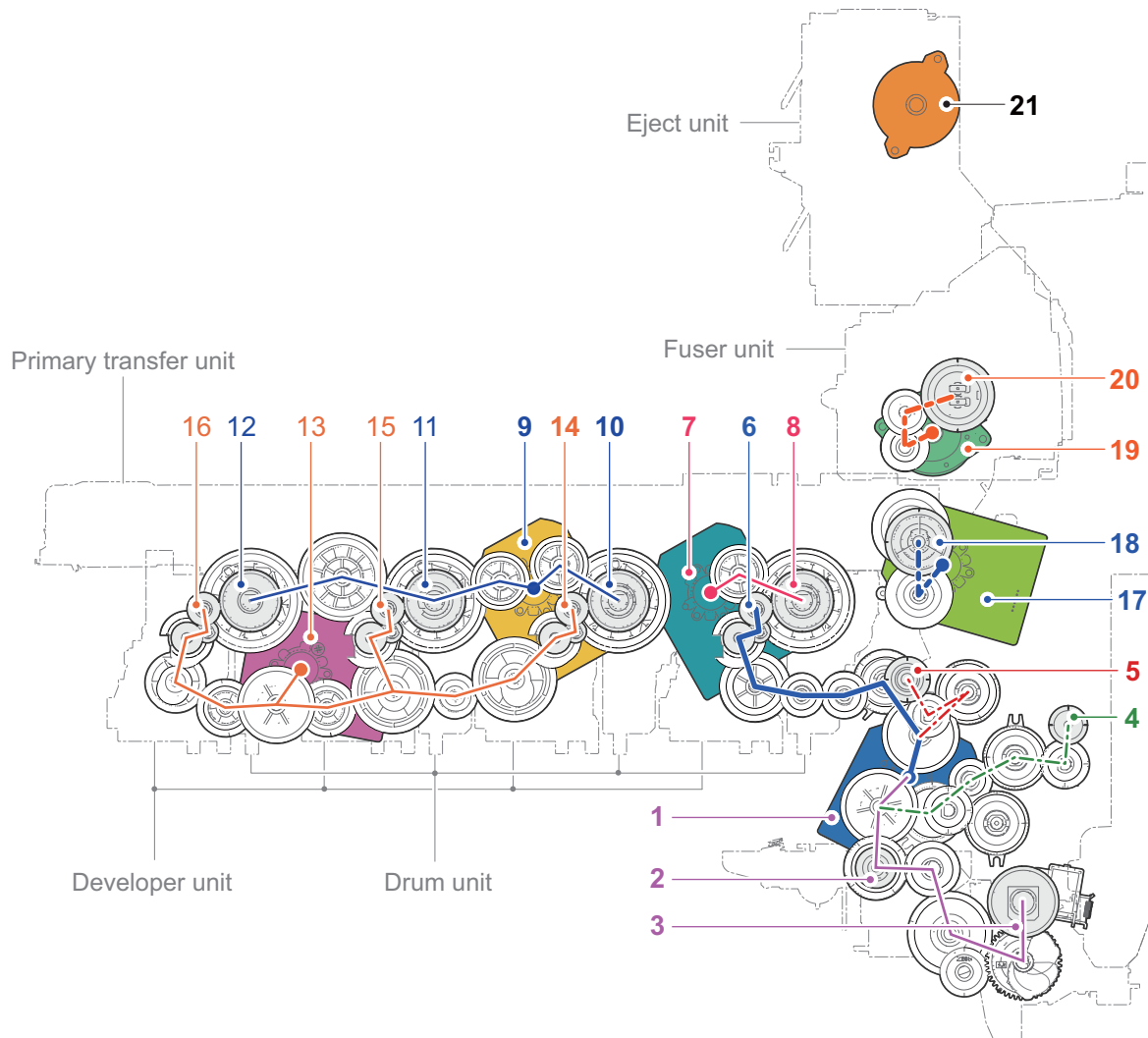
Figure 3-52

Feed/developing (Black) drive
1. Developer motor (BK) : (DLPM-BK)
2. Paper feed roller
3. MP paper feed roller
4. DU conveying roller
5. registration roller
6. Developer sleeve roller (Black)

Drum (Black) drive
7. Drum motor (BK) : (DRM-BK)
8. Drum (Black)

Drum (color) drive
9. Drum motor(M/C/Y) : (DRM-M/C/Y)
10. Drum (Magenta)
11. Drum (Cyan)
12. Drum (Yellow)

Developer (Color) drive
13. Developer motor (M/C/Y) : (DLPM-M/C/Y)
14. Developer sleeve roller (Magenta)
15. Developer sleeve roller (Cyan)
16. Developer sleeve roller (Yellow)

Imaging/transfer drive
17. Transfer motor : (TCM)
18. Transfer belt drive roller

Fuser drive
19. Fuser motor : (FUM)
20. Heat roller

Eject drive
21. Eject motor : (EM)

(2) Drive location
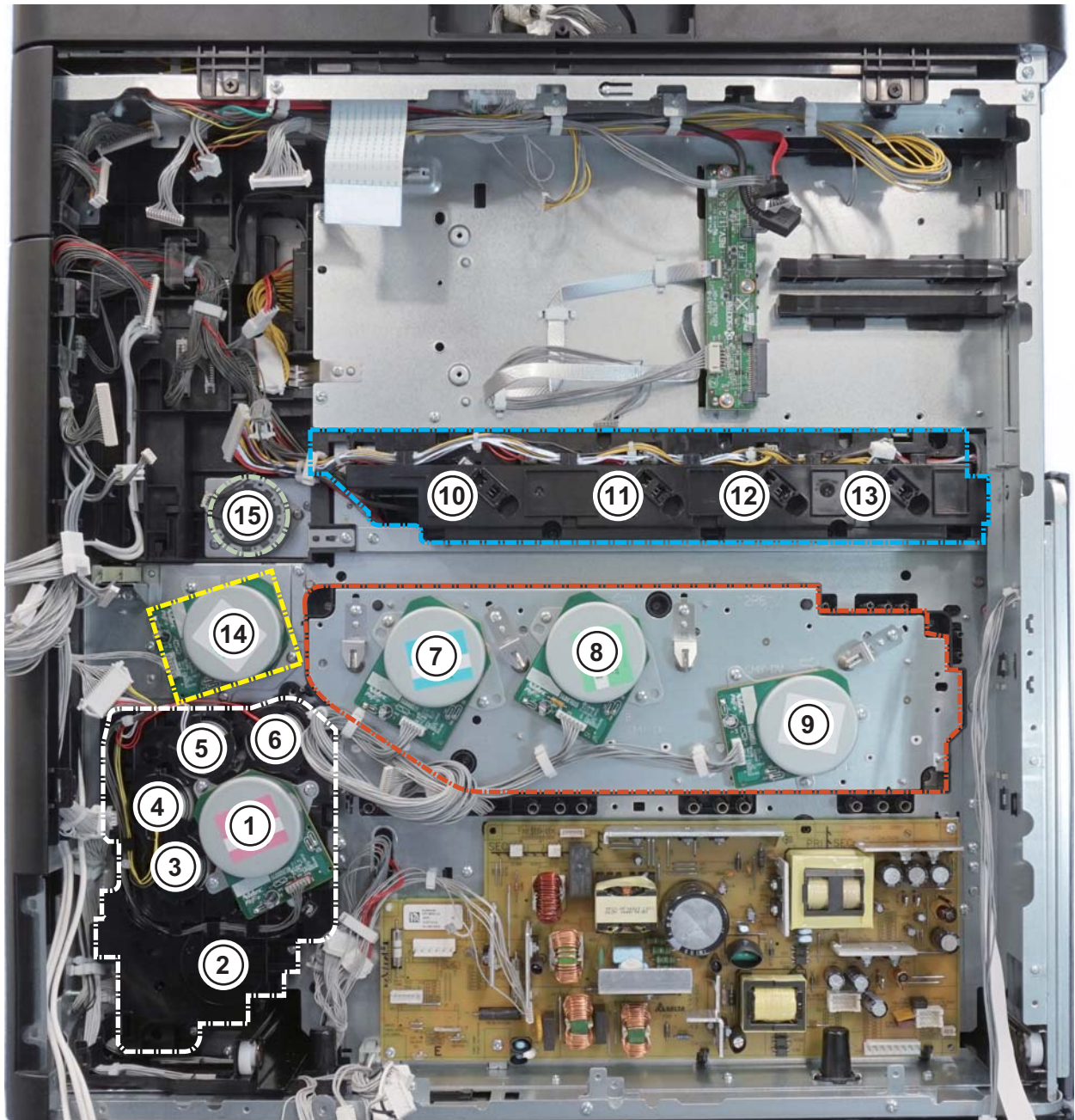
Figure 3-53

Feed drive unit
1. Developer motor (BK)
2. Paper feed clutch
3. Middle clutch
4. Duplex clutch
5. Registration clutch
6. Developer clutch

Main drive unit
7. Drum motor (BK)
8. Drum motor (M/C/Y)
9. Developer motor (M/C/Y)

Toner supply drive unit
10. Toner motor (BK)
11. Toner motor (M)
12. Toner motor (C)
13. Toner motor (Y)

14. Transfer motor

15. Fuser motor

(3) Drive unit

(3-1) Feed drive unit
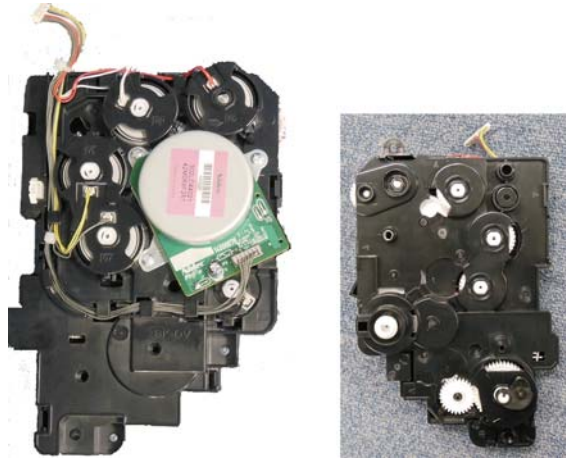
Figure 3-54

(3-2) Main drive unit

Figure 3-55

(3-3) Toner supply drive unit
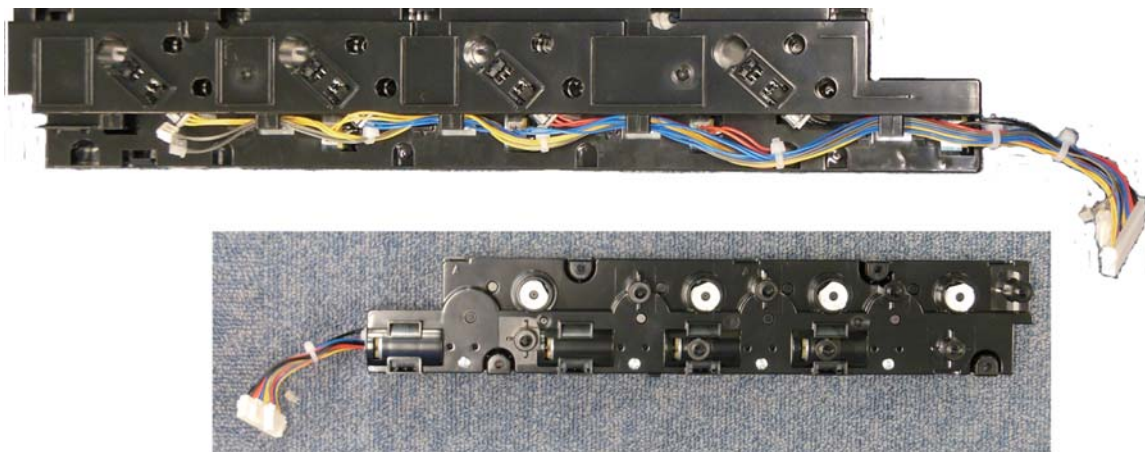
Figure 3-56

3-8 Mechanical construction

(1) Paper feed and conveying section

The paper feed and conveying section consists of the cassette paper feed section and the MP tray paper feed section, and the paper conveying section conveying the fed paper to the transfer and separate section.

(1-1) Cassette paper feed section

The cassette can load 550 sheets paper (64 g/m²) or 500 sheets paper (80 g/m²). The cassette forwards paper by rotating the pickup roller and conveys it to the paper conveying section by rotating the paper feed roller. Multi-feeding is also prevented by the operation of the retard roller.

[Components parts]
1. Paper feed roller
2. Pickup roller
3. Pickup holder
4. Retard roller
5. Retard holder
6. Friction pad
7. Cassette bottom plate
8. Paper width guides
9. Paper length guide
10. Cassette base
11. Width guide release lever
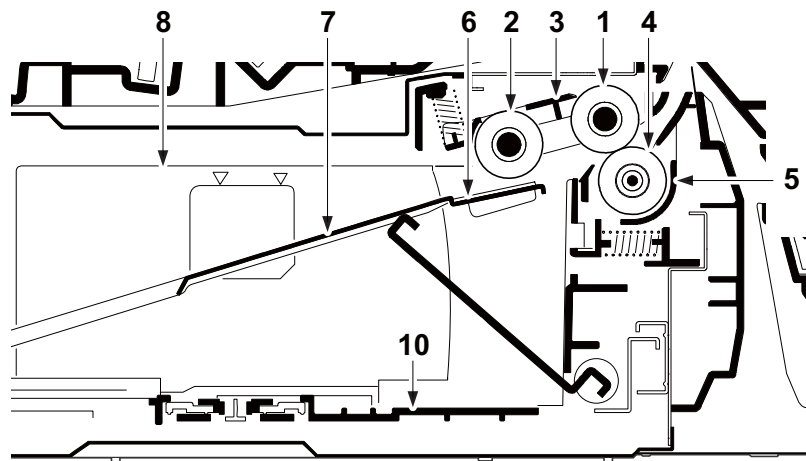
Figure 3-57
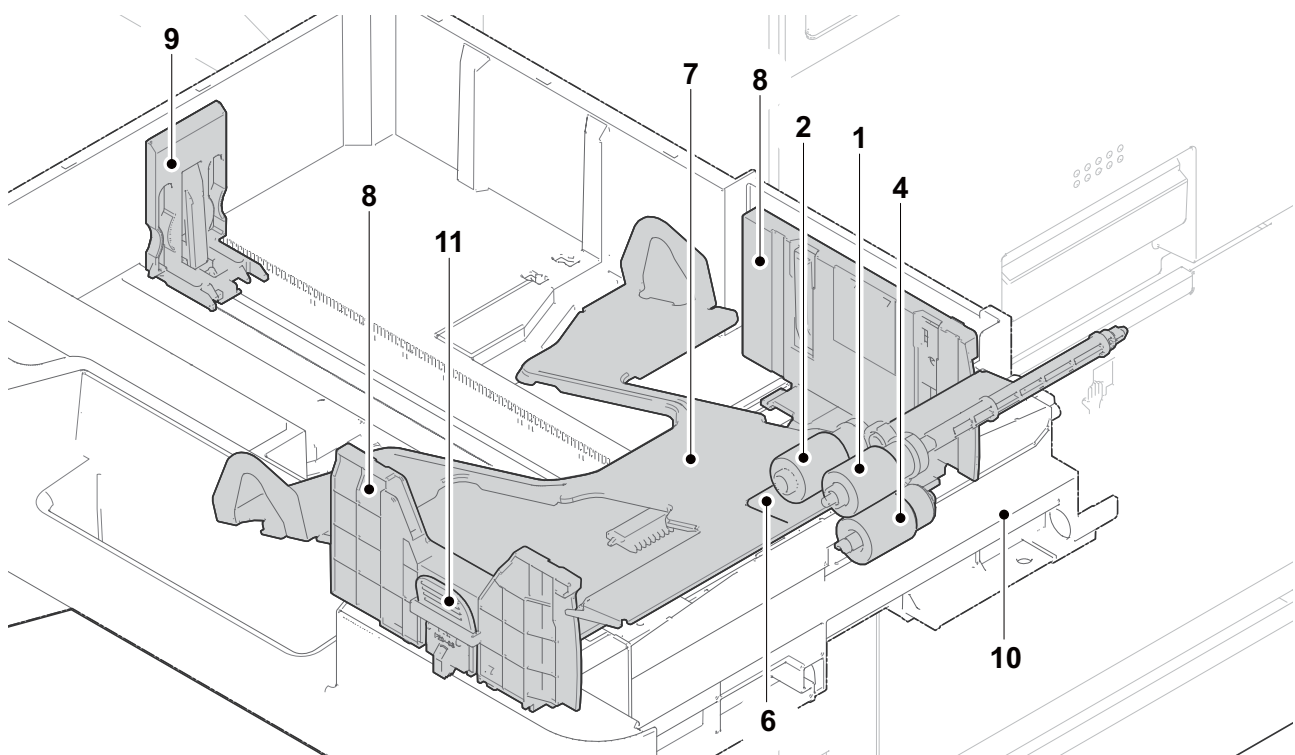
Figure 3-58

[Block diagram]
(30 ppm model)
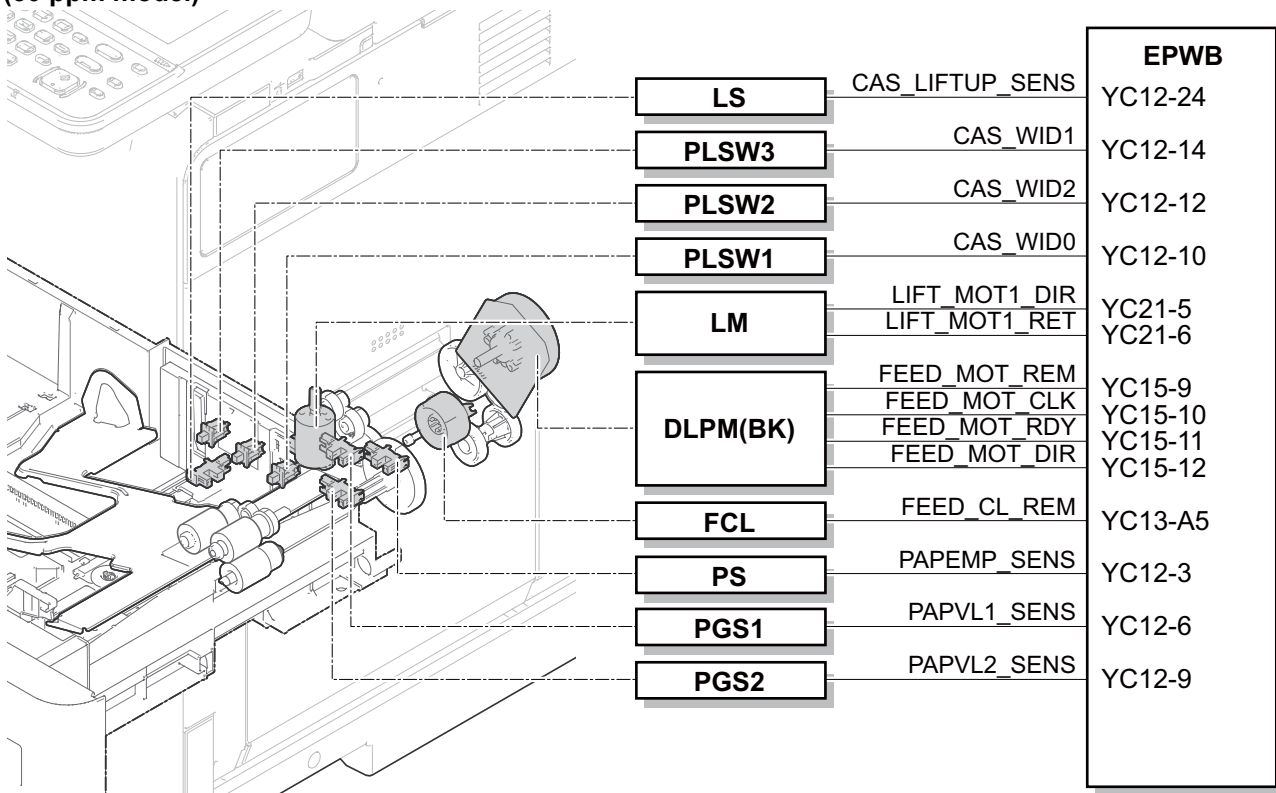
Figure 3-59

(35/40 ppm models)
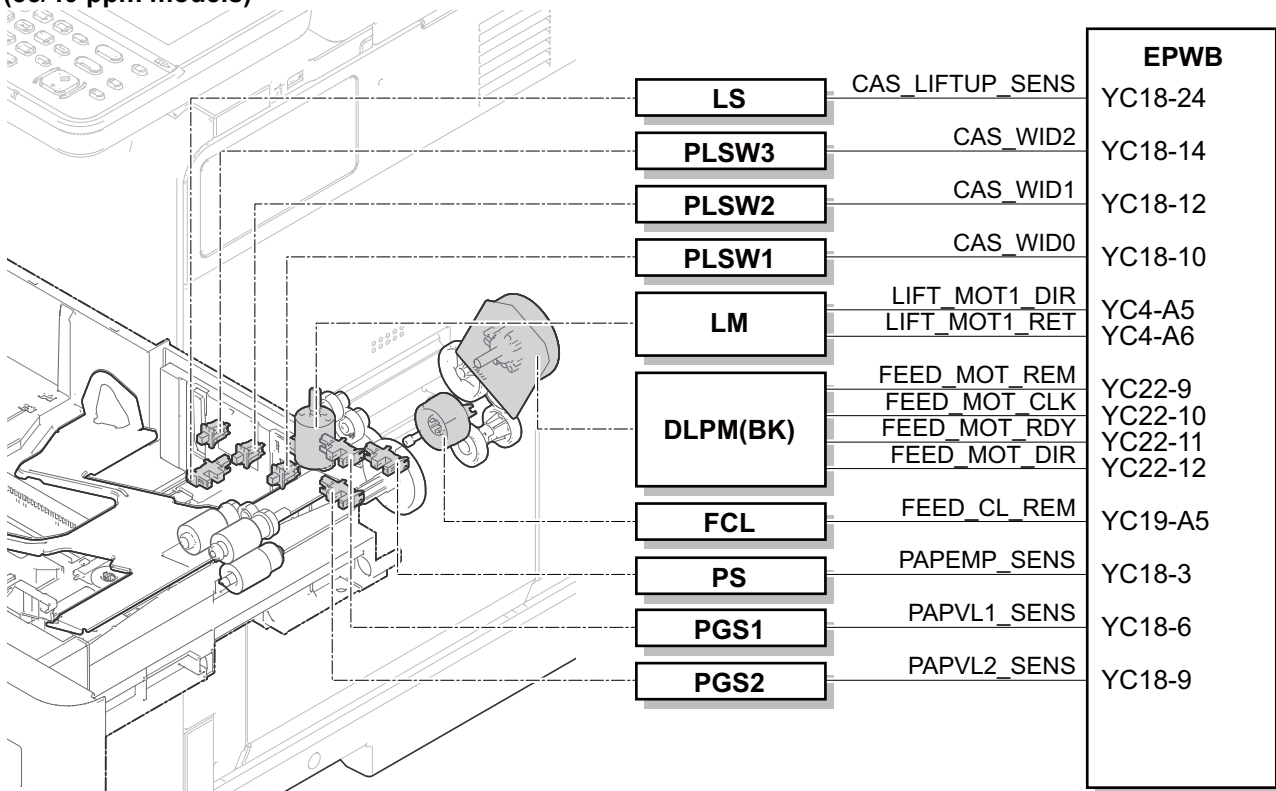
Figure 3-60

(1-2) MP tray paper feed section

The MP tray can load 100 sheets paper (80 g/m^2). The paper on the MP tray is fed by rotating the MP paper feed roller while lifting up the MP bottom plate by the MP solenoid. Multi-feeding is also prevented by the effect of the MP separation pad.

(30 ppm model)
[Components parts]
1. MP paper feed roller
2. MP separation pad
3. MP bottom plate
4. MP tray
5. MP frame
6. MP paper width guides
7. Paper stopper
8. Actuator
   (MP paper sensor)
9. Sub tray
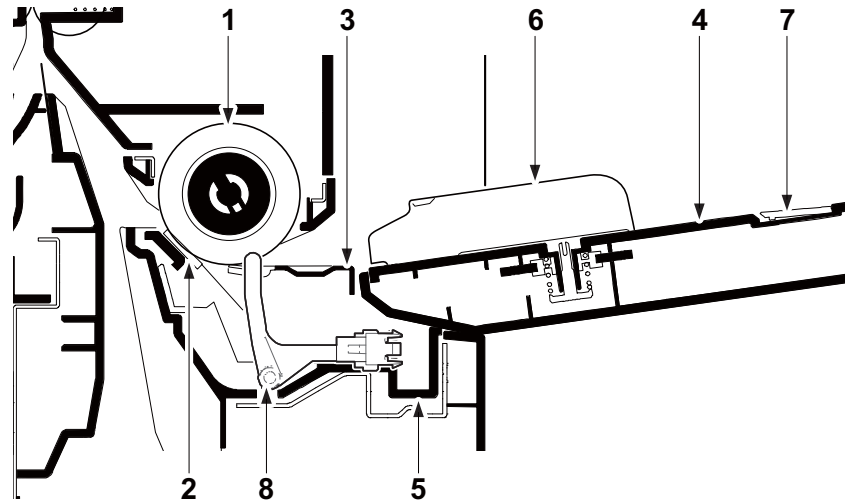
Figure 3-61
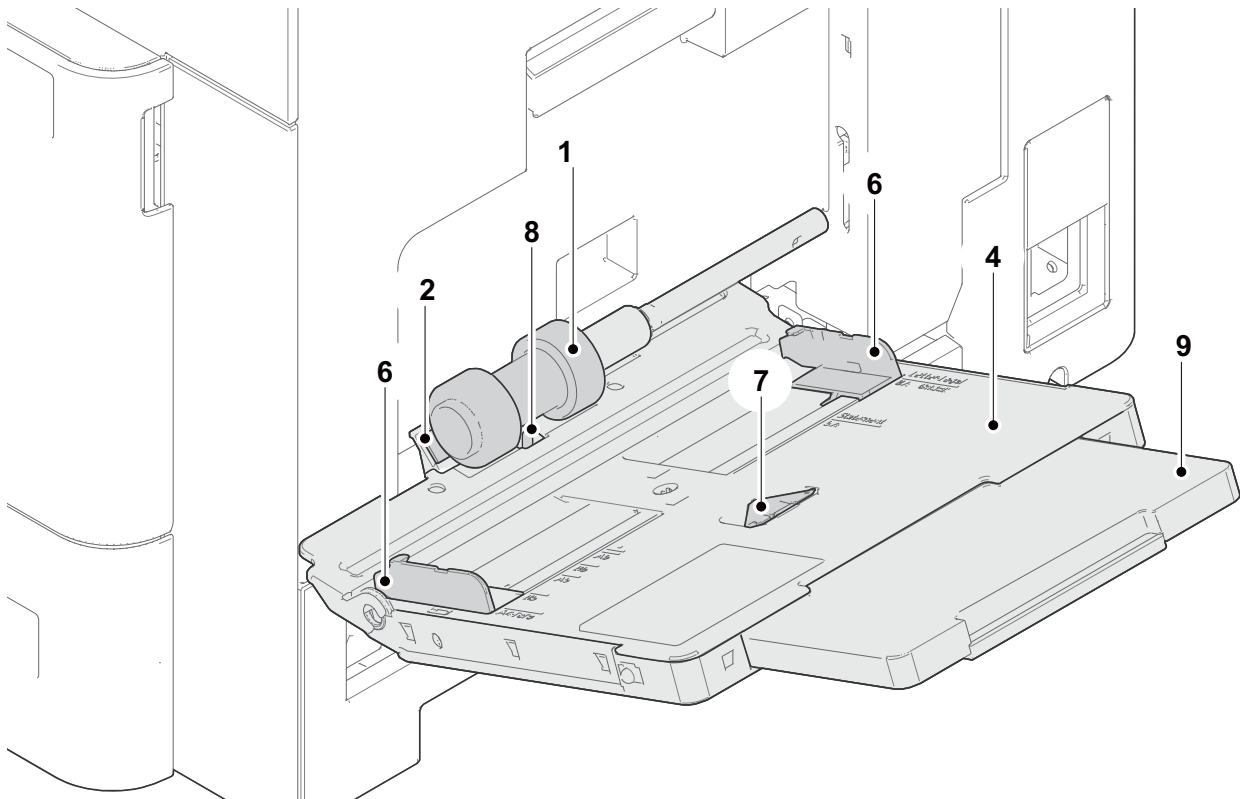
Figure 3-62

[Block diagram]

	FEED_MOT_REM	YC15-9
DLPM(BK)	FEED_MOT_CLK	YC15-10
	FEED_MOT_RDY	YC15-11
	FEED_MOT_DIR	YC15-12
MPSOL	MPF_SOL_REM	YC12-29
MPPS	MPF_SET_SENS	YC12-21

EPWB
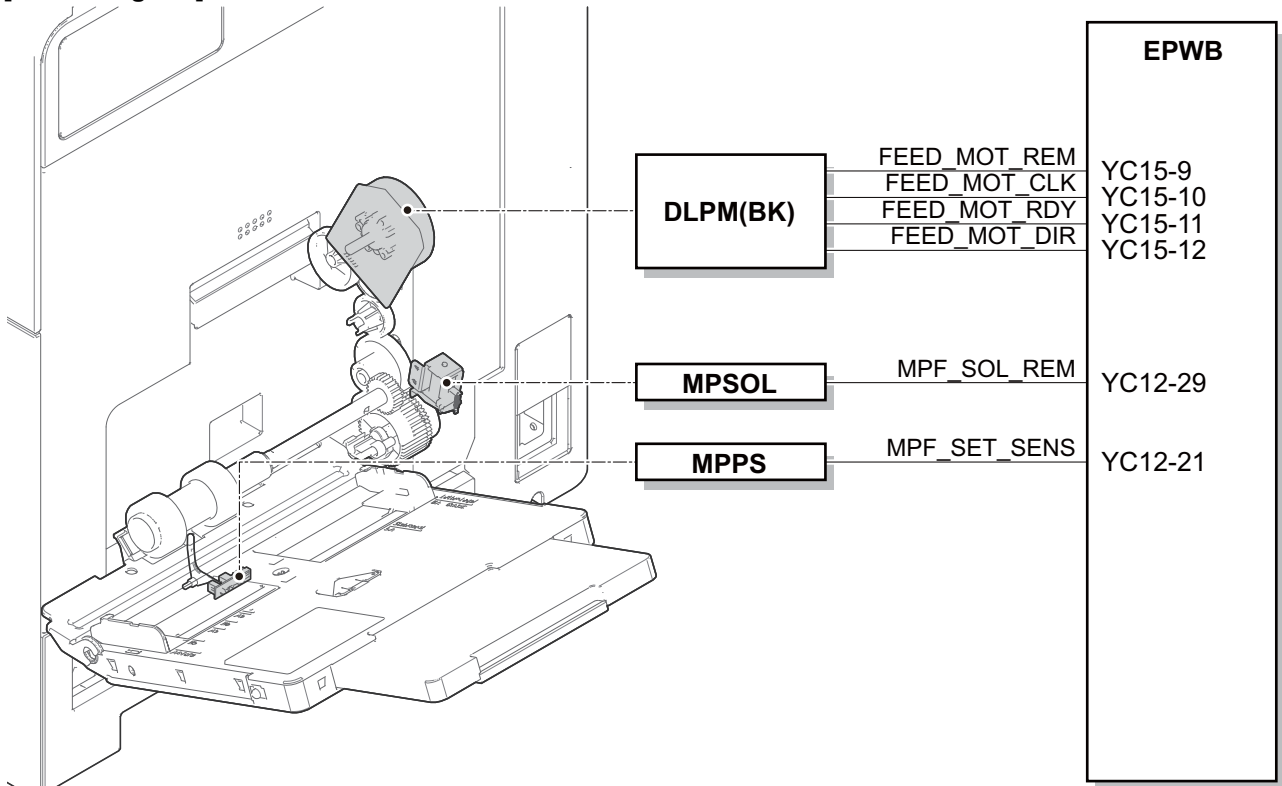
Figure 3-63

(35/40 ppm models)

[Components parts]

1. MP paper feed roller
2. MP separation pad
3. MP bottom plate
4. MP tray
5. MP frame
6. MP paper width guides
7. Paper stopper
8. Actuator
   (MP paper sensor)
9. Sub tray
10. Actuator
    (MP paper length sensor)
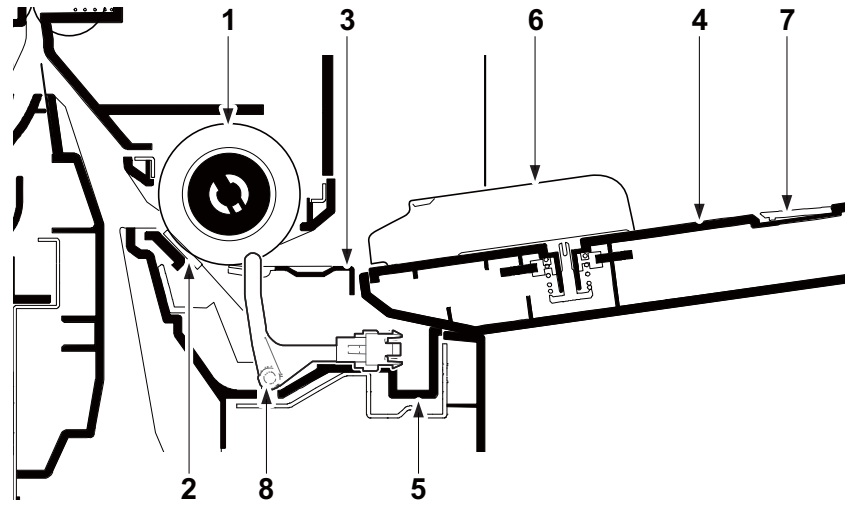
Figure 3-64
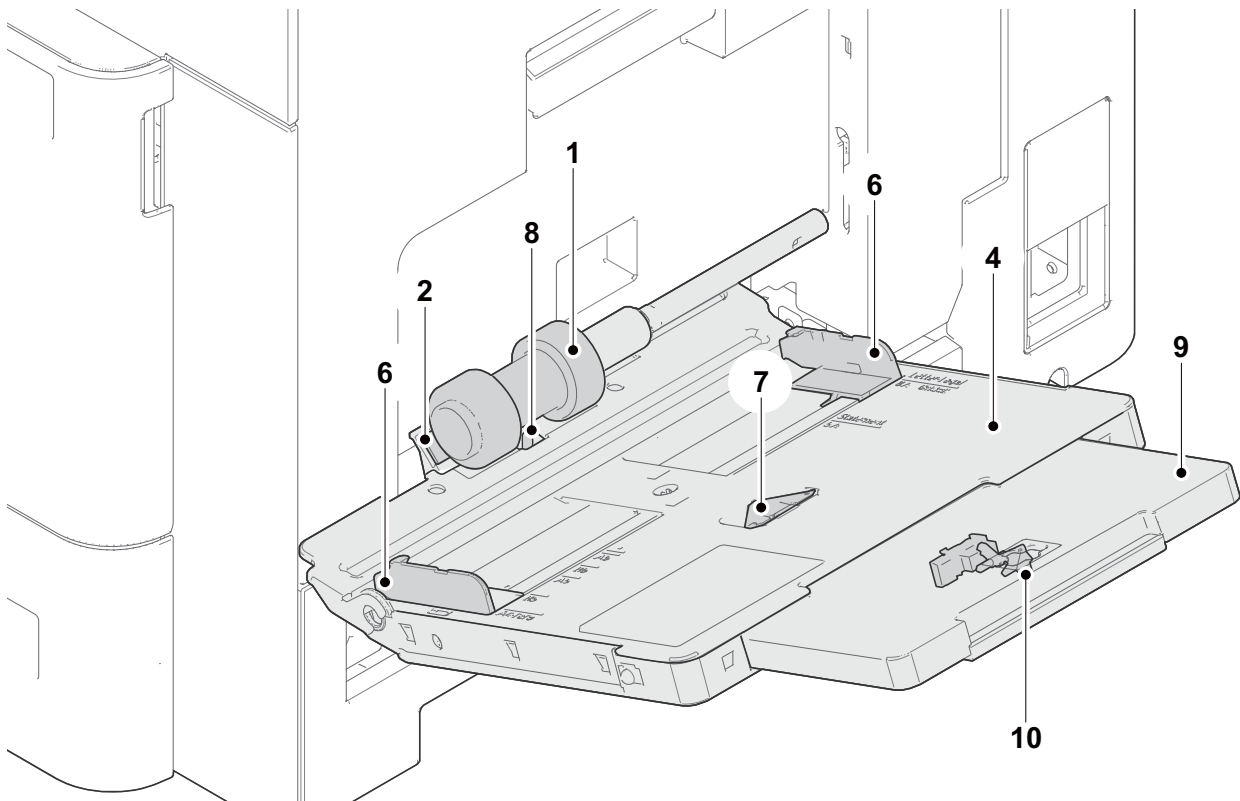
Figure 3-65

[Block diagram]

FEED_MOT_REM	YC22-9	
FEED_MOT_CLK	YC22-10	
FEED_MOT_RDY	YC22-11	
FEED_MOT_DIR	YC22-12	

DLPM(BK)

MPSOL — MPF_SOL_REM — YC18-29

MPPS — MPF_SET_SENS — YC18-21

MPLS — MPT_LNG_SENS — YC20-A9

MPTSW — MPF_TRAY_SW — YC20-A1

MPWSW — 3.3V2 — YC20-A3 / MPF_WID_VOL — YC20-A4 / GND — YC20-A5

EPWB
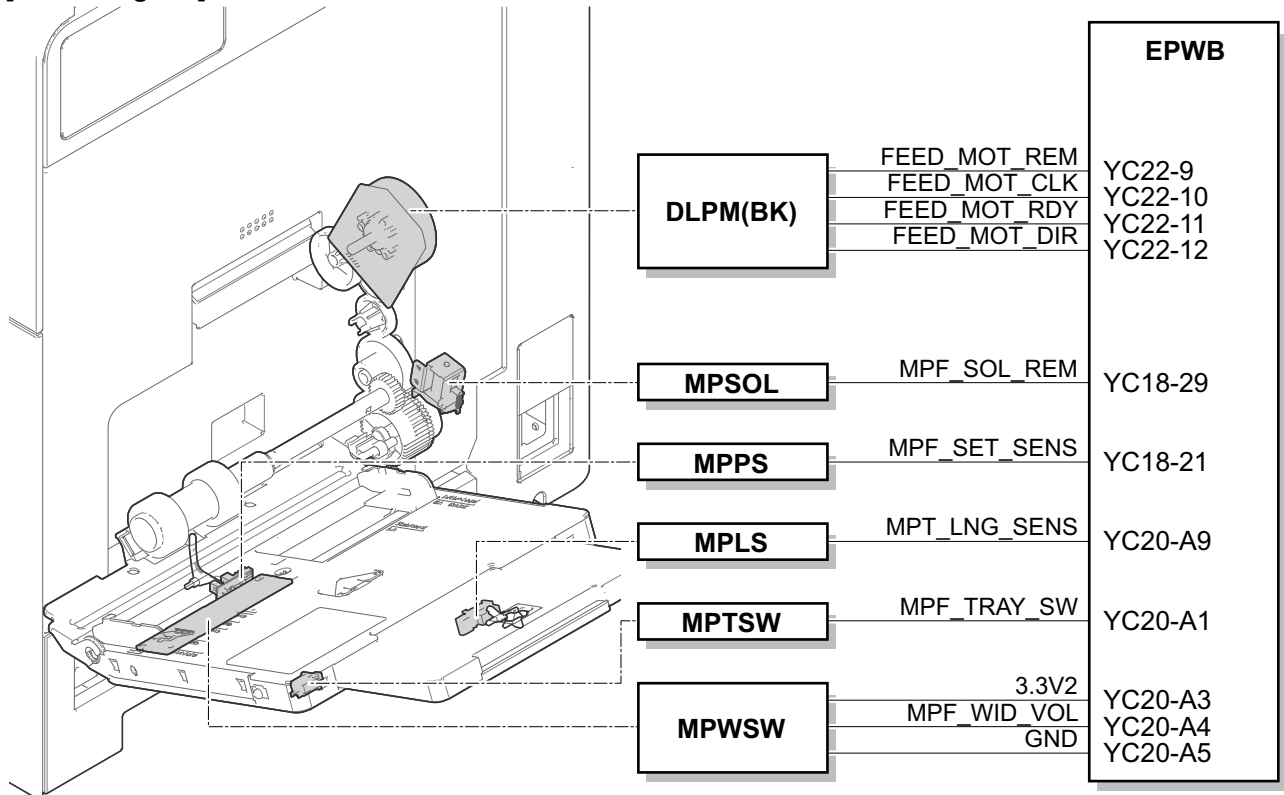
Figure 3-66

(1-3) Paper conveying section

The paper conveying section conveys paper to the transfer and separation section when the paper is fed from the cassette or the MP tray, or re-fed in the duplex print. The fed paper is conveyed to where it turns the registration sensor on by the middle roller or the MP conveying roller, and then, conveyed to the transfer and separation section by the registration front and rear rollers.

[Components parts]
1. Middle roller
2. Middle pulley
3. Registration guide
4. Registration sensor
5. Registration roller left
6. Registration roller right
7. Conveying guide
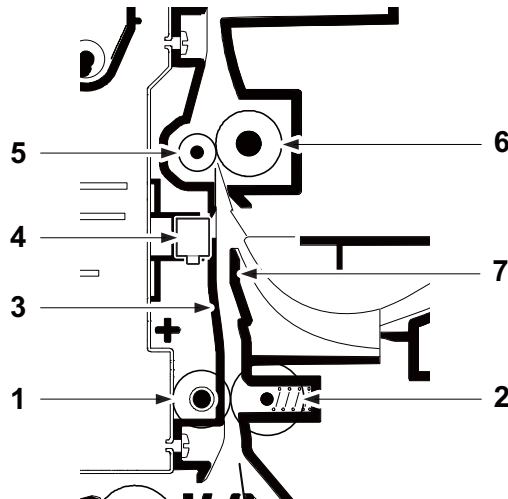
Figure 3-67
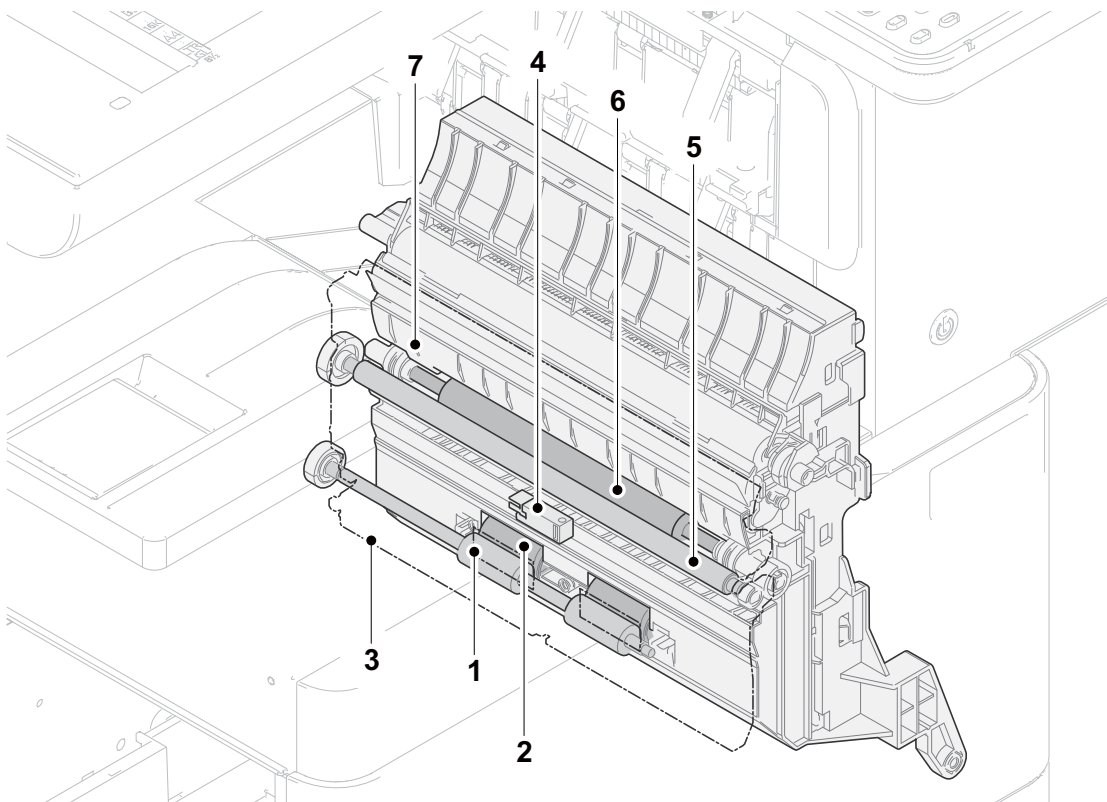
Figure 3-68

[Block diagram]
(30 ppm model)
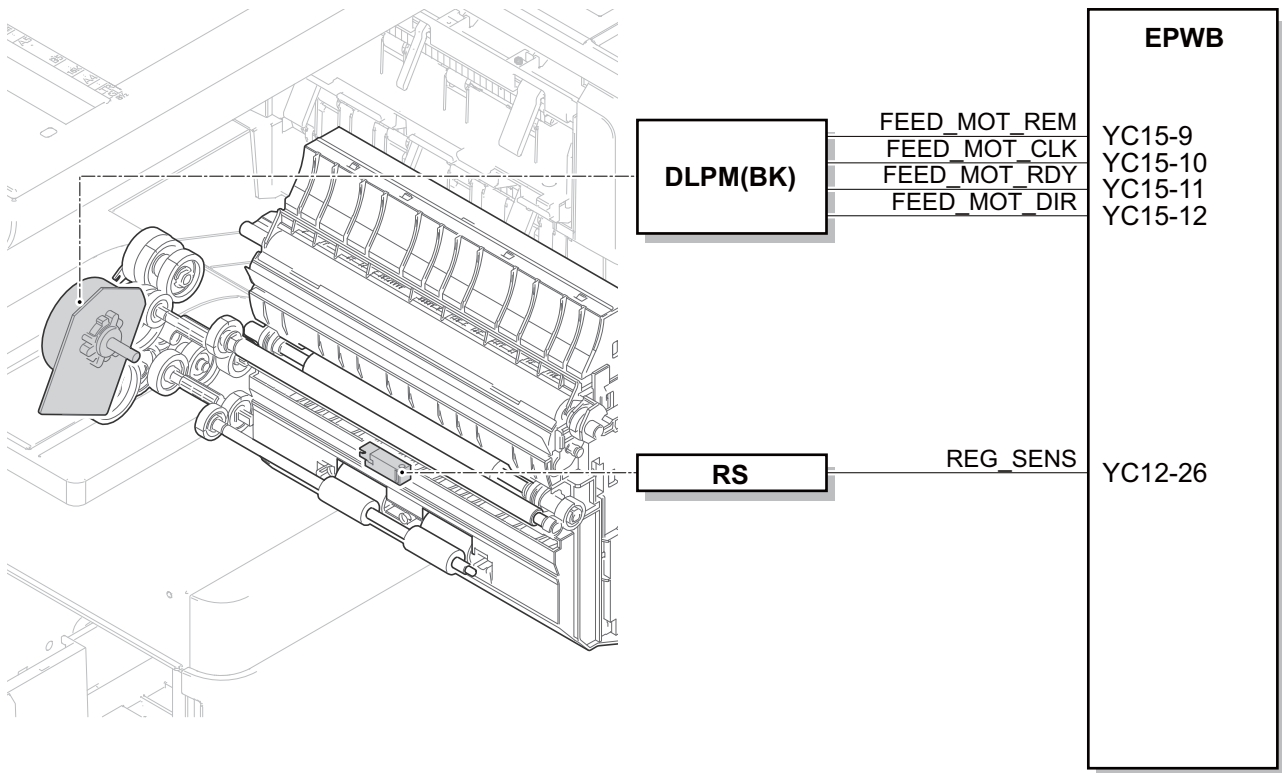
Figure 3-69

(35/40 ppm models)
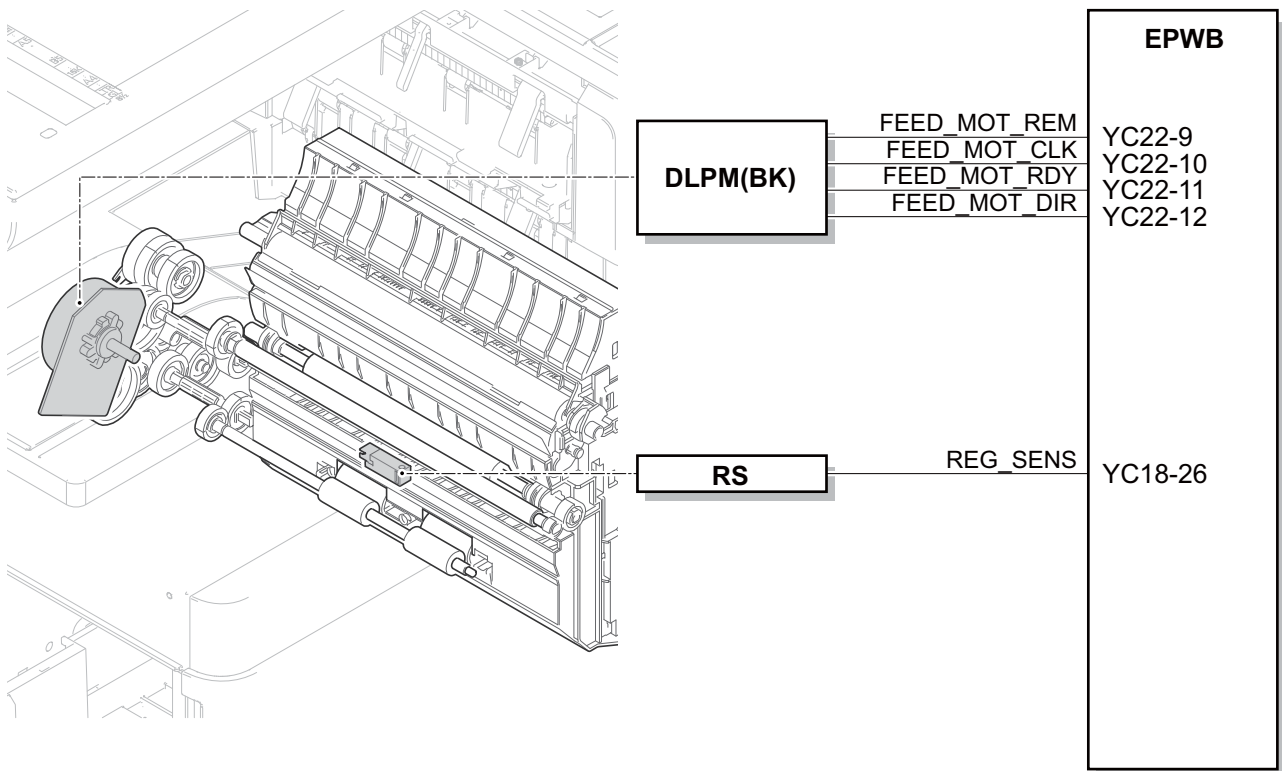
Figure 3-70

(2) Optical section

The optical section consists of the image scanner section for scanning the original and the laser scanner section to write the image.

(2-1) Image scanner section

The image on the original is exposed by the exposure lamp and that reflection light is scanned by the CCD image sensor on the CCD PWB via three mirrors and the ISU lens to change the electric signal.
When using the document processor, the image scanner unit stops at the original scanning position (slit glass) and scans the image from the original conveyed in the document processor.

[Components parts]
1. CCD
2. Scanner carriage
3. ISU frame
4. Contact glass
5. Original size indicator
6. Slit glass
7. ISU lens
8. Mirror
9. Reflector
10. Exposure lamp
11. ISU shaft
12. Drive belt
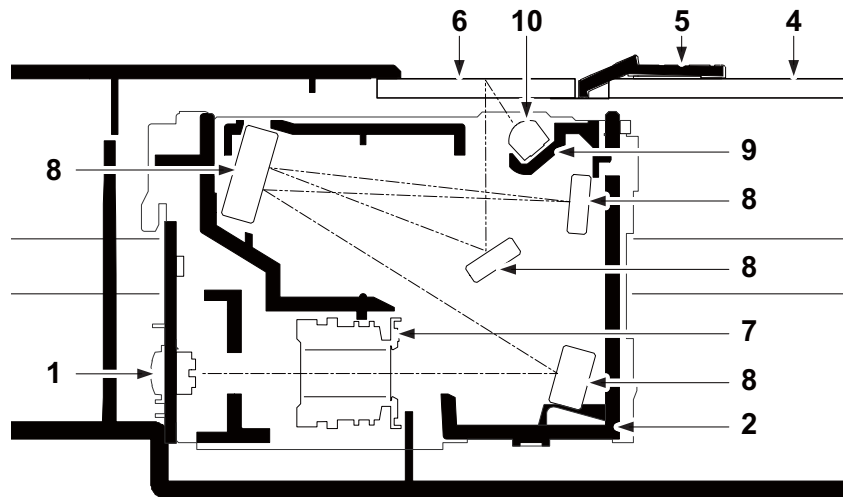
Figure 3-71
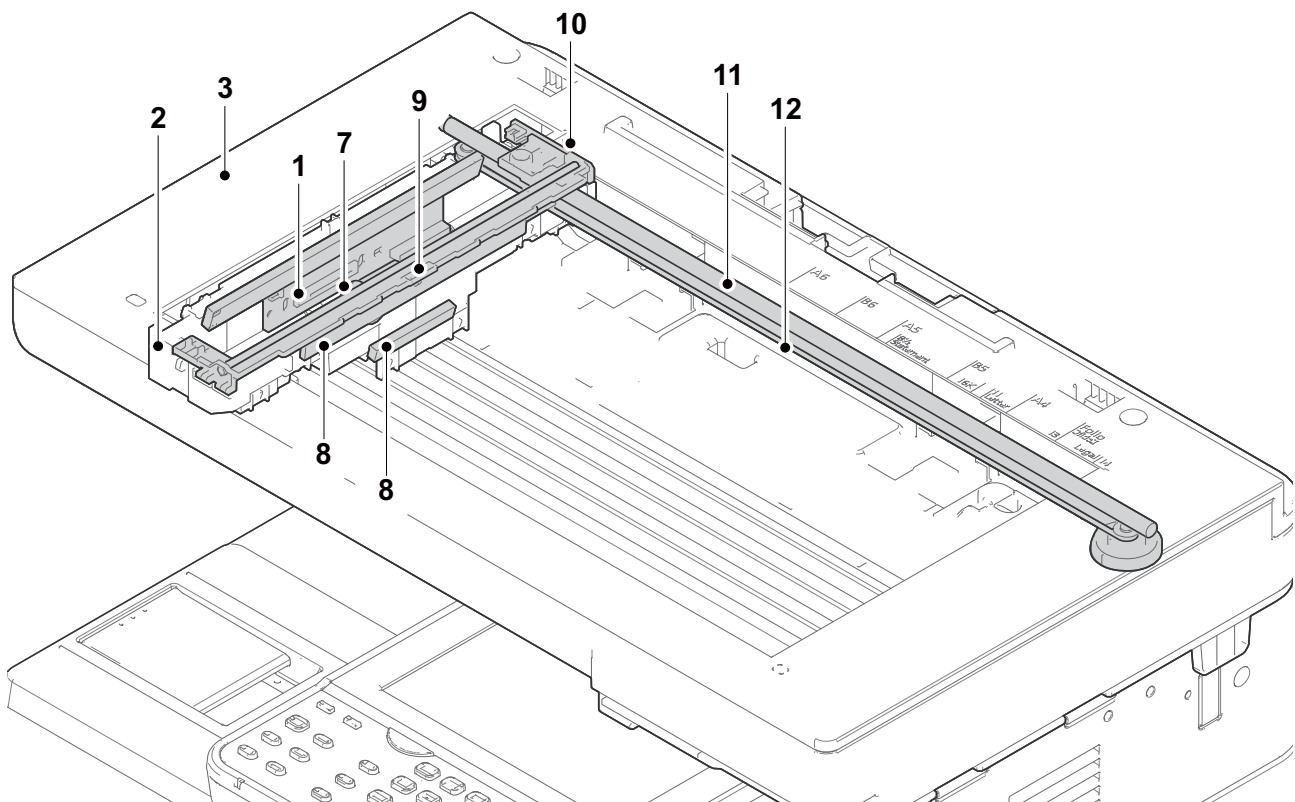
Figure 3-72

[Block diagram]
(30 ppm model)

		CCDPWB		MPWB
LEDPWB	LED_Cashode	YC2-1	HP_SWN	YC2014-29
	LED_Anode	YC2-2	M_LED_C	YC2014-31
			M_LED_A	YC2014-32
HPS	HP_SWN	YC3-3		

			EPWB
SM	SCAN_MOT_B3		YC19-1
	SCAN_MOT_A1		YC19-2
	SCAN_MOT_B1		YC19-3
	SCAN_MOT_A3		YC19-4
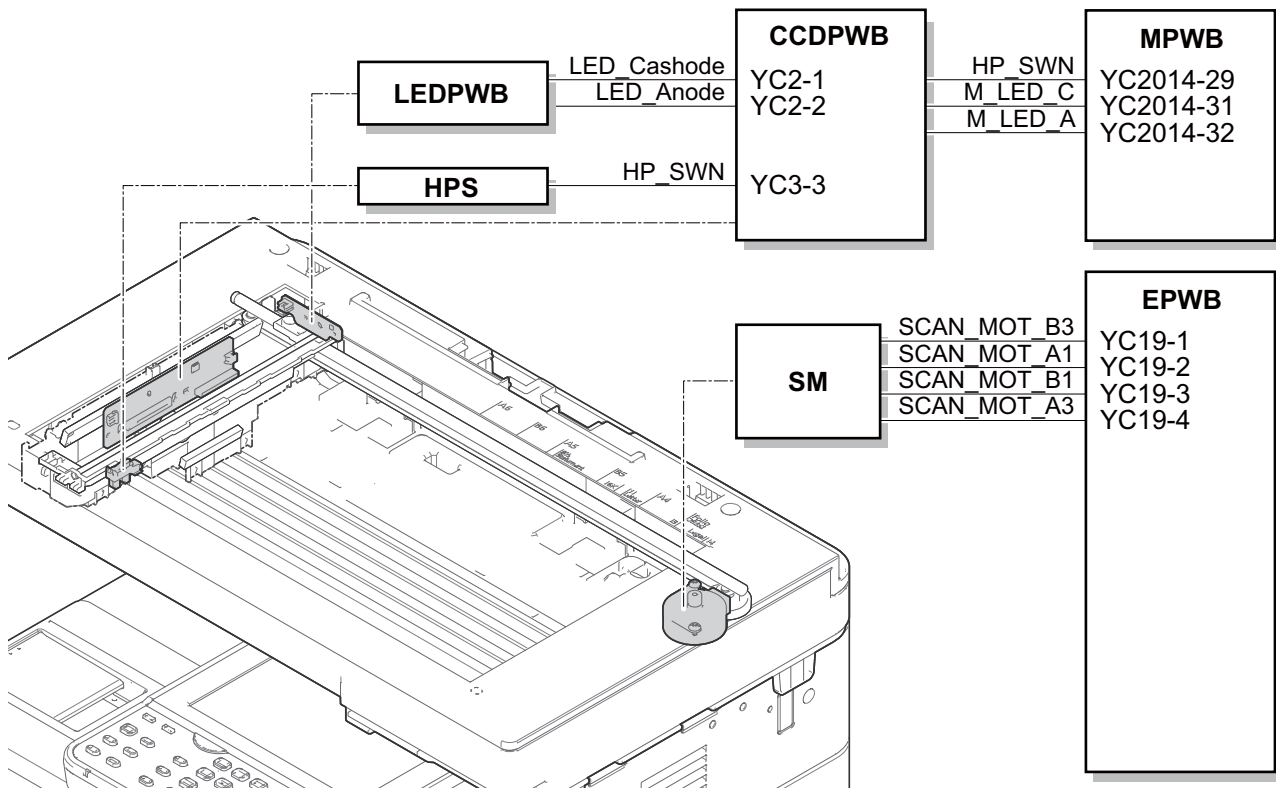
Figure 3-73

(35/40 ppm models)

		CCDPWB		EPWB
LEDPWB	LED_Cashode	YC2-1	M_LED_C	YC5-2
	LED_Anode	YC2-2	M_LED_A	YC5-1
			HP_SWN	YC5-4
HPS	HP_SWN	YC3-3		

			EPWB
SM	SMOT_B2		YC27-1
	SMOT_A1		YC27-2
	SMOT_B1		YC27-3
	SMOT_A2		YC27-4
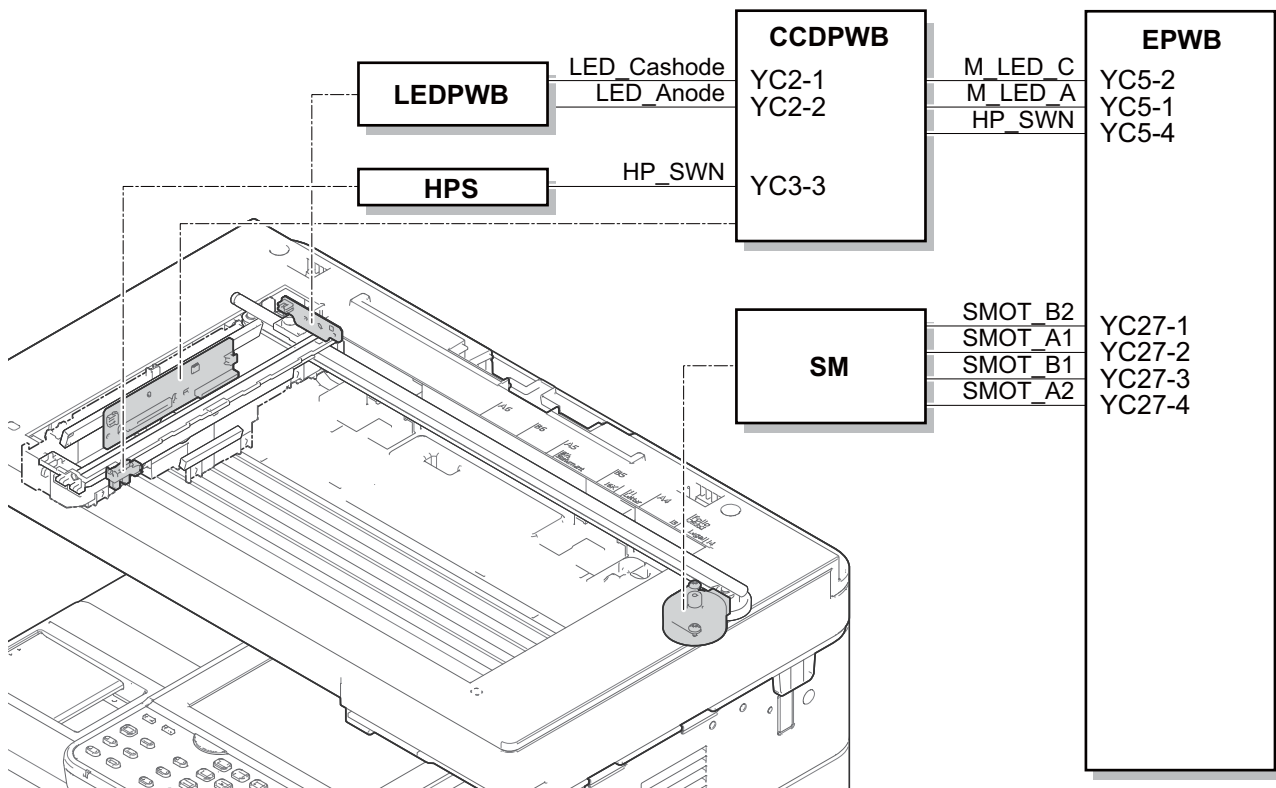
Figure 3-74

(2-2) Laser scanner unit

The charged drum surface is scanned by the laser emitted from the laser scanner units. The laser reflects to the polygon mirrors (PM) by rotating the polygon motor so that the laser scans horizontally to the image. The laser scanner unit has some lenses and mirrors, that adjust the diameter of the laser to focus the laser to the drum surface. Also, the LSU cleaning motor operates to automatically clean the LSU glass.

[Components parts]
1. Polygon motor (PM)
2. fθ lens A
3. fθ lens B
4. LSU glass
5. LSU base
6. LSU cover
7. Mirror
8. Cylindrical lens
9. Laser emitting diode
10. Collimator lens
11. Slit glass plate
12. PD PWB
13. PD lens
14. PD mirror
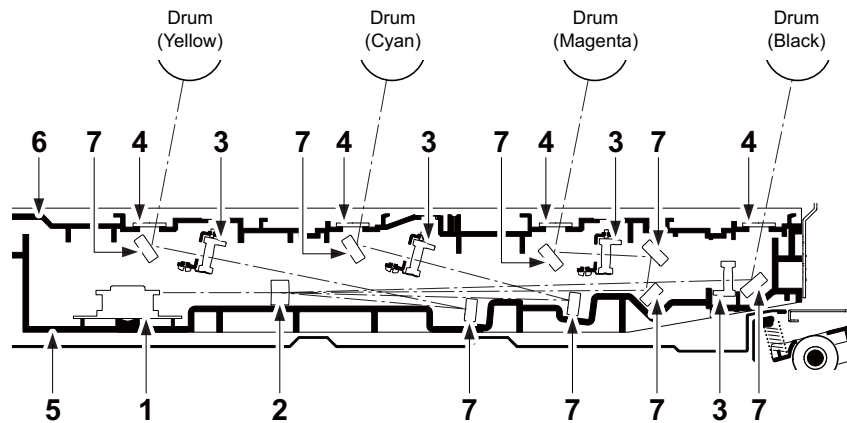
Figure 3-75
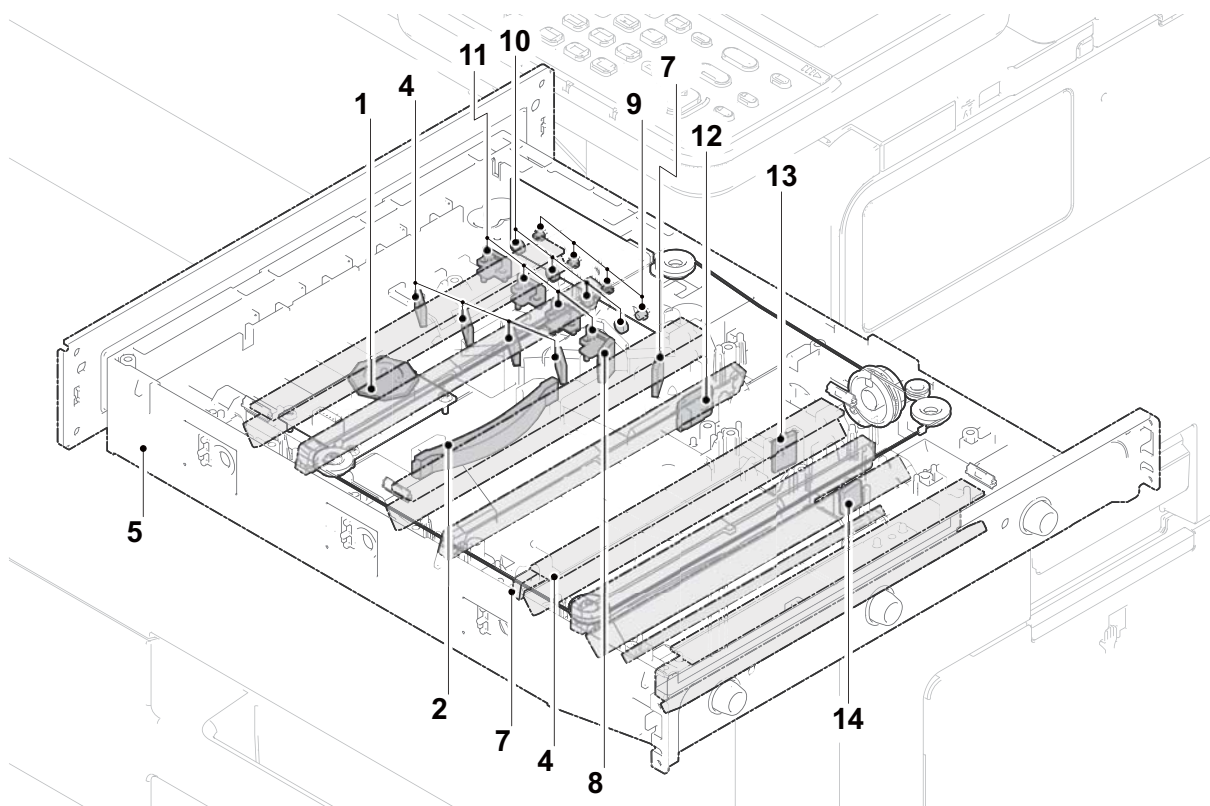
Figure 3-76

[Block diagram]
(30 ppm model)
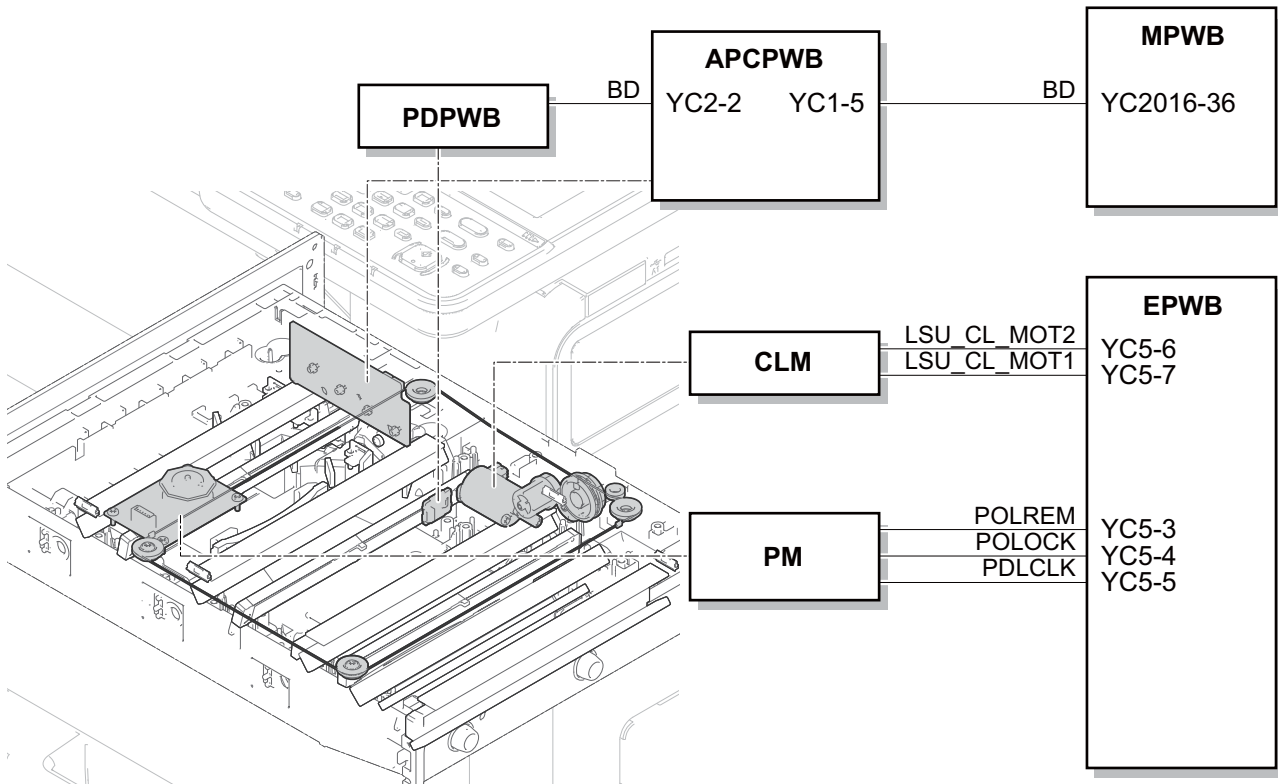
Figure 3-77

(35/40 ppm models)
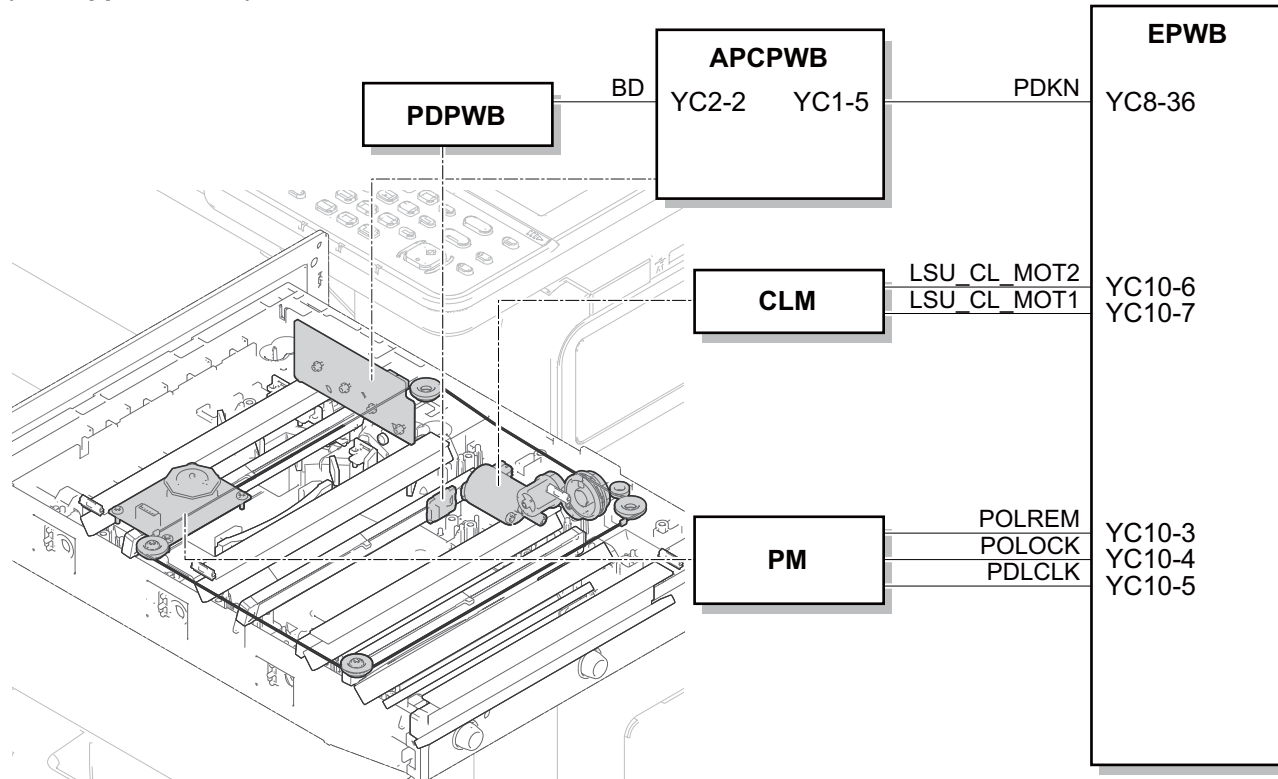
Figure 3-78

(3) Developer section

(3-1) Developer unit

The developer section consists of the magnet roller forming the magnetic brush, the sleeve roller forming the thin layer by replacing the toner, the developer blade, and the developer screw mixing up the toner. The toner density is adjusted by impressing the bias to the magnet roller and the sleeve roller. The toner amount inside the developer unit is detected by the toner sensor (TS).

(30 ppm model)
[Components parts]

1. Sleeve roller
2. Magnet roller
3. Developer blade
4. Developer screw A
5. Developer screw B
6. Developer case
7. Toner sensor
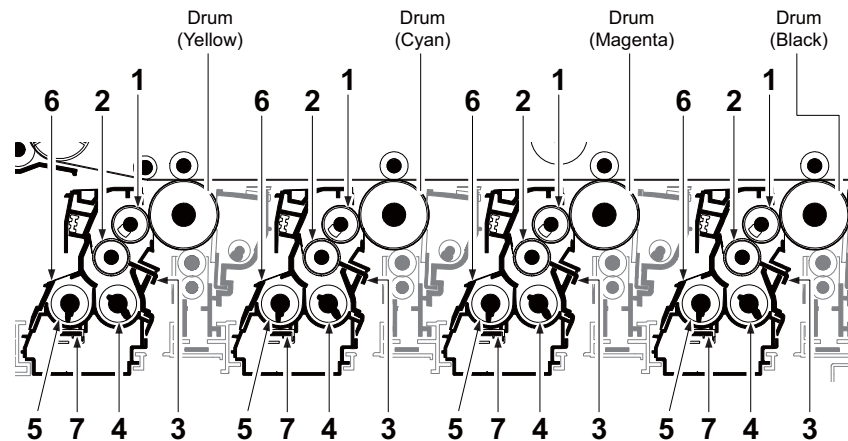
Figure 3-79
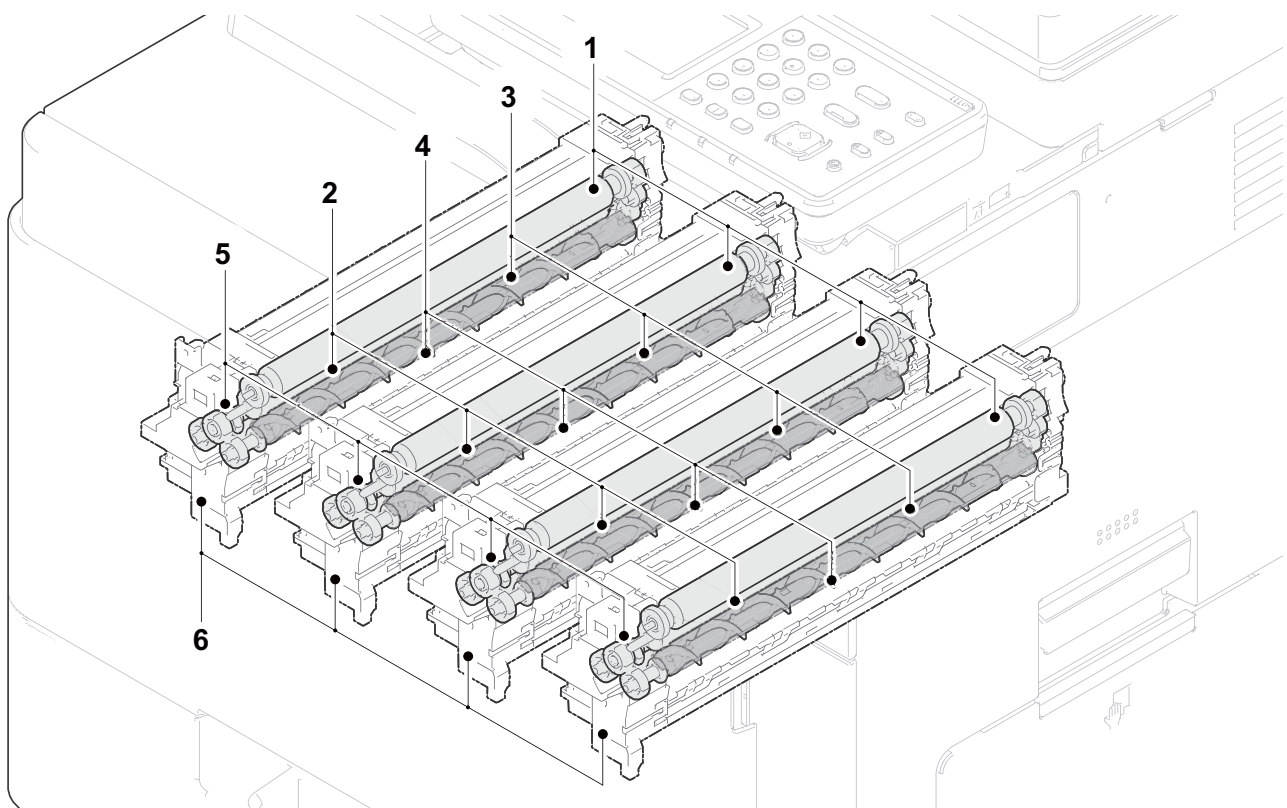
Figure 3-80

(35/40 ppm models)
[Components parts]
1. Sleeve roller
2. Magnet roller
3. Developer blade
4. Developer screw A
5. Developer screw B
6. Developer case
7. Toner sensor
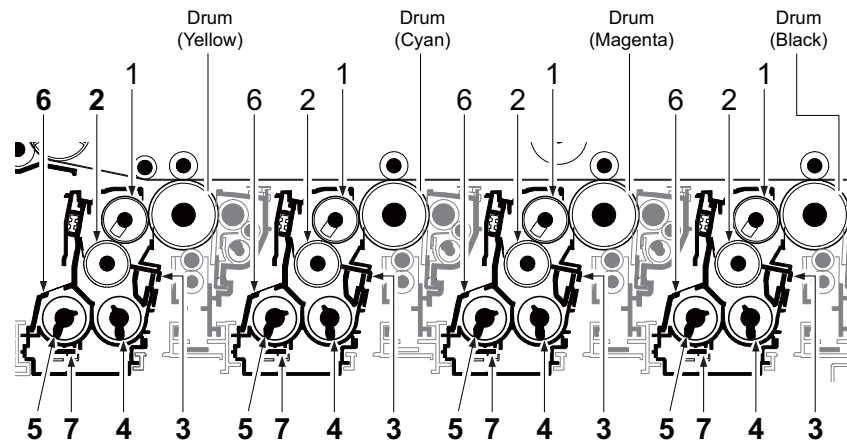
Figure 3-81
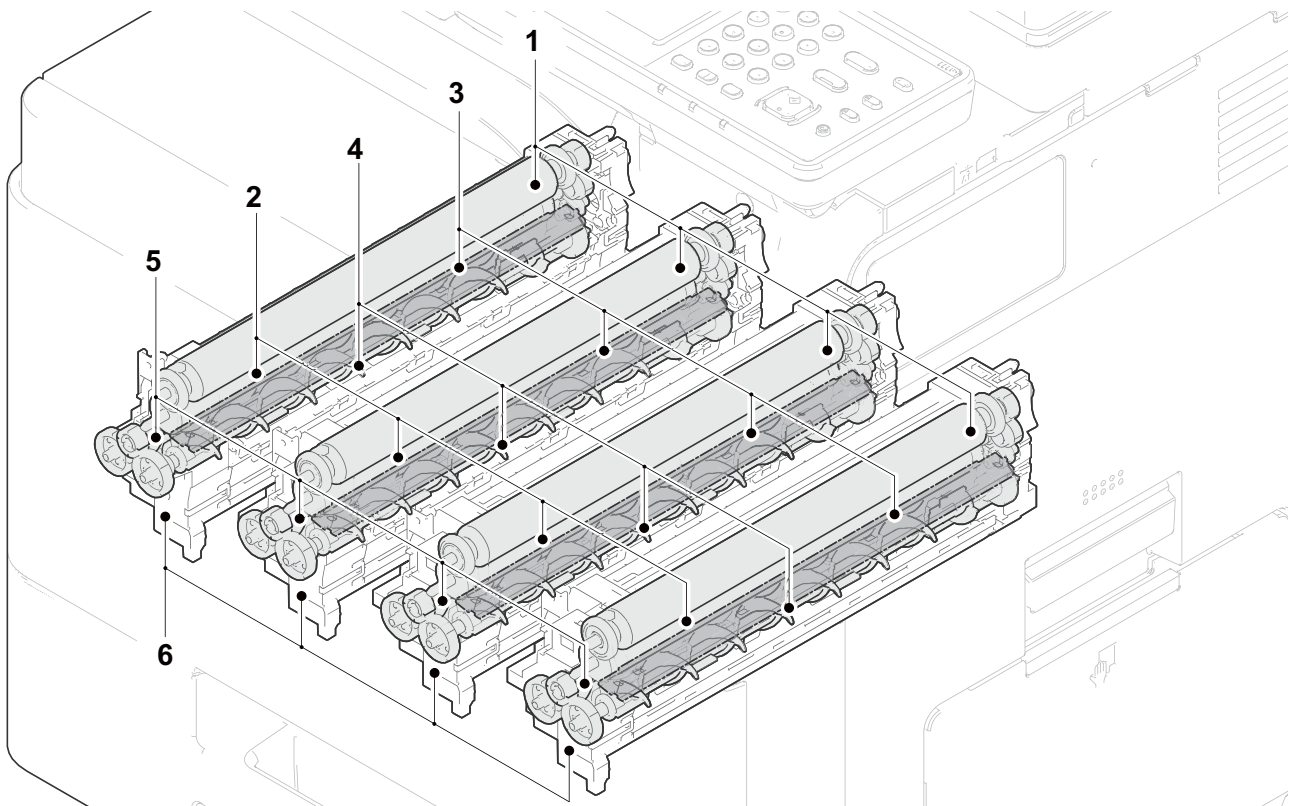
Figure 3-82

[Block diagram]
(30 ppm model)
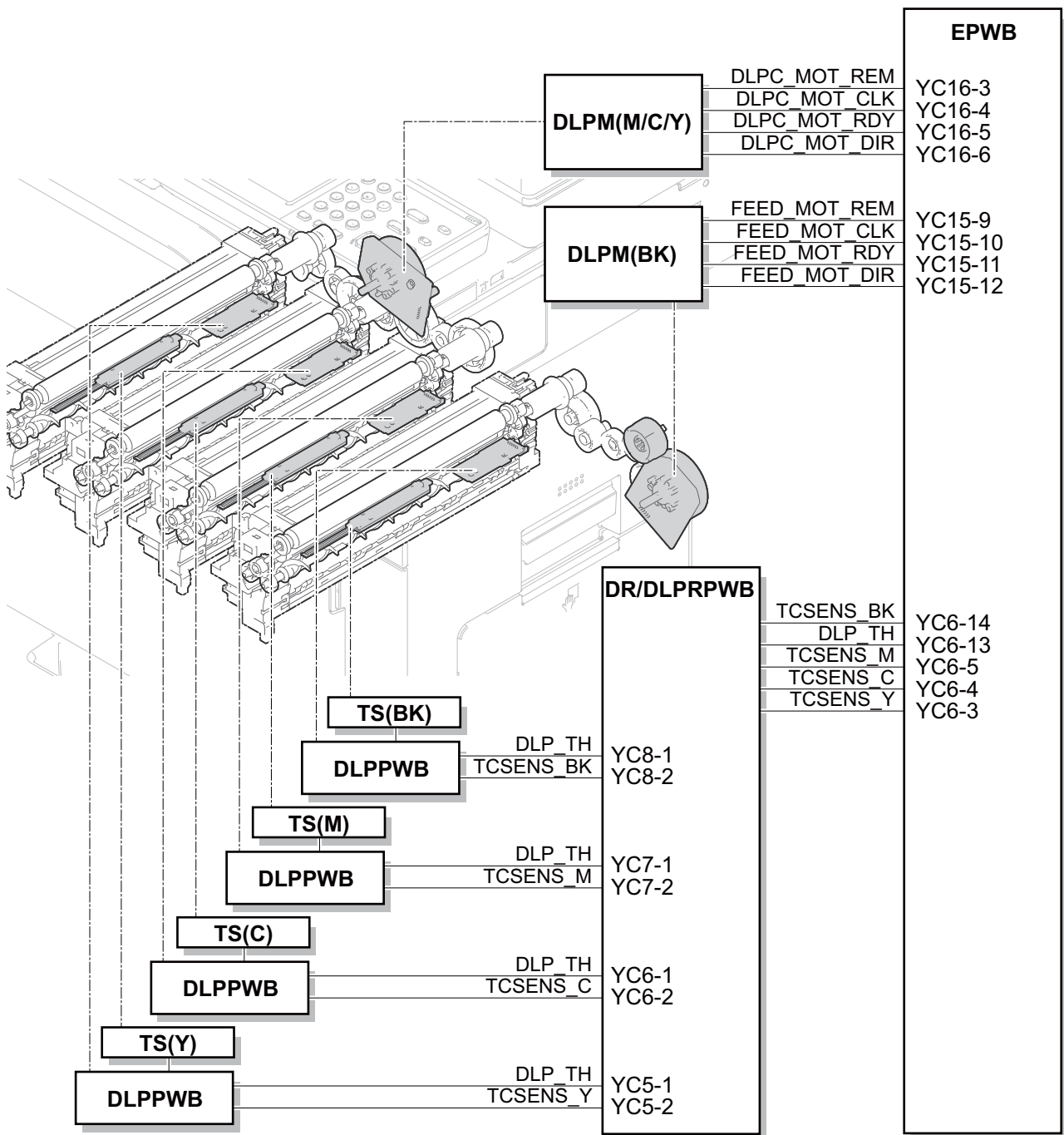
Figure 3-83

(35/40 ppm models)

	EPWB

DLPC_MOT_REM — YC23-3
DLPC_MOT_CLK — YC23-4
DLPM(M/C/Y) DLPC_MOT_RDY — YC23-5
DLPC_MOT_DIR — YC23-6

FEED_MOT_REM — YC22-9
FEED_MOT_CLK — YC22-10
DLPM(BK) FEED_MOT_RDY — YC22-11
FEED_MOT_DIR — YC22-12

DR/DLPRPWB

TCSENS_BK — YC15-2
DLP_TH — YC15-3
TCSENS_M — YC15-11
TCSENS_C — YC15-12
TCSENS_Y — YC15-13

TS(BK)

DLPPWB DLP_TH — YC8-1
TCSENS_BK — YC8-2

TS(M)

DLPPWB DLP_TH — YC7-1
TCSENS_M — YC7-2

TS(C)

DLPPWB DLP_TH — YC6-1
TCSENS_C — YC6-2

TS(Y)

DLPPWB DLP_TH — YC5-1
TCSENS_Y — YC5-2

Figure 3-84

(4) Drum section

The drum section consists of the drum, the charger roller unit, and the cleaning unit. The drum surface is evenly charged to prepare forming the electrical latent image by emitting the laser.

(4-1) Charger roller unit

The charged roller with the electric charge contacts the drum surface and rotates to charge the drum evenly.

[Components parts]

1. Charger roller
2. Charger cleaning roller
3. Charger case
4. Drum
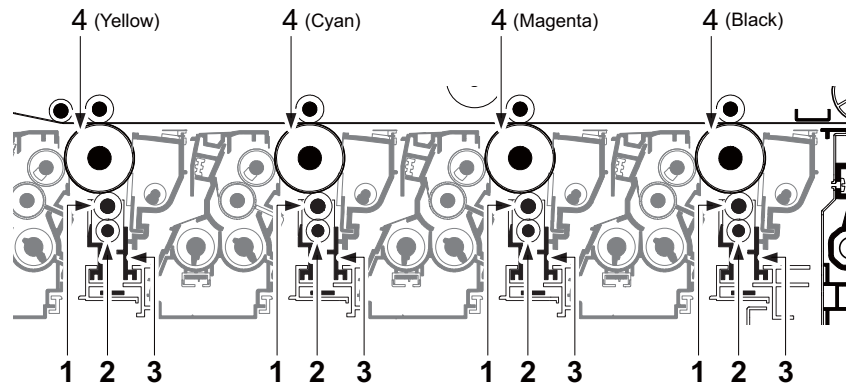
Figure 3-85
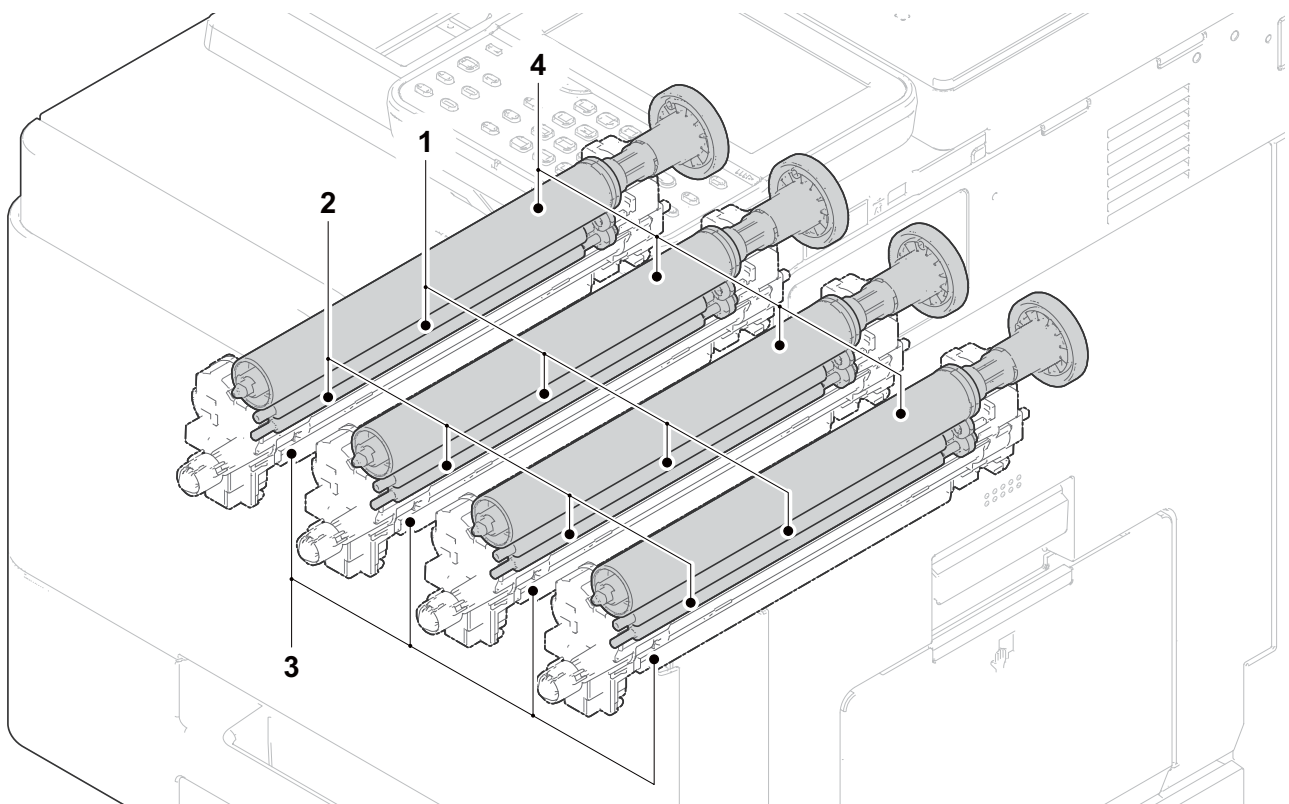
Figure 3-86

[Block diagram]
(30 ppm model)

DRMC_MOT_REM	YC18-3
DRMC_MOT_CLK	YC18-4
DRMC_MOT_RDY	YC18-5
DRMC_MOT_DIR	YC18-6
DRMK_MOT_REM	YC16-9
DRMK_MOT_CLK	YC16-10
DRMK_MOT_RDY	YC16-11
DRMK_MOT_DIR	YC16-12
HVREM	YC8-8
HVCLK	YC8-9

DRM(M/C/Y)

DRM(BK)

EPWB

HVPWB
YC1-8
YC1-9

Main Chager

Drum

Ground
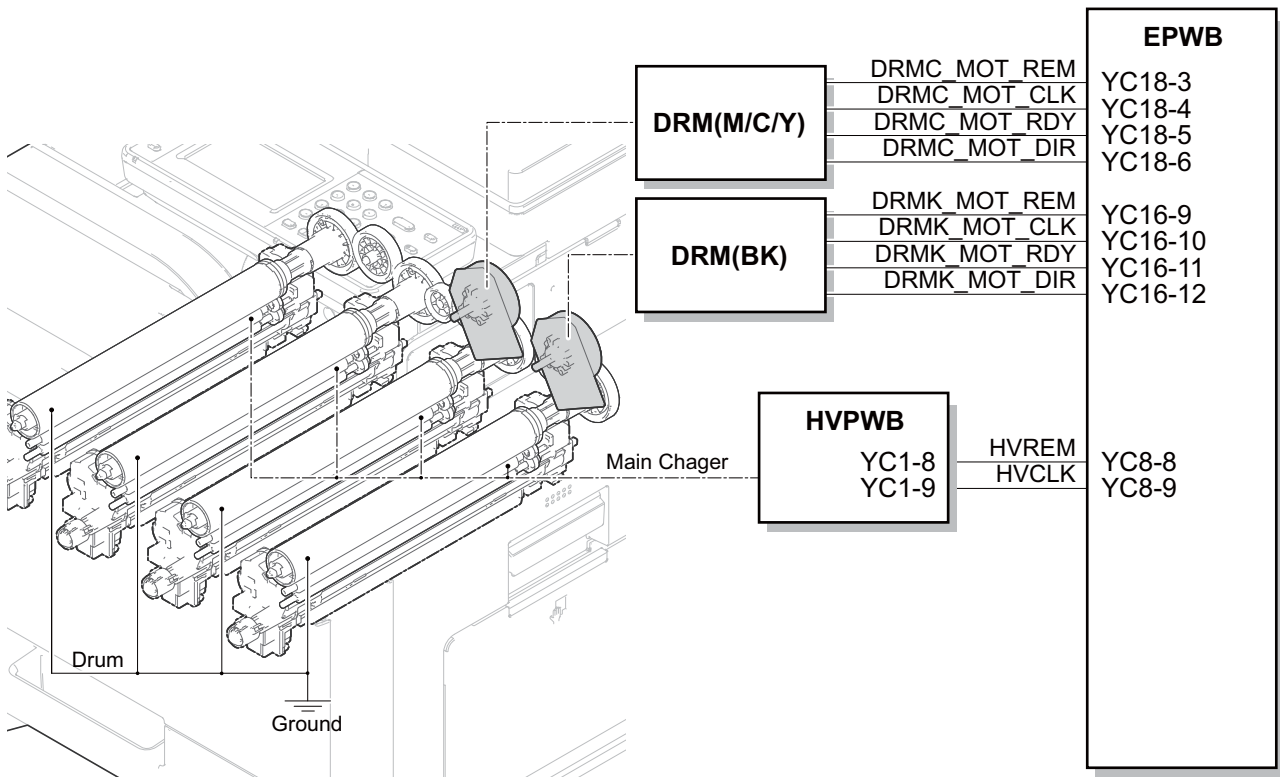
Figure 3-87

(35/40 ppm models)

DRMC_MOT_REM	YC25-3
DRMC_MOT_CLK	YC25-4
DRMC_MOT_RDY	YC25-5
DRMC_MOT_DIR	YC25-6
DRMK_MOT_REM	YC23-9
DRMK_MOT_CLK	YC23-10
DRMK_MOT_RDY	YC23-11
DRMK_MOT_DIR	YC23-12

DRM(M/C/Y)

DRM(BK)

EPWB

(40ppm)
HVPWB
YC1-8
YC1-9
HVREM YC12-8
HVCLK YC12-9

(35ppm)
HVPWB
YC1-8
YC1-9
HVREM YC13-8
HVCLK YC13-9

Main Chager

Drum

Ground
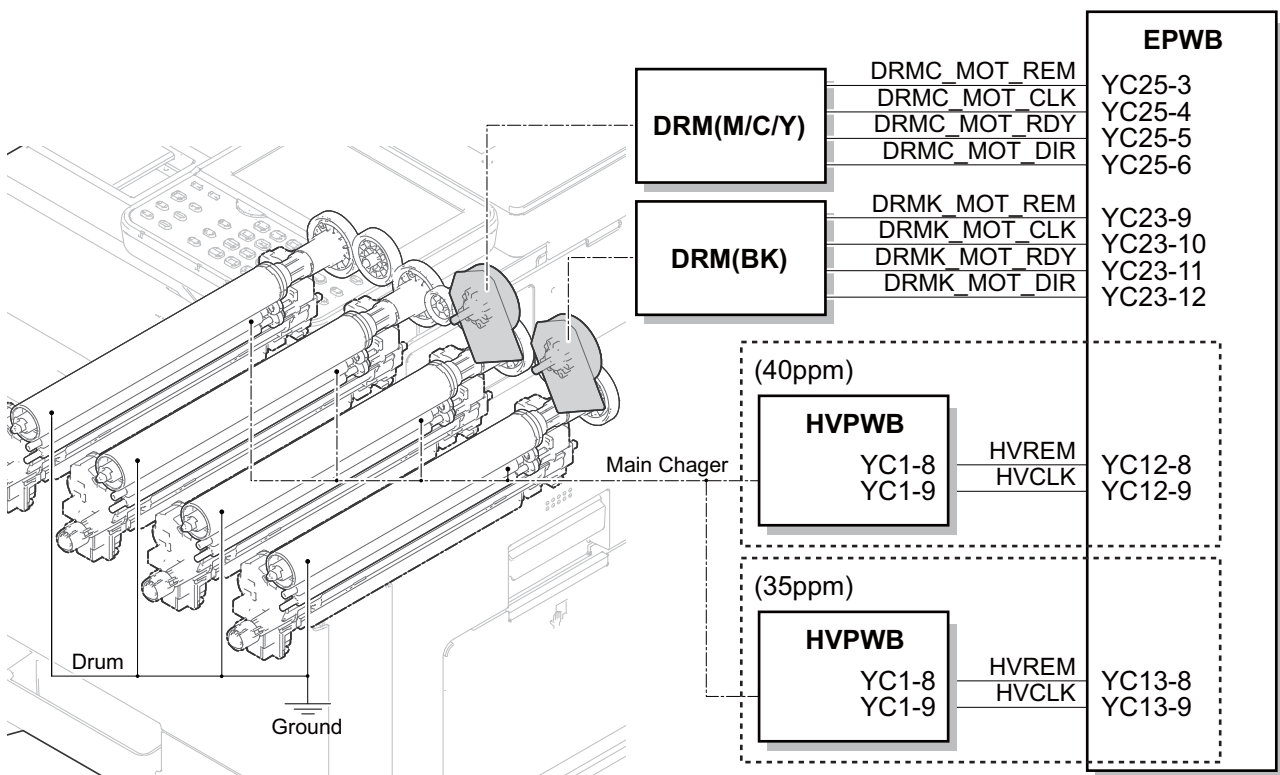
Figure 3-88

(4-2) Cleaning

The remaining toner on the drum surface after transferring is removed by the cleaning blade, and collected to the waste toner box by the drum screw. The cleaning lamp consists of the LED lamp, and it removes the remaining electric charge on the drum before the main charge.

(30/35 ppm models)
[Components parts]

1. Cleaning blade
2. Drum screw
3. Drum frame
4. Cleaning lamp
5. Drum
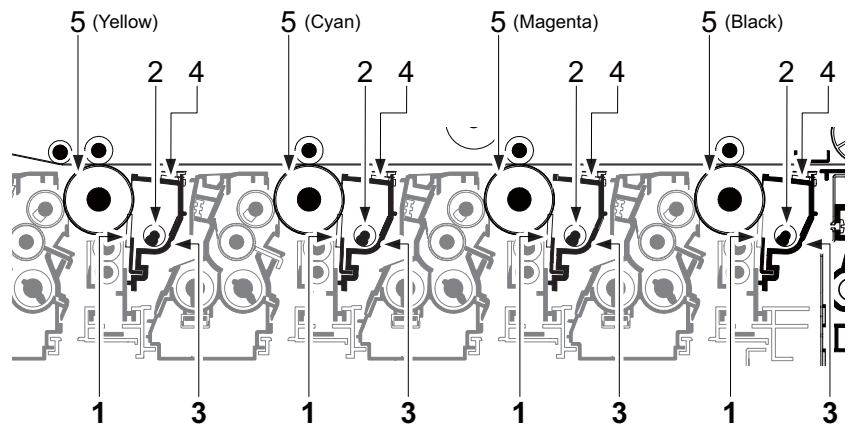
Figure 3-89
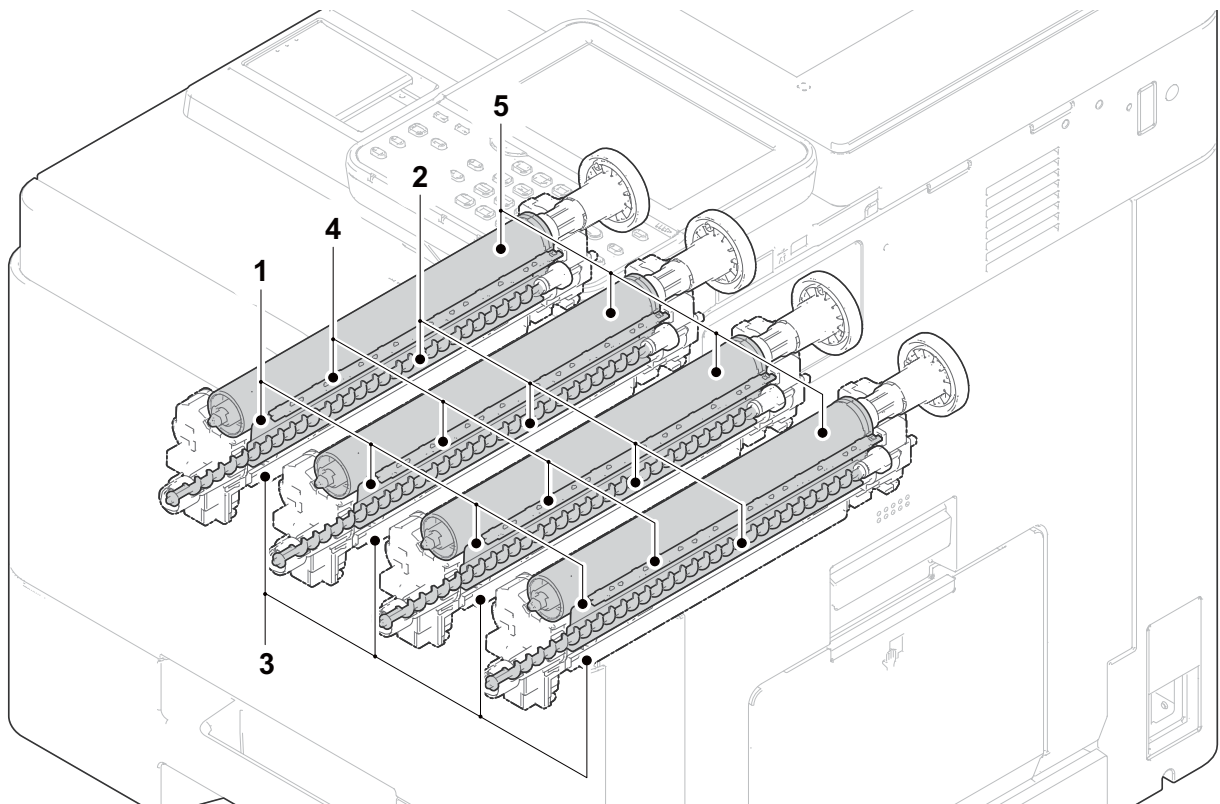
Figure 3-90

[Block diagram]
(30 ppm model)

	EPWB
DRMC_MOT_REM	YC16-3
DRMC_MOT_CLK	YC16-4
DRMC_MOT_RDY	YC16-5
DRMC_MOT_DIR	YC16-6
DRMK_MOT_REM	YC16-9
DRMK_MOT_CLK	YC16-10
DRMK_MOT_RDY	YC16-11
DRMK_MOT_DIR	YC16-12
ERS_CL_REM	YC6-6
ERS_BK_REM	YC6-15

DRM(M/C/Y)

DRM(BK)

DR/DLPRPWB

CL(BK)	DRPWB	ERS_BK_REM	YC4-8
CL(M)	DRPWB	ERS_CL_REM	YC3-8
CL(C)	DRPWB	ERS_CL_REM	YC2-8
CL(Y)	DRPWB	ERS_CL_REM	YC1-8
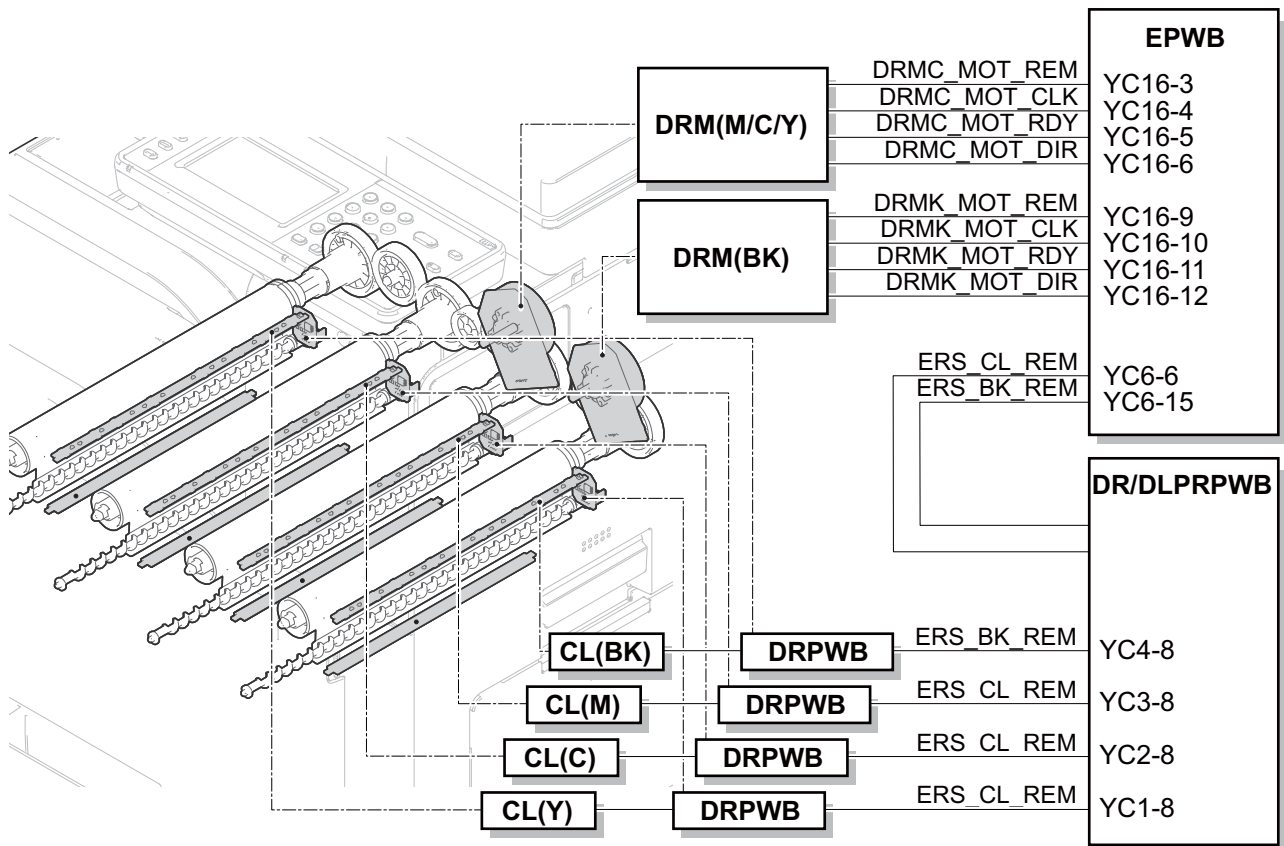
Figure 3-91

(40 ppm model)

[Components parts]

1. Cleaning blade
2. Cleaning roller
3. Layer thickness roller
4. Drum screw
5. Drum frame
6. Cleaning lamp
7. Drum
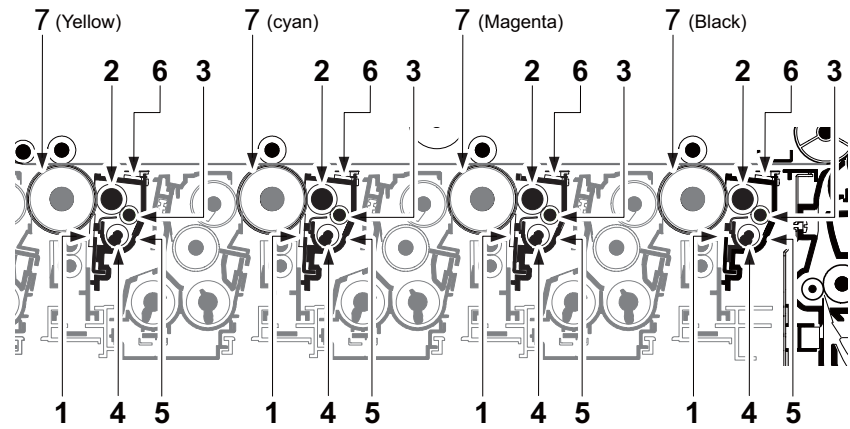
Figure 3-92
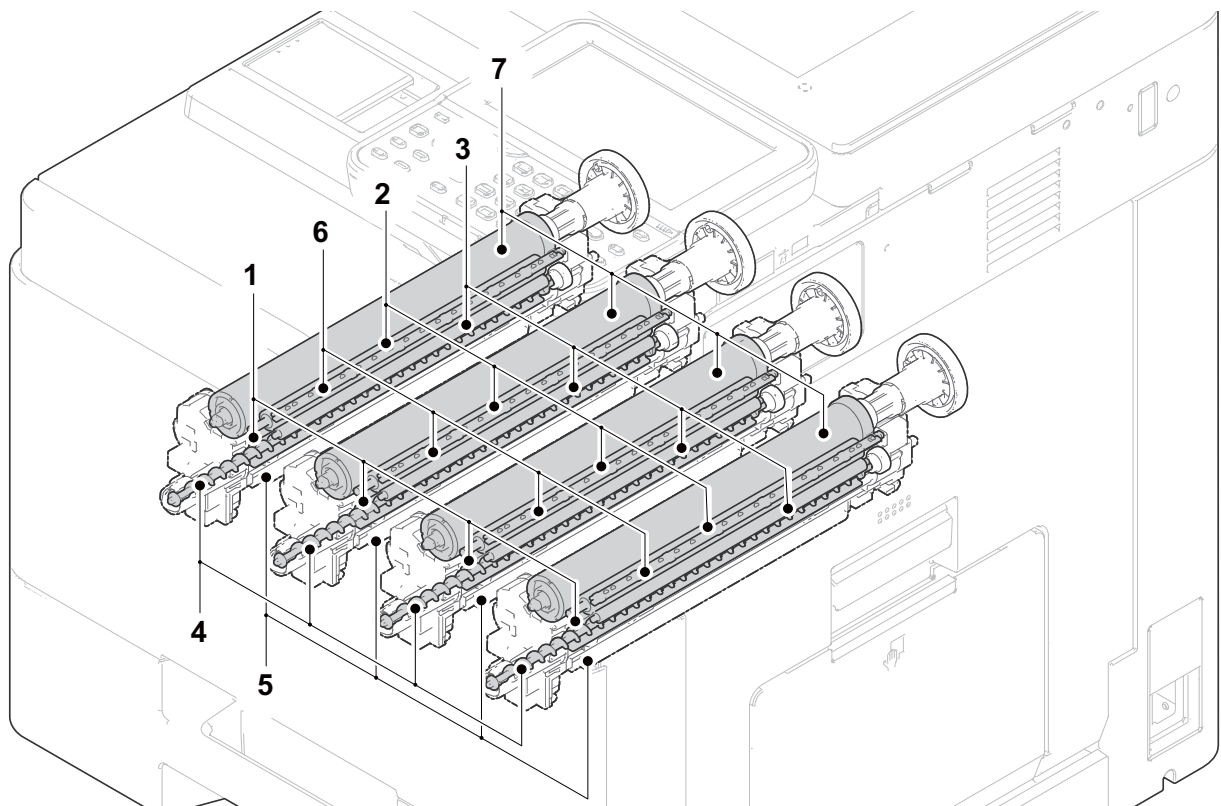
Figure 3-93

[Block diagram]
(35/40 ppm models)

	EPWB
DRMC_MOT_REM	YC25-3
DRMC_MOT_CLK	YC25-4
DRMC_MOT_RDY	YC25-5
DRMC_MOT_DIR	YC25-6
DRMK_MOT_REM	YC23-9
DRMK_MOT_CLK	YC23-10
DRMK_MOT_RDY	YC23-11
DRMK_MOT_DIR	YC23-12
ERS_CL_REM	YC15-6
ERS_BK_REM	YC15-15

DRM(M/C/Y)

DRM(BK)

	DR/DLPRPWB
CL(BK) — DRPWB — ERS_BK_REM	YC15-8
CL(M) — DRPWB — ERS_CL_REM	YC15-8
CL(C) — DRPWB — ERS_CL_REM	YC15-8
CL(Y) — DRPWB — ERS_CL_REM	YC15-8
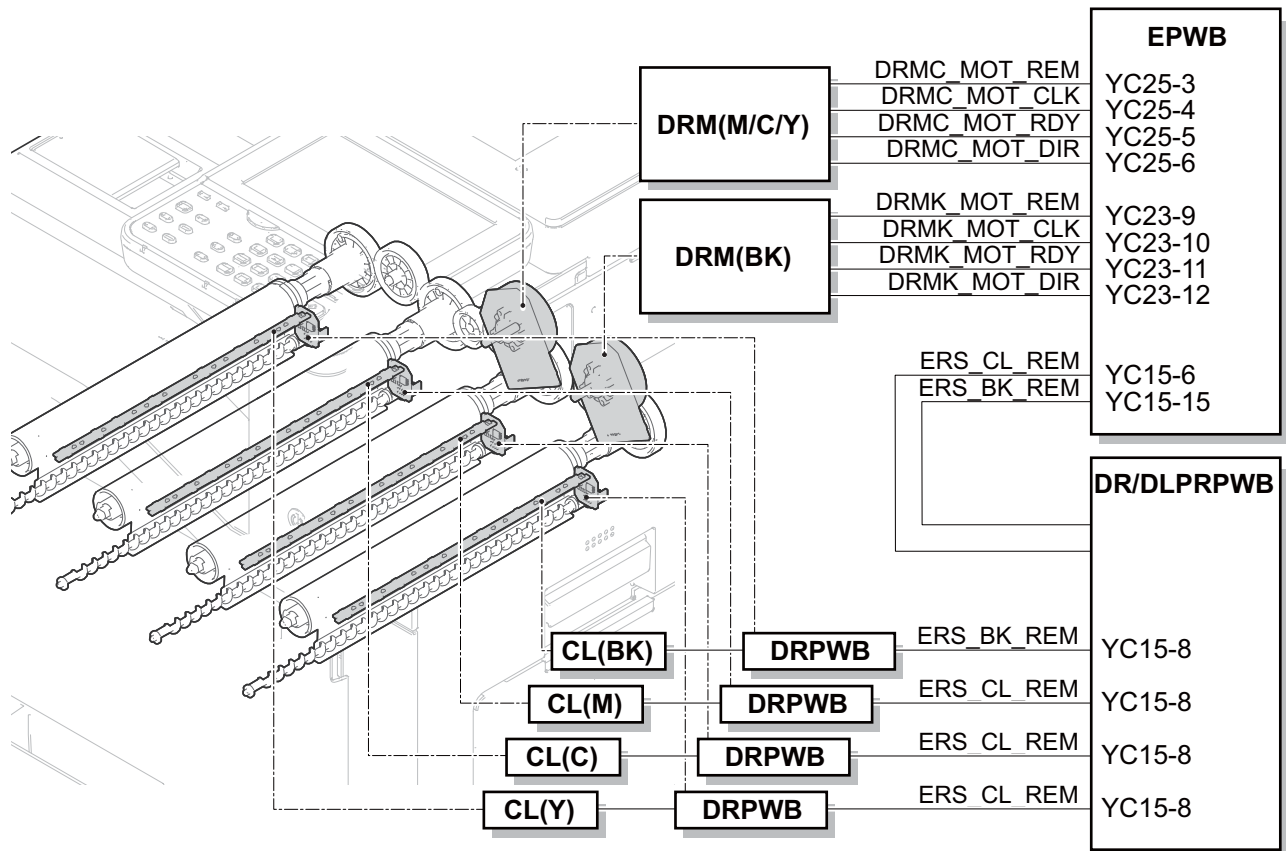
Figure 3-94

(5) Transfer and separation section

(5-1) Primary transfer unit

The primary transfer section consists of the transfer cleaning unit, the transfer belt and four primary transfer rollers facing each drum. When printing the color image, the toner image with a single color formed on each drum is repeatedly transferred on the transfer belt by impressing the bias to the primary transfer rollers facing each drum, and then the full color toner image is formed. Also, the ID sensor attached to the main unit measures the toner density on the transfer belt.

The transfer cleaning unit collects the remaining toner on the transfer belt after the secondary transferring, and forwards it to the waste toner box as waste toner.

[Components parts]
1. Drive roller
2. Pickup roller
3. Primary transfer roller
4. Tension roller
5. Transfer belt
6. ID sensor
7. Cleaning pre-brush
8. Cleaning fur brush
9. Cleaning roller
10. Cleaning blade
11. Cleaning screw
12. Drum
13. Skew prevention belt
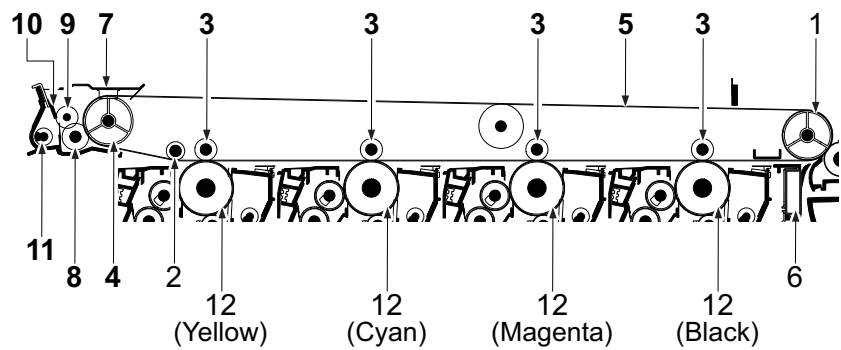
Figure 3-95
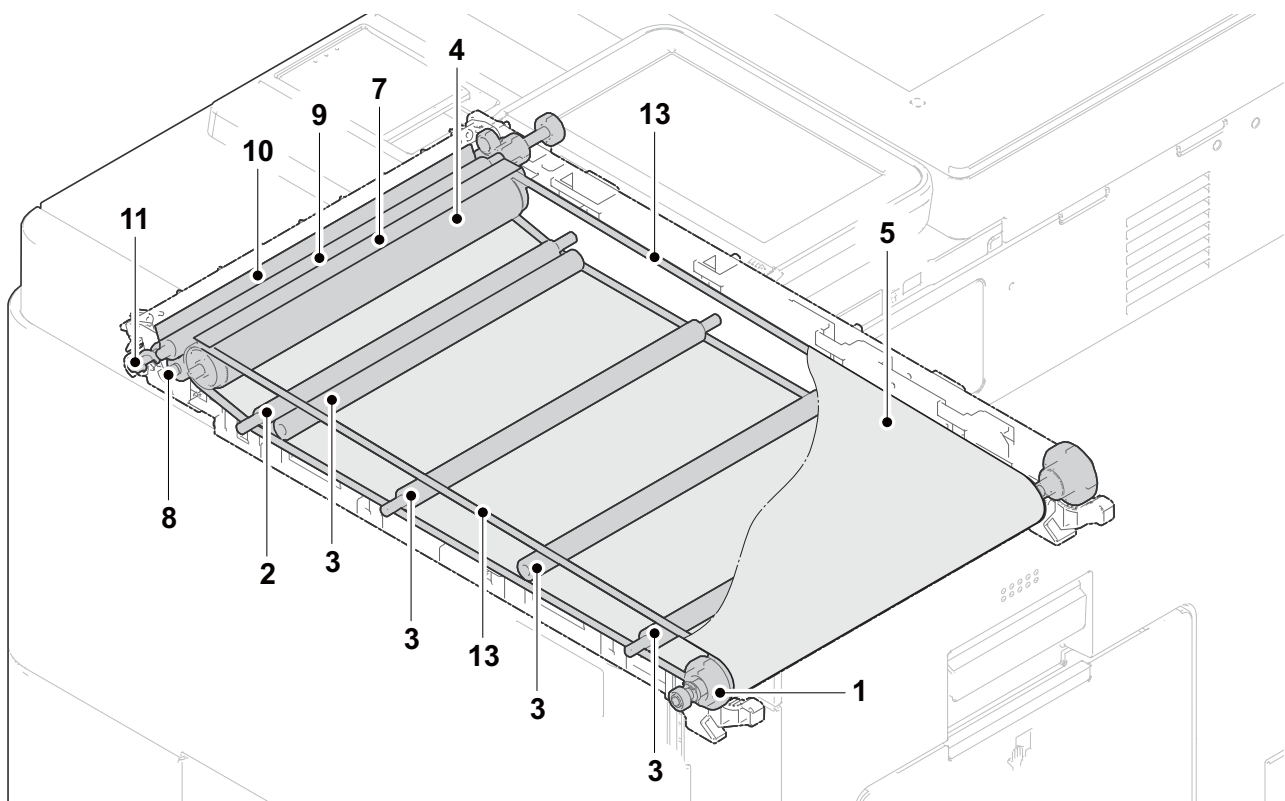
Figure 3-96

[Block diagram]
(30 ppm model)

			EPWB
TCBRM	BELT_RLS_REMA	YC10-B1	
	BELT_RLS_REMB	YC10-B2	
TCBRS2	4REJECT_SENS	YC7-19	
TCBRS1	3REJECT_SENS	YC7-16	
TCM	IMAGE_MOT_REM	YC15-3	
	IMAGE_MOT_CLK	YC15-4	
	IMAGE_MOT_RDY	YC15-5	
	IMAGE_MOT_DIR	YC15-6	
HVPWB	DACSLD2	YC8-4	
	DACSCLK	YC8-5	
	DACSDAT	YC8-7	
Transfer Bias	HVREM	YC8-8	

Figure 3-97

(35 ppm model)

			EPWB
TCBRM	BELT_RLS_REMA	YC17-B1	
	BELT_RLS_REMB	YC17-B2	
TCBRS2	4REJECT_SENS	YC11-19	
TCBRS1	3REJECT_SENS	YC11-16	
TCM	IMAGE_MOT_REM	YC22-3	
	IMAGE_MOT_CLK	YC22-4	
	IMAGE_MOT_RDY	YC22-5	
	IMAGE_MOT_DIR	YC22-6	
HVPWB	DACSLD2	YC13-4	
	DACSCLK	YC13-5	
	DACSDAT	YC13-7	
Transfer Bias	HVREM	YC13-8	

Figure 3-98

(40 ppm model)

Figure 3-99

BELT_RLS_REMA	YC17-B1
BELT_RLS_REMB	YC17-B2
4REJECT_SENS	YC11-19
3REJECT_SENS	YC11-16
IMAGE_MOT_REM	YC22-3
IMAGE_MOT_CLK	YC22-4
IMAGE_MOT_RDY	YC22-5
IMAGE_MOT_DIR	YC22-6
HVREM	YC12-8
CLCNT	YC12-19
T1KCNT	YC14-7
T1CCNT	YC14-8
HVREM	YC14-9
T1YCNT	YC14-10
T1MCNT	YC14-11

EPWB

TCBRM

TCBRS2

TCBRS1

TCM

HVPWB

TCHVPWB
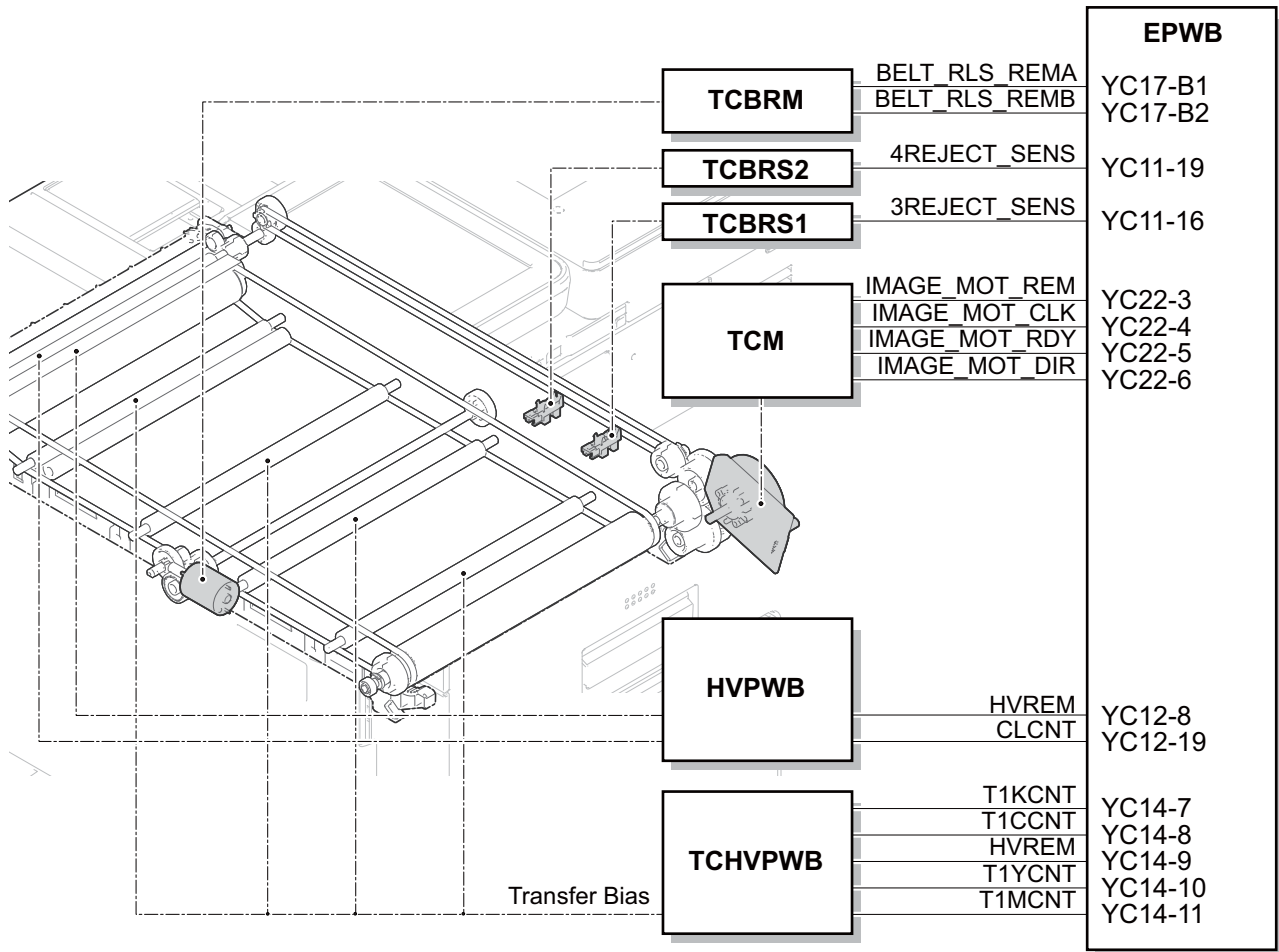
Transfer Bias

(5-2) Secondary transfer unit

The secondary transfer roller section consists of the secondary transfer roller attached to the paper conveying unit, and the separation brush. The DC bias from the high-voltage PWB (HVPWB) is impressed to the secondary transfer roller, and the toner image formed on the transfer belt is transfered to the paper by the potential gap. After transferring, the paper is separated by self stripping and the electric charge on the paper is removed by the separation brush contacting the ground.

[Components parts]
1. Secondary transfer roller
2. Separation brush
3. Secondary transfer section
4. Transfer front guide
5. Transfer spring
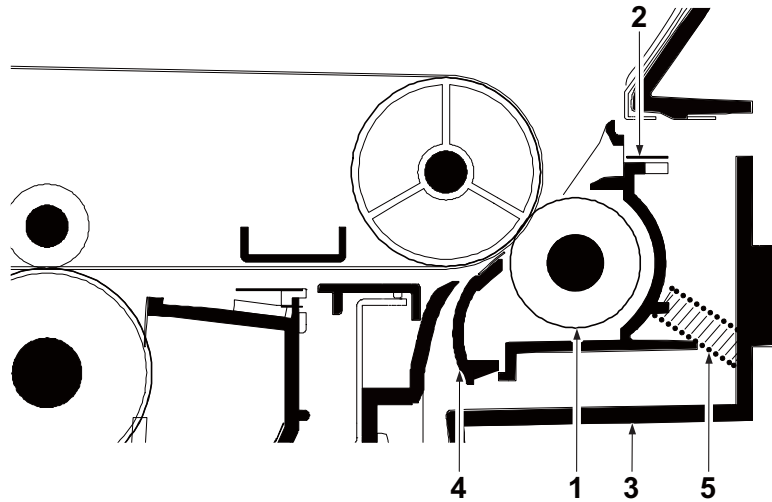
Figure 3-100
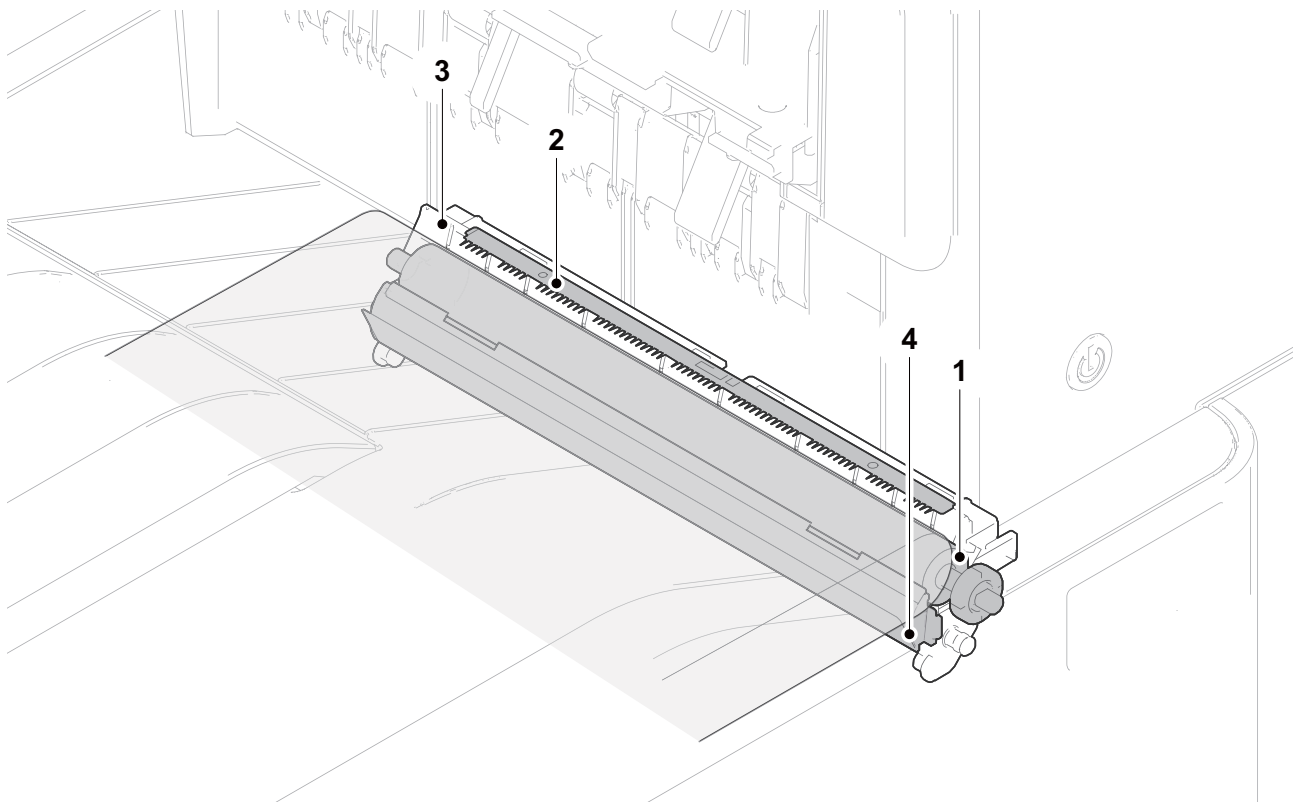
Figure 3-101

[Block diagram]
(30 ppm model)

	EPWB
IMAGE_MOT_REM	YC15-3
IMAGE_MOT_CLK	YC15-4
IMAGE_MOT_RDY	YC15-5
IMAGE_MOT_DIR	YC15-6
DACSLD2	YC8-4
DACSCLK	YC8-5
DACSDAT	YC8-7
HVREM	YC8-8

TCM

HVPWB

Transfer Bias

Separate bias

Figure 3-102

(35 ppm model)

	EPWB
IMAGE_MOT_REM	YC22-3
IMAGE_MOT_CLK	YC22-4
IMAGE_MOT_RDY	YC22-5
IMAGE_MOT_DIR	YC22-6
DACSLD2	YC13-4
DACSCLK	YC13-5
DACSDAT	YC13-7
HVREM	YC13-8

TCM

HVPWB

Transfer Bias

Separate bias
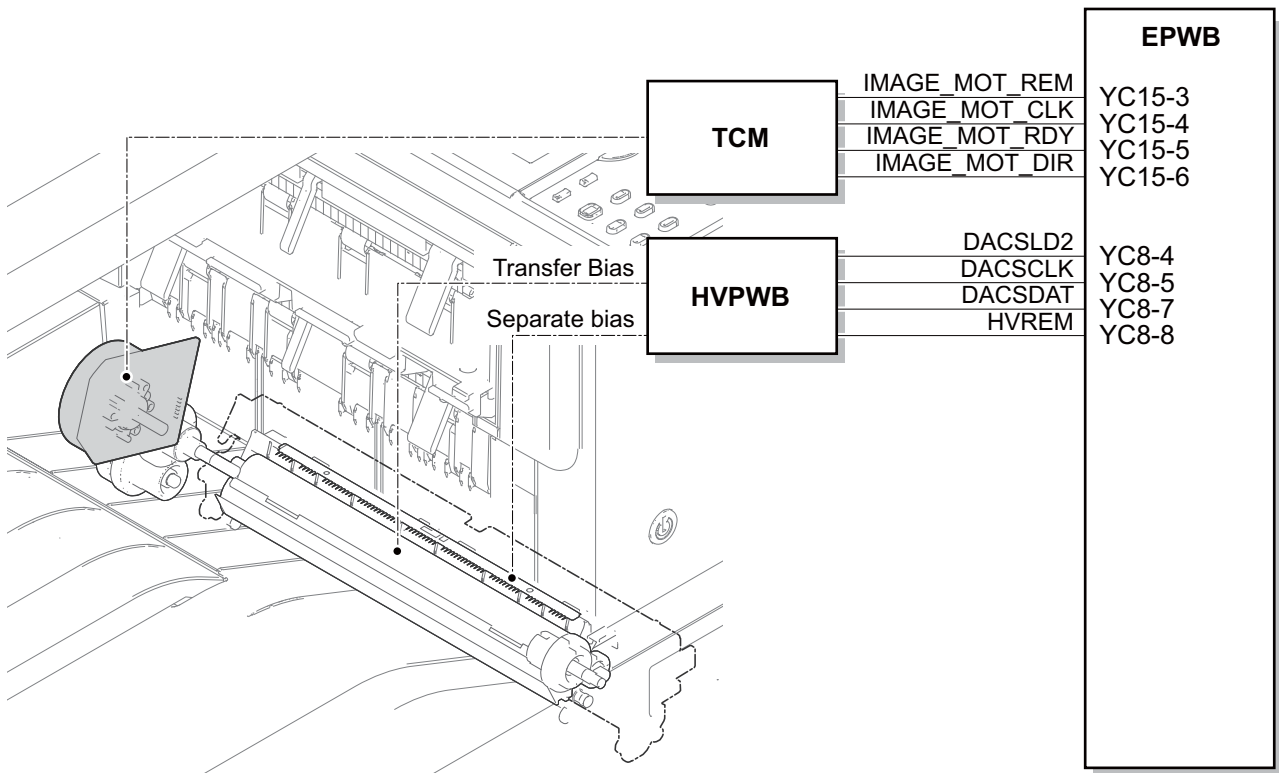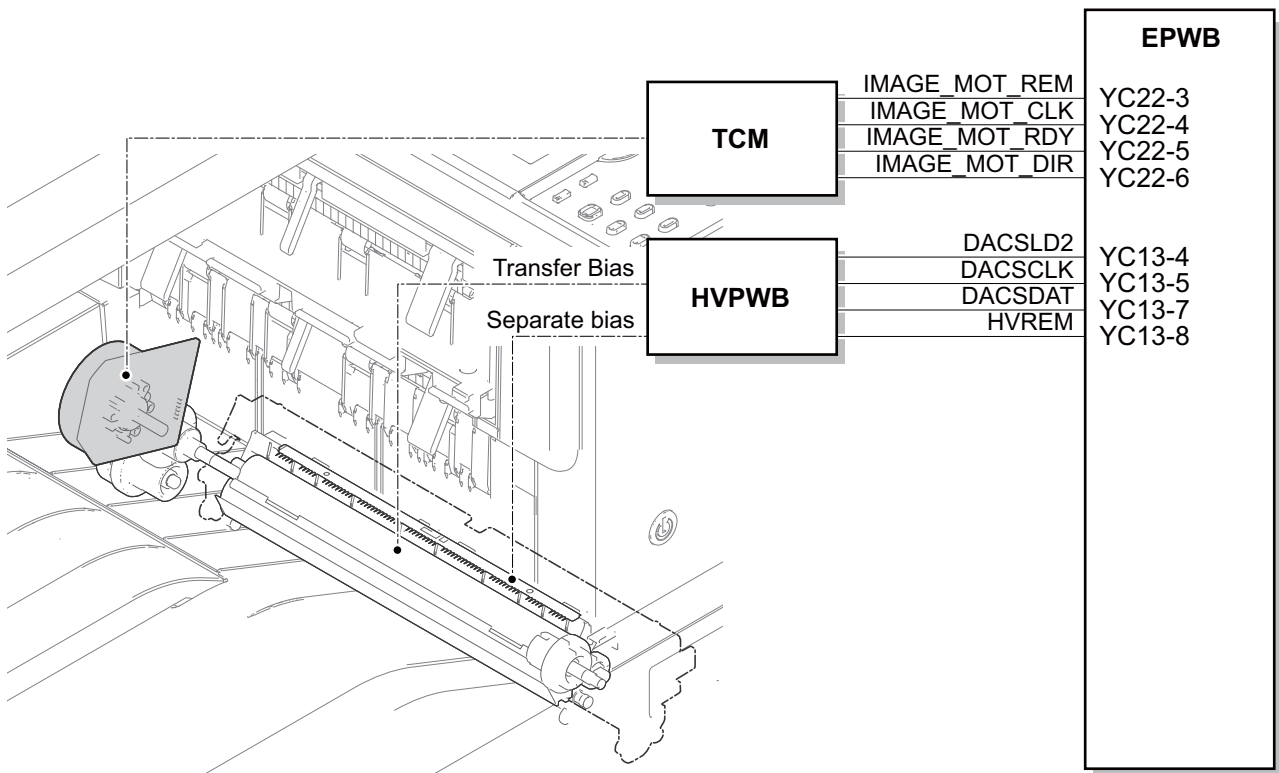
Figure 3-103

(40 ppm model)
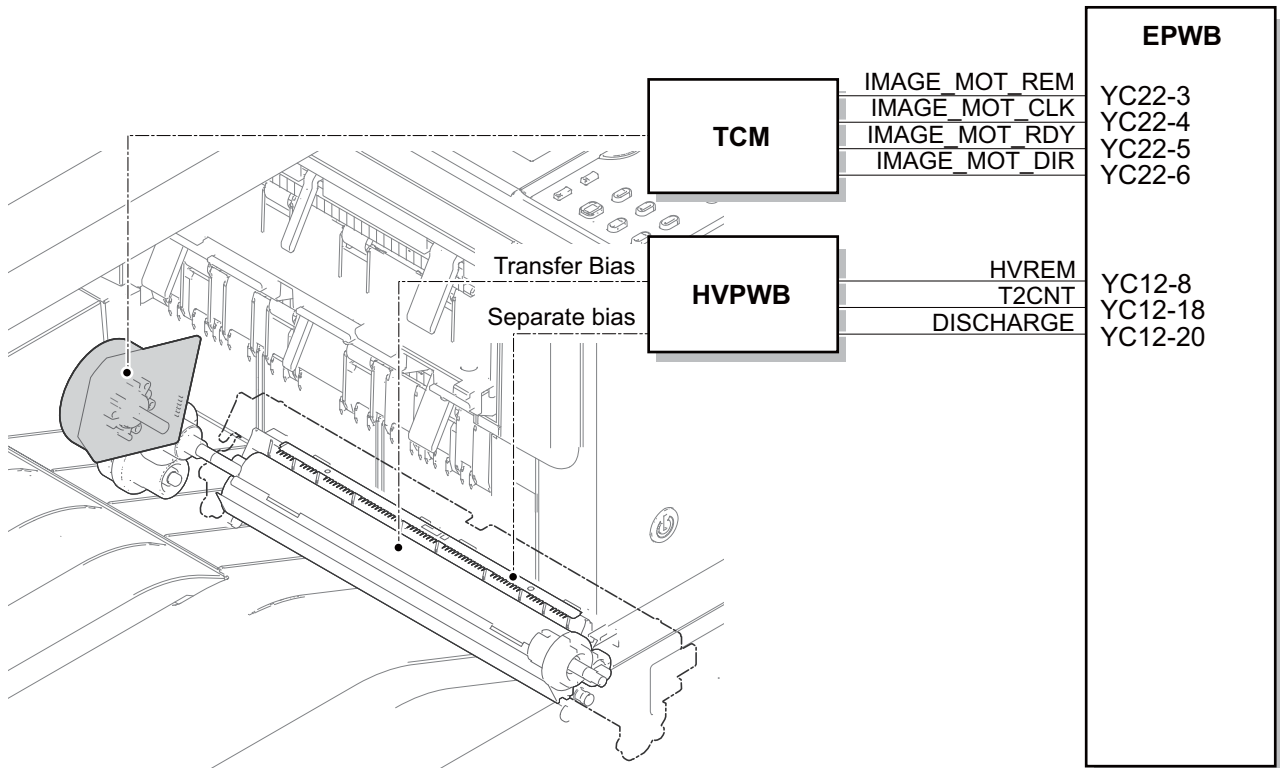
Figure 3-104

(6) Fuser section

The paper from the transfer and separation section is pinched between the heat roller and the press roller. The heat roller is heated by the fuser heater (FUH), and the paper is pressed by the press roller with the pressure added by the pressure spring toward the heat roller, so toner is fused on the paper by that heat and pressure.

The surface temperature of the heat roller is detected by the fuser thermistor (FTH1,2) and controlled by the Engine PWB (EPWB). If the fuser section has abnormal temperature, the power supply line is shut off by switching the fuser thermostat (FUTS) and the fuser heater (FUH) is turned off forcedly.

(6-1) Fuser unit

[Components parts]
1. Heat roller
2. Fuser heater
3. Fuser thermostat
4. Fuser thermistor 1
5. Fuser thermistor 2
6. Press roller
7. Separator
8. Actuator
   (Eject sensor)
9. Fuser eject roller
10. Fuser eject pulley
11. Fuser front guide
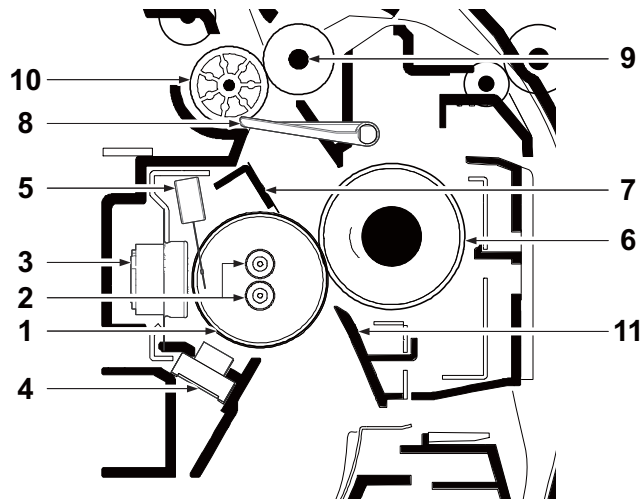
Figure 3-105
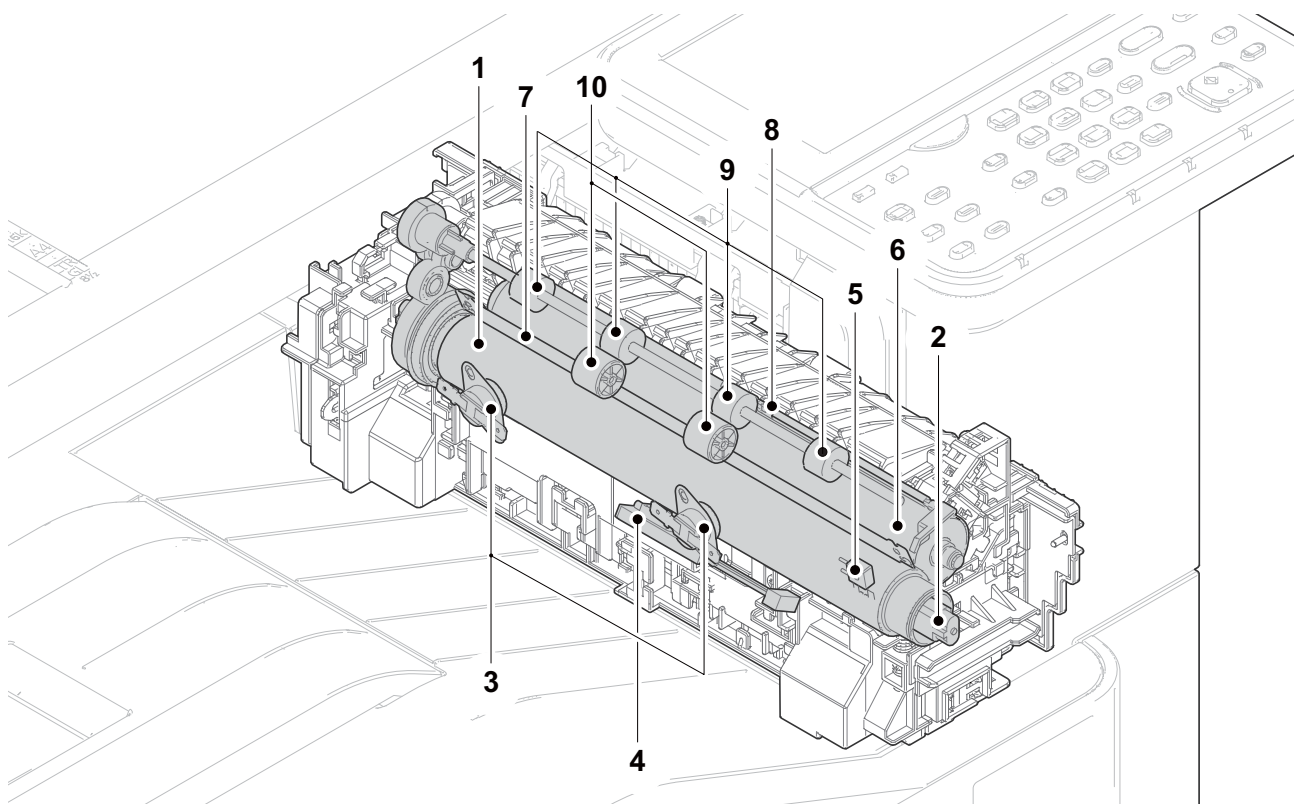
Figure 3-106

[Block diagram]
(30 ppm model)

			EPWB
FUM	FUSER_MOT_B/	YC17-1	
	FUSER_MOT_A/	YC17-2	
	FUSER_MOT_B	YC17-3	
	FUSER_MOT_A	YC17-4	

FH — PSPWB — MHREM — YC34-5

ES — FSR_JAM_SENS — YC7-3

FUPRS — FSR_RLS_SENS — YC7-6

TH2 — GUIDE_TH2 — YC7-10

TH1 — MAIN_TH2 — YC7-8
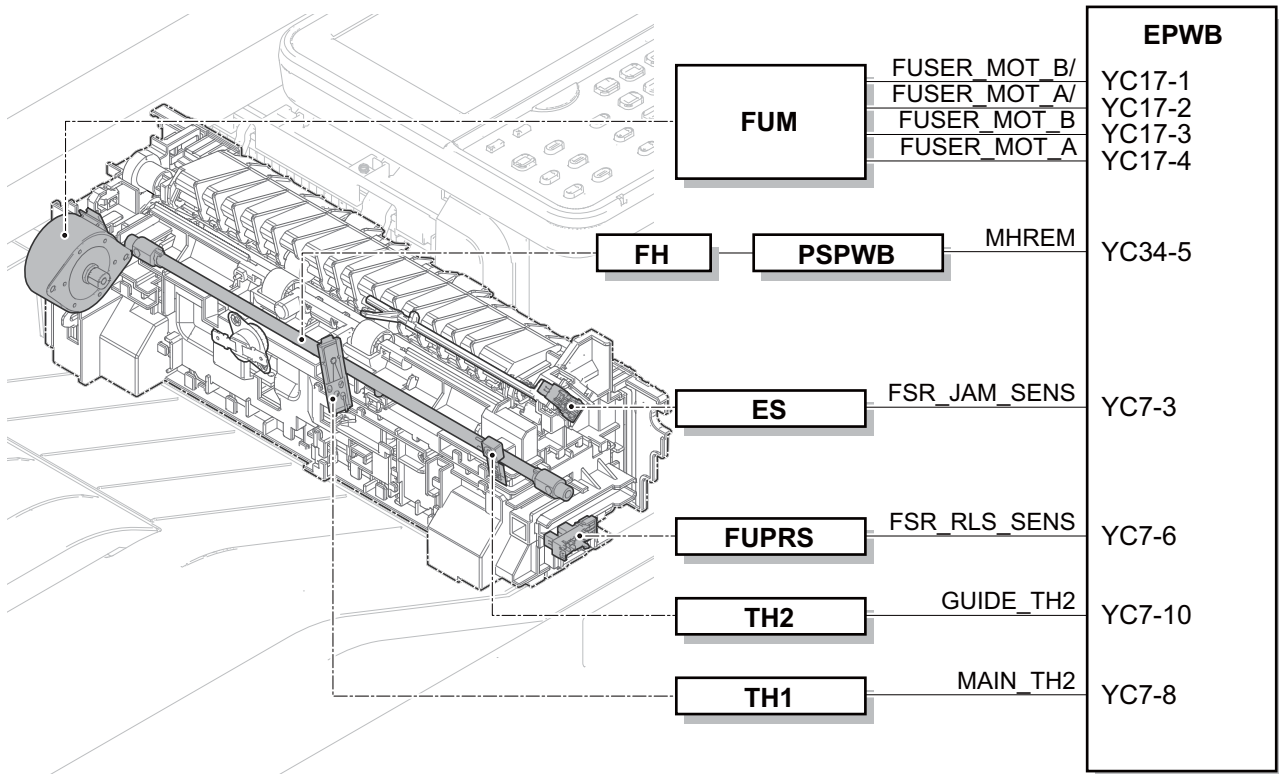
Figure 3-107

(35/40 ppm models)

			EPWB
FUM	FUSER_MOT_B/	YC24-1	
	FUSER_MOT_A/	YC24-2	
	FUSER_MOT_B	YC24-3	
	FUSER_MOT_A	YC24-4	

FH — PSPWB — SHREM — YC40-3
            MHREM — YC40-4

ES — FSR_JAM_SENS — YC11-3

FUPRS — FSR_RLS_SENS — YC11-6

TH2 — GUIDE_TH2 — YC11-10

TH1 — MAIN_TH2 — YC11-8
      MAIN_TH1 — YC11-9
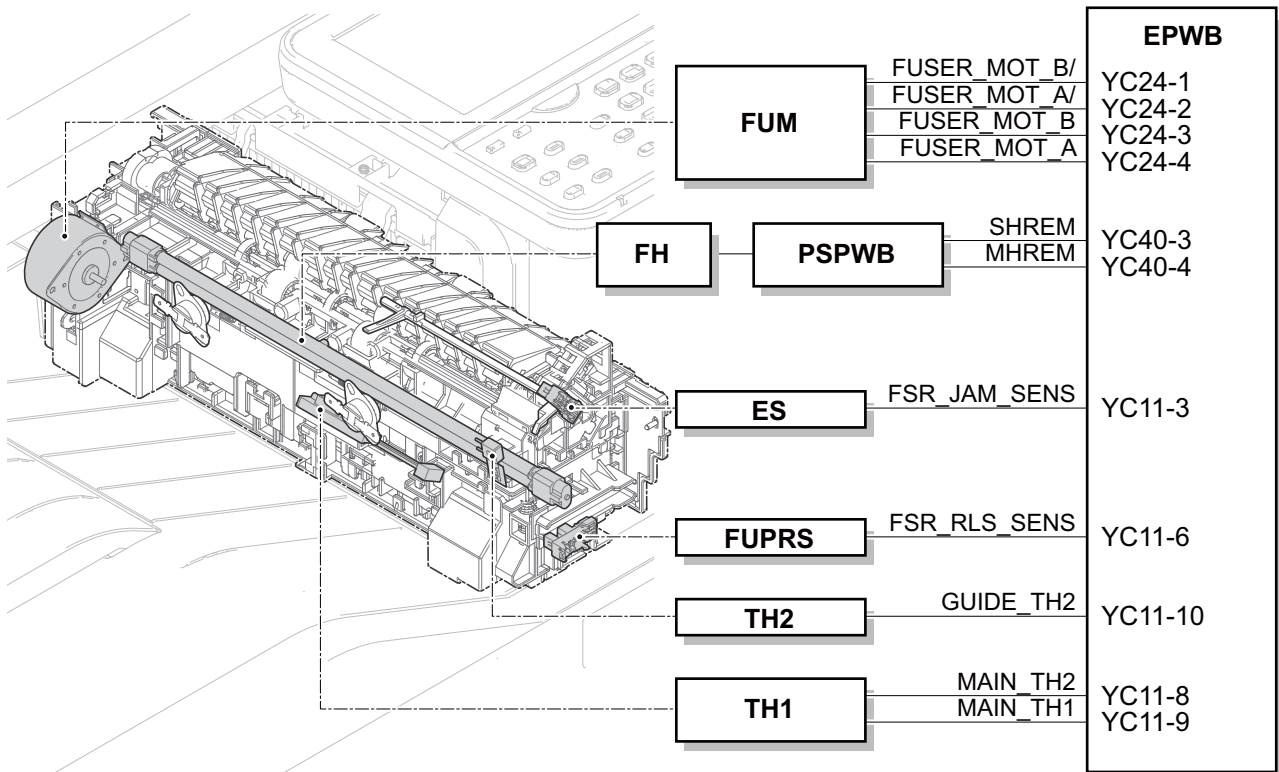
Figure 3-108

(7) Eject and feedshift section

The eject and feedshift section consists of the paper path from the fuser section to the inner tray or the duplex conveying section.

(7-1) Eject unit

[Components parts]
1. Upper eject roller
2. Upper eject pulley
3. Lower eject roller
4. Lower eject pulley
5. Eject conveying roller
6. Eject conveying pulley
7. Conveying pulley
8. Actuator
   (Eject paper full sensor)
9. Feedshift guide
10. Eraser brush
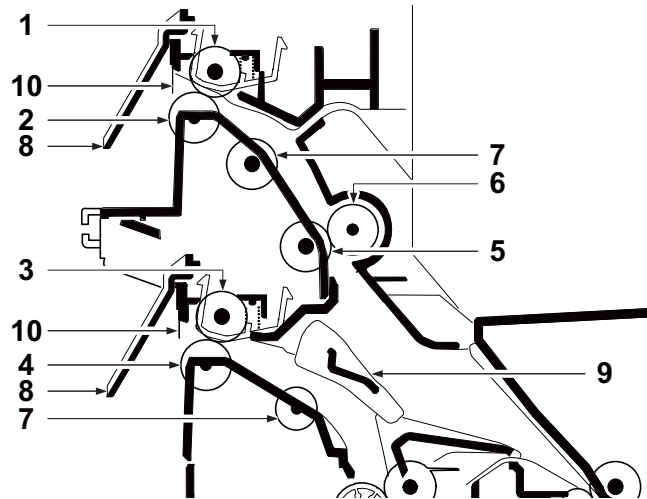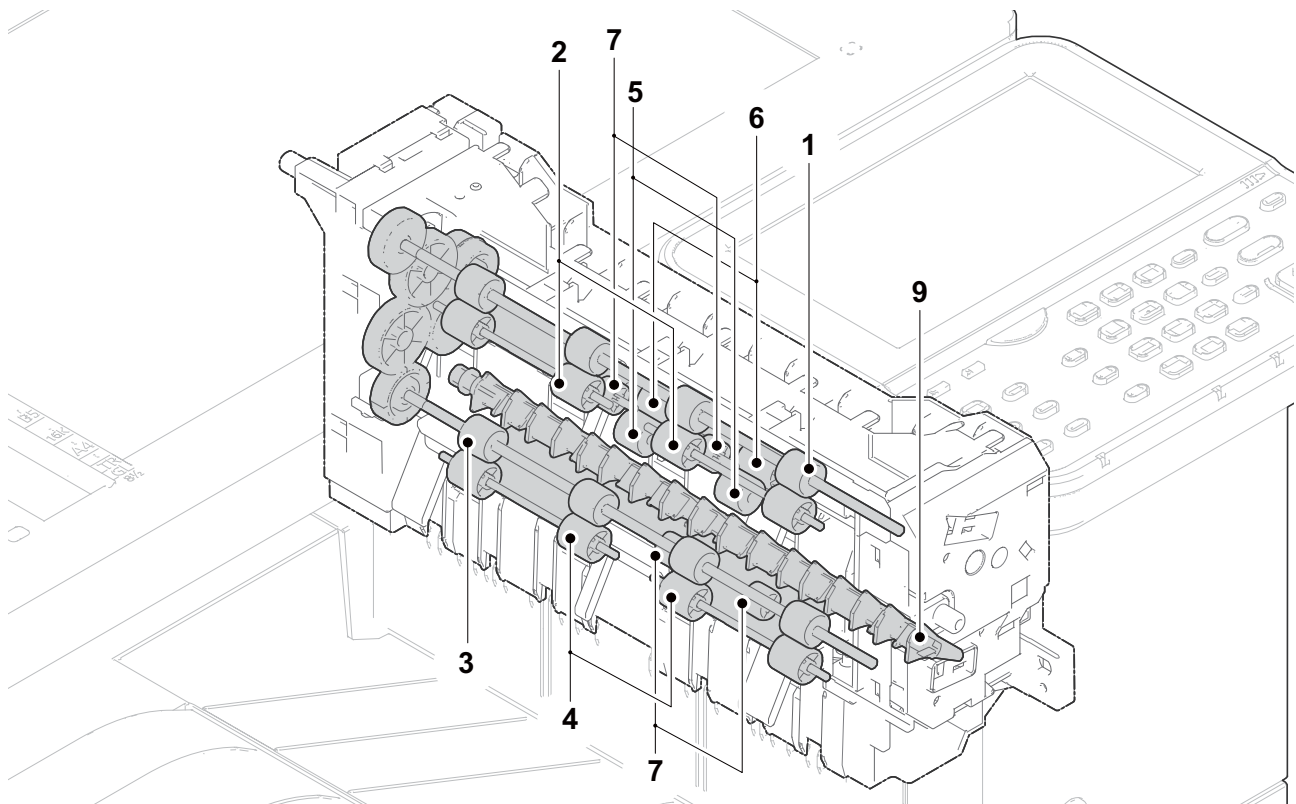
Figure 3-109

Figure 3-110

[Block diagram]
(30 ppm model)

EM	SB_MOT_B1	YC24-B3
	SB_MOT_B3	YC24-B4
	SB_MOT_A3	YC24-B5
	SB_MOT_A1	YC24-B6
FSSOL	EXIT_SOL_PULL	YC24-B8
	EXIT_SOL_RETURN	YC24-B9
EFS1	EXIT_FULL_UPPER	YC24-B12
EFS2	EJE_FULL_DOWNER	YC24-B15
SFM	CON_FAN	YC24-B1

EPWB
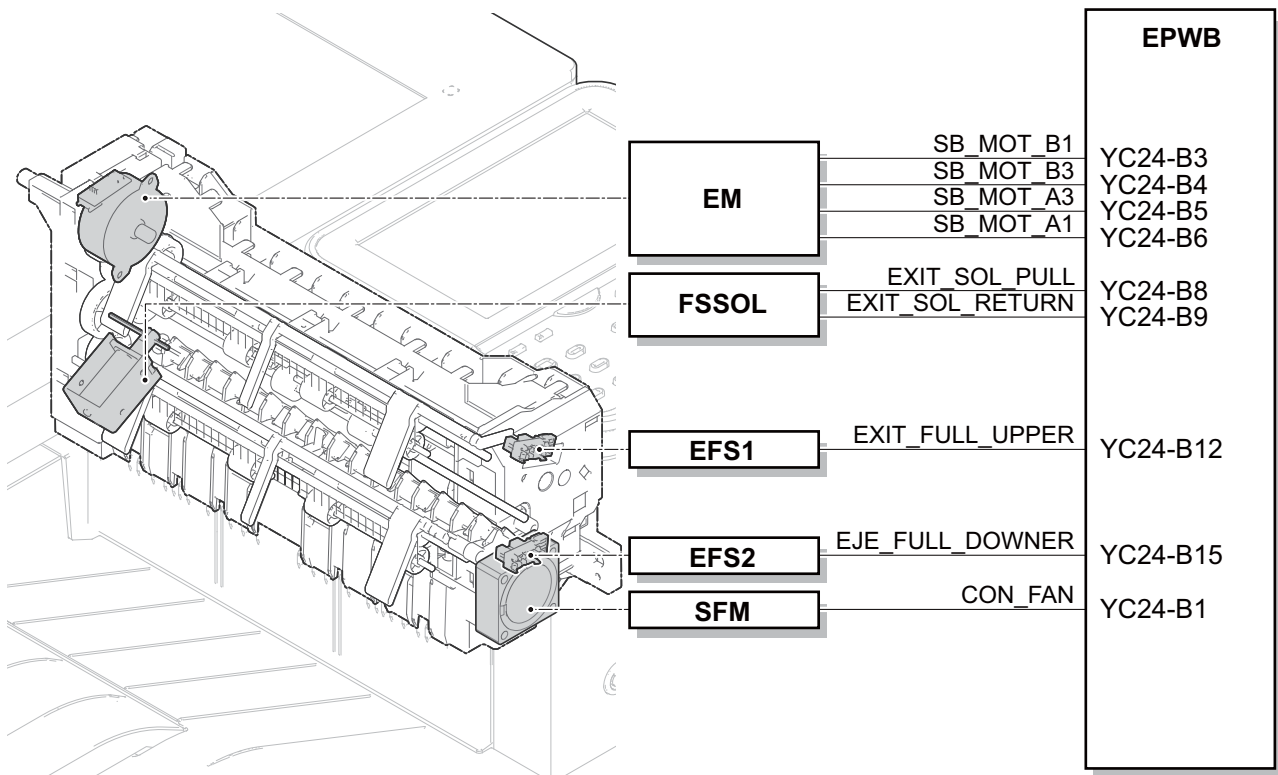
Figure 3-111

(35/40 ppm models)

EM	SB_MOT_B1	YC31-B3
	SB_MOT_B2	YC31-B4
	SB_MOT_B3	YC31-B5
	SB_MOT_B4	YC31-B6
FSSOL	EXIT_SOL_PULL	YC31-B8
	EXIT_SOL_RETURN	YC31-B9
EFS1	EXIT_FULL_UPPER	YC31-B12
EFS2	EJE_FULL_DOWNER	YC31-B15
SFM	CON_FAN	YC31-B1

EPWB
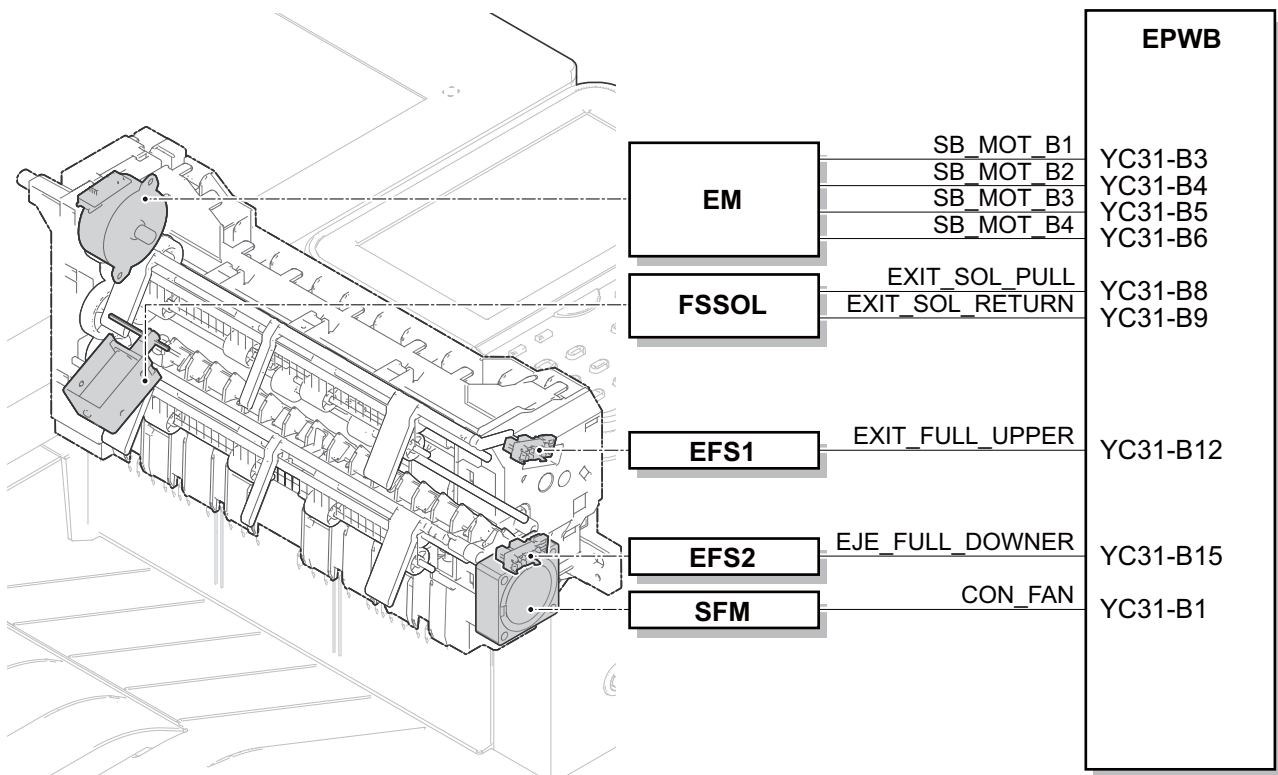
Figure 3-112

(7-2) Eject paper jam

If paper ejected is caught up by the paper previously ejected, extend the length of the eject actuator.

1. If the leading edge (b) of the paper ejected is caught up by the trailing edge (a) paper previously ejected, slide the position of the eject actuator sub guide (c) to extend it.

2. Pushes down the trailing edge (a) of eject paper to prevent the (b) leading edge of next paper from being caught up.
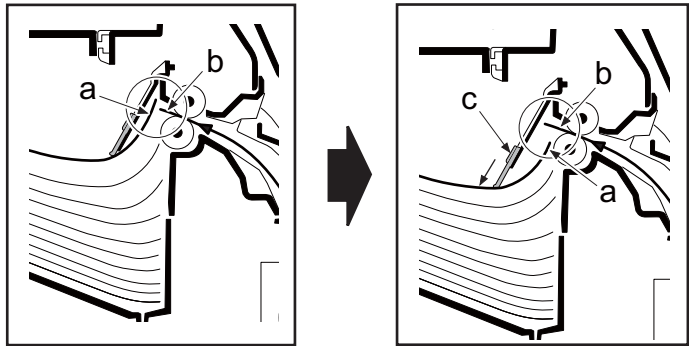
Figure 3-113

Figure 3-114

(8) Duplex conveying section

(8-1) Duplex conveying unit

The duplex conveying section consists of the paper conveying path to forward the paper from the eject and feedshift section in the duplex print to the paper conveying section.

[Components parts]
1. DU conveying roller
2. DU conveying pulley
3. Actuator
   Duplex sensor
4. DU conveying base
5. DU conveying guide
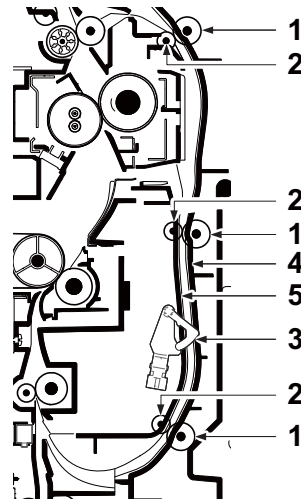
Figure 3-115
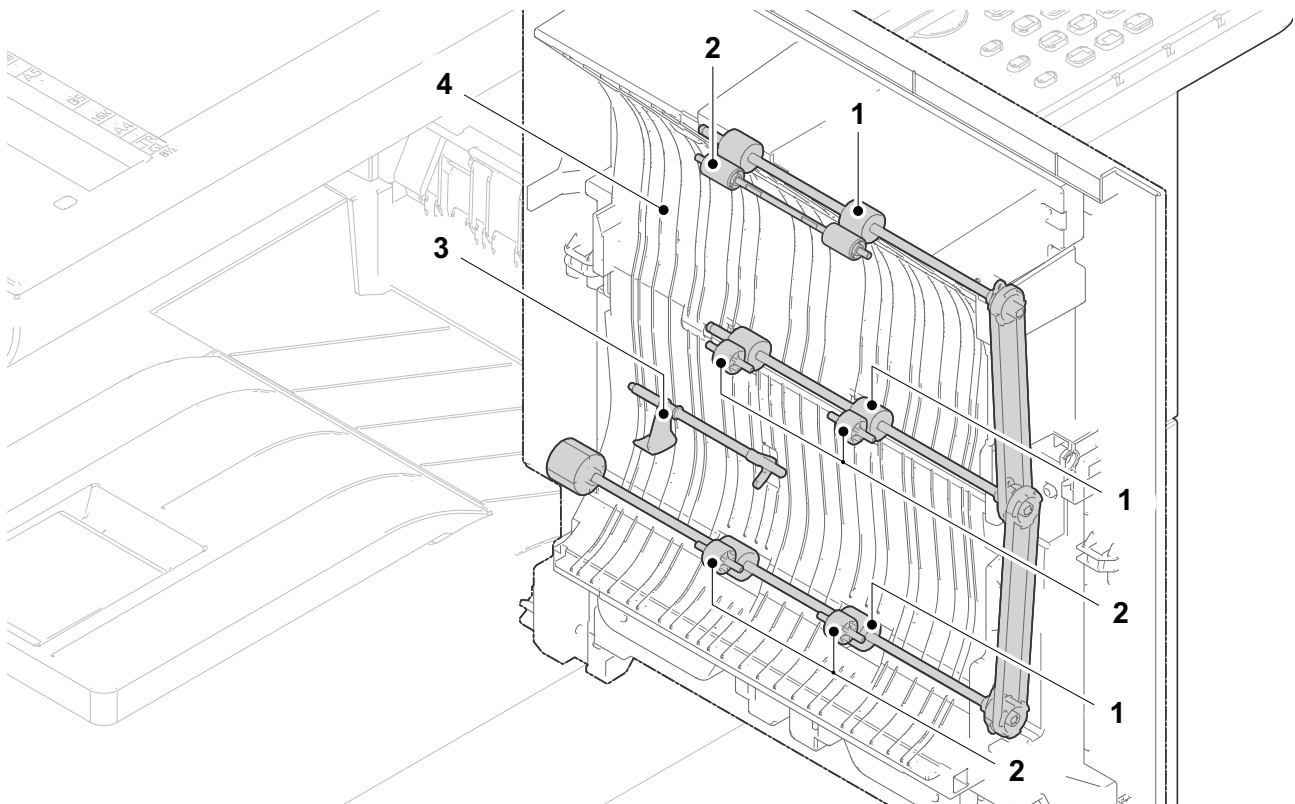
Figure 3-116

[Block diagram]
(30 ppm model)

		EPWB
DUCL	DU1_REM	YC13-A9
DUS	DU1_SENS	YC12-18
DLPM(BK)	FEED_MOT_REM	YC15-9
	FEED_MOT_CLK	YC15-10
	FEED_MOT_RDY	YC15-11
	FEED_MOT_DIR	YC15-12
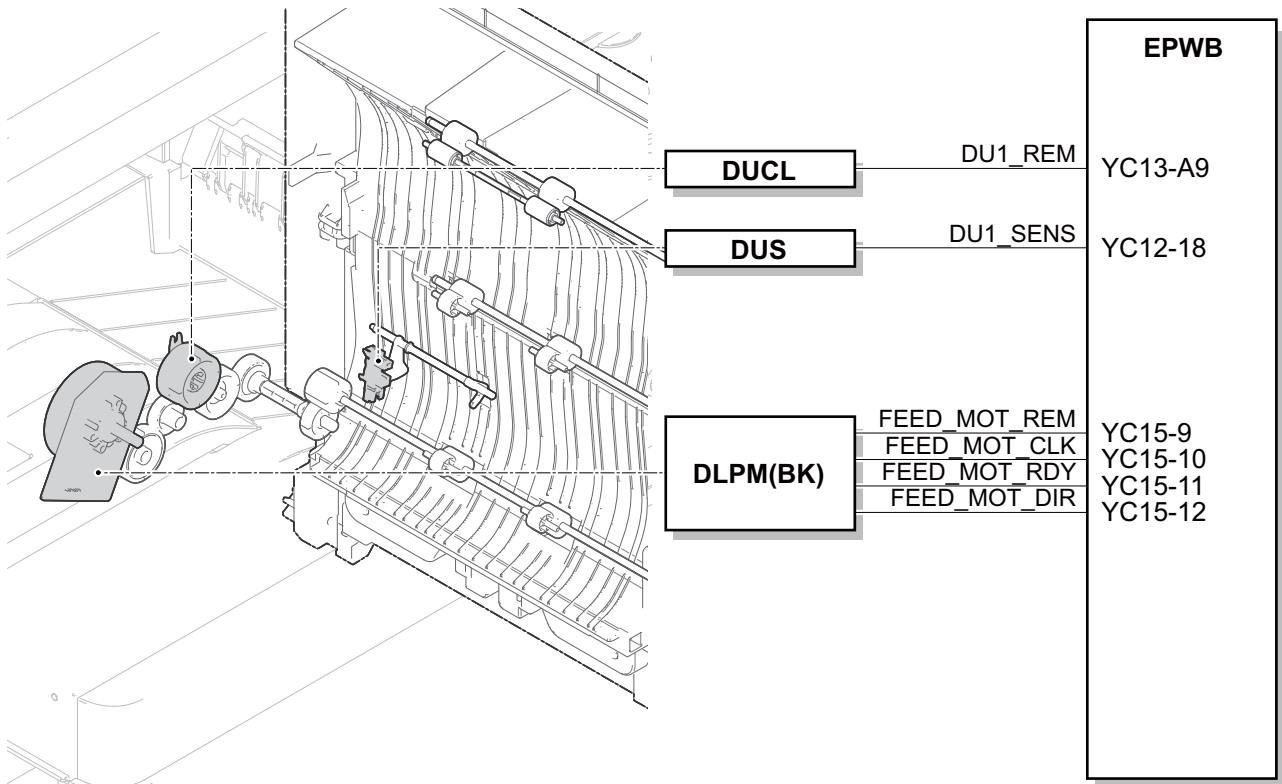
Figure 3-117

(35/40 ppm models)

		EPWB
DUCL	DU1_REM	YC19-A9
DUS	DU1_SENS	YC18-18
DLPM(BK)	FEED_MOT_REM	YC22-9
	FEED_MOT_CLK	YC22-10
	FEED_MOT_RDY	YC22-11
	FEED_MOT_DIR	YC22-12
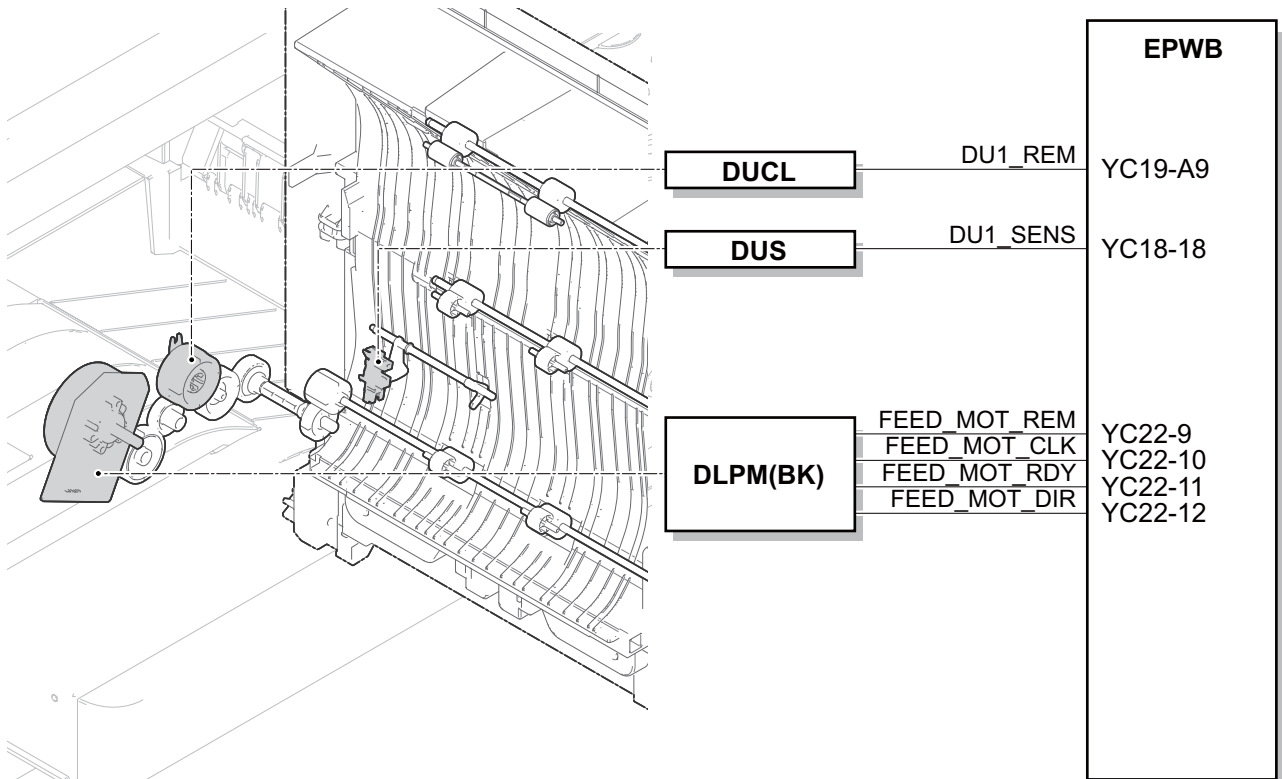
Figure 3-118

(9) Document processor : for 30 ppm model only

(9-1) Original paper feed section

The original feed section consists of the parts in the figure, and conveys the original on the original tray to the original conveying section. The original is fed by rotating the DP forwarding pulley and the DP feed roller.

[Components parts]
1. DP forwarding pulley
2. DP feed roller
3. DP feed holder
4. DP separation pad
5. Front separation pad
6. Friction pad
7. Actuator
   (DP original sensor)
8. DP original stopper
9. DP original width guide
10. Original tray
11. Actuator
    DP paper feed sensor
12. Conveying pulley
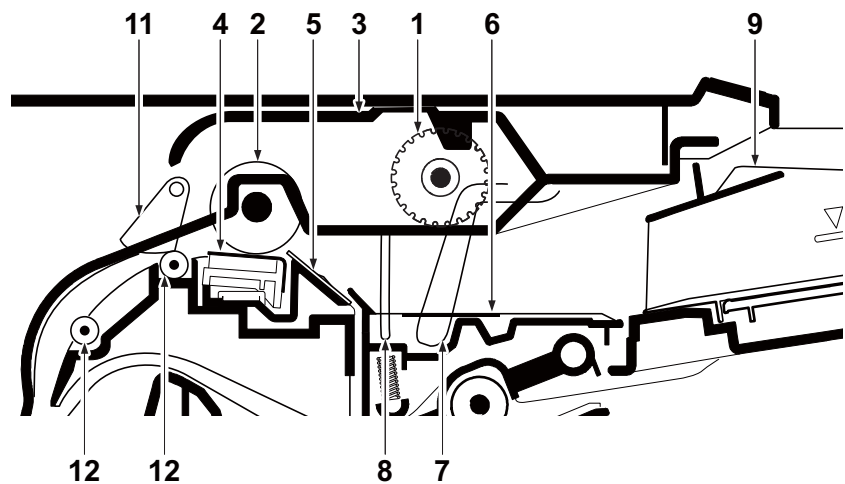
Figure 3-119
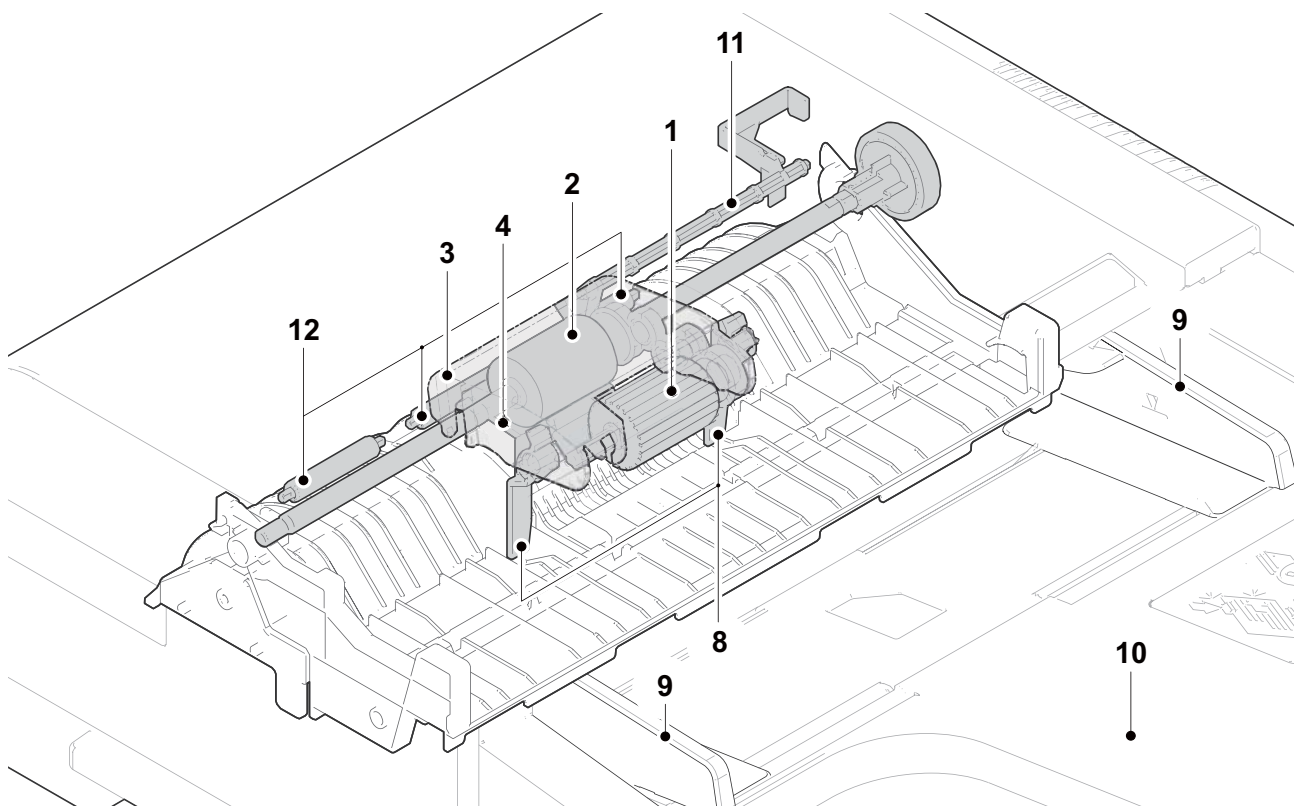
Figure 3-120

[Block diagram]
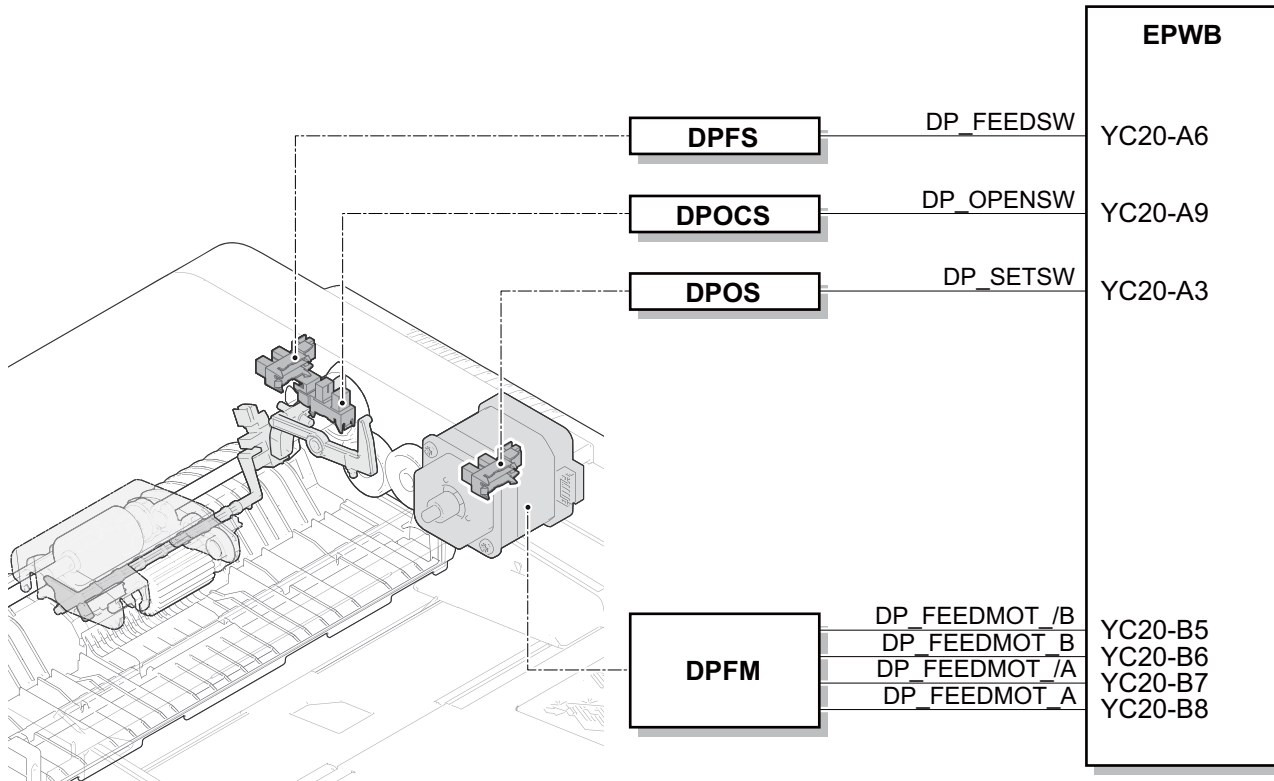
Figure 3-121

(9-2) Original conveying section and Original switchback and eject section

The original conveying section consists of the parts in the figure. The conveyed original is scanned at the optical section (CCD) in the main unit when passing the DP slit glass.

The original switchback and eject section consists of the parts in the figure. The original already scanned is ejected to the original eject table by the eject roller. When scanning the original in the duplex switchback mode, the original is conveyed to the switchback tray once and then reconveyed to the original conveying section by the switchback roller.

[Components parts]
1. Actuator
   (DP registration sensor)
2. DP registration roller
3. DP registration pulley
4. Scanner guide
5. DP conveying roller
6. DP conveying pulley
7. Feedshift guide
8. Switchback roller
9. Retard pulley
10. DP eject roller
11. DP eject pulley
12. Reversing guide
13. Eject tray

Figure 3-122

Figure 3-123

[Block diagram]

EPWB		

DP_CONV_MOT_/B — YC20-B1
DP_CONV_MOT_B — YC20-B2
DP_CONV_MOT_/A — YC20-B3
DP_CONV_MOT_A — YC20-B4

DPCM

DP_SEPMOT_/B — YC20-B9
DP_SEPMOT_/A — YC20-B10
DP_SEPMOT_B — YC20-B11
DP_SEPMOT_A — YC20-B12

DPFSM

DPFSS — DP_JHPSW_EXITSW — YC20-A12

DPRS — DP_TMGSW — YC20-A15
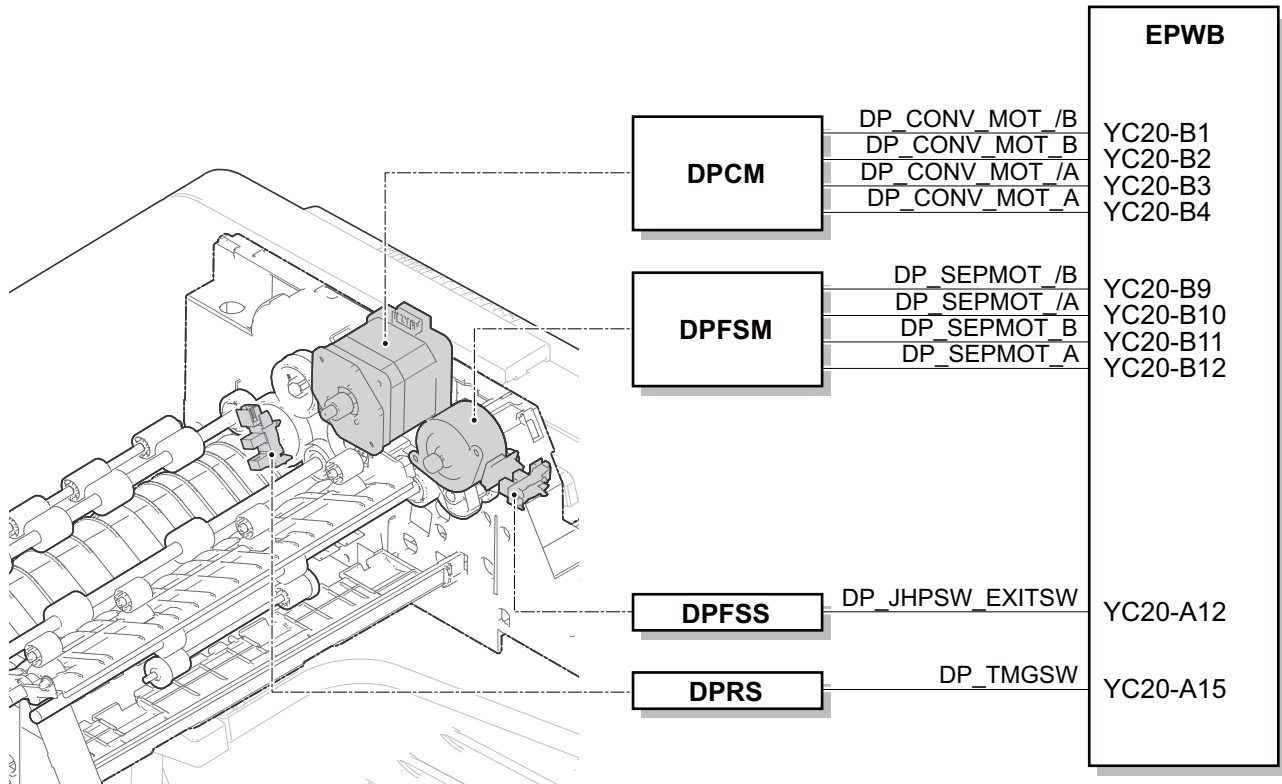
Figure 3-124

(9-3) Reversing duplex scanning

The first side of original is scanned at the slit glass (machine main body).

Slit glass: first side scanning

The first side of original is scanned at the slit glass (machine main body).

DP switchback tray

DP feedshift guide

The original is reversed by the switchback roller.

DP switchback roller

The second side of original is scanned at the slit glass (machine main body) and the original is conveyed to the switchback tray.

DP switchback tray

Slit glass: second side scanning

Ejected to the original eject tray by the feedshift and eject rollers.

DP conveying roller
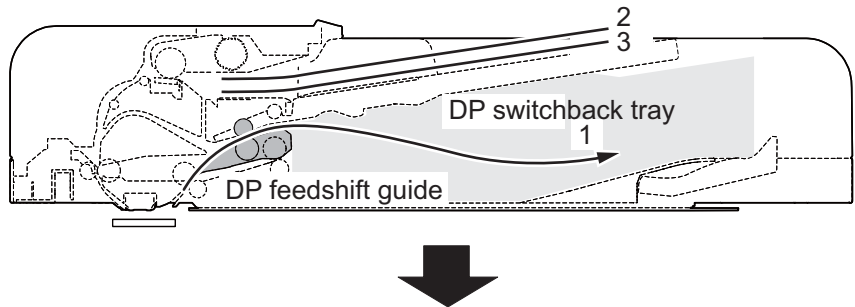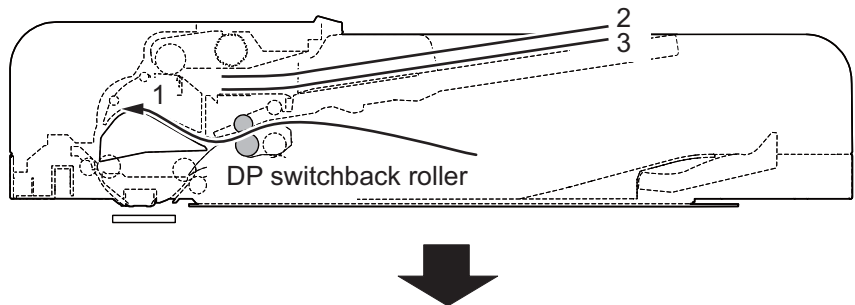
DP switchback roller
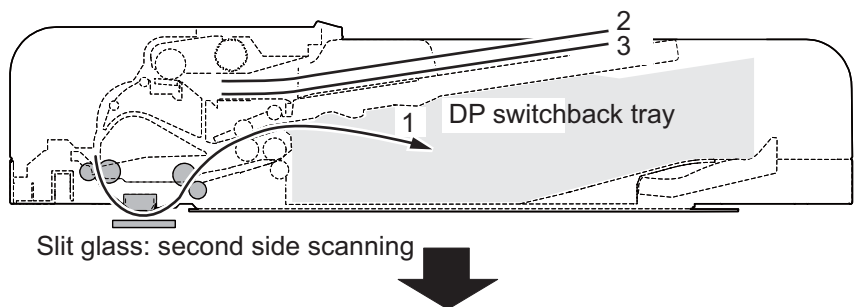
DP eject roller

Original eject tray
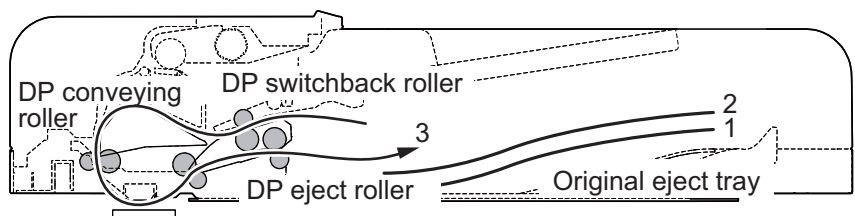
Figure 3-125

3-9 Mechanical construction (option)

(1) Paper feeder (PF-5120)

(1-1) Cassette paper feed section

The cassette can load 550 sheets paper (64 g/m2) or 500 sheets paper (80 g/m2). Paper from the cassette is picked up by rotating the pickup roller and is conveyed to the main unit by rotating the paper feed roller. Multi-feeding is also prevented by the effect of the retard roller.

[Components parts]
1. PF paper feed roller
2. PF pickup roller
3. PF pickup holder
4. PF retard roller
5. PF retard holder
6. PF friction pad
7. PF cassette bottom plate
8. PF paper width guides
9. PF paper length guide
10. PF cassette base
11. PF width guide release lever
12. PF feed roller
13. PF feed pulley
14. PF actuator
   (PF paper sensor)
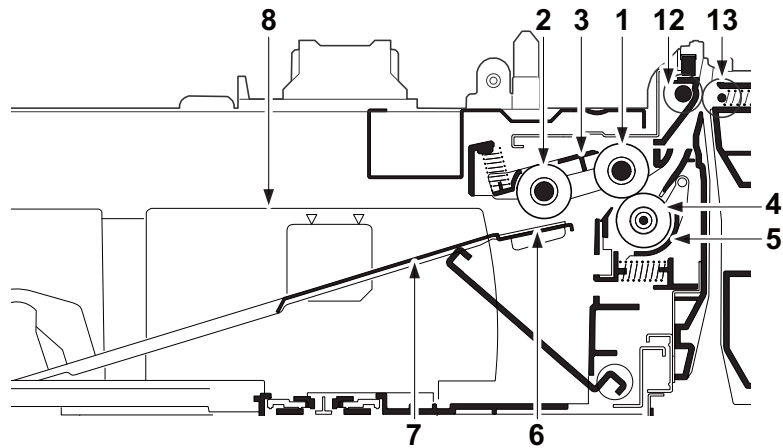
Figure 3-126
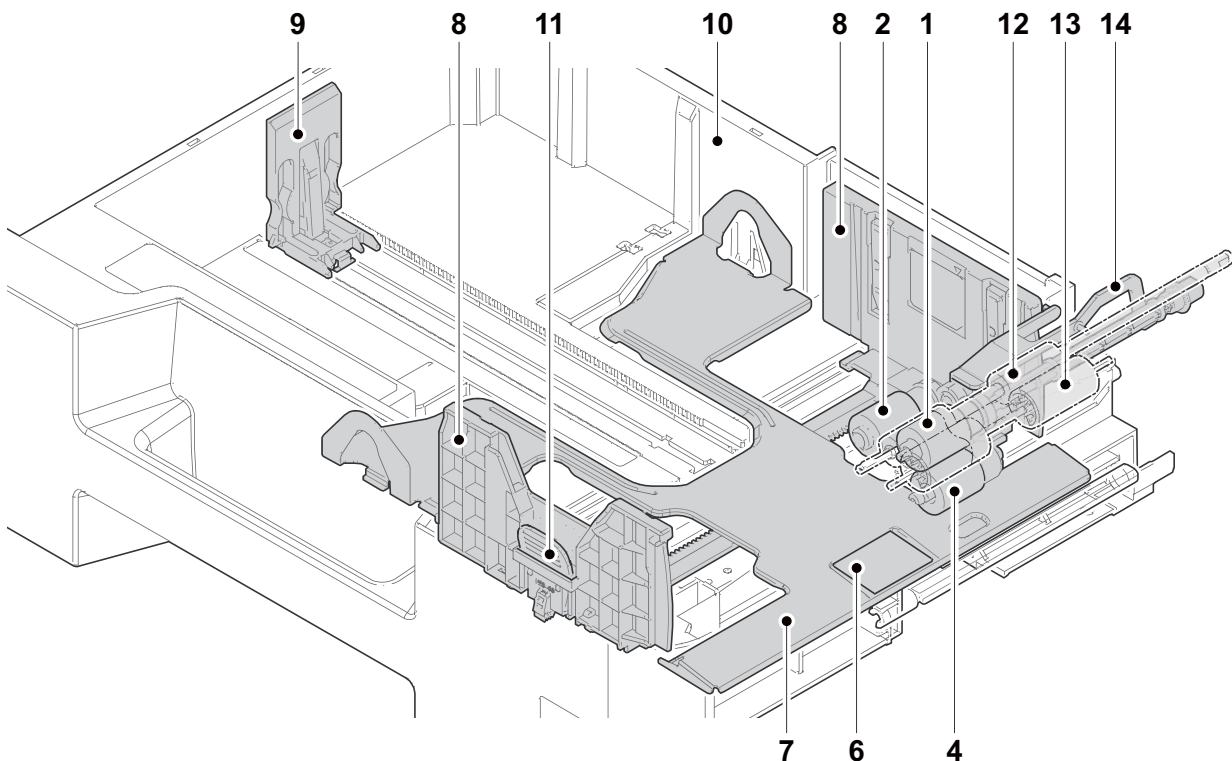
Figure 3-127

[Block diagram]

PFLS	ULIM_SW_1	YC4-3
PFPLSW3	CAS1_SIZE3_SENS	YC3-15
PFPLSW2	CAS1_SIZE2_SENS	YC3-13
PFPLSW1	CAS1_SIZE1_SENS	YC3-11
PFLM	L_MOT1_RET	YC6-1
	L_MOT1_DR	YC6-2
PFFCL	FEED_CL1	YC9-3
PFFM	START/STOP	YC8-3
	CLOCK	YC8-4
	LD	YC8-5
	CW/CCW	YC8-6
PFCCL	VER_CL1	YC9-1
PFRCSW	COVER_OPEN	YC4-7
PFPS	CAS1_EMPTY	YC3-3
PFPGS1	CAS1_QUANT1	YC3-6
PFPGS2	CAS1_QUANT2	YC3-9
PFFS	VER_SENS_1	YC4-5

PFMPWB   EPWB
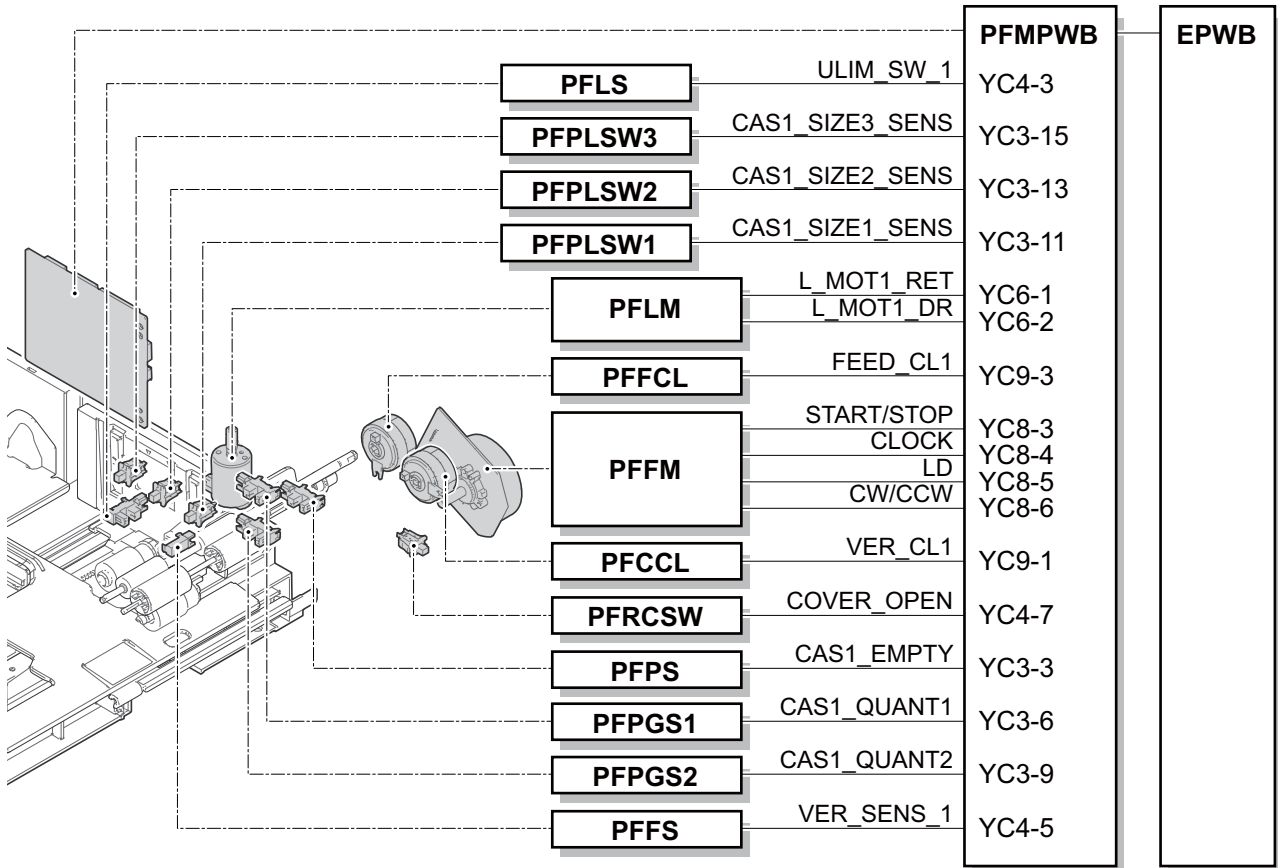
Figure 3-128

(2) Paper feeder (PF-5130)

(2-1) Cassette paper feed section

The cassette can load 550 sheets paper (64 g/m2) or 500 sheets paper (80 g/m2) and consists of 2 cassettes. Paper from the cassette is picked up by rotating the pickup roller and is conveyed to the main unit by rotating the paper feed roller. Multi-feeding is also prevented by the effect of the retard roller.
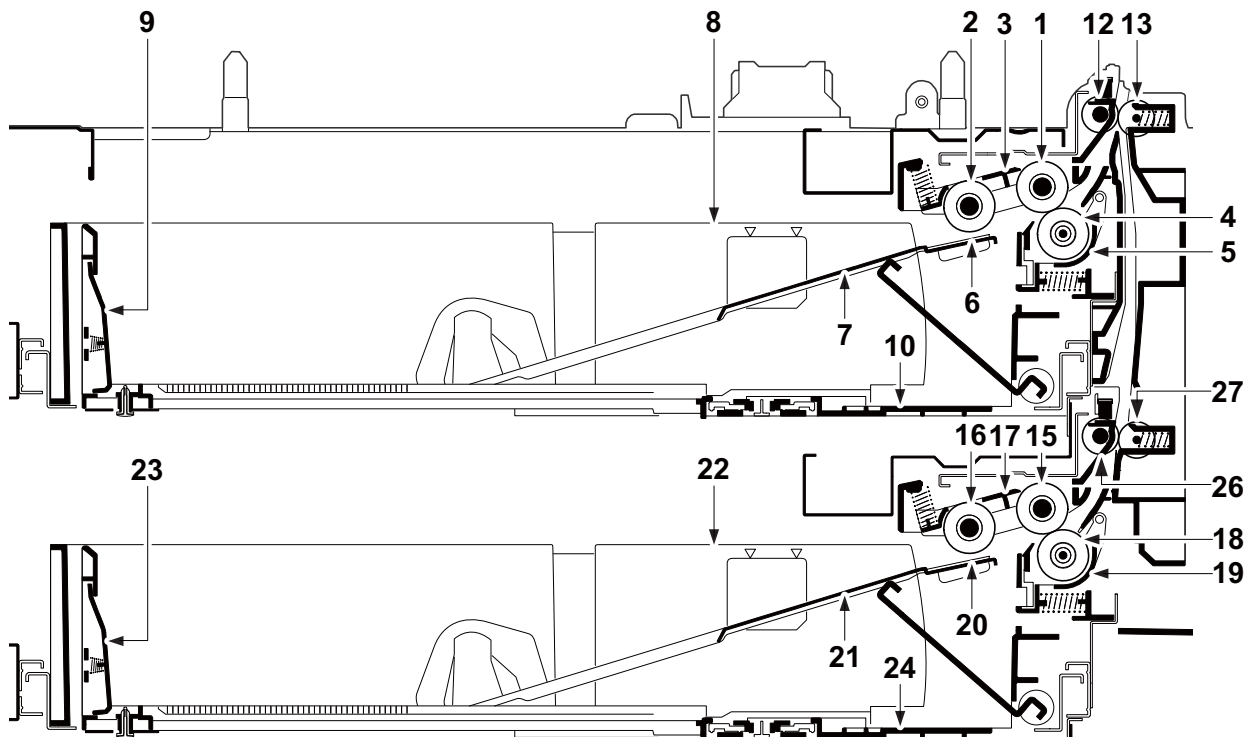
Figure 3-129

[Components parts]

1. PF paper feed roller 1	15. PF paper feed roller 2
2. PF Pickup roller 1	16. PF Pickup roller 2
3. PF Pickup holder 1	17. PF Pickup holder 2
4. PF retard roller 1	18. PF retard roller 2
5. PF retard holder 1	19. PF retard holder 2
6. PF friction pad 1	20. PF friction pad 2
7. PF cassette bottom plate 1	21. PF cassette bottom plate 2
8. PF paper width guides 1	22. PF paper width guides 2
9. PF paper length guide 1	23. PF paper length guide 2
10. PF cassette base 1	24. PF cassette base 2
11. PF width guide release lever 1	25. PF width guide release lever 2
12. PF feed roller 2	26. PF feed roller 3
13. PF feed pulley 2	27. PF feed pulley 3
14. PF actuator 1	28. PF actuator 2
(PF paper sensor 1)	(PF paper sensor 2)
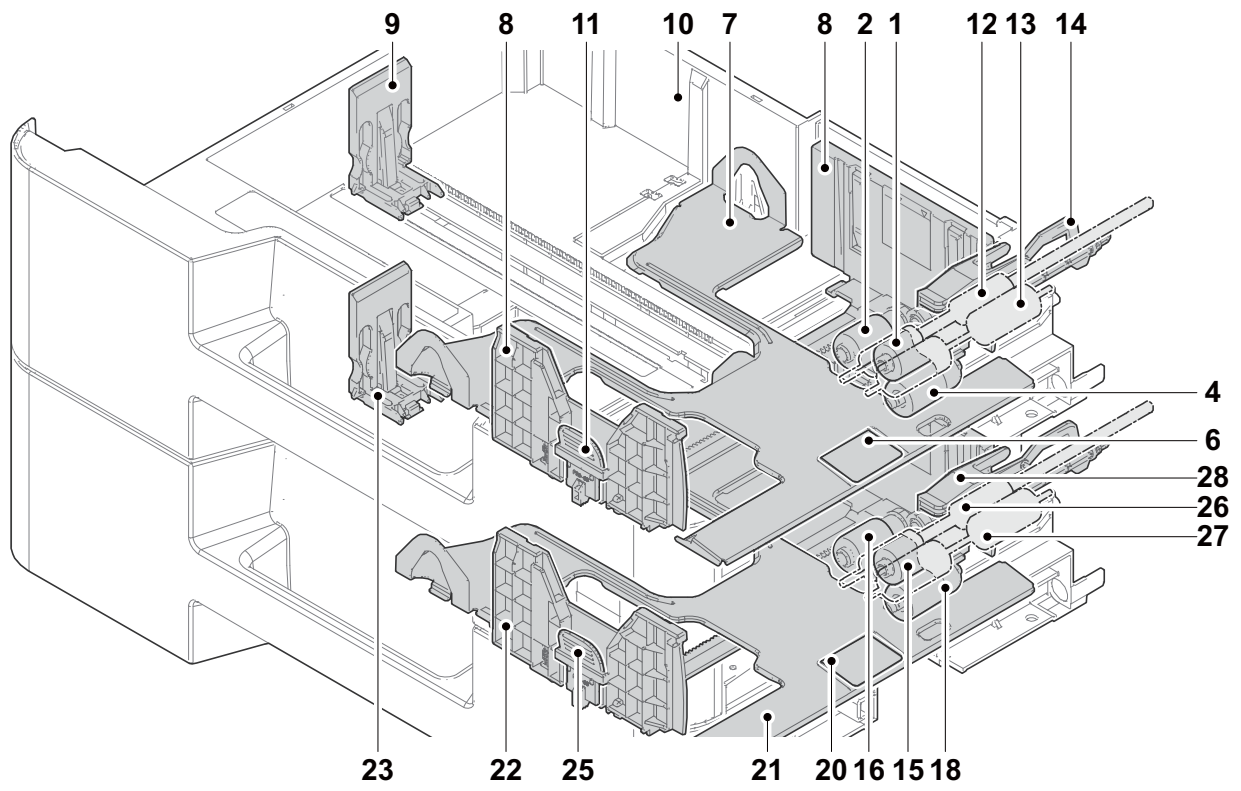
Figure 3-130

[Block diagram]

Block	Signal	Connector
PFLS1	ULIM_SW_1	YC4-3
PFPLSW3	CAS1_SIZE3_SENS	YC3-15
PFPLSW2	CAS1_SIZE2_SENS	YC3-13
PFFS1	VER_SENS_1	YC4-5
PFPLSW1	CAS1_SIZE1_SENS	YC3-11
PFLM1	L_MOT1_RET	YC6-1
	L_MOT1_DR	YC6-2
PFPGS2	CAS1_QUANT2	YC3-9
PFPGS1	CAS1_QUANT1	YC3-6
PFPS1	CAS1_EMPTY	YC3-3
PFFCL1	FEED_CL1	YC9-3
PFCCL1	VER_CL1	YC9-1
PFRCSW	COVER_OPEN	YC4-7
PFFCL2	FEED_CL2	YC9-7
PFCCL2	VER_CL2	YC9-5
PFFM	START/STOP	YC8-3
	CLOCK	YC8-4
	LD	YC8-5
	CW/CCW	YC8-6
PFPS2	CAS2_EMPTY	YC5-3
PFPGS3	CAS2_QUANT1	YC5-6
PFPGS4	CAS2_QUANT2	YC5-9
PFLM2	L_MOT2_RET	YC6-3
	L_MOT2_DR	YC6-4
PFPLSW4	CAS2_SIZE1_SENS	YC5-11
PFFS2	VER_SENS_2	YC4-13
PFPLSW5	CAS2_SIZE2_SENS	YC5-13
PFPLSW6	CAS2_SIZE3_SENS	YC5-15
PFLS2	ULIM_SW_2	YC4-11

PFMPWB

PFM PWB (500×1)

EPWB

Figure 3-131

(3) Paper feeder (PF-5140)

(3-1) Paper deck section

The deck can load 2200 sheets paper (64 g/m²) or 2000 sheets paper (80 g/m²). Paper from the deck is picked up by rotating the pickup roller and is conveyed to the main unit by rotating the paper feed roller. Multi-feeding is also prevented by the operation of the retard roller.

[Components parts]
1. PF paper feed roller
2. PF pickup roller
3. PF pickup holder
4. PF retard roller
5. PF retard holder
6. PF friction pad
7. PF deck bottom plate
8. PF paper width guides
9. Paper length guide*1
10. PF feed roller
11. PF feed pulley
12. PF actuator
    (PF paper sensor)
13. Right cover
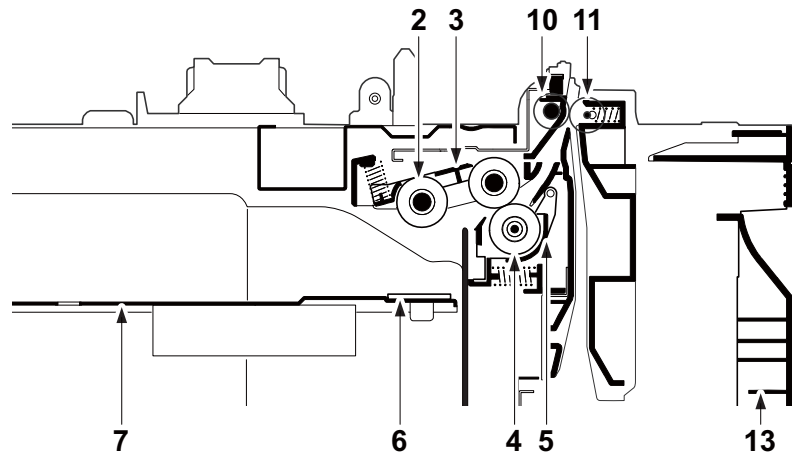
*1: inch specification only

Figure 3-132
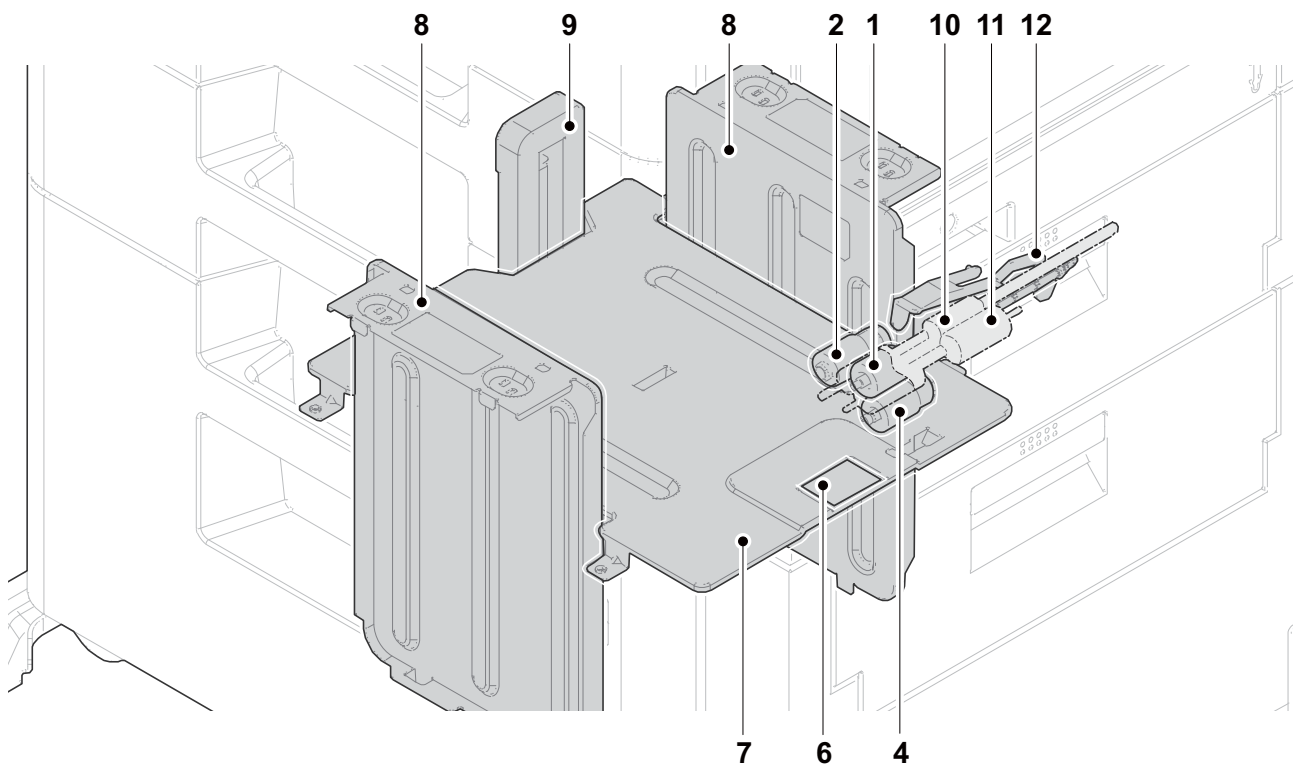
Figure 3-133

[Block diagram]

PFLS	ULIM_SW_1	YC4-3	
PFFS	VER_SENS_1	YC3-15	
PFPGS2	CAS1_QUANT2	YC3-9	
PFPS	CAS1_EMPTY	YC3-3	
PFFCL	FEED_CL1	YC9-3	
PFCCL	VER_CL1	YC9-1	
PFFM	START/STOP	YC8-3	
	CLOCK	YC8-4	
	LD	YC8-5	
	CW/CCW	YC8-6	
PFRCSW	COVER_OPEN	YC4-7	
PFLM	L_MOT1_RET	YC6-1	
	L_MOT1_DR	YC6-2	
PFPGS1	CAS1_QUANT1	YC3-6	
PFDDSW	CAS1_SIZE1_SENS	YC3-11	

PFMPWB

PFM PWB (500×1)

EPWB
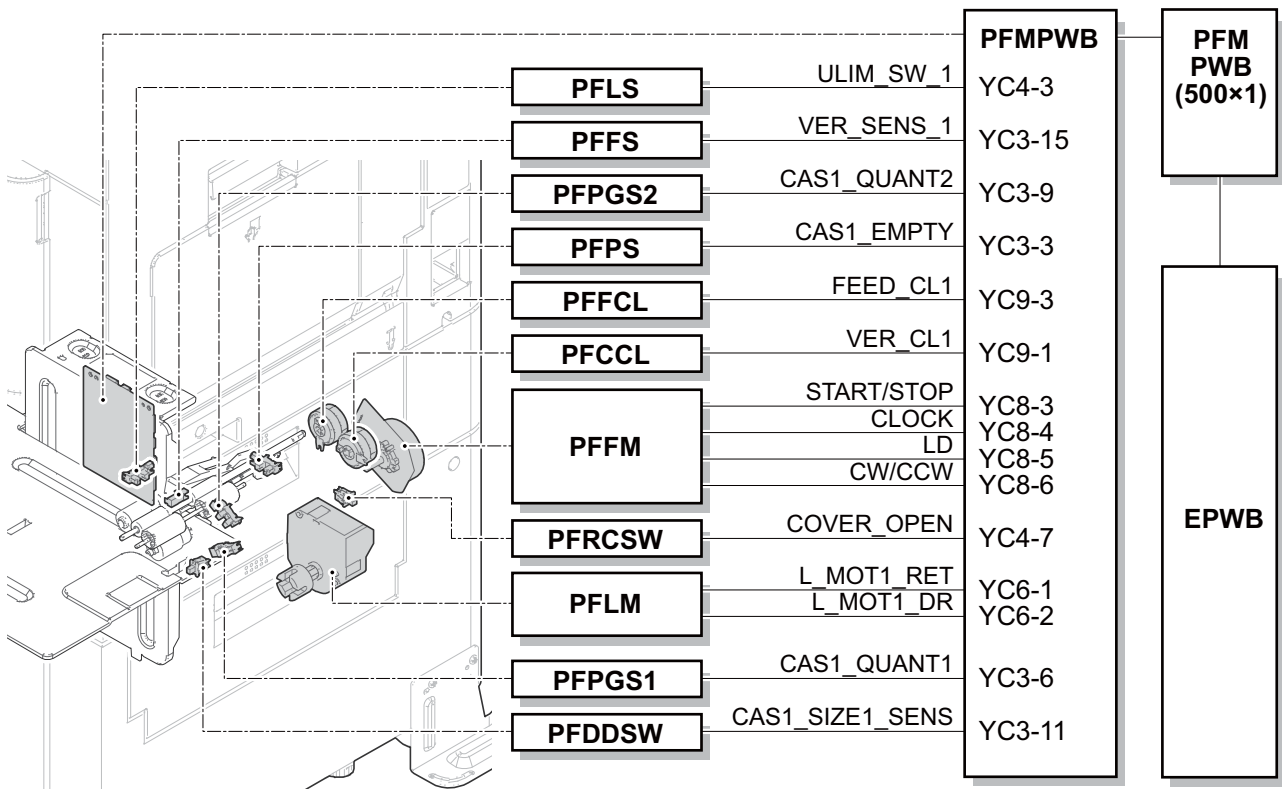
Figure 3-134

(4) Document processor (DP-5100) : for 35/40 ppm model only

(4-1) Original paper feed section

The original feed section consists of the parts in the figure, and conveys the original on the original tray to the original conveying section. The original is fed by rotating the DP forwarding pulley and the DP feed roller.

[Components parts]
1. DP forwarding pulley
2. DP feed roller
3. DP feed holder
4. DP separation pad
5. Front separation pad
6. Friction pad
7. Actuator
   (DP original sensor)
8. DP original stopper
9. DP original width guide
10. Original tray
11. Actuator
    DP paper feed sensor
12. Conveying pulley
13. Actuator
    (DP original length sensor)
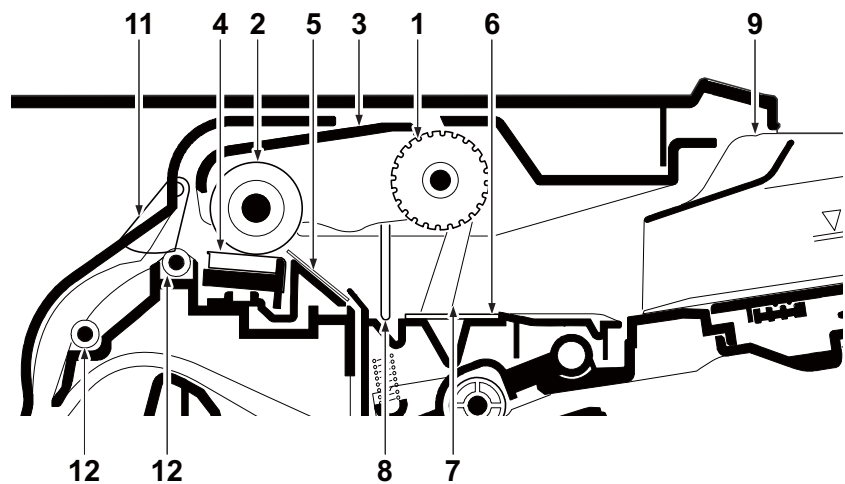
Figure 3-135
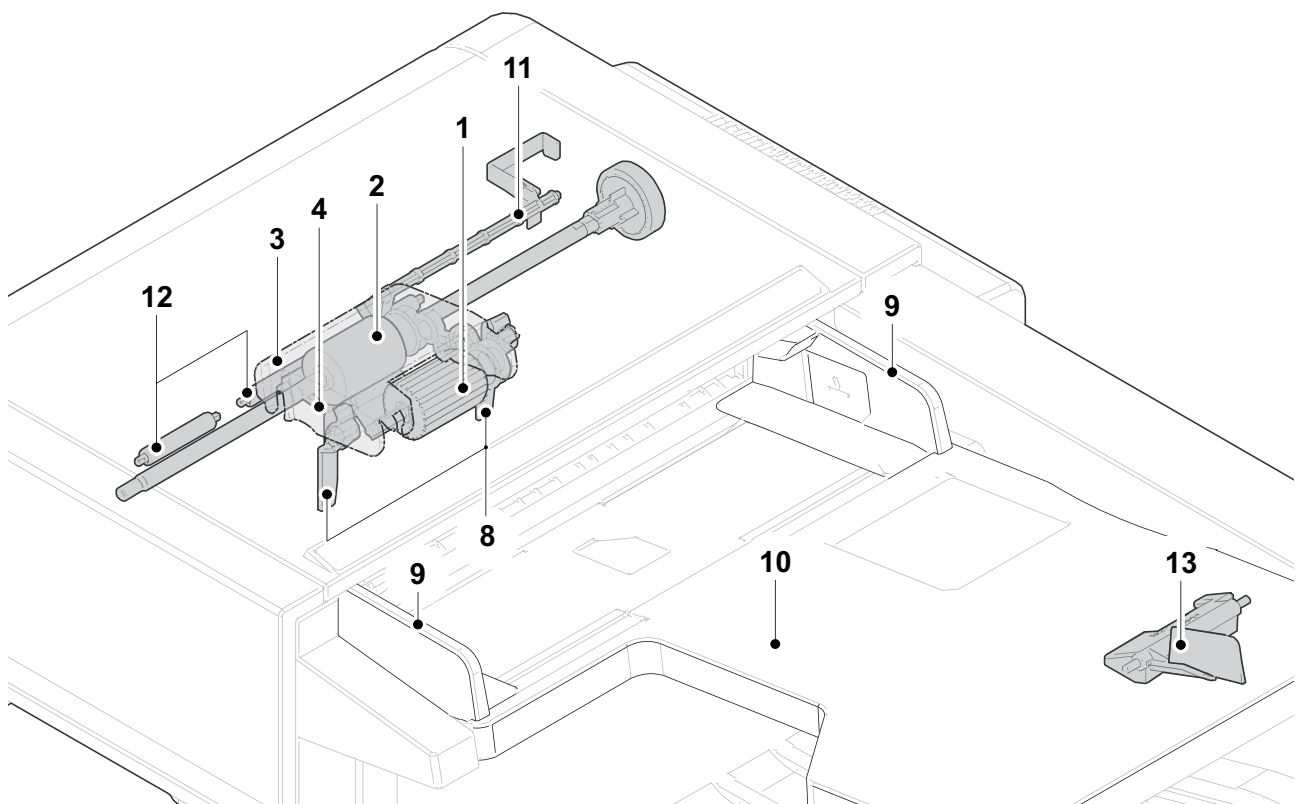
Figure 3-136

[Block diagram]

	DP_FEEDMOT_/B		YC6-B11
DPFM	DP_FEEDMOT_B		YC6-B12
	DP_FEEDMOT_/A		YC6-B13
	DP_FEEDMOT_A		YC6-B13

EPWB

DPMPWB

DPOS	DP_SETSW	YC5-3	YC5-3	YC6-A4
DPOCS	DP_OPENSW	YC5-6	YC1-9	YC6-A6
DPFS	DP_FEEDSW	YC6-3	YC2-4	YC6-A1
DPOLS	DP_VSIZESW	YC3-3	YC1-7	YC6-A8
			YC1-5 DP_DET	YC6-A10
DPOWS	DP_WSIZE	YC3-5	YC1-6	YC6-A9

Figure 3-137

3-121

(4-2) Original conveying section and Original switchback and eject section

The original conveying section consists of the parts in the figure. The conveyed original is scanned at the optical section (CCD) in the main unit when passing the DP slit glass.

The original switchback and eject section consists of the parts in the figure. The original already scanned is ejected to the original eject table by the eject roller. When scanning the original in the duplex switchback mode, the original is conveyed to the switchback tray once and then reconveyed to the original conveying section by the switchback roller.

[Components parts]
1. Actuator
   (DP registration sensor)
2. DP registration roller
3. DP registration pulley
4. Scanner guide
5. DP conveying roller
6. DP conveying pulley
7. Feedshift guide
8. Switchback roller
9. Retard pulley
10. DP eject roller
11. DP eject pulley
12. Reversing guide
13. Eject tray

Figure 3-138

Figure 3-139

[Block diagram]
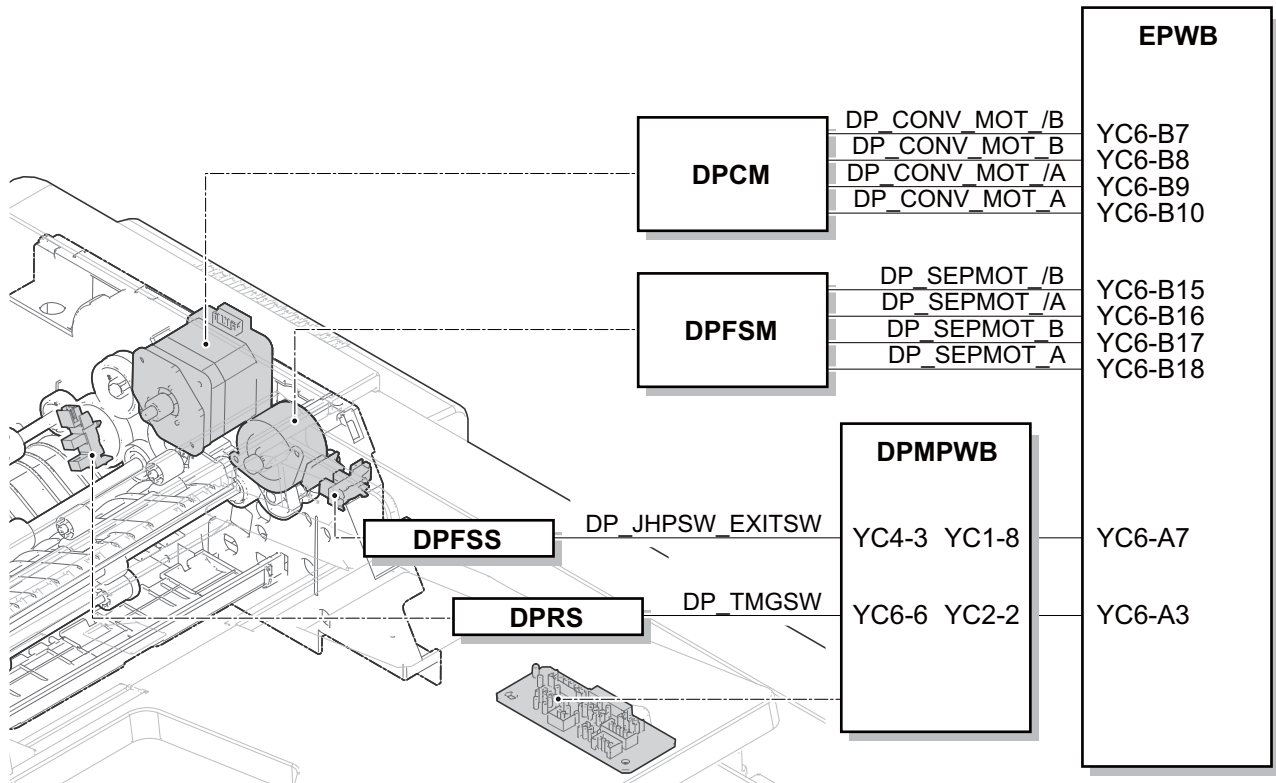
Figure 3-140

(4-3) Reversing duplex scanning

The first side of original is scanned at the slit glass (machine main body).

Slit glass: first side scanning

The first side of original is scanned at the slit glass (machine main body).

DP switchback tray

DP feedshift guide

The original is reversed by the switchback roller.

DP switchback roller

The second side of original is scanned at the slit glass (machine main body) and the original is conveyed to the switchback tray.

DP switchback tray

Slit glass: second side scanning

Ejected to the original eject tray by the feedshift and eject rollers.

DP conveying roller

DP switchback roller

DP eject roller

Original eject tray

Figure 3-141

3-124
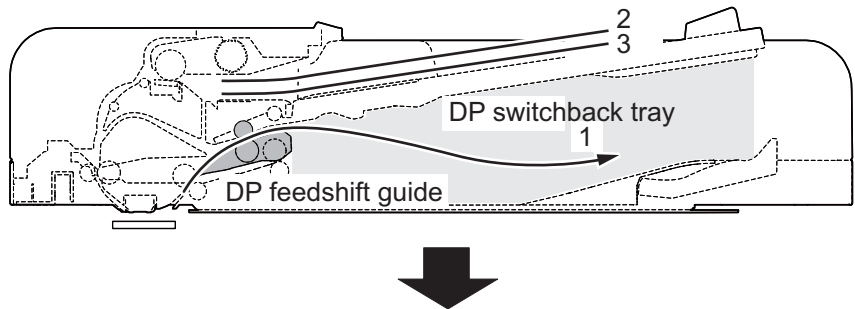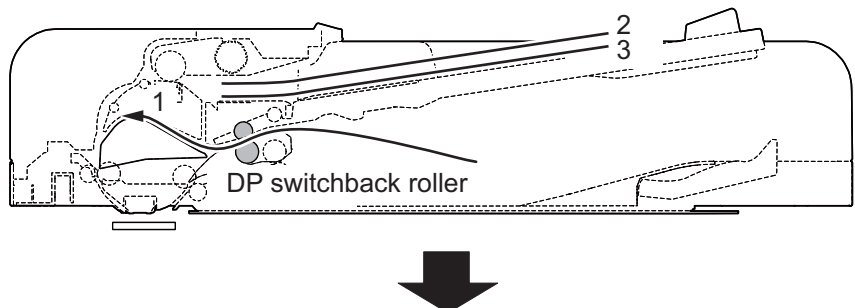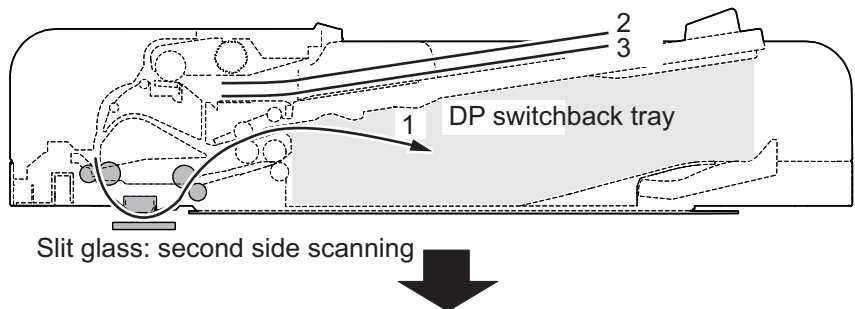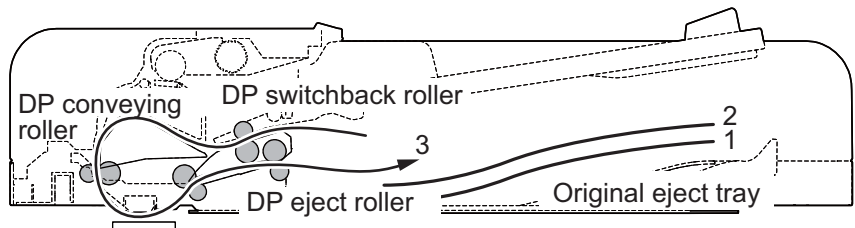
(5) Document processor (DP-5100) : for 35/40 ppm model only

(5-1) Original paper feed section

The original feed section consists of the parts in the figure, and conveys the original on the original tray to the original conveying section. The original is fed by rotating the DP forwarding pulley and the DP feed roller.

[Components parts]
1. DP forwarding pulley
2. DP feed roller
3. DP feed holder
4. DP separation pad
5. Front separation pad
6. Friction pad
7. Actuator
   (DP original sensor)
8. DP original stopper
9. DP original width guide
10. Original tray
11. DP paper feed sensor
12. Conveying pulley
13. Feed shaft guide plate
14. Actuator
   (DP original length sensor)
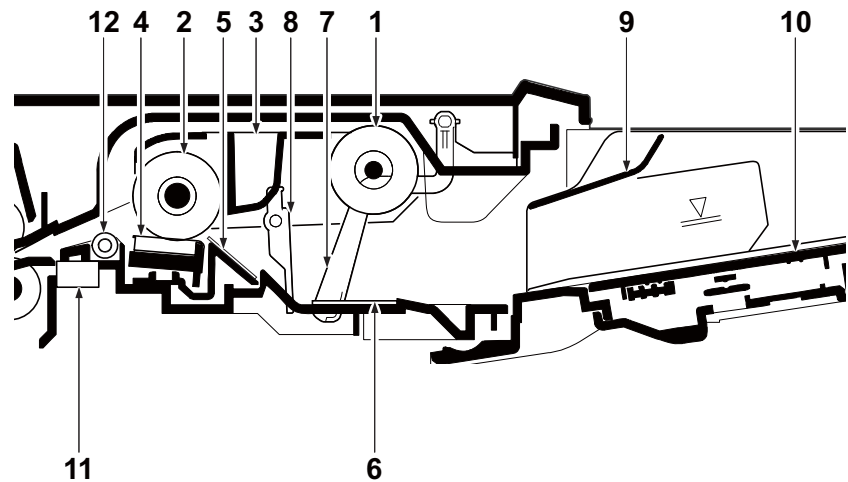
Figure 3-142
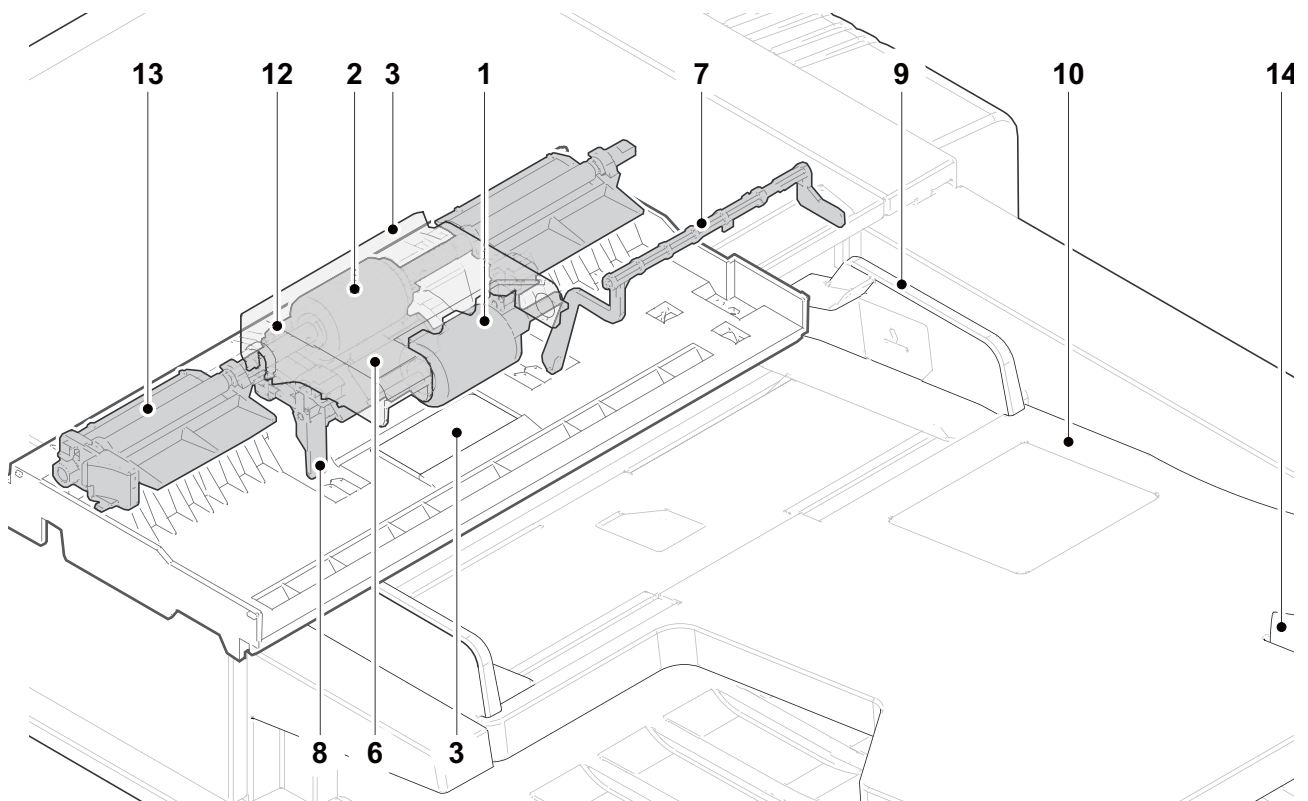
Figure 3-143

[Block diagram]
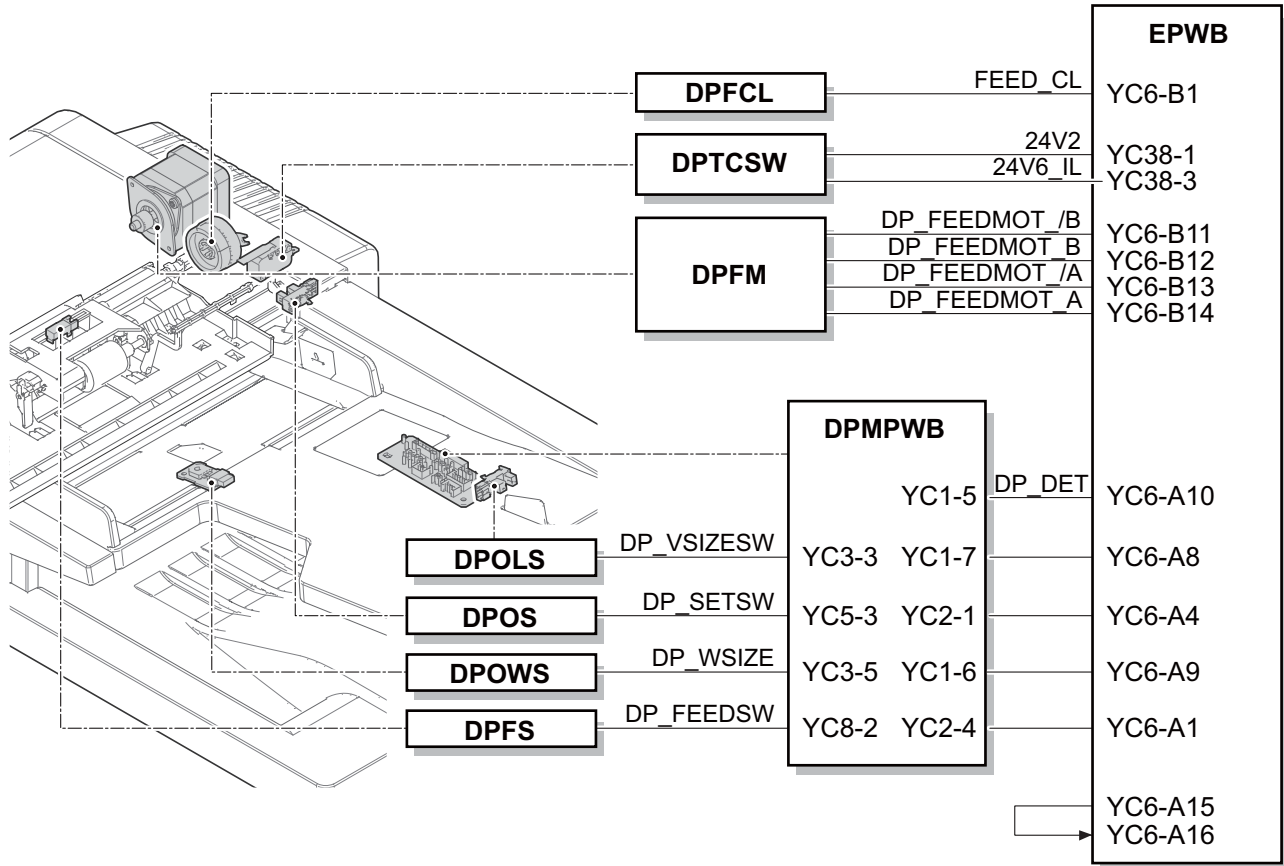
Figure 3-144

(5-2) Original conveying section and Original switchback and eject section

The original conveying section consists of the parts in the figure. The 2nd side of the conveyed original is scanned when passing the CIS and the 1st side at the optical section (CCD) in the main unit when passing the DP slit glass. The original already scanned is ejected to the original eject table by the eject roller.

[Components parts]
1. DP registration roller
2. DP registration pulley
3. DPCIS sensor
4. CIS
5. DPCIS roller
6. DP conveying roller A
7. DP conveying pulley
8. DP timing sensor
9. DP conveying roller B
10. DP conveying pulley
11. Scanner guide pulley
12. Scanner guide
13. DP conveying roller C
14. DP conveying pulley
15. Actuator
    (DP Eject sensor)
16. DP eject roller
17. DP eject pulley
18. Eject tray
19. Slit glass (main unit)
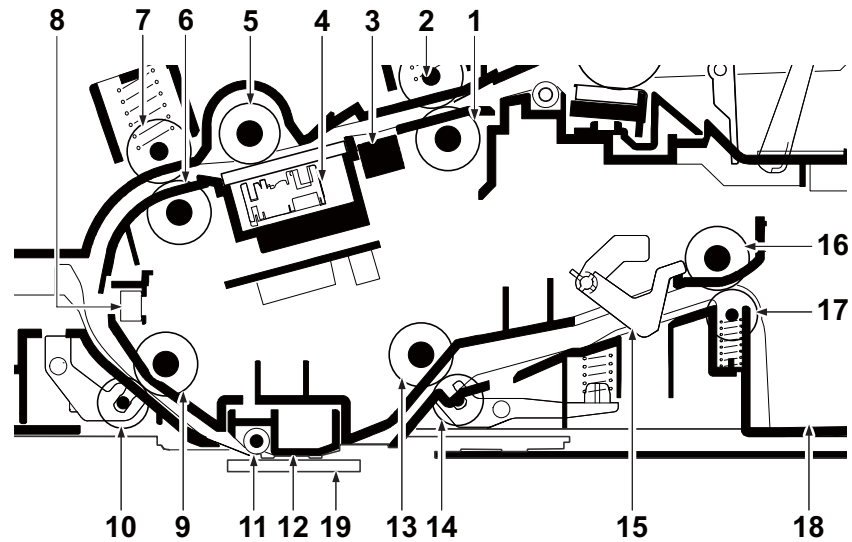
Figure 3-145
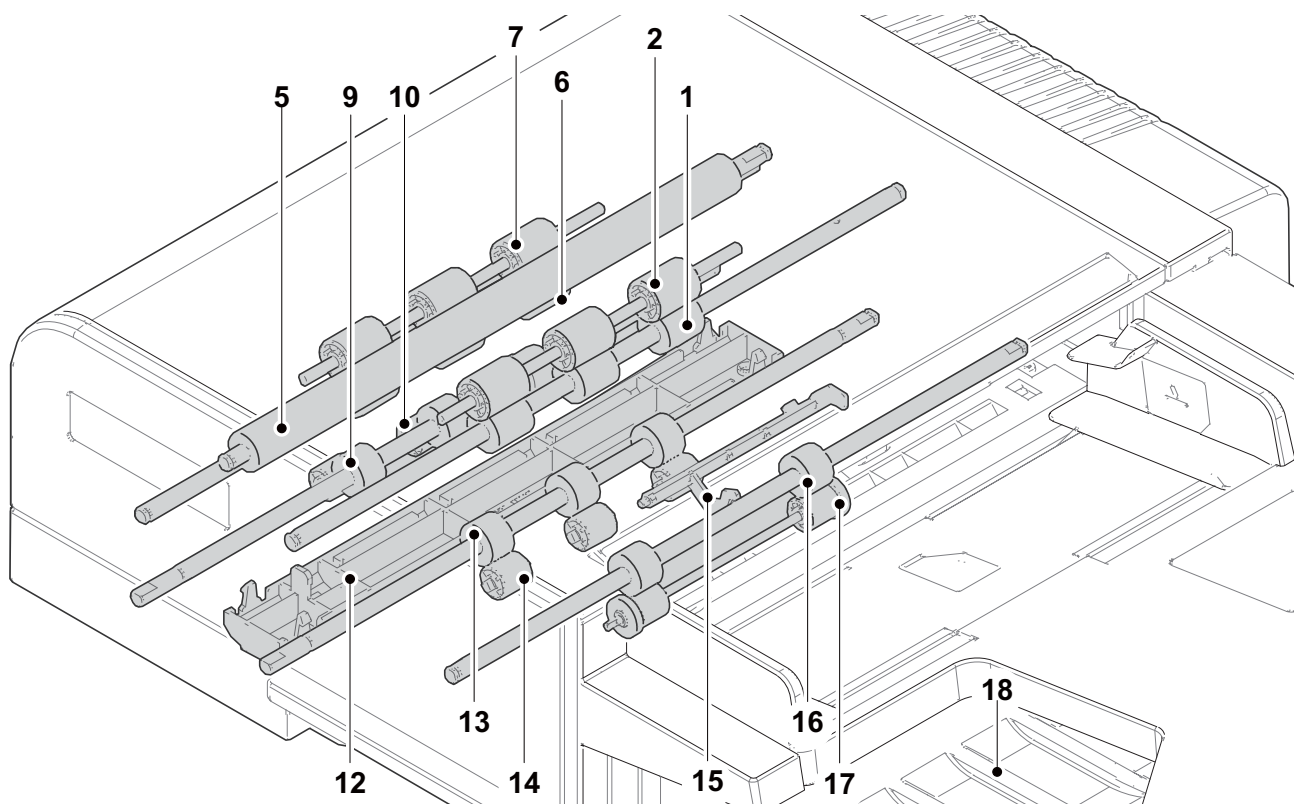
Figure 3-146

[Block diagram]
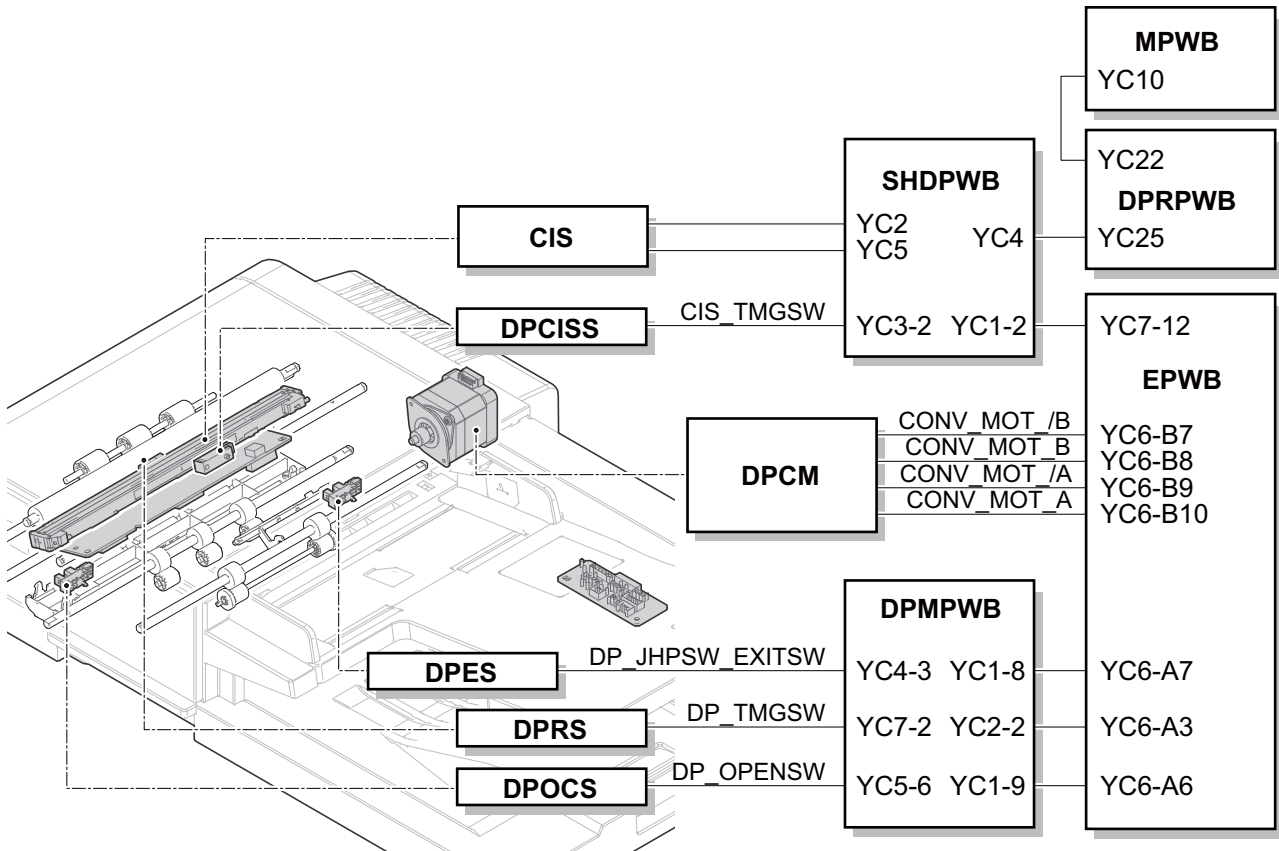
Figure 3-147

(6) Inner finisher (DF-5100)

(6-1) Paper conveying section

The conveying section consists of the parts as shown below. Paper on the middle tray is transferred after adjusting the side registration by moving the DF side registration guides in the staple and sort modes.

[Components parts]
1. DF entry roller
2. DF entry pulley
3. DF Middle roller
4. DF Middle pulley
5. DF Actuator
   (DF entry sensor)
6. DF paper stopper
7. DF adjusting paddles
8. DF upper guide
9. DF paper width guides
10. DF bundle eject unit
11. DF eject roller
12. DF eject pulley
13. DF Actuator
    (Paper press sensor)
14. DF stapler
15. DF middle tray
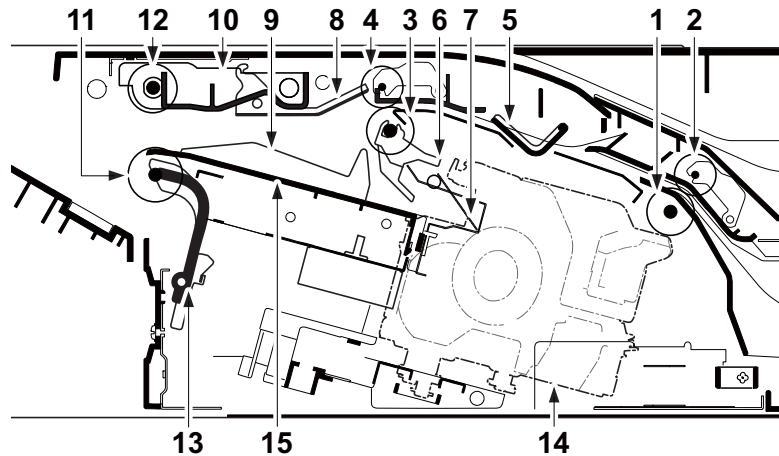
Figure 3-148
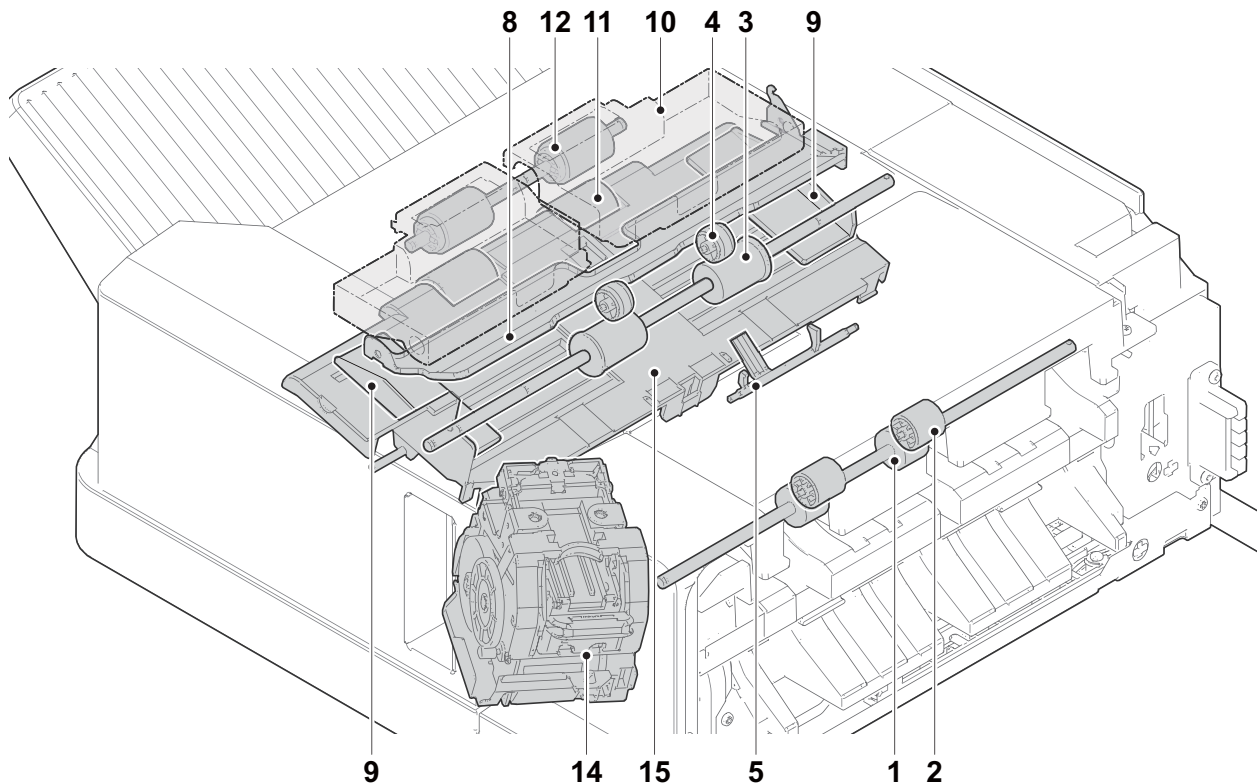
Figure 3-149

[Block diagram]

Block	Signal	Connector
DFEM	EJECT MOT 2B	YC8-1
	EJECT MOT 1B	YC8-2
	EJECT MOT 2A	YC8-3
	EJECT MOT 1A	YC8-4
DFSRS1	SID REG F HP SENS SIG	YC19-6
DFPPSOL	PAP PRE SOL ACT	YC13-2
	PAP PRE SOL KEEP	YC13-3
DFPPS2	PAP PRE LOW SENS SIG	YC19-18
DFMTS	PAP SENS SIG	YC19-8
DFPPS1	PAP PRE UP SENS SIG	YC19-21
DFTS	MTRAY FULL SENS SIG	YC19-12
DFSRS2	SID REG R HP SENS SIG	YC19-3
DFTM	TRY MOT OUT1	YC11-1
	TRY MOT OUT2	YC11-2
DFERM	EJE RELS MOT 2B	YC8-9
	EJE RELS MOT 1B	YC8-10
	EJE RELS MOT 2A	YC8-11
	EJE RELS MOT 1A	YC8-12
DFADS	ADJUST HP SENS SIG	YC19-27
DFMPWB		
DFSSW	SET SW	YC4-2
DFPES	ENTRY SENS SIG	YC17-3
DFSLM	STP MOV MOT 2B	YC8-5
	STP MOV MOT 1B	YC8-6
	STP MOV MOT 2A	YC8-7
	STP MOV MOT 1A	YC8-8
DFSRM2	SIDE REG R MOT 2B	YC9-5
	SIDE REG R MOT 1B	YC9-6
	SIDE REG R MOT 2A	YC9-7
	SIDE REG R MOT 1A	YC9-8
DFSRM1	SIDE REG F MOT 2B	YC9-9
	SIDE REG F MOT 1B	YC9-10
	SIDE REG F MOT 2A	YC9-11
	SIDE REG F MOT 1A	YC9-12
STPRPWB		YC10
DFSTP		
DFPDS	PADDLE HP SENS SIG	YC19-15
DFSLS	STP MOV HP SENS SIG	YC19-30
DFMM	MIDDLE MOT 1B	YC21-1
	MIDDLE MOT 1A	YC21-2
	MIDDLE MOT 2A	YC21-3
	MIDDLE MOT 2B	YC21-4
DFPDM	MIDDLE MOT 1B	YC21-1
	MIDDLE MOT 1A	YC21-2
	MIDDLE MOT 2A	YC21-3
	MIDDLE MOT 2B	YC21-4
DFBDS	BUNDLE HP SENS SIG	YC19-24

EPWB

Figure 3-150

(6-2) Bundle eject operation

1st sheet

1. By rotating the DF entry roller and DF middle roller, paper is conveyed to the process section and then conveyed to the DF main tray by the DF eject roller.
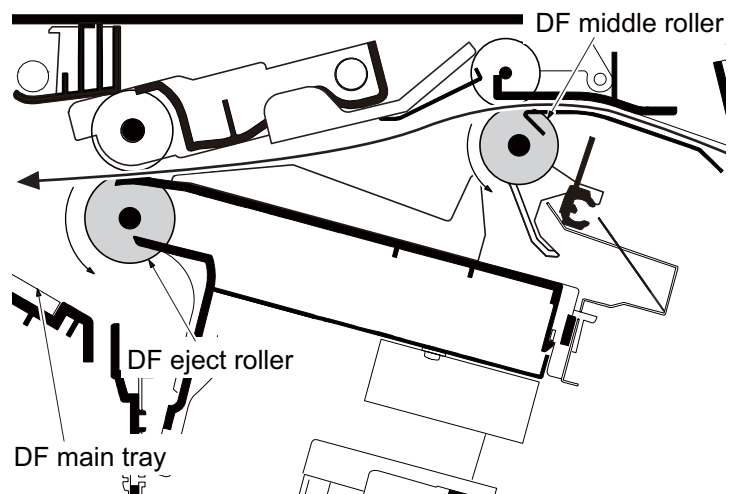
Figure 3-151

2. The DF upper guide descends when the paper trailing edge passes the DF middle roller. Then, the DF eject roller is rotated reversely and paper is sent to the DF middle tray.
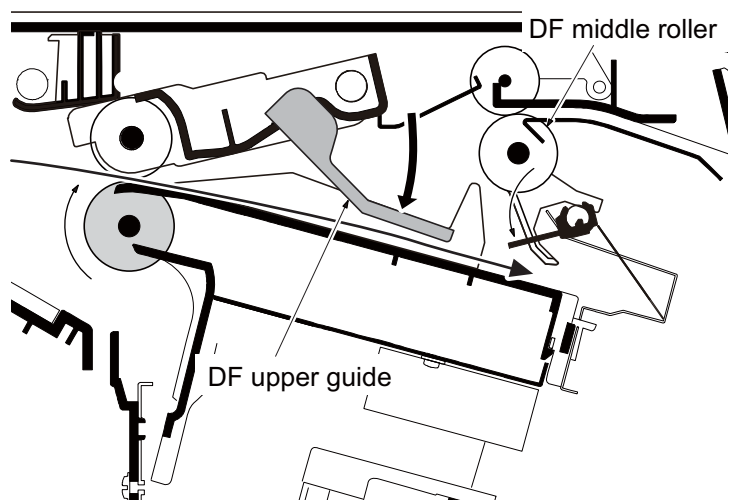
Figure 3-152

3. Then, the DF upper guide ascends and the DF bundle eject unit ascends by the DF eject release motor drive.
By rotating the DF eject roller and DF adjusting paddles, paper is conveyed to the DF middle tray.
The DF side registration motor 1,2 drive the DF side registration guides to adjust paper.
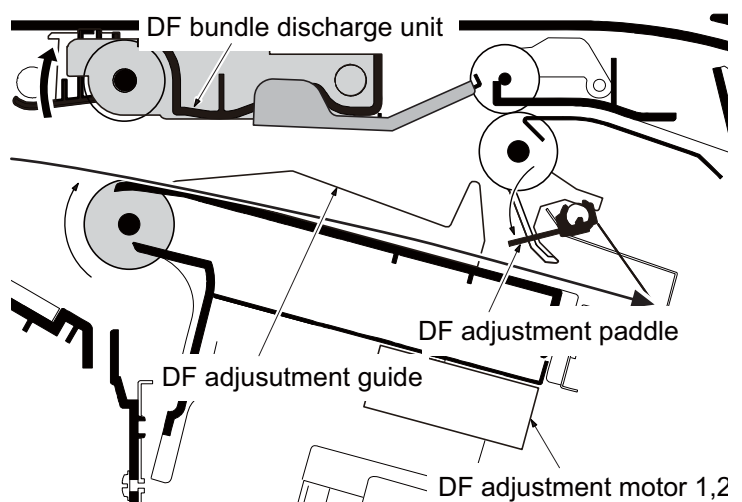
Figure 3-153

2nd sheet and after

4. Paper is sent to the process section as well as the 1st sheet.
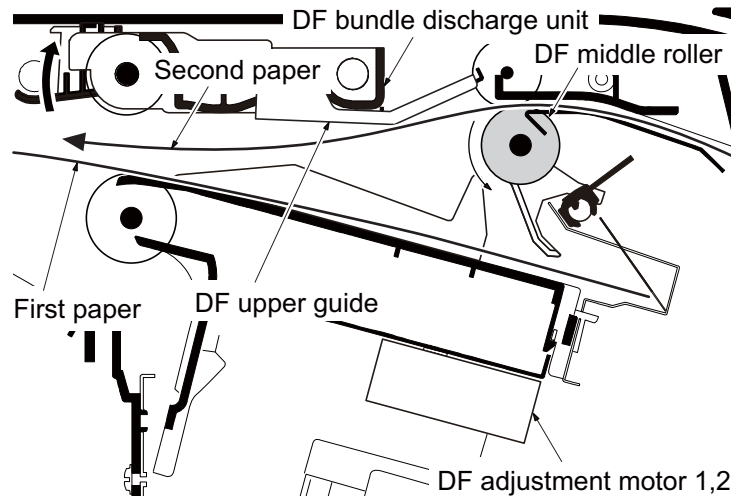
Figure 3-154

5. The DF upper guide descends when the paper trailing edge passes the DF middle roller. Then, by rotating the DF adjusting paddles, paper is conveyed to the DF middle tray. Paper is adjusted as well as the 1st sheet.
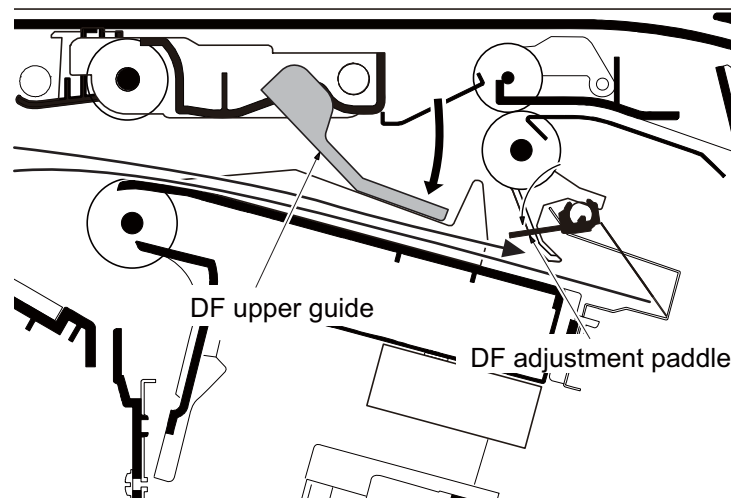
Figure 3-155

6. When completing to adjust the last sheet to bundle, the DF bundle eject unit descends and by rotating the DF eject roller, the paper bundle is ejected to the DF main tray.
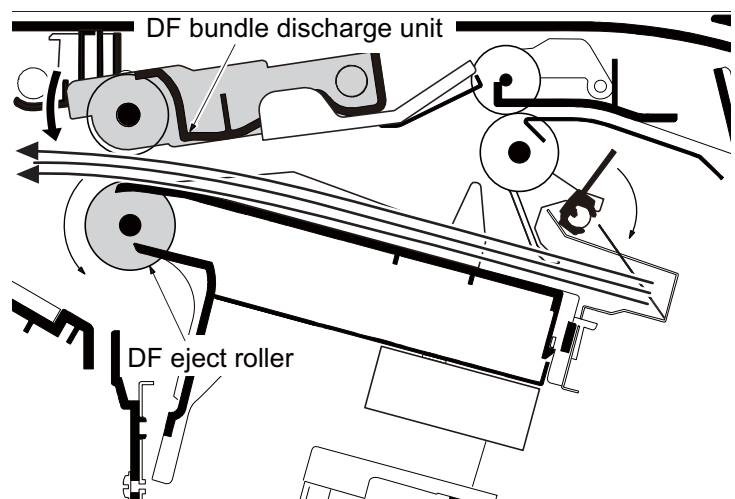
Figure 3-156

(7) Document finisher (DF-5110) : for 35/40ppm models only

(7-1) Paper conveying section

The conveying section consists of the parts as shown below. Paper on the middle tray is transferred after adjusting the side registration by moving the DF side registration guides in the staple and sort modes.

[Components parts]
1. DF entry roller
2. DF entry pulley
3. DF Middle roller
4. DF Middle pulley
5. DF Actuator
   (DF middle sensor)
6. DF paper stopper
7. DF paper width guides
8. DF bundle eject unit
9. DF eject roller
10. DF eject pulley
11. DF stapler
12. DF middle tray
13. DF paddle
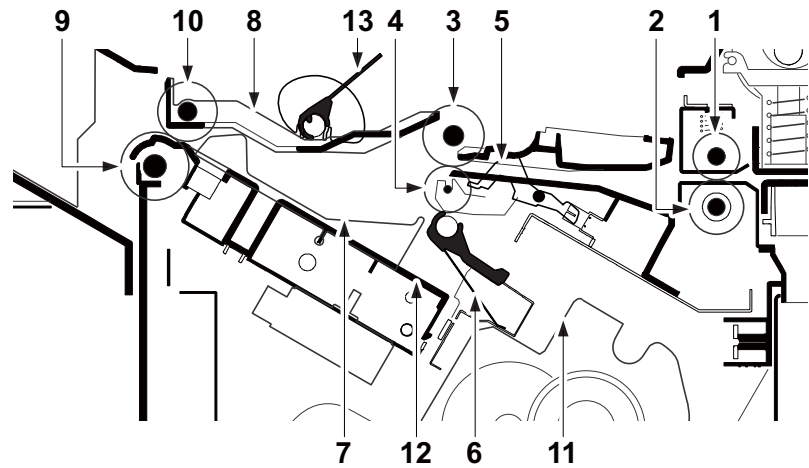
Figure 3-157
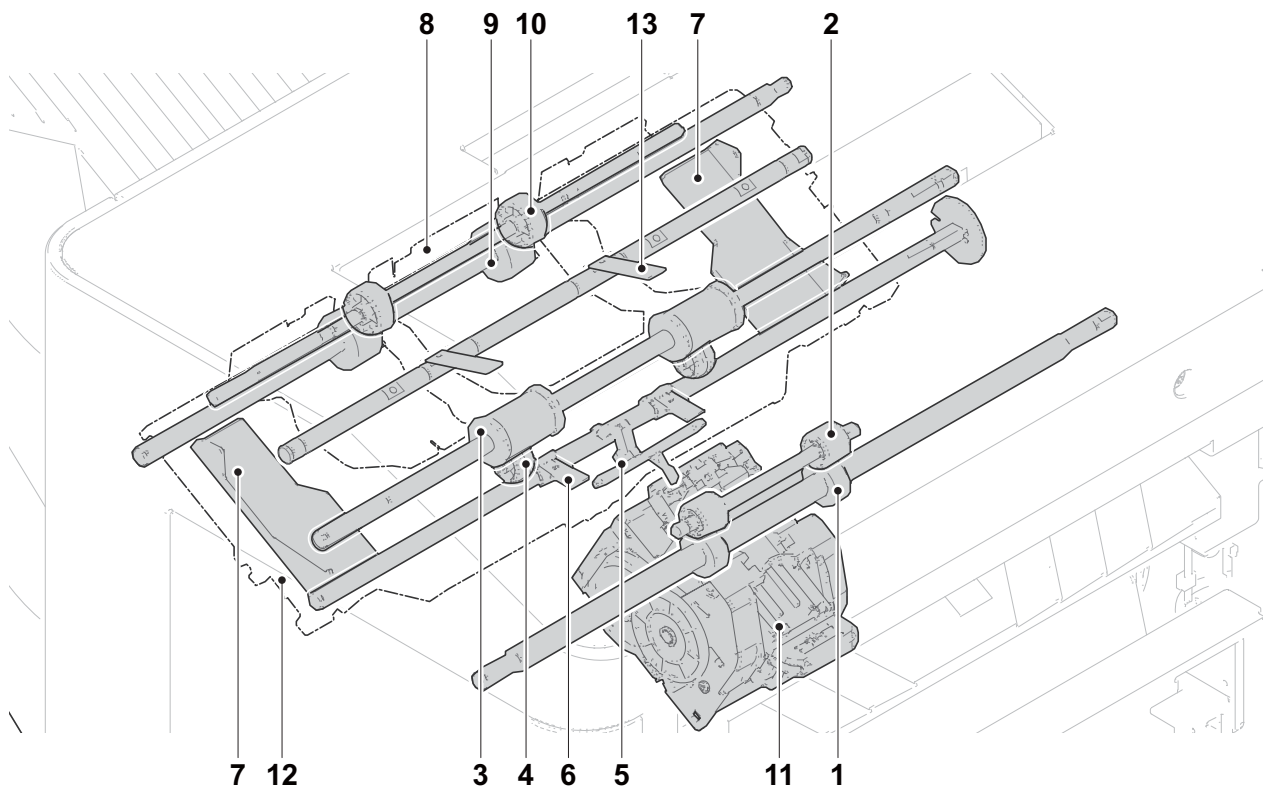
Figure 3-158

[Block diagram]

Block	Signal	Connector
DFMES	MID EJE SENS A	YC17-3
DFSRS2	SID REG R HP SENS SIG	YC19-3
DFTUSS2	MTRY U SENS SIG	YC16-3
DFBDS	BUNDLE HP SENS SIG	YC19-12
DFADS	ADJUST HP SENS SIG	YC19-27
DFPDM	PADDLE MOT 2B	YC9-1
	PADDLE MOT 1B	YC9-2
	PADDLE MOT 2A	YC9-3
	PADDLE MOT 1A	YC9-4
DFTM	TRY MOT OUT1	YC11-1
	TRY MOT OUT2	YC11-2
DFERM	EJE RELS MOT 2B	YC8-9
	EJE RELS MOT 1B	YC8-10
	EJE RELS MOT 2A	YC8-11
	EJE RELS MOT 1A	YC8-12
DFTCSW	TOP COV SIG	YC4-4
DFMM	MIDDLE MOT 2B	YC8-17
	MIDDLE MOT 1B	YC8-18
	MIDDLE MOT 2A	YC8-19
	MIDDLE MOT 1A	YC8-20
DFPDS	PADDLE HP SENS SIG	YC19-15
DFPEM	ENTRY MOT 2B	YC8-13
	ENTRY MOT 1B	YC8-14
	ENTRY MOT 2A	YC8-15
	ENTRY MOT 1A	YC8-16
DFEM	EJECT MOT 2B	YC8-1
	EJECT MOT 1B	YC8-2
	EJECT MOT 2A	YC8-3
	EJECT MOT 1A	YC8-4

DFMPWB — **EPWB**

Block	Signal	Connector
DFSLM	STP MOV MOT 2B	YC8-5
	STP MOV MOT 1B	YC8-6
	STP MOV MOT 2A	YC8-7
	STP MOV MOT 1A	YC8-8
DFPES	ENTRY EJE SENS A	YC17-5
DFSLS	STP MOV HP SENS SIG	YC19-30
STPRPWB		YC10
DFSTP		
DFFCSW	FRONT COV SIG	YC4-2
DFSRM2	SIDE REG R MOT 2B	YC9-5
	SIDE REG R MOT 1B	YC9-6
	SIDE REG R MOT 2A	YC9-7
	SIDE REG R MOT 1A	YC9-8
DFSRM1	SIDE REG F MOT 2B	YC9-9
	SIDE REG F MOT 1B	YC9-10
	SIDE REG F MOT 2A	YC9-11
	SIDE REG F MOT 1A	YC9-12
DFSRS1	SID REG F HP SENS SIG	YC19-6
DFTUSS1	MTRY U SENS K	YC16-6

PHPWB

Figure 3-159

(7-2) Bundle eject operation

1st sheet

1. By rotating the DF entry roller and DF middle roller, paper is conveyed to the process section and then conveyed to the DF main tray by the DF eject roller.
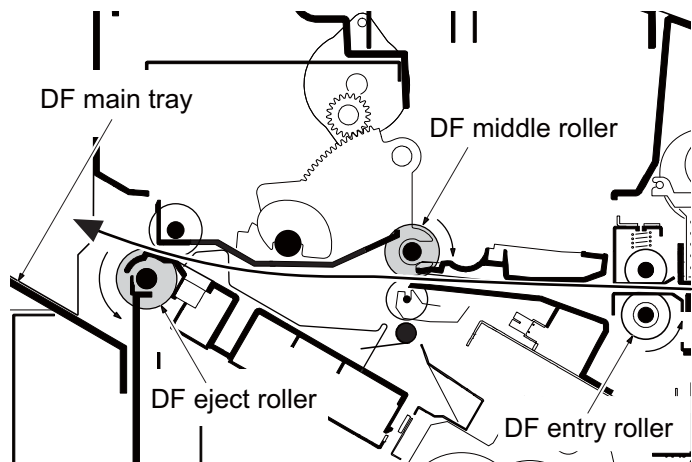
Figure 3-160

2. The DF conveying guide descends when the paper trailing edge passes the DF middle roller. Then, the DF eject roller is rotated reversely and paper is sent to the DF middle tray.
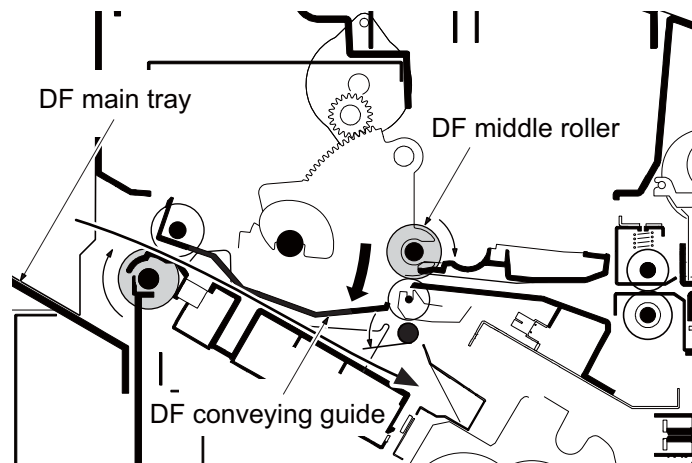
Figure 3-161

3. Then, the DF conveying guide ascends and the DF bundle eject unit ascends by the DF eject release motor drive. By rotating the DF eject roller and DF adjusting paddles, paper is conveyed to the DF middle tray. The DF side registration motor 1,2 drive the DF side registration guides to adjust paper.
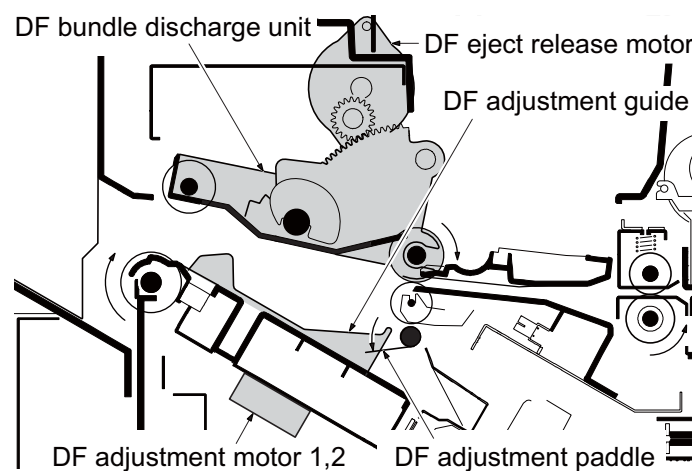
Figure 3-162

2nd sheet and after

4. Paper is sent to the process section as well as the 1st sheet.

DF bundle discharge unit

DF conveying guide

Second paper

DF middle roller

First paper
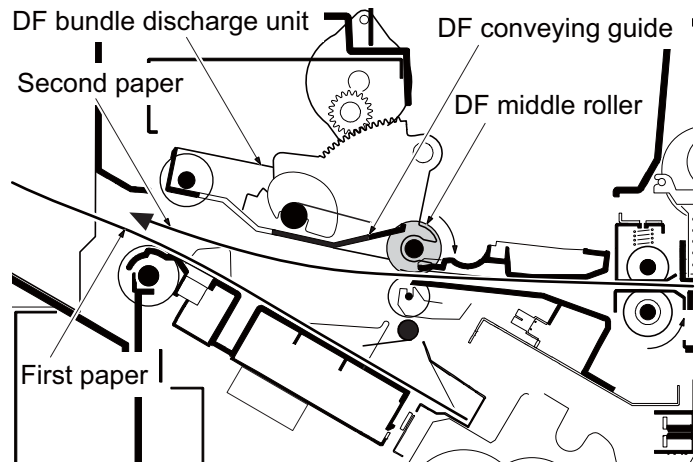
Figure 3-163

5. The DF conveying guide descends when the paper trailing edge passes the DF middle roller. Then, by rotating the DF paddles and the DF adjusting paddles, paper is conveyed to the DF middle tray. Paper is adjusted as well as the 1st sheet.

DF paddle

DF adjustment paddle

DF conveying guide
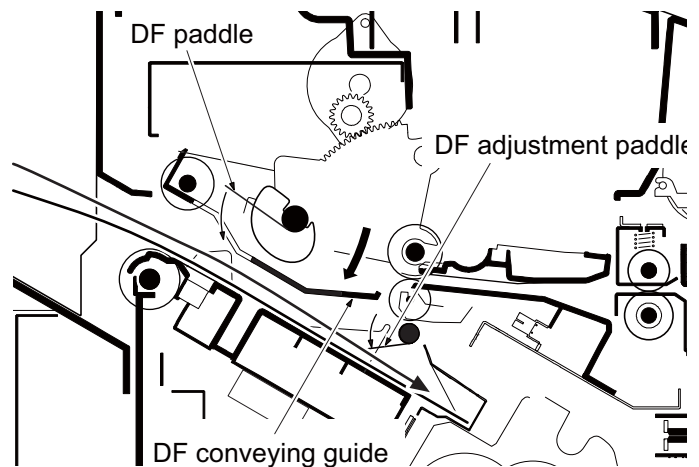
Figure 3-164

6. When completing to adjust the last sheet to bundle, the DF bundle eject unit descends and by rotating the DF eject roller, the paper bundle is ejected to the DF main tray.

DFbundle discharge unit

DF eject roller
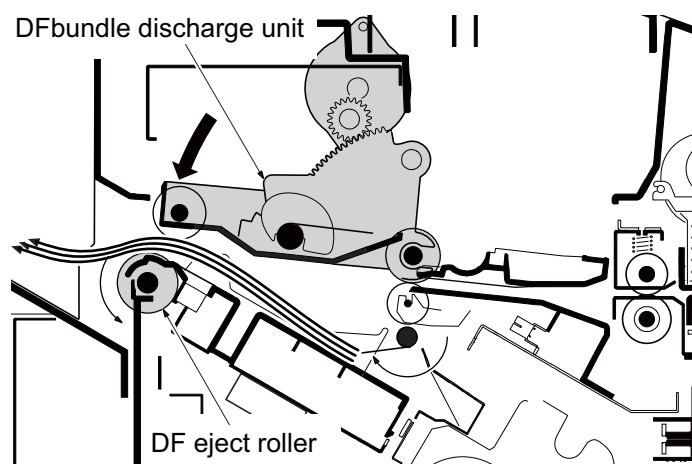
Figure 3-165

(8) Document finisher (DF-5120) : for 35/40ppm models only

(8-1) Sub tray conveying section

The conveying section consists of the parts as shown below. Paper on the middle tray is transferred after adjusting the side registration by moving the DF side registration guides in the staple and sort modes.

[Components parts]
1. DF entry roller
2. DF entry pulley
3. Feedshift guide
4. DF conveying roller
5. DF conveying pulley
6. DF sub eject roller
7. DF sub eject pulley
8. DF Actuator
   (DF sub eject sensor)
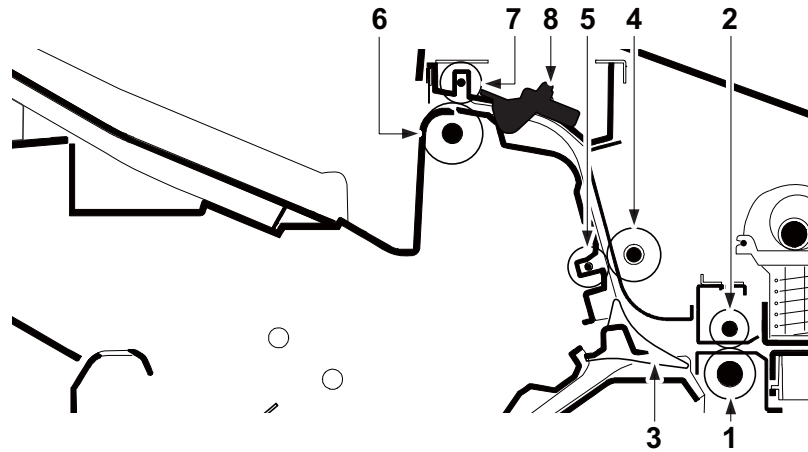
Figure 3-166
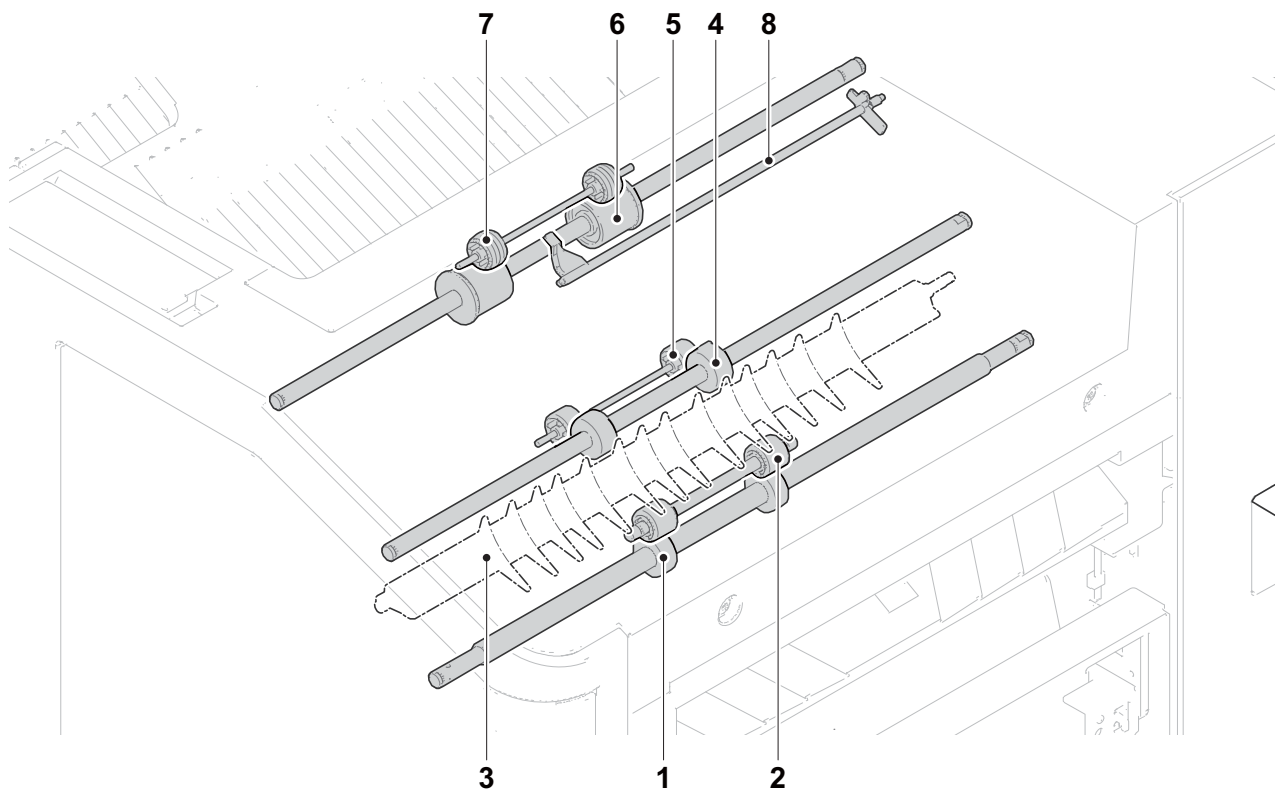
Figure 3-167

[Block diagram]
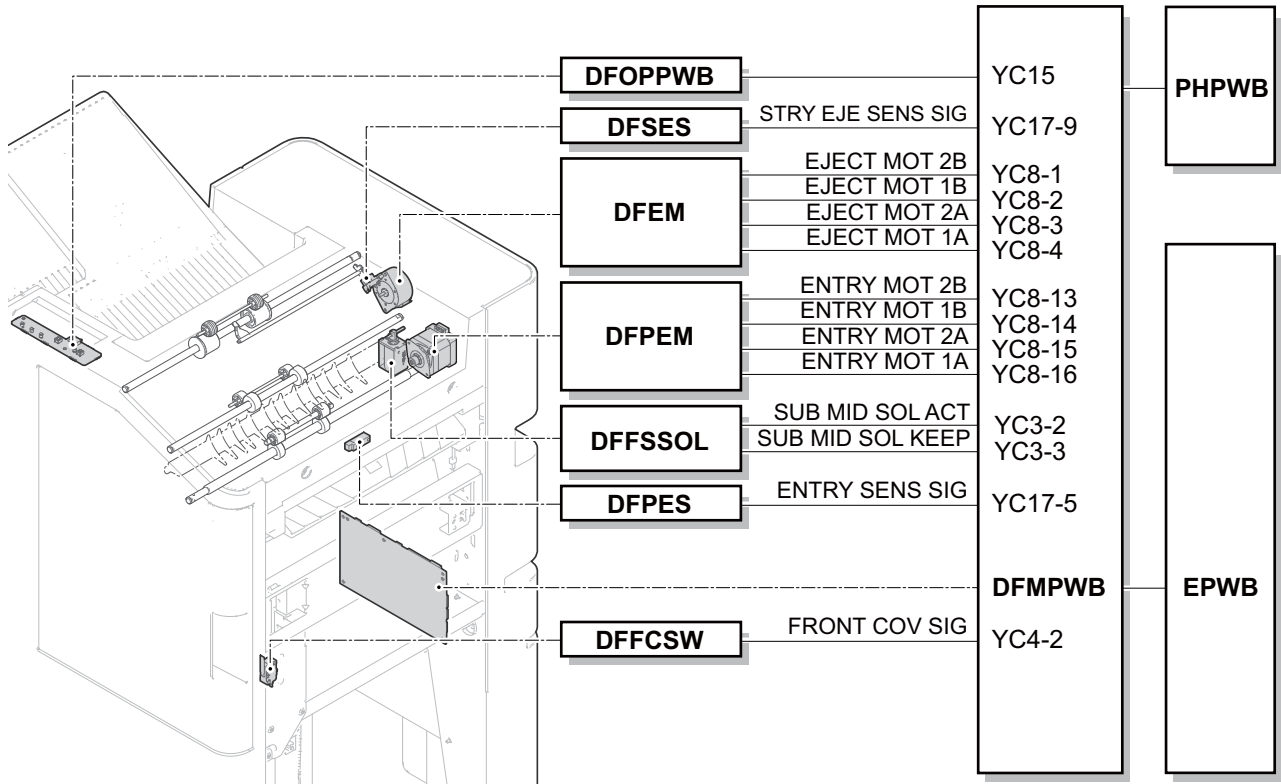
Figure 3-168

(8-2) Main tray conveying section

The conveying section consists of the parts as shown below. Paper on the middle tray is transferred after adjusting the side registration by moving the DF side registration guides in the staple and sort modes.

[Components parts]
1. DF Middle roller
2. DF Middle pulley
3. DF Actuator
   (DF middle sensor)
4. DF paper width guides
5. DF bundle eject unit
6. DF main eject roller
7. DF main eject pulley
8. DF stapler
9. DF middle tray
10. DF paddle
11. DF adjusting paddles
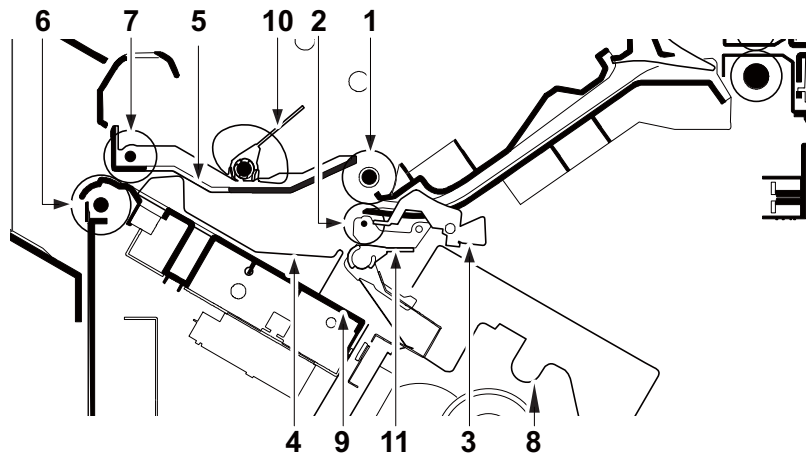
Figure 3-169
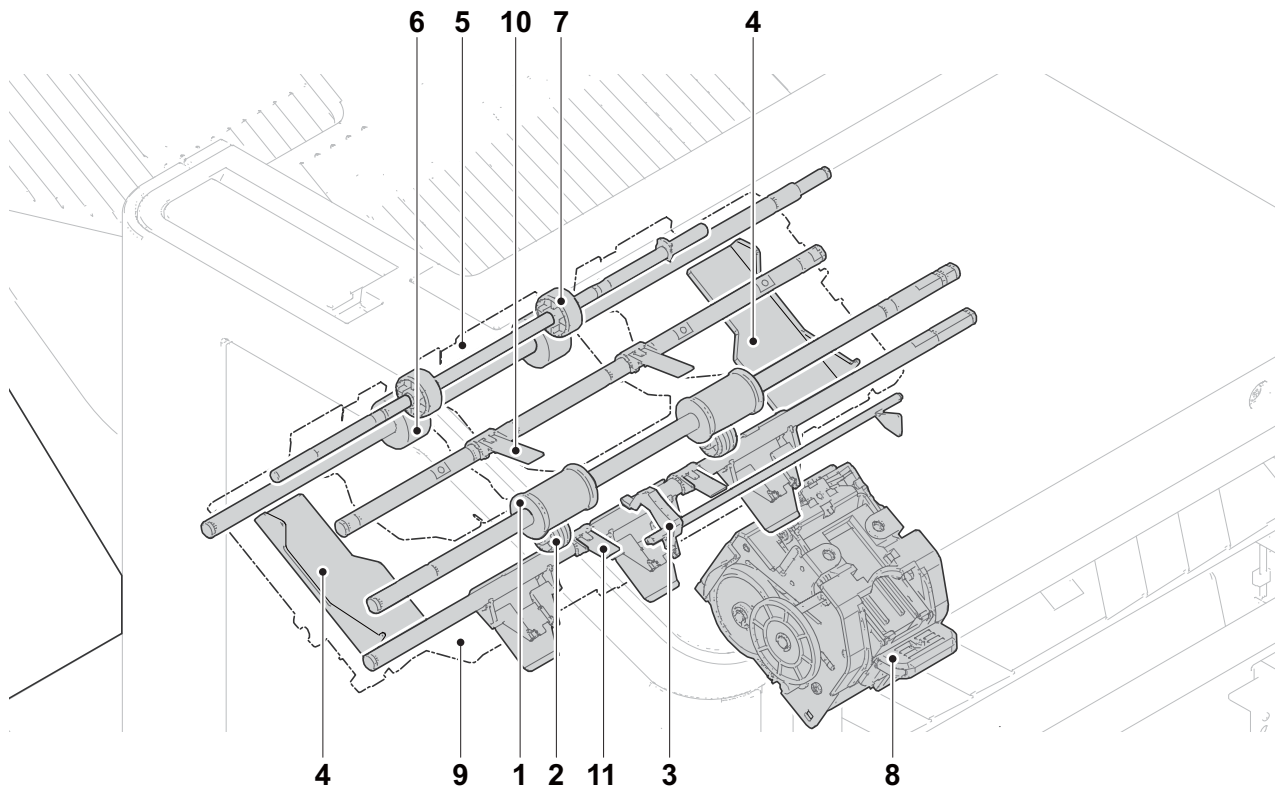
Figure 3-170

[Block diagram]

	Signal	
DFECSW	EJECT COV SIG	YC4-4
DFMTS	PAP SENS SIG	YC19-8
DFSRS2	SID REG R HP SENS SIG	YC19-3
DFTUSS2	MTRY U SENS SIG	YC16-3
DFBDS	BUNDLE HP SENS SIG	YC12-3
DFECL	EJECT CL	YC9-13
DFPDM	PADDLE MOT 2B	YC9-1
	PADDLE MOT 1B	YC9-2
	PADDLE MOT 2A	YC9-3
	PADDLE MOT 1A	YC9-4
DFERM	EJE RELS MOT 2B	YC8-9
	EJE RELS MOT 1B	YC8-10
	EJE RELS MOT 2A	YC8-11
	EJE RELS MOT 1A	YC8-12
DFMM	MIDDLE MOT 2B	YC8-17
	MIDDLE MOT 1B	YC8-18
	MIDDLE MOT 2A	YC8-19
	MIDDLE MOT 1A	YC8-20
DFPDS	PADDLE HP SENS SIG	YC19-15
DFADS	ADJUST HP SENS SIG	YC19-27
DFMES	MID EJE SENS SIG	YC17-3
DFTM	BRAKE	YC12-1
	DIR	YC12-2
	CLK	YC12-3
	ENABLE	YC12-4
DFTS1	MTRY HP1 SENS SIG	YC19-21
		DFMPWB
DFTS2	MTRY HALF SENS SIG	YC19-18
DFTS3	MTRY FULL SENS SIG	YC18-3
STPRPWB		
DFSTP		YC10
DFSRM2	SIDE REG R MOT 2B	YC9-5
	SIDE REG R MOT 1B	YC9-6
	SIDE REG R MOT 2A	YC9-7
	SIDE REG R MOT 1A	YC9-8
DFSRM1	SIDE REG F MOT 2B	YC9-9
	SIDE REG F MOT 1B	YC9-10
	SIDE REG F MOT 2A	YC9-11
	SIDE REG F MOT 1A	YC9-12
DFSRS1	SIDREG F HP SENS SIG	YC19-6
DFTUSS1	MTRY U SENS K	YC15-9

EPWB

Figure 3-171

(8-3) Bundle eject operation

1st sheet

1. By rotating the DF middle roller, paper is conveyed to the process section and then conveyed to the DF main tray by the DF eject roller.
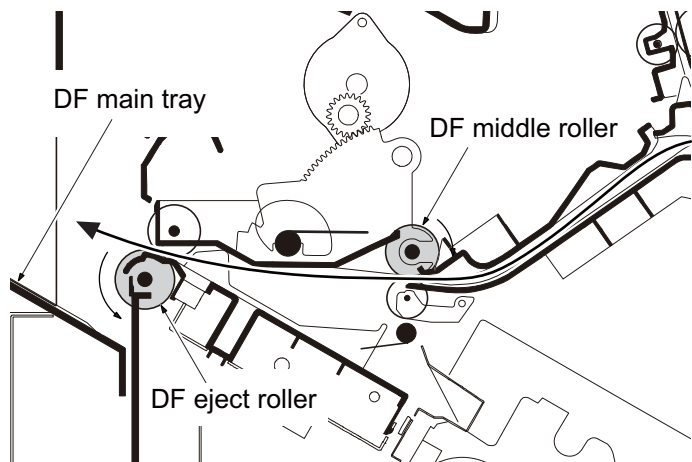
Figure 3-172

2. The DF conveying guide descends when the paper trailing edge passes the DF middle roller. Then, the DF eject roller is rotated reversely and paper is sent to the DF middle tray.
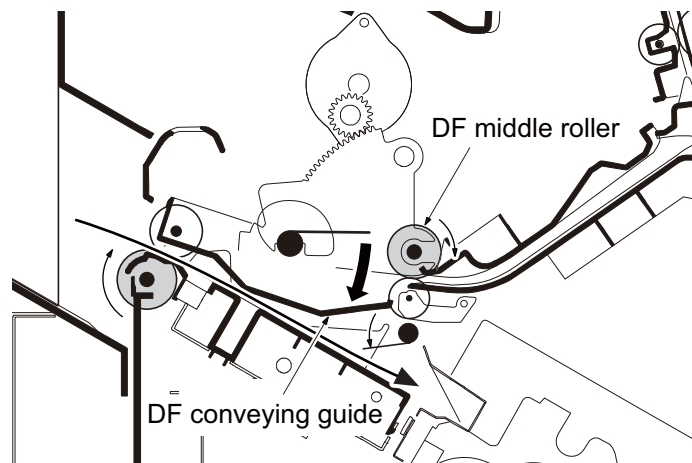
Figure 3-173

3. Then, the DF conveying guide ascends and the DF bundle eject unit ascends by the DF eject release motor drive.
By rotating the DF eject roller and DF adjusting paddles, paper is conveyed to the DF middle tray.
The DF side registration motor 1,2 drive the DF side registration guides to adjust paper.
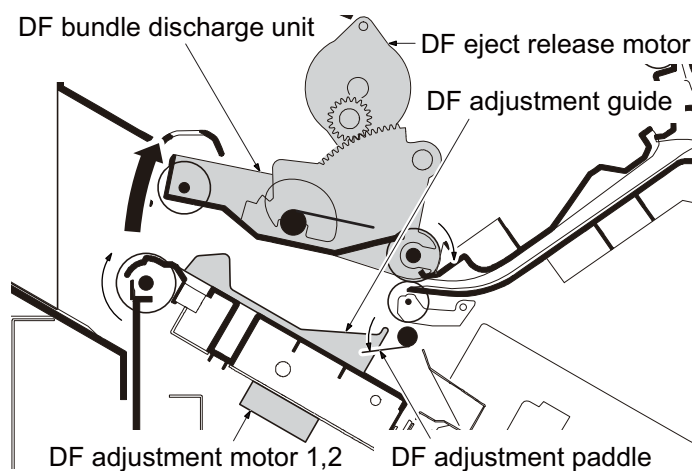
Figure 3-174

2nd sheet and after

4. Paper is sent to the process section as well as the 1st sheet.

DF bundle discharge unit — DF conveying guide

Second paper — DF middle roller

First paper
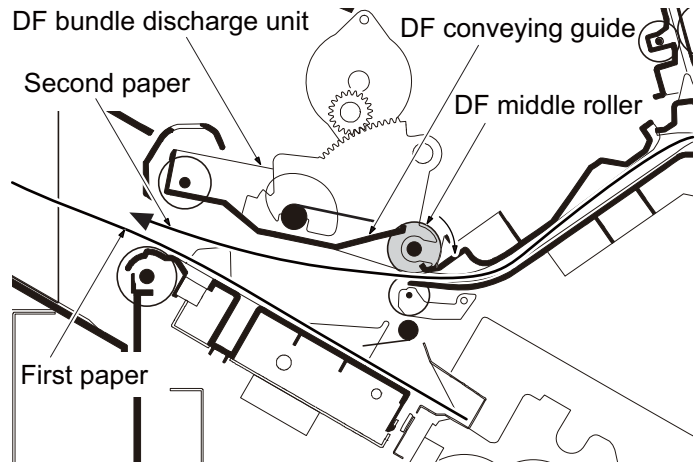
Figure 3-175

5. The DF conveying guide descends when the paper trailing edge passes the DF middle roller. Then, by rotating the DF paddles and the DF adjusting paddles, paper is conveyed to the DF middle tray. Paper is adjusted as well as the 1st sheet.

DF paddle

DF adjustment paddle

DF conveying guide
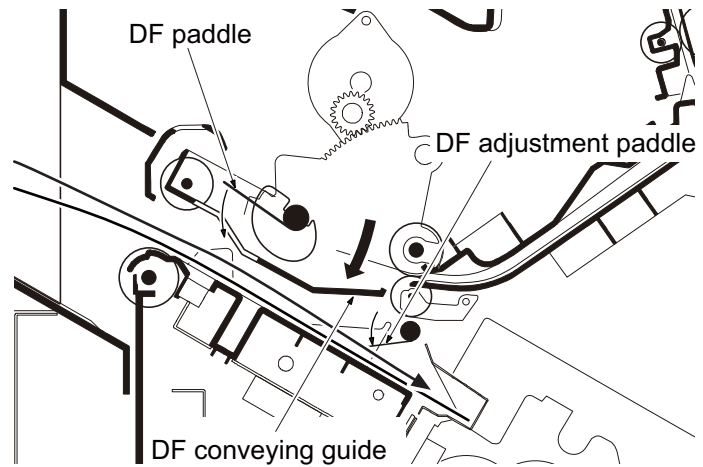
Figure 3-176

6. When completing to adjust the last sheet to bundle, the bundle eject unit descends and by rotating the main tray eject roller, the paper bundle is ejected to the DF main tray.

DF bundle discharge unit
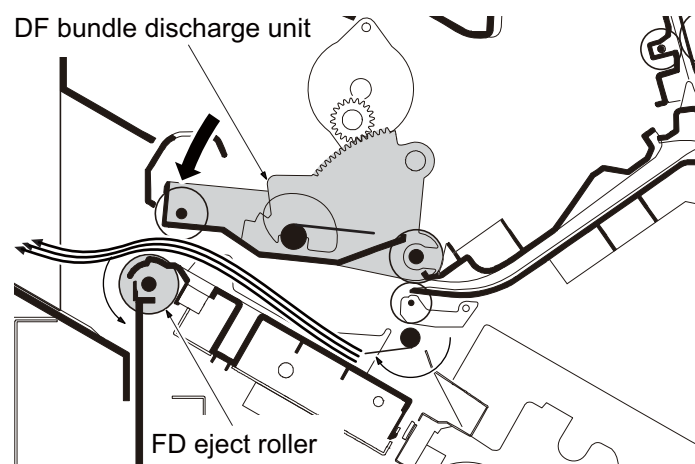
FD eject roller

Figure 3-177

(9) Mailbox (MT-5100)

The mailbox ejects paper to the tray 1 to 6 designated to stack

[Components parts]
1. MB entry guide
2. MB Feedshift guide
3. MB Eject roller M
4. MB Eject pulley M
5. MB Actuator
   (MB overflow sensor M)
6. MB conveying roller
7. MB conveying pulley
8. MB Feedshift guide S
9. MB eject roller S
10. MB eject pulley S
11. MB Actuator
    (MB overflow sensor S)
12. MB Main tray
13. MB Sub tray
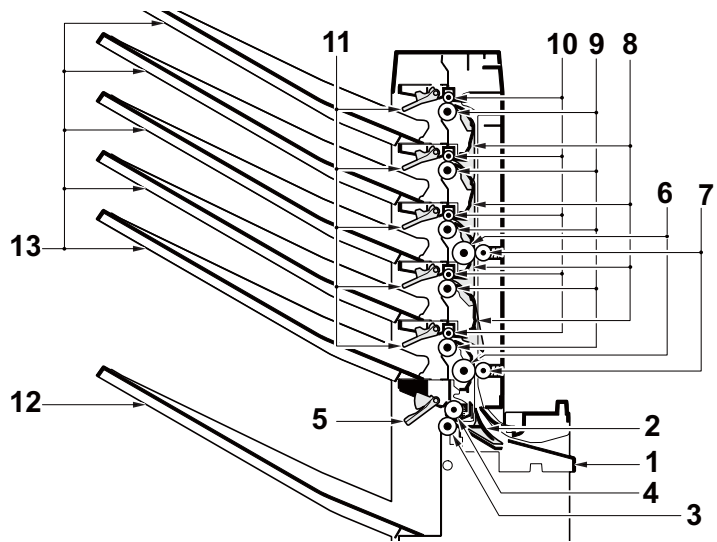
Figure 3-178
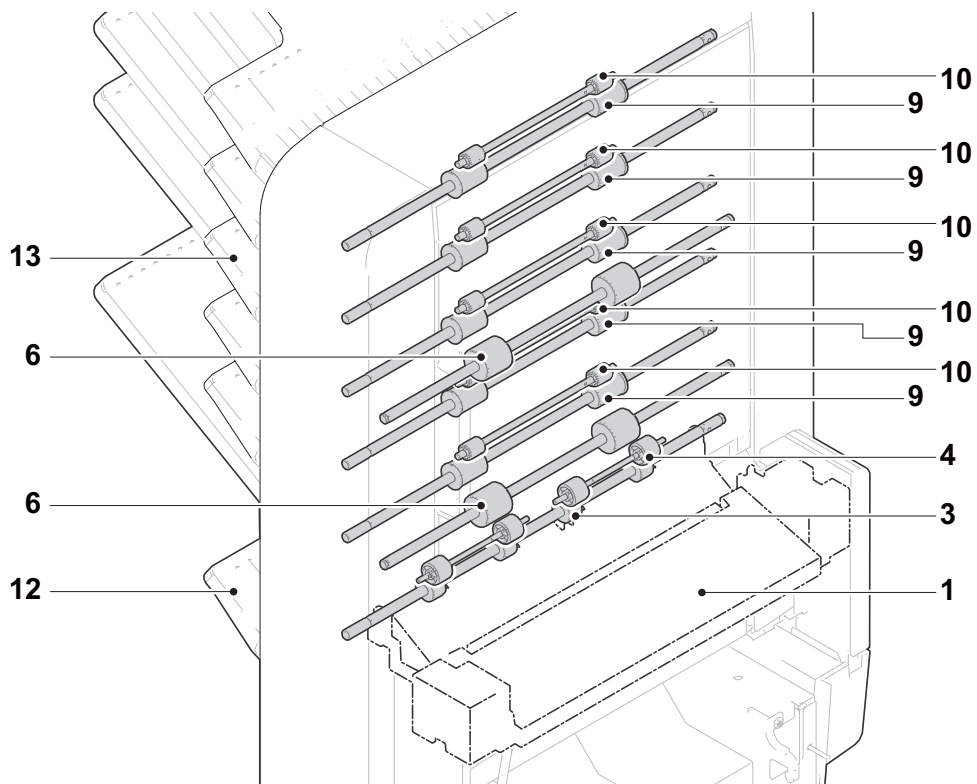
Figure 3-179

[Block diagram]

TEJS2	LED	YC3-2
TOFS1	OFS1	YC2-7
TOFS2	OFS2	YC2-10
TOFS3	OFS3	YC2-13
TOFS4	OFS4	YC2-16
TOFS5	OFS5	YC3-5
TOFS6	OFS6	YC3-8
MBDM	MOTOR _A	YC4-1
	MOTOR A	YC4-2
	MOTOR B	YC4-3
	MOTOR _B	YC4-4
TEJS1	LED	YC2-1
MHPS	SHIFT HP SIG	YC3-14
MCOS	COVER OPEN	YC3-17

MBMPWB   EPWB
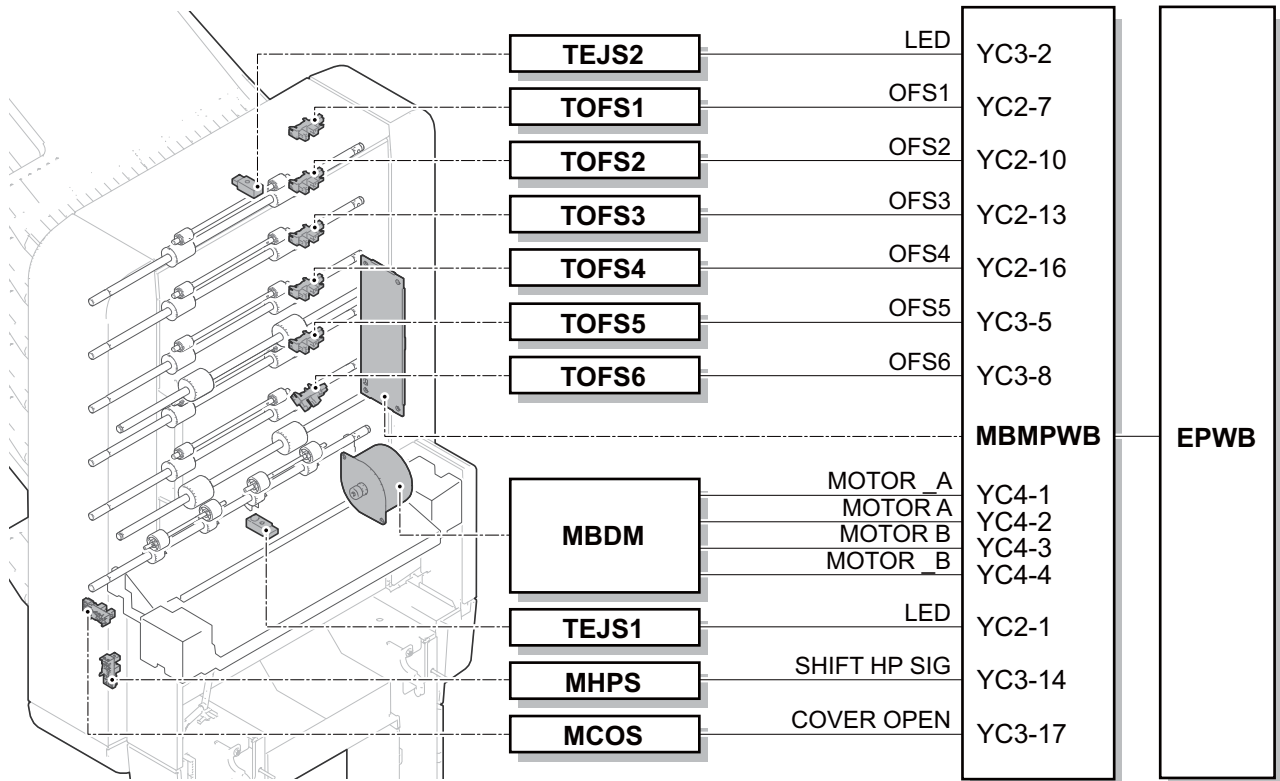
Figure 3-180

(9-1) Ejecting to the mailbox tray

If the belt support plate moving on the belt passes the feedshift nail lever, the feedshift nail is switches the conveying path to eject to each tray. Also, the tray eject sensor detects paper jam.
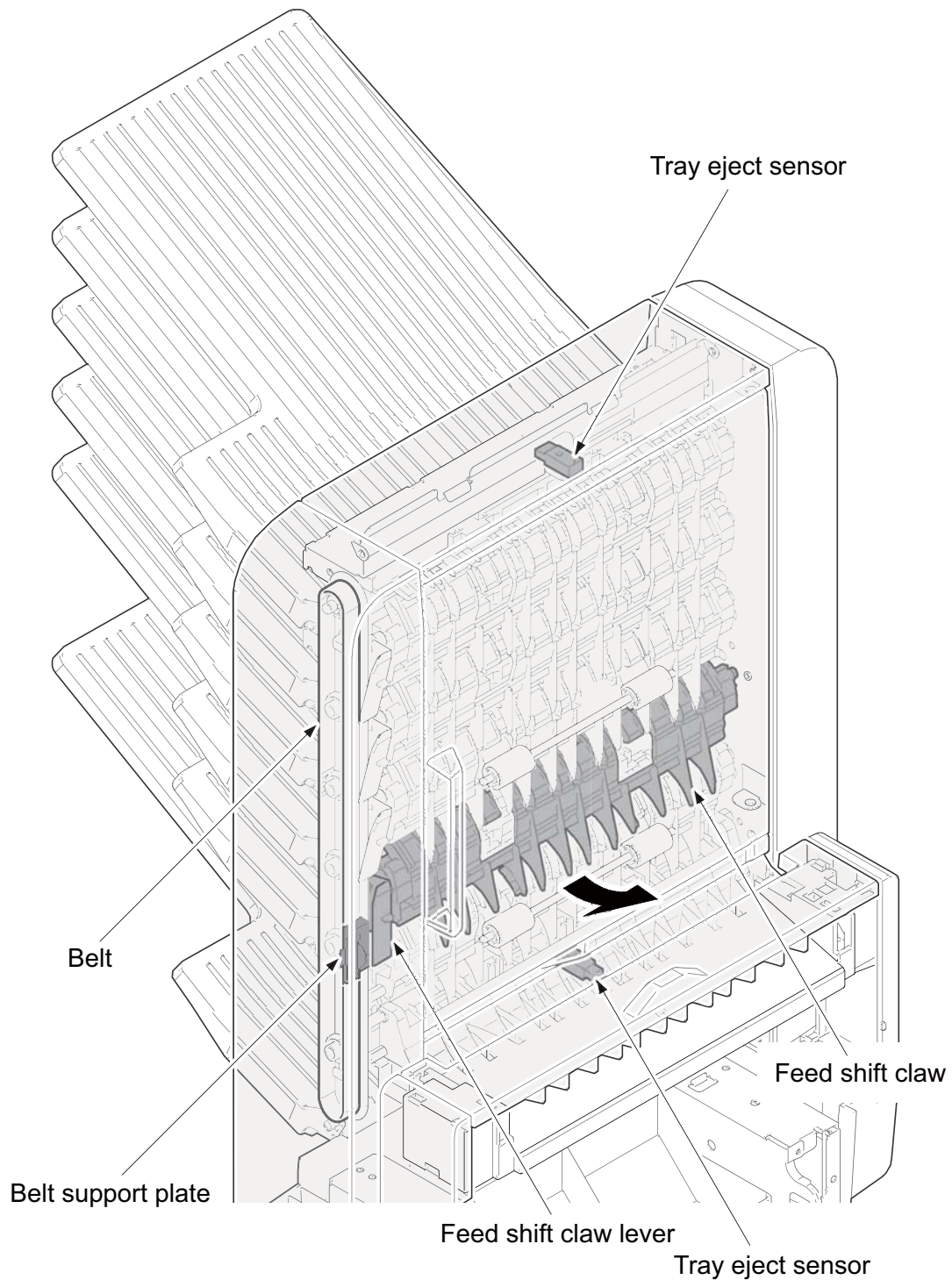
Figure 3-181

(10) Punch unit (PH-5110)

The punch unit is installed at the paper entry section of the document finisher and paper entered there is stopped to make punch holes.

