

[8] SELF DIAG AND TROUBLE CODE

1. Self diag

When a trouble occurs in the machine or when the life of a consumable part is nearly expired or when the life is expired, the machine detects and displays it on the display section. This allows the user and the serviceman to take the suitable action. In case of a trouble, this feature notifies the occurrence of a trouble and stops the machine to minimize the damage.

A. Function and purpose

- 1) Securing safety. (The machine is stopped on detection of a trouble.)
- 2) The damage to the machine is minimized. (The machine is stopped on detection of a trouble.)
- 3) By displaying the trouble content, the trouble position can be quickly identified. (This allows to perform an accurate repair, improving the repair efficiency.)
- 4) Preliminary warning of running out of consumable parts allows to arrange for new parts in advance of running out. (This avoids stopping of the machine due to running out the a consumable part.)

B. Self diag message kinds

The self diag messages are classified as shown in the table below.

Class 1	User	Warning of troubles which can be recovered by the user. (Paper jam, consumable part life expiration, etc.)
	Serviceman	Warning of troubles which can be recovered only by a serviceman. (Motor trouble, maintenance, etc.)
	Other	—
Class 2	Warning	Warning to the user, not a machine trouble (Preliminary warning of life expiration of a consumable part, etc.)
	Trouble	Warning of a machine trouble. The machine is stopped.
	Other	—

C. Self diag operation and related work flow

The machine always monitors its own state.

When the machine recognizes a trouble, it stops the operation and displays the trouble message.

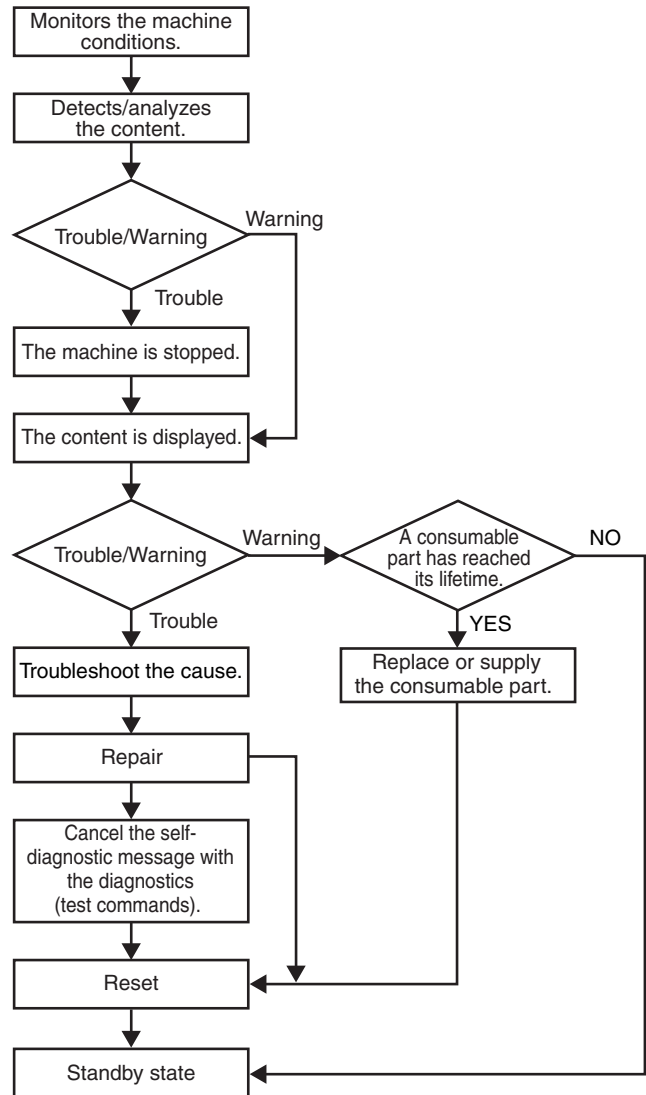
A warning message is displayed when a consumable part life is nearly expired or is expired.

When a warning message is displayed, the machine may be or may not be stopped.

The trouble messages and the warning messages are displayed by the LCD.

Some trouble messages are automatically cleared when the trouble is repaired. Some other troubles must be cleared by a simulation.

Some warning messages of consumable parts are automatically cleared when the trouble is repaired. Some other warning messages must be cleared by a simulation.



D. Breakdown sequence

(1) Breakdown mode list

There are following cases of the breakdown mode.

Kind of trouble	Judgment block	Trouble code	Operatable mode								
			Copy scan (including interruption)	Scan push	Scan pull	Scan To HDD	FAX send	FAX print	Print	List print	Notification to FAST host
FAX board trouble (1 line)	ICU	F6	○	○	○	○	△ 1	△ 1	○	○	△ 1
FAX board trouble (2 lines)		F7	○	○	○	○	△ 1	△ 1	○	○	△ 1
HDD trouble		E7 (03)	×	×	×	×	×	×	×	×	○
SCU communication trouble		E7 (80), A0-02	×	×	×	×	×	○	○	○	○
PCU communication trouble		E7 (90), A0-01 L8-20	×	×	×	×	×	×	×	×	○
Backup battery voltage fall		U1 (01)	×	×	×	×	×	×	×	×	○
Controller fan motor trouble		L4-30	×	×	×	×	×	×	×	×	×
Connection trouble (ICU detection)		E7 (60 – 65), A0 (10 – 12, 20)	×	×	×	×	×	×	×	×	×
Serial number discrepancy		U2 (30)	×	×	×	×	×	×	×	×	×
Memory error (included not installed the expansion RAM)		U2 (00, 05, 10, 11, 22, 23, 24, 25)	×	×	×	×	×	×	×	×	○
HDD registration data sum error		U2 (50)	×	×	×	×	×	×	×	×	○
Image memory trouble, decode error		E7 (00, 01, 05, 06, 08, 09)	×	×	×	×	×	×	×	×	○
Network error		CE	○	○ Operatable but send NG	○ Operatable but send NG	○	○	○	○	○	×
Process control trouble (Only history is left.) (ICU detection)		F2 (80 – 87)	○	○	○	○	○	○	○	○	○
Laser trouble	PCU	E7 (20, 28, 29), L6 (10)	×	×	×	×	×	×	×	×	○
Connection trouble (PCU detection)		E7 (50, 55), A0 (21)	×	×	×	×	×	×	×	×	×
PCU section troubles (motor, fusing, etc.)		H2, H3, H4, H5, L4 (excluding L4-30), U2 (90, 91), F2 (40, 64, 70, 74), L8 (01, 02)	×	×	×	×	×	×	×	×	○
PCU color system troubles		E7 (21), F2 (41 – 43, 65 – 67, 71 – 73, 75 – 77)	×	×	×	×	×	×	×	×	○
Paper feed tray 1 trouble		F3-12	△ 2	○	○	○	○	△ 2	△ 2	△ 2	○
Paper feed tray 2 trouble		F3-22	△ 2	○	○	○	○	△ 2	△ 2	△ 2	○
Paper feed tray 3 trouble		U6-01	△ 2	○	○	○	○	△ 2	△ 2	△ 2	○
Paper feed tray 4 trouble		U6-02	△ 2	○	○	○	○	△ 2	△ 2	△ 2	○
Paper feed tray 5 trouble		U6 (09, 20 – 22, 51)	△ 2	○	○	○	○	△ 2	△ 2	△ 2	○
Paper feed tray other troubles		U6 (00, 10, 50)	△ 8	○	○	○	○	△ 8	△ 8	△ 8	○
Staple trouble		F1 (10)	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	○
After-process trouble		F1 (excluding 10)	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	△ 3	○
Other troubles	PCU	EE (EL, EU, EC)	○	○	○	○	○	○	○	○	○
Process control trouble (PCU detection)		F2 (39, 44, 45, 49, 51, 58, 78)	○	○	○	○	○	○	○	○	○

Kind of trouble	Judgment block	Trouble code	Operatable mode									
			Copy scan (including interruption)	Scan push	Scan pull	Scan To HDD	FAX send	FAX print	Print	List print	Notification to FAST host	
Connection trouble (SCU detection)	SCU	E7 (70, 75), A0 (22)	×	×	×	×	×	×	×	×	×	×
SCU color system troubles		UC (02)	×	×	×	×	×	○	○	○	○	○
Document control trouble		UC (20)	×	×	×	×	×	○	○	○	○	○
EEPROM system		U2 (80, 81)	×	×	×	×	×	○	○	○	○	○
Scanner section troubles (mirror motor, lens, copy lamp)		L1, L3	×	×	×	×	×	○	○	○	○	○
CCD troubles (shading, etc.)		E7 (10, 11, 14)	×	×	×	×	×	○	○	○	○	○
Process control trouble (Only history is left.) (ICU detection)	MFP	F2 (80 – 87, 90)	○	○	○	○	○	○	○	○	○	○
Process control trouble (Only history is left.) (PCU detection)	PCU	F2 (91 – 94)	○	○	○	○	○	○	○	○	○	○

○: Operation enabled, ×: Operation disabled

△ 1: The operation is enabled in a line other than the trouble line.

△ 2: When detected during other than a job, the operation is enabled with a tray other than the trouble tray.

△ 3: When detected during other than a job, the operation is enabled in a section other than the trouble paper exit section. * When, however, the right tray is set.

△ 4: When detected during other than a job, the operation is enabled in the OC mode.

* 5: Cannot be shifted to the nighttime mode/power saving function. The power cannot be turned OFF with the power SW on the operation panel.

* 6: When the color mode is set to Disable in the "Color mode disable setting" of the system setting, the operation is enabled in the Black mode.

* 7: Since communication is enabled, reception can be transferred.

△ 8: When detected during other than a job, the operation is enabled in other than the DESK.

* 9: Trouble display message is displayed in 2 lines. (Example: Ready to copy. F2 trouble)

* Trouble mode process

• Machine operation enabled under some conditions.

The operations excluding the trouble mode are enabled (READY). For the mode where operations are disabled, only setting is enabled and the operation disable message is made.

(NOT READY)

(Display) A dialog is displayed when a trouble occurs. For the mode where operations are enabled, [OK] button is added to the message. When operations are disabled, [OK] button is not displayed, and the message is displayed until the trouble is cancelled.

* For △ 2, 3, 4, 8, perform the following procedures. (In order to avoid patent interference.)

• When a trouble is detected during a job, the machine operation is terminated. (Trouble display/without [OK] key)

• When a trouble is detected during other than a JOB, the trouble display is not made and the trouble position cannot be selected. (The display is not turned off. Machine/Button)

• Troubles which disable the machine operations

The trouble display is always made, and all the modes cannot be set.

• Writing to the trouble memory

Writing of a same trouble to the trouble memory can be selected with SIM 26-35. When this simulation is set, any trouble is written to the trouble memory unconditionally.

