KYOCERA

PF-520
PF-530

SERVICE MANUAL

Published in September 2010
3M9SM061
Rev. 1

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.

Revision history

Revision	Date	Replaced pages	Remarks
1	September 17, 2010	1-1-1, 1-2-4, 1-3-1 to 1-3-14	-

This page is intentionally left blank.

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. .....

This page is intentionally left blank.

CONTENTS

2-3 Operation of the PWBs

2-4 Appendixes

1-1-1 Specifications

Item	Specifications	
	Paper feeder (Normal)	**Multi purpose feeder**
Paper weight	60 to 163 g/m^2	60 to 220 g/m^2
Paper type	Plain, Recycled, Preprinted, Bond, Rough, Color, Prepunched, Letterhead, Thick (163g/m^2 or less), High Quality and Custom 1 to 8	Plain, Labels, Recycled, Preprinted, Bond, Rough, Cardstock, Color, Prepunched, Letterhead, Envelope, Coated, Thick, High Quality and Custom 1 to 8
Paper size	A4, A5, B5, ISO B5, Letter, Legal, Statement, Executive, Oficio II, Folio, Custom	A4, A5, B5, ISO B5, Letter, Legal, Statement, Executive, Oficio II, Folio, 16k, Envelope #10, Envelope #9, Envelope #6, Envelope Monarch, Envelope DL, Envelope C5, Return postcard, Youkei 2, Youkei 4, Custom
Paper capacity	500 sheets (80g/m^2)	
Dimensions (W × H × D)	390 × 116 × 515 mm 15 3/8 × 4 9/16 × 20 1/4”	
Weight	4.3 kg or less / 9.46 lb or less	5.1 kg or less / 11.22 lb or less
Power source	Electrically connected to the machine (3.3 V DC, 24 V DC)	Electrically connected to the machine (3.3 V DC, 24 V DC) 120 V AC, 220 - 240 V AC (for PF heaters)

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Paper feeder (Normal)

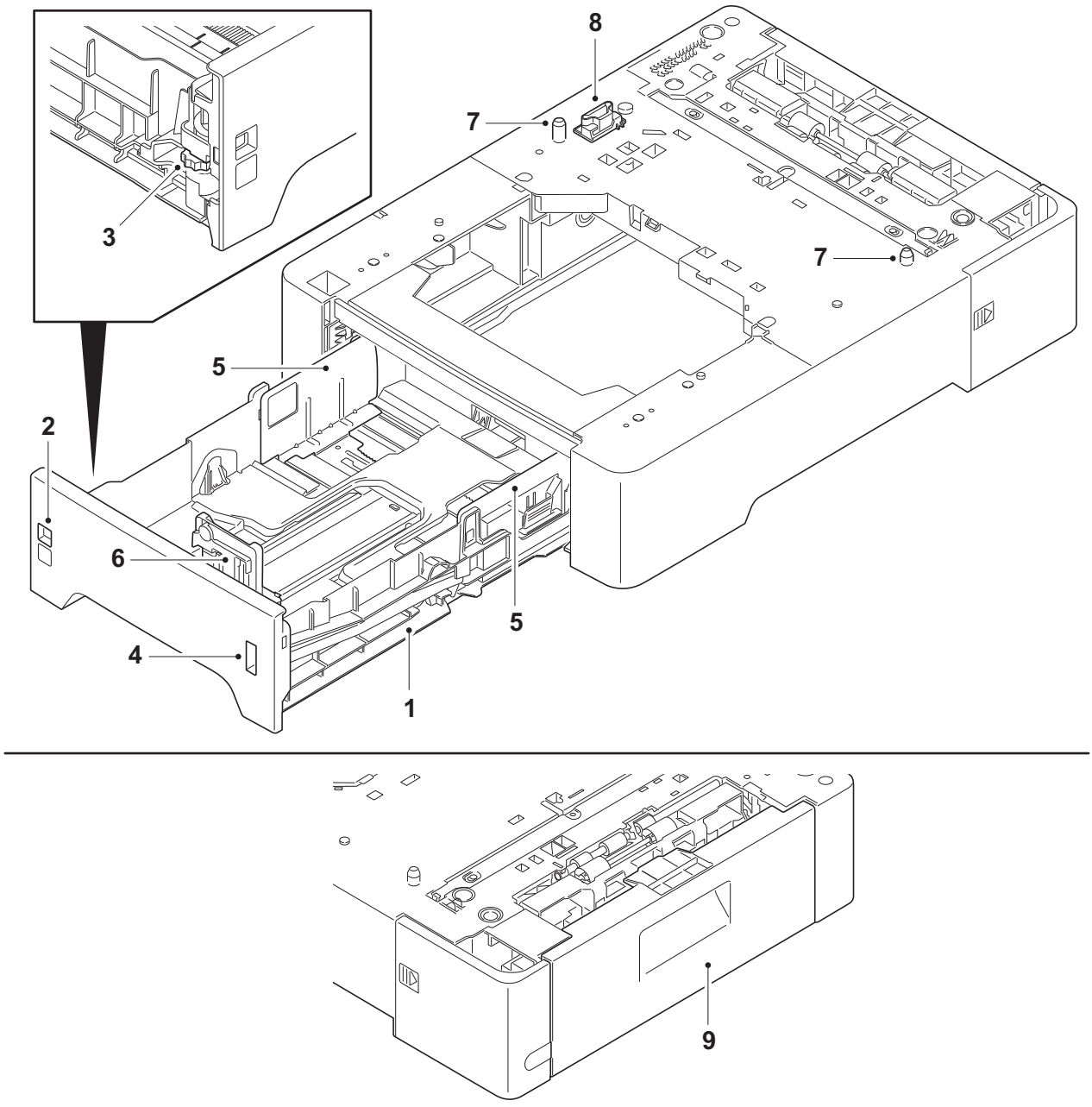


Figure 1-1-1

1. Cassette
2. Paper size dial window
3. Paper size dial
4. Paper gauge
5. Paper width guides
6. Paper length guide
7. Positioning pins
8. Interface connector
9. PF rear cover

(2) Multi purpose feeder

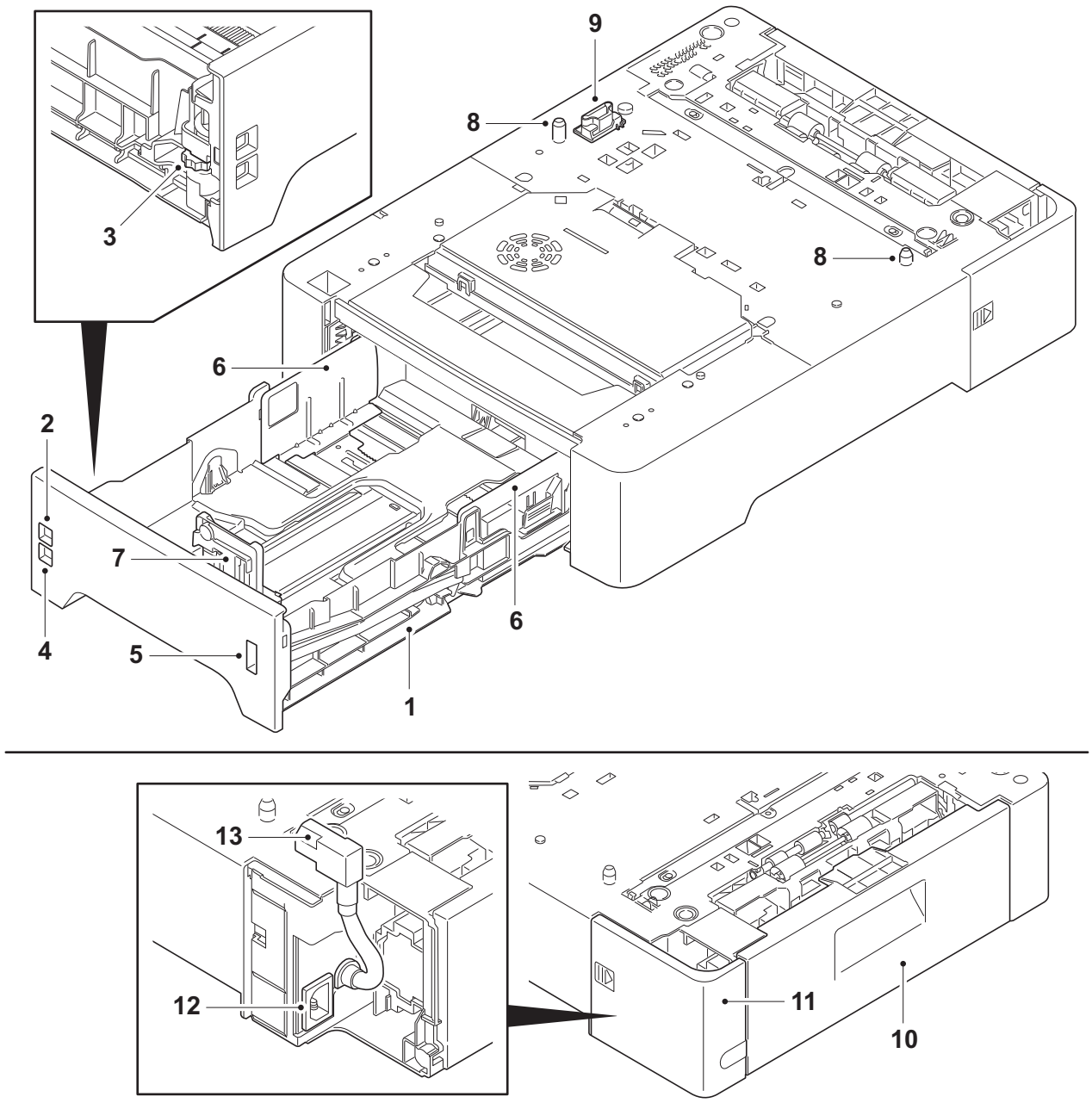


Figure 1-1-2

1. Cassette
2. Paper size dial window
3. Paper size dial
4. Paper type window
5. Paper gauge
6. Paper width guides
7. Paper length guide
8. Positioning pins
9. Interface connector
10. PF rear cover
11. Power source cover
12. AC inlet
13. AC relay cord

1-1-3 Machine cross section

(1) Paper feeder (Normal)

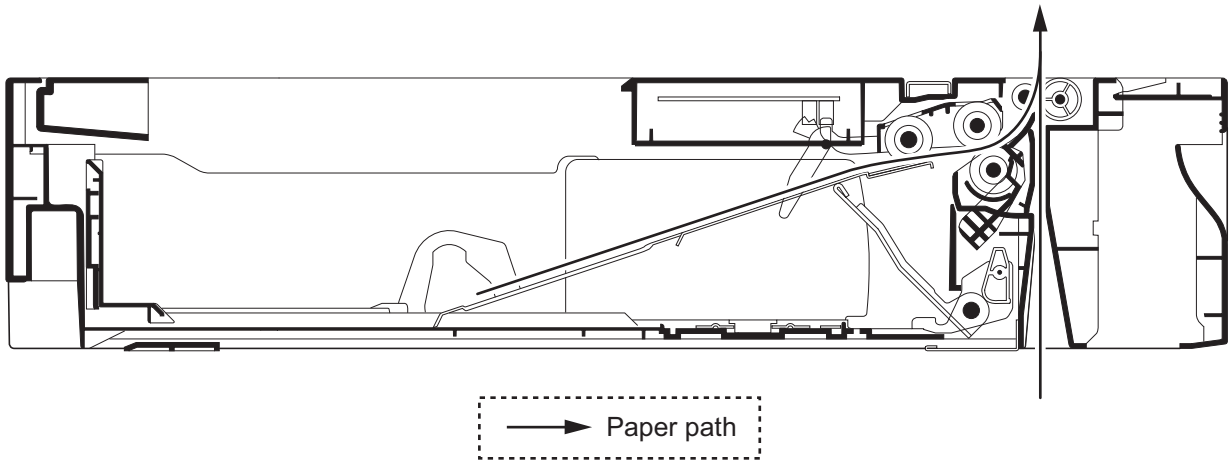


Figure 1-1-3

(2) Multi purpose feeder

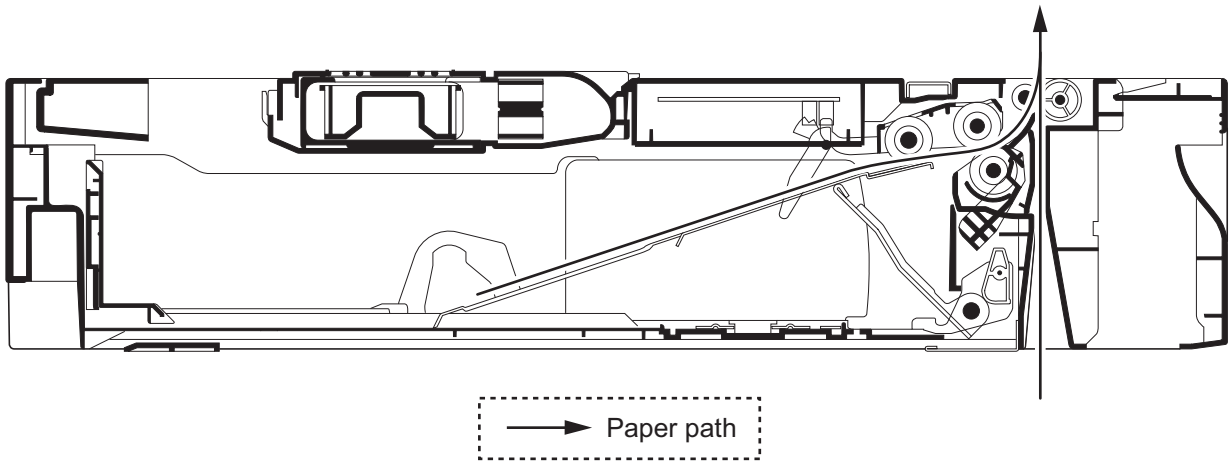


Figure 1-1-4

1-2-1 Installation environment

Installation location (Be based on the machine establishment place.)
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.

