KYOCERA

ECOSYS P3060dn
ECOSYS P3055dn
ECOSYS P3050dn
ECOSYS P3045dn
PF-320
PF-3100

SERVICE MANUAL

Published in Febuary 2017
2T6SM063
Rev.3

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES 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 at A4.

		KDJ	KDA	KDE	KDAU
ECOSYS P3060dn	60 ppm	○	○	○	○
ECOSYS P3055dn	55 ppm	×	○	○	○
ECOSYS P3050dn	50 ppm	×	○	○	○
ECOSYS P3045dn	45 ppm	○	○	○	○

Revision history

Revision	Date	pages	Revised contents
1	20 September 2016	Contents	Change: 1-2-3 (3) Added: 1-6-2 (2)
		1-2-14	Correction: Item name Added: Note of detaching and refitting
		1-4-9	Correction: C0840/1010
		1-4-11, 1-4-12	Correction: C1140/1150
		1-4-15	Correction: C2330/2340
		1-4-17, 1-4-18	Correction: C4200/5100/6000/6030
		1-4-20 to 22	Correction: C6130/7100/7400/7410/7800/7810/7900/F000 Deleted: C7000
		1-6-1	Correction: The order of the firmware
		1-6-6	Added: (2) Main PWB
2	27 December 2016	1-2-14	Correction: Figure 1-2-24 (Wi-Fi PWB cover) Added: Caution sentense of precedure 1
		1-3-17	Correction: Description of Toner LOG
		1-4-25	Correction: Remarks (-/F000/F15x)
		2-2-1 2-2-3 to 5	Correction: Machine front →Machine right
3	27 January 2017	1-1-1	Correction: A5 printing speed on simplex
		1-1-2	Correction: Altitude(8,202→14,482feet)
		1-5-22, 1-5-23	Added: Precautions for board replacement
		-	Added: Service manual (PF-320/PF-3100)

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. .....

- 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. .....

- 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. .....

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

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

1-5 Assembly and disassembly

1-6 Requirements on PWB Replacement

2-1 Mechanical Construction

2-2 Electrical Parts Layout

2-3 Operation of the PWBs

2-4 Appendixes

Installation Guide

- 500 sheets paper feeder
- 2000 sheets bulk feeder
- SSD (HD-6/HD-7)
- IEEE1284 Interface
- Network interface
- Wireless LAN interface

1-1-1 Specifications

Item		Specifications			
		45 ppm	**50 ppm**	**55 ppm**	**60 ppm**
Type		Desktop			
Printing method		Electrophotography by semiconductor, single drum system			
Paper weight	**Cassette**	60 to 120 g/m^2			
	MP tray	60 to 220 g/m^2, 209.5 g/m^2 (Cardstock)			
Paper type	**Cassette**	Plain, Preprinted, Bond, Recycled, Rough, Letterhead, Color, Prepunched, High Quality, and CUSTOM 1 (to 8)			
	MP tray	Plain, Recycled, Bond, Color (Colour), Preprinted, Letterhead, Prepunched, Rough, High quality, Label, Transparency, Cardstock, Vellum, Thick, Envelope, Custom 1 to 8			
Paper size	**Cassette**	Envelope DL, Envelope C5, Executive, 8 1/2 ×11"(Letter), 8 1/2 ×14"(Legal), A4, B5, A5, A5-R, ISO B5, Oficio II, 216 ×340 mm, 16K, Statement, Folio,and Custom	Envelope DL, Envelope C5, Executive, 8 1/2 × 11"(Letter), 8 1/2 × 14"(Legal), A4, B5, A5, A5-R, A6, B6, ISO B5, Oufuku Hagaki, Oficio II, 216 × 340 mm, 16K, Statement, Folio, and Custom		
	MP tray	Envelope Monarch, Envelope #10, Envelope DL, Envelope C5, Executive, 8 1/2 × 11"(Letter), 8 1/2 × 14"(Legal), A4, B5, A5, A5-R, A6, B6, Envelope #9, Envelope #6, ISO B5, Hagaki, Oufuku Hagaki, Oficio II, 216 × 340 mm, 16K, Statement, Folio, Youkei 2, Youkei 4, and Custom			
Magnification ratio		20 to 500%, 1% increments			
Printing Speeds	**Simplex**	A4: 45 ppm B5: 36 ppm A5: 23 ppm Letter: 47 ppm Legal: 38 ppm	A4: 50 ppm B5: 40 ppm A5: 27 ppm A6: 27 ppm Letter: 52 ppm Legal: 42 ppm	A4: 55 ppm B5: 44 ppm A5: 29 ppm A6: 29 ppm Letter: 57 ppm Legal: 46 ppm	A4: 60 ppm B5: 48 ppm A5: 32 ppm A6: 32 ppm Letter: 62 ppm Legal: 50 ppm
	Duplex	A4: 22.5 ppm B5: 18 ppm A5: 11.5 ppm Letter: 23.5 ppm Legal: 19 ppm	A4: 36 ppm B5: 28 ppm A5: 19 ppm Letter: 37 ppm Legal: 21 ppm	A4: 39.5 ppm B5: 20.3 ppm A5: 20.3 ppm Letter: 40.5 ppm Legal: 23 ppm	A4: 42 ppm B5: 34 ppm A5: 23 ppm Letter: 44 ppm Legal: 25 ppm
First print time (A4, feed from cassette)		5.9 s or less	6.2 s or less	6.6 s or less	4.9 s or less
		(Excluding time for system stabilization immediately after turning on the main power.)			

Item		Specifications			
		45 ppm	**50 ppm**	**55 ppm**	**60 ppm**
Warm-up time (22 °C, 60% RH)	**Power on**	15 s or less	20 s or less	25 s or less	25 s or less
	Sleep *1	15 s or less	20 s or less	25 s or less	25 s or less
Paper capacity	**Cassette**	500 sheets (80g/m^2)			
	MP tray	100 sheets (80 g/m^2)			
Output tray capacity	**Top Tray**	250 sheets	500 sheets		
	Face-up Tray	-	250 sheets		
Photoconductor		a-Si drum (diameter 30 mm)			
Image write system		Semiconductor laser			
Charging system		Contact charger roller method			
Developer system		Mono component dry developing method Toner replenishing: Automatic from the toner container			
Transfer system		Transfer roller method			
Separation system		Small diameter separation, dischager needle (DC bias)			
Cleaning system		Counter blade cleaning + cleaning roller			
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			
Continuous printing		1 to 999 sheets			
Resolution		Fine 1200 mode, Fast 1200 mode, 600 dpi, 300 dpi			
Operating environment	**Temperature**	10 to 32.5 °C (50 to 90.5 °F)			
	Humidity	15 to 80% RH			
	Altitude	3,500 m (11,482 feet) maximum			
	Illumination	1,500 lux maximum			
Controller		ARM Cortex-A9, ARM Cortex-M3			
Operating system		Windows XP, Windows Server 2003/R2, Windows Vista, Windows Server 2008/ R2, Windows 7, Apple Macintosh OS 10.4 or later			
Interface	**Standard**	USB Interface Connector: 1 USB Host: 2 eKUIO slot:1			
	Option	HD-6/HD-7, IB-50, IB-51, IB-36, IB-32B			
Page description language		PRESCRIBE			
Emulation		PCL6 (PCL5e, PCL-XL), KPDL3 (PostScript3 compatible), XPS, Open XPS, TIFF/JPEG Direct Print, IBM Proprinter, LQ-850, Line Printer			
Main memory		512 MB / 2560 MB (Standard / Max)			

Item	Specifications			
	45 ppm	**50 ppm**	**55 ppm**	**60 ppm**
Dimensions (W × D × H)	380 × 410 × 285 mm 15 × 16 9/64 ×11-1/4"	380 × 410 × 320 mm 15 × 16 9/64 × 12 5/8"		
Weight (with toner container)	Approx. 15.1 kg (33.29 lbs)	Approx. 16.4 kg (33.16 lbs)		
Power Requirement	120 V, 60 Hz, 9.5 A 220-240 V, 50 Hz/60 Hz, 5.4 A	120 V, 60 Hz, 10.0 A 220-240 V, 50 Hz/60 Hz, 5.6 A		
Power source	100 V, 50 Hz/60 Hz, 11.4 A 120 V, 60 Hz, 9.5 A 220-240 V, 50 Hz/60 Hz, 5.4 A	100 V, 50/60 Hz, 11.9 A 120 V, 60 Hz, 10.0 A 220-240 V, 50 Hz/60 Hz, 5.6 A		
Options	Expanded memory, Paper Feeder (500-sheet × 4), SSD(HD-6/HD-7), SD Card, Network Interface Kit (IB-50),Wireless Network Interface Kit (IB-51), Wireless Network Interface Kit (IB-36), Parallel Interface Kit (IB-32B), Bulk Paper Feeder (PF-3100), Card Authentication Kit(B), Faceup Output Tray (PT-320) *1			

*1: 60/55/50 ppm model only

Paper Feeder (PF-320) (Option)

Item	Description
The maximum number of paper cassettes	4
Paper size	× 11"(Letter), 8 1/2 × 14"(Legal), A4, B5, A5, B6, Envelope #9, Envelope #6, ISO B5, Oufuku Hagaki, Oficio II, 216 × 340 mm, 16K, Statement, Folio, Youkei 2, Youkei 4, and Custom
Paper type	Plain, Preprinted, Bond, Recycled, Rough, Letterhead, Color, Pre-punched, Envelope, High Quality, and CUSTOM 1 (to 8)
Paper capacity	500 sheets (80 g/m2)
Dimensions (W × D × H)	380 × 410 × 121 mm 15 × 16 1/8 × 4 3/4"
Weight	3.8 kg or less (8.4 lbs or less)

Bulk Paper Feeder (PF-3100) (Option)

Item	Description
Paper size	Envelope Monarch, Envelope #10, Envelope DL, Envelope C5, Executive, Letter, A4, B5, A5, A6, B6, Envelope #9, Envelope #6, ISO B5, Custom, Hagaki, Oufuku Hagaki, 16K, Statement, Youkei 2 and Youkei 4
Paper type	Plain, Transparency, Preprinted, Labels, Bond, Recycled, Vellum, Rough, Letterhead, Color, Prepunched, Envelope, Cardstock, Thick, High Quality, and CUSTOM 1 (to 8)
Paper capacity	2,000 sheets (75 g/m2)
Dimensions (W × D × H)	345 × 420 × 371 mm 13 37/64 × 13 17/32 × 14 39/64"
Weight	7.5 kg or less (16.54 lbs or less)

SSD(HD-6/HD-7) (Option)

Item	Description	
	HD-6	**HD-7**
Capacity	32GB	128GB
Power supply	From the machine	

Network Interface Kit (IB-50) (Option)

Item		Description
CPU		SoC 88F6180
RAM		64 MBytes
Flash ROM		16 MBytes
Connectors		10BASE-T / 100BASE-TX / 1000BASE-T
Printer interface		eKUIO?5.0V?
Operating system		Windows XP (32bit/64bit) / Vista (32bit/64bit) / 7 (32bit/64bit) / Server 2003 (32bit/64bit) / Server 2008 (32bit/64bit) NetWare 3.x. / 4.x. / 5.x. / 6.x MacOS 9.x / Mac OS X (PowerPC: Ver 10.3.x-Ver 10.5.5 / Intel: Ver 10.4.4-Ver 10.7.x) UNIX
Network protocols	**IPv6**	Apple Bonjour Compatible, DHCPv6, DNSv6, FTP, FTPS, HTTP, HTTPS, ICMPv6, IKEv1, IPP, IPPS, Kerberos, LDAP, LPD, POP3, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint
	IPv4	Apple Bonjour Compatible, BOOTP, DHCP, DNS, FTP, FTPS, HTTP, HTTPS, ICMP, IPP, IPPS, KCP, Kerberos, LDAP, LPD, NetBIOS over TCP/IP, POP3, POP3 over SSL, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint, WINS
	Other	AppleTalk, IPX/SPX, LLTD, NetBEUI, NetWare (NDS/Bindery)
Security protocols		EAP-TLS, EAP-TTLS, EAP-FAST, IKE, PEAP, SNMPv3, SSL/TLS (HTTPS)
Operating conditions		0 to 70°C, 20 to 80 % RH, no condensation
Storage conditions		-20 to 50°C, 20 to 90 % RH, no condensation
EMI conformity		FCC Class B (USA), CE (EU), VCCI Class B (Japan)

Wireless Network Interface Kit (IB-51) (Option)

Item			Description
CPU			SoC 88F6180
RAM			64 MB
ROM			16 MB
Wireless network interface	**IEEE802.11b**	**Frequency**	2.4GHz
		Transmission system	DS-SS
		Transmission speed	1/2/5.5/11 (Mbps)
		Channel	1-11ch
	IEEE802.11g	**Frequency**	2.4GHz
		Transmission system	OFDM
		Transmission speed	6/9/12/18/24/36/48/54 (Mbps)
		Channel	1-11ch
	IEEE802.11n	**Frequency**	2.4GHz
		Transmission system	OFDM
		Transmission speed	Max 300Mbps
		Channel	1-11ch
	Authentication method		Open System / Shard Key / WPA / WPA2
	Encryption mode		None / WEP (64bit / 128bit) / TKIP / AES When running in IEEE 802.11n, only AES is supported.
Antenna			Non-directional antenna × 2
Printer interface			eKUIO?5.0V?
Operating system			Windows XP (32bit/64bit) / Vista (32bit/64bit) / 7 (32bit/64bit) / Server 2003 (32bit/64bit) / Server 2008 (32bit/64bit) NetWare 3.x. / 4.x. / 5.x. / 6.x MacOS 9.x / Mac OS X (PowerPC: Ver 10.3.x-Ver 10.5.5 / Intel: Ver 10.4.4-Ver 10.7.x) UNIX

Item		Description
Network protocols	**IPv6**	Apple Bonjour Compatible, DHCPv6, DNSv6, FTP, FTPS, HTTP, HTTPS(IPPS), ICMPv6, IKEv1, IPP, IPPS, Kerberos, LDAP, LPD, POP3, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint
	IPv4	Apple Bonjour Compatible, BOOTP, DHCP, DNS, FTP, FTPS, HTTP, HTTPS, ICMP, IPP, IPPS, KCP, Kerberos, LDAP, LPD, NetBIOS over TCP/IP, POP3, POP3 over SSL, RawPort, SLP, SMTP, SNMP, SNMPv1/v2c/v3, SNTP, ThinPrint, WINS
	Other	AppleTalk, IPX/SPX, LLTD, NetBEUI, NetWare (NDS/Bindery)
Security protocols		EAP-TLS, EAP-TTLS, EAP-FAST, IKE, PEAP, SNMPv3, SSL/TLS (HTTPS)
Operating conditions		0 to 60 °C, 20 to 80 % RH, no condensation
Storage conditions		-20 to 50 °C, 20 to 90 % RH, no condensation
EMI conformity		FCC Class B (USA), CE (EU), VCCI Class B (Japan)

Wireless Network Interface Kit (IB-36) (Option)

Item	Description
Installation Environment	Conforms to the machine's installation environment
Interface	Wireless Network Interface × 1 (IEEE802.11n compliant)
Power supply	From the machine

Parallel Interface KIt (IB-32B) (Option)

Item	Description
Installation Environment	Conforms to the machine's installation environment
Interface	Parallel Interface × 1 (IEEE-1284 compliant)
Power supply	From the machine

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Components at the Front/Right of the Printer

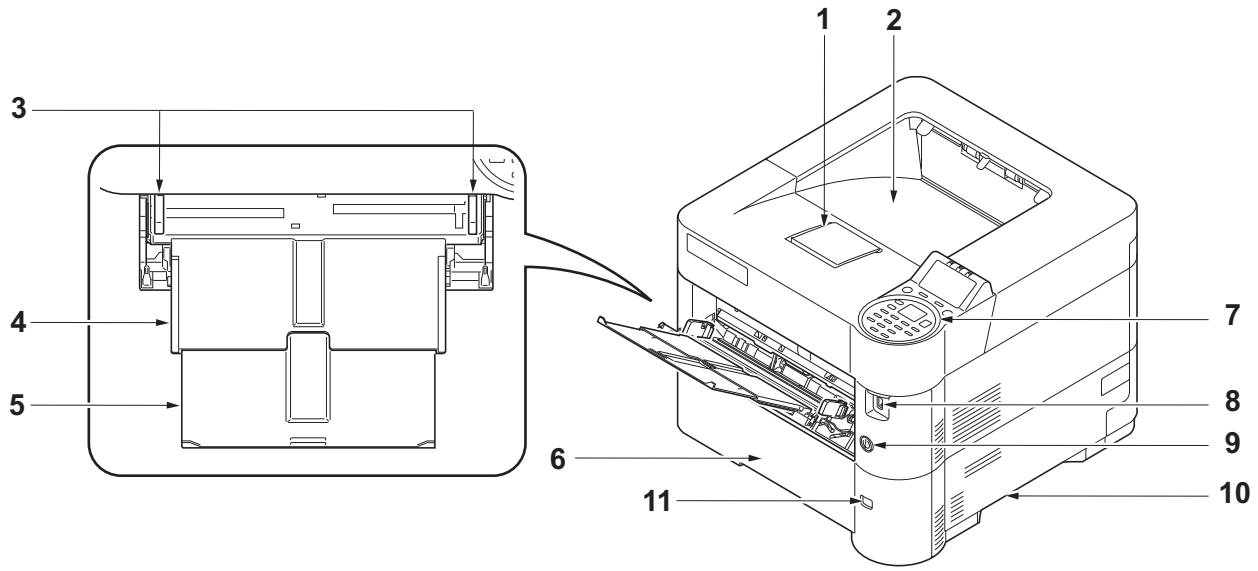

Figure 1-1-1

1. Paper Stopper
2. Top Tray
3. Paper Width Guides (MP tray)
4. MP (Multi-Purpose) Tray
5. Support Tray Section of the MP Tray
6. Cassette 1
7. Operation Panel
8. USB Memory Slot
9. Power Switch
10. Handholds
11. Paper Size Window

(2) Components at the Front/Left of the Printer

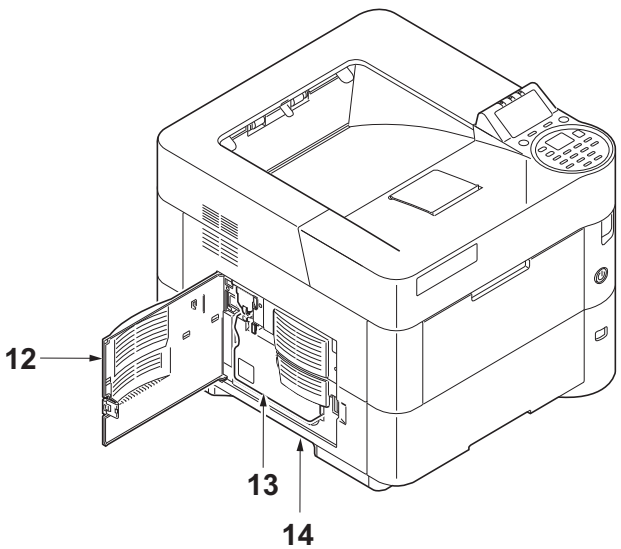

Figure 1-1-2

12. Left Cover
13. Waste Toner Box
14. Handholds

(3) Internal Components

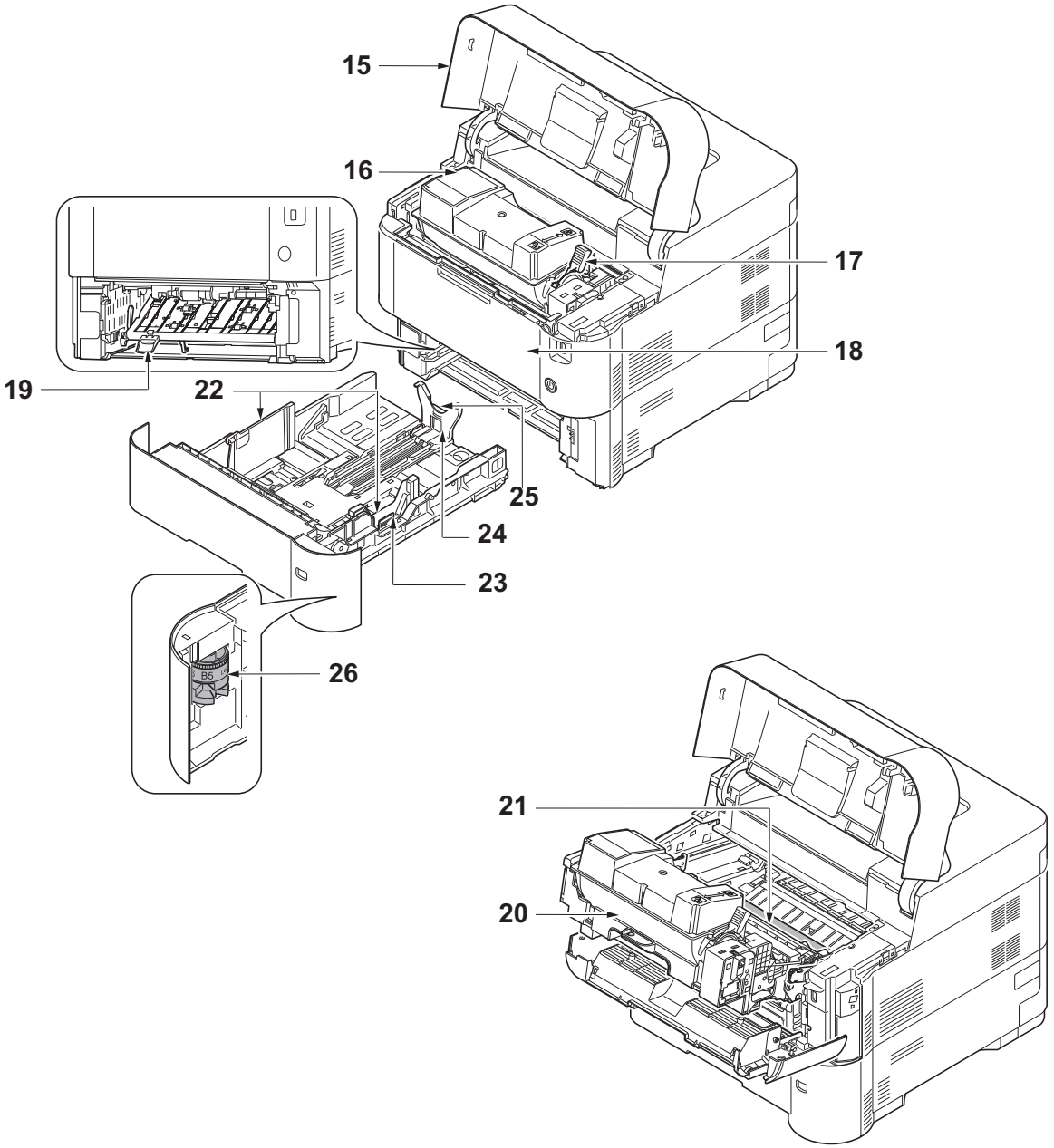

Figure 1-1-3

15. Top Cover
16. Toner Container
17. Lock Lever
18. Front Cover
19. Duplex Front Cover
20. Developer Unit
21. Registration Roller
22. Paper Width Guides
23. Paper Width Adjusting Tab
24. Paper Length Guide
25. Paper Length Adjusting Tab
26. Paper Size Dial

(4) Components at the Rear of the Printer

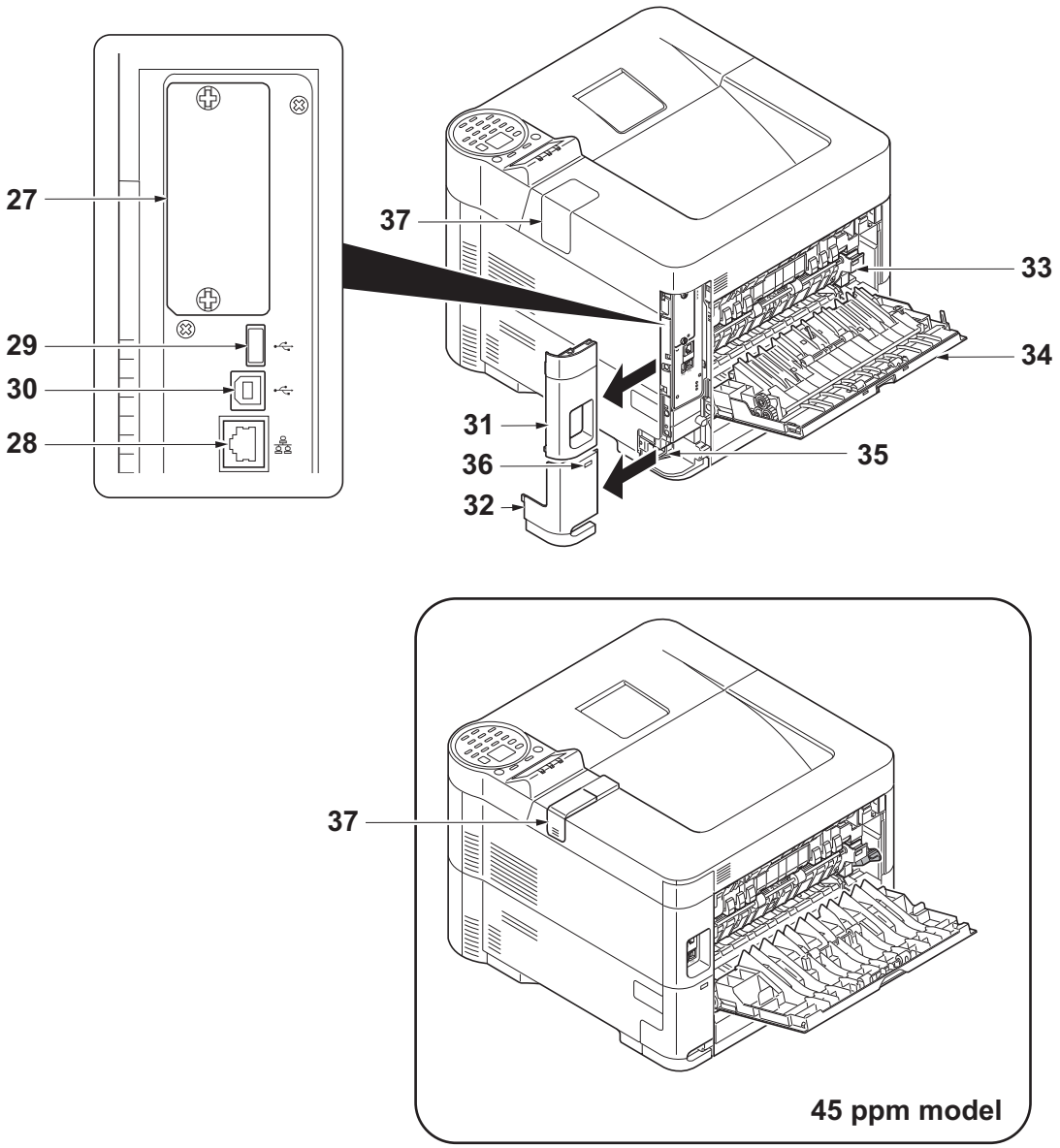

Figure 1-1-4

27. Option Interface Slot
28. Network Interface Connector
29. USB Port
    (For Card Authentication Kit)
30. USB Interface Connector
31. Interface Cover
32. Power Cord Connector Cover
33. Fuser Cover
34. Rear Cover
35. Power Cord Connector
36. Anti-theft Lock Slot
37. Wi-Fi Cover

(5) Operation section

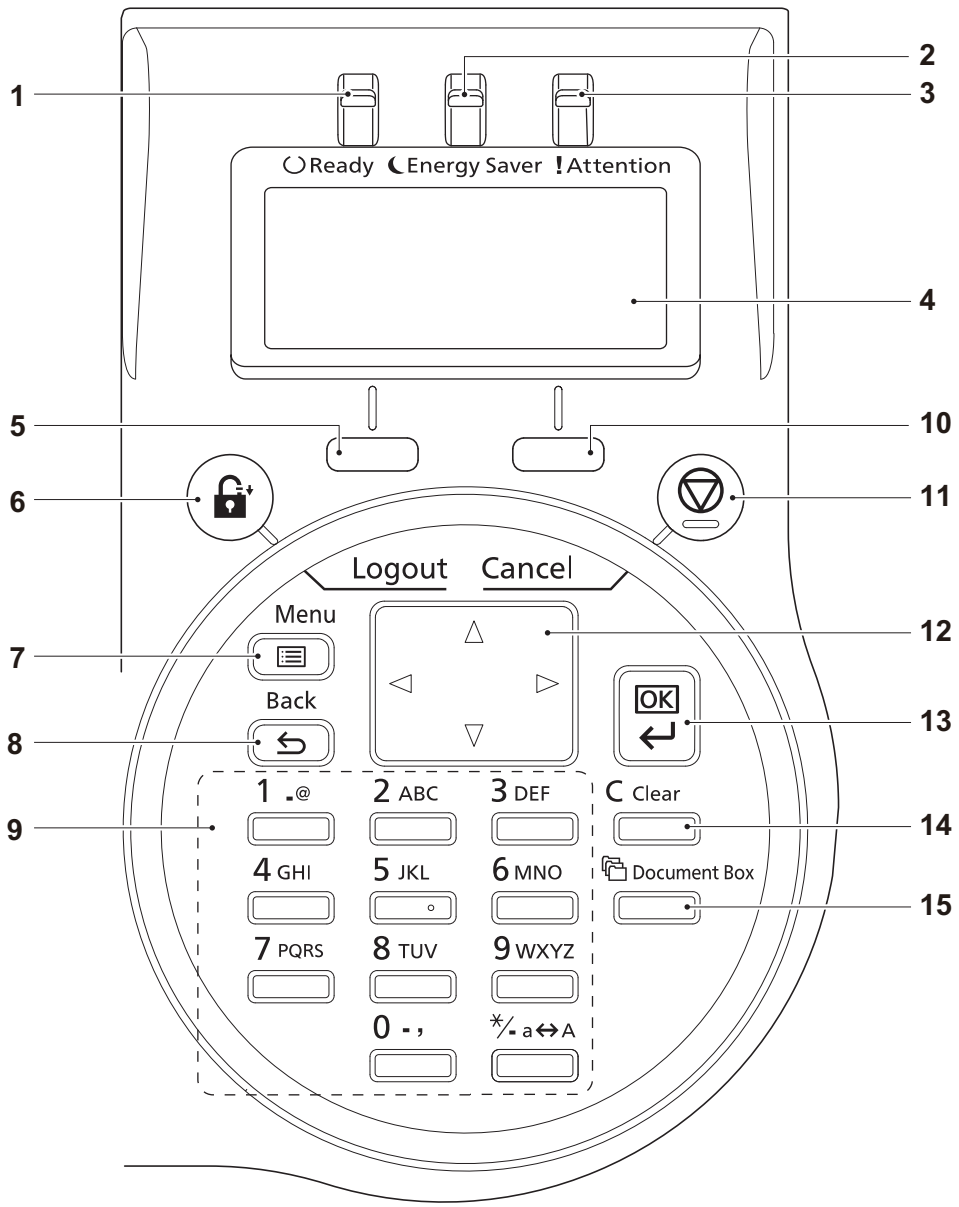

Figure 1-1-5

1. Ready indicator
2. Energy Saver Indicator
3. Attention indicator
4. Message display
5. Left select key
6. Logout key
7. Menu key
8. Back key
9. Numeric keys
10. Right select key
11. Cancel key
12. Cursor keys
13. OK key
14. Clear key
15. Document box key

1-1-3 Machine cross section

(1) 60/55/50 ppm model

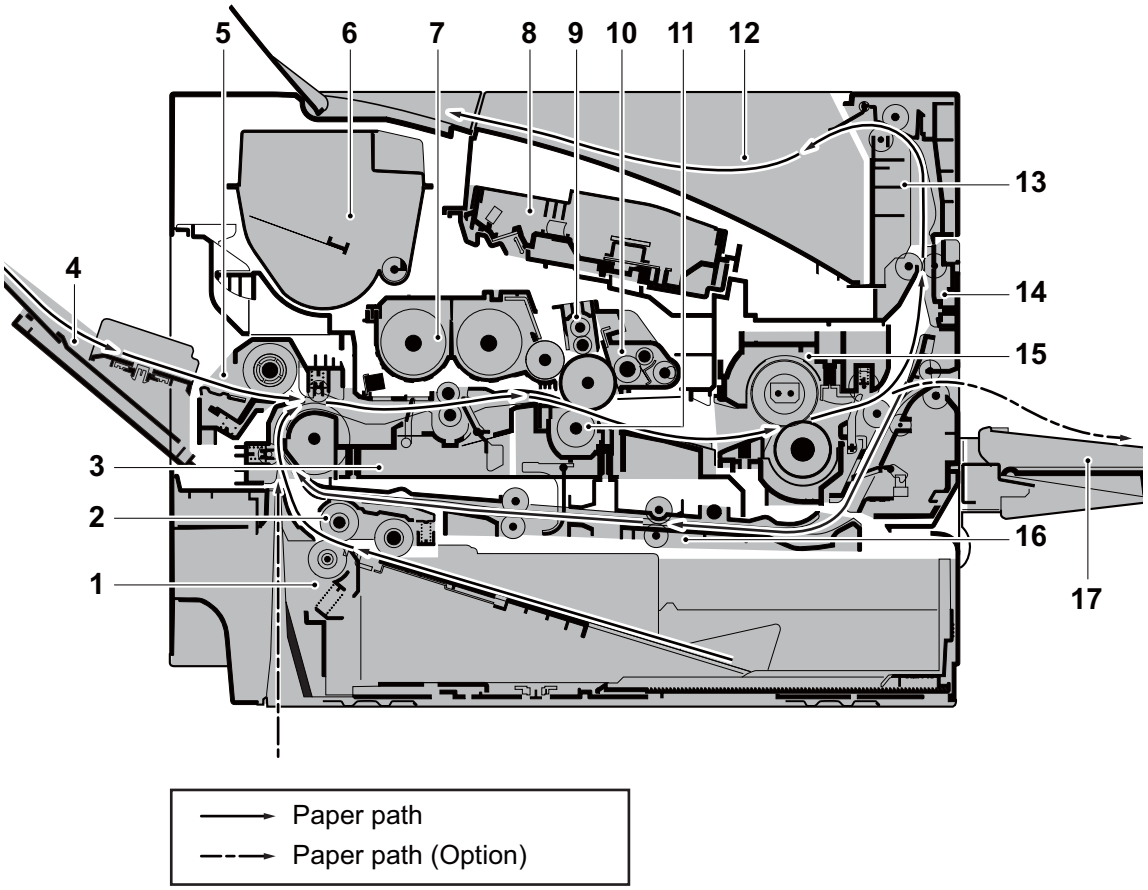

Figure 1-1-6

1. Cassette
2. Cassette paper feed section
3. Paper feed conveying section
4. MP tray
5. MP tray paper feed section
6. Toner container
7. Developer unit
8. Laser scanner unit (LSU)
9. Charger roller unit
10. Drum unit
11. Transfer/Separation section
12. Eject tray (facedown)
13. Eject section
14. Eject conveying section
15. Fuser unit
16. Duplex conveyning section
17. Faceup tray (option)

(2) 45 ppm model

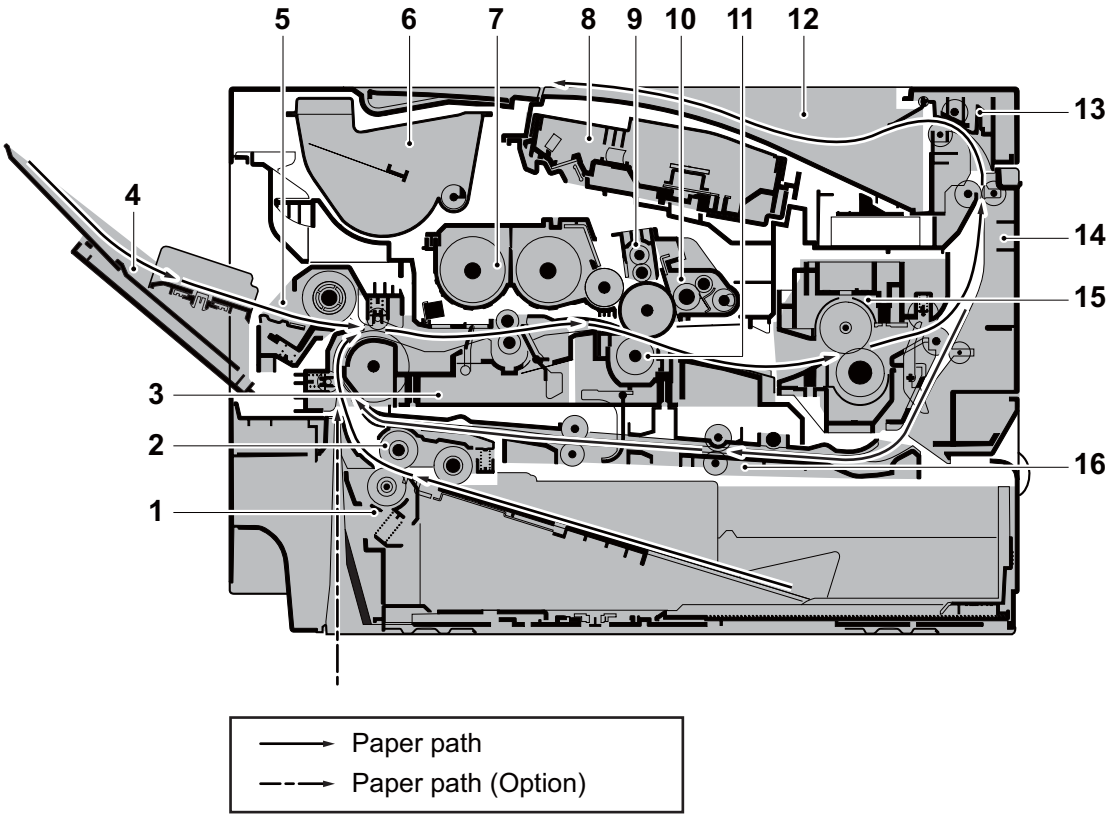

Figure 1-1-7

1. Cassette
2. Cassette paper feed section
3. Paper feed conveying section
4. MP tray
5. MP tray paper feed section
6. Toner container
7. Developer unit
8. Laser scanner unit (LSU)
9. Charger roller unit
10. Drum unit
11. Transfer/Separation section
12. Eject tray (facedown)
13. Eject section
14. Eject conveying section
15. Fuser unit
16. Duplex conveyning section

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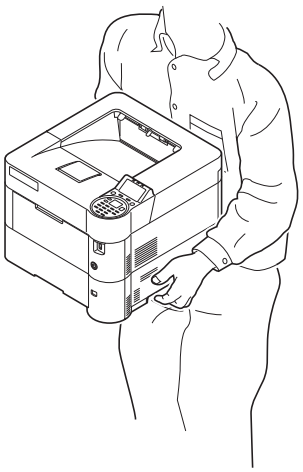
1-2-1 Installation environment

1. Temperature: 10 to 32.5°C/50 to 90.5°F
2. Humidity: 15 to 80% RH
3. Power supply: 100 V AC 50/60 Hz, 11.4A
   120 V AC 60 Hz, 9.5 A
   220 - 240 V AC 50/60 Hz , 5.4 A
4. Power supply frequency: 50 Hz ±2%/60 Hz ±2%
5. Installation location
   Avoid direct sunlight or bright lighting. Ensure that the photoconductor will not be exposed to direct sunlight or other strong light when removing paper jams.
   Avoid locations subject to high temperature and high humidity or low temperature and low humidity; an abrupt change in the environmental temperature; and cool or hot, direct air.
   Avoid places subject to dust and vibrations.
   Choose a surface capable of supporting the weight of the machine.
   Place the machine on a level surface (maximum allowance inclination: 1°).
   Avoid air-borne substances that may adversely affect the machine or degrade the photoconductor, such as mercury, acidic of alkaline vapors, inorganic gasses, NOx, SOx gases and chlorine-based organic solvents.
   Select a well-ventilated location.
6. Allow sufficient access for proper operation and maintenance of the machine.



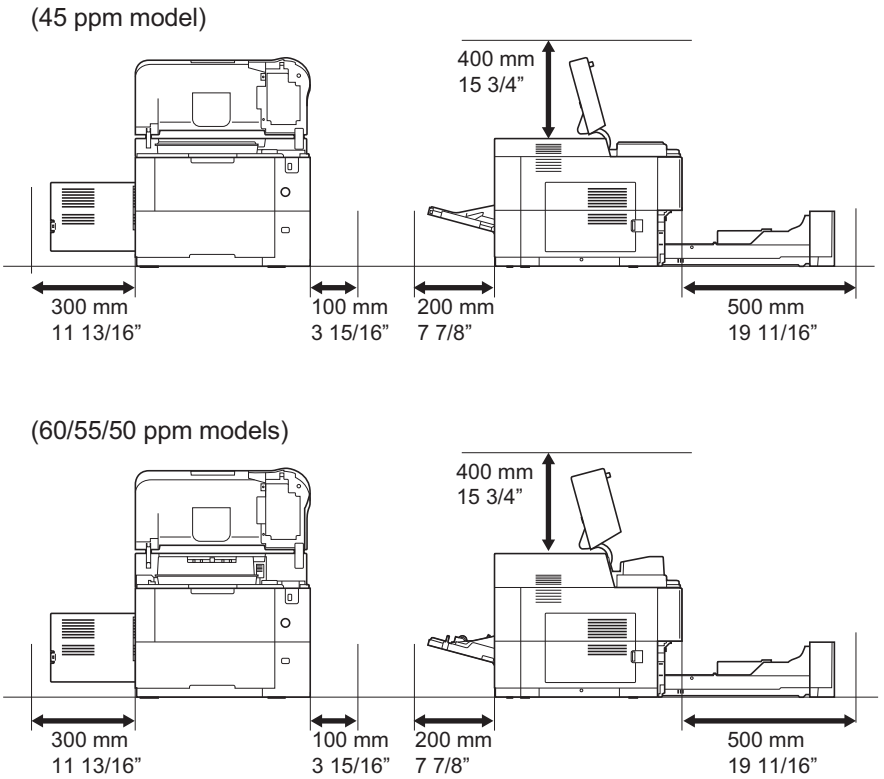


Figure 1-2-1

1-2-2 Unpacking and installation

Unpacking

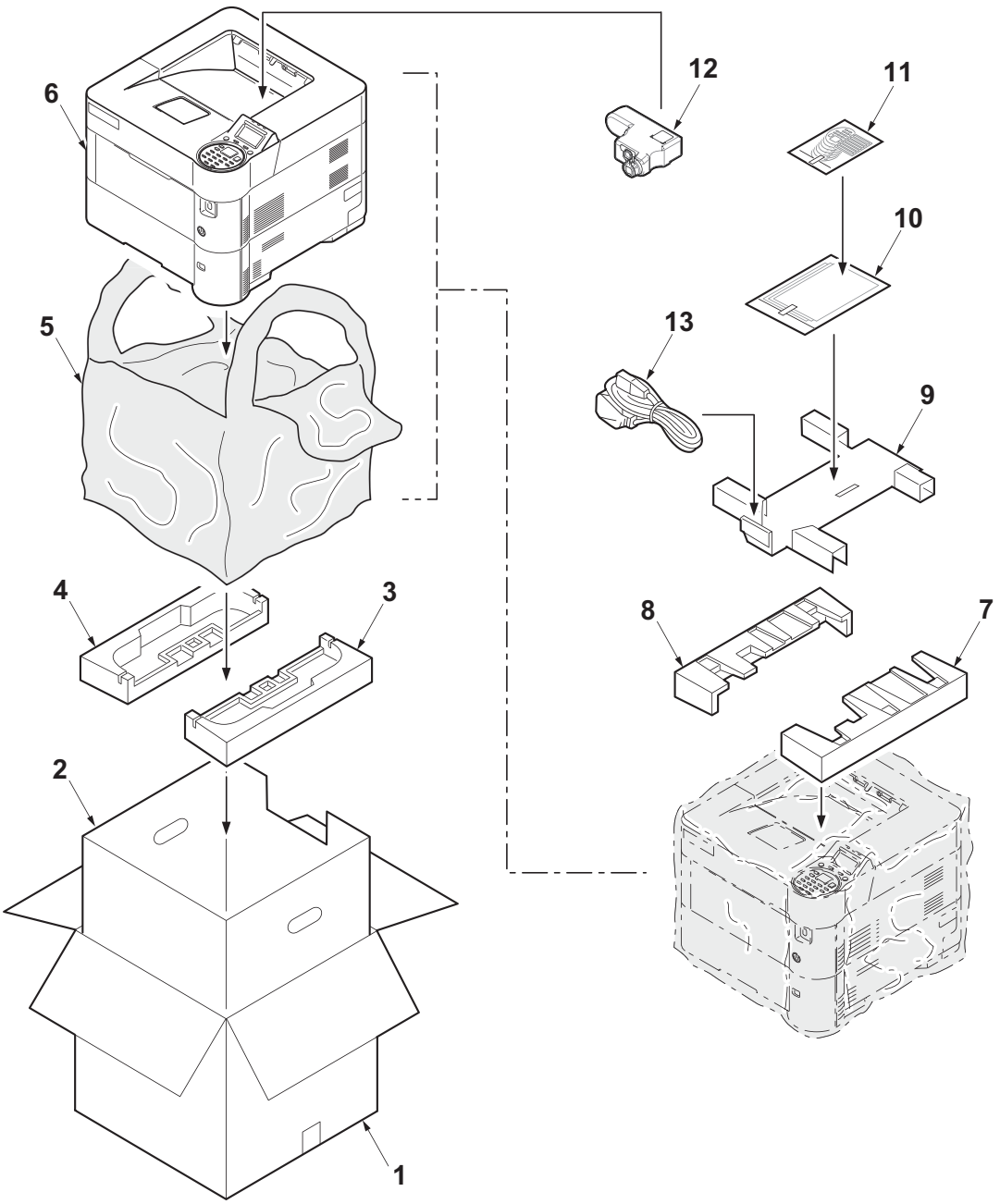


Figure 1-2-2

1. Outer case
2. Inner case
3. Bottom pad R
4. Bottom pad L
5. Machine cover (740 × 700)
6. Machine
7. Upper pad R
8. Upper pad L
9. Top tray
10. Operation guide
11. Operation sheets Assy *1
12. Waste toner bottle
13. Power cord

*1: Except 240V model

Caution: Place the machine on a level surface.

Removing the tapes and pads

1. Remove two tapes.
2. Remove the protection sheet.

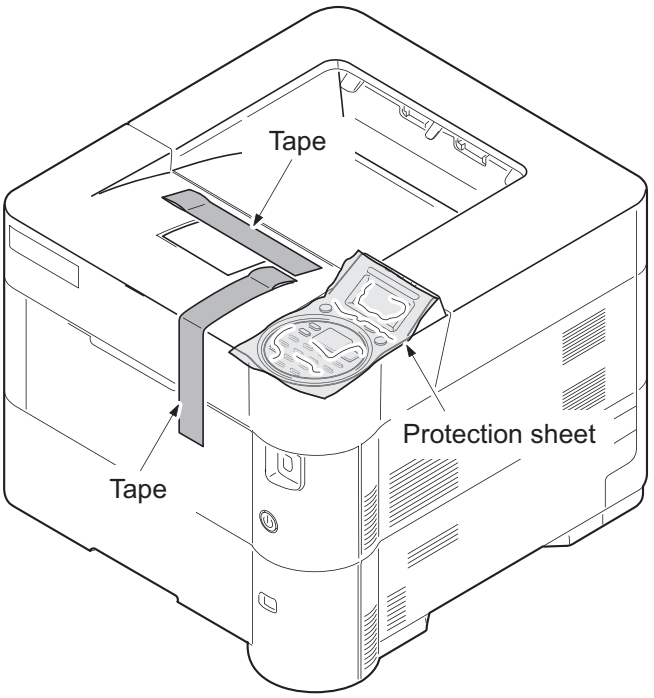


Figure 1-2-3

3. Remove four tapes.

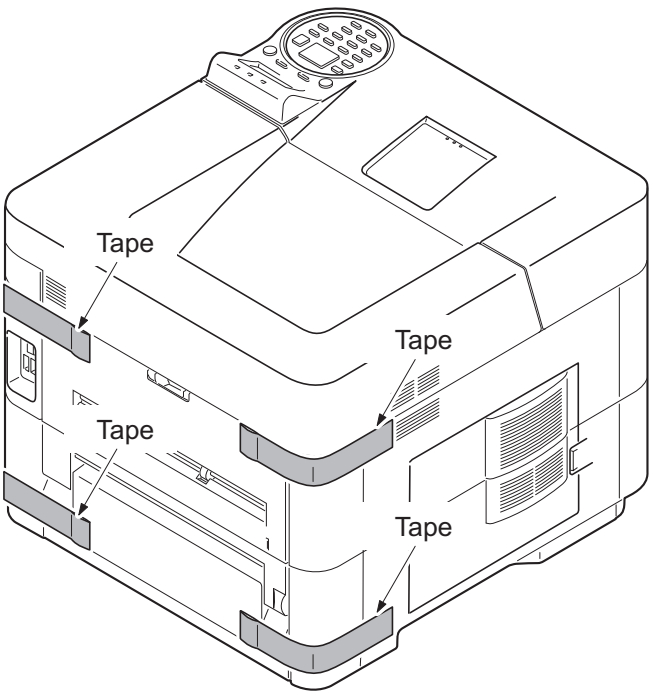


Figure 1-2-4

(60/50/45 ppm model only)

4. Open the top cover.
5. Remove the tape and the spacer.

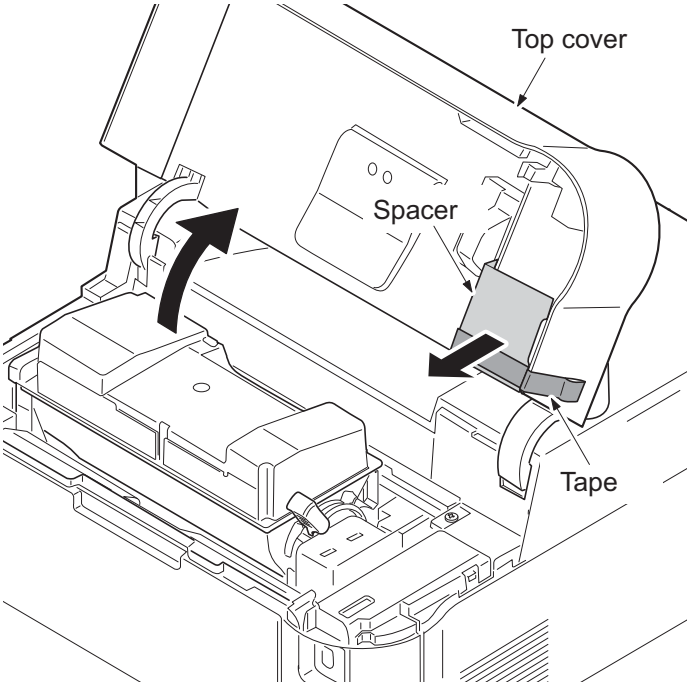


Figure 1-2-5

Installing the toner container

1. Open the top cover.
2. Remove the container label by pulling forwards.

   Caution: Check the contents of the container label and remove a container.

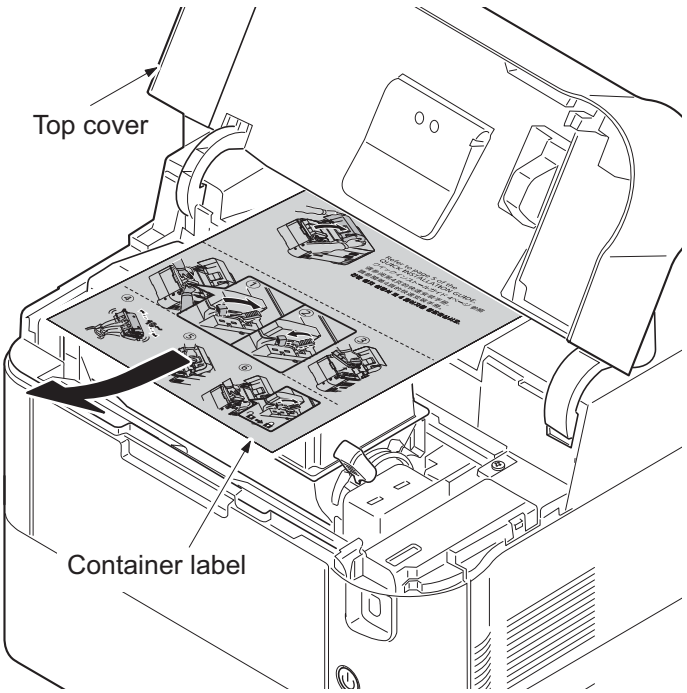


Figure 1-2-6

3. Rotate the toner container lock lever to the lock position and then remove the toner container from the printer by returning it to the unlock position.

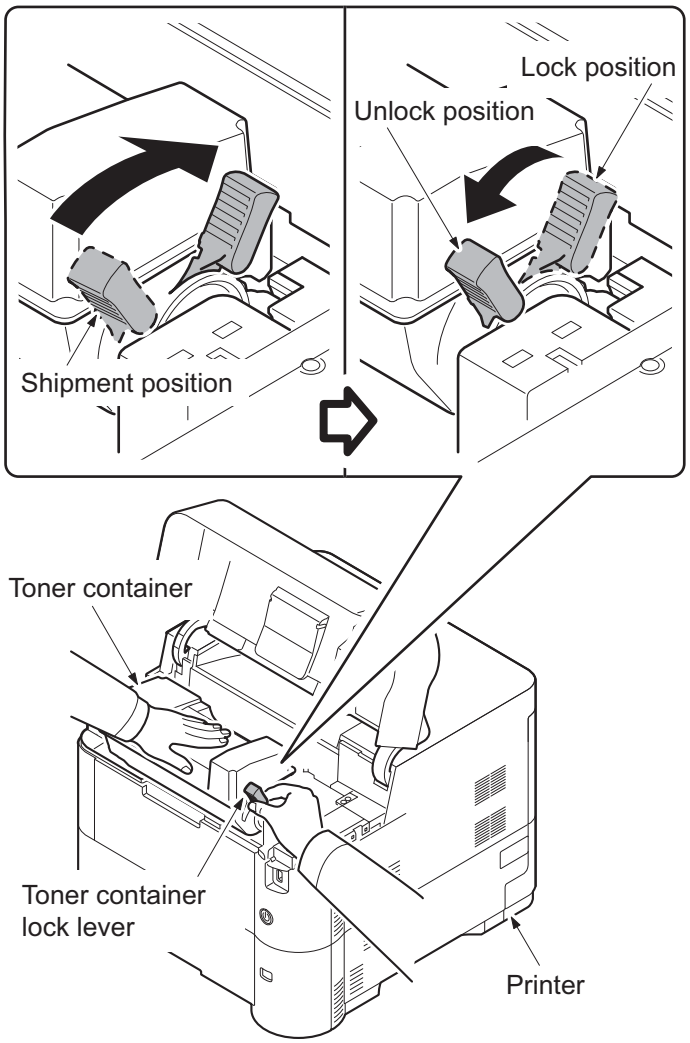


Figure 1-2-7

4. Shake the turned toner container 10 times or more as shown in the figure in order to distribute the toner evenly inside the container.
   Caution:Do not press too firmly on the center of the toner container or touch the toner feed slot or the terminal parts.
5. Set the toner container to the printer and then turn the toner container lock lever to the lock position.
6. Close the top cover.

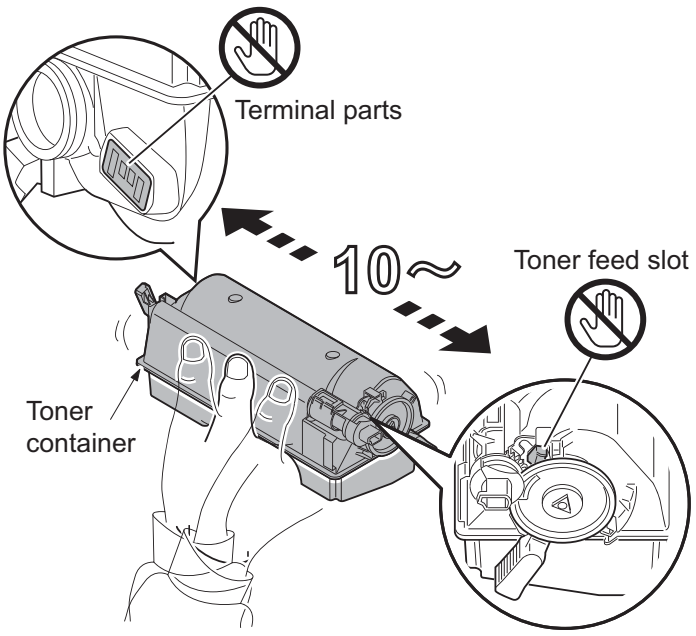


Figure 1-2-8

Installing the waste toner box

1. Openthe left cover.
2. Open the cap of the waste toner box.
3. Install the waste toner box.
4. Close the left cover.

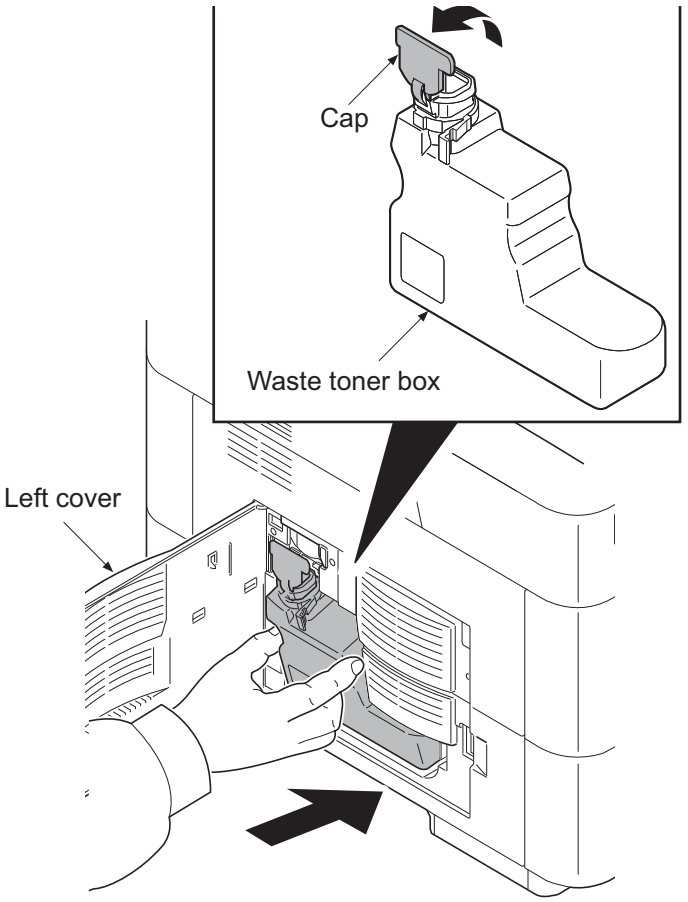


Figure 1-2-9

Loading paper

1. Pull the cassette from the printer out.

(45 ppm model only)

2. Push the bottom plate down.

(45 ppm model only)

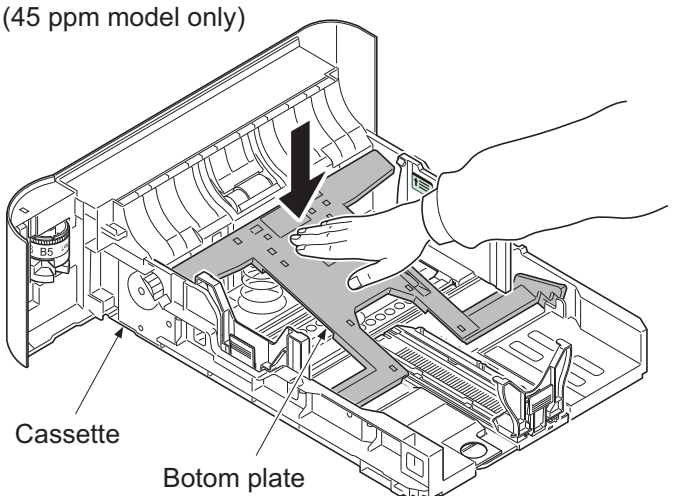


Figure 1-2-10

(Common)

3. Turn the cassette size dial so that the size of the paper you are going to use appears in the cassette size window.

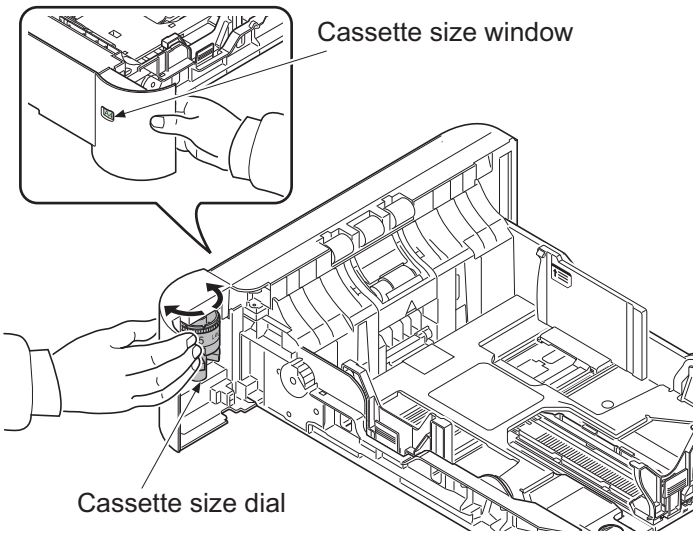


Figure 1-2-11

4. Push the lock lever on the left side guide and slide to the desired paper size.

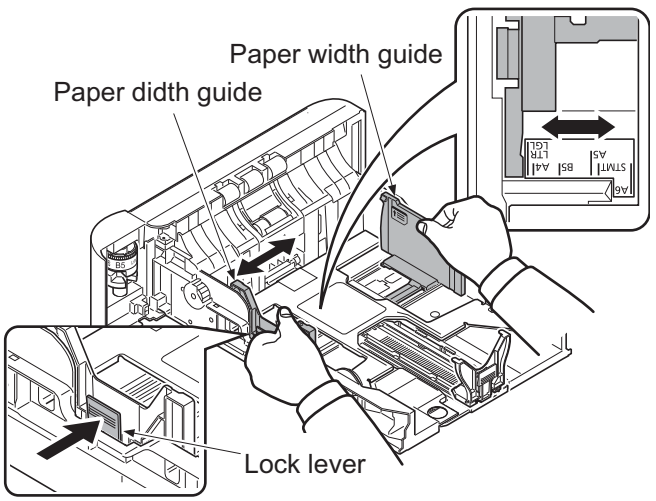


Figure 1-2-12

5. Push the lock lever and slide the paper length guide to the desired paper size.

   If you are going to set paper that is longer than A4, pull out the extension cassettes pushing the lock button one by one and adjust them to the desired paper size.

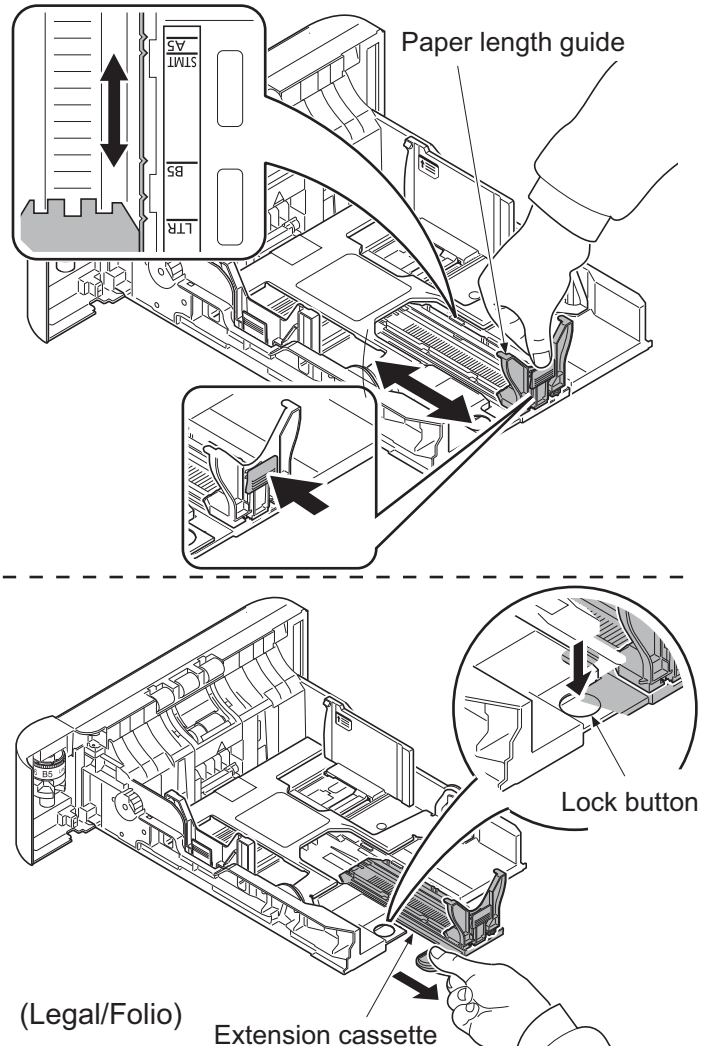


Figure 1-2-13

6. Fan the media (paper/transparencies), then tap it on a level surface to avoid media jams or skewed printing.
7. Slide the paper into the paper cassette.
8. Insert the cassette into the slot in the printer. Push it straight in as far as it will go.

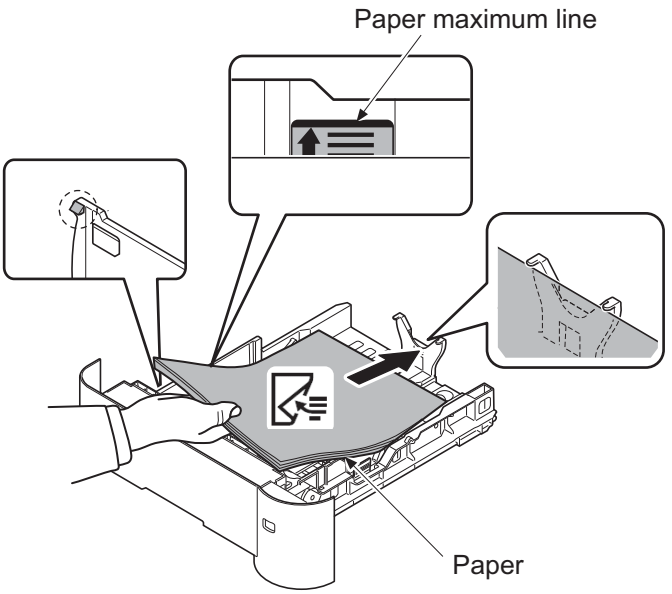


Figure 1-2-14

Replace the operation panel sheet (except 240V AC model)

1. Rotate the operation panel ring in the counterclockwise direction.
2. Remove the operation panel cover.
3. Replace it to the operation panel sheet of the corresponding language.
4. Refit all the removed parts.

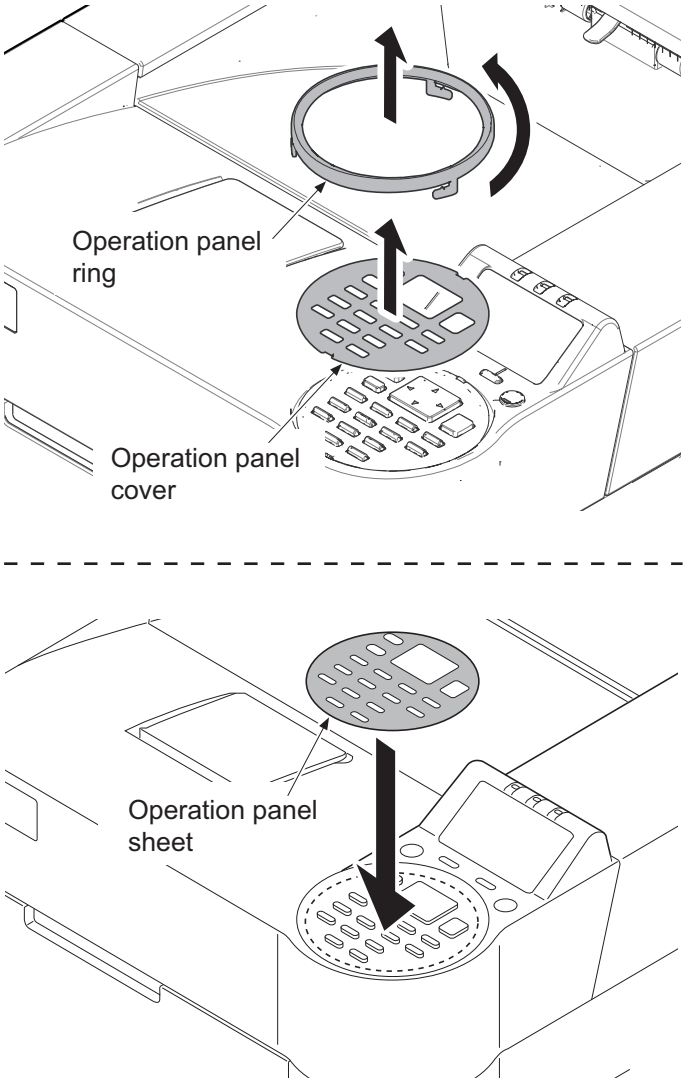


Figure 1-2-15

5. Stick the language sheet of the corresponding language.

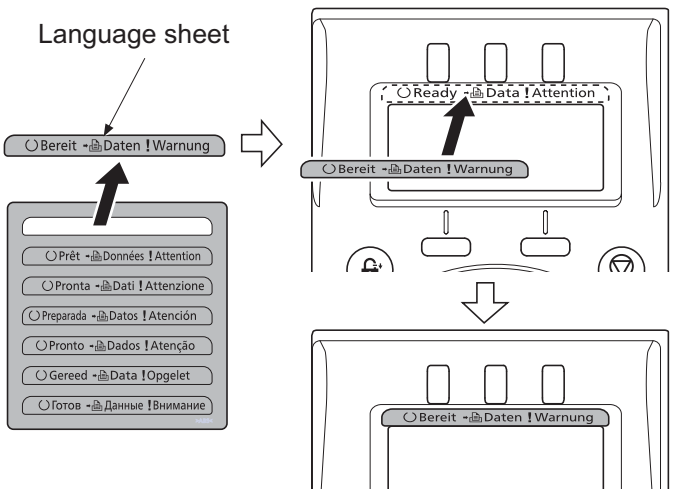


Figure 1-2-16

Connecting the cable

1. Open the rear cover.
2. Remove the inlet cover.
3. Connect the USB interface cable to the printer and PC.

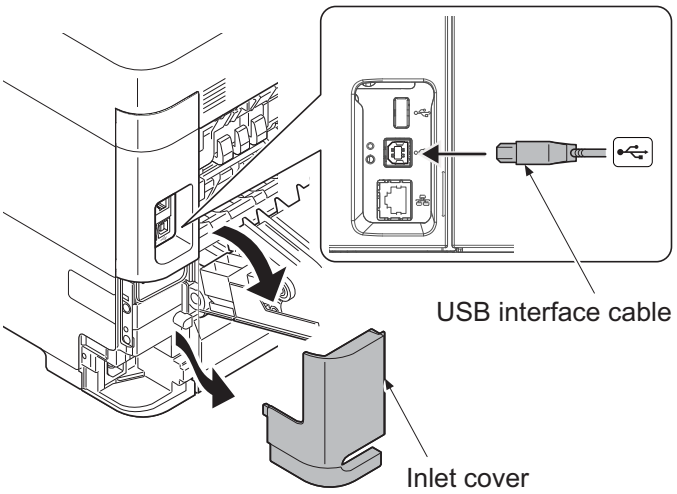


Figure 1-2-17

4. Connect the network interface cable to the printerand network.

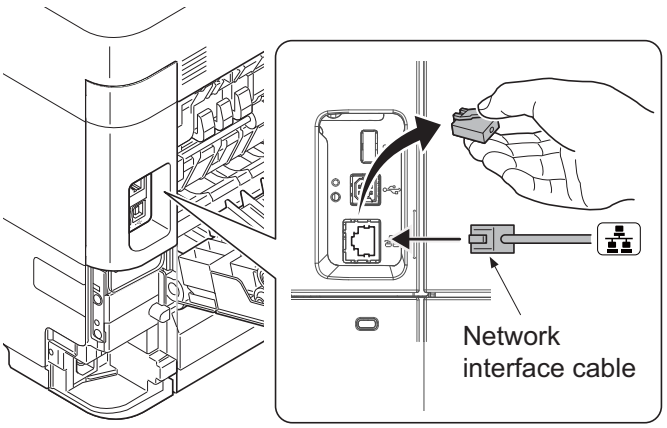


Figure 1-2-18

5. Connect the power cord to the printer and the wall outlet.
6. Refit the inlet cover.
7. Close the rear cover.

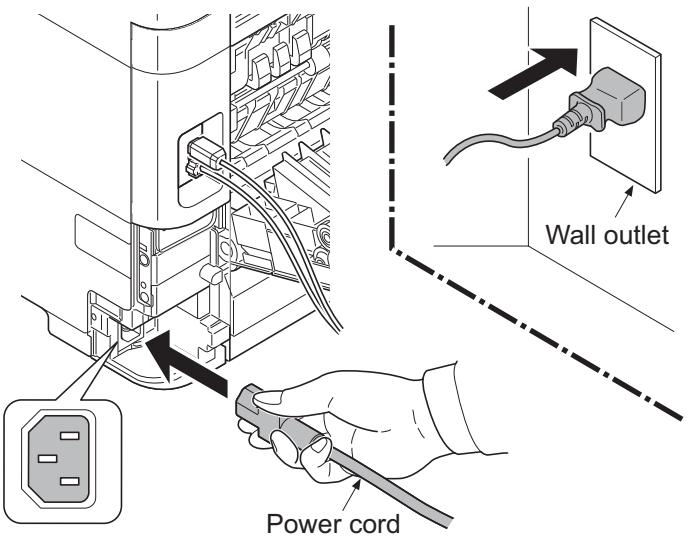


Figure 1-2-19

Power on

8. Press the power switch and then check the lighting up of ready indicator.
9. Installing the printer driver (refer to operation guide).

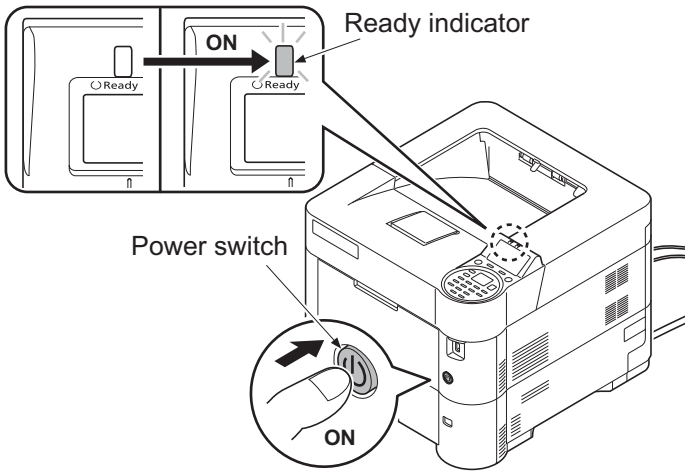


Figure 1-2-20

Setting the language

1. Press the menu key.
2. Select [Device Common] using the cursor up/down keys.
3. Press the OK key.
4. Select [Language] using the cursor up/down keys.
5. Press the OK key.
6. Select the language to set using the cursor up/down keys.
7. Press the OK key.

Printout the status page

1. Press the menu key.
2. Select [Report Print] using the cursor up/down keys.
3. Press the OK key.
4. Select [Status Page] using the cursor up/down keys.
5. Press the OK key.
6. Select the [YES] using the left select key.
7. [Accepted] is displayed and the page will be printed.
8. Press the menu key.

Completion of the machine installation

1-2-3 Installing the optional equipment

(1) Expansion memory

Procedure

1. Remove the inlet cover.
2. Remove the slot cover.
3. Unplug the power cable.

   Caution: Do not insert or remove main PWB assembly while machine power is on.
   Doing so may cause damage to the machine and the main PWB.

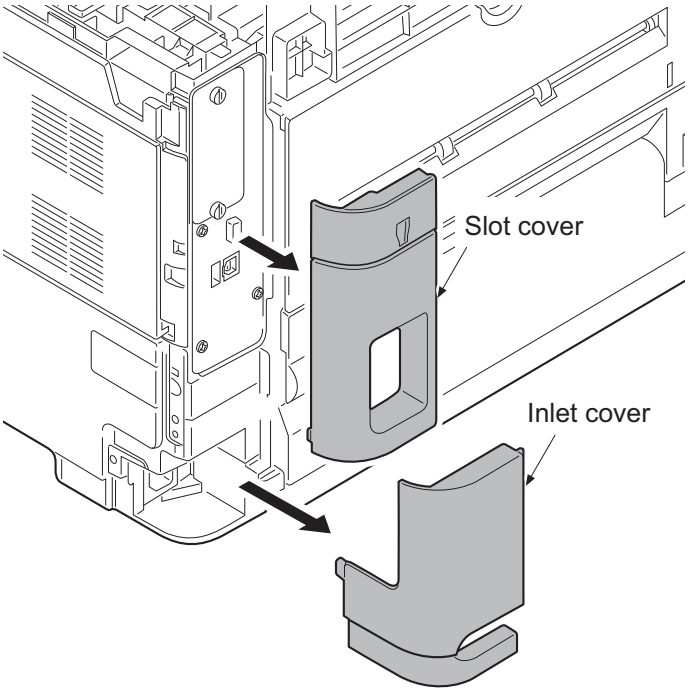


Figure 1-2-21

4. Remove five screws and then remove the main PWB assembly.
5. Aligning the cutouts of the memory module with the matching keys of the socket, carefully plug the memory module into the memory socket until it clicks in place.
6. Then, push down the memory module to secure.
7. Refit the main PWB assembly and the screws.
8. Refit the covers.
9. Plug the printer into a power outlet.
10. Print a status page to check the memory expansion. (See page 1-3-2)
    If memory expansion has been properly performed, information on the installed memory is printed with the total memory capacity has been increased.
    Standard memory capacity 256 MB.

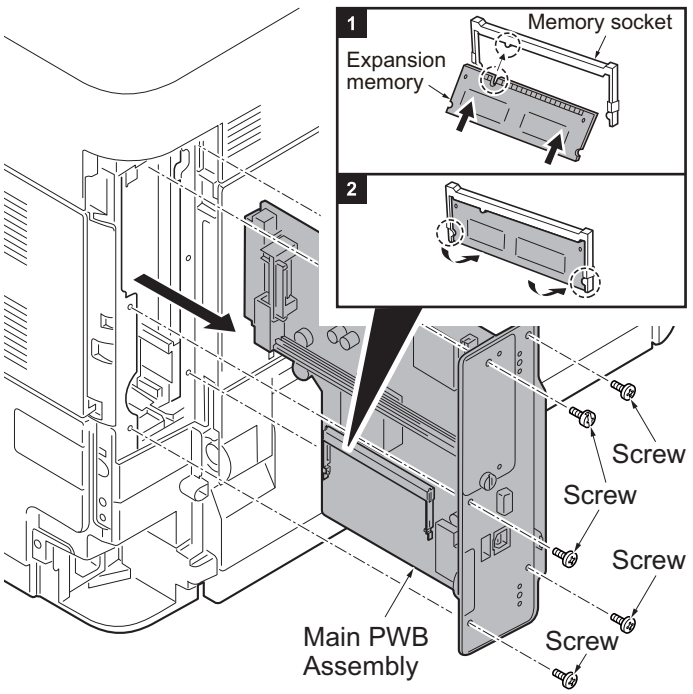


Figure 1-2-22

(2) Memory card (SD card)

Procedure

1. Remove the inlet cover and slot cover. (SeePage 1-5-3)
2. Remove two screws and the slot cover.
3. SD card is inserted in a SD card slot.
4. Refit the removed covers.

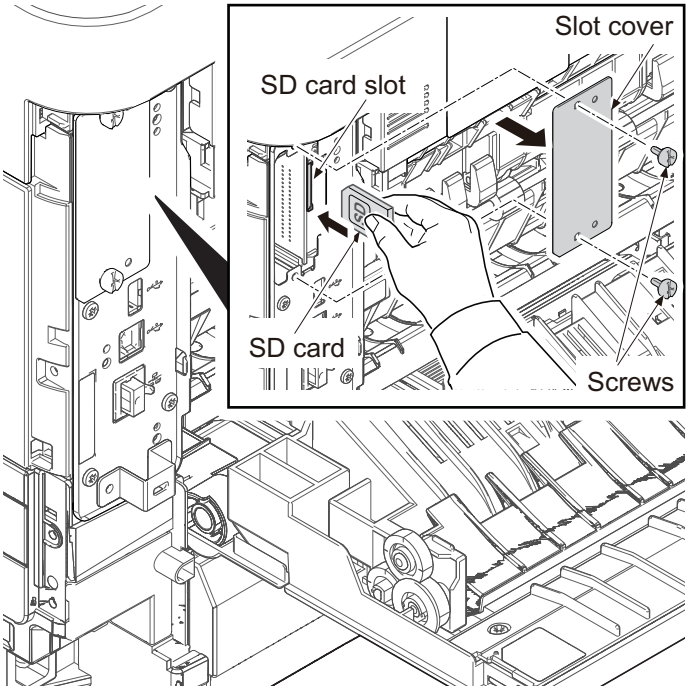
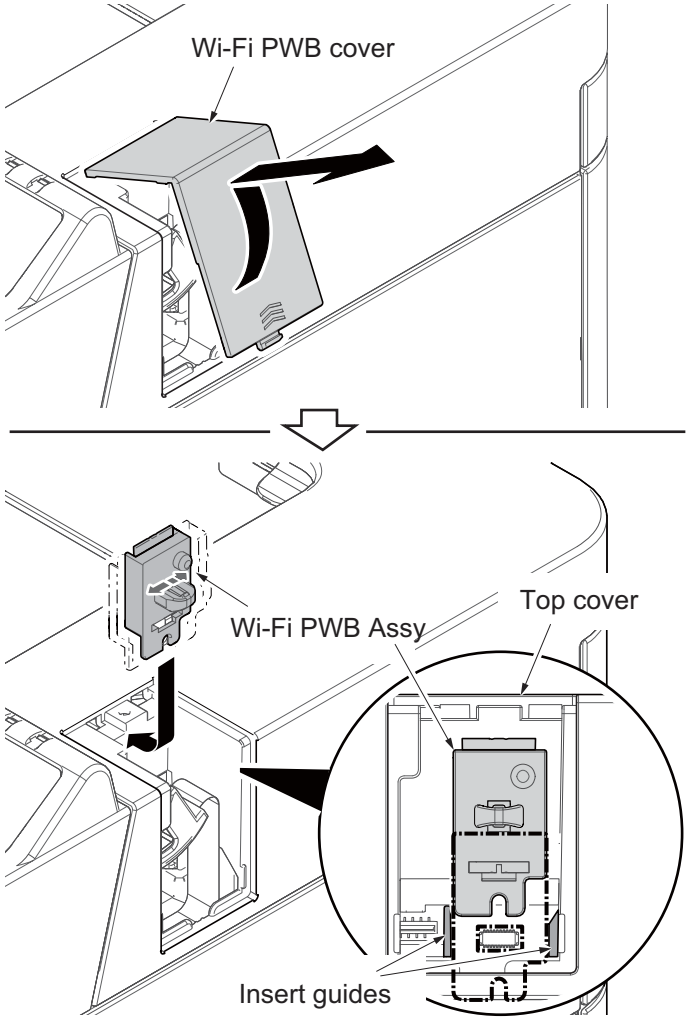


Figure 1-2-23

(3) Wireless Network Interface Kit (IB-36)

Precedure

1. Unplug the power cable.
   * : Wait for 15 seconds or more, go to the step 2.
2. After twisting the Wi-Fi cover, remove it.
3. Insert the connector while aligning the backside connector of the Wi-Fi PWB to the connector of the Main PWB.
4. Reattach the Wi-Fi cover in the original position.
5. Plug the power cable.



Note of detaching and refitting

When attaching the WiFi PWB assembly, insert it while aligning it to the guide on the top cover.

Also, take care not to twist the WiFi PWB assembly in the vertical direction in order to avoid the damage when attaching and detaching it.