[Components parts]
1. Punch cam
2. Punch cutter
3. Punch dust tank
4. Cutter holder
5. Cam shaft
6. Pulse plate
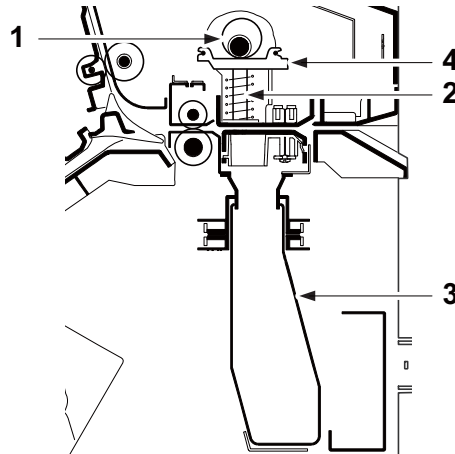
Figure 3-182
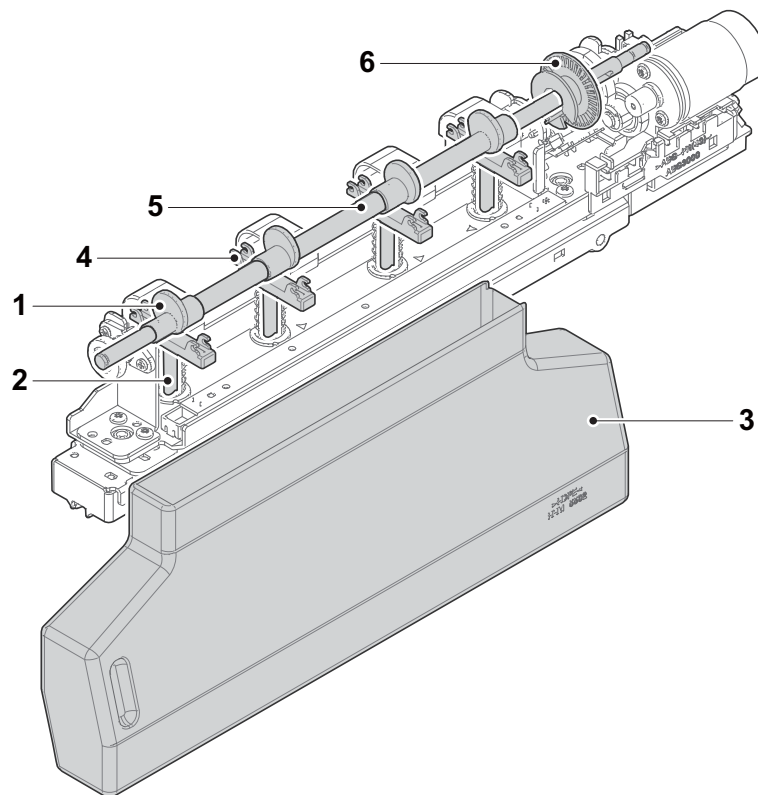
Figure 3-183

[Block diagram]

PUTFS2	PHLED_B	YC5-4
	PHLED_C	YC5-5
	PHLED_D	YC5-6
	PHLED_AN	YC5-7
PUPES	TANKLED_A	YC6-4
	TANKLED_B	YC6-5
	TANKLED_C	YC6-6
	TANKLED_AN	YC6-7
PUPS	PHMOT_PLS	YC8-3
PUHPS	PHMOT_HP	YC8-6
PUSOL	PHSOL_PUL	YC5-2
	PHSOL_RET	YC5-3
PUM	PHMOT_P	YC4-1
	PHMOT_N	YC4-3
PUSLS	PHADJ_HP	YC6-3
PUSLM	PHADJ_MOT_2B	YC3-1
	PHADJ_MOT_1B	YC3-2
	PHADJ_MOT_2A	YC3-3
	PHADJ_MOT_1A	YC3-4
PUCSSOL	GDSOL_PUL	YC3-6
	GDSOL_HLD	YC3-7

PUNPWB

EPWB

DFM PWB

PUTSSW	PHTNK_SET	YC6-9
PUTFS	TANK_FULL	YC6-10
PUPES1	PHPES_DET	YC8-7

Figure 3-184

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4 Maintenance
4-1 Precautions for the maintenance

(1) Precautions

Before disassembling the main unit, press the main power switch to turn the power off. Make sure that the power lamp on the operation panel is off and unplug the power cord from the wall outlet. Then, start the disassembly.

When handling the PWBs (printed wiring boards), do not touch parts with bare hands. Make sure not to damage the PWB.

If ICs are mounted on the PWB, do not touch them by hand or something charged with electrostatic.

Make sure to release the hook before disconnecting the connector with the hook.

Take care not to pinch up the wire and cable.

Use the original screws when reassembling the parts once disassembled.

If the types and the sizes of screws are not sure, refer to the parts list.

*: Due to the structure of the 30 ppm model, the operation panel is lit for a moment when the power code is plugged in.

(2) Storage and handling of the drum

Note the following when handling and storing the drum.

When detaching the drum unit, never expose the drum surface to strong direct light.

Store in the range of ambient temperature of -20 to 40 degree C(–4°F to 104°F) and ambient humidity of 85% RH or less. Wait more than 5 seconds between the power off and on. Avoid storing the drum unit in the place where the temperature and humidity may suddenly change even if these changes are within the tolerable range.

Avoid exposure to any substance which is harmful or may affect the quality of the drum.

Do not touch the drum surface with any object.

Make sure not to touch the drum surface with bare hands or gloves.

If the drum is touched by hands or stained with oil, clean it.

(3) Storage of the toner container

Store the toner container in a cool, dark place.

Do not place the toner container under direct sunshine or in a damp environment.

(4) Screening of the toner container

Look at the screening film on the brand protection seal affixed to the toner container through the windows of the validation viewer.
Look at the screening film through two windows to check the genuineness.

A black-colored band when seen through the the anti-counterfeit film portion left side window (● mark).
A shiny or gold-colored band when seen through the anti-counterfeit film portion right side window (☼ mark).

When seen as the above, it is genuine. Otherwise (e.g. both seen in gold), it is a counterfeit.

See through the left window (●marking)

Validation viewer

Front side

Brand protection seal

A black-colored band when seen through the left side window

See through the right window (☼marking)

Validation viewer

Front side

Brand protection seal

A shiny or gold-colored band when seen through the right side window
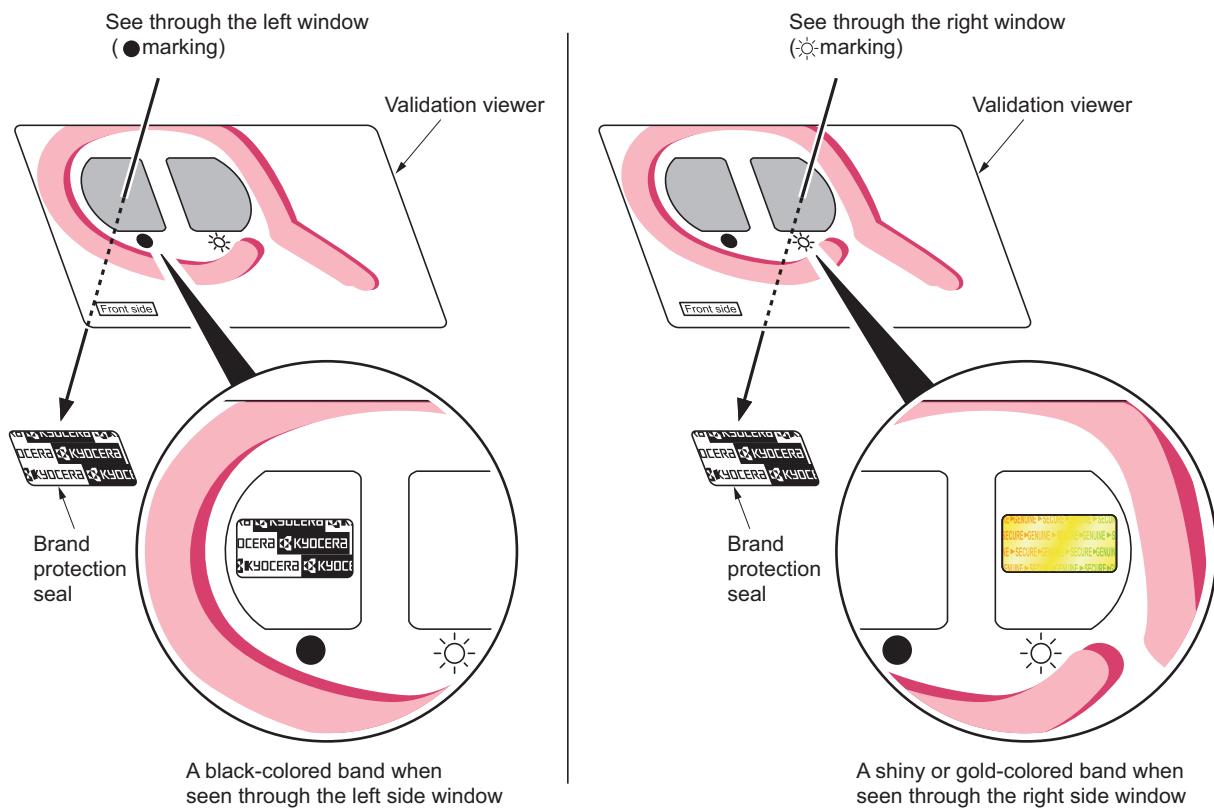
Figure 4-1

The brand protection seal has an incision as shown below to prohibit reuse.

Incision

Cut
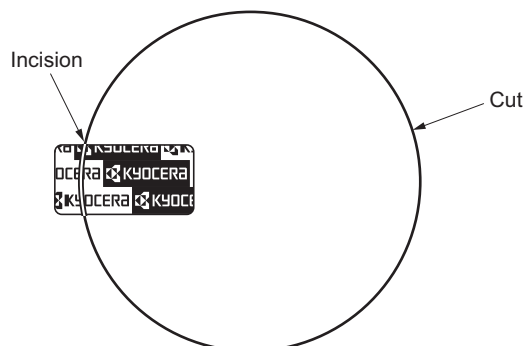
Figure 4-2

4-2 Maintenance parts

(1) Maintenance kits

(1-1) 30 ppm models

Maintenance part name		Part No.	Alternative parts No.
Name used in service manual	Name used in parts list		
MK-5195A MK-5197A (200,000 images)	MK-5195A/MAINTENANCE KIT MK-5197A/MAINTENANCE KIT 　ROLLER RETARD ASSY 　DRUM UNIT 　DLP K UNIT 　FUSER ASSY 　MIDDLE TRANSFER UNIT 　2ND TRANS ASSY SP 　HOLDER PICK UP ASSY SP	1702R48NL0 1702R47US1	072R48NL 072R47US
MK-5195B (200,000 images)	MK-5195B/MAINTENANCE KIT 　DRUM UNIT 　DLP M UNIT 　DLP C UNIT 　DLP Y UNIT	1702R40UN0	072R40UN

(1-2) 35 ppm models

Maintenance part name		Part No.	Alternative parts No.
Name used in service manual	Name used in parts list		
MK-5205A MK-5206A MK-5207A (200,000 images)	MK-5205A/MAINTENANCE KIT MK-5206A/MAINTENANCE KIT MK-5207A/MAINTENANCE KIT 　ROLLER RETARD ASSY 　DRUM UNIT 　DLP K UNIT 　FUSER ASSY 　MIDDLE TRANSFER UNIT 　2ND TRANS ASSY SP 　HOLDER PICK UP ASSY SP	1702R58NL0 1702R59JP1 1702R57US1	072R58NL 072R59JP 072R57US
MK-5205B (200,000 images)	MK-5205B/MAINTENANCE KIT 　DRUM UNIT 　DLP M UNIT 　DLP C UNIT 　DLP Y UNIT	1702R50UN0	072R50UN

(1-3) 40 ppm models

Maintenance part name		Part No.	Alternative parts No.
Name used in service manual	Name used in parts list		

MK-5215A
MK-5216A
MK-5217A
(300,000 images)
	MK-5215A/MAINTENANCE KIT
	MK-5216A/MAINTENANCE KIT
	MK-5217A/MAINTENANCE KIT
	    ROLLER RETARD ASSY
	    DRUM UNIT
	    DLP K UNIT
	    FUSER ASSY
	    MIDDLE TRANSFER UNIT
	    2ND TRANS ASSY SP
	    HOLDER PICK UP ASSY SP
		1702R68NL0
		1702R69JP1
		1702R67US1
			072R68NL
			072R69JP
			072R67US

MK-5215B
(300,000 images)
	MK-5215B/MAINTENANCE KIT
	    DRUM UNIT
	    DLP M UNIT
	    DLP C UNIT
	    DLP Y UNIT
		1702R60UN0	072R60UN

(2) Maintenance kit for the document processor

(2-1) 30 ppm model standard DP/DP-5100: 35/40 ppm models

Maintenance part name		Part No.	Alternative parts No.
Name used in service manual	Name used in parts list		

MK-3140
(200,000 Sheets)
	MK-3140/MAINTENANCE KIT
	    DP PAD ASSY
	    DP PULLEY ASSY
		1702P60UN0	072P60UN

(2-2) DP-5110:35/40 ppm models only

Maintenance part name		Part No.	Alternative parts No.
Name used in service manual	Name used in parts list		

MK-5200
(200,000 Sheets)
	MK-5200/MAINTENANCE KIT
	    HOLDER PICUP ASSY
	    HOLDER PAD ASSY
		1703R40UN0	073R40UN

(3) Executing the maintenance mode after replacing the maintenance kit

Execute the following maintenance modes after replacing the above maintenance kit.

Section	Mode No.	Maintenance item	MK-5***A	MK-5***B
Replacing settings	U119	Drum unit initial settings	○	○
	U930	Checking/clearing the main charger roller counts	○	○
	U140	Developer bias adjustment (AC Calib/Calibration)	○[*1]	○[*1]
	U469	Color registration adjustment	○	✕
	U127	Checking/clearing the transfer counts	○	✕
	U167	Checking/clearing the fuser counts	○	✕
	U251	Checking/clearing the maintenance counts	○	✕
Image adjustment	U464	ID correction operation setting (Calib)	○	○
	U469	Color registration adjustment (Auto)	○	○
	U411	Adjusting the uneven density (Normal Mode)	○[*1, *2]	○[*1, *2]
	U464	ID correction operation setting (Calib)	○[*2]	○[*2]
	U410	Adjusting the halftone automatically	○	○
Maintenance	U251	Checking/clearing the maintenance counts	○	○

*1: 40 ppm model only
*2: at the time of drum replacement only

(4) Periodic maintenance Procedures

Check the maintenance counts by the maintenance mode U901.

(4-1)Main body (30 ppm model)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	TONER (CARTRIDGE)	---						
2	WASTE TONER BOX WT-5190	---						
3	IMAGE QUALITY	---	CH AD	CH AD	CH AD	CH AD		
4	MK-5195A	1702R48NL0 072R48NL			RE	RE		BK DRUM UNIT, TRANSFER UNIT, BK DLP UNIT, FUSER UNIT 2ND TRANS ASSY SP, HOLDER PICK UP ASSY SP, RETARD ROLLER ASSY
5	MK-5197A	1702R47US1 072R47US			RE	RE		
6	MK-5195B	1702R40UN0 072R40UN			RE	RE		CMY DRUM UNIT,CMY DLP UNIT
7	INSIDE OF MACHINE	---		CL	CL	CL		VACUUM: Remove toner and paper dust especially at the paper conveying part and around the image formation part.
B	<Cover>							
1	OUTER COVERS	---	CH		CL	CL		Alcohol or dry cloth
C	<PF and Conveying section>							
1	PARTS CLEANER REGIST ASSY SP	302R494120		CL	CL	CL		VACUUM: Remove paper dust.
2	PARTS PRIMARY FEED ASSY SP	302R494210 2R494210		CL				Alcohol or dry cloth
3	PARTS HOLDER PICK UP ASSY SP	302R494170 2R494170		CL				Alcohol or dry cloth
4	RETARD ROLLER ASSY	302F909171 2F909171		CL				Alcohol or dry cloth
5	PARTS ROLLER MPF ASSY SP	302MV94020		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.
6	PARTS HOLDER SEPARATION SP	302R494180		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
7	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth
8	GUIDES	---		CL	CL	CL		Alcohol or dry cloth
D	<Exit and Duplex Section>							
1	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth
2	GUIDES	---			CL	CL		Alcohol or dry cloth
E	<Image scanner section>							
1	CONTACT GLASS	302H917031	CL	CL	CL	CL		Slit glass for DP: Clean by dry cloth or alcohol. (attention: wet cloth is strictly prohibited.)
	CONTACT GLASS DP	302H917040	CL	CL	CL	CL		When inatalling DP,clean with dry cloth.
								Contact glass for putting the original on: Dry cloth after cleaning with alcohol (FACE SIDE)
								Wipe the back side with dry cloth after cleaning with alcohol only when unusual image (line or stain) appears. (BACK SIDE)
F	<Drive and other section>							
1	CLUTCHS	---		CH RE	CH	CH		Check the copy registration and paper feed condition on registration and paper feed section.
2	SENSORS	---		CH	CH	CH		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-2)Main body (35 ppm model)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

| | Parts name | Parts No. | PM maintenance (x1000 counts) | | | | | Remark |
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	TONER (CARTRIDGE)	---						
2	WASTE TONER BOX WT-5190	---						
3	IMAGE QUALITY	---	CH AD	CH AD	CH AD	CH AD		
4	MK-5205A	1702R58NL0 072R58NL			RE	RE		BK DRUM UNIT, TRANSFER UNIT, BK DLP UNIT, FUSER UNIT 2ND TRANS ASSY SP, HOLDER PICK UP ASSY SP, RETARD ROLLER ASSY
5	MK-5206A	1702R59JP1 072R59JP			RE	RE		
6	MK-5207A	1702R57US1 072R57US			RE	RE		
7	MK-5205B	1702R50UN0 072R50UN			RE	RE		CMY DRUM UNIT,CMY DLP UNIT
8	INSIDE OF MACHINE	---		CL	CL	CL		VACUUM: Remove toner and paper dust especially at the paper conveying part and around the image formation part.
B	<Cover>							
1	OUTER COVERS	---	CH		CL	CL		Alcohol or dry cloth
C	<PF and Conveying section>							
1	PARTS CLEANER REGIST ASSY SP	302R494120		CL	CL	CL		VACUUM: Remove paper dust.
2	PARTS PRIMARY FEED ASSY SP	302R494210 2R494210		CL				Alcohol or dry cloth
3	PARTS HOLDER PICK UP ASSY SP	302R494170 2R494170		CL				Alcohol or dry cloth
4	RETARD ROLLER ASSY	302F909171 2F909171		CL				Alcohol or dry cloth
5	PARTS ROLLER MPF ASSY SP	302MV94020		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.
6	PARTS HOLDER SEPARATION SP	302R494180		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.
7	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
8	GUIDES	---		CL	CL	CL		Alcohol or dry cloth
D	<Exit and Duplex Section>							
1	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth
2	GUIDES	---			CL	CL		Alcohol or dry cloth
E	<Image scanner section>							
1	CONTACT GLASS	302H917031	CL	CL	CL	CL		Slit glass for DP: Clean by dry cloth or alcohol. (attention: wet cloth is strictly prohibited.)
	CONTACT GLASS DP	302H917040	CL	CL	CL	CL		When inatalling DP,clean with dry cloth.
								Contact glass for putting the original on: Dry cloth after cleaning with alcohol (FACE SIDE)
								Wipe the back side with dry cloth after cleaning with alcohol only when unusual image (line or stain) appears. (BACK SIDE)
F	<Drive and other section>							
1	CLUTCHS	---		CH RE	CH	CH		Check the copy registration and paper feed condition on registration and paper feed section.
2	SENSORS	---		CH	CH	CH		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-3)Main body (40 ppm model)

| | Parts name | Parts No. | PM maintenance (x1000 counts) | | | | | Remark |
			Set UP	User Call	300	600		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	TONER (CARTRIDGE)	---						
2	WASTE TONER BOX WT-5191	---						
3	IMAGE QUALITY	---	CH AD	CH AD	CH AD	CH AD		
4	MK-5215A	1702R68NL0 072R68NL			RE	RE		BK DRUM UNIT, TRANSFER UNIT, BK DLP UNIT, FUSER UNIT 2ND TRANS ASSY SP, HOLDER PICK UP ASSY SP, RETARD ROLLER ASSY
5	MK-5216A	1702R69JP1 072R69JP			RE	RE		
6	MK-5217A	1702R67US1 072R67US			RE	RE		
7	MK-5215B	1702R60UN0 072R60UN			RE	RE		CMY DRUM UNIT,CMY DLP UNIT
8	INSIDE OF MACHINE	---		CL	CL	CL		VACUUM: Remove toner and paper dust especially at the paper conveying part and around the image formation part.
B	<Cover>							
1	OUTER COVERS	---	CH		CL	CL		Alcohol or dry cloth
C	<PF and Conveying section>							
1	PARTS CLEANER REGIST ASSY SP	302R494120		CL	CL	CL		VACUUM: Remove paper dust.
2	PARTS PRIMARY FEED ASSY SP	302R494210 2R494210		CL				Alcohol or dry cloth
3	PARTS HOLDER PICK UP ASSY SP	302R494170 2R494170		CL				Alcohol or dry cloth
4	RETARD ROLLER ASSY	302F909171 2F909171		CL				Alcohol or dry cloth
5	PARTS ROLLER MPF ASSY SP	302MV94020		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.
6	PARTS HOLDER SEPARATION SP	302R494180		CL	CH RE	CH RE		Alcohol or dry cloth if no replacement. CH:Performing U901 and check feeding count: Target to replace at 100K.
7	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth

Parts name		Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	300	600		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
8	GUIDES	---		CL	CL	CL		Alcohol or dry cloth
D	<Exit and Duplex Section>							
1	ROLLERS ,PULLEYS	---		CL	CL	CL		Alcohol or dry cloth
2	GUIDES	---			CL	CL		Alcohol or dry cloth
E	<Image scanner section>							
1	CONTACT GLASS	302H917031	CL	CL	CL	CL		Slit glass for DP: Clean by dry cloth or alcohol. (attention: wet cloth is strictly prohibited.)
	CONTACT GLASS DP	302H917040	CL	CL	CL	CL		When inatalling DP,clean with dry cloth.
								Contact glass for putting the original on: Dry cloth after cleaning with alcohol (FACE SIDE)
								Wipe the back side with dry cloth after cleaning with alcohol only when unusual image (line or stain) appears. (BACK SIDE)
F	<Drive and other section>							
1	CLUTCHS	---		CH RE	CH	CH		Check the copy registration and paper feed condition on registration and paper feed section.
2	SENSORS	---		CH	CH	CH		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-4)Standard DP (30 ppm model)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

| | Parts name | Parts No. | PM maintenance (x1000 counts) | | | | | Remark |
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	IMAGE QUALITY	---	CH AD	CH AD	CH AD	CH AD		
B	<Cover>							
1	OUTER COVERS	---		CL	CL	CL		CL:Alcohol
C	<PF and Conveying section>							
1	MK-3140	1702P60UN0 072P60UN			RE	RE		HOLDER PICKUP ASSY, HOLDER PAD ASSY
2	PARTS HOLDER PICKUP ASSY SP	303R394020 3R394020		CL				CL:Alcohol (If necessary, replace the MK-3140)
3	PARTS HOLDER PAD ASSY SP	303R394030 3R394030		CL				CL:Alcohol (If necessary, replace the MK-3140)
D	<Conveying and Reversing section>							
1	PARTS ROLLER CONVEYING A SP	303R394060 3R394060		CL	CL	CL		Alcohol or dry cloth
2	PULLEY CONVEYING x5	3V2NM18240 2NM18240		CL	CL	CL		Alcohol or dry cloth
3	PULLEY GUIDE READING x4	303LL24190 3LL24190		CL	CL	CL		Alcohol or dry cloth
4	PARTS ROLLER LOOP SP	303R394090 3R394090		CL	CL	CL		Alcohol or dry cloth
5	PULLEY CONVEYING BK x5	303M824210 3M824210		CL	CL	CL		Alcohol or dry cloth
6	GUIDE READING	3V2NM18520 2NM18520		CL	CL	CL		Alcohol or dry cloth
E	<Other section>							
1	PLATE ORIGINAL	302H918021 2H918021		CL	CL	CL		Alcohol or dry cloth
2	CONTACT GLASS DP	302H917040 2H917040		CL	CL	CL		Slit glass for DP (Main body side) Alcohol or dry cloth (wet cloth is strictly prohibited.)??

(4-5)DP-5100 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	IMAGE QUALITY	---	CH	CH	CH	CH		
			AD	AD	AD	AD		
B	<Cover>							
1	OUTER COVERS	---		CL	CL	CL		CL:Alcohol
C	<PF and Conveying section>							
1	MK-3140	1702P60UN0 072P60UN			RE	RE		HOLDER PICKUP ASSY, HOLDER PAD ASSY
2	PARTS HOLDER PICKUP ASSY SP	303R394020 3R394020		CL				CL:Alcohol (If necessary, replace the MK-3140)
3	PARTS HOLDER PAD ASSY SP	303R394030 3R394030		CL				CL:Alcohol (If necessary, replace the MK-3140)
D	<Conveying and Reversing section>							
1	PARTS ROLLER CONVEYING A SP	303R394060 3R394060		CL	CL	CL		Alcohol or dry cloth
2	PULLEY CONVEYING x5	3V2NM18240 2NM18240		CL	CL	CL		Alcohol or dry cloth
3	PULLEY GUIDE READING x4	303LL24190 3LL24190		CL	CL	CL		Alcohol or dry cloth
4	PARTS ROLLER LOOP SP	303R394090 3R394090		CL	CL	CL		Alcohol or dry cloth
5	PULLEY CONVEYING BK x5	303M824210 3M824210		CL	CL	CL		Alcohol or dry cloth
6	GUIDE READING	3V2NM18520 2NM18520		CL	CL	CL		Alcohol or dry cloth
E	<Other section>							
1	PLATE ORIGINAL	302H918021 2H918021		CL	CL	CL		Alcohol or dry cloth
2	CONTACT?GLASS?DP	302H917040 2H917040		CL	CL	CL		Slit glass for DP (Main body side) Alcohol or dry cloth (wet cloth is strictly prohibited.)

(4-6)DP-5110 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>							
1	IMAGE QUALITY	---	CH AD	CH AD	CH AD	CH AD		
B	<Cover>							
1	OUTER COVERS	---		CL	CL	CL		CL:Alcohol
C	<PF and Conveying section>							
1	MK-5200	1703R40UN0 073R40UN			RE	RE		HOLDER PICKUP ASSY, HOLDER PAD ASSY
2	PARTS HOLDER PICUP ASSY SP	303R494010 3R494010		CL				CL:Alcohol (If necessary, replace the MK-5200)
3	PARTS HOLDER PAD ASSY SP	303R394030 3R394030		CL				CL:Alcohol (If necessary, replace the MK-5200)
4	PULLEY GUIDE READING	303LL24190 3LL24190		CL	CL	CL		Alcohol or dry cloth
5	SENSOR OPT.	7NXPS122GD4A H01		CL	CL	CL		CL:Airbrush or dry cloth (Front of the resist)
D	<Conveying and Reversing section>							
1	PARTS ROLLER REGIST SP	303R494090 3R494090		CL	CL	CL		CL:Alcohol
2	PARTS ROLLER CONVEYING CIS SP	303R494100 3R494100		CL	CL	CL		CL:Alcohol
3	PULLEY REGISTRATION BK x6	303M824220 3M824220		CL	CL	CL		Alcohol or dry cloth
4	PARTS ROLLER CIS SP	303R494060 3R494060		CL	CL	CL		Alcohol or dry cloth
5	GLASS CIS	303R424120 3R424120		CL	CL	CL		Alcohol or dry cloth (wet cloth is strictly prohibited.)
6	PULLEY CONVEYING BK x6	303M824210 3M824210		CL	CL	CL		Alcohol or dry cloth
7	PULLEY GUIDE READING x3	303LL24190 3LL24190		CL	CL	CL		Alcohol or dry cloth
8	GUIDE READING	303R424220 3R424220		CL	CL	CL		Alcohol or dry cloth

	Parts name	Parts No.	PM maintenance (x1000 counts)					Remark
			Set UP	User Call	200	400		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
9	SENSOR OPT.	7NXPS124GD1+ H01		CL	CL	CL		CL:Airbrush ordry cloth (Front of the CIS)
E	\<Other section\>							
1	PLATE ORIGINAL	302H918021 2H918021		CL	CL	CL		Alcohol or dry cloth
2	CONTACT?GLASS?DP	302H917040 2H917040		CL	CL	CL		Slit glass for DP (Main body side) Alcohol or dry cloth (wet cloth is strictly prohibited.)

(4-7)PF-5120 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>						
1	PAPER LINE	---	CH				CH:check the center alignment gap.
			AD				(check after center adjustment of copier)
B	<Cover>						
1	OUTER COVERS	---		CL	CL		Alcohol or dry cloth
C	<PF Section>						
1	PARTS PRIMARY FEED ASSY SP	302R494210		CL			Alcohol or dry cloth
		2R494210					
2	PARTS HOLDER PICK UP ASSY SP	302R494170		CL	CH		Alcohol or dry cloth if no replacement.
		2R494170			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
3	RETARD ROLLER ASSY	302F909171		CL	CH		Alcohol or dry cloth if no replacement.
		2F909171			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
D	<Conveying Section>						
1	PARTS ROLLER CONVEYING VF SP	303PS94050		CL	CL		Alcohol or dry cloth
		3PS94050					
F	<Drive and other section>						
?	SENSORS	---		CL	CL		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-8)PF-5130 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

| | Parts name | Parts No. | PM maintenance (x1000 counts) | | | | Remark |
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	\<Set Up\>						
1	PAPER LINE	---	CH				CH:check the center alignment gap.
			AD				(check after center adjustment of copier)
B	\<Cover\>						
1	OUTER COVERS	---		CL	CL		Alcohol or dry cloth
C	\<PF Section\>						
1	PARTS PRIMARY FEED ASSY SP	302R494210		CL			Alcohol or dry cloth
	x2	2R494210					
2	PARTS HOLDER PICK UP ASSY SP	302R494170		CL	CH		Alcohol or dry cloth if no replacement.
	x2	2R494170			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
3	RETARD ROLLER ASSY	302F909171		CL	CH		Alcohol or dry cloth if no replacement.
	x2	2F909171			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
D	\<Conveying Section\>						
1	PARTS ROLLER CONVEYING VF SP	303PS94050		CL	CL		Alcohol or dry cloth
	x2	3PS94050					
F	\<Drive and other section\>						
?	SENSORS	---		CL	CL		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-9)PF-5140 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Set Up>						
1	PAPER LINE	---	CH				CH:check the center alignment gap.
			AD				(check after center adjustment of copier)
B	<Cover>						
1	OUTER COVERS	---		CL	CL		Alcohol or dry cloth
C	<PF Section>						
1	PARTS PRIMARY FEED ASSY SP	302R494210		CL			Alcohol or dry cloth
		2R494210					
2	PARTS HOLDER PICK UP ASSY SP	302R494170		CL	CH		Alcohol or dry cloth if no replacement.
		2R494170			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
3	RETARD ROLLER ASSY	302F909171		CL	CH		Alcohol or dry cloth if no replacement.
		2F909171			RE		CH:Performing U901 and check feeding count: Target to replace at 300K.
D	<Conveying Section>						
1	PARTS ROLLER CONVEYING VF SP	303PS94050		CL	CL		Alcohol or dry cloth
		3PS94050					
F	<Drive and other section>						
?	SENSORS	---		CL	CL		Dry cloth or airblow if light reception part of photo sensor is dirt or paper dust.

(4-10)AK-5100 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
1	OUTER COVERS			CL	CL		Alcohol or dry cloth
2	PARTS ROLLER CONVEYING A SP	303PY94010 3PY94010		CL	CL		Alcohol
3	PARTS ROLLER CONVEYING B SP x2	303PY94020 3PY94020		CL	CL		Alcohol
4	PULLEY DU LOW x6	302F929260 2F929260		CL	CL		Alcohol

(4-11)JS-5100 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
1	OUTER COVERS			CL	CL		Alcohol or dry cloth
2	PARTS SENSOR OPT SP	303PX94030 3PX94030		CL	CL		CL:Airbrush or dry cloth

(4-12)DF-5100 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Cover>						
1	OUTER COVERS, TRAY	---			CL		Alcohol or dry cloth
B							
1	ROLLER FEED	303PX24030 3PX24030			CL		Alcohol or dry cloth
2	PULLEY MIDDLE A x2	302H722760 2H722760			CL		Alcohol or dry cloth
3	ROLLER MIDDLE	303PX36680 3PX36680			CL		Alcohol or dry cloth
4	PULLEY MIDDLE x2	303NB36661 3NB36661			CL		Alcohol or dry cloth
5	PULLEY PAPER FEED x2	3BR07040 3BR07040			CL		Alcohol or dry cloth
6	PULLEY EXIT x2	303RD36130 3RD36130			CL		Alcohol or dry cloth
7	PULLEY EXIT ONEWAYCLUTCH x2	303RD36180 3RD36180			CL		Alcohol or dry cloth
8	STATIC-ELIMINATOR EJECT CENTER x2	303NB36500 3NB36500			CH		CH: Remove paper dust at the end of brush
C	<Sensor>						
1	SENSOR OPT	7NXPSR11GD6 MH01			CL		Airbrush
2	SENSOR OPT x6	7NXSG2A241++ H01			CL		Airbrush

(4-13)DF-5110 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

Parts name		Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A	<Cover>						
1	OUTER COVERS, TRAY	---			CL		Alcohol or dry cloth
B	<PF, Conveying and exit sections>						
1	ROLLER FEED LOWER	303PV07020 3PV07020			CL		Alcohol or dry cloth
2	ROLLER FEED UPPER x2	303PW07050 3PW07050			CL		Alcohol or dry cloth
3	ROLLER MIDDLE	303PW36070 3PW36070			CL		Alcohol or dry cloth
4	PULLEY MIDDLE x2	303NB36661 3NB36661			CL		Alcohol or dry cloth
5	ROLLER EXIT	303PV36010 3PV36010			CL		Alcohol or dry cloth
6	PULLEY EXIT x2	303NB36200 3NB36200			CL		Alcohol or dry cloth
7	STATIC ELIMINATOR EJECT	63212210 63212210			CH		CH: Remove paper dust at the end of brush
8	STATIC-ELIMINATOR EJECT CENTER x3	303NB36500 3NB36500			CH		CH: Remove paper dust at the end of brush
C	<Sensor>						
1	SENSOR OPT x2	7NXPS133GD1+ H01			CL		Airbrush
2	SENSOR OPT x6	7NXSG2A241++ H01			CL		Airbrush
3	SENSOR A,SEPARATION	303H327460 3H327460			CL		Airbrush
4	SENSOR OPT	7NXKB1281AA2 H01			CL		Airbrush

(4-14)DF-5120 (Option)

Parts name	Parts No.	Set UP	User Call	Based on cycle of the machine		Remark — Please do not use spray containing flamable gas for air-blow or air-brush purposes.
A <Cover>						
1 OUTER COVERS, TRAY	---			CL		Alcohol or dry cloth
B <PF, Conveying and exit sections>						
1 ROLLER FEED LOWER	303PW07040 3PW07040			CL		Alcohol or dry cloth
2 ROLLER FEED UPPER x2	303PW07050 3PW07050			CL		Alcohol or dry cloth
3 ROLLER MIDDLE	303PW36070 3PW36070			CL		Alcohol or dry cloth
4 PULLEY MIDDLE x4	303NB36661 3NB36661			CL		Alcohol or dry cloth
5 ROLLER EXIT	303PW36150 3PW36150			CL		Alcohol or dry cloth
6 PULLEY EXIT x2	303NB36200 3NB36200			CL		Alcohol or dry cloth
7 ROLLER SUB EXIT	303PW24110 3PW24110			CL		Alcohol or dry cloth
8 ROLLER SUB CONVEYING	303PW24120 3PW24120			CL		Alcohol or dry cloth
9 PULLEY SUB EJECT x2	303B817020 3B817020			CL		Alcohol or dry cloth
10 STATIC ELIMINATOR EJECT	63212210 63212210			CH		CH: Remove paper dust at the end of brush
11 STATIC-ELIMINATOR EJECT CENTER x3	303NB36500 3NB36500			CH		CH: Remove paper dust at the end of brush
12 STATIC-ELIMINATOR SUB EJECT	303PW24150 3PW24150			CH		CH: Remove paper dust at the end of brush
C <Sensor>						
1 SENSOR OPT x2	7NXPS133GD1+H01			CL		Airbrush
2 SENSOR OPT x11	7NXSG2A241++H01			CL		Airbrush

	Parts name	Parts No.	PM maintenance (x1000 counts)				Remark
			Set UP	User Call	Based on cycle of the machine		Please do not use spray containing flamable gas for air-blow or air-brush purposes.
3	SENSOR A,SEPARATION	303H327460 3H327460			CL		Airbrush
4	SENSOR OPT	7NXKB1281AA2 H01			CL		Airbrush
5	PWB SENSOR A ASSY	303R101020 3R101020			CL		Airbrush
6	PWB SENSOR B ASSY	303R101030 3R101030			CL		Airbrush
7	PWB SENSOR C ASSY	303R101040 3R101040			CL		Airbrush
8	PWB SENSOR D ASSY	303R101050 3R101050			CL		Airbrush

(4-15)PH-5100/5110/5120 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)			Remark
			Set UP	User Call	Based on cycle of the machine	Please do not use spray containing flamable gas for air-blow or air-brush purposes.
C	<Sensor>					
1	SENSOR OPT	7NXSG2A241++ H01 x3			CL	Airbrush
2	PWB SENSOR A ASSY	303R101020 3R101020			CL	Airbrush
3	PWB SENSOR B ASSY	303R101030 3R101030			CL	Airbrush
4	PWB SENSOR C ASSY	303R101040 3R101040			CL	Airbrush
5	PWB SENSOR D ASSY	303R101050 3R101050			CL	Airbrush

(4-16)MT-5100 (Option)

CH:Check / CL:Clean / AD:Adjust / LU:Lubrication / RE:Replace

	Parts name	Parts No.	PM maintenance (x1000 counts)				
			Set UP	User Call	Based on cycle of the machine		
A	<Cover>						
1	OUTER COVERS?TRAY				CL		Alcohol or dry cloth
B	<Conveying Section>						
1	ROLLER CONVEYING x2	303R024090 3R024090			CL		Alcohol or dry cloth
2	PULLEY 15 MPF FEED x4	302H008220 2H008220			CL		Alcohol or dry cloth
3	ROLLER EJECT A x5	303R024100 3R024100			CL		Alcohol or dry cloth
4	PULLEY EJECT x10	303LW24060 3LW24060			CL		Alcohol or dry cloth
5	ROLLER EJECT C	303R024110 3R024110			CL		Alcohol or dry cloth
6	PULLEY EJECT x4	303R024140 3R024140			CL		Alcohol or dry cloth
7	STATIC ELIMINATOR x5	303LJ28040 3LJ28040			CH		CH: Remove paper dust at the end of brush
8	STATIC-ELIMINATOR EJECT SIDE	303NB36490 3NB36490			CH		CH: Remove paper dust at the end of brush
9	STATIC-ELIMINATOR EJECT CENTER	303NB36500 3NB36500			CH		CH: Remove paper dust at the end of brush
C	<Sensor>						
1	SENSOR OPT x8	7NXSG2A241++ H01			CL		Airbrush
2	SENSOR A,SEPARATION	303H327460 3H327460			CL		Airbrush
3	SENSOR OPT	7NXKB1281AA2 H01			CL		Airbrush

4-3Maintenance parts replacement procedures

Replacement of the maintenance kit is required after 200,000 images (30/35ppm models)/about 300,000 images (40ppm model). The message [Replace MK.] appears at the replacement timing.
Execute maintenance mode U251 to reset the count after replacing the maintenance kit in the following procedures.

(1) Cassette paper feed section

(1-1) Detaching and reattaching the pickup pulley and paper feed roller

Procedures

1. Pull out the cassette (a) from the main unit (b) and remove it in the direction of the arrow.
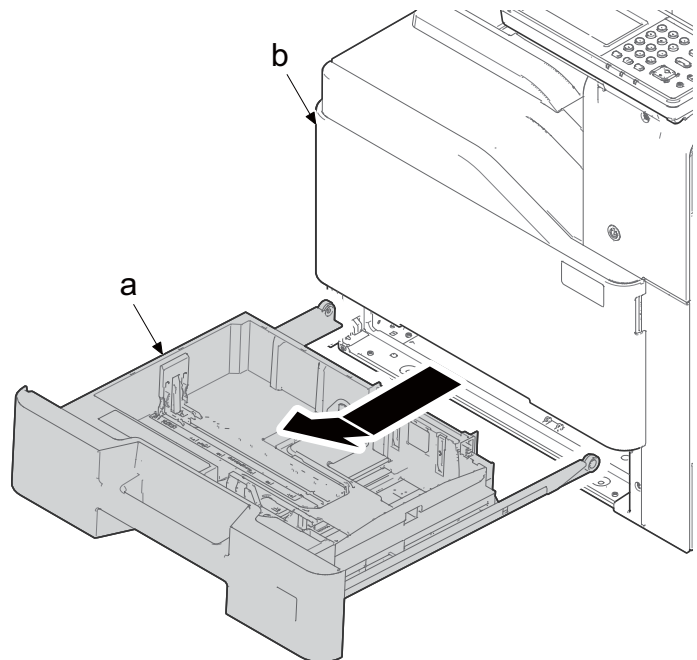
Figure 4-1

2. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the main unit (b).
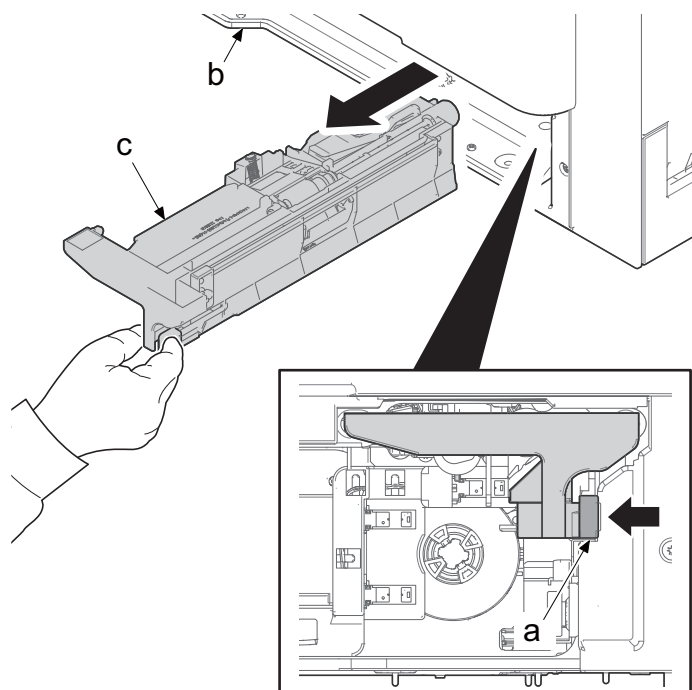
Figure 4-2

3. Remove the spring (b) from the primary paper feed unit (a).

IMPORTANT

*: Check if the pressure spring (b) is securely in the protrusion (c) when reattaching it.
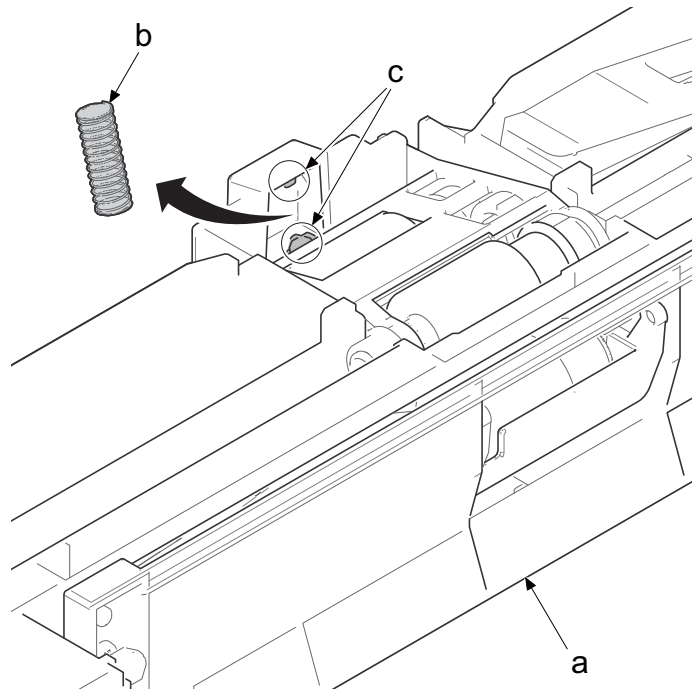
Figure 4-3

4. Tilt up the pickup holder (b) on the primary paper feed unit and remove it from the bushing (c).
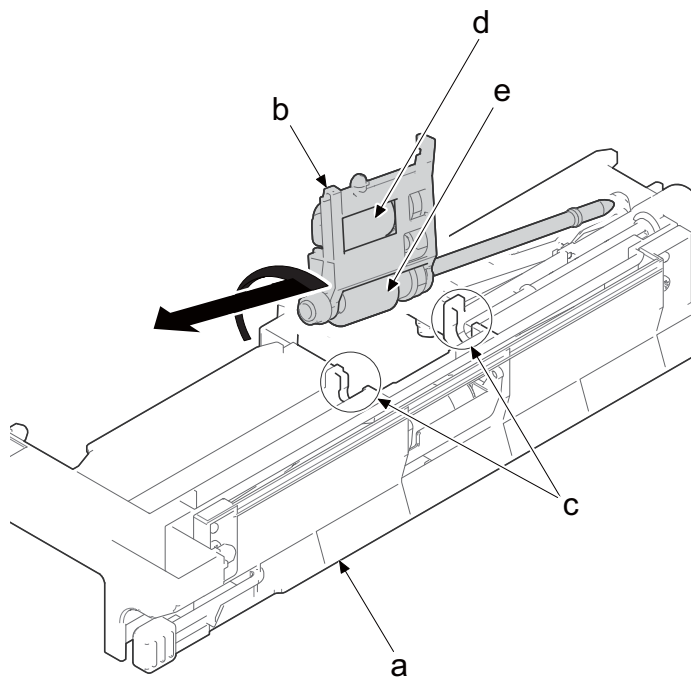
Figure 4-4

Notes when attaching

  *: When attaching the primary paper feed
  unit (a), insert the protrusion (b) into the
  main unit side guide (c).
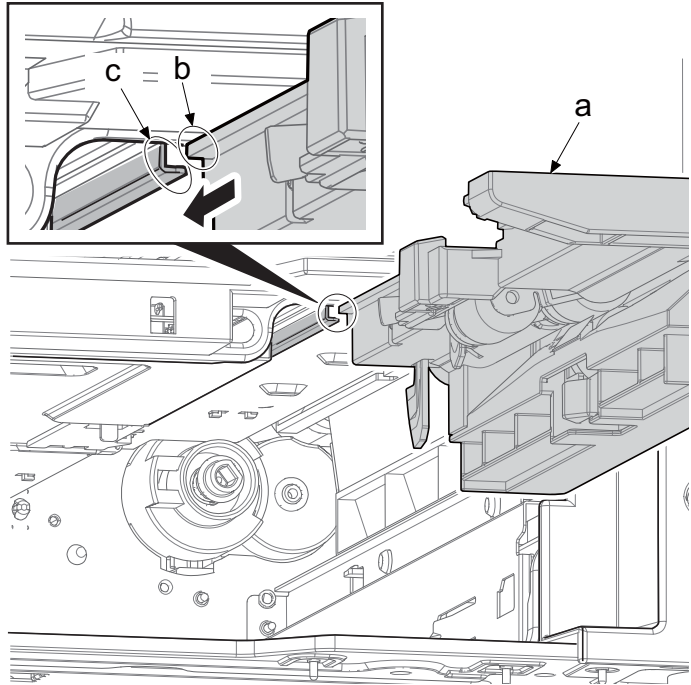
Figure 4-5

(1-2) Detaching and reattaching the retard pulley

Procedures

1. Turn over the primary paper feed unit (a).
2. Remove the spring (b).

IMPORTANT

   *: Check if the pressure spring (b) is securely in the protrusion (c) when reattaching it.
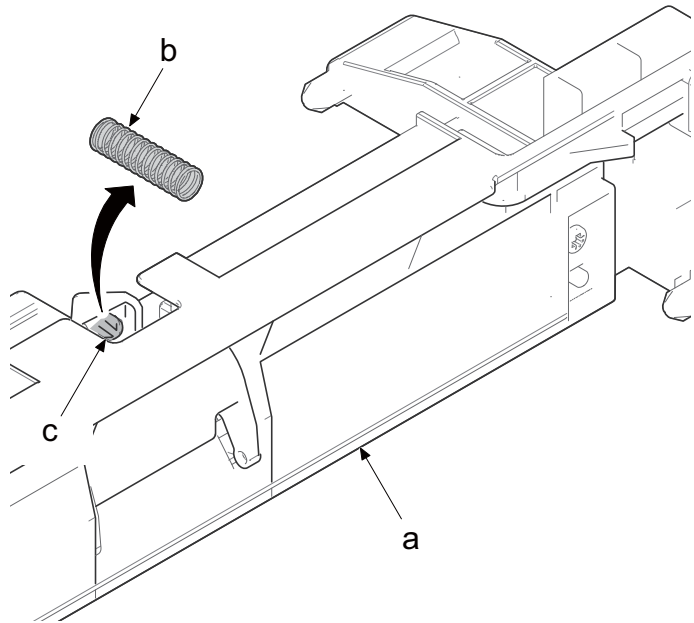
Figure 4-6

3. Turn over the primary paper feed unit (a) again.
4. Remove the retard holder fulcrum (c) with the flat-blade screwdriver (b) and remove the retard holder (d).
5. Attach the new retard holder.
6. Attach the new pickup holder.
7. Reattach the parts in the original position.

IMPORTANT

When replacing the new pickup holder or retard holder, take care not to touch the roller surface.
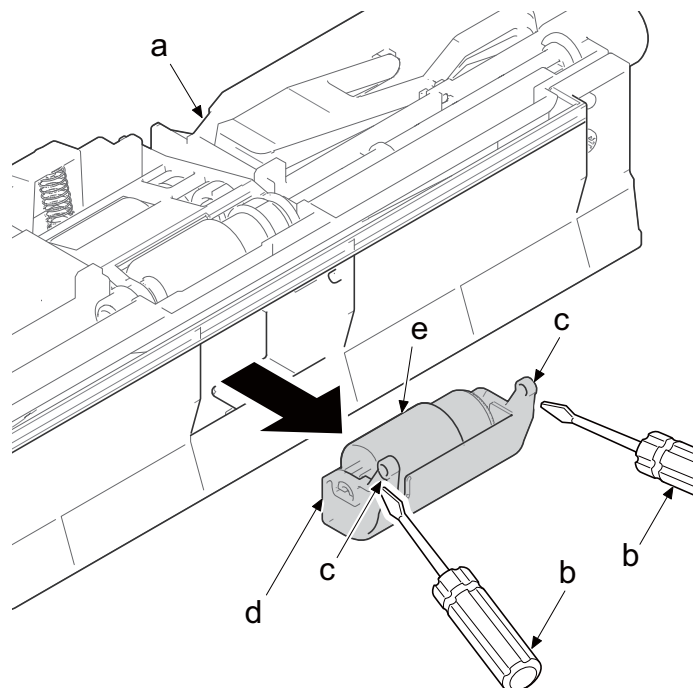
Figure 4-7

Execute the following setting after replacing the feed roller.
Clearing the maintenance counts (maintenance mode U251): Clear

(1-3) Detaching and reattaching the regist cleaner

1. Open the front cover (a).
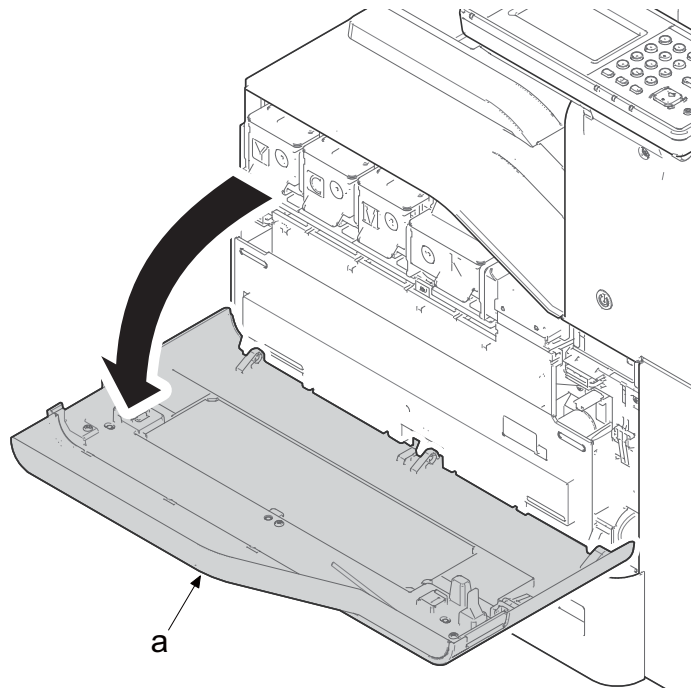
Figure 4-8

(for 30/35 ppm models only)
   2. Hold A and B, and remove the waste
      toner box (a).

   *: There is no waste toner duct in 30/35
      ppm models.
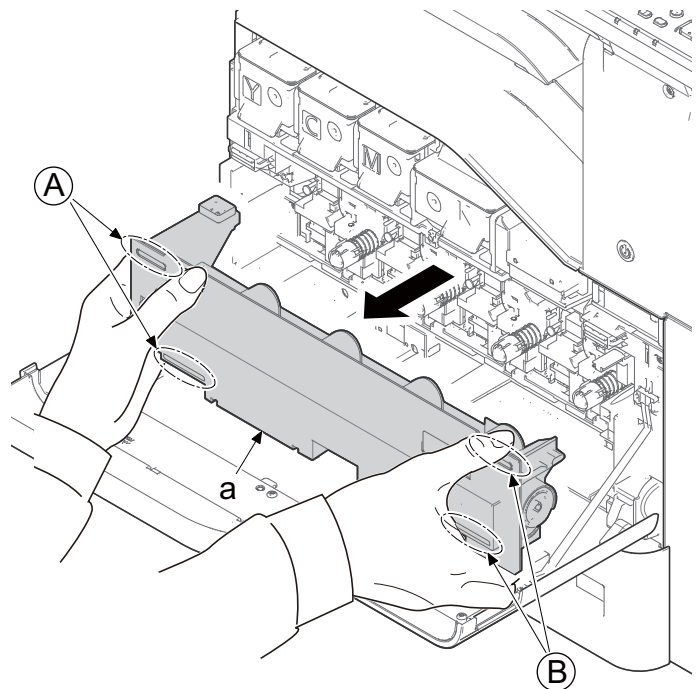
Figure 4-9

(for 40 ppm model only)

    2. Hold A and B, and remove the waste toner box (a).
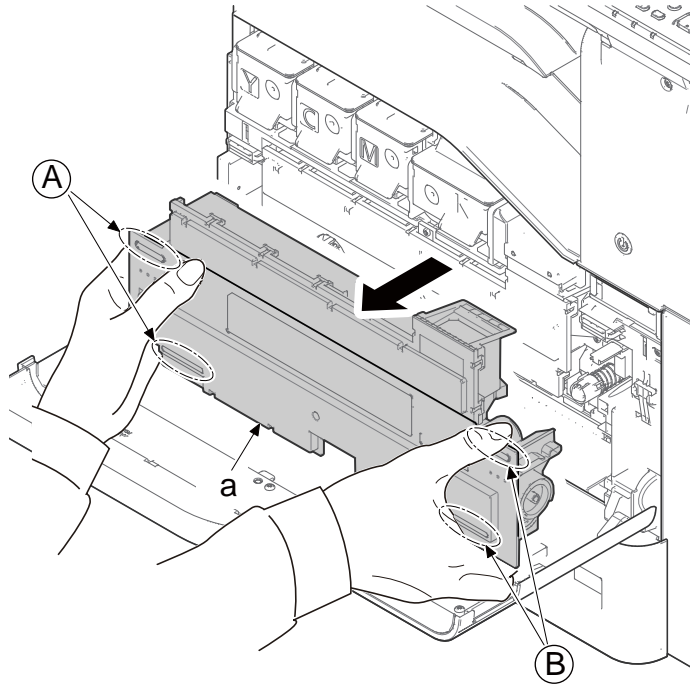
Figure 4-10

3. Remove the screw (a)(M3x12).
4. Slide the regist cleaner (b) in the direction of the arrow and release the lock.
5. Pinch the regist cleaner (b) and pull it out.
6. Check the sponge of the regist cleaner (b) and clean or replace it.
7. Reattach the parts in the original position.
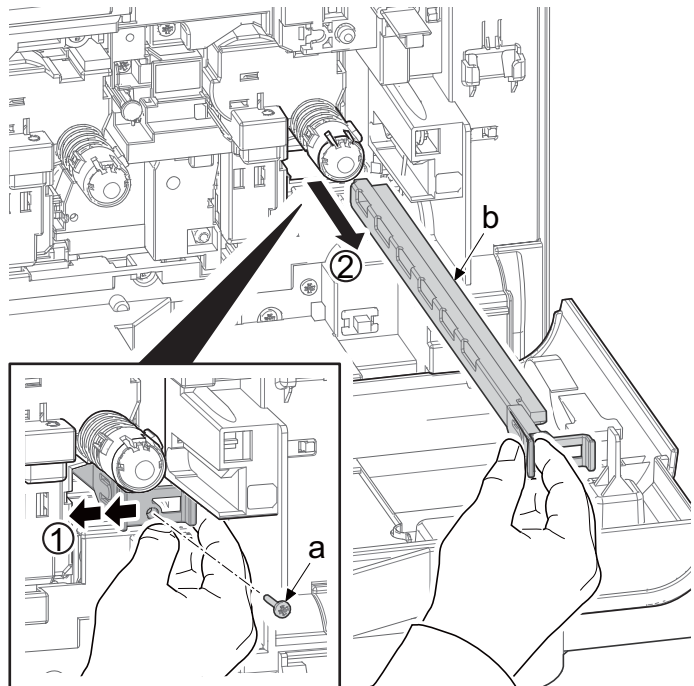
Figure 4-11

(2) MP paper feed section

(2-1) Detaching and reattaching the MP paper feed roller

Procedures

1. Open the right cover (a).
2. Pinch the holder (b) and remove the MP feed roller (c) in the direction of the arrow.
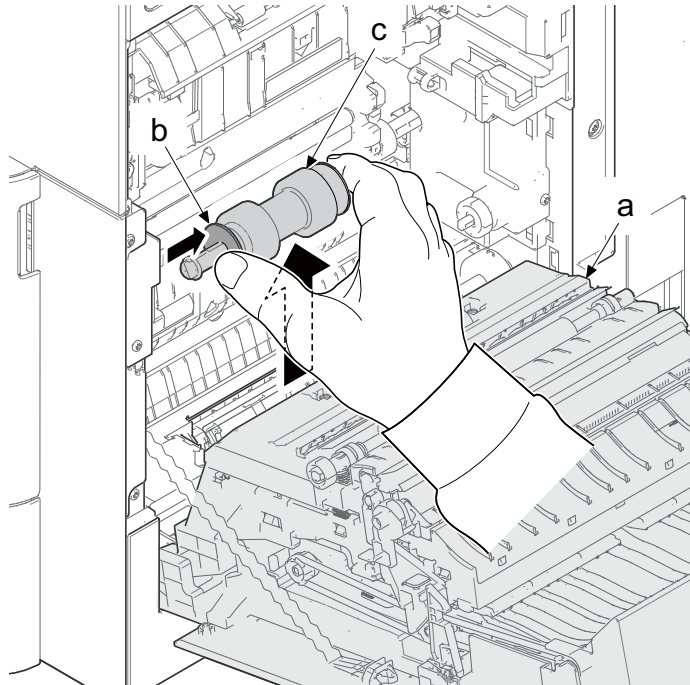
Figure 4-12

(2-2) Detaching and reattaching the MP separation pad

Procedures

1. Remove the MP separation pad (a) in the direction of the arrow.
2. Attach the new MP separation pad.
3. Attach the new MP paper feed roller.
4. Reattach the parts in the original position.

IMPORTANT

When replacing the new MP separation pad or MP paper feed roller, take care not to touch the roller surface.
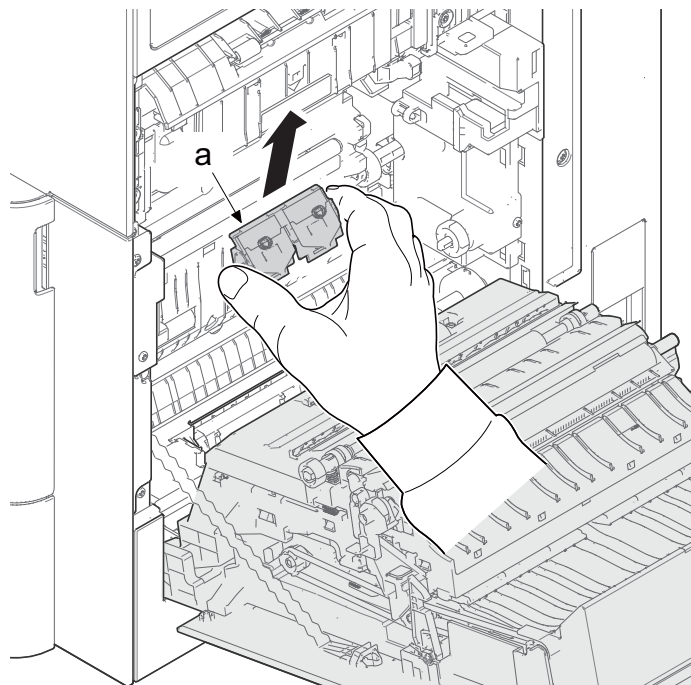
Figure 4-13

Execute the following setting after replacing the MP paper feed roller.
Clearing the maintenance counts (maintenance mode U251): Clear

(3) Transfer section

(3-1) Detaching and reattaching the primary transfer unit

Procedures

1. Open the right cover (a).
2. Hold the handle (a) and pull out the primary transfer unit (c) in the direction of the arrow.
3. Check the primary transfer unit (c) and clean or replace it.
4. Reattach the parts in the original position.

IMPORTANT

When pulling out the primary transfer unit, hold the center of it on the way to avoid hitting it to the right cover (a).
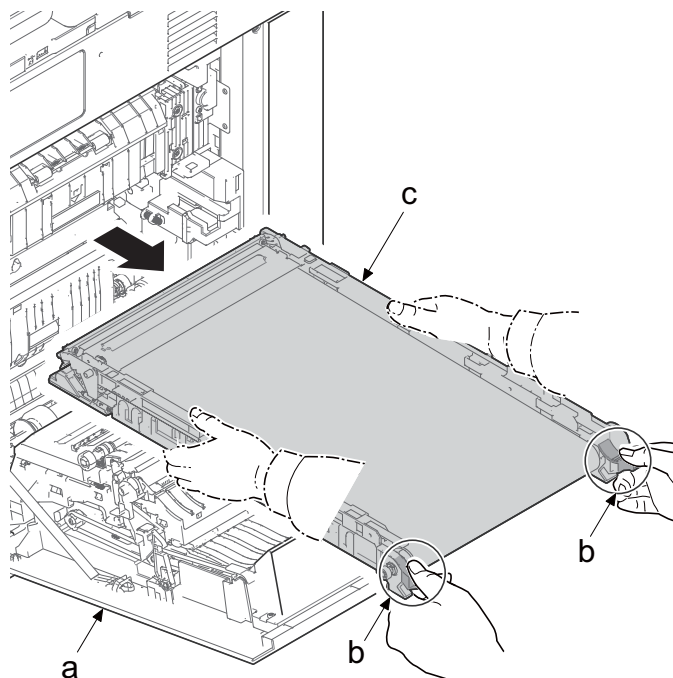
Figure 4-14

Execute the following setting after replacing the primary transfer unit.

1. Checking/clearing the transfer counts (maintenance mode U127): Clear
2. ID correction operation setting (maintenance mode U464): Calib (Full)
3. Color registration adjustment (maintenance mode U469): Auto
4. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

(3-2) Detaching and reattaching the secondary transfer roller unit

Procedures

1. Open the right cover (a).
2. Release the front lever hook(c) of the secondary transfer unit(b) toward you with a flat-blade screwdriver(d) and release the front lock(e) by pressing it with a flat-blade screwdriver(d).
3. Likewise, release the rear lever hook(f) and rear lock(g) with a flat-blade screwdriver(d).
4. Pull out the secondary transfer unit(b) in the direction of the arrow while rotating it toward you.
5. Check the secondary transfer unit (b) and clean or replace it.
6. Reattach the parts in the original position.
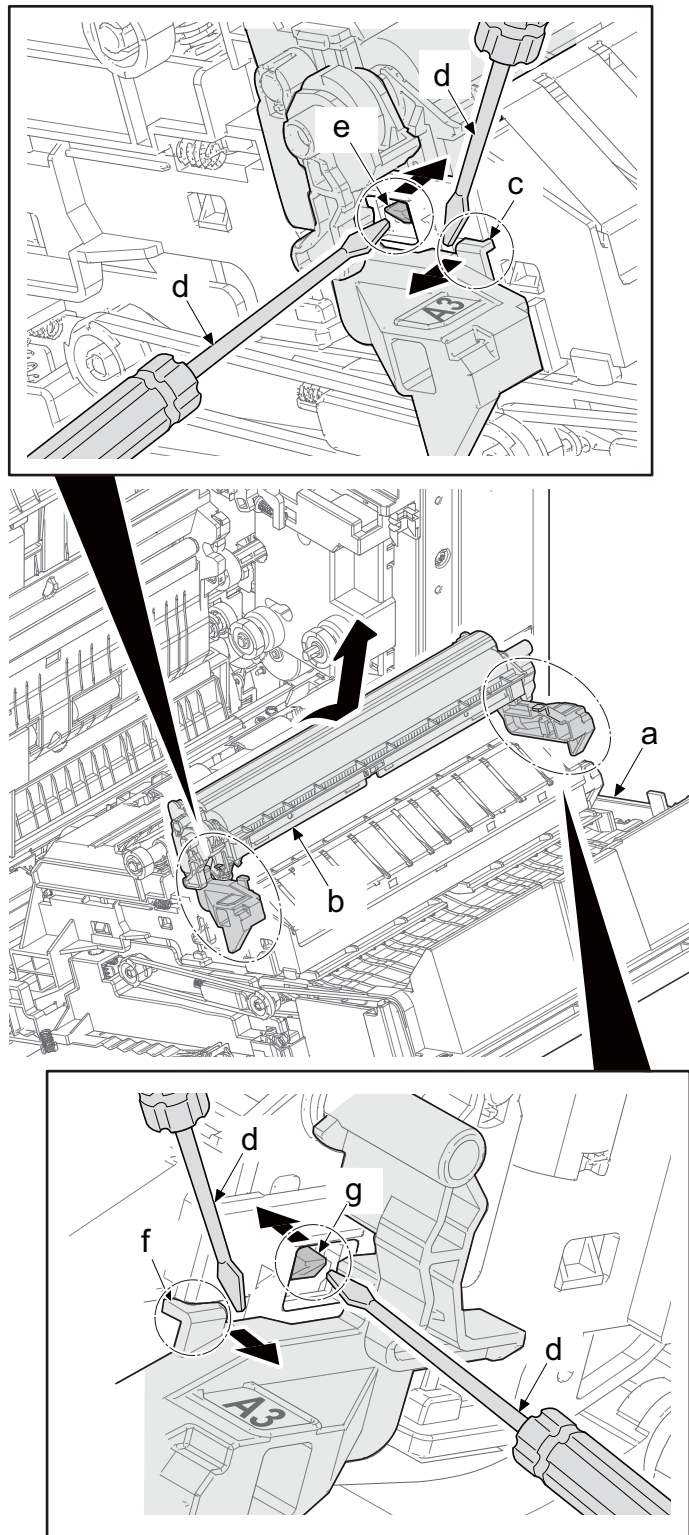
Figure 4-15

Execute the following setting after replacing the secondary transfer unit.

1. Checking/clearing the transfer counts (maintenance mode U127): Clear
2. ID correction operation setting (maintenance mode U464): Calib (Full)
3. Color registration adjustment (maintenance mode U469): Auto
4. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

(4) Drum section

(4-1) Detaching and reattaching the drum unit

Procedures

1. Open the front cover (a).
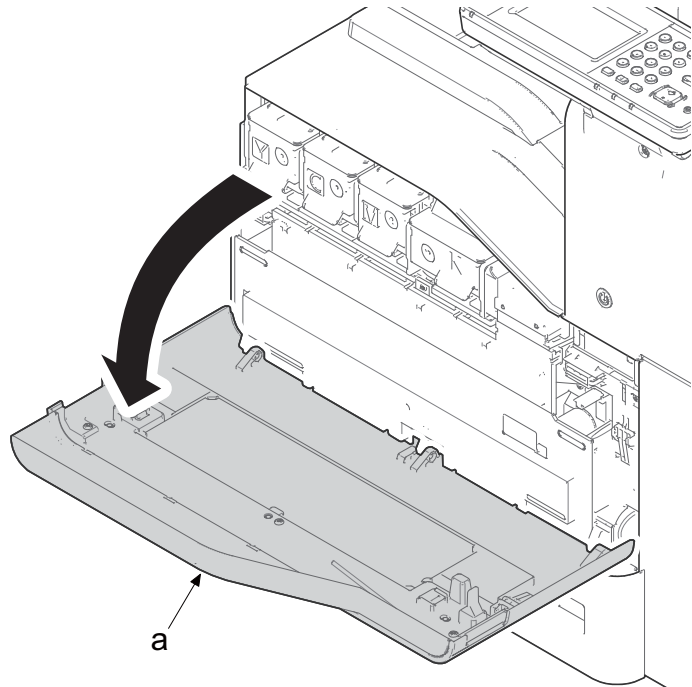
Figure 4-16

(for 30/35 ppm models only)

2. Hold A and B, and remove the waste
   toner box (a).

*: There is no waste toner duct in 30/35
   ppm models.
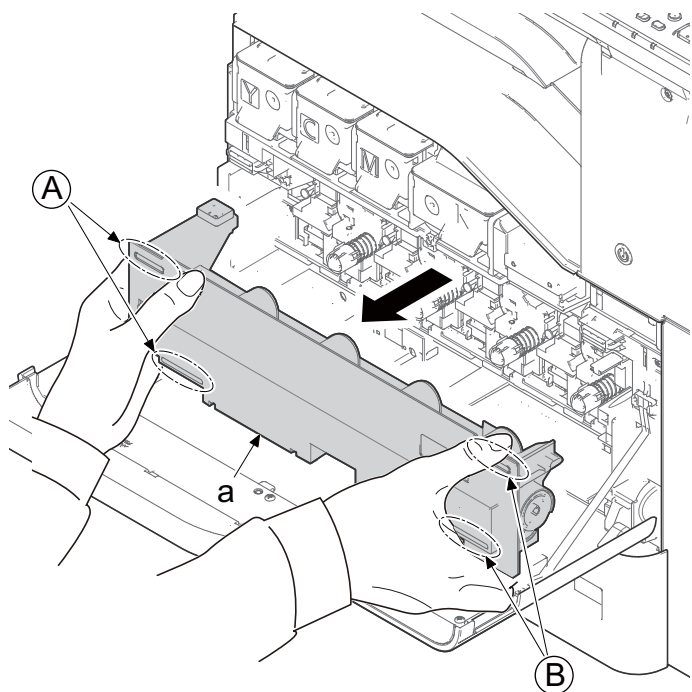
Figure 4-17

(for 40 ppm model only)

2. Hold A and B, and remove the waste toner box (a).
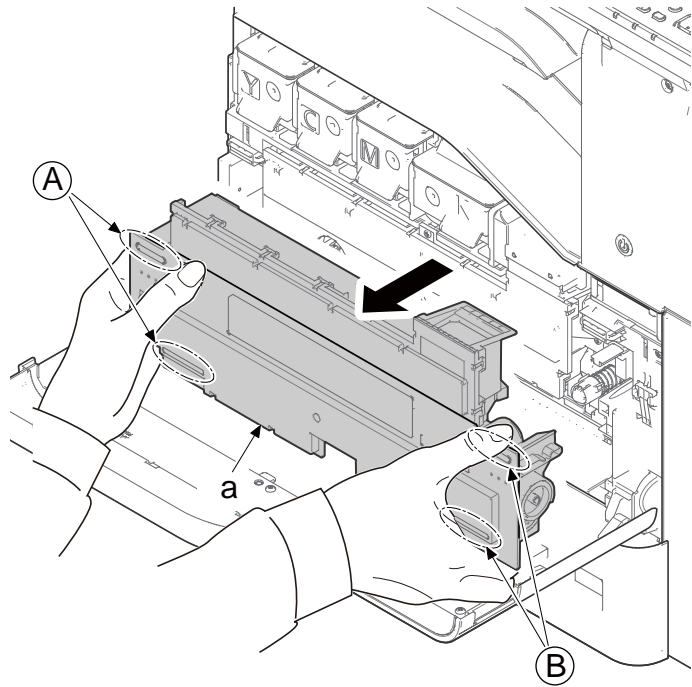
Figure 4-18

3. Push up the lock lever (a) and remove four drum units (b) (Y,C,M,K).
4. Attach the new drum units.
5. Reattach the parts in the original position.
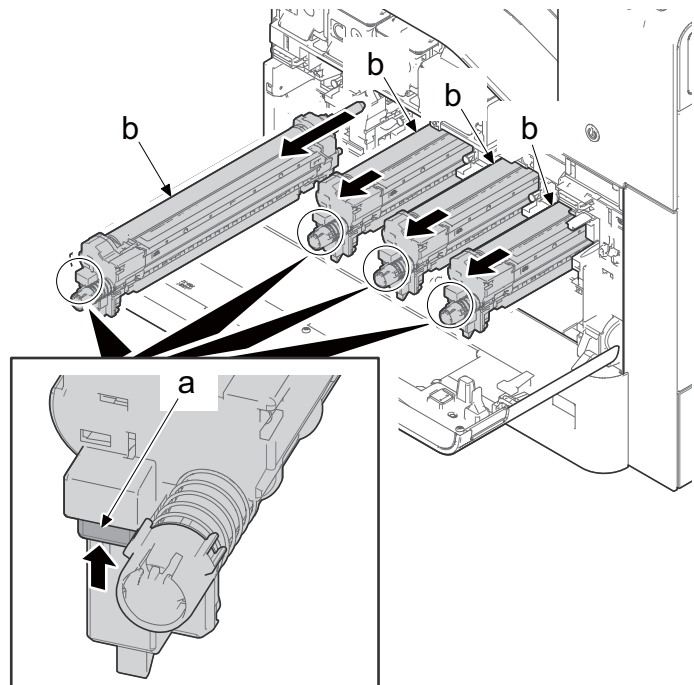
Figure 4-19

Execute the following setting after replacing the drum unit.

1. Drum unit initial setting (maintenance mode U119): Execute (40 ppm model only)
2. Clearing the main charger roller counts (maintenance mode U930): Clear
3. Developer bias adjustment ?maintenance mode U140): AC Calibration
4. ID correction operation setting (maintenance mode U464): Calib (Full)
5. Color registration adjustment (maintenance mode U469): Auto
6. Adjusting the uneven density (maintenance mode U412): Normal Mode (40 ppm model only)
7. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

IMPORTANT

1. When installing the drum unit, make sure to press the pressing part (a).
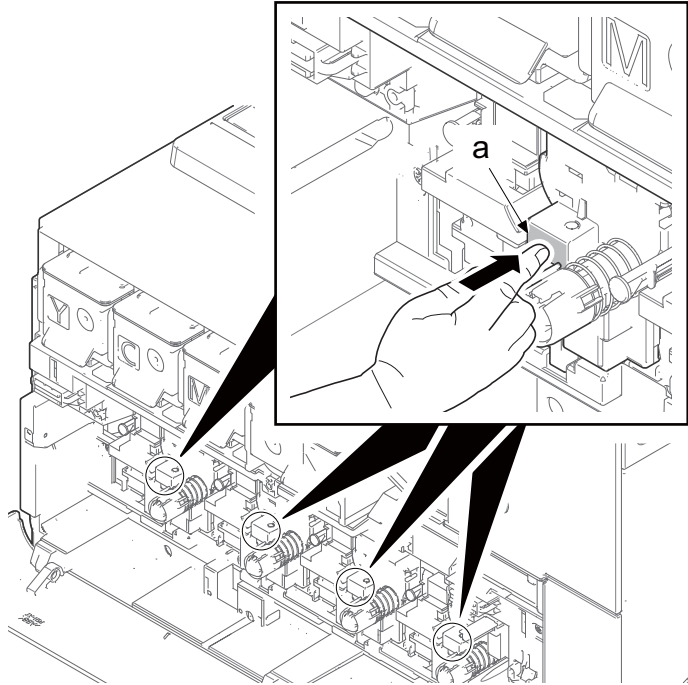
Figure 4-20

2. After inserting the drum unit, push the lock shaft (a) until it clicks.

*: Make sure to pull out the lock shaft (a) when inserting the drum unit. Otherwise, it causes the drum damage.
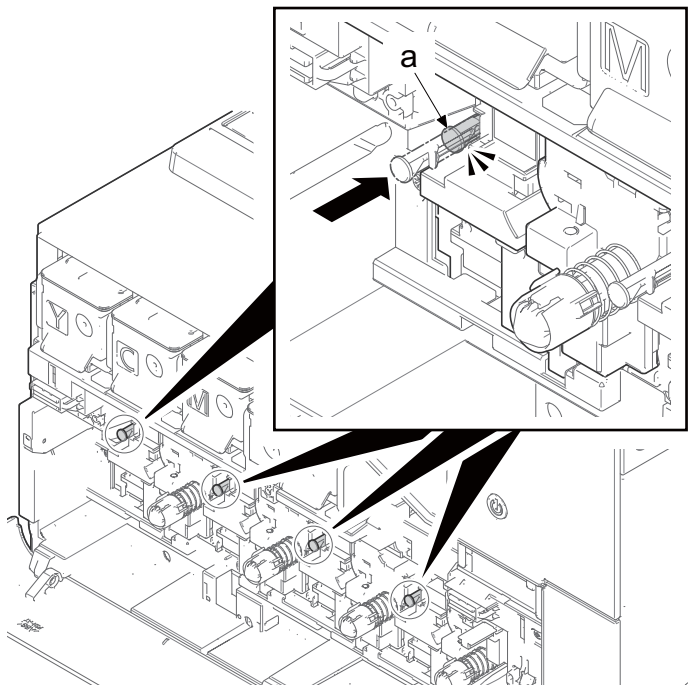
Figure 4-21

(4-2) Detaching and reattaching the main charge roller unit

Procedures

1. Open the front cover (a).
2. Detach the waste toner box.
3. Detach the drum unit (a).
4. Turn over the drum unit (a).
5. Push the lock lever (b).
6. Pull up the main charge roller unit (c) while pressing it and remove it from the drum unit in the direction of the arrow.
7. Check the main charge roller unit (c) and clean or replace it.
8. Reattach the parts in the original position.
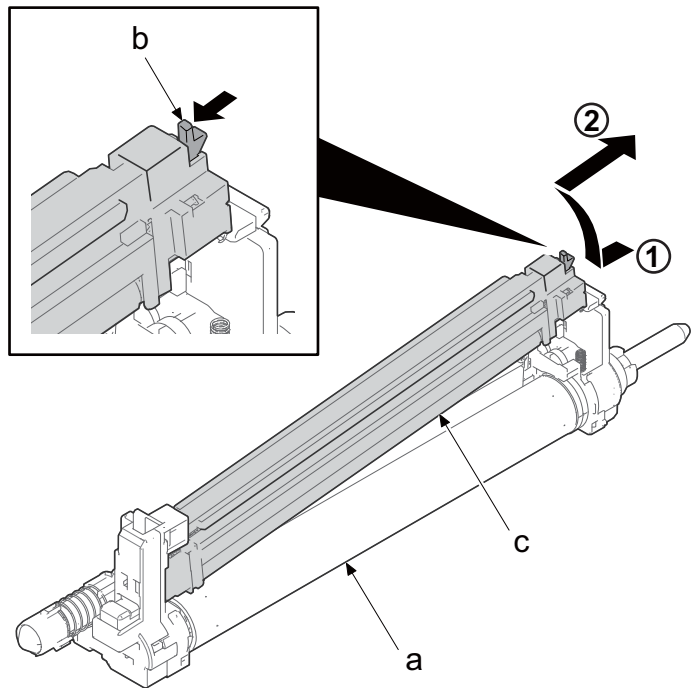
Figure 4-22

IMPORTANT

1. When attaching the main charge roller unit (a), align the insert guide (b) to the guide rib (c).
2. Insert the protrusion (d) into the positioning (e) and press down A portion to check it clicks to lock.
3. Check that the spring B (f) is inserted into the spring C (g).
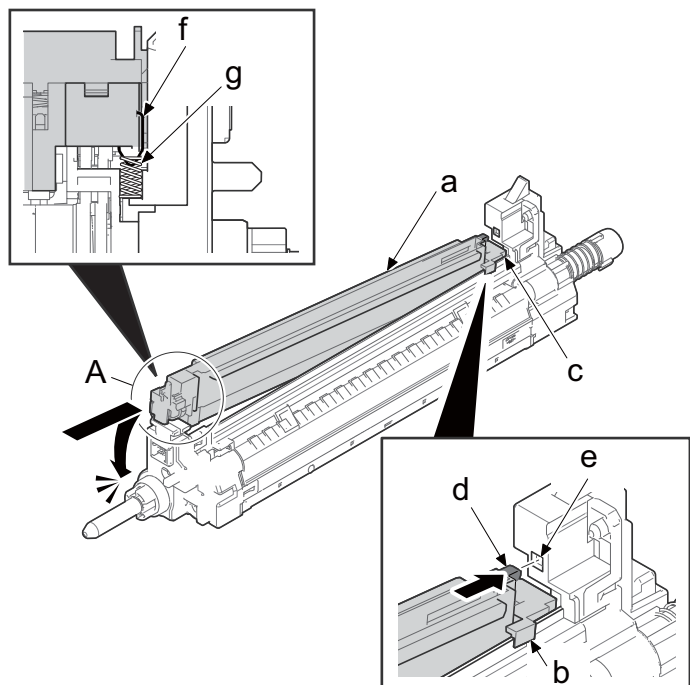
Figure 4-23

Execute the following setting after replacing the main charge roller.

1. Clearing the main charger roller counts (maintenance mode U930): Clear
2. Developer bias adjustment (maintenance mode U140): AC Calibration
3. ID correction operation setting (maintenance mode U464): Calib (Full)
4. Color registration adjustment (maintenance mode U469): Auto
5. Adjusting the uneven density (maintenance mode U412): Normal Mode (40 ppm model only)
6. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

(5) Developer section

(5-1) Detaching and reattaching the developer unit

Procedures

1. Open the front cover (a).
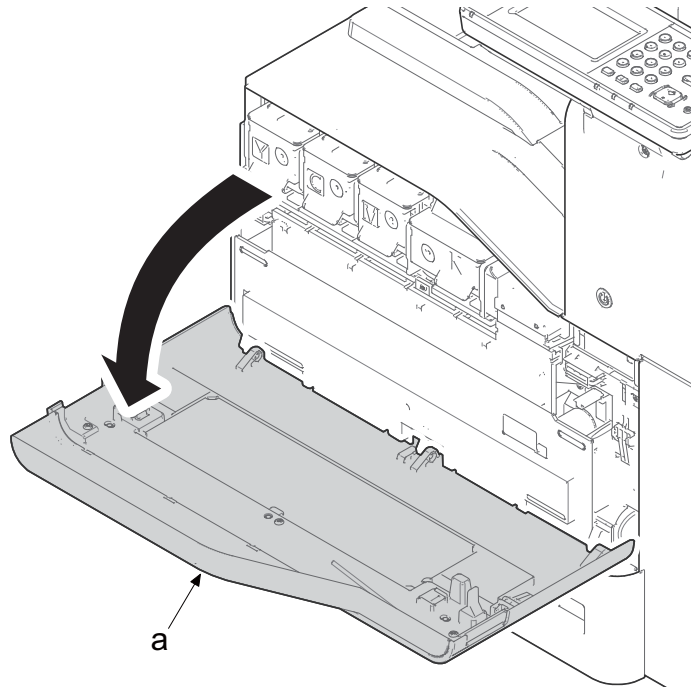
Figure 4-24

(for 30/35 ppm models only)

2. Hold A and B, and remove the waste toner box (a).

*: There is no waste toner duct in 30/35 ppm models.
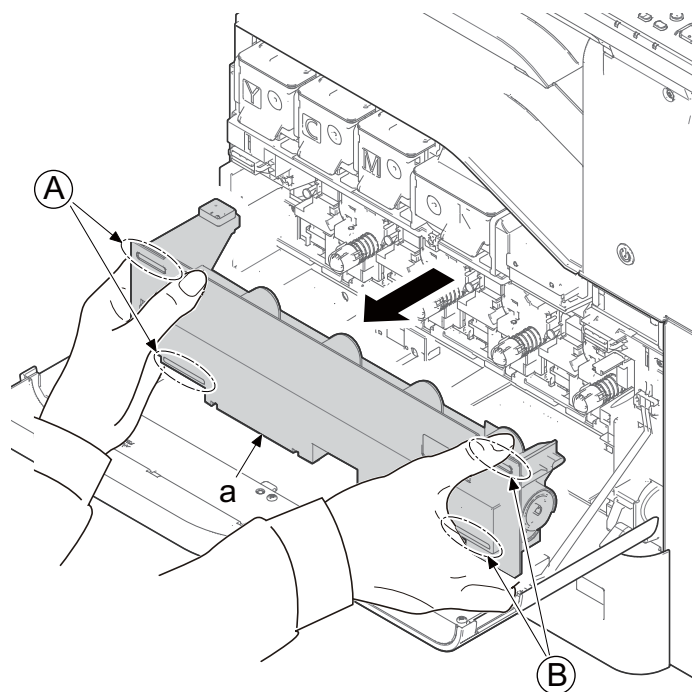
Figure 4-25

(for 40 ppm model only)

2. Hold A and B, and remove the waste toner box (a).
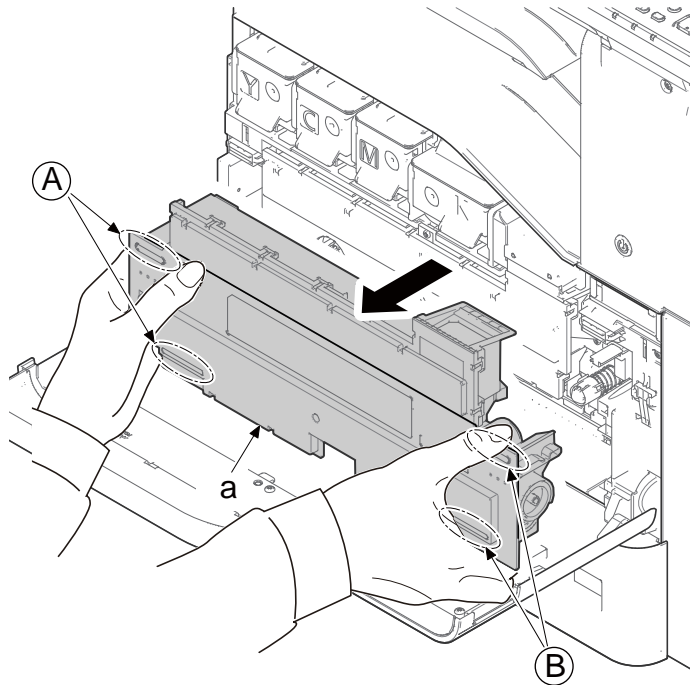
Figure 4-26

3. Push up the lock lever (a) and remove four developer units (b) (Y,C,M,K).
4. Attach the new developer units.
5. Reattach the parts in the original position.
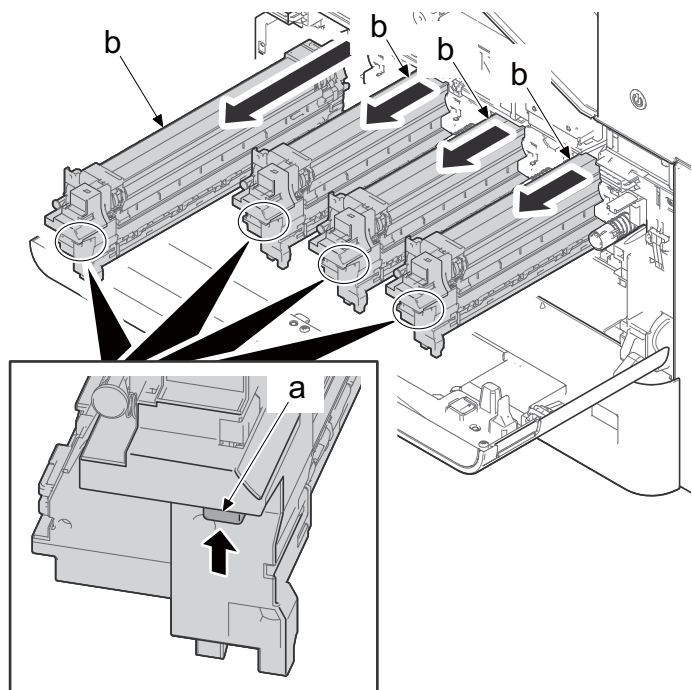
Figure 4-27

Execute the following setting after replacing the developer unit.
1. Developer bias adjustment ?maintenance mode U140): AC Calibration (40 ppm model only)
2. ID correction operation setting (maintenance mode U464): Calib (Full)
3. Color registration adjustment (maintenance mode U469): Auto
4. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

IMPORTANT
1. When installing the developer unit, securely insert it by pressing the front side pressing part (a).
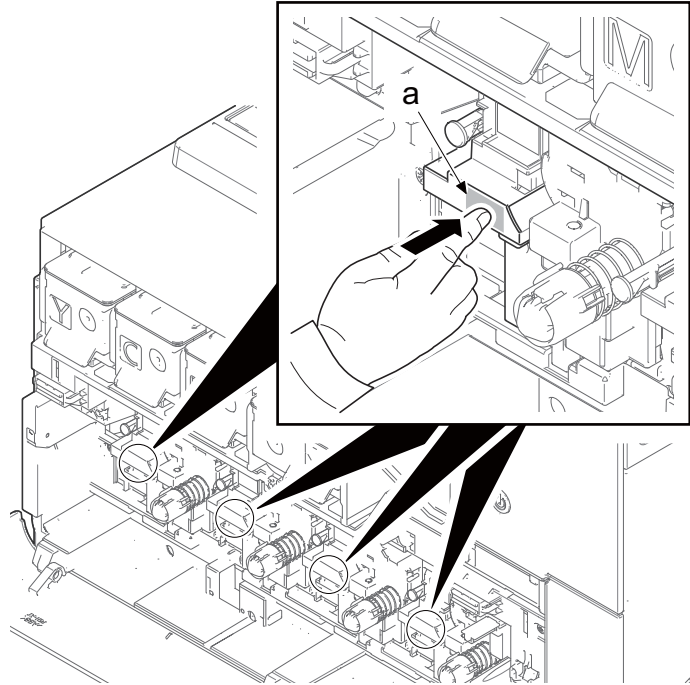
Figure 4-28

2. After inserting the developer unit, securely push the lock shaft (a).

 *: Make sure to pull out the lock shaft (a) when inserting the developer unit. Otherwise, it causes the drum damage.
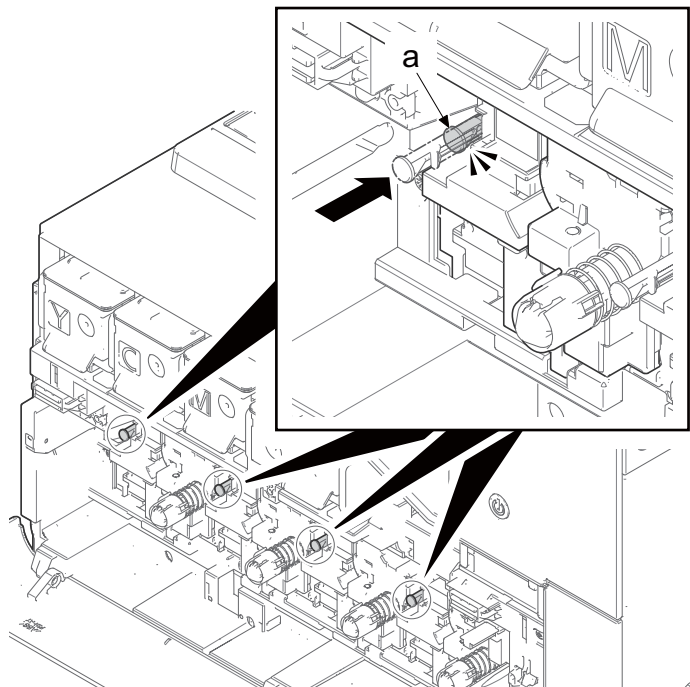
Figure 4-29

Unpacking the maintenance kit

1. Push up the lock lever (a) and remove four developer units (c) from the unit protective cover (b).
2. Peal off two tapes (d) and pull out the protective sheet (e) straight from the developer unit (c).
3. Remove the toner supply cover (f) in the direction of the arrow.
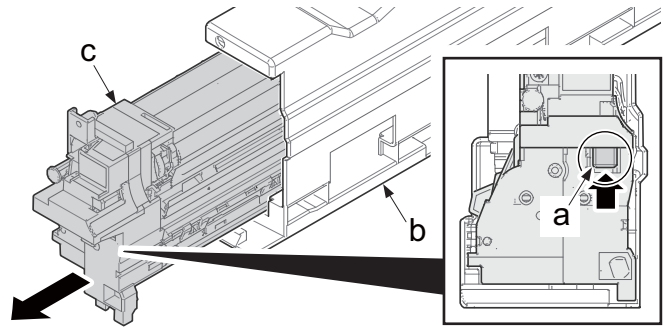
*: Take care not to touch the lower blade, sleeve roller, etc. of the developer unit during the work.
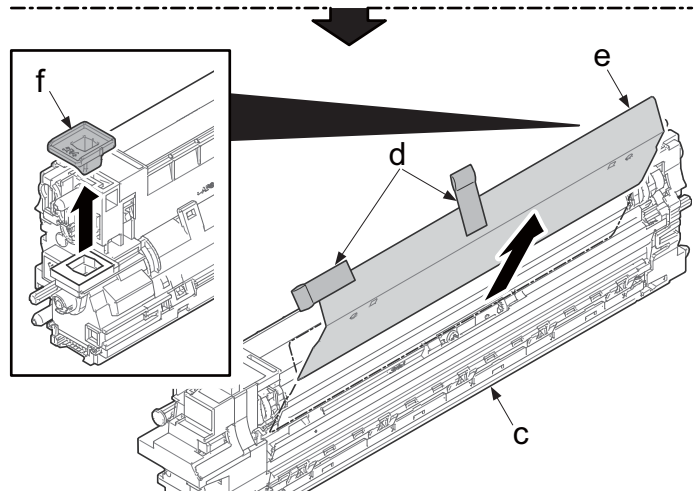
Figure 4-30

(6) Fuser section

(6-1) Detaching and reattaching the fuser unit

Procedures

1. Open the right cover (a) of the main unit (b).
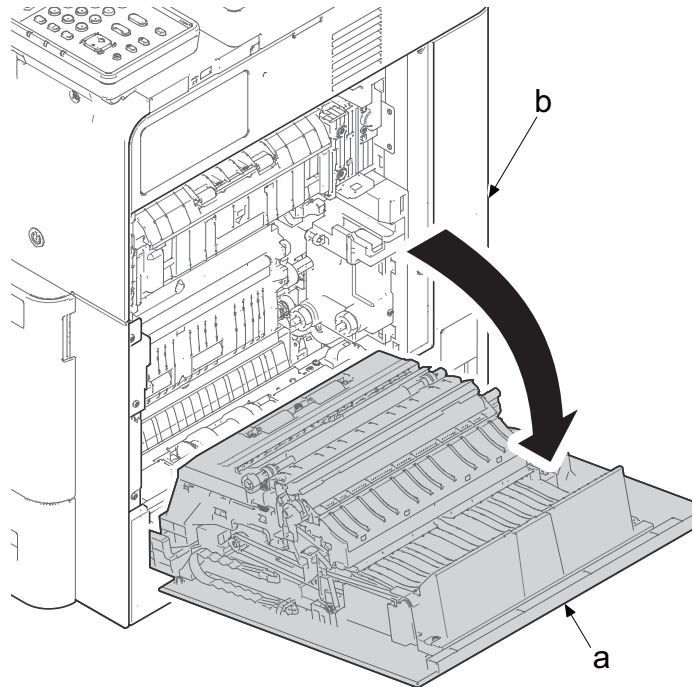
Figure 4-31

2. Remove the screw (a)(M3x8) and remove the fuser wire cover (b).
3. Disconnect two connectors (c) of the fuser unit.
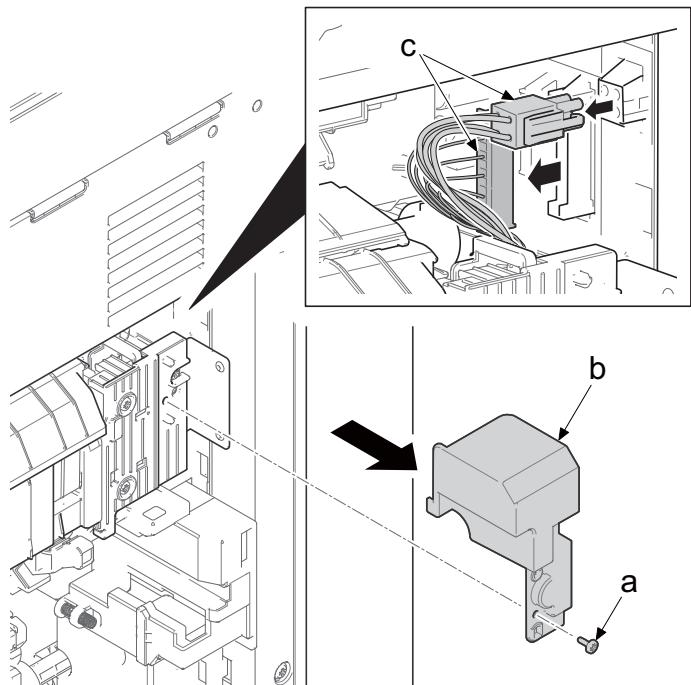
Figure 4-32

4. Remove two screws (a)(M3x8) and remove the fuser unit (b).
5. Attach the new fuser unit.
6. Reattach the parts in the original position.
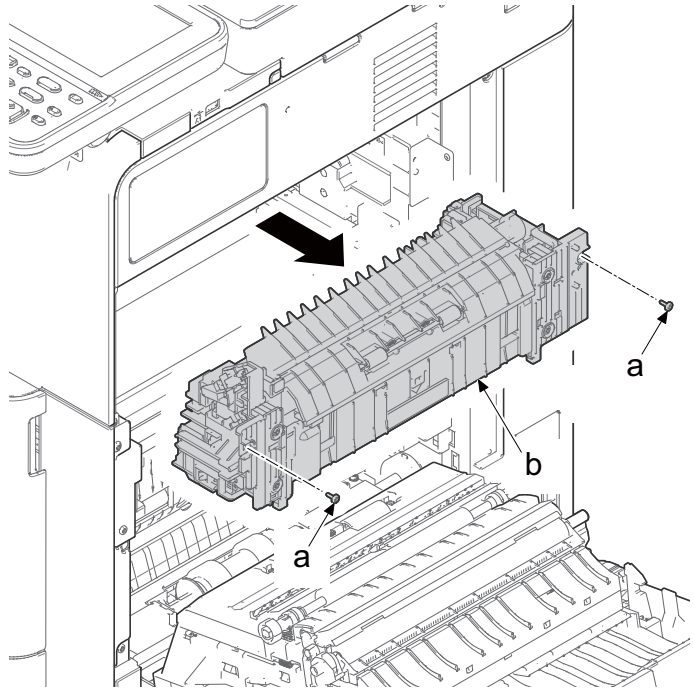
Figure 4-33

Execute the following setting after replacing the fuser unit.
1. Checking/clearing the fuser counts (maintenance mode U167): Clear
2. ID correction operation setting (maintenance mode U464): Calib (Full)
3. Color registration adjustment (maintenance mode U469): Auto
4. Adjusting the halftone automatically (maintenance mode U410): Normal Mode

(7) Document processor: 30 ppm model only

(7-1) Detaching and reattaching the DP pickup pulley and DP paper feed roller

Procedures

1. Open the DP top cover (b) of the document processor (a).
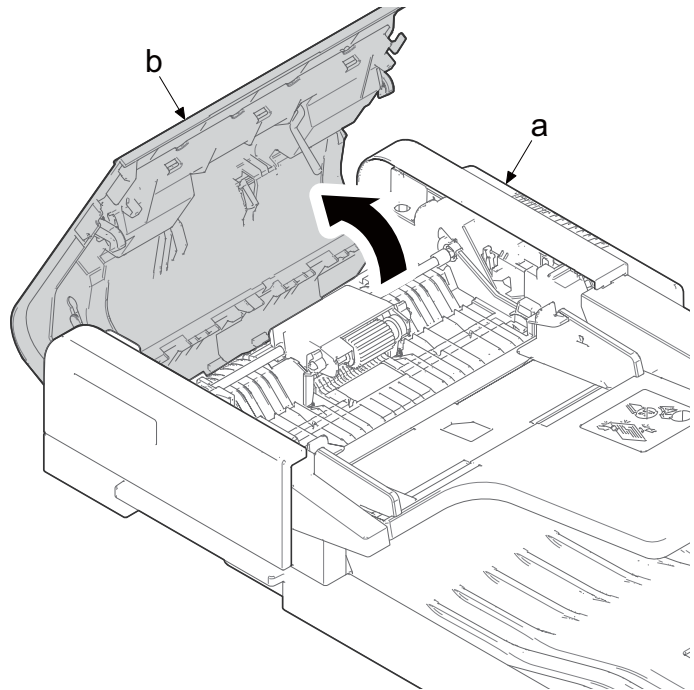
Figure 4-34

2. Push the lock lever (a) toward the machine rear side.
3. Release the hook (b).
4. Rotate the lock lever (a) to the release position (c).
5. Shift the machine front side of the DP paper feed roller shaft (d) toward the machine left side to remove it from the holding part (e).
6. Then, lift the shaft and pull the DP paper feed roller unit (f) out toward the machine front side.
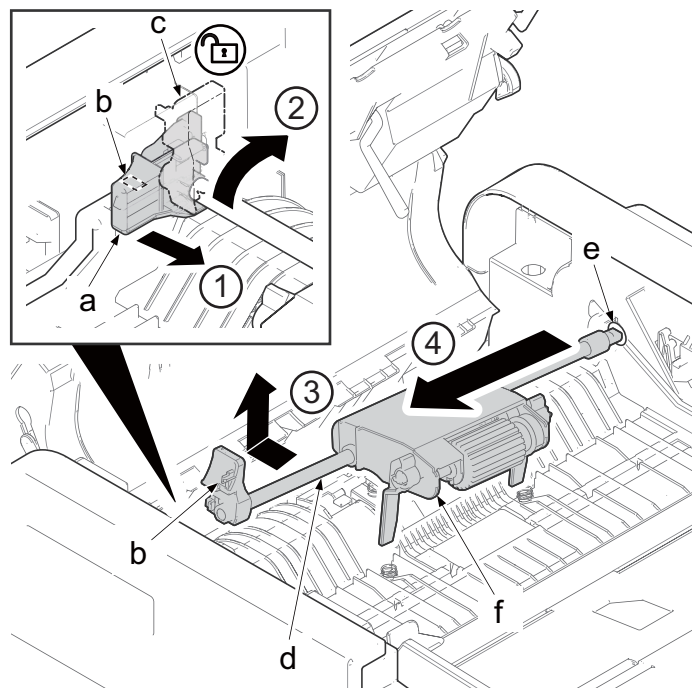
Figure 4-35

(7-2) Detaching and reattaching the DP separation pad

Procedures

1. Push both hooks (b) inward and remove the DP separation pad assembly (a).

2. Attach the new DP separation pad assembly.
3. Reattach the parts in the original position.

   *:Check if the pressure spring (c) is securely in the protrusion (d) when reattaching it.

4. Attach the new DP paper feed roller unit.
5. Reattach the parts in the original position.
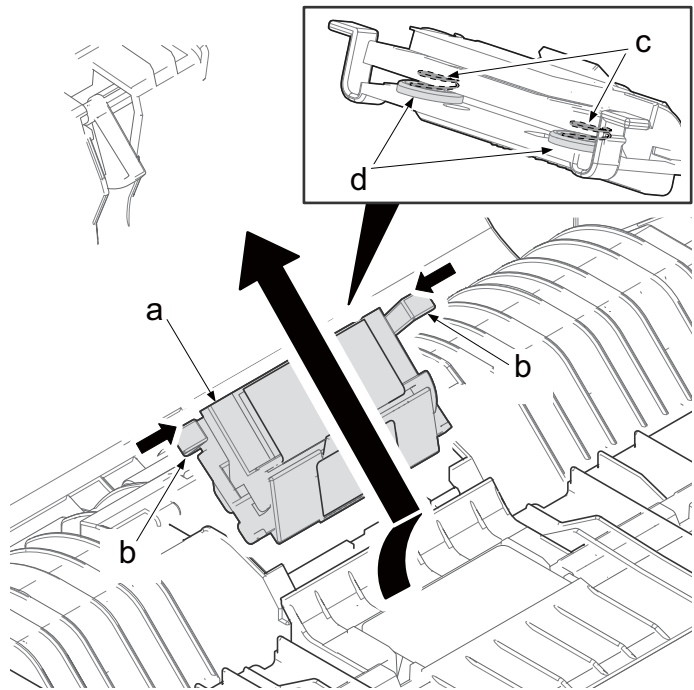
Figure 4-36

4-4Maintenance parts replacement procedures (option)

(1) Paper feeder (PF-5120)

(1-1) Detaching and reattaching the pickup pulley and paper feed roller

Procedures

1. Pull out the cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
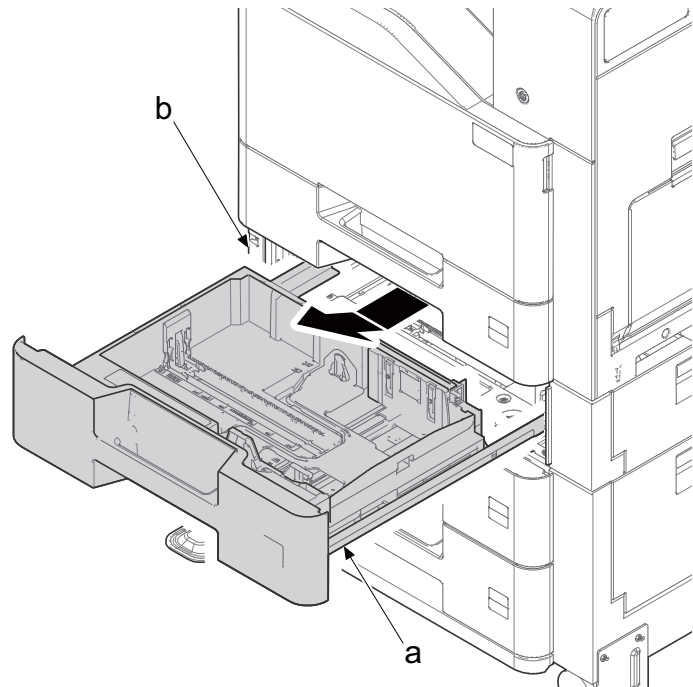
Figure 4-37

2. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the paper feeder (b).
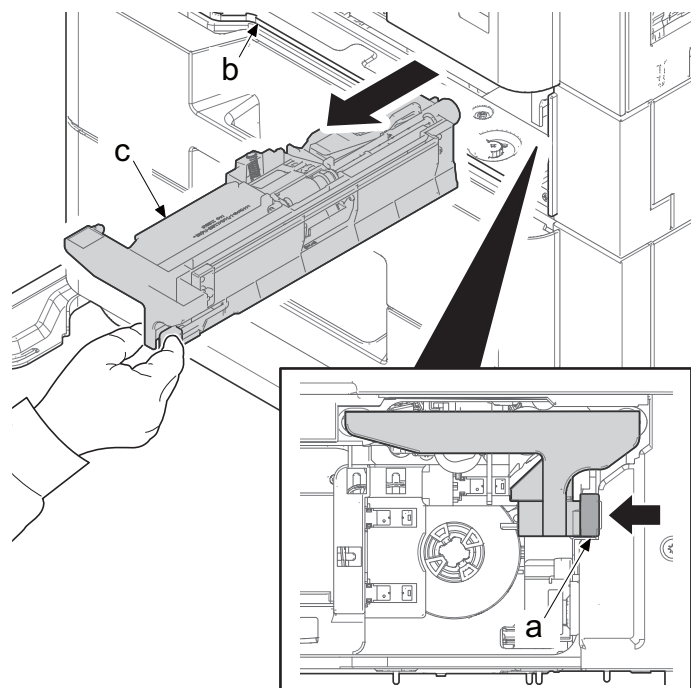
Figure 4-38

3. Remove the spring (b) from the primary paper feed unit (a).

Notes when attaching
*: Check if the pressure spring is securely in the protrusion (c) when reattaching it.
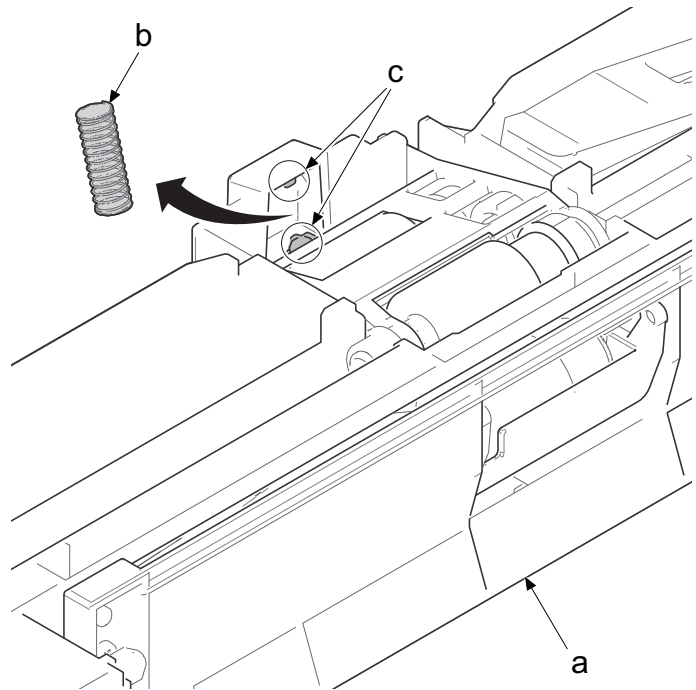
Figure 4-39

4. Tilt up the pickup holder (b) on the primary paper feed unit and remove it from the bushing (c).
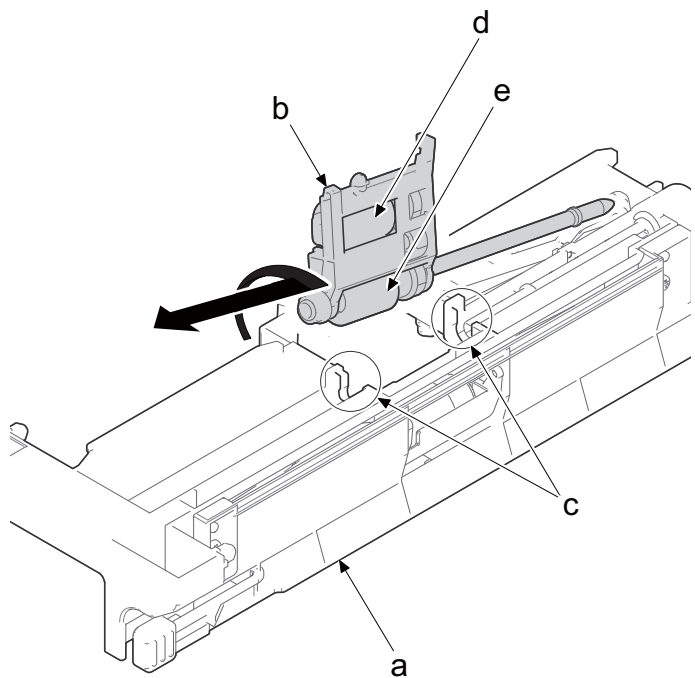
Figure 4-40

Notes when attaching

*: When attaching the primary paper feed unit (a), insert the protrusion (b) into the main unit side guide (c).
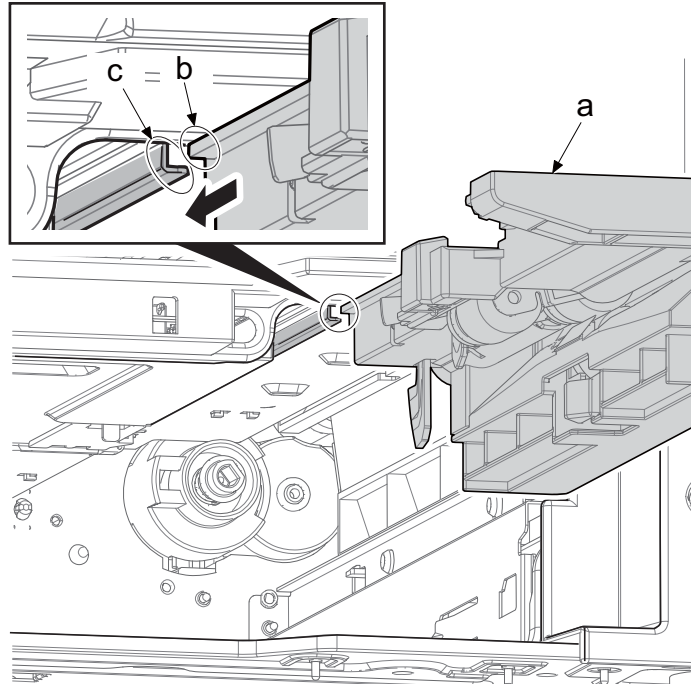
Figure 4-41

(1-2) Detaching and reattaching the retard pulley

Procedures

1. Turn over the primary paper feed unit (a).
2. Remove the spring (b).

Notes when attaching

*: Check if the pressure spring is securely in the protrusion (c) when reattaching it.
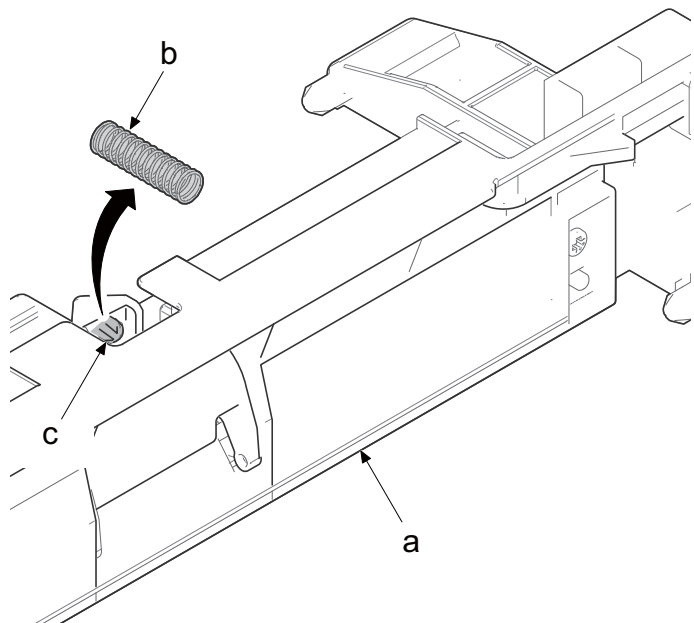
Figure 4-42

3. Turn over the primary paper feed unit (a) again.
4. Remove the retard holder fulcrum (c) with the flat-blade screwdriver (b) and remove the retard holder (d).
5. Attach the new retard holder.
6. Attach the new pickup holder.
7. Reattach the parts in the original position.

IMPORTANT

When replacing the new pickup holder or retard holder, take care not to touch the roller surface.
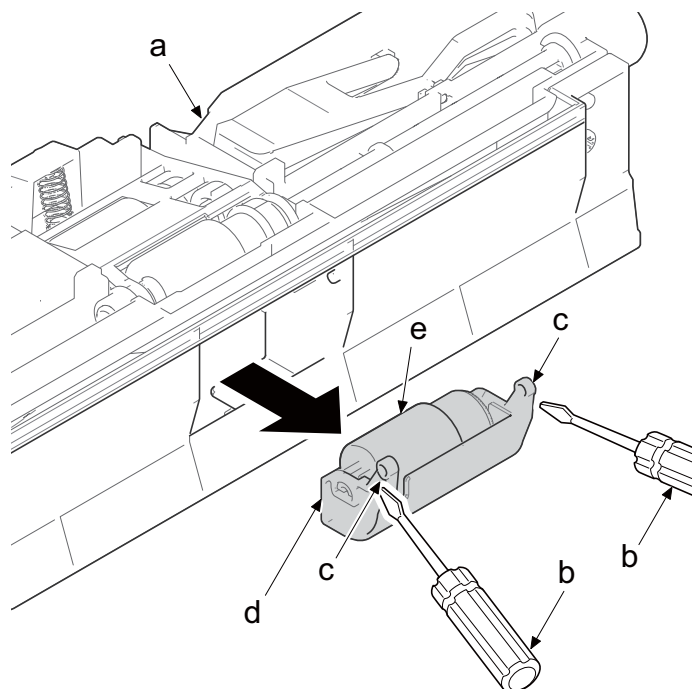
Figure 4-43

(2) Paper feeder (PF-5130)

(2-1) Detaching and reattaching the pickup pulley and paper feed roller

Procedures

1. Pull out the upper cassette (a) from the paper feeder (b) and pull it out on an angle.
2. Pull out the lower cassette from the paper feeder (b) and pull it out on an angle.
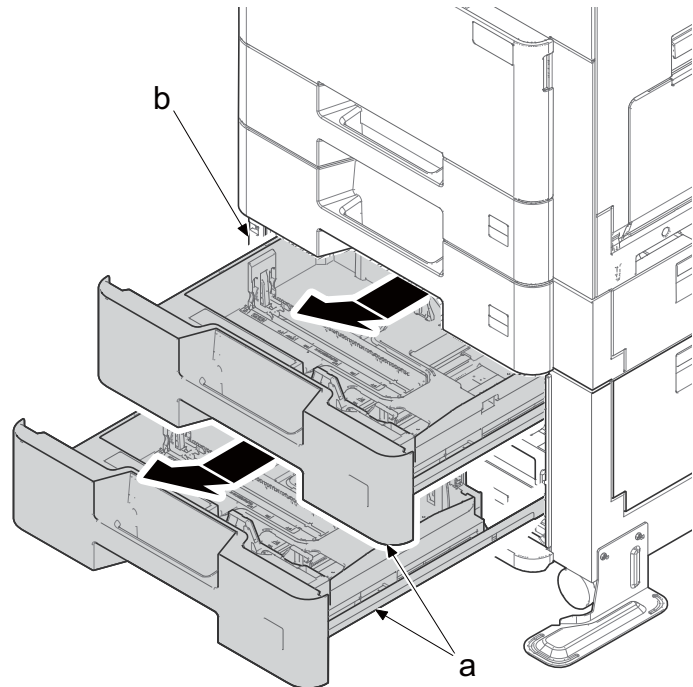
Figure 4-44

3. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the upper stage of the paper feeder (b).
4. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the lower stage of the paper feeder (b).
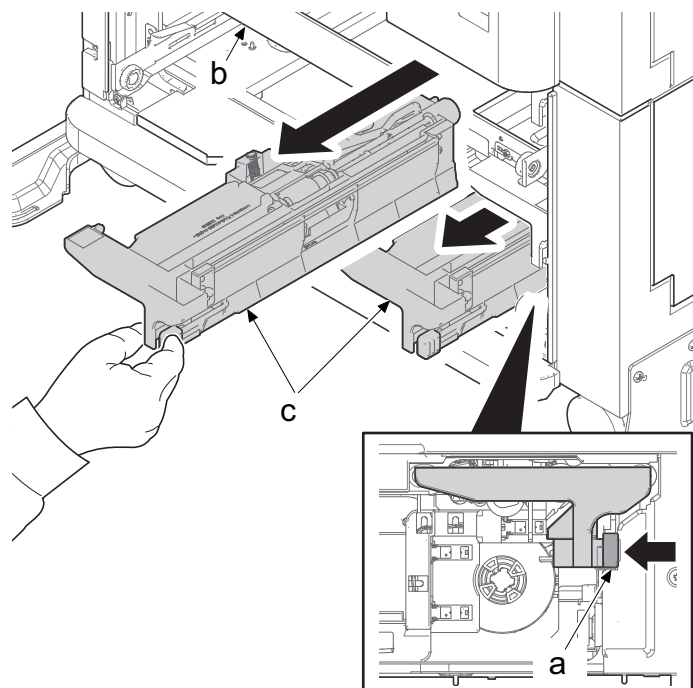
Figure 4-45

5. Remove the spring (b) from the primary paper feed unit (a).

Notes when attaching

*: Check if the pressure spring is securely in the protrusion (c) when reattaching it.
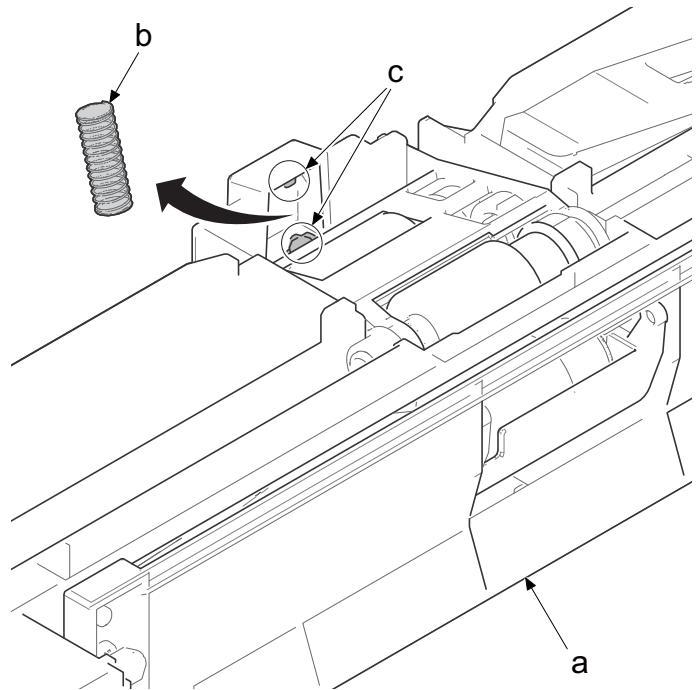
Figure 4-46

6. Tilt up the pickup holder (b) on the primary paper feed unit (a) and remove it from the bushing (c).
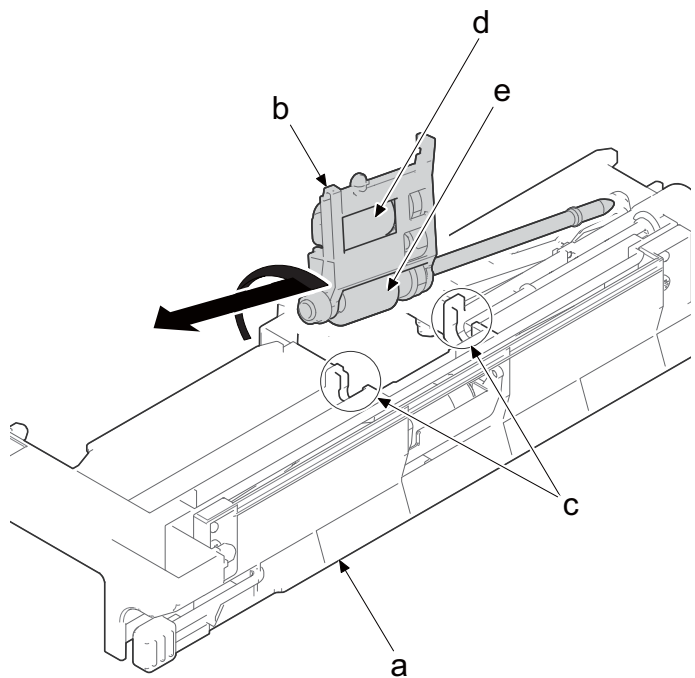
Figure 4-47

Notes when attaching

*: When attaching the primary paper feed unit (a), insert the protrusion (b) into the main unit side guide (c).
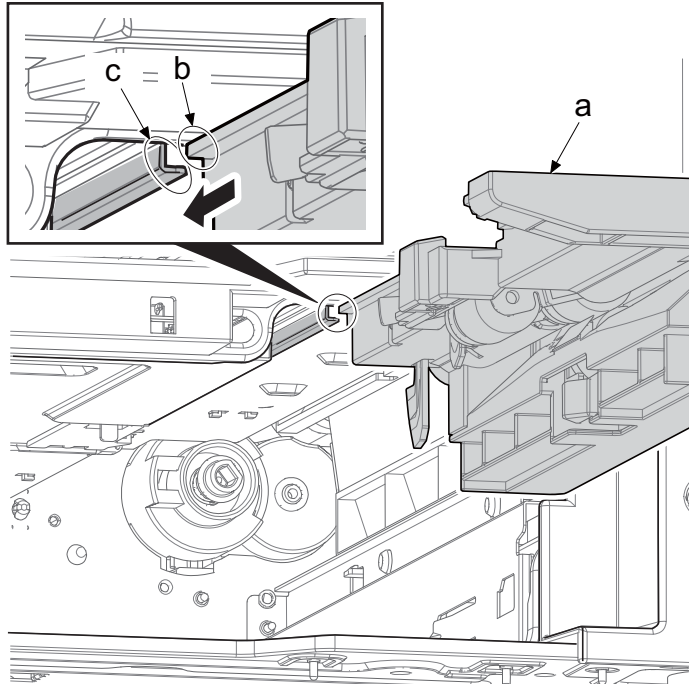
Figure 4-48

(2-2) Detaching and reattaching the retard pulley

Procedures

1. Turn over the primary paper feed unit (a).
2. Remove the spring (b).

IMPORTANT

*: Check if the pressure spring (b) is securely in the protrusion (c) when reattaching it.
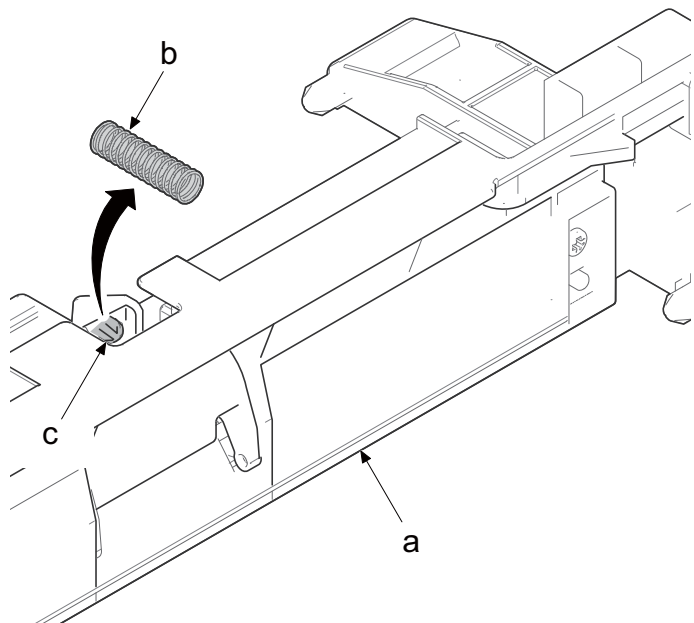
Figure 4-49

3. Turn over the primary paper feed unit (a) again.
4. Remove the retard holder fulcrum (c) with the flat-blade screwdriver and remove the retard holder (d).
5. Attach the new retard holder.
6. Attach the new pickup holder.
7. Reattach the parts in the original position.

IMPORTANT

When replacing the new pickup holder or retard holder, take care not to touch the roller surface.
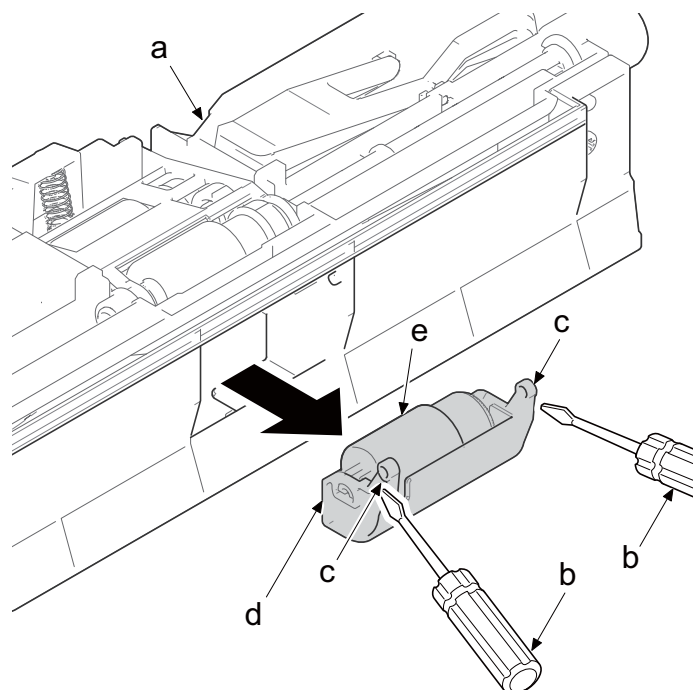
Figure 4-50

(3) Paper feeder (PF-5140)

(3-1) Detaching and reattaching the pickup pulley and paper feed roller

Procedures

1. Pull out the paper deck (a) from the paper feeder (b).
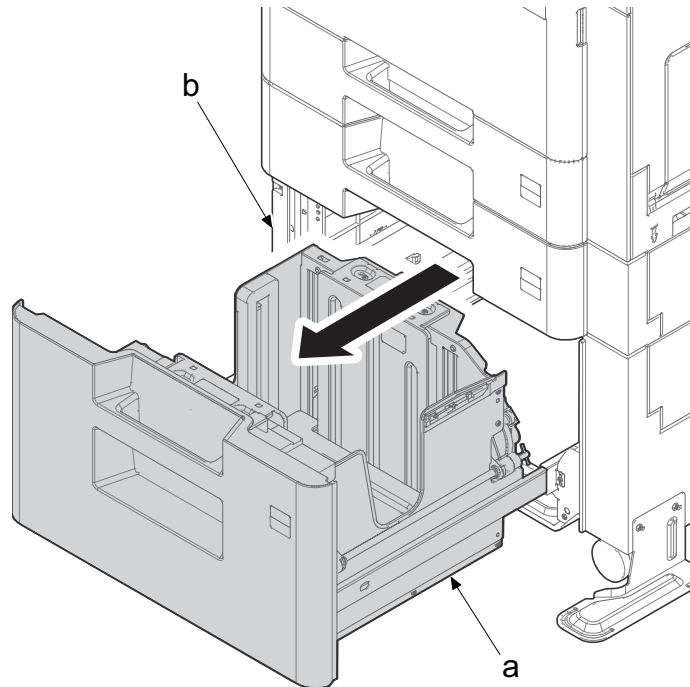
Figure 4-51

2. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the paper feeder (b).
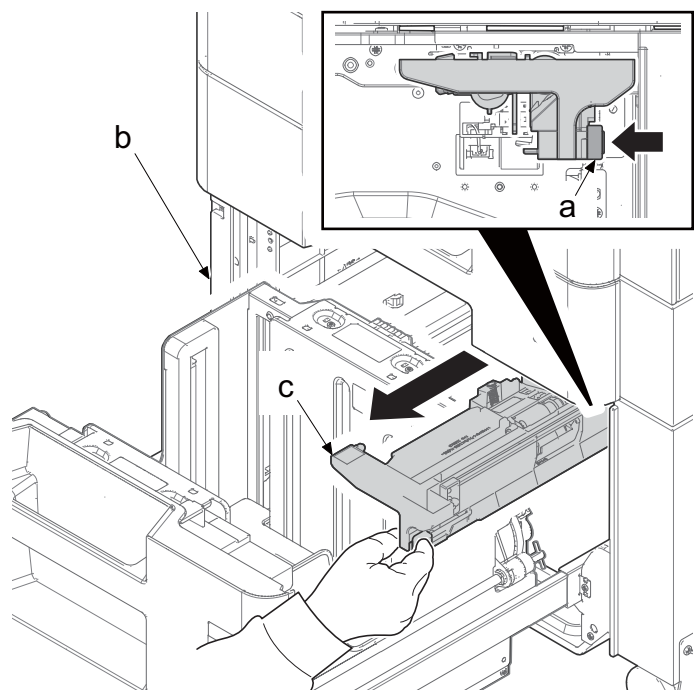
Figure 4-52

3. Remove the spring (b) from the primary paper feed unit (a).

IMPORTANT

   *: Check if the pressure spring (b) is securely in the protrusion (c) when reattaching it.

Figure 4-53

4. Tilt up the pickup holder (b) on the primary paper feed unit (a) and remove it from the bushing (c).

Figure 4-54

4-55

Notes when attaching

*: When attaching the primary paper feed unit (a), insert the protrusion (b) into the main unit side guide (c).
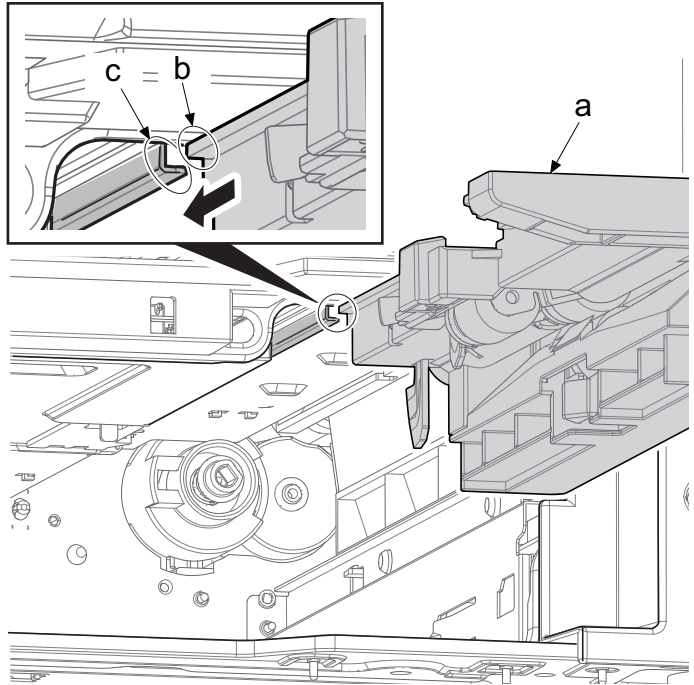
Figure 4-55

(3-2) Detaching and reattaching the retard pulley

Procedures

1. Turn over the primary paper feed unit (a).
2. Remove the spring (b).

IMPORTANT

*: Check if the pressure spring (b) is securely in the protrusion (c) when reattaching it.

Figure 4-56

3. Turn over the primary paper feed unit (a) again.
4. Remove the retard holder fulcrum (c) with the flat-blade screwdriver and remove the retard holder (d).
5. Attach the new retard holder.
6. Attach the new pickup holder.
7. Reattach the parts in the original position.

IMPORTANT

When replacing the new pickup holder or retard holder, take care not to touch the roller surface.
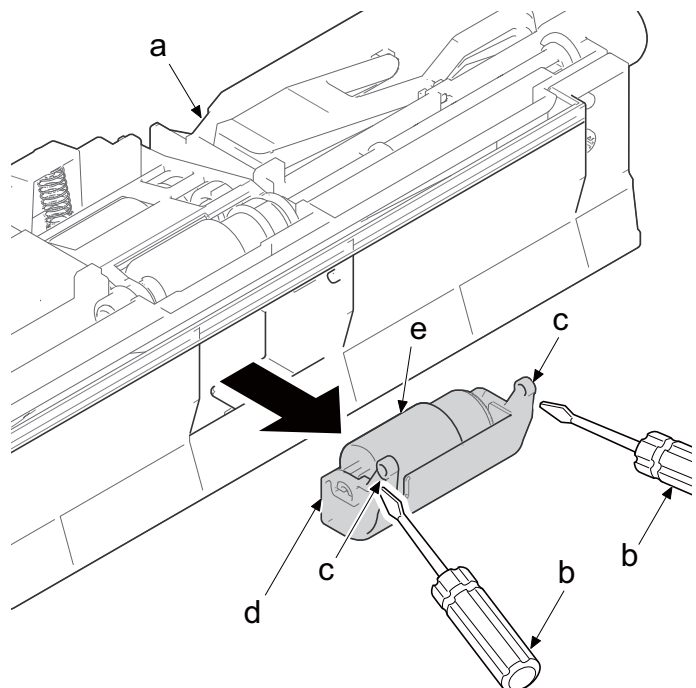
Figure 4-57

(4) Document processor (DP-5100): 35/40 ppm models only

(4-1) Detaching and reattaching the DP pickup pulley and DP paper feed roller

Procedures

1. Open the DP top cover (b) of the document processor (a).
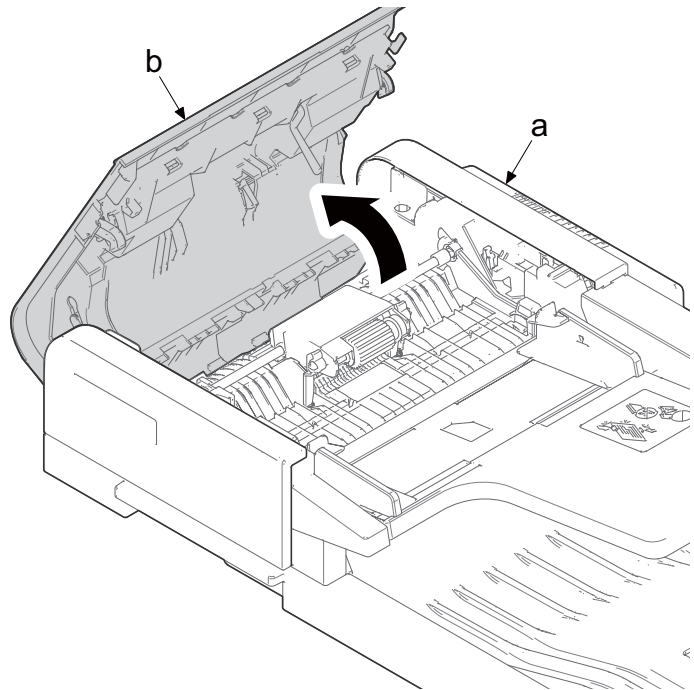
Figure 4-58

2. Push the lock lever (a) toward the machine rear side.
3. Release the hook (b).
4. Rotate the lock lever (a) to the release position (c).
5. Shift the machine front side of the DP paper feed roller shaft (d) toward the machine left side to remove it from the holding part (e).
6. Then, lift the shaft and pull the DP paper feed roller unit (f) out toward the machine front side.
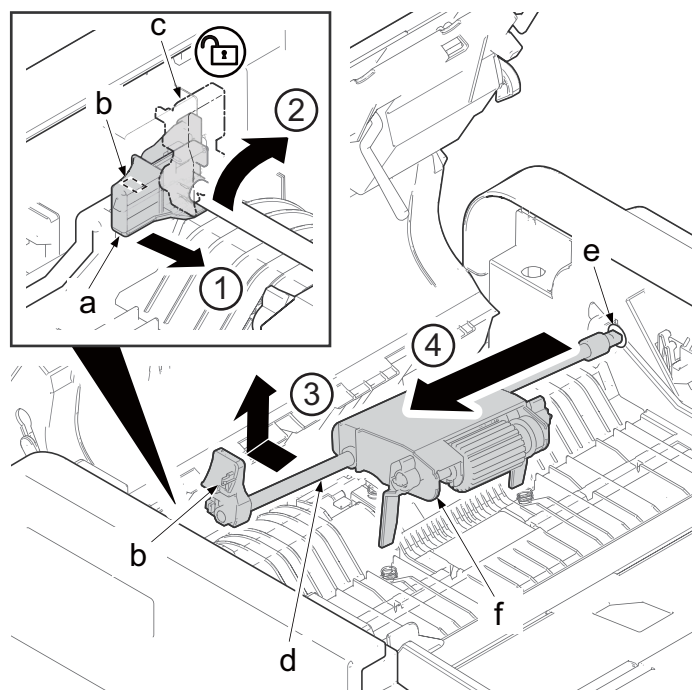
Figure 4-59

(4-2) Detaching and reattaching the DP separation pad

Procedures

1. Push both hooks (b) inward and remove the DP separation pad assembly (a).

2. Attach the new DP separation pad assembly.
3. Reattach the parts in the original position.

   *:Check if the pressure spring (c) is securely in the protrusion (d) when reattaching it.

4. Attach the new DP paper feed roller unit.
5. Reattach the parts in the original position.
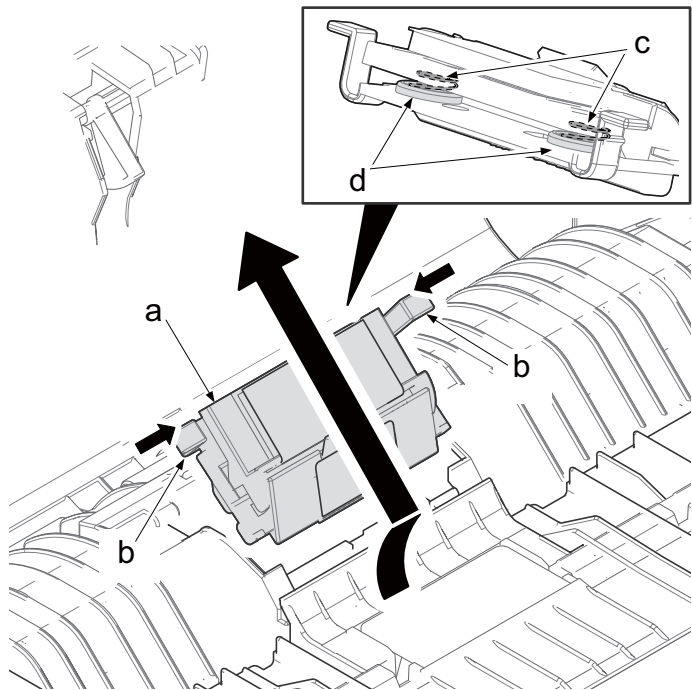
Figure 4-60

(5) Document processor (DP-5110): 35/40 ppm models only

(5-1) Detaching and reattaching the DP pickup pulley and DP paper feed roller

Procedures

1. Open the DP top cover (b) of the document processor (a).
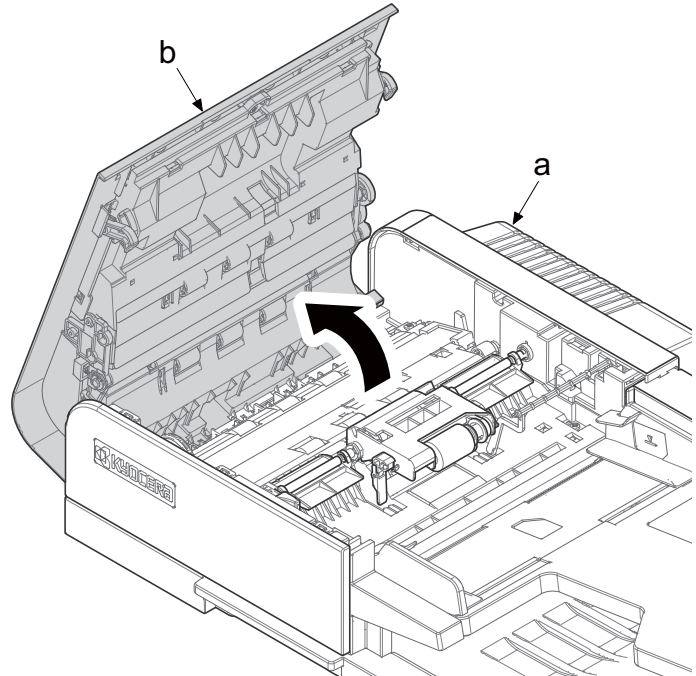
Figure 4-61

2. Push the lock lever (a) toward the machine rear side.
3. Release the hook (b).
4. Rotate the lock lever (a) to the release position (c).
5. Shift the machine front side of the DP paper feed roller shaft (d) toward the machine left side to remove it from the holding part (e).
6. Then, lift the shaft and pull the DP paper feed roller unit (f) out toward the machine front side.
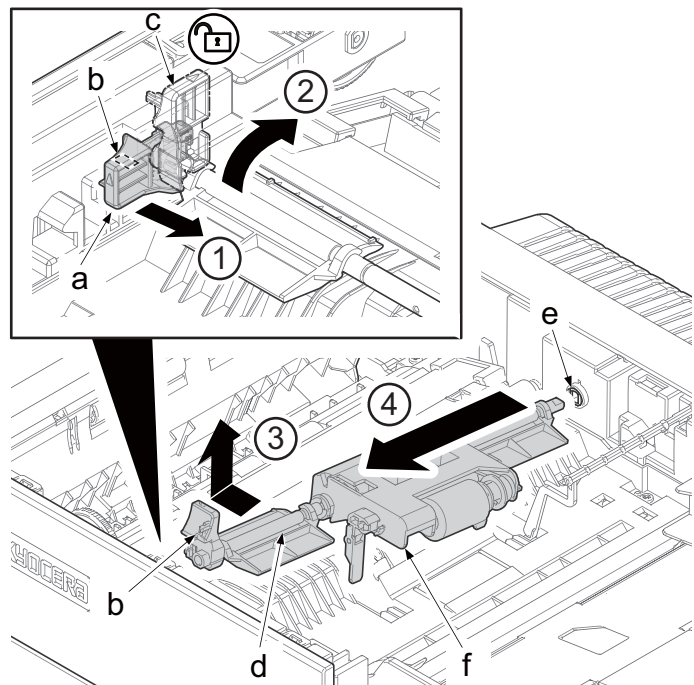
Figure 4-62

(5-2) Detaching and reattaching the DP separation pad

Procedures

1. Push both hooks (b) inward and remove the DP separation pad assembly (a).

2. Attach the new DP separation pad assembly.
3. Reattach the parts in the original position.

 *:Check if the pressure spring (c) is securely in the protrusion (d) when reattaching it.

4. Attach the new DP paper feed roller unit.
5. Reattach the parts in the original position.
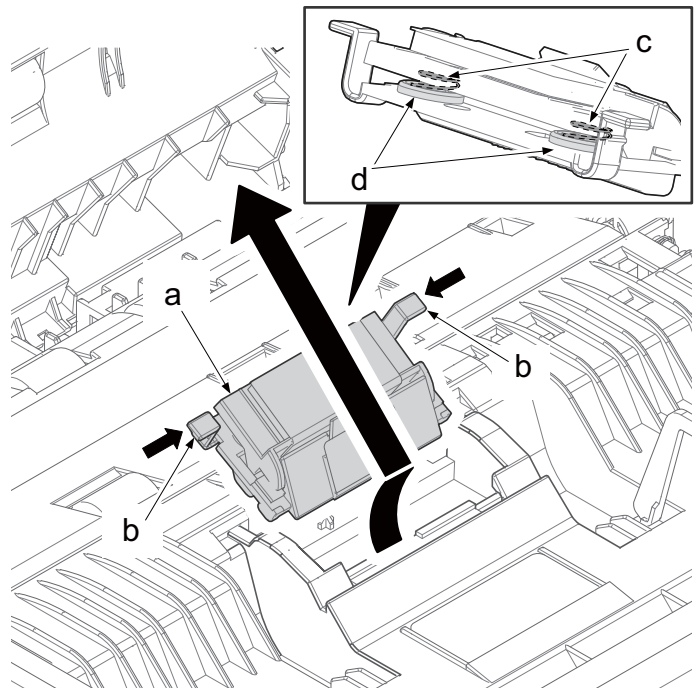
Figure 4-63

4-5Adjustment procedures after replacing the maintenance kit

Execute the following procedures after replacing the above maintenance kit.

MK-5195A   MK-5206A MK-5197A   MK-5195B
MK-5205A (Start) MK-5216A MK-5207A   (Start)   MK-5205B
MK-5215A   MK-5217A   MK-5215B

| U119 Setting the drum *1 | | U119 Setting the drum *1 |

| U930 Clear the main charger roller counts | | U930 Clear the main charger roller counts |

| U140 Developer bias adjustment *1 | | U140 Developer bias adjustment *1 |

| U127 Clearing the transfer count |

| U167 Clearing the fuser count |

| U464 ID correction setting | | U464 ID correction setting |

| U469 Color registration adjustment | | U469 Color registration adjustment |

| U412 Adjusting the uneven density *1 | | U412 Adjusting the uneven density *1 |

| U410 Adjusting the halftone automatically | | U410 Adjusting the halftone automatically |

| U251 Checking/clearing the maintenance counter | | U251 Checking/clearing the maintenance counter |

*1: 40 ppm model only

Execute the following maintenance modes after replacing the maintenance kit.
Executable with the preset in the U952 maintenance mode workflow. (See page 6-191,6-425)

Maintenance kits	Maintenance item
MK-5195A/5205A/5215A MK-5206A/5216A MK-5197A/5207A/5217A	U119*1/ U930/ U140*1/ U127/ U167/ U464/ U469/ U412*1/ U410/ U251
MK-5195B/5205B/5215B	U119*1/ U930/ U140*1/ U464/ U469/ U412*1/ U410/ U251
MK-3140/5200	-

*1: 40 ppm model only

4-6Disassembly and Reassembly

(1) Outer covers

(1-1) Detaching and reattaching the front cover

Procedures

1. Open the front cover (a).
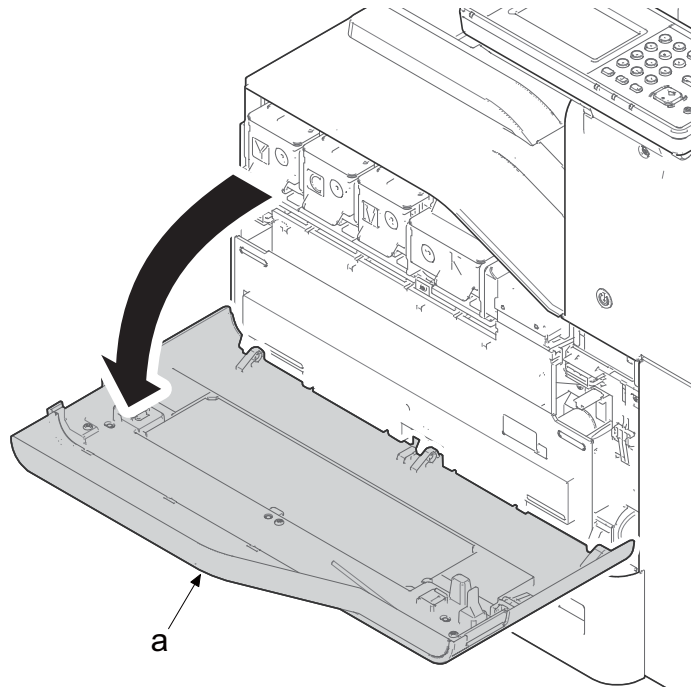
Figure 4-64

(for 30/35 ppm models only)

2. Hold A and B, and remove the waste toner box (a).

*: There is no waste toner duct in 30/35 ppm models.
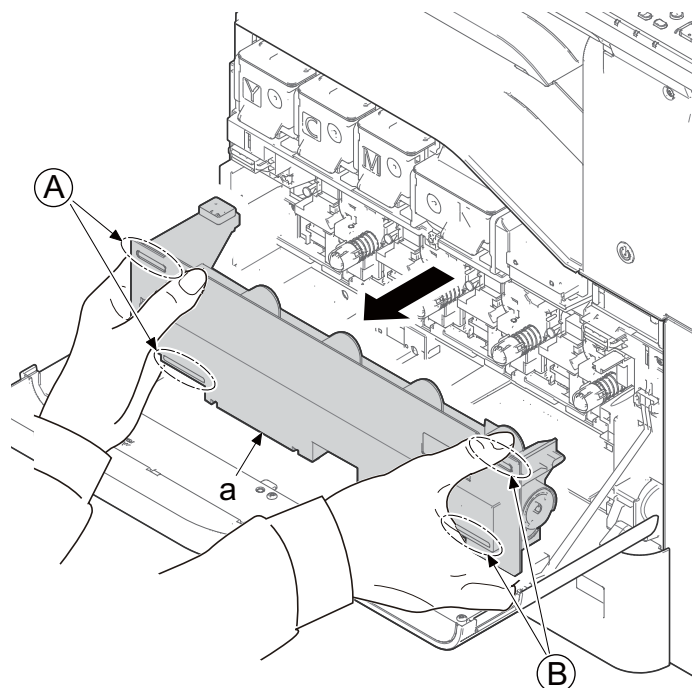
Figure 4-65

(for 40 ppm model only)
2. Hold A and B, and remove the waste
   toner box (a).
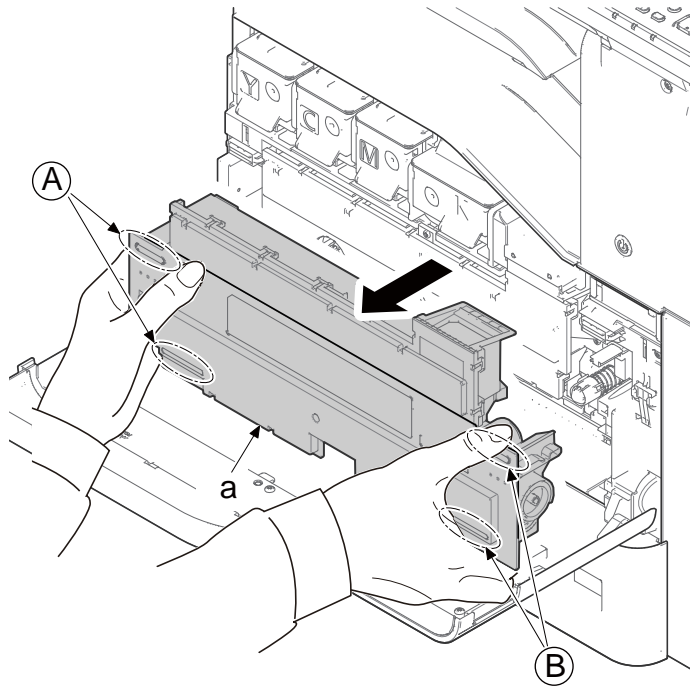
Figure 4-66

3. Release the hook (b) with the flat-blade
   screwdriver (c) and remove the strap
   (e) in the direction of the arrow.
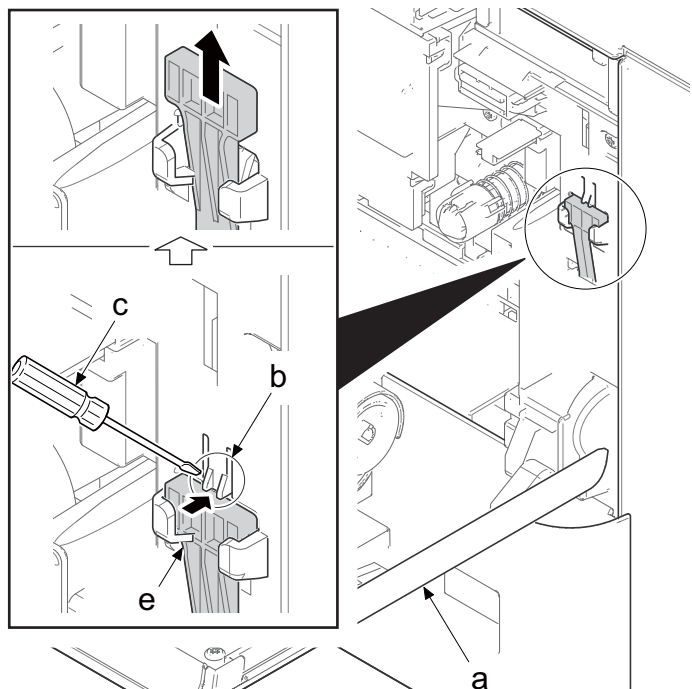
Figure 4-67

4. Push down the stopper (b) of the front cover (a).

5. Slide the front cover in the direction of the arrow and remove the fulcrum (d) from the fulcrum shaft (c).
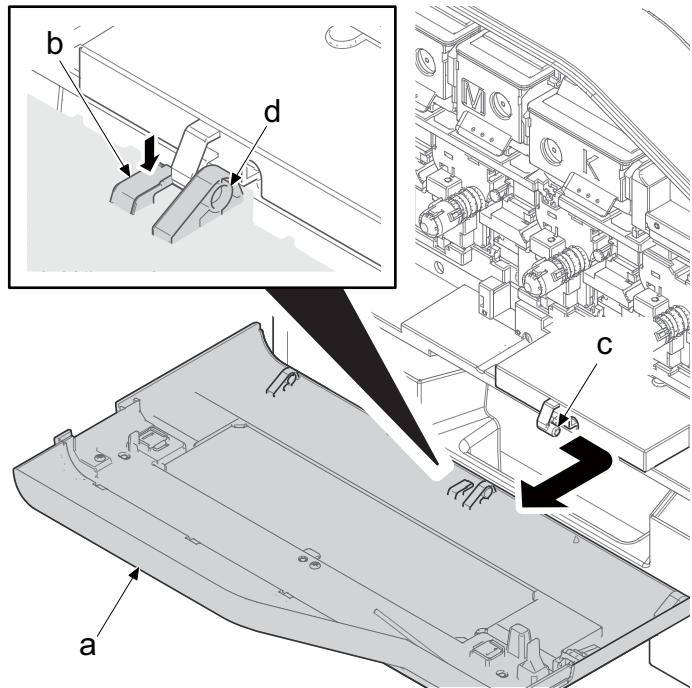
Figure 4-68

(1-2) Detaching and reattaching the rear left cover, rear right cover and rear lower cover

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-69

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
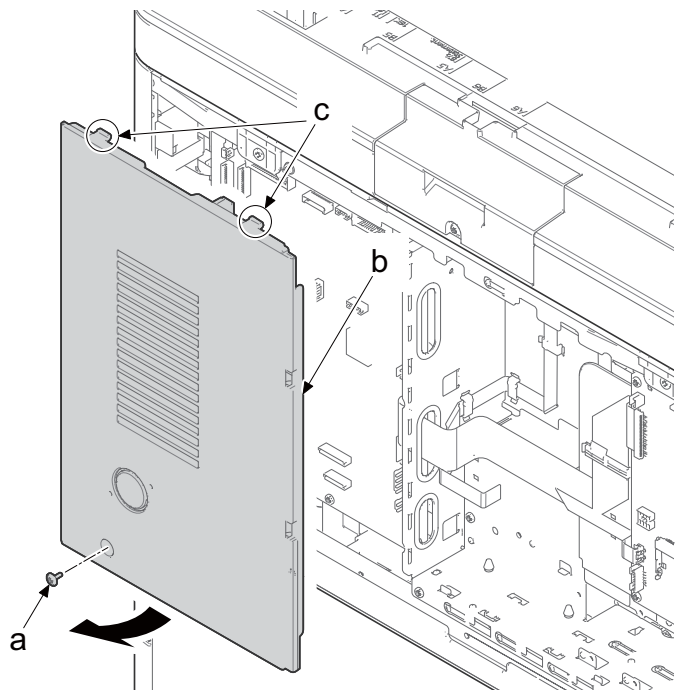
Figure 4-70

4. Remove the screw (e)(M3x8).
5. Remove the rear lower cover (f) while removing the hook (c) in the direction of the arrow.
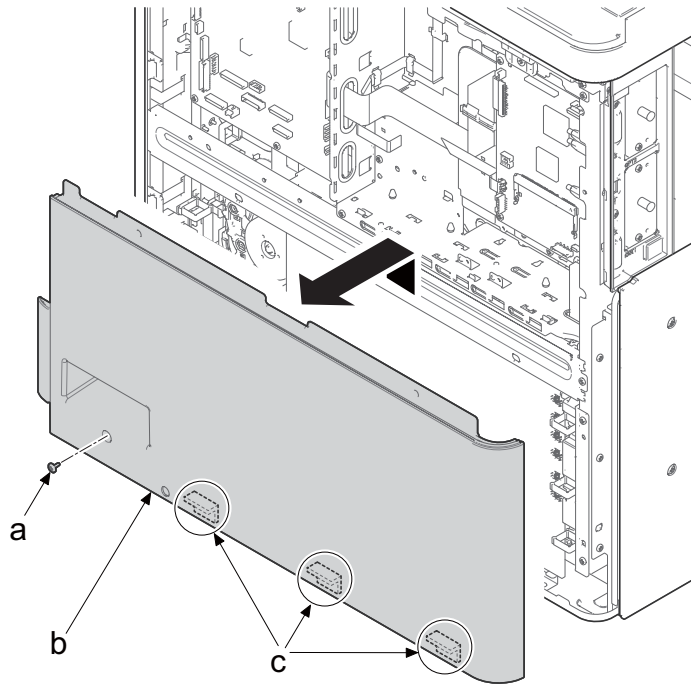
Figure 4-71

(1-3) Detaching and reattaching the ISU rear cover

Procedures

1. Remove the screw (a)(M3x8).
2. Detach the ISU rear cover (b) in the direction of the arrow.
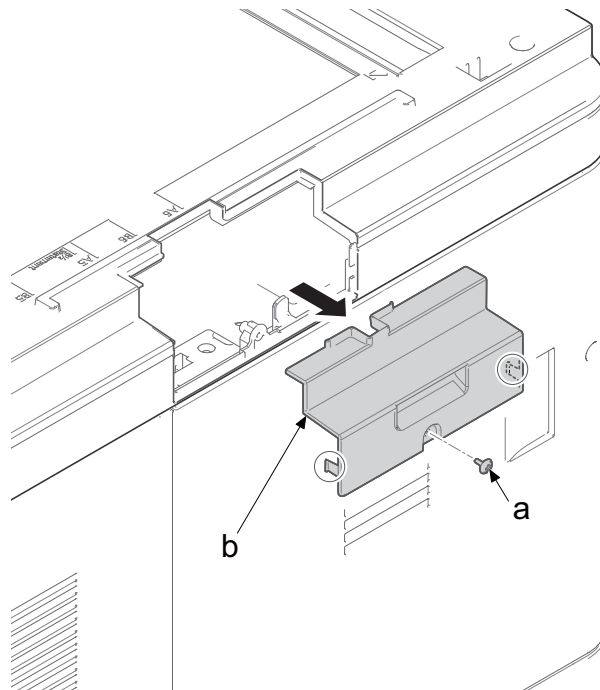
Figure 4-72

(1-4) Detaching and reattaching the left cover

Procedures

1. Remove six screws (a)(M3x8).
2. Release three hooks (c) and remove the left cover (b) in the direction of the arrow.
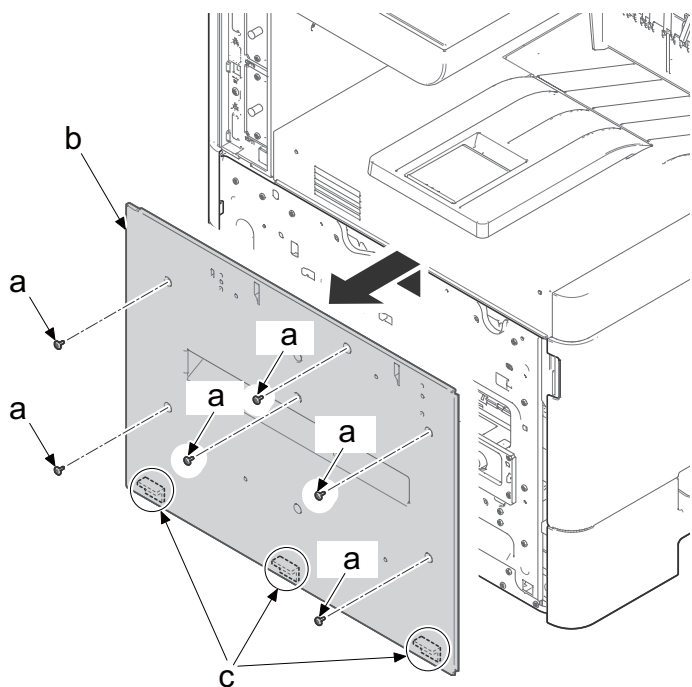
Figure 4-73

(1-5) Detaching and reattaching the upper right cover

Procedures

1. Open the right cover.
2. Remove the screw (a)(M3x8).
3. Slide the right upper cover (b) in the direction of the arrow and detach it.
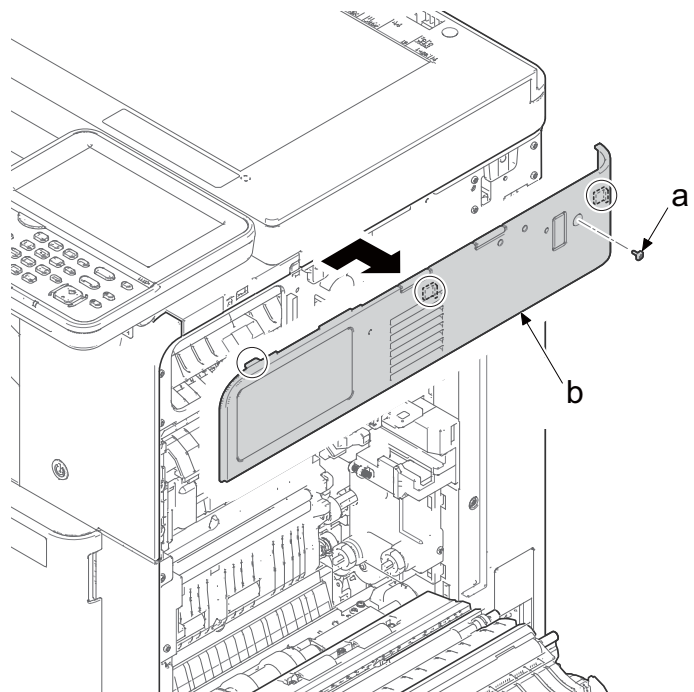
Figure 4-74

(1-6) Detaching and reattaching the rear right cover

Procedures

1. Detach the rear left cover.
2. Detach the rear right cover.
3. Detach the rear lower cover.
4. Open the right cover.
5. Detach the upper right cover.
6. Remove two screws (a)(M3x8) and remove the rear right cover (b).
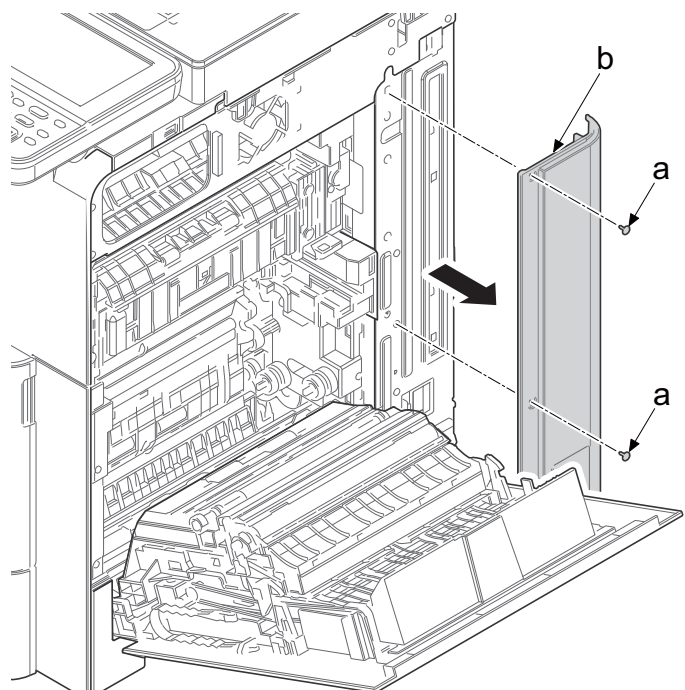
Figure 4-75

(1-7) Detaching and reattaching the right cover assembly

Procedures

1. Open the manual feed table (a).
2. Remove two stop rings (c) with the flat-blade screwdriver (b).
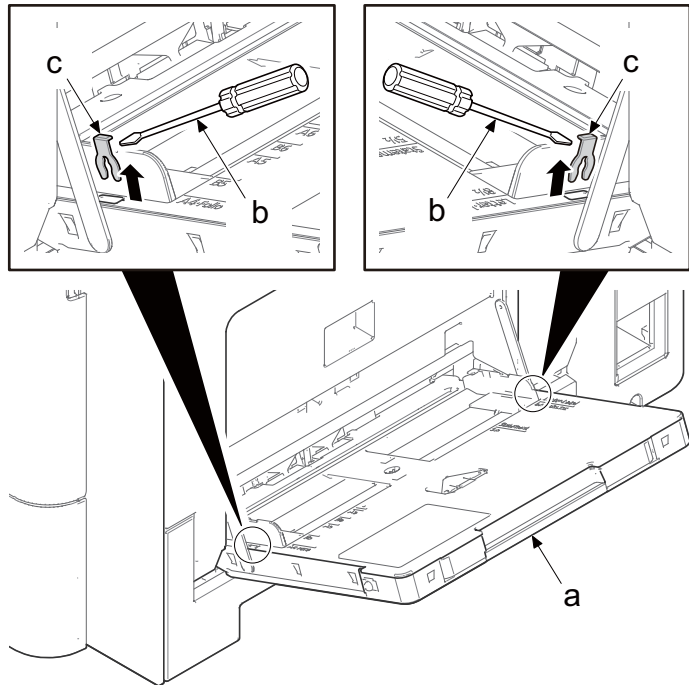
Figure 4-76

3. Remove two straps (a) in the direction of the arrow.
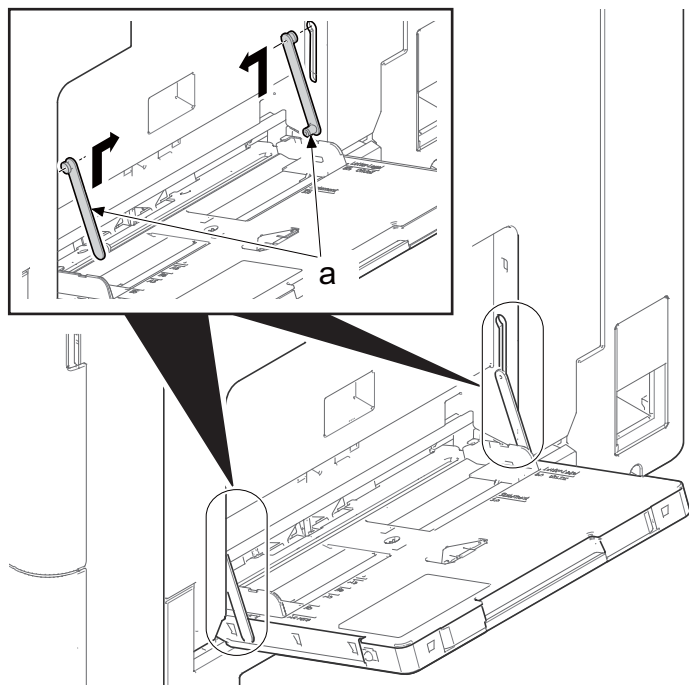
Figure 4-77

4. Open the right cover (a).
5. Rotate the wire cover (b).
6. Release the wire (c) from the hook (d) and disconnect the connector (a).
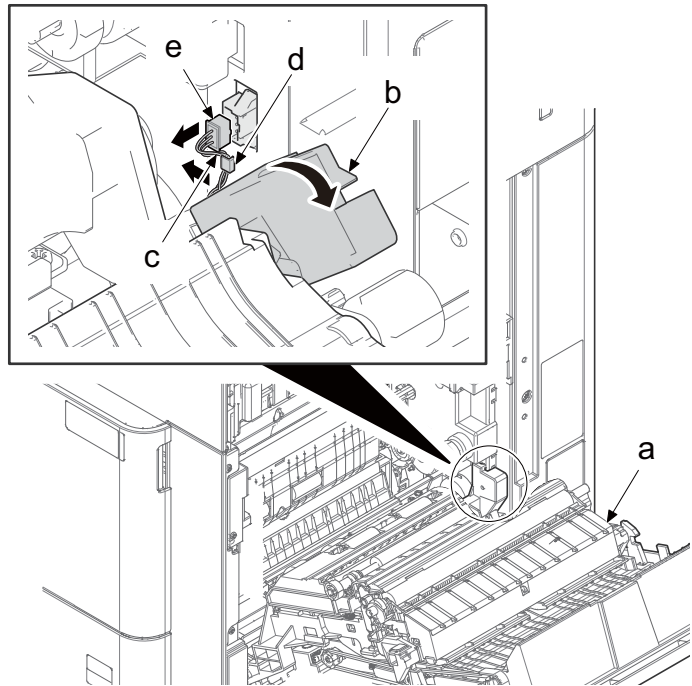
Figure 4-78

7. Close the conveying unit (a).
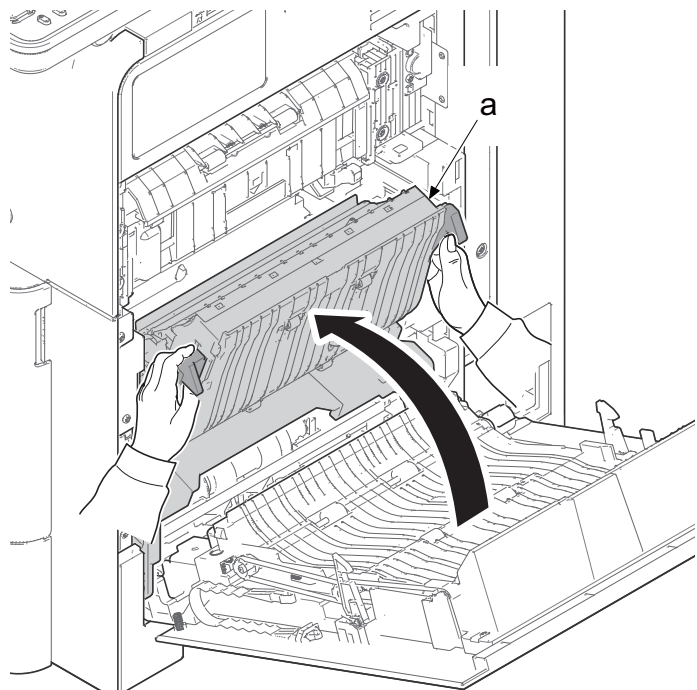
Figure 4-79

8. Tilt up the right cover shaft (a).
9. Slide the right cover shaft (a) in the direction of the arrow.
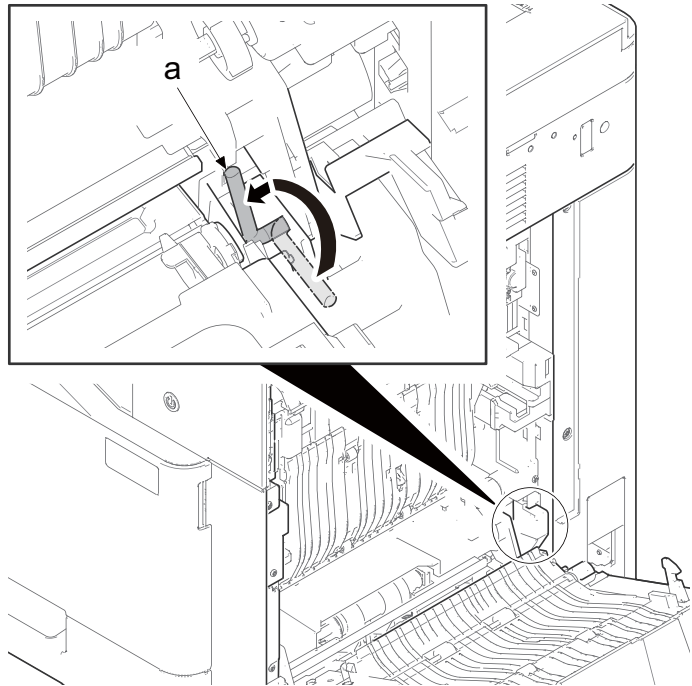
Figure 4-80

10. Open the conveying unit (a).
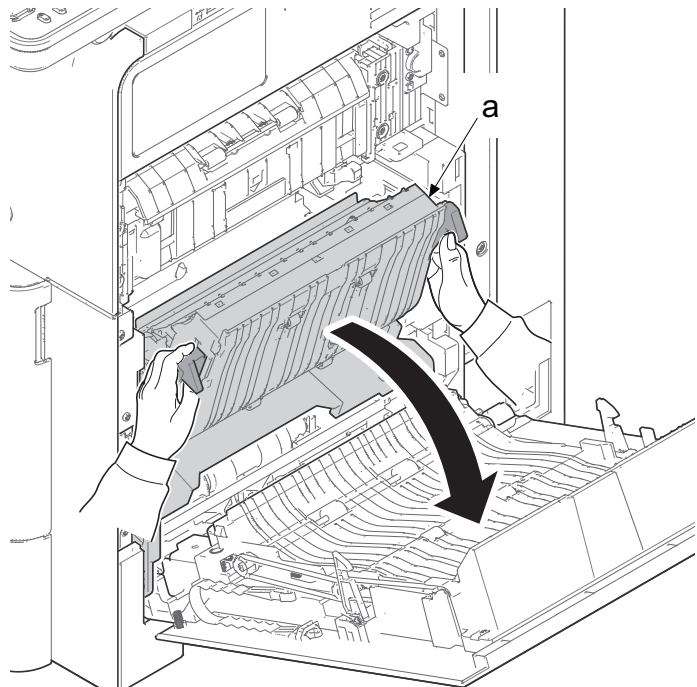
Figure 4-81

11. Twist two straps (a) and detach them.
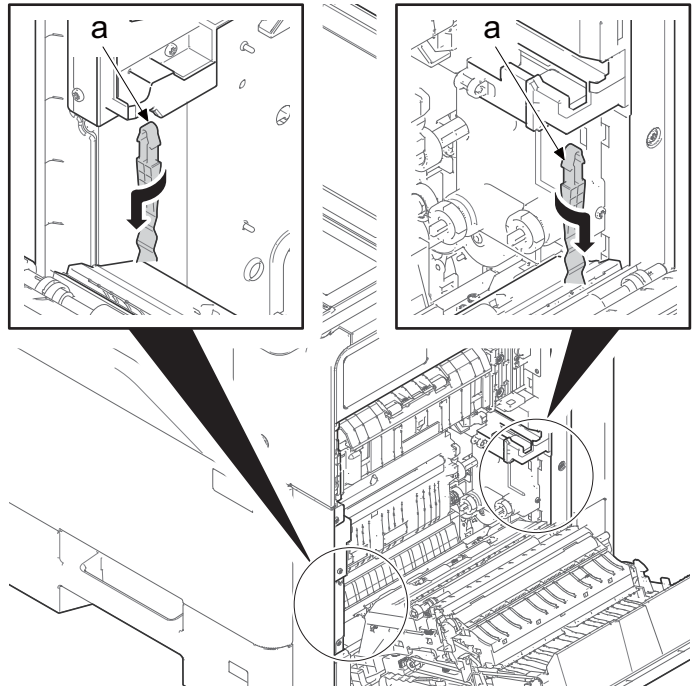
Figure 4-82

12. Slide the rear side fulcrum (a) and pull out the shaft of the front side fulcrum (b).
13. Tilt up the right cover assembly (c) and remove it in the direction of the arrow.
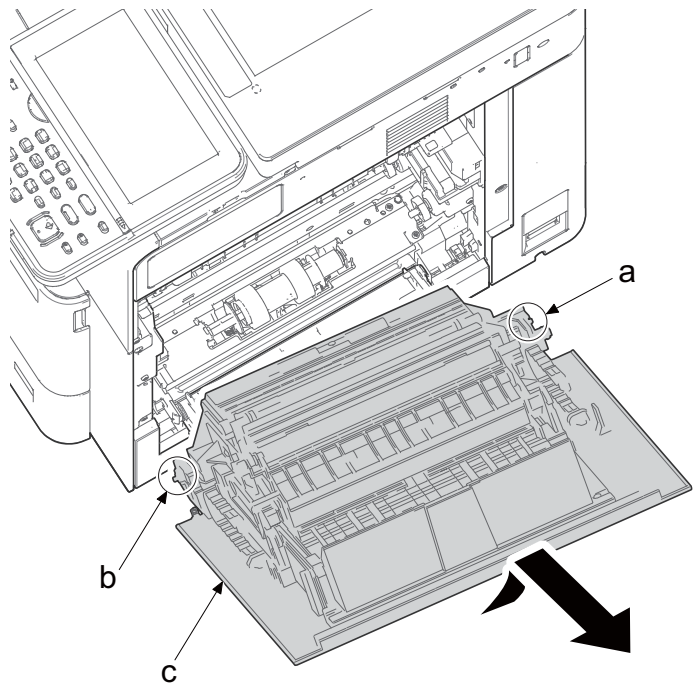
Figure 4-83

14. Pull out the right cover shaft (a).
15. Remove the stop ring (b) and pull out the fulcrum pin (c).
16. Detach the conveying unit in the direction of the arrow.
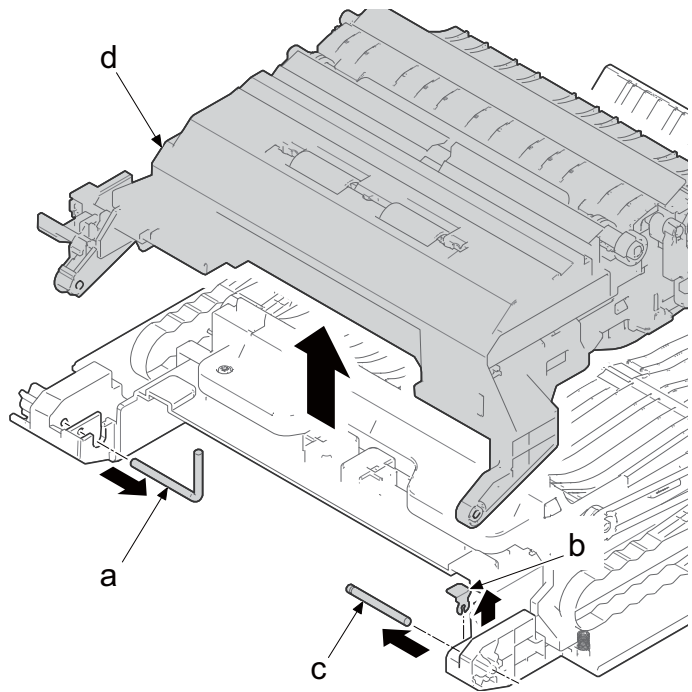
Figure 4-84

(1-8) Detaching and reattaching the upper right cover

Procedures

1. Open the right cover (a) of the main unit (b).
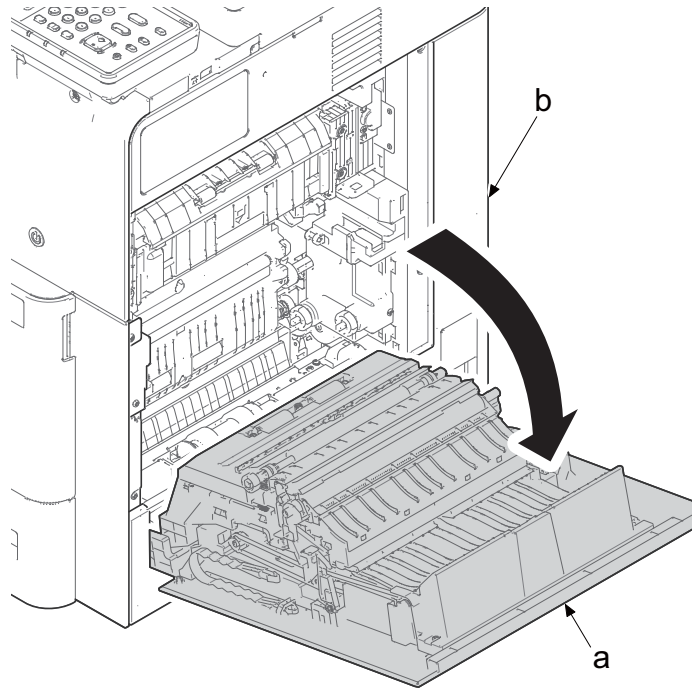
Figure 4-85

2. Remove the screw (a)(M3x8).
3. Slide the right upper cover (b) in the direction of the arrow and detach it.
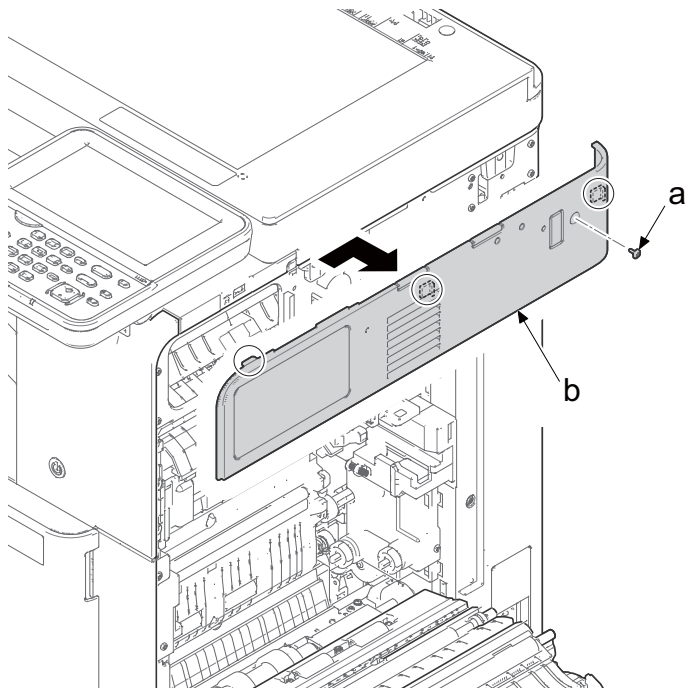
Figure 4-86

(2) Optical section

(2-1) Detaching and reattaching the LSU

Procedures

1. Open the manual feed table (a).
2. Remove two stop rings (c) with the flat-blade screwdriver (b).
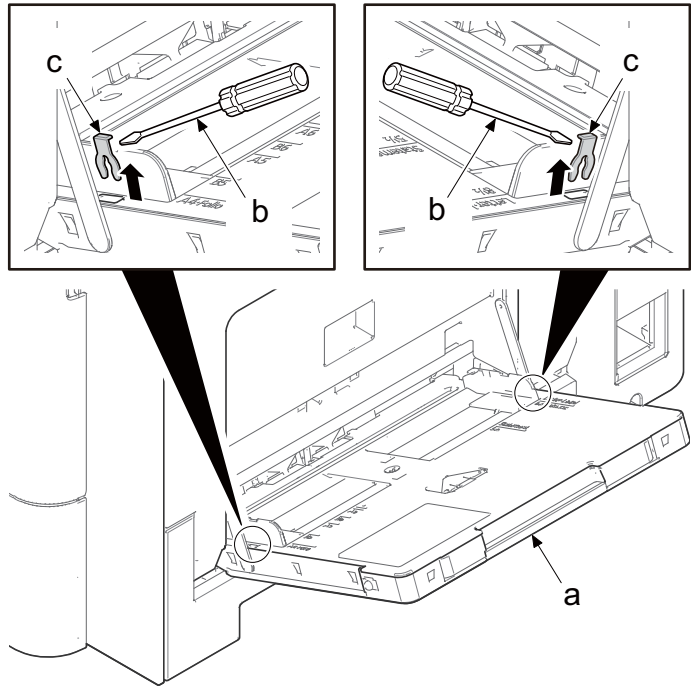
Figure 4-87

3. Remove two straps (a) in the direction of the arrow.
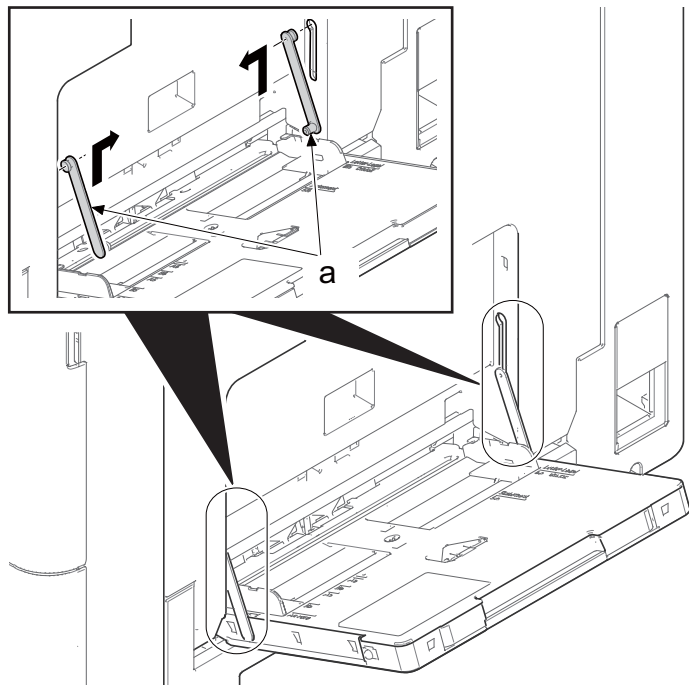
Figure 4-88

4. Open the right cover (a).
5. Rotate the wire cover (b).
6. Disconnect the connector (c).
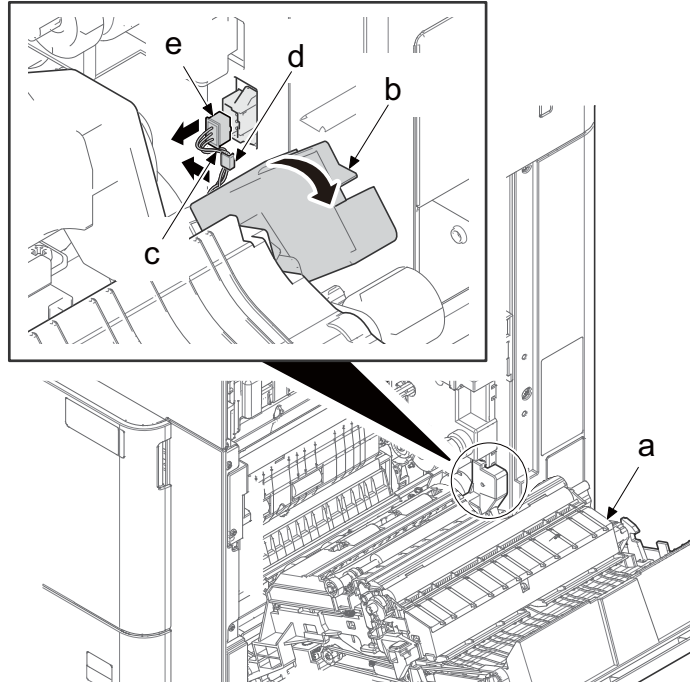
Figure 4-89

7. Close the conveying unit (a).
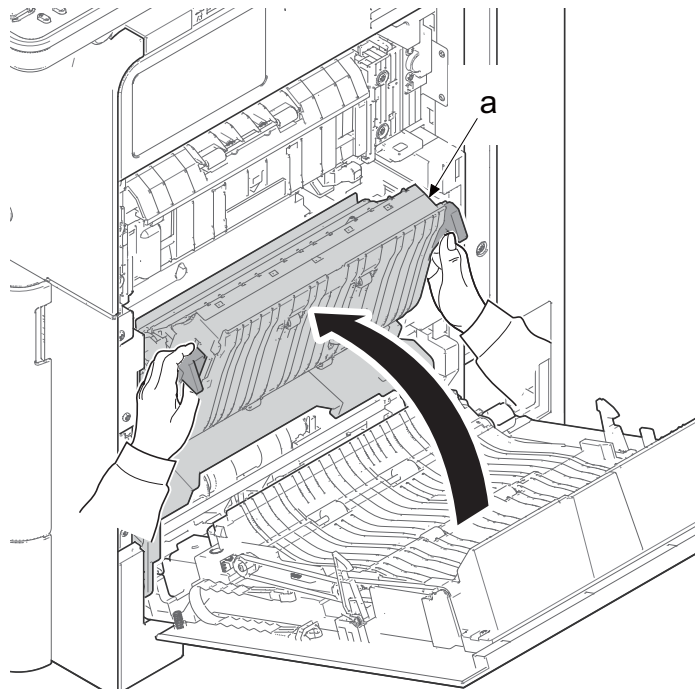
Figure 4-90

8. Tilt up the right cover shaft (a).
9. Slide the right cover shaft (a) in the direction of the arrow.
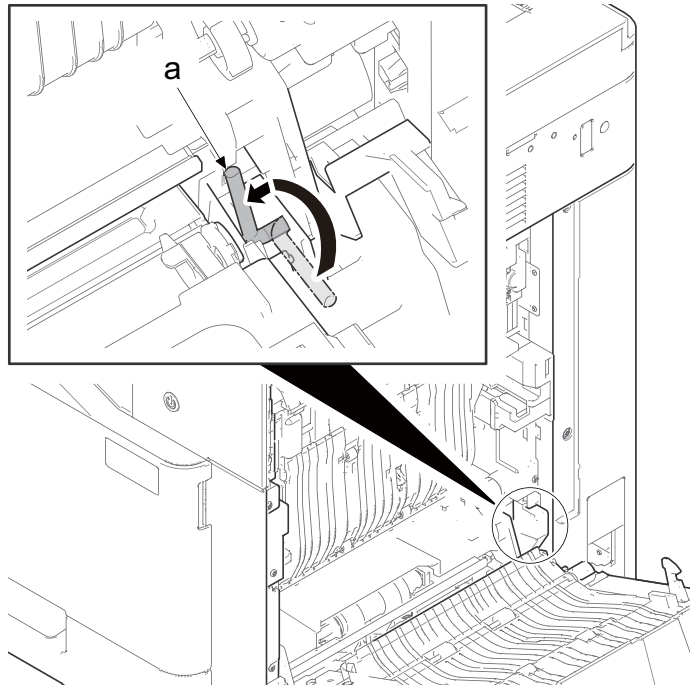
Figure 4-91

10. Open the conveying unit (a).
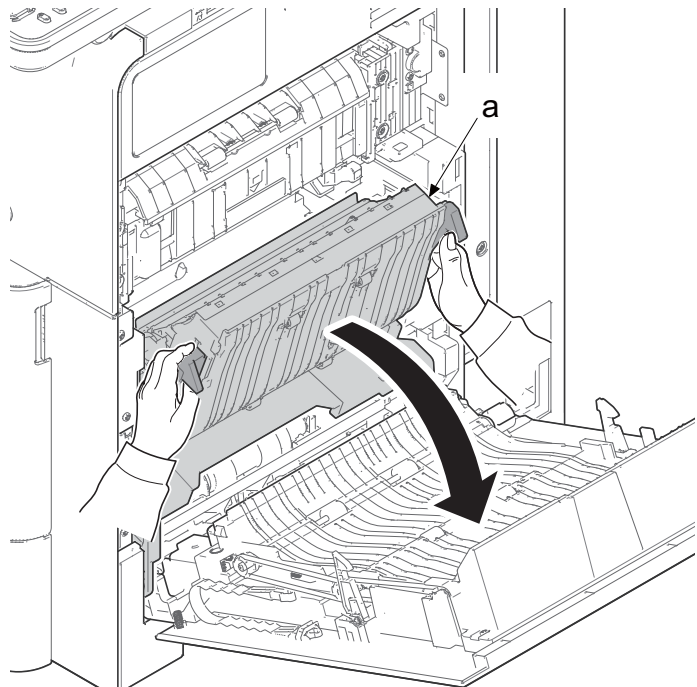
Figure 4-92

11. Twist two straps (a) and detach them.
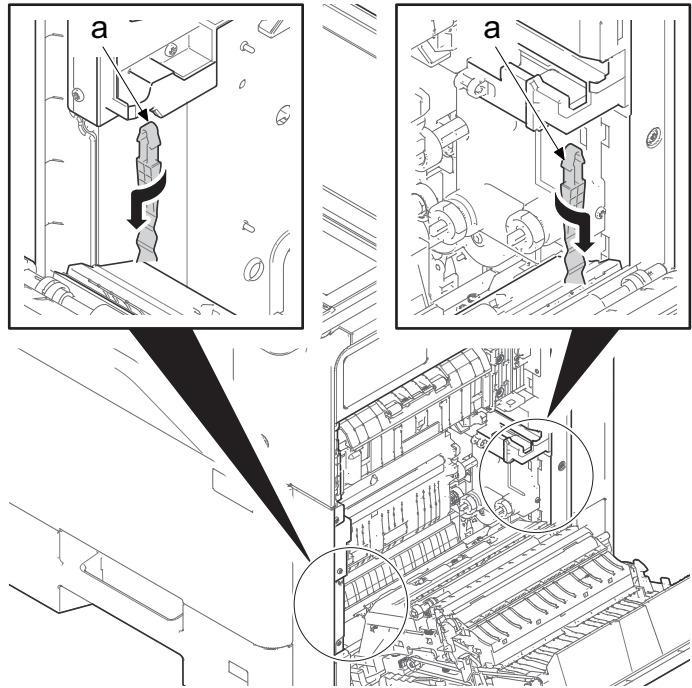
Figure 4-93

12. Slide the rear side fulcrum (a) and pull out the shaft of the front side fulcrum (b).
13. Tilt up the right cover assembly (c) and remove it in the direction of the arrow.
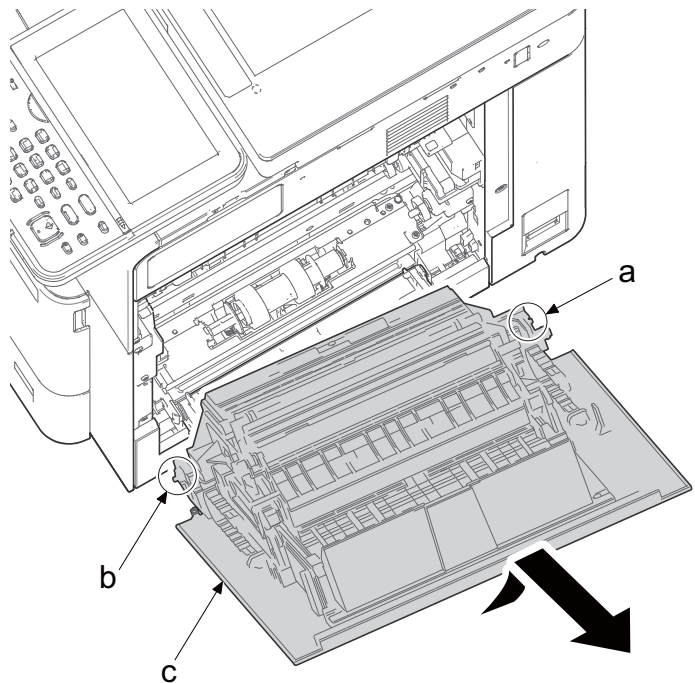
Figure 4-94

14. Open the front cover (a).
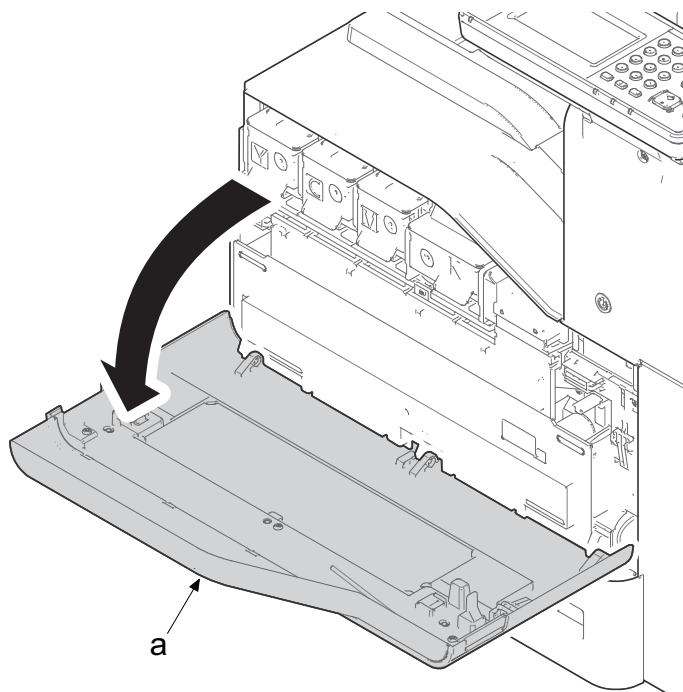
Figure 4-95

(for 30/35 ppm models only)
15. Hold A and B, and remove the waste toner box (a).

*: There is no waste toner duct in 30/35 ppm models.
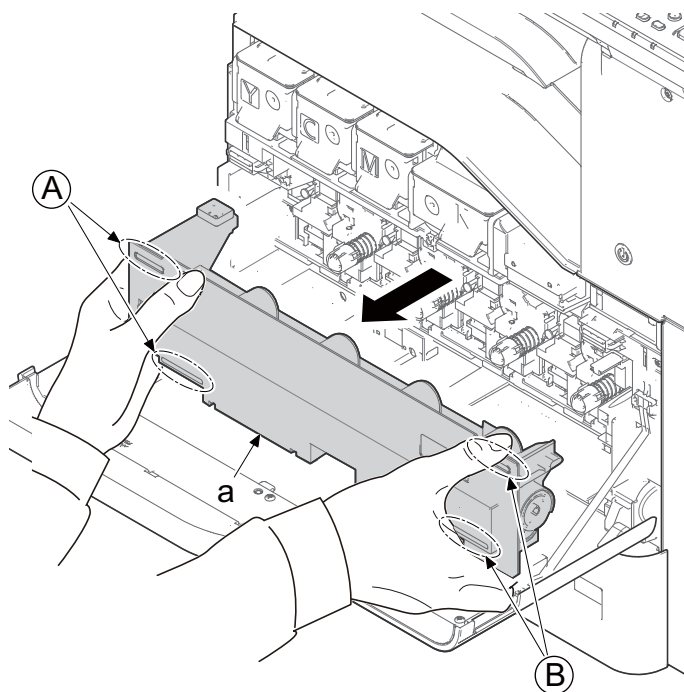
Figure 4-96

(for 40 ppm model only)

15. Hold A and B, and remove the waste toner box (a).
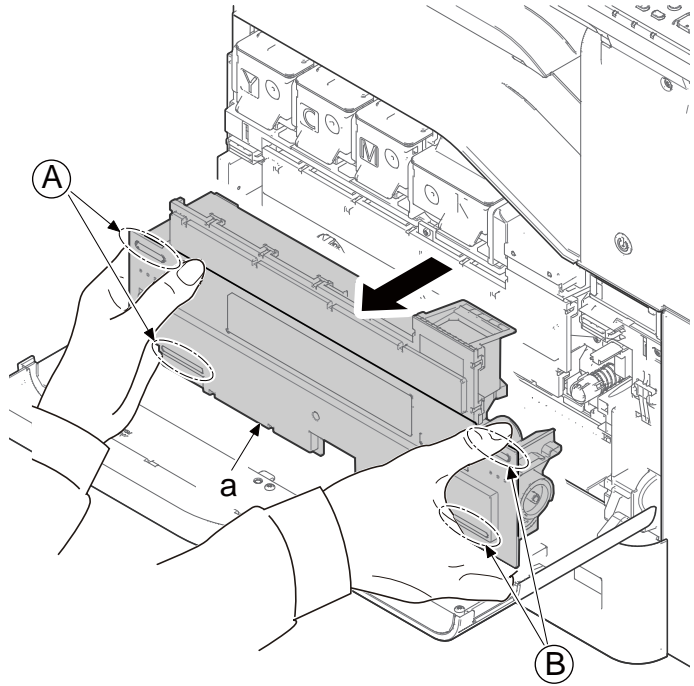
Figure 4-97

16. Remove the screw (a)(M3x8).
17. Slide the regist cleaner (b) in the direction of the arrow and release the lock.
18. Pinch the regist cleaner (b) and pull it out.
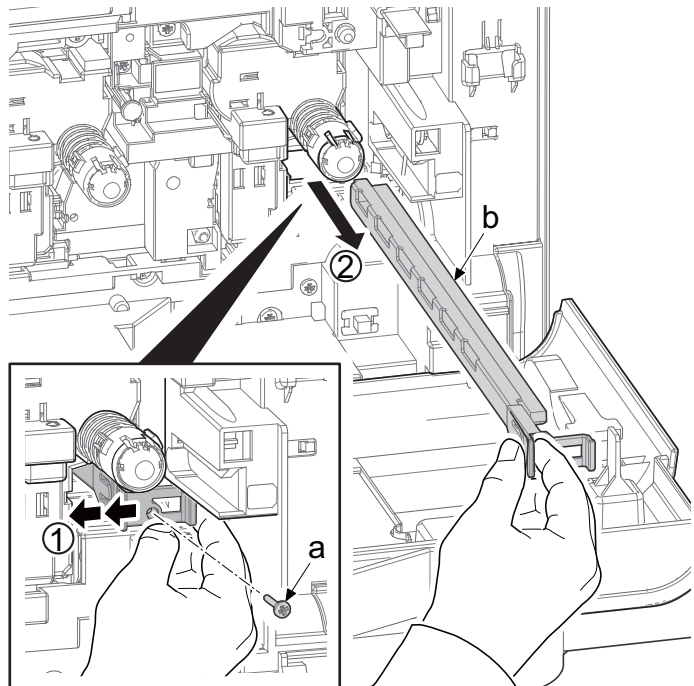
Figure 4-98

19. Remove six screws (a)(M3x8).
20. Release three hooks (c) and remove the left cover (b) in the direction of the arrow.
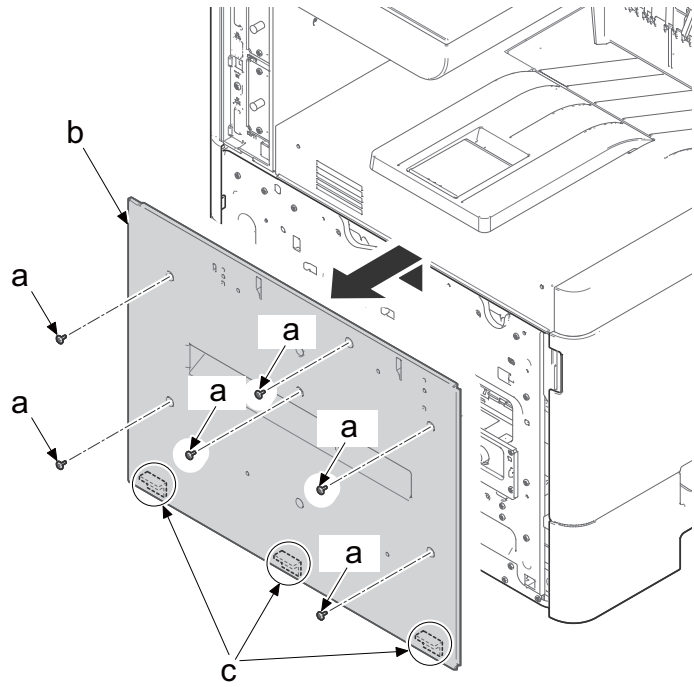
Figure 4-99

21. Remove four screws (a)(M3x8) and remove the LSU left stay (b).
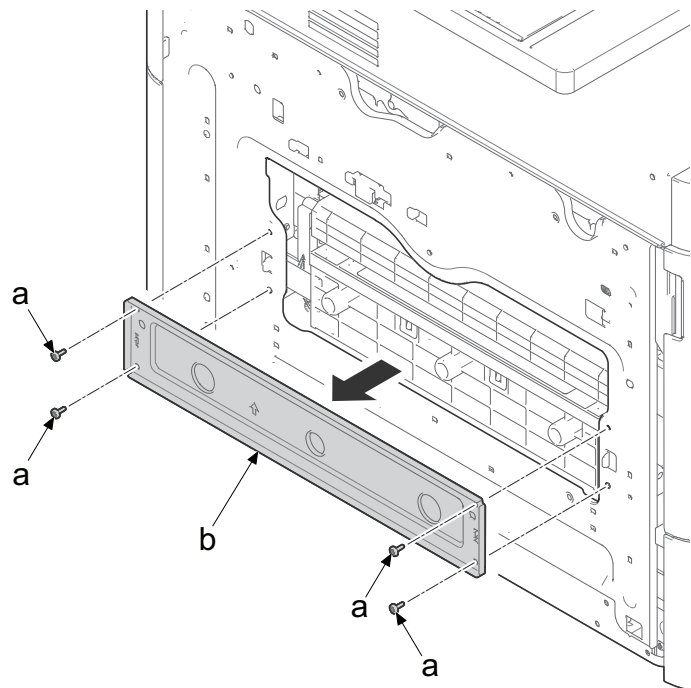
Figure 4-100

22. Hold the handle (a) and pull out the primary transfer unit (b) in the direction of the arrow.
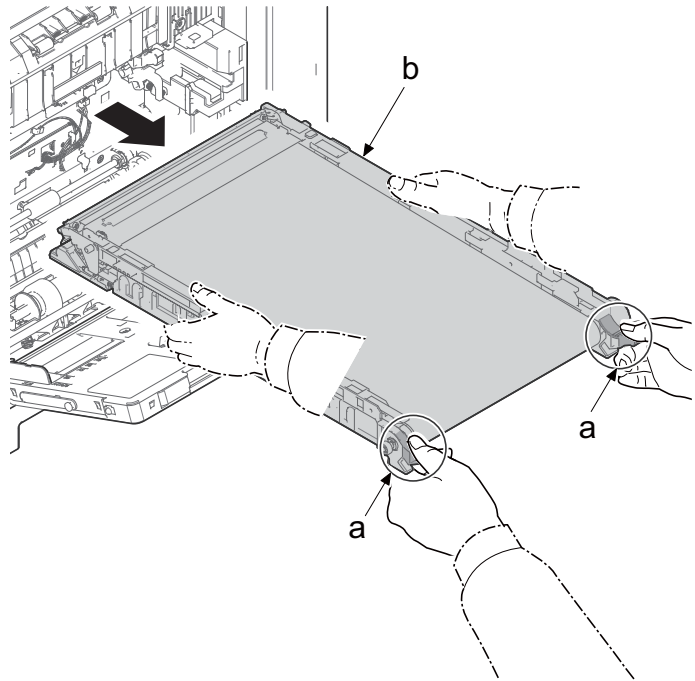
Figure 4-101

23. Remove four screws (a)(M3x8).
24. Release the hook (c) with the flat-blade screwdriver (b) and remove the regist guide assembly (d) in the direction of the arrow.

IMPORTANT

Securely hang the hook (e) when attaching the regist guide assembly (d). Otherwise, it causes paper jams.
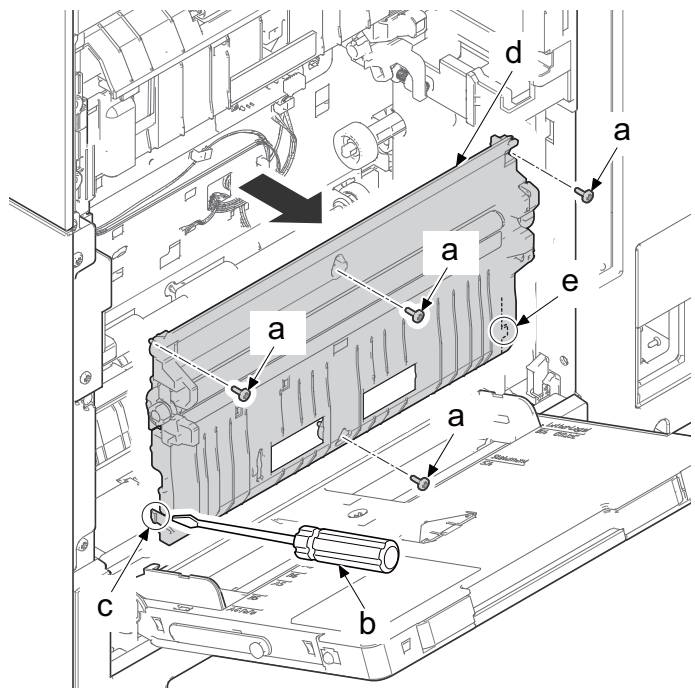
Figure 4-102

25. Loosen the fixing screws (c) with a screwdriver (b) through the aperture (a) and remove the LSU (d).
  *: The fixing screws (c) are not removed.
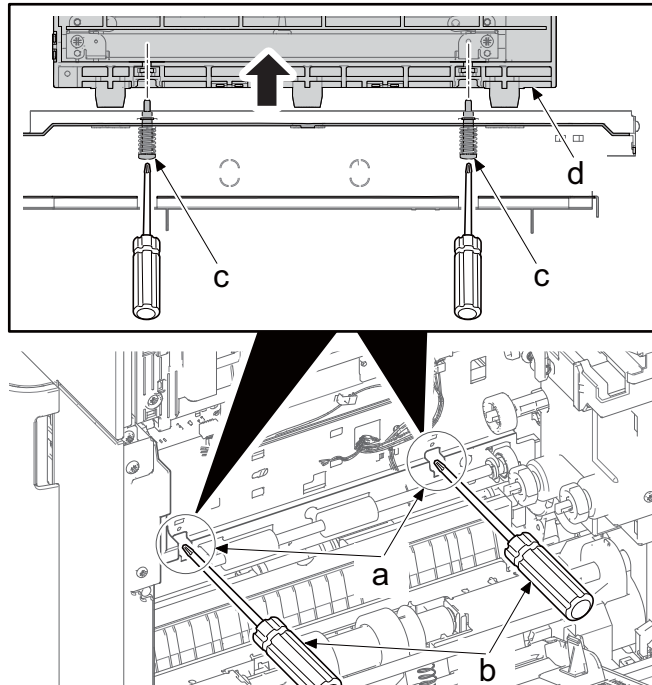
Figure 4-103

26. Pull out the laser scanner unit (a) half way.
27. Detach the FFC cover (b).
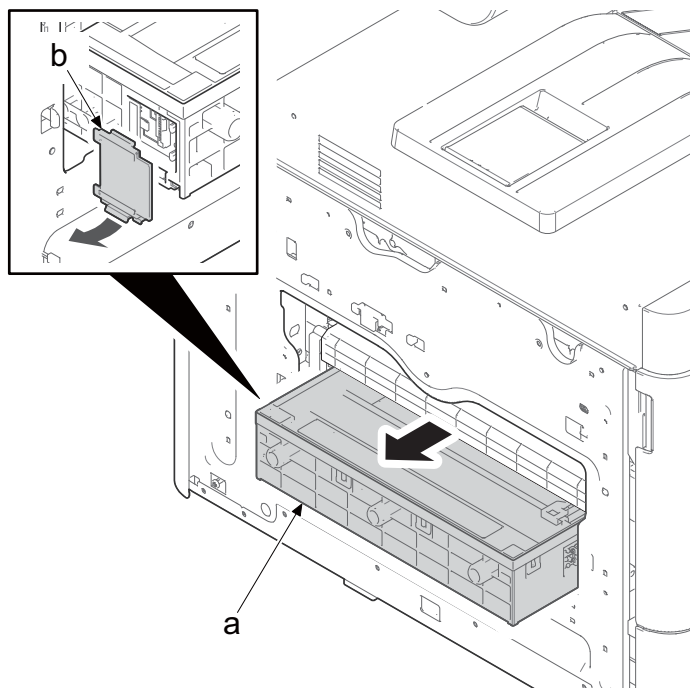
Figure 4-104

28. Detach the FFC connector (a) and the FFC connector with a lock (b).
29. Pull out the laser scanner unit (c).
30. Check the laser scanner unit (c) and clean or replace it.
31. Reattach the parts in the original position.
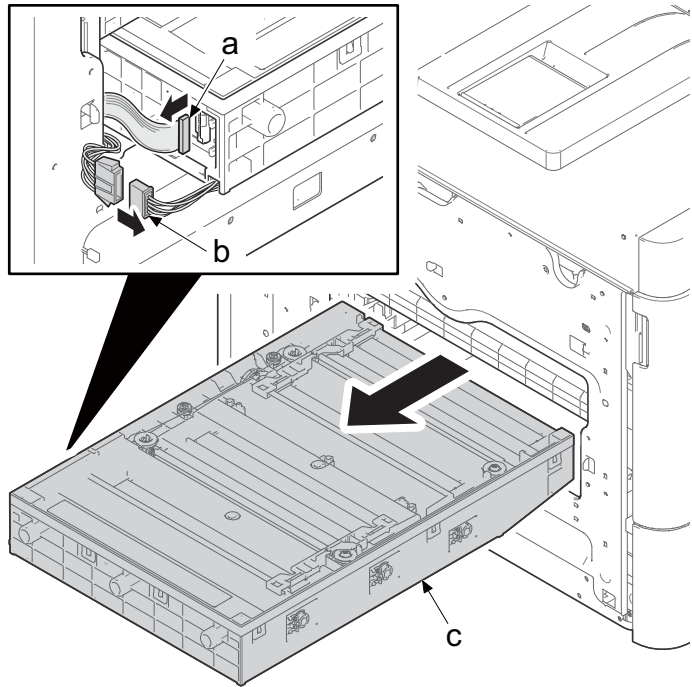
Figure 4-105

Notes when replacing the laser scanner unit

Execute the following adjustment after replacing the laser scanner unit.

1. Color registration adjustment (maintenance mode U469): Angle
   (1)Input "469" using the numeric keys and press the [Start] key.
   (2)Select [Manual].
   (3)Select [Print].
   (4)Press the [Start] key to output the manual adjustment chart.
   (5)Execute the following adjustment if the gap between V-1 and V-5 match scale position is 2 scales or more for each color.
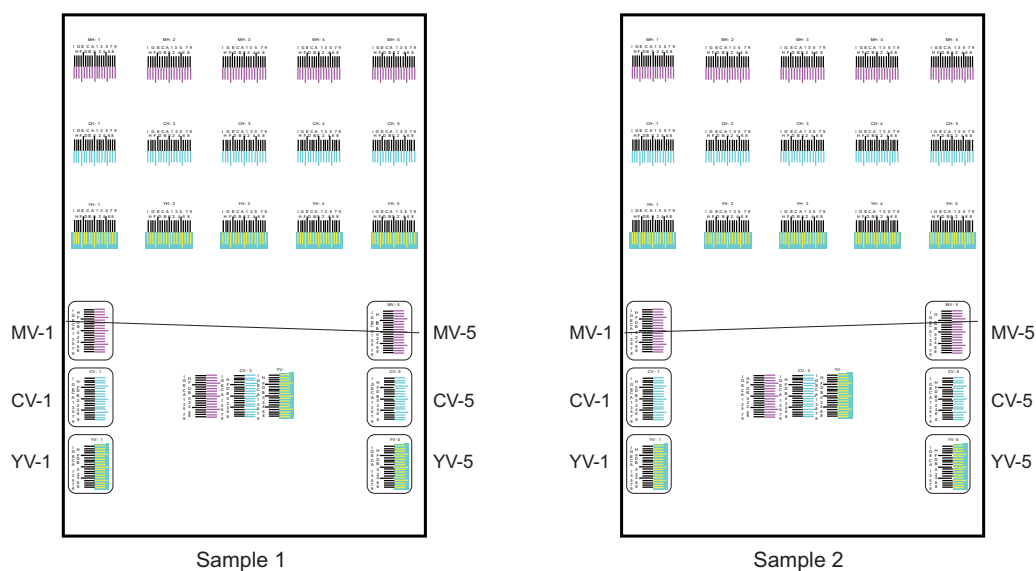
Sample 1   Sample 2

Figure 4-106

(6)Open the front cover and pull out the waste toner box.
(7)Rotate the hex hole (a) by using a hex wrench (5mm).

Direction of rotation
   The gap between V-1 and V-5 match scale is 2 scales or more (sample 1): counter-clockwise
   The gap between V-1 and V-5 match scale is -2 scales or more (sample 2): clockwise
Number of rotation
   The gap between V-1 and V-5 match scale multiplied by 4 clicks.

(8)Reattach the waste toner box in the original position and close the front cover.
(9)Output the adjustment chart to check it is within the range.
(10)Press the [Stop] key.
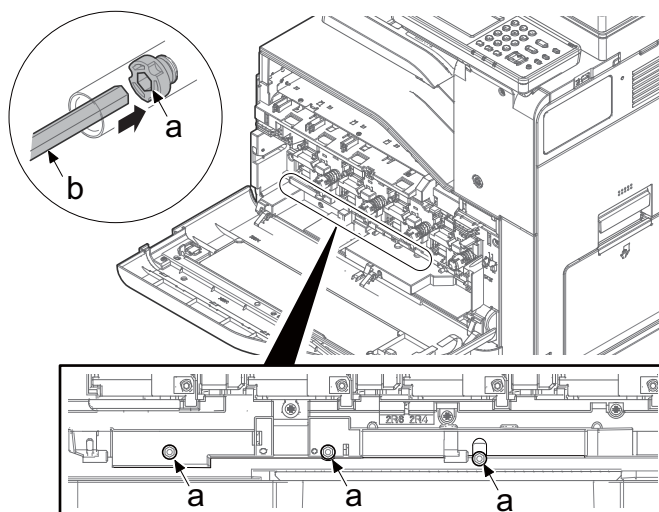
Figure 4-107

2. Color registration adjustment (maintenance mode U469): Regist
   (1)Input "469" using the numeric keys and press the [Start] key.
   (2)Select [Auto].
     *:Output the auto adjustment chart.
   (3)Select [Execute].
   (4)Set the chart on the table and press the [Start] key.
     *:Execute the automatic adjustment. When adjustment has normally completed, [OK] is displayed.
   (5)Press the [Stop] key.

3. ID correction operation setting (maintenance mode U464): Calib
   (1)Input "464" using the numeric keys and press the [Start] key.
   (2)Select [Calib].
   (3)Select [Full] and press the [Start] key.
     *:Calibration starts.
   (4)Press the [Stop] key.

4. Adjusting the uneven density (maintenance mode U412): Uneven Density (40 ppm model only)
   (1)Input "412" using the numeric keys and press the [Start] key.
   (2)Select [Normal Mode].
   (3)Press the [Start] key.
     *:Output the test pattern with the initial light intensity setting. (1st sheet)
   (4)Place approximately 20 sheets of white paper on the test pattern for an original.
   (5)Press the [Start] key. Correction starts.
   (6)Press the [Start] key after completing correction. Output the test pattern. (2nd sheet)
     *:Output with 20% less light intensity than the 1st test pattern.
   (7)Place approximately 20 sheets of white paper on the test pattern for an original.
   (8)Press the [Start] key. Correction starts.
   (9)Press the [Start] key after completing correction. Output the test pattern. (3rd sheet)
   (10)Place approximately 20 sheets of white paper on the test pattern for an original.
   (11)Press the [Start] key.
     *:Check the result of the correction. When correction has normally completed, [Fin] is displayed.
   (12)Press the [Stop] key.

5. Checking LSU cleaning operation (maintenance mode U474): Execute
   (1)Input "474" using the numeric keys and press the [Start] key.
   (2)Select [Execute].
   (3)Press the [Start] key.
     *:Cleaning of the LSU slit glass is executed.
   (4)Press the [Stop] key.

6. Exiting from the maintenance mode
   (1)Input "001" using the numeric keys and press the [Start] key.
     *:The maintenance mode is exited.

(2-2) Detaching and reattaching the image scanner unit (ISU)

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Release the DP interface wire (c) from the wire saddle(e) and remove it from the two connectors (d).
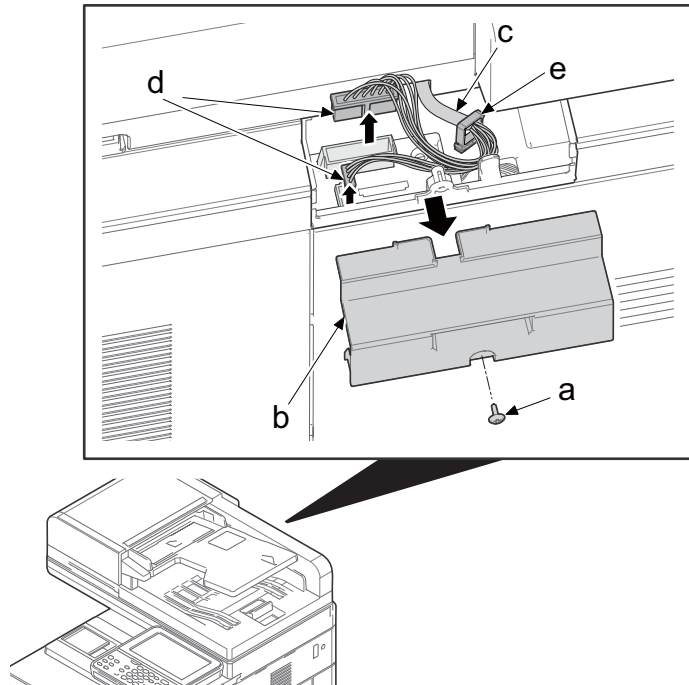
Figure 4-108

3. Open the document processor (a).
4. Lift up the document processor (a) in the direction of the arrow and remove the hinge (c) from the main unit (b).
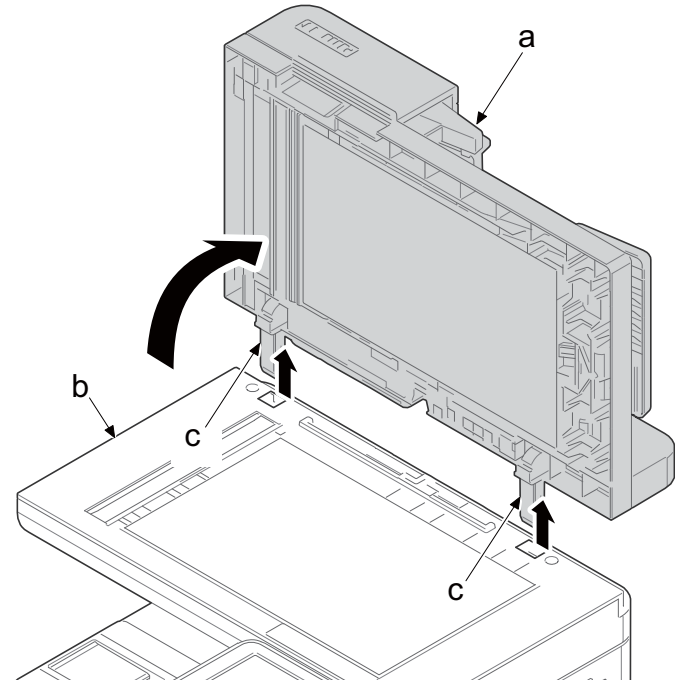
Figure 4-109

(30 ppm model)
5. Remove two screws (a)(M3x8).
6. Slide the rear left cover (b) in the direction of the arrow and detach it.
7. Disconnect the FFC (d) from the main PWB connector (c).
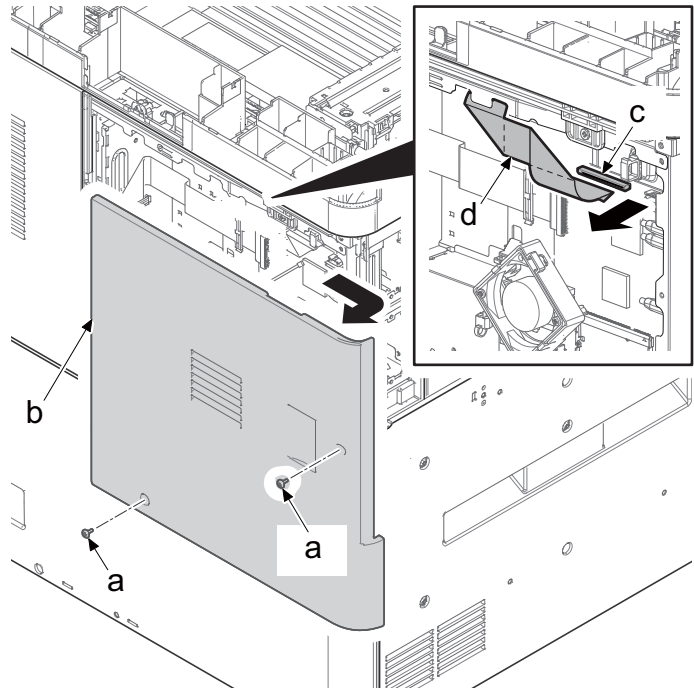
Figure 4-110

8. Remove the screw (a)(M3x8).
9. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
10. Disconnect the connector (d) from the engine PWB connector (c).
11. Go to procedure 12.

Figure 4-111

4-89
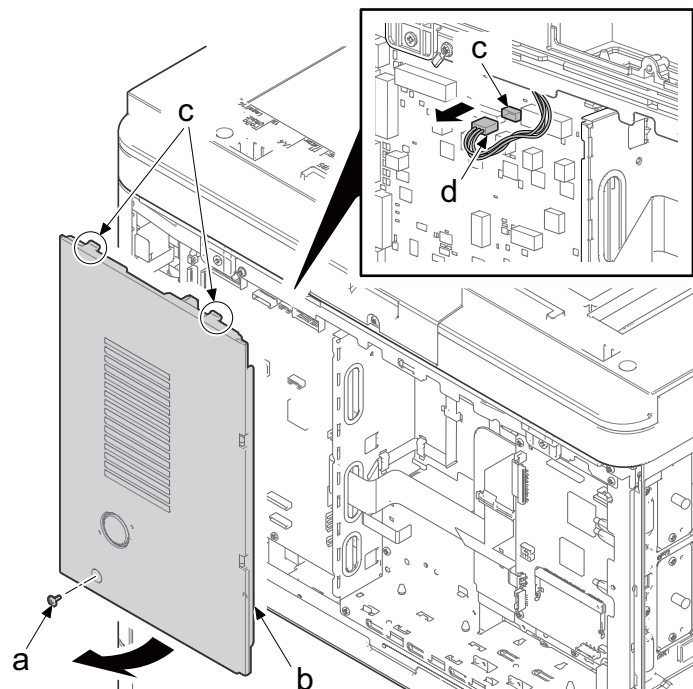
(35/40 ppm models)

5. Remove two screws (a)(M3x8).
6. Slide the rear left cover (b) in the direction of the arrow and detach it.
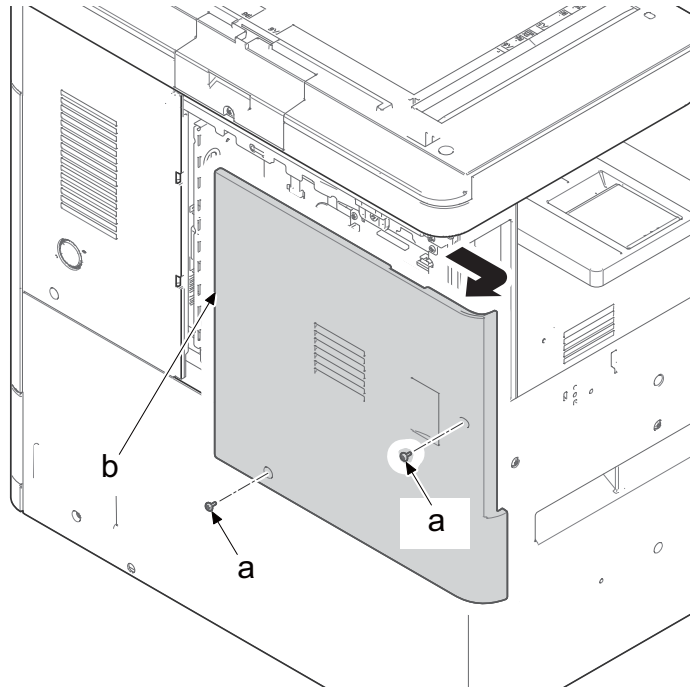
Figure 4-112

7. Remove the screw (a)(M3x8).
8. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
9. Disconnect the FFC (e) from the engine PWB connector (d).
10. Disconnect the connector (g) from the engine PWB connector (f).
11. Go to procedure 12.
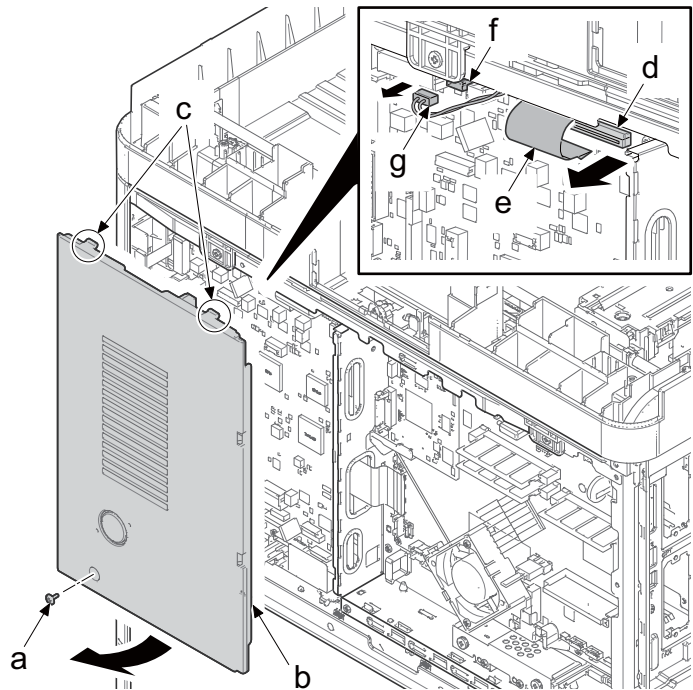
Figure 4-113

12. Open the right cover.
13. Remove the screw (a)(M3x8).
14. Slide the right upper cover (b) in the direction of the arrow and detach it.
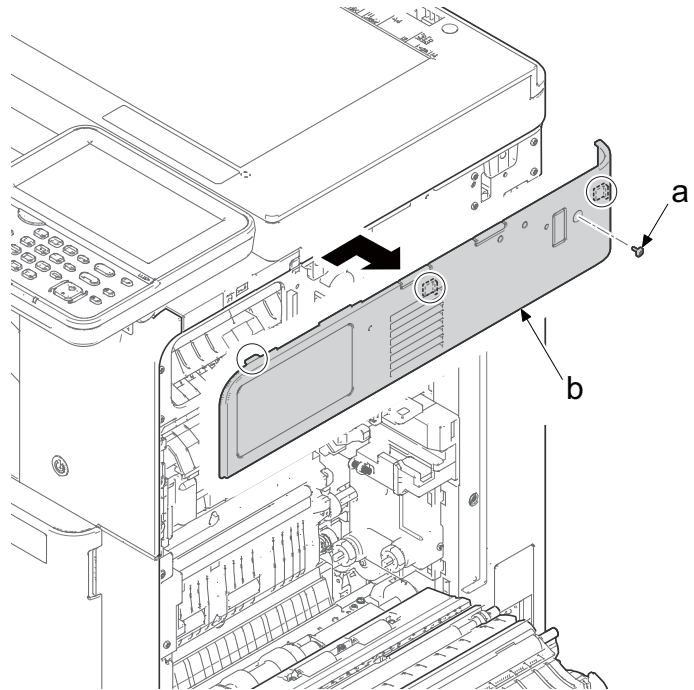
Figure 4-114

15. Tilt up the operation unit (a).
16. Remove the screw (b)(M3x8).
17. Remove the operation lid (c) from the operation unit (a) in the direction of the arrow.
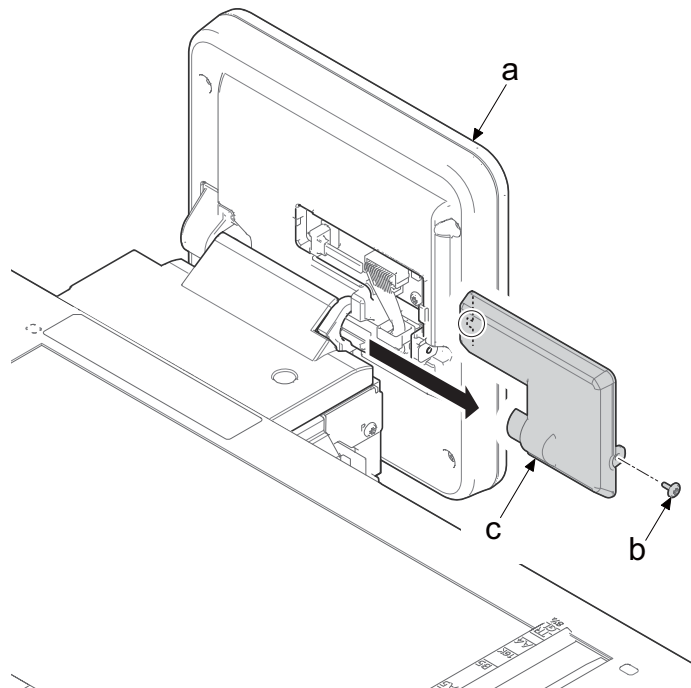
Figure 4-115

18. Remove the screw (a)(M3x8) and remove the upper exit cover (b).
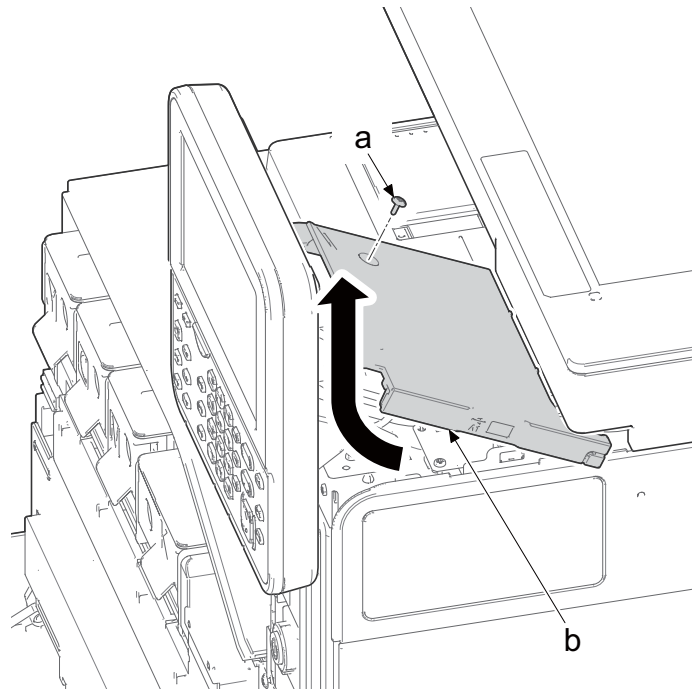
Figure 4-116

19. Remove the screw (a)(M3x8).
20. Release the hook (b) in the direction of the arrow and remove the left controller cover (c).
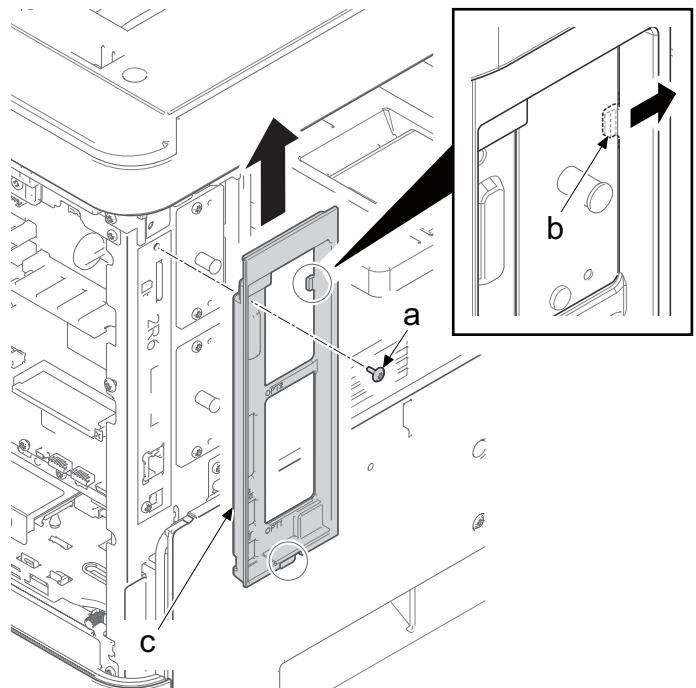
Figure 4-117

21. Remove four pins (a) from the ISU.
22. Remove four screws (b)(M3X8) of the unit fixing plate.
23. Detach the ISU (c) in the direction of the arrow.
24. Check the ISU (c) and clean or replace it.
25. Reattach the parts in the original position.
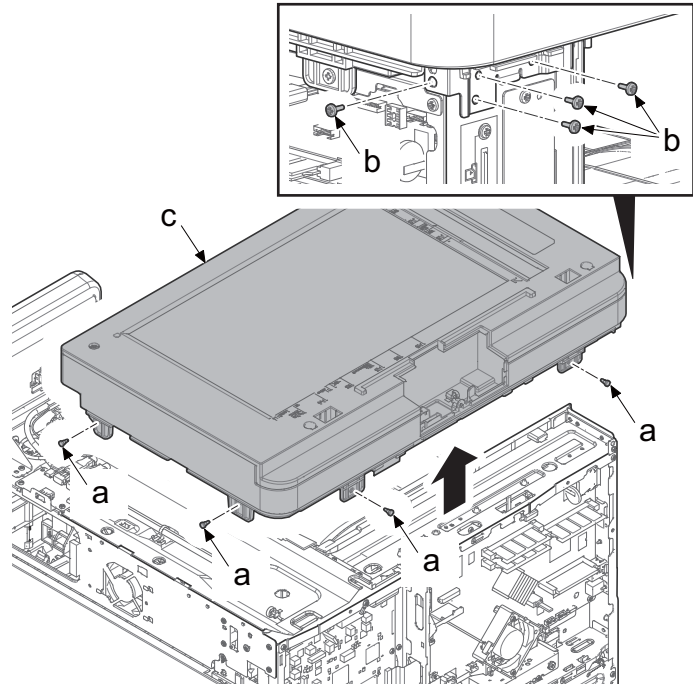
Figure 4-118

(2-3) Detaching and reattaching the image scanner unit (ISU) upper assembly

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Release the DP interface wire (c) from the wire saddle(e) and remove it from the two connectors (d).
*: The number of connectors depends on the document processor to install.
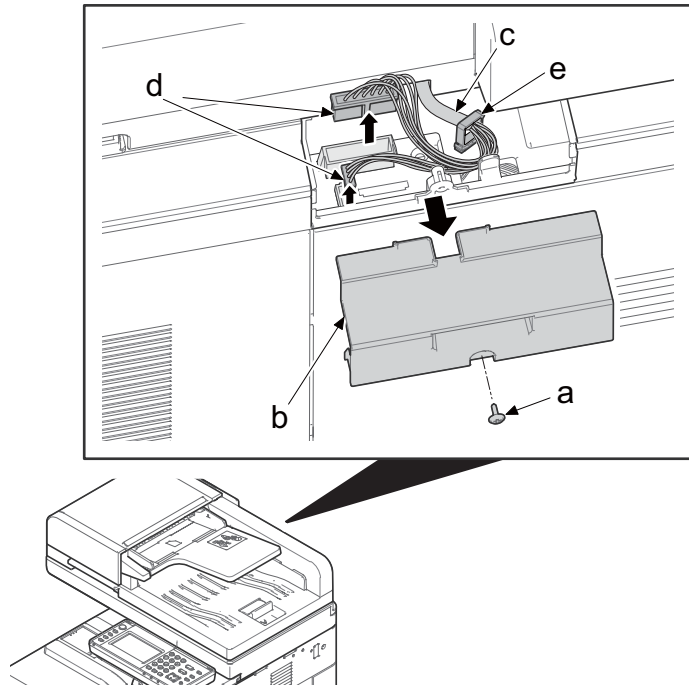
Figure 4-119

3. Open the document processor (a).
4. Lift up the document processor (a) in the direction of the arrow and remove the hinge (c) from the main unit (b).
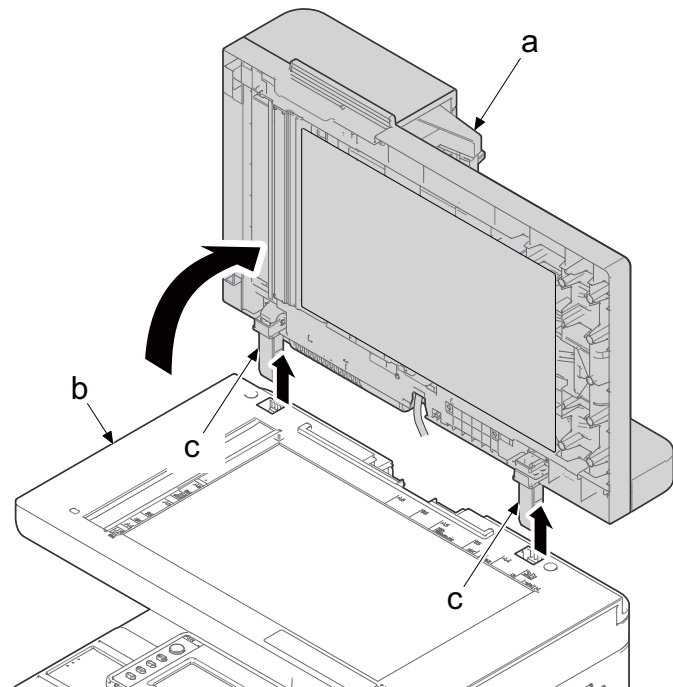
Figure 4-120

5. Remove four screws (a)(M3x8) from the ISU upper assembly (b).
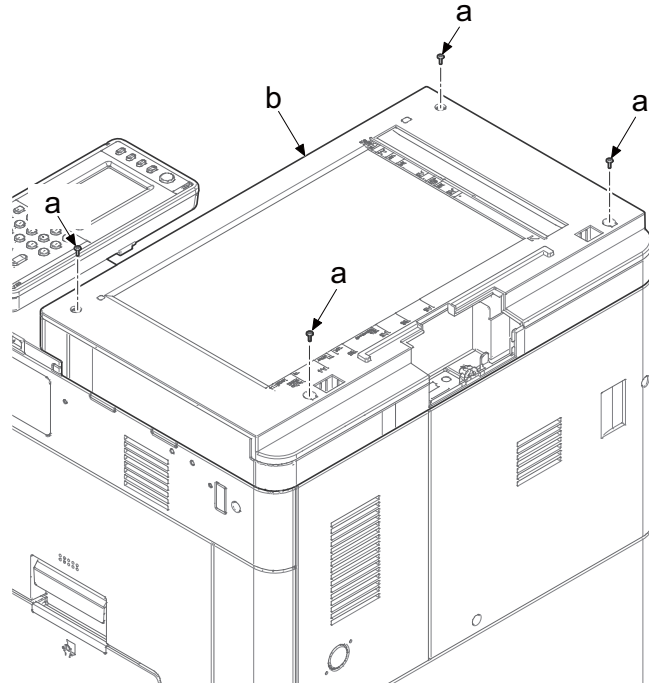
Figure 4-121

6. Push the ISU bottom frame (a) to release the hook (b) and then detach the ISU upper assembly (c).

IMPORTANT
Lift up the ISU upper assembly (c) from the rear side (d) so that the glass does not peel.
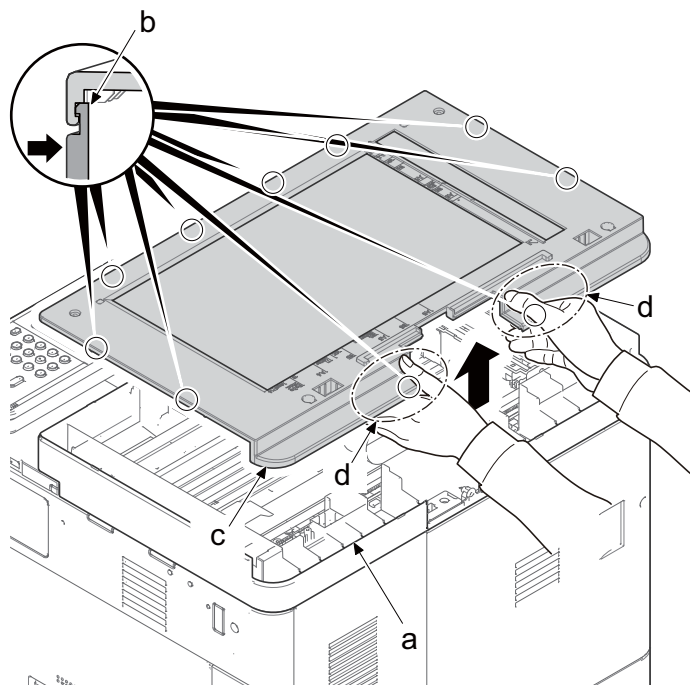
Figure 4-122

(2-4) Detaching and reattaching the scanner carriage assembly

Procedures

1. Detach the document processor.
2. Detach the ISU upper assembly.

(30 ppm model)

3. Remove two screws (a)(M3x8).
4. Slide the rear left cover (b) in the direction of the arrow and detach it.
5. Disconnect the FFC (d) from the main PWB connector (c).
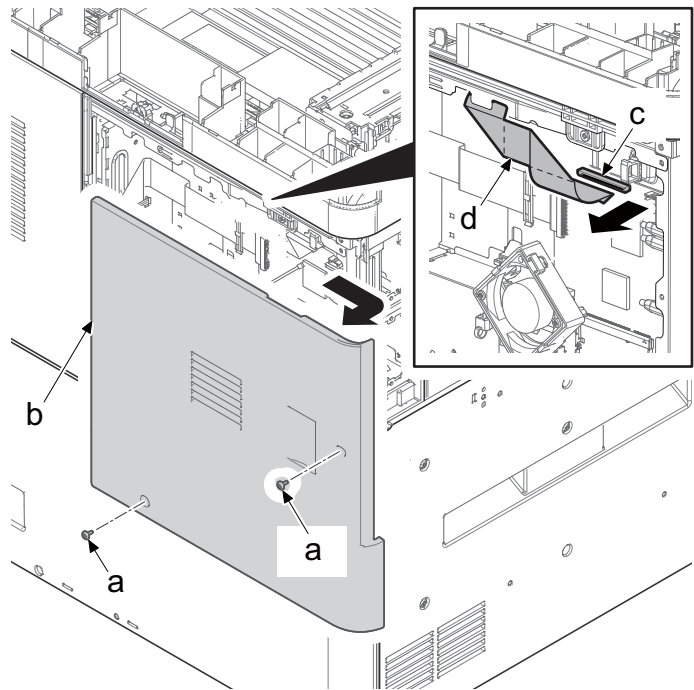
Figure 4-123

6. Peel off the sheet (a).
7. Peel off the FFC (b).
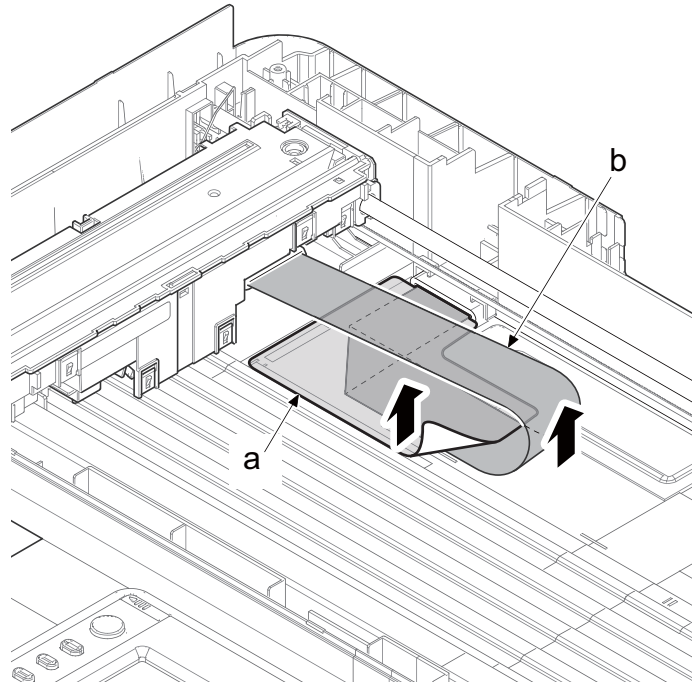
Figure 4-124

(35/40 ppm models)

3. Remove the screw (a)(M3x8).
4. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
5. Disconnect the FFC (d) from the main PWB connector (c).
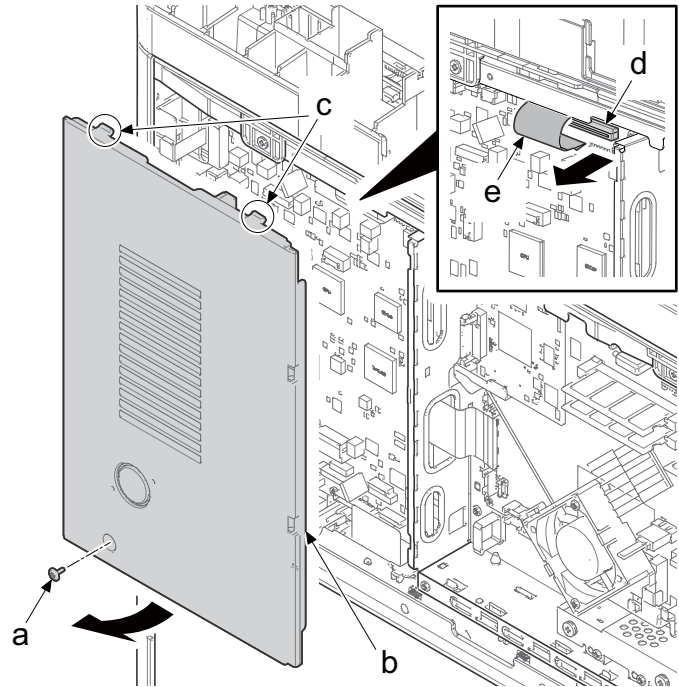
Figure 4-125

6. Peel off the sheet (a).
7. Peel off the FFC (b).
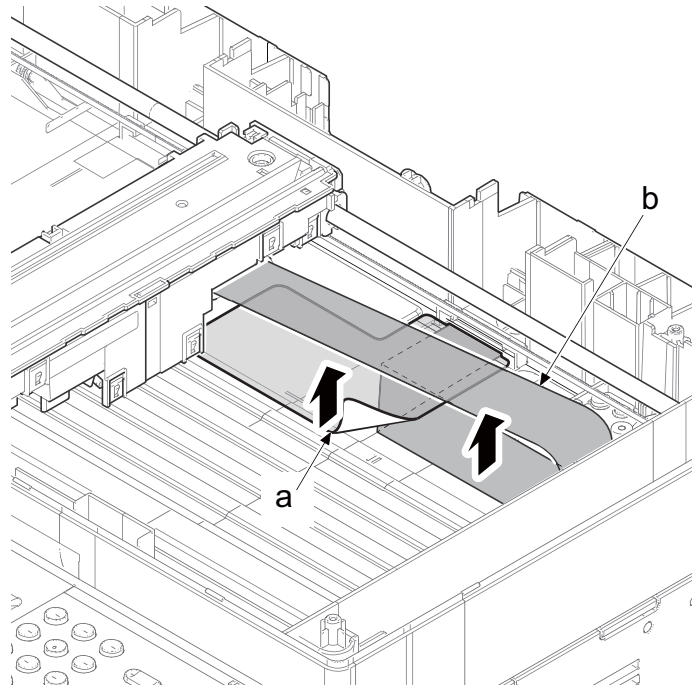
Figure 4-126

8. Shift the ISU shaft (a).
9. Remove the stop ring (b) and shim (c).
10. Remove the drive belt (e) from the two pulleys (d).
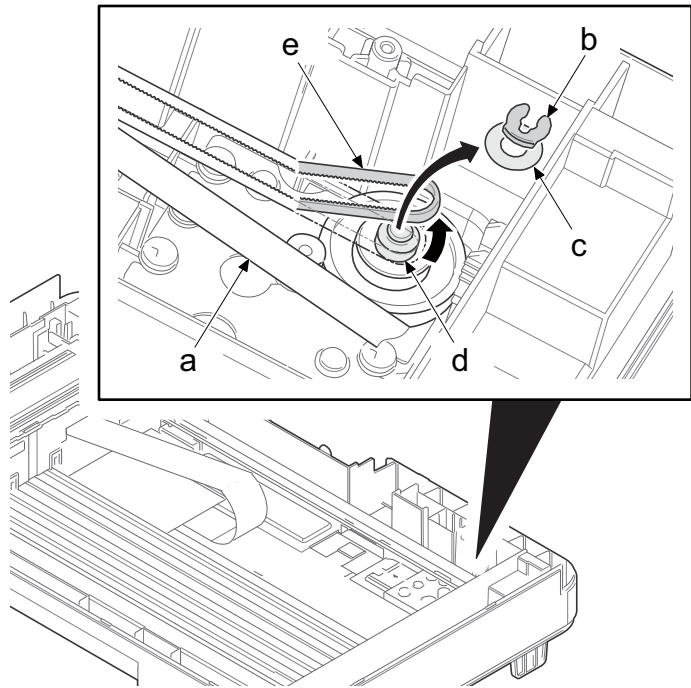
Figure 4-127

11. Remove the ferrite cores from the two holders (e) and remove the FFC (f).
12. Remove the scanner carriage (a) and ISU shaft (b) from the ISU lower assembly (c).
13. Pull out the ISU shaft (b) from the scanner carriage assembly (a).
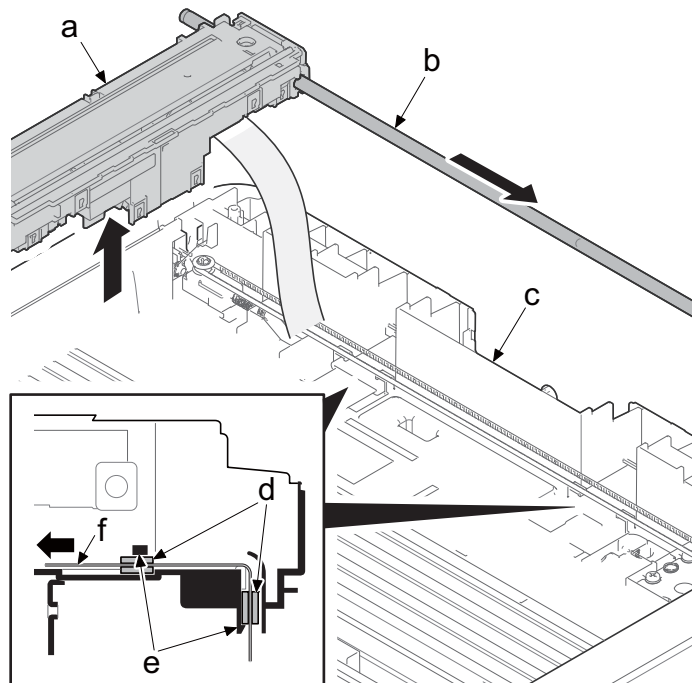
Figure 4-128

14. Remove the drive belt (b) from the belt holder (a).
15. Check the scanner carriage (c) and clean or replace it.
16. Reattach the parts in the original position.
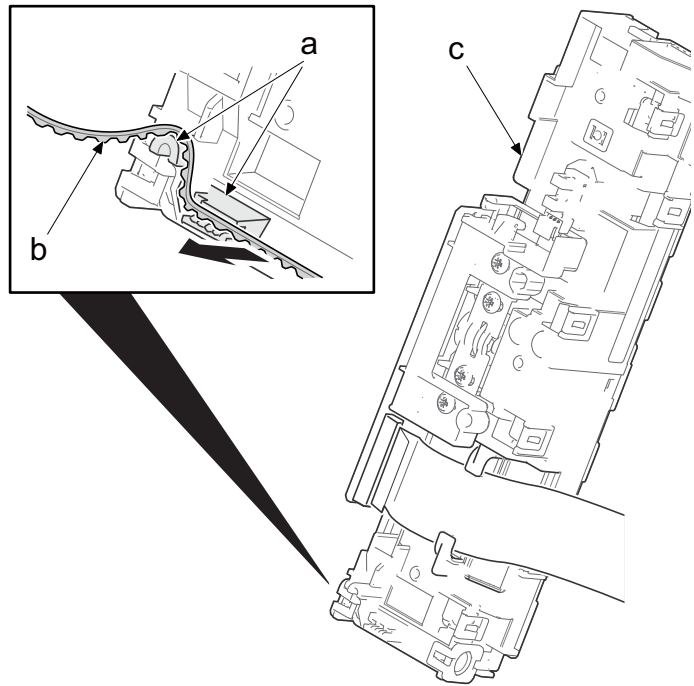
Figure 4-129

Notes when attaching

When attaching the scanner carriage, attach FFC in the following procedures.

*: During the work, take care not to touch the CCD PWB or to give a shock.

*: Take care not to touch the grease applyed on the scanner carriage rail or to adhere dust and foreign objects.

Procedures

1. Pass FFC (c) through two hooks (e) on the bottom of the scanner carriage (a) and insert it into the ferrite core (f).

*: Pass FFC so that the marking (d) is on the surface.

2. Connect FFC (c) to the connector (b) of the CCD PWB.

(35/40 ppm models)
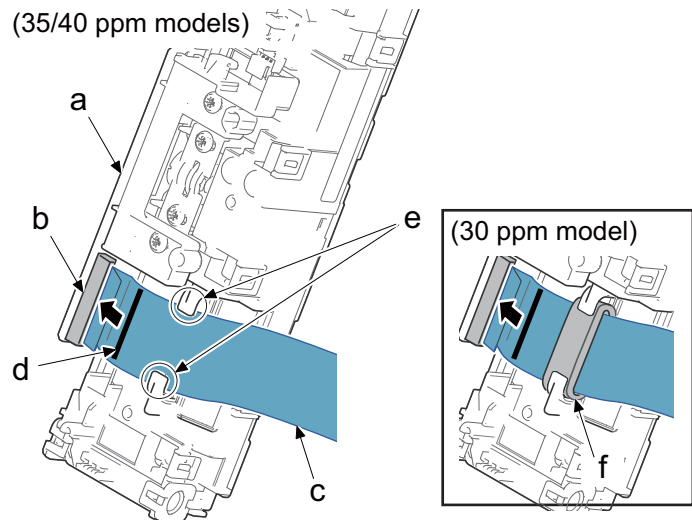
(30 ppm model)

Figure 4-130

(30 ppm model)

3. Affix three double-adhesive tapes (b) within the three marking positions (a) on the base.

4. Peel off the back sheet of the double-adhesive tape, and affix FFC (c) so that it aligns with the marking.

5. Fold FFC (c) in right angle aligning with the marking (d) on FFC surface at the end position of the marking.

6. Insert FFC (c) into the ferrite core (e) and connect to the main PWB.

7. Peel off the back sheet of three double-adhesive tapes (g) of the FFC protective sheet.

8. Insert the FFC protection sheet (f) into the ferrite core (e), and then affix it on the base so that the end line of it align with the two projection step (h).

9. Insert the ISU shaft into the scanner carriage, and then reattach the parts in the original position.
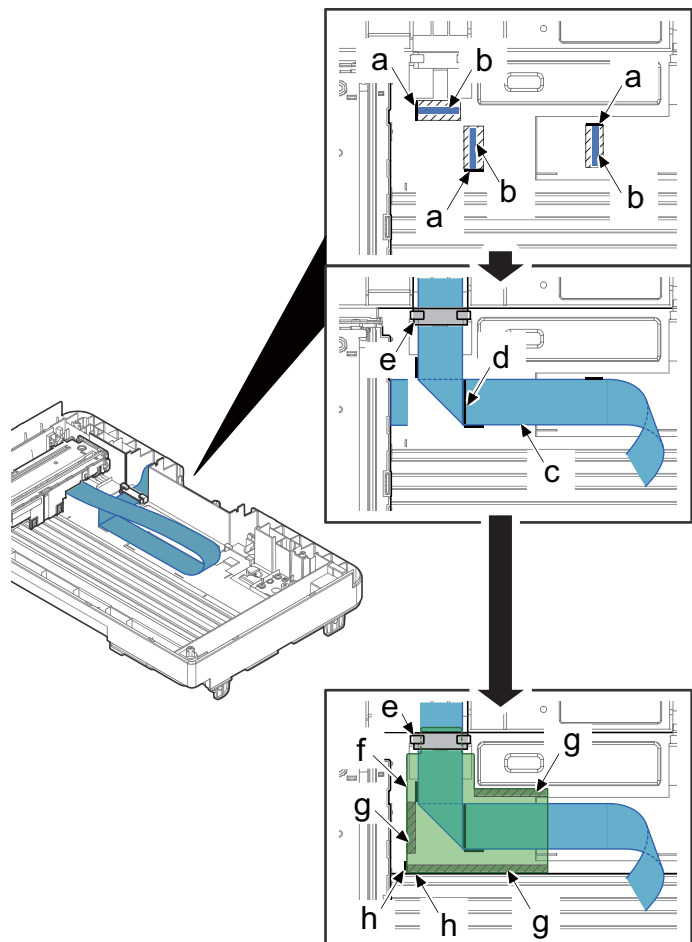
Figure 4-131

(35/40 ppm models)

3. Affix three double-adhesive tapes (b) within the three marking positions (a) on the base.

4. Peel off the back sheet of the double-adhesive tape, and affix FFC (c) so that it aligns with the marking.

5. Affix the double-adhesive tape (f) so that it align with the marking (e) on FFC surface.

6. Fold FFC (c) upward at the marking (d) on the back side and affix it.

7. Fold FFC (c) in right angle aligning with the marking and insert it into the ferrite core (g), and then connect to the engine PWB.

8. Peel off the back sheet of two double-adhesive tape (i) of the FFC protective sheet.

9. Insert the FFC protection sheet (h) into the ferrite core (g), and then affix it on the base so that the end line of it align with the two projection step (j).

10. Insert the ISU shaft into the scanner carriage, and then reattach the parts in the original position.
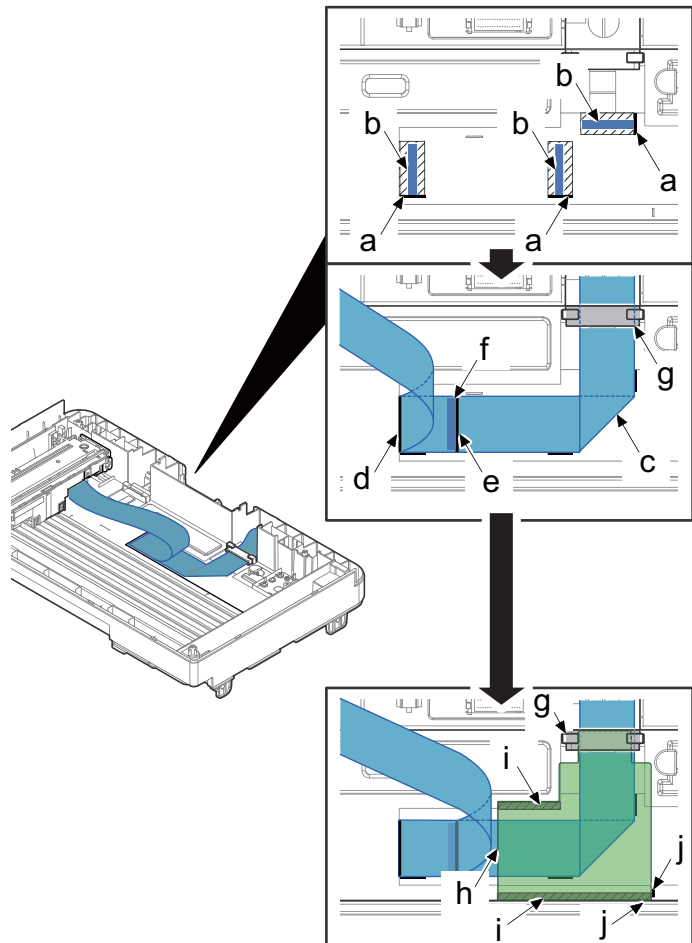
Figure 4-132

(3) Drive section

(3-1) Detaching and reattaching the feed drive unit (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
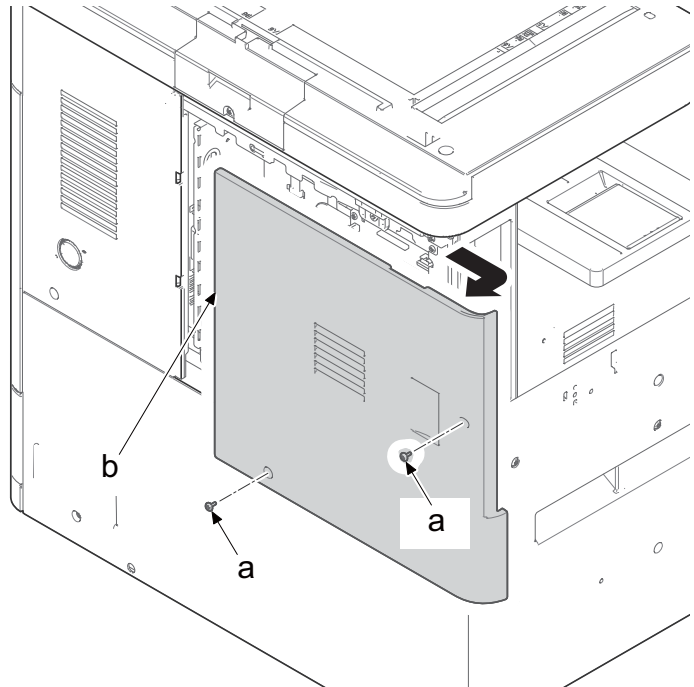
Figure 4-133

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
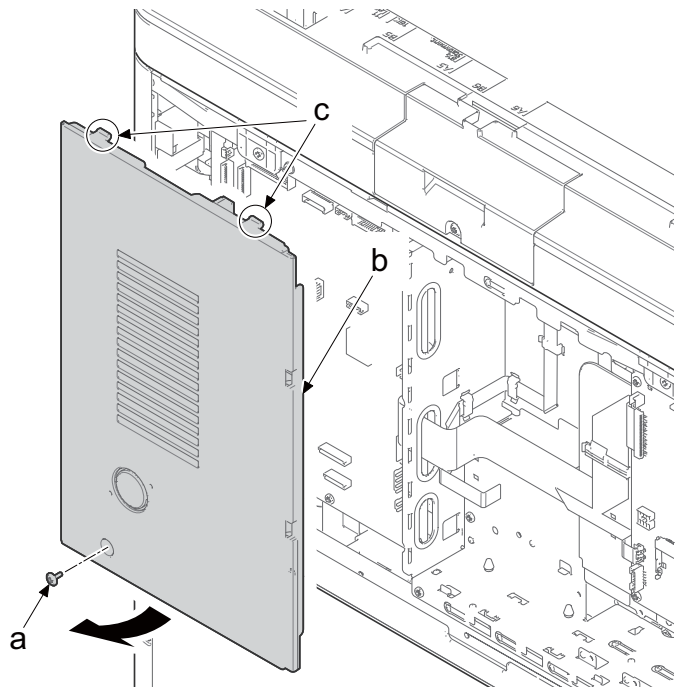
Figure 4-134

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.
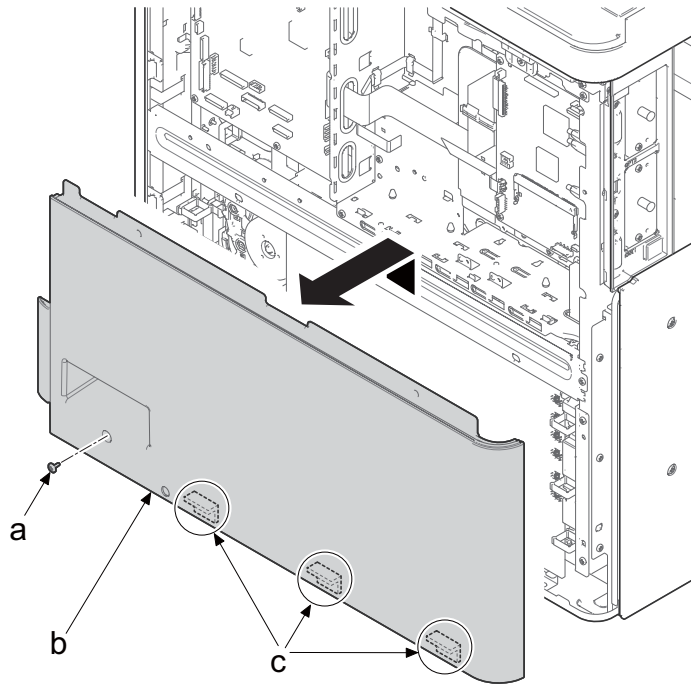
Figure 4-135

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).
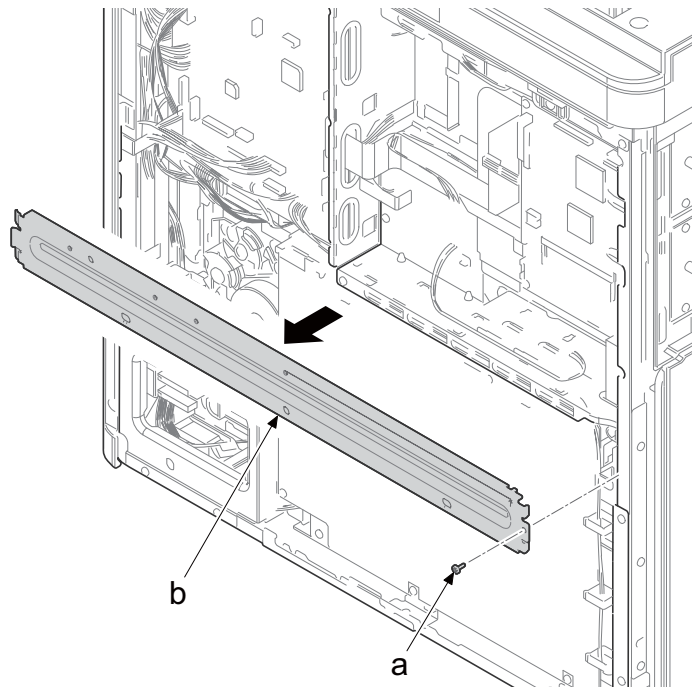
Figure 4-136

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
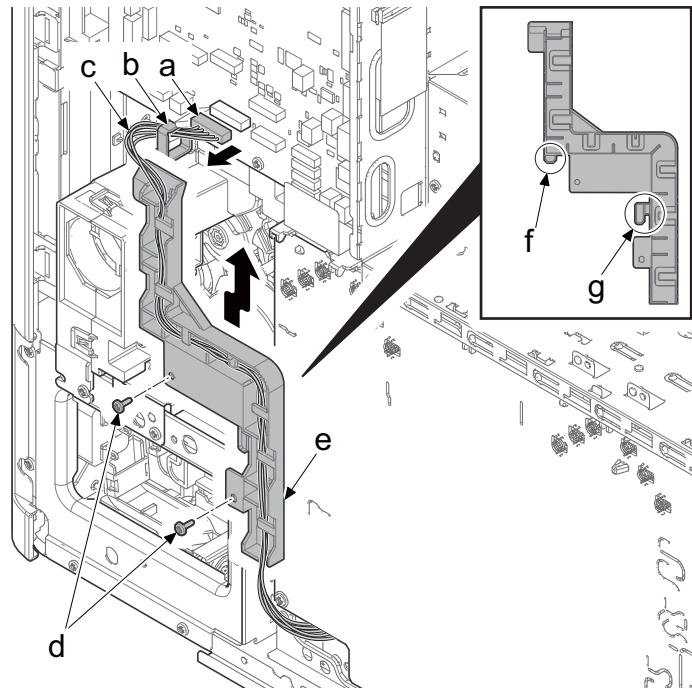
Figure 4-137

10. Remove three screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Detach the high voltage PWB (a) while
    rotating it in the direction of the arrow
    making three hooks (d) as fulcrum.
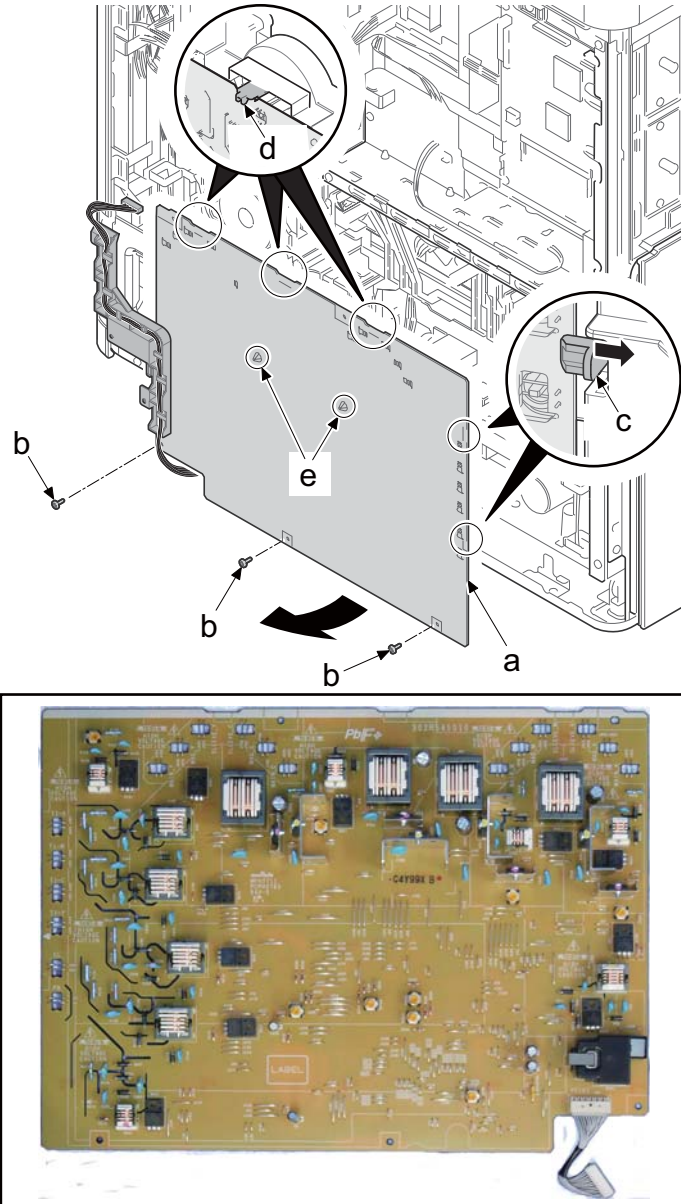
Figure 4-138

14. Release the wire (e) from the hook (a) and five wire saddles B (d)
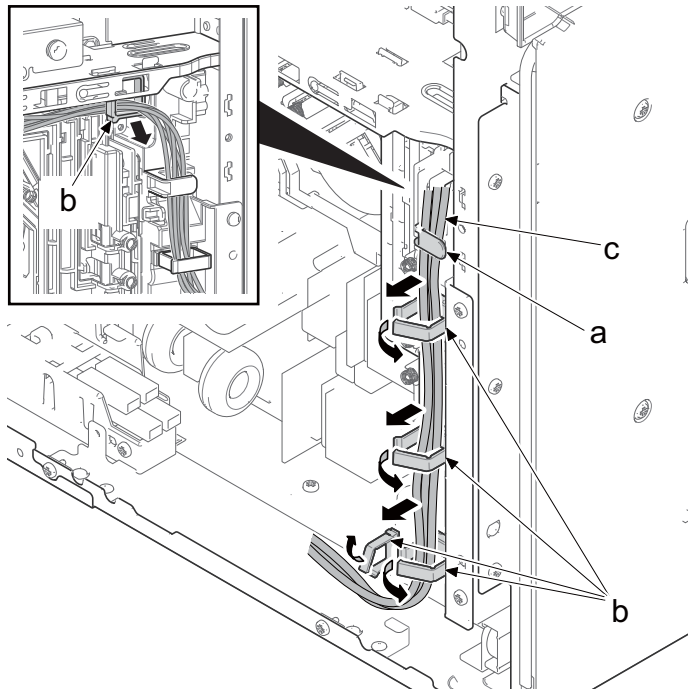
Figure 4-139

15. Remove three screws (a)(M3x8).
16. Release the hook (b) and remove the transfer high voltage assembly (c).
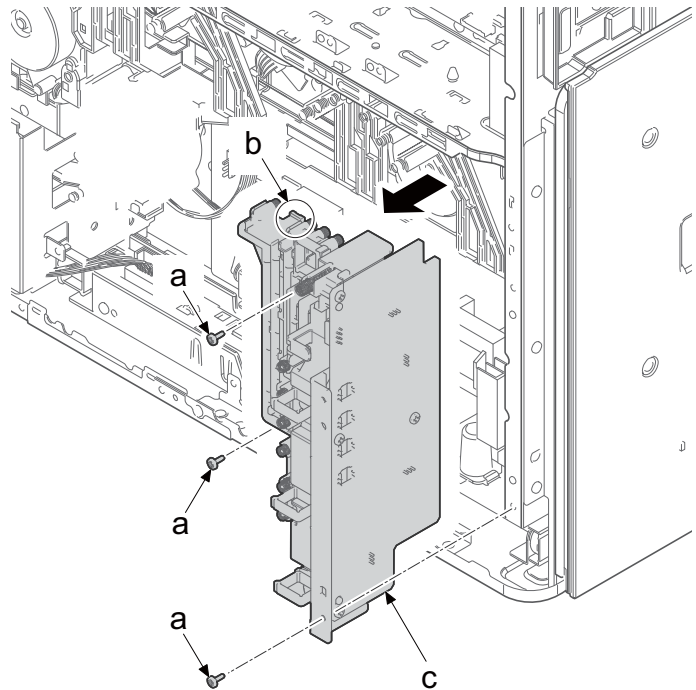
Figure 4-140

IMPORTANT
When attaching the transfer high voltage assembly (a), check the hook (b) clicks.
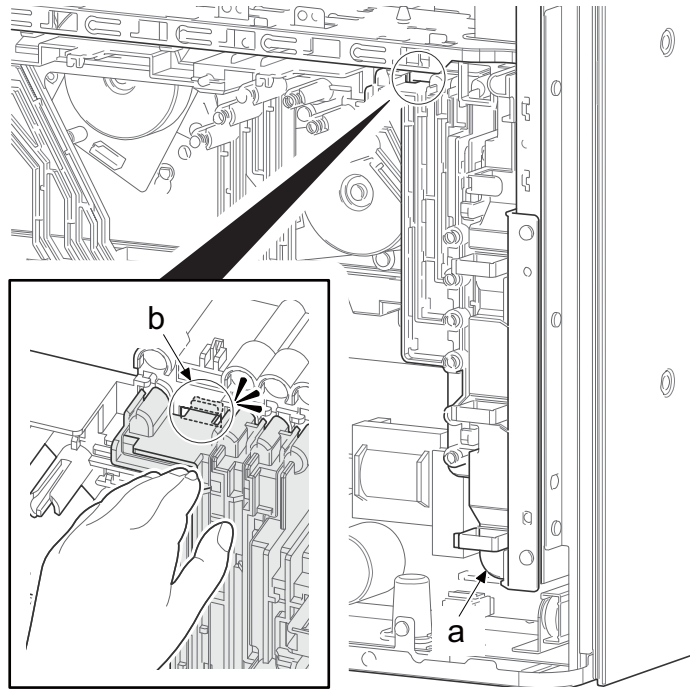
Figure 4-141

17. Disconnect three connectors (a).
18. Remove the wire (b) from the two hooks (c).
19. Remove three screws (d)(M3x8) and remove the heater PWB holder plate (e).

Figure 4-142

4-107
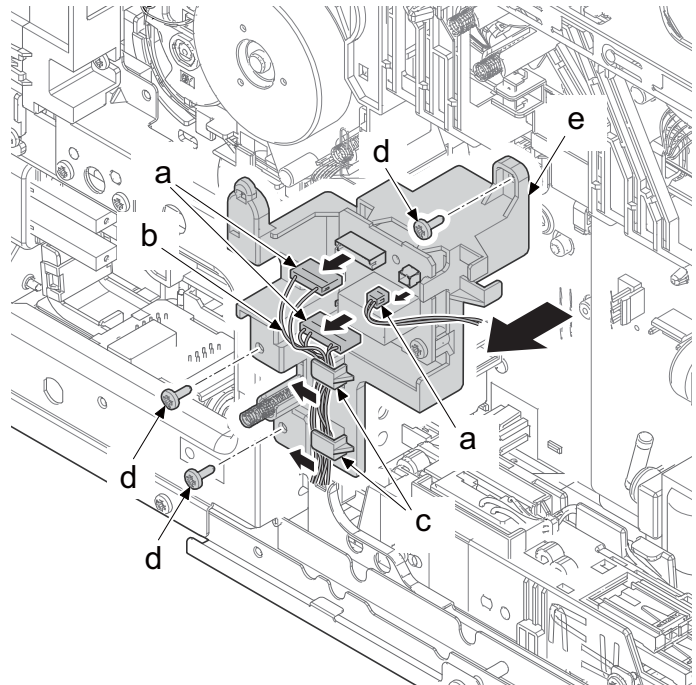
20. Remove two screws (a)(M3x8).
21. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT
When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).
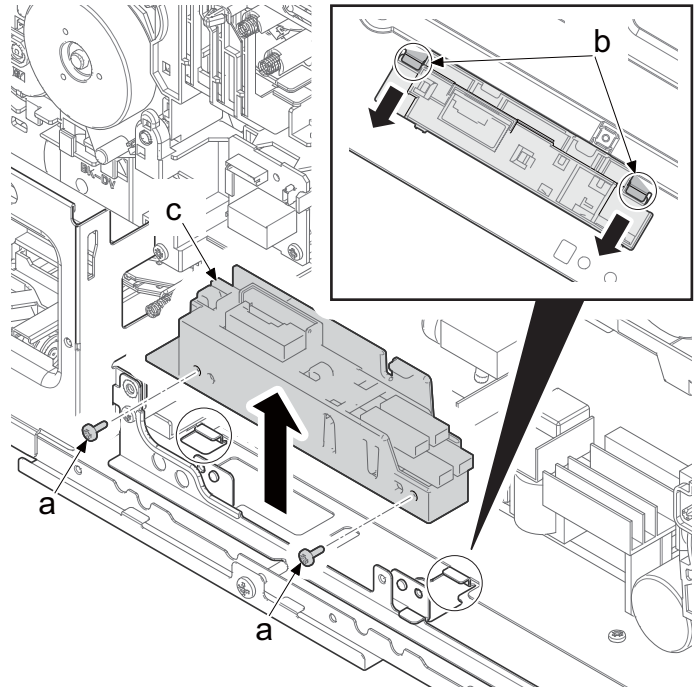
Figure 4-143

22. Disconnect all the connectors from the power source PWB (a).
23. Remove two screws (b)(M3x8).
24. Release the board support (c) and remove the power source PWB (a).
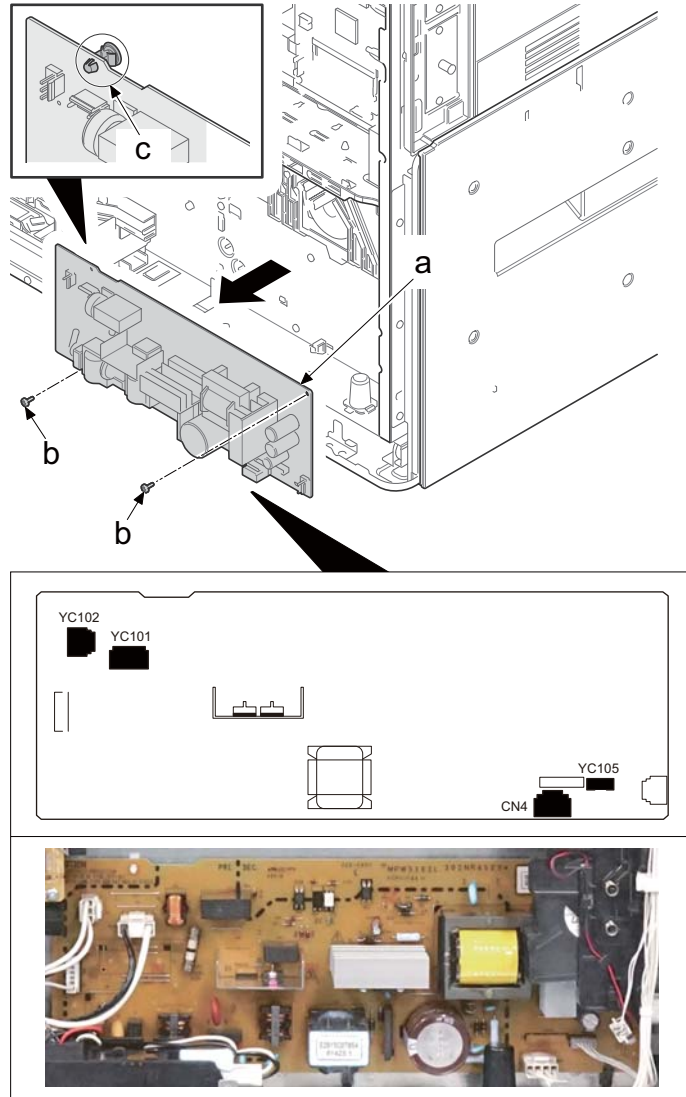
Figure 4-144

25. Remove the wire (a) from the three wire saddles (b).
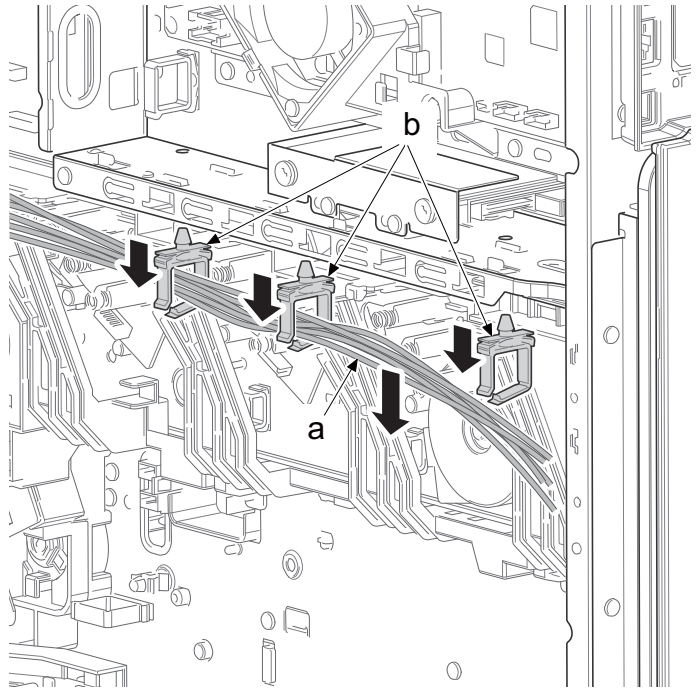
Figure 4-145

26. Remove the wire (b) from the hook (a).
27. Remove ten screws (c)(M3x8) and remove the high voltage PWB holder (d) in the direction of the arrow.

IMPORTANT
When reattaching the high voltage PWB holder (d), check the spring terminal (e) is in the catch (f) of the holder.
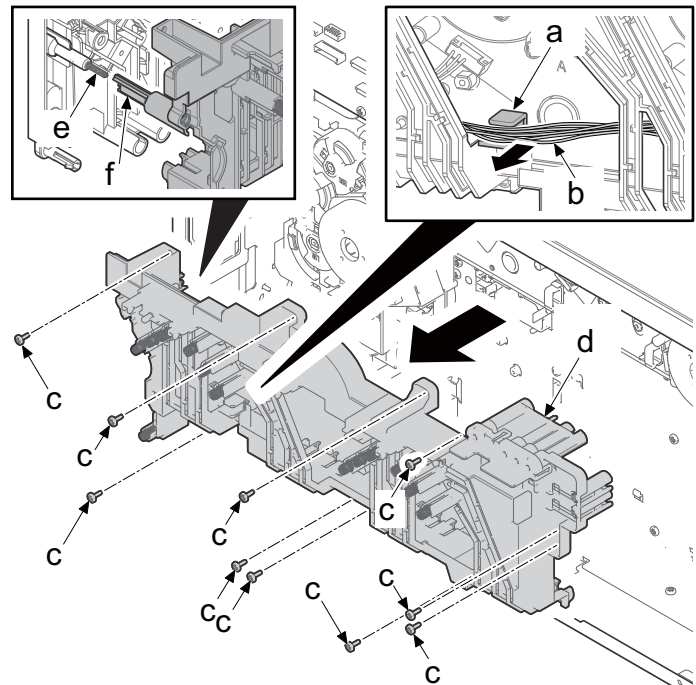
Figure 4-146

28. Disconnect the fan connector (a).
29. Remove two screws (b)(M3x8).
30. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).
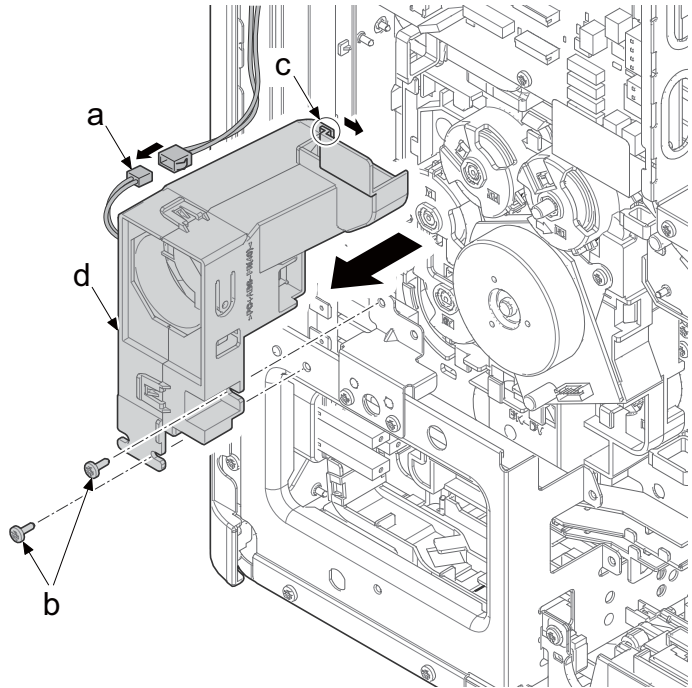
Figure 4-147

31. Remove the wire (a) from the wire saddle (c) and ten hooks (b) of the wire holder.
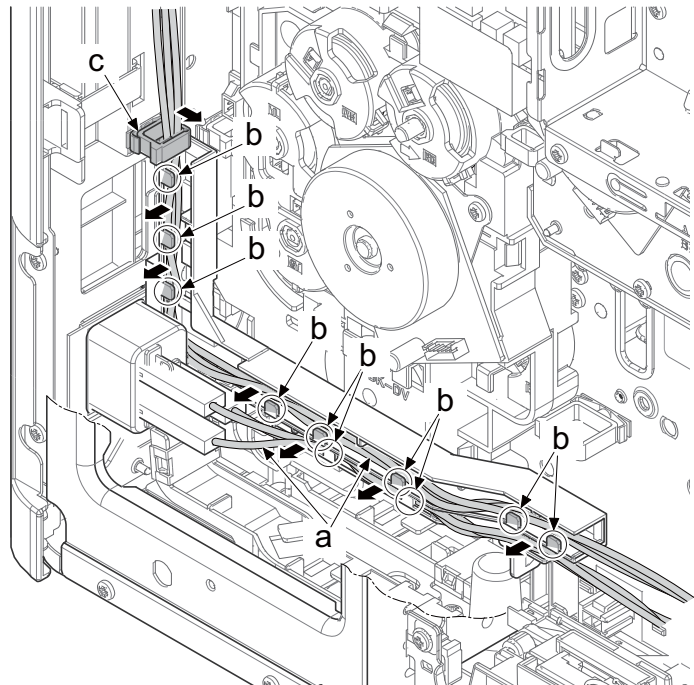
Figure 4-148

32. Remove two screws (b)(M3x8).
33. Detach the high voltage PWB holder
    plate (a).
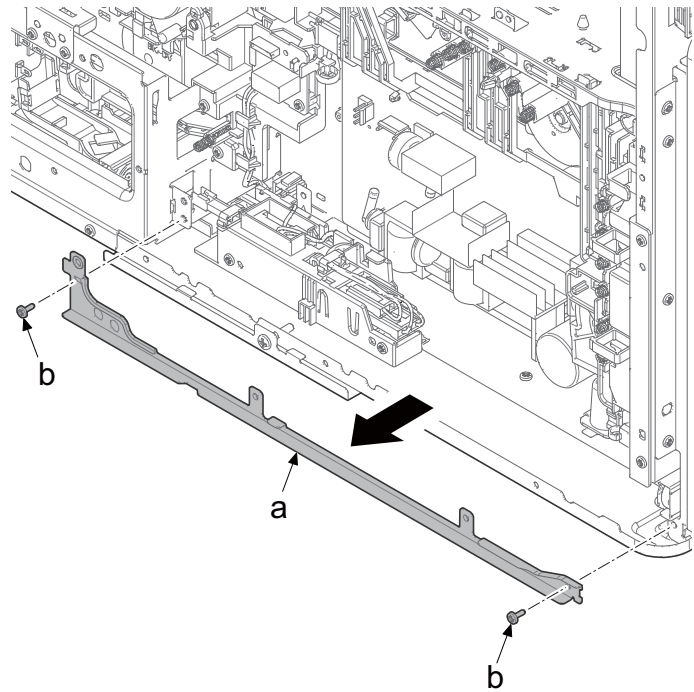
Figure 4-149

34. Remove five screws (a)(M3x8).
35. Release the hook (b) and remove the
    inlet assembly (c).
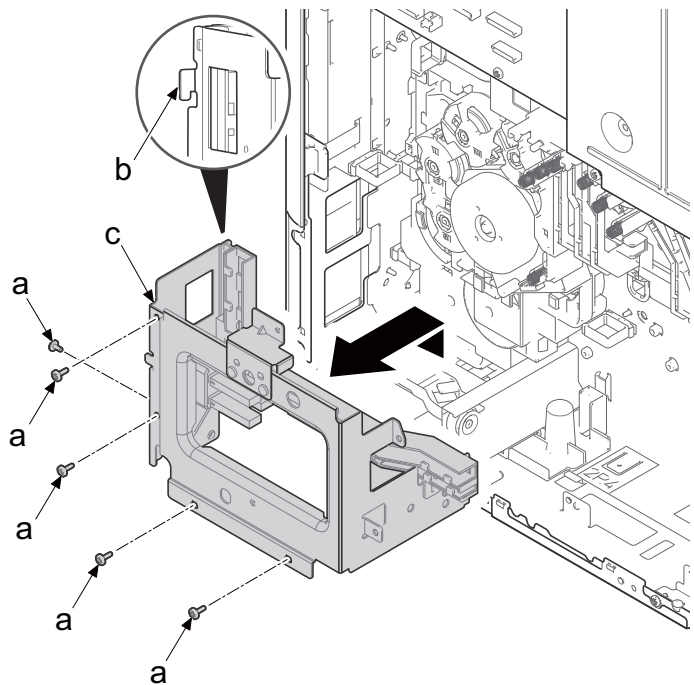
Figure 4-150

36. Disconnect two connectors (a).
37. Remove four screws (b)(M3x8) and remove the drive unit (c).
38. Check the feed drive unit (c) and clean or replace it.
39. Reattach the parts in the original position.
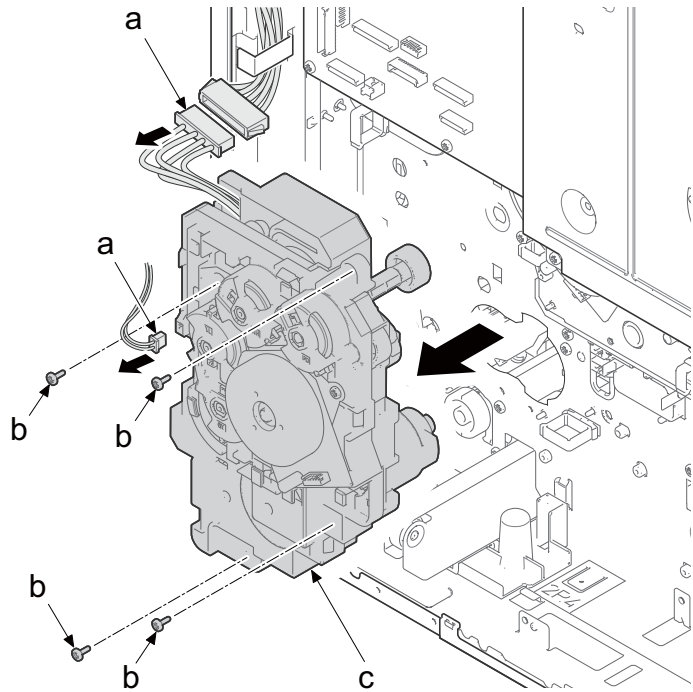
Figure 4-151

IMPORTANT
Check if the MP cam (c) is put on the shaded part (b) when attaching the feed drive unit (a).
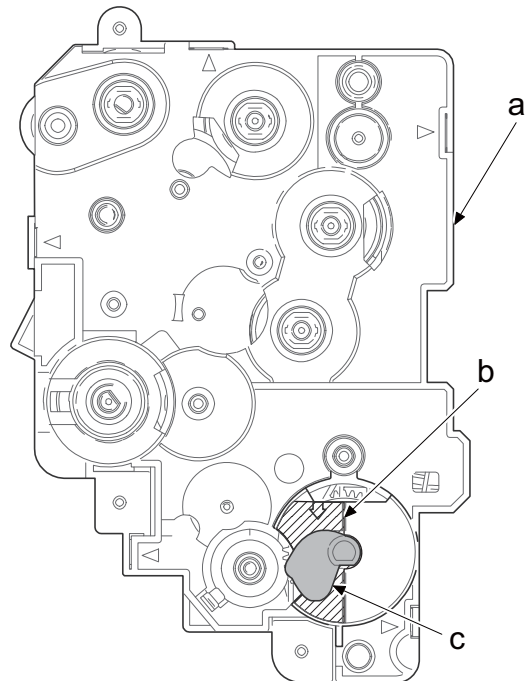
Figure 4-152

(3-2) Detaching and reattaching the feed drive unit (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
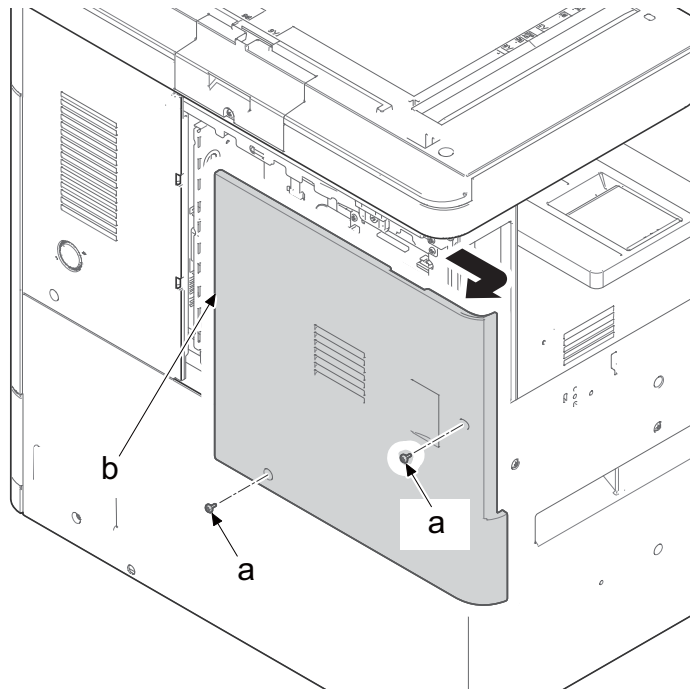
Figure 4-153

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
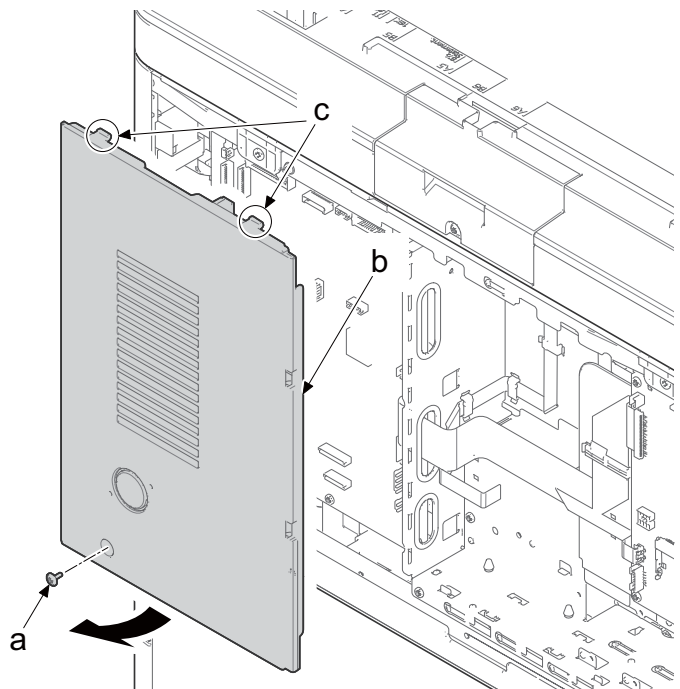
Figure 4-154

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.

Figure 4-155

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.

