Service Bulletin

COPIER

Issued by Canon Europa N.V.

Model : GP605

No.: GP605-013
(FF-T01-K1-000024-01)

DATE: 10.08.99

Location : SERVICE MANUAL (FY8-13FD-000)

Subject : UPDATING DESCRIPTIONS (FY8-13FD-000)

Reason : The contents of the Service Manual (FY8-13FD-000) has been updated to reflect additions and corrections.

Details : See the pages that follow.

Page	Description

1-6 (top)

Tray	Claw	No
	Paper deck (right, left)	162 mm deep (approx; about 1,500 sheets of 80 g/m^2)
	Cassette 3/4	60 mm deep (approx; about 1,500 sheets of 80 g/m^2)

Table 1-203-4

2-17 (bottom)

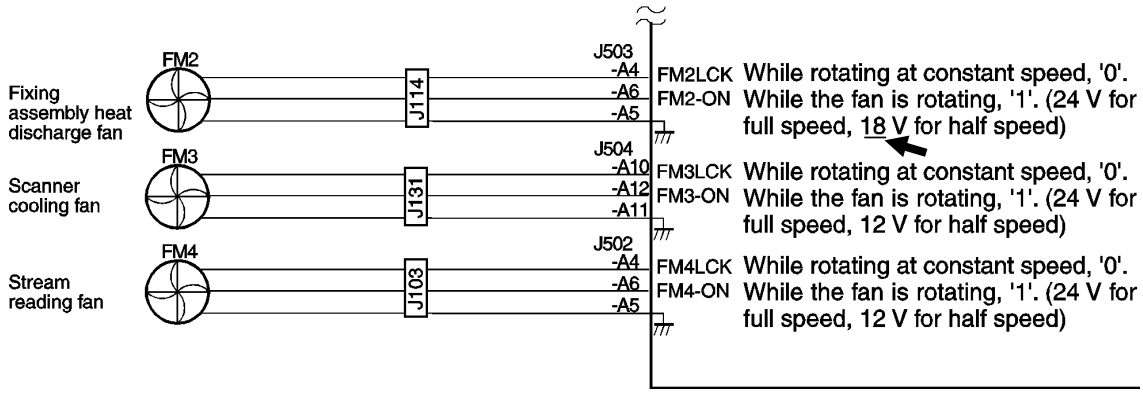


Figure 2-115 Outputs from the DC Controller PCB

3-19 (top)

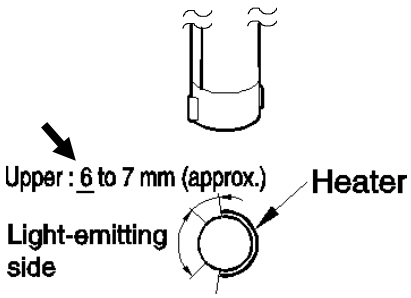


Figure 3-A509

3-32 (top)

Add →

2. Removing the Original Size Sensor (3/4)
1) Remove the copyboard glass.
2) Move the No.1 mirror mount to the left edge.
3) Remove the one screw [1], and disconnect the connector [2]; then, detach the original sensor unit (rear) [3].

Add

Change →

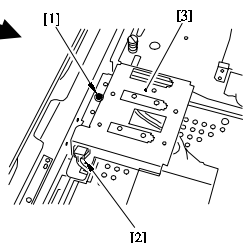
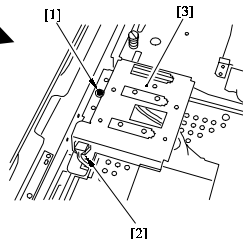
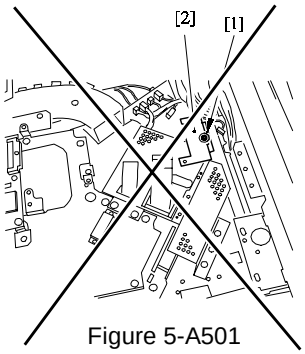
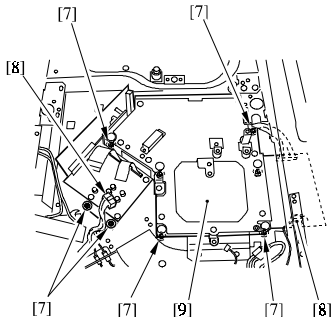


Figure 3-D503

4-22 4-24 (top) 4-29 (bottom)	1) Remove the copyboard glass. 2) Move the No. 1 mirror mount to the left end. 3) Remove the one screw [1], and disconnect the connector [2]; then, detach the original sensor unit (rear) [3].	Change  (Figure 4-A401, Figure 4-B401, Figure 4-D406)
5-14 (top) →	**A. Laser Unit** **1. Removing the Laser Unit** 1) Remove the copyboard glass. 2) Move the No. 1 mirror mount to the left end. 3) Remove the original sensor unit (rear). (See Figure 4-B401.) 4) Remove the CCD unit. (See Figure 4-A403.) 5) Remove the image processor PCB. (See Figure 4-B404.) ~~6) Remove the screw [1], and detach the image processor PCB support plate [2].~~	 Figure 5-A501
5-15 (middle)	9) Remove the six screws [7], and disconnect the two connectors [8]; then, detach the laser scanner unit [9].	Change  Figure 5-A504
5-16 (top)	**B. BD Unit** **1. Removing the BD Unit** 1) Open the front cover. 2) Slide out the process unit. (See Figures 6-D701 through -D702.) 3) Remove the three screws [1], and disconnect the three connectors [2]; then, remove the fan (primary charging, scanner cooling, polygon mirror) unit [3].	

5-17 (top)

5) Disconnect the connector [6], and remove the BD unit.