1-2-2 Unpacking

(1) Unpacking

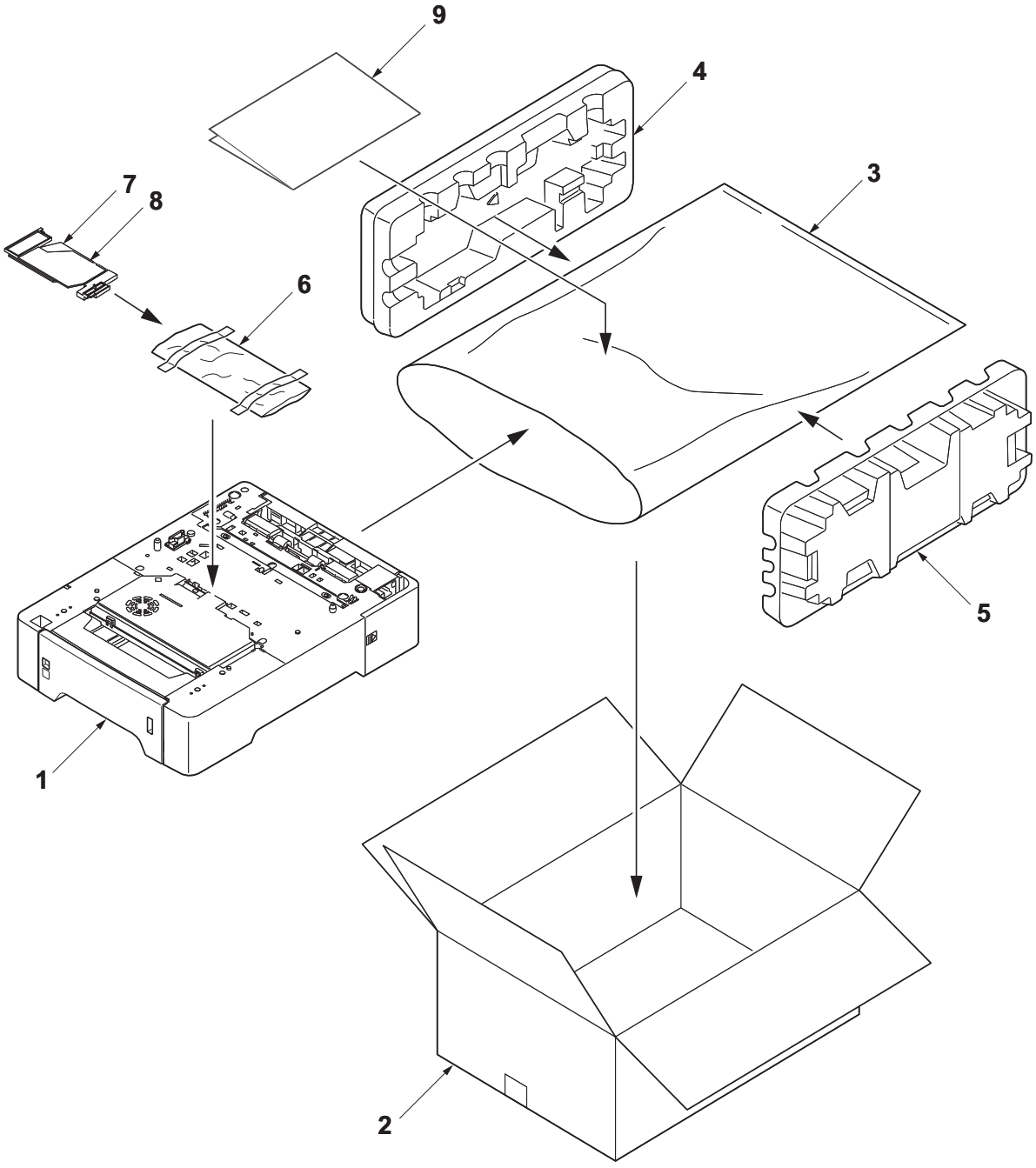


Figure 1-2-1

1. Paper feeder
2. Outer case
3. Plastic bag 600 x 800
4. Left pad
5. Right pad
6. Plastic bag 120 x 250*
7. Left sub-cursor*
8. Right sub-cursor*
9. Installation guide etc.

*: Multi purpose feeder only.

Caution: Place the machine on a level surface. See the Installation Guide for installation.

(2) Removing the tapes

Procedure

1. Remove the tapes.
   Paper feeder (Normal): two tapes
   Multi purpose feeder: four tapes

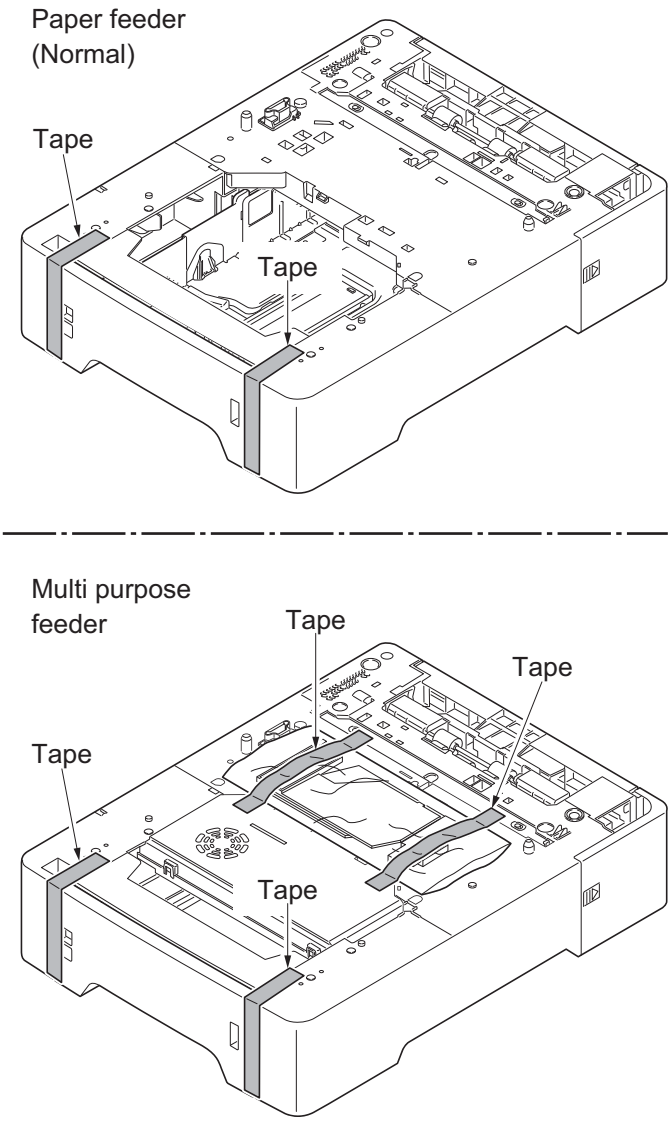


Figure 1-2-2

(3) Attaching the sub-cursors (Multi purpose feeder only)

Procedure

1. Attach the right and left sub-cursors to the cassette.

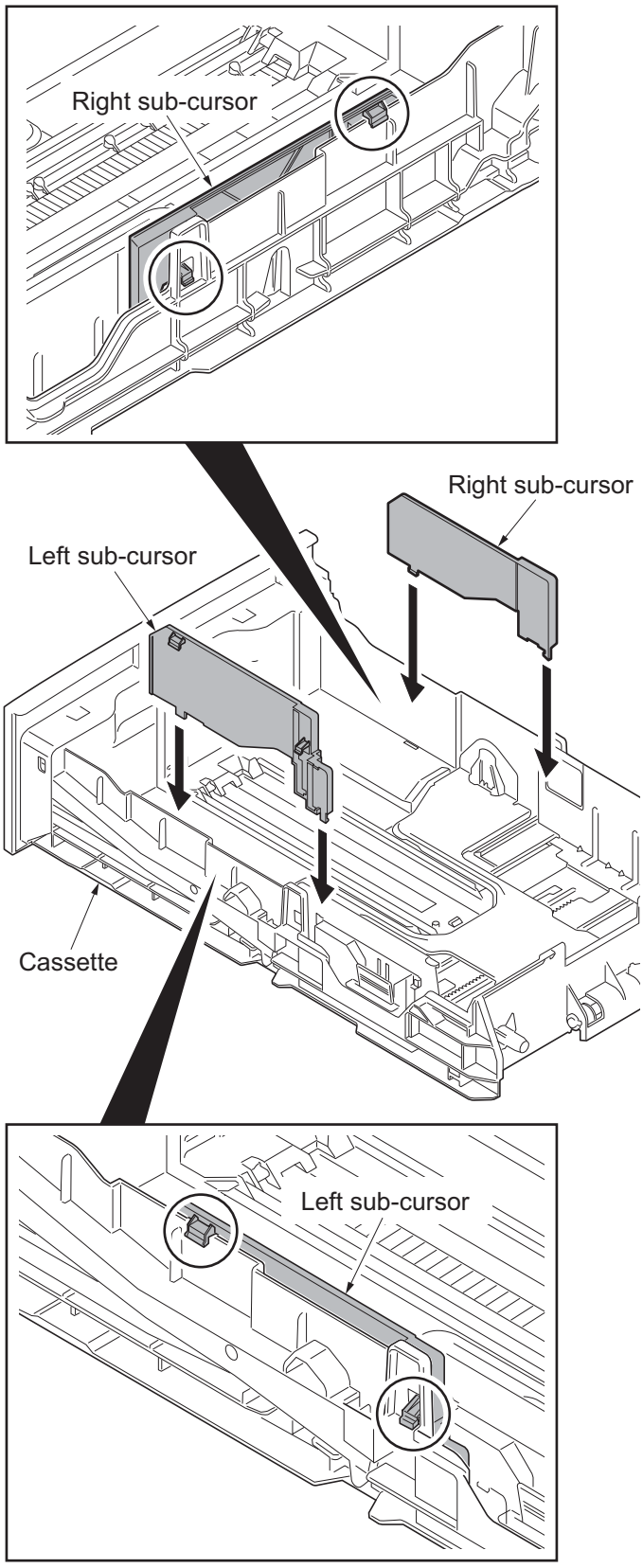


Figure 1-2-3

1-3-1 Paper misfeed detection

(1) Paper misfeed indication

When a paper misfeed occurs, the machine immediately stops printing and displays the paper misfeed message on the operation panel. To remove paper misfed in the machine, open the PF rear cover.

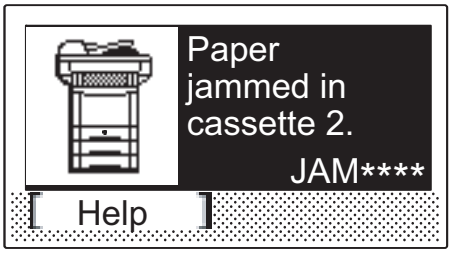


Figure 1-3-1 Paper misfeed indication (MFP)

Figure 1-3-2 Paper misfeed indication (printer)

(2) Paper misfeed detection condition

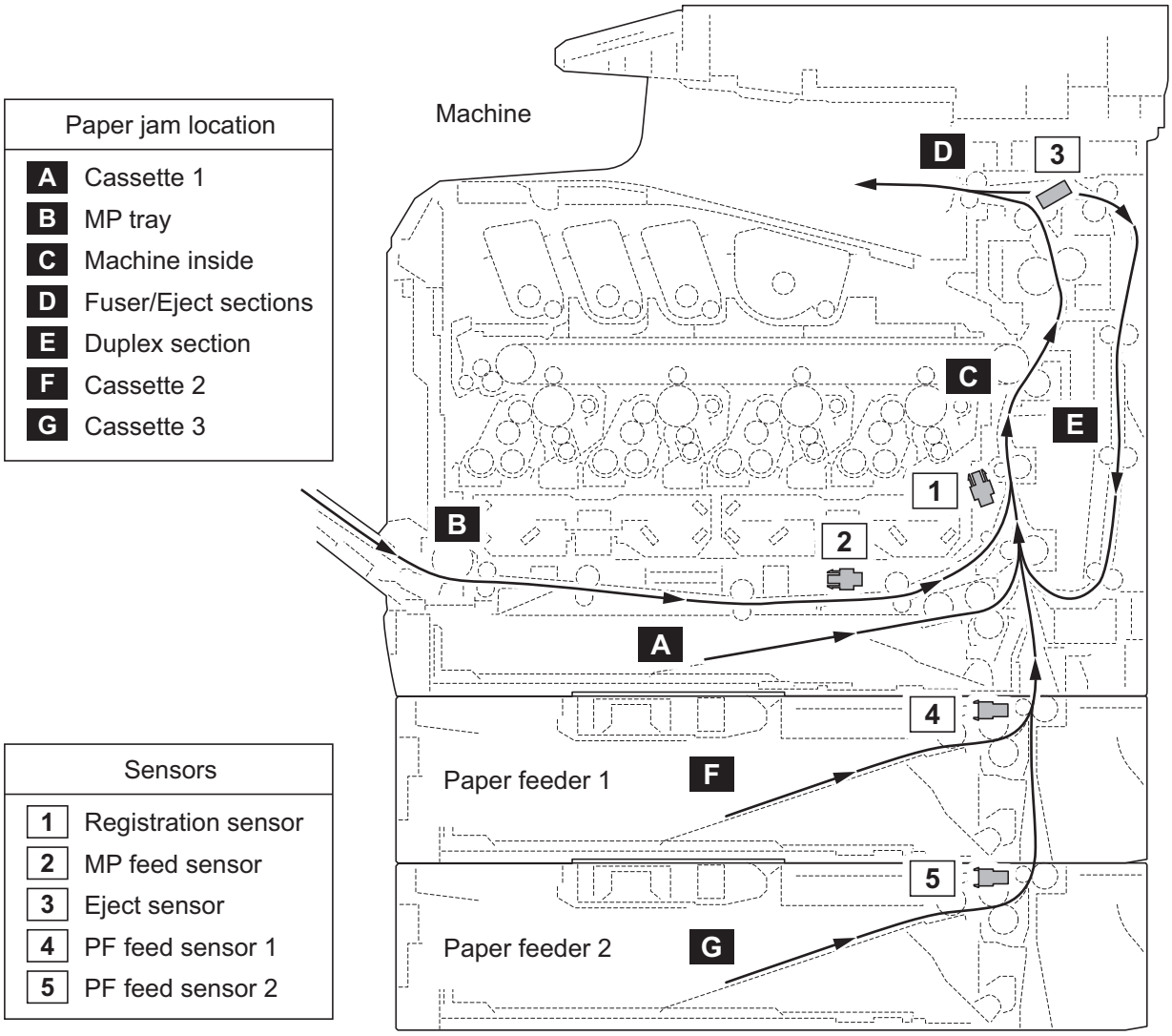


Figure 1-3-3 Paper jam location (MFP)

Sensors	
1	Registration sensor
2	MP feed sensor
3	Eject sensor
4	PF feed sensor 1
5	PF feed sensor 2
6	PF feed sensor 3

Paper jam location	
A	Cassette 1
B	MP tray
C	Machine inside
D	Fuser/Eject sections
E	Duplex section
F	Cassette 2
G	Cassette 3
H	Cassette 4

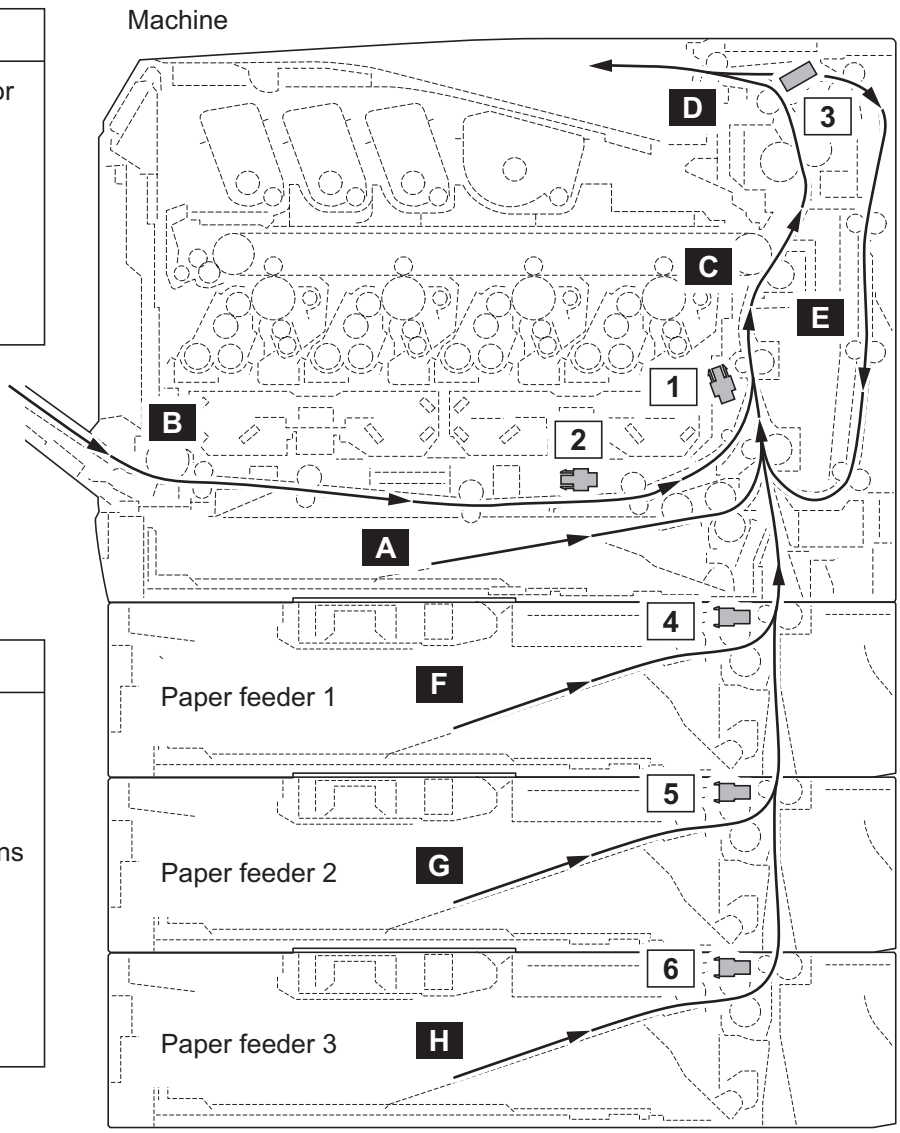


Figure 1-3-4 Paper jam location (printer)