Figure 4-156

4-115
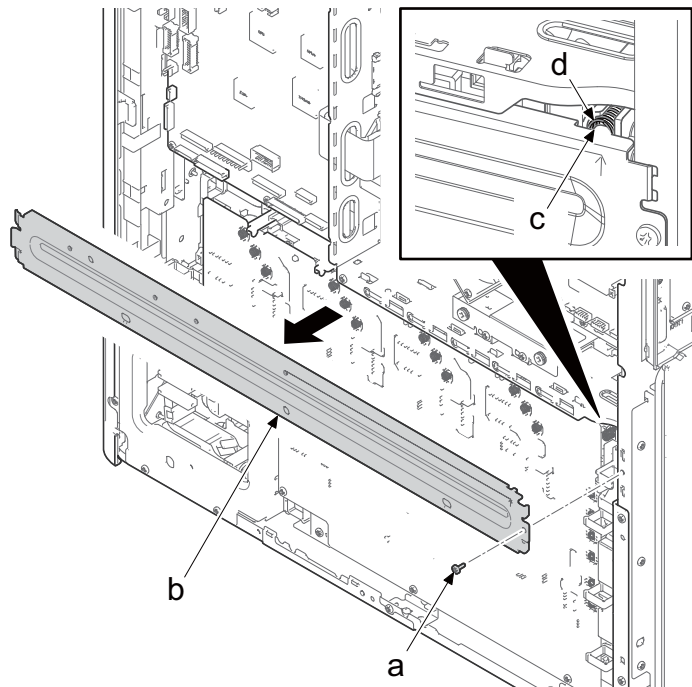
7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
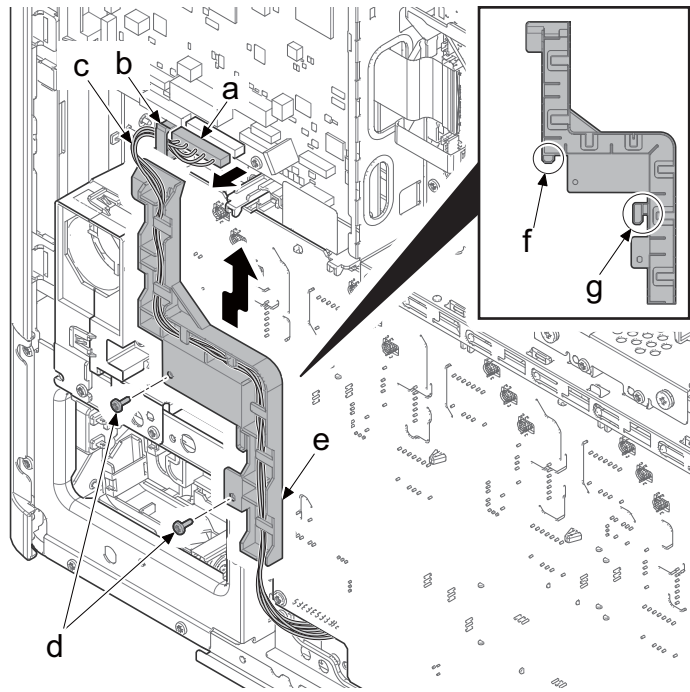
Figure 4-157

10. Remove four screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Rotate the high voltage PWB (a) making the four hooks (d) into a fulcrum and detach it.
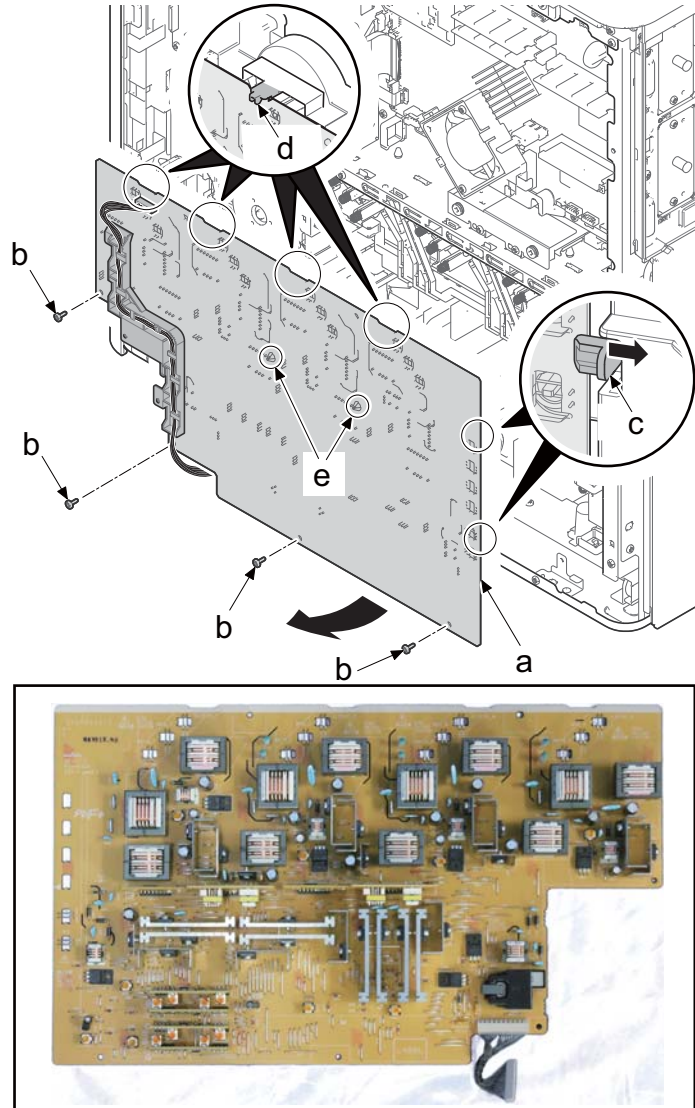
Figure 4-158

14. Disconnect the connector (a) and release the wire saddle A(b).
15. Release the wire (e) from the hook (c) and four wire saddles B (d).
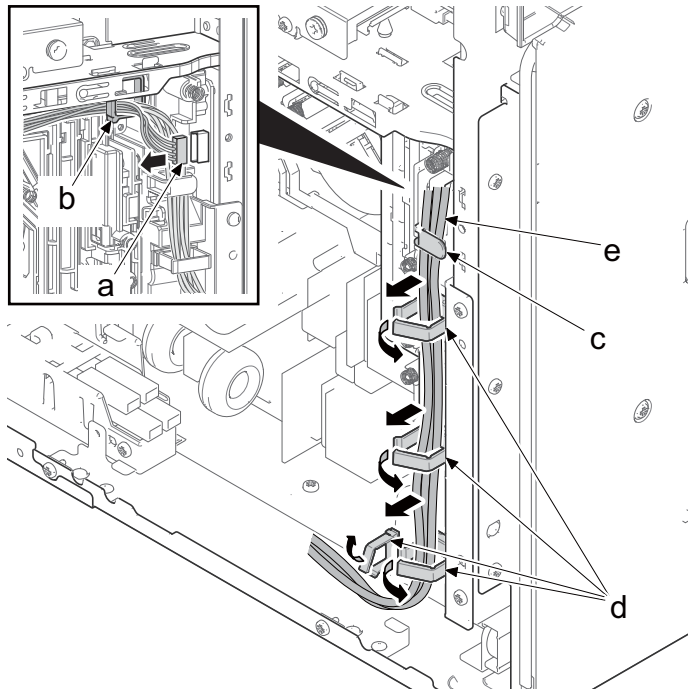
Figure 4-159

16. Remove three screws (a)(M3x8).
17. Release the hook (b) and remove the transfer high voltage assembly (c).
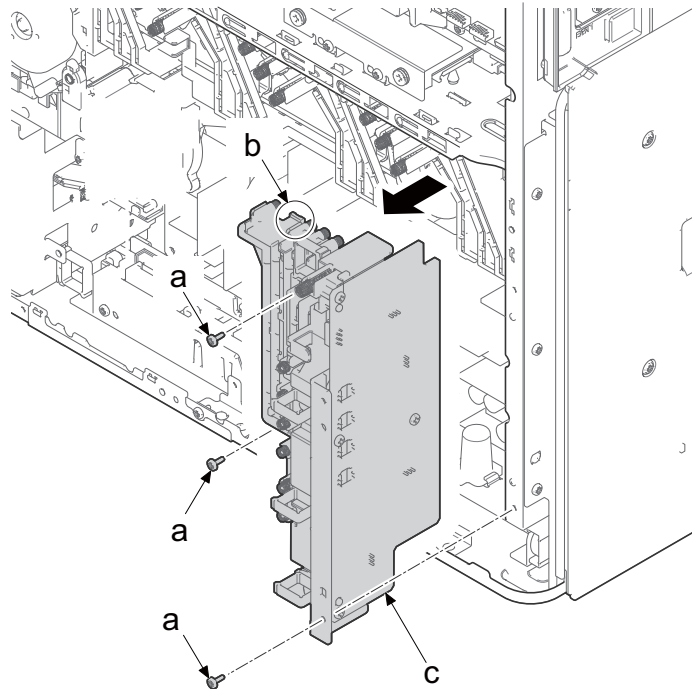
Figure 4-160

IMPORTANT

When attaching the transfer high voltage assembly (a), check the hook (b) clicks.
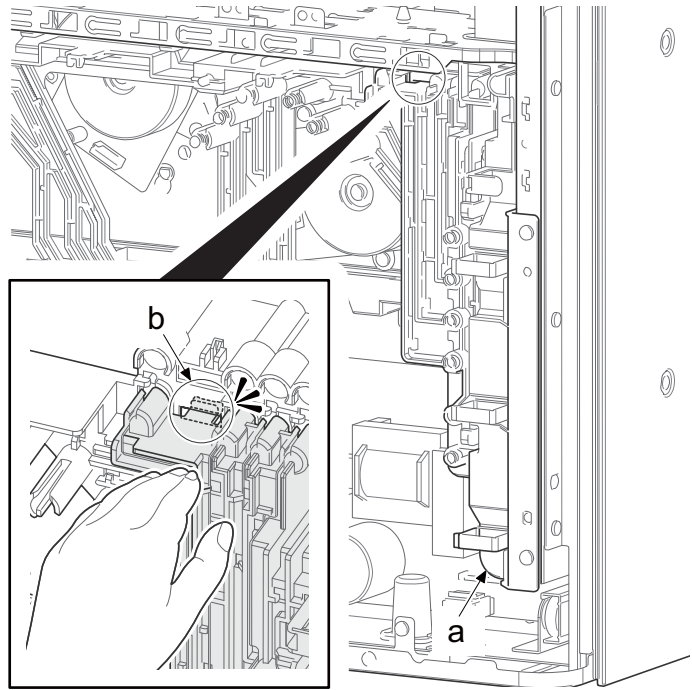
Figure 4-161

18. Disconnect three connectors (a).
19. Remove the wire (b) from the two hooks (c).
20. Remove three screws (d)(M3x8) and remove the heater PWB holder plate (e).
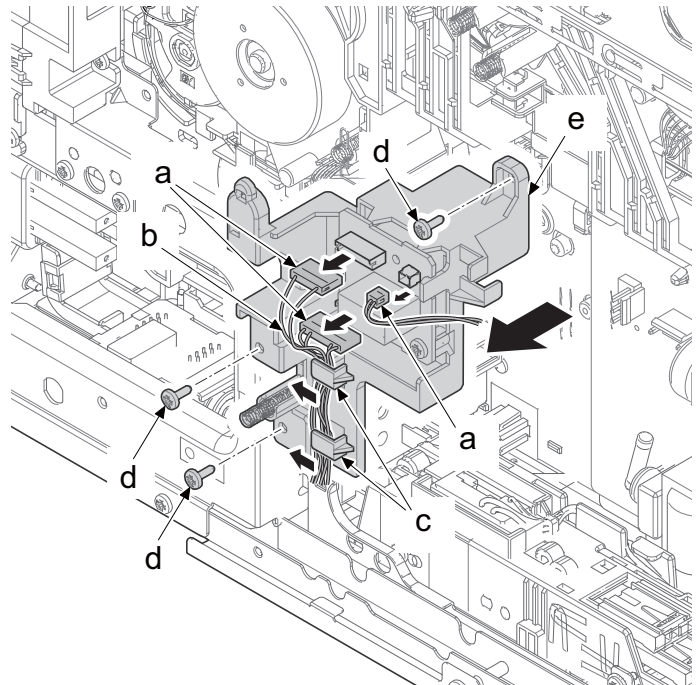
Figure 4-162

21. Remove two screws (a)(M3x8).
22. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT

When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).
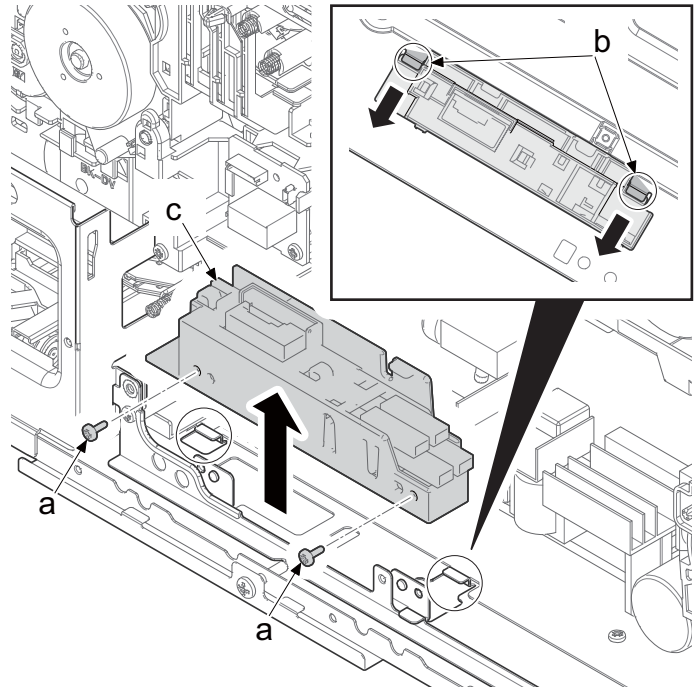
Figure 4-163

23. Disconnect all the connectors from the power source PWB (a).
24. Remove three screws (b)(M3x8).
25. Release two hooks (c) and the board support (d), and remove the power source PWB (a).
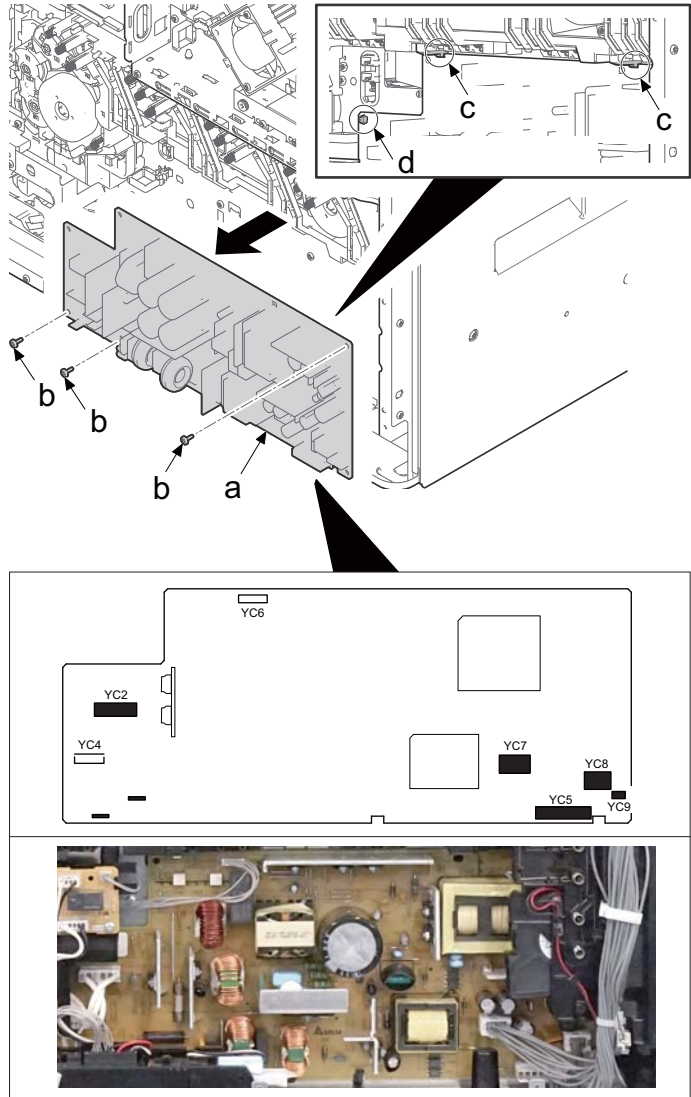
Figure 4-164

26. Remove the wire (a) from the three wire saddles (b).
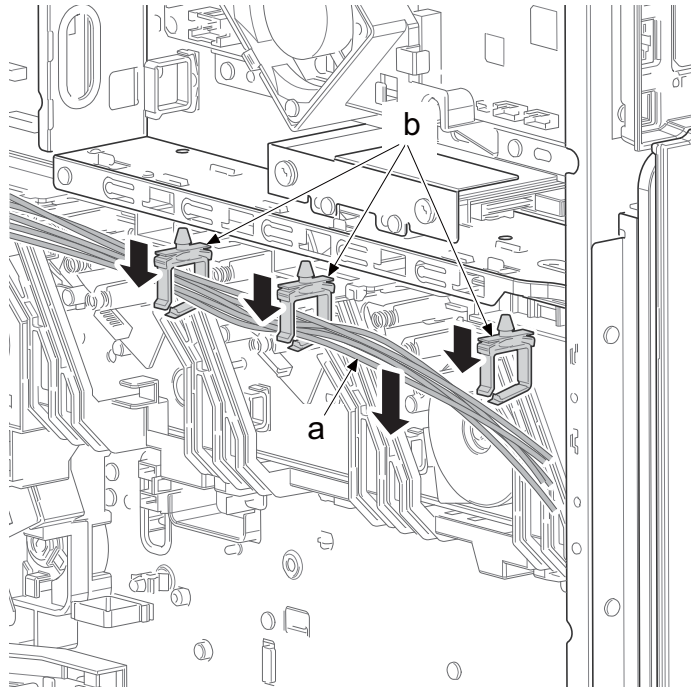
Figure 4-165

27. Remove the wire (b) from the hook (a).
28. Remove ten screws (c)(M3x8) and remove the high voltage PWB holder (d) in the direction of the arrow.

IMPORTANT
When reattaching the high voltage PWB holder (d), check the spring terminal (e) is in the catch (f) of the holder.
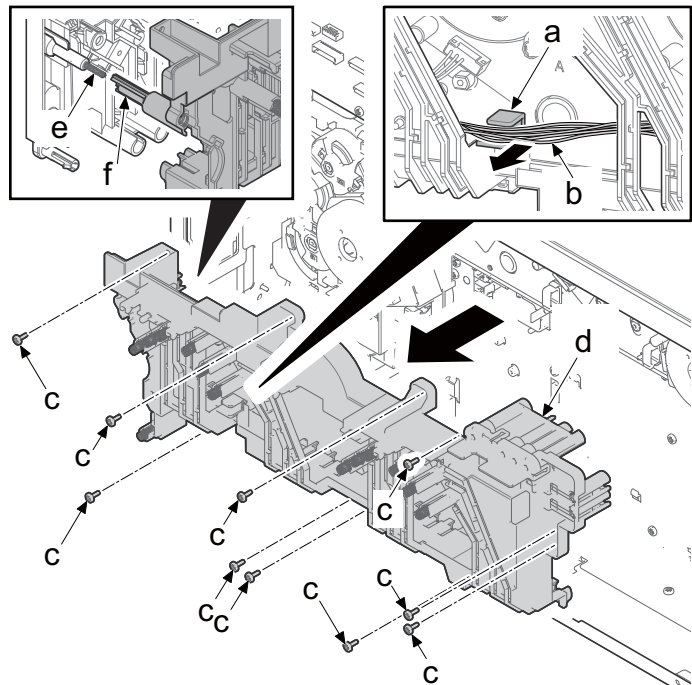
Figure 4-166

29. Disconnect the fan connector (a).
30. Remove two screws (b)(M3x8).
31. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).
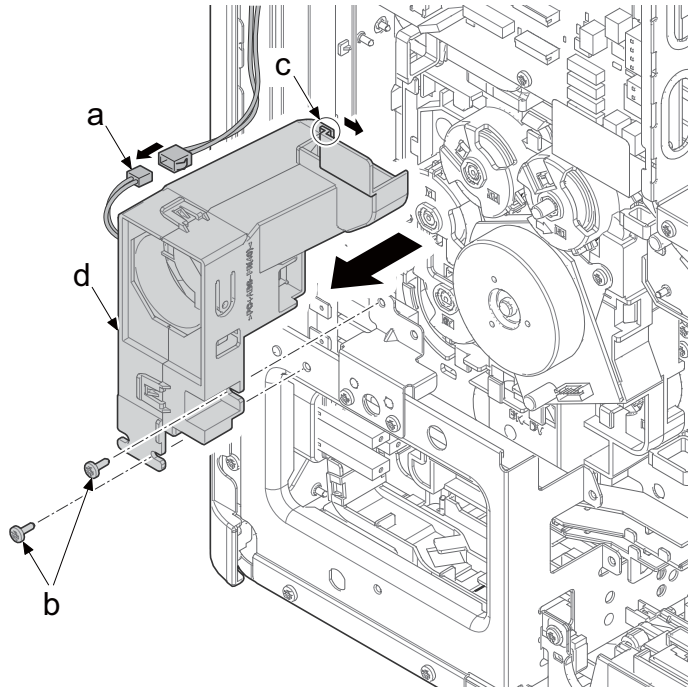
Figure 4-167

32. Remove the wire (a) from the wire saddle (c) and ten hooks (b) of the wire holder.
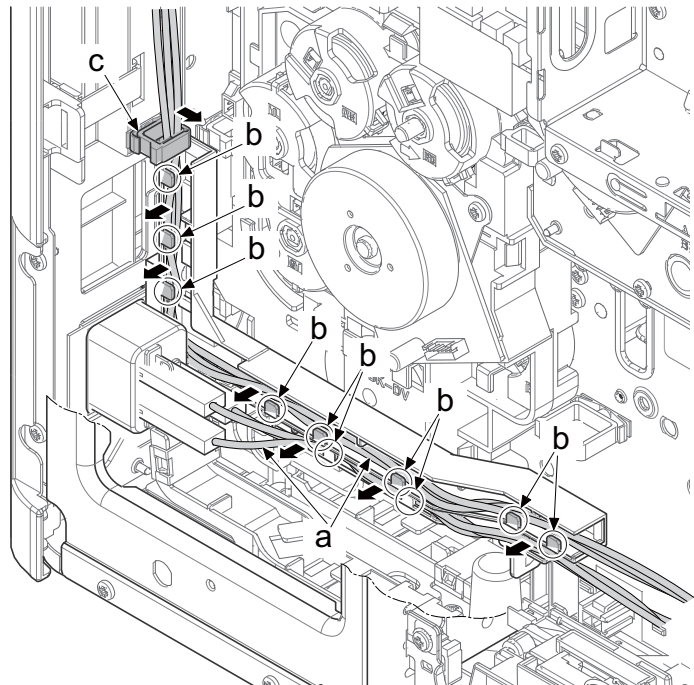
Figure 4-168

33. Remove two screws (b)(M3x8).
34. Detach the high voltage PWB holder plate (a).
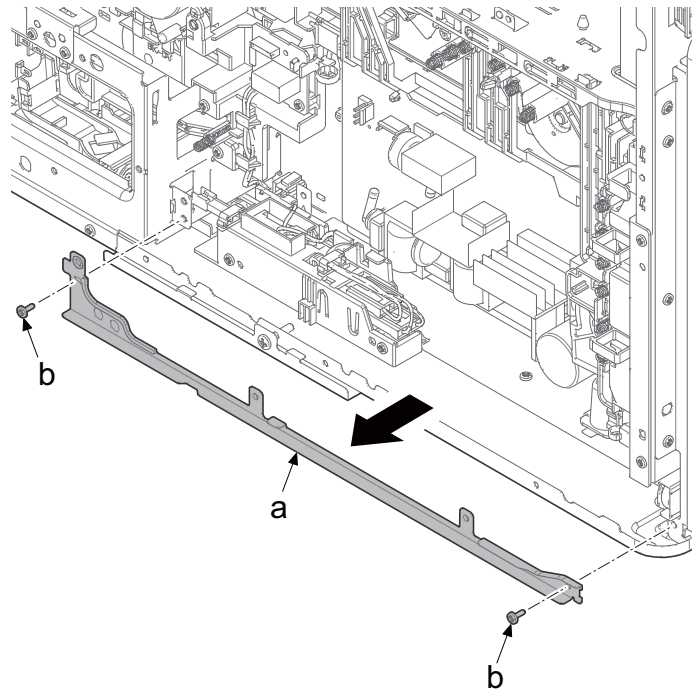
Figure 4-169

35. Remove five screws (a)(M3x8).
36. Release the hook (b) and remove the inlet assembly (c).
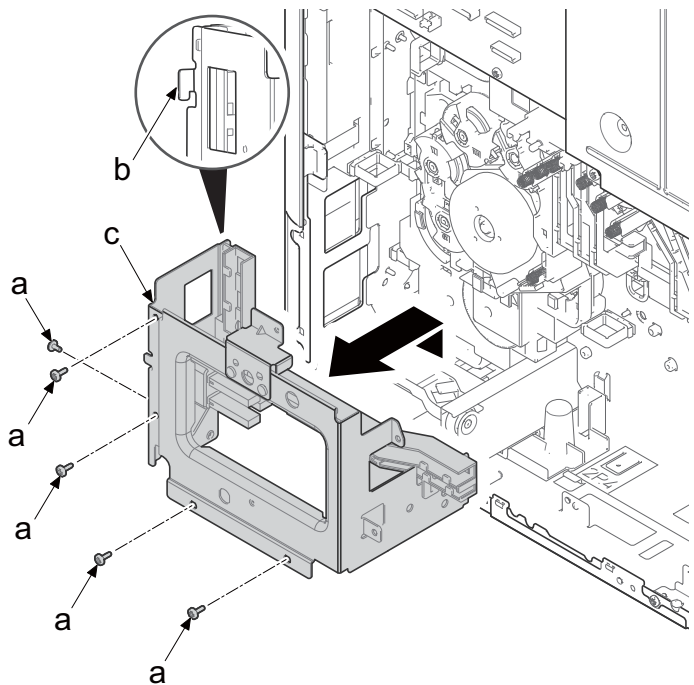
Figure 4-170

37. Disconnect two connectors (a).
38. Remove four screws (b)(M3x8) and remove the drive unit (c).
39. Check he feed drive unit (c) and clean or replace it.
40. Reattach the parts in the original position.
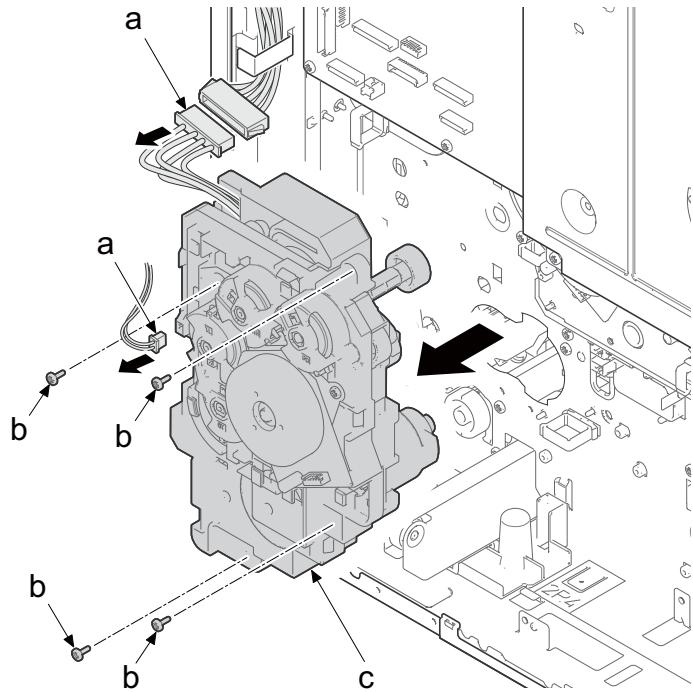
Figure 4-171

IMPORTANT
Check if the MP cam (c) is put on the shaded part (b) when attaching the feed drive unit (a).
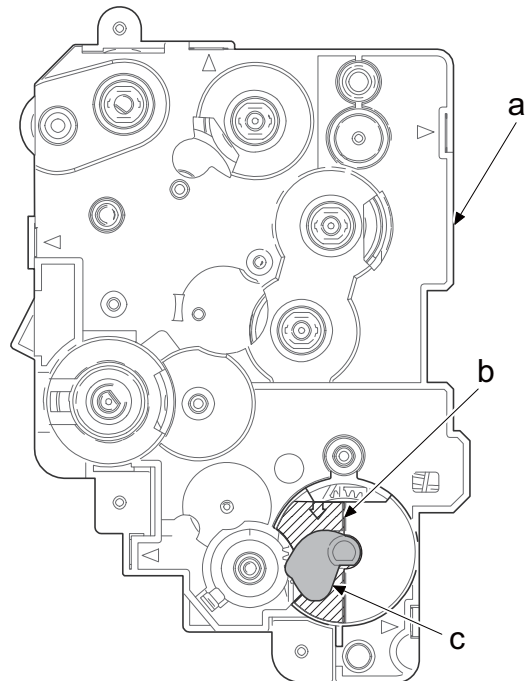
Figure 4-172

(3-3) Detaching and reattaching the main drive unit (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
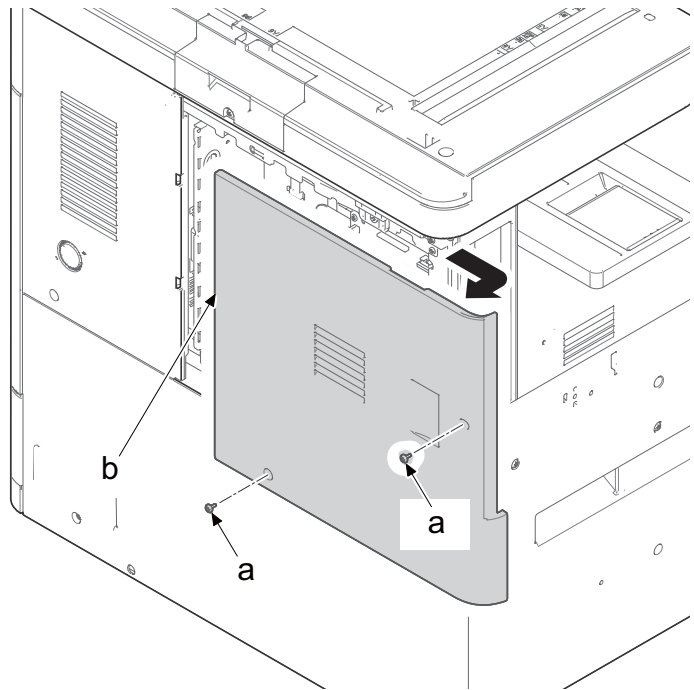
Figure 4-173

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
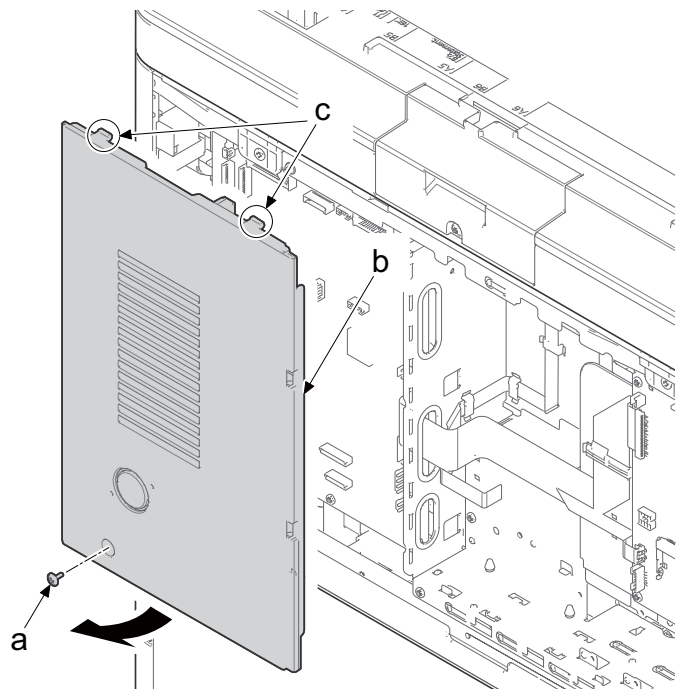
Figure 4-174

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.

Figure 4-175

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).
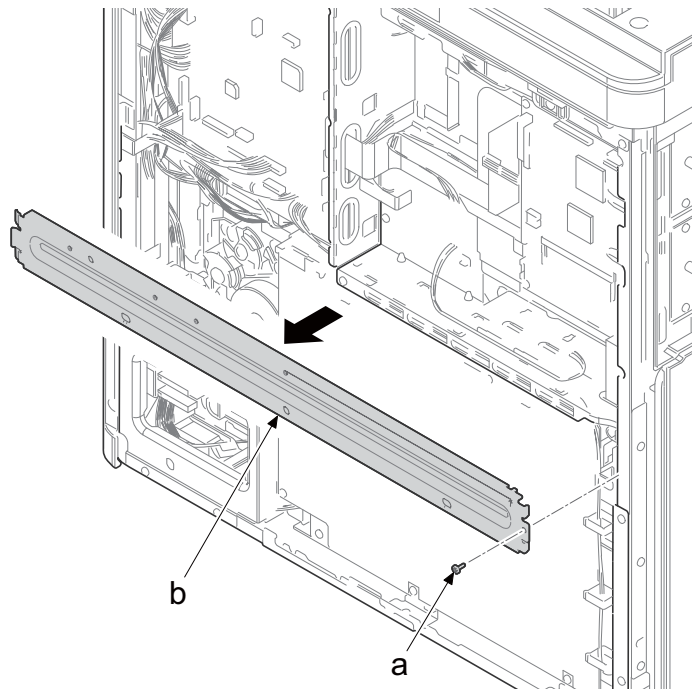
Figure 4-176

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).

Figure 4-177

10. Remove three screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Detach the high voltage PWB (a) while rotating it in the direction of the arrow making three hooks (d) as fulcrum.
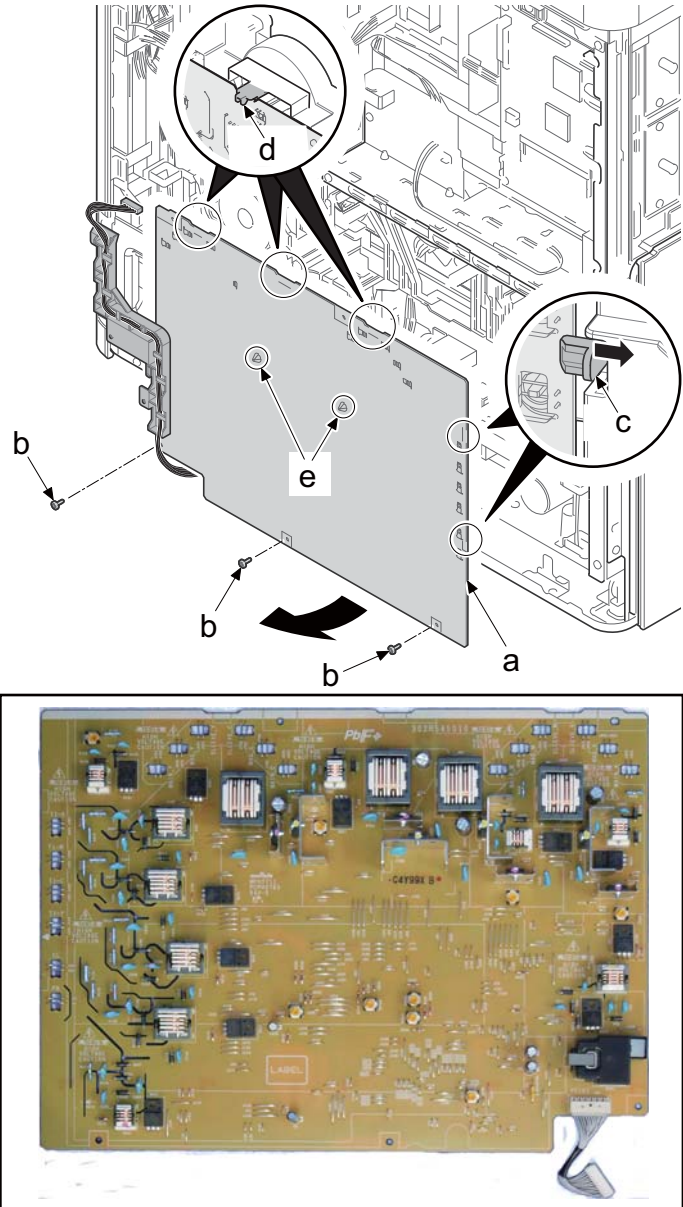
Figure 4-178

14. Release the wire (e) from the hook (a) and five wire saddles B (d).
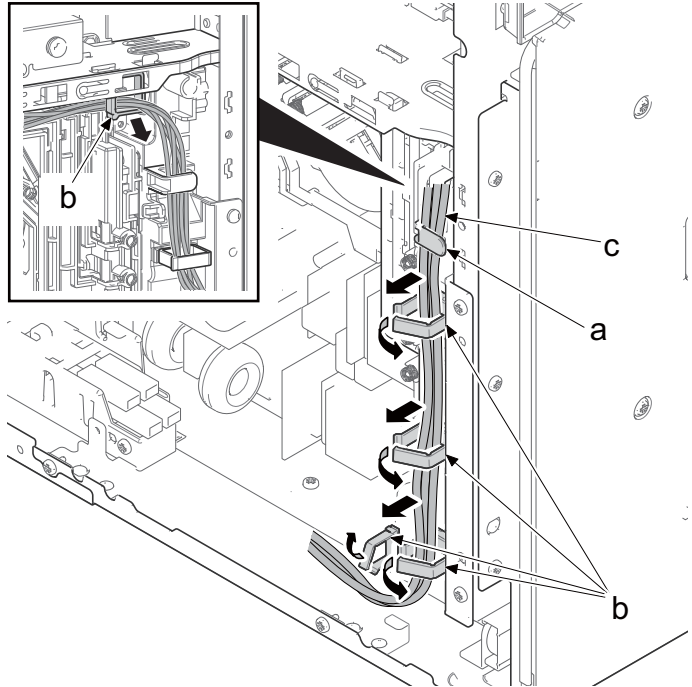
Figure 4-179

15. Remove three screws (a)(M3x8).
16. Release the hook (b) and remove the transfer high voltage assembly (c).

Figure 4-180

IMPORTANT

When attaching the transfer high voltage assembly (a), check the hook (b) clicks.

Figure 4-181

17. Disconnect three connectors (a).
18. Remove the wire (b) from the two hooks (c).
19. Remove three screws (d)(M3x8) and remove the heater PWB holder plate (e).

Figure 4-182

4-131
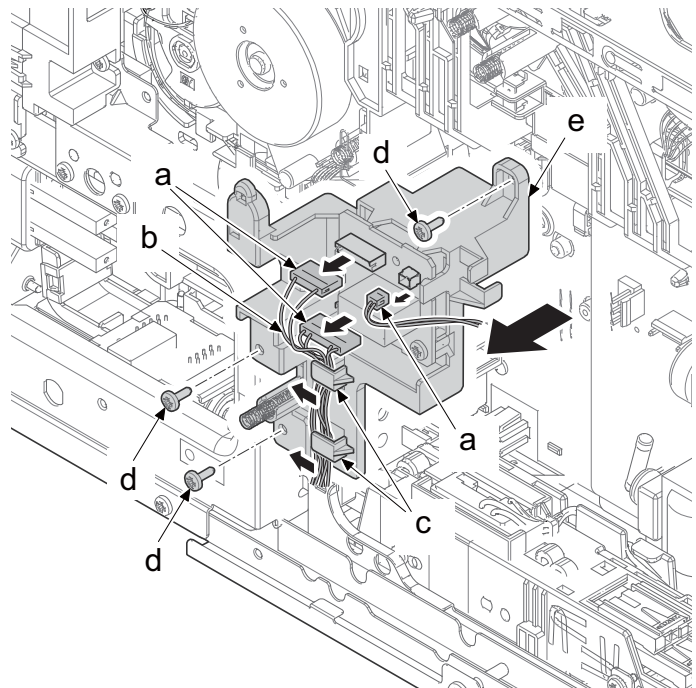
20. Remove two screws (a)(M3x8).
21. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT

When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).
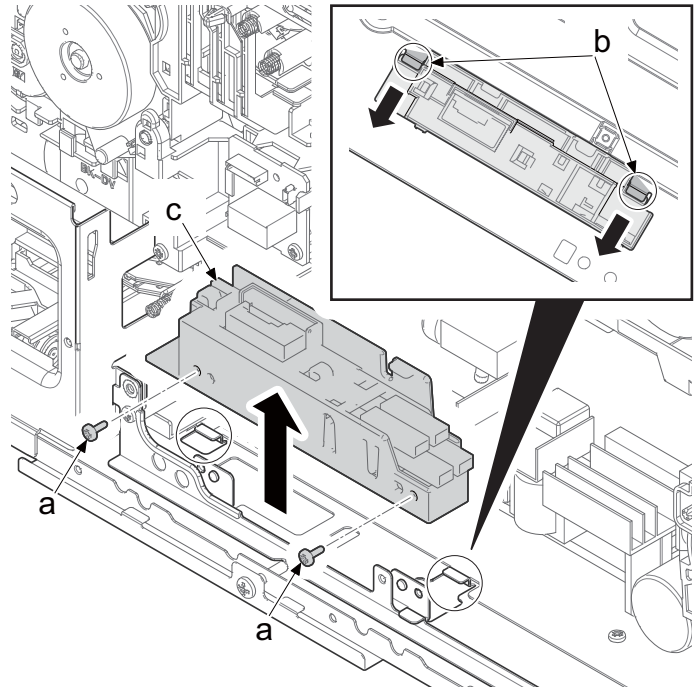
Figure 4-183

22. Disconnect all the connectors from the power source PWB (a).
23. Remove two screws (b)(M3x8).
24. Release the board support (c) and remove the power source PWB (a).
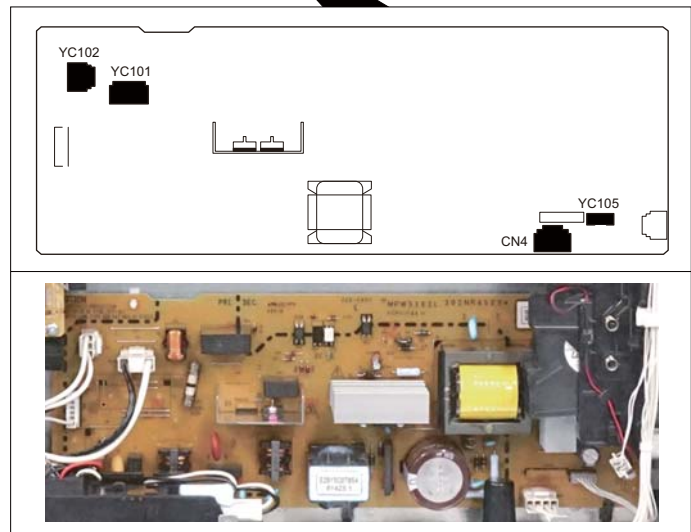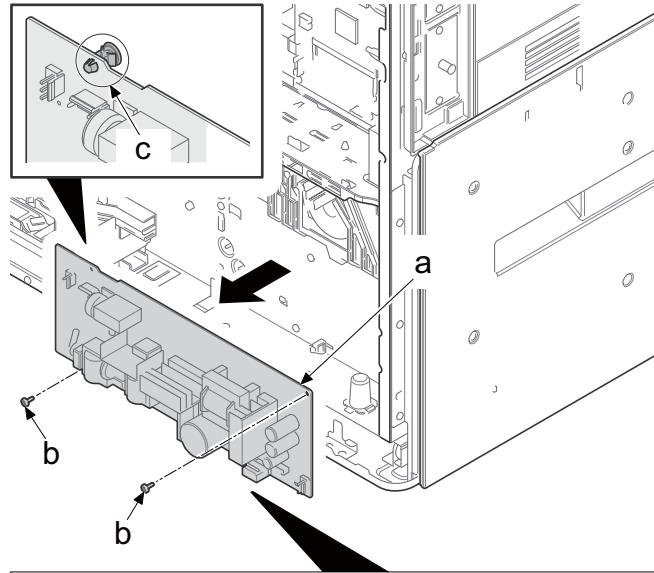
Figure 4-184

25. Remove the wire (a) from the three wire saddles (b).
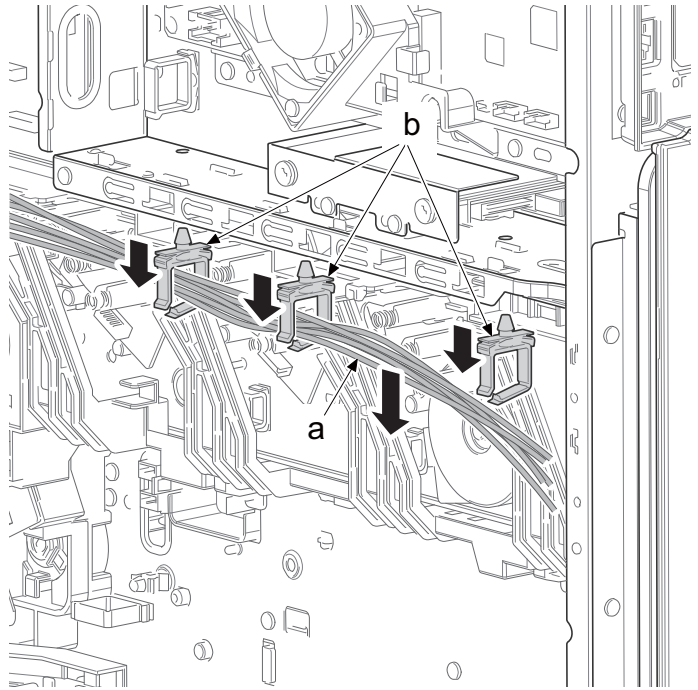
Figure 4-185

26. Remove the wire (b) from the hook (a).
27. Remove ten screws (c)(M3x8) and remove the high voltage PWB holder (d) in the direction of the arrow.

IMPORTANT

When reattaching the high voltage PWB holder (d), check the spring terminal (e) is in the catch (f) of the holder.
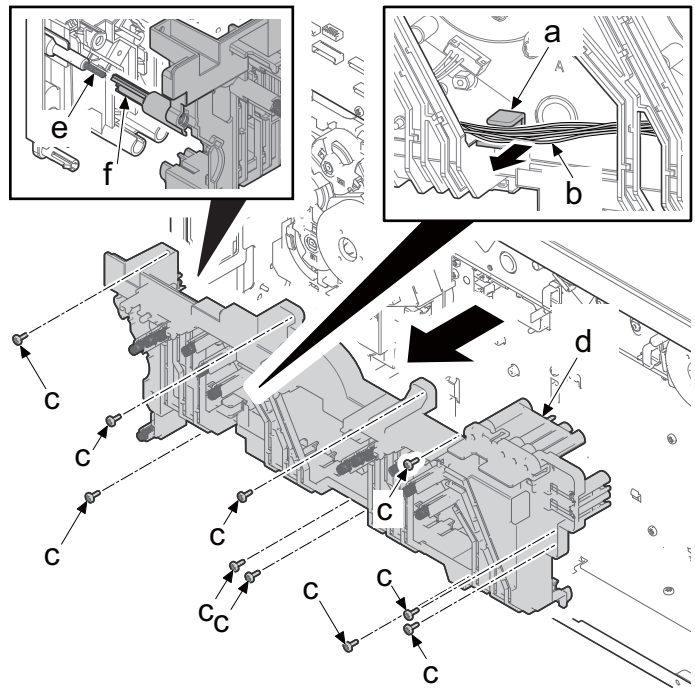
Figure 4-186

28. Disconnect the fan connector (a).
29. Remove two screws (b)(M3x8).
30. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).
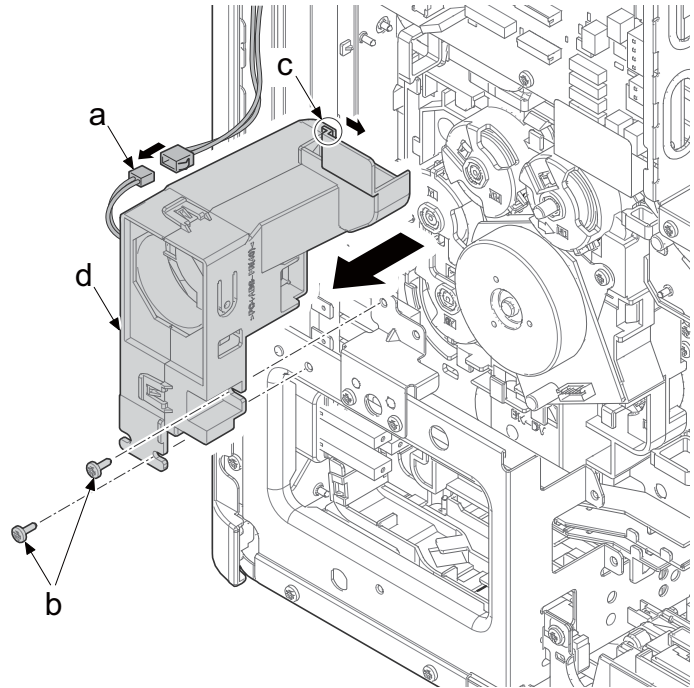
Figure 4-187

31. Remove the wire (a) from the three wire saddles (b).
32. Disconnect three connectors (d) of the motor (c).
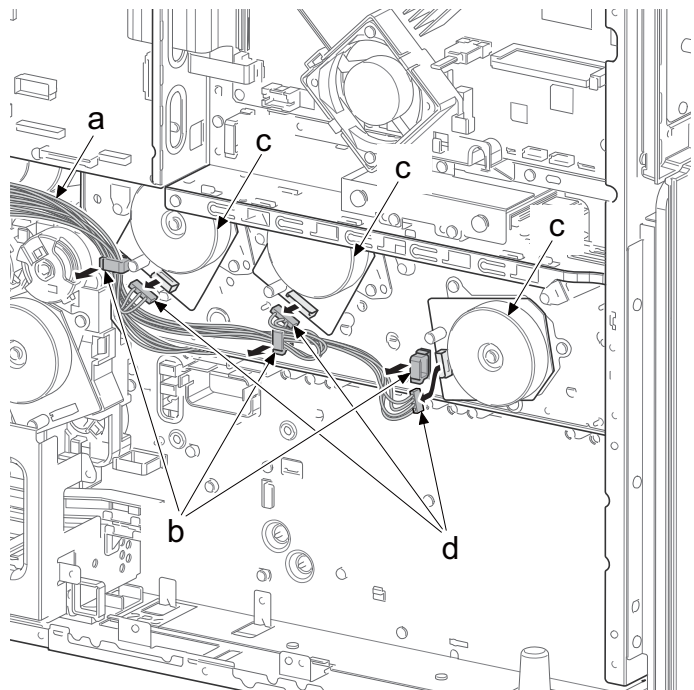
Figure 4-188

33. Disconnect all the connectors from the engine PWB (b).
34. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
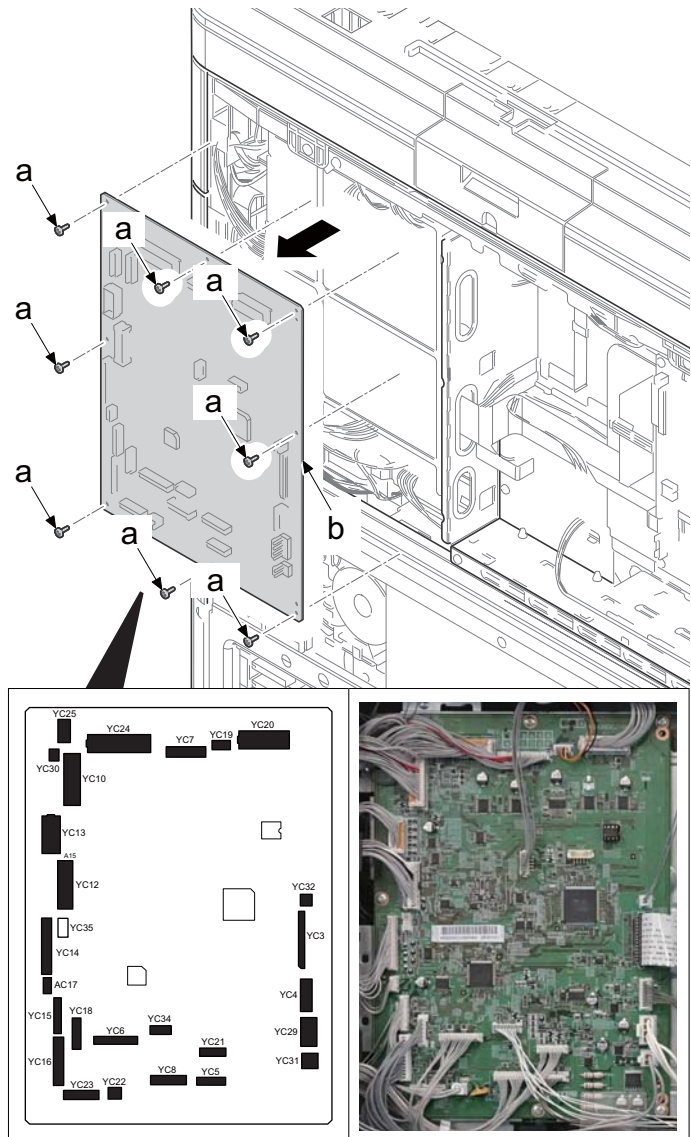
Figure 4-189

35. Remove the wire (b) from the wire saddle (a).
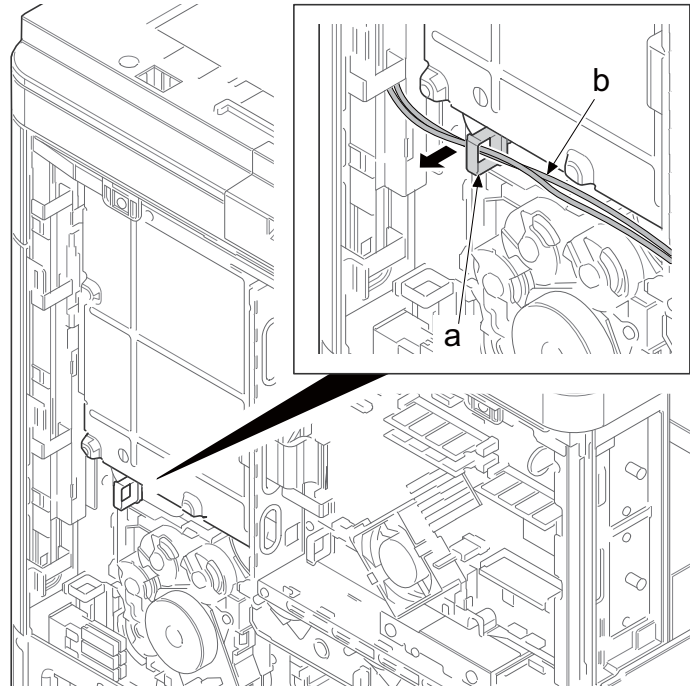
Figure 4-190

36. Remove five screws (a)(M3x8).
37. Release two hooks (b) with the flat-blade screwdriver (c) and remove the engine PWB mounting plate (d) in the direction of the arrow.
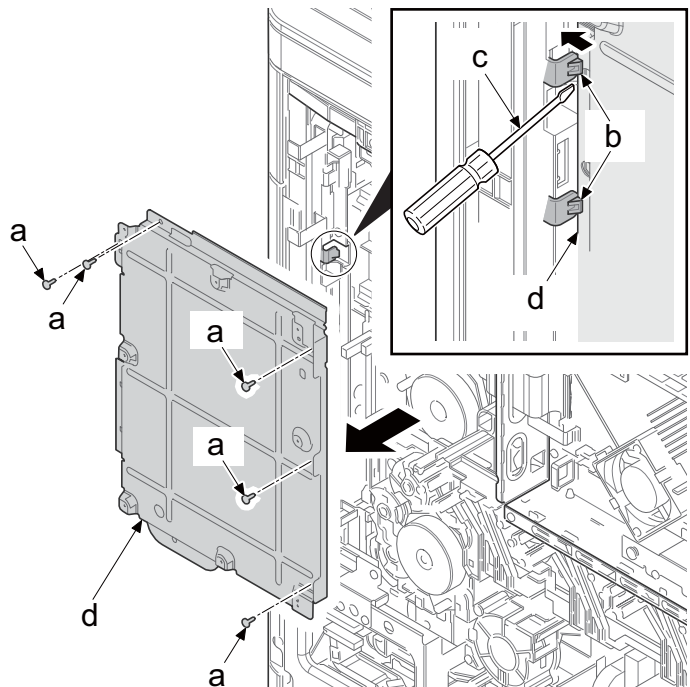
Figure 4-191

38. Remove five screws (a)(M3x8) and remove the main drive unit (b).
39. Check the main drive unit (b) and clean or replace it.
40. Reattach the parts in the original position.
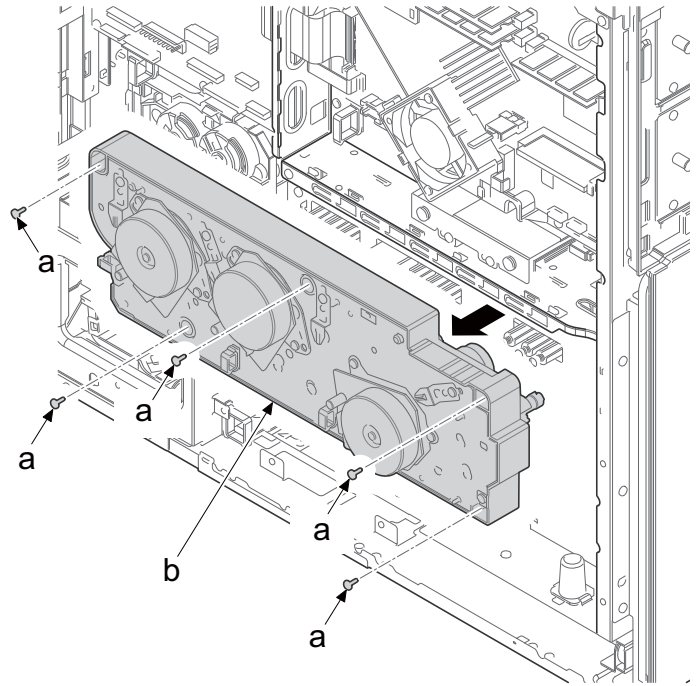
Figure 4-192

(3-4) Detaching and reattaching the main drive unit (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
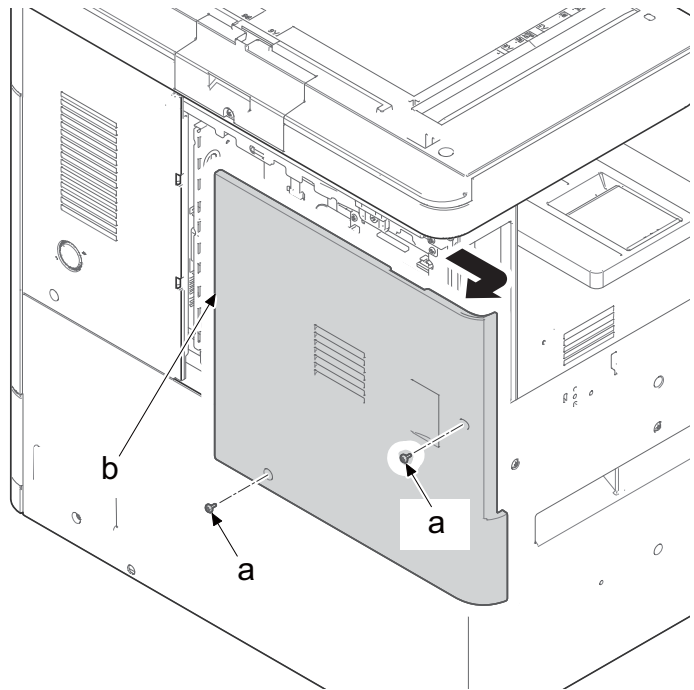
Figure 4-193

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
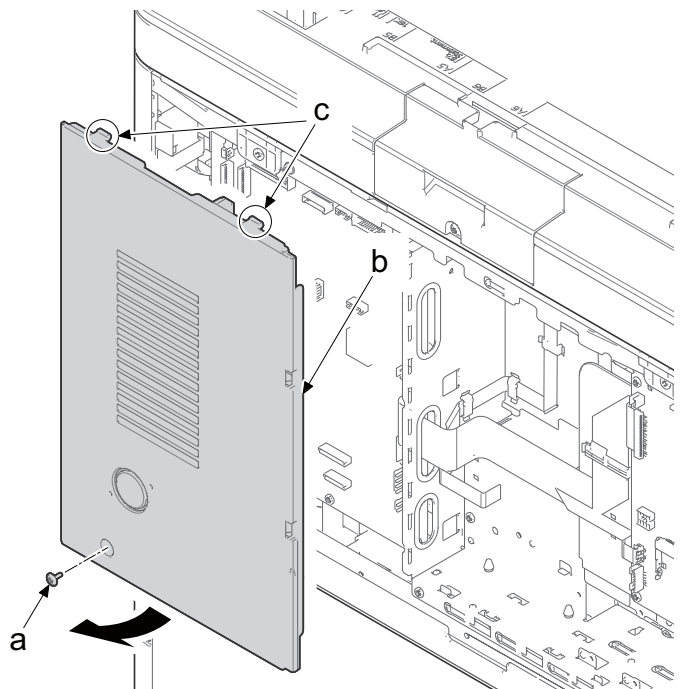
Figure 4-194

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.
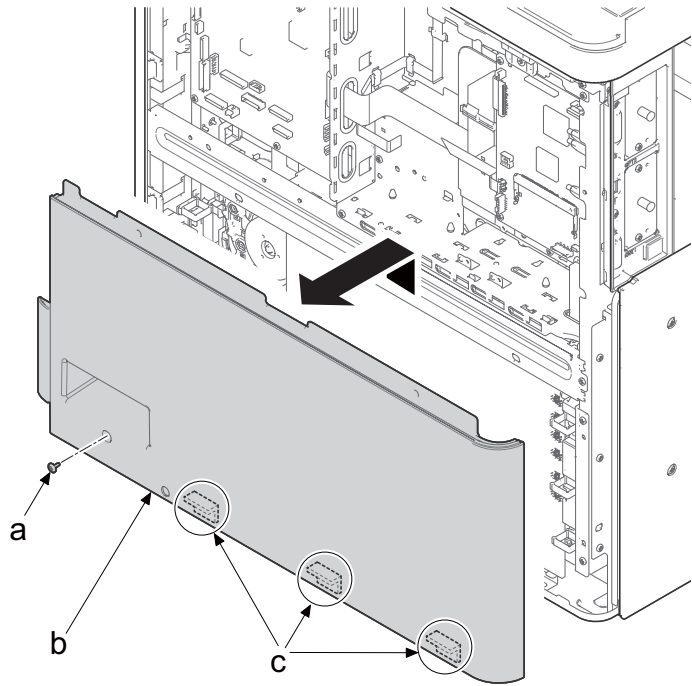
Figure 4-195

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.
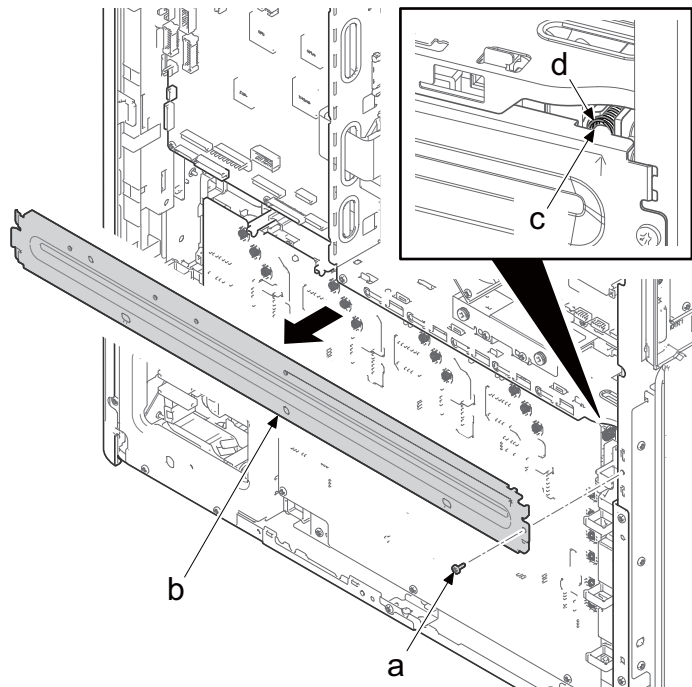
Figure 4-196

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
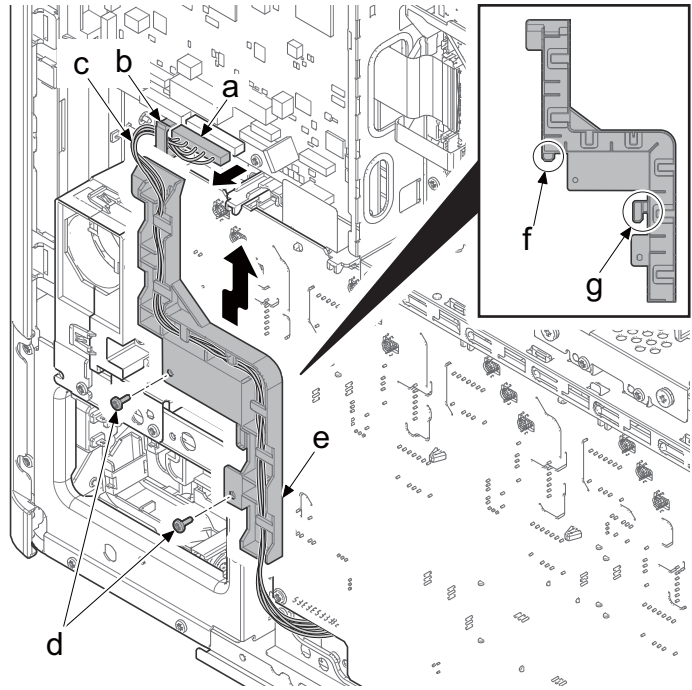
Figure 4-197

10. Remove four screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Rotate the high voltage PWB (e) making the four hooks (d) into a fulcrum and detach it.
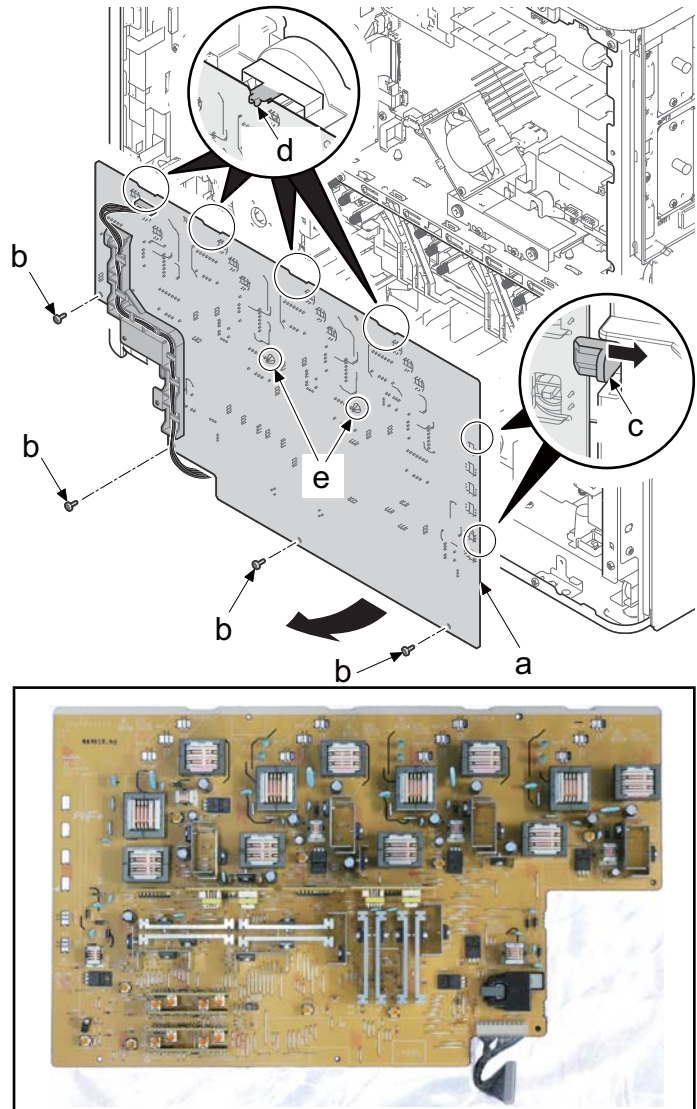
Figure 4-198

14. Disconnect the connector (a) and release the wire saddle A(b).
15. Release the wire (e) from the hook (c) and four wire saddles B (d).
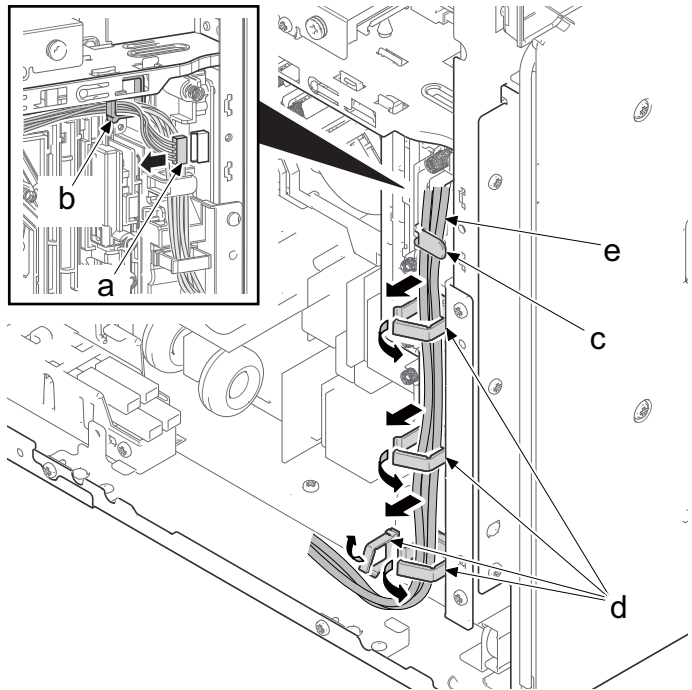
Figure 4-199

16. Remove three screws (a)(M3x8).
17. Release the hook (b) and remove the transfer high voltage assembly (c).
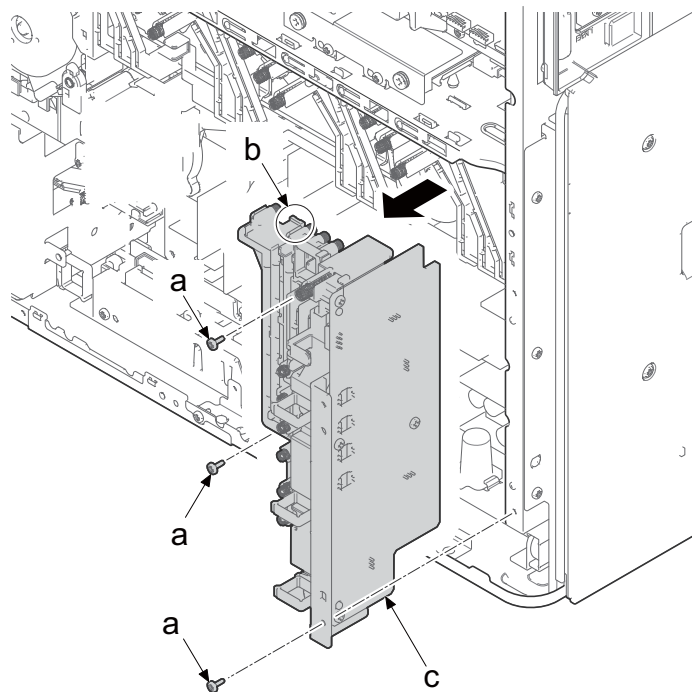
Figure 4-200

IMPORTANT

When attaching the transfer high voltage
assembly (a), check the hook (b) clicks.
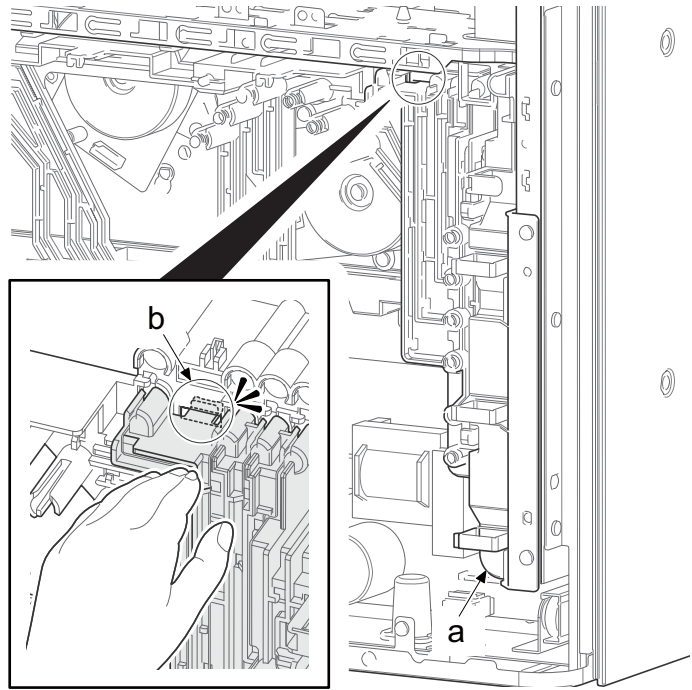
Figure 4-201

18. Disconnect three connectors (a).
19. Remove the wire (b) from the two hooks
    (c).
20. Remove three screws (d)(M3x8) and
    remove the heater PWB holder plate
    (e).
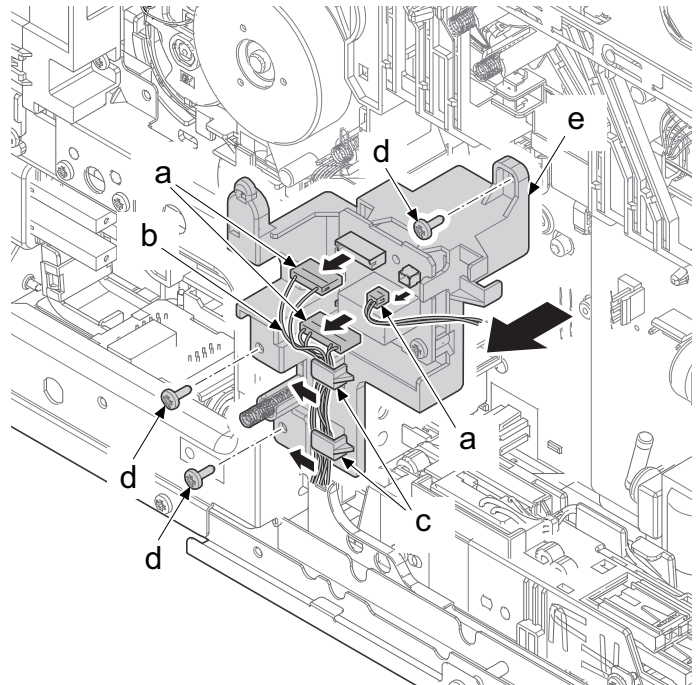
Figure 4-202

21. Remove two screws (a)(M3x8).
22. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT
When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).

Figure 4-203

4-145
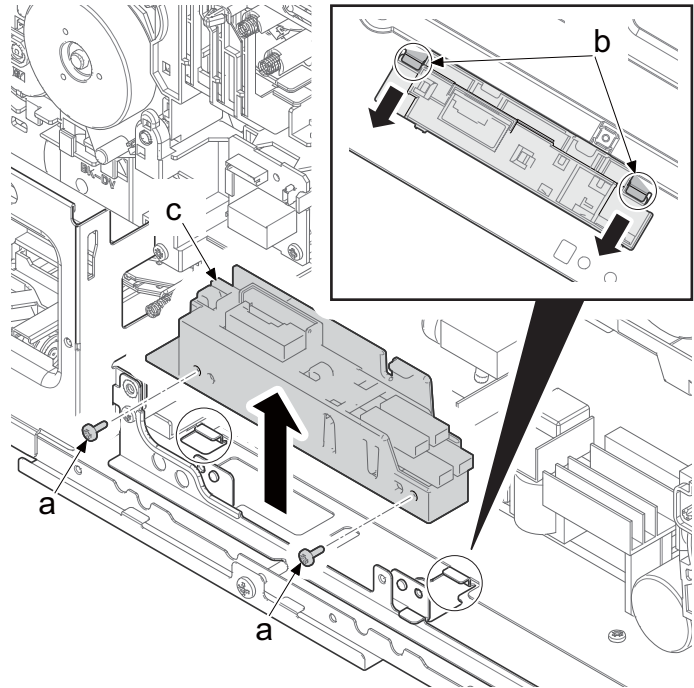
23. Disconnect all the connectors from the power source PWB (a).
24. Remove three screws (b)(M3x8).
25. Release two hooks (c) and the board support (d), and remove the power source PWB (a).
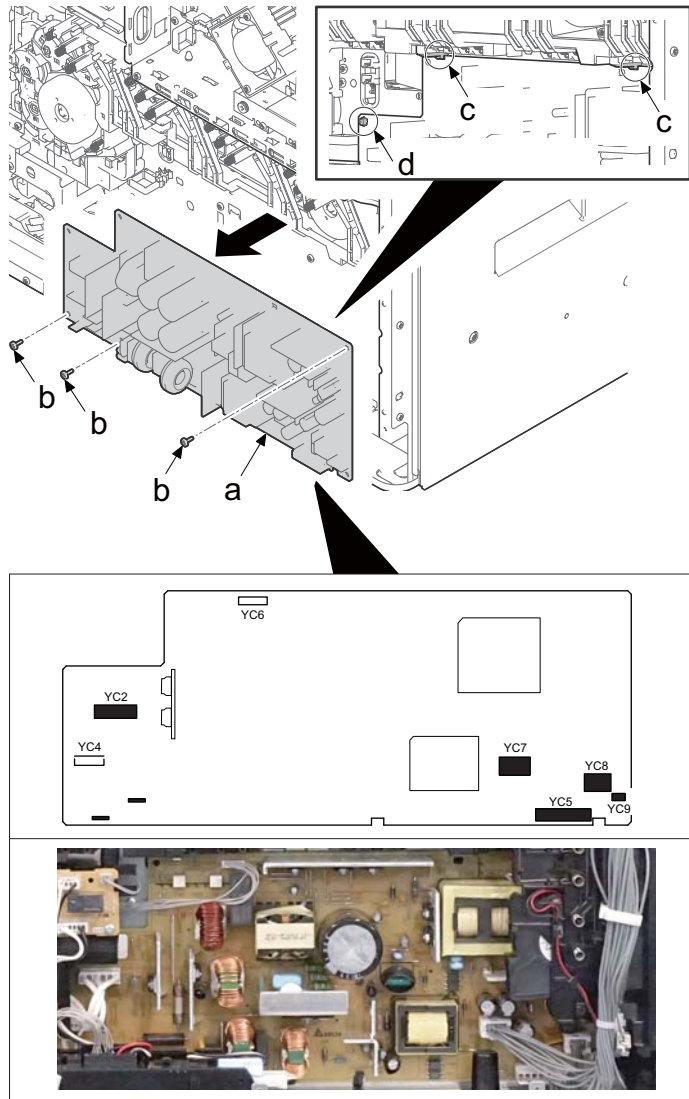
Figure 4-204

26. Remove the wire (a) from the three wire saddles (b).
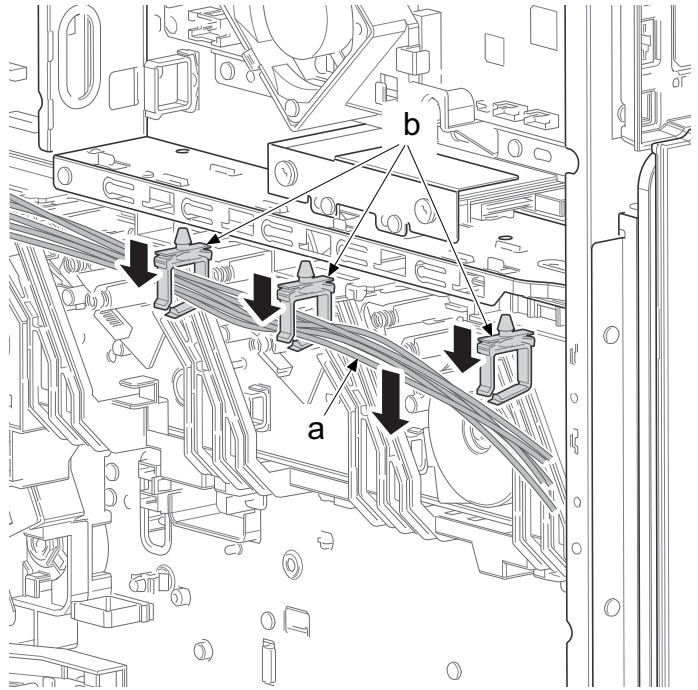
Figure 4-205

27. Remove the wire (b) from the hook (a).
28. Remove ten screws (c)(M3x8) and remove the high voltage PWB holder (d) in the direction of the arrow.

IMPORTANT
When reattaching the high voltage PWB holder (d), check the spring terminal (e) is in the catch (f) of the holder.
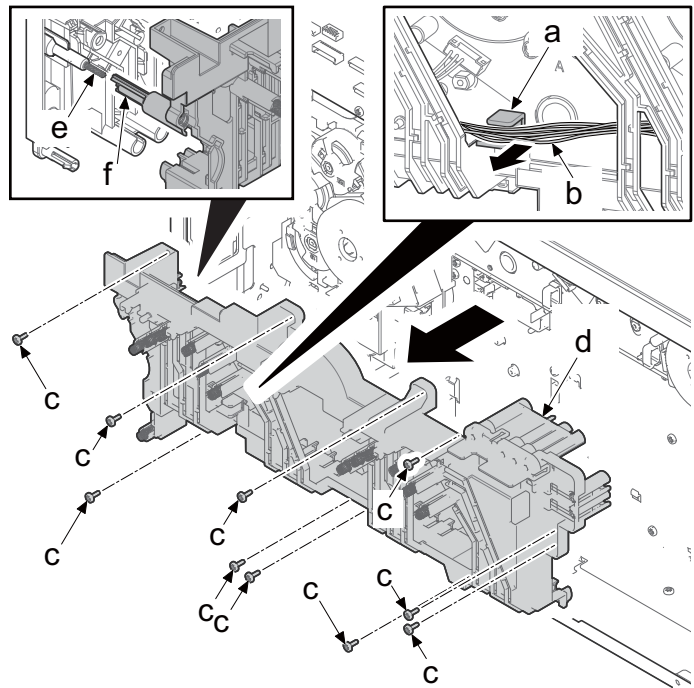
Figure 4-206

29. Disconnect the fan connector (a).
30. Remove two screws (b)(M3x8).
31. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).
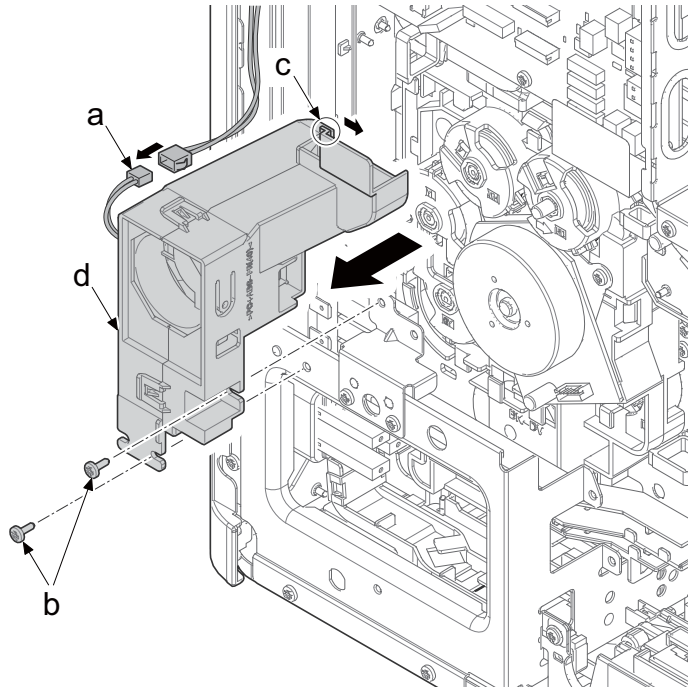
Figure 4-207

32. Remove the wire (a) from the three wire saddles (b).
33. Disconnect three connectors (d) of the motor (c).
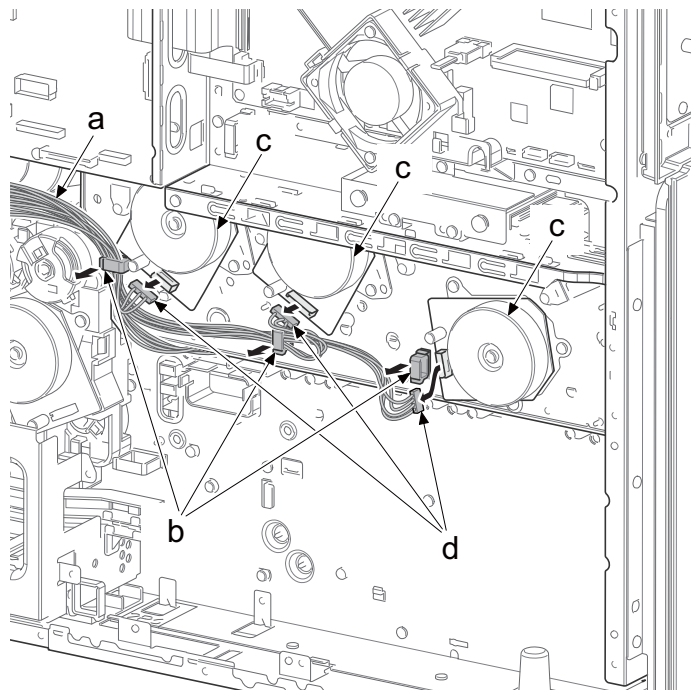
Figure 4-208

34. Disconnect all the connectors from the engine PWB (b).
35. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
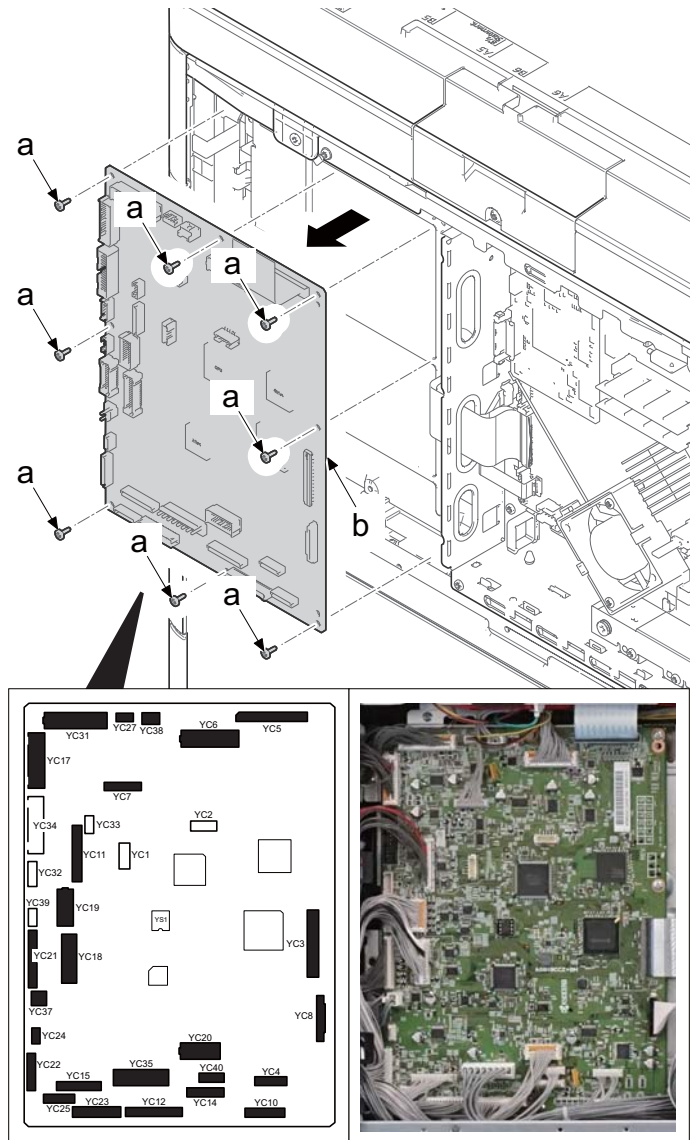
Figure 4-209

Notes when detaching
In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
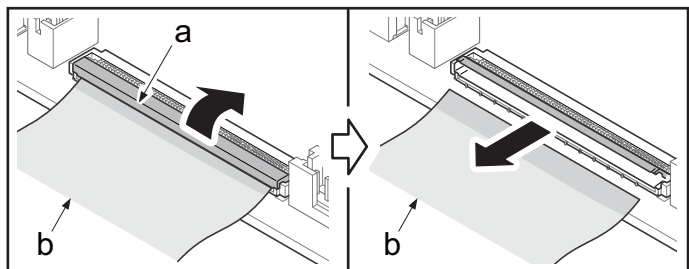
Figure 4-210

36. Remove the wire (b) from the wire saddle (a).
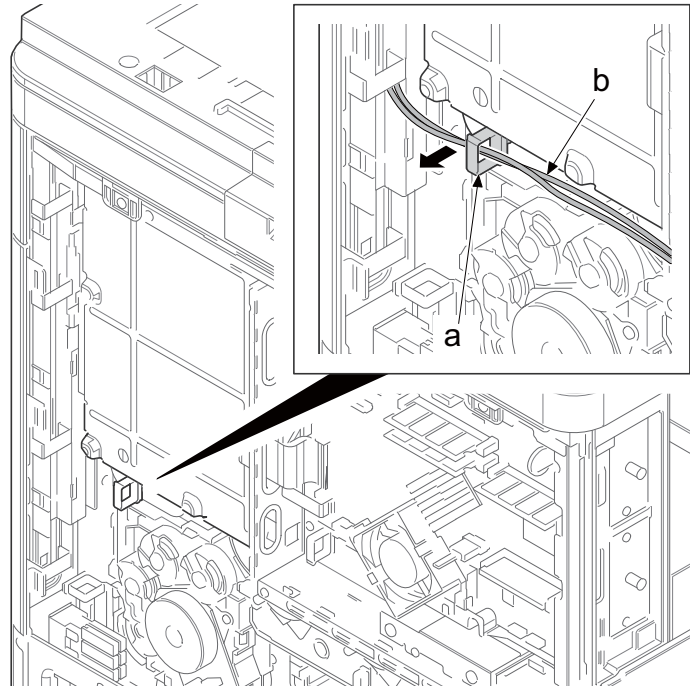
Figure 4-211

37. Remove five screws (a)(M3x8).
38. Release two hooks (b) with the flat-blade screwdriver (c) and remove the engine PWB mounting plate (d) in the direction of the arrow.
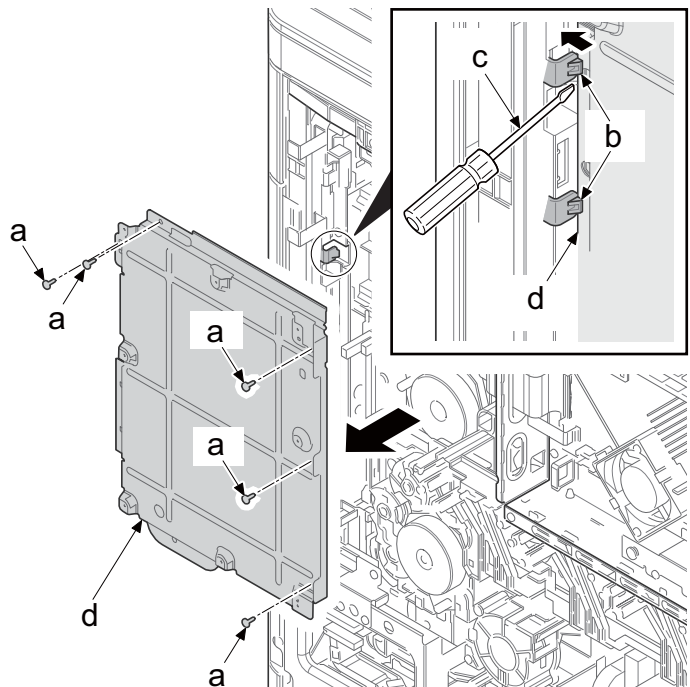
Figure 4-212

39. Remove five screws (a)(M3x8) and remove the main drive unit (b).
40. Check the main drive unit (b) and clean or replace it.
41. Reattach the parts in the original position.
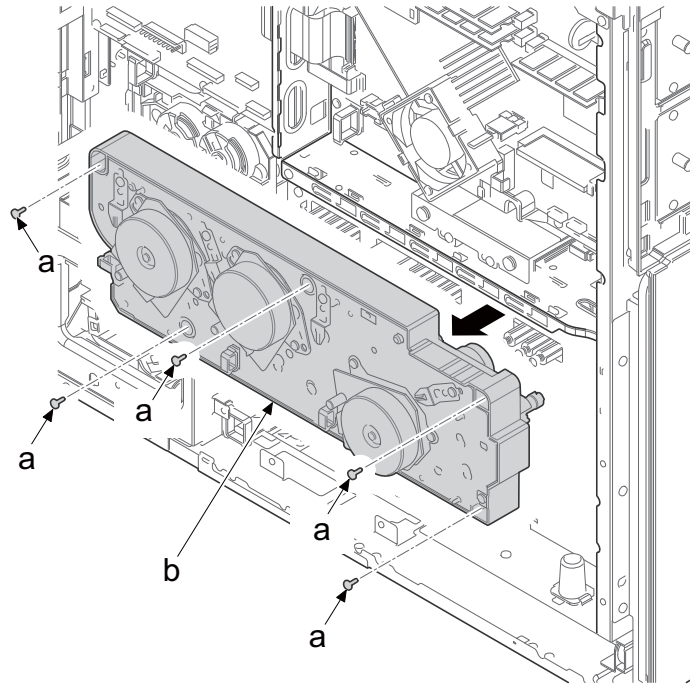
Figure 4-213

(3-5) Detaching and reattaching the transfer motor (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
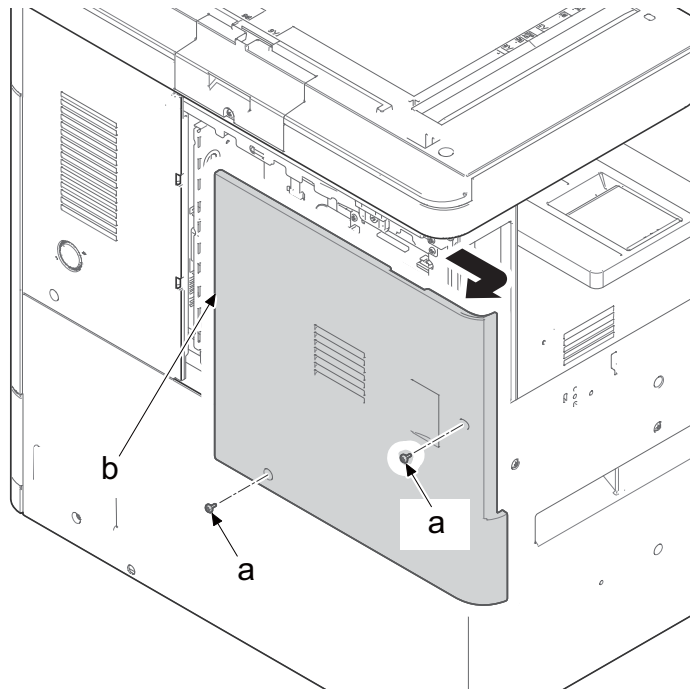
Figure 4-214

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.

Figure 4-215

4-152
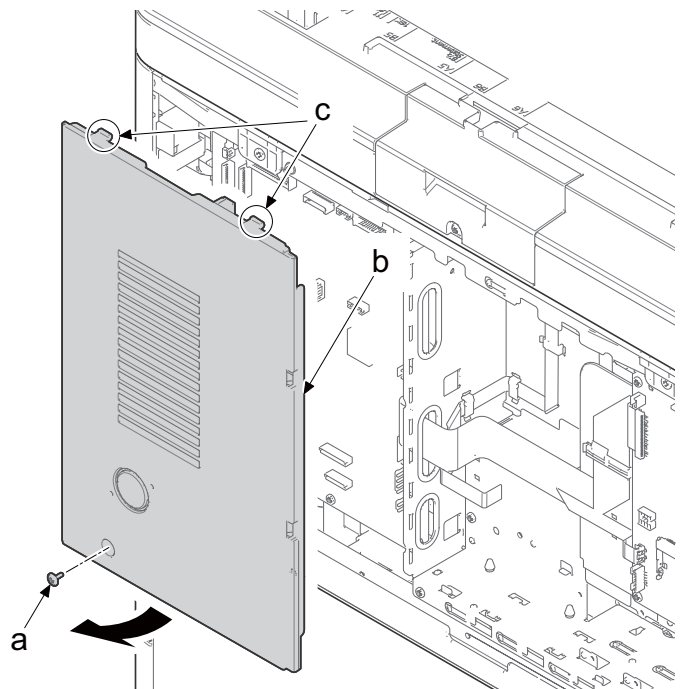
4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.
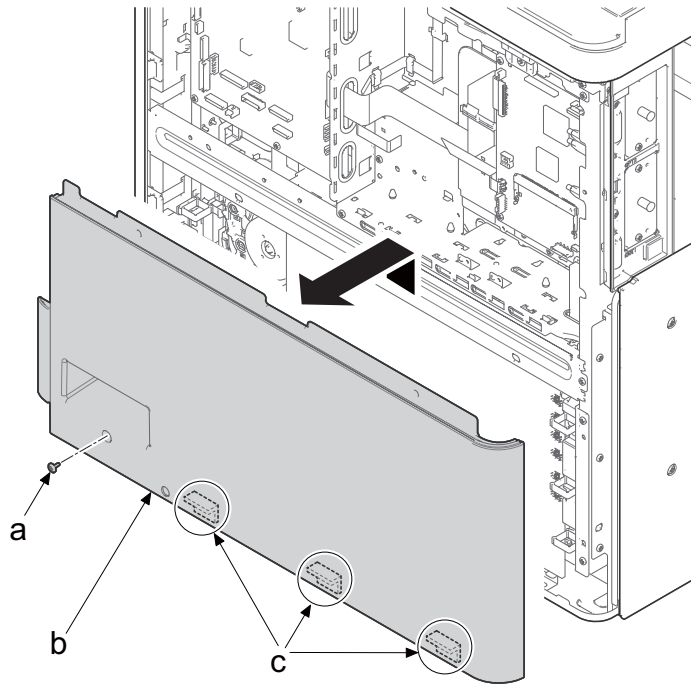
Figure 4-216

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).
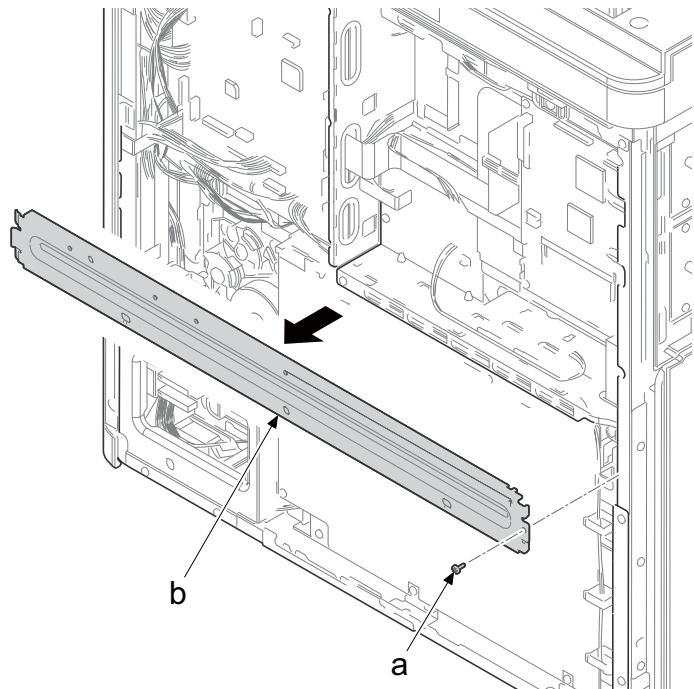
Figure 4-217

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
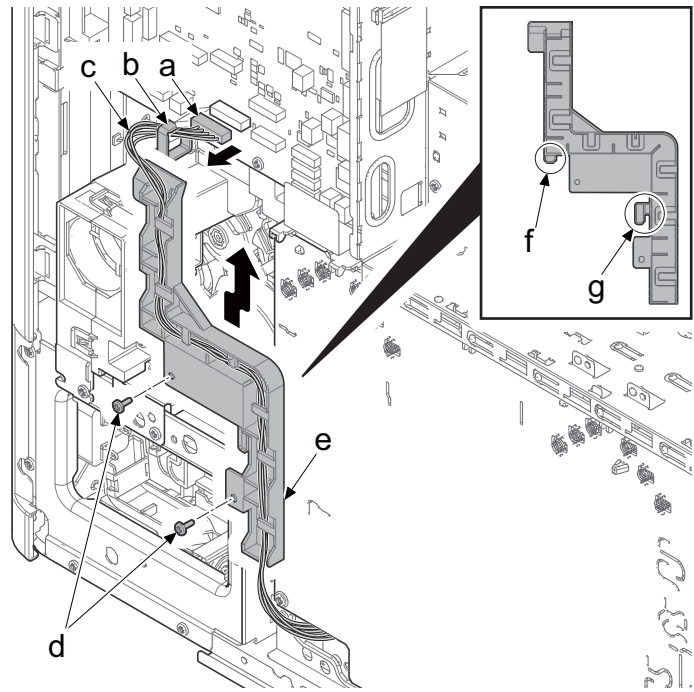
Figure 4-218

10. Remove three screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Detach the high voltage PWB (a) while rotating it in the direction of the arrow making three hooks (d) as fulcrum.
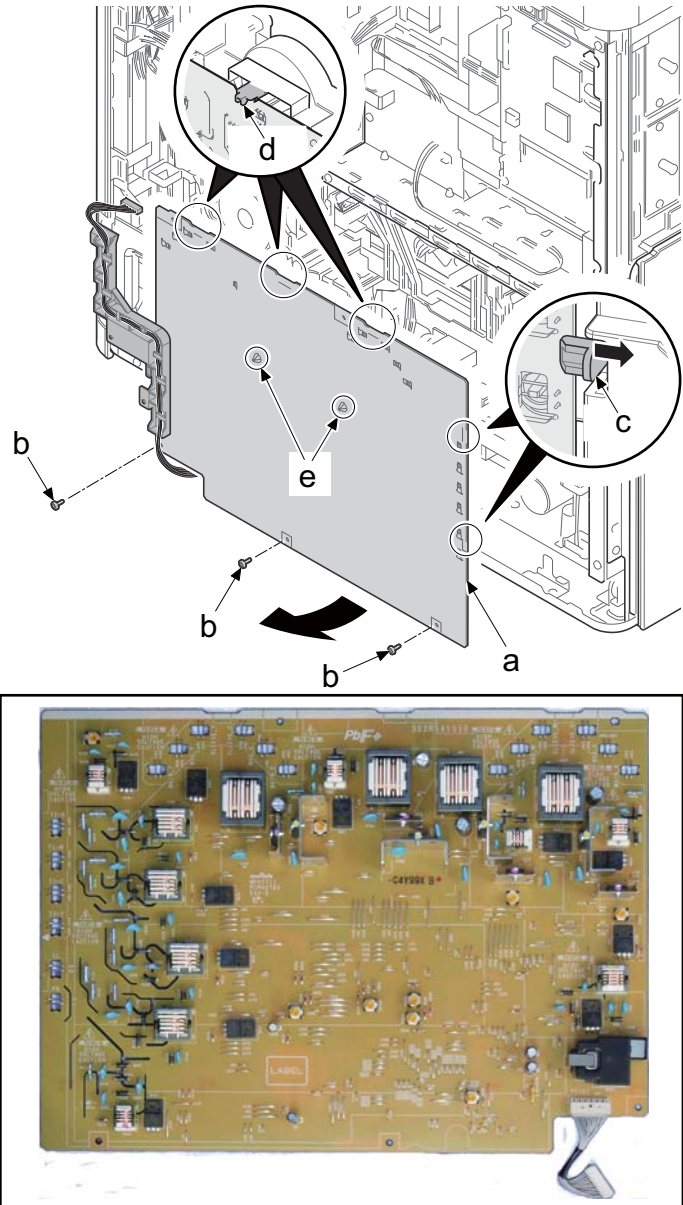
Figure 4-219

14. Disconnect the fan connector (a).
15. Remove two screws (b)(M3x8).
16. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).
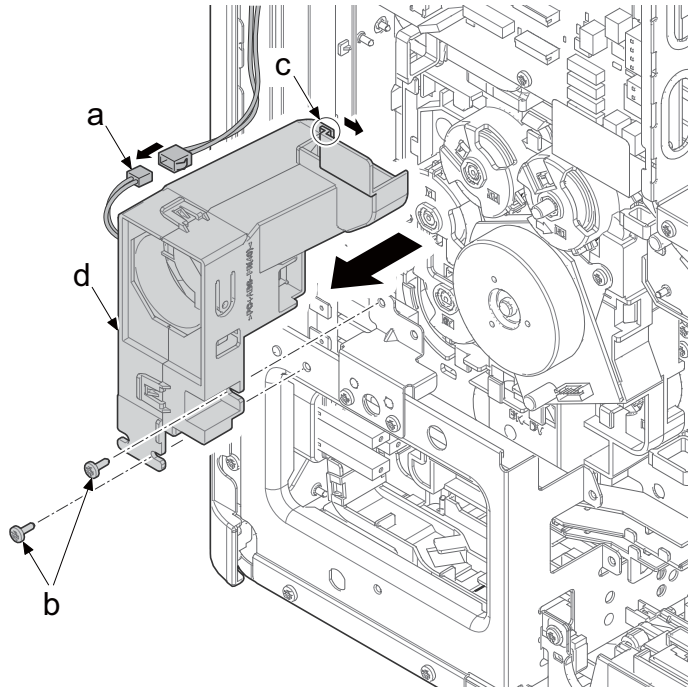
Figure 4-220

17. Disconnect all the connectors from the engine PWB (b).
18. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
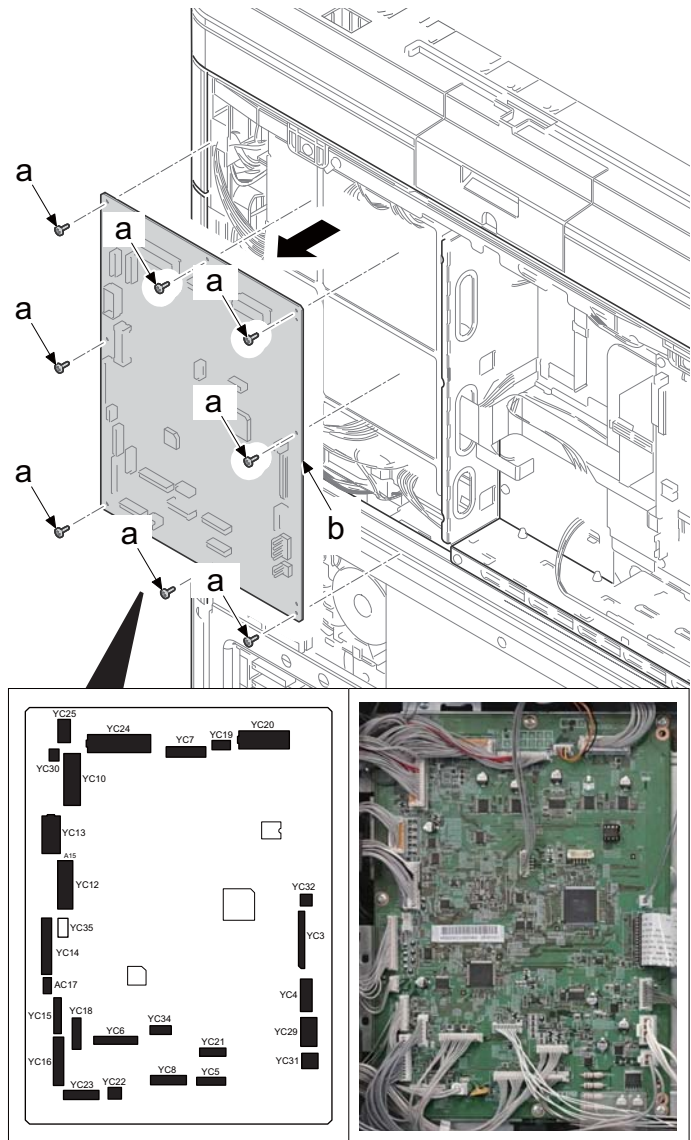
Figure 4-221

19. Remove the wire (b) from the wire sad-
    dle (a).
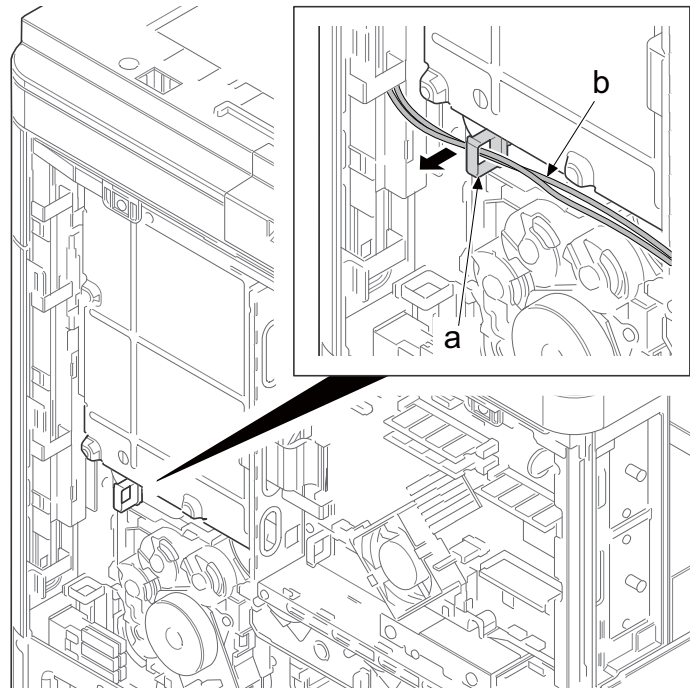
Figure 4-222

20. Remove five screws (a)(M3x8).
21. Release two hooks (b) with the flat-
    blade screwdriver (c) and remove the
    engine PWB mounting plate (d) in the
    direction of the arrow.

Figure 4-223

22. Disconnect the connector (a).
23. Remove two screws (b)(M3x8) and remove the transfer motor (c) in the direction of the arrow.
24. Check the transfer motor (c) and clean or replace it.
25. Reattach the parts in the original position.

IMPORTANT

Apply grease as below to the drive gears when replacing them.
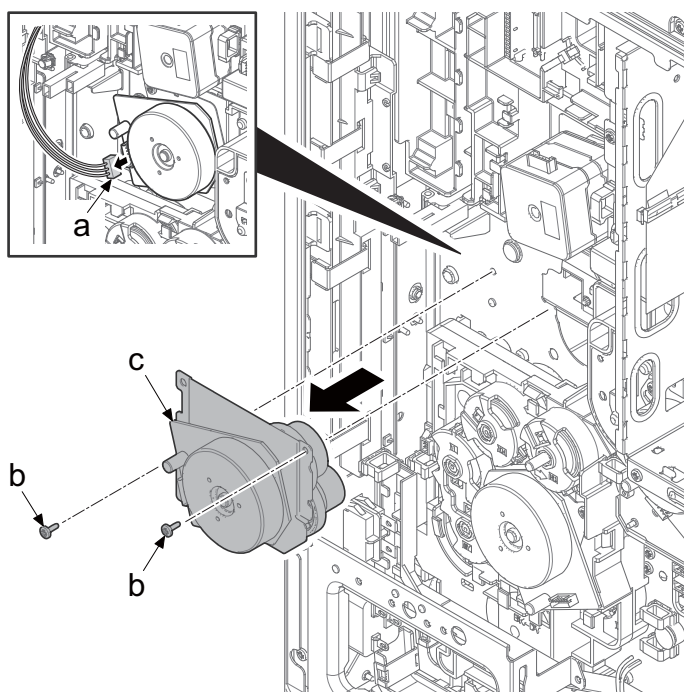
Figure 4-224

(3-6) Detaching and reattaching the transfer motor (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-225

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
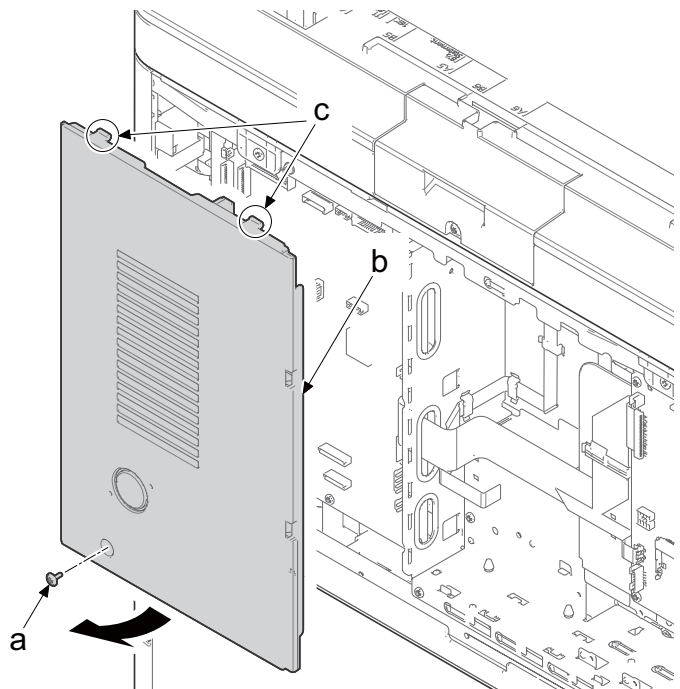
Figure 4-226

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.

Figure 4-227

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.

Figure 4-228

4-161
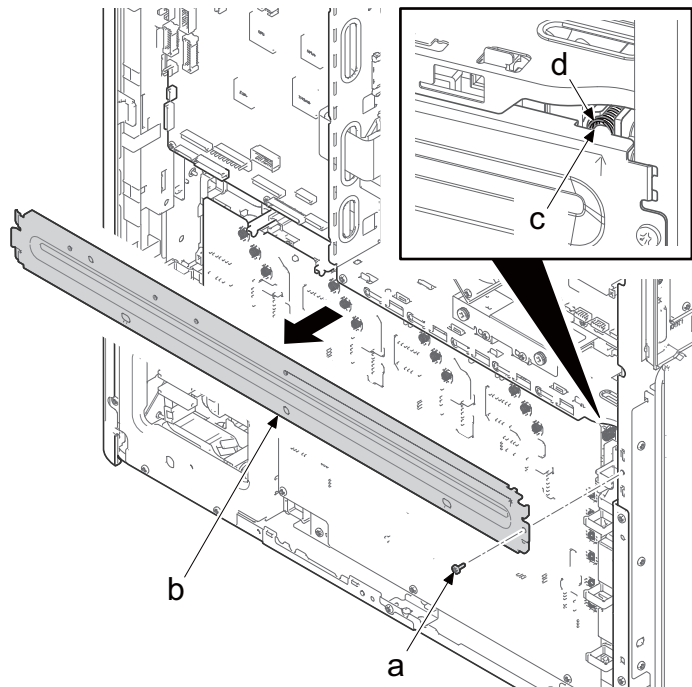
7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
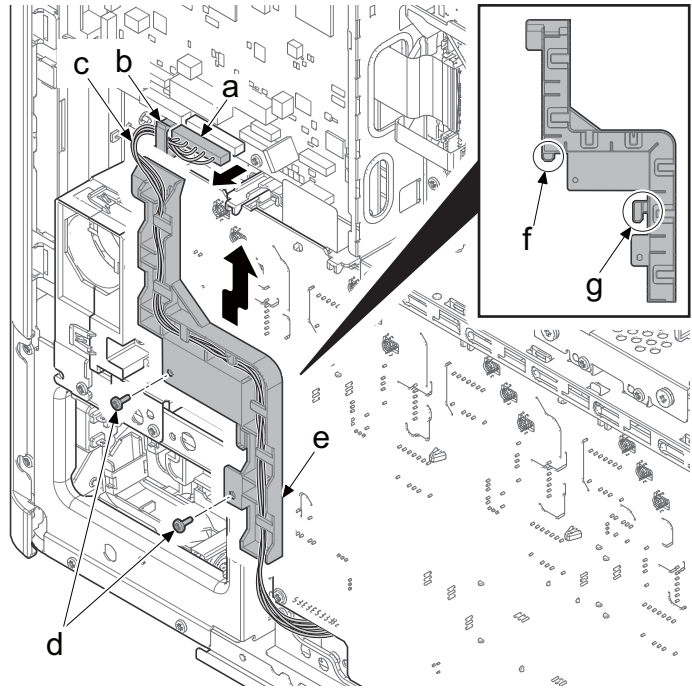
Figure 4-229

10. Remove four screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Rotate the high voltage PWB (e) making the four hooks (d) into a fulcrum and detach it.

Figure 4-230

4-163
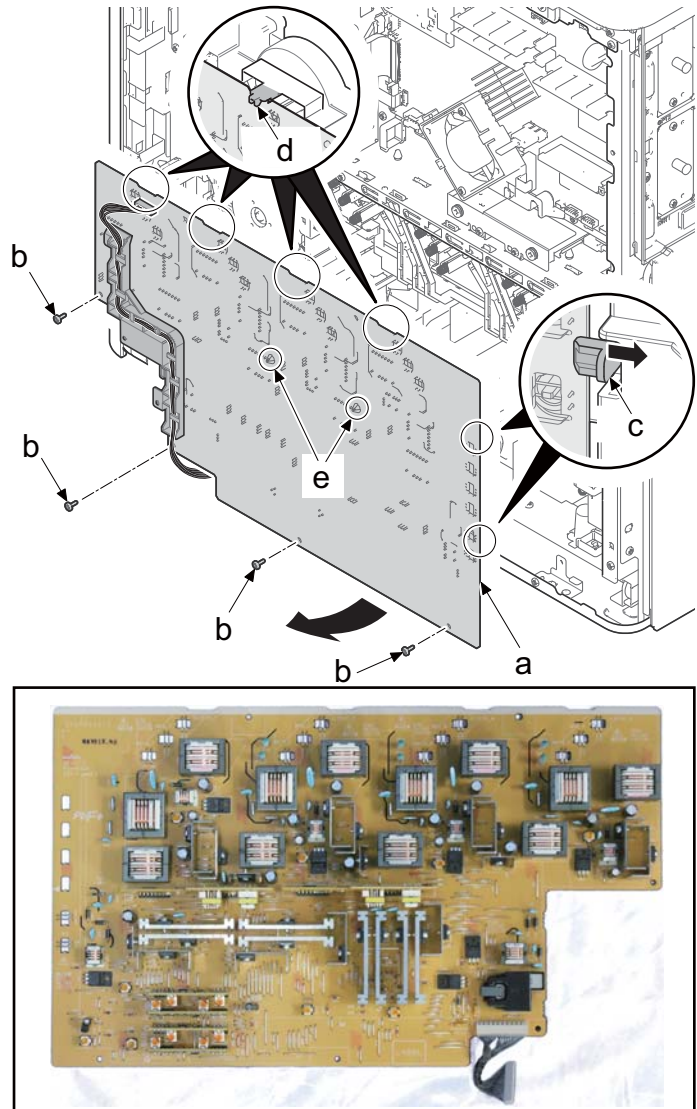
14. Disconnect the fan connector (a).
15. Remove two screws (b)(M3x8).
16. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).

Figure 4-231

17. Disconnect all the connectors from the engine PWB (b).

18. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
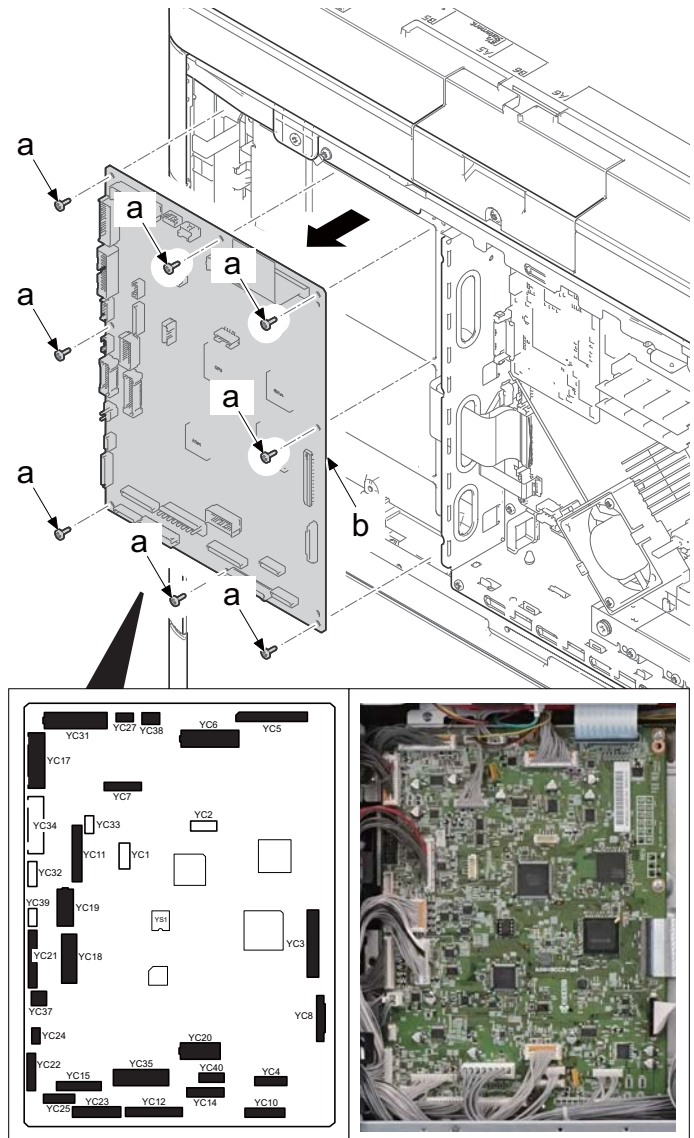
Figure 4-232

Notes when detaching
In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
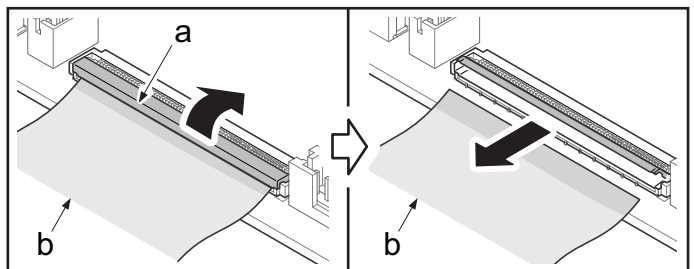
Figure 4-233

19. Remove the wire (b) from the wire saddle (a).

Figure 4-234

20. Remove five screws (a)(M3x8).
21. Release two hooks (b) with the flat-blade screwdriver (c) and remove the engine PWB mounting plate (d) in the direction of the arrow.

Figure 4-235

22. Disconnect the connector (a).
23. Remove three screws (b)(M3x8) and remove the transfer motor (c) in the direction of the arrow.
24. Check the transfer motor (c) and clean or replace it.
25. Reattach the parts in the original position.

IMPORTANT

Apply grease as below to the drive gears when replacing them.
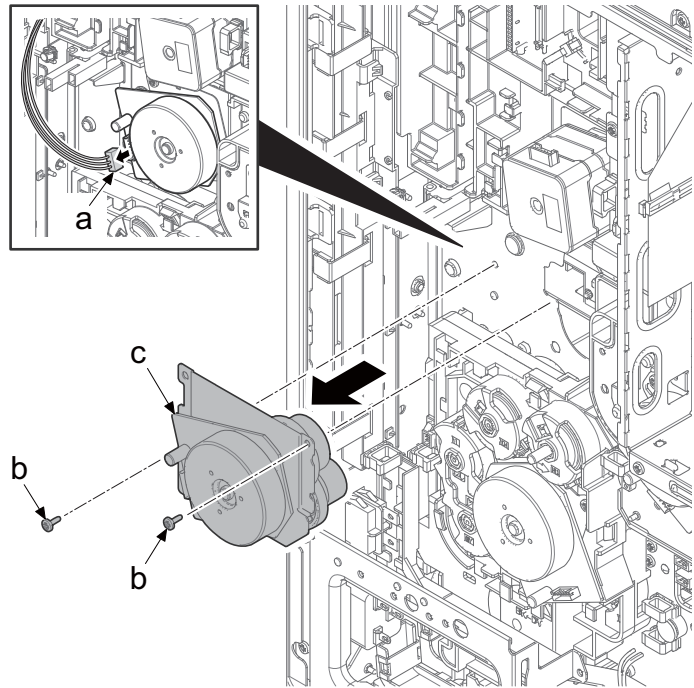
Figure 4-236

(3-7) Detaching and reattaching the toner supply drive unit (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-237

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.

Figure 4-238

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.

Figure 4-239

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).
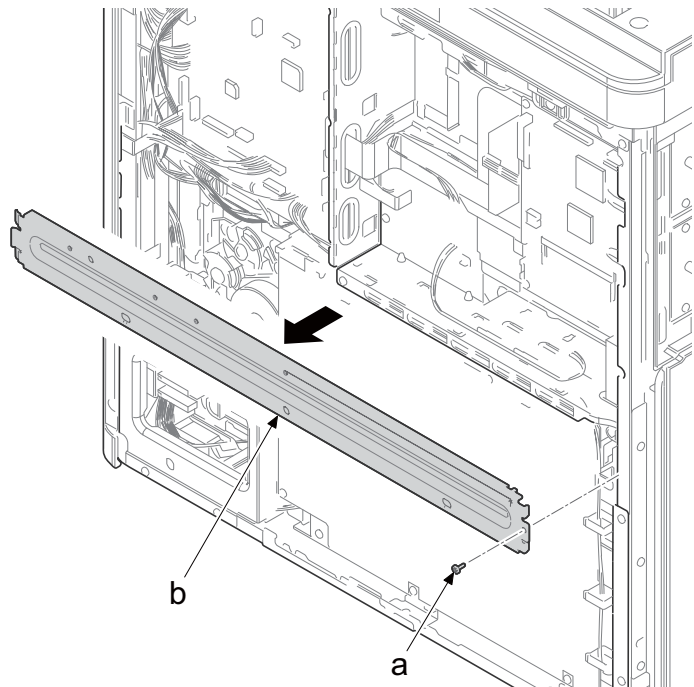
Figure 4-240

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).

Figure 4-241

10. Remove three screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Detach the high voltage PWB (a) while rotating it in the direction of the arrow making three hooks (d) as fulcrum.
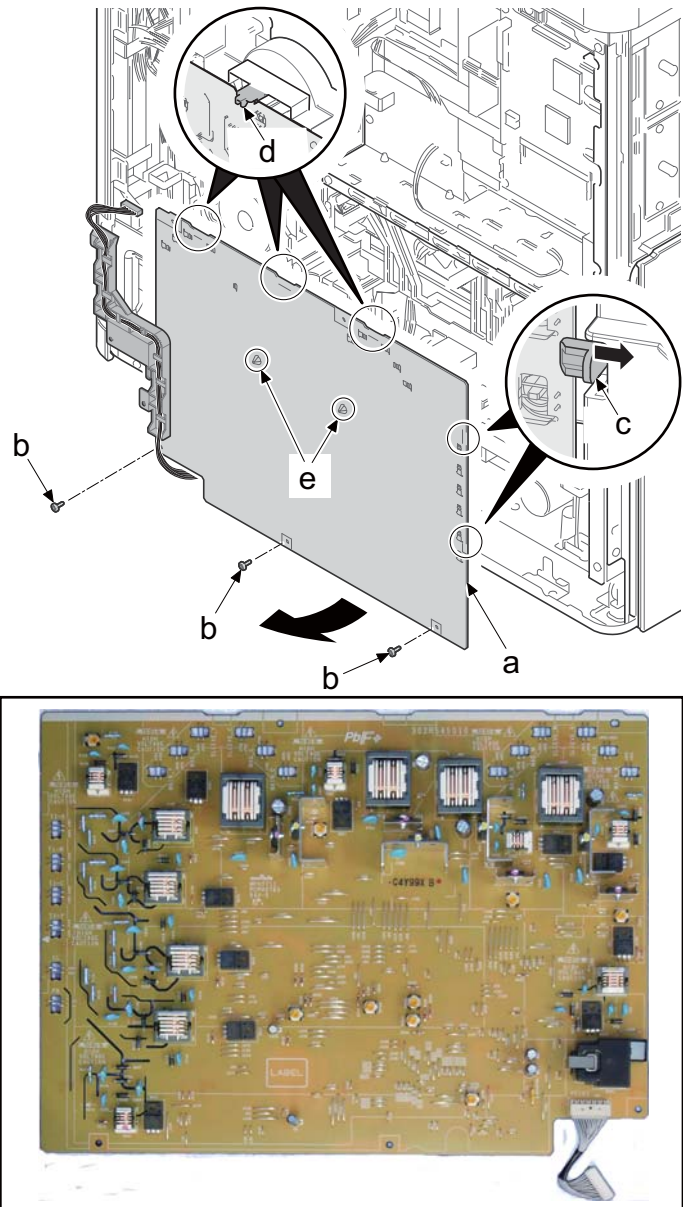
Figure 4-242

14. Disconnect the fan connector (a).
15. Remove two screws (b)(M3x8).
16. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).

Figure 4-243

17. Disconnect all the connectors from the engine PWB (b).
18. Remove eight screws (a)(M3x8) and remove the engine PWB (b).

Figure 4-244

19. Remove the screw (a)(M3x8).
20. Release the hook (b) in the direction of the arrow and remove the left controller cover (c) in the direction of the arrow.
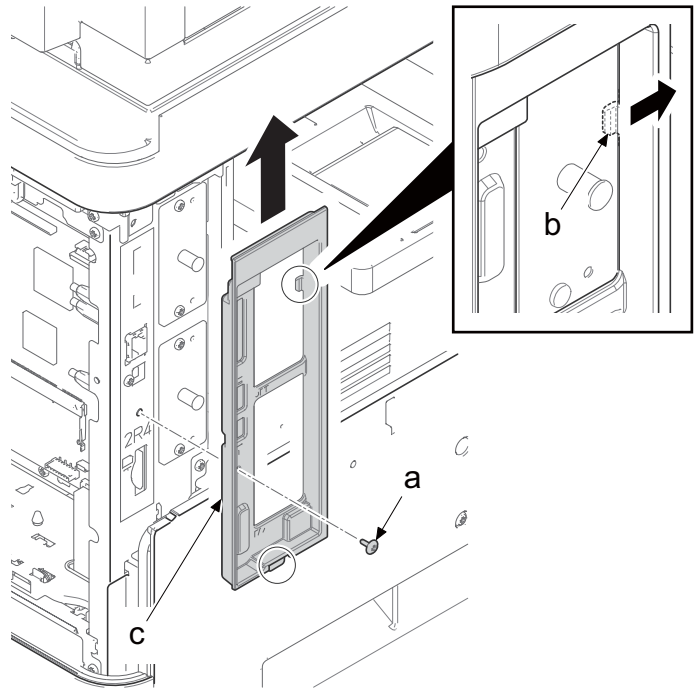
Figure 4-245

21. Remove the wire (a) from the hook (b).
22. Remove two screws (c)(M3x8).
23. Remove the fan connector (d) and remove the controller fan assembly (e).
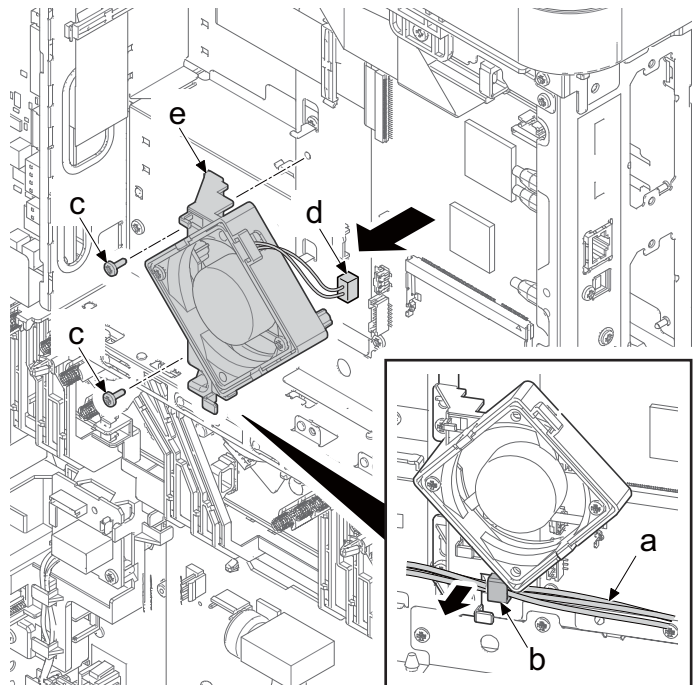
Figure 4-246

24. Disconnect all the connectors from the main PWB (a).
25. Remove six screws (b)(M3x8) and remove the main PWB (a).

a

b

b

b

b

b

YC2014
YC2001
YC6003
YC2011
YC2002
YC2007
YC6004
YC2004
YC2003
YC2009
YC2008
YC19
YC6001
YC2000
YC6002
YC2005
YC2006
YC5
YC2016
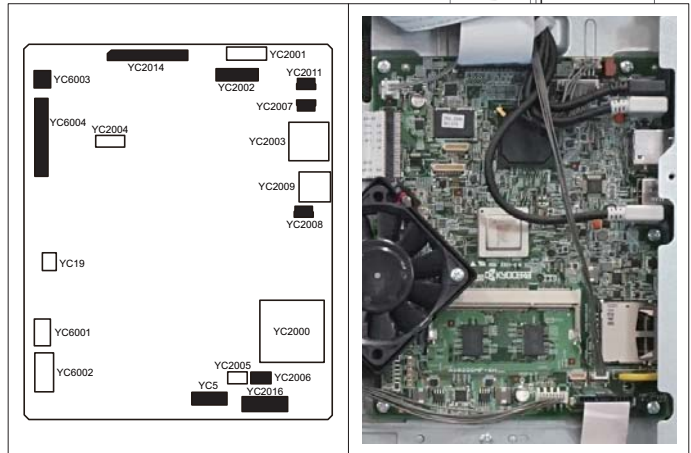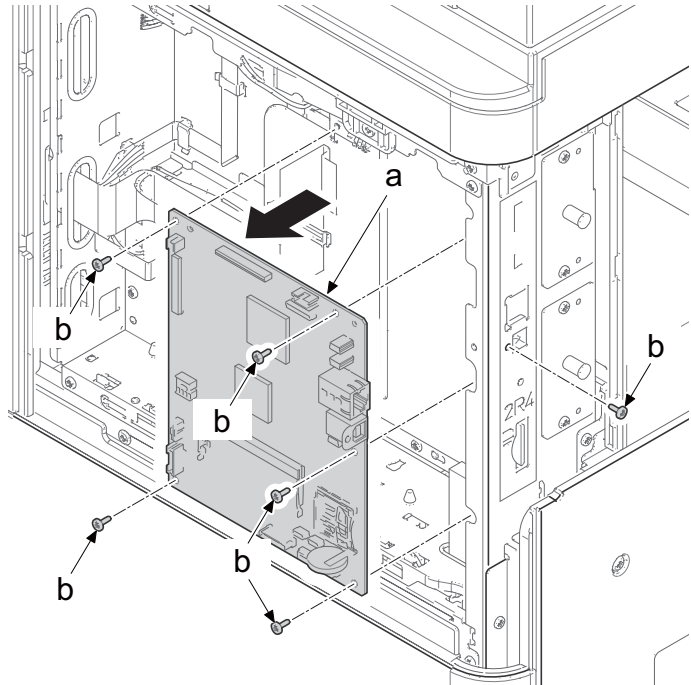
Figure 4-247

26. Remove the wire (b) from the wire saddle (a).
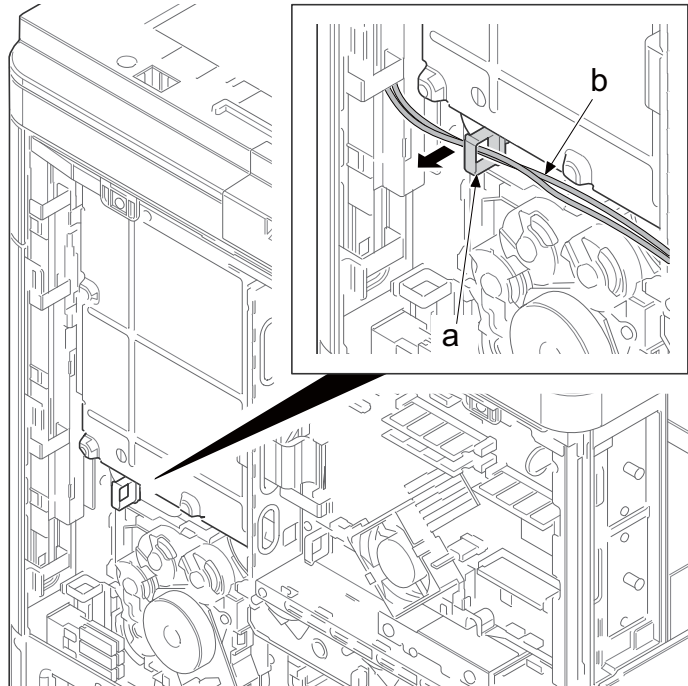
Figure 4-248

27. Remove five screws (a)(M3x8).
28. Release two hooks (b) with the flat-blade screwdriver (c) and remove the engine PWB mounting plate (d) in the direction of the arrow.

Figure 4-249

2R4/2R5/2R6
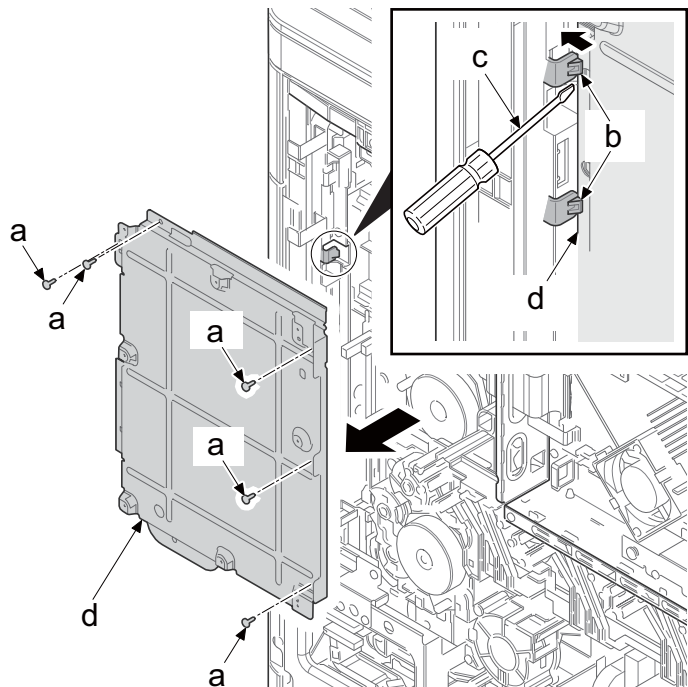
29. Remove the holder (a) and remove FFC (b).
30. Remove four screws (c)(M3x8) and remove the main PWB holder plate (d).
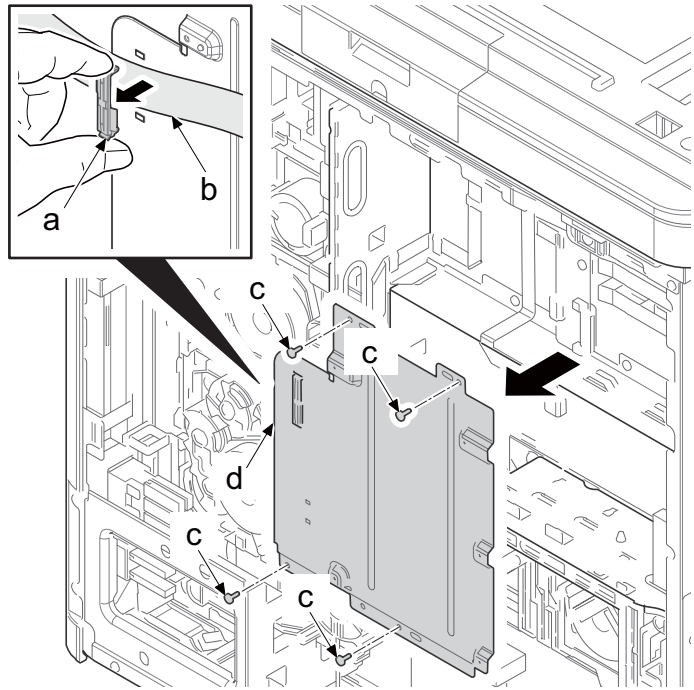
Figure 4-250

31. Remove the wire (a) from the three wire saddles (b).
32. Remove five screws (c)(M3x8) and remove the controller frame (d).
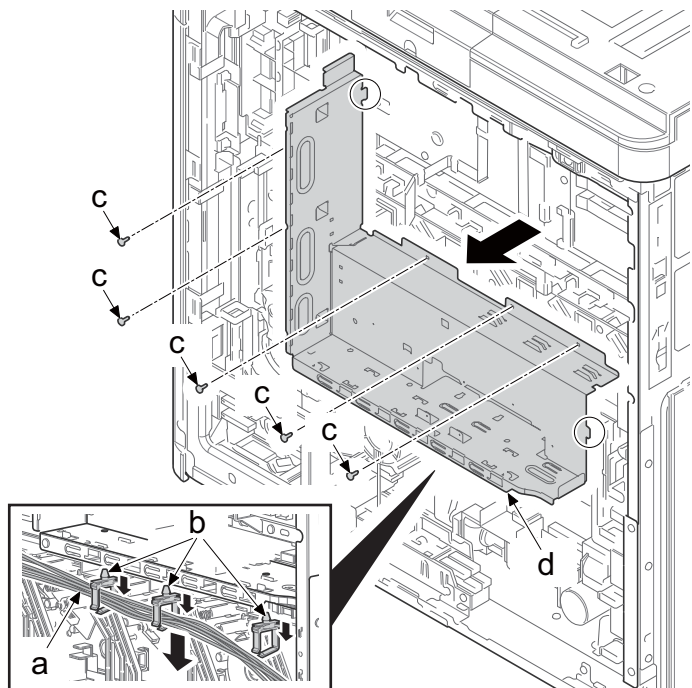
Figure 4-251

33. Remove the wire (b) from the wire saddle (a).
34. Disconnect four connectors (c).
35. Remove four screws (d)(M3x8) and remove the toner supply drive unit (e).
36. Check the toner supply drive unit (e) and clean or replace it.
37. Reattach the parts in the original position.
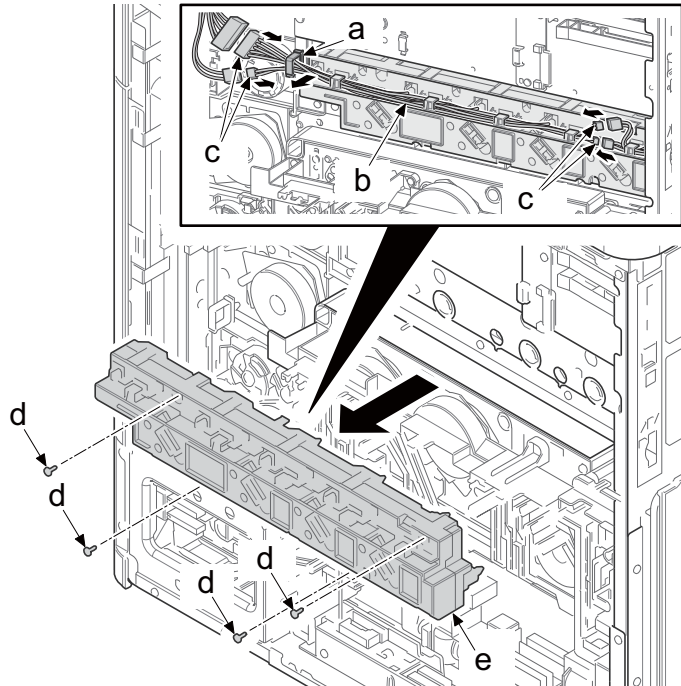
Figure 4-252

(3-8) Detaching and reattaching the toner supply drive unit (35/40 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-253

2. Remove the screw (a)(M3x8).
3. Detach the rear right cover (b) while rotating it in the direction of the arrow making two hooks (c) as a fulcrum.
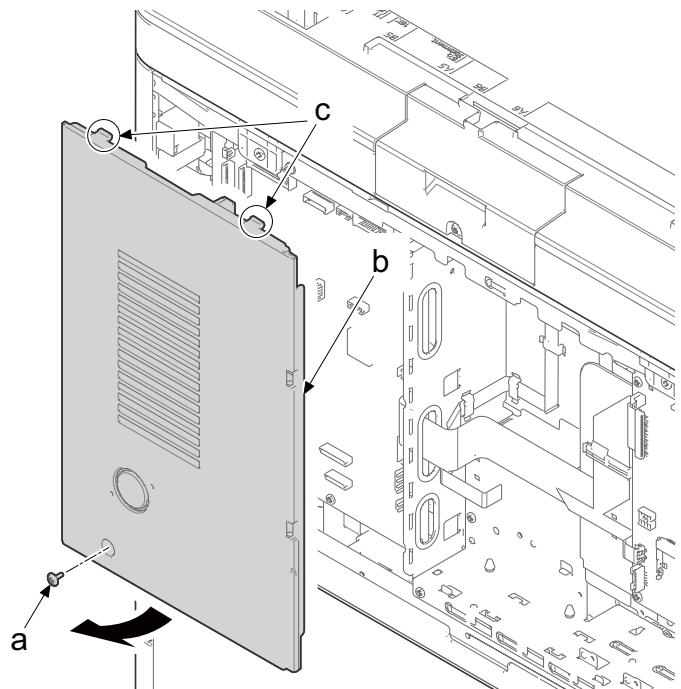
Figure 4-254

4. Remove the screw (a)(M3x8).
5. Release three hooks (c) of the rear lower cover (b) and detach it in the direction of the arrow.

Figure 4-255

6. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.
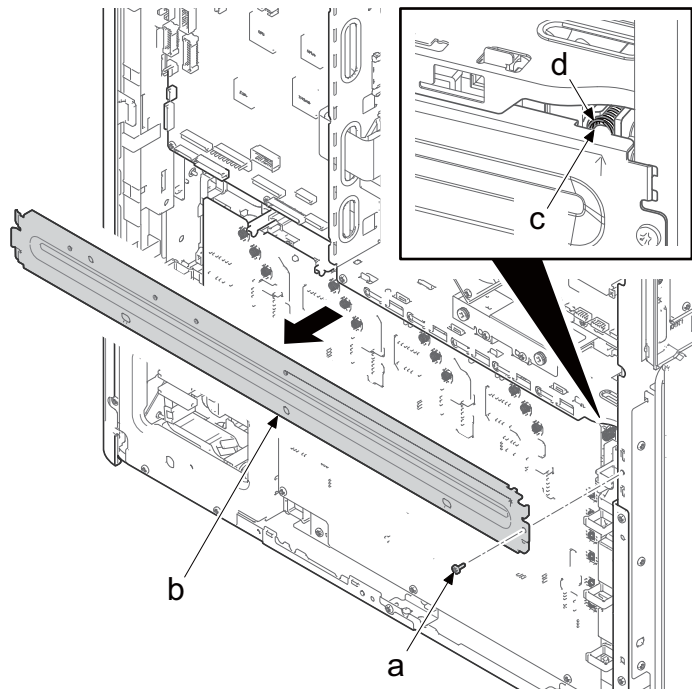
Figure 4-256

7. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
8. Remove two screws (d)(M3x8).
9. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).

Figure 4-257

10. Remove four screws (b)(M3x8).
11. Release two board supports (e).
12. Release two hooks (c).
13. Rotate the high voltage PWB (e) making the four hooks (d) into a fulcrum and detach it.
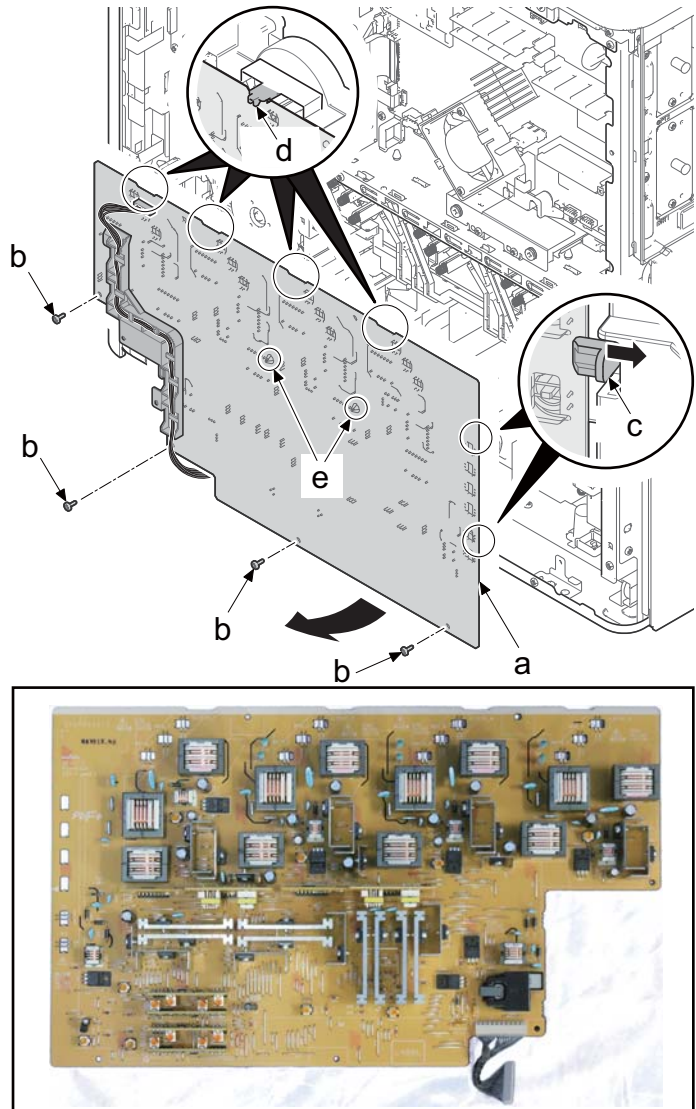
Figure 4-258

14. Disconnect the fan connector (a).
15. Remove two screws (b)(M3x8).
16. Slide the hook (c) in the direction of the arrow and remove the clutch fan assembly (d).

Figure 4-259

17. Disconnect all the connectors from the engine PWB (b).
18. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
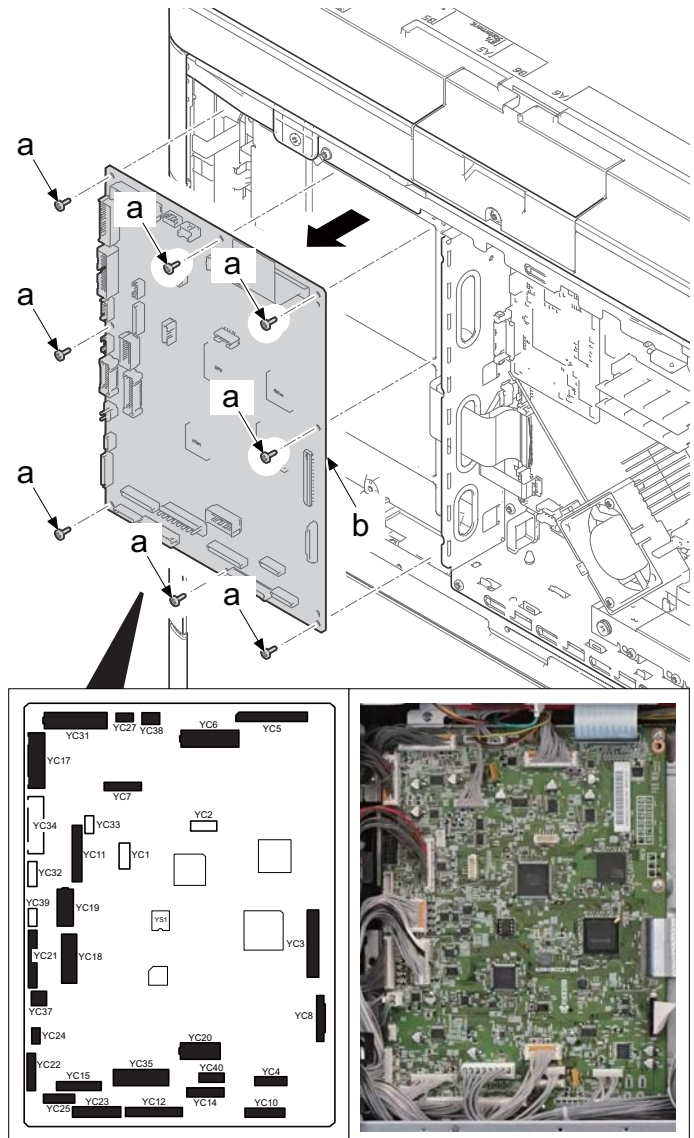
Figure 4-260

Notes when detaching
In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
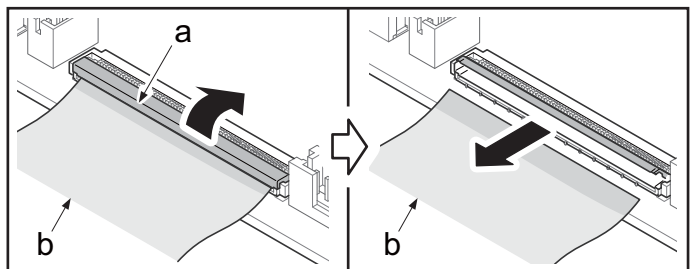
Figure 4-261

19. Remove the HDD wire (a) from the three hooks (b).
20. Disconnect the fan connector (c).
21. Remove two screws (d)(M3x8) and remove the fan holder (e).
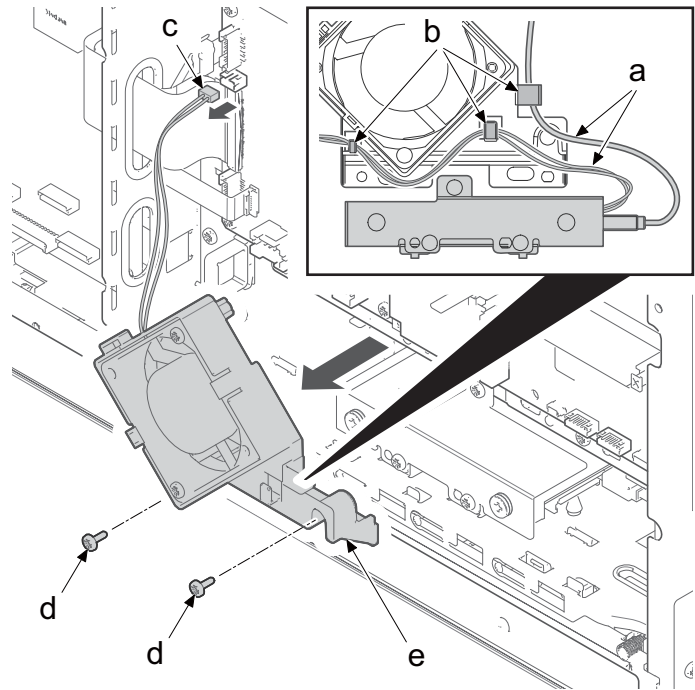
Figure 4-262

22. Remove the screw (a)(M3x8).
23. Release the hook (b) in the direction of the arrow and remove the left controller cover (c).
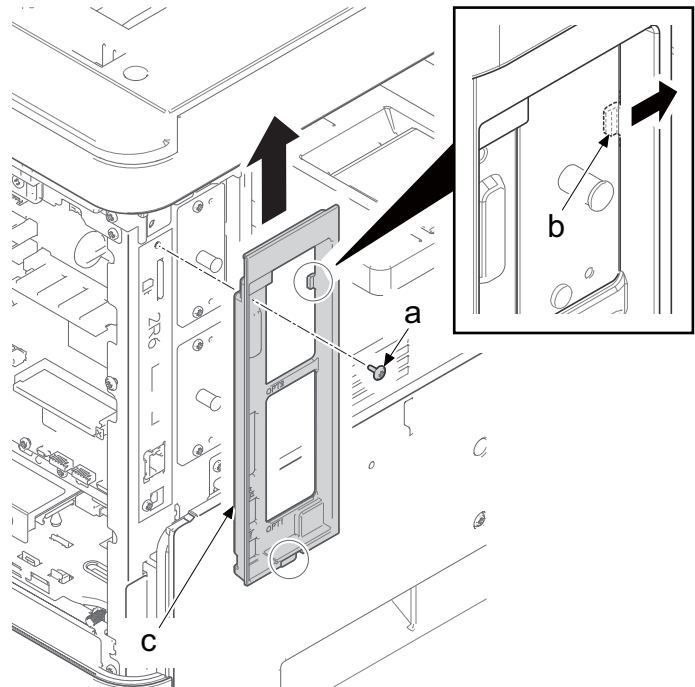
Figure 4-263

24. Disconnect all the connectors from the main PWB (a).
25. Remove nine screws (b)(M3x8) and remove the main PWB (a).
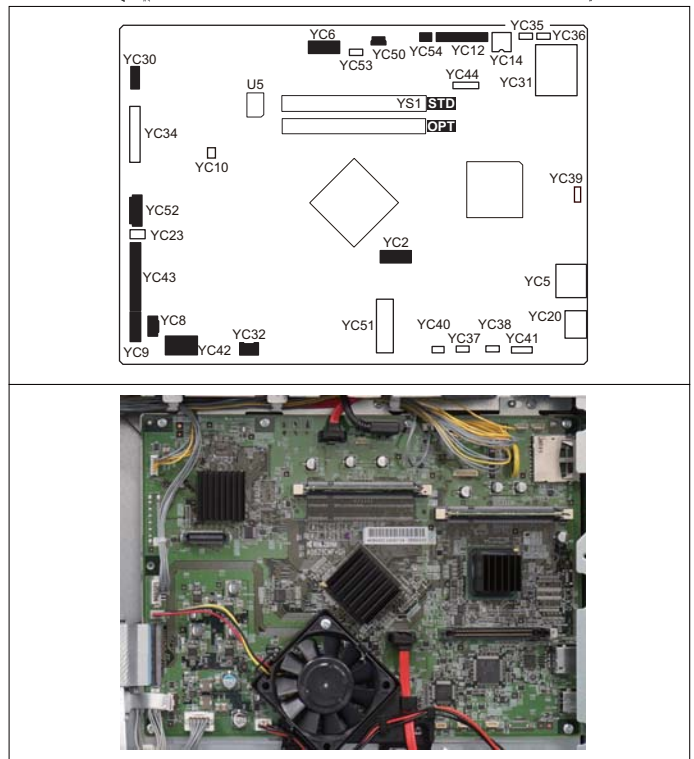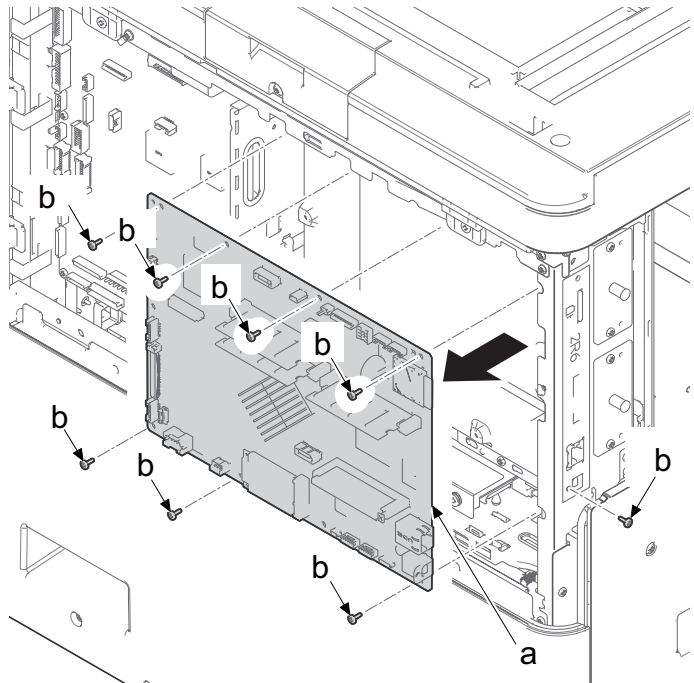
Figure 4-264

Notes when detaching
In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
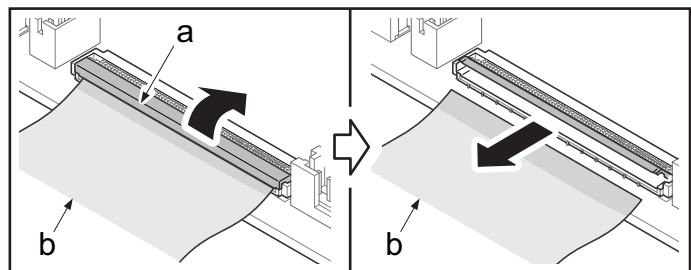
Figure 4-265

26. Remove the wire (b) from the wire saddle (a).
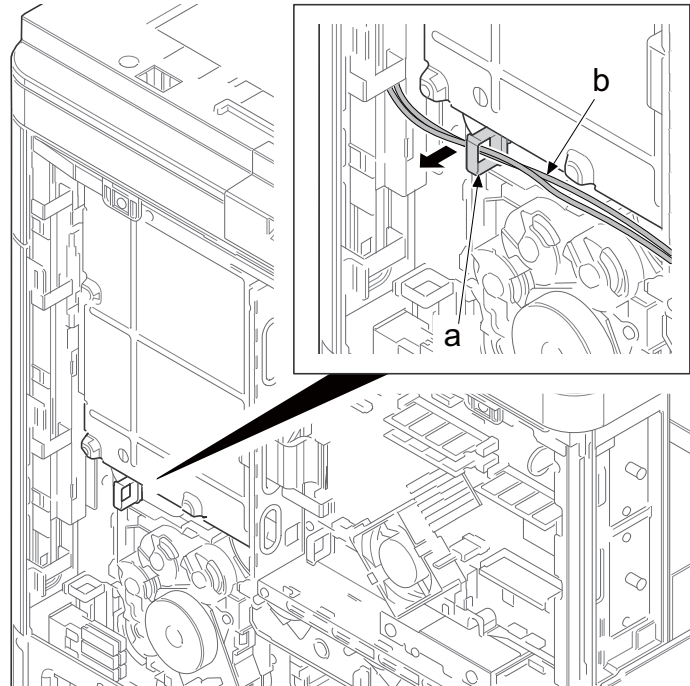
Figure 4-266

27. Remove five screws (a)(M3x8).
28. Release two hooks (b) with the flat-blade screwdriver (c) and remove the engine PWB mounting plate (d) in the direction of the arrow.
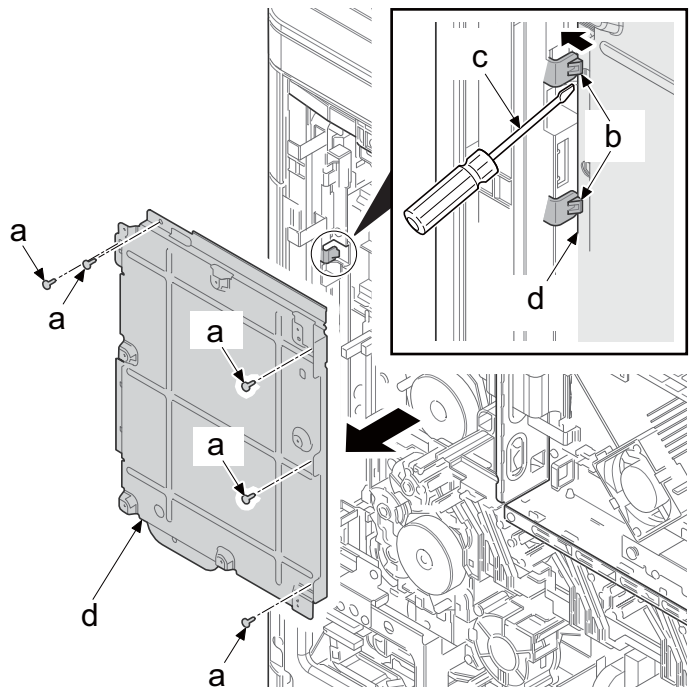
Figure 4-267

29. Remove four screws (a)(M3x8) and remove the main PWB holder plate (b).
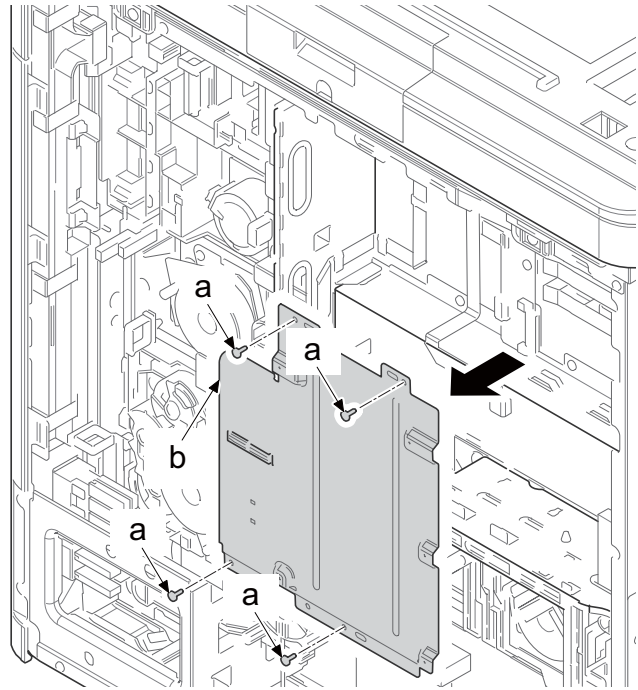
Figure 4-268

30. Remove the wire (a) from the three wire saddles (b).
31. Remove five screws (c)(M3x8) and remove the controller frame (d).
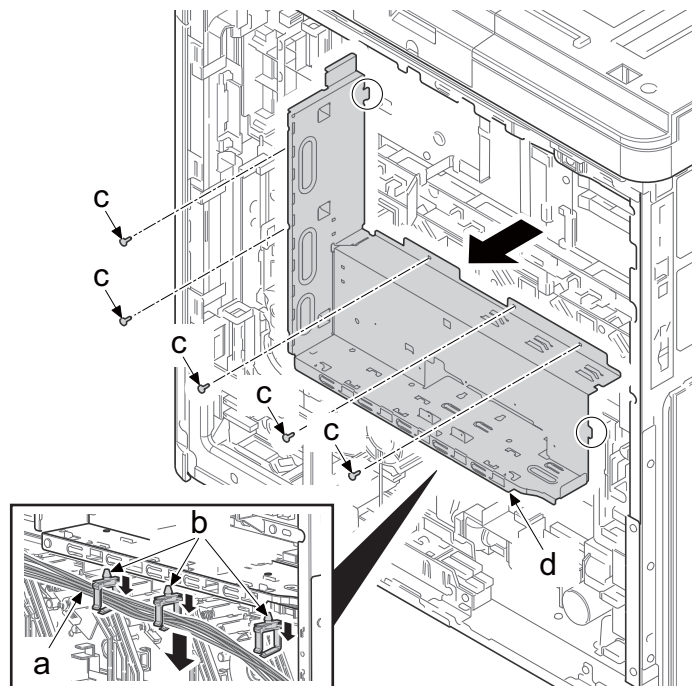
Figure 4-269

32. Remove the wire (b) from the wire saddle (a).
33. Disconnect four connectors (c).
34. Remove four screws (d)(M3x8) and remove the toner supply drive unit (e).
35. Check the toner supply drive unit (e) and clean or replace it.
36. Reattach the parts in the original position.
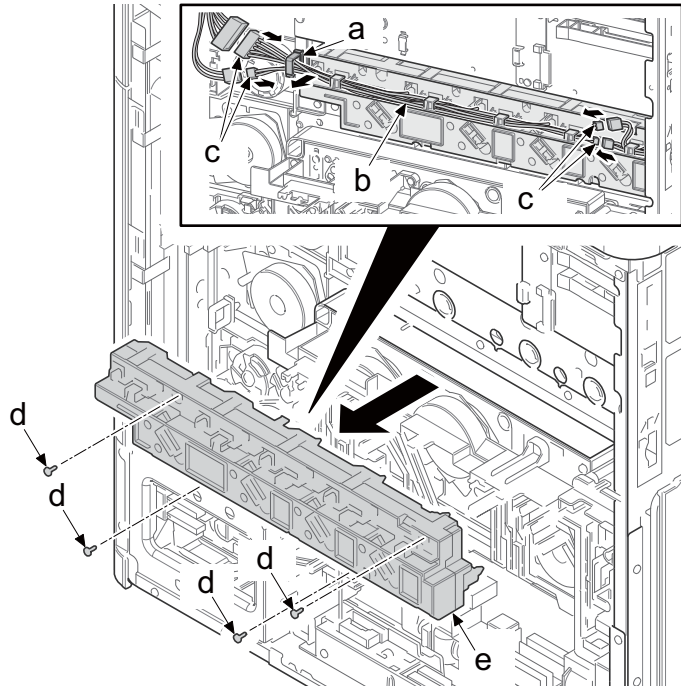
Figure 4-270

(4) Others

(4-1) Detaching and reattaching the SSD: 35 ppm model only

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
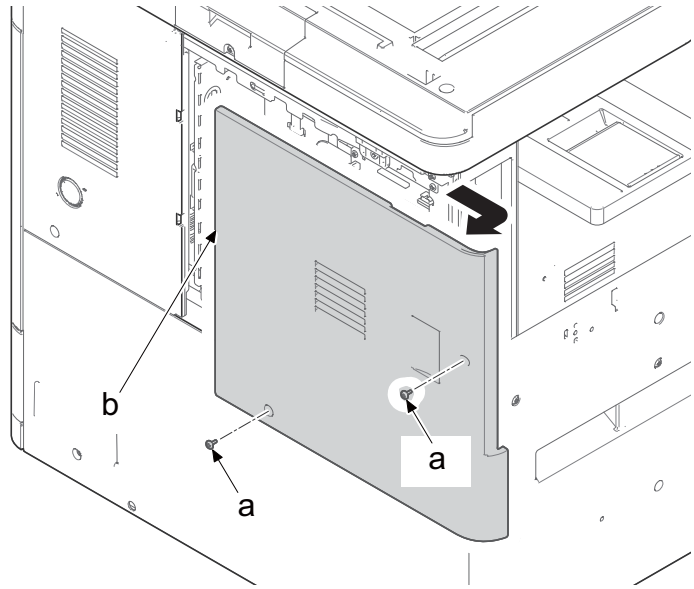
Figure 4-271

2. Disconnect the fan connector (a).
3. Remove two screws (b)(M3x8) and remove the fan holder (c).
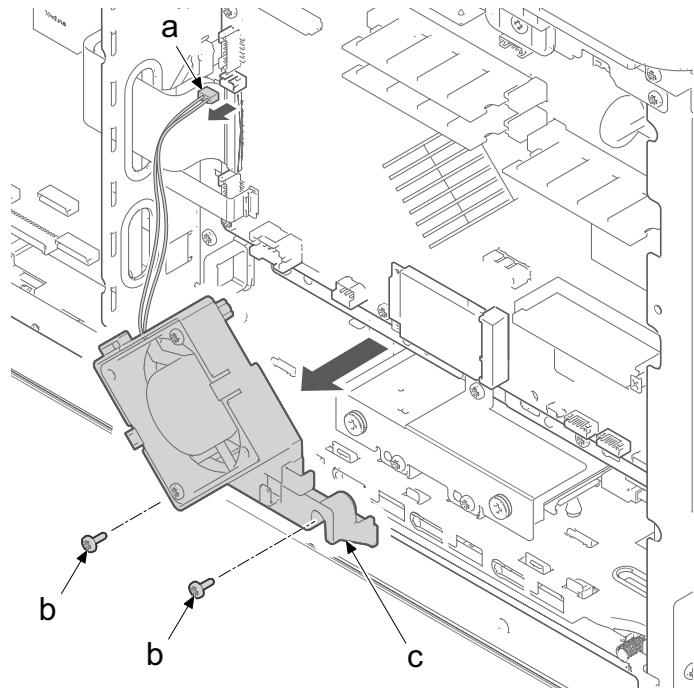
Figure 4-272

4. Remove the screw (a)(M3x8).
5. Remove the SSD (b) from the connector (c).
 *: Use a Phillips 1 screwdriver and take care not to damage the screws.

IMPORTANT
To avoid damage when attaching the SSD (b), align the screw hole (d) to the positioning boss (e).

 *: When replacing the SSD, execute U917 (See page 6-417) to backup internal data (address book).
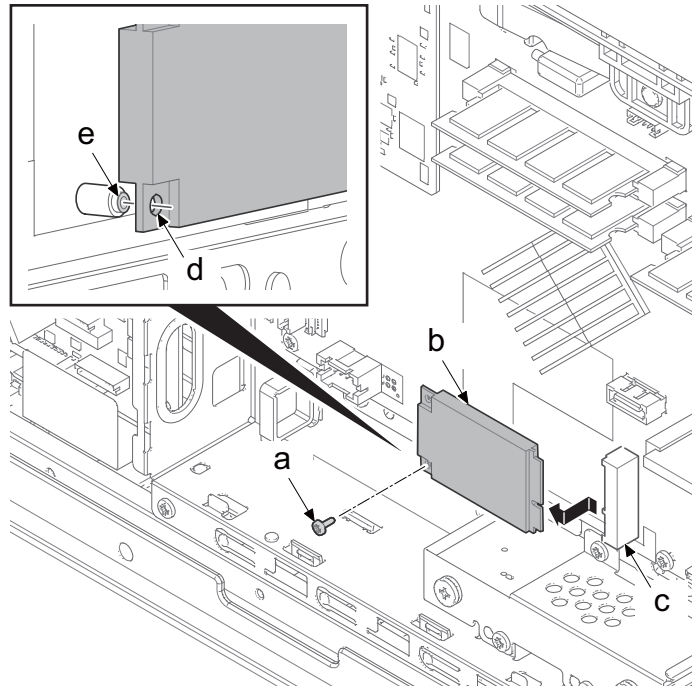
Figure 4-273

(4-2) Detaching and reattaching the hard disk: 35/40 ppm model only

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
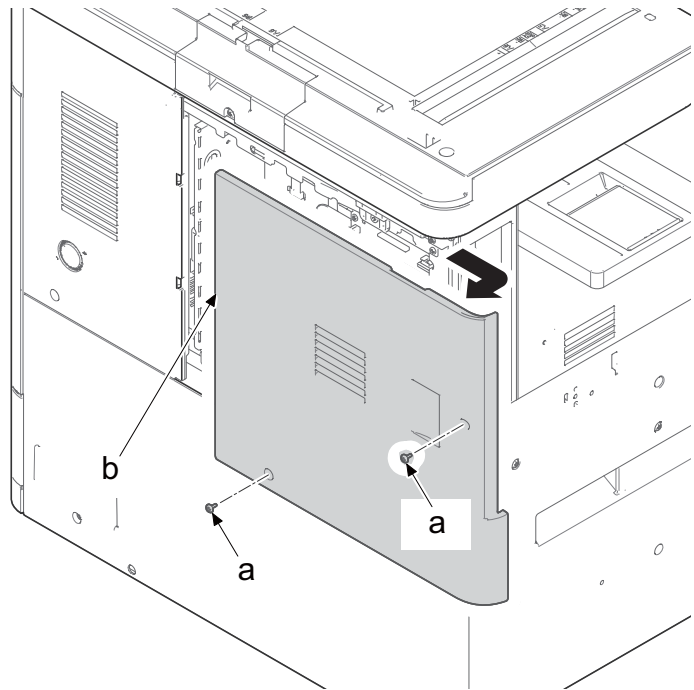
Figure 4-274

2. Disconnect two connectors (a).
3. Remove three screws (b)(M3x8) and remove the hard disk (c).
4. Check the hard disk (c) and clean or replace it.
5. Reattach the parts in the original position.

*: Execute maintenance mode U024 (See page 6-222) when formatting a new HDD.
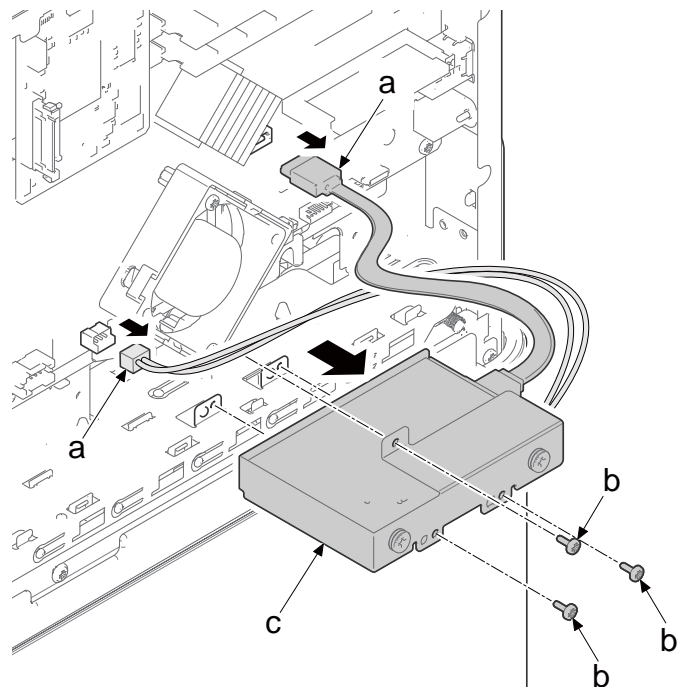
Figure 4-275

(4-3) Detaching and reattaching the lift motor

Procedures

1. Pull out the cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
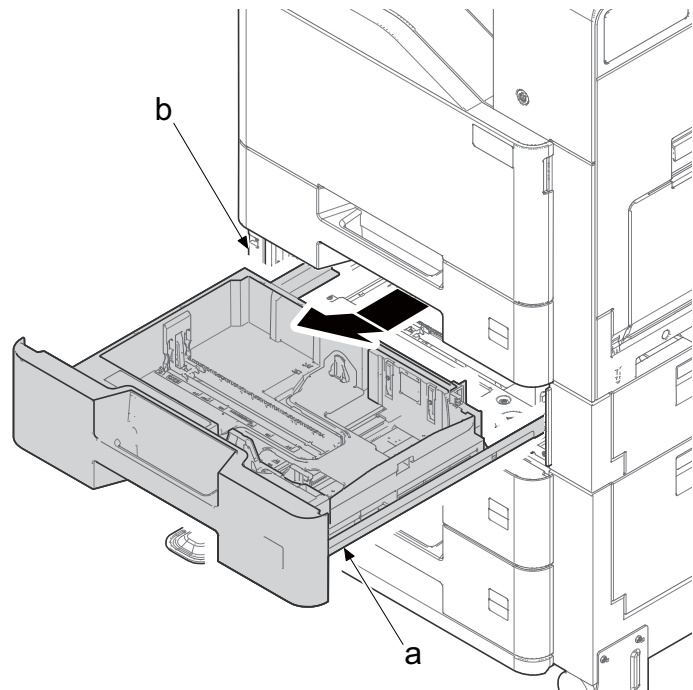
Figure 4-276

2. Pinch the lock lever (a) and pull the primary paper feed unit (c) from the paper feeder (b).
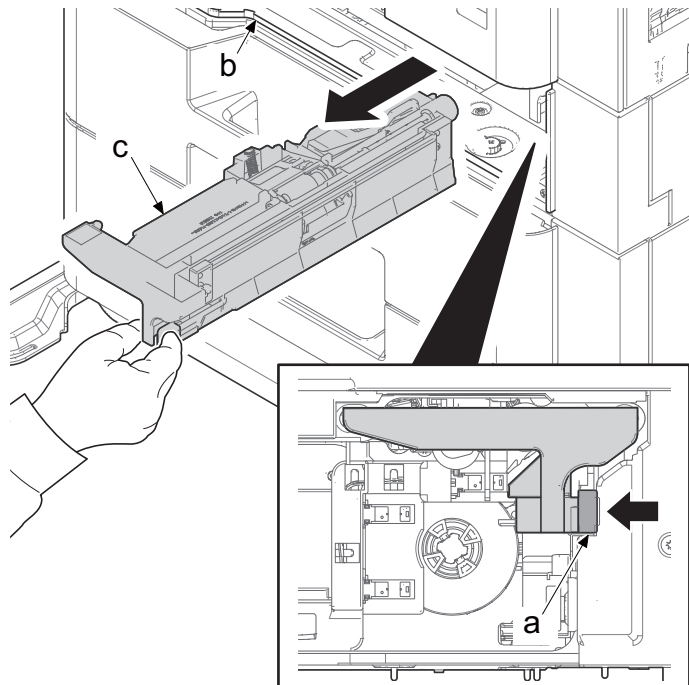
Figure 4-277

3. Remove the connector (a) and two screws (b)(M3x8).
4. Release the hook (d) from the square hole (c) of the side frame and remove the sensor holder (e).
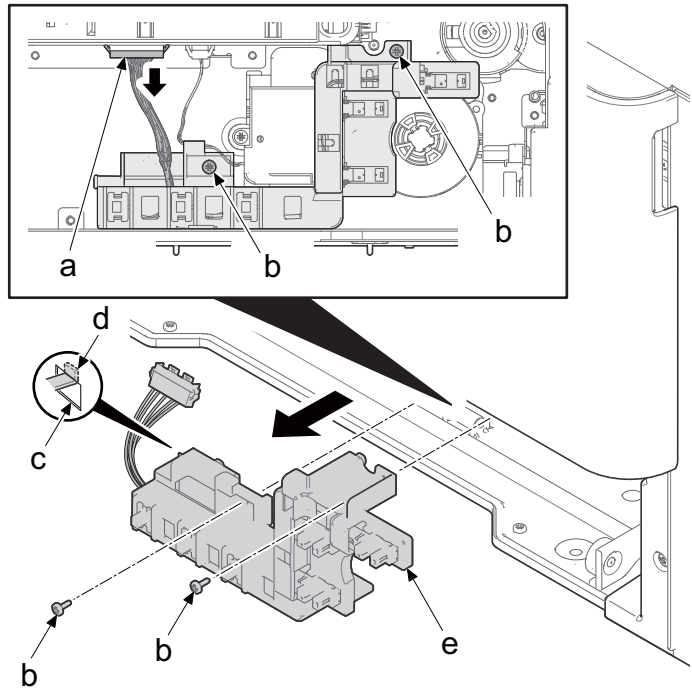
Figure 4-278

5. Remove the connector (a) and two screws (b)(M3x8).
6. Release the hook (d) from the square hole (c) of the side frame and remove the lift motor (e).
7. Check the lift motor (e) and clean or replace it.
8. Reattach the parts in the original position.
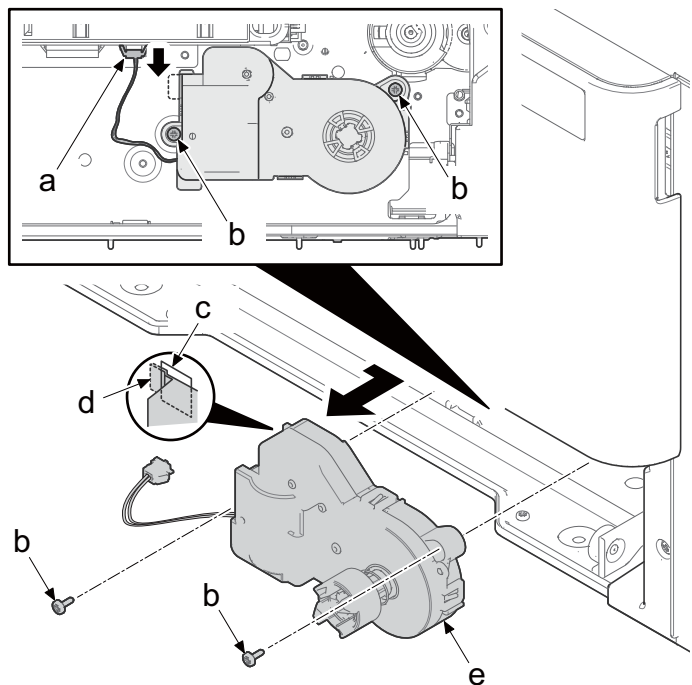
Figure 4-279

(4-4) Detaching and reattaching the eject unit

Procedures

1. Open the right cover (a) of the main unit (b).

Figure 4-280

2. Remove the screw (a)(M3x8) and remove the fuser wire cover (b).
3. Disconnect two connectors (c) of the fuser unit.
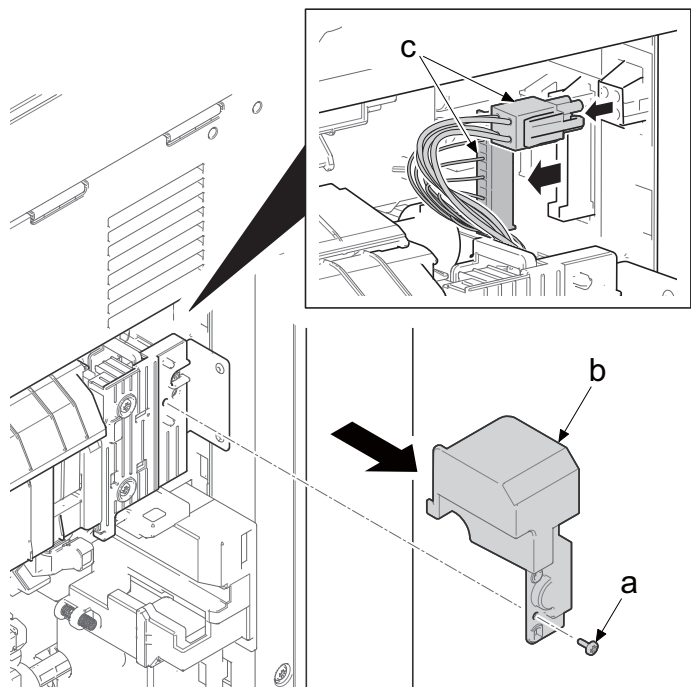
Figure 4-281

4. Remove two screws (a)(M3x8) and remove the fuser unit (b).
5. Attach the new fuser unit.
6. Reattach the parts in the original position.
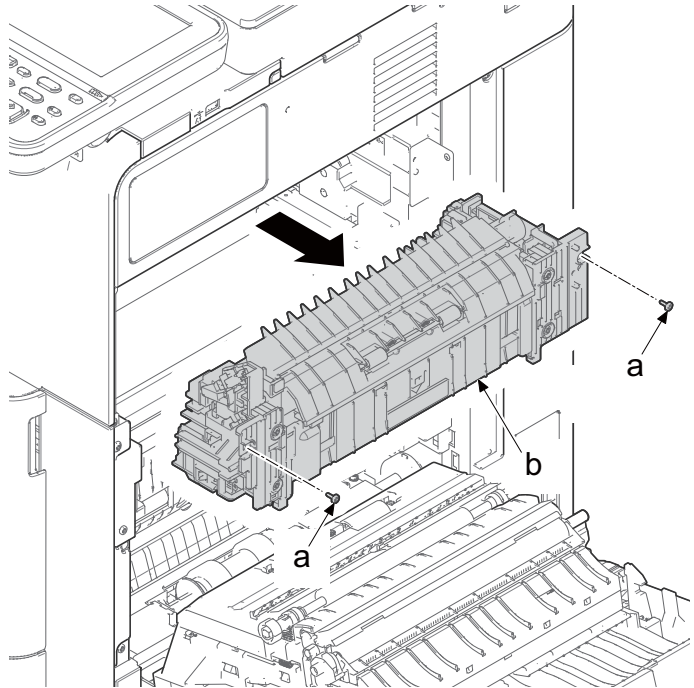
Figure 4-282

7. Remove the screw (a)(M3x8).
8. Slide the right upper cover (b) in the direction of the arrow and detach it.
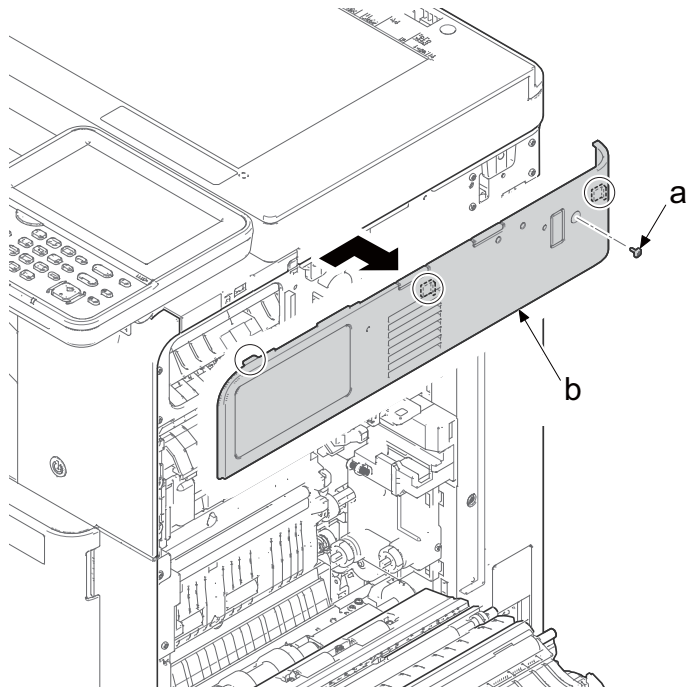
Figure 4-283

9. Disconnect the connector (b) of the eject fan (a).
10. Push the protrusion (c) with a screwdriver tip (d), etc. and release the lock.
11. Slide the eject fan (a) in the direction of the arrow and detach it.
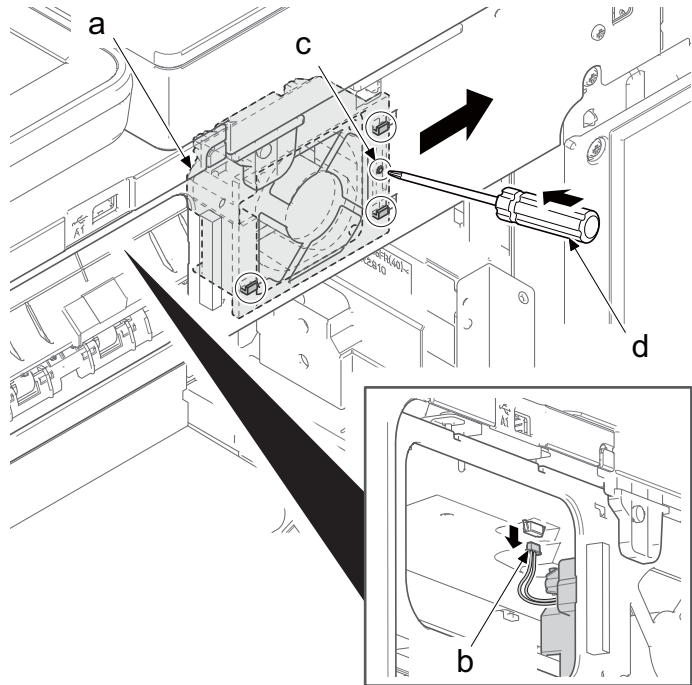
Figure 4-284

12. Disconnect the connector (a) of the eject unit.
13. Remove two screws (b)(M3x8) and detach the eject unit (c).
14. Check the eject unit (c) and clean or replace it.
15. Reattach the parts in the original position.
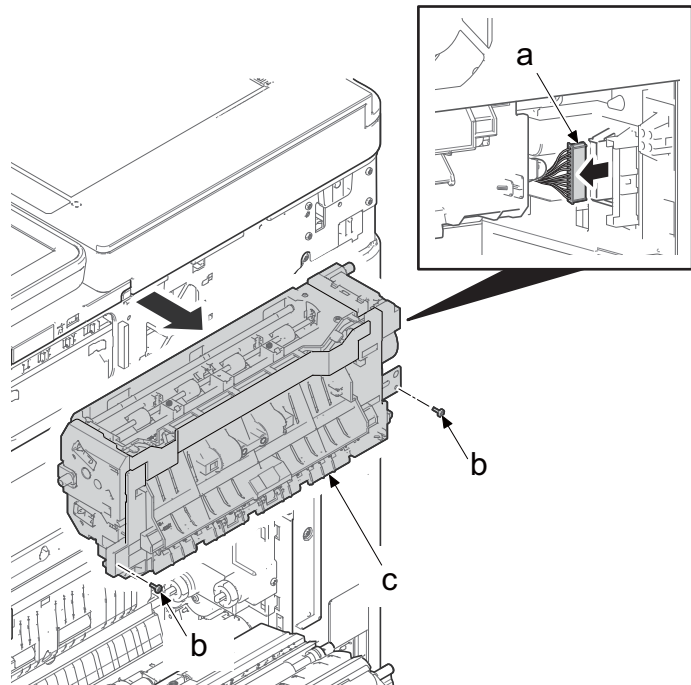
Figure 4-285

(4-5) Replacing the language sheet (30 ppm model)

Procedures

1. Lift up and slide the leading edge of the operation panel cover A (d) with the flat-blade screwdriver (m).
2. Release four hooks (e) and remove the operation panel cover A (d).
3. Release two protrusions (f) and remove the clear panel A (c) from the operation panel (a).
4. Remove the operation panel sheet A (b).
5. Replace the operation panel sheet of the applicable language.
6. Reattach the clear panel A (c) and operation panel cover A (d) in the original position.
7. Remove the panel cover B (i), clear panel B (h) and operation panel sheet B (g) as well.
8. Replace the operation panel sheet of the applicable language and reattach the parts in the original position.
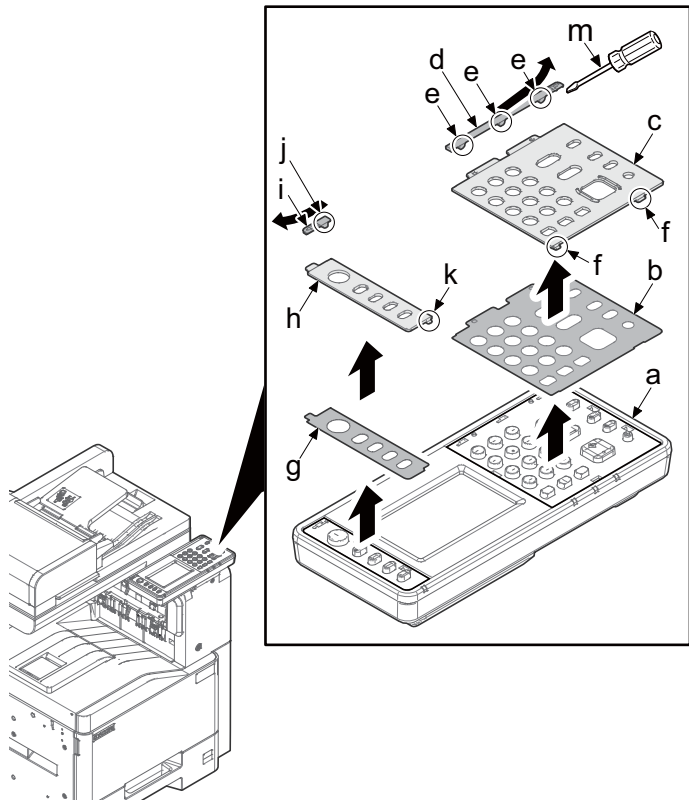
Figure 4-286

(4-6) Replacing the language sheet (35/40 ppm models)

Procedures

1. Lift up and slide the leading edge of the operation panel cover (d) with the flat-blade screwdriver (g).
2. Release four hooks (e) and remove the operation panel cover (d).
3. Release two protrusions (f) and remove the clear panel (c) from the operation panel (a).
4. Remove the operation panel sheet (b).
5. Replace the operation panel sheet of the applicable language.
6. Reattach the clear panel (c) and operation panel cover (d) in the original position.
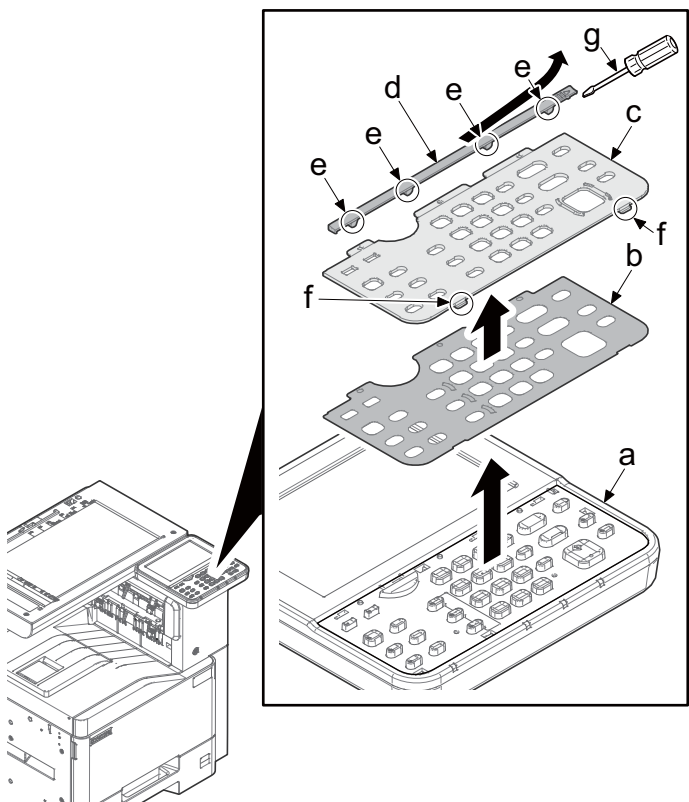
Figure 4-287

(4-7) Fan motor attachment direction

*: When reattaching the fan motor, be aware of the attachment direction (intake/exhaust).

30 ppm models
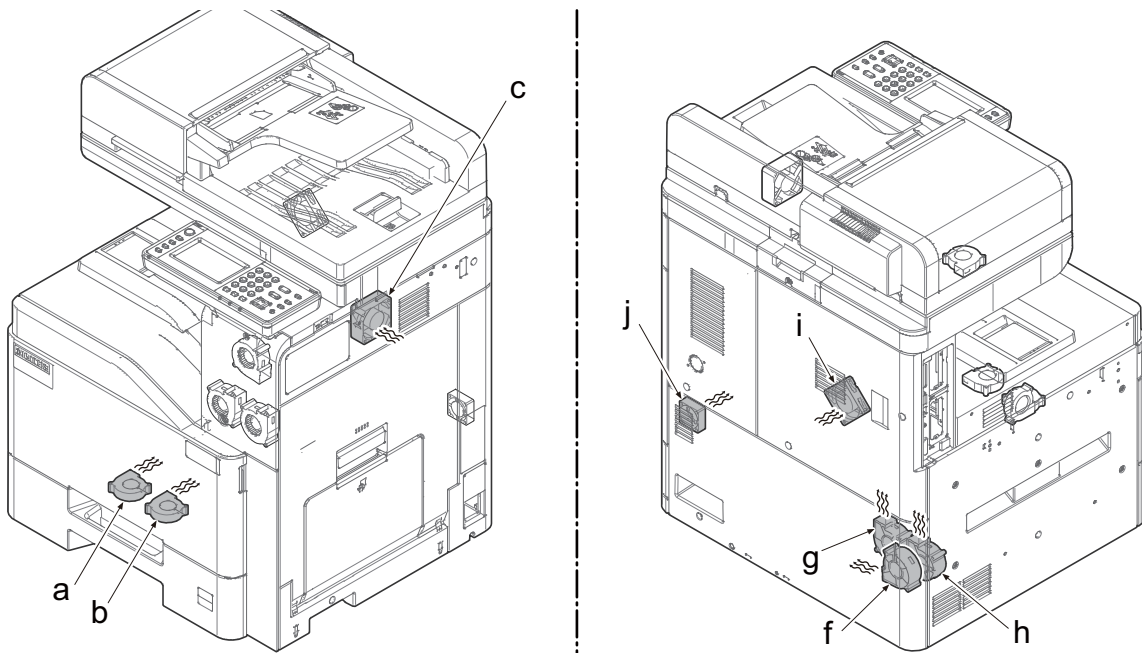
Figure 4-288

35/40 ppm models
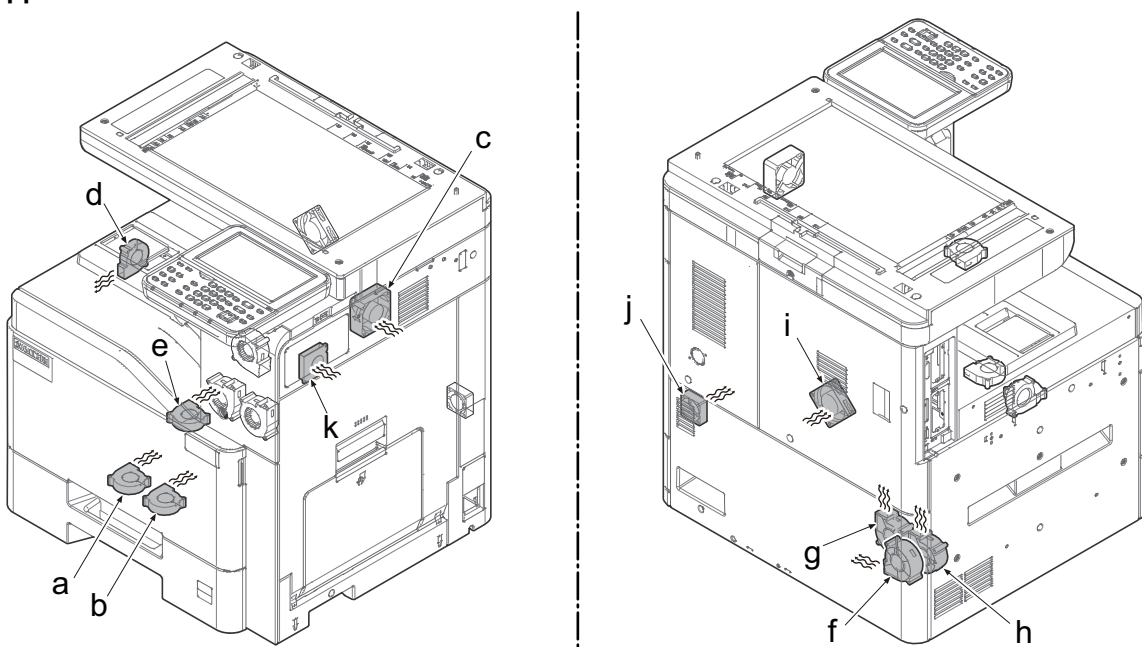
Figure 4-289

a. Developer fan motor 3: intake *1
b. Developer fan motor 4: intake *1
c. Eject fan motor: intake *2
d. Transfer belt fan motor: intake *2
e. Toner sucking fan motor: intake *1
f. PWB fan motor: intake *3
g. Developer fan motor 2: intake *3

h. Developer fan motor 1: intake *3
i. Controller fan motor: intake *2
j. Clutch fan motor: intake *2
k. Eject paper fan motor: intake *2
*1: rating label side: top side
*2: rating label side: inside
*3: rating label side: outside

(5) PWBs

(5-1) Detaching and reattaching the engine PWB (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding in the direction of the arrow.
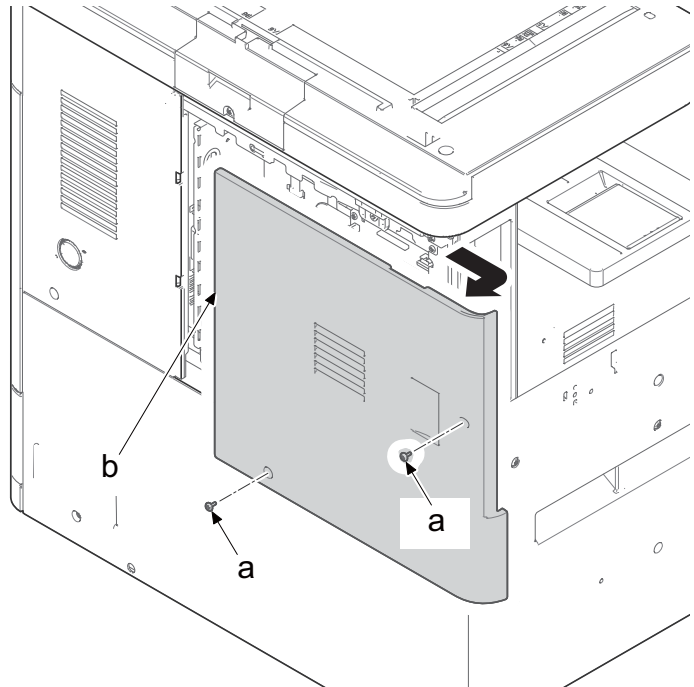
Figure 4-290

2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.
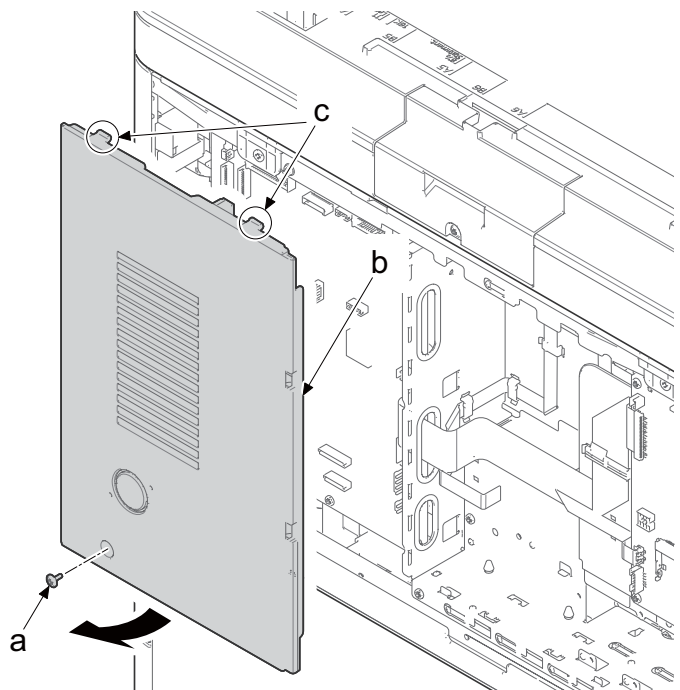
Figure 4-291

3. Disconnect all the connectors from the engine PWB (b).
4. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
5. Check or replace the engine PWB (b), and then reattach the parts in the original position.
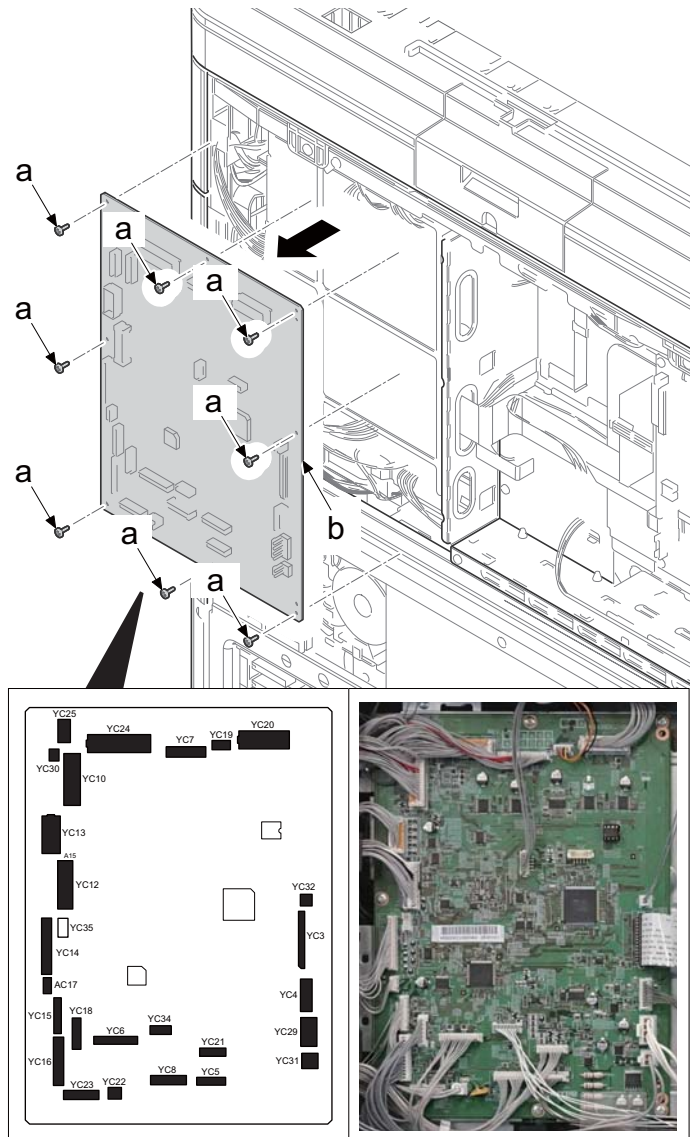
Figure 4-292

Notes when replacing the engine PWB

When replacing the engine PWB (a), make sure to remove the EEPROM (b) (YS1) from the old board and install it in the new board.
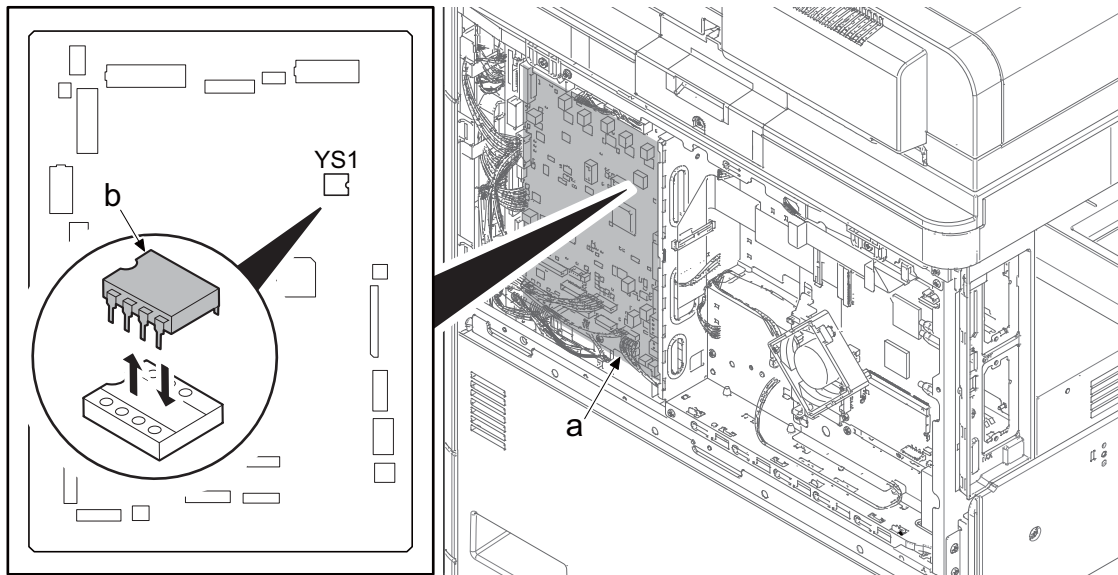
Figure 4-293

Execute the following setting after replacing the engine PWB.

1. Machine No. (maintenance mode U004)
   *: If the C0180 error occurs, execute U004 to match the serial numbers in the PWBs.
   (1)Input "004" using the numeric keys and press the [Start] key.
   (2)Select [Execute] and press the [Start] key.
   (3)Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

2. Firmware update (See page 5-1)
   *: Check the latest firmware and upgrade it.

3. Adjusting the scanner automatically (maintenance mode U411)

  Adjusting the table scanning automatically

   (1)Set the specified original (P/N: 7505000107) on the table.
   (2)Enter maintenance item U411.
   (3)Select [Target].
   (4)Press [Left/Right] cursor key or [#], [*] key and select [Auto].
   (5)Press the [Up/Down] cursor key and select [Table(ChartA)].
   (6)Press the [Start] key to read the barcode of the original chart and to start the automatic adjustment.
   (7)When automatic adjustment has normally completed, [OK] is displayed.

  DP 1st side scanning auto adjustment

   (1)Set the specified original (P/N: 7505000106) face-up on the DP.
   *:Cut the trailing edge of the DP adjustment original (ChartB) as follows to use.
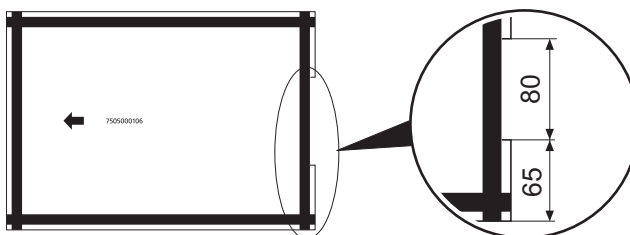
   (2)Enter maintenance item U411.
   (3)Select [DP FU(ChartB)].
   (4)Press the [Start] key to start Auto adjustment.
   (5)When automatic adjustment has normally completed, [OK] is displayed.

  *: If there is a problem with the 2nd side timing after adjusting the scanner, execute [DP FD(ChartB)].
    Also, if there is a problem with the DP 1st side color, execute [DP FU(ChartA)].

4. ID correction operation setting (maintenance mode U464): Calib
   (1)Input "464" using the numeric keys and press the [Start] key.
   (2)Select [Calib].
   (3)Select [Full] and press the [Start] key.
     *:Calibration starts.
   (4)Press the [Stop] key.

5. Adjusting the halftone automatically (maintenance mode U410)
   (1)Input "410" using the numeric keys and press the [Start] key.
   (2)Press the [Start] key.
     *:Test pattern 1 and Test pattern 2 are output on A4 paper.
   (3)Set the output Test Pattern 1 as the original.
     *:Set test pattern 1 and place approximately 20 sheets of white paper on it.
   (4)Press the [Start] key.
     *:The 1st auto adjustment is executed.
   (5)Set the output Test Pattern 2 as the original.
     *:Set test pattern 2 and place approximately 20 sheets of white paper on it.
   (6)Press the [Start] key.
     *:The 2nd auto adjustment is executed.
   (7)[Finish] appears after normal completion.
   (8)Press the [Stop] key.

(5-2) Detaching and reattaching the engine PWB (35/40 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
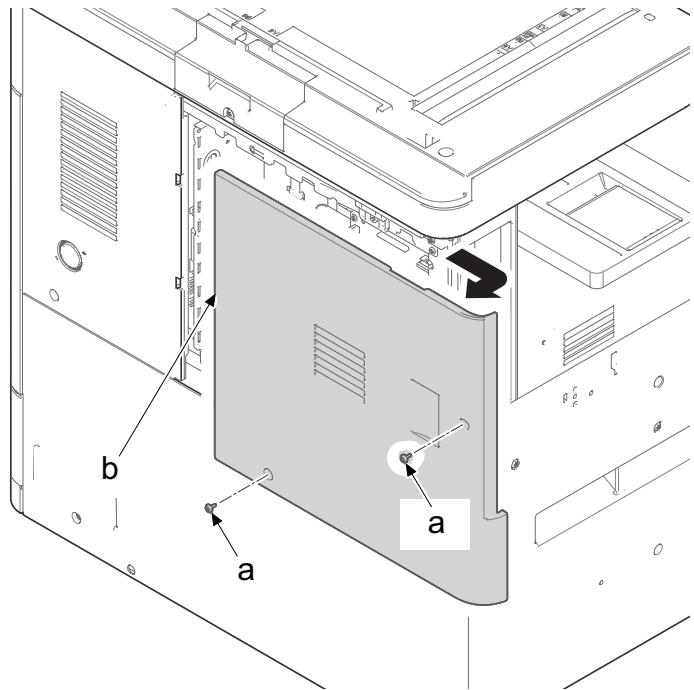
Figure 4-294
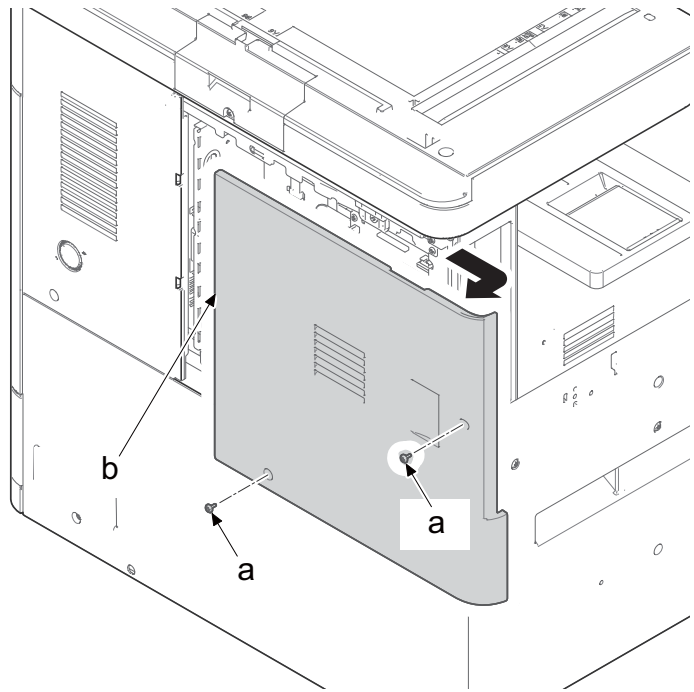
2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.
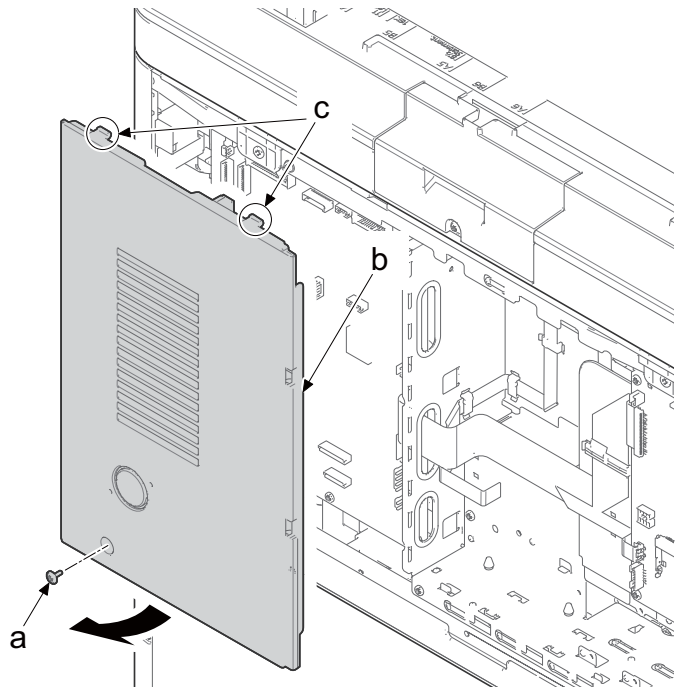
Figure 4-295

3. Disconnect all the connectors from the engine PWB (b).
4. Remove eight screws (a)(M3x8) and remove the engine PWB (b).
5. Check or replace the engine PWB (b), and then reattach the parts in the original position.
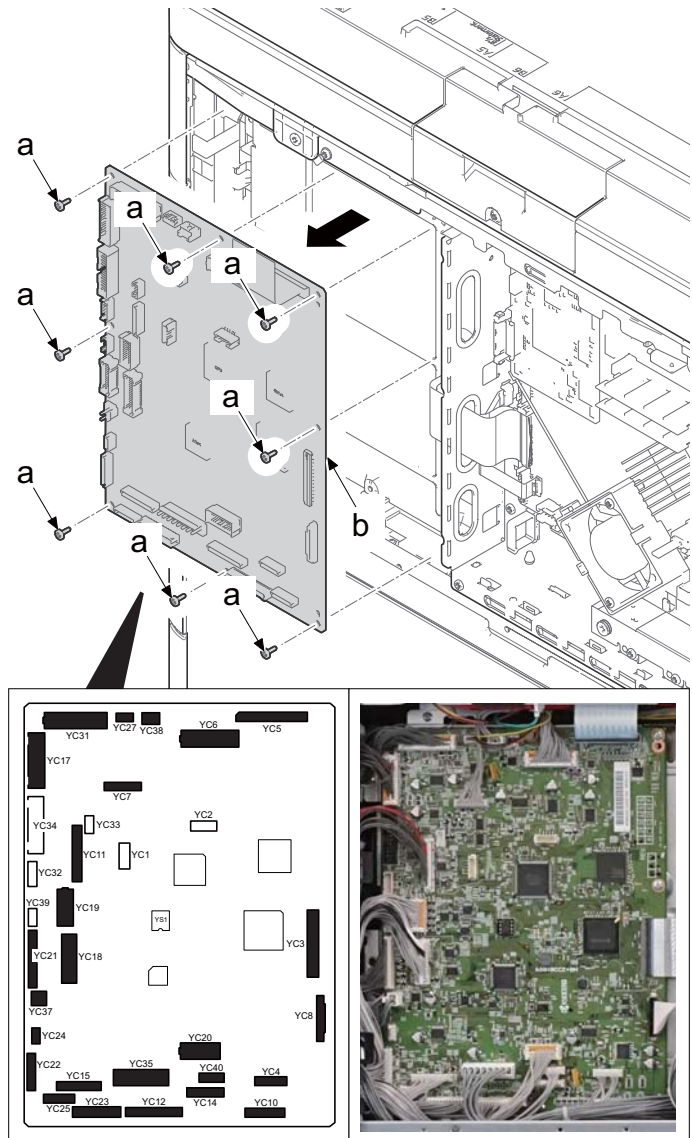
Figure 4-296

Notes when detaching

In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
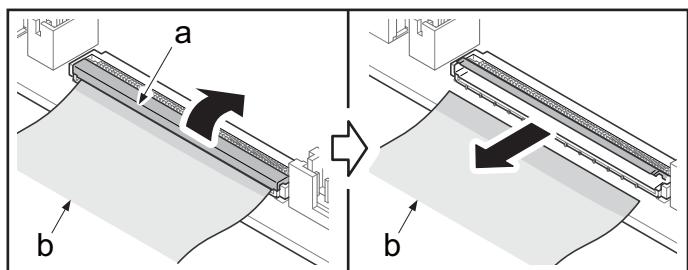
Figure 4-297

Notes when replacing the engine PWB

When replacing the engine PWB (a), make sure to remove the EEPROM (b) (YS1) from the old board and install it in the new board.
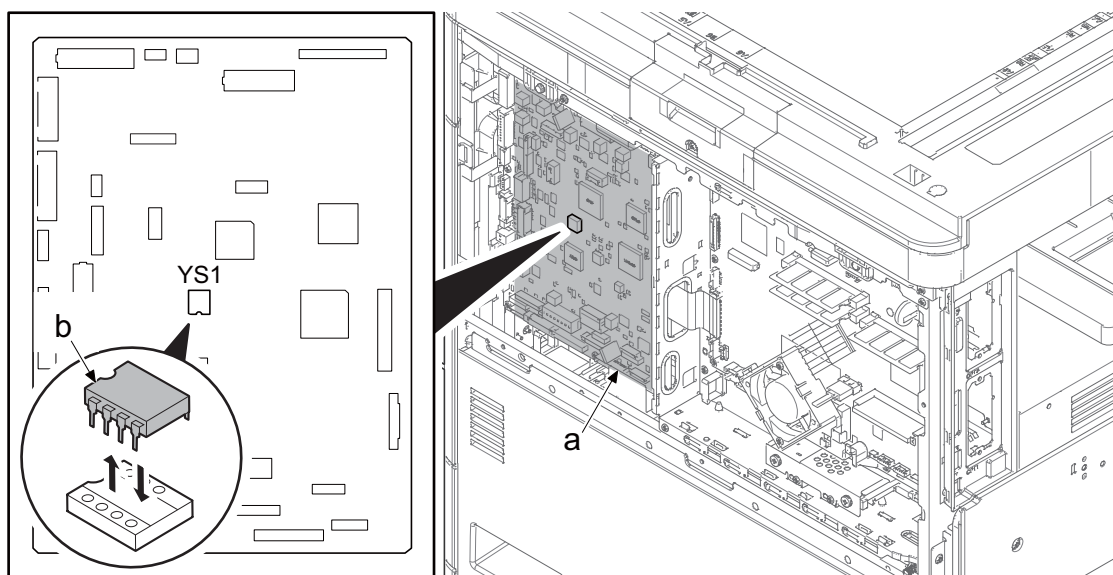
Figure 4-298

Execute the following setting after replacing the engine PWB.
1. Machine No. (maintenance mode U004)
    *: If the C0180 error occurs, execute U004 to match the serial numbers in the PWBs.
    (1)Input "004" using the numeric keys and press the [Start] key.
    (2)Select [Execute] and press the [Start] key.
    (3)Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

2. Firmware update (See page 5-4)
    *: Check the latest firmware and upgrade it.

3. Adjusting the scanner automatically (maintenance mode U411)
    Adjusting the table scanning automatically
    (1)Set the specified original (P/N: 7505000107) on the table.
    (2)Enter maintenance item U411.
    (3)Select [Target].
    (4)Select [Auto].
    (5)Press the [Start] key.
    (6)Select [Table(ChartA)].
    (7)Press the [Start] key to read the barcode of the original chart and to start the automatic adjustment.
    (8)When automatic adjustment has normally completed, [OK] is displayed.

    *: After adjusting the scanner, if there is a problem with the DP 1st side color execute [DP FU(ChartA)].

DP 1st side scanning auto adjustment: Reversing DP (DP-5100) only
  (1)Set the specified original (P/N: 7505000106) face-up on the DP.
    *:Cut the trailing edge of the DP adjustment original (ChartB) as follows to use.
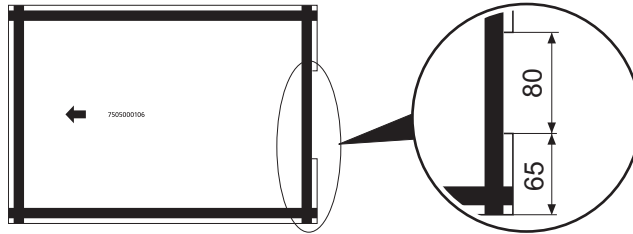
  (2)Enter maintenance item U411.
  (3)Select [DP FU(ChartB)].
  (4)Press the [Start] key to start Auto adjustment.
  (5)When automatic adjustment has normally completed, [OK] is displayed.

4. ID correction operation setting (maintenance mode U464): Calib
   (1)Input "464" using the numeric keys and press the [Start] key.
   (2)Select [Calib].
   (3)Select [Full] and press the [Start] key.
     *:Calibration starts.
   (4)Press the [Stop] key.

5. Adjusting the halftone automatically (maintenance mode U410)
   (1)Input "410" using the numeric keys.
   (2)Press the [Start] key.
     *:Test pattern 1, Test pattern 2 and Test pattern 3 are output on A4 paper.
   (3)Set the output Test Pattern 1 as the original.
     *:Set test pattern 1 and place approximately 20 sheets of white paper on it.
   (4)Press the [Start] key.
     *:The 1st auto adjustment is executed.
   (5)Set the output Test Pattern 2 as the original.
     *:Set test pattern 2 and place approximately 20 sheets of white paper on it.
   (6)Press the [Start] key.
     *:The 2nd auto adjustment is executed.
   (7)Set the output Test Pattern 3 as the original.
     *:Set test pattern 3 and place approximately 20 sheets of white paper on it.
   (8)Press the [Start] key.
     *:The 3rd auto adjustment is executed.
     *:Test pattern 4 is output on A4 paper.
   (9)Set the output Test Pattern 4 as the original.
     *:Set test pattern 4 and place approximately 20 sheets of white paper on it.
   (10)Press the [Start] key.
     *:The 4th auto adjustment is executed.
   (11)[Finish] appears after normal completion.
   (12)Press the [Stop] key.

(5-3) Detaching and reattaching the main PWB (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-299

2. Remove the screw (a)(M3x8).
3. Release the hook (b) in the direction of the arrow and remove the left controller cover (c) in the direction of the arrow.
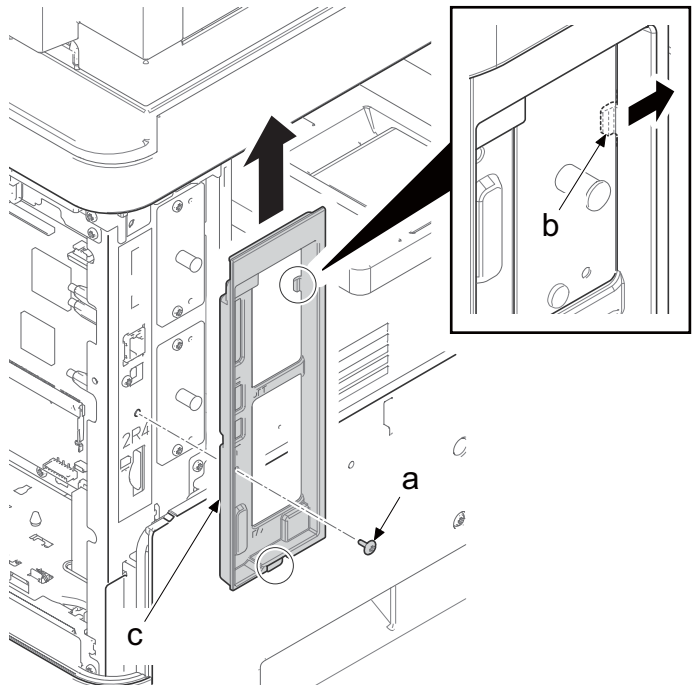
Figure 4-300

4. Remove the wire (a) from the hook (b).

5. Remove two screws (c)(M3x8).

6. Remove the fan connector (d) and remove the controller fan assembly (e).
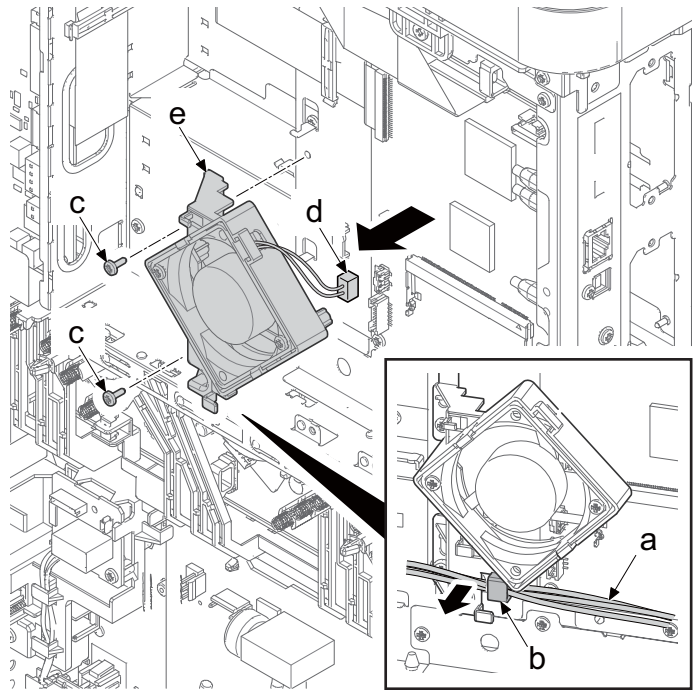
Figure 4-301

7. Disconnect all the connectors from the main PWB (a).
8. Remove six screws (b)(M3x8) and remove the main PWB (a).
9. Check the main PWB (a) and clean or replace it if necessary.
  *: Replace the optional memory from the old PWB to the new one, if installed.
10. Reattach the parts in the original position.
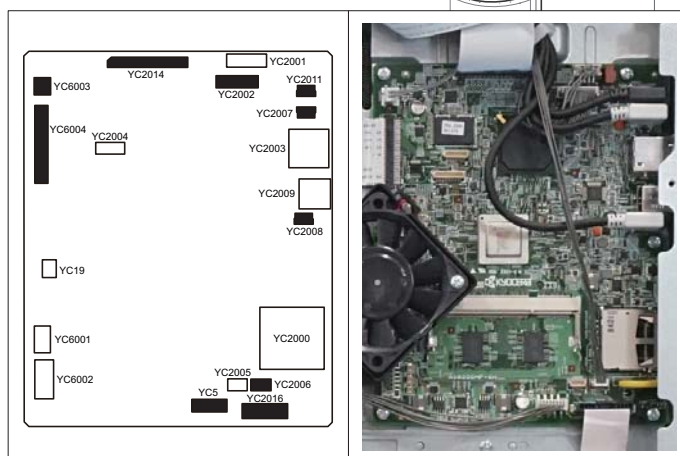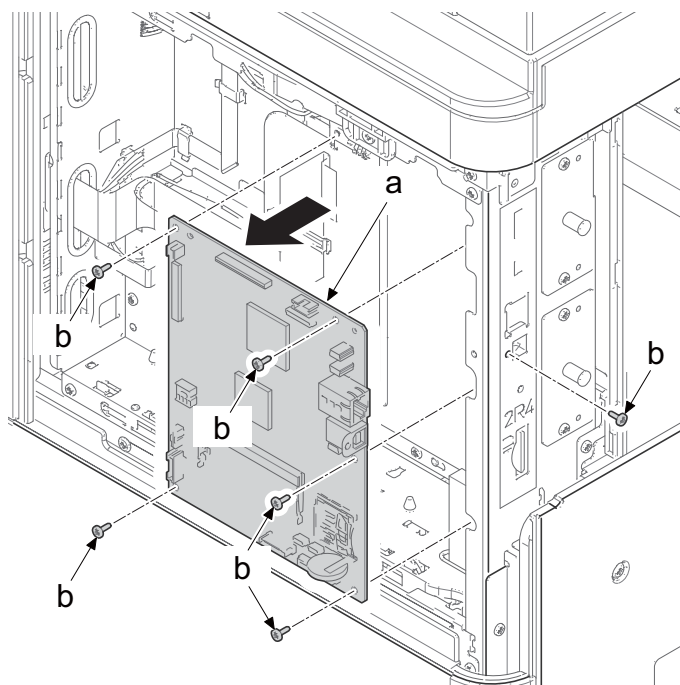
Figure 4-302

Notes when replacing the main PWB

  *: There is no EEPROM in the main PWB for 30 ppm model.
  *: When replacing the main PWB, in order to maintain the user information, insert a USB memory and execute U917 to export data. (See page 6-185)
  *: Since the MAC address changes, check the network settings.
    Example: If the printer name is registered with the IP address, reset the IP address.

Execute the following setting after replacing the main PWB.
1. Machine No. (maintenance mode U004)
    *:If the C0180 error occurs, execute U004 to match the serial numbers in the PWBs.
  (1)Input "004" using the numeric keys and press the [Start] key.
  (2)Select [Execute] and press the [Start] key.
  (3)Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

2. Firmware update (See page 5-1)
    *:Check the latest firmware and upgrade it.

3. Insert the USB memory and execute U917 to import data.

4. ID correction operation setting (maintenance mode U464): Calib
   (1)Input "464" using the numeric keys and press the [Start] key.
   (2)Select [Calib].
   (3)Select [Full] and press the [Start] key.
     *:Calibration starts.
   (4)Press the [Stop] key.

5. Adjusting the halftone automatically (maintenance mode U410)
   (1)Input "410" using the numeric keys and press the [Start] key.
     *:Execution information screen is displayed.
     *:Test patterns 1 and 2 are output on the A4 paper.
   (2)Place the output test pattern 1 as the original.
     *:Place approximately 20 sheets of white paper on the test pattern 1 and set them.
   (3)Press the [Start] key.
     *:The first auto adjustment is executed.
   (4)Place the output test pattern 2 as the original.
   (5)Press the [Start] key.
     *:The second auto adjustment is executed.
   (6)[Finish] appears after normal completion.

6. Reactivating the license
  Reactivate the license when equipping the license of the optional product.
   (1)Card Authentication Kit (B)
  *:When using the SSFC card, execute maintenance mode U222 and set [SSFC].
   (See page 6-85,6-299)
   (2)UG-33 (ThinPrint)
   (3)Data Security Kit (E)
  *:Re-entering 4-digit encryption codes entered at setup is necessary.

7. Resetting the initial settings
  Reset the user default setting and FAX default setting (e.g. the local FAX information) from the System Menu or Command Center.

8. Resetting the maintenance mode
  Reset the following maintenance mode if necessary.

No.	Maintenance mode relating to the main unit	No.	Maintenance mode relating to the main unit
U250	Maintenance counter preset	U603	User data 1
U251	Maintenance counter clear	U604	User data 2
U253	Double/single count switch	U610	System 1
U260	Feed/eject counter switch	U611	System 2
U345	Maintenance timing pre-caution setting	U612	System 3
U402	Print margin adjustment	U625	Communication Setting
U403	Scanning margin adjustment (table)	U695	FAX function customization
U404	Scanning margin adjustment (DP)		
U425	Target adjustment		

9. Exiting from the maintenance mode
  Input "001" using the numeric keys and press the [Start] key.

(5-4) Detaching and reattaching the main PWB (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
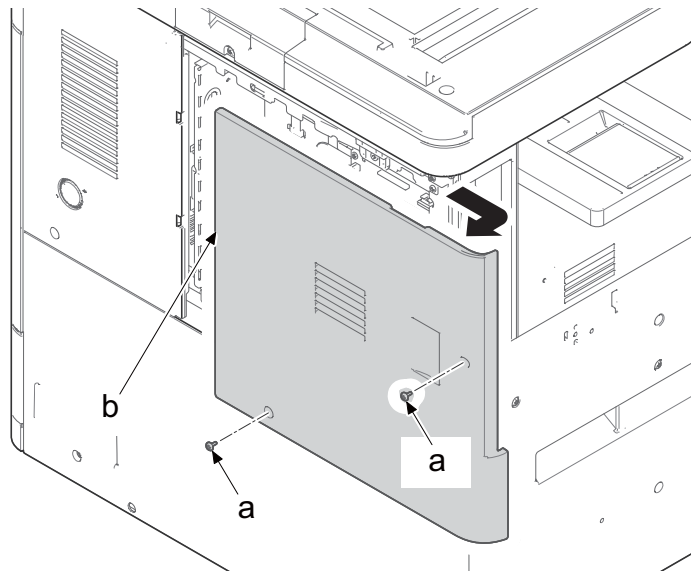
Figure 4-303

(Procedure 2 to 7: Document processor (CIS) only)

2. Remove the screw (f)(M3x8) and remove the rear right cover (g).
3. Remove the CIS connector (i) while pulling the release lever (h).
4. Remove three screws (d)(M3x8) and remove the DP relay PWB holder (e).
5. Disconnect all the connectors from the DP relay PWB holder (a).
6. Remove two screws (b)(M3x8).
7. Detach the DP relay PWB (a) while removing the backside connector (c).
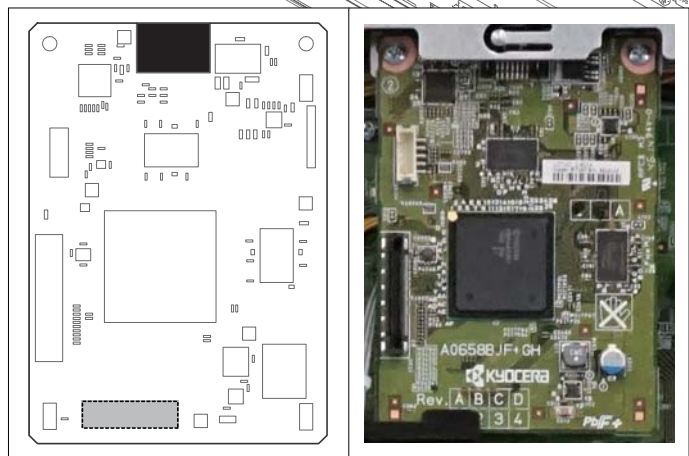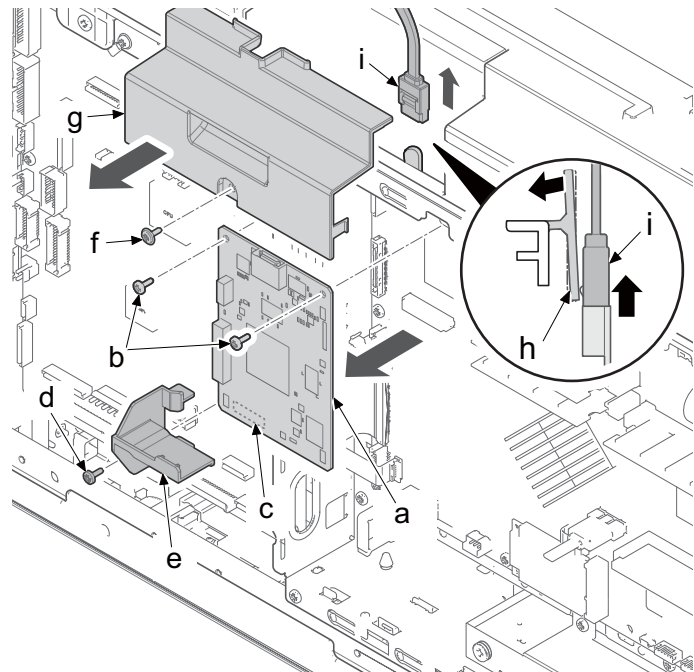
Figure 4-304

8. Remove the HDD wire (a) from the three hooks (b).
9. Disconnect the fan connector (c).
10. Remove two screws (d)(M3x8) and remove the fan holder (e).
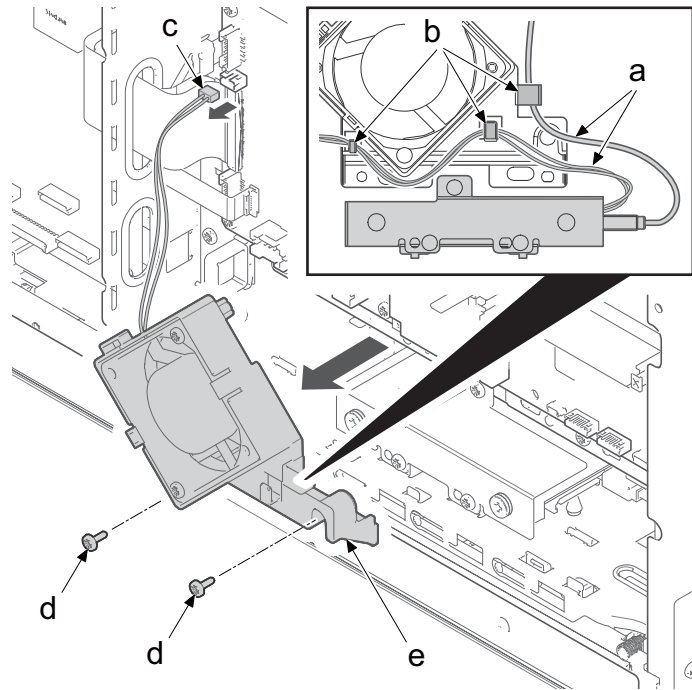
Figure 4-305

11. Remove the screw (a)(M3x8).
12. Release the hook (b) in the direction of the arrow and remove the left controller cover (c).
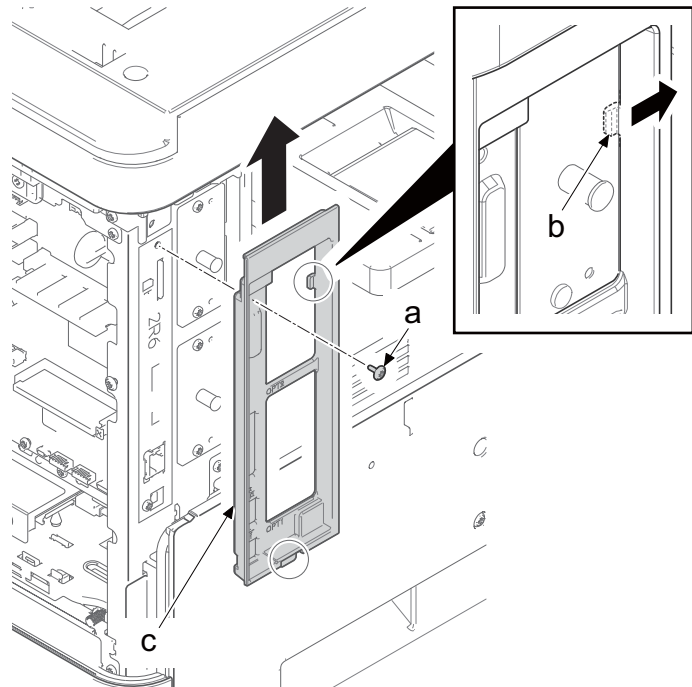
Figure 4-306

13. Disconnect all the connectors from the main PWB (a).
14. Remove eight screws (b)(M3x8) and remove the main PWB (a).
15. Check the main PWB (a) and clean or replace it if necessary.
   *: Replace the optional memory from the old PWB to the new one, if installed.
16. Reattach the parts in the original position.
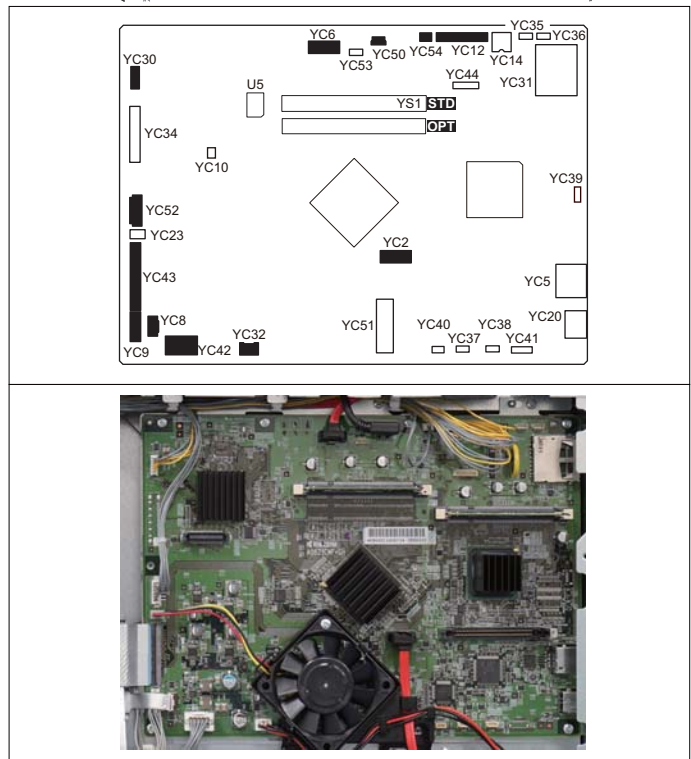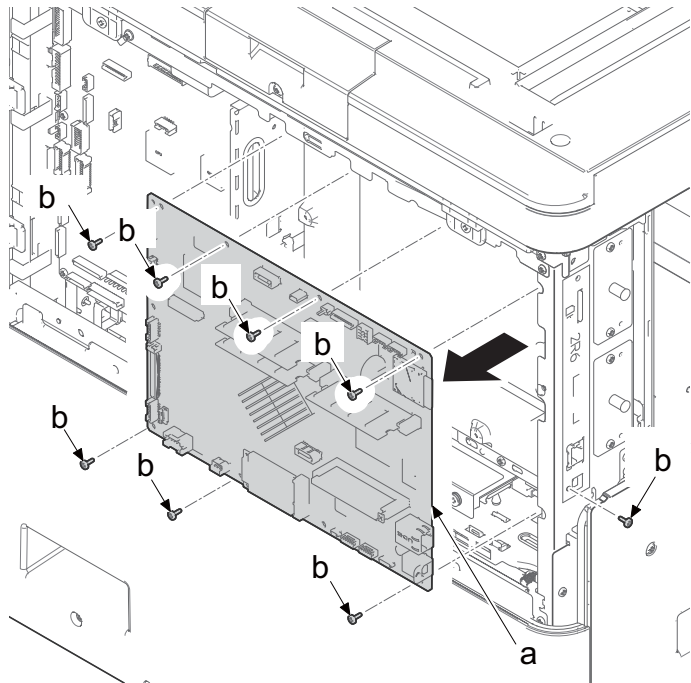
Figure 4-307

Notes when detaching
In the case of the FFC connector with a lock, release the lock cover (a) and pull out the FFC (b).
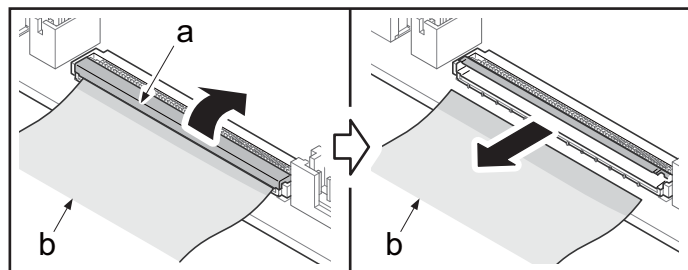
Figure 4-308

Notes when replacing the main PWB

When replacing the main PWB (a), make sure to remove the EEPROM (b) (YS14) from the old board and install it in the new board.
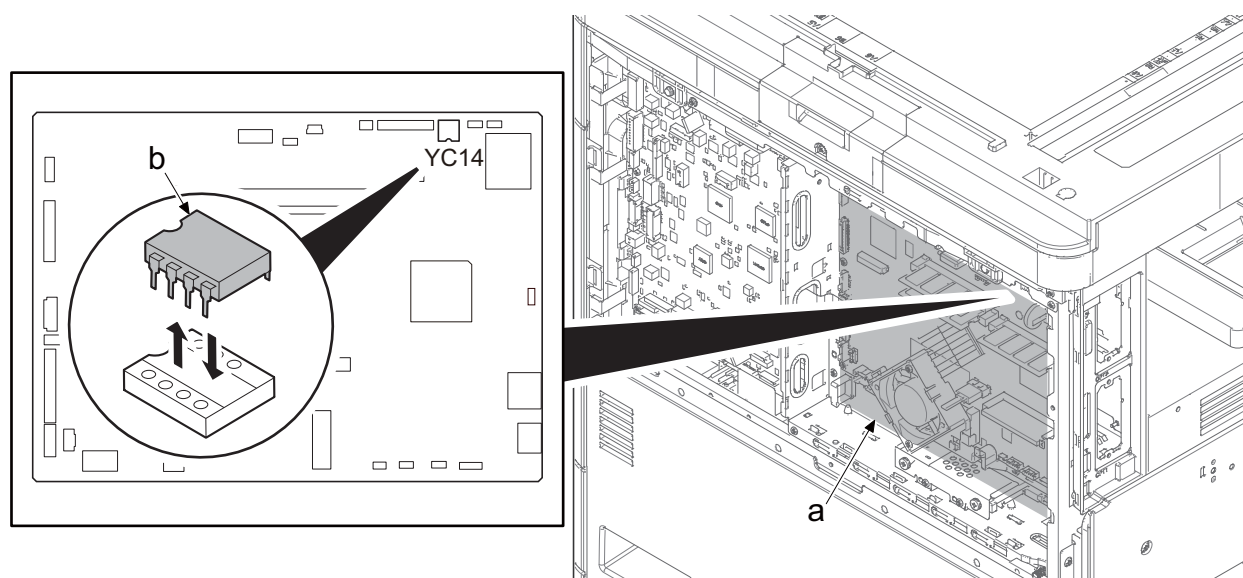
Figure 4-309

Execute the following setting after replacing the main PWB.

1. Machine No. (maintenance mode U004)
   *: If the C0180 error occurs, execute U004 to match the serial numbers in the PWBs.
   (1)Input "004" using the numeric keys and press the [Start] key.
   (2)Select [Execute] and press the [Start] key.
   (3)Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

2. Firmware update (See page 5-4)
   *: Check the latest firmware and upgrade it.

3. ID correction operation setting (maintenance mode U464): Calib
   (1)Input "464" using the numeric keys and press the [Start] key.
   (2)Select [Calib].
   (3)Select [Full] and press the [Start] key.
     *:Calibration starts.
   (4)Press the [Stop] key.

4. Adjusting the halftone automatically (maintenance mode U410)
  (1)Input "410" using the numeric keys and press the [Start] key.
    *:Execution information screen is displayed.
    *:Test patterns 1, 2 and 3 are output on the A4 paper.
  (2)Place the output test pattern 1 as the original.
    *:Place approximately 20 sheets of white paper on the test pattern 1 and set them.
  (3)Press the [Start] key.
    *:The first auto adjustment is executed.
  (4)Place the output test pattern 2 as the original.
  (5)Press the [Start] key.
    *:The second auto adjustment is executed.
  (6)Place the output test pattern 3 as the original.
  (7)Press the [Start] key.
    *:The third auto adjustment is executed.
    *:Test patterns 4 is output on the A4 paper.
  (8)Place the output test pattern 4 as the original.
  (9)Press the [Start] key.
    *:The forth auto adjustment is executed.
  (10)[Finish] appears after normal completion.

5. Resetting the initial settings
  Reset the user default setting and FAX default setting (e.g. the local FAX information) from the System Menu or Command Center.

6. Resetting the maintenance mode
  Reset the following maintenance mode if necessary.

No.	Maintenance mode relating to the main unit	No.	Maintenance mode relating to the main unit
U250	Maintenance counter preset	U603	User data 1
U251	Maintenance counter clear	U604	User data 2
U253	Double/single count switch	U610	System 1
U260	Feed/eject counter switch	U611	System 2
U345	Maintenance timing pre-caution setting	U612	System 3
U402	Print margin adjustment	U625	Communication Setting
U403	Scanning margin adjustment (table)	U695	FAX function customization
U404	Scanning margin adjustment (DP)		
U425	Target adjustment		

7. Exiting from the maintenance mode
  Input "001" using the numeric keys and press the [Start] key.

(5-5) Detaching and reattaching the high voltage PWB (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
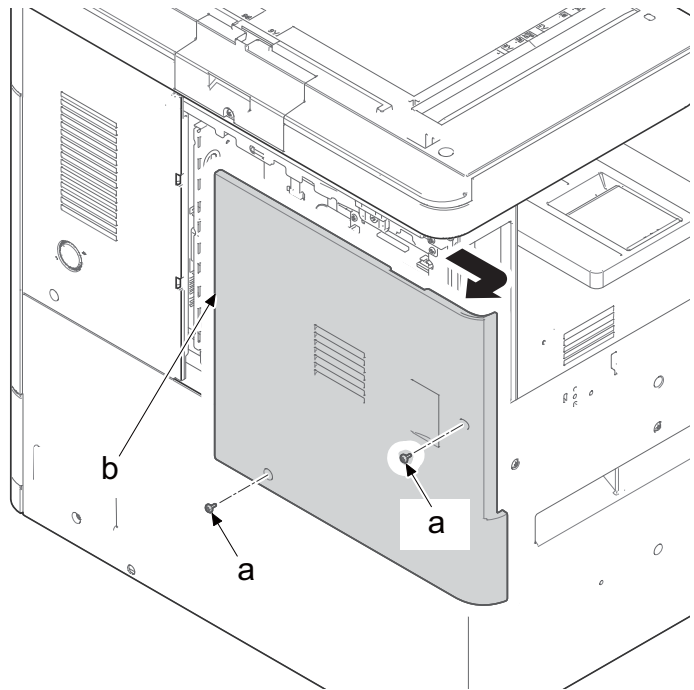
Figure 4-310

2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.
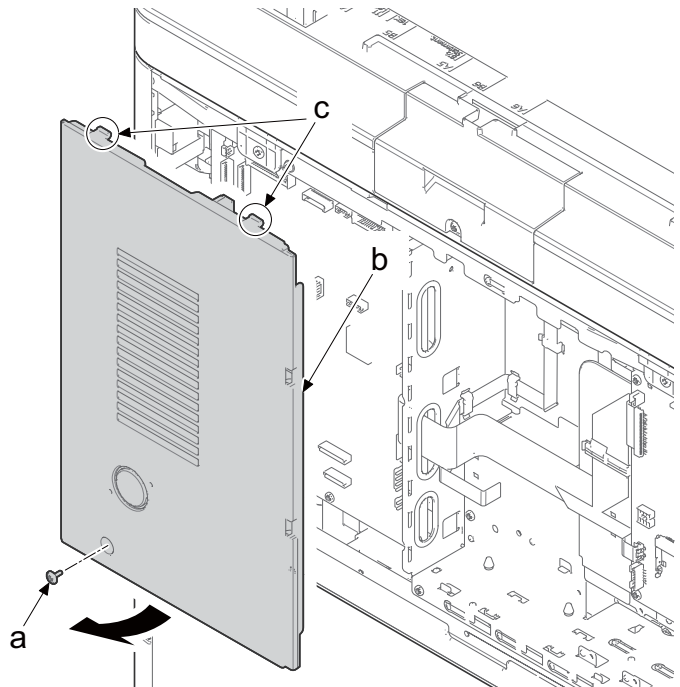
Figure 4-311

3. Remove the screw (a)(M3x8) and remove the rear lower cover (b) in the direction of the arrow.
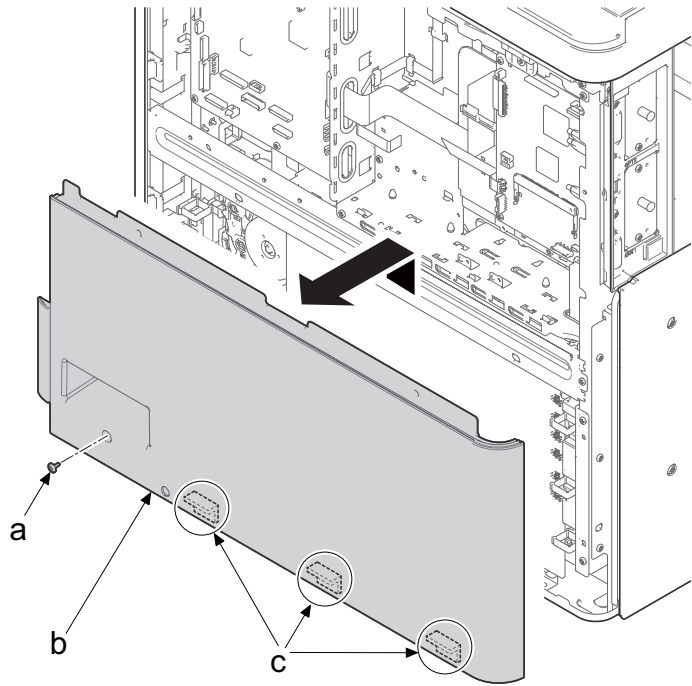
Figure 4-312

4. Remove the screw (a)(M3x8) and remove the rear middle stay (b).
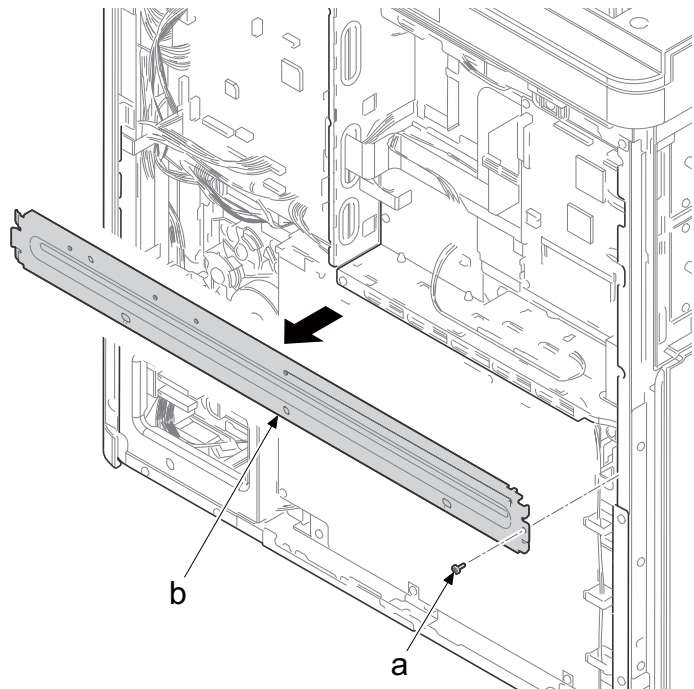
Figure 4-313

5. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
6. Remove two screws (d)(M3x8).
7. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
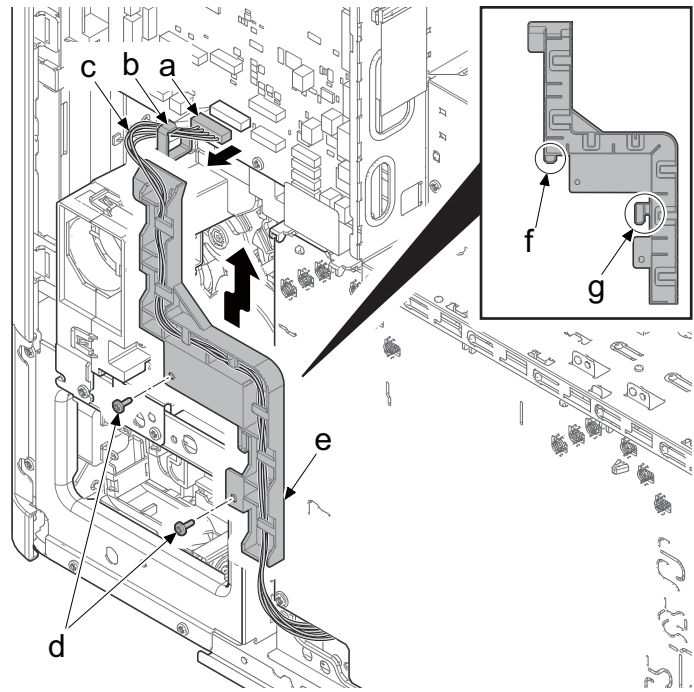
Figure 4-314

8. Remove three screws (b)(M3x8).
9. Release two board supports (e).
10. Release two hooks (c).
11. Detach the high voltage PWB (a) while rotating it in the direction of the arrow making three hooks (d) as fulcrum.
12. Check or replace the high voltage PWB (a), and then reattach the parts in the original position.
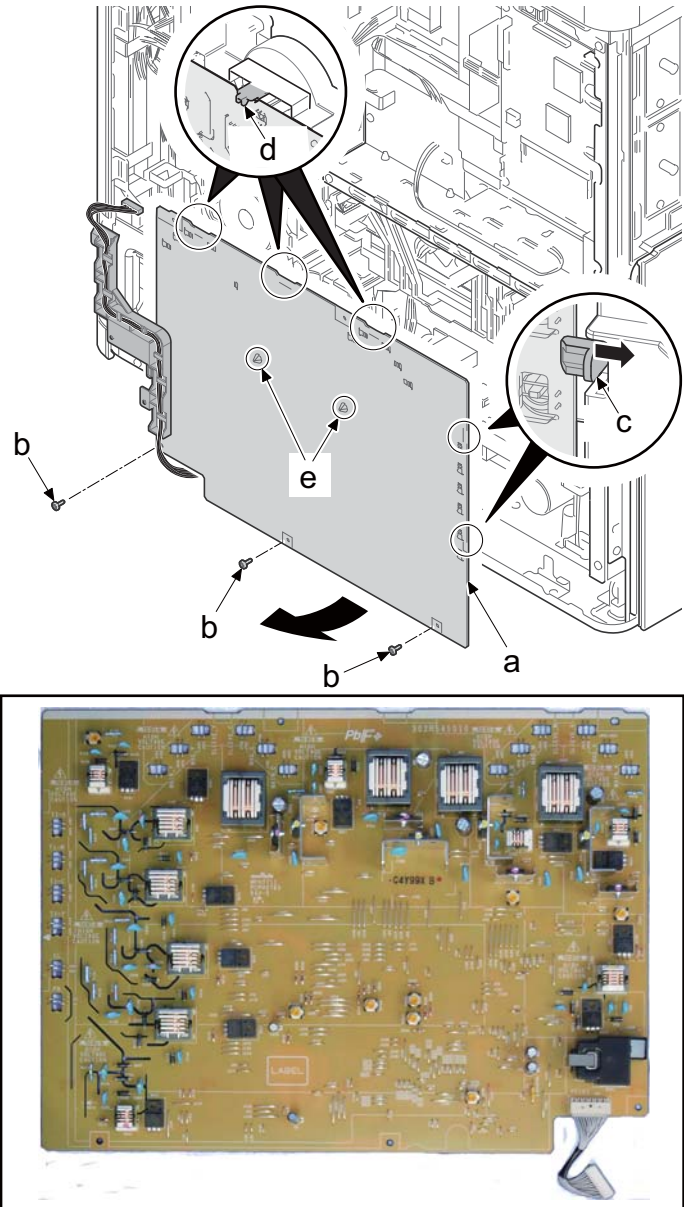
Figure 4-315

(5-6) Detaching and reattaching the high voltage PWB (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.
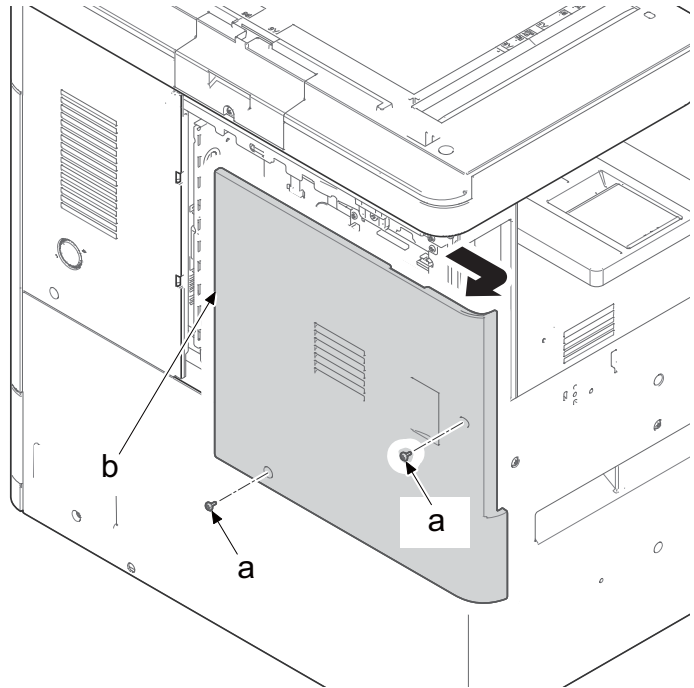
Figure 4-316

2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.
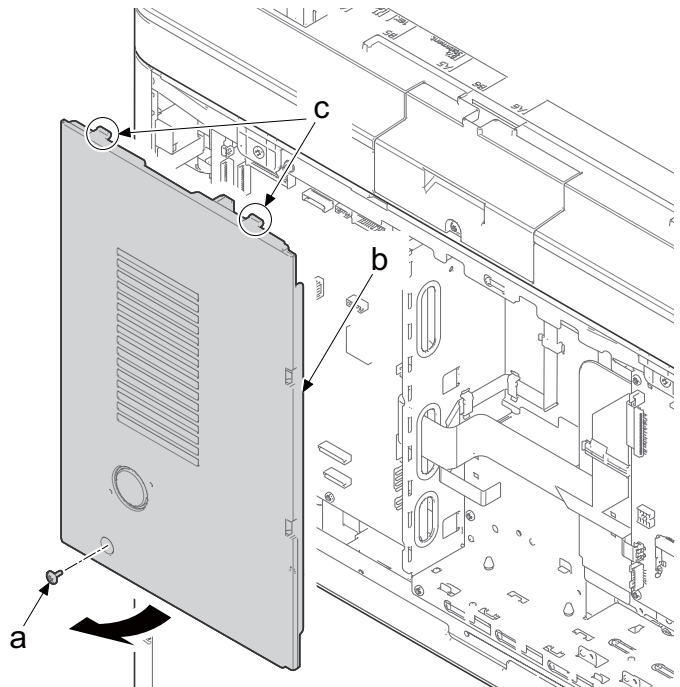
Figure 4-317

3. Remove the screw (a)(M3x8) and remove the rear lower cover (b) in the direction of the arrow.
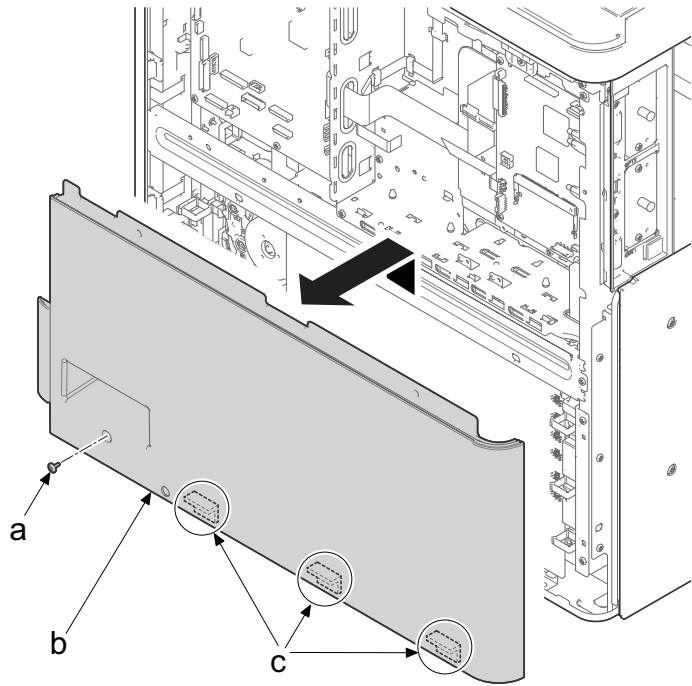
Figure 4-318

4. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.
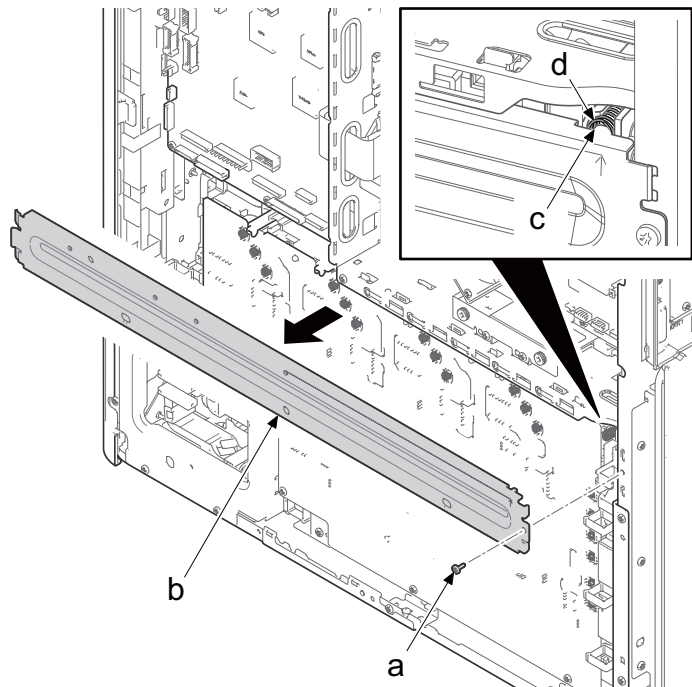
Figure 4-319

5. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
6. Remove two screws (d)(M3x8).
7. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
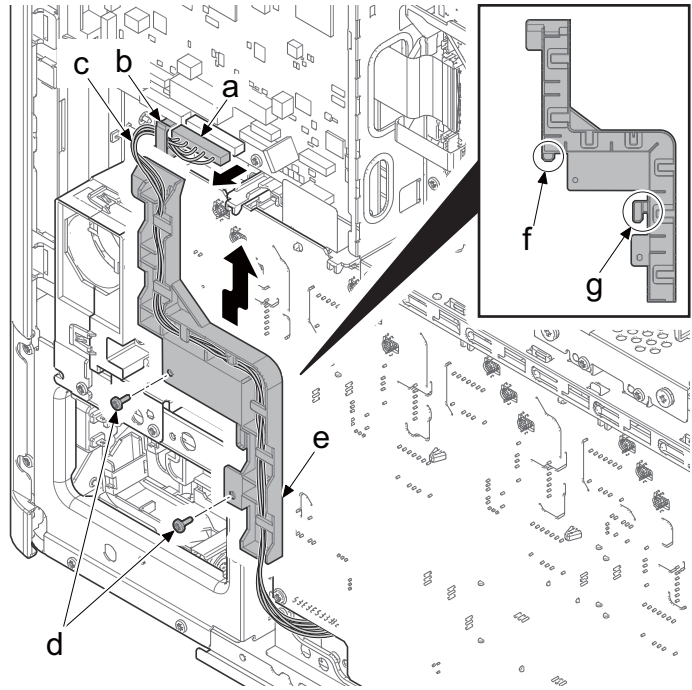
Figure 4-320

8. Remove four screws (b)(M3x8).
9. Release two board supports (e).
10. Release two hooks (c).
11. Rotate the high voltage PWB (a) making the four hooks (d) into a fulcrum and detach it.
12. Check or replace the high voltage PWB (a), and then reattach the parts in the original position.
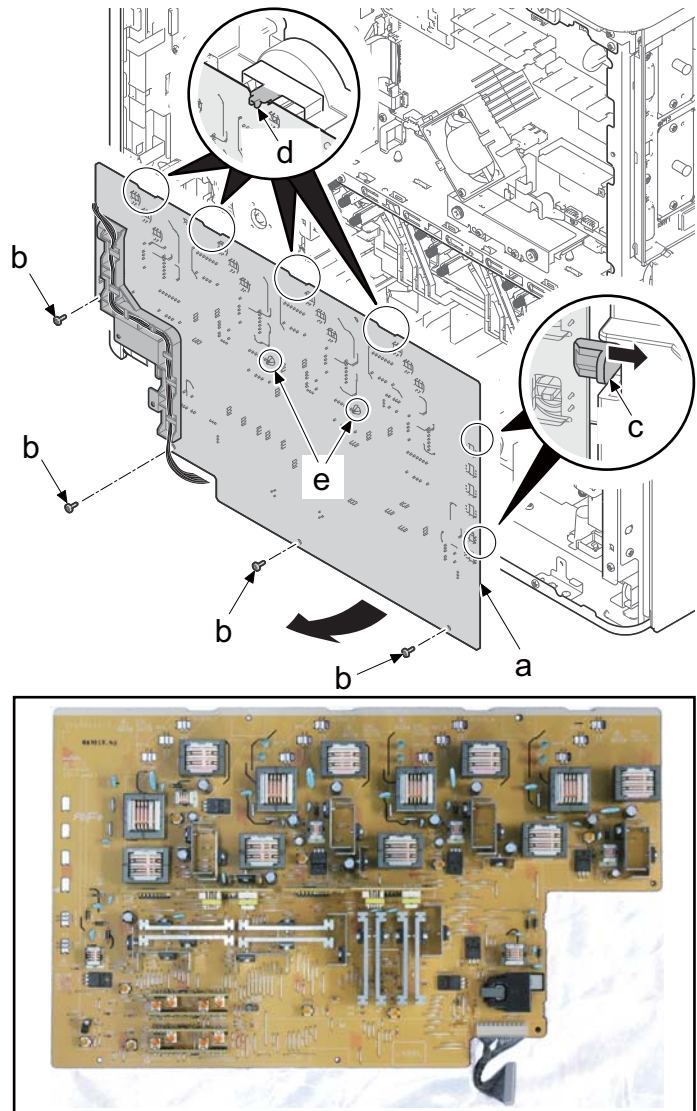
Figure 4-321

(5-7) Detaching and reattaching the power source PWB (30 ppm model)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-322

2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.

Figure 4-323

3. Remove the screw (a)(M3x8) and remove the rear lower cover (b) in the direction of the arrow.

Figure 4-324

4. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

Figure 4-325

5. Release the wire (c) from the wire saddle (b) and disconnect the connector (a).
6. Remove two screws (d)(M3x8).
7. Remove the high voltage wire guide (e) in the direction of the arrow to release the protrusion (f) and hook (g).
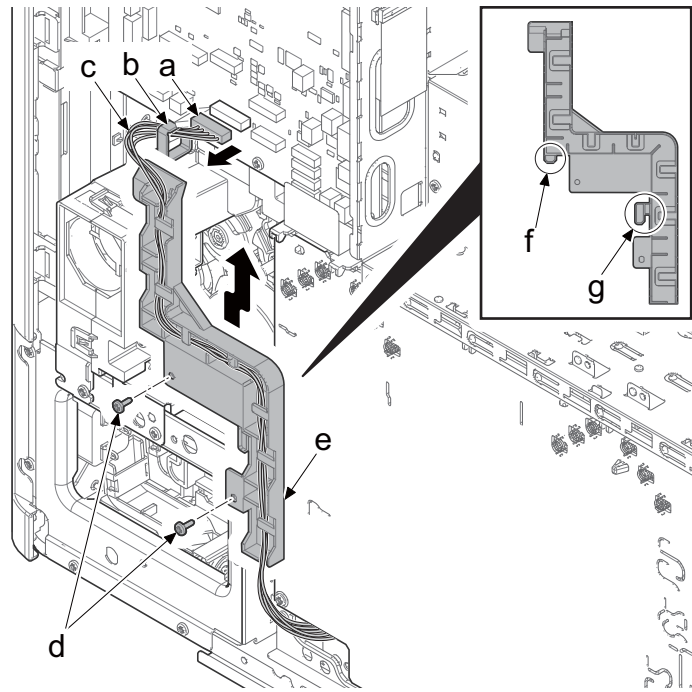
Figure 4-326

8. Remove three screws (b)(M3x8).
9. Release two board supports (e).
10. Release two hooks (c).
11. Detach the high voltage PWB (a) while rotating it in the direction of the arrow making three hooks (d) as fulcrum.
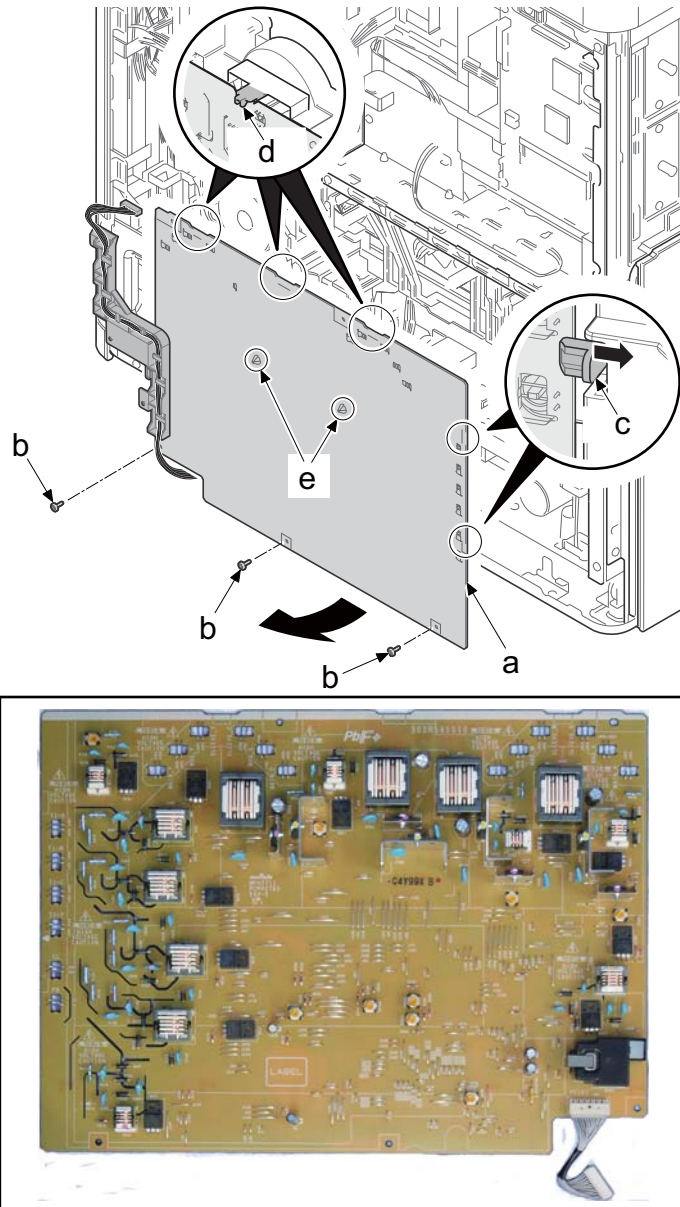
Figure 4-327

12. Release the wire (e) from the hook (a) and five wire saddles B (d).
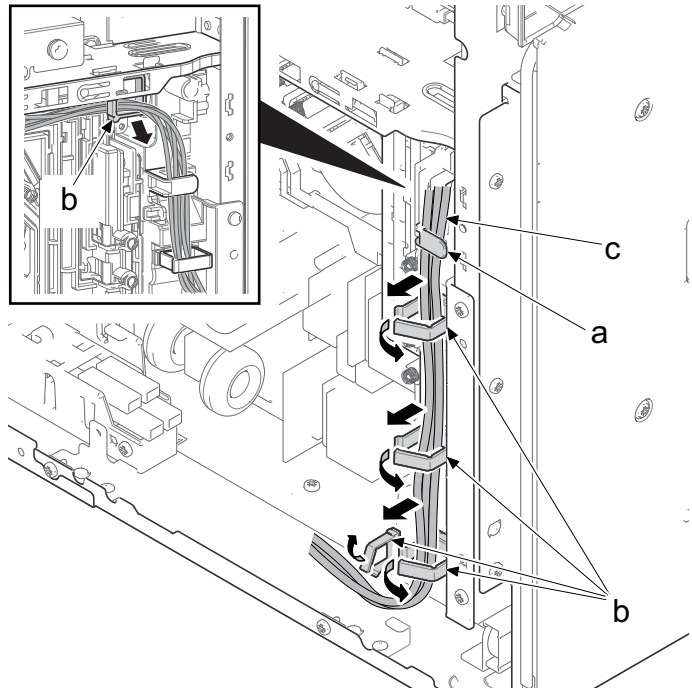
Figure 4-328

13. Remove three screws (a)(M3x8).
14. Release the hook (b) and remove the transfer high voltage assembly (c).
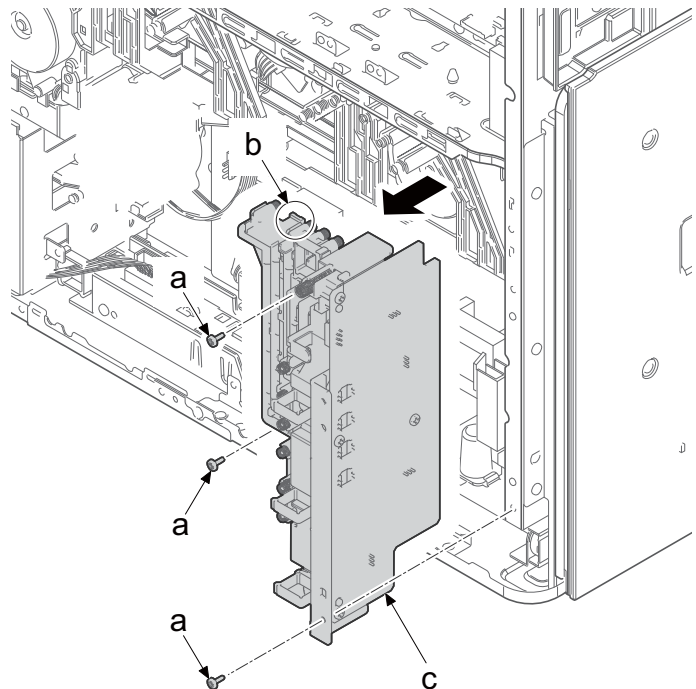
Figure 4-329

IMPORTANT

When attaching the transfer high voltage assembly (a), check the hook (b) clicks.
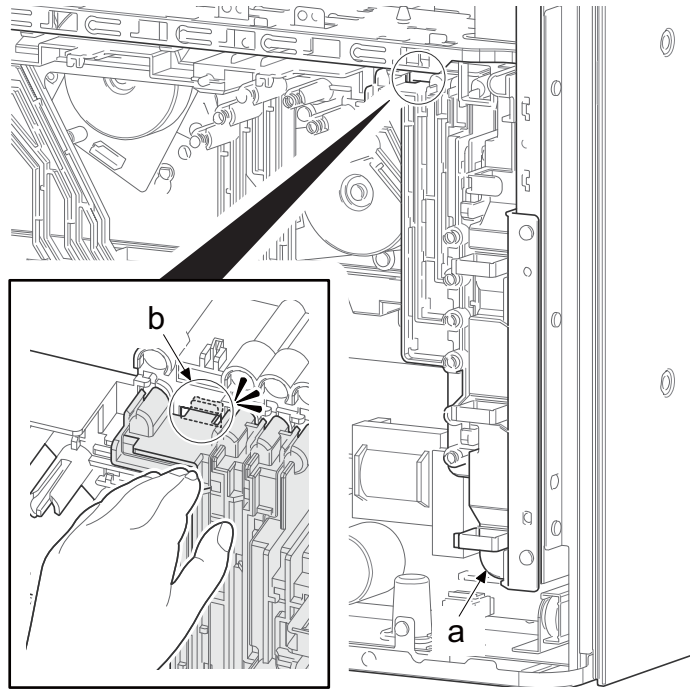
Figure 4-330

15. Disconnect three connectors (a).
16. Remove the wire (b) from the two hooks (c).
17. Remove three screws (d)(M3x8) and remove the heater PWB holder plate (e).
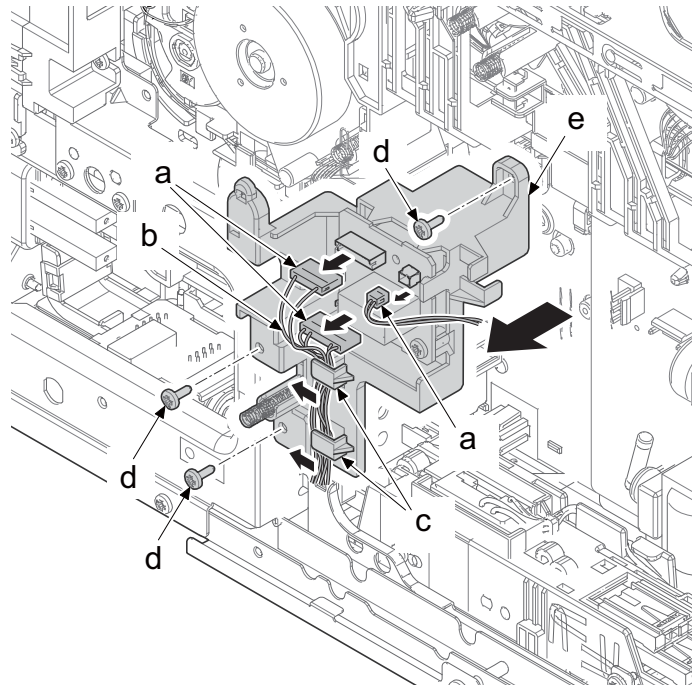
Figure 4-331

18. Remove two screws (a)(M3x8).
19. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT
When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).
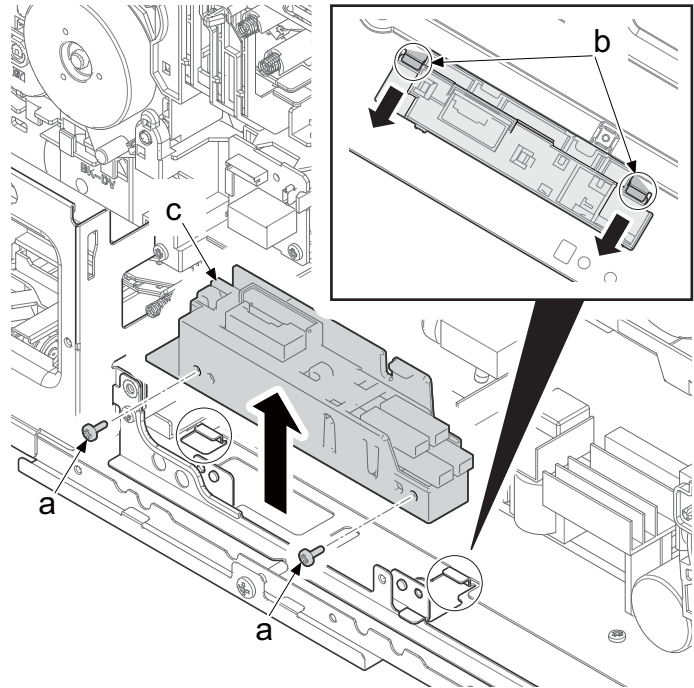
Figure 4-332

20. Disconnect all the connectors from the power source PWB (a).
21. Remove two screws (b)(M3x8).
22. Release the board support (c) and remove the power source PWB (a).
23. Check or replace the power source PWB (a), and then reattach the parts in the original position.
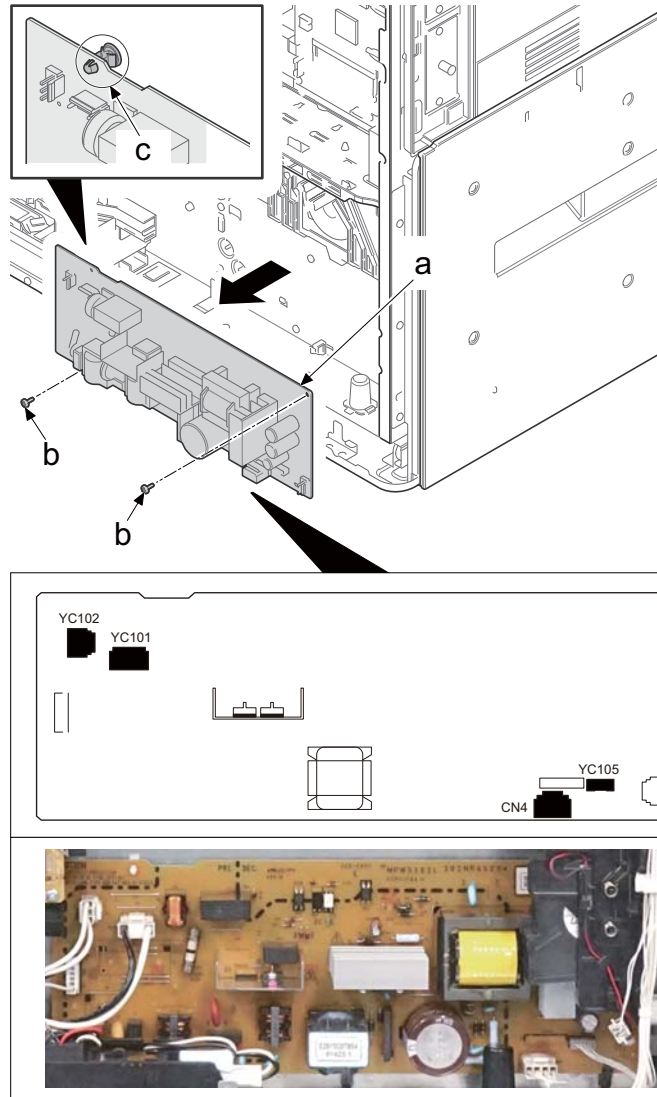
Figure 4-333

(5-8) Detaching and reattaching the power source PWB (35/40 ppm models)

Procedures

1. Remove two screws (a)(M3x8) and remove the rear left cover (b) by sliding it in the direction of the arrow.

Figure 4-334

2. Remove the screw (a)(M3x8) and remove the rear right cover (b) in the direction of the arrow.
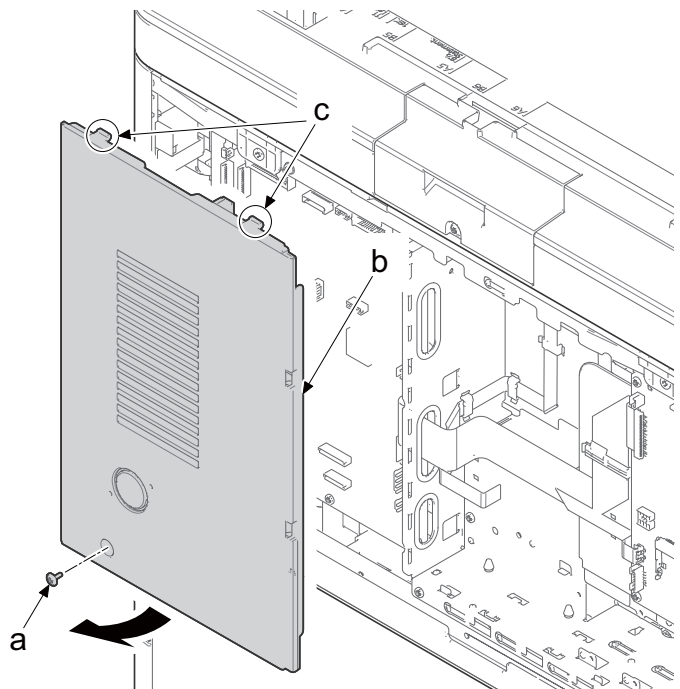
Figure 4-335

3. Remove the screw (a)(M3x8) and remove the rear lower cover (b) in the direction of the arrow.

Figure 4-336

4. Remove the screw (a)(M3x8) and remove the rear middle stay (b).

IMPORTANT
Check if the spring (d) is in the protrusion (c) when attaching the rear middle stay.
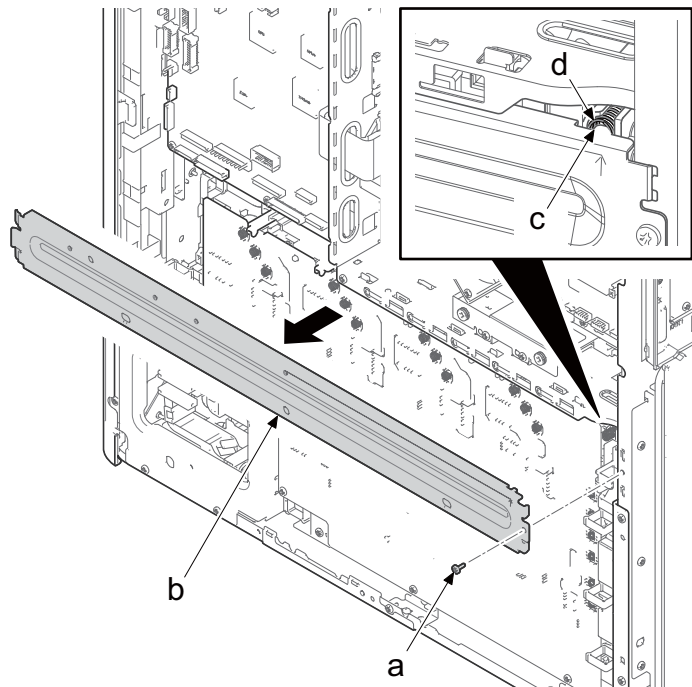
Figure 4-337

5. Release the wire (c) from the wire sad-
   dle (b) and disconnect the connector
   (a).
6. Remove two screws (d)(M3x8).
7. Remove the high voltage wire guide (e)
   in the direction of the arrow to release
   the protrusion (f) and hook (g).
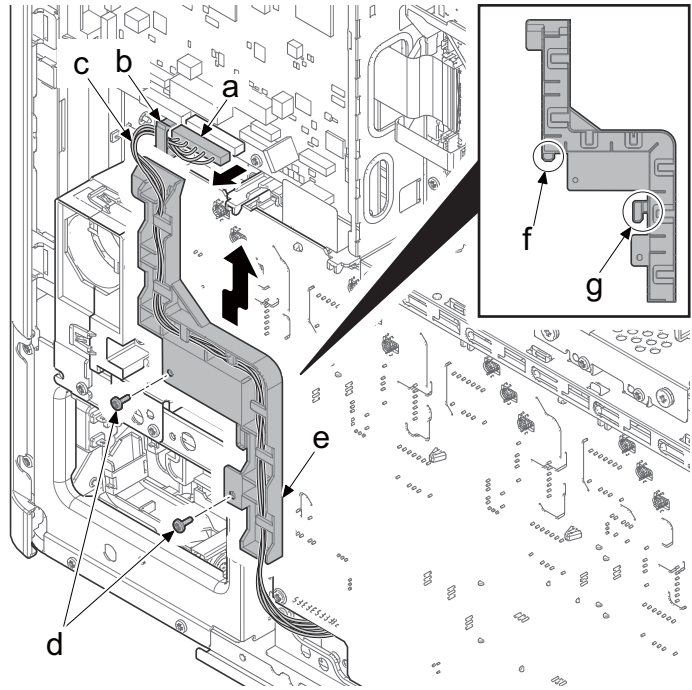
Figure 4-338

8. Remove four screws (b)(M3x8).
9. Release two board supports (e).
10. Release two hooks (c).
11. Rotate the high voltage PWB (a) making the four hooks (d) into a fulcrum and detach it.
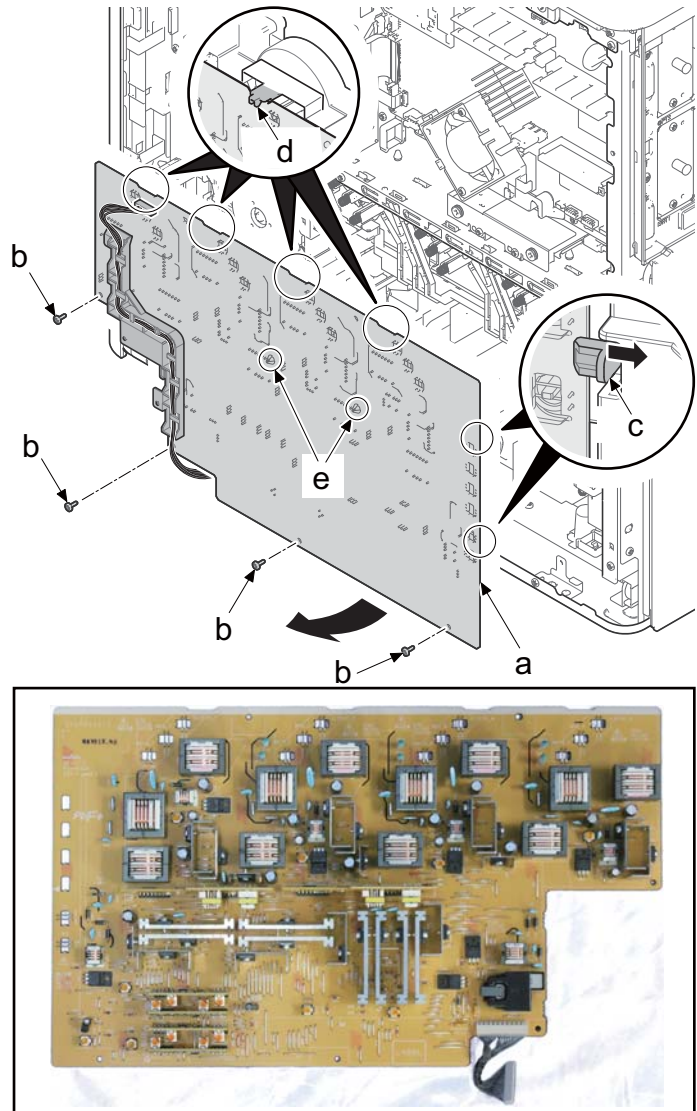
Figure 4-339

12. Disconnect the connector (a) and
    release the wire saddle A(b).
13. Release the wire (e) from the hook (c)
    and four wire saddles B (d).
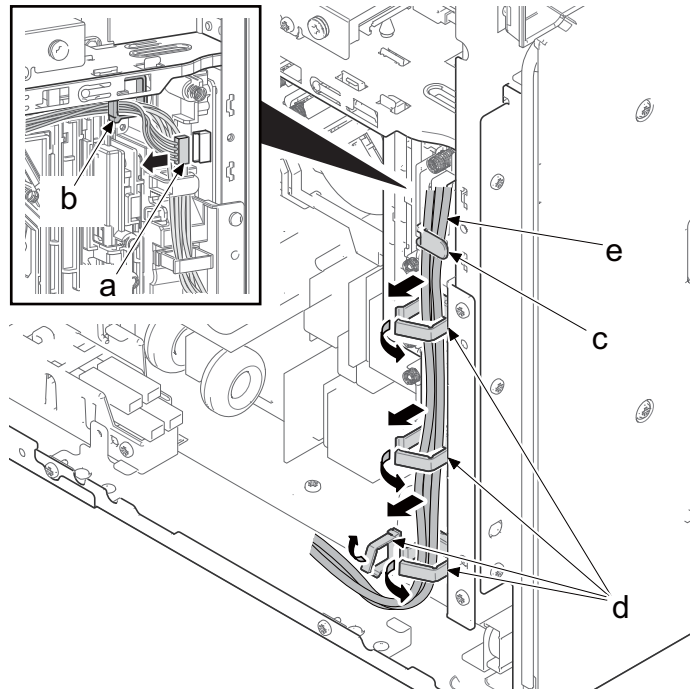
Figure 4-340

14. Remove three screws (a)(M3x8).
15. Release the hook (b) and remove the
    transfer high voltage assembly (c).
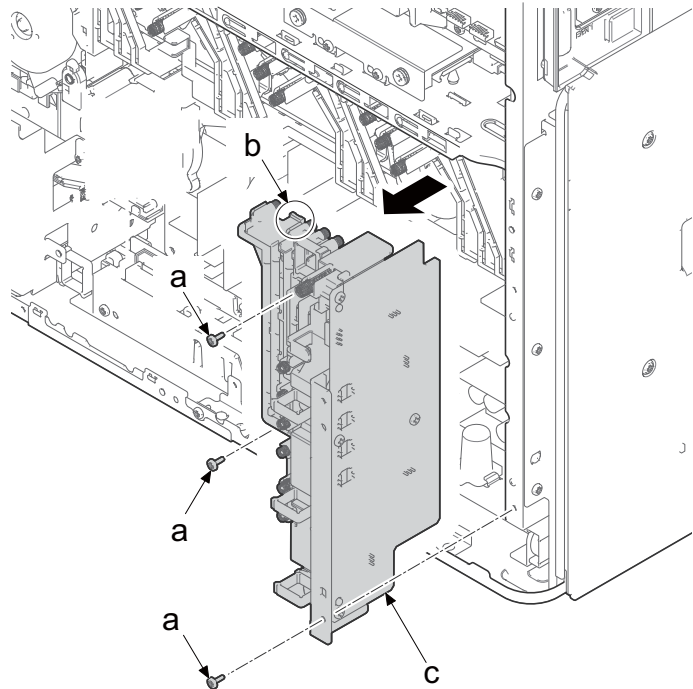
Figure 4-341

IMPORTANT

When attaching the transfer high voltage assembly (a), check the hook (b) clicks.

Figure 4-342

16. Disconnect three connectors (a).
17. Remove the wire (b) from the two hooks (c).
18. Remove three screws (d)(M3x8) and remove the heater PWB holder plate (e).

Figure 4-343

19. Remove two screws (a)(M3x8).
20. Remove the PF drawer holder (c) by sliding it to the front and removing it from the lancing (b).

IMPORTANT
When attaching the PF drawer holder (c), make sure to hang it to the two lancings (b).

Figure 4-344

21. Disconnect all the connectors from the power source PWB (a).
22. Remove three screws (b)(M3x8).
23. Release two hooks (c) and the board support (d), and remove the power source PWB (a).
24. Check or replace the power source PWB (a), and then reattach the parts in the original position.
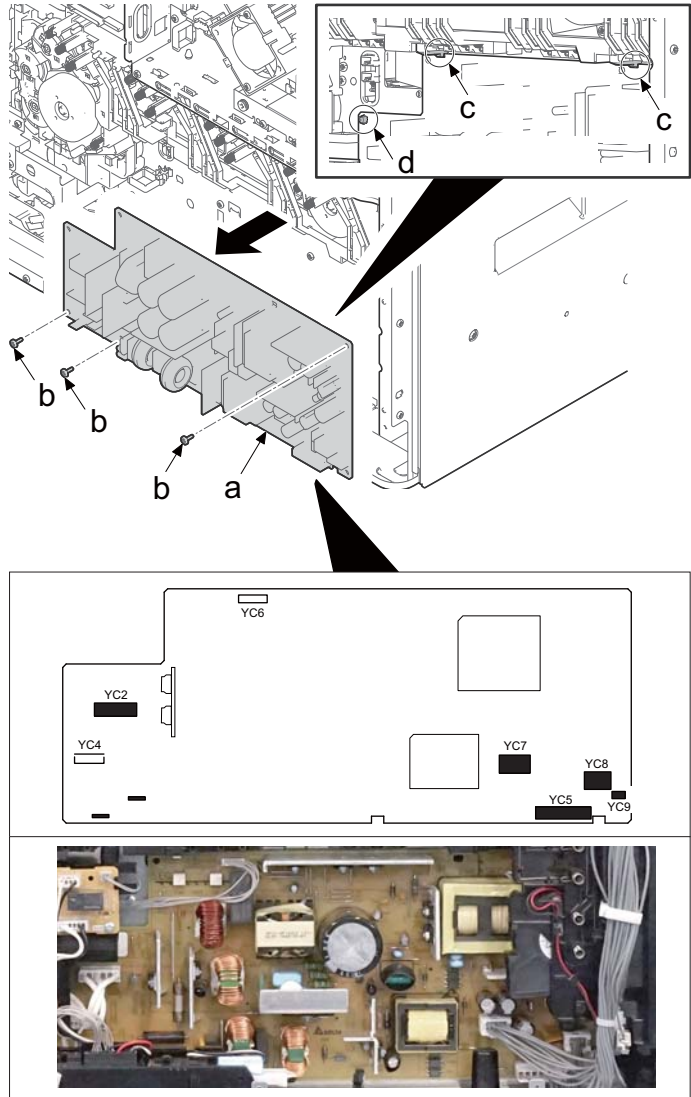
Figure 4-345

(5-9) Detaching and reattaching the operation panel PWB (30 ppm model)

Procedures

1. Tilt up the operation unit (a).
2. Remove the screw (b)(M3x8).
3. Remove the operation lid (c) from the operation unit (a) in the direction of the arrow.
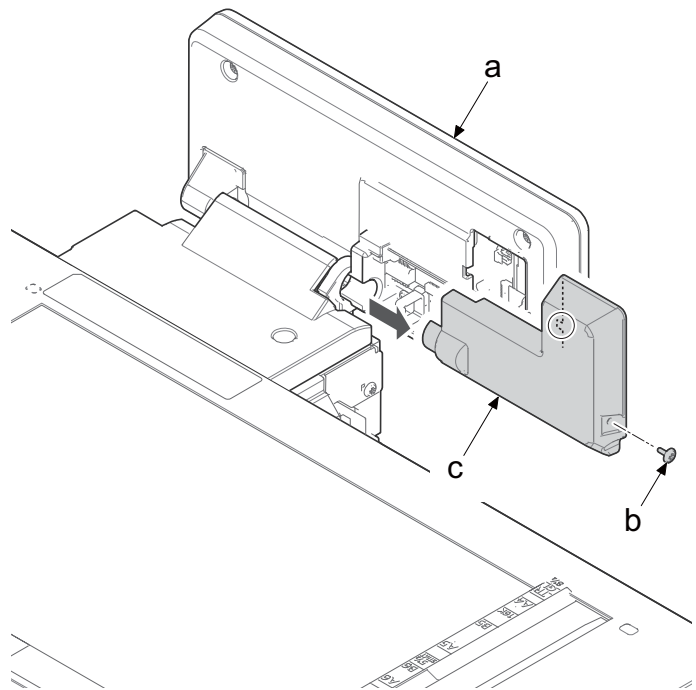
Figure 4-346

4. Remove the screw (a)(M3x8) and remove the upper exit cover (b).
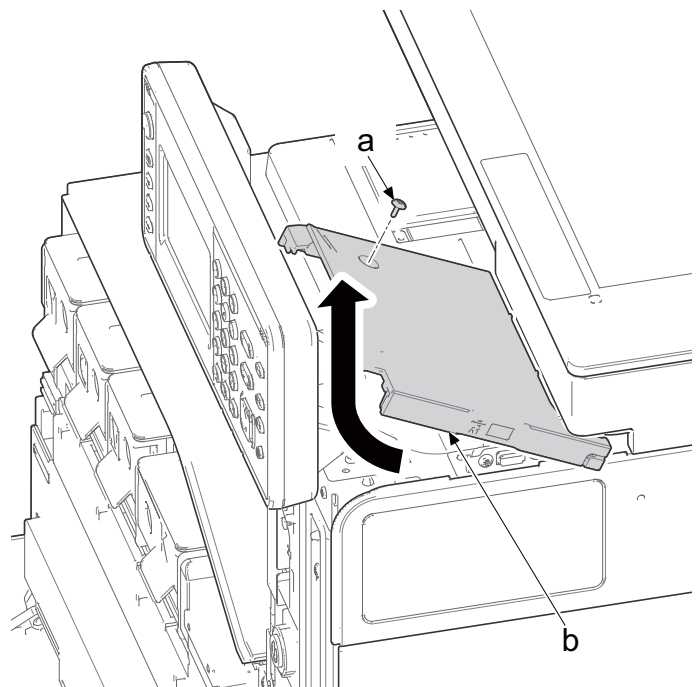
Figure 4-347

5. Open the front cover (a).
6. Tilt down the operation unit (b).
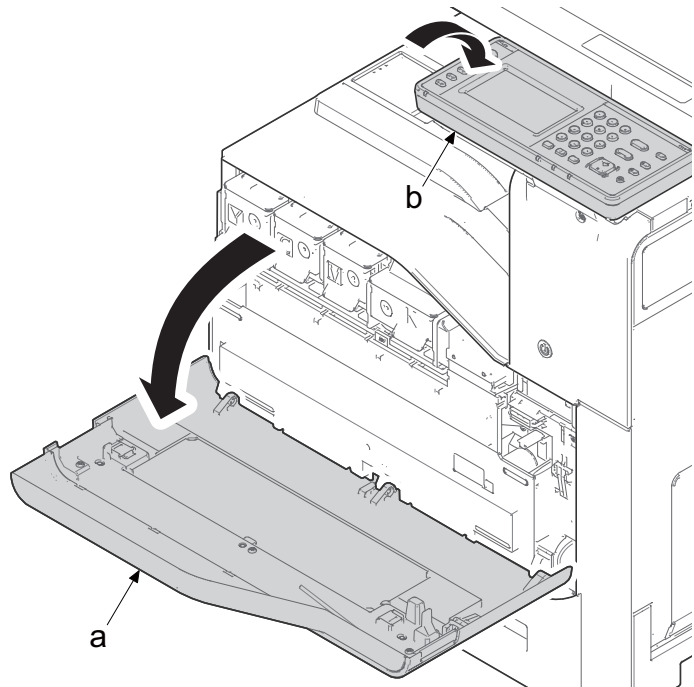
Figure 4-348

7. Open the right cover.
8. Remove two screws (a)(M3x8).
9. Release two hooks (b) and remove the front eject cover (c).
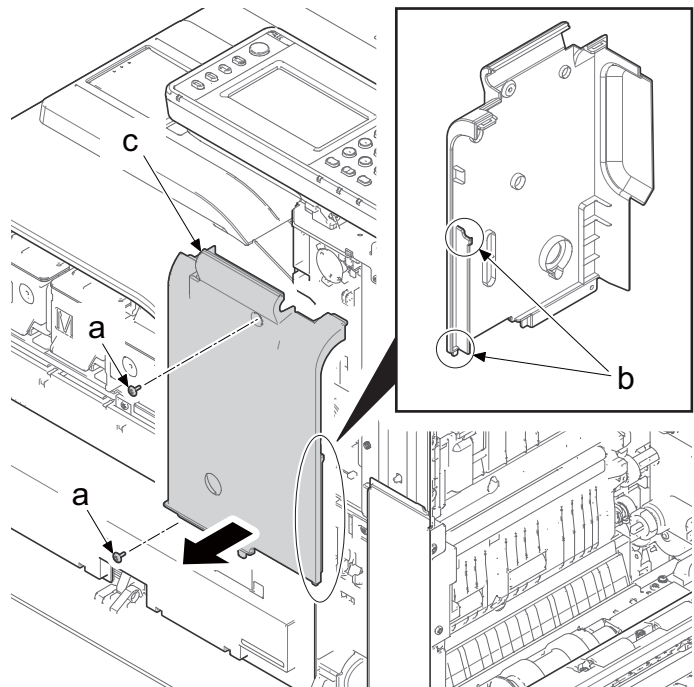
Figure 4-349

10. Remove the wire (a) from the wire saddles (b).
11. Disconnect three connectors (d) and USB connector (e) from the operation unit (c).
12. Remove the screw (f)(M3x8) and remove the ground terminal (g).
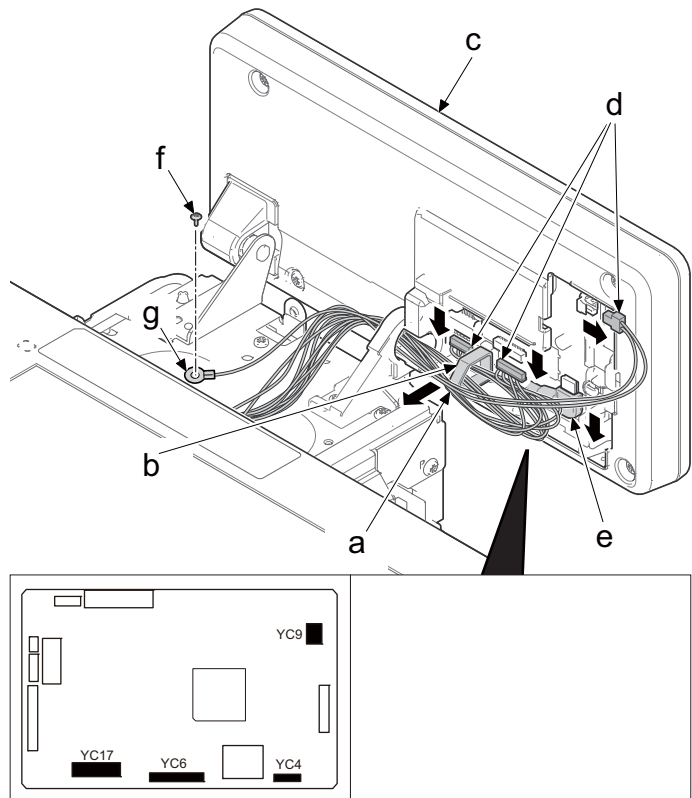
Figure 4-350

13. Remove two screws (b)(M3x8) from the right hinge (a).
14. Remove the operation unit (c) from the left hinge (d) in the direction of the arrow.
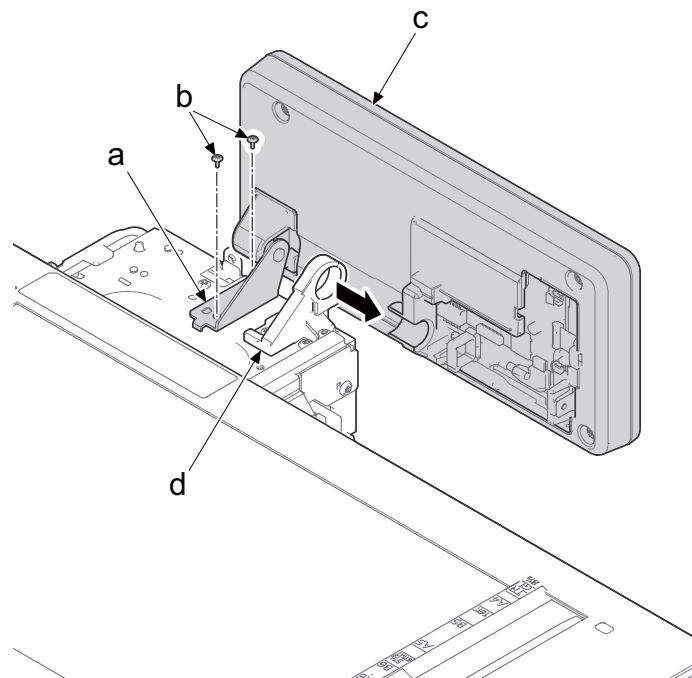
Figure 4-351

15. Remove five screws (a)(M3x8).
16. Release two hooks (b) and remove the rear operation cover (d) from the operation cover (c).
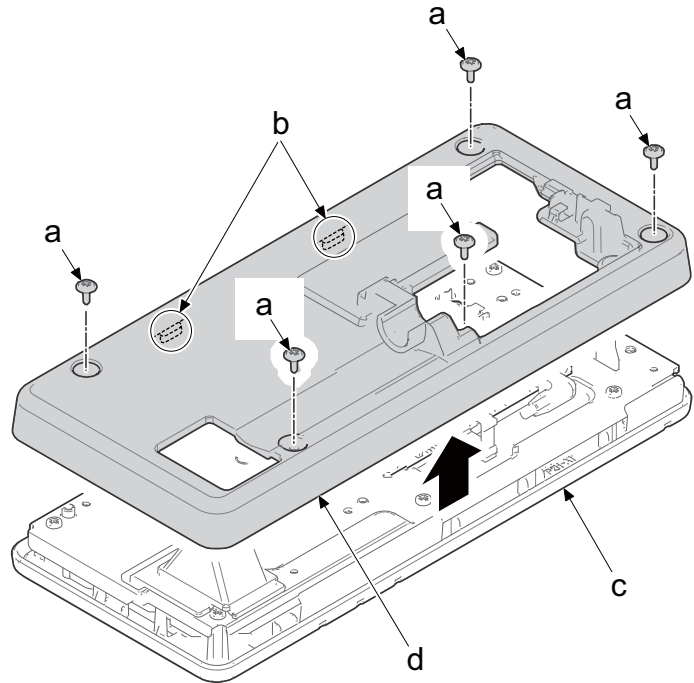
Figure 4-352

17. Disconnect all FFCs and the connectors from the operation PWB (a).
18. Remove four screws (b)(M3x8) and ground wire (c).
19. Remove the operation PWB (a) from the operation cover (c).