Change

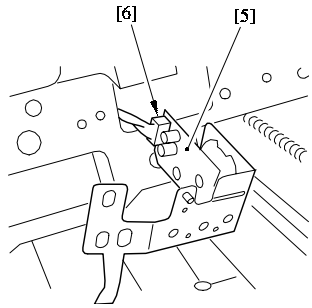


Figure5-B504

6-43 (middle)

If supply is continued without an interruption, toner can start to overflow (missing the timing for suspension).

If the absence of toner is detected for 90 sec, E020 will be indicated.

Figure 6-407 Sequence of Operations

6-44 (middle)

If the absence of toner is detected for 210 sec or more, a message to prompt toner supply will be indicated on the touch panel. (The machine remains ready.)

If the absence of toner is detected for 0.5 sec or more, a message to prompt toner supply will be indicated on the touch panel. (The machine stops operation.)

Figure 6-408 Sequence of Operations

6-65 (top)

Charging assembly	Height of the charging wire
Primary	Cheang the measurement position

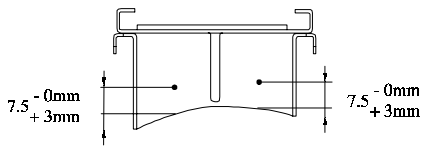


Figure 6-C714

6-69 (top)

E. Developing Assembly

1. Removing the Developing Assembly

1) Open the manual feed tray cover; then, remove the six mounting screws [1], and detach the developing assembly stay [2].

Change

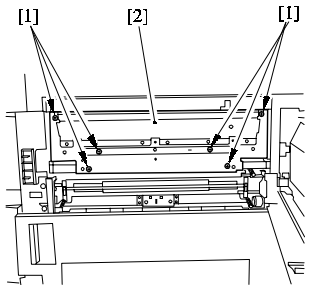
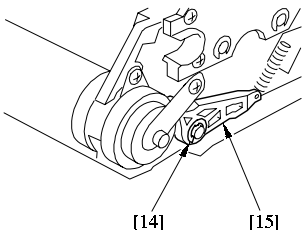
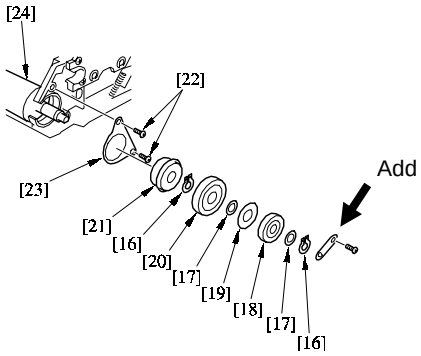
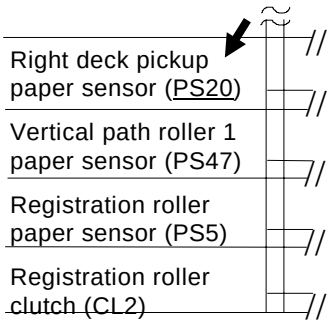


Figure 6-E701

6-73 (bottom)	7) Remove the E-ring [14] and the pressure arm [15] at the front. Change  Figure 6-E711
6-74 (top)	 Figure 6-E712
6-77 (bottom)	Add 4) Apply toner on the photosensitive drum where the cleaning blade comes into contact, and mount the cleaning blade.
7-4 (middle)	 Figure 7-202 Pickup from the Right Deck

7-8(top)

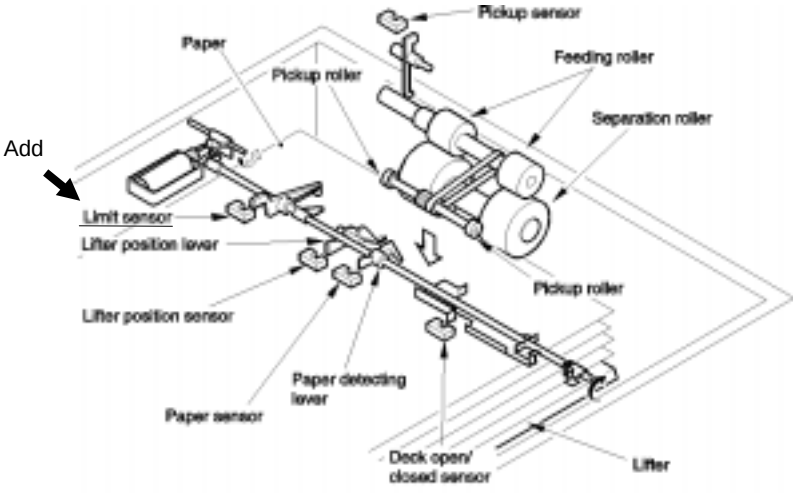


Figure 7-205 Deck

7-16 (top)

Related Service Mode

COPIER>ADJUST>CST-ADJ>C3-STMTR	Use it to adjust the paper width basic value for STMTR in the cassette 3.
COPIER>ADJUST>CST-ADJ>C3-A4R	Use it to adjust the paper width basic value for A4R in the left cassette 3.
COPIER>ADJUST>CST-ADJ>C4-STMTR	Use it to adjust the paper width basic value for STMTR in the cassette 4.
COPIER>ADJUST>CST-ADJ>C4-A4R	Use it to adjust the paper width basic value for A4R in the cassette 4.

7-55 (middle)

Add

B. Deck/Cassette Pickup Assembly

1. Removing the Front Deck (right)

. . . .

4) Remove the three mounting screws [4], and detach the pickup assembly [5].