Code	Contents	Conditions	Jam location*
0211	Rear cover open (paper feeder 1)	The rear cover of paper feeder 1 is opened during printing.	-
0212	Rear cover open (paper feeder 2)	The rear cover of paper feeder 2 is opened during printing.	-
0213	Rear cover open (paper feeder 3)	The rear cover of paper feeder 3 is opened during printing.	-
0502	No paper feed from cassette 2	PF feed sensor 1 (PFFS1) does not turn on during paper feed from paper feeder 1.	F
0503	No paper feed from cassette 3	PF feed sensor 2 (PFFS2) does not turn on during paper feed from paper feeder 2.	G
0504	No paper feed from cassette 4	PF feed sensor 3 (PFFS3) does not turn on during paper feed from paper feeder 3.	H
0512	Multiple sheets in cassette 2	PF feed sensor 1 (PFFS1) does not turn off during paper feed from paper feeder 1.	F
0513	Multiple sheets in cassette 3	PF feed sensor 2 (PFFS2) does not turn off during paper feed from paper feeder 2.	G
0514	Multiple sheets in cassette 4	PF feed sensor 3 (PFFS3) does not turn off during paper feed from paper feeder 3.	H
1403	PF feed sensor 1 does not turn ON	PF feed sensor 1 (PFFS1) does not turn on during paper feed from paper feeder 2.	F
1404	PF feed sensor 1 does not turn ON	PF feed sensor 1 (PFFS1) does not turn on during paper feed from paper feeder 3.	F
1413	PF feed sensor 1 does not turn OFF	PF feed sensor 1 (PFFS1) does not turn off during paper feed from paper feeder 2.	F
1414	PF feed sensor 1 does not turn OFF	PF feed sensor 1 (PFFS1) does not turn off during paper feed from paper feeder 3.	F
1420	PF feed sensor 1 is turned ON	PF feed sensor 1 (PFFS1) is turned on when the power is turned on.	F
1604	PF feed sensor 2 does not turn ON	PF feed sensor 2 (PFFS2) does not turn on during paper feed from paper feeder 3.	G
1614	PF feed sensor 2 does not turn OFF	PF feed sensor 2 (PFFS2) does not turn off during paper feed from paper feeder 3.	G
1620	PF feed sensor 2 is turned ON	PF feed sensor 2 (PFFS2) is turned on when the power is turned on.	G
1820	PF feed sensor 3 is turned ON	PF feed sensor 3 (PFFS3) is turned on when the power is turned on.	H
4002	Registration sensor does not turn ON	The registration sensor (RS) does not turn on during paper feed from paper feeder 1.	A
4003		The registration sensor (RS) does not turn on during paper feed from paper feeder 2.	A

*: Refer to figure 1-3-2 or 1-3-3 for paper jam location (P.1-3-2, P.1-3-3).

Code	Contents	Conditions	Jam location*
4012	Registration sensor does not turn OFF	The registration sensor (RS) does not turn off during paper feed from paper feeder 1.	C
4013		The registration sensor (RS) does not turn off during paper feed from paper feeder 2.	C
4014		The registration sensor (RS) does not turn off during paper feed from paper feeder 3.	C
4202	Eject sensor does not turn ON	The eject sensor (ES) does not turn on during paper feed from paper feeder 1.	C
4203		The eject sensor (ES) does not turn on during paper feed from paper feeder 2.	C
4204		The eject sensor (ES) does not turn on during paper feed from paper feeder 3.	C
4212	Eject sensor does not turn OFF	The eject sensor (ES) does not turn off during paper feed from paper feeder 1.	D
4213		The eject sensor (ES) does not turn off during paper feed from paper feeder 2.	D
4214		The eject sensor (ES) does not turn off during paper feed from paper feeder 3.	D

*: Refer to figure 1-3-2 or 1-3-3 for paper jam location (P.1-3-2, P.1-3-3).

1-3-2 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.

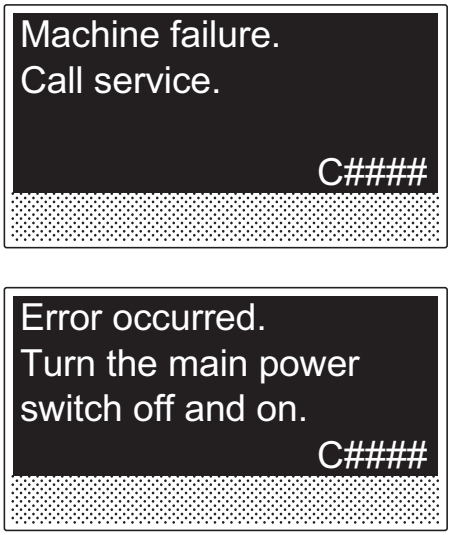


Figure 1-3-5 Self-diagnostic indication (MFP)

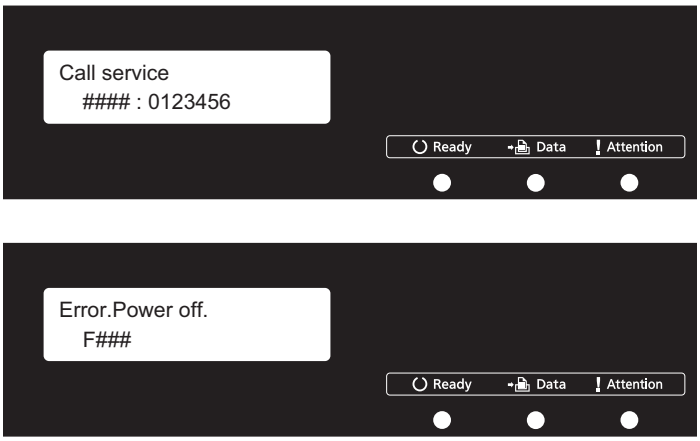


Figure 1-3-6 Self-diagnostic indication (printer)

(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
1020	**PF lift motor error (paper feeder 1)** When the lift motor is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven, the ON status of lift sensor cannot be detected for 8 s. The cassette installed confirmation message is displayed on the operation panel, and even if the cassette is opened and closed, the cassette installed confirmation message is displayed 5 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 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
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1030	**PF lift motor error (paper feeder 2)** When the lift motor is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven, the ON status of lift sensor cannot be detected for 8 s. The cassette installed confirmation message is displayed on the operation panel, and even if the cassette is opened and closed, the cassette installed confirmation message is displayed 5 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 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
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1040	**PF lift motor error (paper feeder 3)** When the lift motor is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven, the ON status of lift sensor cannot be detected for 8 s. The cassette installed confirmation message is displayed on the operation panel, and even if the cassette is opened and closed, the cassette installed confirmation message is displayed 5 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 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
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1500	**PF heater 1 high temperature error (paper feeder 1)** A temperature higher than 75°C/167°F 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. PF fan motor 1 and PF main PWB (YC111)
		Shorted PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF fan motor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1510	**PF heater 2 high temperature error (paper feeder 1)** A temperature higher than 75°C/167°F 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. PF fan motor 2 and PF main PWB (YC111)
		Shorted PF thermistor 2.	Replace the side heater unit (see page 1-4-11).
		Defective PF fan motor 2.	Replace the side heater unit (see page 1-4-11).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1520	**PF heater 1 high temperature error (paper feeder 2)** A temperature higher than 75°C/167°F 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. PF fan motor 1 and PF main PWB (YC111)
		Shorted PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF fan motor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1530	**PF heater 2 high temperature error (paper feeder 2)** A temperature higher than 75°C/167°F 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. PF fan motor 2 and PF main PWB (YC111)
		Shorted PF thermistor 2.	Replace the side heater unit (see page 1-4-10).
		Defective PF fan motor 2.	Replace the side heater unit (see page 1-4-10).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1540	**PF heater 1 high temperature error (paper feeder 3)** A temperature higher than 75°C/167°F 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. PF fan motor 1 and PF main PWB (YC111)
		Shorted PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF fan motor 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
1550	**PF heater 2 high temperature error (paper feeder 3)** A temperature higher than 75°C/167°F 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. PF fan motor 2 and PF main PWB (YC111)
		Shorted PF thermistor 2.	Replace the side heater unit (see page 1-4-10).
		Defective PF fan motor 2.	Replace the side heater unit (see page 1-4-10).
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1600	**PF heater 1 low temperature error (paper feeder 1)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 1 is turned on.	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 heater 1 and PF heater PWB (YC1) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 1 and PF main PWB (YC114)
		PF thermistor 1 installed incorrectly.	Check the installation of the PF thermistor 1.
		Defective PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Broken PF warm air heater 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).
1610	**PF heater 2 low temperature error (paper feeder 1)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 2 is turned on.	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 heater 2 and PF heater PWB (YC2) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 2 and PF main PWB (YC115)
		PF thermistor 2 installed incorrectly.	Check the installation of the PF thermistor 2.
		Defective PF thermistor 2.	Replace the side heater unit (see page 1-4-11).
		Broken PF warm air heater 2.	Replace the side heater unit (see page 1-4-11).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1620	**PF heater 1 low temperature error (paper feeder 2)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 1 is turned on.	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 heater 1 and PF heater PWB (YC1) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 1 and PF main PWB (YC114)
		PF thermistor 1 installed incorrectly.	Check the installation of the PF thermistor 1.
		Defective PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Broken PF warm air heater 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).
1630	**PF heater 2 low temperature error (paper feeder 2)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 2 is turned on.	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 heater 2 and PF heater PWB (YC2) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 2 and PF main PWB (YC115)
		PF thermistor 2 installed incorrectly.	Check the installation of the PF thermistor 2.
		Defective PF thermistor 2.	Replace the side heater unit (see page 1-4-11).
		Broken PF warm air heater 2.	Replace the side heater unit (see page 1-4-11).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1640	**PF heater 1 low temperature error (paper feeder 3)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 1 is turned on.	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 heater 1 and PF heater PWB (YC1) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 1 and PF main PWB (YC114)
		PF thermistor 1 installed incorrectly.	Check the installation of the PF thermistor 1.
		Defective PF thermistor 1.	Replace the top heater unit (see page 1-4-10).
		Broken PF heater 1.	Replace the top heater unit (see page 1-4-10).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).
1650	**PF heater 2 low temperature error (paper feeder 3)** An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 2 is turned on.	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 heater 2 and PF heater PWB (YC2) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 2 and PF main PWB (YC115)
		PF thermistor 2 installed incorrectly.	Check the installation of the PF thermistor 2.
		Defective PF thermistor 2.	Replace the side heater unit (see page 1-4-11).
		Broken PF heater 2.	Replace the side heater unit (see page 1-4-11).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
1800	**Paper feeder communication error** Communication error between engine PWB and optional paper feeder.	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 (YC33)
		Defective engine PWB.	Replace the engine PWB and check for correct operation.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
2600	**PF paper feed motor error (paper feeder 1)** The drum motor ready input is not given for 2 s during the paper feed motor is ON.	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 paper feed motor and PF main PWB (YC6)
		Defective drive transmission system of the PF paper 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 paper feed motor.	Replace the PF paper feed motor.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).
2610	**PF paper feed motor error (paper feeder 2)** The drum motor ready input is not given for 2 s during the paper feed motor is ON.	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 paper feed motor and PF main PWB (YC6)
		Defective drive transmission system of the PF paper 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 paper feed motor.	Replace the PF paper feed motor.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).

Code	Contents	Causes	Check procedures/ corrective measures
2620	**PF paper feed motor error (paper feeder 3)** The drum motor ready input is not given for 2 s during the PF paper feed motor is ON.	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 paper feed motor and PF main PWB (YC6)
		Defective drive transmission system of the PF paper 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 paper feed motor.	Replace the PF paper feed motor.
		Defective PF main PWB.	Replace the PF main PWB (see page 1-4-6).

1-3-3 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 main 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. PF rear cover is not closed completely.	Check the PF rear cover.
	4. Poor contact in the AC relay cord.	Reinsert the AC relay cord.
	5. 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. AC inlet and PF heater PWB (TB1, TB2, TB3, YC4)
	6. Broken power cord.	Check for continuity. If none, replace the cord.
	7. Defective AC relay cord.	Check for continuity within the AC relay cord. If none, replace the cord.
	8. Defective PWB.	Replace the PF heater PWB or PF main PWB (see page 1-4-8, 1-4-6).
(2) PF 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. PF paper feed clutch and PF main PWB (YC9)
	2. Defective clutch.	Replace the PF paper feed clutch.
	3. Defective PWB.	Replace the PF main PWB and check for correct operation (see page 1-4-6).
(3) PF paper 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. PF paper conveying clutch and PF main PWB (YC9)
	2. Defective clutch.	Replace the PF paper conveying clutch.
	3. Defective PWB.	Replace the PF main PWB and check for correct operation (see page 1-4-6).
(4) The message requesting paper to be loaded is shown when paper is present on the cassette.	1. Deformed actuator of the PF paper sensor.	heck visually and replace if necessary.
	2. Defective PF paper sensor.	Replace the PF main PWB and check for correct operation (see page 1-4-6).

Problem	Causes	Check procedures/corrective measures
(5) 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. PF cassette size switch and PF main PWB (YC2)
	2. Defective PF cassette size switch.	Replace the PF cassette size switch.
	3. Defective PWB.	Replace the PF main PWB and check for correct operation (see page 1-4-6).
(6) A paper jam in paper feeder is indicated when the main power switch is turned on.	1. A piece of paper torn from paper is caught around PF paper feed sensor.	Check visually and remove it, if any.
	2. Defective PF paper feed sensor.	Replace the PF paper feed sensor.
(7) A message indicating cover open is displayed when the PF rear cover is closed.	1. Defective PF rear cover switch.	Replace the PF rear cover switch.
	2. Defective PWB.	Replace the PF main PWB and check for correct operation (see page 1-4-6).

1-3-4 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	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller	Check visually and replace any deformed (see page 1-4-4).
	Defective PF paper feed clutch installation.	Check visually and remedy if necessary.
(2) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(3) 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 1-4-2).
(4) Paper jams.	Check if the paper is excessively curled.	Change the paper.
	Deformed guides along the paper conveying path.	Check visually and remedy or replace any deformed guides.
(5) 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. PF paper feed clutch PF paper conveying clutch	Check visually and remedy if necessary.

This page is intentionally left blank.

1-4-1 Precautions for assembly and disassembly

(1) Precautions

Before starting disassembly of the paper feeder, 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. And then unplug the power cable from the wall outlet. For the multi purpose feeder, remove also the power cord/AC relay cord (refer to the figure below).
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.