YC18   YC2
YC20
YC8
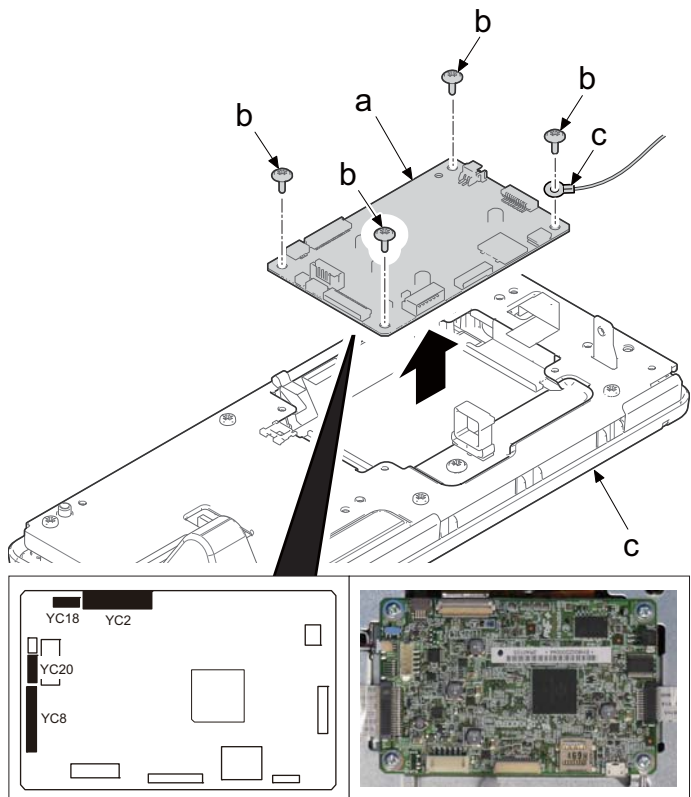
Figure 4-353

(5-10) Detaching and reattaching the operation panel PWB (35/40 ppm models)

Procedures

1. Tilt up the operation unit (a).
2. Remove the screw (b)(M3x8).
3. Remove the operation lid (c) from the operation unit (a) in the direction of the arrow.
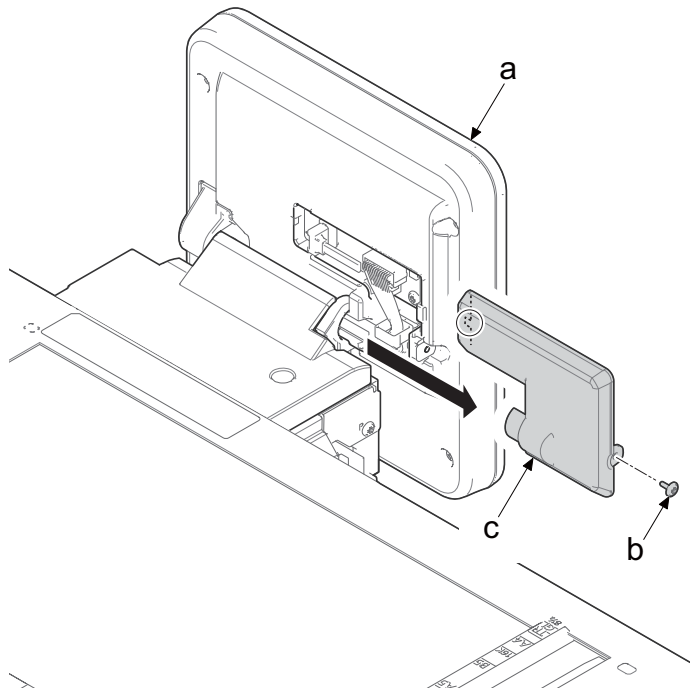
Figure 4-354

4. Remove the screw (a)(M3x8) and remove the upper exit cover (b).
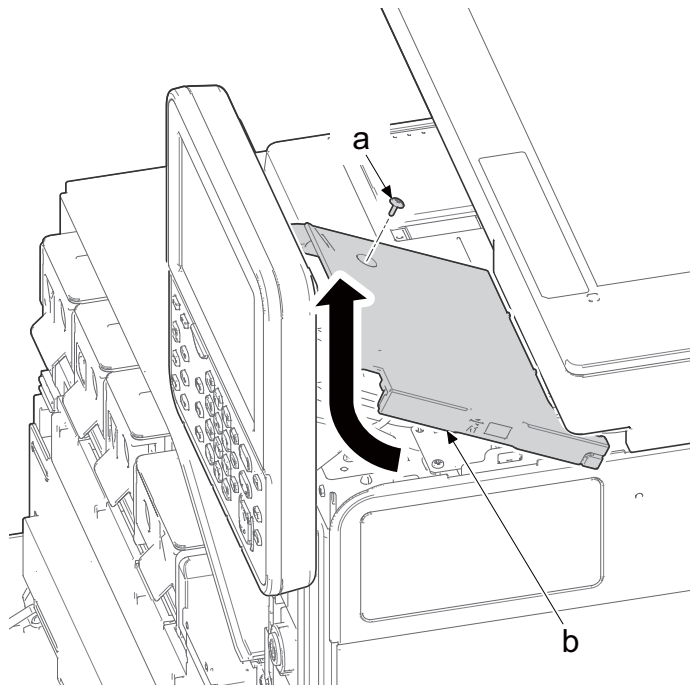
Figure 4-355

5. Open the front cover (a).
6. Tilt down the operation unit (b).
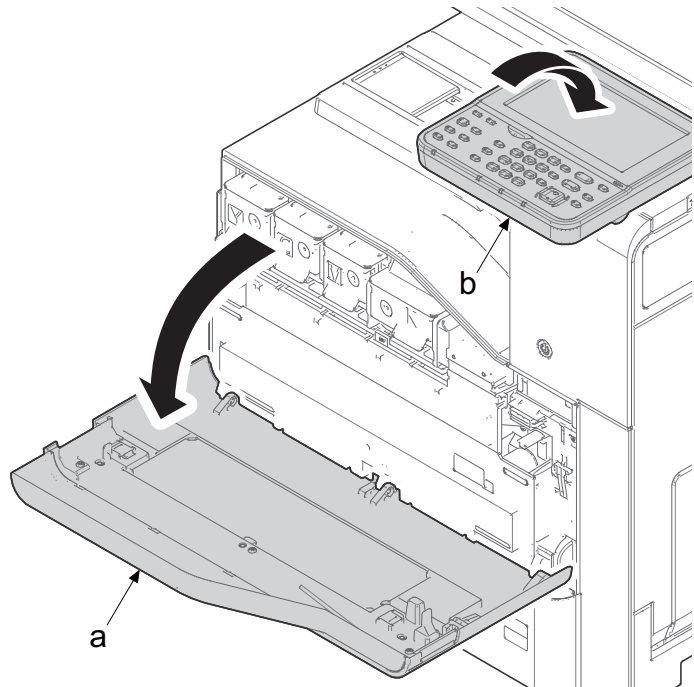
Figure 4-356

7. Open the right cover.
8. Remove two screws (a)(M3x8).
9. Release two hooks (b) and remove the front eject cover (c).
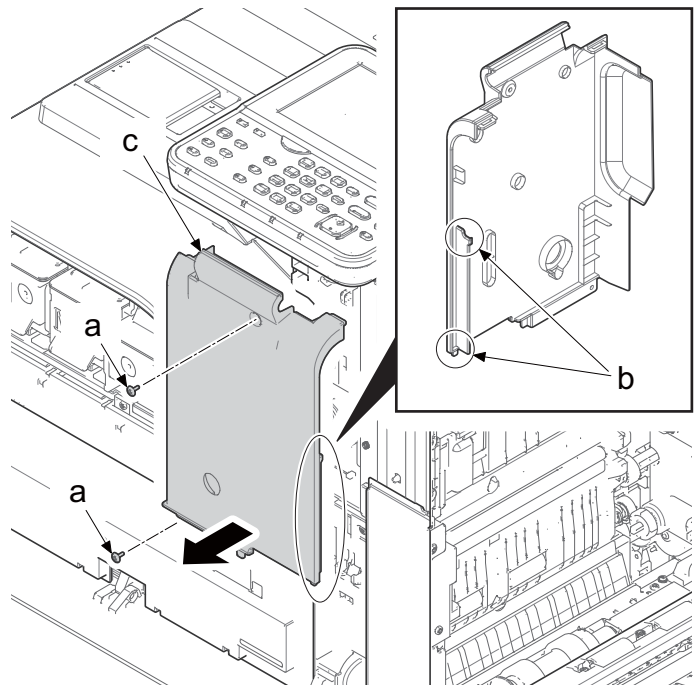
Figure 4-357

10. Disconnect three connectors (b) from the operation unit (a).
11. Remove the wire (c) from the wire saddles (d).
12. Remove the screw (e)(M3x8) and remove the ground terminal (f).
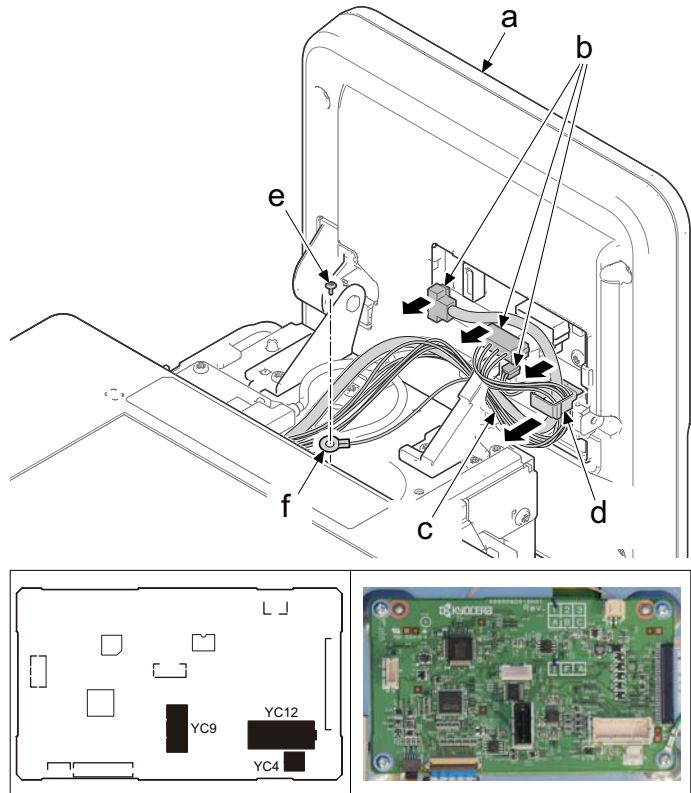
Figure 4-358

13. Remove two screws (b)(M3x8) from the right hinge (a).
14. Remove the operation unit (c) from the left hinge (d) in the direction of the arrow.
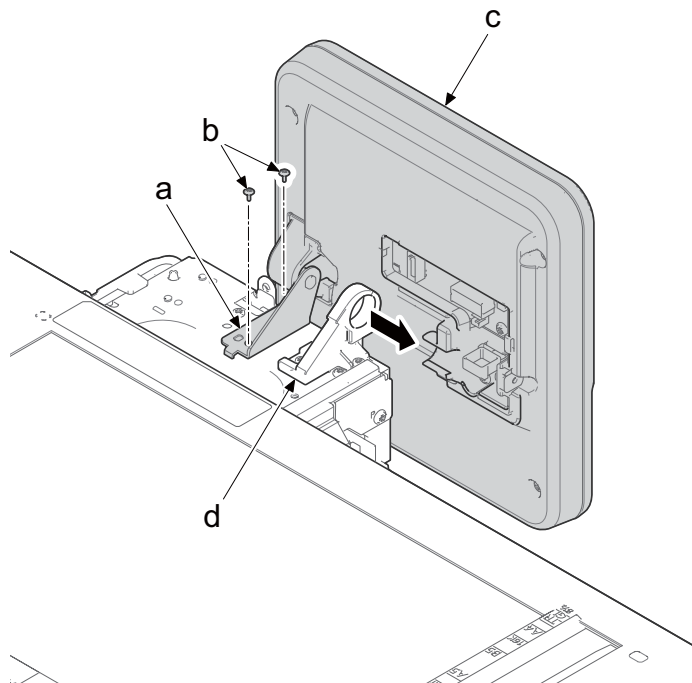
Figure 4-359

15. Remove five screws (a)(M3x8).
16. Remove the operation rear cover (c) from the operation cover (b).
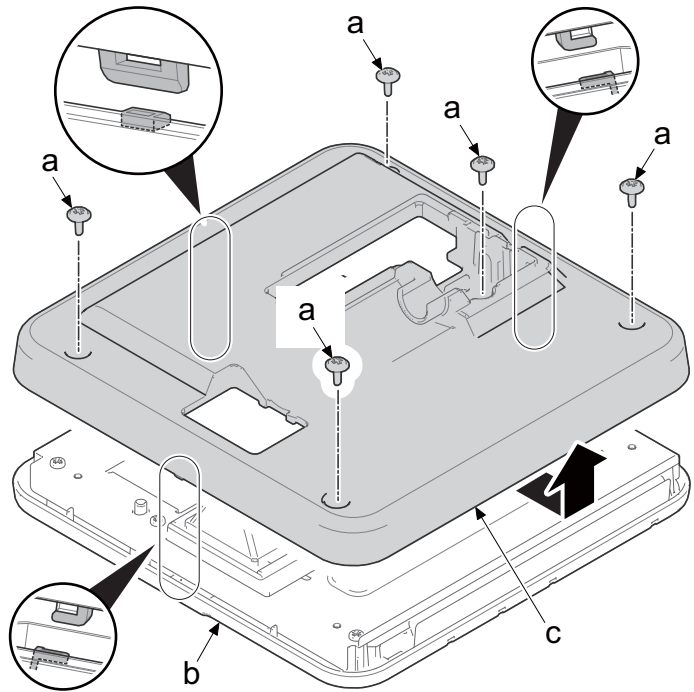
Figure 4-360

17. Disconnect all FFCs and the connectors from the operation PWB (c).
18. Remove four screws (a)(M3x8) and ground wire (d).
19. Remove the operation PWB (c) from the operation cover (b).

YC6

YC1

YC2

YC11

YC9

YC12

YC7 YC8

YC4
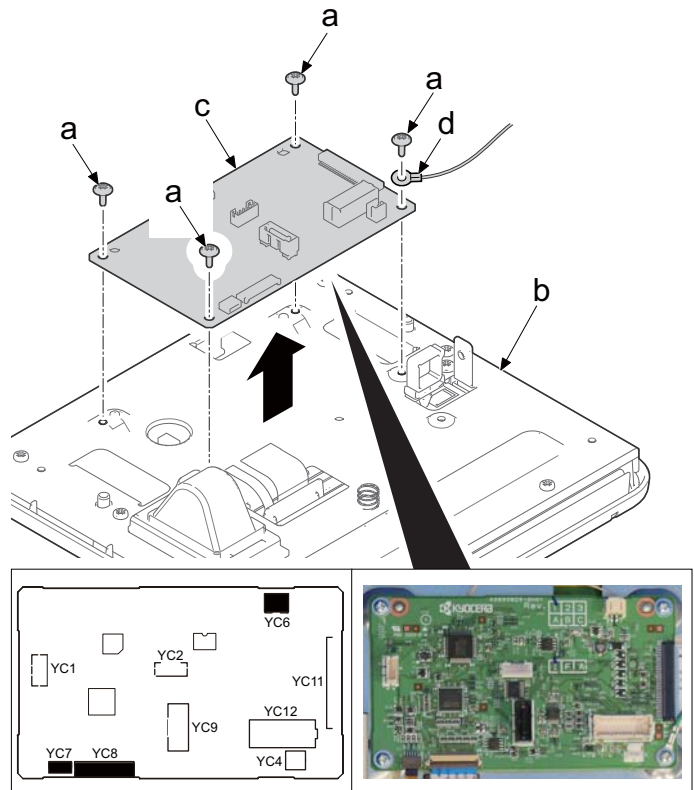
Figure 4-361

(6) Document processor: 30 ppm model only

(6-1) Detaching and reattaching the document processor

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Release the DP interface wire (c) from the wire saddle(e) and remove it from the two connectors (d).
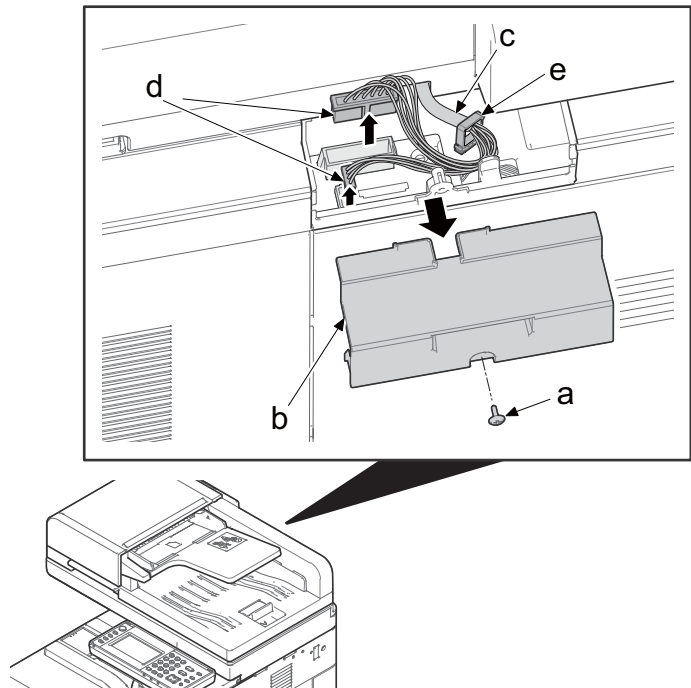
Figure 4-362

3. Open the document processor (a).
4. Lift up the document processor (a) in the direction of the arrow and remove the hinge (c) from the main unit (b).
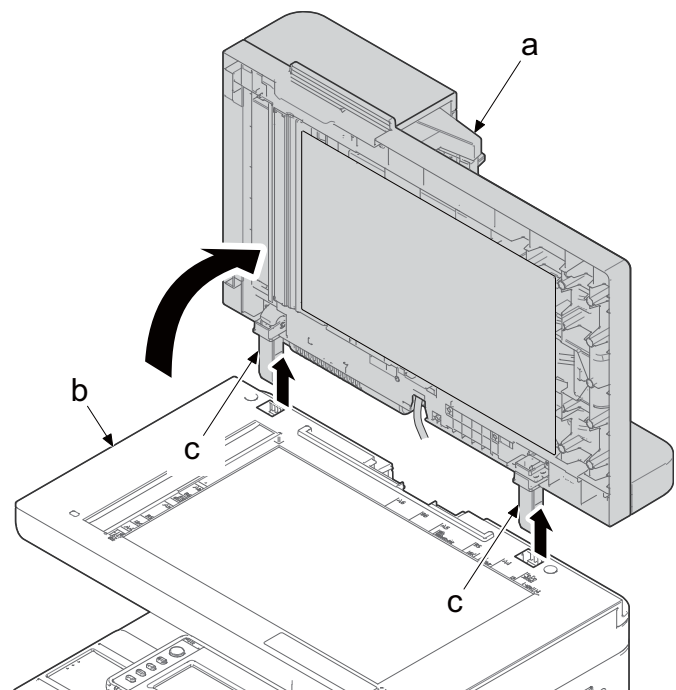
Figure 4-363

(6-2) Detaching and reattaching the DP rear cover

Procedures

1. Open the DP top cover (b) of the document processor (a).
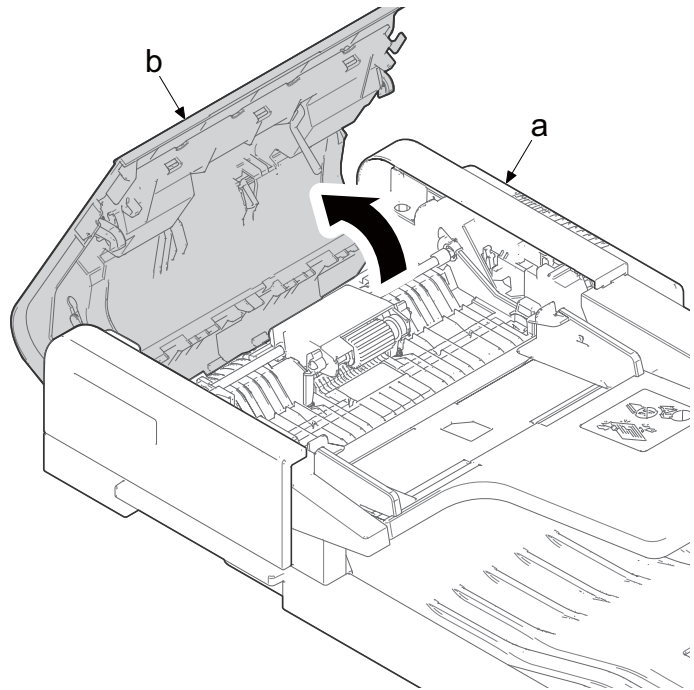
Figure 4-364

2. Release two hooks (b) with the flat-blade screwdriver (a) and remove the DP rear cover (d).
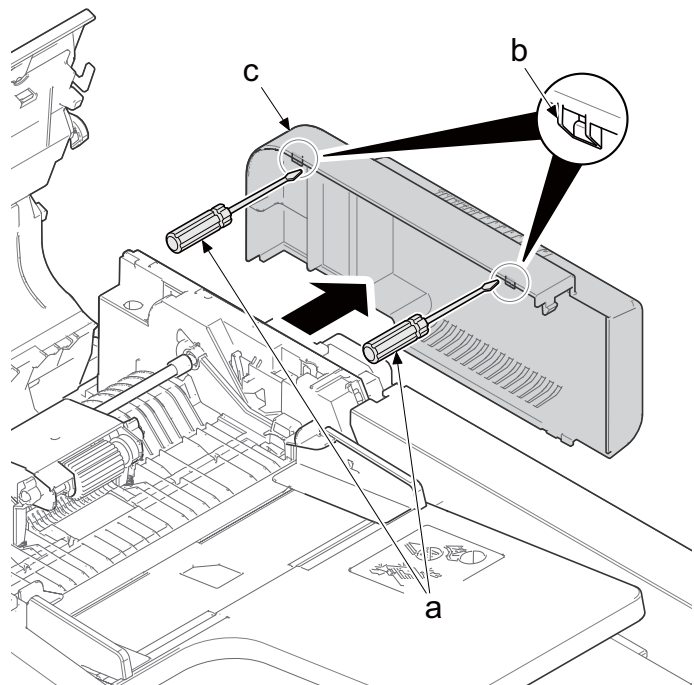
Figure 4-365

4-7Disassembly & Reassembly (option)

(1) Paper feeder (PF-5120)

(1-1) Detaching and reattaching the PF drive unit

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
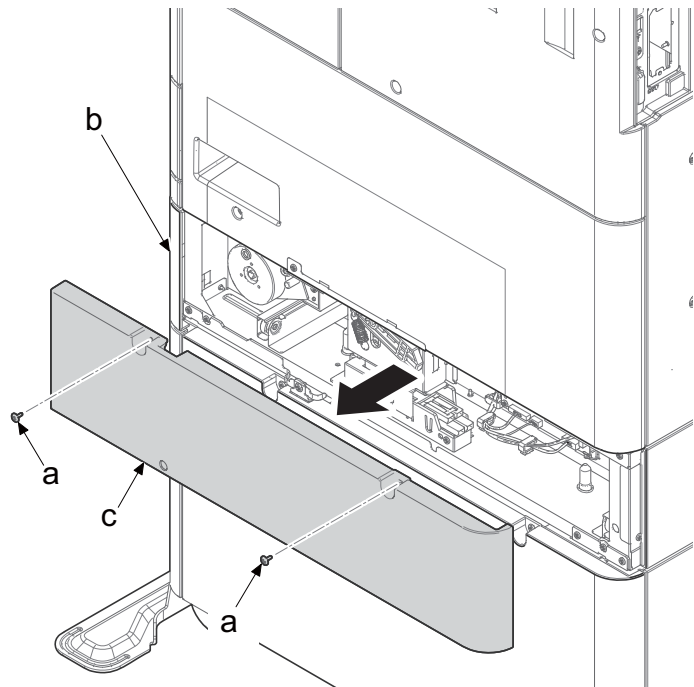
Figure 4-366

3. Disconnect the connector (b) of the motor (a).
4. Remove three screws (b)(M3x8) and remove the PF drive unit (d).
5. Check or replace the PF drive unit (d), and then reattach the parts in the original position.
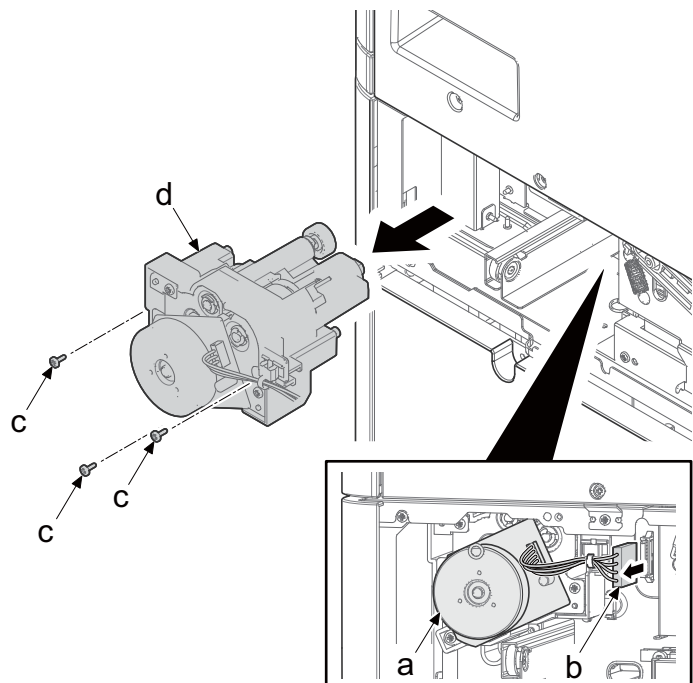
Figure 4-367

(1-2) Detaching and reattaching the PF lift motor

Procedures

1. Pull out the cassette (a) from the paper feeder (b) and remove it in the direction of the arrow.
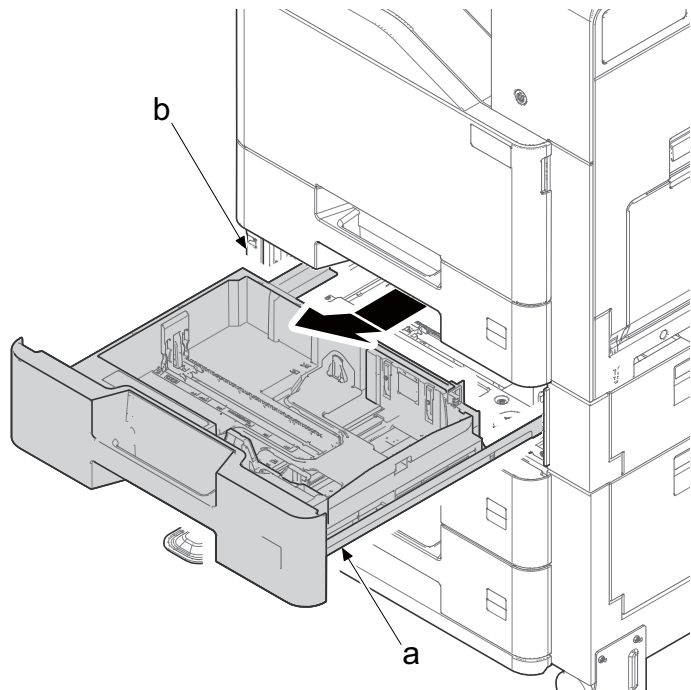
Figure 4-368

2. Pinch the lock lever (c) and pull the primary paper feed unit (d).
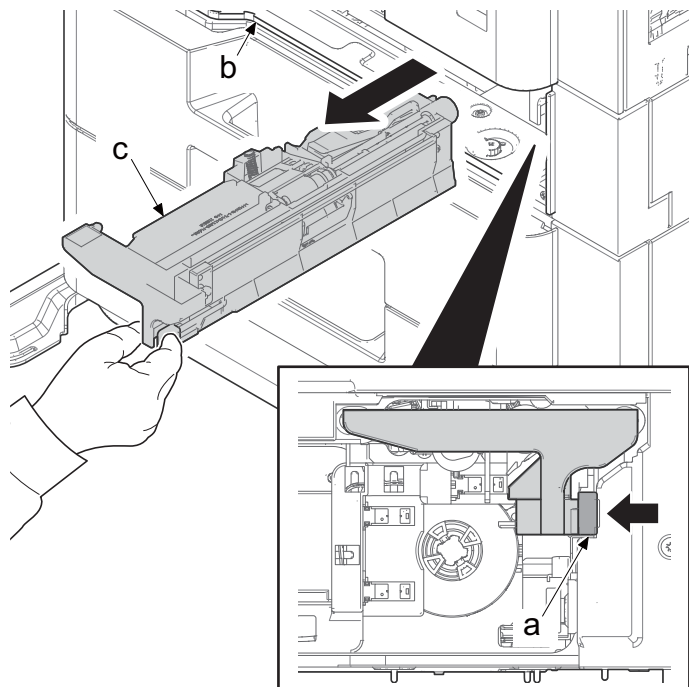
Figure 4-369

3. Remove the connector (a) and two screws (b)(M3x8).
4. Release the hook (d) from the square hole (c) of the side frame and remove the sensor holder (e).
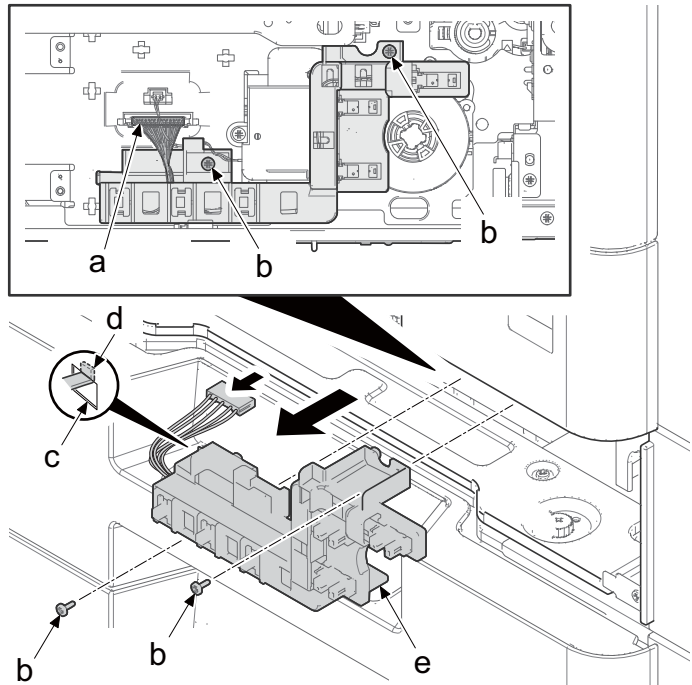
Figure 4-370

5. Remove the connector (a) and two screws (b)(M3x8).
6. Release the hook (d) from the square hole (c) of the side frame and remove the PF lift motor (e).
7. Check or replace the PF lift motor (e), and then reattach the parts in the original position.
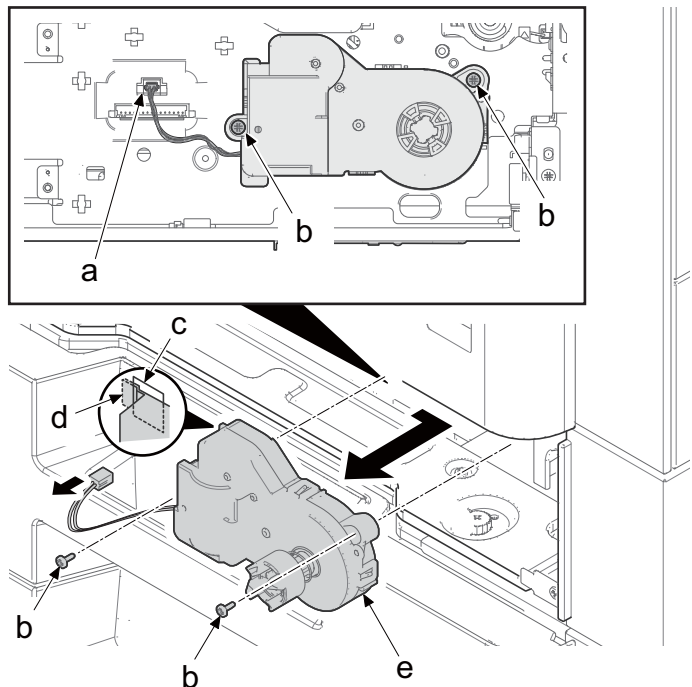
Figure 4-371

(1-3) Detaching and reattaching the PF main PWB

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
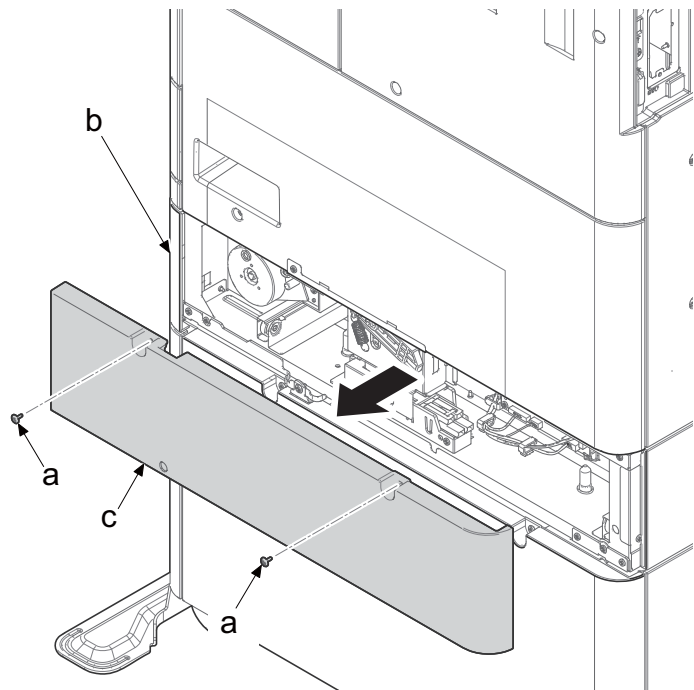
Figure 4-372

3. Disconnect all the connectors from the PF main PWB (a).
4. Remove two screws (b)(M3x8) and remove the PF main PWB (a).
5. Check or replace the PF main PWB (a), and then reattach the parts in the original position.
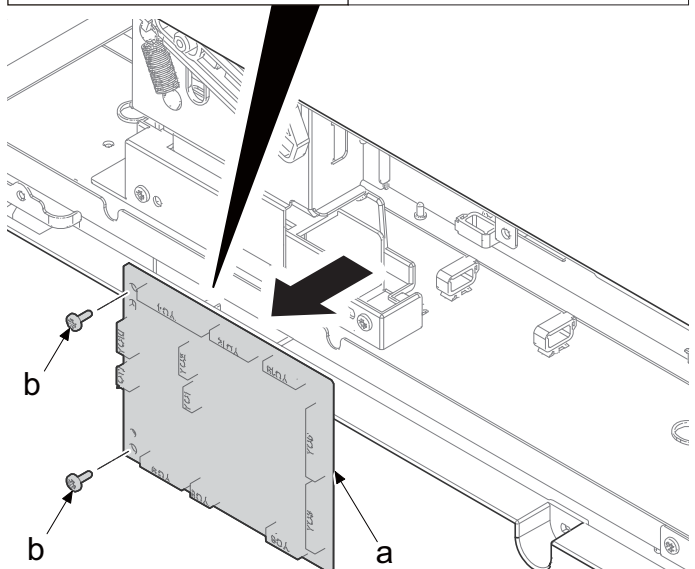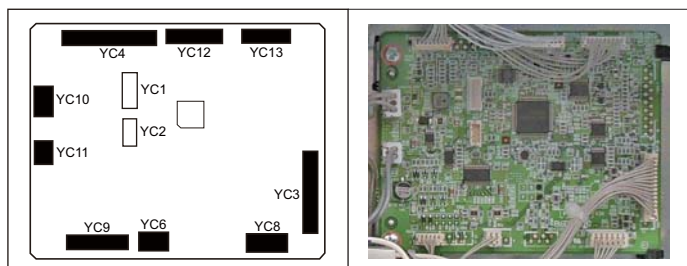
Figure 4-373

(2) Paper feeder (PF-5130)

(2-1) Detaching and reattaching the PF drive unit

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
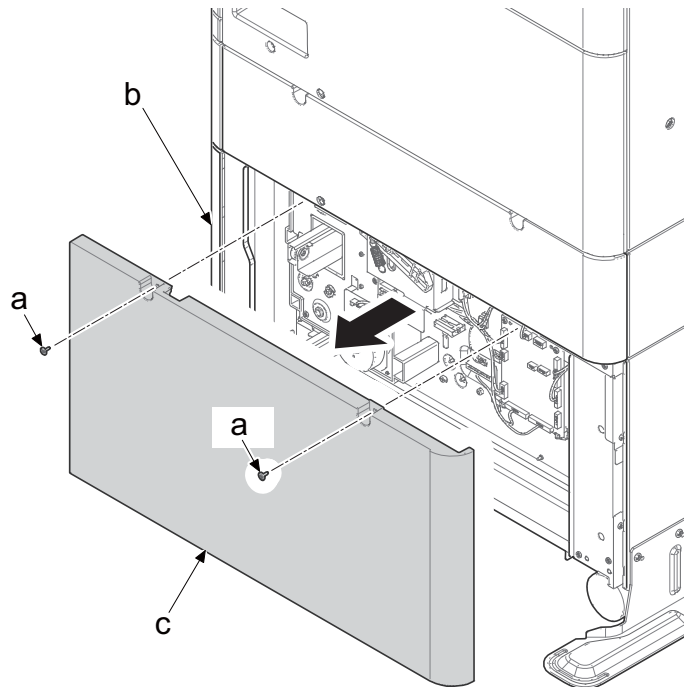
Figure 4-374

3. Release two wire saddles (d) and disconnect two connectors (a) of the PF drive unit.
4. Remove five screws (b)(M3x8) and remove the PF drive unit (c).
5. Check or replace the PF drive unit (c), and then reattach the parts in the original position.
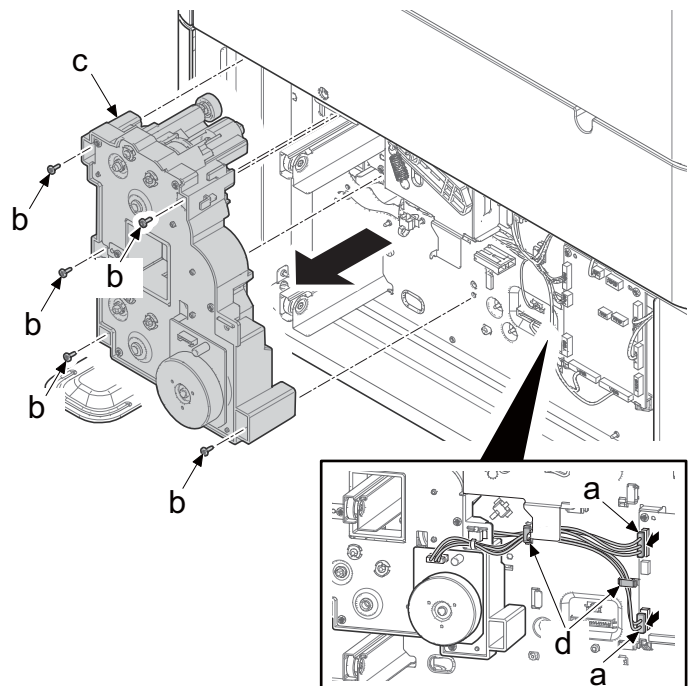
Figure 4-375

(2-2) Detaching and reattaching the PF lift motor

Procedures

1. Pull out the upper cassette (a) from the paper feeder (b) and pull it out on an angle.
2. Pull out the lower cassette (a) from the paper feeder (b) and pull it out on an angle.
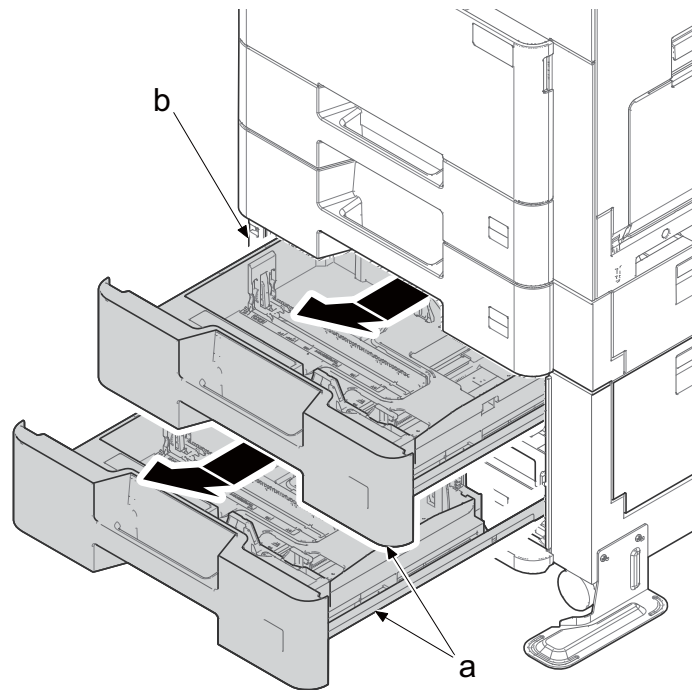
Figure 4-376

3. Pinch the lock lever (c) and pull the primary paper feed unit (d) from the upper stage.
4. Pinch the lock lever (c) and pull the primary paper feed unit (d) from the lower stage.
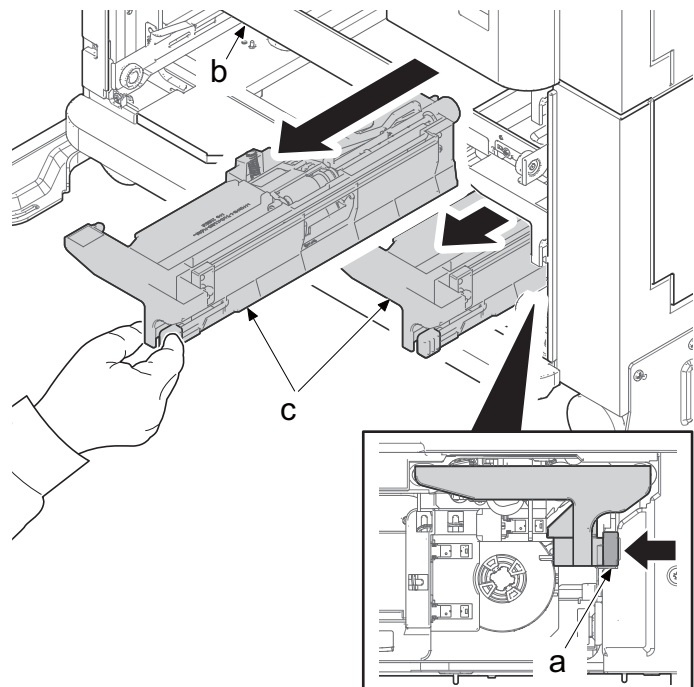
Figure 4-377

5. Disconnect the connector (b) of the upper sensor holder (a) and remove two screws (c)(M3X8).

6. Release the hook (e) from the square hole (c) of the side frame and remove the sensor holder (a).

7. Remove the sensor holder (a) of the lower stage as well.
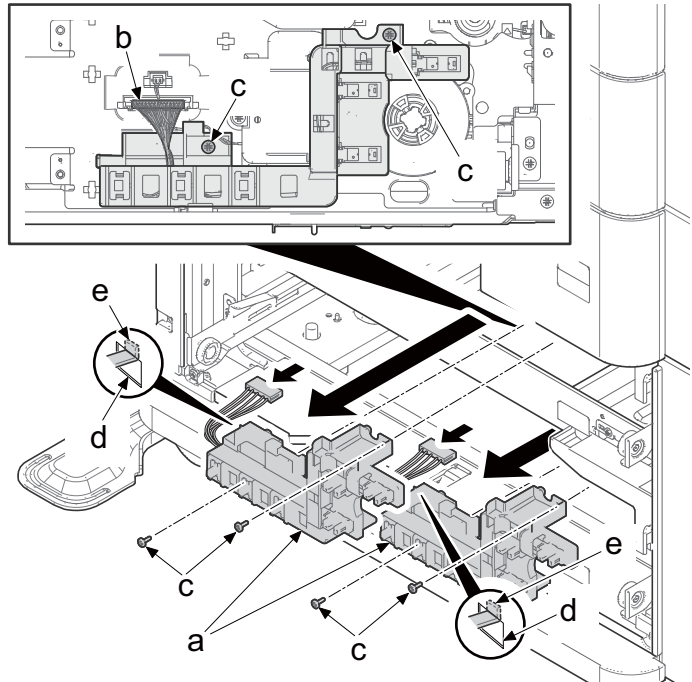
Figure 4-378

8. Disconnect the connector (b) and remove two screws (c)(M3X8) of the upper stage PF lift motor (a).

9. Release the hook (e) from the square hole (d) of the side frame and remove the PF lift motor (a).

10. Remove the PF lift motor (a) of the lower stage as well.

11. Check or replace the PF lift motor (a), and then reattach the parts in the original position.
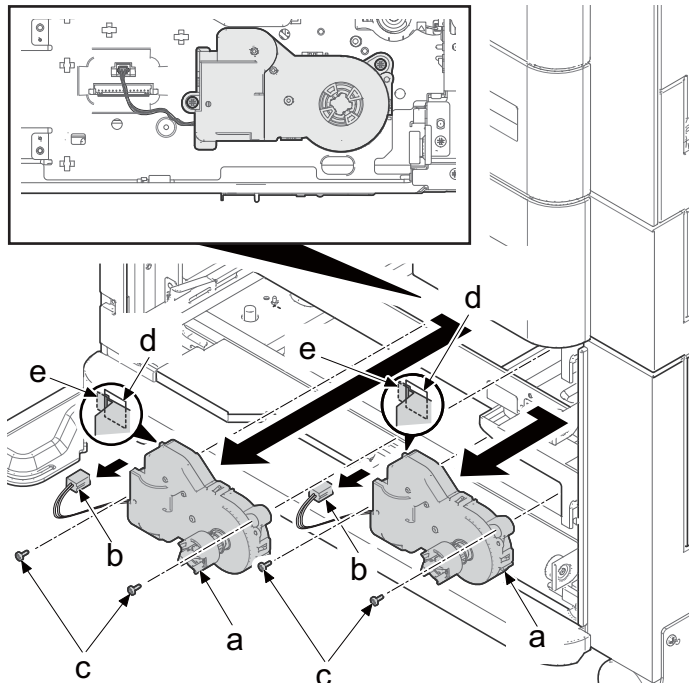
Figure 4-379

(2-3) Detaching and reattaching the PF main PWB

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
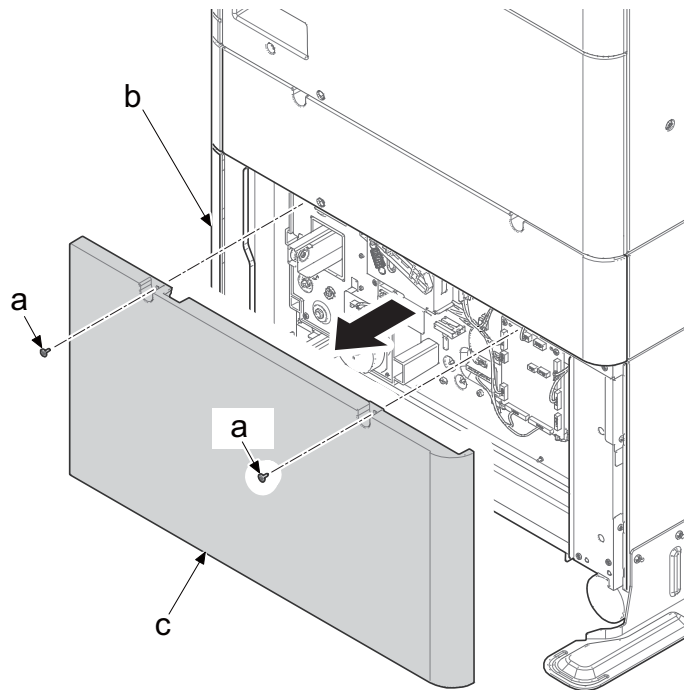
3. Disconnect all the connectors from the PF main PWB (a).
4. Remove two screws (b)(M3x8).
5. Release two hooks (c) and remove the PF main PWB (a).
6. Check or replace the PF main PWB (a), and then reattach the parts in the original position.
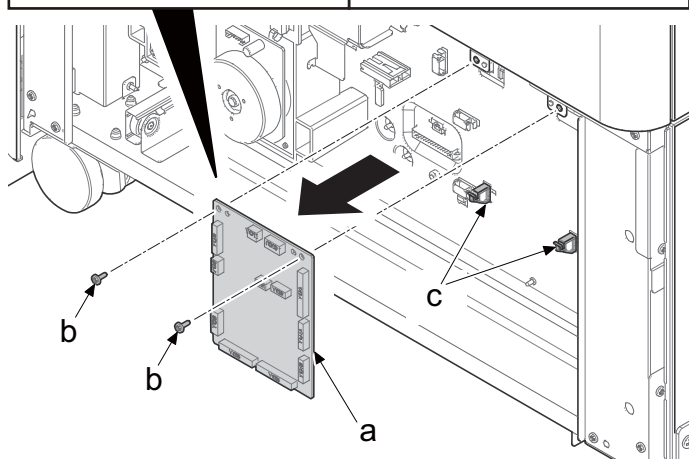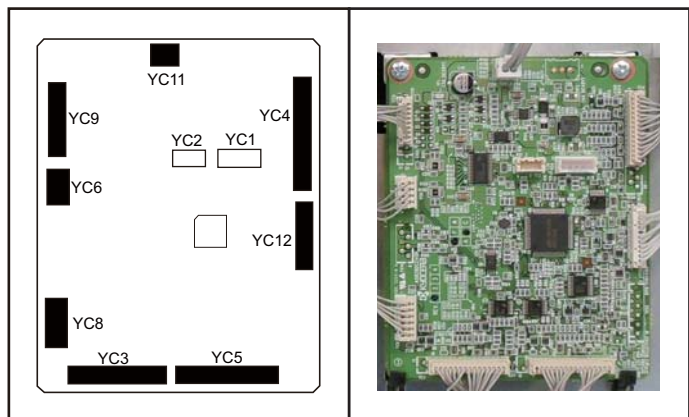
Figure 4-381

(3) Paper feeder (PF-5140)

(3-1) Detaching and reattaching the PF drive unit

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
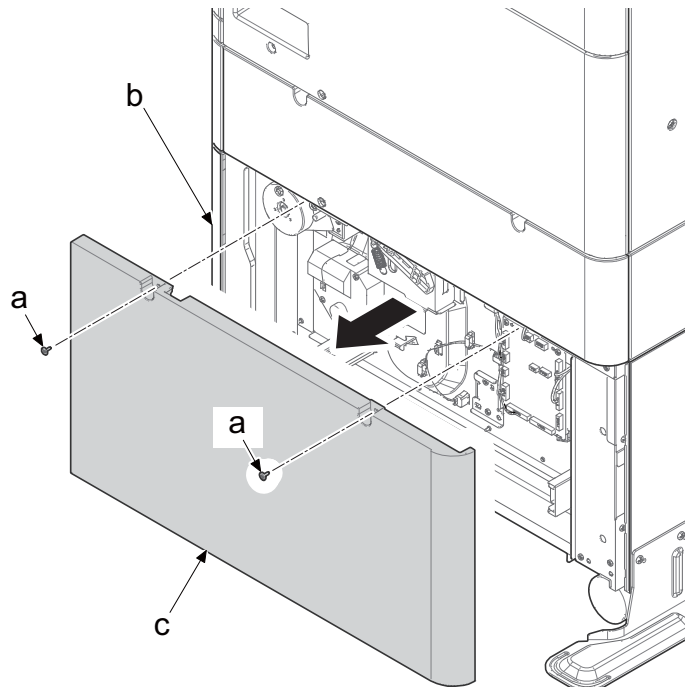
Figure 4-382

3. Remove the connecter (a) of the motor.
4. Remove three screws (b)(M3x8) and remove the PF drive unit (c).
5. Check or replace the PF drive unit (c), and then reattach the parts in the original position.
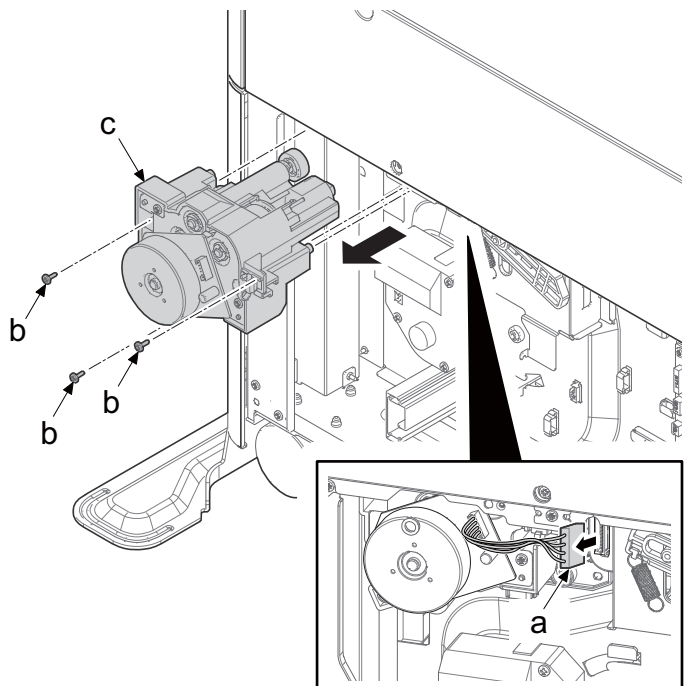
Figure 4-383

(3-2) Detaching and reattaching the PF lift motor

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
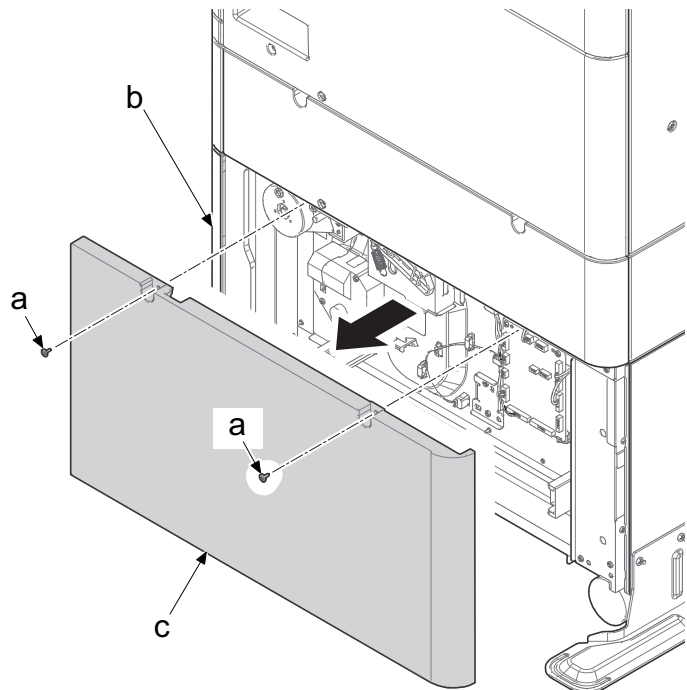
Figure 4-384

3. Disconnect the connector (b) of the PF lift motor (a).
4. Remove three screws (b)(M3x8) and remove the PF lift motor (a).
5. Check or replace the PF lift motor (a), and then reattach the parts in the original position.
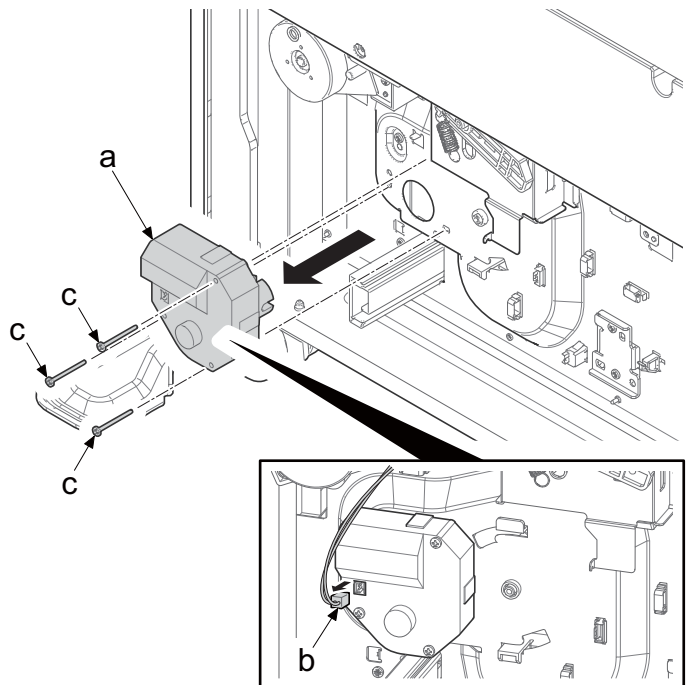
Figure 4-385

(3-3) Detaching and reattaching the PF main PWB

Procedures

1. Remove two screws (a)(M3x8).
2. Remove PF rear cover (c) from the paper feed unit (b).
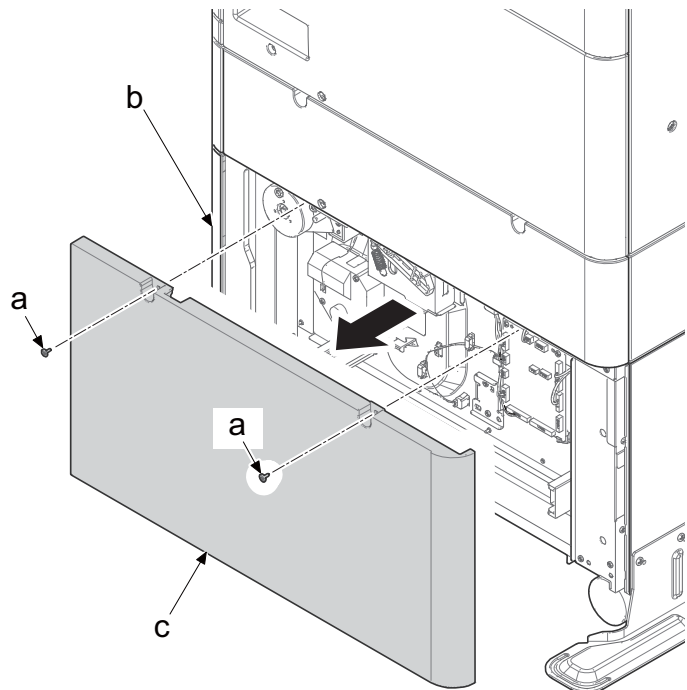
Figure 4-386

3. Disconnect all the connectors from the PF main PWB (a).
4. Remove two screws (b)(M3x8).
5. Release two hooks (c) and remove the PF main PWB (a).
6. Check or replace the PF main PWB (a), and then reattach the parts in the original position.
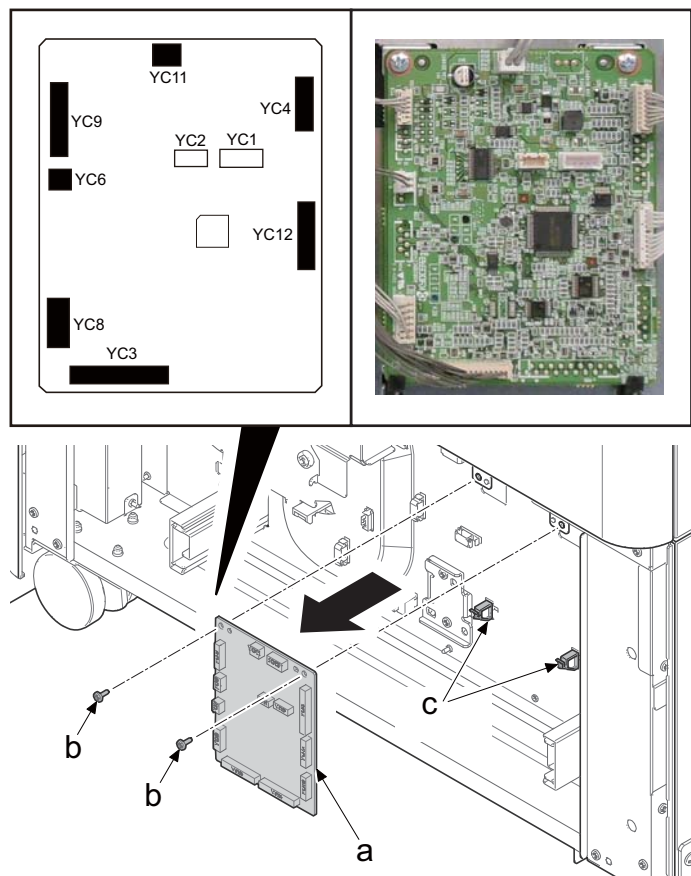
Figure 4-387

(4) Document processor (DP-5100): 35/40 ppm models only

(4-1) Detaching and reattaching the document processor

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Release the DP interface wire (c) from the wire saddle(e) and remove it from the two connectors (d).
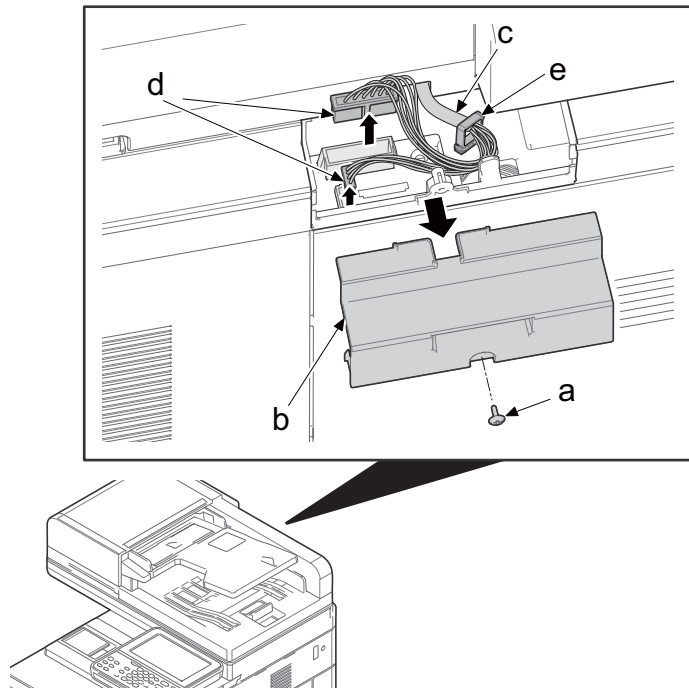
Figure 4-388

3. Open the document processor (a).
4. Lift up the document processor (a) in the direction of the arrow and remove the hinge (c) from the main unit (b).
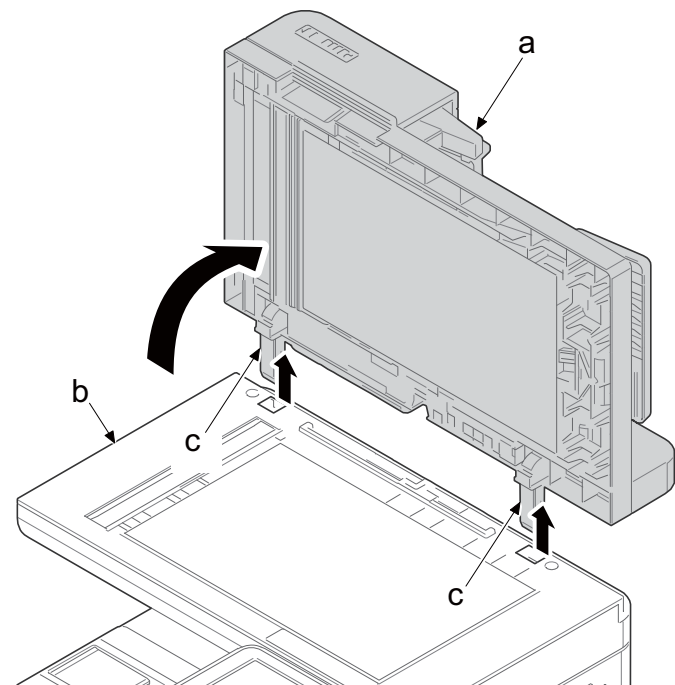
Figure 4-389

(4-2) Detaching and reattaching the DP rear cover

Procedures

1. Open the DP top cover (b) of the document processor (a).
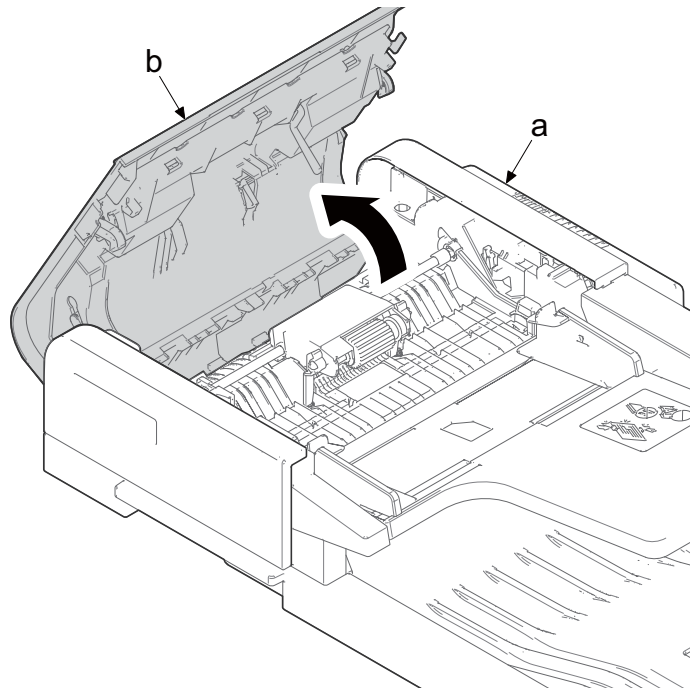
Figure 4-390

2. Release two hooks (b) with the flat-blade screwdriver (a) and remove the DP rear cover (d).
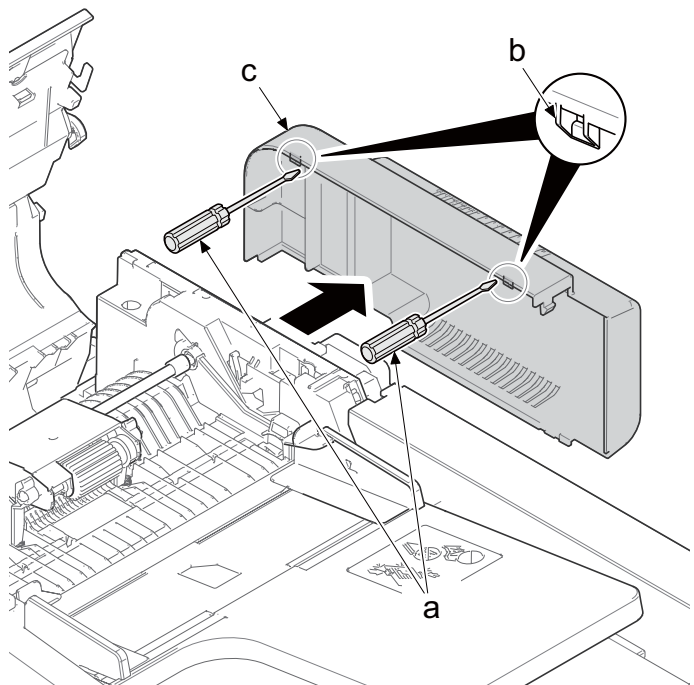
Figure 4-391

(4-3) Detaching and reattaching the DP main PWB

Procedures

1. Open the DP top cover (b) of the document processor (a).
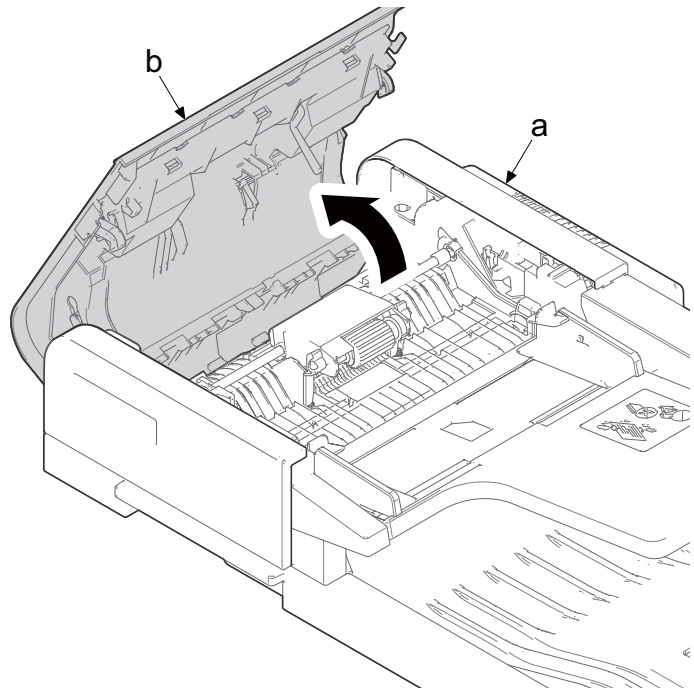
Figure 4-392

2. Release two hooks (b) with the flat-blade screwdriver (a) and remove the DP rear cover (d).
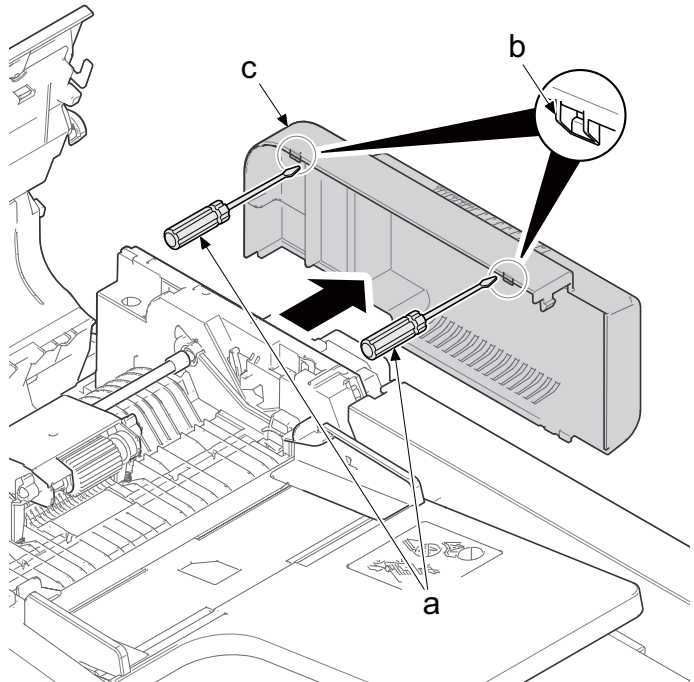
Figure 4-393

3. Remove the screw (a)(M3x8).
4. Release two hooks (c) with the flat-blade screwdriver (b) and remove the DP rear right cover (d).
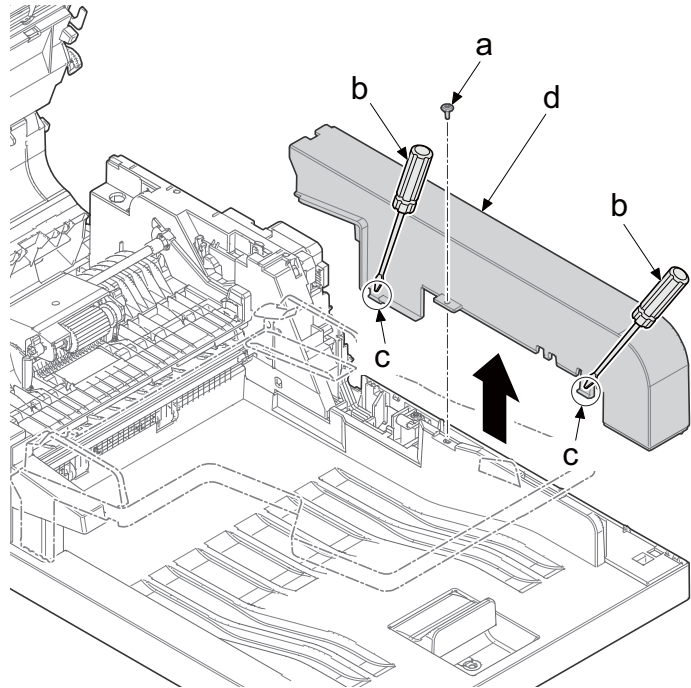
Figure 4-394

5. Remove two screws (a)(M3x8).
6. Disconnect all the connectors from the DP main PWB (b).
7. Detach the DP main PWB (b) from the document processor (c).
8. Check or replace the DP main PWB (b), and then reattach the parts in the original position.
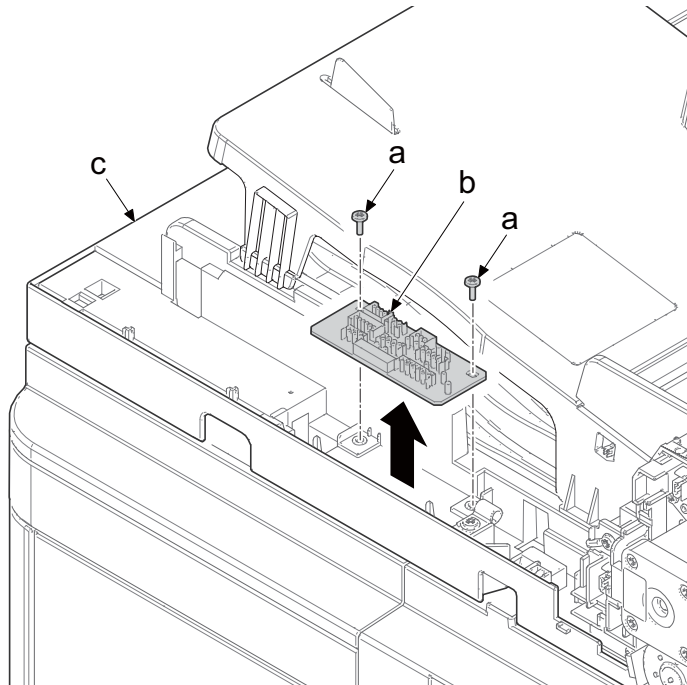
Figure 4-395

(5) Document processor (DP-5110): 35/40 ppm models only

(5-1) Detaching and reattaching the document processor

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Release the DP interface wire (c) from the wire saddle(e) and remove it from the three connectors (d).
3. Remove the CIS connector (g) while pulling the release lever (f).
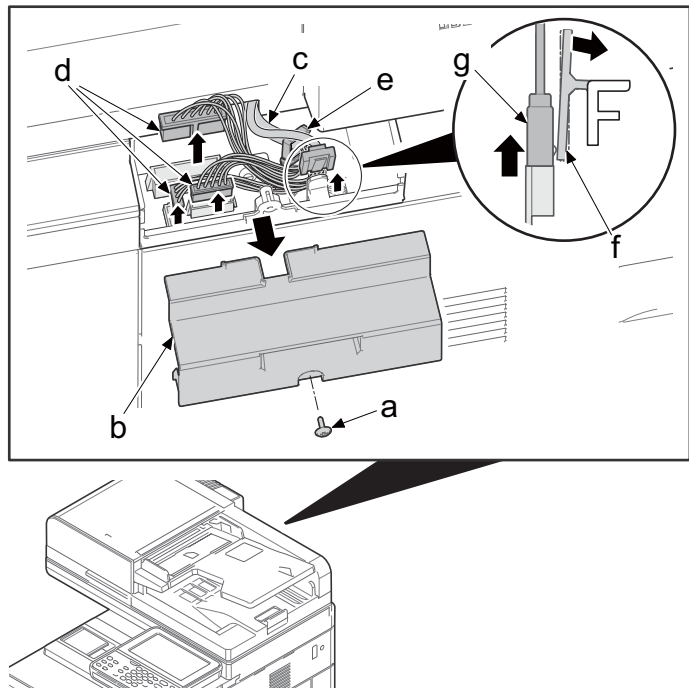
Figure 4-396

4. Open the document processor (a).
5. Lift up the document processor (a) in the direction of the arrow and remove the hinge (c) from the main unit (b).
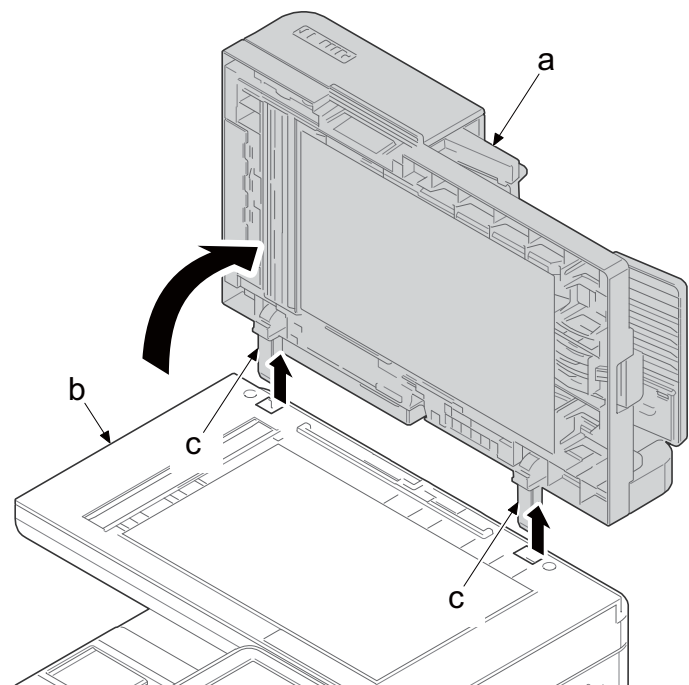
Figure 4-397

(5-2) Detaching and reattaching the DP rear cover

Procedures

1. Open the DP top cover (b) of the document processor (a).
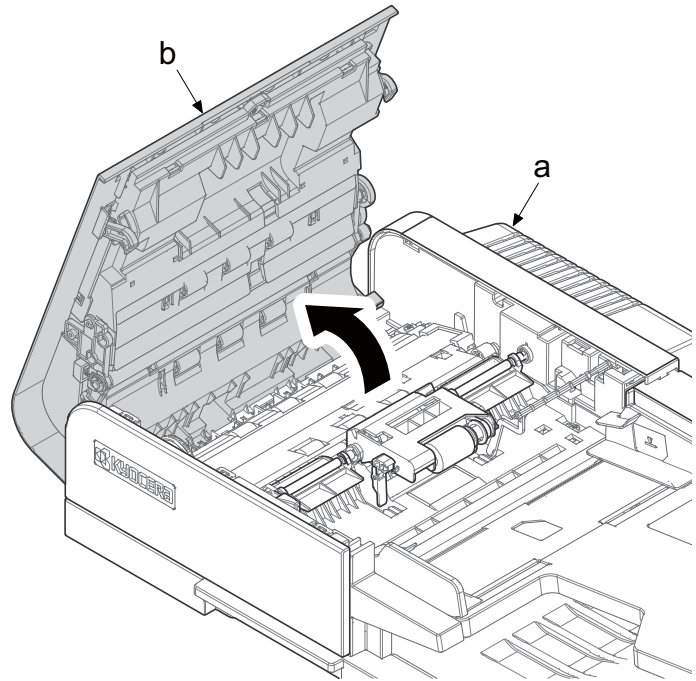
Figure 4-398

2. Release two hooks (b) with the flat-blade screwdriver (a) and remove the DP rear cover (d).
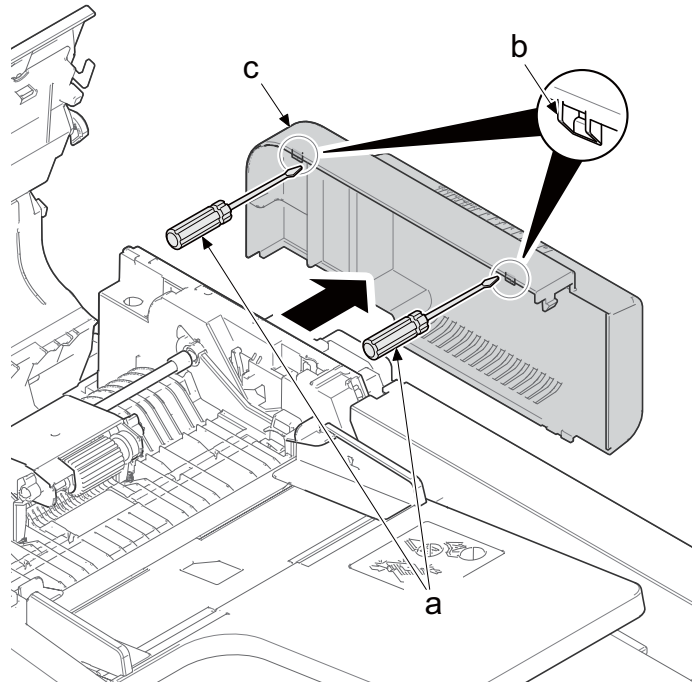
Figure 4-399

(5-3) Detaching and reattaching the DP main PWB

Procedures

1. Open the DP top cover (b) of the document processor (a).
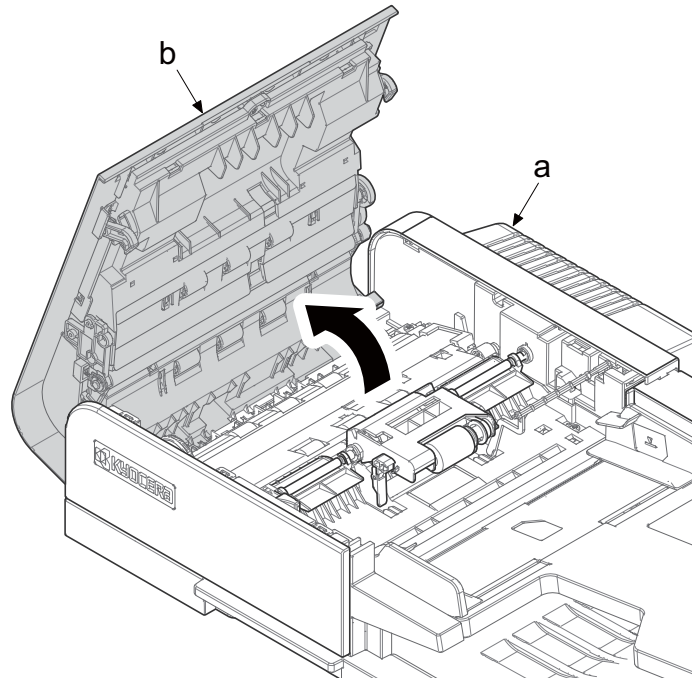
Figure 4-400

2. Release two hooks (b) with the flat-blade screwdriver (a) and remove the DP rear cover (d).
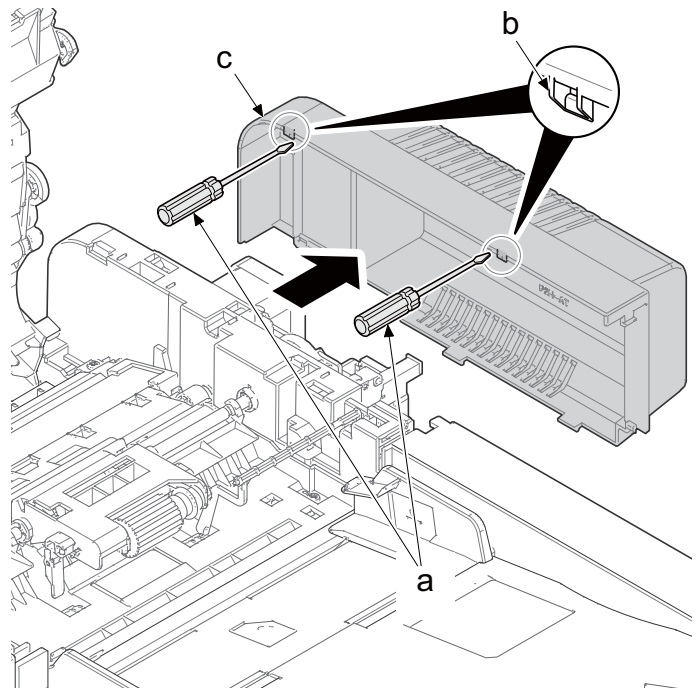
Figure 4-401

3. Remove the screw (a)(M3x8).
4. Release two hooks (c) with the flat-blade screwdriver (b) and remove the DP rear right cover (d).
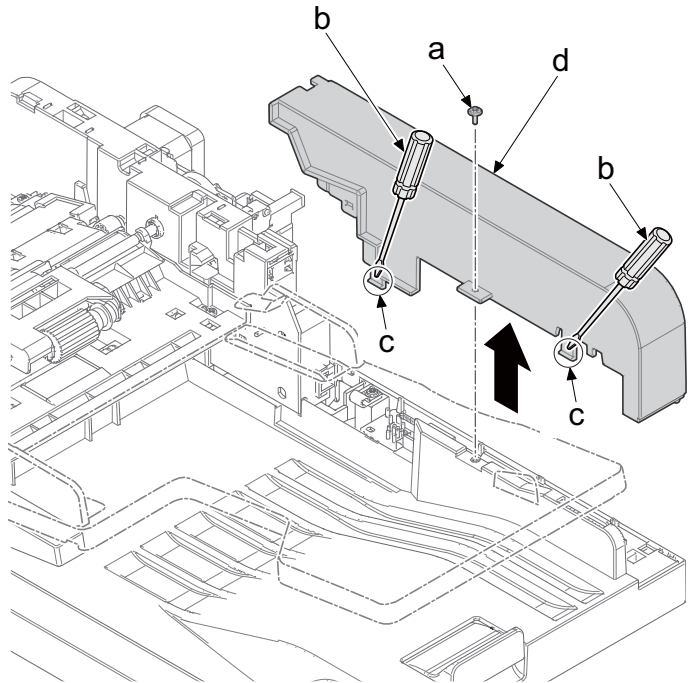
Figure 4-402

5. Remove two screws (a)(M3x8).
6. Disconnect all the connectors from the DP main PWB (b).
7. Detach the DP main PWB (b) from the document processor (c).
8. Check or replace the DP main PWB (b), and then reattach the parts in the original position.
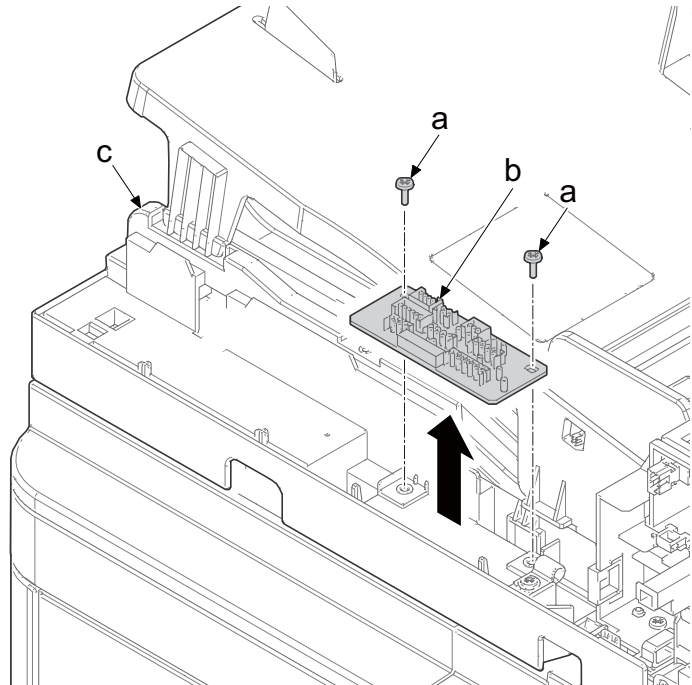
Figure 4-403

(5-4) Detaching and reattaching the CIS

Procedures

1. Remove the screw (a)(M3x8) and remove the rear right cover (b).
2. Remove the CIS connector (c) while pulling the release lever (d).
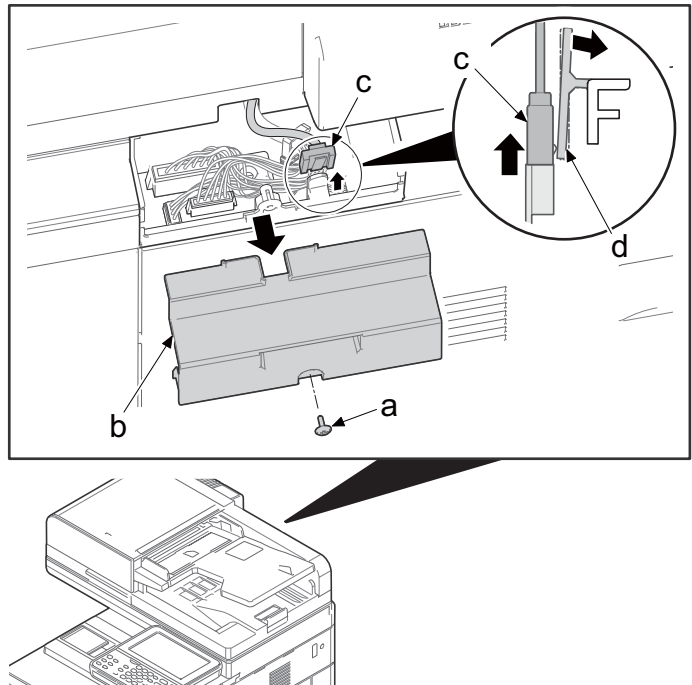
Figure 4-404

3. Open the DP top cover (b) of the document processor (a).
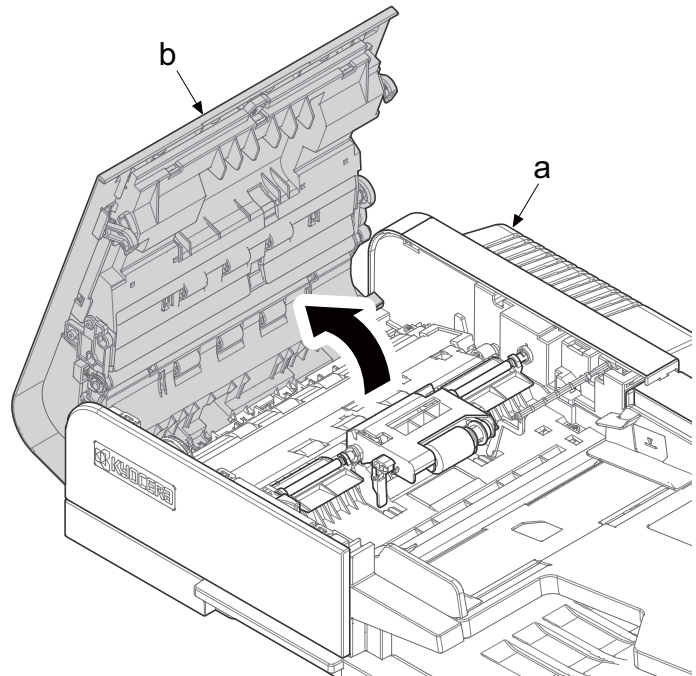
Figure 4-405

4. Release two hooks (b) with the flat-
   blade screwdriver (a) and remove the
   DP rear cover (d).
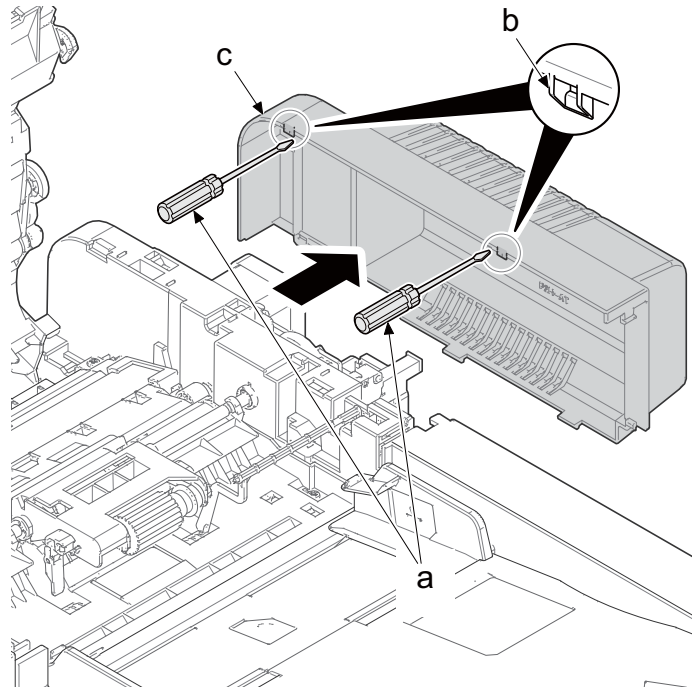
Figure 4-406

5. Remove the screw (a)(M3x8).
6. Release two hooks (c) with the flat-
   blade screwdriver (b) and remove the
   DP rear right cover (d).
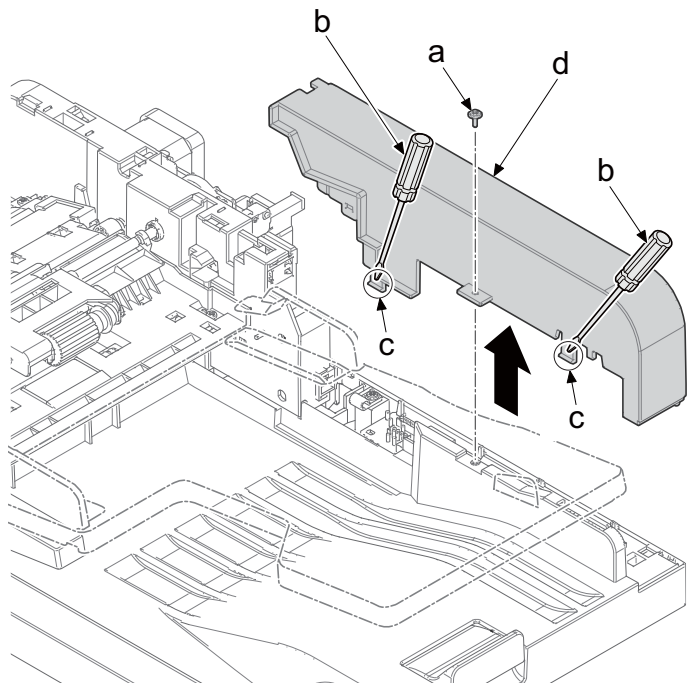
Figure 4-407

7. Push the lock lever (a) toward the machine rear side.
8. Release the hook (b).
9. Rotate the lock lever (a) to the release position (c).
10. Shift the machine front side of the DP paper feed roller shaft (d) toward the machine left side to remove it from the holding part (e).
11. Then, lift the shaft and pull the DP paper feed roller unit (f) out toward the machine front side.
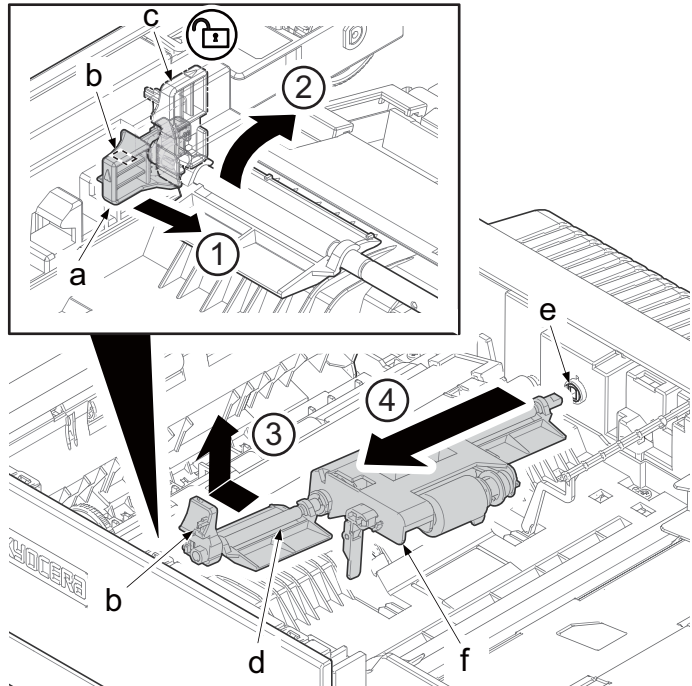
Figure 4-408

12. Remove the relay wire connector (a).
13. Release the wire saddle (b) and pull out the wire and CIS connector wire.
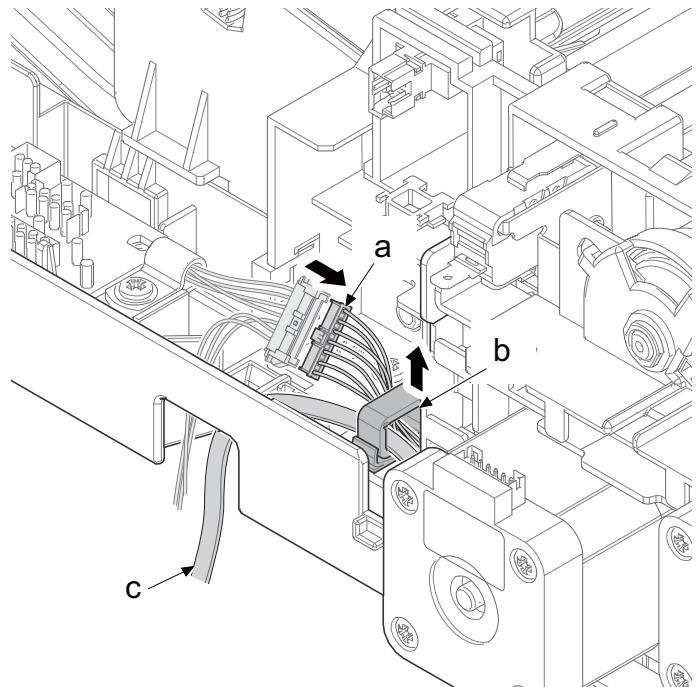
Figure 4-409

14. Remove two screws (a)(M3x8).
15. Remove the jam clearing dial (b).
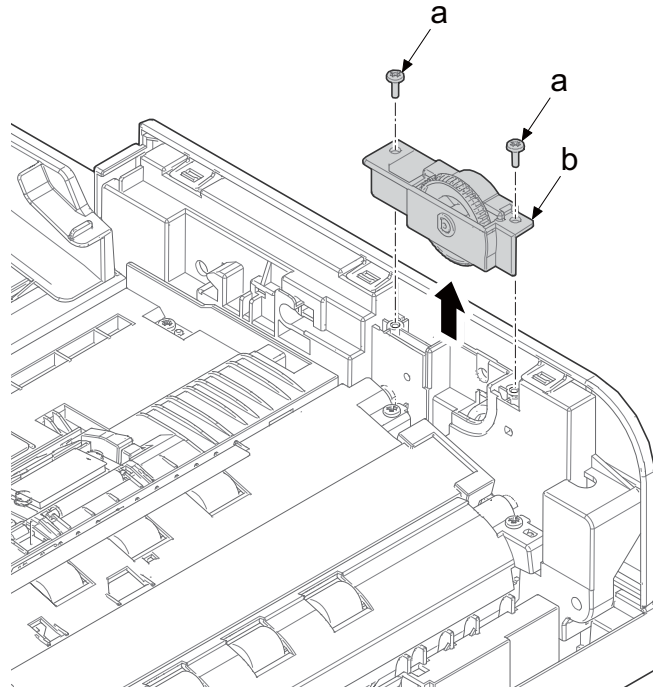
Figure 4-410

16. Remove four screws (a)(M3x8).
17. Slide the conveying guide (b) in the direction of the arrow by the amount of backlash.
  *: Release the protrusion (c) of the CIS guide.
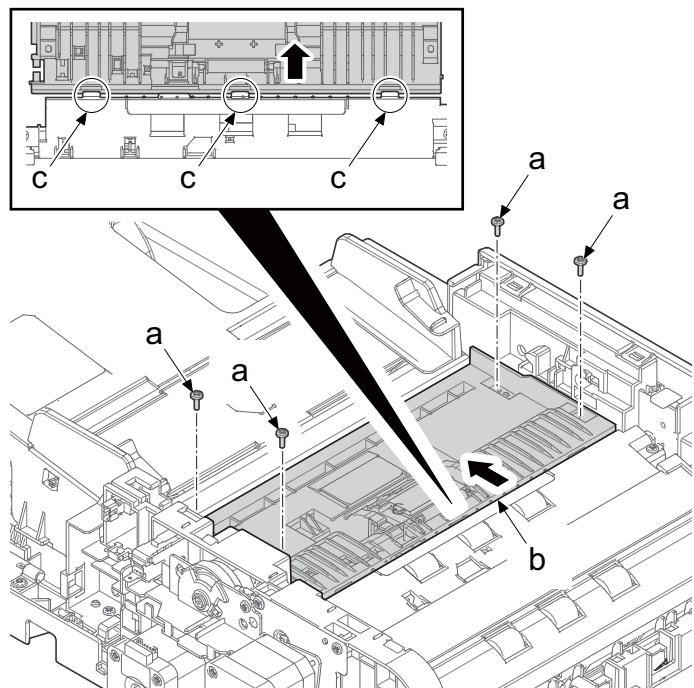
Figure 4-411

18. Remove four screws (a)(M3x8).
19. Detach the CIS assembly (b) in the direction of the arrow.
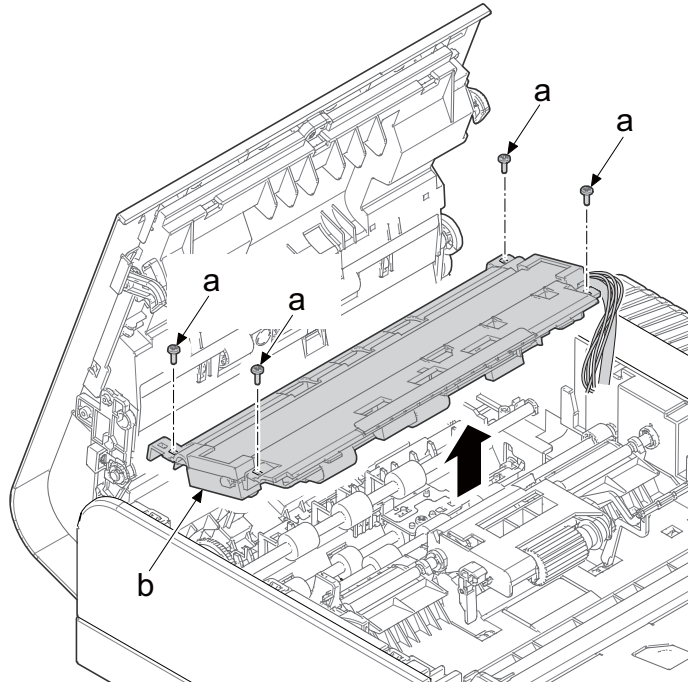
Figure 4-412

20. Remove two FFCs (c) from the SHD PWB (b) at the backside of the CIS assembly (a).

Figure 4-413

2R4/2R5/2R6
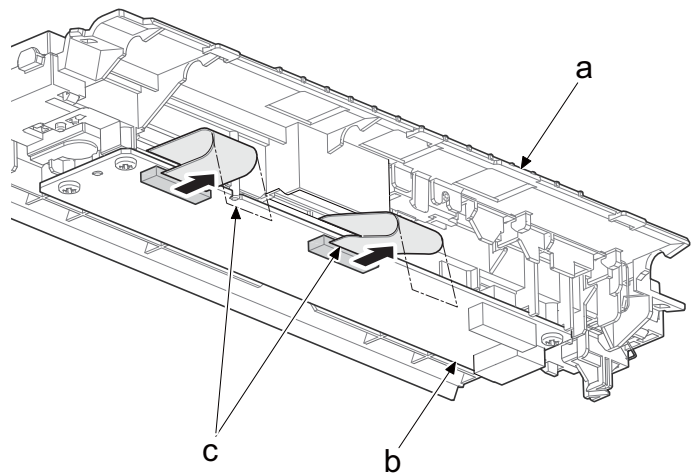
21. Release two hooks (b) of the front and rear glass holder (a) while pressing it in the direction of the arrow and remove it.
22. Remove CIS glass (d), front and rear spacers (e) from the CIS assembly (c).

  *: The front and rear spacers (e) are not fixed. Take care not to lose them.

IMPORTANT
Check the position of black marking (f) for distinction of the surface / back side of the glass. Also, make sure not to touch the glass surface. If it is dirty, wipe it off with a dry cloth.
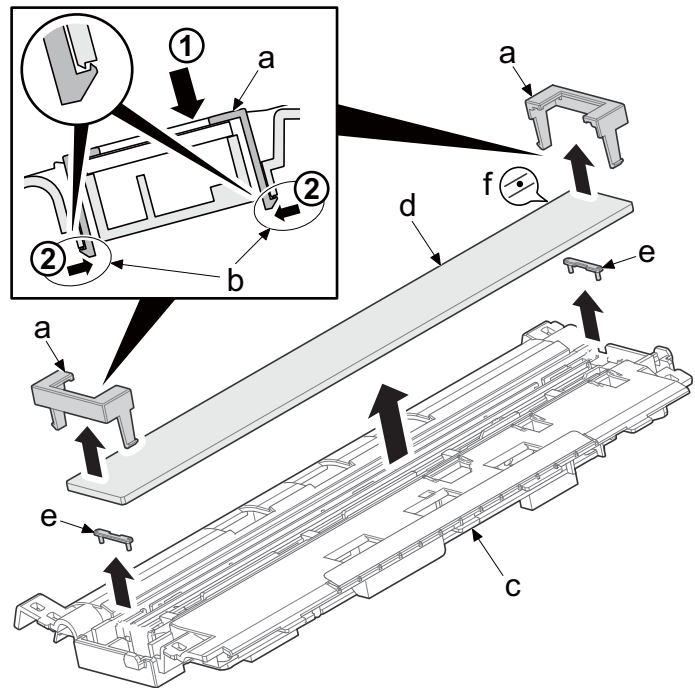
Figure 4-414

23. Detach the CIS assembly (b) in the direction of the arrow.
  *: Take care not to lose two springs (e).
24. Remove three screws (b)(M3x8) and remove the SHD PWB (d) from the CIS assembly (c).
25. Check or replace the CIS assembly (a), and then reattach the parts in the original position.

IMPORTANT
When assembling, check the spring (e) is in the boss of the CIS assembly (c).
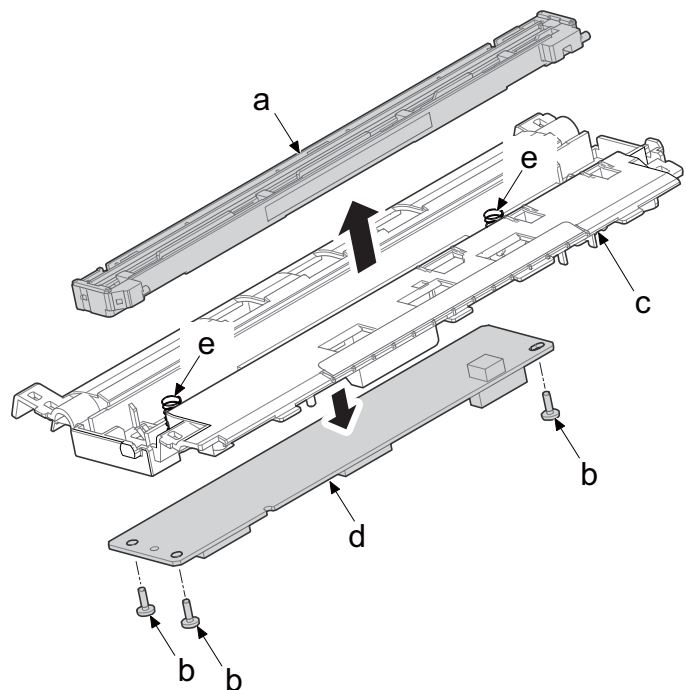
Figure 4-415

4-275

(6) Finisher (DF-5100)

(6-1) Detaching and reattaching the DF main PWB

Procedures

1. Slide the DF main unit (a) in the direction of the arrow.
2. Remove the screw (b)(M3x8) and remove the DF front right cover (c).
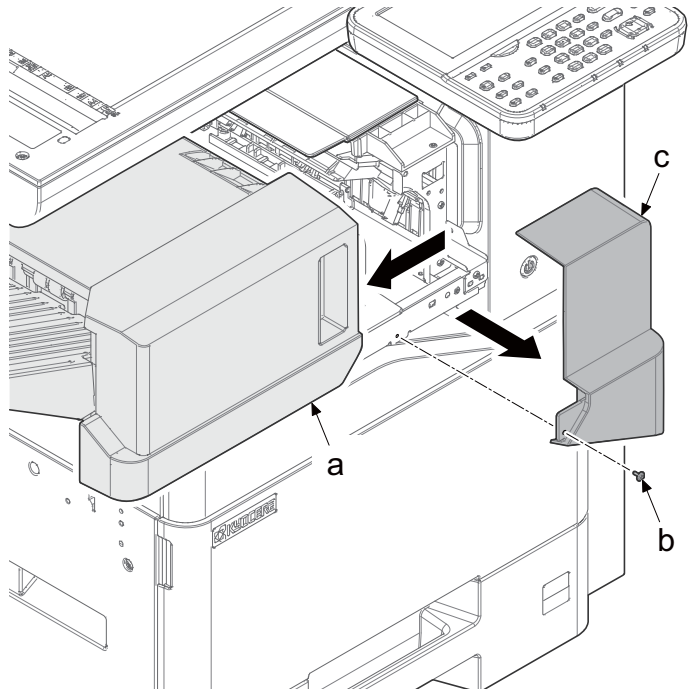
Figure 4-416

3. Remove two screws (a)(M3x8).
4. Detach the inner finisher (c) from the main unit (b).
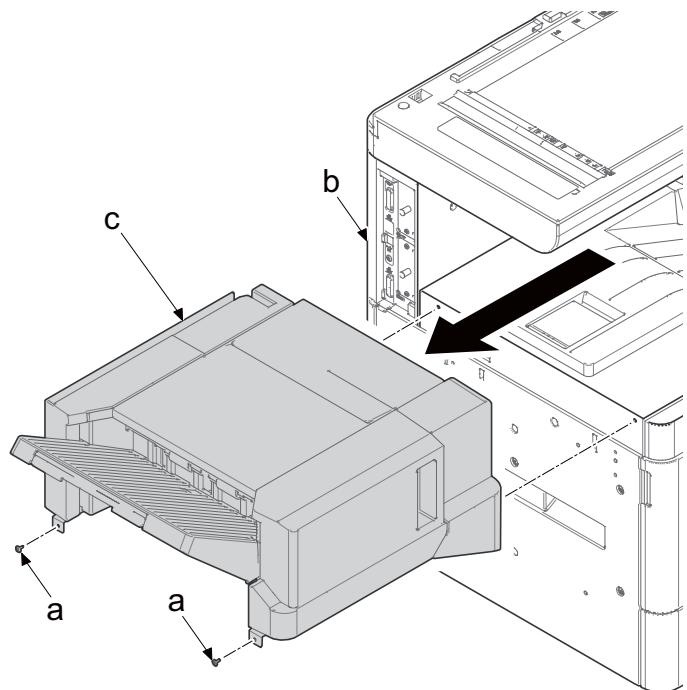
Figure 4-417

5. Remove two screws (a)(M3x8).

6. Remove the DF rear cover (b) in the direction of the arrow.
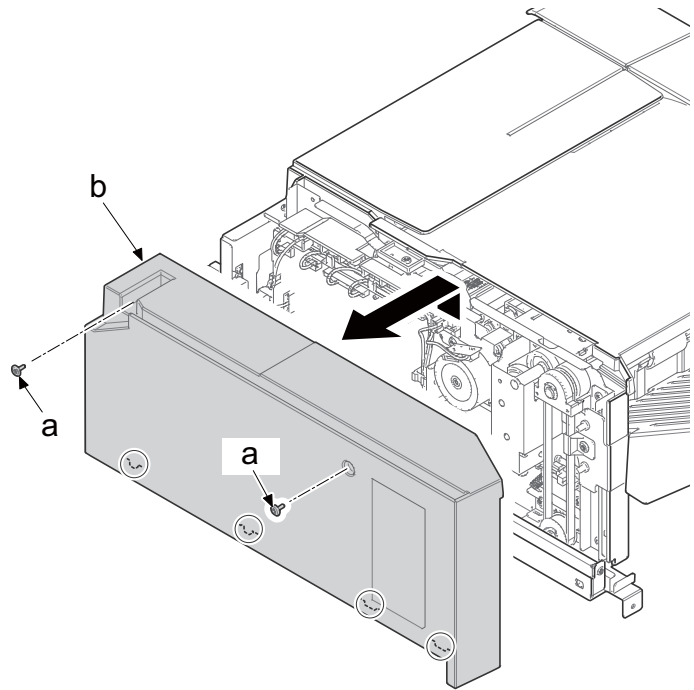
Figure 4-418

7. Disconnect all the connectors from the DF main PWB (a).

8. Remove four screws (b)(M3x8) and remove the DF main PWB (a).

9. Check or replace the DF main PWB (a), and then reattach the parts in the original position.

Figure 4-419

4-277
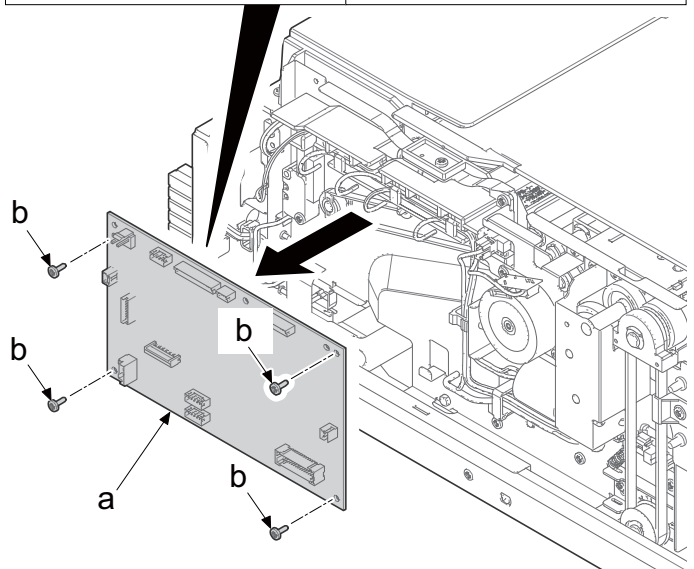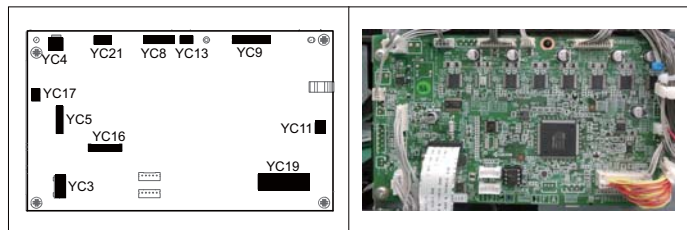
(7) Finisher (DF-5110): 35/40 ppm models only

(7-1) Detaching and reattaching the staple unit

Procedures

1. Open the DF front cover (a).
2. Pull out the waste toner box and remove it.
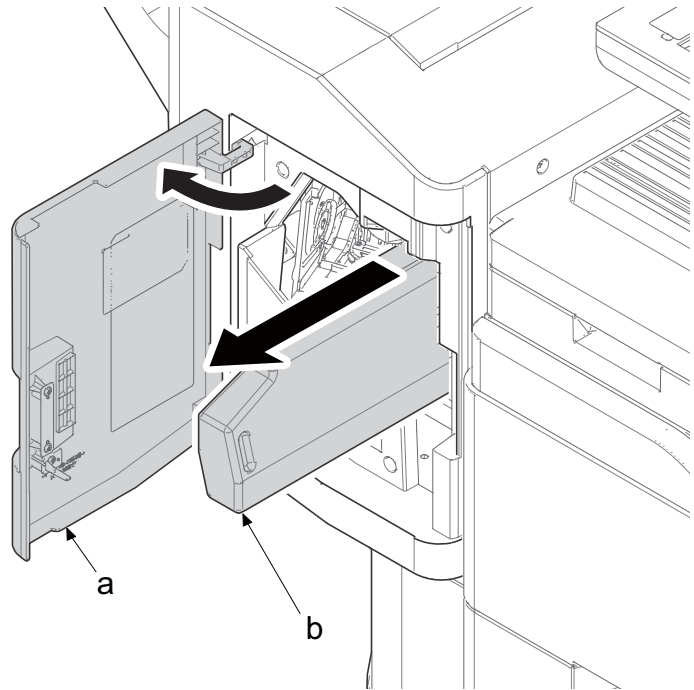
Figure 4-420

3. Insert a flat-blade screwdriver (c) under the lever (b) of the staple cover (a) and lift it up to release the lock and open the staple cover (a).
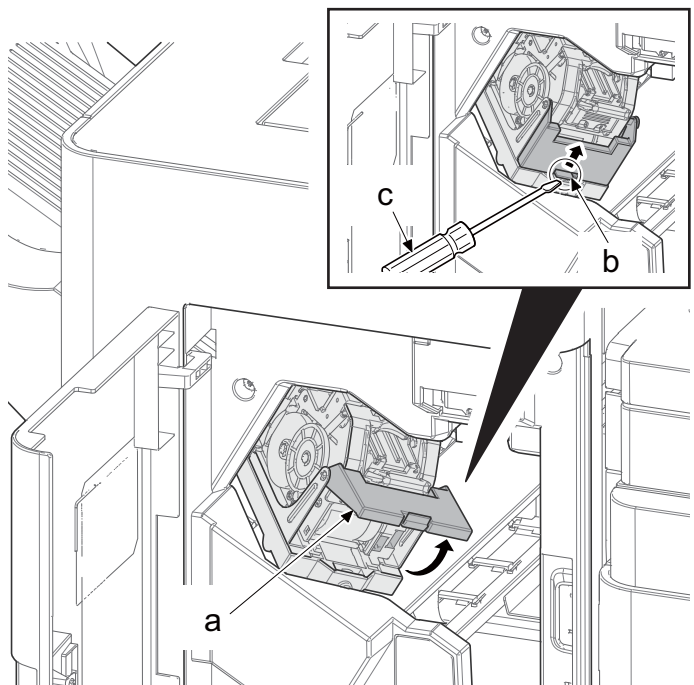
Figure 4-421

4. Disconnect two connectors (b) from the staple unit (a).
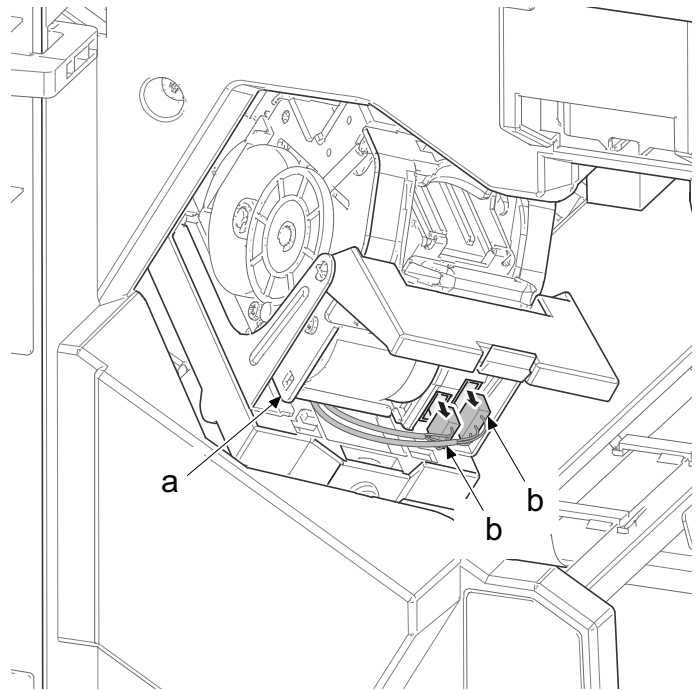
Figure 4-422

5. Lift up the staple unit (a) from the front side to release the hook (b) and pull it out toward you.
6. Check or replace the staple unit (a), and then reattach the parts in the original position.
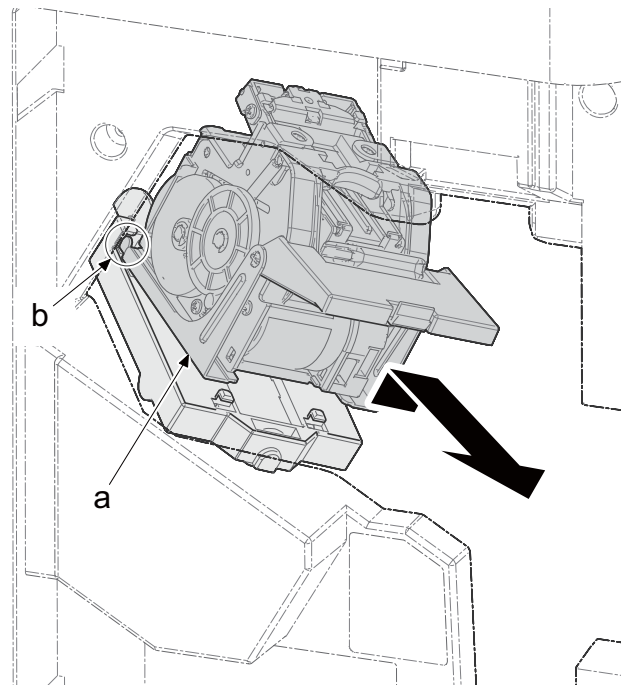
Figure 4-423

(7-2) Detaching and reattaching the DF main PWB

Procedures

1. Remove two screws (a)(M3x8).
2. Release five hooks (b) and remove the DF rear cover (c).
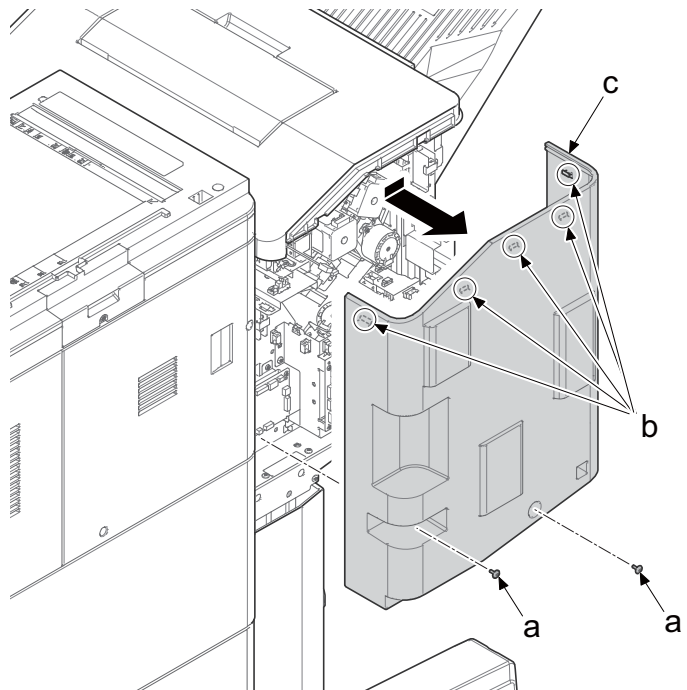
Figure 4-424

3. Disconnect all the connectors from the DF main PWB (a).
4. Remove four screws (b)(M3x8) and remove the DF main PWB (a).
5. Check or replace the DF main PWB (a), and then reattach the parts in the original position.
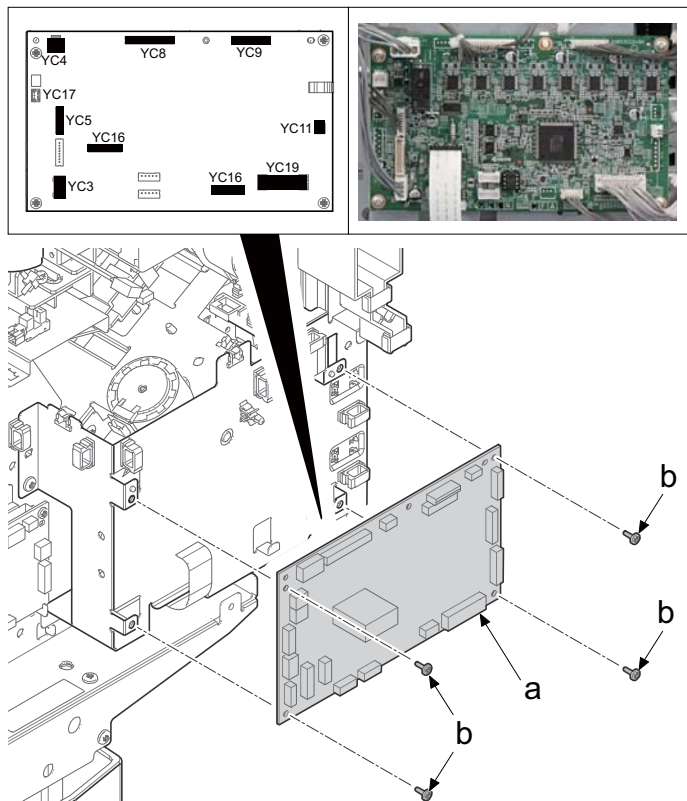
Figure 4-425

(8) Finisher (DF-5120): 35/40 ppm models only

(8-1) Detaching and reattaching the staple unit

Procedures

1. Open the DF front cover (a).
2. Pull out the waste toner box and remove it.
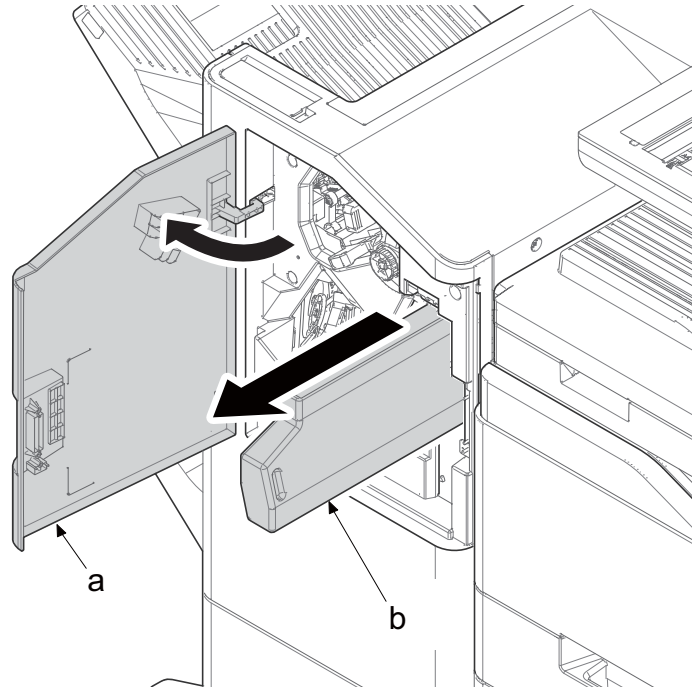
Figure 4-426

3. Insert a flat-blade screwdriver (c) under the lever (b) of the staple cover (a) and lift it up to release the lock and open the staple cover (a).
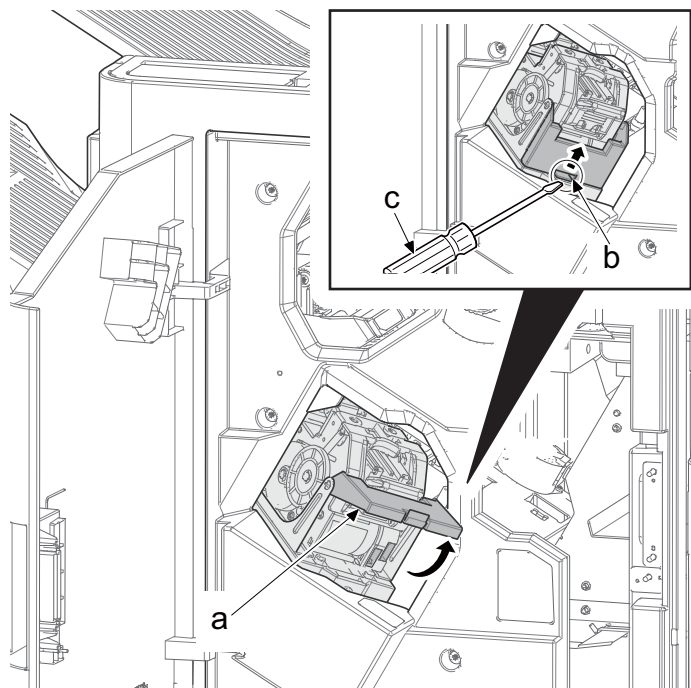
Figure 4-427

4. Disconnect two connectors (b) from the staple unit (a).
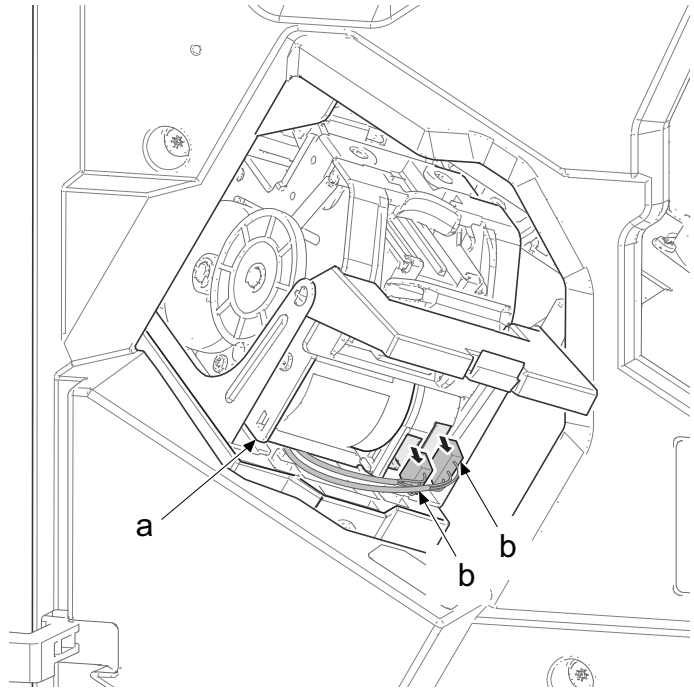
Figure 4-428

5. Lift up the staple unit (a) from the front side to release the hook (b) and pull it out toward you.
6. Check or replace the staple unit (a), and then reattach the parts in the original position.
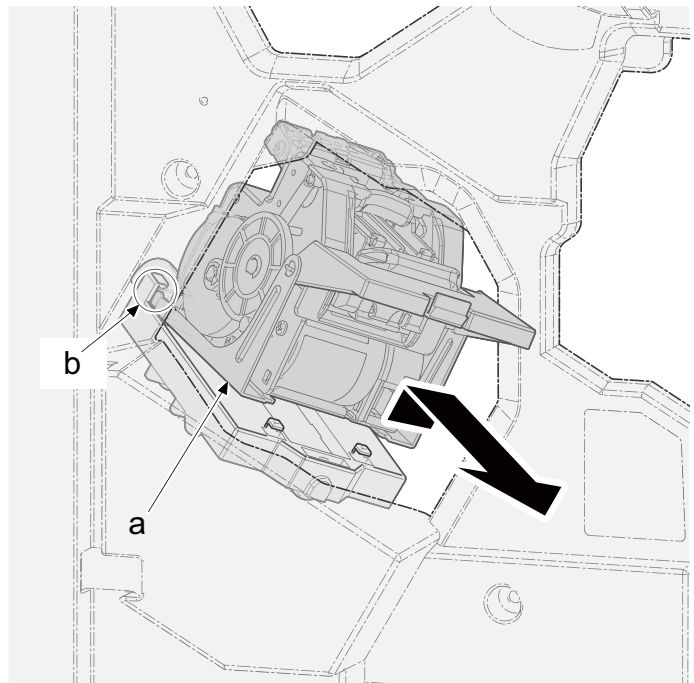
Figure 4-429

(8-2) Detaching and reattaching the DF main PWB

Procedures

1. Remove five screws (a)(M3x8).
2. Release four hooks (b) and remove the DF rear cover (c).
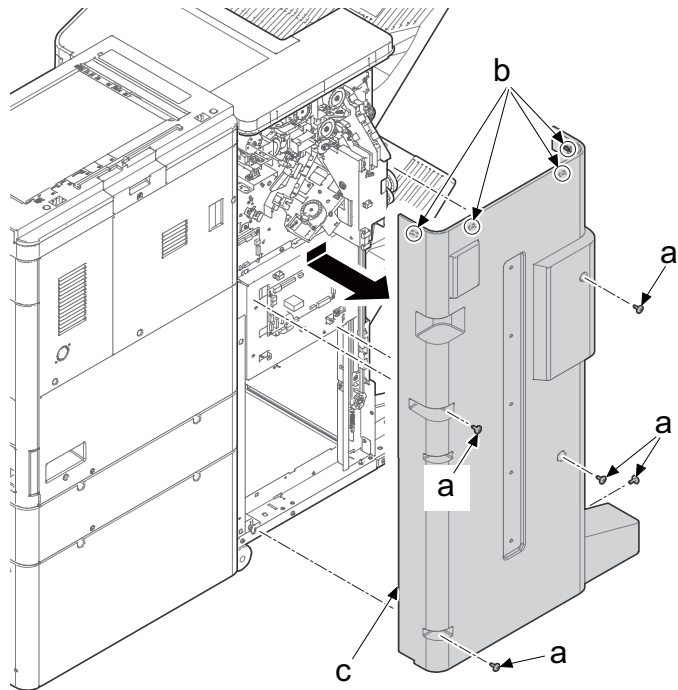
Figure 4-430

3. Disconnect all the connectors from the DF main PWB (a).
4. Remove four screws (b)(M3x8) and remove the DF main PWB (a).
5. Check or replace the DF main PWB (a), and then reattach the parts in the original position.
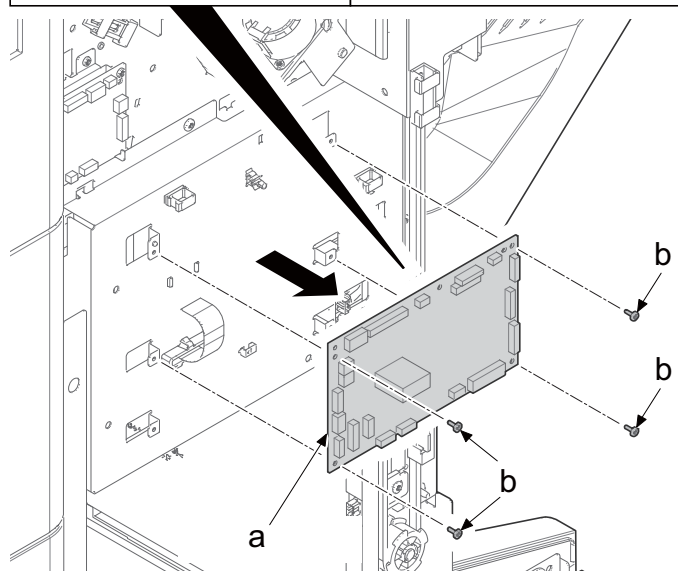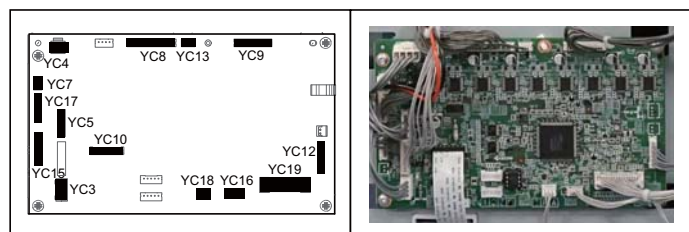
Figure 4-431

5 Firmware
5-1 Firmware update (30 ppm model)

Execute the following to update the firmware below.

   *: The processing time is reduced with simultaneous processing by group.

[GROUP1 UPDATE]

Target firmware name	Master file name	Message
Optional language data (Optional language data for the controller)	DL_OPT.2R4	OPT
Controller firmware	DL_CTRL.2R4	CTRL
First color table data (Printer)	DL_PCLT1.2R4	P-CLUT1
Second color table data (Printer)	DL_PCLT2.2R4	P-CLUT2
First color table data (Copy)	DL_CCLT1.2R4	C-CLUT1
Second color table data (Copy)	DL_CCLT2.2R4	C-CLUT2

[GROUP2 UPDATE]

Target firmware name	Master file name	Message
FAX firmware	DL_FAX.2R4	FAX

[GROUP3 UPDATE]

Target firmware name	Master file name	Message
Mail Box	DL_03R0.2R6	MAIL-BOX
Inner DF	DL_03PX.2R6	INNER-DF
Firmware for the second PF (paper feeder)	DL_03PZ.2R6	PF2
Firmware for the first PF (paper feeder)	DL_03PZ.2R6	PF1
Engine firmware	DL_ENGN.2R4	ENGN

[GROUP4 UPDATE]: No applicable firmware is available.

[GROUP5 UPDATE]

Target firmware name	Master file name	Message
Optional language data (Optional language data for the Panel)	DL_OPT.2R4	OPT
Dictionary data	DL_DIC.2R4	DIC
Browser data	DL_BRWS.2R4	BRWS
Panel firmware	DL_PANL.2R4	PANL

Verify the signature at firmware update

Verify the signature of the update file to prevent the firmware update with illegally falsified data.

File names of the signature and firmware certificate

Target	Signature file name	Firmware certificate file name
Controller data	2R4_CTRL_sign.bin	2R4_CTRL_cert.pem
Panel data	2R4_PANL_sign.bin	2R4_PANL_cert.pem
Optional language data	2R4_OPT_sign.bin	2R4_OPT_cert.pem
Dictionary data	2R4_DIC_sign.bin	2R4_DIC_cert.pem
Browser data	2R4_BRWS_sign.bin	2R4_BRWS_cert.pem
Color table 1 (Printer)	2R4_PCLT1_sign.bin	2R4_PCLT1_cert.pem
Color table 2 (Printer) (Printer)	2R4_PCLT2_sign.bin	2R4_PCLT2_cert.pem
First color table data (Copy)	2R4_CCLT1_sign.bin	2R4_CCLT1_cert.pem
Second color table data (Copy)	2R4_CCLT2_sign.bin	2R4_CCLT2_cert.pem
FAX PWB	2R4_FAX_sign.bin	2R4_FAX_cert.pem
Engine PWB	2R4_ENGN_sign.bin	2R4_ENGN_cert.pem
PF	2R6_03PZ_sign.bin	2R6_03PZ_cert.pem
Inner DF	2R6_03PX_sign.bin	2R6_03PX_cert.pem
Mail Box	2R6_03R0_sign.bin	2R6_03R0_cert.pem

Preparations

Unzip the file containing the downloaded firmware and then copy the firmware, high-speed master file (skip files: ES_SKIP.ON) and the file for signature verification in the root folder of the USB memory.

*: If the high-speed master file exists, the same version firmware update is skipped.

Procedures

1. Turn the power switch (a) on and "Ready to copy" is displayed. After checking that the screen is properly displayed, turn the power switch (a) off.
2. Insert the USB memory (b) with the firmware into the USB memory slot.
3. Turn the power switch (a) on.
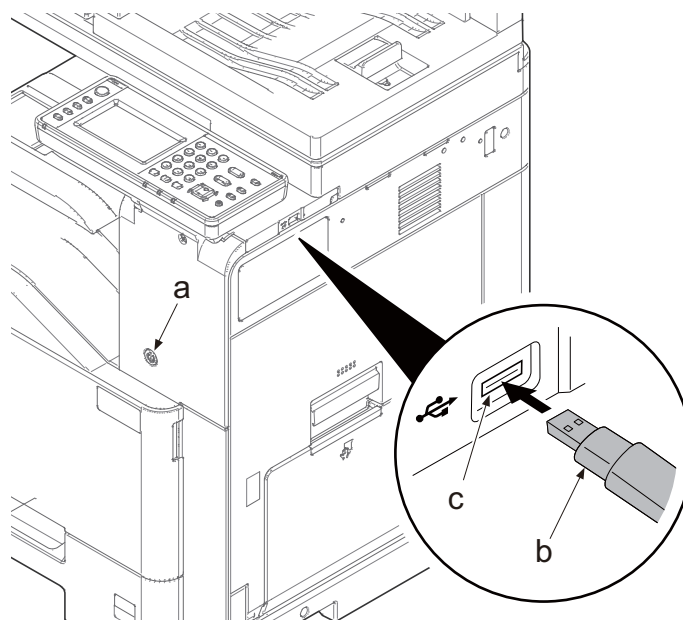
Figure 5-1

4. "FW-Update" and the progress indicator is displayed.

*: Several kinds of firmware updates are processed simultaneously.

```
                    FW-UPDATE ▐████████    ▌
CTRL     100%       PF1
P-CLUT1             ENGN    80%
P-CLUT2             OPT
C-CLUT1             DIC
C-CLUT2             BRWS
FAX      20%        PANL
MAIL-BOX
INNER-DF  100%
PF2
```
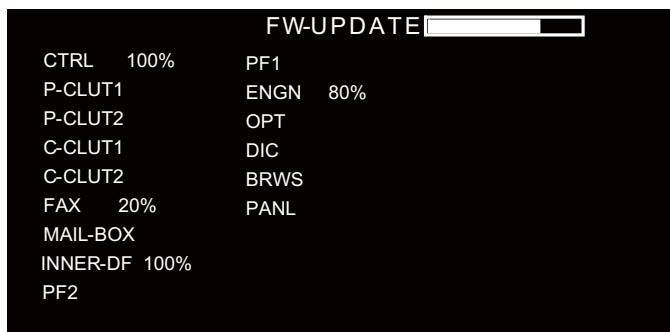
Figure 5-2

5. "Completed" is displayed when the firmware update is completed.

6. Check if the new firmware versions are displayed.

```
          FW-UPDATE     Completed
CTRL      2R6_2000.001.003*   PF1    No Change
P-CLUT1   No Change           ENGN   2R4_1000.001.001
P-CLUT2   No Change           OPT    No Change
C-CLUT1   No Change           DIC    No Change
C-CLUT2   No Change           BRWS   No Change
FAX       ----------          PANL   No Change
MAIL-BOX  No Change
INNER-DF  No Change
PF2       No Change
```
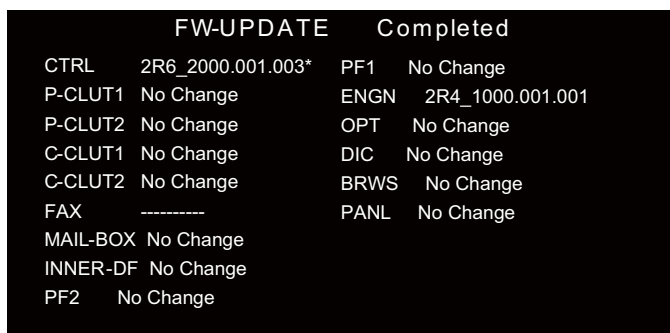
Figure 5-3

*: When there is no corresponding master file, "No Change" is displayed.

"*" is displayed after the firmware version update that has been skipped.

*: "----------"is displayed when the FAX PWB, optional equipment, etc. are not installed.

*: The result of the signature verification is indicated as follows.

Official signature verification file	Indicate the result
Both certificate and signature files exist and verification is successful.	Version number
Both certificate and signature files exist but verification is unsuccessful.	S000
Neither certificate nor signature files exist. Or either of them does not exist.	S001

7. Unplug the power cord and disconnect the USB memory.

8. Plug in the power cord and turn the power switch (a) on.

*: 30ppm model due to its construction may indicate the operation display momentarily when connecting the power cord.

9. Check that the "Home" screen is displayed and then turn the power switch (a) off.

Precautions

Never turn the power switch (a) off or disconnect the USB memory (b) during the firmware update.

Safe-Update

When the firmware update was interrupted by power shut-off or disconnecting the USB memory during the firmware update, the firmware update is retried at the next power-on.

Turn the main power on again while the USB memory is installed.

*: The firmware update that was already completed before power shut-down is skipped.

5-2 Firmware update (35/40 ppm model)

Perform the following to update the firmware below.
    *: The processing time is reduced with simultaneous processing by group.

[GROUP1 UPDATE]

Target firmware name	Master file name	Message
Controller firmware	DL_CTRL.2R6	CTRL
Panel data	DL_PANL.2R6	PANL
Optional language data	DL_OPT.2R6	OPT
Dictionary data	DL_DIC.2R6	DIC
Browser data	DL_BRWS.2R6	BRWS
First color table data (Printer)	DL_PCLT1.2R6	P-CLUT1
Second color table data (Printer)	DL_PCLT2.2R6	P-CLUT2
First color table data (Copy)	DL_CCLT1.2R6	C-CLUT1
Second color table data (Copy)	DL_CCLT2.2R6	C-CLUT2
OCR dictionary data	DL_OCR.2R6	OCR

[GROUP2 UPDATE]

Target firmware name	Master file name	Message
Slot 1 FAX firmware	DL_FAX.3R2	FAX1
Slot 2 FAX firmware	DL_FAX.3R2	FAX2

[GROUP3 UPDATE]

Target firmware name	Master file name	Message
Mail Box	DL_03R0.2R6	MAIL-BOX
PUNCHUNIT	DL_03R1.2R6	P-UNIT
DF	DL_03PW.2R6	DF
Inner DF	DL_03PX.2R6	INNER-DF
Firmware for the second PF (paper feeder)	DL_03PZ.2R6	PF2
Firmware for the first PF (paper feeder)	DL_03PZ.2R6	PF1
Engine firmware	DL_ENGN.2R6	ENGN

[GROUP4 UPDATE]: No applicable firmware is available.

[GROUP5 UPDATE]

Target firmware name	Master file name	Message
Panel firmware	DL_PANL.2R6	PANL

[GROUP6 UPDATE]

Target firmware name	Master file name	Message
Energy saver CPU	DL_ECMM.2R6	ECMM

Verify the signature at firmware update

Verify the signature of the update file to prevent the firmware update with illegally falsified data.

File names of the signature and firmware certificate

Target	Signature file name	Firmware certificate file name
Controller data	2R6_CTRL_sign.bin	2R6_CTRL_cert.pem
Panel data	2R6_PANL_sign.bin	2R6_PANL_cert.pem
Optional language data	2R6_OPT_sign.bin	2R6_OPT_cert.pem
Dictionary data	2R6_DIC_sign.bin	2R6_DIC_cert.pem
Browser data	2R6_BRWS_sign.bin	2R6_BRWS_cert.pem
Color table 1 (Printer)	2R6_PCLT1_sign.bin	2R6_PCLT1_cert.pem
Color table 2 (Printer)	2R6_PCLT2_sign.bin	2R6_PCLT2_cert.pem
First color table data (Copy)	2R6_CCLT1_sign.bin	2R6_CCLT1_cert.pem
Second color table data (Copy)	2R6_CCLT2_sign.bin	2R6_CCLT2_cert.pem
OCR dictionary data	2R6_OCR_sign.bin	2R6_OCR_cert.pem
FAX PWB	3R2_FAX_sign.bin	3R2_FAX_cert.pem
Engine PWB	2R6_ENGN_sign.bin	2R6_ENGN_cert.pem
PF	2R6_03PZ_sign.bin	2R6_03PZ_cert.pem
DF	2R6_03PW_sign.bin	2R6_03PW_cert.pem
Inner DF	2R6_03PX_sign.bin	2R6_03PX_cert.pem
Mail Box	2R6_03R0_sign.bin	2R6_03R0_cert.pem
PUNCHUNIT	2R6_03R1_sign.bin	2R6_03R1_cert.pem
Panel PWB	2R6_SPNL_sign.bin	2R6_SPNL_cert.pem
Energy saver CPU	2R6_ECMM_sign.bin	2R6_ECMM_cert.pem

Preparations

Unzip the file containing the downloaded firmware and then copy the firmware and high-speed master file (skip files: ES_SKIP.ON) in the root folder of the USB memory.

*: If the high-speed master file exists, the same version firmware update is skipped.

Procedures

1. After turning the power switch (a) on and the screen is properly displayed, turn the power switch (a) off.
2. Insert the USB memory (b) with the firmware into the USB memory slot.
3. Turn the power switch (a) on.
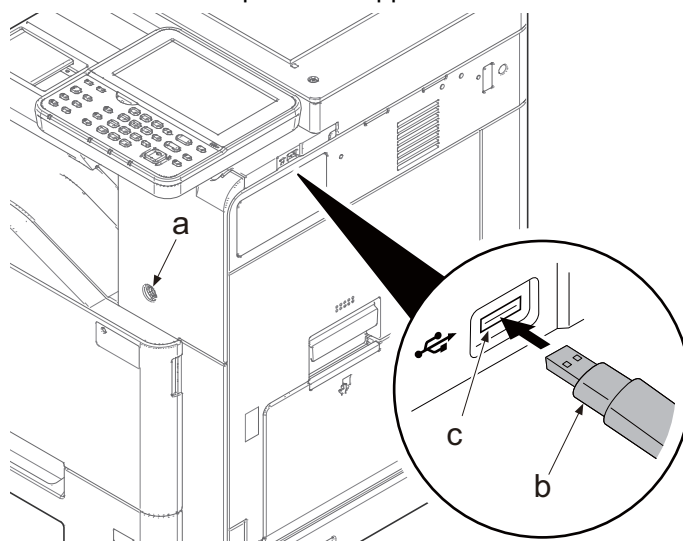
Figure 5-4

4. "FW-Update" and the progress indicator is displayed.

*: Several kinds of firmware updates are processed simultaneously.

```
                    FW-UPDATE ▭▭▭▭▭■
CTRL      100%              P-UNIT
PANL                       DF
OPT                        INNER-DF
DIC                        PF2
BRWS      100%             PF1
P-CLUT1                    ENGN      80%
P-CLUT2                    SPNL
C-CLUT1                    ECMM
C-CLUT2
OCR       20%
FAX1
FAX2
MAIL-BOX
```
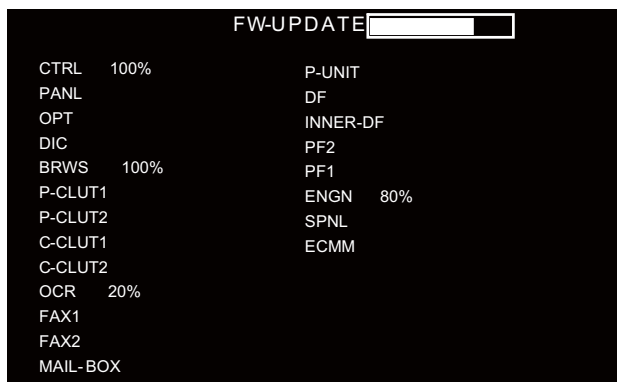
Figure 5-5

5. "Completed" is displayed when the firmware update is completed.

6. Check if the new firmware versions are displayed.

```
                 FW-UPDATE      Completed
CTRL      2R6_2000.001.03   P-UNIT     No Change
PANL      No Change         DF         No Change
OPT       No Change         INNER-DF   No Change
DIC       No Change         PF2        No Change
BRWS      No Change         PF1        No Change
P-CLUT1   No Change         ENGN       2R6_1000.001.005*
P-CLUT2   No Change         SPNL       No Change
C-CLUT1   No Change         ECMM       2R6_M000.001.005
C-CLUT2   No Change
OCR       No Change
FAX1      ----------
FAX2      ----------
MAIL-BOX  No Change
```
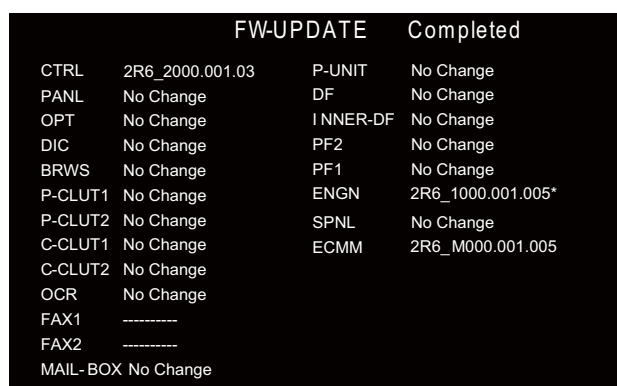
Figure 5-6

*: When there is no corresponding master file, "No Change" is displayed.

   "*" is displayed after the firmware version update that has been skipped.

*: "----------"is displayed when the FAX PWB, the option equipment, etc. is not installed.

*: The result of the signature verification is indicated as follows.

Official signature verification file	Indicate the result
Both certificate and signature files exist and verification is successful.	Version number
Both certificate and signature files exist but verification is unsuccessful.	S000
Neither certificate nor signature files exist. Or either of them does not exist.	S001

7. Unplug the power cord and disconnect the USB memory.

8. Plug in the power cord and turn the power switch (a) on.

9. Check that the "Home" screen is displayed and then turn the power switch (a) off.

Precautions

Never turn the power switch (a) off or disconnect the USB memory (b) during the firmware update.

Safe-Update

When the firmware update was interrupted by power shut-off or disconnecting the USB memory during the firmware update, the firmware update is retried at the next power-on.

Turn the main power on again while the USB memory is installed.

*: The firmware update that was already completed before power shut-down is skipped.

6 Maintenance mode
6-1 Maintenance mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

(1) Executing the maintenance mode

```
                      ┌──────────┐
                      │  Start   │
                      └──────────┘
                            │
                            ▼
          ┌──────────────────────────────────┐
          │      Enter "10871087" using       │  · · · · ·  Maintenance mode is entered.
          │        the numeric keys.          │
          └──────────────────────────────────┘
                            │
                            ▼
          ┌──────────────────────────────────┐
          │   Enter the maintenance item      │
          │  number using the [▲] [▼] keys    │  · · · · ·  The maintenance item is selected.
          │        or numeric keys.           │
          └──────────────────────────────────┘
                            │
                            ▼
          ┌──────────────────────────────────┐
          │       Press the start key.        │
          └──────────────────────────────────┘
                            │
                            ▼
          ┌──────────────────────────────────┐
          │  The selected maintenance item is run.  │
          └──────────────────────────────────┘
                            │
                            ▼
          ┌──────────────────────────────────┐
          │       Press the stop key.         │
          └──────────────────────────────────┘
                            │
                            ▼
    Yes         ◇ Repeat the same ◇
   ◀────────────◇ maintenance item? ◇
                            │ No
                            ▼
    Yes         ◇ Run another maintenance ◇
   ◀────────────◇      item?      ◇
                            │ No
                            ▼
          ┌──────────────────────────────────┐
          │  Enter 001 using the [▲] [▼] keys  │
          │          or numeric keys          │  · · · · ·  Maintenance mode is exited.
          │      and press the start key.     │
          └──────────────────────────────────┘
                            │
                            ▼
                      ┌──────────┐
                      │   End    │
                      └──────────┘
```

(2) Maintenance modes list (30ppm model)

Section	No.	Maintenance item	Outline
General	U000	Printing Maintenance Report	Printing the reports and exporting them to a USB memory
	U001	Exiting the maintenance mode	Exiting from the maintenance mode
	U002	Set Factory Default	Initializing to the factory-default setting
	U004	Machine serial number	Display of the machine serial number and setting
	U010	Setting the maintenance mode ID	Setting the maintenance mode ID
	U019	Firmware Version	Displays the firmware version of the PWB
Initialization	U021	Initializes Memory	Initializing the backup RAM
	U025	Firmware update (S)	Updates the firmware
Drive Paper feed Conveying Cooling	U030	Motor operation check	Drive the drive motor
	U031	Check the conveying switch	Check the conveying switch On/Off
	U032	Clutch operation check	Check the paper conveying clutch operation
	U033	Solenoid operation check	Drive the paper conveying and toner supply solenoids
	U034	Paper timing adjustment	Adjusting the leading edge timing and the center line
	U035	Folio size setting	Sets the Folio paper length and width.
	U037	Fan motor operation check	Drive each fan motor.
	U051	Registration paper loop amount adjustment	Adjusts the paper loop amount between the rollers
	U053	Adjusting the motor speed	Sets each motor's speed correction
	U059	Fan mode setting	Sets the drive mode of the conveying fan motor
Optical	U065	Adjusting the magnification for table scanning	Adjusting the magnification for table scanning
	U066	Adjusting the table scanning timing	Adjusting the leading edge timing for table scanning
	U067	Adjusting the table scanning center line	Adjusting the center line for table scanning
	U068	DP scanning position adjustment	Adjusting the starting position for DP scanning
	U070	DP magnification adjustment	Adjusting the magnification for DP scanning
	U071	Adjusting the DP leading edge Timing	Adjusting the DP scanning timing
	U072	Adjusting the DP original center	Adjusting the center line for DP scanning
	U089	MIP-PG pattern output	Output MIP-PG pattern

Section	No.	Maintenance item	Outline
High voltage system	U100	Main high voltage adjustment	Adjust the drum surface potential
	U101	Primary transfer voltage adjustment	Sets high voltage except the main high voltage and outputs
	U106	Secondary transfer voltage adjustment	Set the secondary transfer voltage correction
	U107	Primary transfer cleaning voltage adjustment	Set the primary transfer belt cleaning voltage
	U110	Drum counter	Displays/sets the drum counter
	U117	Drum unit number	Displays the drum number
	U118	Drum unit history	Displays the drum history
	U119	Setting the drum	Sets the initial LSU light intensity
	U120	Drum drive distance counter	Displays the drum drive distance counter
	U127	Clearing the transfer count	Displaying the counts
	U128	Leading edge timing	Adjust the transfer high-voltage output ON/OFF timing
Developer system	U132	Forcible toner supply operation	Execute the toner supply in the toner control level
	U135	Checking the toner motor operation	Drives the toner motor
	U136	Toner level detection setting	Sets the number of pages printable at toner near end
	U139	Temperature, humidity	Displays the machine inside and outside humidity
	U140	Developer bias adjustment	Adjust the developer bias values or set the high altitude mode.
	U147	Setting the toner applying mode	Sets the overcharge toner removal mode
	U148	Drum refresh mode setting	Setting auto drum refresh
	U155	Toner sensor output	Displays the toner sensor output
	U156	Toner control level adjustment	Displays/adjusts the toner supply level
	U157	Developer drive time	Displays/sets the developer drive time
	U158	Developer counter	Displays/sets the developer counter
Fuser	U161	Fuser temperature adjustment	Sets the fuser control temperature
	U167	Clearing the fuser count	Displaying/clearing the counts
	U199	Fuser temperature	Monitor the fuser temperature

Section	No.	Maintenance item	Outline
Opera-tion sec-tion / Support equip-ment	U200	All LEDs lighting	Light all the LEDs on the operation panel
	U201	Initializing the touch panel	Correct the X and Y axis position of the touch panel
	U203	Check DP operation	Checking the DP paper conveying operation with the DP alone
	U207	Operation key check	Check the operation panel key operation
	U211	Enhancement unit connection set-ting	Sets the connection of the enhancement units
	U221	USB host lock function setting	Sets USB Host lock function ON/OFF
	U222	Setting the IC card type	Sets the ID card type
	U223	Operation panel lock	Set On/Off of the operation unit lock
	U230	Optional device serial number	Displays the optional device serial number
	U240	Finisher operation check	Checks the drive operation
	U241	Finisher switch check	Check the switch operation
	U243	Checking the DP motor	Drive the PF motor and solenoid
	U244	DP switch check	Drive the DP sensor
	U246	Finisher adjustment	Sets the finisher adjustment value
	U247	Paper feed operation check	Drives the PF motor and clutch
Mode Setting	U250	Checking/clearing the maintenance cycle	Changes the preset value
	U251	Checking/clearing the maintenance counter	Displaying/clearing/changing the counter value
	U252	Destination	Sets the machine operation and indication depending on the specification of the destination
	U253	Switching the double/single counts	Sets the counter by color mode
	U260	Switching the timing for copy count-ing	Setting the count-up timing
	U265	Setting by destination	Sets the OEM code
	U276	Switching the copy count mode	Set the single color copy count mode
	U278	Delivery date setting	Register Delivery Date
	U284	Setting the 2-color copy	Switches the 2-color copy mode
	U285	Set Service Status Page	Setting the print coverage report output
	U290	Setting the drive to save the HyPAS application	Sets the drive to save the HyPAS application
	U323	Abnormal temperature and humidity notification setting	Switches the indication mode of the abnormal temperature and humidity detection
	U325	Paper interval setting	Sets the print interval at high coverage
	U326	Black line cleaning indication	Switch the black line cleaning guidance indica-tion
	U327	Cassette heater On/Off setting	Selects the cassette heater control setting

Section	No.	Maintenance item	Outline
Mode Setting	U332	Adjusting the black coverage coefficient	Setting the coefficient of the custom size
	U341	Printer cassette setting	Sets the cassette to printer output only
	U343	Duplex priority mode	Switches the duplex printing priority mode
	U345	Setting the value for maintenance due indication	Setting the maintenance timing display
	U346	Selecting Sleep Mode	Setting the BAM related sleep mode
Image processing	U402	Adjusting the printing margins	Adjusts the scan image margins
	U403	Adjusting margins for scanning an original on the contact glass	Adjusts the margin for scanning originals
	U404	Adjusting margins for scanning an original from the document processor	Adjusts the margin for scanning originals
	U407	Adjusting the writing timing (Duplex/Reversal)	Adjusting the writing timing when duplex printing
	U410	Adjusting the halftone automatically	Acquiring the data for the automatic halftone adjustment and the ID correction
	U411	Scanner auto adjustment	Adjusting the scanner and DP automatically
	U425	Set Target	Inputs the Lab value printed on an adjustment original
	U429	Adjusting the color balance offset	Adjusts the color balance offset
	U464	ID correction setting	Sets the ID correction
	U465	ID correction data	Displays the light intensity control value after the ID correction
	U467	Color registration correction operation setting	Sets the color registration correction
	U468	Color registration correction data	Displays the color registration correction data
	U469	Color registration adjustment	Corrects the color registration
	U470	Setting the JPEG compression rate	Sets the JPEG compression rate
Image processing	U474	Checking the LSU cleaning	Sets the LSU cleaning operation check and cleaning cycle
	U485	Image process mode setting	Sets the image processing
	U486	Color/BW mode setting	Sets the image processing
	U520	TDRS setting	Checking/setting the TDRS

Section	No.	Maintenance item	Outline
FAX	U600	Initialize: All Data	Initializes all data and image memory.
	U601	Initialize: Keep data	Initializing the software switches of other than the machine data
	U603	User data 1	Makes user settings to enable the use as a FAX
	U604	User data 2	Makes user settings to enable the use as a FAX
	U605	Data clear	Initializing the FAX communication data
	U610	System 1	Set the number of lines to be ignored when receiving a FAX at 100% magnification and in the auto reduction mode.
	U611	System 2	Number of adjustment lines for automatic reduction.
	U612	System 3	Setting regarding the FAX communication operation
	U620	FAX system	Sets the signal detection method for remote switching
	U625	Communication settings	Sets the auto redialing interval and the number of times of auto redialing
	U630	Communication control procedures 1	Setting the FAX communication
	U631	Communication control procedures 2	Sets the FAX communication
	U632	Communication control procedures 3	Setting the FAX communication
	U633	Communication control procedures 4	Setting the FAX communication
	U634	Communication control procedures 5	Set the acceptable error when judging the received TCF signal
	U640	Communication time setting 1	Setting the detection time by remote switching mode
	U641	Communication time setting 2	Sets the time-out time for the fax communication
	U650	Modem 1	Sets the G3 transmission cable equalizer
	U651	Modem 2	Sets the modem output level
	U660	Ring setting	Setting the NCU (network control unit)
	U670	List output	Outputting the list of the FAX communication data
	U695	FAX function customization	FAX batch transmission is set up.
	U699	Software switch: Set	Sets the software switches individually

Section	No.	Maintenance item	Outline
Others	U901	Clearing the counters by paper source	Displays/clears the counters by paper source
	U903	Clearing the jam counter	Displays/clears number of occurrence by jam trigger code
	U904	Clearing the service call error counter	Displays/clears the service call error and system error counts
	U905	Optional counter	Displaying the counts
	U906	Resetting the partial operation	Resets the partial operation
	U908	Total counter	Displays the FAX count
	U910	Black rate data	Clearing the print coverage data and its period
	U911	Counter by media type	Displays/clears the counts by media type
	U917	Read/Write Backup Data	Reading/writing the backup data to a USB memory
	U920	Billing counter	Displays the billing count
	U927	Clearing all the billing/life counters	Clearing the billing count and machine life count
	U928	Machine life counter	Displays the machine life count
	U930	Clear the main charger roller counts	Displaying/setting the counts
	U952	MMaintenance mode workflow	Execute the maintenance flow with the Work-Flow data
	U964	Log check	Transfer the log files to a USB memory
	U969	Toner area code	Displays the toner area code
	U977	Setting the data capture mode	Stores the data sent to the main unit into a USB memory
	U984	Developer unit number	Displays the developer unit number
	U985	Developer unit history	Displays the developer unit number history
	U991	Scanner counter	Displays the scanner count

(2-1) Content of the maintenance mode (30ppm model)

U000	Printing Maintenance Report (Message: Mainte Report)

Contents

Prints the list of the current settings of the maintenance items, paper jam and service call error occurrences. Output the event log and service status page.

Also, sends output data to a USB memory.

Purpose

Checks the current settings of the maintenance items, paper jam and service call error occurrences.

Before initializing or replacing the backup memory, print the list of the current settings of the maintenance items to reenter the settings after initialization or replacement.

Method

1. Press the [Start] key.
2. Select the item to output.

Items	Output list
Maintenance	Maintenance mode setting list
User Status	Output User Status Page
Service Status	Output Service Status Page
Event	Output the event log report
Network Status	Output Network Status Page
All	All reports output

3. Turn it On/Off by the [◄] [►] keys.
4. Press the [Start] key.
   * : Insert a USB memory into the USB memory slot to output to it.
5. Select the item to output.

Items	Output list
Print	A report is printed.
USB(Text)	Destination: send to USB memory (text format)
USB(HTML)	Destination: send to USB memory (HTML format)

6. Press the [Start] key to output the list.
   * : If A4 paper is available, it is output with this size. If A4 paper is unavailable, sekect the paper source. Output status is displayed.
   * : The output data is sent to the USB memory.

Completion

Press the [Stop] key.
   * : The screen for selecting a maintenance item No. is displayed.

Detail of event log

Event Log

MFP   **(2)** 2014/10/19 15:15
TASKalfa 406ci   **(3)**   **(4)**   **(5)**
(1) Firmware version 2R6_2000.000.000 2014.09.19   [XXXXXXXX] [XXXXXXXX] [XXXXXXXX]

(7) Paper Jam Log

#	Count.	Event Descriprions	Date and Time
12	5555555	0501.01.08.01.00	2014/02/12 17:30
11	4444444	4002.01.08.01.00	2014/02/12 17:30
10	3333333	0501.01.08.01.00	2014/02/12 17:30
9	2222222	4002.01.08.01.00	2014/02/12 17:30
8	1111111	0501.01.08.01.00	2014/02/12 17:30
7	999999	4002.01.08.01.00	2014/02/12 17:30
6	888888	0501.01.08.01.00	2014/02/12 17:30
5			2014/02/12 17:30
4			2014/02/12 17:30
3			2014/02/12 17:30
2	444444	0501.01.08.01.00	2014/02/12 17:30
1	1	4002.01.08.01.00	2014/02/12 17:30

0501.01.08.01.00
(a) (b) (c) (d) (e)

(8) Service Call Log

#	Count.	Service Code	Data and Time
8	1111111	01.6000	2014/02/12 17:30
7	999999	01.2100	2014/02/12 17:30
6	888888	01.4000	2014/02/12 17:30
5	777777	01.6000	2014/02/12 17:30
4	666666	01.2100	2014/02/12 17:30
3	555555	01.4000	2014/02/12 17:30
2	444444	01.6000	2014/02/12 17:30
1	1	01.2100	2014/02/12 17:30

(9) Maintenance Log

#	Count.	Item.	Data and Time
7	999999	01.21	2014/02/12 17:30
6	888888	01.40	2014/02/12 17:30
5	777777	01.60	2014/02/12 17:30
4	666666	01.21	2014/02/12 17:30
3	555555	01.40	2014/02/12 17:30
2	444444	01.60	2014/02/12 17:30
1	1	01.21	2014/02/12 17:30

(10) Unknown toner Log

#	Count.	Item.	Data and Time
5	1111111	01.00	2014/02/12 17:30
4	999999	01.00	2014/02/12 17:30
3	888888	01.00	2014/02/12 17:30
2	777777	01.00	2014/02/12 17:30
1	666666	01.00	2014/02/12 17:30

(11) Counter Log

(f)

J0000:	0	J4302:	0
J0100:	1	J4303:	1
J0101:	11	J4304:	11
J0104:	222	J4309:	2
J0105:	1	J9000:	1
J0106:	1	J9004	0
J0107:	1	J9010:	1
J0110:	1	J9060:	1
J0111:	1	J9061:	2
J0211:	1	J9062:	1
J0212:	1	J9110:	1
J0213:	999	J9120:	0
J0501:	1	J9200:	1
J0502:	1	J9210:	1
J0503:	1	J9220:	2
J0504:	1		

		(g)	
J0508:	1	C0000:	0
J0509:	1	C0001:	1
J0511:	1	C0002:	2
J0512:	1	C0003:	3
J0513:	1	C0004:	4
J0514:	1	C0005:	5
J0518:	1	C0006:	6
J0519:	1	C0007:	7
J1403:	1	C0008:	8
J1404:	1	C0009:	9
J1413:	1	C0010:	10
J1414:	1	C0011:	11
J1604:	1	C0012:	12
J1614:	1	C0013:	13
J4002:	1	C0014:	14
J4003:	1	C0015:	15
J4004:	1	C0016:	16
J4009:	1	C0017:	17
J4012:	1	C0018:	18
J4013:	1	C0019:	19
J4014:	1	C0020:	20
J4019:	1	C0021:	21
J4201:	1	C0022:	22
J4202:	0	C0023:	23
J4203:	1		
J4204:	1	**(h)** T00:	10
J4208:	0	M00:	20
J4209:	1	M02:	30
J4211:	11		
J4212:	222		
J4213:	1		
J4214:	2		
J4218:	1		
J4219:	2		
J4301:	1		

(6) [XXXXXXXXX]

Figure 6-1

Description of event log

No.	Items	Contents		
(1)	System version			
(2)	System date			
(3)	Engine firmware version			
(4)	Engine boot version			
(5)	Operation panel firmware version			
(6)	Machine serial number			
(7)	Paper Jam Log	#	Count.	Event
		Remembers 1 to 16 th of occurrence. If the past paper jam occurrence is less than 16, all of them are indicated. The oldest log is deleted when exceeding 16 events.	The total page count at the time of a paper jam.	Log code (5 types in hexa-decimal) (a) Cause of paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
		(a)Detail of Cause of paper jam (Hexadecimal)		
		: Refer to "7-1 Paper Misfeed Detection" (See page 7-1),for the detail of Cause of paper jam. (See page 7-2)		
		(b) Detail of paper source (Hexadecimal)		
		00: MP tray 01: Cassette 1 02: Cassette 2 (paper feeder) 03: Cassette 3 (paper feeder) 04: Cassette 4 (paper feeder) 05 to 09: Reserved		
		(c) Detail of paper size (Hexadecimal)		
		00: Not specified 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 86: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E 0A: A3	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Hagaki 20: Oufuku Hagaki 21: Oficio II	22: Special 1 23: Special 2 24: A3 Wide 25: Ledger Wide 26: Full bleed paper (12 x 8) 27: 8K 28: 16K-R A8: 16K-E 32: Statement-R B2: Statement-E 33: Folio 34: Youkei type 2 35: Youkei type 4

No.	Items	Contents		
(7) **cont.**	Paper Jam Log	(d) Detail of paper type (Hexadecimal)		
		01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated 0F: 2nd side 10: Media 16 11: High quality	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5 1A: Custom 6 1B: Custom 7 1C: Custom 8
(8)	Service Call Log	#	Count.	Service Code
		Remembers 1 to 8 th of occurrence of self diagnostics error. If the occurrence of the previous self-diagnostic error is 8 or less, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostic error.	Self diagnostic error code (See page 7-23) Example: 01.6000 01: Self diagnostic error6000: Self diagnostic error code number
(9)	Mainte-nance Log	#	Count.	item
		Remembers 1 to 8 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 8, all of the unknown toner detection are logged.	Total page count at the time of the replacement of the maintenance item. The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.	Maintenance item code (1-byte value to indicate 2 items) First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black 01: Cyan 02: Magenta 03: Yellow First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 01: 01: MK-5195A (30ppm model) 02: MK-5195B (30ppm model) 01: MK-5205A (35ppm model) 02: MK-5205B (35ppm model) 01: MK-5215A (40ppm model) 02: MK-5215B (40ppm model)

No.	Items	Contents		
(10)	Unknown Toner Log	#	Count.	item
		Remembers 1 to 5 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 5, all of the unknown toner detection are logged.	The total page count at the time of the request of toner container replacement, when using the non-genuine toner container.	Unknown toner log code (1 byte, 2 categories) First byte (Replacing item) 01: Toner container (Fixed to 01) Second byte (Type of replacing item) 00: Black 01: Cyan 02: Magenta 03: Yellow
(11)	Counter Log Consist of three log counters of paper jams, self diagnostics errors, and maintenance replacement items.	(f) Paper jam	(g) Self diagnostic error	(h) Replacement for maintenance Items
		Indicates the log counter of paper jams depending on location. Refer to Paper Jam Log. All instances including those not having occurred are displayed.	Indicates the log counter of self diagnostics errors depending on cause. Example: C6000: 004 Self diagnostic error 6000 has happened four times.	Indicates the log counter depending on the maintenance replacing item. T: Toner container 00: Black 01: Cyan 02: Magenta 03: Yellow M: Maintenance kit 01: MK-5195A (30ppm model) 02: MK-5195B (30ppm model) 01: MK-5205A (35ppm model) 02: MK-5205B (35ppm model) 01: MK-5215A (40ppm model) 02: MK-5215B (40ppm model) Example: T00: 1 The toner container (Black) has?been replaced once. The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.

Detail of service status page

Service Status Page

MFP
(2) 2014/10/30 15:15

TASKalfa 406ci
(3)   (4)   (5)

(1) **Firmware Version 2R6_2000.000.000** 2014.10.30
[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]

Controller Information

Memory status		**FAX Information**	
Standard Size	1.0 GB	(36) Rings (Normal)	3
Option Slot	1.0 GB	(37) Rings (FAX/TEL)	3
(7) Total Size	2.0 GB	(38) Rings (TAD)	3
Time		(39) Option DIMM Size	16MB
(8) Local Time Zone	+01:00 _Tokyo		
(9) Date and Time	10/30/2014 02:33	(40) **FRPO Status**	
(10) Time Server	10.183.53.13	User Top Margin	A1+A2/100 0.0
Installed Options		User Left Margin	A3+A4/100 0.0
(11) Paper Feeder2	Installed	.	
(12) Paper Feeder3	Cassette(500×2)	.	
(13) HDD	Installed	.	
(14) SD Card	Not Installed	.	
(15) SSD	Not Installed	.	
(16) Finisher	1000-Finisher	.	
(17) Mail box	Not Installed	.	
(18) Job separator	Not Installed	.	
(19) Card Authentication Kit (B)	Installed	.	
(20) Internet FAX Kit (A)	Installed	.	
(21) Security Kit (E)	Not Installed	.	
(22) Security Kit (F)	Not Installed	.	
(23) UG-33	Installed	.	
(24) UG-34	Installed	.	
(25) USB Keyboard	Installed	.	
(26) USB Keyboard Type	US-English	.	
(27) Scan extension kit(A)	Not Installed	.	
Print Settings		.	
(28) MP Tray Priority	Auto Feed	e-MPS error control Y6	0

(29) **Print Coverage**

Average(%) / Usage Page(A4/Letter Conversion)

RP Code

(30) Total		(41) 1234 5678 9012	
K: 1.10	/ 1111111.11	(42) 5678 9012 3456	
C: 2.20	/ 2222222.22	(43) 9012 3456 7890	
M: 3.30	/ 3333333.33	(44) 3456 7890 1234	
Y: 4.40	/ 4444444.44		
(31) Copy		(45) **Altitude Adjustment**	
K: 1.10	/ 1111111.11	Status	Normal
C: 2.20	/ 2222222.22		
M: 3.30	/ 3333333.33		
Y: 4.40	/ 4444444.44		
(32) Printer			
K: 1.10	/ 1111111.11		
C: 2.20	/ 2222222.22		
M: 3.30	/ 3333333.33		
Y: 4.40	/ 4444444.44		
(33) FAX			
K: 1.10	/ 1111111.11		
(34) Period	(27/10/2010 - 03/11/2010 08:40)		
(35) Last Page K/C/M/Y(%)	1.00 / 2.22 / 3.33 / 4.44		

1
(6) [XXXXXXXXXX]

Figure 6-2

Service Status Page

MFP

2014/10/30 15:15

TASKalfa 406ci
Firmware Version 2R6_2000.000.000

[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]

Engine Information

(46) NVRAM Version	_CI04709_CI04709
(47) FAX Slot1	2NM_1200.001.089
FAX BOOT Version	2NM_5000.001.006
FAX APL Version	2NM_5100.004.001
FAX IPL Version	2NM_5200.001.006
(48) MAC Address	00:C0:EE:D0:01:0D

Send Information

(49) Date and Time	14/03/05 15:30
(50) Address	mail@bjd.ne.jp

```
     1/2  (51) (52)
(53) 100/100
(54) 0/0/0/0/
(55) 0000000/0000000/0000000/0000000/0000000/0000000/0000000/
     0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/
     F00/U00/0/0/0/0/0/30/30/70/70/abcde/1/0/1/ (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70)
(71) 0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
     0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
(72) 0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/
     0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/
(73) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )0000000000/
     0000000000000000/
(74) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000/
(75) 0000000000000000/0000000000000000/0000000000000000/
(76) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )
(77) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )000000000/
(78) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )000000000/
(79) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )000000000/
(80) 0000000000000000/0000000000000000/0000000000000000/
(81) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000(
(82) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )0000000000/
(83) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )000000000/
(84) 0000000000000000/0000000000000000/0000000000000000/0000000000000000/0000000000000000/000000000000000( )000000000/
(85) 12345678/11223344/00001234abcd567800001234abcd5678/0123456789012345678901234567890/1/0008/00/07
     12345678/11223344/00001234abcd567800001234abcd5678/0123456789012345678901234567890/1/0008/00/07
     12345678/11223344/00001234abcd567800001234abcd5678/0123456789012345678901234567890/1/0008/00/07
     12345678/11223344/00001234abcd567800001234abcd5678/0123456789012345678901234567890/1/0008/00/07
(86) XXXXXXXX/
(87) [ABCDEFGHIJ][ABCDEFGHIJ]
     [ABCDEFGHIJ][ABCDEFGHIJ]  (88) (89)
     [ABCDEFGHIJ][ABCDEFGHIJ]  (90) (91)
(92) 00070107FE/0700FE00FE/00FE000100/0000000000/0000000000/0000000000/00000A010A/0A0A0A3200/0000000000/0000000000/
     0008000000/080000001D/0096009B00/9B009BFFFB/0082000000/000000001F/0000002C00/0000000000/0000000000/
(93) 3/
     0/0/12.3/56.7   (94) (95) (96) (97)
(98) 1/1/1/0/1/0/0/  2010/12/15 12:34:56
     1/5/  (99)(100)
     1/1/  (101) (102)
(103) 1/
(104) ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/
(105) ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/
```

2

[XXXXXXXXXX]

Figure 6-3

No.	Items	Contents
(1)	Firmware Version	-
(2)	System date	-
(3)	Engine firmware version	-
(4)	Engine boot version	-
(5)	Operation panel firmware version	-
(6)	Machine serial number	-
(7)	Total memory size	-
(8)	Local time zone	-
(9)	Report output date	Day/Month/Year hour:minute
(10)	NTP server name	-
(11)	Availability of the paper feed unit 2	Installed/Not Installed
(12)	Availability of the paper feed unit 3	Cassette(500-sheet×2) / Cassette(2000-sheet) / Not Installed
(13)	Availability of the optional HDD	Installed/Not Installed
(14)	Availability of the SD memory card	Installed/Not Installed
(15)	Availability of the SSD	Installed/Not Installed
(16)	Availability of the finisher	1000-sheet finisher/inner finisher/ 3000-sheet finisher/not installed
(17)	Availability of Mailbox	Installed/Not Installed
(18)	Availability of job separator	Installed/Not Installed
(19)	Availability of the ID Card Authentication Kit	Introduced/ before introduction/trial
(20)	Availability of the Internet FAX Kit(A)	Introduced/ before introduction (not indicated for 30ppm model)
(21)	Availability of the Security Kit(E)	Installed/Not Installed
(22)	Availability of the Security Kit(F)	Introduced/ before introduction (not indicated for 30ppm model)
(23)	Availability of UG-33	Introduced/ before introduction/trial
(24)	Availability of UG-34	Introduced/ before introduction (not indicated for 30ppm model)
(25)	USB keyboard connection status	Connected/Not connected
(26)	Type of the USB keyboard	US-English/US-English with Euro symbol/German France
(27)	Availability of the Scan extension kit(A)	Introduced/ before introduction/trial (not indicated for 30ppm model)
(28)	MP tray priority setting	Off/Auto/Always
(29)	Page count converted to the A4/Letter size	Print Coverage provides a close-matching reference of toner consumption and will not match the actual toner consumption.

No.	Items	Contents
(30)	Entire average coverage	Black/Cyan/Magenta/Yellow
(31)	Average coverage for copy	Black/Cyan/Magenta/Yellow
(32)	Average printer coverage	Black/Cyan/Magenta/Yellow
(33)	Average coverage for FAX	Black/Cyan/Magenta/Yellow
(34)	Cleared date and output date	-
(35)	Coverage on the last output page	-
(36)	Number of rings	0 to 15
(37)	Number of rings before automatic switching	0 to 15
(38)	Number of rings before connecting to the answering machine	0 to 15
(39)	Optional DIMM size	-
(40)	FRPO setting	-
(41)	RP code	Coding the engine firmware version and the date of the previous update.
(42)	RP code	Code the main software version and the date of the latest update.
(43)	RP code	Coding the engine firmware version and the date of the previous update.
(44)	RP code	Code the main software version and the date of the previous update.
(45)	High altitude adjustment set data	Normal/1001-2000m/2001-3000m/3001-3500m

(46)	NVRAM version	_ 1F3 1225 _ 1F3 1225
		(a)(b)(c)(d)(e)(f)
		(a) Consistency of the current firmware version and the database
		  _ (underscore): OK
		  * (Asterisk): NG
		(b) Database version
		(c) The oldest time stamp of database version
		(d) Consistency of the present software version and the ME firmware version
		  _ (underscore): OK
		  * (Asterisk): NG
		(e) ME firmware version
		(f) The oldest time stamp of the ME firmware version
		Normal if (a) and (d) are underscored, and (b) and (e) are identical with (c) and (f).

(47)	FAX firmware version	-
(48)	Mac address	-
(49)	The last sent date and time	-
(50)	Transmission address	-
(51)	Destination information	-

No.	Items	Contents
(52)	Area information	-
(53)	Margin setting	Top margin/Left margin
(54)	L parameters	Top margin integer part/Top margin decimal part/Left margin integer part /Left margin decimal part
(55)	Life counter (cassette 1)	Machine life/MP tray/Cassette/Paper feeder 1/Paper feeder 2/Paper feeder 3/Duplex
	Life counter (cassette 2)	Drum unit K/Drum unit C/Drum unit M/Drum unit Y/Primary transfer unit/Developer unit K/Developer unit C/Developer unit M/Developer unit Y/ Maintenance kit A/Maintenance kit B
(56)	Panel lock information	F00: OFF F01: Partial lock1 F02: Partial lock2 F03: Partial lock3 F04: Full lock
(57)	USB information	U00: Not Connected U01: Full speed U02: Hi speed
(58)	Paper handling information	0: Paper source select 1: Paper source fixed
(59)	Auto cassette change	0: OFF 1: ON (Default)
(60)	Color printing double count mode	0: All single counts 3: Folio (Less than 330 mm length), Single counts
(61)	Black and white printing double count mode	0: All single counts 3: Folio (Less than 330 mm length), Single counts
(62)	Billing counts timing	0: When secondary paper feed starts 1: When the paper is ejected
(63)	Temperature (machine inside)	-
(64)	Temperature (machine outside)	-
(65)	Relative humidity (machine outside)	-
(66)	Absolute humidity (machine outside)	-
(67)	Asset Number	-
(68)	Job end judgment time-out time	-
(69)	Job end detection mode	0: Detects as one job, even if contained multiple jobs 1: Detects as individual job, dividing multiple jobs at a break in job
(70)	Prescribe environment reset	0: Off 1: On

No.	Items	Contents
(71)	Media type attributes 1 to 28 (Not used: 18, 19, 20) *: For details on settings, refer to MDAT command in "Prescribe Commands Reference Manual".	Weight settings Fuser settings 0: Light 0: High 1: Normal 1 1: Middle 2: Normal 2 2: Low 3: Normal 3 3: Vellum 4: Heavy 1 5: Heavy 2 Duplex settings 6: Heavy 3 0: Disable 7: Extra Heavy 1: Enable
(72)	IO Calibration information	K/C/M/Y
(73)	Bias Calibration information	-
(74)	Sensor initial information	-
(75)	Calibration information	-
(76)	Calibration information	-
(77)	Calibration information	-
(78)	Calibration information	-
(79)	Calibration information	-
(80)	Paper loop correction shift amount	-
(81)	Paper loop correction interval	-
(82)	Paper loop correction patch amount	-
(83)	Calibration information	-
(84)	Calibration information	-
(85)	RFID information (K,C,M,Y)	-
(86)	RFID reader/writer version	-
(87)	Optional paper feeder firmware version	-
(88)	Color table version for printer	-
(89)	Color table 2 version for printer	-
(90)	Color table version for copy	-
(91)	Color table 2 version for copy	-
(92)	Maintenance information	-
(93)	MC correction	1 to 7
(94)	Configuring the toner coverage counters	0: Full-color count display 1: Color coverage count display
(95)	Low coverage setting	0.1 to 100.0
(96)	Middle coverage setting	0.1 to 100.0
(97)	Data sanitization information	FAX Board/Main Memory/Panel Memory/SSD/Executed time 1: Success 0: Fail - : Not performed or Not installed

No.	Items	Contents
(98)	Toner low setting	0: Disabled 1: Enabled
(99)	Toner low detection level	0 to 100 (%)
(100)	Full-page print mode	0: Normal mode (Factory setting) 1: Full-page mode
(101)	Wake-up mode	0: Off (Don't wake up) 1: On (Do wake up)
(102)	Wake-up timer	Displays the wake-up time
(103)	BAM conformity mode setting	0: Non-conformity mode 1: Conformity Mode
(104)	Drum serial number	Black/Cyan/Magenta/yellow
(105)	Developer serial number	Black/Cyan/Magenta/yellow

Code conversion

A	B	C	D	E	F	G	H	I	J
0	1	2	3	4	5	6	7	8	9

U001	Exiting the maintenance mode (Message: Exit Mainte)

Contents
    Exits the maintenance mode and returns to the normal copy mode.
Purpose
    Exit the maintenance mode.

Method
    1.Press the [Start] key.
    2.The normal copy mode is entered.

U002	Set Factory Default (Message: Set Factory Def)

Contents
    Sets the machine initial setting values to the factory default.
Purpose
    Executes the machine initial settings when shipping from factory.

Method
    1.Press the [Start] key.
    2.Select [Mode1(All)].
    3.Press the [Start] key.

Items	Contents
Mode1(All)	Sets the machine initial setting values to the factory default.

    4.Turn the power switch off.
      * :An error code is displayed in case of the initialization error.
       When errors occur, turn the power switch off then on, and execute initialization using mainte-
       nance mode U002.
       Wait more than 5 seconds between the power off and on.

Error codes

Codes	Contents
0001	Controller (Entity error)
0002	Controller (Counter error)
0003	Controller (OS error)
0020	Engine error

U004	Machine serial number (Message: Machine No.)

Contents

Sets or displays the machine serial number.

Purpose

Checks the machine serial number

After the main/engine PWB replacement, execute if the "C0180 machine number mismatch" occurs.

Method

1.Press the [Start] key.

When the machine serial number in the engine PWB matches the one in the main PWB,

Items	Contents
Machine No.(Eng)	Displays the machine serial number.

When the machine serial number in the engine PWB does not match the one in the main PWB,

Items	Contents
Machine No.(Main)	Displays the machine serial number in the main PWB.
Machine No.(Eng)	Displays the machine serial number in the engine PWB.

Setting

Execute if the serial numbers do not match.

1.Select [Execute].

2.Press the [Start] key.

  * :The serial number writing starts.

3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U010	Setting the maintenance mode ID (Message: Set Mainte ID)

Contents
Change the maintenance mode ID for service.
Purpose
Modify maintenance mode ID for service for more security.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Change	Change the maintenance mode ID for service.
Initialize	Initializes the maintenance mode ID for service.

Method: Change
1.Select [New ID].
2.Press ten keys (0–9, *, #) to enter a new 8-digit ID.
  * :Either [*] or [#] must be included.
3.Press the [Start] key to set the setting value.
4.Select [New ID(Reconfirm)].
5.Press ten keys (0–9, *, #) to re-enter the new 8-digit ID.

Items	Contents
New ID	Enter a new 8-digit maintenance ID
New ID(Reconfirm)	Enter a new 8-digit maintenance ID (to confirm)
Execute	Change the maintenance mode ID for service.

6.Select [Execute].
7.Press the [Start] key to set the setting value.

Method: Initialize
1.Select [Initialize].
2.Select [Execute].
3.Press the [Start] key to initialize the maintenance mode ID.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

Error codes

Codes	Contents
0001	Do not include "#" or "*" in the ID.
0002	ID does not match.
0003	8-digit ID is not input

U019	Firmware Version (Message: Firm Version)

Contents
　Displays the firmware version installed in each PWB.
Purpose
　Check the firmware version installed in each PWB

Method
　1.Press the [Start] key.
　　* :The firmware version is displayed.
　2.Change the screen using the [Up/Down cursor] key.

Items	Contents
Main	Main firmware
MMI	Operation firmware
Browser	Browser firmware
Engine	Engine firmware
Engine Boot	Engine boot
RFID	RFID
Dictionary	Dictionary firmware
Option Language	Optional language firmware
Color Table1(Copy)	Color table 1 firmware (copy)
Color Table2(Copy)	Color table 2 firmware (copy)
Color Table2(Prn)	Color table 1 firmware (printer)
Color Table2(Prn)	Color table 2 firmware (printer)
Cass2	Paper feeder 1 firmware
Cass2 Boot	Paper Feeder 1 boot
Cass3	Paper feeder 2 firmware
Cass3 Boot	Paper Feeder 2 boot
DF	finisher firmware
DF Boot	finisher boot
MT	mailbox Firmware
MT Boot	mailbox boot
Fax APL	Fax APL
Fax Boot	FAX Boot
Fax APL	Fax APL
HyPAS EMB API	HyPAS EMB API
Application Name 1	Application 1 software
Application Name 2	Application 2 software
Application Name 3	Application 3 software
Application Name 4	Application 4 software

Items	Contents
Application Name 5	Application 5 software
Application Name 6	Application 6 software
Application Name 7	Application 7 software
Application Name 8	Application 8 software
Application Name 9	Application 9 software
Application Name 10	Application 10 software
Application Name 11	Application 11 software
Application Name 12	Application 12 software
Application Name 13	Application 13 software
Application Name 14	Application 14 software
Application Name 15	Application 15 software
Application Name 16	Application 16 software

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U021	Initializes Memory (Message: Init Memory)

Contents

Initializes all settings, except those pertinent to the type of machine, namely each counter, service call error history and mode setting. Also, initializes the backup RAM according to the area specification selected in the maintenance mode U252 (Setting the destination).

Purpose

Initialize the backup data except machine settings to the factory default in the field

Method

1. Press the [Start] key.
2. Select [Execute].

Items	Contents
Execute	Initialize data according to the destination information.

3. Press the [Start] key.
   * :All data other than for adjustments is initialized by the destination setting.
4. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
   * :An error code is displayed in case of the initialization error.
   When errors occur, turn the power switch off then on, and execute initialization using maintenance mode U021.

Error codes

Items	Contents
0001	Controller (Entity error)
0002	Controller (Counter error)
0020	Engine error
0040	Scanner error

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U025	Firmware update (S) (Message: Firm Update(S))

Contents

Executes Firmware-Update from the USB memory while "Very High" is selected in the Security Level settings under the System Menu.

Supplement

Initiate the firmware upgrade by a service person by executing U025 while a USB memory is inserted

Method

1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Updates the firmware

3.Press the [Start] key.
  * :This is not executable when a USB memory is not installed.
4.After normal completion, turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U030	Motor operation check (Message: Chk Motor)

Contents
 Drive each motor.
Contents
 Execute to check each motor's operation.

Method
 1.Press the [Start] key.
 2.Select the motor to operate.
 3.Press the [Start] key.
  * :Each operation starts.

Items	Contents
Feed	Operate the imaging motor.
DLP(CMY)	Operate the DLP (CMY) motor
Fuser	Operate the fuser motor
SB(CW)	Drive the SB(CW) motor
SB(CCW)	Drive the SB(CCW) motor
Belt Release	Operate the bridge motor
Bridge	Operate the belt release
Fuser Release	Operate the fuser release

  * :To stop the operation, press the [Stop] key.

Completion
 Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U031	Check the conveying switch (Message: Chk Switch)

Contents

Displays the on/off status of each switch and sensor to detect paper on the paper conveying path.

Purpose

Execute to check the conveying switches and sensors are operating correctly.

Method

1. Press the [Start] key.
2. Check the switches and sensors by manually turning them on/off.
3. The switch indication is inversed when the switch is detected.

Items	Contents
Regist Sens	Display the regist sens switch state
Fuser	Displays the fuser switch status
Bridge1 Feed	Displays the bridge 1 feed switch state
Bridge2 Feed	Displays the bridge 2 feed switch state
Exit Full	Display the exit full switch state
JobSepa Full	Display the job separator full switch state
JobSepa	Display the job separator switch state
Feed2	Displays the cassette2 feed switch state
Feed3	Displays the cassette3 feed switch state
Feed4	Displays the cassette4 feed switch state
DU Sens	Display the DU sens switch state

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U032	Clutch operation check (Message:Check Clutch Operation)

Contents
    Supply power to each clutch.
Purpose
    Execute to check each clutch's operation.

Method
    1.Press the [Start] key.
    2.Select the clutch to operate.
    3.Press the [Start] key.
      * :Each operation starts.

Items	Contents
DLP	Operates the developer clutch (BK).
Feed	Operates the paper feed clutch
Mid	Operates the middle clutch
DU	Operate the duplex clutch
Regist	Operate the registration clutch
Mpf	Operate the MP clutch
Motor	Operate the motor

    * :The clutch operation is available while the motor is operated.
    4.To stop the operation, press the [Stop] key.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U033	Solenoid operation check (Message: Chk Solenoid)

Contents
 Supply power to each solenoid.
Purpose
 Execute to check each solenoid's operation.

Method
 1.Press the [Start] key.
 2.Select the solenoid to operate.
 3.Press the [Start] key.
   * :Each operation starts.

Items	Contents
Branch Exit	Operate the feed-shift solenoid.
MPT	Operate the MP solenoid
Motor	Operate the motor

   * :The solenoid operation is available while the motor is operated.

 4.To stop the operation, press the [Stop] key.

Completion
 Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U034	Paper timing adjustment (Message: Adj Paper Timing)

Contents
    Adjust the leading edge registration or center line.

Purpose
    Executed if there is a regular error between the leading edges of the copy image and original.
    Adjusted if there is a regular error between the center lines of the copy image and original.

Method
    1.Press the [Start] key.
    2.Select the item to adjust.
      * :The screen for adjusting is displayed.

Items	Contents
LSU Out Top Full	Adjust the leading edge registration (full speed)
LSU Out Top 3/4	Adjust the leading edge registration (3/4 speed)
LSU Out Top Half	Adjust the leading edge registration (half speed)
LSU Out Left	Adjusts the center line

Adjustment: LSU Out Top
    1.Select the item to adjust.
    2.Press the [System Menu/Counter] key.
    3.Press the [Start] key to output a test pattern.
    4.Press the [System Menu/Counter] key.

Items	Contents	Setting range	Initial setting	Data varia-tion
MPT	Adjust the leading edge timing for the MP tray	-3.0 to 3.0	0	0.1mm
Cassette	Adjusts the leading edge timing for cassette feed	-3.0 to 3.0	0	0.1mm
PF*1	Adjust the leading edge timing for the paper feeder	-3.0 to 3.0	0	0.1mm
Dup	Adjusting the leading edge timing when duplex copying	-3.0 to 3.0	0	0.1mm

    *1: 500 x 1 cassette only

    5.Press the [◄] [►] keys or the numeric keys to change the counter value.
      For the test pattern 1, increase the value.
      For the test pattern 2, decrease the value.

* :When the setting value is increased, the image moves backward, and it moves forward when the setting value is decreased.

| Correct image | Output example 1 | Output example 2 |
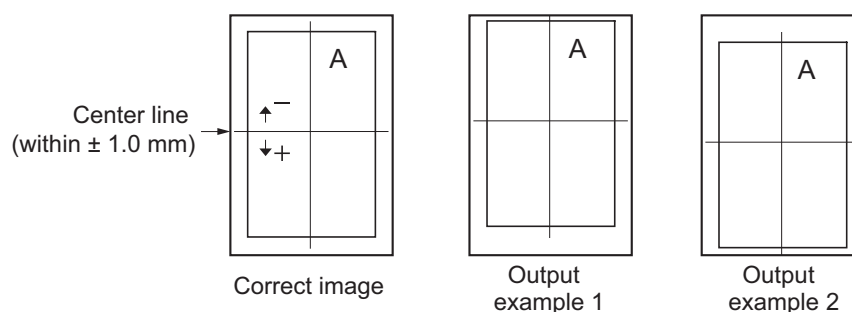
Figure 6-4

6.Press the [Start] key to set the setting value.

Precautions
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 > U066 (P.6-240) > U071 (P.6-244)

Adjustment: LSU Out Left
1.Select the item to adjust.
2.Press the [System Menu/Counter] key.
3.Press the [Start] key to output a test pattern.
4.Press the [System Menu/Counter] key.

Items	Contents	Setting range	Initial setting	Data variation
MPT	Adjust the center line for the MP tray	-3.0 to 3.0	0	0.1mm
Cass1	Adjust the center line for cassette 1 feed	-3.0 to 3.0	0	0.1mm
Cass2	Adjust the center line for cassette 2 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Cass3	Adjust the center line for cassette 3 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Cass4	Adjust the center line for cassette 4 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Duplex	Adjusting the center line when duplex copying (Back page)	-3.0 to 3.0	0	0.1mm

5.Press the [◄] [►] keys or the numeric keys to change the counter value.
For the test pattern 1, increase the value.
For the test pattern 2, decrease the value.

* :When the setting value is increased, the image moves to right, and it moves to left when the setting value is decreased.

Center line
(within ± 2.0 mm)

| Correct image | Output example 1 | Output example 2 |
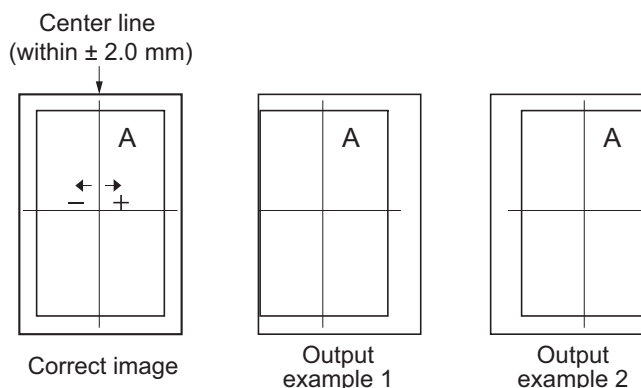
Figure 6-5

6.Press the [Start] key to set the setting value.

Precautions

Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 < U067(P.6-241) < U072(P.6-246)

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U035	Folio size setting (Message: Set FOLIO Size)

Contents

Changes the printable area when copyng with Folio paper.

Purpose

Setting the actual size of Folio to use prevents the image dropout at the trailing edge or right/left edges.

Method

1.Press the [Start] key.
2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Length	Sets the Folio paper length.	318 to 356 (mm)	330	1(mm)
Width	Sets the Folio paper width.	200 to 216 (mm)	210	1(mm)

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U037	Fan motor operation check (Message: Chk Motor)

Contents
    Drive each fan motor.
Contents
    Execute to check each fan motor's operation.

Method
    1.Press the [Start] key.
    2.Select the fan motor to operate.
    3.Press the [Start] key.
      * :Each operation starts.

Items	Contents
All	Operate all the fan motors
DLP	Operate the developer fan motor 1
Belt Cooling	Operate the transfer belt fan motor
Exit Cooling	Operate the exit fan motor
LVU CL Fan	Operate the developer fan motor 2
WTNR Fan	Operates the toner suction motor
CON Fan	Operate the Controller fan motor

    * :To stop the operation, press the [Stop] key.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

	6-35

U051	Registration paper loop amount adjustment (Message: Adj Paper Loop)

Contents

Adjusts the paper loop amount.

Purpose

The leading edge of the image may drop, image position may shift irregularly or paper is folded in a Z-shape.

* :Use to check/adjust skew feed.

Method

1.Press the [Start] key.

2.Select the item to adjust.

* :The screen for adjusting is displayed.

Items	Contents
Full	Paper loop amount adjustment at full speed
Half	Paper loop amount adjustment at half speed
3/4	Paper loop amount adjustment at 3/4 speed

Adjustment

1.Select the item to adjust.

2.Press the [System Menu/Counter] key.

3.Place an original and press the [Start] key to make a test copy.

4.Press the [System Menu/Counter] key.

* :The screen for adjusting is displayed.

Items	Contents	Setting range	Initial setting	Data variation
MPT	MPT loop amount adjustment	-30 to 20	0/0/0	1mm
Cass1	Cassette 1 loop amount adjustment	-30 to 20	0/0/0	1mm
PF	PF (Cassette2,3,4) loop amount adjustment	-30 to 20	0/0/0	1mm
Dup	Duplex loop amount adjustment	-30 to 20	0/0/0	1mm

5.Press the [◄] [►] keys or the numeric keys to change the counter value.

For the copy example 1, increase the value.

For the copy example 2, decrease the value.

* :When the setting value is increased, the paper loop amount increase, and it decreases when the setting value is decreased.

Original   Copy example 1   Copy example 2
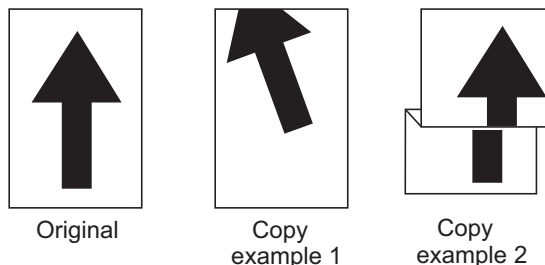
Figure 6-6

6.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U053	Adjusting the motor speed (Message: Adj Motor Speed)

Contents
Execute the motor speed fine tuning.
Purpose
No need to change the basic settings. Change the set value when an image failure occurs.

Method
1. Press the [Start] key.
2. Select the item to adjust.
   * :The screen for adjusting is displayed.

Items	Contents
Full	Full speed setting
Half	Half speed setting
3/4	3/4 speed setting

Setting
1. Select the item to adjust.
   * :The screen for adjusting is displayed.

Items	Contents	Setting range	Initial setting	Data variation
Drum(K)	Adjusting the drum motor(BK)	-5000 to 5000	0/0/0	-
Drum(CMY)	Adjusting the drum motor(M/C/Y)	-5000 to 5000	0/0/0	-
Drum Mono(K)	Adjust the drum motor (K) at the time of monochrome printing.	-5000 to 5000	0/0/0	-
Dev(K)	Adjusting the developer motor(BK)	-5000 to 5000	0/0/0	-
Dev(CMY)	Adjusting the developer motor(M/C/Y)	-5000 to 5000	0/0/0	-
Fixing	Adjusting the fuser motor(FUM)	-5000 to 5000	0/0/0	-
Trans Belt	Adjusting the transfer belt motor	-5000 to 5000	0/0/0	-
SB	Adjusts the DP feedshift motor (DPSPM) rotation	-5000 to 5000	0/0/0	-
SB Reverse	Adjusts the DP feedshift motor (DPSPM) reverse rotation	-5000 to 5000	0/0/0	-
Brg1	Adjusting the BR conveying motor (BRCM)	-5000 to 5000	0/0/0	-
PF2	Adjusting the PF paper feed motor (PFPFM)	-5000 to 5000	0/0/0	-
PF3	Adjusting the PF paper feed motor (PFPFM)	-5000 to 5000	0/0/0	-

2. Press the [◄] [►] keys or the numeric keys to change the counter value.
3. Press the [Start] key to set the setting value.
Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U059	Fan mode setting (Message: Set Fan Mode)

Contents

    Sets the conveying fan motor drive mode during paper conveying.

Purpose

    A fan is added in the conveying unit so that the leading edge of paper is conveyed along with the conveying path to prevent paper creases.

Method

    1.Press the [Start] key.

    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Cycle	Changes the fan control timing cycle.	0 to 10000		1000 sheets

    3.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U065	Adjusting the magnification for table scanning (Message: Adj Scn)

Contents
Adjust the magnification in the main and sub scanning direction of the table scanning.

Purpose
Adjusts the magnification in the main and sub scanning direction of the table scanning if the above incorrect

Precautions
The magnification adjustment in the main scanning direction could cause black streaks depending on the content of the original document.
Adjust the magnification of the scanner in the following order.
U065(main scanning direction)(P.6-238)>U065((sub scanning direction)(P.6-238)

Method
1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original and press the [Start] key to make a test copy.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Main Scan	Scanner magnification in the main scanning direction	-15 to 15	0	0.10%
Sub Scan	Adjusts scanner magnification in the sub-scanning direction	-25 to 25	0	0.10%

Adjustment: Main Scan
1. Press the [◄] [►] keys or the numeric keys to change the counter value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.
   * :When the setting value is increased, the image widens, and it narrows when the setting value is decreased.

Original   Copy example 1   Copy example 2
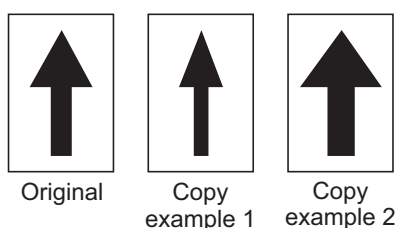
Figure 6-7

2. Press the [Start] key to set the setting value.

Adjustment: Sub Scan
1. Press the [◄] [►] keys or the numeric keys to change the counter value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.

* :When the setting value is increased, the image get longer, and it shortens when the setting value is decreased.

Original   Copy   Copy
example 1   example 2

Figure 6-8

2.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U066	Adjusting the table scanning timing (Message: Table Timing)

Contents
Adjusts the leading edge timing for the table scanning.
Purpose
Executed if there is a regular error between the leading edges of the copy image and original.

Adjustment
1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original and press the [Start] key to make a test copy.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	Adjusts the scanner leading edge margin.	-45 to 45	0	0.085 mm
Rotate	Scanner leading edge registration (rotate copying)	-45 to 45	0	0.085 mm

6. Press the [◄] [►] keys or the numeric keys to change the counter value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.
   * :When the setting value is increased, the image moves forward, and it moves backward when the setting value is decreased.

Leading edge registration of the copy image (+1.0/-1.5 mm or less)

Original   Copy example 1   Copy example 2
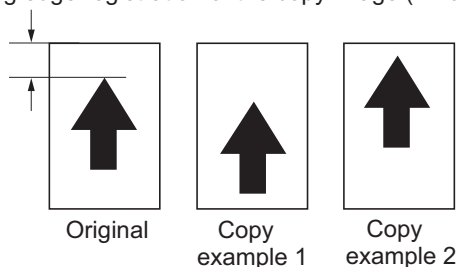
Figure 6-9

7. Press the [Start] key to set the setting value.

Precautions
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034(P.6-228) > U065(P.6-238) > U066

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U067	Adjusting the table scanning center line (Message: Table Center)

Contents

Adjusts the center line for the table scanning.

Purpose

Adjusted if there is a regular error between the center lines of the copy image and original.

Adjustment

1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original and press the [Start] key to make a test copy.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	Adjusts the scanner center line	-40 to 40	0	0.085 mm
Rotate	Scanner center line (rotate copying)	-40 to 40	0	0.085 mm

1. Press the [◄] [►] keys or the numeric keys to change the counter value.

   For the copy example 1, decrease the value.

   For the copy example 2, increase the value.

   * :When the setting value is increased, the image moves to left, and it moves to right when the setting value is decreased.

Center line of the copy image (within ± 2.0 mm)

Original　　Copy example 1　　Copy example 2
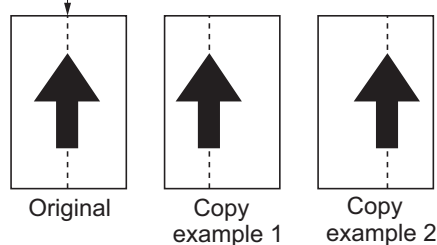
Figure 6-10

2. Press the [Start] key to set the setting value.

Precautions

Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.

U034(P.6-228) > U065(P.6-238) > U067

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U068	DP scanning position adjustment (Message: DP Scn Start Pos)

Contents

Adjusts the starting position for scanning originals from the DP.

Execute test copy at the four scanning positions after adjustment.

Purpose

Adjust if the image fogging occurs because the scanning position is not proper when the DP is used

   * :Execute U071 to adjust the timing of the DP leading edge when the scanning position is changed.

Method

1.Press the [Start] key.

2.Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
DP Read	Adjusts the starting position for scanning originals.	-33 to 33	0	0.158 mm
Black Line	Adjusts the scanning position for the test copy originals.	0 to 3	0	-

Adjustment: DP Read

1.Select [DP Read].

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

   * :When the setting value is increased, the image moves backward, and it moves forward when the setting value is decreased.

3.Press the [Start] key to set the setting value.

Adjustment: Black Line

1.Select [Black Line].

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

3.Press the [Start] key to set the setting value.

4.Set the original (the one of which density is known) in the DP and press the [System Menu/ Counter] key.

5.Press the [Start] key to execute the test copy.

6.Perform the test copy at each scanning position with the setting value from 0 to 3 and check that no black line appears and the image is normally scanned.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U070	DP magnification adjustment (Message: Adj DP Motor)

Contents
Adjusting the magnification for DP scanning.

Purpose
Adjusted if the magnification is incorrect in the auxiliary scanning direction when the DP is used

Adjustment
1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * :Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data varia- tion
SubScan(F)	Adjusting the magnification for table scanning	-25 to 25	-	0.1 %
SubScan(B)	Adjusts the 2nd side magnification in the sub scanning direction when duplex scanning	-25 to 25	-	0.1 %
Duplex 1side	Adjusts the 1st side magnification in the sub scanning direction when duplex scanning	-25 to 25	-3	0.1 %

6. Press the [◄] [►] keys or the numeric keys to change the counter value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.
   * :When the setting value is increased, the image get longer, and it shortens when the setting value is decreased.

Original   Copy example 1   Copy example 2

Figure 6-11

7. Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U071	Adjusting the DP leading edge Timing (Message: DP Timing)

Contents

Adjusts the DP original scanning timing.

Purpose

Adjusted if there is a regular error between the leading or trailing edges of the original and the copy image when the DP is used

Method

1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * :Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front Head	Leading edge registration. (Front page)	-32 to 32	0	0.245mm
Front Tail	Trailing edge registration. (Front page)	-32 to 32	0	0.245mm
Back Head	Leading edge registration. (Back page)	-32 to 32	0	0.245mm
Back Tail	Trailing edge registration. (Back page)	-32 to 32	0	0.245mm

Adjustment: Front Head/Back Head

1. Press the [◄] [►] keys or the numeric keys to change the counter value.

   For the copy example 1, increase the value.

   For the copy example 2, decrease the value.

   * :When the setting value is increased, the image moves forward, and it moves backward when the setting value is decreased.

Original   Copy example 1   Copy example 2
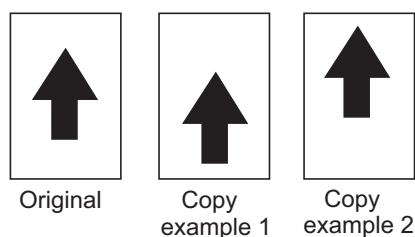
Figure 6-12

2. Press the [Start] key to set the setting value.

Precautions

Check the 2nd side after adjusting the 1st side. Adjust if necessary.
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034(P.6-228) > U071

Adjustment: Front Tail/Back Tail

1.Press the [◄] [►] keys or the numeric keys to change the counter value.

For the copy example 1, increase the value.

For the copy example 2, decrease the value.

* :When the setting value is increased, the image get longer, and it shortens when the setting value is decreased.

Original

Copy
example 1

Copy
example 2

Figure 6-13

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U072	Adjusting the DP original center (Message: DP Center)

Contents
Adjusts the DP original center line.

Purpose
Adjusted if there is a regular error between the center lines of the original and the copy image when the DP is used

Adjustment
1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * :Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu/Counter] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	DP center line. (Front page)	-40 to 40	-	0.085 mm
Back	DP center line. (Back page)	-40 to 40	-	0.085 mm

6. Press the [◄] [►] keys or the numeric keys to change the counter value.
   For the copy example 1, decrease the value.
   For the copy example 2, increase the value.
   * :When the setting value is increased, the image moves to left, and it moves to right when the setting value is decreased.

Original   Copy example 1   Copy example 2
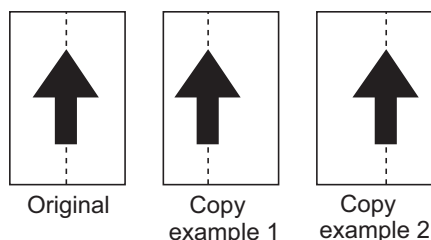
Figure 6-14

7. Press the [Start] key to set the setting value.

Precautions
Check the 2nd side after adjusting the 1st side. Adjust if necessary.
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 (P.6-228) > U065 (P.6-238) > U067 (P.6-241) > U072

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U089	MIP-PG pattern output (Message: Output MIP-PG)

Contents

Select and output the MIP-PG pattern generated by the main unit.

Purpose

When adjusting the image scanning items, execute to check the machine status except the scanner section using the MIP-PG pattern output without image scanning process.

Method

1.Press the [Start] key.

2.Select the MIP-PG pattern to output

Items	Contents	
Printer Gray	For grayscale level check	
White	For drum quality check (Blank PG)	
White(Color)	Color for drum quality check (Blank PG)	
Gray(C)	For drum quality check (Cyan PG)	
Gray(M)	For drum quality check (Magenta PG)	

Items	Contents
Gray(Y)	For drum quality check (Yellow PG)
Gray(K)	For drum quality check (Gray PG)
Color Belt	PG for the developer status and engine ID check (four color PG)
Color Gradation	Printing 64 grayscales to check 4 colors
Sample Set	Outputs the following output patterns for the long life unit warranty application PG for the developer status and engine ID check (four color PG) For drum quality check (Yellow PG) For drum quality check (Cyan PG) For drum quality check (Magenta PG) For drum quality check (Gray PG)

3.Press the [System Menu/Counter] key.
4.Press the [Start] key to output a MIP-PG pattern.
5.Press the [System Menu/Counter] key.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U100	Main high voltage adjustment (Message: Main HV Output)

Contents

Adjust the surface potential by changing the voltage impressed to the main charge roller.

Purpose

Change the set value to adjust the image when an image failure (background image) occurs.

Method

1. Press the [Start] key.
2. Select the item to set.

   * :The screen for setting is displayed.

Items	Contents
Set DC Bias	Displays the main charge DC bias correction value for each color.
Adj DC Bias	Adjust the surface potential additional value
Set DC Bias Base	Displays the main charge DC bias base value for each color. (Adjusted value before correction)
Chk Current	Displays the electric current flows
Set Main HV	Sets the main high voltage mode
MCH	Set MC correction

Setting: Set DC Bias

1. Displays the current setting.

Items	Contents
DC1(C)	Cyan main charge DC bias correction value (Full speed)
DC1(M)	Magenta main charge DC bias correction value (Full speed)
DC1(Y)	Yellow main charge DC bias correction value (Full speed)
DC1(K)	Black main charge DC bias correction value (Full speed)

Setting: Adj DC Bias

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

* :When the setting value is increased, the image get thinner, and it gets thicker when the setting value is decreased.

Items	Contents	Setting range	Initial setting
DC2(C)	Cyan main charge DC bias additional value (Full speed)	-1000 to 1000	0
DC2 3/4(C)	Cyan main charge DC bias additional value (3/4 speed)	-1000 to 1000	0
DC2 Half(C)	Cyan main charge DC bias additional value (Half speed)	-1000 to 1000	0
DC2(M)	Magenta main charge DC bias additional value (Full speed)	-1000 to 1000	0
DC2 3/4(C)	Magenta main charge DC bias additional value (3/4 speed)	-1000 to 1000	0
DC2 Half(M)	Magenta main charge DC bias additional value (Half speed)	-1000 to 1000	0
DC2(Y)	Yellow main charge DC bias additional value (Full speed)	-1000 to 1000	0
DC2 3/4(Y)	Yellow main charge DC bias additional value (3/4 speed)	-1000 to 1000	0
DC2 Half(Y)	Yellow main charge DC bias additional value (Half speed)	-1000 to 1000	0
DC2(K)	Black main charge DC bias additional value (Full speed)	-1000 to 1000	0
DC2 3/4(K)	Black main charge DC bias additional value (3/4 speed)	-1000 to 1000	0
DC2s Half(K)	Black main charge DC bias additional value (Half speed)	-1000 to 1000	0

3.Press the [Start] key to set the setting value.

Setting: Set DC Bias Base

1.Displays the current setting.

Items	Contents
DC1 B(C)	Cyan main charge DC bias base value (Full speed)
DC1 B3/4(C)	Cyan main charge DC bias base value (3/4 speed)
DC1 B Half(C)	Cyan main charge DC bias base value (Half speed)
DC1 B(M)	Magenta main charge DC bias base value (Full speed)
DC1 B 3/4(M)	Magenta main charge DC bias base value (3/4 speed)
DC1 B Half(M)	Magenta main charge DC bias base value (Half speed)
DC1 B(Y)	Yellow main charge DC bias base value (Full speed)

Items	Contents
DC1 B 3/4(Y)	Yellow main charge DC bias base value (3/4 speed)
DC1 B Half(Y)	Yellow main charge DC bias base value (Half speed)
DC1 B(K)	Black main charge DC bias base value (Full speed)
DC1 B 3/4(K)	Black main charge DC bias base value (3/4 speed)
DC1 B Half(K)	Black main charge DC bias base value (Half speed)

Refer: Chk Current

    1.Displays the current setting.

Items	Contents
C	Cyan inflow current
M	Magenta inflow current
Y	Yellow inflow current
K	Black inflow current

Setting: Set Main HV

    1.Select the item to set.

Items	Contents	Setting range	Initial setting
White Line	Switch On/Off the white streak prevention control	On/Off	Off
Agent Time	Aging time by surface speed gap	0 to 255	0

    2.Press the [Start] key to set the setting value.

Setting: MCH

    1.Select the item to set.

Items	Contents	Setting range	Initial setting
Value	MCH correction	1 to 7	4

    2.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U101	Primary transfer voltage adjustment (Message: 1st TC Output)

Contents

Set the primary transfer control voltage

Purpose

Change setting if a failure such as faint image, etc. occurs.

Method

1. Press the [Start] key.
2. Select the item to set.

　* :The screen for setting is displayed.

Items	Contents
Normal	Set the primary transfer voltage
Add Color	Sets 2nd side additional value
Add Color 2nd	Sets 2nd side additional value.
Surround Correct	Setting the environmental correction

Setting: Normal

1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Yellow primary transfer voltage (full speed)	0 to 400	70	-
Half	Yellow primary transfer voltage (half speed)	0 to 400	43	-
3/4	Yellow primary transfer voltage (3/4 speed)	0 to 400	56	-

3. Press the [Start] key to set the setting value.

Setting: Add Color

1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the additional value (Cyan)	-200 to 200	-4	-
M	Sets the additional value (Magenta)	-200 to 200	-4	-
Y	Sets the additional value (Yellow)	-200 to 200	0	-
K	Sets the additional value (Black)	-200 to 200	17	-
B/W	Monochrome mode (toner applying amount)	-200 to 200	-27	-

3. Press the [Start] key to set the setting value.

Setting: Add Color 2nd
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
C	2nd side additional value (Cyan)	-200 to 200	4	-
M	2nd side additional value (Magenta)	-200 to 200	4	-
Y	2nd side additional value (Yellow)	-200 to 200	0	-
K	2nd side additional value (Bllack)	-200 to 200	17	-

3.Press the [Start] key to set the setting value.

Setting: Surround Correct
1.Select the item to set.
2.By using the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
Mode	Environmental correction (On/Off)	0: On 1: Off	On	-
Rev Bias	Reverse bias cleaning	-200 to 200	30	-
High Altitude	High altitude correction control (2nd side correction)	-200 to 200	85	-

3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U106	Secondary transfer voltage adjustment (Message: 2nd TC Output)

Contents
  Set the secondary transfer control voltage.
Purpose
  Change setting if a failure such as faint image, etc. occurs.

Method
  1.Press the [Start] key.
  2.Select the item to set.
    * :The screen for setting is displayed.

Items	Contents
Light/Normal1	Transfer control value for Light and Normal1
Normal2/3	Transfer control value for Normal 2 / 3
Light/Normal123	Transfer control value for Light to Normal1,2,3
Heavy1	Transfer control value for Normal 1 / 3
Heavy2/3	Transfer control value for Heavy 2 / 3
OHP	Transfer control value for Transparency
Light-Normal3	Transfer control value for Light to Normal3
Bias	Bias setting
High Altitude	High altitude correction control setting (2nd side correction)
Paper End	Turning off the secondary transfer at the paper end

Setting: Light/Normal1
  1.Select the item to set.
    * :The screen for setting is displayed.

Items	Contents
1st	1st side transfer control value at full speed
2nd	2nd side transfer control value at full speed

  2.Select the item to set.
  3.Press the [◄] [►] keys or the numeric keys to change the counter value.
1st

Items	Contents	Setting range	Initial setting	Data variation
W<160	Setting paper width less than 160	0 to 2000	600	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400	-

2nd

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	700	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400	-

    4.Press the [Start] key to set the setting value.

Setting: Normal2/3
    1.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
1st	1st side transfer control value at full speed
2nd	2nd side transfer control value at full speed

    2.Select the item to set.
    3.Press the [◄] [►] keys or the numeric keys to change the counter value.

1st

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	650	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	500	-

2nd

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	750	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	500	-

    4.Press the [Start] key to set the setting value.

Setting: Light/Normal123
    1.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
1st B/W	1st side transfer control value in monochrome mode
2nd B/W	2nd side transfer control value in monochrome mode

    2.Select the item to set.
    3.Press the [◄] [►] keys or the numeric keys to change the counter value.

1st

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	550	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400	-

2nd

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	650	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300	-

4.Press the [Start] key to set the setting value.

Setting: Heavy1
1.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
1st 3/4	1st side transfer control value at 3/4 speed
2nd 3/4	2nd side transfer control value at 3/4 speed
1st Half	1st side transfer control value at half speed
2nd Half	2nd side transfer control value at half speed
1st 3/4 B/W	1st side transfer control value at 3/4 speed in monochrome mode
2nd 3/4 B/W	2nd side transfer control value at 3/4 speed in monochrome mode

2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

1st 3/4

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	530	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380	-

2nd 3/4

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	650	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	330	-

1st Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	350	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

2nd Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	350	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

1st 3/4 B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	480	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	330	-

2nd 3/4 B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	580	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	280	-

4.Press the [Start] key to set the setting value.

Setting: Heavy2/3
1.Select the item to set.
* :The screen for setting is displayed.

Items	Contents
1st Half	1st side transfer control value at half speed
2nd Half	2nd side transfer control value at half speed
1st Half B/W	1st side transfer control value at half speed in monochrome mode
2nd Half B/W	2nd side transfer control value at half speed in monochrome mode

2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

1st Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	450	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300	-

2nd Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	550	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

1st Half B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	450	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300	-

2nd Half B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	550	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

4.Press the [Start] key to set the setting value.

Setting: OHP
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	450	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300	-

3.Press the [Start] key to set the setting value.

Setting: Light-Normal3

1.Select the item to set.

* :The screen for setting is displayed.

Items	Contents
1st 3/4	1st side setting at 3/4 speed
2nd 3/4	2nd side setting at 3/4 speed
1st Half	1st side setting at half speed
2nd Half	2nd side setting at half speed

2.Select the item to set.

3.Press the [◄] [►] keys or the numeric keys to change the counter value.

1st 3/4

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	490	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380	-

2nd 3/4

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	560	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380	-

1st Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	330	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

2nd Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	380	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250	-

4.Press the [Start] key to set the setting value.

Setting: Bias

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Reverse 2nd	Secondary transfer cleaning negative bias	-1 to 200	-1	-
Cleaning 2nd	Secondary transfer cleaning positive bias	0 to 200	5	-
Calb Clean-ing	Calibration cleaning bias	0 to 200	40	-

3.Press the [Start] key to set the setting value.

Setting: High Altitude

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Light/ Normal1	Light and Normal1 setting	0 to 100	85	-
Normal2/3	Setting of Normal 1/2	0 to 100	80	-

3.Press the [Start] key to set the setting value.

Setting: Paper End

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Heavy2/3	Setting for Thick2,3	0 to 100	35	-
Ext Heavy	Ext Heavy setting	0 to 100	35	-

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U107	Primary transfer cleaning voltage adjustment (Message: Adj 1st TC Clean)

Contents
    Sets the transfer belt cleaning control voltage
Purpose
    Change the setting when offset images appear with the transfer belt cleaning failure.

Method
    1.Press the [Start] key.
    2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Belt(A)	Belt A setting
Belt(B)	Belt B setting
Belt(C)	Belt C setting
Belt(D)	Belt D setting

Setting
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.
Belt(A)

Items	Contents	Setting range	Initial setting	Data variation
Full	Full speed setting	0 to 300	30	-
Half	Half speed setting	0 to 300	23	-
3/4	3/4 speed setting	0 to 300	26	-

Belt(B)

Items	Contents	Setting range	Initial setting	Data variation
Full	Full speed setting	0 to 300	45	-
Half	Half speed setting	0 to 300	45	-
3/4	3/4 speed setting	0 to 300	45	-

Belt(C)

Items	Contents	Setting range	Initial setting	Data variation
Full	Full speed setting	0 to 300	110	-
Half	Half speed setting	0 to 300	110	-
3/4	3/4 speed setting	0 to 300	110	-

Belt(D)

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Full speed setting	0 to 300		-
Half	Half speed setting	0 to 300		-
3/4	3/4 speed setting	0 to 300		-

    3.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U110	Drum counter (Message: Drum Cnt)

Contents
    Displays the drum counter values.
Purpose
    Execute to check the drum usage status.

Method
    1.Press the [Start] key.
      * :The drum counter is displayed.

Items	Contents
C	Displays the cyan drum counter
M	Displays the magenta drum counter
Y	Displays the yellow drum counter
K	Displays the black drum counter

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U117	Drum unit number (Message: Drum No.)

Contents
   Displays the drum number.
Purpose
   Execute to check the drum number.

Method
   1.Press the [Start] key.
      * :Displays the drum number.

Items	Contents
C	Displays the cyan drum number
M	Displays the magenta drum number
Y	Displays the yellow drum number
K	Displays the black drum number

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U118	Drum unit history (Message: Drum History)

Contents
   Displays the machine serial number and drum counter history.
Purpose
   Execute to check the machine serial number and drum counter values.

Method
   1.Press the [Start] key.
      * :Select the item to refer to.

Items	Contents
C	Displays the cyan drum history
M	Displays the magenta drum history
Y	Displays the yellow drum history
K	Displays the black drum history

   * :Displays the machine serial number and 3 items of the drum counter history.

Items	Contents
Machine History1 to 3	Machine serial number history
Cnt History1 to 3	The drum counter history

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U119	Setting the drum (Message: Set Drum)

Contents
Set the drum sensitivity.

Purpose
Execute when the drum unit or laser scanner unit is replaced.
After completing, execute maintenance mode U464 [Calibration].

Method
1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Detect the main charge current and save the current value.

3.Press the [Start] key.
  * :Starts the drum setup operation.
4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U120	Drum drive distance counter (Message: Drum Drv Dist Cnt)

Contents
Displays the drum drive distance counter.

Purpose
Execute to displays the drum drive distance counter.

Method
1.Press the [Start] key.
  * :Displays the count.

Items	Contents
C	Displays the cyan drum drive distance counter
M	Displays the magenta drum drive distance counter
Y	Displays the yellow drum drive distance counter
K	Displays the black drum drive distance counter

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U127	Clearing the transfer count (Message: Clr Trans Cnt)

Contents
　　Display and clear the transfer counts for the transfer high-voltage output correction etc.
Purpose
　　Verify the primary/secondary transfer unit counts after replacing Also, clear the counts after replacement

Method
　　1.Press the [Start] key.
　　　* : The transfer counter value appears.

Items	Contents
Mid(Cnt)	Displays or clears the primary transfer counter
2nd(Cnt)	Displays or clears the secondary transfer counter

Setting: Mid(Cnt)
　　　* :Clear only. This cannot be changed.
　　1.Select [Clear].
　　2.Press the [Start] key to set the counter value.

Setting: 2nd(Cnt)
　　1.Press the [◄] [►] keys or the numeric keys to change the counter value.
　　2.Press the [Start] key to set the counter value.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U128	Leading edge timing (Message: Adj Trans Timing)

Contents
Adjust On/Off timing of the transfer high voltage output.
Purpose
Prevent paper from being rolled up by the drum.

Method
1. Press the [Start] key.
2. Select the item to set.
* : The screen for setting is displayed.

Items	Contents
Timing 1st	Transfer On timing adjustment value (1st side)
Timing 2nd	Transfer On timing adjustment value (2nd side)

Setting: Timing 1st
1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
On Timing	Transfer On timing adjustment value	-200 to 200	0	0.5mm
Off Timing	Transfer Off timing adjustment value	-200 to 200	0	0.5mm

3. Press the [Start] key to set the setting value.

Setting: Timing 2nd
1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
1side < 60	Secondary transfer voltage on tim-ing (1st side, weight less than 60gsm)	-200 to 200	0	0.5mm
1side >= 60	Secondary transfer voltage on tim-ing (1st side, weight 60gsm or more)	-200 to 200	0	0.5mm
2side < 60	Secondary transfer voltage on tim-ing (2nd side, weight less than 60gsm)	-200 to 200	0	0.5mm
2side >= 60	Secondary transfer voltage on tim-ing (2nd side, weight 60gsm or more)	-200 to 200	0	0.5mm

Items	Contents	Setting range	Initial setting	Data variation
Off Timing	Secondary transfer voltage off timing	-200 to 200	0	0.5mm

3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U132	Forcible toner supply operation (Message: Supply Toner)

Contents
Toner is supplied forcibly until the toner sensor output value reaches the toner supply level.
Purpose
Execute if toner empty is often detected.

Method
1.Press the [Start] key.
2.Select [Execute].
3.Press the [Start] key.
* :Execute toner supply forcibly until the toner sensor output value reaches the toner supply level.

Items	Contents
Supply(C)	Cyan toner supply level
Supply(M)	Magenta toner supply level
Supply(Y)	Yellow toner supply level
Supply(K)	Black toner supply level
Sensor(C)	Cyan toner sensor output value
Sensor(M)	Magenta toner sensor output value
Sensor(Y)	Yellow toner sensor output value
Sensor(K)	Black toner sensor output value
Execute	Installs toner

4.To stop the operation, press the [Stop] key.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U135	Checking the toner motor operation (Message: Chk Toner Motor)

Contents
    Drives the toner motor.
Purpose
    Execute to check the toner motor operation.
Precautions
    If driven for a long time or several times repeatedly, the developer unit will be full of toner inside and it may lock up.
Method
    1.Press the [Start] key.
    2.Select [Toner].
    3.Press the [Start] key.
      * :The operation starts.

Items	Contents
Toner	Drives the toner motor(TM)

    4.To stop the operation, press the [Stop] key.
Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U136	Toner level detection setting (Message: Set Toner NearEnd)

Contents
    Execute the level setting of printable pages between toner near end and toner empty.
Purpose
    Change the timing of detecting toner near end earlier than the current setting if the interval between toner near end and toner empty is too short.
Setting
    1.Press the [Start] key.
    2.Select the item to set.
      * :Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
CMY	Black/Cyan/Magenta/Yellow toner level setting	0 to 9	3	-
K	Setting the black toner level	0 to 9	3	-

    If the set value is increased, the time interval from the toner near end to the toner empty becomes longer.
    If the set value is reduced, the time interval from toner near end to toner empty becomes shorter.
    0: no toner near end detection

    3.Press the [Start] key to set the setting value.
Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U139	Temperature, humidity (Message: Temp/Humidity)

Contents

Displays the machine inside and outside temperature and machine outside humidity.

Purpose

Check the machine inside and outside temperature and machine outside humidity.

Method

1.Press the [Start] key.

* :Each value is displayed.

Items	Contents
Ext Temp	Displays the machine outside temperature.
Ext Humidity	Displays the machine outside humidity.
Dev Temp	Displays the developer (K) temperature inside the machine.
LSU Temp(K)	Displays the LSU (K) temperature inside the machine.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U140	Developer bias adjustment (Message: Adj Dev Bias)

Contents
Displays/changes the developer bias set values or sets high altitude mode.

Purpose
Execute to check/change the developer bias set values.

Method
1. Press the [Start] key.
2. Select the item to set.

    * :The screen for setting is displayed.

Items	Contents
Sleeve DC	Set the developer sleeve roller DC bias.
Sleeve AC	Set the developer sleeve roller AC bias.
Mag DC	Set the developer magnet roller DC bias.
Sleeve Freq	Set the developer sleeve roller frequency.
Sleeve Duty	Set the developer sleeve roller duty.
Mag Duty	Set the developer magnet roller duty.
Altitude Adjustment	Sets the altitude adjustment mode

Setting: Sleeve DC
1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
C	Sets the cyan	0 to 350	200	1V
M	Sets the magenta	0 to 350	200	1V
Y	Sets the yellow	0 to 350	200	1V
K	Sets the black	0 to 350	200	1V

3. Press the [Start] key to set the setting value.

Setting: Sleeve AC
1. Select the item to set.
2. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
C	Sets the cyan	100 to 175	145	1V
M	Sets the magenta	100 to 175	145	1V
Y	Sets the yellow	100 to 175	145	1V
K	Sets the black	100 to 175	145	1V

3. Press the [Start] key to set the setting value.

Setting: Mag DC
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
C	Sets the cyan	0 to 750	470	1V
M	Sets the magenta	0 to 750	470	1V
Y	Sets the yellow	0 to 750	470	1V
K	Sets the black	0 to 750	470	1V

    3.Press the [Start] key to set the setting value.

Setting: Sleeve Freq
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
Normal	Execute full speed setting	3600	3600	1Hz

    3.Press the [Start] key to set the setting value.

Setting: Sleeve Duty
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
Normal	Execute full speed setting	34	34	1%

    3.Press the [Start] key to set the setting value.

Setting: Mag Duty
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
Normal	Execute full speed setting	50 to 80	34	1%

    3.Press the [Start] key to set the setting value.

Setting: Altitude Adjustment

1.Select the item to set.

Items	Contents
Normal	Sets 1000m or less
1001 to 2000m	Set at 1001 to 2000m
2001 to 3000m	Set at 2001 to 3000m
3001 to 3500m	Set at 3001 to 3500m

* :Initial setting: Normal

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U147	Setting the toner applying mode (Message: Set Toner Apply)

Contents

Mode selection for the operation to remove overcharged toner in the developer unit (Toner applying mode). Also, sets the operation to take toner accumulated on the developer blade back to the developer unit (vibration motor control).

Purpose

Change the setting to reduce the toner applying amount. Execute to change the vibration motor control frequency.

    * :Density is lowered if overcharged toner stays in the developer unit.

Method

1.Press the [Start] key.

2.Select the item to set.

    * :The screen for setting is displayed.

Items	Contents
Mode	Sets the toner applying mode.
Drum T7	Sets the toner applying width at the cleaning mode.
Dev T7	Sets the upper limit of the toner applying amount for each operation mode.
Motor	Sets the vibration motor operation.

Setting: Mode

1.Select the item to set.

Items	Contents
On	Sets the toner applying operation with the normal amount.
Off	Sets the toner applying operation with less than the normal amount.

    * :Initial setting: On

2.Press the [Start] key to set the setting value.

Setting: Drum T7

1.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data variation
Value	Sets the toner applying width at the cleaning mode.	0 to 25	150 (Indicated as 15.0)	0.1mm

2.Press the [Start] key to set the setting value.

Setting: Dev T7

1.Press the [◀] [▶] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Value	Sets the upper limit of the toner applying amount for each operation mode.	0 to 25	20 (Indicated as 2.0)	1%

2.Press the [Start] key to set the setting value.

Setting: Motor

1.By using the [◀] [▶] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Print(Normal)	Sets the continuius printing (normal envi-ronment)	10 to 2550	-	10
Print(H/H)	Sets continuous printing (high tempera-ture, high humidity)	10 to 2550	-	10
Print End	Setting when completing printing	1 to 255	-	1

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U148	**Drum refresh mode setting** **(Message: Set Drum Refresh)**

Contents

Sets the mode to use the drum refresh in the user adjustment.

Purpose

Change the setting if the drum refresh is frequently operated.

Setting

1.Press the [Start] key.

2.Press the [◀] [▶] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Normal	Sets Auto drum refresh	0: Off 1 to 3: Stan-dard?	1	-

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U155	Toner sensor output (Message: Toner S Output)

Contents

Displays the toner sensor output

Purpose

Execute to check each color's output value when an image failure occurs.

Method

1.Press the [Start] key.

2.Select the item to refer to.

   * :Switched to each reference screen.

Items	Contents
Waste Toner	Displays the toner sensor value
Toner	Displays the toner sensor value and supply level value for each color

Method: Waste Toner

1.Check each sensor value.

   * :Displays the waste toner sensor value.

Items	Contents
Full	Displays the waste toner sensor value 1 (WTS1)
Near Full	Displays the waste toner sensor value 2 (WTS2)

Method: Toner

1.Check each sensor value.

   * :Displays the toner sensor value.

Items	Contents
Sensor(C)	Displays the cyan toner sensor output value
Sensor(M)	Displays the magenta toner sensor output value
Sensor(Y)	Displays the yellow toner sensor output value
Sensor(K)	Displays the black toner sensor output value
Supply(C)	Displays the cyan toner supply level value
Supply(M)	Displays the magenta toner supply level value
Supply(Y)	Displays the yellow toner supply level value
Supply(K)	Displays the black toner supply level value

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U156	Toner control level adjustment (Message: Adj Tnr Ctrl Lv)

Contents
    Displays the toner supply level for each color.
Purpose
    Execute displaying the toner supply level for each color.

Setting
    1.Press the [Start] key.
    2.Select [Supply].

Items	Contents
Supply	Displays the toner supply level

    3.Displays the toner supply level for each color.

Items	Contents
C	Displays the cyan toner supply level
M	Displays the magenta toner supply level
Y	Displays the yellow toner supply level
K	Displays the black toner supply level

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U157	Developer drive time (Message: Dev Time)

Contents
    Displays the developer drive time to be a reference for the toner density control correction.
Purpose
    Execute to check the developer drive time since replacing the developer unit.

Method
    1.Press the [Start] key.
      * :Displays the developer drive time.

Items	Contents
C	Displays the Cyan developer unit drive time.
M	Displays the Magenta developer unit drive time.
Y	Displays the Yellow developer unit drive time.
K	Displays the Black developer unit drive time.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U158	Developer counter (Message: Dev Cnt)

Contents
Displays the developer counter
Purpose
Execute to check the developer unit usage status.

Method
1.Press the [Start] key.

   * :The developer count is displayed.

Items	Contents
C	Displays the cyan developer counter.
M	Displays the magenta developer counter.
Y	Displays the yellow developer counter.
K	Displays the black developer counter.

Completion
Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U161	Fuser temperature adjustment (Message: Adj Fuser Temp)

Contents
    Sets the fuser temperature.
Purpose
    Normally no need to change. However, change the setting as corrective measures for paper curl, creases and fusing failure on thick paper.

Method
    1.Press the [Start] key.
    2.Select the item to set.
       * :The screen for setting is displayed.

Items	Contents
Center	Set the center thermistor temperature.
Edge	Sets the edge thermistor control temperature.

Setting: Center
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Pressure Start	Sets the temperature to start pressing	0 to 200	30	1°C
Drive Start	Sets the drive start temperature	0 to 200	100	1°C
Ready	Sets the Ready temperature	100 to 200	145	1°C
Steady	Sets the secondary stability temperature	100 to 200	155	1°C
Printing	Set the temperature during printing	100 to 200	155	1°C
Waiting	Set the standby temperature	100 to 200	155	1°C

    3.Press the [Start] key to set the setting value.
Setting: Edge
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Ready	Sets the Ready temperature	100 to 200	105	1°C
Steady	Sets the secondary stability temperature	100 to 200	-	1°C
Waiting	Set the standby temperature	100 to 200	-	1°C

    3.Press the [Start] key to set the setting value.
Completion
    Press the [Stop] key.
       * :The screen for selecting a maintenance item No. is displayed.

U167	Clearing the fuser count (Message: Clr Trans Cnt)

Contents
    Displays and clears the fuser count.
Purpose
    Verify the fuser count after replacement Also, clear the counts after replacement

Method
    1.Press the [Start] key.
      * : The fuser count is displayed.

Items	Contents
Cnt	Displays the fuser count
Clear	Clears the fuser count

Method: Clear
    1.Select [Clear].
    2.Press the [Start] key.
      * :Fuser unit counter is cleared.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U199	Fuser temperature (Message: Fuser Temp)

Contents
    Fuser temperature is displayed.
Purpose
    Execute to check the fuser temperature.

Method
    1.Press the [Start] key.
      * :Fuser temperature is displayed.

Items	Contents
Heat Roller Edge	Displays the heat roller edge temperature (°C)
Heat Roller Center	Displays the heat roller center temperature (°C)

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U200	All LEDs lighting (Message: All LEDs ON)

Contents

All the LEDS on the operation panel are lit.

Purpose

Execute to check the operation panel LED lighting.

Method

1.Press the [Start] key.
2.Select [Execute].
3.Press the [Start] key.
   * :All the LEDs on the operation panel are blinking.
4.Press the [Stop] key to turn the display off.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U201	Initializing the touch panel (Message: Init Touch Panel)

Contents

Adjusts touch panel detecting positions.

Purpose

Correct and confirm the touch panel detecting positions, when the panel PWB or the operation panel is replaced or if the detecting positions are not aligned.

Method

1.Press the [Start] key.
2.Select the item to execute.
3.Press the [Start] key.
 * :The screen for executing is displayed.

```
Init Touch Panel              U201

01    Initialize

02    Check
```

Items	Contents
Initialize	Automatically corrects the touch panel display position
Check	Checks the touch panel display position

Method: Initialize

1.Press the center of "+".
2.Repeat 3 times.

3.After finishing setting, the [Check] screen is automatically displayed.

+

Method: Check

4.Press the indicated three "+", and then check the display position.

 * :If out of the specified value, select [Initialize] and press the [Start] key to return to Step. 1.
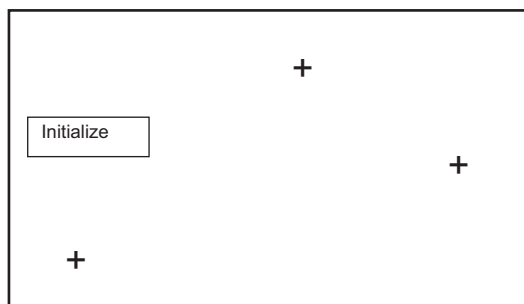
```
                    +

Initialize

                              +

  +
```

Completion

Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U203	Check DP operation (Message: Chk DP Ope)

Contents
> Simulate the original conveying operation separately in the DP.

Purpose
> Check the DP operation

Method
> 1.Press the [Start] key.
> 2.Place an original in the DP if running this simulation with paper.
> 3.Select the scan speed

Items	Contents
Normal Speed	Normal scanning (600dpi)
High Speed	High speed scanning

Method: Normal Speed/High Speed
> 4.Select the item to operate.

Items	Contents
CCD ADP	With paper, a single-sided original is fed to the CCD
CCD RADP	With paper, a double-sided original is fed to the CCD
CCD ADP (Non-P)	Without paper, a single-sided original is fed to the CCD (continuous operation)
CCD RADP (Non-P)	Without paper, a double-sided original is fed to the CCD (continuous operation)

> 5.Press the [Start] key.
>   * :The operation starts.
> 6.To stop the operation, press the [Stop] key.

Completion
> Press the [Stop] key.
> The screen for selecting a maintenance item No. is displayed.

U207	Operation key check (Message: Chk Panel Key)

Contents
  Check the operation panel keys.
Purpose
  Check the operation of all the keys and LEDs on the operation panel.

Method
  1.Press the [Start] key to display execution window.
  2.[Count 0] appears and the job separator LED is turned on.
  3.When pressing the keys on the operation panel from the left upper side and each row in order, the count is counted up by one.
  4.If pressing all the keys, all the LEDs are lit.

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U211	Enhancement unit connection setting (Message: Set EH Connection)

Contents
  Execute the inner job separator installation setting.
Purpose
  Execute when installing the inner job separator.
    * :Make sure to set to [Off] to prevent wrong LED lighting when not installed.

Method
  1.Press the [Start] key.
  2.Select [Inner Job Separator].
    * :The screen for setting is displayed.

Items	Contents
Inner JobSepa	Inner job separator setting

Method
  1.Select the item to set.

Items	Contents
On	Installing the inner job separator
Off	The inner job separator is not installed

    * :Initial setting: Off
  2.Press the [Start] key to set the setting value.
  3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

U221	USB host lock function setting (Message: Set USB Host Lock)

Contents
Sets ON/OFF of the USB Host lock function. When setting it to on, the device connected to the USB host is not recognized.
Purpose
Change the setting according to the user's request

Method
1.Press the [Start] key.
2.Select [Host Lock].
  * :The screen for setting is displayed.

Items	Contents
Host Lock	Turns the USB Host lock function on/off

3.Select the item to set.

Items	Contents
On	The USB Host lock function is available
Off	The USB Host lock function is not available

  * :Initial setting: Off
4.Press the [Start] key to set the setting value.
5.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U222	Setting the IC card type (Message: Set IC Card Type)

Contents
Sets the ID card type
Purpose
Change the type of ID card

Setting
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Other	Select when the ID card type is other than SSFC.
SSFC	When the ID card type is SSFC,

  * :Initial setting: Other
3.Press the [Start] key to set the setting value.
Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U223	Operation panel lock (Message: Lock Panel Ope)

Contents
Execute setting the operation panel function.

Purpose
Execute to prohibit the system menu and job cancel operations from the operation panel by the users other than those with administrator privileges.

Setting
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Unlock	Unlock System Menu operation
Partial Lock 1	Lock System Menu operation and Input/Output setting
Partial Lock 2	Lock System Menu operation, Input/Output setting and Job execution setting
Partial Lock 3	Lock System Menu operation, Input/Output setting, Job execution setting and Paper settings
Lock	Lock System Menu operation and Job Cancel operation

  * :Initial setting: Unlock
3.Press the [Start] key to set the setting value.

Operation item	Partial Lock 1	Lock
Entering the maintenance mode	Prohibition	Prohibition
Switching to System Menu	Prohibition	Prohibition
Send, Send from Document Box	Prohibition	Prohibition
Switches the Yellow developer On/Off setting	Prohibition	Prohibition
Switch to registration/editing Document Box	Prohibition	Prohibition
Pressing the [Stop] key	Permission	Prohibition
Pressing the [Status/Job Cancel] key	Permission	Prohibition
Disconnect the FAX line	Permission	Prohibition

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U230	Optional device serial number (Message: Optional Device Serial No)

Contents

Displays the optional device serial number

Purpose

Specify the production lot from the serial number to help the investigation when a problem occurs.

Method

1.Press the [Start] key.

* :Displays the serial number.

Items	Contents
DP	Displays the DP serial number.
Finisher	Displays the finisher serial number.
PF1	Displays the PF1 serial number.
PF2	Displays the PF2 serial number.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U240	Finisher operation check (Message: Chk Fin Ope)

Contents

Turn the finisher's motors and solenoids on.

Purpose

Execute for the finisher's motors and solenoids operation check.

Method

1.Press the [Start] key.
2.Select the item to operate.

* :The screen for setting is displayed.

Items	Contents
Motor	Finisher motor operation check
Solenoid	Finisher solenoid operation check
Mail Box	Mail Box motor operation check

Method: Motor

1.Select the item to operate.
2.Press the [Start] key.

* :The operation starts.

Items	Contents
Middle(H)	Drive the DF middle motor (DFMM) at high speed.
Middle(L)	Drive the DF middle motor (DFMM) at low speed.
Eject Pull(H)	Drive the DF exit motor (DFEM) at high speed in the reversing direction.
Eject Pull(L)	Drive the DF exit motor (DFEM) at low speed in the reversing direction.
Eject Conv(H)	Drive the DF exit motor (DFEM) at high speed in the conveying direction.
Eject Conv(L)	Drive the DF exit motor (DFEM) at low speed in the conveying direction.
Tray	Drive the DF tray motor (DFTM). Operation pattern: After descending to the lower limit, ascends and descends again when passing 1s after detecting the middle sensor off. Ascends again when detecting the middle sensor on and stops at the upper limit.
Staple	Drive the DF staple motor (DFSTM)
Staple Move	Drive the DF slide motor (DFSLM)
Width Test(A4R)	Drive the DF side registration motor 1,2 (DFSRM1,2)
Width Test(LTR)	Drive the DF side registration motor 1,2 (DFSRM1,2)
Beat	Drive the DF paddle motor (DFPDM)
Eject Unlock(HP)	Drive the DF exit release motor (DFERM) at the home position
Eject Unlock(30)	Drive the DF exit release motor (DFERM) at the 30-sheet bundle position
Eject Unlock(50)	Drive the DF exit release motor (DFERM) at the 50-sheet bundle position

Items	Contents
Eject Unlock(Fix)	Drive the DF exit release motor (DFERM) at the fixed position
Eject Unlock(Full)	Drive the DF exit release motor (DFERM) at the full open position

* :To stop the operation, press the [Stop] key.

Method: Solenoid
　1.Select the item to operate.
　2.Press the [Start] key.
　　* :The operation starts.

Items	Contents
Press Paper	Turn the paper press solenoid

* :To stop the operation, press the [Stop] key.

Method: Mail Box
　1.Select the item to operate.
　2.Press the [Start] key.
　　* :The operation starts.

Items	Contents
Conv	Drives the MB drive motor (MBDM) to convey paper
Branch	Drives the MB drive motor (MBDM) for feed-shift

* :To stop the operation, press the [Stop] key.

Completion
　Press the [Stop] key.
　　* :The screen for selecting a maintenance item No. is displayed.

U241	Finisher switch check (Message: Chk Fin Switch)

Contents
    Displays the status of finisher's switches and sensors operation.
Purpose
    Execute for the finisher's switches and sensors operation check.

Method
    1.Press the [Start] key.
    2.Select the item to operate.
      * :The screen for setting is displayed.

Items	Contents
Finisher	Finisher switch sensor operation check
Mail Box	Mail Box switch sensor operation check

Method: Finisher
    1.Check the switches and sensors by manually turning them on/off.
      * :The switch indication is inversed when the switch is detected.

Items	Contents
Tray L-Limit	DF tray sensor 4: DFTS4
HP	DF paper entry sensor (DFPES)
Middle Tray Eject	DF middle exit sensor (DFMES)
Staple HP	DF slide sensor (DFSLS)
Middle Tray	DF main tray exit sensor (DFMTS)
Width Front HP	DF side registration sensor 1 (DFSRS1)
Width Tail HP	DF side registration sensor 2 (DFSRS2)
Bundle Eject HP	DF bundle exit sensor (DFBDS)
Match Paddle	DF adjustment sensor (DFADS)
Lead Paddle	DF paddle sensor (DFPDS)
Press Paper Up	DF press paper sensor 1
Press Paper Down	DF press paper sensor 2
Set	DF installation detection switch

Method: Mail Box

1.Check the switches and sensors by manually turning them on/off.

* :The switch indication is inversed when the switch is detected.

Items	Contents
Eject	MB eject sensor (MBES)
Cover	MB cover open close switch (MBCOCSW)
Over Flow1	MB overflow sensor 1 (MBOFS1)
Over Flow2	MB overflow sensor 2 (MBOFS2)
Over Flow3	MB overflow sensor 3 (MBOFS3)
Over Flow4	MB overflow sensor 4 (MBOFS4)
Over Flow5	MB overflow sensor 5 (MBOFS5)
Over FlowTA	MB overflow sensor tray A
Motor HP	MB paper entry sensor (MBPES)

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U243	Checking the DP motor (Message: Check DP Motor)

Contents
Drive the motor or solenoid of the document processor.
Purpose
Check the operation of the motor or solenoid of the document processor.

Method
1.Press the [Start] key.
2.Select the item to operate.

Items	Contents
Feed Motor(CW)	Drive the DP feed motor (DPFM)
Feed Motor(CCW)	Reversely drives the DP feed motor (DPFM)
Conv Motor(CW)	Rotate the DP conveying motor (DPCM)
Conv Motor(CCW)	Rotate the DP conveying motor (DPCM) reversely
Rev Motor	Execute the automatic adjustment in the DP feedshift motor (DPFSM)

3.Press the [Start] key. Each operation starts.
  * :To stop the operation, press the [Stop] key.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U244	DP switch check (Message: Check DP SW)

Contents
Displays each switch and sensor status of the document processor.
Purpose
Execute to check the operation of switches and sensors of the document processor.

Method
1.Press the [Start] key.
2.Check the switches and sensors by manually turning them on/off.
  * :The switch indication is inversed when the switch is detected.

Items	Contents
Feed	Check the DP feed sensor (DPFS).
Regist	Checks the DP registratio sensor (DPRS)
Set	Checks the DP original sensor (DPOS)
Cover Open	Check the DP interlock switch (DPILSW)
Open	Checks the DP open close switch (DPOCSW)

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U246	Finisher adjustment (Message: Adj Fin)

Contents

Execute adjustment for the finisher installation.

Purpose

Front/rear width adjuster home position adjustment

Adjust when the consistency of the side registration guides and paper is not good and paper jam occurs.

Front/rear staple home position adjustment

Adjust if the staple is not centered on the paper in the staple mode.

Method

1.Press the [Start] key.

2.Select [Finisher].

   * :The screen for setting is displayed.

Items	Contents
Finisher	Setting the finisher adjustment value

Method: Finisher

1.Select the item to set.

Items	Contents
Width Front HP	Front width adjuster home position adjustment
Width Tail HP	Rear width adjuster home position adjustment
Staple HP	Front/rear staple home position adjustment

Setting: Width Front HP / Width Tail HP

1.Select [Width Front HP].

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Content to adjust	Setting range	Initial setting	Data variation
Front width adjuster home position adjustment	-30 to 30	0	0.973mm
Rear width adjuster home position adjustment	-30 to 30	0	0.973mm

3.Press the [Start] key to set the setting value.

4.Press the [Stop] key to return to the screen to select the maintenance item No.

5.Enter U240 and select [Motor] and then [Width Test(A4R)].

   * :The middle tray side registration guides move to A4R size position.

6.Insert paper into the side registration guides to check the consistence.

7.Repeat the above adjustment until the consistency is appropriate.

Setting: Staple HP

1.Select [Staple HP].

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Content to adjust	Setting range	Initial setting	Data varia- tion
Front/rear staple home position adjustment	-15 to 15	0	0.0972mm

* :Increase the set value if the staple position is shifted to the machine front side (sample1).
Lower the set value if the staple position is shifted to the machine rear side (sample2).

Sample 1   Sample 2
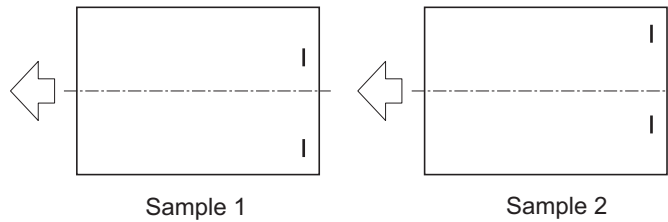
3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U247	Paper feed operation check (Message: Chk Paper Feeder)

Contents
　Turn the motor and clutch power on for each feed unit.
Purpose
　Execute to check motor and clutch operation of each feed unit.

Method
　1.Press the [Start] key.
　2.Select the item to operate.
　　* :The screen for setting is displayed.

Items	Contents
PF	Operates 1-tray paper feeder
2PF	Operates 2-tray paper feeder
LCF	Operate the high capacity feeder

Setting: PF
　1.Select the item to set.

Display		Contents
Mode	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Device	Feed2 Clutch	PF paper feed clutch (PFFCL) ON
	V Feed2 Clutch	PF conveying clutch (PFCCL) ON

　2.Select [Execute].
　3.Press the [Start] key. Starts the motor operation.
　　* :To stop the operation of the motor, press the [Stop] key.

Setting: 2PF
　1.Select the item to set.

Display		Contents
Mode	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Device	Feed3 Clutch	PF paper feed clutch 1 (PFFCL1) ON
	Feed4 Clutch	PF paper feed clutch 2 (PFFCL2) ON
	V Feed3 Clutch	PF conveying clutch 1 (PFCCL1) ON
	V Feed4 Clutch	PF conveying clutch 2 (PFCCL2) ON

　2.Select [Execute].
　3.Press the [Start] key. Starts the motor operation.
　　* :To stop the operation of the motor, press the [Stop] key.

Setting: LCF

1.Select the item to set.

Display		Contents
Mode	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Device	Feed3 Clutch	PF paper feed clutch (PFFCL) ON
	V Feed3 Clutch	PF conveying clutch (PFCCL) ON

2.Select [Execute].
3.Press the [Start] key. Starts the motor operation.
   * :To stop the operation of the motor, press the [Stop] key.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U250	**Checking/clearing the maintenance cycle (Message: Mnt Cnt Pre-set)**

Contents

Changes the pre-set values for the maintenance cycle and automatic grayscale adjustment.

Purpose

Change the timing to display the message for maintenance and automatic grayscale adjustment

Setting

1.Press the [Start] key.
2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
M.Cnt A	Changes the maintenance counter (Kit A)	0 to 9999999	200000
M.Cnt B	Change the maintenance counter preset value (Kit B)	0 to 9999999	200000
M.Cnt HT	Change the maintenance counter preset value (HT adjustment)	0 to 9999999	0
Cassette1	Change the maintenance counter preset value (Cassette 1)	0 to 9999999	300000
Cassette2 [*1]	Change the maintenance counter preset value (Cassette 2)	0 to 9999999	300000
Cassette3 [*2]	Change the maintenance counter preset value (Cassette 3)	0 to 9999999	300000
Cassette4 [*3]	Change the maintenance counter preset value (Cassette 4)	0 to 9999999	300000

[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U251	Checking/clearing the maintenance counter (Message: Clr Mnt Cnt)

Contents
Displays, clears or changes the maintenance count.
Purpose
Execute to check the maintenance count
Also, clear the count at the maintenance.

Setting
1.Press the [Start] key.
2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range
M.Cnt A	Maintenance cycle counter (Kit A)	0 to 9999999
M.Cnt B	Maintenance cycle counter (Kit B)	0 to 9999999
M.Cnt HT	Maintenance cycle counter (HT adjustment)	0 to 9999999
Cassette1	Maintenance cycle counter value (cassette 1)	0 to 9999999
Cassette2 [*1]	Maintenance cycle counter value (cassette 2)	0 to 9999999
Cassette3 [*2]	Maintenance cycle counter value (cassette 3)	0 to 9999999
Cassette4 [*3]	Maintenance cycle counter value (cassette 4)	0 to 9999999
Clear	Clears all the maintenance counts	0

[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only

Clearing
1.Select [Clear].
2.Press the [Start] key to clear the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U252	Destination (Message: Set Dest)

Contents
    Switch the operations and screens of the main unit according to the destination.

Purpose
    Execute after initializing the backup RAM, in order to return the setting to the value before replacement or initialization

Method
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
Europe Metric[2]	Europe Metric
Inch[2]	Inch
Asia Pacific[2]	Asia Pacific
Japan Metric[1]	Japan metric
Australia[2]	Australia
China[2]	China
Korea[2]	Korea

    [1]: 100 V model only, [2]: Except 100 V model
      * :Initial setting: Destination
    3.Press the [Start] key.
      * :Initializes according to the destination
    4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

U253	Switching the double/single counts (Message: Set D/S Count)

Contents

Switches the count timing for the total counter and other counters by color mode.

Purpose

Select, according to user's request (copy service provider), if the maximum size paper is to be counted as one sheet (single count) or two sheets (double count)

Setting

1.Press the [Start] key.

2.Select [Color] or [B/W].

Items	Contents
Full Color	Switch the counter for full color mode (Single/Double Count)
Mono Color [*1]	Switch the counter for mono color mode (Single/Double Count)
B/W	Switch the counter for B/W mode (Single/Double Count)

[*1]: Appears if U276 set to other than [Mode0]

3.Select [SGL(All)] or [DBL(Folio)].

Items	Contents
SGL(All)	Sets single count for all the paper sizes
DBL(Legal)	Set single count for Legal size or smaller
DBL(Folio)	Set double count for Folio size or larger [*2]

* :Initial setting: SGL(All)

[*2]: The Folio length can be set to between 318 and 356 mm using maintenance mode U035. However, the double count will be applied when the set value is 330 mm (Initial value) or longer.

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U260	Switching the timing for copy counting (Message: Set Count Mode)

Contents
    Switches the count timing for the total counter and other counters between paper feed and eject.
Purpose
    Change the count timing according to the user's request

Setting
    1.Press the [Start] key.
    2.Selects the copy count timing.

Items	Contents
Feed	When secondary paper feed starts.
Eject	Selects the paper eject timing

     * :Initial setting: Eject
    3.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
     * :The screen for selecting a maintenance item No. is displayed.

U265	Setting by destination (Message: Set Model Dest)

Contents
    Sets the OEM code.
Purpose
    Execute when replacing the main PWB, etc.

Setting
    1.Press the [Start] key.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents
No.	Displays the OEM code

    3.Press the [Start] key to set the setting value.
    4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
    Press the [Stop] key.
     * :The screen for selecting a maintenance item No. is displayed.

U276	Switching the copy count mode (Message: Set Chg Count)

Contents
    Set the single color count mode
Purpose
    Execute to change the billing counter to count up in the single color mode.

Setting
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
Mode0	Count the single color count in the full color counter
Mode1	Count the single color count in the single color counter

    * :Initial setting: Mode1
    3.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U278	Delivery date setting (Message: Set Delivery Date)

Contents
    Registers the date of delivery of the machine.
Purpose
    Execute when installing the machine. Execute to check the delivery date of the machine.

Method
    1.Press the [Start] key.
    2.Select [Today].
    3.Press the [Start] key.
      * :Sets the delivery date of the machine.

Clearing
    1.Select [Clear].
    2.Press the [Start] key.
      * :Clears the delivery date of the machine.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U284	Setting the 2-color copy (Message: Set 2 Color Copy)

Contents
    Sets whether to use the 2-color copy.
Purpose
    Change the setting according to the user's request

Setting
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
B/W	2-color copy enabled, B/W count
Mono Color	2-color copy enabled, mono color count
Off	2-color copy disabled

    * :Initial setting: Mono Color
    * :When setting it to on, 2-color copy appears on the color function screen.
    3.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U285	Set Service Status Page (Message: Set Svc Sts Page)

Contents
    Determines whether to display the digital dot coverage report on the report print.
Purpose
    Change the setting according to the user's request

Setting
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
On	Displays the digital dot coverage.
Off	Not to display the digital dot coverage.

    * :Initial setting: On
    3.Press the [Start] key. Set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U290	Setting the drive to save the HyPAS application (Message: Set Drive App)

Contents
Sets the drive to save the HyPAS application
　　* :Indicated when the HyPAS application is not installed in the SD card and SSD.
Purpose
Sets to save to the SD card or optional SSD.

Setting
　1.Press the [Start] key.
　2.Select the item to set.

Items	Contents
SD Card	Set in the SD card
SSD	Set in the SSD

　　* :Initial setting: SD card (0)
　3.Press the [Start] key. Set the setting value.
　4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
　Press the [Stop] key.
　　* :The screen for selecting a maintenance item No. is displayed.

U323	Abnormal temperature and humidity notification setting (Message: Warning Heat Hum)

Contents
Sets whether to indicate the notification when detecting abnormal temperature and humidity.
Purpose
Change the setting according to the user's request

Setting
　1.Press the [Start] key.
　2.Select the item to set.

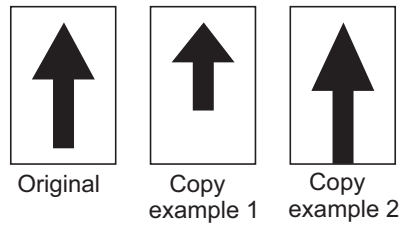| Items	Contents
On	Indicate the abnormal temperature and humidity notification
Off	Do not indicate the abnormal temperature and humidity notification

　　* :Initial setting: On
　3.Press the [Start] key. Set the setting value.

Completion
　Press the [Stop] key.
　　* :The screen for selecting a maintenance item No. is displayed.

U325	Paper interval setting (Message: Set Paper Int)

Contents
 Sets the print interval at high coverage.
Purpose
 Changes the print interval at high coverage.

Setting
 1.Press the [Start] key.
 2.Select the item to set.
 3.By using the [◄] [►] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Interval	Sets On/Off of print interval at high coverage.	On/Off	Off
Average	Set the average number of sheets (parameter)	1 to 255	100
Threshold	Sets the coverage threshold to start lowering.	-	-
Rate	Displays the down rate	-	-

 4.Press the [Start] key to set the setting value.

Setting: Threshold
 1.Select the item to set.
 2.By using the [◄] [►] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Coverage threshold to start lowering for Cyan	1 to 100	15
M	Coverage threshold to start lowering for Magenta	1 to 100	15
Y	Coverage threshold to start lowering for Yellow	1 to 100	15
K	Coverage threshold to start lowering for Black	1 to 100	20

 3.Press the [Start] key to set the setting value.

Method: Rate
 * :Display each setting values.

Items	Contents	Setting range	Initial setting
C	Cyan down rate	50 to 100	100
M	Magenta down rate	50 to 100	100
Y	Yellow down rate	50 to 100	100
K	Black down rate	50 to 100	100

Completion
 Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U326	Black line cleaning indication (Message: Set Clean Bk Line)

Contents

Sets whether to indicate the black lines cleaning guidance when detecting black lines.

Purpose

Displays the cleaning guidance to reduce the service call with the black lines by dust on the contact glass when scanning from the document processor.

Method

1.Press the [Start] key.

2.Select the item to set.

* :The screen for setting is displayed.

Items	Contents
Black Line Mode	Sets On/Off of the black line cleaning guidance indication

3.Select the item to set.

Items	Contents
On	Indicate the black lines cleaning guidance
Off	Black line cleaning guidance is not indicated

* :Initial setting: On

4.Press the [Start] key. Set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U327	Cassette heater On/Off setting (Message: Set Cass Heater)

Contents
Selects the cassette heater control setting.
Purpose
Selects the cassette heater control setting
Sets the cassette heater for the optional cassette.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
On	Sets the cassette heater control On (installed).
Off	Sets the cassette heater control Off (not installed).

* :Initial setting: Off
* :Drum refresh is not executed at power-up when the cassette heater control is [On].

3.Press the [Start] key. Set the setting value.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U332	Adjusting the black coverage coefficient (Message: Adj Calc Rate)

Contents

Sets the coefficient of custom size with A4/Letter size. The coefficient set here is used to convert the black ratio in relation to the A4/Letter size and to display the result in the service status page.

Purpose

Set the coefficient for converting the black ratio for custom sizes in relation to the A4/Letter size

Setting

1. Press the [Start] key.
2. Select the item to set.
3. Press the [◀] [▶] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Rate	Set the coefficient for converting the black ratio for custom sizes in relation to the A4/Letter size.	0.1 to 3.0	1.0
Mode	Switch full-color count and color coverage count display	0: Full color 1: by coverage	0
Level1	Sets low coverage threshold value	0.1 to 99.8	10 (Indicated as 1.0)
Level2	Sets middle coverage threshold value	0.2 to 99.9	25 (Indicated as 2.5)

4. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U341	Printer cassette setting (Message: Set Prn Cass)

Contents
  Sets the cassette to printer output only.
Purpose
  Execute it when securing a cassette for printer. The cassette set to on is for printer only and it cannot be used for copy.

Setting
  1.Press the [Start] key.
  2.Select the item to set.
    * :Multiple cassettes are selectable.

Items	Contents
Cass1	Setting cassette 1 to the printer paper source
Cass *1	Setting cassette 2 to the printer paper source (paper feeder)
Cass *2	Setting cassette 3 to the printer paper source (paper feeder)
Cass *3	Setting cassette 4 to the printer paper source (paper feeder)

  *1: 500 PF only, *2: 500×2/2000 PF only, *3: 500×2 PF only
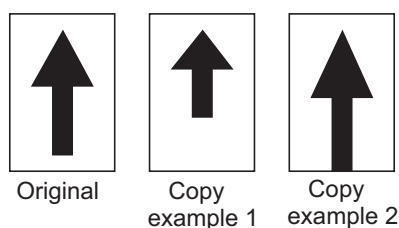   * :Initial setting: Off (Cassette1?4)?
  3.Press the [Start] key to set the setting value.

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U343	Duplex priority mode (Message: Set Dup PriMode)

Contents
  Switches between duplex or simplex copy for the initial copy mode.
Purpose
  Sett the frequently used settings depending on the user's usage.

Setting
  1.Press the [Start] key.
    * :Select the item to set.

Items	Contents
On	Duplex copy
Off	Single-side copy

    * :Initial setting: Off
  2.Press the [Start] key to set the setting value.

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U345	Setting the value for maintenance due indication (Message: Set Mnt Time Disp)

Contents

Sets when to display a message notifying that the time for maintenance is about to reach, by setting the number of prints that can be made before the current maintenance cycle reaches. Displays the maintenance precaution message when the page count reaches the set value before the maintenance count.

Purpose

Change the time for maintenance precaution display.

Setting

1.Press the [Start] key.
2.Select the item to set.
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Cnt	Setting the maintenance time precaution display (Remaining number of prints that can be made before the current maintenance cycle reaches)	0 to 9999	0

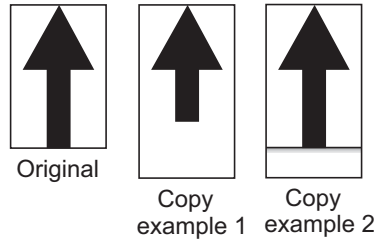4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U346	Selecting Sleep Mode (Message: Slct Sleep Mode)

Contents
　　Changes the sleep mode settings.
Purpose
　　Changes the sleep mode settings.

Method
　　1.Press the [Start] key.
　　2.Select the item to set.
　　　* :The screen for setting is displayed.

Items	Contents
Timer/Sleep Level	BAM conformity country setting
Auto sleep	Switches AutoSleep function setting

Setting: Timer/Sleep Level
　　1.Select the item to set.

Items	Contents
More Energy Save	BAM conformity setting On Sleep mode is disabled (Quick Recovery setting is disabled)
Less Energy Save	BAM conformity setting Off Sets Sleep Level (Quick Recovery or Energy Saver)

　　　* :Initial setting: More Energy Save
　　2.Press the [Start] key. Set the setting value.
　　3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Setting: Auto sleep
　　1.Select the item to set.

Items	Contents
On	The sleep mode is disabled from the system menu.
Off	The sleep mode is enabled from the system menu.

　　　* :Initial setting: On
　　2.Press the [Start] key to set the setting value.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U402	Adjusting the printing margins (Message: Print Margin)

Contents

Adjusts the scan image margins.

Purpose

Make the adjustment if margins are incorrect

* :If the leading edge margin is less than the specified value, it may cause jam at the fuser.
* :If there is no bottom margin, when continuously printing, it may cause an image smudge on the second page.

Adjustment

1. Press the [Start] key.
2. Press the [System Menu/Counter] key.
3. Press the [Start] key to output a test pattern.
4. Press the [System Menu/Counter] key.
5. Select the item to set.

Items	Contents	Setting range	Initial setting	Data varia-tion
Lead	Adjusts the printer leading edge margin	0.0 to 10.0	4.0	0.1 mm
A Margin	Printer left margin	0.0 to 10.0	3.0	0.1 mm
C Margin	Printer right margin	0.0 to 10.0	3.0	0.1 mm
Trail	Printer trailing edge margin	0.0 to 10.0	3.9	0.1 mm

6. Press the [◀] [▶] keys or the numeric keys to change the counter value.

* :When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.

Leading edge margin
(4.0 +1.5/-0mm)

A

Left margin
(Within 4.0mm)

Right margin
(Within 4.0mm)

Trailing edge margin
(Within 4.0mm)
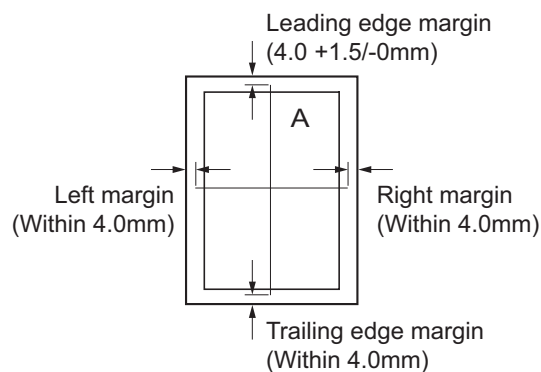
Figure 6-15

7. Press the [Start] key to set the setting value.

Precautions

Appropriate margins are not obtained after this adjustment, execute the following maintenance mode.

U034 (P.6-228) > U402

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U403	Adjusting margins for scanning an original on the contact glass (Message: Scan Margin Tbl)

Contents
    Adjusts the margins for the table scanning.

Purpose
    Make the adjustment if margins are incorrect

Adjustment
    1. Press the [Start] key.
    2. Press the [System Menu/Counter] key.
    3. Place an original and press the [Start] key to make a test copy.
    4. Press the [System Menu/Counter] key.
    5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
A Margin	Adjusts the scanner left margin	0.0 to 10.0	2.0	0.5mm
B Margin	Adjusts the scanner leading edge margin.	0.0 to 10.0	2.0	0.5mm
C Margin	Adjusts the scanner right margin	0.0 to 10.0	2.0	0.5mm
D Margin	Adjusts the scanner trailing edge margin	0.0 to 10.0	2.0	0.5mm

    6. Press the [◄] [►] keys or the numeric keys to change the counter value.
      * : When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.
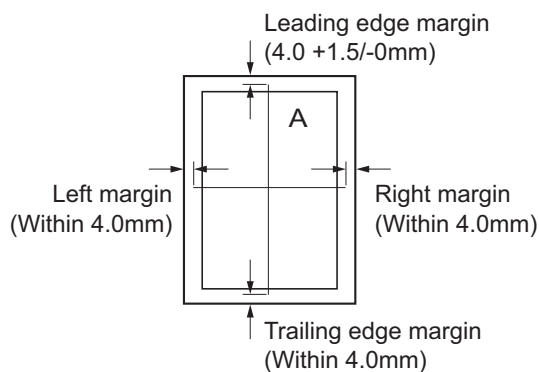
Figure 6-16

    7. Press the [Start] key to set the setting value.

Precautions
    Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
    U034(P.6-228) > U402(P.6-334) > U403

Completion
    Press the [Stop] key.
      * : The screen for selecting a maintenance item No. is displayed.

U404	Adjusting margins for scanning an original from the document processor (Message: Scan Margin DP)

Contents
Adjusts the margins for DP scanning.
Purpose
Make the adjustment if margins are incorrect

Adjustment
1.Press the [Start] key.
2.Press the [System Menu/Counter] key.
3.Place an original on the DP and press the [Start] key to make a test copy.
4.Press the [System Menu/Counter] key.
5.Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
A Margin	Adjusts the DP left margin	0.0 to 10.0	3.0	0.5mm
B Margin	Adjusts the DP leading edge margin	0.0 to 10.0	2.5	0.5mm
C Margin	Sets the DP right margin	0.0 to 10.0	3.0	0.5mm
D Margin	Adjusts the DP trailing edge margin	0.0 to 10.0	4.0	0.5mm

6.Press the [◄] [►] keys or the numeric keys to change the counter value.
* :When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.

Leading edge margin
(4.0 +1.5/-0mm)

A

Left margin
(Within 4.0mm)

Right margin
(Within 4.0mm)

Trailing edge margin
(Within 4.0mm)
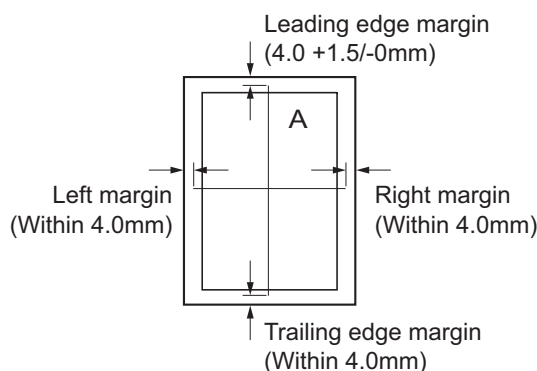
Figure 6-17

7.Press the [Start] key to set the setting value.

Precautions
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 (P.6-228) > U402 (P.6-334) > U403 (P.6-335) > U404

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U407	Adjusting the writing timing (Duplex/Reversal) (Message: WR DR Timing)

Contents
Adjusts the writing timing when duplex printing.

Purpose
Adjusted when the back page image of duplex copying is printed in rotated 180 degrees from the scanner reading image (image on the memory)

Precautions
Adjust this after finishing the following maintenance modes.
U034(P.6-228) > U402(P.6-334) > U66(P.6-240)>
U403 (P.6-335) > U71 (P.6-244) > U404 (P.6-336) > U407

Adjustment
1.Press the [Start] key.
2.Press the [System Menu/Counter] key.
3.Place an original on the DP and press the [Start] key to make a test copy.
4.Press the [System Menu/Counter] key.
5.Select [Adj Data].

Items	Contents	Setting range	Initial setting	Data varia-tion
Adj Data	Adjusts the leading edge timing when writing the image in the memory	-47 to 47	0	1dot

6.Press the [◄] [►] keys or the numeric keys to change the counter value.
  For the copy example 1, increase the value.
  For the copy example 2, decrease the value.
  * :When the setting value is increased, the image moves forward, and it moves backward when the setting value is decreased.

Leading edge registration of the copy image (+1.0/-1.5 mm or less)

Original   Copy example 1   Copy example 2
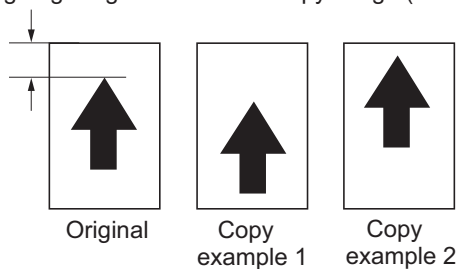
Figure 6-18

7.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U410	Adjusting the halftone automatically (Message: Adj Half Tone)

Contents

Acquires the data for the automatic halftone adjustment and ID correction.

Purpose

Execute when the quality of reproduced halftones has dropped

Adjustment

1. Press the [Start] key.
   * :Displays the execution information screen.
   * :Test pattern 1 and Test pattern 2 are output on the A4 paper.
2. Set the test pattern output on the original glass with the arrow facing the rear side and print side face-down.
   * :Load about 20 sheets of the blank paper on Test Pattern 1.
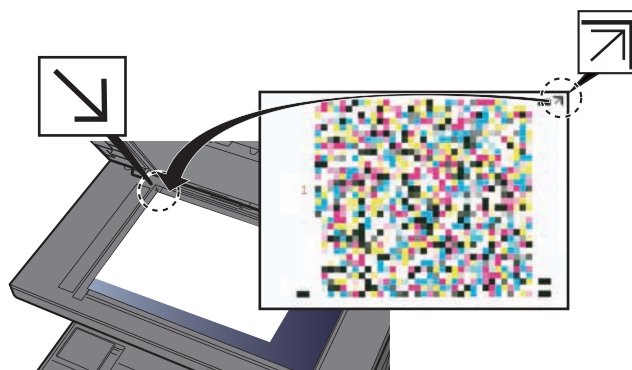
Figure 6-19

3. Press the [Start] key.
   * :The first auto adjustment is executed.
4. Set the output Test Pattern 2 as the original.
   * :Load about 20 sheets of the blank paper on Test Pattern 2.
5. Press the [Start] key.
   * :The second auto adjustment is executed.
6. [Finish] appears after normal completion.
   * :An error code appears when an error occurs.

Error codes

Codes	Occurrence position	Contents
S001	Scanner	Original reference patch is not detected
S002		Original deviation is in excess in the main scanning direction
S003		Original deviation is in excess in the sub-scanning direction
S004		Original skew is in excess
S005		Original type error
SFFF		Other scanner error
E001	Engine	Engine status error
E002		Adjustment result error
EFFF		Other engine error

Codes	Occurrence position	Contents
C001	Controller	Pause status
C002		Adjustment result error
C110		Adjustment value (increase amount) value error (black)
C120		Adjustment value (increase amount) value error (cyan)
C140		Adjustment value (increase amount) value error (magenta)
C180		Adjustment value (increase amount) value error (yellow)
C210		Adjustment value (increase rate) error (black)
C220		Adjustment value (increase rate) value error (cyan)
C240		Adjustment value (increase rate) value error (magenta)
C280		Adjustment value (increase rate) value error (yellow)
CFFF		Other controller error

U411	Scanner auto adjustment (Message: Auto Adj Scn)

Contents

Uses the specified originals and automatically adjusts the following items in the scanner and the DP scanning sections.

Scanner section: Original size magnification, leading edge timing, center line, chromatic aberration in main/sub scanning direction, MTF correction, color/monochrome input gamma, color correction matrix automatic adjustment

DP scanning section: Original size magnification, leading edge timing and center line MTF correction, Input gamma, automatic adjustment of color correction matrix

Purpose

Automatically adjusts the scanner and the DP scanning sections.

Items	Contents	Original for adjustment (P/N)
Table (Chart A)	Automatically adjusts the table scanning. Magnification in the sub-scanning direction Leading edge timing Center line Chromatic aberration in the main scanning direction Input gamma in monochrome mode Input gamma in color mode Color correction matrix	7505000107
DP FU(ChartB) **DP FD(ChartB)**	Execute the 1st side automatic adjustment in the DP scanning section. Execute the 2nd side automatic adjustment in the DP scanning section. Magnification in the sub-scanning direction Leading edge timing Center line Trailing edge timing	7505000106
DP FU(ChartA)	Execute the 1st side automatic adjustment in the DP scanning section. Input gamma in monochrome mode Input gamma in color mode Color correction matrix	7505000107
All	Automatically adjusts the DP scanning after the automatic adjustment of the table scanning. Automatic adjustment in the scanning section.	7505000107 7505000106
Target	Set-up for obtaining the target value	7505000107

*: Cut the trailing edge of the DP adjustment original (ChartB) as shown below.
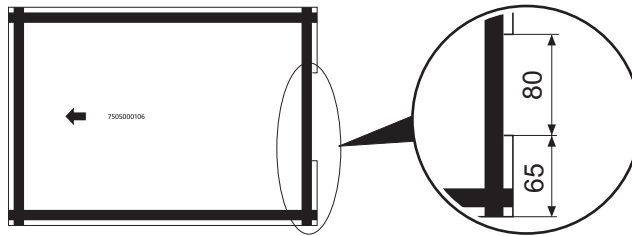
Method: Table (Chart A)
Automatic input of the target value
      * :Usually, it adjusts here.
   1.Set the specified original (P/N: 7505000107) on the table.
   2.Enter maintenance item U411.
   3.Select [Target].
   4.Press the [◄] [►] keys, [#] or [*] key to select [Auto].
   5.Select [Table(ChartA)] using the [Up/Down cursor] key.
   6.Press the [Start] key to read the barcode of the original chart and to start the automatic adjust-
      ment.
   7.When automatic adjustment has normally completed, [OK] is displayed.

      * :When the error code "1e" or "1f" is displayed during the automatic adjustment in the table
         scanning and the barcode is not read, adjust the following after manually inputting the target
         value.

Manual input of the target value
   1.Enter the target values which are shown on the lower part of the front page of the adjustment
      original (P/N: 7505000107) by executing the maintenance mode U425.
   2.Set the specified original (P/N: 7505000107) on the table.
   3.Enter maintenance item U411.
   4.Select [Target].
   5.Press the [◄] [►] keys, [#] or [*] key to select [U425].
   6.Select [Table(ChartA)] using the [Up/Down cursor] key.
   7.Press the [Start] key to start Auto adjustment.
   8.When automatic adjustment has normally completed, [OK] is displayed.

**If the image position is shifted largely at the DP adjustment below, an error might occur when
adjusting it with ChartA. First, use ChartB (image position) to adjust it and then use ChartA
(color).**

Method: DP FU (Chart B)
      * :Adjusting the first side of the DP duplex scanning
   1.Set the specified original (P/N: 7505000106) face-up on the DP.
   2.Enter maintenance item U411.
   3.Select [DP FU(ChartB)].
   4.Press the [Start] key to start Auto adjustment.
   5.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP FD (Chart B)
      * :Adjusting the second side of the DP duplex scanning
   1.Set the specified original (P/N: 7505000106) face-up on the DP.
   2.Enter maintenance item U411.
   3.Select [DP FD(ChartB)].
   4.Press the [Start] key to start Auto adjustment.
   5.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP FU (Chart A)
Automatic input of the target value
1. Set the specified original (P/N: 7505000107) face-up on the DP.
2. Enter maintenance item U411.
3. Select [Target].
4. Press the [◄] [►] keys, [#] or [*] key to select [Auto].
5. Select [DP FU(ChartA)] using the [Up/Down cursor] key.
6. Press the [Start] key to read the barcode of the original chart and to start the automatic adjustment.
7. When automatic adjustment has normally completed, [OK] is displayed.

   * :When the error code "1e" or "1f" is displayed during the automatic adjustment in the DP scanning and the barcode is not read, adjust the following after manually inputting the target value.

Manual input of the target value
1. Enter the target values which are shown on the lower part of the front page of the adjustment original (P/N: 7505000107) by executing the maintenance mode U425.
2. Set the specified original (P/N: 7505000107) face-up on the DP.
3. Enter maintenance item U411.
4. Select [Target].
5. Press the [◄] [►] keys, [#] or [*] key to select [U425].
6. Select [DP FU(ChartA)] using the [Up/Down cursor] key.
7. Press the [Start] key to start Auto adjustment.
8. When automatic adjustment has normally completed, [OK] is displayed.

   * :If an error occurs during auto adjustment, error code "NGXX" is displayed and operation stops. In this case, check the error and execute the automatic adjustment again.

Error codes

Codes	Contents	Corrective action
00	Automatic adjustment success	-
01	Black band detection error (Table scanning leading edge skew in the sub-scanning direction)	1. Set the original correctly and execute the adjustment again. 2. Check lighting of the lamp or replace it.
04	Black band is not detected (Table leading edge in the sub-scanning direction)	
05	Black band is not detected (Table far end in the main scanning direction)	
06	Black band is not detected (Table near end in the main scanning direction)	
07	Black band is not detected (Table trailing edge in the sub-scanning direction)	

Codes	Contents	Corrective action
08	Black band is not detected (DP far end in the main scanning direction)	1. Check the attachment position of DP.
09	Black band is not detected (DP near end in the main scanning direction)	2. Check lighting of the lamp or replace it.
0a	Black band is not detected (DP leading edge in the sub-scanning direction)	3. Check the back and front of the adjustment original.
0b	Black band is not detected (Original check of DP leading edge in the sub-scanning direction)	
0c	Black band is not detected (DP trailing edge in the sub-scanning direction)	
0d	White band is not detected (DP trailing edge in the sub-scanning direction)	
0e	DMA time out	Turn the power switch off then on, and execute again.
0f	Magnification error in the sub-scanning direction	1. Turn the power switch off then on, and execute again.
10	Leading edge error in the sub-scanning direction	2. Adjust manually. (U065 to U067, U070 to U072)
11	Trailing edge error in the sub-scanning direction	
12	DP skew error in the sub-scanning direction	
13	Maintenance request error	Turn the power switch off then on, and execute again.
14	Center line error in the main scanning direction	1. Turn the power off and on, and execute again.
15	DP skew error in the main scanning direction	2. Adjust manually. (U065 to U067, U070 to U072)
16	Magnification error in the main scanning direction	
17	Service call error	Turn the power off and on, and execute again.
18	DP paper jam error	**Set the original correctly and execute again.**
19	PWB replacement error	-
1a	Original error	1. Clean the contact glass and slit glass. 2. Exchange the adjustment original.
1b	Input gamma adjustment original error	Set the original correctly and execute again.
1c	Matrix adjustment original error	
1d	Original for the white reference correction coefficient error	

Codes	Contents	Corrective action
1e	Lab value detection error	Check the following and execute again. Is the bar code dirty? Is the original position correct? Is the bar code position correct?
1f	Lab value comparison error	Check the following and execute again. Is the acquired bar code the same? Is the original position correct? Is the bar code position correct?
20	Input gamma correction coefficient error	Set the original correctly and execute again.
21	Color correction matrix coefficient error	
30	Chromatic aberration adjustment original error	
63	Completed to obtain the test RAW	-

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U425	Set Target (Message: Set Target)

Contents

Enter the lab values which are shown on the back page of the adjustment original (P/N: 302NM9434_).

Purpose

Enter data in order to correct for differences in originals during the automatic adjustment

Method

1.Press the [Start] key.
2.Select the item to set.

Items	Contents
ChartA	Setting the adjustment value of the table scanning
ChartB	Sets the adjustment value of the DP scanning

Method: ChartA

1.Press the [Start] key.
2.Select the item to set.

Items	Contents
White	Setting the white patch for the adjustment original
Black	Setting the black patch for the adjustment original
Gray1	Setting the Gray1 patch for the adjustment original
Gray2	Setting the Gray2 patch for the adjustment original
Gray3	Setting the Gray3 patch for the adjustment original
C	Setting the cyan patch for the adjustment original
M	Setting the magenta patch for the adjustment original
Y	Setting the yellow patch for the adjustment original
R	Setting the red patch for the adjustment original
G	Setting the green patch for the adjustment original
B	Setting the blue patch for the adjustment original
Adjust Original	Setting the main scanning and sub-scanning directions

Setting: White

1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	93.6	-
a	A value setting	-200.0 to 200.0	0.9	-
b	B value setting	-200.0 to 200.0	-0.4	-

3.Press the [Start] key to set the setting value.

Setting: Black
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	10.6	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	-0.7	-

3.Press the [Start] key to set the setting value.

Setting: Gray1
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	76.2	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	1.2	-

3.Press the [Start] key to set the setting value.

Setting: Gray2
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	25.2	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	-0.2	-

3.Press the [Start] key to set the setting value.

Setting: Gray3
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	51.3	-
a	A value setting	-200.0 to 200.0	-0.3	-
b	B value setting	-200.0 to 200.0	0.3	-

3.Press the [Start] key to set the setting value.

Setting: C
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	72.6	-
a	A value setting	-200.0 to 200.0	-32.8	-
b	B value setting	-200.0 to 200.0	-11.5	-

3.Press the [Start] key to set the setting value.

Setting: M
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	48.1	-
a	A value setting	-200.0 to 200.0	69.9	-
b	B value setting	-200.0 to 200.0	-6.1	-

3.Press the [Start] key to set the setting value.

Setting: Y
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	86.2	-
a	A value setting	-200.0 to 200.0	-18.6	-
b	B value setting	-200.0 to 200.0	81.7	-

3.Press the [Start] key to set the setting value.

Setting: R
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	46.7	-
a	A value setting	-200.0 to 200.0	54.2	-
b	B value setting	-200.0 to 200.0	38.6	-

3.Press the [Start] key to set the setting value.

Setting: G
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	67.8	-
a	A value setting	-200.0 to 200.0	-51.3	-
b	B value setting	-200.0 to 200.0	48.9	-

3.Press the [Start] key to set the setting value.

Setting: B
1.Select the item to set.
2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	38.8	-
a	A value setting	-200.0 to 200.0	25.3	-
b	B value setting	-200.0 to 200.0	-22.8	-

3.Press the [Start] key to set the setting value.

Setting: Adjust Original
  * :This setting is usually unnecessary.

Items	Contents	Setting range	Initial setting	Data variation
Lead	Set the adjustment value of the leading edge.	4.0 to 6.0	5.0	0.1mm
Main Scan	Sets the adjustment value of the left edge.	9.0 to 11.0	10.0	0.1mm
Sub Scan	Set the adjustment value of the trailing edge.	265.0 to 267.0	266.0	0.1mm

1.Measure the distances A, B and C from the upper edge of black belt 1 to the lower edge of black belt 3 of the adjustment original.
Measurement procedure
1) Measure the distance "A", "B" and "C" between two points as follows. (A: 30mm from the left edge, B: 105mm from the left edge, C: 180mm from the left edge)
?Measure the distance from the leading edge to the top edge of black belt 1.
2) Apply the following formula for the values obtained: ((A+B+C)/3)
2.Enter the value solved in "Lead" using the [◄] [►] keys keys.
3.Press the [Start] key to set the setting value.
4.Measure the distance "F" from the left edge to the right edge of black belt 2 on the adjustment original.
Measurement procedure
Measure the distance "F" from the left edge at 21mm from the top edge of black belt 1to the right edge of black belt 2.
5.Enter the values measured in "Main Scan" using the [◄] [►] keys.

6.Press the [Start] key to set the setting value.

7.Measure the distance "D" and "E" from the top edge of black belt 1 to the bottom edge of black belt 3 on the adjustment original at two positions.

Measurement procedure

1) Measure the distance "D" and "E" between two points as follows. (D: Measure the distance from the leading edge to the trailing edge of black belt 3 on the adjustment original at 30mm of the left edge and deduct A. E: Measure the distance from the leading edge to the trailing edge of black belt 3 on the adjustment original at 180mm of the left edge and deduct C.)

2) Apply the following formula for the values obtained: (D/2+E/2)

8.Enter the value solved in "Sub Scan" using the [◄] [►] keys keys.

9.Press the [Start] key to set the setting value.

[Dist1] = (A+B+C)/3
[Dist2] = F
[Dist3] = D/2+E/2

Original for adjustment
(P/N: 7505000107)
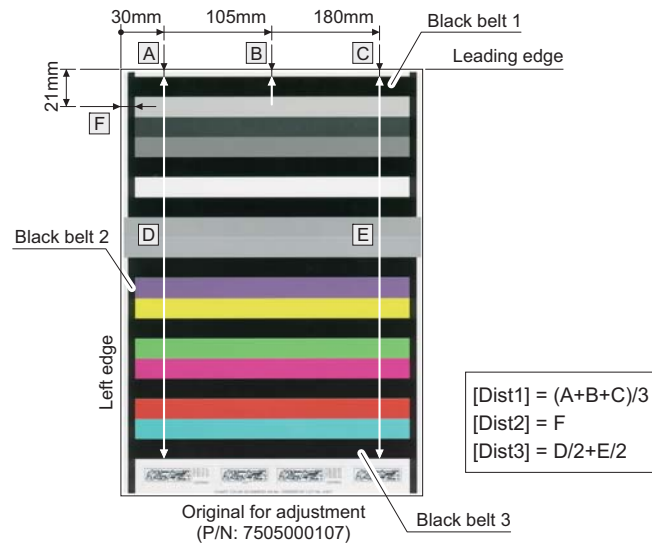
Figure 6-20

Setting: DP(ChartB)

     * :This setting is usually unnecessary.

Items	Contents	Setting range	Initial setting	Data variation
Lead	Set the adjustment value of the leading edge.	14.0 to 16.0	15.0	0.1mm
Main Scan	Sets the adjustment value of the left edge.	14.0 to 16.0	15.0	0.1mm
Sub Scan	Set the adjustment value of the trailing edge.	265.0 to 269.0	267.0	0.1mm

1. Measure the distance "A" from the leading edge to the black belt (inside) on the adjustment original.
2. Enter the values measured in "Lead" using the [◄] [►] keys.
3. Measure the distance "B" from the left edge to the black belt (inside) on the adjustment original.
4. Enter the values measured in "Main Scan" using the [◄] [►] keys.
5. Measure the distance "C" from the leading black belt (inside) to the trailing black belt (inside) on the adjustment original.
6. Enter the values measured in "Sub Scan" using the [◄] [►] keys.
7. Press the [Start] key to set the setting value.

Original for adjustment
(P/N: 7505000106)
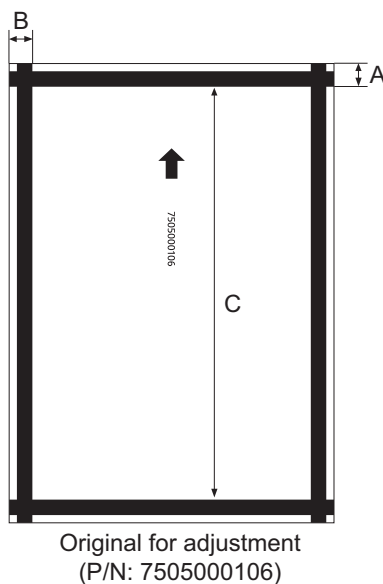
Figure 6-21

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U429	Adjusting the color balance offset (Message: Color Balance)

Contents

Displays/changes the density of each color in various image quality mode.

Purpose

Execute to change each color's balance.

Method

1.Press the [Start] key.

1.Select the image mode to change the setting.

   * :The screen for setting is displayed.

Items	Contents
Text+Photo	Density of each color in the text+photo mode
Photo	Density of each color in the photo mode
Photo/Printout	Each color's density in the printed photo mode
Text	Density of each color in the text mode
Graphics/Map	Density of each color in the map mode
Copy/Printout	Each color's density in the printed document mode

Setting: Text+Photo

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

   * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

3.Press the [Start] key to set the setting value.

Setting: Photo

1.Select the item to set.

2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

   * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

3.Press the [Start] key to set the setting value.

Setting: Photo/Printout
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
    3.Press the [Start] key to set the setting value.

Setting: Text
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
    3.Press the [Start] key to set the setting value.

Setting: Graphics/Map
    1.Select the item to set.
    2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
    3.Press the [Start] key to set the setting value.

Setting: Copy/Printout
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	0 to 10	5
M	Magenta color balance offset value	0 to 10	5
Y	Yellow color balance offset value	0 to 10	5
K	Black color balance offset value	0 to 10	5

* :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
3.Press the [Start] key to set the setting value.

Supplement
Test copy of the original is available by pressing the [System Menu/Counter] key as interruption copy mode when executing this maintenance mode.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U464	ID correction setting (Message: Set ID Adj Mode)

Contents

Set permission/prohibition of the ID correction operation (calibration). Executes each setting of the calibration.

Purpose

Execute the calibration setting when an image failure occurs or depending on the user's request. Execute Calibration when replacing the maintenance kit.

Method

1. Press the [Start] key.
2. Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
Permission	Permit/Prohibit Calibration
Time Interval	Sets the time interval to execute calibration after completing printing.
Mode	Color print mode setting
Leaving Time	Setting the time to determine whether to execute calibration when recovering from Sleep mode
Target Value	Setting the target sensor value for the thick layer calibration and light intensity calibration
Calib	Executing Calibration

Setting: Permission

1. Select [On] or [Off].

Items	Contents
On	Permitting Calibration
Off	Prohibiting Calibration

* :Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: Time Interval

1. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Time(sec)	Calibration interval	0 to 9999	1200 (sec)

* :Setting is changeable in 10 count increments.
2. Press the [Start] key to set the setting value.

Setting: Mode

 1.Select the item to set.

Items	Contents
Short	Color print mode setting: Short
Normal	Color print mode setting: Normal
Long	Color print mode setting: Long
Auto	Color print mode setting: Auto

  * :Initial setting: Normal

 2.Press the [Start] key to set the setting value.

Setting: Leaving Time

 3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Time(min)	Setting the sleep timer	0 to 1440	1080 (min)

 4.Press the [Start] key to set the setting value.

Setting: Target Value

 1.Select the item to set.

 2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Thickness(C)	Toner layer calibration (Cyan)	0 to 1000	700
Thickness(M)	Toner layer calibration (Magenta)	0 to 1000	640
Thickness(Y)	Toner layer calibration (Yellow)	0 to 1000	550
Thickness(K)	Toner layer calibration (Black)	0 to 1000	700
Gamma(C)	Light amount calibration (Cyan)	0 to 1000	445
Gamma(M)	Light amount calibration (Magenta)	0 to 1000	445
Gamma(Y)	Light amount calibration (Yellow)	0 to 1000	375
Gamma(K)	Light amount calibration (Black)	0 to 1000	465

 3.Press the [Start] key to set the setting value.

Method: Calib

 1.Select the item to execute.

 2.Press the [Start] key.

  * :Calibration is started.

   Same operation as [System Menu] - [Adjustment/Maintenance] - [Calibration].

Items	Contents
Regist	Execute the registration correction calibration
Full	Executes Full Calibration

Completion

 Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U465	ID correction data (Message: ID Adj Data)

Contents
Refers to the ID correction data.
Purpose
Execute for data check.

Method
1.Press the [Start] key.
2.Select [Laser Power].
  * :The screen is switched.

Items	Contents
Laser Power	Displays the light intensity control value

* :The current value is displayed.

Items	Contents
C	Displays the Cyan light intensity control value.
M	Displays the Magenta light intensity control value.
Y	Displays the Yellow light intensity control value.
K	Displays the Black light intensity control value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U467	Color registration correction operation setting (Message: Set Reg Adj Mode)

Contents

Sets the color registration correction operation.

Also, sets the execution condition of the color registration correction by the LSU temperature variation.

Purpose

If the color registration is unstable due to the sensor failure, etc., set it to off to temporarily fix the control value.

Method

1. Press the [Start] key.
2. Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
Color Regist	Sets the color registration correction
Timing	Execute the color registration correction if the LSU temperature changes by the specified value after the previous correction

Setting: Color Regist

1. Select the item to set.

Items	Contents
On	Permitting the color registration correction operation
Off	Prohibiting the color registration correction operation

   * :Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: Timing

1. Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
LSU Temp	Execution condition by the LSU temperature variation	2 to 20	10

2. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U468	Color registration correction data (Message: Cor Reg Data)

Contents

Displays the color registration correction data.

Purpose

Execute for data check.

Method

1.Press the [Start] key.

2.Select the item to refer to.

　* :The screen is switched.

Items	Contents
Auto(C)	Displaying the automatic color registration correction value (Cyan)
Auto(M)	Displaying the automatic color registration correction value (Magenta)
Auto(Y)	Displaying the automatic color registration correction value (Yellow)
Manual(C)	Displays the manual color registration correction value (Cyan)
Manual(M)	Displays the manual color registration correction value (Magenta)
Manual(Y)	Displays the manual color registration correction value (Yellow)
Initialize	Initializing the correction result

Refer: Auto(C) / Auto(M) / Auto(Y)

1.Select [Auto(C)], [Auto(M)] or [Auto(Y)].

　* :The current value is displayed.

Items	Contents
Main Scan	Automatic color registration adjustment value in the main scanning direction.
Sub Scan	Automatic color registration adjustment value in the sub scanning direction.
Mag	Automatic color registration correction value for magnification

Refer: Manual(C) / Manual(M) / Manual(Y)

1.Select [Manual(C)], [Manual(M)] or [Manual(Y)]

　* :The current value is displayed.

Items	Contents
Main Scan	Manual color registration adjustment value in the main scanning direction.
Sub Scan	Manual color registration adjustment in the sub scanning direction.
Mag1	Manual color registration correction value 1 for magnification
Mag2	Manual color registration correction value 2 for magnification
Mag3	Manual color registration correction value 3 for magnification
Mag4	Manual color registration correction value 4 for magnification

Method: Initialize

1.Select [Initialize].

　* :The operation is executed.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U469	Color registration adjustment (Message: Adj Cor Reg)

Contents

Corrects the color registration data.

Purpose

Execute when replacing the laser scanner unit.

* :Make sure to execute U464 Calib before executing this maintenance mode.

Method

1.Press the [Start] key.

2.Select the item to set.

* :Select [Auto] to output the automatic adjustment chart.

* :Select [Manual] to enter the setting display.

Items	Contents
Auto	Adjust the color registration automatically
Manual	Adjust the color registration manually

Method: Auto

1.Select the item to execute.

Items	Contents
Print	Output the automatic adjustment chart.
Execute	Start scanning and execute the automatic adjustment.

Method: Print

1.Press the [Start] key.

* :Output the automatic adjustment chart.

Method: Execute

1.Place an original on the table and press the [Start] key.

* :Execute the automatic adjustment.

2.When adjustment has normally completed, [OK] is displayed.

* :An error code appears when there is an error.

Error codes list

Error codes	Place of occurrence	Factor
S001	Scanner	Original reference patch is not detected
S002		Scanned image position shifted in excess in the main scanning direction.
S003		Scanned image position shifted in excess in the sub scanning direction.
S004		Original skew is in excess
S005		Original type mismatch
SFFF		Other scanning error
E001	Engine	Engine error
CFFF	Controller	Other errors

Setting: Manual
1.Select the item to execute.
* :The screen for setting is displayed.

Items	Contents
Regist(CH)	Sets the color registration adjustment value (CH)
Regist(MH)	Sets the color registration adjustment value (MH)
Regist(YH)	Sets the color registration adjustment value (YH)
Print	Output the manual adjustment chart.

Method: Print
1.Press the [Start] key.
* :Output the manual adjustment chart.

Chart sample
There are H-1 to 9 in the chart For each color of m, c and y (upper part).
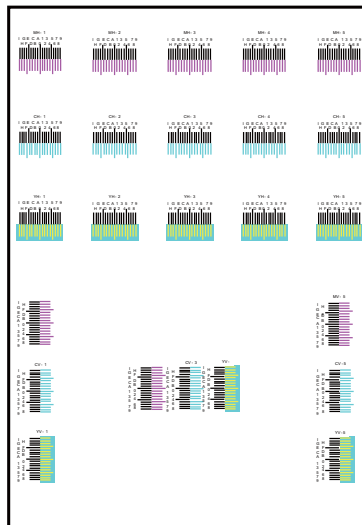
Figure 6-22

Find the positions where two lines are best matched on each chart.
* :If it is at "0", the correction is unnecessary. In case of the illustration below, "B" is the value that should be set.
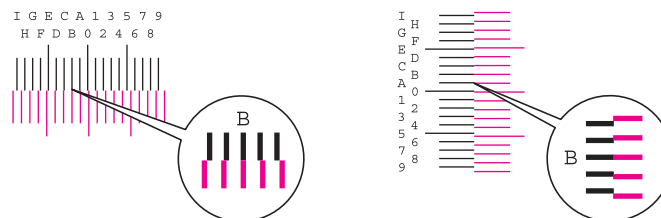
Figure 6-23

Method: Regist(CH)
    1.Change the screen using the [Up/Down cursor] key.
    2.Select the item to set.
    3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
CH-1	CH-1 adjustment value	-9 to 9	-
CH-2	CH-2 adjustment value	-9 to 9	-
CH-3	CH-3 adjustment value	-9 to 9	-
CH-4	CH-4 adjustment value	-9 to 9	-
CH-5	CH-5 adjustment value	-9 to 9	-
CV-3	CV-3 adjustment value	-9 to 9	-

    4.Press the [Start] key to set the setting value.

Method: Regist(MH)
    1.Change the screen using the [Up/Down cursor] key.
    2.Select the item to set.
    3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
MH-1	MH-1 adjustment value	-9 to 9	-
MH-2	MH-2 adjustment value	-9 to 9	-
MH-3	MH-3 adjustment value	-9 to 9	-
MH-4	MH-4 adjustment value	-9 to 9	-
MH-5	MH-5 adjustment value	-9 to 9	-
MV-3	MV-3 adjustment value	-9 to 9	-

    4.Press the [Start] key to set the setting value.

Method: Regist(YH)
    1.Change the screen using the [Up/Down cursor] key.
    2.Select the item to set.
    3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
YH-1	YH-1 adjustment value	-9 to 9	-
YH-2	YH-2 adjustment value	-9 to 9	-
YH-3	YH-3 adjustment value	-9 to 9	-
YH-4	YH-4 adjustment value	-9 to 9	-
YH-5	YH-5 adjustment value	-9 to 9	-
YV-3	YH-3 adjustment value	-9 to 9	-

    4.Press the [Start] key to set the setting value.
Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U470	Setting the JPEG compression rate (Message: Adj JPEG Rate)

Contents
> Sets the JPEG compression rate by image mode.

Purpose
> Change the setting depending on the image desired by the user . Lower the set value to reduce the image roughness by changing the compression rate in case of 200% or more of the enlarged copy . If the set value is reduced, compression is high and image quality is lowered. If the set value is increased, image quality is improved but processing speed is slower.

Method
> 1.Press the [Start] key.
> 2.Select the item to set.
>   * :The screen for setting is displayed.

Items	Contents
Copy	Compression rate of the copy
Send	Compression rate of the Send
System	Compression rate of the temporary saving in the system

Method: Copy
> 1.Select the item to set.
>   * :The screen for setting is displayed.

Items	Contents
Photo	Compression rate of the photo mode
Text	Compression rate of the text mode

Setting: Photo
> 1.Select the item to set.
> 2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90
CbCr	Compression rate of the color difference	1 to 100	90

> 3.Press the [Start] key to set the setting value.

Setting: Text
> 1.Select the item to set.
> 2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90
CbCr	Compression rate of the color difference	1 to 100	90

> 3.Press the [Start] key to set the setting value.

Method: Send
1.Select the item to set.
* :The screen for setting is displayed.

Items	Contents
Photo	Compression rate of the photo mode
Text	Compression rate of the text mode
HC-PDF(BG)	Sets the compression rate for high compression PDF
HC-PDF(Char)	Set the compression rate for High compression PDF (text color).
HC-PDF(File Size)	Set the compression rate for High compression PDF (compression priority).

Setting: Photo
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	30(%)
Y2	Compression rate of the brightness	1 to 100	40(%)
Y3	Compression rate of the brightness	1 to 100	51(%)
Y4	Compression rate of the brightness	1 to 100	70(%)
Y5	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	30(%)
CbCr2	Compression rate of the color difference	1 to 100	40(%)
CbCr3	Compression rate of the color difference	1 to 100	51(%)
CbCr4	Compression rate of the color difference	1 to 100	70(%)
CbCr5	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: Text
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	30(%)
Y2	Compression rate of the brightness	1 to 100	40(%)
Y3	Compression rate of the brightness	1 to 100	51(%)
Y4	Compression rate of the brightness	1 to 100	70(%)
Y5	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	30(%)
CbCr2	Compression rate of the color difference	1 to 100	40(%)
CbCr3	Compression rate of the color difference	1 to 100	51(%)

Items	Contents	Setting range	Initial setting
CbCr4	Compression rate of the color difference	1 to 100	70(%)
CbCr5	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(BG)
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	25(%)
Y3	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	25(%)
CbCr3	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(Char)
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	75(%)
Y3	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	75(%)
CbCr3	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(File Size)
1.Select the item to set.
2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	25(%)
Y3	Compression rate of the brightness	1 to 100	75(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	25(%)
CbCr3	Compression rate of the color difference	1 to 100	75(%)

3.Press the [Start] key to set the setting value.

Setting: System

　　1.Select the item to set.

　　2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90(%)
CbCr	Compression rate of the color difference	1 to 100	90(%)

　　3.Press the [Start] key to set the setting value.

Supplement

　　Test copy of the original is available by pressing the [System Menu/Counter] key as interruption copy mode when executing this maintenance mode.

Completion

　　Press the [Stop] key.

　　　* :The screen for selecting a maintenance item No. is displayed.

U474	Checking the LSU cleaning (Message: Chk LSU Cleaning)

Contents

　　Execute the LSU cleaning by operating the LSI cleaning motor. Also, sets the cleaning operation interval.

Method

　　1.Press the [Start] key.

　　2.Select the item to execute.

Items	Contents
Execute	Executes the cleaning operation.
Cycle	Sets the cleaning cycle.

Method: Execute

　　1.Press the [Start] key.

　　　* :The LSU slit glass is cleaned.

Setting: Cycle

　　1.Select the item to set.

　　2.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Cnt	Sets the cleaning cycle.	0 to 5000 *1	1000
Timing	Sets the LSU cleaning timing	Print (during job) Print End (after completing job)	Print End

*1: Set in 100 sheet increments

　　3.Press the [Start] key to set the setting value.

Completion

　　Press the [Stop] key.

　　　* :The screen for selecting a maintenance item No. is displayed.

U485	Image process mode setting (Message: Set Img Proc Mode)

Contents
   Sets the PDF image rotation.
Purpose
   Change the PDF image rotation setting.

Method
   1.Press the [Start] key.
   2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Mode	Set the image process mode

Setting: Mode
   1.Select the item to set.

Items	Contents
PDF Rotation	Rotate the PDF image

   2.Press the [◄] [►] keys or the numeric keys to change the counter value.

setting	Contents
0	The image rotation is designated to the internal parameter
1	The image rotation is designated to the actual image
2	The image rotation is designated to the internal parameter (CTM rotation)

   3.Press the [Start] key to set the setting value.

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U486	Color/BW mode setting (Message: Set ACS mode)

Contents

Sets the operation mode after detecting color originals with color/BW mixed originals.

Purpose

Mode: To prioritize the productivity when copying color/BW mixed originals in ACS mode, change the setting to Mode3. However, if setting it to Mode3, even when monochrome originals come after color originals, C/M/Y developer maintenance counts are counted up.

Permission: set in case of color background image when printing an envelope in BW half speed mode processed as color printing.

Method

1.Press the [Start] key.
2.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
Mode	Color/BW mode setting
Permission	Permit monochrome printing at half speed

Setting: Mode

1.Select the item to set.

Items	Contents
0: Mode1	For users mostly printing in monochrome mode and color/monochrome mixed mode is not high during continuous printing. Monochrome printing remains in the color process speed after switching to color and other process is switched .
1: Mode2	For users mostly printing in monochrome mode and color/monochrome mixed mode is not high during continuous printing. Even when receiving a monochrome print request during color printing, color printing operation is continued until 9 pages and color mode is switched to monochrome mode when starting printing of the 10th page (Color process is stopped).
2: Mode3	Appropriate for users who mostly print in color. Once switched to the color mode, monochrome printing after that remains in the color process including the surface speed.
3: Auto	Mode 1 to 3 is automatically selected depending on user's usage. Select Mode 1 to 3 based on color print ratio and switch rate from the print volume during the specified period.

  * :Initial setting: 1 (Mode2)
2.Press the [Start] key to set the setting value.

Setting: Permission

1.Press the [Start] key.

2.Select the item to set.

Items	Contents
1: On	Permit: monochrome printing (three colors separated)
0: Off	Prohibit: color printing (four color process)

   * :Initial setting: Off

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U520	TDRS setting (Message: Set TDRS)

Contents
　　Checks/sets the TDRS
Purpose
　　Execute to check/set the TDRS

Method
　　1.Press the [Start] key.
　　2.Select the item to set.

Items	Contents
Registration	Changes to the TDRS Manager registration dialog
Information	Transition to the Device Agent description dialog
On/Off Config	Changes to the TDRS features setting dialog

Setting: Registration
　　3.Select the item to set.

Items	Contents
TDRS User	Registering process for user and password
Access Code	Registers Access Code

Setting: Access Code
　　4.Select the item to set.

Items	Contents
Regist	Registers in the TDRS Manager
TDRS Server	Sets the TDRS server URL
TDRS User	Sets the TDRS Username
Access Code	Sets the TDRS access code
Proxy Server	Sets the TDRS proxy server URL
Proxy Port	Sets the TDRS proxy port number
Proxy User	Sets the TDRS proxy username
Text	Sets the TDRS description

　　* :[Regist] is not executable if a USB memory is not installed.
　　* :When the USB memory is inserted, TDRS information is automatically retrieved and displayed.
　　　After obtaining the TDRS information, select [Regist] and then register the TDRS information by pressing the [OK] or [Start] key.
　　* :After the normal completion, [Complete] is indicated in the status information of the item that was performed.
　　　When an error occurs, the following numbers are indicated in the status information of the item that has been operated.
　　* :If [User/Processing Registration using a Password] is selected in the previous dialog, the "TDRS User" will be indicated.
　　　If [Processing Registration using an Access Code] is selected, the "Access Code" will be indicated.

Error codes

Items	Contents	Items	Contents
e0001	HDD is unavailable.	**t0001**	Fatal error
e0002	The USB memory is unavailable.	**t0002**	Error in processing the network
e0003	The file to import does not exist in the USB memory.	**t0003**	An illegal parameter error
e0004	Reading from the USB memory has failed.	**t0004**	Insufficient resource
e0005	Unmounting the USB memory has failed.	**t0005**	Communication error
e0006	Moving or renaming the file has failed.	**t0006**	Error in processing communication.
e0007	Opening the file has failed.	**t0007**	Login error
e0008	Closing the file has failed.	**t0008**	External error
e0009	Error in reading the file	**t0009**	Authentication error
e000A	Copying the file has failed.	**t000A**	HTTP error: Request error
e000B	Opening the directory has failed.	**t000B**	HTTP error: Error due to the server
e000C	Creating the working directory has failed.		HTTP error: Error due to the client.
e000D	Deleting the working file has failed.		

Setting: Information
    1.Select the item to set.

Items	Contents
Agent ID	Agent ID
Agent Type	Agent Type
Model	Refers to the model name
Serial No	Refers to the machine serial number
Offline	Refers to the TDRS connection state

Setting: On/Off Config
    1.Select the item to set.

Items	Contents
On	Enables TDRS
Off	Disables TDRS

    * :Initial setting: Off
  2.Press the [Start] key to set the setting value.
  3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U600	Initialize: All Data (Message: Init: All Data)

Contents

Initializes software switches, and all data and image memory in the backup data on the FAX PWB according to the destination and OEM setting.

Initializes the file system and then initializes the communication record and the registered contents if the file system is checked and an error is detected there.

Purpose

Initialize the FAX PWB

Method

1. Press the [Start] key.
   * :The screen for entering the destination code and OEM code is displayed.
2. Select [Country Code] and enter a destination code using the numeric keys.
   * :Refer to the following destination code list.

Items	Contents
Country Code	Setting Destination code
OEM Code	Sets the OEM code
Execute	Executing data initialization

   * :No need to change the default value of [OEM Code].
3. Select [Execute].
4. Press the [Start] key to execute the initialization.
   * :Press the [Stop] key to cancel the data initialization.
5. The firmware version is displayed after the data initialization.
   The firmware version of 3 types of application, boot and IPL is displayed.

   * :Where an irregular value is input, when it initializes, the following errors are displayed.

Kind of error
Unknown Country (When Country Code is unknown)
Unknown OEM (When OEM Code is unknown)
Unknown Country (When both are unknown)

Destination code list

Destination code	Destination	Destination code	Destination
000	Japan	**253**	CTR21 (European nations)
007	Argentina	↑	Italy
009	Australia	↑	Germany
022	Brazil	↑	Spain
038	China	↑	U.K.
080	Hong Kong	↑	Netherlands
084	Indonesia	↑	Sweden
088	Israel	↑	France
097	Korea	↑	Austria

Destina- tion code	Destination	Destina- tion code	Destination
181	U.S.A.	↑	Switzerland
250	Russia	↑	Belgium
108	Malaysia	↑	Denmark
115	Mexico	↑	Finland
126	New Zealand	↑	Portugal
136	Peru	↑	Ireland
137	Philippines	↑	Norway
152	Middle East	**254**	Taiwan
156	Singapore		
159	South Africa		
169	Thailand		

U601	Initialize: Keep data (Message: Init Keep Data)

Contents

Initializes software switches other than the machine data on the FAX PWB according to the destination and OEM setting.

Purpose

Initialize the FAX PWB without changing the user registration data and the factory defaults

Method

1.Press the [Start] key.

 * :The screen for entering the destination code and OEM code is displayed.

2.Select [Country Code].

3.Press the [◄] [►] keys or the numeric keys to change the counter value.

 * :Refer to the destination code list. (P.6-378Refer to page 1-6-58)

Items	Contents
Country Code	Setting Destination code
OEM Code	Sets the OEM code
Execute	Executing data initialization

 * :No need to change the default value of [OEM Code].

4.Select [Execute].

5.Press the [Start] key to execute the initialization.

 * :Press the [Stop] key to cancel the data initialization.

6.The firmware version is displayed after the data initialization.

 The firmware version of 3 types of application, boot and IPL is displayed.

 * :Where an irregular value is input, when it initializes, the following errors are displayed.

Kind of error
Unknown Country (When Country Code is unknown)
Unknown OEM (When OEM Code is unknown)
Unknown Country (When both are unknown)

U603	User data 1 (Message: User Data 1)

Contents
    Sets the line type for FAX use
Purpose
    Execute as required

Method
    1.Press the [Start] key.
    2.Select [Line Type].

Items	Contents
Line Type	Line Type

    3.Select the item to set.

Items	Contents
DTMF	DTMF
10PPS	10PPS
20PPS	20PPS

    * :Initial setting: DTMF

    4.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U604	User data 2 (Message: User Data 2)

Contents

Sets the number of rings for the automatic FAX/telephone switching for FAX use

Purpose

Adjust the number of rings to longer or shorter at the automaric FAX/telephoe switching

Method

1.Press the [Start] key.
2.Select [Rings(F/T)].
3.Press the [◄] [►] keys or the numeric keys to change the counter value.

Items	Contents	Setting range	Initial setting
Rings (F/T) #	Number of fax/telephone rings	0 to 15	0 (100 V model) 1 (220-240 V model) 2 (Australia) 3 (New Zealand)

* :If the default is set to "0", the main unit will start FAX reception without any ringing.
4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U605	Data clear (Message: Clr Data)

Contents

Initializes data related to the fax transmission such as transmission history or various ID.

Purpose

Clear the communication history

Method

1.Press the [Start] key.
2.Select [Clear Com.Rec.].

Items	Contents
Comm Rec	Delete data of communication history and protocol list of displayed port

3.Press the [Start] key.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U610	System 1 (Message: System Setting 1)

Contents

Set the number of lines to be ignored when receiving a fax at 100% magnification and in the auto reduction mode.

Method

1. Press the [Start] key.
2. Select the item to set.

Items	Contents
Cut Line: A4	Set the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode.
Cut Line: 100%	Set the number of lines to be ignored when receiving a fax at 100% magnification.
Cut Line: Auto	Number of lines to be ignored when receiving in the auto reduction mode.