Change

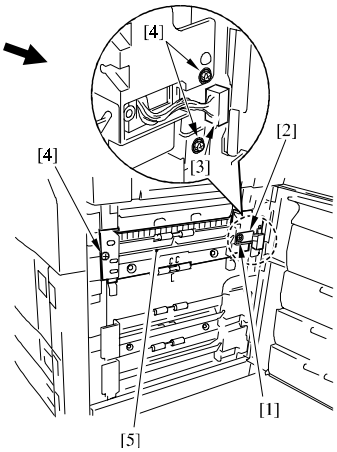


Figure 7-B801

7-63 (top)

12. Adjusting the Registration of the Front Deck (right/left)

1) Loosen the four screws [2] on the deck front cover [1] and the two fixing screws [3].

7-64 (middle)

14. Removing the Lifter Motor (M16/ M17) of the Cassette (3/4)

1) Slide out the front deck (right); then, slide out the cassette 3/4. Add
2) Remove the front lower right cover of the cassette assembly as instructed under C.2. "Removing the Vertical Path Roller 2."

7-68 (top)

2. Removing the Vertical Path Roller 2

1) Remove the deck (right), and slide out the cassette 3/4.
2) Remove the four screws [1], and detach the cassette mount front lower right cover [2]. Add

9-6 (middle)

IV . Fans

A. Arrangement, Functions, and Error Codes

Table 9-401 shows the names and functions of the copier's fans and error codes associated with the fans.

Notation	Name	Functions	2-speed control (voltage)	Error code
FM1	Primary charging assembly fan	Prevents soiling of the wire in the primary charging assembly.	Yes (24/12v)	E824
FM2	Fixing assembly heat discharge fan	Discharges heat from around the fixing assembly.	Yes (24/18v)	E805
FM3	Scanner cooling fan	Cools the scanner	Yes (24/12v)	E226
FM4	Stream reading fan	Cools the copyboard glass in stream reading	No (24v)	No Add
FM5	Laser driver	Cools the laser driver PCB	No (24v)	E121
FM6	De-curling fan	Cools copy paper	No (24v)	No
FM7	Feeding fan	Draws copy paper to the feeding belt.	Yes (24/12v)	No
FM8	Drum fan	Draws and removes ozone from around the drum and stray toner.	Yes (24/12v)	E820

Table 9-401 Fans

9-9

2. Sequence of Operations

The fans operate as follows, ones controlled according to the state of the printer and ones controlled by the state of the scanning lamp:

(FM3, ~~FM4~~, FM11, and FM12 operate based on the state of both the printer unit and the scanning lamp, and the control mechanism for higher speed is used for the chart.)