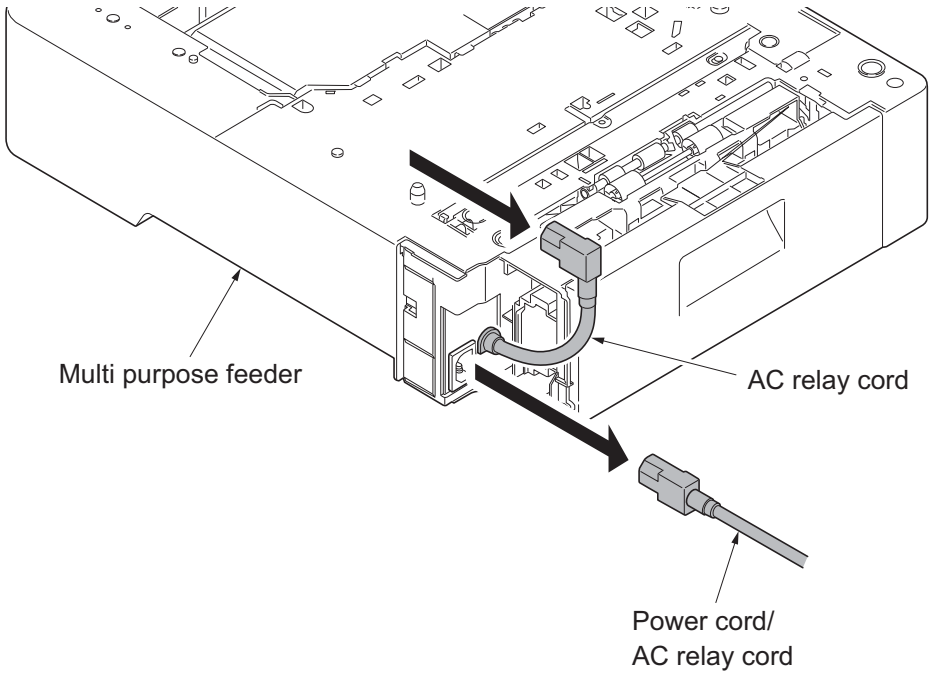


Figure 1-4-1

1-4-2 Paper feed section

(1) Detaching and refitting the retard roller

Procedure

1. Open the PF rear cover.
2. Release two hooks and then remove the retard guide and retard spring.

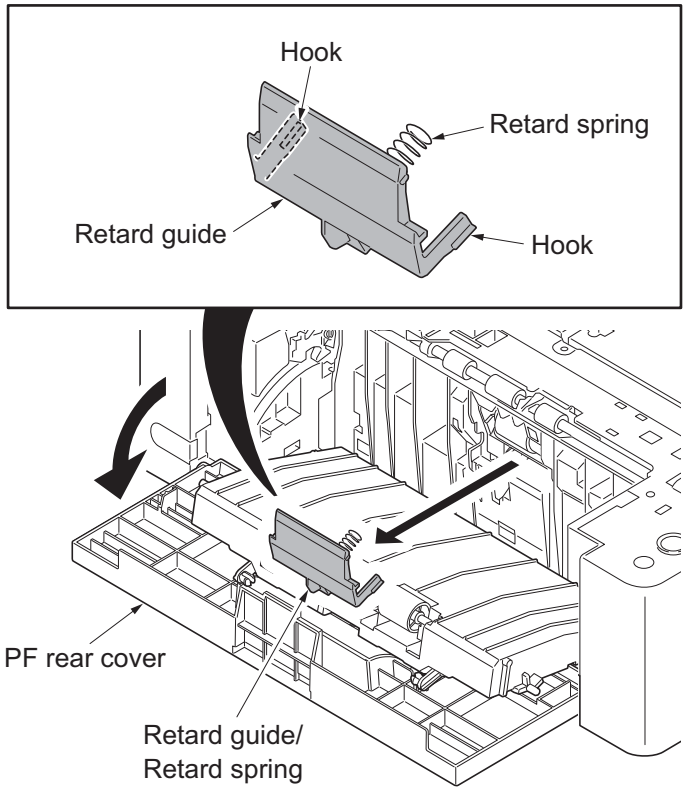


Figure 1-4-2

3. Level the retard roller unit and then remove it.

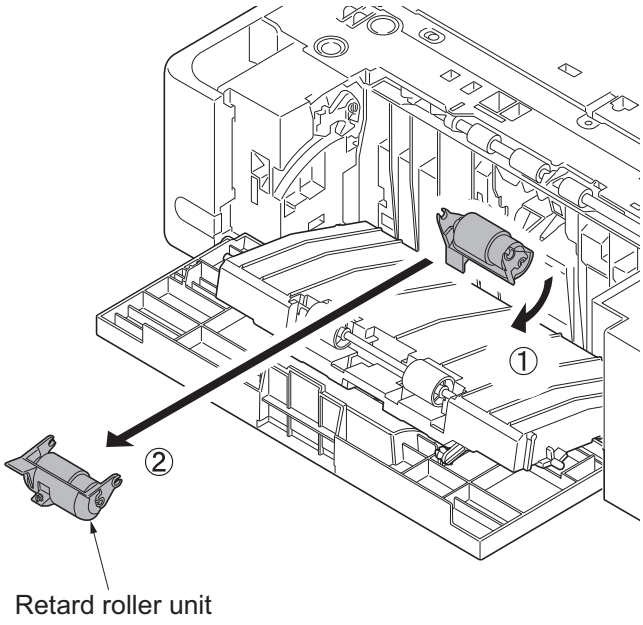


Figure 1-4-3

4. Check or replace the retard roller unit and refit all the removed parts.
*: Before refitting the retard roller unit, firmly install the retard spring onto the projection of the retard roller unit.

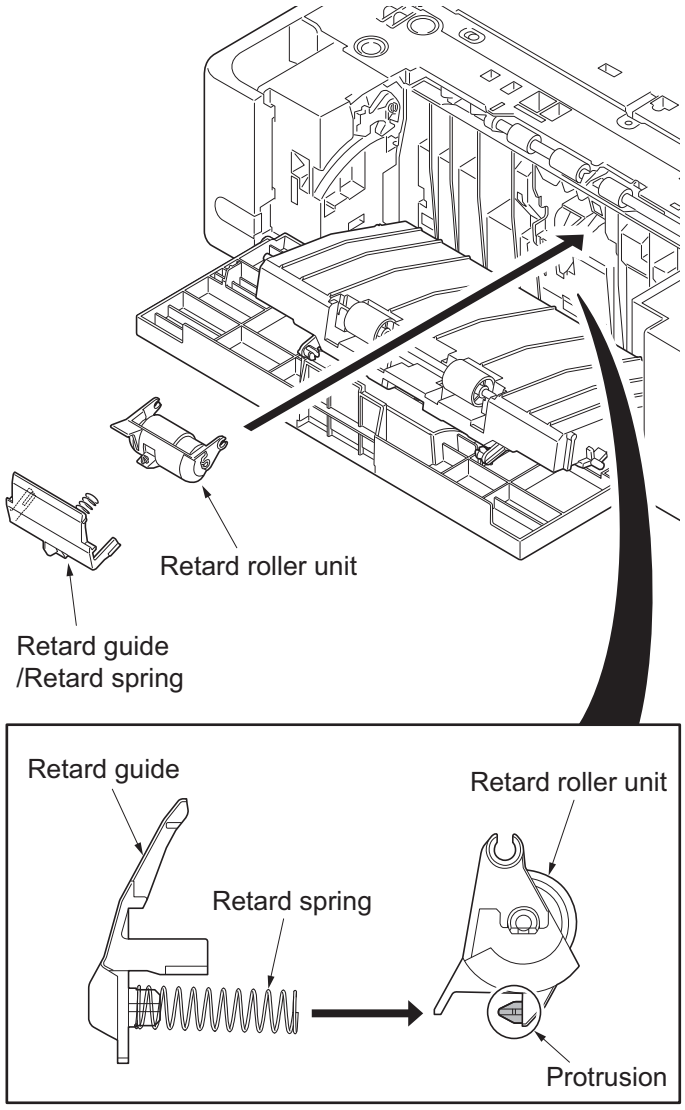


Figure 1-4-4

(2) Detaching and refitting the paper feed roller unit

Procedure

1. Remove the cassette.
2. Remove the retard roller unit (see page 1-4-2).

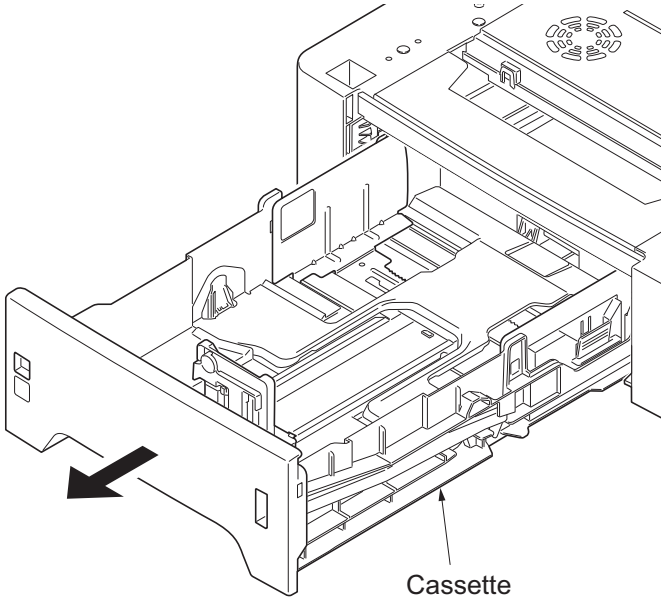


Figure 1-4-5

3. Turn the paper feeder with the bottom side up.

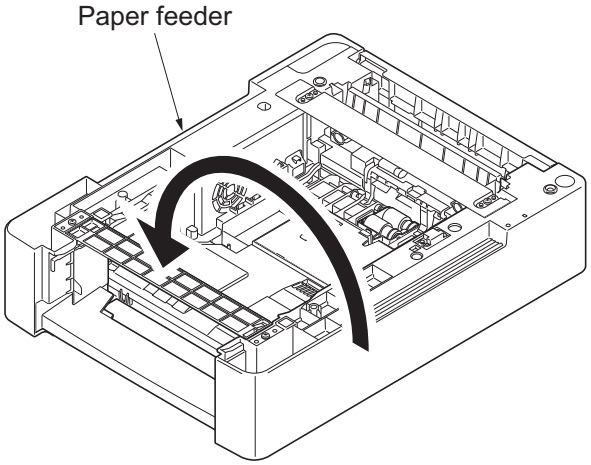


Figure 1-4-6

4. While pressing the lever A and slide the feed roller pin.
5. Push the lever B and then remove the paper feed roller unit and pickup spring.
6. Check or replace the paper feed roller unit and refit all the removed parts.

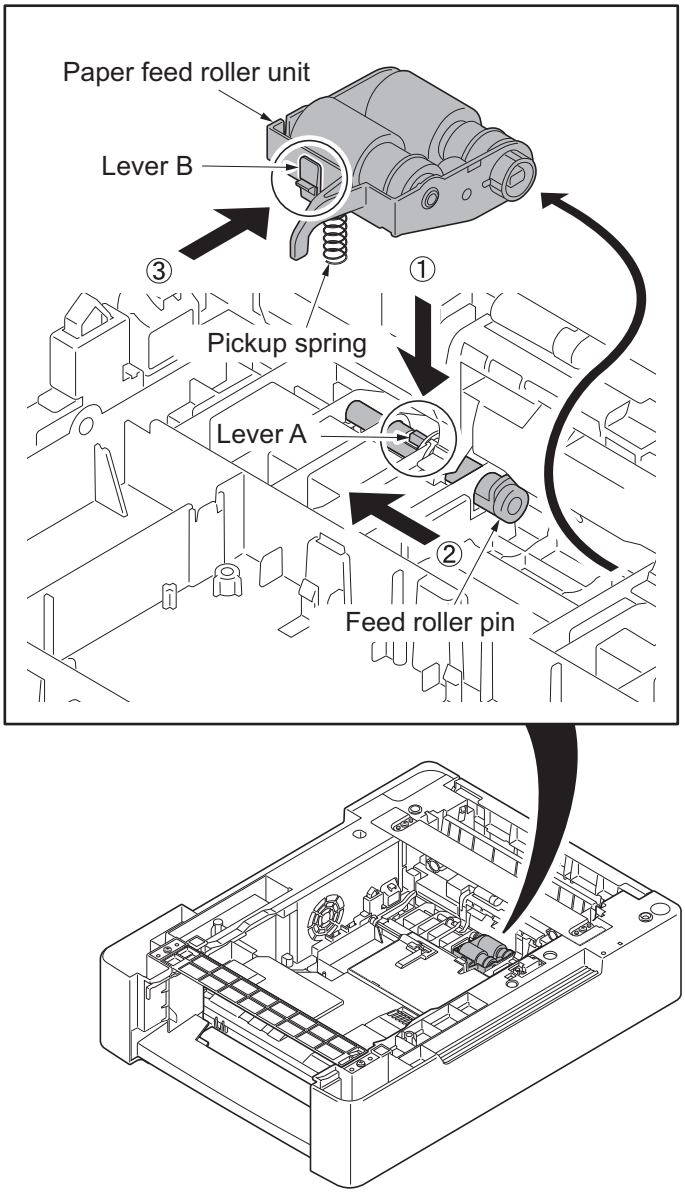


Figure 1-4-7

1-4-3 PWBs

(1) Detaching and refitting the PF main PWB

Procedure

1. Remove the cassette.
2. Turn the paper feeder with the bottom side up.
3. Release two hooks and then top cover.
4. Remove the actuator and spring.