Setting: Cut Line: A4

Set the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode onto A4R or Letter R paper.
If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.

1. By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data variation
Number of lines to be ignored when receiving in the A4R auto reduction mode.	0 to 22	0	-

* :Increase the setting value if a page received in the reduction mode is reduced too much with the trailing edge margin. Decrease the value if there is dropout in received image.

2. Press the [Start] key to set the setting value.

Setting: Cut Line: 100%

Sets the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when recording the data at 100% magnification.
If the number of excess lines is below the setting, those lines are ignored. If it is over the setting, they are recorded on the next page.

1. Press the [◄] [►] keys or the numeric keys to change the counter value.

Contents	Setting range	Initial setting	Data variation
Set the number of lines to be ignored when receiving a fax at 100% magnification.	0 to 22	3	-

* :Increase the setting value if a blank second page is output in the full magnification reception. Decrease the value if there is dropout in received image.

2. Press the [Start] key to set the setting value.

Setting: Cut Line: Auto

Set the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode.

If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.

1.Press the [◀] [▶] keys or the numeric keys to change the counter value.

Contents	Setting range	Initial setting	Data varia-tion
Number of lines to be ignored when receiving in the auto reduction mode.	0 to 22	0	-

* :Increase the setting value if a page received in the reduction mode is reduced too much with the trailing edge margin. Decrease the value if there is dropout in received image.

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U611	System 2 (Message: System Setting 2)

Contents
Sets the number of adjustment lines for automatic reduction.
Purpose
Sets the number of adjustment lines for automatic reduction.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
ADJ LINES	Sets the number of adjustment lines for automatic reduction.
ADJ LINES(A4)	Number of adjustment lines for automatic reduction when A4 paper is set.
ADJ LINES(LT)	Number of adjustment lines for automatic reduction when letter size paper is set.

Setting: ADJ LINES
Sets the number of adjustment lines for automatic reduction.
1.Press the [◄] [►] keys or the numeric keys to change the counter value.

Contents	Setting range	Initial setting	Data variation
Number of adjustment lines for automatic reduction.	0 to 22	7	-

2.Press the [Start] key to set the setting value.
Setting: ADJ LINES(A4)
Sets the number of adjustment lines for automatic reduction.
1.Press the [◄] [►] keys or the numeric keys to change the counter value.

Contents	Setting range	Initial setting	Data variation
Number of adjustment lines for automatic reduction when A4 paper is set.	0 to 22	22	-

2.Press the [Start] key to set the setting value.
Setting: ADJ LINES(LT)
Sets the number of adjustment lines for automatic reduction when letter size paper is set.
1.Press the [◄] [►] keys or the numeric keys to change the counter value.

Contents	Setting range	Initial setting	Data variation
Number of adjustment lines for automatic reduction when letter size paper is set.	0 to 22	26	-

2.Press the [Start] key to set the setting value.
Completion
Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U612	System 3 (Message: System Setting 3)

Contents
    Sets the FAX operation and automatic printing of the protocol list.

Method
    1.Press the [Start] key.
    2.Select the item to set.
       * :The screen for setting is displayed.

Items	Contents
Auto reduct	Selects auto reduction in the sub-scanning direction
Protocol List	Sets the automatic protocol list printing.

Setting: Auto Reduct
    Sets whether to receive a long document by automatically reducing it in the sub-scanning direction or at 100% magnification.

    1.Select the item to set.

Items	Contents
On	Auto reduction is executed if the received document is longer than the FAX paper.
Off	Auto reduction is not performed.

      * :Initial setting: On
    2.Press the [Start] key to set the setting value.

Setting: Protocol List
    Sets the automatic protocol list printing.

    1.Select the item to set.

Items	Contents
Off	The protocol list is not printed out automatically.
Err	Automatically printed if a communication error occurs.
On	Automatically printed out after communication.

      * :Initial setting: Off
    2.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U620	FAX system (Message: FAX System)

Contents

Sets the signal detection method for remote switching.

Change the setting according to the type of telephone connected to the main unit.

Purpose

Sets the remote switching conditions according to the user's telephone type, preference, etc.

Setting

1.Press the [Start] key.

2.Select [Remote Mode] and press the [Start] key.

Items	Contents
Remote Mode	Setting the remote switching mode

3.Select the item to set.

Items	Contents
One	Sets the one-shot type detection
Cont	Sets the continuous type detection

* :Initial setting: One

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U625	Communication settings (Message: Set Comm)

Contents
Sets the auto redialing interval and the number of times of auto redialing.

Purpose
FAX transmission may not be available if redialing interval is short. If long, it takes much time to complete transmission. Changes the setting to prevent the following problems.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Interval	Sets the auto redialing interval
Times	Sets the number of times of auto redialing

Setting: Interval
1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia-tion
Sets the redialing interval	1 to 9 minutes	3 min-utes	-

2.Press the [Start] key to set the setting value.

Setting: Times
1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia-tion
Sets the number of times of redialing	0 to 15 times	3 times	-

2.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U630	Communication control procedures 1 (Message: Comm Ctrl 1)

Contents
Sets the FAX communication.

Purpose
Sets the following to correspond to field claims
Reducing the transmission time to improve the accuracy of reception when using a low quality line
Improving the accuracy of communication during the international communication

Method
1. Press the [Start] key.
2. Select the item to set.
   * : The screen for setting is displayed.

Items	Contents
TX Speed	Sets the communication starting speed.
RX Speed	Sets the reception speed.
TX Echo	Sets the waiting period to prevent echo problems at the sender.
RX Echo	Sets the reception speed.

Setting: TX Speed
Sets the transmission speed of the sender. When the destination unit has the V.34 capability, V.34 is selected for transmission regardless of this setting.

1. Select the communication speed.

Items	Contents
14400bps/V17	V.17 14400bps
9600bps/V29	V.29 9600bps
4800bps/V27ter	V.27ter 4800bps
2400bps/V27ter	V.27ter 2400bps

   * : Initial setting: 14400bps/V17
2. Press the [Start] key to set the setting value.

Setting: RX Speed
Sets the reception capacity to advise the transmitter by the DIS/NSF signal. When the destination unit has the V.34 capability, V.34 is selected for transmission regardless of this setting.

1. Select the reception speed.

Items	Contents
14400bps	V.17, V.33, V.29, V.27ter
9600bps	V.29, V.27ter
4800bps	V.27ter
2400bps	V.27ter (fallback only)

   * : Initial setting: 14400bps

2.Press the [Start] key to set the setting value.

Setting: TX Echo

Sets the time to send the DCS signal after the DIS signal is received. Execute when an error occurs with echo at the transmitter side.

1.Select the item to set.

Items	Contents
500	Sends the DCS 500 ms after receiving a DIS.
300	Sends the DCS 300 ms after receiving a DIS.

* :Initial setting: 300

2.Press the [Start] key to set the setting value.

Setting: RX Echo

Sets the time to send the NSF, CSI or DIS signal after the CED signal is received. Execute when an error occurs with echo at the receiver side.

1.Select the item to set.

Items	Contents
500	Sends the NSF, CSI or DIS 500ms after receiving the CED.
75	Sends the NSF, CSI or DIS 75ms after receiving the CED.

* :Initial setting: 75

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U631	Communication control procedures 2 (Message: Comm Ctrl 2)

Contents
Sets the FAX communication.
Purpose
Sets the transmission and reception of ECM
Sets the CED frequency

Method
1.Press the [Start] key.
2.Select the item to set.
* :The screen for setting is displayed.

Items	Contents
ECM TX	Sets ECM transmission.
ECM RX	Sets ECM reception.
CED Freq	The frequency of CED is set up.

Setting: ECM TX
Set to OFF when the reduction of transmission costs is of higher priority than image quality.
* :Do not set it to Off when connecting to the IP telephone line.

1.Select the item to set.

Items	Contents
On	ECM transmission is enabled.
Off	ECM transmission is disabled.

* :Initial setting: On
2.Press the [Start] key. Set the setting value.

Setting: ECM RX
Set to OFF when the reduction of transmission costs is of higher priority than image quality.
* :Do not set it to Off when connecting to the IP telephone line.

1.Select the item to set.

Items	Contents
On	ECM reception is enabled.
Off	ECM reception is disabled.

* :Initial setting: On
2.Press the [Start] key to set the setting value.

Setting: CED Freq

Sets the CED frequency Execute it as one of the communication accuracy improvement measures for the international communication.

1.Select the item to set.

Items	Contents
2100	2100Hz
1100	1100Hz

* :Initial setting: 2100

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U632	Communication control procedures 3 (Message: Comm Ctrl 3)

Contents
Sets the FAX communication.

Purpose
Reducing the error communication when using a low quality line
Corresponds to field claims when automatic FAX/telephone switching

Method
1.Press the [Start] key.
1.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
DIS 4Byte	Sets the DIS signal to 4 bytes.
Num OF CNG(F/T)	Sets the number of the CNG detection in the automatic FAX/telephone switching mode.

Setting: DIS 4Byte
Sets whether to send bit 33 and later bits of the DIS/DTC signal.

1.Select the item to set.

Items	Contents
On	Bit 33 and later bits of the DIS/DTC signal are not sent.
Off	Bit 33 and later bits of the DIS/DTC signal are sent.

  * :Initial setting: Off
2.Press the [Start] key to set the setting value.

Setting: Num OF CNG(F/T)
Sets the CNG detection times in the automatic FAX/telephone switching mode. Sets the line type for FAX use

1.Select the item to set.

Items	Contents
1Time	Detects CNG once.
2Time	Detects CNG twice.

  * :Initial setting: 1Time (100 V model)/2Time (Others)
2.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U633	Communication control procedures 4 (Message: Comm Ctrl 4)

Contents

Sets the FAX communication.

Purpose

Reducing the error communication when using a low quality line

Method

1. Press the [Start] key.
2. Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
V.34	Enables or disables the V.34 communication.
V.34-3429Hz	Sets the V.34 symbol speed (3429 Hz).
DIS 2Res	Sets the number of times of DIS signal reception.
RTN Check	Sets the reference for the RTN signal output.

Setting: V.34

Sets whether to enable/disable the V.34 communication individually for transmission and reception.

1. Select the item to set.

Items	Contents
On	V.34 communication is enabled for both transmission and reception.
TX	V.34 communication is enabled for transmission only.
RX	V.34 communication is enabled for reception only.
Off	V.34 communication is disabled for both transmission and reception.

* :Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: V.34-3429Hz

Sets if the V.34 symbol speed 3429 Hz is used.

1. Select the item to set.

Items	Contents
On	V.34 symbol speed 3429 Hz is used.
Off	V.34 symbol speed 3429 Hz is not used.

* :Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: DIS 2Res

Sets the number of times to receive the DIS signal to once or twice. Execute it as one of the corrective measures for transmission errors and other problems.

1. Select the item to set.

Items	Contents
Once	Responds to the first signal.
Twice	Responds to the second signal.

    * :Initial setting: Once

1. Press the [Start] key to set the setting value.

Setting: RTN Check

Sets the error line rate to be a reference to the RTN signal transmission. If transmission errors occur frequently due to the line quality, lower this setting to reduce them.

1. Select the item to set.

Items	Contents
5%	Error line rate of 5%
10%	Error line rate of 10%
15%	Error line rate of 15%
20%	Error line rate of 20%

    * :Initial setting: 15%

2. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

U634	Communication control procedures 5 (Message: Comm Ctrl 5)

Contents

Sets the maximum number of error bytes judged acceptable when receiving a TCF signal. Execute it as one of measures to ease transmission conditions if transmission errors occur.

Purpose

* :Relax the communication conditions

Setting

1.Press the [Start] key.

2.Select [TCF Check].

3.By using [◄] [►] or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
TCF Check	Sets the allowed error bytes when detecting the TCF signal	1 to 255	0

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U640	Communication time setting 1 (Message: Comm Time 1)

Contents

Sets the detection time when one-shot detection is selected for remote switching.

Sets the detection time when continuous detection is selected for remote switching.

Purpose

Sets the remote switching conditions according to the user's telephone type, preference, etc.

Method

1.Press the [Start] key.

2.Select the item to set.

3.By using [◄] [►] or the numeric keys, change the setting value.

| Items	Contents	Setting range	Initial setting
Time(One)	Sets the one-shot detection time for remote switching.	0 to 255	7 1 (New Zealand)
Time (Cont)	Sets the continuous detection time for remote switching.	0 to 255	80

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U641	Communication time setting 2 (Message: Comm Time 2)

Contents
    Sets the time-out time for the fax communication.
Purpose
    Mainly, executed to improve the accuracy of communication for international communication

Method
    1.Press the [Start] key.
    1.Select the item to set.

Items	Contents
T0 Time Out	Sets the T0 time-out time.
T1 Time Out	Sets the T1 time-out time.
T2 Time Out	Sets the T2 time-out time.
Ta Time Out	Sets the Ta time-out time.
Tb1 Time Out	Sets the Tb1 time-out time.
Tb2 Time Out	Sets the Tb2 time-out time.
Tc Time Out	Sets the Tc time-out time.
Td Time Out	Sets the Td time-out time.

Setting: T0 Time Out
    Sets the time before detecting a CED or DIS signal after a dialing signal is sent.
    Sets to prevent disconnection of a line that occurs depending on the quality of the exchange, or when the destination unit sets the auto switching function.

    1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T0 time-out time.	30 to 90 s	56 58 (100 V model)

    2.Press the [Start] key to set the setting value.

Setting: T1 Time Out
    Sets the time before receiving the correct signal after call reception.
    *This setting is usually unnecessary.

    1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T1 time-out time.	30 to 90 s	36 38 (100 V model)

    2.Press the [Start] key to set the setting value.

Setting: T2 Time Out

The T2 time-out time is specified as follows.

From CFR signal output to image data reception

From image data reception to the next signal reception

In ECM, from RNR signal detection to the next signal reception

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T2 time-out time.	1 to 255	69

2.Press the [Start] key to set the setting value.

Setting: Ta Time Out

Sets the time to start ringing for an operator through the external telephone after receiving a call in the FAX/telephone automatic switching mode. (See figure 1-3-18). If either receiving a FAX signal within this time or passing this time, the mode automatically switches to the FAX reception mode. Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Ta time-out time.	1 to 255 s	30

2.Press the [Start] key to set the setting value.

Figure 6-24 Ta/Tb1/Tb2 time-out time

Setting: Tb1 Time Out

Sets the time to start sending the ring back tone after receiving a call as a fax machine in the FAX/telephone automatic switching mode, (See figure 1-3-18). Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tb1 time-out time.	1 to 255	20

2.Press the [Start] key to set the setting value.

Setting: Tb2 Time Out

Sets the time to start ringing for an operator through the external telephone after receiving a call in the FAX/telephone automatic switching mode. (See figure 1-3-27). Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tb2 time-out time.	1 to 255	80

2.Press the [Start] key to set the setting value.

Setting: Tc Time Out

In the TAD mode, set the time to check if there are any triggers for shifting to FAX reception after a connected handset receives a call. Unless switched to FAX reception during this period, operated as a normal phone after this.
In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tc time-out time.	1 to 255 s	60

2.Press the [Start] key to set the setting value.

Setting: Td Time Out

Sets the length of time to determine silent status, one of the triggers for Tc time check.
In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call. Be sure not to set too short, otherwise the mode may be switched to fax while the unit is being used as a telephone.

1.By using [◄] [►] or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Td time-out time.	1 to 255	30 (100 V model) 6 (220-240 V model) 9 (120 V model)

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U650	Modem 1 (Message: Modem 1)

Contents
Sets the G3 cable equalizer. Sets the modem detection level.
Purpose
Adjusts the equalizer to be compatible with the line characteristics
Set to Improve the accuracy of communication when using a low quality line

Method
1. Press the [Start] key.
2. Select the item to set.

Items	Contents
Reg G3 TX Eqr	Sets the G3 transmission cable equalizer.
Reg G3 RX Eqr	Sets the G3 reception cable equalizer.
RX Mdm Level	Sets the modem detection level.

Setting: Reg G3 TX Eqr
1. Select [0dB], [4dB], [8dB] or [12dB].
   * : Initial setting: 0dB
2. Press the [Start] key to set the setting value.

Setting: Reg G3 RX Eqr
1. Select [0dB], [4dB], [8dB] or [12dB].
   * : Initial setting: 0dB
2. Press the [Start] key to set the setting value.

Setting: RX Mdm Level
1. Select [-33dBm], [-38dBm], [-43dBm] or [-48dBm].
   * : Initial setting: -43dBm
2. Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * : The screen for selecting a maintenance item No. is displayed.

U651	Modem 2
	(Message: Modem 2)

Contents

Sets the modem output level.

Purpose

Adjust to make the equalizer compatible with the line characteristics when installing the main unit

Setting

1.Press the [Start] key.

2.Select the item to set.

3.By using [◄] [►] or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Sgl LVL Modem	Sets the modem output level	-15 to 0	-10 (100 V model) -11 (220-240 V model/ 120 V model) -12 (Australia)
DTMF LEV (Cent)	DTMF output level (center value)	-15.0 to 0.0	-9 (100 V model) -8 (220-240 V model) -6 (120 V model) -7 (Australia) -8 (New Zealand)
DTMF LEV (Diff)	Sets the DTMF output level (level difference)	0 to 5.5	2 1.5 (Australia) 1 (New Zealand)

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U660	Ring setting (Message: Set Calls)

Contents
    Sets the NCU (network control unit).
Purpose
    Execute as required

Method
  1.Press the [Start] key.
  2.Select the item to set.
    * :The screen for setting is displayed.

Items	Contents
Exchange	Setting the PBX/PSTN connection
Dial Tone	Sets the PSTN dial tone detection.
Busy Tone	Sets the busy tone detection.
PBX Setting	Setting the PBX connection
DC Loop	Sets the loop current detection before dialing.

Setting: Exchange
    Selects if the FAX is connected to either a PBX or public switched telephone network.

  1.Select the item to set.

Items	Contents
PSTN	Connected to the public switched telephone network.
PBX	Connecting to the PBX

    * :Initial setting: PSTN
  2.Press the [Start] key to set the setting value.

Setting: Dial Tone
    Selects whether or not to check for a dial tone to check if the telephone is off the hook when a fax is connected to a public switched telephone network.

  1.Select the item to set.

Items	Contents
On	The dial tone is detected.
Off	The dial tone is not detected.

    * :Initial setting: On
  2.Press the [Start] key to set the setting value.

Setting: Busy Tone

Sets whether the line is disconnected immediately after a busy tone is detected, or the busy tone is not detected and the line remains connected until T0 time-out time, when a FAX signal is sent FAX transmission may fail due to incorrect busy tone detection. When setting it to OFF, this problem may be improved. However, the line is not disconnected within the T0 time-out time even if the destination line is busy.

1.Select the item to set.

Items	Contents
On	Detects the busy tone.
Off	Does not detect the busy tone.

* :Initial setting: On/Off (Australia)
2.Press the [Start] key to set the setting value.

Setting: PBX Setting

Selects the mode to connect an outside call when connected to a PBX.
*According to the type of the PBX connected, select the mode to connect an outside call.

1.Select the item to set.

Items	Contents
Flash	Flashing mode
Loop	Code number mode

* :Initial setting: Loop
2.Press the [Start] key to set the setting value.

Setting: DC Loop

Sets if the loop current is detected before dialing.

1.Select the item to set.

Items	Contents
On	Detects the loop current before dialing.
Off	Detects the loop current before dialing.

* :Initial setting: On
2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U670	List output (Message: Output List)

Contents

Outputs the list of fax communication data.

   * :Printing a list is disabled either when a job is remaining in the buffer or when [Pause All Print Jobs] is pressed to halt printing.

Purpose

Check conditions of use, settings and transmission procedures of the FAX.

Method

1.Press the [Start] key.
2.Select the item to execute.
3.Press the [Start] key.
4.Output selected list.

Items	Contents
Sys Conf Report	Prints the list of software switches, local telephone number, confidential boxes, firmware versions and other information.
Action List	Prints the list of the error logs and communication lines.
Self Sts Report	Prints the list of FAX communication settings only in the maintenance mode (self-status report).
Protocol List	Outputs a list of communication procedures.
Error List	Output the error list.
Addr List(No.)	Outputs address book in the IDs order
Addr List(Idx)	Outputs address book in the order of names.
One-touch List	Outputs a list of one-touch.
Group List	Outputs the group list.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U695	FAX function customization (Message: Customize FAX Func)

Contents

FAX package transmission is set up. Changes print size priority when receiving small size.

Purpose

Execute as required

Method

1.Select the item to set.

Items	Contents
FAX Bulk TX	FAX batch transmission is set up.
A5 Pt Pri Chg	Change of print size priority at the time of small size reception.

Setting: FAX Bulk TX

1.By using [◄] [►] keys, select [On] or [Off].

Items	Contents
On	FAX batch transmission is enabled.
Off	FAX batch transmission is disabled.

    * :Initial setting: On

2.Press the [Start] key to set the setting value.

Setting: A5 Pt Pri Chg

1.By using [◄] [►] keys, select [On] or [Off].

Items	Contents
On	At the time of A5 size reception: A5 >B5 >A4 >B4 >A3
Off	At the time of A5 size reception: A5 >A4 >B5 >A3 >B4

2.Initial setting: Off

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

U699	Software switch: Set (Message: Set Soft SW)

Contents
Sets the software switches on the FAX PWB individually.

Purpose
Change the setting when a problem such as split output of received originals occurs
  * :Since the communication performance is largely affected, normally this setting need not be changed.

Method
1.Press the [Start] key.
2.Select [SW No.].
3.Enter the desired software switch number (3 digits) using the numeric keys and press the [Start] key.

Items	Contents
SW No.	Specifies the software switch number (2 to 3 digits)

  4.Press the keys of bit 0 to 7 to switch each bit between 0 and 1.

Items	Contents
Bit	Set the software switch bit (8bit).

  5.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

List of software switches which can be configured
Communication control procedures

No.	Bit	Contents
36	7654	Coding format in transmission
	3210	Coding format in reception
37	5	33600bps/V34
	4	31200bps/V34
	3	28800bps/V34
	2	26400bps/V34
	1	24000bps/V34
	0	21600bps/V34
38	7	19200bps/V34
	6	16800bps/V34
	5	14400bps/V34
	4	12000bps/V34
	3	9600bps/V34
	2	7200bps/V34
	1	4800bps/V34

No.	Bit	Contents
38	0	2400bps/V34
41	3	FSK detection in V.8
42	4	4800 bps transmission when low-speed setting is active
	2	FIF length when transmitting DIS/DTC signal 4 times or more

Communication time setting

No.	Bit	Contents
53	76543210	T3 timeout setting
54	76543210	T4 timeout setting (auto transmission)
55	76543210	T5 timeout setting
60	76543210	Time before transmission of CNG (1100 Hz) signal
63	76543210	T0 timeout setting (manual transmission)
64	7	Phase C timeout in ECM reception
66	76543210	Timeout 1 in countermeasures against echo
68	76543210	Timeout for FSK detection start in V.8

Modem setting

No.	Bit	Contents
89	76543	RX gain adjust

NCU setting

No.	Bit	Contents
121	7654	Dial tone/busy tone detection pattern
122	7654	Busy tone detection pattern
	1	Busy tone detection in FAX/TEL automatic switching
125	76543210	Registering the access code for connection to PSTN
126	7654	Ringback tone ON/OFF cycle for the automatic FAX/ telephone switching
68	76543210	Timeout for FSK detection start in V.8

Calling time setting

No.	Bit	Contents
133	76543210	DTMF signal transmission time
134	76543210	DTMF signal pause time
141	76543210	Ringer detection cycle (minimum)
142	76543210	Ringer detection cycle (maximum)
143	76543210	Ringer ON time detection
144	76543210	Ringer OFF time detection
145	76543210	Ringer OFF time undetected

No.	Bit	Contents
147	76543210	Dial tone detection time (continuous tone)
148	76543210	Allowable dial tone interruption time
149	76543210	Time for transmitting selection signal after closing the DC circuit
151	76543210	Ringer frequency detection invalid time

U901	Clearing the counters by paper source (Message: Clr Paper FD Cnt)

Contents

Displays and clears the counts by paper source.

Purpose

Check the maintenance parts replacement timing. Executes to clear counters when replacing the maintenance parts.

Method

1.Press the [Start] key.

   * :Displays the counts by paper source.

Items	Contents
MPT	Display/clear the MP tray feed counter
Cass1	Displays/clears Cassette 1 count
Cass2 [*1]	Displays/clears Cassette 2 count
Cass3 [*2]	Displays/clears Cassette 3 count
Cass4 [*3]	Displays/clears Cassette 4 count
Dup	Displays/clears the duplex unit count

[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only

2.Select the counter to clear.

   * :Unable to clear [Cass2], [Cass3] and [Cass4]

3.Press the [Start] key to clear the counter value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U903	Clearing the jam counter (Message: Clr Paper JAM Cnt)

Contents

Displays/clears the jam counter by paper jam type.

Purpose

Execute to check the paper jam status. Executes to clear counters when replacing the maintenance parts.

Method

1. Press the [Start] key.
2. Select the item to execute.

Items	Contents
Cnt	Displaying/clearing the jam counts
Total Cnt	Displaying the accumulate jam counts

Method: Cnt

1. Select [Cnt].
   * : Number of occurrence is displayed by jam code.
     Code of no occurrence is not indicated.
2. Change the screen using the [▲] [▼] key.
3. Select [Clear] to clear the jam counts.
   * : Individual counters cannot be cleared.
4. Press the [Start] key to clear the counter value.

Method: Total Cnt

1. Select [Total Cnt].
   * : Accumulate number of occurrence is displayed by jam code.
2. Change the screen using the [▲] [▼] key.
   * : Unable to clear the accumulated jam counter values.

Completion

Press the [Stop] key.
   * : The screen for selecting a maintenance item No. is displayed.

U904	Clearing the service call error counter (Message: Clr Svc Call Cnt)

Contents
    Displays/clears the number of times of service call errors by service call error type.
Purpose
    Executes to check the service call error. Executes to clear counters when replacing the maintenance parts.

Method
    1.Press the [Start] key.
    2.Select the item to execute.

Items	Contents
Cnt	Displays/clears the service call counter.
Total Cnt	Displays accumulate service call error counts.

Method: Cnt
    1.Select [Cnt].
       * :Number of occurrence is displayed by service call error.
         Code of no occurrence is not indicated.
    2.Change the screen using the [▲] [▼] key.
    3.Select [Clear] to clear the service call error counter.
       * :Individual counters cannot be cleared.
    4.Press the [Start] key to clear the counter value.

Method: Total Cnt
    1.Select [Total Cnt].
       * :Accumulate number of occurrence is displayed by service call error.
    2.Change the screen using the [▲] [▼] key.
       * :Unable to clear the accumulated service call error counter values.

Completion
    Press the [Stop] key.
       * :The screen for selecting a maintenance item No. is displayed.

U905	Optional counter **(Message: Option Cnt)**

Contents
　　Displays the counter values of the document processor and inner finisher.
Purpose
　　Execute to check the usage status of the document processor or inner finisher.

Method
　　1.Press the [Start] key.
　　2.Select the device to check.
　　　* :Switched to the counter screen.

Items	Contents
DP	Displays the document processor count.
DF	Displays the document finisher count.

Method: DP
　　　* :Each counter is displayed.

Items	Contents
ADP	Simplex original count is displayed.
RADP	Duplex original count is displayed.

Method: DF
　　　* :Each counter is displayed.

Items	Contents
Sorter	Displays the sorter counter.
Staple	Displays the staple counter.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U906	Resetting the partial operation (Message: Reset Dis Func)

Contents
Release the service call error with partial operation.
Purpose
If the partial operation is executed with a broken cassette, etc., make sure to execute it after repairing the parts.

Method
1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Reset the partial operation.

3.Press the [Start] key to release the partial operation.
4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U908	Total counter (Message: Total Cnt)

Contents
Displays the total counter.
Purpose
Displays the total counter for check.

Method
1.Press the [Start] key.
   * :Displays the total count.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U910	Black rate data (Message: Clr Coverage Dat)

Contents

Clears the accumulated data for the print coverage per A4 size paper and its period of time (as shown on the service status page).

Purpose

Clears data as required at the time such as maintenance

Method

1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Clears the print coverage data.

3.Press the [Start] key to clear the print coverage data.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U911	Counter by media type (Message: Paper SZ Cnt)

Contents

Displays the paper feed counts by paper size.

Purpose

Displays the counts to confirm when replacing the maintenance parts .

Method

1.Press the [Start] key.
   * :Displays the paper feed counts by paper size.

Items	Contents
A4	Displays Statement feed capacity
B5	Displays B5 feed capacity
A5	Displays B5 feed capacity
Folio	Displays Folio feed capacity.
Legal	Displays Legal feed capacity
Letter	Displays Letter feed capacity
Statement	Displays Statement feed capacity
ETC	Displays paper feed capacity of Other.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U917	Read/Write Backup Data (Message: R/W Bkup Data)

Contents

Retrieves the backup data to a USB memory from the main unit, or writes the data from the USB memory to the main unit.

Purpose

Makes a back up of the main unit information, and import or export to restore the main unit information

Method

1. Turn the power switch off.
2. Insert a USB memory into the USB memory slot.
3. Turn the power switch on.
   * :Wait for about 10 seconds until the main unit recognizes a USB memory.
4. Enter maintenance mode U917.
5. Select [Export] or [Import], and press the [Start] key.

Items	Contents
Import	Imports data from the USB memory to the main unit.
Export	Retrieving data from the main unit to the USB memory.

6. Select the object item.
   * :Change the screen using the [▲] [▼] key.

Items	Contents	Depending data*
Address	Address book information	-
Job Accnt	Job accounting information	-
One Touch	One-touch key information	Address book information
User	User management information	Job accounting information
Document	Document box information	Job accounting, User information
Shortcut	Short-cut information	Job accounting, User, Document Box information
Fax Fwd	FAX forward information	Job accounting, User, Document Box information
System	System setting information	-
Network	Network setting information	-
Job Set	Job setting information	-
Printer	Printer setting information	-
Fax Set	FAX setting information	-

Items	Contents	Depending data*
Program	Program information	Information of Address book, Job accounting, User management, Document box, FAX transfer and FAX setting
Panel Set	Panel setting information	Information of Address book, Job accounting, User management, Document box, FAX transfer, FAX setting and Program

* :Since data are dependent with each other, data other than selected are also retrieved or written.

7. Select the object item.
8. Press the [Start] key. Starts reading or writing.
   * :The progress of selected item is displayed in %.
   * :When an error occurs, the operation is canceled and an error code appears.
9. [Finish] appears after normal completion.
10. When selecting [Import], turn the power switch off then on, after completing writing. Wait more than 5 seconds between the power off and on.

Error codes

Codes	Contents
e000	Unspecified error
e0001	Parameter error
e0002	Generating a dummy file has failed.
e0003	The XML file to import does not exist
e0004	The exported file does not exist
e0100 to e01ff	Error in handling addressbook
e0200 to e02ff	Error in handling One-touch
e0300 to e03ff	Error in handling user management
e0400 to e04ff	Error in handling panel program data
e0500 to e05ff	Error in handling forwarding FAX data
e0600 to e06ff	Error in handling the system configuration
e0700 to e07ff	Error in handling network parameters
e0800 to e08ff	Error in handling job accounting
e0900 to e09ff	Error in handling short-cuts
e0a00 to e0aff	Error in handling job information
e0b00 to e0bff	Error in handling FAX data
e0c00: toe0cff	Error in handling printer data
e0d00 to e0dff	Error in handling panel data
e0e00 to e0eff	Error in handling document boxes
e1000 to e1fff	Error in the device-related process
e2000 to e2fff	Error in handling SOAP IF
e3000 to e3fff	Error in handling KM-WSDL IF

Codes	Contents
e4000 to e4fff	Error in process for import (e4002) A file mandatory for importing is missing (e4008) Invalid file header
e5000 to e5fff	Error in the SOAP data rewriting process

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U920	Billing counter (Message: Chg Cnt)

Contents

Displays the billing count.

Purpose

Execute to check the current billing counts

Method

1.Press the [Start] key.

* :Switched to each display screen.

* :Change the screen using the [▲] [▼] key.

Items	Contents
Col Copy H	Color copy counts (Coverage: High)
Col Copy M	Color copy counts (Coverage: Middle)
Col Copy L	Color copy counts (Coverage: Low)
Mono Copy	Displays mono color copy count
B/W Copy	B/W copy count is displayed.
Col Prn H	Color print counts (Coverage: High)
Col Prn M	Color print counts (Coverage: Middle)
Col Prn L	Color print counts (Coverage: Low)
B/W Prn	B/W print count is displayed
B/W FAX	FAX count
Simplex	Simplex print count is displayed
Duplex	Duplex print count is displayed
Comb(Off)	Combine print counts (Off) is displayed
Comb(2in1)	Combine print counts (2in1) is displayed
Comb(4in1)	Combine print counts (4in1) is displayed

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U927	Clearing all the billing/life counters (Message: Clr Chg/Life Cnt)

Contents

Clears all charge counts and machine life counts.

Supplement

The total charge counts and the machine life counts can be cleared only once if all count values are 1000 or less.

Method

1.Press the [Start] key.

2.Select [Execute].

Items	Contents
Execute	Initializes the billing count and machine life count.

3.Press the [Start] key.

  * :Clears all charge counts and machine life counts.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U928	Machine life counter (Message: Life Cnt)

Contents

The current machine life counts is displayed.

Purpose

Executed to check the machine life count

Method

1.Press the [Start] key.

  * :The current machine life counts is displayed.

Items	Contents
Cnt	Displays the machine life count

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U930	Clear the main charger roller counts (Message: Clr Chg Cnt)

Contents

Displays and clears the current main charger roller counts.

Purpose

To verify the main charger roller counts after replacing. Also, clear the counts after replacement

Method

1.Press the [Start] key.

    * :The main charge roller counter for each color is displayed.

Items	Contents
C	The current main charger roller count for C is displayed.
M	The current main charger roller count for M is displayed.
Y	The current main charger roller count for Y is displayed.
K	The current main charger roller count for K is displayed.

Method: Clear

1.Select the item to set.

1.Select [Clear].

2.Press the [Start] key to clear the counter value.

Completion

Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

	6-190

U952	MMaintenance mode workflow (Message: Mainte Work Flow)

Contents
    Execute the maintenance items in the order of registration in the main unit or the USB memory.
Purpose
    Execute to register regular maintenance items.

Method
    1.Press the [Start] key.
    2.Select the item to execute.
      * :The screen for executing is displayed.

Items	Contents
Continue	Resume interrupted workflow.
Exec(USB)	Executes the workflow in a USB memory.
Execute	Execute the workflow saved in the main unit.
Entry(USB)	Executes the workflow in a USB memory.
Entry	Register the workflow in the main unit manually.
Log	Displays the latest workflow execution history.

Method: Continue
    1.Select maintenance item number to execute.
    2.Press the [Start] key.
      * :Selected maintenance mode is executed.

Method: Execute (USB)
    1.Check the LED display is off and turn the power switch off.
    2.Insert a USB memory into the USB memory slot.
    3.Turn the power switch on.
    4.Enter maintenance item U952.
    5.Select [Exec(USB)].
    6.Select [workflow].

Items	Contents
WorkFlowData 01 - 07	Workflow data in a USB memory

    7.Press the [Start] key.
      * :Execute the maintenance items in the order of registration in the workflow.

Method: Excute
    1.Select the place to save the data to execute.

Items	Contents
Data 1 - 6	Workflow save area in the main unit

    2.Select the item to execute.
    3.Press the [Start] key to start the processing.

Method: Entry(USB)
    1.Check the LED display is off and turn the power switch off.
    2.Insert a USB memory into the USB memory slot.

3.Turn the power switch on.
4.Enter maintenance item U952.
5.Select [Entry(USB)].
6.Select [workflow].

Items	Contents
WorkFlowData 01 - 07	Workflow data in a USB memory

7.Select the workflow save area.

Items	Contents
Data 1 - 8	Workflow save area in the main unit

8.Select [Execute].
  * :Registers the workflow in a USB memory to the main unit.

Method: Entry
1.Select [Entry].
2.Select the workflow save area.

Items	Contents
Data 1 - 8	Workflow save area in the main unit

3.Press [◄] [►] or the numeric keys to input the maintenance item No. in the workflow.

Items	Contents
Flow 1 - 14	Registered maintenance numbers

4.Press the [Start] key to set the setting value.
5.Press the [Start] key.
  * :Execute the maintenance items in the order of registration in the workflow.

e.g.
  When inserting a USB memory the following items can be registered: commands, texts and maintenance numbers (variable).
  File format: xxx.mwf

  1, SET UP, 464, 469, 410, 000, 927, 278
  2, WARRANTY, 089, 000
  3, MK-A, 930, 127, 167, 464, 469, 410, 251
  4, MK-B, 930, 464, 469, 410, 251
  5, EH SETUP, 411, 034, 246, 211

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U964	Log check

Contents
Transfer the log files save in the NAND to a USB memory.

Purpose
Transfer the log file saved in the NAND to a USB memory for investigation when a failure occurs.

Method
1. Check the LED display is off and turn the power switch off.
2. Insert a USB memory into the USB memory slot.
3. Turn the power switch on.
4. Enter maintenance item U952.
5. Select [Execute].

Items	Contents
Execute	Transfer the log file.

6. Press the [Start] key.
   * :Starts transferring the log files saved in the NAND to a USB memory.
     [Processing] is displayed. (About 3 to 5 minutes)
7. [Completed] appears after normal completion.
8. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
   * :An error code appears when there is an error.

Supplement
How to retrieve the log when the operation panel freezes
Log retrieving starts when pressing four keys on the operation panel (*, 8, 6, Clear) for 3 to 6 seconds.
The memory lamp is blinking during retrieving and turns off when completed.
The log retrieved this way can be saved in a USB memory.

Error codes

Display	Contents
No USB Storage	The USB memory is not installed
No File	No file
Mount Error	USB memory mount error
File Delete Error	Failed to delete existing files in the USB memory
Copy Error	NAND to USB memory copy failure
Unmount Error	USB memory unmount error
Other Error	Other error

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U969	Toner area code (Message: Toner Area Code)

Contents

Displays the toner area code.

Purpose

Execute to check the currently set toner area code and model code

Method

1.Press the [Start] key.

  * :Displays the toner area code and model code

Items	Contents
Area Code	Toner container area code
Model Code	Model code

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U977	Setting the data capture mode (Message: Set Data Capture)

Contents

Stores the data sent to the main unit into a USB memory.

Purpose

Store the data sent to the main unit into a USB memory to check it.

Method

1.Press the [Start] key.

2.Select [Execute].

Items	Contents
Execute	Stores data in a USB memory.

3.Press the [Start] key.

  * :When the operation is completed abnormally, an error code is displayed.

Error codes

Items	Contents
1	USB memory is broken. USB memory was disconnected during data processing or is write-protected.
4	USB memory is full.
50	Other error occurs

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U984	Developer unit number (Message: Dev No.)

Contents
    Displays the developer unit number.
Purpose
    Execute to check the developer unit number.

Method
    1.Press the [Start] key.
      * :Displays the developer unit number.

Items	Contents
C	Displays the Cyan developer unit number.
M	Displays the Magenta developer unit number.
Y	Indicates the Yellow developer unit number.
K	Displays the Black developer unit number.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U985	Developer unit history (Message: Dev History)

Contents
Displays the machine serial number and developer counter history.

Purpose
Displays the machine serial number and developer count to check.

Method
1.Press the [Start] key.
* :Select color to refer to.

Items	Contents
C	Displays the Cyan developer unit history.
M	Displays the Magenta developer unit history.
Y	Indicates the Yellow developer unit history.
K	Displays the Black developer unit history.

* :Displays the machine serial number and 3 items of the developer counter history.

Items	Contents
Machine History 1 to 3	Machine serial number history
Cnt History1 to 3	Developer counter history

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U991	Scanner counter (Message: Scanner Counter)

Contents
Displays the scanner operation counts.

Purpose
Display the number of scanner operation to check the usage status.

Method
1.Press the [Start] key.
* :Current number of operation is displayed.

Items	Contents
Copy Scan	Displays times of copy and scan operations.
Fax Scan	Displays times of FAX scan operations.
Other Scan	Displays times of other scan operations.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

(3) Maintenance modes list (35/40 ppm model)

Section	No.	Maintenance item	Outline
General	U000	Printing Maintenance Report	Printing the reports and exporting them to a USB memory
	U001	Exiting the maintenance mode	Exiting from the maintenance mode
	U002	Set Factory Default	Initializing to the factory-default setting
	U003	Setting the telephone number of the service person	Sets the telephone number of the service person.
	U004	Machine serial number	Display of the machine serial number and setting
	U010	Setting the maintenance mode ID	Setting the maintenance mode ID
	U018	Firmware self verification	Check the firmware falsification.
	U019	Firmware Version	Displays the firmware version of the PWB
Initialization	U021	Initializes Memory	Initializing the backup RAM
	U024	Formatting an HDD	Formats/configures the HDD
	U025	Firmware update (S)	Updates the firmware
	U026	Retrieve the backup data	Retrieve the backup data
Drive Paper feed Conveying Cooling	U030	Motor operation check	Drive the drive motor
	U031	Check the conveying switch	Check the conveying switch On/Off
	U032	Clutch operation check	Check the paper conveying clutch operation
	U033	Solenoid operation check	Drive the paper conveying and toner supply solenoids
	U034	Paper timing adjustment	Adjusting the leading edge timing and the center line
	U035	Folio size setting	Sets the Folio paper length and width.
	U037	Fan motor operation check	Drive each fan motor.
	U051	Registration paper loop amount adjustment	Adjusts the paper loop amount between the rollers
	U053	Adjusting the motor speed	Sets each motor's speed correction
	U059	Fan mode setting	Sets the drive mode of the conveying fan motor
Optical	U061	Lamp lighting check	Turns the exposure lamp on
	U063	Shading position adjustment	Changes the scanner shading position
	U065	Adjusting the magnification for table scanning	Adjusting the magnification for table scanning
	U066	Adjusting the table scanning timing	Adjusting the leading edge timing for table scanning
	U067	Adjusting the table scanning center line	Adjusting the center line for table scanning
	U068	DP scanning position adjustment	Adjusting the starting position for DP scanning

Section	No.	Maintenance item	Outline
Optical	U070	DP magnification adjustment	Adjusting the magnification for DP scanning
	U071	Adjusting the DP leading edge Timing	Adjusting the DP scanning timing
	U072	Adjusting the DP original center	Adjusting the center line for DP scanning
	U073	Scanner motor operation check	Move the scanner in the set condition
	U087	Setting the DP scanning position change operation	Change the scanning position as the corrective measures for the black lines
	U089	MIP-PG pattern output	Output MIP-PG pattern
	U091	White lines correction setting	Sets the white lines detection threshold
High voltage system	U100	Main high voltage adjustment	Adjust the drum surface potential
	U101	Primary transfer voltage adjustment	Sets high voltage except the main high voltage and outputs
	U106	Secondary transfer voltage adjustment	Set the secondary transfer voltage correction
	U107	Primary transfer cleaning voltage adjustment	Set the primary transfer belt cleaning voltage
	U110	Drum counter	Displays/sets the drum counter
	U117	Drum unit number	Displays the drum number
	U118	Drum unit history	Displays the drum history
	U119	Setting the drum	Sets the initial LSU light intensity
	U120	Drum drive distance counter	Displays the drum drive distance counter
	U127	Clearing the transfer count	Displaying the counts
	U128	Leading edge timing	Adjust the transfer high-voltage output ON/OFF timing
Developer system	U132	Forcible toner supply operation	Execute the toner supply in the toner control level
	U135	Checking the toner motor operation	Drives the toner motor
	U136	Toner level detection setting	Sets the number of pages printable at toner near end
	U139	Temperature, humidity	Displays the machine inside and outside humidity
	U140	Developer bias adjustment	Adjust the developer bias values or set the high altitude mode.
	U147	Setting the toner applying mode	Sets the overcharge toner removal mode
	U148	Drum refresh mode setting	Setting auto drum refresh
	U155	Toner sensor output	Displays the toner sensor output
	U156	Toner control level adjustment	Displays/adjusts the toner supply level
	U157	Developer drive time	Displays/sets the developer drive time
	U158	Developer counter	Displays/sets the developer counter

Section	No.	Maintenance item	Outline
Fuser	U161	Fuser temperature adjustment	Sets the fuser control temperature
	U167	Clearing the fuser count	Displaying/clearing the counts
	U199	Fuser temperature	Monitor the fuser temperature
Operation section / Support equipment	U200	All LEDs lighting	Light all the LEDs on the operation panel
	U201	Initializing the touch panel	Correct the X and Y axis position of the touch panel
	U203	Check DP operation	Checking the DP paper conveying operation with the DP alone
	U204	Key card/key counter setting	Key card/key counter connection setting
	U207	Operation key check	Check the operation panel key operation
	U211	Enhancement unit connection setting	Sets the connection of the enhancement units
	U221	USB host lock function setting	Sets USB Host lock function ON/OFF
	U222	Setting the IC card type	Sets the ID card type
	U223	Operation panel lock	Set On/Off of the operation unit lock
	U224	Install Original Panel Display	Changes the opening screen and the service call screen to user specified data.
	U230	Optional device serial number	Displays the optional device serial number
	U234	Setting destination for punch	Set the punch destination
	U237	Finisher eject volume limit	Sets the main tray stack capacity
	U240	Finisher operation check	Checks the drive operation
	U241	Finisher switch check	Check the switch operation
	U243	Checking the DP motor	Drive the PF motor and solenoid
	U244	DP switch check	Drive the DP sensor
Operation section / Support equipment	U245	Checking the message	Check message
	U246	Finisher adjustment	Sets the finisher adjustment value
	U247	Paper feed operation check	Drives the PF motor and clutch
Mode Setting	U250	Checking/clearing the maintenance cycle	Changes the preset value
	U251	Checking/clearing the maintenance counter	Displaying/clearing/changing the counter value
	U252	Destination	Sets the machine operation and indication depending on the specification of the destination
	U253	Switching the double/single counts	Sets the counter by color mode
	U260	Switching the timing for copy counting	Setting the count-up timing
	U265	Setting by destination	Sets the OEM code
	U271	Setting the page count unit	Set the long paper count unit

Section	No.	Maintenance item	Outline
Mode Setting	U276	Switching the copy count mode	Set the single color copy count mode
	U278	Delivery date setting	Register Delivery Date
	U284	Setting the 2-color copy	Switches the 2-color copy mode
	U285	Set Service Status Page	Setting the print coverage report output
	U323	Abnormal temperature and humidity notification setting	Switches the indication mode of the abnormal temperature and humidity detection
	U325	Paper interval setting	Sets the print interval at high coverage
	U326	Black line cleaning indication	Switch the black line cleaning guidance indication
	U327	Cassette heater control setting	Selects the cassette heater control setting
	U332	Adjusting the black coverage coefficient	Setting the coefficient of the custom size
	U341	Printer cassette setting	Sets the cassette to printer output only
	U343	Duplex priority mode	Switches the duplex printing priority mode
	U345	Setting the value for maintenance due indication	Setting the maintenance timing display
	U346	Selecting Sleep Mode	Setting the BAM related sleep mode
Image processing	U402	Adjusting the printing margins	Adjusts the scan image margins
	U403	Adjusting margins for scanning an original on the contact glass	Adjusts the margin for scanning originals
	U404	Adjusting margins for scanning an original from the document processor	Adjusts the margin for scanning originals
	U407	Adjusting the writing timing (Duplex/Reversal)	Adjusting the writing timing when duplex printing
	U410	Adjusting the halftone automatically	Acquiring the data for the automatic halftone adjustment and the ID correction
	U411	Scanner auto adjustment	Adjusting the scanner and DP automatically
	U412	Adjusting the uneven density	Corrects the LSU density unevenness
	U425	Set Target	Inputs the Lab value printed on an adjustment original
	U429	Adjusting the color balance offset	Adjusts the color balance offset
	U464	ID correction setting	Sets the ID correction
	U465	ID correction data	Displays the light intensity control value after the ID correction
	U467	Color registration correction operation setting	Sets the color registration correction
	U468	Color registration correction data	Displays the color registration correction data
	U469	Color registration adjustment	Corrects the color registration
	U470	Setting the JPEG compression rate	Sets the JPEG compression rate

Section	No.	Maintenance item	Outline
Image process-ing	U474	Checking the LSU cleaning	Sets the LSU cleaning operation check and cleaning cycle
	U485	Image process mode setting	Sets the image processing
	U486	Color/BW mode setting	Sets the image processing
	U520	TDRS setting	Checking/setting the TDRS
FAX	U600	Initialize: All Data	Initializes all data and image memory.
	U601	Initialize: Keep data	Initializing the software switches of other than the machine data
	U603	User data 1	Makes user settings to enable the use as a FAX
	U604	User data 2	Makes user settings to enable the use as a FAX
	U605	Data clear	Initializing the FAX communication data
	U610	System 1	Set the number of lines to be ignored when receiving a FAX at 100% magnification and in the auto reduction mode.
	U611	System 2	Number of adjustment lines for automatic reduction.
	U612	System 3	Setting regarding the FAX communication operation
	U620	FAX system	Sets the signal detection method for remote switching
	U625	Communication settings	Sets the auto redialing interval and the number of times of auto redialing
	U630	Communication control procedures 1	Setting the FAX communication
	U631	Communication control procedures 2	Sets the FAX communication
	U632	Communication control procedures 3	Setting the FAX communication
	U633	Communication control procedures 4	Setting the FAX communication
	U634	Communication control procedures 5	Set the acceptable error when judging the received TCF signal
	U640	Communication time setting 1	Setting the detection time by remote switching mode
	U641	Communication time setting 2	Sets the time-out time for the fax communication
	U650	Modem 1	Sets the G3 transmission cable equalizer
	U651	Modem 2	Sets the modem output level
	U660	Ring setting	Setting the NCU (network control unit)
	U670	List output	Outputting the list of the fax communication data
	U671	FAX backup data clear	Clear the FAX backup data
	U695	FAX function customization	FAX batch transmission is set up.

Section	No.	Maintenance item	Outline
FAX	U698	Setting the maintenance port	Set the port to apply
	U699	Software switch: Set	Sets the software switches individually
Others	U901	Clearing the counters by paper source	Displays/clears the counters by paper source
	U903	Clearing the jam counter	Displays/clears number of occurrence by jam trigger code
	U904	Clearing the service call error counter	Displays/clears the service call error and system error counts
	U905	Optional counter	Displaying the counts
	U906	Resetting the partial operation	Resets the partial operation
	U908	Total counter	Displays the FAX count
	U910	Black rate data	Clearing the print coverage data and its period
	U911	Counter by media type	Displays/clears the counts by media type
	U917	Read/Write Backup Data	Reading/writing the backup data to a USB memory
	U920	Billing counter	Displays the billing count
	U927	Clearing all the billing/life counters	Clearing the billing count and machine life count
	U928	Machine life counter	Displays the machine life count
	U930	Clear the main charger roller counts	Displaying/setting the counts
	U933	Setting the maintenance mode log	Sets the maintenance mode log
	U942	DP loop amount setting	Adjust the paper loop amount when using the document processor
	U952	MMaintenance mode workflow	Execute the maintenance flow with the Work-Flow data
	U964	Log check	Transfer the log files to a USB memory
	U969	Toner area code	Displays the toner area code
	U977	Setting the data capture mode	Stores the data sent to the main unit into a USB memory
	U984	Developer unit number	Displays the developer unit number
	U985	Developer unit history	Displays the developer unit number history
	U989	HDD scan disk	Execute the HDD scan disk
	U990	Clearing the scanner lighting time	Displays the accumulated CIS lighting time
	U991	Scanner counter	Displays the scanner count

(3-1) Content of the maintenance mode (30ppm model)

U000	Printing Maintenance Report (Message: Output Maintenance Report)

Contents

Prints the list of the current settings of the maintenance items, paper jam and service call error occurrences. Output the event log and service status page.
Also, sends output data to a USB memory.

Purpose

Checks the current settings of the maintenance items, paper jam and service call error occurrences.
Before initializing or replacing the backup memory, print the list of the current settings of the maintenance items to reenter the settings after initialization or replacement.

Method

1.Press the [Start] key.
2.Select the item to output.

Items	Output list
Maintenance	Maintenance mode setting list
User Status	Output User Status Page
Service Status	Output Service Status Page
Event	Output the event log report
Network Status	Output Network Status Page
All	All reports output

3.Press the [Start] key to output the list.
  * :If A4 paper is available, it is output with this size. If A4 paper is unavailable, select the paper source. Output status is displayed.

Method: when sending output data to a USB memory

1.Press the [Start] key.
2.Insert a USB memory into the USB memory slot.
3.Select the item to send.
4.Select [USB(Text)] or [USB(HTML)].

Items	Output list
Print	A report is printed.
USB(Text)	Destination: send to USB memory (text format)
USB(HTML)	Destination: send to USB memory (HTML format)

5.Press the [Start] key.
  * :The output data is sent to the USB memory.

Completion

Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

Detail of event log

Event Log

MFP
TASKalfa 406ci
(2) 2014/10/19 15:15

(3) **(4)** **(5)**
[XXXXXXX] [XXXXXXX] [XXXXXXX]

(1) Firmware version 2R6_2000.000.000 2014.09.19

(7) Paper Jam Log

#	Count.	Event Descriprions	Date and Time
12	5555555	0501.01.08.01.00	2014/02/12 17:30
11	4444444	4002.01.08.01.00	2014/02/12 17:30
10	3333333	0501.01.08.01.00	2014/02/12 17:30
9	2222222	4002.01.08.01.00	2014/02/12 17:30
8	1111111	0501.01.08.01.00	2014/02/12 17:30
7	999999	4002.01.08.01.00	2014/02/12 17:30
6	88888	0501.01.08.01.00	2014/02/12 17:30
5			2014/02/12 17:30
4			2014/02/12 17:30
3			2014/02/12 17:30
2	444444	0501.01.08.01.00	2014/02/12 17:30
1	1	4002.01.08.01.00	2014/02/12 17:30

0501.01.08.01.00
(a) (b) (c) (d) (e)

(8) Service Call Log

#	Count.	Service Code	Data and Time
8	1111111	01.6000	2014/02/12 17:30
7	999999	01.2100	2014/02/12 17:30
6	888888	01.4000	2014/02/12 17:30
5	777777	01.6000	2014/02/12 17:30
4	666666	01.2100	2014/02/12 17:30
3	555555	01.4000	2014/02/12 17:30
2	444444	01.6000	2014/02/12 17:30
1	1	01.2100	2014/02/12 17:30

(9) Maintenance Log

#	Count.	Item.	Data and Time
7	999999	01.21	2014/02/12 17:30
6	888888	01.40	2014/02/12 17:30
5	777777	01.60	2014/02/12 17:30
4	666666	01.21	2014/02/12 17:30
3	555555	01.40	2014/02/12 17:30
2	444444	01.60	2014/02/12 17:30
1	1	01.21	2014/02/12 17:30

(10) Unknown toner Log

#	Count.	Item.	Data and Time
5	1111111	01.00	2014/02/12 17:30
4	999999	01.00	2014/02/12 17:30
3	888888	01.00	2014/02/12 17:30
2	777777	01.00	2014/02/12 17:30
1	666666	01.00	2014/02/12 17:30

(11) Counter Log

(f)

J0000:	0	J4302:	0
J0100:	1	J4303:	1
J0101:	11	J4304:	11
J0104:	222	J4309:	2
J0105:	1	J9000:	1
J0106:	1	J9004:	0
J0107:	1	J9010:	1
J0110:	1	J9060:	1
J0111:	1	J9061:	2
J0211:	1	J9062:	1
J0212:	1	J9110:	1
J0213:	999	J9120:	0
J0501:	1	J9200:	1
J0502:	1	J9210:	1
J0503:	1	J9220:	2
J0504:	1		
J0508:	1	**(g)** C0000:	0
J0509:	1	C0001:	1
J0511:	1	C0002:	2
J0512:	1	C0003:	3
J0513:	1	C0004:	4
J0514:	1	C0005:	5
J0518:	1	C0006:	6
J0519:	1	C0007:	7
J1403:	1	C0008:	8
J1404:	1	C0009:	9
J1413:	1	C0010:	10
J1414:	1	C0011:	11
J1604:	1	C0012:	12
J1614:	1	C0013:	13
J4002:	1	C0014:	14
J4003:	1	C0015:	15
J4004:	1	C0016:	16
J4009:	1	C0017:	17
J4012:	1	C0018:	18
J4013:	1	C0019:	19
J4014:	1	C0020:	20
J4019:	1	C0021:	21
J4201:	1	C0022:	22
J4202:	0	C0023:	23
J4203:	1		
J4204:	1	**(h)** T00:	10
J4208:	0	M00:	20
J4209:	1	M02:	30
J4211:	11		
J4212:	222		
J4213:	1		
J4214:	2		
J4218:	1		
J4219:	2		
J4301:	1		

(6) [XXXXXXXXXX]

Figure 6-25

Description of event log

No.	Items	Contents		
(1)	System version			
(2)	System date			
(3)	Engine firmware version			
(4)	Engine boot version			
(5)	Operation panel firmware version			
(6)	Machine serial number			
(7)	Paper Jam Log	#	Count.	Event
		1 to 16 are recorded. If the past paper jam occurrence is less than 16, all of them are indicated. The oldest log is deleted when exceeding 16 events.	The total page count at the time of a paper jam.	Log code (5 types in hexa-decimal) (a) Cause of paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
		Detail of Cause of paper jam (Hexadecimal)		
		: Refer to "17-1 Paper Misfeed Detection" (See page 7-1),for the detail of Cause of paper jam. (See page 7-2)		
		(b) Detail of paper source (Hexadecimal)		
		00: MP tray 01: Cassette 1 02: Cassette 2 (paper feeder) 03: Cassette 3 (paper feeder) 04: Cassette 4 (paper feeder) 05 to 09: Reserved		
		(c) Detail of paper size (Hexadecimal)		
		00: Not specified 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 86: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E 0A: A3	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Hagaki 20: Oufuku Hagaki 21: Oficio II	22: Special 1 23: Special 2 24: A3 Wide 25: Ledger Wide 26: Full bleed paper (12 x 8) 27: 8K 28: 16K-R A8: 16K-E 32: Statement-R B2: Statement-E 33: Folio 34: Youkei type 2 35: Youkei type 4

No.	Items	Contents		
(7) cont.	Paper Jam Log	(d) Detail of paper type (Hexadecimal)		
		01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated 0F: 2nd side 10: Media 16 11: High quality	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5 1A: Custom 6 1B: Custom 7 1C: Custom 8
(8)	Service Call Log	#	Count.	Service Code
		Remembers 1 to 8 th of occurrence of self diagnostics error. If the occurrence of the previous self-diagnostic error is 8 or less, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostic error.	Self diagnostic error code (See page 7-23) Example: 01.6000 01: Self diagnostic error6000: Self diagnostic error code number
(9)	Maintenance Log	#	Count.	item
		Remembers 1 to 8 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 8, all of the unknown toner detection are logged.	Total page count at the time of the replacement of the maintenance item. The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.	Maintenance item code (1-byte value to indicate 2 items) First byte (Replacing item) 01: Toner container Second 1 byte (replacement item type) 00: Black 01: Cyan 02: Magenta 03: Yellow First byte (Replacing item) 02: Maintenance kit Second 1 byte (replacement item type) 01: MK-5195A (30ppm model) 02: MK-5195B (30ppm model) 01: MK-5205A (35ppm model) 02: MK-5205B (35ppm model) 01: MK-5215A (40ppm model) 02: MK-5215B (40ppm model)

No.	Items	Contents		
(10)	Unknown Toner Log	#	Count.	item
		Remembers 1 to 5 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 5, all of the unknown toner detection are logged.	The total page count at the time of the request of toner container replacement, when using the non-genuine toner container.	Unknown toner log code (1 byte, 2 categories) First byte (Replacing item) 01: Toner container (Fixed to 01) Second byte (Type of replacing item) 00: Black 01: Cyan 02: Magenta 03: Yellow
(11)	Counter Log Consist of three log counters of paper jams, self diagnostics errors, and maintenance replacement items.	(f) Paper jam	(g) Self diagnostic error	(h) Replacement for maintenance Items
		Indicates the log counter of paper jams depending on location. Refer to Paper Jam Log. All instances including those not having occurred are displayed.	Indicates the log counter of self diagnostics errors depending on cause. Example: C6000: 004 Self diagnostic error 6000 has happened four times.	Indicates the log counter depending on the maintenance replacing item. T: Toner container 00: Black 01: Cyan 02: Magenta 03: Yellow M: Maintenance kit 01: MK-5195A (30ppm model) 02: MK-5195B (30ppm model) 01: MK-5205A (35ppm model) 02: MK-5205B (35ppm model) 01: MK-5215A (40ppm model) 02: MK-5215B (40ppm model) Example: T00: 1 The toner container (Black) has?been replaced once. The toner replacement log is triggered by toner empty. This record may contain such a reference as the toner container is inserted twice or a used toner container is inserted.

Detail of service status page

Service Status Page

MFP
(2) 2014/10/30 15:15
TASKalfa 406ci
(3) (4) (5)
(1) **Firmware Version 2R6_2000.000.000**2014.10.30
[XXXXXXX] [XXXXXXX] [XXXXXXX]

Controller Information

Memory status

			FAX Information	
Standard Size	1.0 GB	(36) Rings (Normal)	3
Option Slot	1.0 GB	(37) Rings (FAX/TEL)	3
(7) Total Size	2.0 GB	(38) Rings (TAD)	3
		(39) Option DIMM Size	16MB

Time

(8) Local Time Zone +01:00 _Tokyo
(9) Date and Time 10/30/2014 02:33
(10) Time Server 10.183.53.13

(40) **FRPO Status**
User Top Margin A1+A2/100 0.0
User Left Margin A3+A4/100 0.0

Installed Options

(11) Paper Feeder2 Installed
(12) Paper Feeder3 Cassette(500×2)
(13) HDD Installed
(14) SD Card Not Installed
(15) SSD Not Installed
(16) Finisher 1000-Finisher
(17) Mail box Not Installed
(18) Job separator Not Installed
(19) Card Authentication Kit (B) Installed
(20) Internet FAX Kit (A) Installed
(21) Security Kit (E) Not Installed
(22) Security Kit (F) Not Installed
(23) UG-33 Installed
(24) UG-34 Installed
(25) USB Keyboard Installed
(26) USB Keyboard Type US-English
(27) Scan extension kit(A) Not Installed

Print Settings

(28) MP Tray Priority Auto Feed

e-MPS error control Y6 0

(29) **Print Coverage**

Average(%) / Usage Page(A4/Letter Conversion)

RP Code

(30) Total
K: 1.10 / 1111111.11 (41) 1234 5678 9012
C: 2.20 / 2222222.22 (42) 5678 9012 3456
M: 3.30 / 3333333.33 (43) 9012 3456 7890
Y: 4.40 / 4444444.44 (44) 3456 7890 1234
(31) Copy
K: 1.10 / 1111111.11 (45) **Altitude Adjustment**
C: 2.20 / 2222222.22 Status Normal
M: 3.30 / 3333333.33
Y: 4.40 / 4444444.44
(32) Printer
K: 1.10 / 1111111.11
C: 2.20 / 2222222.22
M: 3.30 / 3333333.33
Y: 4.40 / 4444444.44
(33) FAX
K: 1.10 / 1111111.11
(34) Period (27/10/2010 - 03/11/2010 08:40)
(35) Last Page K/C/M/Y(%) 1.00 / 2.22 / 3.33 / 4.44

1 (6) [XXXXXXXXXX]

Figure 6-26

2R4/2R5/2R6

Service Status Page

MFP
TASKalfa 406ci
Firmware Version 2R6_2000.000.000

2014/10/30 15:15

[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]

Engine Information

(46) NVRAM Version	_CI04709_CI04709
(47) FAX Slot1	2NM_1200.001.089
FAX BOOT Version	2NM_5000.001.006
FAX APL Version	2NM_5100.004.001
FAX IPL Version	2NM_5200.001.006
(48) MAC Address	00:C0:EE:D0:01:0D

Send Information

(49) Date and Time	14/03/05 15:30
(50) Address	mail@bjd.ne.jp

  1/2 (51) (52)
(53) 100/100
(54) 0/0/0/0/
(55) 0000000/0000000/0000000/0000000/0000000/0000000/0000000/
0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/0000000/
F00/U00/0/0/0/0/0/30/30/70/70/abcde/1/0/1/ (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70)
(71) 0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
(72) 0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/
0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/0000/0100/0500/1000/
(73) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/000000000000000000( )0000000000/
0000000000000000/
(74) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/0000000000
(75) 00000000000000000/00000000000000000/00000000000000000/
(76) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/0000000000000000
(77) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/000000000/
(78) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/0000000000/
(79) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/0000000000/
(80) 00000000000000000/00000000000000000/00000000000000000/
(81) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000
(82) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/0000000000/
(83) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/000000000/
(84) 00000000000000000/00000000000000000/00000000000000000/00000000000000000/00000000000000000/000000000/
(85) 12345678/11223344/00001234abcd567800001234abcd5678/01234567890123456789012345678901/0008/00/07
   12345678/11223344/00001234abcd567800001234abcd5678/01234567890123456789012345678901/0008/00/07
   12345678/11223344/00001234abcd567800001234abcd5678/01234567890123456789012345678901/0008/00/07
   12345678/11223344/00001234abcd567800001234abcd5678/01234567890123456789012345678901/0008/00/07
(86) XXXXXXX/
(87) [ABCDEFGHIJ][ABCDEFGHIJ]
   [ABCDEFGHIJ][ABCDEFGHIJ] (88) (89)
   [ABCDEFGHIJ][ABCDEFGHIJ] (90) (91)
(92) 00070107FE/0700FE00FE/00FE000100/0000000000/0000000000/0000000000/00000A010A/0A0A0A3200/0000000000/0000000000/
   0008000000/080000001D/0096009B00/9B009BFFFB/0082000000/000000001F/0000002C00/0000000000/0000000000/
(93) 3/
  0/0/12.3/56.7   (94) (95) (96) (97)
(98) 1/1/1/0/1/0/0/ 2010/12/15 12:34:56
  1/5/ (99)(100)
  1/1/ (101) (102)
(103) 1/
(104) ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/
(105) ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/ABCDEFGHIJKL/

2

[XXXXXXXXXX]

Figure 6-27

No.	Items	Contents
(1)	Firmware Version	-
(2)	System date	-
(3)	Engine firmware version	-
(4)	Engine boot version	-
(5)	Operation panel firmware version	-
(6)	Machine serial number	-
(7)	Total memory size	-
(8)	Local time zone	-
(9)	Report output date	Day/Month/Year hour : minute
(10)	NTP server name	-
(11)	Availability of the paper feed unit 2	Installed/Not Installed
(12)	Availability of the paper feed unit 3	Cassette(500-sheet×2) / Cassette(2000-sheet) / Not Installed
(13)	Availability of the optional HDD	Installed/Not Installed
(14)	Availability of the SD memory card	Installed/Not Installed
(15)	Availability of the SSD	Installed/Not Installed
(16)	Availability of the finisher	1000-sheet finisher/inner finisher/ 3000-sheet finisher/not installed
(17)	Availability of Mailbox	Installed/Not Installed
(18)	Availability of job separator	Installed/Not Installed
(19)	Availability of the ID Card Authentication Kit	Introduced/ before introduction/trial
(20)	Availability of the Internet FAX Kit(A)	Introduced/ before introduction (not indicated for 30ppm model)
(21)	Availability of the Security Kit(E)	Installed/Not Installed
(22)	Availability of the Security Kit(F)	Introduced/ before introduction (not indicated for 30ppm model)
(23)	Availability of UG-33	Introduced/ before introduction/trial
(24)	Availability of UG-34	Introduced/ before introduction (not indicated for 30ppm model)
(25)	USB keyboard connection status	Connected/Not connected
(26)	Type of the USB keyboard	US-English/US-English with Euro symbol/German France
(27)	Availability of the Scan extension kit(A)	Introduced/ before introduction/trial (not indicated for 30ppm model)
(28)	MP tray priority setting	Off/Auto/Always
(29)	Page count converted to the A4/Letter size	Print Coverage provides a close-matching reference of toner consumption and will not match the actual toner consumption.

No.	Items	Contents
(30)	Entire average coverage	Black/Cyan/Magenta/Yellow
(31)	Average coverage for copy	Black/Cyan/Magenta/Yellow
(32)	Average printer coverage	Black/Cyan/Magenta/Yellow
(33)	Average coverage for FAX	Black/Cyan/Magenta/Yellow
(34)	Cleared date and output date	-
(35)	Coverage on the last output page	-
(36)	Number of rings	0 to 15
(37)	Number of rings before automatic switching	0 to 15
(38)	Number of rings before connecting to the answering machine	0 to 15
(39)	Optional DIMM size	-
(40)	FRPO setting	-
(41)	RP code	Coding the engine firmware version and the date of the previous update.
(42)	RP code	Code the main software version and the date of the latest update.
(43)	RP code	Coding the engine firmware version and the date of the previous update.
(44)	RP code	Code the main software version and the date of the previous update.
(45)	High altitude adjustment set data	Normal/1001-2000m/2001-3000m/3001-3500m

(46)	NVRAM version	_ 1F3 1225 _ 1F3 1225
		(a)(b)(c)(d)(e)(f)
		(a) Consistency of the current firmware version and the database
		  _ (underscore): OK
		  * (Asterisk): NG
		(b) Database version
		(c) The oldest time stamp of database version
		(d) Consistency of the present software version and the ME firmware version
		  _ (underscore): OK
		  * (Asterisk): NG
		(e) ME firmware version
		(f) The oldest time stamp of the ME firmware version
		Normal if (a) and (d) are underscored, and (b) and (e) are identical with (c) and (f).

(47)	FAX firmware version	-
(48)	Mac address	-
(49)	The last sent date and time	-
(50)	Transmission address	-
(51)	Destination information	-

No.	Items	Contents
(52)	Area information	-
(53)	Margin setting	Top margin/Left margin
(54)	L parameters	Top margin integer part/Top margin decimal part/Left margin integer part /Left margin decimal part
(55)	Life counter (cassette 1)	Machine life/MP tray/Cassette/Paper feeder 1/Paper feeder 2/Paper feeder 3/Duplex
	Life counter (cassette 2)	Drum unit K/Drum unit C/Drum unit M/Drum unit Y/Primary transfer unit/Developer unit K/Developer unit C/ Developer unit M/Developer unit Y/ Maintenance kit A/Maintenance kit B
(56)	Panel lock information	F00: OFF F01: Partial lock1 F02: Partial lock2 F03: Partial lock3 F04: Full lock
(57)	USB information	U00: Not Connected U01: Full speed U02: Hi speed
(58)	Paper handling information	0: Paper source select 1: Paper source fixed
(59)	Auto cassette change	0: OFF 1: ON (Default)
(60)	Color printing double count mode	0: All single counts 3: Folio (Less than 330 mm length), Single counts
(61)	Black and white printing double count mode	0: All single counts 3: Folio (Less than 330 mm length), Single counts
(62)	Billing counts timing	0: When secondary paper feed starts 1: When the paper is ejected
(63)	Temperature (machine inside)	-
(64)	Temperature (machine outside)	-
(65)	Relative humidity (machine outside)	-
(66)	Absolute humidity (machine outside)	-
(67)	Asset Number	-
(68)	Job end judgment time-out time	-
(69)	Job end detection mode	0: Detects as one job, even if contained multiple jobs 1: Detects as individual job, dividing multiple jobs at a break in job
(70)	Prescribe environment reset	0: Off 1: On

No.	Items	Contents
(71)	Media type attributes 1 to 28 (Not used: 18, 19, 20) *: For details on settings, refer to MDAT command in "Prescribe Commands Reference Manual".	Weight settings Fuser settings 0: Light 0: High 1: Normal 1 1: Middle 2: Normal 2 2: Low 3: Normal 3 3: Vellum 4: Heavy 1 5: Heavy 2 Duplex settings 6: Heavy 3 0: Disable 7: Extra Heavy 1: Enable
(72)	IO Calibration information	K/C/M/Y
(73)	Bias Calibration information	-
(74)	Sensor initial information	-
(75)	Calibration information	-
(76)	Calibration information	-
(77)	Calibration information	-
(78)	Calibration information	-
(79)	Calibration information	-
(80)	Paper loop correction shift amount	-
(81)	Paper loop correction interval	-
(82)	Paper loop correction patch amount	-
(83)	Calibration information	-
(84)	Calibration information	-
(85)	RFID information (K,C,M,Y)	-
(86)	RFID reader/writer version	-
(87)	Optional paper feeder firmware version	-
(88)	Color table version for printer	-
(89)	Color table 2 version for printer	-
(90)	Color table version for copy	-
(91)	Color table 2 version for copy	-
(92)	Maintenance information	-
(93)	MC correction	1 to 7
(94)	Configuring the toner coverage counters	0: Full-color count display 1: Color coverage count display
(95)	Low coverage setting	0.1 to 100.0
(96)	Middle coverage setting	0.1 to 100.0
(97)	Data sanitization information	FAX Board/Main Memory/Panel Memory/SSD/Executed time 1: Success 0: Fail - : Not performed or Not installed

No.	Items	Contents
(98)	Toner low setting	0: Disabled 1: Enabled
(99)	Toner low detection level	0 to 100 (%)
(100)	Full-page print mode	0: Normal mode (Factory setting) 1: Full-page mode
(101)	Wake-up mode	0: Off (Don't wake up) 1: On (Do wake up)
(102)	Wake-up timer	Displays the wake-up time
(103)	BAM conformity mode setting	0: Non-conformity mode 1: Conformity Mode
(104)	Drum serial number	Black/Cyan/Magenta/yellow
(105)	Developer serial number	Black/Cyan/Magenta/yellow

Code conversion

A	B	C	D	E	F	G	H	I	J
0	1	2	3	4	5	6	7	8	9

U001	Exiting the maintenance mode (Message: Exit Maintenance Mode)

Contents

Exits the maintenance mode and returns to the normal copy mode.

Purpose

Exit the maintenance mode.

Method

1. Press the [Start] key.
2. The normal copy mode is entered.

U002	Set Factory Default (Message: Set Factory Default)

Contents

Sets the machine initial setting values to the factory default.

Purpose

Executes the machine initial settings when shipping from factory.

Method

1. Press the [Start] key.
2. Select [Mode1(All)].
3. Press the [Start] key.

Items	Contents
Mode1(All)	Sets the machine initial setting values to the factory default.

4. Turn the power switch off.
  * :An error code is displayed in case of the initialization error.
    When errors occur, turn the power switch off then on, and execute initialization using maintenance mode U002.
    Wait more than 5 seconds between the power off and on.

Error codes

Codes	Contents
0001	Controller (Entity error)
0002	Controller (Counter error)
0003	Controller (OS error)
0020	Engine error

2R4/2R5/2R6

U003	Setting the telephone number of the service person (Message: Set Telephone Number for Service Call)

Contents
Sets the phone number indicated at the service call error.
Purpose
Execute to set the service telephone number at the installation of the machine.

Setting
1.Press the [Start] key.
   * :Input keys are indicated on the touch panel.
2.Input telephone number (15 digits maximum).
3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U004	Machine serial number (Message: Machine Number)

Contents
Sets or displays the machine serial number.
Purpose
Checks the machine serial number
After the main/engine PWB replacement, execute if the "C0180 machine number mismatch" occurs.

Method
1.Press the [Start] key.
When the machine serial number in the engine PWB matches the one in the main PWB,

Items	Contents
Machine No.(Eng)	Displays the machine serial number.

When the machine serial number in the engine PWB does not match the one in the main PWB,

Items	Contents
Machine No.(Main)	Displays the machine serial number in the main PWB.
Machine No.(Eng)	Displays the machine serial number in the engine PWB.

Setting
Execute if the serial numbers do not match.
1.Select [Execute].
2.Press the [Start] key.
   * :The serial number writing starts.
3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U010	Setting the maintenance mode ID (Message: Set Maintenance Mode ID)

Contents
Change the maintenance mode ID for service.
Purpose
Modify maintenance mode ID for service for more security.

Method
1. Press the [Start] key.
2. Select the item to set.

Items	Contents
New ID	Enter a new 8-digit maintenance ID
New ID(Reconfirm)	Enter a new 8-digit maintenance ID (to confirm)
Initialize	Initializes the maintenance mode ID for service.

Setting: New ID
1. Select [New ID].
2. Press ten keys (0–9, *, #) to enter a new 8-digit ID.
    * :Either [*] or [#] must be included.
3. Press the [Start] key to set the setting value.
4. Select [New ID(Reconfirm)].
5. Press ten keys (0–9, *, #) to re-enter the new 8-digit ID.
6. Press the [Start] key to set the setting value.

Method: Initialize
1. Select [Initialize].
2. Press the [Start] key to initialize the maintenance mode ID.

Completion
Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

Error codes

Codes	Contents
0001	Do not include "#" or "*" in the ID.
0002	ID does not match.
0003	8-digit ID is not input

U018	Firmware self verification (Message: Check Firmware Checksum)

Contents

Verifies that the firmware is not falsified3.

Purpose

Re-calculate the checksum to verify the firmware is not falsified.

Method

1.Press the [Start] key.

Items	Contents
Expected	Displays the checksum expected value
Result	Displays the checksum calculation
Execute	Execute self-verification

2.Select [Execute].

3.Press the [Start] key.

After execution, display the checksum obtained in the [Expected].

The following appears if the verification result is illegal.

Items	Contents
f001	The expected value file does not exist
f002	Expected value file read failure
f003	Illegal data of the expected value file (not 64-byte data)
s001	Fails to obtain the checksum
NG	Expected value and checksum are different

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U019	Firmware Version (Message: Firmware Version)

Contents
 Displays the firmware version installed in each PWB.
Purpose
 Check the firmware version installed in each PWB

Method
 1.Press the [Start] key.
  * :The firmware version is displayed.
 2.Change the screen using the [Up/Down cursor] key.

Items	Contents
Main	Main firmware
MMI	Operation firmware
Panel Main	Panel firmware
Panel Boot	Panel Boot
Browser	Browser firmware
Engine	Engine firmware
Engine Boot	Engine boot
RFID	RFID
Energy-saving Micom	Energy-saving Micom firmware
Energy-saving Micom Boot	Energy-saving Micom boot
Dictionary	Dictionary firmware
Option Language	Optional language firmware
OCR	OCR dictionary firmware
HyPAS Embedded API	HyPAS Embedded API Software
Color Table1(Copy)	Color table 1 firmware (copy)
Color Table2(Copy)	Color table 2 firmware (copy)
Color Table2(Prn)	Color table 1 firmware (printer)
Color Table2(Prn)	Color table 2 firmware (printer)
PF1	Paper feeder 1 firmware
PF1 Boot	Paper Feeder 1 boot
PF2	Paper feeder 2 firmware
PF2 Boot	Paper Feeder 2 boot
DF	finisher firmware
DF Boot	finisher boot
PH	Punch firmware
PH Boot	Punch Boot
MT	mailbox Firmware

Items	Contents
MT Boot	mailbox boot
Fax APL1	Fax APL1
Fax Boot1	FAX Boot1
Fax IPL1	Fax IPL1
Fax APL2	Fax APL2
Fax Boot2	FAX Boot2
Fax IPL2	Fax IPL2
Application Name 01	Application 1 software
Application Name 02	Application 2 software
Application Name 03	Application 3 software
Application Name 04	Application 4 software
Application Name 05	Application 5 software
Application Name 06	Application 6 software
Application Name 07	Application 7 software
Application Name 08	Application 8 software
Application Name 09	Application 9 software
Application Name 10	Application 10 software
Application Name 11	Application 11 software
Application Name 12	Application 12 software
Application Name 13	Application 13 software
Application Name 14	Application 14 software
Application Name 15	Application 15 software
Application Name 16	Application 16 software

Completion

　　Press the [Stop] key.

　　　* :The screen for selecting a maintenance item No. is displayed.

U021	Initializes Memory (Message: Initialize Memory)

Contents

Initializes all settings, except those pertinent to the type of machine, namely each counter, service call error history and mode setting. Also, initializes the backup RAM according to the area specification selected in the maintenance mode U252 (Setting the destination).

Purpose

Initialize the backup data except machine settings to the factory default in the field

Method

1. Press the [Start] key.
2. Select [Execute].

Items	Contents
Execute	Initialize data according to the destination information.

3. Press the [Start] key.
    * :All data other than for adjustments is initialized by the destination setting.
4. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
    * :An error code is displayed in case of the initialization error.
    When errors occur, turn the power switch off then on, and execute initialization using maintenance mode U021.

Error codes

Items	Contents
0001	Controller (Entity error)
0002	Controller (Counter error)
0020	Engine error
0040	Scanner error

Completion

Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U024	Formatting an HDD (Message: Format HDD)

Contents

Initialize the HDD.

Purpose

Initialize the HDD when replacing the HDD in the field.

Precautions

The following settings are initialized if the HDD is initialized.

System Menu (User Management, Job Accounting, Address Book, One Touch Key, Document Box, etc.). Shortcut key, Panel program.

If executing full-format, the following installed software is deleted.

Optional language, HyPAS application (FMU, etc.), OCR dictionary software, color table.

Method

1.Press the [Start] key.

2.Select [Format].

Items	Contents
Format	Executing the HDD format

3.Select the item to execute.

Items	Contents
Full	Full format
Data	Data format (save in the application software)

4.Select [Execute].

Items	Contents
Excute	Starts operation

5.Press the [Start] key to execute the initialization.

6.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

* :Manually reinstall deleted software.
  Optional language, OCR dictionary software, (OCRDATA): Install using a USB memory.
  Install the HyPAS application (FMU, etc.) from the Application screen.
  Color table: Execute U485
* :If there is no OCR dictionary software, a warning dialog is displayed, and the OCR function is unavailable.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U025	Firmware update (S) (Message: Firm Update(Security))

Contents
　　Executes Firmware-Update from the USB memory while "Very High" is selected in the Security Level settings under the System Menu.
Supplement
　　Initiate the firmware upgrade by a service person by executing U025 while a USB memory is inserted

Method
　　1.Press the [Start] key.
　　2.Select [Execute].

Items	Contents
Execute	Updates the firmware

　　3.Press the [Start] key.
　　　* :This is not executable when a USB memory is not installed.
　　4.After normal completion, turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U026	Retrieve the backup data (Message: Pulling Backup Data)

Contents
　　Execute to retrieve backup data after replacing the main PWB.
Purpose
　　Restores the setting values backup from the HDD to the flash memory on the main PWB.

Method
　　1.Press the [Start] key.
　　2.Select [Execute].

Items	Contents
Execute	Updates the firmware

　　3.Press the [Start] key.
　　4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
　　　* :Indicates "NG" when completing abnormally.
　　Saved data:
　　U278 Delivery date setting
　　U402 margin adjustment
　　U952 Maintenance workflow data

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U030	Motor operation check (Message: Check Motor Operation)

Contents

Drive each motor.

Contents

Execute to check each motor's operation.

Method

1.Press the [Start] key.
2.Select the motor to operate.
3.Press the [Start] key.

* :Each operation starts.

Items	Contents
Feed	Operate the imaging motor.
DLP(CMY)	Operate the DLP (CMY) motor
Fuser	Operate the fuser motor
SB(CW)	Drive the SB(CW) motor
SB(CCW)	Drive the SB(CCW) motor
Belt Release	Operate the bridge motor
Bridge	Operate the belt release
Fuser Release	Operate the fuser release

* :To stop the operation, press the [Stop] key.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U031	Check the conveying switch (Message: Check Conveying Switch)

Contents

Displays the on/off status of each switch and sensor to detect paper on the paper conveying path.

Purpose

Execute to check the conveying switches and sensors are operating correctly.

Method

1. Press the [Start] key.
2. Check the switches and sensors by manually turning them on/off.
3. The switch indication is inversed when the switch is detected.

Items	Contents
Regist Sens	Display the regist sens switch state
Fuser	Displays the fuser switch status
DU Sens	Display the DU sens switch state
Bridge1 Feed	Displays the bridge 1 feed switch state
Bridge2 Feed	Displays the bridge 2 feed switch state
Exit Full	Display the exit full switch state
JobSepa Full	Display the job separator full switch state
JobSepa	Display the job separator switch state
Feed2	Displays the cassette2 feed switch state
Feed3	Displays the cassette3 feed switch state
Feed4	Displays the cassette4 feed switch state

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U032	Clutch operation check (Message:Check Clutch Operation)

Contents
   Supply power to each clutch.
Purpose
   Execute to check each clutch's operation.

Method
   1.Press the [Start] key.
   2.Select the clutch to operate.
   3.Press the [Start] key.
      * :Each operation starts.

Items	Contents
DLP	Operates the developer clutch (BK).
Regist	Operate the registration clutch
Mid Roller	Operates the middle clutch
Duplex	Operate the duplex clutch
Feed1	Operates the paper feed clutch
Motor	Operate the motor

   * :The clutch operation is available while the motor is operated.

   4.To stop the clutch drive, press the [Stop] key.

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U033	Solenoid operation check (Message: Check Solenoid Operation)

Contents

Supply power to each solenoid.

Purpose

Execute to check each solenoid's operation.

Method

1.Press the [Start] key.

2.Select the solenoid to operate.

3.Press the [Start] key.

* :Each operation starts.

* :Select the motor before checking the motor rotation.

Items	Contents
Branch Exit	Operate the feed-shift solenoid.
MPT	Operate the MP solenoid
Motor	Operate the motor

* :The solenoid operation is available while the motor is operated.

4.To stop the operation of the solenoid, press the [Stop] key.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U034	Paper timing adjustment (Message: Adjust Paper Timing Data)

Contents
    Adjust the leading edge registration or center line.
Purpose
    Executed if there is a regular error between the leading edges of the copy image and original.
    Adjusted if there is a regular error between the center lines of the copy image and original.

Method
    1.Press the [Start] key.
    2.Select the item to adjust.
      * :The screen for adjusting is displayed.

Items	Contents
LSU Out Top Full	Adjust the leading edge registration (full speed)
LSU Out Top 3/4	Adjust the leading edge registration (3/4 speed)
LSU Out Top Half	Adjust the leading edge registration (half speed)
LSU Out Left	Adjusts the center line

Adjust: LSU Out Top Full/LSU Out Top 3/4/LSU Out Top Half
    1.Select the item to adjust.
    2.Press the [System Menu] key.
    3.Press the [Start] key to output a test pattern.
    4.Press the [System Menu] key.

Items	Contents	Setting range	Initial setting	Data variation
MPT	Adjust the leading edge timing for the MP tray	-3.0 to 3.0	0	0.1mm
Cassette	Adjusts the leading edge timing for cassette feed	-3.0 to 3.0	0	0.1mm
PF[*1]	Adjust the leading edge timing for the paper feeder	-3.0 to 3.0	0	0.1mm
Duplex	Adjusting the leading edge timing when duplex copying	-3.0 to 3.0	0	0.1mm

    *1: 500 x 1 cassette only

    5.By using the [+] [-] keys or the numeric keys, change the setting value.
      For the test pattern 1, increase the value.
      For the test pattern 2, decrease the value.

* :When the setting value is increased, the image moves backward, and it moves forward when the setting value is decreased.

Center line
(within ± 1.0 mm)

Correct image

Output example 1

Output example 2
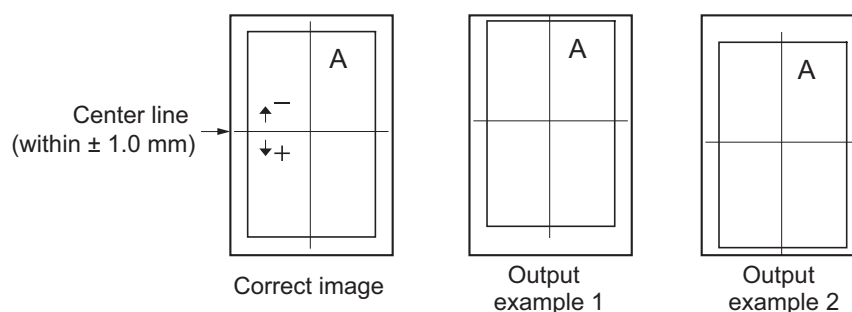
Figure 6-28

6.Press the [Start] key to set the setting value.

Precautions
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 > U066 (P.6-240) > U071 (P.6-244)

Adjustment: LSU Out Left
1.Select the item to adjust.
2.Press the [System Menu] key.
3.Press the [Start] key to output a test pattern.
4.Press the [System Menu] key.

Items	Contents	Setting range	Initial setting	Data variation
MPT	Adjust the center line for the MP tray	-3.0 to 3.0	0	0.1mm
Cassette1	Adjust the center line for cassette 1 feed	-3.0 to 3.0	0	0.1mm
Cassette2	Adjust the center line for cassette 2 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Cassette3	Adjust the center line for cassette 3 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Cassette4	Adjust the center line for cassette 4 (Optional unit) feed	-3.0 to 3.0	0	0.1mm
Duplex	Adjusting the center line when duplex copying (Back page)	-3.0 to 3.0	0	0.1mm

5.By using the [+] [-] keys or the numeric keys, change the setting value.
For the test pattern 1, increase the value.
For the test pattern 2, decrease the value.

* :When the setting value is increased, the image moves to right, and it moves to left when the setting value is decreased.

Center line
(within ± 2.0 mm)

Correct image   Output example 1   Output example 2
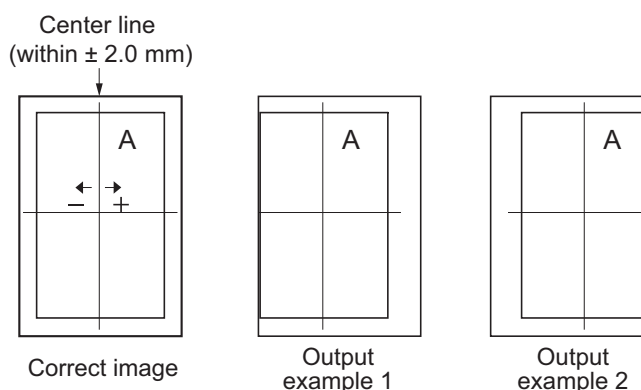
Figure 6-29

6.Press the [Start] key to set the setting value.

Precautions

Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 < U067(P.6-241) < U072(P.6-246)

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U035	Folio size setting (Message: Adjust Folio Size)

Contents

Changes the printable area when copyng with Folio paper.

Purpose

Setting the actual size of Folio to use prevents the image dropout at the trailing edge or right/left edges.

Method

1.Press the [Start] key.
2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
Length	Sets the Folio paper length.	318 to 356 (mm)	330	1(mm)
Width	Sets the Folio paper width.	200 to 216 (mm)	210	1(mm)

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U037	Fan motor operation check (Message: Check Fan Motor Operation)

Contents
    Drive each fan motor.
Contents
    Execute to check each fan motor's operation.

Method
    1.Press the [Start] key.
    2.Select the fan motor to operate.
    3.Press the [Start] key.
      * :Each operation starts.

Items	Contents
All	Operate all the fan motors
DLP	Operate the developer fan motor 1
Exit Paper	Connected to the exit fan motor
Exit Cooling	Operate the exit fan motor
LVU CL Fan	Operate the developer fan motor 2
WTNR Fan	Operates the toner suction motor
CON Fan	Operate the Controller fan motor

    * :To stop the operation, press the [Stop] key.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

	6-232

U051	Registration paper loop amount adjustment (Message: Adjust Paper Loop Amount)

Contents

Adjusts the paper loop amount.

Purpose

The leading edge of the image may drop, image position may shift irregularly or paper is folded in a Z-shape.

* :Use to check/adjust skew feed.

Method

1. Press the [Start] key.
2. Select the item to adjust.
   * :The screen for adjusting is displayed.

Items	Contents
Full	Paper loop amount adjustment at full speed
Half	Paper loop amount adjustment at half speed
3/4	Paper loop amount adjustment at 3/4 speed

Adjustment

1. Select the item to adjust.
2. Press the [System Menu] key.
3. Place an original and press the [Start] key to make a test copy.
4. Press the [System Menu] key.
   * :The screen for adjusting is displayed.

Items	Contents	Setting range	Initial setting	Data variation
MPT	MPT loop amount adjustment	-30 to 20	-4/-3[*1] -3/-2[*1] -3	1mm
Cassette1	Cassette 1 loop amount adjustment	-30 to 20	-4/-3[*1] -3/-2[*1] -3	1mm
PF	PF (Cassette2,3,4) loop amount adjustment	-30 to 20	4 4/5[*1] 4	1mm
Duplex	Duplex loop amount adjustment	-30 to 20	-6/-5[*1] -5/-3[*1] -4	1mm

*1: 40 ppm model

5.By using the [+] [-] keys or the numeric keys, change the setting value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.
  * :When the setting value is increased, the paper loop amount increase, and it decreases when the setting value is decreased.

Original   Copy   Copy
example 1   example 2
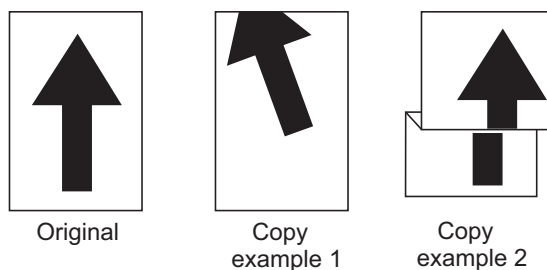
Figure 6-30

6.Press the [Start] key to set the setting value.

Completion
   Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U053	Adjusting the motor speed (Message:Adjust Motor Speed)

Contents
Execute the motor speed fine tuning.
Purpose
No need to change the basic settings. Change the set value when an image failure occurs.

Method
1.Press the [Start] key.
2.Select the item to adjust.
  * :The screen for adjusting is displayed.

Items	Contents
Full	Full speed setting
Half	Half speed setting
3/4	3/4 speed setting

Setting
1.Select the item to adjust.
  * :The screen for adjusting is displayed.

Items	Contents	Setting range	Initial setting	Data varia-tion
Drum(K)	Adjusting the drum motor(BK)	-5000 to 5000	0/0/0	-
Drum(CMY)	Adjusting the drum motor(M/C/Y)	-5000 to 5000	0/0/0	-
Drum Mono(K)	Adjust the drum motor (K) at the time of monochrome printing.	-5000 to 5000	0/0/0	-
Dev(K)	Adjusting the developer motor(BK)	-5000 to 5000	0/0/0	-
Dev(CMY)	Adjusting the developer motor(M/C/Y)	-5000 to 5000	0/0/0	-
Fixing	Adjusting the fuser motor(FUM)	-5000 to 5000	0/0/0	-
Trans Belt	Adjusting the transfer belt motor	-5000 to 5000	0/0/0	-
SB	Adjusts the DP feedshift motor (DPSPM) rotation	-5000 to 5000	0/0/0	-
SB Reverse	Adjusts the DP feedshift motor (DPSPM) reverse rotation	-5000 to 5000	0/0/0	-
Bridge1	Adjusting the BR conveying motor (BRCM)	-5000 to 5000	0/0/0	-
PF2	Adjusting the PF paper feed motor (PFPFM)	-5000 to 5000	0/0/0	-
PF3	Adjusting the PF paper feed motor (PFPFM)	-5000 to 5000	0/0/0	-

2.By using the [+] [-] keys or the numeric keys, change the setting value.
3.Press the [Start] key to set the setting value.
Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U059	Fan mode setting (Message: Set Fan Mode)

Contents

Sets the conveying fan motor drive mode during paper conveying.

Purpose

A fan is added in the conveying unit so that the leading edge of paper is conveyed along with the conveying path to prevent paper creases.

Method

1.Press the [Start] key.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Interval Cycle	Changes the fan control timing cycle.	0 to 10000	0	Sheet

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U061	Lamp lighting check (Message: Check Lamp ON)	30/40ppm mod- els only

Contents

Turns the exposure lamp on.

Purpose

Light the exposure lamp to confirm.

Method

1.Press the [Start] key.

2.Select the item to operate.

Items	Contents
CCD	Turns the exposure lamp on
CIS	Turn the CIS lamp on (when the simultaneous duplex scanning document processor is installed)

3.Press the [Start] key. Lamps are lit.

* :Press the [Stop] key to turn the lamp off.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U063	Shading position adjustment (Message: Adjust Shading Position)

Contents
Changes the scanner shading position.

Purpose
Execute if the vertical white lines appears on the image and they are not improved after cleaning the shading plate, namely there are scratches or dirt inside the shading plate.
By changing the shading position, shading is available where there is no influence of dirt or scratch of the shading plate.

Setting
1.Press the [Start] key.
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Position	Changes the scanner shading position	0 to 18	0	0.091mm

   * :If the set value is increased, the shading position moves toward the machine left side and toward the right side if the value is reduced.

3.Press the [Start] key to set the setting value.

Precautions
Test copy of the original is available by pressing the [System Menu] key as interruption copy mode when executing this maintenance mode.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U065	Adjusting the magnification for table scanning (Message: Adjust Scanner Motor Speed)

Contents

Adjust the magnification in the main and sub scanning direction of the table scanning.

Purpose

Adjusts the magnification in the main and sub scanning direction of the table scanning if the above incorrect

Precautions

The magnification adjustment in the main scanning direction could cause black streaks depending on the content of the original document.

Adjust the magnification of the scanner in the following order.

U065(main scanning direction)(P.6-238)>U065((sub scanning direction)(P.6-238)

Method

1.Press the [Start] key.

2.Press the [System Menu] key.

3.Place an original and press the [Start] key to make a test copy.

4.Press the [System Menu] key.

5.Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data varia- tion
Main Scan	Scanner magnification in the main scan- ning direction	-15 to 15	0	0.10%
Sub Scan	Adjusts scanner magnification in the sub- scanning direction	-25 to 25	0	0.10%

Adjustment: Main Scan

1.By using the [+] [-] keys or the numeric keys, change the setting value.

For the copy example 1, increase the value.

For the copy example 2, decrease the value.

* :When the setting value is increased, the image widens, and it narrows when the setting value is decreased.

Original　　Copy example 1　　Copy example 2

Figure 6-31

2.Press the [Start] key to set the setting value.

Adjustment: Sub Scan

    1.By using the [+] [-] keys or the numeric keys, change the setting value.

      For the copy example 1, increase the value.

      For the copy example 2, decrease the value.

     * :When the setting value is increased, the image get longer, and it shortens when the setting value is decreased.

Original   Copy example 1   Copy example 2
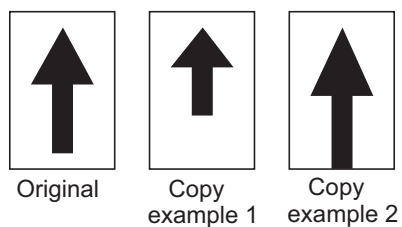
Figure 6-32

    2.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

     * :The screen for selecting a maintenance item No. is displayed.

U066	Adjusting the table scanning timing (Message: Adjust Table Leading Edge Timing)

Contents

Adjusts the leading edge timing for the table scanning.

Purpose

Executed if there is a regular error between the leading edges of the copy image and original.

Adjustment

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Place an original and press the [Start] key to make a test copy.
4. Press the [System Menu] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	Adjusts the scanner leading edge margin.	-45 to 45	0	0.085 mm
Rotate	Scanner leading edge registration (rotate copying)	-45 to 45	0	0.085 mm

6. By using the [+] [-] keys or the numeric keys, change the setting value.

   For the copy example 1, increase the value.

   For the copy example 2, decrease the value.

   * :When the setting value is increased, the image moves forward, and it moves backward when the setting value is decreased.

Leading edge registration of the copy image (+1.0/-1.5 mm or less)

Original Copy example 1 Copy example 2
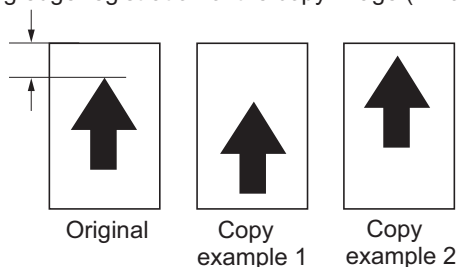
Figure 6-33

7. Press the [Start] key to set the setting value.

Precautions

Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.

U034 (P.6-228) > U065 (P.6-238) > U066

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U067	Adjusting the table scanning center line (Message: Adjust Table Center)

Contents
Adjusts the center line for the table scanning.
Purpose
Adjusted if there is a regular error between the center lines of the copy image and original.

Adjustment
1.Press the [Start] key.
2.Press the [System Menu] key.
3.Place an original and press the [Start] key to make a test copy.
4.Press the [System Menu] key.
5.Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	Adjusts the scanner center line	-40 to 40	0	0.085 mm
Rotate	Scanner center line (rotate copying)	-40 to 40	0	0.085 mm

1.By using the [+] [-] keys or the numeric keys, change the setting value.
  For the copy example 1, decrease the value.
  For the copy example 2, increase the value.
  * :When the setting value is increased, the image moves to left, and it moves to right when the setting value is decreased.

Center line of the copy image (within ± 2.0 mm)

Original   Copy example 1   Copy example 2
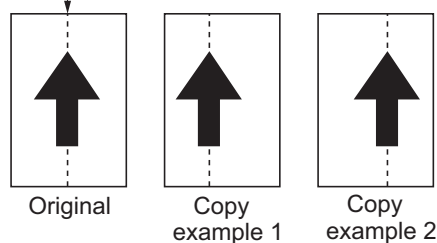
Figure 6-34

2.Press the [Start] key to set the setting value.

Precautions
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034(P.6-228) > U065(P.6-238) > U067

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U068	DP scanning position adjustment (Message: Adjust DP Scan Position)

Contents

Adjusts the starting position for scanning originals from the DP.

Execute test copy at the four scanning positions after adjustment.

Purpose

Adjust if the image fogging occurs because the scanning position is not proper when the DP is used

* :Execute U071 to adjust the timing of the DP leading edge when the scanning position is changed.

Method

1. Press the [Start] key.
2. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
DP Read	Adjusts the starting position for scanning originals.	-33 to 33	0	0.158 mm
Black Line	Adjusts the scanning position for the test copy originals.	0 to 3	0	-

Adjustment: DP Read

1. Select [DP Read].
2. By using the [+] [-] keys or the numeric keys, change the setting value.
   * :When the setting value is increased, the image moves backward, and it moves forward when the setting value is decreased.
3. Press the [Start] key to set the setting value.

Adjustment: Black Line

1. Select [Black Line].
2. By using the [+] [-] keys or the numeric keys, change the setting value.
3. Press the [Start] key to set the setting value.
4. Set the original (the one of which density is known) in the DP and press the [System Menu] key.
5. Press the [Start] key to execute the test copy.
6. Perform the test copy at each scanning position with the setting value from 0 to 3 and check that no black line appears and the image is normally scanned.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U070	DP magnification adjustment (Message: Adjust DP Motor Speed)

Contents

Adjusting the magnification for DP scanning.

Purpose

Adjusted if the magnification is incorrect in the auxiliary scanning direction when the DP is used

Adjustment

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * :Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data varia-tion
Sub Scan (F)	Adjusting the magnification for table scanning	-25 to 25	-	0.1 %
Sub Scan (B)	Adjusts the 2nd side magnification in the sub scanning direction when duplex scanning	-25 to 25	-	0.1 %
Sub Scan (CIS)	Adjusts the 2nd side magnification in the sub scanning direction when duplex scanning (CIS)	-25 to 25	-	0.1 %
Duplex 1side	Adjusts the 1st side magnification in the sub scanning direction when duplex scanning (CCD)	-25 to 25	-3	0.1 %

6. By using the [+] [-] keys or the numeric keys, change the setting value.
   For the copy example 1, increase the value.
   For the copy example 2, decrease the value.
   * :When the setting value is increased, the image get longer, and it shortens when the setting value is decreased.

Original   Copy example 1   Copy example 2
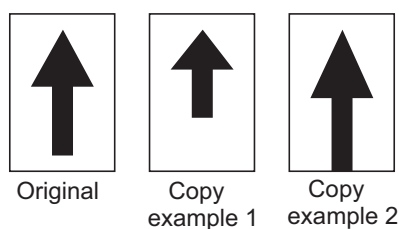
Figure 6-35

7. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U071	Adjusting the DP leading edge Timing (Message: Adjust DP Leading Edge Timing)

Contents

Adjusts the DP original scanning timing.

Purpose

Adjusted if there is a regular error between the leading or trailing edges of the original and the copy image when the DP is used

Method

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * : Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu] key.
5. Select the item to adjust.

Paper reversing scanner

Items	Contents	Setting range	Initial setting	Data variation
Front Head	Leading edge registration. (Front page)	-32 to 32	0	0.245mm
Front Tail	Trailing edge registration. (Front page)	-32 to 32	0	0.245mm
Back Head	Leading edge registration. (Back page)	-32 to 32	0	0.245mm
Back Tail	Trailing edge registration. (Back page)	-32 to 32	0	0.245mm

Simultaneous duplex scanning machine

Items	Contents	Setting range	Initial setting	Data variation
Front Head	Leading edge registration. (Front page)	-30 to 30	0	0.2644mm
Front Tail	Trailing edge registration. (Front page)	-30 to 30	0	0.2644mm
Back Head	Leading edge registration. (Back page)	-30 to 30	0	0.2644mm
Back Tail	Trailing edge registration. (Back page)	-30 to 30	0	0.2644mm
CIS Head	Adjusts the leading edge timing for the CIS scanning	-30 to 30	0	0.266mm
CIS Tail	Adjusts the trailing edge timing for the CIS scanning	-30 to 30	0	0.266mm

Adjustment: Front Head/Back Head/CIS
    1.By using the [+] [-] keys or the numeric keys, change the setting value.
      For the copy example 1, increase the value.
      For the copy example 2, decrease the value.
      * :When the setting value is increased, the image moves forward, and it moves backward
        when the setting value is decreased.

Original   Copy example 1   Copy example 2
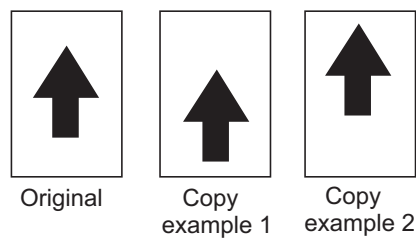
Figure 6-36

    2.Press the [Start] key to set the setting value.

Precautions
    Check the 2nd side after adjusting the 1st side. Adjust if necessary.
    Check the copy image after the adjustment. If the image is still incorrect, adjust the following in
    the maintenance mode.
    U034(P.6-228) > U071

Adjustment: Front Tail/Back Tail/CIS Tail
    1.By using the [+] [-] keys or the numeric keys, change the setting value.
      For the copy example 1, increase the value.
      For the copy example 2, decrease the value.
      * :When the setting value is increased, the image get longer, and it shortens when the setting
        value is decreased.

Original   Copy example 1 Copy example 2
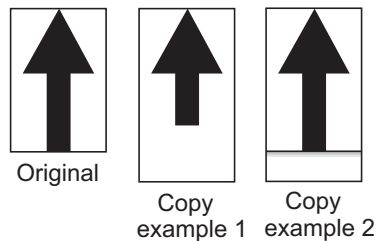
Figure 6-37

    2.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U072	Adjusting the DP original center (Message: Adjust DP Original Center)

Contents

Adjusts the DP original center line.

Purpose

Adjusted if there is a regular error between the center lines of the original and the copy image when the DP is used

Adjustment

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
   * :Check the duplex scanning by setting [Duplex] when test copying.
4. Press the [System Menu] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
Front	DP center line. (Front page)	-40 to 40	-	0.085 mm
Back	DP center line. (Back page)	-40 to 40	-	0.085 mm
CIS	Adjusts the DPCIS center line	-20 to 20	-	0.085 mm

6. By using the [+] [-] keys or the numeric keys, change the setting value.

   For the copy example 1, increase the value.

   For the copy example 2, decrease the value.

   * :When the setting value is increased, the image moves to right, and it moves to left when the setting value is decreased.

Original   Copy example 1   Copy example 2
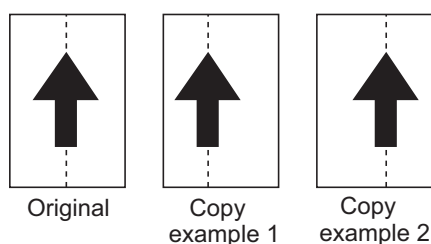
Figure 6-38

7. Press the [Start] key to set the setting value.

Precautions

Check the 2nd side after adjusting the 1st side. Adjust if necessary.
Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
U034 (P.6-228) > U065 (P.6-238) > U067 (P.6-241) > U072

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U073	Scanner motor operation check (Message: Check Scanner Motor Operation)

Contents

Simulate the scanner operation in any condition.

Purpose

Execute the scanner operation to check the abnormal operation and dust adhesion on the slit glass.

Method

1. Press the [Start] key.
2. Select the item to execute.

Items	Contents
Scanner Motor	Execute the scan operation
Home Position	Home positioning operation
Dust Check	Check if there is dust by turning the exposure lamp on
DP Reading	scan position operation for the document processor

3. Select [Execute].
4. Press the [Start] key.
   * :Scanning starts with the condition specified.
5. To stop the operation, press the [Stop] key.

Setting: Scanner Motor

1. Select the item to set.
2. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Zoom	Magnification	25 to 400 (%)	100	1%
Size	Original size	100 to 10200	10200	100
Lamp	Turning the exposure lamp on/off	0: Off 1: On	1: On	-

Paper size corresponding to each set value

setting	Destination	setting	Destination	setting	Destination
4300	B5	6100	B5R	8600	B4
5000	A4	6600	8 1/2"×11"	9000	11"×15"
5000	A5R	7100	A4R	10000	A3
5100		7800	Folio	10200	11"×17"
5100	5 1/2"×8 1/2"	8400	8 1/2"×14"		

3. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U087	Setting the DP scanning position change operation (Message: Set DP Scanning Position Operation)

Contents

If dust can be detected by comparing the original trailing edge scanned data with the scanned data after the original feed, change the original scan position next time.

Also, reduce the black lines by image correction.

Purpose

Use as the corrective measures for the black lines appearing with dust on the original scanning position when using the document processor.

Setting

1. Press the [Start] key.
2. Select the item to set.
3. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Front	Set the 1st side scanning data threshold	0 to 128	48
Back	Sets the 2nd side scanning data threshold when duplex scanning	0 to 128	48
Black Line	Initialize the original scanning position	-	-

* :If the set value is reduced, dark density image is regarded as dust and dust detection becomes more likely.

If the set value is increased, dust detection becomes less likely.

Method: Black Line

1. Select [Clear].
2. Press the [Start] key.
   * :Original scan position returns to the initial line.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U089	MIP-PG pattern output (Message: Output MIP-PG Pattern)

Contents

Select and output the MIP-PG pattern generated by the main unit.

Purpose

When adjusting the image scanning items, execute to check the machine status except the scanner section using the MIP-PG pattern output without image scanning process.

Method

1.Press the [Start] key.

2.Select the MIP-PG pattern to output

Items	Contents	
Printer Gray	For grayscale level check	
White	For drum quality check (Blank PG)	
White(Color)	Color for drum quality check (Blank PG)	
Gray(C)	For drum quality check (Cyan PG)	
Gray(M)	For drum quality check (Magenta PG)	

Items	Contents	
Gray(Y)	For drum quality check (Yellow PG)	
Gray(K)	For drum quality check (Gray PG)	
Color Belt	PG for the developer status and engine ID check (four color PG)	
Color Gradation	Printing 64 grayscales to check 4 colors	

Sample Set	Outputs the following output patterns for the long life unit warranty application
	    PG for the developer status and engine ID check (four color PG)
	    For drum quality check (Yellow PG)
	    For drum quality check (Cyan PG)
	    For drum quality check (Magenta PG)
	    For drum quality check (Gray PG)	

3.Press the [System Menu] key.
4.Press the [Start] key to output a MIP-PG pattern.
5.Press the [System Menu] key.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U091	White lines correction setting (Message: Set White Line Correction)

Contents

Set the error detection threshold for white lines correction and display the abnormal pixel count.

Purpose

Execute when replacing the CIS, DP main PWB or CIS roller.

Setting

1.Press the [Start] key.

2.Select the item to set.

3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Coefficient(R)	Displays the red pixel error counts	0 to 8191	-	-
Coefficient(G)	Displays the green pixel error counts	0 to 8191	-	-
Coefficient(B)	Displays the Blue pixel error counts	0 to 8191	-	-
Threshold(R)	Sets the red error detection threshold	0 to 1023	112	-
Threshold(G)	Sets the green error detection thresh-old	0 to 1023	112	-
Threshold(B)	Sets the blue error detection threshold	0 to 1023	112	-
Thresh-old(Abnormal)	Sets the abnormal pixel threshold	0 to 8191	75	-
Mode	Set the white lines correction mode	0: No correction 1: Correction 2: Test mode	0	-
Execute	Execute retaining the white reference data	-	-	-

* :Normally do not change the threshold from the initial value of 112.

Increase the value if white lines appear while the CIS roller/glass is not dirty.

Reduce the set value if thin lines disappear depending on the original to use.

Set in the range of 50 to 200. (In the case of out of range, it may affect the image output)

4.Press the [Start] key to set the setting value.

Method: Execute

1.Select [Execute].

2.Press the [Start] key.

   * :Starts retaining the white reference data.

3.Press the [System / Menu] key.

4.Set the gray original face-down on the document processor and set paper in the cassette.

   * :Match the original and paper size.

5.Press the [Start] key.

   * :Outputs 2-sheet test pattern.

     "1st sheet: black band of about 60mm width

     2nd sheet: blank (or may be gray band of about 60mm width)"

6.Setting is correctly complete if no vertical line is observed on both sheets.

  If a vertical black line appears on blank paper or a gray band or vertical white line appear on the black band, execute the white line correction again after cleaning the CIS roller or CIS glass.

  White line correction is complete if both sheets have vertical black lines or vertical white lines. However, check the engine since there are factors of vertical streaks at the engine Side.

7.Press the [System / Menu] key.

   * :Mode is set to [1].

How to check the test copy

Blank paper	Black band	Factor	Corrective action
No lines	No lines	-	Completion
Black line	White lines	CIS roller/glass contamination	Execute the U091 CIS roller/glass contamination
Black line	No lines	Engine PWB	Check engine PWB after completing U091
No lines	White lines	Engine PWB	Check engine PWB after completing U091

Completion

  Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U100	Main high voltage adjustment (Message: Adjust Main High Voltage Output)

Contents
Adjust the surface potential by changing the voltage impressed to the main charge roller.
Purpose
Change the set value to adjust the image when an image failure (background image) occurs.

Method
1.Press the [Start] key.
2.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
Adj AC Bias[*1]	Adjust the main charge AC bias of each color
Set AC Auto Adj[*1]	Sets the automatic AC bias adjustment
Set DC Bias	Displays the main charge DC bias correction value for each color.
Adj DC Bias	Adjust the surface potential additional value
Set DC Bias Base	Displays the main charge DC bias base value for each color. (Adjusted value before correction)
Chk Current	Displays the in-rush current
Set AC Gain[*1]	Set the AC Gain
Set Main HV[*2]	Sets the main high voltage mode
MCH[*2]	Set MC correction

[*1]: 40 ppm models only, [*2]: 35 ppm models only

Setting: Adj AC Bias
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.
  * :When the setting value is increased, the image get thinner, and it gets thicker when the setting value is decreased.
    Set value is variable depending on the environment.

Items	Contents	Setting range	Initial setting
AC Bias(C)	Cyan main charge AC bias	0 to 2300	-
AC Bias(M)	Magenta main charge AC bias	0 to 2300	-
AC Bias(Y)	Yellow main charge AC bias	0 to 2300	-
AC Bias(K)	Black main charge AC bias	0 to 2300	-

3.Press the [Start] key to set the setting value.

Setting: Set AC Auto Adj

1.Select the item to set.

Items	Contents
On	Adjust automatically
Off	Not adjusted automatically

     * :Initial setting: On

2.Press the [Start] key to set the setting value.

Setting: Set DC Bias

1.Displays the current setting.

Items	Contents
DC1 Bias(C)	Cyan main charge DC bias correction value (Full speed)
DC1 Bias(M)	Magenta main charge DC bias correction value (Full speed)
DC1 Bias(Y)	Yellow main charge DC bias correction value (Full speed)
DC1 Bias(K)	Black main charge DC bias correction value (Full speed)

[1]:35ppm model, [2]: 40ppm model

Setting: Adj DC Bias
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.
   * :When the setting value is increased, the image get thinner, and it gets thicker when the setting value is decreased.

Items	Contents	Setting range	Initial setting
DC2 Bias(C)	Cyan main charge DC bias additional value (Full speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias 3/ 4(C)	Cyan main charge DC bias additional value (3/4 speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias Half(C)	Cyan main charge DC bias additional value (Half speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias(M)	Magenta main charge DC bias additional value (Full speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias 3/ 4(M)	Magenta main charge DC bias additional value (3/4 speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias Half(M)	Magenta main charge DC bias additional value (Half speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias(Y)	Yellow main charge DC bias additional value (Full speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias 3/ 4(Y)	Yellow main charge DC bias additional value (3/4 speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias Half(Y)	Yellow main charge DC bias additional value (Half speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias(K)	Black main charge DC bias additional value (Full speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias 3/ 4(K)	Black main charge DC bias additional value (3/4 speed)	-1000?1000 *1 -500?500 *2	0
DC2 Bias Half(K)	Black main charge DC bias additional value (Half speed)	-1000?1000 *1 -500?500 *2	0

*1: 35 ppm model only, *2: 40 ppm model
3.Press the [Start] key to set the setting value.

Setting: Set DC Bias Base

1.Displays the current setting.

Items	Contents
DC1 Bias Base(C)	Cyan main charge DC bias base value (Full speed)
DC1 Bias Base 3/4(C)	Cyan main charge DC bias base value (3/4 speed)
DC1 Bias Base Half(C)	Cyan main charge DC bias base value (Half speed)
DC1 Bias Base(M)	Magenta main charge DC bias base value (Full speed)
DC1 Bias Base 3/4(M)	Magenta main charge DC bias base value (3/4 speed)
DC1 Bias Base Half(M)	Magenta main charge DC bias base value (Half speed)
DC1 Bias Base(Y)	Yellow main charge DC bias base value (Full speed)
DC1 Bias Base 3/4(Y)	Yellow main charge DC bias base value (3/4 speed)
DC1 Bias Base Half(Y)	Yellow main charge DC bias base value (Half speed)
DC1 Bias Base(K)	Black main charge DC bias base value (Full speed)
DC1 Bias Base 3/4(K)	Black main charge DC bias base value (3/4 speed)
DC1 Bias Base Half(K)	Black main charge DC bias base value (Half speed)

[1]: 35 ppm model only, [2]: 40 ppm model

Refer: Chk Current

1.Displays the current setting.

Items	Contents
C	Cyan inflow current
M	Magenta inflow current
Y	Yellow inflow current
K	Black inflow current

Setting: Set AC Gain

1.Select the item to set.

Items	Contents
Auto	Automatic environmental setting (default)
Mode1	In case of C2201/C2202 errors occurrence (multiplication value 0.95)
Mode2	If the horizontal lines appear in the main charge roller circumference interval (Multiplication value 1.05)
Mode3	In case of the level where the C2201/C2202 errors occur and horizontal lines in the main charge roller circumference interval are pointed out in

 * :Initial setting: Auto

2.Press the [Start] key to set the setting value.

Setting: Set Main HV

1.Select the item to set.

Items	Contents	Setting range	Initial setting
White Line	Switch On/Off the white streak prevention control	On/Off	Off
Agent Time	Aging time by surface speed gap	0 to 255	0

2.Press the [Start] key to set the setting value.

Setting: MCH

1.Select the item to set.

Items	Contents	Setting range	Initial setting
Value	MCH correction	1 to 7	4

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U101	Primary transfer voltage adjustment (Message: Adjust 1st Transfer Voltage Output)

Contents
　　Set the primary transfer control voltage
Purpose
　　Change setting if a failure such as faint image, etc. occurs.

Method
　　1.Press the [Start] key.
　　2.Select the item to set.
　　　* :The screen for setting is displayed.

Items	Contents
Normal	Set the primary transfer voltage
Add Color	Sets 2nd side additional value
Add Color 2nd	Sets the 2nd side additional value (in reference to the 1st side additional value)
Surround Correct	Setting the environmental correction

Setting: Normal
　　1.Select the item to set.
　　2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Yellow primary transfer voltage (full speed)	0 to 400	70 [*1] 110 [*2]	-
Half	Yellow primary transfer voltage (half speed)	0 to 400	45 [*1] 65 [*2]	-
3/4	Yellow primary transfer voltage (3/4 speed)	0 to 400	58 [*1] 88 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model
3.Press the [Start] key to set the setting value.

Setting: Add Color

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
C	Sets the additional value (Cyan)	-200 to 200	-5 [*1] 0 [*2]	-
M	Sets the additional value (Magenta)	-200 to 200	-5 [*1] 0 [*2]	-
Y	Sets the additional value (Yellow)	-200 to 200	0 [*1] 0 [*2]	-
K	Sets the additional value (Black)	-200 to 200	20 [*1] 0 [*2]	-
B/W	Monochrome mode (toner applying amount)	-200 to 200	0 [*1] 0 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

    3.Press the [Start] key to set the setting value.

Setting: Add Color 2nd

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
C	2nd side additional value (Cyan)	-200 to 200	0 [*1] 0 [*2]	-
M	2nd side additional value (Magenta)	-200 to 200	0 [*1] 0 [*2]	-
Y	2nd side additional value (Yellow)	-200 to 200	0 [*1] 0 [*2]	-
K	2nd side additional value (Bllack)	-200 to 200	0 [*1] 0 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

    3.Press the [Start] key to set the setting value.

Setting: Surround Correct

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Mode	Environmental correction (On/Off)	0: On 1: Off	0: On	-
Rev Bias	Reverse bias cleaning	-200 to 200	30	-
High Altitude	High altitude correction control (2nd side correction)	-200 to 200	85	-

    [*1]:35ppm model, [*2]: 40ppm model

    3.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U106	Secondary transfer voltage adjustment (Message: Adjust 2nd Transfer Roller Output)

Contents
Set the secondary transfer control voltage.
Purpose
Change setting if a failure such as faint image, etc. occurs.
Method
1.Press the [Start] key.
2.Select the item to set.
 * :The screen for setting is displayed.

Items	Contents
Light/Normal1	Transfer control value for Light and Normal1
Normal2/3	Transfer control value for Normal 2 / 3
Light/Normal123	Transfer control value for Light to Normal1,2,3
Heavy1	Transfer control value for Normal 1 / 3
Heavy2/3	Transfer control value for Heavy 2 / 3
OHP	Transfer control value for Transparency
Light-Normal3	Transfer control value for Light to Normal3
Bias	Bias setting
High Altitude	High altitude correction control setting (2nd side correction)
Paper End	Turning off the secondary transfer at the paper end

Setting: Light/Normal1
1.Select the item to set.
 * :The screen for setting is displayed.

Items	Contents
1st	1st side transfer control value at full speed
2nd	2nd side transfer control value at full speed

2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.
1st

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	600 [*1] 60 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400 [*1] 40 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

2nd

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	700 [*1] 70 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400 [*1] 35 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

4.Press the [Start] key to set the setting value.

Setting: Normal2/3
1.Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
1st	1st side transfer control value at full speed
2nd	2nd side transfer control value at full speed

2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

1st

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	650 [*1] 65 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	500 [*1] 45 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

2nd

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	750 [*1] 75 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	500 [*1] 40 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

4.Press the [Start] key to set the setting value.

Setting: Light/Normal123

    1.Select the item to set.

       * :The screen for setting is displayed.

Items	Contents
1st B/W	1st side transfer control value in monochrome mode
2nd B/W	2nd side transfer control value in monochrome mode

    2.Select the item to set.

    3.By using the [+] [-] keys or the numeric keys, change the setting value.

1st

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	550 [*1] 55 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	400 [*1] 35 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

2nd

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	650 [*1] 65 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300 [*1] 30 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

    4.Press the [Start] key to set the setting value.

Setting: Heavy1

    1.Select the item to set.

       * :The screen for setting is displayed.

Items	Contents
1st 3/4	1st side transfer control value at 3/4 speed
2ND 3/4	2nd side transfer control value at 3/4 speed
1st Half	1st side transfer control value at half speed
2nd Half	2nd side transfer control value at half speed
1st 3/4 B/W	1st side transfer control value at 3/4 speed in monochrome mode
2nd 3/4 B/W	2nd side transfer control value at 3/4 speed in monochrome mode

    2.Select the item to set.

    3.By using the [+] [-] keys or the numeric keys, change the setting value.

1st 3/4

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	530 *1 53 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380 *1 35 *2	-

*1:35ppm model, *2: 40ppm model

2ND 3/4

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	650 *1 65 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	330 *1 30 *2	-

*1:35ppm model, *2: 40ppm model

1st Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	35	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	25	-

2nd Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	35	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	25	-

1st 3/4 B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	480 *1 48 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	330 *1 30 *2	-

*1:35ppm model, *2: 40ppm model

*1:35ppm model, *2: 40ppm model

2nd 3/4 B/W

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	580 [*1] 60 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	280 [*1] 25 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

4.Press the [Start] key to set the setting value.

Setting: Heavy2/3

1.Select the item to set.

* :The screen for setting is displayed.

Items	Contents
1st Half	1st side transfer control value at half speed
2ND Half	2nd side transfer control value at half speed
1st Half B/W	1st side transfer control value at half speed in monochrome mode
2nd Half B/W	2nd side transfer control value at half speed in monochrome mode

2.Select the item to set.

3.By using the [+] [-] keys or the numeric keys, change the setting value.

1st Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	450 [*1] 45 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300 [*1] 30 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

2ND Half

Items	Contents	Setting range	Initial setting	Data varia-tion
W<160	Setting paper width less than 160	0 to 2000	550 [*1] 60 [*2]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250 [*1] 25 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

1st Half B/W

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	450 *1 45 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300 *1 30 *2	-

*1:35ppm model, *2: 40ppm model

2nd Half B/W

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	550 *1 60 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250 *1 25 *2	-

*1:35ppm model, *2: 40ppm model
4.Press the [Start] key to set the setting value.

Setting: OHP
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	450 *1 45 *2	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	300 *1 30 *2	-

*1:35ppm model, *2: 40ppm model
3.Press the [Start] key to set the setting value.

Setting: Light-Normal3
1.Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
1st 3/4	1st side setting at 3/4 speed
2nd 3/4	2nd side setting at 3/4 speed
1st Half	1st side setting at half speed
2nd Half	2nd side setting at half speed

2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

1st 3/4

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	490 [1]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380 [1]	-

2nd 3/4

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	560 [1]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	380 [1]	-

1st Half

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	330 [1]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250 [1]	-

2nd Half

Items	Contents	Setting range	Initial setting	Data varia- tion
W<160	Setting paper width less than 160	0 to 2000	380 [1]	-
160<=W<210	Setting paper width of 160 or more and less than 210	0 to 2000	250 [1]	-

[1]: 35 ppm model only

4.Press the [Start] key to set the setting value.

Setting: Bias

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia- tion
Reverse 2nd	Secondary transfer cleaning negative bias	-1 to 200	-1	-
Cleaning 2nd	Secondary transfer cleaning positive bias	0 to 200	5	-
Calb Clean- ing	Calibration cleaning bias	0 to 200	40	-

3.Press the [Start] key to set the setting value.

Setting: High Altitude

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia- tion
Light/ Normal1	Light and Normal1 setting	0 to 100	85 [*1] 40 [*2]	-
Normal2/3	Setting of Normal 1/2	0 to 100	80 [*1] 40 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

3.Press the [Start] key to set the setting value.

Setting: Paper End

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia- tion
Heavy2/3	Setting for Thick2,3	0 to 100	35 [*1] 40 [*2]	-
Ext Heavy	Ext Heavy setting	0 to 100	35 [*1] 40 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U107	Primary transfer cleaning voltage adjustment (Message: Adjust 1st Transfer Unit Cleaning Output)

Contents
    Sets the transfer belt cleaning control voltage

Purpose
    Change the setting when offset images appear with the transfer belt cleaning failure.

Method
    1.Press the [Start] key.
    2.Select the item to set.
       * :The screen for setting is displayed.

Items	Contents
Belt(A)	Belt A setting
Belt(B)	Belt B setting
Belt(C)	Belt C setting
Belt(D)	Belt D setting

Setting
    1.Select the item to set.
    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Belt(A)

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Full speed setting	0 to 300	35 [*1] 40 [*2]	-
Half	Half speed setting	0 to 300	26 [*1] 30 [*2]	-
3/4	3/4 speed setting	0 to 300	31 [*1] 35 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

Belt(B)

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Full speed setting	0 to 300	35 [*1] 60 [*2]	-
Half	Half speed setting	0 to 300	26 [*1] 60 [*2]	-
3/4	3/4 speed setting	0 to 300	31 [*1] 60 [*2]	-

    [*1]:35ppm model, [*2]: 40ppm model

Belt(C)

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Full speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-
Half	Half speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-
3/4	3/4 speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-

^{*1}:35ppm model, ^{*2}: 40ppm model

Belt(D)

Items	Contents	Setting range	Initial setting	Data varia-tion
Full	Full speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-
Half	Half speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-
3/4	3/4 speed setting	0 to 300	130 ^{*1} 150 ^{*2}	-

*1: 35 ppm model only

3. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U110	Drum counter (Message: Drum Unit Counter)

Contents

Displays the drum counter values.

Purpose

Execute to check the drum usage status.

Method

1.Press the [Start] key.

 * :The drum counter is displayed.

Items	Contents
C	Displays the cyan drum counter
M	Displays the magenta drum counter
Y	Displays the yellow drum counter
K	Displays the black drum counter

Completion

Press the [Stop] key.

 * :The screen for selecting a maintenance item No. is displayed.

U117	Drum unit number (Message: Drum Unit Number)

Contents

Displays the drum number.

Purpose

Execute to check the drum number.

Method

1.Press the [Start] key.

 * :Displays the drum number.

Items	Contents
C	Displays the cyan drum number
M	Displays the magenta drum number
Y	Displays the yellow drum number
K	Displays the black drum number

Completion

Press the [Stop] key.

 * :The screen for selecting a maintenance item No. is displayed.

U118	Drum unit history (Message: Drum Unit History)

Contents
Displays the machine serial number and drum counter history.

Purpose
Execute to check the machine serial number and drum counter values.

Method
1.Press the [Start] key.
 * :Select the item to refer to.

Items	Contents
C	Displays the cyan drum history
M	Displays the magenta drum history
Y	Displays the yellow drum history
K	Displays the black drum history

  * :Displays the machine serial number and 3 items of the drum counter history.

Items	Contents
Machine History1 to 3	Machine serial number history
Cnt History1 to 3	The drum counter history

Completion
Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U119	Setting the drum (Message: Set Up Drum Unit)

Contents
Set the drum sensitivity.

Purpose
Execute when the drum unit or laser scanner unit is replaced.
After completing, execute maintenance mode U464 [Calibration].

Method
1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Detect the main charge current and save the current value.

3.Press the [Start] key.
 * :Starts the drum setup operation.
4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U120	Drum drive distance counter (Message: Drum Driving Distance Counter)

Contents
　　Displays the drum drive distance counter.
Purpose
　　Execute to displays the drum drive distance counter.

Method
　　1.Press the [Start] key.
　　　* :Displays the count.

Items	Contents
C	Displays the cyan drum drive distance counter
M	Displays the magenta drum drive distance counter
Y	Displays the yellow drum drive distance counter
K	Displays the black drum drive distance counter

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U127	Clearing the transfer count (Message: Clear Transfer Roller Counter)

Contents
　　Display and clear the transfer counts for the transfer high-voltage output correction etc.
Purpose
　　Verify the primary/secondary transfer unit counts after replacing Also, clear the counts after replacement

Method
　　1.Press the [Start] key.
　　　* : The transfer counter value appears.

Items	Contents
Mid Trans(Cnt)	Displays or clears the primary transfer counter
2nd Trans(Cnt)	Displays or clears the secondary transfer counter

Setting: Mid Trans(Cnt)
　　　* :Clear only. This cannot be changed.
　　1.Select [Clear].
　　2.Press the [Start] key to set the counter value.

Setting: 2nd Trans(Cnt)
　　1.By using the [+] [-] keys or the numeric keys, change the setting value.
　　2.Press the [Start] key to set the counter value.
Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U128	Leading edge timing (Message: Adjust Transfer Timing)

Contents

Adjust On/Off timing of the transfer high voltage output.

Purpose

Prevent paper from being rolled up by the drum.

Method

1. Press the [Start] key.
2. Select the item to set.

   * :The screen for setting is displayed.

Items	Contents
Timing 1st	Transfer On timing adjustment value (1st side)
Timing 2nd	Transfer On timing adjustment value (2nd side)

Setting: Timing 1st

1. Select the item to set.
2. By using the [+] [-] keysthe [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
On Timing	Transfer On timing adjustment value	-200 to 200	0	0.5mm
Off Timing	Transfer Off timing adjustment value	-200 to 200	0	0.5mm

3. Press the [Start] key to set the setting value.

Setting: Timing 2nd

1. Select the item to set.
2. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
1side < 60	Secondary transfer voltage on tim-ing (1st side, weight less than 60gsm)	-200 to 200	0	0.5mm
1side >= 60	Secondary transfer voltage on tim-ing (1st side, weight 60gsm or more)	-200 to 200	0	0.5mm
2side < 60	Secondary transfer voltage on tim-ing (2nd side, weight less than 60gsm)	-200 to 200	0	0.5mm
2side >= 60	Secondary transfer voltage on tim-ing (2nd side, weight 60gsm or more)	-200 to 200	0	0.5mm

Items	Contents	Setting range	Initial setting	Data variation
Off Timing	Secondary transfer voltage off timing	-200 to 200	0	0.5mm

3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U132	**Forcible toner supply operation (Message: Supply Toner Forcefully)**

Contents
Toner is supplied forcibly until the toner sensor output value reaches the toner supply level.
Purpose
Execute if toner empty is often detected.

Method
1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Installs toner

3.Press the [Start] key.
* :Execute toner supply forcibly until the toner sensor output value reaches the toner supply level.

Items	Contents
Supply(C)	Cyan toner supply level
Supply(M)	Magenta toner supply level
Supply(Y)	Yellow toner supply level
Supply(K)	Black toner supply level
Sensor(C)	Cyan toner sensor output value
Sensor(M)	Magenta toner sensor output value
Sensor(Y)	Yellow toner sensor output value
Sensor(K)	Black toner sensor output value

4.To stop the operation, press the [Stop] key.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U135	Checking the toner motor operation (Message: Check Toner Motor Operation)

Contents

Drives the toner motor.

Purpose

Execute to check the toner motor operation.

Precautions

If driven for a long time or several times repeatedly, the developer unit will be full of toner inside and it may lock up.

Method

1.Press the [Start] key.

2.Select [Toner].

3.Press the [Start] key.

　* :The operation starts.

Items	Contents
Toner	Drives the toner motor(TM)

4.To stop the operation, press the [Stop] key.

Completion

Press the [Stop] key.

　* :The screen for selecting a maintenance item No. is displayed.

U136	Toner level detection setting (Message: Set Toner Near End Detection)

Contents

Execute the level setting of printable pages between toner near end and toner empty.

Purpose

Change the timing of detecting toner near end earlier than the current setting if the interval between toner near end and toner empty is too short.

Setting

1.Press the [Start] key.

2.Select the item to set.

  * :By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
CMY	Black/Cyan/Magenta/Yellow toner level setting	0 to 9	3	-
K	Setting the black toner level	0 to 9	3	-

If the set value is increased, the time interval from the toner near end to the toner empty becomes longer.

If the set value is reduced, the time interval from toner near end to toner empty becomes shorter.

0: no toner near end detection

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U139	Temperature, humidity (Message: Temperature/Humidity)

Contents

Displays the machine inside and outside temperature and machine outside humidity.

Purpose

Check the machine inside and outside temperature and machine outside humidity.

Method

1.Press the [Start] key.

  * :Each value is displayed.

Items	Contents
External Temp	Displays the machine outside temperature.
External Humidity	Displays the machine outside humidity.
Dev Temp	Displays the developer (K) temperature inside the machine.
LSU Temp(K)	Displays the LSU (K) temperature inside the machine.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U140	Developer bias adjustment (Message: Adjust Developing Bias)

Contents
Displays/changes the developer bias set values or sets high altitude mode.
Purpose
Execute to check/change the developer bias set values.

Method
1. Press the [Start] key.
2. Select the item to set.
 * :The screen for setting is displayed.

Items	Contents
Sleeve DC	Set the developer sleeve roller DC bias.
Sleeve AC	Set the developer sleeve roller AC bias.
Mag DC	Set the developer magnet roller DC bias.
Mag AC[*1]	Set the developer magnet roller AC bias.
Sleeve Freq	Set the developer sleeve roller frequency.
Sleeve Duty	Set the developer sleeve roller duty.
Mag Duty	Set the developer magnet roller duty.
AC Calib[*1]	Execute and set AC Calibration
Image Preference	Sets the toner density
Altitude Adjustment	Sets the altitude adjustment mode

*1: 40 ppm model only

Setting: Sleeve DC
1. Select the item to set.
2. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the cyan	0 to 350	200 [*1] 90 [*2]	-
M	Sets the magenta	0 to 350	200 [*1] 90 [*2]	-
Y	Sets the yellow	0 to 350	200 [*1] 90 [*2]	-
K	Sets the black	0 to 350	200 [*1] 90 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

3. Press the [Start] key to set the setting value.

Setting: Sleeve AC

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the cyan	100 to 170	145	-
M	Sets the magenta	100 to 170	145	-
Y	Sets the yellow	100 to 170	145	-
K	Sets the black	100 to 170	145	-

3.Press the [Start] key to set the setting value.

Setting: Mag DC

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the cyan	0 to 750	510 [*1] 400 [*2]	-
M	Sets the magenta	0 to 750	510 [*1] 400 [*2]	-
Y	Sets the yellow	0 to 750	510 [*1] 400 [*2]	-
K	Sets the black	0 to 750	510 [*1] 400 [*2]	-

[*1]:35ppm model, [*2]: 40ppm model

3.Press the [Start] key to set the setting value.

Setting: Mag AC

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the cyan	100 to 270	250	-
M	Sets the magenta	100 to 270	250	-
Y	Sets the yellow	100 to 270	250	-
K	Sets the black	100 to 270	250	-

3.Press the [Start] key to set the setting value.

Setting: Sleeve Freq
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Normal	Execute full speed setting	3500 to 5400	3600 *1 4700 *2	-

*1:35ppm model, *2: 40ppm model
3.Press the [Start] key to set the setting value.

Setting: Sleeve Duty
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Normal	Execute full speed setting	30 to 50	68 *1 43 *2	1%

*1:35ppm model, *2: 40ppm model
3.Press the [Start] key to set the setting value.

Setting: Mag Duty
1.Select the item to set.
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Normal	Execute full speed setting	50 to 80	34 *1 68 *2	1%

*1:35ppm model, *2: 40ppm model
3.Press the [Start] key to set the setting value.

Setting: AC Calib
1.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents

Calibration	Executing AC Calibration (Developer AC bias setting)
	Execution timing
	  1.Setup at high altitude
	  2.When replacing the developer unit or drum unit
	  3.When the developer leakage occurs
	  4. When the solid image density is low after executing the AC calibra-tion

Items	Contents
Magnification	Setting the AC calibration target bias value **Execution timing** 1. When the developer leak occurs after executing the AC calibration

Setting: Calibration
   1.Select the item to set.
   2.Set the developer to On to execute AC calibration.

Items	Contents
C	Turns on/off Cyan developer
M	Turns on/off Magenta developer
Y	Turns on/off Yellow developer
K	Turns on/off Black developer

   * :Initial setting: Off
   3.Select [Execute].

Items	Contents
Execute	Executing Calibration

   4.Press the [Start] key. AC calibration is started.
   5.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
     * :An error code appears when there is an error.

Setting: Magnification
   1.Select the item to set.
   2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
C	Sets the cyan	-20 to 20	5	-
M	Sets the magenta	-20 to 20	5	-
Y	Sets the yellow	-20 to 20	5	-
K	Sets the black	-20 to 20	5	-

   3.Press the [Start] key to set the setting value.

Setting: Image Preference
1. Select the item to set.
2. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Copy	Sets the copy toner density	-1 to 1	0 1 (120 V model) -1 (Australia)	-

3. Press the [Start] key to set the setting value.
   * : If the set value is reduced, toner consumption decreases.
4. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Setting: Altitude Adjustment
1. Select the item to set.

Items	Contents
Normal	Sets 1000m or less
1001 to 2000m	Set at 1001 to 2000m
2001 to 3000m	Set at 2001 to 3000m
3001 to 3500m	Set at 3001 to 3500m

   * : Initial setting: Normal
2. Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
   * : The screen for selecting a maintenance item No. is displayed.

U147	Setting the toner applying mode (Message: Set Toner Apply Mode)

Contents

Mode selection for the operation to remove overcharged toner in the developer unit (Toner applying mode). Also, sets the operation to take toner accumulated on the developer blade back to the developer unit (vibration motor control).

Purpose

Change the setting to reduce the toner applying amount. Execute to change the vibration motor control frequency.

* :Density is lowered if overcharged toner stays in the developer unit.

Method

1.Press the [Start] key.

2.Select the item to set.

* :The screen for setting is displayed.

Items	Contents
Mode	Sets the toner applying mode.
Drum T7	Sets the toner applying width at the cleaning mode.
Developing T7	Sets the upper limit of the toner applying amount for each operation mode.
Motor	Sets the vibration motor operation.

Setting: Mode

1.Select the item to set.

Items	Contents
On	Sets the toner applying operation with the normal amount.
Off	Sets the toner applying operation with less than the normal amount.

* :Initial setting: On

2.Press the [Start] key to set the setting value.

Setting: Drum T7

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
Value	Sets the toner applying width at the cleaning mode.	0 to 25	150 (Indicated as 15.0)	0.1mm

2.Press the [Start] key to set the setting value.

Setting: Developing T7

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
Value	Sets the upper limit of the toner applying amount for each operation mode.	0 to 25	20 (Indicated as 2.0)	1%

2.Press the [Start] key to set the setting value.

Setting: Motor

1.By using the [+] [-] keysthe [+] [-] keys or the numeric keys, change the setting value.

| Items	Contents	Setting range	Initial setting	Data variation
Print(Normal)	Sets the continuius printing (normal environment)	10 to 2550	-	10
Print(H/H)	Sets continuous printing (high temperature, high humidity)	10 to 2550	-	10
Print End	Setting when completing printing	1 to 255	-	1

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U148	**Drum refresh mode setting** **(Message: Set Drum Refresh Mode)**

Contents

Sets the mode to use the drum refresh in the user adjustment.

Purpose

Change the setting if the drum refresh is frequently operated.

Setting

1.Press the [Start] key.

2.By using the [+] [-] keysthe [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Normal	Sets Auto drum refresh	(35 ppm models) 0: Off / 1 to 3: Standard (40 ppm models) 0: Off / 1: Short 2: Standard / 3: Long	1 [*1] 2 [*2]

[*1]:35ppm model, [*2]: 40ppm model

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U155	Toner sensor output **(Message: Toner Sensor Output Value)**

Contents
  Displays the toner sensor output
Purpose
  Execute to check each color's output value when an image failure occurs.

Method
  1.Press the [Start] key.
  2.Select the item to refer to.
    * :Switched to each reference screen.

Items	Contents
Waste Toner	Displays the toner sensor value
Toner	Displays the toner sensor value and supply level value for each color

Method: Waste Toner
  1.Check each sensor value.
    * :Displays the waste toner sensor value.

Items	Contents
Full	Displays the waste toner sensor value 1 (WTS1)
Near Full	Displays the waste toner sensor value 2 (WTS2)

Method: Toner
  1.Check each sensor value.
    * :Displays the toner sensor value.

Items	Contents
Sensor(C)	Displays the cyan toner sensor output value
Sensor(M)	Displays the magenta toner sensor output value
Sensor(Y)	Displays the yellow toner sensor output value
Sensor(K)	Displays the black toner sensor output value
Supply(C)	Displays the cyan toner supply level value
Supply(M)	Displays the magenta toner supply level value
Supply(Y)	Displays the yellow toner supply level value
Supply(K)	Displays the black toner supply level value

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U156	Toner control level adjustment (Message: Adjust Toner Control Level)

Contents

Displays the toner supply level for each color.

Purpose

Execute displaying the toner supply level for each color.

Setting

1.Press the [Start] key.

2.Select [Supply].

Items	Contents
Supply	Displays the toner supply level

3.Displays the toner supply level for each color.

Items	Contents
C	Displays the cyan toner supply level
M	Displays the magenta toner supply level
Y	Displays the yellow toner supply level
K	Displays the black toner supply level

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U157	Developer drive time (Message: Developing Unit Drive Time)

Contents

Displays the developer drive time to be a reference for the toner density control correction.

Purpose

Execute to check the developer drive time since replacing the developer unit.

Method

1.Press the [Start] key.

   * :Displays the developer drive time.

Items	Contents
C	Displays the Cyan developer unit drive time.
M	Displays the Magenta developer unit drive time.
Y	Displays the Yellow developer unit drive time.
K	Displays the Black developer unit drive time.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U158	Developer counter (Message: Developing Unit Counter)

Contents

Displays the developer counter

Purpose

Execute to check the developer unit usage status.

Method

1.Press the [Start] key.

   * :The developer count is displayed.

Items	Contents
C	Displays the cyan developer counter.
M	Displays the magenta developer counter.
Y	Displays the yellow developer counter.
K	Displays the black developer counter.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U161	Fuser temperature adjustment (Message: Adjust Fuser Control Temperature)

Contents

Sets the fuser temperature.

Purpose

Normally no need to change. However, change the setting as corrective measures for paper curl, creases and fusing failure on thick paper.

Method

1.Press the [Start] key.

2.Select the item to set.

  * :The screen for setting is displayed.

Items	Contents
Center	Set the center thermistor temperature.
Edge	Sets the edge thermistor control temperature.

Setting: Center

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Pressure Start	Sets the temperature to start pressing	0 to 200	30	1°C
Drive Start	Sets the drive start temperature	0 to 200	100	1°C
Ready	Sets the Ready temperature	100 to 200	150 *1/160 *2	1°C
Steady	Sets the secondary stability temperature	100 to 200	155 *1/165 *2	1°C
Printing	Set the temperature during printing	100 to 200	160 *1/170 *2	1°C
Waiting	Set the standby temperature	100 to 200	150 *1/160 *2	1°C

*1:35ppm model, *2: 40ppm model

3.Press the [Start] key to set the setting value.

Setting: Edge

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Ready	Sets the Ready temperature	100 to 200	105 *1/115 *2	1°C
Steady	Sets the secondary stability temperature	100 to 200	140 *1/150 *2	1°C

| Items	Contents	Setting range	Initial setting	Data varia-tion
Waiting	Set the standby temperature	100 to 200	140 *1/150 *2	1°C

*1:35ppm model, *2: 40ppm model
3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U167	Clearing the fuser count (Message: Clear Fuser Counter)

Contents
Displays and clears the fuser count.
Purpose
Verify the fuser count after replacement Also, clear the counts after replacement

Method
1.Press the [Start] key.
* : The fuser count is displayed.

Items	Contents
Cnt	Displays the fuser count
Clear	Clears the fuser count

Method: Clear
1.Select [Clear].
2.Press the [Start] key.
* :Fuser unit counter is cleared.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

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⊙

U199	Fuser temperature (Message: Fuser Temperature)

Contents
    Fuser temperature is displayed.
Purpose
    Execute to check the fuser temperature.

Method
    1.Press the [Start] key.
      * :Fuser temperature is displayed.

Items	Contents
Heat Roller Edge	Displays the heat roller edge temperature (°C)
Heat Roller Center	Displays the heat roller center temperature (°C)

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U200	All LEDs lighting (Message: Turn ON All Panel LEDs)

Contents
    All the LEDS on the operation panel are lit.
Purpose
    Execute to check the operation panel LED lighting.

Method
    1.Press the [Start] key.
    2.Select [Execute].
    3.Press the [Start] key.
      * :All the LEDs on the operation panel are blinking.
    4.Press the [Stop] key to turn the display off.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U201	Initializing the touch panel (Message: Initialize Touch Panel)

Contents

Adjusts touch panel detecting positions.

Purpose

Correct and confirm the touch panel detecting positions, when the panel PWB or the operation panel is replaced or if the detecting positions are not aligned.

Method

1. Press the [Start] key.
2. Select the item to execute.
3. Press the [Start] key.
   * :The screen for executing is displayed.

```
Maintenance Mode
  Maintenance Mode Active          U201
   Initialize Touch Panel
─────────────────────────────────────────
 ┌───────────┐
 │ Initialize│
 └───────────┘
 ┌───────────┐
 │ Check     │
 └───────────┘
```
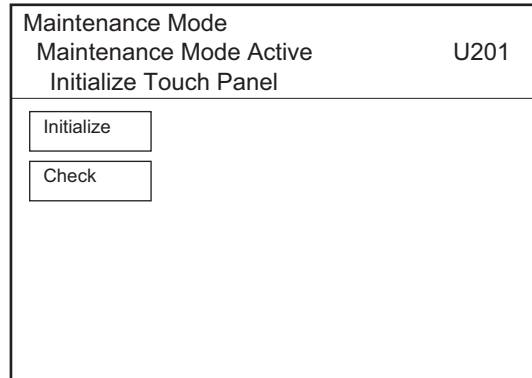
Items	Contents
Initialize	Automatically corrects the touch panel display position
Check	Checks the touch panel display position

Method: Initialize

1. Press the center of "+".
2. Repeat 2 times.

```
Maintenance Mode
  Maintenance Mode Active          U201
   Initialize Touch Panel
─────────────────────────────────────────
   +

          Press the center of the "+" sign.
          *Press it using a tool with a fine tip.
```
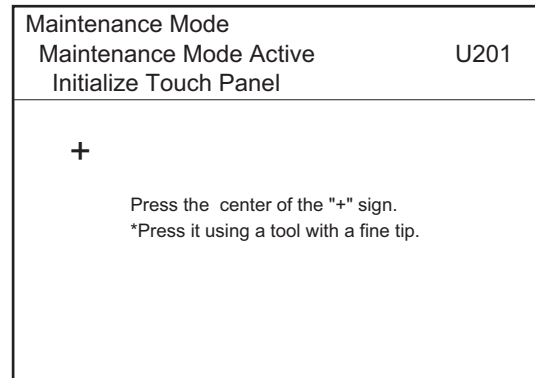
3. If 2 points of [ ] appear, press them simulta-
   neously.
   * :Target [ ] and press one while pressing
      another. The set value is retrieved when
      pressing at the same time.
   * :Press with a fingertip. (Do not push by fin-
      ger)

4. Repeat 2 times.

```
 ⊙


          Press both circles.
   Finalize with both pressed at the same time.
  *Press with the tips of your fingers. (NOT your fingernails)


                                        ⊙
```
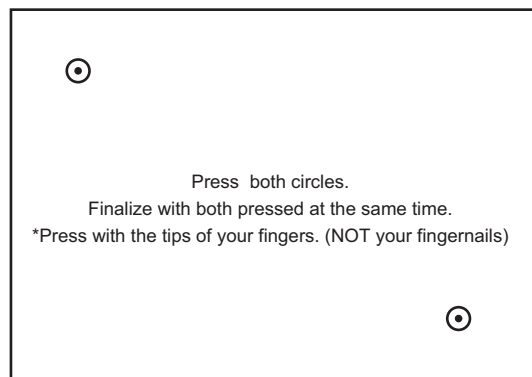
5.Press the center of "+" as well as in the procedure 1.

6.Repeat 3 times.

> Press the center of the "+" sign.
>
> *Press it using a tool with a fine tip.
>
> If you cannot proceed to the next step, press the Stop key and try again.
>
> +
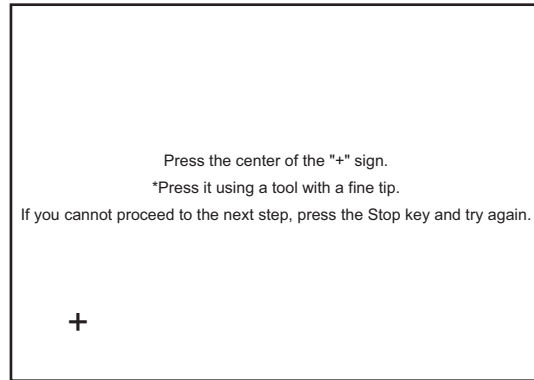
7.[Initialize Completed] appears after setting and the touch panel is automatically corrected.

8.After finishing setting, the [Check] screen is automatically displayed.

> Initialize completed.

Method: Check

Single Tap Check

1.Press the indicated three "+", and then check the display position.

> +
>
> Initialize
>
> Single Tap Check.
> Press the center of the "+" sign.   +
> *Press it using a tool with a fine tip.
> If you need to perform initialization again, select "Initialize" and press the Startkey.
>
> +
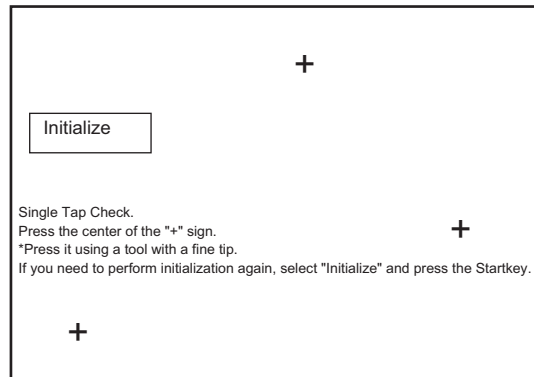
2.Check that the gap of the X and Y axis of the displayed coordinate is 6 or less.

* :If out of the specified value, select [Initialize] and press the [Start] key to return to Step. 1.

> +
> (13, -3)
>
> Initialize
>
> Multi Tap
> Check
>   +
>   (-8, 15)
> Single Tap Check.
> Select "Mult Tap Check" and press the Startkey to go to the next step.
> If you need to perform initialization again, select "Initialize" and press the Startkey.
>
> +
> (4, -1)
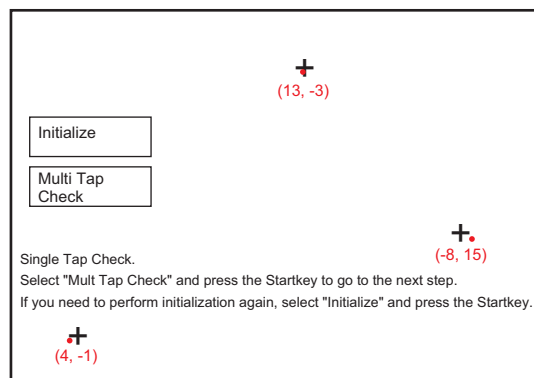
Multi Tap Check
   1. Select [Execute] and press the [Start] key.
   2.Press 2 points of [ ] simultaneously. (Step1)
     * :Displays the detected point with a red dot
       if it is out of the default value.

   3.Press 2 points of [ ] simultaneously. (Step2)
     * :[Completed] appears in Step1 and Step2 if
       it is within the default value.

```
                               Step 1 : Not completed.
    ⊙                          Step 2 : Not completed.

  ┌──────────┐
  │ Initialize│
  └──────────┘


  Multi tap Check. Step1.
  Press both circles. Finalize with both pressed at the same time.
  *Press with the tips of your fingers. (NOT your fingenails)


                                        ⊙
```
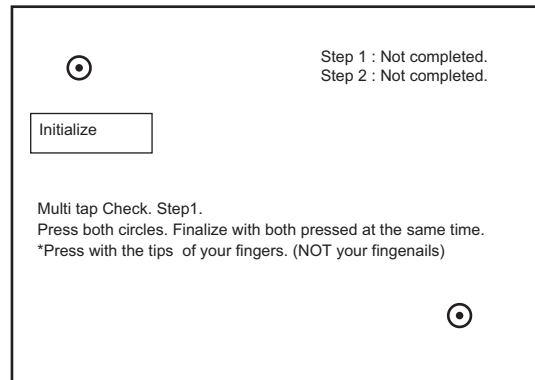
   4.[Multi Tap Check completed.] appears when
     the setting is complete.
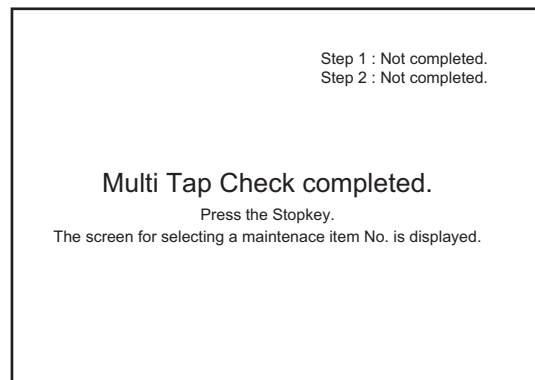
```
                               Step 1 : Not completed.
                               Step 2 : Not completed.



         Multi Tap Check completed.
                  Press the Stopkey.
  The screen for selecting a maintenace item No. is displayed.
```

Completion
   Press the [Stop] key.
     * :The screen for selecting a maintenance item No. is displayed.

U203	Check DP operation (Message: Check DP Operation)

Contents

Simulate the original conveying operation separately in the DP.

Purpose

Check the DP operation

Method

1.Press the [Start] key.

2.Place an original in the DP if running this simulation with paper.

3.Select the scan speed

Items	Contents
Normal Speed	Normal scanning (600dpi)
High Speed	High speed scanning
Mode	Set the conveying timing inspection mode
Reset	Reset the conveying timing inspection data
Result	Check the conveying timing

Method: Normal Speed/High Speed

4.Select the item to operate.

Items	Contents
CCD ADP	With paper, a single-sided original is fed to the CCD
CCD RADP	With paper, a double-sided original is fed to the CCD
CIS	With paper, a double-sided original is fed to the CIS
CCD ADP (Non-P)	Without paper, a single-sided original is fed to the CCD (continuous operation)
CCD RADP (Non-P)	Without paper, a double-sided original is fed to the CCD (continuous operation)
CIS(Non-P)	Without paper, a double-sided original is fed to the CIS (continuous operation)

5.Press the [Start] key.

  * :The operation starts.

6.To stop the operation, press the [Stop] key.

Setting: Mode

1.Select the item to set.

Items	Contents
On	Set the conveying timing inspection mode to On
Off	Set the conveying timing inspection mode to Off

2.Press the [Start] key to set the setting value.

2R4/2R5/2R6

Method: Reset
    1.Select [Execute].
    2.Press the [Start] key to reset.
Method: Result
    1.Displays the conveying timing data.
Completion
    Press the [Stop] key.
    The screen for selecting a maintenance item No. is displayed.

U204	Key card/key counter setting (Message: Set Key-Card/Key-Counter)

Contents
    Sets the optional key card or key counter connection.
Purpose
    Execute when installing the key card or key counter.

Method
    1.Press the [Start] key.
    2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Device	Sets the key card/key counter connection.
Message	Sets the message indicated when the device is not installed.

Setting: Device
    1.Select the type of the optional counter.

Items	Contents
Key-Card	Key card installation
Key-Counter	Key counter installation
Off	Not installed

     * :Initial setting: Off
    2.Press the [Start] key to set the setting value.
    3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Setting: Message
    1.Select the item to set.

Items	Contents
Key Device	Prioritized display of the key device on the login screen when multiple devices are used.
Coin Vendor	Prioritized display of the coin vendor on the login screen when multiple devices are used .

     * :Initial setting: Coin Vendor
    2.Press the [Start] key to set the setting value.
    3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
Completion
    Press the [Stop] key.
    The screen for selecting a maintenance item No. is displayed.

U207	Operation key check (Message: Check Panel Key Operation)

Contents
　　Check the operation panel keys.
Purpose
　　Check the operation of all the keys and LEDs on the operation panel.

Method
　　1.Press the [Start] key to display execution window.
　　2.[Count 0] appears and the LED at the most left column in the operation panel is turned on.
　　3.Pressing the keys in order from the top at the row where the LED is lit, count increases one by one. When pressing all the keys at the row and there is an LED at the next right side row, the LED is lit.
　　　* :The job separator LED is lit during execution and turns off when completing.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U211	Enhancement unit connection setting (Message: Set Enhancement Connection)

Contents
　　Execute the inner job separator installation setting.
Purpose
　　Execute when installing the inner job separator.
　　　* :Make sure to set to [Off] to prevent wrong LED lighting when not installed.

Method
　　1.Press the [Start] key.
　　2.Select [Inner Job Separator].
　　　* :The screen for setting is displayed.

Items	Contents
Inner Job Separator	Inner job separator setting

Method
　　1.Select the item to set.

Items	Contents
On	Installing the inner job separator
Off	The inner job separator is not installed

　　　* :Initial setting: Off
　　2.Press the [Start] key to set the setting value.
　　3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U221	USB host lock function setting (Message: Set USB Host Lock Function)

Contents

Sets ON/OFF of the USB Host lock function. When setting it to on, the device connected to the USB host is not recognized.

Purpose

Change the setting according to the user's request

Method

1. Press the [Start] key.
2. Select [Host Lock].

   * :The screen for setting is displayed.

Items	Contents
Host Lock	Turns the USB Host lock function on/off

3. Select the item to set.

Items	Contents
On	The USB Host lock function is available
Off	The USB Host lock function is not available

   * :Initial setting: Off
4. Press the [Start] key to set the setting value.
5. Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U222	Setting the IC card type (Message: Set IC Card Type)

Contents

Sets the ID card type

Purpose

Change the type of ID card

Setting

1. Press the [Start] key.
2. Select the item to set.

Items	Contents
Other	Select when the ID card type is other than SSFC.
SSFC	When the ID card type is SSFC,

   * :Initial setting: Other
3. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U223	Operation panel lock (Message: Set Panel Operation Lock)

Contents
Execute setting the operation panel function.

Purpose
Execute to prohibit the system menu and job cancel operations from the operation panel by the users other than those with administrator privileges.

Setting
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Unlock	Unlock System Menu operation
Partial Lock 1	Lock System Menu operation and Input/Output setting
Partial Lock 2	Lock System Menu operation, Input/Output setting and Job execution setting
Partial Lock 3	Lock System Menu operation, Input/Output setting, Job execution setting and Paper settings
Lock	Lock System Menu operation and Job Cancel operation

* :Initial setting: Unlock

3.Press the [Start] key to set the setting value.

Operation item	Partial Lock 1	Lock
Entering the maintenance mode	Prohibition	Prohibition
Switching to System Menu	Prohibition	Prohibition
Send, Send from Document Box	Prohibition	Prohibition
Switches the Yellow developer On/Off setting	Prohibition	Prohibition
Switch to registration/editing Document Box	Prohibition	Prohibition
Pressing the [Stop] key	Permission	Prohibition
Pressing the [Status/Job Cancel] key	Permission	Prohibition
Disconnect the FAX line	Permission	Prohibition

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U224	Install Original Panel Display (Message: Install Original Panel Display)

Description

Changes the image data and the message of the opening screen at the machine startup and the image data and the message of the service call screen to user specified data.

Purpose

Set according to the preference of the user.

Setting

1. Write the image data or the message data to the USB memory.
2. Insert USB memory in USB memory slot of the machine.
3. Turn the power switch on.
4. Enter the maintenance item.
5. Press the [Start] key.
6. Select the [Install] or [UnInstall].

Items	Contents
Install	Installs the image data or the message data
UnInstall	Restores the original image data or message data

7. Select the item.

Items	Contents	Display area
Opening Img	Startup screen	Entire start display
Call Img	Service call screen	Graphic display area
Home Menu Img	Home Menu screen	Home Menu display area
Call Msg Top	Service call message 1	Message display area (top)
Call Msg Detail	Service call message 2	Message display area (descriptive area)

8. Press the [Start] key. Installation or uninstallation is started.
9. When normally completed, [OK] is displayed.

Supplement 1
File information

Contents	File name	Image size (in pixels)	File format
Startup screen	opening_ext_image.png	Length: 480 Width : 800	PNG
Service call screen	callwin_ext_image.png	Length: 200 Width : 180	PNG
Home Menu screen	menu_background.png	Length: 480 Width : 800	PNG
Service call message 1	callwin_ext_mes_top.txt	-	TEXT (Unicode)
Service call message 2	callwin_ext_mes_detail.txt	-	TEXT (Unicode)

Supplement 2

Displaying start display

The pre-installed graphics file is displayed at power on or recovering from sleeping.

Graphics display on service call display

The pre-installed graphics file is displayed at a service call.

How to change the message

Entering #562 (4 letters) using the numeric keypad during a service call display will let service call messages 1 and 2.

How to reset the message display

Reverting the maintenance mode will automatically reset the message to the previous.

Caution

The graphics file for start display must be opaque. (To avoid the background from overlapping at recovering from sleeping.)

The total size of the files installable is approximately 4 MB.

Completion

Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

U230	Optional device serial number (Message: Optional Device Serial No)

Contents

　　Displays the optional device serial number

Purpose

　　Specify the production lot from the serial number to make it help of investigation at problem occurrence.

Method

　　1.Press the [Start] key.

　　　* :Displays the serial number.

Items	Contents
DP	Displays the DP serial number.
Finisher	Displays the finisher serial number.
PF1	Displays the PF1 serial number.
PF2	Displays the PF2 serial number.

Completion

　　Press the [Stop] key.

　　　* :The screen for selecting a maintenance item No. is displayed.

U234	Setting destination for punch (Message: Set Punch Destination)

Contents

　　Sets destination of the punch unit for the finisher.

Purpose

　　Execute when installing the punch unit for the destination different from the main unit.

Setting

　　1.Press the [Start] key.
　　2.Select [Destination].

Items	Contents
Auto	Match the destination setting.
Japan Metric	Japan metric
Inch	North American inch specification
Europe Metric	European metric

　　　* :Initial setting: Japan Metric
　　3.Press the [Start] key to set the setting value.
　　4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

　　Press the [Stop] key.

　　　* :The screen for selecting a maintenance item No. is displayed.

U237	Finisher eject volume limit (Message: Set Finisher Paper Stack Limit)

Contents
　　Sets the stacking count of the main tray and middle tray.
Purpose
　　Execute when stacking failure occurs.

Method
　　1.Press the [Start] key.
　　2.Select [Main Tray].
　　3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia- tion
Main Tray	Main tray stack capacity setting	0 to 1	0	1

　　4.Press the [Start] key to set the setting value.
　　5.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Main tray input value	Main Tray	
	3000-sheet finisher	**1000-sheet finisher**
0	3000 sheets	1000 sheets
1	1500 sheets	500 sheets

　　* :Initial setting: 0

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

Items	Contents
Eject Unlock(30)	Drive the DF exit release motor (DFERM) at the 30-sheet bundle position
Eject Unlock(50)	Drive the DF exit release motor (DFERM) at the 50-sheet bundle position
Eject Unlock(Fix)	Drive the DF exit release motor (DFERM) at the fixed position
Eject Unlock(Full)	Drive the DF exit release motor (DFERM) at the full open position
Punch *2	Drive the punch motor (PUM).
Push More *2	Drive the punch slide motor (PUSLM).

   *1: 1000/3000 DF only*2: Punch only
     * :To stop the operation, press the [Stop] key.

Method: Solenoid
   1.Select the item to operate.
   2.Press the [Start] key.
     * :The operation starts.

Items	Contents
Sub Tray *1	Turn the DF feed-shift solenoid (DFFSSOL) on
Punch *2	Turn the punch solenoid (PUSOL) on
Feed In *3	Turn the entry guide solenoid on
Press Paper *4	Turn the paper press solenoid

   *1: 3000 DF only*2: Punch only*3: 1000/3000 DF only*4: Inner DF only
     * :To stop the operation, press the [Stop] key.

Method: Mail Box
   1.Select the item to operate.
   2.Press the [Start] key.
     * :The operation starts.

Items	Contents
Conv	Drives the MB drive motor (MBDM) to convey paper
Branch	Drives the MB drive motor (MBDM) for feed-shift

     * :To stop the operation, press the [Stop] key.

Completion
   Press the [Stop] key.
     * :The screen for selecting a maintenance item No. is displayed.

U241	Finisher switch check (Message: Check Finisher Switches)

Contents
    Displays the status of finisher's switches and sensors operation.
Purpose
    Execute for the finisher's switches and sensors operation check.
Method
    1.Press the [Start] key.
    2.Select the item to operate.
       * :The screen for setting is displayed.

Items	Contents
Finisher	Finisher switch sensor operation check
Mail Box	Mail Box switch sensor operation check
Punch	Punch unit switch sensor operation check

Method: Finisher
    1.Check the switches and sensors by manually turning them on/off.
       * :The switch indication is inversed when the switch is detected.

Items	Contents
Front Cover *1	DF front cover switch (DFFCSW)
Eject Cover *2	DF exit cover switch (DFECSW)
Top Cover *3	DF top cover switch (DFTCSW)
Tray U-Limit *1	DF tay sesor 1: DFTS1
Tray HP2 *2	DF tay sesor 2: DFTS2
Tray Middle *1	DF tay sesor 3: DFTS3
Tray L-Limit	DF tay sesor 4: DFTS4
Tray Top *1	DF tray upper side sensor (DFTUSS)
HP	DF paper entry sensor (DFPES)
Sub Tray Eject *2	DF sub tray exit sensor (DFSES)
Middle Tray Eject	DF middle exit sensor (DFMES)
Staple HP	DF slide sensor (DFSLS)
Middle Tray	DF main tray exit sensor (DFMTS)
Width Front HP	DF side registration sensor 1 (DFSRS1)
Width Tail HP	DF side registration sensor 2 (DFSRS2)
Bundle Eject HP	DF bundle exit sensor (DFBDS)
Match Paddle	DF adjustment sensor (DFADS)
Lead Paddle	DF paddle sensor (DFPDS)
Press Paper Up *4	DF press paper sensor 1
Press Paper Down *4	DF press paper sensor 2
Set *4	DF installation detection switch

   *1: 1000/3000 DF only, *2: 3000 DF only*3: 1000 DF only*4: Inner DF only

Method: Mail Box

1.Check the switches and sensors by manually turning them on/off.

 * :The switch indication is inversed when the switch is detected.

Items	Contents
Eject	MB eject sensor (MBES)
Cover	MB cover open close switch (MBCOCSW)
Over Flow1	MB overflow sensor 1 (MBOFS1)
Over Flow2	MB overflow sensor 2 (MBOFS2)
Over Flow3	MB overflow sensor 3 (MBOFS3)
Over Flow4	MB overflow sensor 4 (MBOFS4)
Over Flow5	MB overflow sensor 5 (MBOFS5)
Over FlowTA	MB overflow sensor tray A
Motor HP	MB paper entry sensor (MBPES)

Method: Punch

1.Check the switches and sensors by manually turning them on/off.

 * :The switch indication is inversed when the switch is detected.

Items	Contents
Punch HP	Punch home position sensor (PUHPS)
Edge Face 2	Punch paper end sensor (PUPES)
Edge Face 4	Punch paper end sensor (PUPES)
Tank	Punch tank set switch (PUTSSW)
Tank Full 1	Punch tank full sensor (PUTFS)
Tank Full 2	Punch tank full sensor (PUTFS)
Tank Full 3	Punch tank full sensor (PUTFS)

Completion

Press the [Stop] key.

 * :The screen for selecting a maintenance item No. is displayed.

U243	Checking the DP motor (Message: Check DP Motors)

Contents

Drive the motor or solenoid of the document processor.

Purpose

Check the operation of the motor or solenoid of the document processor.

Method

1.Press the [Start] key.

2.Select the item to operate.

Items	Contents
Feed Motor(CW)	Drive the DP feed motor (DPFM)
Feed Motor(CCW)	Reversely drives the DP feed motor (DPFM)
Conv Motor(CW)	Rotate the DP conveying motor (DPCM)
Conv Motor(CCW)	Rotate the DP conveying motor (DPCM) reversely
Rev Motor	Execute the automatic adjustment in the DP feedshift motor (DPFSM)
Feed clutch [*1]	Drive the DP feed clutch (DPFCL).

*1: Simultaneous duplex scan model only

3.Press the [Start] key. Each operation starts.

* :To stop the operation, press the [Stop] key.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U244	DP switch check (Message: Check DP Switches)

Contents
 Displays each switch and sensor status of the document processor.
Purpose
 Execute to check the operation of switches and sensors of the document processor.

Method
 1.Press the [Start] key.
 2.Check the switches and sensors by manually turning them on/off.
  * :The switch indication is inversed when the switch is detected.

Items	Contents
Feed *2	Check the DP feed sensor (DPFS).
Regist	Checks the DP registratio sensor (DPRS)
Timing *1	Check the DP timing sensor (DPTS).
CIS Head *1	Check the DPCIS sensor (DPCS).
Set	Checks the DP original sensor (DPOS)
Longitudinal	Check the DP original length switch (DPOLSW).
Cover Open	Check the DP interlock switch (DPILSW)
Open	Checks the DP open close switch (DPOCSW)
Eject *1	Check the DP eject sensor (DPES).

 *1: Simultaneous duplex scan model only, *2: Other than simultaneous duplex scan model

Completion
 Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U245	Checking the message (Message: Check Display Message)

Contents
 Displays messages indicated on the touch panel of the operation panel.
Purpose
 Execute to check messages indicated.

Method
 1.Press the [Start] key.
 2.Using the [▲] [▼] key, display messages in order.
  * :Enter the message number using the numeric keys to display the message of the designated number.
 3.By using the [+] [-] keys key, switch the language.

Completion
 Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U246	Finisher adjustment (Message: Adjust Finisher)

Contents

Execute adjustment for the finisher installation.

Purpose

Punch registration stop timing adjustment in the punch mode.

?Adjust if paper skews or is folded in A z-shape in the punch mode.

Punch position stop timing adjustment in the punch mode.

?Adjust if the punch hole position is not as specified in the punch mode.

Punch center position timing adjustment in the punch mode.

?Adjust the punch center position if it is shifted in the punch mode.

Front/rear width adjuster home position adjustment

Adjust when the consistency of the side registration guides and paper is not good and paper jam occurs.

Front/rear staple home position adjustment

Adjust if the staple is not centered on the paper in the staple mode.

Method

1.Press the [Start] key.

2.Select [Finisher].

   * :The screen for setting is displayed.

Items	Contents
Finisher	Setting the finisher adjustment value

Method: Finisher

1.Select the item to set.

Items	Contents
Punch Regist *1	Punch registration stop timing adjustment in the punch mode.
Punch Feed *1	Punch position stop timing adjustment in the punch mode.
Punch Width *1	Punch center position timing adjustment in the punch mode.
Width Front HP	Front width adjuster home position adjustment
Width Tail HP	Rear width adjuster home position adjustment
Staple HP	Front/rear staple home position adjustment
Punch(L) Width *1	Long-edge punch position adjustment (width)
2Punch(L)1 *1	2-hole long-edge punch position adjustment (1st hole)
2Punch(L)2 *1	2-hole long-edge punch position adjustment (2nd hole)
3/4Punch(L)1 *1	3-hole and 4-hole long-edge punch position adjustment (1st hole)
3/4Punch(L)2 *1	3-hole and 4-hole long-edge punch position adjustment (2nd hole)
3/4Punch(L)3 *1	3-hole and 4-hole long-edge punch position adjustment (3rd hole)
4Punch(L)4 *1	4-hole long-edge punch position adjustment (4th hole)

*1: Only when punch unit is installed

Setting: Punch Regist

    1.Select [Punch Regist].

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
Adjusting the punch registration stop timing	-20 to 20	0	0.19mm

    * :Increase the value if paper is skewed (sample 1).
       Reduce the set value if paper is folded in a Z-shape (sample2).

Sample 1   Sample 2
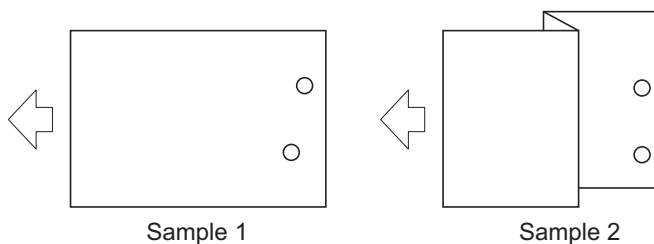
    3.Press the [Start] key to set the setting value.

Setting: Punch Feed

    1.Select [Punch Feed].

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
Adjusting the punch stop timing	-10 to 10	0	0.52mm

    * :Increase the specified value if the punch position is shorter than specified.
       Reduce the specified value if the punch position is longer than specified.

Preset value: 13 mm (metric)
9.5 mm (inch)
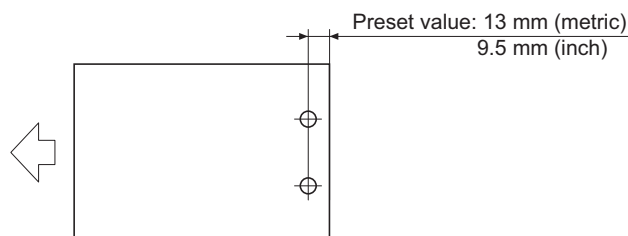
    3.Press the [Start] key to set the setting value.

Setting: Punch Width

    1.Select [Punch Width].

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
Punch center position timing adjustment	-4 to 4	0	0.52 mm

* :Reduce the specified value if the punch position is shorter than specified.
Increase the specified value if the punch position is longer than specified.

Center line

Preset value: 40±2mm (metric)
                  34.93±2mm (inch)
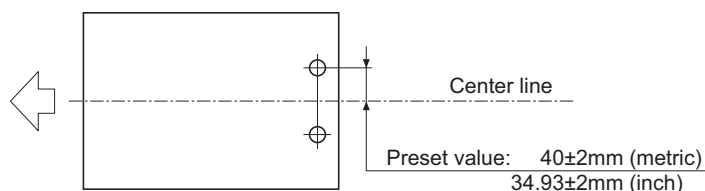
3.Press the [Start] key to set the setting value.

Setting: Width Front HP / Width Tail HP
1.Select [Width Front HP].
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
Front width adjuster home position adjustment	-30 to 30	0	0.97mm
Rear width adjuster home position adjustment	-30 to 30	0	0.97mm

3.Press the [Start] key to set the setting value.
4.Press the [Stop] key to return to the screen to select the maintenance item No.
5.Enter U240 and select [Motor] and then [Width Test(A4R)].
  * :The middle tray side registration guides move to A4R size position.
6.Insert paper into the side registration guides to check the consistence.
7.Repeat the above adjustment until the consistency is appropriate.

Setting: Staple HP
1.Select [Staple HP].
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
Front/rear staple home position adjustment	-15 to 15	0	0.19 mm *1 0.10mm *2

*1: 1000/3000 DF only, *2: Inner DF only

* :Increase the set value if the staple position is shifted to the machine front side (sample1).
Lower the set value if the staple position is shifted to the machine rear side (sample2).

Sample 1   Sample 2
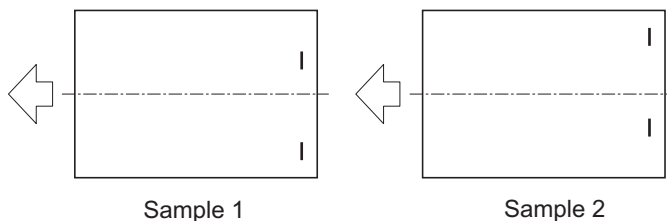
3.Press the [Start] key to set the setting value.

Setting: Punch(L) Width

1.Select [Punch(L) Width].

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data varia-tion
Long-edge punch position adjustment (width)	-15 to 15	0	0.19mm

* :Increase the specified value if the punch position is shorter than specified.
Reduce the specified value if the punch position is longer than specified.

Preset value: 13±1mm (metric)
9.5±1mm (inch)
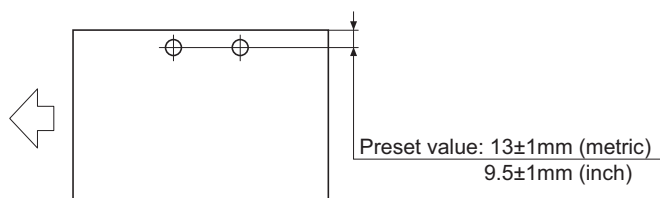
3.Press the [Start] key to set the setting value.

Setting: 2Punch(L)1

1.Select [2Punch(L)1].

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data varia-tion
2-hole long-edge punch position adjustment (1st hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
Reduce the specified value if the punch position is longer than specified.

Preset value

Preset value: (metric)

LetterR	99.7mm±1mm
A4R	108.5mm±1mm
B5R	88.5mm±1mm
16k R	96.5mm±1mm

Preset value: (inch)

LetterR	104.8mm±1mm
A4R	113.6mm±1mm
B5R	93.6mm±1mm
16k R	101.6mm±1mm
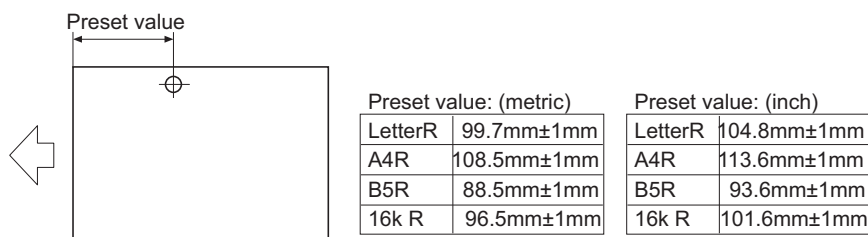
3.Press the [Start] key to set the setting value.

Setting: 2Punch(L)2

1.Select [2Punch(L)2].

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data varia-tion
2-hole long-edge punch position adjustment (2nd hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
  Reduce the specified value if the punch position is longer than specified.

Preset value: 80±0.5mm (metric)
69.85±0.5mm (inch)
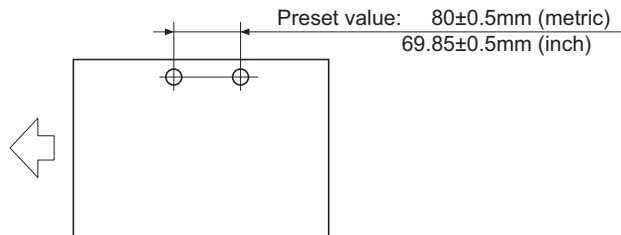
3.Press the [Start] key to set the setting value.

Setting: 3/4Punch(L)1

1.Select [3/4Punch(L)1].

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
3-hole and 4-hole long-edge punch position adjustment (1st hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
  Reduce the specified value if the punch position is longer than specified.

Preset value

Preset value: (metric)	
A4R	28.5mm±1mm

Preset value: (inch)	
LetterR	31.8mm±1mm
A4R	40.5mm±1mm
16k R	28.5mm±1mm
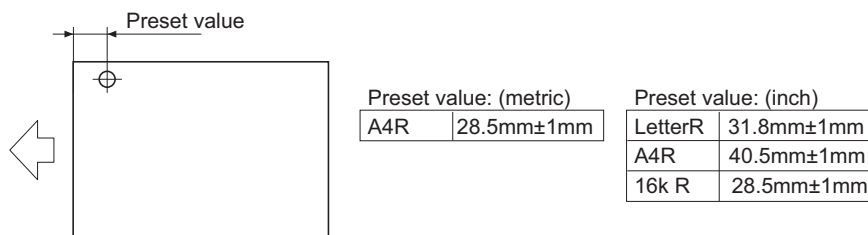
3.Press the [Start] key to set the setting value.

Setting: 3/4Punch(L)2

1.Select [3/4Punch(L)2].

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
3-hole and 4-hole long-edge punch position adjustment (2nd hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
  Reduce the specified value if the punch position is longer than specified.

Preset value: 80±0.5mm (metric) 4 holes
                  107.95±0.5mm (inch) 3 holes
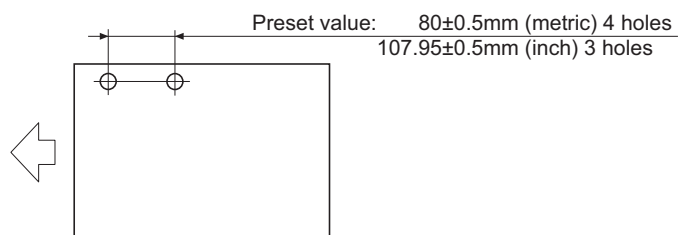
3.Press the [Start] key to set the setting value.

Setting: 3/4Punch(L)3
1.Select [3/4Punch(L)3].
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
3-hole and 4-hole long-edge punch position adjustment (3rd hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
Reduce the specified value if the punch position is longer than specified.

Preset value: 160±0.5mm (metric) 4holes
215.9±0.5mm (inch) 3 holes
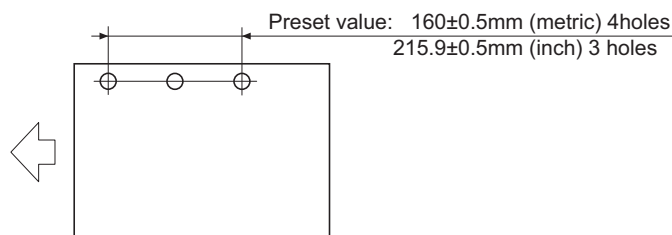
3.Press the [Start] key to set the setting value.

Setting: 4Punch(L)4
1.Select [4Punch(L)4].
2.By using the [+] [-] keys or the numeric keys, change the setting value.

Content to adjust	Setting range	Initial setting	Data variation
4-hole long-edge punch position adjustment (4th hole)	-10 to 10	0	0.26mm

* :Increase the specified value if the punch position is shorter than specified.
Reduce the specified value if the punch position is longer than specified.

Preset value: 240±0.5mm (metric) 4 holes

3.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U247	Paper feed operation check (Message: Check Paper Feeder)

Contents

Turn the motor and clutch power on for each feed unit.

Purpose

Execute to check motor and clutch operation of each feed unit.

Method

1. Press the [Start] key.
2. Select the item to operate.
   * :The screen for setting is displayed.

Items	Contents
PF	Operates 1-tray paper feeder
2PF	Operates 2-tray paper feeder
LCF	Operate the high capacity feeder

Setting: PF

1. Select the item to set.

Display		Contents
Motor	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Clutch	Feed2 Clutch	PF paper feed clutch (PFFCL) ON
	V Feed2 Clutch	PF conveying clutch (PFCCL) ON
Execute		Starts operation

2. Select [Execute].
3. Press the [Start] key. Starts the motor operation.
   * :To stop the operation of the motor, press the [Stop] key.

Setting: 2PF

1. Select the item to set.

Display		Contents
Motor	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Clutch	Feed3 Clutch	PF paper feed clutch 1 (PFFCL1) ON
	Feed4 Clutch	PF paper feed clutch 2 (PFFCL2) ON
	V Feed3 Clutch	PF conveying clutch 1 (PFCCL1) ON
	V Feed4 Clutch	PF conveying clutch 2 (PFCCL2) ON
Execute		Starts operation

2. Select [Execute].
3. Press the [Start] key. Starts the motor operation.
   * :To stop the operation of the motor, press the [Stop] key.

Setting: LCF

1.Select the item to set.

Display		Contents
Motor	Off	PF paper feed motor (PFPFM) OFF
	On	PF paper feed motor (PFPFM) ON
Clutch	Feed3 Clutch	PF paper feed clutch (PFFCL) ON
	V Feed3 Clutch	PF conveying clutch (PFCCL) ON
Execute		Starts operation

2.Select [Execute].

3.Press the [Start] key. Starts the motor operation.

   * :To stop the operation of the motor, press the [Stop] key.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U250	Checking/clearing the maintenance cycle (Message: Set Maintenance Counter Pre-set)

Contents
　　Changes the pre-set values for the maintenance cycle and automatic grayscale adjustment.
Purpose
　　Change the timing to display the message for maintenance and automatic grayscale adjustment

Setting
　　1.Press the [Start] key.
　　2.Select the item to set.
　　3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
M.Cnt A	Changes the maintenance counter (Kit A)	0 to 9999999	200000 [*4] 300000 [*5]
M.Cnt B	Change the maintenance counter preset value (Kit B)	0 to 9999999	200000 [*4] 300000 [*5]
M.Cnt HT	Change the maintenance counter preset value (HT adjustment)	0 to 9999999	0
Casse1	Change the maintenance counter preset value (Cassette 1)	0 to 9999999	300000
Cass2 [*1]	Change the maintenance counter preset value (Cassette 2)	0 to 9999999	300000
Cass3 [*2]	Change the maintenance counter preset value (Cassette 3)	0 to 9999999	300000
Cass4 [*3]	Change the maintenance counter preset value (Cassette 4)	0 to 9999999	300000

　　[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only
　　[*4]: 35 ppm model, [*5]: 40 ppm model

　　4.Press the [Start] key to set the setting value.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U251	Checking/clearing the maintenance counter (Message: Clear Maintenance Counter)

Contents
　　Displays, clears or changes the maintenance count.
Purpose
　　Execute to check the maintenance count
　　Also, clear the count at the maintenance.

Setting
　　1.Press the [Start] key.
　　2.Select the item to set.
　　3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range
M.Cnt A	Maintenance cycle counter (Kit A)	0 to 9999999
M.Cnt B	Maintenance cycle counter (Kit B)	0 to 9999999
M.Cnt HT	Maintenance cycle counter (HT adjustment)	0 to 9999999
Cass1	Maintenance cycle counter value (cassette 1)	0 to 9999999
Cass2 [*1]	Maintenance cycle counter value (cassette 2)	0 to 9999999
Cass3 [*2]	Maintenance cycle counter value (cassette 3)	0 to 9999999
Cass4 [*3]	Maintenance cycle counter value (cassette 4)	0 to 9999999
Clear	Clears all the maintenance counts	0

　　[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only

Clearing
　　1.Select [Clear].
　　2.Press the [Start] key to clear the setting value.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U252	Destination (Message: Set Destination)

Contents

Switch the operations and screens of the main unit according to the destination.

Purpose

Execute after initializing the backup RAM, in order to return the setting to the value before replacement or initialization

Method

1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Japan Metric[*1]	Japan metric
Inch[*2]	Inch
Europe Metric[*2]	Europe Metric
Asia Pacific[*2]	Asia Pacific
Australia[*2]	Australia
China[*2]	China
Korea[*2]	Korea

[*1]: 100 V model only, [*2]: Except 100 V model
* :Initial setting: Destination
3.Press the [Start] key.
* :Initializes according to the destination
4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
* :An error code is displayed when an error occurs.
When errors occur, turn the power switch off then on, and execute initialization using maintenance mode U252.

Error codes

Items	Contents
0001	Controller (Entity Error)
0002	Controller error
0020	Engine error
0040	Scanner error

U253	Switching the double/single counts (Message: Set Double/Single Count)

Contents

Switches the count timing for the total counter and other counters by color mode.

Purpose

Select, according to user's request (copy service provider), if the maximum size paper is to be counted as one sheet (single count) or two sheets (double count)

Setting

1.Press the [Start] key.

2.Select [Color] or [B/W].

Items	Contents
Full Color	Switch the counter for full color mode (Single/Double Count)
Mono Color [*1]	Switch the counter for B/W mode (Single/Double Count)
B/W	Switch the counter for B/W mode (Single/Double Count)

[*1]: Appears if U276 set to other than [Mode0]

3.Select [SGL(All)] or [DBL(Folio)].

Items	Contents
SGL(All)	Sets single count for all the paper sizes
DBL(Legal)	Set single count for Legal size or smaller
DBL(Folio)	Set double count for Folio size or larger [*2]

* :Initial setting: SGL(All)

[*2]: The Folio length can be set to between 318 and 356 mm using maintenance mode U035. However, the double count will be applied when the set value is 330mm (Initial value) or longer.

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U260	Switching the timing for copy counting (Message: Set Copy Count Mode)

Contents

Switches the count timing for the total counter and other counters between paper feed and eject.

Purpose

Change the count timing according to the user's request

Setting

1.Press the [Start] key.

2.Selects the copy count timing.

Items	Contents
Feed	When secondary paper feed starts.
Eject	Selects the paper eject timing

   * :Initial setting: Eject

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U265	Setting by destination (Message: Set Model Destination)

Contents

Sets the OEM code.

Purpose

Execute when replacing the main PWB, etc.

Setting

1.Press the [Start] key.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents
No.	Displays the OEM code

3.Press the [Start] key to set the setting value.

4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U271	Setting the page count unit (Message: Set Page Count Unit)

Contents

Execute the long paper count setting.

Purpose

Execute to change the long paper count.

* :If double count is set in U253, the value multiplied with this is the long paper count.

Setting

1.Press the [Start] key.

2.Select the item to set.

3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data varia-tion
Banner A	Count setting of Long Paper A (470.1mm to 915mm/18.51" to 36")	2 to 30	2	-
Banner B	Count setting of Long Paper B (915.1mm to 1220mm/36.01" to 48")	2 to 30	3	-

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U276	Switching the copy count mode (Message: Set Charge Count Mode)

Contents

Set the single color count mode

Purpose

Execute to change the billing counter to count up in the single color mode.

Setting

1.Press the [Start] key.

2.Select the item to set.

Items	Contents
Mode0	Count the single color count in the full color counter
Mode1	Count the single color count in the single color counter

* :Initial setting: Mode1

3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U278	Delivery date setting (Message: Set Delivery Date)

Contents
    Registers the date of delivery of the machine.

Purpose
    Execute when installing the machine. Execute to check the delivery date of the machine.

Method
    1.Press the [Start] key.
    2.Select [Today].
    3.Press the [Start] key.
      * :Sets the delivery date of the machine.

Clearing
    1.Select [Clear].
    2.Press the [Start] key.
      * :Clears the delivery date of the machine.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U284	Setting the 2-color copy (Message: Set 2 Color Copy)

Contents
    Sets whether to use the 2-color copy.

Purpose
    Change the setting according to the user's request

Setting
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
B/W	2-color copy enabled, B/W count
Mono Color	2-color copy enabled, mono color count
Off	2-color copy disabled

    * :Initial setting: Mono Color
    * :When setting it to on, 2-color copy appears on the color function screen.
    3.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U285	Set Service Status Page (Message: Set Service Status Page)

Contents
Determines whether to display the digital dot coverage report on the report print.

Purpose
Change the setting according to the user's request

Setting
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
On	Displays the digital dot coverage.
Off	Not to display the digital dot coverage.

　* :Initial setting: On
3.Press the [Start] key. Set the setting value.

Completion
Press the [Stop] key.
　* :The screen for selecting a maintenance item No. is displayed.

U323	Abnormal temperature and humidity notification setting (Message: Set Abnormal Heat and Humidity Warning)

Contents
Sets whether to indicate the notification when detecting abnormal temperature and humidity.

Purpose
Change the setting according to the user's request

Setting
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
On	Indicate the abnormal temperature and humidity notification
Off	Do not indicate the abnormal temperature and humidity notification

　* :Initial setting: On
3.Press the [Start] key. Set the setting value.

Completion
Press the [Stop] key.
　* :The screen for selecting a maintenance item No. is displayed.

U325	Paper interval setting (Message: Set Paper Interval (Add Toner))

Contents
    Sets the print interval at high coverage.
Purpose
    Changes the print interval at high coverage.

Setting
    1.Press the [Start] key.
    2.Select the item to set.
    3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Interval	Sets On/Off of print interval at high coverage.	On/Off	Off
Average	Set the average number of sheets (parameter)	1 to 255	100
Threshold	Sets the coverage threshold to start lowering.	-	-
Rate	Displays the down rate	-	-

    4.Press the [Start] key to set the setting value.

Setting: Threshold
    1.Select the item to set.
    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Coverage threshold to start lowering for Cyan	1 to 100	15
M	Coverage threshold to start lowering for Magenta	1 to 100	15
Y	Coverage threshold to start lowering for Yellow	1 to 100	15
K	Coverage threshold to start lowering for Black	1 to 100	20

    3.Press the [Start] key to set the setting value.

Method: Rate
    * :Display each setting values.

Items	Contents	Setting range	Initial setting
C	Cyan down rate	50 to 100	100
M	Magenta down rate	50 to 100	100
Y	Yellow down rate	50 to 100	100
K	Black down rate	50 to 100	100

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U326	Black line cleaning indication (Message: Set Black Line Clean Display)

Contents

Sets whether to indicate the black lines cleaning guidance when detecting black lines.

Purpose

Displays the cleaning guidance to reduce the service call with the black lines by dust on the contact glass when scanning from the document processor.

Method

1.Press the [Start] key.

2.Select the item to set.

　 * :The screen for setting is displayed.

Items	Contents
Black Line Mode	Sets On/Off of the black line cleaning guidance indication

3.Select the item to set.

Items	Contents
On	Indicate the black lines cleaning guidance
Off	Black line cleaning guidance is not indicated

　 * :Initial setting: On

4.Press the [Start] key. Set the setting value.

Completion

Press the [Stop] key.

　 * :The screen for selecting a maintenance item No. is displayed.

U327	Cassette heater control setting (Message: Set Cassette Heater Control)

Contents
Selects the cassette heater control setting.

Purpose
Selects the cassette heater control setting
Sets the cassette heater for the optional cassette.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
On	Sets the cassette heater control On (installed).
Off	Sets the cassette heater control Off (not installed).

    * :Initial setting: Off
    * :Drum refresh is not executed at power-up when the cassette heater control is [On].
3.Press the [Start] key. Set the setting value.

Completion
Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U332	Adjusting the black coverage coefficient (Message: Adjust Coverage Size Calculation Rate)

Contents
Sets the coefficient of custom size with A4/Letter size. The coefficient set here is used to convert the black ratio in relation to the A4/Letter size and to display the result in the service status page.

Purpose
Set the coefficient for converting the black ratio for custom sizes in relation to the A4/Letter size

Setting
1.Press the [Start] key.
2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Rate	Set the coefficient for converting the black ratio for custom sizes in relation to the A4/Letter size.	0.1 to 3.0	1.0
Mode	Switch full-color count and color coverage count display	0: Full color 1: by coverage	0
Level1	Sets low coverage threshold value	0.1 to 99.8	1.0
Level2	Sets middle coverage threshold value	0.2 to 99.9	2.5

    4.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U341	Printer cassette setting (Message: Set Printer Exclusive Cassette)

Contents

Sets the cassette to printer output only.

Purpose

Execute it when securing a cassette for printer. The cassette set to on is for printer only and it cannot be used for copy.

Setting

1.Press the [Start] key.
2.Select the item to set.
  * :Multiple cassettes are selectable.

Items	Contents
Cassette1	Setting cassette 1 to the printer paper source
Cassette2 *1	Setting cassette 2 to the printer paper source (paper feeder)
Cassette3 *2	Setting cassette 3 to the printer paper source (paper feeder)
Cassette4 *3	Setting cassette 4 to the printer paper source (paper feeder)

*1: 500 PF only, *2: 500×2/2000 PF only, *3: 500×2 PF only
  * :Initial setting: Off (Cassette1?4)
3.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U343	Duplex priority mode (Message: Set Duplex Priority Mode)

Contents

Switches between duplex or simplex copy for the initial copy mode.

Purpose

Sett the frequently used settings depending on the user's usage.

Setting

1.Press the [Start] key.
  * :Select the item to set.

Items	Contents
On	Duplex copy
Off	Single-side copy

  * :Initial setting: Off
2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U345	Setting the value for maintenance due indication (Message: Set Maintenance Time Soon Display)

Contents

Sets when to display a message notifying that the time for maintenance is about to reach, by setting the number of prints that can be made before the current maintenance cycle reaches. Displays the maintenance precaution message when the page count reaches the set value before the maintenance count.

Purpose

Change the time for maintenance precaution display.

Setting

1.Press the [Start] key.
2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Cnt	Setting the maintenance time precaution display (Remaining number of prints that can be made before the current maintenance cycle reaches)	0 to 9999	0
SSD Life	Setting the maintenance time precaution display for the SSD replacement.	0 to 99	5(%)

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U346	Selecting Sleep Mode (Message: Selecting Sleep Mode)

Contents
Changes the sleep mode settings.
Purpose
Changes the sleep mode settings.

Method
1.Press the [Start] key.
2.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
Timer/Sleep Level	BAM conformity country setting
Auto sleep	Switches AutoSleep function setting
Power Off Setting	Set display for the power shutdown

Setting: Timer/Sleep Level
1.Select the item to set.

Items	Contents
More Energy Save	BAM conformity setting On Sleep mode is disabled (Quick Recovery setting is disabled)
Less Energy Save	BAM conformity setting Off Sets Sleep Level (Quick Recovery or Energy Saver)

  * :Initial setting: More Energy Save
2.Press the [Start] key. Set the setting value.
3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
Setting: Auto sleep
1.Select the item to set.

Items	Contents
On	The sleep mode is disabled from the system menu.
Off	The sleep mode is enabled from the system menu.

  * :Initial setting: On
2.Press the [Start] key to set the setting value.
Setting: Power Off Setting
1.Select the item to set.

Items	Contents
User Confirm	Sets the user check screen
Msg - Remote	Set the warning message - remote disconnection

  * :Initial setting: On
2.Press the [Start] key to set the setting value.

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U402	Adjusting the printing margins (Message: Adjust Print Margin)

Contents

Adjusts the scan image margins.

Purpose

Make the adjustment if margins are incorrect

* :If the leading edge margin is less than the specified value, it may cause jam at the fuser.
* :If there is no bottom margin, when continuously printing, it may cause an image smudge on the second page.

Adjustment

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Press the [Start] key to output a test pattern.
4. Press the [System Menu] key.
5. Select the item to set.

Items	Contents	Setting range	Initial setting	Data varia- tion
Lead	Adjusts the printer leading edge margin	0.0 to 10.0	4.0	0.1 mm
A Margin	Printer left margin	0.0 to 10.0	3.0	0.1 mm
C Margin	Printer right margin	0.0 to 10.0	3.0	0.1 mm
Trail	Printer trailing edge margin	0.0 to 10.0	3.9	0.1 mm

6. By using the [+] [-] keys or the numeric keys, change the setting value.

* :When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.

Leading edge margin
(4.0 +1.5/-0mm)

A

Left margin
(Within 4.0mm)

Right margin
(Within 4.0mm)

Trailing edge margin
(Within 4.0mm)
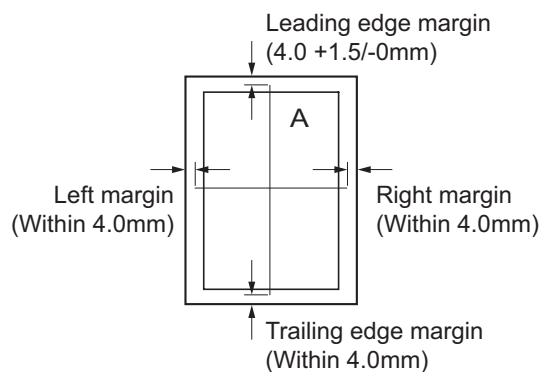
Figure 6-39

7. Press the [Start] key to set the setting value.

Precautions

Appropriate margins are not obtained after this adjustment, execute the following maintenance mode.
U034 (P.6-228) > U402

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U403	Adjusting margins for scanning an original on the contact glass (Message: Adjust Scanning Margin(Table))

Contents
　　Adjusts the margins for the table scanning.
Purpose
　　Make the adjustment if margins are incorrect

Adjustment
　　1.Press the [Start] key.
　　2.Press the [System Menu] key.
　　3.Place an original and press the [Start] key to make a test copy.
　　4.Press the [System Menu] key.
　　5.Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data varia-tion
A Margin	Adjusts the scanner left margin	0.0 to 10.0	2.0	0.5mm
B Margin	Adjusts the scanner leading edge margin.	0.0 to 10.0	2.0	0.5mm
C Margin	Adjusts the scanner right margin	0.0 to 10.0	2.0	0.5mm
D Margin	Adjusts the scanner trailing edge margin	0.0 to 10.0	2.0	0.5mm

　　6.By using the [+] [-] keys or the numeric keys, change the setting value.
　　　* :When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.

Leading edge margin (4.0 +1.5/-0mm)
A
Left margin (Within 4.0mm)
Right margin (Within 4.0mm)
Trailing edge margin (Within 4.0mm)
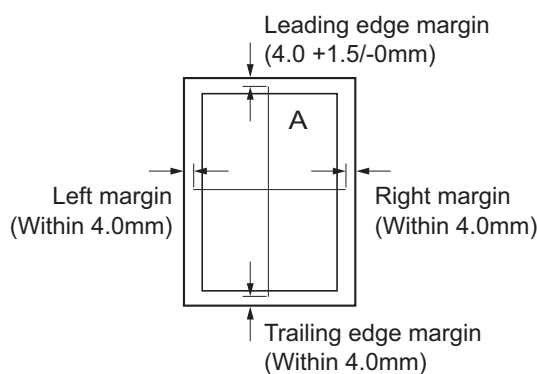
Figure 6-40

　　7.Press the [Start] key to set the setting value.

Precautions
　　Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.
　　U034(P.6-228) > U402(P.6-334) > U403

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U404	**Adjusting margins for scanning an original from the document processor** **(Message: Adjust Scanning Margin(DP))**

Contents

Adjusts the margins for DP scanning.

Purpose

Make the adjustment if margins are incorrect

Adjustment

1. Press the [Start] key.
2. Press the [System Menu] key.
3. Place an original on the DP and press the [Start] key to make a test copy.
4. Press the [System Menu] key.
5. Select the item to adjust.

Items	Contents	Setting range	Initial setting	Data variation
A Margin	Adjusts the DP left margin	0.0 to 10.0	3.0	0.5mm
B Margin	Adjusts the DP leading edge margin	0.0 to 10.0	2.5	0.5mm
C Margin	Sets the DP right margin	0.0 to 10.0	3.0	0.5mm
D Margin	Adjusts the DP trailing edge margin	0.0 to 10.0	4.0	0.5mm
A Margin(Back) [1]	Adjusts the DP left margin (2nd side)	0.0 to 10.0	3.0	0.5mm
B Margin(Back) [1]	Adjusts the DP leading edge margin (2nd side)	0.0 to 10.0	2.5	0.5mm
C Margin(Back) [1]	Adjusts the DP right margin (2nd side)	0.0 to 10.0	3.0	0.5mm
D Margin(Back) [1]	Adjusts the DP trailing edge margin (2nd side)	0.0 to 10.0	4.0	0.5mm

[1]: Simultaneous duplex scan model only

6. By using the [+] [-] keys or the numeric keys, change the setting value.

  * :When the setting value is increased, the margin widens, and it narrows when the setting value is decreased.

Leading edge margin
(4.0 +1.5/-0mm)

Left margin
(Within 4.0mm)

Right margin
(Within 4.0mm)

Trailing edge margin
(Within 4.0mm)
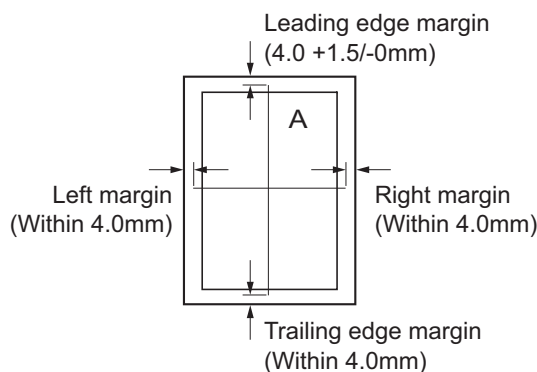
Figure 6-41

7. Press the [Start] key to set the setting value.

Precautions

Check the copy image after the adjustment. If the image is still incorrect, adjust the following in the maintenance mode.

U034 (P.6-228) > U402 (P.6-334) > U403 (P.6-335) > U404

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U407	Adjusting the writing timing (Duplex/Reversal) (Message: Adjust Scanning Margin(DP))

Contents

Adjusts the writing timing when duplex printing.

Purpose

Adjusted when the back page image of duplex copying is printed in rotated 180 degrees from the scanner reading image (image on the memory)

Precautions

Adjust this after finishing the following maintenance modes.
U034(P.6-228) > U402(P.6-334) > U66(P.6-240)>
U403 (P.6-335) > U71 (P.6-244) > U404 (P.6-336) > U407

Adjustment

1.Press the [Start] key.

2.Press the [System Menu] key.

3.Place an original on the DP and press the [Start] key to make a test copy.

4.Press the [System Menu] key.

5.Select [Adj Data].

Items	Contents	Setting range	Initial setting	Data varia-tion
Adj Data	Adjusts the leading edge timing when writing the image in the memory	-47 to 47	0	1dot

6.By using the [+] [-] keys or the numeric keys, change the setting value.

　For the copy example 1, increase the value.

　For the copy example 2, decrease the value.

　* :When the setting value is increased, the image moves forward, and it moves backward when the setting value is decreased.

Leading edge registration of the copy image (+1.0/-1.5 mm or less)

Original　　Copy example 1　　Copy example 2

Figure 6-42

7.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

　* :The screen for selecting a maintenance item No. is displayed.

U410	Adjusting the halftone automatically (Message: Half Tone Auto Adjustment)

Contents

Acquires the data for the automatic halftone adjustment and ID correction.

Purpose

Execute when the quality of reproduced halftones has dropped

Adjustment

1.Press the [Start] key.

   * :Displays the execution information screen.

   * :Test pattern 1, Test patter 2 and Test pattern 3 are output on the A4 paper.

2.Set the test pattern output on the original glass with the arrow facing the rear side and print side face-down.

   * :Load about 20 sheets of the blank paper on Test Pattern 1.
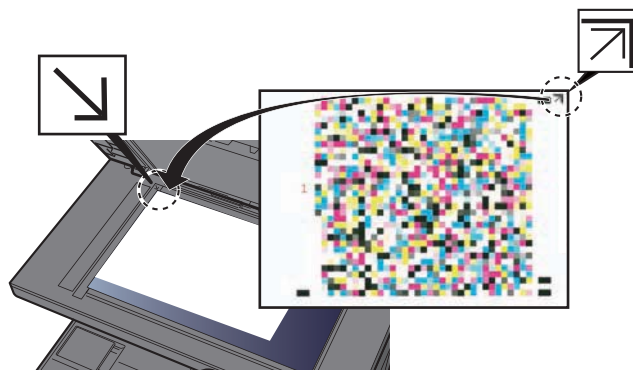
Figure 6-43

3.Press the [Start] key.

   * :The first auto adjustment is executed.

4.Set the output Test Pattern 2 as the original.

   * :Load about 20 sheets of the blank paper on Test Pattern 2.

5.Press the [Start] key.

   * :The second auto adjustment is executed.

6.Set the output Test Pattern 3 as the original.

   * :Load about 20 sheets of the blank paper on Test Pattern 3.

7.Press the [Start] key.

   * :The third auto adjustment is executed and Test pattern 4 is output.

8.Set the output Test Pattern 4 as the original.

   * :Load about 20 sheets of the blank paper on Test Pattern 4.

9.Press the [Start] key.

   * :The 4th auto adjustment is executed.

10.[Finish] appears after normal completion.

11.An error code appears when an error occurs.

Error codes

Codes	Occurrence position	Contents
S001	Scanner	Original reference patch is not detected
S002		Original deviation is in excess in the main scanning direction
S003		Original deviation is in excess in the sub-scanning direction
S004		Original skew is in excess
S005		Original type error
SFFF		Other scanner error
E001	Engine	Engine status error
E002		Adjustment result error
EFFF		Other engine error
C001	Controller	Pause status
C002		Adjustment result error
C110		Adjustment value (increase amount) value error (black)
C120		Adjustment value (increase amount) value error (cyan)
C140		Adjustment value (increase amount) value error (magenta)
C180		Adjustment value (increase amount) value error (yellow)
C210		Adjustment value (increase rate) error (black)
C220		Adjustment value (increase rate) value error (cyan)
C240		Adjustment value (increase rate) value error (magenta)
C280		Adjustment value (increase rate) value error (yellow)
CFFF		Other controller error

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U411	Scanner auto adjustment (Message: Scanner Auto Adjustment)

Contents

Uses the specified originals and automatically adjusts the following items in the scanner and the DP scanning sections.

Scanner section: Original size magnification, leading edge timing, center line, chromatic aberration in main/sub scanning direction, MTF correction, color/monochrome input gamma, color correction matrix automatic adjustment

DP scanning section: Original size magnification, leading edge timing and center line MTF correction, Input gamma, automatic adjustment of color correction matrix

Purpose

Automatically adjusts the scanner and the DP scanning sections.

Items	Contents	Original for adjustment (P/N)	
Table (Chart A)	Automatically adjusts the table scanning. Magnification in the sub scanning direction / Leading edge timing Center line / chromatic aberration Sub scanning chromatic aberration / MTF correction gamma in color mode / color correction matrix Input gamma in monochrome mode	7505000107	
DP FU(ChartB) **DP FD(ChartB)**	Execute the 1st side automatic adjustment in the DP scanning section. Execute the 2nd side automatic adjustment in the DP scanning section. Magnification in the sub-scanning direction Leading edge timing Center line Trailing edge timing	7505000106	
DP FU(ChartA)	Execute the 1st side automatic adjustment in the DP scanning section. Main scanning chromatic aberration / sub scanning chromatic aberration / MTF correction gamma in color mode / color correction matrix Input gamma in monochrome mode	7505000107	

Items	Contents	Original for adjustment (P/N)
DP FD(ChartA)	Execute the 2nd side automatic adjustment in the DP scanning section. Main scanning chromatic aberration / sub scanning chromatic aberration / MTF correction gamma in color mode / color correction matrix	7505000107
Target	Set-up for obtaining the target value	7505000107
DP Auto Adj	Adjusting the document processor scanning section with the chart output by the local machine Magnification in the sub-scanning direction Leading edge timing Center line	Without Chart B, executed in a simplified manner.

*: Cut the trailing edge of the DP adjustment original (ChartB) as shown below.

Method: Table (Chart A)
Automatic input of the target value
    * :Usually, it adjusts here.
  1. Set the specified original (P/N: 7505000107) on the table.
  2. Enter maintenance item U411.
  3. Select [Target].
  4. Select [Auto].
  5. Press the [Start] key.
  6. Select [Table(ChartA)].
  7. Press the [Start] key to read the barcode of the original chart and to start the automatic adjustment.
  8. When automatic adjustment has normally completed, [OK] is displayed.

    * :When the error code "1e" or "1f" is displayed during the automatic adjustment in the table scanning and the barcode is not read, adjust the following after manually inputting the target value.

Manual input of the target value
  1. Enter the target values which are shown on the lower part of the front page of the adjustment original (P/N: 7505000107) by executing the maintenance mode U425.
  2. Set the specified original (P/N: 7505000107) on the table.
  3. Enter maintenance item U411.
  4. Select [Target].
  5. Select [U425].

6.Press the [Start] key.
7.Select [Table(ChartA)].
8.Press the [Start] key to start Auto adjustment.
9.When automatic adjustment has normally completed, [OK] is displayed.

If the image position is shifted largely at the DP adjustment below, an error might occur when adjusting it with ChartA. First, use ChartB (image position) to adjust it and then use ChartA (color).

Method: DP FU (Chart B)
    * :Adjusting the first side of the DP duplex scanning
1.Set the specified original (P/N: 7505000106) face-up on the DP.
2.Enter maintenance item U411.
3.Select [DP FU(ChartB)].
4.Press the [Start] key to start Auto adjustment.
5.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP FD (Chart B)
    * :Adjusting the second side of the DP duplex scanning
1.Set the specified original (P/N: 7505000106) face-up on the DP.
2.Enter maintenance item U411.
3.Select [DP FD(ChartB)].
4.Press the [Start] key to start Auto adjustment.
5.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP FU (Chart A)
Automatic input of the target value
1.Set the specified original (P/N: 7505000107) face-up on the DP.
2.Enter maintenance item U411.
3.Select [Target].
4.Select [Auto].
5.Press the [Start] key.
6.Select [DP FU(ChartA)].
7.Press the [Start] key to read the barcode of the original chart and to start the automatic adjustment.
8.When automatic adjustment has normally completed, [OK] is displayed.

    * :When the error code "1e" or "1f" is displayed during the automatic adjustment in the DP scanning and the barcode is not read, adjust the following after manually inputting the target value.

Manual input of the target value
1.Enter the target values which are shown on the lower part of the front page of the adjustment original (P/N: 7505000107) by executing the maintenance mode U425.
2.Set the specified original (P/N: 7505000107) face-up on the DP.
3.Enter maintenance item U411.
4.Select [Target].
5.Select [U425].
6.Press the [Start] key.
7.Select [DP FU(ChartA)].
8.Press the [Start] key to start Auto adjustment.
9.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP FD (Chart A)
Automatic input of the target value
    1.Set the specified original (P/N: 7505000107) face-up on the DP.
    2.Enter maintenance item U411.
    3.Select [Target].
    4.Select [Auto].
    5.Press the [Start] key.
    6.Select [DP FD(ChartA)].
    7.Press the [Start] key to read the barcode of the original chart and to start the automatic adjust-
       ment.
    8.When automatic adjustment has normally completed, [OK] is displayed.

     * :When the error code "1e" or "1f" is displayed during the automatic adjustment in the DP
       scanning and the barcode is not read, adjust the following after manually inputting the target
       value.

Manual input of the target value
    1.Enter the target values which are shown on the lower part of the front page of the adjustment
       original (P/N: 7505000107) by executing the maintenance mode U425.
    2.Set the specified original (P/N: 7505000107) face-up on the DP.
    3.Enter maintenance item U411.
    4.Select [Target].
    5.Select [U425].
    6.Press the [Start] key.
    7.Select [DP FU(ChartA)].
    8.Press the [Start] key to start Auto adjustment.
    9.When automatic adjustment has normally completed, [OK] is displayed.

Method: DP Auto Adj
    1.Set A4/Letter paper.
    2.Press the [Start] key to print the adjustment original.
    3.Set the adjustment original output on the table and press the [Start] key.
    4.Set the output adjustment original with face-up on the DP.
    5.Press the [Start] key and scan the original.
    6.Press the [Start] key to start the 1st side automatic adjustment.
    7.Set the output adjustment original with face-up on the DP.
    8.Press the [Start] key and scan the original.
    9.Press the [Start] key to start the 2nd side automatic adjustment.

     * :When automatic adjustment has normally completed, [OK] is displayed. If an error occurs
       during auto adjustment, error code "NGXX" is displayed and operation stops. In this case,
       check the error and execute the automatic adjustment again.

Error codes

Codes	Contents	Corrective action
00	Automatic adjustment success	-
01	Black band detection error (Table scanning leading edge skew in the sub-scanning direction)	1. Set the original correctly and execute the adjustment again. 2. Check lighting of the lamp or replace it.
04	Black band is not detected (Table leading edge in the sub-scanning direction)	
05	Black band is not detected (Table far end in the main scanning direction)	
06	Black band is not detected (Table near end in the main scanning direction)	
07	Black band is not detected (Table trailing edge in the sub-scanning direction)	
08	Black band is not detected (DP far end in the main scanning direction)	1. Check the attachment position of DP. 2. Check lighting of the lamp or replace it. 3. Check the back and front of the adjustment original.
09	Black band is not detected (DP near end in the main scanning direction)	
0a	Black band is not detected (DP leading edge in the sub-scanning direction)	
0b	Black band is not detected (Original check of DP leading edge in the sub-scanning direction)	
0c	Black band is not detected (DP trailing edge in the sub-scanning direction)	
0d	White band is not detected (DP trailing edge in the sub-scanning direction)	
0e	DMA time out	Turn the power switch off then on, and execute again.
0f	Magnification error in the sub-scanning direction	1. Turn the power switch off then on, and execute again. 2. Adjust manually. (U065 to U067, U070 to U072)
10	Leading edge error in the sub-scanning direction	
11	Trailing edge error in the sub-scanning direction	
12	DP skew error in the sub-scanning direction	
13	Maintenance request error	Turn the power switch off then on, and execute again.
14	Center line error in the main scanning direction	1. Turn the power off and on, and execute again. 2. Adjust manually. (U065 to U067, U070 to U072)
15	DP skew error in the main scanning direction	
16	Magnification error in the main scanning direction	

Codes	Contents	Corrective action
17	Service call error	Turn the power off and on, and execute again.
18	DP paper jam error	Set the original correctly and execute again.
19	PWB replacement error	-
1a	Original error	Clean the contact glass and slit glass. Exchange the adjustment original.
1b	Input gamma adjustment original error	Set the original correctly and execute again.
1c	Matrix adjustment original error	
1d	Original for the white reference correction coefficient error	
1e	Lab value detection error	Check the following and execute again. Is the bar code dirty? Is the original position correct? Is the bar code position correct?
1f	Lab value comparison error	Check the following and execute again. Is the acquired bar code the same? Is the original position correct? Is the bar code position correct?
20	Input gamma correction coefficient error	Set the original correctly and execute again.
21	Color correction matrix coefficient error	
30	Chromatic aberration adjustment original error	
63	Completed to obtain the test RAW	-

Completion
Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U412	Adjusting the uneven density (Message: Adjust Uneven Density)

Contents
　Scan the test pattern image distribution directly from the scanner .

Purpose
　Execute when the drum unit or laser scanner unit is replaced.
　Correct uneven developer/transfer density in the main scanning direction.
　　* :After completing, execute maintenance mode U464 [Calibration].

Method
　1.Press the [Start] key.
　2.Select the item to set.
　　* :The screen for executing is displayed.

Items	Contents
Normal Mode	Normal Mode
On/Off Config	Uneven density correction On/Off setting

Method: Normal Mode
　1.Press the [Start] key.
　　* :Output the test patter with the initial light intensity setting. (1st sheet)
　2.Set the test pattern 1 and place approximately 20 sheets of white paper on it.
　3.Press the [Start] key. Scanning starts.
　　* :Test pattern is output after completing scanning. (2nd sheet)
　　* :According to the test pattern of 1st sheet, output with -20% light intensity setting.
　4.Set the test pattern 1 and place approximately 20 sheets of white paper on it.
　5.Press the [Start] key. Scanning starts.
　　* :Test pattern is output after completing scanning. (3rd sheet)
　6.Set the test pattern 1 and place approximately 20 sheets of white paper on it.
　7.Press the [Start] key.
　　* :Check the correction result. [Finish] appears after normal completion.

1st retrial
　8.[Retry] appears unless normally completed.
　9.Execute Step 3 to 7

2nd retrial
　10.[Retry] appears unless normally completed.
　11.Execute Step 3 to 7
　　* :An error code appears when an error occurs.

Error codes list

Display	Contents	Display	Contents
S001	Patch is not detected	E002	Background image error
S002	Original position shift in the main scanning direction	E003	Density error
S003	Original position shift in the sub-scanning direction	E004	Uneven density error
S004	Original skew error	EFFF	Other engine error
S005	Original type error	C001	Controller error
SFFF	Other scanner error	CFFF	Other controller error
E001	Engine status error		

Setting: On/Off Config

1.Select the item to set.

Items	Contents
On	Enable the uneven density correction
Off	Disable the uneven density correction

    * :Initial setting: On

    * :Automatically set to on after completing correction.

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

U425	Set Target (Message: Set Target)

Contents

Enter the lab values which are shown on the back page of the adjustment original (P/N: 7505000107).

Purpose

Enter data in order to correct for differences in originals during the automatic adjustment

Method

1. Press the [Start] key.
2. Select the item to set.

Items	Contents
ChartA	Setting the adjustment value of the table scanning
ChartB	Sets the adjustment value of the DP scanning

Method: ChartA

1. Press the [Start] key.
2. Select the item to set.

Items	Contents
White	Setting the white patch for the adjustment original
Black	Setting the black patch for the adjustment original
Gray1	Setting the Gray1 patch for the adjustment original
Gray2	Setting the Gray2 patch for the adjustment original
Gray3	Setting the Gray3 patch for the adjustment original
C	Setting the cyan patch for the adjustment original
M	Setting the magenta patch for the adjustment original
Y	Setting the yellow patch for the adjustment original
R	Setting the red patch for the adjustment original
G	Setting the green patch for the adjustment original
B	Setting the blue patch for the adjustment original
Adjust Original	Setting the main scanning and sub-scanning directions

Setting: White

1. Select the item to set.
2. By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	93.6	-
a	A value setting	-200.0 to 200.0	0.9	-
b	B value setting	-200.0 to 200.0	-0.4	-

3. Press the [Start] key to set the setting value.

Setting: Black
    1.Select the item to set.
    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the
       back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	10.6	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	-0.7	-

    3.Press the [Start] key to set the setting value.

Setting: Gray1
    1.Select the item to set.
    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the
       back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	76.2	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	1.2	-

    3.Press the [Start] key to set the setting value.

Setting: Gray2
    1.Select the item to set.
    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the
       back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	25.2	-
a	A value setting	-200.0 to 200.0	-0.2	-
b	B value setting	-200.0 to 200.0	-0.2	-

    3.Press the [Start] key to set the setting value.

Setting: Gray3
    1.Select the item to set.
    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the
       back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	51.3	-
a	A value setting	-200.0 to 200.0	-0.3	-
b	B value setting	-200.0 to 200.0	0.3	-

    3.Press the [Start] key to set the setting value.

Setting: C

    1.Select the item to set.

    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	72.6	-
a	A value setting	-200.0 to 200.0	-32.8	-
b	B value setting	-200.0 to 200.0	-11.5	-

    3.Press the [Start] key to set the setting value.

Setting: M

    1.Select the item to set.

    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	48.1	-
a	A value setting	-200.0 to 200.0	69.9	-
b	B value setting	-200.0 to 200.0	-6.1	-

    3.Press the [Start] key to set the setting value.

Setting: Y

    1.Select the item to set.

    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	86.2	-
a	A value setting	-200.0 to 200.0	-18.6	-
b	B value setting	-200.0 to 200.0	81.7	-

    3.Press the [Start] key to set the setting value.

Setting: R

    1.Select the item to set.

    2.By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	46.7	-
a	A value setting	-200.0 to 200.0	54.2	-
b	B value setting	-200.0 to 200.0	38.6	-

    3.Press the [Start] key to set the setting value.

2R4/2R5/2R6

Setting: G

1. Select the item to set.
2. By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	67.8	-
a	A value setting	-200.0 to 200.0	-51.3	-
b	B value setting	-200.0 to 200.0	48.9	-

3. Press the [Start] key to set the setting value.

Setting: B

1. Select the item to set.
2. By using [Left/Right cursor] keys or the numeric keys, enter the values which are shown on the back page of the adjustment original.

Items	Contents	Setting range	Initial setting	Data variation
L	L parameter setting	0.0 to 100.0	38.8	-
a	A value setting	-200.0 to 200.0	25.3	-
b	B value setting	-200.0 to 200.0	-22.8	-

3. Press the [Start] key to set the setting value.

Setting: Adjust Original

* : This setting is usually unnecessary.

Items	Contents	Setting range	Initial setting	Data variation
Lead	Set the adjustment value of the leading edge.	4.0 to 6.0	5.0	0.1mm
Main Scan	Sets the adjustment value of the left edge.	9.0 to 11.0	10.0	0.1mm
Sub Scan	Set the adjustment value of the trailing edge.	265.0 to 267.0	266.0	0.1mm

1. Measure the distances "A", "B" and "C" from the upper edge of black belt 1 to the lower edge of black belt 3 of the adjustment original.
   Measurement procedure
   1) Measure the distance "A", "B" and "C" between two points as follows. (A: 30mm from the left edge, B: 105mm from the left edge, C: 180mm from the left edge)
   ?Measure the distance from the leading edge to the top edge of black belt 1.
   2) Apply the following formula for the values obtained: ((A+B+C)/3)
2. Enter the value solved in "Lead" using the the [+] [-] keys keys.
3. Press the [Start] key to set the setting value.
4. Measure the distance "F" from the left edge to the right edge of black belt 2 on the adjustment original.
   Measurement procedure
   Measure the distance "F" from the left edge at 21mm from the top edge of black belt 1to the right edge of black belt 2.
5. Enter the values measured in "Main Scan" using the the [+] [-] keys keys.

6.Press the [Start] key to set the setting value.

7.Measure the distance "D" and "E" from the top edge of black belt 1 to the bottom edge of black belt 3 on the adjustment original at two positions.

Measurement procedure

1) Measure the distance "D" and "E" between two points as follows. (D: Measure the distance from the leading edge to the trailing edge of black belt 3 on the adjustment original at 30mm of the left edge and deduct A. E: Measure the distance from the leading edge to the trailing edge of black belt 3 on the adjustment original at 180mm of the left edge and deduct C.)

2) Apply the following formula for the values obtained: (D/2+E/2)

8.Enter the value solved in "Sub Scan" using the the [+] [-] keys keys.

9.Press the [Start] key to set the setting value.

Original for adjustment
(P/N: 7505000107)

[Dist1] = (A+B+C)/3
[Dist2] = F
[Dist3] = D/2+E/2

Figure 6-44

Setting: DP(ChartB)

    * :This setting is usually unnecessary.

Items	Contents	Setting range	Initial setting	Data variation
Lead	Set the adjustment value of the leading edge.	14.0 to 16.0	15.0	0.1mm
Main Scan	Sets the adjustment value of the left edge.	14.0 to 16.0	15.0	0.1mm
Sub Scan	Set the adjustment value of the trailing edge.	265.0 to 269.0	267.0	0.1mm

1. Measure the distance "A" from the leading edge to the black belt (inside) on the adjustment original.
2. Enter the value solved in "Lead" using the the [+] [-] keys keys.
3. Measure the distance "B" from the left edge to the black belt (inside) on the adjustment original.
4. Enter the values measured in "Main Scan" using the the [+] [-] keys keys.
5. Measure the distance "C" from the leading black belt (inside) to the trailing black belt (inside) on the adjustment original.
6. Enter the values measured in "Sub Scan" using the the [+] [-] keys keys.
7. Press the [Start] key to set the setting value.
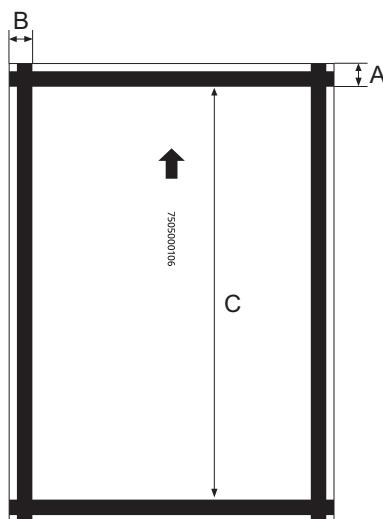
Original for adjustment
(P/N: 7505000106)

Figure 6-45

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U429	Adjusting the color balance offset (Message: Adjust Color Balance Offset)

Contents
　Displays/changes the density of each color in various image quality mode.
Purpose
　Execute to change each color's balance.

Method
　1.Press the [Start] key.
　1.Select the image mode to change the setting.
　　* :The screen for setting is displayed.

Items	Contents
Text+Photo	Density of each color in the text+photo mode
Photo	Density of each color in the photo mode
Photo/Printout	Each color's density in the printed photo mode
Text	Density of each color in the text mode
Graphics/Map	Density of each color in the map mode
Copy/Printout	Each color's density in the printed document mode

Setting: Text+Photo
　1.Select the item to set.
　2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

　　* :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
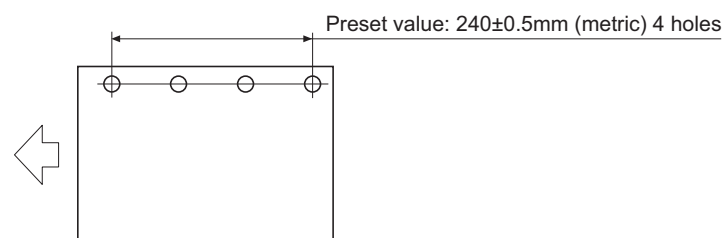　3.Press the [Start] key to set the setting value.

Setting: Photo
　1.Select the item to set.
　2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

　　* :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.
　3.Press the [Start] key to set the setting value.

Setting: Photo/Printout

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

    3.Press the [Start] key to set the setting value.

Setting: Text

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

    3.Press the [Start] key to set the setting value.

Setting: Graphics/Map

    1.Select the item to set.

    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	-5 to 5	0
M	Magenta color balance offset value	-5 to 5	0
Y	Yellow color balance offset value	-5 to 5	0
K	Black color balance offset value	-5 to 5	0

    * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

    3.Press the [Start] key to set the setting value.

Setting: Copy/Printout

   1.Select the item to set.

   2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
C	Cyan color balance offset value	0 to 10	5
M	Magenta color balance offset value	0 to 10	5
Y	Yellow color balance offset value	0 to 10	5
K	Black color balance offset value	0 to 10	5

   * :When the setting value is increased, the image gets thicker, and it is thinner when the setting value is decreased.

   3.Press the [Start] key to set the setting value.

Supplement

   Test copy of the original is available by pressing the [System Menu] key as interruption copy mode when executing this maintenance mode.

Completion

   Press the [Stop] key.

    * :The screen for selecting a maintenance item No. is displayed.

U464	ID correction setting (Message: Set ID Adjustment Mode)

Contents
Set permission/prohibition of the ID correction operation (calibration). Executes each setting of the calibration.

Purpose
Execute the calibration setting when an image failure occurs or depending on the user's request. Execute Calibration when replacing the maintenance kit.

Method
1. Press the [Start] key.
2. Select the item to set.
  * : The screen for setting is displayed.

Items	Contents
Permission	Permit/Prohibit Calibration
Time Interval	Sets the time interval to execute calibration after completing printing.
Mode	Color print mode setting
Leaving Time	Setting the time to determine whether to execute calibration when recovering from Sleep mode
Target Value	Setting the target sensor value for the thick layer calibration and light intensity calibration
Calib	Executing Calibration

Setting: Permission
1. Select [On] or [Off].

Items	Contents
On	Permitting Calibration
Off	Prohibiting Calibration

  * : Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: Time Interval
1. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Time(sec)	Calibration interval	0 to 9999	1200/900*1 (sec)

*1: 40 ppm model
  * : Setting is changeable in 10 count increments.
2. Press the [Start] key to set the setting value.

Setting: Mode
    1.Select the item to set.

Items	Contents
Short	Color print mode setting: Short
Normal	Color print mode setting: Normal
Long	Color print mode setting: Long
Auto	Color print mode setting: Auto

     * :Initial setting: Normal
    2.Press the [Start] key to set the setting value.

Setting: Leaving Time
    3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Time(min)	Setting the sleep timer	0 to 1440	1080 (min)

    4.Press the [Start] key to set the setting value.
Setting: Target Value
    1.Select the item to set.
    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Thickness(C)	Toner layer calibration (Cyan)	0 to 1000	680/930[*1]
Thickness(M)	Toner layer calibration (Magenta)	0 to 1000	610/900[*1]
Thickness(Y)	Toner layer calibration (Yellow)	0 to 1000	540/870[*1]
Thickness(K)	Toner layer calibration (Black)	0 to 1000	700/170[*1]
Gamma(C)	Light amount calibration (Cyan)	0 to 1000	445/430[*1]
Gamma(M)	Light amount calibration (Magenta)	0 to 1000	445/430[*1]
Gamma(Y)	Light amount calibration (Yellow)	0 to 1000	375/360[*1]
Gamma(K)	Light amount calibration (Black)	0 to 1000	465/430[*1]

    *1: 40 ppm model
    3.Press the [Start] key to set the setting value.
Method: Calib
    1.Select the item to execute.
    2.Press the [Start] key.
     * :Calibration is started.
      Same operation as [System Menu] - [Adjustment/Maintenance] - [Calibration].

Items	Contents
Regist	Execute the registration correction calibration
Full	Executes Full Calibration

Completion
    Press the [Stop] key.
     * :The screen for selecting a maintenance item No. is displayed.

U465	ID correction data (Message: ID Adjustment Data)

Contents

Refers to the ID correction data.

Purpose

Execute for data check.

Method

1.Press the [Start] key.

2.Select [Laser Power].

   * :The screen is switched.

Items	Contents
Laser Power	Displays the light intensity control value

   * :The current value is displayed.

Items	Contents
C	Displays the Cyan light intensity control value.
M	Displays the Magenta light intensity control value.
Y	Displays the Yellow light intensity control value.
K	Displays the Black light intensity control value.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U467	Color registration correction operation setting (Message: Set Color Regist Adjustment Mode)

Contents

Sets the operation of the color registration correction and transfer belt speed correction.
Also, sets the execution condition of the color registration correction by the LSU temperature variation.

Purpose

If the color registration is unstable due to the sensor failure, etc., set it to off to temporarily fix the control value.

Method

1. Press the [Start] key.
2. Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
Color Regist	Sets the color registration correction
Timing	Execute the color registration correction if the LSU temperature changes by the specified value after the previous correction

Setting: Color Regist

1. Select the item to set.

Items	Contents
On	Permitting the color registration correction operation
Off	Prohibiting the color registration correction operation

   * :Initial setting: On
2. Press the [Start] key to set the setting value.

Setting: Timing

1. By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
LSU Temp	Execution condition by the LSU temperature variation	2 to 20	10

2. Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U468	Color registration correction data (Message: Color Regist Adjustment Data)

Contents

Displays the color registration correction data and transfer belt speed correction data.

Purpose

Execute for data check.

Method

1.Press the [Start] key.

2.Select the item to refer to.

* :The screen is switched.

Items	Contents
Auto(C)	Displaying the automatic color registration correction value (Cyan)
Auto(M)	Displaying the automatic color registration correction value (Magenta)
Auto(Y)	Displaying the automatic color registration correction value (Yellow)
Manual(C)	Displays the manual color registration correction value (Cyan)
Manual(M)	Displays the manual color registration correction value (Magenta)
Manual(Y)	Displays the manual color registration correction value (Yellow)
Initialize	Initializing the correction result

Refer: Auto(C) / Auto(M) / Auto(Y)

1.Select [Auto(C)], [Auto(M)] or [Auto(Y)].

* :The current value is displayed.

Items	Contents
Main Scan	Automatic color registration adjustment value in the main scanning direction.
Sub Scan	Automatic color registration adjustment value in the sub scanning direction.
Magnification	Automatic color registration correction value for magnification

Refer: Manual(C) / Manual(M) / Manual(Y)

1.Select [Manual(C)], [Manual(M)] or [Manual(Y)]

* :The current value is displayed.

Items	Contents
Main Scan	Manual color registration adjustment value in the main scanning direction.
Sub Scan	Manual color registration adjustment in the sub scanning direction.
Magnification1	Manual color registration correction value 1 for magnification
Magnification2	Manual color registration correction value 2 for magnification
Magnification3	Manual color registration correction value 3 for magnification
Magnification4	Manual color registration correction value 4 for magnification

Method: Initialize

1.Select [Initialize].

* :The operation is executed.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U469	Color registration adjustment (Message: Adjust Color Registration)

Contents
    Corrects the color registration data.

Purpose
    Execute when replacing the laser scanner unit.
      * :Make sure to execute U464 Calib before executing this maintenance mode.

Method
    1.Press the [Start] key.
    2.Select the item to set.
      * :Select [Auto] to output the automatic adjustment chart.
      * :Select [Manual] to enter the setting display.

Items	Contents
Auto	Adjust the color registration automatically
Manual	Adjust the color registration manually

Method: Auto
    1.Select the item to execute.

Items	Contents
Print	Output the automatic adjustment chart.
Execute	Start scanning and execute the automatic adjustment.

Method: Print
    1.Press the [Start] key.
      * :Output the automatic adjustment chart.

Method: Excute
    1.Place an original on the table and press the [Start] key.
      * :Execute the automatic adjustment.
    2.When adjustment has normally completed, [OK] is displayed.
      * :An error code appears when there is an error.

Error codes list

Error codes	Place of occurrence	Factor
S001	Scanner	Original reference patch is not detected
S002		Scanned image position shifted in excess in the main scanning direction.
S003		Scanned image position shifted in excess in the sub scanning direction.
S004		Original skew is in excess
S005		Original type mismatch
SFFF		Other scanning error
E001	Engine	Engine error
CFFF	Controller	Other errors

Method: Manual
1.Select the item to execute.
* :The screen for setting is displayed.

Items	Contents
Regist	Sets the color registration adjustment value
Print	Output the manual adjustment chart.

Method: Print
1.Press the [Start] key to output the manual adjustment chart.

Chart sample
There are H-1 to 9 in the chart For each color of m, c and y (upper part).
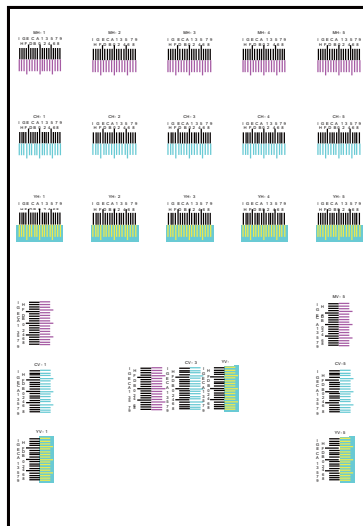
Figure 6-46

Find the positions where two lines are best matched on each chart.
* :If it is at "0", the correction is unnecessary. In case of the illustration below, "B" is the value that should be set.
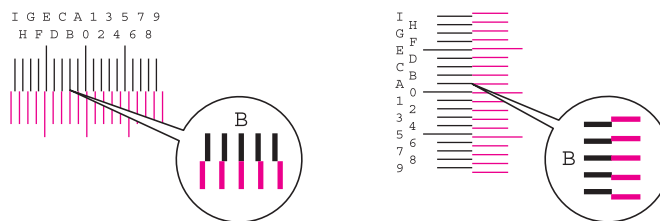
Figure 6-47

Method: Regist

    1.Select the item to set.

    2.By using the [+] [-] keys change the setting value.

Items	Contents	Setting range	Initial setting
CH-1	CH-1 adjustment value	-9 to 9	-
CH-2	CH-2 adjustment value	-9 to 9	-
CH-3	CH-3 adjustment value	-9 to 9	-
CH-4	CH-4 adjustment value	-9 to 9	-
CH-5	CH-5 adjustment value	-9 to 9	-
CV-3	CV-3 adjustment value	-9 to 9	-
MH-1	MH-1 adjustment value	-9 to 9	-
MH-2	MH-2 adjustment value	-9 to 9	-
MH-3	MH-3 adjustment value	-9 to 9	-
MH-4	MH-4 adjustment value	-9 to 9	-
MH-5	MH-5 adjustment value	-9 to 9	-
MV-3	MV-3 adjustment value	-9 to 9	-
YH-1	YH-1 adjustment value	-9 to 9	-
YH-2	YH-2 adjustment value	-9 to 9	-
YH-3	YH-3 adjustment value	-9 to 9	-
YH-4	YH-4 adjustment value	-9 to 9	-
YH-5	YH-5 adjustment value	-9 to 9	-
YV-3	YV-3 adjustment value	-9 to 9	-

    3.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U470	Setting the JPEG compression rate (Message: Adjust JPEG Compression Rate)

Contents
   Sets the JPEG compression rate by image mode.
Purpose
   Change the setting depending on the image. desired by the user. Lower the set value to reduce the image roughness by changing the compression rate in case of 200% or more of the enlarged copy . If the set value is reduced, compression is high and image quality is lowered. If the set value is increased, image quality is improved but processing speed is slower.

Method
   1.Press the [Start] key.
   2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Copy	Compression rate of the copy
Send	Compression rate of the Send
System	Compression rate of the temporary saving in the system

Method: Copy
   1.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Photo	Compression rate of the photo mode
Text	Compression rate of the text mode

Setting: Photo
   1.Select the item to set.
   2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90
CbCr	Compression rate of the color difference	1 to 100	90

   3.Press the [Start] key to set the setting value.

Setting: Text
   1.Select the item to set.
   2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90
CbCr	Compression rate of the color difference	1 to 100	90

   3.Press the [Start] key to set the setting value.

Method: Send
    1.Select the item to set.
        * :The screen for setting is displayed.

Items	Contents
Photo	Compression rate of the photo mode
Text	Compression rate of the text mode
HC-PDF(BG)	Sets the compression rate for high compression PDF
HC-PDF(Char)	Set the compression rate for High compression PDF (text color).
HC-PDF(File Size)	Set the compression rate for High compression PDF (compression priority).

Setting: Photo
    1.Select the item to set.
    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	30(%)
Y2	Compression rate of the brightness	1 to 100	40(%)
Y3	Compression rate of the brightness	1 to 100	51(%)
Y4	Compression rate of the brightness	1 to 100	70(%)
Y5	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	30(%)
CbCr2	Compression rate of the color difference	1 to 100	40(%)
CbCr3	Compression rate of the color difference	1 to 100	51(%)
CbCr4	Compression rate of the color difference	1 to 100	70(%)
CbCr5	Compression rate of the color difference	1 to 100	90(%)

    3.Press the [Start] key to set the setting value.

Setting: Text
    1.Select the item to set.
    2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	30(%)
Y2	Compression rate of the brightness	1 to 100	40(%)
Y3	Compression rate of the brightness	1 to 100	51(%)
Y4	Compression rate of the brightness	1 to 100	70(%)
Y5	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	30(%)
CbCr2	Compression rate of the color difference	1 to 100	40(%)
CbCr3	Compression rate of the color difference	1 to 100	51(%)

Items	Contents	Setting range	Initial setting
CbCr4	Compression rate of the color difference	1 to 100	70(%)
CbCr5	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(BG)

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	25(%)
Y3	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	25(%)
CbCr3	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(Char)

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	75(%)
Y3	Compression rate of the brightness	1 to 100	90(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	75(%)
CbCr3	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Setting: HC-PDF(File Size)

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y1	Compression rate of the brightness	1 to 100	15(%)
Y2	Compression rate of the brightness	1 to 100	25(%)
Y3	Compression rate of the brightness	1 to 100	75(%)
CbCr1	Compression rate of the color difference	1 to 100	15(%)
CbCr2	Compression rate of the color difference	1 to 100	25(%)
CbCr3	Compression rate of the color difference	1 to 100	75(%)

3.Press the [Start] key to set the setting value.

Setting: System

1.Select the item to set.

2.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Y	Compression rate of the brightness	1 to 100	90(%)
CbCr	Compression rate of the color difference	1 to 100	90(%)

3.Press the [Start] key to set the setting value.

Supplement

Test copy of the original is available by pressing the [System Menu] key as interruption copy mode when executing this maintenance mode.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U474	Checking the LSU cleaning (Message: Check LSU Cleaning Operation)

Contents

Execute the LSU cleaning by operating the LSI cleaning motor. Also, sets the cleaning operation interval and timing to enter the operation.

Method

1.Press the [Start] key.
2.Select the item to execute.

Items	Contents
Execute	Executes the cleaning operation.
Cycle	Sets the cleaning operation.

Method: Execute

1.Press the [Start] key.
  * :The LSU slit glass is cleaned.

Method: Cycle

1.Select the item to set.

Items	Contents	Setting range	Initial setting
Cnt	Sets the cleaning cycle.	0 to 5000	1000
Timing	Sets the LSU cleaning timing	Print / Print End	Print End

Setting: Cnt

1.By using the [+] [-] keys or the numeric keys, change the setting value.
  * :Settable in 100-sheet increments. (Actual control x5 (=500 sheets))
2.Press the [Start] key to set the setting value.

Setting: Timing

1.Select the item to set.

setting	Contents
Print	Clean during job
Print End	Clean after completing the job

  * :Initial setting: Print End
2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U485	Image process mode setting (Message:Set Image Process Mode)

Contents

Sets the detection level of the output of the confidential document when scanned. SAlso, sets the PDF image rotation method. Also, changes/installs the color table.

Purpose

Change the detection level if the confidential document is not clearly printed and it cannot be detected when scanned. Also, execute to change the PDF image rotation method.
Execute to change the copy and printer color mode.

Method

1.Press the [Start] key.
2.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
Mode	Set the image process mode
Color Table	Sets the color table

Setting: Mode

1.Select the item to set.

Items	Contents
PDF Rotation	Rotate the PDF image

2.By using the [+] [-] keys or the numeric keys, change the setting value.

setting	Contents
0	The image rotation is designated to the internal parameter
1	The image rotation is designated to the actual image
2	The image rotation is designated to the internal parameter (CTM rotation)

3.Press the [Start] key to set the setting value.

Setting: Color Table

1.Select the item to set.
  * :The screen for setting is displayed.

Items	Contents
Color Table1(Prn)	Setting the default printer color table
Color Table2(Prn)	Sets the custom printer color table
Color Table1(Copy)	Setting the default copy color table
Color Table2(Copy)	Sets the custom copy color table
Install	Color table installation
Uninstall(Prn)	Uninstalling the printer color table
Uninstall(Copy)	Uninstalling the copy color table

Setting: Color Table 1(Prn)/Color Table 2(Prn)/Color Table 1(Copy)/Color Table 2(Copy)
  1.Select the color table to set to D.

setting
TYPE_CA
TYPE_FU
TYPE_KO
TYPE_KY
TYPE_RH
TYPE_TO

  2.Press the [Start] key to set the setting value.
  3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Method: Install
  * :Insert the USB memory with the color table files before selecting them.
    Check if there is the color table file in the root folder of a USB memory.
  1.Select [Execute].

Items	Contents
Execute	Color table installation

  2.Press the [Start] key to install.
    * :The following is indicated after completing installation.

Code	Contents
OK	Normal completion
E001	Error in connecting a USB memory
E002	Error in handling a file
EFFF	Other errors

Method: Uninstall(Prn)/Uninstall(Copy)
  1.Selects the color table to uninstall.
    * :Simultaneous uninstallation of multiple items is available.

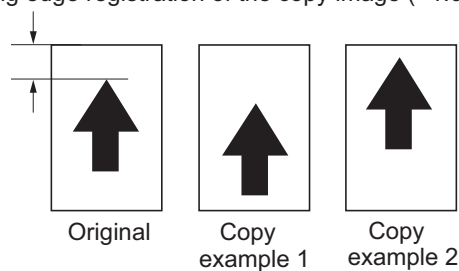| setting |
|---|
| TYPE_CA |
| TYPE_FU |
| TYPE_KO |
| TYPE_KY |
| TYPE_RH |
| TYPE_TO |

  2.Press the [Start] key to set the setting value.

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U486	Color/BW mode setting (Message: Set ACS mode (Color/BW Operation))

Contents

Sets the operation mode after detecting color originals with color/BW mixed originals.

Purpose

Mode: To prioritize the productivity when copying color/BW mixed originals in ACS mode, change the setting to Mode3. However, if setting it to Mode3, even when monochrome originals come after color originals, C/M/Y developer maintenance counts are counted up.

Permission: set in case of color background image when printing an envelope in BW half speed mode processed as color printing.

Method

1.Press the [Start] key.

2.Select the item to set.

   * :The screen for setting is displayed.

Items	Contents
Mode	Color/BW mode setting
Permission	Permit monochrome printing at half speed

Setting: Mode

1.Select the item to set.

Items	Contents
Mode1	For users mostly printing in monochrome mode and color/monochrome mixed mode is not high during continuous printing. Monochrome printing remains in the color process speed after switching to color and other process is switched .
Mode2	For users mostly printing in monochrome mode and color/monochrome mixed mode is not high during continuous printing. Even when receiving a monochrome print request during color printing, color printing operation is continued until 9 pages and color mode is switched to monochrome mode when starting printing of the 10th page (Color process is stopped).
Mode3	Appropriate for users who mostly print in color. Once switched to the color mode, monochrome printing after that remains in the color process including the surface speed.
Auto	Mode 1 to 3 is automatically selected depending on the user's usage. Select Mode 1 to 3 based on color print ratio and switch rate from the print volume during the specified period.

   * :Initial setting: Mode2

2.Press the [Start] key to set the setting value.

Setting: Permission

    1.Press the [Start] key.

    2.Select the item to set.

Items	Contents
On	Permit: monochrome printing (three colors separated)
Off	Prohibit: color printing (four color process)

    * :Initial setting: Off

    3.Press the [Start] key to set the setting value.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U520	TDRS setting (Message: Set TDRS)

Contents

Checks/sets the TDRS

Purpose

Execute to check/set the TDRS

Method

1.Press the [Start] key.

2.Select the item to set.

Items	Contents
Registration	Changes to the TDRS Manager registration dialog
Information	Transition to the Device Agent description dialog
On/Off Config	Changes to the TDRS features setting dialog

Setting: Registration

3.Select the item to set.

Items	Contents
TDRS User	Registering process for user and password
Access Code	Registers Access Code

Setting: Access Code

4.Select the item to set.

Items	Contents
Regist	Registers in the TDRS Manager
TDRS Server	Sets the TDRS server URL
TDRS User	Sets the TDRS Username
Access Code	Sets the TDRS access code
Proxy Server	Sets the TDRS proxy server URL
Proxy Port	Sets the TDRS proxy port number
Proxy User	Sets the TDRS proxy username
Text	Sets the TDRS description

* :[Regist] is not executable if a USB memory is not installed.

* :When the USB memory is inserted, TDRS information is automatically retrieved and displayed.
  After obtaining the TDRS information, select [Regist] and then register the TDRS information by pressing the [OK] or [Start] key.

* :After the normal completion, [Complete] is indicated in the status information of the item that was performed.
  When an error occurs, the following numbers are indicated in the status information of the item that has been operated.

* :If [User/Processing Registration using a Password] is selected in the previous dialog, the "TDRS User" will be indicated.
  If [Processing Registration using an Access Code] is selected, the "Access Code" will be indicated.

Error codes

Items	Contents	Items	Contents
e0001	HDD is unavailable.	**t0001**	Fatal error
e0002	The USB memory is unavailable.	**t0002**	Error in processing the network
e0003	The file to import does not exist in the USB memory.	**t0003**	An illegal parameter error
e0004	Reading from the USB memory has failed.	**t0004**	Insufficient resource
e0005	Unmounting the USB memory has failed.	**t0005**	Communication error
e0006	Moving or renaming the file has failed.	**t0006**	Error in processing communication.
e0007	Opening the file has failed.	**t0007**	Login error
e0008	Closing the file has failed.	**t0008**	External error
e0009	Error in reading the file	**t0009**	Authentication error
e000A	Copying the file has failed.	**t000A**	HTTP error: Request error
e000B	Opening the directory has failed.	**t000B**	HTTP error: Error due to the server
e000C	Creating the working directory has failed.	**t000C**	HTTP error: Error due to the client.
e000D	Deleting the working file has failed.		

Setting: Information

    1.Select the item to set.

Items	Contents
Agent ID	Agent ID
Agent Type	Agent Type
Model	Refers to the model name
Serial No	Refers to the machine serial number
Offline	Refers to the TDRS connection state

Setting: On/Off Config

    1.Select the item to set.

Items	Contents
On	Enables TDRS
Off	Disables TDRS

    * :Initial setting: Off

    2.Press the [Start] key to set the setting value.

    3.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

    Press the [Stop] key.

      * :The screen for selecting a maintenance item No. is displayed.

U600	Initialize: All Data (Message: Initialize: All Data)

Contents

Initializes software switches, and all data and image memory in the backup data on the FAX PWB according to the destination and OEM setting.

Initializes the file system and then initializes the communication record and the registered contents if the file system is checked and an error is detected there.

Purpose

Initialize the FAX PWB

Method

1. Press the [Start] key.
2. Select [Execute].
   * :The screen for entering the destination code and OEM code is displayed.

Items	Contents
Execute	Executing data initialization

3. Select [Country Code] and enter a destination code using the numeric keys.
   * :Refer to the following destination code list.

Items	Contents
Country Code	Setting Destination code
OEM Code	Sets the OEM code

   * :No need to change the default value of [OEM Code].
4. Press the [Start] key to set the setting value.
   * :Data initialization starts.
     Press the [Stop] key to cancel the data initialization.
5. The firmware version is displayed after the data initialization.
   The firmware version of 3 types of application, boot and IPL is displayed.

   * :When initialization is successful, "Completed" is displayed for one second.
   * :Where an irregular value is input, when it initializes, the following errors are displayed.

Kind of error
Unknown Country (When Country Code is unknown)
Unknown OEM (When OEM Code is unknown)
Unknown Country (When both are unknown)

Destination code list

Destination code	Destination	Destination code	Destination
000	Japan	253	CTR21 (European nations)
007	Argentina	↑	Italy
009	Australia	↑	Germany
022	Brazil	↑	Spain
038	China	↑	U.K.

Destina-tion code	Destination	Destina-tion code	Destination
080	Hong Kong	↑	Netherlands
084	Indonesia	↑	Sweden
088	Israel	↑	France
097	Korea	↑	Austria
181	U.S.A.	↑	Switzerland
250	Russia	↑	Belgium
108	Malaysia	↑	Denmark
115	Mexico	↑	Finland
126	New Zealand	↑	Portugal
136	Peru	↑	Ireland
137	Philippines	↑	Norway
152	Middle East	**254**	Taiwan
156	Singapore		
159	South Africa		
169	Thailand		

U601	Initialize: Keep data (Message: Initialize: Keep Data)

Contents
    Initializes software switches other than the machine data on the FAX PWB according to the destination and OEM setting.

Purpose
    Initialize the FAX PWB without changing the user registration data and the factory defaults

Method
    1.Press the [Start] key.
    2.Select [Execute].
      * :The screen for entering the destination code and OEM code is displayed.

Items	Contents
Execute	Executing data initialization

    3.Select [Country Code].
    4.By using the [+] [-] keys or the numeric keys, change the setting value.
      * :Refer to the destination code list. (P.6-378Refer to page 1-6-58)

Items	Contents
Country Code	Setting Destination code
OEM Code	Sets the OEM code

    * :No need to change the default value of [OEM Code].
    5.Press the [Start] key to set the setting value.
      * :Data initialization starts.
        Press the [Stop] key to cancel the data initialization.
    6.The firmware version is displayed after the data initialization.
      The firmware version of 3 types of application, boot and IPL is displayed.
      * :When initialization is successful, "Completed" is displayed for one second.

U603	User data 1 (Message: User Data 1)

Contents
    Sets the line type for FAX use
Purpose
    Execute as required

Method
    1.Press the [Start] key.
    2.Select [Line Type].

Items	Contents
Line Type	Line Type

    3.Select the item to set.

Items	Contents
DTMF	DTMF
10PPS	10PPS
20PPS	20PPS

    * :Initial setting: DTMF

    4.Press the [Start] key to set the setting value.
      * :Display the screen.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U604	User data 2 (Message: User Data 2)

Contents
Sets the number of rings for the automatic FAX/telephone switching for FAX use
Purpose
Adjust the number of rings to longer or shorter at the automaric FAX/telephoe switching

Method
1.Press the [Start] key.
2.Select [Rings(F/T)].
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Rings (F/T)	Number of fax/telephone rings	0 to 15	0 (100 V model) 1 (220-240 V model) 2 (Australia) 3 (New Zealand)

* :If the default is set to "0", the main unit will start FAX reception without any ringing.
4.Press the [Start] key to set the setting value.
* :Display the screen.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U605	Data clear (Message: Clear Data)

Contents
Initializes data related to the fax transmission such as transmission history or various ID.
Purpose
Clear the communication history

Method
1.Press the [Start] key.
2.Select [Clear Com.Rec.].

Items	Contents
Clear Com.Rec.	Delete data of communication history and protocol list of displayed port

3.Press the [Start] key.
* :When initialization is successful, "Completed" is displayed for one second.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U610	System 1 (Message: System Setting 1)

Contents

Set the number of lines to be ignored when receiving a fax at 100% magnification and in the auto reduction mode.

Method

1.Press the [Start] key.
2.Select the item to set.

Items	Contents
Cut Line: 100%	Set the number of lines to be ignored when receiving a fax at 100% magnification.
Cut Line: Auto	Number of lines to be ignored when receiving in the auto reduction mode.
Cut Line: A4	Set the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode.

Setting: Cut Line: 100%

Sets the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when recording the data at 100% magnification.
If the number of excess lines is below the setting, those lines are ignored. If it is over the setting, they are recorded on the next page.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data variation
Set the number of lines to be ignored when receiving a fax at 100% magnification.	0 to 22	3	-

* :Increase the setting value if a blank second page is output in the full magnification reception. Decrease the value if there is dropout in received image.
2.Press the [Start] key to set the setting value.

Setting: Cut Line: Auto

Set the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode.
If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data variation
Number of lines to be ignored when receiving in the auto reduction mode.	0 to 22	0	-

* :Increase the setting value if a page received in the reduction mode is reduced too much with the trailing edge margin. Decrease the value if there is dropout in received image.
2.Press the [Start] key to set the setting value.

Setting: Cut Line: Auto

Set the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode onto A4R or Letter R paper. If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data variation
Number of lines to be ignored when receiving in the A4R auto reduction mode.	0 to 22	0	-

* :Increase the setting value if a page received in the reduction mode is reduced too much with the trailing edge margin. Decrease the value if there is dropout in received image.

2.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U611	System 2 (Message: System Setting 2)

Contents
Sets the number of adjustment lines for automatic reduction.
Purpose
Sets the number of adjustment lines for automatic reduction.

Method
1.Press the [Start] key.
2.Select the item to set.

Items	Contents
ADJ LINES	Sets the number of adjustment lines for automatic reduction.
ADJ LINES(A4)	Number of adjustment lines for automatic reduction when A4 paper is set.
ADJ LINES(LT)	Number of adjustment lines for automatic reduction when letter size paper is set.

Setting: ADJ LINES
Sets the number of adjustment lines for automatic reduction.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia-tion
Number of adjustment lines for automatic reduction.	0 to 22	7	-

2.Press the [Start] key to set the setting value.
  * :Display the screen.

Setting: ADJ LINES(A4)
Sets the number of adjustment lines for automatic reduction.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia-tion
Number of adjustment lines for automatic reduction when A4 paper is set.	0 to 22	22	-

2.Press the [Start] key to set the setting value.
  * :"Completed" is displayed.

Setting: ADJ LINES(LT)

Sets the number of adjustment lines for automatic reduction when letter size paper is set.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia- tion
Number of adjustment lines for automatic reduction when letter size paper is set.	0 to 22	26	-

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U612	System 3 (Message: System Setting 3)

Contents

Sets the FAX operation and automatic printing of the protocol list.

Method

1.Press the [Start] key.
2.Select the item to set.
 * :The screen for setting is displayed.

Items	Contents
Auto reduct	Selects auto reduction in the sub-scanning direction
Protocol List	Sets the automatic protocol list printing.

Setting: Auto Reduct

Sets whether to receive a long document by automatically reducing it in the sub-scanning direction or at 100% magnification.

1.Select the item to set.

Items	Contents
On	Auto reduction is executed if the received document is longer than the FAX paper.
Off	Auto reduction is not performed.

 * :Initial setting: On
2.Press the [Start] key to set the setting value.
 * :"Completed" is displayed.

Setting: Protocol List

Sets the automatic protocol list printing.

1.Select the item to set.

Items	Contents
Off	The protocol list is not printed out automatically.
Err	Automatically printed if a communication error occurs.
On	Automatically printed out after communication.

 * :Initial setting: Off
2.Press the [Start] key to set the setting value.
 * :"Completed" is displayed.

Completion

Press the [Stop] key.
 * :The screen for selecting a maintenance item No. is displayed.

U620	FAX system (Message: FAX System)

Contents

Sets the signal detection method for remote switching.

Change the setting according to the type of telephone connected to the main unit.

Purpose

Sets the remote switching conditions according to the user's telephone type, preference, etc.

Setting

1.Press the [Start] key.

2.Select [Remote Mode] and press the [Start] key.

Items	Contents
Remote Mode	Setting the remote switching mode

3.Select the item to set.

Items	Contents
One	Sets the one-shot type detection
Cont	Sets the continuous type detection

* :Initial setting: One

4.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U625	Communication settings (Message: Set Communication)

Contents
   Sets the auto redialing interval and the number of times of auto redialing.
Purpose
   FAX transmission may not be available if redialing interval is short. If long, it takes much time to complete transmission. Changes the setting to prevent the following problems.

Method
   1.Press the [Start] key.
   2.Select the item to set.

Items	Contents
Interval	Sets the auto redialing interval
Times	Sets the number of times of auto redialing

Setting: Interval
   1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia- tion
Sets the redialing interval	1 to 9 minutes	3 min- utes	-

   2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: Times
   1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting	Data varia- tion
Sets the number of times of redialing	0 to 15 times	3 times	-

   2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U630	Communication control procedures 1 (Message: Communication Control 1)

Contents
Sets the FAX communication.
Purpose
Sets the following to correspond to field claims
Reducing the transmission time to improve the accuracy of reception when using a low quality line
Improving the accuracy of communication during the international communication

Method
1.Press the [Start] key.
2.Select the item to set.
* :The screen for setting is displayed.

Items	Contents
TX Speed	Sets the communication starting speed.
RX Speed	Sets the reception speed.
TX Echo	Sets the waiting period to prevent echo problems at the sender.
RX Echo	Sets the reception speed.

Setting: TX Speed
Sets the transmission speed of the sender. When the destination unit has the V.34 capability, V.34 is selected for transmission regardless of this setting.

1.Select the communication speed.

Items	Contents
14400bps/V17	V.17 14400bps
9600bps/V29	V.29 9600bps
4800bps/V27ter	V.27ter 4800bps
2400bps/V27ter	V.27ter 2400bps

* :Initial setting: 14400bps/V17
2.Press the [Start] key to set the setting value.
* :"Completed" is displayed.

Setting: RX Speed
Sets the reception capacity to advise the transmitter by the DIS/NSF signal. When the destination unit has the V.34 capability, V.34 is selected for transmission regardless of this setting.

1.Select the reception speed.

Items	Contents
14400bps	V.17, V.33, V.29, V.27ter
9600bps	V.29, V.27ter
4800bps	V.27ter
2400bps	V.27ter (fallback only)

* :Initial setting: 14400bps
2.Press the [Start] key to set the setting value.
* :"Completed" is displayed.

Setting: TX Echo
Sets the time to send the DCS signal after the DIS signal is received. Execute when an error occurs with echo at the transmitter side.

1.Select the item to set.

Items	Contents
500	Sends the DCS 500 ms after receiving a DIS.
300	Sends the DCS 300 ms after receiving a DIS.

* :Initial setting: 300
2.Press the [Start] key to set the setting value.
* :"Completed" is displayed.

Setting: RX Echo
Sets the time to send the NSF, CSI or DIS signal after the CED signal is received. Execute when an error occurs with echo at the receiver side.

1.Select the item to set.

Items	Contents
500	Sends the NSF, CSI or DIS 500ms after receiving the CED.
75	Sends the NSF, CSI or DIS 75ms after receiving the CED.

* :Initial setting: 75
2.Press the [Start] key to set the setting value.
* :"Completed" is displayed.

Completion
Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U631	Communication control procedures 2 (Message: Communication Control 2)

Contents
    Sets the FAX communication.
Purpose
    Sets the transmission and reception of ECM
    Sets the CED frequency

Method
    1.Press the [Start] key.
    2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
ECM TX	Sets ECM transmission.
ECM RX	Sets ECM reception.
CED Freq	The frequency of CED is set up.

Setting: ECM TX
    Set to OFF when the reduction of transmission costs is of higher priority than image quality.
      * :Do not set it to Off when connecting to the IP telephone line.

    1.Select the item to set.

Items	Contents
On	ECM transmission is enabled.
Off	ECM transmission is disabled.

      * :Initial setting: On
    2.Press the [Start] key. Set the setting value.
      * :"Completed" is displayed.

Setting: ECM RX
    Set to OFF when the reduction of transmission costs is of higher priority than image quality.
      * :Do not set it to OFF when connecting to the IP (Internet Protocol) telephone line.

    1.Select the item to set.

Items	Contents
On	ECM reception is enabled.
Off	ECM reception is disabled.

      * :Initial setting: On
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: CED Freq

Sets the CED frequency Execute it as one of the communication accuracy improvement measures for the international communication.

1.Select the item to set.

Items	Contents
2100	2100Hz
1100	1100Hz

* :Initial setting: 2100

2.Press the [Start] key to set the setting value.

* :"Completed" is displayed.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U632	Communication control procedures 3 (Message: Communication Control 3)

Contents
    Sets the FAX communication.
Purpose
    Reducing the error communication when using a low quality line
    Corresponds to field claims when automatic FAX/telephone switching

Method
    1.Press the [Start] key.
    1.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
DIS 4Byte	Sets the DIS signal to 4 bytes.
Num OF CNG(F/T)	Sets the number of the CNG detection in the automatic FAX/telephone switching mode.

Setting: DIS 4Byte
    Sets whether to send bit 33 and later bits of the DIS/DTC signal.

    1.Select the item to set.

Items	Contents
On	Bit 33 and later bits of the DIS/DTC signal are not sent.
Off	Bit 33 and later bits of the DIS/DTC signal are sent.

      * :Initial setting: Off
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: Num OF CNG(F/T)
    Sets the CNG detection times in the automatic FAX/telephone switching mode.

    1.Select the item to set.

Items	Contents
1Time	Detects CNG once.
2Time	Detects CNG twice.

      * :Initial setting: 1Time (100 V model)/2Time (Others)
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U633	Communication control procedures 4 (Message: Communication Control 4)

Contents
Sets the FAX communication.

Purpose
Reducing the error communication when using a low quality line

Method
1. Press the [Start] key.
2. Select the item to set.
   * :The screen for setting is displayed.

Items	Contents
V.34	Enables or disables the V.34 communication.
V.34-3429Hz	Sets the V.34 symbol speed (3429 Hz).
DIS 2Res	Sets the number of times of DIS signal reception.
RTN Check	Sets the reference for the RTN signal output.

Setting: V.34
Sets whether to enable/disable the V.34 communication individually for transmission and reception.

1. Select the item to set.

Items	Contents
On	V.34 communication is enabled for both transmission and reception.
TX	V.34 communication is enabled for transmission only.
RX	V.34 communication is enabled for reception only.
Off	V.34 communication is disabled for both transmission and reception.

   * :Initial setting: On
2. Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Setting: V.34-3429Hz
Sets if the V.34 symbol speed 3429 Hz is used.

1. Select the item to set.

Items	Contents
On	V.34 symbol speed 3429 Hz is used.
Off	V.34 symbol speed 3429 Hz is not used.

   * :Initial setting: On
2. Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Setting: DIS 2Res

Sets the number of times to receive the DIS signal to once or twice. Execute it as one of the corrective measures for transmission errors and other problems.

1.Select the item to set.

Items	Contents
Once	Responds to the first signal.
Twice	Responds to the second signal.

   * :Initial setting: Once

1.Press the [Start] key to set the setting value.

   * :"Completed" is displayed.

Setting: RTN Check

Sets the error line rate to be a reference to the RTN signal transmission. If transmission errors occur frequently due to the line quality, lower this setting to reduce them.

1.Select the item to set.

Items	Contents
5%	Error line rate of 5%
10%	Error line rate of 10%
15%	Error line rate of 15%
20%	Error line rate of 20%

   * :Initial setting: 15%

2.Press the [Start] key to set the setting value.

   * :"Completed" is displayed.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U634	Communication control procedures 5 (Message: Communication Control 5)

Contents

Sets the maximum number of error bytes judged acceptable when receiving a TCF signal. Execute it as one of measures to ease transmission conditions if transmission errors occur.

Purpose

    * :Relax the communication conditions

Setting

1.Press the [Start] key.
2.Select [TCF Check].
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
TCF Check	Sets the allowed error bytes when detecting the TCF signal	1 to 255	0

4.Press the [Start] key to set the setting value.
    * :"Completed" is displayed.

Completion

Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U640	Communication time setting 1 (Message: Communication Time 1)

Contents

Sets the detection time when one-shot detection is selected for remote switching.
Sets the detection time when continuous detection is selected for remote switching.

Purpose

Sets the remote switching conditions according to the user's telephone type, preference, etc.

Method

1.Press the [Start] key.
2.Select the item to set.
3.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Time(One)	Sets the one-shot detection time for remote switching.	0 to 255	7 1 (New Zealand)
Time (Cont)	Sets the continuous detection time for remote switching.	0 to 255	80

4.Press the [Start] key to set the setting value.
    * :"Completed" is displayed.

Completion

Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U641	Communication time setting 2 (Message: Communication Time 2)

Contents
Sets the time-out time for the fax communication.

Purpose
Mainly, executed to improve the accuracy of communication for international communication

Method
1.Press the [Start] key.
1.Select the item to set.

Items	Contents
T0 TIME OUT	Sets the T0 time-out time.
T1 TIME OUT	Sets the T1 time-out time.
T2 TIME OUT	Sets the T2 time-out time.
Ta TIME OUT	Sets the Ta time-out time.
Tb1 TIME OUT	Sets the Tb1 time-out time.
Tb2 TIME OUT	Sets the Tb2 time-out time.
Tc TIME OUT	Sets the Tc time-out time.
Td TIME OUT	Sets the Td time-out time.

Setting: T0 Time Out
Sets the time before detecting a CED or DIS signal after a dialing signal is sent.
Sets to prevent disconnection of a line that occurs depending on the quality of the exchange, or when the destination unit sets the auto switching function.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T0 time-out time.	30 to 90 s	56 58 (100 V model)

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Setting: T1 Time Out
Sets the time before receiving the correct signal after call reception.
*This setting is usually unnecessary.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T1 time-out time.	30 to 90 s	36 38 (100 V model)

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

2R4/2R5/2R6

Setting: T2 Time Out

The T2 time-out time is specified as follows.
From CFR signal output to image data reception
From image data reception to the next signal reception
In ECM, from RNR signal detection to the next signal reception

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the T2 time-out time.	1 to 255	69

2.Press the [Start] key to set the setting value.
 * :"Completed" is displayed.

Setting: Ta Time Out

Sets the time to start ringing for an operator through the external telephone after receiving a call in the FAX/telephone automatic switching mode. (See figure 1-3-18). If either receiving a FAX signal within this time or passing this time, the mode automatically switches to the FAX reception mode. Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Ta time-out time.	1 to 255 s	30

2.Press the [Start] key to set the setting value.
 * :"Completed" is displayed.

Figure 6-48 Ta/Tb1/Tb2 time-out time

Setting: Tb1 Time Out

Sets the time to start sending the ring back tone after receiving a call as a fax machine in the FAX/telephone automatic switching mode, (See figure 1-3-18). Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tb1 time-out time.	1 to 255	20

2.Press the [Start] key to set the setting value.
 * :"Completed" is displayed.

6-399

Setting: Tb2 Time Out

Sets the time to start ringing for an operator through the external telephone after receiving a call in the FAX/telephone automatic switching mode. (See figure 1-3-27). Execute when a reception error occurs when in the automatic FAX/telephone switching.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tb2 time-out time.	1 to 255	80

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Setting: Tc Time Out

In the TAD mode, set the time to check if there are any triggers for shifting to FAX reception after a connected handset receives a call. Unless switched to FAX reception during this period, operated as a normal phone after this.
In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Tc time-out time.	1 to 255 s	60

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Setting: Td Time Out

Sets the length of time to determine silent status, one of the triggers for Tc time check.
In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call. Be sure not to set too short, otherwise the mode may be switched to fax while the unit is being used as a telephone.

1.By using the [+] [-] keys or the numeric keys, change the setting value.

Contents	Setting range	Initial setting
Sets the Td time-out time.	1 to 255	6 30 (100 V model) 9 (120 V model)

2.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U650	Modem 1 (Message: Modem 1)

Contents
    Sets the G3 cable equalizer. Sets the modem detection level.
Purpose
    Adjusts the equalizer to be compatible with the line characteristics
    Set to Improve the accuracy of communication when using a low quality line

Method
    1.Press the [Start] key.
    2.Select the item to set.

Items	Contents
Reg G3 TX Eqr	Sets the G3 transmission cable equalizer.
Reg G3 RX Eqr	Sets the G3 reception cable equalizer.
RX Mdm Level	Sets the modem detection level.

Setting: Reg G3 TX Eqr
    1.Select [0dB], [4dB], [8dB] or [12dB].
      * :Initial setting: 0dB
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: Reg G3 RX Eqr
    1.Select [0dB], [4dB], [8dB] or [12dB].
      * :Initial setting: 0dB
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: RX Mdm Level
    1.Select [-33dBm], [-38dBm], [-43dBm] or [-48dBm].
      * :Initial setting: -43dBm
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U651	Modem 2 (Message: Modem 2)

Contents
Sets the modem output level.
Purpose
Adjust to make the equalizer compatible with the line characteristics when installing the main unit

Setting
1.Press the [Start] key.
2.Select the item to set.
3.By using [+] [-] or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting
Sgl LVL Modem	Sets the modem output level	-15 to 0	11 10 (100 V model) 12 (Australia)
DTMF LEV (Cent)	DTMF output level (center value)	-15.0 to 0.0	-8 -9 (100 V model) -7 (Australia) -6 (120 V model)
DTMF LEV (Diff)	Sets the DTMF output level (level difference)	0 to 5.5	2 1.5 (Australia) 1 (New Zealand)

4.Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Completion
Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U660	Ring setting (Message: Set Calls)

Contents
    Sets the NCU (network control unit).
Purpose
    Execute as required

Method
    1.Press the [Start] key.
    2.Select the item to set.
      * :The screen for setting is displayed.

Items	Contents
Exchange	Setting the PBX/PSTN connection
Dial Tone	Sets the PSTN dial tone detection.
Busy Tone	Sets the busy tone detection.
PBX Setting	Setting the PBX connection
DC Loop	Sets the loop current detection before dialing.

Setting: Exchange
    Selects if the FAX is connected to either a PBX or public switched telephone network.

    1.Select the item to set.

Items	Contents
PSTN	Connected to the public switched telephone network.
PBX	Connecting to the PBX

    * :Initial setting: PSTN
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: Dial Tone
    Selects whether or not to check for a dial tone to check if the telephone is off the hook when a fax is connected to a public switched telephone network.

    1.Select the item to set.

Items	Contents
On	The dial tone is detected.
Off	The dial tone is not detected.

    * :Initial setting: On
    2.Press the [Start] key to set the setting value.
      * :"Completed" is displayed.

Setting: Busy Tone
Sets whether the line is disconnected immediately after a busy tone is detected, or the busy tone is not detected and the line remains connected until T0 time-out time, when a FAX signal is sent FAX transmission may fail due to incorrect busy tone detection. When setting it to OFF, this problem may be improved. However, the line is not disconnected within the T0 time-out time even if the destination line is busy.

1.Select the item to set.

Items	Contents
On	Detects the busy tone.
Off	Does not detect the busy tone.

    * :Initial setting: On/Off (Australia)
2.Press the [Start] key to set the setting value.
    * :"Completed" is displayed.

Setting: PBX Setting
Selects the mode to connect an outside call when connected to a PBX.
*According to the type of the PBX connected, select the mode to connect an outside call.

1.Select the item to set.

Items	Contents
Flash	Flashing mode
Loop	Code number mode

    * :Initial setting: Loop
2.Press the [Start] key to set the setting value.
    * :"Completed" is displayed.

Setting: DC Loop
Sets if the loop current is detected before dialing.

1.Select the item to set.

Items	Contents
On	Detects the loop current before dialing.
Off	Detects the loop current before dialing.

    * :Initial setting: On
2.Press the [Start] key to set the setting value.
    * :"Completed" is displayed.

Completion
Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U670	List output (Message: Output List)

Contents

Outputs the list of fax communication data.

* :Printing a list is disabled either when a job is remaining in the buffer or when [Pause All Print Jobs] is pressed to halt printing.

Purpose

Check conditions of use, settings and transmission procedures of the FAX.

Method

1. Press the [Start] key.
2. Select the item to execute.
3. Press the [Start] key.
4. Output selected list.

Items	Contents
Sys Conf Report	Prints the list of software switches, local telephone number, confidential boxes, firmware versions and other information.
Action List	Prints the list of the error logs and communication lines.
Self Sts Report	Prints the list of FAX communication settings only in the maintenance mode (self-status report).
Protocol List	Outputs a list of communication procedures.
Error List	Output the error list.
Addr List(No.)	Outputs address book in the IDs order
Addr List(Idx)	Outputs address book in the order of names.
One-touch List	Outputs a list of one-touch.
Group List	Outputs the group list.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U671	FAX backup data clear (Message: Clear FAX Back Up Data)

Contents

Clears the FAX/i-FAX communication history and scheduled FAX transmission backup data in the FAX PWB.

Execute the memory DIMM initialization.

Purpose

Execute to prevent information disclosure of the backup data.

Setting

1.Press the [Start] key.

2.Select the item to output.

Items	Contents
RESERVATION CLEAR	Clears the scheduled FAX data in the FAX PWB.
RECOVERY FAX DIMM	Enable to use the DIMM used in another machine.
FAX DIMM CLEAR	Clears all the data in the DIMM.

3.Press the [Start] key.

  * :Clears the backup data.

4.When selecting [RECOVERY FAX DIMM] or [FAX DIMM CLEAR], turn the power switch off and on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.

  * :The screen for selecting a maintenance item No. is displayed.

U695	FAX function customization (Message: Customize FAX Function)

Contents
　　FAX package transmission is set up. Changes print size priority when receiving small size.
Purpose
　　Execute as required

Method
　　1.Select the item to set.

Items	Contents
FAX Bulk TX	FAX batch transmission is set up.
A5 Pt Pri Chg	Change of print size priority at the time of small size reception.

Setting: FAX Bulk TX
　　1.By using the [+] [-] keys keys, select [On] or [Off].

Items	Contents
On	FAX batch transmission is enabled.
Off	FAX batch transmission is disabled.

　　　* :Initial setting: On
　　2.Press the [Start] key to set the setting value.
　　　* :"Completed" is displayed.

Setting: A5 Pt Pri Chg
　　1.By using the [+] [-] keys keys, select [On] or [Off].

Items	Contents
On	At the time of A5 size reception: A5 >B5 >A4 >B4 >A3
Off	At the time of A5 size reception: A5 >A4 >B5 >A3 >B4

　　2.Initial setting: Off
　　3.Press the [Start] key to set the setting value.
　　　* :"Completed" is displayed.

Completion
　　Press the [Stop] key.
　　　* :The screen for selecting a maintenance item No. is displayed.

U698	Setting the maintenance port (Message: Set Port for Maintenance)

Contents

Sets the port applicable to the maintenance mode.

Purpose

Sets the maintenance mode target port when installing multiple ports .

Setting is unnecessary if the same contents are set for both ports. Sets only when different items are set for each port.

* :This maintenance mode only appears when the multiple ports are installed.

Setting

1.Press the [Start] key.

2.Press [Port Select].

* :Current setting display is inverted.

3.Select the item to set.

Items	Contents
ALL	All ports
PORT 1	Port 1 (FAX PWB port)
PORT 2	Port 2 (Optional multiple port)

4.Press the [Start] key to set the setting value.

Precautions

These contents to set are cleared when exiting the maintenance mode or turning the power off and the settings are necessary when entering the maintenance mode.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U699	Software switch: Set (Message: Set: Soft SW)

Contents

Sets the software switches on the FAX PWB individually.

Purpose

Change the setting when a problem such as split output of received originals occurs

* :Since the communication performance is largely affected, normally this setting need not be changed.

Method

1. Press the [Start] key.
2. Select [SW No.].
3. Enter the desired software switch number (3 digits) using the numeric keys and press the [Start] key.

Items	Contents
SW No.	Specifies the software switch number (2 to 3 digits)

4. Press the keys of bit 0 to 7 to switch each bit between 0 and 1.

Items	Contents
Bit	Set the software switch bit (8bit).

5. Press the [Start] key to set the setting value.
   * :"Completed" is displayed.

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

List of software switches which can be configured
Communication control procedures

No.	Bit	Contents
36	7654	Coding format in transmission
	3210	Coding format in reception
37	5	33600bps/V34
	4	31200bps/V34
	3	28800bps/V34
	2	26400bps/V34
	1	24000bps/V34
	0	21600bps/V34
38	7	19200bps/V34
	6	16800bps/V34
	5	14400bps/V34
	4	12000bps/V34
	3	9600bps/V34
	2	7200bps/V34
	1	4800bps/V34

No.	Bit	Contents
38	0	2400bps/V34
41	3	FSK detection in V.8
42	4	4800 bps transmission when low-speed setting is active
	2	FIF length when transmitting DIS/DTC signal 4 times or more

Communication time setting

No.	Bit	Contents
53	76543210	T3 timeout setting
54	76543210	T4 timeout setting (auto transmission)
55	76543210	T5 timeout setting
60	76543210	Time before transmission of CNG (1100 Hz) signal
63	76543210	T0 timeout setting (manual transmission)
64	7	Phase C timeout in ECM reception
66	76543210	Timeout 1 in countermeasures against echo
68	76543210	Timeout for FSK detection start in V.8

Modem setting

No.	Bit	Contents
89	76543	RX gain adjust

NCU setting

No.	Bit	Contents
121	7654	Dial tone/busy tone detection pattern
122	7654	Busy tone detection pattern
	1	Busy tone detection in FAX/TEL automatic switching
125	76543210	Registering the access code for connection to PSTN
126	7654	Ringback tone ON/OFF cycle for the automatic FAX/ telephone switching
68	76543210	Timeout for FSK detection start in V.8

Calling time setting

No.	Bit	Contents
133	76543210	DTMF signal transmission time
134	76543210	DTMF signal pause time
141	76543210	Ringer detection cycle (minimum)
142	76543210	Ringer detection cycle (maximum)
143	76543210	Ringer ON time detection
144	76543210	Ringer OFF time detection
145	76543210	Ringer OFF time undetected

No.	Bit	Contents
147	76543210	Dial tone detection time (continuous tone)
148	76543210	Allowable dial tone interruption time
149	76543210	Time for transmitting selection signal after closing the DC circuit
151	76543210	Ringer frequency detection invalid time

U901	Clearing the counters by paper source (Message: Clear Paper Feeder Counter)

Contents

Displays and clears the counts by paper source.

Purpose

Check the maintenance parts replacement timing. Executes to clear counters when replacing the maintenance parts.

Method

1.Press the [Start] key.
   * :Displays the counts by paper source.

Items	Contents
MPT	Display/clear the MP tray feed counter
Cassette1	Displays/clears Cassette 1 count
Cassette2 [*1]	Displays Cassette 2 count
Cassette3 [*2]	Displays Cassette 3 count
Cassette4 [*3]	Displays Cassette 4 count
Duplex	Displays/clears the duplex unit count

[*1]: 500 PF only, [*2]: 500×2/2000 PF only, [*3]: 500×2 PF only

2.Select the counter to clear.
   * :Unable to clear [Cassette2], [Cassette3] and [Cassette4]
3.Press the [Start] key to clear the counter value.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U903	Clearing the jam counter (Message: Clear Paper Misfeed Counter)

Contents

Displays/clears the jam counter by paper jam type.

Purpose

Execute to check the paper jam status. Executes to clear counters when replacing the maintenance parts.

Method

1. Press the [Start] key.
2. Select the item to execute.

Items	Contents
Cnt	Displaying/clearing the jam counts
Total Cnt	Displaying the accumulate jam counts

Method: Cnt

1. Select [Cnt].
   - * :Number of occurrence is displayed by jam code.
     Code of no occurrence is not indicated.
2. Select [Clear] to clear the jam counts.
   - * :Individual counters cannot be cleared.
3. Press the [Start] key to clear the counter value.

Method: Total Cnt

1. Select [Total Cnt].
   - * :Accumulate number of occurrence is displayed by jam code.
2. Change the screen using the [▲] [▼] key.
   - * :Unable to clear the accumulated jam counter values.

Completion

Press the [Stop] key.
   - * :The screen for selecting a maintenance item No. is displayed.

U904	Clearing the service call error counter (Message: Clear Service Call Counter)

Contents

Displays/clears the number of times of service call errors by service call error type.

Purpose

Executes to check the service call error. Executes to clear counters when replacing the maintenance parts.

Method

1.Press the [Start] key.
2.Select the item to execute.

Items	Contents
Cnt	Displays/clears the service call counter.
Total Cnt	Displays accumulate service call error counts.

Method: Cnt

1.Select [Cnt].
   * :Number of occurrence is displayed by service call error.
    Code of no occurrence is not indicated.
2.Select [Clear] to clear the service call error counter.
   * :Individual counters cannot be cleared.
3.Press the [Start] key to clear the counter value.

Method: Total Cnt

1.Select [Total Cnt].
   * :Accumulate number of occurrence is displayed by service call error.
    Unable to clear the accumulated service call error counter values.

Completion

Press the [Stop] key.
   * :The screen for selecting a maintenance item No. is displayed.

U905	Optional counter (Message: Option Counter)

Contents

Displays the counter values of the document processor, 1000-sheet finisher, 3000-sheet finisher and inner finisher.

Purpose

Execute to check the usage status of the document processor, 1000-sheet finisher, 3000-sheet finisher and inner finisher.

Method

1. Press the [Start] key.
2. Select the device to check.
   * :Switched to the counter screen.

Items	Contents
DP	Displays the document processor count.
DF	Displays the document finisher count.

Method: DP

* :Each counter is displayed.

Items	Contents
ADP	Simplex original count is displayed.
RADP	Duplex original count is displayed.
CIS	Displays the count of simultaneous duplex scanning

Method: DF

* :Each counter is displayed.

Items	Contents
Sorter	Displays the sorter counter.
Staple	Displays the staple counter.
Punch	Displays the punch counter.
Stack	Displays the main tray eject counter.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U906	Resetting the partial operation (Message: Reset Disable Function Mode)

Contents
    Release the service call error with partial operation.
Purpose
    If the partial operation is executed with a broken cassette, etc., make sure to execute it after repairing the parts.

Method
    1.Press the [Start] key.
    2.Select [Execute].

Items	Contents
Execute	Reset the partial operation.

    3.Press the [Start] key to release the partial operation.
    4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U908	Total counter (Message: Total Counter)

Contents
    Displays the total counter.
Purpose
    Displays the total counter for check.

Method
    1.Press the [Start] key.
      * :Displays the total count.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U910	Black rate data (Message: Clear Coverage Data)

Contents

Clears the accumulated data for the print coverage per A4 size paper and its period of time (as shown on the service status page).

Purpose

Clears data as required at the time such as maintenance

Method

1.Press the [Start] key.
2.Select [Execute].

Items	Contents
Execute	Clears the print coverage data.

3.Press the [Start] key to clear the print coverage data.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U911	Counter by media type (Message: Paper Size Counter)

Contents

Displays the paper feed counts by paper size.

Purpose

Displays the counts to confirm when replacing the maintenance parts .

Method

1.Press the [Start] key.
* :Displays the paper feed counts by paper size.

Items	Contents
A4	Displays A4 feed counts
B5	Displays B5 feed counts
A5	Displays A5 feed counts
Folio	Displays Folio feed counts.
Legal	Displays Legal feed counts
Letter	Displays Letter feed counts
Statement	Displays Statement feed counts
ETC	Displays paper feed counts of Other.

Completion

Press the [Stop] key.
* :The screen for selecting a maintenance item No. is displayed.

U917	Read/Write Backup Data (Message: Read/Write Backup HDD Data(USB))

Contents

Retrieves the backup data to a USB memory from the main unit, or writes the data from the USB memory to the main unit.

Purpose

Makes a back up of the main unit information, and import or export to restore the main unit information

Method

1. Turn the power switch off.
2. Insert a USB memory into the USB memory slot.
3. Turn the power switch on.
   * : Wait for about 10 seconds until the main unit recognizes a USB memory.
4. Enter maintenance mode U917.
5. Select [Export] or [Import], and press the [Start] key.

Items	Contents
Import	Imports data from the USB memory to the main unit.
Export	Retrieving data from the main unit to the USB memory.

6. Select the object item.

Items	Contents	Depending data*
Address Book	Address book information	-
Job Account	Job accounting information	-
One Touch	One-touch key information	Address book information
User	User management information	Job accounting information
Document Box	Document box information	Job accounting, User information
Shortcut	Short-cut information	Job accounting, User, Document Box information
Fax Forward	FAX forward information	Job accounting, User, Document Box information
System	System setting information	-
Network	Network setting information	-
Job Setting	Job setting information	-
Printer	Printer setting information	-
Fax Setting	FAX setting information	-

Items	Contents	Depending data*
Program	Program information	Information of Address book, Job accounting, User management, Document box, FAX transfer and FAX setting
Panel Setting	Panel setting information	Information of Address book, Job accounting, User management, Document box, FAX transfer, FAX setting and Program

   * :Since data are dependent with each other, data other than selected are also retrieved or written.

7.Select the object item.

8.Press the [Start] key. Starts reading or writing.

   * :The progress of selected item is displayed in %.

   * :When an error occurs, the operation is canceled and an error code appears.

9.[Finish] appears after normal completion.

10.When selecting [Import], turn the power switch off then on, after completing writing. Wait more than 5 seconds between the power off and on.

Error codes

Codes	Contents
e000	Unspecified error
e0001	Parameter error
e0002	Generating a dummy file has failed.
e0003	The XML file to import does not exist
e0004	The exported file does not exist
e0100 to e01ff	Error in handling addressbook
e0200 to e02ff	Error in handling One-touch
e0300 to e03ff	Error in handling user management
e0400 to e04ff	Error in handling panel program data
e0500 to e05ff	Error in handling forwarding FAX data
e0600 to e06ff	Error in handling the system configuration
e0700 to e07ff	Error in handling network parameters
e0800 to e08ff	Error in handling job accounting
e0900 to e09ff	Error in handling short-cuts
e0a00 to e0aff	Error in handling job information
e0b00 to e0bff	Error in handling FAX data
e0c00: toe0cff	Error in handling printer data
e0d00 to e0dff	Error in handling panel data
e0e00 to e0eff	Error in handling document boxes
e1000 to e1fff	Error in the device-related process
e2000 to e2fff	Error in handling SOAP IF
e3000 to e3fff	Error in handling KM-WSDL IF

Codes	Contents
e4000 to e4fff	Error in process for import (e4002) A file mandatory for importing is missing (e4008) Invalid file header
e5000 to e5fff	Error in the SOAP data rewriting process

Completion

Press the [Stop] key.

* :The screen for selecting a maintenance item No. is displayed.

U920	Billing counter (Message: Charge Counter)

Contents
    Displays the billing count.
Purpose
    Execute to check the current billing counts

Method
    1.Press the [Start] key.
    2.Select the item to display.
      * :Switched to each display screen.

Items	Contents
Main Function	Main function counts
Sub Function	Sub functions count

Method: Main Function
    * :The charge counts for the main functions are displayed.

Items	Contents
Col Copy (H)	Color copy counts (Coverage: High)
Col Copy (M)	Color copy counts (Coverage: Middle)
Col Copy (L)	Color copy counts (Coverage: Low)
Mono Color Copy	Displays mono color copy count.
B/W Copy	B/W copy count is displayed.
Col Prn (H)	Color print counts (Coverage: High)
Col Prn (M)	Color print counts (Coverage: Middle)
Col Prn (L)	Color print counts (Coverage: Low)
B/W Prn	B/W print count is displayed
B/W FAX	FAX count

Method: Sub Function
    * :The charge counts for the sub functions are displayed.

Items	Contents
Simplex	Simplex print count is displayed
Duplex	Duplex print count is displayed
Comb(Off)	Combine print counts (Off) is displayed
Comb(2in1)	Combine print counts (2in1) is displayed
Comb(4in1)	Combine print counts (4in1) is displayed

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U927	Clearing all the billing/life counters (Message: Clear All Charge/Life Counter (one time only))

Contents
  Clears all charge counts and machine life counts.
Supplement
  The total charge counts and the machine life counts can be cleared only once if all count values are 1000 or less.
Method
  1.Press the [Start] key.
  2.Select [Execute].

Items	Contents
Execute	Initializes the billing count and machine life count.

  3.Press the [Start] key.
    * :Clears all charge counts and machine life counts.

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U928	Machine life counter (Message: Machine Life Counter)

Contents
  The current machine life counts is displayed.
Purpose
  Executed to check the machine life count

Method
  1.Press the [Start] key.
    * :The current machine life counts is displayed.

Items	Contents
Cnt	Displays the machine life count

Completion
  Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U930	Clear the main charger roller counts (Message: Clear Charger Roller Counter)

Contents

Displays and clears the current main charger roller counts.

Purpose

To verify the main charger roller counts after replacing. Also, clear the counts after replacement

Method

1.Press the [Start] key.

　 * :The main charge roller counter for each color is displayed.

Items	Contents
C	The current main charger roller count for C is displayed.
M	The current main charger roller count for M is displayed.
Y	The current main charger roller count for Y is displayed.
K	The current main charger roller count for K is displayed.

Method: Clear

1.Select the item to set.

1.Select [Clear].

2.Press the [Start] key to clear the counter value.

Completion

Press the [Stop] key.

　 * :The screen for selecting a maintenance item No. is displayed.

U933	Setting the maintenance mode log (Message: Set Maintenance Mode Execute Log)

Contents

Sets the function to record the in/out date of the maintenance mode or date executing each maintenance item individually and output the log file.

Purpose

Record the maintenance mode history to analyze the cause when a problem occurs.

Method

1.Press the [Start] key.
2.Select the item to set.
* :The screen for setting is displayed.

Items	Contents
Export	Exports Maintenance Log.
Setting	Maintenance log output setting

Method: Export

1.Select [Execute].

Items	Contents
Execute	Export the maintenance log to a USB memory.

2.Press the [Start] key.
Export the maintenance log to a USB memory.
* :If a USB memory is not inserted, [Execute] is grayed out .
* :Display OK/NG after execution.

Setting: Setting

1.Select the item to set.
* :Select the key including the number to set indicated by each block.
* :The screen for setting is displayed.

Items	Contents
U000-U019	Sets the maintenance log output for U000 to U019.
U020-U029	Sets the maintenance log output for U020 to U029.
U030-U059	Sets the maintenance log output for U030 to U059.
U060-U099	Sets the maintenance log output for U060 to U099.
U100-U129	Sets the maintenance log output for U100 to U129.
U130-U159	Sets the maintenance log output for U130 to U159.
U160-U199	Sets the maintenance log output for U160 to U199.
U200-U249	Sets the maintenance log output for U200 to U249.
U250-U349	Sets the maintenance log output for U250 to U349.
U400-U499	Sets the maintenance log output for U400 to U499.
U500-U599	Sets the maintenance log output for U500 to U599.
U600-U699	Sets the maintenance log output for U600 to U699.
U900-U999	Sets the maintenance log output for U900 to U999.

2.Set on/off for the number desired to set.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U942	DP loop amount setting (Message: Adjust DP Original Loop Amount)	Simultaneous duplex scan model only

Contents
    Adjust the paper loop amount when using the document processor.
Purpose
    Execute when original no-feed jam, skew or creases on the original appears.

Method
    1.Press the [Start] key.
    2.Press the [System Menu] key.
    3.Place an original on the DP and press the [Start] key to make a test copy.
    4.Press the [System Menu] key.
    5.Select the item to adjust.
    6.By using the [+] [-] keys or the numeric keys, change the setting value.

Items	Contents	Setting range	Initial setting	Data variation
Cis	Single-side original loop amount	-31 to 31	0	0.2445mm

    * :When the setting value is increased, the paper loop amount increase, and it decreases
      when the setting value is decreased.
      Increase the set value if no feed jam or skew feed occurs and reduce the set value if creases
      appear on the original.
    7.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

2R4/2R5/2R6

U952	MMaintenance mode workflow (Message: Maintenance Mode Work Flow)

Contents

Execute the maintenance items in the order of registration in the main unit or the USB memory.

Purpose

Execute to register regular maintenance items.

Method

1.Press the [Start] key.
2.Select the item to execute.
   * :The screen for executing is displayed.

Items	Contents
Continue	Resume interrupted workflow.
Execute(USB)	Executes the workflow in a USB memory.
Execute	Execute the workflow saved in the main unit.
Entry(USB)	Executes the workflow in a USB memory.
Entry	Register the workflow in the main unit manually.
Log	Displays the latest workflow execution history.

Method: Continue

1.Select maintenance item number to execute.
2.Press the [Start] key.
   * :Selected maintenance mode is executed.

Method: Execute(USB)

1.Check the LED display is off and turn the power switch off.
2.Insert a USB memory into the USB memory slot.
3.Turn the power switch on.
4.Enter maintenance item U952.
5.Select [Execute(USB)].
6.Select [workflow].

Items	Contents
WorkFlowData 01 - 07	Workflow data in a USB memory

7.Press the [Start] key.
   * :Execute the maintenance items in the order of registration in the workflow.

Method: Excute

1.Select the place to save the data to execute.

Items	Contents
Data 1 - 8	Workflow save area in the main unit

2.Select the item to execute.
3.Press the [Start] key to start the processing.

2R4/2R5/2R6

Method: Entry(USB)

    1.Check the LED display is off and turn the power switch off.
    2.Insert a USB memory into the USB memory slot.
    3.Turn the power switch on.
    4.Enter maintenance item U952.
    5.Select [Entry(USB)].
    6.Select [workflow].

Items	Contents
WorkFlowData 01 - 07	Workflow data in a USB memory

    7.Select the workflow save area.

Items	Contents
Data 1 - 8	Workflow save area in the main unit

    8.Select [Execute].
      * :Registers the workflow in a USB memory to the main unit.

Method: Entry

    1.Select [Entry].
    2.Select the workflow save area.

Items	Contents
Data 1 - 8	Workflow save area in the main unit

    3.By using the [+] [-] keys or the numeric keys, enter the maintenance number to register in the workflow.

Items	Contents
Flow 1 - 14	Registered maintenance numbers

    4.Press the [Start] key to set the setting value.
    5.Press the [Start] key.
      * :Execute the maintenance items in the order of registration in the workflow.

e.g.

When inserting a USB memory the following items can be registered: commands, texts and maintenance numbers (variable).
File format: xxx.mwf

1, SET UP, 464, 469, 410, 000, 927, 278
2, WARRANTY, 089, 000
3, MK-A, 119, 930, 140, 127, 167, 464, 469, 412, 410, 251
4, MK-B, 119, 930, 140, 464, 469, 412, 410, 251
5, EH SETUP, 411, 034, 246, 211

Completion

Press the [Stop] key.
    * :The screen for selecting a maintenance item No. is displayed.

U964	Log check

Contents
Transfer the log files save in the HDD to a USB memory.
Purpose
Transfer the log file saved in the HDD to a USB memory for investigation when a failure occurs.

Method
1.Check the LED display is off and turn the power switch off.
2.Insert a USB memory into the USB memory slot.
3.Turn the power switch on.
4.Enter maintenance item U952.
5.Select [Execute].

Items	Contents
Execute	Transfer the log file.

6.Press the [Start] key.
  * :Starts transferring the log files saved in the HDD to a USB memory.
    [Processing] is displayed. (About 3 to 5 minutes)
7.[Completed] appears after normal completion.
8.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.
  * :An error code appears when there is an error.

Supplement
How to retrieve the log when the operation panel freezes
Log retrieving starts when pressing four keys on the operation panel (*, 8, 6, Clear) for 3 to 6 seconds.
The memory lamp is blinking during retrieving and turns off when completed.
The log retrieved this way can be saved in a USB memory.

Error codes

Display	Contents
No USB Storage	The USB memory is not installed
No File	No file
Mount Error	USB memory mount error
File Delete Error	Failed to delete existing files in the USB memory
Copy Error	HDD to USB memory copy failure
Unmount Error	USB memory unmount error
Other Error	Other error

Completion
Press the [Stop] key.
  * :The screen for selecting a maintenance item No. is displayed.

U969	Toner area code (Message: Toner Area Code)

Contents
　Displays the toner area code.
Purpose
　Execute to check the currently set toner area code and model code.

Method
　1.Press the [Start] key.
　　* :Displays the toner area code and model code

Items	Contents
Area Code	Toner container area code
Model Code	Model code

Completion
　Press the [Stop] key.
　　* :The screen for selecting a maintenance item No. is displayed.

U977	Setting the data capture mode (Message: Set Data Capture Mode)

Contents
　Stores the data sent to the main unit into a USB memory.
Purpose
　Store the data sent to the main unit into a USB memory to check it.

Method
　1.Press the [Start] key.
　2.Select [Execute].

Items	Contents
Execute	Stores data in a USB memory.

　3.Press the [Start] key.
　　* :When the operation is completed abnormally, an error code is displayed.

Error codes

Items	Contents
1	USB memory is broken. USB memory was disconnected during data processing or is write-protected.
4	USB memory is full.
50	Other error occurs

Completion
　Press the [Stop] key.
　　* :The screen for selecting a maintenance item No. is displayed.

U984	Developer unit number (Message: Developing Unit Number)

Contents
   Displays the developer unit number.
Purpose
   Execute to check the developer unit number.

Method
   1.Press the [Start] key.
      * :Displays the developer unit number.

Items	Contents
C	Displays the Cyan developer unit number.
M	Displays the Magenta developer unit number.
Y	Indicates the Yellow developer unit number.
K	Displays the Black developer unit number.

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U985	Developer unit history (Message: Developing Unit History)

Contents
   Displays the machine serial number and developer counter history.
Purpose
   Displays the machine serial number and developer count to check.

Method
   1.Press the [Start] key.
      * :Select color to refer to.

Items	Contents
C	Displays the Cyan developer unit history.
M	Displays the Magenta developer unit history.
Y	Indicates the Yellow developer unit history.
K	Displays the Black developer unit history.

      * :Displays the machine serial number and 3 items of the developer counter history.

Items	Contents
Machine History 1 to 3	Machine serial number history
Cnt History1 to 3	Developer counter history

Completion
   Press the [Stop] key.
      * :The screen for selecting a maintenance item No. is displayed.

U989	HDD scan disk (Message: HDD Scandisk)

Contents

Apply Scandisk to the HDD for data recovery.

Purpose

Execute recovery of HDD management data error by turning the power off while accessing to the HDD.

Method

1.Press the [Start] key.

2.Select [Execute].

Items	Contents
Execute	HDD scan disk request

3.Press the [Start] key to execute scandisk.

4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U990	Clearing the scanner lighting time (Message: Clear Scanner Lamp ON Time)

Contents

Displays the accumulated CIS lighting time

Purpose

Execute to check the CIS usage.

Method

1.Press the [Start] key.

   * :CIS accumulated lighting time is displayed in minutes.

Items	Contents
CIS	Displays the accumulated CIS lamp lighting time

Completion

Press the [Stop] key.

   * :The screen for selecting a maintenance item No. is displayed.

U991	Scanner counter (Message: Scanner Counter)

Contents
　　Displays the scanner operation counts.

Purpose
　　Display the number of scanner operation to check the usage status.

Method
　　1.Press the [Start] key.
　　　　* :Current number of operation is displayed.

Items	Contents
Copy Scan	Displays times of copy and scan operations.
Fax Scan	Displays times of FAX scan operations.
Other Scan	Displays times of other scan operations.

Completion
　　Press the [Stop] key.
　　　　* :The screen for selecting a maintenance item No. is displayed.

6-2 Service mode: 30ppm model only

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

(1) Executing the service mode

[Message Display]

Ready to copy

1. Press the System Menu Key.

System Menu:
  Quick Setup Wisard
  Language
  Report
  Counter

  Cassette/MP Tray Setting
  Common Setting
  Home
  Copy

  Send
  Document Box
  FAX *1
  Application

  Inter net
  Address Book/One touch
  User Login/Job Accounting
  Printer

  System/Network
  Date/Timer/Energy Saver
  Adjustment/Maintenance

2. Select [Adjustment/Maintenance] using the [▲] [▼] keys.

3. Select [Service Setting] using the [▲] [▼] keys.

Adjustment/Maintenance:
  Laser Scanner Cleaning
  Service Setting

4. Select the item to be set.

Service Setting:
  FAX Country Code *1
  FAX Call Settings *1
  Alutitude Adjustment
  MC

  DEV-CLN
  Memory Diagnostics

*1: Displays only when the FAX kit is installed

NOTE

If the login user name entry screen appears, enter a login user name and password, and select [Login]. Login with the administrator privileges.
The factory default login user name and login password are set as shown below.

Login User Name : 3000

Login Password : 3000

Service settings

Items	Contents	page
FAX country code *1	Initializes all data and image memory.	P.6-434
FAX recall setting *1	Set for connection.	P.6-435
Altitude Adjustment	Sets the altitude adjustment mode.	P.6-436
MC	Sets the main charger output.	P.6-436
DEV-CLN	Execute developer refreshing.	P.6-437
Memory diagnostics	Diagnose memory at power up (whether reading and writing are executable).	P.6-437

*1: For FAX kit installed model only

(2) Descriptions of service modes

FAX country code

Contents

Initializes software switches, and all data and image memory in the backup data on the FAX PWB according to the destination and OEM setting.

Purpose

To initialize the FAX PWB.

Method

1. Enter the Service Setting menu.
2. Using the [▲] [▼] key, select [FAX country code].
3. Press the [Start] key.
4. Enter the destination code using the numeric keys.
5. Press the [Start] key to set the setting value.
6. Press the [Start] key. Data initialization starts.

Destination code list

Destination code	Destination	Destination code	Destination
000	Japan	253	CTR21 (European nations)
007	Argentina	↑	Italy
009	Australia	↑	Germany
022	Brazil	↑	Spain
038	China	↑	U.K.
080	Hong Kong	↑	Netherlands
084	Indonesia	↑	Sweden
088	Israel	↑	France
097	Korea	↑	Austria
181	U.S.A.	↑	Switzerland
250	Russia	↑	Belgium
108	Malaysia	↑	Denmark
115	Mexico	↑	Finland
126	New Zealand	↑	Portugal
136	Peru	↑	Ireland
137	Philippines	↑	Norway
152	Middle East	254	Taiwan
156	Singapore		
159	South Africa		
169	Thailand		

Completion

Press the [Stop] key.

FAX ringing setting

Contents
    Selects if the FAX is connected to either a PBX or public switched telephone network.
    Selects the mode to connect an outside call when connected to a PBX.
    Registering the access code for connection to PSTN

Purpose
    Execute as required.

Method
    1.Enter the Service Setting menu.
    2.Using the [▲] [▼] key, select [FAX recall setting].
    3.Press the [Start] key.

Items	Contents
Exchange selection	PBX/PSTN connection setting
PBX setting	PBX external connection setting
PSTN connection number setting	PSTN access code setting

Setting: Exchange selection
    1.Using the [▲] [▼] key, select [Exchange selection].
    2.Press the [Start] key.
    3.Using the [▲] [▼] key, select [PBX] or [PSTN].
    4.Press the [Start] key to set the setting value.

Setting: PBX setting
    1.Using the [▲] [▼] key, select [PBX setting].
    2.Press the [Start] key.
    3.Using the [▲] [▼] key, select [Loop], [Flash] or [Earth].
    4.Press the [Start] key to set the setting value.

Setting: PSTN access code setting
    1.Using the [▲] [▼] key, select [PSTN connection number setting].
    2.Press the [Start] key.
    3.Enter the access code using the numeric keys. (0 to9, 00 to 99)
    4.Press the [Start] key to set the setting value.

Completion
    Press the [Stop] key.

Altitude Adjustment

Description

Sets the altitude adjustment mode.

Purpose

Execute when print quality deteriorates in the installation at the altitude of 1,500 meters or higher

Method

1.Enter the Service Setting menu.

2.Using the [▲] [▼] key, select [Altitude Adj.].

3.Press the [Start] key.

4.Using the [▲] [▼] keys, select [Normal], [1001 - 2000m], [2001 - 3000m] or [3001 - 3500m].

5.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

MC

Description

Sets the main charger output.

   * :Executable only when the altitude adjustment mode is set to "Normal".

Purpose

Execute when the image density declines, dirt of a background or an offset has occurred.

Method

1.Enter the Service Setting menu.

2.Using the [▲] [▼] key, select [MC].

3.Press the [Start] key.

4.Using the [▲] [▼] key, select the setting "1" to "4".

5.Press the [Start] key to set the setting value.

Completion

Press the [Stop] key.

DEV-CLN

Description
The laser output of the image data, exposure, developing and primary transfer is executed for ten pages equivalent. (Paper is not fed)

Purpose
Execute when the image failure or problem in the developer unit occurs

Method
1.Enter the Service Setting menu.
2.Using the [▲] [▼] key, select [DEV-CLN].
3.Press the [Start] key.
   * :Developer refresh is executed by forming image with toner on the primary transfer belt.

Completion
Press the [Stop] key.

Memory diagnostics

Contents
Diagnose memory at power-up (whether reading and writing are executable).

Purpose
Check if the memory device is defective that may cause an unresolvable F-code error, locking or abnormal images. Checks the memory failure.

Method
1.Enter the Service Setting menu.
2.Using the [▲] [▼] key, select [Mem.Diagnostics].
3.Press [Start].
4.Turn the power switch off then on. Wait more than 5 seconds between the power off and on.

Completion
Press the [Stop] key.

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7 Troubleshooting
7-1 Paper misfeed detection

(1) Paper misfeed indication

When a paper misfeed occurs, the machine immediately stops printing and displays the paper misfeed message on the operation panel. To remove paper misfed in the machine, pull out the cassette, open the front cover or paper conveying cover.
The locations are displayed on the operation panel when a paper jam has occurred.