a. Fans Operating According to the State of the Printer Unit

Change

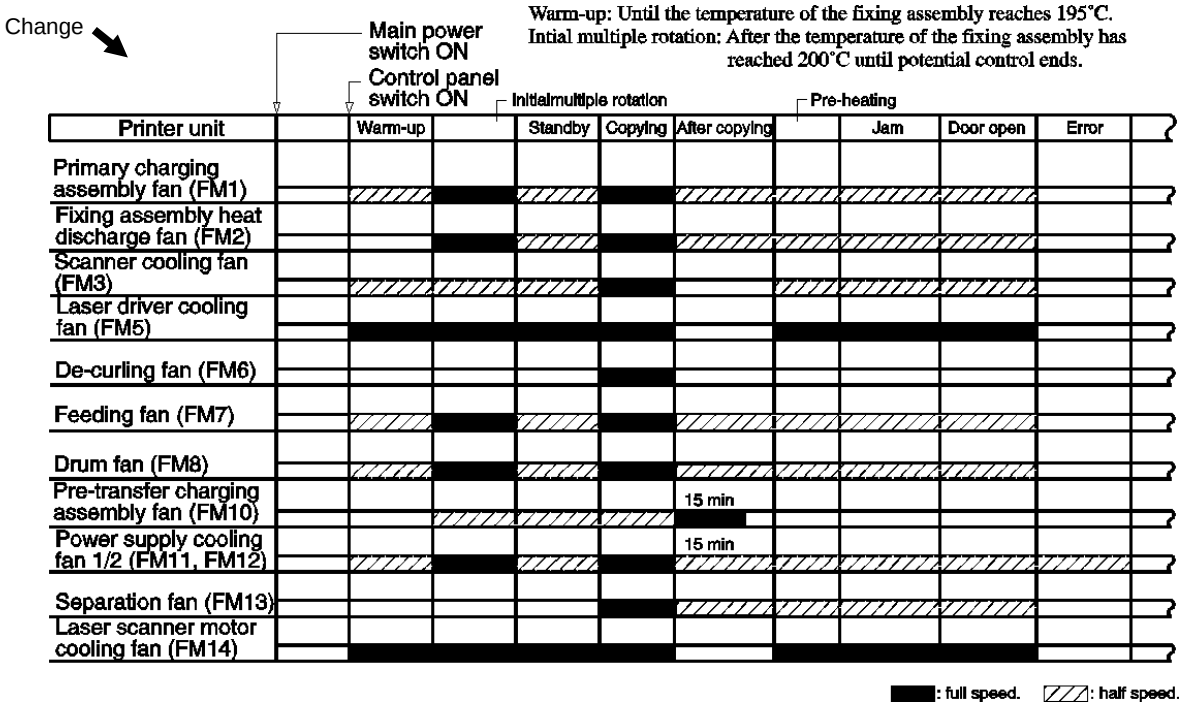


Figure 9-403

b. Fans Operating According to the State of the Scanning Lamp

Change

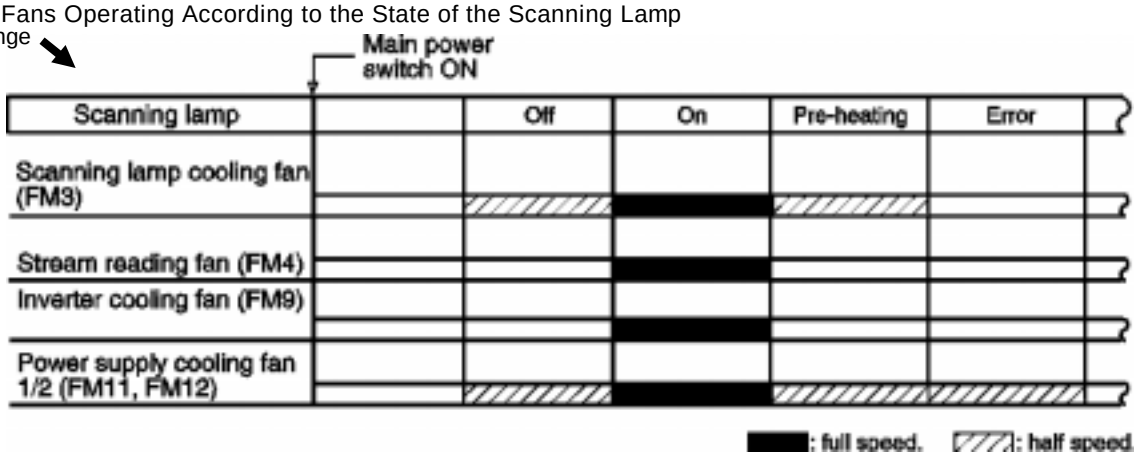


Figure 9-404

9-11 (middle)

Figure 9-501 shows how the copier's power supplies are arranged:

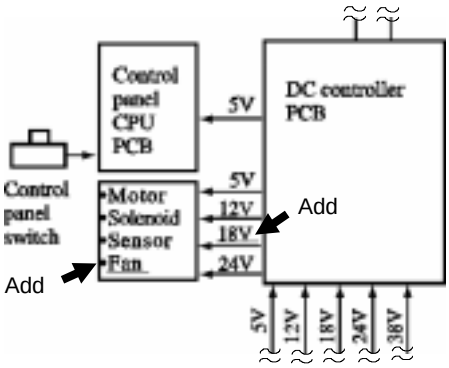


Figure 9-501 Power Supply Block Diagram

9-22 (bottom)

100V/15A model	120V model			230V model
Standby power consumption (Wh)	359	355	335	330
Sleep mode power consumption (Wh)	12	12	12	16

The heater switch is off, and printer mode is not available.

9-24 (top)

Related User Mode

TIME UNTIL UNIT QUIETS DOWN	0 (do not shift to silent mode), 1* to 9 min (1-min incremnets) *Factory setting.

10-13 (top)

2. Sequence of Operations (opening/closing the deck)

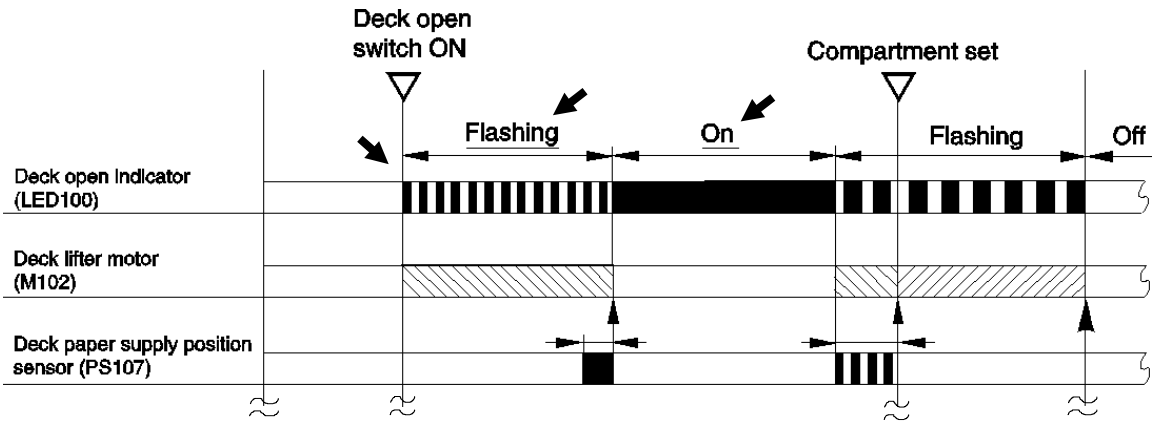


Figure 10-109

10-25 (bottom)

4) ~~Close the deck vertical path assembly, and~~
Remove the two screws [6]; then, detach the upper cover [7].

11-18 (bottom)

No.	Work	Remarks
7	Attach cassette size stickers to the cassettes to suit the user's needs.	(illust)
≈	≈	≈
9	When WAIT has ended, start service mode. • • • • ↓ Check that the message 'CHECK THE DEVELOPER' is indicated. ↓ Check to make sure that the developing assembly and the developing assembly locking plate have been mounted correctly; then, press the OK key. ↓ The copier will start toner supply operation (about 10 min). ↓ When the operation ends, press the Reset key twice to end service mode.	Starting Service Mode 1. Press the User Mode key. 2. Press '2' and '8' of the keypad at the same time. 3. Press the User Mode key. **Caution:** Do not turn off the power while the machine is operating.

12-1 (top)

Add

No.	Parts name	Parts No.	Q'ty	Life (copies)	Remarks
1	Primary, pre-transfer, separation charging wire	FY3-0030-000	AR	250,000	If in a high temperature/humidity area, every 125,000 copies.
2	Primary grid wire	FY1-0883-000	AR	500,000	
3	Thermistor	FY7-7463-000	1	500,000	
4	No. 2 thermistor	FH7-7464-000	1	500,000	
5	Thermal switch	FH7-6281-000	1	1,000,000	

Note: The above values are estimates only, and are subject to change based on future data.