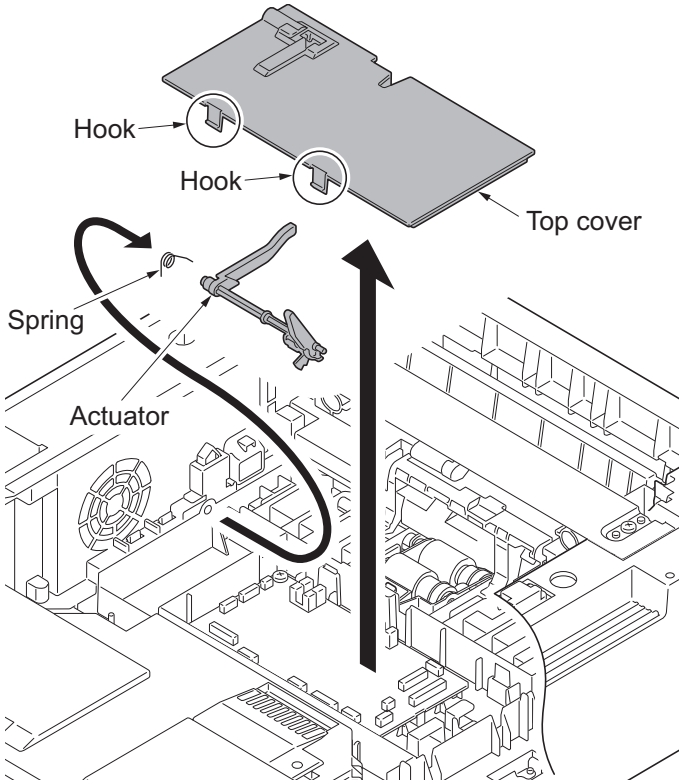


Figure 1-4-8

5. Remove all connectors from PF main PWB.
   Multi purpose feeder: Fourteen
   Paper feeder (Normal): Ten

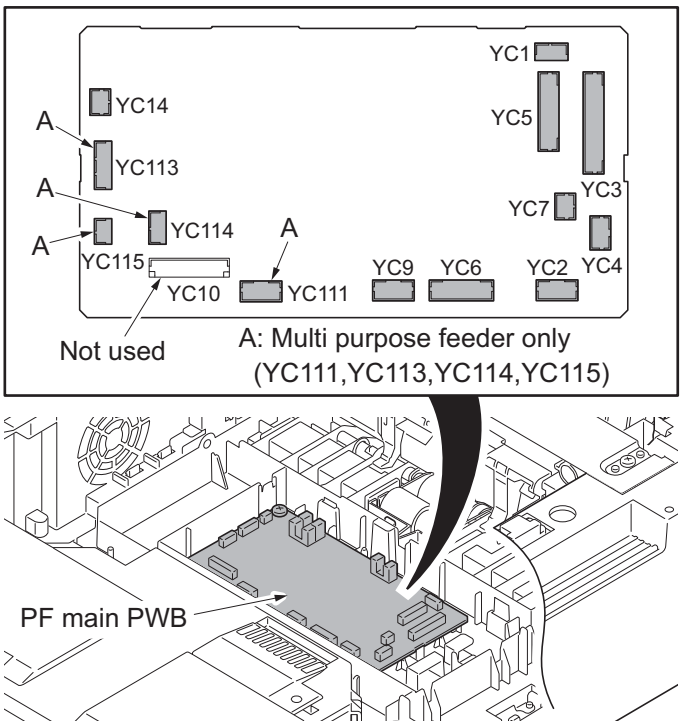


Figure 1-4-9

6. Remove the screw.
7. Release four hooks and then remove the PF main PWB.

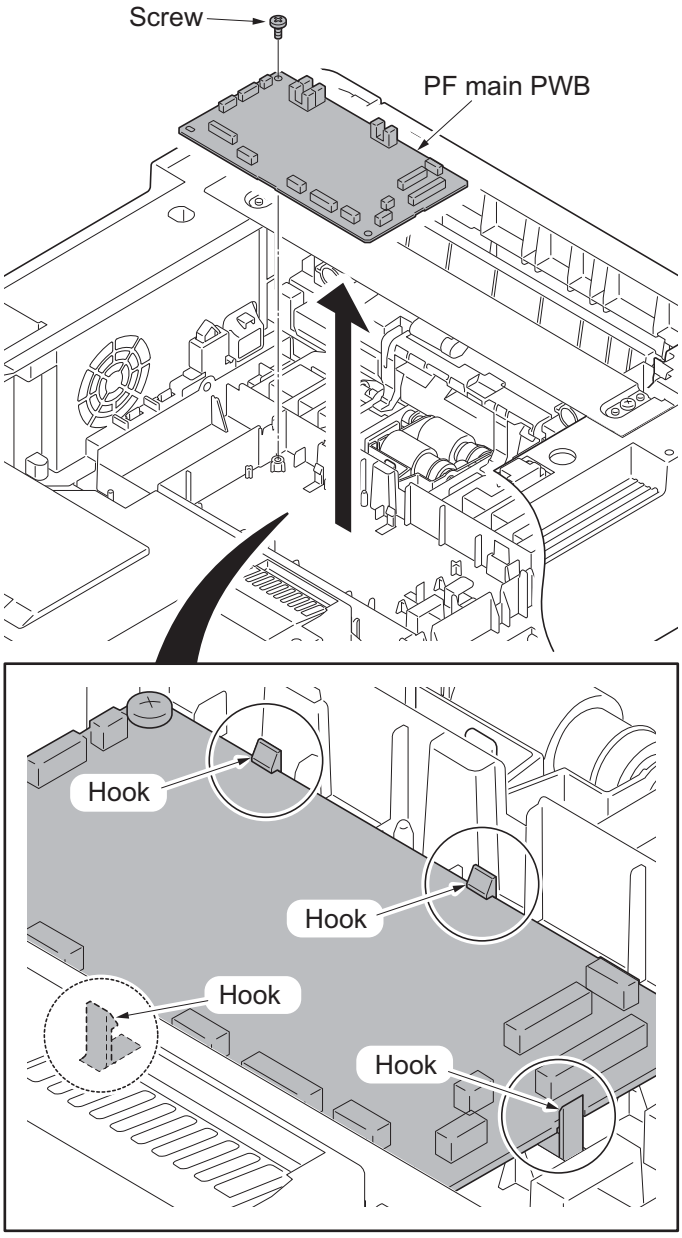


Figure 1-4-10

1-4-4 Warm air blowing section (Multi purpose feeder only)

(1) Detaching and refitting the PF heater PWB

Procedure

1. Remove the cassette.
2. Remove two screws.
3. Insert a flat-blade screwdriver into the cutout and release two hooks.

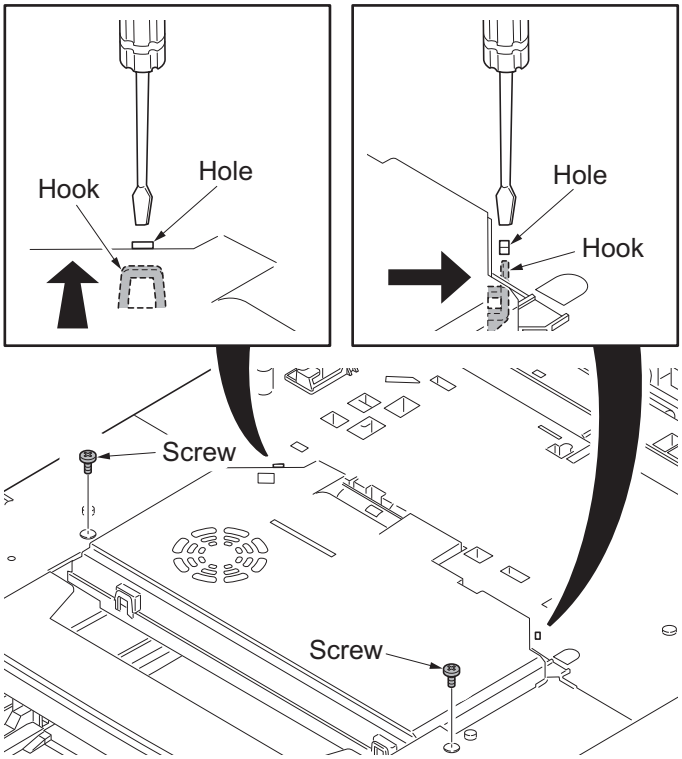


Figure 1-4-11

4. Turn the paper feeder with the bottom side up.
5. Release two hooks and then remove the fan cover.

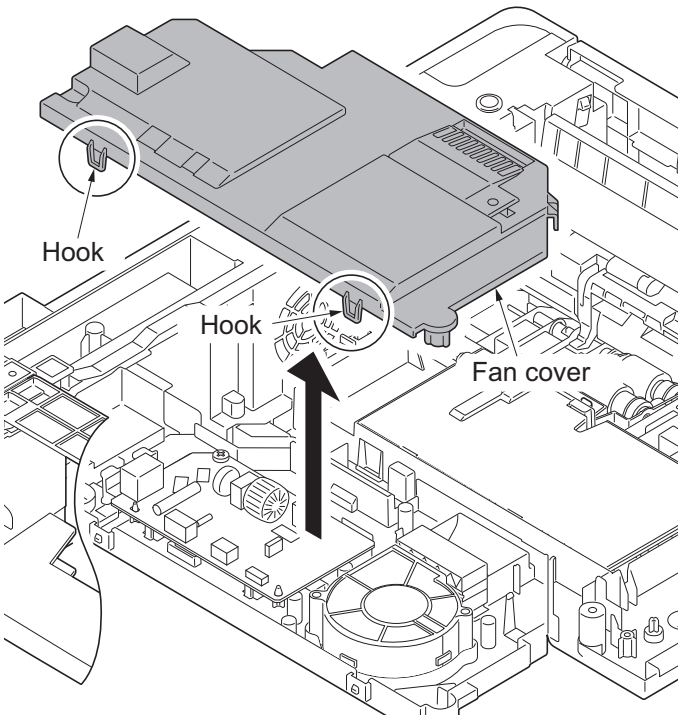


Figure 1-4-12

6. Remove seven connectors from PF heater PWB.

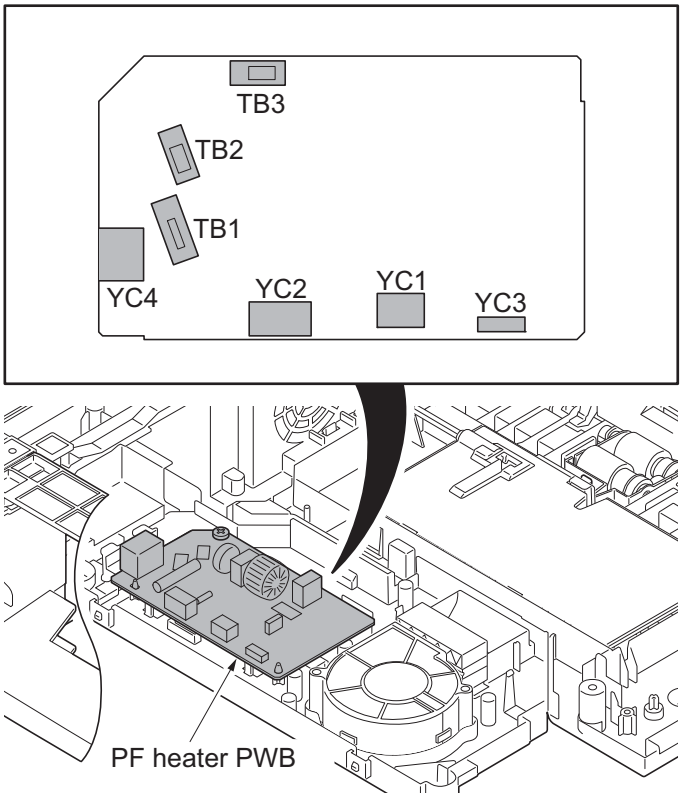


Figure 1-4-13

7. Remove the screw.
8. Release two hooks and then remove the PF heater PWB.

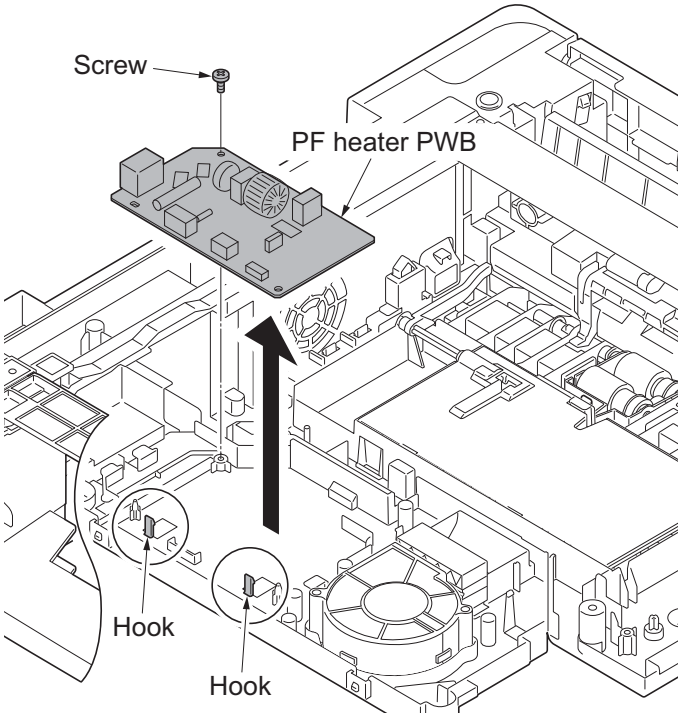


Figure 1-4-14

(2) Detaching and refitting the top heater unit

Procedure

1. Remove the fan cover (see page 1-4-8).
2. Remove six connectors from PF heater PWB.
3. Remove the connector of the PF fan motor 1.
4. Remove the connector of the PF thermistor 1.

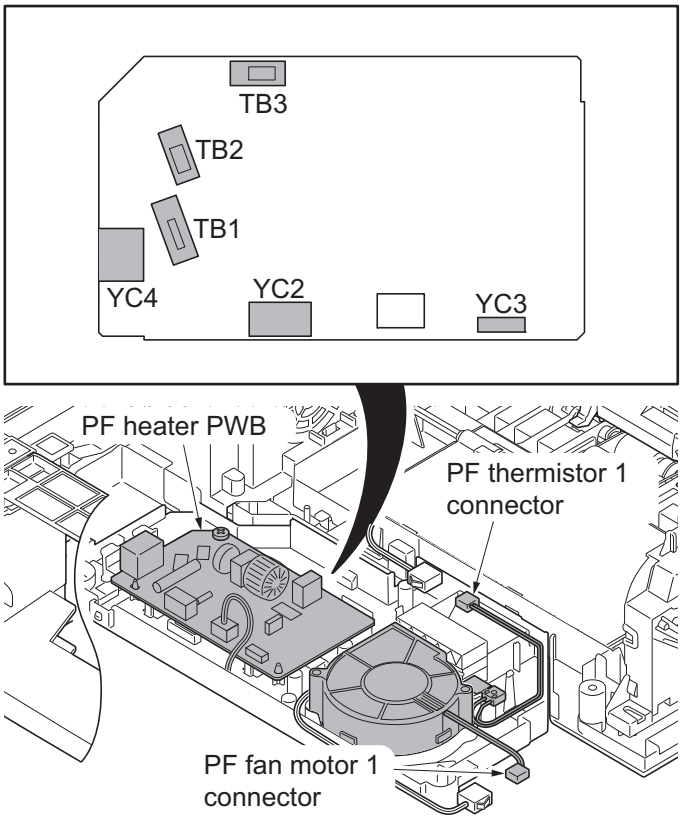


Figure 1-4-15

5. Release two hooks and then remove the top heater unit.

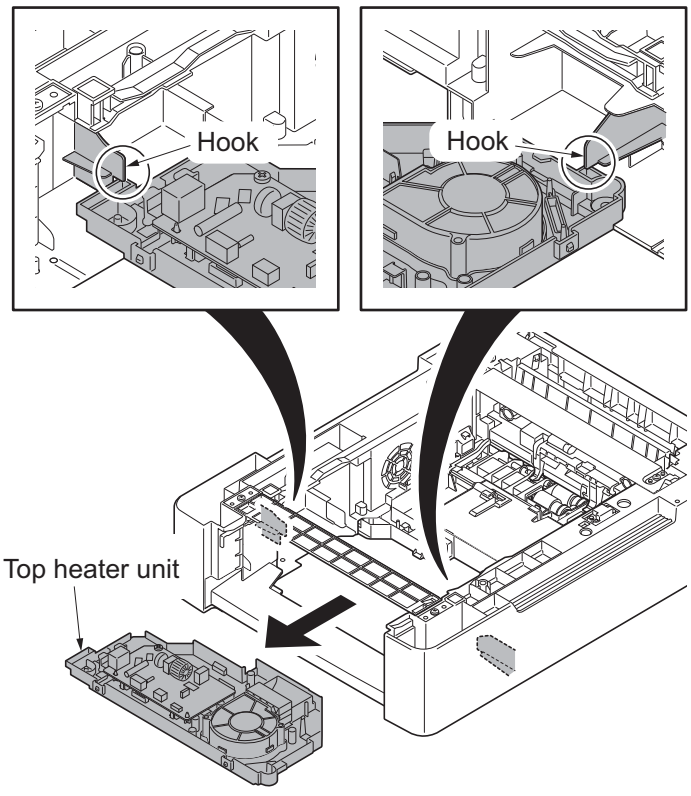


Figure 1-4-16

(3) Detaching and refitting the side heater unit

Procedure

1. Remove the top heater unit (see page 1-4-10).
2. Release two hooks and then remove the top cover.
3. Remove the actuator and spring.

