

SHARP TROUBLE & ERROR CODES

MX-M350N, MX-M350U, MX-M450N, MX-M450U

[11] TROUBLE CODES

1. General

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.

- 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 of a consumable part.)

2. Trouble codes list

Trouble codes	Contents	Remark	Trouble detection
C1 00	MC trouble		PCU
E6	11 CSI shading trouble (White correction)	When the scanner is installed	SCANNER
	14 CIS communication trouble	When the scanner is installed	SCANNER
E7	01 System data trouble		ICU
	02 Laser trouble		PCU
	03 HDD trouble	With HDD installed	ICU
	06 Decode error trouble		ICU
	10 Shading trouble (Black correction)	When the scanner is installed	SCANNER
	11 Shading trouble (White correction all pixel adjustment)	When the scanner is installed	SCANNER
	14 CCD communication trouble	When the scanner is installed	SCANNER
	17 SPF scanning position adjustment trouble (Detected only when executing an adjustment SIM.)		
	50 LSU connection trouble		PCU
	60 Controller skating trouble		
	80 Communication trouble (ICU detection) between ICU and scanner	When the scanner is installed	ICU
90 Communication trouble (ICU detection) between ICU and PCU	When the scanner is installed	ICU	
F1 00	Finisher communication trouble	With Finisher installed	PCU
	Mail-bin stacker communication trouble	With Mail bin stacker installed	PCU

Trouble codes	Contents	Remark	Trouble detection
F1 02	Finisher transport motor abnormality	With Finisher installed	PCU
	Mail-bin stacker transport motor abnormality	With Mail bin stacker installed	
03	Console finisher paddle motor trouble	With Console Finisher installed	PCU
06	Console finisher slide motor trouble	With Console Finisher installed	PCU
08	Finisher staple shift motor trouble	With Finisher installed	PCU
10	Finisher stapler motor trouble	With Finisher installed	PCU
	Console finisher stapler motor trouble	With Console Finisher installed	PCU
11	Finisher bundle exit motor trouble	With Finisher installed	PCU
	Console finisher bundle exit motor trouble	With Console Finisher installed	PCU
12	Mail-bin stacker gate trouble	With Mail bin stacker installed	PCU
15	Finisher lift motor trouble	With Finisher installed	PCU
	Console finisher lift motor trouble	With Console Finisher installed	PCU
19	Finisher front alignment motor trouble	With Finisher installed	PCU
	Console finisher front alignment motor trouble	With Console Finisher installed	PCU
20	Finisher rear alignment motor trouble	With Finisher installed	PCU
	Console finisher rear alignment motor trouble	With Console Finisher installed	PCU
30	Console finisher communication trouble	With Console Finisher installed	PCU
31	Console finisher fold sensor trouble	With Console Finisher installed	PCU
32	Communication trouble between the console finisher and the punch unit.	With Console Finisher installed	PCU
33	Console finisher punch side registration motor trouble	With Console Finisher installed	PCU
34	Console finisher punch motor trouble	With Console Finisher installed	PCU
35	Console finisher punch side registration sensor trouble	With Console Finisher installed	PCU

Trouble codes	Contents	Remark	Trouble detection
F1	36 Console finisher punch timing sensor trouble	With Console Finisher installed	PCU
	37 Console finisher backup RAM trouble	With Console Finisher installed	PCU
	38 Console finisher punch backup RAM trouble	With Console Finisher installed	PCU
	39 Console finisher punch dust sensor trouble	With Console Finisher installed	PCU
	40 Console finisher punch power interruption trouble	With Console Finisher installed	PCU
	80 Finisher power abnormality	With Finisher installed	PCU
		Mail-bin stacker power abnormality	With Mail bin stacker installed
	81 Console finisher transport motor abnormality	With Console Finisher installed	PCU
	87 Finisher staple rotation motor trouble	With Finisher installed	
F2	00 Toner control sensor open/sensor trouble		PCU
	02 Toner supply abnormality		PCU
	04 Improper cartridge (life cycle error, etc.)		PCU
	05 CRUM error		PCU
	06 CRUM ID error		PCU
	39 Process thermistor trouble		PCU
F3	12 Machine no. 1 tray lift-up trouble		PCU
	22 Machine tray 2 lift-up trouble	Multi-purpose tray	PCU
F6	00 Communication trouble (ICU detection) between ICU and FAX	When the Fax board is installed	ICU
	01 FAX expansion flash memory abnormality (ICU detection)	When the Fax board is installed	ICU
	04 FAX modem operation abnormality	When the Fax board is installed	FAX
	20 FAX write protect cancel	When the Fax board is installed	FAX
	21 Combination abnormality of the TEL/LIU PWB and the FAX soft switch	When the Fax board is installed	FAX
	97 FAX-BOX skating trouble	When the Fax board is installed	FAX
	98 Combination error of the FAX-BOX destination information and the machine destination information	When the Fax board is installed	FAX
F7	01 FAX board EEPROM read/write error	When the Fax board is installed	FAX
H2	00 Thermistor open (HL1)		PCU
	01 Thermistor open (HL2)		PCU