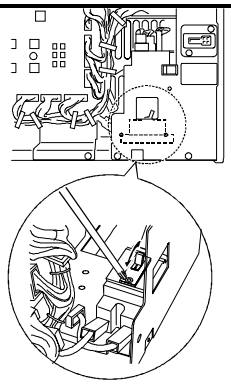
Table 12-101

12-2 A . Copier

No.	Parts name	Parts No.	Q'ty	Life (copies)	Remarks
1	Scanning lamp	FH7-3347	1	200hr	
2	Developing cylinder	FB4-1819 Add	1	1,000,000 Add	Add
		FB5-3111	1	1,000,000	UL model Add
9	Primary charging wire cleaner 1	FF2-3552	2	500,000	If in a high temperature/humidity area, every 125,000 copies. Add
10	Primary charging wire cleaner 2	FG6-2016	2	500,000	If in a high temperature/humidity area, every 125,000 copies. Add
11	Transfer charging wire cleaner 1	FF2-3551	1	500,000	
12	Transfer charging wire cleaner 2	FF5-6883	1	500,000	
13	Separation charging wire cleaner	FF5-6884	1	500,000	
17	Lower fixing roller	FB4-2220	1	500,000	
18	Fixing cleaning belt	FY1-1157	1	500,000	
19	Insulating bush (front, rear)	FB2-7239	2	500,000	Simultaneously with upper fixing roller.
20	Delivery upper separation claw	FC1-0391	6	500,000	

Table 12-201-1

12-7

No.	Work	Checks	Remarks
5	Clean the optical path: • No. 1, 2, 3 mirrors • dust-proofing glass • original reflecting plate • standard white plate		Use a blower brush; if necessary, use alcohol.
6	Scanner system • scanner cable • scanner rail	Check the tension of the cable. Clean the slide area, and apply silicone oil (FY9-6011).	Check the scanner cable once only after making 250,000 copies.
16	Make sample copies.		
17	Press the leakage breaker test switch to make sure that the breaker operates normally. After the check, turn off the power switch, and shift the lever to the ON side. Then, turn on the power switch.	Press the test switch while the power switch is in the ON position and, in addition, the lever [1] of the leakage breaker is in the ON position. If normal, the lever should shift to the OFF position to cut off the power. If it does not, replace the leakage breaker. (Be sure to mount it in the correct orientation.) After replacing the leakage beaker, make sure that it operates properly.	
18	Put the sample copies in order, and clean up the area around the machine.		
19	Record the latest counter reading.		
20	Fill out the Service Book, and report to the person in charge.	Record the history of checking the leakage breaker in the Service Book. Add	

Add

Table 12-301-2

12-8 (top)

A. Copier

Δ:Clean ●:Replace ×:Oil □:Adjust ◎:Inspect

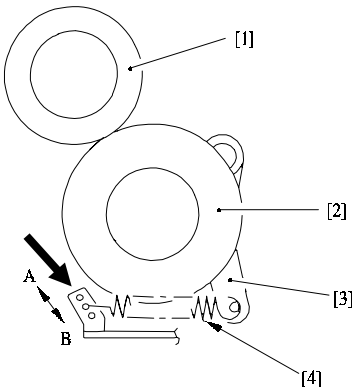
Unit	Part	Intervals					Remarks
		Instal-lation	every 250,000	every 5000,000	every 750,000	every 1,000,000	
Externals/ controls	Copyboard glass		Δ				
	Ozone filter (FM2, FM8)		Δ			● Add	Remove the dust from the surface of the filter. See Figure 12-401.
	Dust-proofing filter (FM1, FM3, FM4; FM10, FM14)		Δ				Remove the dust from the surface of the filter. See Figure 12-401.

Table 12-401-1

13-3 -4 -5

(Additional information)
See the Service Information (FF-T01-K1-000007-01).

13-22 (middle)



[1]Feeding roller [2]Separation roller
[3]Pressure lever [4]Pressure spring

Figure 13-D207

13-74 (top)

12 The copy has white spots (horizonatal).

Cause	Step	Checks	Yes/No	Action
Developing assembly	1	• • •	YES	• • •
Drum	2	Does the problem occur at intervals of about 340 mm?	YES	1. Clean the drum. 2. If scratches are found on the drum, replace the drum.

13-78 (middle)

18 The copy has a blurred image.

Cause	Step	Checks	Yes/No	Action
Scanner drive cable	1	• • •	YES	• • •
≈	≈	≈	≈	≈
Photosensitive drum	3	Does the problem occur at intervals of about 340 mm?	YES	1. Check the drum gear. 2. Check the drum ends (where the developing rolls come into contact) for scratches and protrusions.
Drum drive gear	4	Does the problem occur at intervals of about 4 mm?	YES	Check the drum drive gear.
Developing gear	5	Does the problem occur at intervals of about 2 mm?	YES	Check the developing assembly.
Cleaner assembly gear	6	Does the problem occur at intervals of about 10 mm?	YES	Check the cleaner assembly.
Drum drive system			NO	Check the drum drive system.

13-89 (bottom)

19 E051

Cause	Step	Checks	Yes/No	Action
Horizontal registration home position sensor (PS18)	1	• • •	YES	• • •
Horizontal registration motor (M15)	2	Disconnect J3603 of the no-stacking feed driver PCB. Is there electrical continuity between the following pins of the motor side? J3603-B4 and -B5 and -B3 J3603-B2 and -B6 and -B1	YES	Replace the horizontal registration motor (M15).
Add → Manual tray cover open/closed detecting switch (MSW5)	3	Is the manual tray cover open/closed detecting switch (MSW5) mounted properly?	NO	Mount it properly.
No-stacking feed driver PCB	4	Replace the no-stacking driver PCB. Is the problem corrected?	NO	End.
DC controller PCB				Replace the DC controller PCB.