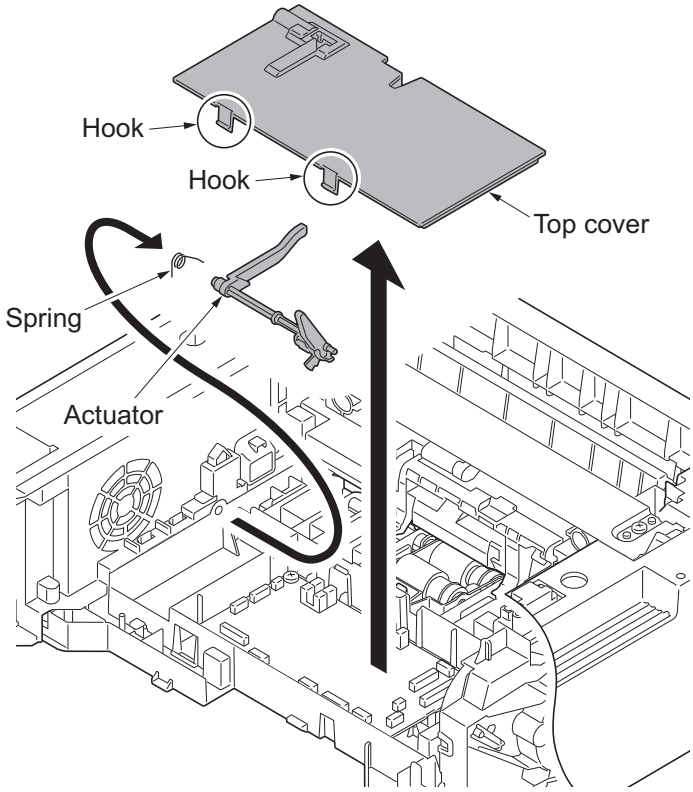


Figure 1-4-17

4. Remove YC2, TB1, YC14, YC111 and YC115 connectors from the PF main PWB.

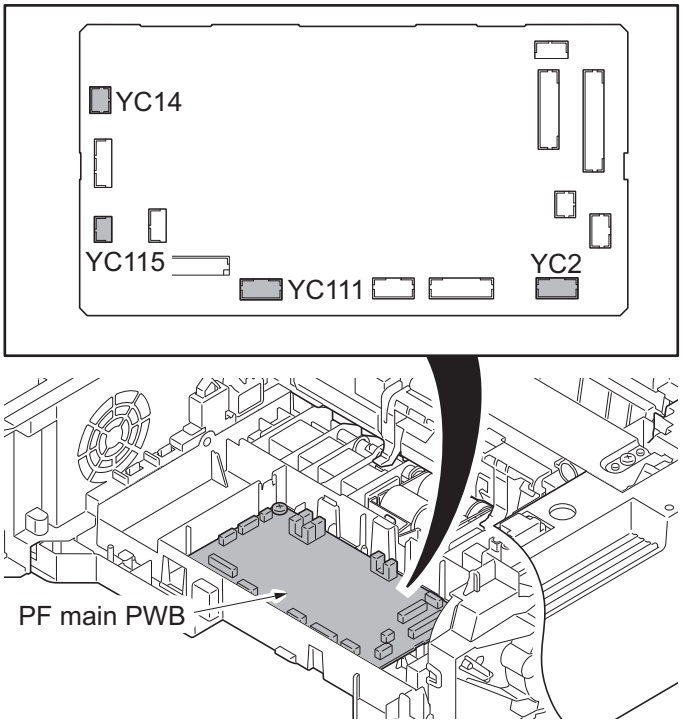


Figure 1-4-18

5. Turn the paper feeder with the top side up.
6. Remove four screws.

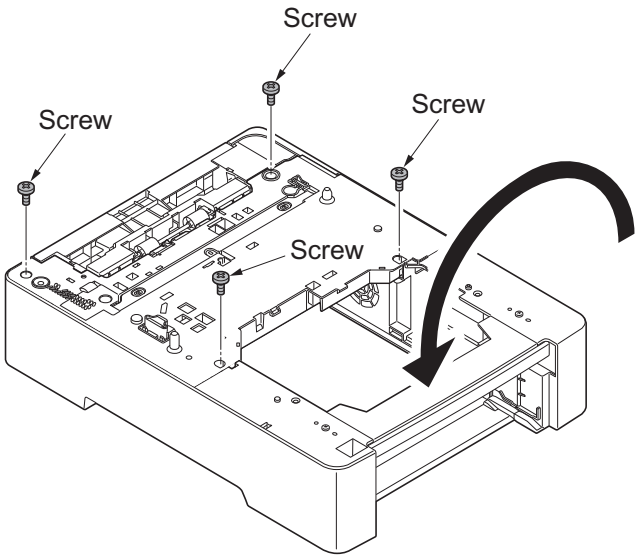


Figure 1-4-19

7. Turn the paper feeder with the bottom side up.
8. Release two hooks of the drive section from the inside of the paper feeder.

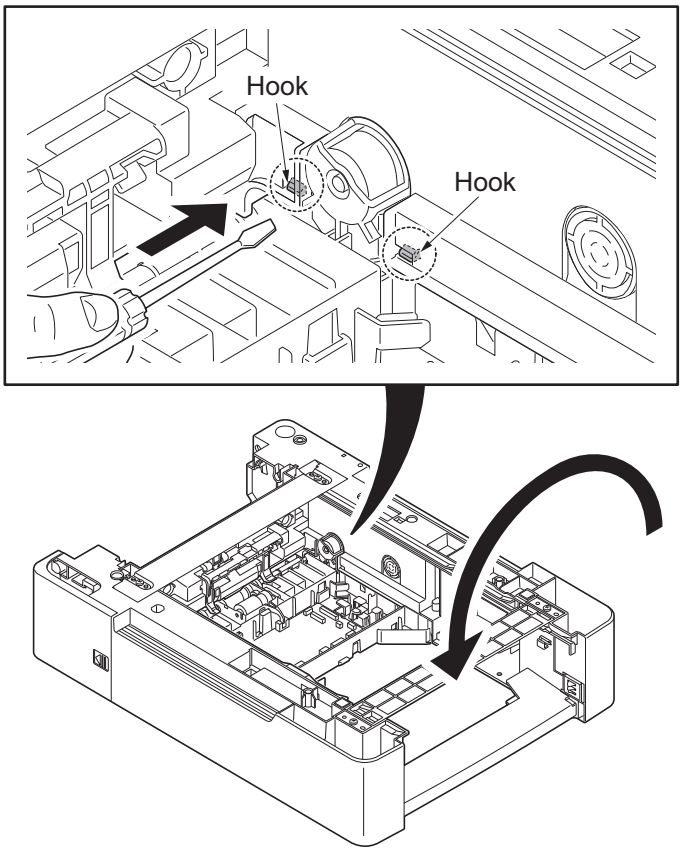


Figure 1-4-20

9. Turn the paper feeder with the top side up and remove the top frame unit.

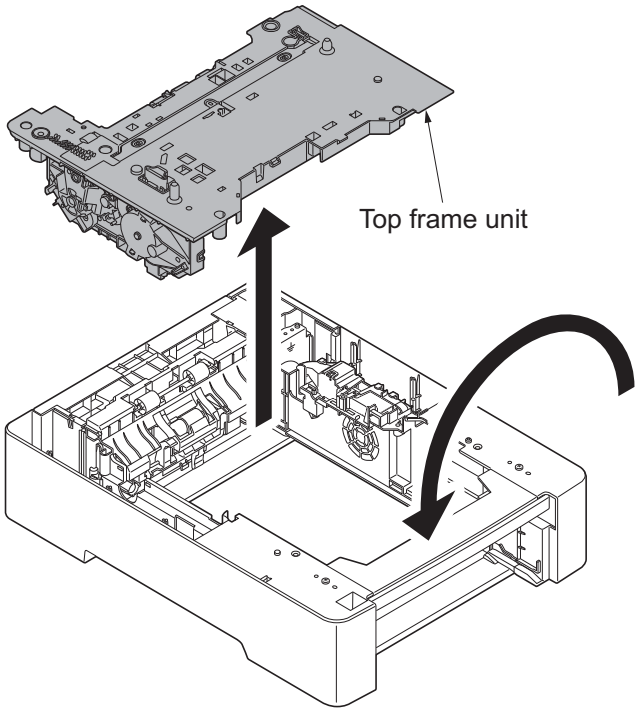


Figure 1-4-21

10. Remove the side heater unit.

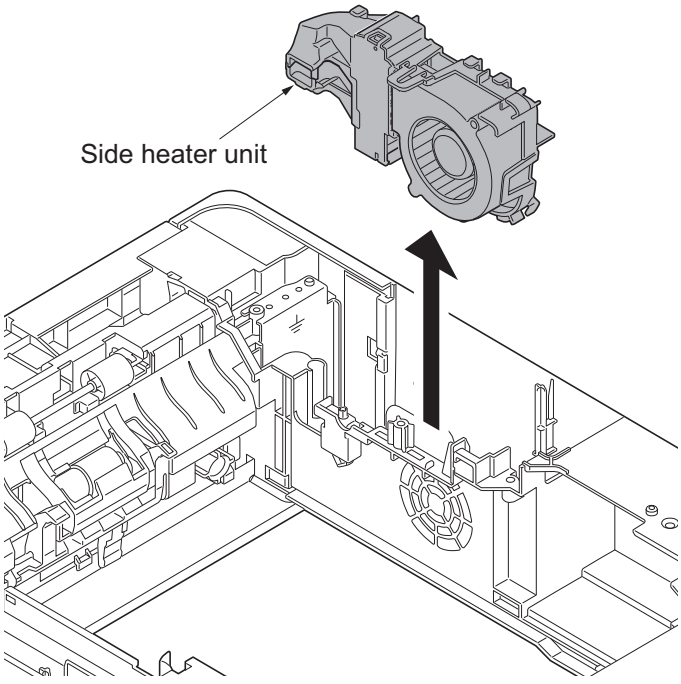


Figure 1-4-22

This page is intentionally left blank.

2-1-1 Paper feed section

(1) Paper feed section

The paper feeder conveys paper from the cassette to the machine. Cassette can hold up to 500 sheets of plain paper (80 g/m²). Paper is fed from the paper feeder by the rotation of the pickup roller and paper feed roller.

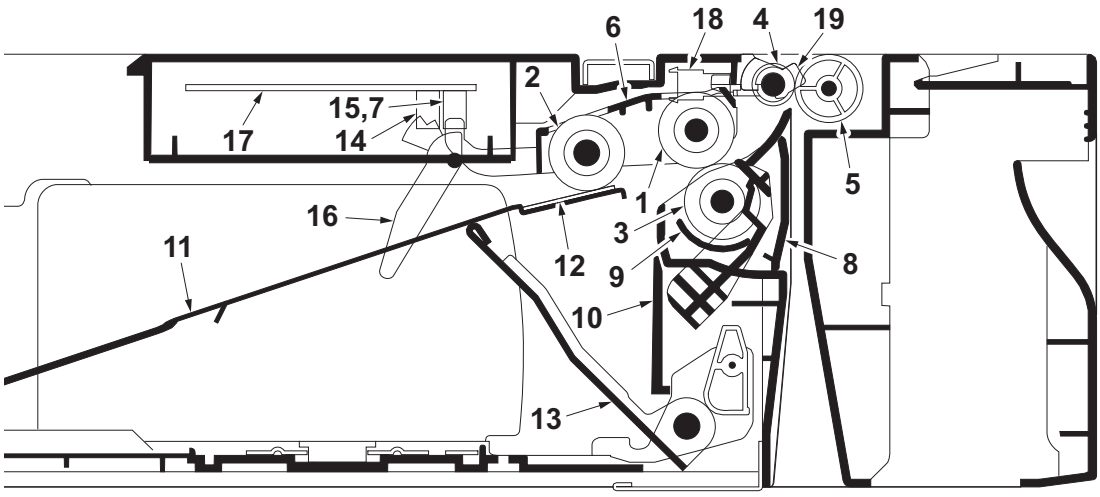


Figure 2-1-1 Paper feed section

1. Paper feed roller
2. Pickup roller
3. Retard roller
4. Middle roller
5. Middle idle pulley
6. Paper feed holder
7. PF lift sensor (PFLS)
8. Retard guide
9. Retard holder
10. Cassette base
11. Bottom plate
12. Bottom pad
13. Lift work plate
14. PF paper sensor 1 (PFPS1)
15. PF paper sensor 2 (PFPS2)
16. Actuator (PF paper sensor 1, 2)
17. PF main PWB (PFMPWB)
18. PF feed sensor (PFFS)
19. Actuator (PF feed sensor)

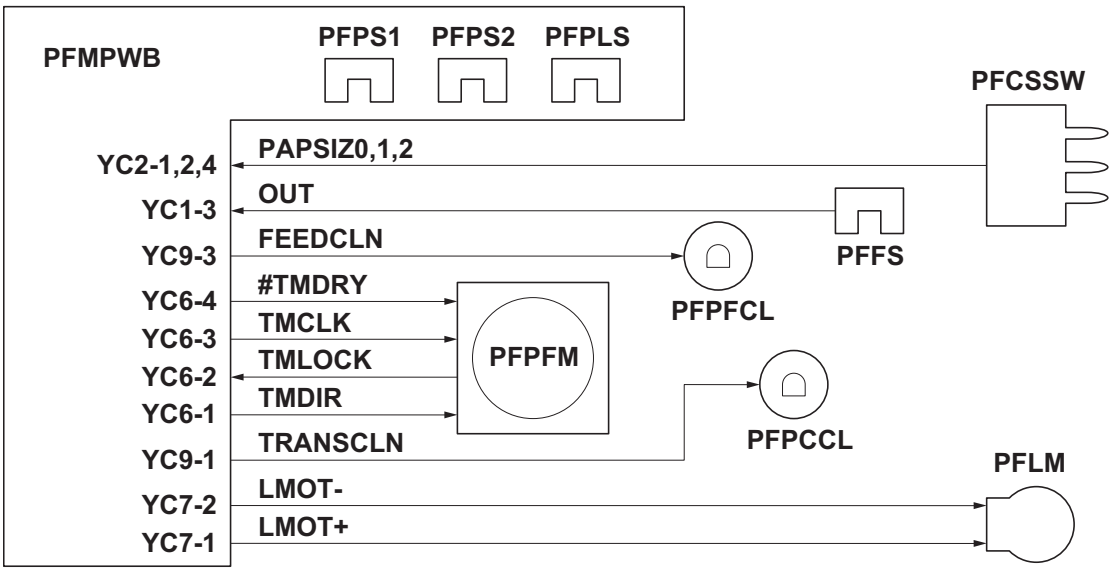


Figure 2-1-2 Paper feed section block diagram

(2) Warm air blowing section (Multi purpose feeder only)

PF fan motor 1 in the top heater unit blows warm air into the cassette to dehumidity the whole paper, and PF fan motor 2 in the side heater unit blows warm air from near the leading edge of the paper to assist separation of paper.