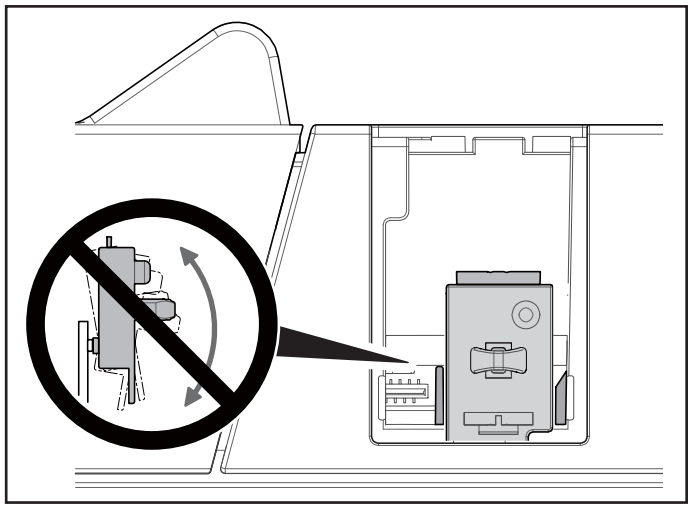
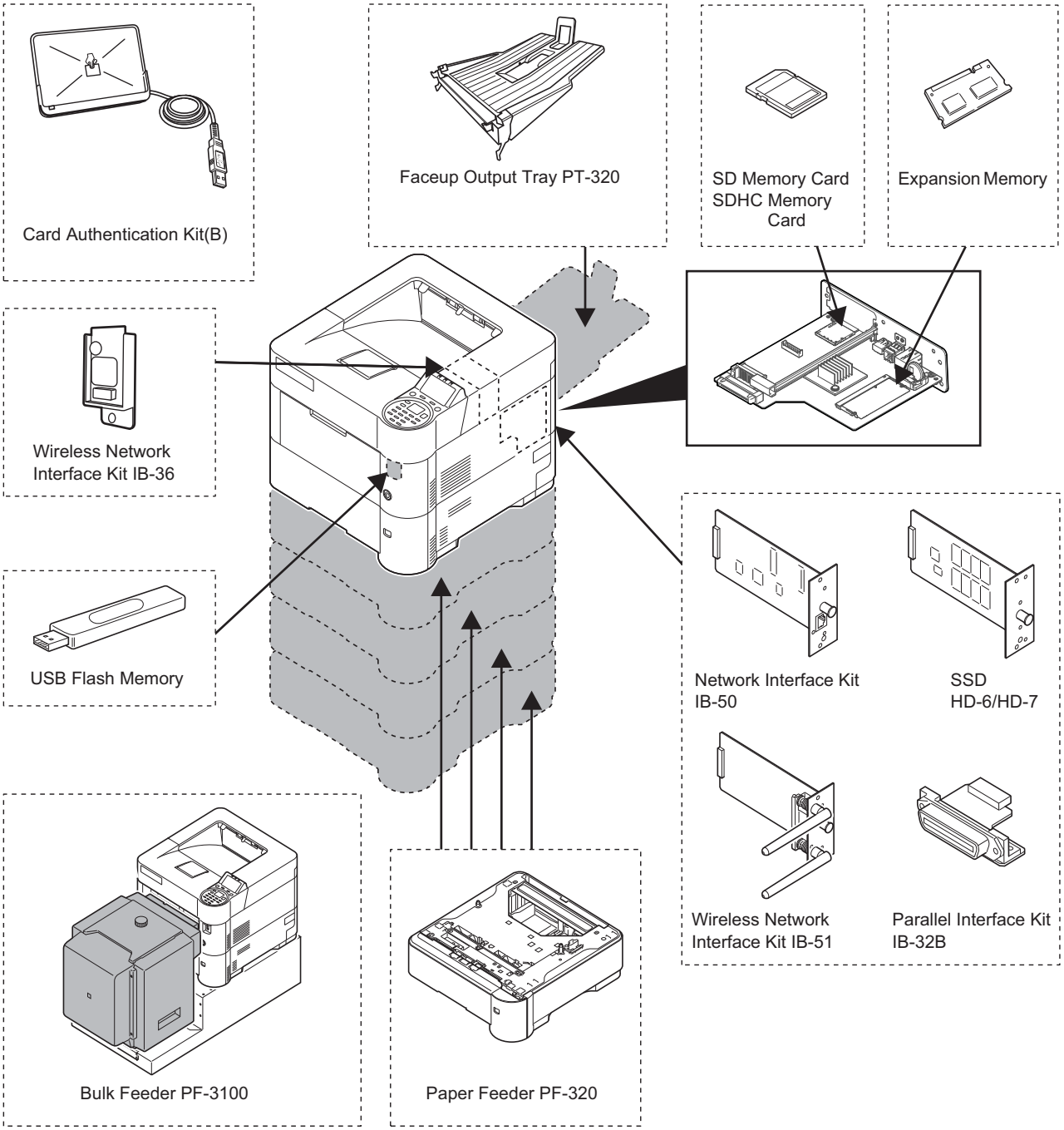


Figure 1-2-24

1-2-4 Option composition



Software option
Data Security Kit(E)
UG-33

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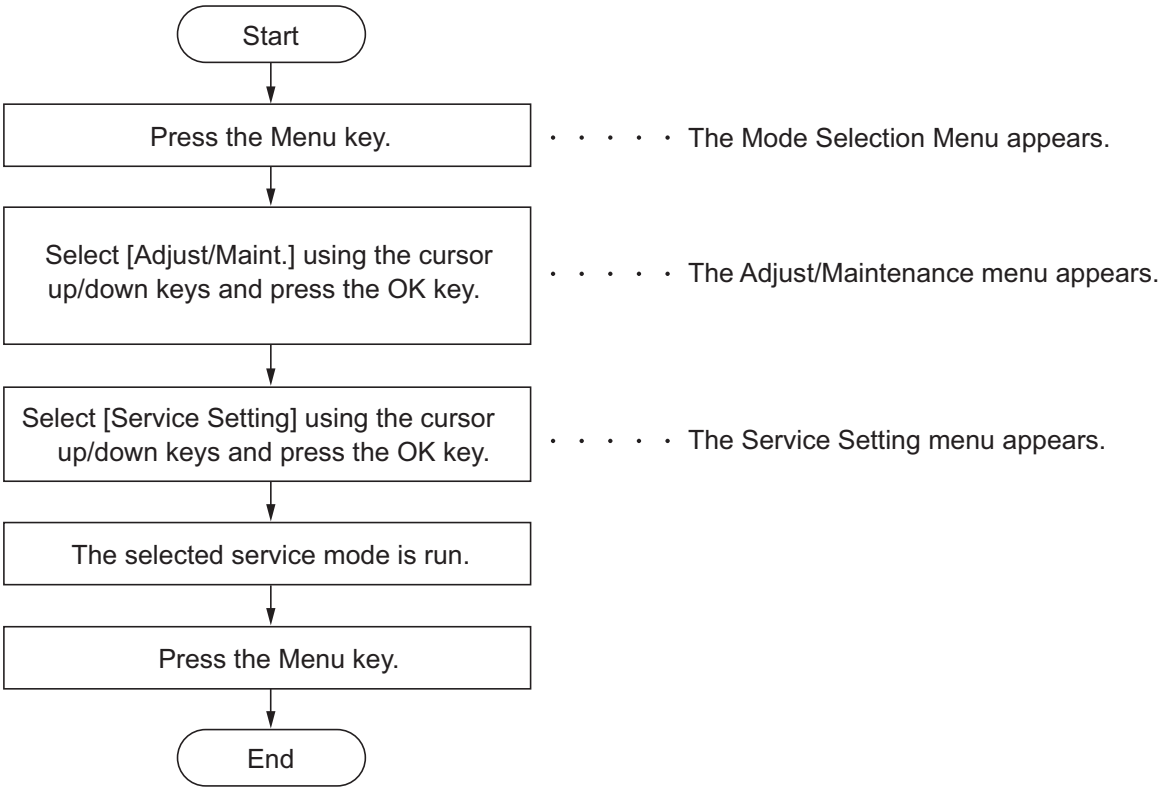
1-3-1 Service mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

(1) Executing a service mode

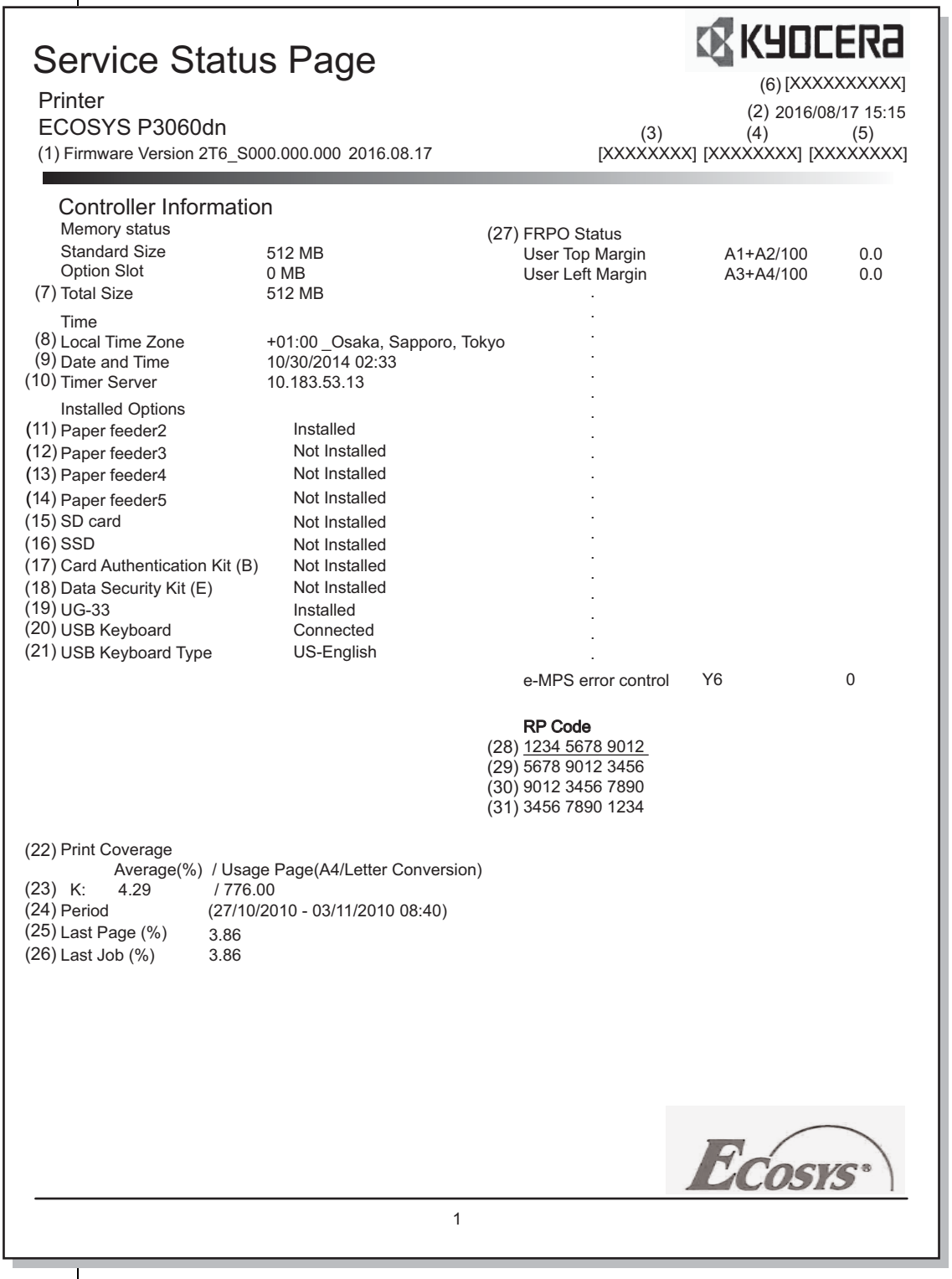


(2) Description of service mode

Service items	Description
Service Status	**Printing a status page for service purpose** **Description** Prints a status page for service purpose. The status page includes various settings and service cumulative. **Purpose** To acquire the current printing environmental parameters and cumulative information. **Method** 1. Enter the Service Setting menu. 2. Select [Status Page] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed and two pages will be printed.

Service items	Description

Service status page (1)



Service Status Page

KYOCERA

(6) [XXXXXXXXXX]

Printer

ECOSYS P3060dn

(2) 2016/08/17 15:15

(1) Firmware Version 2T6_S000.000.000 2016.08.17

(3) [XXXXXXXX] (4) [XXXXXXXX] (5) [XXXXXXXX]

Controller Information

Memory status

Standard Size 512 MB

Option Slot 0 MB

(7) Total Size 512 MB

Time

(8) Local Time Zone +01:00 _Osaka, Sapporo, Tokyo

(9) Date and Time 10/30/2014 02:33

(10) Timer Server 10.183.53.13

Installed Options

(11) Paper feeder2 Installed

(12) Paper feeder3 Not Installed

(13) Paper feeder4 Not Installed

(14) Paper feeder5 Not Installed

(15) SD card Not Installed

(16) SSD Not Installed

(17) Card Authentication Kit (B) Not Installed

(18) Data Security Kit (E) Not Installed

(19) UG-33 Installed

(20) USB Keyboard Connected

(21) USB Keyboard Type US-English

(27) FRPO Status

User Top Margin A1+A2/100 0.0

User Left Margin A3+A4/100 0.0

e-MPS error control Y6 0

RP Code

(28) 1234 5678 9012

(29) 5678 9012 3456

(30) 9012 3456 7890

(31) 3456 7890 1234

(22) Print Coverage

Average(%) / Usage Page(A4/Letter Conversion)

(23) K: 4.29 / 776.00

(24) Period (27/10/2010 - 03/11/2010 08:40)

(25) Last Page (%) 3.86

(26) Last Job (%) 3.86

ECOSYS

1

Figure 1-3-1

Service items	Description

Service status page (2)

Service Status Page

Printer [ZE76100020]
ECOSYS P3060dn 2016/08/17 19:45
Firmware Version 2T6_S000.001.123 2016.08.17 [2T9_1000.001.083] [2T9_1100.001.002] [2T9_1100.001.002]

Controller Information

(32) Altitude Adjustment
Status Normal

Engine Information

(33) NVRAM Version _CR05A19_CR05A19
(34) MAC Address 00:17:C8:3B:41:7E

1/4 (35) (36)
644/600 (37)
(38) 0/0/0/0/0/0/0/
(39) 0/0/0/0/0/0/0/
(40) 0/50/0/50/
(41) 0000064/0000000/0000064/////0000000//
0000063/0000063/
0000063/
F00/U00/0/1/0/0/1/25/27/30/0/0/25/25//5/1/0/ (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59)
(60) 1010/9000/2010/4000/3010/1010/4000/2010/1010/1010/5000/6000/
5010/1010/1010/1010/1010/1010/1010/1010/1010/1010/
(61) 0300A000/00000000/544B2D353234314B5300000000000000/3631324630333558000000000000000/0078/00/00
(62) /0/
(63) [ ] [ ] [ ] [ ] [ ] [ ]
[2T9_81BR.001.008] [ ] [ ] [ ] [ ] [ ] (64) (65) (66) (67) (68)
0/4/ (69) (70)
(71) -/
0/5/ (72) (73)
1/1/ (74) (75)
1/0/0/ (76) (77) (78)
(79) F3B10Z5000110/

2

Figure 1-3-2

Service items	Description

Detail of service status page

No.	Description	Supplement
(1)	Firmware version	-
(2)	System date	-
(3)	Engine soft version	-
(4)	Engine boot version	-
(5)	Operation panel mask 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)	Presence or absence of the optional paper feeder 2	Installed/Not Installed
(12)	Presence or absence of the optional paper feeder 3	Installed/Not Installed
(13)	Presence or absence of the optional paper feeder 4	Installed/Not Installed
(14)	Presence or absence of the optional paper feeder 5	Installed/Not Installed
(15)	Presence or absence of the optional SD card	Installed/Not Installed
(16)	Presence or absence of the optional SSD	Installed/Not Installed
(17)	Presence or absence of the optional Card Authentication Kit(B)	Installed/Not Installed/Trial
(18)	Presence or absence of the optional Security Kit(E)	Installed/Not Installed
(19)	Presence or absence of the optional UG-33	Installed/Not Installed
(20)	The connection state of an optional USB Keyboard	Connected/Not Connected
(21)	Displays setting of optional USB Keyboard	US English/US English with Euro/German/French
(22)	Page of relation to the A4/Letter	* :Print Coverage provides a close-matching reference of toner consumption and will not match with the actual toner consumption.
(23)	Average printer coverage	Black
(24)	Cleared date and output date	-

Service items	Description

Detail of service status page

No.	Description	Supplement
(25)	Coverage on the last output page	-
(26)	Last job output date	-
(27)	FRPO setting	-
(28)	RP Code	Code the engine software version and the date of update.
(29)		Code the main software version and the date of update.
(30)		Code the engine software version and the date of the previous update.
(31)		Code the main software version and the date of the previous update.
(32)	High altitude adjustment set data	Normal/1001-2000m/2001-3000m/3001-3500m
(33)	NV RAM version	_ 1F3 1225 _ 1F3 1225 (a) (b) (c) (d) (e) (f) (a) Consistency of the present software 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 database version Normal if (a) and (d) are underscored, and (b) and (e) are identical with (c) and (f).
(34)	Mac address	-
(35)	Destination information	-
(36)	Area information	-
(37)	Margin settings	Top margin/Left margin
(38)	Top offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/ Paper feeder 3/Paper feeder 4/Duplex/Page rotation
(39)	Left offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/ Paper feeder 3/Paper feeder 4/Duplex/Page rotation
(40)	L value settings	Top margin integer part / Top margin decimal part/ Left margin integer part / Left margin decimal part/

Service items	Description

No.	Description	Supplement
(41)	Life counter (The first line)	Machine life/MP tray/Cassette/Paper feeder 1/ Paper feeder 2/Paper feeder 3/Paper feeder 4/Duplex
	Life counter (The second line)	Bulk Feeder counter/Drum counter K/ Developer counter K/Maintenance kit counter
(42)	Panel lock information	F00: OFF F01: Partial Lock 1 F02: Partial Lock 2 F03: Partial Lock 3 F04: Full Lock
(43)	USB information	U00: Not Connected U01: Full speed U02: Hi speed
(44)	Paper handling information	0: Paper source unit select/1: Paper source unit
(45)	Auto cassette change	0: OFF/ 1: ON
(46)	Color printing double count mode	0: All single counts 3: Folio (Less than 330 mm length), Single counts
(47)	Black and white printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length) *: The count mode can be changed using a PRE-SCRIBE command. When the double count is set for the paper other than the sizes of A4, B5, A5, Folio, Legal, Letter, and State-ment, the counter value is indicated as "Other 1" in the status page. When in the same way, the single count is set, the counter value is indicated as "Other 2". In the operation panel, the counter values are indicated as "Other 1" or "Other 2".
(48)	Temperature (machine inside)	-
(49)	Temperature (machine outside)	-
(50)	Relative humidity (machine outside)	-
(51)	Absolute humidity (machine outside)	-
(52)	Humidity (machine inside)	-
(53)	LSU temperature	-
(54)	LSU 2 temperature	-
(55)	DRT parameter coefficient	-
(56)	Fixed assets number	-
(57)	Job end judgment time-out time	-

Service items	Description

No.	Description	Supplement
(58)	Job end detection mode	0: It is as one job even if it includes multiple jobs in the job received with network connection. 1: If it includes multiple jobs in the job received, detect the break point between jobs and divide them.
(59)	PRESCRIBE environmental reset	0: Off 1: On
(60)	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 0: Light 1: Normal 1 2: Normal 2 3: Normal 3 4: Heavy 1 5: Heavy 2 6: Heavy 3 7: Extra Heavy Fuser settings 0: High 1: Middle 2: Low 3: Vellum Duplex settings 0: Disable 1: Enable
(61)	RFID information	-
(62)	Toner install mode information	-
(63)	Soft version of the optional paper feeder	Paper feeder 1/Paper feeder 2/Paper feeder 3 Paper feeder 4
(64)	Version of the optional message	-
(65)	Color table version	
(66)	Color table 2 version	-
(67)	Color table version for copy	
(68	Color table 2 version for copy	
(69)	Altitude Adjustment	0: Standard 1: High altitude 1 2: High altitude 2
(70)	MC correction	1 to 7
(71)	Color conversion automatic judgment	0: Off 1: On
(72)	Toner Low setting	0:Invalid 1: Effective
(73)	Toner Low detection level	0 to 100 (%)
(74)	Skip Mode (Blank Page)	0:Disabled 1:Enabled

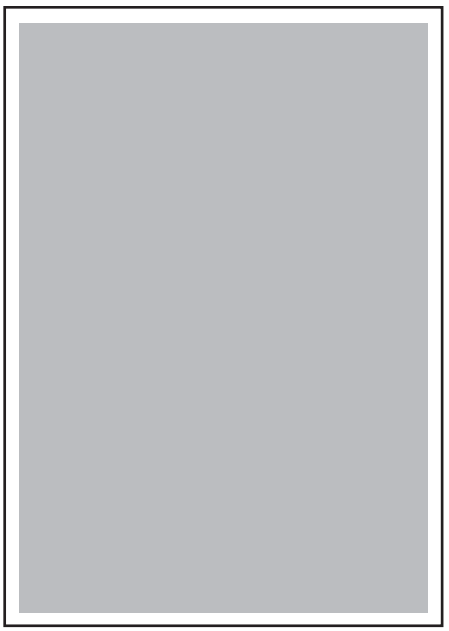
Service items	Description

No.	Description	Supplement
(75)	Full page printing mode	0:Normal mode (The factory default settings) 1:Full page mode
(76)	Wake UP mode	0: OFF (Don't wake up) 1: ON (Do wake up)
(77)	Wake Up Timer	Displays the wake-up time
(78)	BAM conformity Mode setting	0: Un-suiting Mode 1: Conformity Mode
(79)	Drum serial number	-

Code conversion

A	B	C	D	E	F	G	H	I	J
0	1	2	3	4	5	6	7	8	9

Service items	Description
Network Status	**Printing a status page for network** **Description** Prints a status page for network. Execution is possible only the model with network. **Purpose** To acquire the detailed network setting information. **Method** 1. Enter the Service Setting menu. 2. Select [Network Status] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed and Network status page will be printed.
OP Network Status	**Printing a status page for optional network** **Description** Prints a status page for optional network. Execution is possible only the model with optional network. **Purpose** To acquire the detailed network setting information. **Method** 1. Enter the Service Setting menu. 2. Select [OP Network Status] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed and Network status page will be printed.

Service items	Description
Test Page	**Printing a test page** **Description** The test page is printed with halftones. **Purpose** To check the activation of the developer and drum units. **Method** 1. Enter the Service Setting menu. 2. Select [Test Page] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed and Test page will be printed.  **Figure 1-3-3**

Service items	Description
Event log	**Printing an event log (EVENT LOG)** **Description** Prints a history list of occurrences of paper jam, self-diagnostics, toner replacements, etc. **Purpose** To allow machine malfunction analysis based on the frequency of paper misfeeds, self diagnostic errors and replacements. **Method** 1. Enter the Service Setting menu. 2. Select [Event Log] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed and will be printed.

Service items	Description

Detail of event log (1)

Event Log

KYOCERA

Printer
ECOSYS P3060dn

xxxxxxxxxxxxxxxx
(2) 2014/10/19 15:15

(1) Firmware version 2T6_S000.000.000 2014.09.19

[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]
(3) **(4)** **(5)**

(6) Machine No.:Z7T0000000 **(7)** Life Count:100000

(8) Paper Jam Log

#	Count.	Event Descriptions	Date and Time
16	9999999	4003.01.00.00.00	2014/09/22 10:00
15	8888888	0501.01.00.00.00	2014/09/20 09:22
14	9999999	4201.01.00.00.00	2014/09/11 10:00
13	9999999	4003.01.00.00.00	2014/09/11 10:00
12	9999999	4003.01.00.00.00	2014/09/11 10:00
11	9999999	4003.01.00.00.00	2014/09/03 10:00
10	9999999	4003.01.00.00.00	2014/08/15 10:00
9	9999999	4003.01.00.00.00	2014/08/11 10:00
8	9999999	4003.01.00.00.00	2014/07/05 10:00
7	9999999	4003.01.00.00.00	2014/07/04 10:00
6	9999999	4003.00.00.00.00	2014/06/26 10:00
5	9999999	4003.00.00.00.00	2014/05/01 10:00
4	9999999	4003.00.00.00.00	2014/04/05 10:00
3	9999999	4003.00.00.00.00	2014/02/21 10:00
2	9999999	4003.00.00.00.00	2013/11/3010:00
1	9999999	4003.00.00.00.00	2013/11/24 10:00

4003.01.00.00.00
(a) (b) (c) (d) (e)

(10) Maintenance Log

#	Count.	Item	Date and Time
8	9999999	02.01	2014/07/05 10:00
7	9999999	02.00	2014/07/04 10:00
6	9999999	02.01	2014/06/26 10:00
5	9999999	02.02	2014/05/01 10:00
4	9999999	02.03	2014/04/05 10:00
3	9999999	02.01	2014/02/21 10:00
2	9999999	02.00	2013/11/30 10:00
1	9999999	02.02	2013/11/24 10:00

(9) Service Call Log

#	Count.	Service Code	Date and Time
8	9999999	01.00.0100	2014/07/05 10:00
7	9999999	02.01.0100	2014/07/04 10:00
6	9999999	01.01.0000	2014/06/26 10:00
5	9999999	01.00.0000	2014/05/01 10:00
4	9999999	01.01.0000	2014/04/05 10:00
3	9999999	02.00.0000	2014/02/21 10:00
2	9999999	02.00.0000	2013/11/30 10:00
1	9999999	01.00.0000	2013/11/24 10:00

(11) Toner Log

#	Count.	Item	Serial Number	Date and Time
5	9999999	01.00	0123456789ABCDEF	2014/05/01 10:00
4	9999999	01.00	0123456789ABCDEF	2014/04/05 10:00
3	9999999	01.00	0123456789ABCDEF	2014/02/21 10:00
2	9999999	01.00	0123456789ABCDEF	2013/11/30 10:00
1	9999999	01.00	0123456789ABCDEF	2013/11/24 10:00

ECOSYS

1

Figure 1-3-4

Service items	Description
	Detail of event log (2)

Event Log

KYOCERA

Printer
ECOSYS P3060dn

xxxxxxxxxxxxxxxx

(2) 2014/10/19 15:15

(1) Firmware version 2T6_S000.000.000 2014.09.19

[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]
(3) **(4)** **(5)**

(6) Machine No.:Z7T0000000 **(7)** Life Count:100000

(12) Counter Log

(f)
J0000 : 1
J0001 : 2
J0002 : 3
J0003 : 4
J0004 : 5
J0005 : 6
J0006 : 7
J0007 : 8
J0008 : 9
J0009 : 10
J0010 : 20
J0011 : 30
J0012 : 40
J0013 : 50
J0014 : 60
J0015 : 70
J0016 : 80
J0017 : 90
J0018 : 100
J0019 : 110
J0020 : 120
J0021 : 130
J0022 : 140
J0023 : 150
J0024 : 160
J0025 : 170
J0026 : 180
J0027 : 190
J0028 : 200
J0029 : 300
J0030 : 400
J0031 : 500
J0032 : 600
J0033 : 700
J0034 : 800
J0035 : 900
J0035 : 999
J0036 : 999
J0037 : 999
J0038 : 999
J0039 : 999
J0040 : 999

(g)
C0001 : 1
C0002 : 2
C0003 : 3
C0004 : 4
C0005 : 5
C0006 : 6
C0007 : 7
C0008 : 8
C0009 : 9
C0010 : 10
C0011 : 11
C0012 : 12
C0013 : 13
C0014 : 14
C0015 : 15
C0016 : 16
C0017 : 17
C0018 : 18
C0019 : 19
C0020 : 20
CF245: 21 (0)
CF248: 22 (11)
CF345: 222 (111)

(h)
T00 : 10
T01 : 20
T02 : 30
T03 : 40
M00 : 50
M01 : 60
M02 : 70
M03 : 80
M04 : 90

ECOSYS

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Figure 1-3-5

Service items	Description

Description of event log

No.	Items	Description		
(1)	System version			
(2)	System date			
(3)	Engine soft version			
(4)	Engine boot version			
(5)	Operation panel mask version			
(6)	Machine serial number			
(7)	LIfe Counter			
(8)	Paper Jam Log	#	Count.	Event
		Remembers 1 to 16 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 the paper jam.	Log code (hexadeci-mal, 5 categories) (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
		(a) Detail of Cause of paper jam (Hexadecimal)		
		:Refer to "17-1 Paper Misfeed Detection" (See page),for the detail of Cause of paper jam. (7-9)		
		(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: Cassette 5 (paper feeder) 08: Bulk feeder (paper feeder) 06, 07, 09: Reserved		

Service items	Description

No.	Items	Description		
(8) cont.	Paper Jam Log	(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: Postcard 20: Reply-paid postcard 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: Western type 2 35: Western type 4
		(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: Thick 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
		(e) Detail of paper eject location (Hexadecimal)		
		01: Face down (FD) 02: Face up (FU) (60/55/50 ppm model only)		

Service items	Description

No.	Items	Description		
(9)	Service Call Log	#	Count.	Service Code
		Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diagnostics error is less than 8, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostics error.	Self diagnostic error code (See page 1-4-8) Example: 01.6000 01: Self diagnostic error 6000: Self diagnostic error code number
(10)	Maintenance Log	#	Count.	item
		Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replacement of toner container is less than 8, all of the occurrences of replacement are logged.	The total page count at the time of the replacement of the toner container. * :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.	Code of maintenance replacing item (1 byte, 2 categories) First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 01: MK-3191/3161 MK-3170/3160 MK-3172/3162 MK-3174/3164
(11)	Toner Log	#	Count.	item
		Remembers 1 to 32 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 32, all of the unknown toner detection are logged.	The total page count at the time of the toner empty error.	Unknown toner log code (1 byte, 2 categories) First byte 01: Toner container (Fixed) Second byte 00: Black

Service items	Description

No.	Items	Description		
(12)	Counter Log Comprised of three log counters including paper jams, self diagnostics errors, and replacement of the toner container.	(f) Paper jam	(g) Self diagnostic error	(h) Maintenance item replacing
		Indicates the log counter of paper jams depending on location. Refer to Paper Jam Log. All instances including those are not occurred are displayed.	Indicates the log counter of self diagnostics errors depending on cause. (See page 1-4-8) Example: C6000: 4 Self diagnostics error 6000 has happened four times.	Indicates the log counter depending on the maintenance item for maintenance. T: Toner container 00: Black M: Maintenance kit 01: MK-3191/3161 MK-3170/3160 MK-3172/3162 MK-3174/3164 Example: T00: 1 The toner container 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.

Service items	Description
Maintenance	**Counter reset for the maintenance kit** **Description** The "Install MK" message means that maintenance kit should be replaced at fixed pages of printing. The interval counter must be manually reset using this service item. Maintenance kit MK-3160/3161/3162/3164 (45 ppm) :300,000 images MK-3170/3191/3172/3174 (60/55/50 ppm) :500,000 images Maintenance kit includes the following units: Drum unit Developer unit Transfer roller assembly Fuser unit Paper feed roller assembly Retard roller assembly **Purpose** To reset the life counter for maintenance kit. **Method** Drum unit (see page 1-5-15) Developer unit (see page 1-5-13) Transfer roller assembly (see page 1-5-16) Fuser unit (see page 1-5-19) Paper feed roller assembly (see page 1-5-8) Retard roller assembly (see page 1-5-8) **Method** 1. Enter the Service Setting menu. 2. Select [Maintenance] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Completed] is displayed. The counter for each component is reset immediately. **Note:** Occurrences of resetting the maintenance kits are recorded on the service status page or event log in number of pages at which the maintenance kit was replaced (see page 1-3-2, page 1-3-12). This may be used to determine the possibility that the counter was errorneously or unintentionally reset.

Service items	Description
Drum	**Drum surface refreshing** **Description** The execution of the drum refresh (no paper) Rotates the drum approximately 3 minutes with toner lightly on the overall drum using the high-voltage output control. The cleaning blade in the drum unit scrapes toner off the drum surface to clean it. **Purpose** To clean the drum surface when image failure occurs due to the drum. This mode is effective when dew condensation on the drum occurs. **Method** 1. Enter the Service Setting menu. 2. Select [Drum] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. Drum surface refreshing will start.
Drum2	**Drum surface refreshing 2** **Description** The execution of the drum refresh (with paper) Drum surface refreshing be done by being rubed to the paper that was fed from MP. **Purpose** To clean the drum surface when image failure occurs due to the drum. This mode is effective when dash-mark on the drum occurs. **Method** 1. Enter the Service Setting menu. 2. Select [Drum2] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. Drum surface refreshing will start.

Service items	Description
New Developer	**Initializing the developing unit (toner install mode)** **Description** The new developing unit is shipped from the factory with no toner contained. The developing unit can be automatically replete with toner when a toner container is installed onto it and the printer is turned on. However, because the toner reservoir in the developing unit has a large capacity, it requires a lengthy period of time until a substantial amount of toner has been fed to get the printer ready. (A new developing unit needs approximately 200 g for triggering the sensor inside.) **Purpose** To execute when the developing unit has been replaced. **Method** 1. Enter the Service Setting menu. 2. Select [New Developer] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. [Accepted] is displayed. The toner installation is performed when power is turned on and off. NOTE: Toner supply is stopped when toner installation mode is performing.
Auto Drum Refresh	**Automatic drum surface refreshing** **Description** The drum surface refreshing operation is normally performed when the power is turned on to the printer or during warm-up when the printer is recovering from the Sleep mode, but even then only at those times that the temperature/humidity sensor detects the drum surface to be in a state of dew condensation. By using this mode, it is possible to force the drum surface refreshing operation to be performed automatically at a predetermined period of time, regardless of the status detected by the temperature/humidity sensor. **Purpose** To prevent bleeding of the output image when the printer's operating environment is one of high humidity. **Method** 1. Enter the Service Setting menu. 2. Select [Auto Drum Refresh] using the cursor up/down keys. 3. Press the OK key. 4. Select the desire mode (Off/Short/Standard/Long) using the cursor up/down keys. 5. Press the OK key. The new value is set.

Service items	Description
Drum heater	**Setting drum heater** **Description** "On/Off" of a drum heater is set up. If it sets to "ON", drum refresh time will become short. **Purpose** In order to improve the picture blot by high humidity. **Method** 1. Enter the Service Setting menu. 2. Select [Drum heater] using the cursor up/down keys. 3. Press the OK key. 4. Select [Off] or [On] using the cursor up/down keys. 5. Press the OK key. The setting is set.
Write Data	**Write data (USB memory data write)** **Description** To write data into a USB memory. Execution is possible only when a USB memory is detected. **Method** Install the USB memory before attempting to write data. 1. Enter the Service Setting menu. 2. Select [Write Data] using the cursor up/down keys. 3. Press the OK key. 4. Select the [YES] using the left select key. 5. [Data waiting] is displayed and the printer waits for data to be written. 6. When the data is sent, [Processing] appears and the data is written to USB memory. When data writing ends, the display returns to [Ready].
Altitude adj.	**Setting altitude adjustment** **Description** Sets the altitude adjustment mode. **Purpose** Used when print quality deteriorates in an installation at the altitude of 1,500 meters or higher. **Method** 1. Enter the Service Setting menu. 2. Select [Altitude Adj.] using the cursor up/down keys. 3. Press the OK key. 4. Select [Normal], [1001 - 2000m], [2001 - 3000m] or [3001 - 3500m] using the cursor up/down keys. 5. Press the OK key. The setting is set.

Service items	Description
MC	**Setting main charger output** **Description** Sets the main charger output. Execution is possible 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. Select [MC] using the cursor up/down keys. 3. Press the OK key. 4. Select [1] to [7] using the cursor up/down keys. 5. Press the OK key. The setting is set.

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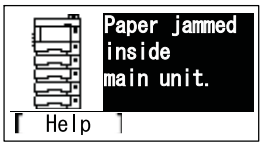
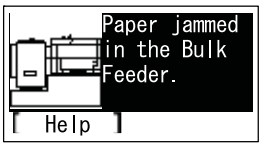
1-4-1 Paper misfeed detection

(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 misfeed in the machine, pull out the cassette, open the front cover or the rear cover.





(2) Paper misfeed detection condition

(2-1) PF-320 (500 sheets Paper feeder)

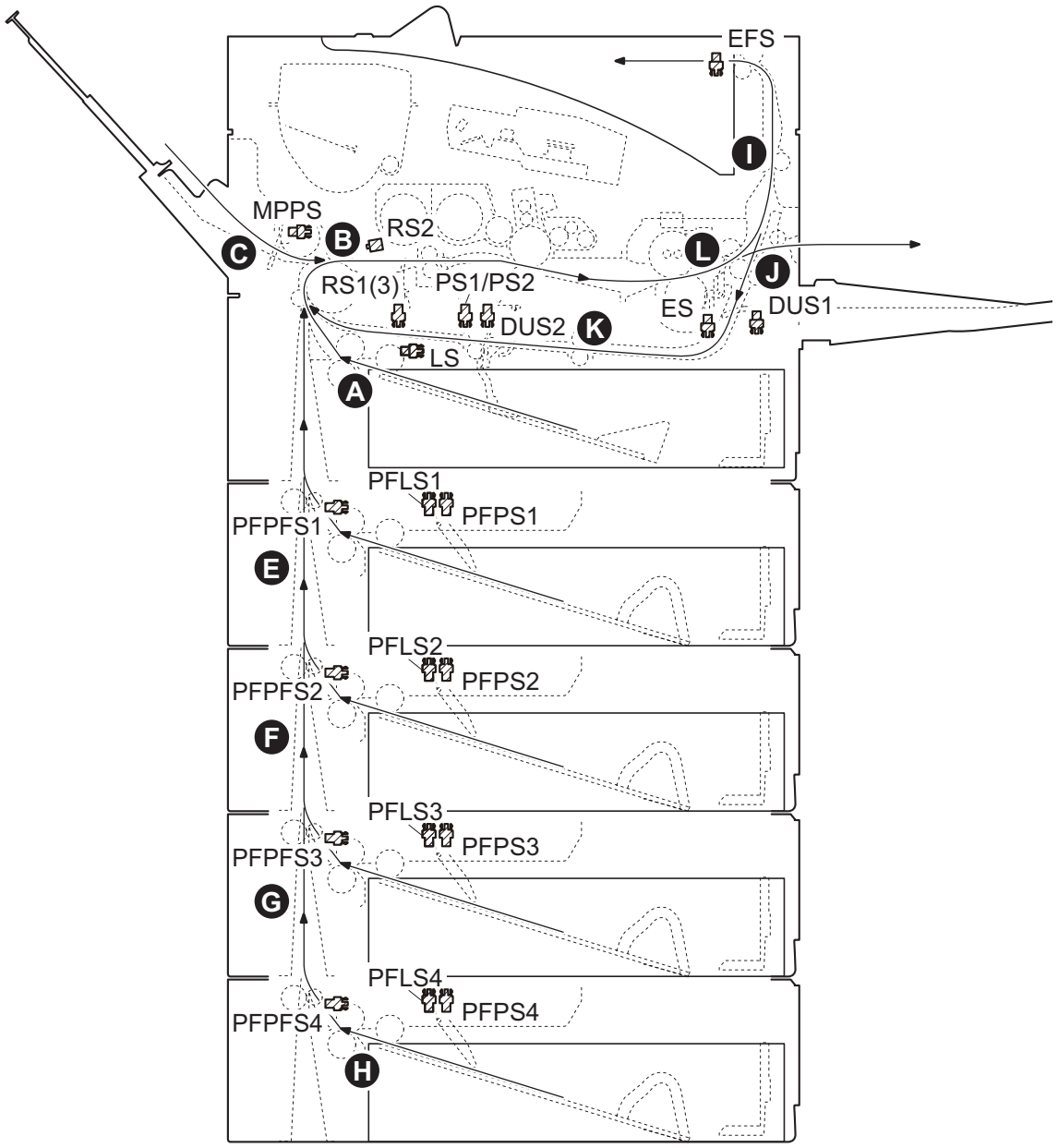


Figure 1-4-1 Paper jam location

(2-2) PF-3100 (Bulk Paper Feeder)

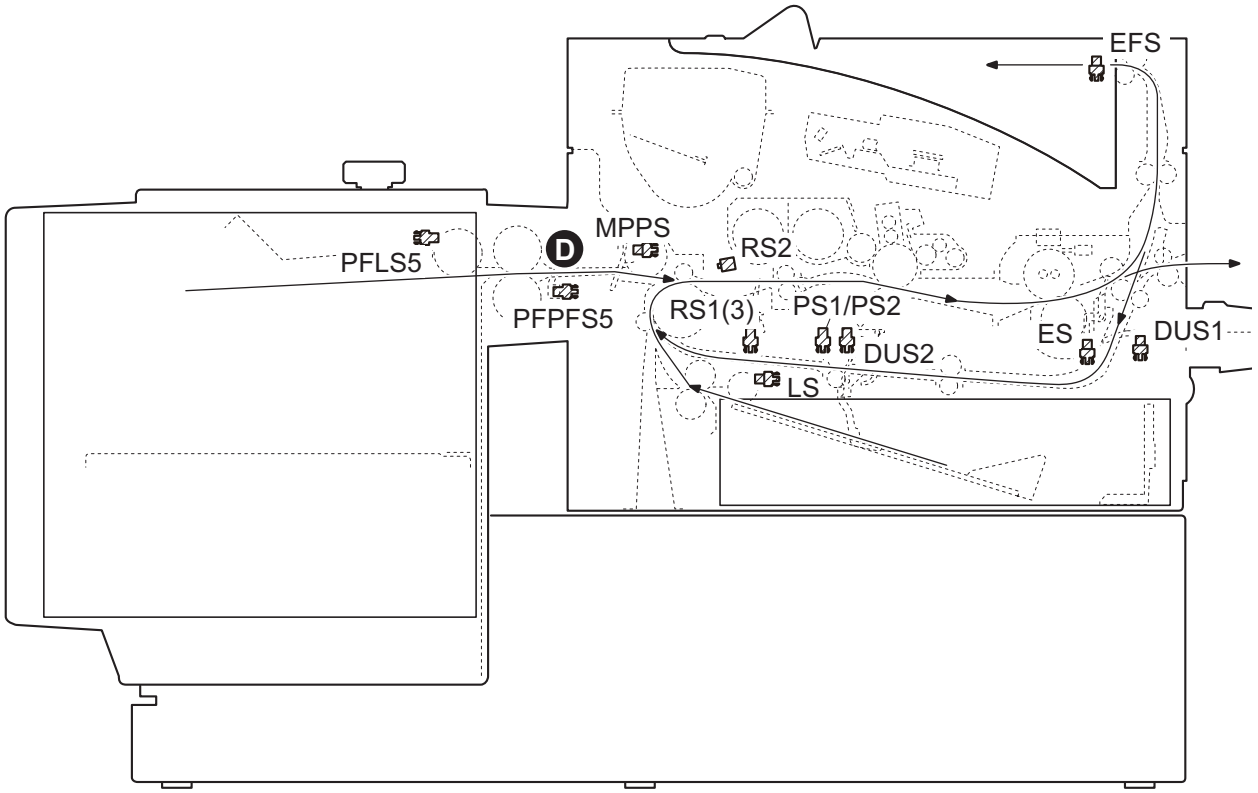


Figure 1-4-2 Paper jam location

(A)Misfeed in cassette1
(B)Misfeed in paper feed section
(C)Misfeed in MP tray
(D)Misfeed in bulk paper feeder (Option)
(E)Misfeed in cassette2 (Option)
(F)Misfeed in cassette3 (Option)
(G)Misfeed in cassette4 (Option)
(H)Misfeed in cassette5 (Option)
(I)Misfeed in exit conveying section
(J)Misfeed in rear cover section
(K)Misfeed in duplex conveying section
(L)Misfeed in fuser section

Code	Contents	Conditions	Jam location*
0000	Initial jam	The power is turned on when a sensor in the conveying system is on.	-
0100	Secondary paper feed request time out	Secondary paper feed request given by the controller is unreachable.	-
0101	Waiting for process package to be ready	Process package won't be ready.	-
0104	Waiting for conveying package to be ready	Conveying package won't be ready.	-
0105	Drive intrerrupt 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	Waiting for fuser package to be ready	Fuser package won't be ready.	-
0110	Rear cover 1 open	The rear cover is opened during printing.	-
0111	Top cover open Bulk feeder cover open	The top cover or the bulk feeder cover is opened during printing.	-
0120	Receiving a duplex paper feeding request while paper is empty	Paper feed request was received from the duplex section despite the absence of paper in the duplex section.	-
0121	Exceeding number of duplex pages circulated	The controller issued the duplex section a request for more pages than the duplex print cycle contains.	-
0501	No paper feed of jam	The registration sensor 2 (RS2) does not turn on during paper feed from cassette 1.	A
0502		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 2.	E
0503		PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 3.	F
0504		PF feed sensor 3 (PFPFS3) does not turn on during paper feed from cassette 4.	G
0505		PF feed sensor 4 (PFPFS4) does not turn on during paper feed from cassette 5.	H
0508		The registration sensor 2 (RS2) does not turn on during paper feed from duplex section.	B
0509		The registration sensor 2 (RS2) does not turn on during paper feed from MP tray.	C

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

Code	Contents	Conditions	Jam location*
0511	Multiple sheets of jam	The registration sensor 2 (RS2) does not turn off during paper feed from cassette 1.	B
0512		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 2.	B
0513		PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 3.	B
0514		PF feed sensor 3 (PFPFS3) does not turn off during paper feed from cassette 4.	B
0515		PF feed sensor 4 (PFPFS4) does not turn off during paper feed from cassette 5.	B
0518		The registration sensor 2 (RS2) does not turn off during paper feed from duplex section.	B
0519		The registration sensor 2 (RS2) does not turn off during paper feed from MP tray.	B
0529	No paper feed of jam (Bulk feeder)	The registration sensor 2 (RS2) does not turn on during paper feed from bulk feeder.	D
0539	Multiple sheets of jam (Bulk feeder)	The registration sensor 2 (RS2) does not turn off during paper feed from bulk feeder.	B
1403	PF feed sensor 1 non arrival jam	PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 3.	E
1404		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 4.	E
1405		PF feed sensor 1 (PFPFS1) does not turn on during paper feed from cassette 5.	E
1413	PF feed sensor 1 stay jam	PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 3.	E
1414		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 4.	E
1415		PF feed sensor 1 (PFPFS1) does not turn off during paper feed from cassette 5.	E
1604	PF feed sensor 2 non arrival jam	PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 4.	F
1605		PF feed sensor 2 (PFPFS2) does not turn on during paper feed from cassette 5.	F
1614	PF feed sensor 2 stay jam	PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 4.	F
1615		PF feed sensor 2 (PFPFS2) does not turn off during paper feed from cassette 5.	F
1805	PF feed sensor 3 non arrival jam	PF feed sensor 3 (PFPFS3) does not turn on during paper feed from cassette 5.	G
1815	PF feed sensor 3 stay jam	PF feed sensor 3 (PFPFS3) does not turn off during paper feed from cassette 5.	G

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

Code	Contents	Conditions	Jam location*
4002	Registration sensor 2 non arrival jam	The registration sensor 2 (RS2) does not turn on during paper feed from cassette 2.	B
4003		The registration sensor 2 (RS2) does not turn on during paper feed from cassette 3.	B
4004		The registration sensor 2 (RS2) does not turn on during paper feed from cassette 4.	B
4005		The registration sensor 2 (RS2) does not turn on during paper feed from cassette 5.	B
4012	Registration sensor 2 stay jam	The registration sensor 2 (RS2) does not turn off during paper feed from cassette 2.	B
4013		The registration sensor 2 (RS2) does not turn off during paper feed from cassette 3.	B
4014		The registration sensor 2 (RS2) does not turn off during paper feed from cassette 4.	B
4015		The registration sensor 2 (RS2) does not turn off during paper feed from cassette 5.	B
4101	Registration sensor 3 non arrival jam	The registration sensor 3 (RS3) does not turn on during paper feed from cassette 1.	B
4102		The registration sensor 3 (RS3) does not turn on during paper feed from cassette 2.	B
4103		The registration sensor 3 (RS3) does not turn on during paper feed from cassette 3.	B
4104		The registration sensor 3 (RS3) does not turn on during paper feed from cassette 4.	B
4105		The registration sensor 3 (RS3) does not turn on during paper feed from cassette 5.	B
4108		The registration sensor 3 (RS3) does not turn on during paper feed from duplex section.	B
4109		The registration sensor 3 (RS3) does not turn on during paper feed from MP tray.	B

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

Code	Contents	Conditions	Jam location*
4111	Registration sensor 3 stay jam	The registration sensor 3 (RS3) does not turn off during paper feed from cassette 1.	B
4112		The registration sensor 3 (RS3) does not turn off during paper feed from cassette 2.	B
4113		The registration sensor 3 (RS3) does not turn off during paper feed from cassette 3.	B
4114		The registration sensor 3 (RS3) does not turn off during paper feed from cassette 4.	B
4115		The registration sensor 3 (RS3) does not turn off during paper feed from cassette 5.	B
4118		The registration sensor 3 (RS3) does not turn off during paper feed from duplex section.	B
4119		The registration sensor 3 (RS3) does not turn off during paper feed from MP tray.	B
4201	Ejetct sensor non arrival jam	The eject sensor (ES) does not turn on during paper feed from cassette 1.	I
4202		The eject sensor (ES) does not turn on during paper feed from cassette 2.	I
4203		The eject sensor (ES) does not turn on during paper feed from cassette 3.	I
4204		The eject sensor (ES) does not turn on during paper feed from cassette 4.	I
4205		The eject sensor (ES) does not turn on during paper feed from cassette 5.	I
4208		The eject sensor (ES) does not turn on during paper feed from duplex section.	I
4209		The eject sensor (ES) does not turn on during paper feed from MP tray.	I
4211	Ejetct sensor stay jam	The eject sensor (ES) does not turn off during paper feed from cassette 1.	I or L
4212		The eject sensor (ES) does not turn off during paper feed from cassette 2.	I or L
4213		The eject sensor (ES) does not turn off during paper feed from cassette 3.	I or L
4214		The eject sensor (ES) does not turn off during paper feed from cassette 4.	I or L
4215		The eject sensor (ES) does not turn off during paper feed from cassette 5.	I or L
4218		The eject sensor (ES) does not turn off during paper feed from duplex section.	I or L
4219		The eject sensor (ES) does not turn off during paper feed from MP tray.	I or L

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

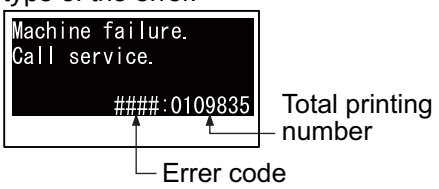
Code	Contents	Conditions	Jam location*
4301	Duplex sensor 1 non arrival jam	The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 1.	J
4302		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 2.	J
4303		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 3.	J
4304		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 4.	J
4305		The duplex sensor 1 (DUS1) does not turn on during paper feed from cassette 5.	J
4309		The duplex sensor 1 (DUS1) does not turn on during paper feed from MP tray or bulk feeder.	J
4401	Duplex sensor 2 non arrival jam	The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 1.	K
4402		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 2.	K
4403		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 3.	K
4404		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 4.	K
4405		The duplex sensor 2 (DUS2) does not turn on during paper feed from cassette 5.	K
4409		The duplex sensor 2 (DUS2) does not turn on during paper feed from MP tray or bulk feeder.	K
4418	Duplex sensor 2 stay jam	The duplex sensor 2 (DUS2) does not turn off during paper feed from duplex section.	K

*: Refer to figure 1-4-1 for paper jam location (see page 1-4-1).

1-4-2 Self-diagnostic function

(1) Self-diagnostic function

This machine is equipped with self-diagnostic function. When a problem is detected, the machine stops printing and display 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 the error.



(2) Self diagnostic codes

If the part causing the problem was not supplied, use the unit including the part for replacement.

Code	Contents	Causes	Check procedures/ corrective measures
0100	**Backup memory device error**	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-22).
		Defective main PWB.	
0120	**MAC address data error** For data in which the MAC address is invalid.	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-22).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-22).
0130	**Backup memory read/write error (main PWB)**	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-22).
		Defective main PWB.	
0140	**Backup memory data error (main PWB)**	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-22).
		Defective main PWB.	
0150	**Backup memory read/write error (engine PWB)** Detecting engine PWB EEPROM communication error.	Improper installation engine PWB EEPROM.	Check the installation of the EEPROM and remedy if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
		Device damage of EEPROM.	Contact the Service Administrative Division.
0160	**Backup memory data error (engine PWB)**	Defective EEPROM.	Replace the engine PWB and check for correct operation (see page 1-5-22).
		Defective engine PWB.	

Code	Contents	Causes	Check procedures/ corrective measures
0170	**Billing counting error** A checksum error is detected in the main and engine backup memories for the billing counters.	Data damage of EEPROM.	Contact the Service Administrative Division.
		Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-22, 1-5-22).
0190	**Backup memory device error (engine PWB)**	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
0800	**Image processing error** JAM010x is detected twice.	Defective main PWB.	Replace the main PWB and check for correct operations page 1-5-22).
0840	**Faults of RTC** Unable to communicate with the RTC device normally. The RTC data is mismatched due to dead battery or short-circuit with the metal part.	Other RTC device failure due to dead battery or short-circuit with the metal part.	Restart the main unit and set the correct time from the operation panel. Repair it if the battery comes off from the main PWB.
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-22).
1010	**Lift motor error (60/55/50 ppm model only)** After cassette 1 is inserted, lift sensor does not turn on within 10 s. This error is detected five times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Lift motor and engine PWB (YC13)
		Defective drive transmission system of the lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective lift motor.	Replace the lift motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
1020	**PF lift motor 1 error (paper feeder)** After cassette 2 is inserted, PF lift sensor 1 does not turn on. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 1 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 1.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1030	**PF lift motor 2 error (paper feeder)** After cassette 3 is inserted, PF lift sensor 2 does not turn on. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 2 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 2.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1040	**PF lift motor 3 error (paper feeder)** After cassette 4 is inserted, PF lift sensor 3 does not turn on. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 3 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 3.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1050	**PF lift motor 4 error (paper feeder)** After cassette 5 is inserted, PF lift sensor 4 does not turn on. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 4 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 4.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1140	**BPF lift motor upward error (Bulk paper feeder)** BPF lift maximum sensor does not turn on. The lock signal of the motor is detected continuously three times.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. BPF lift motor and BPF main PWB (YC4)
		Defective drive transmission system of the motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective BPF lift motor.	Replace the BPF lift motor.
		Defective BPF main PWB.	Replace the BPF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1150	**BPF lift motor downward error (Bulk paper feeder)** BPF lift minimum sensor does not turn on. The lock signal of the motor is detected continuously three times. When detecting an overcurrent detection signal.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. BPF lift motor and BPF main PWB (YC4)
		Defective drive transmission system of the motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective BPF lift motor.	Replace the BPF lift motor.
		Defective BPF main PWB.	Replace the BPF main PWB (Refer to the service manual for the paper feeder).
1800	**Paper feeder 1 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1810	**Paper feeder 2 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1820	**Paper feeder 3 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1830	**Paper feeder 4 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1900	**Paper feeder 1/BPF paper feeder EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB or the BPF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	
1910	**Paper feeder 2 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	
1920	**Paper feeder 3 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	
1930	**Paper feeder 4 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	
2000	**Main motor drive error** The main motor is not stabilized within 2 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC4)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
2010	**Main motor steady-state error** Stable OFF is detected for 2 s continuously after main motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC4)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
2200	**Drum motor drive error (60/55/50 ppm model only)** The drum motor is not stabilized within 2 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum motor and engine PWB (YC4)
		Defective drive transmission system of the drum motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective drum motor.	Replace the drum motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
2210	**Drum motor steady-state error (60/55/50 ppm model only)** Stable OFF is detected for 2 s continuously after drum motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum motor and engine PWB (YC4)
		Defective drive transmission system of the drum motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective drum motor.	Replace the drum motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
2330	**Fuser pressure release motor error (Over-current)** The over-current detection signal of the motor is detected continuously twenty times.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser pressure release motor and relay-L PWB(YC11) Relay-L PWB(YC3) and engine PWB(YC2)
		Defective drive transmission system of the fuser pressure release motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective PWB.	Replace the relay-L PWB or engine PWB. (See Page 1-5-24,1-5-22)
2340	**Fuser pressure release motor error (Timeout)** The position detection sensor is not detected continuously for 30 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser pressure release motor and relay-L PWB(YC11) Relay-L PWB(YC1) and engine PWB(YC2)
		Defective drive transmission system of the fuser pressure release motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective PWB.	Replace the relay-L PWB or engine PWB. (See Page 1-5-24,1-5-22)
2600	**PF drive motor 1 error (paper feeder 1)** When the PF drive motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 1 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 1.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
2610	**PF drive motor 2 error (paper feeder 2)** When the PF drive motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 2 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 2.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
2620	**PF drive motor 3 error (paper feeder 3)** When the PF drive motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 3 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 3.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
2630	**PF drive motor 4 error (paper feeder 4)** When the PF drive motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor 4 and PF main PWB (YC6)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor 4.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
4000	**Polygon motor synchronization error** The polygon motor is not stabilized within 20 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Polygon motor and engine PWB (YC15)
		Defective polygon motor.	Replace the laser scanner unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
4200	**BD steady-state error** When the value of Register BDSET is 1 after setting Register BDSET as one and passing by BD1 cycle.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. APC PWB(YC1) and engine PWB (YC16) APC PWB(YC2) and PD PWB(YC1)
		Defective PD PWB.	Replace the laser scanner unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
5100	**Chager current error** When the current value measured at the time of potential adjustment is less than 20 µA.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager unit and high voltage PWB High voltage PWB (YC101) and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB and check for correct operation (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
6000	**Broken fuser heater wire** The detection temperature of fuser thermistor 2 is 100 °C/ 212°F or less after the fuser heater lamp has been turned on continuously for 30 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC2) Fuser thermistor and Fuser thermistor connect PWB(YC1 and YC2) Fuser thermistor connect PWB(YC3) and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-19.
		Defective triac.	See page 1-4-19.
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-19).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
6020	**Abnormally high fuser thermistor 2 temperature** The detection temperature of fuser thermistor 2 is higher than 235°C/455°F. In a heater-off state, the detection temperature of fuser thermistor 2 is higher than 195°C/383°F after the detection temperature of fuser thermistor 2 was 155°C/311°F or less.	Deformed connector pin.	See page 1-4-19.
		Defective triac.	See page 1-4-19.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-19).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
6030	**Broken fuser thermistor 2 wire** A/D value of the fuser thermistor 2 exceeds 1019 bit continuously for 4 s during warming up.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser thermistor and fuser thermistor connect PWB(YC2) Fuser thermistor connect PWB(YC3) and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-19.
		Defective triac.	See page 1-4-19.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-19).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
6000/ 6020/ 6030/ 6120/ 6130/ Combined	**Broken fuser heater wire / Abnormally high fuser thermistor 2 temperature / Broken fuser thermistor 2 wire / Abnormally high fuser thermistor 1 temperature / Broken fuser thermistor 1 wire**	Deformed connector pin.	If the I/F connector pins of the fuser unit and the main unit are deformed owing to foreign matters, replace the connectors or the units including the connectors.
		Defective triac.	Remove the power cord and check that the resistance between terminals T1 and T2 of the triac TRA31 and triac TRA41 are of several Mega-Ohms and not shorted (see figure 1-4-3). If failed, replace the power source PWB (see page 1-5-25).

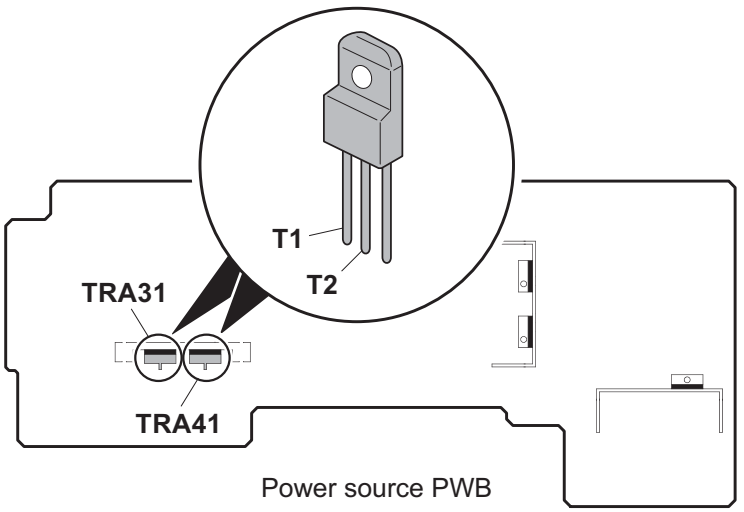


Figure 1-4-3

Code	Contents	Causes	Check procedures/ corrective measures
6120	**Abnormally high fuser thermistor 1 temperature** The detection temperature of fuser thermistor 1 is higher than 245°C/473°F. In a heater-off state, the detection temperature of fuser thermistor 1 is higher than 195°C/383°F after the detection temperature of fuser thermistor 1 was 155°C/311°F or less.	Deformed connector pin.	See page 1-4-19.
		Defective triac.	See page 1-4-19.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-19).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
6130	**Broken fuser thermistor 1 wire** A/D value of the fuser thermistor 1 exceeds 1019 bit continuously for 4 s during warming up.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser thermistor and fuser thermistor connect PWB(YC1) Fuser thermistor connect PWB(YC3) and engine PWB (YC21)
		Deformed connector pin.	See page 1-4-19.
		Defective triac.	See page 1-4-19.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-19).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
6400	**Zero-cross signal error** While fuser heater control is performed, the zero-cross signal is not input within 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Power source PWB (YC3) and engine PWB (YC1)
		Defective power source PWB or engine PWB.	Replace the power source PWB or the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
7100	**Toner sensor error** Sensor output value of 930 or more continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Toner sensor and drum PWB (YC3) Drum connect PWB(YC2) and relay-L PWB (YC3) Relay-L PWB(YC1) and engine PWB (YC2)
		Defective toner sensor.	Replace the developer unit. (See Page 1-5-13)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
7400	**Developer unit non-installing error** Sensor output value of 31 or less continuously for 5 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Toner sensor and drum PWB (YC3) Drum connect PWB(YC2) and relay-L PWB (YC3) Relay-L PWB(YC1) and engine PWB (YC2)
		Defective toner sensor.	Replace the developer unit. (See Page 1-5-13)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
7410	**Drum unit type mismatch error** The drum PWB EEPROM does not communicate normally. Absence of the drum unit is detected.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit and drum connect PWB (YC1) Drum connect PWB(YC2) and relay-L PWB (YC3) Relay-L PWB(YC1) and engine PWB (YC2)
		Defective toner sensor.	Replace the drum unit. (See Page 1-5-13)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
7800	**Broken external thermistor wire** The average of thermistor output value of 93 or less.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB (YC1) and engine PWB (YC17)
		Defective temperature sensor.	Replace the operation PWB.
7810	**Short-circuited external thermistor wire** The average of thermistor output value of 930 or more.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB (YC1) and engine PWB (YC17)
		Defective temperature sensor.	Replace the operation PWB.
7900	**Drum unit EEPROM error** No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated five times successively. Mismatch of reading data from two locations occurs eight times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit and drum connect PWB (YC1) Drum connect PWB(YC2) and relay-L PWB (YC3) Relay-L PWB(YC1) and engine PWB (YC2)
		Defective drum unit.	Replace the drum unit (see 1-5-15).
F000	**Main PWB - operation PWB communication error**	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Operation PWB(YC1) and engine PWB (YC17)
		Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-22).
		Defective operation PWB.	Replace the operation PWB and check for correct operation.
F010	**Main PWB checksum error**	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-22).

Code	Contents	Causes	Check procedures/ corrective measures
F020	**Main PWB RAM checksum error**	Defective main memory (RAM) in main PWB	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-22).
		Defective expended memory (DIMM)	Replace the expansion memory (DIMM). (See Page 1-2-12) Also in the case of the capacity besides specification, it displays.
F040	**Main PWB - print engine communication error**	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-22).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
F050	**Print engine ROM checksum error**	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-22).

(3) System Error (Fxxxx) Outline

The document is subscribed to describe the outline of the factors of the Fxxx errors that are not described in the service manual. Please utilize it to refer to checking the factors.

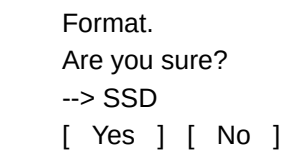
Note:
Please initially check the following when the error (Fxxx) is indicated.
Power is partially supplied to this machine when the power is turned off.
Unplug the power plug and check if the F-code error is not released when passing one minute or more after turning the power off and then on.

Check the DDR3 memory and neighboring parts : Check the contact with YS1 on the main PWB by releasing and reinserting the memory, and check if the foreign objects such as the dust don't adhere inside and if the pins aren't deformed. If the error repeats after that, replace the memory.
Check the SSD (optional HD-6/HD-7) if the error repeats after replacing the memory.
The storage data in the SSD is initialized when formatting or replacing the SSD.
Thus, newly install the data in the formatted SSD or new SSD.

Check the SSD: Replace the SSD if the error repeats after formatting the SSD (Note1).

Note1: Procedures for formatting the SSD. (It is also indicated at Operation Manual.)
1. Press <MENU>.
2. Press the up/down arrow keys and select [Device Common]. Press <OK>.
3. Press the up/down arrow keys and select [Format SSD]. Press <OK>.
4. The confirmation screen (in the figure below) appears. Press [Yes]. (Press the left arrow key.)
5. [Formatting…] appears and formatting SSD starts.

→ After finishing the formatting SSD, the screen is recovered to the standby screen.



Caution: Formatting SSD The following storage data in the SSD (optional HD-6/HD-7) is initialized after formatting the SSD. (Back-up from the SSD is not available.)

Font data, API data, Macro data, Printable data, Document box,
Job storage (User box/Quick copy/Proof and hold/Private print/Job storage)

Code	Contents	Verification procedure & check point	Remarks	ECOSYS P3060dn/P3055dn/P3050dn/P3045dn
—	It locks on a Welcome screen.It locks on a starting logo (Taskalfa/Ecosys) screen.(Even if time passes for a definite period of time in more than * notes, a screen does not change)	(1) Check the harness, and the connection state of a connector between Panel<=>Main boards, and perform an operation check. (2) Check contact of a DDR memory (extracting) and perform an operation check. If exchangeable, it will exchange and will perform an operation check. (3) U021 Controller backup initialization is carried out and an operation check is performed. (4) Exchange a PanelMain board and perform an operation check. (5) Exchange a Main board and perform an operation check. (6) It will get, if USBLOG is obtainable, and contact service headquarters.	1. Panel <=> Main IF (Engine PWB Relay) Main PWB: YC2 Engine PWB: YC20,YC30 Panel PWB: YC1 2. DDR memory Main PWB: YS1	* note: 60[s]
F000	CF000 will be displayed if * notes progress is carried out for a definite period of time with a Welcome screen.The communication fault between Panel-Main boardsCommunication fault between Panel Core-Main Core Notes 2	(1) Check the harness, and the connection state of a connector between Panel<=>Main boards, and perform an operation check. (2) Check contact of a DDR memory (extracting) and perform an operation check. If exchangeable, it will exchange and will perform an operation check. (3) U021 Controller backup initialization is carried out and an operation check is performed. (4) Exchange a Main board and perform an operation check. (5) Exchange a PanelMain board and perform an operation check. (6) It will get, if USBLOG is obtainable, and contact service headquarters.	1. Panel <=> Main IF (Engine PWB Relay) Main PWB: YC2 Engine PWB: YC20,YC30 Panel PWB: YC1 2. DDR memory Main PWB: YS1	* note: 60[s]
F15X	Abnormality detecting in an authentication device control section	(1) Check the harness between authentication device <=>Main boards, and the connection situation of a connector, and perform an operation check. (2) Carry out U021 Main backup initialization and perform an operation check. (3) Exchange a Main board and perform an operation check. (4) Get USBLOG and contact service headquarters.	1.Authentication device <=> Main IF Main PWB: YC6 Authentication device: IC card reader etc.	[Main body <=> authentication device] USB-HOST connector [Main boad <=> USB connector] Main boad: YC510
F17X	Abnormality detecting in a printer data control part	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		
F18X	Abnormality detecting in a Video control section	(1) Check the harness between Engine<=>Main boards, and the connection state of a connector, and perform an operation check. (2) U021 Controller backup initialization is carried out and an operation check is performed. (3) Exchange an Engine board and perform an operation check. (4) Exchange a Main board and perform an operation check. (5) Get USBLOG and contact service headquarters.		
F1DX	Abnormality detecting of the image memory Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	* Poor arrangement of F1D4:Random Access Memory(1) Confirmation of U340(2) Initialization of a set point (U021)	
F21X F22X F23X	Abnormality detecting in an image-processing part	(1) Check contact of a DDR memory and perform an operation check. (2) Carry out U021 Main backup initialization and perform an operation check. (3) Exchange a Main board and perform an operation check. (4) Get USBLOG and contact service headquarters.		
F24X	Abnormality detecting in the system Management Department	(1) Check contact of a DDR memory and perform an operation check. (2) Carry out U021 Main backup initialization and perform an operation check. (3) Exchange a Main board and perform an operation check. (4) Get USBLOG and contact service headquarters.	* F248 is the abnormalities of a printer process.In recurring by specific printer data, please give me cooperation at acquisition of capture data and USBLOG.	[Controller failure] Turn power on and off to clear. USB log is required for investigation. [Main PWB] There is no hard components that can be checked in the field.

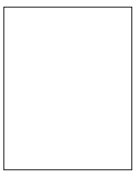
Code	Contents	Verification procedure & check point	Remarks	ECOSYS P3060dn/P3055dn/P3050dn/P3045dn
F25X	Abnormality detecting in a network management department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	* It may occur according to a visitor's network environment.	[Main body <=> External network] Ethernet network
F26X F27X F28X F29X F2AX	Abnormality detecting in the system Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		
F2BX F2CX F2DX F2EX F2FX F30X F31X F32X	Abnormality detecting in a network control part	(1) Carry out U021 Main backup initialization and perform an operation check. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters. (Depending on an analysis result, it is packet capture acquisition)		[Main body <=> External network] Ethernet network
F35X	Abnormality detecting in the printing controlling Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		
F38X	Abnormality detecting in the authentication authorized Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		[Main body <=> authentication device] USB-HOST connector [Main boad <=> USB connector] Main boad: YC510
F3AX F3BX F3CX F3DX F3EX F3FX F40X F41X F43X F44X F45X	Abnormality detecting in the Entity Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		
F46X	Abnormality detecting of a printer rendering part	(1) Exchange boards and perform an operation check. (2) the acquisition wish of USBLOG -- carry out (Depending on the (2) case, it is print capture data acquisition)	* F46F is the abnormalities of a printer process.In recurring by specific printer data, please give me cooperation at acquisition of capture data and USBLOG.	

Code	Contents	Verification procedure & check point	Remarks	ECOSYS P3060dn/P3055dn/P3050dn/P3045dn
F4DX F4EX	Abnormality detecting in the Entity Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		[Main PWB] There is no hard components that can be checked in the field.
F4FX	Abnormality detecting in the JOB Management Department	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	Since the USB log immediately after occurrence is needed for analysis, please give me cooperation of acquisition.	
F52X F53X F55X F56X F57X	Abnormality detecting in a JOB execution part	"(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	Since the USB log immediately after occurrence is needed for analysis, please give me cooperation of acquisition.	
F61X	Abnormality detecting in a report creation part	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	Since the USB log immediately after occurrence is needed for analysis, please give me cooperation of acquisition.	[Controller failure] Turn power on and off to clear. USB log is required for investigation.
F63X	Abnormality detecting in a device control section	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.		
F68X	Abnormality detecting in a storage device control section	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	* F684 is the overwrite error at the time of an HDD security kit.	
F90X	Abnormality detecting in the extension application service part	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	Since the USB log at the time of occurrence is needed for analysis, please give me cooperation of acquisition.	
F93X	Abnormality detecting in the extension application management part	(1) U021 Controller backup initialization is carried out and an operation check is performed. (2) Exchange a Main board and perform an operation check. (3) Get USBLOG and contact service headquarters.	Since the USB log at the time of occurrence is needed for analysis, please give me cooperation of acquisition.	

1-4-3 Image formation problems

If the part causing the problem was not supplied, use the unit including the part for replacement.

(1) No image appears (entirely white).



See page 1-4-29

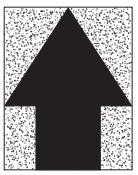
(2) No image appears (entirely black).

See page 1-4-29

(3) Image is too light.

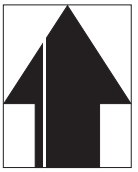
See page 1-4-30

(4) The background is colored.



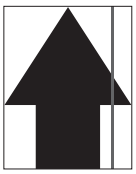
See page 1-4-31

(5) White streaks are printed vertically.



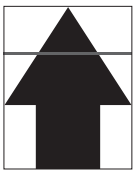
See page 1-4-31

(6) Black streaks are printed vertically.



See page 1-4-32

(7) Streaks are printed horizontally.

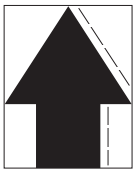


See page 1-4-32

(8) Spots are printed.

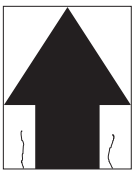
See page 1-4-32

(9) Image is blurred.



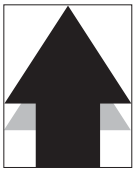
See page 1-4-33

(10) Paper is wrinkled.



See page 1-4-33

(11) Offset occurs.

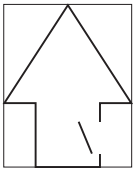


See page 1-4-33

(12) Part of image is missing.

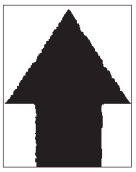
See page 1-4-33

(13) Fusing is loose.



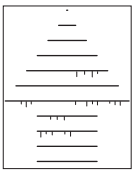
See page 1-4-34

(14) Image is out of focus.



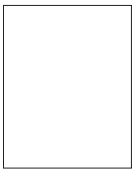
See page 1-4-34

(15) Carrier leaking occurs.



See page 1-4-34

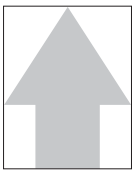
(1) No image appears (entirely white).

Print example	Causes		Check procedures/corrective measures
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
	No LSU laser is output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Laser scanner unit and engine PWB (YC16)
		The shutter of a laser scanner unit does not open.	The operating state of a link part with an top cover is checked.
		Defective laser scanner unit.	Replace the laser scanner unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
		Defective main PWB.	Replace the main PWB (see page 1-5-22).

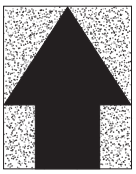
(2) No image appears (entirely black).

Print example	Causes		Check procedures/corrective measures
	No main charging.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective poor connection of the charger roller	Connection is checked by the electrical connection inspection of the charger roller.
		Defective charger roller unit.	Replace the charger roller unit (see page 1-5-15).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).

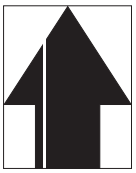
(3) Image is too light.

Print example	Causes		Check procedures/corrective measures
	Dew condensation of the drum surface.		Perform the drum surface refreshing in a system menu.
	The paper is moist.		The storage state of a paper is checked.
	Defective transfer charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Transfer roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC10)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
	Insufficient toner.		If the display shows the message requesting toner replenishment, replace the container.

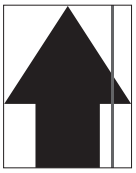
(4) The background is colored.

Print example	Causes		Check procedures/corrective measures
	Defective main charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Chager roller unit and high voltage PWB High voltage PWB and engine PWB (YC19)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and high voltage PWB High voltage PWB and engine PWB (YC10)
		Defective developer unit.	Replace the developer unit (see page 1-5-13).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-22).
	Deteriorated toner.		Perform the drum surface refreshing operation.

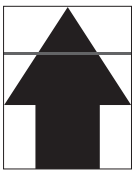
(5) White streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Foreign matter in the developer unit.	Check if the magnetic brush is formed uniformly. Replace the developer unit if any foreign matter (see page 1-5-13).
	Adhesion of soiling to transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-16).
	Dust adhesion to the charger roller unit.	Clean the chager roller unit.
	Dirty dust shield glass of laser scanner unit.	Clean the dust shield glass of laser scanner unit.

(6) Black streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-15).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-15).
	Defective transfer roller.	Replace the transfer roller unit (see page 1-5-16).
	Defective chager roller.	Replace the chager roller unit (see page 1-5-15).
	Defective developer roller.	Replace the developer unit (see page 1-5-13).

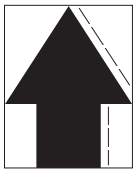
(7) Streaks are printed horizontally.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-15).
	Dirty developer section.	Clean any part contaminated with toner in the developer section.
	Poor contact of grounding terminal of drum unit.	Check the installation of the drum unit. If it operates incorrectly, replace it (see page 1-5-15).
	The beam detection error of a laser scanner unit	Replace the laser scanner unit (see page 1-5-18).

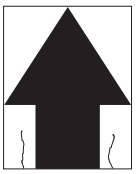
(8) Spots are printed.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-15).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-15).
	Flawed developer roller.	Replace the developer unit (see page 1-5-13).
	Dirty heat roller and press roller.	Clean the heat roller and press roller.

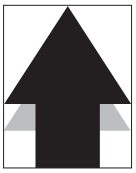
(9) Image is blurred.

Print example	Causes	Check procedures/corrective measures
	Deformed press roller.	Replace the fuser unit (see page 1-5-19).
	Paper conveying section drive problem.	Check the gears and belts and, if necessary, grease them.

(10) Paper is wrinkled.

Print example	Causes	Check procedures/corrective measures
	Paper curled.	Check the paper storage conditions.
	Paper damp.	
	Defective pressure springs.	Replace the fuser unit (see page 1-5-19).

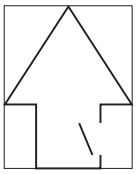
(11) Offset occurs.

Print example	Causes	Check procedures/corrective measures
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-15).
	Defective fuser unit.	Replace the fuser unit (see page 1-5-19).
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.

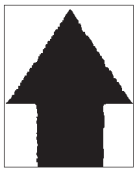
(12) Part of image is missing.

Print example	Causes	Check procedures/corrective measures
	Paper damp.	Check the paper storage conditions.
	Paper creased.	Replace the paper.
	Drum condensation.	Perform the drum surface refreshing operation.
	Dirty or flawed drum.	Perform the drum surface refreshing operation. Flawed drum. Replace the drum unit (see page 1-5-15).
	Dirty transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-16).

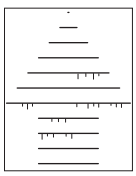
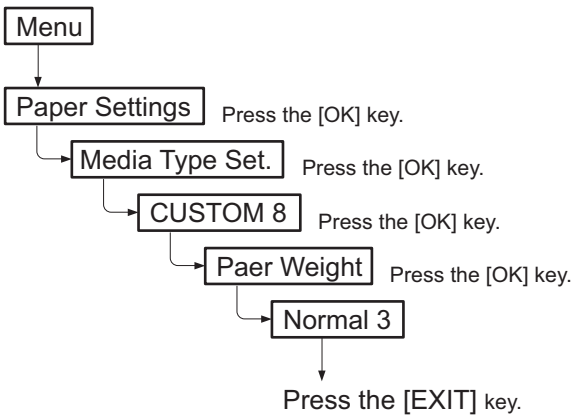
(13) Fusing is loose.

Print example	Causes	Check procedures/corrective measures
	Wrong types of paper.	Check if the paper meets specifications, replace paper. Setup of media Practical use of half speed printing
	Paper creased.	Replace the paper.
	Flawed heat roller or press roller.	Replace the fuser unit (see page 1-5-19).
	Defective pressure springs.	
	Defective fuser heater.	

(14) Image is out of focus.

Print example	Causes	Check procedures/corrective measures
	Drum condensation.	Perform the drum refresh operation.

(15) Carrier leaking occurs.

Print example	Causes	Check procedures/corrective measures
	Paper creased.	Replace the paper.
		Each of following paper kinds are changed and printed. A paper setup of a printer is changed.  A setup of a driver is changed. By basic setup, the kind of paper is made "CUSTOM 8".

1-4-4 Electric problems

If the part causing the problem was not supplied, use the unit including the part for replacement.
Troubleshooting to each failure must be in the order of the numbered symptoms.

Problem	Causes	Check procedures/corrective measures
(1) The machine does not operate when the power switch is turned on.	1. No electricity at the power outlet.	Measure the input voltage.
	2. The power cord is not plugged in properly.	Check the contact between the power plug and the outlet.
	3. Broken power cord.	Check for continuity. If none, replace the cord.
	4. Defective power switch.	Check for continuity across the contacts. If none, replace the power switch.
	5. Defective interlock switch.	Check for continuity across the contacts of interlock switch. If none, replace the power source PWB (see page 1-5-25).
	6. Defective power source PWB.	Replace the power source PWB or engine PWB (see page 1-5-25,1-5-22).
(2) Eject motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Eject motor and relay-L PWB (YC12) Relay-L PWB and engine PWB (YC2/YC31)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the eject motor.
	4. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-22, 1-5-24).
(3) Power source fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Power source fan motor and engine PWB (YC10)
	2. Defective motor.	Replace the power source fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(4) LSU fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. LSU fan motor and relay-L PWB (YC4) Relay-L PWB and engine PWB (YC2/YC31)
	2. Defective motor.	Replace the LSU fan motor.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-22, 1-5-24).

Problem	Causes	Check procedures/corrective measures
(5) Developer fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer fan motor and engine PWB (YC27)
	2. Defective motor.	Replace the developer fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(6) Paper feed clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper feed clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the paper feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(7) Registration clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Registration clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the registration clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(8) Duplex clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Duplex clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the duplex clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(9) Developer clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the developer clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(10) Conveying clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Conveying clutch and engine PWB (YC5)
	2. Defective clutch.	Replace the Conveying clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(11) MP solenoid does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP solenoid and engine PWB (YC8)
	2. Defective solenoid.	Replace the MP solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Problem	Causes	Check procedures/corrective measures
(12) Feedshift solenoid does not operate. (60/55/50 ppm model only)	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Feedshift solenoid and relay-L PWB (YC13) Relay-L PWB and engine PWB (YC2/YC31)
	2. Defective solenoid.	Replace the Feedshift solenoid.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-22, 1-5-24).
(13) The message requesting paper to be loaded is shown when paper is present on the cassette.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC19)
	2. Deformed actuator of the paper sensor.	Check visually and replace if necessary.
	3. Defective paper sensor.	Replace the engine PWB or the high voltage PWB and check for correct operation (see page 1-5-22,1-5-26).
	4. Defective PWB.	
(14) The message requesting paper to be loaded is shown when paper is present on the MP tray.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP paper sensor and relay-L PWB (YC8) Relay-L PWB and engine PWB (YC2)
	2. Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
	3. Defective MP paper sensor.	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-22, 1-5-24).
(15) The size of paper on the cassette is not displayed correctly.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Cassette size switch and engine PWB (YC7)
	2. Defective cassette size switch.	Replace the cassette size switch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).

Problem	Causes	Check procedures/corrective measures
(16) A paper jam in the paper feed, paper conveying or eject section is indicated when the main power switch is turned on.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Regist sensor 2 and Drum PWB (YC6) DU sensor 1 and Relay-L PWB (YC9) PF feed sensor and PF main PWB Eject full sensor and engine PWB (YC12) Eject sensor and Engine PWB (YC26)
	2. A piece of paper torn from paper is caught around registration sensor, duplex sensor, PF feed sensor, eject full sensor or eject sensor.	Check visually and remove it, if any.
	3. Defective sensor.	Replace the registration sensor, duplex sensor, PF feed sensor, eject full sensor or eject sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(17) A message indicating cover open is displayed when the top cover is closed.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Interlock switch and engine PWB (YC6)
	2. Defective interlock switch.	Check and replace if necessary.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-22).
(18) A message indicating cover open is displayed when the rear cover is closed.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Rear cover switch and relay-L PWB (YC10) Relay-L PWB and engine PWB (YC2/YC31)
	2. Defective rear cover switch.	Check and replace if necessary.
	3. Defective PWB.	Replace the engine PWB or the relay-L PWB and check for correct operation (see page 1-5-22, 1-5-24).

1-4-5 Mechanical problems

If the part causing the problem was not supplied, use the unit including the part for replacement.

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Pickup roller Paper feed roller MP paper feed pulley	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller MP paper feed pulley	Check visually and replace any deformed (see page 1-5-8, 1-5-10).
	Defective paper feed clutch installation.	Check visually and remedy if necessary.
(2) No secondary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Upper registration roller Lower registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4) Multiple sheets of paper are fed.	Check if the paper is excessively curled.	Change the paper.
	Paper is loaded incorrectly.	Load the paper correctly.
	Check if the retard roller is worn.	Replace the retard roller if it is worn (see page 1-5-8).
(5) Paper jams.	Check if the paper is excessively curled.	Change the paper.
	Check if the contact between the upper and lower registration rollers is correct.	Check visually and remedy if necessary.
	Check if the heat roller or press roller is extremely dirty or deformed.	Check visually and replace the fuser unit (see page 1-5-19).
(6) Toner drops on the paper conveying path.	Check if the drum unit or developer unit is extremely dirty.	Clean the drum unit or developer unit.
(7) Abnormal noise is heard.	Check if the rollers, pulleys and gears operate smoothly.	Grease the bushes and gears.
	Check if the following clutches are installed correctly. Paper feed clutch Registration clutch Duplex clutch	Check visually and remedy if necessary.

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1-5-1 Precautions for assembly and disassembly

(1) Precautions

Before starting disassembly, push the power switch and check the disappeared display of an operation panel certainly. Unplug the power cable from the wall outlet.
When handling PWBs (printed wiring boards), do not touch parts with bare hands.
The PWBs are susceptible to static charge.
Do not touch any PWB containing ICs with bare hands or any object prone to static charge.
When removing the hook of the connector, be sure to release the hook.
Take care not to get the cables caught.
To reassemble the parts, use the original screws. If the types and the sizes of screws are not known, refer to the PARTS LIST.

(2) Drum unit

Note the following when handling or storing the drum unit.
When removing the drum unit, never expose the drum surface to strong direct light.
Keep the drum unit at an ambient temperature between -20°C/-4°F and 40°C/104°F and at a relative humidity not higher than 85% RH. Avoid abrupt changes in temperature and humidity.
Avoid exposure to any substance which is harmful to or may affect the quality of the drum unit.
Do not touch the drum surface with any object. Should it be touched by hands or stained with oil, clean it.

(3) Toner

Store the toner containers in a cool, dark place.
Avoid exposing the toner containers to direct light and high humidity.

(4) How to tell a genuine Kyocera toner container

As a means of brand protection, the Kyocera toner container utilizes an optical security technology to enable visual validation. A validation viewer is required to accomplish this.

Hold the validation viewer over the left side part of the brand protection seal on the toner container. Through each window of the validation viewer, the left side part of the seal should be seen as follows:

A black-colored band when seen through the left side window (●)

A shiny or gold-colored band when seen through the right side window (☼)

The above will reveal that the toner container is a genuine Kyocera branded toner container, otherwise, it is a counterfeit.

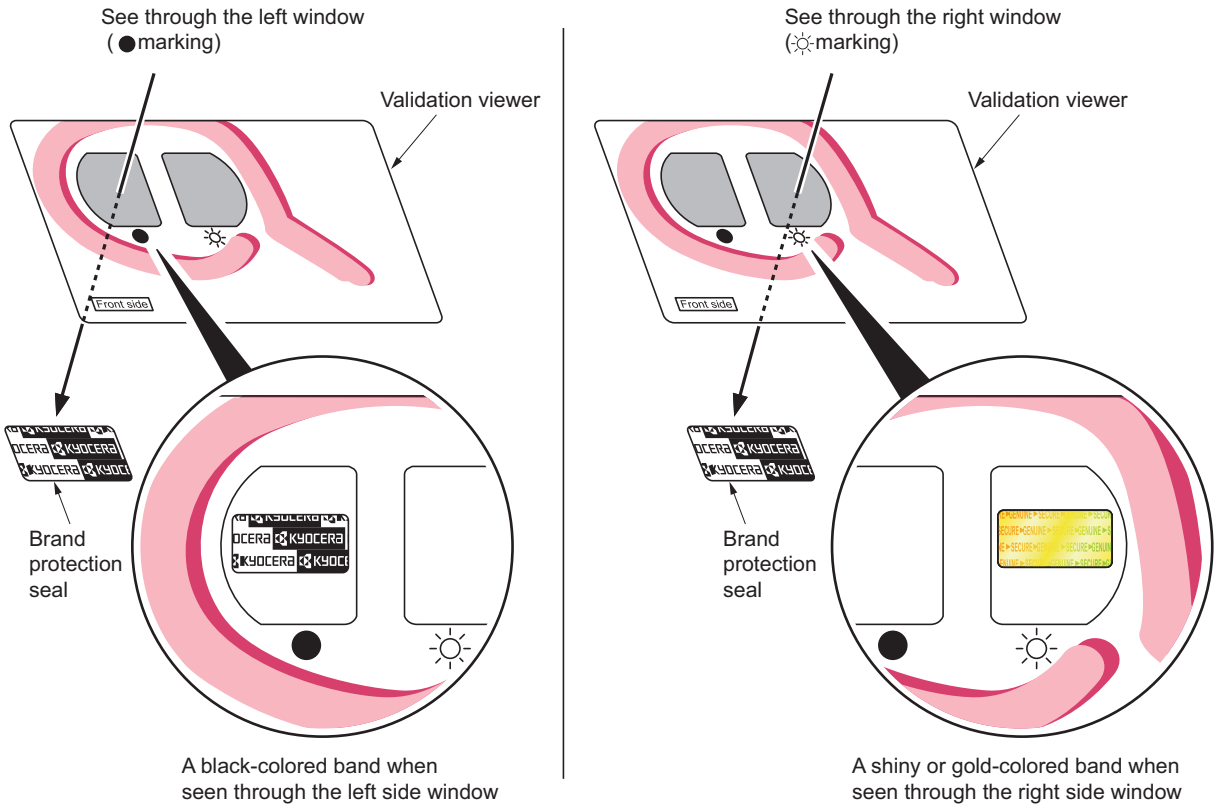


Figure 1-5-1

The brand protection seal has an incision as shown below to prohibit reuse.

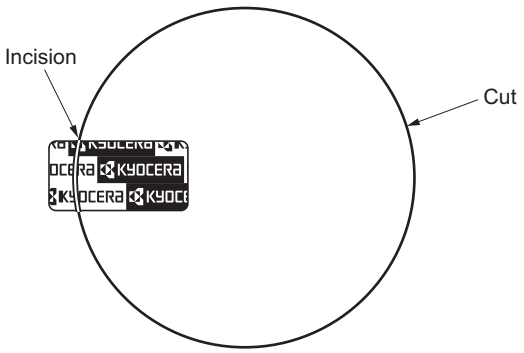


Figure 1-5-2

1-5-2 Outer covers

(1) Detaching and refitting the top cover

Procedure

1. Open the rear cover.
2. Open the top cover.
3. Remove two screws.
4. Release two hooks and then lift the top cover upward.
5. Pull out FFC from the connector and then remove the top cover assembly.