Trouble codes	Contents	Remark	Trouble detection
H3	00 Fusing section high temperature trouble (HL1)		PCU
	01 Fusing section high temperature trouble (HL2)		PCU
H4	00 Fusing section low temperature trouble (HL1)		PCU
	01 Fusing section low temperature trouble (HL2)		PCU
H5	01 5-time continuous POD1 not-reaching jam detection		PCU
L1	00 Scanner feed trouble	When the scanner is installed	SCANNER
L3	00 Scanner return trouble	When the scanner is installed	SCANNER
L4	01 Main motor lock detection		PCU
	02 Drum motor lock detection		PCU
	30 Controller fan motor lock detection		
L6	10 Polygon motor lock detection		PCU
L8	01 No fullwave signal		PCU
	02 Full wave signal width abnormality		PCU
U1	01 FAX battery abnormality	With FAX board installed	Controller
	02 RTC read abnormality (common with FAX, on ICU PWB)	When the Fax board is installed	ICU
U2	00 EEPROM read/write error (ICU)		Controller
	11 Counter check sum error (ICU)		Controller
	12 Adjustment value check sum error (ICU)		Controller
	22 SRAM memory check sum error (ICU)		ICU
	23 SRAM memory individual data check sum error (ICU)		
	50 HD section individual data check sum error (ICU)		
	80 EEPROM read/write error (Scanner)	When the scanner is installed	SCANNER
	81 Memory check sum error (Scanner)	When the scanner is installed	SCANNER
	90 EEPROM read/write error (PCU)		PCU
91 Memory check sum error (PCU)		PCU	
U6	00 Desk/LCC communication trouble	With Paper feed desk installed	PCU
	01 Desk/LCC No. 1 tray lift-up trouble	With Paper feed desk installed	PCU
	02 Desk No. 2 tray/LCC1 lift-up trouble	With Paper feed desk installed	PCU
	03 Desk No. 3 tray/LCC2 lift-up trouble	With Paper feed desk installed	PCU
	10 Desk/LCC transport motor trouble	With Paper feed desk installed	PCU

Trouble codes	Contents	Remark	Trouble detection
U7 00	RIC communication trouble		Controller
CH --	Door open (CH ON)		PCU
	00 No developer cartridge		PCU
	01 No toner cartridge		PCU
	02 No drum cartridge		PCU
EE EL	Auto developer adjustment trouble (Over-toner)	Only during DIAG	PCU
	EU Auto developer adjustment trouble (Under-toner)	Only during DIAG	PCU
PC --	Personal counter not installed		Controller
PF --	RIC copy inhibit signal is received.		Controller
-- --	Auditor not ready		Controller

3. Details of trouble codes

MAIN	SUB	Details	
C1	00	Content	MC trouble
		Detail	Main charger output abnormality (Output open) Trouble signal is outputted from the high voltage transformer.
		Cause	The main charger is not installed properly. The main charger is not assembled properly. Disconnection of connector of high voltage transformer. High voltage harness disconnection or breakage.
		Check and remedy	Use the SIM 8-2 to check the main charger output. Check for disconnection of the main charger. Replace the high voltage unit.
E6	11	Content	CSI shading trouble (White correction)
		Details	The CIS white reference plate scan level is abnormal when the lamp is on.
		Cause	Abnormal harness installation to CIS unit Dirt on the white reference plate. CIS lighting error CIS unit installation trouble CIS unit abnormality Scanner PWB abnormality
	Check & Remedy	Clean the white reference plate. Check CIS light quantity (SIM 5-3) and lighting. Check CIS unit harness. Check scanner PWB.	
	14	Content	CIS communication trouble
		Details	Communication trouble (clock sync) between scanner PWB and CIS-ASIC
Cause		Abnormal harness installation to CIS unit CIS unit abnormality Scanner PWB abnormality	
Check & Remedy	Check CIS unit harness. Check CIS unit. Check scanner PWB.		