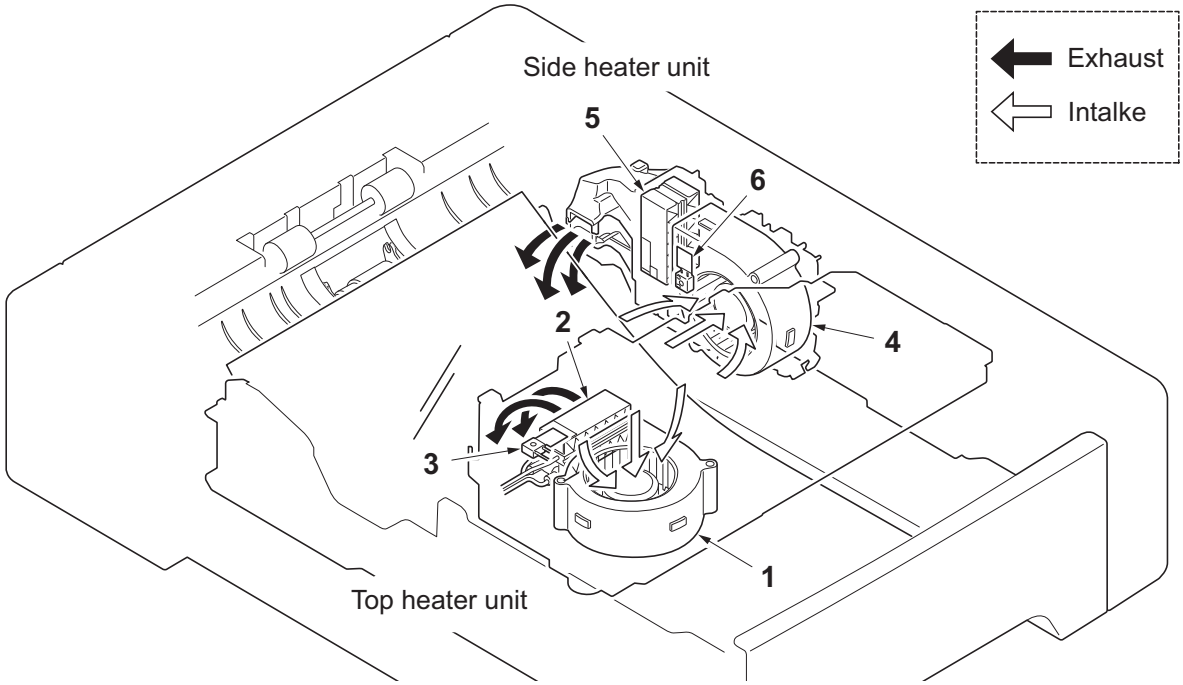


Figure 2-1-3 Warm air blowing section

1. PF fan motor 1 (PFFM1)
2. PF heater 1 (PFH1)
3. PF thermistor 1 (PFTH1)

1. PF fan motor 2 (PFFM2)
2. PF heater 2 (PFH2)
3. PF thermistor 2 (PFTH2)

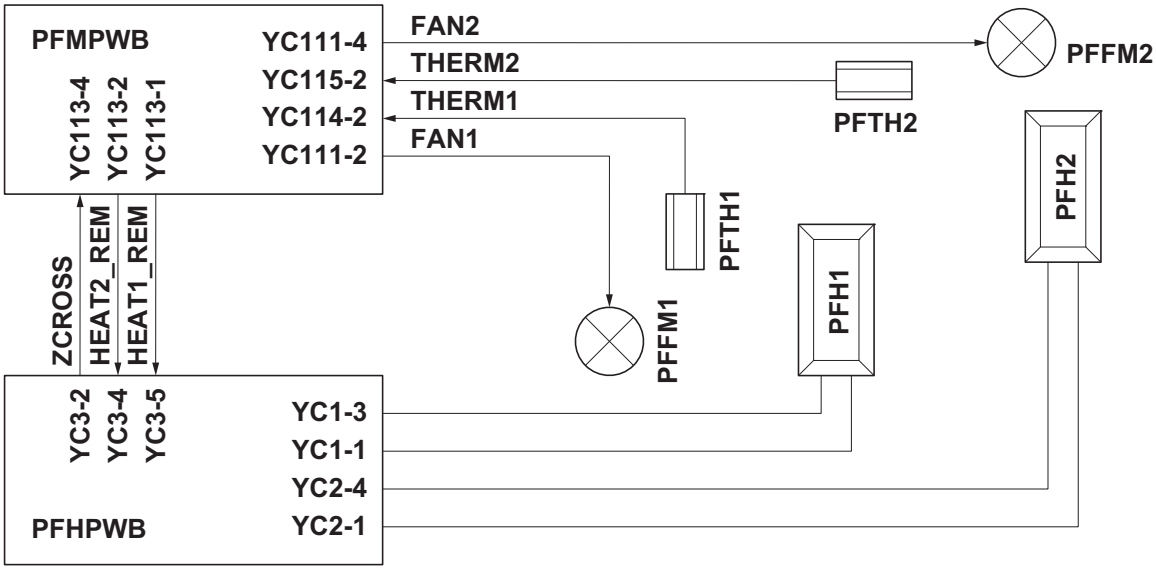


Figure 2-1-4 Warm air blowing section block diagram

2-2-1 Electrical parts layout

(1) Paper feeder (Normal)

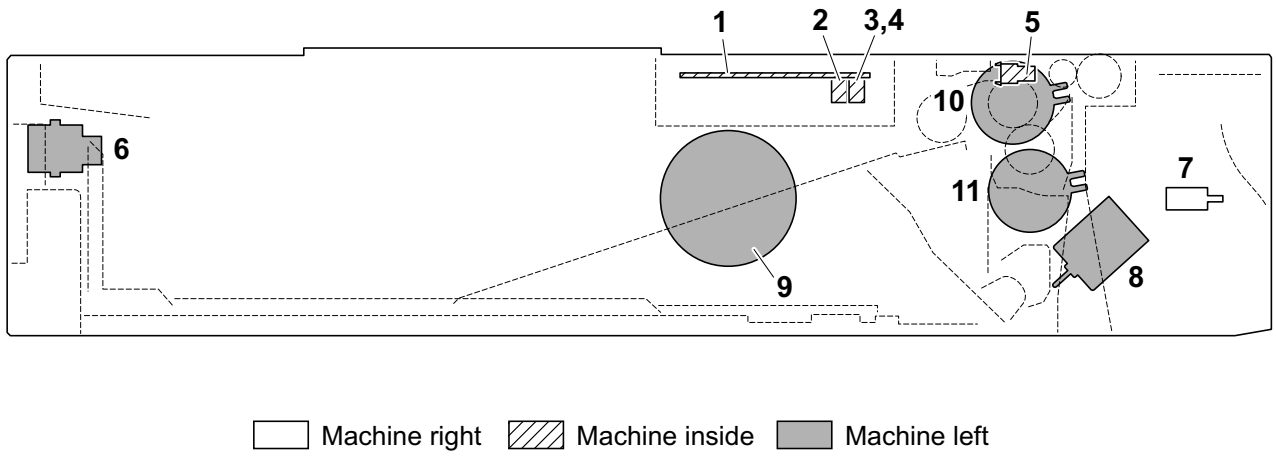


Figure 2-2-1

1. PF main PWB (PFMPWB) ..... Controls electrical components in the paper feeder and serial communications with the machine.
2. PF paper sensor 1 (PFPS1)..... Detects the presence of paper in the cassette.
3. PF paper sensor 2 (PFPS2)..... Detects the presence of paper in the cassette.
4. PF Lift sensor (PFLS) ..... Detects activation of upper limit of the bottom plate in the cassette.
5. PF feed sensor (PFFS)..... Detects a paper misfeed in the paper feeder.
6. PF cassette size switch (PFCSSW)..... Detects the paper size dial setting.
7. PF rear cover switch (PFRCSW) ..... Breaks the safety circuit when the PF rear cover is opened.
8. PF paper feed motor (PFPFM) ..... Drives the paper feed mechanism.
9. PF lift motor (PFLM)..... Operates the bottom plate in the cassette.
10. PF paper feed clutch (PFPFCL)..... Controls the drive of the paper feed roller and pickup roller.
11. PF paper conveying clutch (PFPCCL).. Controls the drive of the middle roller.

(2) Multi purpose feeder

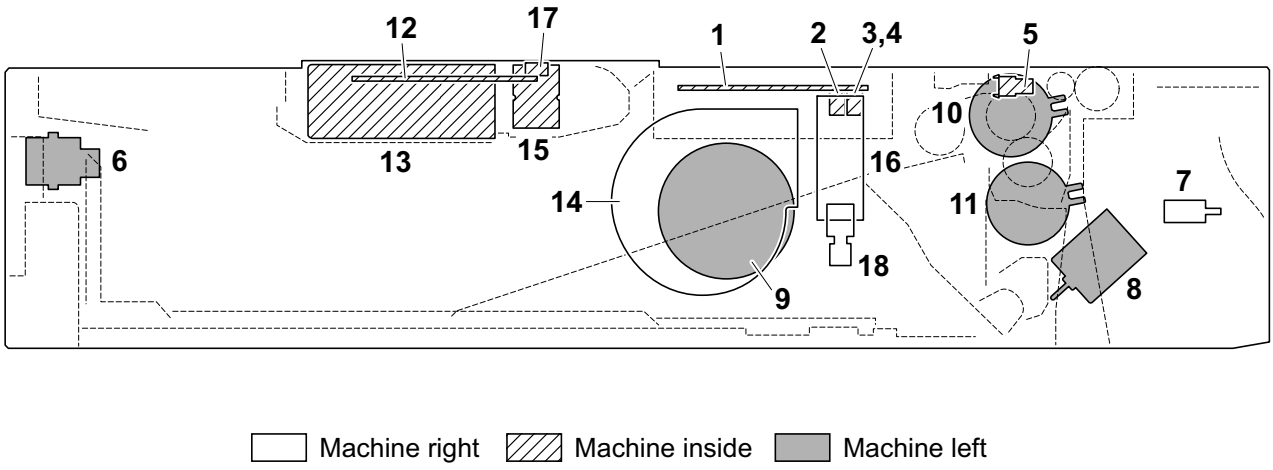


Figure 2-2-2

1. PF main PWB (PFMPWB) ..... Controls electrical components in the paper feeder and serial communications with the machine.
2. PF paper sensor 1 (PFPS1)..... Detects the presence of paper in the cassette.
3. PF paper sensor 2 (PFPS2)..... Detects the presence of paper in the cassette.
4. PF Lift sensor (PFLS) ..... Detects activation of upper limit of the bottom plate in the cassette.
5. PF feed sensor (PFFS)..... Detects a paper misfeed in the paper feeder.
6. PF cassette size switch (PFCSSW)..... Detects the paper size dial setting.
7. PF rear cover switch (PFRCSW) ..... Breaks the safety circuit when the PF rear cover is opened.
8. PF paper feed motor (PFPFM) ..... Drives the paper feed mechanism.
9. PF lift motor (PFLM)..... Operates the bottom plate in the cassette.
10. PF paper feed clutch (PFPFCL)..... Controls the drive of the paper feed roller and pickup roller.
11. PF paper conveying clutch (PFPCCL) .. Controls the drive of the middle roller.
12. PF heater PWB (PFHPWB) ..... Controls the PF heater 1 and 2.
13. PF fan motor 1 (PFFM1)..... Blows warm air from the top.
14. PF fan motor 2 (PFFM2)..... Blows warm air from the side.
15. PF heater 1 (PFH1)..... Dehumidifies paper.
16. PF heater 2 (PFH2)..... Dehumidifies paper.
17. PF thermistor 1 (PFTH1)..... Detects the PF heater 1 temperature.
18. PF thermistor 2 (PFTH2)..... Detects the PF heater 2 temperature.

2-3-1 PF main PWB

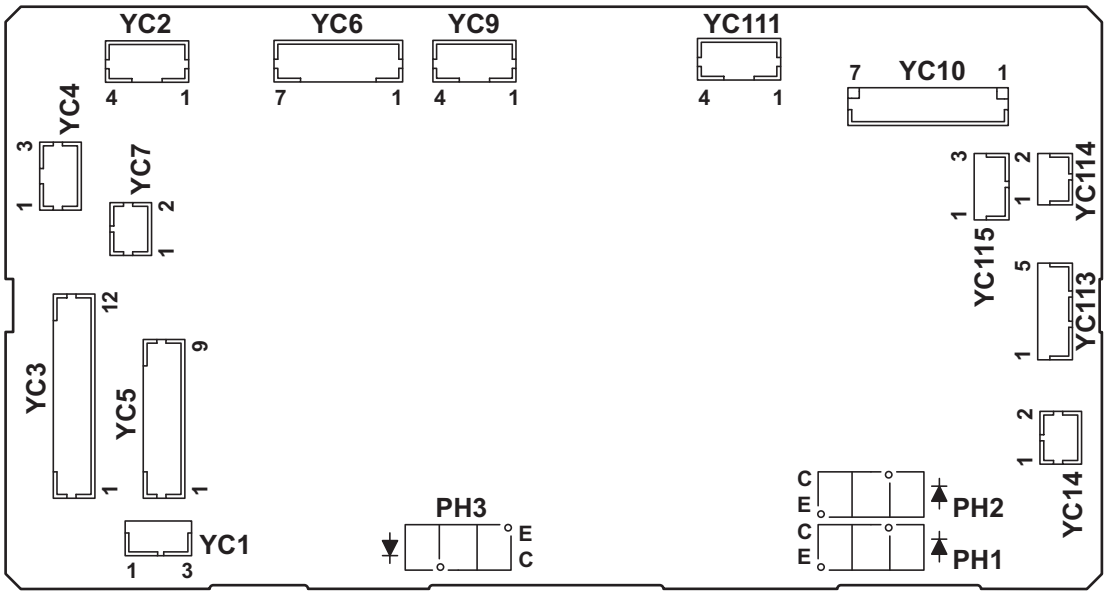


Figure 2-3-1 PF main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	+3.3V	O	3.3 V DC	3.3 V DC power source
Connected to PF feed sensor	2	GND	-	-	Ground
	3	OUT	I	0/3.3 V DC	PFFS: On/Off
YC2	1	PAPSIZE0	I	0/3.3 V DC	PFCSSW: On/Off
Connected to cassette size switch	2	PAPSIZE1	I	0/3.3 V DC	PFCSSW: On/Off
	3	GND	-	-	Ground
	4	PAPSIZE2	I	0/3.3 V DC	PFCSSW: On/Off
YC3	1	GND	-	-	Ground
Connected to interface connector	2	OPSCLK	I	0/3.3 V DC (pulse)	Serial communication clock signal
	3	OPRDYN	O	0/3.3 V DC	Ready signal
	4	OPSDI	O	0/3.3 V DC (pulse)	Serial communication data signal
	5	OPSDO	I	0/3.3 V DC (pulse)	Serial communication data signal
	6	+3.3V	I	0/3.3 V DC	3.3 V DC power source
	7	GND	-	-	Ground
	8	OPSEL0	I	0/3.3 V DC	Paper feeder selection signal
	9	OPSEL1	I	0/3.3 V DC	Paper feeder selection signal
	10	OPSEL2	I	0/3.3 V DC	Paper feeder selection signal
	11	PAPSIZE	O	0/3.3 V DC	PFCSSW: On/Off
	12	+24V	I	24 V DC	24 V DC power source
YC4	1	+24V	O	24 V DC	24 V DC power source
Connected to interface connector	2	PAPSIZE	I	0/3.3 V DC	PFCSSW: On/Off
	3	GND	-	-	Ground
YC5	1	GND	-	-	Ground
Connected to interface connector	2	OPSCLK	O	0/3.3 V DC (pulse)	Serial communication clock signal
	3	OPRDYN	I	0/3.3 V DC	Ready signal
	4	OPSDI	I	0/3.3 V DC (pulse)	Serial communication data signal
	5	OPSDO	O	0/3.3 V DC (pulse)	Serial communication data signal
	6	+3.3V	O	0/3.3 V DC	3.3 V DC power source
	7	OPSEL1	O	0/3.3 V DC	Paper feeder selection signal
	8	OPSEL2	O	0/3.3 V DC	Paper feeder selection signal
	9	OPSEL0	O	0/3.3 V DC	Paper feeder selection signal

Connector	Pin	Signal	I/O	Voltage	Description
YC6	1	TMDIR	O	0/3.3 V DC	PFPFM control signal
Connected to PF paper feed motor	2	TMLOCK	I	0/3.3 V DC	PFPFM lock signal
	3	TMCLK	O	0/3.3 V DC (pulse)	PFPFM clock signal
	4	#TMDRY	O	0/3.3 V DC	PFPFM: On/Off
	5	GND	-	-	Ground
	6	+24V	O	24 V DC	24 V DC power source
YC7	1	LMOT+	O	24/0/0 V DC	PFLM: Forward/-/Off
Connected to PF lift feed motor	2	LMOT-	O	0/24/0 V DC	PFLM: -/Reverse/Off
YC9	1	TRANSCLN	O	0/24 V DC	PFPCCL: On/Off
Connected to PF paper feed clutch and PF paper conveying clutch	2	+24V	O	24 V DC	24 V DC power source
	3	FEEDCLN	O	0/24 V DC	PFPFCL: On/Off
	4	+24V	O	24 V DC	24 V DC power source
YC14	1	COV_SW	O	0/3.3 V DC	PFRCSW: On/Off
Connected to PF rear cover switch	2	GND	O	-	Ground
YC111*	1	+24V	O	24 V DC	24 V DC power source
Connected to PF fan motor 1 and 2	2	FAN1	O	0/24 V DC	PFFM1: On/Off
	3	+24V	O	24 V DC	24 V DC power source
	4	FAN2	O	0/24 V DC	PFFM2: On/Off
YC113*	1	HEAT1_REM	O	0/3.3 V DC	PFH1: On/Off
Connected to PF heater PWB	2	HEAT2_REM	O	0/3.3 V DC	PFH2: On/Off
	3	GND	-	-	Ground
	4	ZCROSS	I	0/3.3 V DC (pulse)	Zero-cross signal
	5	+3.3V	O	3.3 V DC	3.3 V DC power source
YC114*	1	+3.3V	O	3.3 V DC	3.3 V DC power source
Connected to PF thermistor 1	2	THERM1	I	Analog	PFTH1 detection signal
YC115*	1	+3.3V	O	3.3 V DC	3.3 V DC power source
Connected to PF thermistor 2	2	THERM2	I	Analog	PFTH2 detection signal
	3	N.C.	-	-	Not used

*: Multi purpose feeder only.