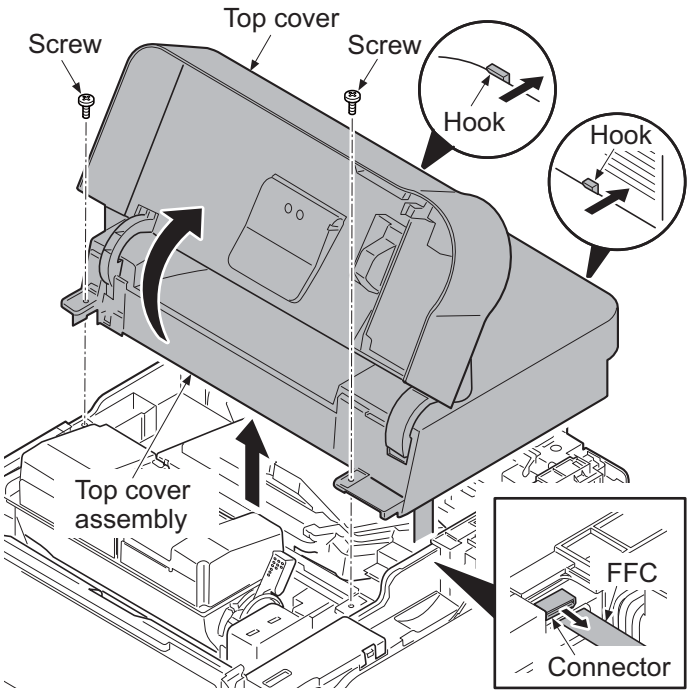


Figure 1-5-3

(2) Detaching and refitting the inlet cover and slot cover

Procedure

1. Open the rear cover.
2. Remove the inlet cover.
3. Release the hook of the slot cover and then remove the slot cover.

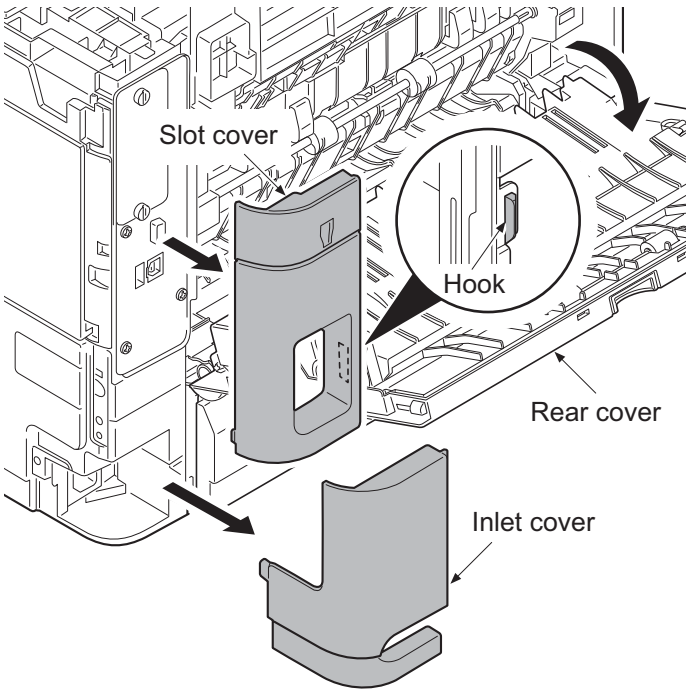


Figure 1-5-4

(3) Detaching and refitting the right upper cover

Procedure

1. Open the front cover.
2. Remove the top cover assembly. (See page 1-5-3)
3. Remove the slot cover. (See page 1-5-3)
4. Remove two screws.
5. Release hook A.
6. Release two hooks B by sliding the right upper cover upward and then remove the right upper cover.

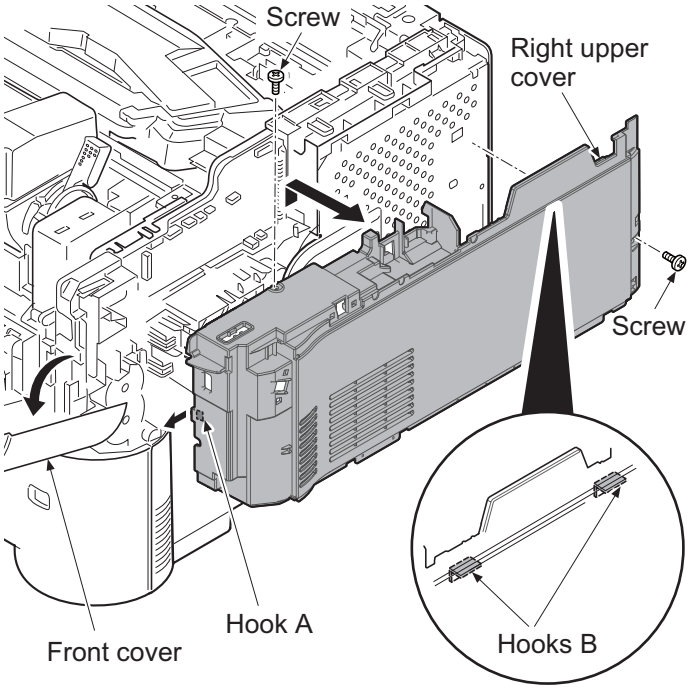


Figure 1-5-5

(4) Detaching and refitting the right lower cover

Procedure

1. Remove the right upper cover. (See page 1-5-4)
2. Remove the inlet cover. (See page 1-5-4)
3. Pull out the cassette.
4. Remove three screws.
5. Release two hooks by sliding the right lower cover upward and then remove the right lower cover.

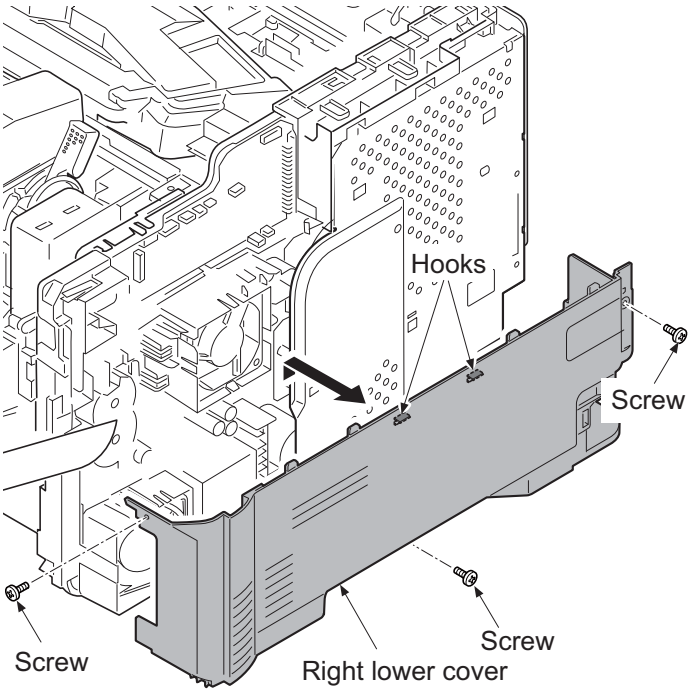


Figure 1-5-6

(5) Detaching and refitting the rear left cover

Procedure

1. Open the rear cover.
2. Release two hooks of the rear left cover while pulling forward.
3. Remove the rear left cover by rotating.

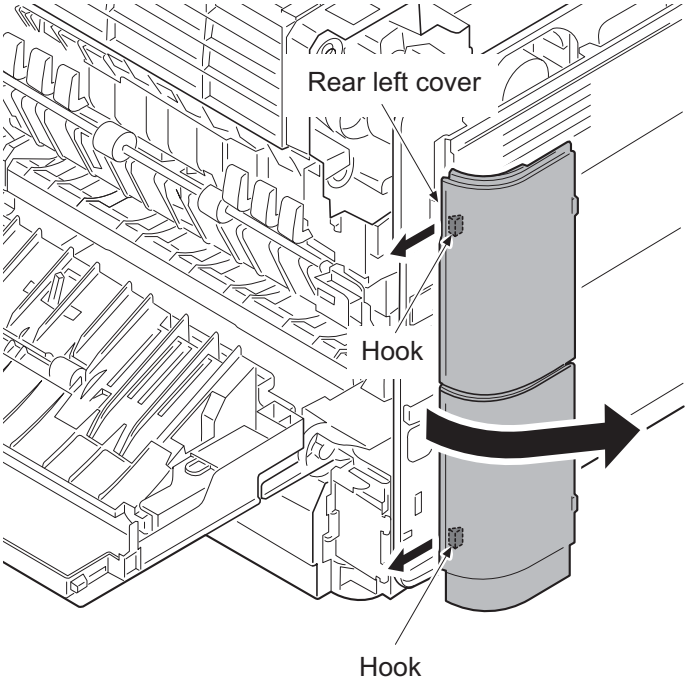


Figure 1-5-7

(6) Detaching and refitting the left upper cover

Procedure

1. Open the front cover.
2. Remove the top cover assembly.
   (See page 1-5-3)
3. Remove the rear left cover.
   (See page 1-5-5)
4. Release the hook A by sliding the left upper cover upward.
5. Release the hook B and hook C and then remove the left upper cover and the waste toner box cover.
   (See page 1-5-5)

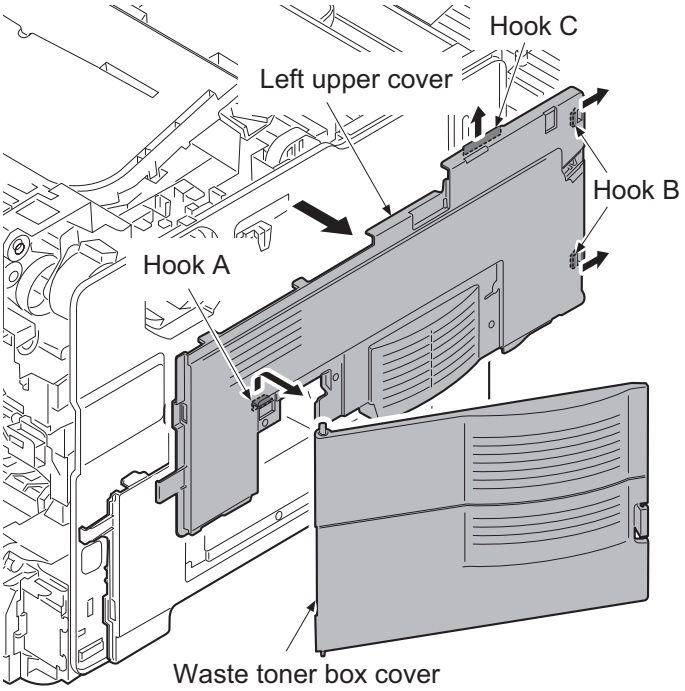


Figure 1-5-8

(7) Detaching and refitting the left lower cover

Procedure

1. Remove the left upper cover. (See page 1-5-5)
2. Pull out the cassette.
3. Remove the rear left lower cover. (See page 1-5-5)
4. Remove the screw.
5. Release the hook A.
6. Release two hooks B by sliding the left lower cover upward and then remove the left lower cover.

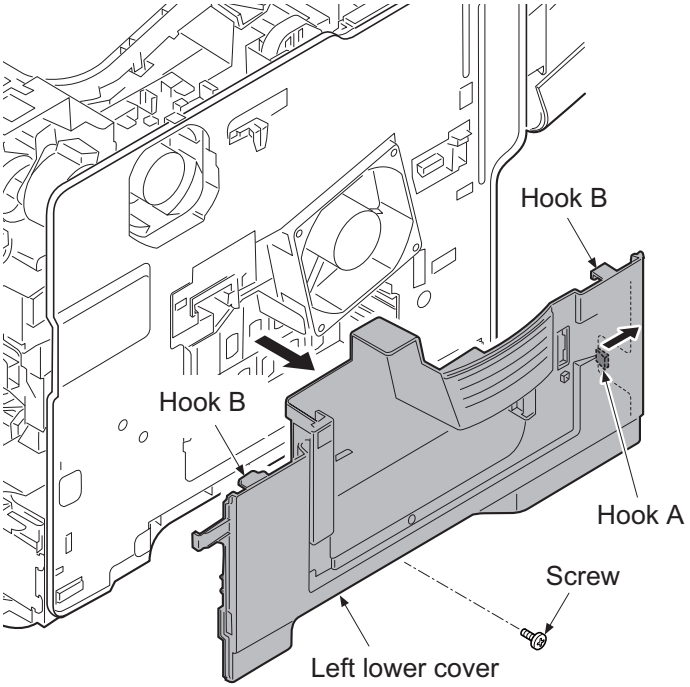


Figure 1-5-9

(8) Detaching and refitting the rear cover

Procedure

1. Remove the rear left lower cover. (See page 1-5-5)
2. Open the rear cover.

[60/50/45 ppm model only]

3. Remove the screw and then the grounding wire.
4. Open the connector cover and then remove three connectors.

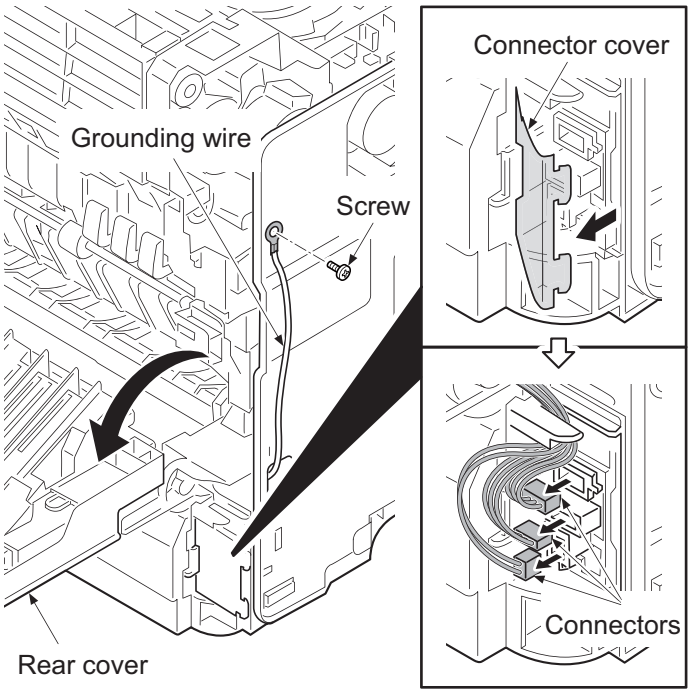


Figure 1-5-10

5. Remove the fulcrum axis by sliding the rear cover assembly while avoiding rear cover and then remove the rear cover assembly.

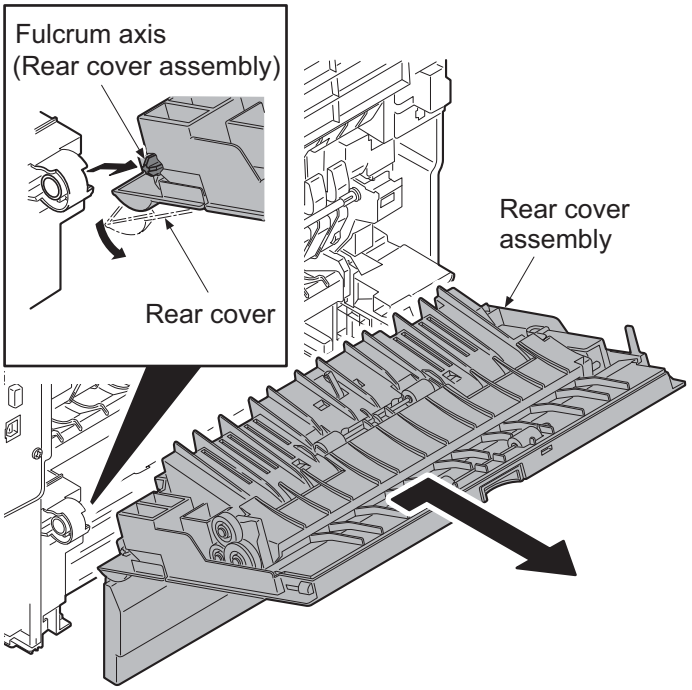


Figure 1-5-11

1-5-3 Paper feed section

(1) Detaching and refitting the paper feed roller

Procedure

1. Pull out the cassette.
2. Release the lock by pulling the lever.
3. Remove the paper feed roller assembly by pulling and raising and then sliding forward.
4. Check or replace the paper feed roller and refit all the removed parts.

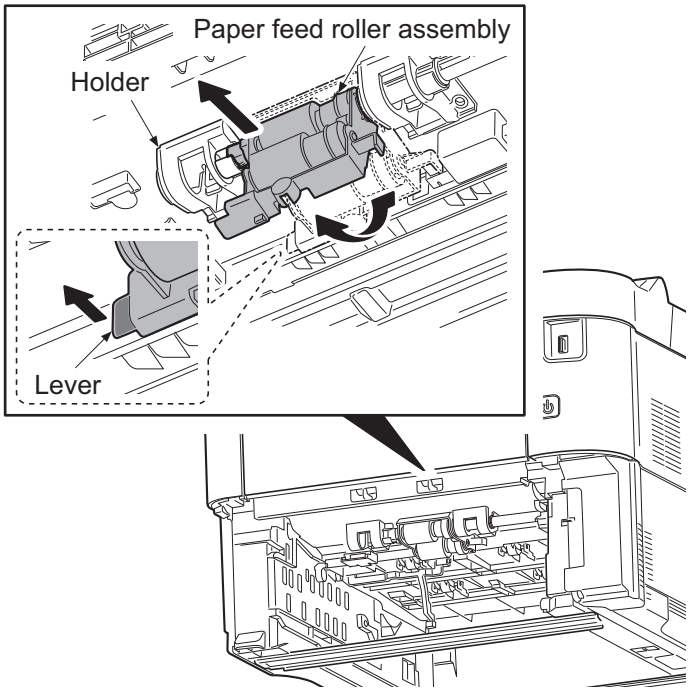


Figure 1-5-12

(2) Detaching and refitting the retard roller

Procedure

1. Release two hooks in backside of cassette and then remove the retard roller assembly.

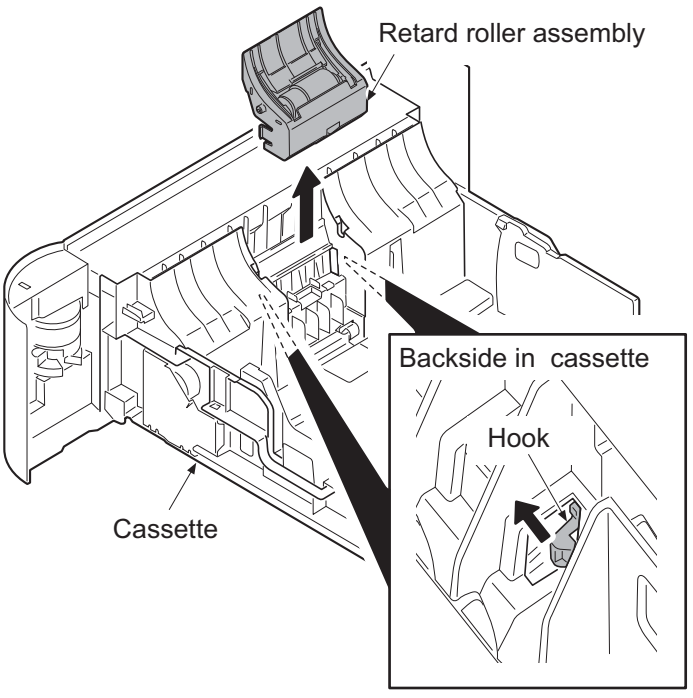


Figure 1-5-13

2. Remove the spring.
3. Remove the retard roller holder by rotating.
4. Check or replace the retard roller and refit all the removed parts.

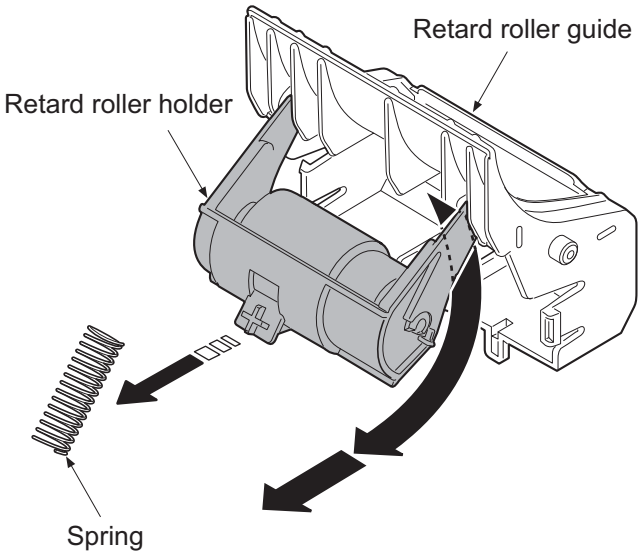


Figure 1-5-14

(3) Detaching and refitting the MP paper feed pulley

Procedure

1. Open the top cover.
2. Open the front cover.
3. Remove the MP tray from the printer while bending it.

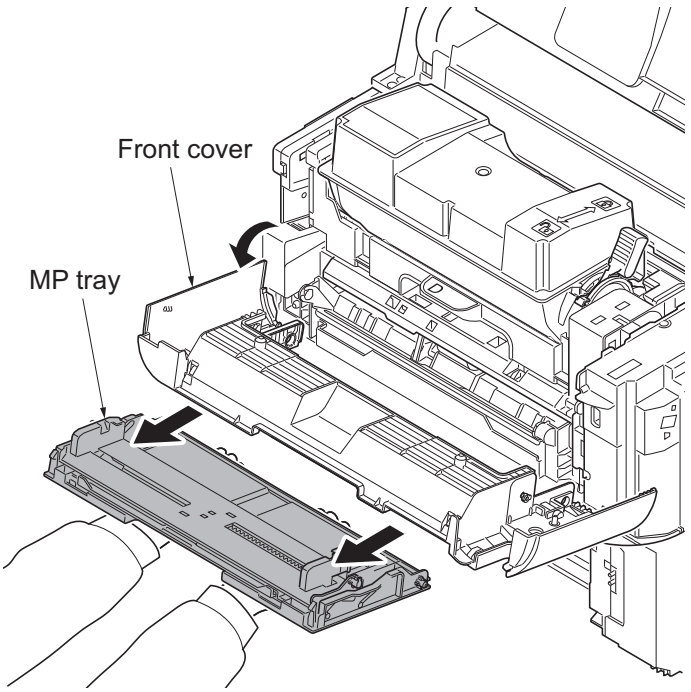


Figure 1-5-15

4. Remove the fulcrum of leftside by extending a cover.
5. Remove the fulcrum of rightside during twisting a cover.
6. Remove the front cover forward.

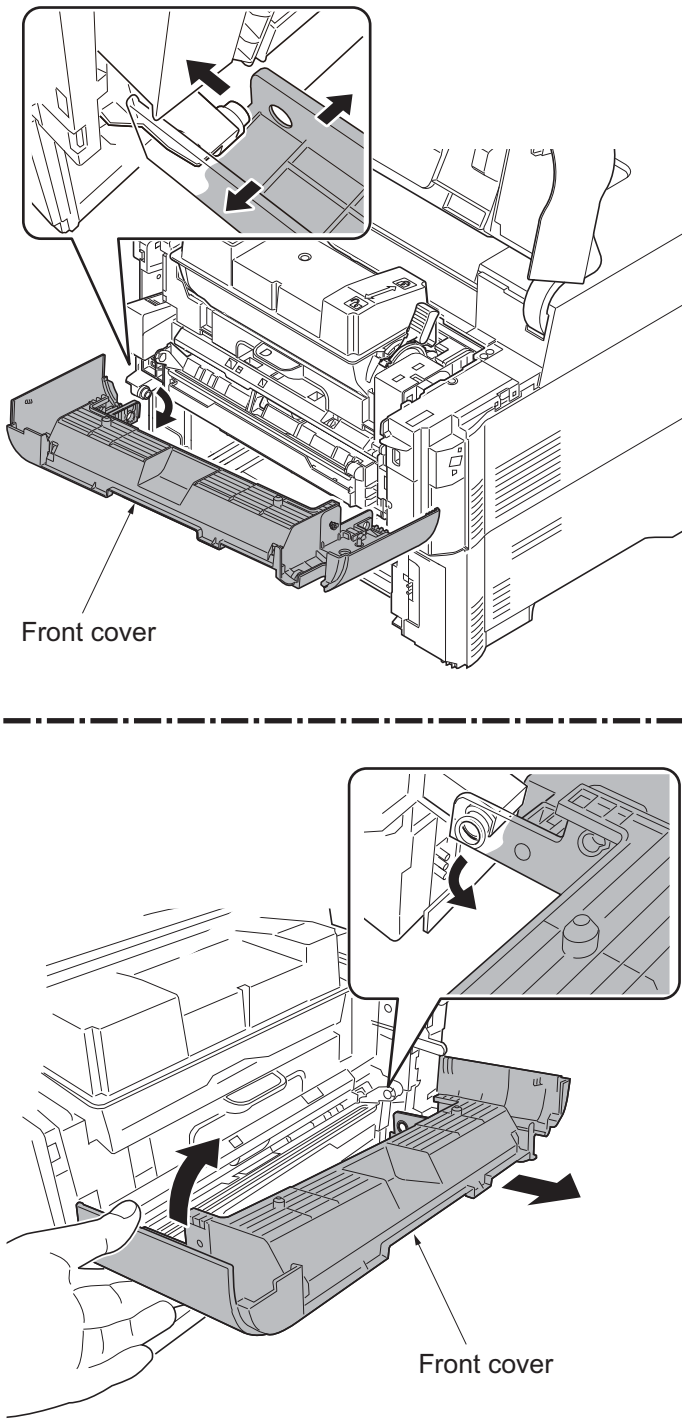


Figure 1-5-16

7. Remove two screws on the MP paper feed unit.

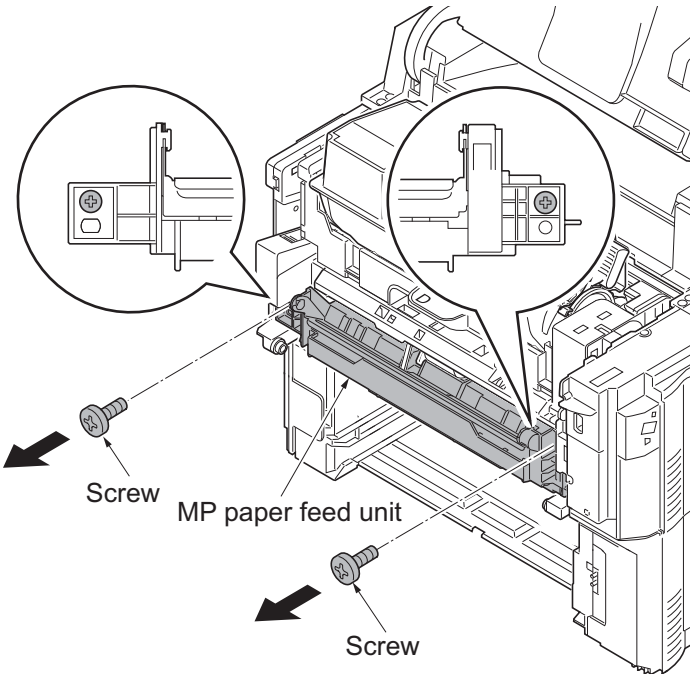


Figure 1-5-17

8. Remove the MP paper feed unit from the printer.

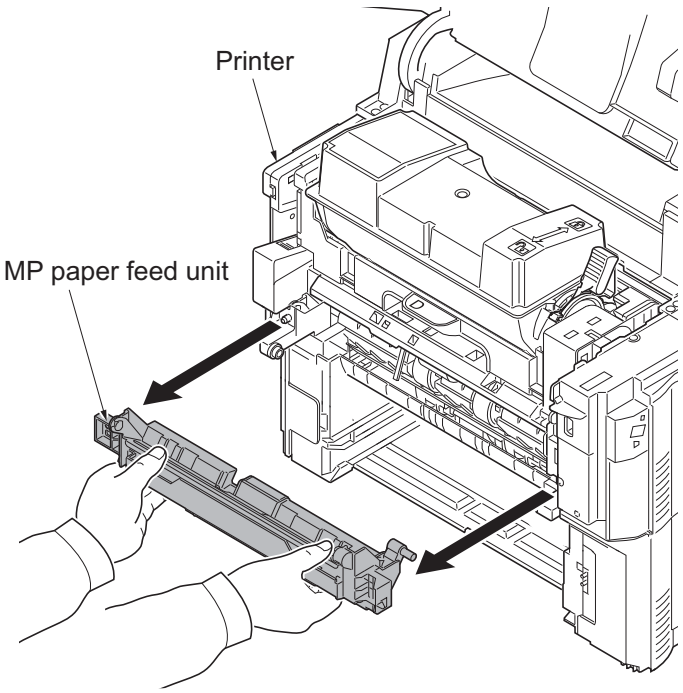


Figure 1-5-18

9. Release the lock lever and then slide the MP paper feed pulley axis.
10. Remove MP paper feed pulley.
11. Check or replace the MP paper feed pulley and refit all the removed parts.

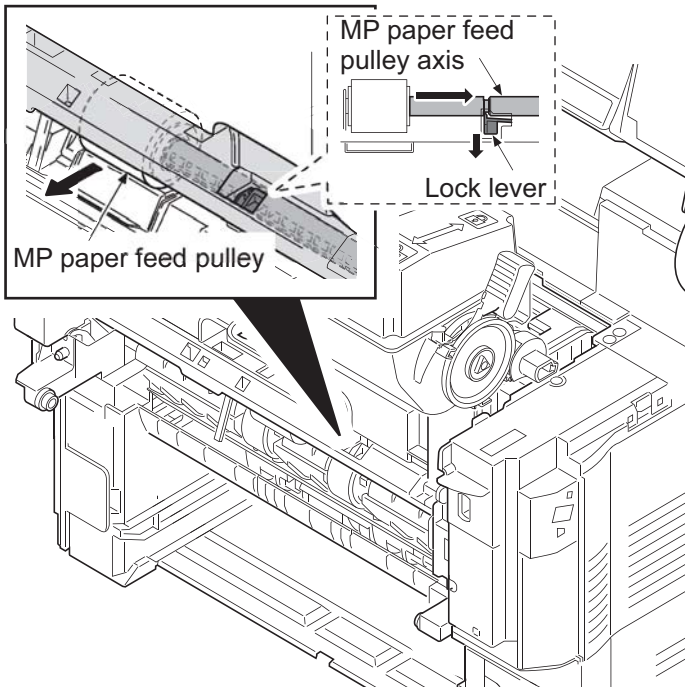


Figure 1-5-19

1-5-4 Developer section

(1) Detaching and refitting the developer unit

Procedure

1. Open the top cover.
2. Release the lock lever by rotating and then remove the toner container.

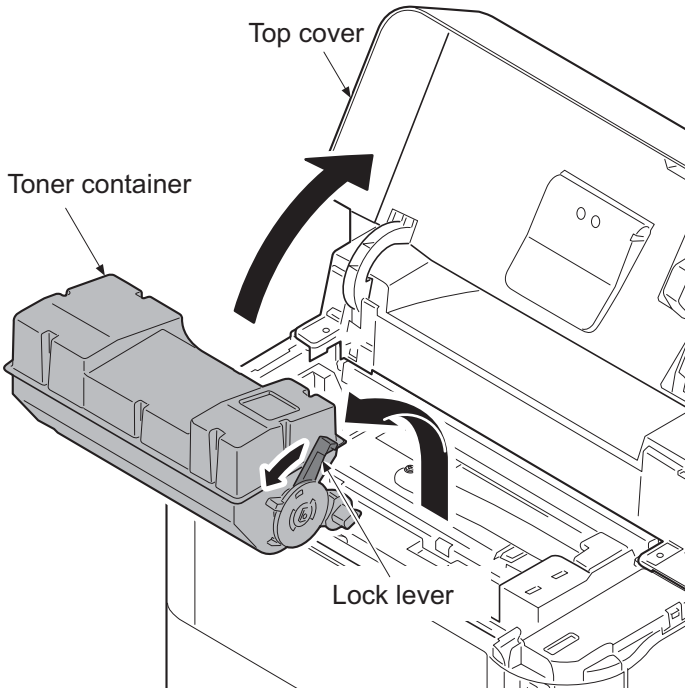


Figure 1-5-20

3. Open the front cover.
4. Pull the imaging unit forward.
5. Release the hook and then remove the container guide by sliding backwards.

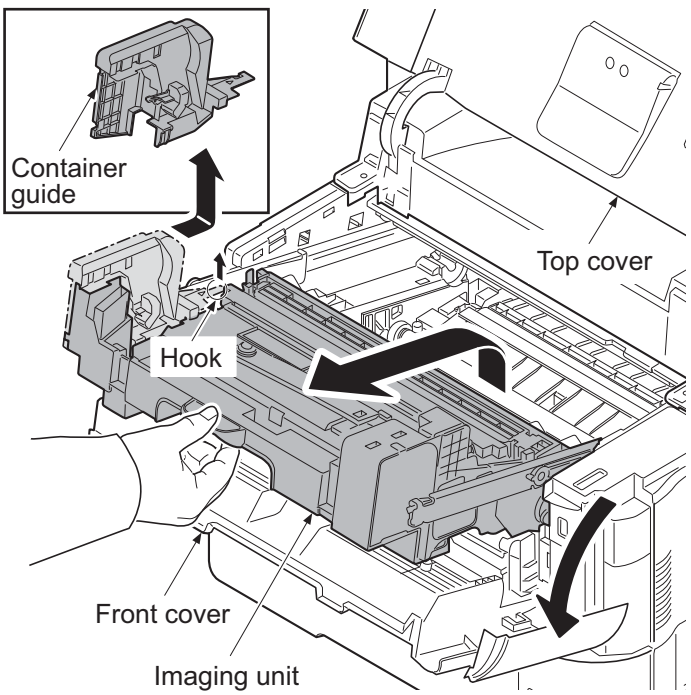


Figure 1-5-21

6. Pull the connector out.
7. Release the lock lever and then remove the developer unit upward.
8. Check or replace the developer unit and refit all the removed parts.

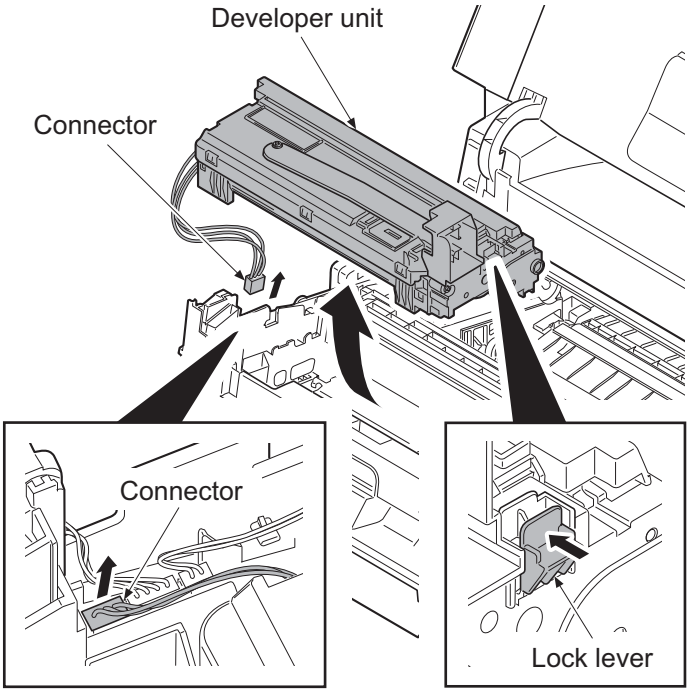


Figure 1-5-22

1-5-5 Drum section

(1) Detaching and refitting the drum unit

Procedure

1. Remove the developer unit.
   (See page 1-5-13)
2. Remove the lock lever L.
3. Remove the lock lever R by sliding backward.
4. Remove the drum unit by sliding forward.
5. Check or replace the drum unit and refit all the removed parts.

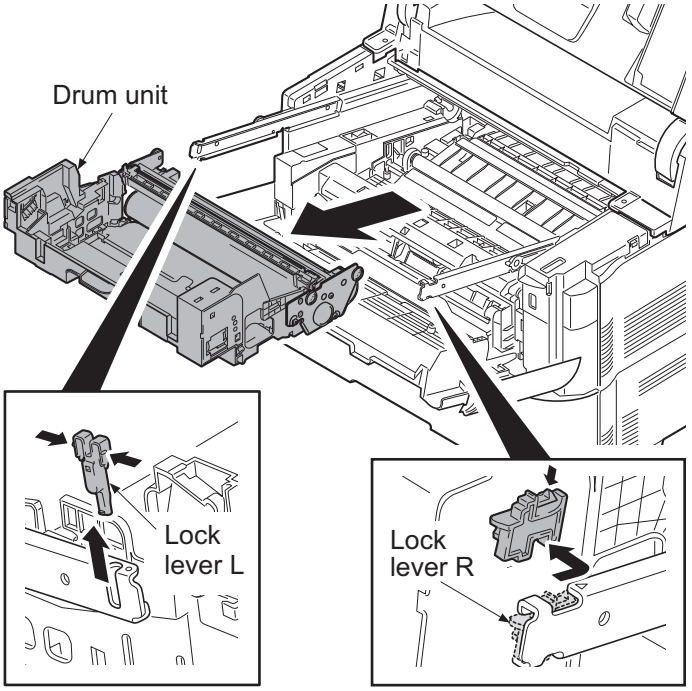


Figure 1-5-23

(2) Detaching and refitting the chager roller unit

Procedure

1. Release the lock lever and then remove the chager roller unit.
2. Check or replace the charger roller unit and refit all the removed parts.

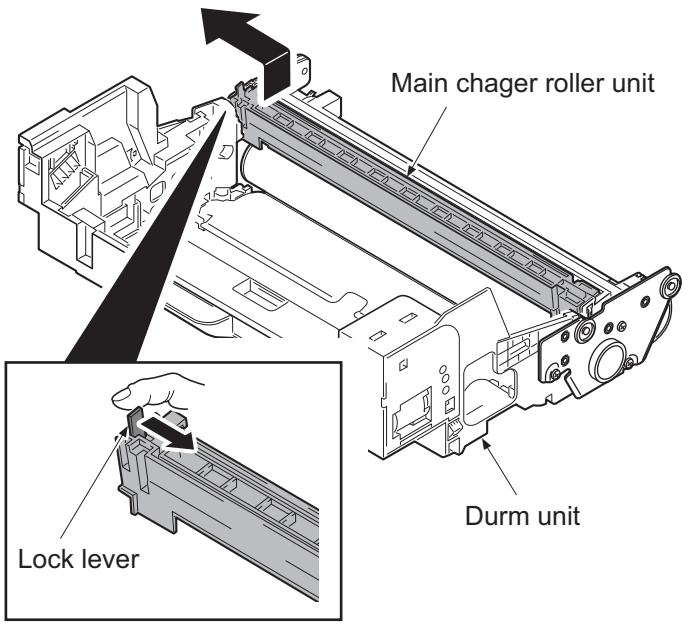


Figure 1-5-24

1-5-6 Transfer/separation section

(1) Detaching and refitting the transfer roller assembly

Procedure

1. Release four hooks by sliding to left the paper chute guide.
2. Remove the paper chute guide upward.

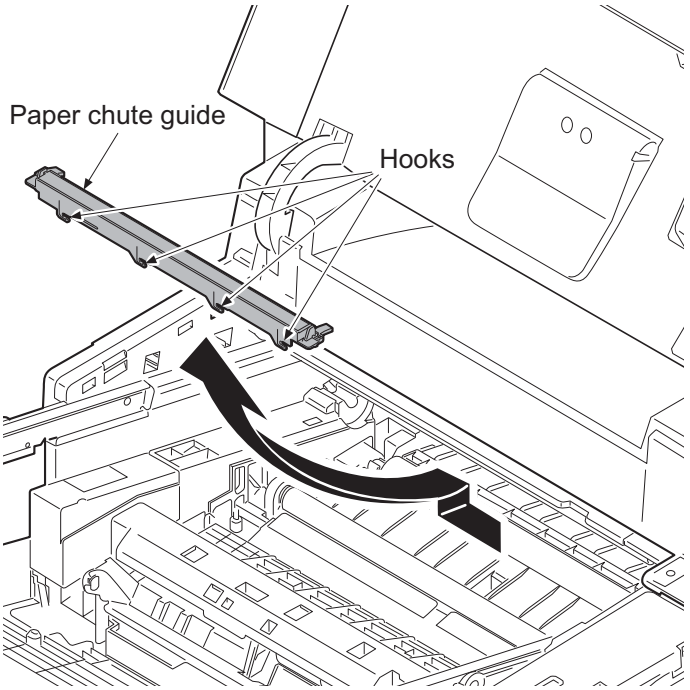


Figure 1-5-25

3. Remove the axes of transfer roller from each bush.
4. Remove the transfer roller assembly upward.
5. Check or replace the transfer roller assembly and refit all the removed parts.

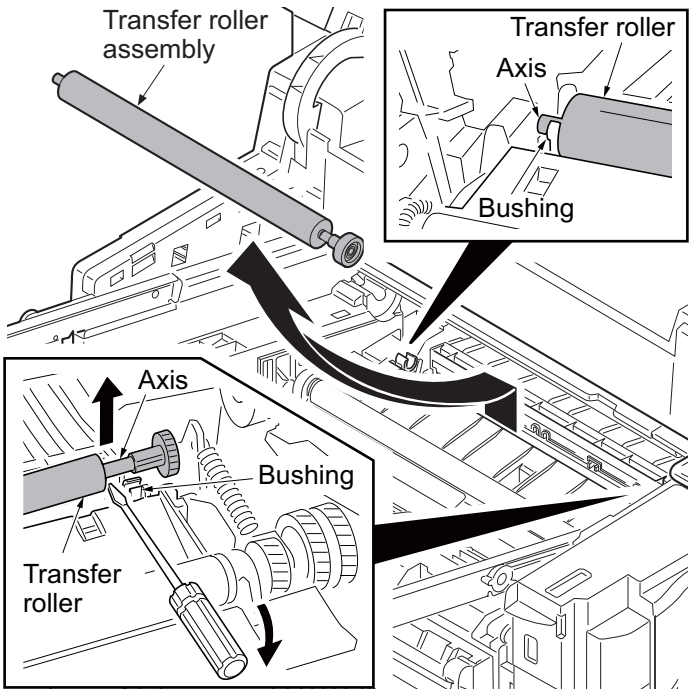


Figure 1-5-26

(2) Detaching and refitting the separation needle unit

Procedure

1. Remove the transfer roller unit. (See page 1-5-16)
2. Release four hooks of separation needle unit by rotating and then remove the separation needle unit upward.
3. Check or replace the separation needle unit and refit all the removed parts.

Caution: Check certainly being fixed at the time of attachment.

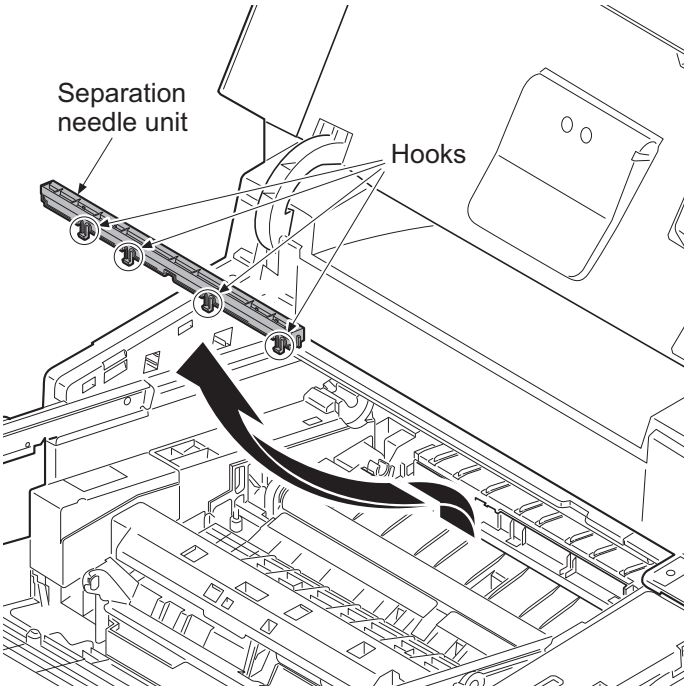


Figure 1-5-27

1-5-7 Optical section

(1) Detaching and refitting the laser scanner unit

Procedure

1. Remove the top cover assembly. (See page 1-5-3)
2. Remove the right upper cover. (See page 1-5-4)
3. Pull the connector and FFC from engine PWB out.
4. Release the wires from the wire guide.
5. Remove four screws and then remove the laser scanner unit upward.
6. Check or replace the laser scanner unit and refit all the removed parts.

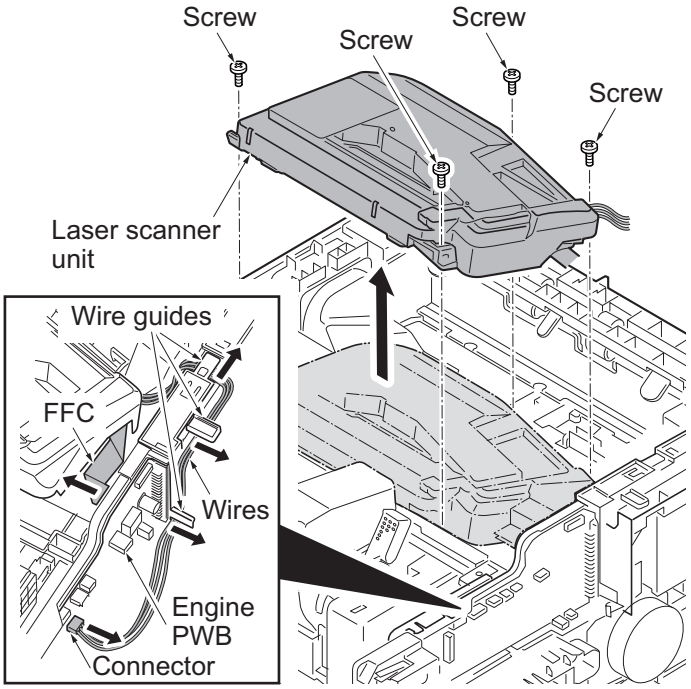


Figure 1-5-28

1-5-8 Fuser section

(1) Detaching and refitting the fuser unit

Procedure

1. Remove the rear cover.
   (See page 1-5-6)
2. Remove the screw and then remove the connector cover A.
3. Pull two connectors out.

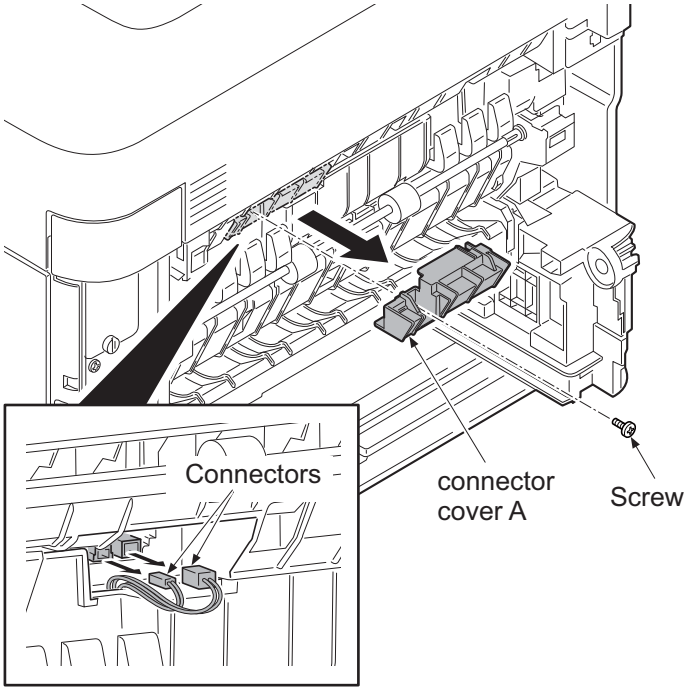


Figure 1-5-29

4. Remove the connector cover B by releasing the hook.
5. Remove the screw of connector cover C.
6. Remove the connector cover C by releasing the hook.
7. Pull two connectors out.

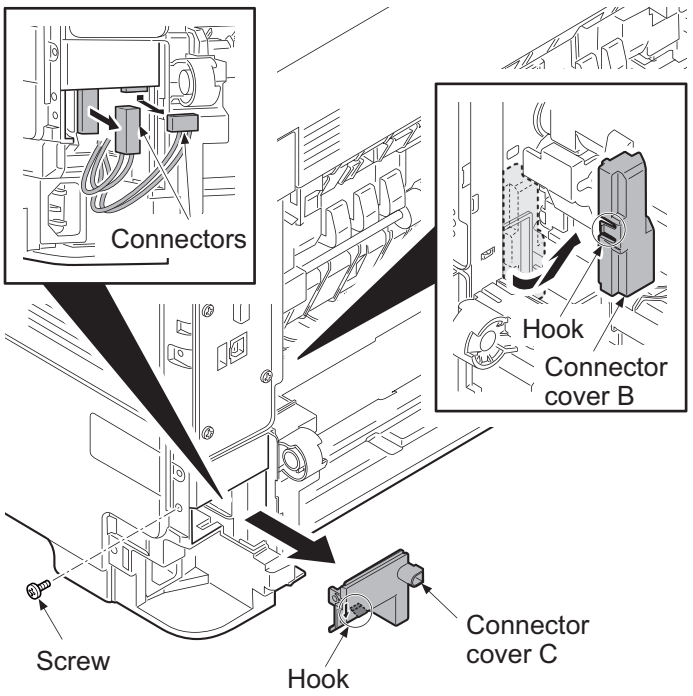


Figure 1-5-30

[60/50/45 ppm model]

8. Remove the screw and then remove the fuser unit forward.
9. Check or replace the fuser unit and refit all the removed parts.

Caution: when refitting the fuser unit, perform the following procedures.

(1)Turn on the power switch while opening the rear cover after removing the fuser unit.
(2)Turn off the power switch after 5-second or more progress.
(release state of fixing pressure)
(3)Refit the fuser unit.

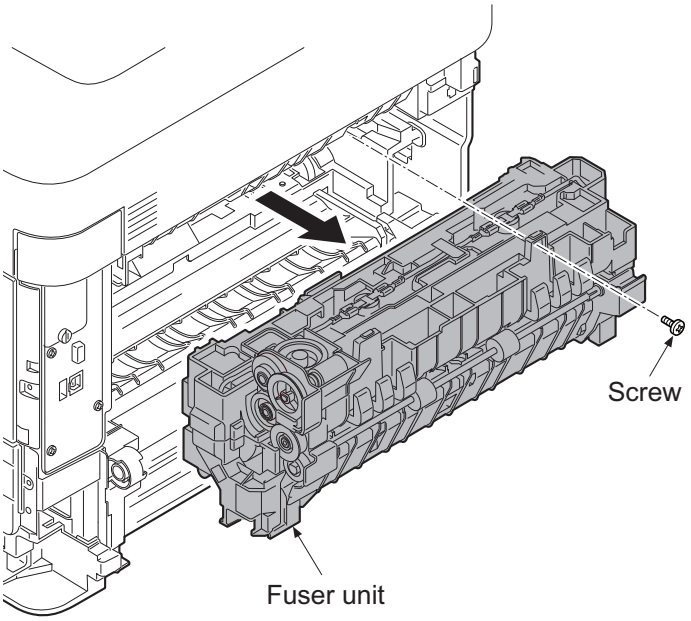


Figure 1-5-31

1-5-9 ejection section

(1) Detaching and refitting the ejection unit

Procedure

1. Remove the top cover assembly. (See page 1-5-3)
2. Remove the right upper cover and the right lower cover. (See page 1-5-4)
3. Remove the left upper cover. (See page 1-5-5)
4. Remove the controller box cover. (See page 1-5-25)
5. Pull the connector out and then release the wires from Hooks.
6. Remove three screws and then remove the ejection unit.
7. Check or replace the ejection unit and refit all the removed parts.

*1: 60/55/50 ppm model only
*2: 45 ppm model only

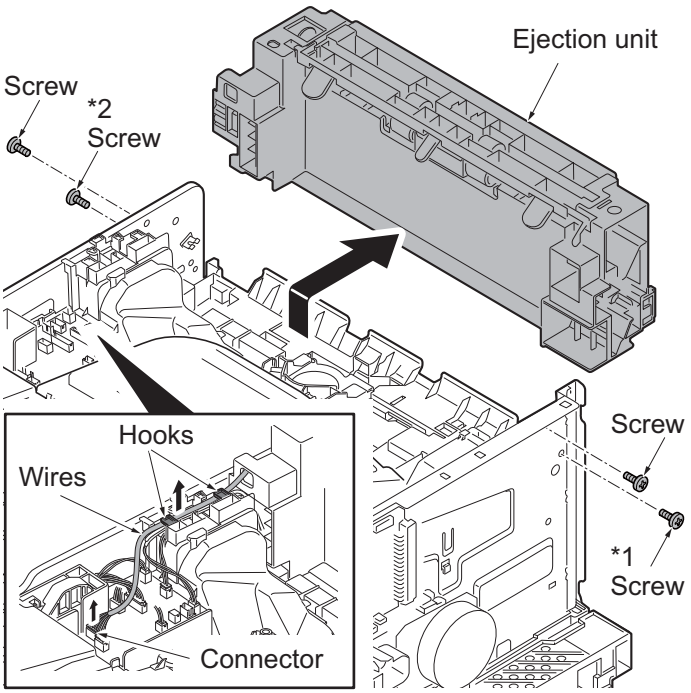


Figure 1-5-32

1-5-10 PWBs

(1) Detaching and refitting the main PWB

Procedure

1. Remove the inlet cover and the slot cover.(See page 1-5-3)
2. Unplug the power cable.

   Caution: Do not insert or remove main PWB assembly while machine power is on.
   Doing so may cause damage to the machine and the main PWB.

3. Remove five screws and then pull the main PWB assembly out forward.
4. Check or replace the main PWB and refit all the removed parts.

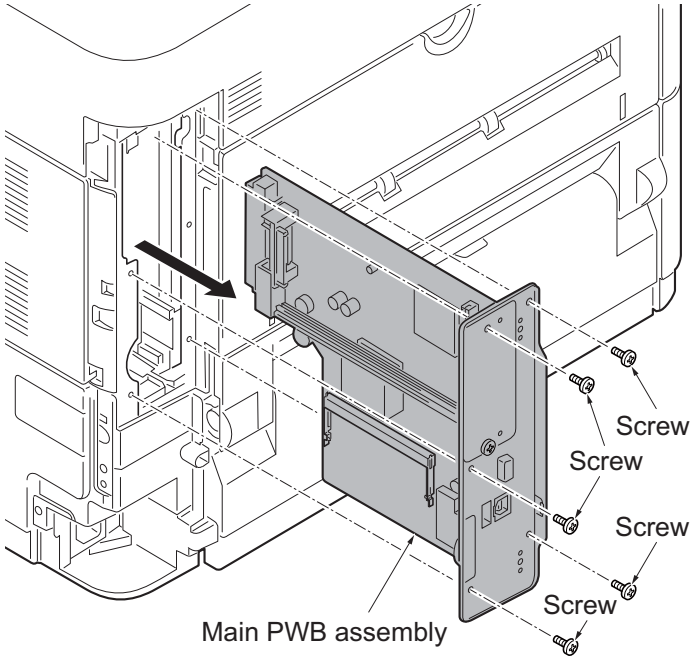


Figure 1-5-33

*: Re-activate the license if optional licensed product is installed.
1) Card Authentication Kit(B)
2) UG-33 (ThinPrint)
3) Data Security Kit(E)
Re-input four-digit encrypted code that was input at setup.
*: Reset the user initial values from the System Menu and Command Center.

(2) Detaching and refitting the engine PWB

Procedure

1. Remove the top cover assembly. (See page 1-5-3)
2. Remove the right upper cover. (See page 1-5-4)
3. Remove the main PWB assembly. (See page 1-5-22)
4. Remove the screw and then the grounding terminal.
5. Remove two FFCs from inside of frame.
6. Release the wires and FFC from hooks.
7. Release the fixing hook and then remove the wire guide.

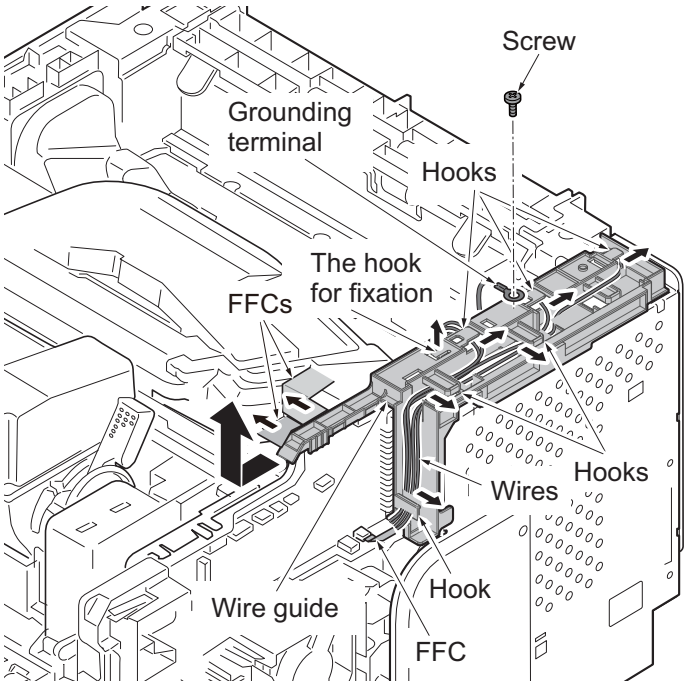


Figure 1-5-34

8. Pull two connectors out.
9. Remove the screw and two hooks and then remove the wire guide.

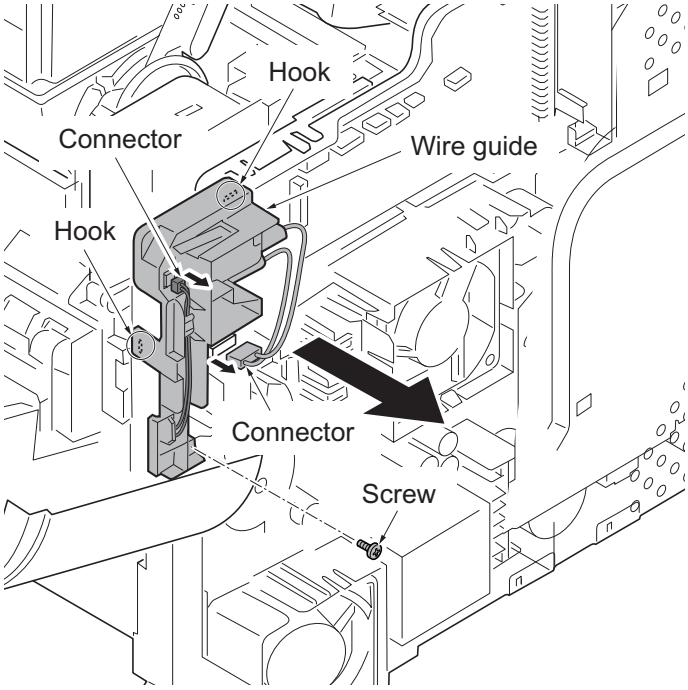


Figure 1-5-35

10. Pull all connectors out from main PWB.
11. Remove four screws and then remove the engine PWB.
12. Check or replace the engine PWB and refit all the removed parts.

NOTE: When replacing the PWB, remove the EEPROM from the PWB and then reattach it to the new PWB.

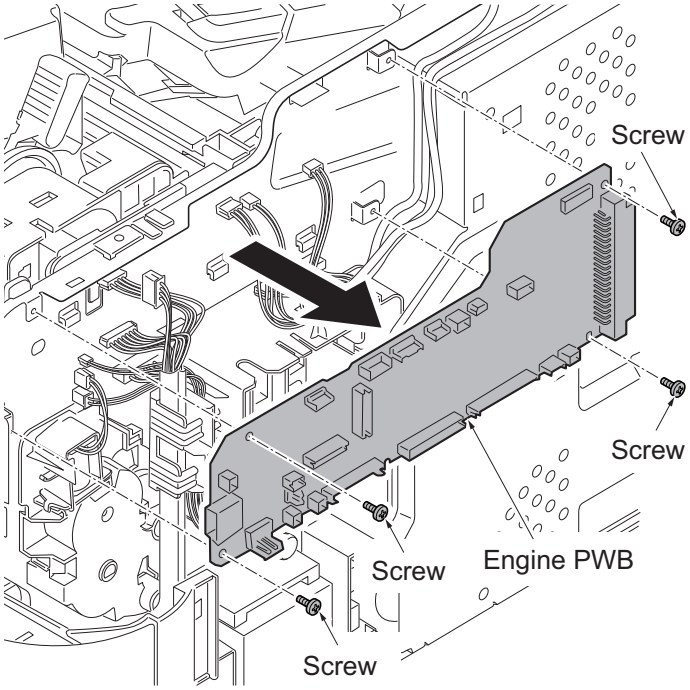


Figure 1-5-36

(3) Detaching and refitting the relay-L PWB

Procedure

1. Remove the top cover assembly. (See page 1-5-3)
2. Pull the connectors out from relay-L PWB and then release the wires from hooks.
3. Remove the LSU fan motor assembly upward.

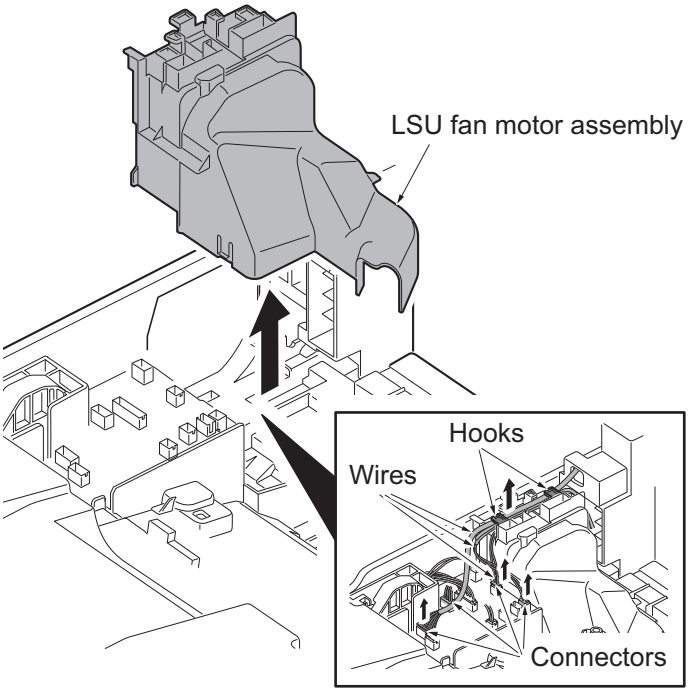


Figure 1-5-37

4. Pull the connectors and FFC out and then remove the relay-L PWB.
5. Check or replace the relay-L PWB and refit all the removed parts.

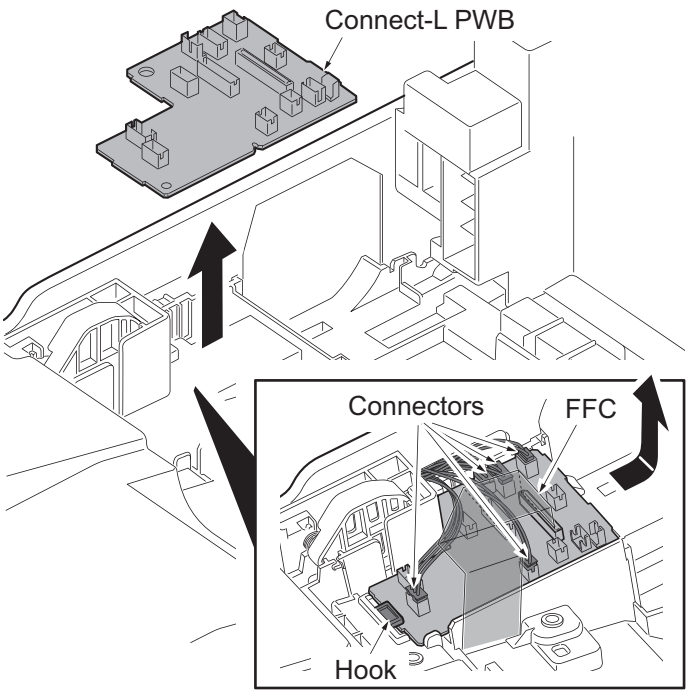


Figure 1-5-38

(4) Detaching and refitting the power source PWB

Procedure

1. Remove the top cover assembly. (See page 1-5-3)
2. Remove the right upper cover. (See page 1-5-4)
3. Remove the right lower cover. (See page 1-5-4)
4. Remove the main PWB. (See page 1-5-22)
5. Remove the wire guide. (See page 1-5-22)
6. Remove three screws and then remove the controller box cover.

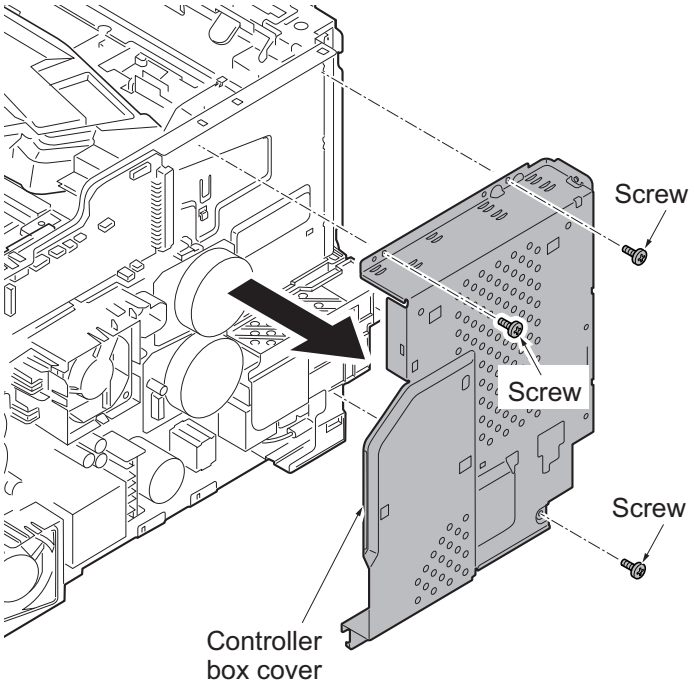


Figure 1-5-39

7. Remove the grounding wire by removing the screw.
8. Remove two screws and then remove the power source PWB assembly.
9. Check or replace the power source PWB and refit all the removed parts.

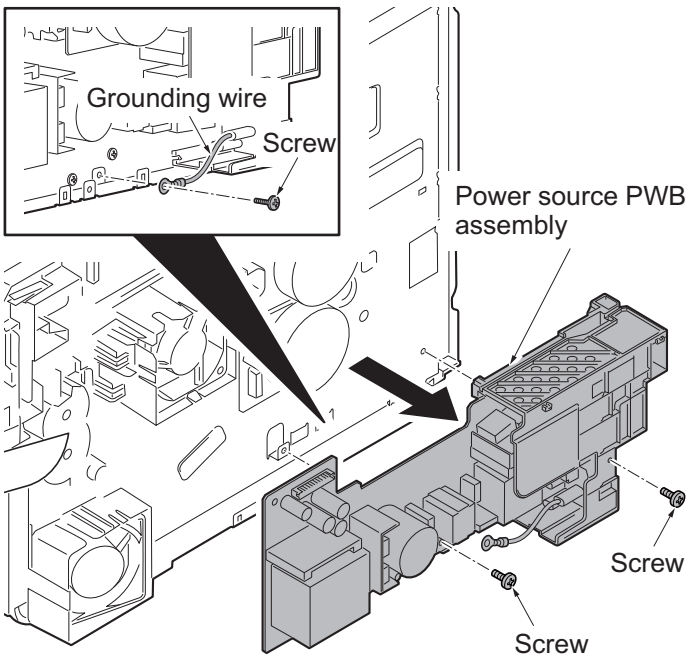


Figure 1-5-40

(5) Detaching and refitting the high voltage PWB

Procedure

1. Remove the cassette.
2. Remove the right upper cover and the right lower cover. (See page 1-5-4)
3. Remove the left upper cover and the left lower cover. (See page 1-5-6)
4. Remove the power source fan motor. (See page1-5-30)
5. Remove the power source PWB. (See page1-5-25)
6. Stand the printer front side up.
7. Remove four screws each and then remove the bottom plate 1 and the bottom plate 2.

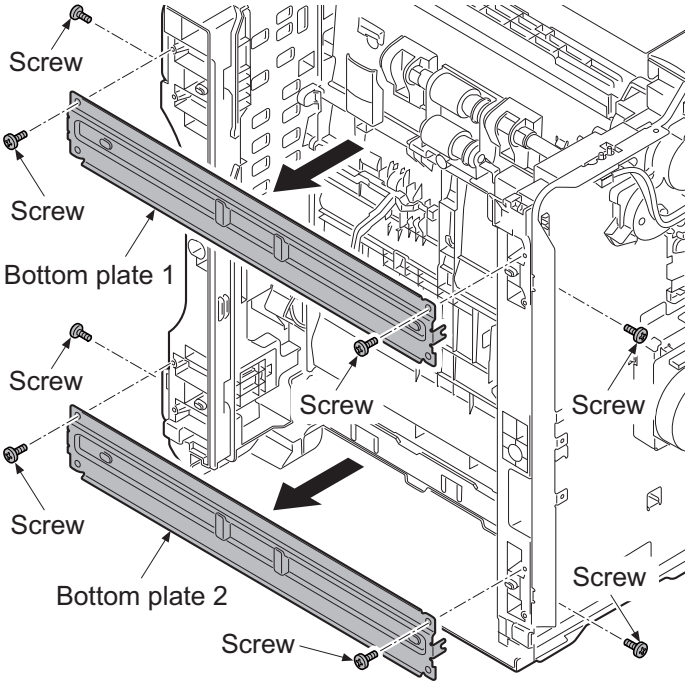


Figure 1-5-41

8. [60/55/50 ppm model only]
   Release two hooks and then remove the wire cover.
   Pull the connector of lift sensor out.

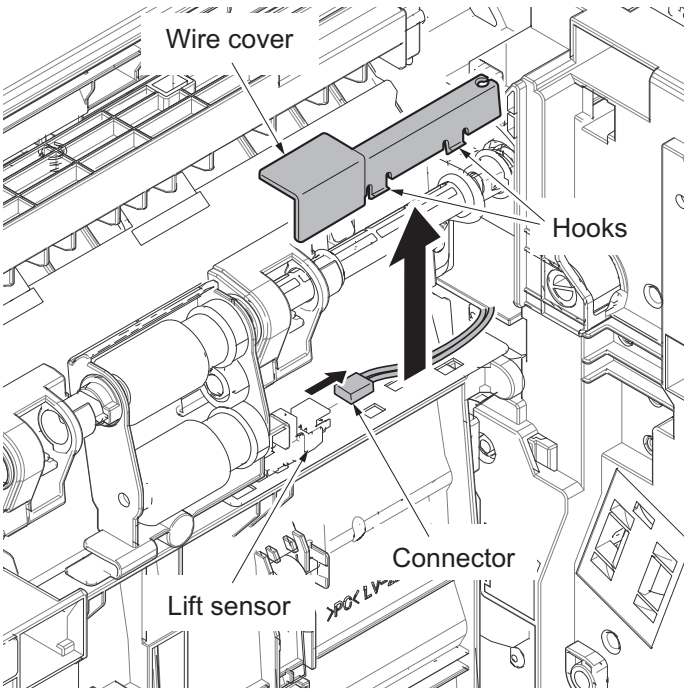


Figure 1-5-42

9. Remove seven screws.
10. Extract the feed roller axis by pushing the joint part.
11. Remove the DU assy to the front.

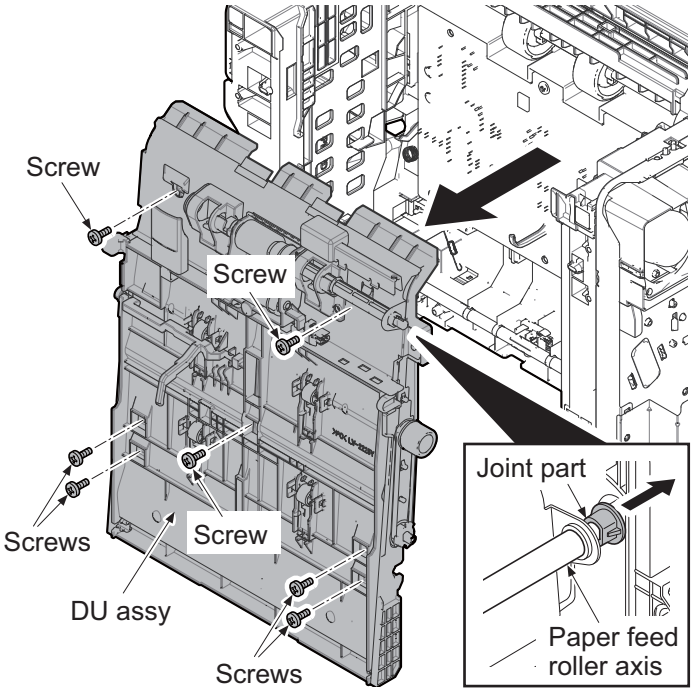


Figure 1-5-43

12. Remove the screw.
13. Pull two connectors out and then remove the high voltage PWB.
14. Check or replace the high voltage PWB and refit all the removed parts.

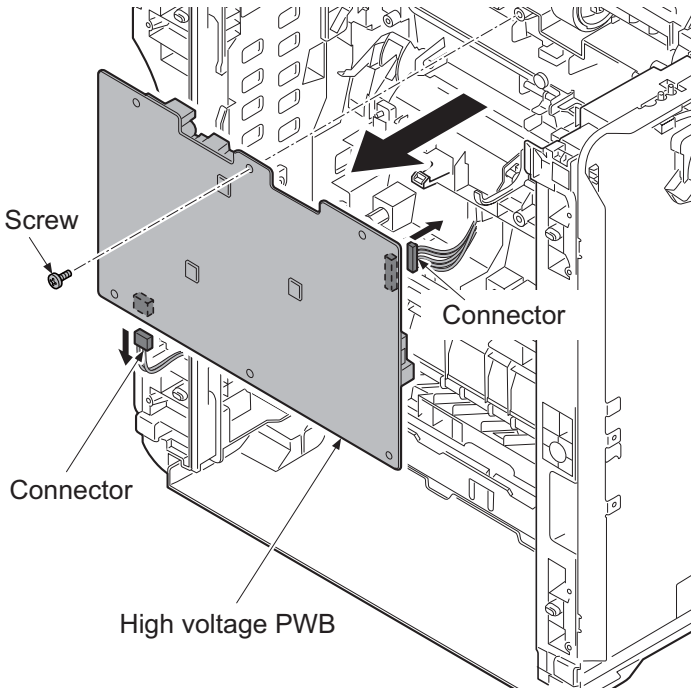


Figure 1-5-44

(6) Detaching and refitting the operation PWB

Procedure

1. Open the top cover.
2. Remove the JAM processing procedure sheet.
3. Remove three screws.

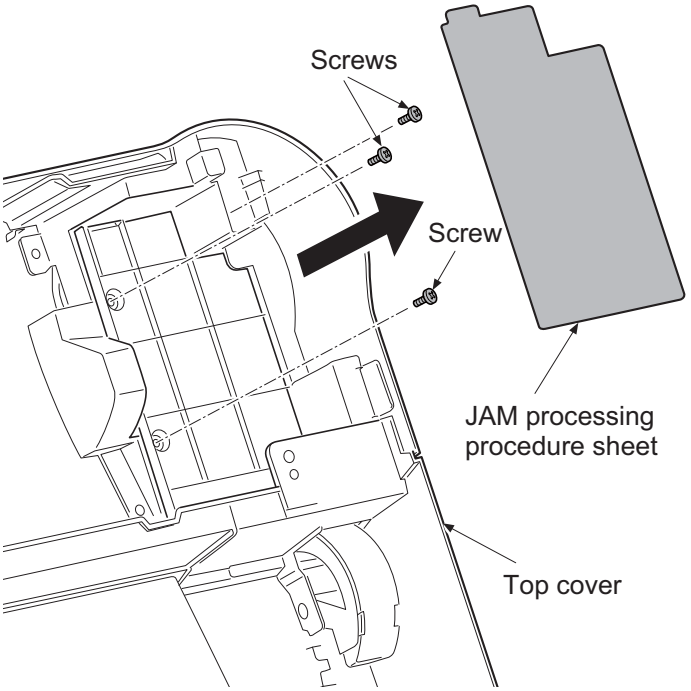


Figure 1-5-45

4. Rotate the operation PWB cover.
5. Remove the screw and then remove the operation PWB.
6. Check or replace the operation PWB and refit all the removed parts.

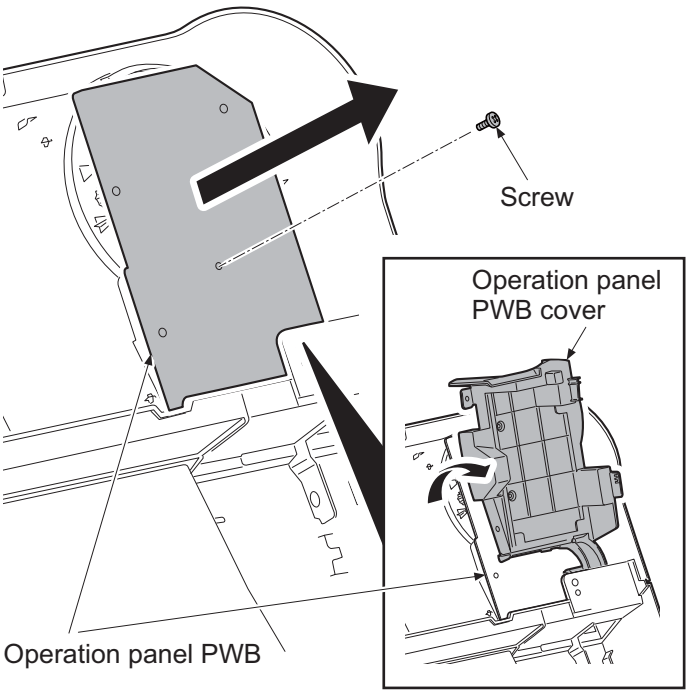


Figure 1-5-46

1-5-11 Others

(1) Detaching and refitting the main driving motor unit

Procedure

1. Remove the right upper cover.
   (See page 1-5-4)
2. Remove the right lower cover.
   (See page 1-5-4)
3. Pull the connector out from the motor and then release the wires from wire holder.
4. Remove three screws and then remove the main driving motor unit.
5. Check or replace the main driving motor unit and refit all the removed parts.

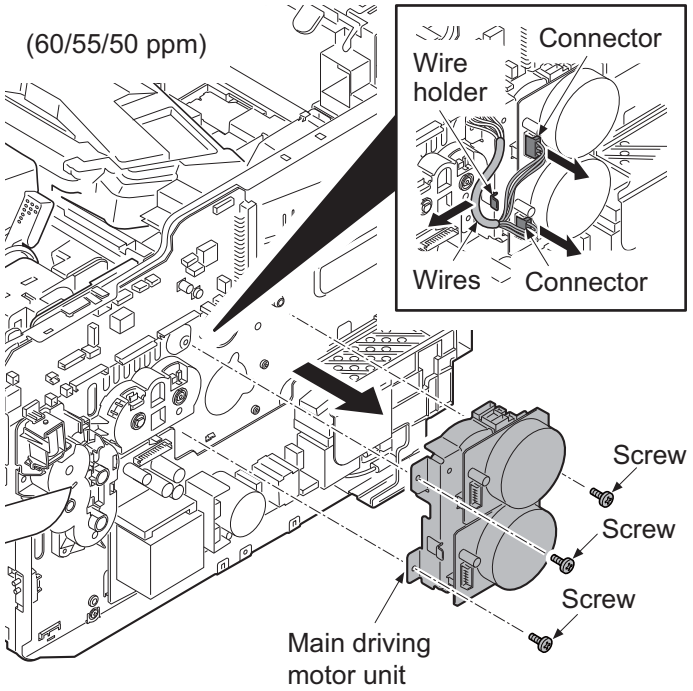


Figure 1-5-47

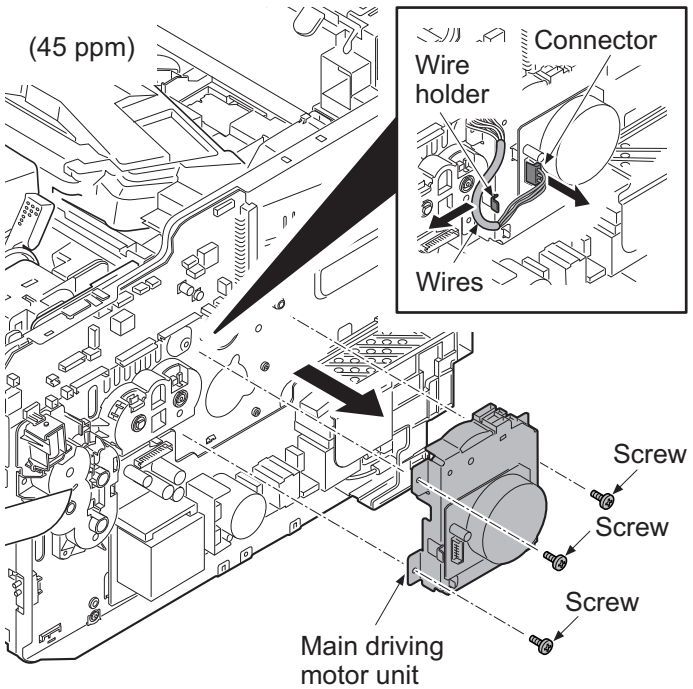


Figure 1-5-48

(2) Detaching and refitting the paper feed driving motor unit

Procedure

1. Remove the right upper cover. (See page 1-5-4)
2. Remove the right lower cover. (See page 1-5-4)
3. Pull the connectors of clutches and solenoid out.
4. Remove three screws and then remove the paper feed driving motor unit.
5. Check or replace the paper feed driving motor unit and refit all the removed parts.

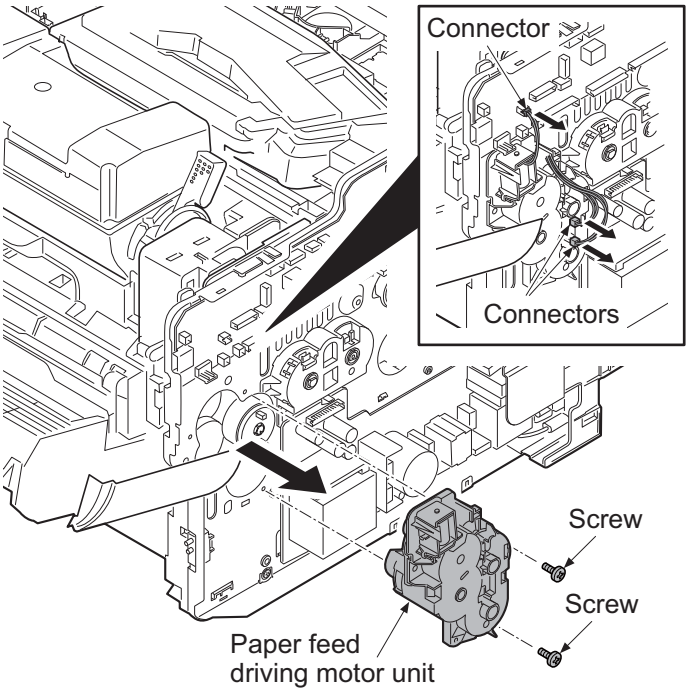


Figure 1-5-49

(3) Detaching and refitting the power source fan motor

Procedure

1. Remove the right upper cover. (See page 1-5-4)
2. Remove the right lower cover. (See page 1-5-4)
3. Pull the connector of the power source fan motor wire out.
4. Release three hooks using flat-blade screwdriver and then remove the power source fan motor assembly.
5. Check or replace the power source fan motor and refit all the removed parts.

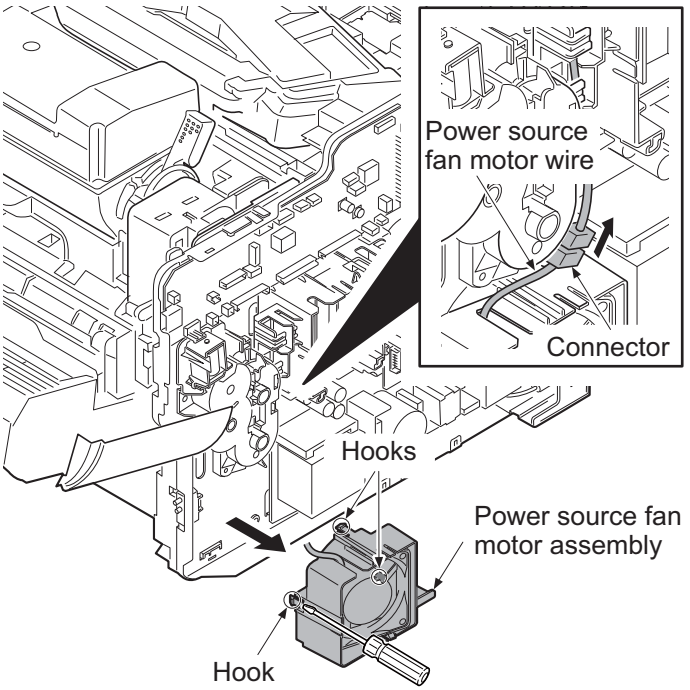
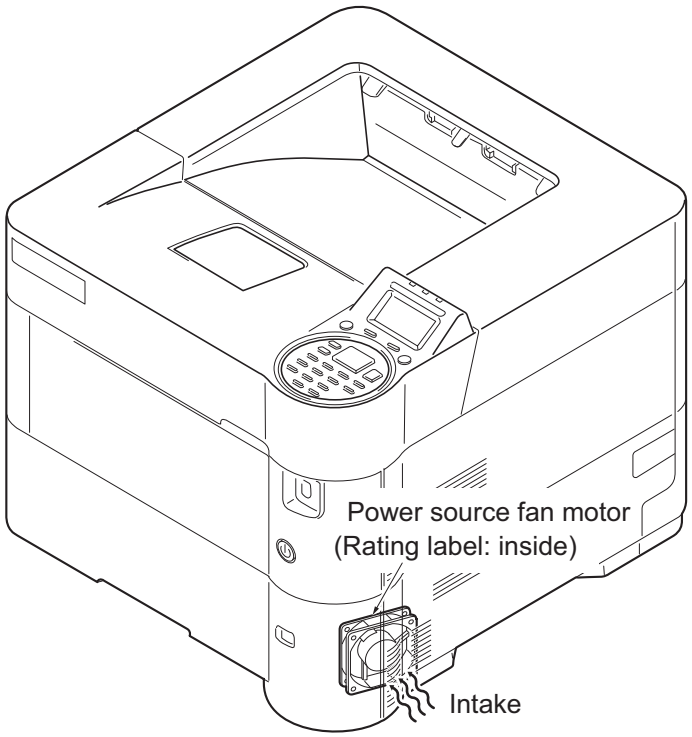


Figure 1-5-50

(4) Direction of installing the principal fan motors

When detaching or refitting the fan motor, be careful of the airflow direction (intake or exhaust).