MAIN	SUB	Details	
E7	01	Content	System data trouble
		Detail	When in data storage/acquiring of the HDD system area, the HDD responds an error and does not respond for 30sec, it is judged as a trouble.
		Cause	The HDD is not properly installed to the ICU PWB. The HDD does not work for the ICU PWB. ICU PWB abnormality
		Check and remedy	Check installation of the HDD to the ICU PWB. Check harness connection of the HDD from the ICU PWB. Use SIM62-2, 3 to check the HDD read/write. Replace the HDD. Replace the ICU PWB.
E7	02	Content	Laser trouble
		Detail	BD signal from LSU is kept OFF, or ON.
		Cause	The connector of LSU or the harness in LSU is disconnected or broken. The polygon motor does not rotate normally. The laser home position sensor in LSU is shifted. The proper voltage is not supplied to the power line for laser. Laser emitting diode trouble PCU PWB trouble ICU PWB trouble
	Check and remedy	Check for disconnection of the LSU connector. Use SIM 61-1 to check LSU operation. Check that the polygon motor rotates normally or not. Check light emission of laser emitting diode. Replace the LSU unit. Replace the PCU PWB. Replace the ICU PWB.	
	03	Content	HDD trouble
		Detail	HDD connection failure If the HDD responds an error or does not respond for 30sec, it is judged as an error. (Other than the system area) Data abnormality in the file management area (when the cluster chain is broken)
Cause		HDD is not installed properly to the ICU PWB. HDD does not operate properly in the ICU PWB. ICU PWB trouble	
Check and remedy	Check installation of HDD to the ICU PWB. Check connection of the harness of HDD to the ICU PWB. Use SIM 62-2, -3 to check read/write of HDD. Replace HDD. Replace ICU PWB.		

MAIN	SUB	Details	
E7	06	Content	Decode error trouble
		Detail	A decode error occurs during making of an image.
		Cause	Data error during input from PCI to PM. PM trouble Data error during image compression/transfer. ICU PWB abnormality
		Check and remedy	Check insertion of the PWB. (PCI bus) If the error occurred in a FAX job, check installation of the FAX PWB. For the other cases, check the ICU PWB. Replace the ICU PWB.
	10	Content	Shading trouble (Black correction)
		Details	CCD black scan level abnormality when the copy lamp is off.
		Cause	Abnormal installation of flat cable to CCD unit. CCD unit abnormality Scanner PWB abnormality
		Check & Remedy	Check installation of CCD unit flat cable. Check CCD unit. Check scanner PWB.
	11	Content	Shading trouble (White correction all pixel adjustment)
		Details	CCD white reference plate scan level abnormality when the copy lamp is ON.
		Cause	Abnormal installation of flat cable to CCD unit. Dirt on mirror, lens, white reference plate Copy lamp lighting abnormality Abnormal installation of CCD unit CCD unit abnormality Scanner PWB abnormality
		Check & Remedy	Clean mirror, lens, and white reference plate. Check copy lamp light quantity (SIM 5-3) and lighting. Check CCD unit. Check scanner PWB.
	14	Content	CCD communication trouble
		Details	Communication trouble (clock sync) between scanner PWB and CCD-ASIC
		Cause	Abnormal installation of harness to CCD unit CCD unit abnormality Scanner PWB abnormality
		Check & Remedy	Check CCD unit harness. Check CCD unit. Check scanner PWB.
	17	Content	SPF scanning position adjustment trouble (Detected only when executing an adjustment SIM.)
		Details	The black Mylar which serves as the reference of the SPF scanning position is not detected.
		Cause	Black Mylar installing failure on the SPF side
		Check & Remedy	Check the SPF black Mylar.