Jam location indication

30 ppm model

35/40 ppm models

1. Shows the location of a paper jam.
2. Shows the previous step.
3. Shows the next step.
4. Shows the removal procedure.
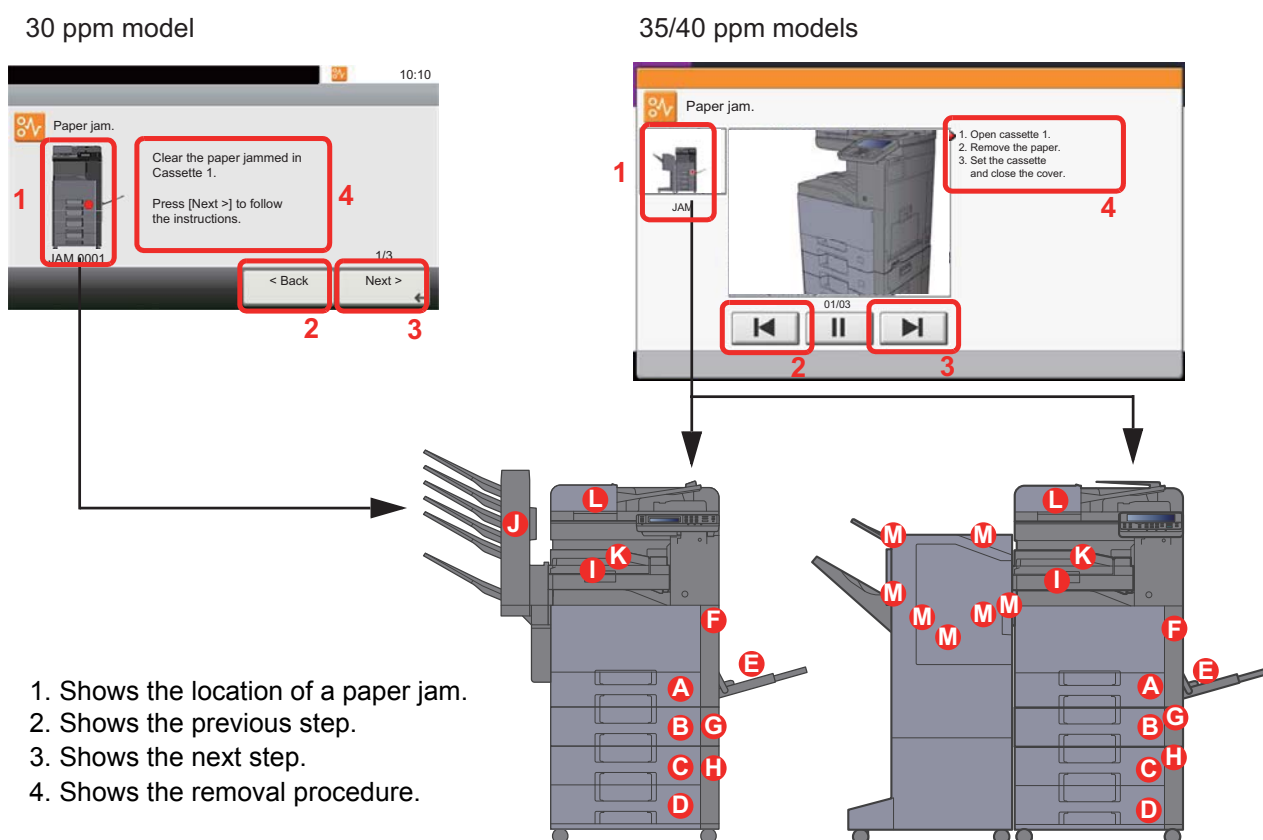
Figure 7-1

A. Misfeed in the cassette 1
B. Misfeed in the cassette 2 (550-sheet × 1)
C. Misfeed in the cassette 3 (550-sheet × 2)
C. Misfeed in the cassette 3 (2250-sheet × 1)
D. Misfeed in the cassette 4 (550-sheet × 2)
E. Misfeed in MP tray
F. Misfeed inside the right cover 1
G. Misfeed inside the right cover 2
H. Misfeed inside the right cover 3

I. Misfeed inside the bridge conveying
J. Misfeed inside the mail box paper
K. Misfeed inside the inner finisher
L. Paper jam at the document processor
M. Misfeed inside the 1000-sheet finisher
M. Misfeed inside the 3000-sheet finisher

(2) Paper misfeed detection condition

Main unit + Optional unit
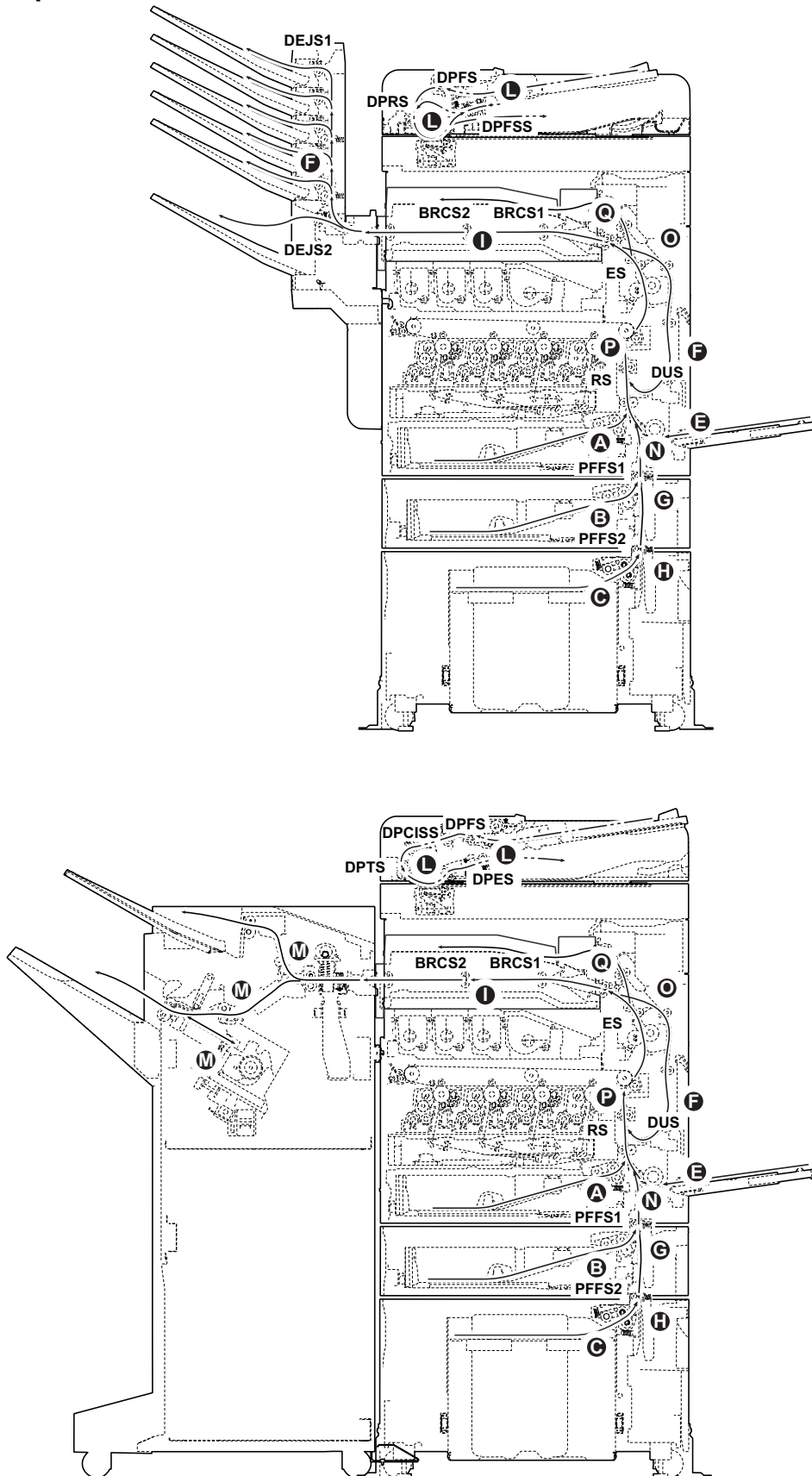
Figure 7-2

List of JAM Code

Code	Contents	Detection conditions	JAM Position*
0000	Initial jam	The power is turned on when a sensor in the conveying system is on.	-
0100	Secondary feeding timeout	Secondary paper feed request given by the controller is unreachable.	-
0101	Wait for ready of the print-process package	Before the paper feeding, the reply of Standby-Ready from the driving function does not come for 40 seconds, or before the secondary paper feeding, the reply of StartReady from the drive function does not come for 40 seconds.	-
0104	Wait for ready of conveying package	Before the paper feeding or the secondary paper feeding starts, the permission notice of the paper feeding or the secondary paper feeding does not come for 40 seconds.	-
0105	Drive prevention jam	A drive does not stop.	-
0106	Paper feeding request for duplex printing time out	Paper feeding request for duplex printing given by the controller is unreachable.	-
0107	Wait for ready of fuser package	Fuser package does not become ready.	-
0110	Right cover open jam	The right cover is opened during printing.	-
0111	Front cover open jam	The front cover is opened during printing.	-
0114	Bridge cover open jam	The bridge cover is opened during printing.	-
0211	Cassette cover 2 open jam	The cassette cover 2 is opened during printing.	-
0212	Cassette cover 3 open jam	The cassette cover 3 is opened during printing.	-
0213	Cassette cover 4 open jam	The cassette cover 4 is opened during printing.	-
0300	DF ejection jam	An ejection-completed error has occurred.	-
0501	No paper feeding jam	Registration sensor (RS) does not turn on during paper feed from cassette 1.	A
0502		PF feed sensor 1 (PFFS1) does not turn on during paper feed from cassette 2.	B
0503		PF feed sensor 2 (PFFS2) does not turn on during paper feed from cassette 3.	C
0504		PF feed sensor 3 (PFFS3) does not turn on during paper feed from cassette 4.	D
0508		Registration sensor (RS) does not turn on during paper feed from duplex section.	F
0509		Registration sensor (RS) does not turn on during paper feed from MP tray.	E

Code	Contents	Detection conditions	JAM Position*
0511	Multiple sheets jam	Registration sensor (RS) does not turn off during paper feed from cassette 1.	P
0512		PF feed sensor 1 (PFFS1) does not turn off during paper feed from cassette 2.	N
0513		PF feed sensor 2 (PFFS2) does not turn off during paper feed from cassette 3.	N
0514		PF feed sensor 3 (PFFS3) does not turn off during paper feed from cassette 4.	N
0518		Registration sensor (RS) does not turn off during paper feed from duplex section.	P
0519		Registration sensor (RS) does not turn off during paper feed from MP tray.	P
1403	PF feed sensor 2 non arrival jam	PF feed sensor 2 (PFFS2) does not turn on during paper feed from cassette 3.	C
1404		PF feed sensor 2 (PFFS2) does not turn on during paper feed from cassette 4.	H
1413	PF feed sensor 2 stay jam	PF feed sensor 2 (PFFS2) does not turn off during paper feed from cassette 3.	H
1414		PF feed sensor 2 (PFFS2) does not turn off during paper feed from cassette 4.	H
1604	PF feed sensor 3 non arrival jam	PF feed sensor 3 (PFFS3) does not turn on during paper feed from cassette 4.	H
1614	PF feed sensor 3 stay jam	PF feed sensor 3 (PFFS3) does not turn off during paper feed from cassette 4.	H
4002	Registration sensor non arrival jam	Registration sensor (RS) does not turn on during paper feed from cassette 2.	N
4003		Registration sensor (RS) does not turn on during paper feed from cassette 3.	N
4004		Registration sensor (RS) does not turn on during paper feed from cassette 4.	N
4012	Registration sensor stay jam	Registration sensor (RS) does not turn off during paper feed from cassette 2.	P
4013		Registration sensor (RS) does not turn off during paper feed from cassette 3.	P
4014		Registration sensor (RS) does not turn off during paper feed from cassette 4.	P

Code	Contents	Detection conditions	JAM Position*
4201	Fuser sensor non arrival jam	Fuser sensor (ES) does not turn on during paper feed from cassette 1.	P
4202		Fuser sensor (ES) does not turn on during paper feed from cassette 2.	P
4203		Fuser sensor (ES) does not turn on during paper feed from cassette 3.	P
4204		Fuser sensor (ES) does not turn on during paper feed from cassette 4.	P
4208		Fuser sensor (ES) does not turn on during paper feed from duplex section.	P
4209		Fuser sensor (ES) does not turn on during paper feed from MP tray.	P
4211	Fuser sensor stay jam	Fuser sensor (ES) does not turn off during paper feed from cassette 1.	I
4212		Fuser sensor (ES) does not turn off during paper feed from cassette 2.	I
4213		Fuser sensor (ES) does not turn off during paper feed from cassette 3.	I
4214		Fuser sensor (ES) does not turn off during paper feed from cassette 4.	I
4218		Fuser sensor (ES) does not turn off during paper feed from duplex section.	I
4219		Fuser sensor (ES) does not turn off during paper feed from MP tray.	I
4301	Duplex sensor non arrival jam	Duplex sensor (DUS) does not turn on during paper feed from cassette 1.	O
4302		Duplex sensor (DUS) does not turn on during paper feed from cassette 2.	O
4303		Duplex sensor (DUS) does not turn on during paper feed from cassette 3.	O
4304		Duplex sensor (DUS) does not turn on during paper feed from cassette 4.	O
4309		Duplex sensor (DUS) does not turn on during paper feed from MP tray.	O

Code	Contents	Detection conditions	JAM Position*
4311	Duplex sensor stay jam	Duplex sensor (DUS) does not turn off during paper feed from cassette 1.	O
4312		Duplex sensor (DUS) does not turn off during paper feed from cassette 2.	O
4313		Duplex sensor (DUS) does not turn off during paper feed from cassette 3.	O
4314		Duplex sensor (DUS) does not turn off during paper feed from cassette 4.	O
4319		Duplex sensor (DUS) does not turn off during paper feed from MP tray.	O
4901	BR conveying sensor 1 non arrival jam	BR conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 1.	I
4902		BR conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 2.	I
4903		BR conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 3.	I
4904		BR conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 4.	I
4908		BR conveying sensor 1 (BRCS1) does not turn on during paper feed from duplex section.	I
4909		BR conveying sensor (BRCS1) does not turn on during paper feed from MP tray.	I
4911	BR conveying sensor 1 stay jam	BR conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 1.	N
4912		BR conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 2.	N
4913		BR conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 3.	N
4914		BR conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 4.	N
4918		BR conveying sensor 1 (BRCS1) does not turn off during paper feed from duplex section.	N
4919		BR conveying sensor 1 (BRCS1) does not turn off during paper feed from MP tray.	N

Code	Contents	Detection conditions	JAM Position*
5001	BR conveying sensor 2 non arrival jam	BR conveying sensor 2 (BRCS2) does not turn on during paper feed from cassette 1.	N
5002		BR conveying sensor 2 (BRCS2) does not turn on during paper feed from cassette 2.	N
5003		BR conveying sensor 2 (BRCS2) does not turn on during paper feed from cassette 3.	N
5004		BR conveying sensor 2 (BRCS2) does not turn on during paper feed from cassette 4.	N
5008		BR conveying sensor 2 (BRCS2) does not turn on during paper feed from duplex section.	N
5009		BR conveying sensor 2 (BRCS2) does not turn on during paper feed from MP tray.	N
5011	BR conveying sensor 2 stay jam	BR conveying sensor 2 (BRCS2) does not turn off during paper feed from cassette 1.	N
5012		BR conveying sensor 2 (BRCS2) does not turn off during paper feed from cassette 2.	N
5013		BR conveying sensor 2 (BRCS2) does not turn off during paper feed from cassette 3.	N
5014		BR conveying sensor 2 (BRCS2) does not turn off during paper feed from cassette 4.	N
5018		BR conveying sensor 2 (BRCS2) does not turn off during paper feed from duplex section.	N
5019		BR conveying sensor 2 (BRCS2) does not turn off during paper feed from MP tray.	N
6000	DF entry failure	DF paper entry sensor (DFPES) became on before the eject signal is output from the main unit. (3000-sheet DF)	M
6001		DF paper entry sensor (DFPES) became on before the eject signal is output from the main unit. (1000-sheet DF)	M
6002		DF paper entry sensor (DFPES) became on before the eject signal is output from the main unit. (Inner DF)	K
6012	DF unit open jam	DF unit opened during the DF operation. (Inner DF)	-
6020	Front cover open jam	Front cover opened during the DF operation. (3000-sheet DF)	-
6021	Front cover open jam	Front cover opened during the DF operation. (1000-sheet DF)	-
6041	Top cover open jam	Top cover opened during the DF operation. (1000-sheet DF)	-

Code	Contents	Detection conditions	JAM Position*
6100	DF paper entry sensor non arrival jam	DF paper entry sensor (DFPES) does not become on when passing the specified time after receiving the main unit eject signal. (3000-sheet DF)	M
6101		DF paper entry sensor (DFPES) does not become on when passing the specified time after receiving the main unit eject signal. (1000-sheet DF)	M
6102		DF paper entry sensor (DFPES) does not become on when passing the specified time after receiving the main unit eject signal. (Inner DF)	K
6110	DF entry sensor stay jam	DF paper entry sensor (DFPES) is not turned off when passing the specified time after it is turned on. (3000-sheet DF)	M
6111		DF paper entry sensor (DFPES) is not turned off when passing the specified time after it is turned on. (1000-sheet DF)	M
6112		DF paper entry sensor (DFPES) is not turned off when passing the specified time after it is turned on. (Inner DF)	K
6200	DF sub eject sensor non arrival jam	DF sub eject sensor (DFSES) is not turned on when passing the specified time after DF paper entry sensor (DFPES) is turned on.	M
6210	DF sub eject sensor stay jam	DF sub eject sensor (DFSES) is not turned off when passing the specified time after it is turned on.	M
6300	DF middle sensor non arrival jam	DF middle sensor (DFMES) is not turned on when passing the specified time after the DF paper entry sensor (DFPES) is turned on. (3000-sheet DF)	M
6301		DF middle sensor (DFMES) is not turned on when passing the specified time after the DF paper entry sensor (DFPES) is turned on. (1000-sheet DF)	M
6310	DF middle sensor stay jam	DF middle sensor (DFMES) is not turned off when passing the specified time after it is turned on. (3000-sheet DF)	M
6311		DF middle sensor (DFMES) is not turned off when passing the specified time after it is turned on. (1000-sheet DF)	M

Code	Contents	Detection conditions	JAM Position*
6410	DF tray top sensor stay jam	DF eject sensor (DFMTS) is not turned off when passing the specified time after it is turned on. (3000-sheet DF)	M
6411		DF eject sensor (DFMTS) is not turned off when passing the specified time after it is turned on. (1000-sheet DF)	M
6412		DF eject sensor (DFMTS) is not turned off when passing the specified time after it is turned on. (Inner DF)	K
6510	DF bundle eject sensor stay jam	DF bundle eject sensor (DFBDS) is not turned off after starting the bundle eject. (3000-sheet DF)	M
6511		DF bundle eject sensor (DFBDS) is not turned off after starting the bundle eject. (1000-sheet DF)	M
6512		DF bundle eject sensor (DFBDS) is not turned off after starting the bundle eject. (Inner DF)	K
6810	DF side registration sensor 1 stay jam	DF side registration sensor 1 (DFSRS1) is not turned off when passing the specified time after DF side registration motor 1 (DFSRM1) is driven. (3000-sheet DF)	M
6811		DF side registration sensor 1 (DFSRS1) is not turned off when passing the specified time after DF side registration motor 1 (DFSRM1) is driven. (1000-sheet DF)	M
6812		DF side registration sensor 1 (DFSRS1) is not turned off when passing the specified time after DF side registration motor 1 (DFSRM1) is driven. (Inner DF)	K
6910	DF side registration sensor 2 stay jam	DF side registration sensor 2 (DFSRS2) is not turned off when passing the specified time after DF side registration motor 2 (DFSRM2) is driven. (3000-sheet DF)	M
6911		DF side registration sensor 2 (DFSRS2) is not turned off when passing the specified time after DF side registration motor 2 (DFSRM2) is driven. (1000-sheet DF)	M
6912		DF side registration sensor 2 (DFSRS2) is not turned off when passing the specified time after DF side registration motor 2 (DFSRM2) is driven. (Inner DF)	K

Code	Contents	Detection conditions	JAM Position*
7000	DF staple error	DF staple sensor (DFSTS) is not turned on when passing the specified time after DF staple motor (DFSTM) is driven. (3000-sheet DF)	M
7001		DF staple sensor (DFSTS) is not turned on when passing the specified time after DF staple motor (DFSTM) is driven. (1000-sheet DF)	M
7002		DF staple sensor (DFSTS) is not turned on when passing the specified time after DF staple motor (DFSTM) is driven. (Inner DF)	K
7800	MB eject sensor non arrival jam	MB eject sensor (MBES) does not become on when passing the specified time after receiving the main unit eject signal.	J
7810	MB eject sensor stay jam	MB eject sensor (MBES) is not turned off when passing the specified time after it is turned on.	J
7900	Middle puddle jam	Home position cannot be detected when passing 1s after the motor starts up. (3000-sheet DF)	M
7901		Home position cannot be detected when passing 1s after the motor starts up. (1000-sheet DF)	M
7902		Home position cannot be detected when passing 1s after the motor starts up. (Inner DF)	J
9000	DP no original feeding jam	DP feed sensor (DPFS) is not turned on when feeding originals from the DP. (5 retrials)	L
9004	DP switchback jam	DP registration sensor (DPRS) is not turned on when passing the specified time after the DP feed-shift sensor (DPSFS) is turned on.	L
9009	DP original conveying jam	The next original was in standby for the secondary feed during image scanning.	L
9010	Document processor open	Document processor is opened during original conveying.	-
9011	DP top cover open	DP top cover was opened during original conveying.	-
9110	DP feed sensor stay jam	DP feed sensor (DPFS) does not turn off when passing the specified time after DP registration sensor (DPRS) is turned on.	L
9200	DP registration sensor non arrival jam	DP registration sensor (DPRS) is not turned on when passing the specified time after DP feed sensor (DPFS) is turned on.	L
9210	DP registration sensor stay jam	DP registration sensor (DPRS) is not turned off when passing the specified time after DP feed sensor (DPFS) is turned off.	L
9300	DPCIS sensor non arrival jam	DPCIS sensor (DPCS) is not turned on when passing the specified time after DP feed sensor (DPFS) is turned on.	L

Code	Contents	Detection conditions	JAM Position*
9310	DPCIS sensor stay jam	DPCIS sensor (DPCS) is not turned off when passing the specified time after the DP feed sensor (DPFS) is turned off.	L
9400	DP timing sensor non arrival jam	DP timing sensor (DPTS) is not turned on when passing the specified time during original conveying. (5 retrials)	L
9410	DP timing sensor stay jam	DP timing sensor (DPTS) is not turned off when passing the specified time after DP registration sensor (DPRS) is turned on.	L
9600	DP eject sensor non arrival jam	DP eject sensor (DPES) is not turned on when passing the specified time after DP timing sensor (DPTS) is turned on.	L
9610	DP eject sensor stay jam	DP eject sensor (DPES) is not turned off when the specified time after DP timing sensor (DPTS) is turnied off.	L

* Refer to figure 7-2 for the paper misfeed indication (see page P.7-2).

(3) First check items

If the paper is fed askew, jammed, curled, or leading-edge dog-eared, first check the following items.

Check items	Check description	Corrective Action
Paper	1. Check if the paper delivered is dog-eared, skewed or creased.	1. If a dog-ear occurs, check if there are any objects existing in the conveying paths, and if any, fix it. 2. If the paper is fed askew or creased, execute No.2. below
	2. Check how paper is loaded in the cassette (paper feeder). Check that the paper has been properly aligned with the paper width guides and the rear guide; it has been loaded without skewing; or it is not damaged. (creased paper, main unit jam)	Adjust the paper width guides to the size of the paper.
	3. Check how paper is loaded. Check if the cutting edge of the paper bundle inside is crumpled or bent.	If the cutting edge of the paper bundle is crumpled, fan the paper before loading. If the paper is folded, stretch before loading in the cassette.
	4. Check if the paper is moist, wavy, or curled.	1. Load the paper in the cassette upside down. 2. Load the paper in the cassette after rotating it 180 degrees. 3. Change the paper.
	5. Check if the paper loaded in the cassette was stored in a continuously humid place.	Instruct the user to store the paper in a dry, less humid place.
	6. Check if the paper conforms to the specification.	Isolate the cause of the problem by replacing the paper with the recommended paper. (see page P.1-1)
Settings/ Detection	1. Check if the margin is 4.0±2.5mm from the leading edge of paper.	If there is no margin of 4.0±2.5mm from the leading edge, adjust the leading margin by U402. (see page P.6-111,P.6-334)
	2. Check the operation panel if the paper size is correctly set. (Multiple jam)(MFP: Perform U000 to obtain an Event Log to check if the paper size and the size of the paper loaded are met when jam has occurred and if the size of the original document and the paper size are met.) (see page P.1-1)	If the paper size is incorrectly displayed, set the size of the paper cassette properly.
	3. Check that paper settings are made in accordance with the paper being used. (Jam caused by faulty separation)	Select Original/Paper settings under [Common Settings] in the system menu to set media type and weight of paper.

Check items	Check description	Corrective Action
Rear cover	Check if the rear cover of the main unit is slightly pulled or closed	Open the rear cover and close it firmly. (Check the position of the safety switch)
Conveying guide Entry guide Feedshift guide	1. Check that the foreign objects including torn paper, paper clips, etc., do not exist in the paper conveying paths.	If foreign objects such as torn paper, etc. remain in the paper conveying path, remove them
	2. Check that the paper conveying guide and the separation needles are not contaminated with toner, paper dust, etc.	1. If dirty, clean the guide, ribs (with a cloth), and the separation needles (with a cleaning brush). 2. If the ribs of the conveying guides were broken or deposited with toner, replace the conveying guide.
	3. Check that the paper conveying guide has no burrs, deformations, or abrasions; and it is properly attached without being floated.	Clean the conveying guide or the paper entry guide. Remove any protrusions including burrs. If floated, reattach. If deformation or abrasion is observed, replace it.
	4. Check that the guide is smoothly operative. Check that the guide is smoothly operative by hand.	If the guide does not operate smoothly, replace the guide or the unit.
	5. Check that the guide is smoothly operative.	If the guide is inoperative or won't operate smoothly, reattach the guide or replace the unit.
Conveying roller Paper feed roller	1. Check the conveying rollers have no paper dust, toner, or foreign objects stuck. Check the variation of the external diameter of the roller or abrasion is not observed with the conveying roller.	Clean the conveying rollers or the pulleys. If variation in the external diameter or abrasion is observed, replace it.
	2. Turn the safety switch of the cover on and check if the motor and clutch operate.	1. If the conveying motor or the clutch is inoperative, replace it. 2. If stained, replace the clutch. 3. If the clutch is kept turned on due to a pulled wire, realign the wire.
	3. Check that the conveying roller rotates without overloading. Check the bushing or the roller shaft is not contaminated. Check that the spring has not fallen off and is attached so that it is properly applying pressure against the rollers or pulleys.	Clean the roller shaft or bushing. Reattach it while checking the pressure of the spring.

Check items	Check description	Corrective Action
Sensor	1. Check if it does not operate with smoothness due to an abnormal move or dropping off of the actuator of the conveying switch.	Reattach the actuator or the return spring.
	2. Check that the surface of the sensor is not contaminated with toner, paper dust, etc.	If dirty, clean the sensor.
	3. Check the sensors are operated normally.	If the sensor is inoperative, replace the switch.
Static	Check if the location is susceptible to build static discharge at the conveying guide during printing.	Reattach and reconnect the static discharge sheet at the eject unit and the metal guide at the tranfer unit so that they are properly grounded.

(4) Items and corrective actions relating to the device that will cause paper jam

Jam types	Check description	Corrective Action
No paper feeding jam or the leading edge of paper is curled back at the position of the roller (J0501, J0502, J0503, J0504, J0509)	1. Check if the jammed paper or printed paper has a tear at its leading edge caused by the roller.	Replace the paper feed roller. (Rubber roller life: 200K image (30/35ppm models), 300K image (40ppm model)) Decrease the spring pressure to pinch the retard rollers if the component is under to its expected life.
	2. Check for abrasion and paper dust on the feed roller and pickup rollers.	Clean the paper feed roller and the pickup roller. Or, if not corrected, replace.
	3. Check the pickup roller and paper feed roller are rotating.	If the clutch is disconnected or or stained, replace the conveying drive unit.
	4. Check that the conveying force of the pickup roller is sufficient.	Increase the conveying force during paper pickup by increasing the spring load of the pickup roller.

Jam types	Check description	Corrective Action
Multiple-feed Jam (J0511, J0512, J0513, J0514, J0519)	1. Check if the cutting edge of the paper bundle is crumpled or the cassette is loaded with multiple times of replenishing paper.	If the cutting edge of the paper bundle is crumpled or the cassette is loaded with multiple times of replenishing paper, load new paper.
	2. Checking paper size Check that the size of the loaded paper and the paper size chosen on the operation panel match.	If the paper size does not match 1. If the cassette paper width guides has gaps with paper, set them properly. 2. Insert the cassette until the paper size detector switch is turned on. If the size is not detectable even after inserting all the way, check the position of the size detection switch, or replace the size detection switch.
		If the paper size matches 1. If paper out of the specification, such as coated paper, inkjet paper, etc., is used, replace the paper. 2. Reattach the retard roller in the primary paper feed unit if it is mounted to the opposite direction. 3. Check if the retard spring has fallen off of the mounting position. 4. If the retard spring has not dropped off of the mount position, decrease the spring pressure that is applied to the separation rollers. 5. Replace the retard roller unit.
	3. Check if paper dust and abrasion are observed on the retard roller.	If the retard roller is dirty, clean. If abrasion is observed, replace it.
	4. Check if the clutches are rotating together with other components when only the motor is turned on.	If the clutches rotate along with other components and rust or other objects are observed, replace the feed drive unit.
Duplex no paper feeding Jam (J0508) Duplex Multiple-feed Jam (J0518)	Check if the registration sensor is detected.	If the registration sensor is not working, replace the registration sensor.

2R4/2R5/2R6-3

Jam types	Check description	Corrective Action
PF feed sensor stay jam (J1413, J1414, J1614)	1. Check the operation of the sensor.	If the sensor is inoperative, replace it.
	2. Check if the PF paper feed clutch rotates together with other components.	If rusty, replace the clutch. Re-assemble the clutch so that it is not continuously energized. Change of wiring position, etc.
	3. Check if the conveying guide is attached while twisted. (If the attached parts of the guide is are lifted, the actuator does not protrude sufficiently.)	If the bracket is attached while twisted, remove the screw securing the conveying guide and properly reattach the bracket in the right position.
	4. Check if wrinkles are observed due to the slack of paper during paper feeding.	Adjust the paper width guides to the size of the paper.
PF feed sensor non arrival jam (J1403/J1404, J1604)	1. Check the operation of the sensor.	If the sensor is inoperative, replace it.
	2. Check the operation of the motor. Check the transmission of the gear drive by the clutch operation. *: Confirm that the conveying roller rotates and moves smoothly in the thrust direction.	If the roller does not rotate smoothly, loosen the screws securing the gear bracket and retighten them while adjusting the mounting position of the gear bracket so that the driving gears are engaged. (so that the gap between the gear bracket and frame is eliminated.)
Eject sensor non arrival jam, stay jam (J420X,J421X)	1. If paper jams at the feedshift guide, check if the guide is smoothly operative.	If the clearance between the housing and the feedshift guide is too small for the guide to smoothly move, replace the feedshift guide.
	2. Check if the actuator of the eject sensor operates smoothly.	1. If the actuator is not in the proper position, or does not return due to falling of the return spring, reattach it. 2. If the actuator is damaged or deformed, replace it.
	3. Make sure the eject sensor does not show a false detection.	Replace the defective eject sensor or the eject unit.

(5) Paper jam at feeding from paper feeder 1

Electrical parts that could cause paper jam during paper conveying at the primary feed (to the registration roller)

Timing of detection

Jam code
J0501, J0511

Corrective Action

Related parts	
Registration sensor(RS)	Engine PWB(EPWB)
Paper feed clutch(FCL)	
Middle clutch(MCL)	
Developer motor BK(DLPM-BK)	

Check action at the occur-rence Step J0501/J0502	Corrective action at the occurrence	Point of checking connection of On/ Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)

2	Registration sensor(RS): Conduct con-nectivity check, mounting location check, operation check	Engine PWB(EPWB)
		   YC12-26: 30 ppm model
		   YC18-26: 35/40 ppm models

3	Paper feed clutch(FCL): Operation check	Engine PWB(EPWB)
		   YC13-A5: 30 ppm model
		   YC19-A5: 35/40 ppm models

4	Middle clutch(MCL): Operation check	Engine PWB(EPWB)
		   YC13-A7: 30 ppm model
		   YC19-A7: 35/40 ppm models

5	Developer motor BK(DLPM-BK): Opera-tion check	Engine PWB(EPWB)
		   YC15-9/10/11/12: 30 ppm model
		   YC22-9/10/11/12: 35/40 ppm models

6	Engine PWB(EPWB): Replace	

(6) Paper jam at feeding from cassette 2 (paper feeder 1)

Electrical parts that could cause paper jam during paper conveying at the primary feed (to the registration roller)

Timing of detection

Jam code
J0502, J0512, J4002, J4012

Corrective Action

Related parts	
PF paper feed sensor(PFFS)	PF main PWB(PFMPWB)
PF paper feed clutch(PFFCL)	Engine PWB(EPWB)
PF paper feed motor(PFFM)	

Check action at the occurrence Step J0502/J0512	Corrective action at the occurrence	Point of checking connection of On/Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)
2	PF Feed sensor 1 (PFFS1): Conduct connectivity check, mounting location check, operation check	PF main PWB(PFMPWB) YC4-5
3	PF paper feed clutch(PFFCL1): Operation check	PF main PWB(PFMPWB) YC9-3
4	PF paper feed motor(PFFM): Operation check	PF main PWB(PFMPWB) YC8-3/4/5/6
5	PF main PWB(PFMPWB): Replace	

Check action at the occurrence Step J4002/J4012	Corrective action at the occurrence	Point of checking connection of On/Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)
2	Registration sensor(RS): Conduct connectivity check, mounting location check, operation check	Engine PWB(EPWB) YC12-26: 30 ppm model YC18-26: 35/40 ppm models
3	Middle clutch(MCL): Operation check	Engine PWB(EPWB) YC13-A7: 30 ppm model YC19-A7: 35/40 ppm models
4	Developer motor BK(DLPM-BK): Operation check	Engine PWB(EPWB) YC15-9/10/11/12: 30 ppm model YC22-9/10/11/12: 35/40 ppm models
5	Engine PWB(EPWB): Replace	

(7) Paper jam at feeding from the MP tray

Electrical parts that could cause paper jam during paper conveying at the primary feed (to the registration roller)

Timing of detection

Jam code
J0509,J0519

Corrective Action

Related parts	
Registration sensor(RS)	Engine PWB(EPWB)
MP solenoid(MPSOL)	
Developer motor BK(DLPM-BK)	
Middle clutch(MCL)	

Check action at the occurrence Step J0509/J0519	Corrective action at the occurrence	Point of checking connection of On/ Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)
2	Registration sensor(RS): Conduct connectivity check, mounting location check, operation check	Engine PWB(EPWB) YC12-26: 30 ppm model YC18-26: 35/40 ppm models
3	MP solenoid(MPSOL): Operation check	Engine PWB(EPWB) YC12-29: 30 ppm model YC18-29: 35/40 ppm models
4	Middle clutch(MCL): Operation check	Engine PWB(EPWB) YC13-A7: 30 ppm model YC19-A7: 35/40 ppm models
5	Developer motor BK(DLPM-BK): Operation check	Engine PWB(EPWB) YC15-9/10/11/12: 30 ppm model YC22-9/10/11/12: 35/40 ppm models
6	Engine PWB(EPWB): Replace	

(8) Paper jam at the duplex re-feeding section

Electrical parts that could cause paper jam during paper conveying at the primary feed (to the registration roller)

Timing of detection

Jam code
J0508,J0518

Corrective Action

Related parts	
Registration sensor(RS)	Engine PWB(EPWB)
Duplex clutch(DUCL)	
Paper feed clutch(FCL)	
Developer motor BK(DLPM-BK)	

Check action at the occurrence Step J0508/J0518	Corrective action at the occurrence	Point of checking connection of On/ Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)

2	Registration sensor(RS): Conduct connectivity check, mounting location check, operation check	Engine PWB(EPWB)
		  YC12-26: 30 ppm model
		  YC19-26: 35/40 ppm models

3	Duplex clutch(DUCL): Operation check	Engine PWB(EPWB)
		  YC13-A9: 30 ppm model
		  YC19-A9: 35/40 ppm models

4	Middle clutch(MCL): Operation check	Engine PWB(EPWB)
		  YC13-A7: 30 ppm model
		  YC19-A7: 35/40 ppm models

5	Developer motor BK(DLPM-BK): Operation check	Engine PWB(EPWB)
		  YC15-9/10/11/12: 30 ppm model
		  YC22-9/10/11/12: 35/40 ppm models

6	Engine PWB(EPWB): Replace	

(9) Electrical parts that could cause a paper jam at the transfer, the fuser and the eject parts

Timing of detection

Jam code
J4201,J4211

Corrective Action

Related parts	
Eject sensor(ES)	Engine PWB(EPWB)
Developer motor BK(DLPM-BK)	
Eject motor(EM)	

Checking procedure at the occurrence J4201/J4211	Corrective action at the occurrence	Point of checking connection of On/Off control signal output connector (terminal)
1	Items for Initial Checks	(see page P.7-12)
2	Eject sensor(ES): Conduct connectivity check, mounting location check, operation check	Engine PWB(EPWB) YC24-B18: 30 ppm model YC31-B18: 35/40 ppm models
3	Eject motor(EM): Operation check	Engine PWB(EPWB) YC24-B3/B4/B5/B6: 30 ppm model YC31-B3/B4/B5/B6: 35/40 ppm models
4	Developer motor BK(DLPM-BK): Operation check	Engine PWB(EPWB) YC15-9/10/11/12: 30 ppm model YC22-9/10/11/12: 35/40 ppm models
5	Engine PWB(EPWB): Replace	

7-2 Self diagnostic

(1) Self diagnostic function

This machine is equipped with a self-diagnostic function. When a problem is detected, the machine stops operating and displays an error message on the operation panel. An error message consists of a message prompting a contact to service personnel and a four-digit error code indicating the type of error.

(2) Self diagnostic codes

If the part causing the problem was not supplied, use the unit including the part for replacement.

*: * Before attempting to check the fuser unit and the low voltage power supply PWB, be sure to turn the power switch off and unplug the machine from power. (Allow at least 5 s before starting to conduct service until the capacitors on the circuit boards have been completely discharged.)

*: Due to its construction, the 30ppm model the operation panel may turn on momentarily when connecting the power cord.

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0030	**FAX PWB system error** The FAX process cannot be continued due to the malfunction of the FAX PWB.	FAX PWB	1. Unplug the power cord from the wall outlet, and reinstall the FAX PWB, and then plug in the power cord and turn the power on. 2. Reinstall the FAX firmware. 3. Replace the FAX PWB.
0070	**FAX PWB incompatible detection error** In the initial communication with the FAX PWB, any normal communication command is not transmitted.	FAX PWB	1. Install the FAX system designed for the model. 2. Reinstall the FAX firmware.
0100	**Backup memory device error** Outputs an abnormal status from the flash memory.	Flash memory (Main PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the connectors on the main PWB are properly connected, and if not, re-connect them. 3. Replace the main PWB. (see page P.4-208,P.4-212)
0120	**MAC address data error** In case MAC address is invalid data	Flash memory (Main PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check the MAC address on the network status page. 3. If it is blank, obtain an EEPROM with its MAC address written by the service support and install it. 4. Replace the main PWB. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0130	**Backup memory Read/write error (main PWB)** Read/write to the NAND memory cannot be executed.	Flash memory (Main PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the connectors on the main PWB are properly connected, and if not, re-connect them. 3. Replace the main PWB. (see page P.4-208,P.4-212)

0140	**Backup memory data error (Main PWB)**
	
	At power up, the data that was read from the NAND memory has been determined to be a error.
		Flash memory (Main PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch.
			2. Execute U021 initialize memory.
			   (see page P.6-25,P.6-221)
			3. Replace the main PWB.
			   (see page P.4-208,P.4-212)

0150	**EEPROM read/ write error (Engine PWB)** No response is issued from the device in reading/ writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	EEPROM (Engine PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the EEPROM is properly installed on the engine PWB and if not, reinstall it. 3. Replace the engine PWB. (see page P.4-200,P.4-204) 4. Check the EEPROM and if it is damaged, contact the service support.
0160	**EEPROM data error (Engine PWB)** Reading data from EEPROM is detected abnormal.	EEPROM (Engine PWB)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute U021 initialize memory. (see page P.6-25,P.6-221) 3. If the EEPROM data is corrupted, contact the service support.

0170	**Billing counting error**
	
	Mismatch between the value of the main PWB and engine PWB, in one of the value of billing counter, life counter, or scanner counter.
		EEPROM (Main PWB) (Engine PWB)	1. Check that the EEPROM installed in the main PWB is correct and, if not, install the correct EEPROM for the model.
			2. Replace the main PWB.
			   (see page P.4-208,P.4-212)
			3. Replace the engine PWB.
			   (see page P.4-200,P.4-204)
			4. If the EEPROM data is corrupted, contact the service support.

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0180	**Machine number mis-match** When the power is turned on, the machine number does not match the one stored in the main PWB and in the engine PWB.	EEPROM (Main PWB)	1. Check that the EEPROM installed in the main PWB is correct and, if not, install the correct EEPROM for the model. 2. Confirm the serial number data for the main PWB and the engine PWB by using U004. (see page P.6-21,P.6-216)If the mutually different machine number data between "Machine No. (Main)" and "Machine No. (Eng)" is displayed, or if there is a difference between the actual machine number and the number of "Machine No. (Eng)", install the correct EEPROM, and then execute U004.
0360	**Communication error between the engine ASIC** During the readback data checked after data trans-mission, the checksum error or the video signal is not inverted. (failed 10 consecutive times)	Engine PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the connectors on the engine PWB are properly connected, and if not, re-connect them. 3. Replace the engine PWB. (see page P.4-200,P.4-204)
0620	**FAX image DIMM error** FAX image DIMM not mounted FAX image DIMM access error (35/40 ppm model only)	FAX image DIMM	1. Install the FAX image DIMM bundled in the FAX kit in the main PWB. 2. Reinstall the FAX image DIMM in the main PWB socket. 3. Check the FAX image DIMM terminal and clean it if foreign objects adhere. 4. Replace with the new FAX image DIMM.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0640	**Hard disk error** During the file access after Ready, the I/O error of SSD is detected. (SSD format error after rebooting. For example, System initialization, Sanitization, Encrypted format when installing security kit.)	HDD (35/40 ppm model only)	1. Replace the HDD if abnormal sounds are heard. 2. Check if there is a loose connection, break or damage in the SATA cable between the HDD and Main PWB or it is connected to the right connector. HDD - Main PWB(YC1,YC27) 3. Change the SATA cable. 4. Execute the HDD initialization (FULL) in the U024. (see page P.6-222) 5. Replace the HDD if an error is detected after the U024 initialization.
		SSD	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Unplug the power cord from the wall outlet, and reinstall the SSD. 3. Check the connection failure between the KUIO connector of the main PWB and SSD, and reconnect it. 4. Initialize the SSD.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)
0650	**FAX image DIMM check error** When installing the FAX image DIMM used in another machine. (35/40 ppm model only)	FAX DIMM	1. Check if a previously used FAX image DIMM is used instead of the FAX image DIMM bundled in the FAX kit. 2. If installing the DIMM used in another machine, execute U671 [RECOVERY FAX DIMM]. 3. Check if the FAX DIMM is firmly inserted into the socket on the Main PWB. 4. Replace with the new FAX image DIMM.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0660	**Hard disk encryption key error** (35/40 ppm model only)	EEPROM	Execute U004 if it occurs after replacing the EEPROM. (see page P.6-21,P.6-216)
		HDD	1. Replace the HDD if abnormal sounds are heard. 2. Check if there is a loose connection, break or damage in the SATA cable between the HDD and Main PWB or it is connected to the right connector. HDD - Main PWB(YC1,YC27) 3. Change the SATA cable. 4. Execute the HDD initialization (FULL) in the U024. (see page P.6-222) 5. Replace the HDD if an error is detected after the U024 initialization.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)
0670	**Hard disk overwriting Erasing error** (35/40 ppm model only)	HDD	1. Replace the HDD if abnormal sounds are heard. 2. Check if there is a loose connection, break or damage in the SATA cable between the HDD and Main PWB or it is connected to the right connector. HDD - Main PWB(YC1,YC27) 3. Change the SATA cable. 4. Execute the HDD initialization (FULL) in the U024. (see page P.6-222) 5. Replace the HDD if an error is detected after the U024 initialization.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)
0680	**SSD error** In case of inability of communication with the SSD. (for 35 ppm model only)	SSD	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Unplug the power cord from the wall outlet, and reinstall the SSD. 3. Check the connection failure between the KUIO connector of the main PWB and SSD, and reconnect it. 4. Initialize the SSD.

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0800	**Image formation problems** The printing sequence JAM (J010X) is detected for 2 consecutive times.	Main PWB	1. Check if the problem is a printing operation error detection in a particular file, and if it is possible to obtain the reproduction of the phenomena by the identification of the job that detected the error, and take the job log. 2. If the problem occurs in an unspecified job, check the connectors on the main PWB, and reattach it. 3. Replace the main PWB. (see page P.4-208,P.4-212)
0830	**FAX PWB flash Program area Checksum error** The program stored in the flash memory on the FAX PWB is broken and cannot be executed.	FAX firmware	Reinstall the FAX firmware.
		FAX PWB	1. Unplug the power cord from the wall outlet, and reinstall the FAX PWB, and then plug in the power cord and turn the power on. 2. Check the connection failure between the KUIO connector of the main PWB and FAX PWB, and reconnect it. 3. Execute [Initializing] by U600. (see page P.6-149,P.6-378) 4. Replace the FAX PWB.
0840	**Faults of RTC** [Check at powerup] The RTC setting has reverted to a previous state. Or, the machine has not been turned on for 5 years (regularly compared with a set value stored in the EEPROM). The RTC setting is older than 00:01 on January 1, 2000. [Checked periodically (at every 5 minutes) after powerup.] The RTC setting has reverted to a state older than the last time it was checked. 10 minutes have been passed since the previous check.	Settings of RTC	Execute Date Setting using the system menu.
		Backup battery (Main PWB)	1. Check if the backup battery on the main PWB is not short-circuited. 2. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. If the same service call error is displayed, replace the backup battery.
		Main PWB	1. If the communication error (due to a noise, etc.) is present with the RTC on the main PWB, check that the PWB is properly grounded or secured by screws. 2. Replace the main PWB. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
0870	**FAX PWB - Main PWB image data transfer error** High-capacity data transfer between the FAX PWB and the main PWB was not normally performed even if the data transfer was retried the specified times.	FAX PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Reinstall the FAX PWB, and then plug in the power cord and turn the power on. 2. Check the connection failure between the KUIO connector of the main PWB and FAX PWB, and reconnect it. 3. Replace the FAX PWB.
		Main PWB	Replace the main PWB. (see page P.4-208,P.4-212)
0920	**Fax file system error** The backup data is not retained for file system abnormality of the flash memory of the FAX PWB.	FAX PWB	1. Execute [Initializing] by U600. (see page P.6-149,P.6-378) 2. Reinstall the FAX firmware. 3. Unplug the power cord from the wall outlet, and wait five seconds. Reinstall the FAX PWB, and then plug in the power cord and turn the power on. 4. Check the connection failure between the KUIO connector of the main PWB and FAX PWB, and reconnect it. 5. Replace the FAX PWB.
0970	**24V power down detect**	Low voltage power supply PWB	1. Check that the interlock switch (ILSW) is turned on properly by the front cover closing. 2. Check if there is a defective connection in the connector of the low voltage power supply PWB, and then check the 24V output from the YC13. 3. Replace the low voltage power supply PWB. (see page P.4-225,P.4-233)
		Engine PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the connectors on the main PWB are properly connected, and if not, re-connect them. 3. Replace the engine relay PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
1010	**Lift motor error (main unit)** The following states have been detected 5 times in succession. After the cassette is installed, the upper limit detection sensor does not turn on within 12 s. During printing, after the upper limit detection sensor detects off, and 1 s after ascending control, and the upper limit detection sensor does not detect on. In case the lock signal High is detected 500ms in succession.	Bottom plate	Check if the bottom plate can move smoothly and repair or replace it if any problem is found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			Lift motor - Engine PWB(YC21): 30 ppm model
			      - Engine PWB(YC4): 35/40 ppm models
			Lift sensor
			    - Engine PWB(YC12): 30 ppm model
			    - Engine PWB(YC18): 35/40 ppm models

		Lift motor Drive transmission system	1. Check if the gears rotate smoothly. If not, clean the bushes and gears. 2. Check for broken gears and replace if any are found.
		Lift motor	Replace the lift motor. (see page P.4-193)
		Lift sensor(LS) (upper limit detection sensor)	1. Check if the lift sensor can be turned ON/OFF to suit the rise of the cassette bottom plate. 2. Replace the lift sensor.
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
1020	**PF lift motor error (Paper feeder first cassette)** The following states have been detected 5 times in succession. After the cassette is installed, the upper limit detection sensor does not turn on when passing the specified time. During printing, after the upper limit detection sensor detects off, and 1 s after ascending control, and the upper limit detection sensor does not detect on. In case the lift motor current detection AD value exceeds the threshold 500ms in succession while the lift motor is operated.	Bottom plate	Check if the bottom plate can move smoothly and repair or replace it if any problem is found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			PF lift motor - PF main PWB (YC6)
			PF lift sensor - PF main PWB (YC4)
			PF main PWB
			    - Engine PWB(YC23): 30 ppm model
			    - Engine PWB(YC20): 35/40 ppm models

		Lift motor Drive transmission system	1. Check if the gears rotate smoothly. If not, clean the bushes and gears. 2. Check for broken gears and replace if any are found.
		PF lift motor	Replace the PF lift motor. (see page P.4-252)
		PF lift sensor (upper limit detection sensor)	1. Check if the PF lift sensor can be turned ON/OFF to suit the rise of the cassette bottom plate. 2. Replace the PF lift sensor.
		PF main PWB	Replace the PF main PWB. (see page P.4-254)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
1030	**PF lift motor error (Paper feeder second cassette)** The following states have been detected 5 times in succession. After the cassette is installed, the upper limit detection sensor does not turn on when passing the specified time. During printing, after the upper limit detection sensor detects off, and 1 s after ascending control, and the upper limit detection sensor does not detect on. In case the lift motor current detection AD value exceeds the threshold 500ms in succession while the lift motor is operated.	Bottom plate	Check if the bottom plate can move smoothly and repair or replace it if any problem is found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			PF lift motor - PF main PWB (YC6)
			PF lift sensor - PF main PWB (YC4)
			PF main PWB
			    - Engine PWB(YC23): 30 ppm model
			    - Engine PWB(YC20): 35/40 ppm models

		Lift motor Drive transmission system	1. Check if the gears rotate smoothly. If not, clean the bushes and gears. 2. Check for broken gears and replace if any are found.
		PF lift motor	Replace the PF lift motor. (see page P.4-256,P.4-260)
		PF lift sensor (upper limit detection sensor)	1. Check if the PF lift sensor can be turned ON/OFF to suit the rise of the cassette bottom plate. 2. Replace the PF lift sensor.
		PF main PWB	Replace the PF main PWB. (see page P.4-258, P.4-261)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
1040	**PF lift motor error (Paper feeder third cassette)** The following states have been detected 5 times in succession. After the cassette is installed, the upper limit detection sensor does not turn on when passing the specified time. During printing, after the upper limit detection sensor detects off, and 1 s after ascending control, and the upper limit detection sensor does not detect on. In case the lift motor current detection AD value exceeds the threshold 500ms in succession while the lift motor is operated.	Bottom plate	Check if the bottom plate can move smoothly and repair or replace it if any problem is found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			PF lift motor - PF main PWB (YC6)
			PF lift sensor - PF main PWB (YC4)
			PF main PWB
			    - Engine PWB(YC20): 30 ppm model
			    - Engine PWB(YC23): 35/40 ppm models

		Lift motor Drive transmission system	1. Check if the gears rotate smoothly. If not, clean the bushes and gears. 2. Check for broken gears and replace if any are found.
		PF lift motor	Replace the PF lift motor. (see page P.4-256,P.4-260)
		PF lift sensor (upper limit detection sensor)	1. Check if the PF lift sensor can be turned ON/OFF to suit the rise of the cassette bottom plate. 2. Replace the PF lift sensor.
		PF main PWB	Replace the PF main PWB. (see page P.4-258,P.4-261)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)
1800	**Paper feeder 1 Communication error (first cassette)** A communication error from the paper feeder is detected 10 times in succession.	Paper feeder	Check the wiring connection status with the main unit, and if necessary, reconnect it.

		PF main PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			PF main PWB
			    - Engine PWB(YC23): 30 ppm model
			    - Engine PWB(YC20): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Reinstall the PF firmware.
			4. Replace the PF main PWB.
			(see page P.4-254)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
1810	**Paper feeder 2 Communication error (second cassette)** A communication error from the paper feeder is detected 10 times in succession.	Paper feeder	Check the wiring connection status with the main unit, and if necessary, reconnect it.

		PF main PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			PF main PWB
			    - Engine PWB(YC23): 30 ppm model
			    - Engine PWB(YC20): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Reinstall the PF firmware.
			4. Replace the PF main PWB.
			   (see page P.4-258,P.4-261)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
1900	**Paper feeder 1 EEPROM error (first cassette)** When writing the data, read and write data does not match 3 times in succession.	PF main PWB (EEPROM)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the wiring connector to the main unit is firmly connected, and if necessary, connect the connector all the way in. 3. Replace the PF main PWB. (see page P.4-254)
1910	**Paper feeder 2 EEPROM error (second cassette)** When writing the data, read and write data does not match 3 times in succession.	PF main PWB (EEPROM)	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the wiring connector with the PF1 is firmly connected, and if necessary, connect the connector all the way in. 3. Replace the PF main PWB. (see page P.4-258,P.4-261)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2101	**Developer motor steady-state error (BK)** After the motor is stabilized, the stable signal is turned OFF for continuous 2 s.	Developer unit	1. Check that the developer roller can be rotated by hand, and if it is locked, replace the developer unit.

		Developer motor	1. Check if the couplings and gears rotate smoothly, and if necessary replace them.
			2. Reconnect the connector if its connection is loose.
			3. Check the continuity within the connector wire. If none, replace the wire.
			Developer motor
			      - Engine PWB(YC15): 30 ppm model
			      - Engine PWB(YC22): 35/40 ppm models
			4. Replace the developer motor.
			(see page P.4-102,P.4-114)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
2102	**Developer motor steady-state error (M/C/Y)** After the motor is stabilized, the ready signal is turned OFF for continuous 1 s.	Developer unit	1. Check that the developer roller can be rotated by hand, and if it is locked, replace the developer unit.

		Developer motor	1. Check if the couplings and gears rotate smoothly, and if necessary replace them.
			2. Reconnect the connector if its connection is loose.
			3. Check the continuity within the connector wire. If none, replace the wire.
			Developer motor
			      - Engine PWB(YC16): 30 ppm model
			      - Engine PWB(YC23): 35/40 ppm models
			4. Replace the developer motor.
			(see page P.4-126,P.4-139)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2112	**Developer motor startup error (M/C/Y)** After the motor starts up, the ready signal is not turned ON for continuous 2 s.	Developer unit	1. Check that the developer roller can be rotated by hand, and if it is locked, replace the developer unit.

		Developer motor	1. Check if the couplings and gears rotate smoothly, and if necessary replace them.
			2. Reconnect the connector if its connection is loose.
			3. Check the continuity within the connector wire. If none, replace the wire.
			Developer motor
			    - Engine PWB(YC16): 30 ppm model
			    - Engine PWB(YC23): 35/40 ppm models
			4. Replace the developer motor.
			(see page P.4-126,P.4-139)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
2201	**Drum motor BK steady-state error** After the motor is stabilized, the ready signal is turned OFF for continuous 1 s.	Drum unit BK	Check that the drum can be rotated by hand, and if it is locked, replace the drum unit BK.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Drum motor BK
			    - Engine PWB(YC16): 30 ppm model
			    - Engine PWB(YC23): 35/40 ppm models

		Drive transmission system for the drum motor BK	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.
		Drum motor BK	Replace the drum motor BK. (see page P.4-126,P.4-139)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2202	**Drum motor M/C/Y steady-state error** After the motor is stabi-lized, the ready signal is turned OFF for continuous 1 s.	Drum unit M/C/Y	Check that the drum can be rotated by hand, and if it is locked, replace the drum unit M/C/Y.
		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose. 2. Check the continuity within the connector wire. If none, replace the wire. Drum motor M/C/Y 　　- Engine PWB(YC16): 30 ppm model 　　- Engine PWB(YC23): 35/40 ppm models
		Drive trans-mission sys-tem for the drum motor M/C/Y	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.
		Drum motor M/C/Y	Replace the drum motor M/C/Y. (see page P.4-126,P.4-139)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)
2211	**Drum motor BK startup error** After the motor starting, the stable signal is not turned ON within 2 s.	Drum unit BK	Check that the drum can be rotated by hand, and if it is locked, replace the drum unit BK.
		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose. 2. Check the continuity within the connector wire. If none, replace the wire. Drum motor BK 　　- Engine PWB(YC16): 30 ppm model 　　- Engine PWB(YC23): 35/40 ppm models
		Drum Drive trans-mission sys-tem for the drum motor BK	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.
		Drum motor BK	Replace the drum motor BK. (see page P.4-126,P.4-139)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2212	**Drum motor M/C/Y startup error** After the motor starting, the stable signal is not turned ON within 2 s.	Drum unit M/C/Y	Check that the drum can be rotated by hand, and if it is locked, replace the drum unit M/C/Y.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Drum motor M/C/Y
			       - Engine PWB(YC16): 30 ppm model
			       - Engine PWB(YC23): 35/40 ppm models

		Drive trans-mission sys-tem for the drum motor M/C/Y	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.
		Drum motor M/C/Y	Replace the drum motor M/C/Y. (see page P.4-126,P.4-139)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

2500	**Paper feed motor error**
	
	In case the Ready signal does not turn ON 2s in succession after the motor starts up.
	
	In case the Ready signal does not turn ON 1s in succession after the motor is in the steady-state.
		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Paper feed motor
			       - Engine PWB(YC15): 30 ppm model
			       - Engine PWB(YC22): 35/40 ppm models

		Drive trans-mission sys-tem for the paper feed motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		Paper feed motor	Replace the paper feed motor. (see page P.4-102,P.4-114)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2600	**Paper feeder 1 Drive motor error** During the motor drive, the ready signal is not turned H for continuous 2 s.	Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose. 2. Check the continuity within the connector wire. If none, replace the wire. PF drive motor - PF main PWB(YC8)
		Drive transmission system for the PF drive motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		PF drive motor	Replace the PF drive motor. (see page P.4-251)
		PF main PWB	Replace the PF main PWB. (see page P.4-254)
2610	**Paper feeder 2 Drive motor error** During the motor drive, the ready signal is not turned H for continuous 2 s.	Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose. 2. Check the continuity within the connector wire. If none, replace the wire. PF drive motor - PF main PWB(YC8)
		Drive transmission system for the PF drive motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		PF drive motor	Replace the PF drive motor. (see page P.4-255,P.4-259)
		PF main PWB	Replace the PF main PWB. (see page P.4-258, P.4-261)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

2700	**3-color release error**
	
	In case the position signal does not change when passing 5s after the transfer belt release was switched.
		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Transfer release motor
			    - Engine PWB(YC10): 30 ppm model
			     - Engine PWB(YC17): 35/40 ppm models

		Drive transmission system for the transfer release motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		Transfer release motor	Replace the transfer release motor.
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)
2760	**Transfer motor startup error** After the motor starting, the stable signal is not turned ON within 2 s.	Primary transfer unit	1. Check that the belt can be rotated by hand, and if it is locked, remove the cause. 2. Replace the primary transfer unit. (see page P.4-32)

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Transfer motor
			    - Engine PWB(YC15): 30 ppm model
			     - Engine PWB(YC22): 35/40 ppm models

		Drive transmission system for the transfer motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		Transfer motor	Replace the transfer motor.
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
2820	**Transfer motor steady-state error** After the motor is stabilized, the ready signal is turned OFF for continuous 1 s.	Primary transfer unit	1. Check that the belt can be rotated by hand, and if it is locked, check for foreign objects such as jammed paper, and if jammed, remove it. 2. Replace the primary transfer unit. (see page P.4-32)

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			Transfer motor
			    - Engine PWB(YC15): 30 ppm model
			    - Engine PWB(YC22): 35/40 ppm models

		Drive transmission system for the transfer motor	1. Check if the rollers and gears rotate smoothly. If not, clean or grease the bushes and gears. 2. Check for broken gears and replace if any are found.
		Transfer motor	Replace the transfer motor.
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

3100	**Carriage error**
	
	When turning the power on, or when the reading of the original document by table or DP scanning has completed, the home position sensor is not turned off, even if the home position sensor is on and the scanner carriage moves to the scanning direction.
	Or, the home position sensor does not turn on, even if the home position sensor is off and the scanner carriage moves to the return direction.
		Scanner motor	1. Move the scanner by hand to check whether it smoothly moves.
			2. Check that the scanner drive belt is not disengaged.
			3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Scanner motor
			    - Engine PWB(YC19): 30 ppm model
			    - Engine PWB(YC27): 35/40 ppm models
			4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			5. Replace the scanner motor.

		Home position sensor	1. Check that the sensor is correctly positioned. 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Home position sensor - CCD PWB (YC3) CCD PWB - Main PWB(YC2014): 30 ppm model - Engine PWB(YC5): 35/40 ppm models 3. Replace the home position sensor.
		CCD PWB	1. Replace scanner carriage. (see page P.4-96) 2. Execute the U411 Adjusting the scanner automatically. (see page P.6-117,P.6-341)
		Main PWB	Replace the main PWB. (see page P.4-208)
		Engine PWB	Replace the engine PWB. (see page P.4-204)
3200	**Lamp error** The white standard data obtained when the lamp is turned on at the time of an initialization is lower than the rated value.	LED PWB	Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LED PWB - CCD PWB (YC2) CCD PWB - Main PWB(YC2014): 30 ppm model - Engine PWB(YC5): 35/40 ppm models
		Mirror	Replace the image scanner carriage and execute U411 if the mirror is dropped off by drop shock. (see page P.6-117,P.6-341)
		CCD PWB	Replace the image scanner carriage and execute U411. (see page P.6-117,P.6-341)
		Main PWB	Replace the main PWB. (see page P.4-208)
		Engine PWB	Replace the engine PWB. (see page P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
3210	**CIS lamp error** The white standard data obtained when the lamp is turned on at the time of an initialization is lower than the rated value. (35/40 ppm model only)	CIS	1. Execute the U906 resetting the partial operation. (see page P.6-415) 2. Execute [CIS] in the U061 lamp lighting check. (see page P.6-236) 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. CIS - DPSHD PWB (YC2,5) DPSHD PWB (YC1) - Engine PWB (YC7) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace CIS and execute U091 and U411. (see page P.6-251,P.6-341)
		DPSHD PWB	Replace the SPSHD PWB. (see page P.4-270)
3300	**CCD AGC error** In case a normal input could not be obtained from the CCD at AGC.	LED lamp PWB	1. Execute [CCD] in the U061 lamp lighting check. (see page P.6-236) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LED PWB - CCD PWB (YC2) CCD PWB (YC1) - Engine PWB (YC5) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the image scanner carriage and execute U411. (see page P.6-341)
		CCD PWB	Replace the image scanner carriage and execute U411. (see page P.4-96,P.6-341)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
3310	**CIS AGC error** In case a normal input could not be obtained from the CIS at AGC. (35/40 ppm model only)	CIS	1. Execute the U906 resetting the partial operation. (see page P.6-415) 2. Execute [CIS] in the U061 lamp lighting check. (see page P.6-236) 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DPCIS - DPSHD PWB (YC2) DPSHD PWB (YC3) - DPIF PWB (YC2) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace DPCIS and execute U091 and U411. (see page P.6-251,P.6-341)
		DPSHD PWB	Replace the DPSHD PWB. (see page P.4-270)
3500	**Scanner and ASIC communication error** A communication error is detected. (Read back values are different.)	CCD PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. CCD PWB - Main PWB(YC2014): 30 ppm model - Engine PWB(YC5): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. If the LED is not lit, replace the scanner carriage and execute U411. (see page P.6-117,P.6-341)
		Main PWB Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the main PWB. (see page P.4-208) 3. Replace the engine PWB. (see page P.4-204)
3800	**AFE error** When writing the data, read and write data does not match 3 times in succession. In case no response is received from AFE for 100ms. (35/40 ppm model only)	Engine PWB	1. Check if the FFC connector is deformed and insert the FFC all the way. CCD PWB (YC1) - Engine PWB (YC5) 2. If the FFC is disconnected, replace it. 3. Replace the engine PWB and execute U411. (see page P.4-204)
		CCD PWB	Replace the ISU and execute U411. (see page P.6-341)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

4001	**Polygon motor startup error**
	
	After the polygon motor starts, the motor stable signal is not turned ON after 30 s.
		Polygon motor	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Polygon motor
			    - Engine PWB(YC5): 30 ppm model
			    - Engine PWB(YC10): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the LSU. (see page P.4-76)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
4011	**Polygon motor steady-state error** After the polygon motor stabilization, the motor stable signal is turned OFF for consecutive 15 s or more.	Polygon motor	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Polygon motor - Engine PWB 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
4011	**BD initialization error(K)** In case the BD signal is not detected for 1s after starting the polygon motor drive.	Laser scanner unit (LSU)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model - Engine PWB(YC8): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the controller firmware and engine firmware, and upgrade to the latest version. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
4102	**BD initialization error(C)** In case the BD signal is not detected for 1s after starting the polygon motor drive.	Laser scanner unit (LSU)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model - Engine PWB(YC8): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the controller firmware and engine firmware, and upgrade to the latest version. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)
4103	**BD initialization error(M)** In case the BD signal is not detected for 1s after starting the polygon motor drive.	Laser scanner unit (LSU)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model - Engine PWB(YC8): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the controller firmware and engine firmware, and upgrade to the latest version. 2. Replace the main PWB. (see page P.4-208) 3. Replace the engine PWB. (see page P.4-204)
4104	**BD initialization error(Y)** In case the BD signal is not detected for 1s after starting the polygon motor drive.	Laser scanner unit (LSU)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model - Engine PWB(YC8): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the controller firmware and engine firmware, and upgrade to the latest version. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
4201	**BD steady-state error (K)** During the polygon motor steady rotation, the BD signal is not detected.	Laser scanner unit (LSU)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model - Engine PWB(YC8): 35/40 ppm models 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the controller firmware and engine firmware, and upgrade to the latest version. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)
4600	**Cleaning motor Error** In case the cleaning motor CW drive time is 2100ms or less. In case the CW or CCW operation continues 6.4s or more in succession.	Cleaning wire	1. Execute [LSU cleaning] using [Adjustment/Maintenance] of the system menu. 2. Check that the drive gear and cleaning spiral can rotate and they are not unusually loaded, and if necessary, clean and grease.
		Cleaning motor	1. Confirm that the cleaning motor has been firmly attached. 2. Replace the LSU. (see page P.4-76)

		Engine PWB	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			Cleaning motor
			     - Engine PWB(YC5): 30 ppm model
			     - Engine PWB(YC10): 35/40 ppm models
			3. Replace the engine PWB.
			(see page P.4-200,P.4-204)

4700	**VIDEO_ASIC device error** Communication with the video ASIC has failed 5 times successively. After writing to the VIDEO ASIC, the error that the reading value from the same address does not match occurs 8 times successively.	Main PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check that the connectors on the main PWB are properly connected, and if not, re-connect them. 3. Replace the main PWB. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
5101	**Main charger error (Black)** In case the incoming current is too low to detect Black when adjusting the Vpp of the main charge. (40 ppm model only)	Charger roller unit (Black)	1. Check if the main charger roller can be rotated manually and reattach it to the drum unit. 2. Check if the main charger roller side contact and main unit side contact are dirty or deformed. Clean or correct it.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			High voltage PWB
			    - Engine PWB(YC8): 30 ppm model
			    - Engine PWB(YC12): 35 ppm model
			    - Engine PWB(YC13): 40 ppm model

		High voltage PWB	1. Check if the main charger roller contact on the high voltage PWB is deformed or dirty. 2. Replace the high voltage PWB. (see page P.4-217,P.4-221)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)
5102	**Main charger error (Cyan)** In case the incoming current is too low to detect Cyan when adjusting the Vpp of the main charge. (40 ppm model only)	Charger roller unit (Cyan)	1. Check if the main charger roller can be rotated manually and reattach it to the drum unit. 2. Check if the main charger roller side contact and main unit side contact are dirty or deformed. Clean or correct it.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			High voltage PWB
			    - Engine PWB(YC8): 30 ppm model
			    - Engine PWB(YC12): 35 ppm model
			    - Engine PWB(YC13): 40 ppm model

		High voltage PWB	1. Check if the main charger roller contact on the high voltage PWB is deformed or dirty. 2. Replace the high voltage PWB. (see page P.4-217,P.4-221)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica- tion	Contents	Related parts	Check procedures/corrective measures
5103	**Main charger error (Magenta)** In case the incoming current is too low to detect Magenta when adjusting the Vpp of the main charge. (40 ppm model only)	Charger roller unit (Magenta)	1. Check if the main charger roller can be rotated manually and reattach it to the drum unit. 2. Check if the main charger roller side contact and main unit side contact are dirty or deformed. Clean or correct it.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			High voltage PWB
			    - Engine PWB(YC8): 30 ppm model
			    - Engine PWB(YC12): 35 ppm model
			    - Engine PWB(YC13): 40 ppm model

		High voltage PWB	1. Check if the main charger roller contact on the high voltage PWB is deformed or dirty. 2. Replace the high voltage PWB. (see page P.4-217,P.4-221)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)
5104	**Main charger error (Yellow)** In case the incoming current is too low to detect Yellow when adjusting the Vpp of the main charge. (40 ppm model only)	Charger roller unit (Yellow)	1. Check if the main charger roller can be rotated manually and reattach it to the drum unit. 2. Check if the main charger roller side contact and main unit side contact are dirty or deformed. Clean or correct it.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. Check the continuity within the connector wire. If none, replace the wire.
			High voltage PWB
			    - Engine PWB(YC8): 30 ppm model
			    - Engine PWB(YC12): 35 ppm model
			    - Engine PWB(YC13): 40 ppm model

		High voltage PWB	1. Check if the main charger roller contact on the high voltage PWB is deformed or dirty. 2. Replace the high voltage PWB. (see page P.4-217,P.4-221)
		Engine PWB	Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
6000	**Broken fuser heater wire (main)** During warm up, the temperature detected by the center thermistor does not reach 100 °C/212.0 °F for 20 s. During warm up, the temperature detected by the center thermistor does not reach the stable display temperature for 30 s, after it reaches 100 °C/212.0 °F.	Fuser unit	1. Make sure there is no paper jam. 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. If the fuser heater is not turned on (broken thermostat wire), replace the fuser unit. (see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			 Low voltage power supply PWB
			     - Engine PWB(YC34): 30 ppm model
			     - Engine PWB(YC6): 35/40 ppm models
			2. Replace the low voltage power supply PWB. (see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
6020	**Fuser thermistor 1 High temperature error** The temperature detected by the thermistor 1 (center) exceeded 240 °C/464.0 °F for 1s in succession.	Fuser unit	1. Make sure there is no paper jam. 2. Check if the fuser roller has foreign objects such as the toner contamination. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the fuser unit.(see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			 Low voltage power supply PWB
			     - Engine PWB(YC34): 30 ppm model
			     - Engine PWB(YC6): 35/40 ppm models
			2. If the fuser heater is turned on at all times, replace the low voltage power supply PWB. (see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Check if the engine PWB is properly secured with screws. 3. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

6030	**Fuser thermistor 1 wire break**
	
	In case the fuser thermistor 1 (center) detects low temperature for 1.6s while the fuser thermistor 2 (edge) detects the temperature of 30 °C/86 °F or more.
		Fuser unit	1. Make sure there is no paper jam.
			2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			    Fuser unit - Engine PWB(YC7): 30 ppm model
			        - Engine PWB(YC11): 35/40 ppm models
			3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			4. Replace the fuser unit.
			    (see page P.4-42)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

6040	**Fuser heater error**
	
	In case the input from the fuser thermistor 1 (center) is abnormal for 1s in succession.
	
	The fuser unit detection port is at H level for 1s in succession in all the operation mode.
		Fuser unit	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			    Fuser unit - Engine PWB(YC7): 30 ppm model
			        - Engine PWB(YC11): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the fuser unit. (see page P.4-42)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
		Fuser thermistor 1	Replace the fuser unit. (see page P.4-42)

		Fuser thermostat (wire break)	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			    Fuser unit - Low voltage power supply PWB(YC102): 30 ppm model
			        - Low voltage power supply PWB(YC2) : 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the fuser unit. (see page P.4-42)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
6000 **6020** **6030** **6220** **6230** **Com-mon**	**Broken fuser heater wire** **Abnormally high fuser center thermistor tem-perature** **Broken fuser center thermistor wire** **Abnormally high fuser edge thermistor temper-ature** **Broken fuser edge thermistor wire**	Connector pin	If the interface connector pins of the fuser unit and the main unit are deformed owing to foreign objects, replace the connectors or the units including the con-nectors.
		Triac TRA31/ TR302: for main heater control TRA301: for sub heater control (35/40 ppm model only)	Disconnect the power cord and check if the conduc-tion (A1 - A2) of the triac TRA31/TR302 and TR301 (35/40ppm models only) shows the mega ohm level resistance and there is no short-circuit. If there is a short-circuit, replace the low voltage power supply PWB. (see page P.4-225,P.4-233)

Low voltage power supply PWB (30 ppm model)

A1

A2

TRA31

Figure 7-3

Low voltage power supply PWB (35/40 ppm models)

A1

A2

TR301

TR302

Figure 7-4

Indica-tion	Contents	Related parts	Check procedures/corrective measures
6050	**Fuser thermistor 1 Low temperature error** In case the temperature detected by the thermistor 1 (center) continues 100 °C/212.0 °F or less for 1 second during ready. In case the temperature detected by the thermistor 1 (center) continues 70 °C/ 158.0 °F or less for 1 second during low power mode.	Reduction of the power supply volt-age	1. Check that no voltage drop of more than 10% of the rated is caused during printing. 2. If the power is overloaded, change the AC outlet that supplies power.
		Fuser unit	1. Make sure there is no paper jam. 2. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. If the fuser heater is not turned on (broken ther-mostat wire), replace the fuser unit. (see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in.
			Low voltage power supply PWB
			       - Engine PWB(YC105): 30 ppm model
			       - Engine PWB(YC40): 35/40 ppm models
			2. Replace the low voltage power supply PWB.
			(see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

6200	**Fuser heater error (sub)**
	
	In case the temperature detected by the fuser thermistor (edge) does not reach 100 °C/212.0 °F when turning on the sub heater for 30s in succession during warm-up.
	
	In case the temperature detected by the fuser thermistor (center) does not reach the Ready temperature when turning on the main heater for 30s in succession after the temperature detected by the fuser thermister (edge) reachs 100 °C/212.0 °F during warm-up.
		Fuser unit	1. Make sure there is no paper jam.
			2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			   Fuser unit - Engine PWB(YC7): 30 ppm model
			        - Engine PWB(YC11): 35/40 ppm models
			3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			4. If the fuser sub heater is not turned on (broken thermostat wire), replace the fuser unit.
			   (see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			   Low voltage power supply PWB
			        - Engine PWB(YC105): 30 ppm model
			        - Engine PWB(YC40): 35/40 ppm models
			2. Replace the low voltage power supply PWB.
			   (see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
6220	**Fuser heater high temperature error (sub)** The temperature detected by the fuser thermistor 2 (edge) exceeded 240 °C/ 464.0 °F for 1s in succession.	Fuser unit	1. Make sure there is no paper jam. 2. Check if the fuser roller has foreign objects such as the toner contamination. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the fuser unit. (see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Low voltage power supply PWB
			        - Engine PWB(YC105): 30 ppm model
			        - Engine PWB(YC40): 35/40 ppm models
			2. If the fuser heater is turned on at all times, replace the low voltage power supply PWB.
			(see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Check if the engine PWB is properly secured with screws. 3. Replace the engine PWB. (see page P.4-200,P.4-204)
6230	**Fuser thermistor 2 wire break** Fuser thermistor 2 (edge) detects low temperature for 1.6 s.	Fuser unit	1. Make sure there is no paper jam. 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the fuser unit. (see page P.4-42)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
6250	**Fuser thermistor 2 Low temperature error** In case the temperature detected by the fuser thermistor 2 (edge) continues 100 °C/212.0 °F or less for 1 second during ready and printing. In case the temperature detected by the fuser thermistor 2 (edge) continues 60 °C/140.0 °F or less for 1 second during low power mode.	Reduction of the power supply voltage	1. Check that no voltage drop of more than 10% of the rated is caused during printing. 2. If the power is overloaded, change the AC outlet that supplies power.
		Fuser unit	1. Make sure there is no paper jam. 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Fuser unit - Engine PWB(YC7): 30 ppm model - Engine PWB(YC11): 35/40 ppm models 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. If the fuser heater is not turned on (broken thermostat wire), replace the fuser unit. (see page P.4-42)

		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Low voltage power supply PWB
			    - Engine PWB(YC105): 30 ppm model
			    - Engine PWB(YC40): 35/40 ppm models
			2. Replace the low voltage power supply PWB. (see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

6400	**Zero-cross signal error**
	
	During the fuser heater on, the zero-cross signal is not input for 1 s successively.
		Low voltage power supply PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Low voltage power supply PWB
			    - Engine PWB(YC105): 30 ppm model
			    - Engine PWB(YC40): 35/40 ppm models
			2. Replace the low voltage power supply PWB. (see page P.4-225,P.4-233)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

6610	**The fuser pressure release error**
	
	The fuser release sensor does not turn on or off, after 10 s from starting pressurization or depres-surization operation.
		Fuser unit	1. Make sure there is no paper jam.
			2. Check if the fuser pressure can be reduced by inverse rotation of the fuser gear by hand.
			3. Check if the envelope sensor light is blocked out by the actuator during depressurization opera-tion.
			4. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in.
			Fuser pressure release sensor
			      - Engine PWB(YC7): 30 ppm model
			      - Engine PWB(YC11): 35/40 ppm models
			5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			6. Replace the fuser unit.
			(see page P.4-42)

		Fuser motor	1. Check if the fuser motor is rotating.
			2. When turning the power on, check if the fuser motor rotates reversely.
			3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in.
			Fuser motor
			      - Engine PWB (YC17): 30 ppm model
			      - Engine PWB(YC24): 35/40 ppm models
			4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			5. Replace the fuser motor.

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
6910	**Engine firmware unexpected error** The drum motor drive con-tinued more than 60 min-utes except during printing. (engine lock) In case the developer bias is detected as on for 3340ms or more while the main charge bias is off. Backup task was not pro-cessed for 30s or more.	Engine PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check if the engine PWB is properly secured with screws. (Ground Confirmation) 3. Check that the connectors on the engine PWB are properly connected, and if not, re-connect them. 4. Check the engine firmware and upgrade to the latest version if necessary. 5. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7001	**Toner motor error(Black)** In case the toner container rotation detection pulse signal does not change for 500ms in succession when turning the toner motor on, "Shake the toner container." message is indicated. (Resets by front cover open/close) The toner container rotation detection signals does change after repeating the above operation three times.	Toner container	1. Check that the spiral of the toner container can be rotated by hand 2. Replace the toner container.
		Drive transmission system for the toner motor	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			Toner motor
			    - Engine PWB(YC14): 30 ppm model
			    - Engine PWB(YC21): 35/40 ppm models

		Toner motor	1. Check how the toner motor is attached. 2. Replace the toner motor. (see page P.4-168,P.4-179)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7002	**Toner motor error(Cyan)** In case the toner container rotation detection pulse signal does not change for 500ms in succession when turning the toner motor on, "Shake the toner container." message is indicated. (Resets by front cover open/close) The toner container rotation detection signals does change after repeating the above operation three times.	Toner container	1. Check that the spiral of the toner container can be rotated by hand 2. Replace the toner container.
		Drive transmission system for the toner motor	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			Toner motor
			    - Engine PWB(YC14): 30 ppm model
			    - Engine PWB(YC21): 35/40 ppm models

		Toner motor	1. Check how the toner motor is attached. 2. Replace the toner motor. (see page P.4-168,P.4-179)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7003	**Toner motor error (Magenta)** In case the toner container rotation detection pulse signal does not change for 500ms in succession when turning the toner motor on, "Shake the toner container." message is indicated. (Resets by front cover open/close) The toner container rotation detection signals does change after repeating the above operation three times.	Toner container	1. Check that the spiral of the toner container can be rotated by hand 2. Replace the toner container.
		Drive transmission system for the toner motor	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			3. Toner motor
			    - Engine PWB(YC14): 30 ppm model
			    - Engine PWB(YC21): 35/40 ppm models

		Toner motor	1. Check how the toner motor is attached. 2. Replace the toner motor. (see page P.4-168,P.4-179)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7004	**Toner motor error (Yellow)** In case the toner container rotation detection pulse signal does not change for 500ms in succession when turning the toner motor on, "Shake the toner container." message is indicated. (Resets by front cover open/close) The toner container rotation detection signals does change after repeating the above operation three times.	Toner container	1. Check that the spiral of the toner container can be rotated by hand 2. Replace the toner container.
		Drive transmission system for the toner motor	1. Check if the couplings and gears rotate smoothly, and if not, clean or grease the gears. 2. Check for broken couplings and gears, and replace if any are found.

		Defective connector cable or poor contact in the connector	1. Reconnect the connector if its connection is loose.
			2. If a wire is pinched by another component, or has defective conduction, replace it.
			Toner motor
			    - Engine PWB(YC14): 30 ppm model
			    - Engine PWB(YC21): 35/40 ppm models

		Toner motor	1. Check how the toner motor is attached. 2. Replace the toner motor. (see page P.4-168,P.4-179)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7101	**Toner sensor error (Black)** For a certain period of time, the sensor output value is less than 0.1V, or more than 3.2V.	Toner container	1. Check that the toner container is properly installed, and if necessary, re-install. 2. Check that the toner supply inlet of the toner container can be opened by the lever operation. 3. Replace the toner container.
		Toner sensor	1. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. Toner sensor - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Check if the gears and spirals in the developer unit rotate smoothly. 4. Replace the developer unit. (see page P.4-38)
		Toner motor	1. Check that the toner motor is properly attached. 2. Check if the couplings and gears can rotate or if they are not unusually loaded, and if necessary, replace. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Toner motor - Engine PWB(YC14): 30 ppm model - Engine PWB(YC21): 35/40 ppm models 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the toner motor. (see page P.4-168,P.4-179)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7102	**Toner sensor error (Cyan)** For a certain period of time, the sensor output value is less than 0.1V, or more than 3.2V.	Toner container	1. Check that the toner container is properly installed, and if necessary, re-install. 2. Check that the toner supply inlet of the toner container can be opened by the lever operation. 3. Replace the toner container.
		Toner sensor	1. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. Toner sensor - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Check if the gears and spirals in the developer unit rotate smoothly. 4. Replace the developer unit. (see page P.4-38)
		Toner motor	1. Check that the toner motor is properly attached. 2. Check if the couplings and gears can rotate or if they are not unusually loaded, and if necessary, replace. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Toner motor 　　- Engine PWB(YC14): 30 ppm model 　　- Engine PWB(YC21): 35/40 ppm models 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the toner motor. (see page P.4-168,P.4-179)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7103	**Toner sensor error (Magenta)** For a certain period of time, the sensor output value is less than 0.1V, or more than 3.2V.	Toner container	1. Check that the toner container is properly installed, and if necessary, re-install. 2. Check that the toner supply inlet of the toner container can be opened by the lever operation. 3. Replace the toner container.
		Toner sensor	1. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. Toner sensor - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Check if the gears and spirals in the developer unit rotate smoothly. 4. Replace the developer unit. (see page P.4-38)
		Toner motor	1. Check that the toner motor is properly attached. 2. Check if the couplings and gears can rotate or if they are not unusually loaded, and if necessary, replace. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Toner motor 　　- Engine PWB(YC14): 30 ppm model 　　　- Engine PWB(YC21): 35/40 ppm models 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the toner motor. (see page P.4-168,P.4-179)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7104	**Toner sensor error (Yel-low)** For a certain period of time, the sensor output value is less than 0.1V, or more than 3.2V.	Toner container	1. Check that the toner container is properly installed, and if necessary, re-install. 2. Check that the toner supply inlet of the toner container can be opened by the lever operation. 3. Replace the toner container.
		Toner sensor	1. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. Toner sensor - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Check if the gears and spirals in the developer unit rotate smoothly. 4. Replace the developer unit. (see page P.4-38)

		Toner motor	1. Check that the toner motor is properly attached.
			2. Check if the couplings and gears can rotate or if they are not unusually loaded, and if necessary, replace.
			3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Toner motor
			      - Engine PWB(YC14): 30 ppm model
			      - Engine PWB(YC21): 35/40 ppm models
			4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire.
			5. Replace the toner motor.
			(see page P.4-168,P.4-179)

		Drum/devel-oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica- tion	Contents	Related parts	Check procedures/corrective measures

7200	**Broken inner thermistor wire (Developer)**
	
	The sensor input sampling value is greater than the reference value.
	(After detection, controlled at 25 °C/77.0 °F)
		Developer unit BK	1. Confirm that the connector of the developer unit BK is firmly connected, and if necessary, push the unit all the way in.
			Toner sensor BK
			     - Drum/Developer relay PWB(YC8)
			Drum/Developer relay PWB - Engine PWB(YC6)
			2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire.
			3. Replace the developer unit BK.
			  (see page P.4-38)

		Drum/devel- oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

7210	**Short-circuited inner thermistor (Developer)**
	
	The sensor input sampling value is less than the refer- ence value.
	(After detection, controlled at 25 °C/77.0 °F)
		Developer unit BK	1. Confirm that the connector of the developer unit BK is firmly connected, and if necessary, push the unit all the way in.
			Toner sensor BK
			     - Drum/Developer relay PWB(YC8)
			Drum/Developer relay PWB - Engine PWB(YC6)
			2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire.
			3. Replace the developer unit BK.
			  (see page P.4-38)

		Drum/devel- oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

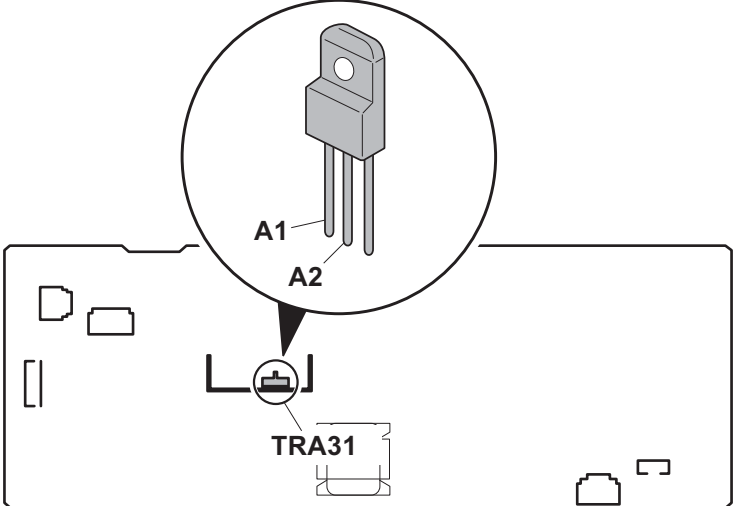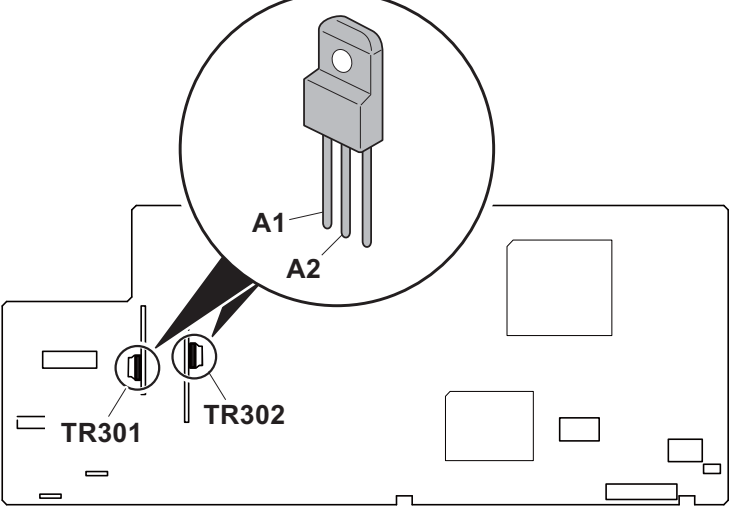| Indica-tion	Contents	Related parts	Check procedures/corrective measures
7221	**Broken inner thermistor wire (LSU)** The sensor input sampling value is greater than the reference value. (After detection, controlled at 25 °C/77.0 °F)	Laser scanner unit (LSU)	1. Confirm that the wiring connector of the LSU is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model LSU - Engine PWB(YC8): 35/40 ppm models 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)
7231	**Short-circuited inner thermistor (LSU)** The sensor input sampling value is less than the reference value. (After detection, controlled at 25 °C/77.0 °F)	Laser scanner unit (LSU)	1. Confirm that the wiring connector of the LSU is firmly connected, and if necessary, connect the connector all the way in. LSU - Main PWB(YC2016): 30 ppm model LSU - Engine PWB(YC8): 35/40 ppm models 2. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 3. Replace the LSU. (see page P.4-76)
		Main PWB Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the main PWB. (see page P.4-208,P.4-212) 3. Replace the engine PWB. (see page P.4-200,P.4-204)
7401	**Developer unit type Mismatch error (Black)** Improper adaptation of the main unit and developer unit is detected.	Developer unit	1. Check if the developer unit of different models is mounted, and replace it to the correct one. (see page P.4-38) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica- tion	Contents	Related parts	Check procedures/corrective measures
7402	**Developer unit type Mismatch error (Cyan)** Improper adaptation of the main unit and developer unit is detected.	Developer unit	1. Check if the developer unit of different models is mounted, and replace it to the correct one. (see page P.4-38) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/devel- oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7403	**Developer unit type Mismatch error (Magenta)** Improper adaptation of the main unit and developer unit is detected.	Developer unit	1. Check if the developer unit of different models is mounted, and replace it to the correct one. (see page P.4-38) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/devel- oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7404	**Developer unit type mis-match error (Yellow)** Improper adaptation of the main unit and developer unit is detected.	Developer unit	1. Check if the developer unit of different models is mounted, and replace it to the correct one. (see page P.4-38) 2. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/devel-oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7411	**Drum unit type Mismatch error (Black)** Improper adaptation of the main unit and drum unit is detected.	Drum unit	1. Check if the drum unit of different models is attached, and replace it to the correct one. (see page P.4-34) 2. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/devel-oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7412	**Drum unit type Mismatch error (Cyan)** Improper adaptation of the main unit and drum unit is detected.	Drum unit	1. Check if the drum unit of different models is attached, and replace it to the correct one. (see page P.4-34) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7413	**Drum unit type Mismatch error (Magenta)** Improper adaptation of the main unit and drum unit is detected.	Drum unit	1. Check if the drum unit of different models is attached, and replace it to the correct one. (see page P.4-34) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7414	**Drum unit type Mismatch error (Yellow)** Improper adaptation of the main unit and drum unit is detected.	Drum unit	1. Check if the drum unit of different models is attached, and replace it to the correct one. (see page P.4-34) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7601	**ID sensor error (front)** When the measured value of the ID sensor matches any of the following. The dark potential P/S-wave is greater than 0.8V. If the light potential S-wave is lower than the dark potential S-wave. If the light potential P-wave is lower than the dark potential P-wave (+0.5V).	ID sensor	1. Clean the ID sensor surface. 2. Check how the ID sensor is attached. 3. Check if the error is detected after performing the calibration. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. ID sensor - Engine PWB (YC13): 30 ppm model - Engine PWB(YC19): 35/40 ppm models 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the ID sensor.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7602	**ID sensor error (rear)** When the measured value of the ID sensor matches any of the following. The dark potential P/S-wave is greater than 0.8V. If the light potential S-wave is lower than the dark potential S-wave. If the light potential P-wave is lower than the dark potential P-wave (+0.5V).	ID sensor	1. Clean the ID sensor surface. 2. Check how the ID sensor is attached. 3. Check if the error is detected after performing the calibration. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. ID sensor - Engine PWB (YC13): 30 ppm model - Engine PWB(YC19): 35/40 ppm models 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the ID sensor.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7611	**Bias calibration reading value error (Black)** During the calibration, the ID sensor cannot read a patch density on the primary transfer belt normally.	Primary transfer belt ID sensor	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute [Calibration] using [Adjustment/Maintenance] of the system menu. 3. Check the occurrence of this service call error in the Event Log. 4. When the same service call error is detected again, clean if there is any dirt or stains on the primary transfer belt or the ID sensor surface. 5. Check whether or not the ID sensor shutter is open, by opening and closing the paper tray. 6. If not corrected, replace the primary transfer unit. (see page P.4-32) 7. After performing the test print, if the poor density occurs, check whether there is any failure in the drum unit, developer unit, LSU.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7612	**Bias calibration reading value error (Cyan)** During the calibration, the ID sensor cannot read a patch density on the primary transfer belt normally.	Primary transfer belt ID sensor	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute [Calibration] using [Adjustment/Maintenance] of the system menu. 3. Check the occurrence of this service call error in the Event Log. 4. When the same service call error is detected again, clean if there is any dirt or stains on the primary transfer belt or the ID sensor surface. 5. Check whether or not the ID sensor shutter is open, by opening and closing the paper tray. 6. If not corrected, replace the primary transfer unit. (see page P.4-32) 7. After performing the test print, if the poor density occurs, check whether there is any failure in the drum unit, developer unit, LSU.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7613	**Bias calibration reading value error (Magenta)** During the calibration, the ID sensor cannot read a patch density on the primary transfer belt normally.	Primary transfer belt ID sensor	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute [Calibration] using [Adjustment/Maintenance] of the system menu. 3. Check the occurrence of this service call error in the Event Log. 4. When the same service call error is detected again, clean if there is any dirt or stains on the primary transfer belt or the ID sensor surface. 5. Check whether or not the ID sensor shutter is open, by opening and closing the paper tray. 6. If not corrected, replace the primary transfer unit. (see page P.4-32) 7. After performing the test print, if the poor density occurs, check whether there is any failure in the drum unit, developer unit, LSU.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7614	**Bias calibration reading value error (Yellow)** During the calibration, the ID sensor cannot read a patch density on the primary transfer belt normally.	Primary transfer belt ID sensor	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute [Calibration] using [Adjustment/Maintenance] of the system menu. 3. Check the occurrence of this service call error in the Event Log. 4. When the same service call error is detected again, clean if there is any dirt or stains on the primary transfer belt or the ID sensor surface. 5. Check whether or not the ID sensor shutter is open, by opening and closing the paper tray. 6. If not corrected, replace the primary transfer unit. (see page P.4-32) 7. After performing the test print, if the poor density occurs, check whether there is any failure in the drum unit, developer unit, LSU.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7620	**Color Registration timing of detection** Color patches printed on the primary transfer belt are not within the ID sensor readable range. Or the poor density occurs.	Primary transfer belt ID sensor LSU	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Execute [Calibration] using [Adjustment/Maintenance] of the system menu. 3. Check the occurrence of this service call error in the Event Log. 4. When the same service call error is detected again, clean if there is any dirt or stains on the primary transfer belt or the ID sensor surface. 5. Check whether or not the ID sensor shutter is open, by opening and closing the paper tray. 6. If not corrected, replace the primary transfer unit. (see page P.4-32) 7. After performing the test print, if the poor density occurs, check whether there is any failure in the drum unit, developer unit, LSU. 8. When checking the printing position of the color, if any color shift occurs, re-install the LSU and the drum unit. 9. If not corrected, replace the LSU. (see page P.4-76)
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

7800	**Broken outer thermistor wire**
	
	The temperature and humidity sensor input sampling value is abnormal compared with the reference.
	(After detection, controlled at 25 °C/77.0 °F)
		Temperature and humidity sensor	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Temperature and humidity sensor
			     - Engine PWB(YC10): 30 ppm model
			     - Engine PWB(YC17): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the temperature sensor PWB.

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

7810	**Short-circuited outer thermistor**
	
	The sensor input sampling valu is less than the reference value.
	(After detection, controlled at 25 °C/77.0 °F)
		Temperature and humidity sensor	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			Temperature and humidity sensor
			     - Engine PWB(YC10): 30 ppm model
			     - Engine PWB(YC17): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the temperature sensor PWB.

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7901	**Drum unit EEPROM error (Black)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Drum unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the drum unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. 　Drum unit - Drum/Developer relay PWB 　Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the drum unit. 　(see page P.4-34)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. 　(see page P.4-200,P.4-204)
7902	**Drum unit EEPROM error (Cyan)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Drum unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the drum unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. 　Drum unit - Drum/Developer relay PWB 　Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the drum unit. 　(see page P.4-34)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. 　(see page P.4-200,P.4-204)

Indica- tion	Contents	Related parts	Check procedures/corrective measures
7903	**Drum unit** **EEPROM error (Magenta)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Drum unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the drum unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the drum unit. (see page P.4-34)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7904	**Drum unit** **EEPROM error (Yellow)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Drum unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the drum unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Drum unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the drum unit. (see page P.4-34)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7911	**Developer unit EEPROM error (Black)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Developer unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the developer unit. (see page P.4-38)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7912	**Developer unit EEPROM error (Cyan)** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated 5 times successively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times successively.	Developer unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the developer unit. (see page P.4-38)
		Drum/developer relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
7913	**Developer unit EEPROM error (Magenta)** No response is issued from the device in reading/ writing for 5 ms or more and this problem is repeated 5 times succes-sively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times succes-sively.	Developer unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the developer unit. (see page P.4-38)
		Drum/devel-oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
7914	**Developer unit EEPROM error (Yellow)** No response is issued from the device in reading/ writing for 5 ms or more and this problem is repeated 5 times succes-sively. Mismatch of reading data from two locations occurs 8 times successively. Mismatch between writing data and reading data occurs 8 times succes-sively.	Developer unit	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the developer unit is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Developer unit - Drum/Developer relay PWB Drum/Developer relay PWB - Engine PWB(YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the developer unit. (see page P.4-38)
		Drum/devel-oper relay PWB	Replace the drum/developer relay PWB
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8000	**Finisher incompatible detection error** Improper adaptation of the main unit and finisher is detected. (30 ppm model only)	Finisher	Check if the Finisher of a different model is mounted, and replace it with the correct one.

8010	**Punch motor error 1**
	
	The punch home position sensor is not turned on when passing 200ms during the punch motor drive.
	
	(35/40 ppm model only)
		Punch motor	1. Execute [Motor] > [Punch] in U240 Checking the operation of the finisher.
			   (see page P.6-305)
			2. Check if the punch unit can be moved manually without being caught.
			3. Check if the motor drive is delivered to the punch cam.
			4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			   Punch motor - Punch PWB (YC4)
			5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			6. Replace the punch motor.

		Punch home position sensor	1. Execute [Punch] > [Punch HP] in U241 Checking the operation of the finisher switch.
			   (see page P.6-307)
			2. Check if there is a failure in the position of the sensor or mounting plate.
			3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			   Punch home position sensor
			       - Punch PWB (YC8)
			4. Replace the punch home position sensor.

		Punch PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. Replace the punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8020	**Punch motor error 2** In case the home position cannot be in position for 3 s or less when initializing or waiting for the home position. (35/40 ppm model only)	Punch motor	1. Execute [Motor] > [Punch] in U240 Checking the operation of the finisher. (see page P.6-305) 2. Check if the punch unit can be moved manually without being caught. 3. Check if the motor drive is delivered to the punch cam. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch motor - Punch PWB (YC4) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the punch motor.
		Punch unit PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. Replace the punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)
8030	**Punch motor error 3** In case the home position ON state does not turn OFF within 50ms during operation. (35/40 ppm model only)	Punch motor	1. Execute [Motor] > [Punch] in U240 Checking the operation of the finisher. (see page P.6-305) 2. Check if the punch unit can be moved manually without being caught. 3. Check if the motor drive is delivered to the punch cam. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch motor - Punch PWB (YC4) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the punch motor.
		Punch unit PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. Replace the punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8090	**DF paddle motor error** In case the DF paddle sensor does not detect ON/OFF when 1s passes while the DF paddle motor drives.	DF paddle motor error	1. Execute [Motor] > [Beat] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the paddle is rotating. 3. Check if the motor drive is delivered to the paddle. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF paddle motor - DF main PWB(YC9) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF paddle motor.
		DF paddle sensor	1. Execute [Finisher]>[Bundle Eject HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF paddle sensor - DF main PWB(YC19) 4. Replace the DF paddle sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8100	**DF eject release motor error** The DF bundle eject sensor does not detect ON/OFF when 1s passes while the DF eject release motor drives.	DF eject release motor	1. Execute [Motor] > [Eject Unlock (Full)] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the eject guide of the finisher tray is open and otherwise, correct it. 3. Check if the motor drive is delivered to the eject guide. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF eject release motor - DF main PWB(YC8) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF eject release motor.
		DF bundle eject sensor	1. Execute [Finisher]>[Bundle Eject HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF bundle eject sensor - DF main PWB(YC19) 4. Replace the DF bundled paper eject sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8140	**DF tray error 1** In case unable to detect the DF tray sensor 1 or DF tray upper level sensor is turned ON when the main tray ascends and 30 s have passed.	DF tray motor	1. Execute [Motor] > [Tray] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the main tray can be moved up and down manually without getting caught. 3. Check if the motor drive is delivered to the main tray. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray motor - DF main PWB(YC12) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF tray motor.
		DF tray sensor 1 DF tray upper surface sensor	1. Execute [Finisher]>[Tray U-Limit, Tray Top] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray sensor 1 - DF main PWB(YC19) DF tray upper surface sensor - DF main PWB(YC15) 4. Replace the DF tray sensor 1 or DF tray upper surface sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8150	**DF tray error 2** In case unable to detect the DF tray sensor 1 or DF tray upper level sensor is turned OFF when the main tray descends and 5 s have passed. (35/40 ppm model only)	DF tray motor	1. Execute [Motor] > [Tray] in U240 Checking the operation of the finisher. (see page P.6-305) 2. Check if the main tray can be moved up and down manually without getting caught. 3. Check if the motor drive is delivered to the main tray. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray motor - DF main PWB(YC11) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF tray motor.
		DF tray sensor 1 DF tray upper sur-face sensor	1. Execute [Finisher]>[Tray U-Limit, Tray Top] in U241 Checking the operation of the finisher switch. (see page P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray sensor 1 - DF main PWB(YC19) DF tray upper surface sensor - DF main PWB(YC15) 4. Replace the DF tray sensor 1 or DF tray upper surface sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8160	**DF tray error 3** (1000-sheet Finisher) In case unable to detect the DF tray sensor 3 is turned ON when the main tray descends and 30 s have passed. (3000-sheet Finisher) In case unable to detect the DF tray sensor 3 is turned ON when the main tray descends and 60 s have passed. (inner finisher) In case unable to detect the DF tray home position sensor is turned ON when the main tray descends and 4 s have passed.	DF tray motor	1. Execute [Motor] > [Tray] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the main tray can be moved up and down manually without getting caught. 3. Check if the motor drive is delivered to the main tray. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray motor - DF main PWB(YC11) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF tray motor.
		DF tray sensor 3	1. Execute [Finisher]>[Tray Middle] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray sensor 3 - DF main PWB(YC19) 4. Replace the DF tray sensor 3.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8170	**DF side registration motor 1 error 1** In case unable to detect the DF side registration sensor 1 is turned ON when passing 3 s during operation.	DF side registration motor 1	1. Execute [Motor] > [Width Test] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the side registration front guide can be moved manually without being caught up. 3. Check if the motor drive is delivered to the side registration front guide. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF side registration motor 1 - DF main PWB(YC9) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF side registration motor 1.
		DF side registration sensor 1	1. Execute [Finisher]>[Width Front] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF side registration sensor 1 - DF main PWB(YC11) 4. Replace the DF side registration sensor 1.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8180	**DF side registration motor 1 error 2** In case JAM6810 (DF side registration sensor 1 stay jam) is detected twice in succession.	DF side regis-tration motor 1	1. Execute [Motor] > [Width Test] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the side registration front guide can be moved manually without being caught up. 3. Check if the motor drive is delivered to the side registration front guide. 4. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. DF side registration motor 1 - DF main PWB(YC9) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF side registration motor 1.
		DF side regis-tration sensor 1	1. Execute [Finisher]>[Width Front] in U241 Check-ing the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. DF side registration sensor 1 - DF main PWB(YC19) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the DF side registration sensor 1.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8190	**DF side registration motor 2 error 1** In case unable to detect the DF side registration sensor 2 is turned ON when passing 3 s during operation.	DF side registration motor 2	1. Execute [Motor] > [Width Test] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the side registration rear guide can be moved manually without being caught up. 3. Check if the motor drive is delivered to the side registration rear guide. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF side registration motor 2 - DF main PWB(YC9) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF side registration motor 2.
		DF side registration sensor 2	1. Execute [Finisher]>[Width Tail HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF side registration sensor 2 - DF main PWB(YC19) 4. Replace the DF side registration sensor 2.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8200	**DF side registration motor 2 error 2** In case JAM6910 (DF side registration sensor 2 stay jam) is detected twice in succession.	DF side regis-tration motor 2	1. Execute [Motor] > [Width Test] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the side registration rear guide can be moved manually without being caught up. 3. Check if the motor drive is delivered to the side registration rear guide. 4. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. DF side registration motor 2 - DF main PWB(YC9) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF side registration motor 2.
		DF side regis-tration sensor 2	1. Execute [Finisher]>[Width Tail HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. DF side registration sensor 2 - DF main PWB(YC19) 4. Replace the DF side registration sensor 2.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8210	**DF slide motor error** Incase unable to detect the DF staple sensor is turned ON when passing 3 s during the intial operation.	DF slide motor	1. Execute [Motor] > [Staple Move] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the staple unit can move manually forward and backward without being caught. 3. Check if the motor drive is delivered to the staple unit. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF slide motor - DF main PWB(YC8) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF slide motor.
		DF staple sensor	1. Execute [Finisher]>[Staple HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF staple sensor - DF main PWB(YC10) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the DF staple sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8230	**DF staple motor error 1** In case staple JAM (DF) is detected twice in succession. (2nd jam detection condition was that the home position was not detected 600ms after the motor start-up)	DF staple motor	1. Remove the staple unit and check if it can be moved manually without jamming. 2. Check if the FFC cable connecter is broken or deformed and insert the FFC cable all the way. Staple unit - DF main PWB(YC10) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the staple unit.
		DF staple sensor	Replace the staple unit.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)
8250	**Main tray error 4** In case the lock signal is 0.7V or less for 10 s in succession during the DF tray motor drive. (35/40 ppm model only)	DF tray motor	1. Execute [Motor] > [Tray] in U240 Checking the operation of the finisher. (see page P.6-305) 2. Check if the main tray can be moved up and down manually without getting caught. 3. Check if the motor drive is delivered to the main tray. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF tray motor - DF main PWB(YC11) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the DF tray motor.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8260	**DF middle motor home position detection error** A middle paddle jam has been detected 2 times in succession.	DF middle motor	1. Execute [Motor] > [Middle(H)(L)] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the motor drive is delivered to the paddle. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF middle motor - DF main PWB(YC8) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the DF middle motor.
		DF paddle sensor	1. Execute [Finisher]>[Lead Paddle] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DF paddle sensor - DF main PWB(YC19) 4. Replace the DF paddle sensor.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8410	**Punch slide motor error 1** In case the punch slide sensor is not turned ON when the home position has moved 60mm. (35/40 ppm model only)	Punch slide motor	1. Execute [Motor] > [Punch Move] in U240 Checking the operation of the finisher. (see page P.6-305) 2. The punch slide section of the punch unit moves back and forth manually without being caught. 3. Check if the motor drive is delivered to the punch section. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch slide motor - Punch PWB (YC3) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the punch slide motor.
		Punch slide sensor	1. Execute [Punch] > [Punch HP] in U241 Checking the operation of the finisher switch. (see page P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch slide sensor - Punch PWB (YC6) 4. Replace the punch slide sensor.
		Punch PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. Replace the Punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8420	**Punch slide motor error 2** During paper edge detection, in case a paper edge cannot be detected even when the paper moves 60mm (35/40 ppm model only)	Punch slide motor	1. Execute [Motor] > [Punch Move] in U240 Checking the operation of the finisher. (see page P.6-305) 2. The punch slide section of the punch unit moves back and forth manually without being caught. 3. Check if the motor drive is delivered to the punch section. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch slide motor - Punch PWB(YC3) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the punch slide motor.
		Punch paper edge sensor 1,2	1. Execute [Punch] > [Edge] Face1,2,3,4 in U241 Checking the operation of the finisher switch. (see page P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch paper edge sensor 1,2 - Punch PWB (YC8,YC5) 4. Replace the punch paper edge sensor 1,2.
		Punch unit PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. Replace the Punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8430	**Punch unit communica-tion error** In case no communication is established with the punch unit. (35/40 ppm model only)	Punch PWB	1. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. Punch PWB - DF main PWB (YC7) 2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 3. Replace the Punch PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-280,P.4-283)
8500	**Mailbox communication error** In case no communication is established after con-firming connection with the mail box.	MB main PWB	1. Turn the power switch off. Then, after waiting 5 seconds, turn the power on. 2. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. MB main PWB - DF main PWB 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the MB main PWB.
		DF main PWB	Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)
8510	**MB drive motor error 1** In case unable to detect the MB home position sen-sor is turned ON when passing 5 s during the ini-tial operation.	MB conveying motor	1. Correct the mechanism if the conveying roller gets caught when rotating it manually. 2. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. MB drive motor - MB main PWB(YC4) 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the MB drive motor.
		MB home position sensor	1. Execute [Mail Box] > [Motor HP] in U241 Check-ing the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly con-nected, and if necessary, connect the connector all the way in. MB home position sensor - MB main PWB(YC3) 4. Replace the MB home position sensor.
		MB main PWB	Replace the MB main PWB.

Indica-tion	Contents	Related parts	Check procedures/corrective measures
8520	**MB drive motor error 2** In case unable to detect the MB home position sensor is turned OFF when passing 1 s during standby.	MB drive motor	1. Execute [Mail Box] > [Conv] in U240 Checking the operation of the finisher. (see page P.6-88,P.6-305) 2. Check if the conveying roller of the mail box can be rotated manually without being caught. 3. Check if the motor drive is delivered to the conveying roller. 4. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. MB drive motor - MB main PWB(YC4) 5. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 6. Replace the MB drive motor.
		MB home position sensor	1. Execute [Mail Box] > [Motor HP] in U241 Checking the operation of the finisher switch. (see page P.6-90,P.6-307) 2. Check if there is a failure in the position of the sensor or mounting plate. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. MB home position sensor - MB main PWB(YC3) 4. Replace the MB home position sensor.
		MB main PWB	Replace the MB main PWB.

8800	**Document Finisher Main program error**
	
	In case there is abnormality in the main program when turning the power on.
		DF main PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			DF main PWB
			    - Engine PWB(YC24): 30 ppm model
			    - Engine PWB(YC31): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the DF main PWB.
			(see page P.4-276,P.4-280,P.4-283)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)

Indica-tion	Contents	Related parts	Check procedures/corrective measures

8900	**Document finisher backup error**
	
	Mismatch between writing data and reading data occurs 3 times successively.
		DF main PWB	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			DF main PWB
			    - Engine PWB(YC24): 30 ppm model
			    - Engine PWB(YC31): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.
			3. Replace the DF main PWB.
			   (see page P.4-276,P.4-280,P.4-283)

		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204

8990	**Finisher setup error**
	
	In case the bridge (AK) is not installed while the DF is connected.
	
	(35/40 ppm model only)
		Finisher	1. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in.
			DF main PWB
			    - Engine PWB(YC24): 30 ppm model
			    - Engine PWB(YC31): 35/40 ppm models
			2. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire.

		DF main PWB	1. Check EEPROM mount and correct it. 2. Replace the DF main PWB. (see page P.4-276,P.4-280,P.4-283)
9070	**Communication error between the DP and SHD** A communication error is detected. (35/40 ppm model only)	DPSHD PWB	1. Execute the U906 Resetting the partial operation. (see page P.6-415) 2. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DPSHD PWB - DP main PWB 3. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 4. Replace the DPSHD PWB. (see page P.4-270)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
9180	**DP feed-shift motor error** The HP cannot be detected even after executing the HP detection retrial 3 consecutive times. HP detection: when the DP feed-shift motor is driven to move to the HP, the HP is not detected after it is rotated once.	DP feed-shift motor	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the connector of the DP feed-shift motor is firmly connected, and if necessary, push the unit all the way in. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DP feed-shift motor - Engine PWB (YC6) 4. If the wire is disconnected, short-circuited or has a ground fault, or the connector pin is deformed, replace the wire. 5. Replace the DF feed-shift motor.
		DP feed-shift sensor	1. Rotate the DP feed-shift motor manually to check that it is not unusually difficult to rotate. 2. Check if the DP feed-shift sensor is out of position because it has dropped off and if the sensor light is interrupted by the actuator. 3. Confirm that the wiring connector is firmly connected, and if necessary, connect the connector all the way in. DP feed-shift sensor - DP main PWB (YC4) DP main PWB - Engine PWB (YC6) 4. If the wiring is disconnected, short-circuited or has a ground fault, replace the wire. 5. Replace the DP feed-shift sensor.
		Engine PWB	1. Check the engine firmware and upgrade to the latest version if necessary. 2. Replace the engine PWB. (see page P.4-200,P.4-204)
9500	**IPU PWB error A** (35/40 ppm model only)	Main PWB DPIF PWB	1. Reconnect the connector if its connection is loose. Main PWB (YC4) - DPIF PWB (YC10) 2. Replace the main PWB. (see page P.4-212) 3. Replace the DPIF PWB. (see page P.4-212) 4. Please contact your service support department.

Indica- tion	Contents	Related parts	Check procedures/corrective measures
9510	**IPU PWB error B** (35/40 ppm model only)	Main PWB DPSHD PWB	1. Reconnect the connector if its connection is loose. DPIF PWB - DPSHD PWB (YC4) 2. Replace the main PWB. (see page P.4-212) 3. Replace the DPSHD PWB. (see page P.4-270) 4. Please contact your service support department.
9530 9540 9550	**Backup data error** The internal data changes by replacing multiple parts at the same time, interfering with the machine operation and will not enter ready mode.	PWBs	In case two or more of the parts below were replaced at the same time, reattach them. Applicable parts: Memory, PWBs *When replacing the applicable parts, 2 or more do not replace then at the same time. *When replacing the above applicable parts, do not work the following at the same time. Replace the drum unit or the developing unit. Replace the drum unit for one color with another in the same machine.
F000	**Communication error between Main PWB - Operation panel PWB**	Main PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Check the wiring and connectors between the main PWB - the operation panel PWB. Operation panel PWB 　　　 - Main PWB (YC2002): 30 ppm model 　　　 - Main PWB (YC12) : 35/40 ppm model 3. Check the connection of the DDR memory on the main PWB by reinstalling it or replacing it. 4. Execute U021 initialize memory. (see page P.6-25,P.6-221) 5. Replace the main PWB. (see page P.4-208,P.4-212)
		Operation panel PWB	Replace the operation panel PWB. (see page P.4-241,P.4-245)
F010	**Main PWB Checksum error**	Main PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. If not corrected, replace the main PWB and check operation. (see page P.4-208,P.4-212)

Indica-tion	Contents	Related parts	Check procedures/corrective measures
F020	**Main PWB memory error** In case an error occurs at the start-up DIMM read/write check.	Main PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. If not corrected, replace the main PWB and check operation. (see page P.4-208,P.4-212)
F040	**Communication error between controller - Print engine**	Main PWB Engine PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Repair or replace the wire from the main PWB that may be grounded. (Check for a short-circuit between 5V and 3.3V.) 3. Check the connector of the FFC connecting the main PWB to the engine PWB and reconnect it. Or replace the FFC. 4. Check both the main and engine firmware, and upgrade to the latest version, if necessary. 5. Replace the main PWB. (see page P.4-208,P.4-212) 6. Replace the engine PWB. (see page P.4-200,P.4-204)
F050	**Print engine main program error**	Engine PWB	1. Unplug the power cord from the wall outlet, and wait five seconds. Then plug in the power cord and then turn on the power switch. 2. Confirm that the EEPROM has been properly installed. 3. Check both the main and engine firmware, and upgrade to the latest version, if necessary. 4. If not corrected, replace the engine PWB. (see page P.4-200,P.4-204)

(3) System Error (Fxxxx) Outline

The document is described for the outline of the factors of the Fxxx errors that are not described in the self-diagnosis error code list.

Please utilize it as the measures when the system is not recovered after power off/on or it frequently occurs.

*: Please initially check the following when the error (Fxxx) is indicated.
- Check the DIMM (DDR memory) and neighboring parts: Check the contact on the control PWB by releasing and reinserting the DIMM.
  If the error repeats after that, replace the DIMM.
*: Power is partially supplied to this machine when the power is turned off.
   Unplug the power plug and check if the F-code error is not released when passing one minute or more after turning the power off and then on.

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
-	Lock-up at Welcome display (TASKalfa/Eco-sys) (The display unchages after a certain time (Note)) (Note) 30 ppm model: 70 s 35/40 ppm models: 60 s	1. Check connection of the harness (Panel to Main PWB), (Main PWB to HDD) and connectors and check function. 2. Check contact of the DDR memory by detaching and reattaching. and check function. replace it if available and check function. 3. Format the HDD and check function. (U024 FULL formatting) * 4. Execute the U021Memory initializing to initialize the controller backup memory and check function. 5. Replace the Operetion panel PWB and check function. 6. Replace the Main PWB and check function. 7. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	*User data and installed software is deleted if executing the U024. Reinstallation is required.	[Main - Panel Interface] Main PWB: YC2011 Operetion panel PWB: YC4	[Main - Panel Interface] Main PWB: YC6,YC12,YS1,YS3 Operetion panel PWB: YC9,YC12
F000	F000 appears in a certain time (Note) after the Welcome display continues Operation panel- Main PWB communication error panel core- Main core communication error *2 (Note) 30 ppm model: 70 s 35/40 ppm models: 60 s	1. Check connection of the harness (Panel to Main PWB), (Main PWB to HDD) and connectors and check function. 2. Check contact of the DDR memory by detaching and reattaching. and check function. replace it if available and check function. 3. Format the HDD and check function. (U024 FULL formatting) * 4. Execute the U021Memory initializing to initialize the controller backup memory and check function. 5. Replace the Main PWB and check function. 6. Replace the Operetion panel PWB and check function. 7. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only *2: Dual Core CPU model only		[Main - Engine Interface] Main PWB: YC6004 Engine PWB: YC3	[Main - Engine Interface] Main PWB: YC43 Engine PWB: YC3
F12X	An error is detected at scan control section	1. Check connection of the harness (Scan/DP - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021Memory initializing to initialize the controller backup memory and check function. 4. Replace the Scan/DP board and check function. 5. Replace the Main PWB and check function. 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		[DP - Engine Interface] Engine PWB: YC20 DP relay connector	[DP - Engine Interface] Engine PWB: YC6,YC7,YC38 DP relay connector

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F13X	An error is detected at panel control section	1. Check connection of the harness (Panel - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021Memory initializing to initialize the controller backup memory and check function. 4. Replace the Operetion panel PWB and check function. 5. Replace the Main PWB and check function. 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		[Main - Panel Interface] Main PWB: YC2011 Operetion panel PWB: YC4	[Main - Panel Interface] Main PWB: YC6,YC12,YS1,YS3 Operetion panel PWB: YC9,YC12
F14X	An error is detected at the FAX control section	1. Check connection of the harness (FAX - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Execute the U671 Clear FAX back up data (FAX DIMM clear) and check function. *2 (Take cae of the received data since it is cleared) 5. Replace the FAX_DIMM and check function. *2 6. Replace the FAX board and check function. 7. Replace the Main PWB and check function. 8. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only *2: Models with the flash memory for FAX data only		[Main - KUIO Interface] Main PWB: YC6001?YC6002 KUIO PWB: YC3?YC4	[Main - KUIO Interface] Main PWB: YC8?YC9 KUIO PWB: YC3?YC4
F15X	An error is detected at the authentication device control section	1. Check connection of the harness (Authentication device - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Main PWB and check function. 5. Replace the HDD and check function. * 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	Authentication device: Card Reader, etc	[USB Cable] Main PWB: YC2007	[Main - USB HUB Interface] Main PWB: YC50?YC12 USB HUB PWB: YC??YC3?YC4?YC5
F18X	An error is detected at the Video control secion	1. Check connection of the harness (Engine - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Engine PWB and check function. 5. Replace the Main PWB and check function. 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		[Main - Engine Interface] Main PWB: YC6004 Engine PWB: YC3	[Main - Engine Interface] Main PWB: YC43 Engine PWB: YC3

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F1DX	An error is detected at the Image memory management section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	*The F1D4 error is RAM allocation error. 1. Check it with the U340 2. Initialize the setting valued with the U021	-	-
F21X F22X F23X	An error is detected at the Image processing section	1. Check contact of the DDR memory and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Main PWB and check function. 5. Replace the HDD and check function. * 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	[Main - DP Relay Interface]? Main PWB: YC10 DP relay PWB: YC25 (CIS DP only)
F24X	An error is detected at the System management section	1. Check contact of the DDR memory and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Main PWB and check function. 5. Replace the HDD and check function. * 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	*The F248 eror is printer process error. if it repeats with a certain print data, retrieve the capture data and USBLOG.	-	[DDR2 memory contact check] Main PWB: YS1 or YS2 A certain part of the memory be faulty. The frequency of failure occurrence is dependent on the frequency of access to the faulty bit. The ASIC may be faulty if the memory is not sensitive.
F25X	An error is detected at the Network management section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Retrieve the USBLOG and the packet capture data and contact the Service Administratuve Division. *: HDD standard model only	*This may be owing to the users network environment.	-	-
F26X F27X F28X F29X F2AX	An error is detected at the System management section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F2BX F2CX F2DX F2EX F2FX F30X F31X F32X	An error is detected at the Network control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Retrieve the USBLOG and the packet capture data and contact the Service Administratuve Division. *: HDD standard model only		-	-
F33X	An error is detected at the Scan management section	1. Check connection of the harness (Scan/DP board - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Scan/DP board and check function. 5. Replace the Main PWB and check function. 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		[DP - Engine Interface] Engine PWB: YC20	[DP - Engine Interface] Engine PWB: YC6,YC7,YC38
F34X	An error is detected at the Panel management section	1. Check connection of the harness (Operetion panel PWB - Main PWB) and connectors and check function. *2 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Operetion panel PWB and check function. *2 5. Replace the Main PWB and check function. 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only *2: Dual Core CPU model and HyPAS model		[Main - Panel Interface] Main PWB: YC2011 Operetion panel PWB: YC4	[Main - Panel Interface] Main PWB: YC6,YC12,YS1,YS3 Operetion panel PWB: YC9,YC12
F35X	An error is detected at the Print control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F37X	An error is detected at the FAX management section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. 3) Execute the U671 Clear FAX back up data (FAX DIMM clear) and check function. (Take cae of the received data since it is cleared) 4. Replace the FAX_DIMM and check function. *2 5. Replace the Main PWB and check function. 6. Replace the HDD and check function. * 7. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only *2: Models with the flash memory for FAX data only		[Check the FAX DIMM contact] FAX DIMM: No	[Check the FAX DIMM contact] Main PWB: YS5
F38X	An error is detected at the Authentication/permit management section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F39X	An error is detected at the KMAS management section	1. Check connection of the harness (KMAS - Main PWB) and connectors and check function. 2. Format the HDD and check function. (U024 FULL formatting) * 3. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4. Replace the Main PWB and check function. 5. Replace the HDD and check function. * 6. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F3AX F3BX F3CX F3DX F3EX F3FX F40X F41X	An error is detected at the Entity control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F42X F43X F44X F45X F46X	An error is detected at the Print image process section	1. Replace the Main PWB and check function. 2. Retrieve the USBLOG (or retrieve the print capture data by case)	*The F46F eror is printer process error. if it repeats with a certain print data, retrieve the capture data and USBLOG.	-	-

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F47X	An error is detected at the Image edit process control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F48X					
F49X					
F4AX	An error is detected at the Print image process section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F4CX					
F4DX	An error is detected at the Entity control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-
F4EX					
F50X	An error is detected at the FAX control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	The USB log is necessary for analysis. Please cooperate in retrieving it.	-	-
F51X	An error is detected at the Job control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	The USB log is necessary for analysis. Please cooperate in retrieving it.	-	-
F52X					
F53X					
F55X					
F56X					
F57X					
F58X	An error is detected at the Device control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	The USB log is necessary for analysis. Please cooperate in retrieving it.	-	-
F59X					
F5AX					
F5BX					
F5CX					
F5DX					
F5EX					

No.	Content	Check procedure & check point	Remark (Common)	30 ppm model	35/40 ppm models
F62X	Abnormality detected at service section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	The USB log is necessary for analysis. Please cooperate in retrieving it.	-	-
F68X	An error is detected at the Storage device control section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only	*F684 is Overwrite error with the HDD security kit	-	-
F69X F6AX F6BX F6CX	An error is detected at the HyPAS section	1. Format the HDD and check function. (U024 FULL formatting) * 2. Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3. Replace the Main PWB and check function. 4. Replace the HDD and check function. * 5. Retrieve the USBLOG and contact the Service Administrative Division. *: HDD standard model only		-	-

7-3 Image formation problems

Isolate the place of the image failure occurrence.
<How to isolate the cause>

Print Test Page to check an image failure.
[System Menu] > [Adjustment/Maintenance] > [Service Setting]
Yes: engine factor
No: Scanner factor
Check if image failure is enlarged or reduced in the zoom mode.
Yes: Scanner factor

1. Scanner factor: Refer to [Image failure at Copy or Send](See page 7-107).
(LED lamp for originals on the contact glass --> CCD failure at scanning factor)

Isolate with the original scanning position.
a. DP simplex (Main unit CCD scan)
b. On the contact glass (scan by the main unit CCD)

2. Refer to image failure with engine factor (See page 7-134).
(Main charge --> Drum --> LSU --> Developer --> Primary transfer image formation process failure)

<Image data flow>

Copying :

| LED lamp | ⇨ | CCD | ⇨ | Main PWB(30 ppm model) Engine PWB(35/40 ppm models) | ⇨ | APC PWB (LSU) |

Sending :

| LED lamp | ⇨ | CCD | ⇨ | Main PWB(30 ppm model) Engine PWB(35/40 ppm models) | ⇨ | PC |

Printing data from PC :

| Printer driver | ⟹ | Main PWB(30 ppm model) Engine PWB(35/40 ppm models) | ⇨ | APC PWB (LSU) |
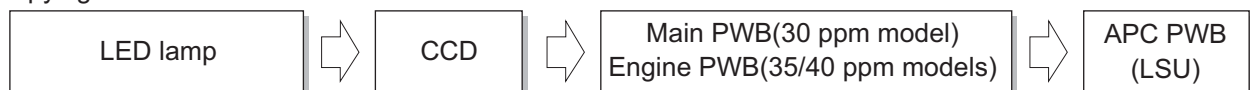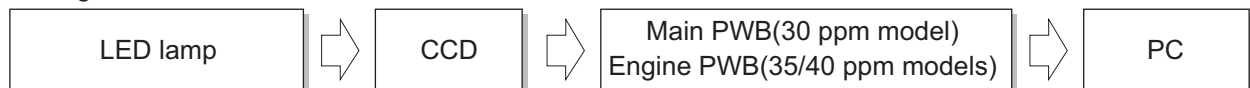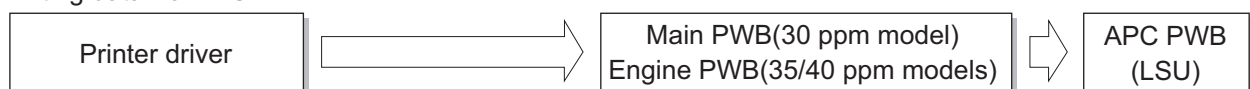
(1) Poor image (due to DP and scanner reading)
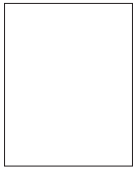
(1-1)No image appears (entirely white)

(1-2)No image appears (entirely black)

(1-3)The entire image is faint

(1-4)The back-ground is colored

(1-5)Vertical white streaks or bands appear
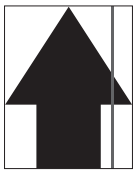
(1-6)Black or color streaks appear longitudinally
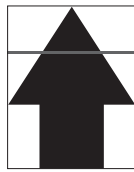
(1-7)Horizontal black streaks appear

(1-8)The image is partly dark or bright

(1-9)Black or color dots appear in the image

(1-10)Characters are blurred
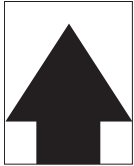
(1-11)The leading edge of the image is consistently misaligned with the original

(1-12)The image is partly missing

(1-13)The image is blurred

(1-14)Image center does not align with the original center
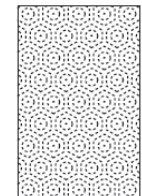
(1-15)Moire

(1-16)Skewed image
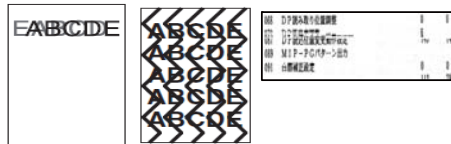
(1-17)Abnormal image

(1-1) No image appears (entirely white)

Image sample
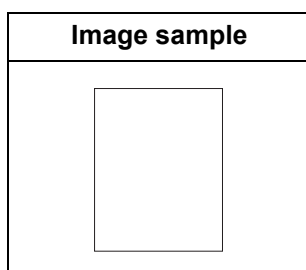
1. Table scanning

	Trouble location	Check	Corrective action
1	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
2	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) / the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
3	Home position sensor	Check the location where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
4	Scanner drive belt	Check that the scanner drive belt is loosely attached.	If the scanner drive belt is attached loosely, secure the screw again.
5	Scanner drive gear	Check that the scanner drive gear is loosely attached.	If the scanner drive gear is attached loosely, secure the screw again.
6	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
7	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
8	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check the side of set original document.	Set the original again if the set side of it is incorrect.
2	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.

	Trouble location	Check	Corrective action
3	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
4	Home position sensor	Check the location where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
5	Scanner drive belt	Check that the scanner drive belt is loosely attached.	If the scanner drive belt is attached loosely, secure the screw again.
6	Scanner drive gear	Check that the scanner drive gear is loosely attached.	If the scanner drive gear is attached loosely, secure the screw again.
7	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 6-341)
8	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
9	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-2) No image appears (entirely black)

Image sample
■

1. Table scanning

	Trouble location	Check	Corrective action
1	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
2	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
3	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
4	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	DP scanning position	Check the value using maintenance mode U068 [DPRead].	If a large value is observed in maintenance mode U068 [DPRead], adjust it. (See page 6-43,6-242)
2	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
3	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 6-341)
4	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
5	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-3) The entire image is faint

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Density adjustment	Check the setting of the density adjustment.	Deactivate EcoPrint if it is activated. Or, if the density is too low, chosse an image quality that suits the original docuemt type. Increase density. Perform the background color adjustment using the system menu.
2	Bleed-through prevention	Check the setting of bleedthrough prevention.	Turn the bleed-through prevention off if it is turned on.
3	Scanner adjustment	Check the scanner automatic adjustment.	Execute maintenance mode U411 [table] to adjust automatically. (See page 6-117,6-341)
4	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
5	Home position sensor	Check the location where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
6	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
7	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
8	LED PWB	Check if the LED is lit.	If the LED is not lit, replace the scanner carriage and execute U411. (See page 4-96)
9	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
10	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
11	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Density adjustment	Check the setting of the density adjustment.	Deactivate EcoPrint if it is activated. Or, if the density is too low, chosse an image quality that suits the original docuemt type. Increase density. Perform the background color adjustment using the system menu.
2	Bleed-through prevention	Check the setting of bleedthrough prevention.	Turn the bleed-through prevention off if it is turned on.
3	Scanner adjustment	Check the scanner automatic adjustment.	Execute maintenance mode U411 [DP] to adjust automatically. (See page 6-117,6-341)
4	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
5	Home position sensor	Check the location where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
6	DP scanning position	Check if the DP scanning position is shifted.	If the DP scanning position is shifted, adjust it using the maintenance mode U068 [DPRead]. (See page 6-43,6-242)
7	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or, check the wire's continuity.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
8	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
9	LED PWB	Check if the LED is lit.	If the LED is not lit, replace the scanner carriage and execute U411. (See page 4-96)
10	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
11	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
12	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-4) The background is colored

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	1. Check if the background density of the original documentis too dense. 2. Check if the original document is floated during scanning.	1. If the background density of the original document is too dense, perform automatic background adjustment. Or, adjust density with background adjustment. 2. If the originaldocument is floated during scanning, press down it.
2	Scanner adjustment.	Check the scanner automatic adjustment.	Execute maintenance mode U411 [Table]. (See page 6-117,6-341)
3	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
4	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
5	Home position sensor	Check the position where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
6	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
7	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
8	LED PWB	Check if the LED is lit.	If the LED is not lit, replace the scanner4-96 carriage and execute U411. (See page 4-96)
9	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
10	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
11	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	1. Check if the background density of the original documentis too dense. 2. Check if the original document is floated during scanning.	1. If the background density of the original document is too dense, perform automatic background adjustment. Or, adjust density with background adjustment. 2. If the originaldocument is floated during scanning, press down it.
2	Scanner adjustment	Check the scanner automatic adjustment.	Execute maintenance mode U411 [DP]. (See page 6-117,6-341)
3	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it. (See page 4-94)
4	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
5	Home position sensor	Check the position where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
6	DP installing	Check if the DP frame is deformed or the hinge is broken.	Replace the DP if broken.
7	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
8	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
9	LED PWB	Check if the LED is lit.	If the LED is not lit, replace the scanner carriage and execute U411. (See page 4-96)
10	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
11	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
12	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-5) Vertical white streaks or bands appear

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Contact glass Shading plate	Check if the contact glass and shading plate are dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it. (See page 4-94)
3	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
4	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
5	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
6	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Slit glass Shading plate	Check if the slit glass and the shading plate are dirty.	If the slit glass and the shading plate are dirty, clean them.
3	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
4	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
5	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
6	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-6) Black or color streaks appear longitudinally

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Original	Check if the original document size and its detected size match.	In case the original document size and its detected original document size are different, set the correct original document size or activate border erase.
3	Contact glass Shading plate	Check if the contact glass and shading plate are dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it. (See page 4-94)
4	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
5	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
6	Scanner adjust-ment	Check if there are streaks or bands outside the original docu-ment .	1. Execute maintenance mode U067 [Front] to adjust. (See page 6-42,6-241) 2. Execute maintenance mode U411 [Table] to adjust automatically (Adjusting the half-tone automatically). (See page 6-117,6-341)
7	CCD PWB	Check if dust adheres to the CCD PWB glass surface.	If dust adheres to the CCD PWB glass surface, clean it with air blower brush.
8	Mirror	Check if the mirror dropped off or it is dirty.	1. Replace the scanner carriage and execute U411 if the mirror is dropped off due to drop shock. 2. If the mirror are dirty, clean them.
9	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
10	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
11	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Original	Check if the original document size and its detected size match.	In case the original document size and its detected original document size are different, set the correct original document size or activate border erase.
3	DP scanning position	Check if the DP scanning position is shifted.	If the DP scanning position is shifted, adjust it using in the maintenance mode U068 [DPRead]. (See page 6-43,6-242)
4	Slit glass	Check if the slit glass is dirty.	If the slit glass is dirty, clean it.
5	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
6	CCD PWB	Check if dust adheres to the CCD PWB glass surface.	If dust adheres to the CCD PWB glass surface, clean it with air blower brush.
7	Scanner adjustment	Check if there are streaks or bands outside the original document .	1. Execute maintenance mode U067 [Front] to adjust. (See page 6-42,6-241) 2. Execute maintenance mode U411 [Table] to adjust automatically (Adjusting the halftone automatically). (See page 6-117,6-341)
8	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
9	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
10	Engine PWB 35/40 ppm model	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-7) Horizontal black streaks appear

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it. (See page 4-94)
3	Scanner adjustment	Check if the image at the backside of the size indication plate appears.	1. If the image at the backside of the size indication plate appears, adjust it using the maintenance mode U066 [Front]. (See page 6-41,6-240) 2. Execute maintenance mode U411 [Table] to adjust and automatically. (See page 6-117,6-341)
4	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
5	LED PWB	Check if the LED is lit.	If the lamp is not lit, replace the scanner carriage and execute U411. (See page 4-96)
6	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
7	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Slit glass	Check if the slit glass is dirty.	If the slit glass is dirty, clean it.

	Trouble location	Check	Corrective action
3	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
4	LED PWB	Check if the LED is lit.	If the lamp is not lit, replace the scanner carriage and execute U411. (See page 4-96)
5	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
6	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-8) The image is partly dark or bright
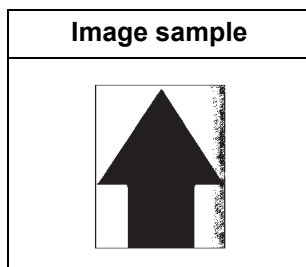
Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Original	Check if the original document has folds or creases.	If the original document has folds or creases, straighten it.
3	Platen mat	Check if the DP or platen mat position is shifted.	If the DP or platen mat position is shifted, refit it.
4	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
5	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
6	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
7	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
8	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
9	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Original	Check if the original document has folds or creases.	In case the original document has folds or creases, straighten it.
3	DP scanning guide	Check if the scanner guide moves smoothly.	Reattach the DP scanning guide if it does not move smoothly.
4	Slit glass	Check if the slit glass is dirty.	If the slit glass is dirty, clean it with the shading plate at the backside.(See page 4-94)

	Trouble location	Check	Corrective action
5	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
6	Scanner carriage	Check if dust or dirt adheres the scanner carriage.	If dust or dirt adheres to the scanner carriage, remove it from the optical path.
7	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
8	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
9	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-9) Black or color dots appear in the image

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
3	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
4	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
5	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is dirty.	Replace the original document if it is dirty.
2	Slit glass	Check if the slit glass is dirty.	If the slit glass is dirty, clean it with the shading plate at the backside.
3	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
4	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
5	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-10) Characters are blurred

Image sample
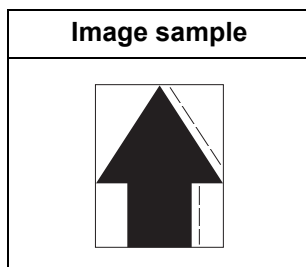
1. Table scanning

	Trouble location	Check	Corrective action
1	Optical rail	Check if the scanner carriage moves smoothly.	If the scanner carriage does not move smoothly, remove foreign objects on the optical rails.
2	Scanner shaft	Check if the scanner carriage moves smoothly.	If the scanner carriage does not move smoothly, clean the scanner shaft.
3	Scanner carriage	Check if the scanner carriage moves smoothly.	If the scanner carriage contacts the frame while moving and does not move smoothly, reattach it.
4	Scanner drive section	Check if there is any foreign matter in between the scanner drive belt and the scanner drive gear.	Remove foreign objects if mixed up.
5	Scanner drive belt	Check if foreign objects adhere to the scanner drive belt or it is scratched.	If foreign objects adhere to the scanner drive belt, remove them. Or, replace it if scratched.

2. DP scanning

	Trouble location	Check	Corrective action
1	DP conveying pulley	Check if the DP conveying pulley smoothly rotates.	Reassemble the conveying pulley and spring if the DP conveying pulley does not move smoothly.
2	DP installation	Check how DP is attached to the main unit.	If attachment to the main unit is faulty, reattach it after confirming the positioning.
3	Hinge	Check if the vertical motion of the DP hinge is smooth and it can continue opened.	Replace the hinges if the DP does not move smoothly or it cannot continue opened.
4	DP original mat	Check the position where the DP original mat position is attached.	If the original mat is out of position, reattach it.
5	Original	Check the leading edge of the original document is folded.	If the leading edge of the original document is folded, straighten it.
6	DP scanning guide	Check if the scanner guide is deformed.	Replace the scanner guide if deformed.

2R4/2R5/2R6

	Trouble location	Check	Corrective action
7	DP conveying roller (Before and after scanning)	Check if the DP conveying roller is contaminated.	Clean the DP conveying roller if contaminated.
8	Drive belt	Check the drive belt jumping.	If the drive belt jumps, readjust the belt tension.

(1-11) The leading edge of the image is consistently misaligned with the original

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is set correctly.	If the original document is not set correctly, set it again.
2	Scanner carriage	Check the carriage fixing of the scanner drive belt.	Check if the scanner drive belt is securely set at the carriage fix part.
3	Scanner adjustment	Check the scanner position adjustment.	1. Execute maintenance mode U066 [Front] to adjust. (See page 6-41,6-240) 2. Execute maintenance mode U411 [Table] to adjust automatically. (See page 6-117,6-341)
4	Home position sensor	Check the position where the home position sensor is attached.	If the home position sensor is out of position, reattach it.
5	Scanner drive belt	Check that the scanner drive belt is loosely attached.	If the scanner drive belt tension is loose, give it tension.
6	Scanner drive gear	Check that the scanner drive gear is loosely attached.	If the scanner drive gear is attached loosely, secure the screw again.

2. DP scanning

	Trouble location	Check	Corrective action
1	Scanner adjustment	Check the DP scanning position adjustment.	1. Execute maintenance mode U071 [CCD-Head] to adjust. (See page 6-45,6-244) 2. Execute maintenance mode U411 [DP] to adjust automatically. (See page 6-115,6-339)
2	Original conveying roller	Check if the original document conveying roller is dirty or worn.	If the original document conveying roller is dirty, clean it and bushing. Replace the roller if it is worn.
3	DP drive motor	Check if the DP drive motor rotation is unstable.	Apply grease to the drive gear if the DP drive motor rotation is unstable. Replace the DP drive motor if no improvement is observed.

(1-12) The image is partly missing

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is set correctly.	If the original document is not set correctly, set it again.
2	Original	Check if the original document size and paper size match in the operation panel indication.	If the original document size and paper size do not match in the operation panel indication, manually set the original document size.
3	Contact glass	Check if the contact glass is dirty.	If the contact glass is dirty, clean it and the shading plate at the backside of it.
4	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
5	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
6	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
7	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
8	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
9	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is set correctly.	If the original document is not set correctly, set it again.
2	Original	Check if the original document size and paper size match in the operation panel indication.	If the original document size and paper size do not match in the operation panel indication, manually set the original document size

	Trouble location	Check	Corrective action
3	Slit glass	Check if the slit glass is dirty.	If the slit glass is dirty, clean it.
4	FFC cable CCD	Check the FFC cable connection between the CCD sensor and main PWB (30ppm model) / Engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
5	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
6	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
7	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-13) The image is blurred
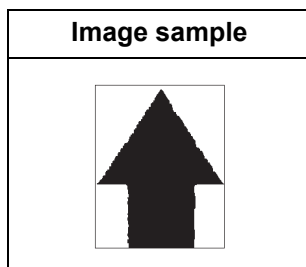
Image sample

1. Table scanning

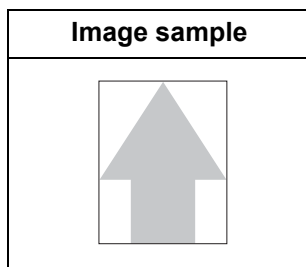|	Trouble location	Check	Corrective action
1	Original	Check if the original document is wavy.	If the original document is wavy, straighten it to plain. Or, replace.
2	Contact glass	Check if the contact glass is condensed.	If the contact glass is condensed, remove it.
3	Scanner carriage	Check if the scanner carriage is condensed inside.	If the scanner carriage is condensed inside, remove it.
4	CCD PWB	Check if the CCD PWB glass surface has condensation.	If the CCD sensor glass surface has condensation, remove it.
5	Scanner adjustment	Check the scanner automatic adjustment.	Execute maintenance mode U411 [Table]. (See page 6-117,6-341)
6	Scanner carriage	Check the position of the lens and CCD PWB.	If the position of the lens and CCD PWB is shifted, replace the scanner carriage and execute U411. (See page 4-96)
7	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
8	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is wavy.	In case the original document is wavy, straighten it to plain. Or, replace.
2	Slit glass	Check if the slit glass is condensed.	If the slit glass is condensed, remove it.
3	Scanner carriage	Check if the scanner carriage is condensed inside.	If condensed, remove it.
4	CCD PWB	Check if the CCD PWB glass surface is condensed.	If the CCD PWB glass surface has condensation, remove it.

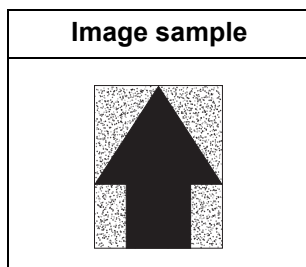|	Trouble location	Check	Corrective action
5	Scanner adjustment	Check the scanner automatic adjustment.	Execute maintenance mode U411 [Table]. (See page 6-117,6-341)
6	Scanner carriage	Check the position of the lens and CCD PWB.	If the position of the lens and CCD PWB is shifted, replace the scanner carriage and execute U411. (See page 4-96)
7	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
8	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(1-14) Image center does not align with the original center

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is set correctly.	If the original document is not set correctly, set it again.
2	Contact glass assy	Check the position where the contact glass is attached.	If the contact glass is dislocated, reattach it.
3	Scanner adjustment	Check the scanner position.	1. Execute maintenance mode U067 [Front] to adjust. (See page 6-42,6-241) 2. Execute maintenance mode U411 [Table] to adjust automatically. (See page 6-117,6-341)

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is set correctly.	If the original document is not set correctly, set it again.
2	Scanner adjustment	Check the DP scanning position adjustment.	1. Execute maintenance mode U072 [Front] to adjust. (See page 6-47,6-246) 2. Execute maintenance mode U411 [DP] to adjust automatically. (See page 6-117,6-341)

(1-15) Moire

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Print quality mode	Check if the moire changes depending on the print quality mode.	If the moire changes depending on the print quality mode, change it. 1. Print in Text mode or Printer mode. 2. Weaken (reduce) the sharpness.
2	Original	Check if moire is generated depending on original document scanning direction.	If moire is generated, rotate the original document set direction 90 degrees.
3	Magnification setting	Check if it occurs in 100% magnification.	Slightly reduce the magnification in main scanning direction using mentenance mode U065. (See page 6-39,6-238)
4	Scanner adjustment	Check if the scanner automatically adjustment has been executed.	Execute maintenance mode U411 [Table]. (See page 6-117,6-341

2. DP scanning

	Trouble location	Check	Corrective action
1	Print quality mode	Check if the moire changes depending on the print quality mode.	If the moire changes depending on the print quality mode, change it. 1. Print in Text mode or Printer mode. 2. Weaken (reduce) the sharpness.
2	Scanner adjustment	Check if the scanner automatically adjustment has been executed.	Execute maintenance mode U411 [DP]. (See page 6-117,6-341

(1-16) Skewed image
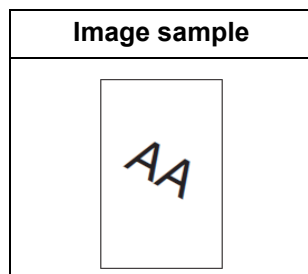
Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document is placed askew.	If the original document is placed askew, place it correctly.
2	Main unit and scanner unit level	Check if the scanner height position is distorted or shifted.	If the scanner height position is distorted or shifted, adjust the entire scanner unit height.
3	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.

2. DP scanning

	Trouble location	Check	Corrective action
1	Original	Check if the original document has folds or creases.	In case the original document has folds or creases, straighten it.
2	DP document feeding	Check if the original document is fed askew.	If the original document is skew fed, set the original document side registration guide again.
3	Scanner carriage	Check the location where the scanner carriage is attached.	If the scanner carriage is out of position, reattach it.
4	Original feed roller	Check if the original document feed roller is dirty.	Clean the original document feed roller if it is dirty. Replace it if it is not improved after cleaning it.
5	DP registration roller	Check if the DP registration roller is dirty and its rotation.	Clean the DP registration roller. If the rotation is not smooth, clean the busing and reattach it.
6	Original set	Check if cursors are aligned to original document s.	Align the cursor to fit the original document, if necessary.

(1-17) Abnormal image

Image sample

1. Table scanning

	Trouble location	Check	Corrective action
1	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
2	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
3	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
4	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

2. DP scanning

	Trouble location	Check	Corrective action
1	FFC cable CCD	Check the FFC cable connection between the CCD PWB and the main PWB (30ppm model) /the engine PWB (35/40ppm models). Or check continuity of the wire.	If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity.
2	CCD PWB	CCD PWB is defective.	Replace the scanner carriage and execute the U411. (See page 4-96)
3	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
4	Engine PWB 35/40 ppm models	Engine PWB is defective.	Replace the engine PWB. (See page 4-204)

(2) Poor image (Image forming factor: printer engine for single color)
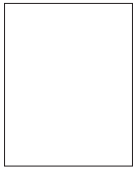
(2-1)No image appears (entirely white)

(2-2)No image appears (entirely black)

(2-3)The entire image is faint

(2-4)The background is colored

(2-5)Vertical white streaks or bands appear
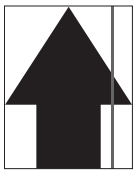
(2-6)Black or color streaks appear longitudinally

(2-7)White, black or color streaks or bands appear horizontally

(2-8)Uneven density vertically

(2-9)Uneven density horizontally

(2-10)Black or color dots appear in the image

(2-11)Offset occurs

(2-12)The image is partly missing

(2-13)The image is blurred
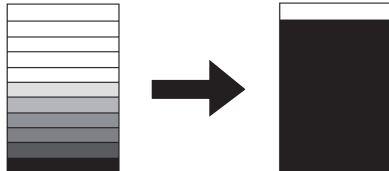
(2-14)Poor grayscale reproduction
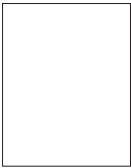
(2-15)Irregular horizontal white streaks appear in the image / Dots appear in the image

(2-16)Granular iamge (low solid image
desnity)

(2-1) No image appears (entirely white)

Image sample	Factor
	1. Developer bias is not output or not impressed. (Contact failure) 2. The developer lock shaft is not inserted. (The DS gap is wide) 3. Developer roller rotation failure. 4. Defective primary transfer. 5. Laser is not output from the laser scanner unit (LSU). 6. Drum does not rotate.

	Trouble location	Check	Corrective action
1	Developer unit	Select [Color Belt] from U089 and print 4-color bands PG to check the following with the color which is defective. (See page 6-48,6-249)	
		Check insertion of the lock shaft.	If the lock shaft is not inserted properly, insert it securely.
		Check if the developer drive gear is broken.	Replace the developer unit if broken.
		Check if the developer roller can be rotated manually.	Replace the developer unit if it has a problem. (See page 4-38)
		Check dirt and deformation of the developer unit and high voltage PWB contact terminal.	Clean the terminal if it is dirty. Correct the terminal if it is deformed so that it contacts.
2	Main drive motor unit (C,M,Y)	Check if the gear and coupling in the drive unit that drive the developer unit are damaged.	Replace the main drive unit if broken.
3	Developer clutch (BK)	Check if the developer clutch in the conveying drive unit is connected.	Replace the conveying drive unit if broken.
4	High voltage PWB	1. Check that the terminals on the high voltage PWB surely contact with the developer roller and primary transfer roller. 2. Check the connection between the high voltage PWB and connector. Or,	1. Clean the terminal if it is dirty. 2. Correct the terminal if it is deformed so that it contacts. 3. If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity. High voltage PWB to Engine PWB
		The high voltage PWB (developer, transfer) output failure.	Replace the high voltage PWB. (See page 4-217,4-221)
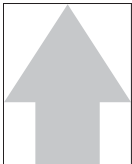
	Trouble location	Check	Corrective action
5	Transfer high voltage PWB *40 ppm model only	1. Check that the terminal on the high voltage PWB 2 surely contacts with the primary transfer roller. 2. Check the connection between the high voltage PWB and connector. Or, check the wire's continuity.	1. Clean the terminal if it is dirty. 2. Correct the terminal if it is deformed so that it contacts. 3. If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity. Transfer high voltage PWB to Engine PWB
		Transfer current output failure on the transfer high-voltage PWB.	Replace the transfer high voltage PWB.
6	Laser scanner unit (LSU)	Check the connector connection. Or check the wire's continuity.	1. Reinsert the FFC cable if it is incompletely inserted. Replace the wire if there is no continuity. 2. Replace the LSU. (See page 4-76)
7	Main PWB 30 ppm model	Check if the main PWB control signal is output.	Replace the main PWB. (See page 4-208)
8	Engine PWB	Check if the engine PWB control signal is output..	Replace the engine PWB. (See page 4-200,4-204)

(2-2) No image appears (entirely black)

Image sample	Factor
	1. Main charge is not applied. Drum surface potential error 2. The LSU laser is on for all colors. 3. Abnormal developer bias output

	Trouble location	Check	Corrective action
1	Charger roller	Check attachment of the main charge roller.	Reattach the main charge roller if it is improperly attached.
		Check if the terminal on the high voltage PWB to the main charge roller is deformed.	Correct the terminal if it is deformed so that it contacts.
2	Drum unit	Check if there is the terminal failure with the high voltage PWB.	1. Correct the terminal if it is deformed so that it contacts. 2. Replace the drum unit.
		Check the ground contact for the drum ground failure.	Correct the terminal if it is deformed so that it contacts.
3	Developer unit	Check if there is the contact failure with the high voltage PWB.	1. Correct the terminal if it is deformed so that it contacts. 2. Reattach the new developer unit.
4	High voltage PWB	Check the connector connection. Or check the wire's continuity.	1. If the connector is not inserted enough, reconnect it. Replace the wire if there is no continuity. 2. High voltage PWB to Engine PWB
		There is the main charge current failure or developer bias output failure from the high voltage PWB.	Replace the high voltage PWB. (See page 4-217,4-221)
5	Laser scanner unit (LSU)	Failure in turning the laser diode on/off control failure on the LSU PWB.	Replace the LSU. (See page 4-76)
6	Main PWB 30 ppm model	Video data output failure in the main PWB.	Replace the main PWB. (See page 4-208)
7	Engine PWB	Video data output failure in the main PWB.	Replace the engine PWB. (See page 4-200,4-204)

(2-3) The entire image is faint

Image sample	Factor
	1. Variance in environments (dew formation) 2. Toner is insufficient. Or it is deteriorated (becomes had to charge). 3. Developer bias output is low. 4. Primary transfer current output is low. 5. LSU laser power is low. 6. Drum surface potential is high.

	Trouble location	Check	Corrective action
1	Drum unit	Check if the drum is condensed.	Execute the drum refreshing. ([System Menu] > [Adjustment/Maintenance])
2	Developer unit	Select [Color Belt] from U089 and print 4-color bands PG to check the following with the color which is defective. (See page 6-48,6-249)	
		Check if printed at low density continuously.	1. Execute the developer refresh (DEV-CLN) and then calibration if printing at low density. ([System Menu] > [Adjustment/Maintenance]) 2. Execute maintenance mode U464 for Calibration. (See page 6-131,6-358) 3. Execute maintenance mode U410 for Automatic harftone adjustment. (See page 6-115,6-339)
		Check if the developer bias connection terminal is deformed.	Correct the terminal if it is deformed so that it contacts.
		Developer bias setting failure.	1. Execute maintenance mode U140 for Developer bias adjustment. (See page 6-71,6-280) 2. Execute maintenance mode U464 for Calibration. (See page 6-131,6-358)
3	Developer unit	There is the contact failure with the drum due to the dirt or damage of the DS pulleysin the sides of the developer roller.	Clean the DS pulleys. Replace the developer unit if broken.
		Check the contact between the developer roller and drum surface. (Pressure failure)	Reattach the new developer unit.
		Check if the toner control sensor is normal.	Replace the developer unit.

	Trouble location	Check	Corrective action
4	Toner container	Shake the toner container up and down about ten times and check the below. 　1. Check "Add toner" indication. 　2. Check if the toner supply vent opens.	Replace the toner container if "Add toner" is indicated or the toner supply vent does not open.
5	Toner motor	Check the toner motor rotation.	Check connection if the toner motor does not rotate. Or, replace the motor.
6	High voltage PWB	Check the contact and output of the high voltage connection terminal of the developer, main charge and transfer bias.	1. Correct the terminal if it is deformed so that it contacts. 　2. Replace the high voltage PWB. (See page 4-217,4-221)
7	Primary transfer unit	Check the primary transfer roller attachment to confirm the belt contact with the drum.	1. Reattch the primary transfer roller. 　2. Replace the primary transfer unit. 　　(See page 4-32)
		Check the high voltage contact deformation.	Correct the terminal if it is deformed so that it contacts.
8	Transfer high voltage PWB *40 ppm model only	Primary transfer current output failure on the transfer high voltage PWB.	Replace the transfer high voltage PWB.
9	LSU	1. LSU laser beam power failure. 　2. Internal mirror contamination	Replace the LSU. (See page 4-76)
10	Drum unit	1. Check if the eraser lamp is dirty. 　2. Check the lamp on/off. 　3. Check if the drum surface is worn down.	1. Clean the eraser lamp if it is dirty. 　2. Replace the drum unit if it is not improved after cleaning, it is not turned on or the surface is worn. (See page 4-34)
11	Charger roller	Check the terminal with the high voltage PWB.	Remove foreign objects if adhering to the terminal.
12	Main PWB 30 ppm model	Main PWB is defective.	Replace the main PWB. (See page 4-208)
13	Engine PWB	Engine PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

(2-4) The background is colored

Image sample	Factor
	1. Toner is deteriorated (becomes had to charge). 2. Over-supply of toner. 3. Developer bias voltage is high. 4. Toner layer on the developer roller surface is thick (too much toner adheres). 5. The drum surface potential is low (low temperature environment)

	Trouble location	Check	Corrective action
1	Developer unit	Select [Color Belt] from U089 and print 4-color bands PG to check the following with the color which is defective. (See page 6-48,6-249)	
		1. Check if printed high coverage continuously with over-supply of toner or high temperature.	Execute the calibration after executing the developer refresh (DEV-CLN). ([System Menu] > [Adjustment/Maintenance])
		2. Check if the developer bias connection terminal is dirty or deformed.	Clean the developer bias connection terminal, if it is dirty. Correct the terminal if it is deformed so that it contacts.
		3. Developer bias setting failure.	1. Execute maintenance mode U140 for Developer bias adjustment. (See page 6-71,6-280) 2. Execute maintenance mode U464 for Calibration. (See page 6-131,6-358) 3. Execute maintenance mode U410 for Automatic halftone adjustment. (See page 6-115,6-339)
2	Drum unit	1. Check if the machine is used in an environment of low temperature.	If the room temperature is 16 °C/60.8 °F or less, try to use in the environment of more than 16 °C/60.8 °F.
		2. Check if the drum unit is attached improperly.	Reattach the drum unit. (See page 4-34)
		3. Check if the ground connection terminal is dirty or conductive grease is applied to it.	Clean the terminal if it is dirty. Apply conductive grease to the receptacle side bearing of the drum drive shaft if little grease is applied.
		4. Check if the main charge roller is dirty.	Clean the main charge roller if it is dirty. Or, replace.
3	High voltage PWB	There is the contact failure or output failure of the developer bias or main charge current from the high voltage PWB.	Correct the terminal if it is deformed. Or, replace the high voltage PWB. (See page 4-217,4-221)

	Trouble location	Check	Corrective action
4	Engine PWB	Engine PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
5	Toner motor	Check if the toner motor is rotating constantly. Check if the wiring is short-circuited.	Replace the wire if it is short-circuited and the toner motor rotates constantly.

(2-5) Vertical white streaks or bands appear

Image sample	Factor
	1. DP slit glass is dirty. 2. Foreign objects inside the developer unit. 3. Contamination inside the machine. 4. Dirt inside the drum unit.

	Trouble location	Check	Corrective action
1	LSU	Check if the LSU slit glass is dirty.	1. If the LSU slit glass is dirty, execute the laser scanner cleaning. 2. Replace the LSU if it is dirty inside. (See page 4-76)
2	Developer unit	Select [Color Belt] from U089 and print 4-color bands PG to check the following with the color which is defective. (See page 6-48,6-249)	
		Check if there are foreign objects in the developer unit.	Clean or replace the developer unit with the color which is defective. (See page 4-38)
3	Light path between LSU and Drum	Check if the light path is interrupted by foreign objects such as dust, toner, etc.	If there are foreign objects in the frame between the developer unit and drum unit, and on the seal, remove them.
4	Drum unit	Check if the main charge roller is dirty.	Clean the main charge roller if it is dirty. Or, replace. (See page 4-37)
		The drum has scratches.	Replace the drum unit.
		Check if the eraser lamp is dirty.	Clean the eraser lamp if it is dirty.

(2-6) Black or color streaks appear longitudinally

Image sample	Factor
	1. Charger roller dirt. 2. Drum unit scratch or dirt. 3. Cleaning blade is damaged or jammed by paper dust.

	Trouble location	Check	Corrective action
1	Charger roller unit	Check if the main charge roller surface has lines as marks of toner.	Clean the main charge roller if lines appear on the surface. Or replace the main charge roller. (See page 4-37)
2	Drum unit	Check if the drum surface is dirty.	Drum refreshing is executed. ([System menu] > [Adjustment/Maintenance])
		Check if the drum surface is scratched. Check if the cleaning blade edge is damaged. Check if there is wear or paper dust pinched in. Check if toner is accumulated at the cleaning section.	Replace the drum unit. (See page 4-34)
3	Developer unit	Foreign objects adhere to the developer roller surface.	1. Clean the developer roller surface. 2. Replace the developer unit if it is contaminated by foreign matter. (See page 4-38)

(2-7) White, black or color streaks or bands appear horizontally

Image sample	Factor
	1. developer unit dirt, contact dirt. Sleeve roller scratch. 2. Drum unit scratch or dirt. Ground is defective. 3. Charger roller is deformed. 4. Primary transfer roller terminal dirt.

	Trouble location	Check	Corrective action
1	Developer unit	1. Check the print image on paper has a problem in the interval of the circumference of the developer roller. 2. Check if the sides of the developer roller and the bias terminal are dirty. 3. There is the cleaning failure at the developer roller surface. 4. Check if there are scratches on the sleeve roller.	1. If the sides of the developer roller and the bias terminal are dirty, clean them. 2. Execute developer refreshing (DEV-CLN). ([System Menu] > [Adjustment/Maintenance]) 3. Replace the developer unit. (See page 4-38)
2	Drum unit	1. Check the print image on paper has a problem in the interval of the circumference of the drum.	Execute drum refreshing. ([System Menu] > [Adjustment/Maintenance])
		2. Check the drum surface potential erasing failure.	Lower the MC (main charge) value. [Adjustment/Maintenance]
		3. Check if the drum is scratched.	Replace the drum unit. (See page 4-34)
		4. Check the ground terminal of the drum or drum drive shaft.	1. Check the drum unit attachment and reattach it if its fixing is insufficient. 2. Replace the drum unit. (See page 4-34)
3	Charger roller	Check the print image on paper has a problem in the interval of the circumference of the main charger roller.	Replace the main charge roller if deformed.
4	Primary transfer roller (Transfer belt)	Check if the high voltage PWB contact with the primary transfer roller is dirty with toner. Check if the teminal is deformed and there is no contact.	1. Clean the terminal if it is dirty. 2. Correct the terminal if it is deformed so that it contacts. 3. Replace the primary transfer unit. (See page 4-32)
5	High voltage PWB	Contact failure of the high voltage PWB or uneven bias voltage.	Check if how the high voltage PWB is attached and secure it with screws to secure grounding. Or, replace. (See page 4-217,4-221)

(2-8) Uneven density vertically

Image sample	Factor
	1. Uneven LSU laser beam emission. 2. Transfer belt contact failure with the drum. 3. Drum condensation. 4. Uneven toner layer on the developer roller

	Trouble location	Check	Corrective action
1	LSU	Laser is not output evenly from LSU. (Internal mirror drop-off)	Reattach the LSU. Or, replace. (See page 4-76)
2	Primary transfer roller (Primary transfer unit)	Check the fitting condition of the primary transfer roller. (Uneven pressure to the drum)	If the transfer roller and belt are at incorrect position, correct it and reattach them. Replace the primary transfer unit. (See page 4-32)
3	Drum unit	1. Check if toner spreads evenly on the drum. 2. Check if it is used at high humidity. 3. Check if the drum surface is worn down.	1. Drum refreshing is executed. ([System menu] > [Adjustment/Maintenance]) 2. Use in the environment without condensation. 3. Replace the drum unit. (See page 4-34)
4	Developer unit	1. Check if the toner layer thickness on the developer roller is even. 2. Check if the DS pulleys the sides of the developer rollers are dirty or damaged. Failure of the developer roller to contact the drum surface 3. Foreign objects inside the developer unit.	1. Execute the developer refresh (DEV-CLN) to evenly distribute the toner in the developer unit. ([System Menu] > [Adjustment/Maintenance]) 2. Clean the developer roller and DS pulley. Replace the developer unit if broken. (See page 4-38)

(2-9) Uneven density horizontally

Image sample	Factor
	1. Uneven rotation of the main drive. 2. Main charger roller rotation error. 3. Improper contact on the developer unit terminals. 4. LSU is defective.
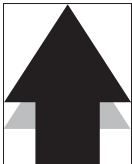
	Trouble location	Check	Corrective action
1	Main drive	Check to see if the drive mechanism for the developer unit and drum unit is smoothly operative.	1. Check the fitting condition of the developer unit and drum unit and clean the drive transmission section and apply grease if it is dirty. 2. Check if the main drive unit is surely secured with screws and reattached it.
2	Drum unit	The drum surface is worn down.	Replace the drum unit.
3	Charger roller	1. Check if the main charge roller is attached wrongly. 2. Check if the main charge roller is deformed.	1. Reattach the main charge roller if it is improperly attached. 2. Replace the main charge roller if deformed. (See page 4-37)
		Check if the direction of the fur brush on the surface of the main charge cleaning roller is uniform.	Clean the main charge cleaning roller or replace the main charge roller. (See page 4-37)
4	Developer unit	1. Check if the developer bias connection terminal of the developer unit is dirty with toner. 2. The DS pulleys at the sides of the developer unit are damaged.	1. Clean the terminal if it is dirty. 2. Clean the developer unit or replace it if the DS pulley is damaged. (See page 4-38)
5	LSU	Check the image if it is the phenomenon from uneven laser beam output.	Replace the LSU. (See page 4-76)

(2-10) Black or color dots appear in the image

Image sample	Factor
	1. Charger roller dirt. 2. Drum unit scratch or dirt. 3. The cleaning blade is damaged or jammed by paper dust.

	Trouble location	Check	Corrective action
1	Drum unit	Check the print image on paper has a problem in the interval of the circumference of the drum.	Replace the drum unit if the drum is scratched. (See page 4-34)
2	Charger roller	Check the print image on paper has a problem in the interval of the circumference of the charger roller.	If the print image on paper has a problem in the interval of the circumpherence of the charger roller, replace the charge roller. (See page 4-37)
3	Developer unit	Check if the developer bias leaks.	1. Clean the edge of the developer roller if leaked. 2. If used at high altitude, set the high altitude at [Adjustment/Maintenance] in [System Menu].
		Check the print image on paper has a problem in the interval of the circumference of the developer roller.	1. If the print image on paper has a problem in the interval of the circumpherence of the developer roller, clean the developer roller. 2. Replace the developer unit. (See page 4-38)

(2-11) Offset occurs

Image sample	Factor
	1. Drum unit cleaning failure, scratch or dirt. 2. Developer bias leakage.

	Trouble location	Check	Corrective action
1	Drum unit	Check the print image on paper has a problem in the interval of the circumference of the drum.	If the drum unit is dirty with paper duct, toner, etc., clean it and reattach it. Or, replace. (See page 4-34)
2	Developer unit	Check if offsets are observed in the constant interval which is equivalent to the circumference of the developer roller.	If the developer unit is dirty with toner, etc., clean it and reattach it. Or, replace. (See page 4-38)

(2-12) The image is partly missing

Image sample	Factor
	1. Drum unit scratch or dirt. 2. Primary transfer belt surface deformation or dirt.
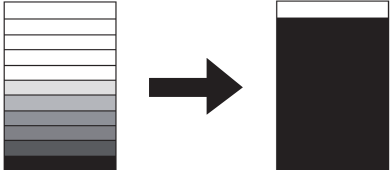
	Trouble location	Check	Corrective action
1	Drum unit	Check the print image on paper has a problem in the interval of the circumference of the drum.	If the print image on paper has a problem in the interval of the circumpherence of the drum, execute drum refreshing. ([System Menu] > [Adjustment/Maintenance])
2	Primary transfer belt (Primary transfer unit)	Check if the primary transfer belt surface is deformed or dirty.	If the surface is deformed or dirty, clean the primary transfer belt or replace the unit. (See page 4-32)

(2-13) The image is blurred

Image sample	Factor
	1. Drum unit condensation. 2. DP slit glass dirt.
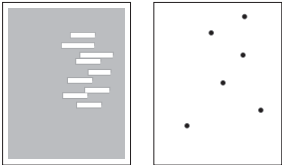
	Trouble location	Check	Corrective action
1	Drum unit	The drum surface is condensed.	Drum refreshing is executed. ([System Menu] > [Adjustment/Maintenance])
2	LSU	Check if the LSU slit glass is entirely dirty.	1. Execute the U474 LSU cleaning if the LSU slit glass is dirty. (See page 6-143,6-371) 2. Replace the LSU. (See page 4-76)

(2-14) Poor grayscale reproduction

Image sample	Factor
	1. Image adjustment failure
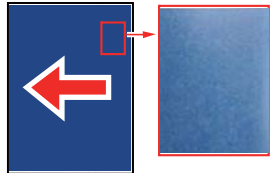
	Trouble location	Check	Corrective action
1	Image adjustment	Check if color adjustment is sufficient.	1. Execute Calibration. ([System Menu] > [Adjustment/Maintenance]) 2. Execute maintenance mode U410 for Automatic halftone adjustment. (See page 6-115,6-339)

(2-15) Irregular horizontal white streaks appear in the image / Dots appear in the image

Image sample	Factor
	1. Installation at a high altitude. 2. Defective drum unit grounding. 3. Using the paper with high surface resistance.

	Trouble location	Check	Corrective action
1	Developer unit	Check if the operating environment is 1000m or more above sea level. (Developer bias leakage)	In the case of the high altitude place of 1000m above sea level or higher, change the high altitude setting in U140. (Normal/1001-2000m/2001-3000m/3001-3500m) (See page 6-71,6-280)
2	Drum unit	Check if there is contact failure between the main charger roller and high voltage PWB contact.	1. Correct the terminal if it is deformed so that it contacts. 2. Reattach the drum unit (main charge roller).
		Check the ground contact for the drum ground failure.	Correct the terminal if it is deformed so that it contacts.
3	Paper	Check if high surface resistance paper is used.	Change paper to different type.

(2-16) Granular iamge (low solid image desnity)

Image sample	Factor
	1. Installation at a high altitude. 2. Using the paper with high surface resistance.

	Trouble location	Check	Corrective action
1	Developer unit	Check if the operating environment is 1000m or more above sea level.	In the case of the high altitude place of 1000m above sea level or higher, change the high altitude setting in U140. (Normal/1001-2000m/2001-3000m/3001-3500m) (See page 6-71,6-280)
2	Paper	Check if high surface resistance paper is used.	Change paper to different type.

(3) Image failure (Transfer, paper conveying and fusing factor: printer engine for 4 colors)
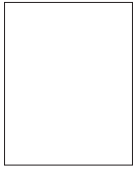
(3-1)No image appears (entirely white)

(3-2)The entire image is faint

(3-3)The background is colored

(3-4)Vertical white streaks or bands appear

(3-5)Black or color streaks appear longitudinally
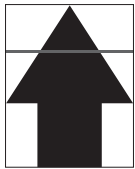
(3-6)White, black or color streaks or bands appear horizontally

(3-7)Uneven transfer

(3-8)Black or color dots appear in the image
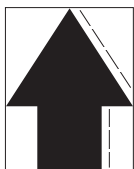
(3-9)Characters are blurred (transfer shift)

(3-10)The leading edge of the image is consistently misaligned with the original

(3-11)The leading edge of the image is sporadically misaligned with the original
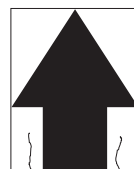
(3-12)Creases are generated on paper

(3-13)Offset occurs

(3-14)The image is
partly missing
(Outlines objects
and white dots)

(3-15) Fusing fail-
ure

(3-16)The image is
blurred

(3-17)Image center
does not align
with the original
center

(3-18)Paper is dirty with toner

(3-19)Poor color
reproduction
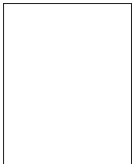
(3-20)Color registration shift
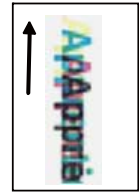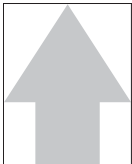
(3-21)Dirt on the backside of paper

(3-1) No image appears (entirely white)

Image sample	Factor
	1. No secondary transfer bias output.

	Trouble location	Check	Corrective action
1	Secondary trans-fer roller	Check if the right cover is securely closed.	Check the right cover lock. Open and close the right cover.
2	High voltage PWB	1. Check how the connector is inserted. High voltage PWB to Engine PWB 2. Check the wire's continuity.	1. If the connector is not inserted enough, reconnect it. 2. Replace the wire if there is no continuity. 3. Replace the high voltage PWB. (See page 4-217,4-221)
3	Engine PWB	1. Check how the connector is inserted. 2. Check the wire's continuity. 3. Check if the secondary transfer high voltage on sig-nal is output from Engine PWB.	1. If the connector is not inserted enough, reconnect it. 2. Replace the wire if there is no continuity. 3. Replace the engine PWB if no signal is out-put. (See page 4-200,4-204)

(3-2) The entire image is faint

Image sample	Factor
	1. Paper is moist. 2. The contact pressure between the secondary transfer roller and primary transfer belt is low. 3. The secondary transfer bias impression is failed.

	Trouble location	Check	Corrective action
1	Paper	1. Check if paper is moist. 2. Check the humidity of where paper is stored.	Replace paper if it is moist. If the place to store paper is moist, move it to a low humidity place.
2	Paper conveying unit	Check if the right cover is securely closed.	Check the right cover lock. Open and close the right cover.
3	Secondary transfer roller	Check the secondary transfer roller position. (Pressure failure)	If the secondary transfer roller is taken off, refit it.
4	High voltage PWB	Check if there is dirt or deformation in the terminal of the high voltage PWB to the secondary transfer roller. (Secondary transfer bias error)	1. Clean the terminal if it is dirty. 2. Correct the terminal if it is deformed so that it contacts. 3. Replace the high voltage PWB (40ppm model: transfer high voltage PWB).

(3-3) The background is colored

Image sample	Factor
	1. Primary transfer unit grounding failure. 2. Secondary transfer roller dirt.

	Trouble location	Check	Corrective action
1	Primary transfer unit	Check if the belt surface is whitened.	Replace the primary transfer unit if the entire belt surface is whitened and is not improved after executing the calibration. (See page 4-32)
		Check if the ground plate of the primary transfer unit is deformed.	If the ground plate is deformed, correct it to secure ground.
2	Secondary transfer roller	1. Check the transfer bias ground failure. 2. Check if the roller full surface is entirely dirty.	1. Correct the terminal to securely contact the roller shaft. 2. Clean or replace the secondary transfer roller if its surface is entirely dirty.

(3-4) Vertical white streaks or bands appear

Image sample	Factor
	1. Primary transfer unit dirt. 2. Secondary transfer roller dirt.

	Trouble location	Check	Corrective action
1	Primary transfer unit	Check if the white streaks position match the position of dirt on the primary transfer belt.	1. Clean the primary transfer belt if contaminated. 2. Replace the primary transfer unit. (See page 4-32)
2	Secondary transfer roller	Check if the white streaks position match the position of dirt on the secondary transfer roller.	Clean the secondary transfer roller if contaminated. Replace the secondary transfer roller if it is not improved after cleaning it. (See page 4-33)
3	Eject guide	Check if paper slides the eject guide ribs intensely.	Correct the ribs if white steaks appear at the position of the ribs but paper is not wavy.

(3-5) Black or color streaks appear longitudinally

Image sample	Factor
	1. Primary transfer belt cleaning bias impression failure. 2. Secondary transfer roller dirt. 3. Separation needle dirt. 4. Dirty fuser unit inside.
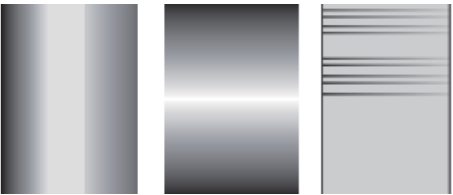
	Trouble location	Check	Corrective action
1	Primary transfer unit	Check if paper dust is accumulated around the cleaning section.	1. Clean the cleaning section if paper dust accumulates. 2. Replace the primary transfer unit if it is not improved after cleaning it. (See page 4-32)
		Check dirt and deformation of the cleaning bias connector and high voltage terminals.	1. Clean the connector and connection terminal if they are dirty. 2. Correct the terminal if deformed. 3. Replace the high voltage PWB. (40ppm model: transfer high voltage PWB) (See page 4-217,4-221)
		Check dirt or scratch on the primary transfer belt circumference.	Replace the primary transfer unit if it is dirty or has scratches. (See page 4-32)
2	Secondary transfer roller	Check dirt, deformation or wear of the secondary transfer roller.	1. Clean the secondary transfer roller if contaminated. 2. Replace the secondary transfer roller if it is deformed or worn out. (See page 4-33)
3	Separation needle	Check if the separation needles are dirty with paper dust and toner.	Clean the separation needles if they are dirty.
4	Fuser unit	1. The paper separation plate is contaminated with toner. 2. Check if the paper weight setting matches the paper to use.	1. Clean the paper separation plate if contaminated. 2. Change the setting if the paper weight setting does not match the paper to use.
5	Eject guide	The ribs are dirty with toner.	Clean it if dirty.

(3-6) White, black or color streaks or bands appear horizontally

Image sample	Factor
	1. Primary transfer unit grounding failure. 2. Secondary transfer roller dirt.

	Trouble location	Check	Corrective action
1	Primary transfer unit	Check if the phenomenon appears in the interval of the circumference of the primary transfer belt.	1. Clean the primary transfer belt with soft cloth. 2. Replace the primary transfer unit if it is not improved after cleaning it. (See page 4-32)
2	Secondary transfer roller	1. Check if the right cover is closed. 2. Check if the secondary transfer roller surely contacts the transfer belt.	1. Close the right cover firmly. 2. Refit the press spring for the secondary transfer roller. Replace it if is deformed.
3	Fuser unit	Check the print image on paper has a problem in the interval of the circumference of the fuser roller.	Clean the fuser roller if it appears in the image. Replace the fuser unit if it is not improved after cleaning it. (See page 4-42)

(3-7) Uneven transfer

Image sample	Factor
	1. Primary transfer unit grounding failure. 2. Secondary transfer roller dirt.

	Trouble location	Check	Corrective action
1	Primary transfer unit	Check if paper dust is accumulated around the cleaning section.	1. Clean the cleaning section if paper dust accumulates. 2. Replace the primary transfer unit if it is not improved after cleaning it. (See page 4-32)
		Check dirt and deformation of the cleaning bias connector and high voltage terminals.	1. Clean the connector or connection terminal if dirty. 2. Correct the terminal if deformed. 3. Replace the high voltage PWB. (40ppm model: transfer high voltage PWB) (See page 4-217,4-221)
		Primary transfer belt is dirty or has scratches.	Replace the primary transfer unit. (See page 4-32)
2	Secondary transfer roller	Check dirt, deformation or wear of the secondary transfer roller.	1. Clean the secondary transfer belt if contaminated. 2. Replace the secondary transfer roller if it is not improved after cleaning it. (See page 4-33)
3	Fuser unit	Check if the roller drive section and fuser pressure release mechanism are deformed, worn or damaged.	Replace the fuser unit if the roller drive section and fuser pressure release mechanism are deformed, worn or damaged. (See page 4-42)

(3-8) Black or color dots appear in the image

Image sample	Factor
	1. Primary transfer belt scratch or dirt. 2. Secondary transfer roller dirt. 3. Dirty fuser unit inside.

	Trouble location	Check	Corrective action
1	Primary transfer unit	Check the primary transfer belt cleaning.	1. Clean the cleaning section. 2. Replace the unit if it is not improved after cleaning it. (See page 4-32)
		Check for dirt or scratches in the interval of the primary transfer belt outer circumference.	Replace the primary transfer unit. (See page 4-32)
2	Secondary trans-fer roller	Check the print image on paper has a problem in the interval of the circumference of the second-ary transfer roller.	1. Clean the secondary transfer roller if it appears in the image. 2. Replace the secondary transfer roller if it is not improved after cleaning it. (See page 4-33)
3	Fuser unit	Check the print image on paper has a problem in the interval of the circumference of the fuser roller.	1. Clean the fuser roller if it appears in the image. 2. Replace the fuser unit if it is not improved after cleaning it. (See page 4-42)

(3-9) Characters are blurred (transfer shift)

Image sample	Factor
	1. Paper is out of specification. 2. Imbalanced fuser unit pressures.

	Trouble location	Check	Corrective action
1	Paper	1. Check if the paper is within the specification. 2. Check if the paper type and weight settings are proper.	1. If paper type is out of specification, use proper paper. 2. If the paper setting is improper, set it in accordance with the paper.
2	Fuser unit	1. Check the pressure balance between the left and right sides of the fuser unit. 2. Check if the paper entry guide to the fuser is deformed.	1. Replace the fuser unit in case of the balance failure. (See page 4-42) 2. Replace the fuser unit if deformed. (See page 4-42)
3	Paper conveying motor	Check if the paper conveying drive is smooth.	If the drive is not smooth, apply grease to the gears.
4	Paper conveying guide	The paper conveying guide is deformed.	Replace the paper conveying guide if deformed.

(3-10) The leading edge of the image is consistently misaligned with the original

Image sample	Factor
	1. Improper leading edge timing adjustment. 2. Improper original deflection amount before the registration.

	Trouble location	Check	Corrective action
1	Registration roller	Correct the contact if it is deformed.	If the adjustment is insufficient, adjust the leading edge timing in the maintenance mode U034. (See page 6-31,6-228)
		Check of the registration sensor on timing (for paper deflection) is proper.	If paper feed failure occurs, clean the feed roller or replace paper to check if it is improved.

(3-11) The leading edge of the image is sporadically misaligned with the original

Image sample

	Trouble location	Check	Corrective action
1	Registration clutch, Registration roller	Check if the registration roller is dirty and the registration clutch and feed motor operate smoothly.	1. Clean the DP registration roller. 2. Reattach it if it is improperly attached. 3. Replace the feed drive unit if it does not move smoothly.

(3-12) Creases are generated on paper

Image sample

	Trouble location	Check	Corrective action
1	Paper side regis-tration	Check if the paper width guide set position matches the paper.	If the paper size does not match, align the side registration cursors to the paper edges.
2	Paper	1. Check if it is curled or wavy. 2. Check if the place to store paper is moist.	1. If paper is curled r wavy, replace it. 2. If the place to store paper is moist, move it to a low humidity place.
3	Registration roller	Balance is not secured between the front and rear springs.	Attach the parts with the regular spring pres-sure.
4	Fuser unit	The fuser pressure spring of the fuser unit is faulty.	Replace the fuser unit. (See page 4-42)

(3-13) Offset occurs

Image sample

	Trouble location	Check	Corrective action
1	Paper	1. Check if the paper is within the specification. 2. Check if the paper type and weight settings are proper.	1. If paper type is out of specification, use proper paper. 2. Set paper type and weight.
2	Primary transfer unit	Check if offsets are occurred in the interval of the outer circumference of the primary transfer belt.	1. Clean the primary transfer belt if it appears in the outer circumference interval. 2. Make the cleaning bias terminal of the cleaning roller securely contact the terminal of the high voltage PWB. 3. Replace the primary transfer unit. (See page 4-32)
3	Fuser unit	Check the print image on paper has a problem in the interval of the circumference of the fuser roller.	If the roller of the fuser unit is dirty, clean it or replace the unit. (See page 4-42)

(3-14) The image is partly missing (Outlines objects and white dots)

Image sample

	Trouble location	Check	Corrective action
1	Paper	Check if paper is moist. Check if the place to store paper is moist.	1. Replace paper if it is moist. If the place to store paper is moist, move it to a low humidity place. 2. Install the cassette heater if necessary.
2	Primary transfer unit	Check if dirty, scratch or deformation appear in the interval of the circumference of the primary transfer belt.	1. Clean the primary transfer belt with soft cloth. 2. Replace the primary transfer unit. (See page 4-32)
3	Secondary transfer roller	Check the print image on paper has a problem in the interval of the circumference of the secondary transfer roller.	1. Clean the secondary transfer roller. 2. Replace the secondary transfer roller. (See page 4-33)

(3-15) Fusing failure

	Image sample

	Trouble location	Check	Corrective action
1	Paper	1. Check if the paper is within the specification. 2. Check if the paper type and weight settings are proper.	1. If paper type is out of specification, use proper paper. 2. Set the paper weight to match the paper.
2	Paper weight setting	Check the paper weight setting.	If the paper weight setting is insufficient, set the paper weight in accordance with the paper thickness.
3	Fuser unit	Fuser pressure setting (spring) is faulty.	Replace the fuser unit. (See page 4-42)

(3-16) The image is blurred

	Image sample

	Trouble location	Check	Corrective action
1	Paper	Check if paper is moist. Check if the place to store paper is moist.	1. Replace paper if it is moist. 2. If the place to store paper is moist, move it to a low humidity place.

(3-17) Image center does not align with the original center

Image sample
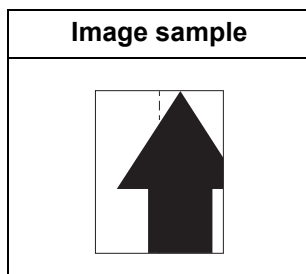
	Trouble location	Check	Corrective action
1	Paper setting	Check if paper is set correctly.	Set paper if it is not set correctly.
2	Image position adjustment	Check the center alignment during writing images.	If the adjustment is insufficient, adjust the center line in the maintenance mode U034. (See page 6-31,6-228)

(3-18) Paper is dirty with toner

Image sample	Factor
	1. Toner scattering inside the machine at continuous high coverage print.
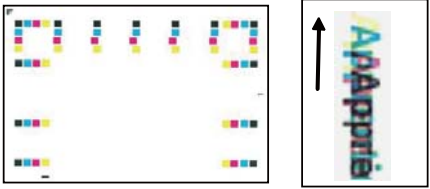
	Trouble location	Check	Corrective action
1	Paper conveying guide	Check if the paper conveying guide is dirty with toner.	Clean the developer unit, drum unit and primary transfer unit if the paperconveying guide is dirty with toner.
2	Toner scattering inside the machine	Check if a large volume with high coverage was continuously output.	Clean the machine inside.

(3-19) Poor color reproduction

Image sample	Factor
	1. Paper storage condition is bad. Defective Paper type setting. 2. Developer bias impression failure (high voltage contact). 3. Deterioration of toner or developer powder. 4. Drum surface potential erasing failure (main charge roller contact). 5. High voltage PWB failure. 6. Not executing Calibration.

	Trouble location	Check	Corrective action
1	Paper	Check if paper is moist. Check if the place to store paper is moist.	1. Replace paper if it is moist. 2. If the place to store paper is moist, move it to a low humidity place.
2	Paper specification	Granular image (slightly uneven gloss) appears in the high density image area.	1. Check the paper specification and use proper paper. 2. Change to color paper if rough paper for monochrome print is used.
3	Paper type	Check paper type and weight.	If The paper type and weight do not match the paper, set them properly.
4	Image adjustment	Check if the target density adjustment was done.	1. Execute maintenance mode U464 for [Calibration]. (See page 6-131,6-358) 2. Execute maintenance mode U410 for Automatic halftone adjustment. (See page 6-115,6-339)
5	Developer unit	Toner is not charged.	Execute the calibration after executing the developer refresh (DEV-CLN). ([System Menu] > [Adjustment/Maintenance])
6	Drum unit	Check the drum surface condensation.	Execute the drum refreshing. ([System Menu] > [Adjustment/Maintenance])
7	Printer driver setting	Check the printer color table selection.	1. Change the printer color table selection to the proper mode in the color reproduction mode in [Imaging] tab of the printer driver. 2. Download necessary color tables.
		Check the printer data is CMYK.	If the printer data is CMYK, select the proper mode in the KPDL color conversion process.

(3-20) Color registration shift

Image sample	Factor
	1. ID sensor density detection error 2. Primary transfer belt deterioration. (whitened) 3. Primary transfer belt skew (color registration shift in the main scanning direction) 4. Motor speed control error (color registration shift in the sub-scanning direction)

	Trouble location	Check	Corrective action
1	Color registration adjustment	Check if the color registration has been adjusted before executing the calibration.	1. Execute maintenance mode U464 for [Calibration]. (See page 6-131,6-358) 2. Execute maintenance mode U469 for Color registration adjustment. (See page 6-137,6-364)
2	ID sensor	Check if the ID sensor shutter is opened when executing calibration.	1. If the sensor shutter is not opened, correct it to open. 2. Clean the ID sensor. Or, replace.
3	Primary transfer unit	Check if the ID sensor can detect the image density correctly after executing the calibration with degraded belt.	Execute the calibration and replace the primary transfer unit if the color registration patches appear twice at the left and right sides of the transfer belt. (See page 4-32)
		Check the belt skew.	Reattach the primary transfer unit. Replace the frame if deformed.
4	Engine PWB	Extreme color registration shift. (The motor speed is not correctly controlled.)	Replace the engine PWB.

(3-21) Dirt on the backside of paper

Image sample

	Trouble location	Check	Corrective action
1	Secondary trans-fer roller	Check if the secondary transfer roller is dirty with toner.	1. Clean the secondary transfer roller. 2. Check if the transfer bias terminal contacts the roller.
2	Fuser pressure roller	Check if foreign objects such as toner dirt, etc. mix in or adhere to the fuser press roller.	1. Clean the fuser pressure roller if foreign objects adhere. 2. If the paper thickness setting does not match the paper, set the proper paper thickness.
3	Paper conveying guide	The paper conveying guide is dirty with toner.	Clean the paper conveying guide, developer unit, drum unit and primary transfer unit if the paper conveying guide is dirty with toner.

7-4 Electric failure

If the parts of the problem cause is not supplied, replace the unit that includes it.
Take care of the errors in the order of error cause number.

Failure status	Cause of trouble	Check method and remedy
(1) The machine does not operate at all when turning the power on.	1. Power is not supplied to the outlet.	Check input voltage.
	2. Power plug connection is defective.	Check the contact between the power plug and outlet is secure.
	3. Broken power cord.	Check the continuity and replace if there is no continuity.
	4. Connected to the power switch.	Check the continuity between the power switch contacts and replace it if there is no continuity.
	5. Low voltage power supply PWB is defective.	Replace the low voltage power supply PWB. (See page 4-225,4-233)
	6. Engine PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
	7. Main PWB is defective.	Replace the main PWB and check its operation. (See page 4-208,4-212)
(2) The scanner motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Scanner motor to Engine PWB(YC19): 30ppm model Scanner motor to Engine PWB(YC27): 35/40ppm models
	2. If condensed, remove it.	Check if each gear and gear rotate smoothly. Apply grease to the busing and gears if they are faulty. Check each gear if it is damaged and replace it if it is.
	3. Motor failure is defective.	Replace the scanner motor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(3) Eject motor does not rotes.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Eject motor to Engine PWB (YC31): 30 ppm model Eject motor to Engine PWB (YC24): 35/40 ppm models
	2. If condensed, remove it.	Check if each gear and gear rotate smoothly. Apply grease to the busing and gears if they are faulty. Check each gear if it is damaged and replace it if it is.
	3. Motor is defective.	Reattach or replace the eject motor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(4) The fuser motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Fuser motor to Engine PWB (YC17): 30ppm model Fuser motor to Engine PWB (YC24): 35/40ppm models
	2. Motor is defective.	Reattach or replace the fuser motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(5) The vibration motor does not rotated.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Vibration motor to Drum/developer PWB to Engine PWB
	2. Motor is defective.	Connected to the eject fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(6) Connected to the eject fan motor.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Eject fan motor to Engine PWB (YC10): 30ppm model Eject fan motor to Engine PWB (YC17): 35/40ppm models
	2. Motor is defective.	Connected to the eject fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(7) Developer fan motor 1 does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Developer fan motor 1 to Engine PWB (YC21): 30ppm model Developer fan motor 1 to Engine PWB (YC4) 35/40ppm models
	2. Motor is defective.	Replace the developer fan motor 1.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(8) Developer fan motor 2 does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Developer fan motor 1 to Engine PWB (YC21): 30ppm model Developer fan motor 1 to Engine PWB (YC4) 35/40ppm models
	2. Motor is defective.	Replace the developer fan motor 2.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(9) Developer fan motor 3 does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Developer fan motor 3 to Engine PWB (YC10): 30ppm model Developer fan motor 3 to Engine PWB (YC17): 35/40ppm models
	2. Motor is defective.	Replace the developer fan motor 3.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(10) Developer fan motor 4 does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Developer fan motor 3 to Engine PWB (YC10): 30ppm model Developer fan motor 3 to Engine PWB (YC17): 35/40ppm models
	2. Motor is defective.	Replace the developer fan motor 4.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(11) The transfer belt fan motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Transfer belt fan motor to Engine PWB (YC10): 30ppm model Transfer belt fan motor to Engine PWB (YC17): 35/40ppm models
	2. Motor is defective.	Replace the transfer belt fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(12) The steam removal fan motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Steam removal fan motor to Engine PWB (YC24): 30ppm model Steam removal fan motor to Engine PWB (YC31): 35/40ppm models
	2. Motor is defective.	Replace the steam removal fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(13) The controller fan motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Controller fan motor to Engine PWB (YC21): 30ppm model Controller fan motor to Engine PWB (YC4): 35/40ppm models
	2. Motor is defective.	Replace the controller fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(14)The PWB fan motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. PWB fan motor to Engine PWB (YC34): 30ppm model PWB fan motor to Engine PWB (YC14): 35/40ppm models
	2. Motor is defective.	Replaces the PWB fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(15) The toner sucking fan motor does not rotate. *40 ppm model only	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Toner sucking fan motor to Engine PWB (YC17)
	2. Motor failure	Replace the toner sucking fan motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(16) Paper feed clutch does not operate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Feed clutch to Engine PWB (YC13) Feed clutch to Engine PWB (YC19)
	2. Clutch is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(17) Registration clutch does not operate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Registration clutch to Engine PWB (YC13): 30ppm model Registration clutch to Engine PWB (YC19): 35/40ppm models
	2. Clutch is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(18) The duplex clutch does not operate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Duplex clutch to Engine PWB (YC13): 30ppm model Duplex clutch to Engine PWB (YC19): 35/40ppm model
	2. Defective is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(19) The BK developer clutch does not operate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. BK developer clutch to Engine PWB (YC13): 30ppm model BK developer clutch to Engine PWB (YC18): 35/40ppm models
	2. Clutch is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(20) Middle clutch does not operate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Middle clutch to Engine PWB (YC13): 30ppm model Middle clutch to Engine PWB (YC19): 35/40ppm models
	2. Clutch is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(21) MP solenoid does not function	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. MP solenoid to Engine PWB (YC12): 30ppm model MP solenoid to Engine PWB (YC18): 35/40ppm models
	2. Solenoid is defective.	Replaces the feed drive unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(22) The feed-shift solenoid does not operate	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Feed-shift solenoid to Engine PWB (YC24): 30ppm model Feed-shift solenoid to Engine PWB (YC31): 35/40ppm models
	2. Solenoid is defective.	Replace the exit unit.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(23) Load paper message appears with paper load in the cassette.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Paper sensor (PS) to Engine PWB (YC12): 30ppm model Paper sensor (PS) to Engine PWB (YC18): 35/40ppm models
	2. Deformed actuator.	Check and replace if failed.
	3. Sensor is defective.	Replace the paper sensor (PS).
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(24) "Add paper" message is indicated while paper is set to the MP tray.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. MP paper detection sensor to Engine PWB (YC12): 30ppm model MP paper detection sensor to Engine PWB (YC18): 35/40ppm models
	2. Deformed actuator.	Check and replace if failed.
	3. Sensor is defective.	Replace the MP paper detection sensor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(25) Paper size of the MP tray is detected wrongly. *35/40 ppm models only	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. MP paper width detection sensor to Engine PWB (YC20): 30ppm model MP paper length detection sensor to Engine PWB (YC20): 35/40ppm models
	2. Switch is defective.	Replace the MP paper width detection sensor and MP paper length detection sensor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(26) Jam occurs at the feed, conveying or eject section at the same time of turning the power switch on.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Registration sensor to Engine PWB (YC12): 30ppm model Duplex sensor to Engine PWB (YC12): 30ppm model Fuser sensor to Engine PWB (YC7): 30ppm model Upper/Lower eject full sensor to Engine PWB (YC31): 30ppm model Registration sensor to Engine PWB (YC18); 35/40ppm models Duplex sensor to Engine PWB (YC18): 35/40ppm models Fuser sensor to Engine PWB (YC11): 35/40ppm models Upper/Lower eject full sensor to Engine PWB (YC31): 35/40ppm models
	2. Paper pieces, etc. remain around the registration sensor, duplex sensor, fuser eject sensor, and upper eject full sensor or lower eject sensor.	Check if there are paper pieces and remove them if any.
	3. Sensor is defective.	Replace the registration sensor, duplex sensor, fuser eject sensor and eject full sensor or lower eject full sensor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(27) The cover open message appears after closing the front cover or right cover.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. Connected to the interlock switch
	2. Switch is defective.	Check the interlock switch and replace it if necessary.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
		Replace the low voltage power supply PWB. (See page 4-217,4-221)
(28) The DP feed motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. DP deed motor to Engine PWB (YC20): 30ppm model DP deed motor to Engine PWB (YC20): 35/40ppm models
	2. Defective drive transmission system.	Check if each gear and gear rotate smoothly. Apply grease to the busing and gears if they are faulty. Check each gear if it is damaged and replace it if it is.
	3. Motor is defective.	Replace the DP feed motor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(29) The DP conveying motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. DP deed motor to Engine PWB (YC20): 30ppm model DP deed motor to Engine PWB (YC20): 35/40ppm models
	2. Defective drive transmission system.	Check if each gear and gear rotate smoothly. Apply grease to the busing and gears if they are faulty. Check each gear if it is damaged and replace it if it is.
	3. Motor is defective.	Replace the DP conveying motor.
	4. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(30) The DP feed-shift motor does not rotate.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. DP deed motor to Engine PWB (YC20): 30ppm model DP deed motor to Engine PWB (YC20): 35/40ppm models
	2. Motor is defective.	Replace the DP feed-shift motor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(31) The original jams upon turning the power on.	1. Paper pieces, etc. remain around the DP feed sensor, DP registration sensor or DP feed-shift sensor.	Check if there are paper pieces and remove them if any.
	2. Sensor failure	Replace the DP feed sensor, DP registration sensor or DP feed-shift sensor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
(32) The cover open message appears even if closing the DP upper cover.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. DP deed motor to Engine PWB (YC20): 30ppm model DP deed motor to Engine PWB (YC20): 35/40ppm models
	2. Sensor is defective.	Replace the DP cover open/close sensor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)

Failure status	Cause of trouble	Check method and remedy
(33) The LED is lit though there is no paper in the job separator.	1. Wire failure or connection failure of the connector.	If the connector is not inserted enough, reconnect it. Or check the wire's continuity. Replace the wire if there is no continuity. JS eject sensor to Engine PWB (YC24): 30ppm model JS eject sensor to Engine PWB (YC31): 35/40ppm models
	2. Sensor is defective.	Replace the JS eject sensor.
	3. PWB is defective.	Replace the engine PWB. (See page 4-200,4-204)
	4. The job separator is not installed.	If not installed, check the maintenance mode U211 and set it to [Off].

7-5 Mechanical failure

If the parts of the problem cause is not supplied, replace the unit that includes it.

Failure status	Failure point and check method	Corrective action
(1) No primary paper feed.	Check if the surface of the roller below is dirty with paper dust, etc. Pickup roller Paper feed roller MP paper feed roller	Clean the roller surface with alcohol.
	Check if the roller below is deformed. Pickup roller Paper feed roller MP paper feed roller	Check and replace if deformed. (See page 4-25,4-31)
	Feed unit mounting error.	Check and repair if failed.
(2) No secondary paper feed.	Check if the surface of the roller below is dirty with paper dust, etc. DP registration roller DP registration pulley	Clean the roller surface with alcohol.
	Detaching and reattaching the duplex paper conveying unit.	Check and repair if failed.
(3) Skewed paper feed.	Poor attachment of the paper width guide in a cassette.	Check if the paper width guide is set at the correct position and repair or replace it if it has a problem.
(4) Multiple sheets of paper are fed.	1. Check if there is extreme curl on paper.	If curled, replace paper.
	2. Paper is not loaded in the cassette correctly.	Load paper.
	3. Check if the retard pulley is worn.	Replace if worn out. (See page 4-28)
(5) Paper jam occurs.	Check if there is extreme curl on paper.	If curled, replace paper.
	Check if the registration roller contacts the registration pulley correctly.	Check and repair if failed.
	extreme dirt or deformation of the heat roller and press roller.	Check and replace the fuser unit if failed. (See page 4-42)
(6) Toner drops to the paper conveying section.	Check if the developer unit, drum unit or primary transfer unit is extremely dirty.	Clean the developer unit, drum unit and primary transfer unit.
(7) "Add toner" indication does not disappear. (BK)	1. Check if the spiral of the toner container rotates. 2. Check if the toner supply vent opens by lever operation.	Replace the toner container.
	Check if the roller of the developer unit rotates and developer clutch, etc. delivering drive are not damaged.	1. Replace the developer unit. 2. Paper conveying drive unit.

2R4/2R5/2R6

Failure status	Failure point and check method	Corrective action
(8) "Add toner" indication does not disappear. (C.M.Y)	1. Check if the spiral of the toner container rotates. 2. Check if the toner supply vent opens by lever operation.	Replace the toner container.
	Check if the roller of the developer unit rotates and coupling, etc. delivering drive are not damaged.	1. Replace the developer unit. 2. Replace the main drive unit.
(9) An abnormal sound is generated	Check if each roller, pulley and gear rotate smoothly.	Apply grease to the bushing and roller shaft.
	Check if the roller of the developer unit rotates.	Replace the developer unit if it is locked.
	Check if the cause is the primary transfer unit cleaning section or main unit drive section.	1. Clean the cleaning section if it is clogged with toner. 2. Apply grease if the sliding noise heard from the side of the main unit side waste toner joint gear.
	Check the occurrence at the fuser unit. Printing. Or, in case the fuser motor rotates reversely to release the fuser pressure at power-up.	Check the meshing of the gears and reattach the fuser unit. Grease is applied to the gear related to the fuser drive fuser.
	Check if it occurs when the cassette lift motor works.	Check if the cassette lift motor is securely attached and reattach it.

7-6 Error codes

Scan to PC (SMB/FTP/Email) transmission error codes, contents, checkpoints and remedies are described.
The error code not listed here may be the software failure.
Turn the power switch off then on, and execute again.

(1) Scan to SMB error code

Codes	Content	Check method and remedy
1101	The destination host does not exist in the network.	1. Check the destination host name. 2. Check the network setting of the device. 3. Check the network setting connecting to the device.
1102	Login to the destination host has failed.	1. Check user name and password. 2. Check the network setting connecting to the device. 3. Check sharing settings of the destination host and folder.
1103	The destination host, destination folder and file are invalid.	1. Check if invalid characters are included in the destination host name, destination folder or file name. 2. Check if the destination folder name and file name conform with the naming syntax. 3. Check the destination host and destination folder.
1105	The SMB protocol is not valid.	1. Check the SMB protocol setting of the device.
2101	Connection to the destination host has failed.	1. Check the destination host name. 2. Check if the LAN cable is connected to the device. 3. Check the SMB port number. 4. Check the network setting of the device. 5. Check the network setting connecting to the device.
2201	Scanned data writing has failed.	1. Check the transmission file name. 2. Check the network setting of the device. 3. Check the network setting connecting to the device.
2203	No response is received from the destination host for the specified time.	1. Check the network setting connecting to the device. 2. Check if the LAN cable is connected to the device.

(2) Scan to FTP error code

Codes	Content	Check method and remedy
1101	The FTP server does not exist in the network.	1. Check the FTP server name. 2. Check the network setting of the device. 3. Check the network setting connecting to the device.
1102	Logging in the FTP server failed.	1. Check user name and password. 2. Check the FTP server.
1103	The destination folder is invalid.	1. Check if invalid characters are included in the destination folder or file name. 2. Check the FTP server.
1105	The FTP protocol is invalid.	1. Check the FTP protocol setting of the device.
1131	TLS initialization failed.	1. Check the security setting of the device.
1132	The TLS negotiation failed.	1. Check the security setting of the device. 2. Check the FTP server.
2101	Connection to the FTP server failed.	1. Check the FTP server name. 2. Check if the LAN cable is connected to the device. 3. Check the FTP port number. 4. Check the network setting of the device. 5. Check the network setting connecting to the device. 6. Check the FTP server.
2102	Connection to the FTP server failed. DMA time out	1. Check the FTP server name. 2. Check the FTP port number. 3. Check the network setting of the device. 4. Check the network setting connecting to the device. 5. Check the FTP server.
2103	The server is unable to communicate.	1. Check the FTP server name. 2. Check the FTP port number. 3. Check the network setting of the device. 4. Check the network setting connecting to the device. 5. Check the FTP server.
2201	Communication with the FTP server failed.	1. Check the network setting of the device. 2. Check the network setting connecting to the device. 3. Check the destination folder name. 4. Check the FTP server.
2202	Communication with the FTP server failed. DMA time out	1. Check the network setting of the device. 2. Check the network setting connecting to the device.
2203	No response is received from the server for the specified time.	1. Check the network setting of the device. 2. Check the network setting connecting to the device.
2231	Communication with the FTP server failed. (FTPS communication)	1. Check the network setting of the device. 2. Check the network setting connecting to the device.

Codes	Content	Check method and remedy
3101	An error response is received from the FTP server.	1. Check the network setting of the device. 2. Check the network setting connecting to the device. 3. Check the FTP server.

(3) Scan to E-mail error code

Codes	Content	Check method and remedy
1101	No SMTP/POP3 server exists in the network.	1. Check the SMTP/POP3 server name. 2. Check the network setting of the device. 3. Check the network setting connecting to the device.
1102	The SMTP/POP3 login failed.	1. Check user name and password. 2. Check the SMTP/POP3 server.
1104	The domain in the destination address is in the transmission denial designation by the domain restriction.	1. Check the SMTP setting of the device.
1105	The SMTP protocol is valid.	1. Check the SMTP protocol setting of the device.
1106	Sender address is not registered.	1. Check the SMTP protocol setting of the device.
2101	Connection to the SMTP/POP3 server failed.	1. Check the SMTP/POP3 server name. 2. Check if the LAN cable is connected to the device. 3. Check the SMTP/POP3 port number. 4. Check the network setting of the device. 5. Check the network setting connecting to the device. 6. Check the SMTP/POP3 server.
2102	Connection to the SMTP/POP3 server failed. DMA time out	1. Check the SMTP/POP3 server name. 2. Check the SMTP/POP3 port number. 3. Check the network setting of the device. 4. Check the network setting connecting to the device. 5. Check the SMTP/POP3 server.
2103	The server is unable to communicate.	1. Check the SMTP/POP3 server name. 2. Check the SMTP/POP3 port number. 3. Check the network setting of the device. 4. Check the network setting connecting to the device. 5. Check the SMTP/POP3 server.
2201	Communication with the SMTO/PO3 server failed.	1. Check the network setting of the device. 2. Check the network setting connecting to the device.
2202	Communication with the SMTP/POP3 failed. DMA time out	1. Check the network setting of the device. 2. Check the network setting connecting to the device.
2204	The file size has exceeded.	1. Check the network setting of the device.

Codes	Content	Check method and remedy
3101	An error response is received from the SMTP/POP3 server.	1. Check the network setting of the device. 2. Check the network setting connecting to the device. 3. Check the SMTP/POP3 server.
3102	Server response error	1. Check the SMTP/POP3 server. 2. Retry after a time interval.
3201	No SMTP authentication authority to support.	1. Check the SMTP server. 2. (SMTP authentication authorities are CRAM-MD5, DIGEST-MD5, PLAIN and LOGIN
4803	Establishing the SSL session failed.	1. Check the self-certificate of the device. 2. Check the SMTP/POP3 server certificate. 3. Check the SMTP/POP3 settings of the SMTP/POP3 server and device.

7-7 Error codes

(1) Error codes

Error codes are listed on the communication reports, activity report, etc. The codes consist of an error code indication U followed by a 5-digit number. (The V.34 error is indicated with E of the error code and 5-digit number)
Regarding the 5-digit number, upper 3 digits indicate error and large classification of cause, lower 2 digits small classification of cause. The lower 2 digits are 00 for the item not requiring the category.

Error code
E X X X X X
U X X X X X

Detailed classification of error code
General classification of error code
Error code indication
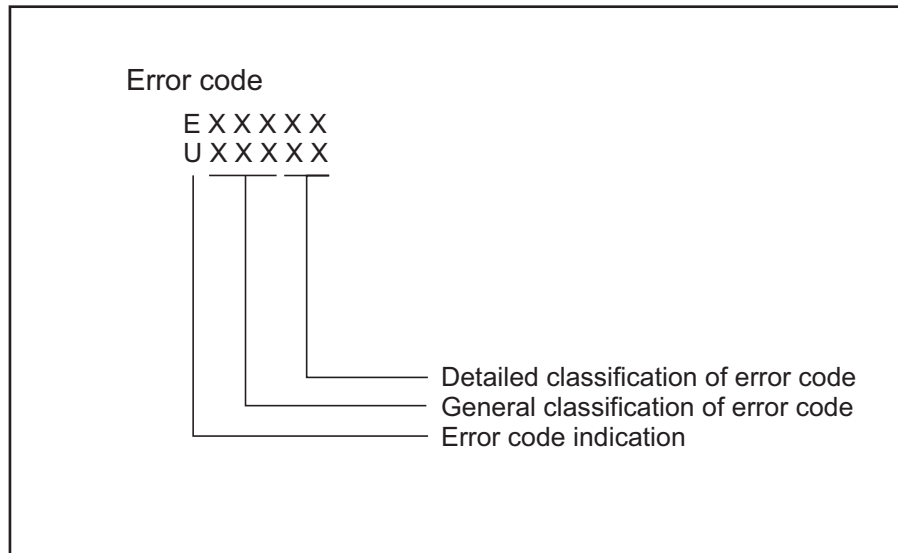
Figure 7-1

(2) Error codes

Error codes	Content
U00000/E00000	No response or busy every time when redialing the specified times.
U00100/E00100	Press the [Stop] key.
U00200/E00200	Press the [Stop] key.
U00300/E00300	Destination receiver machine is out of paper during transmission.
U004XX/E004XX	Communication was interrupted due to the function unmatch when receiving the call (Receiver). Error corresponding to U004XX (Phase B interruption) (See page 7-188).
U006XX/E006XX	Communication was interrupted due to trouble of the own machine. Error corresponding to U006XX (Machine problem) (See page 7-188).
U00700/E00700	Communication was interrupted because of a problem in the destination unit.
U008XX/E008XX	Some pages were not correctly transmitted when transmitting in the G3 mode. Error corresponding to U008XX (Part of transmission error) (See page 7-188).
U009XX/E009XX	Some pages were not correctly received when receiving in the G3 mode. Error corresponding to U009XX (Part of transmission error) (See page 7-188).
U010XX/E010XX	Communication was interrupted due to signal errors during transmission in the G3 mode. Error corresponding to U010XX (Transmission in G3 mode) (See page 7-189).
U011XX/E011XX	Communication was interrupted due to signal errors during reception in the G3 mode. Error corresponding to U011XX (Reception in G3 mode) (See page 7-190).
U01400/E01400	Invalid one-touch key, etc. were designated during communication.
U01500/E01500	A communication occurred at V.8 mode when calling.
U01600/E01600	A communication error occurred in V.8 mode when answering the call.
U017XX/E017XX	A communication error occurred before starting the T.30 .protocol when transmitting in V.34 mode. Error corresponding to U017XX (Transmission in V.34 mode) (See page 7-191).
U018XX/E018XX	A communication error occurred before starting the T.30 protocol when receiving in V.34 mode. Error corresponding to U018XX (Reception in V.34 mode) (See page 7-191).
U03000/E03000	Originals were not set on the destination machine at polling reception.
U03200/E03200	Communication was interrupted since the permission ID number and permission phone number did not match at polling reception (Destination machine is our own). Communication was interrupted since the permit ID number and permit phone number did not match when receiving F-code bulletin board from the own machine.
U03300/E03300	Communication was interrupted since individual numbers did not match at polling reception(Destination machine is our own or other).
U03400/E03400	Communication was interrupted due to the designated F-code confidential box No. unmatch when receiving the F-code bulletin board between own machines.
U03500/E03500	Communication was interrupted due to the F-code confidential box No. unmatch when receiving the F-code bulletin board between own machines.
U03600/E03600	Communication was interrupted due to the designated F-code confidential box No. unmatch when receiving the F-code bulletin board between own machines.
U03700/E03700	Destination machine does not have the F-code bulletin board transmission function at the F-code bulletin board reception. Or data was not saved in any of the destination machine's F-code confidential box.

Error codes	Content
U04000/E04000	The designated F-code confidential box No. was not registered in the destination machine when transmitting F-code between own machines.
U04100/E04100	The destination machine does not have the F-code reception function at the F-code transmission.
U04200/E04200	Designated encryption box was not registered in the destination receiver machine.
U04300/E04300	The encrypted transmission was attempted but the destination receiver machine did not have the encryption function.
U044XX/E044XX	Communication was interrupted due to the encryption key error in the encrypted transmission. Error corresponding to U044 (Reception in V.34 mode) (See page 7-191).
U04500/E04500	Communication was interrupted since the encryption key did not match in the encrypted reception.
U05100/E05100	Communication was interrupted since the permission number did not match due to the password check receipt or receipt restriction.
U05200/E05200	Communication was interrupted since the permission number did not match, the denial number matched or own phone number was not informed due to the password check receipt or receipt restriction.
U05300/E05300	Password check reception or restricted reception was interrupted because the permit ID's did not match, the rejected FAX number's did match, or the destination receiver did not return its phone number.
U14000/E14000	Memory overflow at the F-code confidential reception.
U14100/E14100	The destination machine made memory overflow when transmitting F-code between own machines.
U19000/E19000	Memory overflowed during memory reception.
U19100/E19100	Destination receiver machine has memory overflow during reception.
U19300/E19300	Transmission was failed with an error when encoding in JBIG.

(2-1) Error code table: U004XX Interrupted phase B

Error codes	Content
U00430/E00430	Communication was interrupted by the permission number mismatch at polling request. (Sender's event) Or F-code bulletin board transmission request is received but communication is interrupted with permission number mismatch. (Sender's event)
U00431/E00431	Communication was cancelled since the F-code confidential box ID No. was not registered at F-code bulletin board transmission.
U00432/E00432	Communication was cancelled with the F-code confidential box ID No. mismatch at F-code bulletin board transmission.
U00433/E00433	Data was not set in the F-code confidential box when receiving the F-code bulletin board transmission.
U00440/E00440	The F-code confidential reception was cancelled since designated F-code box No. was not registered.
U00450/E00450	Password check transmission or restricted transmission was interrupted because the permit ID's did not match.
U00460/E00460	Communication was interrupted since the encryption box number designated in the encrypted reception was not registered.
U00462/E00462	Communication was interrupted since the encryption key for the designated encryption box was not registered.

(2-2) Error code table: U006XX Problems with the unit

Error codes	Content
U00601/E00601	Original feed jam or exceeding the maximum original length.
U00613/E00613	Error in the optical writing section.
U00656/E00656	Data was note sent due to the modem error.
U00690/E00690	System error has occurred.

(2-3) Error code table: U008XX Page transmission error

Error codes	Content
U00800/E00800	Some pages could not be sent since RTN or PIN signal was received.
U00811/E00811	Some pages were not correctly transmitted when resending in the ECM mode.

(2-4) Error code table: U009XX Page reception error

Error codes	Content
U00900/E00900	RTN or PIN signal was sent since some pages were not received correctly.
U00910/E00910	Some pages were not correctly received when receiving again in the ECM mode.

(2-5) Error code table: U010XX G3 transmission error

Error codes	Content
U01000/E01000	FTT signal was received after sending TCF signal at 2400bps (repeated the specified times). Or RTN signal was received in response to Q signal (except EOP) when transmitting at 2400bps.
U01001/E01001	The function indicated by the DIS signal does not match the own machine.
U01016/E01016	After sending the EOM signal, the MCF signal was received but no DIS signal and it lead to the T1 timeout.
U01019/E01019	A message signal cannot be received after sending the CNC signal and command resending time is exceeded (between own models).
U01020/E01020	A message signal cannot be received after sending the CTC signal and command resending time is exceeded (ECM).
U01021/E01021	could not receive the message signal after sending the EOR?Q signal and exceeded the command resending time (ECM).
U01022/E01022	A message signal could not received and command resending time is exceeded after sending the RR signal (ECM).
U01028/E01028	The T5 timeout is detected at the ECM transmission (ECM).
U01052/E01052	DCN signal was received after sending RR signal.
U01080/E01080	PIP signal was received after sending PPS.NULL signal.
U01092/E01092	Communication was interrupted since the combination of symbol speed and communication speed was impossible in V.34 mode.
U01093/E01093	A DCN or other inappropriate signal was received during phase B of transmission.
U01094/E01094	The preset number of command retransfers for DCS/NSS signals was exceeded during phase B of transmission.
U01095/E01095	No relevant signal was received after transmission of a (PPS) Q signal, and the preset number of command retransfers was exceeded during phase D of transmission.
U01096/E01096	A DCN signal or invalid command was received during phase D of transmission.
U01097/E01097	Command resending time is exceeded after sending the RR signal. Or no response is received.

(2-6) Error code table: U011XX G3 reception error

Error codes	Content
U01100/E01100	The function indicated by the DCS signal does not match the own machine.
U01101/E01101	Functions indicated by the NSS signal (except communicating type) does not match the own machine.
U01102/E01102	The DTC (NSC) signal was received without transmission data at the own machine.
U01110/E01110	No response is received after sending DIS signal.
U01111/E01111	No response is received after sending DTC (NSC) signal.
U01113/E01113	No response is received after sending FTT signal.
U01125/E01125	No response is received after sending the CNS signal.
U01129/E01129	No response was received after sending SPA signal (Short protocol).
U01141/E01141	DCN signal is received after sending DTC signal.
U01143/E01143	DCN signal is received after sending FTT signal.
U01155/E01155	DCN signal was received after sending SPA signal (Short protocol).
U01160/E01160	When receiving, the maximum transmission time per line has exceeded.
U01162/E01162	When receiving, reception is interrupted by modem error.
U01191/E01191	Communication was interrupted since an error occurred during the image data reception sequences in V.34 mode.
U01193/E01193	No response is received, DCN or invalid command is received in Phase C/D during reception.
U01194/E01194	The DCN signal was received at Phase B during reception.
U01195/E01195	No message is received at Phase C during reception.
U01196/E01196	The error line control over or decoding error occurred in the message during reception.

(2-7) Error code table: U017XX V.34 transmission error

Error codes	Content
U01700/E01700	A communication error occurred at Phase 2 (line probing).
U01720/E01720	A communication error occurred at Phase 4 (modem parameter exchange).
U01721/E01721	Communication was interrupted since the communication speed was not available to commonly use with the destination transmitter machine. (Or interrupted)

U01700/E01700: INF00/A/Abar?B/Bbar in case of polling?/INF0h could not be detected, etc.
A communication error that occurs at the transmitting unit in the period after transmission of INFO0 and before entering phase 3 (primary channel equivalent device training).
U01720/E01720: PPh/ALT/MPh/E could not be detected, etc.
A communication error that occurs at the transmitting unit in the period after initiating the control channel and before entering the T.30 process.
U01721/E01721: In case no communication speed is available commonly for sender and receiver when completing the MPh replacement (including the combination of impossible speed and symbol speed),
DCN is received from the receiver and the line is disconnected.
(NSF), (CSI) and DIS is sent from the receiver, and the line is disconnected after sending the DCN.

(2-8) Error code table: U018XX V.34 reception error

Error codes	Content
U01800/E01800	A communication error occurred at Phase 2 (line probing).
U01810/E01810	A communication error occurred at Phase 3 (primary channel equivalent device training).
U01820/E01820	A communication error occurred at Phase 4 (modem parameter exchange).
U01821/E01821	Communication was interrupted since the communication speed was not available to commonly use with the destination transmitter machine.

U01800/E01800: INF00/B/Bbar?A/Abar in case of polling?/probing tone could not be detected, etc. A communication error occurring from INF00 send to Phase 3 (primary channel equivalent device training) at the receiver.
U01810/E01810: S/Sbar/PP/TRN could not be detected.
A communication error in Phase 3 (primary channel equivalent device training) at the receiver.
U01820/E01820: PPh/ALT/MPh/E could not be detected, etc.
A communication error from entering the control channel at the receiver to entering the T.30 steps in the control channel.
U01821/E01821: In case no communication speed is available commonly for sender and receiver when completing the MPh replacement (including the combination of impossible speed and symbol speed) and the line is disconnected by sending DCN to the destination.

(2-9) Error code table: U044XX Encrypted transmission error

Error codes	Content
U04400/E04400	Communication was interrupted since the encryption key did not match in the encrypted transmission.
U04401/E04401	A call failed since the encryption key was not registered in the encrypted transmission.

8 PWBs

8-1 Description for PWB (30 ppm model)

(1) Main PWB (MPWB)

(1-1) Connector position
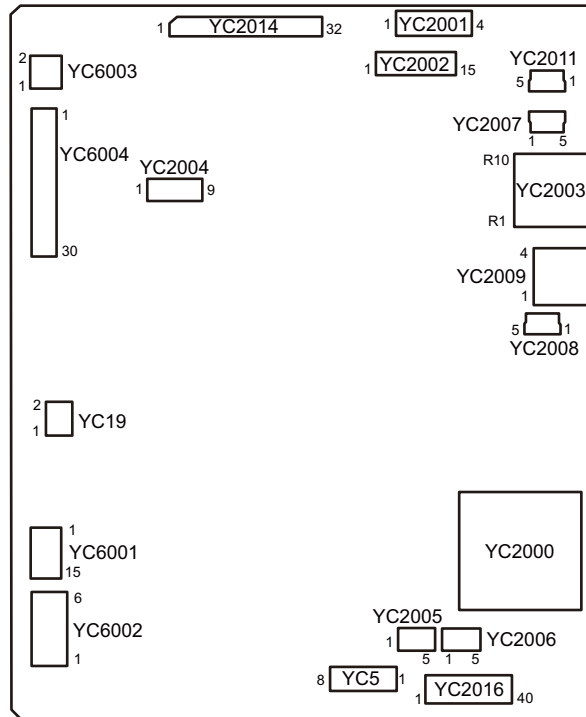
Figure 8-1

(1-2) PWB photograph

Figure 8-2

(1-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	GND	-	-	Ground
Connected to the engine PWB	2	5V3_IL	I	DC5V	DC5V power input
	3	GND	-	-	Ground
	4	3.3V0	O	DC3.3V	DC3.3V power output
	5	GND	-	-	Ground
	6	5V0	O	DC5V	DC5V power output
	7	GND	-	-	Ground
	8	24V0	I	DC24V	DC24V power input
YC19	1	24V0	O	DC24V	DC24V power input
Connected to the controller fan	2	FANDRVN	O	-	CONFM: On/Off
YC2001	1	+5V	O	DC5V	DC5V power output
Connected to the operation panel PWB	2	+5V	O	DC5V	DC5V power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
YC2002	1	GMD	-	-	Ground
Connected to the operation panel PWB	2	PANEL_STATUS	I	DC0V/3.3V	Operation panel status signal
	3	INT_ENERGY_SAVER_KEY	I	DC0V/3.3V	Energy Saver key: On/Off
	4	PANEL_RESET	O	DC0V/3.3V	Operation panel reset signal
	5	AUDIO	O	Analog	Audio output signal
	6	LIGHTOFF_POWERON	O	DC0V/3.3V	Sleep recovery signal
	7	SHUTDOWN	O	DC0V/3.3V	24V voltage drop signal
	8	LED_PROCESSING_N	O	DC0V/3.3V	Processing LED control signal
	9	LED_ATTENTION_N	O	DC0V/3.3V	Attention LED control signal
	10	LED_MEMORY_N	O	DC0V/3.3V	Memory LED control signal
	11	SUSPEND_POWER	O	DC5V	DC5V power input from MPWB
	12	ENERGY_SAVE	O	DC0V/3.3V	Energy save signal

Connector	Pin	Signal	I/O	Voltage	Description
YC2002 Connected to the operation panel PWB	13	BEEP_POWERON	O	DC0V/3.3V	Sleep recovery signal
	14	SECOND_TRAY_SW	O	DC0V/3.3V	JEPS: On/Off
	15	GND	-	-	Ground
YC2007 Connected to the USB host	1	VBUS	O	DC5V	DC5V power output
	2	DATA-	I/O	LVDS	USB data signal
	3	DATA+	I/O	LVDS	USB data signal
	4	NC	-	-	Not used
	5	GND	-	-	Ground
YC2008 Connected to the IC card reader	1	VBUS	O	DC5V	DC5V power output
	2	DATA-	I/O	LVDS	USB data signal
	3	DATA+	I/O	LVDS	USB data signal
	4	NC	-	-	Not used
	5	GND	-	-	Ground
YC2011 Connected to the operation panel PWB	1	VBUS	O	DC5V	DC5V power output
	2	DATA+	I/O	-	USB data signal
	3	DATA-	I/O	-	USB data signal
	4	NC	-	-	Not used
	5	GND	-	-	Ground
YC2014 Connected to the CCD PWB	1	12V2	O	DC12V	DC12V power output
	2	12V2	O	DC12V	DC12V power output
	3	NC	-	-	Not used
	4	5V2_C	O	DC5V	DC5V power output
	5	5V2_C	O	DC5V	DC5V power output
	6	NC	-	-	Not used
	7	GND	-	-	Ground
	8	CCDOSR	I	Analog	Image analog signal RED
	9	GND	-	-	Ground
	10	CCDOSG(EVEN)	I	Analog	Image analog signal GREEN
	11	GND	-	-	Ground
	12	CCDOSB(ODD)	I	Analog	Image analog signal BLUE
	13	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC2014 Connected to the CCD PWB	14	CCDSW	O	DC0V/3.3V	CCD color/BW switching signal
	15	CCDSH	O	DC0V/3.3V	Shift gate signal
	16	GND	-	-	Ground
	17	GND	-	-	Ground
	18	CCDPH1+	O	LVDS	CCD shift register clock signal
	19	CCDPH1-	O	LVDS	CCD shift register clock signal
	20	GND	-	-	Ground
	21	CCDCP-	O	LVDS	CCD clamp gate signal-
	22	CCDCP+	O	LVDS	CCD clamp gate signal+
	23	GND	-	-	Ground
	24	CCDRS+	O	LVDS	CCD reset gate signal+
	25	CCDRS-	O	LVDS	CCD reset gate signal-
	26	GND	-	-	Ground
	27	NC	-	-	Not used
	28	3.3V2	O	DC3.3V	DC3.3V power output
	29	HP_SWN	I	DC0V/3.3V	HPS: On/Off
	30	GND	-	-	Ground
	31	M_LED_C	I	DC0 to 2V	LED cathode
	32	M_LED_A	O	DC3V	LED anode
YC2016 Connected to the APC PWB	1	GND	-	-	Ground
	2	GND	-	-	Ground
	3	LDERR	O		Laser power Y
	4	Vcont_Y	O	Analog	APCPWB laser power reference voltage Y
	5	GND	-	-	Ground
	6	DATA_Y	O	LVDS+	Video data signal Y
	7	DATAB_Y	O	LVDS-	Video data signal Y
	8	GND	-	-	Ground
	9	ENABLE_Y	O	DC0V/3.3V	APCPWB laser enable signal Y
	10	S/H_Y	O		Sample hold Y
	11	Vcont_C	O	Analog	APCPWB laser power reference voltage C
	12	GND	-	-	Ground
	13	DATA_C	O	LVDS+	Video data signal C
	14	DATAB_C	O	LVDS-	Video data signal C
	15	GND	-	-	Ground
	16	ENABLE_C	O	DC0V/3.3V	APCPWB laser enable signal C

Connector	Pin	Signal	I/O	Voltage	Description
YC2016	17	S/H_C	O	DC0V/3.3V	Sample hold C
Connected to the APC PWB	18	Vcont_M	O	Analog	APCPWB laser power reference voltage M
	19	GND	-	-	Ground
	20	DATA_M	O	LVDS+	Video data signal M
	21	DATAB_M	O	LVDS-	Video data signal M
	22	GND	-	-	Ground
	23	ENABLE_M	O	DC0V/3.3V	APCPWB laser enable signal M
	24	S/H_M	O	DC0V/3.3V	Sample hold M
	25	Vcont_K	O	Analog	APCPWB laser power reference voltage K
	26	GND	-	-	Ground
	27	DATA_K	O	LVDS+	Video data signal K
	28	DATAB_K	O	LVDS-	Video data signal K
	29	GND	-	-	Ground
	30	ENABLE_K	O	DC0V/3.3V	APCPWB laser enable signal K
	31	S/H_K	0	DC0V/3.3V	Sample hold K
	32	5V	O	DC0V/5V	Output DC5V power to APC/BD PWB
	33	5V	O	DC0V/5V	Output DC5V power to APC/BD PWB
	34	5V	O	DC0V/5V	Output DC5V power to APC/BD PWB
	35	5V	O	DC0V/5V	Output DC5V power to APC/BD PWB
	36	BD	I	DC0V/3.3V	BD signal
	37	TH	I	DC0V/3.3V	LSU thermistor
	38	GND	-	-	Ground
	39	GND	-	-	Ground
	40	GND	-	-	Ground
YC6001	1	VBUS1	O	DC5V	DC5V power output to IFPWB
Connected to the KUIO relay PWB	2	USB_DN1	I/O	-	USB data signal
	3	USB_DP1	I/O	-	USB data signal
	4	GND	-	-	Ground
	5	AUDIO1	I	Analog	AUDIO signal
	6	WAKEUP1	O	DC0V/3.3V	Control signal
	7	RESET1	I	DC0V/3.3V	Reset signal
	8	GND	-	-	Ground
	9	VBUS0	O	DC5V	DC5V power output to IFPWB
	10	USB_DN0	I/O	-	USB data signal
	11	USB_DP0	I/O	-	USB data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC6001 Connected to the KUIO relay PWB	12	GND	-	-	Ground
	13	AUDIO0	I	Analog	AUDIO signal
	14	WAKEUP0	O	DC0V/3.3V	Control signal
	15	RESET	I	DC0V/3.3V	Reset signal
YC6002 Connected to the KUIO relay PWB	1	GND	-	-	Ground
	2	5V_CUT0	I	DC0V/5V	DC5V cut signal/power
	3	GND	-	-	Ground
	4	5V	O	DC5V	DC5V power output to KUIORPWB
	5	GND	-	-	Ground
	6	5V_CUT1	I	DC0V/5V	DC5V cut signal/power
YC6003 Connected to the engine PWB	1	GND	-	-	Ground
	2	24V2	I	DC24V	DC24V power input
YC6004 Connected to the engine PWB	1	LDERR	O	DC0V/3.3V	LD overcurrent detection signal
	2	GND	-	-	Ground
	3	LSU_THERM	O	Analog	LSU thermistor voltage
	4	GND	-	-	Ground
	5	G6_EG_SCLK	O	DC0V/ 3.3V(pulse)	G6 clock signal
	6	G6_EG_SI	O	DC0V/ 3.3V(pulse)	G6 data output signal
	7	G6_EG_SDIR	I	DC0V/ 3.3V(pulse)	G6 communication direction signal
	8	G6_EG_SBSY	I	DC0V/ 3.3V(pulse)	G6 communication busy signal
	9	G6_EG_SO	I	DC0V/ 3.3V(pulse)	G6 data input signal
	10	G6_EG_IRN	I	DC0V/3.3V	G6 interrupt signal
	11	GND	-	-	Ground
	12	MAIN_SDA	I/O	DC0V/ 3.3V(pulse)	Main communication data signal
	13	MAIN_SCLK	I	DC0V/ 3.3V(pulse)	Main communication clock signal
	14	GND	-	-	Ground
	15	HLD_ENG	O	DC0V/3.3V	Engine stop signal
	16	HLD_SCAN	O	DC0V/3.3V	Scanner stop signal
	17	C2E_INT	O	DC0V/3.3V	Sleep recovery signal

Connector	Pin	Signal	I/O	Voltage	Description
YC6004	18	PVSYNC	I	DC0V/3.3V	Vertical synchronizing signal
Connected to the engine PWB	19	GND	-	-	Ground
	20	OFFMODE	I	DC3.3V	Off mode signal
	21	GND	-	-	Ground
	22	SAPPHIRE_S CLK	I	DC0V/ 3.3V(pulse)	Clock signal
	23	SAPPHIRE_SI	O	DC0V/ 3.3V(pulse)	Serial communication data output signal
	24	SAPPHIRE_S O	I	DC0V/ 3.3V(pulse)	Serial communication data input signal
	25	SAPPHIRE_R DY	O	DC0V/3.3V	Ready signal
	26	SAPPHIRE_S EL	I	DC0V/3.3V	Select signal
	27	SAPPHIRE_O VMON	I	DC0V/3.3V	Sub-scanning monitoring signal
	28	SAPPHIRE_P AGEST	I	DC0V/3.3V	Sub-scanning reference signal
	29	JS_LED	I	DC0V/3.3V	JOB separator LED lighting signal
	30	HP_SWN	O	DC0V/3.3V	HPS: On/Off

(2) Engine PWB (EPWB)

(2-1) Connector position
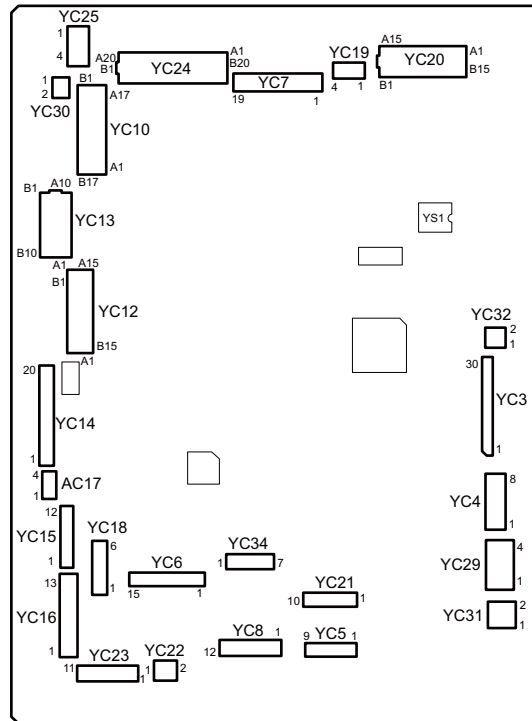
Figure 8-3

(2-2) PWB photograph

Figure 8-4

(2-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	HP_SWN	I	DC0V/3.3V	HPS: On/Off
Connected to the main PWB	2	JS_LED	O	DC0V/5V	JOB separator LED lighting signal
	3	SAPPHIRE_PAGEST	O	DC0V/3.3V	Sub-scanning reference signal
	4	SAPPHIRE_OVMON	I	DC0V/3.3V	Sub-scanning monitoring signal
	5	SAPPHIRE_SEL	O	DC0V/3.3V	Select signal
	6	SAPPHIRE_RDY	I	DC0V/3.3V	Ready signal
	7	SAPPHIRE_SO	O	DC0V/ 3.3V(pulse)	Serial communication data output signal
	8	SAPPHIRE_SI	I	DC0V/ 3.3V(pulse)	Serial communication data input signal
	9	SAPPHIRE_SCLK	O	DC0V/ 3.3V(pulse)	Clock signal
	10	GND	-	-	Ground
	11	OFFMODE	O	DC0V/3.3V	Off mode signal
	12	GND	-	-	Ground
	13	PVSYNC	O		Vertical synchronizing signal
	14	C2E_INT	I	DC0V/3.3V	Sleep recovery signal
	15	HLD_SCAN	I	DC0V/3.3V	Scanner stop signal
	16	HLD_ENG	I	DC0V/3.3V	Engine stop signal
	17	GND	-	-	Ground
	18	MAIN_SCLK	O	DC0V/ 3.3V(pulse)	Main communication clock signal
	19	MAIN_SDA	I/O	DC0V/ 3.3V(pulse)	Main communication data signal
	20	GND	-	-	Ground
	21	G6_EG_IRN	O	DC0V/3.3V	G6 communication interrupt signal
	22	G6_EG_SO	O	DC0V/ 3.3V(pulse)	G6 communication data output signal
	23	G6_EG_SBSY	O	DC0V/3.3V	G6 communication busy signal
	24	G6_EG_SDIR	O	DC0V/3.3V	G6 communication direction signal
	25	G6_EG_SI	I	DC0V/ 3.3V(pulse)	G6 communication data input signal
	26	G6_EG_SCLK	I	DC0V/ 3.3V(pulse)	G6 communication clock signal
	27	GND	-	-	Ground
	28	LSU_THERM	I	Analog	LSU thermistor voltage

Connector	Pin	Signal	I/O	Voltage	Description
YC3 Connected to the main PWB	29	GND	-	-	Ground
	30	LDERR	I	DC0V/3.3V	LD overcurrent detection signal
YC4 Connected to the main PWB	1	24V0	O	DC24V	DC24V power output to MPWB
	2	GND	-	-	Ground
	3	5V0	I	DC5V	DC5V power input from MPWB
	4	GND	-	-	Ground
	5	3.3V0	I	DC3.3V	DC3.3V power input from MPWB
	6	GND	-	-	Ground
	7	5V3_IL	O	DC5V	DC5V power output to MPWB
	8	GND	-	-	Ground
YC5 Connected to the polygon motor, cleaning motor	1	+24V2	O	DC24V	DC24V power output to PM
	2	GND	-	-	Ground
	3	POLREM	O	DC0V/5V	PM remote signal
	4	POLRDYN	I	DC0V/3.3V	PM synchronizing signal
	5	PDLCLK	O	DC0V/5V(pulse)	PM clock signal
	6	LSU_CL_MOT 2	O	DC0V/24V(pulse)	CLM drive control signal
	7	LSU_CL_MOT 1	O	DC0V/24V(pulse)	CLM drive control signal
	8	3.3V2_LED	-	-	Not used
	9	GND	-	-	Not used
YC6 Connected to the drum/ developer relay PWB	1	GND	-	-	Ground
	2	VIBR_MOT_R EM	O	DC0V/3.3V	VIBM remote signal
	3	TCSENS_Y	I	Analog	TS-Y detection signal
	4	TCSENS_C	I	Analog	TS-C detection signal
	5	TCSENS_M	I	Analog	TS-M detection signal
	6	ERS_CL_RE M	O	DC0V/3.3V	Eraser CL remote signal
	7	GND	-	-	Ground
	8	3.3V2	O	DC3.3V	DC3.3V power output to DR/DLPPWB
	9	EEP_SCL	O	DC0V/ 3.3V(pulse)	EEPROM clock signal
	10	EEP_SDA	I/O	DC0V/ 3.3V(pulse)	EEPROM data I/O signal

Connector	Pin	Signal	I/O	Voltage	Description
YC6	11	24V2	O	DC24V	DC24V power output to DR/DLPPWB
Connected to the drum/ developer relay PWB	12	GND	-	-	Ground
	13	DLP_TH	I	Analog	Developer thermistor voltage
	14	TCSENS_Bk	I	Analog	TS-K detection signal
	15	ERS_Bk_REM	O	DC0V/24V	Eraser Bk remote signal
YC7	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to ES
Connected to the fuser sensor, fuser release sensor, fuser thermistor 1, fuser thermistor 2, transfer belt release sensor 1, transfer belt release sensor 2	2	GND	-	-	Ground
	3	FSR_JAM_SENS	I	DC0V/3.3V	ES: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to FUPRS
	5	GND	-	-	Ground
	6	FSR_RLS_SENS	I	DC0V/3.3V	FUPRS: On/Off
	7	GND	-	-	Ground
	8	MAIN_TH2	I	Analog	Non-contact thermistor voltage (detection)
	9	MAIN_TH1	I	Analog	Non-contact thermistor voltage (compensation)
	10	GUIDE_TH2	I	Analog	Contact thermistor voltage
	11	GND	-	-	Ground
	12	FUS_DET	I	DC0V/3.3V	Fuser unit connection signal
	13	GND	-	-	Ground
	14	3.3V2_LED	O	DC3.3V	DC3.3V power output to TCBRS1
	15	GND	-	-	Ground
	16	3REJECT_SENS	I	DC0V/3.3V	TCBRS1: On/Off
	17	3.3V2_LED	O	DC3.3V	DC3.3V power output to TCBRS2
	18	GND	-	-	Ground
	19	4REJECT_SENS	I	DC0V/3.3V	TCBRS2: On/Off
YC8	1	24V3_IL	O	DC24V	24V power output
Connected to the high voltage PWB	2	24V3_IL	O	DC24V	24V power output
	3	DACSLD1	O	DC0V/5V	DAC load signal 1
	4	DACSLD2	O	DC0V/5V	DAC load signal 2
	5	DACSCLK	O	DC0V/5V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDI	O	DC0V/5V(pulse)	DAC data signal

2R4/2R5/2R6

Connector	Pin	Signal	I/O	Voltage	Description
YC8	8	HVREM	O	DC0V/24V	Secondary transfer (reverse) / PB remote signal
Connected to the high voltage PWB	9	HVCLK	O	DC0V/10V	Developer clock (SLV) signal
	10	MISENS	I	Analog	Main charger (K) current detection
	11	GND	-	-	Ground
	12	GND	-	-	Ground
YC10	A1	5V2	O	DC5V	5V power output
Connected to the RFID, eject fan motor, transfer release motor, waste toner box switch, waste toner detection sensor, temperature/ humidity sensor, developer fan motor 3, developer fan motor 4	A2	3.3V2	O	DC3.3V	3.3V power output
	A3	RFID_SCL	O	DC0V/ 3.3V(pulse)	RFID communication clock signal
	A4	GND	-	-	Ground
	A5	RFID_SDA	I/O	DC0V/3.3V	RFID communication data signal
	A6	3.3V2	O	DC3.3V	3.3V power output
	A7	GND	-	-	Ground
	A8	SUB_SDA	I/O	DC0V/ 3.3V(pulse)	Communication data signal
	A9	SUB_SCL	O	DC0V/ 3.3V(pulse)	Communication clock signal
	A10	BELT_FAN_R EM	-	-	Not used
	A11	24V2	-	-	Not used
	A12	WTNR_FAN	O	DC0V/24V	TFM: On/Off
	A13	24V2	O	DC24V	24V power output
	A14	NC	-		Not used
	A15	NC	-		Not used
	A16	24V2	O	DC24V	24V power output
	A17	EXIT_FAN	O	DC0V/24V	EFM: On/Off
	B1	BELT_RLS_R EMA	O	DC0V/24V	TCBRM: On/Off
	B2	BELT_RLS_R EMB	O	DC0V/24V	TCBRM: On/Off
	B3	GND	-	-	Ground
	B4	WTNR_SET_ SENS	I	DC0V/3.3V	WTSSW: On/Off
	B5	WTNR_LED_ 3.3V2	O	DC3.3V	3.3V power output
	B6	WTNR_LED	O	DC0V/3.3V	WST(LED): On/Off
	B7	WTNR_TR_3. 3V2	O	DC3.3V	3.3V power output

Connector	Pin	Signal	I/O	Voltage	Description
YC10	B8	WTNR_TR	I	Analog	WST detection voltage
	B9	HUMCLK	O	DC0V/3.3V	TEMS clock signal
	B10	HUMOUT	I	Analog	TEMS (humidity) detection voltage
	B11	GND	-	-	Ground
	B12	AIRTEMP	I	Analog	TEMS (temperature) detection voltage
	B13	DLP_FAN3	O	DC0V/24V	DLPFM3: On/Off
	B14	24V2	O	DC24V	24V power output
	B15	DLP_FAN4	O	DC0V/24V	DLPFM4: On/Off
	B16	24V2	O	DC24V	24V power output
	B17	NC	-	-	Not used
YC12	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to PS
Connected to the paper detection sensor, paper level sensor 1, paper level sensor 2, paper width detection sensor 1, paper width detection sensor 2, paper width detection sensor 3, duplex sensor, MP paper detection sensor, lift sensor, registration sensor, MP solenoid	2	GND	-	-	Ground
	3	PAPEMP_SENS	I	DC0V/3.3V	PS: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to PGS1
	5	GND	-	-	Ground
	6	PAPVL1_SENS	I	DC0V/3.3V	PGS1: On/Off
	7	3.3V2_LED	O	DC3.3V	DC3.3V power output to PGS2
	8	GND	-	-	Ground
	9	PAPVL2_SENS	I	DC0V/3.3V	PGS2: On/Off
	10	CAS_WID0	I	DC0V/3.3V	PLSW1: On/Off
	11	GND	-	-	Ground
	12	CAS_WID1	I	DC0V/3.3V	PLSW2: On/Off
	13	GND	-	-	Ground
	14	CAS_WID2	I	DC0V/3.3V	PLSW3: On/Off
	15	GND	-	-	Ground
	16	3.3V2_LED	O	DC3.3V	DC3.3V power output to DUS
	17	GND	-	-	Ground
	18	DU1_SENS	I	DC0V/3.3V	DUS: On/Off
	19	3.3V3_LED	O	DC3.3V	DC3.3V power output to MPPS
	20	GND	-	-	Ground
	21	MPF_SET_SENS	I	DC0V/3.3V	MPPS: On/Off
	22	3.3V2_LED	O	DC3.3V	DC3.3V power output to LS
	23	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC12	24	CAS_LIFTUP _SENS	I	DC0V/3.3V	LS: On/Off
	25	GND	-	-	Ground
	26	REG_SENS	I	DC0V/3.3V	RS: On/Off
	27	3.3V2	O	DC3.3V	DC3.3V power output to RS
	28	24V2	O	DC24V	DC24V power output to MPSOL
	29	MPF_SOL_R EM	O	DC0V/24V	MPSOL: On/Off
	30	NC	-	-	Not used
YC13	A1	DEV_CL_RE M	O	DC0V/24V	DLPCL-BK: On/Off
Connected to the devel-oper clutch, registration clutch, pri-mary feed clutch, mid-dle clutch, duplex clutch, front ID sensor, rear ID sen-sor	A2	24V2	O	DC24V	DC24V power output to DLPCL-BK
	A3	RESIST_CL_ REM	O	DC0V/24V	RCL: On/Off
	A4	24V2	O	DC24V	DC24V power output to RCL
	A5	FEED_CL_RE M	O	DC0V/24V	FCL: On/Off
	A6	24V2	O	DC24V	DC24V power output to FCL
	A7	MID_CL_REM	O	DC0V/24V	MCL: On/Off
	A8	24V2	O	DC24V	DC24V power output to MCL
	A9	DU1_REM	O	DC0V/24V	DUCL: On/Off
	A10	24V2	O	DC24V	DC24V power output to DUCL
	B1	+3.3V2	O	DC3.3V	DC3.3V power output to IDS1
	B2	REG_F_LED	O	Analog	IDS1 control signal
	B3	GND	-	-	Ground
	B4	REG_SENS_ F_P	I	Analog	IDS1 detection signal
	B5	REG_SENS_ F_S	I	Analog	IDS1 detection signal
	B6	+3.3V2	O	DC3.3V	DC3.3V power output to IDS2
	B7	REG_R_LED	O	Analog	IDS2 control signal
	B8	GND	-	-	Ground
	B9	REG_SENS_ R_P	I	Analog	IDS2 detection signal
	B10	REG_SENS_ R_S	I	Analog	IDS2 detection signal

Connector	Pin	Signal	I/O	Voltage	Description
YC14	1	24V2	O	DC24V	DC24V power output to TM-Y
Connected to the transfer belt fan motor, container motor (BK), container motor (M), container motor (C), container motor (Y), container sensor (BK), container sensor (M), container sensor (C), container sensor (Y)	2	TMOT_Y_DIR	O	DC0V/24V	TM-Y drive control signal
	3	24V2	O	DC24V	DC24V power output to TM-C
	4	TMOT_C_DIR	O	DC0V/24V	TM-C drive control signal
	5	24V2	O	DC24V	DC24V power output to TM-M
	6	TMOT_M_DIR	O	DC0V/24V	TM-M drive control signal
	7	24V2	O	DC24V	DC24V power output to TM-K
	8	TMOT_BK_DIR	O	DC0V/24V	TM-K drive control signal
	9	3.3V2_LED	O	DC3.3V	DC3.3V power output CS-Y
	10	GND	-	-	Ground
	11	PULSE_SENS_Y	I	DC0V/3.3V	CL-Y: On/Off
	12	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-C
	13	GND	-	-	Ground
	14	PULSE_SENS_C	I	DC0V/3.3V	CL-C: On/Off
	15	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-M
	16	GND	-	-	Ground
	17	PULSE_SENS_M	I	DC0V/3.3V	CL-M: On/Off
	18	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-K
	19	GND	-	-	Ground
	20	PULSE_SENS_BK	I	DC0V/3.3V	CS-K: On/Off
YC15	1	24V2_IL	O	DC24V	DC24V power output to TCM
Connected to the transfer motor, developer motor (BK)	2	GND	-	-	Ground
	3	IMAGE_MOT_REM	O	DC0V/5V	TCM remote signal
	4	IMAGE_MOT_CLK	O	DC0V/5V(pulse)	TCM clock signal
	5	IMAGE_MOT_RDY	I	DC0V/3.3V	TCM synchronizing signal
	6	IMAGE_MOT_DIR	O	DC0V/5V	TCM rotation switching signal
	7	24V2_IL	O	DC24V	DC24V power output to DLPM-K
	8	GND	-	-	Ground
	9	FEED_MOT_REM	O	DC0V/5V	DLPM-K remote signal

Connector	Pin	Signal	I/O	Voltage	Description
YC15 Connected to the transfer motor, developer motor (BK)	10	FEED_MOT_ CLK	O	DC0V/5V(pulse)	DLPM-K clock signal
	11	FEED_MOT_ RDY	I	DC0V/3.3V	DLPM-K synchronizing signal
	12	FEED_MOT_ DIR	O	DC0V/5V	DLPM-K rotation switching signal
YC16 Connected to the developer motor (M/C/Y), drum motor (BK)	1	24V2_IL	O	DC24V	DC24V power output to DLPM-M/C/Y
	2	GND	-	-	Ground
	3	DLPC_MOT_ REM	O	DC0V/5V	DLPM-M/C/Y remote signal
	4	DLPC_MOT_ CLK	O	DC0V/5V(pulse)	DLPM-M/C/Y clock signal
	5	DLPC_MOT_ RDY	I	DC0V/3.3V	DLPM-M/C/Y synchronizing signal
	6	DLPC_MOT_ DIR	O	DC0V/5V	DLPM-M/C/Y rotation switching signal
	7	24V2_IL	O	DC24V	DC24V power output to DRM-K
	8	GND	-	-	Ground
	9	DRMK_MOT_ REM	O	DC0V/5V	DRM-K remote signal
	10	DRMK_MOT_ CLK	O	DC0V/5V(pulse)	DRM-K clock signal
	11	DRMK_MOT_ RDY	I	DC0V/3.3V	DRM-K synchronizing signal
	12	DRMK_MOT_ DIR	O	DC0V/5V	DRM-K rotation switching signal
	13	NC	-	-	Not used
YC17 Connected to the fuser motor	1	FUSER_MOT _B/	O	DC0V/24V(pulse)	FUM drive control signal
	2	FUSER_MOT _A/	O	DC0V/24V(pulse)	FUM drive control signal
	3	FUSER_MOT _B	O	DC0V/24V(pulse)	FUM drive control signal
	4	FUSER_MOT _A	O	DC0V/24V(pulse)	FUM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC18	1	24V2_IL	O	DC24V	DC24V power output to DRM-M/C/Y
Connected to the drum motor (M/C/Y)	2	GND	-	-	Ground
	3	DRMC_MOT_REM	O	DC0V/5V	DRM-M/C/Y remote signal
	4	DRMC_MOT_CLK	O	DC0V/5V(pulse)	DRM-M/C/Y clock signal
	5	DRMC_MOT_RDY	I	DC0V/3.3V	DRM-M/C/Y synchronizing signal
	6	DRMC_MOT_DIR	O	DC0V/5V	DRM-M/C/Y rotation switching signal
YC19	1	SCAN_MOT_B3	O	DC0V/24V(pulse)	SM drive control signal
Connected to the scanner motor	2	SCAN_MOT_A1	O	DC0V/24V(pulse)	SM drive control signal
	3	SCAN_MOT_B1	O	DC0V/24V(pulse)	SM drive control signal
	4	SCAN_MOT_A3	O	DC0V/24V(pulse)	SM drive control signal
YC20	A1	3.3V3	O	DC3.3V	DC3.3V power output to DPOS
Connected to the DP original detection sensor, DP original feed sensor, DP registration sensor, DP cover open/close sensor, DP feedshift sensor, DP feed motor, DP conveying motor, DP feedshift motor	A2	GND	-	-	Ground
	A3	DP_SET_SENS	I	DC0V/3.3V	DPOS: On/Off
	A4	3.3V2	O	DC3.3V	DC3.3V power output to DPFS
	A5	GND	-	-	Ground
	A6	DP_FEED_SENS	I	DC0V/3.3V	DPFS: On/Off
	A7	3.3V2	O	DC3.3V	DC3.3V power output to DPRS
	A8	GND	-	-	Ground
	A9	DP_OPEN_SENS	I	DC0V/3.3V	DPRS: On/Off
	A10	3.3V2	O	DC3.3V	DC3.3V power output
	A11	GND	-	-	Ground
	A12	DP_JHP_SENS	I	DC0V/3.3V	DPCOCS: On/Off
	A13	3.3V2	O	DC3.3V	DC3.3V power output to DPFSS
	A14	GND	-	-	Ground
	A15	DP_REG_SENS	I	DC0V/3.3V	DPFSS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC20	B1	DP_CONVMOT_/B	O	DC0V/24V(pulse)	DPOCM drive control signal
Connected to the DP original detection sensor, DP original feed sensor, DP registration sensor, DP cover open/close sensor, DP feedshift sensor, DP feed motor, DP conveying motor, DP feedshift motor	B2	DP_CONVMOT_B	O	DC0V/24V(pulse)	DPOCM drive control signal
	B3	DP_CONVMOT_/A	O	DC0V/24V(pulse)	DPOCM drive control signal
	B4	DP_CONVMOT_A	O	DC0V/24V(pulse)	DPOCM drive control signal
	B5	DP_FEEDMOT_/B	O	DC0V/24V(pulse)	DPOFM drive control signal
	B6	DP_FEEDMOT_B	O	DC0V/24V(pulse)	DPOFM drive control signal
	B7	DP_FEEDMOT_/A	O	DC0V/24V(pulse)	DPOFM drive control signal
	B8	DP_FEEDMOT_A	O	DC0V/24V(pulse)	DPOFM drive control signal
	B9	DP_SEPMOT_/B	O	DC0V/24V(pulse)	DPSPM drive control signal
	B10	DP_SEPMOT_/A	O	DC0V/24V(pulse)	DPSPM drive control signal
	B11	DP_SEPMOT_B	O	DC0V/24V(pulse)	DPSPM drive control signal
	B12	DP_SEPMOT_A	O	DC0V/24V(pulse)	DPSPM drive control signal
	B13	NC	-	-	Not used
	B14	NC	-	-	Not used
	B15	NC	-	-	Not used
YC21	1	24V2	O	DC24V	DC24V power output to DLPFM1
Connected to the developer fan motor 1, developer fan motor 2, lift motor, clutch fan motor, cassette heater PWB	2	DLP_FAN1	O	DC0V/24V	DLPFM1: On/Off
	3	24V2	O	DC24V	DC24V power output to DLPFM2
	4	DLP_FAN2	O	DC0V/24V	DLPFM2: On/Off
	5	LIFT_MOT_DR	O	DC0V/24V	LM drive control signal
	6	LIFT_MOT_RET	O	DC0V/24V	LM drive control signal
	7	CL_FAN	O	DC0V/24V	CONTFM: On/Off
	8	24V2	O	DC24V	DC24V power output
	9	5V2	O	DC5V	DC5V power output
	10	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC22	1	GND	-	-	Ground
Connected to the paper feeder	2	24V2	O	DC24V	DC24V power output to PFPWB
YC23	1	PF_CAS_OPEN	I	DC0V/3.3V	Cassette open/close signal output
Connected to the paper feeder	2	PAUSE	O	DC0V/3.3V	Pause signal
	3	PF_SDO	O	DC0V/ 3.3V(pulse)	Serial communication data signal
	4	PF_SDI	I	DC0V/ 3.3V(pulse)	Serial communication data signal
	5	PF_RDY	I	DC0V/3.3V	Ready signal
	6	PF_CLK	O	DC0V/ 3.3V(pulse)	Clock signal
	7	PF_SEL2	O	DC0V/3.3V	Cassette 3 select signal
	8	PF_SEL1	O	DC0V/3.3V	Cassette 2 select signal
	9	GND	-	-	Ground
	10	3.3V3	O	DC3.3V	DC3.3V power output to PF
	11	PF_VER_SENS	I	DC0V/3.3V	PFCS1: On/Off
YC24	A1	BRIDGE_FAN	O	DC0V/3.3V	BRFM: On/Off
Connected to the AK, MT, inner finisher, eject motor, eject feedshift solenoid, upper eject full sensor, lower eject full sensor, steam removal fan motor, JS paper detection sensor, front cover open/close switch 1	A2	BRIDGE REM	O	DC0V/3.3V	Bridge motor remote signal
	A3	BRIDGE CLK	O	DC0V/ 3.3V(pulse)	Bridge motor clock signal
	A4	BRIDGE_PH0	O	DC0V/3.3V	Bridge motor excitation switching signal 1
	A5	BRIDGE_PH1	O	DC0V/3.3V	Bridge motor excitation switching signal 2
	A6	BRIDGE_DET	I	DC0V/3.3V	Bridge presence detection signal
	A7	BRIDGE_SENS1	I	DC0V/3.3V	Bridge conveying detection signal 1
	A8	BRIDGE_SENS2	I	DC0V/3.3V	Bridge conveying detection signal 2
	A9	BREDGE_OPEN_SW	I	DC0V/3.3V	Bridge open detection signal
	A10	GND	-	-	Ground
	A11	GND	-	-	Ground
	A12	3.3V2	O	DC3.3V	DC3.3V power output to BRMPWB
	A13	24V2	O	DC24V	DC24V power output to BRMPWB
	A14	DF_RDY	O	DC0V/3.3V	Ready signal
	A15	DF_SEL	O	DC0V/3.3V	Select signal

Connector	Pin	Signal	I/O	Voltage	Description
YC24	A16	DF_SDO	O	DC0V/3.3V(pulse)	Serial communication data signal
	A17	DF_SDI	I	DC0V/3.3V(pulse)	Serial communication data signal
Connected to the AK, MT, inner finisher, eject motor, eject feedshift solenoid, upper eject full sensor, lower eject full sensor, steam removal fan motor, JS paper detection sensor, front cover open/close switch 1	A18	NC	-	-	Not used
	A19	DF_DET	I	DC0V/3.3V	Connection detection signal
	A20	DF_CLK	I	DC0V/3.3V(pulse)	Clock signal
	B1	CON_FAN	O	DC0V/24V	SFM: On/Off
	B2	24V2	O	DC24V	DC24V power output to SFM
	B3	SB_MOT_B1	O	DC0V/24V(pulse)	EM drive control signal
	B4	SB_MOT_B3	O	DC0V/24V(pulse)	EM drive control signal
	B5	SB_MOT_A3	O	DC0V/24V(pulse)	EM drive control signal
	B6	SB_MOT_A1	O	DC0V/24V(pulse)	EM drive control signal
	B7	24V2	O	DC0V/24V	24V power output to FSSOL
	B8	EJE_SOL_PULL	O	DC0V/24V	FSSOL: On/Off (actuate)
	B9	EJE_SOL_RETURN	O	DC0V/24V	FSSOL: On/Off (keep)
	B10	3.3V2_LED	O	DC3.3V	DC3.3V power output to EFS1
	B11	GND	-	-	Ground
	B12	EJE_FULL_UP	I	DC0V/3.3V	EFS1: On/Off
	B13	3.3V2_LED	O	DC3.3V	DC3.3V power output to EFS2
	B14	GND	-	-	Ground
	B15	EJE_FULL_DOWN	I	DC0V/3.3V	EFS2: On/Off
	B16	3.3V3_LED	O	DC3.3V	DC3.3V power output to EPS
	B17	GND	-	-	Ground
	B18	EXITUP_PAP_SENS	I	DC0V/3.3V	EPS: On/Off
	B19	FCOVOR_OPEN	I	DC0V/3.3V	FCSW2: On/Off
	B20	GND	-	-	Ground
YC25	1	GND	-	-	Ground
Connected to the MT or inner finisher	2	GND	-	-	Ground
	3	24V2	O	DC24V	DC24V power output to MBMPWB
	4	24V2	O	DC24V	DC24V power output to MBMPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC29	1	GND	-	-	Ground
Connected to the power supply PWB	2	GND	-	-	Ground
	3	24V0	I	DC24V	DC24V power input from PSPWB
	4	24V0	I	DC24V	DC24V power input from PSPWB
YC30	1	POWERSW	I	DC0V/3.3V	PSSW: On/Off
Connected to the power switch	2	GND	-	-	Ground
YC31	1	24V0	O	DC24V	DC24V power output to RCSW
Connected to the right cover open/ close switch, front cover open/close switch 1	2	24V0IL	I	DC24V	DC24V power input from FCSW
YC32	1	24V2	O	DC24V	DC24V power output to MPWB
Connected to the main PWB	2	GND	-	-	Ground
YC34	1	24V3_IL	O	DC24V	DC24V power output
Connected to the power supply PWB	2	LVU_SLEEP	O	DC0V/24V	Sleep signal
	3	ZCROSS	I	DC0V/ 3.3V(pulse)	Zero cross signal
	4	RELAYREM	O	DC0V/3.3V	Power relay control signal
	5	MHREM	O	DC0V/3.3V	Main heater control
	6	LVU_FAN	O	DC0V/24V	PWBFM: On/Off
	7	24V2	O	DC24V	DC24V power output to PWBFM

(3) High voltage PWB (HVPWB)

(3-1) Connector position
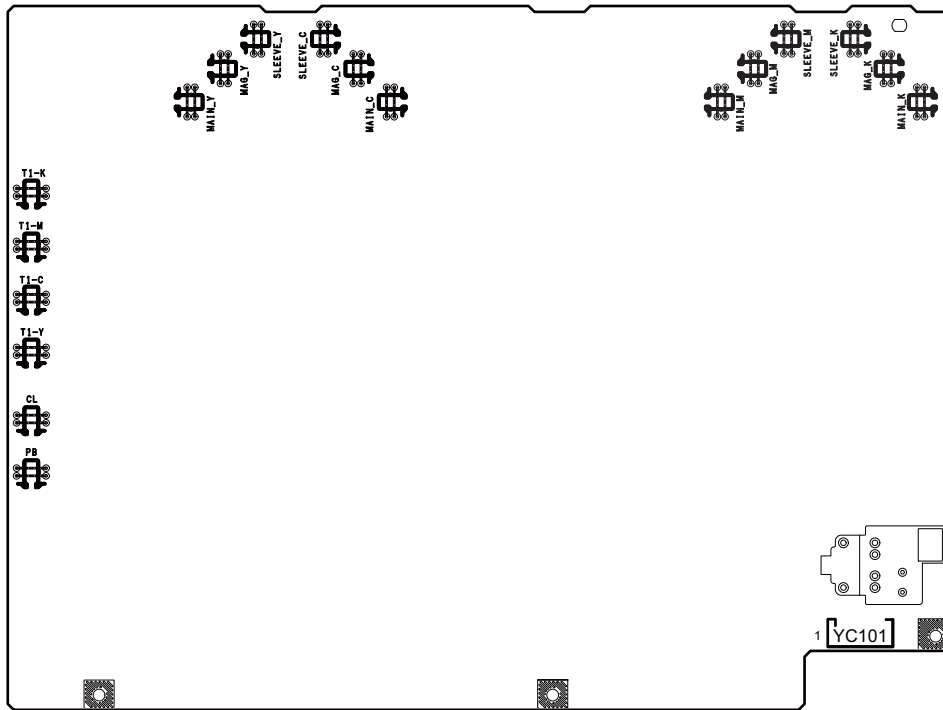
Figure 8-5

(3-2) PWB photograph

Figure 8-6

(3-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	+24V3	I	DC24V	DC24V power input
Connected to the engine PWB	2	+24V3	I	DC24V	DC24V power input
	3	DACSLD1	I	DC0V/3.3V	DAC load signal 1
	4	DACSLD2	I	DC0V/3.3V	DAC load signal 2
	5	DACSCLK	I	DC0V/3.3V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDAT	I	DC0V/3.3V(pulse)	DAC data signal
	8	HVREM	I	DC0V/3.3V	Secondary transfer (reverse) / PB remote signal
	9	HVCLK	I	DC0V/3.3V	Developer clock (SLV) signal
	10	MISENS	O	Analog	Main charger (K) current detection
	11	PGND	-	-	Ground
	12	PGND	-	-	Ground

(4) Power supply PWB (PSPWB)

(4-1) Connector position
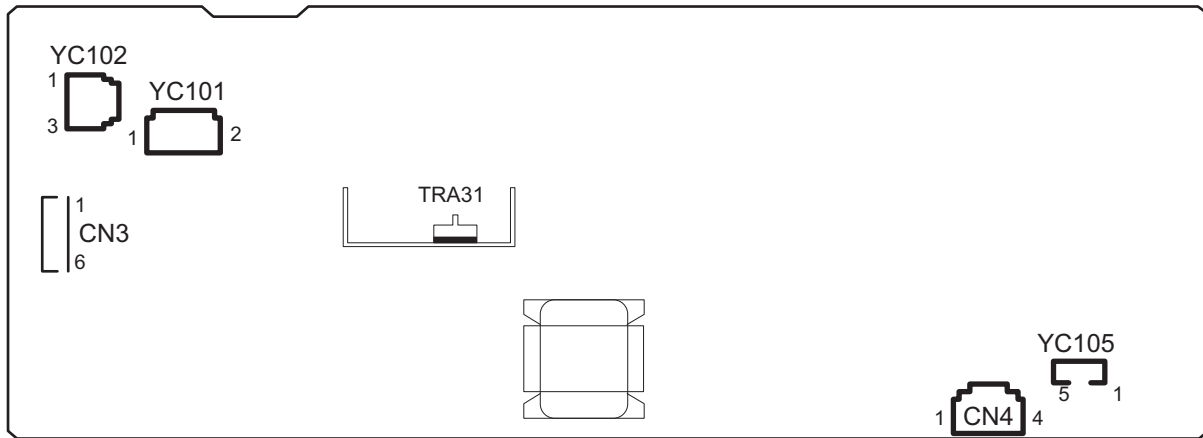
Figure 8-7

(4-2) PWB photograph

Figure 8-8

(4-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC101	1	LIVE	I	AC100V	AC power input
Connected to the inlet	2	NEUTRAL	I	AC100V	AC power input
YC102	1	NEUTRAL	O	AC100V	AC power supply to FH
Connected to the fuser heater	2	NC	-	-	Not used
	3	LIVE	O	AC100V	AC power supply to FH
YC105	1	MHREM	I	DC0V/3.3V	FH: On/Off
Connected to the engine PWB	2	RELAYREM	I	DC0V/3.3V	Power relay signal
	3	ZCROSS	O	DC0V/ 3.3V(pulse)	Zero cross signal
	4	PSLEEPN	I	DC0V/24V	Sleep signal
	5	24V3_IL	I	DC24V	DC24V power input from EPWB
CN3	1	DH_LIVE	O	AC100V	AC power supply to CH
Connected to the cassette heater	2	DH_LIVE	O	AC100V	AC power supply to CH
	3	NC	-	-	Not used
	4	NC	-	-	Not used
	5	DH_NEUTRAL	O	AC100V	AC power supply to CH
	6	DH_NEUTRAL	O	AC100V	AC power supply to CH
CN4	1	24V0	O	DC24V	DC24V power output to EPWB
Connected to the engine PWB	2	24V0	O	DC24V	DC24V power output to EPWB
	3	GND	-	-	Ground
	4	GND	-	-	Ground

(5) Operation panel PWB (OPPWB)

(5-1) Connector position
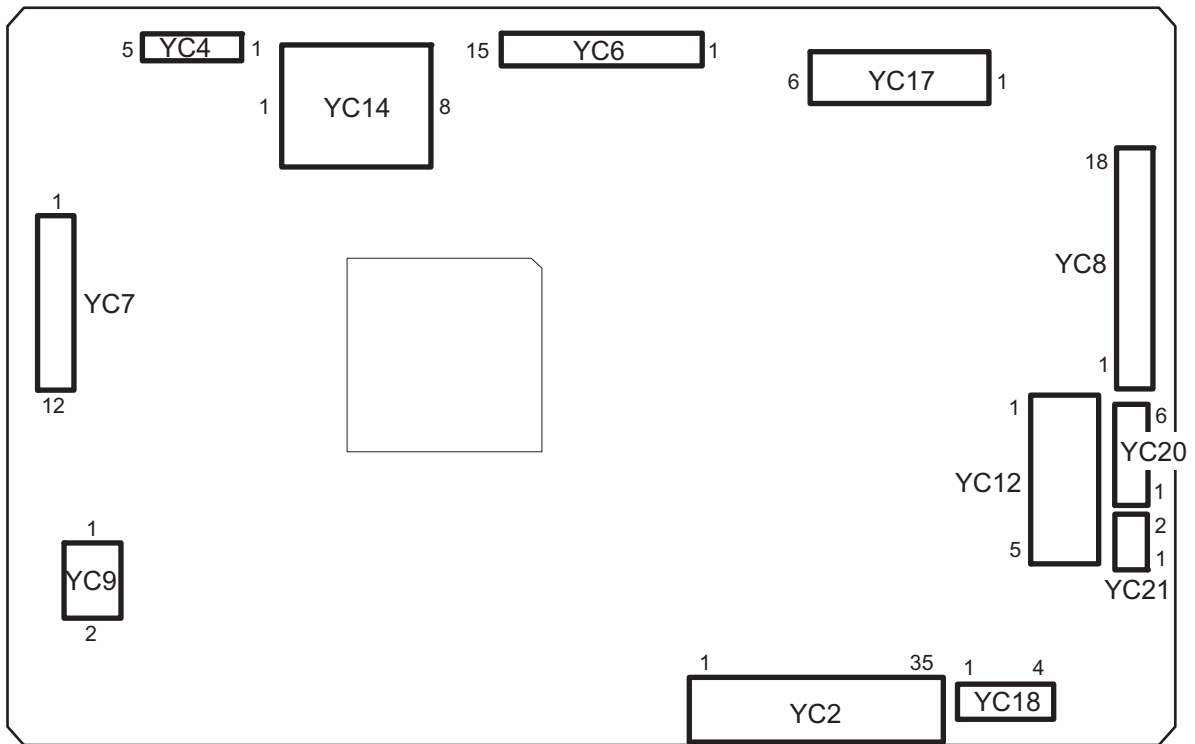
Figure 8-9

(5-2) PWB photograph
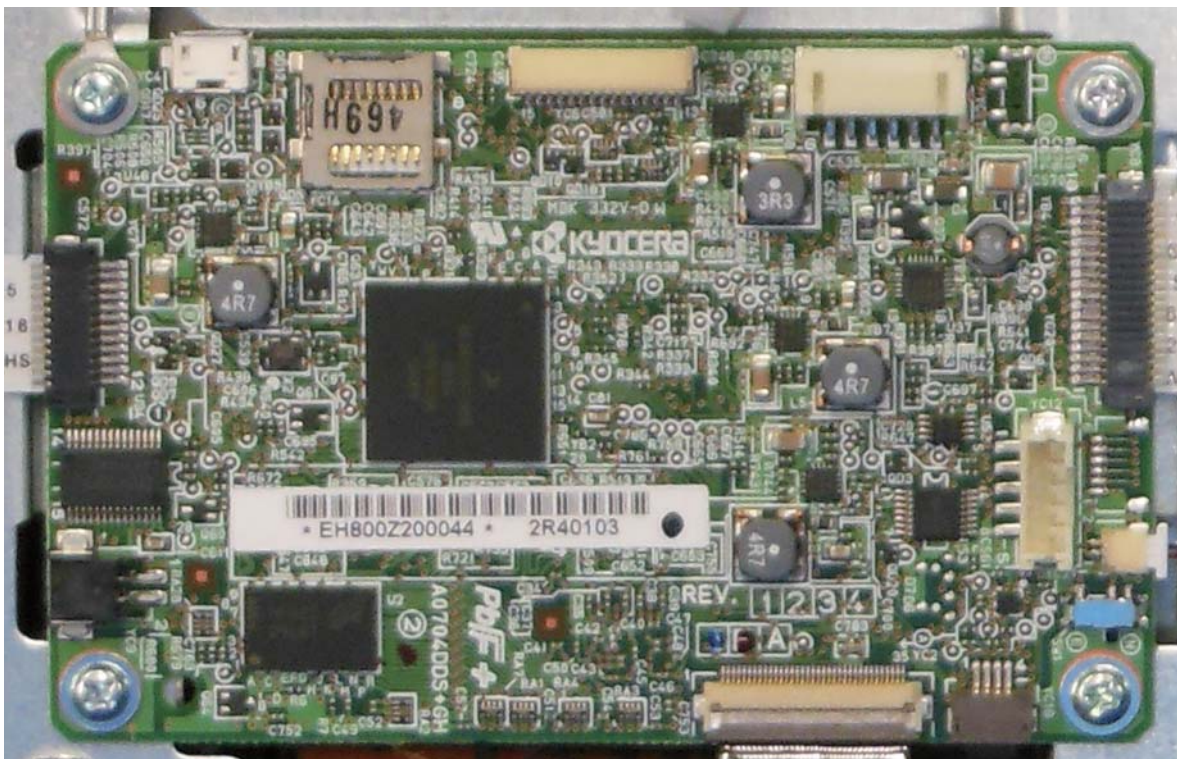
Figure 8-10

(5-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC2	1	GND	-	-	Ground
Connected to the LCD	2	R0	O	DC0V/3.3V	LCD control signal
	3	R1	O	DC0V/3.3V	LCD control signal
	4	R2	O	DC0V/3.3V	LCD control signal
	5	R3	O	DC0V/3.3V	LCD control signal
	6	R4	O	DC0V/3.3V	LCD control signal
	7	R5	O	DC0V/3.3V	LCD control signal
	8	GND	-	-	Ground
	9	G0	O	DC0V/3.3V	LCD control signal
	10	G1	O	DC0V/3.3V	LCD control signal
	11	G2	O	DC0V/3.3V	LCD control signal
	12	G3	O	DC0V/3.3V	LCD control signal
	13	G4	O	DC0V/3.3V	LCD control signal
	14	G5	O	DC0V/3.3V	LCD control signal
	15	GND	-	-	Ground
	16	B0	O	DC0V/3.3V	LCD control signal
	17	B1	O	DC0V/3.3V	LCD control signal
	18	B2	O	DC0V/3.3V	LCD control signal
	19	B3	O	DC0V/3.3V	LCD control signal
	20	B4	O	DC0V/3.3V	LCD control signal
	21	B5	O	DC0V/3.3V	LCD control signal
	22	GND	-	-	Ground
	23	DCLK	O	DC0V/3.3V(pulse)	LCD dot clock
	24	3.3V	O	DC3.3V	DC3.3V power output to LCD
	25	3.3V	O	DC3.3V	DC3.3V power output to LCD
	26	3.3V	O	DC3.3V	DC3.3V power output to LCD
	27	3.3V	O	DC3.3V	DC3.3V power output to LCD
	28	DE	O	DC0V/3.3V	LCD data enable signal
	29	HSYNC	O	DC0V/3.3V(pulse)	Horizontal synchronizing signal
	30	VSYNC	O	DC0V/3.3V(pulse)	Vertical synchronizing signal
	31	LED_EN	O	DC0V/3.3V	LED driver enable signal
	32	LED_PWM	O	DC0V/3.3V	LED driver PWM signal
	33	TSC_INT	I	DC0V/3.3V	Panel interrupt signal
	34	I2C_SDA	I/O	DC0V/3.3V(pulse)	Serial communication data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC2	35	I2C_SCL	I	DC0V/3.3V(pulse)	Panel clock signal
YC4 Connected to the main PWB	1	VBUS	O	DC5V	DC5V power output
	2	DATE-	I/O	LVDS	USB data signal
	3	DATE+	I/O	LVDS	USB data signal
	4	NC	-	-	Not used
	5	GND	-	-	Ground
YC6 Connected to the main PWB	1	GND	-	-	Ground
	2	SECOND_TRAY_SW	I	DC0V/3.3V	JEPS: On/Off
	3	BEEP_POWERON	I	DC0V/3.3V	Sleep recovery signal
	4	ENERGY_SAVE	I	DC0V/3.3V	Energy save signal
	5	SUSPEND_POWER	I	DC3.3V	DC3.3V power input from MPWB
	6	LED_MEMORY_N	I	DC0V/3.3V	Memory LED control signal
	7	LED_ATTENTION_N	I	DC0V/3.3V	Attention LED control signal
	8	LED_PROCESSING_N	I	DC0V/3.3V	Processing LED control signal
	9	SHUTDOWN	I	DC0V/3.3V	24V voltage drop signal
	10	LIGHTOFF_POWERON	I	DC0V/3.3V	Sleep recovery signal
	11	AUDIO	I	Analog	Audio output signal
	12	PANEL_RESET	I	DC0V/3.3V	Operation panel reset signal
	13	INT_ENERGY_SAVER_KEY	O	DC0V/3.3V	Energy Saver key: On/Off
	14	PANEL_STATUS	O	DC0V/3.3V	Operation panel status signal
	15	GMD	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC7	1	GND	-	-	Ground
Connected to the opera-tion panel left PWB	2	SCAN0	O	DC0V/ 3.3V(pulse)	Scan signal
	3	KEYLEFT1	I	DC0V/ 3.3V(pulse)	Operation panel key scan return signal
	4	LEDLEFT1	O	DC0V/ 3.3V(pulse)	Operation panel LED display drive signal
	5	KEYLEFT2	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	6	SCAN1	O	DC0V/ 3.3V(pulse)	Scan signal
	7	SCAN2	O	DC0V/ 3.3V(pulse)	Scan signal
	8	SCAN3	O	DC0V/ 3.3V(pulse)	Scan signal
	9	KEYLEFT0	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	10	LEDLEFT0	O	DC0V/ 3.3V(pulse)	Operation panel LED display drive signal U
	11	LEDLEFT2	O	DC0V/ 3.3V(pulse)	Operation panel LED display drive signal
	12	S LED2	O	DC0V/3.3V	Memory LED control signal
YC8	1	SCAN0	O	DC0V/ 3.3V(pulse)	Scan signal
Connected to the opera-tion panel right PWB	2	SCAN1	O	DC0V/ 3.3V(pulse)	Scan signal
	3	SCAN2	O	DC0V/ 3.3V(pulse)	Scan signal
	4	SCAN3	O	DC0V/ 3.3V(pulse)	Scan signal
	5	SCAN4	O	DC0V/ 3.3V(pulse)	Scan signal
	6	LEDRIGHT0	O	DC0V/ 3.3V(pulse)	Operation panel LED display drive signal
	7	KEYRIGHT0	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	8	KEYRIGHT1	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	9	KEYRIGHT2	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	10	KEYRIGHT3	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8 Connected to the opera-tion panel right PWB	11	KEYRIGHT4	I	DC0V/ 3.3V(pulse)	Operation unit key scan return signal
	12	LEDRIGHT1	O	DC0V/ 3.3V(pulse)	Operation panel LED display drive signal
	13	P_LED	O	DC0V/3.3V	Processing LED control signal
	14	M_LED	O	DC0V/3.3V	Memory LED control signal
	15	A_LED	O	DC0V/3.3V	Attention LED control signal
	16	INT_POWER KEY	I	DC0V/3.3V	Power key: On/Off
	17	SUSPEMD_P OWER	O	DC3.3V	DC3.3V power output to OPPWB
	18	GND	-	-	Ground
YC9 Connected to the speaker	1	SPK+	O	Analog	Speaker sound signal (+)
	2	SPK-	O	Analog	Speaker sound signal (-)
YC14 Connected to the SD card	1	DAT2	I/O	DC0V/ 3.3V(pulse)	Data bus signal
	2	DAT3 CO	I/O	DC0V/3.3V	Control signal
	3	CMD	I/O	DC0V/3.3V	Control signal
	4	VDD	-	DC0V/3.3V	Control signal
	5	CLK	-	DC0V/3.3V	Control signal
	6	VSS	-	-	Ground
	7	DAT0	I/O	DC0V/ 3.3V(pulse)	Data bus signal
	8	DAT1	I/O	DC0V/ 3.3V(pulse)	Data bus signal
YC17 Connected to the main PWB	1	NC	-	-	Not used
	2	+5V	I	DC5V	DC5V power input from MPWB
	3	+5V	I	DC5V	DC5V power input from MPWB
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	NC	-	-	Not used
YC21 Connected to the LCD	1	LED_A	O	DC0V/5V	LED control signal
	2	LED_C	I	DC0V/5V	LED control signal

8-2 Description for PWB (35/40 ppm models)

(1) Main PWB (MPWB)

(1-1) Connector position
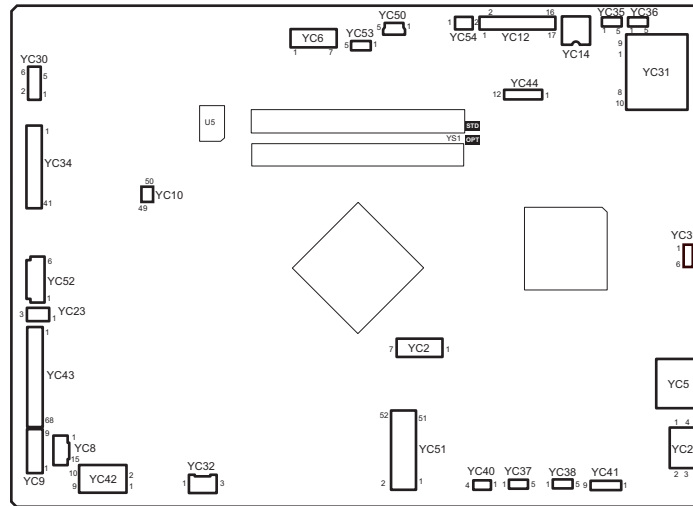
Figure 8-11

(1-2) PWB photograph

35 ppm model
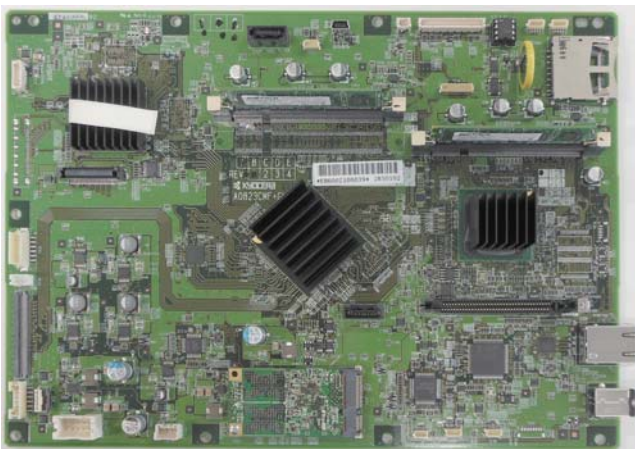
Figure 8-12

40 ppm model

Figure 1-8-1

(1-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	GND	-	-	Ground
Connected to the hard disc	2	SATA1TXDP	O	-	HDD data signal
	3	SATA1TXDN	O	-	HDD data signal
	4	GND	-	-	Ground
	5	SATA1RXDN	I	-	HDD data signal
	6	SATA1RXDP	I	-	HDD data signal
	7	GND	-	-	Ground
YC4	1	DP_CONECTN	I	DC0V/3.3V	DPMPWB control signal
Connected to the DP relay PWB	2	DP_SYSCLKOUT	O	DC0V/3.3V(pulse)	DPMPWB clock signal
	3	PCIEN3_DP2A	I	DC0V/3.3V(pulse)	Image data signal
	4	GND	-	-	Ground
	5	PCIEP3_DP2A	I	DC0V/3.3V(pulse)	Image data signal
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	PCIEN_REFCLK_DP	O	DC0V/3.3V(pulse)	DPMPWB clock signal
	9	GND	-	-	Ground
	10	PCIEP_REFCLK_DP	O	DC0V/3.3V(pulse)	DPMPWB clock signal
	11	PCIEN3_A2DP	O	DC0V/3.3V(pulse)	Image data signal
	12	GND	-	-	Ground
	13	PCIEP3_A2DP	O	DC0V/3.3V(pulse)	Image data signal
	14	GND	-	-	Ground
	15	GND	-	-	Ground
	16	URAN_RSTN	O	DC0V/3.3V	DPMPWB control signal
	17	PCIEN2_DP2A	I	DC0V/3.3V(pulse)	Image data signal
	18	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	19	PCIEP2_DP2A	I	DC0V/3.3V(pulse)	Image data signal
	20	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	21	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC4	22	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
Connected to the DP relay PWB	23	PCIEN2_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	24	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	25	PCIEP2_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	26	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	27	GND	-	-	Ground
	28	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	29	PCIEN1_DP2A	I	DC0V/ 3.3V(pulse)	Image data signal
	30	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	31	PCIEP1_DP2A	I	DC0V/ 3.3V(pulse)	Image data signal
	32	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	33	GND	-	-	Ground
	34	+3.3V3	-	DC3.3V	DC3.3V power output to DPMPWB
	35	PCIEN1_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	36	GND	-	-	Ground
	37	PCIEP1_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	38	GND	-	-	Ground
	39	GND	-	-	Ground
	40	GND	-	-	Ground
	41	PCIEN0_DP2A	I	DC0V/ 3.3V(pulse)	Image data signal
	42	GND	-	-	Ground
	43	PCIEP0_DP2A	I	DC0V/ 3.3V(pulse)	Image data signal
	44	GND	-	-	Ground
	45	GND	-	-	Ground
	46	PCIEN0_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	47	GND	-	-	Ground
	48	PCIEPO_A2DP	O	DC0V/ 3.3V(pulse)	Image data signal
	49	PCIE3_SWRST_A	O	DC0V/ 3.3V(pulse)	DPMPWB clock signal
	50	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	TD1+	O	DC0V/ 3.3V(pulse)	Transmission data signal
Connected to Network	2	TD1-	O	DC0V/ 3.3V(pulse)	Transmission data signal
	3	TD2+	O	DC0V/ 3.3V(pulse)	Transmission data signal
	4	TD2-	O	DC0V/ 3.3V(pulse)	Transmission data signal
	5	CT1	O	DC3.3V	DC3.3V power output
	6	CT2	O	DC3.3V	DC3.3V power output
	7	TD3+	O	DC0V/ 3.3V(pulse)	Transmission data signal
	8	TD3-	O	DC0V/ 3.3V(pulse)	Transmission data signal
	9	TD4+	O	DC0V/ 3.3V(pulse)	Transmission data signal
	10	TD4-	O	DC0V/ 3.3V(pulse)	Transmission data signal
	11	GRLED_A1	O	DC0V/3.3V	LED emission signal
	12	GRLED_K1	O	DC0V/3.3V	LED emission signal
	13	YWLED_A2	O	DC0V/3.3V	LED emission signal
	14	YWLED_K2	O	DC0V/3.3V	LED emission signal
YC6	1	GND	-	-	Ground
Connected to the operation panel PWB	2	LCD_OFF	O	DC0V/3.3V	Control signal
	3	LOCKN	O	DC0V/3.3V	Lock signal
	4	GND	-	-	-
	5	TX0N	O	DC0V/ 3.3V(pulse)	Transmission data signal
	6	TX0P	O	DC0V/ 3.3V(pulse)	Transmission data signal
	7	GND	-	-	Ground
YC8	1	VBUS1	O	DC3.3V	DC3.3V power output to IFPWB
Connected to the KUIO relay PWB	2	USB_DN1	I/O	-	USB data signal
	3	USB_DP1	I/O	-	USB data signal
	4	GND	-	-	Ground
	5	AUDIO1	I	Analog	AUDIO signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8 Connected to the KUIO relay PWB	6	WAKEUP1	O	DC0V/3.3V	Control signal
	7	RESET1	I	DC0V/3.3V	Reset signal
	8	GND	-	-	Ground
	9	VBUS0	O	DC3.3V	DC3.3V power output to IFPWB
	10	USB_DN0	I/O	-	USB data signal
	11	USB_DP0	I/O	-	USB data signal
	12	GND	-	-	Ground
	13	AUDIO0	I	Analog	AUDIO signal
	14	WAKEUP0	O	DC0V/3.3V	Control signal
	15	RESET	I	DC0V/3.3V	Reset signal
YC9 Connected to the KUIO relay PWB	1	GND	-	-	Ground
	2	5V_CUT0	I	DC0V/3.3V	DC5V cut signal
	3	GND	-	-	Ground
	4	5V	O	DC5V	DC5V power output to IFPWB
	5	GND	-	-	Ground
	6	5V_CUT1	I	DC0V/3.3V	DC5V cut signal
YC12 Connected to the operation panel PWB	1	JOB_LED	O	DC0V/3.3V	JOB LED control signal
	2	ANY_KEY	I	DC0V/3.3V	ANY KEY recovery signal
	3	C2P_SCK	O	DC0V/ 3.3V(pulse)	Panel clock signal
	4	P2C_SBSY	I	DC0V/3.3V	Panel busy signal
	5	P2C_SDIR	I	DC0V/3.3V	Panel communication direction signal
	6	C2P_SDAT	O	DC0V/ 3.3V(pulse)	Serial communication data signal
	7	P2C_SDAT	I	DC0V/ 3.3V(pulse)	Serial communication data signal
	8	GND	-	-	Ground
	9	PANEL_RESET	O	DC0V/3.3V	Reset signal
	10	BEEP_POWERON	O	DC0V/3.3V	Sleep recovery signal
	11	LED_MEMORY	O	DC0V/3.3V	Memory LED control signal
	12	LED_ATTENTION	O	DC0V/3.3V	Attention LED control signal
	13	LED_PROCESSING	O	DC0V/3.3V	Processing LED control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC12	14	AUDIO	O	Analog	Audio output signal
Connected to the opera-tion panel PWB	15	INT_POWER KEY	I	DC0V/3.3V	Power key: On/Off
	16	GND	-	-	Ground
	17	LIGHTOFF_P OWERON	O	DC0V/3.3V	Sleep recovery signal
YC14	1	5V1	I	DC5V	DC5V power input from PSPWB
Connected to the power supply PWB	2	GND	-	-	Ground
	3	5V1	I	DC5V	DC5V power input from PSPWB
	4	GND	-	-	Ground
	5	5V1	I	DC5V	DC5V power input from PSPWB
	6	GND	-	-	Ground
	7	5V1	I	DC5V	DC5V power input from PSPWB
	8	GND	-	-	Ground
	9	5V1	I	DC5V	DC5V power input from PSPWB
	10	GND	-	-	Ground
YC20	B1	VBUS_B	O	DC5V	DC5V power output
Connected to the USB	B2	D-_B	I/O	-	USB data signal
	B3	D+_B	I/O	-	USB data signal
	B4	GND_B	-	-	Ground
YC23	1	SPEED_CON TROL	O	DC12V	CONFM: On/Off
Connected to the controller fan motor	2	GND	-	-	Ground
	3	5V	O	DC5V	DC5V power output
	1	POWER_SW	O	DC0V/3.3V	PSSW: On/Off
Connected to the power switch	2	GND	-	-	Ground
YC27	1	GND	-	-	Ground
Connected to the HDD	2	+5V_HDD	O	DC5V	DC5V power output to HDD
	3	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC30	1	+5V	O	DC5V	DC5V power output
Connected to the opera-tion panel PWB	2	+5V	O	DC5V	DC5V power output
	3	+5V	O	DC5V	DC5V power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
YC31	1	CD/DAT3	I/O	DC0V/3.3V	Control signal
Connected to the SD card	2	CMD	I/O	DC0V/3.3V	Control signal
	3	VSS	-	-	Ground
	4	VDD	-	DC0V/3.3V	Control signal
	5	CLK	-	DC0V/3.3V	Control signal
	6	VSS	-	-	Ground
	7	DAT0	I/O	DC0V/3.3V(pulse)	Data bus signal
	8	DAT1	I/O	DC0V/3.3V(pulse)	Data bus signal
	9	DAT2	I/O	DC0V/3.3V(pulse)	Data bus signal
	10	CD	I	DC0V/3.3V	Control signal
	11	COMMON	-	DC0V/3.3V	Control signal
	12	WP	I	DC0V/3.3V	Control signal
YC43	1	GND	-	-	Ground
Connected to the engine PWB	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	OS_SAD1P	O	DC0V/3.3V(pulse)	Serializer output data
	7	OS_SAD1N	O	DC0V/3.3V(pulse)	Serializer output data
	8	GND	-	-	Ground
	9	OS_SAD2P	O	DC0V/3.3V(pulse)	Serializer output data
	10	OS_SAD2N	O	DC0V/3.3V(pulse)	Serializer output data
	11	GND	-	-	Ground
	12	OS_SAD3P	O	DC0V/3.3V(pulse)	Serializer output data

Connector	Pin	Signal	I/O	Voltage	Description
YC43	13	OS_SAD3N	O	DC0V/ 3.3V(pulse)	Serializer output data
Connected to the engine PWB	14	GND	-	-	Ground
	15	OS_SACKP	O	DC0V/ 3.3V(pulse)	Serializer transfer data
	16	OS_SACKN	O	DC0V/ 3.3V(pulse)	Serializer transfer data
	17	GND	-	-	Ground
	18	OS_SAD4P	O	DC0V/ 3.3V(pulse)	Serializer output data
	19	OS_SAD4N	O	DC0V/ 3.3V(pulse)	Serializer output data
	20	GND	-	-	Ground
	21	SAR_1_CH11 _N	I	DC0V/ 3.3V(pulse)	Image data signal
	22	SAR_1_CH11 _P	I	DC0V/ 3.3V(pulse)	Image data signal
	23	GND	-	-	Ground
	24	SAR_1_CH12 _N	I	DC0V/ 3.3V(pulse)	Image data signal
	25	SAR_1_CH12 _P	I	DC0V/ 3.3V(pulse)	Image data signal
	26	GND	-	-	Ground
	27	SAR_1_CH13 _N	I	DC0V/ 3.3V(pulse)	Image data signal
	28	SAR_1_CH13 _P	I	DC0V/ 3.3V(pulse)	Image data signal
	29	GND	-	-	Ground
	30	SAR_1_VCLK 1_N	I	DC0V/ 3.3V(pulse)	Image data signal
	31	SAR_1_VCLK 1_P	I	DC0V/ 3.3V(pulse)	Image data signal
	32	GND	-	-	Ground
	33	SAT_1_VSYN C_D_N	O	DC0V/ 3.3V(pulse)	Image data signal
	34	SAT_1_VSYN C_D_P	O	DC0V/ 3.3V(pulse)	Image data signal
	35	SAT_1_VSYN C_C_N	O	DC0V/ 3.3V(pulse)	Image data signal
	36	SAT_1_VSYN C_C_P	O	DC0V/ 3.3V(pulse)	Image data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC43	37	SAT_1_VSYNC_B_N	O	DC0V/ 3.3V(pulse)	Image data signal
Connected to the engine PWB	38	SAT_1_VSYNC_B_P	O	DC0V/ 3.3V(pulse)	Image data signal
	39	SAT_1_VSYNC_A_N	O	DC0V/ 3.3V(pulse)	Image data signal
	40	SAT_1_VSYNC_A_P	O	DC0V/ 3.3V(pulse)	Image data signal
	41	SAT_1_HSYNC_D_N	O	DC0V/ 3.3V(pulse)	Image data signal
	42	SAT_1_HSYNC_D_P	O	DC0V/ 3.3V(pulse)	Image data signal
	43	SAT_1_HSYNC_C_N	O	DC0V/ 3.3V(pulse)	Image data signal
	44	SAT_1_HSYNC_C_P	O	DC0V/ 3.3V(pulse)	Image data signal
	45	SAT_1_HSYNC_B_N	O	DC0V/ 3.3V(pulse)	Image data signal
	46	SAT_1_HSYNC_B_P	O	DC0V/ 3.3V(pulse)	Image data signal
	47	SAT_1_HSYNC_A_N	O	DC0V/ 3.3V(pulse)	Image data signal
	48	SAT_1_HSYNC_A_P	O	DC0V/ 3.3V(pulse)	Image data signal
	49	HLD_SCN	I	DC0V/3.3V	Scanner stop signal
	50	ENG_WKUP_REQ	I	DC0V/3.3V	Sleep recovery signal
	51	HLD_ENG	I	DC0V/3.3V	Engine stop signal
	52	ENG_ENN	I	DC0V/3.3V	Enable signal
	53	JS_LED_REM	O	DC0V/3.3V	JOB separator LED lighting signal
	54	E2C_IRN	O	DC0V/3.3V	G6 interrupt signal
	55	E2C_SDAT	O	DC0V/ 3.3V(pulse)	G6 data output signal
	56	E2C_SBSY	O	DC0V/ 3.3V(pulse)	G6 communication busy signal
	57	E2C_SDIR	O	DC0V/ 3.3V(pulse)	G6 communication direction signal
	58	C2E_SDAT	I	DC0V/ 3.3V(pulse)	G6 data input signal
	59	C2E_SCKN	I	DC0V/ 3.3V(pulse)	Main communication clock signal
	60	E2C_PLUGIN_READY	O	DC0V/3.3V	Plug-in notification signal

Connector	Pin	Signal	I/O	Voltage	Description
YC43	61	E2C_COMP	O	DC0V/3.3V	Power notification signal
Connected to the engine PWB	62	GND	-	-	Ground
	63	GND	-	-	Ground
	64	GND	-	-	Ground
	65	GND	-	-	Ground
	66	GND	-	-	Ground
	67	GND	-	-	Ground
	68	GND	-	-	Ground
YC50	1	VBUS	O	DC5V	DC5V power output
Connected to the USB hub PWB	2	DATA-	I/O	-	USB data signal
	3	DATA+	I/O	-	USB data signal
	4	NC	-	-	Not used
	5	GND	-	-	Ground
YC52	1	+5V2	O	DC5V	DC5V power output
Connected to the USB hub PWB	2	+5V2	O	DC5V	DC5V power output
	3	+5V2	O	DC5V	DC5V power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground

(2) Engine PWB (EPWB)

(2-1) Connector position
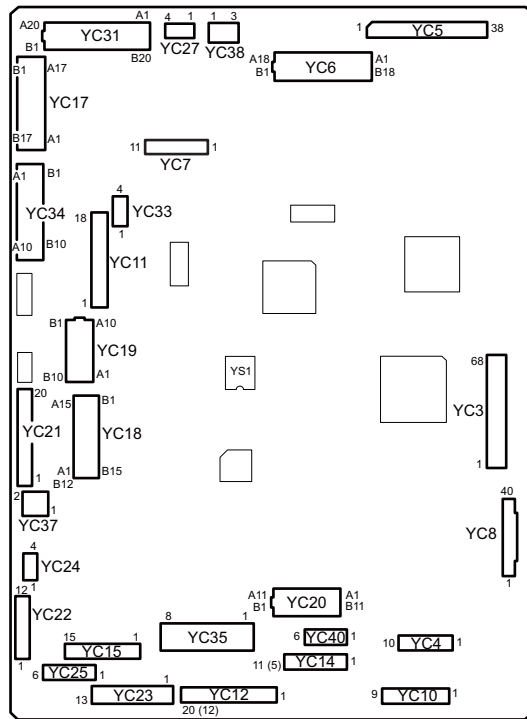
Figure 8-9

(2-2) PWB photograph

Figure 8-10

(2-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	GND	-	-	Ground
Connected to the main PWB	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	E2C_COMP	O	DC0V/3.3V	Power condition reflection notification signal
	9	E2C_PLUGIN _READY	O	DC0V/3.3V	Plug-in transition condition reflection notification signal
	10	C2E_SCKN	I	DC0V/ 3.3V(pulse)	G6 communication clock signal
	11	C2E_SDAT	I	DC0V/ 3.3V(pulse)	G6 communication data input signal
	12	E2C_SDIR	O	DC0V/3.3V	G6 communication direction signal
	13	E2C_SBSY	O	DC0V/3.3V	G6 communication busy signal
	14	E2C_SDAT	O	DC0V/ 3.3V(pulse)	G6 communication data output signal
	15	E2C_IRN	O	DC0V/3.3V	G6 communication interrupt signal
	16	JS_LED_REM	O	DC0V/3.5V	JOB separator LED lighting signal
	17	ENG_ENN	I	DC0V/3.5V	Enable signal
	18	HLD_ENG	I	DC0V/3.3V	Engine stop signal
	19	ENG_WKUP_ REQ	I	DC0V/3.3V	Sleep recovery signal
	20	HLD_SCN	I	DC0V/3.3V	Scanner stop signal
	21	SAT_1_HSYN C_A_P	O	LVDS	Image data signal
	22	SAT_1_HSYN C_A_N	O	LVDS	Image data signal
	23	SAT_1_HSYN C_B_P	O	LVDS	Image data signal
	24	SAT_1_HSYN C_B_N	O	LVDS	Image data signal
	25	SAT_1_HSYN C_C_P	O	LVDS	Image data signal
	26	SAT_1_HSYN C_C_N	O	LVDS	Image data signal
	27	SAT_1_HSYN C_D_P	O	LVDS	Image data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC3	28	SAT_1_HSYNC_D_N	O	LVDS	Image data signal
Connected to the main PWB	29	SAT_1_VSYNC_A_P	O	LVDS	Image data signal
	30	SAT_1_VSYNC_A_N	O	LVDS	Image data signal
	31	SAT_1_VSYNC_B_P	O	LVDS	Image data signal
	32	SAT_1_VSYNC_B_N	O	LVDS	Image data signal
	33	SAT_1_VSYNC_C_P	O	LVDS	Image data signal
	34	SAT_1_VSYNC_C_N	O	LVDS	Image data signal
	35	SAT_1_VSYNC_D_P	O	LVDS	Image data signal
	36	SAT_1_VSYNC_D_N	O	LVDS	Image data signal
	37	GND	-	-	Ground
	38	SAR_1_VCLK1_P	I	LVDS	Image data signal
	39	SAR_1_VCLK1_N	I	LVDS	Image data signal
	40	GND	-	-	Ground
	41	SAR_1_CH13_P	I	LVDS	Image data signal
	42	SAR_1_CH13_N	I	LVDS	Image data signal
	43	GND	-	-	Ground
	44	SAR_1_CH12_P	I	LVDS	Image data signal
	45	SAR_1_CH12_N	I	LVDS	Image data signal
	46	GND	-	-	Ground
	47	SAR_1_CH11_P	I	LVDS	Image data signal
	48	SAR_1_CH11_N	I	LVDS	Image data signal
	49	GND	-	-	Ground
	50	OS_SAD4N	O	LVDS	Serializer output data
	51	OS_SAD4P	O	LVDS	Serializer output data
	52	GND	-	-	Ground

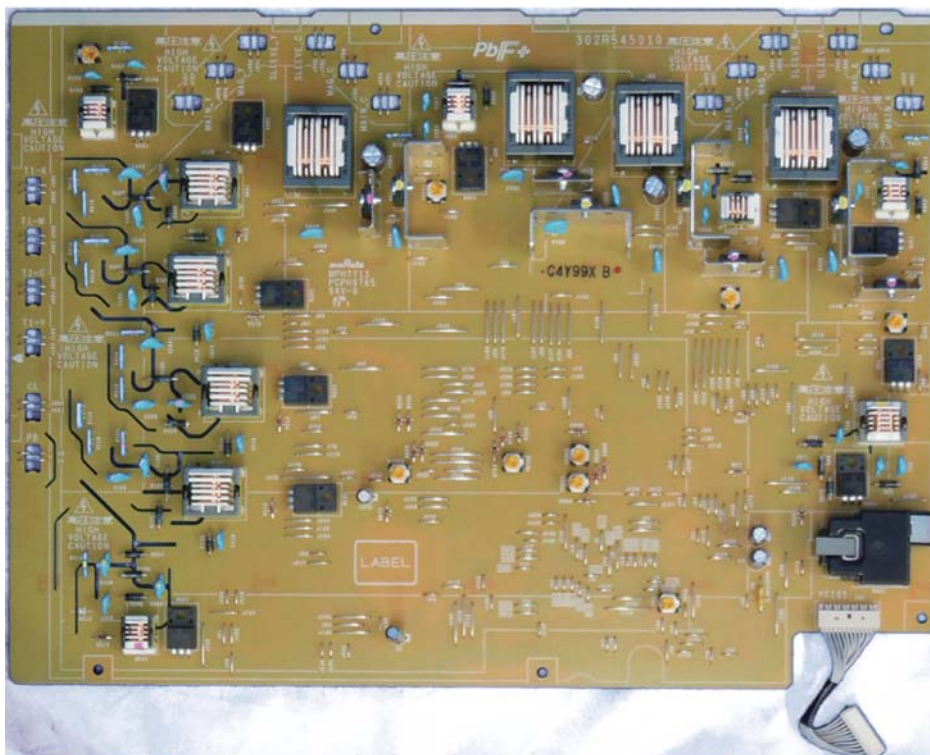| Connector	Pin	Signal	I/O	Voltage	Description
YC3	53	OS_SACKN	O	LVDS	Serializer transfer clock
	54	OS_SACKP	O	LVDS	Serializer transfer clock
Connected to the main PWB	55	GND	-	-	Ground
	56	OS_SAD3N	O	LVDS	Serializer output data
	57	OS_SAD3P	O	LVDS	Serializer output data
	58	GND	-	-	Ground
	59	OS_SAD2N	O	LVDS	Serializer output data
	60	OS_SAD2P	O	LVDS	Serializer output data
	61	GND	-	-	Ground
	62	OS_SAD1N	O	LVDS	Serializer output data
	63	OS_SAD1P	O	LVDS	Serializer output data
	64	GND	-	-	Ground
	65	GND	-	-	Ground
	66	GND	-	-	Ground
	67	GND	-	-	Ground
	68	GND	-	-	Ground
YC4	1	24V2	O	DC24V	DC24V power output
Connected to the developer fan motor 1, developer fan motor 2, lift motor, clutch fan motor, cassette heater PWB	2	DLP_FAN1	O	DC0V/24V	DLPFM1: On/Off
	3	24V2	O	DC24V	DC24V power output
	4	DLP FAN2	O	DC0V/24V	DLPFM2: On/Off
	5	LIFT_MOT_DR	O	DC0V/24V	LM?On/Off
	6	LIFT_MOT_RET	O	DC0V/24V	LM: On/Off
	7	CL_FAN	O	DC0V/24V	CONTFM: On/Off
	8	24V2	O	DC24V	DC24V power output
	9	5V2	O	DC5V	DC5V power output
	10	GND	-	-	Ground
YC5	1	M_LED_A	O	DC0V/10V	LED anode voltage
Connected to the CCD PWB	2	M_LED_C	I	DC0V/10V	LED cathode voltage
	3	GND	-	-	Ground
	4	HP_SWN	I	DC0V/3.3V	HPS: On/Off
	5	3.3V2	O	DC3.3V	DC3.3V power output
	6	3.3V2	O	DC3.3V	DC3.3V power output
	7	3.3V2	O	DC3.3V	DC3.3V power output

Connector	Pin	Signal	I/O	Voltage	Description
YC5	8	NC	-	-	Not used
Connected to the CCD PWB	9	GND	-	-	Ground
	10	DSI_CIS_2_5 P	I	LVDS	Serial input data
	11	DSI_CIS_2_5 N	I	LVDS	Serial input data
	12	GND	-	-	Ground
	13	DSI_CIS_2_4 P	I	LVDS	Serial input data
	14	DSI_CIS_2_4 N	I	LVDS	Serial input data
	15	GND	-	-	Ground
	16	DSI_CIS_2_3 P	I	LVDS	Serial input data
	17	DSI_CIS_2_3 N	I	LVDS	Serial input data
	18	GND	-	-	Ground
	19	DSI_CISCK_2 P	I	LVDS	Transfer clock
	20	DSI_CISCK_2 N	I	LVDS	Transfer clock
	21	GND	-	-	Ground
	22	DSI_CIS_2_2 P	I	LVDS	Serial input data
	23	DSI_CIS_2_2 N	I	LVDS	Serial input data
	24	GND	-	-	Ground
	25	DSI_CIS_2_1 P	I	LVDS	Serial input data
	26	DSI_CIS_2_1 N	I	LVDS	Serial input data
	27	GND	-	-	Ground
	28	AFE_RD	I	DC0V/3.3V	AFE serial communication read signal
	29	AFE_WD	O	DC0V/3.3V	AFE serial communication write signal
	30	AFE_CLK	O	DC0V/ 3.3V(pulse)	AFE serial communication clock signal
	31	AFE_CS	O	DC0V/3.3V	AFE serial communication select signal
	32	GND	-	-	Ground
	33	AFE_MCLK_P	O	LVDS	AFE clock signal
	34	AFE_MCLK_N	O	LVDS	AFE clock signal
	35	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC5	36	NC	-	-	Not used
Connected to the CCD PWB	37	12V5	O	DC12V	DC12V power output
	38	12V5	O	DC12V	DC12V power output
YC6	A1	DP_FEED_SENS	I	DC0V/3.3V	DPFS: On/Off
Connected to the DP main PWB	A2	GND	-	-	Ground
	A3	DP_REG_TMG_SENS	I	DC0V/3.3V	DPRS: On/Off
	A4	DP_SET_SENS	I	DC0V/3.3V	DPOS: On/Off
	A5	GND	-	-	Ground
	A6	DP_OPEN_SENS	I	DC0V/3.3V	DPOCS: On/Off
	A7	DP_JHP_EXIT_SENS	I	DC0V/3.3V	DPFSS: On/Off
	A8	DP_VSIZE_SW	I	DC0V/3.3V	DPOLS: On/Off
	A9	DP_WID_VOL	I	Analog	DPOWS: On/Off
	A10	DP_DET	I	DC0V/3.3V	DP connection detection signal
	A11	3.3V2	O	DC3.3V	DC3.3V power output
	A12	GND	-	-	Ground
	A13	3.3V2	O	DC3.3V	DC3.3V power output
	A14	3.3V3	O	DC3.3V	DC3.3V power output
	A15	GND	-	-	Ground
	A16	DP_SEL	I	DC0V/3.3V	DP select signal
	A17	NC	-	-	Not used
	A18	NC	-	-	Not used
	B1	DP_FEEDCL_REM	O	DC0V/24V	DPFCL: On/Off
	B2	24V6_IL	O	DC24V	DC24V power output
	B3	DP_CIS_FAN	-	-	Not used
	B4	24V6_IL	O	DC24V	DC24V power output
	B5	DO_MOT_FAN	-	-	Not used
	B6	24V6_IL	O	DC24V	DC24V power output
	B7	DP_CONVMOT_/B	O	DC0V/24V(pulse)	DPC drive control signal
	B8	DP_CONVMOT_/A	O	DC0V/24V(pulse)	DPC drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC6 Connected to the DP main PWB	B9	DP_CONVMOT_B	O	DC0V/24V(pulse)	DPC drive control signal
	B10	DP_CONVMOT_A	O	DC0V/24V(pulse)	DPC drive control signal
	B11	DP_FEEDMOT_/B	O	DC0V/24V(pulse)	DPFM drive control signal
	B12	DP_FEEDMOT_/A	O	DC0V/24V(pulse)	DPFM drive control signal
	B13	DP_FEEDMOT_B	O	DC0V/24V(pulse)	DPFM drive control signal
	B14	DP_FEEDMOT_A	O	DC0V/24V(pulse)	DPFM drive control signal
	B15	DP_SEPMOT_/B	O	DC0V/24V(pulse)	DPFSM drive control signal
	B16	DP_SEPMOT_/A	O	DC0V/24V(pulse)	DPFSM drive control signal
	B17	DP_SEPMOT_B	O	DC0V/24V(pulse)	DPFSM drive control signal
	B18	DP_SEPMOT_A	O	DC0V/24V(pulse)	DPFSM drive control signal
YC7 Connected to the DPSHD PWB	1	24V6	O	DC24V	DC24V power output
	2	24V6	O	DC24V	DC24V power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	SHD_SIR_PAGEST	O	DC0V/3.3V	Sub-scanning image processing signal
	6	SHD_SIR_SEL	O	DC0V/3.3V	Serial communication select signal
	7	SHD_SIR_SCLK	O	DC0V/3.3V(pulse)	Serial communication clock signal
	8	SHD_SIR_SDO	O	DC0V/3.3V(pulse)	Serial communication data output signal
	9	SHD_SIR_SDI	I	DC0V/3.3V(pulse)	Serial communication data input signal
	10	SHD_SIR_OVM	I	DC0V/3.3V	Sub-scanning monitoring signal
	11	SHD_SIR_RDY	I	DC0V/3.3V	Serial communication ready signal
	12	DP_CISTMG	I	DC0V/3.3V	DPTS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	GND	-	-	Ground
Connected to the APC PWB	2	GND	-	-	Ground
	3	LDERR	I	DC0V/3.3V	LD overcurrent detection
	4	VREF_Y	O	Analog	Laser output VREF (Y)
	5	GND	-	-	Ground
	6	DATA_1P_Y	O	LVDS	Image data Y
	7	DATA_1N_Y	O	LVDS	Image data Y
	8	GND	-	-	Ground
	9	OUTPEYN	O	DC0V/3.3V	Laser output enabling signal Y
	10	SAMPLEY	O	DC0V/3.3V	Sample hold signal Y
	11	VREFC	O	Analog	Laser output VREF (C)
	12	GND	-	-	Ground
	13	VDOC1N	O	LVDS	Image data C
	14	VDOC1P	O	LVDS	Image data C
	15	GND	-	-	Ground
	16	OUTPECN	O	DC0V/3.3V	Laser output enabling signal C
	17	SAMPLEC	O	DC0V/3.3V	Sample hold signal C
	18	VREFM	O	Analog	Laser output VREF (M)
	19	GND	-	-	Ground
	20	VDOM1N	O	LVDS	Image data M
	21	VDM1P	O	LVDS	Image data M
	22	GND	-	-	Ground
	23	OUTPEMN	O	DC0V/3.3V	Laser output enabling signal M
	24	SAMPLEM	O	DC0V/3.3V	Sample hold signal M
	25	VREFK	O	Analog	Laser output VREF (BK)
	26	GND	-	-	Ground
	27	VDOK1N	O	LVDS	Image data K
	28	VDOK1P	O	LVDS	Image data K
	29	GND	-	-	Ground
	30	OUTPEKN	O	DC0V/3.3V	Laser output enabling signal K
	31	SAMPLEK	O	DC0V/3.3V	Sample hold signal K
	32	5V4_IL	O	DC5V	DC5V power output
	33	5V4_IL	O	DC5V	DC5V power output
	34	5V4_IL	O	DC5V	DC5V power output
	35	5V4_IL	O	DC5V	DC5V power output
	36	PDKN	I	DC0V/3.3V	BD signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8	37	LSUTHERM_BK	I	Analog	LSU thermistor voltage
Connected to the APC PWB	38	GND	-	-	Ground
	39	GND	-	-	Ground
	40	GND	-	-	Ground
YC10	1	24V2	O	DC24V	DC24V power output
Connected to the polygon motor, cleaning motor	2	GND	-	-	Ground
	3	POLREM	O	DC0V/5V	PM remote signal
	4	POLRDYN	I	DC0V/3.3V	PM ready signal
	5	PDLCLK	O	DC0V/5V(pulse)	PM clock signal
	6	LSU_CL_MOT2	O	DC0V/24V(pulse)	CLM: On/Off
	7	LSU_CL_MOT1	O	DC0V/24V(pulse)	CLM: On/Off
	8	3.3V2_LED	-	-	Not used
	9	GND	-	-	Not used
YC11	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to ES
Connected to the fuser sensor, fuser release sensor, fuser thermistor (center), fuser thermistor (edge), transfer belt release sensor 1, transfer belt release sensor 2	2	GND	-	-	Ground
	3	FSR_JAM_SENS	I	DC0V/3.3V	ES: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to FUPRS
	5	GND	-	-	Ground
	6	FSR_RLS_SENS	I	DC0V/3.3V	FUPRS: On/Off
	7	GND	-	-	Ground
	8	MAIN_TH2	I	Analog	Non-contact thermistor voltage (detection)
	9	MAIN_TH1	I	Analog	Non-contact thermistor voltage (compensation)
	10	GUIDE_TH2	I	Analog	Contact thermistor voltage
	11	GND	-	-	Ground
	12	FUS_DET	I	DC0V/3.3V	Fuser unit connection signal
	13	GND	-	-	Ground
	14	3.3V2_LED	O	DC3.3V	DC3.3V power output to TCBRS1

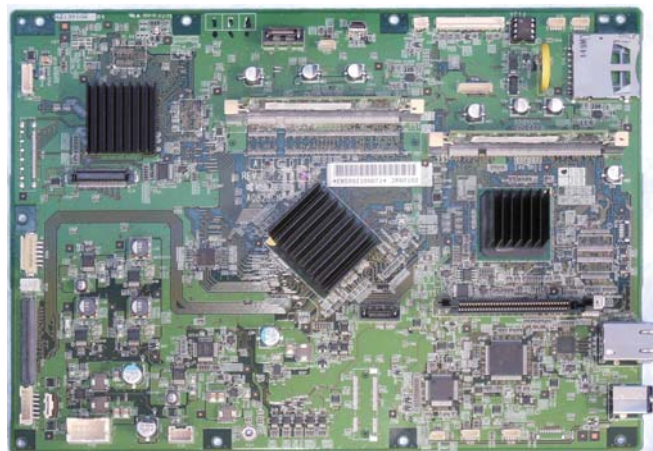| Connector	Pin	Signal	I/O	Voltage	Description
YC11	15	GND	-	-	Ground
	16	3REJECT_SENS	I	DC0V/3.3V	TCBRS1: On/Off
	17	3.3V2_LED	O	DC3.3V	DC3.3V power output to TCBRS2
	18	GND	-	-	Ground
	19	4REJECT_SENS	I	DC0V/3.3V	TCBRS2: On/Off
YC12 Connected to the high voltage PWB (40 ppm model)	1	24V2_IL	O	DC24V	24V power output
	2	24V2_IL	O	DC24V	24V power output
	3	DACSLD1	O	DC0V/5V	DAC load signal 1
	4	DACSLD2	O	DC0V/5V	DAC load signal 2
	5	DACSCLK	O	DC0V/5V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDAT	O	DC0V/5V(pulse)	DAC data signal
	8	HVREM	O	DC0V/24V	Secondary transfer (reverse) / PB remote signal
	9	HVCLKSLV	O	DC0V/10V(pulse)	Developer clock (SLV) signal
	10	MKISENS	I	Analog	Main charger (K) current detection
	11	PGND	-	-	Ground
	12	PGND	-	-	Ground
	13	HVCLKMAG	O	DC0V/10V(pulse)	Developer clock (MAG) signal
	14	MHCHGCLK	O	DC0V/10V(pulse)	Main charger clock signal
	15	MYISENS	I	Analog	Main charger (Y) current detection
	16	MMISENS	I	Analog	Main charger (M) current detection
	17	MCISENS	I	Analog	Main charger (C) current detection
	18	T2CNT	O	Analog	Secondary transfer control voltage
	19	CLCNT	O	Analog	Cleaning control voltage
	20	DISCHARGE	I	Analog	Discharge detection voltage
YC12 Connected to the high voltage PWB (35 ppm model)	1	24V2_IL	O	DC24V	24V power output
	2	24V2_IL	O	DC24V	24V power output
	3	DACSLD1	O	DC0V/5V(pulse)	DAC load signal 1
	4	DACSLD2	O	DC0V/5V(pulse)	DAC load signal 2
	5	DACSCLK	O	DC0V/5V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDAT	O	DC0V/5V(pulse)	DAC data signal