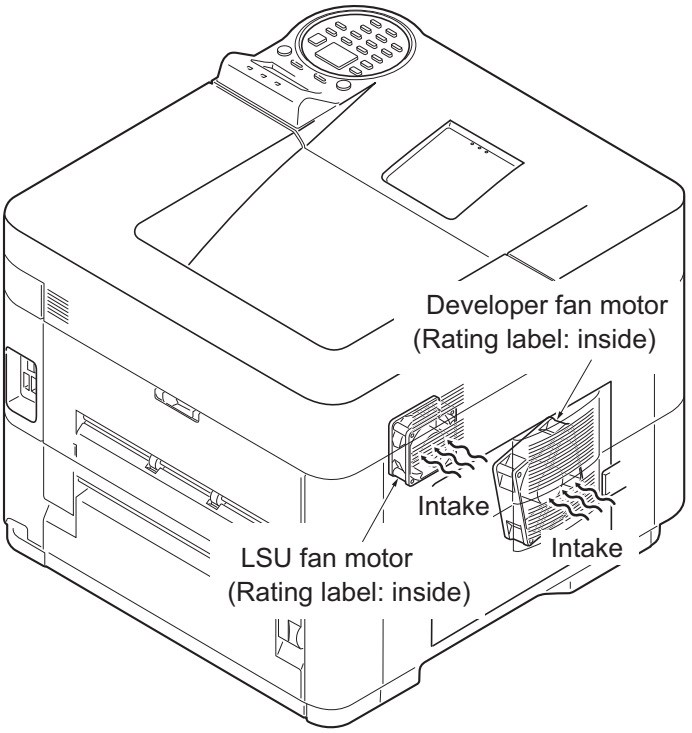


Figure 1-5-51

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1-6-1 Upgrading the firmware

Execute the following to update the firmware below.
* : The processing time is reduced with simultaneous processing by group.

No	Target		Group	Master file name	Message
1	Controller	Controller Firmware Package	Group1	DL_PKG_CTRL.2T6	CPKG
2	Optional Data	Option Language Data(1)	Group1	DL_OPT_xx.2T6 *1	OPT1
		Option Language Data(2)	Group1		OPT2
		Option Language Data(3)	Group1		OPT3
		Option Language Data(4)	Group1		OPT4
		Option Language Data(5)	Group1		OPT5
		Option Language Data(Erase)	Group1	DL_OPT_ER.2T6	-
3	Sub Board	Engine Firmware	Group3	DL_ENGN.2T6	ENGN
4	Enhancement	Paper Feeder	Group3	DL_03NY.2LV	PF 1 to 4 *2

*1: The different alphanumeric for each language is inserted in "xx".
*2: PF is connected up to four stages. To Update to every one stage, it also becomes four display.

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

No	Target Firmware		Signature file name
1	Controller	Product Line Platform	2T6_CTRL_PLP_sign.bin
2		Extension Service Platform	2T6_CTRL_EXSP_sign.bin
3		Common Basic App	2T6_CTRL_STDAPP_CMN_sign.bin
4		System Setting App	2T6_CTRL_STDAPP_SST_sign.bin
5		Maintenance App	2T6_CTRL_STDAPP_MNT_sign.bin
6		Print App	2T6_CTRL_STDAPP_PRT_sign.bin
7		Box App	2T6_CTRL_STDAPP_BOX_sign.bin
8		Web Page App	2T6_CTRL_STDAPP_WPG_sign.bin
9		Auth App	2T6_CTRL_STDAPP_AUTH_sign.bin
10		Panel Control System App	2T6_CTRL_STDAPP_PCS_sign.bin
11		Service Cooperation App	2T6_CTRL_STDAPP_SCO_sign.bin
12		Package Version Info	2T6_CTRL_VINF_sign.bin

No	Target Firmware		Signature file name
13	Optional Data	Option Language Data(1)	2T6_OPT_xx_sign.bin *1
		Option Language Data(2)	
		Option Language Data(3)	
		Option Language Data(4)	
		Option Language Data(5)	
		Option Language Data (Erase)	2T6_OPT_ER_sign.bin
14	Sub Board	Engine Firmware	2T6_ENGN_sign.bin
15	Enhancement	Paper Feeder	2LV_03NY_sign.bin

*1: 01 to 99 of a different number for each language is inserted in "xx".

File names of the firmware certificate

No	Target Firmware		Firmware certificate filename
1	Controller	Common Basic App	2T6_CTRL_STDAPP_CMN_cert.pem
2		System Setting App	2T6_CTRL_STDAPP_SST_cert.pem
3		Maintenance App	2T6_CTRL_STDAPP_MNT_cert.pem
4		Print App	2T6_CTRL_STDAPP_PRT_cert.pem
5		Box App	2T6_CTRL_STDAPP_BOX_cert.pem
6		Web Page App	2T6_CTRL_STDAPP_WPG_cert.pem
7		Auth App	2T6_CTRL_STDAPP_AUTH_cert.pem
8		Panel Control System App	2T6_CTRL_STDAPP_PCS_cert.pem
9		Service Cooperation App	2T6_CTRL_STDAPP_CMN_cert.pem
10		Product Line Platform	2T6_CTRL_PLP_cert.pem
11		Extension Service Platform	2T6_CTRL_EXSP_cert.pem
12		Package Version Info	2T6_CTRL_VINF_cert.pem
13	Optional Data	Option Language Data(1)	2T6_OPT_xx_cert.pem *1
		Option Language Data(2)	
		Option Language Data(3)	
		Option Language Data(4)	
		Option Language Data(5)	
		Option Language Data (Erase)	2T6_OPT_ER_cert.pem
14	Sub Board	Engine Firmware	2T6_ENGN_cert.pem
15	Enhancement	Paper Feeder	2LV_03NY_cert.pem

*1: 01 to 99 of a different number for each language is inserted in "xx".

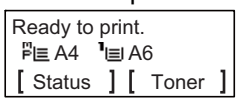
Preparation

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.

Procedure

1. Turn ON the power switch and confirm if the screen shows “Ready to print” then, turn OFF the power switch.



2. Insert USB memory that has the firmware in the USB host interface slot.
3. Turn ON the power switch.

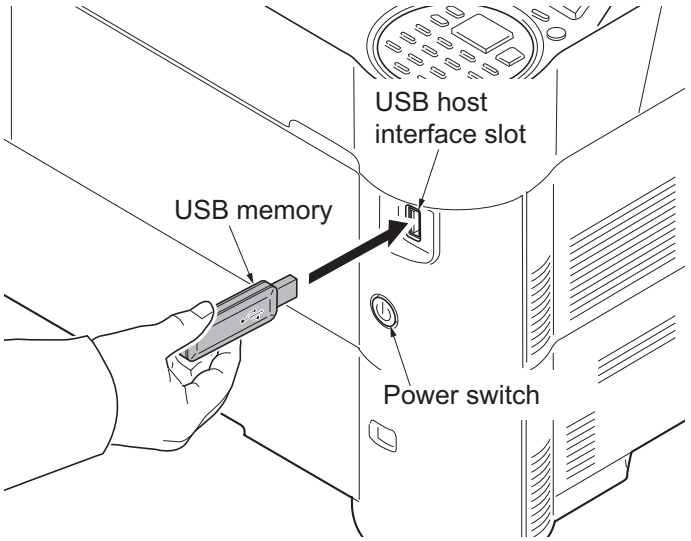


Figure 1-6-1

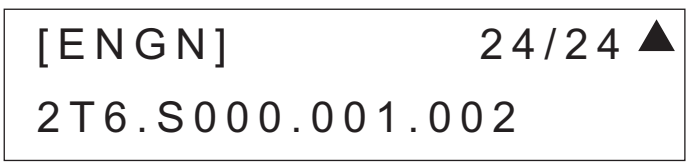
4. [FW-UPDATE] and the progress indicator are displayed.

* : Several kinds of firmware updates are processed simultaneously.

5. When [Completed] is displayed, the firmware update is completed.
6. Check if the new firmware versions are displayed.

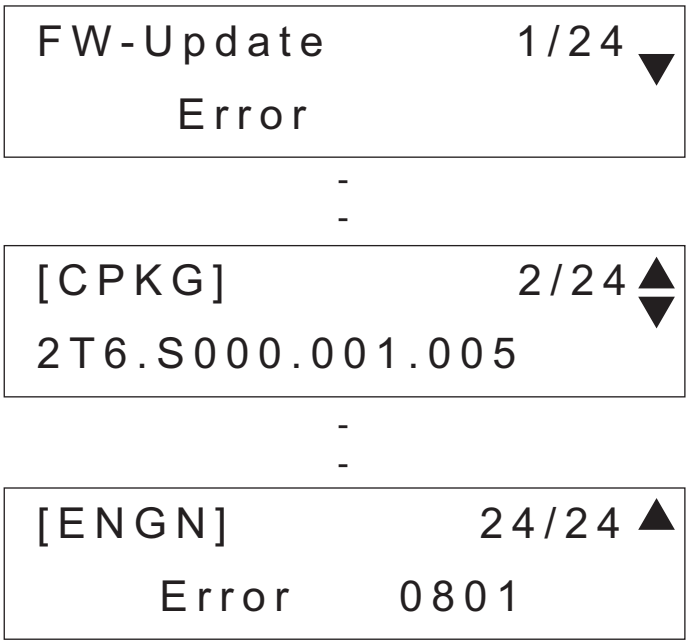
-
-

-
-



* : When there is no corresponding master file, "No Change" is displayed.
The "*" is displayed behind the target firmware name, if when has been skipped update.

In case of the error completion.
In case of occurring an error during the firmware update, the process is immediately interrupted and the error message and error code are displayed.



Precautions
Never turn the power switch off or disconnect the USB memory during the firmware update.

Error code

Code	Error contents	Code	Error contents
0000	Others	S000	Other signature verification error *1
0100	There is no master file.	S001	Official signature verification file is short.
0200	Master file version discrepancy	N001	Unable to connect the network *2 (There is no target to update.)
03xx	There is no download file (No.xx).		
04xx	File (No.xx) check sum discrepancy	N002	Can not connect to the network *3 (There is the target to update.)
05xx	File (No.xx) preparation failure		
06xx	File (No.xx) preparation failure		
08xx	File (No.xx) writing failure		

*1: The expiration of the FM certification is also included.
*2: Since the normal start-up is available next time, it is restarted automatically and starts up normally.
*3: As there is a possibility that normal start-up is impossible next time, without restarting automatically, and move to USB update mode.

The signature verification result display

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.

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.

1-6-2 Remarks on PWB replacement

(1) Engine PWB

NOTE: When replacing the PWB, remove the EEPROM from the PWB and then reattach it to the new PWB.

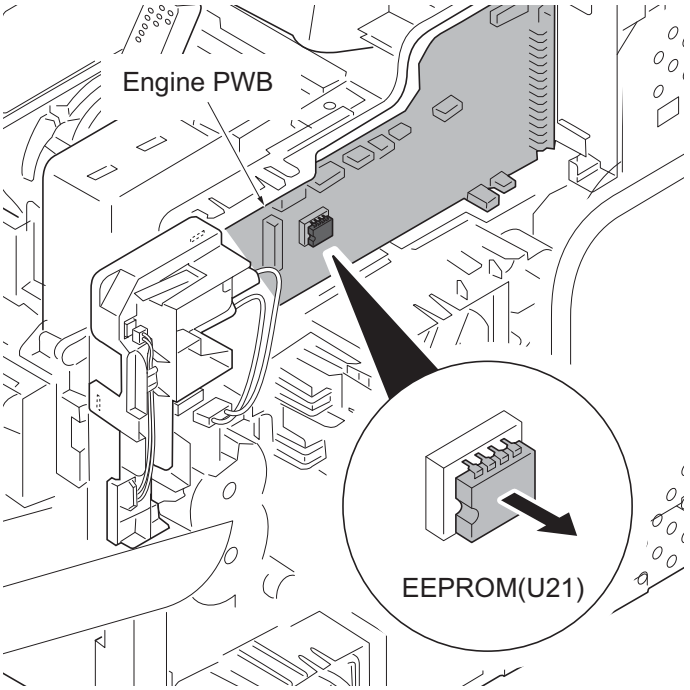


Figure 1-6-2

(2) Main PWB

1. Re-activate the license if optional licensed product is installed.
   1) Card Authentication Kit(B)
   2) UG-33 (ThinPrint)
   3) Data Security Kit(E)
   * : Re-input four-digit encrypted code that was input at setup.

2. Reset the user initial values from the System Menu and Command Center.

2-1-1 Paper feed/conveying section

Paper feed/conveying section consists of the paper feed unit that feeds paper from the cassette and the MP tray paper feed unit that feeds paper from the MP tray, and the paper conveying section that conveys the fed paper to the transfer/separation section.

(1) Cassette paper feed section

The cassette can contain 500 sheets. The sheet from the cassette is pulled out by rotation of the pickup roller and sent to the paper conveying section by rotation of the paper feed roller. Also the retard roller prevents multiple feeding of paper.

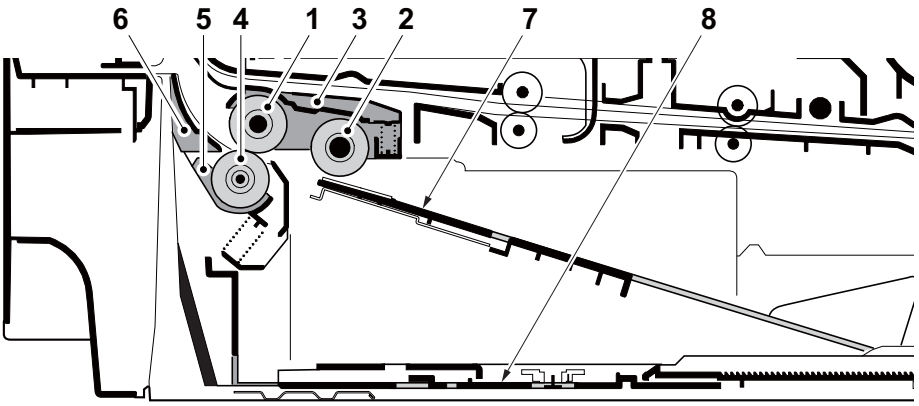


Figure 2-1-1 Cassette paper feed section

1. Paper feed roller
2. Pickup roller
3. Feed holder
4. Retard roller
5. Retard holder
6. Retard guide
7. Bottom plate
8. Cassette base

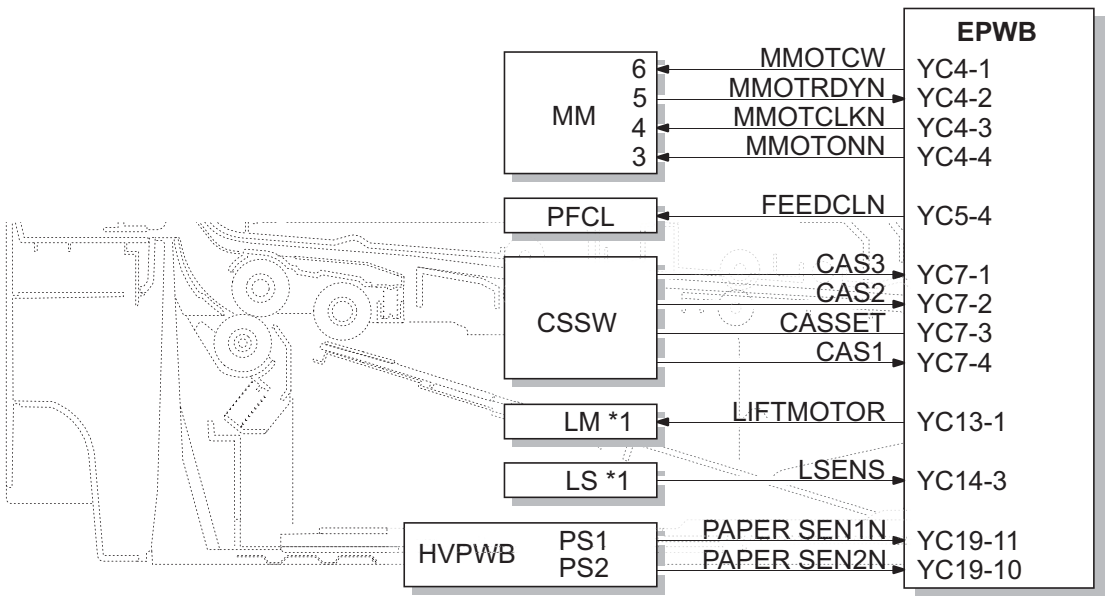


Figure 2-1-2 Cassette paper feed section block diagram

*1: 60/55/50 ppm model only

(2) MP tray paper feed section

The MP tray can contain 100 sheets. Feeding from the MP tray is performed by the rotation of the MP paper feed roller. Also, function of the MP separation pad prevents paper from multiple feeding.

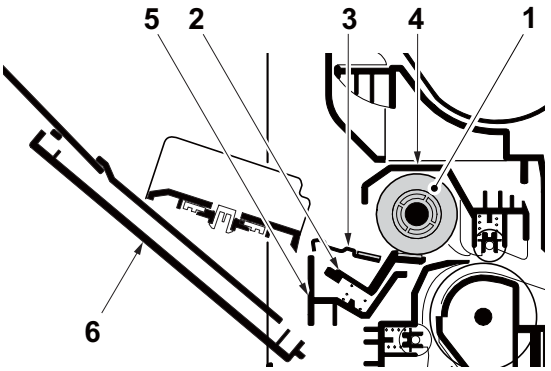


Figure 2-1-3 MP tray paper feed section

1. MP paper feed roller
2. MP separation pad
3. MP bottom plate
4. MP frame
5. MP base
6. MP (Multi purpose)tray

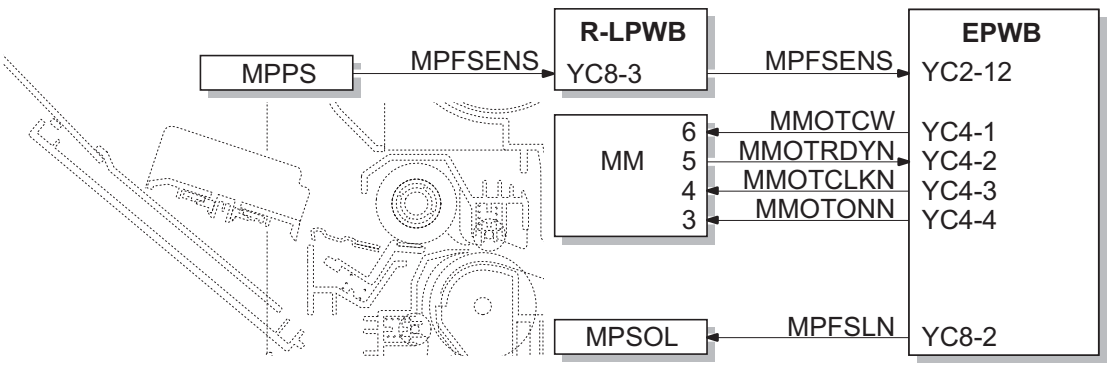


Figure 2-1-4 MP tray paper feed section block diagram

(3) Conveying section

The conveying section conveys paper to the transfer/separation section as paper feeding from the cassette or MP tray, or as paper refeeding for duplex printing. Paper by feeding is conveyed by the paper feed roller to the position where the registration sensor (RS) is turned on, and then sent to the transfer/separation section by the upper registration roller and lower registration roller.

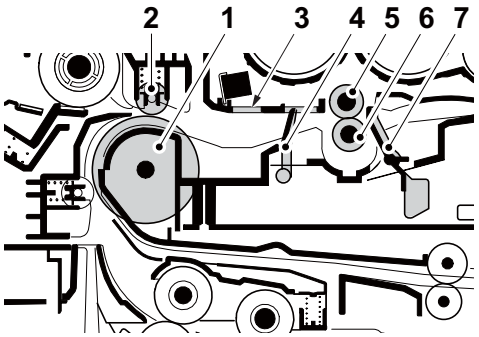


Figure 2-1-5 Conveying section

1. Middle feed roller
2. Feed DU pulley
3. Upper registration guide
4. Actuator
   (Registration sensor 1 (RS1)) *1
5. Upper registration roller
6. Lower registration roller
7. Actuator
   (Registration sensor 3 (RS3)) *2

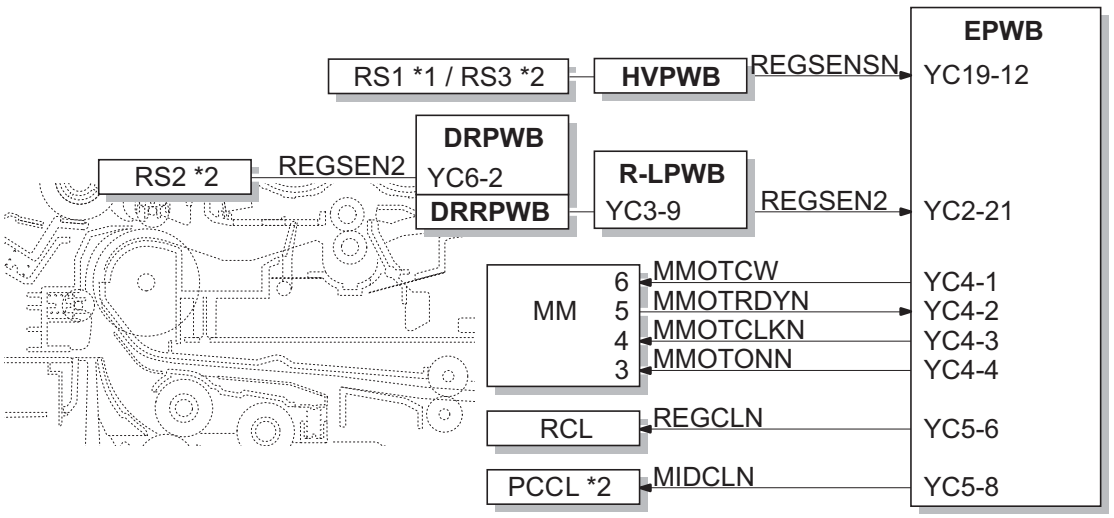


Figure 2-1-6 Paper conveying section block diagram

*1: 45ppm model only
*2: 60/55/50 ppm model only

2-1-2 Drum section

The drum section consists of the drum, the charger roller unit, and the cleaning unit, and the drum surface is uniformly charged in preparation for formation of residual image by laser beam.

(1) Charger roller unit

The drum surface is uniformly charged
by contacting the roller which gave the electric charge and was charged on the drum surface, and rotating it.

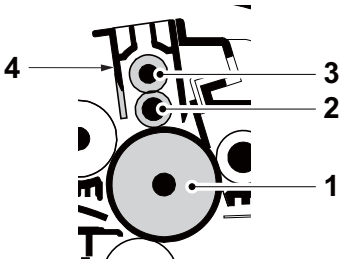


Figure 2-1-7 Charger roller unit

1. Drum
2. Charger roller
3. Charger cleaning roller
4. Charger case

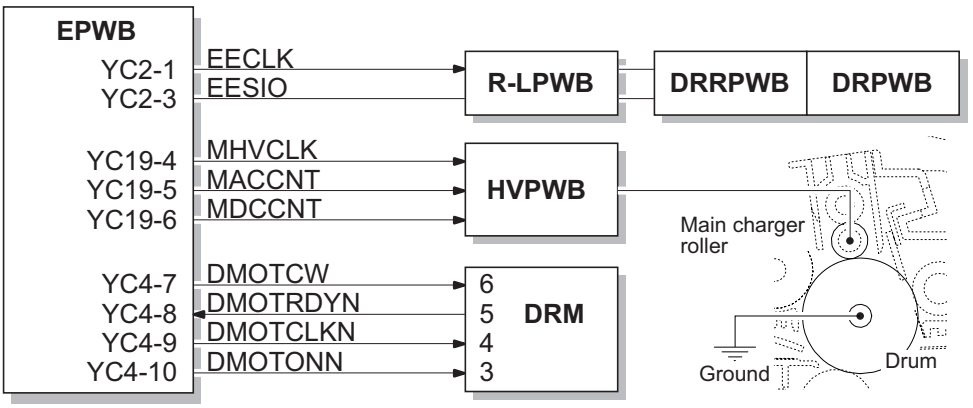


Figure 2-1-8 Charger roller unit

(2) Cleaning unit

After transfer is complete, toner remaining on the drum surface is chipped off with the cleaning blade and is collected to the waste toner box with the drum screw. The cleaning lamp (CL) consists of LEDs and removes residual charge on the drum before main charging.

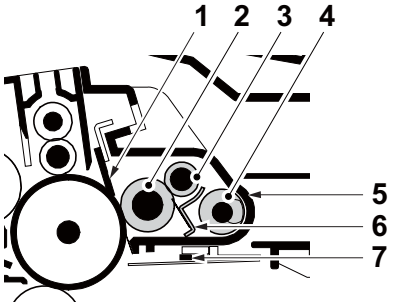


Figure 2-1-9 Cleaning unit

1. Cleaning blade
2. Cleaning roller
3. Control roller
4. Sweep roller
5. Drum frame
6. Scraper
7. Cleaning lamp (CL)

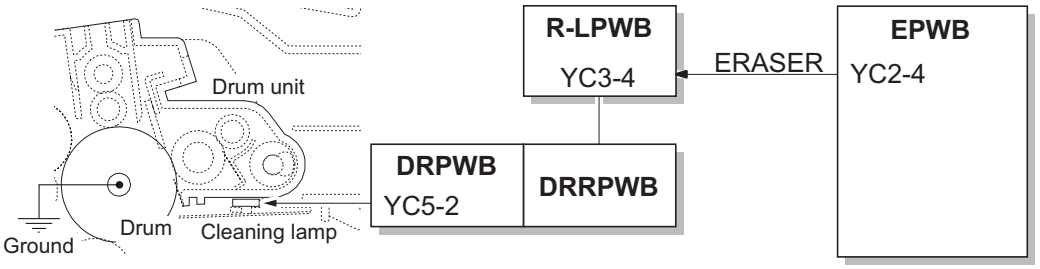


Figure 2-1-10 Cleaning unit block diagram

2-1-3 Developer section

The developer unit consists of the developer roller that forms the magnetic brush, the developer blade and the developer screws that agitate the toner.Also, the toner sensor (TS) checks whether or not toner remains in the developer unit.

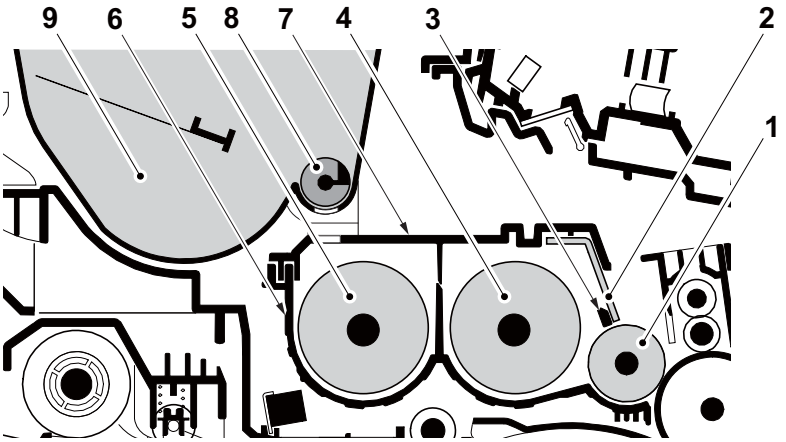


Figure 2-1-11 Developer section

1. Developer roller
2. Developer blade
3. Magnet blade
4. Developer screw A
5. Developer screw B
6. Developer case
7. Upper developer cover
8. Toner supply roller
9. Toner container

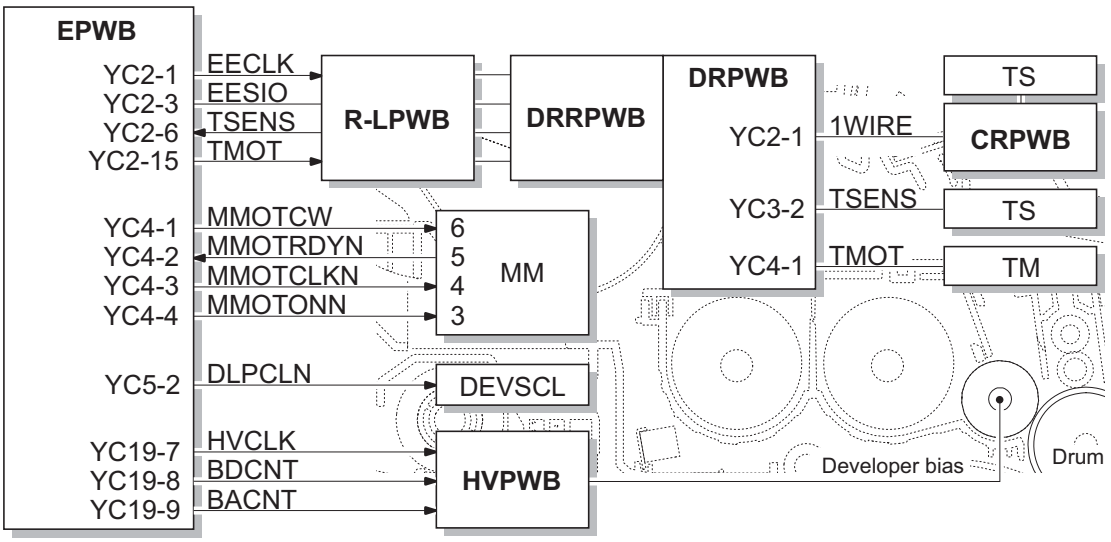


Figure 2-1-12 Developer section block diagram

2-1-4 Optical section

(1) Laser scanner section

The charged surface of the drum is then scanned by the laser beam from the laser scanner unit. The laser beam is dispersed as the polygon motor (PM) revolves to reflect the laser beam over the drum. Various lenses and mirror are housed in the laser scanner unit, adjust the diameter of the laser beam, and focalize it at the drum surface.

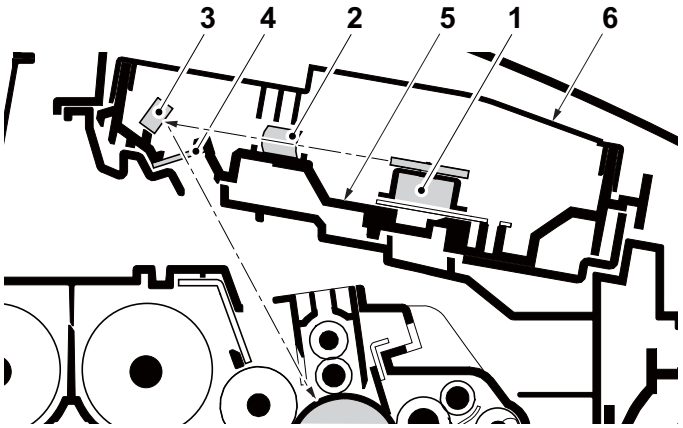


Figure 2-1-13 Laser scanner unit (LSU)

1. Polygon motor (PM)
2. fθ main lens
3. Direction change mirrer
4. LSU dust shield glass
5. LSU base
6. LSU cover

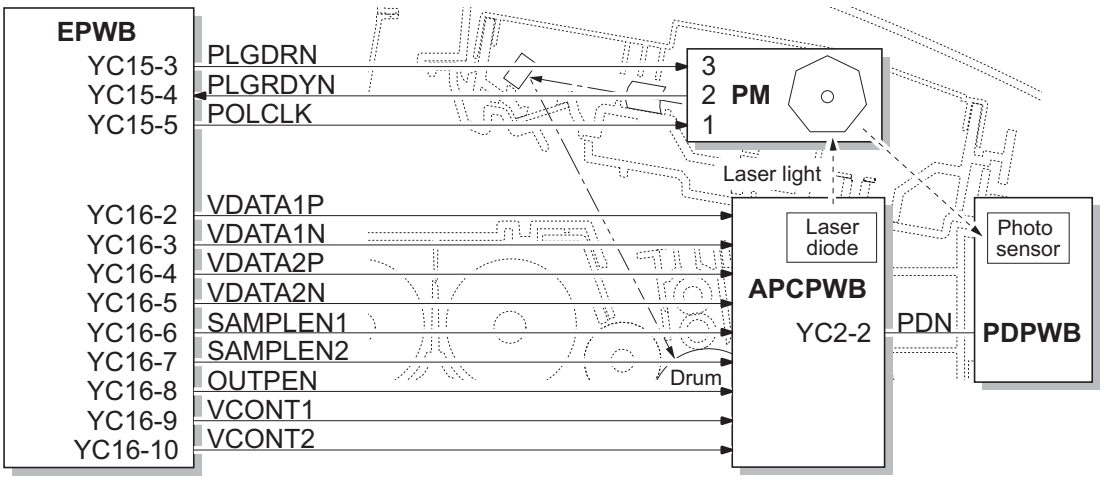


Figure 2-1-14 Laser scanner unit block diagram

2-1-5 Transfer/Separation section

The transfer and separation section consists mainly of the transfer roller and separation electrode.
A high voltage generated by the high voltage PWB (HVPWB) is applied to the transfer roller for transfer charging.
Paper after transfer is separated from the drum by applying separation charging that is output from the high voltage PWB (HVPWB) to the separation electrode.

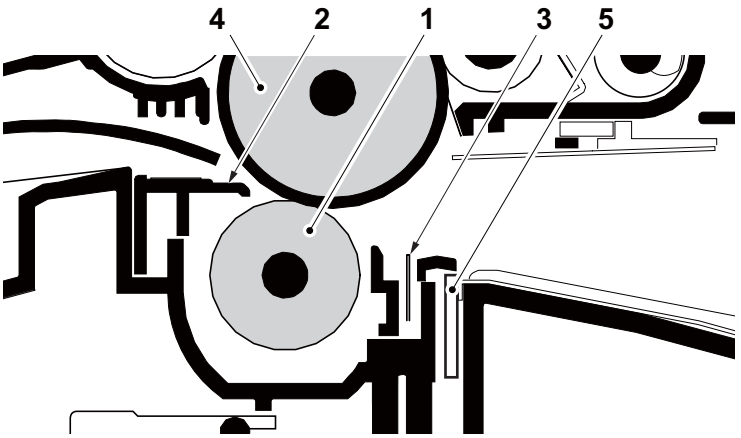


Figure 2-1-15 Transfer/Separation section

1. Transfer roller
2. Paper chute guide
3. Separation needle
4. Drum
5. Drum heater *1

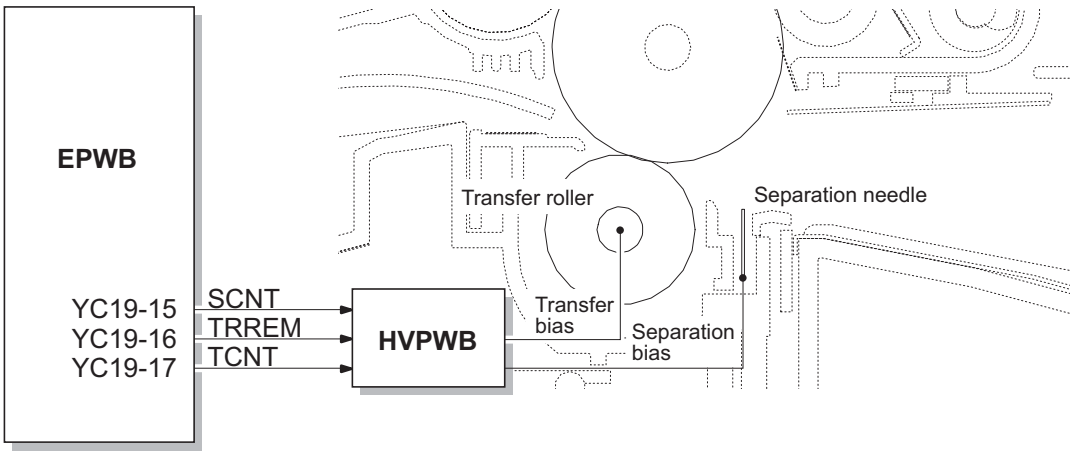


Figure 2-1-16 Transfer/Separation section block diagram

2-1-6 Fuser section

The paper sent from the transfer/separation section is interleaved between the heat roller and the press roller. The heat roller is heated by the fuser heater (FUH), and the toner is fused by heat and pressure and fixed onto the paper because the press roller is pressed by the fuser press spring. The surface temperature of heat roller is detected by the fuser thermistor (FUTH1,2) and controlled by the engine PWB (EPWB). If the fuser section shows extremely high temperature, the power line will be shut off and the fuser heater (FUH) is forced to turn off.

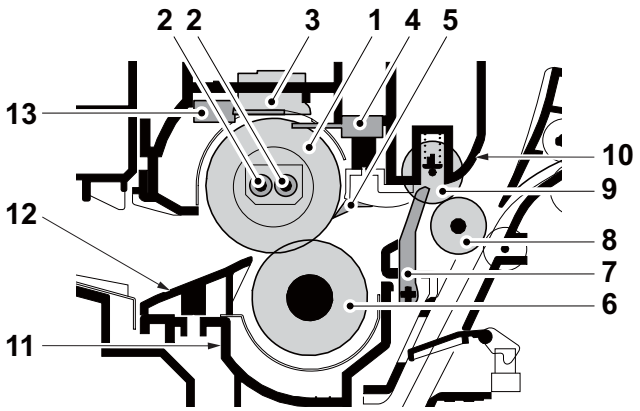


Figure 2-1-17 Fuser section

1. Heat roller
2. Fuser heater (FUH)
3. Fuser thermostat (FUTS)
4. Fuser thermistor (FUTH1)
5. Separators
6. Press roller
7. Actuater (Eject sensor (ES))
8. Fuser eject roller
9. Fuser eject pulley
10. Upper fuser frame
11. Lower Fuser frame
12. Pre fuser guide
13. Fuser thermistor (FUTH2)

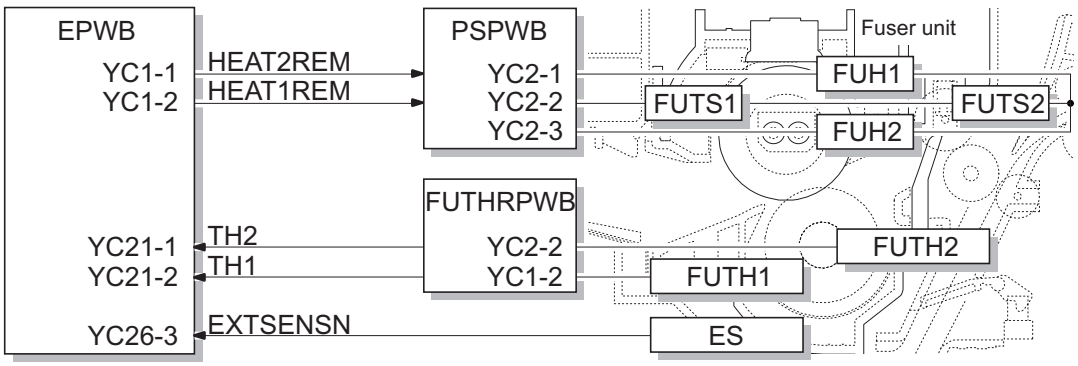
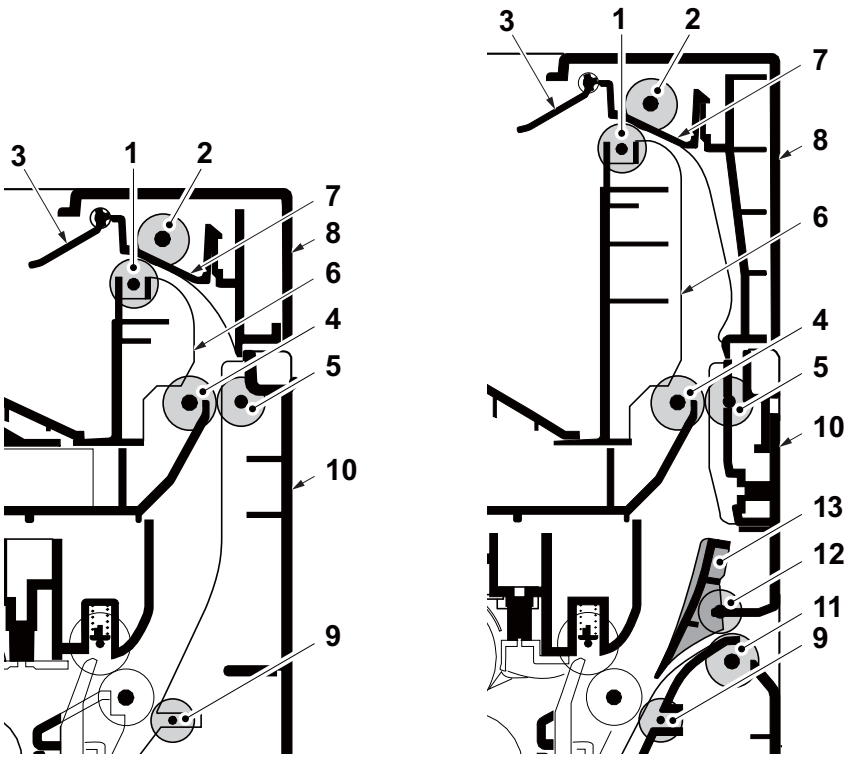


Figure 2-1-18 Fuser section block diagram

2-1-7 Eject/Feedshift section

The paper eject/feedshift section consists of the conveying path which sends the paper that has passed the fuser section to the facedown tray, the faceup tray (60/50/45 ppm model only) or the duplex conveying section.



(45 ppm model) (60/55/50 ppm model)

Figure 2-1-19 Eject/Feedshift section

1. Upper eject roller
2. Upper eject pulley
3. Actuator (Eject full sensor (EFS))
4. Lower eject roller
5. Lower eject pulley
6. Vertical guide
7. Paper exit guide
8. Top cover
9. DU feed pulley
10. Rear cover
11. Faceup roller *1
12. Faceup pulley *1
13. Feedshift guide *1

*1: 60/55/50 ppm model only

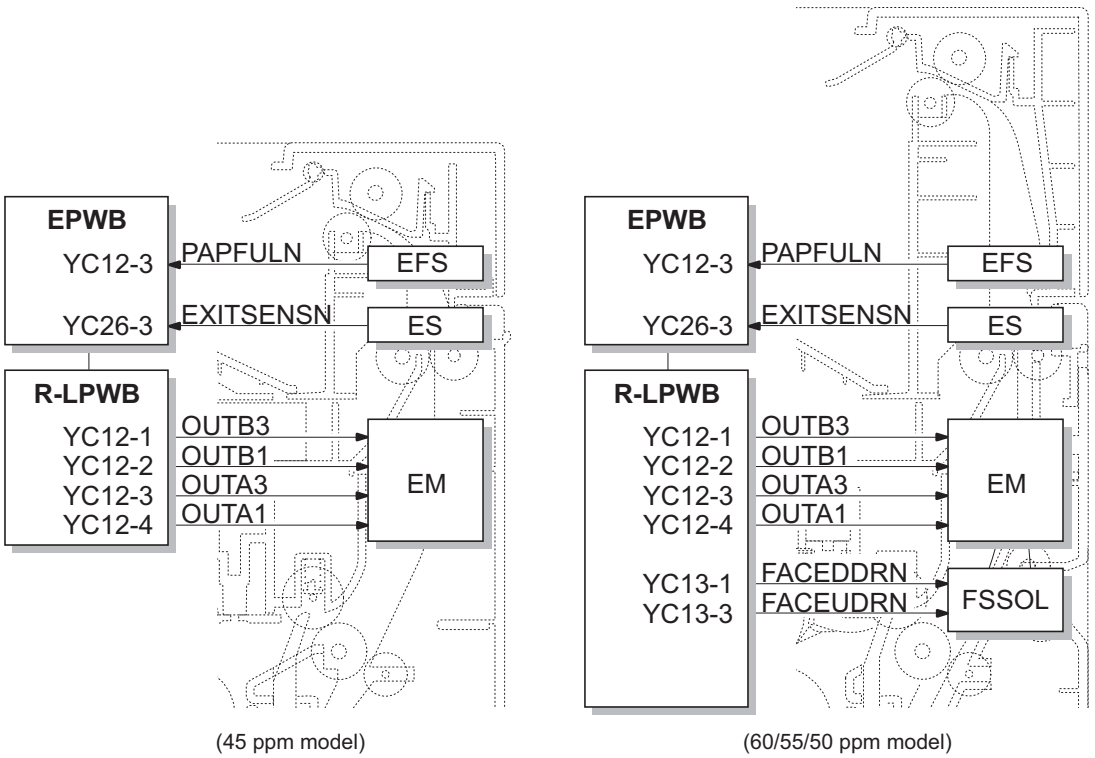


Figure 2-1-20 Eject/Feed shift section block diagram

2-1-8 Duplex conveying section

The duplex conveying section consists of conveying path which sends the paper sent from the eject/feedshift section to the paper feed/conveying section when duplex printing.

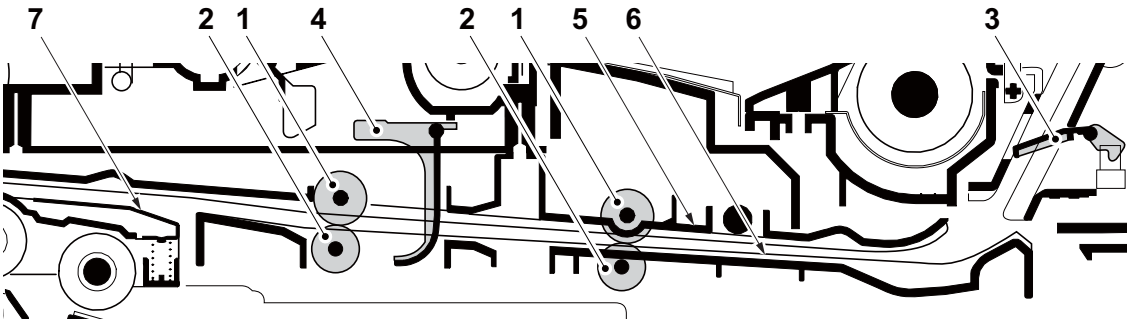


Figure 2-1-21 Duplex conveying section

1. DU conveying roller
2. DU conveying pulley
3. Actuater
   (Duplex sensor 1 (DUS1)) *1
4. Actuater
   (Duplex sensor 2 (DUS2))
5. DU base
6. DU lower guide
7. Upper feed guide

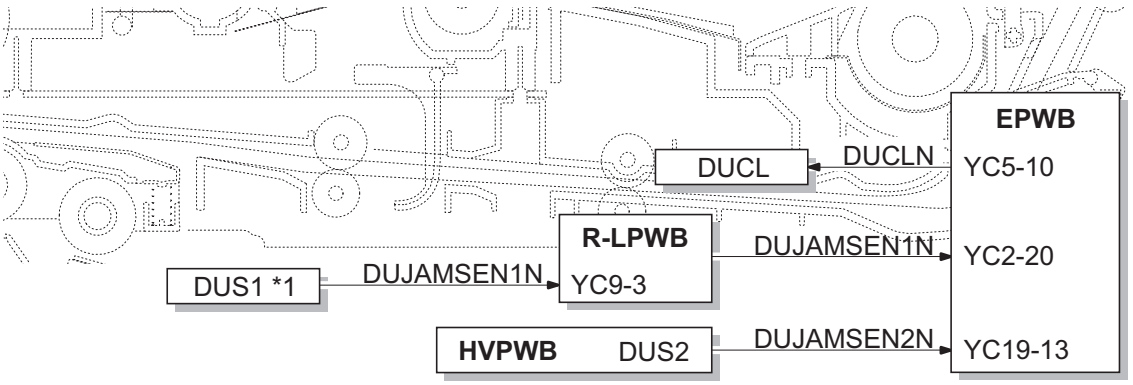


Figure 2-1-22 Duplex conveying section block diagram

*1: 60/55/50 ppm model only

2-2-1 Electrical parts layout

(1) PWBs

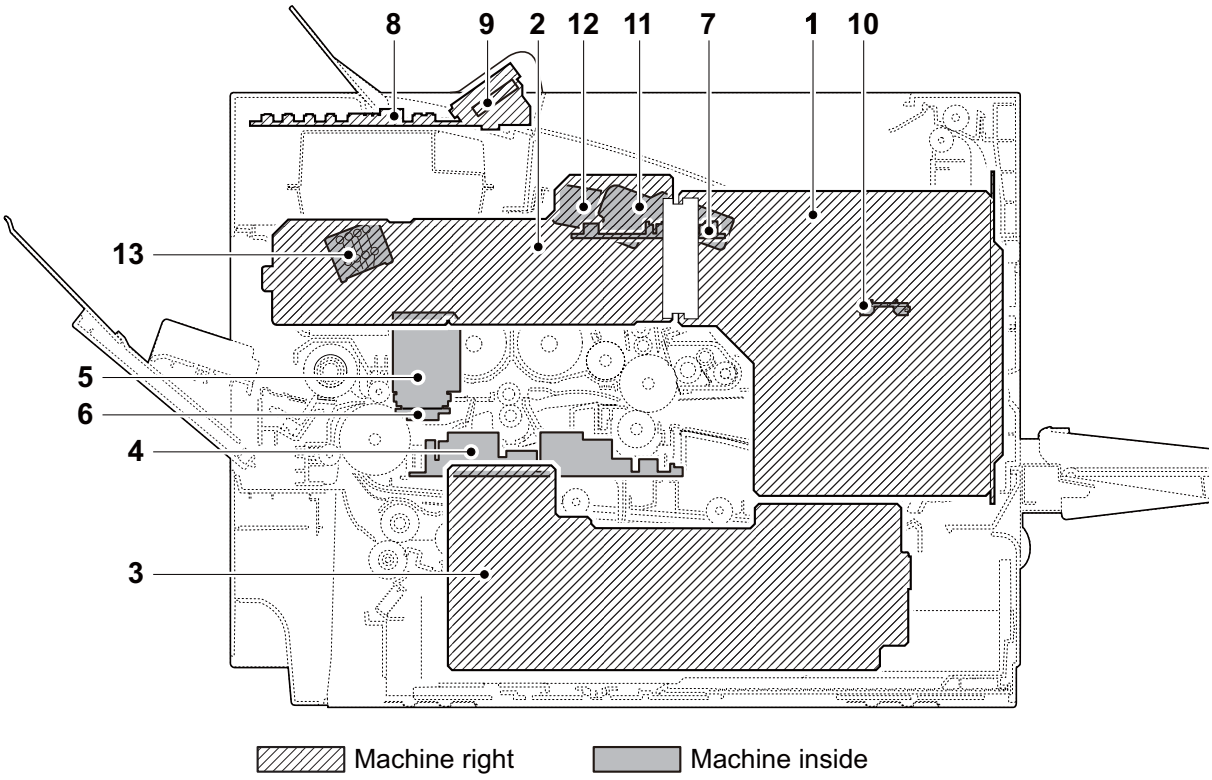


Figure 2-2-1 PWBs

1. Main PWB (MPWB) ..... Controls the software such as the print data processing and provides the interface with computers.
2. Engine PWB (EPWB)..... Controls printer hardware such as high voltage/bias output control, paper conveying system control, and fuser temperature control, etc.
3. Power source PWB (PSPWB) ..... After full-wave rectification of AC power source input, switching for converting to 24 V DC for output. Controls the fuser heater.
4. High voltage PWB (HVPWB) ..... Generates main charging, developing bias, transfer bias.
5. Drum PWB (DRPWB) ..... Relays wirings from electrical components on the drum unit. Drum individual information in EEPROM storage.
6. Drum relay PWB (DRRPWB)..... Consists of wiring relay circuit between engine PWB and the drum unit.
7. Relay-L PWB (R-LPWB) ..... Consists of wiring relay circuit between engine PWB and drum connect PWB.
8. Operation PWB (OPPWB-M) ..... Consists the LCD, LED indicators and key switches.
9. Backlight PWB (BLPWB) ..... LCD lighting.
10. Fuser thermistor relay PWB (FUTHRPWB) ..... Consists of wiring relay circuit between engine PWB ,fuser thermistors and cooling fans.
11. APC PWB (APCPWB) ..... Generates and controls the laser beam.
12. PD PWB (PDPWB) ..... Controls horizontal synchronizing timing of laser beam.
13. Container PWB (CPWB) ..... Reads the container information.

List of correspondences of PWB names

No.	Name used in service manual	Name used in parts list
1	Main PWB (MPWB)	PARTS PWB ASSY MAIN SP
2	Engine PWB (EPWB)	PARTS PWB ASSY ENGINE SP
3	Power source PWB (PSPWB)	PARTS SWITCHING REGULATOR 120V SP
4	High voltage PWB (HVPWB)	PARTS HIGH VOLTAGE UNIT SP
5	Drum PWB (DRPWB)	(DK-****)
6	Drum connect PWB (DRRPWB)	PARTS PWB ASSY DRUM CONNECT SP
7	Relay-L PWB (R-LPWB)	PARTS PWB ASSY CONNECT-L SP
8	Operation PWB (OPPWB)	PARTS PWB ASSY PANEL SP
9	Backlight PWB (BLPWB)	
10	Fuser thermistor relay PWB (FUTHRPWB)	PARTS PWB ASSY TH CONNECT SP
11	APC PWB (APCPWB)	(LK-****)
12	PD PWB (PDPWB)	(LK-****)
13	Container PWB (CPWB)	(DK-****)

(2) Switches and sensors

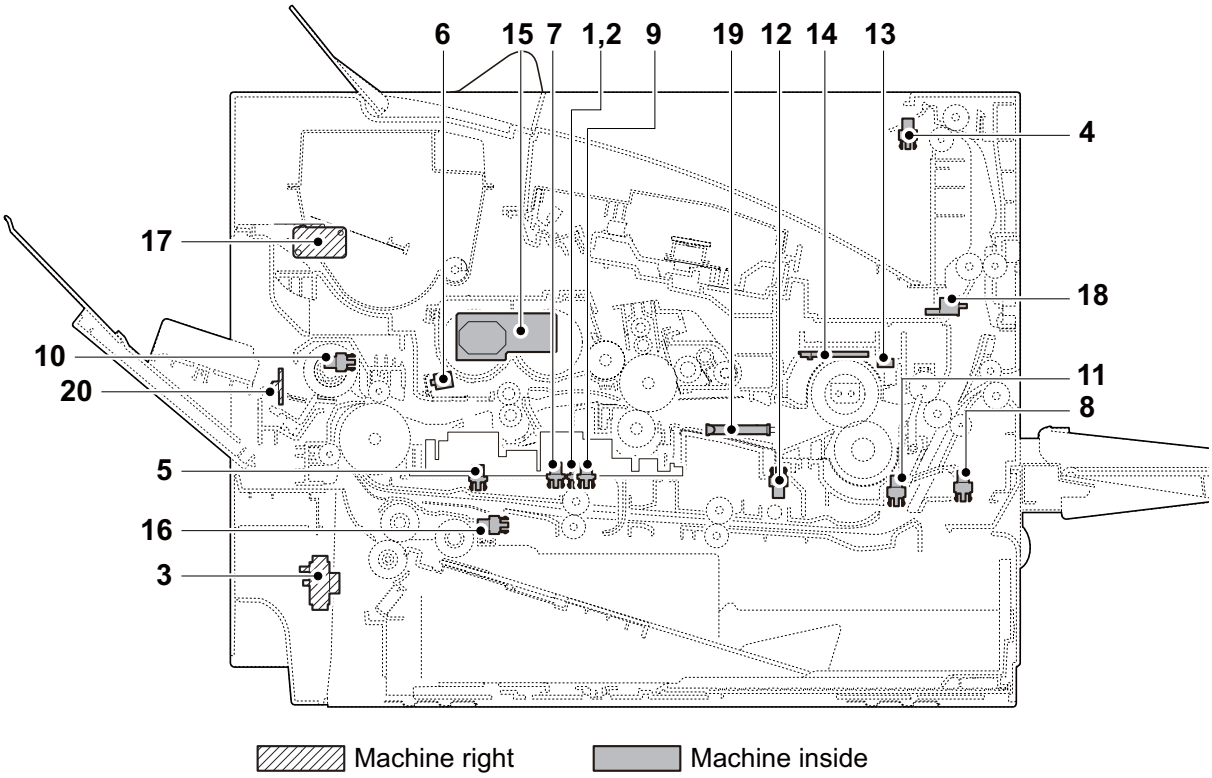


Figure 2-2-2 Switches and sensors

1. Paper sensor 1 (PS1) ..... Detects the presence of paper in the cassette.
2. Paper sensor 2 (PS2) ..... Detects the presence of paper in the cassette.
3. Cassette size switch (CSSW) ..... Detects the paper size dial setting of the paper setting dial.
4. Eject full sensor (EFS) ..... Detects the paper full in the upper tray (Facedown).
5. Registration sensor 1 (RS1) *2 ..... Controls the secondary paper feed start timing.
6. Registration sensor 2 (RS2) *1 ..... Controls the secondary paper feed start timing.
7. Registration sensor 3 (RS3) *1 ..... Controls the Image data beginning timing.
8. Duplex sensor 1 (DUS1) *1..... Detects a paper jam in the duplex section.
9. Duplex sensor 2 (DUS2) ..... Detects a paper jam in the duplex section.
10. MP paper sensor (MPPS) ..... Detects the presence of paper on the MP tray.
11. Eject sensor (ES) ..... Detects a paper misfeed in the fuser or eject section.
12. Fuser pressure release sensor (FURS) ..... Detects the change state of pressure in fuser unit.
13. Fuser thermistor 1 (FUTH1) ..... Detects the heat roller temperature at the edge position.
14. Fuser thermistor 2 (FUTH2) ..... Detects the heat roller temperature at the center position.
15. Toner sensor (TS) ..... Detects the amount of toner in the developer.
16. Lift sensor (LS) *1 ..... Detects the top limit of the bottom plate.
17. Interlock switch (ILSW) ..... Shuts off 24 V DC power line when the top cover is opened.
18. Rear cover switch (RECSW) *1 ..... Detects the opening and closing of the rear cover.
19. Waste toner sensor (WTS)..... Detects when the waste toner box is full.
20. Power source switch (PSSW) ..... Change ON/OFF the power supply of a main PWB, an operation PWB, etc.

*1: 60/55/50 ppm model only
*2: 45 ppm model only

(3) Motors

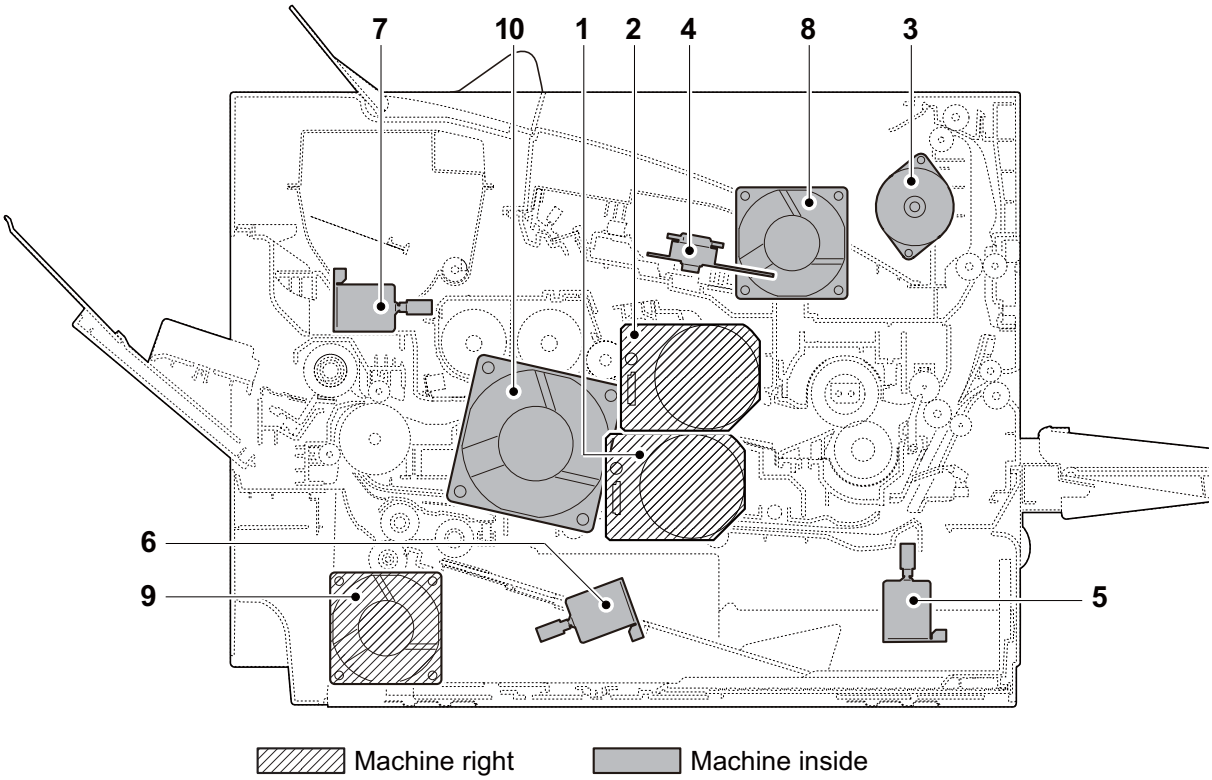


Figure 2-2-3 Motors

1. Main motor (MM)..... Drives the paper feed section and conveying section.
2. Drum motor (DRM) *1..... Drives the drum unit and transfer roller.
3. Eject motor (EM)..... Drives the eject section.
4. Polygon motor (PM)..... Drives the polygon mirror.
5. Fuser pressure release motor (FUPRM) *1Drives the change mechanism of fixing pressure in fuser unit.
6. Lift motor (LM) *1..... Operates the bottom plate in the cassette.
7. Toner motor (TM)..... Replenishes toner to the developer unit.
8. LSU fan motor (LSUFM)..... Cools the LSU unit.
9. Power source fan motor (PSFM)..... Cools the power source PWB.
10. Developer fan motor (DEVFM)..... Cools the developer unit.

*1: 60/55/50 ppm model only

(4) Clutches and others

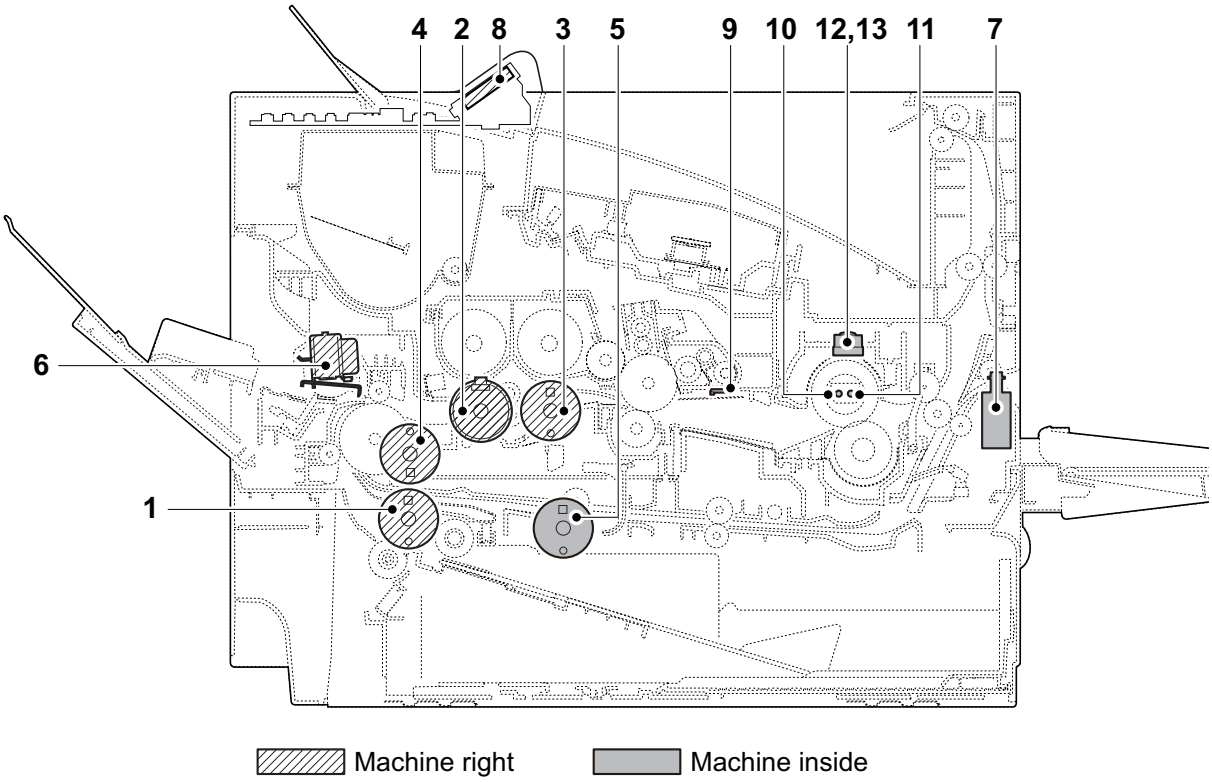
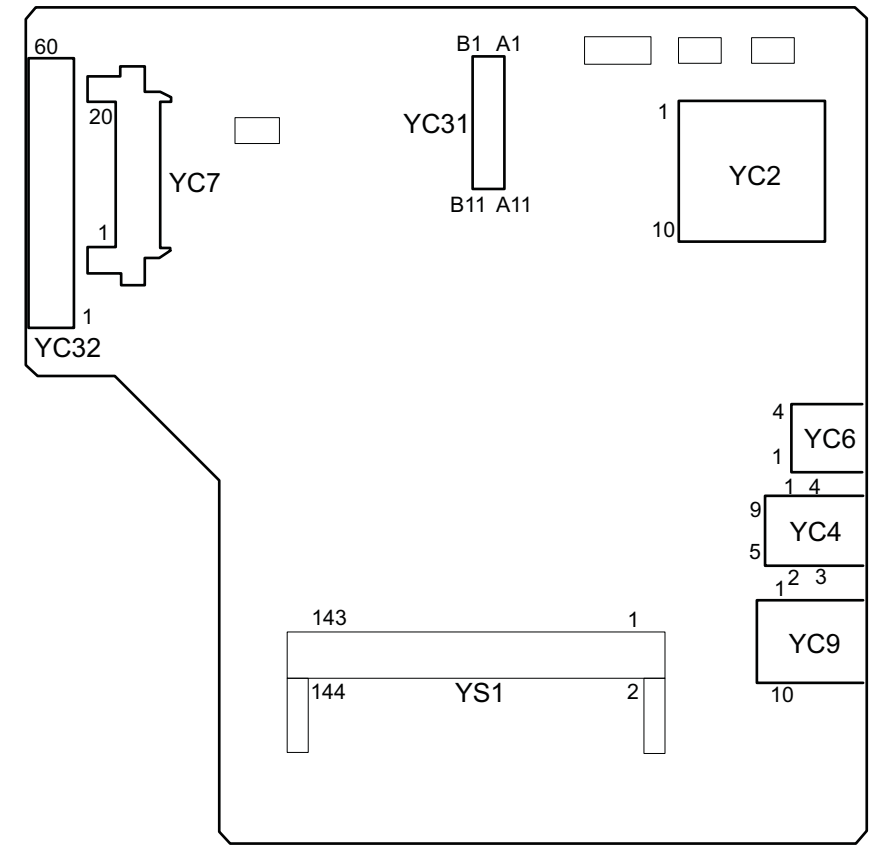


Figure 2-2-4 Clutches and others

1. Paper feed clutch (PFCL) ..... Primary paper feed from cassette.
2. Registration clutch (RCL)..... Controls the secondary paper feed.
3. Developer clutch (DEVSCL) ..... Controls the drive of the developer.
4. Conveying clutch (PCCL)..... Controls the paper conveying.
5. Duplex clutch (DUCL) ..... Controls the drive of the duplex feed roller.
6. MP solenoid (MPSOL) ..... Controls the MP bottom plate.
7. Feedshift solenoid (FSSOL) *1 ..... Operates the feedshift guide.
8. LCD (LCD) ..... LCD display. Displays an operating state.
9. Cleaning lamp (CL)..... Eliminates the residual electrostatic charge on the drum.
10. Fuser heater 1 (FUH1)..... Heats the heat roller.
11. Fuser heater 2 (FUH2)..... Heats the heat roller.
12. Fuser thermostat 1 (FUTS1)..... Prevents overheating of the heat roller.
13. Fuser thermostat 2 (FUTS2)..... Prevents overheating of the heat roller.

*1: 60/55/50 ppm model only

2-3-1 Main PWB (MPWB)



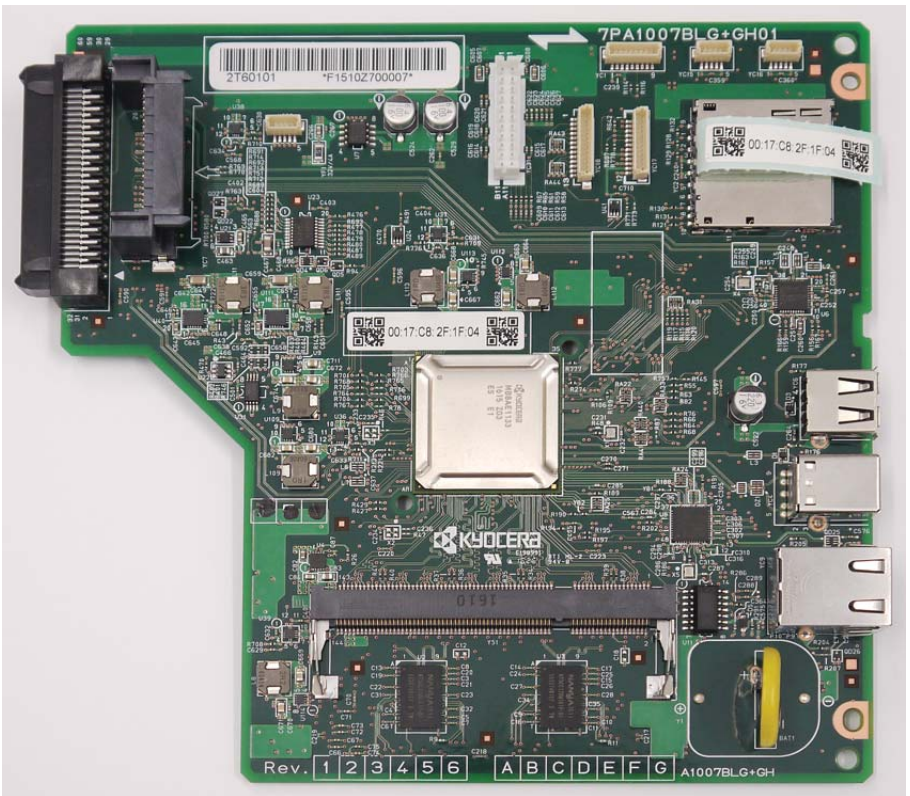


Figure 2-3-1 Main PWB silk-screen diagram and Photograph

Connector	Pin	Signal	I/O	Voltage	Description
YC2	1	DAT3	I/O	DC0V/3.3V	Control signal
Connected to the SD card I/F	2	CMD	I/O	DC0V/3.3V	Command control signal
	3	VSS	-	-	Ground
	4	VDD	O	DC3.3V	Control signal
	5	CLK	O	DC0V/3.3V	3.3 V DC power output
	6	VSS	-	-	Ground
	7	DAT0	I/O	DC0V/3.3V	Data bus signal
	8	DAT1	I/O	DC0V/3.3V	Data bus signal
	9	DAT2	I/O	DC0V/3.3V	Data bus signal
	10	Delective_Card_Switch	I	DC0V/3.3V	Control signal
	11	Common_Contact	-	-	Control signal
	12	WPSwitch	I	DC0V/3.3V	Control signal
YC4	1	VBUS	I	DC0V/5.0V	5 V DC power output to USB device
Connected to the USB Device	2	D-	I/O	Analog	USB data signal
	3	D+	I/O	Analog	USB data signal
	4	GND	-	-	Ground
YC6	1	VBUS	O	DC0V/5.0V	5 V DC power output to USB host
Connected to the USB HOST	2	D-	I/O	Analog	USB data signal
	3	D+	I/O	Analog	USB data signal
	4	GND	-	-	Ground
YC7	1	+5.0V1_C1	O	DC5.0V	5 V DC power output to eKUIO
Connected to the eKUIO	2	GND	-	-	Ground
	3	RESET	O	DC0V/3.3V	Reset signal
	4	+5.0V2_C	O	DC5.0V	5 V DC power output to eKUIO
	5	GND	-	-	Ground
	6	IRQ	I	DC0V/3.3V	Interrupt signal
	7	OPEN	-	-	NC
	8	OPEN	-	-	NC
	9	OPEN	-	-	NC
	10	OPEN	-	-	NC
	11	GND	-	-	Ground
	12	OPEN	-	-	NC

Connector	Pin	Signal	I/O	Voltage	Description
YC7	13	OPEN	-	-	NC
Connected to the eKUIO	14	GND	-	-	Ground
	15	OPEN	-	-	NC
	16	OPEN	-	-	NC
	17	GND	-	-	Ground
	18	DP	I/O	Analog	USB data signal
	19	DN	I/O	Analog	USB data signal
	20	VBUS	O	DC0V/3.3V	3.3 V DC power output to eKUIO
YC9	P1	TD1+	I/O	Analog	Send data
Connected to the Ethernet	P2	TD1-	I/O	Analog	Send data
	P3	TD2+	I/O	Analog	Send data
	P4	TD2-	I/O	Analog	Send data
	P5	CT1	I	3.3 V DC	3.3 V DC power output
	P6	CT2	I	3.3 V DC	3.3 V DC power output
	P7	TD3+	I/O	Analog	Send data
	P8	TD3-	I/O	Analog	Send data
	P9	TD4+	I/O	Analog	Send data
	P10	TD4-	I/O	Analog	Send data
YC31	1	+3.3V2	O	DC3.3V	3.3 V DC power output to OP
Connected to the IEEE1284	2	+5.0V2	O	DC5.0V	5 V DC power output to OP
	3	P1284DIR	O	DC0V/3.3V	Direction input signal
	4	NACK	O	DC0V/3.3V	Acknowledge input signal
	5	BUSY	O	DC0V/3.3V	Busy input
	6	PERROR	O	DC0V/3.3V	Errer signal
	7	SELECT	O	DC0V/3.3V	Select signal
	8	NFAULT	O	DC0V/3.3V	Errer signal
	9	PDATA1	I/O	DC0V/3.3V	Data signal
	10	PDATA2	I/O	DC0V/3.3V	Data signal
	11	PDATA3	I/O	DC0V/3.3V	Data signal
	12	PDATA4	I/O	DC0V/3.3V	Data signal
	13	PDATA5	I/O	DC0V/3.3V	Data signal
	14	PDATA6	I/O	DC0V/3.3V	Data signal
	15	PDATA7	I/O	DC0V/3.3V	Data signal
	16	PDATA8	I/O	DC0V/3.3V	Data signal
	17	NSELECTIN	I	DC0V/3.3V	Select signal
	18	NSTROBE	I	DC0V/3.3V	Output signal
	19	NAUTOFD	I	DC0V/3.3V	AUTO-FEED signal

Connector	Pin	Signal	I/O	Voltage	Description
YC31	20	NINIT	I	DC0V/3.3V	Reset signal
Connected to the IEEE1284	21	PDATECT	I	DC0V/3.3V	OP detection signal
	22	GND	-	-	Ground
YC32	1	+24V0	I	DC24V	24 V DC power input
Connected to the engine PWB	2	+24V0	I	DC24V	24 V DC power input
	3	+24V0	I	DC24V	24 V DC power input
	4	+3.3V0_PM	O	DC3.3V	3.3 V DC power output
	5	+3.3V3_E	O	DC3.3V	3.3 V DC power output
	6	+3.3V3_E	O	DC3.3V	3.3 V DC power output
	7	+5.0V1_C1	O	DC5.0V	5 V DC power output
	8	+3.3V1_C	O	DC3.3V	3.3 V DC power output
	9	DUTY_CONTROL	O	DC0V/3.3V(pulse)	PI / Sensor intermittent control signal
	10	E2C_SDAT	I	DC0V/3.3V	Serial communication data output
	11	C2E_SDAT	O	DC0V/3.3V	Serial communication data input
	12	C2E_SCK	O	DC0V/3.3V	Serial communication clock signal
	13	E2C_SDIR	I	DC0V/3.3V	Serial communication direction signal
	14	E2C_SBSY	I	DC0V/3.3V	System busy signal
	15	GND	-	-	Ground
	16	VBUS_USBH_3	O	DC0V/5.0V	5 V DC power output to USB
	17	GND	-	-	Ground
	18	USBH_DP3	I/O	Analog	USB differential data
	19	USBH_DN3	I/O	Analog	USB differential data
	20	GND	-	-	Ground
	21	SDIF_DAT0	I/O	DC0V/3.3V	WiFi input and output data
	22	SDIF_DAT1	I/O	DC0V/3.3V	WiFi input and output data
	23	SDIF_DAT2	I/O	DC0V/3.3V	WiFi input and output data
	24	SDIF_DAT3	I/O	DC0V/3.3V	WiFi input and output data
	25	SDIF_SDCLK	O	DC0V/3.3V	WiFi input and output data
	26	GND	-	-	Ground
	27	SH1D	O	DC0V/3.3V	Sample-and-hold signal
	28	GND	-	-	Ground
	29	LDOUT_1_DN	O	LVDS	Video data
	30	LDOUT_1_DP	O	LVDS	Video data
	31	GND	-	-	Ground
	32	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC32	33	GND	-	-	Ground
Connected to the engine PWB	34	GND	-	-	Ground
	35	GND	-	-	Ground
	36	GND	-	-	Ground
	37	GND	-	-	Ground
	38	GND	-	-	Ground
	39	LVU_SLEEP_N	O	DC0V/3.3V	LVU energy-saving control signal
	40	POWER_SW	I	DC0V/3.3V	PowerSW
	41	E2C_IRN	I	DC0V/3.3V	G6 interrupt signal
	42	E2C_WKUP_BGD_N	I	DC0V/3.3V	Engine BGM return trigger
	43	ENG_HLDN	O	DC0V/3.3V	Engine Hold signal
	44	C2E_QUICK_START	O	DC0V/3.3V	Speed priority return notification signal
	45	PVSYNC	I	DC0V/3.3V	VSYNC
	46	GND	-	-	Ground
	47	P2C_WKUP_RDY	I	DC0V/3.3V	Ready return trigger signal
	48	ENERGYSAVERKEY_N	I	DC0V/3.3V	Key input
	49	C2P_RST_N	O	DC0V/3.3V	Panel reset signal
	50	P2C_SDAT	I	DC0V/3.3V	Panel received data sjgnal
	51	C2P_SDAT	O	DC0V/3.3V	Panel transmitted data signal
	52	GND	-	-	Ground
	53	SDIF_SDCD	I	DC0V/3.3V	Card detect signal
	54	SDIF_INTA	I	DC0V/3.3V	Interrupt signal
	55	SDIF_CMD	I/O	DC0V/3.3V	Command signal
	56	BDN_D	I	DC0V/3.3V	BD signal
	57	SH2D	O	DC0V/3.3V	Sample hold signal
	58	GND	-	-	Ground
	59	LDOUT_2_DN	O	LVDS	Video signal
	60	LDOUT_2_DP	O	LVDS	Video signal

2-3-2 Engine PWB (EPWB)

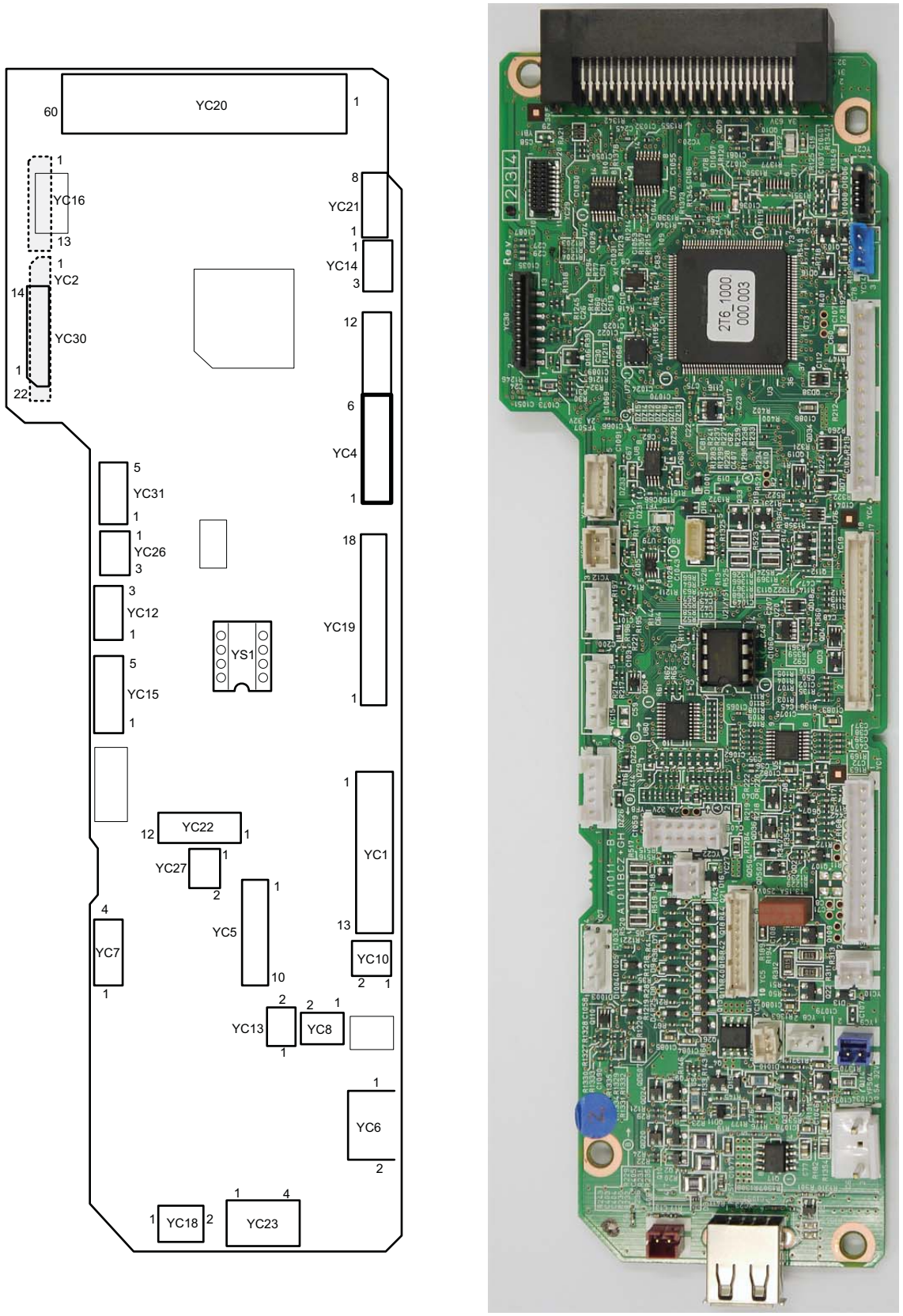


Figure 2-3-2 Engine PWB silk-screen diagram and Photograph

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	HEAT2REM	O	0/3.3 V DC	TH2 remote signal
Connected to the power source PWB	2	HEAT1REM	O	0/3.3 V DC	TH1 remote signal
	3	ZCROSSN	I	0/3.3 V DC	Zero crossing detection signal
	4	RELAY	O	0/3.3 V DC	Relay driving signal
	5	PSLEEPN	O	0/3.3 V DC	Sleep signal
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	+24V0	I	24 V DC	24 V DC power input from PSPWB
	11	+24V0	I	24 V DC	24 V DC power input from PSPWB
	12	+24V0	I	24 V DC	24 V DC power input from PSPWB
	13	+24V0	I	24 V DC	24 V DC power input from PSPWB
YC2	1	EECLK	O	DC0V/3.3V	Clock signal
Connected to the relay-L PWB	2	GND	-	-	Ground
	3	EESIO	I/O	0/3.3 V DC(pulse)	Communication data
	4	ERASER	O	DC0V/3.3V	CL: On/Off
	5	+3.3V3_F2	O	DC3.3V	3.3 V DC power output to R-LPWB
	6	TSENS	I	analog	TS output signal
	7	SBMDIR	O	DC0V/3.3V	SBM: On/Off
	8	WTSENS	I	analog	WTS output signal
	9	SBMENBLN	O	DC0V/3.3V	SBM enable signal
	10	WTLED	O	DC0V/3.3V	LED: On/Off
	11	SBMSTEP	O	0/3.3 V DC(pulse)	SBM clock signal
	12	MEFSENS	I	DC0V/3.3V	MPS: On/Off
	13	SBMMODE	O	DC0V/3.3V	SBM mode signal
	14	+3.3V1_PWM_F2	O	DC3.3V	3.3 V DC power output
	15	TMOT	O	DC0V/3.3V	TM: On/Off
	16	LFANN	O	DC0V/3.3V	CENFM: On/Off
	17	FUDR	O	DC0V/3.3V	FSSOL: On/Off
	18	ENVMOT	O	DC0V/3.3V	FUPRM: On/Off
	19	FDDR	O	DC0V/3.3V	FSSOL: On/Off
	20	DUJAMSEN1N	I	DC0V/3.3V	DUS: On/Off
	21	REGSEN2	I	DC0V/3.3V	RS: On/Off
	22	REARSWN	I	DC0V/3.3V	RCS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC4	1	MMOTCW	O	0/5 V DC	MM drive shift signal
Connected to the drum motor and main motor *: 7 to 12 of the pin number are used for 60/50/45 ppm model only	2	MMOTRDYN	I	0/3.3 V DC	MM ready signal
	3	MMOTCLKN	O	0/5 V DC(pulse)	MM clock signal
	4	MMOTONN	O	0/5 V DC	MM: On/Off
	5	GND	-	-	Ground
	6	+24V3	O	24 V DC	24 V DC power output
	7	DMOTCW	O	0/5 V DC	DRM rotation direction
	8	DMOTRDYN	I	0/3.3 V DC	DRM ready signal
	9	DMOTCLKN	O	0/5 V DC(pulse)	DRM clock signal
	10	DMOTONN	O	0/5 V DC	DRM: On/Off
	11	GND	-	-	Ground
	12	+24V3	O	24 V DC	24 V DC power output
YC5	1	+24V3_IL	O	24 V DC	24 V DC power output to DEVCL
Connected to the duplex cltch,mid cltch, registration clutch,paper feed cltch and developer clutch	2	DLPCLN	O	0/3.3 V DC	DEVCL: On/Off
	3	+24V3_IL	O	24 V DC	24 V DC power output to PFCL
	4	FEEDCLN	O	0/24 V DC	PFCL: On/Off
	5	+24V3_IL	O	24 V DC	24 V DC power output to RCL
	6	REGCLN	O	0/24 V DC	RCL: On/Off
	7	+24V3_IL	O	24 V DC	24 V DC power output to PCCL
	8	MIDCLN	O	0/24 V DC	PCCL: On/Off
	9	+24V3_IL	O	24 V DC	24 V DC power output to DUCL
	10	DUCLN	O	0/24 V DC	DUCL: On/Off
YC6	1	+24V0	O	24 V DC	24 V DC power output
Connected to the interlock switch	2	+24V0_IL	O	24 V DC	24 V DC power output
YC7	1	CAS3	I	0/24 V DC	CSSW: On/Off
Connected to the cassette size switch	2	CAS2	I	0/3.3 V DC	CSSW: On/Off
	3	CASSET	-	-	CSSW common signal
	4	CAS1	I	0/3.3 V DC	CSSW: On/Off
YC8	1	+24V3_IL	O	24 V DC	24 V DC power output to MPSOL
Connected to the MP solenoid	2	MEFSOLN	O	0/24 V DC	MPSOL: On/Off
YC10	1	+24V0	O	24 V DC	24 V DC power output to PSFM
Connected to the power source fan motor	2	FANRN	O	0/24 V DC	PSFM: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC12	1	+3.3V3_F2	O	3.3 V DC	3.3 V DC power output to EFS
Connected to the eject full sensor	2	GND	-	-	Ground
	3	PAPFULN	I	0/3.3 V DC	EFS: On/Off
YC13	1	LIFTMOTOR	O	0/5 V DC	LM: On/Off
Connected to the lift motor *: 60/55/50 ppm model only	2	GND	-	-	Ground
YC14	1	+3.3V9	O	3.3 V DC	3.3 V DC power output to LS
Connected to the lift sensor *: 60/55/50 ppm model only	2	GND	-	-	Ground
	3	LSENS	I	0/3.3 V DC	LS: On/Off
YC15	1	+24V3_IL_F5	O	24 V DC	24 V DC power output to PM
Connected to the polygon motor	2	GND	-	-	Ground
	3	PLGDRN	O	0/5 V DC	PM: On/Off
	4	PLGRDYN	I	0/3.3 V DC	PM ready signal
	5	POLCLK	O	0/3.3 V DC(pulse)	PM clock signal
YC16	1	+5V3_F1	O	5 V DC	5 V DC power output to APCPWB
Connected to the APC PWB	2	VDATA1P	O	LVDS	Video data 1 signal (+)
	3	VDATA1N	O	LVDS	Video data 1 signal (-)
	4	VDATA2P	O	LVDS	Video data 2 signal (+)
	5	VDATA2N	O	LVDS	Video data 2 signal (-)
	6	SAMPLEN1	O	0/3.3 V DC	Sample / hold signal 1
	7	SAMPLEN2	O	0/3.3 V DC	Sample / hold signal 2
	8	OUTPEN	O	0/3.3 V DC	Laser enable
	9	VCONT1	O	Analog	LD-1 Light volume adjustment
	10	VCONT2	O	Analog	LD-2 Light volume adjustment
	11	GND	-	-	Ground
	12	PDN	I	0/3.3 V DC (pulse)	Main scanning synchronizing signal
	13	+3.3V3_F2	O	3.3 V DC	3.3 V DC power output to APCPWB
YC18	1	GND	-	-	Ground
Connected to the power switch	2	POWERSW	I	0/3.3 V DC	PSSW: On/Off