13-91 (top)

22	E065

Cause	Step	Checks	Yes/No	Action
Primary charging assembly	1	Is the primary charging assembly soiled with paper lint or the like?	YES	Clean the primary charging assembly.
Mounting	2	Is the primary charging assembly mounted properly?	NO	Mount it properly.
Contact	3	Is the contact of the primary charging assembly soiled or in any way faulty?	NO	Correct any problem.
Connection	4	Is the connection of the following on the HV-DC PCB correct? (See Figure 13-401.) • T601 • J723 • J730	NO	Correct the connection.
Wiring	5	Is the wiring from the HV-DC PCB to the primary charging assembly normal?	NO	Correct the wiring.
HV-DC PCB			YES	Replace the HV-DC PCB.

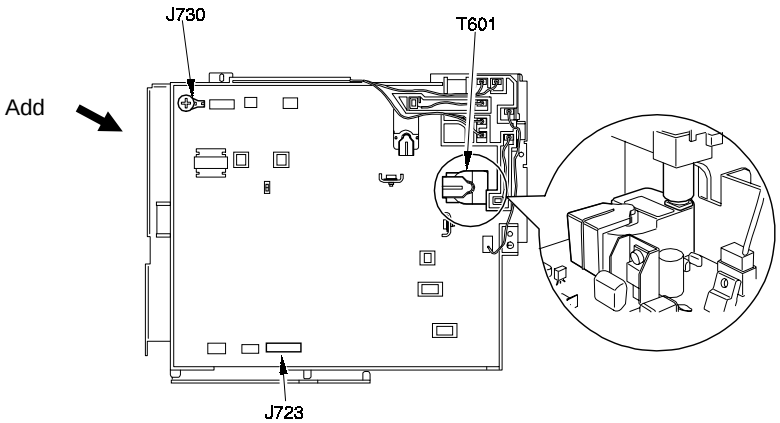


Figure 13-401

13-91 (bottom)

24	E067

Cause	Step	Checks	Yes/No	Action
Mounting	1	Are the primary charging assembly, pre-transfer charging assembly, and transfer/separation charging assembly mounted correctly?	YES	Mount them properly.
Connection	2	Are the following connectors and screws on the HV-DC PCB normal? (See Figure 13-402.) • J721 • J723 • J730	NO	Correct the wiring.
Wiring	3	Is the wiring from the HV-DC PCB to each charging assembly and from the HV-AC PCB to each charging assembly normal?	NO	Correct the wiring.
HV-AC PCB	4	Disconnect J722 of the HV-DC PCB, and make a copy. Is 'E067' indicated?	NO	Replace the HV-AC PCB, and connect J722. End.
HV-DC PCB			YES	Replace the HV-DC PCB, and connect J722. End.

Add

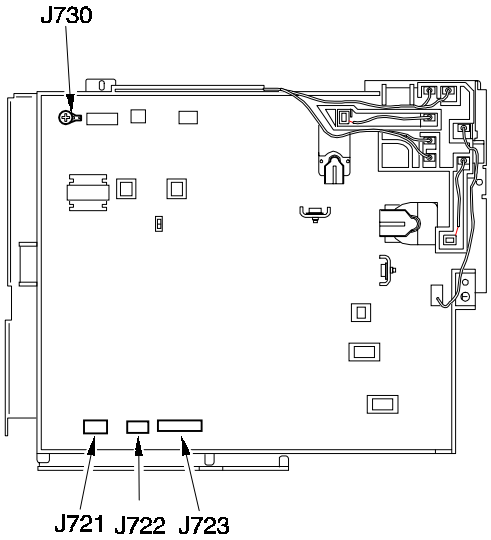


Figure 13-402

13-92 (top)

25	E068

Cause	Step	Checks	Yes/No	Action
Mounting	1	Is the transfer/separation charging assembly mounted correctly?	NO	Mount the transfer/separation assembly correctly.
Connection	2	Are the following connectors and screws of the HV-DC PCB and the HV-AC PCB normal? (See Figure 13-403.) HV-DC PCB: • J722 • J723 • J730 • J734 HV-AC PCB: • J741 • J742	NO	Correct the connection.
Separation charging assembly	3	Disconnect T1-S from the transformer of the HV-AC PCB, and make a copy. Is 'E068' indicated? (See Figure 13-404.)	NO	Clean the separation charging assembly, and make a copy. If 'E068' is indicated, replace the separation charging assembly.
Pre-transfer charging assembly	4	Disconnect T1-Q from the transformer of the HV-AC PCB, and make a copy. Is 'E068' indicated? (See Figure 13-404.)	NO	Clean the pre-transfer charging assembly, and make a copy. If 'E08' is indicated, replace the pre-transfer charging assembly.
HV-AC PCB			YES	Replace the HV-AC PCB.