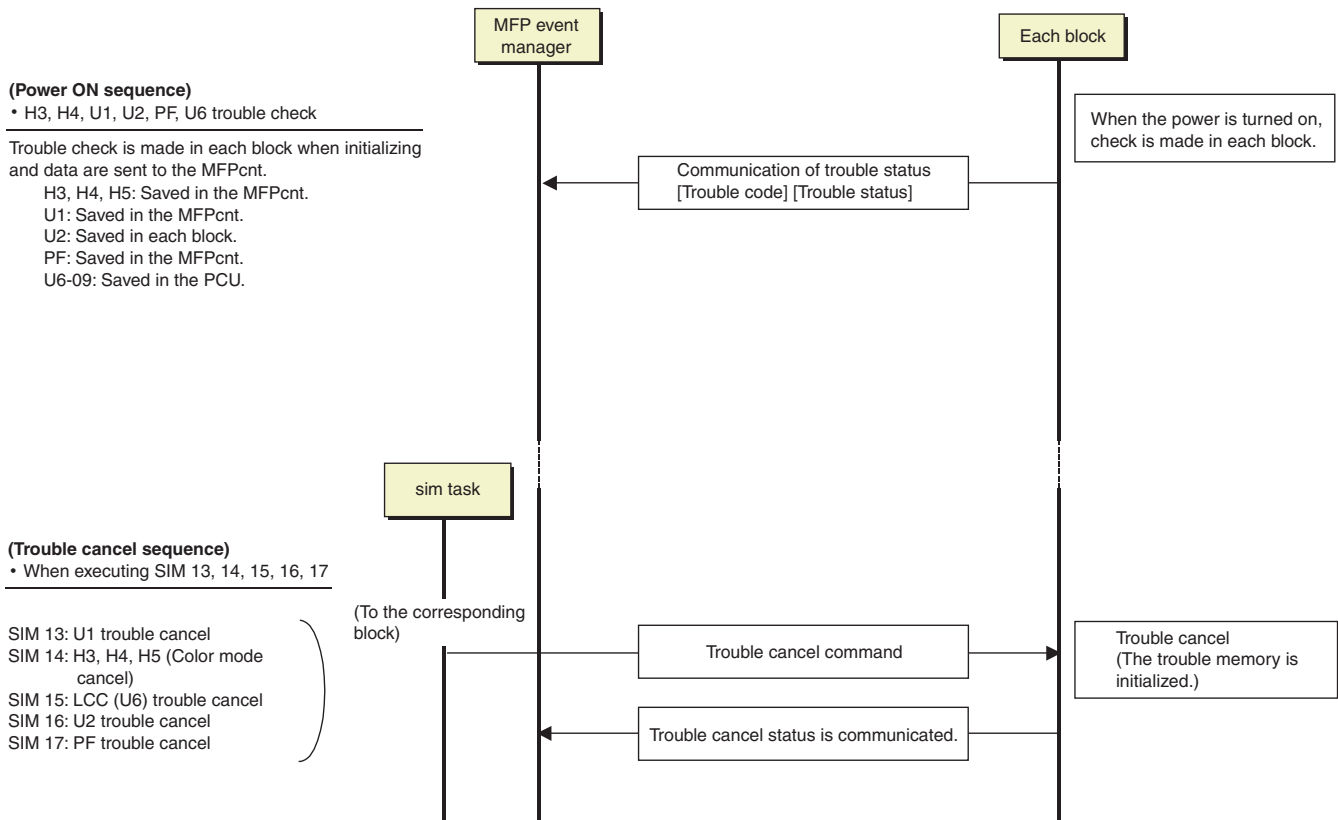
(Sim.26-35)

0: Only once. If same as the previous one, it is not saved. (Default)

1: Any time. Though same as the previous one, it is saved.

(2) Power ON trouble detection sequence.

- When the power is turned ON and each trouble of H3, H4, H5, U1, U2, PF, U6 (09) is stored, it is judged as a trouble immediately.



2. Trouble code list

Trouble code		Trouble code content	Remarks	Trouble detection	Mechanism	Option	Electricity	FAX	Supply
Main code	Sub code								
A0	01	PCU ROM abnormality		PCU			●		
	02	SCU ROM abnormality		Scanner			●		
	10	Controller ROM error		MFP			●		
	11	IF version discrepancy (CTL-PCU)		MFP			●		
	12	IF version discrepancy (CTL-SCU)		MFP			●		
	20	Machine level error (CTL detection)		MFP			●		
	21	Machine level error (PCU detection)		PCU			●		
	22	Machine level error (SCU detection)		Scanner			●		
CE	00	Communication error other than CE-01 – 08		MFP			●		
	01	Network controller trouble		MFP			●		
	02	Not-specified mail/FTP server error		MFP			●		
	03	Communication error in image send		MFP			●		
	04	FTP server account name or authentication password input error		MFP			●		
	05	FTP server directory input error		MFP			●		
	06	POP3 server access error		MFP			●		
	07	POP3 server authentication check error		MFP			●		
E7	08	POP3 server timeout error		MFP			●		
	00	System memory access error		MFP			●		
	01	System data trouble		MFP			●		
	03	HDD trouble		MFP			●		
	05	Local memory access error		MFP			●		
	06	Decode error trouble: Compression decode error (A compression file cannot decompressed.)		MFP			●		
	08	Local memory specifications error		MFP			●		
	09	Local memory combination error		MFP			●		
	10	Shading trouble (Black correction)		Scanner			●		
	11	Shading trouble (White correction)		Scanner			●		
	14	SCAN-ASIC trouble		Scanner			●		
20	LSU BD detection trouble		PCU			●			
21	LSU LD deterioration trouble		PCU			●			

Trouble code		Trouble code content	Remarks	Trouble detection	Mechanism	Option	Electricity	FAX	Supply
Main code	Sub code								
E7	28	LSU control ASIC connection abnormality		PCU			●		
	29	LSU-ASIC frequency abnormality		PCU			●		
	50	Engine connection trouble		PCU			●		
	55	PWB information sum error (Engine detection)		PCU			●		
	60	Controller connection trouble (Engine detection)		MFP			●		
	61	Controller connection trouble (Engine)		MFP			●		
	62	Controller connection trouble (Scanner)		MFP			●		
	65	PWB information sum error (Controller detection)		MFP			●		
	70	Scanner connection trouble		SCU			●		
	75	PWB information sum error (Scanner detection)		SCU			●		
	80	Communication trouble between the controller and the scanner		MFP			●		
	90	Communication trouble between the controller and the engine		MFP			●		
EE	EC	Auto developer adjustment trouble (The sample level for every rotation is other than 128 ± 10 .)		PCU			●		
	EL	Auto developer adjustment trouble (overtoner error)		PCU			●		
	EU	Auto development adjustment trouble (Under-toner abnormality)		PCU			●		
F1	00	Finisher communication trouble (Machine side detection)		PCU			●		
	02	Saddle finisher transport motor trouble		PCU		●			
	03	Finisher paddle motor trouble (MX-FNX2), finisher swing motor trouble (MX-FNX1)		PCU		●			
	08	Finisher stapler shift motor trouble		PCU		●			
	10	Finisher staple motor abnormality		PCU		●			
	11	Finisher bundle process motor abnormality		PCU		●			
	15	Finisher tray lift motor abnormality		PCU		●			
	19	Finisher pre-alignment motor abnormality		PCU		●			
	20	Finisher after-alignment motor abnormality		PCU		●			
	21	Finisher fan motor abnormality (MX-FNX1), Finisher interface fan motor abnormality (MX-FNX2)		PCU		●			
	31	Finisher folding sensor trouble (MX-FNX2)		PCU		●			
	32	Communication trouble between the finisher and the punch unit (MX-FN2)		PCU		●			
	33	Finisher punch shift motor trouble		PCU		●			
	34	Finisher punch motor trouble		PCU		●			
	35	Finisher punch side registration sensor trouble (MX-FNX2)		PCU		●			
	36	Finisher punch registration sensor trouble (MX-FNX2)		PCU		●			
	37	Finisher backup RAM trouble		PCU		●			
	38	Finisher punch backup RAM trouble (MX-FNX2)		PCU		●			
	39	Finisher punch dust sensor trouble (MX-FNX2)		PCU		●			
	40	Saddle finisher punch power interruption trouble (MX-FNX2)		PCU		●			
	50	Finisher incompatibility trouble		PCU		●			
F2	39	Process thermistor trouble		PCU					●
	40	Toner empty sensor abnormality (BLACK)		PCU					●
	41	Toner empty sensor abnormality (CYAN)		PCU					●
	42	Toner empty sensor abnormality (MAGENTA)		PCU					●
	43	Toner empty sensor abnormality (YELLOW)		PCU					●
	44	Black exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)		PCU					●
	45	Color exclusive image density sensor trouble (Calibration plate surface reflection ratio abnormality)		PCU					●
	49	LSU thermistor trouble		PCU					●
	50	K phase sensor sensing trouble		PCU					●
	51	CL phase sensor sensing trouble		PCU					●
	58	Process humidity sensor trouble		PCU					●
	64	Toner supply abnormality error (BLACK)		PCU					●
	65	Toner supply abnormality error (CYAN)		PCU					●
	66	Toner supply abnormality error (MAGENTA)		PCU					●
	67	Toner supply abnormality error (YELLOW)		PCU					●
	70	Toner cartridge improper cartridge detection (BLACK)		PCU					●
	71	Toner cartridge improper cartridge detection (CYAN)		PCU					●
72	Toner cartridge improper cartridge detection (MAGENTA)		PCU					●	
73	Toner cartridge improper cartridge detection (YELLOW)		PCU					●	
74	Toner cartridge CRUM error (BLACK)		PCU					●	