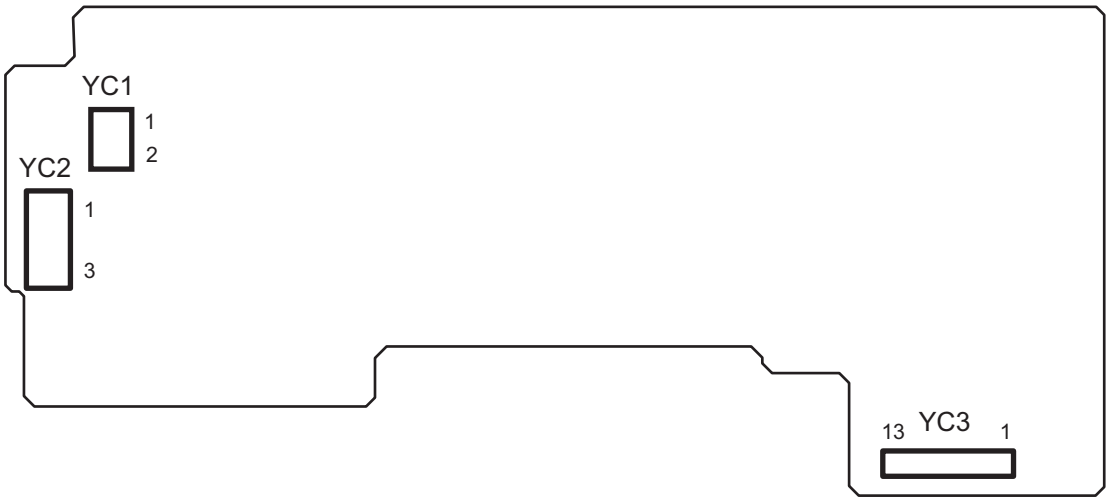
Connector	Pin	Signal	I/O	Voltage	Description
YC19	1	ENVSENSN	I	0/3.3 V DC	ENVS: On/Off
Connected to the high voltage PWB	2	GND	-	-	Ground
	3	MISENS	I	Analog	MC output signal
	4	MHVCLK	O	0/3.3 V DC (pulse)	MC clock signal
	5	MACCNT	O	Analog	MC AC control signal
	6	MDCCNT	O	Analog	MC DC control signal
	7	HVCLK	O	0/3.3 V DC (pulse)	DEV clock signal
	8	BDCNT	O	Analog	DEV DC control signal
	9	BACNT	O	Analog	DEV AC control signal
	10	PAPERSEN2N	I	0/3.3 V DC	EFS2: On/Off
	11	PAPERSEN1N	I	0/3.3 V DC	EFS1: On/Off
	12	REGSENSN	I	0/3.3 V DC	RS: On/Off
	13	DUJAMSEN2N	I	0/3.3 V DC	DUS: On/Off
	14	+3.3V3_F2	O	3.3 V DC	3.3 V DC power output to HVPWB
	15	SCNT	O	0/3.3 V DC	Separation output control signal
	16	TRREM	O	0/3.3 V DC	TC remote signal
	17	TCNT	O	Analog	TC control signal
	18	+24V3_IL	O	24 V DC	24 V DC power output to HVPWB
YC20	1	+24V0	O	DC24V	24 V DC power output
Connected to the main PWB	2	+24V0	O	DC24V	24 V DC power output
	3	+24V0	O	DC24V	24 V DC power output
	4	+3.3V0_PM	I	DC3.3V	3.3 V DC power input
	5	+3.3V3_E	I	DC3.3V	3.3 V DC power input
	6	+3.3V3_E	I	DC3.3V	3.3 V DC power input
	7	+5.0V1_C1	I	DC5.0V	5 V DC power input
	8	+3.3V1_C	I	DC3.3V	3.3 V DC power input
	9	DUTY_CONTROL	I	DC0V/3.3V(pulse)	
	10	E2C_SDAT	O	DC0V/3.3V	Serial communication data input
	11	C2E_SDAT	I	DC0V/3.3V	Serial communication data output
	12	C2E_SCK	I	DC0V/3.3V	Serial communication clock signal
	13	E2C_SDIR	O	DC0V/3.3V	Serial communication direction signal
	14	E2C_SBSY	O	DC0V/3.3V	System busy signal
	15	GND	-	-	Ground
	16	VBUS_USBH_3	I	DC0V/5.0V	5 V DC power input to USB

Connector	Pin	Signal	I/O	Voltage	Description
YC20	17	GND	-	-	Ground
Connected to the main PWB	18	USBH_DP3	I/O	Analog	
	19	USBH_DN3	I/O	Analog	
	20	GND	-	-	Ground
	21	SDIF_DAT0	I/O	DC0V/3.3V	
	22	SDIF_DAT1	I/O	DC0V/3.3V	
	23	SDIF_DAT2	I/O	DC0V/3.3V	
	24	SDIF_DAT3	I/O	DC0V/3.3V	
	25	SDIF_SDCLK	I	DC0V/3.3V	
	26	GND	-	-	Ground
	27	SH1D	I	DC0V/3.3V	
	28	GND	-	-	Ground
	29	LDOUT_1_DN	I	LVDS	
	30	LDOUT_1_DP	I	LVDS	
	31	GND	-	-	Ground
	32	GND	-	-	Ground
	33	GND	-	-	Ground
	34	GND	-	-	Ground
	35	GND	-	-	Ground
	36	GND	-	-	Ground
	37	GND	-	-	Ground
	38	GND	-	-	Ground
	39	LVU_SLEEP_N	I	DC0V/3.3V	
	40	POWER_SW	O	DC0V/3.3V	
	41	E2C_IRN	O	DC0V/3.3V	
	42	E2C_WKUP_BGD_N	O	DC0V/3.3V	
	43	ENG_HLDN	I	DC0V/3.3V	
	44	C2E_QUICK_START	I	DC0V/3.3V	
	45	PVSYNC	O	DC0V/3.3V	VSYNC
	46	GND	-	-	Ground
	47	P2C_WKUP_RDY	O	DC0V/3.3V	
	48	ENERGYSAVERKEY_N	O	DC0V/3.3V	
	49	C2P_RST_N	I	DC0V/3.3V	Panel reset signal
	50	P2C_SDAT	O	DC0V/3.3V	Panel received data sjgnal

Connector	Pin	Signal	I/O	Voltage	Description
YC20	51	C2P_SDAT	I	DC0V/3.3V	Panel transmitted data signal
Connected to the main PWB	52	GND	-	-	Ground
	53	SDIF_SDCD	O	DC0V/3.3V	Card detect signal
	54	SDIF_INTA	O	DC0V/3.3V	Interrupt signal
	55	SDIF_CMD	I/O	DC0V/3.3V	Command signal
	56	BDN_D	O	DC0V/3.3V	BD signal
	57	SH2D	I	DC0V/3.3V	Sample hold signal
	58	GND	-	-	Ground
	59	LDOUT_2_DN	I	LVDS	
	60	LDOUT_2_DP	I	LVDS	
YC21	1	TH3	I	Analog	FUTH2 output signal
Connected to the fuser thermistor connect PWB	2	TH1	I	Analog	FUTH1output signal
	3	GND	-	-	Ground
	4	REARFANN	O	24 V DC	REFM: On/Off
	5	+24V_F3	O	24 V DC	24 V DC power output to FTHPWB
YC22	1	+24V_F2	O	24 V DC	24 V DC power output to PF
Connected to the paper feeder	2	OPSDO	O	0/3.3 V DC (pulse)	PF communication serial data signal
	3	OPSDI	I	0/3.3 V DC (pulse)	PF communication serial data signal
	4	OPCLK	O	0/3.3 V DC (pulse)	PF communication serial clock signal
	5	OPRDYN	I	0/3.3 V DC	Option communication ready signal
	6	+3.3V3_F1	O	3.3 V DC	3.3 V DC power output to PF
	7	GND	-	-	Ground
	8	OPSEL2	O	0/3.3 V DC	PF select signal
	9	OPSEL1	O	0/3.3 V DC	PF select signal
	10	OPSEL0	O	0/3.3 V DC	PF select signal
	11	OPPAUSEN	O	0/3.3 V DC	Paper stop signal
	12	GND	-	-	Ground
YC23	1	VBUS	O	5 V DC	5 V DC power output to USB host
Connected to the USB host	2	UDATAN	I/O	LVDS	USB data signal (-)
	3	UDATAP	I/O	LVDS	USB data signal (+)
	4	GND	-	-	Ground
	5	GND	-	-	Ground
YC26	1	+3.3V_F2	O	3.3 V DC	3.3 V DC power output to ES
Connected to the eject sensor	2	GND	-	-	Ground
	3	EXITSENSN	I	0/3.3 V DC	ES: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC30	1	+3.3V1_F1	O	3.3 V DC	3.3 V DC power output to OPPWB
Connected to the operation PWB	2	FUPRSTN	O	0/3.3 V DC	OPPWB reset signal
	3	P2C_OK_KEY	I	0/3.3 V DC	OK KEY:On/Off
	4	C2P_BUZCON	O	0/3.3 V DC	Buzzer control signal
	5	AIRTEMP	I	Analog	Temperature sensor input signal
	6	C2P_LCDCON	O	0/5 V DC	LCD: On/Off
	7	+5V5	O	5 V DC	5 V DC power output to LCD
	8	P2C_SDAT	I	0/3.3 V DC	Data signal
	9	AIRWET	I	Analog	Humid sensor input signal
	10	C2P_SDAT	O	0/3.3 V DC	The data signal between panel main
	11	WETCLK	O	0/3.3 V DC (pulse)	Humid sensor clock signal
	12	LED	O	0/3.3 V DC	READY LED control signal
	13	FG	-	-	Ground
	14	GND	-	-	Ground
YC31	1	1WIRE	-	-	-
Connected to the relay-L PWB	2	+24V3_IL_F5	O	24 V DC	24 V DC power output
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	+24V0_F3	O	24 V DC	24 V DC power output

2-3-3 Power source PWB (PSPWB)



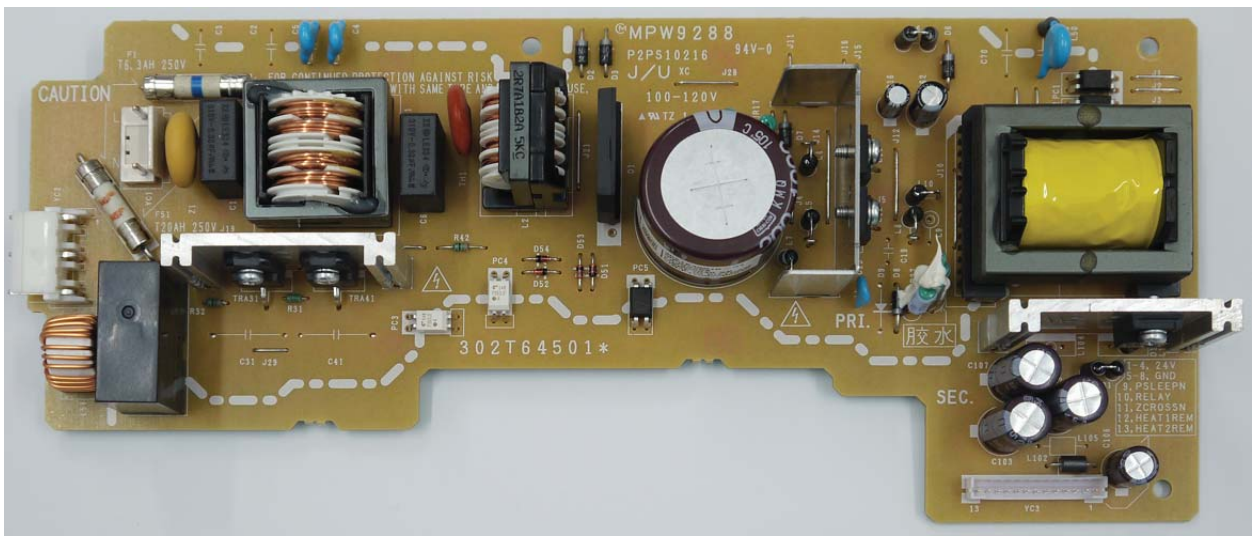
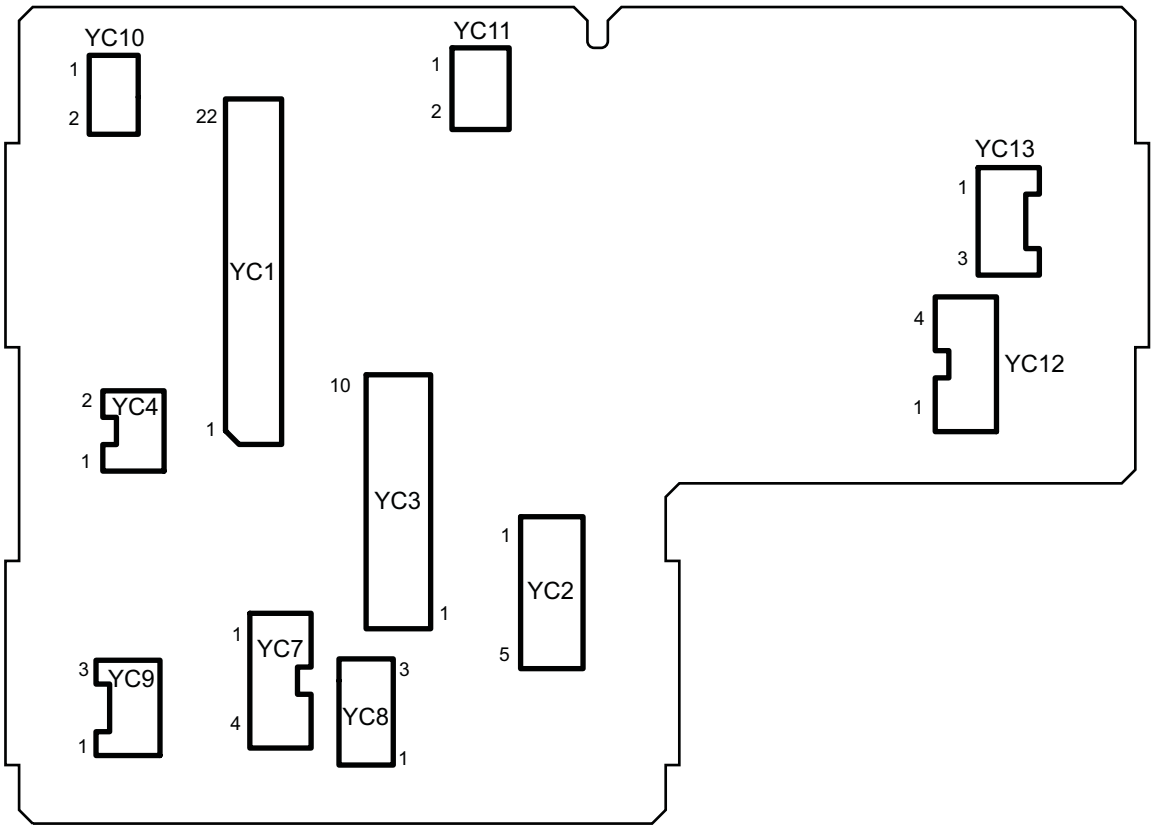


Figure 2-3-3 Power source PWB silk-screen diagram and Photograph

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	LIVE	I	100 V AC	AC power input
Connected to the inlet	2	NEUTRAL	I	100 V AC	AC power input
YC2	1	NEUTRAL1	I	100 V AC	Fuser heater
Connected to the fuser unit	2	LIVE	O	100 V AC	AC power input
	3	NEUTRAL2	I	100 V AC	Fuser heater
YC3	1	+24V0	O	24 V DC	24 V DC power output to EPWB
Connected to the engine PWB	2	+24V0	O	24 V DC	24 V DC power output to EPWB
	3	+24V0	O	24 V DC	24 V DC power output to EPWB
	4	+24V0	O	24 V DC	24 V DC power output to EPWB
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	PSLEEPN	I	0/5 V DC	Sleep mode signal
	10	RELAY	I	0/5 V DC	Relay control
	11	ZCROSSN	O	0/5 V DC(pulse)	Zero crossing signal
	12	HEAT1REM	I	0/24 V DC	Fuser heater control
	13	HEAT2REM	I	0/24 V DC	Fuser heater control

2-3-4 Relay-L PWB (R-LPWB)



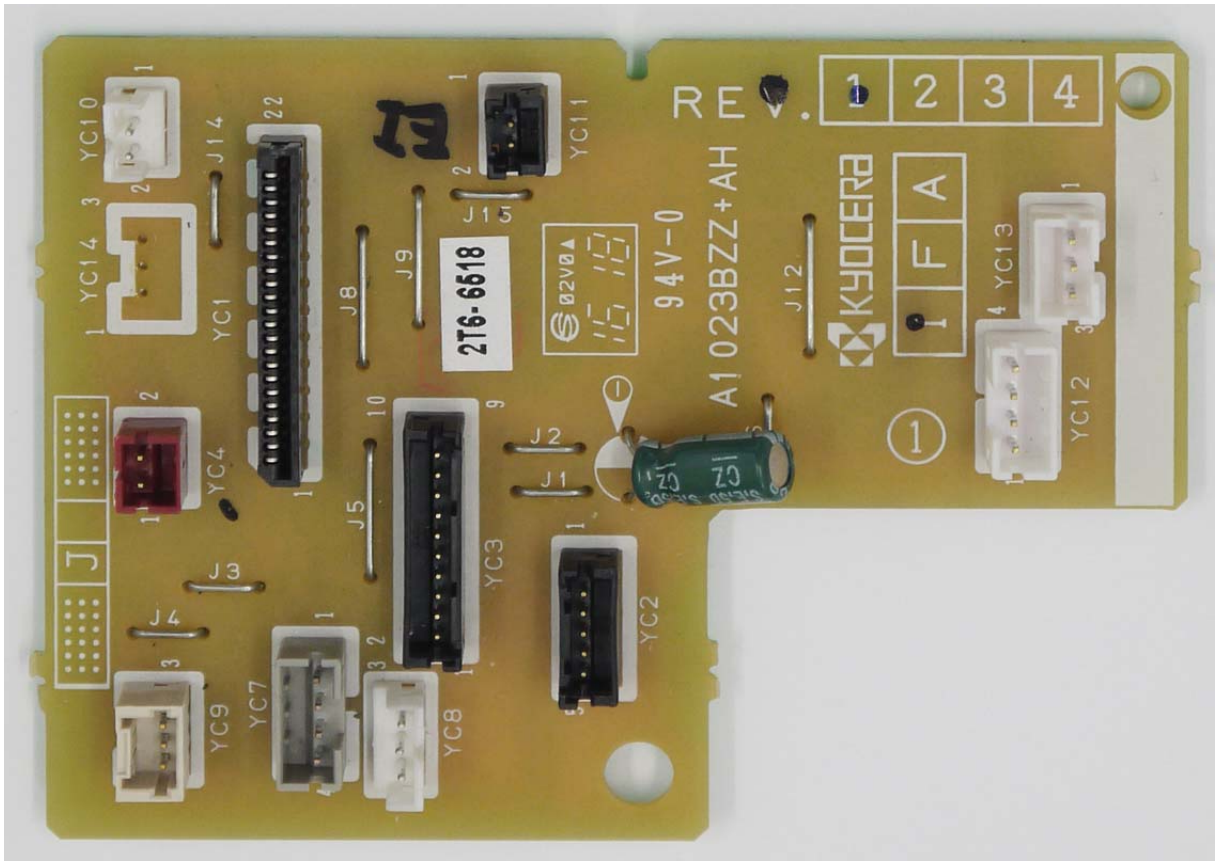


Figure 2-3-4 Relay-L PWB silk-screen diagram and Photograph

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	EECLK	I	0/3.3 V DC(pulse)	Clock signal
Connected to the engine PWB	2	GND	-	-	Ground
	3	EESIO	I/O	0/3.3 V DC	Data signal
	4	ERASER	I	0/3.3 V DC	CL control signal
	5	+3.3V3_F2	I	3.3 V DC	3.3 V DC power input from EPWB
	6	TSENS	O	Analog	TS output signal
	7	SBMDIR	I	0/5 V DC	SBM: On/Off
	8	WTSENS	O	Analog	WTS output signal
	9	SBMENBLN	I	0/3.3 V DC	SBM output control signal
	10	WTLED	I	0/3.3 V DC	Waste toner LED control
	11	SBMSTEP	I	0/3.3 V DC	SBM step signal
	12	MEFSENS	O	0/3.3 V DC	MPS: On/Off
	13	SBMMODE	I	0/3.3 V DC	SBM mode control signal
	14	+3.3V1_PWM_F2	I	3.3 V DC	3.3 V DC power input from EPWB
	15	TMOT	I	0/3.3 V DC	TM: On/Off
	16	LFANN	I	0/24 V DC	LFM: On/Off
	17	FUDR	I	0/24 V DC	FSSOL: On/Off
	18	ENVMOT	I	0/5 V DC	ENVM: On/Off
	19	FDDR	I	0/24 V DC	FSSOL: On/Off
	20	DUJAMSEN1N	O	0/3.3 V DC	DUS1: On/Off
	21	REGSEN2	O	0/3.3 V DC	RS2: On/ Off
	22	REARSWN	O	0/3.3 V DC	RECSW: On/Off
YC2	1	1WIRE	-	-	-
Connected to the engine PWB	2	+24V3_IL_F5	I	24 V DC	24 V DC power input from EPWB
	3	GND		-	Ground
	4	GND		-	Ground
	5	+24V0_F3	I	24 V DC	24 V DC power input from EPWB
YC3	1	TSENS	I	Analog	TS output signal
Connected to the drum connect PWB	2	+24V6	O	24 V DC	24 V DC power output to DRRPWB
	3	ERASERN	O	0/24 V DC	CL: On/Off
	4	EECLK	O	0/24 V DC(pulse)	Clock signal
	5	EESIO	I/O	0/3.3 V DC	Data signal
	6	TMOT	O	0/5 V DC	TM control signal
	7	+3.3V6	O	3.3 V DC	3.3 V DC power output to DRRPWB
	8	GND	-	-	Ground
	9	REGSEN2	I	0/3.3 V DC	RS2: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC4	1	LFANN	-	0/24 V DC	LFM: On/Off
Connected to the LSU fan motor	2	+24V0_F3	O	24 V DC	24 V DC power output to LSUFM
YC7	1	+3.3V12	O	3.3 V DC	3.3 V DC power output to WTS(LED)
Connected to the waste toner sensor	2	WTLEDN	I	0/3.3 V DC	WTS(LED): On/Off
	3	WTSENS	I	Analog	WTS output signal
	4	+3.3V3_F2	O	3.3 V DC	3.3 V DC power output to WTS
YC8	1	+3.3V1_PWM	O	-	3.3 V DC power output to MPS
Connected to the MP paper sensor	2	GND	-	-	Ground
	3	MEFSENS	I	OC	MPS: On/Off
YC9	1	+3.3V11	O	3.3 V DC	3.3 V DC power output to DUS
Connected to the duplex sensor 1 *: 60/55/50 ppm model only	2	GND	-	-	Ground
	3	DUJAMSEN1N	I	0/3.3 V DC	DUS: On/Off
YC10	1	REARSWN	I	0/3.3 V DC	RECSW: On/Off
Connected to the rear cover switch	2	GND	-	-	Ground
YC11	1	ENVMOT	O	0/5 V DC	FUPRM: On/Off
Connected to the fuser pressure release motor	2	GND	-	-	Ground
YC12	1	OUTB3	O	0/3.3 V DC	SBM B3 drive control signal
Connected to the shiftback motor	2	OUTB1	O	0/3.3 V DC	SBM B1 drive control signal
	3	OUTA3	O	0/3.3 V DC	SBM A3 drive control signal
	4	OUTA1	O	0/3.3 V DC	SBM A1 drive control signal
YC13	1	FACEDDRN	O	0/24 V DC	FSSOL: On/Off
Connected to the feed shift solenoid *: 60/55/50 ppm model only	2	+24V6	O	24 V DC	24 V DC power output to FSSOL
	3	FACEUDRN	O	0/24 V DC	FSSOL: On/Off

2-3-5 High voltage PWB (HVPWB)

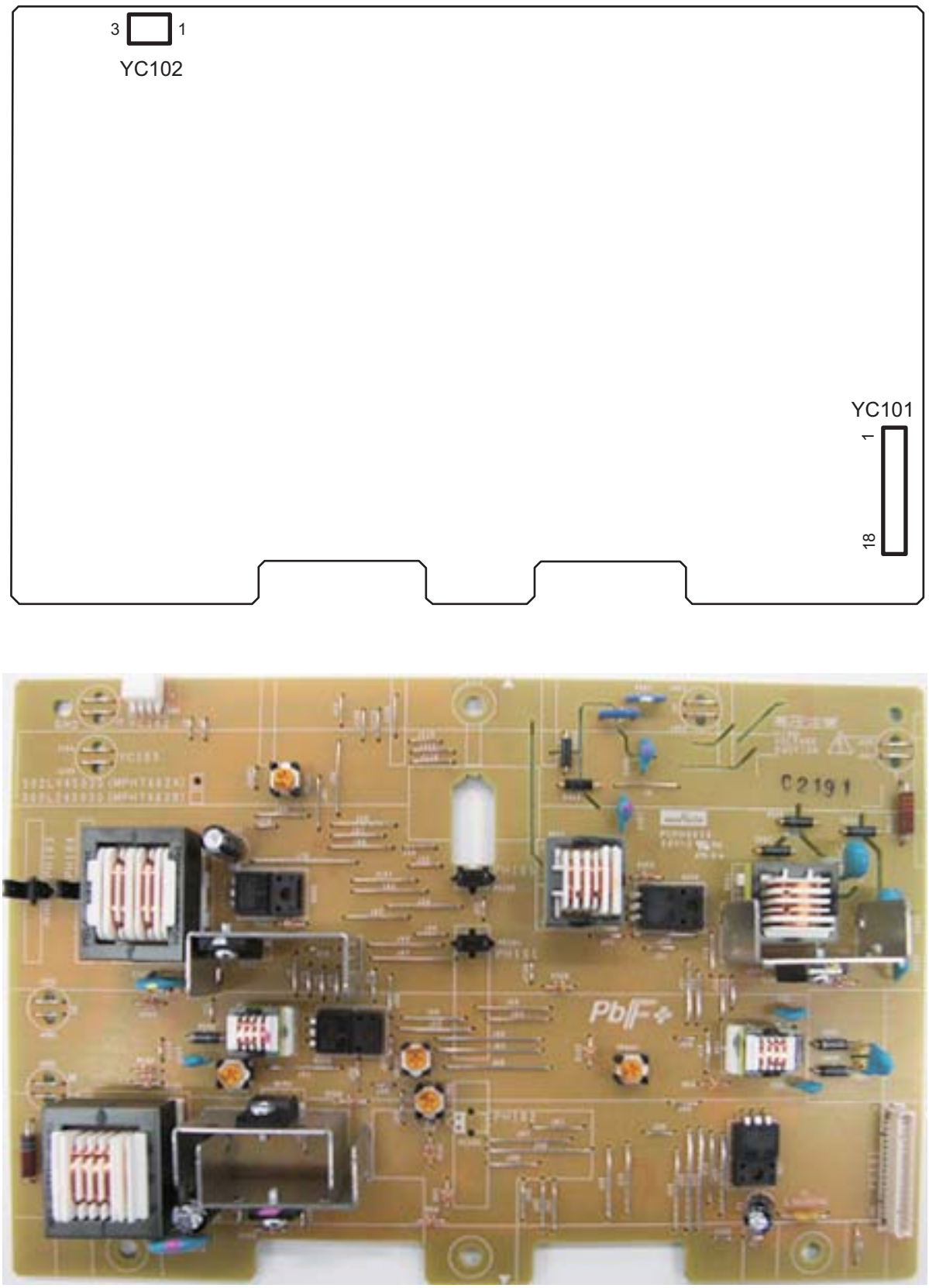


Figure 2-3-5 High voltage silk-screen diagram and Photograph

Connector	Pin	Signal	I/O	Voltage	Description
YC101	1	+24V3_IL	O	24 V DC	24 V DC power output to EPWB
Connected to the engine PWB	2	TCNT	O	Analog	Transfer control
	3	TRREM	O	0/3.3 V DC	Transfer remote signal
	4	SCNT	O	Analog	Separation control
	5	+3.3V_F2	O	3.3 V DC	3.3 V DC power output
	6	DUJAMSEN2N	I	0/3.3 V DC	DUS2:On/Off
	7	REGSENSN	I	0/3.3 V DC	RS:On/Off
	8	PAPERSEN1N	I	0/3.3 V DC	PS1:On/Off
	9	PAPERSEN2N	I	0/3.3 V DC	PS2:On/Off
	10	BACNT	I	Analog	Developer AC control
	11	BDCNT	I	Analog	Developer DC control
	12	HVCLK	O	0/3.3 V DC	Developer clock signal
	13	MDCCNT	I	Analog	Charger DC control
	14	MACCNT	I	Analog	Charger AC control
	15	MHVCLK	O	0/3.3 V DC	Charger clock signal
	16	MISENS	O	Analog	Charger current detection
	17	GND	-	-	Ground
	18	ENVSENSN	I	0/3.3 V DC	ES:On/Off
YC102	1	+3.3V14	O	3.3 V DC	3.3 V DC power output to FUPRS
Connected to the fuser pressure release sensor	2	GND	-	-	Ground
	3	ENVSENSN	I	0/3.3 V DC	FUPRS:On/Off

2-4-1 Appendixes

(1) Maintenance kits

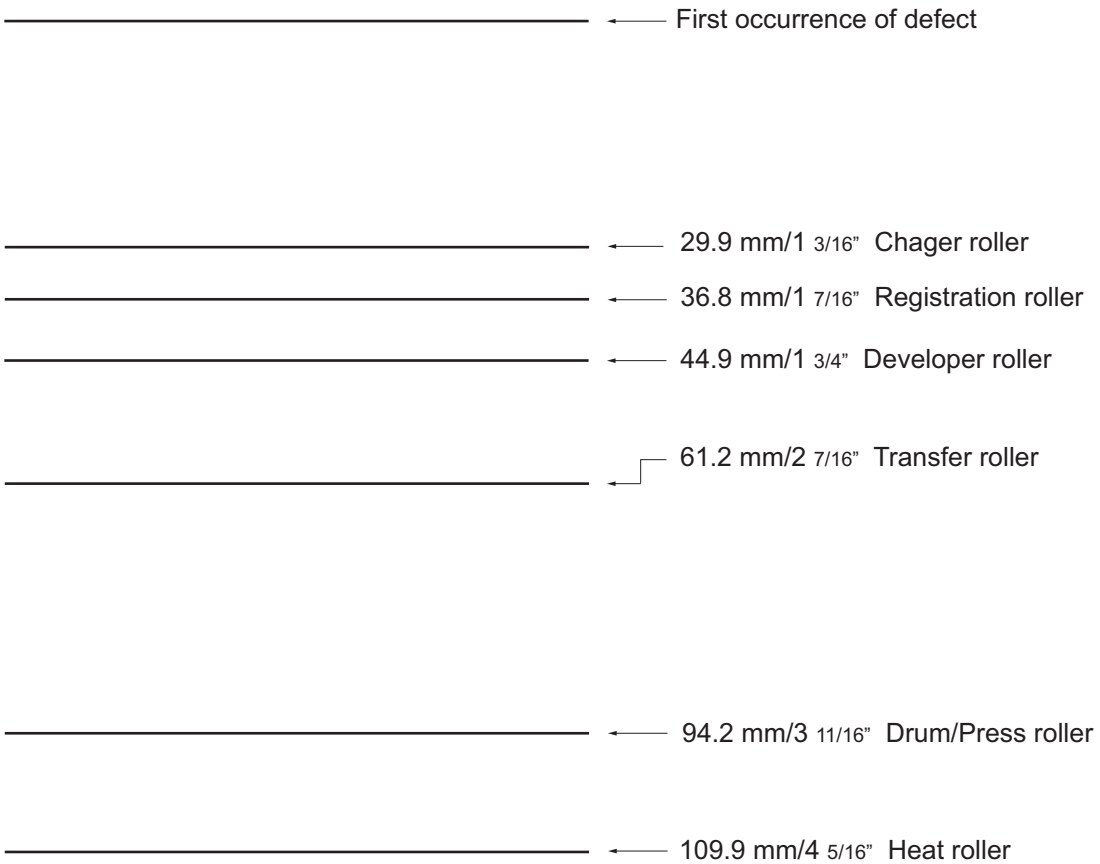
1. 60/55/50 ppm model

Maintenance part name		Parts No.	Alternative part No.
Name used in service	**Name used in parts list**		
MAINTENANCE KIT (500,000 images)	MK-3191/MAINTENANCE KIT MK-3170/MAINTENANCE KIT MK-3172/MAINTENANCE KIT MK-3174/MAINTENANCE KIT	1702T69JP0 1702T68NL0 1702T67US0 1702T68AS0	072T69JP 072T68NL 072T67US 072T68AS
Transfer roller assembly	ROLLER TRANSFER ASSY	-	-
Drum unit	DK-3191(J) DK-3190(E) DK-3192(U) DK-3194(AO)	- - - -	- - - -
Developer unit	DV-3100	-	-
Fuser unit	FK-3130(J) FK-3130(E) FK-3130(U) FK-3130(E) :AO Common	- - - -	- - - -
Paper feed roller assembly	PARTS HOLDER FEED ASSY SP	-	-
Retard roller assembly	RETARD ROLLER ASSY	-	-

2. 45 ppm model

Maintenance part name		Parts No.	Alternative part No.
Name used in service	**Name used in parts list**		
MAINTENANCE KIT (300,000 images)	MK-3161/MAINTENANCE KIT MK-3160/MAINTENANCE KIT MK-3162/MAINTENANCE KIT MK-3164/MAINTENANCE KIT	1702T99JP0 1702T98NL0 1702T97US0 1702T98AS0	072T99JP 072T98NL 072T97US 072T98AS
Transfer roller assembly	ROLLER TRANSFER ASSY	-	-
Drum unit	DK-3171(J) DK-3170(E) DK-3172(U) DK-3174(AO)	- - - -	- - - -
Developer unit	DV-3100	-	-
Fuser unit	FK-3171(J) FK-3170(E) FK-3172(U) FK-3170(E) :AO Common	- - - -	- - - -
Paper feed roller assembly	PARTS HOLDER FEED ASSY SP	-	-
Retard roller assembly	RETARD ROLLER ASSY	-	-

(2) Repetitive defects gauge



(3) 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

Item	FRPO	Setting values	Factory setting
Top margin	A1	Integer value in inches	0
	A2	Fraction value in 1/100 inches	0
Left margin	A3	Integer value in inches	0
	A4	Fraction value in 1/100 inches	0
Page length	A5	Integer value in inches	16
	A6	Fraction value in 1/100 inches	61
Page width	A7	Integer value in inches	16
	A8	Fraction value in 1/100 inches	61
Default pattern resolution	B8	0: 300 dpi 1: 600 dpi	0
Copy count	C0	Number of copies to print:1-999	1
Page orientation	C1	0: Portrait 1: Landscape	0
Default font No.	C2 C3 C5	Middle two digits of power-up font Last two digits of power-up font First two digits of power-up font	0 0 0
PCL font switch	C8	0:HP compatibility mode (Characters higher than 127 are not printed.) 32:Conventional mode (Characters higher than 127 are printed. Supported symbol sets: ISO-60 Norway [00D], ISO-15 Italian [00I], ISO-11 Sweden [00S], ISO-6 ASCII [00U], ISO-4 U.K. [01E], ISO-69 France [01F], ISO-21 Germany [01G], ISO-17 Spain [02S], Symbol [19M)	0

Item	FRPO	Setting values	Factory setting
Printing concentration	D4	1: Thin. 2: Slightly Thin. 3: Standard 4: Slightly Deep. 5: Deep.	3
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5
Form feed time-out value	H9	Value in units of 5 seconds (1 to 99).	1
KIR mode	N0	0: Off 2: On	2
Duplex binding	N4	0: Off 1: Long edge 2: Short edge	0
Sleep timer time-out time	N5	1 to 240 minutes [0: Off]	1
Ecoprint level	N6	0: Off 2: On	0
Resolution	N8	0: 300dpi 1: 600dpi 3: 1200dpi	1
Parallel interface mode	O0	0: Standard Mode 1: Fast Mode 5: Nibble (High Speed) Mode 70: Automatic Mode	70
Parallel interface Error control	O2	0: Line Control OFF 2: Compatibility with PCL	2
Default emulation mode	P1	0 : Line printer 1 : IBM proprinter 2 : DIABLO 630 5 : Epson LQ-850 6 : PCL6 (except PCL XL) 8 : KC-GL 9 : KPDL 11 : PC-PR201 12 : IBM 5577 13 : VP-1000 14 : N5200 15 : FMPR-359F1	6 9(U.S.A)
Carriage-return action *	P2	0: Ignores 0x0d 1: Carriage-return 2: Carriage-return+linefeed	1
Linefeed action *	P3	0: Ignores 0x0d 1: Linefeed 2: Linefeed+carriage-return	1

Item	FRPO	Setting values	Factory setting
Automatic emulation sensing (For KPDL3)	P4	0: AES disabled 1: AES enabled	0 1(U.S.A)
Alternative emulation	P5	6: PCL 6	6
Automatic emulation switching trigger (For KPDL3)	P7	0: Page eject commands 1: None 2: Page eject and PRESCRIBE EXIT 3: PRESCRIBE EXIT 4: Formfeed (^L) 6: Page eject, PRESCRIBE EXIT and formfeed 10: Page eject commands; if AES fails, resolves to KPDL	10 11(U.S.A)
Command recognition character	P9	ASCII code of 33 to 126	82 (R)
Default stacker	R0	1 (Top tray) Face-down 2 (Rear tray) Face-up	1
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches) 3: International DL (11 × 22 cm) 4: International C5 (16.2 × 22.9 cm) 5: Executive (7-1/4 × 10-1/2 inches) 6: US Letter (8-1/2 × 11 inches) 7: US Legal (8-1/2 × 14 inches) 8: A4 (21.0 × 29.7 cm) 9: JIS B5 (18.2 × 25.7 cm) 10: A3 (29.7 ´ 42 cm) 11: B4 (25.7 ´ 36.4 cm) 12: US Ledger (11 ´ 17 inches) 13: ISO A5 14: A6 (10.5 × 14.8 cm) 15: JIS B6 (12.8 × 18.2 cm) 16: Commercial #9 (3-7/8 × 8-7/8 inches) 17: Commercial #6 (3-5/8 × 6-1/2 inches) 18: ISO B5 (17.6 × 25 cm) 19: Custom (11.7 × 17.7 inches) 30: C4 (22.9 ´ 32.4 cm) 31: Hagaki (10 × 14.8 cm) 32: Ofuku-hagaki (14.8 × 20 cm) 33: Officio II 39: 8K 40: 16K 42: 216x340 50: Statement 51: Folio 52: Youkei 2 53: Youkei 4	0

Item	FRPO	Setting values	Factory setting
Default cassette	R4	0: MP tray 1: Cassette 1 2: Cassette 2 3: Cassette 3	1
MP tray paper size	R7	Same as the R2 values except: 0	8 6 (U.S.A)
A4/letter equation	S4	0: Off 1: On	1
Host buffer size	S5	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8)	1
RAM disk size	S6	1 to 1024 MB	16
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
Line spacing	U1	Lines per inch (fraction value)	0
Character spacing	U2	Characters per inch (integer value)	10
Character spacing	U3	Characters per inch (fraction value)	0

Item	FRPO	Setting values	Factory setting
Country code	U6	0: US-ASCII 1: France 2: Germany 3: UK 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US Legal 10: IBM PC-850 (Multilingual) 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 21: US ASCII (U7 = 50 SET) 77: HP Roman-8 (U7 = 52 SET)	41
Code set at power up in daisy-wheel emulation	U7	0: Same as the default emulation mode (P1) 1: IBM 6: IBM PC-8 50: US ASCII (U6 = 21 SET) 52: HP Roman-8 (U6 = 77 SET)	53
Font pitch for fixed pitch scalable font	U8	Integer value in cpi: 0 to 99	10
	U9	Fraction value in 1/100 cpi: 0 to 99	0
Font height for the default scalable font	V0	Integer value in 100 points: 0 to 9	0
	V1	Integer value in points: 0 to 99	12
	V2	Fraction value in 1/100 points: 0, 25, 50, 75	0
Default scalable font	V3	Name of typeface of up to 32 characters, enclosed with single or double quotation marks	Courier
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

Item	FRPO	Setting values	Factory setting
Paper type for the MP tray	X0	1: Plain 1 2: Transparency 3: Preprinted 4: Label 5: Bond 6: Recycle 7: Vellum 9: Letterhead 10: Color 11: Prepunched 12: Envelope 13: Cardstock 16: Thick 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1
Paper type for paper cassettes 1	X1	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1

Item	FRPO	Setting values	Factory setting
Paper type for paper cassettes 2 to 5	X2 X3 X4 X5	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1
PCL paper source	X9	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
Automatic continue for ‘Press GO’	Y0	0: Off 1: On	0
Automatic continue timer	Y1	Number from 1 to 99 in increments of 5 seconds	6 (30 secons)
Heater ON/OFF switch	Y2	0: Heater OFF at the time of "Ready" 1: Heater ON at the time of "Ready"	0
Error message for device error	Y3	0: Not detect 64: Detect	64

Item	FRPO	Setting values	Factory setting
Forced duplex printing setting (Media type is Preprinted, Pre-punched 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

(4) Maintenance Commands

This section provides information on how to use the maintenance command and its parameters using examples.

Adjusting the print start timing (alternative command for the maintenance mode U034)

Description

Adjusts the leading edge registration or left edge.

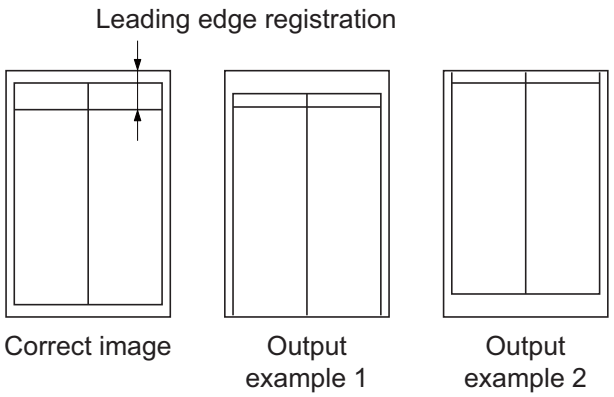
Purpose

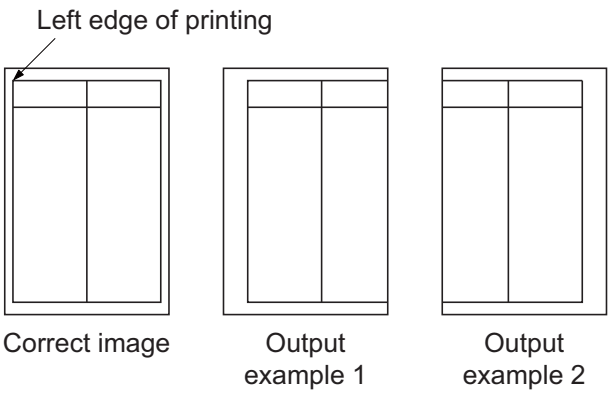
Make the adjustment if there is a regular error between the leading edges of the copy image and original.
Make the adjustment if there is a regular error between the left edges of the copy image and original.

Format	!R! KCFG“PFRC”,#1 ,#2 ,#3;	
Parameter	#1	Paper source number 0: MP tray 2-6 : Cassette2-6 100: Duplex (e.g. landscape images short-edge bind) 200: Rotated duplex (e.g. portrait images long-edge bind)
	#2	Edge to adjust 1: Leading edge 2: Left edge
	#3	Adjustable range (-70 to +70) number of dot in 600dpi

Example: Set the leading edge of MP tray to +30 dots

!R! KCFG “PFRC”,0,1,30;EXIT;





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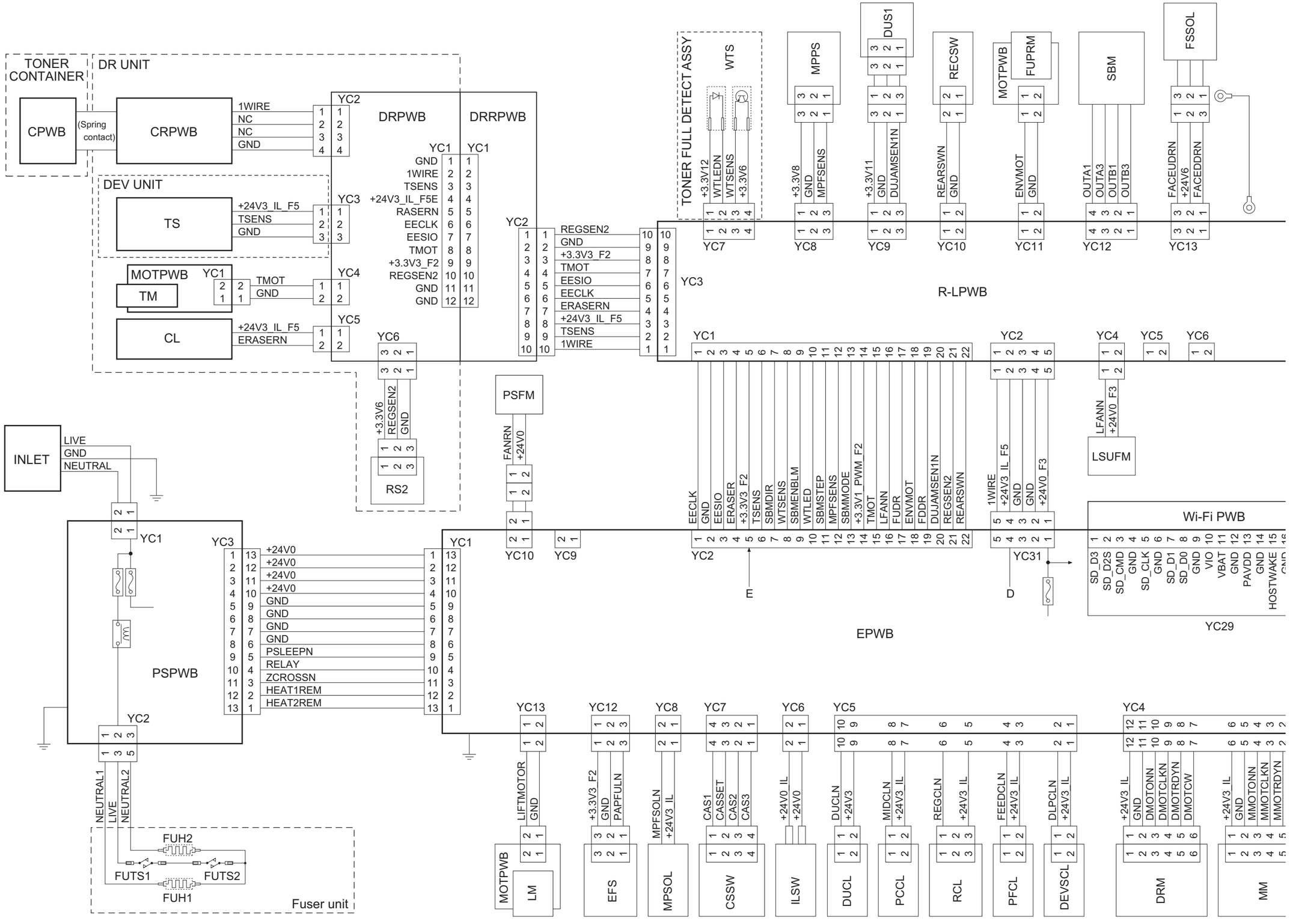
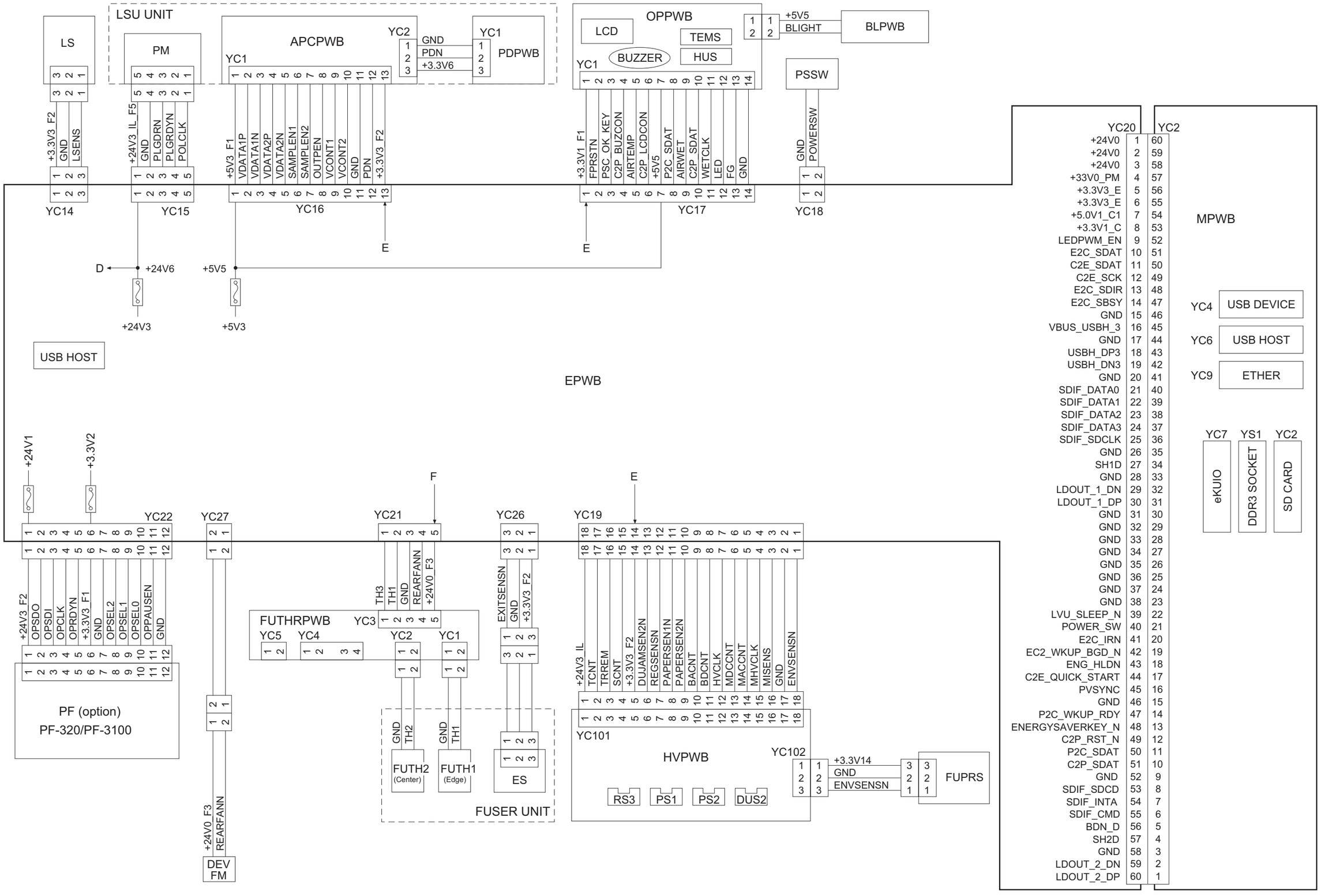
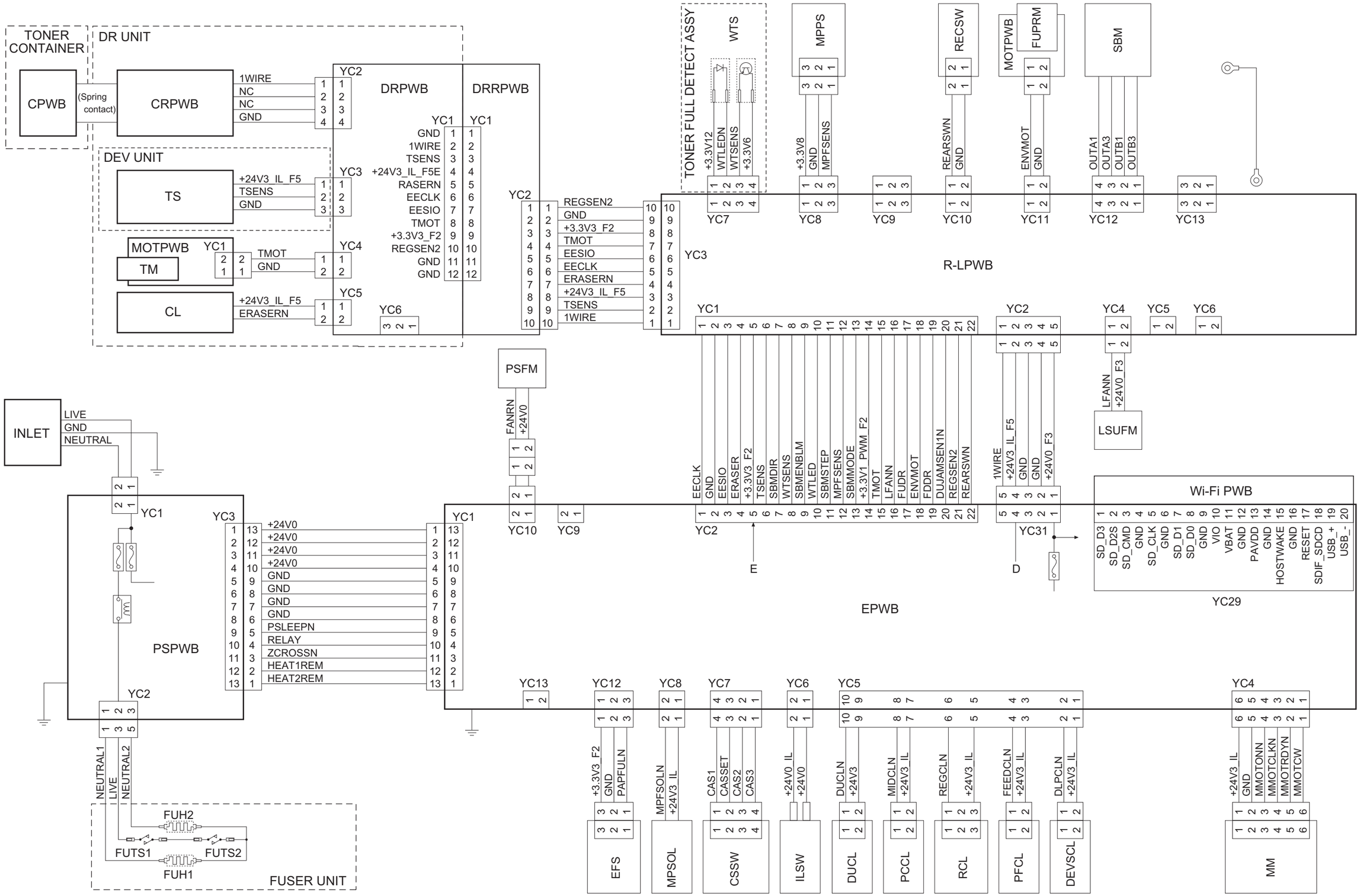
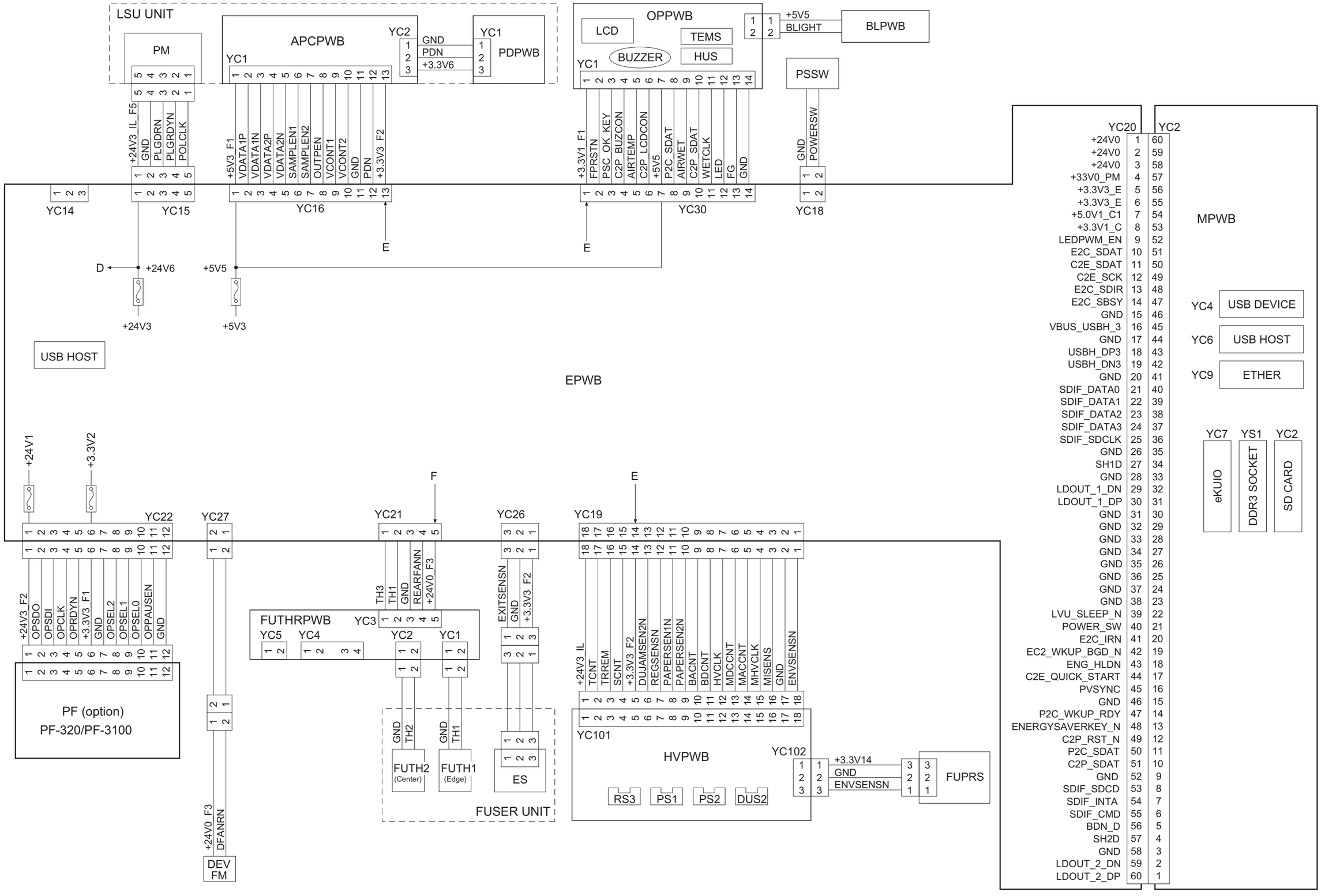
(5) Wiring diagram (60/55/50 ppm model)




LSU UNIT
LS
PM
APCPWB
YC2
GND
PDN
+3.3V6
YC1
PDPWB
OPPWB
LCD
TEMS
BUZZER
HUS
+5V5
BLIGHT
BLPWB
PSSW
+3.3V3_F2
GND
LSENS
+24V3_IL_F5
PLGDRN
PLGRDYN
POLCLK
+5V3_F1
VDATA1P
VDATA1N
VDATA2P
VDATA2N
SAMPLEN1
SAMPLEN2
OUTPEN
VCONT1
VCONT2
PDN
+3.3V3_F2
+3.3V1_F1
FPRSTN
PSC_OK_KEY
C2P_BUZCON
AIRTEMP
C2P_LCDCON
+5V5
P2C_SDAT
AIRWET
C2P_SDAT
WETCLK
LED
FG
POWERSW
YC14
YC15
YC16
YC17
YC18
D
+24V6
+24V3
+5V5
+5V3
E
USB HOST
EPWB
YC20
YC2
+24V0
+33V0_PM
+3.3V3_E
+5.0V1_C
+3.3V1_C
LEDPWM_EN
E2C_SDAT
C2E_SDAT
C2E_SCK
E2C_SDIR
E2C_SBSY
VBUS_USBH_3
USBH_DP3
USBH_DN3
SDIF_DATA0
SDIF_DATA1
SDIF_DATA2
SDIF_DATA3
SDIF_SDCLK
SH1D
LDOUT_1_DN
LDOUT_1_DP
LDOUT_2_DN
LDOUT_2_DP
LVU_SLEEP_N
POWER_SW
E2C_IRN
EC2_WKUP_BGD_N
ENG_HLDN
C2E_QUICK_START
PVSYNC
P2C_WKUP_RDY
ENERGYSAVERKEY_N
C2P_RST_N
P2C_SDAT
C2P_SDAT
SDIF_SDCD
SDIF_INTA
SDIF_CMD
BDN_D
SH2D
MPWB
YC4
USB DEVICE
YC6
USB HOST
YC9
ETHER
YC7
YS1
YC2
eKUIO
DDR3 SOCKET
SD CARD
+24V1
+3.3V2
YC22
YC27
YC21
YC26
YC19
+24V3_F2
OPSDO
OPSDI
OPCLK
OPRDYN
+3.3V3_F1
GND
OPSEL2
OPSEL1
OPSEL0
OPPAUSEN
GND
PF (option)
PF-320/PF-320-3100
+24V0_F3
REARFANN
DEV FM
F
TH3
TH1
GND
REARFANN
+24V0_F3
FUTHRPWB
YC3
YC5
YC4
YC2
YC1
EXITSENSN
GND
+3.3V3_F2
GND
TH2
GND
TH1
FUTH2
(Center)
FUTH1
(Edge)
ES
FUSER UNIT
+24V3_IL
TCNT
TRREM
SCNT
+3.3V3_F2
DUJAMSEN2N
REGSENSN
PAPERSEN1N
PAPERSEN2N
BACNT
BDCNT
HVCLK
MDCCNT
MACCNT
MHVCLK
MISENS
GND
ENVSENSN
YC101
HVPWB
YC102
+3.3V14
GND
ENVSENSN
FUPRS
RS3
PS1
PS2
DUS2

(6) Wiring diagram (45ppm model)



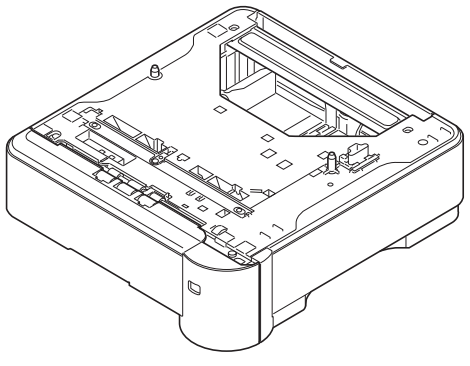

LSU UNIT
PM
APCPWB
YC1
YC2
GND
PDN
+3.3V6
PDPWB
OPPWB
LCD
TEMS
BUZZER
HUS
+5V5
BLIGHT
BLPWB
PSSW
GND
POWERSW
+24V3_IL_F5
GND
PLGDRN
PLGRDYN
POLCLK
+5V3_F1
VDATA1P
VDATA1N
VDATA2P
VDATA2N
SAMPLEN1
SAMPLEN2
OUTPEN
VCONT1
VCONT2
GND
PDN
+3.3V3_F2
+3.3V1_F1
FPRSTN
PSC_OK_KEY
C2P_BUZCON
AIRTEMP
C2P_LCDCON
+5V5
P2C_SDAT
AIRWET
C2P_SDAT
WETCLK
LED
FG
GND
YC14
YC15
YC16
YC30
YC18
E
E
D
+24V6
+5V5
+24V3
+5V3
USB HOST
EPWB
YC20
YC2
+24V0 1 60
+24V0 2 59
+24V0 3 58
+33V0_PM 4 57
+3.3V3_E 5 56
+3.3V3_E 6 55
+5.0V1_C1 7 54
+3.3V1_C 8 53
LEDPWM_EN 9 52
E2C_SDAT 10 51
C2E_SDAT 11 50
C2E_SCK 12 49
E2C_SDIR 13 48
E2C_SBSY 14 47
GND 15 46
VBUS_USBH_3 16 45
GND 17 44
USBH_DP3 18 43
USBH_DN3 19 42
GND 20 41
SDIF_DATA0 21 40
SDIF_DATA1 22 39
SDIF_DATA2 23 38
SDIF_DATA3 24 37
SDIF_SDCLK 25 36
GND 26 35
SH1D 27 34
GND 28 33
LDOUT_1_DN 29 32
LDOUT_1_DP 30 31
GND 31 30
GND 32 29
GND 33 28
GND 34 27
GND 35 26
GND 36 25
GND 37 24
GND 38 23
LVU_SLEEP_N 39 22
POWER_SW 40 21
E2C_IRN 41 20
EC2_WKUP_BGD_N 42 19
ENG_HLDN 43 18
C2E_QUICK_START 44 17
PVSYNC 45 16
GND 46 15
P2C_WKUP_RDY 47 14
ENERGYSAVERKEY_N 48 13
C2P_RST_N 49 12
P2C_SDAT 50 11
C2P_SDAT 51 10
GND 52 9
SDIF_SDCD 53 8
SDIF_INTA 54 7
SDIF_CMD 55 6
BDN_D 56 5
SH2D 57 4
GND 58 3
LDOUT_2_DN 59 2
LDOUT_2_DP 60 1
MPWB
YC4
USB DEVICE
YC6
USB HOST
YC9
ETHER
YC7
YS1
YC2
eKUIO
DDR3 SOCKET
SD CARD
+24V1
+3.3V2
YC22
YC27
YC21
YC26
YC19
F
E
+24V3_F2
OPSDO
OPSDI
OPCLK
OPRDYN
+3.3V3_F1
GND
OPSEL2
OPSEL1
OPSEL0
OPPAUSEN
GND
PF (option)
PF-320/PF-3100
+24V0_F3
DFANRN
DEV FM
TH3
TH1
GND
REARFANN
+24V0_F3
FUTHRPWB
YC3
YC5
YC4
YC2
YC1
EXITSENSN
GND
+3.3V3_F2
GND
TH2
GND
TH1
FUTH2
(Center)
FUTH1
(Edge)
ES
FUSER UNIT
+24V3_IL
TCNT
TRREM
SCNT
+3.3V3_F2
DUJAMSEN2N
REGSENSN
PAPERSEN1N
PAPERSEN2N
BACNT
BDCNT
HVCLK
MDCCNT
MACCNT
MHVCLK
MISENS
GND
ENVSENSN
YC101
HVPWB
YC102
+3.3V14
GND
ENVSENSN
FUPRS
RS3
PS1
PS2
DUS2

500 sheets paper feeder Installation Guide

PF-320

Installation Guide
Installationsanleitung
Guide d'installation
Guida all'installazione
Guía de instalación
安装手册
설치안내서
インストールガイド

303NY5631002



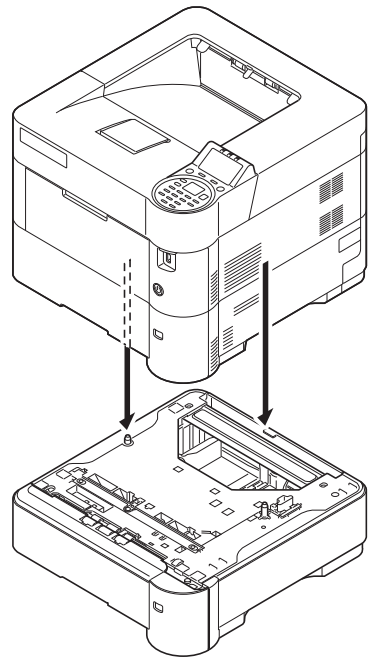
For U.S.A.:

To install the optional paper feeder unit, contact your service representative.
This unit is for use only with Laser Printers, Models FS-2100D, FS-2100DN, FS-4100DN, FS-4200DN and FS-4300DN.

For Canada:

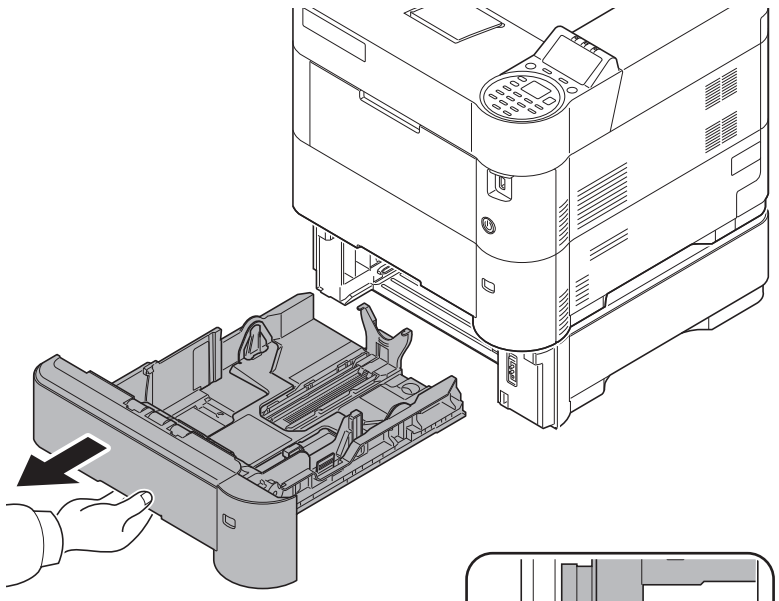
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Installation of PF-320
Installation von PF-320
Installation de PF-320
Installazione di PF-320
Instalación de PF-320
PF-320的安装
PF-320 설치
PF-320の設置



Adjustment of paper size
Justage des Papierformats
Ajustement de format papier
Registrazione del formato carta
Ajuste del tamaño del papel
纸张大小的调整
용지 크기의 조정
用紙サイズの調整

1



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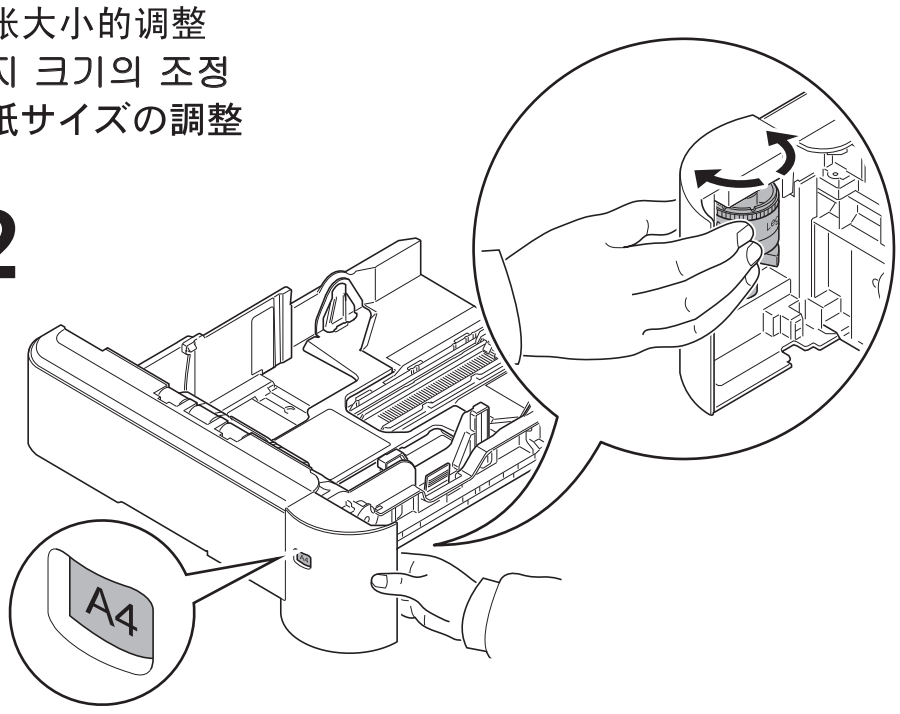

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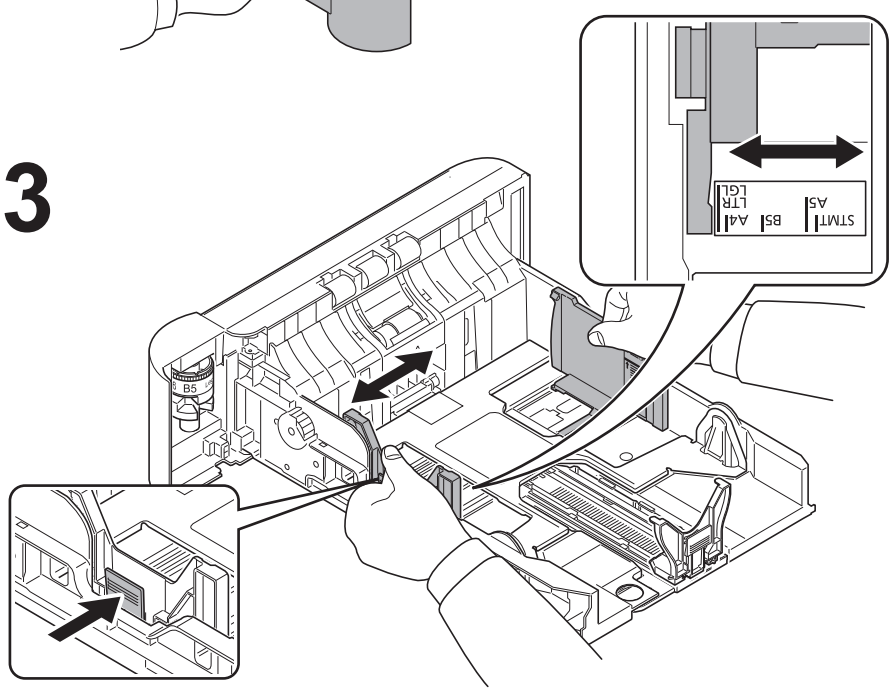

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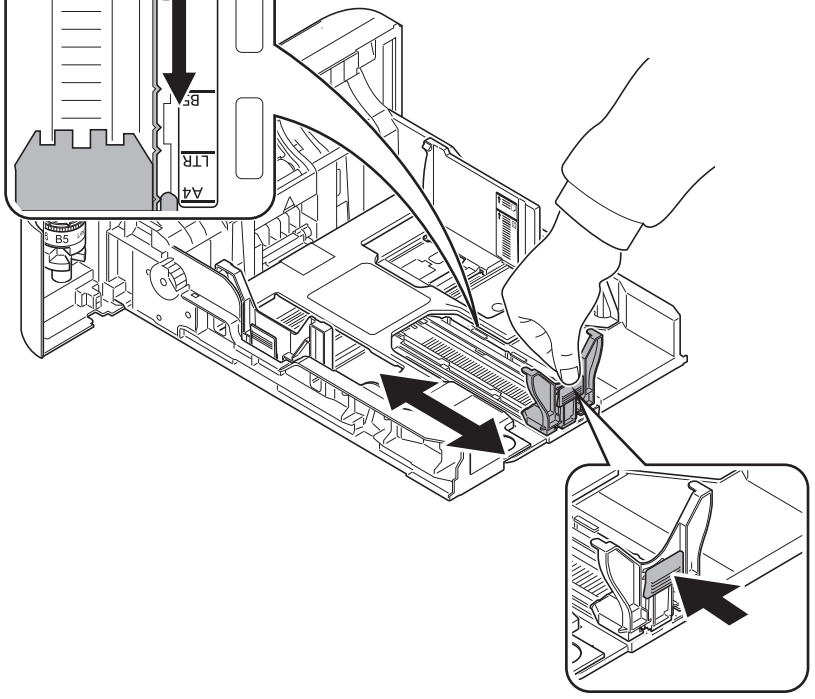
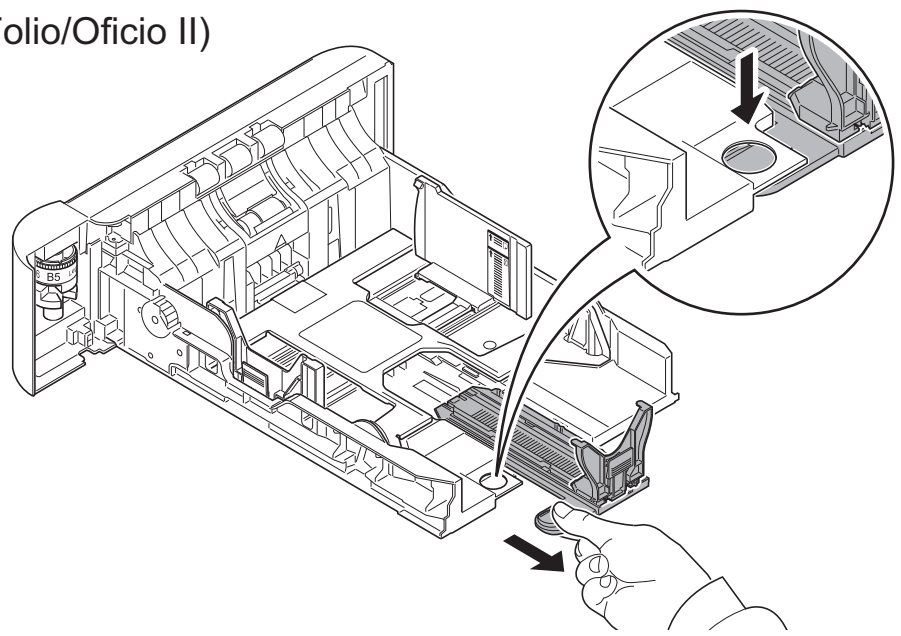


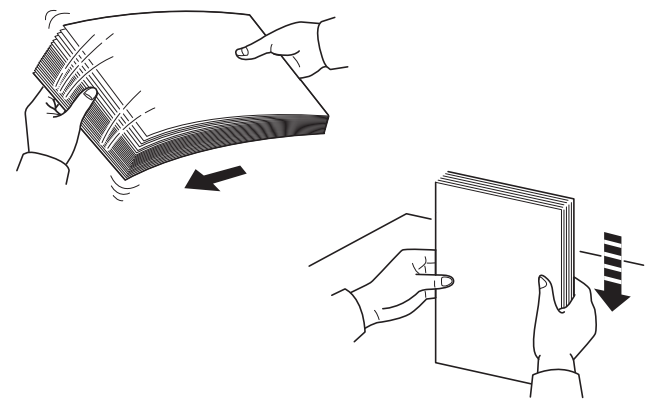
(Legal/Folio/Oficio II)



2

Loading paper
Ladenpapier
Papier de chargement
Carta da caricamento
Papel del cargamento
装纸
용지 적재
用紙のセット

5



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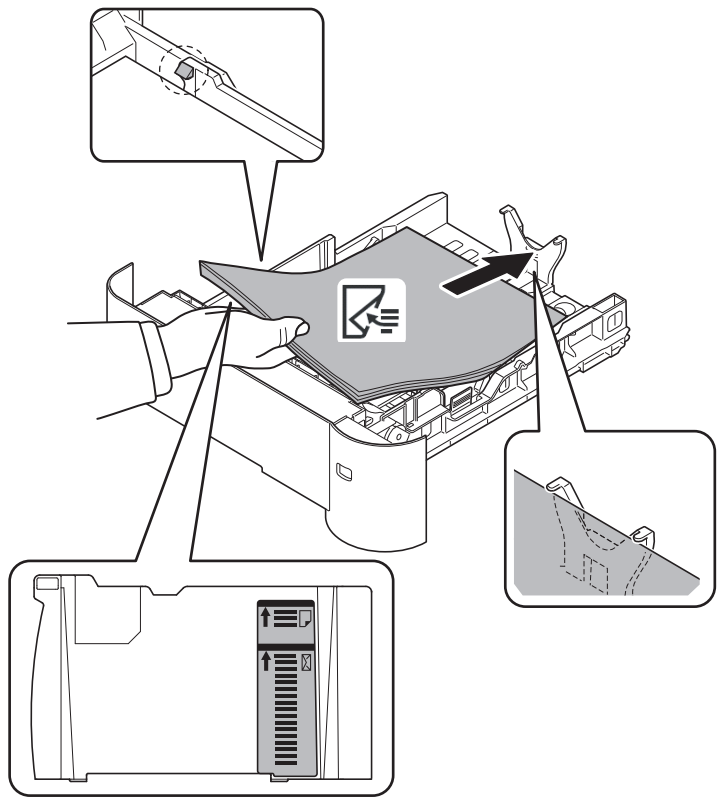

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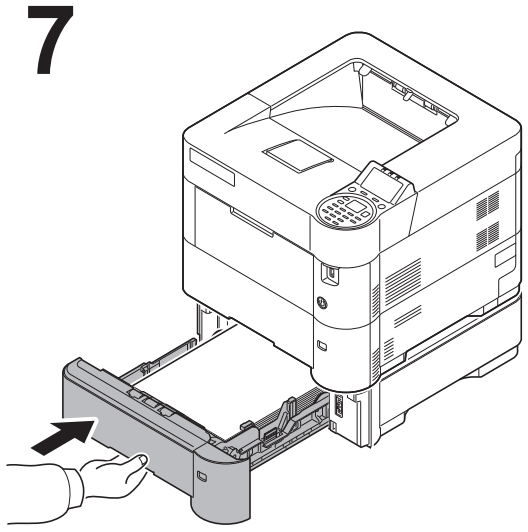
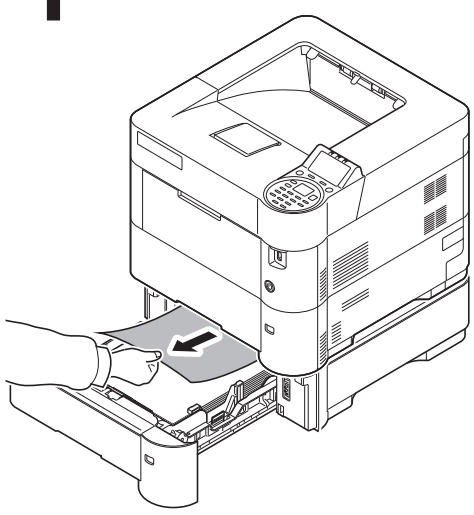


Removing Paper Jams
Entfernen von Papierstaus
Solution pour les bourrages papier
Rimozione degli inceppamenti carta
Eliminación de los atascos de papel
取出卡纸
종이 잼 제거
紙づまりの処理

1



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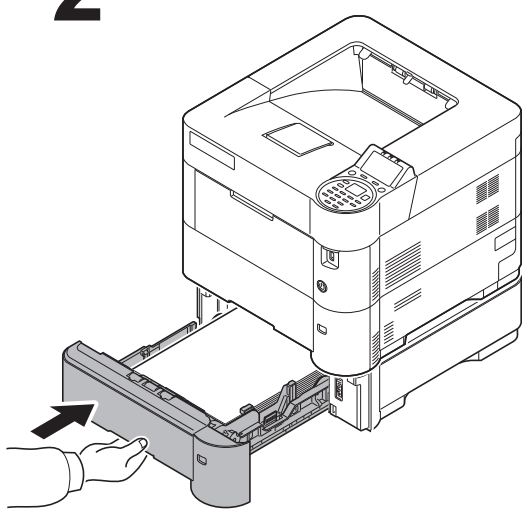


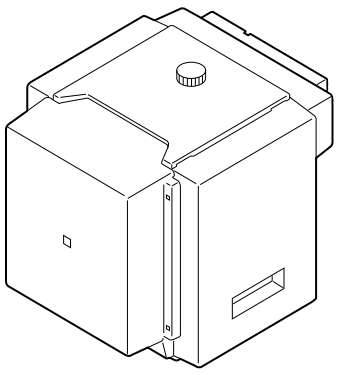
Printed in China 303NY5631002 Rev. 1 2012.8

2000 sheets bulk feeder
Installation Guide

PF-315+

Installation Guide
Installationsanleitung
Guide d'installation
Guida all'installazione
Guía de instalación
安装手册
설치안내서
インストールガイド

303KF5632002



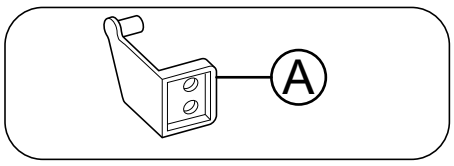
For U.S.A.:

To install the optional paper feeder unit, contact your service representative. This unit is for use only with Laser Printers, Models FS-2100D, FS-2100DN, FS-4100DN, FS-4200DN and FS-4300DN.