MAIN	SUB	Details	
E7	50	Content	LSU connection trouble
		Detail	An LSU which does not conform to the machine is installed.
		Cause	LSU connection trouble PCU PWB trouble LSU trouble
		Check and remedy	Check LSU PWB. Check PCU PWB. Check connection of the connector and the harness between PCU and LSU.
	60	Content	Controller skating trouble
		Detail	Occurrence of an error in controller skating check
		Cause	Discrepancy in the combination of the controller PWB and the ROM
		Check and remedy	Check the controller PWB. Check the combination of the controller PWB and the ROM.
	80	Content	Communication trouble (ICU detection) between ICU and scanner
		Details	Communication establishment error/ Fleming/Parity/Protocol error
		Cause	Defective connection of slave unit PWB connector Defective harness between slave unit PWB and ICU PWB Slave unit PWB mother board connector pin breakage
		Check & Remedy	Check connector and harness of slave unit PWB and ICU PWB. Check grounding of machine.
90	Content	Communication trouble (ICU detection) between ICU and PCU	
	Details	Communication establishment error/ Fleming/Parity/Protocol error	
	Cause	Defective connection of slave unit PWB connector Defective harness between slave unit PWB and ICU PWB Slave unit PWB mother board connector pin breakage	
	Check & Remedy	Check connector and harness of slave unit PWB and ICU PWB. Check grounding of machine.	
F1	00	Content	Finisher communication trouble
		Detail	Communication cable test error after turning on the power or exiting from SIM. Communication error with the finisher
		Cause	Improper connection or disconnection of connectors and harness between the machine and the finisher. Finisher control PWB trouble Control PWB (PCU) trouble Malfunction by noises
		Check and remedy	Canceled by turning OFF/ON the power. Check connectors and harness in the communication line. Replace the finisher control PWB or PCU PWB.

MAIN	SUB	Details	
F1	00	Content	Mail-bin stacker communication trouble
		Detail	Communication cable test error after turning on the power or exiting from SIM. Communication error with the Mail-bin stacker.
		Cause	Improper connection or disconnection of connector and harness between the machine and the Mail-bin stacker. Mail-bin stacker control PWB trouble Control PWB (PCU) trouble Malfunction by noises
		Check and remedy	Canceled by turning OFF/ON the power. Check harness and connector in the communication line. Replace the Mail-bin stacker PWB or PCU PWB.
	02	Content	Finisher transport motor abnormality
		Detail	Transport motor drive trouble
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Motor RPM abnormality Overcurrent to the motor Finisher control PWB trouble
		Check and remedy	Use SIM 3-3 to check the transport motor operation.
	02	Content	Mail-bin stacker transport motor abnormality
		Detail	Transport motor trouble
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Motor rpm abnormality Overcurrent to the motor Mail-bin stacker control PWB trouble
		Check and remedy	Use SIM3-21 to check the transport motor operation.
	03	Content	Console finisher paddle motor trouble
		Detail	Paddle motor operation abnormality
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check the motor operation.
	06	Content	Console finisher slide motor trouble
		Detail	Slide motor operation abnormality
Cause		Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble	
Check and remedy		Use SIM3-3 to check the motor operation.	

MAIN	SUB	Details	
F1	08	Content	Finisher staple shift motor trouble
		Detail	Staple motor drive trouble
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check operations of the staple motor.
	10	Content	Finisher stapler motor trouble
		Detail	Stapler motor operation abnormality
		Cause	Motor lock Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check the motor operation.
	10	Content	Console finisher stapler motor trouble
		Detail	Stapler motor operation abnormality
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check the motor operation.
	11	Content	Finisher bundle exit motor trouble
		Detail	Bundle exit motor operation abnormality
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Console finisher control PWB trouble
		Check and remedy	Use SIM 3-3 to check the bundle exit motor operation and the paddle solenoid operation, or use SIM 3-2 to check the boomerang rotations sensor.
	11	Content	Console finisher bundle exit motor trouble
		Detail	Bundle exit motor operation abnormality
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check the motor operation.
12	Content	Mail-bin stacker gate trouble	
	Detail	Gate operation abnormality	
	Cause	Gate lock Defective connection or disconnection between the PWB and the solenoid. Mail-bin stacker control PWB trouble	
	Check and remedy	Use SIM3-21 to check the transport gate operation.	