Trouble code		Trouble code content	Remarks	Trouble detection	Mechanism	Option	Electricity	FAX	Supply
Main code	Sub code								
F2	75	Toner cartridge CRUM error (CYAN)		PCU					●
	76	Toner cartridge CRUM error (MAGENTA)		PCU					●
	77	Toner cartridge CRUM error (YELLOW)		PCU					●
	78	Registration exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)		PCU					●
	80	Half tone process control 1st patch reference value trouble (BLACK)		PCU					●
	81	Half tone process control 1st patch reference value trouble (CYAN)		PCU					●
	82	Half tone process control 1st patch reference value trouble (MAGENTA)		PCU					●
	83	Half tone process control 1st patch reference value trouble (YELLOW)		PCU					●
	84	Half tone process control 2nd patch reference value trouble (BLACK)		PCU					●
	85	Half tone process control 2nd patch reference value trouble (CYAN)		PCU					●
	86	Half tone process control 2nd patch reference value trouble (MAGENTA)		PCU					●
	87	Half tone process control 2nd patch reference value trouble (YELLOW)		PCU					●
	92	High-density process control density correction error (CYAN)		PCU					●
	93	High-density process control density correction error (MAGENTA)		PCU					●
	94	High-density process control density correction error (YELLOW)		PCU					●
F3	12	Main unit tray 1 lift-up trouble		PCU	●				
	22	Main unit tray 2 lift-up trouble		PCU	●				
F6	00	Communication trouble between the ICU and the FAX	Refer to FAX manual for details						
	01	FAX board EEPROM read/write error							
	04	FAX MODEM operation trouble							
	21	Combination error between the TEL/LIU PWB and the FAX soft switch							
	30	Access error to power controller on the FAX board (FAX detection)							
	97	FAX PWB incompatibility trouble							
	98	Combination error between the FAX-BOX PWB destination information and the machine destination information.							
F7	00	Communication trouble between the ICU and the FAX (Second line)							
	01	FAX board EEPROM read/write error (Second line)							
	04	FAX MODEM operation trouble (Second line)							
	21	Combination error between the TEL/LIU PWB and the FAX soft switch (Second line)							
	30	Access error to power controller on the FAX board (Second line)							
	97	FAX PWB incompatibility trouble (Second line)							
	98	Combination error between the FAX-BOX PWB destination information and the machine destination information (Second line)							
H2	00	Non-contact thermistor detection thermistor open (TH_UM_AD2)		PCU	●				
	01	Lower thermistor open (TH_LM)		PCU	●				
	02	Sub thermistor open (TH_US)		PCU	●				
	03	Non-contact thermistor compensation thermistor open (TH_UM_AD1)		PCU	●				
H3	00	Fusing section high temperature trouble (TH_UM)		PCU	●				
	01	Fusing section high temperature trouble (TH_LM)		PCU	●				
	02	Sub thermistor fusing section high temperature trouble (TH_US)		PCU	●				
H4	00	Fusing section low temperature trouble (TH_UM_AD2)		PCU	●				
	01	Fusing section low temperature trouble (TH_LM)		PCU	●				
	02	Sub thermistor fusing section low temperature trouble (TH_US)		PCU	●				
	30	Thermistor differential input trouble (TH_UM)		PCU	●				
H5	01	5 continuous detection of POD1 not-reached jam		PCU	●				
L1	00	Mirror feed trouble		Scanner	●				
L3	00	Mirror return trouble		Scanner	●				

Trouble code		Trouble code content	Remarks	Trouble detection	Mechanism	Option	Electricity	FAX	Supply
Main code	Sub code								
L4	02	Paper feed motor lock trouble		PCU			●		
	04	Developing motor trouble (BLACK)		PCU			●		
	05	Developing motor trouble (COLOR)		PCU			●		
	06	Transfer belt separation position sensor trouble		PCU			●		
	11	Shift motor trouble		PCU			●		
	30	Controller fan/HDD fan motor trouble		MFP			●		
	31	Paper exit cooling fan trouble		PCU			●		
	32	Power cooling fan/ozone exhaust fan trouble		PCU			●		
L6	10	Polygon motor lock detection		LSUcnt			●		
L8	01	No full wave signal		PCU			●		
	02	Full wave signal width abnormality		PCU			●		
	20	Power controller communication trouble		MFP			●		
PC	--	Personal counter not installed		MFP	●				
U1	01	Battery trouble		MFP			●		
U2	00	EEPROM read/write error (MFP detection)		MFP			●		
	05	HDD/Flash/EEPROM data discrepancy		MFP			●		
	10	SRAM user authentication index check sum error		MFP			●		
	11	EEPROM check sum error (MFP detection)		MFP			●		
	22	SRAM memory check sum error		MFP			●		
	23	MFPC section SRAM memory individual data check sum error		MFP			●		
	24	SRAM memory user authentication counter check sum error		MFP			●		
	25	Flash memory user authentication counter check sum error		MFP			●		
	30	Serial number data discrepancy (MFP ↔ PCU)		MFP			●		
	50	HDD section individual data check sum error		MFP			●		
	80	EEPROM read/write error (SCU detection)		Scanner			●		
	81	Adjustment value check sum error (SCU detection)		Scanner			●		
	90	EEPROM read/write error (PCU detection)		PCU			●		
	91	EEPROM (PCU) check sum error		PCU			●		
U6	00	Desk communication trouble		PCU			●		
	01	Tray 1 lift-up trouble		PCU	●				
	02	Tray 2 lift-up trouble		PCU	●				
	09	LCC lift motor trouble		PCU		●			
	10	Desk transport motor trouble		PCU	●				
	20	LCC communication trouble		PCU		●			
	21	LCC transport motor trouble		PCU		●			
	22	LCC 24V power abnormality		PCU		●			
	50	Desk incompatibility trouble		PCU	●				
	51	LCC incompatibility trouble		PCU		●			
UC	02	CPT-ASIC abnormality		Scanner			●		
	20	Document control module trouble		Scanner			●		

3. Details of trouble code

A0-01 PCU ROM abnormality

Trouble content		PCU ROM content trouble
Section		PCU
Case 1	Cause	Firmware upgrade is not made properly due to power OFF, etc.
	Check and remedy	Use SIM49-1 to upgrade the firmware.

A0-02 SCU ROM abnormality

Trouble content		SCU ROM content trouble
Section		Scanner
Case 1	Cause	Some part of SFU is not upgraded during upgrading of the firmware.
	Check and remedy	Use SIM49-1 to execute the firmware.

A0-10 Controller ROM error

Trouble content		SFU combination error in the controller
Section		MFP
Case 1	Cause	SFU upgrade was not properly made when upgrading the firmware.
	Check and remedy	Controller firmware upgrade

A0-11 IF version discrepancy (CTL-PCU)

Trouble content		Combination error between CTL and PCU
Section		MFP
Case 1	Cause	Combination error between CTL and PCU
	Check and remedy	Check the firmware combination between CTL and PCU.

A0-12 IF version discrepancy (CTL-SCU)

Trouble content		Combination error between CTL and SCU
Section		MFP
Case 1	Cause	Combination error between CTL and SCU
	Check and remedy	Check the firmware combination between CTL and SCU.

A0-20 Machine level error (CTL detection)

Trouble content		Combination error between the machine production/remodeling and the firmware
Section		MFP
Case 1	Cause	Combination error between the machine production/remodeling and the firmware
	Check and remedy	Check the combination between the machine production/remodeling and the firmware.

A0-21 Machine level error (PCU detection)

Trouble content		Combination error between the machine production/remodeling and the firmware
Section		PCU
Case 1	Cause	Combination error between the machine production/remodeling and the firmware
	Check and remedy	Check the combination between the machine production/remodeling and the firmware.

A0-22 Machine level error (SCU detection)

Trouble content		Combination error between the machine production/remodeling and the firmware
Section		Scanner
Case 1	Cause	Combination error between the machine production/remodeling and the firmware
	Check and remedy	Check the combination between the machine production/remodeling and the firmware.

CE-00 Communication error other than CE-01 – 08

Trouble content		Another communication error occurs.
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.

CE-01 Network controller trouble

Trouble content		Network controller and its peripheral circuit trouble
Section		MFP
Case 1	Cause	Network controller and its peripheral circuit trouble
	Check and remedy	1) Check the network controller and its peripheral circuit.
		2) Output the NIC Config Page and check the NIC version.
3) Replace the MFPcnt PWB.		

CE-02 Not-specified mail/FTP server error

Trouble content		The specified mail server, FTP server, and SMB server are not found
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	Network setup trouble
		1) Check that the connected network supports TCP/IP protocol.
		2) Check from Web page that the Primary/Secondary E-mail Server Address or the FTP server/Desktop PC/SMB server address as the destination is properly set.
3) When the above address is described with the Hostname, check that the DNS server is properly set or not.		
Case 3	Cause	SMTP server/FTP server/NST/SMB server trouble
	Check and remedy	Check the SMTP server/FTP server/NST/SMB server for any trouble.

CE-03 Communication error in image send

Trouble content		The specified server does not respond during image send.
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	SMTP server/FTP server/NST/SMB server trouble
	Check and remedy	Check the SMTP server/FTP server/NST/SMB server for any trouble.

CE-04 FTP server account name or authentication password input error

Trouble content		The entered FTP server account name or the authentication password is invalid. The entered SMB server log-in name or the password is invalid.
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	The FTP server account name registered as the destination or the password for the account is incorrect.
	Check and remedy	Check to insure that the FTP server account name registered as the destination or the password for the account is correct.
Case 3	Cause	The SMB server account name registered as the destination or the password for the account is incorrect.
	Check and remedy	Check to insure that the SMB server account name registered as the destination or the password for the account is correct.

CE-05 FTP server directory input error

Trouble content		The entered FTP server directory is invalid. The entered SMB server folder is invalid.
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	The FTP server account name registered as the destination or the password for the account is incorrect.
	Check and remedy	Check to insure that there exists the FTP server directory registered as the destination.
Case 3	Cause	The SMB server account name registered as the destination or the password for it is incorrect.
	Check and remedy	Check to insure that there exists the SMB server folder registered as the destination.

CE-06 POP3 server access error

Trouble content		The specified mail server (POP3) is not found. (POP3 server access error)
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	Network setup error
	Check and remedy	1) Check that the connected network supports TCP/IP protocol. 2) Check the Web page to insure that the POP3 server address is correctly set. 3) If the above address is described in Hostname, check to insure that the DNS server is correctly set.
Case 3	Cause	POP3 server trouble
	Check and remedy	Check the POP3 server for any trouble.

CE-07 POP3 server authentication check error

Trouble content		The entered POP3 server account name or the authentication password is invalid. (POP3 server authentication check error)
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	The POP3 server account name or the password registered for the account is incorrect.
	Check and remedy	Check to insure that the POP3 server account name or the password for the account is correct.

CE-08 POP3 server timeout error

Trouble content		The specified mail server (POP3) does not respond. (POP3 server timeout error)
Section		MFP
Case 1	Cause	Network cable connection trouble
	Check and remedy	Check to insure that the network cable is securely connected.
Case 2	Cause	POP3 server trouble
	Check and remedy	Check the POP3 server for any trouble.

E7-00 System memory access error

Trouble content		System memory trouble (Tandem memory cannot be guaranteed.) Access to system memory cannot be made.	
Section		MFP	
Case 1	Cause	Expansion memory installation error	
	Check and remedy	Check installation of the system expansion memory.	
Case 2	Cause	Garbled data	
	Check and remedy	1) Use SIM60-01 to check memory read/write 2) Replace the expansion memory (if installed.) 3) Replace the MFPcnt PWB.	
Case 3	Cause	Dirt on the memory pin	
	Check and remedy	Clean the memory pin with alcohol.	