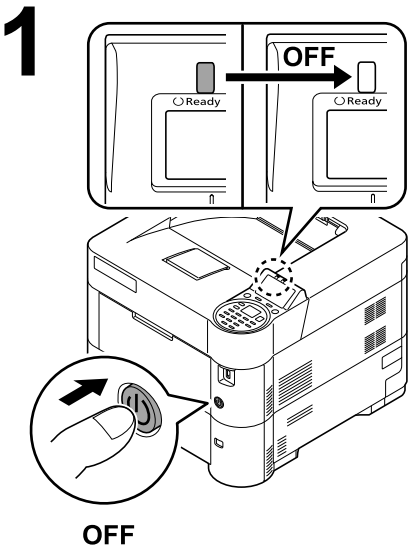
For Canada:

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Installation of PF-315+
Installation von PF-315+
Installation de PF-315+
Installazione di PF-315+
Instalación de PF-315+
PF-315+的安装
PF-315+ 설치
PF-315+の設置

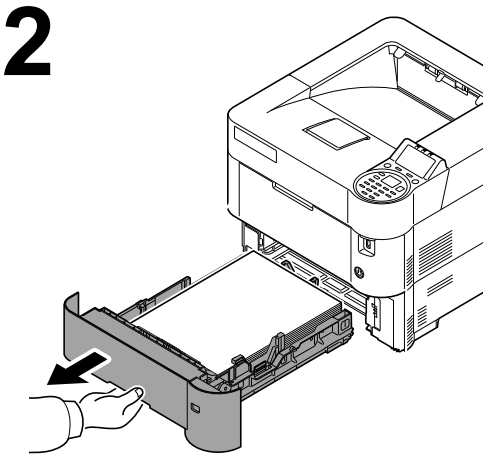


1



OFF

2



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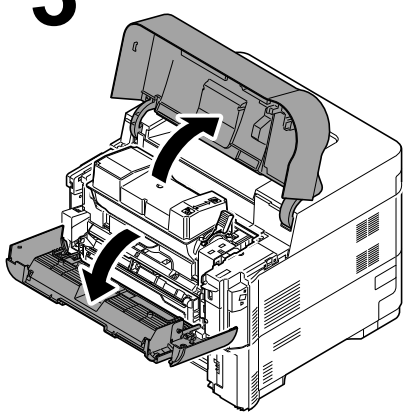

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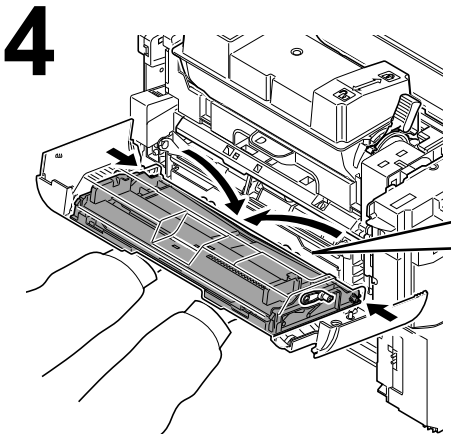

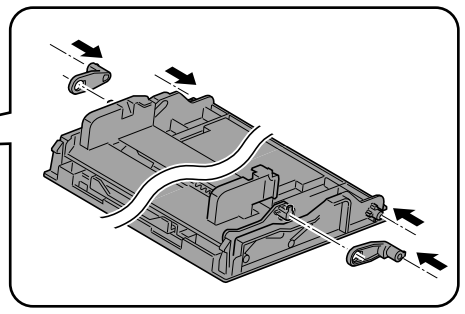

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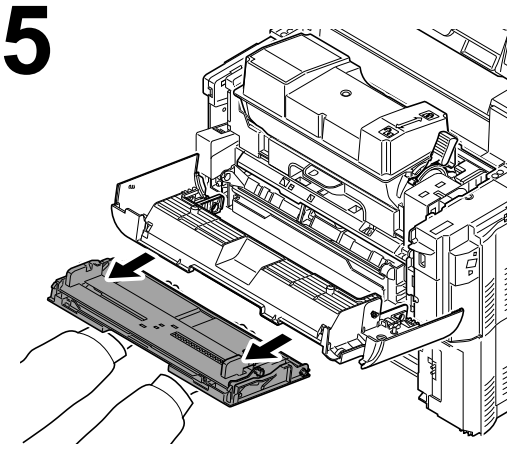

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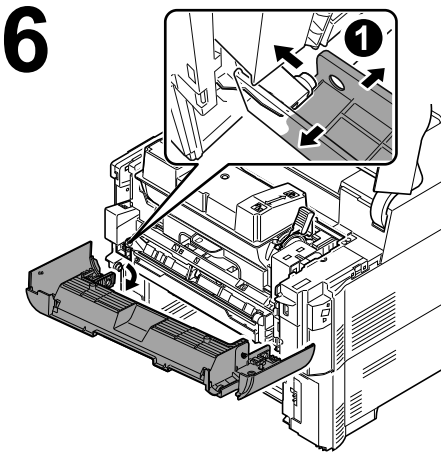

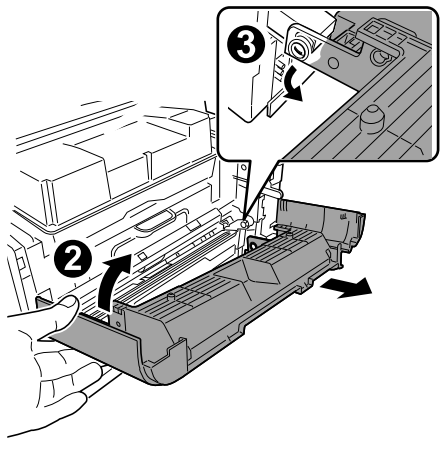

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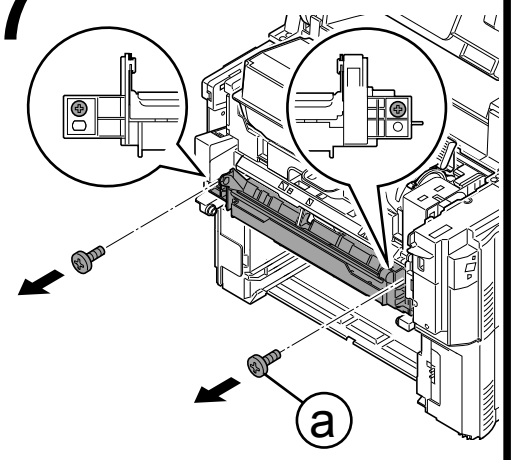

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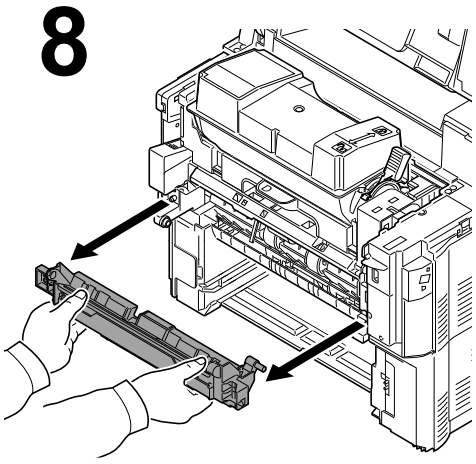

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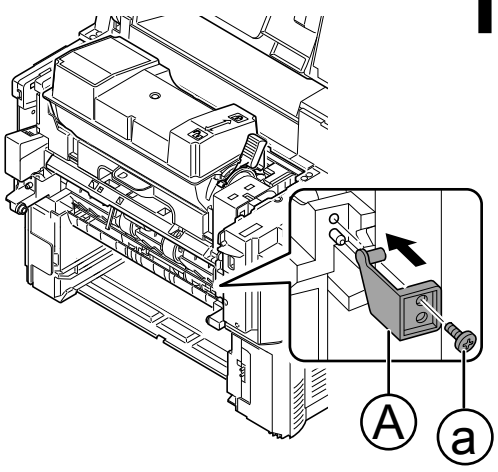

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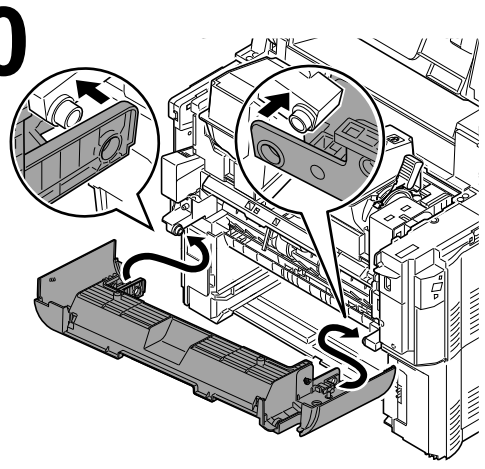

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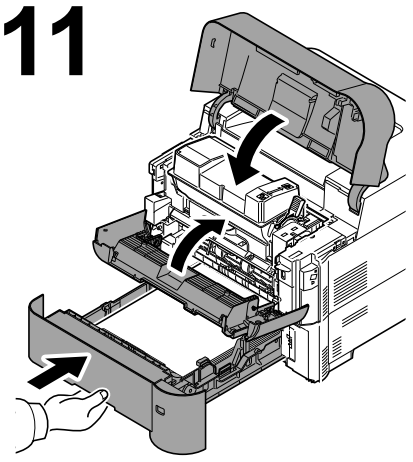

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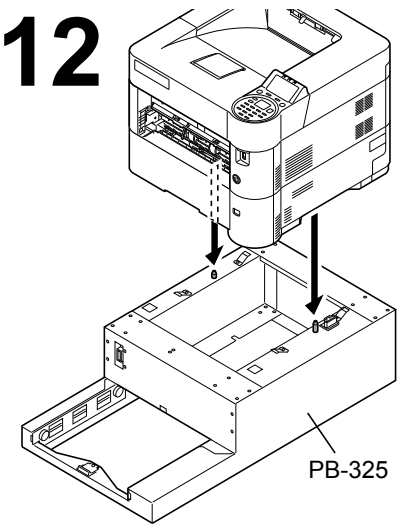

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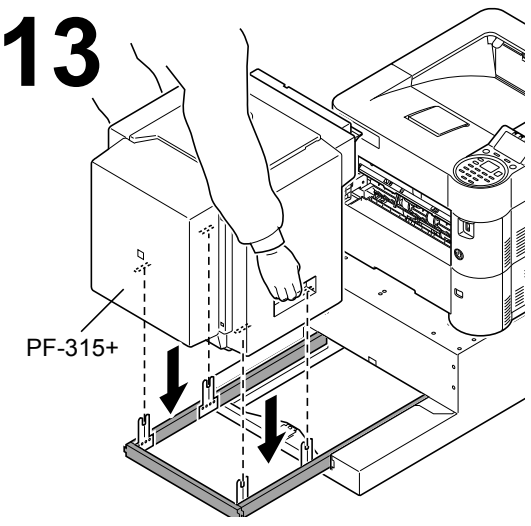

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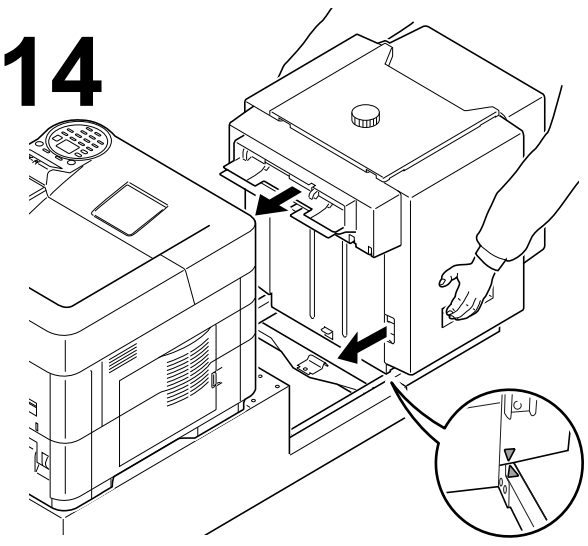

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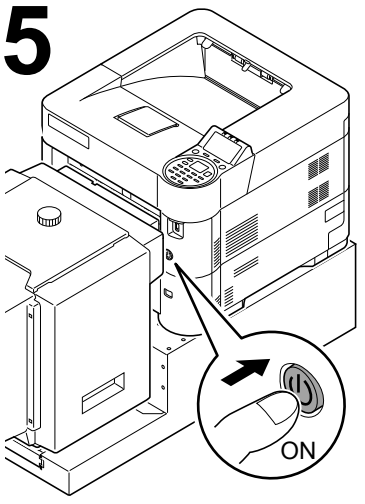
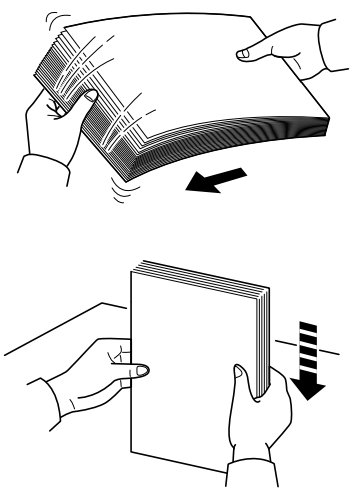


2

Loading paper
Ladenpapier
Papier de chargement
Carta da caricamento
Papel del cargamento
装纸
용지 적재
用紙のセット

1



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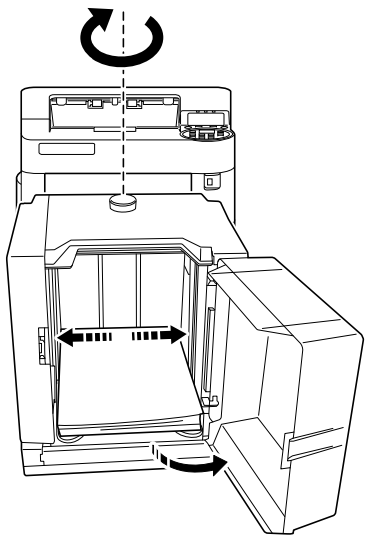

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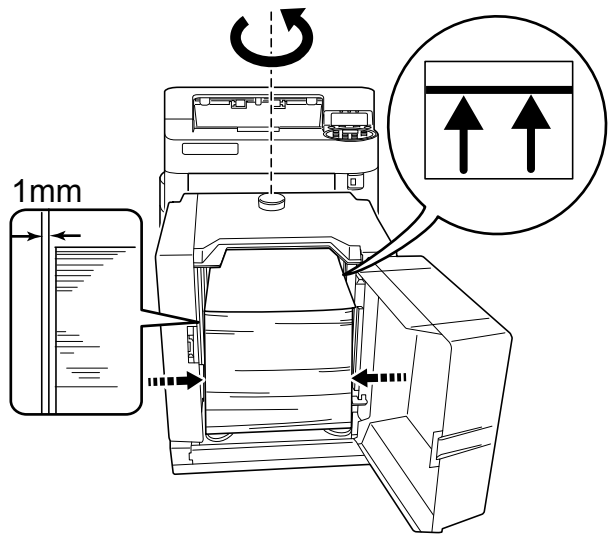
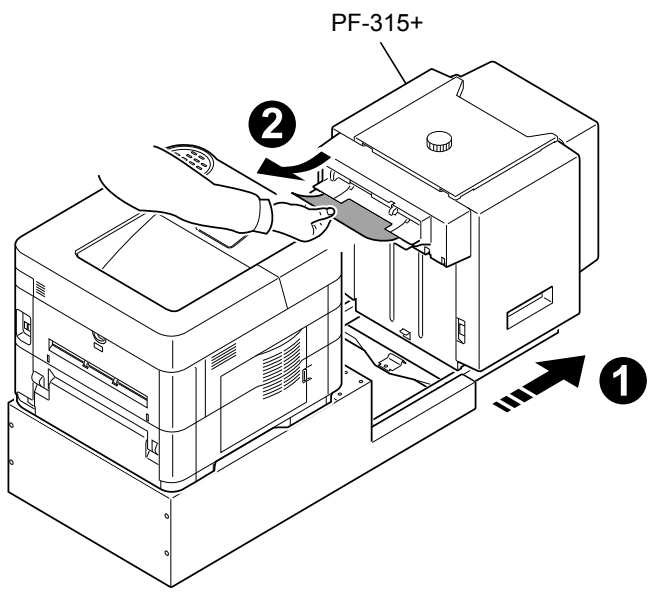
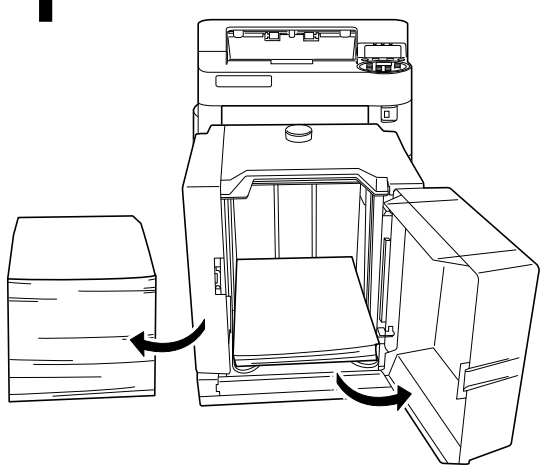


Removing Paper Jams
Entfernen von Papierstaus
Solution pour les bourrages papier
Rimozione degli inceppamenti carta
Eliminación de los atascos de papel
取出卡纸
종이 잼 제거
紙づまりの処理



Duplex unit
Duplex Einheit
Unité recto verso
Unità fronte/retro
Unidad dúplex
双面器
양면 장치
両面ユニット

1



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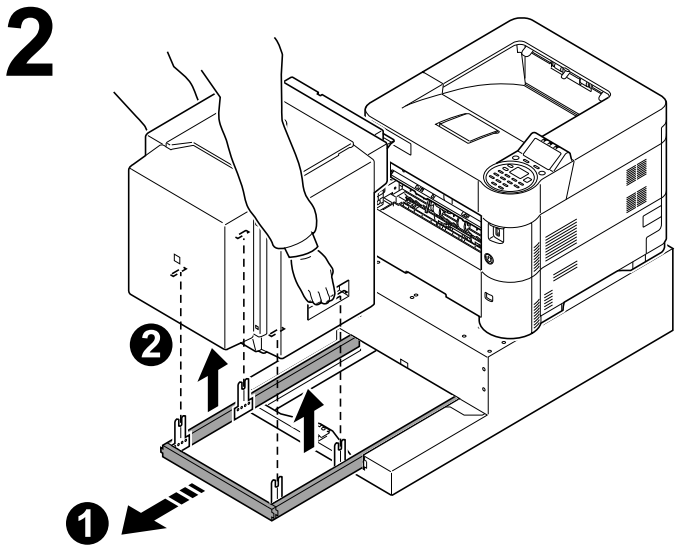

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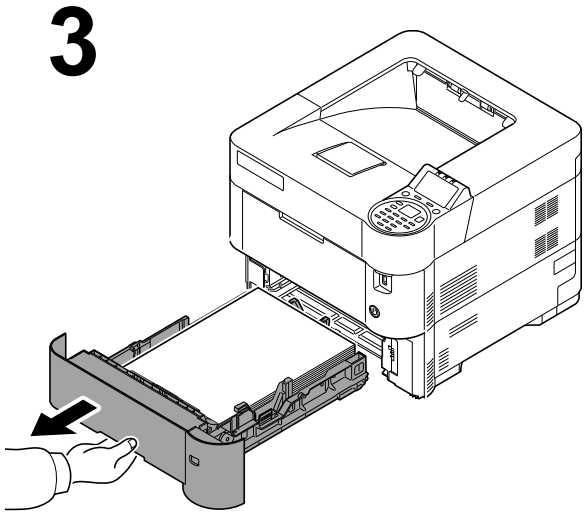

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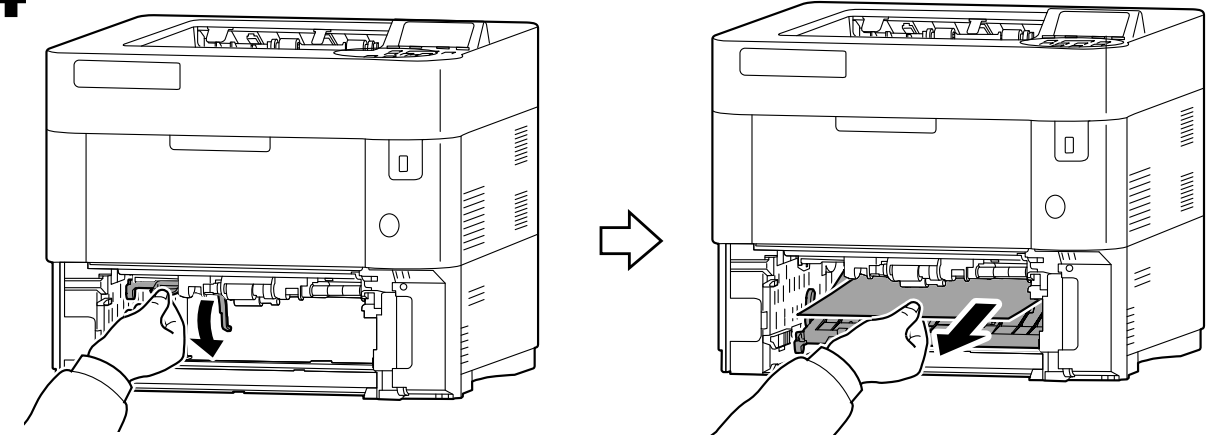

Printed in China 303KF5632002 Rev. 1 2012.7

SSD (HD-6/HD-7)
Installation Guide

KYOCERA

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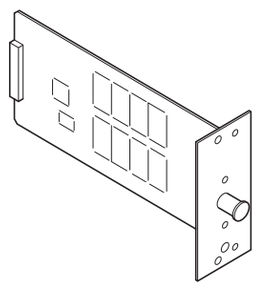
HD-6



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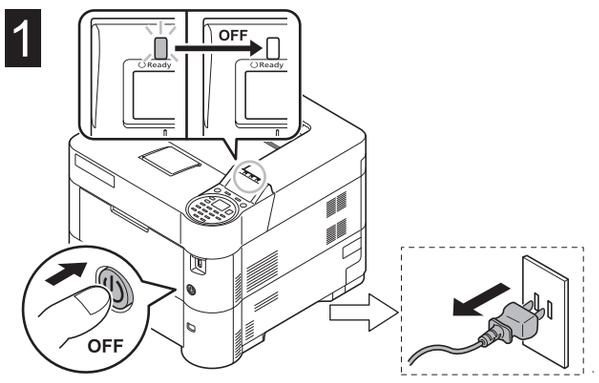

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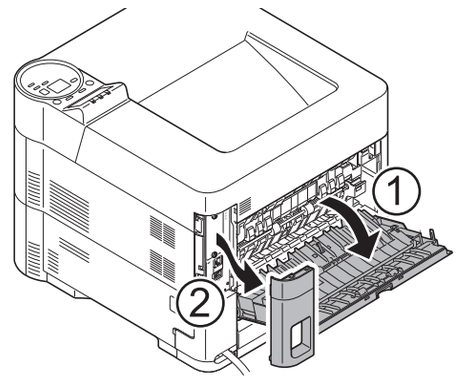

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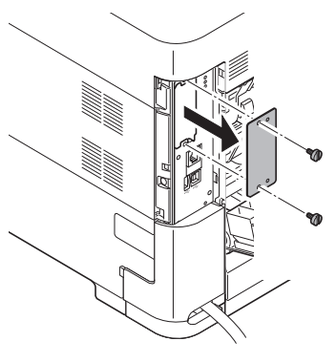

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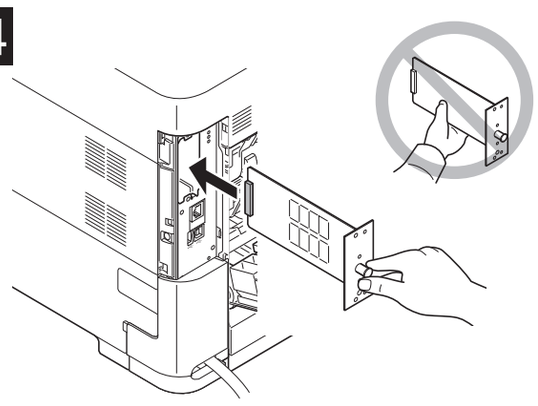

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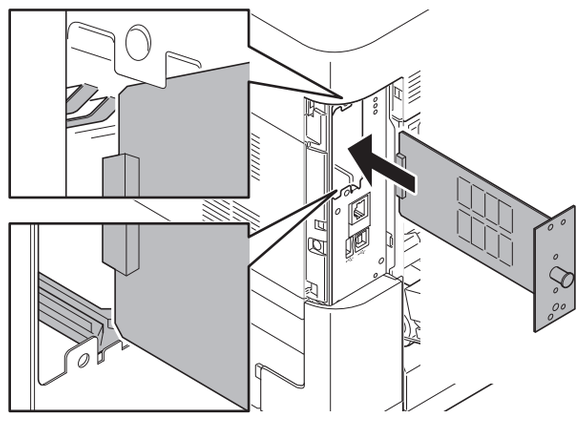

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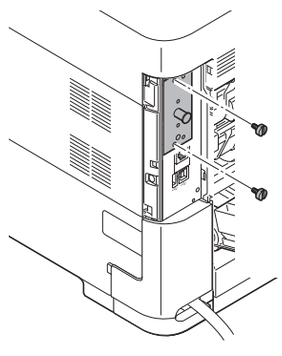

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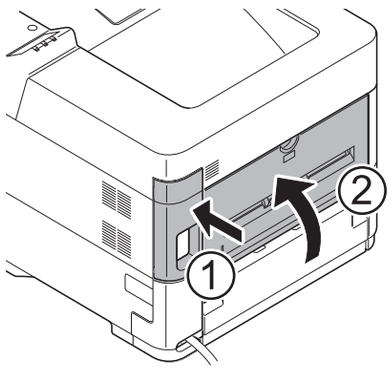

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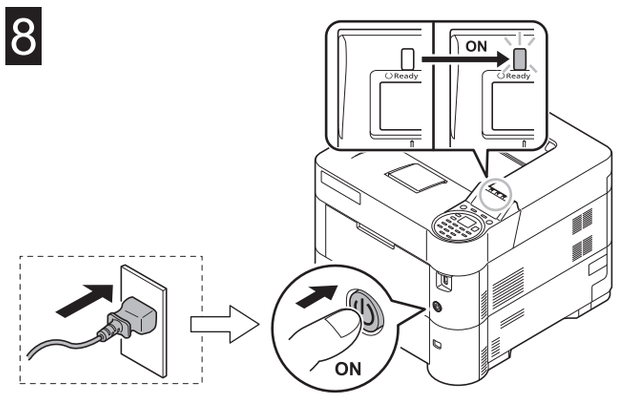


English

Optional SSD HD-6

Installation Guide

Introduction

The HD-6 is an optional SSD for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method. This SSD can be installed in other models using the same installation procedure.

Packing List

HD-6 1
Installation Guide (this guide) 1

Precautions for Handling the SSD

When handling the SSD, adhere to the following precautions.

- The SSD is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the SSD from the bag.
- Never touch the SSD's connector section directly with hands.
- When holding the SSD, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the SSD

CAUTION

Before installing (or removing) the SSD, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Formatting the SSD

After installing the SSD in the machine, the SSD must to be formatted before used. Formatting is performed from the machine's operation panel.
Refer to the Operation Guide for the formatting of the SSD.

Verifying Installation of the SSD

To verify that the SSD has been correctly installed, try to print out the status page. Refer to the Operation Guide for the method for printing a status page.

Français

SSD HD-6 en option

Guide d'installation

Introduction

Le HD-6 est un SSD optionnel destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation. Ce SSD peut être installé dans d'autres modèles en utilisant la même procédure d'installation.

Contenu de l'emballage

HD-6 1
Guide d'installation (ce manuel) 1

Précautions de manipulation du SSD

Lorsque vous manipulez le SSD, observez les précautions suivantes.

- Le SSD est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique.Vous éviterez ainsi d'endommager le SSD.
- Ne touchez jamais directement la partie du connecteur du SSD avec les mains.
- Lorsque vous tenez le SSD, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du SSD

ATTENTION

Avant d'installer (ou de retirer) le SSD, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Formatage du SSD

Après avoir installé le SSD dans l'imprimante, vous devez le formater pour pouvoir l'utiliser. Le formatage s'effectue depuis le panneau de commande de l'imprimante.
Consultez le manuel d'utilisation pour formater le SSD.

Vérification de l'installation du SSD

Pour vous assurer que le SSD a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.
Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Español

SSD HD-6 opcional

Guía de instalación

Introducción

HD-6 es una SSD opcional para utilizar con la copiadora e impresora de hojas. Lea detenidamente esta Guía de instalación para entender los métodos de instalación y operación correctos. Esta SSD puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

HD-6 1
Guía de instalación (este folleto) 1

Precauciones para el manejo de la SSD

Cuando maneje la SSD, tenga en cuenta las siguientes precauciones.

- La SSD se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar la SSD de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector de la SSD directamente con las manos.
- Cuando sostenga la SSD, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación de la SSD

PRECAUCIÓN

Antes de instalar (o desmontar) la SSD, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Inicialización de la SSD (formateo)

Después de instalar la SSD en la impresora, deberá inicializarla (formatearla) antes de utilizarla. La inicialización se realiza desde el panel de control de la impresora.
Consulte la Guía de uso para inicializar (formatear) la SSD.

Verificación de la instalación de la SSD

Para verificar que la SSD ha sido instalada correctamente, trate de imprimir la página de estado de la impresora.
Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Deutsch

Optionale SSD HD-6
Installationsanleitung

Einführung
Die HD-6 ist eine optionale SSD zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren. Diese SSD kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
HD-6 1
Installationsanleitung (diese Anleitung).....1

Vorsichtshinweise beim Umgang mit der SSD
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit der SSD.
- Die SSD wird in einem Antistatikbeutel geliefert. Um eine Beschädigung der SSD zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie die SSD aus der Verpackung entfernen.
- Berühren Sie auf keinen Fall die Steckleiste der SSD mit bloßen Händen.
- Achten Sie beim Halten der SSD darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie die SSD stets an den Kanten der Platine.
- Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation der SSD
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) der SSD unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Formatierung der SSD
Nach der Installation der SSD im Drucker muss diese vor der Inbetriebnahme formatiert werden. Die Formatierung wird am Bedienfeld des Druckers ausgeführt. Die Vorgehensweise für die Formatierung der SSD finden Sie in der Bedienungsanleitung.

Überprüfung der Installation der SSD
Um eine korrekte Installation der SSD zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Italiano

SSD HD-6 opzionale
Guida all'installazione

Introduzione
HD-6 è un'unità a stato solido (SSD) opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione. Questa SSD può essere installata in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
HD-6 1
Guida all'installazione (la presente guida).....1

Precauzioni d'uso per la SSD
Durante l'utilizzo della SSD, adottare le precauzioni che seguono.
- La SSD è spedita in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere la SSD dalla custodia.
- Non toccare la sezione del connettore della SSD direttamente con le mani.
- Nell'afferrare la SSD, evitare il contatto con la superficie della scheda a circuito. Afferrarla alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Installazione della SSD
ATTENZIONE:
prima di installare (o di rimuovere) la SSD, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Formattazione della SSD
Dopo aver installato la SSD nella macchina, è necessario formattarla prima dell'utilizzo. La formattazione può essere eseguita dal pannello operativo della macchina.
Per la formattazione della SSD, consultare la Guida alle funzioni.

Verifica dell'installazione della SSD
Per verificare che la SSD sia stata installata correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

简体中文

选装 SSD HD-6
安装手册

前言
HD-6 是一款适用于 MFP 和页式打印机的选装 SSD。为了解正确的安装方法，请仔细通读本《安装手册》。本 SSD 可通过同样的安装步骤安装到其他机型上去。

包装内容列表
HD-6 1
安装手册（本手册） 1

使用本 SSD 的注意事项
使用本 SSD 时，请遵守以下注意事项。
- 本 SSD 被包装在防静电袋中。将 SSD 从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸 SSD 的连接器部分。
- 拿握 SSD 时，请勿接触到电路板的表面。请拿握其边缘。
- 安装时请不要过于用力。

安装本 SSD
注意：
安装（或拆卸）本 SSD 前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

格式化本 SSD
将 SSD 安装入机器后，必须在使用之前对 SSD 进行格式化。通过机器的操作面板来执行格式化操作。
有关格式化 SSD 的相关信息，请参阅《操作手册》。

确认本 SSD 安装正确
为确认本 SSD 已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

동봉물

옵션 SSD HD-6
토너 설치 안내서

소개
HD-6는 MFP 및 페이지 프린터에 사용되는 옵션 SSD입니다.
본 토너 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다.
본 SSD는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
HD-6.....1
토너 설치 안내서 (본 안내서) 1

SSD 취급 시 주의사항
SSD 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
- SSD는 정전기 방지 봉투에 포장되어 있습니다. SSD를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- SSD 연결부를 직접 손으로 만지지 마십시오.
- SSD를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

SSD 설치
주의사항
SSD를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아우트렛에서 전원선을 분리하십시오.

SSD 포맷
SSD를 기기에 설치한 뒤, 사용하기 전에 반드시 SSD을 포맷해야 합니다. 기기의 조작 패널에서 포맷을 수행할 수 있습니다. SSD 포맷에 관한 자세한 내용은 사용설명서를 참고하시기 바랍니다.

SSD 설치 확인
SSD가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

日本語

オプションSSD HD-6
インストールガイド

はじめに
HD-6 は京セラ複合機およびプリンター用 SSD ユニットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
HD-6 本体 1
インストールガイド(本書) 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
- 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
- 本品のコネクター部分には手を触れないでください。
- 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
- 装着時は無理な力を加えないでください。

SSD ユニットの装着
注意
本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

SSD のフォーマット
本オプション装着後は、使用する前に操作パネルからフォーマットをする必要があります。
SSD のフォーマットは、使用説明書を参照してください。

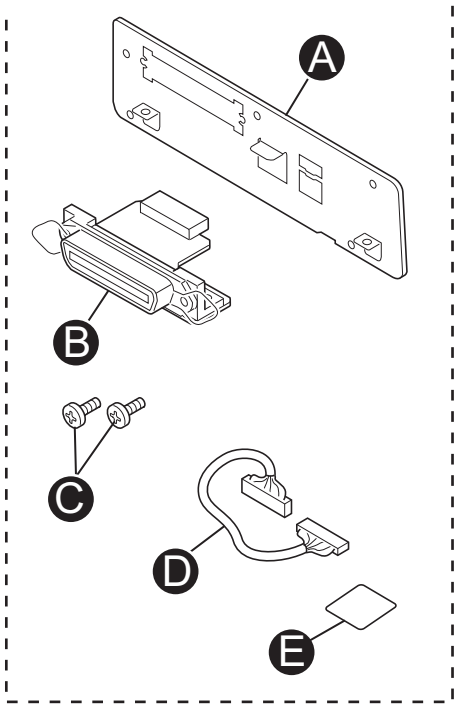
装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認します。
ステータスページの印刷方法は、使用説明書を参照してください。

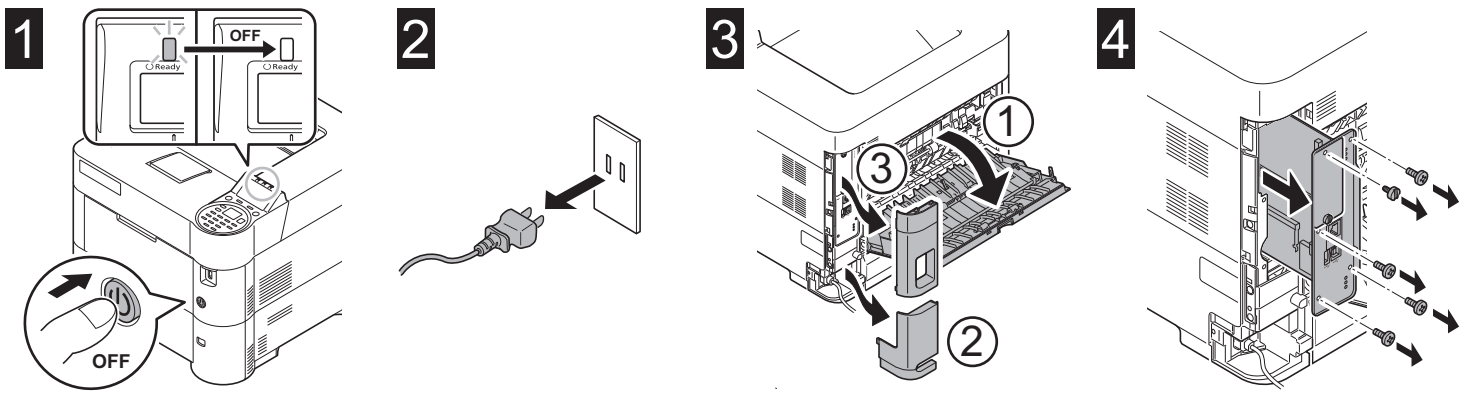
Printed in China 305J45631001 First edition 2012.6

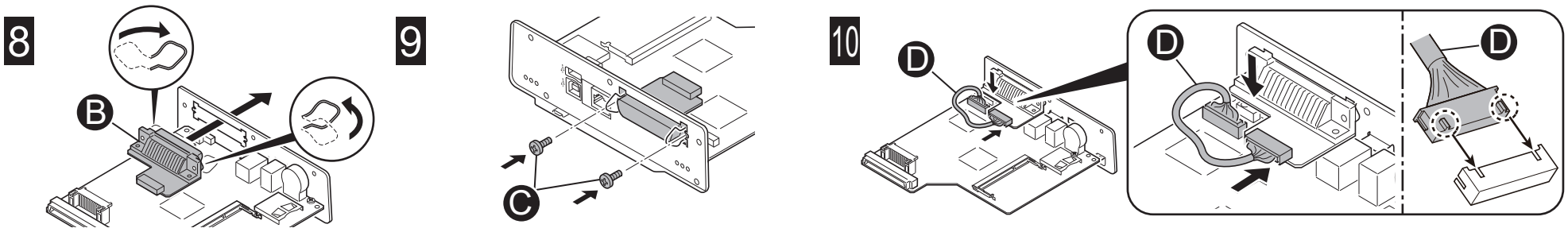
IEEE1284 Interface Installation Guide

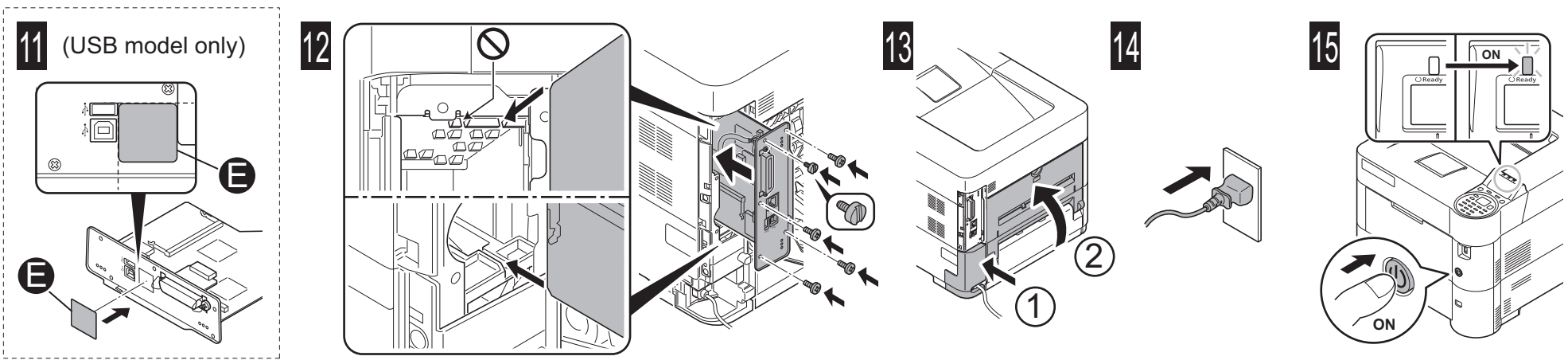
303N55631001

IB-32









English

Optional Parallel Interface Kit IB-32 Installation Guide

Introduction
The IB-32 is an optional parallel interface kit for use with the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method.
This parallel interface kit can be installed in other models using the same installation procedure.

Packing List

IB-32	1
Plate	1
Screw	2
Relay cable	1
Seal	1
Installation Guide (this guide)	1

Precautions for Handling the Parallel Interface Kit
When handling the parallel interface kit, adhere to the following precautions.
- The parallel interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the parallel interface kit from the bag.
- Never touch the parallel interface kit's connector section directly with hands.
- When holding the parallel interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the Parallel Interface Kit
CAUTION
Before installing (or removing) the parallel interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Parallel Interface Kit
To verify that the parallel interface kit has been correctly installed, try to print out the status page.
Refer to the Operation Guide for the method for printing a status page.

Français

Kit d'interface parallèle IB-32 en option Guide d'installation

Introduction
L'IB-32 est un kit d'interface parallèle en option destiné à être utilisé avec les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.
Ce kit d'interface parallèle peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage

IB-32	1
Plaque	1
Vis	2
Câble de relais	1
Obturateur	1
Guide d'installation (ce manuel)	1

Précautions de manipulation du kit d'interface parallèle
Lorsque vous manipulez le kit d'interface parallèle, observez les précautions suivantes.
- Le kit d'interface parallèle est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique.Vous éviterez ainsi d'endommager le kit d'interface parallèle.
- Ne touchez jamais directement la partie du connecteur du kit d'interface parallèle avec les mains.
- Lorsque vous tenez le kit d'interface parallèle, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface parallèle
ATTENTION
Avant d'installer (ou de retirer) le kit d'interface parallèle, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface parallèle
Pour vous assurer que le kit d'interface parallèle a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.
Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Español

Kit de interfaz en paralelo IB-32 opcional Guía de instalación

Introducción
El IB-32 es un kit de interfaz en paralelo opcional para utilizar con la impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos.
Este kit de interfaz en paralelo puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

IB-32	1
Placa	1
Tornillo	2
Cable de relé	1
Sello	1
Guía de instalación (este folleto)	1

Precauciones para el manejo del kit de interfaz en paralelo
Cuando maneje el kit de interfaz en paralelo, tenga en cuenta las siguientes precauciones.
- El kit de interfaz en paralelo se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz en paralelo de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz en paralelo directamente con las manos.
- Cuando sostenga el kit de interfaz en paralelo, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz en paralelo
PRECAUCIÓN
Antes de instalar (o desmontar) el kit de interfaz en paralelo, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Verificación de la instalación del kit de interfaz en paralelo
Para verificar que el kit de interfaz en paralelo ha sido instalado correctamente, trate de imprimir la página de estado de la impresora.
Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Deutsch

Optionales Parallel Interface Kit IB-32 Installationsanleitung

Einführung
Das IB-32 ist ein optionales Parallel Interface Kit zur Verwendung mit Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Parallel Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-32 1
Platte 1
Schraube 2
Relaiskabel 1
Dichtung 1
Installationsanleitung (diese Anleitung) 1

Vorsichtsmaßnahmen bei der Handhabung des Parallel Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Parallel Interface Kit.
- Das Parallel Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Parallel Interface Kit aus der Verpackung entfernen.
- Berühren Sie auf keinen Fall die Steckleiste des Parallel Interface Kits mit bloßen Händen.
- Achten Sie beim Halten des Parallel Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Parallel Interface Kit stets an den Kanten der Platine.
- Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Parallel Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Parallel Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Parallel Interface Kits
Um eine korrekte Installation des Parallel Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Italiano

Kit interfaccia parallela IB-32 opzionale Guida all'installazione

Introduzione
IB-32 è un kit interfaccia parallela opzionale per utilizzi con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia parallela può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-32 1
Vassoio 1
Vite 2
Cavo relè 1
Chiusura 1
Guida all'installazione (la presente guida) 1

Precauzioni d'uso del kit interfaccia parallela
Durante l'utilizzo del kit interfaccia parallela, adottare le precauzioni che seguono.
- Il kit interfaccia parallela è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere il kit interfaccia parallela dalla custodia.
- Non toccare la sezione del connettore del kit interfaccia parallela direttamente con le mani.
- Nell'afferrare il kit interfaccia parallela, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia parallela
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia parallela, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell'installazione del kit interfaccia parallela
Per verificare che il kit interfaccia parallela sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

简体中文

选装并行接口套件 IB-32 安装手册

前言
IB-32 是一款适用于页式打印机的选装并行接口套件。为了解正确的安装方法，请仔细通读本《安装手册》。
本并行接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-32 1
板 1
螺钉 2
继电器电缆 1
密封件 1
安装手册（本手册） 1

使用本并行接口套件的注意事项
使用本并行接口套件时，请遵守以下注意事项。
- 本并行接口套件被包装在防静电袋中。将并行接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸并行接口套件的连接器部分。
- 拿握并行接口套件时，请勿接触到电路板的表面。请拿握其边缘。
- 安装时请不要过于用力。

安装本并行接口套件
注意：
安装（或拆卸）本并行接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本并行接口套件安装正确
为确认本并行接口套件已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

동봉물

옵션 병렬 인터페이스 키트 IB-32 토너 설치 안내서

소개
IB-32는 페이지 프린터에 사용되는 옵션 병렬 인터페이스 키트입니다.
본 토너 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다.
본 병렬 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-32 1
플레이트 1
나사 2
릴레이 케이블 1
실 1
토너 설치 안내서 (본 안내서) 1

병렬 인터페이스 키트 취급 시 주의사항
병렬 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
- 병렬 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 병렬 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- 병렬 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
- 병렬 인터페이스 키트를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

병렬 인터페이스 키트 설치
주의사항
병렬 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아우트렛에서 전원선을 분리하십시오.

병렬 인터페이스 키트 설치 확인
병렬 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해 보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

日本語

オプションパラレルインターフェイスキット IB-32 インストールガイド

はじめに
IB-32 は京セラプリンター用パラレルインターフェイスキットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
IB-32 本体 1
プレート 1
ネジ 2
中継線 1
シール 1
インストールガイド(本書) 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
・本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
・本品のコネクター部分には手を触れないでください。
・本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
・装着時は無理な力を加えないでください。

パラレルインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、プリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

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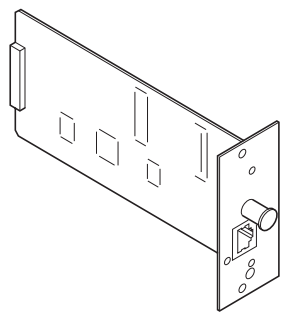
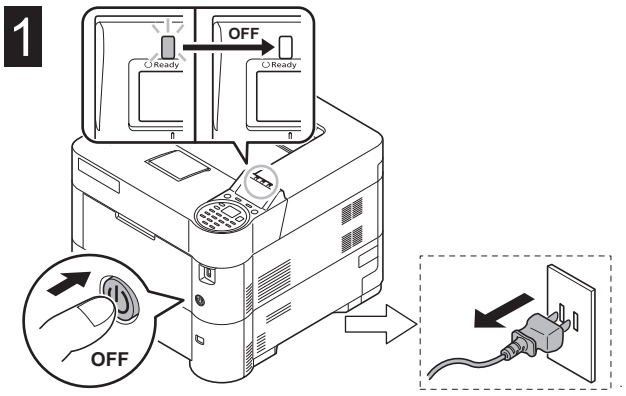
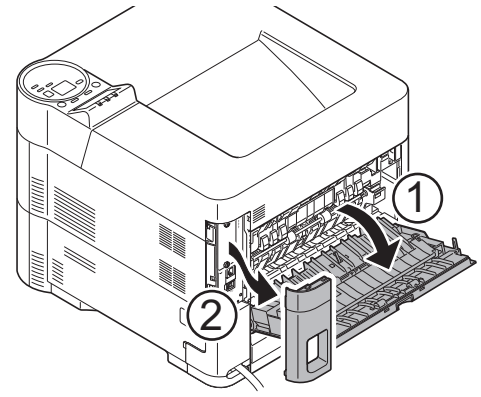
Network interface Installation Guide

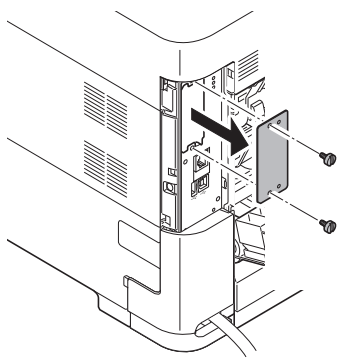
305JV5673001

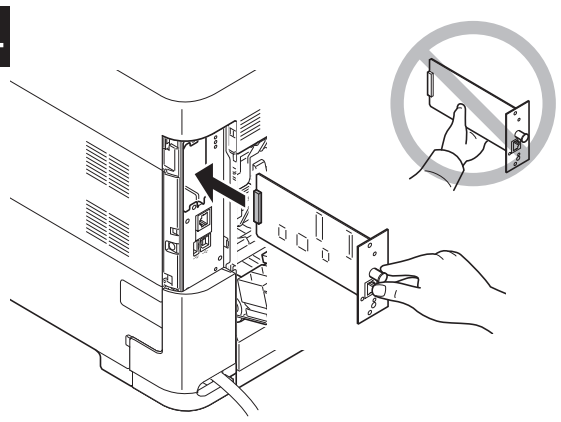
IB-50

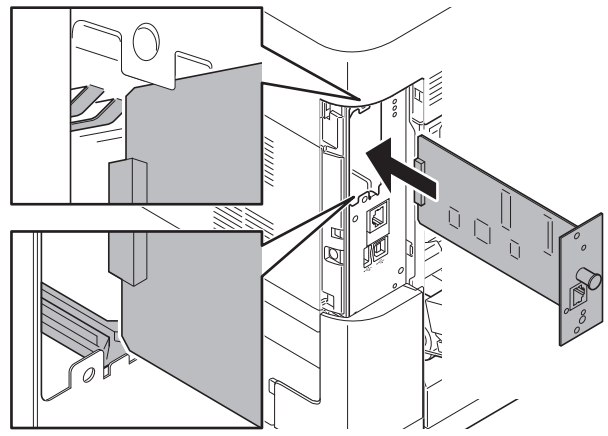


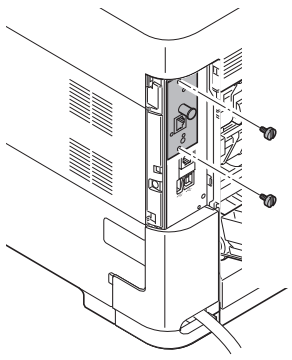


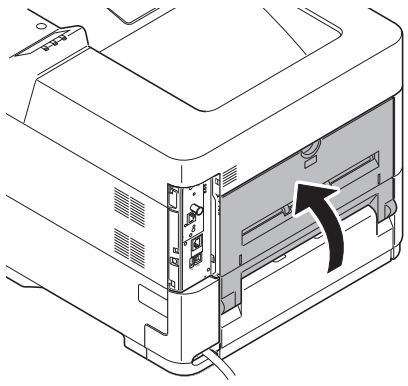


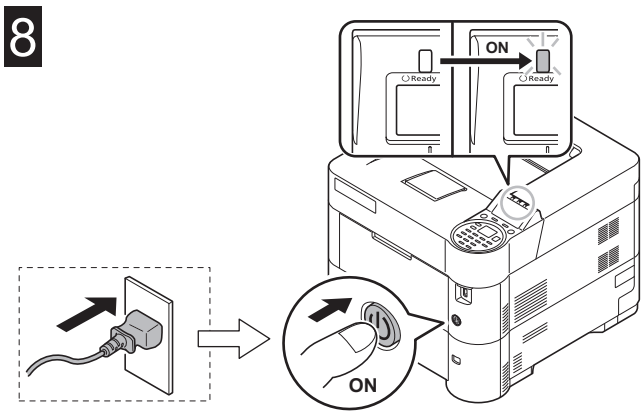












English

Optional Network Interface Kit IB-50
Installation Guide

Introduction

The IB-50 is an optional network interface kit for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method.
This network interface kit can be installed in other models using the same installation procedure.

Packing List

IB-50 1
Installation Guide (this guide) 1
Setup Guide 1
CD-ROM 1

Precautions for Handling the Network Interface Kit

When handling the network interface kit, adhere to the following precautions.

- The network interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the network interface kit from the bag.
- Never touch the network interface kit's connector section directly with hands.
- When holding the network interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the Network Interface Kit

CAUTION

Before installing (or removing) the network interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Network Interface Kit

To verify that the network interface kit has been correctly installed, try to print out the status page.
Refer to the Operation Guide for the method for printing a status page.

Network settings

Refer to the Operation guide for the network settings.

Français

Kit d'interface réseau IB-50 en option
Guide d'installation

Introduction

L'IB-50 est un kit d'interface réseau en option destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.

Ce kit d'interface réseau peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage

IB-50 1
Guide d'installation (ce manuel) 1
Guide de mise en service 1
CD-ROM 1

Précautions de manipulation du kit d'interface réseau

Lorsque vous manipulez le kit d'interface réseau, observez les précautions suivantes.

- Le kit d'interface réseau est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique.Vous éviterez ainsi d'endommager le kit d'interface réseau.
- Ne touchez jamais directement la partie du connecteur du kit d'interface réseau avec les mains.
- Lorsque vous tenez le kit d'interface réseau, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface réseau

ATTENTION

Avant d'installer (ou de retirer) le kit d'interface réseau, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface réseau

Pour vous assurer que le kit d'interface réseau a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.
Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Réglages réseau

Pour connaître les réglages réseau, consultez le manuel d'utilisation.

Español

Kit de interfaz de red IB-50 opcional
Guía de instalación

Introducción

El IB-50 es un kit de interfaz de red opcional para utilizar con la copiadora e impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos.

Este kit de interfaz de red puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete

IB-50 1
Guía de instalación (este folleto) 1
Guía de configuración 1
CD-ROM 1

Precauciones para el manejo del kit de interfaz de red

Cuando maneje el kit de interfaz de red, tenga en cuenta las siguientes precauciones.

- El kit de interfaz de red se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz de red de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz de red directamente con las manos.
- Cuando sostenga el kit de interfaz de red, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz de red

PRECAUCIÓN

Antes de instalar (o desmontar) el kit de interfaz de red, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Verificación de la instalación del kit de interfaz de red

Para verificar que el kit de interfaz de red ha sido instalado correctamente, trate de imprimir la página de estado de la impresora.
Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Configuración de la red

Consulte la Guía de uso para obtener información sobre la configuración de la red.

Deutsch

Optionales Network Interface Kit IB-50 Installationsanleitung

Einführung
Das IB-50 ist ein optionales Network Interface Kit zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Network Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-50 1
Installationsanleitung (diese Anleitung) 1
Einrichtungsleitfaden 1
CD-ROM 1

Vorsichtsmaßnahmen bei der Handhabung des Network Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Network Interface Kit.
- Das Network Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung des Network Interface Kits zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Network Interface Kit aus der Verpackung entfernen.
- Berühren Sie auf keinen Fall die Steckleiste des Network Interface Kits mit bloßen Händen.
- Achten Sie beim Halten des Network Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Network Interface Kit stets an den Kanten der Platine.
- Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Network Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Network Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Network Interface Kits
Um eine korrekte Installation des Network Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Netzwerkeinstellungen
Die Netzwerkeinstellungen finden Sie in der Bedienungsanleitung.

Italiano

Kit interfaccia di rete IB-50 opzionale Guida all'installazione

Introduzione
IB-50 è un kit interfaccia di rete opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia di rete può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-50 1
Guida all'installazione (la presente guida) 1
Guida alla configurazione 1
CD-ROM 1

Precauzioni d'uso del kit interfaccia di rete
Durante l'utilizzo del kit interfaccia di rete, adottare le precauzioni che seguono.
- Il kit interfaccia di rete è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere il kit interfaccia di rete dalla custodia.
- Non toccare la sezione del connettore del kit interfaccia di rete direttamente con le mani.
- Nell'afferrare il kit interfaccia di rete, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia di rete
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia di rete, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell'installazione del kit interfaccia di rete
Per verificare che il kit interfaccia di rete sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

Impostazioni di rete
Per le impostazioni di rete, consultare la Guida alle funzioni.

简体中文

选装网络接口套件 IB-50 安装手册

前言
IB-50 是一款适用于 MFP 和页式打印机的选装网络接口套件。为了解正确的安装方法，请仔细通读本《安装手册》。
本网络接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-50 1
安装手册（本手册） 1
设置手册 1
CD-ROM 1

使用本网络接口套件的注意事项
使用本网络接口套件时，请遵守以下注意事项。
- 本网络接口套件被包装在防静电袋中。将网络接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸网络接口套件的连接器部分。
- 拿握网络接口套件时，请勿接触到电路板的表面。请拿握其边缘。
- 安装时请不要过于用力。

安装本网络接口套件
注意：
安装（或拆卸）本网络接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本网络接口套件安装正确
为确认本网络接口套件已经正确安装，请尝试打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

网络设置
有关网络设置的相关信息，请参阅《操作手册》。

동봉물

옵션 네트워크 인터페이스 키트 IB-50 토너 설치 안내서

소개
IB-50은 MFP와 페이지 프린터에 사용되는 옵션 네트워크 인터페이스 키트입니다. 본 토너 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 네트워크 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-50 1
토너 설치 안내서 (본 안내서) 1
설정 안내서 1
CD-ROM 1

네트워크 인터페이스 키트 취급 시 주의사항
네트워크 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
- 네트워크 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 네트워크 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- 네트워크 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
- 네트워크 인터페이스 키트를 잡을 때는, 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

네트워크 인터페이스 키트 설치
주의사항
네트워크 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아우트렛에서 전원선을 분리하십시오.

네트워크 인터페이스 키트 설치 확인
네트워크 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

네트워크 설정
네트워크 설정에 관련된 정보는 사용설명서를 참고하시기 바랍니다.

日本語

オプションネットワークインターフェイスキット IB-50 インストールガイド

はじめに
IB-50 は京セラ複合機およびプリンター用増設ネットワークです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
IB-50 本体 1
インストールガイド(本書) 1
セットアップガイド 1
CD-ROM 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
・本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
・本品のコネクター部分には手を触れないでください。
・本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
・装着時は無理な力を加えないでください。

ネットワークインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

ネットワークの設定
ネットワークの設定については、使用説明書を参照してください。

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IB-50

302JV56720

Setup Guide
Guía de configuración
Manual de instalação
Guide d'installation
Setup-Leitfaden
Installatiehandleiding
Guida all'installazione
설치 안내서
设置向导
設定指南
セットアップガイド

(E) Thank you for purchasing the IB-50 Network Card (hereinafter "IB-50"). Follow the instructions in this setup guide to configure Windows environments for use with the IB-50. Simply follow the steps 1 to 2. For instructions on configuring other environments, refer to the online manual on the CD-ROM.

(S) Gracias por adquirir la tarjeta de red IB-50 (de aquí en adelante, "IB-50"). Siga las instrucciones de esta guía de configuración para configurar los entornos Windows para su uso con el IB-50. Simplemente siga los pasos 1 a 2. Para instrucciones sobre la configuración en otros entornos, consulte el manual en línea del CD-ROM.

(P) Obrigado por comprar a Placa de rede IB-50 (daqui em diante "IB-50"). Siga as instruções deste manual de instalação para configurar ambientes Windows para utilização com o IB-50. Efectue os procedimentos de 1 a 2. Para mais informações sobre como configurar outros ambientes, consulte o manual on-line de CD-ROM.

(F) Nous vous remercions d'avoir acheté la carte réseau IB-50 (ci-après dénommé "IB-50"). Veuillez suivre les instructions du présent guide d'installation pour configurer les environnements Windows pour l'utilisation avec l'IB-50. Suivez simplement les étapes 1 à 2. Pour les instructions relatives à la configuration des autres environnements, reportez-vous au manuel en ligne sur le CD-ROM.

(D) Vielen Dank, dass Sie sich für den Kauf der IB-50 Netzwerkkarte entschieden haben (im Weiteren als "IB-50" bezeichnet). Bitte folgen Sie den Anweisungen dieses Setup-Leitfadens, um Windows-Umgebungen für den Gebrauch mit dem IB-50 zu konfigurieren. Dazu führen Sie einfach Schritt 1 bis 2 aus. Anweisungen zumKonfigurieren anderer Umgebungen finden Sie im Online-Handbuch der CD-ROM.

(N) Wij danken u dat u de IB-50-netwerkkaart hebt aangeschaft (hierna te noemen "IB-50"). Volg de instructies in deze installatiehandleiding om Windows-omgevingen te configureren voor gebruik met de IB-50. Volg stap 1 tot en met 2. Raadpleeg voor instructies voor de configuratie van andere omgevingen de on line handleiding op de CD-ROM.

(I) Grazie per aver acquistato la scheda di rete IB-50 (che d'ora in avanti verrà chiamato "IB-50"). Seguire le istruzioni in questa guida all'installazione per configurare gli ambienti Windows per l'utilizzo con l'IB-50. È sufficiente seguire i passi da 1 a 2 della procedura. Per le istruzioni su come configurare altri ambienti, consultare il manuale online nel CD-ROM.

(CS) 感谢您购买IB-50网卡(下面简称为“IB-50”)。请按照此设置向导中的说明，配置使用IB-50的Windows环境。请执行步骤[1]至[2]。有关其它环境的配置说明，请参见CD-ROM中的联机手册。

(CT) **感謝您購買IB-50網路卡(下面簡稱“IB-50”)。請按照此設定指南中的說明，安裝使用IB-50的Windows環境。請執行步驟[1]至[2]。有關環境之外的安裝說明，請參見CD-ROM中的線上手冊。**

(K) IB-50 네트워크 카드 ("IB-50")를 구입해 주셔서 감사합니다. 이 설치 안내서의 지침에 따라 IB-50 을 설치하여 사용할 수 있도록 Windows 환경을 구성합니다. [1] 단계에서 [2] 단계까지만 수행하면 됩니다. 다른 환경 구성에 대한 지침은 CD-ROM 의 온라인 설명서를 참조하십시오.

(J) このたびは、ネットワークカード IB-50（以降IB-50）をお買いあげいただき、誠にありがとうございます。
本紙では Windows環境での環境構築方法を記載しています。①から②の手順で操作してください。他の環境での設定方法は付属のCD-ROMに収録されているオンラインマニュアルを参照してください。

- Supported Operating Systems / • Sistemas operativos compatibles /
- Sistemas operativos suportados / • Systèmes d'exploitation pris en charge
- Unterstütze Betriebssysteme /• Ondersteunde besturingssystemen/
- Sistemi operativi supportati /
- 支持的操作系统 / • **支援的操作系統** / • 지원되는 운영 체제 / • 对应OS

Windows 2000/XP/Vista/7/Server 2003/Server 2008
Netware 3.x, 4.x, 5.x, 6.x / MacOS 9.x, 10.x / UNIX

1

Installing the IB-50 in the printer and connecting to the network
Instalación de la IB-50 en la impresora y conexión a la red
Instalando a IB-50 na impressora e conectando à rede
Installation de la IB-50 dans l'imprimante et raccord au réseau
Installation der IB-50 im Drucker und Verbindung zum Netzwerk
De IB-50 in de printer installeren en aansluiten op het netwerk.
Installare la scheda IB-50 nella stampante ed eseguire il collegamento alla rete.
在打印机中安装IB-50 并连接到网络
將 IB-50 安裝到印表機，並連接到網路
프린터에 IB-50 설치 및 네트워크에 연결
本製品をプリンターに装着しネットワーク環境に接続する

(E) • If you connect the IB-50 to another network later, restore the default settings before doing so.
Refer to the online manual included on the CD-ROM for details on restoring the factory default settings.
Before connecting the IB-50, prepare the network cable.
1. Turn off the printer and unplug the AC power cable from the printer.
2. Install the IB-50 in the printer. Refer to the installation guide of IB-50. For machines to be installed by a service person, refer to the service manual.
3. Connect the IB-50 to a PC or an Ethernet hub using a network cable.
4. Turn the printer on. Check that at least one of the two green LEDs on the IB-50 turns on.

(S) • Si posteriormente conecta el IB-50 a otra red, antes de hacerlo debe restaurar las configuraciones predeterminadas.
Consulte el manual en línea incluido en el CD-ROM para obtener una información detallada sobre la restauración de la configuración predeterminada de fábrica.
Antes de conectar la IB-50, prepare el cable de red.
1. Apague la impresora y desconecte el cable de alimentación de CA de la impresora.
2. Instale la IB-50 en la impresora. Consulte la guía de instalación de la IB-50.
Para las máquinas instaladas por el técnico del servicio, vea el manual de servicio.
3. Conecte la IB-50 a un PC o a un concentrador Ethernet empleando un cable de red.
4. Encienda la impresora. Verifique que al menos uno de los dos LED verdes de la IB-50 se enciende.

(P) • Se ligar o IB-50 a outra rede posteriormente, restaure as predefinições antes de o fazer.
Consulte o manual on-line incluído no CD-ROM para obter detalhes sobre como restaurar as configurações padrão de fábrica. Antes de conectar a IB-50, prepare o cabo de rede.
1. Desligue a impressora e retire o cabo de alimentação CA da impressora.
2. Instale a IB-50 na impressora. Consulte o guia da instalação da IB-50. Para as máquinas que devem ser instaladas por pessoal de serviço qualificado, consulte o manual de serviço.
3. Conecte a IB-50 a um PC ou a um hub Ethernet usando um cabo de rede.
4. Ligue a impressora. Verifique se pelo menos um dos dois LEDs verdes na IB-50 está aceso.

(F) • Si vous connectez l'IB-50 à un autre réseau plus tard, vous devrez d'abord rétablir les paramètres par défaut.
Reportez-vous au manuel en ligne inclus sur le CD-ROM pour plus d'informations sur la restauration des paramètres d'origine. Préparez le câble réseau avant de raccorder la IB-50.
1. Éteignez l'imprimante et débranchez le câble d'alimentation.
2. Installez l'IB-50 dans l'imprimante. Reportez-vous au guide d'installation de l'IB-50.
Pour les machines installées par un agent d'entretien, voir le manuel de service.
3. Raccordez la IB-50 sur un ordinateur ou sur un concentrateur Ethernet à l'aide d'un câble réseau.
4. Allumez l'imprimante. Vérifiez qu'au moins un des deux voyants verts sur la IB-50 s'allume.

(D) • Wenn der IB-50 später an ein anderes Netzwerk angeschlossen werden soll, müssen Sie vorher darauf achten, die Standardeinstellungen wiederherzustellen. Details zur Wiederherstellung der werksseitigen Standardeinstellungen finden Sie im Onlinehandbuch auf der CD-ROM. Stellen Sie vor dem Anschluss der IB-50 das Netzwerkkabel bereit.
1. Den Druckerstrom ausschalten und das Stromkabel vom Drucker abziehen.
2. Installieren Sie die IB-50 im Drucker. Siehe Installationsanweisung der IB-50.
Angaben zu Maschinen, die von Service-Personal zu installieren sind, finden Sie in der Wartungsanleitung.
3. Schließen Sie die IB-50 an einen PC oder an einen Ethernet-Verteiler über ein Netzwerkkabel an.
4. Schalten Sie den Drucker ein. Überprüfen Sie, dass mindestens eine der beiden grünen LEDs an der IB-50 aufleuchtet.

(N) • Wanneer u de IB-50 later op een ander netwerk aansluit, moet u van tevoren de standaardinstellingen herstellen.
Raadpleeg de online-handleiding die op de CD-ROM staat voor details over het herstellen van de fabriekswaarden. Maak de netwerkkabel gereed voordat u de IB-50 aansluit.
1. Schakel de printer uit en maak het netsnoer los van de printer.
2. Installeer de IB-50 in de printer. Raadpleeg hiervoor de installatiehandleiding van de IB-50.
Refereer aan de onderhoudshandleiding voor machines die geïnstalleerd dienen te worden door onderhoudspersoneel.
3. Sluit de IB-50 met behulp van een netwerkkabel aan op een PC of een Ethernet-hub.
4. Zet de printer aan. Controleer of ten minste één van de twee groene LED's op de IB-50 gaat branden.

(I) • Se si collega l'IB-50 a un'altra rete in un secondo momento, ripristinare le impostazioni predefinite prima di farlo.
Fare riferimento al manuale in linea incluso nel CD-ROM per le istruzioni dettagliate su come ripristinare le impostazioni predefinite di fabbrica. Preparare il cavo di rete prima di collegare la scheda IB-50.
1. Spegnere la stampante e scollegare il cavo di alimentazione CA dalla stampante.
2. Installare la scheda IB-50 sulla stampante. Vedere la guida all'installazione di IB-50.
Per le macchine che devono essere installate da un tecnico di assistenza, fare riferimento al manuale d'istruzioni.
3. Collegare la scheda IB-50 a un computer o a un hub Ethernet tramite un cavo di rete.
4. Accendere la stampante. Verificare che almeno uno dei due LED verdi della scheda IB-50 sia acceso.

(CS) 如果此后要将IB-50与其它网络连接，请在连接前恢复默认设置。
有关恢复出厂默认设置的详细信息，请参见CD-ROM上的联机手册。在连接 IB-50之前，准备好网络电缆。
1. 关闭打印机，并从打印机上拔下AC电源电缆。
2. 在打印机中安装 IB-50。请参见 IB-50 的安装手册。
对于维修人员安装机器时，请参照维修手册。
3. 使用网络电缆将IB-50连接到PC或以太网集线器。
4. 打开打印机。检查IB-50上的两个绿色 LED 至少有一个为亮起状态。

(CT) **如果此後要將IB-50與其它網路連接，請在連接前恢復預設設定。**
有關恢復預設設定的說明，請參見CD-ROM所隨附的線上手冊。連接IB-50之前，請先準備好網路纜線。
1. 關閉印表機，從印表機上拔下AC電源電纜。
2. 欲安裝 IB-50 至機器，詳見 IB-50 之安裝手冊。
如由服務人員裝機，請參閱技術手冊。
3. 使用網路纜線將IB-50連接到 PC 或 Ethernet 集線器。
4. 開啓印表機。確認IB-50上的兩個綠色LED中至少有一個是開啓的。

(K) 나중에 IB-50 을 다른 네트워크에 연결할 경우 연결하기 전에 기본 설정을 복원합니다.
공장 기본 설정 복원에 대한 자세한 내용은 CD-ROM 에 포함된 온라인 설명서를 참조하십시오.
IB-50 을 연결하기 전에 네트워크 케이블을 준비합니다.
1. 프린터를 끄고 AC 전원 케이블을 프린터에서 분리합니다.
2. 프린터에 IB-50을 설치방법은 설치 설명서를 참조하십시오.
서비스 기사가 설치하는 기계는 서비스 매뉴얼을 참조해 주십시오.
3. 네트워크 케이블을 사용하여 IB-50 을 PC 또는 이더넷 허브에 연결합니다.
4. 프린터의 전원을 켭니다. IB-50 에 있는 두 개의 녹색 LED 중 최소한 하나가 켜져 있는지 확인합니다.

(J) 他のネットワークにつなぎかえる場合は、工場出荷時設定に戻してください。
工場出荷時設定に戻す方法は、CDに収録されているオンラインマニュアルを参照してください 。
接続前にネットワークケーブルを準備してください。
1. プリンターの電源を切り、電源ケーブルをプリンターから抜きます。
2. 別紙（IB-50 ）の手順で IB-50をプリンターに装着します。
サービス担当者が設置する機械は、サービスマニュアルを参照してください。
3. IB-50 と PC またはイーサネットハブをネットワークケーブルで接続します。
4. プリンターの電源を入れます。IB-50の2つの緑のLEDのうちどちらかが点灯することを確認します。

2 Configure the IB-50's IP address

Configurar la dirección IP del IB-50

Configurar o endereço IP do IB-50

Configurez l'adresse IP de l'IB-50

Konfigurieren Sie die IP-Adresse des IB-50

Configureer het IP-adres van de IB-50

Configurare l'indirizzo IP dell'IB-50

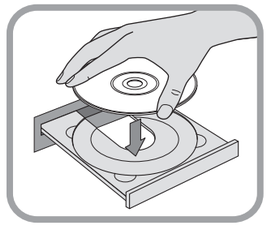
配置IB-50的IP地址

設定IB-50的IP位址

IB-50 의 IP 주소 구성

IB-50にIPアドレスを設定する

1.



(E) Insert the CD-ROM supplied with the interface card in your CD-ROM drive.

(S) Inserte en la unidad el CD-ROM que se suministra con la tarjeta de interfaz.

(P) Insira o CD-ROM fornecido com a placa de interface na unidade de CD-ROM.

(F) Insérez le CD-ROM fourni avec la carte d'interface dans votre lecteur de CD-ROM.

(D) Die der Schnittstellenkarte beiliegende CD-ROM in das CD-ROM-Laufwerk einlegen.

(N) Plaats de CD-ROM die bij de interfacekaart wordt geleverd, in uw CD-ROM-station.

(I) Inserire il CD-ROM fornito con la scheda di interfaccia nell'unità CD-ROM.

(CS) 将接口卡随附的光盘插入光盘驱动器。

(CT) **將介面卡隨附的光碟插入光碟機。**

(K) 사용자의 CD-ROM 드라이브에 인터페이스와 함께 제공되는 CD-ROM 을 삽입합니다.

(J) 付属のCD-ROMをPCにセットします。

2.

(E) Click **Quick Network Setup.**

(S) Pulse Pulse **Quick Network Setup.**

(P) Clique em **Quick Network Setup.**

(F) Cliquez sur **Quick Network Setup.**

(D) Klicken Sie auf **Quick Network Setup.**

(N) Klik op **Quick Network Setup.**

(I) Fare clic su **Quick Network Setup.**

(CS) 单击**Quick Network Setup**。

(CT) **按一下Quick Network Setup。**

(K) **Quick Network Setup** 를 클릭합니다.

(J) [**Quick Network Setup**]をクリックします。

3.

(E) Click **Next** when the Wizard screen is displayed.

(S) Haga clic en **Siguiente** cuando aparezca la pantalla del Asistente.

(P) Clique em **Avançar** quando a tela do Assistente for exibida.

(F) Cliquez sur **Suivant** lorsque l'écran de l'assistant s'affiche.

(D) Klicken Sie auf **Weiter**, wenn der Bildschirm des Assistenten gezeigt wird.

(N) Klik op **Volgende** wanneer het Wizard-scherm verschijnt

(I) Fare clic su **Avanti** alla visualizzazione della schermata di Installazione guidata stampante.

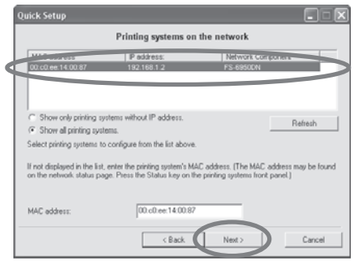
(CS) 显示向导屏幕时，单击下一步。

(CT) **當精靈畫面顯示時，按一下下一步。**

(K) 마법사 화면이 표시되면 다음을 클릭합니다.

(J) ウィザード画面が表示されるので[次へ]をクリックします。

4.



(E) Select the printer that the card is installed in from the list of print servers, and then click **Next.**

If the printer that the card is installed in does not appear in the list of search results :

- Make sure the computer's network environment (IP address) is correctly configured.
- Temporarily disable any security software and the standard firewall built into the operating system (for Windows XP), if applicable.

(S) Seleccione la impresora en la que está instalada la tarjeta en la lista de servidores de impresión y a continuación haga clic en **Siguiente.**

Si la impresora en la que está instalada la tarjeta no aparece en la lista de resultados de búsqueda :

- Asegúrese de que el entorno de red del PC (dirección IP) está correctamente configurado.
- Desactive temporalmente cualquier software de seguridad y el cortafuegos del sistema operativo (en Windows XP), si es aplicable.

(P) Selecione, na lista de servidores de impressão, a impressora na qual a placa está instalada e depois clique em **Avançar.**

Se a impressora na qual a placa está instalada não surgir na lista de resultados da pesquisa :

- Certifique-se de que o ambiente de rede do computador (endereço IP) está configurado correctamente.
- Desactive temporariamente qualquer software de segurança e a firewall standard integrada no sistema operativo (para Windows XP), se aplicável.

(F) Choisissez l'imprimante avec la carte installée dans la liste des serveurs d'impression, et cliquez ensuite sur **Suivant.**

Si l'imprimante avec la carte installée ne figure pas dans la liste des résultats de recherche :

- Vérifiez que l'environnement du réseau de l'ordinateur (l'adresse IP) est correctement configuré.
- Désactivez temporairement tout logiciel de sécurité et le firewall standard intégré par défaut au système d'exploitation (pour Windows XP), le cas échéant.

(D) Wählen Sie den Drucker, in dem die Karte installiert ist, aus der Liste der Druckserver aus, und klicken Sie anschließend auf **Weiter.**

Falls der Drucker, in dem die Karte installiert ist, nicht in der Liste der Suchergebnisse angezeigt wird :

- Vergewissern Sie sich, das die Netzwerkumgebung des PC (IP-Adresse) korrekt konfiguriert ist.
- Sperren Sie ggf. vorübergehend eine momentan aktivierte Sicherheits-Software und die Standard-Firewall des Betriebssystems (bei Windows XP).

(N) Selecteer de printer waarin de kaart is geïnstalleerd, uit de lijst van print-servers en klik daarna op **Volgende.**

Als de printer waarin de kaart is geïnstalleerd, niet in de lijst met zoekresultaten voorkomt :

- Controleer of de netwerkomgeving van de computer (het IP-adres) op de juiste manier is geconfigureerd.
- Schakel beveiligingssoftware en de standaardfirewall die in het besturingssysteem is ingebouwd (voor Windows XP) voorlopig uit, indien van toepassing.

(I) Selezionare la stampante in cui è installata la scheda dall'elenco dei server di stampa, quindi fare clic su **Avanti.**

Se la stampante in cui è installata la scheda non appare nell'elenco dei risultati della ricerca :

- Assicurarsi che l'ambiente di rete del computer (indirizzo IP) sia configurato correttamente.
- Disattivare temporaneamente qualsiasi software di sicurezza e il firewall di serie incorporato nel sistema operativo (per Windows XP), se applicabile.

(CS) 如果安装了该卡的打印机未出现在搜索结果列表中：

- 确认是否正确配置了电脑的网络环境(IP地址)。
- 暂时中断所有正在适用的安全软件和内置于操作系统(Windows XP)的标准防火墙的执行。

(CT) **從列印伺服器清單中選取安裝了網路卡的印表機，然後按一下下一頁。**

如果安裝了網路卡的印表機沒有出現在搜尋結果 清單中：

- **確認是否正確設定了電腦的網路環境(IP位址)。**
- **暫時中斷所有安全軟體和建於操作系統(Windows XP)的標準防火牆的執行。**

(K) 인쇄 서버 목록에서 카드가 설치되어 있는 프린터를 선택하고 다음을 클릭합니다.

카드가 설치되어 있는 프린터가 검색 결과 목록에 표시되지 않는 경우:

- 컴퓨터의 네트워크 환경(IP 주소)이 제대로 구성되어 있는지 확인합니다.
- 운영 체제(Windows XP 용)에 내장되어 있는 보안 소프트웨어와 표준 방화벽을 잠시 사용하지 않도록 설정합니다.

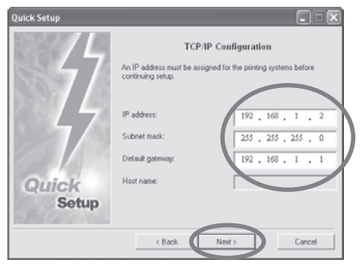
(J) プリントサーバーリストから、装着したプリンターを選択して、[次へ]をクリックします。

検索結果一覧に装着したプリンターが表示されないときは. . .

※PCのネットワーク環境（IPアドレス）が正しく設定されているかを確認してください。

※セキュリティソフトおよび、OS標準のファイアウォール機能（Windows XPの場合）をご利用の場合は、一時的に無効にしてください。

5.



(E) Enter the IP address, Subnet mask, and Default gateway. Click **Next.**

(S) Introduzca la dirección IP, máscara de subred y Gateway por omisión. Pulse **Siguiente.**

(P) Introduza o Endereço IP, a Máscara de sub-rede e a Gateway padrão. Clique em **Avançar.**

(F) Saisissez l'adresse IP, le Masque de sous-réseau et la Passerelle par défaut. Cliquez sur **Suivant.**

(D) Geben Sie IP-Adresse, Subnetzmaske und Standard-Gateway ein, und klicken Sie dann auf **Weiter.**

(N) Voer het IP-adres, het Subnetmasker en de Standaardgateway in. Klik op **Volgende.**

(I) Immettere Indirizzo IP, Maschera sottorete e Gateway predefinito. Fare clic su **Avanti.**

(CS) 键入IP地址、子网掩码和默认网关。单击下一步。

(CT) **輸入IP位址、子網路遮罩和預設閘道。按一下下一頁。**

(K) IP 주소, 서브넷 마스크 및 기본 게이트웨이를 입력합니다. 다음을 클릭합니다.

(J) IPアドレス、サブネットマスク、デフォルトゲートウェイを入力し、[次へ]をクリックします。

6.

(E) Confirm the settings and click **Next.**

(S) Confirme las configuraciones y pulse **Siguiente.**

(P) Confirme as configurações e clique em **Avançar.**

(F) Vérifiez les paramètres et cliquez sur **Suivant.**

(D) Überprüfen Sie die vorgenommenen Einstellungen, und klicken Sie dann auf **Weiter.**

(N) Bevestig de instellingen en klik op **Volgende.**

(I) Verificare le impostazioni e fare clic su **Avanti.**

(CS) 确认设置后单击下一步。

(CT) **確認設定後按一下下一頁。**

(K) 설정을 확인하고 다음을 클릭합니다.

(J) 設定内容を確認し、[次へ]をクリックします。

7.

(E) When the final installation screen of the **Quick Network Setup** is displayed, click **Finish.**

(S) Cuando aparezca la pantalla de instalación final de **Quick Network Setup.**

(P) Quando aparecer o ecrã de instalação final do **Quick Network Setup**, clique em **Concluir.**

(F) Lorsque l'écran final d'installation de **Quick Network Setup** s'affiche, cliquez sur **Terminer.**

(D) Wenn die letzte Seite der **Quick Network Setup** angezeigt wird, klicken Sie auf **Ende.**

(N) Wanneer het laatste installatiescherm van **Quick Network Setup** wordt weergegeven, klikt u op **Voltooien.**

(I) Quando viene visualizzata la schermata di installazione finale di **Quick Network Setup**, fare clic su **Fine.**

(CS) 显示**Quick Network Setup**的最后安装画面时，单击完成。

(CT) **顯示Quick Network Setup的最後安裝畫面時，按一下完成。**

(K) **Quick Network Setup**의 마지막 설치 화면이 표시되면 마침을 클릭합니다.

(J) [**Quick Network Setup**]の終了画面が表示されたら、[完了]をクリックします。

8.

(E) For the operation of the IB-50, refer to the online manual on the CD-ROM

(S) Para obtener información sobre la IB-50, consulte el manual en línea del CD-ROM.

(P) Para a operação da IB-50, consulte o manual on-line no CD-ROM.

(F) Pour l'utilisation de l'IB-50, reportez-vous au manuel en ligne sur le CD-ROM.

(D) Um die IB-50 in Betrieb zu nehmen, sehen Sie im Online-Handbuch auf der CD-ROM nach.

(N) Raadpleeg voor de bediening van de IB-50 de onlinehandleiding op de CD-ROM.

(I) Per utilizzare la scheda IB-50, fare riferimento al manuale in linea incluso nel CD-ROM.

(CS) 有关 IB-50 的操作情况，请参见 CD-ROM 中的联机手册。

(CT) **有關 IB-50 的操作方法，請參照** CD-ROM **中的線上手冊。**

(K) IB-50 의 조작방법에 대해서 CD-ROM에 포함된 온라인 설명서를 참조하십시오.

(J) IB-50の操作方法についてはCD-ROMに収録されているオンラインマニュアルを参照して下さい。

2011.6
305JV56720-02

Wireless LAN interface Installation Guide

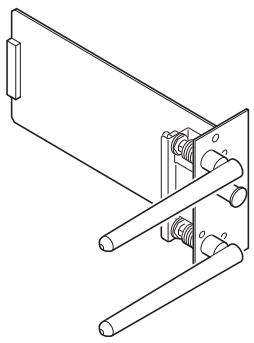
KYOCERA

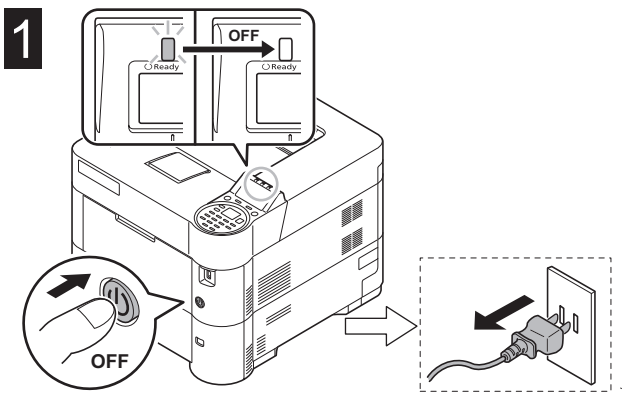
For European countries and Australia :

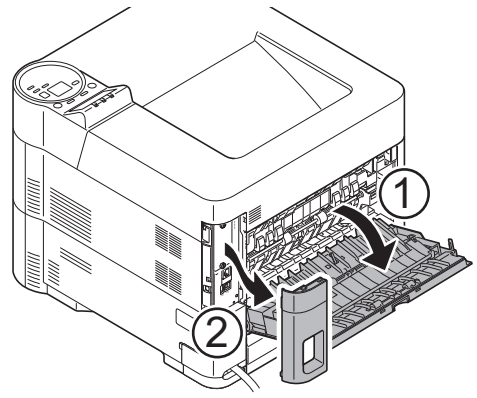
CE N 74

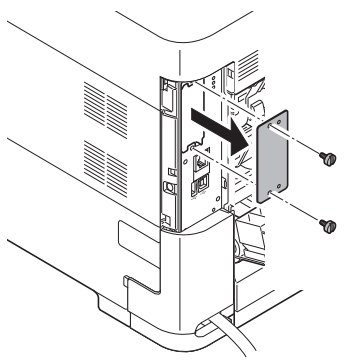
305J55631001

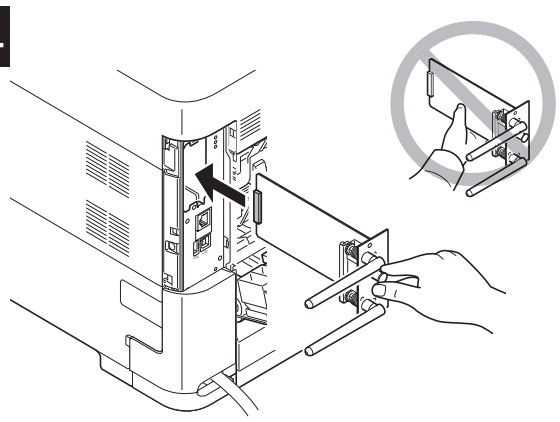
IB-51

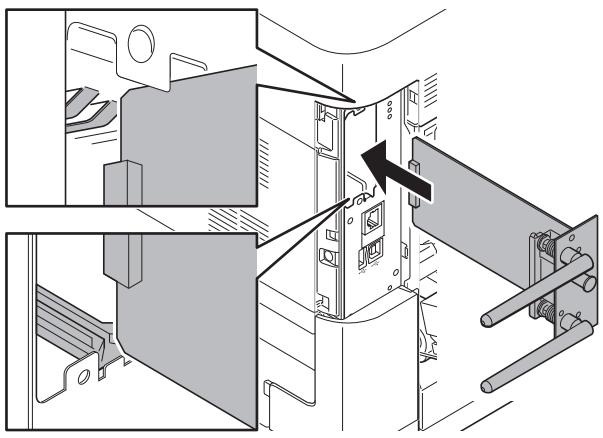


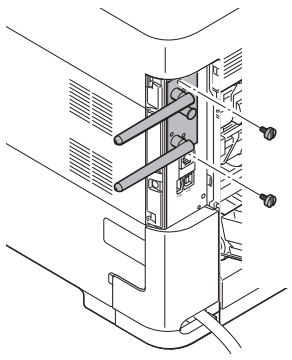


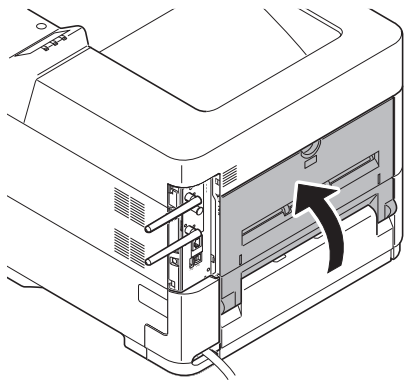


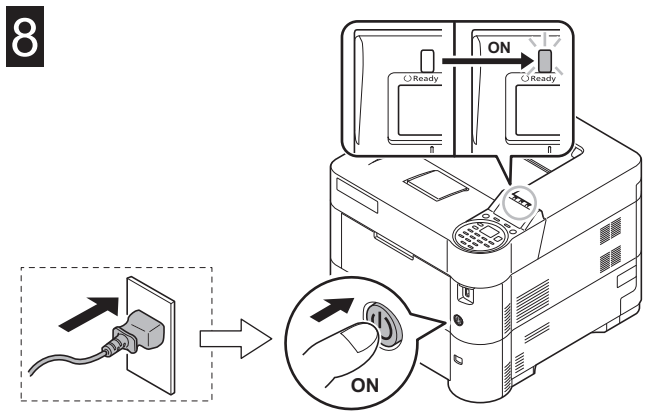












English

Optional Wireless Network Interface Kit IB-51 Installation Guide

Introduction
The IB-51 is an optional wireless network interface kit for use with the MFPs and the page printers. Please read this Installation Guide thoroughly so that you understand the correct installation method.
This wireless network interface kit can be installed in other models using the same installation procedure.

Packing List
IB-51 1
Installation Guide (this guide) 1
CD-ROM 1

Precautions for Handling the Wireless Network Interface Kit
When handling the wireless network interface kit, adhere to the following precautions.
- The wireless network interface kit is delivered in an antistatic bag. To prevent any damage, briefly touch a large metal object to ensure discharge of static electricity before removing the wireless network interface kit from the bag.
- Never touch the wireless network interface kit's connector section directly with hands.
- When holding the wireless network interface kit, avoid contact with the surface of the circuit board. Hold it at the edges.
- Do not apply undue force when installing.