MAIN	SUB	Details		
F1	15	Content	Finisher lift motor trouble	
		Detail	Lift motor operation abnormality	
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Finisher control PWB trouble	
	Check and remedy	Use SIM3-3 to check the lift motor operation.		
	15	Content	Console finisher lift motor trouble	
		Detail	Lift motor operation abnormality	
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Upper/lower limit sensor trouble Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble	
		Check and remedy	Use SIM3-3 to check the motor operation.	
	19	Content	Finisher front alignment motor trouble	
		Detail	Front alignment motor operation abnormality	
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Finisher control PWB trouble	
		Check and remedy	Use SIM3-3 to check the motor operation.	
	19	Content	Console finisher front alignment motor trouble	
		Detail	Front alignment motor operation abnormality	
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble	
		Check and remedy	Use SIM3-3 to check the motor operation.	
20	Content	Finisher rear alignment motor trouble		
	Detail	Rear alignment motor operation abnormality		
	Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Finisher control PWB trouble		
	Check and remedy	Use SIM3-3 to check the motor operation.		
20	Content	Console finisher rear alignment motor trouble		
	Detail	Rear alignment motor operation abnormality		
	Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble		
	Check and remedy	Use SIM3-3 to check the motor operation.		

MAIN	SUB	Details		
F1	30	Content	Console finisher communication trouble	
		Detail	Communication cable test error after turning on the power or exiting from SIM. Communication error with the console finisher	
		Cause	Improper connection or disconnection of connector and harness between the machine and the console finisher. Console finisher control PWB trouble Control PWB (PCU) trouble Malfunction by noises	
		Check and remedy	Canceled by turning OFF/ON the power. Check connectors and harness in the communication line. Replace the console finisher control PWB or PCU PWB.	
	31	Content	Console finisher fold sensor trouble	
		Detail	Sensor input value abnormality	
		Cause	Sensor breakage harness breakage Console finisher control PWB trouble	
	31	Check and remedy	Use SIM3-2 to check the sensor operation.	
		32	Content	Communication trouble between the console finisher and the punch unit.
	Detail		Communication err between the console finisher and the punch unit.	
	32	Cause	Improper connection or disconnection of connector and harness between the console finisher and the punch unit. Console finisher control PWB trouble Control PWB (PCU) trouble Malfunction by noise	
		Check and remedy	Canceled by turning OFF/ON the power. Check connectors and harness in the communication line. Replace the console finisher control PWB.	
	33	Content	Console finisher punch side registration motor trouble	
		Detail	Punch side registration motor operation abnormality	
		Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble	
		Check and remedy	Use SIM3-3 to check the motor operation.	
34	Content	Console finisher punch motor trouble		
	Detail	Punch motor operation abnormality		
	Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble		
34	Check and remedy	Use SIM3-3 to check the motor operation.		
	35	Content	Console finisher punch side registration sensor trouble	
Detail		Sensor input value abnormality		
Cause		Sensor breakage Harness disconnection Console finisher control PWB trouble		
Check and remedy		Use SIM3-2 to check the sensor operation.		

MAIN	SUB	Details	
F1	36	Content	Console finisher punch timing sensor trouble
		Detail	Sensor input value abnormality
		Cause	Sensor breakage Harness disconnection Console finisher control PWB trouble
		Check and remedy	Use SIM3-2 to check the sensor operation.
	37	Content	Console finisher backup RAM trouble
		Detail	Backup RAM contents are disturbed.
		Cause	Console finisher control PWB trouble Malfunction by noise
	Check and remedy	Replace the console finisher control PWB.	
	38	Content	Console finisher punch backup RAM trouble
		Detail	Punch unit backup RAM contents are disturbed.
		Cause	Punch control PWB trouble Malfunction by noise
		Check and remedy	Replace the punch control PWB.
	39	Content	Console finisher punch dust sensor trouble
		Detail	Punch dust sensor detection trouble
		Cause	When the punch dust sensor is not normally detected.
		Check and remedy	Sensor breakage Harness disconnection Punch control PWB trouble
	40	Content	Console finisher punch power interruption trouble
		Detail	When power interruption of the punch unit is detected
		Cause	Though 24V is supplied to the punch unit, the punch unit detects power interruption.
		Check and remedy	Harness disconnection Punch control PWB trouble
	80	Content	Finisher power abnormality
		Detail	The 24V power is not supplied to the finisher PWB.
		Cause	Improper connection or disconnection of connector and harness Finisher control PWB trouble Power unit trouble
		Check and remedy	Use SIM3-2 to check the sensor.
80	Content	Mail-bin stacker power abnormality	
	Detail	The 24V power is not supplied to the Mail-bin stacker PWB.	
	Cause	Improper connection or disconnection of connector and harness Mail-bin stacker control PWB trouble Power unit trouble	
	Check and remedy	Use SIM3-20 to check the sensor operation.	
81	Content	Console finisher transport motor abnormality	
	Detail	Transport motor trouble	
	Cause	Motor lock Motor rpm abnormality Overcurrent to the motor Console finisher control PWB trouble	
	Check and remedy	Use SIM3-3 to check the motor operation.	