Connector	Pin	Signal	I/O	Voltage	Description
YC12 Connected to the high voltage PWB (35 ppm model)	8	HVREM	O	DC0V/24V	Secondary transfer (reverse) / PB remote signal
	9	HVCLKSLV	O	DC0V/10V(pulse)	Developer clock (SLV) signal
	10	MKISENS	I	Analog	Main charger (K) current detection
	11	PGND	-	-	Ground
	12	PGND	-	-	Ground
YC14 Connected to the power supply PWB, transfer high voltage PWB (40 ppm model)	1	24V2	O	DC24V	DC24V power output
	2	LVU_FAN	O	DC0V/24V	PWBFM: On/Off
	3	ZCROSS	I	DC0V/ 3.3V(pulse)	Zero cross signal
	4	LVU_SLEEP	O	DC0V/5V	Sleep signal
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	T1KCNT	O	Analog	Primary transfer (K) control voltage
	8	T1CCNT	O	Analog	Primary transfer (C) control voltage
	9	HVREM	O	DC0V/24V	High voltage remote signal
	10	T1YCNT	O	Analog	Primary transfer (Y) control voltage
	11	T1MCNT	O	Analog	Primary transfer (M) control voltage
	12	24V2_IL	O	DC24V	DC24V power output
YC14 Connected to the power supply PWB, transfer high voltage PWB (35 ppm model)	1	24V2	O	DC24V	DC24V power output
	2	LVU_FAN	O	DC0V/24V	PWBFM: On/Off
	3	ZCROSS	I	DC0V/ 3.3V(pulse)	Zero cross signal
	4	LVU_SLEEP	O	DC0V/5V	Sleep signal
	5	GND	-	-	Ground
YC15 Connected to the drum/ developer relay PWB	1	GND	-	-	Ground
	2	VIBR_MOT_REM	O	DC0V/3.3V	VIBM remote signal
	3	TCSENS_Y	I	Analog	TS-Y detection signal
	4	TCSENS_C	I	Analog	TS-C detection signal
	5	TCSENS_M	I	Analog	TS-M detection signal
	6	ERS_CL_REM	O	DC0V/3.3V	Eraser CL remote signal
	7	GND	-	-	Ground
	8	3.3V2	O	DC3.3V	DC3.3V power output to DR/DLPPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC15	9	EEP_SCL	O	DC0V/3.3V(pulse)	EEPROM clock signal
Connected to the drum/developer relay PWB	10	EEP_SDA	I/O	DC0V/3.3V(pulse)	EEPROM data I/O signal
	11	24V2	O	DC24V	DC24V power output to DR/DLPPWB
	12	GND	-	-	Ground
	13	DLP_TH	I	Analog	Developer thermistor voltage
	14	TCSENS_BK	I	Analog	TS-K detection signal
	15	ERS_BK_REM	O	DC0V/3.3V	Eraser Bk remote signal
YC17	A1	5V2	O	DC5V	5V power output
Connected to the RFID, belt fan motor, toner suction fan motor, eject paper fan motor, eject fan motor, transfer release motor, waste toner box switch, waste toner detection sensor, temperature/humidity sensor, developer fan motor 3, developer fan motor 4	A2	3.3V2	O	DC3.3V	3.3V power output
	A3	RFID_SCL	O	DC0V/3.3V(pulse)	RFID communication clock signal
	A4	GND	-	-	Ground
	A5	RFID_SDA	I/O	DC0V/3.3V	RFID communication data signal
	A6	3.3V2	O	DC3.3V	3.3V power output
	A7	GND	-	-	Ground
	A8	SUB_SDA	I/O	DC0V/3.3V(pulse)	Communication data signal
	A9	SUB_SCL	O	DC0V/3.3V(pulse)	Communication clock signal
	A10	BELT_FAN_REM	O	DC0V/24V	EPFM: On/Off
	A11	24V2	O	DC24V	24V power output
	A12	WTNR_FAN	O	DC0V/24V	TFM: On/Off
	A13	24V2	O	DC24V	24V power output
	A14	NC	-		Not used
	A15	NC	-		Not used
	A16	24V2	O	DC24V	24V power output
	A17	EXIT_FAN	O	DC0V/24V	EFM: On/Off
	B1	BELT_RLS_REMA	O	DC0V/24V	TCBRM: On/Off
	B2	BELT_RLS_REMB	O	DC0V/24V	TCBRM: On/Off
	B3	GND	-	-	Ground
	B4	WTNR_SET_SENS	I	DC0V/3.3V	WTSSW: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC17	B5	WTNR_LED_ 3.3V2	O	DC3.3V	3.3V power output
	B6	WTNR_LED	O	DC0V/3.3V	WST(LED): On/Off
	B7	WTNR_TR_3. 3V2	O	DC3.3V	3.3V power output
	B8	WTNR_TR	I	Analog	WST detection voltage
	B9	HUMCLK	O	DC0V/3.3V	TEMS clock signal
	B10	HUMOUT	I	Analog	TEMS (humidity) detection voltage
	B11	GND	-	-	Ground
	B12	AIRTEMP	I	Analog	TEMS (temperature) detection voltage
	B13	DLP_FAN3	O	DC0V/24V	DLPFM3: On/Off, TBFM: On/Off
	B14	24V2	O	DC24V	24V power output
	B15	DLP_FAN4	O	DC0V/24V	DLPFM4: On/Off
	B16	24V2	O	DC24V	24V power output
	B17	NC	-	-	Not used
YC18	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to PS
Connected to the paper detection sensor, paper level sensor 1, paper level sensor 2, paper width detection sensor 1, paper width detection sensor 2, paper width detection sensor 3, duplex sensor, MP paper detection sensor, lift sensor, registration sensor, MP solenoid	2	GND	-	-	Ground
	3	PAPEMP_SE NS	I	DC0V/3.3V	PS: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to PGS1
	5	GND	-	-	Ground
	6	PAPVL1_SEN S	I	DC0V/3.3V	PGS1: On/Off
	7	3.3V2_LED	O	DC3.3V	DC3.3V power output to PGS2
	8	GND	-	-	Ground
	9	PAPVL2_SEN S	I	DC0V/3.3V	PGS2: On/Off
	10	CAS_WID0	I	DC0V/3.3V	PLSW1: On/Off
	11	GND	-	-	Ground
	12	CAS_WID1	I	DC0V/3.3V	PLSW2: On/Off
	13	GND	-	-	Ground
	14	CAS_WID2	I	DC0V/3.3V	PLSW3: On/Off
	15	GND	-	-	Ground
	16	3.3V2_LED	O	DC3.3V	DC3.3V power output to DUS
	17	GND	-	-	Ground
	18	DU1_SENS	I	DC0V/3.3V	DUS: On/Off
	19	3.3V3_LED	O	DC3.3V	DC3.3V power output to MPPS
	20	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC18	21	MPF_SET_SENS	I	DC0V/3.3V	MPPS: On/Off
	22	3.3V2_LED	O	DC3.3V	DC3.3V power output to LS
	23	GND	-	-	Ground
	24	CAS_LIFTUP_SENS	I	DC0V/3.3V	LS: On/Off
	25	GND	-	-	Ground
	26	REG_SENS	I	DC0V/3.3V	RS: On/Off
	27	3.3V2	O	DC3.3V	DC3.3V power output to RS
	28	24V2	O	DC24V	DC24V power output to MPSOL
	29	MPF_SOL_REM	O	DC0V/24V	MPSOL: On/Off
	30	NC	-	-	Not used
YC19 Connected to the developer clutch, registration clutch, primary feed clutch, middle clutch, duplex clutch, front ID sensor, rear ID sensor	A1	DEV_CL_REM	O	DC0V/24V	DLPCL-BK: On/Off
	A2	24V2	O	DC24V	DC24V power output to DLPCL-BK
	A3	RESIST_CL_REM	O	DC0V/24V	RCL: On/Off
	A4	24V2	O	DC24V	DC24V power output to RCL
	A5	FEED_CL_REM	O	DC0V/24V	FCL: On/Off
	A6	24V2	O	DC24V	DC24V power output to FCL
	A7	MID_CL_REM	O	DC0V/24V	MCL: On/Off
	A8	24V2	O	DC24V	DC24V power output to MCL
	A9	DU1_REM	O	DC0V/24V	DUCL: On/Off
	A10	24V2	O	DC24V	DC24V power output to DUCL
	B1	+3.3V2	O	DC3.3V	DC3.3V power output to IDS1
	B2	REG_F_LED	O	Analog	IDS1 control signal
	B3	GND	-	-	Ground
	B4	REG_SENS_F_P	I	Analog	IDS1 detection signal
	B5	REG_SENS_F_S	I	Analog	IDS1 detection signal
	B6	+3.3V2	O	DC3.3V	DC3.3V power output to IDS2
	B7	REG_R_LED	O	Analog	IDS2 control signal
	B8	GND	-	-	Ground
	B9	REG_SENS_R_P	I	Analog	IDS2 detection signal
	B10	REG_SENS_R_S	I	Analog	IDS2 detection signal

Connector	Pin	Signal	I/O	Voltage	Description
YC20	A1	MPF_TRAY_SW	I	DC0V/3.3V	MPTSW: On/Off
Connected to the MP tray switch, MP paper paper width size detection switch, MP paper length sensor, PF main PWB	A2	GND	-	-	Ground
	A3	3.3V2	O	DC3.3V	DC3.3V power output
	A4	MPF_WID_VOL	I	Analog	MPWS detection voltage
	A5	GND	-	-	Ground
	A6	3.3V2_LED	O	DC3.3V	DC3.3V power output
	A7	GND	-	-	Ground
	A8	MPF_LONG_SENS	I	DC0V/3.3V	MPLS: On/Off
	A9	NC	-	-	Not used
	A10	NC	-	-	Not used
	A11	NC	-	-	Not used
	B1	PF_CAS_OPEN	I	DC0V/3.3V	Cassette open/close signal output
	B2	PAUSE	O	DC0V/3.3V	Pause signal
	B3	PF_SDO	O	DC0V/3.3V(pulse)	Serial communication data signal
	B4	PF_SDI	I	DC0V/3.3V(pulse)	Serial communication data signal
	B5	PF_RDY	I	DC0V/3.3V	Ready signal
	B6	PF_SCLK	O	DC0V/3.3V(pulse)	Clock signal
	B7	PF_SEL2	O	DC0V/3.3V	Cassette 3 select signal
	B8	PF_SEL1	O	DC0V/3.3V	Cassette 2 select signal
	B9	GND	-	-	Ground
	B10	3.3V3	O	DC3.3V	DC3.3V power output to PF
	B11	PF_VER_SENS	I	DC0V/3.3V	PFCS1: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC21	1	24V2	O	DC24V	DC24V power output to TM-Y
Connected to the transfer belt fan motor, container motor (BK), container motor (M), container motor (C), container motor (Y), container sensor (BK), container sensor (M), container sensor (C), container sensor (Y)	2	TMOT_Y_DIR	O	DC0V/24V	TM-Y drive control signal
	3	24V2	O	DC24V	DC24V power output to TM-C
	4	TMOT_C_DIR	O	DC0V/24V	TM-C drive control signal
	5	24V2	O	DC24V	DC24V power output to TM-M
	6	TMOT_M_DIR	O	DC0V/24V	TM-M drive control signal
	7	24V2	O	DC24V	DC24V power output to TM-K
	8	TMOT_BK_DIR	O	DC0V/24V	TM-K drive control signal
	9	3.3V2_LED	O	DC3.3V	DC3.3V power output CS-Y
	10	GND	-	-	Ground
	11	PULSE_SENS_Y	I	DC0V/3.3V	CL-Y: On/Off
	12	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-C
	13	GND	-	-	Ground
	14	PULSE_SENS_C	I	DC0V/3.3V	CL-C: On/Off
	15	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-M
	16	GND	-	-	Ground
	17	PULSE_SENS_M	I	DC0V/3.3V	CL-M: On/Off
	18	3.3V2_LED	O	DC3.3V	DC3.3V power output to CS-K
	19	GND	-	-	Ground
	20	PULSE_SENS_BK	I	DC0V/3.3V	CS-K: On/Off
YC22	1	24V3_IL	O	DC24V	DC24V power output to TCM
Connected to the transfer motor, developer motor (BK)	2	GND	-	-	Ground
	3	IMAGE_MOT_REM	O	DC0V/5V	TCM remote signal
	4	IMAGE_MOT_CLK	O	DC0V/5V(pulse)	TCM clock signal
	5	IMAGE_MOT_RDY	I	DC0V/3.3V	TCM synchronizing signal
	6	IMAGE_MOT_DIR	O	DC0V/5V	TCM rotation switching signal
	7	24V3_IL	O	DC24V	DC24V power output to DLPM-K
	8	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC22 Connected to the transfer motor, developer motor (BK)	9	FEED_MOT_REM	O	DC0V/5V	DLPM-K remote signal K
	10	FEED_MOT_CLK	O	DC0V/5V(pulse)	Developer-K clock signal K
	11	FEED_MOT_RDY	I	DC0V/3.3V	DLPM-K synchronizing signal K
	12	FEED_MOT_DIR	O	DC0V/5V	DLPM-K rotation switching signal K
YC23 Connected to the developer motor (M/C/Y), drum motor (BK)	1	24V3_IL	O	DC24V	DC24V power output to DLPM-M/C/Y
	2	GND	-	-	Ground
	3	DLPC_MOT_REM	O	DC0V/5V	DLPM-M/C/Y remote signal
	4	DLPC_MOT_CLK	O	DC0V/5V(pulse)	DLPM-M/C/Y clock signal
	5	DLPC_MOT_RDY	I	DC0V/3.3V	DLPM-M/C/Y synchronizing signal
	6	DLPC_MOT_DIR	O	DC0V/5V	DLPM-M/C/Y rotation switching signal
	7	24V3_IL	O	DC24V	DC24V power output to DRM-K
	8	GND	-	-	Ground
	9	DRMK_MOT_REM	O	DC0V/5V	DRM-K remote signal
	10	DRMK_MOT_CLK	O	DC0V/5V(pulse)	DRM-K clock signal
	11	DRMK_MOT_RDY	I	DC0V/3.3V	DRM-K synchronizing signal
	12	DRMK_MOT_DIR	O	DC0V/5V	DRM-K rotation switching signal
	13	NC	-	-	Not used
YC24 Connected to the fuser motor	1	FUSER_MOT_B/	O	DC0V/24V(pulse)	FUM drive control signal
	2	FUSER_MOT_A/	O	DC0V/24V(pulse)	FUM drive control signal
	3	FUSER_MOT_B	O	DC0V/24V(pulse)	FUM drive control signal
	4	FUSER_MOT_A	O	DC0V/24V(pulse)	FUM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC25 Connected to the drum motor (M/C/Y)	1	24V2_IL	O	DC24V	DC24V power output to DRM-M/C/Y
	2	GND	-	-	Ground
	3	DRMC_MOT_REM	O	DC0V/5V	DRM-M/C/Y remote signal
	4	DRMC_MOT_CLK	O	DC0V/5V(pulse)	DRM-M/C/Y clock signal
	5	DRMC_MOT_RDY	I	DC0V/3.3V	DRM-M/C/Y synchronizing signal
	6	DRMC_MOT_DIR	O	DC0V/5V	DRM-M/C/Y rotation switching signal
YC27 Connected to the scanner motor	1	SCAN_MOT_B3	O	DC0V/24V(pulse)	SM drive control signal
	2	SCAN_MOT_A1	O	DC0V/24V(pulse)	SM drive control signal
	3	SCAN_MOT_B1	O	DC0V/24V(pulse)	SM drive control signal
	4	SCAN_MOT_A3	O	DC0V/24V(pulse)	SM drive control signal
YC31 Connected to the AK, MT, inner finisher, eject motor, eject feedshift solenoid, upper eject full sensor, lower eject full sensor, steam removal fan motor, JS paper detection sensor, front cover open/close switch	A1	BRIDGE_FAN	O	DC0V/3.3V	BRFM: On/Off
	A2	BRIDGE REM	O	DC0V/3.3V(pulse)	Bridge motor remote signal
	A3	BRIDGE CLK	O	DC0V/3.3V(pulse)	Bridge motor clock signal
	A4	BRIDGE_PH0	O	DC0V/3.3V	Bridge motor excitation switching signal 1
	A5	BRIDGE_PH1	O	DC0V/3.3V	Bridge motor excitation switching signal 2
	A6	BRIDGE_DET	I	DC0V/3.3V	Bridge presence detection signal
	A7	BRIDGE_SENS1	I	DC0V/3.3V	Bridge conveying detection signal 1
	A8	BRIDGE_SENS2	I	DC0V/3.3V	Bridge conveying detection signal 2
	A9	BREDGE_OPEN_SW	I	DC0V/3.3V	Bridge open detection signal
	A10	GND	-	-	Ground
	A11	GND	-	-	Ground
	A12	3.3V2	O	DC3.3V	DC3.3V power output to BRMPWB
	A13	24V2	O	DC24V	DC24V power output to BRMPWB
	A14	DF_RDY	O	DC0V/3.3V	Ready signal
	A15	DF_SEL	O	DC0V/3.3V	Select signal

Connector	Pin	Signal	I/O	Voltage	Description
YC31	A16	DF_SDO	O	DC0V/ 3.3V(pulse)	Serial communication data signal
Connected to the AK, MT, inner finisher, eject motor, eject feedshift solenoid, upper eject full sensor, lower eject full sensor, steam removal fan motor, JS paper detection sensor, front cover open/close switch	A17	DF_SDI	I	DC0V/ 3.3V(pulse)	Serial communication data signal
	A18	NC	-	-	Not used
	A19	DF_DET	I	DC0V/3.3V	Connection detection signal
	A20	DF_CLK	I	DC0V/ 3.3V(pulse)	Clock signal
	B1	CON_FAN	O	DC0V/24V	SFM: On/Off
	B2	24V2	O	DC24V	DC24V power output to SFM
	B3	SB_MOT_B1	O	DC0V/24V(pulse)	EM drive control signal
	B4	SB_MOT_B3	O	DC0V/24V(pulse)	EM drive control signal
	B5	SB_MOT_A3	O	DC0V/24V(pulse)	EM drive control signal
	B6	SB_MOT_A1	O	DC0V/24V(pulse)	EM drive control signal
	B7	24V2	0	DC0V/24V	24V power output to FSSOL
	B8	EJE_SOL_PULL	O	DC0V/24V	FSSOL: On/Off (actuate)
	B9	EJE_SOL_RETURN	O	DC0V/24V	FSSOL: On/Off (keep)
	B10	3.3V2_LED	O	DC3.3V	DC3.3V power output to EFS1
	B11	GND	-	-	Ground
	B12	EJE_FULL_UP	I	DC0V/3.3V	EFS1: On/Off
	B13	3.3V2_LED	O	DC3.3V	DC3.3V power output to EFS2
	B14	GND	-	-	Ground
	B15	EJE_FULL_DOWN	I	DC0V/3.3V	EFS2: On/Off
	B16	3.3V3_LED	O	DC3.3V	DC3.3V power output to EPS
	B17	GND	-	-	Ground
	B18	EXITUP_PAP_SENS	I	DC0V/3.3V	EPS: On/Off
	B19	FCOVOR_OPEN	I	DC0V/3.3V	FCSW2: On/Off
	B20	GND	-	-	Ground
YC33	1	GND	-	-	Ground
Connected to the key counter	2	DC1_SET	I	DC0V/3.3V	Set signal
	3	DC1_COUNT	O	DC0V/24V	Count signal
	4	24V2	O	DC24V	DC24V power output

Connector	Pin	Signal	I/O	Voltage	Description
YC34	A1	5V2	O	DC5V	DC5V power output
Connected to the key card	A2	5V2	O	DC5V	DC5V power output
	A3	5V2	O	DC5V	DC5V power output
	A4	5V2	O	DC5V	DC5V power output
	A5	5V2	O	DC5V	DC5V power output
	A6	+5V2	O	DC5V	DC5V power output
	A7	5V2	O	DC5V	DC5V power output
	A8	5V2	O	DC5V	DC5V power output
	A9	MK2_ENBL	I	DC0V/3.3V	Copy enabling signal
	A10	24V2	O	DC24V	DC24V power output
	B1	MK2_RKEY7	O	DC0V/5V	Key card RKEY7 signal
	B2	MK2_RKEY6	O	DC0V/5V	Key card RKEY6 signal
	B3	MK2_RKEY5	O	DC0V/5V	Key card RKEY5 signal
	B4	MK2_RKEY4	O	DC0V/5V	Key card RKEY4 signal
	B5	MK2_RKEY3	O	DC0V/5V	Key card RKEY3 signal
	B6	MK2_RKEY2	O	DC0V/5V	Key card RKEY2 signal
	B7	MK2_RKEY1	O	DC0V/5V	Key card RKEY1 signal
	B8	MK2_RKEY0	O	DC0V/5V	Key card RKEY0 signal
	B9	GND	-	-	Ground
	B10	MK2_COUNT	O	DC0V/24V	Key card RKEY_COUNT signal
YC35	1	5V0	I	DC5V	DC5V power input
Connected to the power supply PWB	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	24V2	I	DC24V	DC24V power input
	7	24V2	I	DC24V	DC24V power input
	8	24V2	I	DC24V	DC24V power input
YC37	1	24V2	O	DC24V	DC24V power output
Connected to the conveying unit open/ close switch, front cover open/close switch	2	24V2_IL	I	DC24V	DC24V power input

Connector	Pin	Signal	I/O	Voltage	Description
YC38	1	24V2	O	DC24V	DC24V power output
Connected to the DP con- veying cover open/close switch (CIS model)	2	GND	-	-	Not used
	3	24V6_IL	I	DC24V	DC24V power input

(3) High voltage PWB (HVPWB)

(3-1) Connector position

Figure 8-11

(3-2) PWB photograph
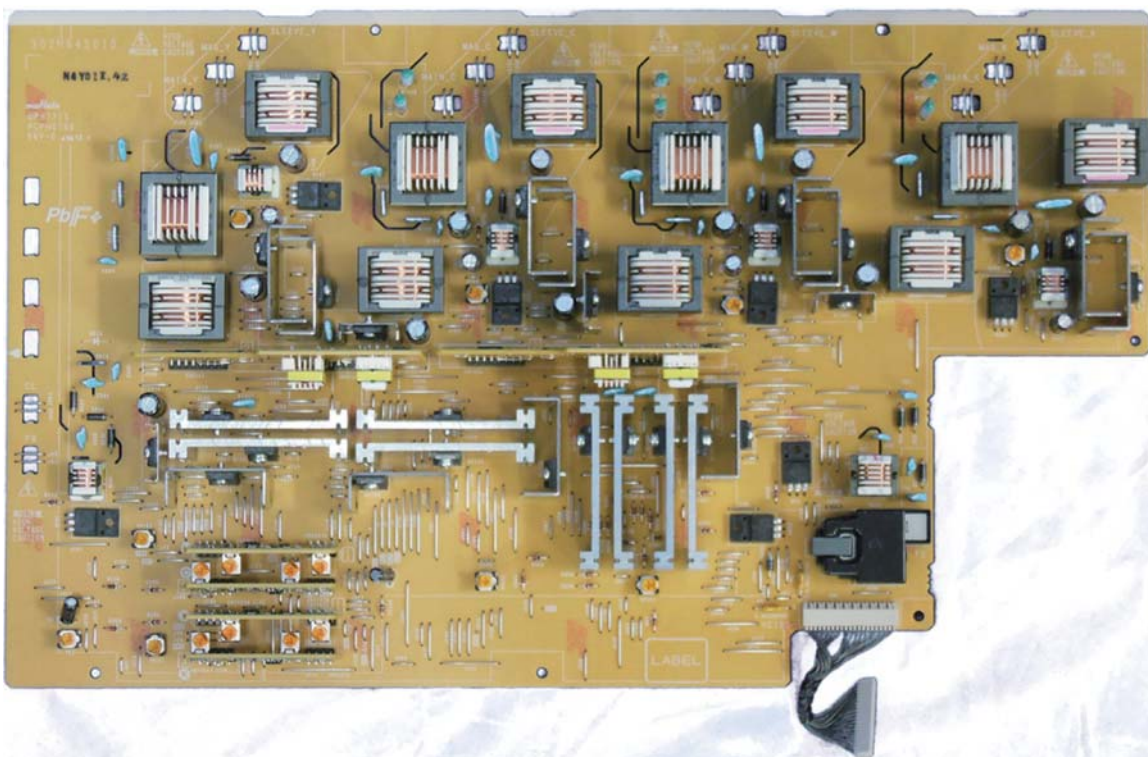
Figure 8-12

(3-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the engine PWB (40 ppm model)	1	24V2_IL	I	DC24V	DC24V power input
	2	24V2_IL	I	DC24V	DC24V power input
	3	DACSLD1	I	DC0V/3.3V	DAC load signal 1
	4	DACSLD2	I	DC0V/3.3V	DAC load signal 2
	5	DACSCLK	I	DC0V/ 3.3V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDAT	I	DC0V/ 3.3V(pulse)	DAC data signal
	8	HVREM	I	DC0V/3.3V	Secondary transfer (reverse) / PB remote signal
	9	HVCLKSLV	I	DC0V/3.3V	Developer clock (SLV) signal
	10	MISENS	O	Analog	Main charger (K) current detection
	11	PGND	-	-	Ground
	12	PGND	-	-	Ground
	13	HVCLKMAG	I	DC0V/24V(pulse)	Developer clock (MAG) signal
	14	MHCHGCLK	I	DC0V/24V(pulse)	Main charger clock signal
	15	MYISENS	O	Analog	Main charger (Y) current detection
	16	MMISENS	O	Analog	Main charger (M) current detection
	17	MCISENS	O	Analog	Main charger (C) current detection
	18	T2CNT	I	Analog	Secondary transfer control voltage
	19	CLCNT	I	Analog	Cleaning control voltage
	20	DISCHARGE	O	Analog	Discharge detection voltage
YC1 Connected to the engine PWB (35 ppm model)	1	24V2_IL	I	DC24V	DC24V power input
	2	24V2_IL	I	DC24V	DC24V power input
	3	DACSLD1	I	DC0V/3.3V	DAC load signal 1
	4	DACSLD2	I	DC0V/3.3V	DAC load signal 2
	5	DACSCLK	I	DC0V/ 3.3V(pulse)	DAC clock signal
	6	SGND	-	-	Ground
	7	DACSDAT	I	DC0V/ 3.3V(pulse)	DAC data signal
	8	HVREM	I	DC0V/3.3V	Secondary transfer (reverse) / PB remote signal
	9	HVCLK	I	DC0V/3.3V	Developer clock (SLV) signal
	10	MISENS	O	Analog	Main charger (K) current detection
	11	GND	-	-	Ground
	12	GND	-	-	Ground

(4) Transfer high voltage PWB (TCHVPWB) : 40 ppm model only

(4-1) Connector position

Figure 8-13

(4-2) PWB photograph
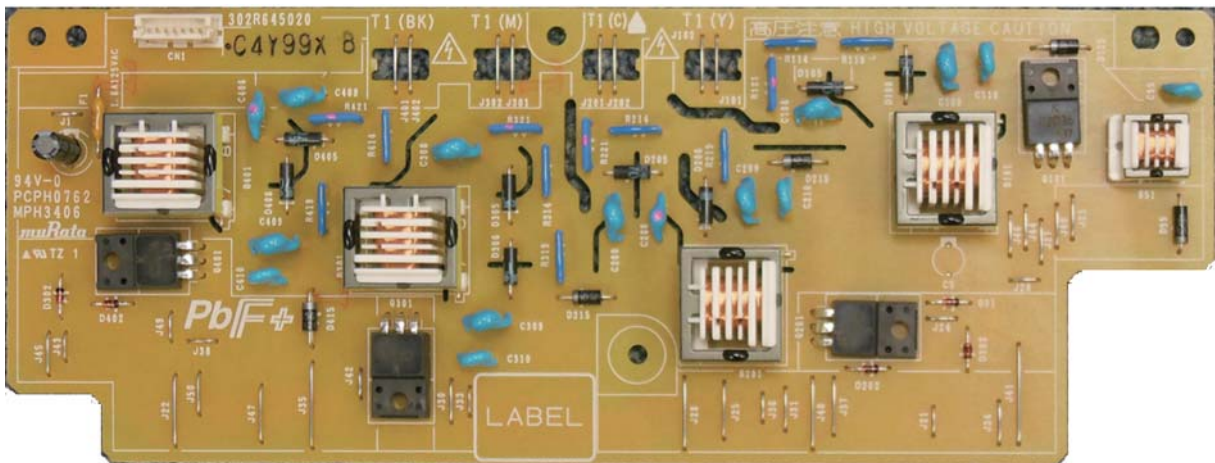
Figure 8-14

(4-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
CN1	1	24V2_IL	I	DC24V	DC24V power input
Connected to the engine PWB	2	T1MCNT	I	Analog	Primary transfer (M) control voltage
	3	T1YCNT	I	Analog	Primary transfer (Y) control voltage
	4	HVREM	I	DC0V/24V	High voltage remote signal
	5	T1CCNT	I	Analog	Primary transfer (C) control voltage
	6	T1KCNT	I	Analog	Primary transfer (K) control voltage
	7	GND	-	-	Ground

(5) Power supply PWB (PSPWB)

(5-1) Connector position

Figure 8-15

(5-2) PWB photograph

Figure 8-16

(5-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
TB1 Connected to the inlet	1	LIVE	I	AC100V	AC power input
TB2 Connected to the inlet	1	NEUTRAL	I	AC100V	AC power input
YC2 Connected to the fuser heater	1	SH	O	AC100V	AC power output to SH
	2	NC	-	-	Not used
	3	LIVE_OUT	O	AC100V	AC power output to SH
	4	LIVE_OUT	O	AC100V	AC power output to MH
	5	NC	-	-	Not used
	6	MH	O	AC100V	AC power output to MH
YC4 Connected to the cassette heater	1	DH_LIVE	0	AC100V	AC power output to CH
	2	DH_LIVE	0	AC100V	AC power output to CH
	3	NC	-	-	Not used
	4	NC	-	-	Not used
	5	DH_NEUTRAL	0	AC100V	AC power output to CH
	6	DH_NEUTRAL	0	AC100V	AC power output to CH
YC5 Connected to the engine PWB	1	24V2	0	DC24V	DC24V power output
	2	24V2	0	DC24V	DC24V power output
	3	24V2	0	DC24V	DC24V power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	5V0	0	DC5V	DC5V power output
YC6 Connected to the engine PWB	1	GND	-	-	Ground
	2	24V2IL	I	DC24V	DC24V power input
	3	RELAYREM	I	DC0V/3.3V	Power relay signal
	4	MHREM	I	DC0V/3.3V	MH: On/Off
	5	SHREM	I	DC0V/3.3V	SH: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC6	6	GND	-	-	Ground
Connected to the engine PWB	7	24V2	I	DC24V	DC24V power input
	8	DHREM	I	DC0V/3.3V	CH: On/Off
	9	5V0	I	DC5V	DC5V power input
YC7	1	GND	-	-	Ground
Connected to the main PWB	2	5V0	O	DC5V	DC5V power output
	3	GND	-	-	Ground
	4	5V0	O	DC5V	DC5V power output
	5	GND	-	-	Ground
	6	5V0	O	DC5V	DC5V power output
	7	GND	-	-	Ground
	8	5V0	O	DC5V	DC5V power output
	9	GND	-	-	Ground
	10	5V0	O	DC5V	DC5V power output
YC8	1	24V2PF	O	DC24V	DC24V power output
Connected to the DF main PWB, MT main PWB, PF main PWB	2	24V2DF	O	DC24V	DC24V power output
	3	24V2DF	O	DC24V	DC24V power output
	4	24V2	O	DC24V	DC24V power output
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
YC9	1	GND	-	-	Ground
Connected to the engine PWB	2	LVU_SLEEP	I	DC0V/24V	Sleep signal
	3	ZCROSS	O	DC0V/ 3.3V(pulse)	Zero cross signal

(6) Operation panel PWB (OPPWB)

(6-1) Connector position
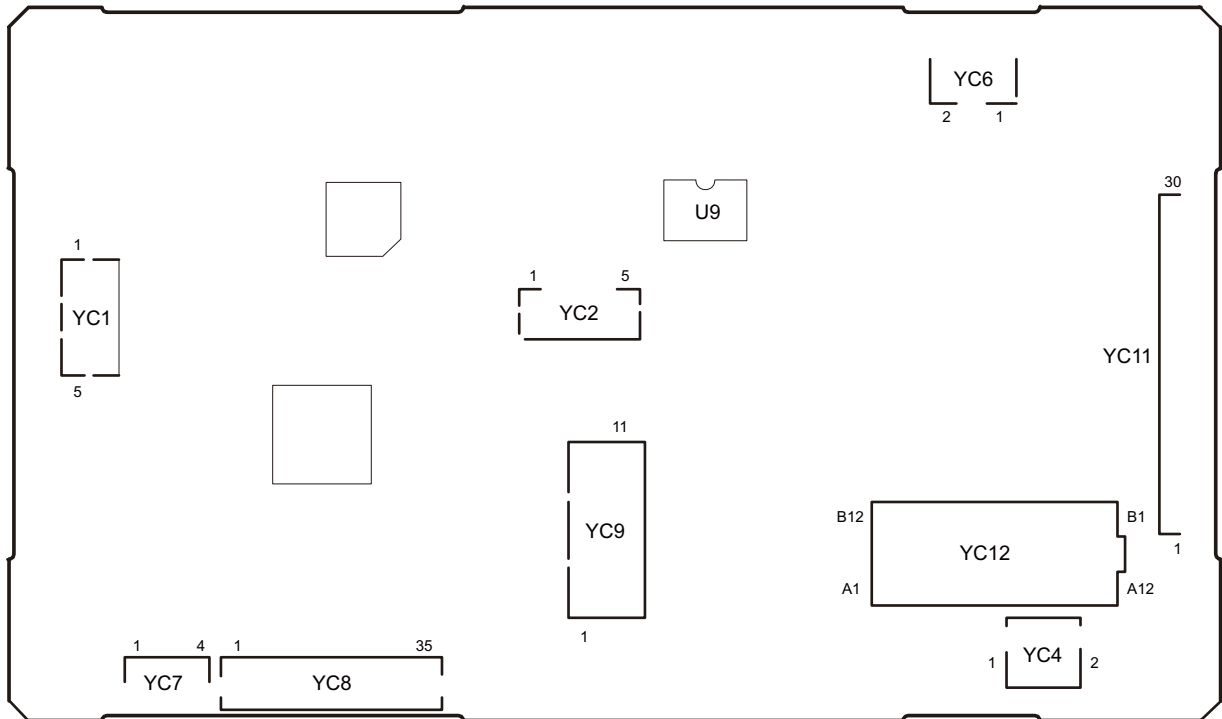
Figure 8-17

(6-2) PWB photograph
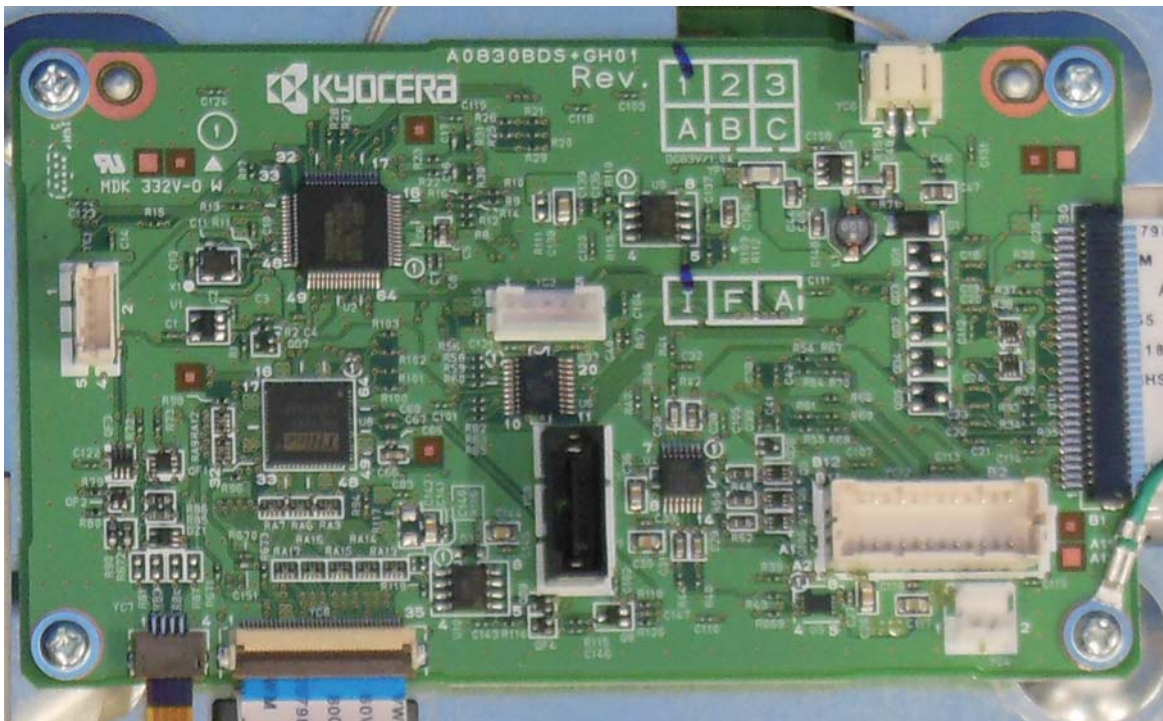
Figure 8-18

(6-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1 Connected to the operation panel key PWB	1	JOB_LED	I	DC0V/3.3V	JOB LED control signal (inner DF)
	2	PROCESS-ING	I	DC0V/3.3V	Processing LED control signal
	3	MEMORY	I	DC0V/3.3V	Memory LED control signal
	4	ATTENTION	I	DC0V/3.3V	Attention LED control signal
	5	GND	-	-	Ground
	6	KEY3	I	DC0V/3.3V(pulse)	Op2eration panel key scan return signal 3
	7	SCAN0	O	DC0V/3.3V(pulse)	Scan signal 0
	8	KEY2	I	DC0V/3.3V(pulse)	Operation panel key scan return signal 2
	9	KEY1	I	DC0V/3.3V(pulse)	Operation panel key scan return signal 1
	10	KEY0	I	DC0V/3.3V(pulse)	Operation panel key scan return signal 0
	11	NC	-	-	Not used
	12	LED2	O	DC0V/3.3V(pulse)	Operation panel LED display drive signal 2
	13	LED1	O	DC0V/3.3V(pulse)	Operation panel LED display drive signal 1
	14	LED0	O	DC0V/3.3V(pulse)	Operation panel LED display drive signal 0
	15	NC	-	-	Not used
	16	SCAN1	O	DC0V/3.3V(pulse)	Scan signal 1
	17	SCAN3	O	DC0V/3.3V(pulse)	Scan signal 3
	18	GND	-	-	Ground
	19	SCAN2	O	DC0V/3.3V(pulse)	Scan signal 2
	20	SCAN4	O	DC0V/3.3V(pulse)	Scan signal 4
	21	KEY4	I	DC0V/3.3V(pulse)	Operation panel key scan return signal 4
	22	KEY5	I	DC0V/3.3V(pulse)	Operation panel key scan return signal 5
	23	NC	-	-	Not used
	24	LED3	O	DC0V/3.3V(pulse)	Operation panel LED display drive signal 3

Connector	Pin	Signal	I/O	Voltage	Description
YC1	25	NC	-	-	Not used
Connected to the opera-tion panel key PWB	26	KEY6	I	DC0V/ 3.3V(pulse)	Operation panel key scan return signal 6
	27	GND	-	-	Ground
	28	INT_POWER KEY_N	O	DC0V/3.3V	Power key: On/Off
	29	NC	-	-	Not used
	30	5V0	-	-	Ground
YC2	1	GND	-	-	Ground
Connected to the LCD	2	R0	O	DC0V/3.3V	Red data signal (LSB)
	3	R1	O	DC0V/3.3V	Red data signal
	4	R2	O	DC0V/3.3V	Red data signal
	5	R3	O	DC0V/3.3V	Red data signal
	6	R4	O	DC0V/3.3V	Red data signal
	7	R5	O	DC0V/3.3V	Red data signal (MSB)
	8	GND	-	-	Ground
	9	G0	O	DC0V/3.3V	Green data signal (LSB)
	10	G1	O	DC0V/3.3V	Green data signal
	11	G2	O	DC0V/3.3V	Green data signal
	12	G3	O	DC0V/3.3V	Green data signal
	13	G4	O	DC0V/3.3V	Green data signal
	14	G5	O	DC0V/3.3V	Green data signal (MSB)
	15	GND	-	-	Ground
	16	B0	O	DC0V/3.3V	Blue data signal (LSB)
	17	B1	O	DC0V/3.3V	Blue data signal
	18	B2	O	DC0V/3.3V	Blue data signal
	19	B3	O	DC0V/3.3V	Blue data signal
	20	B4	O	DC0V/3.3V	Blue data signal
	21	B5	O	DC0V/3.3V	Blue data signal (MSB)
	22	GND	-	-	Ground
	23	DCLK	O	DC0V/ 3.3V(pulse)	LCD dot clock signal
	24	3.3V	-	DC3.3V	3.3V power for LCD
	25	3.3V	-	DC3.3V	3.3V power for LCD
	26	3.3V	-	DC3.3V	3.3V power for LCD

Connector	Pin	Signal	I/O	Voltage	Description
YC2	27	3.3V	-	DC3.3V	3.3V power for LCD
Connected to the LCD	28	DE	O	DC0V/ 3.3V(pulse)	LCD data enabling signal
	29	HSYNC	O	DC0V/ 3.3V(pulse)	Horizontal synchronizing signal
	30	VSYNC	O	DC0V/ 3.3V(pulse)	Vertical synchronizing signal
	31	LED_EN	O	DC0V/ 3.3V(pulse)	LED driver enabling signal
	32	LED_PWM	O	DC0V/ 3.3V(pulse)	LED driver PWM signal
	33	TSC_INT	I	DC0V/ 3.3V(pulse)	Touch panel interrupt signal
	34	I2C_SDA	I/O	DC0V/ 3.3V(pulse)	Touch panel control signal
	35	I2C_SCL	O	DC0V/ 3.3V(pulse)	Touch panel control clock signal
YC3	1	VO2	O	Analog	Speaker sound signal (+)
Connected to the speaker	2	VO1	O	Analog	Speaker sound signal (-)
YC6	1	LED_A	O	DC0V/5V	LED control signal
Connected to the LCD	2	LED_C	I	DC0V/5V	LED control signal
YC8	1	BOT_Y-	I	Analog	Touch panel XP position signal
Connected to the touch panel	2	LEFT_X+	I	Analog	Touch panel YN position signal
	3	TOP_Y+	I	Analog	Touch panel XN position signal
	4	RIGHT_X-	I	Analog	Touch panel YP position signal
YC12	A1	+5V	-	DC5V	DC5V power
Connected to the main PWB	A2	+5V	-	DC5V	DC5V power
	A3	+5V	-	DC5V	DC5V power
	A4	+5V	-	DC5V	DC5V power
	A5	JOB_LED	I	DC0V/3.3V	JOB LED control signal
	A6	ANY_KEY	O	DC0V/3.3V	ANY KEY recovery signal
	A7	LIGHTOFF_P OWERON	I	DC0V/3.3V	Sleep recovery signal

Connector	Pin	Signal	I/O	Voltage	Description
YC12	A8	C2P_SCK	I	DC0V/ 3.3V(pulse)	Panel clock signal
Connected to the main PWB	A9	P2C_SBSY	O	DC0V/3.3V	Panel busy signal
	A10	P2C_SDIR	O	DC0V/3.3V	Panel communication direction signal
	A11	C2P_SDAT	O	DC0V/ 3.3V(pulse)	Serial communication data signal
	A12	P2C_SDAT	I	DC0V/ 3.3V(pulse)	Serial communication data signal
	B1	GND	-	-	Ground
	B2	INT_POWER KEY	O	DC0V/3.3V	Power key: On/Off
	B3	AUDIO	I	Analog	Audio output signal
	B4	LED_PROCE SSING	I	DC0V/3.3V	Processing LED control signal
	B5	LED_ATTENT ION	I	DC0V/3.3V	Attention LED control signal
	B6	LED_MEMOR Y	I	DC0V/3.3V	Memory LED control signal
	B7	BEEP_POWE RON	I	DC0V/3.3V	Sleep recovery signal
	B8	PANEL_RESE	I	DC0V/3.3V	Reset signal
	B9	GND	-	-	Ground
	B10	GND	-	-	Ground
	B11	GND	-	-	Ground
	B12	GND	-	-	Ground
YC22	1	GND	-	-	Ground
Connected to the main PWB	2	LCD_OFF	I	DC0V/3.3V	Control signal
	3	LOCKN	O	DC0V/3.3V	Lock signal
	4	GND	-	-	Ground
	5	RX0N	I	LVDS	Transmission data signal
	6	RX0P	I	LVDS	Transmission data signal
	7	GND	-	-	Ground

8-3 Description for PWB (OPTION)

(1) PF main PWB (PFMPWB) for PF-5120

(1-1) Connector position

Figure 8-19

(1-2) PWB photograph

Figure 8-20

(1-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPS
Connected to the paper detection sensor, paper level sensor 1, paper level sensor 2, paper length detection sensor 1, paper length detection sensor 2, paper length detection sensor 3	2	GND	-	-	Ground
	3	CAS1_EMPTY	I	DC0V/3.3V	PFPS: On/Off
	4	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS1
	5	GND	-	-	Ground
	6	CAS1_QUANT1	I	DC0V/3.3V	PFPGS1: On/Off
	7	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS2
	8	GND	-	-	Ground
	9	CAS1_QUANT2	I	DC0V/3.3V	PFPGS2: On/Off
	10	GND	-	-	Ground
	11	CAS1_SIZE1_SENS	I	DC0V/3.3V	PFPLSW1: On/Off
	12	GND	-	-	Ground
	13	CAS1_SIZE2_SENS	I	DC0V/3.3V	PFPLSW2: On/Off
	14	GND	-	-	Ground
	15	CAS1_SIZE3_SENS	I	DC0V/3.3V	PFPLSW3: On/Off
YC4	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFLS
Connected to the lift upper limit sensor, feed sensor, right cover switch	2	GND	-	-	Ground
	3	ULIM_SW_1	I	DC0V/3.3V	PFLS: On/Off
	4	3.3V4	O	DC3.3V	DC3.3V power output to PFFS
	5	VER_SENS_1	I	DC0V/3.3V	PFFS: On/Off
	6	GND	-	-	Ground
	7	COVER_OPEN	I	DC0V/3.3V	PFRCSW: On/Off
	8	GND	-	-	Ground
YC6	1	L_MOT1_RET	O	DC0V	PFLM drive control signal
Connected to the lift motor	2	L_MOT1_DR	O	DC0V/24V	PFLM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	+24V	O	DV24V	DC24V power output to PFFM
Connected to the paper feed motor	2	GND	-	-	Ground
	3	START/STOP	O	DC0V/5V	PFFM drive control signal
	4	CLOCK	O	DC0V/5V(pulse)	PFFM drive control signal
	5	LD	I	DC0V/3.3V	PFFM drive control signal
	6	CW/CCW	O	DC0V/5V	PFFM drive control signal
YC9	1	VER_CL1	O	DC0V/24V	PFCCL: On/Off
Connected to the convey-ing clutch and paper feed clutch	2	24V1	O	DV24V	DC24V power output to PFCCL
	3	FEED_CL1	O	DC0V/24V	PFFCL: On/Off
	4	24V1	O	DV24V	DC24V power output to PFFCL
	5	VER_CL2	-	-	Not used
YC10	1	GND	-	-	Ground
Connected to the PF main PWB	2	GND	-	-	Ground
	3	24V2	O	DV24V	DC24V power output to PF
YC11	1	24V1	I	DC24V	DC24V power input from the main unit
Connected to the engine PWB	2	GND	-	-	Ground
YC12	1	VER_SENS	O	DC0V/3.3V	PFFS: On/Off
Connected to the engine PWB	2	+3.3V3	I	DC3.3V	DC3.3V power input from the main unit
	3	GND	-	-	Ground
	4	PF_CAS1_SEL	I	DC0V/3.3V	Cassette select signal 1
	5	PF_CAS2_SEL	I	DC0V/3.3V	Cassette select signal 2
	6	EH_CLK	I	DC0V/3.3V(pulse)	Clock signal
	7	EH_RDY	O	DC0V/3.3V	Ready signal
	8	EH_SDO	O	DC0V/3.3V(pulse)	Serial communication data signal
	9	EH_SDI	I	DC0V/3.3V(pulse)	Serial communication data signal
	10	PF_PAU	I	DC0V/3.3V	Pause signal
	11	PF_CAS_OPEN	O	DC0V/3.3V	Cassette insertion and removal signal output

Connector	Pin	Signal	I/O	Voltage	Description
YC13	1	AN_PF_CAS_OPEN	I	DC0V/3.3V	Cassette insertion and removal signal input
Connected to the PF main PWB	2	AN_PF_PAUSE	O	DC0V/3.3V	Pause signal
	3	AN_PF_SDI	O	DC0V/3.3V(pulse)	Serial communication data signal
	4	AN_PF_SDO	I	DC0V/3.3V(pulse)	Serial communication data signal
	5	AN_PF_RDY	I	DC0V/3.3V	Ready signal
	6	AN_PF_CLK	O	DC0V/3.3V(pulse)	Clock signal
	7	PF_CAS2_SEL	O	DC0V/3.3V	Cassette select signal 4
	8	GND	-	-	Ground
	9	+3.3V3	O	DC3.3V	DC3.3V power output to PF

(2) PF main PWB (PFMPWB) for PF-5130

(2-1) Connector position
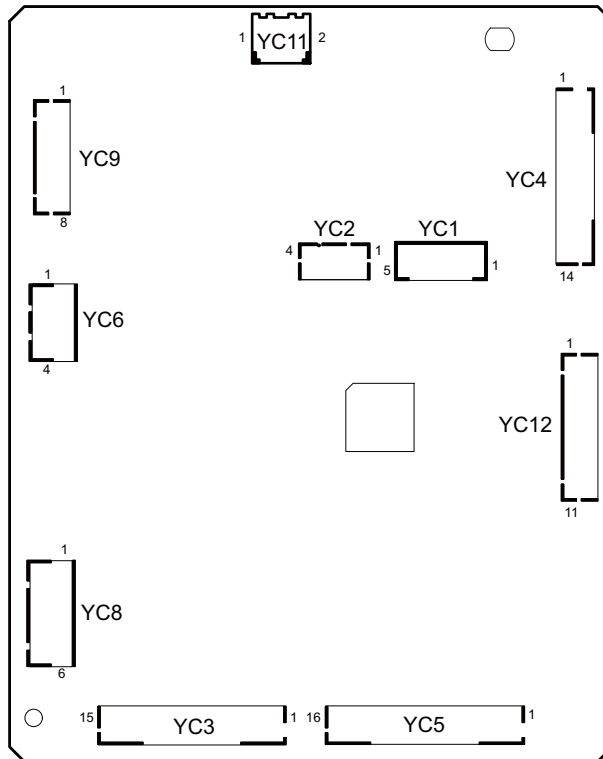
Figure 8-21

(2-2) PWB photograph

Figure 8-22

(2-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPS1
Connected to the paper detection sensor 1, paper level sensor 1, paper level sensor 2, paper length detection switch 1, paper length detection switch 2, paper length detection switch 3	2	GND	-	-	Ground
	3	CAS1_EMPTY	I	DC0V/3.3V	PFPS1: On/Off
	4	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS1
	5	GND	-	-	Ground
	6	CAS1_QUANT1	I	DC0V/3.3V	PFPGS1: On/Off
	7	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS2
	8	GND	-	-	Ground
	9	CAS1_QUANT2	I	DC0V/3.3V	PFPGS2: On/Off
	10	GND	-	-	Ground
	11	CAS1_SIZE1_SENS	I	DC0V/3.3V	PFPLSW1: On/Off
	12	GND	-	-	Ground
	13	CAS1_SIZE2_SENS	I	DC0V/3.3V	PFPLSW2: On/Off
	14	GND	-	-	Ground
	15	CAS1_SIZE3_SENS	I	DC0V/3.3V	PFPLSW3: On/Off
YC4	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFLS 1
Connected to the lift upper limit sensor 1, feed sensor 1, right cover switch, lift upper limit sensor 2, feed sensor 2	2	GND	-	-	Ground
	3	ULIM_SW_1	I	DC0V/3.3V	PFLS1: On/Off
	4	3.3V4	O	DC3.3V	DC3.3V power output to PFFS 1
	5	VER_SENS_1	I	DC0V/3.3V	PFFS1: On/Off
	6	GND	-	-	Ground
	7	COVER_OPEN	I	DC0V/3.3V	PFRCSW: On/Off
	8	GND	-	-	Ground
	9	3.3V5_LED	O	DC3.3V	DC3.3V power output to PFLS2
	10	GND	-	-	Ground
	11	ULIM_SW_2	I	DC0V/3.3V	PFLS2: On/Off
	12	3.3V5	O	DC3.3V	DC3.3V power output to PFFS2
	13	VER_SENS_2	I	DC0V/3.3V	PFFS2: On/Off
	14	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC5 Connected to the paper detection sensor 2, paper detection sensor 3, paper detection sensor 4, paper length detection switch 4, paper length detection switch 5, paper length detection switch 6	1	3.3V5_LED	O	DC3.3V	DC3.3V power output to PFPS2
	2	GND	-	-	Ground
	3	CAS2_EMPTY	I	DC0V/3.3V	PFPS2: On/Off
	4	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS3
	5	GND	-	-	Ground
	6	CAS2_QUANT1	I	DC0V/3.3V	PFPGS3: On/Off
	7	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS4
	8	GND	-	-	Ground
	9	CAS2_QUANT2	I	DC0V/3.3V	PFPGS4: On/Off
	10	GND	-	-	Ground
	11	CAS2_SIZE1_SENS	I	DC0V/3.3V	PFPLSW4: On/Off
	12	GND	-	-	Ground
	13	CAS2_SIZE2_SENS	I	DC0V/3.3V	PFPLSW5: On/Off
	14	GND	-	-	Ground
	15	CAS2_SIZE3_SENS	I	DC0V/3.3V	PFPLSW6: On/Off
	16	GND	-	-	Not used
YC6 Connected to the lift motor 1, lift motor 2	1	L_MOT1_RET	O	DC0V	PFLM1 drive control signal
	2	L_MOT1_DR	O	DC0V/24V	PFLM1 drive control signal
	3	L_MOT2_RET	O	DC0V	PFLM2 drive control signal
	4	L_MOT2_DR	O	DC0V/24V	PFLM2 drive control signal
YC8 Connected to the paper feed motor	1	+24V	O	DV24V	DC24V power output to PFFM
	2	GND	-	-	Ground
	3	START/STOP	O	DC0V/5V	PFFM drive control signal
	4	CLOCK	O	DC0V/5V(pulse)	PFFM drive control signal
	5	LD	I	DC0V/3.3V	PFFM drive control signal
	6	CW/CCW	O	DC0V/5V	PFFM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC9	1	VER_CL1	O	DC0V/24V	PFCCL1: On/Off
Connected to the conveying clutch 1, paper feed clutch 1, conveying clutch 2, paper feed clutch 2	2	24V1	O	DV24V	DC24V power output to PFCCL1
	3	FEED_CL1	O	DC0V/24V	PFFCL1: On/Off
	4	24V1	O	DV24V	DC24V power output to PFFCL1
	5	VER_CL2	O	DC0V/24V	PFCCL2: On/Off
	6	24V1	O	DV24V	DC24V power output to PFCCL2
	7	FEED_CL2	O	DC0V/24V	PFFCL2: On/Off
	8	24V1	O	DV24V	DC24V power output to PFFCL2
YC11	1	24V1	I	DC24V	DC24V power input from PF
Connected to the PF main PWB (PF-5120)	2	GND	-	-	Ground
YC12	1	VER_SENS	O	DC0V/3.3V	PFFS1: On/Off
Connected to the PF main PWB (PF-5120)	2	+3.3V3	I	DC3.3V	DC3.3V power input from PF
	3	GND	-	-	Ground
	4	PF_CAS1_SEL	I	DC0V/3.3V	Cassette select signal 4
	5	PF_CAS2_SEL	-	-	Not used
	6	EH_CLK	I	DC0V/3.3V(pulse)	Clock signal
	7	EH_RDY	O	DC0V/3.3V	Ready signal
	8	EH_SDO	O	DC0V/3.3V(pulse)	Serial communication data signal
	9	EH_SDI	I	DC0V/3.3V(pulse)	Serial communication data signal
	10	PF_PAU	I	DC0V/3.3V	Pause signal
	11	PF_CAS_OPEN	O	DC0V/3.3V	Cassette insertion and removal signal output

(3) PF main PWB (PFMPWB) for PF-5140

(3-1) Connector position

Figure 8-23

(3-2) PWB photograph

Figure 8-24

(3-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPS
Connected to the paper detection sensor, paper level sensor 1, paper level sensor 2, paper deck detection switch	2	GND	-	-	Ground
	3	CAS1_EMPTY	I	DC0V/3.3V	PFPS: On/Off
	4	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS1
	5	GND	-	-	Ground
	6	CAS1_QUANT1	I	DC0V/3.3V	PFPGS1: On/Off
	7	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFPGS2
	8	GND	-	-	Ground
	9	CAS1_QUANT2	I	DC0V/3.3V	PFPGS2: On/Off
	10	GND	-	-	Ground
	11	CAS1_SIZE1_SENS	I	DC0V/3.3V	PFDDSW1: On/Off
	12	GND	-	-	Not used
	13	CAS1_SIZE2_SENS	-	-	Not used
	14	GND	-	-	Not used
	15	CAS1_SIZE3_SENS	-	-	Not used
YC4	1	3.3V4_LED	O	DC3.3V	DC3.3V power output to PFLS 1
Connected to the lift upper limit sensor, feed sensor, right cover switch	2	GND	-	-	Ground
	3	ULIM_SW_1	I	DC0V/3.3V	PFLS1: On/Off
	4	3.3V4	O	DC3.3V	DC3.3V power output to PFFS
	5	VER_SENS_1	I	DC0V/3.3V	PFFS: On/Off
	6	GND	-	-	Ground
	7	COVER_OPEN	I	DC0V/3.3V	PFRCSW: On/Off
	8	GND	-	-	Ground
YC6	1	L_MOT1_RET	O	DC0V/24V(pulse)	PFLM drive control signal
Connected to the lift motor	2	L_MOT1_DR	O	DC0V/24V(pulse)	PFLM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8 Connected to the paper feed motor	1	+24V	O	DV24V	DC24V power output to PFFM
	2	GND	-	-	Ground
	3	START/STOP	O	DC0V/5V	PFFM drive control signal
	4	CLOCK	O	DC0V/5V	PFFM drive control signal
	5	LD	I	DC0V/3.3V	PFFM drive control signal
	6	CW/CCW	O	DC0V/5V	PFFM drive control signal
YC9 Connected to the convey-ing clutch and paper feed clutch	1	VER_CL1	O	DC0V/24V	PFCCL1: On/Off
	2	24V1	O	DV24V	DC24V power output to PFCCL1
	3	FEED_CL1	O	DC0V/24V	PFFCL1: On/Off
	4	24V1	O	DV24V	DC24V power output to PFFCL1
	5	VER_CL2	-	-	Not used
YC11 Connected to the PF main PWB (PF-5120)	1	24V1	I	DC24V	DC24V power input from PF
	2	GND	-	-	Ground
YC12 Connected to the PF main PWB (PF-5120)	1	VER_SENS	O	-	PFFS1: On/Off
	2	+3.3V3	I	DC3.3V	DC3.3V power input from PF
	3	GND	-	-	Ground
	4	PF_CAS1_SEL	I	DC0V/3.3V	Cassette select signal 4
	5	PF_CAS2_SEL	-	-	Not used
	6	EH_CLK	I	DC0V/3.3V(pulse)	Clock signal
	7	EH_RDY	O	DC0V/3.3V	Ready signal
	8	EH_SDO	O	DC0V/3.3V(pulse)	Serial communication data signal
	9	EH_SDI	I	DC0V/3.3V(pulse)	Serial communication data signal
	10	PF_PAU	I	DC0V/3.3V	Pause signal
	11	PF_CAS_OPEN	O	DC0V/3.3V	Cassette insertion and removal signal output

(4) DP main PWB (DPMPWB) for DP-5100
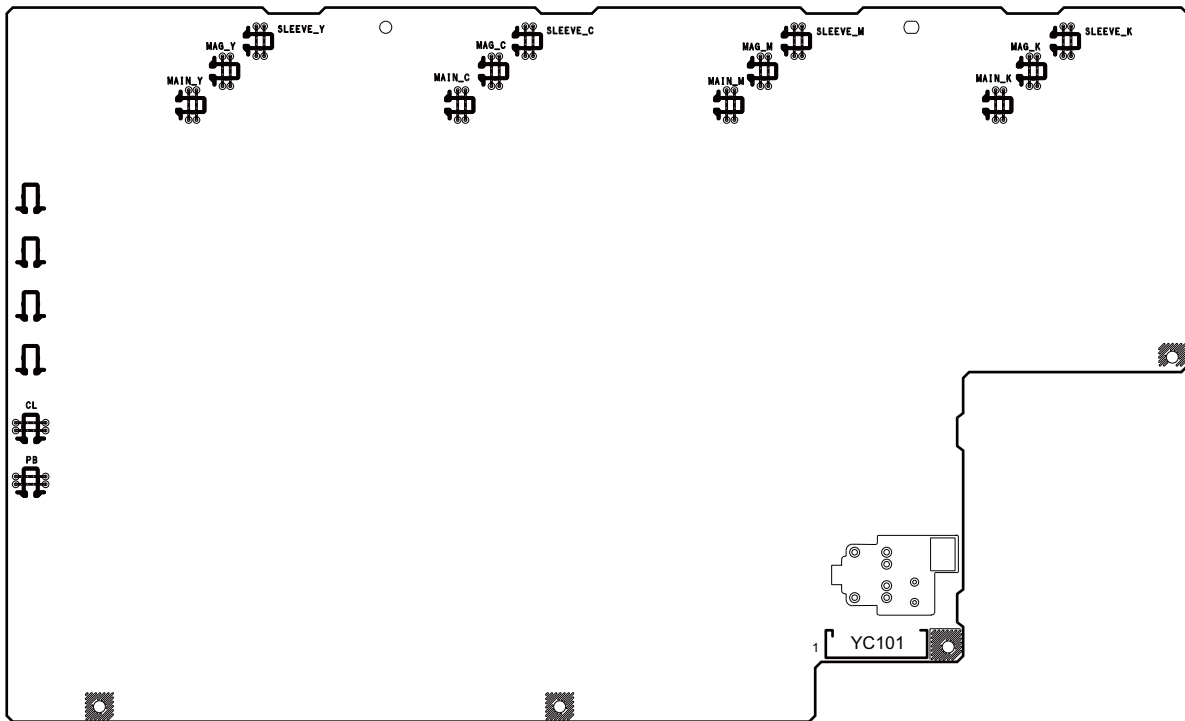
(4-1) Connector position
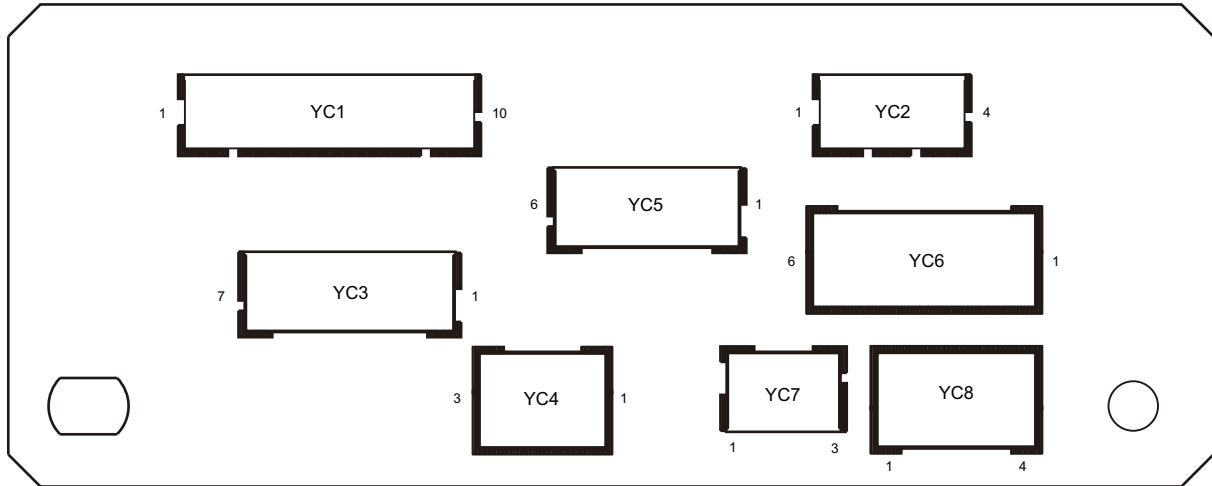
Figure 8-25

(4-2) PWB photograph

Figure 8-26

(4-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	+3.3V3	I	DC3.3V	DC3.3V power input from the main unit
Connected to the engine PWB	2	3.3V2	I	DC3.3V	DC3.3V power input from the main unit
	3	GND	-	-	Ground
	4	3.3V2	I	DC3.3V	DC3.3V power input from the main unit
	5	DP_DET	O	DC0V	DP connection detection voltage
	6	DP_HSIZESW	O	Analog	DPOWS detection voltage
	7	DP_VSIZESW	O	DC0V/3.3V	DPOLS: On/Off
	8	DP_JHPSW_EXITSW	O	DC0V/3.3V	DPFSS: On/Off
	9	DP_OPENSW	O	DC0V/3.3V	DPOCS: On/Off
	10	GND	-	-	Ground
YC2	1	DP_SETSW	O	DC0V/3.3V	DPOS: On/Off
Connected to the engine PWB	2	DP_REGSW_TMGSW	O	DC0V/3.3V	DPRS: On/Off
	3	GND	-	-	Ground
	4	DP_FEEDSW	O	DC0V/3.3V	DPFS: On/Off
YC3	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPOLS
Connected to the original length detection sensor, original width detection sensor	2	GND	-	-	Ground
	3	DP_VSIZESW	I	DC0V/3.3V	DPOLS: On/Off
	4	3.3V2	O	DC3.3V	DC3.3V power output to DPOWS
	5	DP_WSIZE	I	Analog	DPOWS detection voltage
	6	GND	-	-	Ground
	7	NC	-	-	Not used
YC4	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPFSS
Connected to the feedshift sensor	2	GND	-	-	Ground
	3	DP_JHPSW_EXITSW	I	DC0V/3.3V	DPFSS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	3.3V3_LED	O	DC3.3V	DC3.3V power output to DPOS
Connected to the original detection sensor, DP open/close sensor	2	GND	-	-	Ground
	3	DP_SETSW	I	DC0V/3.3V	DPOS: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPOCS
	5	GND	-	-	Ground
	6	DP_OPENSW	I	DC0V/3.3V	DPOCS: On/Off
YC6	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPFS
Connected to the paper feed section, registration sensor	2	GND	-	-	Ground
	3	DP_FEEDSW	I	DC0V/3.3V	DPFS: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPRS
	5	GND	-	-	Ground
	6	DP_TMGSW	I	DC0V/3.3V	DPRS: On/Off

(5) DP main PWB (DPMPWB) for DP-5110
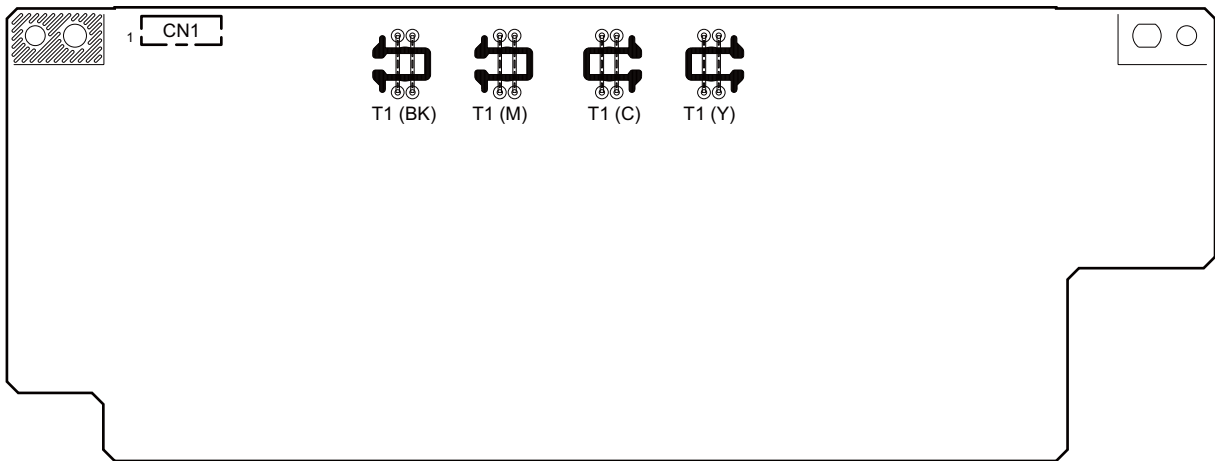
(5-1) Connector position
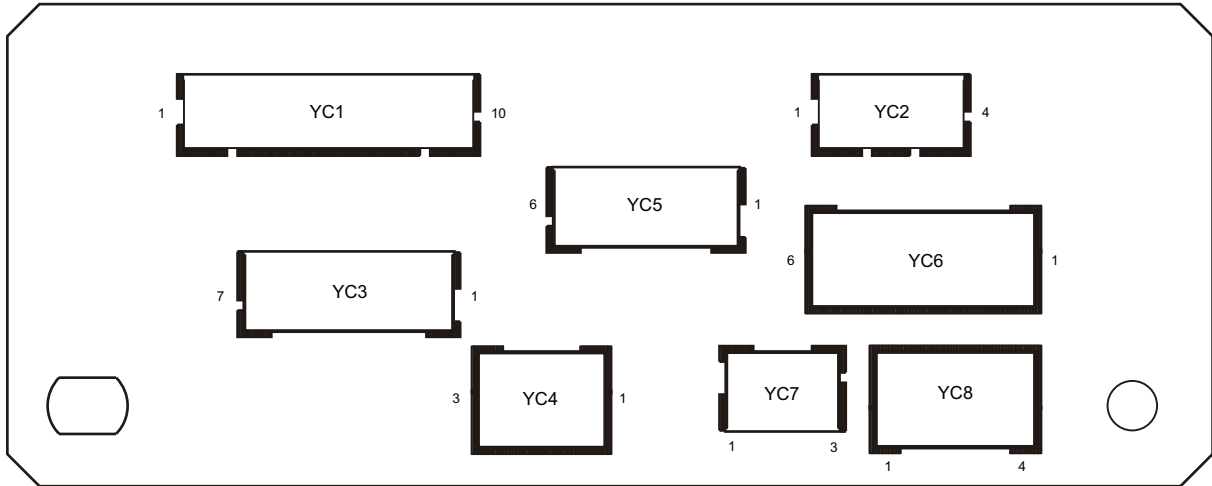
Figure 8-27

(5-2) PWB photograph

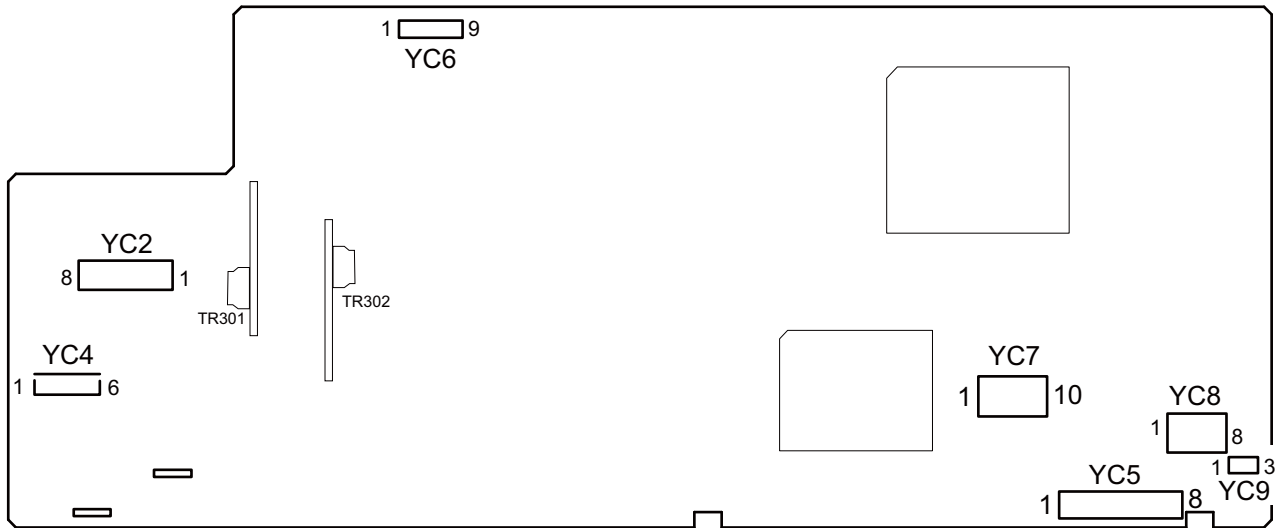**Figure 8-28**

(5-3) Connector lists

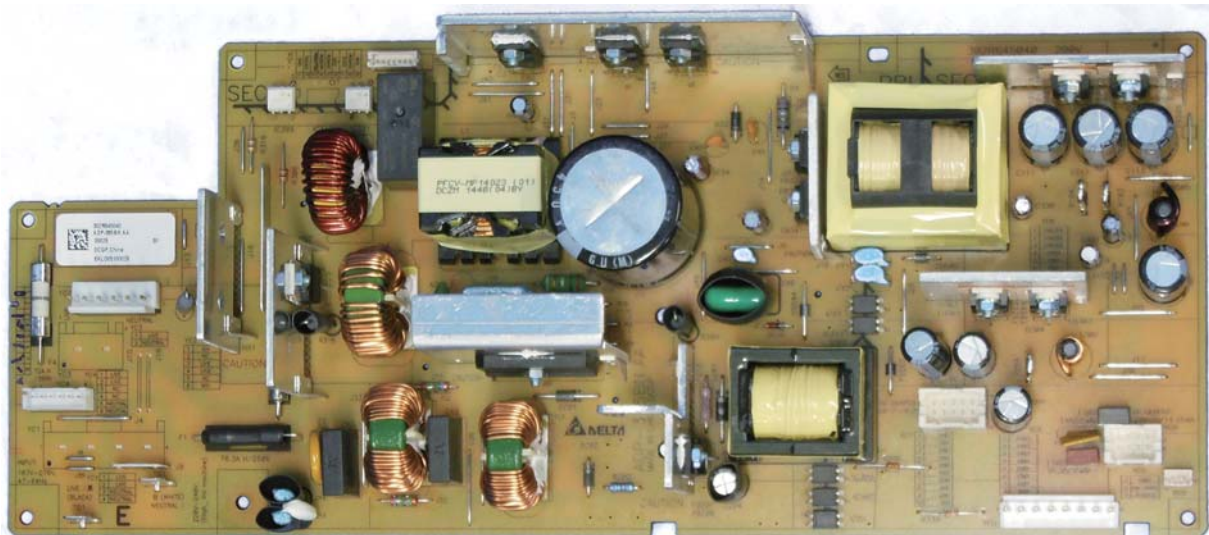| Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	+3.3V3	I	DC3.3V	DC3.3V power input from the main unit
Connected to the engine PWB	2	3.3V2	I	DC3.3V	DC3.3V power input from the main unit
	3	GND	-	-	Ground
	4	3.3V2	I	DC3.3V	DC3.3V power input from the main unit
	5	DP_DET	O	DC0V	DP connection detection voltage
	6	DP_HSIZESW	O	Analog	DPOWS detection voltage
	7	DP_VSIZESW	O	DC0V/3.3V	DPOLS: On/Off
	8	DP_JHPSW_EXITSW	O	DC0V/3.3V	DPES: On/Off
	9	DP_OPENSW	O	DC0V/3.3V	DPOCS: On/Off
	10	GND	-	-	Ground
YC2	1	DP_SETSW	O	DC0V/3.3V	DPOS: On/Off
Connected to the engine PWB	2	DP_REGSW_TMGSW	O	DC0V/3.3V	DPTS: On/Off
	3	GND	-	-	Ground
	4	DP_FEEDSW	O	DC0V/3.3V	DPFS: On/Off
YC3	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPOLS
Connected to the original length detection sensor, original width detection sensor	2	GND	-	-	Ground
	3	DP_VSIZESW	I	DC0V/3.3V	DPOLS: On/Off
	4	3.3V2	O	DC3.3V	DC3.3V power output to DPOWS
	5	DP_WSIZE	I	Analog	DPOWS detection voltage
	6	GND	-	-	Ground
	7	NC	-	-	Not used
YC4	1	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPES
Connected to the eject sensor	2	GND	-	-	Ground
	3	DP_JHPSW_EXITSW	I	DC0V/3.3V	DPES: On/Off

2R4/2R5/2R6

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	3.3V3_LED	O	DC3.3V	DC3.3V power output to DPOS
Connected to the original detection sensor, DP open/close sensor	2	GND	-	-	Ground
	3	DP_SETSW	I	DC0V/3.3V	DPOS: On/Off
	4	3.3V2_LED	O	DC3.3V	DC3.3V power output to DPOCS
	5	GND	-	-	Ground
	6	DP_OPENSW	I	DC0V/3.3V	DPOCS: On/Off
YC7	1	3.3V2	O	DC3.3V	DC3.3V power output to DPTS
Connected to the DP timing sensor	2	DP_TMGSW	I	DC0V/3.3V	DPTS: On/Off
	3	GND	-	-	Ground
YC8	1	3.3V2	O	DC3.3V	DC3.3V power output to DPFS
Connected to the paper feed section	2	DP_FEEDSW	I	DC0V/3.3V	DPFS: On/Off
	3	GND	-	-	Ground
	4	NC	-	-	Not used

(6) DF main PWB (DFMPWB) for DF-5100

(6-1) Connector position

Figure 8-29

(6-2) PWB photograph
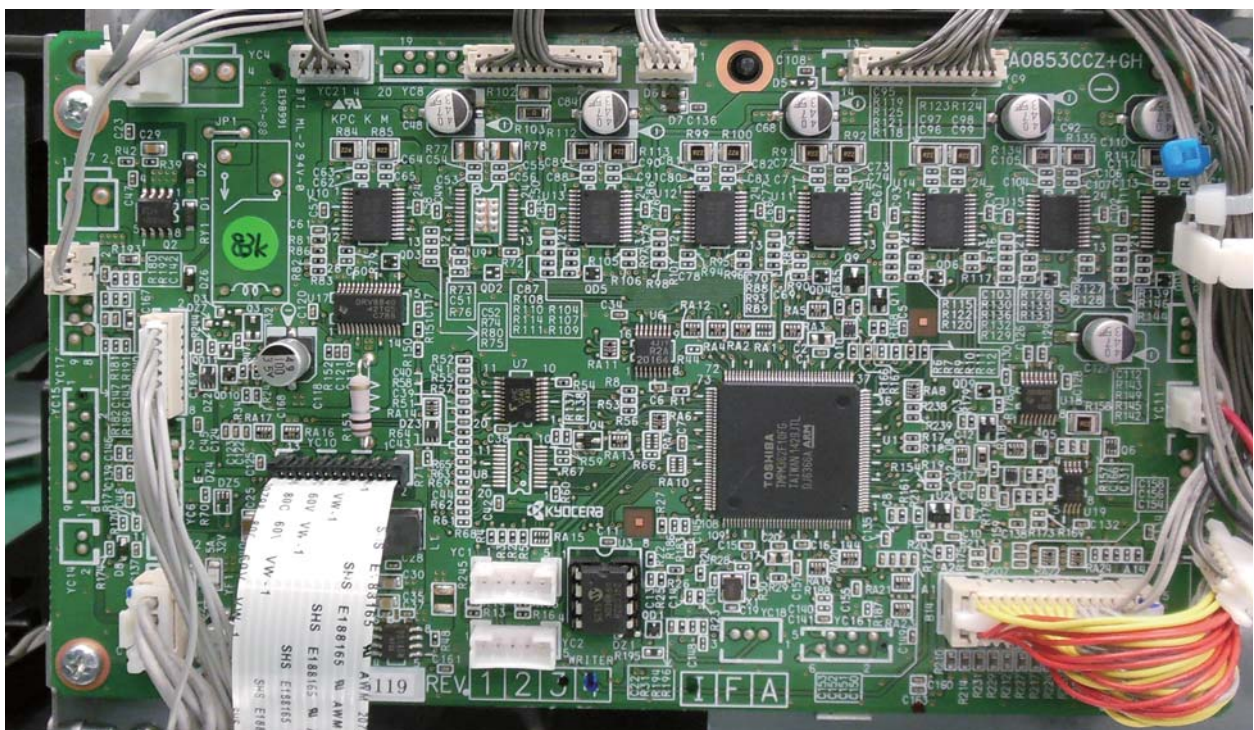
Figure 8-30

(6-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	GND	-	-	Ground
(30 ppm model) Engine PWB (35/40 ppm models) Connected to the power supply PWB	2	GND	-	-	Ground
	3	24V1	I	DC24V	DC24V power input from the main unit
	4	24V1	I	DC24V	DC24V power input from the main unit
YC4	1	24V1	O	DC24V	DC24V power output to DFSSW
Connected to the DF set switch	2	SET SW (INTERLOCK)	I	DC0V/24V	DFSSW: On/Off
YC5	1	ENG RDY	O	DC0V/3.3V	Ready signal
Connected to the engine PWB	2	ENG SEL	I	DC0V/3.3V	Select signal
	3	ENG DI	I	DC0V/ 3.3V(pulse)	Serial communication data signal input
	4	ENG DO	O	DC0V/ 3.3V(pulse)	Serial communication data signal output
	5	ENG PAU	-	-	Not used
	6	DET	-	-	Ground
	7	ENG CLK	I	DC0V/ 3.3V(pulse)	Serial clock signal
	8	GND	-	-	Ground
YC8	1	EJECT MOT 2B	O	DC0V/24V(pulse)	DFEM drive control signal
Connected to the eject motor, slide motor, eject release motor	2	EJECT MOT 1B	O	DC0V/24V(pulse)	DFEM drive control signal
	3	EJECT MOT 2A	O	DC0V/24V(pulse)	DFEM drive control signal
	4	EJECT MOT 1A	O	DC0V/24V(pulse)	DFEM drive control signal
	5	STP MOV MOT 2B	O	DC0V/24V(pulse)	DFSLM drive control signal
	6	STP MOV MOT 1B	O	DC0V/24V(pulse)	DFSLM drive control signal
	7	STP MOV MOT 2A	O	DC0V/24V(pulse)	DFSLM drive control signal
	8	STP MOV MOT 1A	O	DC0V/24V(pulse)	DFSLM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC8 Connected to the eject motor, slide motor, eject release motor	9	EJE RELS MOT 2B	O	DC0V/24V(pulse)	DFERM drive control signal
	10	EJE RELS MOT 1B	O	DC0V/24V(pulse)	DFERM drive control signal
	11	EJE RELS MOT 2A	O	DC0V/24V(pulse)	DFERM drive control signal
	12	EJE RELS MOT 1A	O	DC0V/24V(pulse)	DFERM drive control signal
YC9 Connected to the paddle motor, side registration motor 1, side registration motor 2	1	PADDLE MOT 2B	O	DC0V/24V(pulse)	DFPDM drive control signal
	2	PADDLE MOT 1B	O	DC0V/24V(pulse)	DFPDM drive control signal
	3	PADDLE MOT 2A	O	DC0V/24V(pulse)	DFPDM drive control signal
	4	PADDLE MOT 1A	O	DC0V/24V(pulse)	DFPDM drive control signal
	5	SIDE REG R MOT 2B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	6	SIDE REG R MOT 1B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	7	SIDE REG R MOT 2A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	8	SIDE REG R MOT 1A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	9	SIDE REG F MOT 2B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	10	SIDE REG F MOT 1B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	11	SIDE REG F MOT 2A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	12	SIDE REG F MOT 1A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
YC10 Connected to the stapler	1	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTM drive control signal
	2	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTM drive control signal
	3	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTM drive control signal
	4	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTM drive control signal
	5	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC10 Connected to the stapler	6	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTM drive control signal
	7	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTM drive control signal
	8	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTM drive control signal
	9	GND	-	-	Ground
	10	LS	I	DC0V/3.3V	Staple unit LS signal
	11	READY	I	DC0V/3.3V	Staple unit READY signal
	12	5V	O	DC5V	DC5V power output
	13	HP	I	DC0V/3.3V	Staple unit HP signal
YC11 Connected to the tray motor	1	TRY MOT OUT2	O	DC0V/24V(pulse)	DFTM drive control signal
	2	TRY MOT OUT1	O	DC0V/24V(pulse)	DFTM drive control signal
YC13 Connected to the paper pressing solenoid	1	24V2	O	DC24V	DC24V power output
	2	PAP PRE SOL ACT	O	DC0V/24V	DFPPSOL: On/Off (actuate)
	3	PAP PRE SOL KEEP	O	DC0V/24V	DFPPSOL: On/Off (keep)
YC17 Connected to the paper entry sensor	1	ENTRY SENS A	O	DC5V	DC5V power output to DFPES
	2	GND	-	-	Ground
	3	ENTRY SENS SIG	I	DC0V/3.3V	DFPES: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC19	1	SID REG R HP SENS A	O	DC5V	DC5V power output to DFSRS2
Connected to the side registration sensor 1, side registration sensor 2, tray paper full sensor 1, tray paper full sensor 2, bundle eject sensor, adjustment sensor, slide sensor	2	GND	-	-	Ground
	3	SID REG R HP SENS SIG	I	DC0V/3.3V	DFSRS2: On/Off
	4	SID REG F HP SENS A	O	DC5V	DC5V power output to DFSRS1
	5	GND	-	-	Ground
	6	SID REG F HP SENS SIG	I	DC0V/3.3V	DFSRS1: On/Off
	7	GND	-	-	Ground
	8	PAP SENS SIG	I	DC0V/3.3V	DFMTS: On/Off
	9	3.3V	O	DC3.3V	DC3.3V power output
	10	MTRY FULL SENS A	O	DC5V	DC5V power output to DFTS
	11	GND	-	-	Ground
	12	MTRY FULL SENS SIG	I	DC0V/3.3V	DFTS: On/Off
	13	Paddle HP SENS A	O	DC5V	DC5V power output to DFPDS
	14	GND	-	-	Ground
	15	PADDLE HP SENS SIG	I	DC0V/3.3V	DFPDS: On/Off
	16	PAP PRE LOW SENS A	O	DC5V	DC5V power output to DFPPS2
	17	GND	-	-	Ground
	18	PAP PRE LOW SENS SIG	I	DC0V/3.3V	DFPPS2: On/Off
	19	PAP PRE UP SENS A	O	DC5V	DC5V power output to DFPPS1
	20	GND	-	-	Ground
	21	PAP PRE UP SENS SIG	I	DC0V/3.3V	DFPPS1: On/Off
	22	BUNDLE HP SENS A	O	DC5V	DC5V power output to DFBDS
	23	GND	-	-	Ground
	24	BUNDLE HP SENS SIG	I	DC0V/3.3V	DFBDS: On/Off
	25	ADJUST HP SENS A	O	DC5V	DC5V power output to DFADS

Connector	Pin	Signal	I/O	Voltage	Description
YC19	26	GND	-	-	Ground
	27	ADJUST HP SENS SIG	I	DC0V/3.3V	DFADS: On/Off
	28	STP MOV HP SENS A	O	DC5V	DC5V power output to DFSLS
	29	GND	-	-	Ground
	30	STP MOV HP SENS SIG	I	DC0V/3.3V	DFSLS: On/Off
YC21 Connected to the DF middle motor	1	MIDDLE MOT 1B	O	DC0V/24V(pulse)	DFMM drive control signal
	2	MIDDLE MOT 1A	O	DC0V/24V(pulse)	DFMM drive control signal
	3	MIDDLE MOT 2A	O	DC0V/24V(pulse)	DFMM drive control signal
	4	MIDDLE MOT 2B	O	DC0V/24V(pulse)	DFMM drive control signal

(7) DF main PWB (DFMPWB) for DF-5110
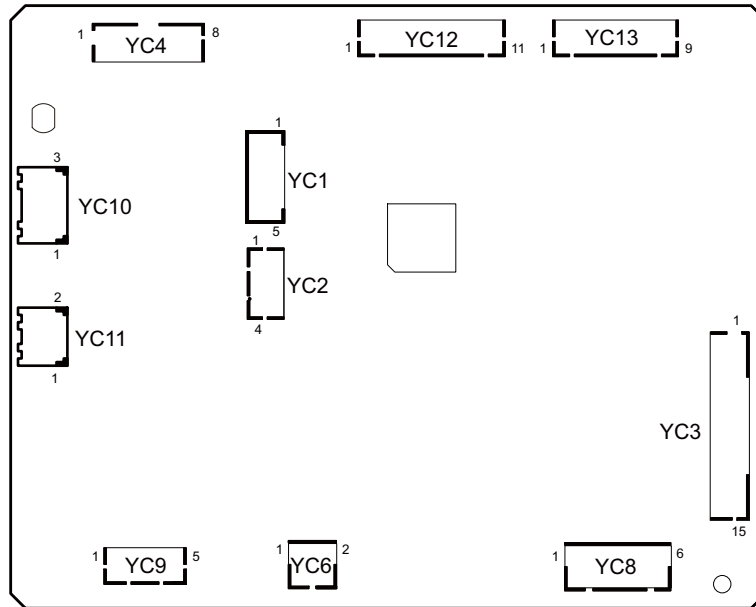
(7-1) Connector position
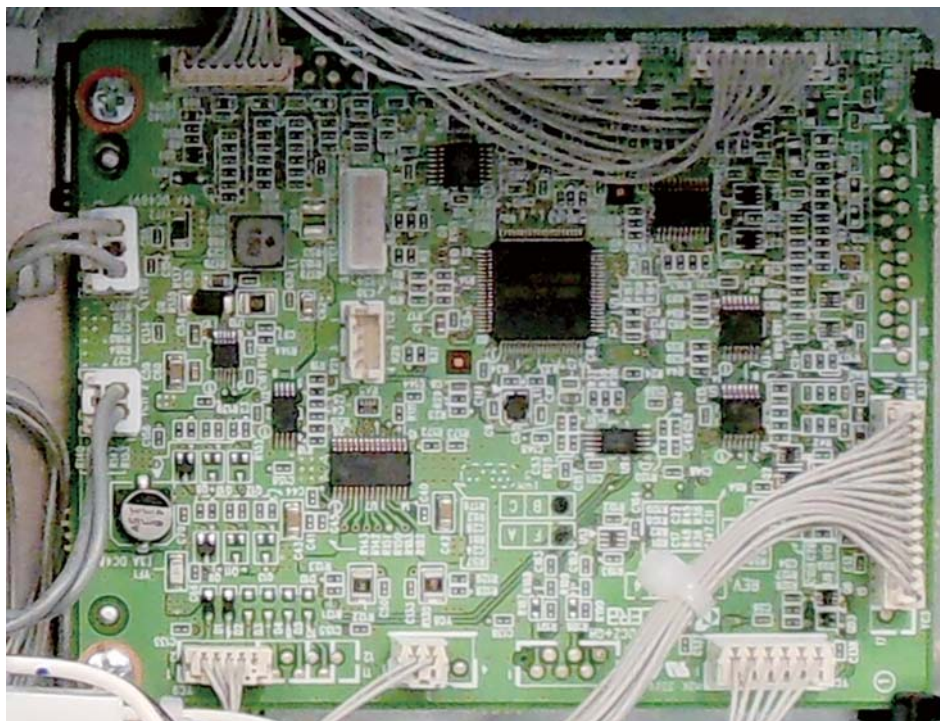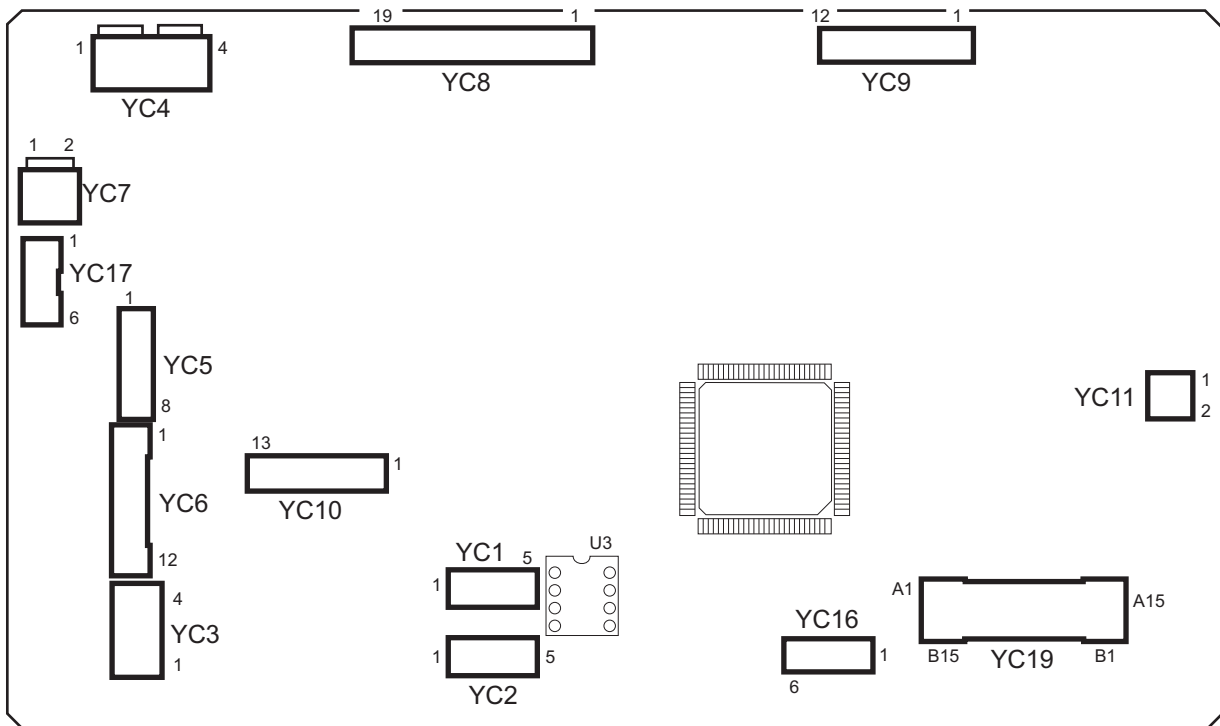

Figure 8-31

(7-2) PWB photograph

Figure 8-32

(7-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	GND	-	-	Ground
Connected to the power supply PWB	2	GND	-	-	Ground
	3	24V1	I	DC24V	DC24V power input from the main unit
	4	24V1	I	DC24V	DC24V power input from the main unit
YC4	1	24V1	O	DC24V	DC24V power output to DFFCSW
Connected to the front cover switch, top cover switch	2	FRONT COV SIG	I	DC0V/24V	DFFCSW: On/Off
	3	TOP COV SOURCE	O	DC24V	DC24V power output to DFTCSW
	4	TOP COV SIG	I	DC0V/24V	DFTCSW: On/Off
YC5	1	ENG RDY	O	DC0V/3.3V	Ready signal
Connected to the engine PWB	2	ENG SEL	I	DC0V/3.3V	Select signal
	3	ENG DI	I	DC0V/3.3V(pulse)	Serial communication data signal input
	4	ENG DO	O	DC0V/3.3V(pulse)	Serial communication data signal output
	5	ENG PAU	-	-	Not used
	6	DET	-	-	Ground
	7	ENG CLK	I	DC0V/3.3V(pulse)	Serial clock signal
	8	GND	-	-	Ground
YC6	1	5V	O	DC5V	DC5V power output
Connected to the punch PWB	2	3.3V	O	DC3.3V	DC3.3V power output
	3	3.3V	O	DC3.3V	DC3.3V power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	PHPES REM	O	DC0V/3.3V	PUPES: On/Off
	7	PHMOT REM	O	DC0V/3.3V	PUM: On/Off
	8	PU RDY	I	DC0V/3.3V	Ready signal
	9	PU SEL	O	DC0V/3.3V	Select signal
	10	PU CLK	O	DC0V/3.3V	Clock signal
	11	PU DI	I	DC0V/3.3V	Serial communication data signal input
	12	PU DO	O	DC0V/3.3V	Serial communication data signal output

Connector	Pin	Signal	I/O	Voltage	Description
YC7 Connected to the punch PWB	1	GND	-	-	Ground
	2	24V2	O	DC24V	DC24V power output
YC8 Connected to the eject motor, slide motor, eject release motor, paper entry motor, middle motor	1	EJECT MOT 2B	O	DC0V/24V(pulse)	DFEM drive control signal
	2	EJECT MOT 1B	O	DC0V/24V(pulse)	DFEM drive control signal
	3	EJECT MOT 2A	O	DC0V/24V(pulse)	DFEM drive control signal
	4	EJECT MOT 1A	O	DC0V/24V(pulse)	DFEM drive control signal
	5	STP MOV MOT 2B	O	DC0V/24V(pulse)	DFSLM drive control signal
	6	STP MOV MOT 1B	O	DC0V/24V(pulse)	DFSLM drive control signal
	7	STP MOV MOT 2A	O	DC0V/24V(pulse)	DFSLM drive control signal
	8	STP MOV MOT 1A	O	DC0V/24V(pulse)	DFSLM drive control signal
	9	EJE RELS MOT 2B	O	DC0V/24V(pulse)	DFERM drive control signal
	10	EJE RELS MOT 1B	O	DC0V/24V(pulse)	DFERM drive control signal
	11	EJE RELS MOT 2A	O	DC0V/24V(pulse)	DFERM drive control signal
	12	EJE RELS MOT 1A	O	DC0V/24V(pulse)	DFERM drive control signal
	13	ENTRY MOT 2B	O	DC0V/24V(pulse)	DFPEM drive control signal
	14	ENTRY MOT 1B	O	DC0V/24V(pulse)	DFPEM drive control signal
	15	ENTRY MOT 2A	O	DC0V/24V(pulse)	DFPEM drive control signal
	16	ENTRY MOT 1A	O	DC0V/24V(pulse)	DFPEM drive control signal
	17	MIDDLE MOT 2B	O	DC0V/24V(pulse)	DFMM drive control signal
	18	MIDDLE MOT 1B	O	DC0V/24V(pulse)	DFMM drive control signal
	19	MIDDLE MOT 2A	O	DC0V/24V(pulse)	DFMM drive control signal
	20	MIDDLE MOT 1A	O	DC0V/24V(pulse)	DFMM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC9	1	PADDLE MOT 2B	O	DC0V/24V(pulse)	DFPDM drive control signal
Connected to the paddle motor, side registration motor 1, side registration motor 2	2	PADDLE MOT 1B	O	DC0V/24V(pulse)	DFPDM drive control signal
	3	PADDLE MOT 2A	O	DC0V/24V(pulse)	DFPDM drive control signal
	4	PADDLE MOT 1A	O	DC0V/24V(pulse)	DFPDM drive control signal
	5	SIDE REG R MOT 2B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	6	SIDE REG R MOT 1B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	7	SIDE REG R MOT 2A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	8	SIDE REG R MOT 1A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	9	SIDE REG F MOT 2B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	10	SIDE REG F MOT 1B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	11	SIDE REG F MOT 2A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	12	SIDE REG F MOT 1A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
YC10	1	STPMOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
Connected to the staple unit	2	STPMOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	3	STPMOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	4	STPMOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	5	STPMOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	6	STPMOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	7	STPMOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	8	STPMOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	9	GND	-	-	Ground
	10	LS	I	DC0V/3.3V	Staple unit LS signal

Connector	Pin	Signal	I/O	Voltage	Description
YC10	11	READY	I	DC0V/3.3V	Staple unit READY signal
	12	5V	O	DC5V	DC5V power output
	13	HP	I	DC0V/3.3V	Staple unit HP signal
YC11	1	TRY MOT OUT2	O	DC0V/24V(pulse)	DFTM drive control signal
Connected to the DF tray motor	2	TRY MOT OUT1	O	DC0V/24V(pulse)	DFTM drive control signal
YC16	1	MTRY U SENS K	I	DC0V/3.3V	DFTUSS1: On/Off
Connected to the tray paper full sensor 1, tray paper full sensor 2	2	GND	-	-	Ground
	3	MTRY U SENS SIG	I	DC0V/3.3V	DFTUSS2: On/Off
	4	3.3V	O	DC3.3V	DC3.3V power output to DFTUSS2
	5	3.3V	O	DC3.3V	DC3.3V power output to DFTUSS1
	6	MTRY U SENS K	O	DC0V/3.3V	DFTUSS1: On/Off
YC17	1	MID EJE SENS A	O	DC5V	DC5V power output to DFMES
Connected to the middle sensor, paper entry sensor	2	GND	-	-	Ground
	3	MID EJE SENS SIG	I	DC0V/3.3V	DFMES: On/Off
	4	GND	-	-	Ground
	5	ENTRY SENS SIG	I	DC0V/3.3V	DFPES: On/Off
	6	3.3V	O	DC3.3V	DC3.3V power output

Connector	Pin	Signal	I/O	Voltage	Description
YC19	1	SID REG R HP SENS A	O	DC5V	DC5V power output to DFSRS2
Connected to the side reg-istration sen-sor 1, side registration sensor 2, tray paper full sensor 1, tray paper full sensor 2, bundle eject sensor, adjustment sensor, slide sensor	2	GND	-	-	Ground
	3	SID REG R HP SENS SIG	I	DC0V/3.3V	DFSRS2: On/Off
	4	SID REG F HP SENS A	O	DC5V	DC5V power output to DFSRS1
	5	GND	-	-	Ground
	6	SID REG F HP SENS SIG	I	DC0V/3.3V	DFSRS1: On/Off
	7	GND	-	-	Ground
	8	PAP SENS SIG	I	DC0V/3.3V	DFMTS: On/Off
	9	3.3V	O	DC3.3V	DC3.3V power output
	10	BUNDLE HP SENS A	O	DC5V	DC5V power output to DFBDS
	11	GND	-	-	Ground
	12	BUNDLE HP SENS SIG	I	DC0V/3.3V	DFBDS: On/Off
	13	PADDLE HP SENS A	O	DC5V	DC5V power output to DFPDS
	14	GND	-	-	Ground
	15	PADDLE HP SENS SIG	I	DC0V/3.3V	DFPDS: On/Off
	16	MTRY HALF SENS A	O	DC5V	DC5V power output to DFTS2
	17	GND	-	-	Ground
	18	MTRY HALF SENS SIG	I	DC0V/3.3V	DFTS2: On/Off
	19	MTRY FULL SENS A	O	DC5V	DC5V power output to DFTS3
	20	GND	-	-	Ground
	21	MTRY FULL SENS SIG	I	DC0V/3.3V	DFTS3: On/Off
	22	MTRY HP SENS A	O	DC5V	DC5V power output to DFTS1
	23	GND	-	-	Ground
	24	MTRY HP SENS SIG	I	DC0V/3.3V	DFTS1: On/Off
	25	ADJUST HP SENS A	O	DC5V	DC5V power output to DFADS
	26	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC19	27	ADJUST HP SENS SIG	I	DC0V/3.3V	DFADS: On/Off
Connected to the side registration sensor 1, side registration sensor 2, tray paper full sensor 1, tray paper full sensor 2, bundle eject sensor, adjustment sensor, slide sensor	28	STP MOV HP SENS A	O	DC5V	DC5V power output to DFSLS
	29	GND	-	-	Ground
	30	STP MOV HP SENS SIG	I	DC0V/3.3V	DFSLS: On/Off

(8) DF main PWB (DFMPWB) for DF-5120

(8-1) Connector position
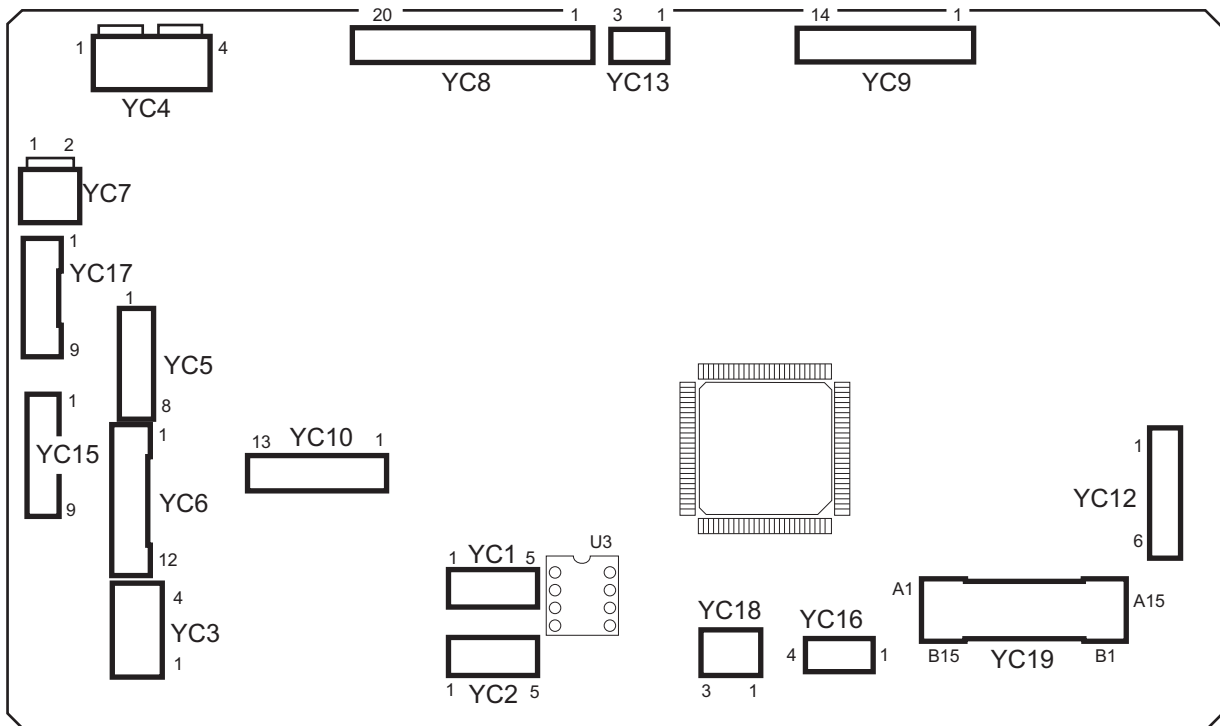
Figure 8-33

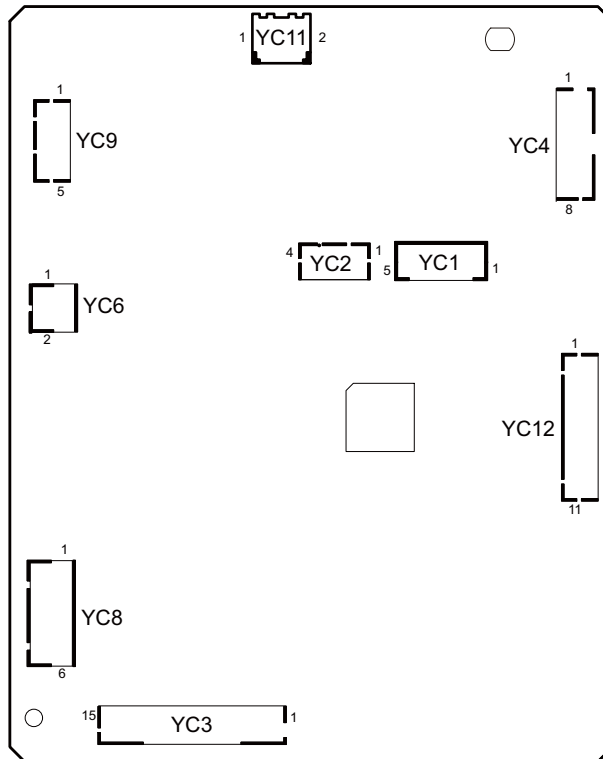### (8-2) PWB photograph

Figure 8-34

(8-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	GND	-	-	Ground
Connected to the power supply PWB	2	GND	-	-	Ground
	3	24V1	I	DC24V	DC24V power input from the main unit
	4	24V1	I	DC24V	DC24V power input from the main unit
YC4	1	24V1	O	DC24V	DC24V power output to DFFCSW
Connected to the front cover switch, eject cover switch	2	FRONT COV SIG	I	DC0V/24V	DFFCSW: On/Off
	3	EJECT COV SOURCE	O	DC24V	DC24V power output to DFECSW
	4	EJECT COV SIG	I	DC0V/24V	DFECSW: On/Off
YC5	1	ENG RDY	O	DC0V/3.3V	Ready signal
Connected to the engine PWB	2	ENG SEL	I	DC0V/3.3V	Select signal
	3	ENG DI	I	DC0V/ 3.3V(pulse)	Serial communication data signal input
	4	ENG DO	O	DC0V/ 3.3V(pulse)	Serial communication data signal output
	5	ENG PAU	-	-	Not used
	6	DET	-	-	Ground
	7	ENG CLK	I	DC0V/ 3.3V(pulse)	Serial clock signal
	8	GND	-	-	Ground
YC6	1	5V	O	DC5V	DC5V power output
Connected to the punch PWB	2	3.3V	O	DC3.3V	DC3.3V power output
	3	3.3V	O	DC3.3V	DC3.3V power output
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	PHPES REM	O	DC0V/3.3V	PUPES: On/Off
	7	PHMOT REM	O	DC0V/3.3V	PUM: On/Off
	8	PU RDY	I	DC0V/3.3V	Ready signal
	9	PU SEL	O	DC0V/3.3V	Select signal
	10	PU CLK	O	DC0V/3.3V	Clock signal
	11	PU DI	I	DC0V/3.3V	Serial communication data signal input
	12	PU DO	O	DC0V/3.3V	Serial communication data signal output

Connector	Pin	Signal	I/O	Voltage	Description
YC7	1	GND	-	-	Ground
Connected to the punch PWB	2	24V2	O	DC24V	DC24V power output
YC8	1	EJYECT MOT 2B	O	DC0V/24V(pulse)	DFEM drive control signal
Connected to the eject motor, slide motor, eject release motor, paper entry motor, middle motor	2	EJYECT MOT 1B	O	DC0V/24V(pulse)	DFEM drive control signal
	3	EJYECT MOT 2A	O	DC0V/24V(pulse)	DFEM drive control signal
	4	EJYECT MOT 1A	O	DC0V/24V(pulse)	DFEM drive control signal
	5	STP MOV MOT 2B	O	DC0V/24V(pulse)	DFSLM drive control signal
	6	STP MOV MOT 1B	O	DC0V/24V(pulse)	DFSLM drive control signal
	7	STP MOV MOT 2A	O	DC0V/24V(pulse)	DFSLM drive control signal
	8	STP MOV MOT 1A	O	DC0V/24V(pulse)	DFSLM drive control signal
	9	EJE RELS MOT 2B	O	DC0V/24V(pulse)	DFERM drive control signal
	10	EJE RELS MOT 1B	O	DC0V/24V(pulse)	DFERM drive control signal
	11	EJE RELS MOT 2A	O	DC0V/24V(pulse)	DFERM drive control signal
	12	EJE RELS MOT 1A	O	DC0V/24V(pulse)	DFERM drive control signal
	13	ENTRY MOT 2B	O	DC0V/24V(pulse)	DFPEM drive control signal
	14	ENTRY MOT 1B	O	DC0V/24V(pulse)	DFPEM drive control signal
	15	ENTRY MOT 2A	O	DC0V/24V(pulse)	DFPEM drive control signal
	16	ENTRY MOT 1A	O	DC0V/24V(pulse)	DFPEM drive control signal
	17	MIDDLE MOT 2B	O	DC0V/24V(pulse)	DFMM drive control signal
	18	MIDDLE MOT 1B	O	DC0V/24V(pulse)	DFMM drive control signal
	19	MIDDLE MOT 2A	O	DC0V/24V(pulse)	DFMM drive control signal
	20	MIDDLE MOT 1A	O	DC0V/24V(pulse)	DFMM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC9	1	PADDLE MOT 2B	O	DC0V/24V(pulse)	DFPDM drive control signal
Connected to the paddle motor, side registration motor 1, side registration motor 2, eject clutch	2	PADDLE MOT 1B	O	DC0V/24V(pulse)	DFPDM drive control signal
	3	PADDLE MOT 2A	O	DC0V/24V(pulse)	DFPDM drive control signal
	4	PADDLE MOT 1A	O	DC0V/24V(pulse)	DFPDM drive control signal
	5	SIDE REG R MOT 2B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	6	SIDE REG R MOT 1B	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	7	SIDE REG R MOT 2A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	8	SIDE REG R MOT 1A	O	DC0V/24V(pulse)	DFSRM2 drive control signal
	9	SIDE REG F MOT 2B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	10	SIDE REG F MOT 1B	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	11	SIDE REG F MOT 2A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	12	SIDE REG F MOT 1A	O	DC0V/24V(pulse)	DFSRM1 drive control signal
	13	EJECT CL	O	DC0V/24V	DFECL: On/Off
	14	24V2	I	DC24V	DC24V power output
YC10	1	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
Connected to the stapler	2	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	3	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	4	STP MOT OUT1	O	DC0V/24V(pulse)	DFSTP drive control signal
	5	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	6	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	7	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal
	8	STP MOT OUT2	O	DC0V/24V(pulse)	DFSTP drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC10	9	GND	-	-	Ground
Connected to the stapler	10	LS	I	DC0V/3.3V	Staple unit LS signal
	11	READY	I	DC0V/3.3V	Staple unit READY signal
	12	5V	O	DC5V	DC5V power output
	13	HP	I	DC0V/3.3V	Staple unit HP signal
YC12	1	BRAKE	O	DC0V/24V(pulse)	DFTN drive control signal
Connected to the DF tray motor	2	DIR	O	DC0V/24V(pulse)	DFTN drive control signal
	3	CLK	O	DC0V/24V(pulse)	DFTN drive control signal
	4	ENABLE	O	DC0V/24V(pulse)	DFTN drive control signal
	5	GND	-	-	Ground
	6	24V2	O	DC24V	DC24V power output
YC13	1	24V2	O	DC24V	DC24V power output
Connected to the feedshift solenoid	2	SUB MID SOL ACT	O	DC0V/24V	DFFSSOL: On/Off
	3	SUB MID SOL KEEP	O	DC0V/24V	DFFSSOL: On/Off
YC15	1	LED1	O	DC0V/3.3V	LED output
Connected to the DF operation panel PWB	2	LED2	O	DC0V/3.3V	LED output
	3	LED3	O	DC0V/3.3V	LED output
	4	LED4	O	DC0V/3.3V	LED output
	5	KEY1	I	DC0V/3.3V	Key input
	6	KEY2	I	DC0V/3.3V	Key input
	7	GND	-	-	Ground
	8	3.3V	O	DC3.3V	DC3.3V power output to DFTUSS1
	9	MTRY U SENS K	O	DC0V/3.3V	DFTUSS1: On/Off
YC16	1	MTRY U SENS K	I	DC0V/3.3V	DFTUSS1: On/Off
Connected to the tray paper full sensor	2	GND	-	-	Ground
	3	MTRY U SENS SIG	I	DC0V/3.3V	DFTUSS2: On/Off
	4	3.3V	O	DC3.3V	DC3.3V power output to DFTUSS2

Connector	Pin	Signal	I/O	Voltage	Description
YC17	1	MID EJE SENS A	O	DC5V	DC5V power output to DFMES
Connected to the middle sensor, paper entry sensor, sub tray eject sensor	2	GND	-	-	Ground
	3	MID EJE SENS SIG	I	DC0V/3.3V	DFMES: On/Off
	4	GND	-	-	Ground
	5	ENTRY SENS SIG	I	DC0V/3.3V	DFPES: On/Off
	6	3.3V	O	DC3.3V	DC3.3V power output to DFPES
	7	STRY EJE SENS A	O	DC5V	DC5V power output to DFSES
	8	GND	-	-	Ground
	9	STRY EJE SENS SIG	I	DC0V/3.3V	DFSES: On/Off
YC18	1	MTRY FULL SENS A	O	DC5V	DC5V power output to DFTS3
Connected to the tray sensor 3	2	GND	-	-	Ground
	3	MTRY FULL SENS SIG	I	DC0V/3.3V	DFTS3: On/Off
YC19	1	SID REG R HP SENS A	O	DC5V	DC5V power output to DFSRS2
Connected to the side registration sensor 1, side registration sensor 2, tray paper full sensor 1, tray paper full sensor 2, bundle eject sensor, adjustment sensor, slide sensor	2	GND	-	-	Ground
	3	SID REG R HP SENS SIG	I	DC0V/3.3V	DFSRS2: On/Off
	4	SID REG F HP SENS A	O	DC5V	DC5V power output to DFSRS1
	5	GND	-	-	Ground
	6	SID REG F HP SENS SIG	I	DC0V/3.3V	DFSRS1: On/Off
	7	GND	-	-	Ground
	8	PAP SENS SIG	I	DC0V/3.3V	DFMTS: On/Off
	9	3.3V	O	DC3.3V	DC3.3V power output
	10	BUNDLE HP SENS A	O	DC5V	DC5V power output to DFBDS
	11	GND	-	-	Ground
	12	BUNDLE HP SENS SIG	I	DC0V/3.3V	DFBDS: On/Off
	13	PADDLE HP SENS A	O	DC5V	DC5V power output to DFPDS

Connector	Pin	Signal	I/O	Voltage	Description
YC19	14	GND	-	-	Ground
Connected to the side registration sensor 1, side registration sensor 2, tray paper full sensor 1, tray paper full sensor 2, bundle eject sensor, adjustment sensor, slide sensor	15	PADDLE HP SENS SIG	I	DC0V/3.3V	DFPDS: On/Off
	16	MTRY HALF SENS A	O	DC5V	DC5V power output to DFTS2
	17	GND	-	-	Ground
	18	MTRY HALF SENS SIG	I	DC0V/3.3V	DFTS2: On/Off
	19	MTRY HP1 SENS A	O	DC5V	DC5V power output to DFTS1
	20	GND	-	-	Ground
	21	MTRY HP1 SENS SIG	I	DC0V/3.3V	DFTS1: On/Off
	22	NC	-	-	Not used
	23	NC	-	-	Not used
	24	NC	-	-	Not used
	25	ADJUST HP SENS A	O	DC5V	DC5V power output to DFADS
	26	GND	-	-	Ground
	27	ADJUST HP SENS SIG	I	DC0V/3.3V	DFADS: On/Off
	28	STP MOV HP SENS A	O	DC5V	DC5V power output to DFSLS
	29	GND	-	-	Ground
	30	STP MOV HP SENS SIG	I	DC0V/3.3V	DFSLS: On/Off

2R4/2R5/2R6

(9) Mail box main PWB (MBMPWB) for MT-5100

(9-1) Connector position
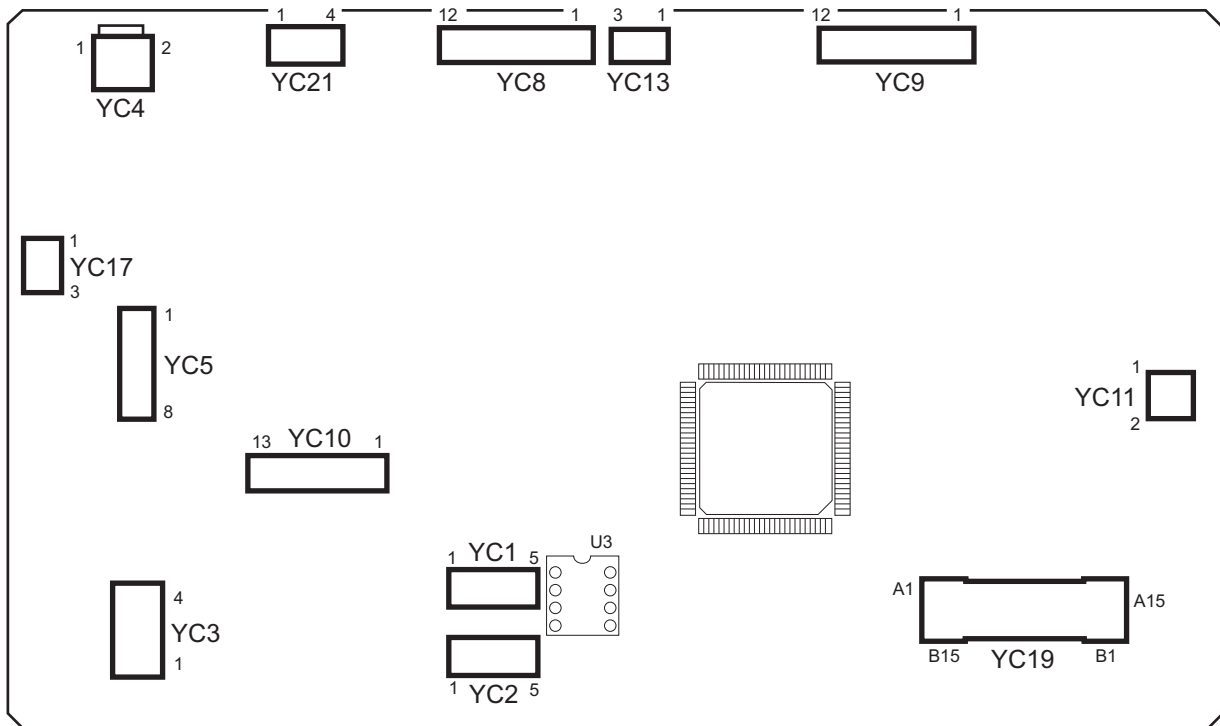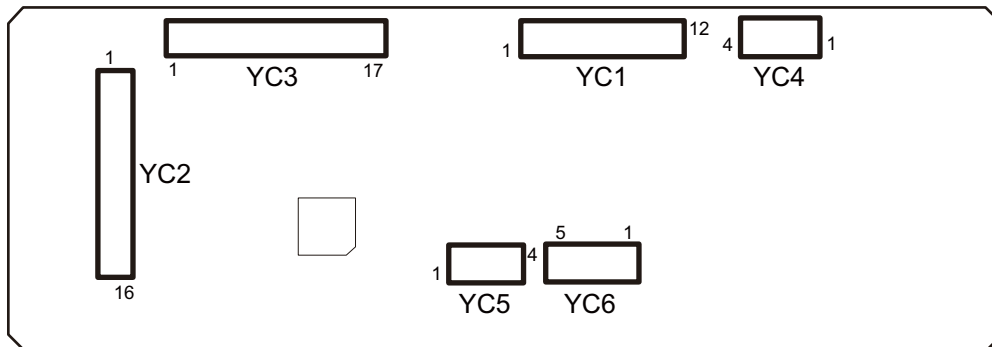

Figure 8-35

(9-2) PWB photograph
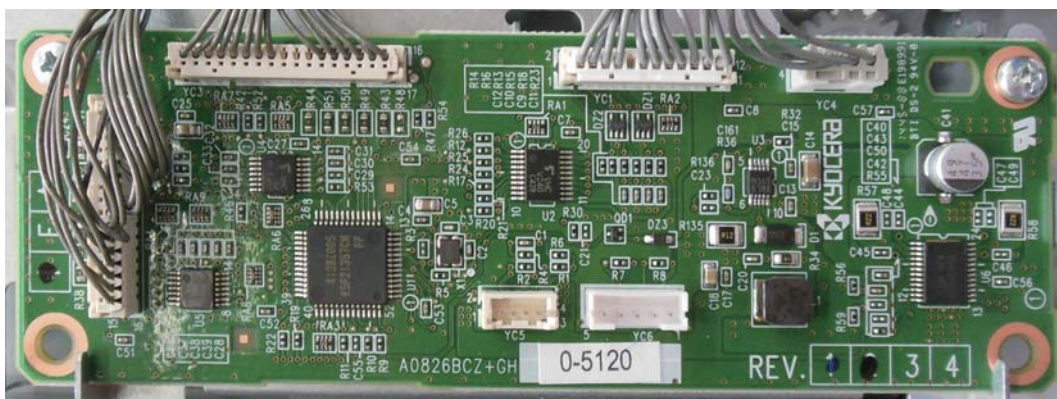
Figure 8-36

8-111

(9-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	READY	I	DC0V/3.3V	Mail box ready signal
(30 ppm model) Connected to the engine PWB	2	SELECT	I	DC0V/3.3V	Mail box select signal
	3	SDI	I	DC0V/3.3V(pulse)	Mail box serial communication data signal
	4	SDO	O	DC0V/3.3V(pulse)	Mail box serial communication data signal
(35/40 ppm models) Connected to the engine PWB, power supply PWB	5	PAUSE	O	DC0V/3.3V	Mail box pause signal
	6	DETECT(GND)	-	-	Ground
	7	SCLK	I	DC0V/3.3V(pulse)	Mail box clock signal
	8	GND (to Engine)	-	-	Ground
	9	GND (to LVU)	-	-	Ground
	10	GND (to LVU)	-	-	Ground
	11	24V	I	DC24V	DC24V power input
	12	24V	I	DC24V	DC24V power input
YC2	1	LED	O	DC0V/3.3V	LED signal
Connected to the tray overflow sensor 1, 2, 3 and 4, tray eject sensor (photo receptor)	2	GND	-	-	Ground
	3	EJECT	I	DC0V/3.3V	TEJS: On/Off
	4	3.3V	O	DC3.3V	DC3.3V power output
	5	ANODE	O	DC3.3V	DC3.3V power output
	6	GND	-	-	Ground
	7	OFS1	I	DC0V/3.3V	TOFSW1: On/Off
	8	ANODE	O	DC3.3V	DC3.3V power output
	9	GND	-	-	Ground
	10	OFS2	I	DC0V/3.3V	TOFSW2: On/Off
	11	ANODE	O	DC3.3V	DC3.3V power output
	12	GND	-	-	Ground
	13	OFS3	I	DC0V/3.3V	TOFSW3: On/Off
	14	ANODE	O	DC3.3V	DC3.3V power output
	15	GND	-	-	Ground
	16	OFS4	I	DC0V/3.3V	TOFSW4: On/Off

2R4/2R5/2R6

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3V	O	DC3.3V	DC3.3V power output
Connected to the tray over-flow sensor 5, tray over-flow sensor 6, tray eject sensor (photo recep-tor), tray eject sensor (photo trans-mitter), MB feedshift HP sensor, MB cover open/close sensor	2	LED	O	DC0V/ 3.3V(pulse)	TEJS (photo transmitter)
	3	ANODE	O	DC3.3V	DC3.3V power output
	4	GND	-	-	Ground
	5	OFS5	I	DC0V/3.3V	TOFSW5: On/Off
	6	ANODE	O	DC3.3V	DC3.3V power output
	7	GND	-	-	Ground
	8	OFS6	I	DC0V/3.3V	TOFSW6: On/Off
	9	ANODE	-	-	Not used
	10	GND	-	-	Not used
	11	OFS7	-	-	Not used
	12	ANODE	O	DC3.3V	DC3.3V power output
	13	GND	-	-	Ground
	14	SHIFT HP SIG	I	DC0V/3.3V	MHPS: On/Off
	15	ANODE	O	DC3.3V	DC3.3V power output
	16	GND	-	-	Ground
	17	COVER OPEN	I	DC0V/3.3V	MCOS: On/Off
YC4	1	MOTOR _A	O	DC0V/24V(pulse)	MBDM drive control signal
Mail box drive motor	2	MOTOR A	O	DC0V/24V(pulse)	MBDM drive control signal
	3	MOTOR B	O	DC0V/24V(pulse)	MBDM drive control signal
	4	MOTOR _B	O	DC0V/24V(pulse)	MBDM drive control signal

(10)Punch PWB (PUNPWB) for PH-5110

(10-1) Connector position
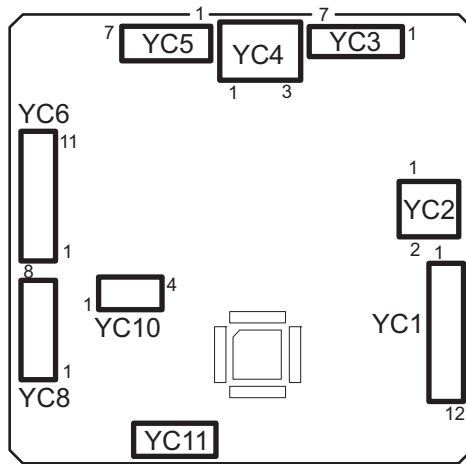
Figure 8-37

(10-2) PWB photograph

Figure 8-38

(10-3) Connector lists

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	PH_SDI	I	DC0V/ 3.3V(pulse)	Serial communication data signal input
Connected to the DF main PWB	2	PH_SDO	O	DC0V/ 3.3V(pulse)	Serial communication data signal output
	3	PH_CLK	I	DC0V/ 3.3V(pulse)	Clock signal
	4	PH_SEL	I	DC0V/3.3V	Select signal
	5	PH_RDY	O	DC0V/3.3V	Ready signal
	6	PHMOT_REQ	I	DC0V/3.3V	PUM: On/Off
	7	PHPES_REQ	I	DC0V/3.3V	PUPES: On/Off
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	3.3V	I	DC3.3V	DC3.3V power input from the main unit
	11	3.3V	I	DC3.3V	DC3.3V power input from the main unit
	12	NC	-	-	Not used
YC2	1	GND	-	-	Ground
Connected to the DF main PWB	2	24V2	I	DC24V	DC24V power input from DF
YC3	1	PHADJ_MOT 2B	O	DC0V/24V(pulse)	PUSLM drive control signal
Connected to the punch slide motor, conveying guide release solenoid	2	PHADJ_MOT 1B	O	DC0V/24V(pulse)	PUSLM drive control signal
	3	PHADJ_MOT 2A	O	DC0V/24V(pulse)	PUSLM drive control signal
	4	PHADJ_MOT 1A	O	DC0V/24V(pulse)	PUSLM drive control signal
	5	24V2	O	DC24V	DC24V power output to PUSOL
	6	GDSOL_PUL	O	DC0V/24V	PUSOL: On/Off (actuate)
	7	GDSOL_HLD	O	DC0V/24V	PUSOL: On/Off (keep)
YC4	1	PHMOT_P	O	DC0V/24V(pulse)	PUM drive control signal
Connected to the punch motor	2	NC	-	-	Not used
	3	PHMOT_N	O	DC0V/24V(pulse)	PUM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	24V2	O	DC24V	DC24V power output to PUSOL
Connected to the punch solenoid, punch paper edge sensor 2	2	PHSOL_PUL	O	DC0V/24V	PUSOL: On/Off (actuate)
	3	PHSOL_RET	O	DC0V/24V	PUSOL: On/Off (return)
	4	PHLED_B	O	DC0V/3.3V	PUPES1_B: On/Off
	5	PHLED_C	O	DC0V/3.3V	PUPES1_C: On/Off
	6	PHLED_D	O	DC0V/3.3V	PUPES1_D: On/Off
	7	PHLED_AN	O	DC3.3V	DC3.3V power output to PUPES1
YC6	1	SENS3.3V	O	DC3.3V	DC3.3V power output to PUHPS
Connected to the punch slide sensor, punch tank set switch, punch tank full sensor 1, punch tank full sensor 2	2	GND	-	-	Ground
	3	PHADJ_HP	O	DC0V/3.3V	PUHPS_A: On/Off
	4	TANKLED_A	O	DC0V/3.3V	PUPES2_A: On/Off
	5	TANKLED_B	O	DC0V/3.3V	PUPES2_B: On/Off
	6	TANKLED_C	O	DC0V/3.3V	PUPES2_C: On/Off
	7	TANKLED_AN	O	DC3.3V	DC3.3V power output to PUPES2
	8	GND	-	-	Ground
	9	PHTNK_SET	I	DC0V/3.3V	PUTSSW: On/Off
	10	TANK_FULL	I	DC0V/3.3V	PUTFS: On/Off
	11	GND	-	-	Ground
YC8	1	SENS3.3V	O	DC3.3V	DC3.3V power output to PUPS
Connected to the punch pulse sensor, punch home position sensor, punch paper edge sensor 1	2	GND	-	-	Ground
	3	PHMOT_PLS	I	DC0V/3.3V	PUPS: On/Off
	4	SENS3.3V	O	DC3.3V	DC3.3V power output to PUHPS
	5	GND	-	-	Ground
	6	PHMOT_HP	I	DC0V/3.3V	PUHPS: On/Off
	7	PHPES_DET	I	DC0V/3.3V	PUPES1: On/Off
	8	GND	-	-	Ground

9 Appendixes
9-1 Appendixes

(1) Repetitive defects gauge

◄── First occurrence of defect

31.4 mm Sleeve roller (30 ppm model)
34.3 mm Chager roller (40 ppm model)
39.3 mm Sleeve roller (40 ppm model:Col)
37.7 mm Chager roller (30/35 ppm models)
39.3 mm Sleeve roller (35/40 ppm models:K)

◄── 58.5 mm 2nd Transfer roller

◄── 81.8 mm Heat roller (30 ppm model)

◄── 88.1 mm Heat roller (35/40 ppm models)

94.1 mm Drum (30/35 ppm models)
94.4 mm Drum (40 ppm model)/ Press roller

◄── 845.0 mm Primary transfer belt

* : The repetitive marks interval may vary depending on operating conditions.

(2) Firmware environment commands

The printer maintains a number of printing parameters in its memory. These parameters may be changed permanently with the FRPO (Firmware RePrOgram) commands.
This section provides information on how to use the FRPO command and its parameters using examples.

Using FRPO commands for reprogramming the firmware

The current settings of the FRPO parameters are listed as the optional values on the service status page.

Note: Before changing any FRPO parameters, print out a service status page, so you will know the parameter-values before the changes are made. To return FRPO parameters to their factory default values, send the-FRPO INIT (FRPO-INITialize) command. (!R! FRPO INIT; EXIT;)

The FRPO command is sent to the printer in the following sequence:
!R! FRPO parameter, value; EXIT;
Example: Changing emulation mode to PC-PR201/65A
!R! FRPO P1, 11; EXIT;

FRPO parameters

Items	FRPO	Setting value	Factory setting
Top margin	A1	Integer value in inch	0
	A2	decimal value in 1/100 inch increments	0
Left margin	A3	Integer value in inch	0
	A4	decimal value in 1/100 inch increments	0
Page length	A5	Integer value in inch	13 16(100 V model)
	A6	decimal value in 1/100 inch increments	61
Page width	A7	Integer value in inch	13 16(100 V model)
	A8	decimal value in 1/100 inch increments	61
Default pattern resolution	B8	0: 300 dpi 1: 600 dpi	0
Page orientation	C1	0: Portrait 1: Landscape	0
Default font*	C2	Middle two digits of power-up font	0
	C3	Last two digits of power-up font	0
	C5	First two digits of power-up font	0
PCL font switching	C8	0: HP compatible mode 32: Compatibility mode	0
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5

Items	FRPO	Setting value	Factory setting
Form feed time-out value	H9	Value in units of 5 seconds (0 to 99).	6 1(100 V model)
Reduction (100 V model only)	J0	0: 100% 5: 70 % 6: 81 % 7: 86 % 8: 94 % 9: 98 %	0
Auto linefeed mode (100 V model only) (Japanese emulation only)	J7	0: Auto linefeed 1: No auto linefeed	0
Horizontal offset (100 V model only)	K0	-7 to +7 (Integer), unit: cm	0
	K1	-99 to +99 (Decimal), unit: 1/100 cm	0
Vertical offset (100 V model only)*	K2	-7 to -7 (Integer), unit: cm	0
	K3	-99 to +99 (Decimal), unit: 1/100 cm	0
Kanji font number setting (100 V model only)	K4	0: Same as V7 1: Mincho 40 dots 2: Gothic 40 dots 5: Mincho 48 dots 6: Gothic 48 dots	0
New/old JIS code switching	K6	0: JIS X 0208: 1990 1: JIS X 0208: 1978 8: JIS X 0213: 2004	0
Duplex printing mode selection	N4	0: OFF 1: Long-edge mode (long-edge bind) 2: Short-edge mode (Short-edge bind)	0
Sleep timer time-out time	N5	1 to 240 minutes	30 ppm model: 30 35/45 ppm model: 45
Ecoprint level	N6	0: OFF 2: ON	0
Resolution (35/40 ppm models only)	N8	0: 300 dpi 1: 600 dpi 3: 1200 dpi	1
Default emulation mode	P1	6 : PCL6 (except PCL XL) 9 : KPDL	6 9(120 V model)
Carriage-return action	P2	0: Ignores 0x0d 1: CR 2: CR+LF	1

Items	FRPO	Setting value	Factory setting
Linefeed action	P3	0: Ignores 0x0d 1: LF 2: CR+LF	1
KPDL auto switching	P4	0: None 1: Auto switching	0 1(120 V model)
KPDL auto switching alternate emulation	P5	Same as P1 (except 9)	6
AES option Page eject command and action when automatic emulation switching (AES) is triggered	P7	If the data is neither applicable to KPDL nor alternate emulation after the AES is started, it is processed in the alternate emulation . 0: All page eject commands 1: None 2: All page eject commands and Prescribe EXIT command 3: Prescribe EXIT command only 4: ^L command only 6: Prescribe EXIT command and ^L command If the data is neither applicable to KPDL nor alternate emulation after the AES is started, it is processed in KPDL. 10: Data other than KPDL print data is printed in the alternate emulation.	10 11(120 V model)
Command recognition character	P9	ASCII code of 33 to 126	82(R)
Stacker setting at start-up	R0	1: Inner tray 3: When the 1000-sheet finisher is installed 7: When the 3000-sheet finisher is installed	1

Items	FRPO	Setting value	Factory set-ting
Paper size(start-up)	R2	0: Size of the default paper cassette (See R4.)	0
		1: Envelope Monarch	
		2: Envelope #10	
		3: Envelope DL	
		4: Envelope C5	
		5: Executive	
		6: Letter	
		7: Legal	
		8: ISO A4	
		9: JIS B5	
		13: ISO A5	
		14: ISO A6	
		15: JIS B6	
		16: Envelope #9	
		17: Envelope #6-3/4	
		18: ISO B5	
		19: Custom	
		20: B4toA4(100 V model only)	
		21: A3toA4(100 V model only)	
		22: A4toA4[98%](100 V model only)	
		23: STKtoA4(100 V model only)	
		31: Hagaki	
		32: Oufuku Hagaki	
		33: Oficio II	
		40: 16K	
		42: 8.5x13.5	
		50: Statement	
		51: Folio	
		52: Youkei type 2	
		53: Youkei type 4	
Default paper source	R4	0: MP paper feed section	1
		1: Cassette 1	
		2: Cassette 2	
		3: Cassette 3	
		4: Cassette 4	
Sort pin full detection	S3	0: Stop at paper full detection	0
		1: Output tray change at paper full detection	
A4/Letter override	S4	0: OFF	1
		1: ON	0(100 V model)
Host buffer size rate (H8 value and integration)	S5	0: 10KB	1
		1: 100KB	
		2: 1MB	
RAM disk size	S6	1 to 1024 MB	400

Items	FRPO	Setting value	Factory setting
RAM disk mode	S7	0: OFF 1: ON	1
Wide A4	T6	0: OFF 1: ON	0
Line spacing	U0	Lines per inch (integer value)	6
	U1	Lines per inch (fraction value)	0
Character spacing	U2	Characters per inch (integer value)	10
	U3	Characters per inch (fraction value)	0
Country code of the resident fonts	U6	0: US 1: France 2: Germany 3: U.K. 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US legal 10: IBM PC-850 (Multi-lingual) 11: IBM PC-860 (Portuguese) 12: IBM PC-863 (Canadian French) 13: IBM PC-865 (Norwegian) 14: Norway 15: Denmark 2 16: Spain 2 17: Latin America	41 0(100 V model)
Supported symbol sets	U7	0: Same as the default emulation mode (P1) 1: IBM 6: PCL	53 0(100 V model)
Default font pitch*	U8	Default font pitch/integer	10
	U9	Default font pitch/decimal	0
ANK outline font size at start-up*	V0	Integer value of ANK outline font size at power-up Upper 2-digit/valid value: 00 to 09	0
	V1	Integer value of ANK outline font size at power-up Lower 2-digit/valid value: 00 to 99	12
	V2	Decimal value of ANK outline font size at power-up Valid value: 00, 25, 50, 75	0

Items	FRPO	Setting value	Factory setting
ANK outline font size at start-up*	V3	ANK outline font name at power-up	Courier
Initial Kanji outline font side at start-up (100 V model only)*	V4	Upper 2-digit integer value of Kanji outline font size at start-up Valid value range: 00 to 09	0
	V5	2-digit integer value of the Kanji outline font size at start-up Valid value range: 00 to 99	10
	V6	2-digit decimal value of the Kanji outline font size at start-up Valid value: 00, 25, 50, 75	0
Initial Kanji outline font name (100 V model only)*	V7	Kanji outline font name at start-up	MTHSMIN-CHO-W3

Default weight(courier and letter Gothic)	V9	0: Courier = darkness
		  Letter Gothic = darkness
		1: Courier = regular
		  Letter Gothic = darkness
		4: Courier = darkness
		  Letter Gothic = regular
		5: Courier = regular
		  Letter Gothic = regular
			5

Color mode	W1	0: BW 1: Color (CMYK color)	1
Gloss mode	W6	0: OFF 1: ON	0
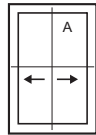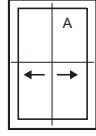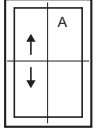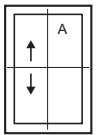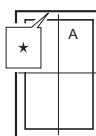
Items	FRPO	Setting value	Factory set-ting
Paper type for the MP tray	X0	1: Plain 2: Transparency 3: Preprinted 4: Labels 5: Bond 6: Recycled 7: Vellum 8: Rough (except 100 V model) 9: Letterhead 10: Color 11: Prepunched 12: Envelope 13: Hagaki 14: Coated 16: Thick 17: High quality 21 to 28 : Custom 1 to Custom 8	1
Paper type (Paper cassettes 1)	X1	1: Plain 3: Preprinted 5: Bond 6: Recycled 7: Vellum 8: Rough (except 100 V model) 9: Letterhead 10: Color 11: Prepunched 12: Envelope 16: Thick 17: High quality 21 to 28 : Custom 1 to Custom 8	1
Paper type (Option paper cassette 2 to 4)	X2 X3 X4	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21 to 28 : Custom 1 to Custom 8	1
Cassette selection mode (PCL)	X1	0: Paper selection depending on an escape sequence compatible with HP-LJ5Si 2: Paper selection depending on an escape sequence compatible with HP-LJ8000	0
Auto error clear at an error	Y0	0: OFF 1: ON	0
Auto error clear timeout time	Y1	Value in units of 5 seconds (0 to 99).	6
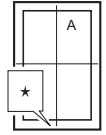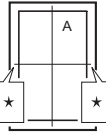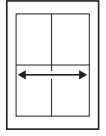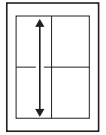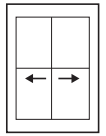
Items	FRPO	Setting value	Factory setting
Paper error detection at duplex printing Paper size and type error detection at fixed paper source	Y3	0: Not detected 1: Detected	63
Forced duplex printing setting (Media type is Preprinted, Prepunched and Letterhead only)	Y4	0: OFF 1: ON	0
PDF direct printing	Y5	0: Zoom depending on paper size 1: Loads paper which is the same size as the image 2: Loads Letter, A4 size paper depending on the image sizeEnlarges or reduces the image to fit in the current paper size 3: Loads Letter, A4 size paper depending on the image size 8: Printed in full magnification 9: Loads Letter, A4 size paper depending on the image size 10: Loads Letter, A4 size paper depending on the image sizeEnlarges or reduces the image to fit in the current paper size 13 to 99: Same action as default value(0)	0
Job box error control	Y6	0: No error control 1: Output the error list 2: Displays the error 3: Displays the error and prints the error report	3
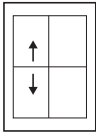
*: Ignored depending on emulation

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(3) Chart of image adjustment procedures

Adjusting order	Item	Image	Maintenance mode		Page	Setting procedure		Remarks
			Item No.	Mode		Method	Setting	
1	Adjusting the center line of the MP tray (printing adjustment) Adjusting the LSU print start timing	 (Original: test pattern)	U034	LSU Out Left	P.6-31 30 ppm model P.6-228 35/40 ppm models	1. Press the start key. 2. Select [Lsu Out Left]. 3. Press the system menu key. 4. Press the start key. (output a test pattern) 5. Press the system menu key. 6. Select [MPT].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the image moves leftward. *Adjustment selects [Duplex] at the time of duplex mode.
2	Adjusting the center line of the cassettes (printing adjustment) Adjusting the LSU print start timing	 (Original: test pattern)	U034	LSU Out Left	P.6-31 30 ppm model P.6-228 35/40 ppm models	1. Press the start key. 2. Select [Lsu Out Left]. 3. Press the system menu key. 4. Press the start key. (output a test pattern) 5. Press the system menu key. 6. Select?[Cass1] to [Cass4].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the image moves leftward. *Adjustment selects [Duplex] at the time of duplex mode.
3	Adjusting the leading edge registration of the MP tray (printing adjustment) Changes the secondary feed timing.	 (Original: test pattern)	U034	LSU Out Top Full	P.6-31 30 ppm model P.6-228 35/40 ppm models	1. Press the start key. 2. Select [LSU Out Top Full]. 3. Press the system menu key. 4. Press the start key. (output a test pattern) 5. Press the system menu key. 6. Select [MPT].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the image moves downward. *Adjustment selects [Duplex] at the time of duplex mode.
4	Adjusting the leading edge registration of the cassette (printing adjustment) Changes the secondary feed timing.	 (Original: test pattern)	U034	LSU Out Top Full	P.6-31 30 ppm model P.6-228 35/40 ppm models	1. Press the start key. 2. Select [LSU Out Top Full]. 3. Press the system menu key. 4. Press the start key. (output a test pattern) 5. Press the system menu key. 6. Select [Cass].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the image moves downward. *Adjustment selects [Duplex] at the time of duplex mode.
5	Adjusting the leading edge margin (printing adjustment) Changes the LSU illumination start timing.	 (Original: test pattern)	U402	Lead	P.6-111 30 ppm model P.6-334 35/40 ppm models	1. Press the start key. 2. Press the system menu key. 3. Press the start key. (output a test pattern) 4. Press the system menu key. 5. Select [Lead].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the margin widens.

Adjusting order	Item	Image	Maintenance mode		Page	Setting procedure		Remarks
			Item No.	Mode		Method	Setting	
6	Adjusting the trailing edge margin (printing adjustment) Changes the LSU illumination end timing.	(Original: test pattern)	U402	Trail	P.6-111 30 ppm model P.6-334 35/40 ppm models	1. Press the start key. 2. Press the system menu key. 3. Press the start key. (output a test pattern) 4. Press the system menu key. 5. Select [Trail].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the margin widens.
7	Adjusting the left and right margins (printing adjustment) Changes the LSU illumination start/end timing.	(Original: test pattern)	U402	A Margin C Margin	P.6-111 30 ppm model P.6-334 35/40 ppm models	1. Press the start key. 2. Press the system menu key. 3. Press the start key. (output a test pattern) 4. Press the system menu key. 5. Select [A Margin] or [C Margin].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	When the setting value is increased, the margin widens.
8	Adjusting magnification of the scanner in the main scanning direction Processes data.	(Original: test copy)	U065	Main Scan	P.6-39 30 ppm model P.6-238 35/40 ppm models	1. Press the start key. 2. Press the system menu key. 3. Place an original and press the start key to make a test copy. (Test copy output) 4. Press the system menu key. 5. Select [Main Scan].	1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	U065: When using on the contact glass When the setting value is increased, the image widens.

9	Adjusting magnification of the scanner in the sub scanning direction (scanning adjustment)
	
	Changes the original scanning speed.
		(Original: test copy)	U065
			
			U070
				Sub Scan
				
				Sub Scan(F)
				Sub Scan(B)
				Sub Scan(CIS)
					P.6-39
					P.6-44
					30 ppm model
					
					P.6-238
					P.6-243
					35/40 ppm models
						1. Press the start key.
						2. Press the system menu key.
						3. Place an original and press the start key to make a test copy. (Test copy output)
						4. Press the system menu key.
						5. Select the item to be adjusted.
						   U065: [Sub Scan] or [Rotate]
						   U070: [Sub Scan(F)], [Sub Scan(B)] or [Sub Scan(CIS)]
							1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value.
							2. Press the start key to set the setting value.
							
							Completion: Press the stop key.
								U065: When using on the contact glass When the setting value is increased, the image widens.
								
								U070: When using document processor When the setting value is increased, the image get longer.

10	Adjusting the center line (scanning adjustment)
	
	Scan data is processed.
		(Original: test copy)	U067
			
			U072
				Front
				Rotate
				
				Front
				Back
				CIS
					P.6-42
					P.6-47
					30 ppm model
					
					P.6-241
					P.6-246
					35/40 ppm models
						1. Press the start key.
						2. Press the system menu key.
						3. Place an original and press the start key to make a test copy. (Test copy output)
						4. Press the system menu key.
						5. Select the item to be adjusted.
						   U067: [Front] or [Rotate]
						   U072: [Front], [Back] or [CIS]
							1. By using the [Left/Right] cursor , [+/-] cursor, or the numeric keys, change the setting value.
							2. Press the start key to set the setting value.
							
							Completion: Press the stop key.
								U067: When using on the contact glass Adjustment at the time of rotate copy, select [Rotate].
								When the setting value is increased, the image moves leftward.
								
								U072: When copying from the document processor
								Back adjustment selects [Back] at the time of duplex mode.
								When the setting value is increased, the image moves rightward.

Adjusting order	Item	Image	Maintenance mode		Page	Setting procedure		Remarks
			Item No.	Mode		Method	Setting	
11	Adjusting the leading edge registration (scanning adjustment) Changes the original scan start timing. (Original: test copy)	(image)	U066 U071	Front Rotate Front Head Back Head	P.6-41 P.6-45 30 ppm model P.6-240 P.6-244 35/40 ppm models	1. Press the start key. 2. Press the system menu key. 3. Place an original and press the start key to make a test copy. (Test copy output) 4. Press the system menu key. 5. Select the item to be adjusted. 　U067: [Front] or [Rotate] 　U071: [Front Head] or [Back Head]	1. By using the [Left/Right] cursor, [+/-] cursor, or the numeric keys, change the setting value. 2. Press the start key to set the setting value. Completion: Press the stop key.	U066: When using on the contact glass Adjustment at the time of rotate copy, select [Rotate]. When the setting value is increased, the image moves forward. U071: When using document processor Back adjustment selects [Back Head] at the time of duplex mode. When the setting value is increased, the image moves forward.

When maintenance item U411 (Automatic adjustment in the scanner) is run using the specified original (P/N 7505000107), the following adjustments are automatically made:

Scanner magnification adjustment in the sub scanning direction (U065)
Adjusts the scanner leading edge registration (U066)
Adjusting the scanner center line (U067)
Chromatic aberration in the main scanning direction
Chromatic aberration in the sub scanning direction
MTF correction
Input gamma in color mode
Color correction matrix
Input gamma in monochrome mode

When maintenance item U411 (Automatic adjustment in the scanner) is run using the specified original (P/N 7505000106), the following adjustments are automatically made:

　*:When running this test chart, you first must clean the feed rollers with alcohol and ensure the DP width guides are correctly positioned against the original.

　*:Cut the trailing edge of the DP adjustment original (ChartB) as follows.
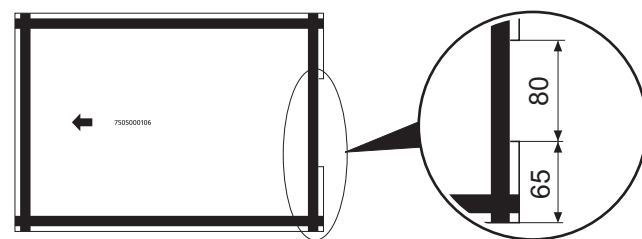
Adjusting the DP magnification (U070)
Adjusting the DP leading edge registration (U071)
Adjusting the DP center line (U072)

Image quality

Items	Specifications
100% magnification	Printer: ±0.8% Copy: ±1.5% 　　Using DP:　±2.0%
Magnificaiton	Copy: ±2.0% Using DP: ±2.5%
Lateral squareness	Copy: ±2.0mm/200mm Using DP: ±2.5mm/200mm
Leading edge timing	Print: 2.0 mm or less Copy: 2.0mm or less Using DP: 2.5mm or less
Skewed paper feed (left-right difference)	Print: 1.0mm /100mm or less Copy: 1.0mm /100mm or less(table) 　　Using DP: 1.5mm /100mm or less
Lateral image shifting	Print: ±2.0 mm or less(cassette) 　　±3.0mm or less(MP tray) Copy: ±2.0mm or less(cassette) 　　±3.0mm or less(MP tray) Using DP: ±2.0mm or less(cassette) 　　±3.0mm or less(MP tray)

(4) Wiring diagram (30 ppm model)

No.1

No.3

DEVELOPER UNIT (M)

YC7 / DLPPWB / YC1 — TS-M

DLP TH	1		1	DLP TH		3.3V2	1		1	3.3V2	
TCSENS M	2		2	TCSENS M		TCSENS M	2		2	TCSENS M	
3.3V2	3		3	3.3V2		GND	3		3	GND	
EEP SCL	4		4	EEP SCL		NC	4		4	NC	
EEP SDA	5		5	EEP SDA
GND	6		6	GND
VIBR MOT	5		5	VIBR MOT		VIBR MOT	1		1	VIBR MOT	VIBM-M
3.3V	6		6	3.3V		3.3V	2		2	3.3V

DRUM UNIT (M)

YC3 / YC1 / DRPWB / YC2 — CL-M

3.3V2	1		2	3.3V2		ERS CL REM	1		2	DRM1 ERASER (+)	
EEP SCL	2		1	EEP SCL		ERS1 DR (-)	2		1	ERS1 DR (-)	
GND	3		4	GND
EEP SDA	4		3	EEP SDA
DA1	5		6	DA1
GND (ERS1 DR (-))	6		5	GND (ERS1 DR (-))
DA0	7		8	DA0
ERS CL REM	8		7	ERS CL REM

| 1 | 5V0 |
| 2 | DRMHEAT REM |

DEVELOPER UNIT (C)

YC6 / DLPPWB / YC1 — TS-C

| 1 | 5V0 |
| 2 | DRMHEAT REM |

DLP TH	1		1	DLP TH		3.3V2	1		1	3.3V2	
TCSENS C	2		2	TCSENS C		TCSENS C	2		2	TCSENS C	
3.3V2	3		3	3.3V2		GND	3		3	GND	
EEP SCL	4		4	EEP SCL		NC	4		4	NC	
EEP SDA	5		5	EEP SDA
GND	6		6	GND
VIBR MOT	5		5	VIBR MOT		VIBR MOT	1		1	VIBR MOT	VIBM-C
3.3V	6		6	3.3V		3.3V	2		2	3.3V

| 1 | 5V0 |
| 2 | DRMHEAT REM |

| 1 | 5V0 |
| 2 | DRMHEAT REM |

DRUM UNIT (C)

YC2 / YC1 / DRPWB / YC2 — CL-C

3.3V2	1		2	3.3V2		ERS CL REM	1		2	DRM1 ERASER (+)	
EEP SCL	2		1	EEP SCL		ERS1 DR (-)	2		1	ERS1 DR (-)	
GND	3		4	GND
EEP SDA	4		3	EEP SDA
DA1	5		6	DA1
GND (ERS1 DR (-))	6		5	GND (ERS1 DR (-))
DA0	7		8	DA0
ERS CL REM	8		7	ERS CL REM

DEVELOPER UNIT (BK)

TS-BK — YC1 / DLPPWB / YC8

3.3V2	1		1	3.3V2		DLP TH	1		1	DLP TH
TCSENS	2		2	TCSENS Bk		TCSENS Bk	2		2	TCSENS Bk
GND	3		3	GND		3.3V2	3		3	3.3V2
DLP TH	4		4	DLP TH		EEP SCL	4		4	EEP SCL
						EEP SDA	5		5	EEP SDA
						GND	6		6	GND
VIBM-BK	VIBR MOT	1		1	VIBR MOT		VIBR MOT	7		7	VIBR MOT
	3.3V	2		2	3.3V		3.3V	8		8	3.3V

DEVELOPER UNIT (Y)

YC5 / DLPPWB / YC1 — TS-Y

DLP TH	1		1	DLP TH		3.3V2	1		1	3.3V2	
TCSENS Y	2		2	TCSENS Y		TCSENS Y	2		2	TCSENS Y	
3.3V2	3		3	3.3V2		GND	3		3	GND	
EEP SCL	4		4	EEP SCL		NC	4		4	NC	
EEP SDA	5		5	EEP SDA
GND	6		6	GND
VIBR MOT	5		5	VIBR MOT		VIBR MOT	1		1	VIBR MOT	VIBM-Y
3.3V	6		6	3.3V		3.3V	2		2	3.3V

DRUM UNIT (BK)

CL-BK — DRPWB / YC4

DRM1 ERASER (+)	2		2	DRM1 ERASER (+)		3.3V2	2		1	3.3V2
ERS1 DR (-)	1		1	ERS1 DR (-)		EEP SCL	1		2	EEP SCL
						GND	3		4	GND
						EEP SDA	3		4	EEP SDA
						DA1	5		6	DA1
						GND (ERS1 DR (-))	5		6	GND (ERS1 DR (-))
						DA0	8		7	DA0
						ERS Bk REM	7		8	ERS Bk REM

DRUM UNIT (Y)

YC1 / YC1 / DRPWB / YC2 — CL-Y

3.3V2	1		2	3.3V2		ERS CL REM	1		2	DRM1 ERASER (+)	
EEP SCL	2		1	EEP SCL		ERS1 DR (-)	2		1	ERS1 DR (-)	
GND	3		4	GND
EEP SDA	4		3	EEP SDA
DA1	5		6	DA1
GND (ERS1 DR (-))	6		5	GND (ERS1 DR (-))
DA0	7		8	DA0
ERS CL REM	8		7	ERS CL REM

EPWB — YC6 / DR/DLPRPWB

VIBR MOT	1		1	15	15	VIBR MOT
3.3V	2		2	14	14	3.3V
TCSENS Y	3		3	13	13	TCSENS Y
TCSENS C	4		4	12	12	TCSENS C
TCSENS M	5		5	11	11	TCSENS M
ERS CL REM	6		6	10	10	ERS CL REM
GND	7		7	9	9	GND
3.3V2	8		8	8	8	3.3V2
EEP SCL	9		9	7	7	EEP SCL
EEP SDA	10		10	6	6	EEP SDA
24V2	11		11	5	5	24V
GND	12		12	4	4	GND
DLP TH	13		13	3	3	DLP TH
TCSENS BK	14		14	2	2	TCSENS Bk
ERS BK REM	15		15	1	1	ERS Bk REM

No.4

YC10

RFID SDA	A1	A1		5	5	SDA			
GND	A2	A2		4	4	GND			
RFID SCL	A3	A3		3	3	SCL	RFID		
3.3V2	A4	A4		2	2	+3.3V			
5V2	A5	A5		1	1	5V			
		A6	A6						
		A7	A7						
		A8	A8						
		A9	A9						
BELT FAN REM	A10	A10							
24V2	A11	A11							
WTNR FAN	A12	A12							
24V2	A13	A13							
VIBR MOT	A14	A14							
3.3V2	A15	A15							

YC14

CONTAINER UNIT

TM (Y), TM (C), TM (M), TM (Bk)

CS (Y), CS (C), CS (M), CS (BK)

1	+24V1
2	TMOT Y DR
3	+24V1
4	TMOT C DR
5	+24V1
6	TMOT M DR
7	+24V1
8	TMOT Bk DR
9	3.3V2 LED
10	GND
11	PULSE SENS Y
12	3.3V2 LED
13	GND
14	PULS SENS C
15	3.3V2 LED
16	GND
17	PULS SENS M
18	3.3V2 LED
19	GND
20	PULS SENS BK

EFM, TCBRM, WTSSW, WTS, TEMS, DLPFM3, DLPFM4

YC37

RCSW, FCSW1

1	24V1
2	24V2

EPWB

YC7 — FUSER UNIT

ES, FUPRS, TH1 (Center), TH2 (Edge), TCBRS1, TCBRS2

YC102

LIVE OUT	1	1
MH	3	3

MAIN, FH

PSPWB

No.5

CASSETTE

YC12										
3.3V2 LED	1	A1	15	1	15	1	3	3	3.3V	
GND	2	A2	14	2	14	2	2	2	GND	PS
PAPEMP SENS	3	A3	13	3	13	3	1	1	Vout	

3.3V2 LED	4	A4	12	4	12	4	3	3	3.3V	
GND	5	A5	11	5	11	5	2	2	GND	PGS1
PAPVL1 SENS	6	A6	10	6	10	6	1	1	Vout	

3.3V2 LED	7	A7	9	7	9	7	3	3	3.3V	
GND	8	A8	8	8	8	8	2	2	GND	PGS2
PAPVL2 SENS	9	A9	7	9	7	9	1	1	Vout	

| CAS WID0 | 10 | A10 | 6 | 10 | 6 | 10 | 2 | 2 | | PLSW1 |
| GND | 11 | A11 | 5 | 11 | 5 | 11 | 1 | 1 | | |

| CAS WID1 | 12 | A12 | 4 | 12 | 4 | 12 | 2 | 2 | | PLSW2 |
| GND | 13 | A13 | 3 | 13 | 3 | 13 | 1 | 1 | | |

| CAS WID2 | 14 | A14 | 2 | 14 | 2 | 14 | 2 | 2 | | PLSW3 |
| GND | 15 | A15 | 1 | 15 | 1 | 15 | 1 | 1 | | |

CONVEYING UNIT

3.3V2 LED	16	1	3	1	3	3	3.3V	
GND	17	2	2	2	2	2	GND	DUS
DU1 SENS	18	3	1	3	1	1	Vout	

3.3V2 LED	19	4	3	1	3	3	3.3V	
GND	20	5	2	2	2	2	GND	MPPS
MPF SET SENS	21	6	1	3	1	1	Vout	

3.3V2 LED	22	7	3	1	3	3	3.3V	
GND	23	8	2	2	2	2	GND	LS
CAS LIFTUP SENS	24	9	1	3	1	1	Vout	

GND	25	10	3	1	3	3	GND	
REG SENS	26	11	2	2	2	2	Vout	RS
3.3V2	27	12	1	3	1	1	3.3V	

DRIVE UNIT

24V2	28	13	2	1	Vcc	
MPF SOL REM	29	14	1	2	Vout	MPSOL
NC	30	15				

EPWB
YC15

16	1	6	1	+24V	
15	2	5	2	GND	
14	3	4	3	START/STOP	DLPM-BK
13	4	3	4	CLOCK	
12	5	2	5	LD	
11	6	1	6	CW/CCW	

YC13								
DEV CL REM	A1	A1	10	7	2	2	DLPCL-BK	
24V2	A2	A2	9	8	1	1		

| RESIST CL REM | A3 | A3 | 8 | 9 | 2 | 2 | RCL |
| 24V2 | A4 | A4 | 7 | 10 | 1 | 1 | |

| FEED CL REM | A5 | A5 | 6 | 11 | 2 | 2 | FCL |
| 24V2 | A6 | A6 | 5 | 12 | 1 | 1 | |

| MID CL REM | A7 | A7 | 4 | 13 | 2 | 2 | MCL |
| 24V2 | A8 | A8 | 3 | 14 | 1 | 1 | |

| DU1 REM | A9 | A9 | 2 | 15 | 2 | 2 | DUCL |
| 24V2 | A10 | A10 | 1 | 16 | 1 | 1 | |

ID SENSOR

+3.3V2	B1	B1	10	1	5	5	+3.3V4	
REG F LED	B2	B2	9	2	4	4	LEDREF	
GND	B3	B3	8	3	3	3	GND	IDSF
REG SENS F P	B4	B4	7	4	2	2	IDS	
REG SENS F S	B5	B5	6	5	1	1	IDP	

+3.3V2	B6	B6	5	6	5	5	+3.3V4	
REG R LED	B7	B7	4	7	4	4	LEDREF	
GND	B8	B8	3	8	3	3	GND	IDSR
REG SENS R P	B9	B9	2	9	2	2	IDS	
REG SENS R S	B10	B10	1	10	1	1	IDP	

YC17							
FUSER MOT B/	1	1	4	4	B/	
FUSER MOT A/	2	2	3	3	A/	FUM
FUSER MOT B	3	3	2	2	B	
FUSER MOT A	4	4	1	1	A	

YC15							
24V2 IL	1	1	6	1	+24V	
GND	2	2	5	2	GND	
IMAGE MOT REM	3	3	4	3	START/STOP	TCM
IMAGE MOT CLK	4	4	3	4	CLOCK	
IMAGE MOT RDY	5	5	2	5	LD	
IMAGE MOT DIR	6	6	1	6	CW/CCW	

24V2 IL	7	7		
GND	8	8		
FEED MOT REM	9	9		DLPM-BK
FEED MOT CLK	10	10		
FEED MOT RDY	11	11		
FEED MOT DIR	12	12		

YC16							
24V2 IL	1	1	1	1	+24V	
GND	2	2	2	2	GND	
DLPC MOT REM	3	3	3	3	START/STOP	DLPM-M/C/Y
DLPC MOT CLK	4	4	4	4	CLOCK	
DLPC MOT RDY	5	5	5	5	LD	
DLPC MOT DIR	6	6	6	6	CW/CCW	

24V2 IL	7	7	1	1	+24V	
GND	8	8	2	2	GND	
DRMK MOT REM	9	9	3	3	START/STOP	DRM-BK
DRMK MOT CLK	10	10	4	4	CLOCK	
DRMK MOT RDY	11	11	5	5	LD	
DRMK MOT DIR	12	12	6	6	CW/CCW	
NC	13	13				

YC18							
24V2 IL	1	1	1	1	+24V	
GND	2	2	2	2	GND	
DRMC MOT REM	3	3	3	3	START/STOP	DRM-M/C/Y
DRMC MOT CLK	4	4	4	4	CLOCK	
DRMC MOT RDY	5	5	5	5	LD	
DRMC MOT DIR	6	6	6	6	CW/CCW	

EPWB

Connector Holder

Relay

No.6

EPWB

YC35
1	GND
2	BELT SDA
3	BELT SCL
4	3.3V2

YC21
24V2	1	1
DLP FAN1	2	2
24V2	3	3
DLP FAN2	4	4
LIFT MOT1 DR	5	5
LIFT MOT1 RET	6	6
CL FAN	7	7
24V2	8	8
5V2	9	9
DHREM	10	10

Relay   DLPFM1

Relay   DLPFM2

Relay   LM

Relay   CLFM

5V2
DHREM

H Relay PWB

PSPWB

YC34
24V2	7	1
LVU FAN1	6	2
MHREM	5	3
RELAYREM	4	4
ZCROSS	3	5
LVU SLEEP	2	6
24V 3 IL	1	7

Relay   PSFM

YC105
5	1	MHREM
4	2	RELAYREM
3	3	ZCROSS
2	4	PSLEEPN
1	5	24V 3 IL

YC101
| LIVE | 1 | 1 |
| NEUTRAL | 2 | 2 |

Black   AC LIVE
White   AC NEUTRAL

INLET

SRT-51T-4FE

PSSW   Relay   YC30
| 1 | 1 | Power SW |
| 2 | 2 | GND |

YC29
24V0	4	4
24V0	3	3
GND	2	2
GND	1	1

CN4
1	1	24V0
2	2	24V0
3	3	GND
4	4	GND

HVPWB

YC1
GND	12	12
GND	11	11
MISENS	10	10
HVCLK	9	9
HVREM	8	8
DACSDI	7	7
SGND	6	6
DACSCLK	5	5
DACSLD2	4	4
DACSLD1	3	3
24V	2	2
24V	1	1

Relay

YC8
12	GND
11	GND
10	MISENS
9	HVCLK
8	HVREM
7	DACSDI
6	SGND
5	DACSCLK
4	DACSLD2
3	DACSLD1
2	24V3 IL
1	24V3 IL

CHPWB

DH_LIVE	4	4
DH_LIVE	3	3
NC	2	2
DH_NEUTRAL	1	1

CN3
1	1	DH LIVE
2	2	DH LIVE
3	3	NC
4	4	NC
5	5	DH NEUTRAL
6	6	DH NEUTRAL

1	1	DH_LIVE
2	2	DH_LIVE
3	3	NC
4	4	NC
5	5	DH_NEUTRAL
6	6	DH_NEUTRAL

| 1 | 1 |
| 2 | 2 |
PSFM

Inter Lock sw   4

Inter Lock sw   1

PF Drawer

No.7

IMAGE SCANNER UNIT

MPWB

EPWB

DOCUMENT PROCESSOR

CCDPWB

LEDPWB

HPS

SM

DPOS

DPFS

DPOCS

DPFSS

DPRS

DPCM

DPFM

DPFSM

Relay

No.8

OPERATION PANEL UNIT

TP — XR, YB, XL, YT

YC18
1	1	X1
2	2	Y2
3	3	X2
4	4	Y1

YC9
SPK+	1	1
SPK-	2	2

Rotal — SPK

MPWB

KUIORPWB

KUIOPWB2

YC4
VBUS	1	1		1	VBUS
DATE-	2	2		2	DATE-
DATE+	3	3		3	DATE+
NC	4	4		4	NC
GND	5	5		5	GND
LockPin1	LP1	6			
LockPin2	LP2	7			
LockPin3	LP3	8			
LockPin4	LP4	9			
LockPin5	LP5	10			
LockPin6	LP6	11			

YC6001
VBUS1	1	1		1	1	VBUS1
USB_DN1	2	2		2	2	USB_DN1
USB_DP1	3	3		3	3	USB_DP1
GND	4	4		4	4	GND
AUDIO1	5	5		5	5	AUDIO1
WAKEUP1	6	6		6	6	WAKEUP1
RESET1	7	7		7	7	RESETN1
GND	8	8		8	8	GND
VBUS0	9	9		9	9	VBUS0
USB_DN0	10	10		10	10	USB_DN0
USB_DP0	11	11		11	11	USB_DP0
GND	12	12		12	12	GND
AUDIO0	13	13		13	13	AUDIO0
WAKEUP0	14	14		14	14	WAKEUP0
RESET	15	15		15	15	RESETN0
LockPin(1)	LP1			LP1	LockPin0
LockPin(2)	LP2			LP2	LockPin
				LP3	LockPin
				LP4	LockPin

YC2
VBUS	20	20	VBUS
USB_DN	19	19	USB_DN
USB_DP	18	18	USB_DP
GND	17	17	GND
RESERVE	16	16	NC
RESERVE	15	15	NC
GND	14	14	GND
RESERVE	13	13	NC
RESERVE	12	12	NC
GND	11	11	GND
RESERVE	10	10	NC
RESERVE	9	9	NC
RESERVE	8	8	NC
AUDIO	7	7	AUDIO
WAKEUP	6	6	WAKEUP
GND	5	5	GND
VDD5_CUT	4	4	VDD5_CUT
RESETN	3	3	RESETN
GND	2	2	GND
VDD5	1	1	VDD5
LockPin2	LP2		
LockPin1	LP1		

YC2 (LCD)
1	1	1	GND
2	2	2	R0
3	3	3	R1
4	4	4	R2
5	5	5	R3
6	6	6	R4
7	7	7	R5
8	8	8	GND
9	9	9	G0
10	10	10	G1
11	11	11	G2
12	12	12	G3
13	13	13	G4
14	14	14	G5
15	15	15	GND
16	16	16	B0
17	17	17	B1
18	18	18	B2
19	19	19	B3
20	20	20	B4
21	21	21	B5
22	22	22	GND
23	23	23	DCLK
24	24	24	3.3V
25	25	25	3.3V
26	26	26	3.3V
27	27	27	3.3V
28	28	28	DE
29	29	29	HSYNC
30	30	30	VSYNC
31	31	31	LED_EN
32	32	32	LED_PWM
33	33	33	TSC_INT
34	34	34	I2C_SDA
35	35	35	I2C_SCL

LCD

YC17
+5V	1	1
+5V	2	2
+5V	3	3
GND	4	4
GND	5	5
NC	6	6

YC2001
1	1	+5V
2	2	+5V
3	3	GND
4	4	GND

YC6002
5V_CUT1	6	1		6	1	5V_CUT1
GND	5	2		5	2	GND
5V	4	3		4	3	5V
GND	3	4		3	4	GND
5V_CUT0	2	5		2	5	5V_CUT0
GND	1	6		1	6	GND

YC4

KUIOPWB1

YC1
VBUS	20	20	VBUS
USB_DN	19	19	USB_DN
USB_DP	18	18	USB_DP
GND	17	17	GND
RESERVE	16	16	NC
RESERVE	15	15	NC
GND	14	14	GND
RESERVE	13	13	NC
RESERVE	12	12	NC
GND	11	11	GND
RESERVE	10	10	NC
RESERVE	9	9	NC
RESERVE	8	8	NC
AUDIO	7	7	NC
WAKEUP	6	6	WAKEUP
GND	5	5	GND
VDD5_CUT	4	4	VDD5_CUT
RESETN	3	3	RESETN
GND	2	2	GND
VDD5	1	1	VDD5

YC6 / YC2002
GMD	15	15		1	1	GND
PANEL STATUS	14	14		2	2	PANEL STATUS
INT ENERGY SAVER KEY	13	13		3	3	INT ENERGY SAVER KEY
PANEL RESET	12	12		4	4	PANEL RESET
AUDIO	11	11		5	5	AUDIO
LIGHTOFF POWERON	10	10		6	6	LIGHTOFF POWERON
SHUTDOWN	9	9		7	7	SHUTDOWN
LED PROCESSING N	8	8		8	8	LED PROCESSING N
LED ATTENTION N	7	7		9	9	LED ATTENTION N
LED MEMORY N	6	6		10	10	LED MEMORY N
SUSPEND POWER	5	5		11	11	SUSPEND POWER
ENERGY SAVE	4	4		12	12	ENERGY SAVE
BEEP POWERON	3	3		13	13	BEEP POWERON
SECOND TRAY SW	2	2		14	14	SECOND TRAY SW
GND	1	1		15	15	GND

YC21
2	1	1	LED_A
1	2	2	LED_C

OPPWB

OPPWB-R

YC1 / YC8
SCAN0	18	18		1	1	SCAN0
SCAN1	17	17		2	2	SCAN1
SCAN2	16	16		3	3	SCAN2
SCAN3	15	15		4	4	SCAN3
SCAN4	14	14		5	5	SCAN4
LEDRIGHT0	13	13		6	6	LEDRIGHT0
KEYRIGHT0	12	12		7	7	KEYRIGHT0
KEYRIGHT1	11	11		8	8	KEYRIGHT1
KEYRIGHT2	10	10		9	9	KEYRIGHT2
KEYRIGHT3	9	9		10	10	KEYRIGHT3
KEYRIGHT4	8	8		11	11	KEYRIGHT4
LEDRIGHT1	7	7		12	12	LEDRIGHT1
P_LED	6	6		13	13	P_LED
M_LED	5	5		14	14	M_LED
A_LED	4	4		15	15	A_LED
INT_POWERKE	3	3		16	16	INT_POWERKEY
SUSPEMD_PO	2	2		17	17	SUSPEMD_POW
GND	1	1		18	18	GND

YC2007
VBUS	1		1	1	VBUS
DATA -	2		2	2	DATA-
DATA +	3		3	3	DATA+
			4	4	NC
GND	4		5	5	GND
			LP1	LockPin1
			LP2	LockPin2
			LP3	LockPin3

USB host

YC2008
VBUS	1		1	1	VBUS
DATA -	2		2	2	DATA-
DATA +	3		3	3	DATA+
			4	4	NC
GND	4		5	5	GND
			LP1	LockPin1
			LP2	LockPin2
			LP3	LockPin3

USB host

OPPWB-L

YC1 / YC7
GND	1	12		1	1	GND
SCAN0	2		2	2	SCAN0
KEYLEFT1	3		3	3	KEYLEFT1
LEDLEFT1	4		4	4	LEDLEFT1
KEYLEFT2	5		5	5	LEDLEFT2
SCAN1	6		6	6	SCAN1
SCAN2	7		7	7	SCAN2
SCAN3	8		8	8	SCAN3
KEYLEFT0	9		9	9	KEYLEFT0
LEDLEFT0	10		10	10	LEDLEFT0
LEDLEFT2	11		11	11	LEDLEFT2
S_LED2	12	1		12	12	S_LED2

YC14
DAT2	1
DAT3_CO	2
CMD	3
VDD	4
CLK	5
VSS	6
DAT0	7
DAT1	8
LockPin(1)	9
LockPin(1)	10
LockPin(1)	11
LockPin(1)	12

SD card

(5) Wiring diagram (35/40 ppm models)

No.1

BRIDGE (AK)

BRFM

BROCSW

BRFS2

BRFS1

BRFM

YC3
YC4
YC2

BRMPWB

YC1

FAN REM	14	14
BRIDGE VREF	13	13
BRIDGE REM	12	12
BRIDGE CLK	11	11
BRIDGE PH0	10	10
BRIDGE PH1	9	9
BRIDGE DET	8	8
BRIDGE1 SENS	7	7
BRIDGE2 SENS	6	6
OPEN SENS	5	5
GND	4	4
GND	3	3
3.3V2	2	2
+24V1	1	1

YC3: 2 FAN REM / 24V
YC4: GND / BRIDGE_OPEN / 3.3V2 LED / GND / BRIDGE SENS2
YC2: 3.3V2 LED / GND / BRIDGE SENS 1 / BRIDGE B/ / BRIDGE A/ / BRIDGE B / BRIDGE A

Connector Holder / Relay / Connector Holder

YC31

A1	BRIDGE VREF	
A2	BRIDGE REM	
A3	BRIDGE CLK	
A4	BRIDGE PH0	
A5	BRIDGE PH1	
A6	BRIDGE DET	
A7	BRIDGE SENS1	
A8	BRIDGE SENS2	
A9	COVER OPEN	
A10	GND	
A11	GND	
A12	3.3V2	
A13	+24V 2	

EPWB

EJECT UNIT

SFM
EM
FSSOL
EFS1
EFS2
EPS
FCSW2

SB MOT B1	B1
SB MOT B3	B2
SB MOT B1	B3
SB MOT B3	B4
SB MOT A3	B5
SB MOT A1	B6
24V2	B7
EXIT SOL PULL	B8
EXIT SOL RETURN	B9
3.3V2 LED	B10
GND	B11
EJE FULL UPPER	B12
3.3V2 LED	B13
GND	B14
EJE FULL DOWNER	B15
3.3V3 LED	B16
GND	B17
EXITUP PAP SENS	B18
FCOVER OPEN	B19
GND	B20

DF-5110
DF-5120

DFEPWB

MT-5100

MBMPWB

DF-5100

DFMPWB

A14	DF RDY	
A15	DF SEL	
A16	DF SDO	
A17	DF SDI	
A18	DF PAUSE	
A19	DF DET	
A20	DF CLK	

GND / GND / 3.3V2 / 24V / 24V
PSPWB (YC13)

YC20

MPF TRAY SW	A1
GND	A2
3.3V2	A3
MPF WID VOL	A4
GND	A5
3.3V2 LED	A6
GND	A7
MPF LNG SENS	A8
NC	A9
NC	A10
NC	A11

MPF UNIT

MPTSW
MPWSW
MPLS

YC33

KEY COUNTER

OPTION KEY CARD 1 OR KEY COUNTER

4	+24V1	
3	DC1 COUNT	
2	DC1 SET	
1	GND	

KEY CARD

YC34

OPTION KEY CARD MK-2 (ONLY JAPAN)

A1	5V2	
A2	5V2	
A3	5V2	
A4	5V2	
A5	5V2	
A6	5V2	
A7	5V2	
A8	5V2	
A9	MK2_ENBL	
A10	24V1	
B1	MK2_RKEY7	
B2	MK2_RKEY6	
B3	MK2_RKEY5	
B4	MK2_RKEY4	
B5	MK2_RKEY3	
B6	MK2_RKEY2	
B7	MK2_RKEY1	
B8	MK2_RKEY0	
B9	GND	
B10	MK2_COUNT	

FG

PF CAS OPEN	B1
PAUSE	B2
PF SDO	B3
PF SDI	B4
PF RDY	B5
PF SCLK	B6
PF SEL2	B7
PF SEL1	B8
GND	B9
3.3V3	B10
PF VER SENS	B11

PFMPWB

PF-5120
PF-5130
PF-5140

LVU YC8-7
LVU YC8-14

24V / GND

AC LIVE
AC NEUTRAL

AC_LIVE
AC_NEUTRAL

No.2

No.3

No.4

CASSETTE

PS	PGS1	PGS2
PLSW1	PLSW2	PLSW3

YC18

CONVEYING UNIT — DUS

MPPS

LS

RS

DRIVE UNIT — MPSOL

EPWB YC22 — DLPM-BK

YC19 — DLPCL-BK, RCL, FCL, MCL, DUCL

ID SENSOR — IDSF, IDSR

EPWB

YC24 — FUM
FUSER MOT B/, FUSER MOT A/, FUSER MOT B, FUSER MOT A

YC22 — TCM
24V2 IL, GND, IMAGE MOT REM, IMAGE MOT CLK, IMAGE MOT RDY, IMAGE MOT DIR
+24V, GND, START/STOP, CLOCK, LD, CW/CCW

DLPM (BK)
24V2 IL, GND, FEED MOT REM, FEED MOT CLK, FEED MOT RDY, FEED MOT DIR

YC23 — DLPM-M/C/Y
24V2 IL, GND, DLPC MOT REM, DLPC MOT CLK, DLPC MOT RDY, DLPC MOT DIR

DRM-BK
24V2 IL, GND, DRMK MOT REM, DRMK MOT CLK, DRMK MOT RDY, DRMK MOT DIR, NC

YC25 — DRM-M/C/Y
24V2 IL, GND, DRMC MOT REM, DRMC MOT CLK, DRMC MOT RDY, DRMC MOT DIR

LASER UNIT

YC8 / YC1 — APCPWB

YC2 — PDPWB (Thermistor)
5V, BD, TH, GND

YC3 — LSUTH (Thermistor)
TH, GND

YC10 — PM
+24V2, GND, POLREM, POLRDYN, PDLCLK
+24V, GND, START/STOP, LOCKED, EXT.CLOCK

CLM
LSU CL MOT2, LSU CL MOT1
CL MOT, +24V1

No.5

No.6

IMAGE SCANNER UNIT

CCDPWB

EPWB

MPWB

DPRPWB

SHDPWB

HPS

LEDPWB

SM

DP-5100

DP-5110

No.7

LCD — YC2 (OPPWB)

Signal					Signal
GND	1	1	1	1	GND
R0	2	2	2	2	R0
R1	3	3	3	3	R1
R2	4	4	4	4	R2
R3	5	5	5	5	R3
R4	6	6	6	6	R4
R5	7	7	7	7	R5
GND	8	8	8	8	GND
G0	9	9	9	9	G0
G1	10	10	10	10	G1
G2	11	11	11	11	G2
G3	12	12	12	12	G3
G4	13	13	13	13	G4
G5	14	14	14	14	G5
GND	15	15	15	15	GND
B0	16	16	16	16	B0
B1	17	17	17	17	B1
B2	18	18	18	18	B2
B3	19	19	19	19	B3
B4	20	20	20	20	B4
B5	21	21	21	21	B5
GND	22	22	22	22	GND
DCLK	23	23	23	23	DCLK
3.3V	24	24	24	24	3.3V
3.3V	25	25	25	25	3.3V
3.3V	26	26	26	26	3.3V
3.3V	27	27	27	27	3.3V
DE	28	28	28	28	DE
HSYNC	29	29	29	29	HSYNC
VSYNC	30	30	30	30	VSYNC
LED_EN	31	31	31	31	LED_EN
LED_PWM	32	32	32	32	LED_PWM
TSC_INT	33	33	33	33	TSC_INT
I2C_SDA	34	34	34	34	I2C_SDA
I2C_SCL	35	35	35	35	I2C_SCL

YC6
5V	1	2	2	1	LED_A
GND	2	1	1	2	LED_C

YC8
TOP	1	1	BOT Y-
LEFT	2	2	LEFT X+
BOTTOM	3	3	TOP Y+
RIGHT	4	4	RIGHT X-

OPERATION — YC* / YC1

Signal					Signal
JOB_LED	30	30	1	1	JOB_LED
PROCESSING	29	29	2	2	PROCESSING
MEMORY	28	28	3	3	MEMORY
ATTENTION	27	27	4	4	ATTENTION
GND	26	26	5	5	GND
KEY3	25	25	6	6	KEY3
SCAN0	24	24	7	7	SCAN0
KEY2	23	23	8	8	KEY2
KEY1	22	22	9	9	KEY1
KEY0	21	21	10	10	KEY0
NC	20	20	11	11	NC
LED2	19	19	12	12	LED2
LED1	18	18	13	13	LED1
LED0	17	17	14	14	LED0
NC	16	16	15	15	NC
SCAN1	15	15	16	16	SCAN1
SCAN3	14	14	17	17	SCAN3
GND	13	13	18	18	GND
SCAN2	12	12	19	19	SCAN2
SCAN4	11	11	20	20	SCAN4
KEY4	10	10	21	21	KEY4
KEY5	9	9	22	22	KEY5
NC	8	8	23	23	NC
LED3	7	7	24	24	LED3
NC	6	6	25	25	NC
KEY6	5	5	26	26	KEY6
GND	4	4	27	27	GND
INT_POWERKEY_N	3	3	28	28	INT_POWERKEY_N
NC	2	2	29	29	NC
5V0	1	1	30	30	5V0

OPERATION PANEL UNIT

OPPWB — Connector Holder

Left	A		A	Right
+5V	A1		A1	
+5V	A2		A2	
+5V	A3		A3	
+5V	A4		A4	
JOB_LED	A5		A5	
ANY_KEY	A6		A6	
LIGHTOFF_POWERON	A7		A7	
C2P_SCK	A8		A8	
P2C_SBSY	A9		A9	
P2C_SDIR	A10		A10	
C2P_SDAT	A11		A11	
P2C_SDAT	A12		A12	
GND	B12		B12	
GND	B11		B11	
GND	B10		B10	
GND	B9		B9	
PANEL_RESET	B8		B8	
BEEP_POWERON	B7		B7	
LED_MEMORY	B6		B6	
LED_ATTENTION	B5		B5	
LED_PROCESSING	B4		B4	
AUDIO	B3		B3	
INT_POWERKEY	B2		B2	
GND	B1		B1	

YC12
1	1	JOB_LED
2	2	ANY_KEY
3	3	C2P_SCK
4	4	P2C_SBSY
5	5	P2C_SDIR
6	6	C2P_SDAT
7	7	P2C_SDAT
8	8	GND
9	9	PANEL_RESET
10	10	BEEP_POWERON
11	11	LED_MEMORY
12	12	LED_ATTENTION
13	13	LED_PROCESSING
14	14	AUDIO
15	15	INT_POWERKEY
16	16	GND
17	17	LIGHTOFF_POWERON

YC3
VO2	1
VO1	2

Relay → SPK (+ / -)

Panel Frame — Main unit Frame

Ethernet

PSSW → Relay → Power SW

1	1	Power SW
2	2	GND

YC30
1	1	+5V
2	2	+5V
3	3	+5V
4	4	GND
5	5	GND
6	6	GND

YC22 / YC6
GND	1	1	1	1	GND
LCD_OFF	2	2	2	2	LCD_OFF
LOCKN	3	3	3	3	LOCKN
GND	4	4	4	4	GND
RX0N	5	5	5	5	TX0N
RX0P	6	6	6	6	TX0P
GND	7	7	7	7	GND

YC31 — SD card
1	CD/DAT3
2	CMD
3	VSS
4	VDD
5	CLK
6	VSS
7	DAT0
8	DAT1
9	DAT2
10	CD
11	COMMON
12	WP

MPWB

YC20
B1	VBUS_B
B2	D-_B
B3	D+_B
B4	GND_B

YC5
1	TD1+
2	TD1-
3	TD2+
4	TD2-
5	CT1
6	CT2
7	TD3+
8	TD3-
9	TD4+
10	TD4-
11	GRLED_A1
12	GRLED_K1
13	YWLED_A2
14	YWLED_K2

YC1 — HDD
GND	1	1	1	1	GND
SATA1TXDP	2	2	2	2	A+
SATA1TXDN	3	3	3	3	A-
GND	4	4	4	4	GND
SATA1RXDN	5	5	5	5	B-
SATA1RXDP	6	6	6	6	B+
GND	7	7	7	7	GND

HDD		
1	1	3.3V
2	2	3.3V
3	3	3.3V
4	4	GND
5	5	GND
6	6	GND
7	7	5V
8	8	5V
9	9	5V
10	10	ACT
11	11	12V
12	12	12V
13	13	12V
14	14	12V
15	15	12V

YC27
GND	3	3
+5V HDD	2	2
GND	1	1

YC8 / YC3
VBUS1	1	1	1	1	VBUS1
USB_DN1	2	2	2	2	USB_DN1
USB_DP1	3	3	3	3	USB_DP1
GND	4	4	4	4	GND
AUDIO1	5	5	5	5	AUDIO1
WAKEUP1	6	6	6	6	WAKEUP1
RESET1	7	7	7	7	RESETN1
GND	8	8	8	8	GND
VBUS0	9	9	9	9	VBUS0
USB_DN0	10	10	10	10	USB_DN0
USB_DP0	11	11	11	11	USB_DP0
GND	12	12	12	12	GND
AUDIO0	13	13	13	13	AUDIO0
WAKEUP0	14	14	14	14	WAKEUP0
RESET	15	15	15	15	RESETN0

YC9 / YC4
5V CUT1	6	1	6	1	5V CUT1
5V	5	2	5	2	GND
GND	4	3	4	3	5V
GND	3	4	3	4	GND
5V CUT0	2	5	2	5	5V CUT0
GND	1	6	1	6	GND

KUIORPWB

YC23 — CONFM
SPEED CONTROL	1	1
GND	2	2
5V	3	1

KUIO2 / YC2 — KUIO1 / YC1

Signal				Signal
VBUS	20	20		VBUS
USB DN	19	19		USB DN
USB DP	18	18		USB DP
GND	17	17		GND
RESERVE	16	16		NC
RESERVE	15	15		NC
RESERVE	14	14		GND
RESERVE	13	13		NC
RESERVE	12	12		NC
GND	11	11		GND
RESERVE	10	10		NC
RESERVE	9	9		NC
RESERVE	8	8		NC
AUDIO	7	7		AUDIO
WAKEUP	6	6		WAKEUP
GND	5	5		GND
VDD5 CUT	4	4		VDD5 CUT
RESETN	3	3		RESETN
GND	2	2		GND
VDD5	1	1		VDD5

USBPWB

YC50 / YC3 / YC1 — IC CARD READER
VBUS	1	1	1	1	VBUS		VBUS	1
DATA-	2	2	2	2	DATA-		DATA-	2
DATA+	3	3	3	3	DATA+		DATA+	3
NC	4	4	4	4	NC		GND	4
GND	5	5	5	5	GND			

YC52 / YC5 — KEY BOARD (YC2)
+5V2	1	1	6	1	+5V2
+5V2	2	2	5	2	+5V2
+5V2	3	3	4	3	+5V2
GND	4	4	3	4	GND
GND	5	5	2	5	GND
GND	6	6	1	6	GND

YC2 — KEY BOARD
VBUS	1
DATA-	2
DATA+	3
GND	4

YC3 — USB MEMORY
VBUS	1
DATA-	2
DATA+	3
GND	4

(6) Wiring diagram (Options)

(6-1)Paper feeder (PF-5120) wiring diagram

(6-2)Paper feeder (PF-5130) wiring diagram

(6-3)Paper feeder (PF-5140) wiring diagram

(6-4)Document processor (DP-5100) wiring diagram: 35/40ppm models only

EPWB

DPMPWB

Relay

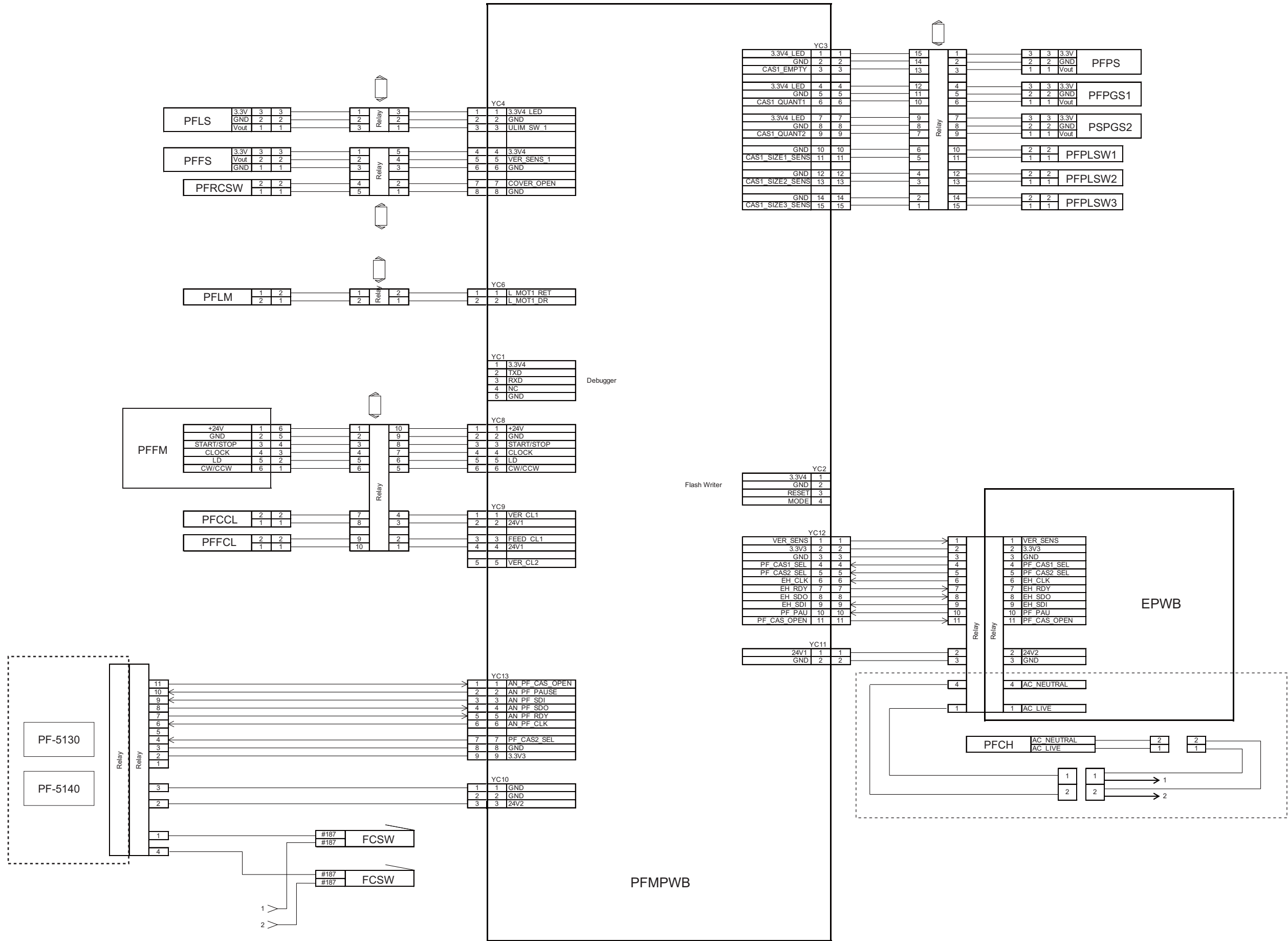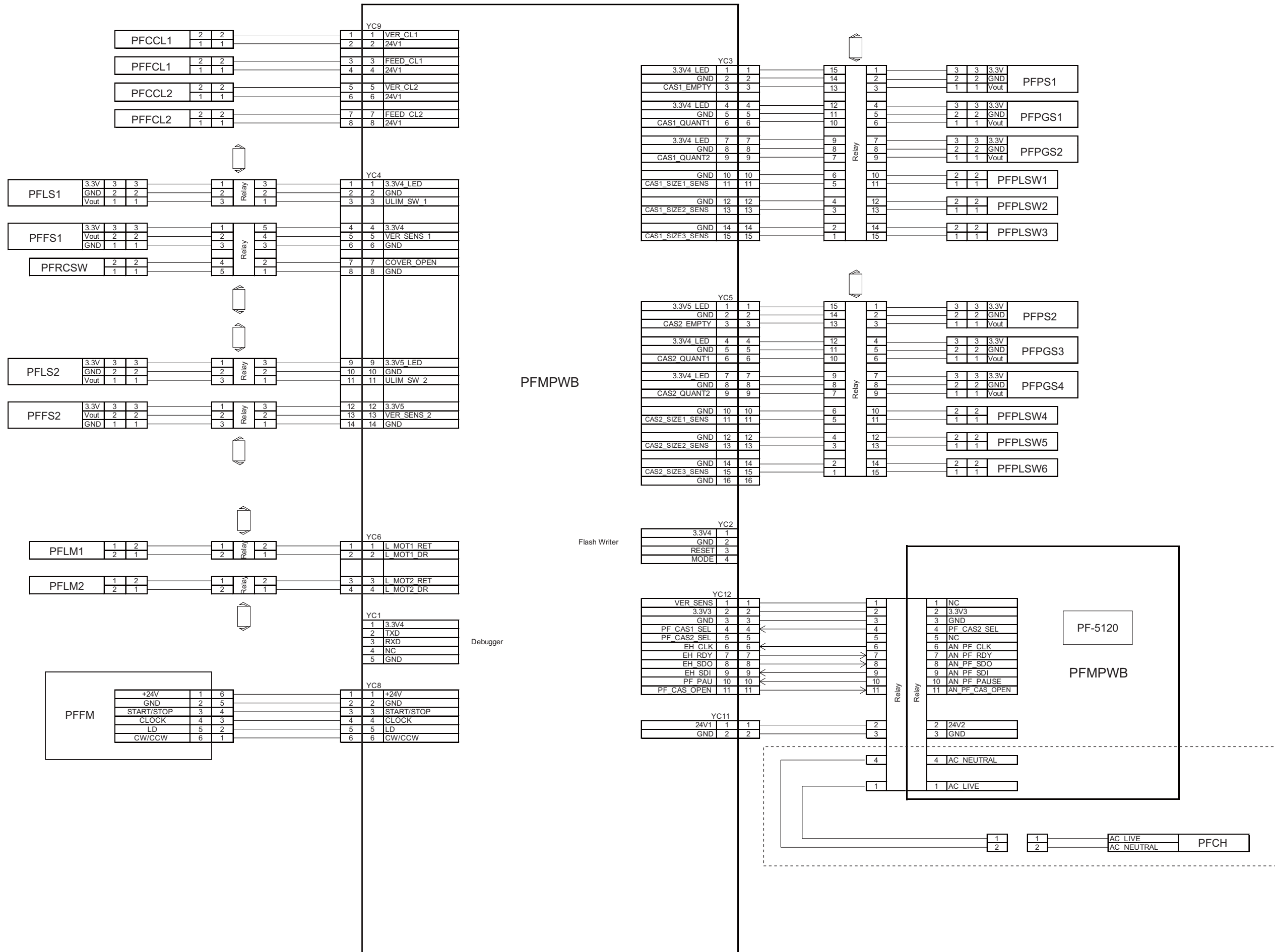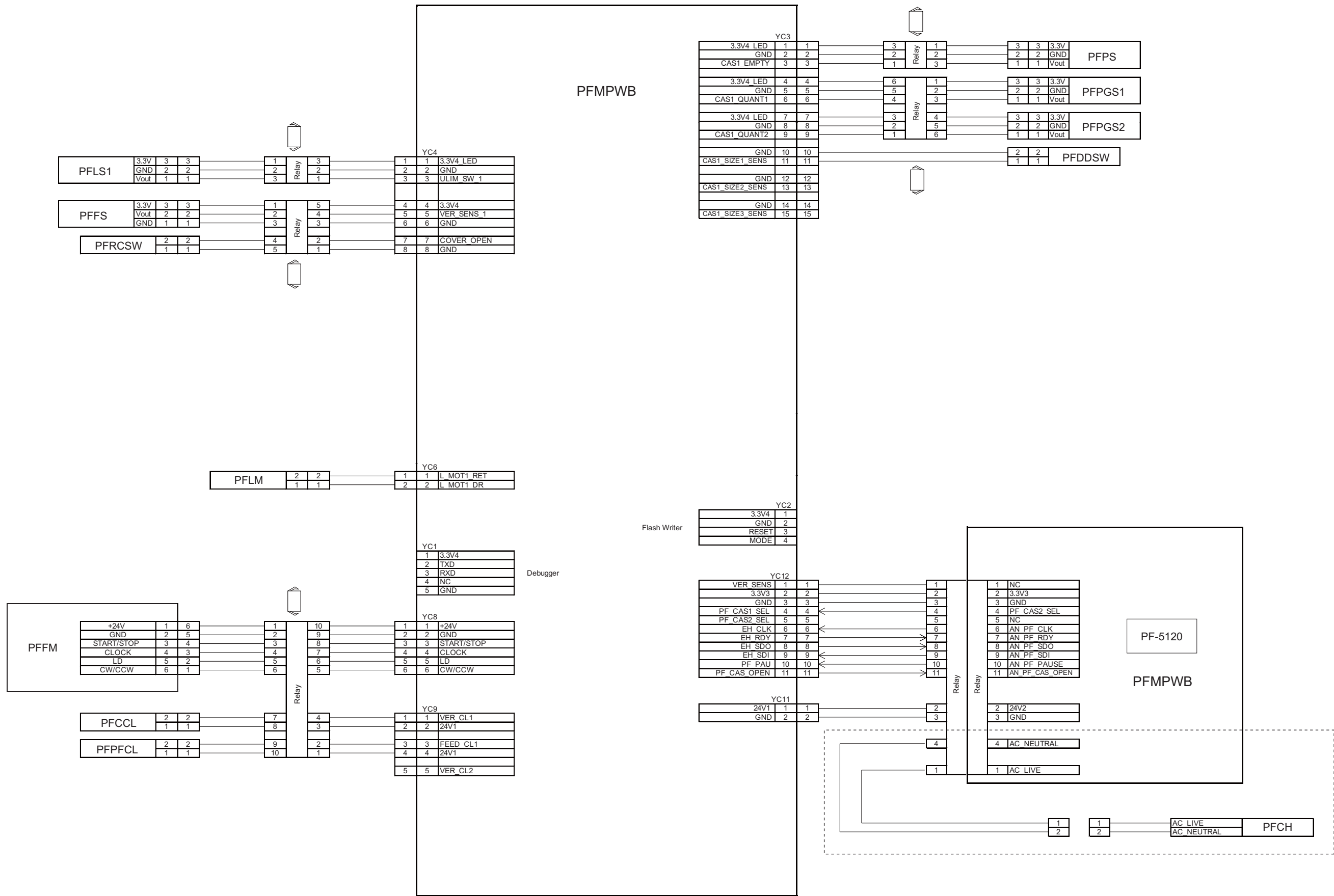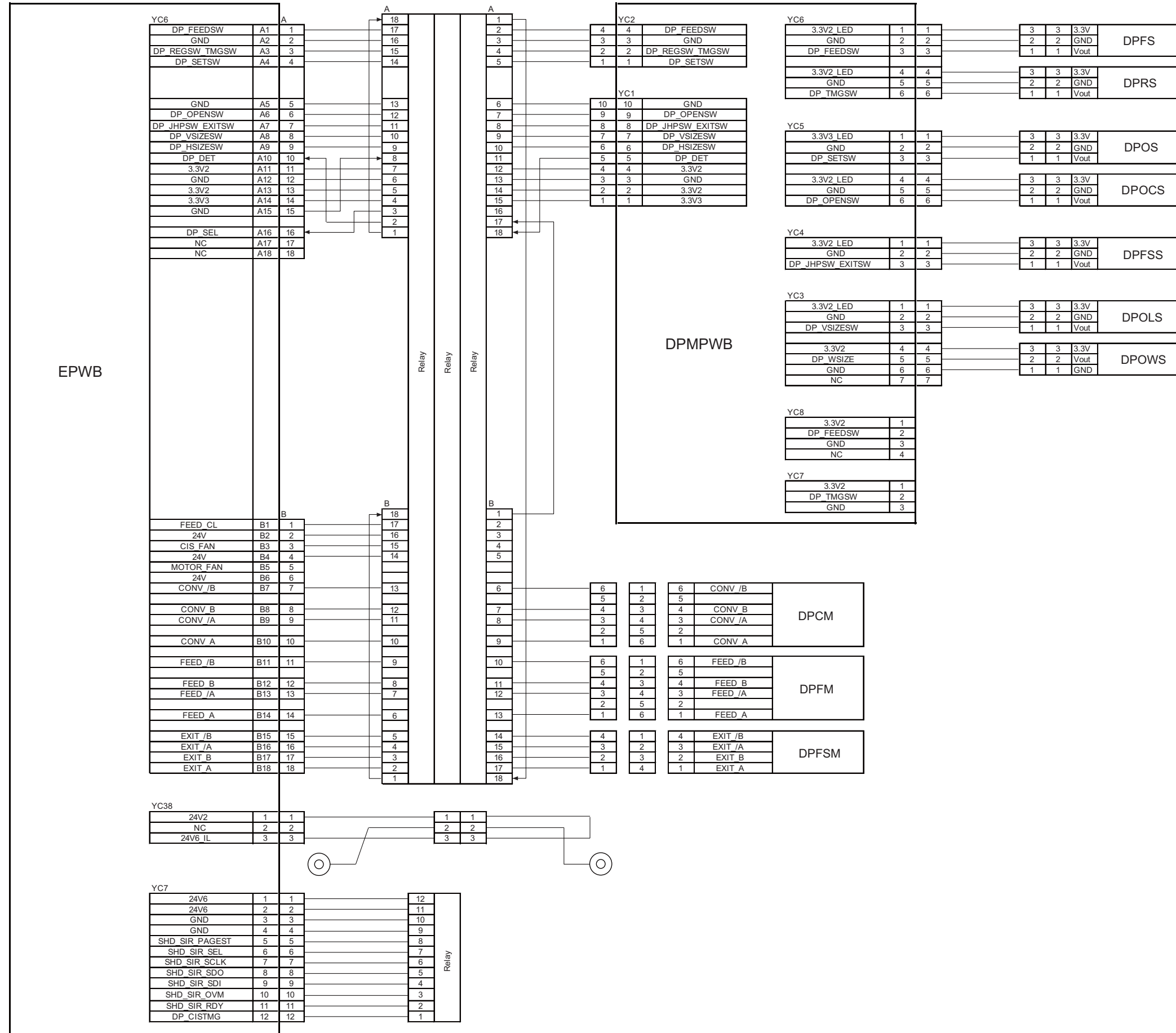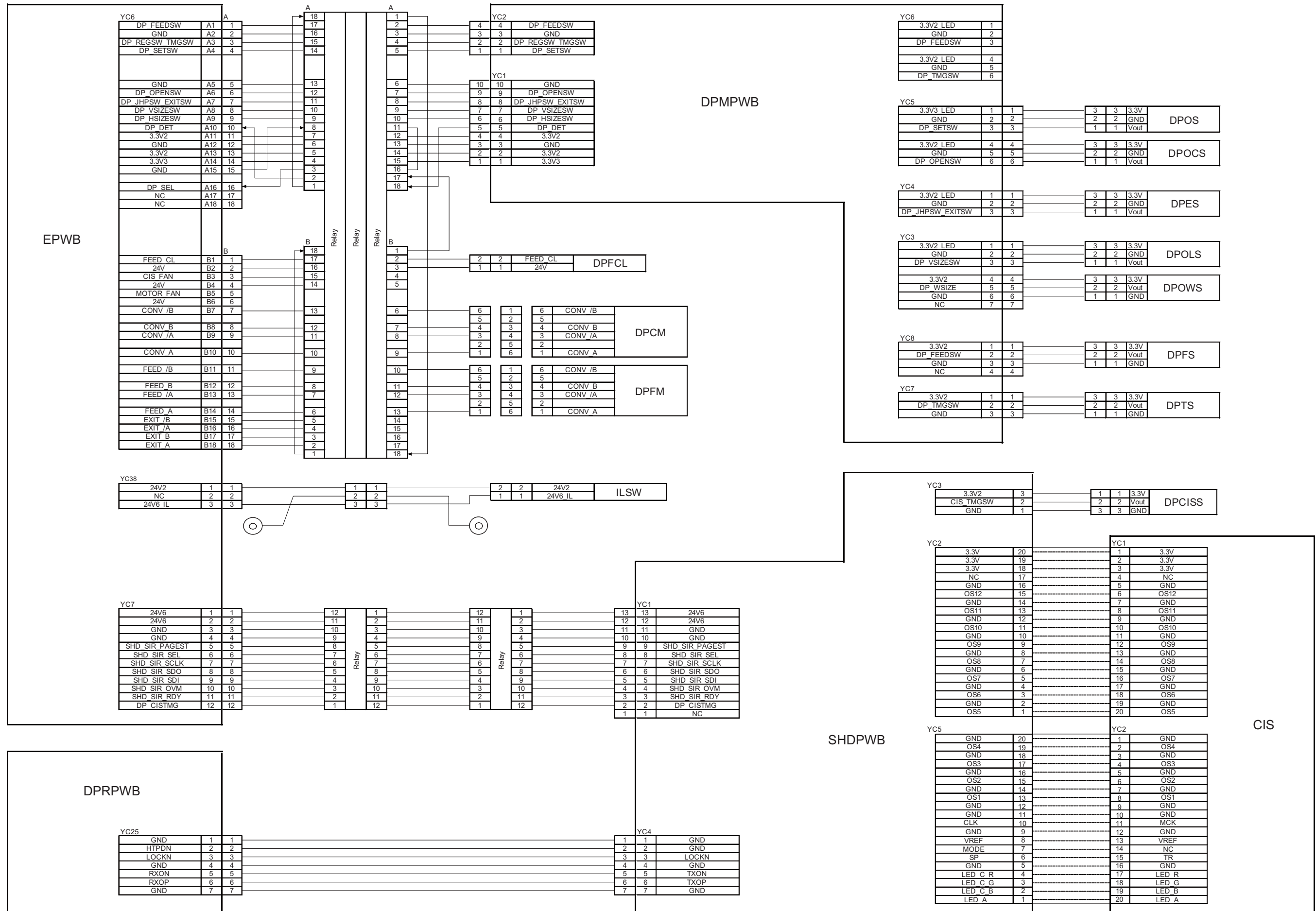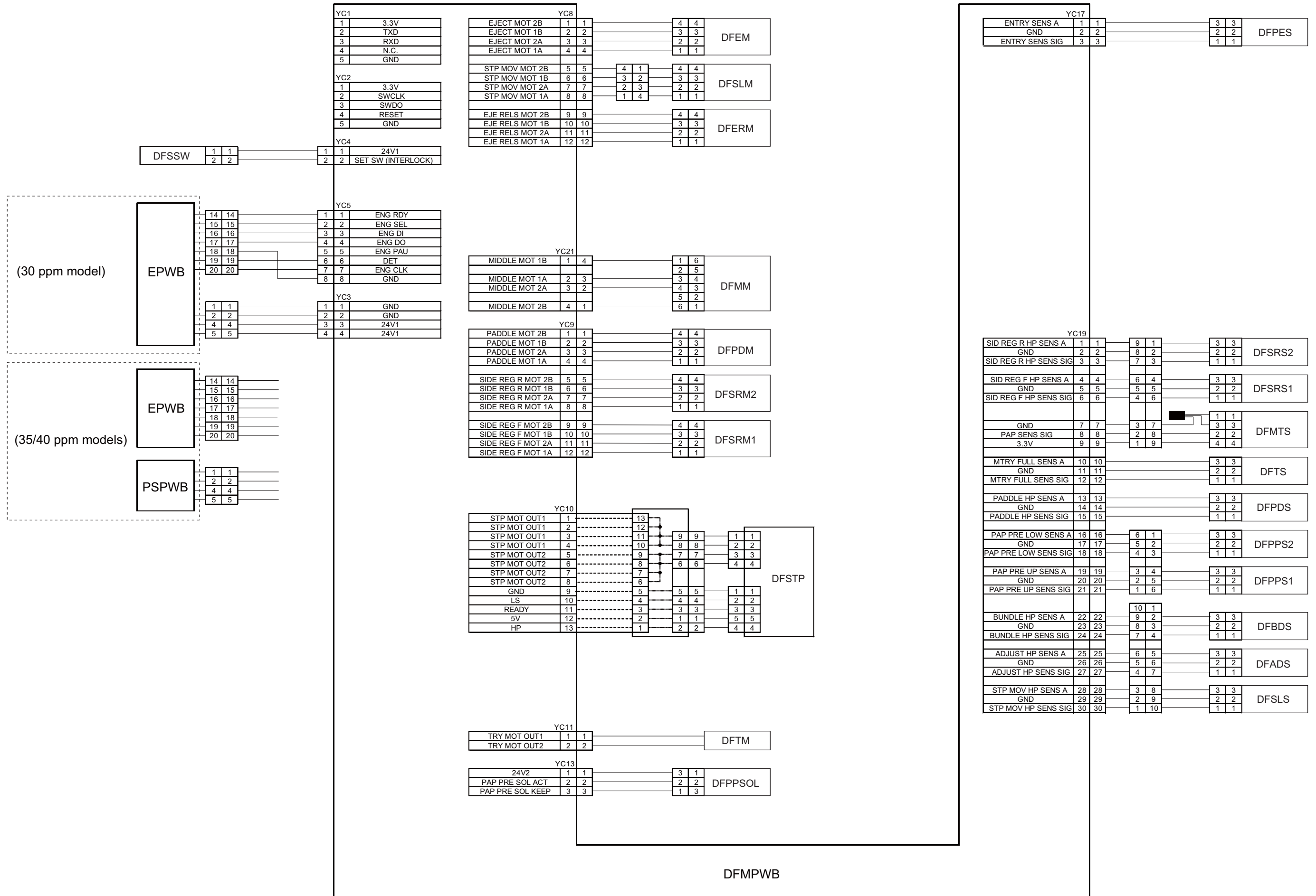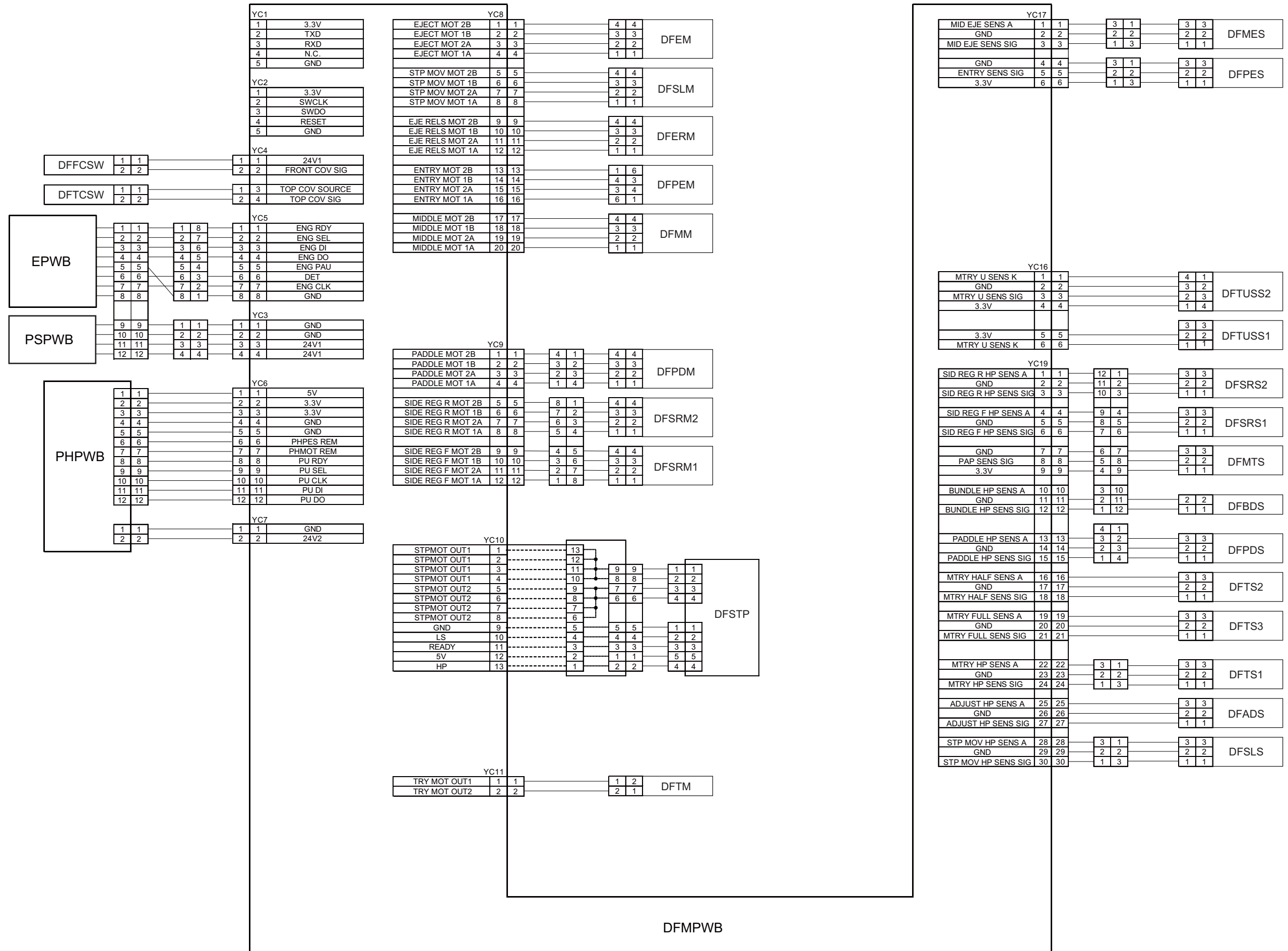**YC6**

DP_FEEDSW	A1	1		18		1			
GND	A2	2		17		2	4	4	DP_FEEDSW
DP_REGSW_TMGSW	A3	3		16		3	3	3	GND
DP_SETSW	A4	4		15		4	2	2	DP_REGSW_TMGSW
				14		5	1	1	DP_SETSW

YC2

YC1

GND	A5	5		13		6	10	10	GND
DP_OPENSW	A6	6		12		7	9	9	DP_OPENSW
DP_JHPSW_EXITSW	A7	7		11		8	8	8	DP_JHPSW_EXITSW
DP_VSIZESW	A8	8		10		9	7	7	DP_VSIZESW
DP_HSIZESW	A9	9		9		10	6	6	DP_HSIZESW
DP_DET	A10	10		8		11	5	5	DP_DET
3.3V2	A11	11		7		12	4	4	3.3V2
GND	A12	12		6		13	3	3	GND
3.3V2	A13	13		5		14	2	2	3.3V2
3.3V3	A14	14		4		15	1	1	3.3V3
GND	A15	15		3		16			
				2		17			
DP_SEL	A16	16		1		18			
NC	A17	17							
NC	A18	18							

YC6 (right)

3.3V2_LED	1	1		3	3	3.3V	
GND	2	2		2	2	GND	DPFS
DP_FEEDSW	3	3		1	1	Vout	

3.3V2_LED	4	4		3	3	3.3V	
GND	5	5		2	2	GND	DPRS
DP_TMGSW	6	6		1	1	Vout	

YC5

3.3V3_LED	1	1		3	3	3.3V	
GND	2	2		2	2	GND	DPOS
DP_SETSW	3	3		1	1	Vout	

3.3V2_LED	4	4		3	3	3.3V	
GND	5	5		2	2	GND	DPOCS
DP_OPENSW	6	6		1	1	Vout	

YC4

3.3V2_LED	1	1		3	3	3.3V	
GND	2	2		2	2	GND	DPFSS
DP_JHPSW_EXITSW	3	3		1	1	Vout	

YC3

3.3V2_LED	1	1		3	3	3.3V	
GND	2	2		2	2	GND	DPOLS
DP_VSIZESW	3	3		1	1	Vout	

3.3V2	4	4		3	3	3.3V	
DP_WSIZE	5	5		2	2	Vout	DPOWS
GND	6	6		1	1	GND	
NC	7	7					

YC8

3.3V2	1
DP_FEEDSW	2
GND	3
NC	4

YC7

3.3V2	1
DP_TMGSW	2
GND	3

Lower section (B)

FEED_CL	B1	1		18		1				
24V	B2	2		17		2				
CIS_FAN	B3	3		16		3				
24V	B4	4		15		4				
MOTOR_FAN	B5	5		14		5				
24V	B6	6								
CONV_/B	B7	7		13		6	6	1	6	CONV_/B
							5	2	5	
CONV_B	B8	8		12		7	4	3	4	CONV_B
CONV_/A	B9	9		11		8	3	4	3	CONV_/A
							2	5	2	
CONV_A	B10	10		10		9	1	6	1	CONV_A
FEED_/B	B11	11		9		10	6	1	6	FEED_/B
							5	2	5	
FEED_B	B12	12		8		11	4	3	4	FEED_B
FEED_/A	B13	13		7		12	3	4	3	FEED_/A
							2	5	2	
FEED_A	B14	14		6		13	1	6	1	FEED_A
EXIT_/B	B15	15		5		14	4	1	4	EXIT_/B
EXIT_/A	B16	16		4		15	3	2	3	EXIT_/A
EXIT_B	B17	17		3		16	2	3	2	EXIT_B
EXIT_A	B18	18		2		17	1	4	1	EXIT_A
				1		18				

DPCM, DPFM, DPFSM

YC38

24V2	1	1		1	1
NC	2	2		2	2
24V6_IL	3	3		3	3

YC7

24V6	1	1		12
24V6	2	2		11
GND	3	3		10
GND	4	4		9
SHD_SIR_PAGEST	5	5		8
SHD_SIR_SEL	6	6		7
SHD_SIR_SCLK	7	7		6
SHD_SIR_SDO	8	8		5
SHD_SIR_SDI	9	9		4
SHD_SIR_OVM	10	10		3
SHD_SIR_RDY	11	11		2
DP_CISTMG	12	12		1

Relay

(6-5)Document processor (DP-5110) wiring diagram: 35/40ppm models only

(6-6)Finisher (DF-5100) wiring diagram

YC1

1	1	3.3V
2	2	TXD
3	3	RXD
4	4	N.C.
5	5	GND

YC2

1	1	3.3V
2	2	SWCLK
3	3	SWDO
4	4	RESET
5	5	GND

DFSSW

1	1
2	2

YC4

1	1	24V1
2	2	SET SW (INTERLOCK)

EPWB (30 ppm model)

YC5

14	14	1	1	ENG RDY
15	15	2	2	ENG SEL
16	16	3	3	ENG DI
17	17	4	4	ENG DO
18	18	5	5	ENG PAU
19	19	6	6	DET
20	20	7	7	ENG CLK
		8	8	GND

YC3

1	1	1	1	GND
2	2	2	2	GND
4	4	3	3	24V1
5	5	4	4	24V1

EPWB (35/40 ppm models)

14	14
15	15
16	16
17	17
18	18
19	19
20	20

PSPWB

1	1
2	2
4	4
5	5

YC8

EJECT MOT 2B	1	1
EJECT MOT 1B	2	2
EJECT MOT 2A	3	3
EJECT MOT 1A	4	4

DFEM

STP MOV MOT 2B	5	5
STP MOV MOT 1B	6	6
STP MOV MOT 2A	7	7
STP MOV MOT 1A	8	8

DFSLM

EJE RELS MOT 2B	9	9
EJE RELS MOT 1B	10	10
EJE RELS MOT 2A	11	11
EJE RELS MOT 1A	12	12

DFERM

YC21

MIDDLE MOT 1B	1	4
MIDDLE MOT 1A	2	3
MIDDLE MOT 2A	3	2
MIDDLE MOT 2B	4	1

DFMM

YC9

PADDLE MOT 2B	1	1
PADDLE MOT 1B	2	2
PADDLE MOT 2A	3	3
PADDLE MOT 1A	4	4

DFPDM

SIDE REG R MOT 2B	5	5
SIDE REG R MOT 1B	6	6
SIDE REG R MOT 2A	7	7
SIDE REG R MOT 1A	8	8

DFSRM2

SIDE REG F MOT 2B	9	9
SIDE REG F MOT 1B	10	10
SIDE REG F MOT 2A	11	11
SIDE REG F MOT 1A	12	12

DFSRM1

YC10

STP MOT OUT1	1	13
STP MOT OUT1	2	12
STP MOT OUT1	3	11
STP MOT OUT1	4	10
STP MOT OUT2	5	9
STP MOT OUT2	6	8
STP MOT OUT2	7	7
STP MOT OUT2	8	6
GND	9	5
LS	10	4
READY	11	3
5V	12	2
HP	13	1

DFSTP

YC11

| TRY MOT OUT1 | 1 | 1 |
| TRY MOT OUT2 | 2 | 2 |

DFTM

YC13

24V2	1	1
PAP PRE SOL ACT	2	2
PAP PRE SOL KEEP	3	3

DFPPSOL

YC17

ENTRY SENS A	1	1
GND	2	2
ENTRY SENS SIG	3	3

DFPES

YC19

SID REG R HP SENS A	1	1
GND	2	2
SID REG R HP SENS SIG	3	3

DFSRS2

SID REG F HP SENS A	4	4
GND	5	5
SID REG F HP SENS SIG	6	6

DFSRS1

GND	7	7
PAP SENS SIG	8	8
3.3V	9	9

DFMTS

MTRY FULL SENS A	10	10
GND	11	11
MTRY FULL SENS SIG	12	12

DFTS

PADDLE HP SENS A	13	13
GND	14	14
PADDLE HP SENS SIG	15	15

DFPDS

PAP PRE LOW SENS A	16	16
GND	17	17
PAP PRE LOW SENS SIG	18	18

DFPPS2

PAP PRE UP SENS A	19	19
GND	20	20
PAP PRE UP SENS SIG	21	21

DFPPS1

BUNDLE HP SENS A	22	22
GND	23	23
BUNDLE HP SENS SIG	24	24

DFBDS

ADJUST HP SENS A	25	25
GND	26	26
ADJUST HP SENS SIG	27	27

DFADS

STP MOV HP SENS A	28	28
GND	29	29
STP MOV HP SENS SIG	30	30

DFSLS

DFMPWB

(6-7)Finisher (DF-5110) wiring diagram: 35/40ppm models only

(6-8)Finisher (DF-5120) wiring diagram: 35/40ppm models only

(6-9)Mailbox (MT-5100) wiring diagram

(6-10)Punch unit (PH-5100/5110) wiring diagram

PF-5120

(500 sheets × 1 Paper Feeder)

Installation Guide

INSTALLATION GUIDE
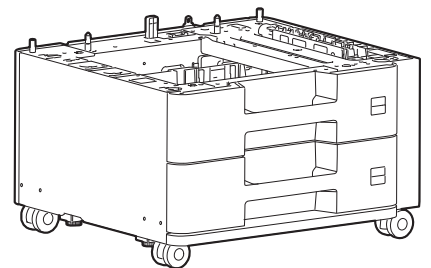
GUIDE D'INSTALLATION

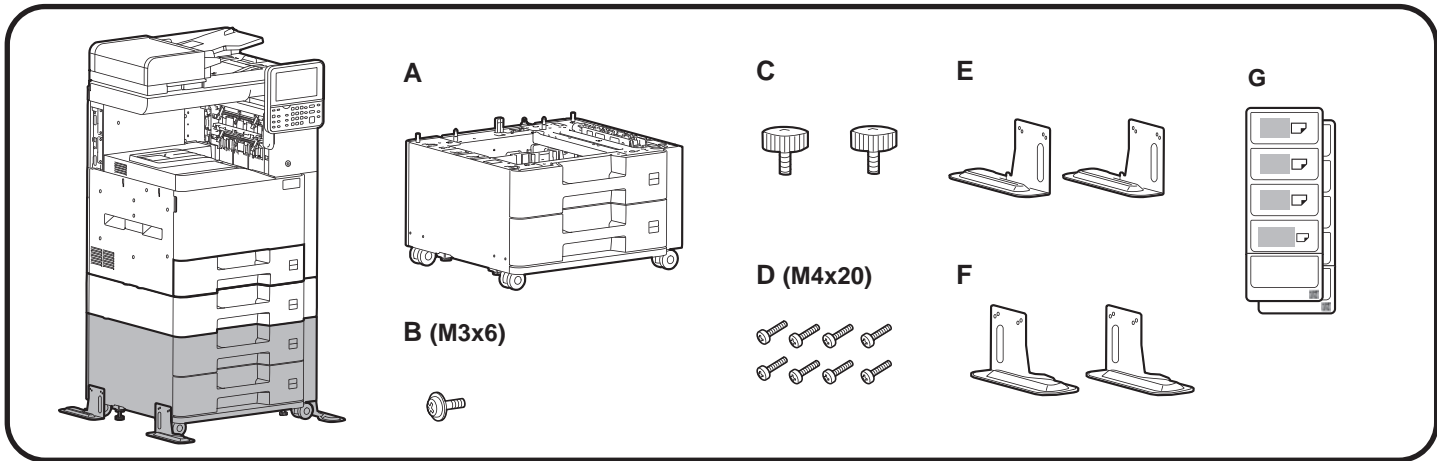**GUÍA DE INSTALACION**

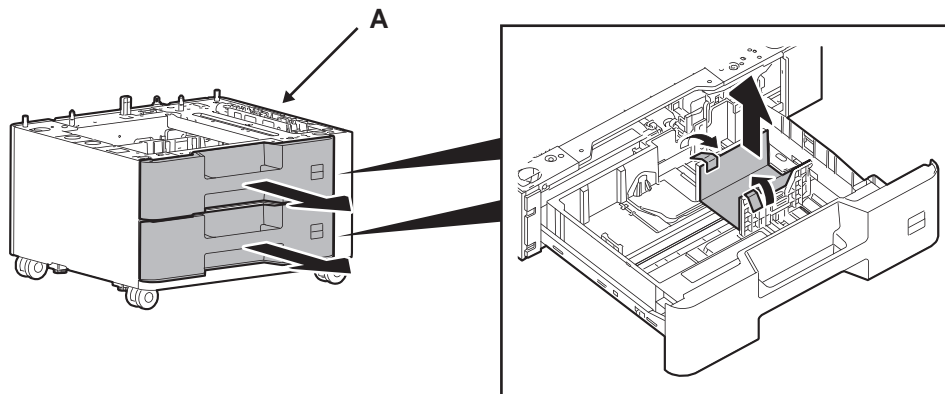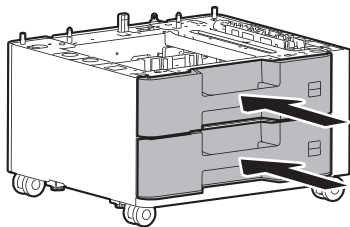**INSTALLATIONSANLEITUNG**

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

PF-5120

A

B (M3x6)

C

D

① A

②

③

④ OFF

⑤

⑥ B (M3x6)

1

⑦

C

⑧

⑨

D

⑩

ON

a b c

Adjusting the leading edge timing
1. Check the gap between the paper center (1) and the line (2) of test pattern (a). If the gap exceeds the reference value, adjust the gap according to the following procedure.
   <Reference value> -0mm to +1.0mm
2. Set the maintenance mode U034 and select [LSU Out Top Full] > [PF].

Réglage de la synchronisation du bord de tête
1. Vérifier l'espace entre le centre du papier (1) et la ligne (2) du motif de (a). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
   <Valeur de référence> -0mm à +1,0mm
2. Passez en mode maintenance U034 et sélectionnez [LSU Out Top Full] > [PF].

Cómo ajustar la sincronización del borde superior
1. Compruebe el espacio entre el centro del papel (1) y la línea (2) del patrón de prueba (a). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
   <Valor de referencia> De -0mm a +1,0mm
2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Top Full] > [PF].

Einstellen des Vorderkanten-Timing
1. Überprüfen Sie den Abstand zwischen der Papiermitte (1) und der Linie (2) auf der Testseite (a). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
   <Bezugswert> -0 mm bis +1,0mm
2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Top Full] > [PF].

Regolazione della sincronizzazione del bordo principale
1. Controllare lo spazio tra il centro del foglio (1) e la linea (2) dello schema di prova (a). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
   <Valore di riferimento> da -0 mm a +1,0mm
2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Top Full] > [PF].

前端对位调节
1. 确认纸张的中心（1）和测试样张（a）的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
   〈标准值〉-0mm ～ +1.0mm
2. 进入维修保养模式 U034，把［LSU Out Top Full］＞［PF］。

선단 타이밍 조정
1. 용지 중앙 (1) 과 테스트 패턴 (a) 의 라인 (2) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
   < 기준치 > -0mm ~ +1.0mm
2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Top Full] > [PF] 를 선택합니다 .

先端タイミング調整
1. 紙のセンター (1) とテストパターン (a) の線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。
＜基準値＞ -0mm ～ +1.0mm
2. メンテナンスモード U034 をセットし、[LSU Out Top Full] ＞ [PF] を選択する。

1→ · · · · · · · 2→ [a] [b] [c]

3. Adjust the values.
Test pattern (b) : Increase the setting value.
Test pattern (c) : Decrease the setting value.
Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (2) in test pattern (a) is within the reference.
<Reference value> -0mm to +1.0mm

3. Régler les valeurs.
Mire d' essai (b) : Augmentez la valeur de réglage.
Mire d' essai (c) : Diminuez la valeur de réglage.
Changement par graduation d'échelle: 0,1mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (2) dans le motif de test (a) soit dans la référence.
<Valeur de référence> -0mm à +1,0mm

3. Ajuste los valores.
Patrón de prueba (b) : Aumente el valor de configuración.
Patrón de prueba (c) : Reduzca el valor de configuración.
Magnitud del cambio por incremento: 0,1mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (2) del patrón de prueba (a) esté dentro de los valores de referencia.
<Valor de referencia> De -0mm a +1,0mm

3. Die Werte einstellen.
Testmuster (b) : Den Einstellwert erhöhen.
Testmuster (c) : Den Einstellwert verringern.
Änderung pro Schritt: 0,1mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (2) auf der Testseite (a) sich innerhalb der Referenz befindet.
<Bezugswert> -0 mm bis +1,0mm

3. Regolare i valori.
Modello di prova (b) : Aumentare il valore dell'impostazione.
Modello di prova (c) : Diminuire il valore dell'impostazione.
Entità modifica per passo: 0,1mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (2) nello schema di prova (a) all'interno del riferimento.
<Valore di riferimento> da -0 mm a +1,0 mm

3. 调整设定值。
测试图案（b）：调高设定值。
测试图案（c）：调低设定值。
设定值的一个调整单位变化量：0.1㎜
4. 按［开始］键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（a）的线（2）的偏移值达到标准值以内。
〈标准值〉 -0mm ～ +1.0mm

3. 설정치를 조정합니다 .
테트스 패턴 (b) :설정치를 높입니다 .
테트스 패턴 (c) :설정치를 내립니다 .
1 스텝당 변화량:0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (a) 에서 라인 (2) 의 격차가 기준 이내가 될 때까지 2 단계 ～ 5 단계를 반복 수행합니다 .
＜기준치＞ -0mm ～ +1.0mm

3. 設定値を調整する。
テストパターン (b) :設定値を上げる。
テストパターン (c) :設定値を下げる。
1 ステップ当たりの変化量:0.1mm
4. [スタート] キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (a) の線 (2) のずれが基準値内になるまで手順2 ～ 5 を繰り返す。
〈 基準値 〉 -0mm ～ +1.0mm

Adjusting the center line

1. Check the gap between the paper center (3) and the line (4) of test pattern (c). If the gap exceeds the reference value, adjust the gap according to the following procedure.
   <Reference value> within ±2,0mm.
2. Set the maintenance mode U034 and select [LSU Out Left] > [Cass2]/[Cassette2] or [Cass3]/[Cassette3].
   ([Cass*] : Display for 30 ppm model, [Cassette*] : Display for 35 and 40 ppm model)

Réglage de l'axe

1. Vérifier l'espace entre le centre du papier (3) et la ligne (4) du motif de (c). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
   <Valeur de référence> ±2,0 mm max.
2. Passez en mode maintenance U034 et sélectionnez [LSU Out Left] > [Cass2]/[Cassette2] ou [Cass3]/[Cassette3].
   ([Cass*] : Affichage pour le modèle 30 ppm, [Cassette*] : Affichage pour les modèles 35 et 40 ppm)

Ajuste de la línea central

1. Compruebe el espacio entre el centro del papel (3) y la línea (4) del patrón de prueba (c). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
   <Valor de referencia> Dentro de ±2,0 mm.
2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Opción mostrada para el modelo de 30 ppm, [Cassette*] : Opción mostrada para los modelos de 35 y 40 ppm)

Einstellen der Mittenlinie

1. Überprüfen Sie den Abstand zwischen der Papiermitte (3) und der Linie (4) auf der Testseite (c). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
   <Bezugswert> Innerhalb ±2,0 mm.
2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Left] > [Cass2]/[Cassette2] oder [Cass3]/[Cassette3].
   ([Cass*] : Anzeige für das 30-Seiten-Modell, [Cassette*] : Anzeige für das 35- und 40-Seiten-Modell)

Regolazione della linea centrale

1. Controllare lo spazio tra il centro del foglio (3) e la linea (4) dello schema di prova (c). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
   <Valore di riferimento> Entro ±2,0 mm.
2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Visualizzazione per modello da 30 ppm, [Cassette*] : Visualizzazione per modelli da 35 e 40 ppm)

中心线调节

1. 确认纸张的中心（3）和测试样张（c）的线（4）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
   〈标准值〉 ±2.0mm 以内
2. 进入维修保养模式 U034，把 [LSU Out Left] > [Cass2]/[Cassette2] 或 [Cass3]/[Cassette3]。
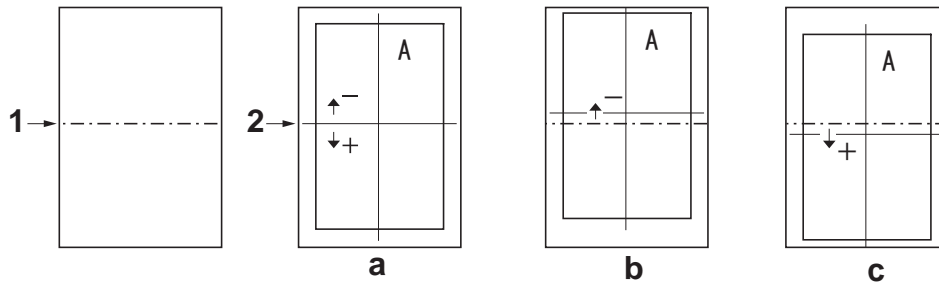   （[Cass*]：在 30 张机器上的显示 , [Cassette*]：在 35 张机器 /40 张机器上的显示)

센터라인 조정

1. 용지 중앙 (3) 과 테스트 패턴 (c) 의 라인 (4) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
   <기준치 > ±2.0mm 이내
2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Left] > [Cass2]/[Cassette2] 또는 [Cass3]/[Cassette3] 을 선택합니다 .
   ([Cass*] : 30ppm 모델용 디스플레이 , [Cassette*] : 35ppm 및 40ppm 모델용 디스플레이)

センターライン調整

1. 紙のセンター (3) とテストパターン (d) の線 (4) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。
   <基準値> ±2.0mm 以内
2. メンテナンスモード U034 をセットし、[LSU Out Left] > [Cass2]/[Cassette2] または [Cass3]/[Cassette3] を選択する。
   （[Cass※]:30 枚機での表示、[Cassette※]:35 枚機 /40 枚機での表示)

3. Adjust the values.
Test pattern (e) : Increase the setting value.
Test pattern (f) : Decrease the setting value.
Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (4) in test pattern (c) is within the reference.
<Reference value> within ±2.0mm.

---

3. Régler les valeurs.
Mire d' essai (e) : Augmentez la valeur de réglage.
Mire d' essai (f) : Diminuez la valeur de réglage.
Changement par graduation d'échelle: 0,1mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (4) dans le motif de test (c) soit dans la référence.
<Valeur de référence> ±2,0mm max.

---

3. Ajuste los valores.
Patrón de prueba (e) : Aumente el valor de configuración.
Patrón de prueba (f) : Reduzca el valor de configuración.
Magnitud del cambio por incremento: 0,1mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (4) del patrón de prueba (c) esté dentro de los valores de referencia.
<Valor de referencia> dentro de ±2,0mm.

---

3. Die Werte einstellen.
Testmuster (e) : Den Einstellwert erhöhen.
Testmuster (f) : Den Einstellwert verringern.
Änderung pro Schritt: 0,1mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (4) auf der Testseite (c) sich innerhalb der Referenz befindet.
<Bezugswert> Innerhalb ±2,0mm.

---

3. Regolare i valori.
Modello di prova (e) : Aumentare il valore dell'impostazione.
Modello di prova (f) : Diminuire il valore dell'impostazione.
Entità modifica per passo: 0,1mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (4) nello schema di prova (c) all'interno del riferimento.
<Valore di riferimento> entro ±2,0mm

---

3. 调整设定值。
测试图案 (e)：调高设定值。
测试图案 (f)：调低设定值。
设定值的一个调整单位变化量：0.1mm
4. 按 [开始] 键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（c）的线（4）的偏移值达到标准值以内。
〈 标准值 〉±2.0mm 以内

---

3. 설정치를 조정합니다 .
테트스 패턴 (e):설정치를 높입니다 .
테트스 패턴 (f):설정치를 내립니다 .
1 스텝당 변화량:0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (c) 에서 라인 (4) 의 격차가 기준 이내가 될 때까지 2 단계 ～ 5 단계를 반복 수행합니다 .
〈 기준치 〉 ±2.0mm 이내

---

3. 設定値を調整する。
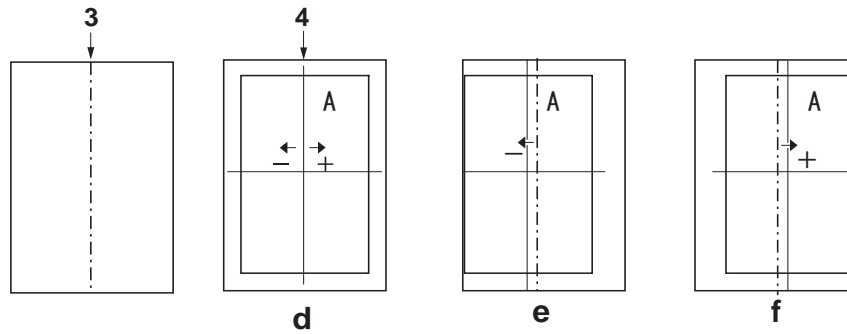テストパターン (e)：設定値を上げる。
テストパターン (f)：設定値を下げる。
1 ステップ当たりの変化量:0.1mm
4. [スタート] キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (d) の線 (4) のずれが基準値内になるまで手順2 ～ 5 を繰り返す。
〈 基準値 〉±2.0mm 以内

PF-5130

(500 sheets × 2 Paper Feeder)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

PF-5130

A

B (M3x6)

C

D (M4x20)

E

F

G

①

A

②

③

PF-5120

④

OFF

⑤

⑥

B (M3x6)

⑦

⑧

C

⑨

⑩

(C: PF-5120)

⑪

⑫

⑬

2

⑭

1
1
D (M4x20)
D (M4x20)
E
F

⑮

1
1
F
D (M4x20)
E
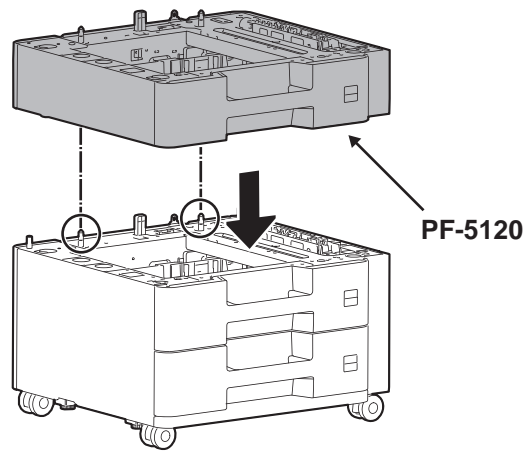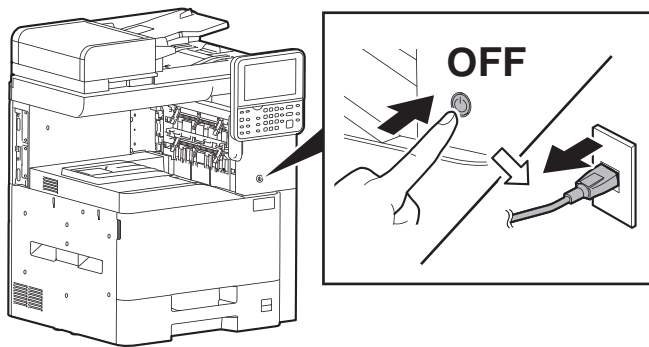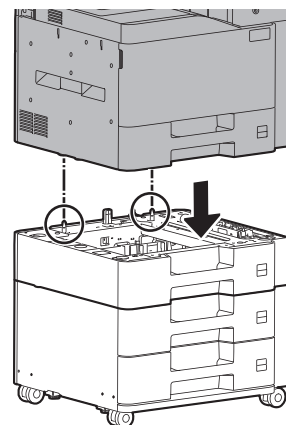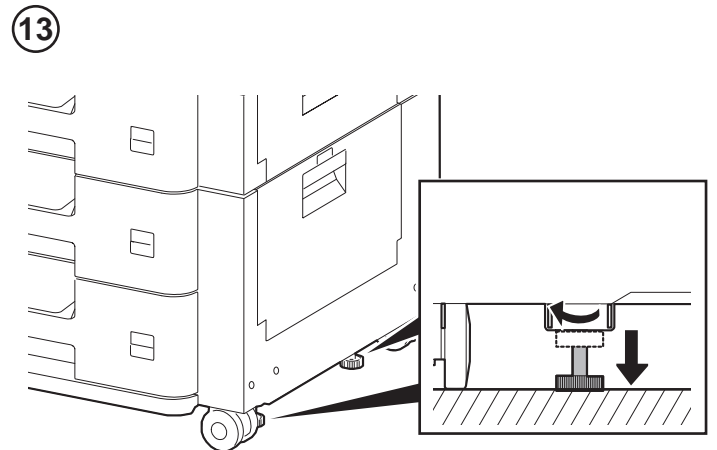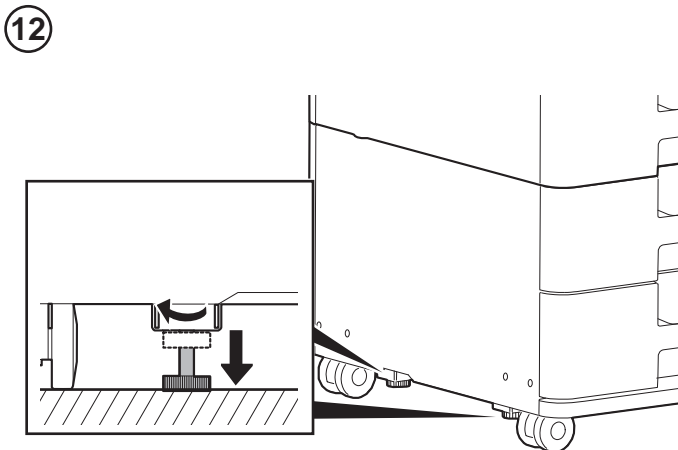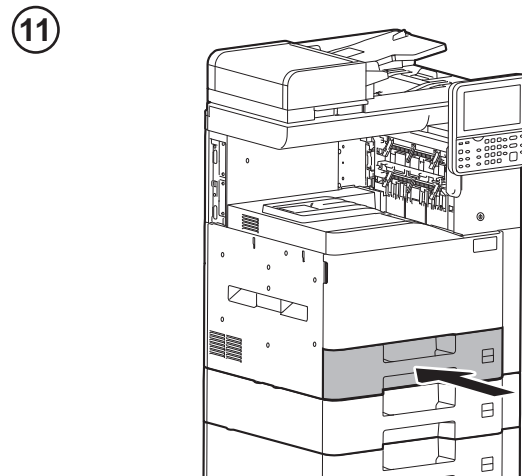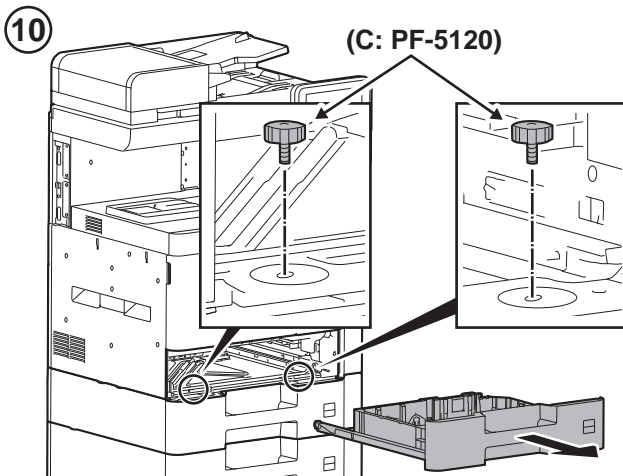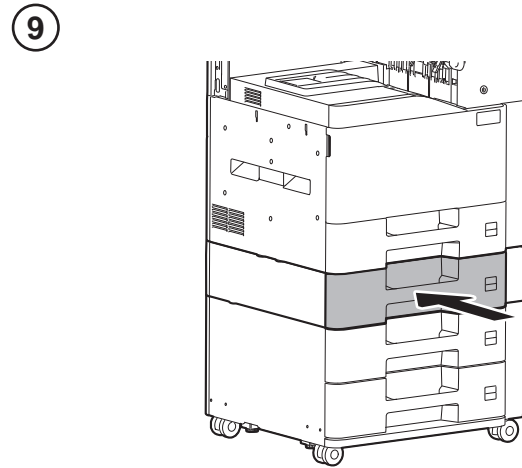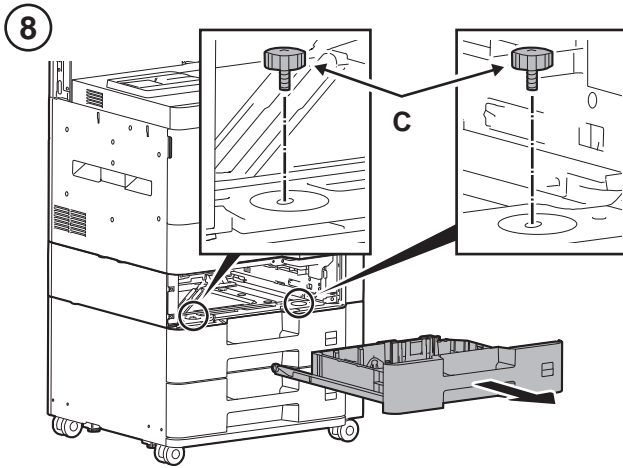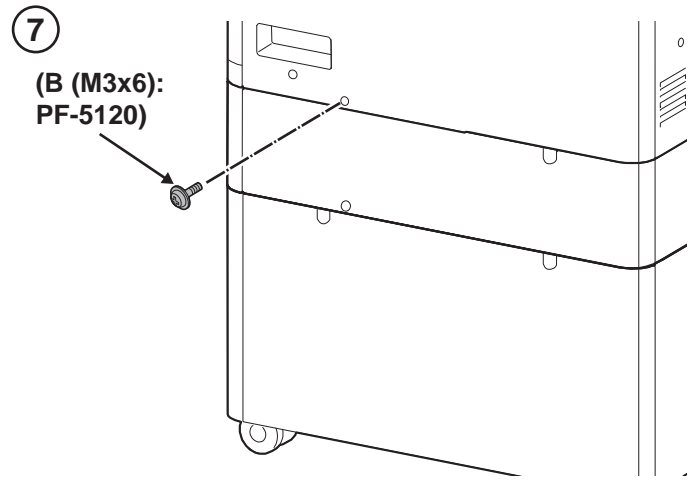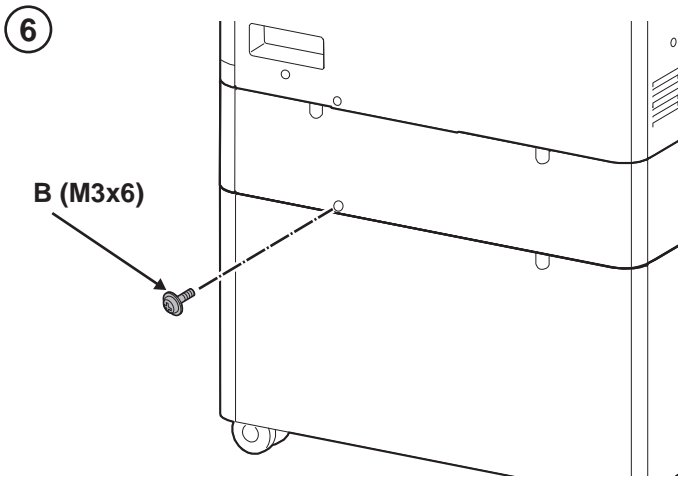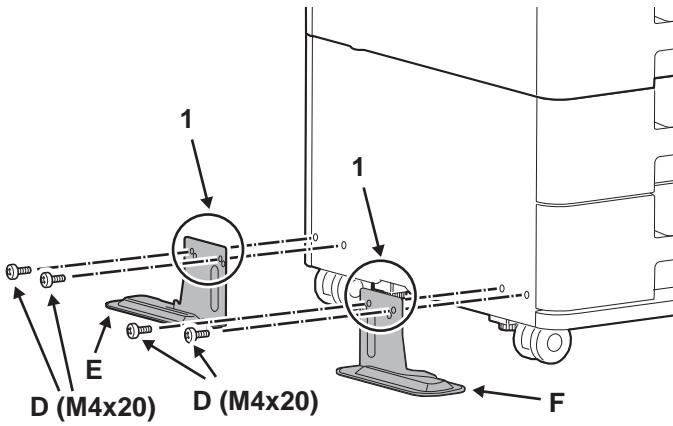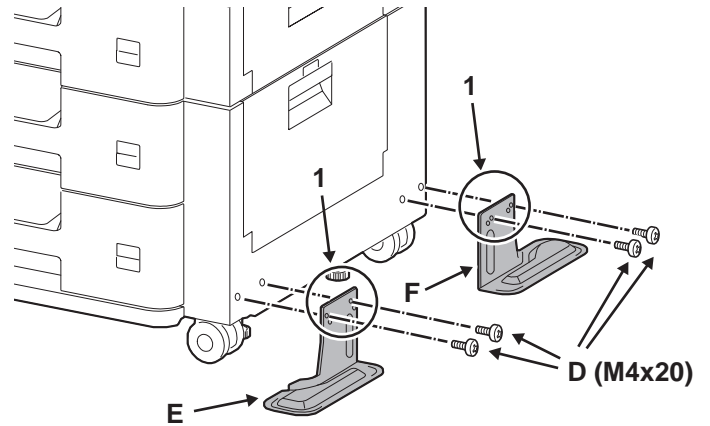
(ENG) Select holes (1) and install each stopper (E,F) with 2 S Tite screws M4 × 20 (D) so that the stoppers will be grounded on the floor.

(FR) Sélectionner les trous (1) et installer chaque butée (E,F) avec 2 vis S Tite M4 × 20 (D) de sorte que les butées reposent sur le sol.

(ES) Seleccione los orificios (1) e instale cada tope (E,F) con los 2 tornillos S Tite M4 × 20 (D) de manera que los topes se conecten a tierra en el suelo.

(DE) Wählen Sie die Öffnungen (1) und befestigen Sie jeden Anschlag (E,F) mit den 2 S-Tite-Schrauben M4 × 20 (D) so an, dass die Anschläge am Boden aufsitzen.

(IT) Selezionare i fori (1) ed installare ogni fermo (E,F) con le 2 viti S Tite M4 × 20 (D) in modo che i fermi siano posti a terra sul pavimento.

(CN) 在孔（1）处各用 2 颗 M4×20 紧固型 S 螺丝（D）安装限位器（E,F），使之和地板接触。

(KO) 전도방지쇠 (E,F) 가 바닥면에 접지될 수 있도록 구멍 (1) 을 선택해 나사 M4×20 S 타이트 (D) 각 2 개로 설치합니다 .

(JP) 転倒防止金具(E,F)が床面に接地するように、穴(1)を選択してビスM4×20 Sタイト(D)各2本で取り付ける。

⑯

(D:PF-5120)
G

⑰

ON

1 →
2 →

a **b** **c**

Adjusting the leading edge timing

1. Check the gap between the paper center (1) and the line (2) of test pattern (a). If the gap exceeds the reference value, adjust the gap according to the following procedure.

   <Reference value> -0mm to +1.0mm

2. Set the maintenance mode U034 and select [LSU Out Top Full] > [PF].

Français

Réglage de la synchronisation du bord de tête

1. Vérifier l'espace entre le centre du papier (1) et la ligne (2) du motif de (a). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.

   <Valeur de référence> -0mm à +1,0mm

2. Passez en mode maintenance U034 et sélectionnez [LSU Out Top Full] > [PF].

Español

Cómo ajustar la sincronización del borde superior

1. Compruebe el espacio entre el centro del papel (1) y la línea (2) del patrón de prueba (a). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.

   <Valor de referencia> De -0mm a +1,0mm

2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Top Full] > [PF].

Deutsch

Einstellen des Vorderkanten-Timing

1. Überprüfen Sie den Abstand zwischen der Papiermitte (1) und der Linie (2) auf der Testseite (a). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.

   <Bezugswert> -0 mm bis +1,0mm

2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Top Full] > [PF].

Italiano

Regolazione della sincronizzazione del bordo principale

1. Controllare lo spazio tra il centro del foglio (1) e la linea (2) dello schema di prova (a). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.

   <Valore di riferimento> da -0 mm a +1,0mm

2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Top Full] > [PF].

简体中文

前端对位调节

1. 确认纸张的中心（1）和测试样张（a）的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。

   〈标准值〉-0mm ～ +1.0mm

2. 进入维修保养模式 U034，把 [LSU Out Top Full] > [PF]。

한국어

선단 타이밍 조정

1. 용지 중앙 (1) 과 테스트 패턴 (a) 의 라인 (2) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .

   <기준치 > -0mm ～ +1.0mm

2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Top Full] > [PF] 를 선택합니다 .

日本語

先端タイミング調整

1. 紙のセンター (1) とテストパターン (a) の線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。

   ＜基準値＞ -0mm ～ +1.0mm

2. メンテナンスモード U034 をセットし、[LSU Out Top Full] > [PF] を選択する。

Diagram labels: 1, 2, A, a, b, c, with − + symbols

3. Adjust the values.
Test pattern (b) : Increase the setting value.
Test pattern (c) : Decrease the setting value.
Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (2) in test pattern (a) is within the reference.
<Reference value> -0mm to +1.0mm

3. Régler les valeurs.
Mire d' essai (b) : Augmentez la valeur de réglage.
Mire d' essai (c) : Diminuez la valeur de réglage.
Changement par graduation d'échelle: 0,1mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (2) dans le motif de test (a) soit dans la référence.
<Valeur de référence> -0mm à +1,0mm

3. Ajuste los valores.
Patrón de prueba (b) : Aumente el valor de configuración.
Patrón de prueba (c) : Reduzca el valor de configuración.
Magnitud del cambio por incremento: 0,1mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (2) del patrón de prueba (a) esté dentro de los valores de referencia.
<Valor de referencia> De -0mm a +1,0mm

3. Die Werte einstellen.
Testmuster (b) : Den Einstellwert erhöhen.
Testmuster (c) : Den Einstellwert verringern.
Änderung pro Schritt: 0,1mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (2) auf der Testseite (a) sich innerhalb der Referenz befindet.
<Bezugswert> -0 mm bis +1,0mm

3. Regolare i valori.
Modello di prova (b) : Aumentare il valore dell'impostazione.
Modello di prova (c) : Diminuire il valore dell'impostazione.
Entità modifica per passo: 0,1mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (2) nello schema di prova (a) all'interno del riferimento.
<Valore di riferimento> da -0 mm a +1,0mm

3. 调整设定值。
测试图案 (b)：调高设定值。
测试图案 (c)：调低设定值。
设定值的一个调整单位变化量：0.1㎜
4. 按 [开始] 键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（a）的线（2）的偏移值达到标准值以内。
〈标准值〉-0mm ～ +1.0mm

3. 설정치를 조정합니다 .
테트스 패턴 (b) :설정치를 높입니다 .
테트스 패턴 (c) :설정치를 내립니다 .
1 스텝당 변화량:0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (a) 에서 라인 (2) 의 격차가 기준 이내가 될 때까지 2 단계 ~ 5 단계를 반복 수행합니다 .
< 기준치 > -0mm ～ +1.0mm

3. 設定値を調整する。
テストパターン (b) :設定値を上げる。
テストパターン (c) :設定値を下げる。
1 ステップ当たりの変化量:0.1㎜
4. [スタート] キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (a) の線 (2) のずれが基準値内になるまで手順 2 ～ 5 を繰り返す。
〈 基準値 〉-0㎜ ～ +1.0㎜

3   **4**

d   e   f

Adjusting the center line
1. Check the gap between the paper center (3) and the line (4) of test pattern (c). If the gap exceeds the reference value, adjust the gap according to the following procedure.
   <Reference value> within ±2,0mm.
2. Set the maintenance mode U034 and select [LSU Out Left] > [Cass2]/[Cassette2] or [Cass3]/[Cassette3].
   ([Cass*] : Display for 30 ppm model, [Cassette*] : Display for 35 and 40 ppm model)

Réglage de l'axe
1. Vérifier l'espace entre le centre du papier (3) et la ligne (4) du motif de (c). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
   <Valeur de référence> ±2,0mm max.
2. Passez en mode maintenance U034 et sélectionnez [LSU Out Left] > [Cass2]/[Cassette2] ou [Cass3]/[Cassette3].
   ([Cass*] : Affichage pour le modèle 30 ppm, [Cassette*] : Affichage pour les modèles 35 et 40 ppm)

Ajuste de la línea central
1. Compruebe el espacio entre el centro del papel (3) y la línea (4) del patrón de prueba (c). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
   <Valor de referencia> Dentro de ±2,0mm.
2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Opción mostrada para el modelo de 30 ppm, [Cassette*] : Opción mostrada para los modelos de 35 y 40 ppm)

Einstellen der Mittenlinie
1. Überprüfen Sie den Abstand zwischen der Papiermitte (3) und der Linie (4) auf der Testseite (c). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
   <Bezugswert> Innerhalb ±2,0mm.
2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Left] > [Cass2]/[Cassette2] oder [Cass3]/[Cassette3].
   ([Cass*] : Anzeige für das 30-Seiten-Modell, [Cassette*] : Anzeige für das 35- und 40-Seiten-Modell)

Regolazione della linea centrale
1. Controllare lo spazio tra il centro del foglio (3) e la linea (4) dello schema di prova (c). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
   <Valore di riferimento> Entro ±2,0mm.
2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Visualizzazione per modello da 30 ppm, [Cassette*] : Visualizzazione per modelli da 35 e 40 ppm)

中心线调节
1. 确认纸张的中心（3）和测试样张（c）的线（4）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
   〈标准值〉 ±2.0mm 以内
2. 进入维修保养模式 U034，把 [LSU Out Left] > [Cass2]/[Cassette2] 或 [Cass3]/[Cassette3]。
   （[Cass*]：在 30 张机器上的显示，[Cassette*]：在 35 张机器 /40 张机器上的显示）

센터라인 조정
1. 용지 중앙 (3) 과 테스트 패턴 (c) 의 라인 (4) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
   <기준치> ±2.0mm 이내
2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Left] > [Cass2]/[Cassette2] 또는 [Cass3]/[Cassette3] 을 선택합니다 .
   ([Cass*] : 30ppm 모델용 디스플레이 ,[Cassette*] : 35ppm 및 40ppm 모델용 디스플레이)

センターライン調整
1. 紙のセンター(3) とテストパターン (d) の線 (4) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。
   ＜基準値＞ ±2.0mm 以内
2. メンテナンスモード U034 をセットし、[LSU Out Left] > [Cass2]/[Cassette2] または [Cass3]/[Cassette3] を選択する。
   （[Cass※]:30 枚機での表示、[Cassette※]:35 枚機 /40 枚機での表示）

3. Adjust the values.
 Test pattern (e) : Increase the setting value.
 Test pattern (f) : Decrease the setting value.
 Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (4) in test pattern (c) is within the reference.
 <Reference value> within ±2.0mm.

3. Régler les valeurs.
 Mire d' essai (e) : Augmentez la valeur de réglage.
 Mire d' essai (f) : Diminuez la valeur de réglage.
 Changement par graduation d'échelle: 0,1mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (4) dans le motif de test (c) soit dans la référence.
 <Valeur de référence> ±2,0mm max.

3. Ajuste los valores.
 Patrón de prueba (e) : Aumente el valor de configuración.
 Patrón de prueba (f) : Reduzca el valor de configuración.
 Magnitud del cambio por incremento: 0,1mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (4) del patrón de prueba (c) esté dentro de los valores de referencia.
 <Valor de referencia> dentro de ±2,0mm.

3. Die Werte einstellen.
 Testmuster (e) : Den Einstellwert erhöhen.
 Testmuster (f) : Den Einstellwert verringern.
 Änderung pro Schritt: 0,1mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (4) auf der Testseite (c) sich innerhalb der Referenz befindet.
 <Bezugswert> Innerhalb ±2,0mm.

3. Regolare i valori.
 Modello di prova (e) : Aumentare il valore dell'impostazione.
 Modello di prova (f) : Diminuire il valore dell'impostazione.
 Entità modifica per passo: 0,1mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (4) nello schema di prova (c) all'interno del riferimento.
 <Valore di riferimento> entro ±2,0mm

3. 调整设定值。
 测试图案 (e)：调高设定值。
 测试图案 (f)：调低设定值。
 设定值的一个调整单位变化量：0.1mm
4. 按 [开始] 键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（c）的线（4）的偏移值达到标准值以内。
 ＜标准值＞±2.0mm 以内

3. 설정치를 조정합니다 .
 테트스 패턴 (e):설정치를 높입니다 .
 테트스 패턴 (f):설정치를 내립니다 .
 1 스텝당 변화량:0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (c) 에서 라인 (4) 의 격차가 기준 이내가 될 때까지 2 단계 ～ 5 단계를 반복 수행합니다 .
 ＜기준치＞ ±2.0mm 이내

3. 設定値を調整する。
 テストパターン (e)：設定値を上げる。
 テストパターン (f)：設定値を下げる。
 1 ステップ当たりの変化量:0.1mm
4. [スタート] キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (d) の線 (4) のずれが基準値内になるまで手順 2 ～ 5 を繰り返す。
 ＜基準値＞±2.0mm 以内

PF-5140

(2000 sheets Paper Feeder)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

PF-5140

A

B (M3x6)

C

D (M4x20)

E

F

①

A

②

③

④

PF-5120

⑤

OFF

⑥

1

⑦ **B (M3x6)**

⑧ **(B (M3x6): PF-5120)**

⑨ **C**

⑩

⑪ **(C: PF-5120)**

⑫

⑬

⑭

⑮

1
1
D (M4x20)   D (M4x20)
E
F

⑯

1
1
1
F
E
D (M4x20)
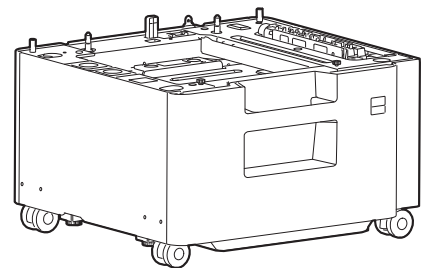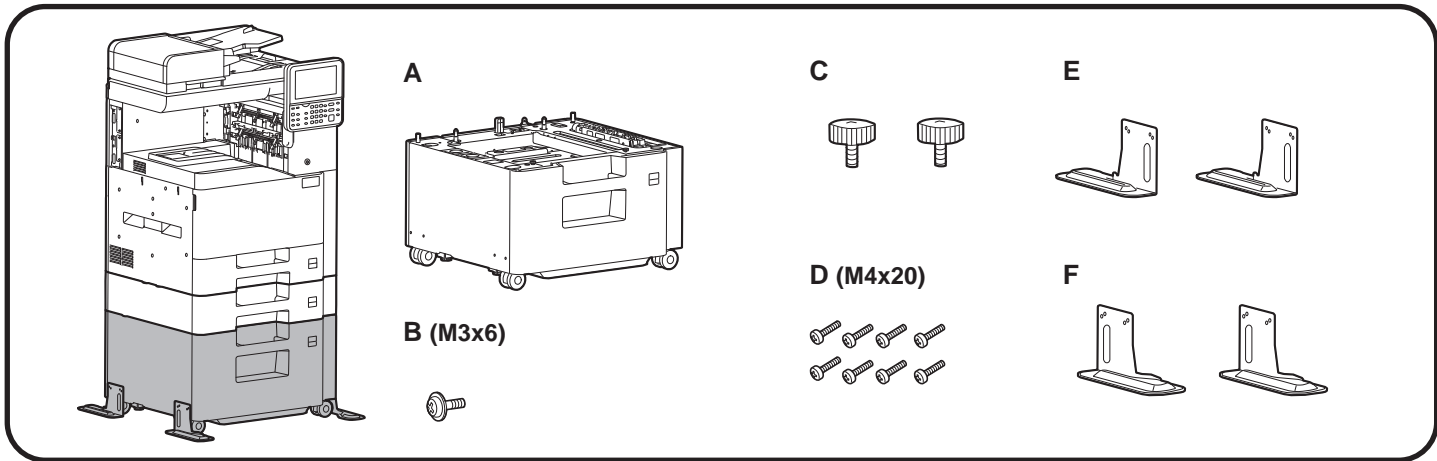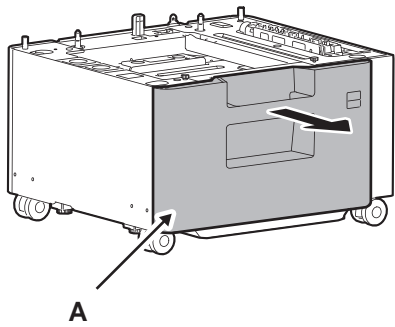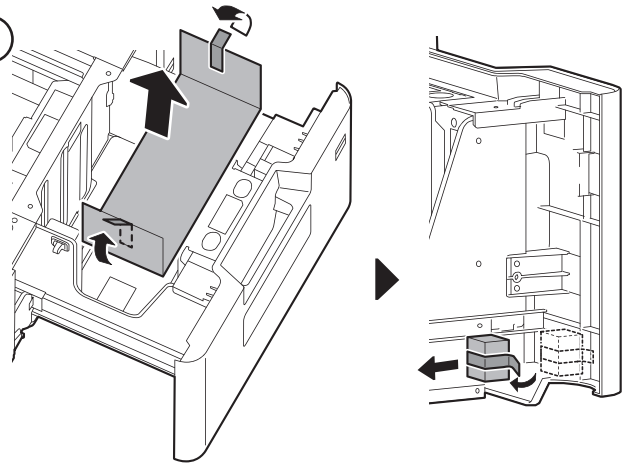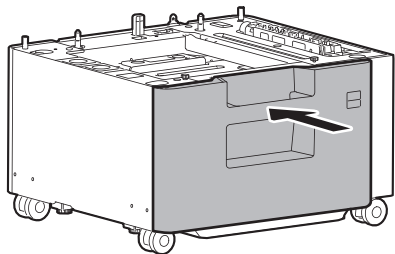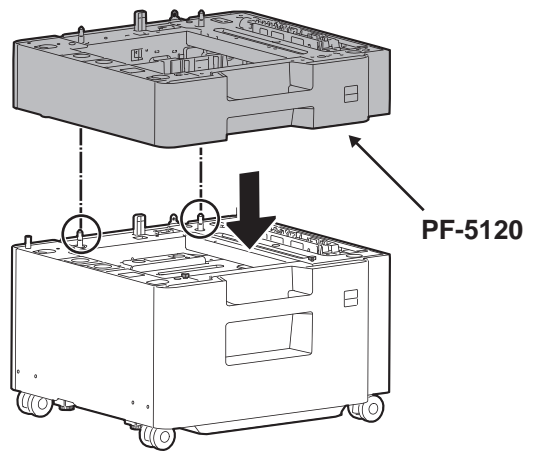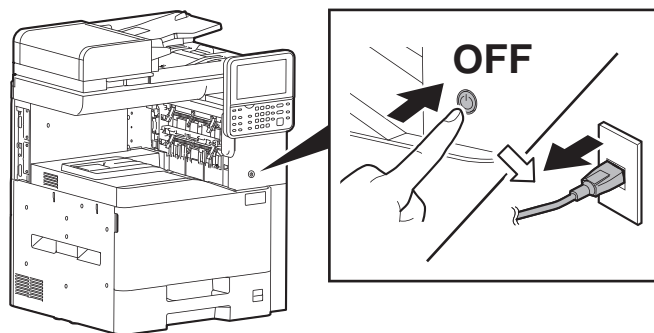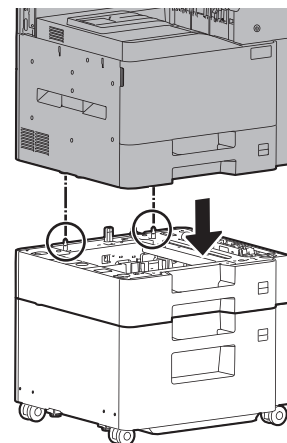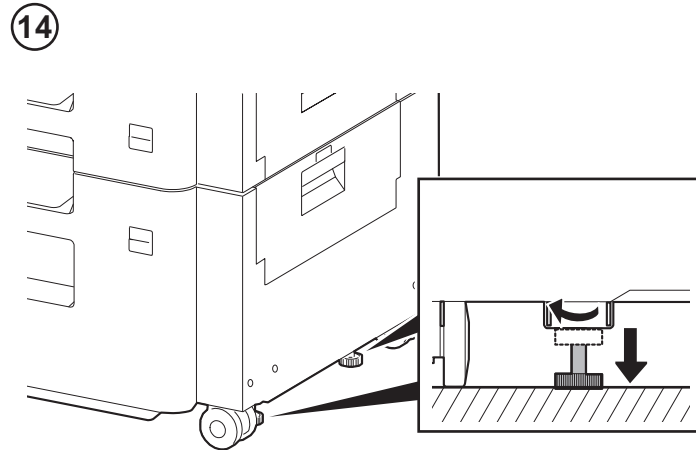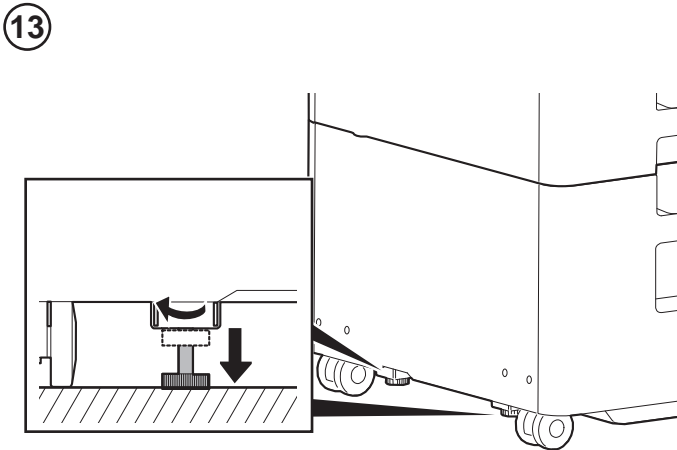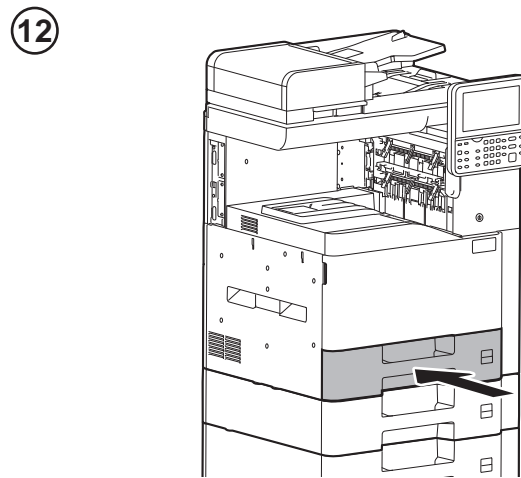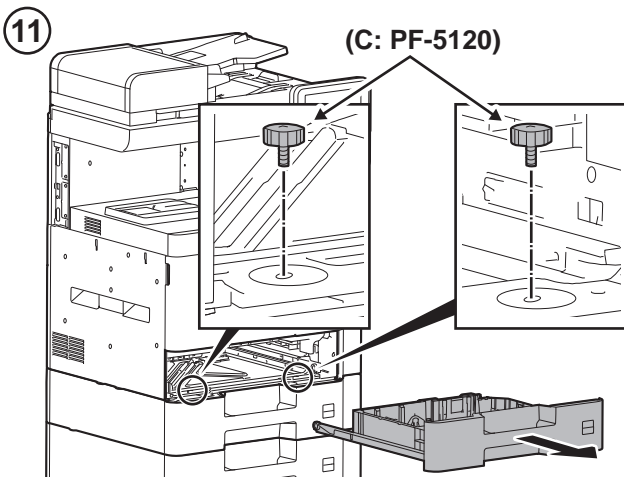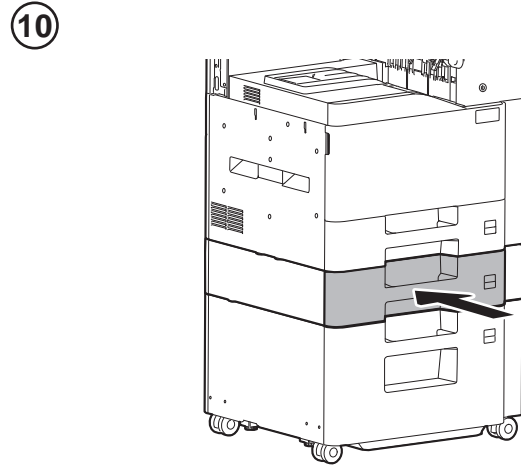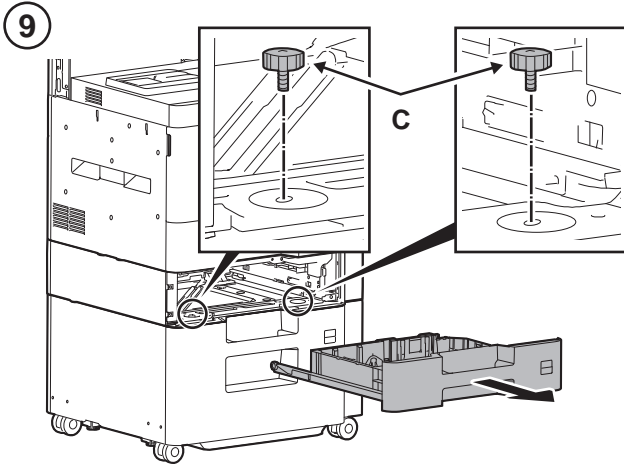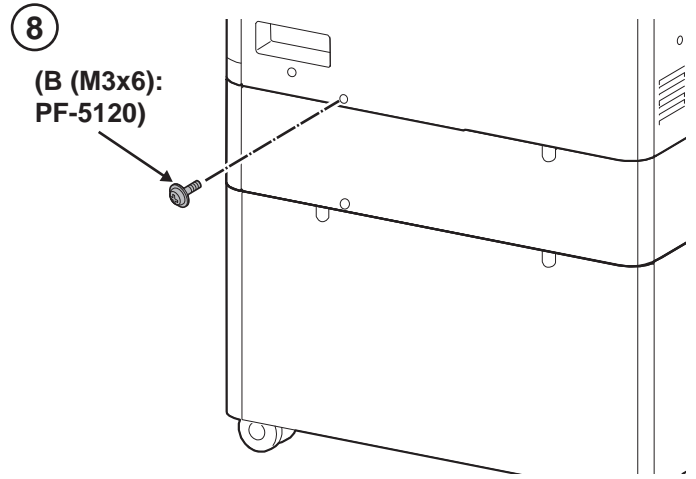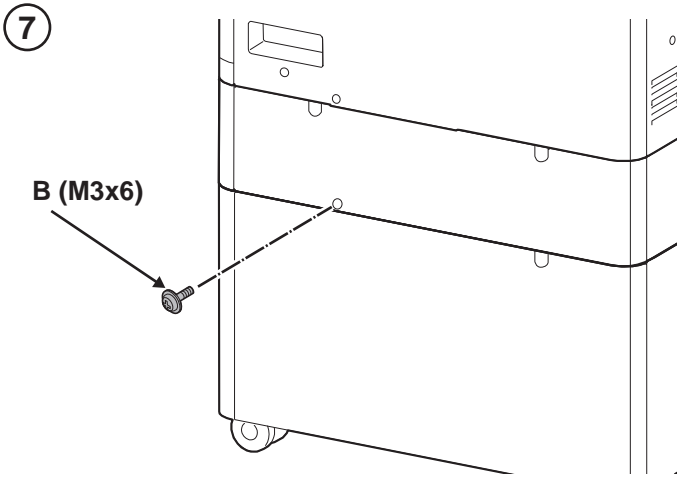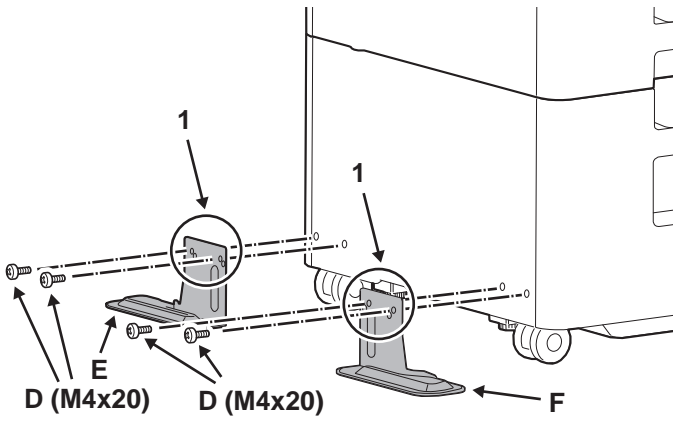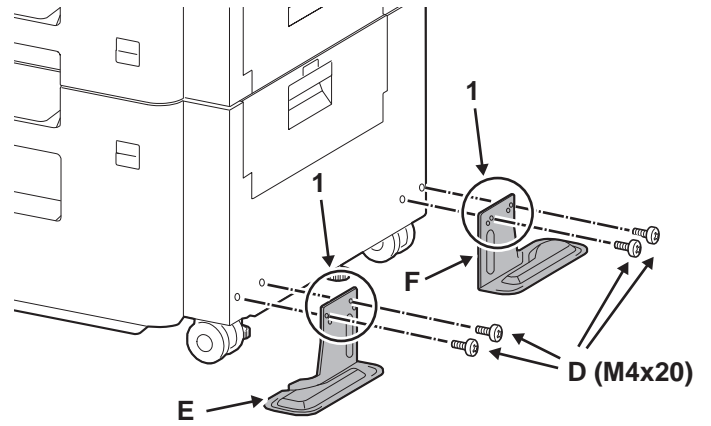
(ENG) Select holes (1) and install each stopper (E,F) with two S Tite screws M4 × 20 (D) so that the stoppers will be grounded on the floor.

(FR) Sélectionner les trous (1) et installer chaque butée (E,F) avec les deux vis S Tite M4 × 20 (D) de sorte que les butées reposent sur le sol.

(ES) Seleccione los orificios (1) e instale cada tope (E,F) con los dos tornillos S Tite M4 × 20 (D) de manera que los topes se conecten a tierra en el suelo.

(DE) Wählen Sie die Öffnungen (1) und befestigen Sie jeden Anschlag (E,F) mit die beiden S-Tite-Schrauben M4 × 20 (D) so an, dass die Anschläge am Boden aufsitzen.

(IT) Selezionare i fori (1) ed installare ogni fermo (E,F) con le due viti S Tite M4 × 20 (D) in modo che i fermi siano posti a terra sul pavimento.

(CN) 在孔（1）处各用 2 颗 M4×20 紧固型 S 螺丝（D）安装限位器（E,F），使之和地板接触。

(KO) 전도방지쇠 (E,F) 가 바닥면에 접지될 수 있도록 구멍 (1) 을 선택해 나사 M4×20 S 타이트 (D) 각 2 개로 설치합니다 .

(JP) 転倒防止金具(E,F)が床面に接地するように、穴(1)を選択してビスM4×20 Sタイト(D)各2本で取り付ける。

⑰

(D:PF-5120)

⑱

ON

1 →   2 →   a   b   c
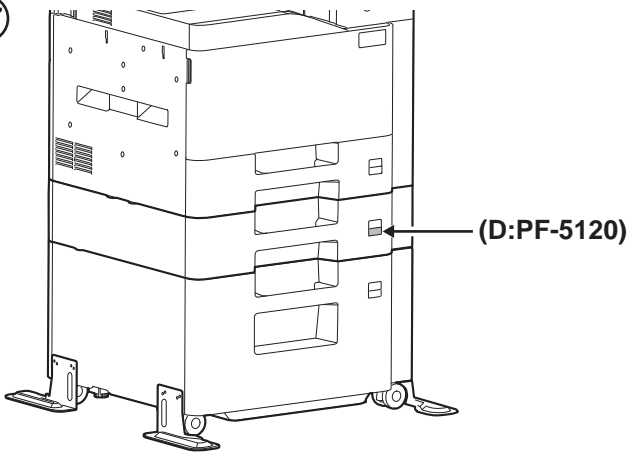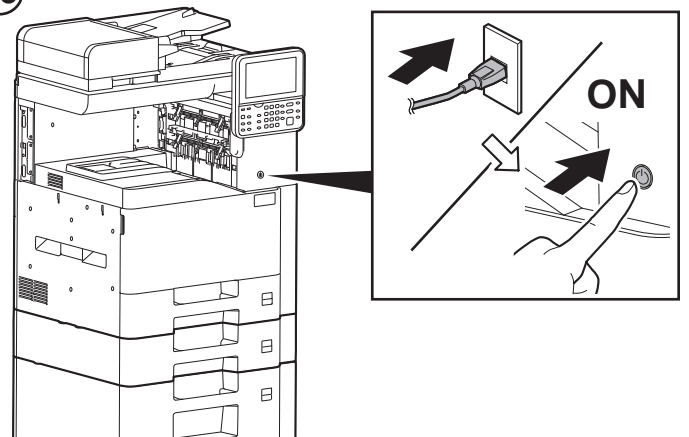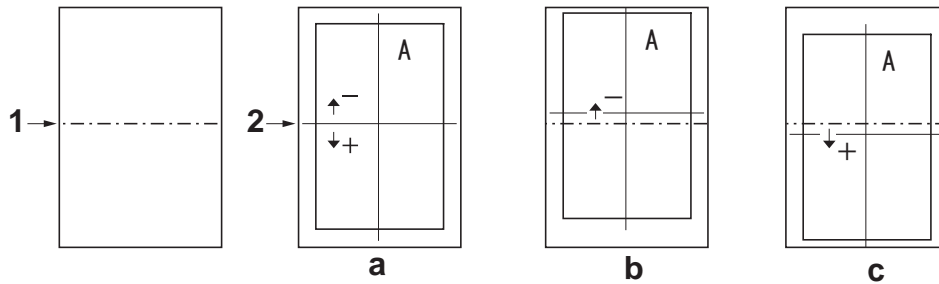
English

Adjusting the leading edge timing

1. Check the gap between the paper center (1) and the line (2) of test pattern (a). If the gap exceeds the reference value, adjust the gap according to the following procedure.

   <Reference value> -0mm to +1.0mm

2. Set the maintenance mode U034 and select [LSU Out Top Full] > [PF].

Français

Réglage de la synchronisation du bord de tête

1. Vérifier l'espace entre le centre du papier (1) et la ligne (2) du motif de (a). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.

   <Valeur de référence> -0mm à +1,0 mm

2. Passez en mode maintenance U034 et sélectionnez [LSU Out Top Full] > [PF].

Español

Cómo ajustar la sincronización del borde superior

1. Compruebe el espacio entre el centro del papel (1) y la línea (2) del patrón de prueba (a). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.

   <Valor de referencia> De -0 mm a +1,0 mm

2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Top Full] > [PF].

Deutsch

Einstellen des Vorderkanten-Timing

1. Überprüfen Sie den Abstand zwischen der Papiermitte (1) und der Linie (2) auf der Testseite (a). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.

   <Bezugswert> -0 mm bis +1,0 mm

2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Top Full] > [PF].

Italiano

Regolazione della sincronizzazione del bordo principale

1. Controllare lo spazio tra il centro del foglio (1) e la linea (2) dello schema di prova (a). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.

   <Valore di riferimento> da -0 mm a +1,0 mm

2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Top Full] > [PF].

简体中文

前端对位调节

1. 确认纸张的中心（1）和测试样张（a）的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。

   〈标准值〉-0mm ～ +1.0mm

2. 进入维修保养模式 U034，把 [LSU Out Top Full] > [PF]。

한국어

선단 타이밍 조정

1. 용지 중앙 (1) 과 테스트 패턴 (a) 의 라인 (2) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .

   < 기준치 > -0mm ～ +1.0mm

2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Top Full] > [PF] 를 선택합니다 .

日本語

先端タイミング調整

1. 紙のセンター (1) とテストパターン (a) の線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。

   ＜基準値＞ -0mm ～ +1.0mm

2. メンテナンスモード U034 をセットし、[LSU Out Top Full] > [PF] を選択する。

a **b** **c**

3. Adjust the values.
   Test pattern (b) : Increase the setting value.
   Test pattern (c) : Decrease the setting value.
   Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (2) in test pattern (a) is within the reference.
   <Reference value> -0mm to +1.0mm

3. Régler les valeurs.
   Mire d' essai (b) : Augmentez la valeur de réglage.
   Mire d' essai (c) : Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,1 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (2) dans le motif de test (a) soit dans la référence.
   <Valeur de référence> -0 mm à +1,0 mm

3. Ajuste los valores.
   Patrón de prueba (b) : Aumente el valor de configuración.
   Patrón de prueba (c) : Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,1 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (2) del patrón de prueba (a) esté dentro de los valores de referencia.
   <Valor de referencia> De -0 mm a +1,0 mm

3. Die Werte einstellen.
   Testmuster (b) : Den Einstellwert erhöhen.
   Testmuster (c) : Den Einstellwert verringern.
   Änderung pro Schritt: 0,1 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (2) auf der Testseite (a) sich innerhalb der Referenz befindet.
   <Bezugswert> -0 mm bis +1,0 mm

3. Regolare i valori.
   Modello di prova (b) : Aumentare il valore dell'impostazione.
   Modello di prova (c) : Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,1 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (2) nello schema di prova (a) all'interno del riferimento.
   <Valore di riferimento> da -0 mm a +1,0 mm

3. 调整设定值。
   测试图案 (b)：调高设定值。
   测试图案 (c)：调低设定值。
   设定值的一个调整单位变化量：0.1㎜
4. 按［开始］键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（a）的线（2）的偏移值达到标准值以内。
   〈标准值〉-0㎜ ～ +1.0㎜

3. 설정치를 조정합니다 .
   테트스 패턴 (b) : 설정치를 높입니다 .
   테트스 패턴 (c) : 설정치를 내립니다 .
   1 스텝당 변화량 : 0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (a) 에서 라인 (2) 의 격차가 기준 이내가 될 때까지 2 단계 ～ 5 단계를 반복 수행합니다 .
   〈기준치〉 -0mm ～ +1.0mm

3. 設定値を調整する。
   テストパターン (b)：設定値を上げる。
   テストパターン (c)：設定値を下げる。
   1 ステップ当たりの変化量 : 0.1mm
4. ［スタート］キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (a) の線 (2) のずれが基準値内になるまで手順 2 ～ 5 を繰り返す。
   〈基準値〉-0mm ～ +1.0mm

Adjusting the center line
1. Check the gap between the paper center (3) and the line (4) of test pattern (c). If the gap exceeds the reference value, adjust the gap according to the following procedure.
   <Reference value> within ±2,0 mm.
2. Set the maintenance mode U034 and select [LSU Out Left] > [Cass2]/[Cassette2] or [Cass3]/[Cassette3].
   ([Cass*] : Display for 30 ppm model, [Cassette*] : Display for 35 and 40 ppm model)

Réglage de l'axe
1. Vérifier l'espace entre le centre du papier (3) et la ligne (4) du motif de (c). Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
2. Passez en mode maintenance U034 et sélectionnez [LSU Out Left] > [Cass2]/[Cassette2] ou [Cass3]/[Cassette3].
   ([Cass*] : Affichage pour le modèle 30 ppm, [Cassette*] : Affichage pour les modèles 35 et 40 ppm)

Ajuste de la línea central
1. Compruebe el espacio entre el centro del papel (3) y la línea (4) del patrón de prueba (c). Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
   <Valor de referencia> Dentro de ±2,0 mm.
2. Configure el modo de mantenimiento U034 y seleccione [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Opción mostrada para el modelo de 30 ppm, [Cassette*] : Opción mostrada para los modelos de 35 y 40 ppm)

Einstellen der Mittenlinie
1. Überprüfen Sie den Abstand zwischen der Papiermitte (3) und der Linie (4) auf der Testseite (c). Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
   <Bezugswert> Innerhalb ±2,0 mm.
2. Aktivieren Sie den Wartungsmodus U034 und wählen Sie [LSU Out Left] > [Cass2]/[Cassette2] oder [Cass3]/[Cassette3].
   ([Cass*] : Anzeige für das 30-Seiten-Modell, [Cassette*] : Anzeige für das 35- und 40-Seiten-Modell)

Regolazione della linea centrale
1. Controllare lo spazio tra il centro del foglio (3) e la linea (4) dello schema di prova (c). Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
   <Valore di riferimento> Entro ±2,0 mm.
2. Impostare la modalità manutenzione U034 e selezionare [LSU Out Left] > [Cass2]/[Cassette2] o [Cass3]/[Cassette3].
   ([Cass*] : Visualizzazione per modello da 30 ppm, [Cassette*] : Visualizzazione per modelli da 35 e 40 ppm)

中心线调节
1. 确认纸张的中心（3）和测试样张（c）的线（4）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
   〈标准值〉 ±2.0mm 以内
2. 进入维修保养模式 U034，把 [LSU Out Left] > [Cass2]/[Cassette2] 或 [Cass3]/[Cassette3]。
   （[Cass*]：在 30 张机器上的显示 , [Cassette*]：在 35 张机器 /40 张机器上的显示）

센터라인 조정
1. 용지 중앙 (3) 과 테스트 패턴 (c) 의 라인 (4) 사이의 격차를 확인하십시오 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
   <기준치> ±2.0mm 이내
2. 메인터넌스 모드 U034 를 설정하고 [LSU Out Left] > [Cass2]/[Cassette2] 또는 [Cass3]/[Cassette3] 을 선택합니다 .
   ([Cass*]：30ppm 모델용 디스플레이 , [Cassette*]：35ppm 및 40ppm 모델용 디스플레이)

センターライン調整
1. 紙のセンター (3) とテストパターン (d) の線 (4) のずれを確認する。ずれが基準値外の場合、次の手順で調整をおこなう。
   ＜基準値＞ ±2.0mm 以内
2. メンテナンスモード U034 をセットし、[LSU Out Left] > [Cass2]/[Cassette2] または [Cass3]/[Cassette3] を選択する。
   （[Cass※]:30 枚機での表示、[Cassette※]:35 枚機 /40 枚機での表示）

3. Adjust the values.
   Test pattern (e) : Increase the setting value.
   Test pattern (f) : Decrease the setting value.
   Amount of change per step: 0.1mm
4. Press the [Start] key to confirm the setting value.
5. Print the test pattern.

6. Repeat the steps 2 to 5 above until the gap of line (4) in test pattern (c) is within the reference.
   <Reference value> within ±2.0 mm.

3. Régler les valeurs.
   Mire d' essai (e) : Augmentez la valeur de réglage.
   Mire d' essai (f) : Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,1 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Imprimez le motif de test.

6. Répéter les étapes 2 à 5 ci-dessus jusqu'à ce que l'espace de la ligne (4) dans le motif de test (c) soit dans la référence.
   <Valeur de référence> ±2,0 mm max.

3. Ajuste los valores.
   Patrón de prueba (e) : Aumente el valor de configuración.
   Patrón de prueba (f) : Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,1 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Imprima el patrón de prueba.

6. Repita los pasos del 2 al 5 anteriores hasta que el espacio de línea (4) del patrón de prueba (c) esté dentro de los valores de referencia.
   <Valor de referencia> dentro de ±2,0 mm.

3. Die Werte einstellen.
   Testmuster (e) : Den Einstellwert erhöhen.
   Testmuster (f) : Den Einstellwert verringern.
   Änderung pro Schritt: 0,1 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Drucken Sie die Testseite aus.

6. Wiederholen Sie die Schritte 2 bis 5 solange, bis der Abstand der Linie (4) auf der Testseite (c) sich innerhalb der Referenz befindet.
   <Bezugswert> Innerhalb ±2,0 mm.

3. Regolare i valori.
   Modello di prova (e) : Aumentare il valore dell'impostazione.
   Modello di prova (f) : Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,1 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Stampare lo schema di prova.

6. Ripetere i punti da 2 a 5 sopra indicati fino a portare lo spazio della linea (4) nello schema di prova (c) all'interno del riferimento.
   <Valore di riferimento> entro ±2,0 mm

3. 调整设定值。
   测试图案 (e)：调高设定值。
   测试图案 (f)：调低设定值。
   设定值的一个调整单位变化量：0.1mm
4. 按 [开始] 键，以确定设定值。
5. 打印测试图案。

6. 重复步骤 2 ～ 5，直至测试样张（c）的线 （4）的偏移值达到标准值以内。
   〈 标准值 〉±2.0㎜ 以内

3. 설정치를 조정합니다 .
   테트스 패턴 (e):설정치를 높입니다 .
   테트스 패턴 (f):설정치를 내립니다 .
   1 스텝당 변화량:0.1mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 시험 패턴을 인쇄합니다 .

6. 테스트 패턴 (c) 에서 라인 (4) 의 격차가 기준 이내가 될 때까지 2 단계 ～ 5 단계를 반복 수행합니다 .
   〈기준치〉 ±2.0mm 이내

3. 設定値を調整する。
   テストパターン (e)：設定値を上げる。
   テストパターン (f)：設定値を下げる。
   1 ステップ当たりの変化量:0.1㎜
4. [スタート] キーを押し、設定値を確定する。
5. テストパターンを出力する。

6. テストパターン (d) の線 (4) のずれが基準 値内になるまで手順2 ～ 5 を繰り返す。
   〈 基準値 〉±2.0㎜ 以内

DP-5100

(Document processor: RADF)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

DP-5100

A   B

1

OFF

2

3

A

4

5

1

6

7

8

B

9

10

ON

20mm   20mm

20mm   c

b

                                              b

20mm

a

English

[Operation check]
1. To check the machine operation, prepare original (a) where 4 lines (b) are drawn 20 mm from the edges of the A4 sheet and 1 line (c) is drawn at its center.
2. Connect the power plug of the MFP into the wall outlet and turn the main power switch on.
3. Set the original (a) on the DP and perform a test copy to check the operation and the copy example.

Français

[Vérification du fonctionnement]
1. Pour vérifier le bon fonctionnement de l'appareil, préparer un original (a) sur lequel sont tracées 4 lignes (b) à 20 mm des bords de la feuille A4 et 1 ligne (c) en son axe.
2. Brancher la fiche d'alimentation du MFP sur la prise murale et mettre l'appareil sous tension.
3. Placer l'original (a) sur le DP et effectuer une copie de test pour vérifier le fonctionnement et l'exemple de copie.

Español

[Verifique el funcionamiento]
1. Para comprobar el funcionamiento del aparato, prepare un original (a) que contenga 4 líneas (b) dibujadas a 20 mm de los bordes de la hoja A4 y 1 línea (c) dibujada en el centro.
2. Conecte el enchufe eléctrico del MFP en el tomacorriente de la pared y encienda el interruptor principal.
3. Coloque el original (a) en el DP y haga una copia de prueba para verificar el funcionamiento y el ejemplo de copia.

Deutsch

[Funktionsprüfung]
1. Zum Prüfen der Gerätefunktion das Original (a) vorbereiten, auf das 4 Linien (b) 20 mm von den Kanten des A4-Blattes und 1 Linie (c) in der Mitte gezeichnet sind.
2. Den Netzstecker am MFP in die Steckdose stecken und den Strom einschalten.
3. Das Original (a) auf den DP legen und eine Testkopie erstellen, um die Funktion und das Kopierbeispiel zu prüfen.

Italiano

[Verifica del funzionamento]
1. Per verificare il funzionamento della macchina, preparare l'originale (a) tirando 4 linee (b) a 20 mm dai bordi del foglio A4 e una linea (c) al centro.
2. Inserire la spina dell'alimentazione dell'MFP nella presa a muro, quindi posizionare l'interruttore principale su On.
3. Posizionare l'originale(a) sul DP ed eseguire una copia di prova per verificare il funzionamento e l'esempio di copia.

简体中文

[动作确认]
1. 若要检查机器动作，准备一张 A4 原稿（a），距纸张边缘 20mm 画出 4 条线（b）并且在原稿中心画出 1 条线（c）。
2. 将 MFP 的电源插头插入墙壁插座并打开主电源。
3. 在 DP 上设定原稿（a）并进行测试复印，确认机器动作和复印样本。

한국어

[동작확인]
1. 기계 작동 확인을 위해서 , A4 용지 선단에서 20mm 떨어진 곳에 4 개의 선 (b) 과 센터에 1 개의 선 (c) 이 그려진 원고 (a) 를 준비 .
2. 콘센트에 MFP 전원플러그를 꽂고 메인 전원 스위치를 ON 으로 합니다 .
3. DP 상에 원고 (a) 를 준비하고 테스트 카피를 확인하여 작동 상태와 카피 샘플을 확인합니다 .

日本語

[動作確認]
1. A4 サイズ用紙の端から 20mm の位置に線 (b)4 本と、用紙の中心に線 (c)1 本を引いた動作確認用の原稿 (a) を用意する。
2. MFP の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
3. 原稿 (a) を DP にセットし、テストコピーを行い、動作およびコピーサンプルを確認する。

20mm 20mm
20mm c
b
b
20mm
a

---

4. Compare original (a) with the copy example. If the gap exceeds the reference value, perform the following adjustments according to the type of the gap.
Check images of the DP after checking and adjusting images of the MFP. For details, see the service manual.
NOTICE: If there is any image fogging, adjust the U068 DP scanning position. If you change the scanning position with U068, adjust the U071 DP leading edge timing.

---

4. Comparer l'original (a) avec l'exemple de copie. Si l'écart excède la valeur de référence, effectuer les réglages suivants en fonction du type d'écart.
Vérifier les images du DP après avoir contrôlé et réglé les images du MFP. Pour plus de détails, se reporter au manuel d'entretien.
REMARQUE: Si l'image est floue, régler la position de balayage de U068 du DP. Si la position de balayage de U068 est modifiée, régler la synchronisation du bord d'attaque de U071.

---

4. Compare el original (a) con el ejemplo de copia. Si la separación supera el valor de referencia, realice los siguientes ajustes según el tipo de separación.
Compruebe las imágenes del DP después de comprobar y ajustar las imágenes del MFP. Para más detalles, lea el manual de servicio.
AVISO: Si la imagen estuviera borrosa, ajuste la posición de escaneo U068 del DP. Si cambia la posición de escaneo con U068, ajuste la sincronización de borde superior U071 del DP.

---

4. Das Original (a) mit dem Kopierbeispiel vergleichen. Wenn der Abstand größer als der Bezugswert ist, die folgenden Einstellungen gemäß dem Abstandstyp durchführen.
Die Bilder des DP nach dem Prüfen und Einstellen der Bilder des MFP prüfen. Weitere Einzelheiten siehe Wartungsanleitung.
ANMERKUNG: Falls das Bild verschwommen wirkt, ist die U068 DP Scan-Position zu verstellen. Wenn Sie die Scan-Position mit U068 verstellen, müssen Sie das U071 DP-Vorderkanten-Timing entsprechend verstellen.

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4. Confrontare l'originale (a) con l'esempio di copia. Se lo scostamento supera il valore di riferimento, eseguire le seguenti regolazioni in funzione del tipo di scostamento.
Controllare le immagini del DP dopo avere effettuato i controlli e le regolazioni delle immagini sull'MFP. Per ulteriori dettagli leggere il manuale d'istruzioni.
AVVISO: Se è presente una qualsiasi sfocatura dell'immagine, regolare la posizione di scansione DP U068. Se si cambia la posizione di scansione con U068, regolare la sincronizzazione del bordo principale DP U071.

---

4. 对比复印样本和原稿（a），如果偏移值在标准值以上时，对偏移原稿进行调整。
对 MFP 的图像确认和调整后再对 DP 的图像进行确认。详细内容请参见维修手册。
（注意）如果图像出现底灰，用 U068 来调整 DP 的扫描位置。如果用 U068 更改了扫描位置，则再用 U071 对 DP 的前端定时进行调整。

---

4. 원고 (a) 와 카피 샘플을 비교하여 차이가 기준치를 벗어나는 경우 , 차이 (틈) 의 형태에 따라 다음을 조정합니다 .
MFP 의 화상확인 및 조정을 하고나서 DP 의 화상확인을 할 것 . 상세는 서비스 매뉴얼을 참조할 것 .
(주의) 화상 카브리가 발생하는 경우 , U068DP 스캔위치 조정을 합니다 . U068 에서 스캔위치를 변경한 경우 U071DP 선단 타이밍 조정을 합니다 .

---

4. 原稿（a）とコピーサンプルを比較し、基準値以上のずれがある場合、ずれ方に応じて調整を行う。
MFP の画像確認及び調整を行ってから DP の画像確認を行うこと。詳細はサービスマニュアルを参照のこと。
（注意）画像カブリが発生する場合、U068 DP 読み取り位置の調整を行う。U068 で読み取り位置を変更した場合、U071 DP 先端タイミング調整を行う。

Be sure to adjust in the following order. If not, the adjustment cannot be performed correctly.
For checking the angle of leading edge, see page 6.   <Reference value> Simplex copying: within ±2.0 mm; Duplex copying: within ±3.0 mm
For checking the magnification, see page 9.   <Reference value> Within ±1.5%
For checking the leading edge timing, see page 11.   <Reference value> Within ±2.5 mm
For checking the center line, see page 13.   <Reference value> Simplex copying: within ±2.0 mm; Duplex copying: within ±3.0 mm
When using the original for adjustment, automatic adjustment of magnification, leading edge timing and center line can be performed at a time.
For the automatic adjustment using the original for adjustment, see page 16.

Veillez à effectuer le réglage en procédant dans l'ordre suivant. Sinon, il sera impossible d'obtenir un réglage correct.
Pour vérifier l'angle du bord avant, reportez-vous à la page 6.   <Valeur de référence>Copie recto seul: ±2,0 mm max.; copie recto verso: ±3,0 mm max.
Pour vérifier l'agrandissement, reportez-vous à la page 9.   <Valeur de référence>±1,5% max.
Pour vérifier la synchronisation du bord avant, reportez-vous à la page 11. <Valeur de référence>±2,5 mm max.
Pour vérifier la ligne médiane, reportez-vous à la page 13.   <Valeur de référence>Copie recto seul: ±2,0 mm max.; Copie recto verso: ±3,0 mm max.
Lorsque vous utilisez l'original pour effectuer le réglage, vous pouvez effectuer automatiquement le réglage de l'agrandissement, de la synchronisation du bord avant et de la ligne médiane en une seule fois.
Pour le réglage automatique en utilisant l'original pour effectuer le réglage, reportez-vous à la page 16.

Asegúrese de ajustar en el siguiente orden. De lo contrario, el ajuste no puede hacerse correctamente.
Para verificar el ángulo del borde superior, vea la página 6.   <Valor de referencia>Copia simple: dentro de ±2,0 mm; Copia duplex: dentro de ±3,0 mm
Para verificar el cambio de tamaño, vea la página 9.   <Valor de referencia>Dentro de ±1,5 %
Para verificar la sincronización del borde superior, vea la página 11.<Valor de referencia>Dentro de ±2,5 mm
Para verificar la línea central, vea la página 13.   <Valor de referencia>Copia simple: dentro de ±2,0 mm;Copia duplex: dentro de ±3,0 mm
Cuando utilice el original para el ajuste, puede hacerse un ajuste automático del cambio de tamaño, sincronización del borde superior y línea central al mismo tiempo.
Para el ajuste automático utilizando el original para el ajuste, vea la página 16.

Die Einstellung in der folgenden Reihenfolge durchführen. Anderenfalls kann die Einstellung nicht korrekt durchgeführt werden.
Angaben zur Prüfung des Winkels der Vorderkante auf Seite 6.   <Bezugswert>Simplexkopie: innerhalb ±2,0 mm; Duplexkopie: innerhalb ±3,0 mm
Angaben zur Prüfung der Vergrößerung auf Seite 9.   <Bezugswert> Innerhalb ±1,5 %
Angaben zur Prüfung des Vorderkanten-Timings auf Seite 11.   <Bezugswert> Innerhalb ±2,5 mm
Angaben zur Prüfung der Mittellinie auf Seite 13.   <Bezugswert> Simplexkopie: innerhalb ±2,0 mm; Duplexkopie: innerhalb ±3,0 mm
Bei Verwendung des Originals für die Einstellung können die automatischen Einstellungen für Vergrößerung, Vorderkanten-Timing und Mittellinie gleichzeitig durchgeführt werden.
Angaben zur automatischen Einstellung mithilfe des Originals auf Seite 16.

Accertarsi di eseguire le regolazioni in questa sequenza: in caso contrario, la regolazione non può essere effettuata correttamente.
Per controllare l'angolo del bordo principale, vedere pagina 6.   <Valore di riferimento>Copia simplex: entro ±2,0 mm; Copia duplex: entro ±3,0 mm
Per controllare l'ingrandimento, vedere pagina 9.   <Valore di riferimento>Entro ±1,5%
Per controllare la sincronizzazione del bordo principale, vedere pagina 11.<Valore di riferimento>Entro ±2,5 mm
Per controllare la linea centrale, vedere pagina 13.   <Valore di riferimento>Copia simplex: entro ±2,0 mm; Copia duplex: entro ±3,0 mm
Quando si utilizza l'originale per la regolazione, la regolazione automatica dell'ingrandimento, della sincronizzazione del bordo principale e della linea centrale possono essere eseguiti contemporaneamente.
Per la regolazione automatica eseguita con l'originale, vedere pagina 16.

必须按照以下步骤进行调整，否则不能达到准确调整的要求。
·确认前端倾斜度　　第 6 页　〈标准值〉　单面：±2.0mm 以内，双面：±3.0mm 以内
·确认等倍值　　　　第 9 页　〈标准值〉　±1.5% 以内
·确认前端定时调整　第 11 页　〈标准值〉　±2.5mm 以内
·确认中心线　　　　第 13 页　〈标准值〉　单面：±2.0mm 以内，双面：±3.0mm 以内
使用调整用的原稿时，可以同时自动进行等倍值，前端定时以及中心线的调整。
·通过调整用原稿进行自动调整　　第 16 页

반드시 하기의 순서로 조정을 할 것 . 순서대로 조정을 하지 않는 경우 바른 조정을 할 수 없습니다 .
·선단경사확인　　　　　 6 페이지 < 기준치 > 단면 :±2.0mm 이내 , 양면 :±3.0mm 이내
·등배도 확인　　　　　　 9 페이지 < 기준치 > ±1.5% 이내
·선단 타이밍 확인　 11 페이지 < 기준치 > ±2.5mm 이내
·센터 라인확인　　　 13 페이지 < 기준치 > 단면 :±2.0mm 이내 , 양면 :±3.0mm 이내
조정용 원고를 사용하면 등배도 조정 , 선단타이밍 조정 , 센터 라인조정의 자동조정이 한번에 수행됩니다 .
·조정용원고를 사용한 자동조정은 16 페이지 참조

必ず下記の順序で調整を行うこと。順序通りに調整を行わない場合、正しい調整ができない。
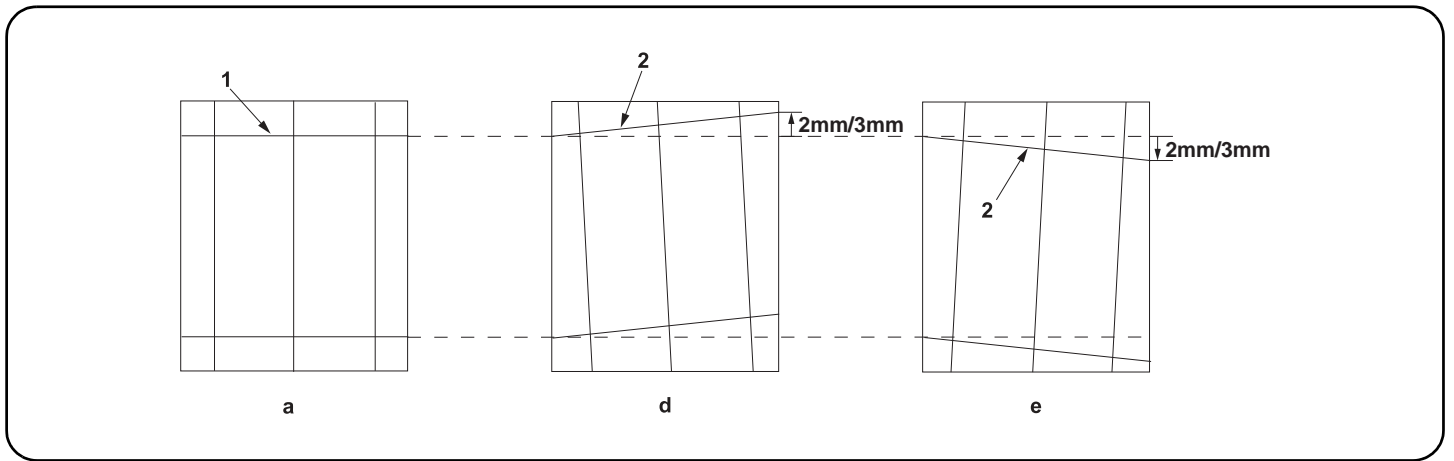·先端斜め確認　　　　　 6 ページ　＜基準値＞片面：±2.0mm 以内、両面：±3.0mm 以内
·等倍度確認　　　　　　 9 ページ　＜基準値＞ ±1.5% 以内
·先端タイミング確認　 11 ページ　＜基準値＞ ±2.5mm 以内
·センターライン確認　 13 ページ　＜基準値＞片面：±2.0mm 以内、両面：±3.0mm 以内
調整用原稿を使用すると、等倍度調整、先端タイミング調整、センターライン調整の自動調整が一度におこなえる。
·調整用原稿による自動調整　16 ページ

[Checking the angle of leading edge]
 1. Check the horizontal gap between line (1) of original (a) and line (2) of copy example positions. If the gap exceeds the reference value, adjust the gap according to the following procedure.
  <Reference value> For single copying: within ±2.0 mm.
    For duplex copying: within ±3.0 mm.

[Vérification de l'angle du bord avant]
 1. Vérifier l'écart horizontal entre la position de la ligne (1) de l'original (a) et celle de la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
  <Valeur de référence> Pour la copie recto : ±2,0 mm max.
    Pour la copie recto-verso : ±3,0 mm max.

[Verificación del ángulo del borde superior]
 1. Compruebe la separación horizontal entre la línea (1) del original (a) y la línea (2) de las posiciones del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
  <Valor de referencia> Para el copiado por una cara: dentro de ±2,0 mm.
    Para el copiado dúplex: dentro de ±3,0 mm.

[Überprüfen des Winkels der Vorderkante]
 1. Den horizontalen Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) der Kopierbeispielspositionen prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
  <Bezugswert> Einzelkopie: innerhalb ±2,0 mm.
    Duplexkopie: innerhalb ±3,0 mm.

[Controllo dell'angolo del bordo principale]
 1. Verificare lo scostamento orizzontale fra la linea (1) dell'originale (a) e la linea (2) delle posizioni dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
  <Valore di riferimento> Per la copia singola: entro ± 2,0 mm.
    Per la copia duplex: entro ±3,0 mm.

［ 确认前端倾斜度 ］
 1. 确认原稿（a）上的线（1）和复印样本上的线（2）的左右偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
  〈 标准值 〉单面复印时 : ±2.0㎜ 以内。
    双面复印时 : ±3.0㎜ 以内。

［ 선단 경사확인 ］
 1. 원고 (a) 의 선 (1) 과 샘플 카피의 선 (2) 의 좌우 차이를 확인합니다 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
  < 기준치 > 단면의 경우 :±2.0mm 이내
    양면의 경우 :±3.0mm 이내

［ 先端斜め確認 ］
 1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) の左右のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
  ＜基準値＞片面の場合 : ±2.0㎜ 以内
    両面の場合 : ±3.0㎜ 以内

2. Turn off the main power switch of the machine.Open DP. Perform the steps 3, 4, 5, 6 and 9 in its reverse order on pages 1 and 2 to remove the DP from the MFP.
3. Loosen three adjustment screws (3) for the right side hinge.
4. Adjust the position of the right hinge.
In case of copy sample (d): Move the right hinge up (⇨).
In case of copy sample (e): Move the right hinge down (⬅).
Amount of change per scale: Approx. 0.6 mm (4)
5. After the adjustment, retighten three adjusting screws (3) which were loosed in step 3.