Installing the Wireless Network Interface Kit
CAUTION
Before installing (or removing) the wireless network interface kit, be sure to turn off the machine's power and disconnect the power cord plug from the AC outlet.

Verifying Installation of the Wireless Network Interface Kit
To verify that the wireless network interface kit has been correctly installed, try to print out the status page.
Refer to the Operation Guide for the method for printing a status page.

Network settings
For the network settings and operation procedure, refer to the printer's Operation Guide and the wireless network interface manual.

Français

Kit d'interface réseau sans fil IB-51 en option Guide d'installation

Introduction

L'IB-51 est un kit d'interface réseau sans fil en option destiné à être utilisé avec les imprimantes multifonctions et les imprimantes par page. Veuillez lire entièrement ce guide d'installation et vous assurer que vous comprenez bien les méthodes d'installation.

Ce kit d'interface réseau sans fil peut être installé dans d'autres modèles à l'aide de la même procédure d'installation.

Contenu de l'emballage
IB-51 1
Guide d'installation (ce manuel) 1
CD-ROM 1

Précautions de manipulation du kit d'interface réseau sans fil
Lorsque vous manipulez le kit d'interface réseau sans fil, observez les précautions suivantes.
- Le kit d'interface réseau sans fil est livré dans un sac antistatique. Avant de le retirer du sac, touchez brièvement un grand objet métallique pour vous décharger de toute électricité statique.Vous éviterez ainsi d'endommager le kit d'interface réseau sans fil.
- Ne touchez jamais directement la partie du connecteur du kit d'interface réseau sans fil avec les mains.
- Lorsque vous tenez le kit d'interface réseau sans fil, ne touchez pas la surface de la carte de circuits imprimés. Saisissez-le par les bords.
- N'appliquez aucune force inutile en l'installant.

Installation du kit d'interface réseau sans fil
ATTENTION
Avant d'installer (ou de retirer) le kit d'interface réseau sans fil, mettez toujours l'imprimante hors tension et débranchez la fiche du cordon d'alimentation de la prise de courant.

Vérification de l'installation du kit d'interface réseau sans fil
Pour vous assurer que le kit d'interface réseau sans fil a été correctement installé, essayez d'imprimer la page d'état de l'imprimante.
Pour connaître la méthode d'impression de la page d'état, consultez le manuel d'utilisation.

Réglages réseau
Pour les réglages réseau et la procédure d'utilisation, consultez le manuel d'utilisation de l'imprimante et le manuel de l'interface réseau sans fil.

Español

Kit de interfaz de red inalámbrica IB-51 opcional Guía de instalación

Introducción
El IB-51 es un kit de interfaz de red inalámbrica opcional para utilizar con la copiadora e impresora de hojas. Lea completamente esta Guía de instalación de forma que pueda entender los métodos de instalación y operación correctos.
Este kit de interfaz de red inalámbrica puede instalarse en otros modelos utilizando el mismo procedimiento de instalación.

Lista del contenido del paquete
IB-51 1
Guía de instalación (este folleto) 1
CD-ROM 1

Precauciones para el manejo del kit de interfaz de red inalámbrica
Cuando maneje el kit de interfaz de red inalámbrica, tenga en cuenta las siguientes precauciones.
- El kit de interfaz de red inalámbrica se entrega en una bolsa antiestática. Para evitar cualquier daño, antes de sacar el kit de interfaz de red inalámbrica de la bolsa, toque un objeto metálico grande para descargar la electricidad estática de su cuerpo.
- Nunca toque la sección del conector del kit de interfaz de red inalámbrica directamente con las manos.
- Cuando sostenga el kit de interfaz de red inalámbrica, no toque con las manos la superficie de la placa del circuito impreso. Sujétela por los bordes.
- No aplique demasiada fuerza al realizar la instalación.

Instalación del kit de interfaz de red inalámbrica
PRECAUCIÓN
Antes de instalar (o desmontar) el kit de interfaz de red inalámbrica, asegúrese de desconectar la alimentación de la impresora y de desenchufar el cable de alimentación de la toma de corriente de CA.

Verificación de la instalación del kit de interfaz de red inalámbrica
Para verificar que el kit de interfaz de red inalámbrica ha sido instalado correctamente, trate de imprimir la página de estado de la impresora.
Consulte la Guía de uso para obtener información sobre la impresión de la página de estado de la impresora.

Configuración de la red
Si desea obtener información sobre la configuración de la red y el procedimiento de operación, consulte la Guía de uso y el manual de la interfaz de red inalámbrica.

Deutsch

Optionales Wireless Network Interface Kit IB-51 Installationsanleitung

Einführung
Das IB-51 ist ein optionales Wireless Network Interface Kit zur Verwendung mit den MFPs und den Seitendruckern. Bitte lesen Sie sich diese Installationsanleitung sorgfältig durch, damit Sie das Gerät korrekt installieren.
Dieses Wireless Network Interface Kit kann mithilfe des selben Installationsvorgangs in anderen Modellen eingebaut werden.

Verpackungsinhalt
IB-51 1
Installationsanleitung (diese Anleitung) 1
CD-ROM 1

Vorsichtsmaßnahmen bei der Handhabung des Wireless Network Interface Kits
Bitte beachten Sie die folgenden Vorsichtshinweise beim Umgang mit dem Wireless Network Interface Kit.
- Das Wireless Network Interface Kit wird in einem Antistatikbeutel geliefert. Um eine Beschädigung des Wireless Network Interface Kits zu vermeiden, sollten Sie kurz einen großen Gegenstand aus Metall berühren, um sich von statischer Elektrizität zu entladen, bevor Sie das Wireless Network Interface Kit aus der Verpackung entfernen.
- Berühren Sie auf keinen Fall die Steckleiste des Wireless Network Interface Kits mit bloßen Händen.
- Achten Sie beim Halten des Wireless Network Interface Kits darauf, eine Berührung der Platinenoberfläche zu vermeiden. Halten Sie das Wireless Network Interface Kit stets an den Kanten der Platine.
- Vermeiden Sie übermäßige Kraftanwendung beim Installieren.

Installation des Wireless Network Interface Kits
VORSICHT
Achten Sie vor dem Installieren (bzw. Entfernen) des Wireless Network Interface Kits unbedingt darauf, den Drucker auszuschalten und das Netzkabel von der Netzsteckdose zu trennen.

Überprüfung der Installation des Wireless Network Interface Kits
Um eine korrekte Installation des Wireless Network Interface Kits zu überprüfen, drucken Sie die Statusseite aus.
Die Vorgehensweise für das Ausdrucken einer Statusseite finden Sie in der Bedienungsanleitung.

Netzwerkeinstellungen
Netzwerkeinstellungen und Betriebsverfahren finden Sie in Bedienungsanleitung und Anleitung vom Wireless Network Interface.

Italiano

Kit interfaccia di rete wireless IB-51 opzionale Guida all'installazione

Introduzione
IB-51 è un kit interfaccia di rete wireless opzionale per utilizzi con stampanti multifunzione (MFP) e con stampanti a pagine. Si prega di leggere attentamente la presente Guida all'installazione per comprendere il corretto metodo di installazione.
Questo kit interfaccia di rete wireless può essere installato in altri modelli che utilizzano la stessa procedura di installazione.

Contenuto della confezione
IB-51 1
Guida all'installazione (la presente guida) 1
CD-ROM 1

Precauzioni d'uso del kit interfaccia di rete wireless
Durante l'utilizzo del kit interfaccia di rete wireless, adottare le precauzioni che seguono.
- Il kit interfaccia di rete wireless è spedito in una custodia antistatica. Per evitare eventuali danni, toccare per pochi istanti un oggetto metallico di grandi dimensioni per assicurarsi di scaricare l'elettricità statica prima di rimuovere la il kit interfaccia di rete wireless dalla custodia.
- Non toccare la sezione del connettore del kit interfaccia di rete wireless direttamente con le mani.
- Nell'afferrare il kit interfaccia di rete wireless, evitare il contatto con la superficie della scheda a circuito. Afferrarlo alle estremità.
- Non esercitare una forza eccessiva durante l'installazione.

Istallazione del kit interfaccia di rete wireless
ATTENZIONE:
prima di installare (o di rimuovere) il kit interfaccia di rete wireless, assicurarsi di aver spento l'alimentazione della macchina e di aver disconnesso la spina del cavo di alimentazione dalla presa CA.

Verifica dell'installazione del kit interfaccia di rete wireless
Per verificare che il kit interfaccia di rete wireless sia stato installato correttamente, stampare la pagina di stato.
Per scoprire le modalità di stampa della pagina di stato, consultare la Guida alle funzioni.

Impostazioni di rete
Per le impostazioni di rete e la procedura operativa, consultare la Guida alle funzioni della stampante e il manuale dell'interfaccia di rete wireless.

简体中文

选装无线网络接口套件 IB-51 安装手册

前言
IB-51 是一款适用于 MFP 和页式打印机的选装无线网络接口套件。为了解正确的安装方法，请仔细通读本《安装手册》。

本无线网络接口套件可通过同样的安装步骤安装到其他机型上去。

包装内容列表
IB-51 1
安装手册（本手册） 1
CD-ROM 1

使用本无线网络接口套件的注意事项
使用本无线网络接口套件时，请遵守以下注意事项。
- 本无线网络接口套件被包装在防静电袋中。将无线网络接口套件从包装袋中取出之前，请短暂触摸大件金属物体以消除静电，以免造成损坏。
- 请勿直接用手触摸无线网络接口套件的连接器部分。
- 拿握无线网络接口套件时，请勿接触到电路板的表面。请拿握其边缘。
- 安装时请不要过于用力。

安装本无线网络接口套件
注意：
安装（或拆卸）本无线网络接口套件前，请务必关掉机器的电源并将电源线插头从 AC 插座上断开。

确认本无线网络接口套件安装正确
为确认本无线网络接口套件已经正确安装，请尝试
打印状态页。
有关打印状态页的方法，请参阅《操作手册》。

网络设置
有关网络设置的操作方法和步骤，请参阅打印机的《操作手册》和无线网络接口手册。

동봉물

옵션 무선 네트워크 인터페이스 키트 IB-51 토너 설치 안내서

소개
IB-51은 MFP와 페이지 프린터에 사용되는 옵션 무선 네트워크 인터페이스 키트입니다. 본 토너 설치 안내서를 주의 깊게 읽고 올바른 설치 방법을 숙지하시기 바랍니다. 본 무선 네트워크 인터페이스 키트는 같은 설치 절차를 적용하여 다른 모델에 설치될 수 있습니다.

포장 내용물
IB-51 1
토너 설치 안내서 (본 안내서) 1
CD-ROM롬 1

무선 네트워크 인터페이스 키트 취급 시 주의사항
무선 네트워크 인터페이스 키트 취급 시, 다음과 같은 주의사항을 지켜주시기 바랍니다.
- 무선 네트워크 인터페이스 키트는 정전기 방지 봉투에 포장되어 있습니다. 무선 네트워크 인터페이스 키트를 꺼내기 전에 손상을 예방하기 위해 큰 금속 물체를 잠시 만져서 정전기를 방지하시기 바랍니다.
- 무선 네트워크 인터페이스 키트의 연결부를 직접 손으로 만지지 마십시오.
- 무선 네트워크 인터페이스 키트를 잡을 때는 회로판 표면에 닿지 않도록 끝부분을 잡으십시오.
- 설치 시 과도한 힘을 가하지 마십시오.

무선 네트워크 인터페이스 키트 설치
주의사항
무선 네트워크 인터페이스 키트를 설치(또는 제거)하기 전, 기기의 전원을 끄고 AC 아우트렛에서 전원선을 분리하십시오.

무선 네트워크 인터페이스 키트 설치 확인
무선 네트워크 인터페이스 키트가 올바르게 설치되었는지 확인하려면 상태 페이지를 출력해보십시오. 상태 페이지를 출력하는 방법에 관해서는 사용설명서를 참고하시기 바랍니다.

네트워크 설정
네트워크 설정 및 사용 절차에 관련된 정보는 프린터의 사용설명서와 무선 네트워크 인터페이스 매뉴얼을 참고하시기 바랍니다.

日本語

オプションワイヤレスネットワーク インターフェイスキット IB-51 インストールガイド

はじめに
IB-51 は京セラ複合機およびプリンター用ワイヤレスネットワークインターフェイスキットです。本書をよくお読みいただき、正しく装着してください。なお、本オプションはその他の機種でも同様の手順で装着できます。

梱包内容の確認
ワイヤレスネットワークインターフェイス本体 1
インストールガイド(本書) 1
CD-ROM 1

取扱い上の注意
本オプションの取り扱いには、以下のことにご注意ください。
- 本品は静電気防止対策済みの袋に入っています。袋の中から取り出す際は、念のため大きな金属物に触れて身体の静電気を取り除いてください。
- 本品のコネクター部分には手を触れないでください。
- 本品を持つ際は基板の表面に手を触れずに、基板の端を持ってください。
- 装着時は無理な力を加えないでください。

ワイヤレスネットワークインターフェイスキットの装着
注意
本オプションの装着（または取り外し）は、複合機またはプリンターの電源を切り、電源プラグをコンセントから抜いた状態で行ってください。

装着の確認
ステータスページを印刷して、本オプションが正しく装着されたかを確認できます。
ステータスページの印刷方法は、使用説明書を参照してください。

ネットワークの設定
ネットワークの設定、操作手順については、プリンターの使用説明書とワイヤレスネットワークインターフェイスのマニュアルを参照してください。

Printed in China 305J55631001 First edition 2012.6

KYOCERA

PF-320

SERVICE MANUAL

Published in August 2012
843NY110
3NYSM060
First Edition

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES 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.

CONTENTS

1-1-1 Specifications

Item	Specifications
Type	Loading type feeding unit
Feed system	Retard friction roller system
Paper size	Legal, Oficio II, Mexican Oficio, Letter, Executive, Statement, Folio, A4, B5(JIS), A5, B6, Return postcard, B5(ISO), C5, Commercial #10, DL, Commercial #9, Monarch, Commercial #6-3/4, Youkei4, Youkei2, 16K, Custom (92.1mm x 165.1mm / 3 5/8" x 6 1/2")
Paper type	Plain, Recycled, Bond, Color (Colour), Preprinted, Letterhead, Prepunched, Rough, High quality, Envelope, Custom 1 to 8
Paper capacity	500 sheets maximum (80 g/m^2)
Dimensions (W × D × H)	380 x 410 x 121 mm / 14 15/16" x 16 1/8" x 4 3/4"
Weight	4.0 kg or less / 8.8 lb or less

1-1-2 Parts names

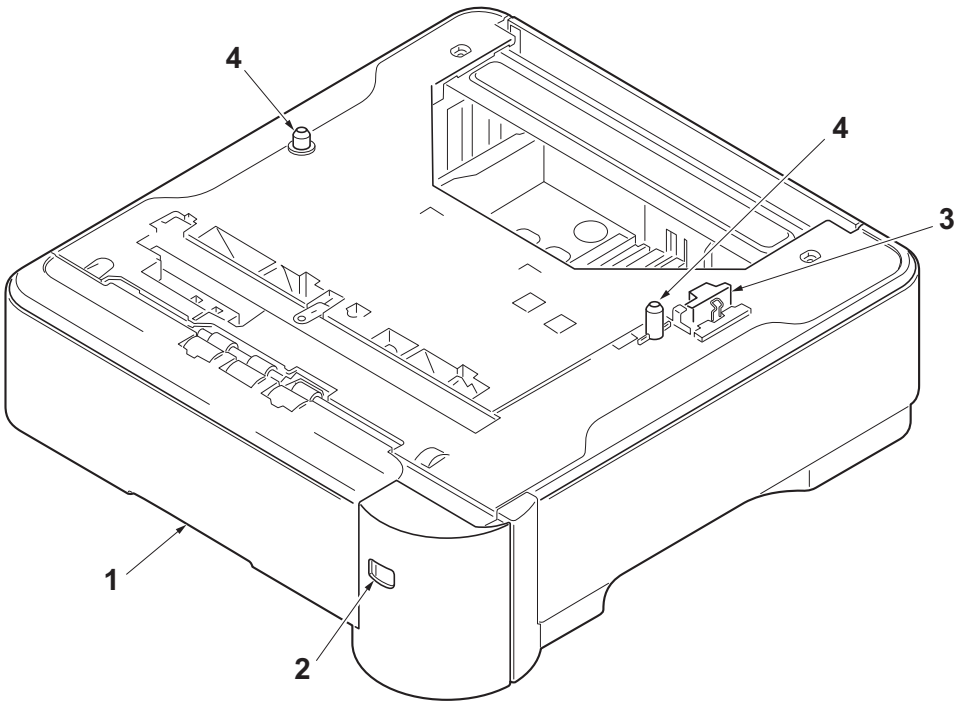


Figure 1-1-1

1. Cassette
2. Papersize window
3. Interface connector
4. Pins

1-1-3 Machine cross section

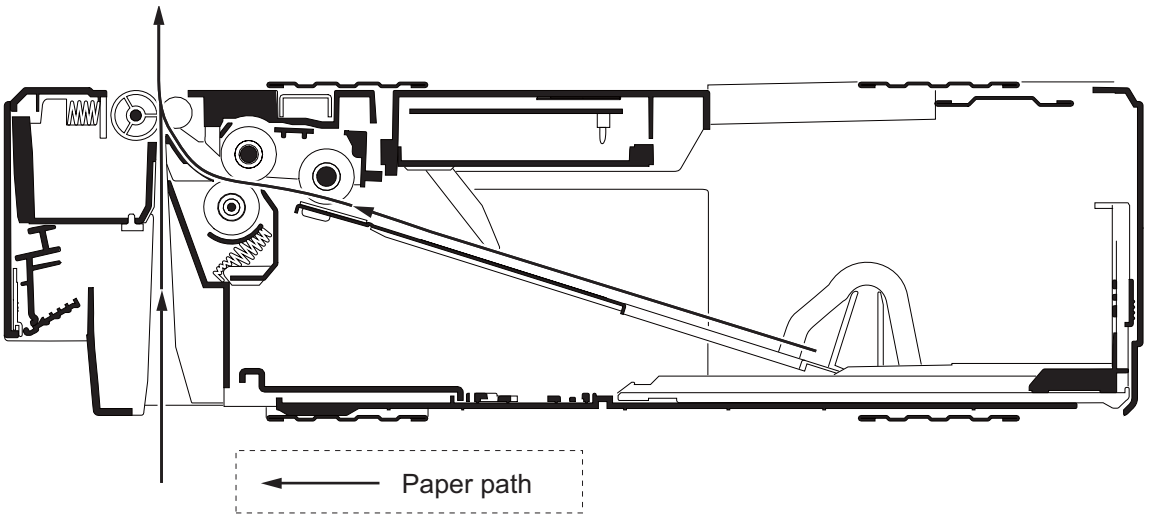


Figure 1-1-2 Machine cross section

1-2-1 Unpacking and installation

(1) Installation procedure

Installing the paper feeder

1. Remove the paper feeder from the container box and place the feeder where you want to install it.
2. Lift the printer up without tilting it, then put it down onto the paper feeder(s) by fitting the four corners as shown in the figure.
   (The number of the maximum stages: Four steps)

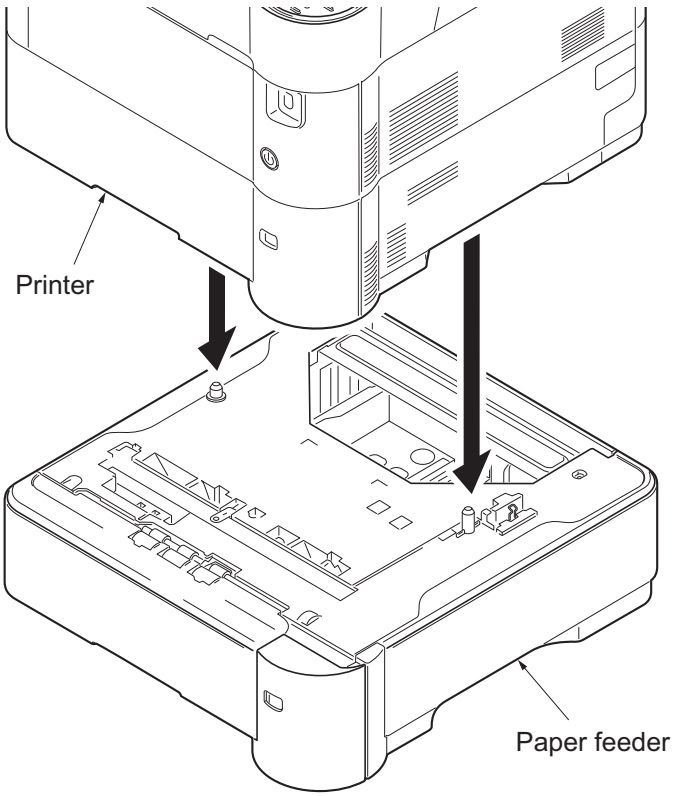


Figure 1-2-1

Loading paper into the cassette

1. Pull the cassette from the paper feeder out while griping the release lever.

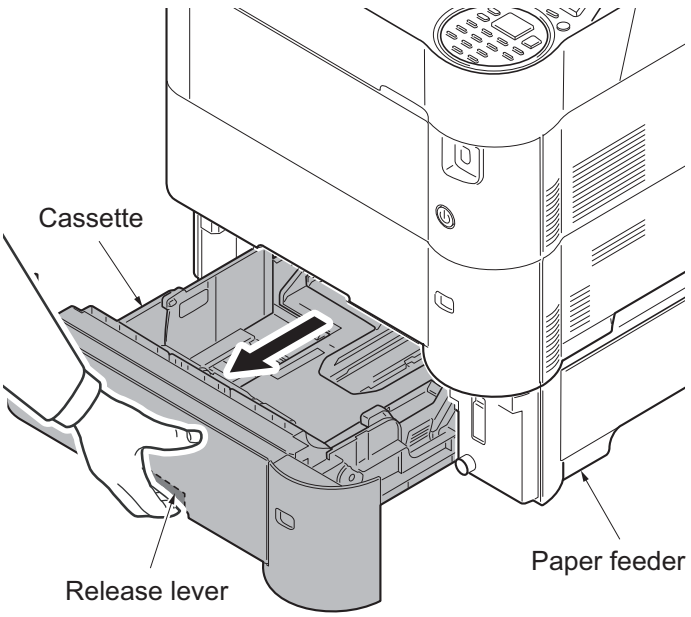


Figure 1-2-2

2. Turn the cassette size dial so that the size of the paper you are going to use appears in the paper size window.

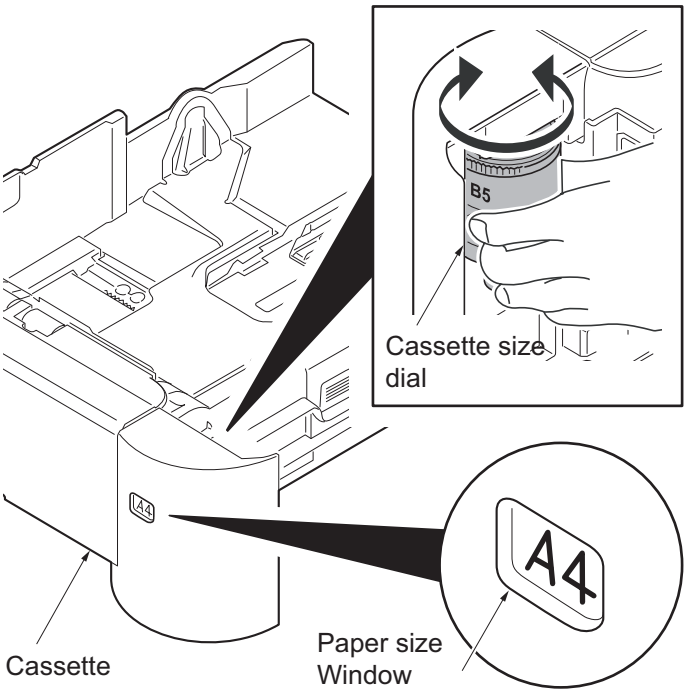


Figure 1-2-3

3. Push the lock lever on the left side guide and slide to the desired paper size.

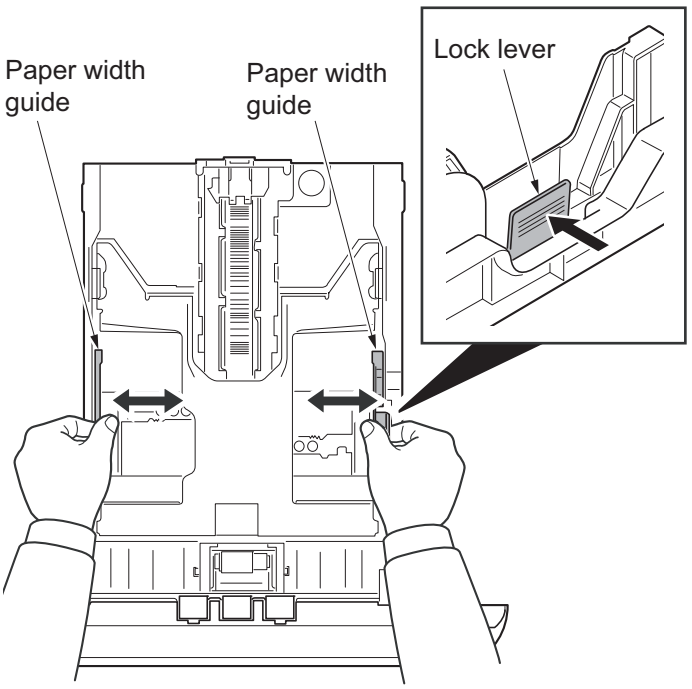


Figure 1-2-4

4. If you are going to set paper that is longer than A4, pull out the extension cassettes pushing the lock lbutton one by one and adjust them to the desired paper size.

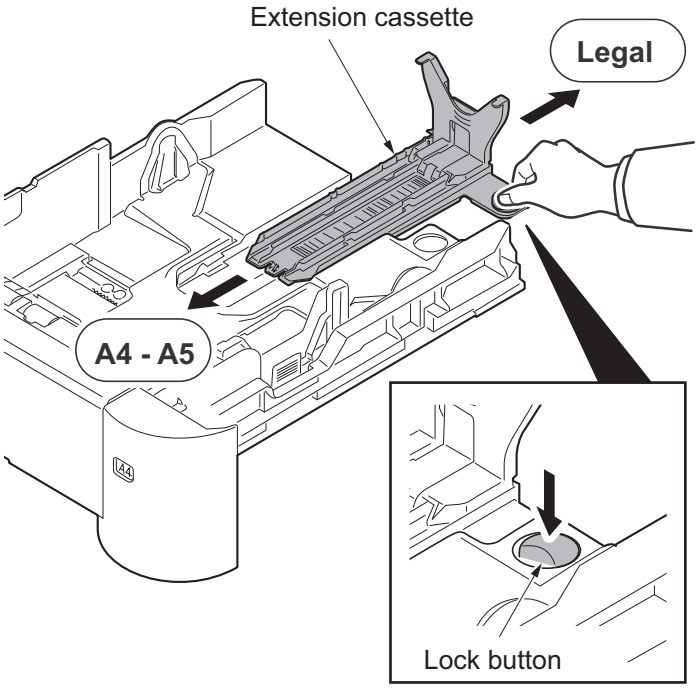


Figure 1-2-5

5. Push the lock lever and slide the paper length guide to the desired paper size. When using non-standard size paper, move the paper width guides and paper length guide all the way out, insert the paper, then adjust the paper width guides and paper length guide to the size of the paper. Adjust them so that they are in light contact with the paper.

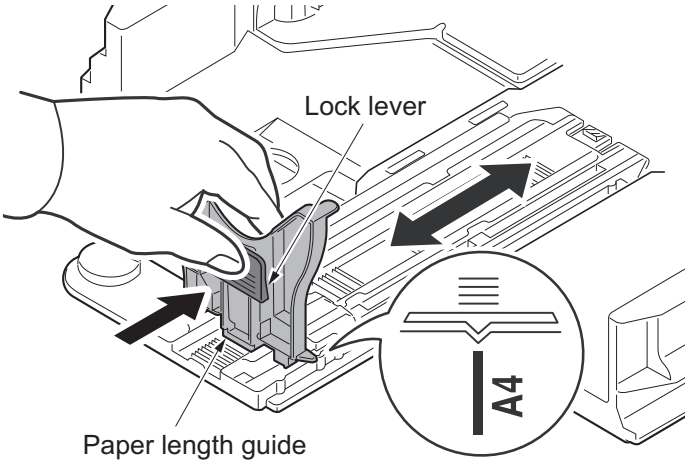


Figure 1-2-6

6. Fan the media (paper/transparencies), then tap it on a level surface to avoid media jams or skewed printing.

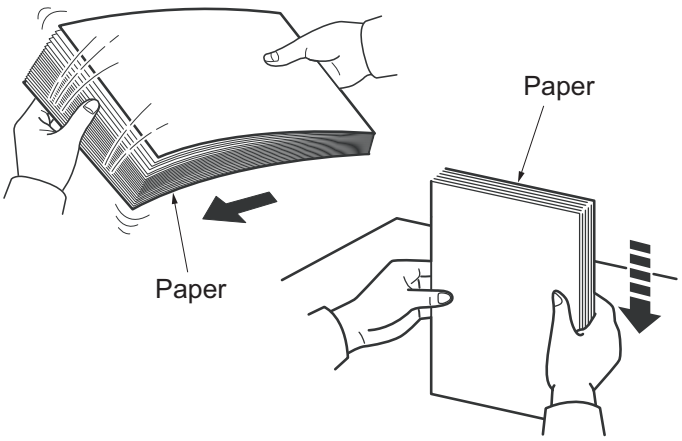


Figure 1-2-7

7. Slide the paper into the paper cassette.

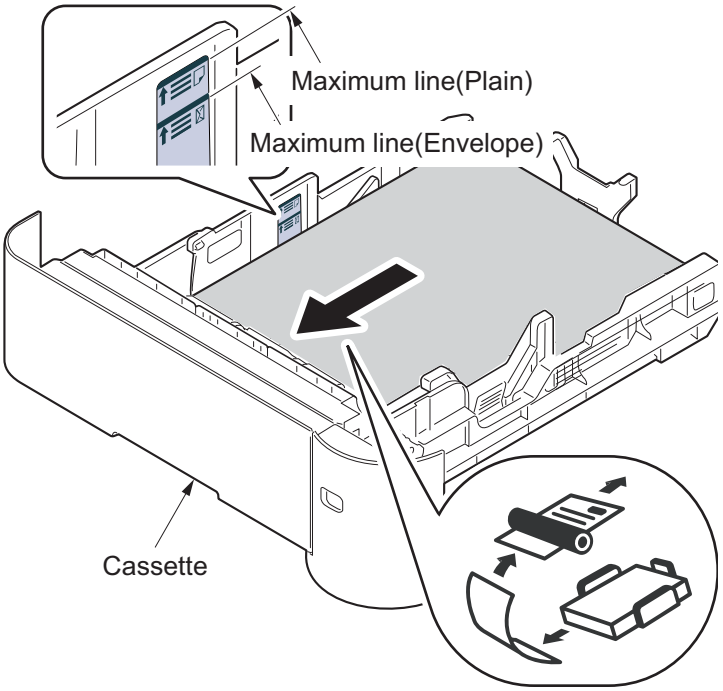


Figure 1-2-8

8. Insert the cassette into the slot in the paper feeder. Push it straight in as far as it will go.

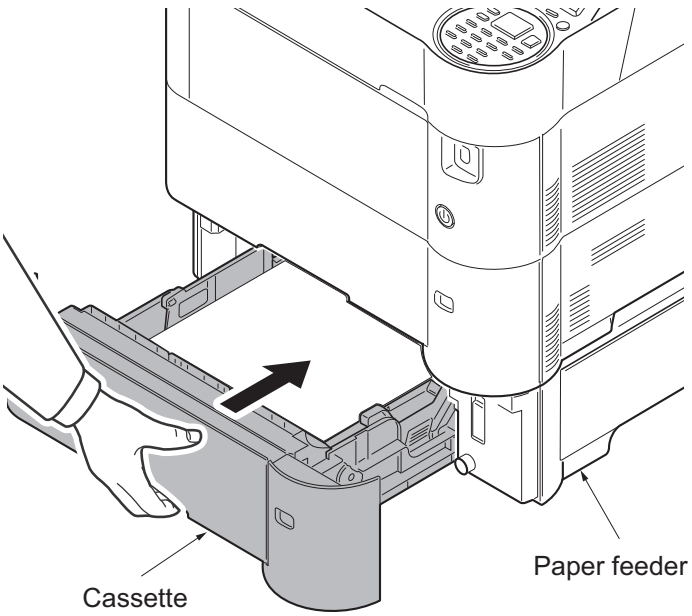


Figure 1-2-9

Completion of the machine installation.

1-3-1 Paper misfeed detection

(1) Paper misfeed indication

When a paper misfeed occurs, the printer immediately stops copying and displays the jam location on the printer operation panel.

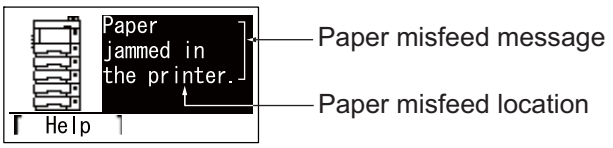


Figure 1-3-1 Paper misfeed indication

(2) Paper misfeed detection

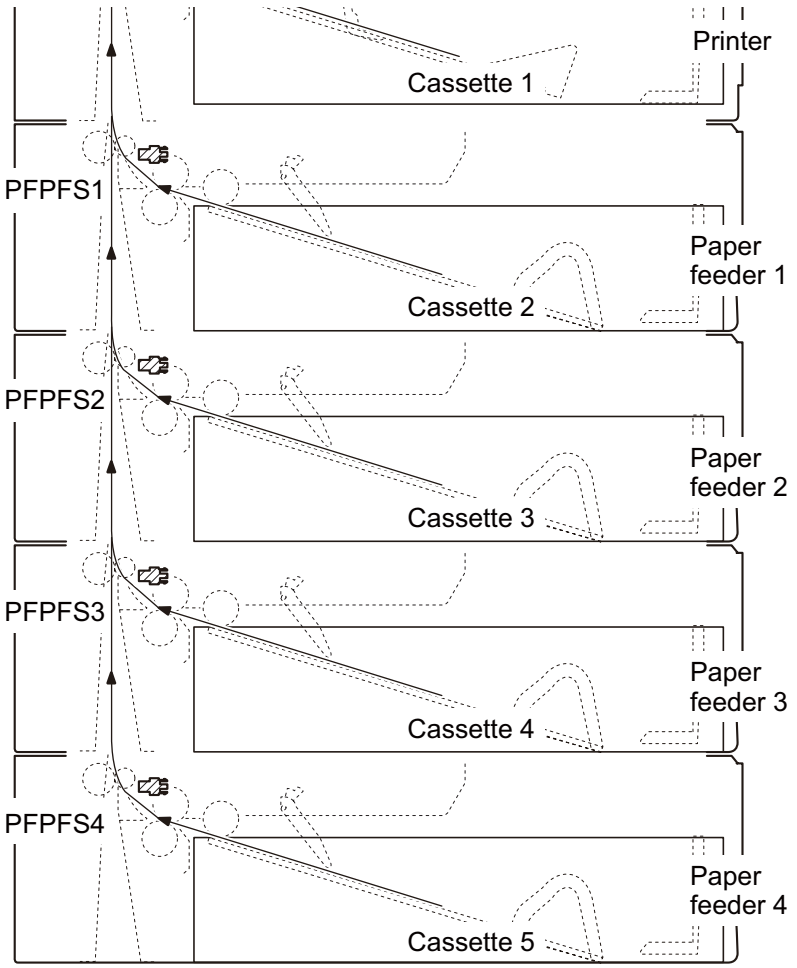


Figure 1-3-2 Paper misfeed detection

1-3-2 Self-diagnosis

(1) Self-diagnostic function

This printer is equipped with self-diagnostic function. When a problem is detected, the printer stops printing and display an error message on the operation panel. An error message consists of a message prompting a contact to service personnel, total print count, and a four-digit error code indicating the type of the error. (The display varies depending on the type of the error.)

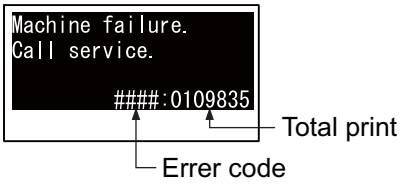


Figure 1-3-3

(2) Self diagnostic codes

Code	Contents	Causes	Check procedures/ corrective measures
1020	**PF lift motor 1 error (paper feeder 1)** After cassette 2 is inserted, PF lift sensor 1 does not turn on within 10 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 1 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 1.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)

Code	Contents	Causes	Check procedures/ corrective measures
1030	**PF lift motor 2 error (paper feeder 2)** After cassette 3 is inserted, PF lift sensor 2 does not turn on within 10 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 2 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 2.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
1040	**PF lift motor 3 error (paper feeder)** After cassette 4 is inserted, PF lift sensor 3 does not turn on within 10 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 3 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 3.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)

Code	Contents	Causes	Check procedures/ corrective measures
1050	**PF lift motor 4 error (paper feeder)** After cassette 5 is inserted, PF lift sensor 4 does not turn on within 10 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 4 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor 4.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
1800	**Paper feeder 1 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC22)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (Refer to the service manual for the printer).
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
1810	**Paper feeder 2 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)

Code	Contents	Causes	Check procedures/ corrective measures
1820	**Paper feeder 3 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
1830	**Paper feeder 4 communication error** A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and PF main PWB (YC4)
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
1900	**Paper feeder 1 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
		Device damage of EEPROM.	
1910	**Paper feeder 2 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
		Device damage of EEPROM.	
1920	**Paper feeder 3 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
		Device damage of EEPROM.	
1930	**Paper feeder 4 EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
		Device damage of EEPROM.	

Code	Contents	Causes	Check procedures/ corrective measures
2600	**PF feed motor 1 error (paper feeder 1)** When the PF feed motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF feed motor 1 and PF main PWB (YC6)
		Defective drive transmission system of the PF feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF feed motor.	Replace the PF feed motor 1.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
2610	**PF feed motor 2 error (paper feeder 2)** When the PF feed motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF feed motor 2 and PF main PWB (YC6)
		Defective drive transmission system of the PF feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF feed motor.	Replace the PF feed motor 2.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)
2620	**PF feed motor 3 error (paper feeder 3)** When the PF feed motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF feed motor 3 and PF main PWB (YC6)
		Defective drive transmission system of the PF feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF feed motor.	Replace the PF feed motor 3.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)

Code	Contents	Causes	Check procedures/ corrective measures
2630	**PF feed motor 4 error (paper feeder 4)** When the PF feed motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF feed motor 4 and PF main PWB (YC6)
		Defective drive transmission system of the PF feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF feed motor.	Replace the PF feed motor 4.
		Defective PF main PWB.	Replace the PF main PWB. (See page 1-4-4)

1-3-3 Electric problems

Problem	Causes	Check procedures/corrective measures
(1)Defective paper jam detecting. False paper jam message display.	Actuators of paper feed sensor does not operate smoothly.	Check visually and replace if necessary.
	A piece of paper torn from a sheet is caught around actuator of paper feed sensor.	Check visually and remove it, if any.
	Defective paper feed sensor.	Replace the paper feed sensor.
	Defective PF main PWB.	Replace the PF main PWB (See page 1-4-4).
	Defective printer's engine PWB.	Replace printer's engine PWB. (Refer to the service manual for the printer)
(2)Defective paper gauge sensing. False paper gauge indication.	Defective paper gauge sensors.	Replace the PF main PWB (See page 1-4-4).
	Actuator of paper gauge sensors does not operate smoothly.	Check visually and replace if necessary.
	Defective PF main PWB.	Replace PF main PWB (See page 1-4-4).
	Defective printer's engine PWB.	Replace printer's engine PWB. (Refer to the service manual for the printer)
(3)Defective paper size detecting. False paper size message display.	Defective cassette size switch.	Replace the cassette size switch.
	Defective PF main PWB.	Replace the PF main PWB (See page 1-4-4).
	Defective printer's engine PWB.	Replace printer's engine PWB. (Refer to the service manual for the printer)

1-3-4 Mechanical problems

Problem	Causes/check procedures	Corrective measures
(1)No paper feed.	Check if the surfaces of the following rollers are dirty with paper powder: Pickup roller, Paper feed roller	Clean with isopropyl alcohol.
	Check if the pickup roller and paper feed roller are deformed.	Check visually and replace any deformed rollers.
	Defective installation position of drive unit.	Check the installation position of drive unit.
	Defective paper feed motor.	Replace the drive unit. (See page 1-4-4)
(2)Skewed paper feed.	Check if the paper is curled.	Change the paper.
(3)Multiple sheets of paper are fed at one time.	Check if the paper is excessively curled.	Change the paper.
	Deformed guides along the paper conveying path.	Check visually and replace any deformed guides.
(4)Paper jams.	Check if the contact between the pickup roller, paper feed roller and retard roller is correct.	Check visually and remedy if necessary. Replace the pressure spring if it is deformed.
(5)Abnormal noise is heard	Check if the pulleys, rollers and gears operate smoothly.	Grease the bearings and gears.
	Check if the drive unit is installed correctly.	Correct.

1-4-1 Precautions for assembly and disassembly

(1) Precautions

Before starting disassembly, press the Power key on the operation panel to off. Make sure that the Power lamp is off before turning off the main power switch. Unplug the power cable from the wall outlet.
When handling PWBs (printed wiring boards), do not touch parts with bare hands.
The PWBs are susceptible to static charge.
Do not touch any PWB containing ICs with bare hands or any object prone to static charge.
When removing the hook of the connector, be sure to release the hook.
Take care not to get the cables caught.
To reassemble the parts, use the original screws. If the types and the sizes of screws are not known, refer to the PARTS LIST.

1-4-2 Assembly and disassembly

(1) Removing the conveying roller, paper feed roller and pickup roller

Procedure

1. Remove the cassette from the paper feeder.
2. While pressing the lock lever and then slide the roller holder.
3. Remove the paper feed roller assembly.
4. Check or replace the paper feed roller or the pickup roller and refit all the removed parts.

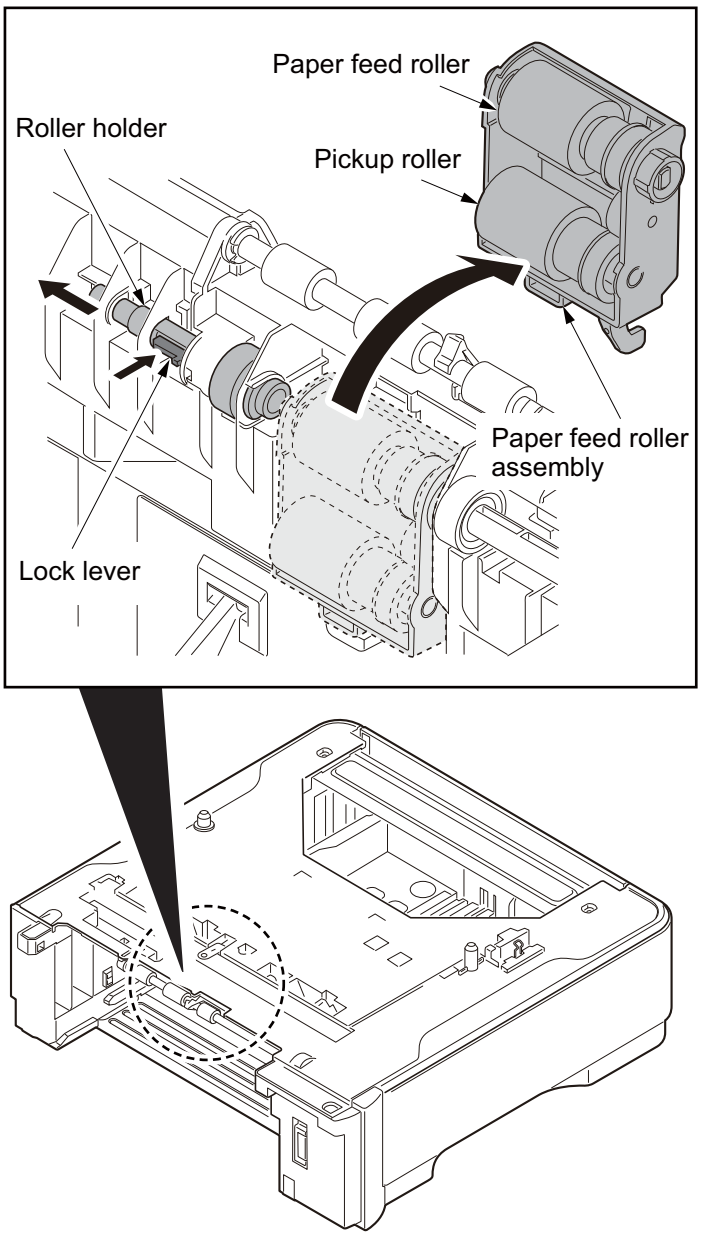


Figure 1-4-1

(2) Removing the retard roller

1. Remove the cassette from the paper feeder.
2. Release two hooks in backside of cassette and then remove the retard roller assembly.

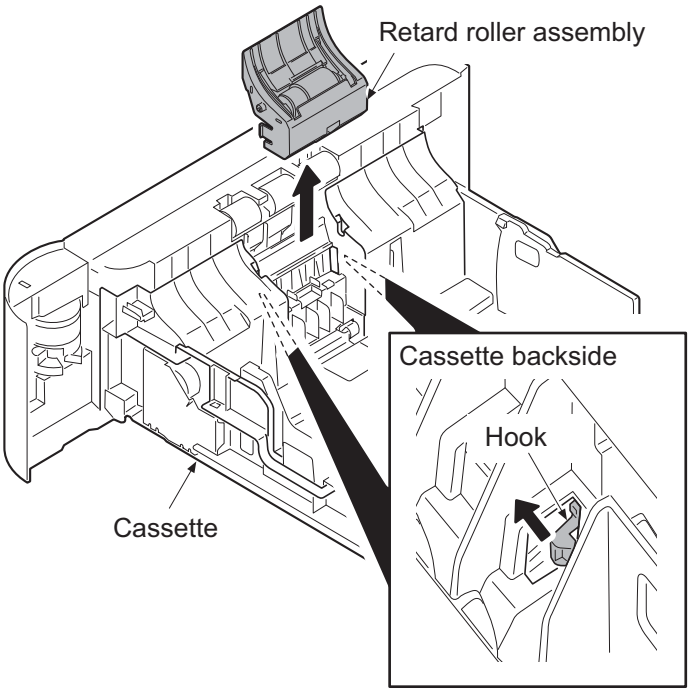


Figure 1-4-2

3. Remove the spring.
4. Remove the retard holder by rotating.
5. Check or replace the retard roller and refit all the removed parts.

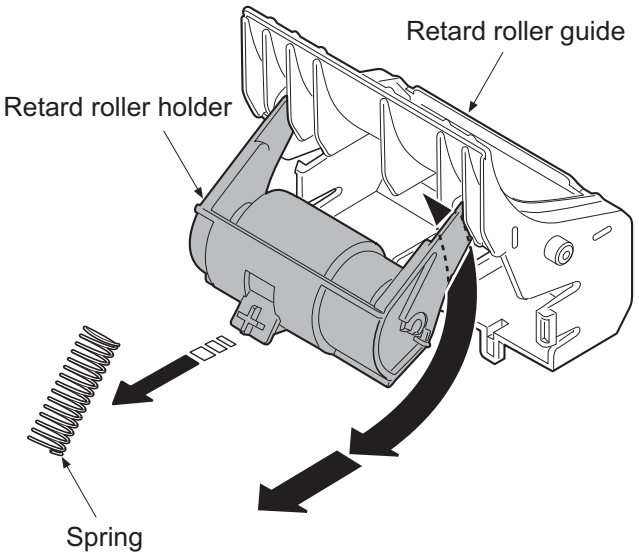


Figure 1-4-3

(3) Remove the drive unit and PF main PWB

1. Remove the right front cover.
2. Remove the five screws.
3. Pull the upper cover rear ends.
4. While pulling out the paper size switch, and then remove the upper cover.

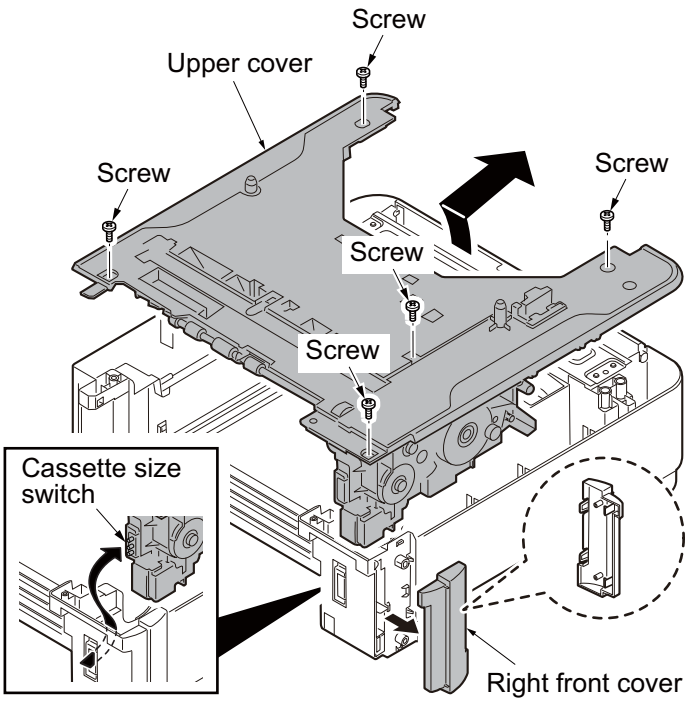


Figure 1-4-4

5. Release two hooks using the flat screw driver.
6. Remove the PWB cover by pulling the knob up.

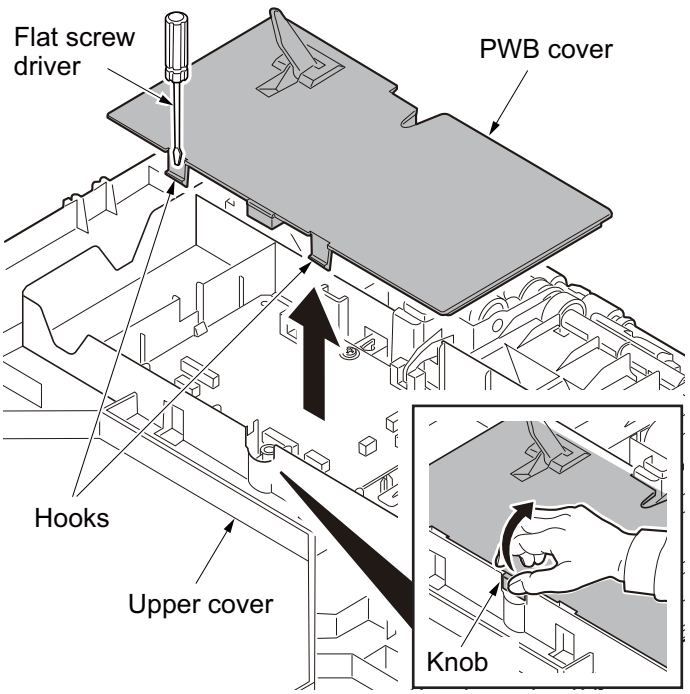


Figure 1-4-5

7. Pull the three connectors out and then release the wires from the wire holders.
8. Remove the three screws and then remove the drive unit.

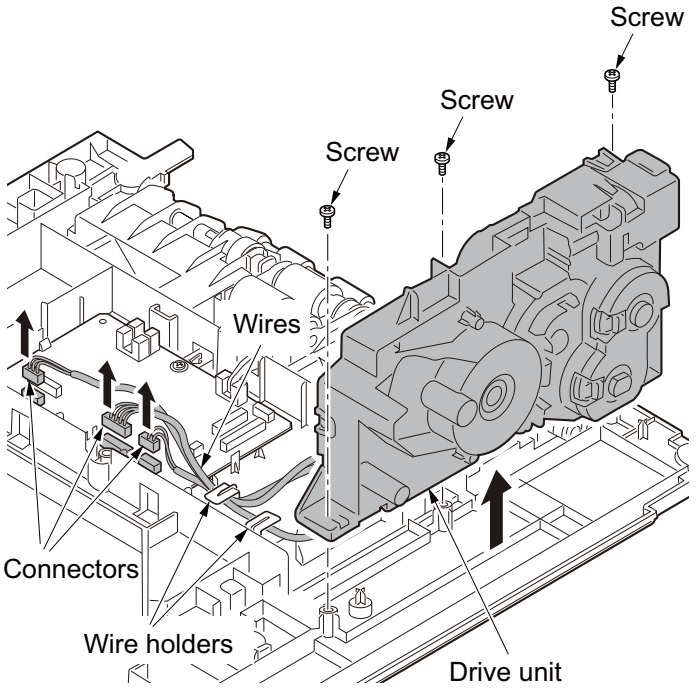


Figure 1-4-6

9. Pull the paper feed roller assembly up.
10. Remove all connectors from the PF main PWB.
11. Remove the screw and then remove the PF main PWB.
12. Check or replace the drive unit or PF main PWB and refit all the removed parts.

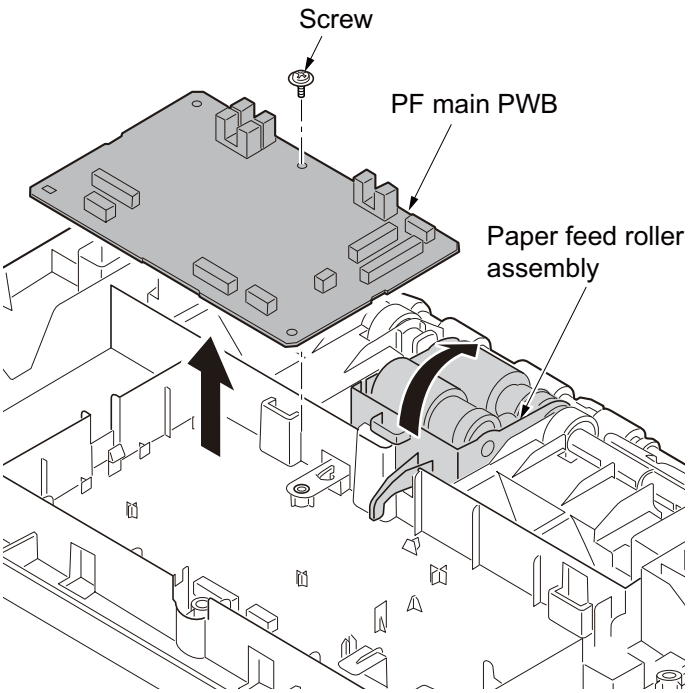


Figure 1-4-7

2-1-1 Paper feed section

(1) Paper feed section

The paper feeder conveys paper from the cassette to the printer. Cassette can hold up to 500 sheets of paper. Paper is fed from the paper feeder by the rotation of the pickup roller and paper feed roller. The retard roller prevents multiple sheets from being fed at one time, via the torque limiter.

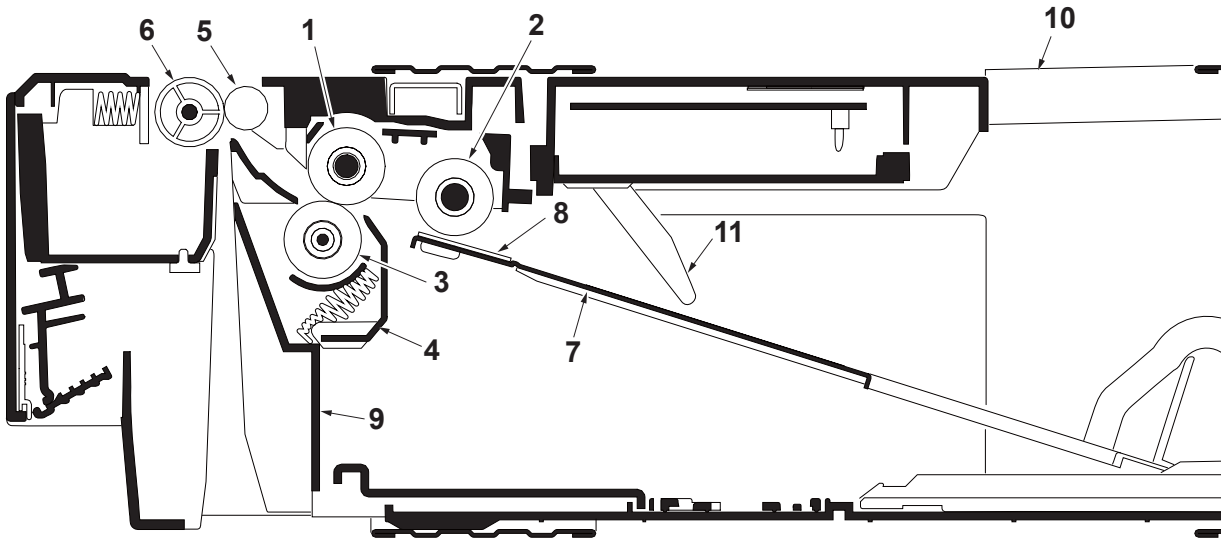


Figure 2-1-1 Paper feed section

(1)Paper feed roller
(2)Pickup roller
(3)Retard roller
(4)Retard roller guide
(5)Conveying roller
(6)Conveying pulley
(7)Bottom plate
(8)Bottom pad
(9)Cassette base
(10)Upper cover
(11)Paper gauge sensor (actuator)

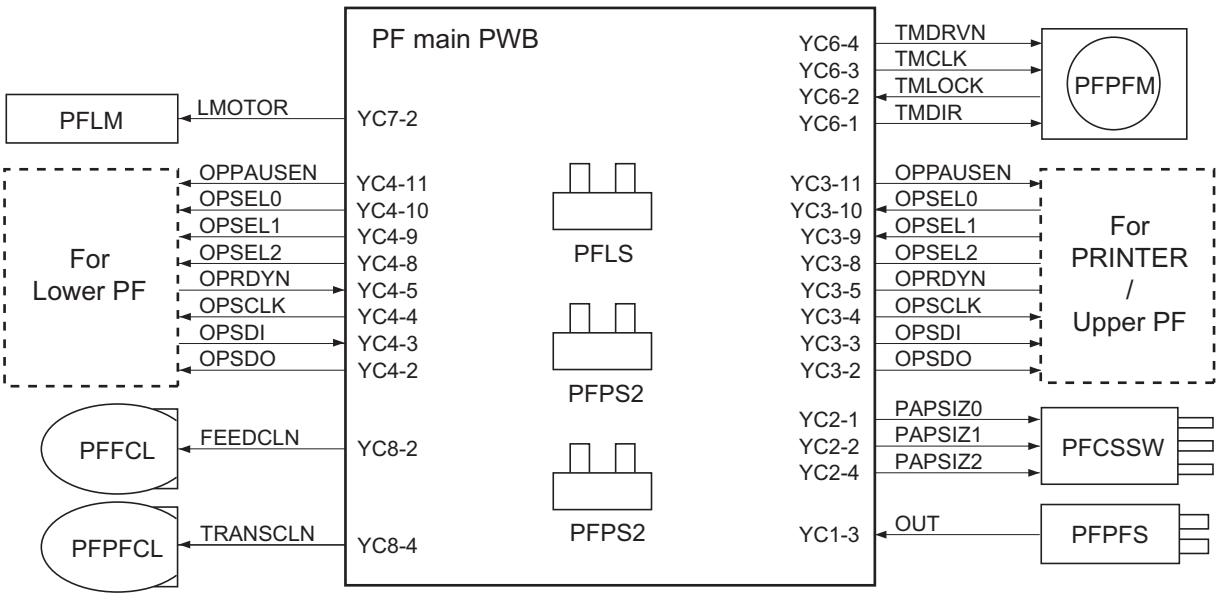


Figure 2-1-2 Paper feed section block diagram

2-2-1 Electrical parts layout

(1) Electrical parts

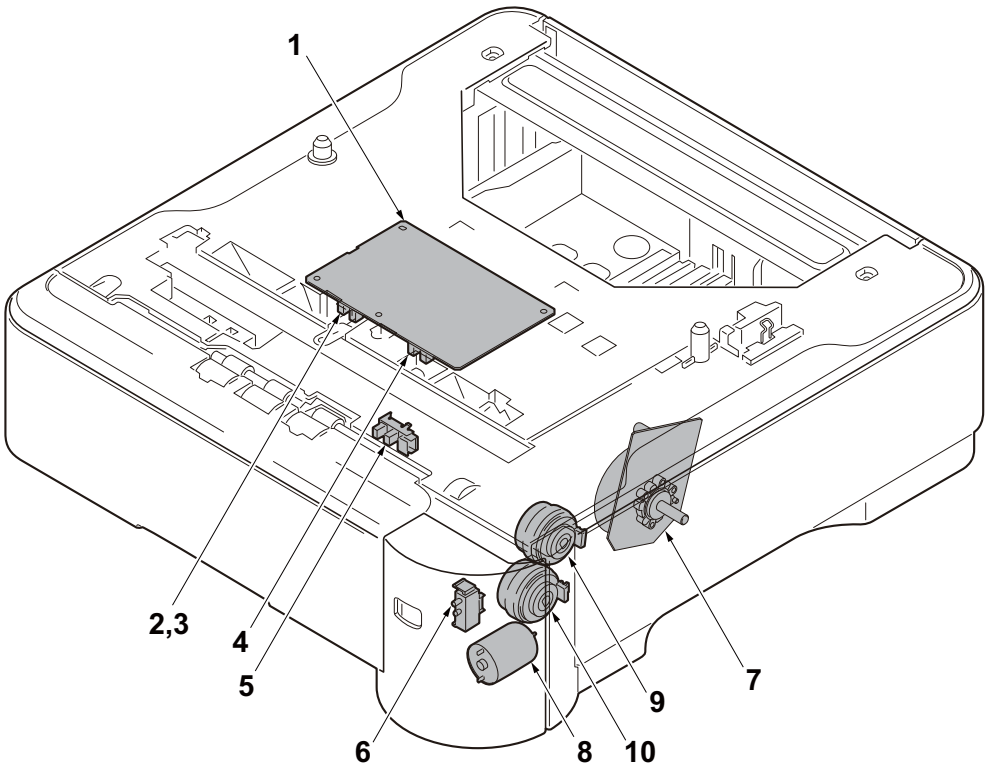
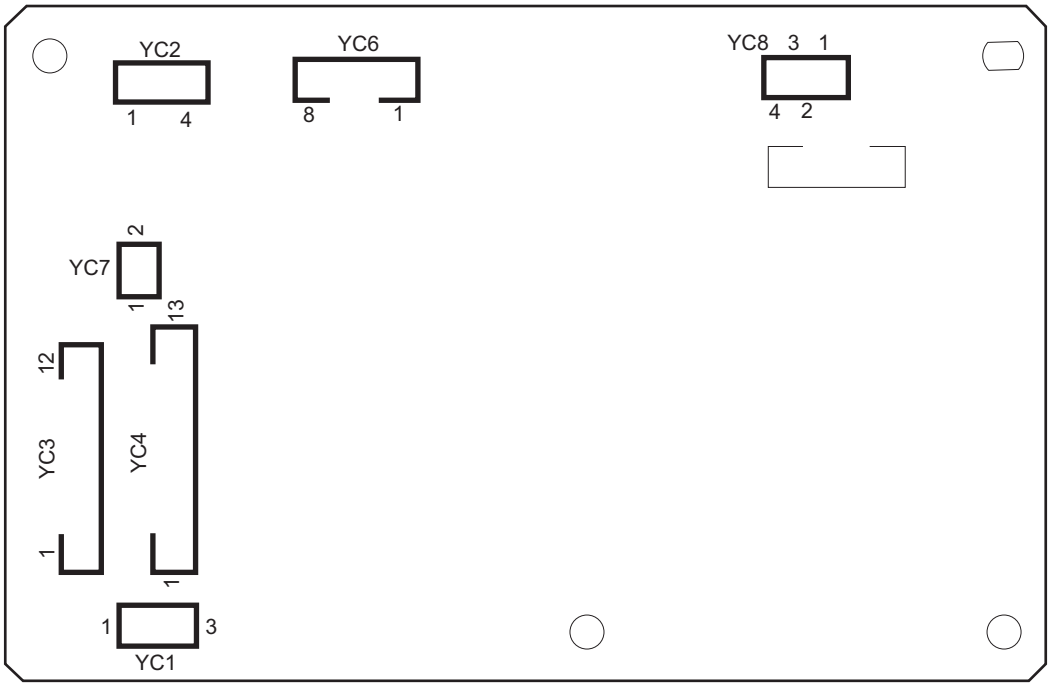


Figure 2-2-1 Electrical parts

1. PF main PWB (PFMPWB) ..... Controls electrical components in the paper feeder and communications with the printer.
2. PF paper sensor 1 (PFPS1)..... Detects the paper remaining amount level.
3. PF paper sensor 2 (PFPS2)..... Detects the paper remaining amount level.
4. PF lift sensor (PFLS)..... Detects the top limit of the bottom plate.
5. PF paper feed sensor (PFPFS) ..... Detects paper jam in the paper feeder.
6. PF cassette size switch (PFCSSW)..... Detects the paper size dial setting of the paper setting dial.
7. PF paper feed motor (PFPFM) ..... Drives the paper feed mechanism in the paper feeder.
8. PF lift motor (PFLM)..... Operates the bottom plate in the cassette.
9. PF paper feed clutch (PFPFCL)..... Controls the paper feed from the cassette.
10. PF peed clutch (PFFCL) ..... Controls the paper conveying.

2-3-1 Main PWB

.



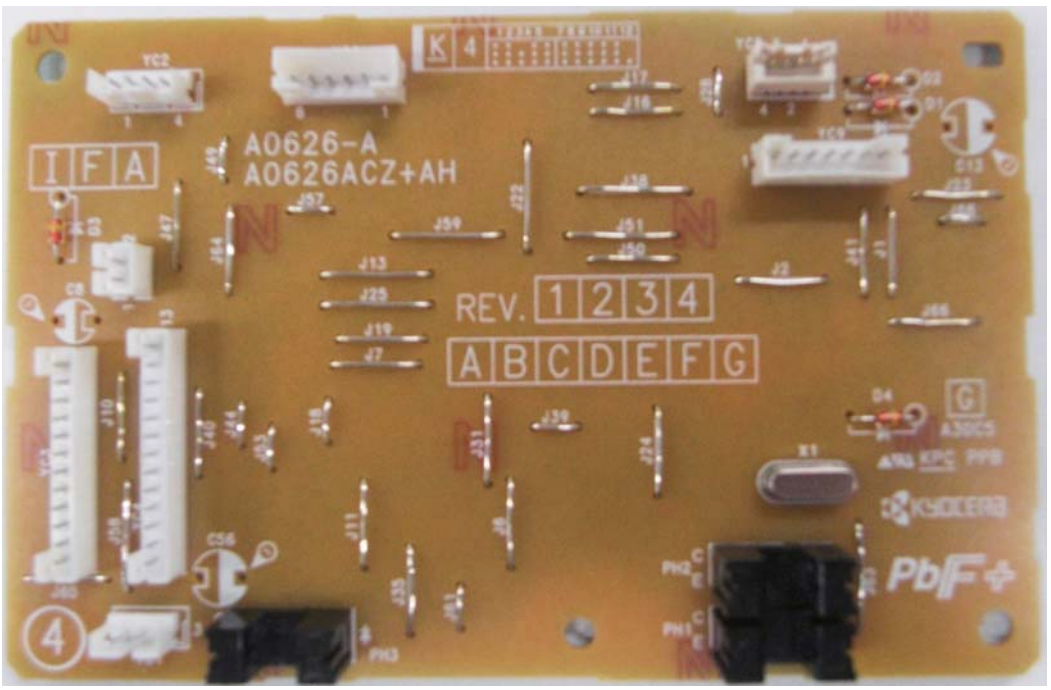


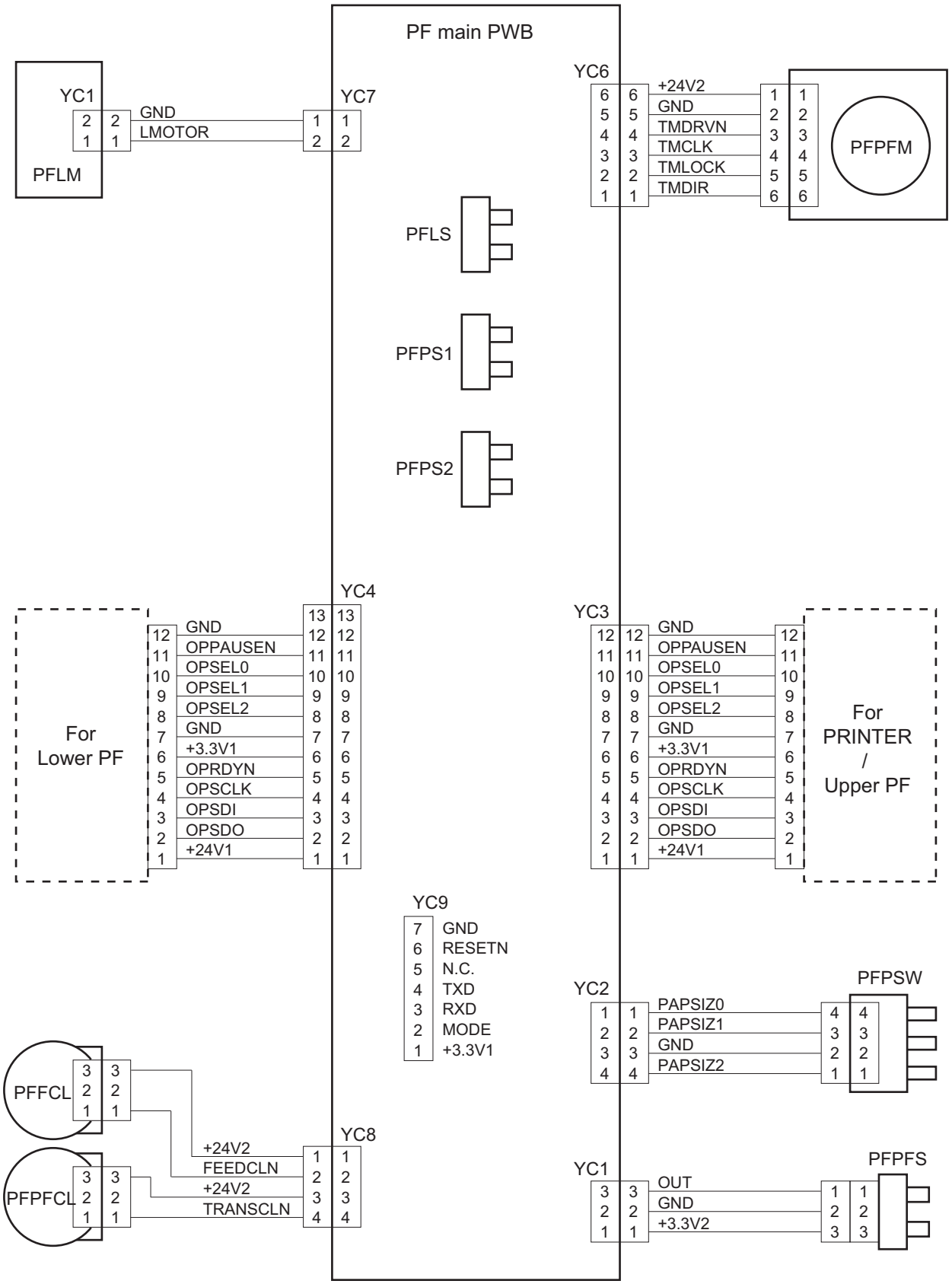
Figure 2-3-1 Main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	+3.3V2	-	3.3 V DC	3.3 V DC power output to PFS
Connected to the PF paper fed sensor	2	GND	-	-	Ground
	3	OUT	I	0/3.3 V DC	PFPFS: On/Off
YC2	1	PAPSIZ0	I	0/3.3 V DC	PFCSSW0: On/Off
Connected to the PF cas-sette size switch	2	PAPSIZ1	I	0/3.3 V DC	PFCSSW1: On/Off
	3	GND	-	-	Ground
	4	PAPSIZ2	I	0/3.3 V DC	PFCSSW2: On/Off
YC3	1	+24V1	O	24 V DC	24 V DC power source
Connected to the printer oy the upper paper feeder	2	OPSDO	O	0/3.3 V DC(pulse)	Synchronous serial receiving data
	3	OPSDI	O	0/3.3 V DC(pulse)	Synchronous serial send data
	4	OPSCLK	O	0/3.3 V DC(pulse)	Synchronous serial clock signal
	5	OPRDYN	-	0/3.3 V DC	SPI ready signal
	6	+3.3V1	-	3.3 V DC	3.3 V DC power source
	7	GND	-	-	Ground
	8	OPSEL2	-	0/3.3 V DC	SPI_SEL 2
	9	OPSEL1	I	0/3.3 V DC	SPI_SEL 1
	10	OPSEL0	I	0/3.3 V DC	SPI_SEL 0
	11	OPPAUSEN	O	0/3.3 V DC	PF operation stop signal
	12	GND	I	-	Ground
YC4	1	+24V1	-	24 V DC	24 V DC power source
Connected to the lower paper feeder	2	OPSDO	O	0/3.3 V DC(pulse)	Synchronous serial receiving data
	3	OPSDI	I	0/3.3 V DC(pulse)	Synchronous serial send data
	4	OPSCLK	O	0/3.3 V DC(pulse)	Synchronous serial clock signal
	5	OPRDYN	I	0/3.3 V DC	SPI ready signal
	6	+3.3V1	-	3.3 V DC	3.3 V DC power source
	7	GND	-	-	Ground
	8	OPSEL2	O	0/3.3 V DC	SPI_SEL 2
	9	OPSEL1	O	0/3.3 V DC	SPI_SEL 1
	10	OPSEL0	O	0/3.3 V DC	SPI_SEL 0
	11	OPPAUSEN	O	0/3.3 V DC	PF operation stop signal
	12	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC6	1	TMDIR	O	0/3.3 V DC	PFPFM rotation direction signal
Connected to the PF paper feed motor	2	TMLOCK	I	0/3.3 V DC	PFPFM rotation stable signal
	3	TMCLK	O	0/3.3 V DC(pulse)	PFPFM clock signal
	4	TMDRVN	O	0/3.3 V DC	PFPFM control signal
	5	GND	-	-	Ground
	6	+24V2	-	24 V DC	24 V DC power output to PFPFM
YC7	1	GND	-	-	Ground
Connected to the PF lift motor	2	LMOTOR	O	0/3.3 V DC	PFLM control signal
YC8	1	+24V2	-	24 V DC	24 V DC power output to PFFCL
Connected to the PF paper feed clutch and PF feed clutch	2	FEEDCLN	O	0/3.3 V DC	PFFCL control signal
	3	+24V2	-	24 V DC	24 V DC power output to PFPFCL
	4	TRANSCLN	O	0/3.3 V DC	PFPFCL control signal

2-4-1 Appendix

(1) Wiring diagram



KYOCERA

PF-3100

SERVICE MANUAL

Published in August 2016
843S3110
3S3SM060
First edition

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES 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.

The correspondence printer is as follows.

ECOSYS P3045dn
ECOSYS P3050dn
ECOSYS P3055dn
ECOSYS P3060dn

CONTENTS

2-4 Appendixes

1-1-1 Specifications

Item		Specifications
Paper size		Envelope Monarch, Envelope #10, Envelope DL, Envelope C5, Executive, Letter, A4, B5, A5, A6, B6, Envelope #9, Envelope #6, ISO B5, Custom, Hagaki, Oufuku Hagaki, 16K, Statement, Youkei 2 and Youkei 4
Paper type		Plain, Transparency, Preprinted, Labels, Bond, Recycled, Vellum, Rough, Letterhead, Color, Prepunched, Envelope, Cardstock, Thick, High Quality, and CUSTOM 1 (to 8)
Paper capacity		2,000 sheets (75 g/m2)
Printer	**Dimensions (W × D × H)**	345 × 420 × 371 mm 13 37/64 × 13 17/32 × 14 39/64"
	Weight	7.5 kg / 16.5 lb
Attachment	**Printer base**	PB-325
	Dimensions (W × D × H)	380 × 706 × 184 mm 14 15/16 × 27 13/16 × 7 1/4”
	Weight	6.5 kg / 14.3 lb

1-1-2 Paper specifications

General guidelines
The bulk paper feeder is designed for use with various special types of print media such as adhesive backed label, thick paper, envelopes, and post cards, it may not be used to print on paper not satisfying the requirements below.

Note
The manufacturer assumes no liability for problems that occur when paper not satisfying these requirements is used with the bulk paper feeder.

Selection of the right paper is important. The wrong paper can result in jams, misfeeds, curl, poor print quality, and paper waste, and in extreme cases can damage the bulk paper feeder and/or the printer. The guidelines given below will increase the productivity of your office by ensuring efficient, trouble-free printing and reducing wear and tear on the bulk paper feeder and the printer.

(1) Paper specifications

The following table summarizes the basic paper specifications.

Item	Specification
Weight	60 to 200 g/m^2
Thickness	0.086 to 0.29 mm
Squareness of corners	90°±0.2°
Curl	Inream flat within 4 mm
Packaging	Moisture-proof ream wrapping required
Moisture content	4 to 6%
Direction of grain	Long grain
Pulp content	80% or more

(2) Selecting the right paper

Printer printing is a process involving light beam, electrostatic discharge, toner, and heat. In addition, as the paper passes through the printer it undergoes considerable sliding, bending, and twisting motions. A high- quality printing paper matching the requirements withstands all these stresses, enabling the bulk paper feeder and the printer to turn out clean, crisp printed copy consistently.
Remember that all paper is not the same. Some of the factors to consider when selecting paper for use with the bulk paper feeder are as follows:

(2-1) Condition of the paper

Avoid using paper that is bent at the edges, curled, dirty, torn, or contaminated with lint, clay, or paper shreds.
Use of paper in these conditions can lead to illegible printing, misfeeding, and paper jams, and can shorten the life of the bulk paper feeder and the printer. In particular, avoid using paper with a surface coating or other surface treatment. The paper should have as smooth and even a surface as possible.

(2-2) Paper size

The minimum size of paper loadable in the bulk paper feeder is 76 ´ 148 mm (3 ´ 5.8 inches). The maximum size is 216 ´ 305 mm (8.5 ´ 12 inches). The bulk paper feeder can feed paper of any sizes between these sizes (shaded area in the figure below), including the standard sizes of A4, B5, A5, letter size, etc. The legal size paper is not usable with the bulk paper feeder.
Since the printer does not recognize the size of the paper currently loaded in the option bulk paper feeder, it assumes that all paper fed from the bulk paper feeder have the legal size (8-1/2 by 14 inches). You can use the SPSZ (Set Paper SiZe)

command of the PRESCRIBE command language to tell the printer the size of the paper or envelope. Refer to the printer's Prescribe II Command reference in the CD-ROM supplied with the printer.

(2-3) Smoothness

The paper should have a smooth, uncoated surface. Paper with a rough or sandy surface can cause voids in the printed output. Paper that is too smooth, however, can cause multiple feeding and fogging problems. (Fogging is a gray background effect.)

(2-4) Basis weight

Basis weight is the weight of a standard quantity of paper. In the traditional system the standard quantity is a ream consisting of 500 sheets measuring 17 ´ 22 inches each. In the metric system the standard quantity is 1 square meter.
Paper that is too light or too heavy can cause misfeeding, jams, and premature wear of the bulk paper feeder and the printer. Uneven paper weight can cause multiple feeds, print defects, poor toner fusing, blurring, and other print quality problems. The proper weight is 60 to 200 g/m^2 (16 to 53 lbs/ream).

(2-5) Moisture content

Moisture content is defined as the percent ratio of moisture to the dry mass of the paper. Moisture can affect the paper's appearance, feedability, curl, electrostatic properties, and toner fusing characteristics.
The moisture content of the paper varies with the relative humidity in the room. When the relative humidity is high and the paper absorbs moisture, the paper edges expand, becoming wavy in appearance. When the relative humidity is low and paper loses moisture, the edges shrink and tighten, and print contrast may suffer.
Wavy or tight edges can cause misfeeding and alignment anomalies. The moisture content of the paper should be 4% to 6%.
To ensure the proper moisture content it is important to store the paper in a controlled environment. Some tips on moisture control are:

Store paper in a cool, dry location.
Keep the paper in its wrapping as long as possible. Rewrap paper that is not in use.
Store paper in its original carton. Place a pallet etc. under the carton to separate it from the floor.
After removing paper from storage, let it stand in the same room as the printer for 48 hours before use.
Avoid leaving paper where it is exposed to heat, sunlight, or damp.

(3) Paper storage

When the bulk paper feeder is not to be used for a long time of period, the paper must be removed from the bulk paper feeder and wrapped in moisture-proof paper for storage.

(4) Envelopes and postcards

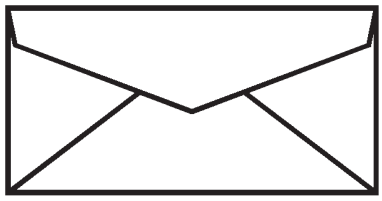
When selecting envelopes and postcards, use the guidelines given below.

(4-1) Envelopes

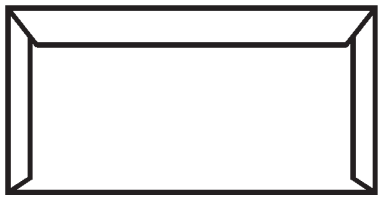
An envelope is a more complex objects than a single sheet of paper. For this reason, it may not be possible to obtain consistent printing quality over the entire envelope surface. Use the following guidelines to select the proper envelopes.

Envelopes should have the basis weight of 70 to 100g/m^2 (0.16 to 0.22 lb./ream) and up to 4 plies of the paper that is used to construct the paper including all flaps and overlaps.
Envelopes should have sharply-creased folds and accurately joined corner edges.
Envelopes should have a smooth, uncoated surface. Envelopes that are too smooth, however, can give an adverse effect to the drum and fuser units inside the printer.
Envelopes should have a straight grain orientation.
Envelopes should have a pulp content of al least 80%, and should have a moisture content of 4 to 6%.
Figure below shows some typical envelope types:

This is the type of envelope best recommended for use with the bulk paper feeder.



Although this type of envelope generally feeds normally, they are somewhat prone to jamming than above.



This type of envelope performs reliably, provided that envelopes are loaded so that the bottom (sealed end) feeds into the printer first.

Avoid using this type of envelope made of double-ply paper.

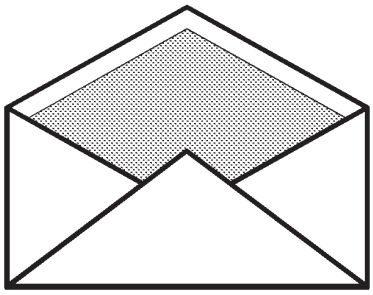


Figure 1-1-1Types of envelopes

Before printing on envelopes of any type, test printing performance. Avoid using any of the following kinds of envelopes even if the envelope meets the requirements above.

Envelopes that have exposed adhesive surface, or having a peel-off sealing string for adhesive surface. (Peeled-off sealing string inside the printer can cause a serious problem.)
Envelopes with metal fasteners or tie strings.
Envelopes with transparent windows, holes, perforations, or cutouts.
Envelopes made using paper, pigment, adhesive, or other material that will degenerate or release hazardous gases when subjected to the heat that is generated in the printer.
Envelopes that is bent, dirty, or redundant of paper dust.

(4-2) Curly envelopes

An envelope tends to curl excessively or become uneven in its thickness since it is constructed by paper which is folded, creased, and seamed in many parts, making the stack of envelopes on the feeder tray unlevel. To avoid feeding problems, the unlevelness of the stack of envelopes on the paper tray must be less than those specified in the following figures.

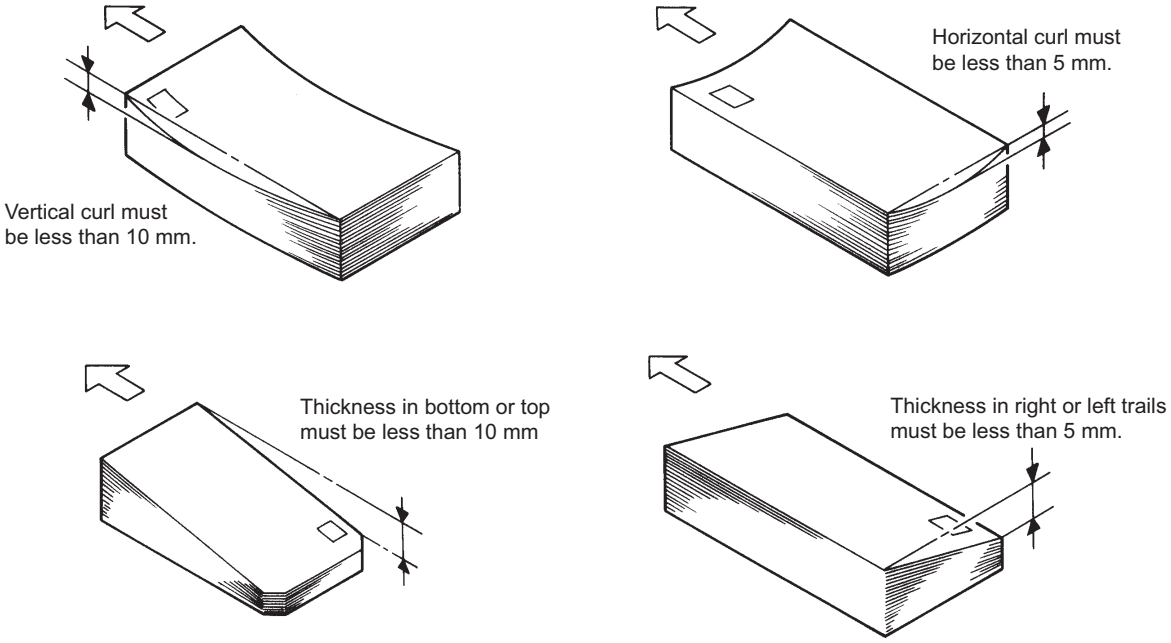


Figure 1-1-2Curl limits for envelopes

Reduce the envelopes, if necessary to keep the unlevelness of the stack of envelope within the specified limit.

(4-3) Post cards

The paper used in postcards should have a basis weight of 135 to 190 g/m^2 (0.3 to 0.42 lb./ream) and uncoated. The paper should also satisfy the same conditions as white bond paper.

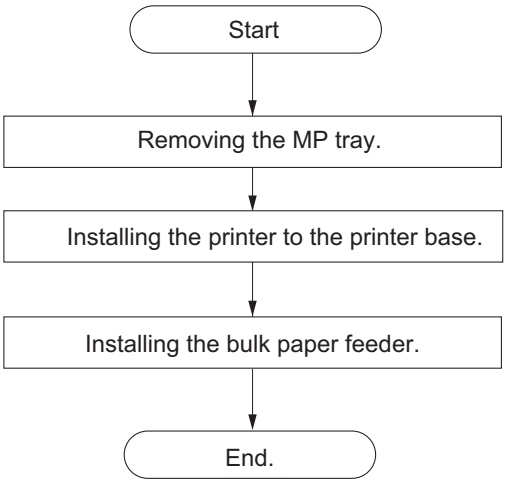
(5) Storage of envelopes and postcards

Store envelopes and postcards, making sure of the following hints.

Avoid leaving paper where it is exposed to sunlight.
Store envelopes in a clean, dust-free environment.
Temperature in the storage area should be maintained in the range from 50 to 95°F (10 to 35°C), and relative humidity should be kept between 20 and 80%.

1-2-1 Unpacking and installation

(1) Installation procedure



Removing the MP tray

In order to install the bulk paper feeder in the printer, the printer's MP tray must be removed. Proceed as the following instructions:

1. Unplug the power source plug.
2. Open the front cover.
3. Remove the MP tray from the printer while bending it. Retain the MP tray for future use.