2-3-2 PF heater PWB

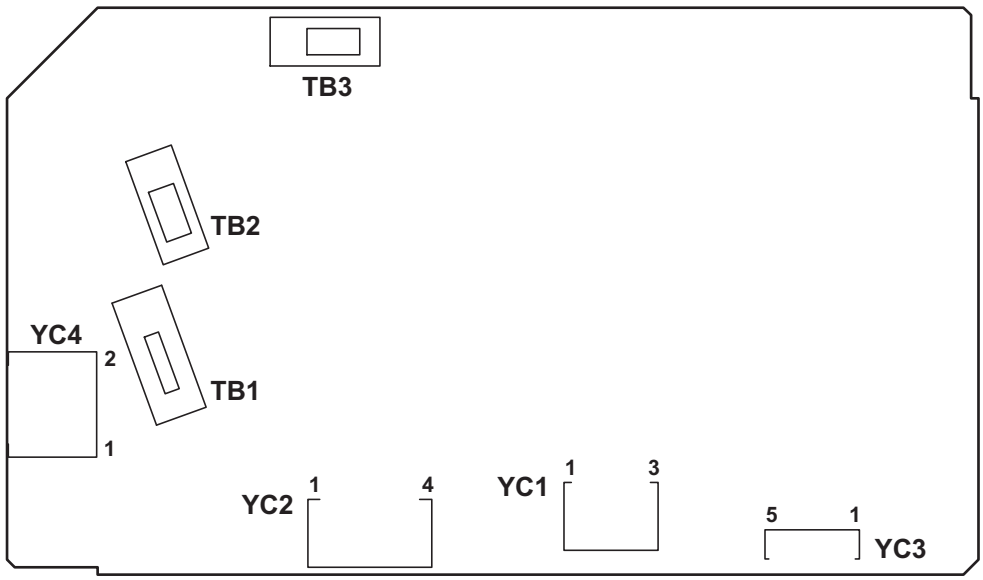


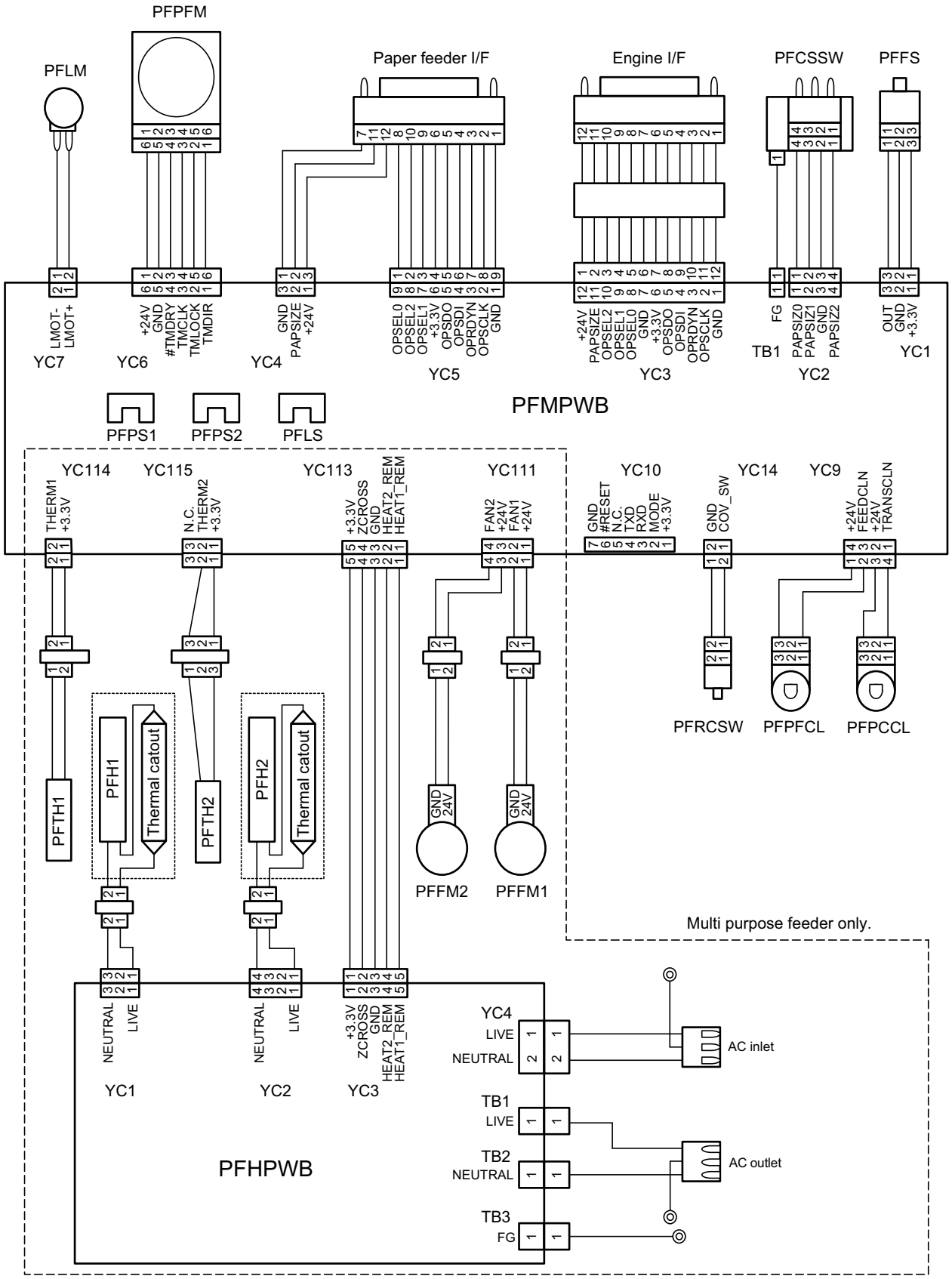
Figure 2-3-2 PF heater PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
TB1	1	LIVE	O	120 V AC 220-240 V AC	AC power output
Connected to AC outlet					
TB2	1	NEUTRAL	O	120 V AC 220-240 V AC	AC power output
Connected to AC outlet					
YC1	1	LIVE	O	120 V AC 220-240 V AC	AC power output
Connected to PF heater 1	2	N.C.	-	-	Not used
	3	NEUTRAL	O	120 V AC/0 V 220-240 V AC/0 V	PFH1: On/Off
YC2	1	LIVE	O	120 V AC 220-240 V AC	AC power output
Connected to PF heater 2	2	N.C.	-	-	Not used
	3	N.C.	-	-	Not used
	4	NEUTRAL	O	120 V AC/0 V 220-240 V AC/0 V	PFH2: On/Off
YC3	1	+3.3V	I	3.3 V DC	3.3 V DC power source
Connected to PF main PWB	2	ZCROSS	O	0/3.3 V DC (pulse)	Zero-cross signal
	3	GND	-	-	Ground
	4	HEAT2_REM	I	0/3.3 V DC	PFH2: On/Off
	5	HEAT1_REM	I	0/3.3 V DC	PFH1: On/Off
YC4	1	LIVE	I	120 V AC 220-240 V AC	AC power input
Connected to AC inlet	2	NEUTRAL	I	120 V AC 220-240 V AC	

This page is intentionally left blank.

2-4-1 Appendixes

(1) Wiring diagram



This page is intentionally left blank.

KYOCERA MITA EUROPE B.V.

Bloemlaan 4, 2132 NP Hoofddorp,
The Netherlands
Phone: +31.20.654.0000
Home page: http://www.kyoceramita-europe.com
Email: info@kyoceramita-europe.com

KYOCERA MITA NEDERLAND B.V.
Beechavenue 25,1119RA Schiphol-Rijk
The Netherlands
Phone: +31.20.58.77.200

KYOCERA MITA (UK) LTD
8 Beacontree Plaza
Gillette Way Reading Berks RG2 0BS,
U.K.
Phone: +44.1189.311.500

KYOCERA MITA ITALIA S.p.A.
Via G. Verdi, 89 / 91, 20063 Cernusco s/N
Milano, Italy
Phone: +39.02.92179.1

S.A. KYOCERA MITA BELGIUM N.V.
Sint-Martinusweg 199-201, 1930 Zaventem,
Belgium
Phone: +32.2.720.9270

KYOCERA MITA FRANCE S.A.
Espace Technologique de St Aubin
Route de l' Orme
91195 Gif-sur-Yvette CEDEX, France
Phone: +33.1.6985.2600

KYOCERA MITA ESPAÑA S.A.
Edificio Kyocera, Avda de Manacor No. 2,
28290 Las Matas (Madrid),
Spain
Phone: +34.91.631.8392

KYOCERA MITA FINLAND OY
Atomitie 5C, 00370 Helsinki,
Finland
Phone: +358.9.4780.5200

KYOCERA MITA (SCHWEIZ)
Hohlstrasse 614, 8048 Zürich
Switzerland
Phone: +41.44.908.4949

KYOCERA MITA DEUTSCHLAND GMBH
Otto-Hahn-Str. 12 D-40670 Meerbusch,
Germany
Phone: +49.2159.918.0

KYOCERA MITA GMBH AUSTRIA
Eduard-Kittenberger-Gasse 95,
1230 Wien,
Austria
Phone: +43.1.86338

KYOCERA MITA SVENSKA AB
Esbogatan 16B 164 75 Kista,
Sweden
Phone: +46.8.546.55000

KYOCERA MITA NORGE
Postboks 150 Oppsal, NO 0619 Oslo
Olaf Helsetsvei 6, NO 0694 Oslo,
Norway
Phone: +47.22.62.73.00

KYOCERA MITA DANMARK A/S
Ejby Industrivej 1, DK-2600 Glostrup,
Denmark
Phone: +45.7022.3880

KYOCERA MITA PORTUGAL LDA.
Rua do Centro Cultural, 41 (Alvalade) 1700-106 Lisboa,
Portugal
Phone: +351.21.843.6780

KYOCERA MITA SOUTH AFRICA (PTY) LTD.
49 Kyalami Boulevard,
Kyalami Business Park Midrand,
South Africa
Phone: +27.(0)11.540.2600

KYOCERA MITA AMERICA, INC.

Headquarters:
225 Sand Road,
Fairfield, New Jersey 07004-0008,
U.S.A.
Phone: (973) 808-8444

KYOCERA MITA AUSTRALIA PTY. LTD.
Level 3, 6-10 Talavera Road, North Ryde,
N.S.W. 2113 Australia
Phone: (02) 9888-9999

KYOCERA MITA NEW ZEALAND LTD.
1-3 Parkhead Place, Albany
P.O. Box 302 125 NHPC, Auckland,
New Zealand
Phone: (09) 415-4517

KYOCERA MITA (THAILAND) CORP., LTD.
335 Ratchadapisek Road, Bangsue,
Bangkok, 10800, Thailand
Phone: (02) 586-0333

KYOCERA MITA SINGAPORE PTE LTD.
121 Genting Lane, 3rd Level,
Singapore 349572
Phone: 67418733

KYOCERA MITA HONG KONG LIMITED
16/F., Mita Centre,
552-566, Castle Peak Road,
Tsuen Wan, New Territories,
Hong Kong
Phone: 24297422

KYOCERA MITA TAIWAN Corporation.
6F., No.37, Sec. 3, Minquan E. Rd.,
Zhongshan Dist., Taipei 104, Taiwan R.O.C.
Phone: (02) 25076709

KYOCERA MITA Corporation

2-28, 1-chome, Tamatsukuri, Chuo-ku
Osaka 540-8585, Japan
Phone: (06) 6764-3555
http://www.kyoceramita.com

Printed in Holland

KYOCERA MITA AMERICA, INC.

Headquarters:
225 Sand Road,
Fairfield, New Jersey 07004-0008
TEL : (973) 808-8444
FAX : (973) 882-6000

New York Branch:
1410 Broadway 23rd floor
New York, NY 10018
TEL : (917) 286-5400
FAX : (917) 286-5402

Northeastern Region:
225 Sand Road,
Fairfield, New Jersey 07004-0008
TEL : (973) 808-8444
FAX : (973) 882-4401

Midwestern Region:
201 Hansen Court Suite 119
Wood Dale, Illinois 60191
TEL : (630) 238-9982
FAX : (630) 238-9487

Western Region:
14101 Alton Parkway,
Irvine, California 92618-7006
TEL : (949) 457-9000
FAX : (949) 457-9119

Southeastern Region:
1500 Oakbrook Drive,
Norcross, Georgia 30093
TEL : (770) 729-9786
FAX : (770) 729-9873

Southwestern Region:
2825 West Story Road,
Irving, Texas 75038-5299
TEL : (972) 550-8987
FAX : (972) 252-9786

National Operation Center
& National Training Center:
2825 West Story Road,
Irving, Texas 75038-5299
TEL : (972) 659-0055
FAX : (972) 570-5816

Latin America Division:
8240 N.W. 52nd. Terrace Dawson Building,
Suite 108 Miami, Florida 33166
TEL : (305) 421-6640
FAX : (305) 421-6666

KYOCERA MITA CANADA, LTD.

6120 Kestrel Road, Mississauga,
Ontario L5T 1S8, Canada
TEL : (905) 670-4425
FAX : (905) 670-8116

KYOCERA MITA MEXICO, S.A. DE C.V.

Av. 16 de Septiembre #407
Col. Santa Inés,
Azcapotzalco México,
D.F. 02130, México
TEL : (55) 5383-2741
FAX : (55) 5383-7804

http://www.kyoceramita.com

Printed in U.S.A.