* When E7-00 is in the following combination where system memory Slot 2 (inside) and Slot 1 (outside) operate normally but a hard error occurs. (Combination of system memory (slot 1, slot 2))

No.	System memory		Operation guarantee		When turning on the power
	Slot2 (Inside)	Slot1 (Outside)	Hard	Soft	
1	—	—	×	×	Since the machine is not booted, the trouble display is not made.
2	256MB	—	○	○	Normal operation
3	512MB	—	○	○	Normal operation
4	256MB	256MB	○	○	Normal operation
5	512MB	256MB	○	○	Normal operation
6	256MB	512MB	○	○	Normal operation
7	512MB	512MB	○	○	Normal operation
8	—	256MB	○	○	Normal operation
9	—	512MB	○	○	Normal operation

E7-01 System data trouble

Trouble content		ICU data trouble occurs.
Section		MFP
Case 1	Cause	ICU image transfer trouble
	Check and remedy	1) Check the connection state of the MFPcnt PWB connector. 2) Replace the MFPcnt PWB.

E7-03 HDD trouble

Trouble content		HDD connection trouble File control area data trouble (when FAT is broken)
Section		MFP
Case 1	Cause	The HDD is not properly installed to the MFPcnt PWB
	Check and remedy	1) Check installation of the HDD of the MFPcnt PWB. 2) Check connection of the harness of the MFPcnt PWB. 3) Use SIM62-2 and -3 to check read/write from/to the HDD.
Case 2	Cause	The HDD does not work properly.
	Check and remedy	Replace the HDD.
Case 3	Cause	MFPcnt PWB trouble
	Check and remedy	Replace the MFPcnt PWB.

E7-05 Local memory access error

Trouble content		Local memory cannot be accessed.
Section		MFP
Case 1	Cause	Local memory installation abnormality
	Check and remedy	Check the installing state of the local memory.
Case 2	Cause	Dirt on local memory pin
	Check and remedy	Clean the local memory pin with alcohol.
Case 3	Cause	Garbled data
	Check and remedy	1) Use SIM60-01 to check memory read/write. 2) Replace the memory. 3) Replace the MFPcnt PWB.

* Combination where local memory Slot 4 (inside) and Slot 3 (outside) operate normally (Refer to E7-09) but a hard error occurs.

E7-06 Decode error trouble: Compression decode error (A compression file cannot decompressed.)

Trouble content		A decode error occurs when forming an image.
Section		MFP
Case 1	Cause	Compression data abnormality
	Check and remedy	1) Check the installing state of the PWB. (PCI bus) 2) When an error occurs during a FAX job, check the installation of the FAX PWB. In the other cases, check the installation of the MFPcnt PWB and HDD. 3) Replace the MFPcnt PWB.
Case 2	Cause	HDD connection abnormality
	Check and remedy	Check the HDD connection.
Case 3	Cause	Data are garbled in image compression/send.
	Check and remedy	1) Check the installation of the PWB. (PCI bus) 2) When an error occurs during a FAX job, check the installation of the FAX PWB. In the other cases, check the installation of the MFPcnt PWB and HDD. 3) Replace the MFPcnt PWB.
Case 4	Cause	MFPcnt PWB abnormality
	Check and remedy	Replace the MFPcnt PWB.
Case 5	Cause	Local memory access trouble
	Check and remedy	Check and execute remedy similarly to E7-05.

E7-08 Local memory specifications error

Trouble content		DIMM of different specification is detected in the local memory slot.
Section		MFP
Case 1	Cause	DIMM of different specification is installed to the local memory slot.
	Check and remedy	Check the installed DIMM.

* The error occurs when a DIMM which is not recommended by Sharp.

E7-09 Local memory combination error

Trouble content		Local memory slot combination error
Section		MFP
Case 1	Cause	DIMM of other than 256MB is installed to the default slot.
	Check and remedy	Check the combination of installed DIMM.
Case 2	Cause	DIMM of other than 256MB is installed to the expansion slot.
	Check and remedy	Check the combination of installed DIMM.

* When the following combination (E7-09) where operation is not performed properly is used. Local memory (slot 3, slot 4) combination

No.	Local memory		Operation guarantee		When turning on the power
	Slot 4 (Inside)	Slot 3 (Outside)	Hard	Soft	
1	–	–	×	×	E7-09
2	256MB	–	○	○	Normal operation
3	512MB	–	○	×	E7-09
4	256MB	256MB	○	×	E7-09
5	512MB	256MB	○	×	E7-09
6	256MB	512MB	○	○	Normal operation
7	512MB	512MB	○	×	E7-09
8	–	256MB	×	×	E7-09
9	–	512MB	×	×	E7-09

E7-10 Shading trouble (Black correction)

Trouble content		CCD black scan level abnormality when the copy lamp is turned off.
Section		Scanner
Case 1	Cause	Installation error of the CCD unit flat cable
	Check and remedy	Check the installing state of the flat cable to the CCD unit.
Case 2	Cause	CCD unit abnormality
	Check and remedy	Check the CCD unit.
Case 3	Cause	SCU PWB abnormality
	Check and remedy	Check the SCU PWB.

E7-11 Shading trouble (White correction)

Trouble content		CCD white scan level abnormality when the copy lamp is on.
Section		Scanner
Case 1	Cause	Installation error of the CCD unit flat cable
	Check and remedy	Check the installing state of the flat cable to the CCD unit.
Case 2	Cause	Dirt on the mirror, the lens, or the reference white plate.
	Check and remedy	Clean the mirror, the lens, or the reference white plate.
Case 3	Cause	Copy lamp lighting trouble
	Check and remedy	Check the installing state of the flat cable to the copy lamp unit.
Case 4	Cause	CCD unit abnormality
	Check and remedy	Check the CCD unit.
Case 5	Cause	SCU PWB abnormality
	Check and remedy	Check the SCU PWB.

E7-14 SCAN-ASIC trouble

Trouble content		Written register value cannot be read correctly
Section		Scanner
Case 1	Cause	SCU PWB abnormality
	Check and remedy	Check the SCU PWB.

E7-20 LSU BD detection trouble

Trouble content		LSU BD signal is not detected.
Section		PCU
Case 1	Cause	Disconnection or improper connection of harness and connector between LD/BD PWB and LSUcnt PWB
	Check and remedy	Check connection of the harness of each PWB inside the LSU.
Case 2	Cause	1) Optical axis shift 2) BK laser deterioration, power reduction 3) BD PWB trouble
	Check and remedy	1) Use SIM61-1 to check the LSU operation. 2) Replace the LSUcnt/BD PWB. 3) If the trouble cannot be removed by the above 1) to 2), replace the LSU.

E7-21 LSU LD deterioration trouble

Trouble content		The color laser does not light up normally.
Section		PCU
Case 1	Cause	Disconnection or improper connection of harness and connector between LD PWB and LSUcnt PWB
	Check and remedy	Check connection of the harness of each PWB inside the LSU.
Case 2	Cause	Y/M/C laser deterioration
	Check and remedy	1) Use SIM61-1 to check the LSU operation. 2) Replace the LSUcnt PWB. 3) If the trouble cannot be removed by the above 1) to 2), replace the LSU.

E7-28 LSU control ASIC connection abnormality

Trouble content		Access error between the CPU of the PCU PWB and the LSU control ASIC
Section		PCU
Case 1	Cause	<When this trouble occurs in the initial process on turn on the power> Communication connector trouble between the PCU PWB and the LSUcnt PWB (interface PWB). Harness trouble.
	Check and remedy	Check the connector connection between the PCU PWB and the LSUcnt PWB (interface PWB). Check the harness. If the trouble cannot be removed, replace the LSUcnt PWB or the PCU PWB.
Case 2	Cause	<When this trouble occurs on starting printing/during printing, and SIM61-1 is used to check the LSU unit operation for each of B/W and COLOR and the judgment is NG.> Connected the connector between the PCU PWB and the LSUcnt PWB (interface PWB) / Harness trouble
	Check and remedy	Check the harness between the PCU PWB and the LSUcnt PWB (interface PWB). If the trouble cannot be removed, replace the LSUcnt PWB or the PCU PWB.
Case 3	Cause	PCU PWB or LSUcnt PWB (interface PWB) trouble
	Check and remedy	Replace the PCU PWB or the LSUcnt PWB (interface PWB).

E7-29 LSU-ASIC frequency abnormality

Trouble content		Oscillation trouble of the external oscillator used in LSU-ASIC and the internal oscillation circuit
Section		PCU
Case 1	Cause	Trouble of the oscillator on the LSU-ASIC PWB, the resistor and capacitor for the oscillation circuit, and the LSU-ASIC itself.
	Check and remedy	Replace the LSUcnt PWB.

E7-50 Engine connection trouble

Trouble content		Unknown PWB identification information is detected in the PCU PWB.
Section		PCU
Case 1	Cause	A PWB which is incompatible with the machine specifications is connected.
	Check and remedy	1) Replace the PCU PWB. 2) Replace the LSU PWB.
Case 2	Cause	A firmware which is incompatible with the machine specifications is used.
	Check and remedy	Check the kind and the version of the firmware.

E7-55 PWB information sum error (Engine detection)

Trouble content		EEPROM PWB information sum error
Section		PCU
Case 1	Cause	1) EEPROM device error 2) EEPROM device contact failure 3) Device access error due to noises
	Check and remedy	Replace the PCU PWB.

E7-60 Controller connection trouble (Engine detection)

Trouble content		Unknown PWB kind information is detected in the MFPcnt PWB. A PWB/firmware which is not compatible with the machine specifications is connected.
Section		MFP
Case 1	Cause	Controller PWB trouble
	Check and remedy	Replace the controller PWB.
Case 2	Cause	A firmware which is not compatible with the machine specifications is applied.
	Check and remedy	Check the kind and the version of the firmware.

E7-61 Controller connection trouble (Engine)

Trouble content		MFPcnt PWB connection trouble Compatibility trouble between the controller and the engine
Section		MFP
Case 1	Cause	Combination trouble of the controller PWB and the engine
	Check and remedy	Check the controller PWB. Check the combination between the controller PWB and the engine.

E7-62 Controller connection trouble (Scanner)

Trouble content		Controller connection trouble Compatibility trouble between the controller and the scanners
Section		MFP
Case 1	Cause	Combination trouble between the controller PWB and the engine
	Check and remedy	Replace the controller PWB. Check the combination between the controller PWB and the engine.

E7-65 PWB information sum error (Controller detection)

Trouble content		EEPROM PWB information sum error
Section		MFP
Case 1	Cause	1) EEPROM device trouble 2) EEPROM device contact failure 3) Device access error due to noises
	Check and remedy	Replace the MFPcnt PWB.