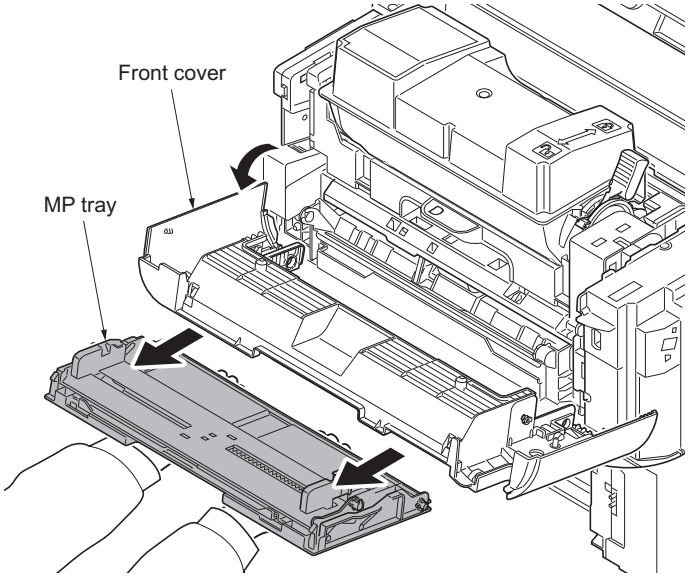


Figure 1-2-1

4. Remove the fulcrum of leftside by extending a cover.
5. Remove the fulcrum of rightside during twisting a cover.
6. Remove the front cover forward.

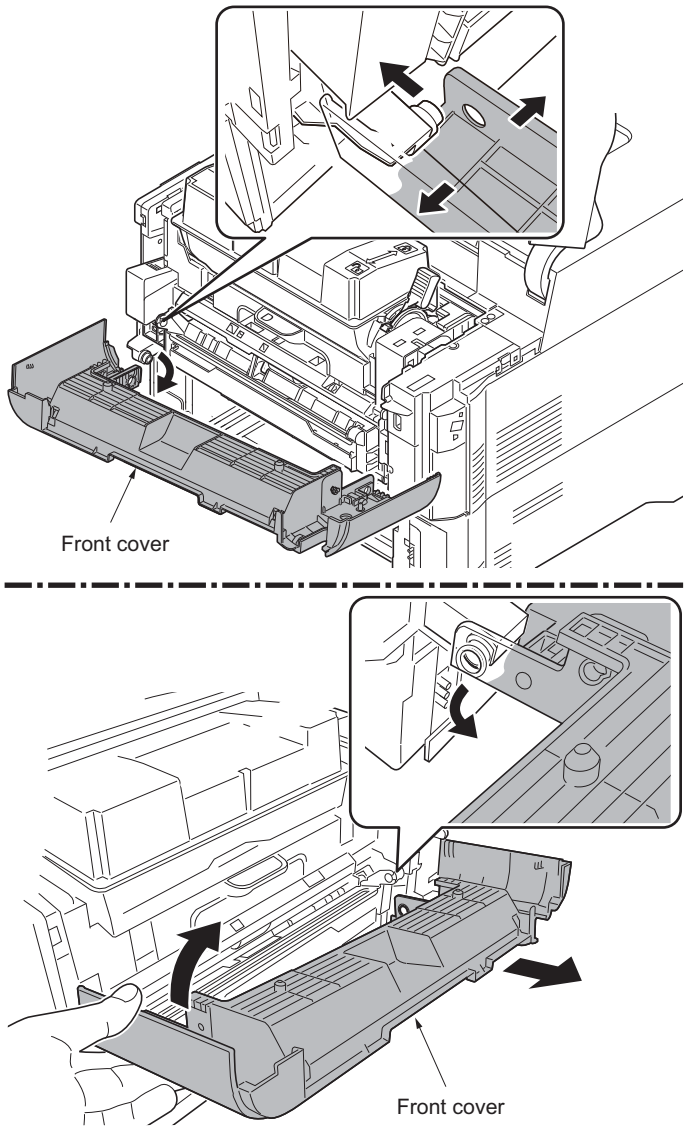


Figure 1-2-2

7. Remove two screws on the MP paper feed unit.

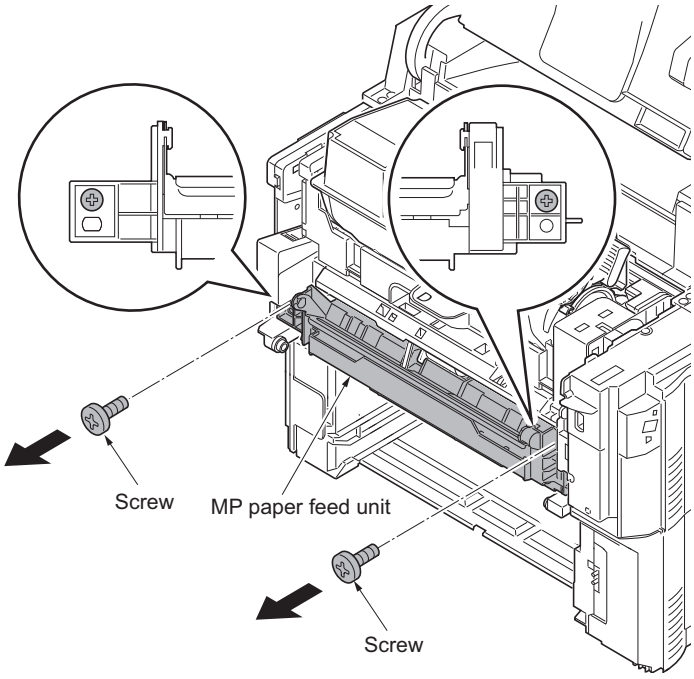


Figure 1-2-3

8. Remove the MP paper feed unit from the printer. Retain the MP paper feed unit for future use.

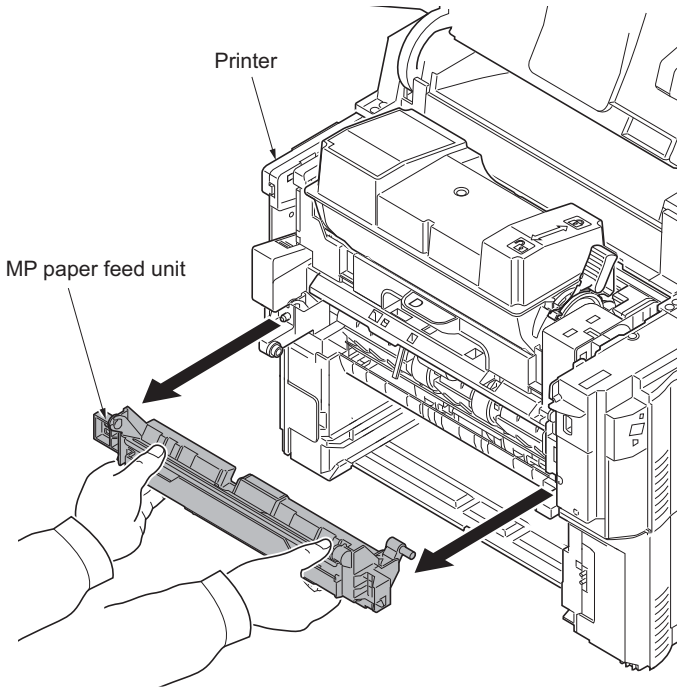


Figure 1-2-4

9. Attach the spacer by the screw to the printer.
10. Refit the removed front cover.
11. Close the top cover and the front cover.
12. Refit the removed cassette.

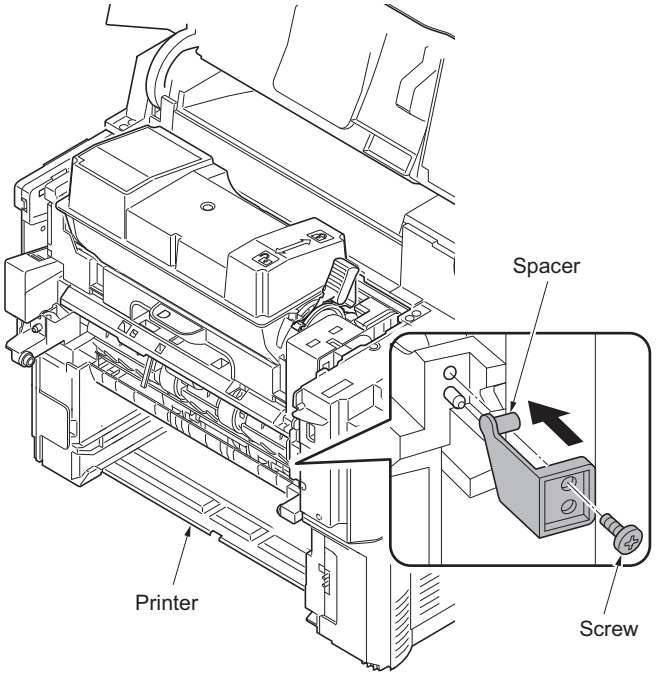


Figure 1-2-5

Installing the printer base and the printer

1. Align the positioning pins on the top of the printer base with the holes in the base of the printer, then slowly and carefully lower the printer onto the printer base.
2. Make sure that the connector on the printer base fits squarely into the corresponding connector in the base of the printer. See figure right.

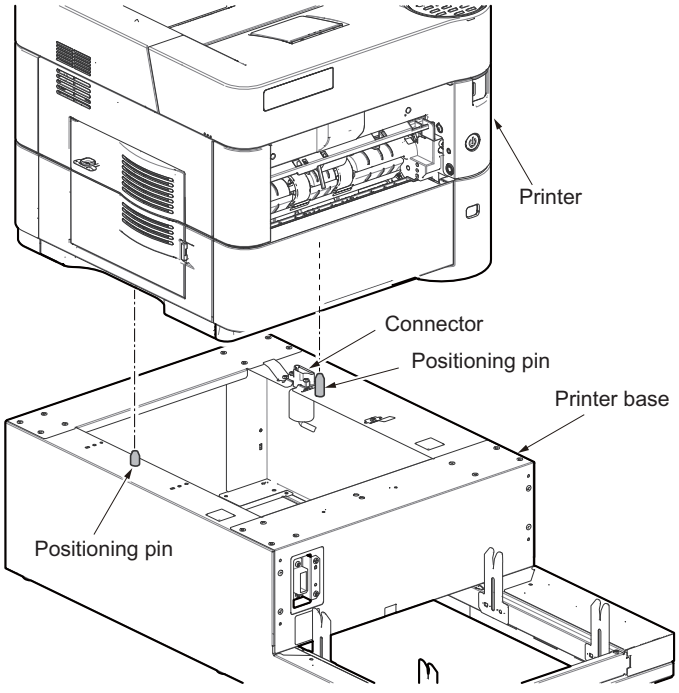
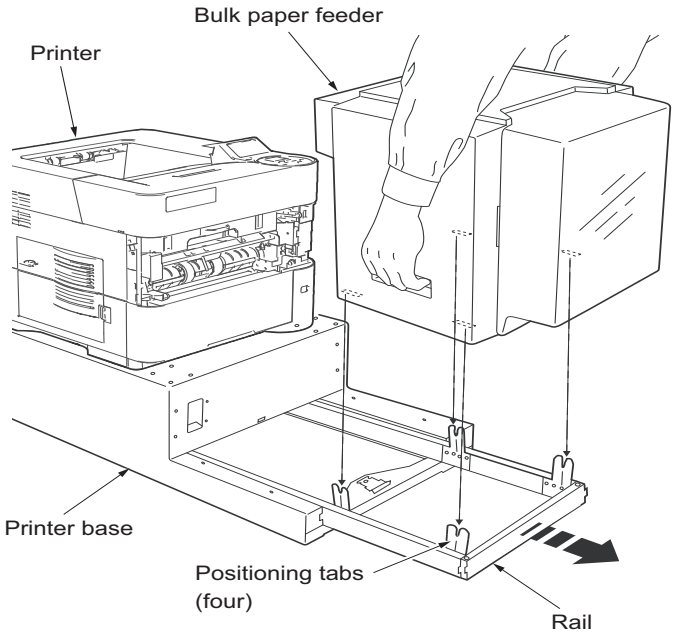


Figure 1-2-6

Installing the bulk paper feeder

1. Mount the bulk paper feeder onto the rail in the lower deck of the base. The rail is movable and must be pulled out before installing the bulk paper feeder. Pull the rail fully out until it stops.
2. Grasp the bulk paper feeder by the two handles in the side covers. Facing the paper output slot of the bulk paper feeder toward the printer, align the (four) positioning tabs on the rail of the base with the holes in the base of the bulk paper feeder. Then slowly and carefully lower the bulk paper feeder onto the printer base.
3. Slide the rail with the bulk paper feeder mounted back toward the printer until the connector on the front side of the bulk paper feeder is fully connected to the connector on the base, holding the bulk paper feeder by the both hands.

Caution
Ensure that the arrow marks on the rail are correctly aligned with the arrow marks on the front side of the bulk paper feeder before proceeding.



Rear view

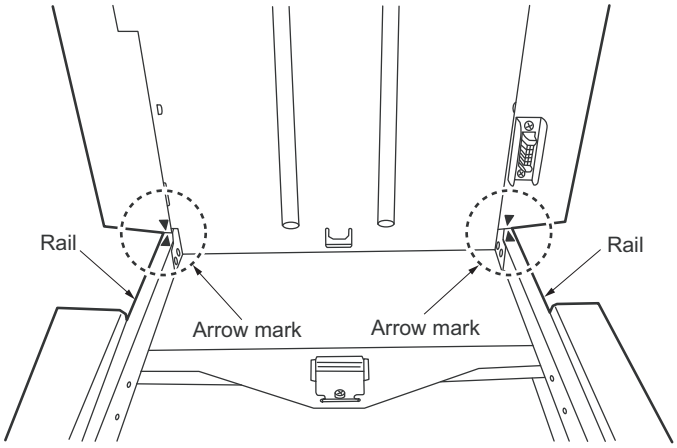


Figure 1-2-7

4. Make sure that the output slot of the bulk paper feeder is properly aligned with the MP tray slot on the front side of the printer.
5. This completes setting up the bulk paper feeder with the printer. Before using the bulk paper feeder, plug the printer to power and load paper in the bulk paper feeder.

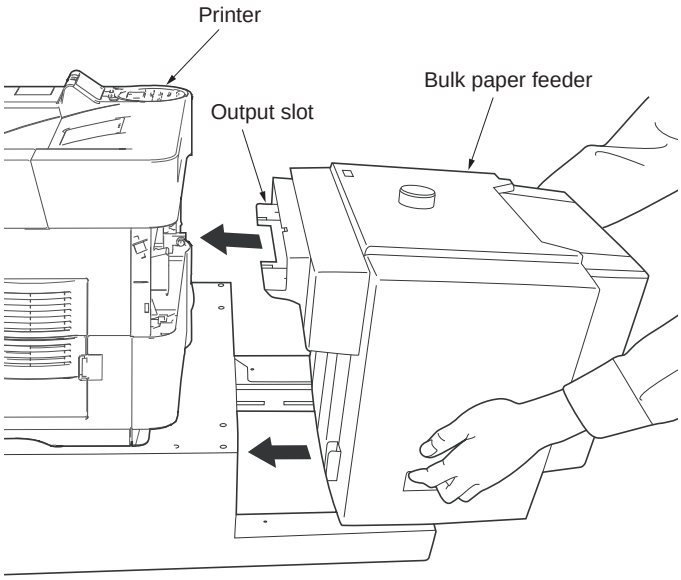


Figure 1-2-8

Completion of the machine installation.

1-2-2 Operating the paper feeder

(1) Loading paper

Caution
When the tray is rising or descending, please observe the following precautions.

Keep your fingers out of the slot on the inner side of the bulk paper feeder.
While the tray is descending, keep your hands out from under the tray.
Do not push down on the tray or pull it upward.

(1-1) Loading paper

Once the bulk paper feeder has been installed in accordance with the instructions provided previously, you can prepare to load paper. Before loading paper, you must adjust the side plates inside the bulk paper feeder to the actual width of the paper to be loaded.

Note
The legal-size paper is not usable with the bulk paper feeder.

1. Turn printer power on. The bulk paper feeder is turned on simultaneously.
2. Gently open the feeder's tray cover. The paper tray will lower.
3. Make sure that the paper tray is lowered and stopped. Then, while watching the side plates inside the bulk paper feeder, rotate the paper adjuster knob on top of the bulk paper feeder clockwise. Stop rotating the knob when the side plates have been set to their widest settings (outmost positions). See figure right.
4. Place several sheets of the paper you are going to use with the bulk paper feeder on the center of the paper tray.
5. Adjust the side plates by rotating the adjuster knob on top of the bulk paper feeder counterclockwise so that the left and right side edges of the paper are flush with the left and right side plates.Then, rotate the adjuster knob half a turn clockwise. This allows an approximately 1 mm. gap between each side of the paper stack and the side plate, which is needed to ensure the proper paper feeding. See figure right.
   Note
   Make sure that the paper edges are evenly aligned on the center of the tray and the front edge of the stack fully abuts on the bulk paper feeder's inside panel.
6. Load up to 2,000 sheets of paper (four standard reams of packages of 75 g/m^2 or 20 lb. paper) onto the tray. Fan and flex each ream as you load it. Load the paper with the side on which printing is done facing upward in the bulk paper feeder.

   Note
   Don't put in more paper than the limit indicated on the inside of the bulk paper feeder.
   Close the tray cover. The tray will rise and a sheet will feed partially into the printer. The printer indicates Ready and the bulk paper feeder is ready for operation.

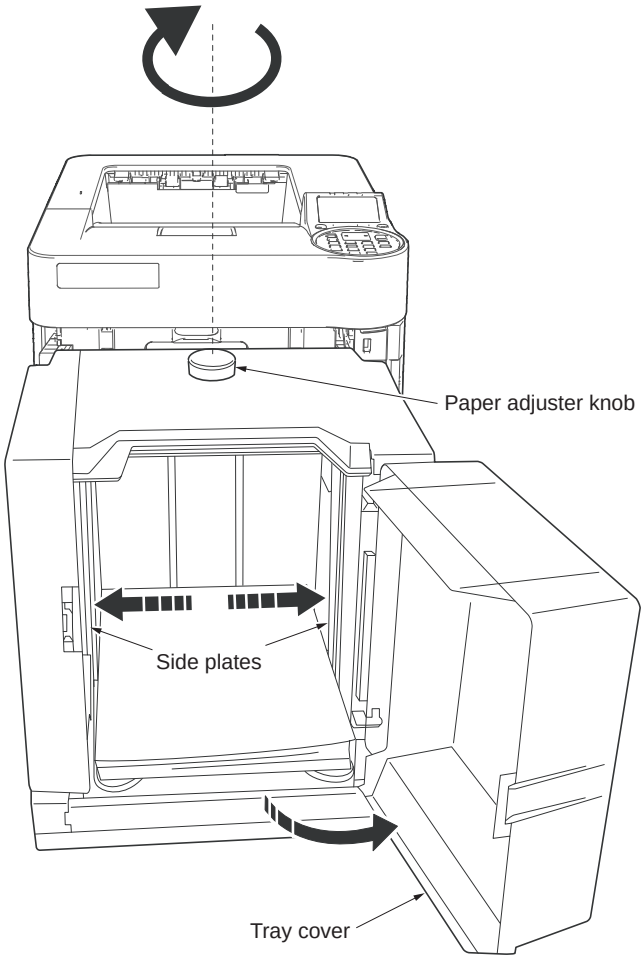


Figure 1-2-9

(2) Loading envelopes and postcards

If you are loading postcards in the bulk paper feeder, load them so that they are fed with the top edge first. For envelopes, make sure that they are fed with the right or bottom edge first.

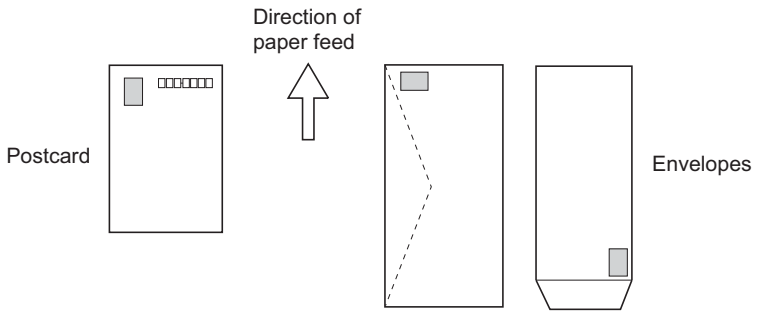


Figure 1-2-10

(3) Loading paper in the printer's paper cassette

To gain access to the printer's paper cassette for loading paper, etc., slide the bulk paper feeder fully backward from the printer. If you are using a Legal size paper cassette in the printer, you will need to remove the bulk paper feeder from the mounting base (rail).

(4) Selecting paper feed from the paper feeder

You can select paper feed from the bulk paper feeder using the Menu key on the printer's operation panel. You can also select it by including PRESCRIBE's PSRC command in a file that you send to the printer from the computer. Note that the bulk paper feeder replaces the printer's MP tray.

(4-1) Selection from the printer's operation panel

1. First, verify that the printer's message display shows either Ready or Add paper.
2. Next, press the Menu key to change the source of paper feed. The source indication toggles between the following sequences:

Cassette
Bulk feeder

To select the bulk paper feeder as the paper source, select Bulk feeder.
Note
When printing on special forms such as envelopes, labels, or thick paper, use the printer's Menu key to select paper output to the face up tray.
If paper is not loaded into the bulk paper feeder, or the bulk paper feeder is detached from the printer (on the rail which, when pulled, detaches the bulk paper feeder from the printer), the printer shows Add paper. Add paper as explained on the previous pages.

Make sure that the printer is ready and on-line, then begin printing. During printing using the bulk paper feeder, the printer's message display momentarily shows Add paper between pages. This is normal.

Note
When used with the bulk paper feeder, the printer may print in the position which does not fully corresponds to the one the application software requests.

(4-2) Selection using prescribe's PSRC command

Feed selection can be done using the PSRC command of the Prescribe command language. To switch paper feed to the option paper feeder, place the PSRC command in a file or program as follows.

```
!R! PSRC 0; EXIT;
```

When the printer receives the PSRC command, it automatically does a form feed operation.
Therefore, the PSRC command should be sent either at the beginning of the file, or at the beginning of an intermediate page.
The PRESCRIBE FRPO R4 command changes the printer's default (power-on) paper cassette setting. To change the power-on paper source to the bulk paper feeder, use the following command sequence.

```
!R! FRPO R4, 0; EXIT;
```

1-3-1 Paper misfeed detection

(1) Paper misfeed indication

If the printer's message display shows [Paper jam] or [Add paper] (even though the feeder has paper loaded inside), detach the bulk paper feeder from the printer by sliding with the rail away from the printer, holding the bulk paper feeder by both hands as shown below.
If paper is partially fed out from the bulk paper feeder's output slot, pull the paper out by hand as shown.

Figure 1-3-1

1. If paper is not stuck at the bulk paper feeder's output slot, open the tray cover and pull the paper in the bulk paper feeder.
2. If no paper is found jammed inside the paper feeder, slide the paper feeder away from the printer, and check if paper is jammed inside the printer.

   Note: When paper is protruding from the bulk paper feeder's output slot, always remove it by pulling the paper in its normal direction of travel. Never pull paper backwards.

3. After connecting the bulk paper feeder back to the printer, open the printer's upper unit once, then close it again and wait for the message display to show [Ready].

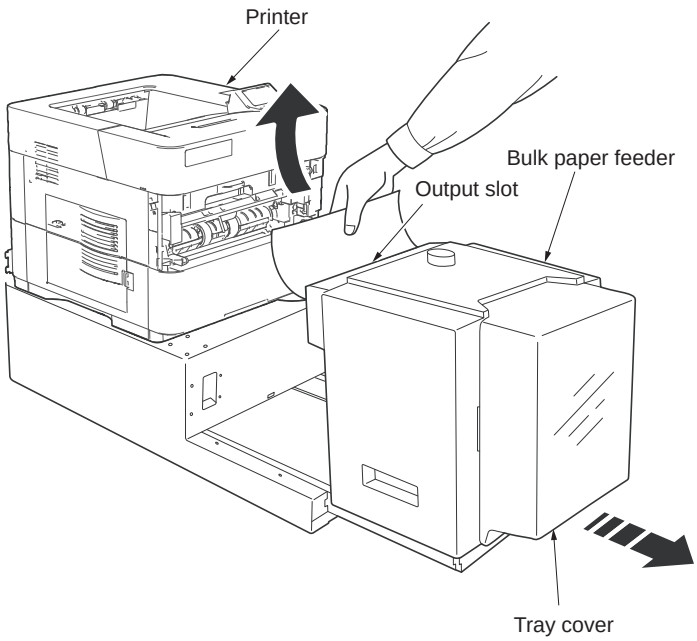


Figure 1-3-2

(2) Paper misfeed detection conditions

Problem	Causes/check procedures	Corrective measures
(1) Paper will not feed properly into printer.	Too much paper in bulk paper feeder.	Open tray cover. Remove any quantity in excess of the marked limit.
	Paper too slick or stack together tightly.	Fan and flex paper to separate sheets. Check that paper isn't too shiny or slick causing rollers to slip. Replace with plain paper to check bulk paper feeder operation. Refer to paper specifications section later in this manual for proper paper. Clean rollers of bulk paper feeder with lint-free cloth.
	Paper is damaged.	Check paper stack for bent corners, edges.
	Side plates inside the bulk paper feeder are improperly set.	Set the side plates so that a 1-mm gap is left between each side of the paper stack and the side plate.
(2) Bulk paper feeder does not raise/lower tray.	Tray cover not closed/ opened.	Open/close tray cover.
	Printer not powered on.	Plug printer power cord.
	Bulk paper feeder not properly mounted on the printer base (rail).	Mount bulk paper feeder aligning the arrow marks on the bulk paper feeder with the arrow marks on the rail.
	Bulk paper feeder's connector not properly connected to the printer's connector.	Press the bulk paper feeder toward the printer firmly to ensure good contact of both connectors.

1-3-2 Self-diagnostic function

(1) Self-diagnostic function

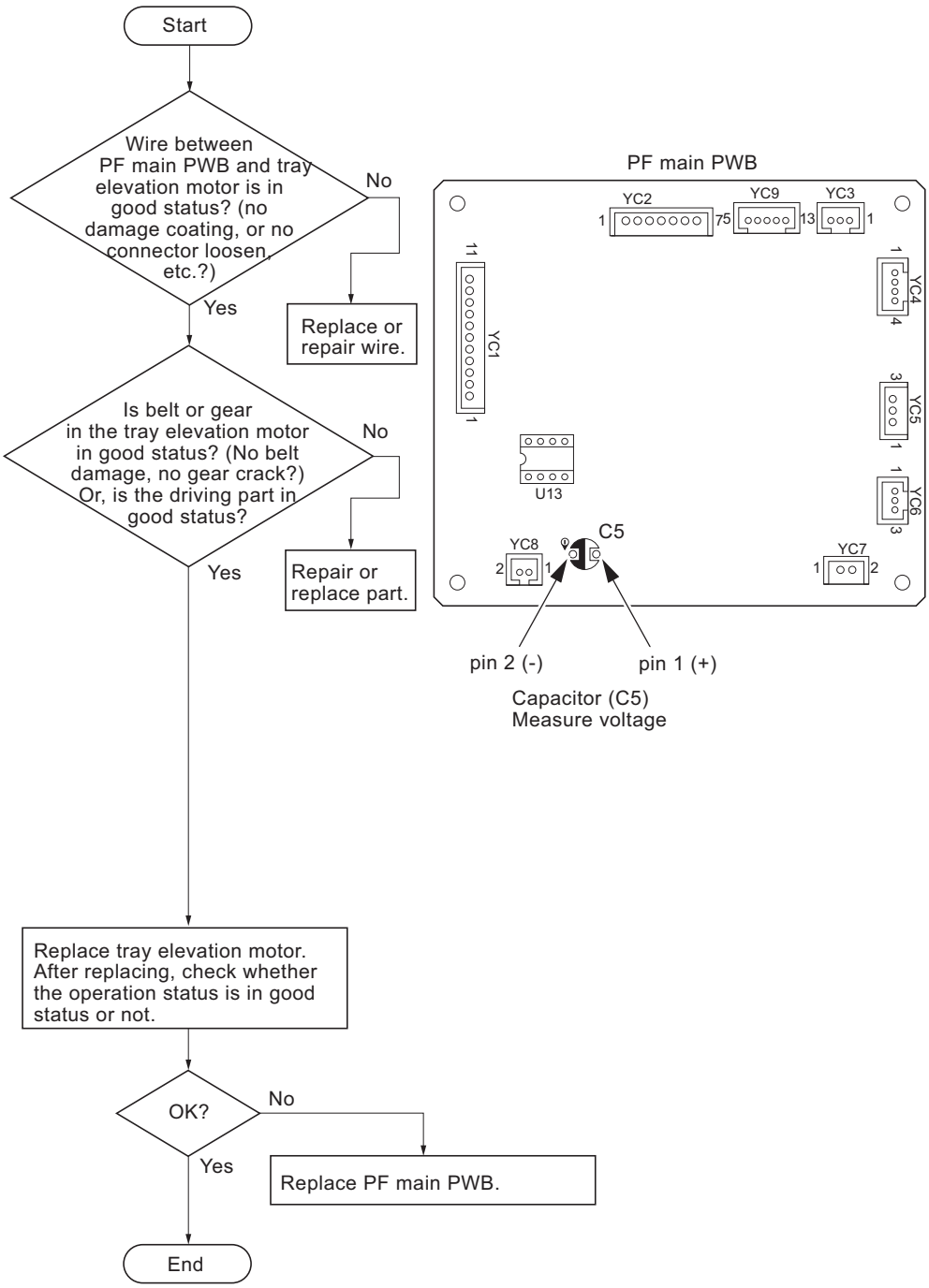
This printer is equipped with self-diagnostic function. When a problem is detected, the printer stops printing and display an error message on the operation panel. An error message consists of a message prompting a contact to service personnel, total print count, and a four-digit error code indicating the type of the error. (The display varies depending on the type of the error.)

(2) Self diagnostic codes

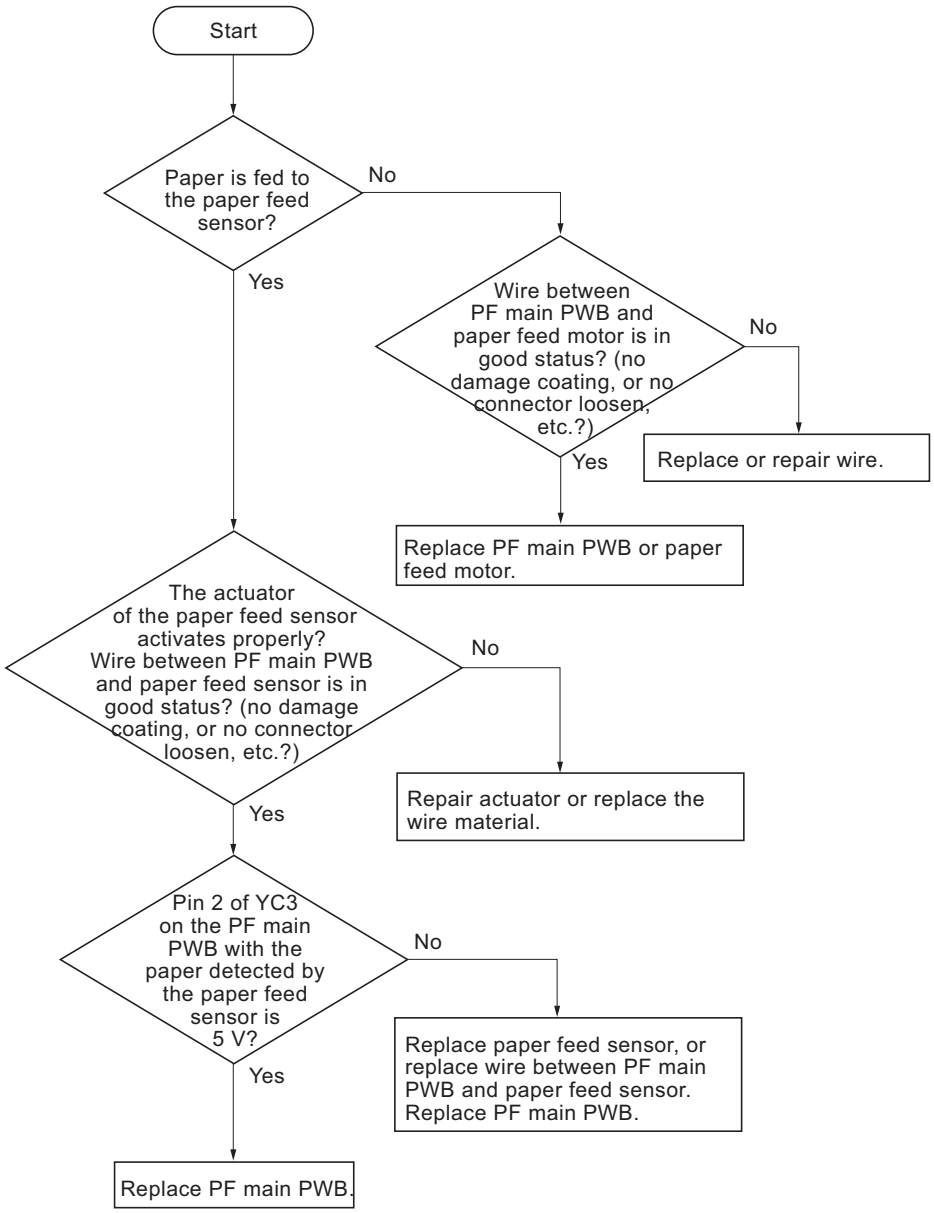
Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
1140	**Lift motor ascent error** Tray top position sensor does not turn on. Lift motor lock error occurred 3 times.	Defective tray top position sensor.	Replace the tray top position sensor.
		Defective harness between tray top position sensor and PF main PWB (YC5), or improper connector insertion.	Reinsert the connector. Also check for continuity within the connector harness. If none, remedy or replace the harness.
		Defective PF main PWB.	Replace the PF main PWB.
1150	**Lift motor descent error** Tray bottom position sensor does not turn on. Lift motor lock error occurred 3 times.	Defective tray bottom position sensor.	Replace the tray bottom position sensor.
		Defective harness between tray bottom position sensor and PF main PWB (YC7), or improper connector insertion.	Reinsert the connector. Also check for continuity within the connector harness. If none, remedy or replace the harness.
		Defective PF main PWB.	Replace the PF main PWB.
1900	**Paper feeder 1/BPF paper feeder EEPROM error** When writing the data, the write data and the read data is not in agreement.	Defective PF main PWB. Device damage of EEPROM.	Replace the PF main PWB or the BPF main PWB (Refer to the service manual for the paper feeder). Contact the Service Administrative Division.

1-3-3 Electric problems

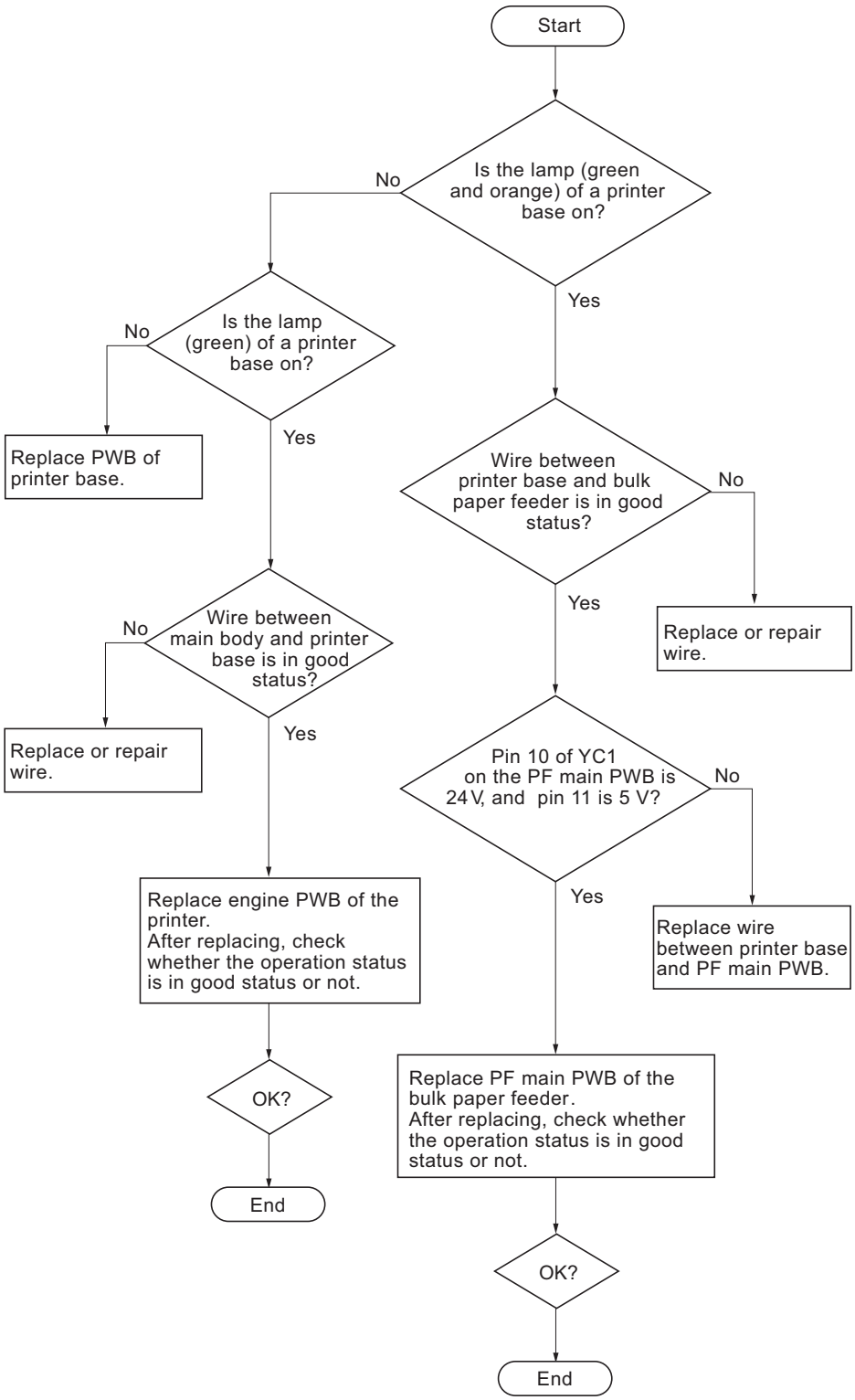
Problem	Causes/check procedures	Corrective measures
(1) "Tray elevation motor does not operatte.	Defective wire. Defective PF main PWB. Defective tray elevation motor.	Follow the flow chart below.



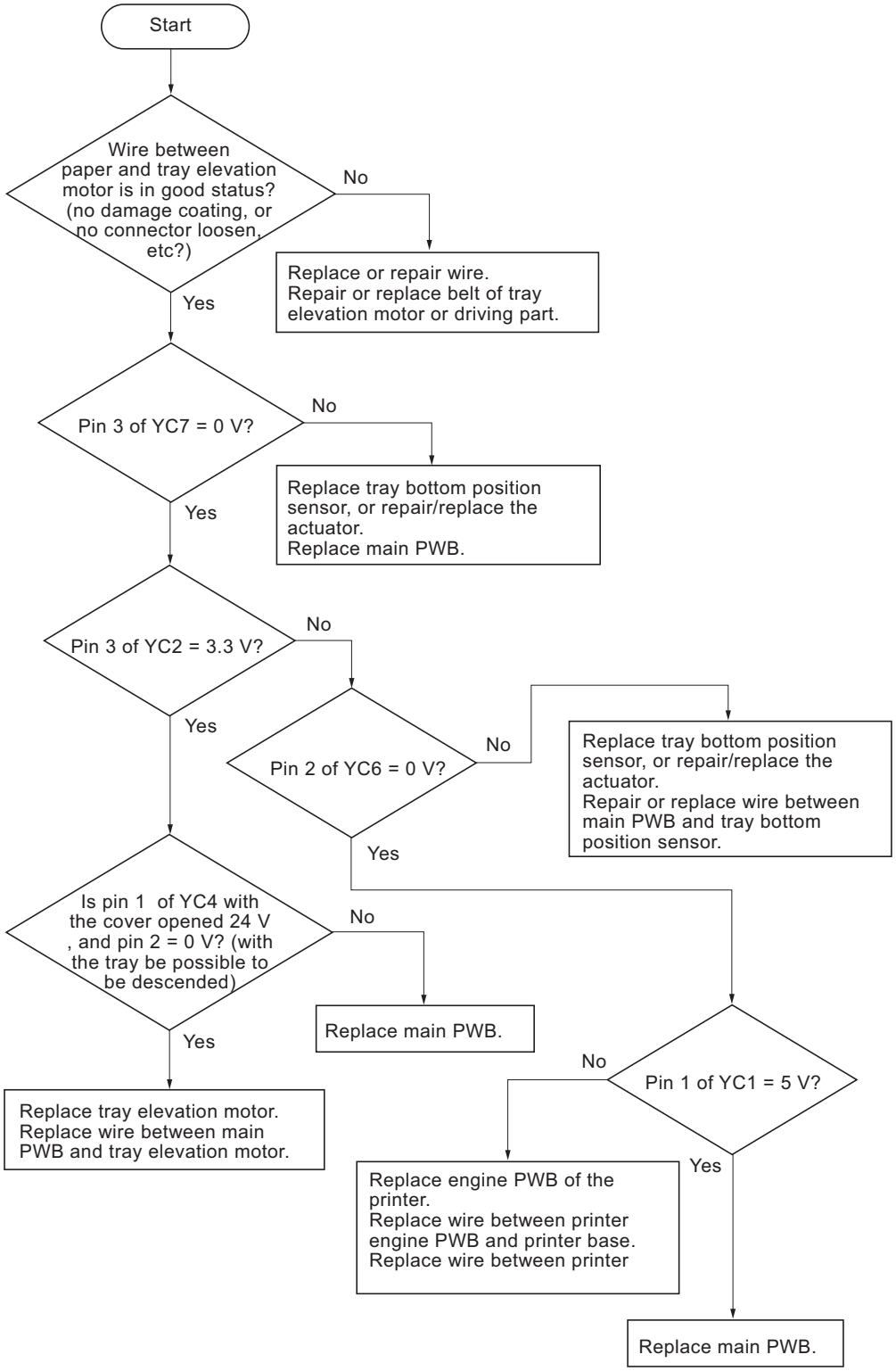
Problem	Causes/check procedures	Corrective measures
(2) "No Paper" status still has displayed.	Defective main PWB. Defective wire. Defective paper feed motor.	Follow the flow chart below.



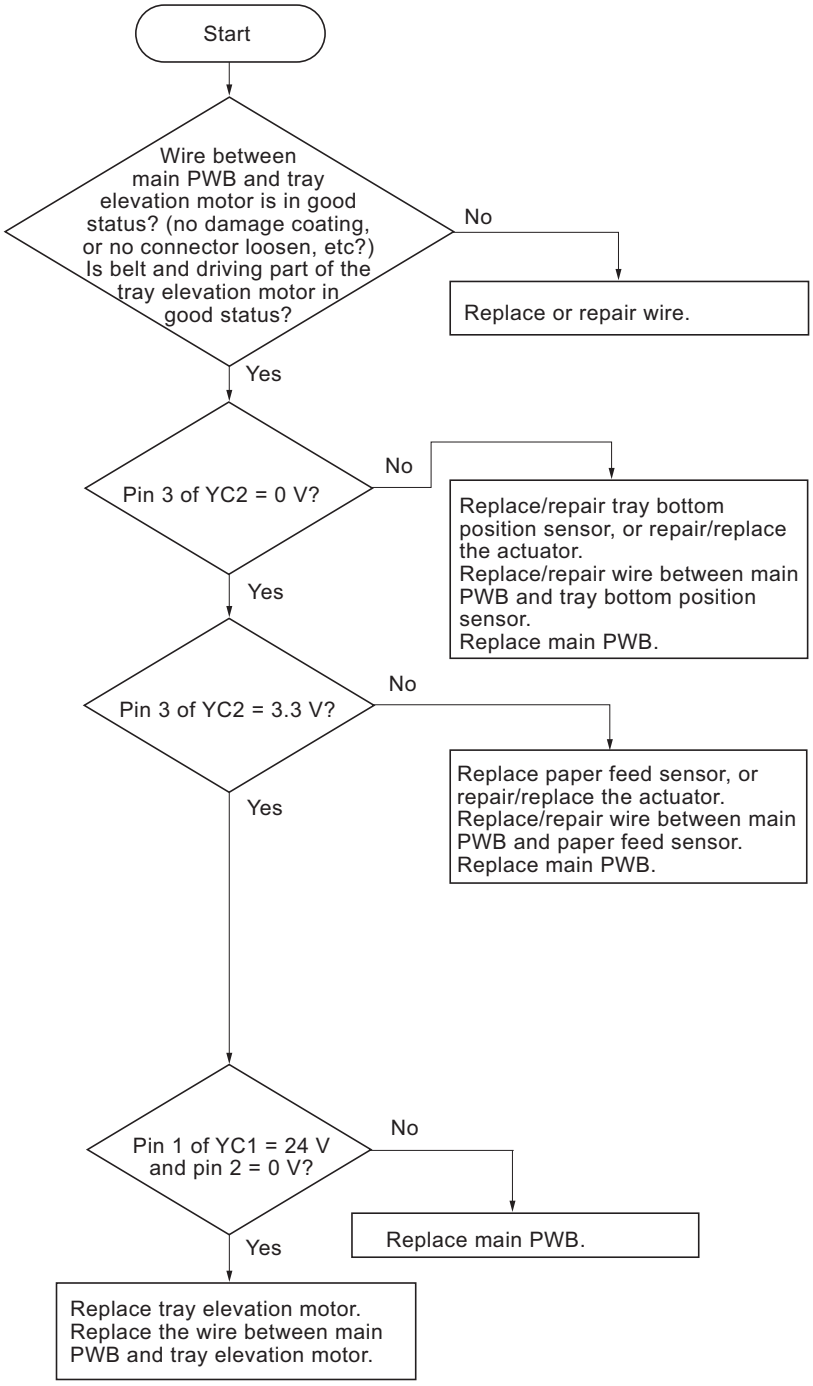
Problem	Causes/check procedures	Corrective measures
(3) Bulk paper feeder is not recognized.	Defective wire.	Follow the flow chart below.
	Defective printer's engine PWB.	



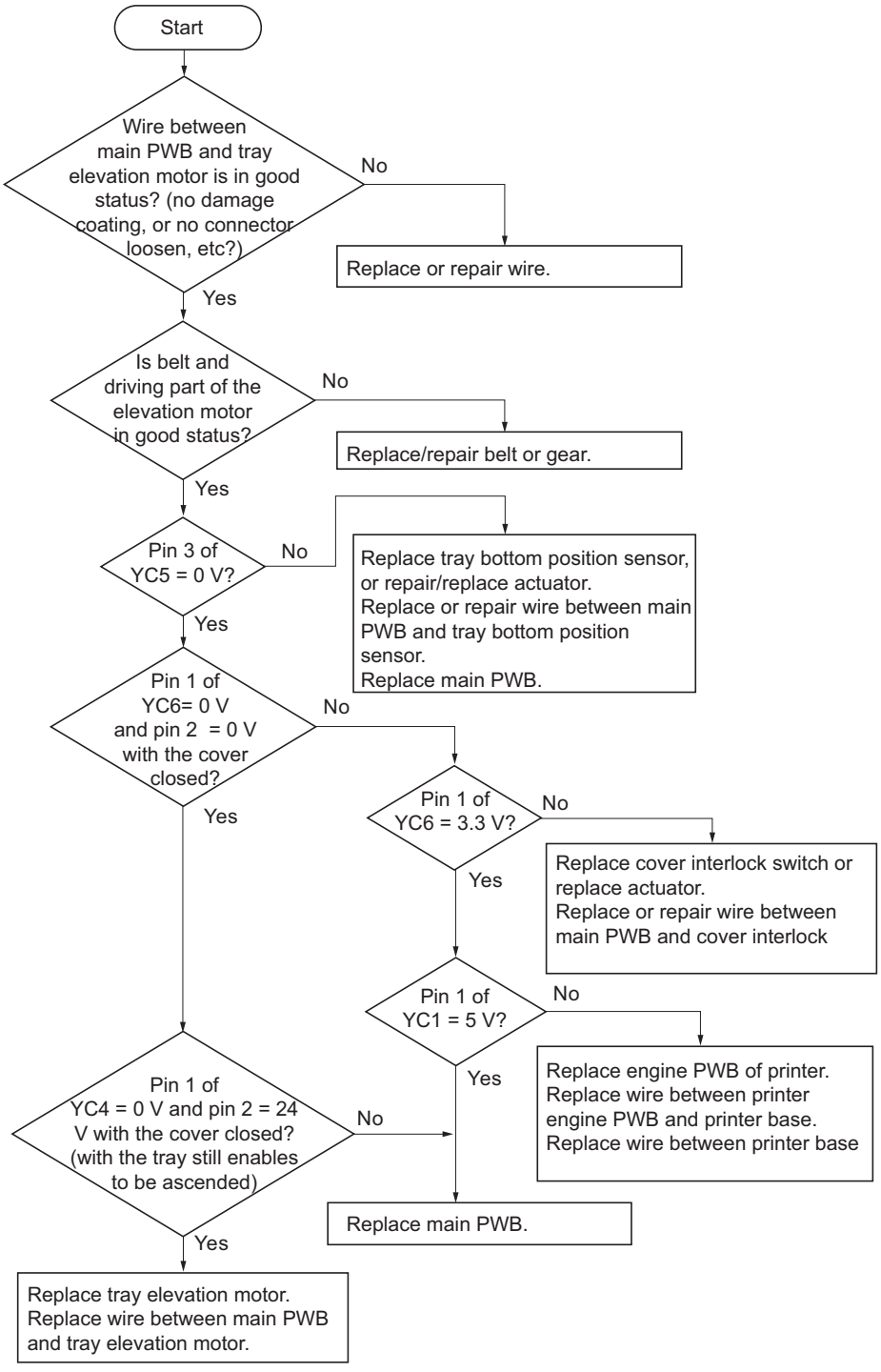
Problem	Causes/check procedures	Corrective measures
(4) The tray is not descended even though the tray cover is opened.	Defective elevation motor. Defective tray bottom position sensor. Defective main PWB.	Follow the flow chart below.



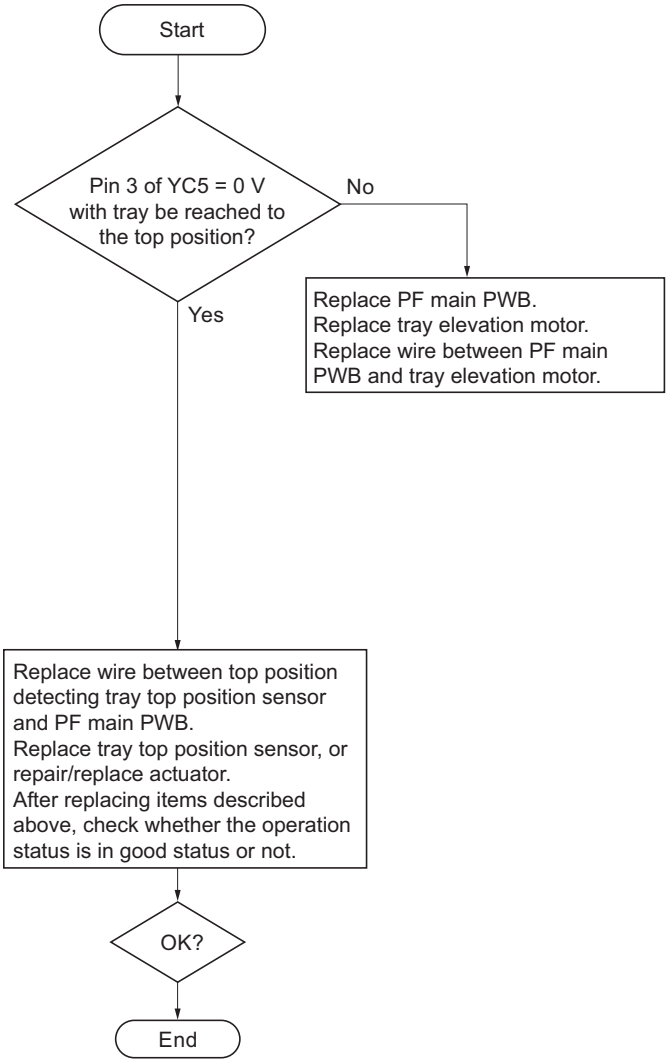
Problem	Causes/check procedures	Corrective measures
(5)The tray is not descended even though paper is empty.	Defective wire.	Follow the flow chart below.
	Defective tray bottom position sensor.	
	Defective paper feed sensor.	
	Defective PF main PWB.	
	Defective tray elevation motor.	



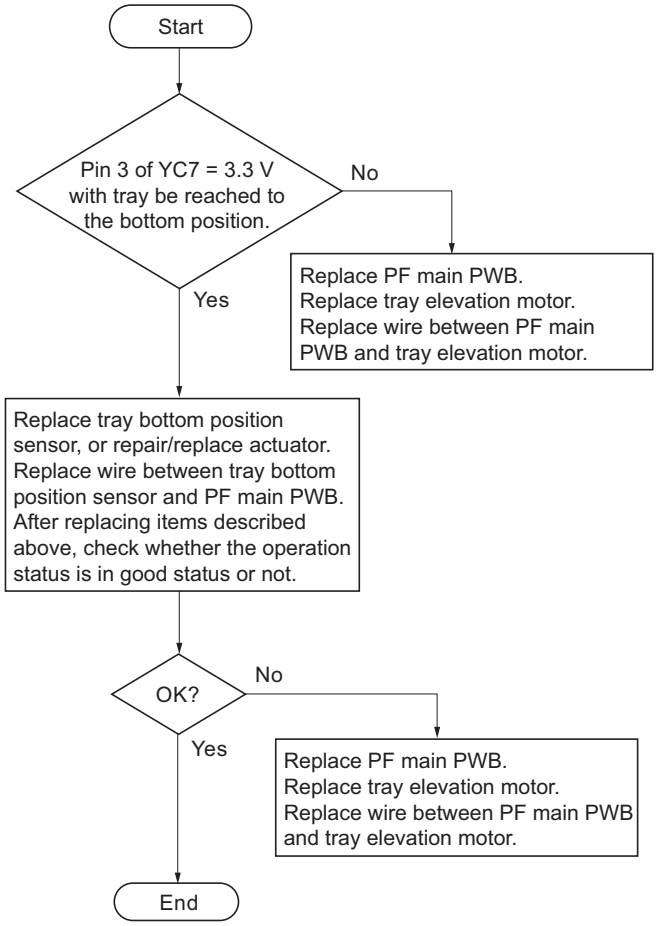
Problem	Causes/check procedures	Corrective measures
(6)The tray is not ascended even though the tray cover is closed (and rebooted).	Defective wire. Defective tray bottom position sensor. Defective PF main PWB. Defective cover interlock switch. Defective tray elevation motor.	Follow the flow chart below.



Problem	Causes/check procedures	Corrective measures
(7) The tray is still kept on ascending over the top position.	Defective PF main PWB.	Follow the flow chart below.
	Defective tray elevation motor.	
	Defective wire.	
	Defective tray top position sensor.	



Problem	Causes/check procedures	Corrective measures
(8) The tray is still kept on descending beyond the bottom position.	Defective PF main PWB.	Follow the flow chart below.
	Defective tray elevation motor.	
	Defective wire.	
	Defective tray bottom position sensor.	



1-4-1 Precautions for assembly and disassembly

(1) Precautions

Be sure to turn the power switch off and disconnect the power plug before starting disassembly.
When handling PWBs, do not touch connectors with bare hands or damage the board.
Do not touch any PWB containing ICs with bare hands or any object prone to static charge.
Use only the specified parts to replace the fixing unit thermostat. Never substitute electric wires, as the copier may be seriously damaged.

1-4-2 Assembly and disassembly

(1) Removing the bulk paper feeder from the printer

Warning: Before removing the bulk paper feeder, turn printer power off.

1. To remove the bulk paper feeder from the printer, slide it away from the printer's operation panel on the rail.
2. Then slowly and carefully raise the printer from the bulk paper feeder. This also disengages the connectors on the bulk paper feeder and the one in the base of the printer.

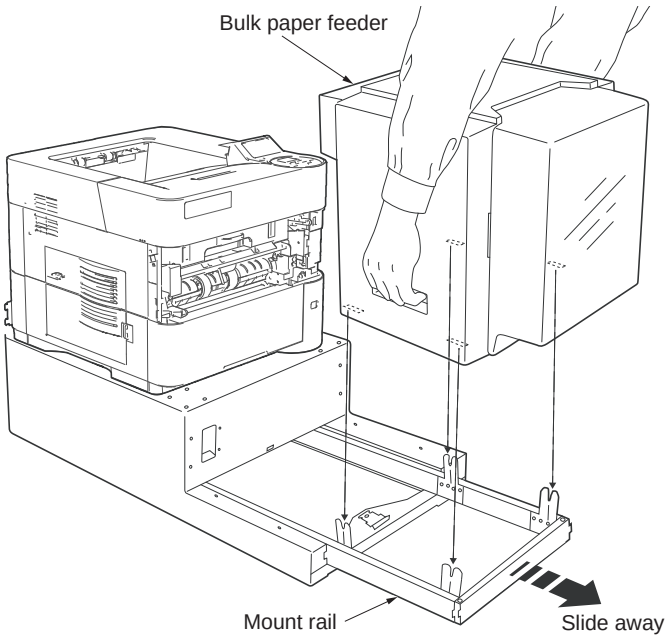


Figure 1-4-1

(2) Removing the tray cover

Note: The tray cover tends to self-open when the bulk paper feeder is put sideways or upside-down for service.

Tape the tray cover to the bulk paper feeder to avoid this situation or remove the tray cover in prior to making service following the manner described below.

1. The tray cover is secured to the bulk paper feeder by hinges at the top and bottom.
2. Remove the screw and remove the bottom hinge.
3. Lift up the tray cover from the top hinge and remove it.

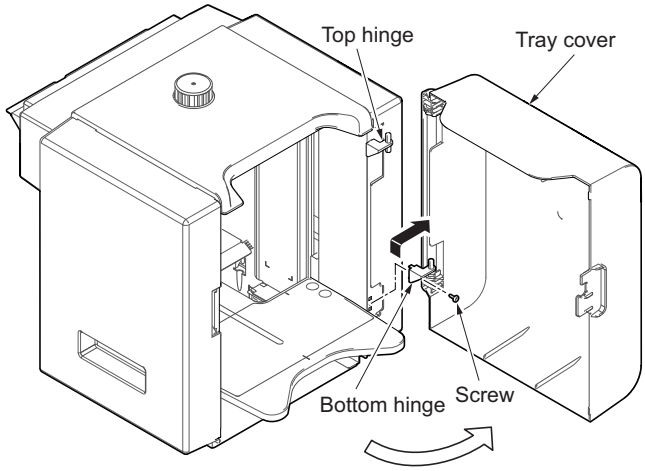


Figure 1-4-2

(3) Removing the side covers

Note: To gain access to any of the internal parts, the side covers must be removed first.

1. To remove the side cover, remove two screws at the bottom side of the side cover.
2. Remove the other side cover using the same manner.

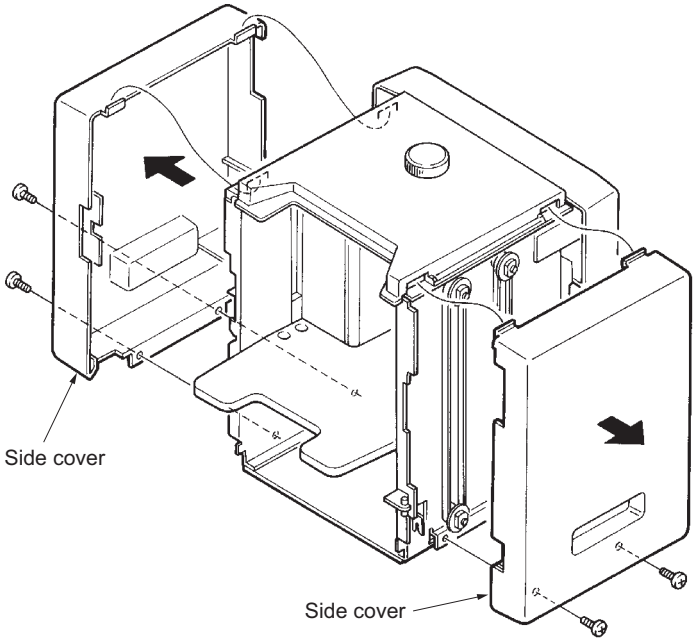


Figure 1-4-3

(4) Removing the paper outlet and top cover

To remove the paper outlet or the top cover, follow the procedure below. We recommend that the paper outlet is also removed when removing the top cover.

1. To remove the paper outlet, remove two screws as follows.
2. To remove the top cover, remove four screws as follows.

   Note The paper adjuster knob may not be removed before removing the top cover.

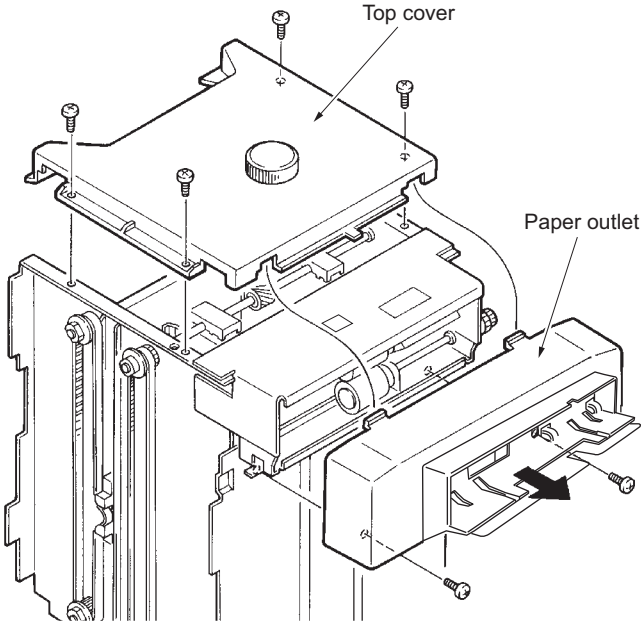


Figure 1-4-4

(5) Removing the mounting rail from the printer base

1. To remove the rail from the printer base, remove two screws that secure the stopper at the inner end.
2. Then pull the rail outward as shown right.

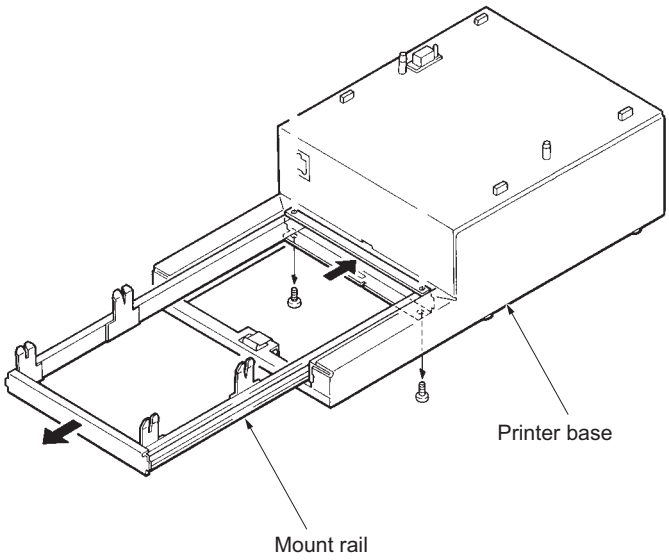


Figure 1-4-5

2-1-1 Paper feed section

(1) FRR System

To avoid paper jam caused when several sheets of paper are fed at one time, the bulk paper feeder uses the friction retarded roller (FRR) system for paper feed. The operating theory for this system follows this section.

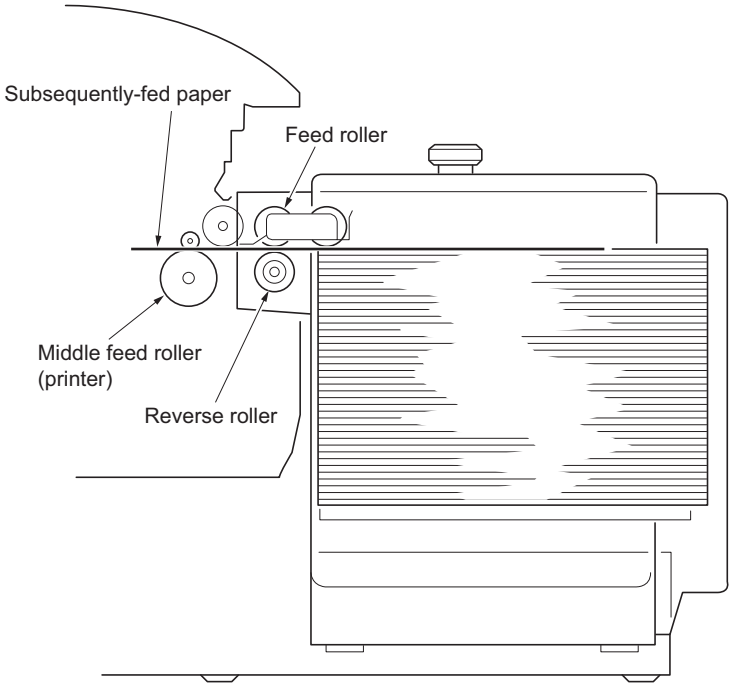


Figure 2-1-1 FRR System

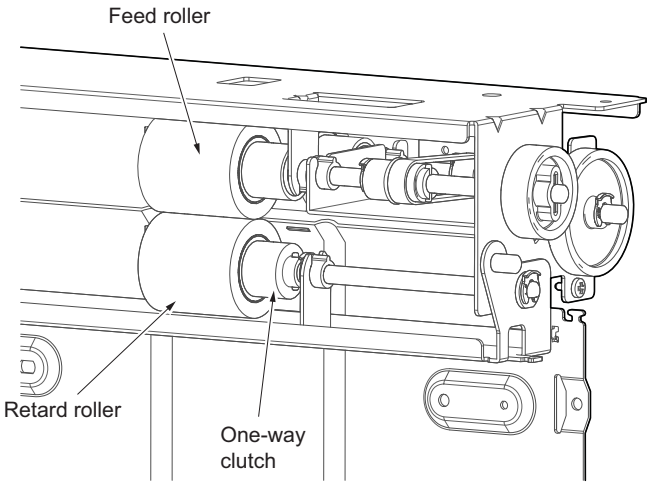


Figure 2-1-2 FRR System

The feed roller is driven counter-clockwise on the shaft in this system.
The retard roller has a torque limiter (one-way clutch) at one side to drive the roller freely from the shaft so that it rotates counter-clockwise with the friction applied from the feed roller via paper.

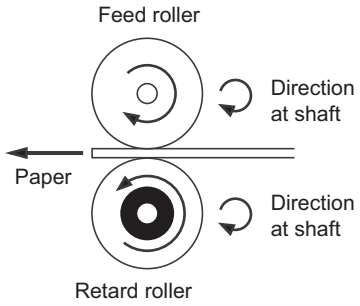


Figure 2-1-3

If one sheet of more paper is fed coincidentally and pinched between the rollers, friction between paper is small and there is no friction between the rollers. Then, the retartd roller stops at the work of the torque limiter. The feed roller continues paper feed from the most upper paper source of the printer and the retard roller stops the second paper and prevents multi feed.

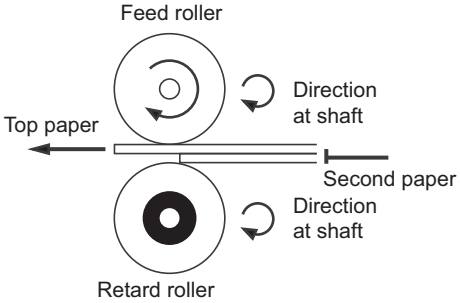
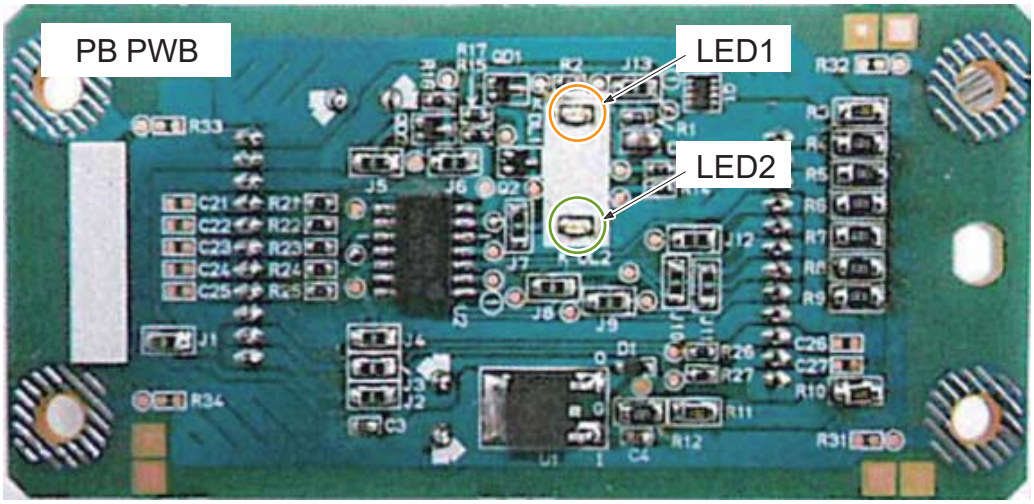


Figure 2-1-4

(2) The fault detection function of the PWB

Attachment PB-325 is equipped with fault detection LED of an engine PWB and PB PWB.

Failure PWB	Failure contents	LED1 (Orange)	LED2 (Green)
Engine PWB	+24V fuse disconnection	Putting out lights	Putting out lights
	+3.3V fuse disconnection		
PB PWB	24V cutoff circuit FET breakage	Lighting	
	5V generation regulator breakage		
	Level shift breakage		



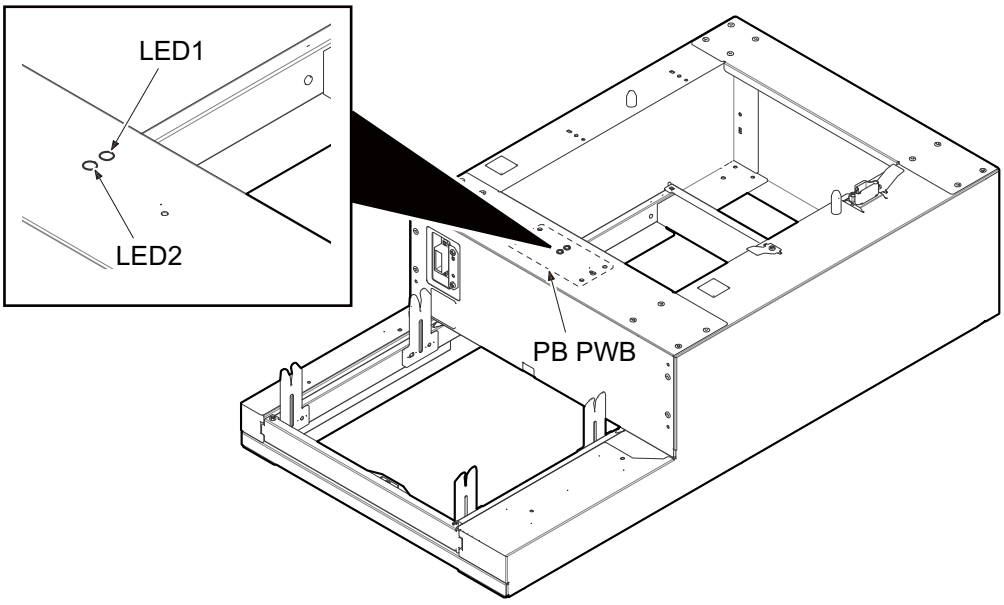


Figure 2-1-5

* Refer for a check procedure to 1-3-3 electric problems. (see page 1-3-6)

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2-2-1 Electrical parts layout

(1) Electrical parts

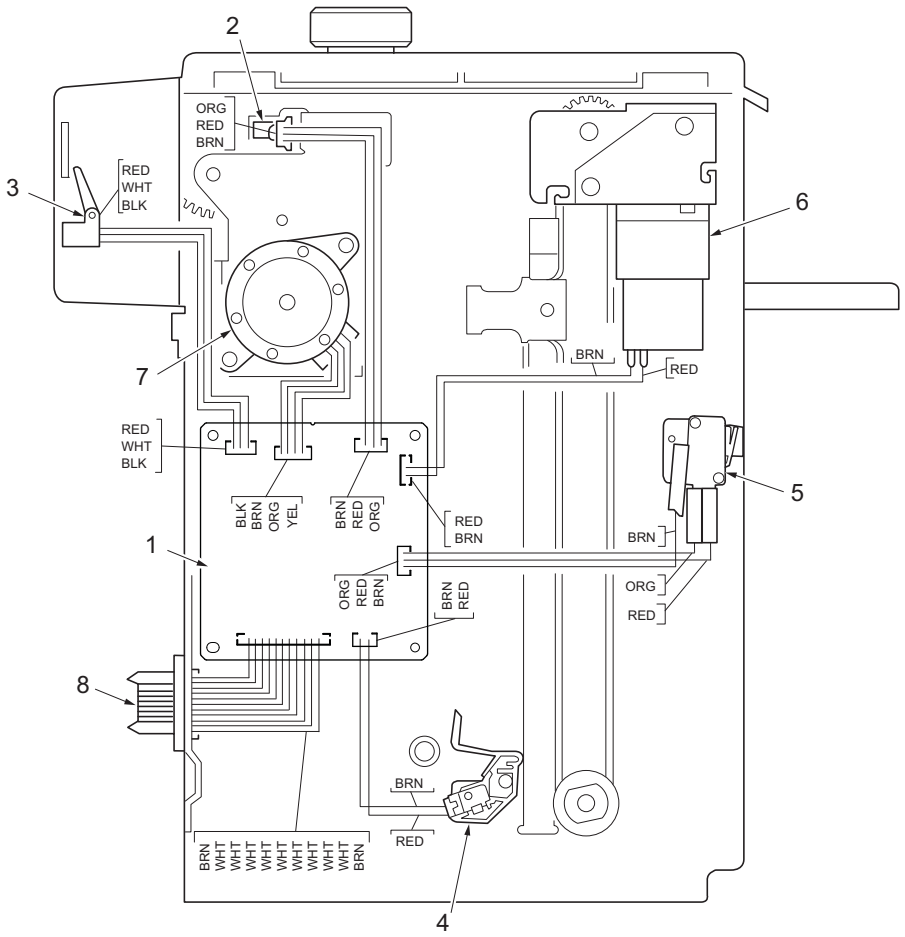

Figure 2-2-1 Electrical parts

1. Main PWB ..... Controls electrical components in the bulk paper feeder and communications with the printer.
2. Tray top position sensor ..... This sensor, when the top of the paper stack in the paper tray has reached the top most position, ready for feeding paper through the bulk paper feeder output slot.
3. Paper feed sensor ..... This sensor monitors the presence of paper at the bulk paper feeder output slot.
4. Tray bottom position sensor ..... This sensor, when stepped on by the paper tray as the paper tray descends.
5. Cover open switch ..... This switch reports CPU as to whether the tray cover is closed or open.
6. Tray elevation motor ..... This is a DC servo motor to raise or descends the paper tray.
7. Paper feed motor ..... This paper feed motor drives with the W1-2 corelated excitation mode for preventing from the paper feed noise. This is a stepping motor which is activated when requested by the paper feed sensor to feed paper toward the bulk paper feeder output slot.
8. Interface connector ..... Connects the signal lead and 5/24 V DC power source cord with the printer.

(2) Electrical parts (PB-325)

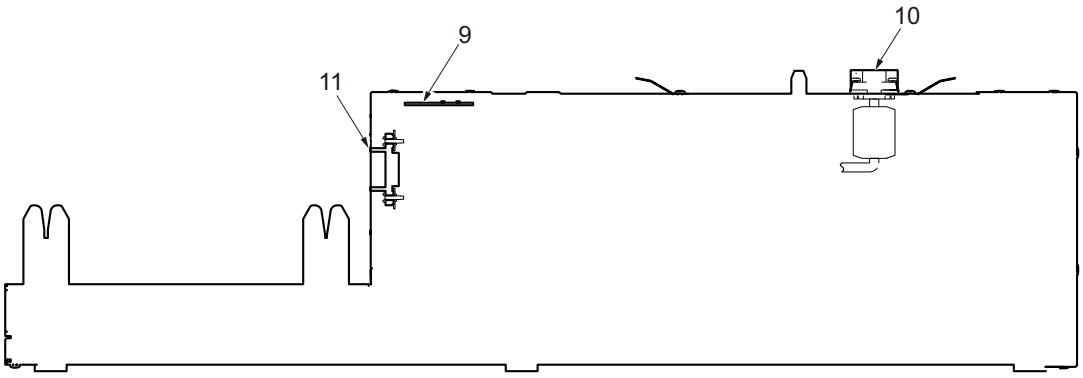

Figure 2-2-2 Electrical parts (PB-325)

1. PB PWB ..... Consists of wiring relay circuit between engine PWB of printer and main PWB of printer base.
2. Relay interface connector A ..... Connects the printer base and the printer.
3. Relay interface connector B ..... Connects the printer base and the bulk paper feeder.

2-3-1 Main PWB

The diagram below shows the main PWB and the components of the bulk paper feeder.

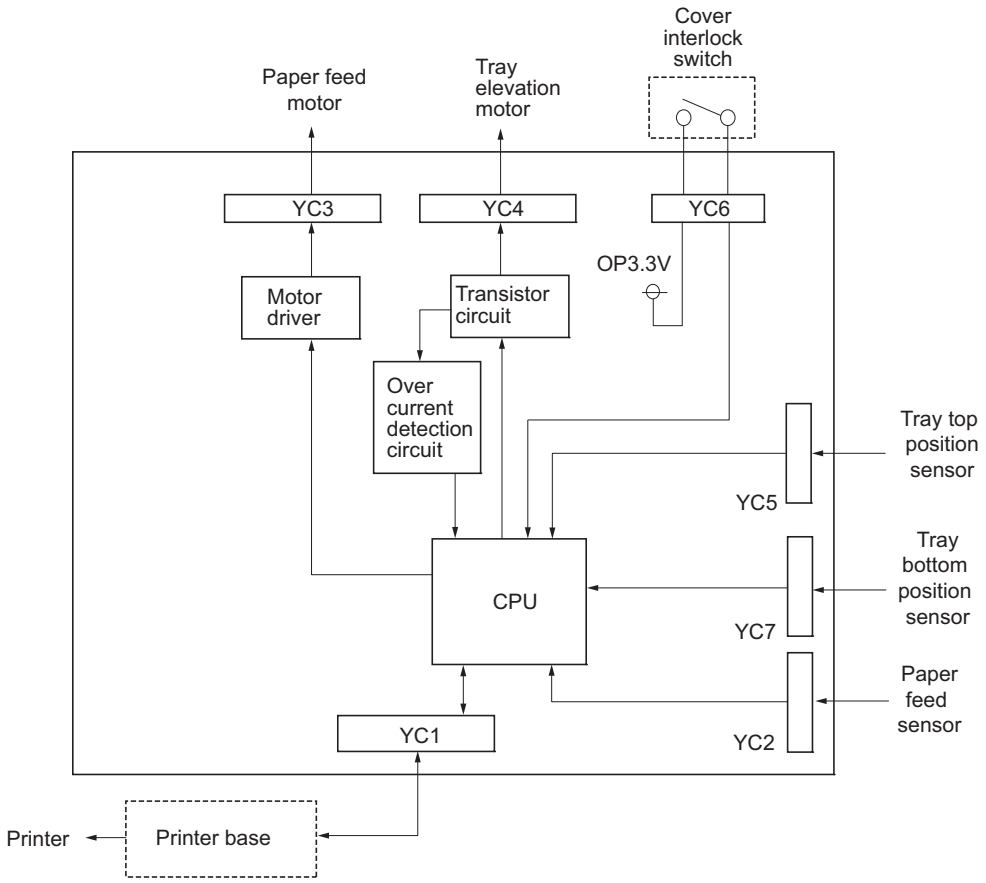

Figure 2-3-1Main PWB block diagram

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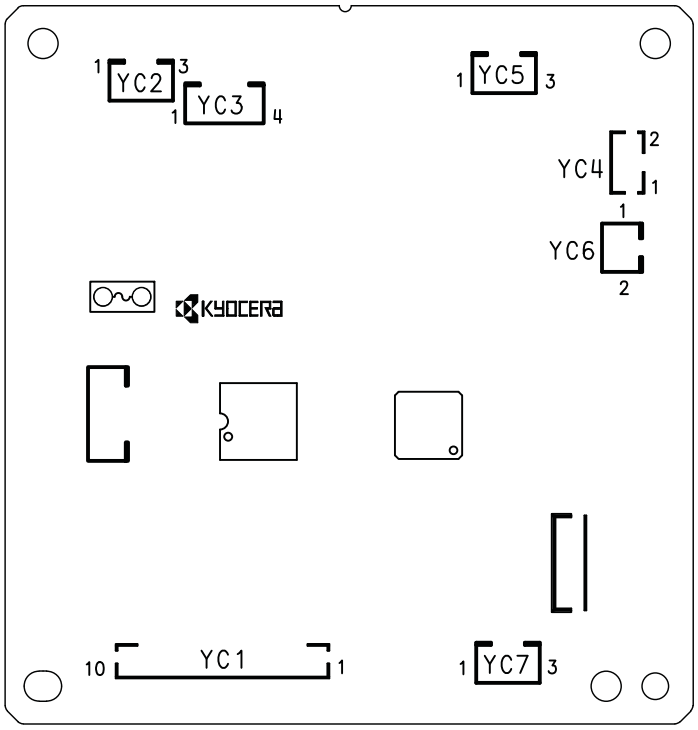
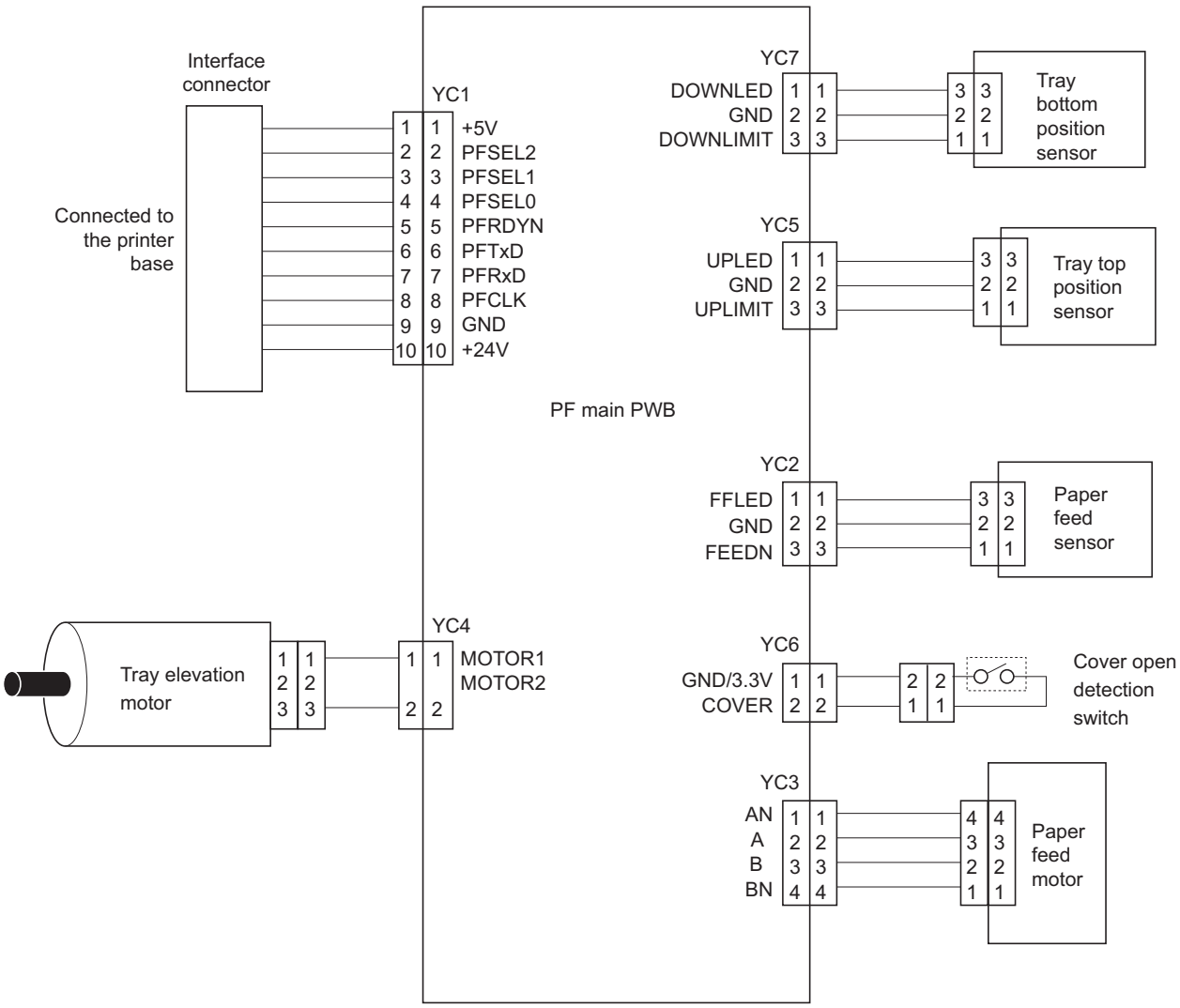


Figure 2-3-2Main PWB silk-screen diagram

Connector	Pin No.	Signal	I/O	Voltage	Description
YC1	1	+5V	I	DC5V	5 V DC power input
Connected to the printer	2	PFSEL2	I	DC0V/3.3V	PF Select2 signal
	3	PFSEL1	I	DC0V/3.3V	PF Select1 signal
	4	PFSEL0	I	DC0V/3.3V	PF Select0 signal
	5	PFRDYN	O	DC0V/3.3V	Serial comunication signal_Ready
	6	PFTxD	I	DC0V/3.3V	Serial comunication signal_Data
	7	PFRxD	O	DC0V/3.3V	Serial comunication signal_Data
	8	PFCLK	I	DC0V/ 3.3V(Pulse)	Serial comunication signal_Clock
	9	GND	I	-	Ground
	10	+24V	I	DC24V	24 V DC power input
YC2	1	FELED	O	DC3.3V	3.3 V DC power output
Connected to the paper feed sensor	2	GND	O	-	Ground
	3	FEEDN	I	DC0V/3.3V	FEED signal

Connector	Pin No.	Signal	I/O	Voltage	Description
YC3	1	FEED AN	O	DC0V/24V	Paper feed motor drive output
Connected to the paper feed motor	2	FEED A	O	DC0V/24V	Paper feed motor drive output
	3	FEED B	O	DC0V/24V	Paper feed motor drive output
	4	FEED BN	O	DC0V/24V	Paper feed motor drive output
YC4	1	MOTOR2	O	DC0V/24V	Tray elevation motor drive output
Connected to the tray elevation motor	2	MOTOR1	O	DC0V/24V	Tray elevation motor drive output
YC5	1	UPLED	O	DC3.3V	3.3 V DC power output
Connected to the tray top position sensor	2	GND	O	-	Ground
	3	UPLIMIT	I	DC0V/3.3V	UPLIMIT signal
YC6	1	GND/3.3V	O	-	3.3 V DC power output
Connected to the cover open switch	2	COVER	I	DC0V/3.3V	COVER signal
YC7	1	DOWNLED	O	DC3.3V	3.3 V DC power output
Connected to the tray bottom position sensor	2	GND	O	-	Ground
	3	DOWNLIMIT	I	DC0V/3.3V	DWNLIMIT signal

2-4-1 Wiring diagram



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