Add

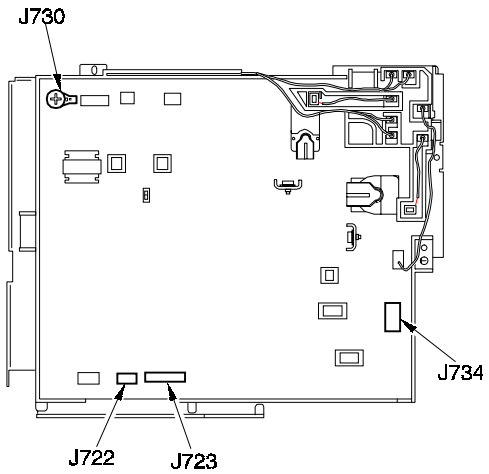


Figure 13-403

Add

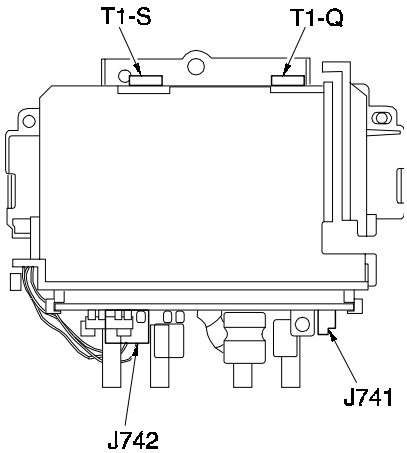


Figure 13-404

13-92 (middle

26	E069

Cause	Step	Checks	Yes/No	Action
Mounting	1	Is the transfer/separation charging assembly mounted properly?	NO	Mount the transfer/separation assembly properly.
Connection	2	Are the following connectors and screws of the HV-DC PCB normal? • J701 • J723 • J730	NO	Correct the connection.
Wiring	3	Is the connection of and the wiring from the HV-DC PCB to the transfer/separation charging assembly (transfer charging assembly side) normal?	NO	Correct the wiring.
HV-DC PCB	4	Replace the HV-DC PCB. Is the problem corrected?	NO	Replace the transfer/separation charging assembly.
Transfer/separation charging assembly			YES	End.

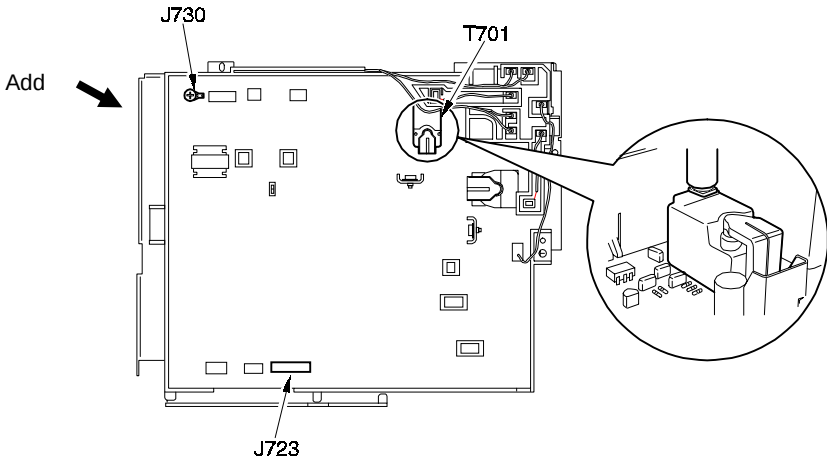


Figure 13-405

13-158

5) Turn on the PCB, and start the copier service support tool.
6) Connect the copier's power plug to the power outlet, and turn on the main power switch; then, turn on the control panel power switch.

b. Downloading
1) When the copier service support tool has started, select 'To Main Menu' on the screen.
2) Select 'Next' under 'Download/Upload'.

(Figure 13-706)

3) Select the ~~model and~~ PCB for downloading.
IP: DIMM for IP-CPU
MFC: DIMM for MFC
4) Start downloading for the flash ROM as instructed on the screen of the PC.
5) When downloading has ended, turn off the PC as follows:
Press 'OK' → 'return to PCB selection menu' → 'OK' → 'return to main menu' → 'end service support tool' → 'end'.

13-159 (top)

c. After Downloading

1) Turn off the copier main power switch, and disconnect the power plug.

Add → 2) Turn off the PC.

→ 3) Disconnect the bi-Centronics cable from the PC and the copier.

→ 4) Slide the download switch to the COPY position, and connect the two connectors.

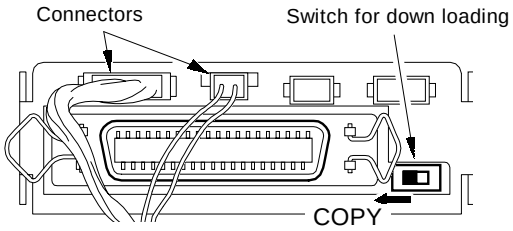


Figure 13-707

→ 5) Close the connector cover, and close the front door.

→ 6) Turn on the main power switch and the control panel power switch.

7) Start service mode, and check the ROM version:
COPIER>DISPLAY>VERSION

13-166 (middle)

Items under COPIER>DISPLAY

Level 1	Level 2	Level 3	Description
DISPLAY	VERSION	DC-CON	Indicates the version of the ROM on the Dccontroller PCB.
	USER	LANGUAGE	Indicates the language used.
		COUNTER	Indicates the count control type for the copy counters.
	Add →	MODEL	Indicates the model.

13-171 (bottom)

G:Source of Paper ← Add Add →

1. ROM Ver. (IP: earlier than 10; MFC: earlier than 10)

→

Code	Description
1	Front deck (right)
2	Front deck (left)
3	Cassette 3
4	Cassette 4
5	Side paper deck
6	Not used
7	Not used
8	Not used
9	Not used
A	Manual feed tray
B	Not used
C	Duplexing assembly

Table 13-B802-a

2. ROM Ver. (IP: 10 or later; MFC: 10 or late)

Code	Description
1	Front deck (right)
2	Front deck (left)
3	Cassette 3
4	Cassette 4
5	Not used
6	Not used
7	Side paper deck
8	Manual feed tray
9	Duplexing assembly
A	Inserter

Table 13-B802-b

13-206 (top)

Items under COPIER>ADJUST

Level 1	Level 2	Level 3	Range	Description
ADJUST	FEED-ADJ	REGIST	-50 to 50	Use it to adjust the activation timing for the registration clutch.
	CST-ADJ	C3-STMTR		Use it to adjust the paper width sensor for the cassette 3 (STMTR).
Add →	MISC	ATM	0~3	To set the operating environment for atmospheric pressure.