E7-70 Scanner connection trouble

Trouble content		Unknown identification information is detected in the SCU PWB.
Section		SCU
Case 1	Cause	SCU PWB trouble
	Check and remedy	Replace the SCU PWB.
Case 2	Cause	A firmware which is incompatible with the machine specifications is connected.
	Check and remedy	Check the kind and the version of the firmware.

E7-75 PWB information sum error (Scanner detection)

Trouble content		EEPROM PWB information sum error
Section		SCU
Case 1	Cause	1) EEPROM device trouble 2) EEPROM device contact failure 3) Device access error due to noises
	Check and remedy	Replace the scanner control PWB.

E7-80 Communication trouble between the controller and the scanner

Trouble content		Communication trouble between the MFP and the scanner MFP detection Communication establishment error/Framing/Parity/Protocol error
Section		MFP
Case 1	Cause	SCU PWB connector connection trouble
	Check and remedy	Check the connector connection between the SCU PWB and the MFPcnt PWB.
Case 2	Cause	Harness trouble between the SCU PWB and the MFPcnt PWB
	Check and remedy	Check the harness between the SCU PWB and the MFPcnt PWB.
Case 3	Cause	Broken connector pin of the SCU PWB mother board
	Check and remedy	Check grounding of the machine.

E7-90 Communication trouble between the controller and the engine

Trouble content		Communication trouble between the MFP and the PCU (MFP detection) Communication establishment error/Framing/Parity/Protocol error
Section		MFP
Case 1	Cause	PCU PWB connector connection trouble
	Check and remedy	Check the connector connection between the PCU PWB and the MFPcnt PWB.
Case 2	Cause	Harness trouble between the PCU PWB and the MFPcnt PWB
	Check and remedy	Check the harness between the PCU PWB and the MFPcnt PWB.
Case 3	Cause	Broken connector pin of the PCU PWB mother board
	Check and remedy	Check grounding of the machine.

EE-EC Auto developer adjustment trouble (The sample level for every rotation is other than 128 ± 10).

Trouble content		Auto developer adjustment trouble (The sample level for every rotation is other than 128 ± 10 .) <Detection only with SIM25-2, no trouble memory, only display>
Section		PCU
Case 1	Cause	Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble
	Check and remedy	Use SIM25-2 to execute the auto development adjustment.

EE-EL Auto developer adjustment trouble (overtoner error)

Trouble content		The sample level is 76 or below, or the control voltage is 208V or above. <Detection only with SIM25-2, no trouble memory, only display>
Section		PCU
Case 1	Cause	Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble
	Check and remedy	Use SIM25-2 to execute the auto development adjustment.

EE-EU Auto development adjustment trouble (Under-toner abnormality)

Trouble content		The sample level is 178 or above, or the control voltage is 51V or below. <Detection only with SIM25-2, no trouble memory, only display>
Section		PCU
Case 1	Cause	Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble
	Check and remedy	Use SIM25-2 to execute the auto development adjustment.

F1-00 Finisher communication trouble (Machine side detection)

Trouble content		Communication line test error when turning on the power or after canceling an exclusion simulation. Communication error with the finisher
Section		PCU
Case 1	Cause	Malfunction due to noises
	Check and remedy	Turn OFF/ON the power to cancel.
Case 2	Cause	PCU finisher connector or harness connection error or disconnection
	Check and remedy	Check the connector and harness in the communication line.
Case 3	Cause	Finisher control PWB trouble
	Check and remedy	Replace the finisher control PWB.
Case 4	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the PCU PWB.

F1-02 Saddle finisher transport motor trouble

Trouble content		Transport drive motor trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the transport motor (FFM). Replace the finisher control PWB.

F1-03 Finisher paddle motor trouble (MX-FNX2), finisher swing motor trouble (MX-FNX1)

Trouble content		Paddle motor operation trouble (MX-FNX2) Swing motor operation trouble (MX-FNX1)
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the motor (FPM/FSWM). Replace the finisher control PWB.

F1-08 Finisher stapler shift motor trouble

Trouble content		Stapler shift motor operation trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the staple motor (FSM). Replace the finisher control PWB.

F1-10 Finisher staple motor abnormality

Trouble content		Staple operation trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the staple motor (FFSM). Replace the finisher control PWB.

F1-11 Finisher bundle process motor abnormality

Trouble content		Bundle process motor trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-3 to check the operation of the bundle process motor (FAM). Replace the finisher control PWB.

F1-15 Finisher tray lift motor abnormality

Trouble content		Lift motor trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the tray lift motor (FLM/FTLM). Replace the finisher control PWB.

F1-19 Finisher pre-alignment motor abnormality

Trouble content		Pre-alignment motor trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the pre-alignment motor (FFJM). Replace the finisher control PWB.

F1-20 Finisher after-alignment motor abnormality

Trouble content		After-alignment motor trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the after-alignment motor (FRJM). Replace the finisher control PWB.

F1-21 Finisher fan motor abnormality (MX-FNX1), Finisher interface fan motor abnormality (MX-FNX2)

Trouble content		Cooling fan motor trouble (MX-FNX1) Interface transport fan motor trouble (MX-FNX2)
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation of the fan motor (FFAM/FJFM). Replace the finisher control PWB.

F1-31 Finisher folding sensor trouble (MX-FNX2)

Trouble content		Sensor input value abnormality
Section		PCU
Case 1	Cause	Sensor breakage, harness disconnection, finisher control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-2 to check the operation of the sensor (FFPD). Replace the finisher control PWB.

F1-32 Communication trouble between the finisher and the punch unit (MX-FNX2)

Trouble content		Finisher and punch unit communication trouble (MX-FNX2)
Section		PCU
Case 1	Cause	Malfunction due to noises
	Check and remedy	Cancel by turning OFF/ON the power.
Case 2	Cause	Connector/harness connection error or disconnection between the finisher and the punch unit
	Check and remedy	Check the connector and the harness in the communication line.
Case 3	Cause	Finisher control PWB trouble (MX-FNX2)
	Check and remedy	Replace the finisher control PWB.
Case 4	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the control PWB (PCU) trouble

F1-33 Finisher punch shift motor trouble

Trouble content		Punch shift motor operation abnormality
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble, punch control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-3 to check the operation of the punch shift motor (FPSM). Replace the finisher punch unit (Replace the punch control PWB.).

F1-34 Finisher punch motor trouble

Trouble content		Punch motor operation abnormality
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble, punch control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-3 to check the operation of the punch motor (FPNW). Replace the finisher punch unit (Replace the punch control PWB.).

F1-35 Finisher punch side registration sensor trouble (MX-FNX2)

Trouble content		Sensor input value abnormality
Section		PCU
Case 1	Cause	Sensor breakage, harness disconnection, saddle finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-2 to check the operation of the punch section sensor (FPSPD/FPD1-4). Replace the finisher punch unit (Replace the punch control PWB.).

F1-36 Finisher punch registration sensor trouble (MX-FNX2)

Trouble content		Sensor input value abnormality
Section		PCU
Case 1	Cause	Sensor breakage, harness disconnection, saddle finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-2 to check the operation of the punch timing sensor (FPTD). Replace the finisher punch unit (Replace the punch control PWB.).

F1-37 Finisher backup RAM trouble

Trouble content		Backup RAM data garbled
Section		PCU
Case 1	Cause	Finisher control PWB trouble, malfunction due to electrical noises
	Check and remedy	Replace the finisher control PWB.

F1-38 Finisher punch backup RAM trouble (MX-FNX2)

Trouble content		Punch unit backup RAM data garbled
Section		PCU
Case 1	Cause	Punch control PWB trouble, malfunction due to electrical noises
	Check and remedy	Replace the punch control PWB.

F1-39 Finisher punch dust sensor trouble (MX-FNX2)

Trouble content		Punch dust sensor detection trouble
Section		PCU
Case 1	Cause	Sensor breakage, harness disconnection, finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)
	Check and remedy	Use SIM3-2 to check the operation of the sensor punch dust sensor (FPDD). Replace the finisher control PWB or the punch control PWB.

F1-40 Saddle finisher punch power interruption trouble (MX-FNX2)

Trouble content		When the punch unit power interruption is detected.
Section		PCU
Case 1	Cause	Harness disconnection, punch control PWB trouble
	Check and remedy	Use SIM3-3 to check the operation punch motor (FPNW). Replace the finisher punch unit (Replace the punch control PWB.).

F1-50 Finisher incompatibility trouble

Trouble content		Detection of finisher incompatible with MX-2700**/2300**
Section		PCU
Case 1	Cause	Connection of the AR-F13, etc. which is incompatible with MX-2700**/2300** is detected.
	Check and remedy	Connect the MX-FNX1/MX-FNX2.

F2-39 Process thermistor trouble

Trouble content		Process thermistor open
Section		PCU
Case 1	Cause	Process thermistor harness connection trouble
	Check and remedy	Check the connection of the harness, connector of the process thermistor.
Case 2	Cause	Process thermistor trouble
	Check and remedy	Check the connection of the process thermistor.
Case 3	Cause	PCU PWB trouble
	Check and remedy	Check the PCU PWB.

F2-40 Toner empty sensor abnormality (BLACK)

Trouble content		Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.
Section		PCU
Case 1	Cause	The connector is not installed.
	Check and remedy	Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor.
Case 2	Cause	Connector harness trouble
	Check and remedy	Check the harness disconnection.
Case 3	Cause	Cartridge trouble
	Check and remedy	Check the cartridge connection.

F2-41 Toner empty sensor abnormality (CYAN)

Trouble content		Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.
Section		PCU
Case 1	Cause	The connector is not installed.
	Check and remedy	Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor.
Case 2	Cause	Connector harness trouble
	Check and remedy	Check the harness disconnection.
Case 3	Cause	Cartridge trouble
	Check and remedy	Check the cartridge connection.

F2-42 Toner empty sensor abnormality (MAGENTA)

Trouble content		Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.
Section		PCU
Case 1	Cause	The connector is not installed.
	Check and remedy	Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor.
Case 2	Cause	Connector harness trouble
	Check and remedy	Check the harness disconnection.
Case 3	Cause	Cartridge trouble
	Check and remedy	Check the cartridge connection.

F2-43 Toner empty sensor abnormality (YELLOW)

Trouble content		Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.
Section		PCU
Case 1	Cause	The connector is not installed.
	Check and remedy	Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor.
Case 2	Cause	Connector harness trouble
	Check and remedy	Check the harness disconnection.
Case 3	Cause	Cartridge trouble
	Check and remedy	Check the cartridge connection.