---

2. Mettez la machine hors tension.Ouvrez le DP. Effectuez les étapes 3, 4, 5, 6 et 9 dans l'ordre inverse aux pages 1 et 2 pour retirer le DP du MFP.
3. Desserrez trois vis de réglage (3) pour la charnière droite.
4. Ajustez la position de la charnière droite.
Dans le cas de l'exemple de copie (d) : Déplacer la charnière de droite vers le haut (⇨).
Dans le cas de l'exemple de copie (e) : Déplacer la charnière de droite vers le bas (⬅).
Changement par graduation d'échelle : environ 0,6 mm (4)
5. Après l'ajustement, resserrez les trois vis de réglage (3) qui ont été desserrées à l'étape 3.

---

2. Apague el interruptor de encendido de la máquina.Abra el DP. Realice los pasos 3, 4, 5, 6 y 9 de las páginas 1 y 2 pero al revés para quitar el DP del dispositivo MFP.
3. Suelte los tres tornillos de ajuste (3) de la bisagra en el lado derecho.
4. Ajuste la posición de la bisagra derecha.
En caso de muestra de copia (d): Suba la bisagra derecha (⇨).
En caso de muestra de copia (e): Baje la bisagra derecha (⬅).
Magnitud del cambio por escala: aprox. 0,6 mm (4)
5. Después del ajuste, vuelva a apretar los tres tornillos de ajuste (3) que se aflojaron en el paso 3.

---

2. Schalten Sie das Gerät über den Hauptschalter aus.Öffnen Sie DP. Führen Sie die Schritte 3, 4, 5, 6 und 9 in umgekehrter Reihenfolge wie auf den Seiten 1 und 2 beschrieben aus. Entfernen Sie den DP vom MFP.
3. Lösen Sie die drei Einstellschrauben (3) am rechten Scharnier.
4. Justieren Sie die Position des rechten Scharniers.
Bei Verwendung der Kopiervorlage (d): Bewegen Sie das rechte Scharnier nach oben (⇨).
Bei Verwendung der Kopiervorlage (e): Bewegen Sie das rechte Scharnier nach unten (⬅).
Änderung pro Maßstab: Ungefähr 0,6 mm (4)
5. Nachdem Sie die Einstellung vorgenommen haben, ziehen Sie die drei Justierschrauben (3) wieder an, die Sie in Schritt 3 gelöst hatten.

---

2. Spegnere l'interruttore di alimentazione della macchina.Aprire il DP. Eseguire i punti 3, 4, 5, 6 e 9 eseguendo le operazioni in ordine contrario rispetto a quanto indicato a pagina 1 e 2 per rimuovere il DP dal dispositivo MFP.
3. Allentare le tre viti di regolazione (3) sulla cerniera di destra.
4. Regolare la posizione della cerniera di destra.
Nel caso dell'esempio copia (d): Alzare la cerniera destra (⇨).
Nel caso dell'esempio copia (e): Abbassare la cerniera destra (⬅).
Entità modifica per scala: circa 0,6 mm (4)
5. Dopo la regolazione, serrare di nuovo le tre viti di regolazione (3), allentate al punto 3.

---

2. 关闭机器的主电源开关。打开 DP。按照第 1 ～ 2 页的步骤 3，4、5、6 和 9 的相反顺序，把 DP 从机器上取下。
3. 拧松 3 颗右铰链的调整螺丝（3）。
4. 调整右铰链的位置。
当处于样张 (d)：将右铰链向上 (⇨) 移动。
当处于样张 (e)：将右铰链向下 (⬅) 移动。
按比例尺的更改量：约 0.6mm（4）
5. 调整完成后，重新拧紧在步骤 3 中松开的 3 颗调整螺丝（3）。

---

2. 기계의 전원을 OFF 합니다 .DP 를 엽니다 . 1~2 페이지의 단계 3,4,5,6,9 를 역순으로 MFP 에서 DP 를 떼어 냅니다 .
3. 오른쪽 힌지의 조정나사 (3) 3 개를 풉니다 .
4. 우측 힌지의 위치를 조정합니다 .
복사 샘플 (d) 의 경우 : 우측 힌지를 위쪽 (⇨) 에 움직입니다 .
복사 샘플 (e) 의 경우 :우측 힌지를 아래쪽 (⬅) 에 움직입니다 .
눈금당 변화량 :약 0.6 mm (4)
5. 조정종료 후 순서 3 에서 느슨하게 한 조정나사 (3) 3 개를 조입니다 .

---

2. 機械の主電源スイッチを OFF にする。DP を開く。1 ～ 2 ページの手順 3,4,5,6,9 の逆手順で DP を MFP から取り外す。
3. 右ヒンジの調整ビス (3)3 本を緩める。
4. 右ヒンジの位置を調整する。
コピーサンプル (d) の場合:右ヒンジを上(⇨)へ動かす。
コピーサンプル (e) の場合:右ヒンジを下(⬅)へ動かす。
1 目盛り当たりの変化量:約 0.6mm （4）
5. 調整終了後、手順 3 で緩めた調整ビス (3)3 本を締め付ける。

1   2

↕2mm/3mm   ↕2mm/3mm

2

a   d   e
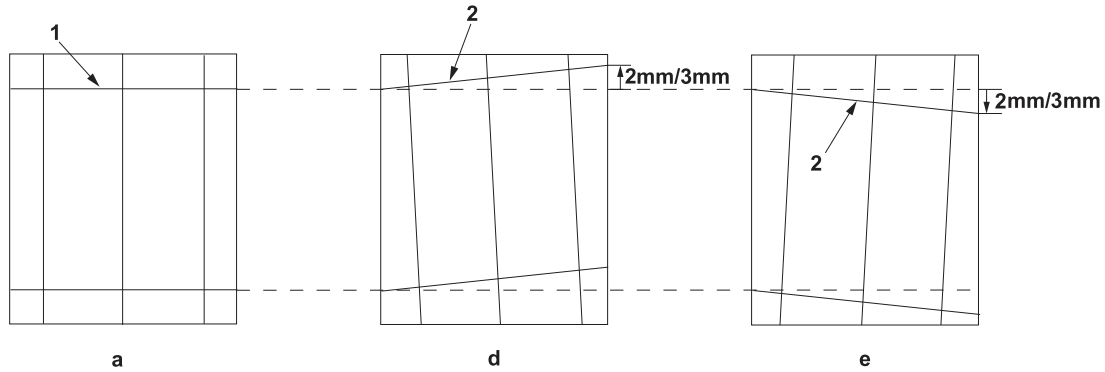
6. Perform the steps 3, 4, 5, 6 and 9 on pages 1 and 2 to reinstall the DP on the MFP.
7. Turn on the main power switch of the machine. Perform a test copy.
8. Repeat the steps above until the gap of line (2) of copy example shows the following reference values.
   <Reference value> For single copying: within ±2.0 mm.
                   For duplex copying: within ±3.0 mm.
9. Remove the original mat and attach it again in accordance with step 8 and 9 on page 2.

---

6. Effectuez les étapes 3, 4, 5, 6 et 9 aux pages 1 et 2 pour réinstaller le DP sur le MFP.
7. Mettez la machine sous tension. Effectuer une copie de test.
8. Répéter les étapes ci-dessus jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique les valeurs de référence suivantes.
   <Valeur de référence>   Pour la copie recto : ±2,0 mm max.
                   Pour la copie recto-verso : ±3,0 mm max.
9. Retirez le tapis d'original et remettez-le en place conformément aux étapes 8 et 9 à la page 2.

---

6. Realice los pasos 3, 4, 5, 6 y 9 de las páginas 1 y 2 para reinstalar el DP en el dispositivo MFP.
7. Encienda el interruptor de encendido de la máquina. Haga una copia de prueba.
8. Repita los pasos anteriores hasta que la separación de la línea (2) del ejemplo de copia presente los siguientes valores de referencia.
   <Valor de referencia> Para el copiado por una cara: dentro de ±2,0 mm.
                   Para el copiado dúplex: dentro de ±3,0 mm.
9. Quite la almohadilla de originales y vuelva a colocarla según lo indicado en los pasos 8 y 9 en la página 2.

---

6. Führen Sie auf den Seiten 1 und 2 die Schritte 3, 4, 5, 6 und 9 aus, um den DP wieder am MFP zu installieren.
7. Schalten Sie das Gerät über den Hauptschalter ein. Eine Testkopie erstellen.
8. Die obigen Schritte wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels die folgenden Bezugswerte aufweist.
   <Bezugswert> Einzelkopie: innerhalb ±2,0 mm.
                   Duplexkopie: innerhalb ±3,0 mm.
9. Entfernen Sie die Originalmatte und befestigen Sie sie wieder, wie in den Schritten 8 und 9 auf Seite 2 gezeigt.

---

6. Eseguire i punti 3, 4, 5, 6 e 9 a pagina 1 e 2 per reinstallare il DP sul sistema MFP.
7. Accendere l'interruttore di alimentazione della macchina. Eseguire una copia di prova.
8. Ripetere le operazioni sopra descritte fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento seguenti.
   <Valore di riferimento> Per la copia singola: entro ± 2,0 mm.
                   Per la copia duplex: entro ±3,0 mm.
9. Rimuovere il coprioriginale e riposizionarlo attenendosi alla procedura descritta ai punti 8 e 9 di pagina 2.

---

6. 按照第 1 ～ 2 页的步骤 3,4,5,6,9，把 DP 再次装回机器。
7. 打开机器的主电源开关。 进行测试复印。
8. 重复上述步骤直至复印样本上的线（2）的偏移值达到标准值范围内。
   〈标准值〉单面时：±2.0mm 以内
             双面时：±3.0mm 以内
9. 取下原稿垫，参考第 2 页的步骤 8、9，再次安装。

---

6. 1~2 페이지의 3,4,5,6,9 단계에서 DP 를 다시 설치합니다 .
7. 기계의 전원을 ON 합니다 . 테스트 카피를 합니다 .
8. 샘플 카피 선 (2) 차이가 기준치내가 될 때까지 조정을 반복합니다 .
<기준치 > 단면의 경우 : ±2.0mm 이내
          양면의 경우 : ±3.0mm 이내
9. 원고 매트 를 제거하고 2 페이지의 단계 8 ～ 9 에 따라 다시 부착합니다 .

---

6. 1 ～ 2 ページの手順 3,4,5,6,9 の手順で DP を再度取り付ける。
7. 機械の主電源スイッチを ON にする。テストコピーを行う。
8. コピーサンプルの線 (2) のずれが基準値内になるまで、調整を繰り返す。
   ＜基準値＞片面の場合：±2.0mm 以内
            両面の場合：±3.0mm 以内
9. 原稿マットを取り外し、2 ページの手順 8,9 を参考に再度取り付ける。
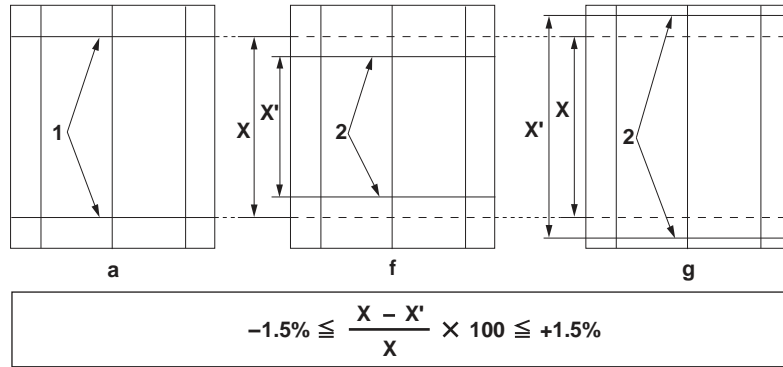
$$-1.5\% \leqq \frac{X - X'}{X} \times 100 \leqq +1.5\%$$

[Checking the magnification]
 1. Check the gap between line (1) of original (a) and line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
 <Reference value> within ±1.5%

2. Use the maintenance mode U070 to adjust the magnification.
 Sub Scan(F): (single copying) Adjusts the scanner sub-scan magnification (front side)
 Sub Scan(B): (duplex copying) Adjusts the scanner sub-scan magnification (back side)
 Duplex 1side : Front side adjustment for the duplex scanning

[Vérification de l'agrandissement]
 1. Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
 <Valeur de référence> ±1,5% max

2. Pour régler l'agrandissement, utilisez le mode entretien U070.
 Sub Scan(F): (copie recto) Permet de régler l'agrandissement du balayage secondaire du scanner(recto)
 Sub Scan(B): (copie recto-verso) Permet de régler l'agrandissement du balayage secondaire du scanner (verso)
 Duplex 1side:Réglage du recto pour la numérisation recto verso

[Verificación del cambio de tamaño]
 1. Compruebe la separación entre la línea (1) del original (a) y la línea (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
 <Valor de referencia> dentro de ±1,5%

2. Para ajustar la ampliación utilice el modo de mantenimiento U070.
 Sub Scan(F): (copiado por una cara) Ajusta el cambio de tamaño de la dirección de exploración secundaria del escáner.(anverso)
 Sub Scan(B): (copiado dúplex) Ajusta el cambio de tamaño de la dirección de exploración secundaria del escáner (reverso)
 Duplex 1side:Ajuste del anverso para el escaneado dúplex

[Überprüfen der Vergrößerung]
 1. Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
 <Bezugswert> Innerhalb ±1,5%

2. Zum Einstellen der Vergrößerung den Wartungsmodus U070 verwenden.
 Sub Scan(F): (Einzelkopie) Zur Einstellung der Subscan-Vergrößerung(Vorderseite)
 Sub Scan(B): (Duplexkopie) Zur Einstellung der Subscan-Vergrößerung(Rückseite))
 Duplex 1side:Einstellung der Vorderseite für Duplex-Scan

[Controllo dell'ingrandimento]
 1. Verificare lo scostamento fra la linea (1) dell'originale (a) e la linea (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
 <Valore di riferimento> Entro ±1,5%

2. Usare la modalità di manutenzione U070 per regolare l'ingrandimento.
 Sub Scan(F): (copia singola) Regola l'ingrandimento della scansione ausiliare dello scanner(facciata anteriore)
 Sub Scan(B): (copia duplex) Regola l'ingrandimento della scansione ausiliare dello scanner(retro)
 Duplex 1side:Regolazione della facciata anteriore per la scansione fronte-retro

［确认等倍值］
 1. 确认原稿（a）上的线（1）和复印样本上的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
 ＜标准值＞±1.5% 以内

2. 使用维修模式 U070 调整等倍值。
 Sub Scan(F)：（单面复印）读取副扫描等倍度的调整（正面）
 Sub Scan(B)：（双面复印）读取副扫描等倍度的调整（反面）
 Duplex 1side：双面扫描的正面调整

［ 등배도확인 ］
 1. 원고 (a) 선 (1) 과 샘플 카피의 선 (2) 의 차이를 확인합니다 .
 차이가 기준이외의 경우 , 다음 순서로 조정을 합니다 .
 ＜기준치＞ ±1.5% 이내

2. 메인터넌스 모드 U070 에서 조정합니다 .
 Sub Scan(F):(단면복사) 스캔 부주사등배도의 조정 (앞면)
 Sub Scan(B):(양면복사) 스캔 부주사등배도의 조정 (뒷면)
 Duplex 1side: 양면 스캔의 앞면 조정

［ 等倍度確認 ］
 1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) のずれを確認する。
 ずれが基準値外の場合、次の手順で調整を行う。
 ＜基準値＞ ±1.5% 以内

2. メンテナンスモード U070 をセットし、調整を行う。
 Sub Scan(F):(片面コピー)読み込み副走査等倍度の調整 (表面)
 Sub Scan(B):(両面コピー)読み込み副走査等倍度の調整 (裏面)
 Duplex 1side:両面読み込みの表面調整

$$-1.5\% \leqq \frac{X - X'}{X} \times 100 \leqq +1.5\%$$

3. Adjust the values.
For the shorter length copy example (f): Increases the value.
For the longer length copy example (g): Decreases the value.
Amount of change per step: 0.10 %
4. Press the [Start] key to confirm the setting value.
5. Perform a test copy.

6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
<Reference value> within ±1.5%

3. Régler les valeurs.
Pour l'exemple de copie dont la longueur est plus courte (f) : augmenter la valeur.
Pour l'exemple de copie dont la longueur est plus longue (g) : diminuer la valeur.
Changement par graduation d'échelle : 0,10 %
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Effectuer une copie de test.

6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
<Valeur de référence> ±1,5% max

3. Ajuste los valores.
Para el ejemplo de copia más corto (f): aumenta el valor.
Para el ejemplo de copia más largo (g): disminuye el valor.
Magnitud del cambio por incremento: 0,10 %
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Haga una copia de prueba.

6. Repita los pasos 2 a 5 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
<Valor de referencia> dentro de ±1,5%

3. Die Werte einstellen.
Für die kürzere Länge des Kopierbeispiels (f): Den Wert erhöhen.
Für die längere Länge des Kopierbeispiels (g): Den Wert verringern.
Änderung pro Schritt: 0,10 %
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Eine Testkopie erstellen.

6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
<Bezugswert> Innerhalb ±1,5%

3. Regolare i valori.
Per l'esempio di copia di lunghezza inferiore (f): aumenta il valore.
Per l'esempio di copia di lunghezza superiore (g): riduce il valore.
Entità modifica per passo: 0,10 %
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Eseguire una copia di prova.

6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
<Valore di riferimento> Entro ±1,5%

3. 调整设定值。
在长度偏短时　复印样本（f）：调高设定值
在长度偏长时　复印样本（g）：调低设定值
设定值的一个调整单位变化量：0.10%
4. 按［开始］键，以确定设定值。
5. 进行测试复印。

6. 重复上述步骤 2 到 5，直至复印样本上的线（2）之间的偏移值达到标准值范围内。
〈标准值〉±1.5% 以内

3. 설정치를 조정합니다 .
길이가 짧은 경우 샘플 카피 (f) : 설정치를 높입니다 .
길이가 긴 경우 샘플 카피 (g) : 설정치를 내립니다 .
1 스텝당 변화량 : 0.10%
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 테스트 카피를 합니다 .

6. 샘플 카피 선 (2) 의 차이가 기준치내가 될 때까지 2 ~ 5 를 반복합니다 .
< 기준치 > ±1.5% 이내

3. 設定値を調整する。
長さが短い場合コピーサンプル (f) : 設定値を上げる。
長さが長い場合コピーサンプル (g) : 設定値を下げる。
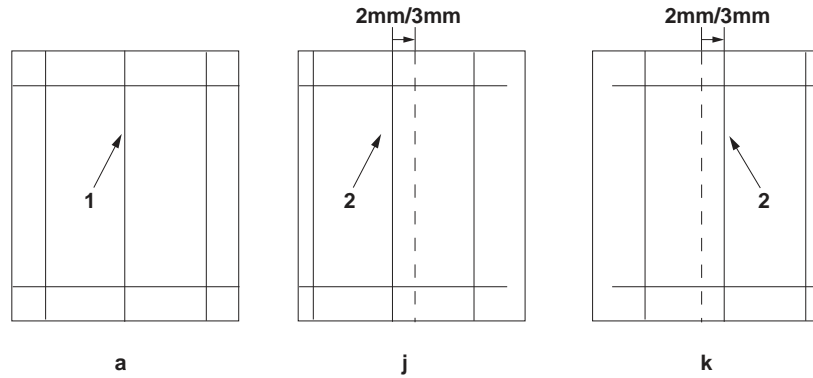1 ステップ当たりの変化量 : 0.10%
4. [スタート] キーを押し、設定値を確定する。
5. テストコピーを行う。

6. コピーサンプルの線 (2) のずれが基準値内になるまで手順 2 ～ 5 を繰り返す。
＜基準値＞ ±1.5% 以内

a   h   i

[Checking the leading edge timing]
1. Check the gap between line (1) on original (a) and line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
<Reference value> within ±2.5 mm

2. Use the maintenance mode U071 to adjust the timing.
Front Head: Adjusts the leading edge timing (front side)
Front Tail: Adjusts the trailing edge timing (front side)
Back Head: Adjusts the leading edge timing (back side)
Back Tail: Adjusts the trailing edge timing (back side)

[Vérification de la synchronisation du bord avant]
1. Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
<Valeur de référence> ±2,5 mm max

2. Pour régler la synchronisation, utilisez le mode entretien U071.
Front Head: Permet de régler la synchronisation du bord de tête (recto)
Front Tail: Permet de régler la synchronisation du bord arrière (recto)
Back Head: Permet de régler la synchronisation du bord de tête (verso)
Back Tail: Permet de régler la synchronisation du bord arrière (verso)

[Cambio de la sincronización de borde superior]
1. Compruebe la separación entre la línea (1) del original (a) y la línea (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
<Valor de referencia> dentro de ±2,5 mm

2. Para ajustar la sincronización utilice el modo de mantenimiento U071.
Front Head: Ajusta la sincronización del borde superior (anverso).
Front Tail: Ajusta la sincronización del borde inferior (anverso).
Back Head: Ajusta la sincronización del borde superior (reverso).
Back Tail: Ajusta la sincronización del borde inferior (reverso).

[Überprüfen des Vorderkanten-Timings]
1. Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
<Bezugswert> Innerhalb ±2,5 mm

2. Zum Einstellen des Timing den Wartungsmodus U071 verwenden.
Front Head: Zur Einstellung des Vorderkanten-Timing (Vorderseite)
Front Tail: Zur Einstellung des Hinterkanten-Timing (Vorderseite)
Back Head: Zur Einstellung des Vorderkanten-Timing (Rückseite)
Back Tail: Zur Einstellung des Hinterkanten-Timing (Rückseite)

[Controllo della sincronizzazione del bordo principale]
1. Verificare lo scostamento fra la linea (1) sull'originale (a) e la linea (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
<Valore di riferimento> Entro ±2,5 mm

2. Usare la modalità di manutenzione U071 per regolare la sincronizzazione.
Front Head: Regola la sincronizzazione del bordo principale (facciata anteriore)
Front Tail: Regola la sincronizzazione del bordo di uscita (facciata anteriore)
Back Head: Regola la sincronizzazione del bordo principale (retro)
Back Tail: Regola la sincronizzazione del bordo di uscita (retro)

[确认前端定时调整]
1. 确认原稿（a）上的线（1）和复印样本上的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
〈标准值〉±2.5mm 以内

2. 使用维修模式 U071 调整定时。
Front Head：调整前端定时（正面）
Front Tail：调整后端定时（正面）
Back Head：调整前端定时（反面）
Back Tail：调整后端定时（反面）

[선단 타이밍확인]
1. 원고 (a) 선 (1) 과 샘플 카피 선 (2) 의 차이를 확인합니다 . 차이가 기준치 외의 경우 다음 순서로 조정을 합니다 .
＜기준치＞ ±2.5mm 이내

2. 메인터넌스 모드 U071 에서 조정합니다 .
Front Head :선단 타이밍 (앞면) 을 조정합니다 .
Front Tail :후단 타이밍 (앞면) 을 조정합니다 .
Back Head :선단 타이밍 (뒷면) 을 조정합니다 .
Back Tail :후단 타이밍 (뒷면) 을 조정합니다 .

[先端タイミング確認]
1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
＜基準値＞ ±2.5mm 以内

2. メンテナンスモード U071 をセットし、調整を行う。
Front Head :先端タイミング（表面）の調整
Front Tail :後端タイミング（表面）の調整
Back Head: 先端タイミング（裏面）の調整
Back Tail: 後端タイミング（裏面）の調整

a   h   i

3. Adjust the values.
For the faster leading edge timing, copy examples (h): Decreases the value.
For the slower leading edge timing, copy examples (i): Increases the value.
Amount of change per step: 0.25 mm
4. Press the [Start] key to confirm the setting value.

5. Perform a test copy.
6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
<Reference value> within ±2.5 mm

3. Régler les valeurs.
Pour les exemples de copie dont la synchronisation du bord avant est plus rapide (h) : diminuer la valeur.
Pour les exemples de copie dont la synchronisation du bord avant est plus lente (i) : augmenter la valeur.
Changement par graduation d'échelle : 0,25 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.

5. Effectuer une copie de test.
6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
<Valeur de référence> ±2,5 mm max

3. Ajuste los valores.
Para una sincronización más rápida de extremo guía, ejemplos de copia (h): disminuye el valor.
Para una sincronización más lenta de extremo guía, ejemplos de copia (i): aumenta el valor.
Magnitud del cambio por incremento: 0,25 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.

5. Haga una copia de prueba.
6. Repita los pasos 2 a 5 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
<Valor de referencia> dentro de ±2,5 mm

3. Die Werte einstellen.
Für den schnelleren Vorderkantentakt, Kopierbeispiel (h): Den Wert verringern.
Für den langsameren Vorderkantentakt, Kopierbeispiel (i): Den Wert erhöhen.
Änderung pro Schritt: 0,25 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.

5. Eine Testkopie erstellen.
6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
<Bezugswert> Innerhalb ±2,5 mm

3. Regolare i valori.
Per accelerare la fasatura del bordo di entrata, esempi di copia (h): riduce il valore.
Per rallentare la fasatura del bordo di entrata, esempi di copia (i): aumenta il valore.
Entità modifica per passo: 0,25 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.

5. Eseguire una copia di prova.
6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
<Valore di riferimento> Entro ±2,5 mm

3. 调整设定值。
在前端定时偏快时　复印样本（h）：调低设定值
在前端定时偏慢时　复印样本（i）：调高设定值
设定值的一个调整单位变化量：0.25㎜
4. 按［开始］键，以确定设定值。

5. 进行测试复印。
6. 重复上述步骤 2 到 5，直至复印样本上的线（2）的偏移值达到标准值范围内。
〈标准值〉±2.5㎜ 以内

3. 설정치를 조정합니다 .
선단 타이밍이 빠른 경우 샘플 카피 (h):설정치를 내립니다 .
선단 타이밍이 늦은 경우 샘플 카피 (i):설정치를 올립니다 .
1 스텝당 변화량:0.25mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .

5. 테스트 카피를 합니다 .
6. 샘플 카피 선 (2) 의 차이가 기준치내가 될 때까지 2 ~ 5 를 반복합니다 .
<기준치 > ±2.5mm 이내

3. 設定値を調整する。
先端タイミングが早い場合コピーサンプル (h):設定値を下げる。
先端タイミングが遅い場合コピーサンプル (i):設定値を上げる。
1 ステップ当たりの変化量:0.25㎜
4. [スタート] キーを押し、設定値を確定する。

5. テストコピーを行う。
6. コピーサンプルの線 (2) のずれが基準値内になるまで手順 2 〜 5 を繰り返す。
＜基準値＞ ±2.5㎜ 以内

2mm/3mm   **2mm/3mm**

a   j   k

[Checking the center line]
  1. Check the gap between center line (1) on original (a) and center line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
  <Reference value>
  Horizontal difference of center line (2) for the single copying: ±2.0 mm
  Horizontal difference of center line (2) for the duplex copying: ±3.0 mm

  2. Use the maintenance mode U072 to adjust the timing.
  Front: Adjusts the center line (front side)
  Back: Adjusts the center line (back side)

[Vérification de la ligne médiane]
  1. Vérifier l'écart entre l'axe (1) de l'original (a) et l'axe (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
  <Valeur de référence>
  Différence horizontale de l'axe (2) pour la copie recto : ±2,0 mm
  Différence horizontale de l'axe (2) pour la copie recto-verso : ±3,0 mm

  2. Pour régler la ligne médiane, utiliser le mode entretien U072.
  Front: Permet de régler l'axe (recto)
  Back: Permet de régler l'axe (verso)

[Verificación de la línea central]
  1. Compruebe la separación entre la línea de centro (1) del original (a) y la línea de centro (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
  <Valor de referencia>
  Diferencia horizontal de la línea de centro (2) para el copiado por una cara: ±2,0 mm

  Diferencia horizontal de la línea de centro (2) para el copiado dúplex: ±3,0 mm
  2. Para ajustar la línea central utilice el modo de mantenimiento U072.
  Front: ajusta la línea central (anverso).
  Back: ajusta la línea central (reverso).

[Überprüfen der Mittellinie]
  1. Den Abstand zwischen der Mittellinie (1) des Originals (a) und der Mittellinie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
  <Bezugswert>
  Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie: ±2,0 mm
  Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie: ±3,0 mm

  2. Zum Einstellen der Mittellinie den Wartungsmodus U072 verwenden.
  Front: Zur Einstellung der Mittellinie (Vorderseite)
  Back: Zur Einstellung der Mittellinie (Rückseite)

[Controllo della linea centrale]
  1. Verificare lo scostamento fra la linea centrale (1) sull'originale (a) e la linea centrale (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
  <Valore di riferimento>
  Differenza orizzontale della linea centrale (2) per la copia singola: ±2,0 mm
  Differenza orizzontale della linea centrale (2) per la copia duplex: ±3,0 mm

  2. Usare la modalità di manutenzione U072 per regolare la linea centrale.
  Front: Regola la linea centrale (facciata anteriore)
  Back: Regola la linea centrale (retro)

［确认中心线］
  1. 确认原稿（a）中心线（1）和复印样本中心线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
  ＜标准值＞单面复印时，中心线（2）的左右偏移值：±2.0mm 以内
  　　　　　双面复印时，中心线（2）的左右偏移值：±3.0mm 以内

  2. 使用维修模式 U072 调整中心线。
  Front：中心位置（正面）的调整
  Back：中心位置（反面）的调整

［센터 라인 확인］
  1. 원고 (a) 센터라인 (1) 과 샘플 카피 센터라인 (2) 의 차이를 확인합니다. 차이가 기준치 외의 경우 다음 순서로 조정합니다.
  ＜기준치＞단면의 경우 센터라인 (2) 의 좌우차이 : ±2.0mm 이내
  　　　　　양면의 경우 센터라인 (2) 의 좌우차이 : ±3.0mm 이내

  2. 메인터넌스 모드 U072 에서 조정합니다.
  Front : 센터 위치 (앞면) 의 조정
  Back : 센터 위치 (뒷면) 의 조정

［センターライン確認］
  1. 原稿 (a) の中心線 (1) とコピーサンプルの中心線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
  ＜基準値＞片面の場合、中心線 (2) の左右ずれ：±2.0mm 以内
  　　　　　両面の場合、中心線 (2) の左右ずれ：±3.0mm 以内

  2. メンテナンスモード U072 をセットし、調整を行う。
  Front：センター位置(表面)の調整
  Back：センター位置(裏面)の調整

2mm/3mm ... **2mm/3mm**

a   j   k

---

3. Adjust the values.
   If the center moves more front, copy example (j): Increases the value.
   If the center moves inner, copy sample (k): Decreases the value.
   Amount of change per step: 0.085 mm
4. Press the [Start] key to confirm the setting value.
5. Perform a test copy.

6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
   <Reference value>
   Horizontal difference of center line (2) for the single copying: ±2.0 mm
   Horizontal difference of center line (2) for the duplex copying: ±3.0 mm

---

3. Régler les valeurs.
   Pour l'exemple de copie (j) dont l'axe se déplaza davantage vers l'avant : augmenter la valeur.
   Pour l'exemple de copie (k) dont l'axe se déplace vers l'intérieur : diminuer la valeur.
   Changement par graduation d'échelle : 0,085 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Effectuer une copie de test.

6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
   <Valeur de référence>
   Différence horizontale de l'axe (2) pour la copie recto : ±2,0 mm
   Différence horizontale de l'axe (2) pour la copie recto-verso : ±3,0 mm

---

3. Ajuste los valores.
   Si el centro se desplaza más hacia el frente, ejemplo de copia (j): aumenta el valor.
   Si el centro se desplaza hacia dentro, ejemplo de copia (k): disminuye el valor.
   Magnitud del cambio por incremento: 0,085 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Haga una copia de prueba.

6. Repita los pasos 2 a 5 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
   <Valor de referencia>
   Diferencia horizontal de la línea de centro (2) para el copiado por una cara: ±2,0 mm
   Diferencia horizontal de la línea de centro (2) para el copiado dúplex: ±3,0 mm

---

3. Die Werte einstellen.
   Wenn die Mitte nach vorne verlagert ist, Kopierbeispiel (j): Den Wert erhöhen.
   Wenn die Mitte nach innen verlagert ist, Kopierbeispiel (k): Den Wert verringern.
   Änderung pro Schritt: 0,085 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Eine Testkopie erstellen.

6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
   <Bezugswert>
   Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie: ±2,0 mm
   Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie: ±3,0 mm

---

3. Regolare i valori.
   Se il centro si sposta più avanti, esempio di copia (j): aumenta il valore.
   Se il centro si sposta verso l'interno, esempio di copia (k): riduce il valore.
   Entità modifica per passo: 0,085 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Eseguire una copia di prova.

6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
   <Valore di riferimento>
   Differenza orizzontale della linea centrale (2) per la copia singola: ±2,0 mm
   Differenza orizzontale della linea centrale (2) per la copia duplex: ±3,0 mm

---

3. 调整设定值。
   当中心向前偏移时 复印样本（j）：调高设定值
   当中心向内偏移时 复印样本（k）：调低设定值
   设定值的一个调整单位变化量：0.085㎜
4. 按［开始］键，以确定设定值。
5. 进行测试复印。

6. 重复上述步骤 2 到 5，直至复印样本上的线（2）的偏移值达到标准值范围内。
   〈标准值〉
   单面复印时，中心线（2）的左右偏移值：±2.0㎜ 以内
   双面复印时，中心线（2）的左右偏移值：±3.0㎜ 以内

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3. 설정치를 조정합니다 .
   센터가 앞으로 이동한 경우가 샘플 카피 (j):설정치를 높입니다 .
   센터가 뒤로 이동한 경우 샘플 카피 (k) : 설정치를 내립니다 .
   1 스텝당 변화량:0.085mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 테스트 카피를 합니다 .

6. 샘플 카피 선 (2) 차이가 기준치 내가 될 때까지 순서 2 ˜ 5 를 반복합니다 .
   <기준치 >
   단면의 경우 센터라인 (2) 의 좌우차이:±2.0mm 이내
   양면의 경우 센터라인 (2) 의 좌우차이:±3.0mm 이내

---

3. 設定値を調整する。
   センターが手前にずれている場合コピーサンプル (j):設定値を上げる。
   センターが奥にずれている場合コピーサンプル (k) 設定値を下げる。
   1 ステップ当たりの変化量:0.085㎜
4. [スタート] キーを押し、設定値を確定する。
5. テストコピーを行う。

6. コピーサンプルの線 (2) ずれが基準値内になるまで手順 2 〜 5 を繰り返す。
   <基準値>
   片面の場合、中心線 (2) の左右ずれ:±2.0㎜ 以内
   両面の場合、中心線 (2) の左右ずれ:±3.0㎜ 以内
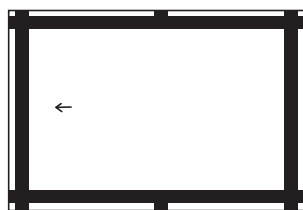
[Automatic adjustment using the original for adjustment]
If there is no DP auto adjustment original.
1. Set the maintenance mode U411 and press [DP Auto Adj] to output the adjustment original.
2. Set the printed original on the contact glass and press the [Start] key.
3. Set the original on the DP face up and press the [Start] key to carry out surface adjustment.

4. "OK' appears on the display and press the [Start] key to complete the adjustment.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 2 and 3 until OK' appears.
For details, see the service manual.

[Réglage automatique en utilisant l'original pour effectuer le réglage]
Si la machine n'est pas pourvue de la fonction réglage automatique d'original du DP
1. Passez en mode maintenance U411 et appuyez sur [DP Auto Adj] pour imprimer l'original de réglage.
2. Placer l'original qui vient d'être imprimé sur la vitre d'exposition et appuyer sur la touche [Départ].
3. Placer l'original sur le DP côté imprimé en haut et appuyer sur la touche [Départ] pour procéder au réglage de la surface.

4. "OK" s'affiche sur l'écran. Appuyez sur la touche [Départ] pour terminer le réglage.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérififer la position de l'original et recommencer les opérations 2 et 3 jusqu'à ce que le message "OK" apparaisse.
Pour plus de details, se reporter au manuel d'entretien.

[Ajuste automático utilizando el original para el ajuste]
Si no existe el original de ajuste automático del DP
1. Configure el modo de mantenimiento U411 y pulse [DP Auto Adj] para imprimir el original de ajuste.
2. Coloque el original impreso sobre el cristal de contacto y pulse la tecla de [Inicio].
3. Coloque el original en el DP cara arriba y pulse la tecla de [Inicio] para realizar un ajuste de anverso.

4. Aparece "OK" en la pantalla. Pulse la tecla [Inicio] para finalizar el ajuste.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 2 y 3 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

[Automatische Einstellung mithilfe des Originals]
Falls keine automatische Einstellung des Originals des DP vorhanden ist
1. Aktivieren Sie den Wartungsmodus U411 und wählen Sie [DP Auto Adj], um das Original für die Anpassung auszudrucken.
2. Das ausgedruckte Original auf das Kontaktglas legen und die [Start]-Taste betätigen.
3. Das Original mit der Druckseite nach oben einlegen und die [Start]-Taste betätigen, um die Oberflächeneinstellung ausführen zu lassen.

4. "OK" erscheint auf der Anzeige. Drücken Sie die Taste [Start], um die Einstellung abzuschließen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 2 und 3, bis "OK" angezeigt wird.
Weitere Einzelheiten siehe Wartungsanleitung.

[Regolazione automatica eseguita con l'originale]
Se non è presente l'autoregolazione originale DP
1. Impostare la modalità manutenzione U411, quindi premere [DP Auto Adj] per stampare l'originale da utilizzare per la regolazione.
2. Posizionare l'originale stampato sul vetro di appoggio e premere il tasto di [Avvio].
3. Posizionare l'originale sul DP rivolto verso l'alto e premere il tasto di [Avvio] per eseguire la regolazione della superficie.

4. Quando sul display compare "OK", premere il tasto [Avvio] per completare la regolazione.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 2 e 3 fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

[通过调整用原稿进行自动调整]
没有 DP 调整用原稿时
1. 进入维修保养模式 U411，选择 [DP Auto Adj]，输出测试原稿。
2. 将输出的原稿放在稿台上，按 [开始] 键。
3. 将原稿面朝上放在 DP 主机上，按 [开始] 键以进行正面的调整。

4. 显示屏上显示 "OK"，按 [开始] 键后，调整结束。
＊如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 2 和 3，直到 "OK"（完成）出现。
详细内容请参照维修手册。

[조정용 원고를 이용한 자동조정]
DP 조정용 원고가 없는 경우
1. 메인터넌스 모드 U411 을 설정하고 [DP Auto Adj] 를 눌러 조정된 원고를 출력합니다 .
2. 출력한 원고를 원고 유리에 장착하고 [복사 / 시작] 키를 누릅니다 .
3. 원고를 FaceUp 으로 DP 에 세트하고 [복사 / 시작] 키를 눌러 표면조정을 합니다 .

4. 디스플레이에 "OK" 가 나타나면 [복사 / 시작] 키를 눌러 조정을 완료합니다 .
* ERROR XX 가 표시된 경우에는 조정실패입니다 . 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 2 ˜ 3 를 반복합니다 .
상세는 서비스 매뉴얼을 참조 .

[調整用原稿による自動調整]
DP 調整用原稿が無い場合
1. メンテナンスモード U411 をセットし、[DP Auto Adj] を押し原稿を出力する。
2. 出力した原稿をコンタクトガラス上にセットし、[スタート] キーを押す。
3. 原稿を FaceUp で DP へセットし、[スタート] キーを押し、表面の調整を行う。

4. ディスプレイに「OK」が表示され、[スタート] キーを押せば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、「OK」が表示されるまで手順 2 ～ 3 を繰り返す。
詳細はサービスマニュアルを参照のこと。

Using a DP auto adjustment original
1. Place the front side of the DP auto adjustment original so that the arrow mark appears facing up. Set it on the DP so the leading edge of the arrow mark is facing the DP feed direction.
2. Set the maintenance mode U411and press [DP FU(ChartB)] > the [Start] key in that order to carry out the front side adjustment.

3. If "OK" appears on the display, the adjustment is complete.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 1 and 2 until "OK" appears.
For details, see the service manual.

Avec la fonction réglage automatique d'original du DP
1. Placez le recto de l'original de réglage du chargeur de document de sorte que la flèche apparaisse sur la face vers le haut. Placez-le sur le chargeur de document de sorte que le bord de tête de la flèche soit orienté dans la direction d'alimentation du chargeur de document.
2. Passez en mode maintenance U411 et appuyez sur [DP FU(ChartB)] > touche [Départ] dans cet ordre pour effectuer le réglage du recto.

3. Si "OK" s'affiche sur l'écran, le réglage est terminé.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de l'original et recommencer les opérations 1 et 2 jusqu'à ce que le message "OK" apparaisse.
Pour plus de details, se reporter au manuel d'entretien.

Uso del original de ajuste automático del DP
1. Coloque el anverso del original de ajuste automático del alimentador de originales DP de modo que la marca de flecha esté hacia arriba. Colóquelo en el DP de modo que el borde anterior de la marca de flecha esté en la dirección de alimentación del DP.
2. Configure el modo de mantenimiento U411 y pulse [DP FU(ChartB)] > tecla [Inicio] en ese orden para llevar a cabo un ajuste del anverso.

3. Si aparece "OK" en la pantalla, el ajuste se ha completado.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 1 y 2 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

Gebrauch der automatischen Einstellung des Originals des DP
1. Legen Sie die Vorderseite des Originals für die automatische Einstellung des Vorlageneinzugs so ein, dass der Pfeil nach oben weist. Legen Sie das Original so in den Vorlageneinzug, dass die Pfeilspitze in die Einzugsrichtung des Vorlageneinzugs weist.
2. Aktivieren Sie den Wartungsmodus U411 und wählen Sie nacheinander [DP FU(ChartB)] > Taste [Start], um die Einstellungen für die Vorderseite vorzunehmen.

3. Wenn "OK" angezeigt wird, ist die Einstellung abgeschlossen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 1 und 2, bis "OK" angezeigt wird.
Weitere Einzelheiten siehe Wartungsanleitung.

Uso di un'autoregolazione originale DP
1. Posizionare la facciata anteriore dell'originale da utilizzare per la regolazione automatica dell'alimentatore documenti in modo che la freccia sia rivolta verso l'alto. Posizionarlo sull'alimentatore di documenti in modo che il bordo superiore della freccia sia orientato nella direzione di alimentazione dell'alimentatore di documenti.
2. Impostare la modalità manutenzione U411, quindi premere, nell'ordine, [DP FU(ChartB)] > tasto [Avvio] per eseguire la regolazione della facciata anteriore.

3. Se sul display compare "OK", la regolazione è completata.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 1 e 2
fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

使用 DP 自动调整用稿时
1. 把 DP 自动调整原稿的正面（有箭头的一面）向上，同时使箭头的前端方向对准 DP 的走纸方向。
2. 进入维修保养模式 U411，按照 [DP FU(ChartB)] > [开始] 键的顺序按押，开始正面调整。

3. 如果显示屏显示 "OK"，则表示调整结束。
* 如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 1 和 2，直到 "OK"（完成）出现。
详细内容请参照维修手册。

DP 자동조정용 원고를 사용하는 경우
1. DP 자동 조정원고의 앞면의 화살표가 위로 향하게 세트합니다 . 화살표의 선단을 DP 피드방향으로 DP 에 세트합니다 .
2. 메인터넌스 모드 U411 을 설정하고 [DP FU(ChartB)] > [복사 / 시작] 키를 눌러 앞면 조정을 수행합니다 .

3. 디스플레이에 "OK" 가 표시되면 조정완료가 됩니다 .
* ERROR XX 가 표시된 경우에는 조정실패입니다 . 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 1 ~ 2 를 반복합니다 .
상세는 서비스 매뉴얼을 참조 .

DP 自動調整原稿を使用する場合
1. DP 自動調整原稿の表面（矢印が書かれてる面）を上に向け、矢印の先端方向から DP にセットする。
2. メンテナンスモード U411 をセットし、[DP FU(ChartB)] > [スタート] キーの順に押し、表面の調整を行う。

3. ディスプレイに「 OK 」が表示されれば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、「 OK 」が表示されるまで手順 1 ～ 2 を繰り返す。
詳細はサービスマニュアルを参照のこと。

4. After completing the adjustment of the front side, place the back side of the DP auto adjustment original so that the arrow mark appears facing down. Set it on the DP so the trailing edge of the arrow mark is facing the DP feed direction.

5. Set the maintenance mode U411 and press [DP FD(ChartB)] > the [Start] key in that order to carry out the back side adjustment.

6. If "OK" appears on the display, the adjustment is complete.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 4 and 5 until "OK""appears.
For details, see the service manual.

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4. Après avoir terminé le réglage du verso, placez le recto de l'original de réglage du chargeur de document de sorte que la flèche apparaisse sur la face vers le bas. Placez-le sur le chargeur de document de sorte que le bord de fin de la flèche soit orienté dans la direction d'alimentation du chargeur de document.

5. Passez en mode maintenance U411 et appuyez sur [DP FD(ChartB)] > touche [Départ] dans cet ordre pour effectuer le réglage du verso.

6. Si "OK" s'affiche sur l'écran, le réglage est terminé.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Véri-fifer la position de l'original et recommencer les opérations 4 et 5 jusqu'à ce que le message "OK" apparaisse.
Pour plus de details, se reporter au manuel d'entretien.

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4. Después de terminar el ajuste del anverso, coloque el reverso del original de ajuste automático del DP de modo que la marca de flecha esté hacia abajo. Colóquelo en el DP de modo que el borde posterior de la marca de fleche esté en la dirección de alimentación del DP.

5. Configure el modo de mantenimiento U411 y pulse [DP FD(ChartB)] > tecla [Inicio] en ese orden para llevar a cabo un ajuste del reverso.

6. Si aparece "OK" en la pantalla, el ajuste se ha completado.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 4 y 5 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

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4. Nachdem Sie die Einstellung für die Vorderseite abgeschlossen haben, legen Sie die Rückseite des Originals für die automatische Einstellung des Vorlageneinzugs so ein, dass der Pfeil nach unten weist. Legen Sie das Original so in den Vorlageneinzug, dass das Pfeilende in die Einzugsrichtung des Vorlageneinzugs weist.

5. Aktivieren Sie den Wartungsmodus U411 und wählen Sie nacheinander [DP FD(ChartB)] > Taste [Start], um die Einstellungen für die Rückseite vorzunehmen.

6. Wenn "OK" angezeigt wird, ist die Einstellung abgeschlossen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 4 und 5, bis "OK" angezeigt wird.
Weitere Einzelheiten siehe Wartungsanleitung.

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4. Dopo aver completato la regolazione della facciata anteriore, posizionare il retro dell'originale da utilizzare per la regolazione automatica dell'alimentatore di documenti in modo che la freccia sia rivolta verso il basso. Posizionarlo sull'alimentatore di documenti in modo che il bordo inferiore della freccia sia orientato nella direzione di alimentazione dell'alimentatore di documenti.

5. Impostare la modalità manutenzione U411, quindi premere, nell'ordine, [DP FD(ChartB)] > tasto [Avvio] per eseguire la regolazione del retro.

6. Se sul display compare "OK", la regolazione è completata.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 4 e 5 fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

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4. 正面的调整结束后，把 DP 自动调整原稿的反面（有箭头的一面）向下，同时使箭头的后端方向（没有箭头的方向）对准 DP 的走纸方向。

5. 进入维修保养模式 U411，按照 [DP FD(ChartB)] > [开始] 键的顺序按押，开始反面调整。

6. 如果显示屏显示 "OK"，则表示调整结束。
＊如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 4 和 5，直到 "OK"（完成）出现。
详细内容请参照维修手册。

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4. 앞면 조정이 완료되면 화살표가 아래로 향하게 세트합니다. 화살표의 후단을 DP 피드방향으로 DP 에 세트합니다.

5. 메인터넌스 모드 U411 을 설정하고 [DP FD(ChartB)] > [복사 / 시작] 키를 눌러 뒷면 조정을 수행합니다.

6. 디스플레이에 "OK" 가 표시되면 조정완료가 됩니다.
* ERROR XX 가 표시된 경우에는 조정실패입니다. 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 4 ~ 5 를 반복합니다.
상세는 서비스 매뉴얼을 참조

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4. 表面の調整完了後、DP 自動調整原稿の裏面（矢印が書かれている面）を下に向け、矢印の後端方向（切欠き部方向）から DP にセットする。

5. メンテナンスモード U411 をセットし、[DP FD(ChartB)] > [スタート] キーの順に押し、裏面の調整を行う。

6. ディスプレイに「OK」が表示されれば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、OK が表示されるまで手順 4 ～ 5 を繰り返す。
詳細はサービスマニュアルを参照のこと。

DP-5110

(Document processor: CIS)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

DP-5110

A

C (M3x8)

E

B

D

①

OFF

②

③

A

④

⑤

⑥

B

C (M3x8)

C (M3x8)

1

⑦

⑧

D

⑨

⑩

⑪

⑫

⑬

⑭

⑮

E

E

⑯

⑰

ON

20mm   20mm
20mm
c
b
b
20mm
a

English

[Operation check]

1. To check the machine operation, prepare original (a) where 4 lines (b) are drawn 20 mm from the edges of the A4 sheet and 1 line (c) is drawn at its center.
2. Connect the power plug of the MFP into the wall outlet and turn the main power switch on.
3. Set the original (a) on the DP and perform a test copy to check the operation and the copy example.

Français

[Vérification du fonctionnement]

1. Pour vérifier le bon fonctionnement de l'appareil, préparer un original (a) sur lequel sont tracées 4 lignes (b) à 20 mm des bords de la feuille A4 et 1 ligne (c) en son axe.
2. Brancher la fiche d'alimentation du MFP sur la prise murale et mettre l'appareil sous tension.
3. Placer l'original (a) sur le DP et effectuer une copie de test pour vérifier le fonctionnement et l'exemple de copie.

Español

[Verifique el funcionamiento]

1. Para comprobar el funcionamiento del aparato, prepare un original (a) que contenga 4 líneas (b) dibujadas a 20 mm de los bordes de la hoja A4 y 1 línea (c) dibujada en el centro.
2. Conecte el enchufe eléctrico del MFP en el tomacorriente de la pared y encienda el interruptor principal.
3. Coloque el original (a) en el DP y haga una copia de prueba para verificar el funcionamiento y el ejemplo de copia.

Deutsch

[Funktionsprüfung]

1. Zum Prüfen der Gerätefunktion das Original (a) vorbereiten, auf das 4 Linien (b) 20 mm von den Kanten des A4-Blattes und 1 Linie (c) in der Mitte gezeichnet sind.
2. Den Netzstecker am MFP in die Steckdose stecken und den Strom einschalten.
3. Das Original (a) auf den DP legen und eine Testkopie erstellen, um die Funktion und das Kopierbeispiel zu prüfen.

Italiano

[Verifica del funzionamento]

1. Per verificare il funzionamento della macchina, preparare l'originale (a) tirando 4 linee (b) a 20 mm dai bordi del foglio A4 e una linea (c) al centro.
2. Inserire la spina dell'alimentazione dell'MFP nella presa a muro, quindi posizionare l'interruttore principale su On.
3. Posizionare l'originale(a) sul DP ed eseguire una copia di prova per verificare il funzionamento e l'esempio di copia.

简体中文

[动作确认]

1. 若要检查机器动作，准备一张 A4 原稿（a），距纸张边缘 20mm 画出 4 条线（b）并且在原稿中心画出 1 条线（c）。
2. 将 MFP 的电源插头插入墙壁插座并打开主电源。
3. 在 DP 上设定原稿（a）并进行测试复印，确认机器动作和复印样本。

한국어

[동작확인]

1. 기계 작동 확인을 위해서 , A4 용지 선단에서 20mm 떨어진 곳에 4 개의 선 (b) 과 센터에 1 개의 선 (c) 이 그려진 원고 (a) 를 준비 .
2. 콘센트에 MFP 전원플러그를 꽂고 메인 전원 스위치를 ON 으로 합니다 .
3. DP 상에 원고 (a) 를 준비하고 테스트 카피를 확인하여 작동 상태와 카피 샘플을 확인합니다 .

日本語

[動作確認]

1. A4 サイズ用紙の端から 20㎜ の位置に線 (b)4 本と、用紙の中心に線 (c)1 本を引いた動作確認用の原稿 (a) を用意する。
2. MFP の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
3. 原稿 (a) を DP にセットし、テストコピーを行い、動作およびコピーサンプルを確認する。

```
                    20mm        20mm
                  ┌─┤        ├─┤
        20mm ─┤                        c
              ┌─────┬──────┬─────┐
        b ────┤     │      │     │
              │     │      │     │
              │     │      │     │
              │     │      │ ────┤ b
              │     │      │     │
              │     │      │     │
        20mm ─┤     │      │     │
              └─────┴──────┴─────┘
                        a
```

---

4. Compare original (a) with the copy example. If the gap exceeds the reference value, perform the following adjustments according to the type of the gap.
Check images of the DP after checking and adjusting images of the MFP. For details, see the service manual.
   NOTICE: If there is any image fogging, adjust the U068 DP scanning position. If you change the scanning position with U068, adjust the U071 DP leading edge timing.

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4. Comparer l'original (a) avec l'exemple de copie. Si l'écart excède la valeur de référence, effectuer les réglages suivants en fonction du type d'écart.
Vérifier les images du DP après avoir contrôlé et réglé les images du MFP. Pour plus de détails, se reporter au manuel d'entretien.
   REMARQUE:Si l'image est floue, régler la position de balayage de U068 du DP. Si la position de balayage de U068 est modifiée, régler la synchronisation du bord d'attaque de U071.

---

4. Compare el original (a) con el ejemplo de copia. Si la separación supera el valor de referencia, realice los siguientes ajustes según el tipo de separación.
Compruebe las imágenes del DP después de comprobar y ajustar las imágenes del MFP. Para más detalles, lea el manual de servicio.
   AVISO: Si la imagen estuviera borrosa, ajuste la posición de escaneo U068 del DP. Si cambia la posición de escaneo con U068, ajuste la sincronización de borde superior U071 del DP.

---

4. Das Original (a) mit dem Kopierbeispiel vergleichen. Wenn der Abstand größer als der Bezugswert ist, die folgenden Einstellungen gemäß dem Abstandstyp durchführen.
Die Bilder des DP nach dem Prüfen und Einstellen der Bilder des MFP prüfen. Weitere Einzelheiten siehe Wartungsanleitung.
   ANMERKUNG:Falls das Bild verschwommen wirkt, ist die U068 DP Scan-Position zu verstellen. Wenn Sie die Scan-Position mit U068 verstellen, müssen Sie das U071 DP-Vorderkanten-Timing entsprechend verstellen.

---

4. Confrontare l'originale (a) con l'esempio di copia. Se lo scostamento supera il valore di riferimento, eseguire le seguenti regolazioni in funzione del tipo di scostamento.
Controllare le immagini del DP dopo avere effettuato i controlli e le regolazioni delle immagini sull'MFP. Per ulteriori dettagli leggere il manuale d'istruzioni.
   AVVISO: Se è presente una qualsiasi sfocatura dell'immagine, regolare la posizione di scansione DP U068. Se si cambia la posizione di scansione con U068, regolare la sincronizzazione del bordo principale DP U071.

---

4. 对比复印样本和原稿（a），如果偏移值在标准值以上时，对偏移原稿进行调整。
对 MFP 的图像确认和调整后再对 DP 的图像进行确认。详细内容请参见维修手册。
（注意）如果图像出现底灰，用 U068 来调整 DP 的扫描位置。如果用 U068 更改了扫描位置，则再用 U071 对 DP 的前端定时进行调整。

---

4. 원고 (a) 와 카피 샘플을 비교하여 차이가 기준치를 벗어나는 경우 , 차이 (틈) 의 형태에 따라 다음을 조정합니다 .
MFP 의 화상확인 및 조정을 하고나서 DP 의 화상확인을 할 것 . 상세는 서비스 매뉴얼을 참조할 것 .
(주의) 화상 카브리가 발생하는 경우 , U068DP 스캔위치 조정을 합니다 . U068 에서 스캔위치를 변경한 경우 U071DP 선단 타이밍 조정을 합니다 .

---

4. 原稿（a）とコピーサンプルを比較し、基準値以上のずれがある場合、ずれ方に応じて調整を行う。
MFP の画像確認及び調整を行ってから DP の画像確認を行うこと。詳細はサービスマニュアルを参照のこと。
（注意）画像カブリが発生する場合、U068 DP 読み取り位置の調整を行う。U068 で読み取り位置を変更した場合、U071 DP 先端タイミング調整を行う。

Be sure to adjust in the following order. If not, the adjustment cannot be performed correctly.
For checking the angle of leading edge, see page 7.   <Reference value> Simplex copying: within ±2.0 mm; Duplex copying: within ±3.0 mm
For checking the magnification, see page10.   <Reference value> Within ±1.5%
For checking the leading edge timing, see page 12.   <Reference value> Within ±2.5 mm
For checking the center line, see page 14.   <Reference value> Simplex copying: within ±2.0 mm; Duplex copying: within ±3.0 mm
When using the original for adjustment, automatic adjustment of magnification, leading edge timing and center line can be performed at a time.
For the automatic adjustment using the original for adjustment, see page 17.

Veillez à effectuer le réglage en procédant dans l'ordre suivant. Sinon, il sera impossible d'obtenir un réglage correct.
Pour vérifier l'angle du bord avant, reportez-vous à la page 7.   <Valeur de référence>Copie recto seul: ±2,0 mm max.; copie recto verso: ±3,0 mm max.
Pour vérifier l'agrandissement, reportez-vous à la page 10.   <Valeur de référence>±1,5% max.
Pour vérifier la synchronisation du bord avant, reportez-vous à la page 12. <Valeur de référence>±2,5 mm max.
Pour vérifier la ligne médiane, reportez-vous à la page 14.   <Valeur de référence>Copie recto seul: ±2,0 mm max.; Copie recto verso: ±3,0 mm max.
Lorsque vous utilisez l'original pour effectuer le réglage, vous pouvez effectuer automatiquement le réglage de l'agrandissement, de la synchronisation du bord avant et de la ligne médiane en une seule fois.
Pour le réglage automatique en utilisant l'original pour effectuer le réglage, reportez-vous à la page 17.

Asegúrese de ajustar en el siguiente orden. De lo contrario, el ajuste no puede hacerse correctamente.
Para verificar el ángulo del borde superior, vea la página 7.   <Valor de referencia>Copia simple: dentro de ±2,0 mm; Copia duplex: dentro de ±3,0 mm
Para verificar el cambio de tamaño, vea la página 10.   <Valor de referencia>Dentro de ±1,5 %
Para verificar la sincronización del borde superior, vea la página 12.<Valor de referencia>Dentro de ±2,5 mm
Para verificar la línea central, vea la página 14.   <Valor de referencia>Copia simple: dentro de ±2,0 mm;Copia duplex: dentro de ±3,0 mm
Cuando utilice el original para el ajuste, puede hacerse un ajuste automático del cambio de tamaño, sincronización del borde superior y línea central al mismo tiempo.
Para el ajuste automático utilizando el original para el ajuste, vea la página 17.

Die Einstellung in der folgenden Reihenfolge durchführen. Anderenfalls kann die Einstellung nicht korrekt durchgeführt werden.
Angaben zur Prüfung des Winkels der Vorderkante auf Seite 7.   <Bezugswert>Simplexkopie: innerhalb ±2,0 mm; Duplexkopie: innerhalb ±3,0 mm
Angaben zur Prüfung der Vergrößerung auf Seite 10.   <Bezugswert> Innerhalb ±1,5 %
Angaben zur Prüfung des Vorderkanten-Timings auf Seite 12.   <Bezugswert> Innerhalb ±2,5 mm
Angaben zur Prüfung der Mittellinie auf Seite 14.   <Bezugswert> Simplexkopie: innerhalb ±2,0 mm; Duplexkopie: innerhalb ±3,0 mm
Bei Verwendung des Originals für die Einstellung können die automatischen Einstellungen für Vergrößerung, Vorderkanten-Timing und Mittellinie gleichzeitig durchgeführt werden.
Angaben zur automatischen Einstellung mithilfe des Originals auf Seite 17.

Accertarsi di eseguire le regolazioni in questa sequenza: in caso contrario, la regolazione non può essere effettuata correttamente.
Per controllare l'angolo del bordo principale, vedere pagina 7.   <Valore di riferimento>Copia simplex: entro ±2,0 mm; Copia duplex: entro ±3,0 mm
Per controllare l'ingrandimento, vedere pagina 10.   <Valore di riferimento>Entro ±1,5%
Per controllare la sincronizzazione del bordo principale, vedere pagina 12.<Valore di riferimento>Entro ±2,5 mm
Per controllare la linea centrale, vedere pagina 14.   <Valore di riferimento>Copia simplex: entro ±2,0 mm; Copia duplex: entro ±3,0 mm
Quando si utilizza l'originale per la regolazione, la regolazione automatica dell'ingrandimento, della sincronizzazione del bordo principale e della linea centrale possono essere eseguiti contemporaneamente.
Per la regolazione automatica eseguita con l'originale, vedere pagina 17.

必须按照以下步骤进行调整，否则不能达到准确调整的要求。
·确认前端倾斜度　　第 7 页　〈标准值〉　单面：±2.0mm 以内，双面：±3.0mm 以内
·确认等倍值　　　　第 10 页　〈标准值〉　±1.5% 以内
·确认前端定时调整　第 12 页　〈标准值〉　±2.5mm 以内
·确认中心线　　　　第 14 页　〈标准值〉　单面：±2.0mm 以内，双面：±3.0mm 以内
使用调整用的原稿时，可以同时自动进行等倍值，前端定时以及中心线的调整。
·通过调整用原稿进行自动调整　　第 17 页

반드시 하기의 순서로 조정을 할 것 . 순서대로 조정을 하지 않는 경우 바른 조정을 할 수 없습니다 .
·선단경사확인　　　　7 페이지 ＜기준치＞단면：±2.0mm 이내 , 양면：±3.0mm 이내
·등배도 확인　　　　10 페이지 ＜기준치＞ ±1.5% 이내
·선단 타이밍 확인 12 페이지 ＜기준치＞ ±2.5mm 이내
·센터 라인확인　　　14 페이지 ＜기준치＞ 단면：±2.0mm 이내 , 양면：±3.0mm 이내
조정용 원고를 사용하면 등배도 조정 , 선단타이밍 조정 , 센터 라인조정의 자동조정이 한번에 수행됩니다 .
·조정용원고를 사용한 자동조정은 17 페이지 참조

必ず下記の順序で調整を行うこと。順序通りに調整を行わない場合、正しい調整ができない。
·先端斜め確認　　　　　　7 ページ　＜基準値＞片面：±2.0mm 以内、両面：±3.0mm 以内
·等倍度確認　　　　　　10 ページ　＜基準値＞ ±1.5% 以内
·先端タイミング確認　12 ページ　＜基準値＞ ±2.5mm 以内
·センターライン確認　14 ページ　＜基準値＞片面：±2.0mm 以内、両面：±3.0mm 以内
調整用原稿を使用すると、等倍度調整、先端タイミング調整、センターライン調整の自動調整が一度におこなえる。
·調整用原稿による自動調整 17 ページ

2mm/3mm

2mm/3mm

a   d   e

[Checking the angle of leading edge]
1. Check the horizontal gap between line (1) of original (a) and line (2) of copy example positions. If the gap exceeds the reference value, adjust the gap according to the following procedure.
   <Reference value> For single copying: within ±2.0 mm.
   　　　　　　　　　For duplex copying: within ±3.0 mm.

[Vérification de l'angle du bord avant]
1. Vérifier l'écart horizontal entre la position de la ligne (1) de l'original (a) et celle de la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
   <Valeur de référence> Pour la copie recto : ±2,0 mm max.
   　　　　　　　　　　　Pour la copie recto-verso : ±3,0 mm max.

[Verificación del ángulo del borde superior]
1. Compruebe la separación horizontal entre la línea (1) del original (a) y la línea (2) de las posiciones del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
   <Valor de referencia> Para el copiado por una cara: dentro de ±2,0 mm.
   　　　　　　　　　　　Para el copiado dúplex: dentro de ±3,0 mm.

[Überprüfen des Winkels der Vorderkante]
1. Den horizontalen Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) der Kopierbeispielspositionen prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
   <Bezugswert> Einzelkopie: innerhalb ±2,0 mm.
   　　　　　　　Duplexkopie: innerhalb ±3,0 mm.

[Controllo dell'angolo del bordo principale]
1. Verificare lo scostamento orizzontale fra la linea (1) dell'originale (a) e la linea (2) delle posizioni dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
   <Valore di riferimento> Per la copia singola: entro ± 2,0 mm.
   　　　　　　　　　　　　Per la copia duplex: entro ±3,0 mm.

［ 确认前端倾斜度 ］
1. 确认原稿（a）上的线（1）和复印样本上的线（2）的左右偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
   〈 标准值 〉单面复印时：±2.0㎜ 以内。
   　　　　　　双面复印时：±3.0㎜ 以内。

［ 선단 경사확인 ］
1. 원고 (a) 의 선 (1) 과 샘플 카피의 선 (2) 의 좌우 차이를 확인합니다 . 차이가 기준치 외의 경우 다음의 순서대로 조정을 합니다 .
   < 기준치 > 단면의 경우 :±2.0mm 이내
   　　　　　 양면의 경우 :±3.0mm 이내

［ 先端斜め確認 ］
1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) の左右のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
   ＜基準値＞片面の場合：±2.0㎜ 以内
   　　　　　両面の場合：±3.0㎜ 以内

2. Turn off the main power switch of the machine.Open DP. Perform the steps 3,4,11,12,13 and 16 in its reverse order on pages 1 ,2and 3 to remove the DP from the MFP.

3. Loosen three adjustment screws (3) for the right side hinge.

4. Adjust the position of the right hinge.
In case of copy sample (d): Move the right hinge up (⇨).
In case of copy sample (e): Move the right hinge down (⬅).
Amount of change per scale: Approx. 0.6 mm (4)

5. After the adjustment, retighten three adjusting screws (3) which were loosed in step 3.

---

2. Mettez la machine hors tension.Ouvrez le DP. Effectuez les étapes 3,4,11,12,13 et 16 dans l'ordre inverse aux pages 1,2 et 3 pour retirer le DP du MFP

3. Desserrez trois vis de réglage (3) pour la charnière droite.

4. Ajustez la position de la charnière droite.
Dans le cas de l'exemple de copie (d) : Déplacer la charnière de droite vers le haut (⇨).
Dans le cas de l'exemple de copie (e) : Déplacer la charnière de droite vers le bas (⬅).
Changement par graduation d'échelle : environ 0,6 mm (4)

5. Après l'ajustement, resserrez les trois vis de réglage (3) qui ont été desserrées à l'étape 3.

---

2. Apague el interruptor de encendido de la máquina.Abra el DP. Realice los pasos 3,4,11,12,13 y 16 de las páginas 1,2 y 3 pero al revés para quitar el DP del dispositivo MFP.

3. Suelte los tres tornillos de ajuste (3) de la bisagra en el lado derecho.

4. Ajuste la posición de la bisagra derecha.
En caso de muestra de copia (d): Suba la bisagra derecha (⇨).
En caso de muestra de copia (e): Baje la bisagra derecha (⬅).
Magnitud del cambio por escala: aprox. 0,6 mm (4)

5. Después del ajuste, vuelva a apretar los tres tornillos de ajuste (3) que se aflojaron en el paso 3.

---

2. Schalten Sie das Gerät über den Hauptschalter aus.Öffnen Sie DP. Führen Sie die Schritte 3,4,11,12,13 und 16 in umgekehrter Reihenfolge wie auf den Seiten 1,2 und 3 beschrieben aus. Entfernen Sie den DP vom MFP.

3. Lösen Sie die drei Einstellschrauben (3) am rechten Scharnier.

4. Justieren Sie die Position des rechten Scharniers.
Bei Verwendung der Kopiervorlage (d): Bewegen Sie das rechte Scharnier nach oben (⇨).
Bei Verwendung der Kopiervorlage (e): Bewegen Sie das rechte Scharnier nach unten (⬅).
Änderung pro Maßstab: Ungefähr 0,6 mm (4)

5. Nachdem Sie die Einstellung vorgenommen haben, ziehen Sie die drei Justierschrauben (3) wieder an, die Sie in Schritt 3 gelöst hatten.

---

2. Spegnere l'interruttore di alimentazione della macchina.Aprire il DP. Eseguire i punti 3,4,11,12,13 e 16 eseguendo le operazioni in ordine contrario rispetto a quanto indicato a pagina 1,2 e 3 per rimuovere il DP dal dispositivo MFP

3. Allentare le tre viti di regolazione (3) sulla cerniera di destra.

4. Regolare la posizione della cerniera di destra.
Nel caso dell'esempio copia (d): Alzare la cerniera destra (⇨).
Nel caso dell'esempio copia (e): Abbassare la cerniera destra (⬅).
Entità modifica per scala: circa 0,6 mm (4)

5. Dopo la regolazione, serrare di nuovo le tre viti di regolazione (3), allentate al punto 3.

---

2. 关闭机器的主电源开关。打开 DP。按照第 1～3 页的步骤 3,4,11,12,13 和 16 的相反顺序，把 DP 从机器上取下。
3. 拧松 3 颗右铰链的调整螺丝（3）。
4. 调整右铰链的位置。
当处于样张（d）：将右铰链向上（⇨）移动。
当处于样张（e）：将右铰链向下（⬅）移动。
按比例尺的更改量：约 0.6mm（4）
5. 调整完成后，重新拧紧在步骤 3 中松开的 3 颗调整螺丝（3）。

---

2. 기계의 전원을 OFF 합니다 .DP 를 엽니다 . 1~3 페이지의 단계 3,4,11,12,13,16 를 역순으로 MFP 에서 DP 를 떼어 냅니다 .
3. 오른쪽 힌지의 조정나사 (3) 3 개를 풉니다 .
4. 우측 힌지의 위치를 조정합니다 .
복사 샘플 (d) 의 경우 : 우측 힌지를 위쪽 (⇨) 에 움직입니다 .
복사 샘플 (e) 의 경우 :우측 힌지를 아래쪽 (⬅) 에 움직입니다 .
눈금당 변화량:약 0.6 mm (4)
5. 조정종료 후 순서 3 에서 느슨하게 한 조정나사 (3) 3 개를 조입니다 .

---

2. 機械の主電源スイッチを OFF にする。DP を開く。1 ～ 3 ページの手順 3, 4, 11, 12, 13, 16 の逆手順で DP を MFP から取り外す。
3. 右ヒンジの調整ビス (3)3 本を緩める。
4. 右ヒンジの位置を調整する。
コピーサンプル (d) の場合:右ヒンジを上(⇨)へ動かす。
コピーサンプル (e) の場合:右ヒンジを下(⬅)へ動かす。
1 目盛り当たりの変化量:約 0.6mm（4）
5. 調整終了後、手順 3 で緩めた調整ビス (3)3 本を締め付ける。

a   d   e

---
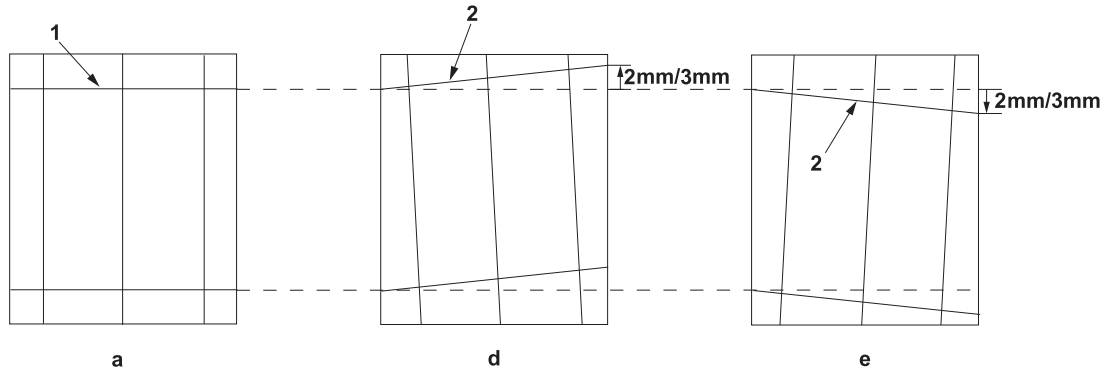
6. Perform the steps 3,4,11,12,13 and 16 on pages 1,2 and 3 to reinstall the DP on the MFP.
7. Turn on the main power switch of the machine. Perform a test copy.
8. Repeat the steps above until the gap of line (2) of copy example shows the following reference values.
    <Reference value> For single copying: within ±2.0 mm.
                        For duplex copying: within ±3.0 mm.
9. Remove the original mat and attach it again in accordance with step 15 and 16 on page 3.

---

6. Effectuez les étapes 3,4,11,12,13 et 16 aux pages 1 ,2et 3 pour réinstaller le DP sur le MFP.
7. Mettez la machine sous tension. Effectuer une copie de test.
8. Répéter les étapes ci-dessus jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique les valeurs de référence suivantes.
    <Valeur de référence>   Pour la copie recto : ±2,0 mm max.
                        Pour la copie recto-verso : ±3,0 mm max.
9. Retirez le tapis d'original et remettez-le en place conformément aux étapes 15 et 16 à la page 3.

---

6. Realice los pasos 3,4,11,12,13 y 16 de las páginas 1,2 y 3 para reinstalar el DP en el dispositivo MFP.
7. Encienda el interruptor de encendido de la máquina. Haga una copia de prueba.
8. Repita los pasos anteriores hasta que la separación de la línea (2) del ejemplo de copia presente los siguientes valores de referencia.
    <Valor de referencia> Para el copiado por una cara: dentro de ±2,0 mm.
                        Para el copiado dúplex: dentro de ±3,0 mm.
9. Quite la almohadilla de originales y vuelva a colocarla según lo indicado en los pasos 15 y 16 en la página 3.

---

6. Führen Sie auf den Seiten 1,2 und 3 die Schritte 3,4,11,12,13 und 16 aus, um den DP wieder am MFP zu installieren.
7. Schalten Sie das Gerät über den Hauptschalter ein. Eine Testkopie erstellen.
8. Die obigen Schritte wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels die folgenden Bezugswerte aufweist.
    <Bezugswert> Einzelkopie: innerhalb ±2,0 mm.
                        Duplexkopie: innerhalb ±3,0 mm.
9. Entfernen Sie die Originalmatte und befestigen Sie sie wieder, wie in den Schritten 15 und 16 auf Seite 3 gezeigt.

---

6. Eseguire i punti 3,4,11,12,13 e 16 a pagina 1,2 e 3 per reinstallare il DP sul sistema MFP.
7. Accendere l'interruttore di alimentazione della macchina. Eseguire una copia di prova.
8. Ripetere le operazioni sopra descritte fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento seguenti.
    <Valore di riferimento>Per la copia singola: entro ± 2,0 mm.
                        Per la copia duplex: entro ±3,0 mm.
9. Rimuovere il coprioriginale e riposizionarlo attenendosi alla procedura descritta ai punti 15 e 16 di pagina 3.

---

6. 按照第 1～3 页的步骤 3, 4, 11, 12, 13, 16 把 DP 再次装回机器。
7. 打开机器的主电源开关。 进行测试复印。
8. 重复上述步骤直至复印样本上的线（2）的偏移值达到标准值范围内。
  〈标准值〉单面时：±2.0㎜ 以内
              双面时：±3.0㎜ 以内
9. 取下原稿垫，参考第 3 页的步骤 15、16，再次安装。

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6. 1~3 페이지의 3,4,11,12,13,16 단계에서 DP 를 다시 설치합니다 .
7. 기계의 전원을 ON 합니다 . 테스트 카피를 합니다 .
8. 샘플 카피 선 (2) 차이가 기준치내가 될 때까지 조정을 반복합니다 .
< 기준치 > 단면의 경우 : ±2.0mm 이내
         양면의 경우 : ±3.0mm 이내
9. 원고 매트 를 제거하고 3 페이지의 단계 15 ～ 16 에 따라 다시 부착합니다 .

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6. 1 ～ 3 ページの手順 3, 4, 11, 12, 13, 16 の手順で DP を再度取り付ける。
7. 機械の主電源スイッチを ON にする。テストコピーを行う。
8. コピーサンプルの線（2）のずれが基準値内になるまで、調整を繰り返す。
  ＜基準値＞片面の場合：±2.0㎜ 以内
            両面の場合：±3.0㎜ 以内
9. 原稿マットを取り外し、3 ページの手順 15, 16 を参考に再度取り付ける
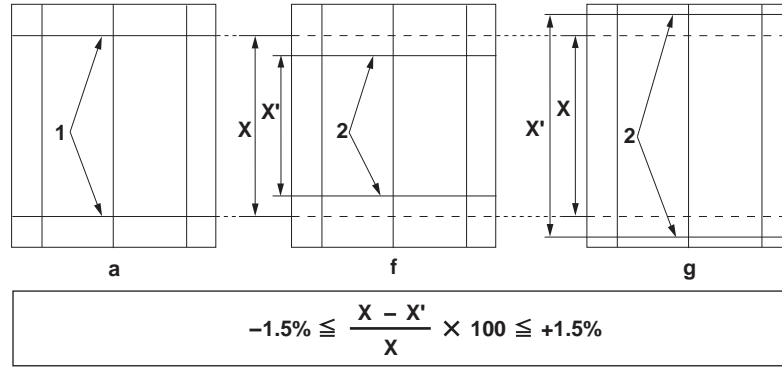
$$-1.5\% \leqq \frac{X - X'}{X} \times 100 \leqq +1.5\%$$

[Checking the magnification]
  1.Check the gap between line (1) of original (a) and line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
    <Reference value> within ±1.5%

2.Use the maintenance mode U070 to adjust the magnification.
  Sub Scan(F): Adjusts the scanner sub-scan magnification (front side)
  Sub Scan (CIS): Adjusts the scanner CIS sub-scan magnification

[Vérification de l'agrandissement]
  1.Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
    <Valeur de référence> ±1,5% max

2. Pour régler l'agrandissement, utilisez le mode entretien U070.
  Sub Scan(F): Permet de régler l'agrandissement du balayage secondaire du scanner(recto)
  Sub Scan (CIS): Permet de régler l'agrandissement du balayage secondaire du CIS du scanner

[Verificación del cambio de tamaño]
  1.Compruebe la separación entre la línea (1) del original (a) y la línea (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
    <Valor de referencia> dentro de ±1,5%

2.Para ajustar la ampliación utilice el modo de mantenimiento U070.
  Sub Scan(F): Ajusta el cambio de tamaño de la dirección de exploración secundaria del escáner.(anverso)
  Sub Scan (CIS): Ajusta el cambio de tamaño de la dirección de exploración secundaria CIS del escáner

[Überprüfen der Vergrößerung]
  1.Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
    <Bezugswert> Innerhalb ±1,5%

2.Zum Einstellen der Vergrößerung den Wartungsmodus U070 verwenden.
  Sub Scan(F): Zur Einstellung der Subscan-Vergrößerung(Vorderseite)
  Sub Scan (CIS): Zur Einstellung der Scanner-CIS-Subscan-Vergrößerung

[Controllo dell'ingrandimento]
  1.Verificare lo scostamento fra la linea (1) dell'originale (a) e la linea (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
    <Valore di riferimento> Entro ±1,5%

2.Usare la modalità di manutenzione U070 per regolare l'ingrandimento.
  Sub Scan(F): Regola l'ingrandimento della scansione ausiliare dello scanner(facciata anteriore)
  Sub Scan (CIS): Regola l'ingrandimento della scansione ausiliare CIS dello scanner

［确认等倍值］
  1. 确认原稿（a）上的线（1）和复印样本上的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
    < 标准值 > ±1.5% 以内

2. 使用维修模式 U070 调整等倍值。
  Sub Scan(F)：读取副扫描等倍度的调整（正面）
  Sub Scan(CIS)：CIS 的读取副扫描等倍度的调整

［ 등배도확인 ］
  1. 원고 (a) 선 (1) 과 샘플 카피의 선 (2) 의 차이를 확인합니다 .
    차이가 기준이외의 경우 , 다음 순서로 조정을 합니다 .
    < 기준치 > ±1.5% 이내

2. 메인터넌스 모드 U070 에서 조정합니다 .
  Sub Scan(F):스캔 부주사등배도의 조정 (앞면)
  Sub Scan(CIS):CIS 의 스캔 부주사 등배도의 조정

［ 等倍度確認 ］
  1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) のずれを確認する。
    ずれが基準値外の場合、次の手順で調整を行う。
    ＜基準値＞ ±1.5% 以内

2. メンテナンスモード U070 をセットし、調整を行う。
  Sub Scan(F):読み込み副走査等倍度の調整 (表面)
  Sub Scan(CIS):CIS 読み込み副走査等倍度の調整

$$-1.5\% \leqq \frac{X - X'}{X} \times 100 \leqq +1.5\%$$

3. Adjust the values.
For the shorter length copy example (f): Increases the value.
For the longer length copy example (g): Decreases the value.
Amount of change per step: 0.10 %
4. Press the [Start] key to confirm the setting value.
5. Perform a test copy.

6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
<Reference value> within ±1.5%

---

3. Régler les valeurs.
Pour l'exemple de copie dont la longueur est plus courte (f) : augmenter la valeur.
Pour l'exemple de copie dont la longueur est plus longue (g) : diminuer la valeur.
Changement par graduation d'échelle : 0,10 %
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Effectuer une copie de test.

6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
<Valeur de référence> ±1,5% max

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3. Ajuste los valores.
Para el ejemplo de copia más corto (f): aumenta el valor.
Para el ejemplo de copia más largo (g): disminuye el valor.
Magnitud del cambio por incremento: 0,10 %
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Haga una copia de prueba.

6. Repita los pasos 2 a 5 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
<Valor de referencia> dentro de ±1,5%

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3. Die Werte einstellen.
Für die kürzere Länge des Kopierbeispiels (f): Den Wert erhöhen.
Für die längere Länge des Kopierbeispiels (g): Den Wert verringern.
Änderung pro Schritt: 0,10 %
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Eine Testkopie erstellen.

6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
<Bezugswert> Innerhalb ±1,5%

---

3. Regolare i valori.
Per l'esempio di copia di lunghezza inferiore (f): aumenta il valore.
Per l'esempio di copia di lunghezza superiore (g): riduce il valore.
Entità modifica per passo: 0,10 %
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Eseguire una copia di prova.

6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
<Valore di riferimento> Entro ±1,5%

---

3. 调整设定值。
在长度偏短时　复印样本（f）：调高设定值
在长度偏长时　复印样本（g）：调低设定值
设定值的一个调整单位变化量：0.10%
4. 按［开始］键，以确定设定值。
5. 进行测试复印。

6. 重复上述步骤 2 到 5，直至复印样本上的线（2）之间的偏移值达到标准值范围内。
〈标准值〉±1.5% 以内

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3. 설정치를 조정합니다 .
길이가 짧은 경우 샘플 카피 (f) : 설정치를 높입니다 .
길이가 긴 경우 샘플 카피 (g) : 설정치를 내립니다 .
1 스텝당 변화량 : 0.10%
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 테스트 카피를 합니다 .

6. 샘플 카피 선 (2) 의 차이가 기준치내가 될 때까지 2 ~ 5 를 반복합니다 .
< 기준치 > ±1.5% 이내

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3. 設定値を調整する。
長さが短い場合コピーサンプル (f) : 設定値を上げる。
長さが長い場合コピーサンプル (g) : 設定値を下げる。
1 ステップ当たりの変化量 : 0.10%
4. [スタート] キーを押し、設定値を確定する。
5. テストコピーを行う。

6. コピーサンプルの線 (2) のずれが基準値内になるまで手順 2 〜 5 を繰り返す。
＜基準値＞ ±1.5% 以内

a   h   i

[Checking the leading edge timing]
  1. Check the gap between line (1) on original (a) and line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
  <Reference value> within ±2.5 mm

  2. Use the maintenance mode U071 to adjust the timing.
  Front Head: Adjusts the leading edge timing (front side)
  Front Tail: Adjusts the trailing edge timing (front side)
  CIS Head: Adjusts the leading edge timing for CIS scanning.
  CIS Tail: Adjusts the trailing edge timing for CIS scanning.

[Vérification de la synchronisation du bord avant]
  1. Vérifier l'écart entre la ligne (1) de l'original (a) et la ligne (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
  <Valeur de référence> ±2,5 mm max

  2. Pour régler la synchronisation, utilisez le mode entretien U071.
  Front Head: Permet de régler la synchronisation du bord de tête (recto)
  Front Tail: Permet de régler la synchronisation du bord arrière (recto)
  CIS Head: Permet de régler la synchronisation du bord de tête pour le balayage par le CIS.
  CIS Tail: Permet de régler la synchronisation du bord arrière pour le balayage par le CIS.

[Cambio de la sincronización de borde superior]
  1. Compruebe la separación entre la línea (1) del original (a) y la línea (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
  <Valor de referencia> dentro de ±2,5 mm

  2. Para ajustar la sincronización utilice el modo de mantenimiento U071.
  Front Head: Ajusta la sincronización del borde superior (anverso).
  Front Tail: Ajusta la sincronización del borde inferior (anverso).
  CIS Head: Ajusta la sincronización del borde superior para exploración CIS.
  CIS Tail: Ajusta la sincronización del borde inferior para exploración CIS.

[Überprüfen des Vorderkanten-Timings]
  1. Den Abstand zwischen der Linie (1) des Originals (a) und der Linie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
  <Bezugswert> Innerhalb ±2,5 mm

  2. Zum Einstellen des Timing den Wartungsmodus U071 verwenden.
  Front Head: Zur Einstellung des Vorderkanten-Timing (Vorderseite)
  Front Tail: Zur Einstellung des Hinterkanten-Timing (Vorderseite)
  CIS Head: Zur Einstellung des Vorderkanten-Timing für CIS-Scannen.
  CIS Tail: Zur Einstellung des Hinterkanten-Timing für CIS-Scannen.

[Controllo della sincronizzazione del bordo principale]
  1. Verificare lo scostamento fra la linea (1) sull'originale (a) e la linea (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
  <Valore di riferimento> Entro ±2,5 mm

  2. Usare la modalità di manutenzione U071 per regolare la sincronizzazione.
  Front Head: Regola la sincronizzazione del bordo principale (facciata anteriore)
  Front Tail: Regola la sincronizzazione del bordo di uscita (facciata anteriore)
  CIS Head: Regola la sincronizzazione del bordo principale per scansione CIS.
  CIS Tail: Regola la sincronizzazione del bordo di uscita per scansione CIS.

[确认前端定时调整]
  1. 确认原稿（a）上的线（1）和复印样本上的线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
  ＜标准值＞ ±2.5mm 以内

  2. 使用维修模式 U071 调整定时。
  Front Head：调整前端定时（正面）
  Front Tail：调整后端定时（正面）
  CIS Head：调整 CIS 读取时的前端定时
  CIS Tail：调整 CIS 读取时的后端定时

[선단 타이밍확인]
  1. 원고 (a) 선 (1) 과 샘플 카피 선 (2) 의 차이를 확인합니다 . 차이가 기준치 외의 경우 다음 순서로 조정을 합니다 .
  ＜기준치＞ ±2.5mm 이내

  2. 메인터넌스 모드 U071 에서 조정합니다 .
  Front Head：선단 타이밍 (앞면) 을 조정합니다 .
  Front Tail：후단 타이밍 (앞면) 을 조정합니다 .
  CIS Head: CIS 스캔 시의 선단 타이밍을 조정합니다 .
  CIS Tail: CIS 스캔 시의 후단 타이밍을 조정합니다 .

[先端タイミング確認]
  1. 原稿 (a) の線 (1) とコピーサンプルの線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
  ＜基準値＞ ±2.5mm 以内

  2. メンテナンスモード U071 をセットし、調整を行う。
  Front Head：先端タイミング（表面）の調整
  Front Tail：後端タイミング（表面）の調整
  CIS Head: CIS 読み込み時の先端タイミングの調整
  CIS Tail: CIS 読み込み時の後端タイミングの調整

a   h   i

3. Adjust the values.
For the faster leading edge timing, copy examples (h): Decreases the value.
For the slower leading edge timing, copy examples (i): Increases the value.
Amount of change per step: 0.25 mm
4. Press the [Start] key to confirm the setting value.

5. Perform a test copy.
6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
<Reference value> within ±2.5 mm

3. Régler les valeurs.
Pour les exemples de copie dont la synchronisation du bord avant est plus rapide (h) : diminuer la valeur.
Pour les exemples de copie dont la synchronisation du bord avant est plus lente (i) : augmenter la valeur.
Changement par graduation d'échelle : 0,25 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.

5. Effectuer une copie de test.
6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
<Valeur de référence> ±2,5 mm max

3. Ajuste los valores.
Para una sincronización más rápida de extremo guía, ejemplos de copia (h): disminuye el valor.
Para una sincronización más lenta de extremo guía, ejemplos de copia (i): aumenta el valor.
Magnitud del cambio por incremento: 0,25 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.

5. Haga una copia de prueba.
6. Repita los pasos 2 a 5 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
<Valor de referencia> dentro de ±2,5 mm

3. Die Werte einstellen.
Für den schnelleren Vorderkantentakt, Kopierbeispiel (h): Den Wert verringern.
Für den langsameren Vorderkantentakt, Kopierbeispiel (i): Den Wert erhöhen.
Änderung pro Schritt: 0,25 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.

5. Eine Testkopie erstellen.
6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
<Bezugswert> Innerhalb ±2,5 mm

3. Regolare i valori.
Per accelerare la fasatura del bordo di entrata, esempi di copia (h): riduce il valore.
Per rallentare la fasatura del bordo di entrata, esempi di copia (i): aumenta il valore.
Entità modifica per passo: 0,25 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.

5. Eseguire una copia di prova.
6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
<Valore di riferimento> Entro ±2,5 mm

3. 调整设定值。
在前端定时偏快时　复印样本（h）：调低设定值
在前端定时偏慢时　复印样本（i）：调高设定值
设定值的一个调整单位变化量：0.25mm
4. 按［开始］键，以确定设定值。

5. 进行测试复印。
6. 重复上述步骤 2 到 5，直至复印样本上的线（2）的偏移值达到标准值范围内。
〈标准值〉±2.5mm 以内

3. 설정치를 조정합니다 .
선단 타이밍이 빠른 경우 샘플 카피 (h) : 설정치를 내립니다 .
선단 타이밍이 늦은 경우 샘플 카피 (i) : 설정치를 올립니다 .
1 스텝당 변화량 : 0.25mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .

5. 테스트 카피를 합니다 .
6. 샘플 카피 선 (2) 의 차이가 기준치내가 될 때까지 2 ~ 5 를 반복합니다 .
<기준치> ±2.5mm 이내

3. 設定値を調整する。
先端タイミングが早い場合コピーサンプル (h) : 設定値を下げる。
先端タイミングが遅い場合コピーサンプル (i) : 設定値を上げる。
1 ステップ当たりの変化量 : 0.25mm
4. [スタート] キーを押し、設定値を確定する。

5. テストコピーを行う。
6. コピーサンプルの線 (2) のずれが基準値内になるまで手順 2 ～ 5 を繰り返す。
<基準値> ±2.5mm 以内
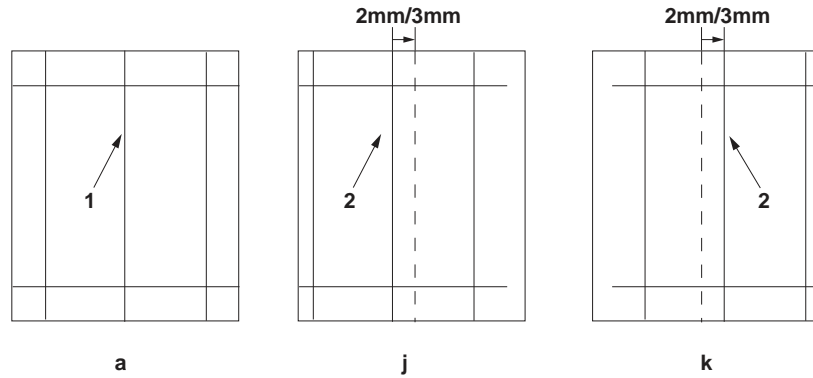
2mm/3mm   2mm/3mm

a   j   k

[Checking the center line]
1. Check the gap between center line (1) on original (a) and center line (2) of copy example. If the gap exceeds the reference value, adjust the gap according to the following procedure.
<Reference value>
Horizontal difference of center line (2) for the single copying: ±2.0 mm
Horizontal difference of center line (2) for the duplex copying: ±3.0 mm

2. Use the maintenance mode U072 to adjust the timing.
Front: Adjusts the center line (front side)
CIS: Adjusts the CIS center line

[Vérification de la ligne médiane]
1. Vérifier l'écart entre l'axe (1) de l'original (a) et l'axe (2) de l'exemple de copie. Si l'écart excède la valeur de référence, le régler selon la procédure suivante.
<Valeur de référence>
Différence horizontale de l'axe (2) pour la copie recto : ±2,0 mm
Différence horizontale de l'axe (2) pour la copie recto-verso : ±3,0 mm

2. Pour régler la ligne médiane, utiliser le mode entretien U072.
Front: Permet de régler l'axe (recto)
CIS: Permet de régler l'axe du CIS

[Verificación de la línea central]
1. Compruebe la separación entre la línea de centro (1) del original (a) y la línea de centro (2) del ejemplo de copia. Si la separación supera el valor de referencia, ajústela siguiendo este procedimiento.
<Valor de referencia>
Diferencia horizontal de la línea de centro (2) para el copiado por una cara: ±2,0 mm

Diferencia horizontal de la línea de centro (2) para el copiado dúplex: ±3,0 mm
2. Para ajustar la línea central utilice el modo de mantenimiento U072.
Front: ajusta la línea central (anverso).
CIS: ajusta la línea central CIS

[Überprüfen der Mittellinie]
1. Den Abstand zwischen der Mittellinie (1) des Originals (a) und der Mittellinie (2) des Kopierbeispiels prüfen. Wenn der Abstand größer als der Bezugswert ist, den Abstand mit dem folgenden Verfahren einstellen.
<Bezugswert>
Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie: ±2,0 mm
Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie: ±3,0 mm

2. Zum Einstellen der Mittellinie den Wartungsmodus U072 verwenden.
Front: Zur Einstellung der Mittellinie (Vorderseite)
CIS: Zur Einstellung der CIS-Mittellinie

[Controllo della linea centrale]
1. Verificare lo scostamento fra la linea centrale (1) sull'originale (a) e la linea centrale (2) dell'esempio di copia. Se lo scostamento supera il valore di riferimento, regolare lo scostamento stesso seguendo questa procedura.
<Valore di riferimento>
Differenza orizzontale della linea centrale (2) per la copia singola: ±2,0 mm
Differenza orizzontale della linea centrale (2) per la copia duplex: ±3,0 mm

2. Usare la modalità di manutenzione U072 per regolare la linea centrale.
Front: Regola la linea centrale (facciata anteriore)
CIS: Regola la linea centrale CIS

[确认中心线]
1. 确认原稿（a）中心线（1）和复印样本中心线（2）之间的偏移值。如果偏移值超过标准值，则按照下列步骤进行调整。
＜标准值＞单面复印时，中心线（2）的左右偏移值：±2.0mm 以内
双面复印时，中心线（2）的左右偏移值：±3.0mm 以内

2. 使用维修模式 U072 调整中心线。
Front：中心位置（正面）的调整
CIS：CIS 的中心位置的调整

[센터 라인 확인]
1. 원고 (a) 센터라인 (1) 과 샘플 카피 센터라인 (2) 의 차이를 확인합니다 . 차이가 기준치 외의 경우 다음 순서로 조정합니다 .
＜기준치＞단면의 경우 센터라인 (2) 의 좌우차이 : ±2.0mm 이내
양면의 경우 센터라인 (2) 의 좌우차이 : ±3.0mm 이내

2. 메인터넌스 모드 U072 에서 조정합니다 .
Front：센터 위치 (앞면) 의 조정
CIS：CIS 의 센터 위치조정

[センターライン確認]
1. 原稿 (a) の中心線 (1) とコピーサンプルの中心線 (2) のずれを確認する。ずれが基準値外の場合、次の手順で調整を行う。
＜基準値＞片面の場合、中心線 (2) の左右ずれ：±2.0mm 以内
両面の場合、中心線 (2) の左右ずれ：±3.0mm 以内

2. メンテナンスモード U072 をセットし、調整を行う。
Front：センター位置（表面）の調整
CIS：CIS のセンター位置の調整
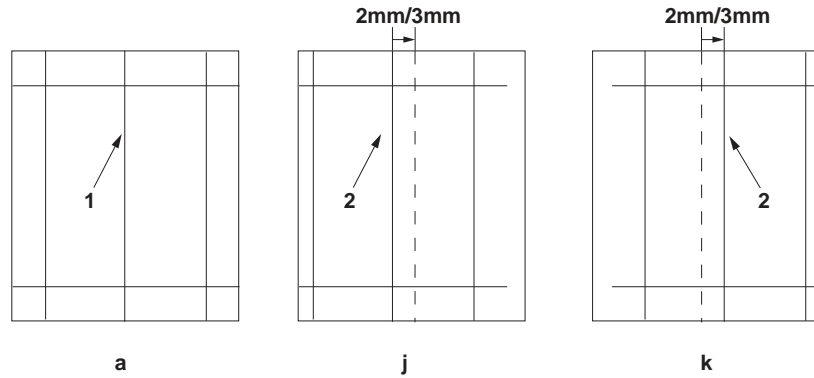
14

2mm/3mm 2mm/3mm

1   2   2

a   j   k

---

3. Adjust the values.
   If the center moves more front, copy example (j): Increases the value.
   If the center moves inner, copy sample (k): Decreases the value.
   Amount of change per step: 0.085 mm
4. Press the [Start] key to confirm the setting value.
5. Perform a test copy.

6. Repeat the steps 2 to 5 above until the gap of line (2) of copy example shows the reference value.
   <Reference value>
   Horizontal difference of center line (2) for the single copying: ±2.0 mm
   Horizontal difference of center line (2) for the duplex copying: ±3.0 mm

---

3. Régler les valeurs.
   Pour l'exemple de copie (j) dont l'axe se déplace davantage vers l'avant : augmenter la valeur.
   Pour l'exemple de copie (k) dont l'axe se déplace vers l'intérieur : diminuer la valeur.
   Changement par graduation d'échelle : 0,085 mm
4. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
5. Effectuer une copie de test.

6. Répéter les étapes 2 à 5 jusqu'à ce que l'écart de la ligne (2) de l'exemple de copie indique la valeur de référence.
   <Valeur de référence>
   Différence horizontale de l'axe (2) pour la copie recto : ±2,0 mm
   Différence horizontale de l'axe (2) pour la copie recto-verso : ±3,0 mm

---

3. Ajuste los valores.
   Si el centro se desplaza más hacia el frente, ejemplo de copia (j): aumenta el valor.
   Si el centro se desplaza hacia dentro, ejemplo de copia (k): disminuye el valor.
   Magnitud del cambio por incremento: 0,085 mm
4. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
5. Haga una copia de prueba.

6. Repita los pasos 2 a 4 anteriores hasta que la separación de la línea (2) del ejemplo de copia presente el valor de referencia.
   <Valor de referencia>
   Diferencia horizontal de la línea de centro (2) para el copiado por una cara: ±2,0 mm
   Diferencia horizontal de la línea de centro (2) para el copiado dúplex: ±3,0 mm

---

3. Die Werte einstellen.
   Wenn die Mitte nach vorne verlagert ist, Kopierbeispiel (j): Den Wert erhöhen.
   Wenn die Mitte nach innen verlagert ist, Kopierbeispiel (k): Den Wert verringern.
   Änderung pro Schritt: 0,085 mm
4. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
5. Eine Testkopie erstellen.

6. Die Schritte 2 bis 5 wiederholen, bis der Abstand der Linie (2) des Kopierbeispiels den Bezugswert aufweist.
   <Bezugswert>
   Horizontaler Unterschied der Mittellinie (2) für die Einzelkopie: ±2,0 mm
   Horizontaler Unterschied der Mittellinie (2) für die Duplexkopie: ±3,0 mm

---

3. Regolare i valori.
   Se il centro si sposta più avanti, esempio di copia (j): aumenta il valore.
   Se il centro si sposta verso l'interno, esempio di copia (k): riduce il valore.
   Entità modifica per passo: 0,085 mm
4. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
5. Eseguire una copia di prova.

6. Ripetere le operazioni sopra descritte da 2 a 5 fino a quando lo scostamento della linea (2) dell'esempio di copia riporterà i valori di riferimento.
   <Valore di riferimento>
   Differenza orizzontale della linea centrale (2) per la copia singola: ±2,0 mm
   Differenza orizzontale della linea centrale (2) per la copia duplex: ±3,0 mm

---

3. 调整设定值。
   当中心向前偏移时　复印样本（j）：调高设定值
   当中心向内偏移时　复印样本（k）：调低设定值
   设定值的一个调整单位变化量：0.085mm
4. 按［开始］键，以确定设定值。
5. 进行测试复印。

6. 重复上述步骤2到5，直至复印样本上的线（2）的偏移值达到标准值范围内。
   〈标准值〉
   单面复印时，中心线（2）的左右偏移值：±2.0㎜以内
   双面复印时，中心线（2）的左右偏移值：±3.0㎜以内

---

3. 설정치를 조정합니다 .
   센터 앞으로 이동한 경우가 샘플 카피 (j):설정치를 높입니다 .
   센터가 뒤로 이동한 경우 샘플 카피 (k) : 설정치를 내립니다 .
   1 스텝당 변화량:0.085mm
4. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
5. 테스트 카피를 합니다 .

6. 샘플 카피 선 (2) 의 차이가 기준치내가 될 때까지 2 ~ 5 를 반복합니다 .
   <기준치 >
   단면의 경우 센터라인 (2) 의 좌우차이:±2.0mm 이내
   양면의 경우 센터라인 (2) 의 좌우차이:±3.0mm 이내

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3. 設定値を調整する。
   センターが手前にずれている場合コピーサンプル (j):設定値を上げる。
   センターが奥にずれている場合コピーサンプル (k) 設定値を下げる。
   1 ステップ当たりの変化量:0.085㎜
4. [スタート] キーを押し、設定値を確定する。
5. テストコピーを行う。

6. コピーサンプルの線 (2) ずれが基準値内になるまで手順2～5を繰り返す。
   <基準値>
   片面の場合、中心線 (2) の左右ずれ:±2.0㎜以内
   両面の場合、中心線 (2) の左右ずれ:±3.0㎜以内
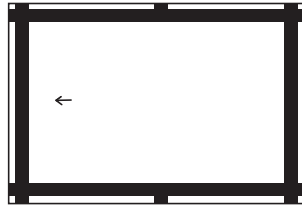
[Automatic adjustment using the original for adjustment]
If there is no DP auto adjustment original.
1. Set the maintenance mode U411 and press [DP Auto Adj] to output the adjustment original.
2. Set the printed original on the contact glass and press the [Start] key.
3. Set the original on the DP face up and press the [Start] key to carry out surface adjustment.

4. Set the original on the DP face down and press the [Start] key to carry out the back side adjustment.
5. "OK" appears on the display and press the [Start] key to complete the adjustment.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 2 and 4 until "OK" appears.
For details, see the service manual.

[Réglage automatique en utilisant l'original pour effectuer le réglage]
Si la machine n'est pas pourvue de la fonction réglage automatique d'original du DP
1. Passez en mode maintenance U411 et appuyez sur [DP Auto Adj] pour imprimer l'original de réglage.
2. Placer l'original qui vient d'être imprimé sur la vitre d'exposition et appuyer sur la touche [Départ].
3. Placer l'original sur le DP côté imprimé en haut et appuyer sur la touche [Départ] pour procéder au réglage de la surface.

4. Placez l'original sur le chargeur de document DP face vers le bas et appuyez sur la touche [Départ] pour effectuer le réglage du verso.
5. "OK" s'affiche sur l'écran. Appuyez sur la touche [Départ] pour terminer le réglage.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de l'original et recommencer les opérations 2 et 4 jusqu'à ce que le message "OK" apparaisse.
Pour plus de details, se reporter au manuel d'entretien.

[Ajuste automático utilizando el original para el ajuste]
Si no existe el original de ajuste automático del DP
1. Configure el modo de mantenimiento U411 y pulse [DP Auto Adj] para imprimir el original de ajuste.
2. Coloque el original impreso sobre el cristal de contacto y pulse la tecla de [Inicio].
3. Coloque el original en el DP cara arriba y pulse la tecla de [Inicio] para realizar un ajuste de anverso.

4. Coloque el original en el DP boca abajo y pulse la tecla [Inicio] para llevar a cabo un ajuste del reverso.
5. Aparece "OK" en la pantalla. Pulse la tecla [Inicio] para finalizar el ajuste.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 2 y 4 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

[Automatische Einstellung mithilfe des Originals]
Falls keine automatische Einstellung des Originals des DP vorhanden ist
1. Aktivieren Sie den Wartungsmodus U411 und wählen Sie [DP Auto Adj], um das Original für die Anpassung auszudrucken.
2. Das ausgedruckte Original auf das Kontaktglas legen und die [Start]-Taste betätigen.
3. Das Original mit der Druckseite nach oben einlegen und die [Start]-Taste betätigen, um die Oberflächeneinstellung ausführen zu lassen.

4. Legen Sie das Original mit der Druckseite nach unten auf den Vorlageneinzug. Drücken Sie die Taste [Start] und führen Sie die Einstellungen für die Rückseite aus.
5. "OK" erscheint auf der Anzeige. Drücken Sie die Taste [Start], um die Einstellung abzuschließen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 2 und 4, bis "OK" angezeigt wird. Weitere Einzelheiten siehe Wartungsanleitung.

Regolazione automatica eseguita con l'originale]
Se non è presente l'autoregolazione originale DP
1. Impostare la modalità manutenzione U411, quindi premere [DP Auto Adj] per stampare l'originale da utilizzare per la regolazione.
2. Posizionare l'originale stampato sul vetro di appoggio e premere il tasto di [Avvio].
3. Posizionare l'originale sul DP rivolto verso l'alto e premere il tasto di [Avvio] per eseguire la regolazione della superficie.

4. Posizionare l'originale sull'alimentatore di documenti e premere il tasto [Avvio] per eseguire la regolazione del retro.
5. Quando sul display compare "OK", premere il tasto [Avvio] per completare la regolazione.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 2 e 4 fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

［通过调整用原稿进行自动调整］
没有 DP 调整用原稿时
1. 进入维修保养模式 U411，选择 [DP Auto Adj]，输出测试原稿。
2. 将输出的原稿放在稿台上，按 [开始] 键。
3. 将原稿面朝上放在 DP 主机上，按 [开始] 键以进行正面的调整。

4. 把原稿面朝下放置到 DP，按 [开始] 键，开始反面调整。
5. 显示屏上显示 "OK"，按 [开始] 键后，调整结束。
＊如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 2 和 4，直到 "OK"（完成）出现。
详细内容请参照维修手册。

［ 조정용 원고를 이용한 자동조정 ］
DP 조정용 원고가 없는 경우
1. 메인터넌스 모드 U411 을 설정하고 [DP Auto Adj] 를 눌러 조정된 원고를 출력합니다 .
2. 출력한 원고를 원고 유리에 장착하고 [복사 / 시작] 키를 누릅니다 .
3. 원고를 FaceUp 으로 DP 에 세트하고 [복사 / 시작] 키를 눌러 표면조정을 합니다 .

4. 원고를 FaceDown 으로 DP 에 세트하고 [복사 / 시작] 키를 눌러 뒷면 조정을 합니다 .
5. 디스플레이에 "OK" 가 나타나면 [복사 / 시작] 키를 눌러 조정을 완료합니다 .
＊ERROR XX 가 표시된 경우에는 조정실패입니다 . 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 2 ~ 4 를 반복합니다 .
상세는 서비스 매뉴얼을 참조 .

［ 調整用原稿による自動調整 ］
DP 調整用原稿が無い場合
1. メンテナンスモード U411 をセットし、[DP Auto Adj] を押し、原稿を出力する。
2. 出力した原稿をコンタクトガラス上にセットし、[スタート] キーを押す。
3. 原稿を FaceUp で DP へセットし、[スタート] キーを押し、表面の調整を行う。

4. 原稿を FaceDown で DP へセットし、[スタート] キーを押し、裏面の調整を行う。
5. ディスプレイに「OK」が表示され、[スタート] キーを押せば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、「OK」が表示されるまで手順 2 ～ 4 を繰り返す。
詳細はサービスマニュアルを参照のこと。

Using a DP auto adjustment original
1. Place the front side of the DP auto adjustment original so that the arrow mark appears facing up. Set it on the DP so the leading edge of the arrow mark is facing the DP feed direction.
2. Set the maintenance mode U411and press [DP FU(ChartB)] > the [Start] key in that order to carry out the front side adjustment.

3. If "OK" appears on the display, the adjustment is complete.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 1 and 2 until "OK" appears.
For details, see the service manual.

Avec la fonction réglage automatique d'original du DP
1. Placez le recto de l'original de réglage du chargeur de document de sorte que la flèche apparaisse sur la face vers le haut. Placez-le sur le chargeur de document de sorte que le bord de tête de la flèche soit orienté dans la direction d'alimentation du chargeur de document.
2. Passez en mode maintenance U411 et appuyez sur [DP FU(ChartB)] > touche [Départ] dans cet ordre pour effectuer le réglage du recto.

3. Si "OK" s'affiche sur l'écran, le réglage est terminé.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de l'original et recommencer les opérations 1 et 2 jusqu'à ce que le message "OK" apparaisse.
Pour plus de details, se reporter au manuel d'entretien.

Uso del original de ajuste automático del DP
1. Coloque el anverso del original de ajuste automático del alimentador de originales DP de modo que la marca de flecha esté hacia arriba. Colóquelo en el DP de modo que el borde anterior de la marca de flecha esté en la dirección de alimentación del DP.
2. Configure el modo de mantenimiento U411 y pulse [DP FU(ChartB)] > tecla [Inicio] en ese orden para llevar a cabo un ajuste del anverso.

3. Si aparece "OK" en la pantalla, el ajuste se ha completado.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 1 y 2 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

Gebrauch der automatischen Einstellung des Originals des DP
1. Legen Sie die Vorderseite des Originals für die automatische Einstellung des Vorlageneinzugs so ein, dass der Pfeil nach oben weist. Legen Sie das Original so in den Vorlageneinzug, dass die Pfeilspitze in die Einzugsrichtung des Vorlageneinzugs weist.
2. Aktivieren Sie den Wartungsmodus U411 und wählen Sie nacheinander [DP FU(ChartB)] > Taste [Start], um die Einstellungen für die Vorderseite vorzunehmen.

3. Wenn "OK" angezeigt wird, ist die Einstellung abgeschlossen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 1 und 2, bis "OK" angezeigt wird.
Weitere Einzelheiten siehe Wartungsanleitung.

Uso di un'autoregolazione originale DP
1. Posizionare la facciata anteriore dell'originale da utilizzare per la regolazione automatica dell'alimentatore documenti in modo che la freccia sia rivolta verso l'alto. Posizionarlo sull'alimentatore di documenti in modo che il bordo superiore della freccia sia orientato nella direzione di alimentazione dell'alimentatore di documenti.
2. Impostare la modalità manutenzione U411, quindi premere, nell'ordine, [DP FU(ChartB)] > tasto [Avvio] per eseguire la regolazione della facciata anteriore.

3. Se sul display compare "OK", la regolazione è completata.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 1 e 2 fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

使用 DP 自动调整用稿时
1. 把 DP 自动调整原稿的正面（有箭头的一面）向上，同时使箭头的前端方向对准 DP 的走纸方向。
2. 进入维修保养模式 U411，按照 [DP FU(ChartB)] ＞ [开始] 键的顺序按押，开始正面调整。

3. 如果显示屏显示 "OK"，则表示调整结束。
＊如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 1 和 2，直到 "OK"（完成）出现。
详细内容请参照维修手册。

DP 자동조정용 원고를 사용하는 경우
1. DP 자동 조정원고의 앞면의 화살표가 위로 향하게 세트합니다 . 화살표의 선단을 DP 피드방향으로 DP 에 세트합니다 .
2. 메인터넌스 모드 U411 을 설정하고 [DP FU(ChartB)] ＞ [복사 / 시작] 키를 눌러 앞면 조정을 수행합니다 .

3. 디스플레이에 "OK" 가 표시되면 조정완료가 됩니다 .
*ERROR XX 가 표시된 경우에는 조정실패입니다 . 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 1 ~ 2 를 반복합니다 .
상세는 서비스 매뉴얼을 참조 .

DP 自動調整原稿を使用する場合
1. DP 自動調整原稿の表面（矢印が書かれてる面）を上に向け、矢印の先端方向から DP にセットする。
2. メンテナンスモード U411 をセットし、[DP FU(ChartB)] ＞ [スタート] キーの順に押し、表面の調整を行う。

3. ディスプレイに「 OK 」が表示されれば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、「OK」が表示されるまで手順１～２を繰り返す。
詳細はサービスマニュアルを参照のこと。

4. After completing the adjustment of the front side, place the back side of the DP auto adjustment original so that the arrow mark appears facing down. Set it on the DP so the leading edge of the arrow mark is facing the DP feed direction.

5. Set the maintenance mode U411 and press [DP FD(ChartB)] > the [Start] key in that order to carry out the back side adjustment.

6. If "OK" appears on the display, the adjustment is complete.
* If ERROR XX appears, the adjustment failed. Check the original set position and repeat steps 4 and 5 until "OK" appears.
For details, see the service manual.

4. Après avoir terminé le réglage du verso, placez le recto de l'original de réglage du chargeur de document de sorte que la flèche apparaisse sur la face vers le bas. Placez-le sur le chargeur de document de sorte que le bord de tête de la flèche soit orienté dans la direction d'alimentation du chargeur de document.

5. Passez en mode maintenance U411 et appuyez sur [DP FD(ChartB)] > touche [Départ] dans cet ordre pour effectuer le réglage du verso.

6. Si "OK" s'affiche sur l'écran, le réglage est terminé.
* Si le message ERROR XX (erreur XX) s'affiche, le réglage a échoué. Vérifier la position de l'original et recommencer les opérations 4 et 5 jusqu'à ce que le message "OK" apparaisse.
Pour plus de détails, se reporter au manuel d'entretien.

4. Después de terminar el ajuste del anverso, coloque el reverso del original de ajuste automático del DP de modo que la marca de flecha esté hacia abajo. Colóquelo en el DP de modo que el borde anterior de la marca de flecha esté en la dirección de alimentación del DP.

5. Configure el modo de mantenimiento U411 y pulse [DP FD(ChartB)] > tecla [Inicio] en ese orden para llevar a cabo un ajuste del reverso.

6. Si aparece "OK" en la pantalla, el ajuste se ha completado.
* Si aparece ERROR XX, el ajuste ha fallado. Compruebe la posición ajustada del original y repita los pasos 4 y 5 hasta que aparezca "OK" en la pantalla.
Para mas detalles, lea el manual de servicio.

4. Nachdem Sie die Einstellung für die Vorderseite abgeschlossen haben, legen Sie die Rückseite des Originals für die automatische Einstellung des Vorlageneinzugs so ein, dass der Pfeil nach unten weist. Legen Sie das Original so in den Vorlageneinzug, dass die Pfeilspitze in die Einzugsrichtung des Vorlageneinzugs weist.

5. Aktivieren Sie den Wartungsmodus U411 und wählen Sie nacheinander [DP FD(ChartB)] > Taste [Start], um die Einstellungen für die Rückseite vorzunehmen.

6. Wenn "OK" angezeigt wird, ist die Einstellung abgeschlossen.
* Wenn ERROR XX (FEHLER XX) angezeigt wird, ist die Einstellung fehlgeschlagen. Überprüfen Sie die Originalpositionierung und wiederholen Sie Schritte 4 und 5, bis "OK" angezeigt wird.
Weitere Einzelheiten siehe Wartungsanleitung.

4. Dopo aver completato la regolazione della facciata anteriore, posizionare il retro dell'originale da utilizzare per la regolazione automatica dell'alimentatore di documenti in modo che la freccia sia rivolta verso il basso. Posizionarlo sull'alimentatore di documenti in modo che il bordo superiore della freccia sia orientato nella direzione di alimentazione dell'alimentatore di documenti.

5. Impostare la modalità manutenzione U411, quindi premere, nell'ordine, [DP FD(ChartB)] > tasto [Avvio] per eseguire la regolazione del retro.

6. Se sul display compare "OK", la regolazione è completata.
* Se compare ERROR XX (ERRORE XX), la regolazione non è riuscita. Verificare la posizione di impostazione dell'originale e ripetere le operazioni 4 e 5 fino a quando appare "OK".
Per ulteriori dettagli leggere il manuale d'istruzioni.

4. 正面的调整结束后，把 DP 自动调整原稿的反面（有箭头的一面）向下，同时使箭头的前端方向对准 DP 的走纸方向。
5. 进入维修保养模式 U411，按照 [DP FD(ChartB)] ＞ [开始] 键的顺序按压，开始反面调整。

6. 如果显示屏显示 "OK"，则表示调整结束。
＊如果出现 ERROR XX（错误 XX），则表示调整失败。检查原稿设定位置并重复步骤 4 和 5，直到 "OK"（完成）出现。
详细内容请参照维修手册。

4. 앞면 조정이 완료되면 화살표가 아래로 향하게 세트합니다 . 화살표의 선단을 DP 피드방향으로 DP 에 세트합니다 .
5. 메인터넌스 모드 U411 을 설정하고 [DP FD(ChartB)] ＞ [복사 / 시작] 키를 눌러 뒷면 조정을 수행합니다 .

6. 디스플레이에 "OK" 가 표시되면 조정완료가 됩니다 .
＊ ERROR XX 가 표시된 경우에는 조정실패입니다 . 원고 장착위치를 확인하고 "OK" 가 표시될 때까지 순서 4 ~ 5 를 반복합니다 .
상세는 서비스 매뉴얼을 참조

4. 表面の調整完了後、DP 自動調整原稿の裏面（矢印が書かれている面）を下に向け、矢印の先端方向から DP にセットする。
5. メンテナンスモード U411 をセットし、[DP FD(ChartB)] ＞ [スタート] キーの順に押し、裏面の調整を行う。

6. ディスプレイに「OK」が表示されれば調整完了となる。
※ERROR XX が表示された場合は調整失敗である。原稿のセット位置を確認し、「OK」が表示されるまで手順 4 ～ 5 を繰り返す。
詳細はサービスマニュアルを参照のこと。

DF-5100

(Inner Finisher)

Installation Guide

(a)   **(b)**

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4. Set the maintenance mode U246 and select [Finisher] > [Staple HP].
5. Adjust the values.
If the paper is stapled too close to the front of the machine (a): Increase the setting value.
If the paper is stapled too close to the rear of the machine (b): Decrease the setting value.
Amount of change per step: 0.19 mm

6. Press the [Start] key to confirm the setting value.
7. Perform a test copy.
8. Repeat steps 4 to 7 until the staple position is within the reference value.
<Reference value> 60.0 mm ± 2.0 mm from the center of the paper

---

4. Passez en mode maintenance U246 et sélectionnez [Finisher] > [Staple HP].
5. Régler les valeurs.
Si le papier est agrafé trop près de l'avant de la machine (a): augmenter la valeur de réglage.
Si le papier est agrafé trop près de l'arrière de la machine (b): réduire la valeur de réglage.
Changement par graduation d'échelle : 0,19 mm

6. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
7. Effectuer une copie de test.
8. Recommencer les étapes 4 à 7 jusqu'à ce que la position d'agrafe soit conforme à la valeur de référence.
<Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

---

4. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Staple HP].
5. Ajuste los valores.
Si el grapado del papel se encuentra demasiado cerca del frente de la máquina (a): aumente el valor de configuración.
Si el grapado del papel se encuentra demasiado cerca de la parte posterior de la máquina (b): disminuya el valor de configuración.
Magnitud del cambio por incremento: 0,19 mm

6. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
7. Haga una copia de prueba.
8. Repita los pasos 4 a 7 hasta que la posición de grapado se encuentre dentro del valor de referencia.
<Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

---

4. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Staple HP].
5. Die Werte einstellen.
Falls das Papier zu nahe am vorderen Rand des Geräts (a) abgestapelt wird: Vergrößern Sie den Stellwert.
Falls das Papier zu nahe am hinteren Rand des Geräts (b) abgestapelt wird: Verkleinern Sie den Stellwert.
Änderung pro Schritt: 0,19 mm

6. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
7. Eine Testkopie erstellen.
8. Wiederholen Sie die Schritte 4 bis 7, bis die Heftposition im Bereich des Bezugswerts liegt.
<Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

---

4. Impostare la modalità manutenzione U246, quindi selezionare [Finisher] > [Staple HP].
5. Regolare i valori.
Se il foglio viene spillato troppo vicino alla parte anteriore della macchina (a): Aumentare il valore di impostazione.
Se il foglio viene spillato troppo vicino alla parte posteriore della macchina (b): Diminuire il valore di impostazione.
Entità modifica per passo: 0,19 mm

6. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
7. Eseguire una copia di prova.
8. Ripetere i passi 4 to 7 finché la posizione di spillatura risulta all'interno del valore di riferimento.
<Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

---

4. 进入维修保养模式 U246，把 [Finisher]>[Staple HP] 。
5. 调整设定值。
装订位置向机器前部偏移时 (a)：调高设定值。
装订位置向机器后部偏移时 (b)：调低设定值。
设定值的一个调整单位变化量：0.19mm

6. 按 [开始] 键，以确定设定值。
7. 进行测试复印。
8. 重复步骤 4 ～ 7，直到装订位置在基准范围内为止。
　＜基准值＞ 距离纸张中心 60.0mm±2.0mm

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4. 메인터넌스 모드 U246 을 설정하고 [Finisher] > [Staple HP] 를 선택합니다 .
5. 설정치를 조정합니다 .
스테이플 위치가 기기앞측으로 벗어난 경우 (a):설정치를 높입니다 .
스테이플 위치가 기기뒷측으로 벗어난 경우 (b):설정치를 낮춥니다 .
1 스텝당 변화량:0.19mm

6. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
7. 시험복사를 합니다 .
8. 스테이플 위치가 기준치내가 될 때까지 순서 4 ～ 7 을 반복합니다 .
　＜기준치＞ 용지 센터에서 60.0mm±2.0mm

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4. メンテナンスモード U246 をセットし、[Finisher] > [Staple HP] を選択する。
5. 設定値を調整する。
ステープル位置が機械前側にずれている場合 (a):設定値を上げる。
ステープル位置が機械後側にずれている場合 (b):設定値を下げる。
1 ステップ当たりの変化量:0.19㎜

6. [スタート] キーを押し、設定値を確定する。
7. テストコピーを行う。
8. ステープル位置が基準値内になるまで、手順 4 ～ 7 を繰り返す。
　＜基準値＞ 用紙センターより 60.0㎜±2.0㎜

DF-5100

A   C
B (M3x8)   D

①

OFF

②

③

④

⑤

A

⑥

B (M3x8)

2015. 5
303PX56710-01

303PX5671001

⑦

⑧

C

B (M3x8)

⑨

D

⑩

⑪

ON

60.0mm±2.0mm (120mm)

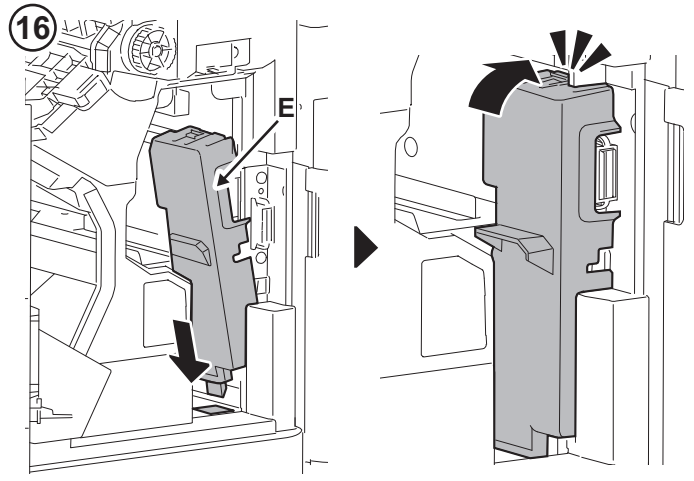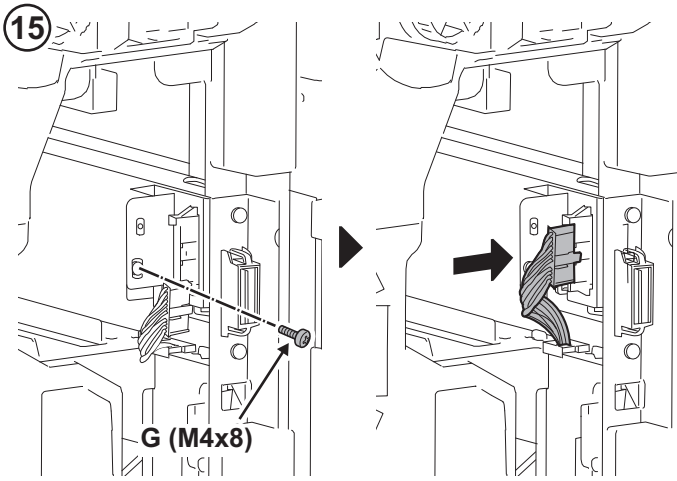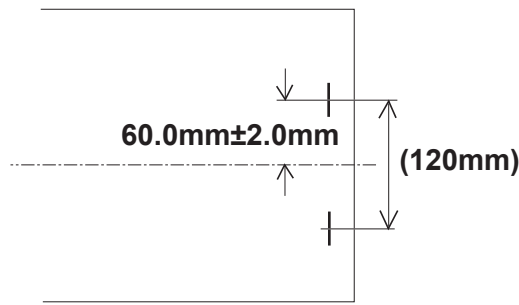**Adjusting the stapling position**

1. Connect the machine power plug to the wall outlet and turn the machine main power switch on.
2. Make a test copy using staple mode (double stapled).
3. Check whether the stapling position is off-center.If the staple position is off-center, follow the procedure below to adjust the position.
   <Reference value> 60.0 mm ± 2.0 mm from the center of the paper

Ajustement de la position d'agrafage

1. Insérer la fiche d'alimentation de la machine dans la prise murale et mettre la machine sous tension.
2. Procéder à une copie d'essai en mode agrafage (double agrafage).
3. Vérifier que la position d'agrafage n'est pas en décalage. Si la position d'agrafage est décalée, la régler en procédant de la manière suivante.
   <Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

Ajuste de la posición de grapado

1. Conecte el enchufe de la máquina al receptáculo de pared y encienda el interruptor principal de la máquina.
2. Haga una copia de prueba en el modo de grapado (grapado doble).
3. Compruebe si la posición de grapado está descentrada. Si la posición de grapado está descentrada, realice el siguiente procedimiento para ajustar la posición.
   <Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

Justage der Heftposition

1. Stecken Sie den Netzstecker des Geräts in die Wandsteckdose und schalten Sie das Gerät am Gauptschalter ein.
2. Erstellen Sie eine Probekopie im Heftmodus (doppelt geheftet).
3. Prüfen Sie, ob die Heftposition außermittig ist. Falls die Heftposition außermittig ist, müssen Sie sie wie folgend einstellen.
   <Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

Regolazione della posizione di pinzatura

1. Collegare la spina alla presa di corrente a muro e accendere l'interruttore di alimentazione della macchina.
2. Eseguire una copia di prova utilizzando la modalità di spillatura con punti metallici (spillatura doppia).
3. Verificare che la posizione di spillatura non sia fuori centro. Se la posizione di spillatura è fuori centro, seguire la procedura riportata sotto per regolare la posizione.
   <Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

调节装订位置

1. 将机器上的电源插头插入电源插座中，打开主电源开关。
2. 在装订模式（2 点固定）下进行测试复印。
3. 确认装订位置的中心偏差。装订位置偏离中心时，按以下步骤进行调节。
   ＜基准值＞ 距离纸张中心 60.0mm±2.0mm

스테이플 위치 조정

1. 본체 전원플러그를 콘센트에 꽂고 주 전원 스위치를 ON 으로 합니다 .
2. 스테이플 모드 (2 곳) 에서 시험복사를 합니다 .
3. 스테이플 위치의 센터 어긋남을 확인합니다 . 스테이플 위치가 중심에서 벗어난 경우 , 다음 순서로 조정을 합니다 .
   ＜기준치 > 용지 센터에서 60.0mm±2.0mm

ステーブル位置の調整

1. 機械本体の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
2. ステープルモード（2 箇所止め）でテストコピーを行う。
3. ステープル位置のセンターずれを確認する。ステープル位置が中心からずれていた場合、次の手順で調整を行う。
   ＜基準値＞ 用紙センターより 60.0mm±2.0mm

DF-5110

(1000 sheets Finisher)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG
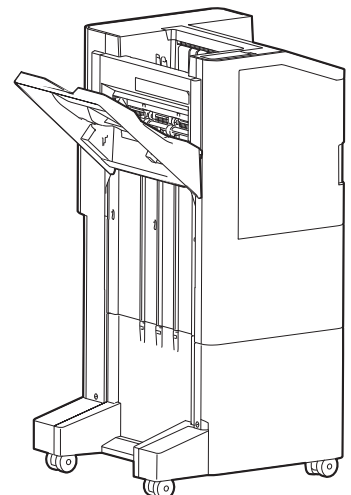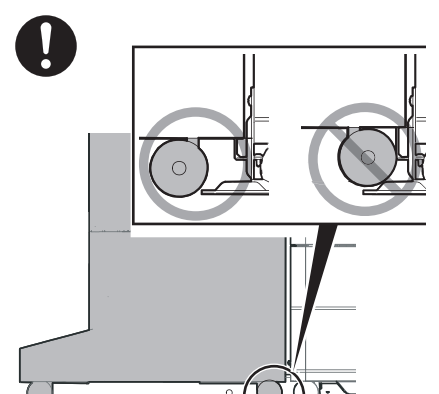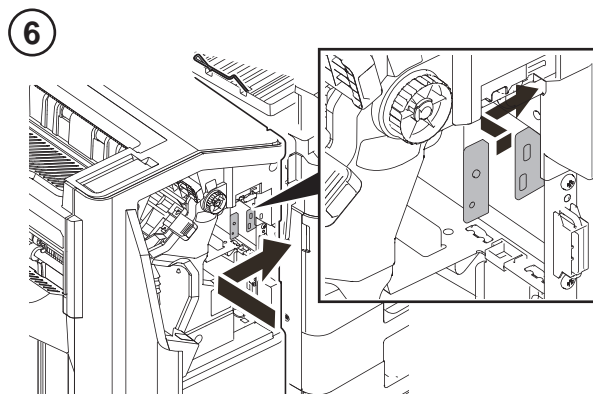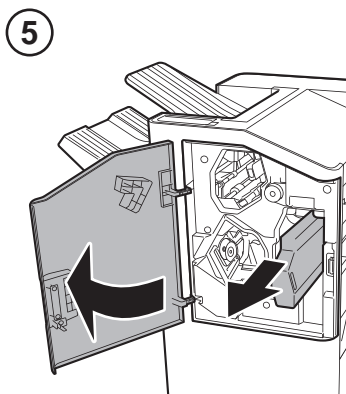
GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

DF-5110

A   B   E   H

C   D

F (M3x16)

G (M4x8)

① OFF

② C

F (M3x16)

③ A

D

G (M4x8)

④ A

⑤

⑥

1

⑦

15

8

⑧

⑨

11   10

⑩

⑪

⑫

⑬

⑭

⑮ G (M4x8)

⑯ E

⑰ B

⑱ H

⑲ ON

60.0mm±2.0mm (120mm)

Adjusting the stapling position
1. Connect the machine power plug to the wall outlet and turn the machine main power switch on.
2. Make a test copy using staple mode (double stapled).
3. Check whether the stapling position is off-center.If the staple position is off-center, follow the procedure below to adjust the position.
   <Reference value> 60.0 mm ± 2.0 mm from the center of the paper

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Français

Ajustement de la position d'agrafage
1. Insérer la fiche d'alimentation de la machine dans la prise murale et mettre la machine sous tension.
2. Procéder à une copie d'essai en mode agrafage (double agrafage).
3. Vérifier que la position d'agrafage n'est pas en décalage. Si la position d'agrafage est décalée, la régler en procédant de la manière suivante.
   <Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

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Español

Ajuste de la posición de grapado
1. Conecte el enchufe de la máquina al receptáculo de pared y encienda el interruptor principal de la máquina.
2. Haga una copia de prueba en el modo de grapado (grapado doble).
3. Compruebe si la posición de grapado está descentrada. Si la posición de grapado está descentrada, realice el siguiente procedimiento para ajustar la posición.
   <Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

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Deutsch

Justage der Heftposition
1. Stecken Sie den Netzstecker des Geräts in die Wandsteckdose und schalten Sie das Gerät am Gauptschalter ein.
2. Erstellen Sie eine Probekopie im Heftmodus (doppelt geheftet).
3. Prüfen Sie, ob die Heftposition außermittig ist. Falls die Heftposition außermittig ist, müssen Sie sie wie folgend einstellen.
   <Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

Italiano

Regolazione della posizione di pinzatura
1. Collegare la spina alla presa di corrente a muro e accendere l'interruttore di alimentazione della macchina.
2. Eseguire una copia di prova utilizzando la modalità di spillatura con punti metallici (spillatura doppia).
3. Verificare che la posizione di spillatura non sia fuori centro. Se la posizione di spillatura è fuori centro, seguire la procedura riportata sotto per regolare la posizione.
   <Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

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简体中文

调节装订位置
1. 将机器上的电源插头插入电源插座中，打开主电源开关。
2. 在装订模式（2 点固定）下进行测试复印。
3. 确认装订位置的中心偏差。 装订位置偏离中心时，按以下步骤进行调节。
   ＜基准值＞ 距离纸张中心 60.0mm±2.0mm

한국어

스테이플 위치 조정
1. 본체 전원플러그를 콘센트에 꽂고 주 전원 스위치를 ON 으로 합니다 .
2. 스테이플 모드 (2 곳) 에서 시험복사를 합니다 .
3. 스테이플 위치의 센터 어긋남을 확인합니다 . 스테이플 위치가 중심에서 벗어난 경우 , 다음 순서로 조정을 합니다 .
   < 기준치 > 용지 센터에서 60.0mm±2.0mm

日本語

ステープル位置の調整
1. 機械本体の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
2. ステープルモード (2 箇所止め) でテストコピーを行う。
3. ステープル位置のセンターずれを確認する。ステープル位置が中心からずれていた場合、次の手順で調整を行う。
   ＜基準値＞ 用紙センターより 60.0mm±2.0mm

(a)   **(b)**

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4. Set the maintenance mode U246 and select [Finisher] > [Staple HP].
5. Adjust the values.
   If the paper is stapled too close to the front of the machine (a): Increase the setting value.
   If the paper is stapled too close to the rear of the machine (b): Decrease the setting value.
   Amount of change per step: 0.19 mm

6. Press the [Start] key to confirm the setting value.
7. Perform a test copy.
8. Repeat steps 4 to 7 until the staple position is within the reference value.
   <Reference value> 60.0 mm ± 2.0 mm from the center of the paper

---

4. Passez en mode maintenance U246 et sélectionnez [Finisher] > [Staple HP].
5. Régler les valeurs.
   Si le papier est agrafé trop près de l'avant de la machine (a): augmenter la valeur de réglage.
   Si le papier est agrafé trop près de l'arrière de la machine (b): réduire la valeur de réglage.
   Changement par graduation d'échelle : 0,19 mm

6. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
7. Effectuer une copie de test.
8. Recommencer les étapes 4 à 7 jusqu'à ce que la position d'agrafe soit conforme à la valeur de référence.
   <Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

---

4. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Staple HP].
5. Ajuste los valores.
   Si el grapado del papel se encuentra demasiado cerca del frente de la máquina (a): aumente el valor de configuración.
   Si el grapado del papel se encuentra demasiado cerca de la parte posterior de la máquina (b): disminuya el valor de configuración.
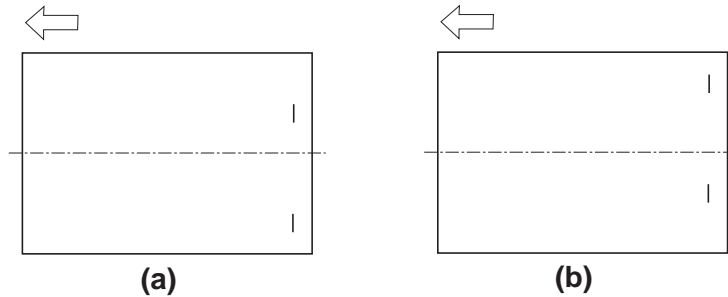   Magnitud del cambio por incremento: 0,19 mm

6. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
7. Haga una copia de prueba.
8. Repita los pasos 4 a 7 hasta que la posición de grapado se encuentre dentro del valor de referencia.
   <Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

---

4. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Staple HP].
5. Die Werte einstellen.
   Falls das Papier zu nahe am vorderen Rand des Geräts (a) abgestapelt wird: Vergrößern Sie den Stellwert.
   Falls das Papier zu nahe am hinteren Rand des Geräts (b) abgestapelt wird: Verkleinern Sie den Stellwert.
   Änderung pro Schritt: 0,19 mm

6. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
7. Eine Testkopie erstellen.
8. Wiederholen Sie die Schritte 4 bis 7, bis die Heftposition im Bereich des Bezugswerts liegt.
   <Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

---

4. Impostare la modalità manutenzione U246, quindi selezionare [Finisher] > [Staple HP].
5. Regolare i valori.
   Se il foglio viene spillato troppo vicino alla parte anteriore della macchina (a): Aumentare il valore di impostazione.
   Se il foglio viene spillato troppo vicino alla parte posteriore della macchina (b): Diminuire il valore di impostazione.
   Entità modifica per passo: 0,19 mm

6. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
7. Eseguire una copia di prova.
8. Ripetere i passi 4 to 7 finché la posizione di spillatura risulta all'interno del valore di riferimento.
   <Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

---

4. 进入维修保养模式 U246，把 [Finisher]>[Staple HP] 。
5. 调整设定值。
   装订位置向机器前部偏移时 (a)：调高设定值。
   装订位置向机器后部偏移时 (b)：调低设定值。
   设定值的一个调整单位变化量：0.19㎜

6. 按 [开始] 键，以确定设定值。
7. 进行测试复印。
8. 重复步骤 4 ～ 7，直到装订位置在基准范围内为止。
   ＜基准值＞ 距离纸张中心 60.0㎜±2.0㎜

---

4. 메인터넌스 모드 U246 을 설정하고 [Finisher] > [Staple HP] 를 선택합니다 .
5. 설정치를 조정합니다 .
   스테이플 위치가 기기앞측으로 벗어난 경우 (a):설정치를 높입니다 .
   스테이플 위치가 기기뒷측으로 벗어난 경우 (b):설정치를 낮춥니다 .
   1 스텝당 변화량:0.19mm

6. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
7. 시험복사를 합니다 .
8. 스테이플 위치가 기준치내가 될 때까지 순서 4 ～ 7 을 반복합니다 .
   <기준치 > 용지 센터에서 60.0mm±2.0mm

---

4. メンテナンスモード U246 をセットし、[Finisher] > [Staple HP] を選択する。
5. 設定値を調整する。
   ステープル位置が機械前側にずれている場合 (a):設定値を上げる。
   ステープル位置が機械後側にずれている場合 (b):設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜

6. [スタート] キーを押し、設定値を確定する。
7. テストコピーを行う。
8. ステープル位置が基準値内になるまで、手順 4 ～ 7 を繰り返す。
   ＜基準値＞ 用紙センターより 60.0㎜±2.0㎜

DF-5120

(3000 sheets Finisher)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

DF-5120

A

B E H

C D F (M3x16) I

G (M4x8)

1

OFF

2

C

F (M3x16)

3

A

D

G (M4x8)

4

A

5

6

!

1

⑦ ⑧ ⑯ ⑧

⑨ ⑪ ⑩

⑩

⑪

⑫

⑬

⑭

⑮

⑯

G (M4x8)

⑰

E

⑱

B

⑲

H

⑳

I

❶

❷

㉑

ON

60.0mm±3.0 **120mm±3.0**

Adjusting the stapling position
1. Connect the machine power plug to the wall outlet and turn the machine main power switch on.
2. Make a test copy using staple mode (double stapled).
3. Check whether the stapling position is off-center.If the staple position is off-center, follow the procedure below to adjust the position.
   <Reference value> 60.0 mm ± 2.0 mm from the center of the paper

Français

Ajustement de la position d'agrafage
1. Insérer la fiche d'alimentation de la machine dans la prise murale et mettre la machine sous tension.
2. Procéder à une copie d'essai en mode agrafage (double agrafage).
3. Vérifier que la position d'agrafage n'est pas en décalage. Si la position d'agrafage est décalée, la régler en procédant de la manière suivante.
   <Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

Español

Ajuste de la posición de grapado
1. Conecte el enchufe de la máquina al receptáculo de pared y encienda el interruptor principal de la máquina.
2. Haga una copia de prueba en el modo de grapado (grapado doble).
3. Compruebe si la posición de grapado está descentrada. Si la posición de grapado está descentrada, realice el siguiente procedimiento para ajustar la posición.
   <Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

Deutsch

Justage der Heftposition
1. Stecken Sie den Netzstecker des Geräts in die Wandsteckdose und schalten Sie das Gerät am Gauptschalter ein.
2. Erstellen Sie eine Probekopie im Heftmodus (doppelt geheftet).
3. Prüfen Sie, ob die Heftposition außermittig ist. Falls die Heftposition außermittig ist, müssen Sie sie wie folgend einstellen.
   <Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

Italiano

Regolazione della posizione di pinzatura
1. Collegare la spina alla presa di corrente a muro e accendere l'interruttore di alimentazione della macchina.
2. Eseguire una copia di prova utilizzando la modalità di spillatura con punti metallici (spillatura doppia).
3. Verificare che la posizione di spillatura non sia fuori centro. Se la posizione di spillatura è fuori centro, seguire la procedura riportata sotto per regolare la posizione.
   <Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

简体中文

调节装订位置
1. 将机器上的电源插头插入电源插座中，打开主电源开关。
2. 在装订模式（2 点固定）下进行测试复印。
3. 确认装订位置的中心偏差。装订位置偏离中心时，按以下步骤进行调节。
   ＜基准值＞ 距离纸张中心 60.0㎜±2.0㎜

한국어

스테이플 위치 조정
1. 본체 전원플러그를 콘센트에 꽂고 주 전원 스위치를 ON 으로 합니다 .
2. 스테이플 모드 (2 곳) 에서 시험복사를 합니다 .
3. 스테이플 위치의 센터 어긋남을 확인합니다 . 스테이플 위치가 중심에서 벗어난 경우 , 다음 순서로 조정을 합니다 .
   < 기준치 > 용지 센터에서 60.0mm±2.0mm

日本語

ステープル位置の調整
1. 機械本体の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
2. ステープルモード (2 箇所止め) でテストコピーを行う。
3. ステープル位置のセンターずれを確認する。ステープル位置が中心からずれていた場合、次の手順で調整を行う。
   ＜基準値＞ 用紙センターより 60.0㎜±2.0㎜

(a)   **(b)**

4. Set the maintenance mode U246 and select [Finisher] > [Staple HP].
5. Adjust the values.
   If the paper is stapled too close to the front of the machine (a): Increase the setting value.
   If the paper is stapled too close to the rear of the machine (b): Decrease the setting value.
   Amount of change per step: 0.19 mm

6. Press the [Start] key to confirm the setting value.
7. Perform a test copy.
8. Repeat steps 4 to 7 until the staple position is within the reference value.
   <Reference value> 60.0 mm ± 2.0 mm from the center of the paper

4. Passez en mode maintenance U246 et sélectionnez [Finisher] > [Staple HP].
5. Régler les valeurs.
   Si le papier est agrafé trop près de l'avant de la machine (a): augmenter la valeur de réglage.
   Si le papier est agrafé trop près de l'arrière de la machine (b): réduire la valeur de réglage.
   Changement par graduation d'échelle : 0,19 mm

6. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
7. Effectuer une copie de test.
8. Recommencer les étapes 4 à 7 jusqu'à ce que la position d'agrafe soit conforme à la valeur de référence.
   <Valeur de référence> 60,0 mm ± 2,0 mm depuis le milieu de la feuille de papier

4. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Staple HP].
5. Ajuste los valores.
   Si el grapado del papel se encuentra demasiado cerca del frente de la máquina (a): aumente el valor de configuración.
   Si el grapado del papel se encuentra demasiado cerca de la parte posterior de la máquina (b): disminuya el valor de configuración.
   Magnitud del cambio por incremento: 0,19 mm

6. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
7. Haga una copia de prueba.
8. Repita los pasos 4 a 7 hasta que la posición de grapado se encuentre dentro del valor de referencia.
   <Valor de referencia> 60,0 mm ± 2,0 mm del centro del papel

4. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Staple HP].
5. Die Werte einstellen.
   Falls das Papier zu nahe am vorderen Rand des Geräts (a) abgestapelt wird: Vergrößern Sie den Stellwert.
   Falls das Papier zu nahe am hinteren Rand des Geräts (b) abgestapelt wird: Verkleinern Sie den Stellwert.
   Änderung pro Schritt: 0,19 mm

6. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
7. Eine Testkopie erstellen.
8. Wiederholen Sie die Schritte 4 bis 7, bis die Heftposition im Bereich des Bezugswerts liegt.
   <Bezugswert> 60,0 mm ± 2,0 mm von der Blattmitte

4. Impostare la modalità manutenzione U246, quindi selezionare [Finisher] > [Staple HP].
5. Regolare i valori.
   Se il foglio viene spillato troppo vicino alla parte anteriore della macchina (a): Aumentare il valore di impostazione.
   Se il foglio viene spillato troppo vicino alla parte posteriore della macchina (b): Diminuire il valore di impostazione.
   Entità modifica per passo: 0,19 mm

6. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
7. Eseguire una copia di prova.
8. Ripetere i passi 4 to 7 finché la posizione di spillatura risulta all'interno del valore di riferimento.
   <Valore di riferimento> 60,0 mm ± 2,0 mm dal centro del foglio

4. 进入维修保养模式 U246，把 [Finisher]>[Staple HP] 。
5. 调整设定值。
   装订位置向机器前部偏移时 (a)：调高设定值。
   装订位置向机器后部偏移时 (b)：调低设定值。
   设定值的一个调整单位变化量：0.19㎜

6. 按 [开始] 键，以确定设定值。
7. 进行测试复印。
8. 重复步骤 4 ～ 7，直到装订位置在基准范围内为止。
   ＜基准值＞ 距离纸张中心 60.0㎜±2.0㎜

4. 메인터넌스 모드 U246 을 설정하고 [Finisher] > [Staple HP] 를 선택합니다 .
5. 설정치를 조정합니다 .
   스테이플 위치가 기기앞측으로 벗어난 경우 (a):설정치를 높입니다 .
   스테이플 위치가 기기뒷측으로 벗어난 경우 (b):설정치를 낮춥니다 .
   1 스텝당 변화량:0.19mm

6. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
7. 시험복사를 합니다 .
8. 스테이플 위치가 기준치내가 될 때까지 순서 4 ~ 7 을 반복합니다 .
   <기준치 > 용지 센터에서 60.0mm±2.0mm

4. メンテナンスモード U246 をセットし、[Finisher] > [Staple HP] を選択する。
5. 設定値を調整する。
   ステープル位置が機械前側にずれている場合 (a):設定値を上げる。
   ステープル位置が機械後側にずれている場合 (b):設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜

6. [スタート] キーを押し、設定値を確定する。
7. テストコピーを行う。
8. ステープル位置が基準値内になるまで、手順 4 ～ 7 を繰り返す。
   ＜基準値＞ 用紙センターより 60.0㎜±2.0㎜

[Adjusting the hole punch position]
  1. Connect the MFP power plug to the wall outlet and turn the MFP main power switch on.
  2. Make a test copy in punch mode.
  3. If any off-centering is observed, follow the procedure below to adjust the hole position.
  (For the referrence value, refer to each adjustment content.)

[Réglage de la position des perforations]
  1. Insérer la fiche d'alimentation du MFP dans la prise murale et mettre l'interrupteur principal du MFP sous tension.
  2. Effectuer une copie d'essai en mode perforation.
  3. Si les perforations sont décentrées, suivre la procédure ci-dessous pour ajuster la position de perforation.
  (Pour la valeur de référence, se reporter à chaque contenu d'ajustement.)

[Ajuste de la posición de perforación]
  1. Conecte el enchufe del MFP en el receptáculo de pared y encienda el interruptor principal del MFP.
  2. Haga una copia de prueba en el modo de perforación.
  3. Si observa descentrado, siga el procedimiento de abajo para ajustar la posición del agujero.
  (Para información sobre el valor de referencia, consulte el contenido de cada ajuste.)

[Einstellen der Lochungsposition]
  1. Stecken Sie den Netzstecker des MFP in die Wandsteckdose und schalten Sie den MFP am Hauptschalter ein.
  2. Eine Testkopie im Lochungsmodus erstellen.
  3. Falls eine außermittige Lochung erfolgte, ist die Lochungsposition wie folgend nachzustellen.
  (Den Referenzwert finden Sie im jeweiligen Einstellungsabschnitt.)

[Regolazione di posizione dei fori di perforazione]
  1. Collegare la spina del cavo di alimentazione dell'MFP alla presa a muro della rete elettrica e accendere l'interruttore principale di alimentazione.
  2. Eseguire una copia di prova in modalità di perforazione.
  3. Nel caso in cui non lo siano, eseguire la procedura indicata qui di seguito per regolarne la posizione.
  (Per informazioni sul valore di riferimento vedere il contenuto di ogni regolazione.)

［打孔位置的调节］
  1. 将 MFP 主机上的电源插头插入电源插座中，打开主电源开关。
  2. 在打孔模式下进行测试复印。
  3. 打孔位置有偏差时，按以下步骤进行调节。
  （标准值请参照各调整内容。）

［펀치위치의 조정］
  1. MFP 본체 전원플러그를 콘센트에 꽂고 주 전원 스위치를 ON 으로 합니다 .
  2. 펀치모드에서 시험복사를 합니다 .
  3. 펀치위치가 벗어난 경우에는 다음 순서로 조정합니다 .
  (기준 값에 대해서는 각 조정 내용을 참조하십시오 .)

［パンチ位置の調整］
  1. MFP 本体の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
  2. パンチモードでテストコピーを行う。
  3. パンチ位置がずれていた場合、次の手順で調整を行う。
  （基準値は、各調整内容を参照のこと。）

---

a   b

Adjusting the hole punch entry registration
1.Set the maintenance mode U246 and select [Finisher] > [Punch Regist].
2.Adjust the values.
  When the paper fed in skewed copy example (a): Increase the setting value.
  When the paper crimped copy example (b): Decrease the setting value.
  Amount of change per step: 0.19mm
3.Press the [Start] key to confirm the setting value.

Réglage de l'enregistrement de l'entrée des perforations
1.Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Regist].
2.Régler les valeurs.
  Si le papier est alimenté de travers exemple de copie (a): Augmentez la valeur de réglage.
  Si le papier est froissé exemple de copie (b): Diminuez la valeur de réglage.
  Changement par graduation d'échelle: 0,19mm
3.Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.

Ajuste del registro de entrada de perforación
1.Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Regist].
2.Ajuste los valores.
  Cuando el papel alimentado está torcido copia de muestra (a): Aumente el valor de configuración.
  Cuando el papel se dobló copia de muestra (b): Reduzca el valor de configuración.
  Magnitud del cambio por incremento: 0,19mm
3.Pulse la tecla de [Inicio] para confirmar el valor de configuración.

Einstellen der Lochungsregistrierung
1.Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Regist].
2.Die Werte einstellen.
  Wenn Papier verkantet eingezogen wird Kopiebeispiel (a): Den Einstellwert erhöhen.
  Wenn Papier verknittert wird Kopiebeispiel (b): Den Einstellwert verringern.
  Änderung pro Schritt: 0,19mm
3.Den Einstellwert durch Drücken der [Start]-Taste bestätigen.

Regolazione del registro del foro di perforazione
1.Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Regist].
2.Regolare i valori.
  Quando l'alimentazione della carta risulta obliqua esempio di copia (a): Aumentare il valore dell'impostazione.
  Quando la carta risulta increspata esempio di copia (b): Diminuire il valore dell'impostazione.
  Entità modifica per passo: 0,19mm
3.Premere il tasto di [Avvio] per confermare il valore dell'impostazione.

打孔装入定位调节
1. 进入维修保养模式 U246，把 [Finisher] > [Punch Regist]。
2. 调整设定值。
  纸张斜向搬运时的复印样本 (a)：调高设定值。
  纸张作 Z 字折时的复印样本 (b)：调低设定值。
  设定值的一个调整单位变化量：0.19㎜
3. 按 [开始] 键，以确定设定值。

펀치반입 레지스트 조정
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Regist] 를 선택합니다 .
2. 설정치를 조정합니다 .
  용지가 기울어져서 반송되는 경우의 복사샘플 (a)：설정치를 높입니다 .
  용지가 Z 꺾임이 있는 경우 복사샘플 (b)：설정치를 내립니다 .
  1 스텝당 변화량：0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .

パンチ搬入レジスト調整
1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Regist] を選択する。
2. 設定値を調整する。
  用紙が斜めに搬送される場合コピーサンプル (a)：設定値を上げる。
  用紙が Z 折れする場合コピーサンプル (b)：設定値を下げる。
  1 ステップ当たりの変化量：0.19㎜
3. [スタート] キーを押し、設定値を確定する。

Adjusting the hole punch position feed

1. Set the maintenance mode U246 and select [Finisher] > [Punch Feed].
2. Adjust the values.
   If the punch hole position is closer to the edge than the reference value (c): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (c): Decrease the setting value.
   Amount of change per step: 0.52mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (c)>
   Metric specification: 13.0mm ±2mm
   Inch specification: 9.5mm ±2mm (0.37" ± 0.08")

Réglage de la position du point de perforation

1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Feed].
2. Régler les valeurs.
   Si la perforation est plus proche du bord de la feuille que défini par la valeur de référence (c): Augmentez la valeur de réglage.
   Si la perforation est plus loin du bord de la feuille que défini par la valeur de référence (c): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,52mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (c)>
   Spécifications métriques: 13,0mm ±2mm
   Spécifications en pouces: 9,5mm ±2mm (0,37" ± 0,08")

Ajuste de la alimentación de la posición de perforación

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Feed].
2. Ajuste los valores.
   Si la posición de perforación está más cerca del borde que el valor de referencia (c): Aumente el valor de configuración.
   Si la posición de perforación está más alejada del borde que el valor de referencia (c): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,52mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (c)>
   Sistema métrico: 13,0mm ±2mm
   En pulgadas: 9,5mm ±2mm (0,37" ± 0,08")

Einstellen des Transports der Lochungsposition

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Feed].
2. Die Werte einstellen.
   Falls die Lochungsposition näher an der Kante liegt als der Bezugswert (c) erlaubt: Den Einstellwert erhöhen.
   Falls die Lochungsposition ferner von der Kante liegt als der Bezugswert (c) erlaubt: Den Einstellwert verringern. Änderung pro Schritt: 0,52 mm
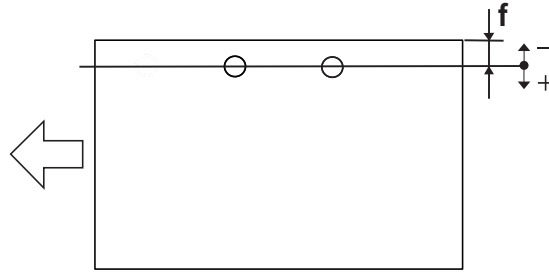3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (c)>
   Metrischer Abstand: 13,0mm ±2mm
   Abstand in Zoll: 9,5mm ±2mm (0,37" ± 0,08")

Regolazione spostamento di posizione dei fori di perforazione

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Feed].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è più vicina al bordo rispetto al valore di riferimento (c): Aumentare il valore dell'impostazione.
   Se la posizione dei fori di perforazione è più lontana dal bordo rispetto al valore di riferimento (c): Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,52 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (c)>
   Specificazione in unità metrica: 13,0mm ±2mm
   Specificazione in pollici: 9,5mm ±2mm (0,37" ± 0,08")

打孔位置搬运调节

1. 进入维修保养模式 U246，把 [Finisher] > [Punch Feed]。
2. 调整设定值。
   打孔位置比基准值 (c) 短时：调高设定值。
   打孔位置比基准值 (c) 长时：调低设定值。
   设定值的一个调整单位变化量：0.52㎜
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (c) ＞
   公制规格：13.0㎜±2mm
   英制规格：9.5㎜±2mm (0.37"±0.08")

펀치위치 반송조정

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Feed] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기준치 (c) 보다 짧은 경우：설정치를 높입니다 .
   펀치구멍의 위치가 기준치 (c) 보다 긴 경우：설정치를 내립니다 .
   1 스텝당 변화량：0.52mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (c) ＞
   센티사양：13.0mm ±2mm
   인치사양：9.5mm ±2mm (0.37"±0.08")

パンチ位置搬送調整

1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Feed] を選択する。
2. 設定値を調整する。
   パンチ穴の位置が基準値 (c) より短い場合：設定値を上げる。
   パンチ穴の位置が基準値 (c) より長い場合：設定値を下げる。
   1 ステップ当たりの変化量：0.52㎜
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (c) ＞
   センチ仕様：13.0㎜±2mm
   インチ仕様：9.5㎜±2mm (0.37"±0.08")

Centering the hole punch position
1. Set the maintenance mode U246 and select [Finisher] > [Punch Width].
2. Adjust the values.
   If the punch hole is too close to the front of the machine: Decrease the setting value.
   If the punch hole is too close to the rear of the machine: Increase the setting value.
   Amount of change per step: 0.52mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (d) >
   Metric specification: d = 40.0mm ± 2mm,e=80.0mm±0.5mm (e:Unadjustable)
   Inch specification: d = 34.93mm ± 2mm (1.38" ± 0.08"), e=69.85mm±0.5mm(2.75"±0.02") (e:Unadjustable)

Centrage de la position de perforation
1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Width].
2. Régler les valeurs.
   Si la perforation est trop proche de l'avant de la machine: Diminuez la valeur de réglage.
   Si la perforation est trop proche de l'arrière de la machine: Augmentez la valeur de réglage.
   Changement par graduation d'échelle: 0,52mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (d) >
   Spécifications métriques: d = 40,0mm ± 2mm ,e=80.0mm±0.5mm(e:Ajustement impossible)
   Spécifications en pouces: d = 34,93 mm ± 2mm (1,38" ± 0,08"), e=69.85mm±0.5mm(2.75"±0.02") (e:Ajustement impossible)

Centrado de la posición de perforación
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Width].
2. Ajuste los valores.
   Si la perforación se encuentra demasiado cerca del frente de la máquina: Reduzca el valor de configuración.
   Si la perforación se encuentra demasiado cerca de la parte trasera de la máquina: Aumente el valor de configuración.
   Magnitud del cambio por incremento: 0,52 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (d) >
   Sistema métrico: d = 40,0mm ± 2mm,e=80.0mm±0.5mm (e:No ajustable)
   En pulgadas: d = 34,93mm ± 2mm (1,38" ± 0,08"), e=69.85mm±0.5mm(2.75"±0.02") (e:No ajustable)

Zentrieren der Stanzlochposition
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Width].
2. Die Werte einstellen.
   Falls die Lochung zu nah an der Gerätefront liegt: Den Einstellwert verringern.
   Falls die Lochung zu weit weg von der Gerätefront liegt: Den Einstellwert erhöhen.
   Änderung pro Schritt: 0,52 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (d) >
   Metrischer Abstand: d = 40,0mm ± 2mm, e=80.0mm±0.5mm (e:Nicht einstellbar)
   Abstand in Zoll: d = 34,93 mm ± 2mm (1,38" ± 0,08"), e=69.85mm±0.5mm(2.75"±0.02") (e:Nicht einstellbar)

Centratura della posizione dei fori di perforazione
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Width].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è troppo vicina alla parte anteriore della macchina: Diminuire il valore dell'impostazione.
   Se la posizione dei fori di perforazione è troppo vicina alla parte posteriore della macchina: Aumentare il valore dell'impostazione.
   Entità modifica per passo: 0,52 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (d) >
   Specificazione in unità metrica: d = 40,0mm ± 2mm, e=80.0mm±0.5mm (e:Non regolabile)
   Specificazione in pollici: d =34,93 mm ± 2mm (1,38" ± 0,08"), e=69.85mm±0.5mm(2.75"±0.02")(e:Non regolabile)

打孔位置中心调节
1. 进入维修保养模式 U246，把 [Finisher] > [Punch Width]。
2. 调整设定值。
   打孔位置向机器前部偏移时：调低设定值。
   打孔位置向机器后部偏移时：调高设定值。
   设定值的一个调整单位变化量：0.52mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ~ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (d) ＞
   公制规格：d=40.0mm±2mm ， e=80.0mm±0.5mm（e: 不可调整）
   英制规格：d=34.93mm±2mm(1.38"±0.08")，e=69.85mm±0.5mm(2.75"±0.02")（e: 不可调整）

펀치위치 센터조정
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Width] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기기 앞측으로 벗어난 경우:설정치를 내립니다 .
   펀치구멍의 위치가 기기 뒷측으로 벗어난 경우:설정치를 높입니다 .
   1 스텝당 변화량:0.52mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   <기준치 (d) >
   센티사양:d=40.0mm±2mm , e=80.0mm±0.5mm (e: 조정 불가)
   인치사양:d=34.93mm±2mm(1.38"±0.08"), e=69.85mm±0.5mm(2.75"±0.02") (e: 조정 불가)

パンチ位置センター調整
1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Width] を選択する。
2. 設定値を調整する。
   パンチ穴の位置が機械前側にずれている場合:設定値を下げる。
   パンチ穴の位置が機械後側にずれている場合:設定値を上げる。
   1 ステップ当たりの変化量:0.52mm

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (d) ＞
   センチ仕様:d=40.0mm±2mm, e=80mm±0.5mm(e: 調整不可)
   インチ仕様:d=34.93mm±2mm(1.38"±0.08")，e=69.85mm±0.5mm(2.75"±0.02")(e: 調整不可)

Adjusting the long-edge hole punch position (width)

1. Set the maintenance mode U246 and select [Finisher] > [Punch(L) Width].
2. Adjust the values.
   If the punch hole position is closer to the edge than the reference value (f): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (f): Decrease the setting value. Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (f)>
   Metric specification:13.0mm ± 1mm
   Inch specification: 9.5mm ± 1mm (0.37" ±0.04")

Ajustement de la position de perforation sur le bord long (largeur)

1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch(L)Width].
2. Régler les valeurs.
   Si la perforation est plus proche du bord de la feuille que défini par la valeur de référence (f): Augmentez la valeur de réglage.
   Si la perforation est plus loin du bord de la feuille que défini par la valeur de référence (f): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (f) >
   Spécifications métriques: 13,0mm ±1mm
   Spécifications en pouces: 9,5mm ±1mm (0,37" ±0,04")

Ajuste de la posición de perforación de agujeros en el borde largo (ancho)

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch(L)Width].
2. Ajuste los valores.
   Si la posición de perforación está más cerca del borde que el valor de referencia (f): Aumente el valor de configuración.
   Si la posición de perforación está más alejada del borde que el valor de referencia (f): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (f)>
   Sistema métrico: 13,0mm ±1mm
   En pulgadas: 9,5mm ±1mm (0,37" ±0,04")

Lochposition der langen Seite einstellen (Breite)

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch(L) Width].
2. Die Werte einstellen.
   Falls die Lochungsposition näher an der Kante liegt als der Bezugswert (f) erlaubt: Den Einstellwert erhöhen.
   Falls die Lochungsposition ferner von der Kante liegt als der Bezugswert (f) erlaubt: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (f) >
   Metrischer Abstand: 13,0mm ±1mm
   Abstand in Zoll: 9,5mm ±1mm (0,37" ± 0,04")

Regolazione della posizione di foratura sul lato lungo (larghezza)

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch(L)Width].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è più vicina al bordo rispetto al valore di riferimento (f): Aumentare il valore dell'impostazione.
   Se la posizione dei fori di perforazione è più lontana dal bordo rispetto al valore di riferimento (f): Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (f)>
   Specificazione in unità metrica: 13,0mm ±1mm
   Specificazione in pollici: 9,5mm ±1mm (0,37" ± 0,04")

长边打孔位置调整（宽度）

1. 进入维修保养模式 U246，把 [Finisher] > [Punch(L)Width]。
2. 调整设定值。
   打孔位置比基准值 (f) 短时: 调高设定值。
   打孔位置比基准值 (f) 长时: 调低设定值。
   设定值的一个调整单位变化量：0.19㎜
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (f) ＞
   公制规格: 13.0㎜±1mm
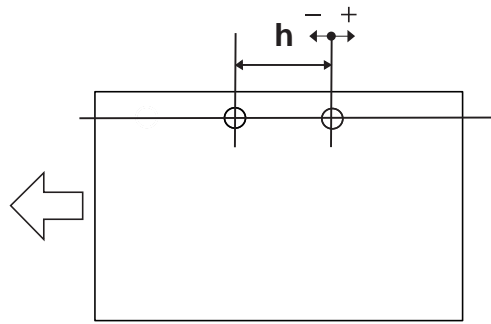   英制规格: 9.5㎜±1mm(0.37"±0.04")

긴 면 1 공 펀치 위치 조정 (폭)

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch(L)Width] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기준치 (f) 보다 짧은 경우:설정치를 높입니다 .
   펀치구멍의 위치가 기준치 (f) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (f) ＞
   센티사양:13.0mm ±1mm
   인치사양:9.5mm ±1mm (0.37"±0.04")

長辺パンチ位置調整（幅）

1. メンテナンスモード U246 をセットし、[Finisher] > [Punch(L) Width] を選択する。
2. 設定値を調整する。
   パンチ穴位置が基準値 (f) より短い場合:設定値を上げる。
   パンチ穴位置が基準値 (f) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (f) ＞
   センチ仕様:13.0㎜±1mm
   インチ仕様:9.5㎜±1mm (0.37"±0.04")

(Table.1)

	g
LetterR	99.7mm ± 1mm
A4R	108.5mm ± 1mm
B5R	88.5mm ± 1mm
16開R	96.5mm ± 1mm

(Table.2)

	g
LetterR	104.8mm ± 1mm (4.13" ± 0.04")
A4R	113.6mm ± 1mm (4.47" ± 0.04")
B5R	93.6mm ± 1mm (3.69" ± 0.04")
16開R	101.6mm ± 1mm (4.0" ± 0.04")

Adjusting the long-edge 2-hole punch position (1st hole)
1. Set the maintenance mode U246 and select Finisher] > [2Punch(L) 1].
2. Adjust the values.
   If the 1st hole punch position is shorter than the reference (g): Increase the setting value.
   If the 1st hole punch position is longer than the reference (g): Decrease the setting value.
   Amount of change per step: 0.19 mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (g)>
   Metric specification:Refer to (Table.1) above.
   Inch specification: Refer to (Table.2) above.

Ajustement de la position de perforation à 2 trous sur le bord long (1er trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [2Punch(L)1].
2. Régler les valeurs.
   Si la position de perforation du 1er trou est plus courte que la référence (g): Augmentez la valeur de réglage.
   Si la position de perforation du 1er trou est plus longue que la référence (g): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (g) >
   Spécifications métriques: Se reporter au (Table.1) ci-dessus.
   Spécifications en pouces: Se reporter au (Table.2) ci-dessus.

Ajuste de la posición de perforación de 2 agujeros en el borde largo (1er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [2Punch(L)1].
2. Ajuste los valores.
   Si la posición de perforación del 1er agujero es más corta que la de referencia (g): Aumente el valor de configuración.
   Si la posición de perforación del 1er agujero es más larga que la de referencia (g): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (g)>
   Sistema métrico: Consulte (Table.1) arriba.
   En pulgadas: Consulte (Table.2) arriba.

2-fach Lochposition der langen Seite einstellen (1. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [2Punch(L)1].
2. Die Werte einstellen.
   Falls die erste Lochposition kürzer als die Referenz (g) ist: Den Einstellwert erhöhen.
   Falls die erste Lochposition länger als die Referenz (g) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (g) >
   Metrischer Abstand:Siehe oben (Table.1).
   Abstand in Zoll:Siehe oben (Table.2).

Regolazione della posizione di foratura a due fori sul lato lungo (1° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [2Punch(L)1].
2. Regolare i valori.
   Se la posizione di foratura 1 è più corta rispetto al riferimento (g): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 1 è più lunga rispetto al riferimento (g): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (g)>
   Specificazione in unità metrica:Fare riferimento alla (Table.1) sopra riportata.
   Specificazione in pollici:Fare riferimento alla (Table.2) sopra riportata.

2 孔长边打孔位置调整（第 1 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [2Punch(L)1]。
2. 调整设定值。
   第 1 孔的位置比标准值（g）短时：调高设定值。
   第 1 孔的位置比标准值（g）长时：调低设定值。
   设定值的一个调整单位变化量 : 0.19mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（g）＞
   公制规格：参照上图（Table.1）
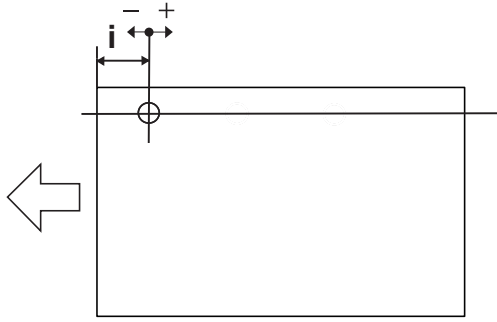   英制规格：参照上图（Table.2）

긴 면 2 공 펀치 위치 조정 (첫 번째)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [2Punch(L)1] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (g) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (g) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (g) ＞
   센티사양:위의 그림 (Table.1) 을 참조하십시오 .
   인치사양:위의 그림 (Table.2) 을 참조하십시오 .

2 穴長辺パンチ位置調整（1 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [2Punch(L)1] を選択する。
2. 設定値を調整する。
   1 穴目の位置が基準値 (g) より短い場合:設定値を上げる。
   1 穴目の位置が基準値 (g) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (g) ＞
   センチ仕様:上図 Table.1 参照
   インチ仕様:上図 Table.2 参照

Adjusting the long-edge 2-hole punch position (2nd hole)

1. Set the maintenance mode U246 and select [Finisher] > [2Punch(L)2].
2. Adjust the values.
   If the 2nd hole punch position is shorter than the reference (h): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (h): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (h)>
   Metric specification:80.0mm ± 0.5mm
   Inch specification: 69.85mm ± 0.5mm (2.75" ± 0.02")

Ajustement de la position de perforation à 2 trous sur le bord long (2e trou)

1. Passer en mode maintenance U246, sélectionner [Finisher] > [2Punch (L)2].
2. Régler les valeurs.
   Si la position de perforation du 2e trou est plus courte que la référence (h): Augmentez la valeur de réglage.
   Si la position de perforation du 2e trou est plus longue que la référence (h): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (h) >
   Spécifications métriques: d = 80mm ± 0,5mm
   Spécifications en pouces: d = 69,85mm ± 0,5mm (2,75" ± 0,02")

Ajuste de la posición de perforación de 2 agujeros en el borde largo (2º agujero)

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [2Punch(L)2].
2. Ajuste los valores.
   Si la posición de perforación del 2er agujero es más corta que la de referencia (h): Aumente el valor de configuración.
   Si la posición de perforación del 2er agujero es más larga que la de referencia (h): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (h)>
   Sistema métrico: 80.0mm ±0.5mm
   En pulgadas: 69,85mm ±0,5mm (2,75" ± 0,02")

2-fach Lochposition der langen Seite einstellen (2. Lochposition)

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [2Punch(L)2].
2. Die Werte einstellen.
   Falls die zweite Lochposition kürzer als die Referenz (h) ist: Den Einstellwert erhöhen.
   Falls die zweite Lochposition länger als die Referenz (h) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (h) >
   Metrischer Abstand:80,0mm±0,5mm
   Abstand in Zoll:69,85mm±0,5mm(2,75" ± 0,02")

Regolazione della posizione di foratura a due fori sul lato lungo (2° foro)

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [2Punch(L)2].
2. Regolare i valori.
   Se la posizione di foratura 2 è più corta rispetto al riferimento (h): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 2 è più lunga rispetto al riferimento (h): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (h)>
   Specificazione in unità metrica: 80,0mm ±0,5mm
   Specificazione in pollici: 69,85mm ±0,5mm (2,75" ± 0,02")

2 孔长边打孔位置调整（第 2 孔）

1. 进入维修保养模式 U246，把 [Finisher] > [2Punch(L)2]。
2. 调整设定值。
   第 2 孔的位置比标准值（h）短时：调高设定值。
   第 2 孔的位置比标准值（h）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ~ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（h）＞
   公制规格: 80.0mm±0.5mm
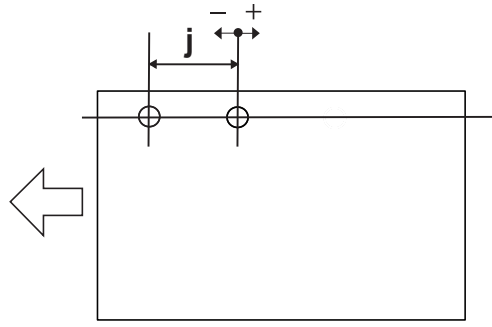   英制规格: 69.85mm±0.5mm(2.75"±0.02")

긴 면 2 공 펀치 위치 조정 (두 번째 공)

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [2Punch(L)2] 를 선택합니다 .
2. 설정치를 조정합니다 .
   두 번째 펀치 구멍 위치가 기준 (h) 보다 짧은 경우:설정치를 높입니다 .
   두 번째 펀치 구멍 위치가 기준 (h) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   ＜기준치 (h) ＞
   센티사양:80.0mm ±0.5mm
   인치사양:69.85mm ±0.5mm (2.75"±0.02")

2 穴長辺パンチ位置調整（2 穴目）

1. メンテナンスモード U246 をセットし、[Finisher] > [2Punch(L)2] を選択する。
2. 設定値を調整する。
   2 穴目の位置が基準値 (h) より短い場合:設定値を上げる。
   2 穴目の位置が基準値 (h) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19mm
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (h) ＞
   センチ仕様:80.0mm±0.5mm
   インチ仕様:69.85mm±0.5mm（2.75"±0.02"）

(Table.1)

	i
A4R	28.5mm ± 1mm

(Table.2)

	i
LetterR	31.8mm ± 1mm (1.25" ± 0.04")
A4R	40.5mm ± 1mm (1.59" ± 0.04")
16開R	28.5mm ± 1mm (1.12" ± 0.04")

Adjusting the long-egde 3-hole or 4-hole punch position (1st hole)
1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)1].
2. Adjust the values.
   If the 1st hole punch position is shorter than the reference (i): Increase the setting value.
   If the 1st hole punch position is longer than the reference (i): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (i)>
   Metric specification(4-hole):Refer to (Table.1) above.
   Inch specification(3-hole): Refer to (Table.2) above.

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (1er trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch (L)1].
2. Régler les valeurs.
   Si la position de perforation du 1er trou est plus courte que la référence (i): Augmentez la valeur de réglage.
   Si la position de perforation du 1er trou est plus longue que la référence (i): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (i) >
   Spécifications métriques(4 trous): Se reporter au (Table.1) ci-dessus.
   Spécifications en pouces(3 trous): Se reporter au (Table.2) ci-dessus.

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (1er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)1].
2. Ajuste los valores.
   Si la posición de perforación del 1er agujero es más corta que la de referencia (i): Aumente el valor de configuración.
   Si la posición de perforación del 1er agujero es más larga que la de referencia (i): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (i)>
   Sistema métrico(4 agujeros): Consulte (Table.1) arriba.
   En pulgadas(3 agujeros): Consulte (Table.2) arriba.

3-fach oder 4-fach Lochposition der langen Seite einstellen (1. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)1].
2. Die Werte einstellen.
   Falls die erste Lochposition kürzer als die Referenz (i) ist: Den Einstellwert erhöhen.
   Falls die erste Lochposition länger als die Referenz (i) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (i) >
   Metrischer Abstand(4-fach Lochung):Siehe oben (Table.1).
   Abstand in Zoll(3-fach Lochung):Siehe oben (Table.2).

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (1° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)1].
2. Regolare i valori.
   Se la posizione di foratura 1 è più corta rispetto al riferimento (i): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 1 è più lunga rispetto al riferimento (i): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (i)>
   Specificazione in unità metrica(4 fori):Fare riferimento alla (Table.1) sopra riportata.
   Specificazione in pollici(3 fori):Fare riferimento alla (Table.2) sopra riportata.

3孔、4孔长边打孔位置调整（第1孔）
1. 进入维修保养模式U246，把[Finisher] > [3/4Punch(L)1]。
2. 调整设定值。
   第1孔的位置比标准值（i）短时：调高设定值。
   第1孔的位置比标准值（i）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按［开始］键，以确定设定值。
4. 进行测试复印。
5. 重复步骤1～4，直至打孔的孔的位置达到标准值。
   ＜基准值（i）＞
   公制规格（4孔）：参照上图（Table.1）
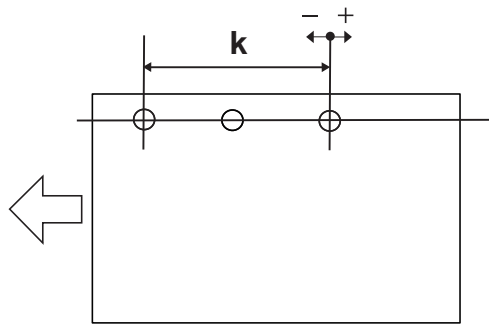   英制规格（3孔）：参照上图（Table.2）

긴 면 3 공 또는 4 공 펀치 위치 조정 (첫 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)1] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (i) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (i) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   < 기준치 (i) >
   센티사양 (4 공):위의 그림 (Table.1) 을 참조하십시오 .
   인치사양 (3 공):위의 그림 (Table.2) 을 참조하십시오 .

3穴、4穴長辺パンチ位置調整（1穴目）
1. メンテナンスモードU246をセットし、[Finisher] > [3/4Punch(L)1] を選択する。
2. 設定値を調整する。
   1穴目の位置が基準値（i）より短い場合:設定値を上げる。
   1穴目の位置が基準値（i）より長い場合:設定値を下げる。
   1ステップ当たりの変化量:0.19㎜
3. ［スタート］キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順1～4を繰り返す。
   ＜基準値（i）＞
   センチ仕様（4穴）:上図Table.1参照
   インチ仕様（3穴）:上図Table.2参照

Adjusting the long-egde 3-hole or 4-hole punch position (2nd hole)
1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)2].
2. Adjust the values.
   If the 2nd hole punch position is shorter than the reference (j): Increase the setting value.
   If the 2nd hole punch position is longer than the reference (j): Decrease the setting value.
   Amount of change per step: 0.19 mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (j)>
   Metric specification(4-hole):80.0mm ± 0.5mm
   Inch specification(3-hole): 107.95mm ± 0.5mm (4.25" ± 0.02")

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (2e trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch(L)2].
2. Régler les valeurs.
   Si la position de perforation du 2e trou est plus courte que la référence (j): Augmentez la valeur de réglage.
   Si la position de perforation du 2e trou est plus longue que la référence (j): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (j) >
   Spécifications métriques(4 trous): d = 80,0mm ± 0,5mm
   Spécifications en pouces(3 trous): d = 107.95mm ± 0,5mm (2,75" ± 0,02")

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (2º agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)2].
2. Ajuste los valores.
   Si la posición de perforación del 2º agujero es más corta que la de referencia (j): Aumente el valor de configuración.
   Si la posición de perforación del 2º agujero es más larga que la de referencia (j): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (j)>
   Sistema métrico(4 agujeros): 80,0mm±0,5mm
   En pulgadas(3 agujeros): 107,95mm±1mm (4,25" ± 0,02")

3-fach oder 4-fach Lochposition der langen Seite einstellen (2. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)2].
2. Die Werte einstellen.
   Falls die zweite Lochposition kürzer als die Referenz (j) ist: Den Einstellwert erhöhen.
   Falls die zweite Lochposition länger als die Referenz (j) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (j) >
   Metrischer Abstand(4-fach Lochung):80,0mm ±0,5mm
   Abstand in Zoll(3-fach Lochung):107,95mm ±0,5mm(4,25" ± 0,02")

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (2° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)2].
2. Regolare i valori.
   Se la posizione di foratura 2 è più corta rispetto al riferimento (j): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 2 è più lunga rispetto al riferimento (j): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (j)>
   Specificazione in unità metrica(4 fori): 80,0mm ±0,5mm
   Specificazione in pollici(3 fori): 107,95mm ±0,5mm (4,25" ± 0,02")

3 孔、4 孔长边打孔位置调整（第 2 孔）
1. 进入维修保养模式 U246，把 [Finisher] ＞ [3/4Punch(L)2]。
2. 调整设定值。
   第 2 孔的位置比标准值（j）短时：调高设定值。
   第 2 孔的位置比标准值（j）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（j）＞
   公制规格（4 孔）：80.0㎜±0.5㎜
   英制规格（3 孔）：107.95㎜±0.5㎜（4.25"±0.02"）

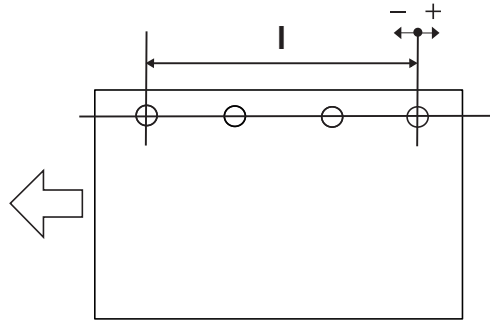긴 면 3 공 또는 4 공 펀치 위치 조정 (두 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)2] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (j) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (j) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (j) ＞
   센티사양 (4 공):80.0mm ±0.5mm
   인치사양 (3 공):107.95mm ±0.5mm (4.25"±0.02")

3 穴、4 穴長辺パンチ位置調整（2 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] ＞ [3/4Punch(L)2] を選択する。
2. 設定値を調整する。
   2 穴目の位置が基準値（j）より短い場合:設定値を上げる。
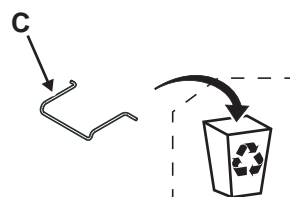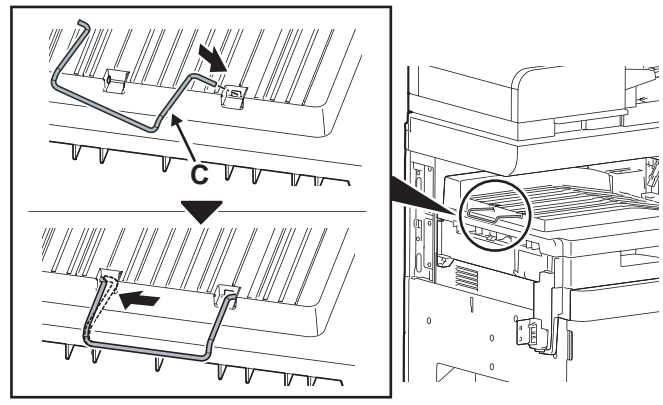   2 穴目の位置が基準値（j）より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値（j）＞
   センチ仕様（4 穴）:80.0㎜±0.5㎜
   インチ仕様（3 穴）:107.95㎜±0.5㎜（4.25"±0.02"）

Adjusting the long-egde 3-hole or 4-hole punch position (3rd hole)
1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)3].
2. Adjust the values.
   If the 3nd hole punch position is shorter than the reference (k): Increase the setting value.
   If the 3nd hole punch position is longer than the reference (k): Decrease the setting value.
   Amount of change per step: 0.19 mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (k)>
   Metric specification(4-hole):160.0 mm ± 0.5mm
   Inch specification(3-hole) : 215.9 mm ± 0.5mm (8.5" ± 0.02")

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (3e trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch(L)3].
2. Régler les valeurs.
   Si la position de perforation du 3e trou est plus courte que la référence (k): Augmentez la valeur de réglage.
   Si la position de perforation du 3e trou est plus longue que la référence (k): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (k) >
   Spécifications métriques(4 trous): 160,0mm ± 0,5mm
   Spécifications en pouces(3 trous): 215,9 mm ± 0,5mm (8,5" ± 0,02")

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (3er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)3].
2. Ajuste los valores.
   Si la posición de perforación del 3er agujero es más corta que la de referencia (k): Aumente el valor de configuración.
   Si la posición de perforación del 3er agujero es más larga que la de referencia (k): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (k)>
   Sistema métrico(4 agujeros): 160,0mm±0,5mm
   En pulgadas(3 agujeros): 215,9mm±1mm (8,5" ± 0,02")

3-fach oder 4-fach Lochposition der langen Seite einstellen (3. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)3].
2. Die Werte einstellen.
   Falls die dritte Lochposition kürzer als die Referenz (k) ist: Den Einstellwert erhöhen.
   Falls die dritte Lochposition länger als die Referenz (k) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (k) >
   Metrischer Abstand(4-fach Lochung):160,0mm ±0,5mm
   Abstand in Zoll(3-fach Lochung):215,9mm ±0,5mm(8,5" ±0,02")

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (3° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)3].
2. Regolare i valori.
   Se la posizione di foratura 3 è più corta rispetto al riferimento (k): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 3 è più lunga rispetto al riferimento (k): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (k)>
   Specificazione in unità metrica(4 fori): 160,0mm ±0,5mm
   Specificazione in pollici(3 fori): 215,9mm ±0,5mm (8,5" ± 0,02")

3 孔、4 孔长边打孔位置调整（第 3 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [3/4Punch(L)3]。
2. 调整设定值。
   第 3 孔的位置比标准值（k）短时：调高设定值。
   第 3 孔的位置比标准值（k）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（k）＞
   公制规格（4 孔）：160.0mm±0.5mm
   英制规格（3 孔）：215.9mm±0.5mm(8.5"±0.02")

긴 면 3 공 또는 4 공 펀치 위치 조정 (세 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)3] 를 선택합니다 .
2. 설정치를 조정합니다 .
   세번째 펀치 구멍 위치가 기준 (K) 보다 짧은 경우:설정치를 높입니다 .
   세번째 펀치 구멍 위치가 기준 (K) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (k) ＞
   센티사양 (4 공):160.0mm ±0.5mm
   인치사양 (3 공):215.9mm ±0.5mm (8.5"±0.02")

3 穴、4 穴長辺パンチ位置調整（3 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [3/4Punch(L)3] を選択する。
2. 設定値を調整する。
   3 穴目の位置が基準値 (k) より短い場合:設定値を上げる。
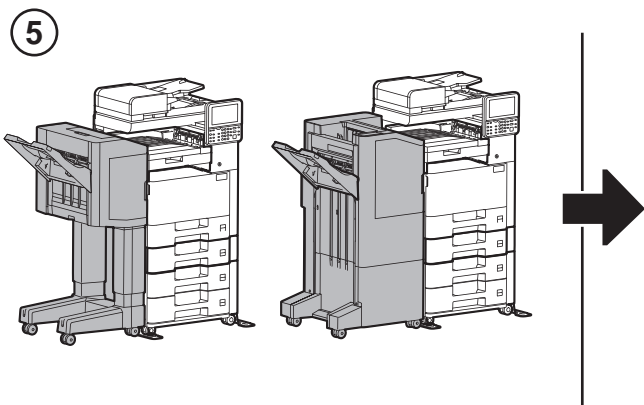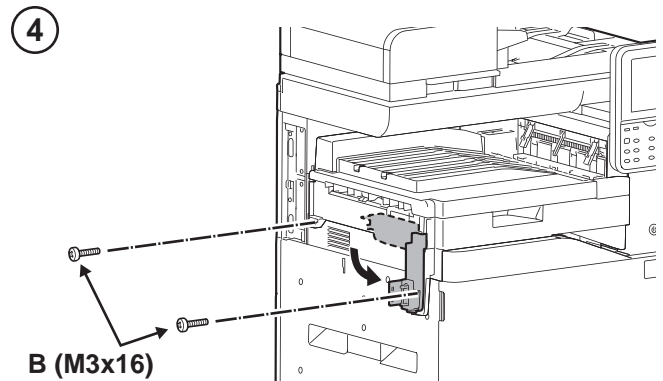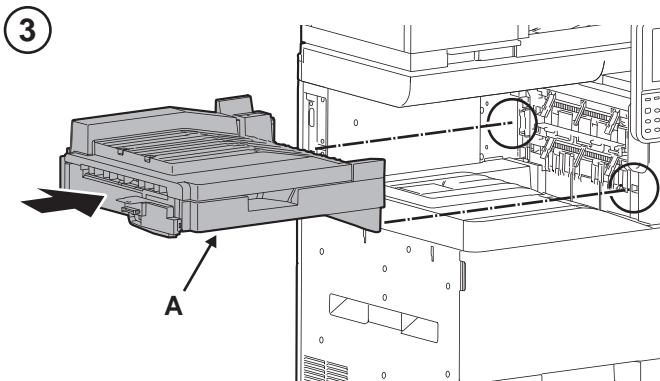   3 穴目の位置が基準値 (k) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19mm

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (k) ＞
   センチ仕様（4 穴）:160.0mm±0.5mm
   インチ仕様（3 穴）:215.9mm±0.5mm（8.5"±0.02"）

Adjusting the long-edge 4-hole punch position (4th hole)

1. Enter the maintenance mode U246, select [Finisher] > [4Punch(L)4].
2. Adjust the values.
   If the 4nd hole punch position is shorter than the reference (l): Increase the setting value.
   If the 4nd hole punch position is longer than the reference (l): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (l)>
   Metric specification(4-hole):240.0 mm ± 0.5mm

Ajustement de la position de perforation à 4 trous sur le bord long (4e trou)

1. Passer en mode maintenance U246, sélectionner [Finisher] > [4Punch(L)4].
2. Régler les valeurs.
   Si la position de perforation du 4e trou est plus courte que la référence (l): Augmentez la valeur de réglage.
   Si la position de perforation du 4e trou est plus longue que la référence (l): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (l) >
   Spécifications métriques(4 trous): 240,0mm ± 0,5mm

Ajuste de la posición de perforación de 4 agujeros en el borde largo (4º agujero)

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [4Punch(L)4].
2. Ajuste los valores.
   Si la posición de perforación del 4º agujero es más corta que la de referencia (l): Aumente el valor de configuración.
   Si la posición de perforación del 4º agujero es más larga que la de referencia (l): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (l)>
   Sistema métrico(4 agujeros): 240,0mm±0,5mm

4-fach Lochposition der langen Seite einstellen (4. Lochposition)

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [4Punch(L)4].
2. Die Werte einstellen.
   Falls die vierte Lochposition kürzer als die Referenz (l) ist: Den Einstellwert erhöhen.
   Falls die vierte Lochposition länger als die Referenz (l) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (l) >
   Metrischer Abstand(4-fach Lochung):240,0mm ±0,5mm

Regolazione della posizione di foratura a quattro fori sul lato lungo (4° foro)

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [4Punch(L)4].
2. Regolare i valori.
   Se la posizione di foratura 4 è più corta rispetto al riferimento (l): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 4 è più lunga rispetto al riferimento (l): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (l)>
   Specificazione in unità metrica(4 fori): 240,0mm ±0,5mm

4 孔长边打孔位置调整（第 4 孔）

1. 进入维修保养模式 U246，把 [Finisher] > [4Punch(L)4]。
2. 调整设定值。
   第 4 孔的位置比标准值（l）短时：调高设定值。
   第 4 孔的位置比标准值（l）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（l）＞
   公制规格（4 孔）：240.0mm±0.5mm

긴 면 4 공 펀치 위치 조정 (네 번째 구멍)

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [4Punch(L)4] 를 선택합니다 .
2. 설정치를 조정합니다 .
   네번째 펀치 구멍 위치가 기준 (l) 보다 짧은 경우:설정치를 높입니다 .
   네번째 펀치 구멍 위치가 기준 (l) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   < 기준치 (l) >
   센티사양 (4 공):240.0mm ±0.5mm

4 穴長辺パンチ位置調整（4 穴目 ）

1. メンテナンスモード U246 をセットし、[Finisher] > [4Punch(L)4] を選択する。
2. 設定値を調整する。
   4 穴目の位置が基準値 (l) より短い場合:設定値を上げる。
   4 穴目の位置が基準値 (l) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19mm
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (l) ＞
   センチ仕様（4 穴):240.0mm±0.5mm

AK-5100

(Bridge Unit)

Installation Guide

AK-5100

A

B (M3x16)

C

①

OFF

②

③

A

④

B (M3x16)

⑤

C

C
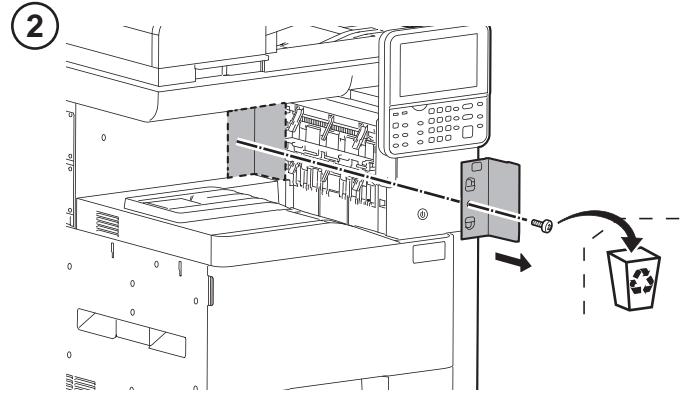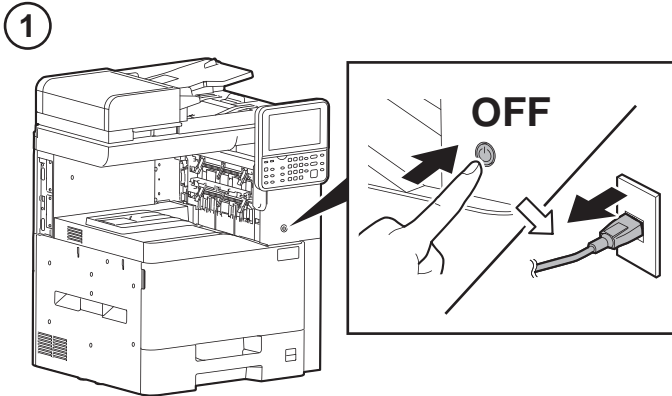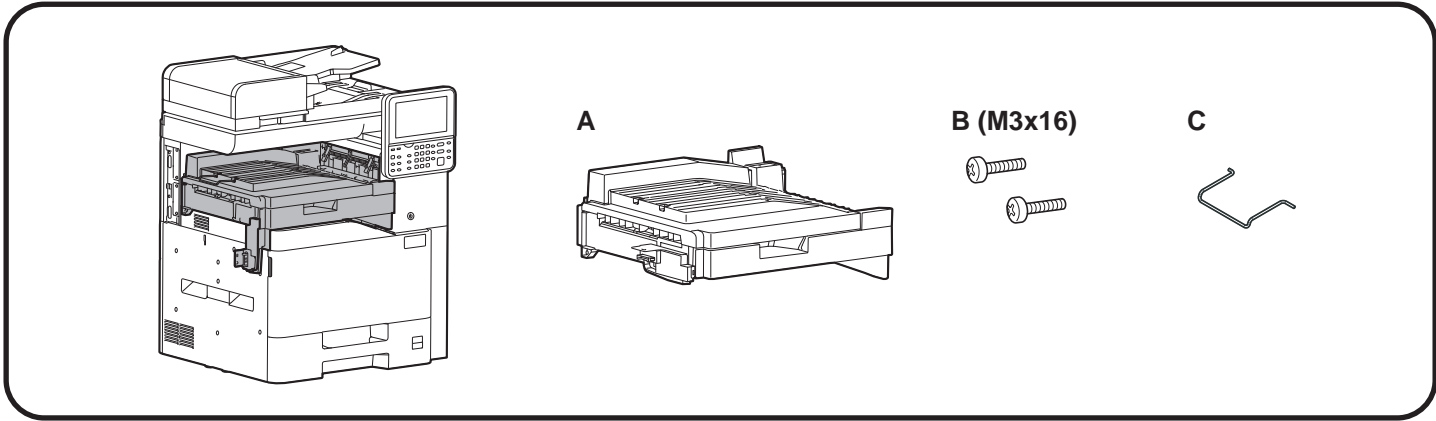
MT-5100

(Mail Box)

Installation Guide

MT-5100

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B (M3x16)

C (M3x8)

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E (M3x8 Black)

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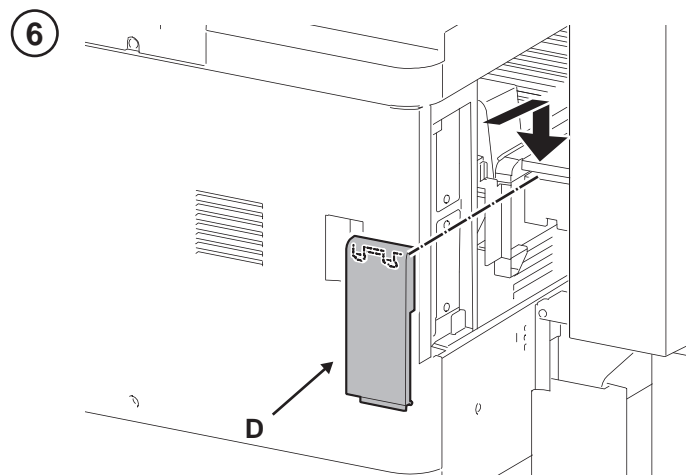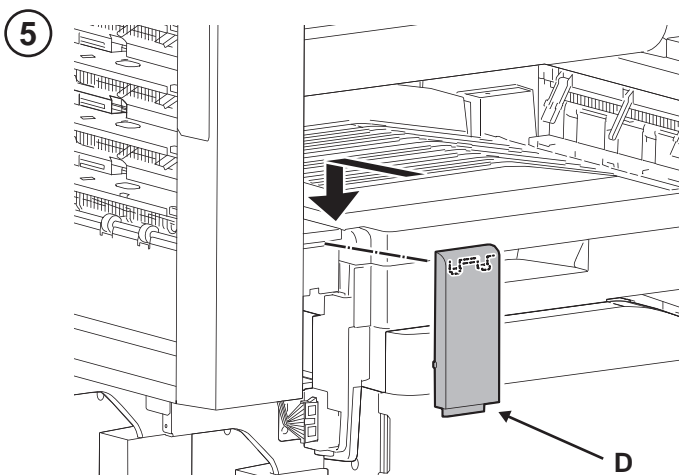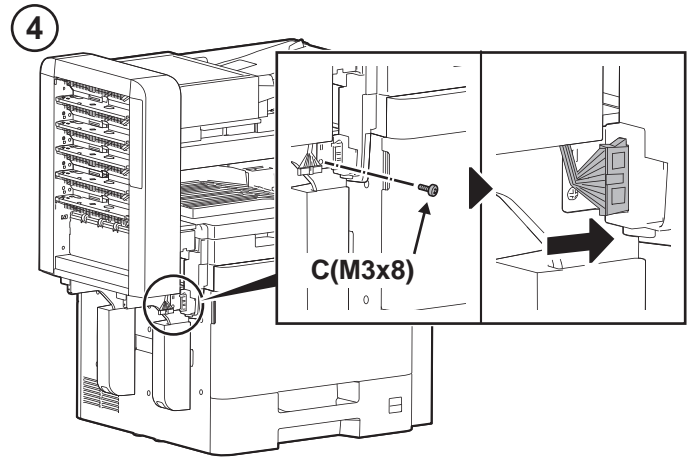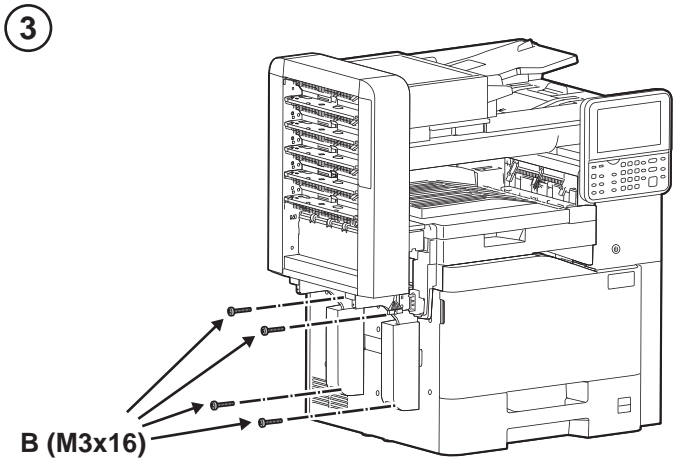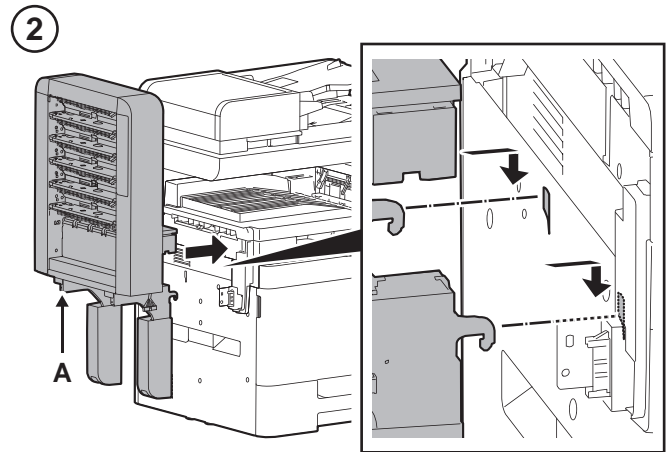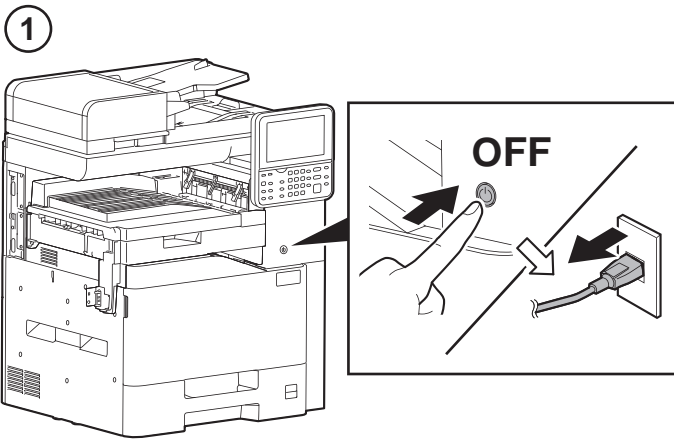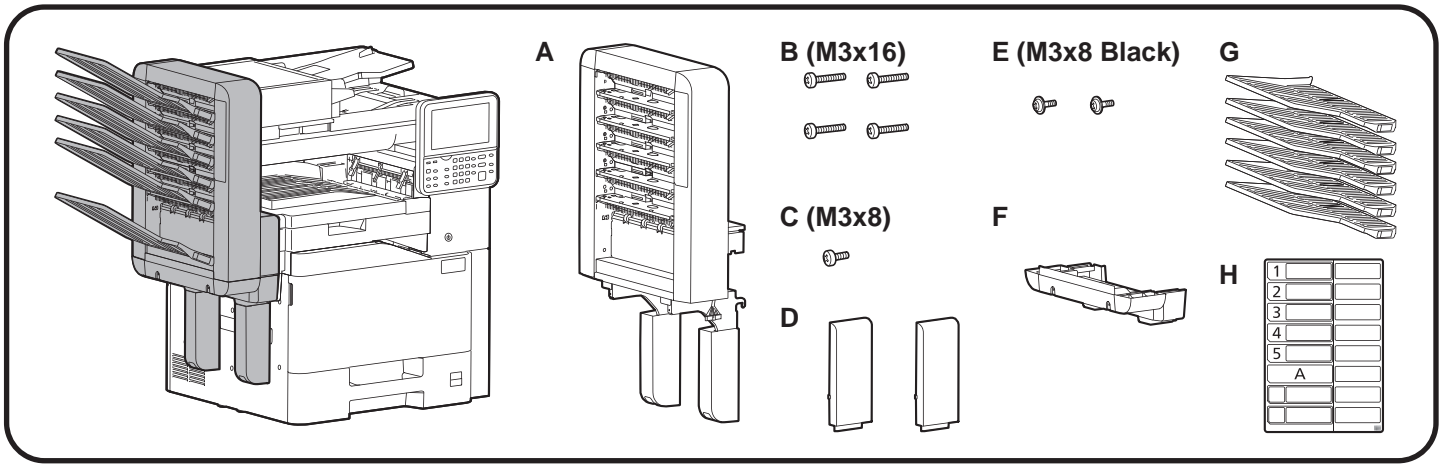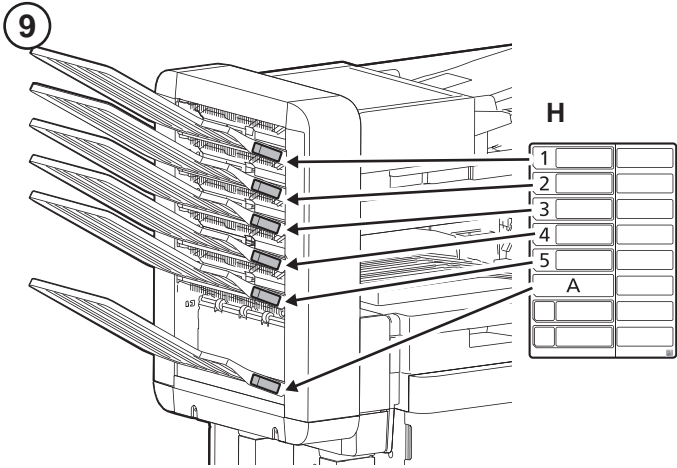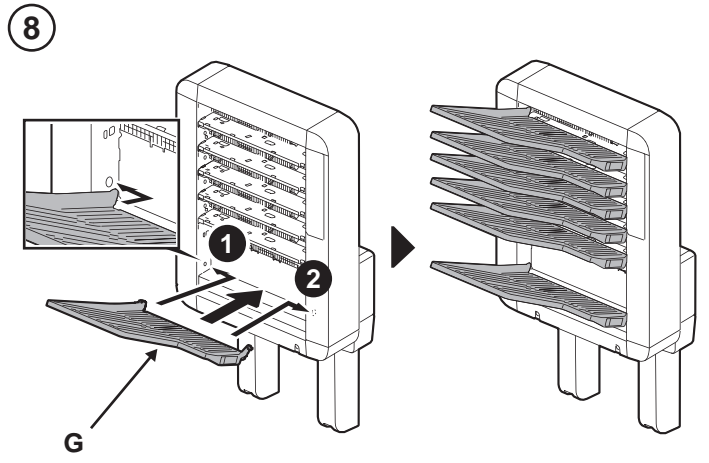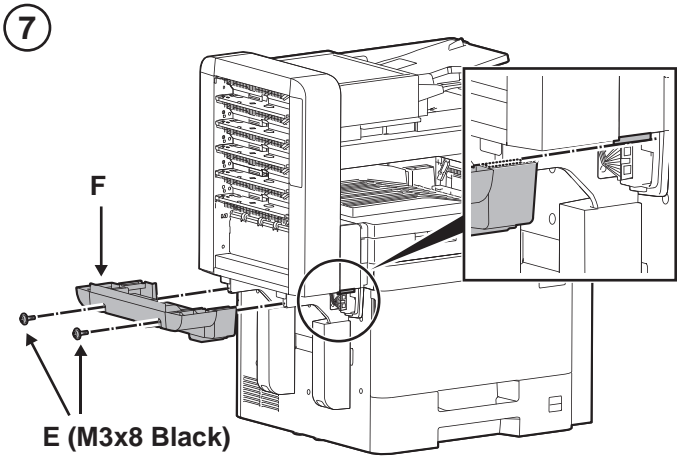
PH-5100/5110

(Punch Unit)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

PH-5100/PH-5110
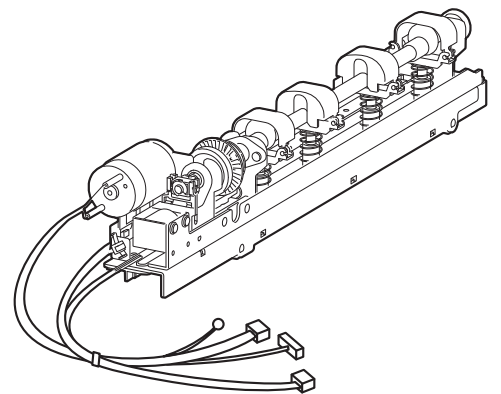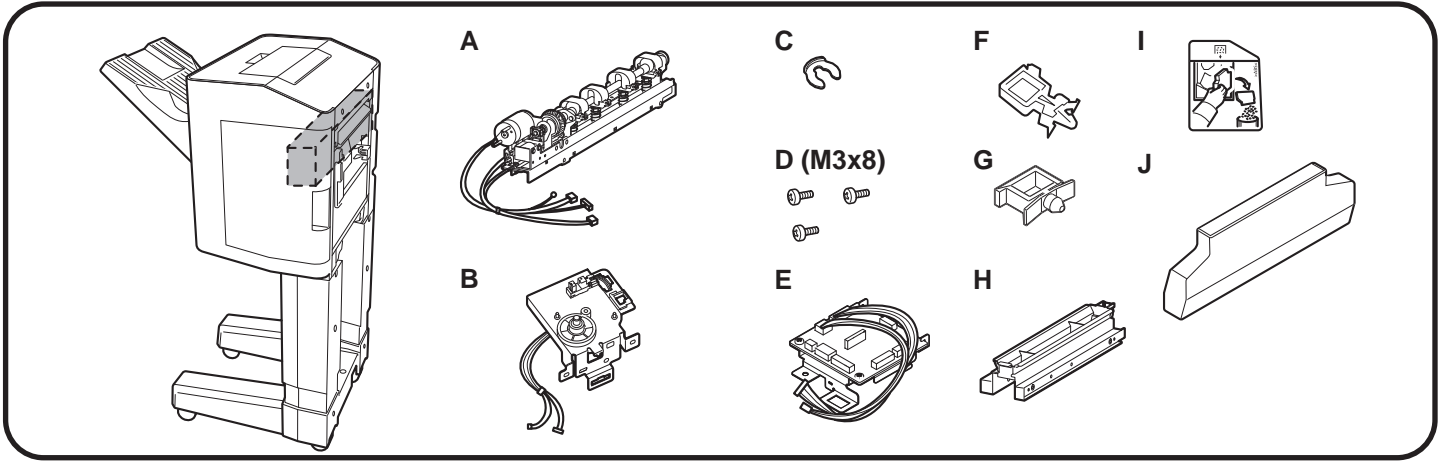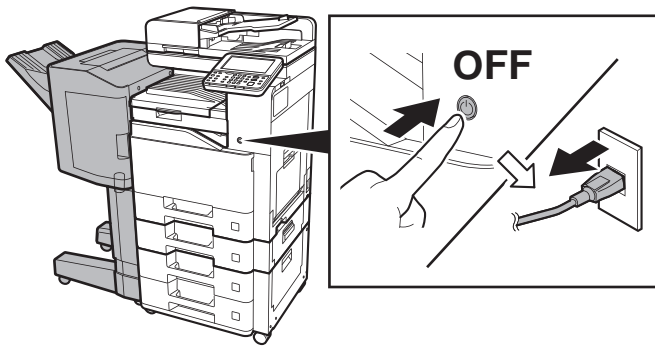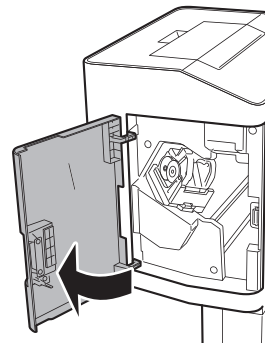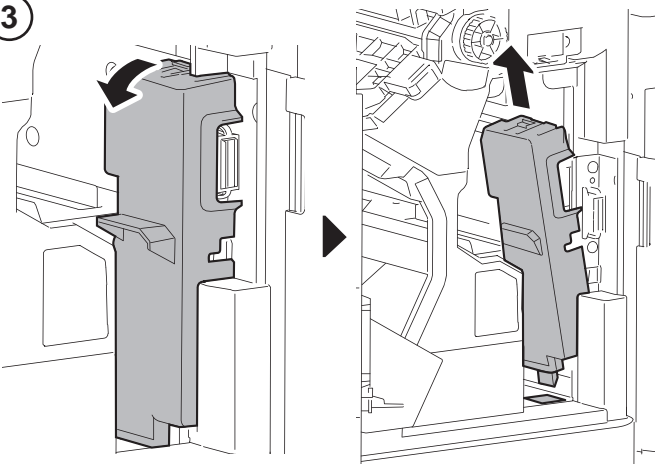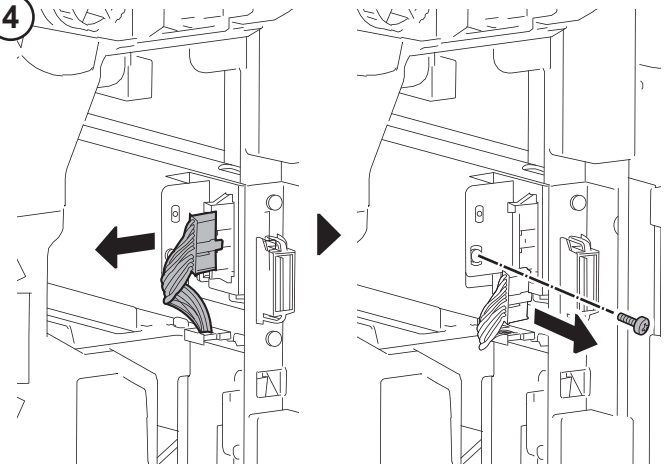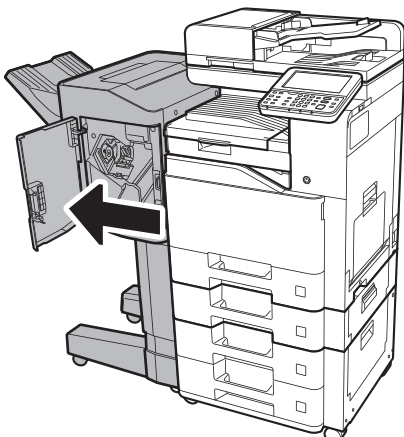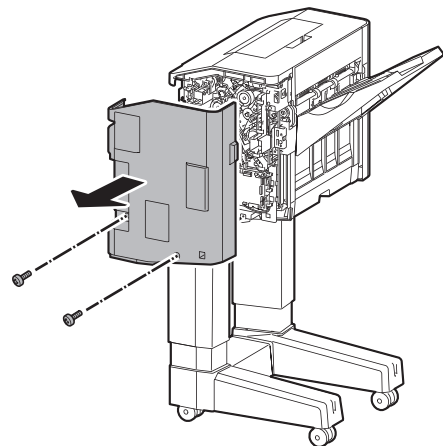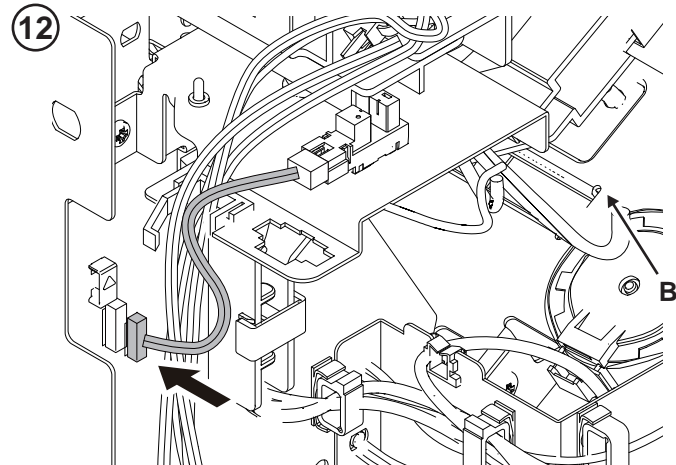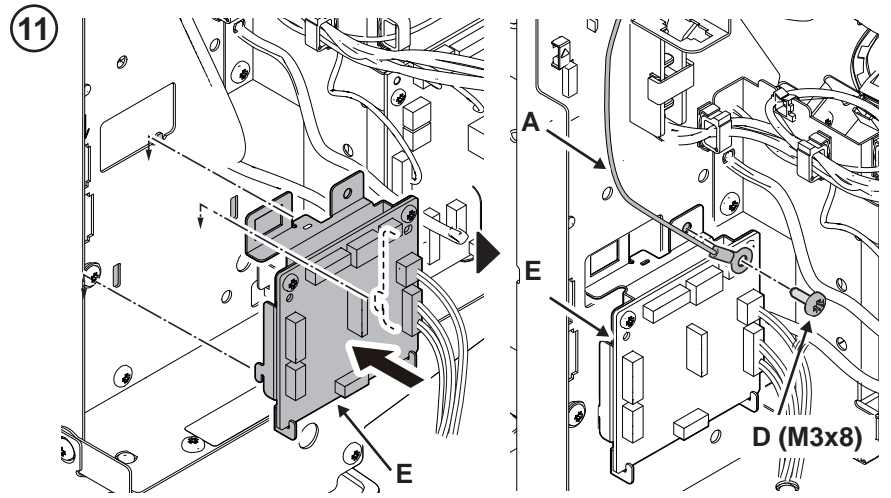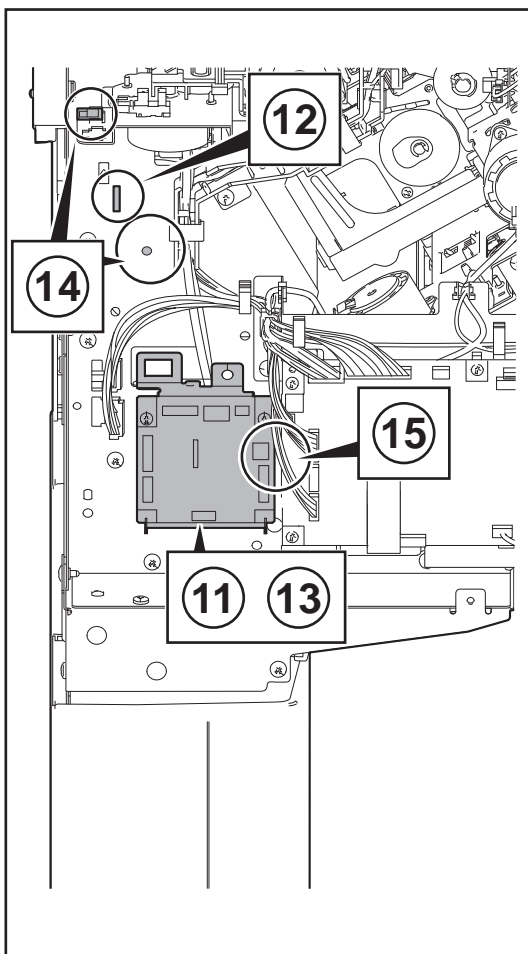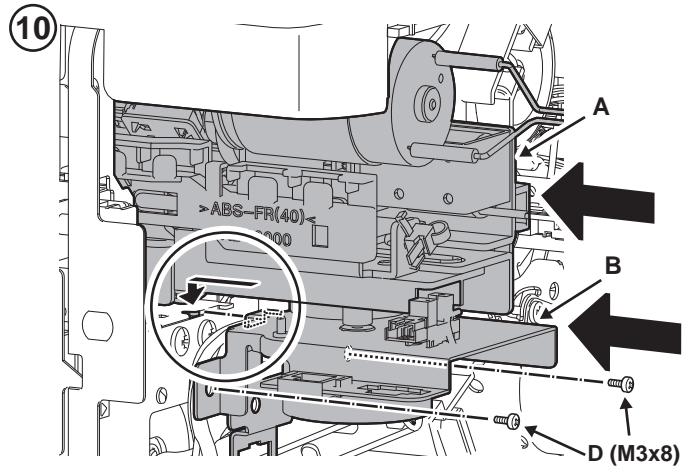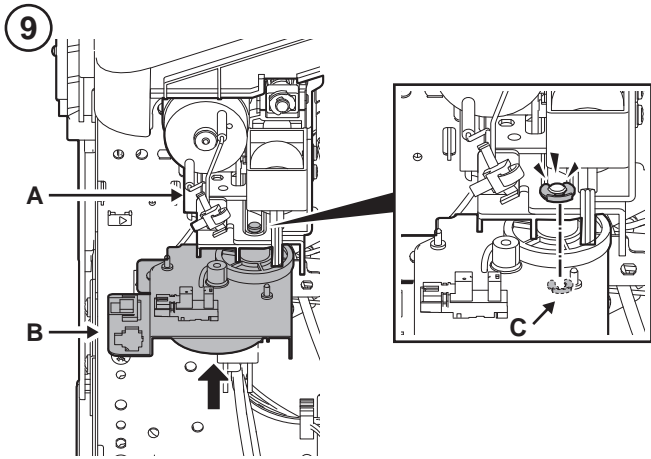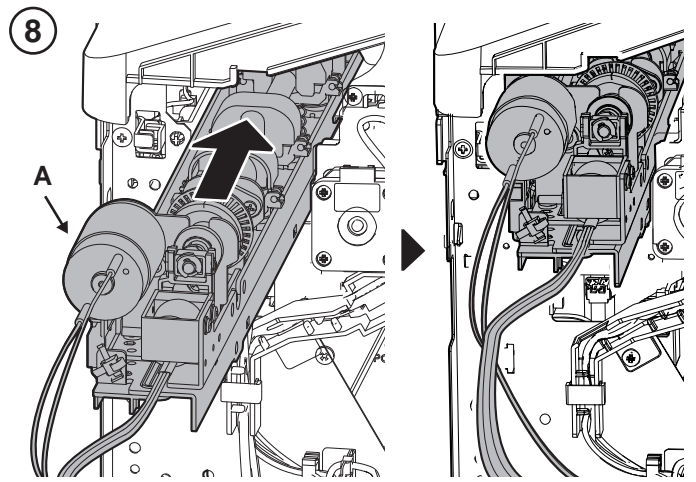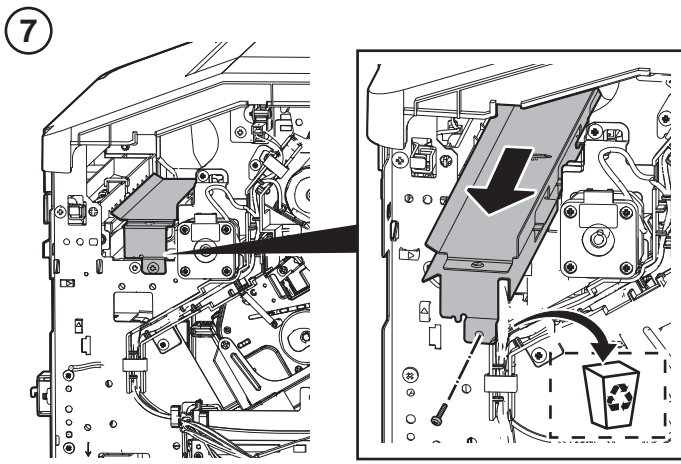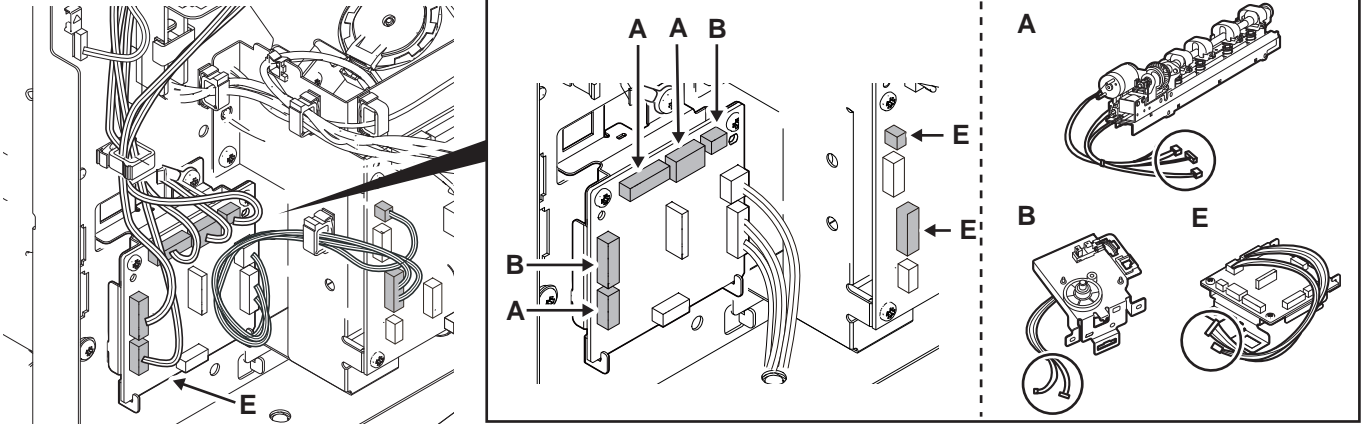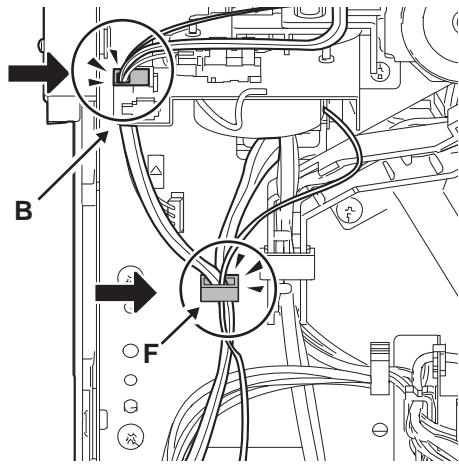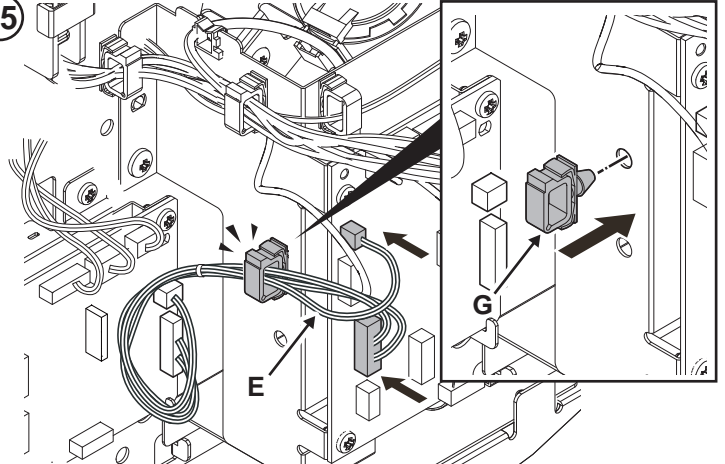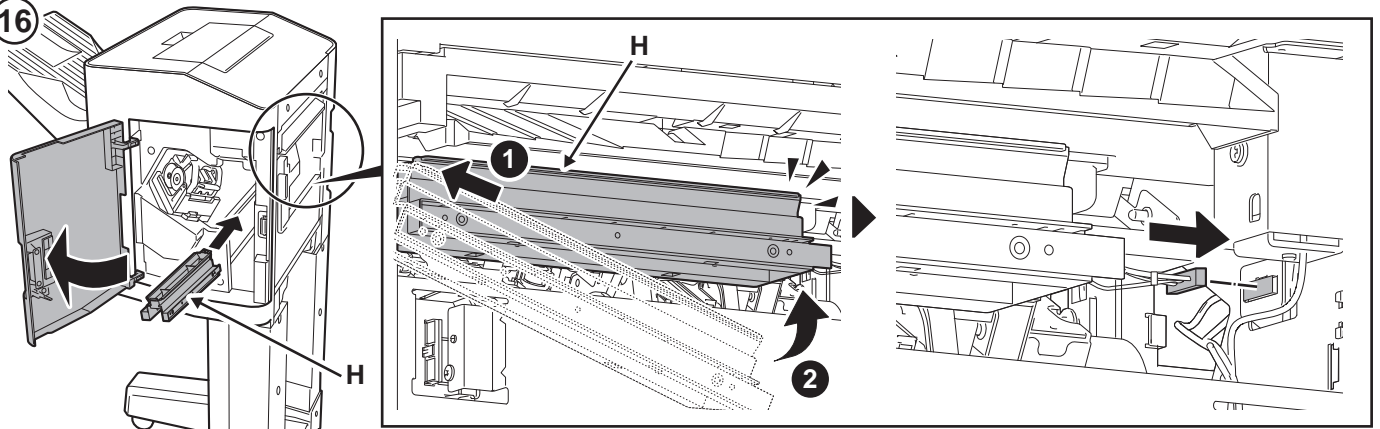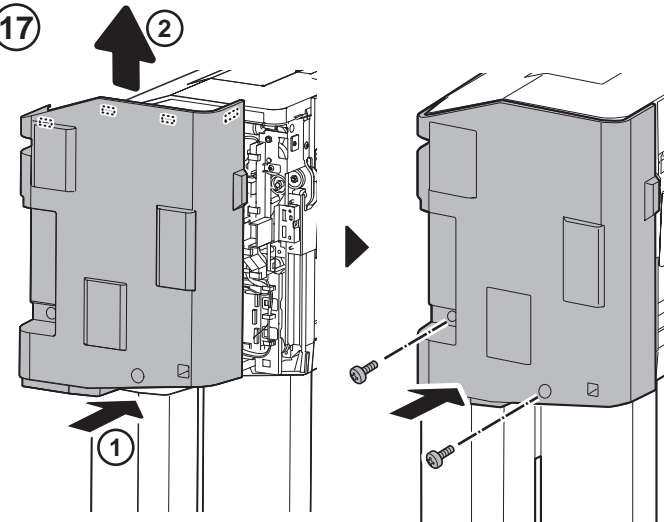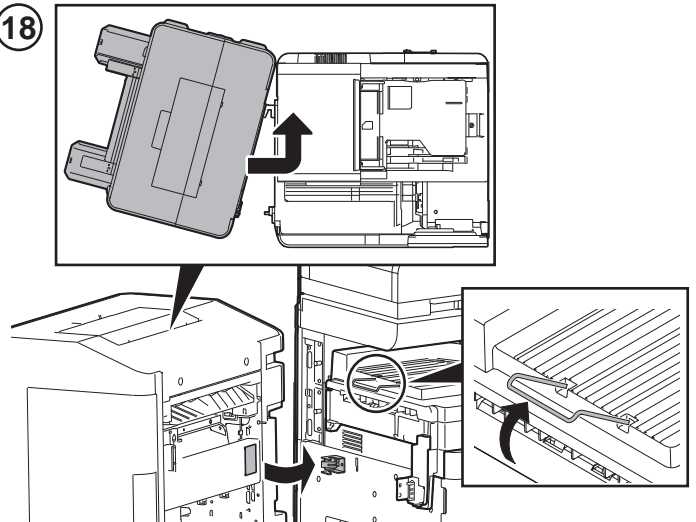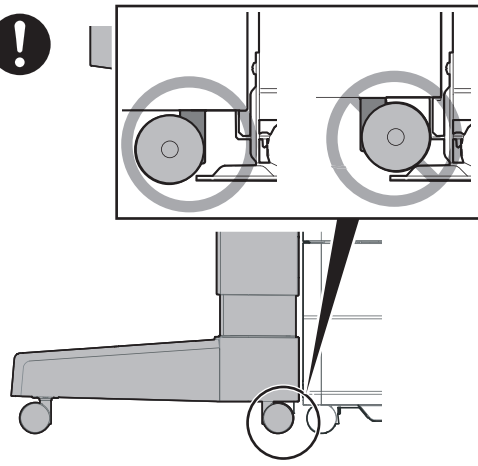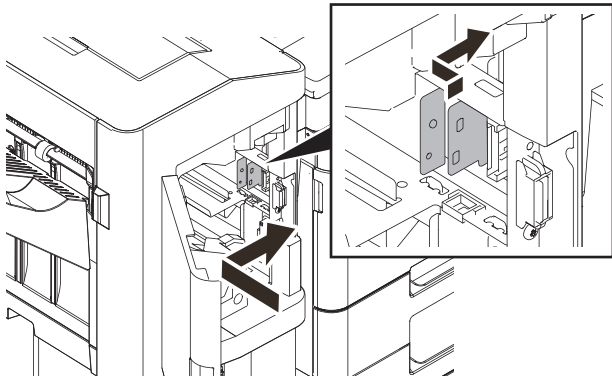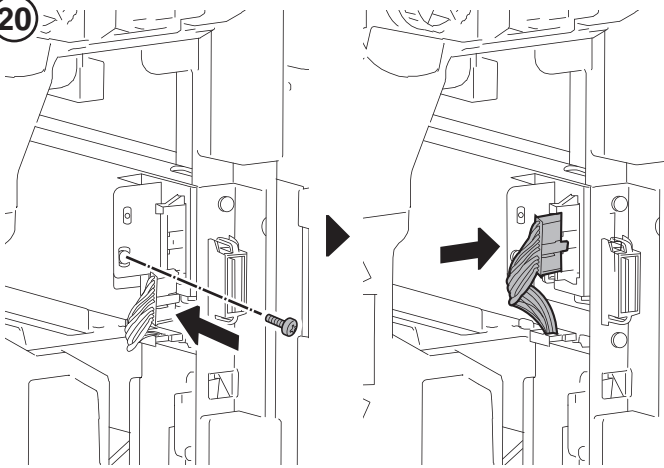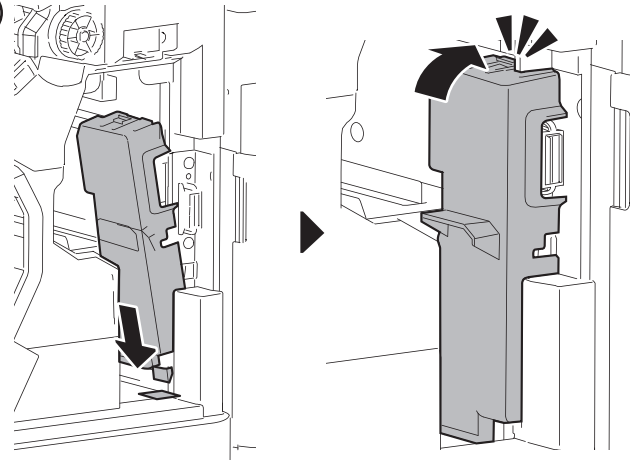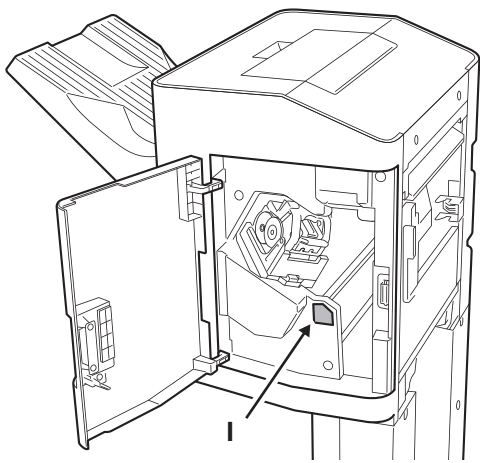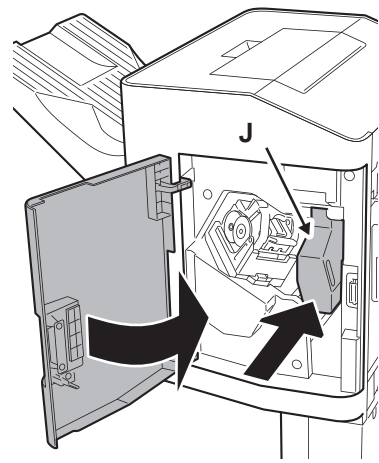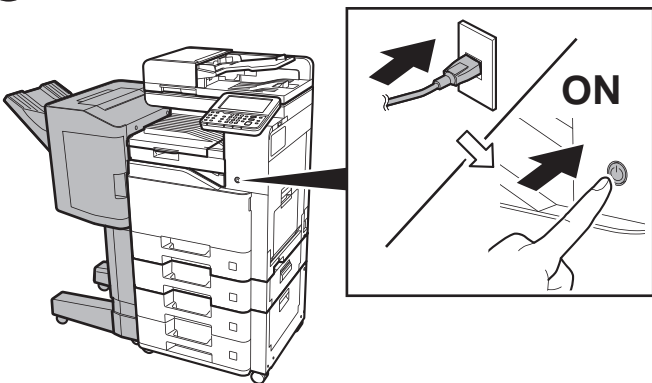
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[Adjusting the hole punch position]
 1. Connect the MFP power plug to the wall outlet and turn the MFP main power switch on.
 2. Make a test copy in punch mode.
 3. If any off-centering is observed, follow the procedure below to adjust the hole position.
   (For the referrence value, refer to each adjustment content.)

Français

[Réglage de la position des perforations]
 1. Insérer la fiche d'alimentation du MFP dans la prise murale et mettre l'interrupteur principal du MFP sous tension.
 2. Effectuer une copie d'essai en mode perforation.
 3. Si les perforations sont décentrées, suivre la procédure ci-dessous pour ajuster la position de perforation.
   (Pour la valeur de référence, se reporter à chaque contenu d'ajustement.)

Español

[Ajuste de la posición de perforación]
 1. Conecte el enchufe del MFP en el receptáculo de pared y encienda el interruptor principal del MFP.
 2. Haga una copia de prueba en el modo de perforación.
 3. Si observa descentrado, siga el procedimiento de abajo para ajustar la posición del agujero.
   (Para información sobre el valor de referencia, consulte el contenido de cada ajuste.)

Deutsch

[Einstellen der Lochungsposition]
 1. Stecken Sie den Netzstecker des MFP in die Wandsteckdose und schalten Sie den MFP am Hauptschalter ein.
 2. Eine Testkopie im Lochungsmodus erstellen.
 3. Falls eine außermittige Lochung erfolgte, ist die Lochungsposition wie folgend nachzustellen.
   (Den Referenzwert finden Sie im jeweiligen Einstellungsabschnitt.)

Italiano

[Regolazione di posizione dei fori di perforazione]
 1. Collegare la spina del cavo di alimentazione dell'MFP alla presa a muro della rete elettrica e accendere l'interruttore principale di alimentazione.
 2. Eseguire una copia di prova in modalità di perforazione.
 3. Nel caso in cui non lo siano, eseguire la procedura indicata qui di seguito per regolarne la posizione.
   (Per informazioni sul valore di riferimento vedere il contenuto di ogni regolazione.)

简体中文

［打孔位置的调节］
 1. 将 MFP 主机上的电源插头插入电源插座中，打开主电源开关。
 2. 在打孔模式下进行测试复印。
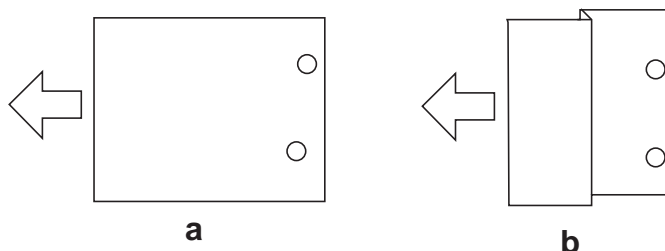 3. 打孔位置有偏差时，按以下步骤进行调节。
   （标准值请参照各调整内容。）

한국어

[펀치위치의 조정]
 1. MFP 본체 전원플러그를 콘센트에 꽂고 주 전원 스위치를 ON 으로 합니다 .
 2. 펀치모드에서 시험복사를 합니다 .
 3. 펀치위치가 벗어난 경우에는 다음 순서로 조정합니다 .
   (기준 값에 대해서는 각 조정 내용을 참조하십시오 .)

日本語

［パンチ位置の調整］
 1. MFP 本体の電源プラグをコンセントに差し込み、主電源スイッチを ON にする。
 2. パンチモードでテストコピーを行う。
 3. パンチ位置がずれていた場合、次の手順で調整を行う。
   （基準値は、各調整内容を参照のこと。）

a   **b**

Adjusting the hole punch entry registration
1. Set the maintenance mode U246 and select [Finisher] > [Punch Regist].
2. Adjust the values.
   When the paper fed in skewed copy example (a): Increase the setting value.
   When the paper crimped copy example (b): Decrease the setting value.
   Amount of change per step: 0.19mm
3. Press the [Start] key to confirm the setting value.

Réglage de l'enregistrement de l'entrée des perforations
1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Regist].
2. Régler les valeurs.
   Si le papier est alimenté de travers exemple de copie (a): Augmentez la valeur de réglage.
   Si le papier est froissé exemple de copie (b): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.

Ajuste del registro de entrada de perforación
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Regist].
2. Ajuste los valores.
   Cuando el papel alimentado está torcido copia de muestra (a): Aumente el valor de configuración.
   Cuando el papel se dobló copia de muestra (b): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,19mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.

Einstellen der Lochungsregistrierung
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Regist].
2. Die Werte einstellen.
   Wenn Papier verkantet eingezogen wird Kopiebeispiel (a): Den Einstellwert erhöhen.
   Wenn Papier verknittert wird Kopiebeispiel (b): Den Einstellwert verringern.
   Änderung pro Schritt: 0,19mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.

Regolazione del registro del foro di perforazione
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Regist].
2. Regolare i valori.
   Quando l'alimentazione della carta risulta obliqua esempio di copia (a): Aumentare il valore dell'impostazione.
   Quando la carta risulta increspata esempio di copia (b): Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,19mm
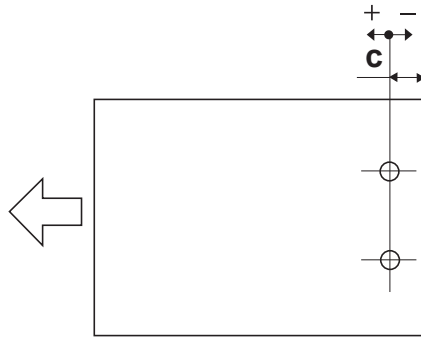3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.

打孔装入定位调节
1. 进入维修保养模式 U246，把 [Finisher] > [Punch Regist]。
2. 调整设定值。
   纸张斜向搬运时的复印样本 (a)：调高设定值。
   纸张作 Z 字折时的复印样本 (b)：调低设定值。
   设定值的一个调整单位变化量：0.19㎜
3. 按 [开始] 键，以确定设定值。

펀치반입 레지스트 조정
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Regist] 를 선택합니다 .
2. 설정치를 조정합니다 .
   용지가 기울어져서 반송되는 경우의 복사샘플 (a):설정치를 높입니다 .
   용지가 Z 꺾임이 있는 경우 복사샘플 (b):설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .

パンチ搬入レジスト調整
1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Regist] を選択する。
2. 設定値を調整する。
   用紙が斜めに搬送される場合コピーサンプル (a):設定値を上げる。
   用紙が Z 折れする場合コピーサンプル (b):設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜
3. [スタート] キーを押し、設定値を確定する。

Adjusting the hole punch position feed
1. Set the maintenance mode U246 and select [Finisher] > [Punch Feed].
2. Adjust the values.
   If the punch hole position is closer to the edge than the reference value (c): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (c): Decrease the setting value.
   Amount of change per step: 0.52mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (c)>
   Metric specification: 13.0mm ±2mm
   Inch specification: 9.5mm ±2mm (0.37" ± 0.08")

Réglage de la position du point de perforation
1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Feed].
2. Régler les valeurs.
   Si la perforation est plus proche du bord de la feuille que défini par la valeur de référence (c): Augmentez la valeur de réglage.
   Si la perforation est plus loin du bord de la feuille que défini par la valeur de référence (c): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,52mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (c)>
   Spécifications métriques: 13,0mm ±2mm
   Spécifications en pouces: 9,5mm ±2mm (0,37" ± 0,08")

Ajuste de la alimentación de la posición de perforación
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Feed].
2. Ajuste los valores.
   Si la posición de perforación está más cerca del borde que el valor de referencia (c): Aumente el valor de configuración.
   Si la posición de perforación está más alejada del borde que el valor de referencia (c): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,52mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (c)>
   Sistema métrico: 13,0mm ±2mm
   En pulgadas: 9,5mm ±2mm (0,37" ± 0,08")

Einstellen des Transports der Lochungsposition
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Feed].
2. Die Werte einstellen.
   Falls die Lochungsposition näher an der Kante liegt als der Bezugswert (c) erlaubt: Den Einstellwert erhöhen.
   Falls die Lochungsposition ferner von der Kante liegt als der Bezugswert (c) erlaubt: Den Einstellwert verringern. Änderung pro Schritt: 0,52 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (c)>
   Metrischer Abstand: 13,0mm ±2mm
   Abstand in Zoll: 9,5mm ±2mm (0,37" ± 0,08")

Regolazione spostamento di posizione dei fori di perforazione
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Feed].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è più vicina al bordo rispetto al valore di riferimento (c): Aumentare il valore dell'impostazione.
   Se la posizione dei fori di perforazione è più lontana dal bordo rispetto al valore di riferimento (c): Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,52 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (c)>
   Specificazione in unità metrica: 13,0mm ±2mm
   Specificazione in pollici: 9,5mm ±2mm (0,37" ± 0,08")

打孔位置搬运调节
1. 进入维修保养模式 U246，把 [Finisher] > [Punch Feed]。
2. 调整设定值。
   打孔位置比基准值 (c) 短时：调高设定值。
   打孔位置比基准值 (c) 长时：调低设定值。
   设定值的一个调整单位变化量：0.52mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (c) ＞
   公制规格：13.0mm±2mm
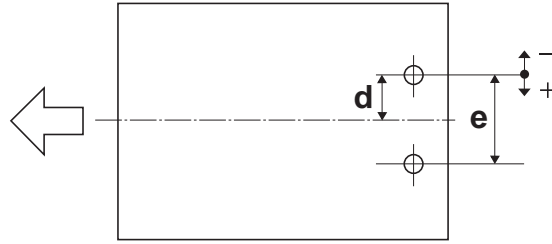   英制规格：9.5mm±2mm(0.37"±0.08")

펀치위치 반송조정
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Feed] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기준치 (c) 보다 짧은 경우 : 설정치를 높입니다 .
   펀치구멍의 위치가 기준치 (c) 보다 긴 경우 : 설정치를 내립니다 .
   1 스텝당 변화량 : 0.52mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (c) ＞
   센티사양 : 13.0mm ±2mm
   인치사양 : 9.5mm ±2mm (0.37"±0.08")

パンチ位置搬送調整
1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Feed] を選択する。
2. 設定値を調整する。
   パンチ穴の位置が基準値 (c) より短い場合 : 設定値を上げる。
   パンチ穴の位置が基準値 (c) より長い場合 : 設定値を下げる。
   1 ステップ当たりの変化量 : 0.52mm
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (c) ＞
   センチ仕様 : 13.0mm±2mm
   インチ仕様 : 9.5mm±2mm（0.37"±0.08"）

Centering the hole punch position

1. Set the maintenance mode U246 and select [Finisher] > [Punch Width].
2. Adjust the values.
   If the punch hole is too close to the front of the machine: Decrease the setting value.
   If the punch hole is too close to the rear of the machine: Increase the setting value.
   Amount of change per step: 0.52mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (d) >
   Metric specification: d = 40.0mm ± 2mm,e=80.0mm±0.5mm (e:Unadjustable)
   Inch specification: d = 34.93mm ± 2mm (1.38" ± 0.08"),
   e=69.85mm±0.5mm(2.75"±0.02") (e:Unadjustable)

Centrage de la position de perforation

1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch Width].
2. Régler les valeurs.
   Si la perforation est trop proche de l'avant de la machine: Diminuez la valeur de réglage.
   Si la perforation est trop proche de l'arrière de la machine: Augmentez la valeur de réglage.
   Changement par graduation d'échelle: 0,52mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (d) >
   Spécifications métriques: d = 40,0mm ± 2mm ,e=80.0mm±0.5mm(e:Ajustement impossible)
   Spécifications en pouces: d = 34,93 mm ± 2mm (1,38" ± 0,08"),
   e=69.85mm±0.5mm(2.75"±0.02") (e:Ajustement impossible)

Centrado de la posición de perforación

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch Width].
2. Ajuste los valores.
   Si la perforación se encuentra demasiado cerca del frente de la máquina: Reduzca el valor de configuración.
   Si la perforación se encuentra demasiado cerca de la parte trasera de la máquina: Aumente el valor de configuración.
   Magnitud del cambio por incremento: 0,52 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (d) >
   Sistema métrico: d = 40,0mm ± 2mm,e=80.0mm±0.5mm (e:No ajustable)
   En pulgadas: d = 34,93mm ± 2mm (1,38" ± 0,08"),
   e=69.85mm±0.5mm(2.75"±0.02") (e:No ajustable)

Zentrieren der Stanzlochposition

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch Width].
2. Die Werte einstellen.
   Falls die Lochung zu nah an der Gerätefront liegt: Den Einstellwert verringern.
   Falls die Lochung zu weit weg von der Gerätefront liegt: Den Einstellwert erhöhen.
   Änderung pro Schritt: 0,52 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (d) >
   Metrischer Abstand: d = 40,0mm ± 2mm, e=80.0mm±0.5mm (e:Nicht einstellbar)
   Abstand in Zoll: d = 34,93 mm ± 2mm (1,38" ± 0,08"),
   e=69.85mm±0.5mm(2.75"±0.02") (e:Nicht einstellbar)

Centratura della posizione dei fori di perforazione

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch Width].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è troppo vicina alla parte anteriore della macchina: Diminuire il valore dell'impostazione.
   Se la posizione dei fori di perforazione è troppo vicina alla parte posteriore della macchina: Aumentare il valore dell'impostazione.
   Entità modifica per passo: 0,52 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (d) >
   Specificazione in unità metrica: d = 40,0mm ± 2mm, e=80.0mm±0.5mm (e:Non regolabile)
   Specificazione in pollici: d =34,93 mm ± 2mm (1,38" ± 0,08"),
   e=69.85mm±0.5mm(2.75"±0.02")(e:Non regolabile)

打孔位置中心调节

1. 进入维修保养模式 U246，把 [Finisher] > [Punch Width]。
2. 调整设定值。
   打孔位置向机器前部偏移时：调低设定值。
   打孔位置向机器后部偏移时：调高设定值。
   设定值的一个调整单位变化量：0.52mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (d) ＞
   公制规格：d=40.0mm±2mm ， e=80.0mm±0.5mm（e: 不可调整）
   英制规格：d=34.93mm±2mm(1.38"±0.08")，
   e=69.85mm±0.5mm(2.75"±0.02")（e: 不可调整）
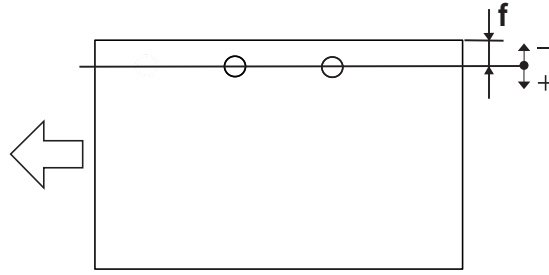
펀치위치 센터조정

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch Width] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기기 앞측으로 벗어난 경우 : 설정치를 내립니다 .
   펀치구멍의 위치가 기기 뒷측으로 벗어난 경우 : 설정치를 높입니다 .
   1 스텝당 변화량 : 0.52mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (d) ＞
   센티사양 : d=40.0mm±2mm ， e=80.0mm±0.5mm (e: 조정 불가)
   인치사양 : d=34.93mm±2mm(1.38"±0.08")，
   e=69.85mm±0.5mm(2.75"±0.02") (e: 조정 불가)

パンチ位置センター調整

1. メンテナンスモード U246 をセットし、[Finisher] > [Punch Width] を選択する。
2. 設定値を調整する。
   パンチ穴の位置が機械前側にずれている場合 : 設定値を下げる。
   パンチ穴の位置が機械後側にずれている場合 : 設定値を上げる。
   1 ステップ当たりの変化量 : 0.52mm

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (d) ＞
   センチ仕様 : d=40.0mm±2mm, e=80mm±0.5mm (e: 調整不可)
   インチ仕様 : d=34.93mm±2mm(1.38"±0.08")，
   e=69.85mm±0.5mm(2.75"±0.02") (e: 調整不可)

Adjusting the long-edge hole punch position (width)

1. Set the maintenance mode U246 and select [Finisher] > [Punch(L) Width].
2. Adjust the values.
   If the punch hole position is closer to the edge than the reference value (f): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (f): Decrease the setting value. Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (f)>
   Metric specification:13.0mm ± 1mm
   Inch specification: 9.5mm ± 1mm (0.37" ±0.04")

Ajustement de la position de perforation sur le bord long (largeur)

1. Passer en mode maintenance U246, sélectionner [Finisher] > [Punch(L)Width].
2. Régler les valeurs.
   Si la perforation est plus proche du bord de la feuille que défini par la valeur de référence (f): Augmentez la valeur de réglage.
   Si la perforation est plus loin du bord de la feuille que défini par la valeur de référence (f): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (f) >
   Spécifications métriques: 13,0mm ±1mm
   Spécifications en pouces: 9,5mm ±1mm (0,37" ±0,04")

Ajuste de la posición de perforación de agujeros en el borde largo (ancho)

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [Punch(L)Width].
2. Ajuste los valores.
   Si la posición de perforación está más cerca del borde que el valor de referencia (f): Aumente el valor de configuración.
   Si la posición de perforación está más alejada del borde que el valor de referencia (f): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (f)>
   Sistema métrico: 13,0mm ±1mm
   En pulgadas: 9,5mm ±1mm (0,37" ±0,04")

Lochposition der langen Seite einstellen (Breite)

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [Punch(L) Width].
2. Die Werte einstellen.
   Falls die Lochungsposition näher an der Kante liegt als der Bezugswert (f) erlaubt: Den Einstellwert erhöhen.
   Falls die Lochungsposition ferner von der Kante liegt als der Bezugswert (f) erlaubt: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (f) >
   Metrischer Abstand: 13,0mm ±1mm
   Abstand in Zoll: 9,5mm ±1mm (0,37" ± 0,04")

Regolazione della posizione di foratura sul lato lungo (larghezza)

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [Punch(L)Width].
2. Regolare i valori.
   Se la posizione dei fori di perforazione è più vicina al bordo rispetto al valore di riferimento (f): Aumentare il valore dell'impostazione.
   Se la posizione dei fori di perforazione è più lontana dal bordo rispetto al valore di riferimento (f): Diminuire il valore dell'impostazione.
   Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (f)>
   Specificazione in unità metrica: 13,0mm ±1mm
   Specificazione in pollici: 9,5mm ±1mm (0,37" ± 0,04")

长边打孔位置调整（宽度）

1. 进入维修保养模式 U246，把 [Finisher] > [Punch(L)Width]。
2. 调整设定值。
   打孔位置比基准值 (f) 短时: 调高设定值。
   打孔位置比基准值 (f) 长时: 调低设定值。
   设定值的一个调整单位变化量：0.19㎜
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值 (f) ＞
   公制规格: 13.0㎜±1mm
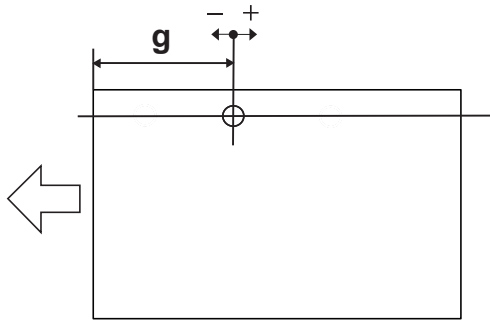   英制规格: 9.5㎜±1mm(0.37"±0.04")

긴 면 1 공 펀치 위치 조정 (폭)

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [Punch(L)Width] 를 선택합니다 .
2. 설정치를 조정합니다 .
   펀치구멍의 위치가 기준치 (f) 보다 짧은 경우:설정치를 높입니다 .
   펀치구멍의 위치가 기준치 (f) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (f) ＞
   센티사양:13.0mm ±1mm
   인치사양:9.5mm ±1mm (0.37"±0.04")

長辺パンチ位置調整（幅）

1. メンテナンスモード U246 をセットし、[Finisher] > [Punch(L) Width] を選択する。
2. 設定値を調整する。
   パンチ穴位置が基準値 (f) より短い場合:設定値を上げる。
   パンチ穴位置が基準値 (f) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順1 ～ 4 を繰り返す。
   ＜基準値 (f) ＞
   センチ仕様:13.0㎜±1mm
   インチ仕様:9.5㎜±1mm（0.37"±0.04"）

(Table.1)

	g
LetterR	99.7mm ± 1mm
A4R	108.5mm ± 1mm
B5R	88.5mm ± 1mm
16開R	96.5mm ± 1mm

(Table.2)

	g
LetterR	104.8mm ± 1mm (4.13" ± 0.04")
A4R	113.6mm ± 1mm (4.47" ± 0.04")
B5R	93.6mm ± 1mm (3.69" ± 0.04")
16開R	101.6mm ± 1mm (4.0" ± 0.04")

Adjusting the long-edge 2-hole punch position (1st hole)
1. Set the maintenance mode U246 and select Finisher] > [2Punch(L) 1].
2. Adjust the values.
   If the 1st hole punch position is shorter than the reference (g): Increase the setting value.
   If the 1st hole punch position is longer than the reference (g): Decrease the setting value.
   Amount of change per step: 0.19 mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (g)>
   Metric specification:Refer to (Table.1) above.
   Inch specification: Refer to (Table.2) above.

Ajustement de la position de perforation à 2 trous sur le bord long (1er trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [2Punch(L)1].
2. Régler les valeurs.
   Si la position de perforation du 1er trou est plus courte que la référence (g): Augmentez la valeur de réglage.
   Si la position de perforation du 1er trou est plus longue que la référence (g): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (g) >
   Spécifications métriques: Se reporter au (Table.1) ci-dessus.
   Spécifications en pouces: Se reporter au (Table.2) ci-dessus.

Ajuste de la posición de perforación de 2 agujeros en el borde largo (1er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [2Punch(L)1].
2. Ajuste los valores.
   Si la posición de perforación del 1er agujero es más corta que la de referencia (g): Aumente el valor de configuración.
   Si la posición de perforación del 1er agujero es más larga que la de referencia (g): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (g)>
   Sistema métrico: Consulte (Table.1) arriba.
   En pulgadas: Consulte (Table.2) arriba.

2-fach Lochposition der langen Seite einstellen (1. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [2Punch(L)1].
2. Die Werte einstellen.
   Falls die erste Lochposition kürzer als die Referenz (g) ist: Den Einstellwert erhöhen.
   Falls die erste Lochposition länger als die Referenz (g) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (g) >
   Metrischer Abstand:Siehe oben (Table.1).
   Abstand in Zoll:Siehe oben (Table.2).

Regolazione della posizione di foratura a due fori sul lato lungo (1° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [2Punch(L)1].
2. Regolare i valori.
   Se la posizione di foratura 1 è più corta rispetto al riferimento (g): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 1 è più lunga rispetto al riferimento (g): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (g)>
   Specificazione in unità metrica:Fare riferimento alla (Table.1) sopra riportata.
   Specificazione in pollici:Fare riferimento alla (Table.2) sopra riportata.

2 孔长边打孔位置调整（第 1 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [2Punch(L)1]。
2. 调整设定值。
   第 1 孔的位置比标准值（g）短时：调高设定值。
   第 1 孔的位置比标准值（g）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（g）＞
   公制规格：参照上图（Table.1）
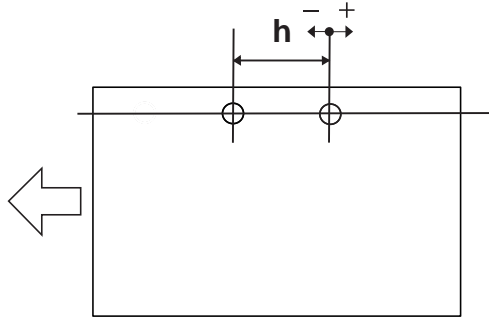   英制规格：参照上图（Table.2）

긴 면 2 공 펀치 위치 조정 (첫 번째)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [2Punch(L)1] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (g) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (g) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   <기준치 (g) >
   센티사양:위의 그림 (Table.1) 을 참조하십시오 .
   인치사양:위의 그림 (Table.2) 을 참조하십시오 .

2 穴長辺パンチ位置調整（1 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [2Punch(L)1] を選択する。
2. 設定値を調整する。
   1 穴目の位置が基準値 (g) より短い場合:設定値を上げる。
   1 穴目の位置が基準値 (g) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (g) ＞
   センチ仕様:上図 Table.1 参照
   インチ仕様:上図 Table.2 参照

Adjusting the long-edge 2-hole punch position (2nd hole)
1. Set the maintenance mode U246 and select [Finisher] > [2Punch(L)2].
2. Adjust the values.
   If the 2nd hole punch position is shorter than the reference (h): Increase the setting value.
   If the punch hole position is further from the edge than the reference value (h): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (h)>
   Metric specification:80.0mm ± 0.5mm
   Inch specification: 69.85mm ± 0.5mm (2.75" ± 0.02")

Ajustement de la position de perforation à 2 trous sur le bord long (2e trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [2Punch (L)2].
2. Régler les valeurs.
   Si la position de perforation du 2e trou est plus courte que la référence (h): Augmentez la valeur de réglage.
   Si la position de perforation du 2e trou est plus longue que la référence (h): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (h) >
   Spécifications métriques: d = 80mm ± 0,5mm
   Spécifications en pouces: d = 69,85mm ± 0,5mm (2,75" ± 0,02")

Ajuste de la posición de perforación de 2 agujeros en el borde largo (2º agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [2Punch(L)2].
2. Ajuste los valores.
   Si la posición de perforación del 2er agujero es más corta que la de referencia (h): Aumente el valor de configuración.
   Si la posición de perforación del 2er agujero es más larga que la de referencia (h): Reduzca el valor de configuración.
   Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (h)>
   Sistema métrico: 80.0mm ±0.5mm
   En pulgadas: 69,85mm ±0,5mm (2,75" ± 0,02")

2-fach Lochposition der langen Seite einstellen (2. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [2Punch(L)2].
2. Die Werte einstellen.
   Falls die zweite Lochposition kürzer als die Referenz (h) ist: Den Einstellwert erhöhen.
   Falls die zweite Lochposition länger als die Referenz (h) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (h) >
   Metrischer Abstand:80,0mm±0,5mm
   Abstand in Zoll:69,85mm±0,5mm(2,75" ± 0,02")

Regolazione della posizione di foratura a due fori sul lato lungo (2° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [2Punch(L)2].
2. Regolare i valori.
   Se la posizione di foratura 2 è più corta rispetto al riferimento (h): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 2 è più lunga rispetto al riferimento (h): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (h)>
   Specificazione in unità metrica: 80,0mm ±0,5mm
   Specificazione in pollici: 69,85mm ±0,5mm (2,75" ± 0,02")

2 孔长边打孔位置调整（第 2 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [2Punch(L)2]。
2. 调整设定值。
   第 2 孔的位置比标准值（h）短时：调高设定值。
   第 2 孔的位置比标准值（h）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（h）＞
   公制规格：80.0mm±0.5mm
   英制规格：69.85mm±0.5mm(2.75"±0.02")
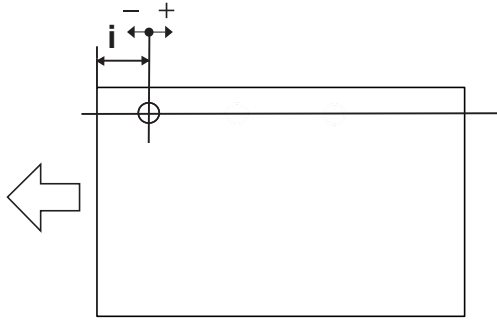
긴 면 2 공 펀치 위치 조정 (두 번째 공)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [2Punch(L)2] 를 선택합니다 .
2. 설정치를 조정합니다 .
   두 번째 펀치 구멍 위치가 기준 (h) 보다 짧은 경우 : 설정치를 높입니다 .
   두 번째 펀치 구멍 위치가 기준 (h) 보다 긴 경우 : 설정치를 내립니다 .
   1 스텝당 변화량 : 0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (h) ＞
   센티사양 : 80.0mm ±0.5mm
   인치사양 : 69.85mm ±0.5mm (2.75"±0.02")

2 穴長辺パンチ位置調整（2 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [2Punch(L)2] を選択する。
2. 設定値を調整する。
   2 穴目の位置が基準値 (h) より短い場合 : 設定値を上げる。
   2 穴目の位置が基準値 (h) より長い場合 : 設定値を下げる。
   1 ステップ当たりの変化量 : 0.19mm
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (h) ＞
   センチ仕様 : 80.0mm±0.5mm
   インチ仕様 : 69.85mm±0.5mm（2.75"±0.02"）

(Table.1)

	i
A4R	28.5mm ± 1mm

(Table.2)

	i
LetterR	31.8mm ± 1mm (1.25" ± 0.04")
A4R	40.5mm ± 1mm (1.59" ± 0.04")
16開R	28.5mm ± 1mm (1.12" ± 0.04")

Adjusting the long-egde 3-hole or 4-hole punch position (1st hole)
1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)1].
2. Adjust the values.
   If the 1st hole punch position is shorter than the reference (i): Increase the setting value.
   If the 1st hole punch position is longer than the reference (i): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (i)>
   Metric specification(4-hole):Refer to (Table.1) above.
   Inch specification(3-hole): Refer to (Table.2) above.

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (1er trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch (L)1].
2. Régler les valeurs.
   Si la position de perforation du 1er trou est plus courte que la référence (i): Augmentez la valeur de réglage.
   Si la position de perforation du 1er trou est plus longue que la référence (i): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (i) >
   Spécifications métriques(4 trous): Se reporter au (Table.1) ci-dessus.
   Spécifications en pouces(3 trous): Se reporter au (Table.2) ci-dessus.

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (1er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)1].
2. Ajuste los valores.
   Si la posición de perforación del 1er agujero es más corta que la de referencia (i): Aumente el valor de configuración.
   Si la posición de perforación del 1er agujero es más larga que la de referencia (i): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (i)>
   Sistema métrico(4 agujeros): Consulte (Table.1) arriba.
   En pulgadas(3 agujeros): Consulte (Table.2) arriba.

3-fach oder 4-fach Lochposition der langen Seite einstellen (1. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)1].
2. Die Werte einstellen.
   Falls die erste Lochposition kürzer als die Referenz (i) ist: Den Einstellwert erhöhen.
   Falls die erste Lochposition länger als die Referenz (i) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (i) >
   Metrischer Abstand(4-fach Lochung):Siehe oben (Table.1).
   Abstand in Zoll(3-fach Lochung):Siehe oben (Table.2).

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (1° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)1].
2. Regolare i valori.
   Se la posizione di foratura 1 è più corta rispetto al riferimento (i): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 1 è più lunga rispetto al riferimento (i): Diminuire il valore dell'impostazione.Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (i)>
   Specificazione in unità metrica(4 fori):Fare riferimento alla (Table.1) sopra riportata.
   Specificazione in pollici(3 fori):Fare riferimento alla (Table.2) sopra riportata.

3 孔、4 孔长边打孔位置调整（第 1 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [3/4Punch(L)1]。
2. 调整设定值。
   第 1 孔的位置比标准值（i）短时：调高设定值。
   第 1 孔的位置比标准值（i）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（i）＞
   公制规格（4 孔）：参照上图（Table.1）
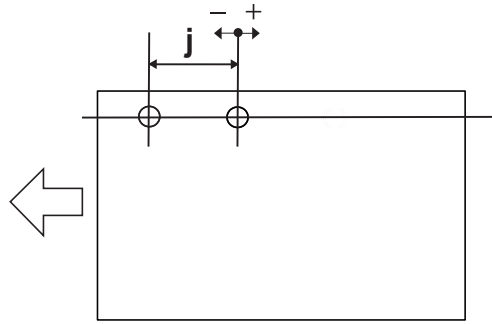   英制规格（3 孔）：参照上图（Table.2）

긴 면 3 공 또는 4 공 펀치 위치 조정 (첫 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)1] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (i) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (i) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   ＜기준치 (i) ＞
   센티사양 (4 공):위의 그림 (Table.1) 을 참조하십시오 .
   인치사양 (3 공):위의 그림 (Table.2) 을 참조하십시오 .

3 穴、4 穴長辺パンチ位置調整（1 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [3/4Punch(L)1] を選択する。
2. 設定値を調整する。
   1 穴目の位置が基準値 (i) より短い場合:設定値を上げる。
   1 穴目の位置が基準値 (i) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (i) ＞
   センチ仕様 (4 穴):上図 Table.1 参照
   インチ仕様 (3 穴):上図 Table.2 参照

Adjusting the long-egde 3-hole or 4-hole punch position (2nd hole)

1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)2].
2. Adjust the values.
   If the 2nd hole punch position is shorter than the reference (j): Increase the setting value.
   If the 2nd hole punch position is longer than the reference (j): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (j)>
   Metric specification(4-hole):80.0mm ± 0.5mm
   Inch specification(3-hole): 107.95mm ± 0.5mm (4.25" ± 0.02")

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (2e trou)

1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch(L)2].
2. Régler les valeurs.
   Si la position de perforation du 2e trou est plus courte que la référence (j): Augmentez la valeur de réglage.
   Si la position de perforation du 2e trou est plus longue que la référence (j): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (j) >
   Spécifications métriques(4 trous): d = 80,0mm ± 0,5mm
   Spécifications en pouces(3 trous): d = 107.95mm ± 0,5mm (2,75" ± 0,02")

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (2º agujero)

1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)2].
2. Ajuste los valores.
   Si la posición de perforación del 2º agujero es más corta que la de referencia (j): Aumente el valor de configuración.
   Si la posición de perforación del 2º agujero es más larga que la de referencia (j): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (j)>
   Sistema métrico(4 agujeros): 80,0mm±0,5mm
   En pulgadas(3 agujeros): 107,95mm±1mm (4,25" ± 0,02")

3-fach oder 4-fach Lochposition der langen Seite einstellen (2. Lochposition)

1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)2].
2. Die Werte einstellen.
   Falls die zweite Lochposition kürzer als die Referenz (j) ist: Den Einstellwert erhöhen.
   Falls die zweite Lochposition länger als die Referenz (j) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (j) >
   Metrischer Abstand(4-fach Lochung):80,0mm ±0,5mm
   Abstand in Zoll(3-fach Lochung):107,95mm ±0,5mm(4,25" ± 0,02")

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (2° foro)

1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)2].
2. Regolare i valori.
   Se la posizione di foratura 2 è più corta rispetto al riferimento (j): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 2 è più lunga rispetto al riferimento (j): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (j)>
   Specificazione in unità metrica(4 fori): 80,0mm ±0,5mm
   Specificazione in pollici(3 fori): 107,95mm ±0,5mm (4,25" ± 0,02")

3 孔、4 孔长边打孔位置调整（第 2 孔）

1. 进入维修保养模式 U246，把 [Finisher] > [3/4Punch(L)2]。
2. 调整设定值。
   第 2 孔的位置比标准值（j）短时：调高设定值。
   第 2 孔的位置比标准值（j）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1 ～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（j）＞
   公制规格（4 孔）：80.0mm±0.5mm
   英制规格（3 孔）：107.95mm±0.5mm(4.25"±0.02")

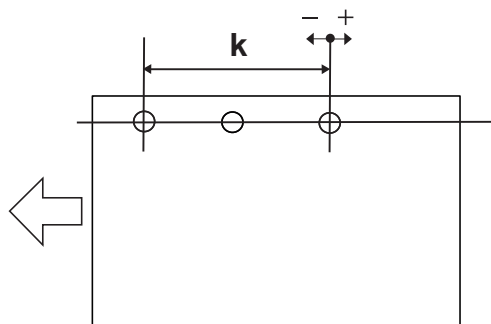## 긴 면 3 공 또는 4 공 펀치 위치 조정 (두 번째 구멍)

1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)2] 를 선택합니다 .
2. 설정치를 조정합니다 .
   첫 번째 펀치 구멍 위치가 기준 (j) 보다 짧은 경우:설정치를 높입니다 .
   첫 번째 펀치 구멍 위치가 기준 (j) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (j) ＞
   센티사양 (4 공):80.0mm ±0.5mm
   인치사양 (3 공):107.95mm ±0.5mm (4.25"±0.02")

3 穴、4 穴長辺パンチ位置調整（2 穴目）

1. メンテナンスモード U246 をセットし、[Finisher] > [3/4Punch(L)2] を選択する。
2. 設定値を調整する。
   2 穴目の位置が基準値（j）より短い場合:設定値を上げる。
   2 穴目の位置が基準値（j）より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19㎜
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値（j）＞
   センチ仕様（4 穴）:80.0mm±0.5mm
   インチ仕様（3 穴）:107.95mm±0.5mm（4.25"±0.02"）

Adjusting the long-egde 3-hole or 4-hole punch position (3rd hole)
1. Set the maintenance mode U246 and select [Finisher] > [3/4Punch(L)3].
2. Adjust the values.
   If the 3nd hole punch position is shorter than the reference (k): Increase the setting value.
   If the 3nd hole punch position is longer than the reference (k): Decrease the setting value.
   Amount of change per step: 0.19 mm
3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (k)>
   Metric specification(4-hole):160.0 mm ± 0.5mm
   Inch specification(3-hole) : 215.9 mm ± 0.5mm (8.5" ± 0.02")

Ajustement de la position de perforation à 3 ou 4 trous sur le bord long (3e trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [3/4Punch(L)3].
2. Régler les valeurs.
   Si la position de perforation du 3e trou est plus courte que la référence (k): Augmentez la valeur de réglage.
   Si la position de perforation du 3e trou est plus longue que la référence (k): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm
3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (k) >
   Spécifications métriques(4 trous): 160,0mm ± 0,5mm
   Spécifications en pouces(3 trous): 215,9 mm ± 0,5mm (8,5" ± 0,02")

Ajuste de la posición de perforación de 3 o 4 agujeros en el borde largo (3er agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [3/4Punch(L)3].
2. Ajuste los valores.
   Si la posición de perforación del 3er agujero es más corta que la de referencia (k): Aumente el valor de configuración.
   Si la posición de perforación del 3er agujero es más larga que la de referencia (k): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm
3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (k)>
   Sistema métrico(4 agujeros): 160,0mm±0,5mm
   En pulgadas(3 agujeros): 215,9mm±1mm (8,5" ± 0,02")

3-fach oder 4-fach Lochposition der langen Seite einstellen (3. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [3/4Punch(L)3].
2. Die Werte einstellen.
   Falls die dritte Lochposition kürzer als die Referenz (k) ist: Den Einstellwert erhöhen.
   Falls die dritte Lochposition länger als die Referenz (k) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm
3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (k) >
   Metrischer Abstand(4-fach Lochung):160,0mm ±0,5mm
   Abstand in Zoll(3-fach Lochung):215,9mm ±0,5mm(8,5" ±0,02")

Regolazione della posizione di foratura a tre o quattro fori sul lato lungo (3° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [3/4Punch(L)3].
2. Regolare i valori.
   Se la posizione di foratura 3 è più corta rispetto al riferimento (k): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 3 è più lunga rispetto al riferimento (k): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm
3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (k)>
   Specificazione in unità metrica(4 fori): 160,0mm ±0,5mm
   Specificazione in pollici(3 fori): 215,9mm ±0,5mm (8,5" ± 0,02")

3 孔、4 孔长边打孔位置调整（第 3 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [3/4Punch(L)3]。
2. 调整设定值。
   第 3 孔的位置比标准值（k）短时：调高设定值。
   第 3 孔的位置比标准值（k）长时：调低设定值。
   设定值的一个调整单位变化量：0.19mm
3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（k）＞
   公制规格（4 孔）：160.0mm±0.5mm
   英制规格（3 孔）：215.9mm±0.5mm(8.5"±0.02")
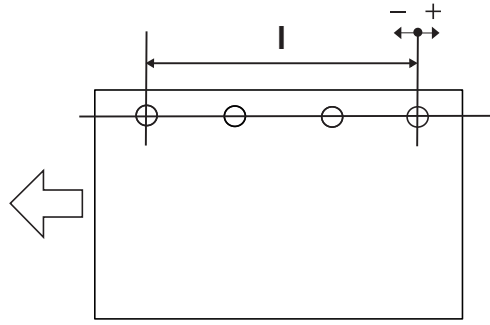
긴 면 3 공 또는 4 공 펀치 위치 조정 (세 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [3/4Punch(L)3] 를 선택합니다 .
2. 설정치를 조정합니다 .
   세번째 펀치 구멍 위치가 기준 (K) 보다 짧은 경우:설정치를 높입니다 .
   세번째 펀치 구멍 위치가 기준 (K) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm
3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ～ 4 단계를 반복 수행합니다 .
   ＜기준치 (k) ＞
   센티사양 (4 공):160.0mm ±0.5mm
   인치사양 (3 공):215.9mm ±0.5mm (8.5"±0.02")

3 穴、4 穴長辺パンチ位置調整（3 穴目）
1. メンテナンスモード U246 をセットし、[Finisher] > [3/4Punch(L)3] を選択する。
2. 設定値を調整する。
   3 穴目の位置が基準値 (k) より短い場合:設定値を上げる。
   3 穴目の位置が基準値 (k) より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19mm
3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
   ＜基準値 (k) ＞
   センチ仕様 (4 穴):160.0mm±0.5mm
   インチ仕様 (3 穴):215.9mm±0.5mm（8.5"±0.02")

Adjusting the long-edge 4-hole punch position (4th hole)
1. Enter the maintenance mode U246, select [Finisher] > [4Punch(L)4].
2. Adjust the values.
   If the 4nd hole punch position is shorter than the reference (l): Increase the setting value.
   If the 4nd hole punch position is longer than the reference (l): Decrease the setting value.
   Amount of change per step: 0.19 mm

3. Press the [Start] key to confirm the setting value.
4. Perform a test copy.
5. Repeat the steps 1 to 4 until the hole punch position is within the reference.
   <Reference value (l)>
   Metric specification(4-hole):240.0 mm ± 0.5mm

Ajustement de la position de perforation à 4 trous sur le bord long (4e trou)
1. Passer en mode maintenance U246, sélectionner [Finisher] > [4Punch(L)4].
2. Régler les valeurs.
   Si la position de perforation du 4e trou est plus courte que la référence (l): Augmentez la valeur de réglage.
   Si la position de perforation du 4e trou est plus longue que la référence (l): Diminuez la valeur de réglage.
   Changement par graduation d'échelle: 0,19 mm

3. Appuyer sur la touche de [Départ] pour confirmer la valeur de réglage.
4. Effectuer une copie de test.
5. Répéter les étapes 1 à 4 jusqu'à ce que la position de perforation soit dans la référence.
   <Valeur de référence (l) >
   Spécifications métriques(4 trous): 240,0mm ± 0,5mm

Ajuste de la posición de perforación de 4 agujeros en el borde largo (4º agujero)
1. Configure el modo de mantenimiento U246 y seleccione [Finisher] > [4Punch(L)4].
2. Ajuste los valores.
   Si la posición de perforación del 4º agujero es más corta que la de referencia (l): Aumente el valor de configuración.
   Si la posición de perforación del 4º agujero es más larga que la de referencia (l): Reduzca el valor de configuración. Magnitud del cambio por incremento: 0,19 mm

3. Pulse la tecla de [Inicio] para confirmar el valor de configuración.
4. Haga una copia de prueba.
5. Repita los pasos del 1 al 4 hasta que la posición de perforación de los agujeros esté dentro de los valores de referencia.
   <Valor de referencia (l)>
   Sistema métrico(4 agujeros): 240,0mm±0,5mm

4-fach Lochposition der langen Seite einstellen (4. Lochposition)
1. Aktivieren Sie den Wartungsmodus U246 und wählen Sie [Finisher] > [4Punch(L)4].
2. Die Werte einstellen.
   Falls die vierte Lochposition kürzer als die Referenz (l) ist: Den Einstellwert erhöhen.
   Falls die vierte Lochposition länger als die Referenz (l) ist: Den Einstellwert verringern. Änderung pro Schritt: 0,19 mm

3. Den Einstellwert durch Drücken der [Start]-Taste bestätigen.
4. Eine Testkopie erstellen.
5. Wiederholen Sie die Schritte 1 bis 4 solange, bis die Lochposition sich innerhalb der Referenz befindet.
   <Bezugswert (l) >
   Metrischer Abstand(4-fach Lochung):240,0mm ±0,5mm

Regolazione della posizione di foratura a quattro fori sul lato lungo (4° foro)
1. Impostare la modalità manutenzione U246 e selezionare [Finisher] > [4Punch(L)4].
2. Regolare i valori.
   Se la posizione di foratura 4 è più corta rispetto al riferimento (l): Aumentare il valore dell'impostazione.
   Se la posizione di foratura 4 è più lunga rispetto al riferimento (l): Diminuire il valore dell'impostazione. Entità modifica per passo: 0,19 mm

3. Premere il tasto di [Avvio] per confermare il valore dell'impostazione.
4. Eseguire una copia di prova.
5. Ripetere i punti da 1 a 4 fino a portare la posizione di foratura all'interno del riferimento.
   <Valore di riferimento (l)>
   Specificazione in unità metrica(4 fori): 240,0mm ±0,5mm

4 孔长边打孔位置调整（第 4 孔）
1. 进入维修保养模式 U246，把 [Finisher] > [4Punch(L)4]。
2. 调整设定值。
   第 4 孔的位置比标准值（l）短时：调高设定值。
   第 4 孔的位置比标准值（l）长时：调低设定值。
   设定值的一个调整单位变化量 : 0.19mm

3. 按 [开始] 键，以确定设定值。
4. 进行测试复印。
5. 重复步骤 1～ 4，直至打孔的孔的位置达到标准值。
   ＜基准值（l）＞
   公制规格（4 孔）：240.0mm±0.5mm

긴 면 4 공 펀치 위치 조정 (네 번째 구멍)
1. 메인터넌스 모드 U246 를 설정하고 [Finisher] > [4Punch(L)4] 를 선택합니다 .
2. 설정치를 조정합니다 .
   네번째 펀치 구멍 위치가 기준 (l) 보다 짧은 경우:설정치를 높입니다 .
   네번째 펀치 구멍 위치가 기준 (l) 보다 긴 경우:설정치를 내립니다 .
   1 스텝당 변화량:0.19mm

3. [복사 / 시작] 키를 누르고 설정치를 확인합니다 .
4. 테스트 카피를 합니다 .
5. 펀치 구멍 위치가 기준 이내가 될 때까지 1 단계 ~ 4 단계를 반복 수행합니다 .
   <기준치 (l) >
   센티사양 (4 공):240.0mm ±0.5mm

4 穴長辺パンチ位置調整（4 穴目 ）
1. メンテナンスモード U246 をセットし、[Finisher] > [4Punch(L)4] を選択する。
2. 設定値を調整する。
   4 穴目の位置が基準値（l）より短い場合:設定値を上げる。
   4 穴目の位置が基準値（l）より長い場合:設定値を下げる。
   1 ステップ当たりの変化量:0.19mm

3. [スタート] キーを押し、設定値を確定する。
4. テストコピーを行う。
5. パンチ穴の位置が基準値内になるまで、手順 1 ～ 4 を繰り返す。
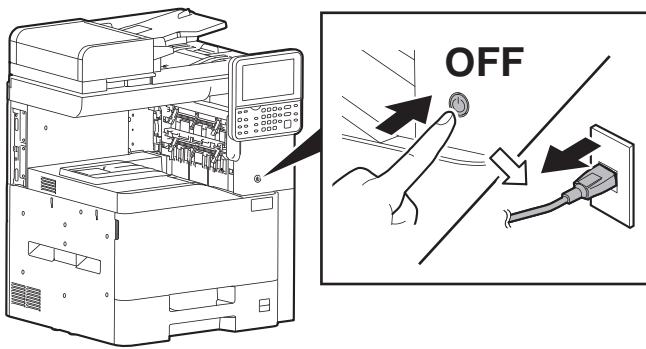   ＜基準値（l）＞
   センチ仕様（4 穴）:240.0mm±0.5mm

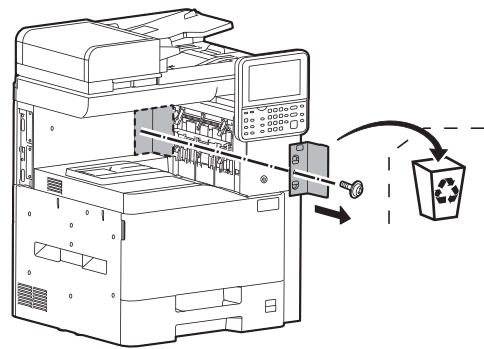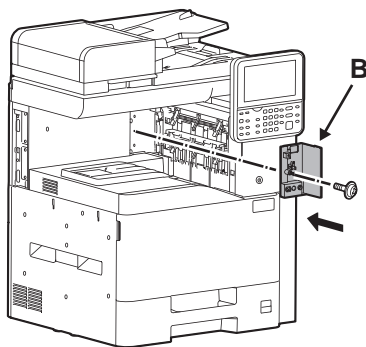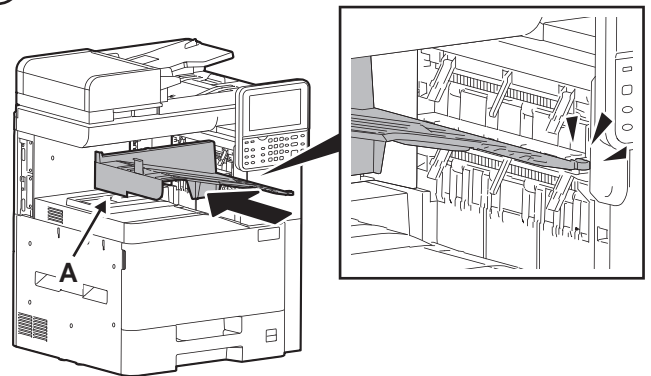# JS-5100

(Job separator)

Installation Guide

JS-5100

A

B

C

(M3x8)

① OFF

②

③ B

④ A

⑤

⑥

⑦

C (M3X8)

⑧

ON

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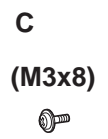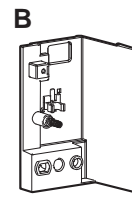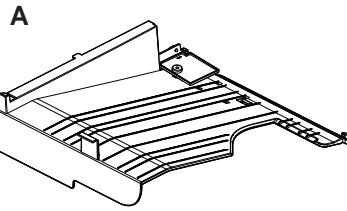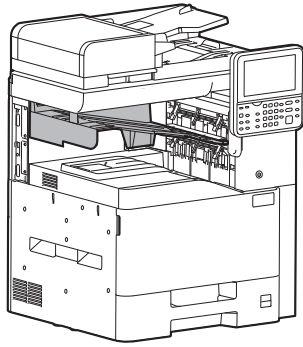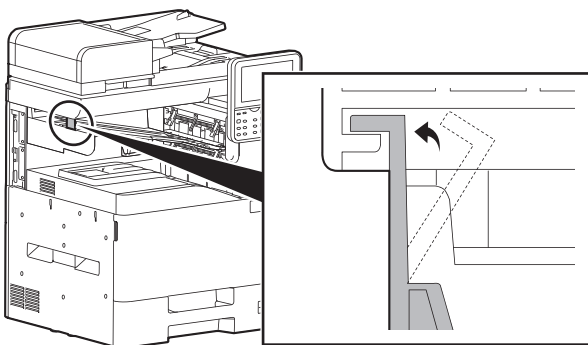
⑨

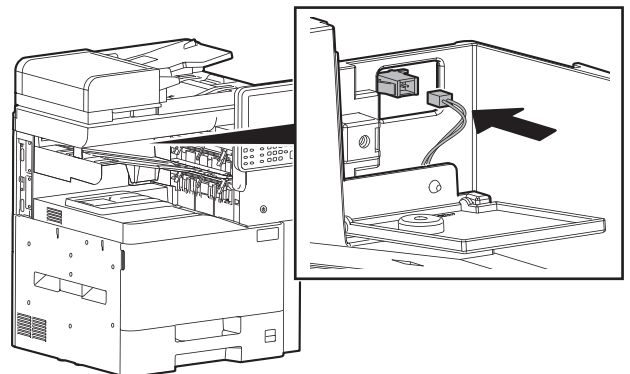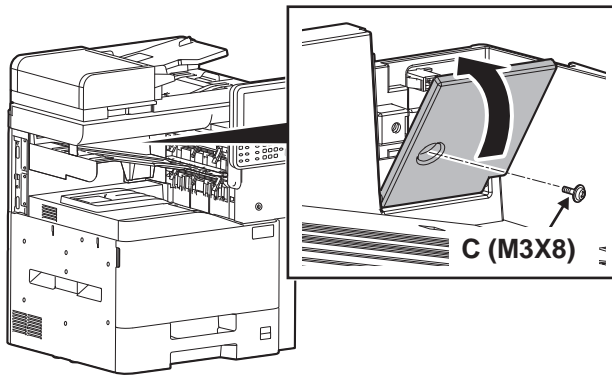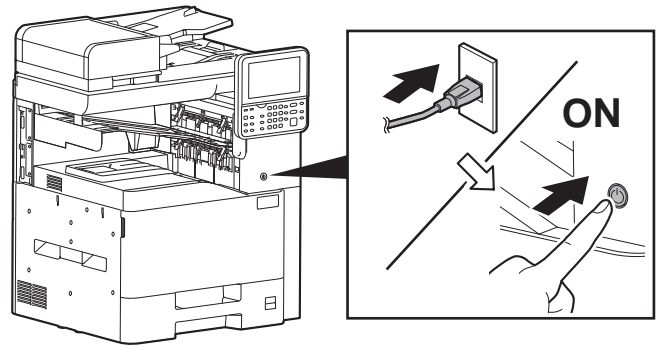**(30ppm)**

EN Set the maintenance mode U211, and set [Inner JobSepa] > [On].

FR Passez en mode maintenance U211 et paramétrer [Inner JobSepa] > [On].

ES Configure el modo de mantenimiento U211 y configure [Inner JobSepa] > [On] .

DE Aktivieren Sie den U-Parameter U211 und [Inner JobSepa] > [On].

IT Accedere al modo manutenzione U211, e selezionare [Inner JobSepa] > [On].

CN 进入维修保养模式 U211，把 [Inner JobSepa] > [On]。

KR 메인터넌스 모드 U211 을 설정하고 [Inner JobSepa] > [On]를 설정합니다.

JP メンテナンスモード U211 をセットし、[Inner JobSepa] > [On] を設定する。

(35ppm/40ppm)

EN Set the maintenance mode U211, and set [Inner Job Separator] > [On].

FR Passez en mode maintenance U211 et paramétrer [Inner Job Separator] > [On].

ES Configure el modo de mantenimiento U211 y configure [Inner Job Separator] > [On] .

DE Aktivieren Sie den U-Parameter U211 und [Inner Job Separator] > [On].

IT Accedere al modo manutenzione U211, e selezionare [Inner Job Separator] > [On].

CN 进入维修保养模式 U211，把 [Inner Job Separator] > [On]。

KR 메인터넌스 모드 U211 을 설정하고 [Inner Job Separator] > [On]를 설정합니다.

JP メンテナンスモード U211 をセットし、[Inner Job Separator] > [On] を設定する。

FAX System 10

(FAX Kit)

Installation Guide

INSTALLATION GUIDE

GUIDE D'INSTALLATION

GUÍA DE INSTALACION

INSTALLATIONSANLEITUNG

GUIDA ALL'INSTALLAZIONE

安装手册

설치안내서

設置手順書

FAX System 10

	100V	**120V**	**230V**	**240V**	**110V**	**220V**	**220-240V**
	Japan	North America/ Latin America	Europe	Australia/ New Zealand	Taiwan	China	Asia/ Korea
A	1	1	1	1	1	1	1
B	1	1* *PJJWC0016 Z (UL Listed. HUAN HSIN Type TL)	-	1	-	1	-
C	1	1	1	1	1	1	1
D	-	1	1	1	1	1	1
E	1	1	1	1	1	1	1
F	-	-	-	1	-	-	-
G	-	-	-	-	-	1	-
H	-	-	-	-	-	1	-
I	-	-	-	-	-	1	-
J	-	-	-	-	1	-	-
K	1	1	1	1	1	1	1

①

OFF

②

③

E / K(Option)

④

⑤

OPT1

⑥

A

⑦

B

B

C

C

C

(ENG) ⑧ - ⑭ : (Excluding 100 V models)

(FR) ⑧ - ⑭ :(Sauf sur les modèles 100 V)

(ES) ⑧ - ⑭ :(A excepción de los modelos de 100 V)

(DE) ⑧ - ⑭ :(Ausgenommen 100-V-Modelle)

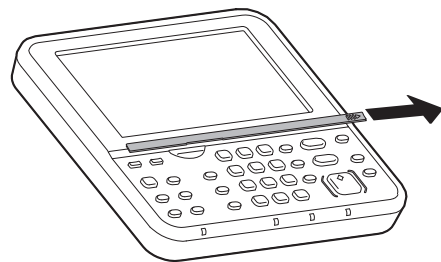(IT) ⑧ - ⑭ :(Esclusi i modelli da 100 V)

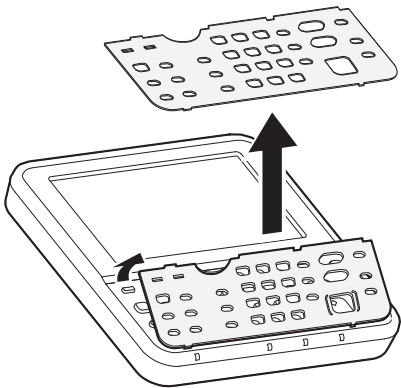(CN) ⑧～⑭ :(100V 规格以外)

(KO) ⑧ - ⑭ :(100V사양 이외)

(JP) ⑧ ～ ⑭ :(１００Ｖ仕様以外)

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⑧

⑨

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⑩

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⑪

①	ABC	DEF
② GHI	JKL	MNO
③ PRS	TUV	WXY
④ PQRS	TUV	WXYZ
⑤	OPER	

ABC DEF — Clear — Res

GHI JKL MNO — Quick No. Search — Sto

PRS TUV WXY — Enter — Sta

OPER

Processing   ◇ Memory   ! Attention
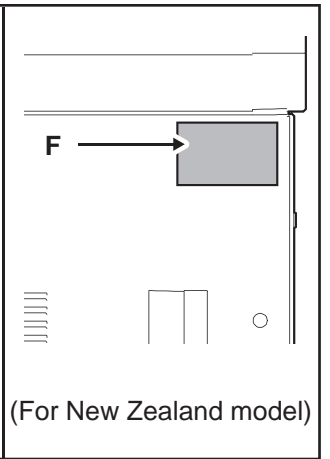
D

⑫

⑬

⑭

(For China model)

(For Taiwan model)

(For New Zealand model)
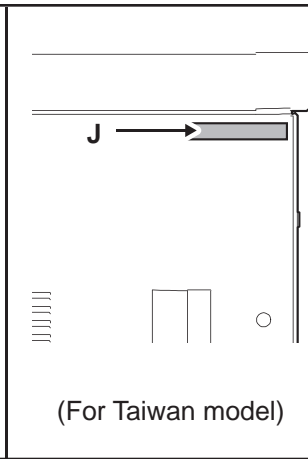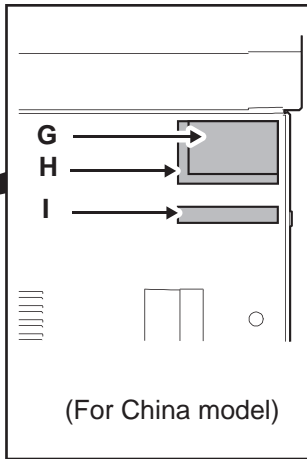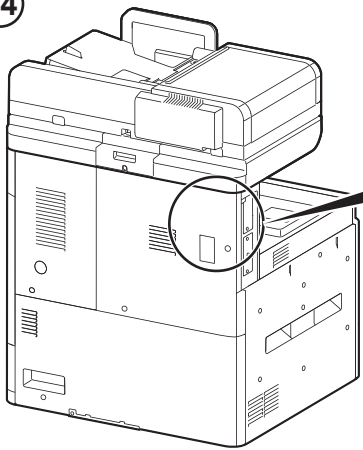
⑮ ENG (When installing the Multiport)

FR (En cas d'installation de la deuxième ligne de fax)

ES (Al instalar la segunda línea de fax)

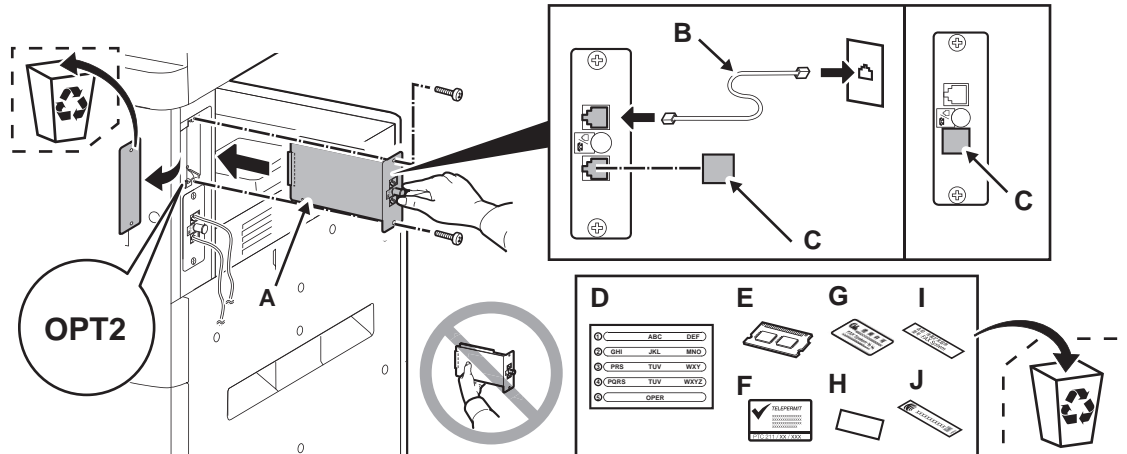DE (Wenn Sie eine zweite Fax-Karte installieren)
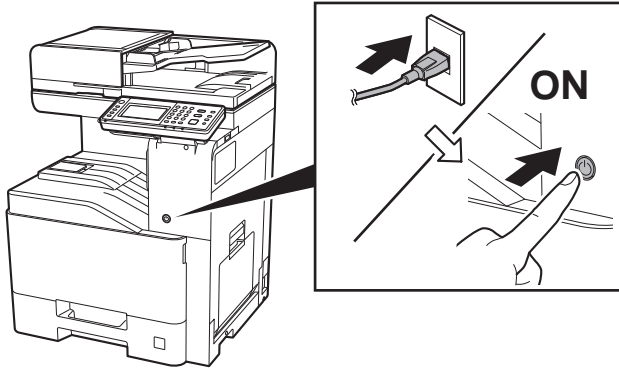
IT (Quando si installa la seconda linea Fax)

CN （安装了多功能端口）

KO (멀티포트를 설치하는 경우)

JP （マルチポートを設置する場合）

OPT2

4

⑯

ON

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⑰

Initialize the FAX circuit board.
1. If the FAX PWBs were installed simultaneously to OPT1 and OPT2 (all Fax PWBs are initialized), perform the maintenance mode U600 to ini-tialize the FAX PWBs.
2. If the FAX circuit board has been added to OPT2 (to initialize the FAX ircuit board in OPT2)
   Initialize OPT2 by pressing [PORT2], and the [Start] key in this order in the maintenance mode U698 and executing the maintenance mode U600. If [ALL] is selected in U698, both OPT1 and OPT2 are initialized.
   For details, see the service manual.

FR

Initialiser la carte à circuits FAX.
1. Si les cartes de circuit imprimé du fax ont été installées en même temps que OPT1 et OPT2 (toutes les cartes de circuit imprimé du fax sont initialisées), exécuter le mode maintenance U600 pour initialiser les cartes de circuit imprimé du fax.
2. Si la carte à circuits FAX a été ajoutée à l'OPT2 (pour initialiser la carte à circuits FAX dans l'OPT2)
   Initialiser l'OPT2 en appuyant sur [PORT2] et la touche [Départ] dans cet ordre en mode de maintenance U698, et exécuter le mode de maintenance U600. Si [ALL] est sélectionné dans U698, l'OPT1 et l'OPT2de détails, se reporter au manuel d'entretien.

ES

Inicialice la tarjeta de circuitos FAX.
1. Si se instalaron FAX PWB simultáneamente a OPT1 y OPT2 (se ini-cializan todos los FAX PWB), ejecute el modo de mantenimiento U600 para inicializar los FAX PWB.
2. Si la tarjeta de circuitos de FAX se agregó a OPT2 (para inicializar la tarjeta de circuitos de FAX en OPT2)
   Inicialice el OPT2 presionando [PORT2] y la tecla de [Inicio] en ese orden en el modo de mantenimiento U698 y ejecutando el modo de mantenimiento U600. Si se selecciona [ALL] en U698, se inicializan ambos OPT1 y OPT2. Para más detalles, lea el manual de servicio.

DE

Initialisieren der FAX-Leiterplatte.
1. Falls die FAX-Karten gleichzeitig in OPT1 und OPT2 installiert werden (alle FAX-Karten werden initialisiert), führen Sie den Wartungsmodus U600 aus, um die FAX-Karten zu initialisieren.
2. Wenn die FAX-Leiterplatte zu OPT2 hinzugefügt worden ist (um die FAX-Leit-erplatte in OPT2 zu7itialisieren)
   OPT2 initialisieren. Dazu [PORT2] und die [Start]-Taste im Wartungsmodus U698 in dieser Reihenfolge drücken und den Wartungsmodus U600 ausführen. Wenn [ALL] in U698 gewählt wird, werden OPT1 und OPT2 initialisiert. Weitere Einzelheiten siehe Wartungsanleitung.

IT

Inizializzare la scheda a circuiti FAX.
1. Se sono state installate simultaneamente le schede FAX PWB su OPT1 e OPT2 (tutte le schede FAX PWB sono inizializzate), eseguire il modo manutenzione U600 per inizializzare le schede FAX PWB.
2. Se la scheda a circuiti è stata aggiunta all'OPT2 (per inzializzare la scheda a circuiti FAX nell'OPT2)
   Inizializzare OPT2 premendo [PORT2] e il tasto [Avvio] in questo ordine nel modo di manutenzione U698 ed eseguendo il modo di manutenzione U600. Se viene selezionato [ALL] nel modo U698, entrambi OPT1 e OPT2 sono inizializzati. Per ulteriori dettagli leggere il manuale d'istruzioni.

CN

传真电路板的初始化
1. 当把传真电路板同时安装到 OPT1 和 OPT2 时（全部的传真电路板初始化），执行维修保养模式 U600，初始化传真电路板。
2. 在 OPT2 上增设时
   （OPT2 的传真电路板初始化）
   只进行 OPT2 初始化时，在维修保养模式 U698 状态下，按顺序按下 [PORT2]、[开始]键，执行维修保养模式 U600。在 U698 状态下设定 [ALL]时，会使 OPT1 和 OPT2 均初始化。有关详细信息，请参见维修手册。

KO

FAX 회로기판의 초기화
1. OPT1 과 OPT2 에 FAX 회로기판을 동시에 설치한 경우 (모든 FAX 회로기판이 초기화됨), 메인터넌스 모드 U600 을 수행하여 FAX 회로기판을 초기화합니다 .
2. OPT2 에 증설한 경우 (OPT2 의 FAX 기판을 초기화)
   메인터넌스모드 U698 에서 [PORT2], [시작]키 순으로 누릅니다 . 메인터넌스 모드 U600 을 실행하고 FAX 회로기판을 초기화합니다 .U698 에서 [ALL]을 설정하면 OPT1 과 OPT2 양쪽을 초기화하기 때문에 주의할 것 . 상세는 서비스 매뉴얼을 참조할 것 .
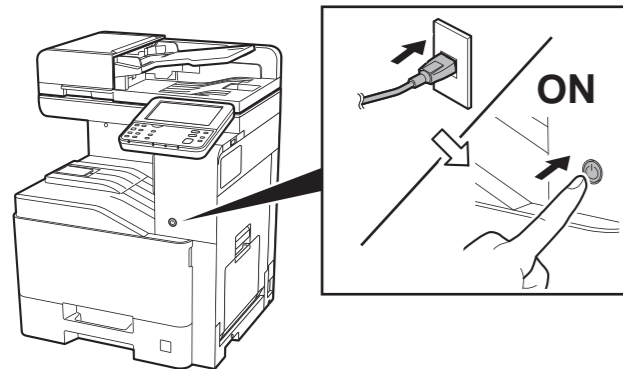
JP

FAX 基板の初期化
1. OPT1 と OPT2 に FAX 基板を同時に設置した場合（すべての FAX 基板を初期化）
   メンテナンスモード U600 を実行し、FAX 基板を初期化する。
2. OPT2 に増設した場合（OPT2 の FAX 基板を初期化）
   メンテナンスモード U698 で [PORT2] 、[スタート]キーの順に押す。メンテナンスモード U600 を実行し、FAX 基板を初期化する。U698 で [ALL] を設定すると OPT1 と OPT2 両方を初期化するので注意すること。詳細はサービスマニュアルを参照のこと。

FAX System 11

(FAX Kit)

Installation Guide

⑫

ON

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⑬

ENG **Initialize the FAX circuit board.**
Perform the maintenance mode U600 to initialize the FAX PWBs.

FR **Initialiser la carte à circuits FAX.**
Exécuter le mode maintenance U600 pour initialiser les cartes de circuit imprimé du fax.

ES **Inicialice la tarjeta de circuitos FAX.**
Ejecute el modo de mantenimiento U600 para inicializar los FAX PWB.

DE **Initialisieren der FAX-Leiterplatte.**
Führen Sie den Wartungsmodus U600 aus, um die FAX-Karte zu initialisieren.

IT **Inizializzare la scheda a circuiti FAX.**
Eseguire il modo manutenzione U600 per inizializzare le schede FAX PWB.

CN 传真电路板的初始化
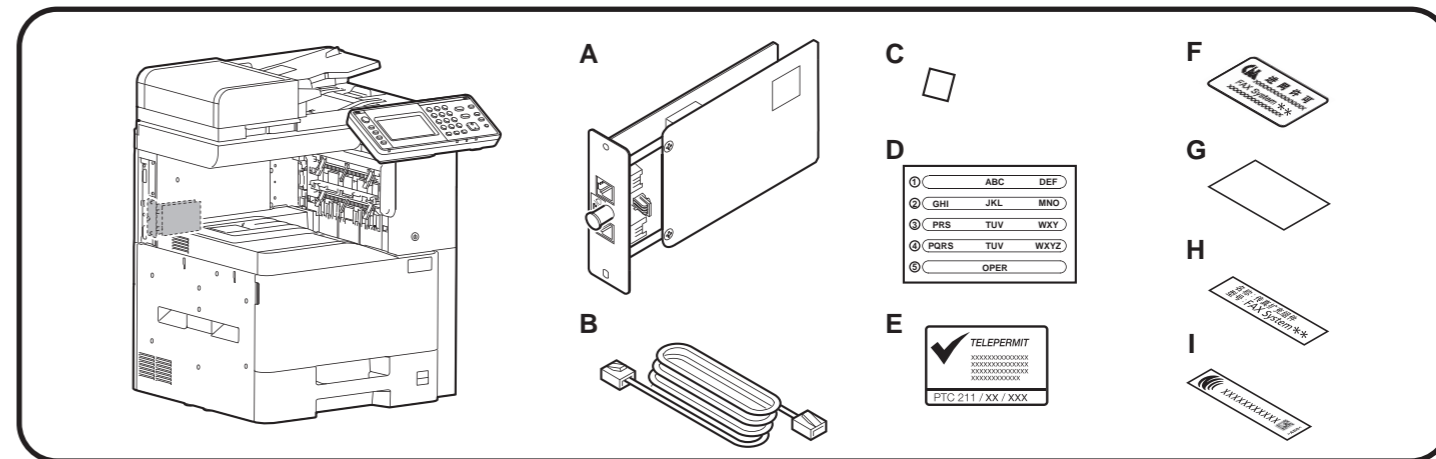执行维修保养模式 U600，初始化传真电路板。

KO FAX 회로기판의 초기화
메인터넌스 모드 U600을 수행하여 FAX 기판을 초기화합니다.
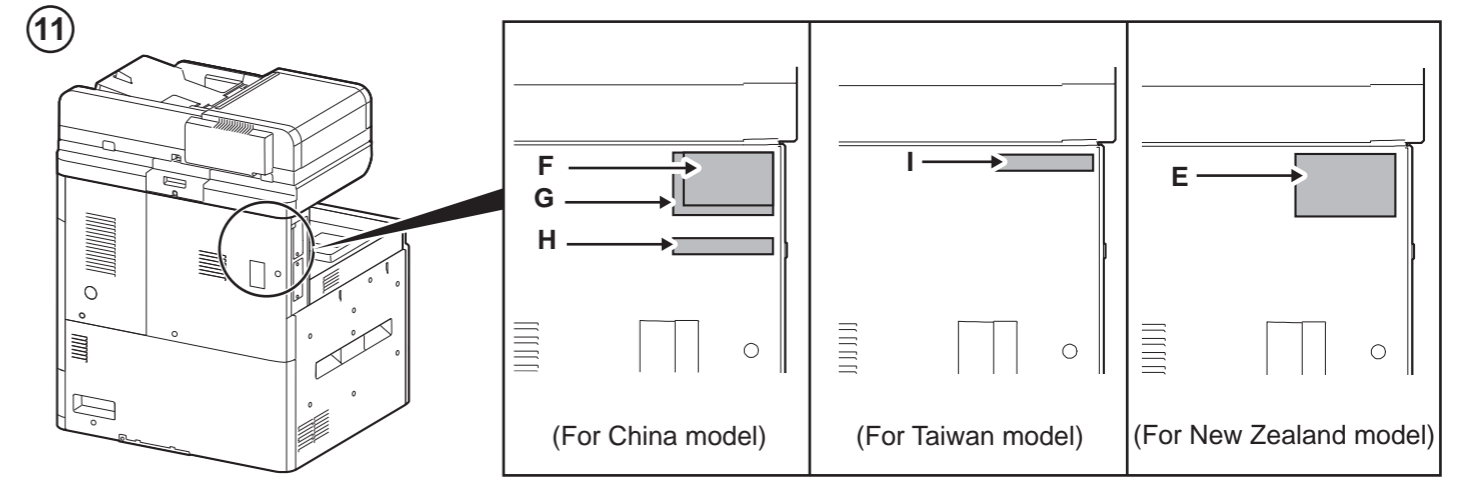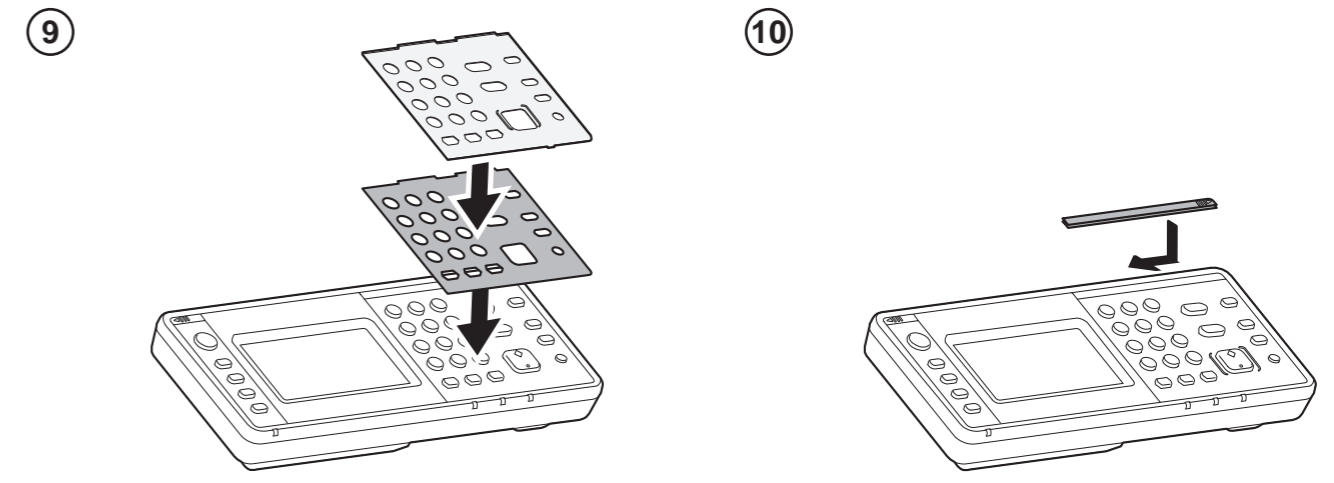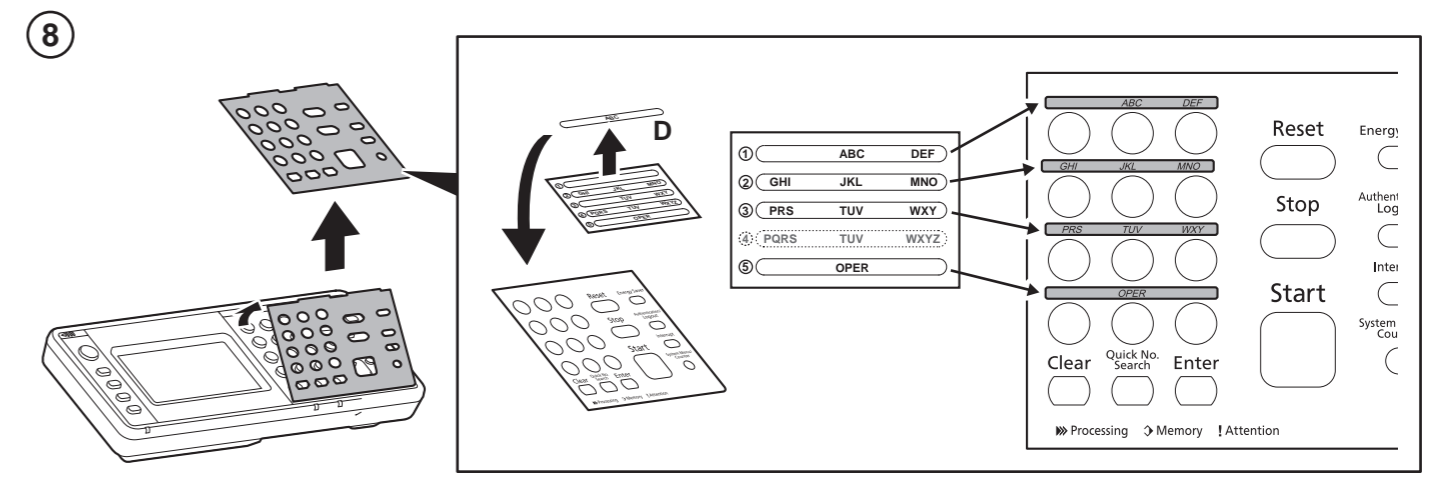
JP FAX 基板の初期化
メンテナンスモード U600 を実行し、FAX 基板を初期化する。

A

C

F

D

①	ABC	DEF
② GHI	JKL	MNO
③ PRS	TUV	WXY
④ PQRS	TUV	WXYZ
⑤	OPER	

G

H

B

E

TELEPERMIT
xxxxxxxxxxx
xxxxxxxxxxx
PTC 211 / XX / XXX

I

	100V	**120V**	**230V**	**240V**	**110V**	**220V**	**220-240V**
	Japan	North America/ Latin America	Europe	Australia/ New Zealand	Taiwan	China	Asia/ Korea
A	1	1	1	1	1	1	1
B	1	1* *PJJWC0016 Z (UL Listed. HUAN HSIN Type TL)	-	1	-	1	-
C	-	-	-	1	-	-	-
D	-	1	1	1	1	1	1
E	-	-	-	1	-	-	-
F	-	-	-	-	-	1	-
G	-	-	-	-	-	1	-
H	-	-	-	-	-	1	-
I	-	-	-	-	1	-	-

②

③

A

④

B

B

ENG (For New Zealand model) IT (Per il modello Nuova Zelanda)
FR (Modèle pour la Nouvelle-Zélande) CN （仅适用于新西兰型号）
ES (Para el modelo Nuevo Zelandés) KO （뉴질랜드 사양만 ）
DE (Für Neuseeland-Modell) JP （ニュージーランド仕様のみ）

C

C

ENG ⑤ - ⑪ : (Excluding 100 V models)
FR ⑤ - ⑪ :(Sauf sur les modèles 100 V)
ES ⑤ - ⑪ :(A excepción de los modelos de 100 V)
DE ⑤ - ⑪ :(Ausgenommen 100-V-Modelle)
IT ⑤ - ⑪ :(Esclusi i modelli da 100 V)
CN ⑤～⑪ :(100V 规格以外)
KO ⑤ - ⑪ :(100V사양 이외)
JP ⑤～⑪ :（１００Ｖ仕様以外）

⑤

⑥

⑦

⑧

D

①	ABC	DEF
②	GHI	JKL	MNO
③	PRS	TUV	WXY
④	PQRS	TUV	WXYZ
⑤	OPER		

Reset   Energy
Stop   Authent
Log
Start   Inter
Clear Quick No. Enter   System
Search   Cou

Processing Memory Attention

⑨

⑩

⑪

F
G
H

I

E

(For China model)   (For Taiwan model)   (For New Zealand model)

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