13-207 (middle)

<AE>
AE Adjustment

Level 3	Description	Remarks
AE-TBL	Adjusting Text Density for Real-Time AE Mode • Enter a value to adjust the density correction curve for real-time AE mode (10 settings).	Range: 0 to 9 (default: 5)

13-214 (bottom)

Add

<MISC>
Other

Level 3	Description	Remarks
ATM	Use it to set the environment for the atmospheric pressure. A higher setting will lower the target control potential. (A lower atmospheric pressure tends to cause leakage, indicating the need for a lower target control potential.)	Range: 0 to 3 0: Standard (default) 1: 1 to 0.70 atm (up to elevation of about 3,000 m) 2: 0.70 to 0.65 atm (elevation of about 3,000 to 3,500 m) 3: 0.65 to 0.60 atm (elevation of about 3,500 to 4,500 m)

13-215 (top)

<FEEDER>

Level 3	Description	Remarks
DOCST	Adjusting the Original Stop Position for Pickup from the Feeder (original tray pickup) • • • •	Range: -35 to 35 (Each '1' causes a shift of 0.5 mm) • The data is rtained by the ADF controller PCB on the feeder side.

13-219 (bottom)

Items under COPIER>FUNCTION

Level 1	Level 2	Level 3	Description
FUNCTION	INSTALL	TONER-S	Use it to supply or stir toner.
	CLEAR	ERR	Use it to clear error codes.
		IP	Use it to initialize the RAM on the image processor PCB.
		JAM-HIST	Use it to clear the jam history.
		ERR-HIST	Use it to initialize the error code history.
		MF-CON	Use it to initialize the ROM on the MFC PCB.
	Add	PWD-CLR	Clears the password of the system administrator.

13-230 (middle)

(Figure 13-F801 Screen under Items COPIER>OPTION)

Add

Note :

The new setting for each item of OPTION will be stored in memory when the main power switch is turned off and then on.

13-231 (middle)

Items under COPIER>OPTION

Level 1	Level 2	Level 3	Description
OPTION	BODY	PO-CONT	Use it to turn on/off potential control.
		DRM-IDL	Use it to select drum idle rotation mode.
	Add →	LOGDT-SW	Enables/disables collection of service data.
	Add →	W-CLN	Turns on/off the charging wire auto cleaning mechanism.
	Add →	FIX-FAN-SW	Switches the fixing assembly heat discharge fan control mechanism.
	USER	COPY-LIM	Use it to change to upper copy limit.
		PR-D-SEL	Use it to set density for printing (PDL input).
	Add →	MB-T-LIM	Sets the data auto deletion time for a mail box.

13-237 (middle)

Add →

Level 3	Description	Remarks
DRM-IDL	• • •	• • •
LDGDT-SW	Enabling/Disabling Collection of Service Data • Specify whether service data may be collected through the PDL board (accessory for some models). Service data may be either of the following two types: 1. Service Counter Reading: represents durables and periodically replaced parts indicated in service mode. 2. Soft Counter Reading: represents the soft counter reading indicated in service mode.	0: disable (default) 1: enable.
W-CLN	Turning On/Off the Auto Cleaning Mechanism (for each charging wire)	0: Off 1: On (default)
FIX-FAN-SW	Switching the Fixing Heat Discharge Fan (FM2) Control Mechanism • Selecting '1' causes the control of the fan after printing to half-speed control. (If the environment is a high temperature/humidity one or the room temperature is 29°C or more, the fan will rotate at full speed at all times.)	0: Off (default) 1: On

13-238 (middle)

<USER>

Selecting User-Mode Related Machine Settings

Level 3	Description	Remarks
COPY-LIM	• • •	• • •
WEB-DISP	Use it to turn on/off the fixing cleaning belt length warning message. • Use it to enable or disable indication of a warning on the touch panel when the fixing cleaning belt starts to run out.	0: disable warning 1: enable warning • A warning is indicated when starting service mode after passing 450,000 sheets (A4).
PM-DENS →	~~Use it to turn on/off density variation mode during printing (scanner input).~~	
PR-D-SEL	Use it to set a density for printing (PDL input).	Range: 0 through 8 (default at 4)
MB-T-LIM	Setting the Data Auto Deletion Tim for a Mail box • Specify whether to indicate 'infinite: 0' (i.e., no auto deletion) for settings in user mode.	0: 1 hr to 3 days (default) 1: 1 hr to 3 days, infinite

Add →

13-252 (top)

Code	Cause	Description
E043	⋮	⋮
E051	• The horizontal registration sensor (PS18) is faulty. • The horizontal registration motor (M15) is faulty. • The DC controller PCB is faulty. Add → • The manual tray cover open/closed detecing switch (MSW5). is faulty.	• The home position signal is not detected in 5 sec while the horizontal registration motor (M15) drive signal is being generated.
≈	≈	≈

13-256 (top)

Code	Cause	Description
E800	⋮	⋮
E804	• The power supply cooling fan (1 and 2) is faulty. • The DC controller PCB is faulty. • The wiring is faulty (short circuit, open circuit).	• The lock signal (FM1LCK, FM2LCK) is detected for 5 sec or more while the power supply cooling fan (1 and 2) is being driven.
≈	≈	≈