F2-44 Black exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)

Trouble content		The transfer belt surface is scanned by the image density sensor before starting the process control, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the specified range though the sensor gain is adjusted.	
Section		PCU	
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, calibration plate solenoid operation trouble	
	Check and remedy	Use SIM44-2 to execute the process control sensor gain adjustment. If "ERROR" is displayed, check the sensor, the harness, the calibration plate solenoid operation for any trouble. If the adjustment is completed, check the transfer belt surface state.	

F2-45 Color exclusive image density sensor trouble (Calibration plate surface reflection ratio abnormality)

Trouble content		The calibration plate surface is scanned by the image density sensor before starting the process control, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the certain level though the sensor gain is adjusted.	
Section		PCU	
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, calibration plate dirt, calibration plate solenoid operation trouble	
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the calibration plate solenoid operation.	

F2-49 LSU thermistor trouble

Trouble content		The detection temperature is out of the range of 5°C to 55°C.	
Section		PCU	
Case 1	Cause	LSU thermistor harness connection trouble	
	Check and remedy	Check the connection of the LSU thermistor harness and connector. If the trouble cannot be removed, replace the LSU thermistor or the PCU PWB.	
Case 2	Cause	LSU thermistor trouble, PCU PWB trouble	
	Check and remedy	Check the PCU PWB. If the trouble cannot be removed, replace the LSU thermistor or the PCU PWB.	

F2-50 K phase sensor sensing trouble

Trouble content		Detection is made by interruption of light in the sensor section of the projection rib on the drum drive gear to control the BK drum phase. The detection signal cannot be acquired and phase control cannot be made.	
Section		PCU	
Case 1	Cause	Sensor connector connection trouble	
	Check and remedy	Check the sensor connector connection.	
Case 2	Cause	Dirt on the sensor light emitting section, or installation trouble	
	Check and remedy	Check for dirt on the sensor or check the installation state.	
Case 3	Cause	Drum drive gear upper rib breakage, sensor trouble	
	Check and remedy	If there is no trouble in the rib, replace the sensor. (Use SIM30-1 "DHPD_K" to check interruption or transmission of light.)	

F2-51 CL phase sensor sensing trouble

Trouble content		Detection is made by interruption of light in the sensor section of the projection rib on the drum drive gear to control the phases of all the color drums. The detection signal cannot be acquired and phase control cannot be made.
Section		PCU
Case 1	Cause	Sensor connector connection trouble
	Check and remedy	Check the sensor connector connection.
Case 2	Cause	Dirt on the sensor light emitting section, or installation trouble
	Check and remedy	Check for dirt on the sensor or check the installation state.
Case 3	Cause	Drum drive gear upper rib breakage, sensor trouble
	Check and remedy	If there is no trouble in the rib, replace the sensor. (Use SIM30-1 "DHPD_CL" to check interruption or transmission of light.)

F2-58 Process humidity sensor trouble

Trouble content		Process humidity sensor open
Section		PCU
Case 1	Cause	Process humidity sensor harness connection trouble
	Check and remedy	Check the harness and connector connection of the process humidity sensor.
Case 2	Cause	Process humidity sensor trouble
	Check and remedy	Check the process humidity sensor.
Case 3	Cause	PCU PWB trouble
	Check and remedy	Check the PCU PWB.

F2-64 Toner supply abnormality (BLACK)

Trouble content		Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.
Section		PCU
Case 1	Cause	Toner motor section connector harness trouble
	Check and remedy	Check the connector connection of the toner motor section. Check the connector harness (TM) connection to the main PWB.
Case 2	Cause	Toner motor and toner density sensor trouble
	Check and remedy	Check the toner density sensor output. (SIM25-1) Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit. Replace the toner cartridge (CRUM) if necessary. If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit.

F2-65 Toner supply abnormality (CYAN)

Trouble content		Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.
Section		PCU
Case 1	Cause	Toner motor section connector harness trouble
	Check and remedy	Check the connector connection of the toner motor section. Check the connector harness (TM) connection to the main PWB.
Case 2	Cause	Toner motor and toner density sensor trouble
	Check and remedy	Check the toner density sensor output. (SIM25-1) Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit. Replace the toner cartridge (CRUM) if necessary. If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit.

F2-66 Toner supply abnormality (MAGENTA)

Trouble content		Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.
Section		PCU
Case 1	Cause	Toner motor section connector harness trouble
	Check and remedy	Check the connector connection of the toner motor section. Check the connector harness (TM) connection to the main PWB.
Case 2	Cause	Toner motor and toner density sensor trouble
	Check and remedy	Check the toner density sensor output. (SIM25-1) Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit. Replace the toner cartridge (CRUM) if necessary. If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit.

F2-67 Toner supply abnormality (YELLOW)

Trouble content		Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.
Section		PCU
Case 1	Cause	Toner motor section connector harness trouble
	Check and remedy	Check the connector connection of the toner motor section. Check the connector harness (TM) connection to the main PWB.
Case 2	Cause	Toner motor and toner density sensor trouble
	Check and remedy	Check the toner density sensor output. (SIM25-1) Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit. Replace the toner cartridge (CRUM) if necessary. If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit.

F2-70 Toner cartridge improper cartridge detection (BLACK)

Trouble content		Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected.
Section		PCU
Case 1	Cause	An improper cartridge is inserted. Toner cartridge trouble
	Check and remedy	Replace the toner cartridge.

F2-71 Toner cartridge improper cartridge detection (CYAN)

Trouble content		Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected.
Section		PCU
Case 1	Cause	An improper cartridge is inserted. Toner cartridge trouble
	Check and remedy	Replace the toner cartridge.

F2-72 Toner cartridge improper cartridge detection (MAGENTA)

Trouble content		Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected.
Section		PCU
Case 1	Cause	An improper cartridge is inserted. Toner cartridge trouble
	Check and remedy	Replace the toner cartridge.

F2-73 Toner cartridge improper cartridge detection (YELLOW)

Trouble content		Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected.
Section		PCU
Case 1	Cause	An improper cartridge is inserted. Toner cartridge trouble
	Check and remedy	Replace the toner cartridge.

F2-74 Toner cartridge CRUM error (BLACK)

Trouble content		CRUM cannot be read or written.
Section		PCU
Case 1	Cause	Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge.
	Check and remedy	Check the connector and the harness between the PCU and the toner cartridge.
Case 2	Cause	CRUM trouble
	Check and remedy	Replace the toner cartridge.
Case 3	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the PCU PWB.

F2-75 Toner cartridge CRUM error (CYAN)

Trouble content		CRUM cannot be read or written.
Section		PCU
Case 1	Cause	Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge.
	Check and remedy	Check the connector and the harness between the PCU and the toner cartridge.
Case 2	Cause	CRUM trouble
	Check and remedy	Replace the toner cartridge.
Case 3	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the PCU PWB.

F2-76 Toner cartridge CRUM error (MAGENTA)

Trouble content		CRUM cannot be read or written.
Section		PCU
Case 1	Cause	Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge.
	Check and remedy	Check the connector and the harness between the PCU and the toner cartridge.
Case 2	Cause	CRUM trouble
	Check and remedy	Replace the toner cartridge.
Case 3	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the PCU PWB.

F2-77 Toner cartridge CRUM error (YELLOW)

Trouble content		CRUM cannot be read or written.
Section		PCU
Case 1	Cause	Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge.
	Check and remedy	Check the connector and the harness between the PCU and the toner cartridge.
Case 2	Cause	CRUM trouble
	Check and remedy	Replace the toner cartridge.
Case 3	Cause	Control PWB (PCU) trouble
	Check and remedy	Replace the PCU PWB.

F2-78 Registration exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)

Trouble content		The transfer belt surface is scanned by the image density sensor before starting the registration, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the specified range though the sensor gain is adjusted.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, calibration plate solenoid operation trouble
	Check and remedy	Check the sensor and the harness. Check the calibration plate solenoid operation and the transfer belt surface state. If the trouble is not cleared, replace the image sensor exclusively used for registration, replace the transfer belt, replace the calibration plate, replace the solenoid, or replace the PCU PWB according to the check result.

F2-80 Half tone process control 1st patch reference value trouble (BLACK)

Trouble content		The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in BLACK.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-81 Half tone process control 1st patch reference value trouble (CYAN)

Trouble content		The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in CYAN.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-82 Half tone process control 1st patch reference value trouble (MAGENTA)

Trouble content		The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in MAGENTA.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-83 Half tone process control 1st patch reference value trouble (YELLOW)

Trouble content		The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in YELLOW.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-84 Half tone process control 2nd patch reference value trouble (BLACK)

Trouble content		The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in BLACK.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-85 Half tone process control 2nd patch reference value trouble (CYAN)

Trouble content		The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in CYAN.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-86 Half tone process control 2nd patch reference value trouble (MAGENTA)

Trouble content		The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in MAGENTA.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-87 Half tone process control 2nd patch reference value trouble (YELLOW)

Trouble content		The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in YELLOW.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble
	Check and remedy	Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.

F2-92 High-density process control density correction error (CYAN)

Trouble content		The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble
	Check and remedy	1) Use SIM44-2 to execute the process control sensor gain adjustment. 2) If an error occurs, check the sensors and the harnesses. 3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc.

F2-93 High-density process control density correction error (MAGENTA)

Trouble content		The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble
	Check and remedy	1) Use SIM44-2 to execute the process control sensor gain adjustment. 2) If an error occurs, check the sensors and the harnesses. 3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc.

F2-94 High-density process control density correction error (YELLOW)

Trouble content		The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.
Section		PCU
Case 1	Cause	Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble
	Check and remedy	1) Use SIM44-2 to execute the process control sensor gain adjustment. 2) If an error occurs, check the sensors and the harnesses. 3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc.

F3-12 Main unit tray 1 lift-up trouble

Trouble content		LUD1 does not turn ON within the specified time.
Section		PCU
Case 1	Cause	LUD1 sensor trouble, harness connection trouble between PCU PWB, the lift-up unit, and the paper feed unit.
	Check and remedy	Check the harness and the connector of LUD1.
Case 2	Cause	Tray 1 lift-up motor trouble
	Check and remedy	Check the lift-up unit.

F3-22 Main unit tray 2 lift-up trouble

Trouble content		LUD2 does not turn ON within the specified time.
Section		PCU
Case 1	Cause	LUD2 sensor trouble, harness connection trouble between PCU PWB, the lift-up unit, and the paper feed unit.
	Check and remedy	Check the harness and the connector of LUD2.
Case 2	Cause	Tray 2 lift-up motor trouble
	Check and remedy	Check the lift-up unit.

H2-00 Non-contact thermistor detection thermistor open (TH_UM_AD2)

Trouble content		Thermistor open
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed
	Check and remedy	Check the harness and the connector from the thermistor to the control PWB.

H2-01 Lower thermistor open (TH_LM)

Trouble content		Thermistor open
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed
	Check and remedy	Check the harness and the connector from the thermistor to the control PWB.

H2-02 Sub thermistor open (TH_US)

Trouble content		Thermistor open
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed
	Check and remedy	Check the harness and the connector from the thermistor to the control PWB.

H2-03 Non-contact thermistor compensation thermistor open (TH_UM_AD1)

Trouble content		Thermistor open
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble
	Check and remedy	Check the harness and the connector from the thermistor to the control PWB.

H3-00 Fusing section high temperature trouble (TH_UM)

Trouble content		The fusing temperature inside the PWB exceeds the specified level.
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble
	Check and remedy	1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H3-01 Fusing section high temperature trouble (TH_LM)

Trouble content		The fusing temperature inside the PWB exceeds the specified level.
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble
	Check and remedy	1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H3-02 Sub thermistor fusing section high temperature trouble (TH_US)

Trouble content		The fusing temperature inside the PWB exceeds the specified level.
Section		PCU
Case 1	Cause	Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble
	Check and remedy	1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H4-00 Fusing section low temperature trouble (TH_UM_AD2)

Trouble content		The temperature does not reach the specified level within the specified time after turning on the power relay.
Section		PCU
Case 1	Cause	Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble
	Check and remedy	<ol style="list-style-type: none"> 1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage. Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H4-01 Fusing section low temperature trouble (TH_LM)

Trouble content		The temperature does not reach the specified level within the specified time after turning on the power relay.
Section		PCU
Case 1	Cause	Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble
	Check and remedy	<ol style="list-style-type: none"> 1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage. Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H4-02 Sub thermistor fusing section low temperature trouble (TH_US)

Trouble content		The temperature does not reach the specified level within the specified time after turning on the power relay.
Section		PCU
Case 1	Cause	Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble
	Check and remedy	<ol style="list-style-type: none"> 1) Use SIM5-2 to check blinking of the heater lamp.. 2) If it blinks normally, check the thermistor and the harness. Check the control PWB thermistor input circuit section. 3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage. Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H4-30 Thermistor differential input trouble (TH_UM)

Trouble content		TH_UM_AD1 and TH_UM_AD2 do not exceed the specified level (50 count with the AD value) within 1minute after HL_UM is turned on.
Section		PCU
Case 1	Cause	HL_UM does not turn on. Thermistor trouble, harness trouble, PCU PWB trouble
	Check and remedy	<ol style="list-style-type: none"> 1) Use SIM5-2 to check blinking of the heater lamp. 2) If it blinks normally, check the thermistor and the harness. Check the PCU PWB thermistor input circuit section. 3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage. Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit. 4) Use SIM14 to cancel the trouble.

H5-01 5 continuous detection of POD1 not-reached jam

Trouble content		5 continuous detection of POD1 not-reached jam
Section		PCU
Case 1	Cause	The fusing jam is not removed completely. (Jam paper remains.)
	Check and remedy	Check the fusing section for jam paper. (winding, etc.)
Case 2	Cause	POD1 sensor trouble or harness connection trouble
	Check and remedy	Check the POD1 sensor harness. Use SIM14 to cancel the trouble.
Case 3	Cause	Fusing unit installation trouble
	Check and remedy	Check the fusing unit installation.

L1-00 Mirror feed trouble

Trouble content		Mirror feed is not completed within the specified time.
Section		Scanner
Case 1	Cause	Mirror unit trouble, mirror wire disengagement
	Check and remedy	Use SIM1-1 to check the mirror operation.

L3-00 Mirror return trouble

Trouble content		Mirror return is not completed within the specified time.
Section		Scanner
Case 1	Cause	Mirror unit trouble, mirror wire disengagement
	Check and remedy	Use SIM1-1 to check the mirror operation.

L4-02 Paper feed motor lock trouble

Trouble content		When the paper feed motor is rotated in warming up or in canceling a jam and the lock signal is not detected within 1sec.
Section		PCU
Case 1	Cause	Paper feed motor trouble, harness connection trouble between PCU PWB and paper feed motor, control circuit trouble
	Check and remedy	Use SIM6-1 to check the paper feed motor operation. Check the harness and the connector between the PCU PWB and the paper feed motor.

L4-04 Developing motor trouble (BLACK)

Trouble content		The motor lock signal is detected during rotation of the developing motor.
Section		PCU
Case 1	Cause	Harness connection trouble between the PCU PWB and the developing motor.
	Check and remedy	Check the harness and the connector between the PCU PWB and the developing motor.
Case 2	Cause	Developing motor trouble, control circuit trouble
	Check and remedy	Use SIM25-1 to check the operation of the developing motor.

L4-05 Developing motor trouble (COLOR)

Trouble content		The motor lock signal is detected during rotation of the developing motor.
Section		PCU
Case 1	Cause	Harness connection trouble between the PCU PWB and the developing motor.
	Check and remedy	Check the harness and the connector between the PCU PWB and the developing motor.
Case 2	Cause	Developing motor trouble, control circuit trouble
	Check and remedy	Use SIM25-1 to check the operation of the developing motor.

L4-06 Transfer belt separation position sensor trouble

Trouble content		When separating the primary transfer belt unit, change in the separation position sensor characteristics is not detected within the specified time.
Section		PCU
Case 1	Cause	Harness connection trouble between the PCU PWB and the separation position sensor
	Check and remedy	Check the harness between the PCU PWB and the separation position sensor.
Case 2	Cause	The belt position sensor is not interrupted or it is always interrupted. Belt separation clutch operation trouble
	Check and remedy	Use SIM6-3 to check the belt separation operation.
Case 3	Cause	The primary transfer belt unit is not installed.
	Check and remedy	Install the primary transfer belt.

L4-11 Shift motor trouble

Trouble content		When the shift motor is initialized, no characteristics change of the shifter home position sensor is not detected within the specified time.
Section		PCU
Case 1	Cause	Shift motor trouble
	Check and remedy	Use SIM6-1 to check the operation of the shift motor.
Case 2	Cause	Harness connection trouble between the PCU PWB and the shift motor, control circuit trouble
	Check and remedy	Use SIM30-1 to check the shifter home position sensor. Check the harness and the connector between the PCU PWB and the shift motor.
Case 3	Cause	When the finisher is installed with the finisher connector disconnected and when the finisher communication trouble occurs.
	Check and remedy	Connect the finisher connector. When the communication trouble occurs between the PCU and the finisher, refer to the content of F1-00.

L4-30 Controller fan/HDD fan motor trouble

Trouble content		1) The motor lock signal is detected during rotation of the controller fan motor. 2) The motor lock signal is detected during rotation of the HDD fan motor.
Section		MFP
Case 1	Cause	Fan motor trouble
	Check and remedy	Use SIM6-2 to check the operation of the fan motor.
Case 2	Cause	Harness connection trouble between the mother PWB and the fan motor.
	Check and remedy	Check the harness and the connector between the mother PWB and the fan motor.
Case 3	Cause	Control circuit trouble
	Check and remedy	Replace the controller PWB.
Case 4	Cause	Mother PWB trouble.
	Check and remedy	Replace the mother PWB.

L4-31 Paper exit cooling fan trouble

Trouble content		When the paper exit cooling fan is operated, the fan operation signal is not detected within the specified time.
Section		PCU
Case 1	Cause	Fan connector disconnection
	Check and remedy	Check the harness and the connector between the PCU PWB and the fan.
Case 2	Cause	Fan does not rotate because of other trouble.
	Check and remedy	Use SIM6-2 to check that the fan is rotation actually.

L4-32 Power cooling fan/ozone exhaust fan trouble

Trouble content		When the power cooling fan/ozone exhaust fan is operated, the fan operation signal is not detected within the specified time.
Section		PCU
Case 1	Cause	Power cooling fan or ozone exhaust fan connector disconnection
	Check and remedy	Check the harness and the connector between the PCU PWB and the fan.
Case 2	Cause	Fan does not rotate because of other trouble
	Check and remedy	Use SIM6-2 to check that the fan is actually rotating.

L6-10 Polygon motor lock detection

Trouble content		It is judged that the LSU polygon motor lock signal is not outputted, and the lock signal is checked after 7 sec from starting rotation of the polygon motor and it is judged that the polygon motor does not rotate properly.
Section		LSU
Case 1	Cause	Disconnection of the LSU connector or the LSU inside harness, or breakage
	Check and remedy	Check connection of the harness and the connector. If the trouble cannot be removed, replace the LSUcnt PWB or the LSU.
Case 2	Cause	Polygon motor trouble, LSU PWB trouble
	Check and remedy	Use SIM61-1 to check the operation of the polygon motor. If the trouble cannot be removed, replace the LSUcnt PWB or the LSU.

L8-01 No full wave signal

Trouble content		No full wave signal is detected.
Section		PCU
Case 1	Cause	Harness trouble
	Check and remedy	Check connection of the harness and the connector.
Case 2	Cause	Power unit trouble
	Check and remedy	Replace the power unit.
Case 3	Cause	PCU PWB trouble
	Check and remedy	Replace the PCU PWB.

L8-02 Full wave signal width abnormality

Trouble content		The full wave signal is judged as frequency abnormality. (The detection frequency is judged as 65Hz or above or 45Hz or less.)
Section		PCU
Case 1	Cause	Harness trouble
	Check and remedy	Check the harness and the connector connection.
Case 2	Cause	Power unit trouble
	Check and remedy	Replace the power unit.
Case 3	Cause	PCU PWB trouble
	Check and remedy	Replace the PCU PWB.

L8-20 Power controller communication trouble

Trouble content		Communication establishment error/Framing/Parity/Protocol error
Section		MFP
Case 1	Cause	Connector connection trouble between the mother board PWB and the MFPcnt PWB. MFPcnt PWB mother board connector pin breakage
	Check and remedy	Check the connector connection between the mother board PWB and the MFPcnt PWB. Check grounding of the machine.
Case 2	Cause	Mother PWB trouble
	Check and remedy	Replace the mother PWB.
Case 3	Cause	Mother PWB jumper error
	Check and remedy	Set the mother PWB jumper to the Default side.

PC--- Personal counter not installed

Trouble content		The personal counter is not installed.
Section		MFP
Case 1	Cause	The personal counter is not installed.
	Check and remedy	Install the personal counter.

U1-01 Battery trouble

Trouble content		Backup SRAM battery voltage fall
Section		MFP
Case 1	Cause	1) Battery life 2) Battery circuit abnormality
	Check and remedy	Check that the battery voltage is about 2.5V or above.

U2-00 EEPROM read/write error (MFP detection)

Trouble content		EEPROM device read/write error
Section		MFP
Case 1	Cause	EEPROM device trouble
	Check and remedy	Replace the EEPROM device.
Case 2	Cause	EEPROM device contact failure
	Check and remedy	Check that EEPROM device is properly inserted.
Case 3	Cause	Device access error due to electrical noises
	Check and remedy	Replace the MFPcnt PWB.

U2-05 HDD/Flash/EEPROM data discrepancy

Trouble content		A HDD or Flash memory for user authentication different from that used before turn off the power is installed.
Section		MFP
Case 1	Cause	HDD replacement or Flash memory replacement
	Check and remedy	Initialize the authentication information with SIM16, and import the backup data (exported data) if any.

U2-10 SRAM user authentication index check sum error

Trouble content		User index information (basic data of user authentication) check sum error on the SRAM
Section		MFP
Case 1	Cause	1) SRAM trouble 2) Hang-up of the control circuit due to electrical noises 3) MFPcnt PWB SRAM access circuit trouble
	Check and remedy	Use SIM16 to cancel U2 trouble.

U2-11 EEPROM check sum error (MFP detection)

Trouble content		Counter information check sum error on the EEPROM
Section		MFP
Case 1	Cause	1) EEPROM device trouble 2) EEPROM device contact failure 3) Device access error due to electrical noises
	Check and remedy	Use SIM16 to cancel U2 trouble.

U2-22 SRAM memory check sum error

Trouble content		MFPcnt PWB SRAM memory check sum error
Section		MFP
Case 1	Cause	SRAM trouble
	Check and remedy	1) Initialize the communication management table registered in SRAM and the FAX soft switch. 2) Since the registered contents have been deleted, register them again.
Case 2	Cause	Control circuit hang-up due to electrical noises
	Check and remedy	Use SIM16 to cancel U2 trouble.
Case 3	Cause	MFPcnt PWB SRAM access circuit trouble
	Check and remedy	Replace the MFPcnt PWB.

U2-23 MFPC section SRAM memory individual data check sum error

Trouble content		MFPcnt PWB SRAM memory individual data check sum error (Communication management table, sender registration data, etc.)
Section		MFP
Case 1	Cause	SRAM trouble
	Check and remedy	1) Turn OFF/ON the power to initialize the data related to the check sum error automatically. 2) Since the registered contents have been deleted, register them again.
Case 2	Cause	Control circuit hang-up due to electrical noises
	Check and remedy	Use SIM16 to cancel U2 trouble.
Case 3	Cause	MFPcnt PWB SRAM access circuit trouble
	Check and remedy	Replace the MFPcnt PWB.

U2-24 SRAM memory user authentication counter check sum error

Trouble content		Check sum error of the user counter on SRAM
Section		MFP
Case 1	Cause	1) SRAM trouble 2) Control circuit hang-up due to electrical noises 3) MFPcnt PWB SRAM access circuit trouble
	Check and remedy	Use SIM16 to cancel U2 trouble.

U2-25 Flash memory user authentication counter check sum error

Trouble content		Check sum error of the user authentication counter on FLASH
Section		MFP
Case 1	Cause	Flash trouble. Control circuit hang-up due to electrical noises MFPcnt PWB FLASH access circuit trouble.
	Check and remedy	Use SIM16 to recalculate the check sum of the user counter and save the normal sum value.

U2-30 Serial number data discrepancy (MFP ↔ PCU)

Trouble content		The serial number stored in the PCU differs from that stored in the MFP.
Section		MFP
Case 1	Cause	EEPROM is not changed when the PCU/MFPcnt PWB is replaced.
	Check and remedy	1) Check that EEPROM is properly set. 2) Check that EEPROM on the previous PWB is inserted to the newly installed PWB.

U2-50 HDD section individual data check sum error

Trouble content		MFPcnt HDD individual data check sum error (One-touch, group, program, etc.)
Section		MFP
Case 1	Cause	Write/read error to/from HDD
	Check and remedy	1) Turn OFF/ON the power to initialize the data related to the check sum error contents. 2) Since the registered contents have been deleted, register them again. 3) If the trouble is not canceled, replace the HDD.
	Case 2	Cause
Case 2	Check and remedy	Use SIM16 to cancel U2 trouble.
	Case 3	Cause
Check and remedy		Replace the MFPcnt PWB.

U2-80 EEPROM read/write error (SCU detection)

Trouble content		1) EEPROM version error 2) Write error to EEPROM
Section		Scanner
Case 1	Cause	EEPROM trouble, installation of EEPROM which is not initialized
	Check and remedy	Check that EEPROM is properly set.
Case 2	Cause	SCU PWB EEPROM access circuit trouble
	Check and remedy	To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the SCU PWB. Use SIM16 to cancel the trouble.

U2-81 Adjustment value check sum error (SCU detection)

Trouble content		EEPROM (SCU) check sum error
Section		Scanner
Case 1	Cause	Control circuit hang-up due to electrical noises
	Check and remedy	Use SIM16 to cancel U2 trouble.
Case 2	Cause	EEPROM trouble
	Check and remedy	To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the SCU PWB. Use SIM16 to cancel the trouble.
Case 3	Cause	SCU PWB EEPROM access circuit trouble
	Check and remedy	Check that EEPROM is properly set.

U2-90 EEPROM read/write error (PCU detection)

Trouble content		EEPROM version error, write error to EEPROM
Section		PCU
Case 1	Cause	EEPROM trouble, installation of EEPROM which is not initialized
	Check and remedy	Check that EEPROM is properly set.
Case 2	Cause	PCU PWB EEPROM access circuit trouble
	Check and remedy	To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the PCU PWB. Use SIM16 to cancel the trouble.

U2-91 EEPROM (PCU) check sum error

Trouble content		Check sum error of adjustment value (PCU)
Section		PCU
Case 1	Cause	Control circuit hang-up due to electrical noises
	Check and remedy	Use SIM16 to cancel the trouble.
Case 2	Cause	EEPROM trouble.
	Check and remedy	Check that EEPROM is properly set.
Case 3	Cause	PCU PWB EEPROM access circuit trouble
	Check and remedy	To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the PCU PWB.

U6-00 Desk communication trouble

Trouble content		Desk communication error, communication line test error after turning on the power or canceling the exclusive simulation
Section		PCU
Case 1	Cause	Connector and harness connection trouble or disconnection, desk control PWB trouble, control PWB (PCU) trouble, malfunction due to electrical noises
	Check and remedy	Cancel the trouble by turning OFF/ON. Check the connector and the harness of the communication line.

U6-01 Tray 1 lift-up trouble

Trouble content		DLUD1 does not turn ON within the specified time.
Section		PCU
Case 1	Cause	DLUD1 sensor trouble, tray 1 lift-up motor trouble, desk PWB, lift-up unit, paper feed unit harness connection trouble
	Check and remedy	Check DLUD1 and its harness and connector. Check the lift-up unit.

U6-02 Tray 2 lift-up trouble

Trouble content		DLUD2 does not turn ON within the specified time.
Section		PCU
Case 1	Cause	DLUD2 sensor trouble, tray 2 lift-up motor trouble, desk PWB, lift-up unit, paper feed unit harness connection trouble
	Check and remedy	Check DLUD2 and its harness and connector. Check the lift-up unit.

U6-09 LCC lift motor trouble

Trouble content		<ul style="list-style-type: none"> The encoder input value is not changed in 0.13sec (1st time)/0.5sec (2nd time and later) after rotation of the motor. The motor is rotated for 18sec or more. The encoder is changed after passing a certain time from stopping the motor. (2sec, 10 count or more)
Section		PCU
Case 1	Cause	Sensor trouble, LCC control PWB trouble, gear breakage, lift motor trouble
	Check and remedy	Use SIM4-2 and 4-3 to check the operation of the sensor and the lift motor. Use SIM15 to cancel the trouble.

U6-10 Desk transport motor trouble

Trouble content		Desk transport motor operation trouble
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, overcurrent to the motor, console finisher control PWB trouble
	Check and remedy	Use SIM 4-3 to check the operation of the desk transport motor.

U6-20 LCC communication trouble

Trouble content		LCC communication error. Communication line test error after turning ON the power or canceling the exclusive simulation. LCC and machine model codes discrepancy error
Section		PCU
Case 1	Cause	Connector and harness connection trouble or disconnection, LCC control PWB trouble, control PWB (PCU) trouble, malfunction due to electrical noises
	Check and remedy	Turn OFF/ON the power to cancel the trouble. Check the connector and the harness of the communication line.

U6-21 LCC transport motor trouble

Trouble content		<ul style="list-style-type: none"> The encoder input value is not changed in 0.06sec after turning on the motor. The encoder input value is changed after a certain time from turning OFF the motor. (After 5sec, count is made for 0.1sec to get 100 or more count.)
Section		PCU
Case 1	Cause	Motor lock, motor RPM abnormality, an overcurrent to the motor, LCC control PWB trouble
	Check and remedy	Use SIM4-3 to check the operation of the transport motor.

U6-22 LCC 24V power abnormality

Trouble content		DC24V power is not supplied to LCC.
Section		PCU
Case 1	Cause	Connector and harness connection trouble or disconnection, LCC control PWB trouble, power unit trouble
	Check and remedy	Check the connector and the harness of the power line. Check that the power unit and the LCC control PWB is of 24V.

U6-50 Desk incompatibility trouble

Trouble content		Detection of desk connection incompatible with the MX-2300/2700 **
Section		PCU
Case 1	Cause	Connection of a desk which is incompatible with the MX-2300/2700 ** is detected.
	Check and remedy	Connect the MX-DEX1/DEX2.

U6-51 LCC incompatibility trouble

Trouble content		Detection of LCC connection which is incompatible with the MX-2300/2700 **.
Section		PCU
Case 1	Cause	Connection of the LCC, which is incompatible with the MX-2300/2700 ** is detected.
	Check and remedy	Connect the MX-LCX1.

UC-02 CPT-ASIC abnormality

Trouble content		CPT-ASIC access error (When the ASIC does not operate normally.)
Section		Scanner
Case 1	Cause	CPT-ASIC abnormality, SCU PWB abnormality
	Check and remedy	Turn OFF/ON the power several times. If the trouble still occurs, replace the SCU PWB or the CPT-ASIC.

UC-20 Document control module trouble

Trouble content		Communication error between SCU and DOCC Communication line test error when turning on the power or after canceling an exclusion simulation.
Section		Scanner
Case 1	Cause	Connector or harness connection error or disconnection
	Check and remedy	Check the connector and harness in the communication line.
Case 2	Cause	Control PWB (SCU) trouble, DOCC PWB trouble.
	Check and remedy	Replace the SCU PWB or the DOCC PWB.
Case 3	Cause	Malfunction due to electrical noises.
	Check and remedy	Turn OFF/ON the power to electrical cancel the trouble.