MAIN	SUB	Details	
F1	87	Content	Finisher staple rotation motor trouble
		Detail	Front staple rotation motor trouble
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Home position sensor abnormality Motor rpm abnormality Overcurrent to the motor Finisher control PWB trouble
		Check and remedy	Use SIM3-3 to check the motor operation.
F2	00	Content	Toner control sensor open/sensor trouble
		Detail	Toner control sensor output open
		Cause	Connector harness trouble Connector disconnection Sensor trouble
		Check and remedy	Check connection of the toner control sensor. Check connection of connector and harness to the main PWB. Check for disconnection of harness. Replace the sensor.
	02	Content	Toner supply abnormality
		Detail	Toner control sensor output value becomes under-toner too earlier.
		Cause	Connector harness trouble Toner concentration sensor trouble Toner cartridge trouble
		Check and remedy	Check connection of the connector in the toner motor section. Check connection of connector and harness to the main PWB. Check for disconnection of harness. Toner concentration sensor output check SIM25-1. Replace the toner cartridge.
	04	Content	Improper cartridge (life cycle error, etc.)
		Detail	An improper process cartridge is inserted.
		Cause	IC chip trouble Improper cartridge
	Check and remedy	Insert a proper cartridge.	
05	Content	CRUM error	
	Detail	Communication with IC chip cannot be made.	
	Cause	IC chip trouble IC chip contact failure Improper cartridge	
Check and remedy	Insert a proper cartridge. Is the cartridge installed properly?		
06	Content	CRUM ID error	
	Detail	IC chip trouble	
	Cause	Improper cartridge	
	Check and remedy	Insert a proper cartridge.	

MAIN	SUB	Details	
F2	39	Content	Process thermistor trouble
		Detail	Output value abnormality of the temperature sensor of temperature/humidity sensor
		Cause	Temperature/humidity sensor abnormality Temperature/humidity sensor harness connection failure PCU PWB trouble
		Check and remedy	Check connection of the harness and the connector of the temperature/humidity sensor. Replace the temperature/humidity sensor. Check PCU PWB.
	58	Content	Process humidity sensor breakdown
		Detail	Process humidity sensor open or short
		Cause	Temperature/humidity sensor harness connection failure Temperature/humidity sensor abnormality PCU PWB trouble
		Check and remedy	Check connection of the harness and the connector of the temperature/humidity sensor. Replace the temperature/humidity sensor. Check PCU PWB.
F3	12	Content	Machine no. 1 tray lift-up trouble
		Detail	LUD does not turn ON in the specified time.
		Cause	LUD trouble No. 1 tray lift-up trouble Check connection of harness between the PCVU PWB, lift-up unit, and paper feed unit.
		Check and remedy	Check LUD, and their harness and connectors. Check the lift-up unit.
F3	22	Content	Machine tray 2 lift-up trouble
		Detail	MCLUD does not turn ON in the specified time.
		Cause	MCLUD trouble No. 2 tray lift-up motor trouble Harness disconnection of the PCU PWB, the lift-up unit, and the paper feed unit.
		Check and remedy	Check MCLUD, and their harness and connectors. Check the lift-up unit.
F6	00	Content	Communication trouble (ICU detection) between ICU and FAX
		Details	Communication establishment error/ Fleming/Parity/Protocol error
		Cause	Slave unit PWB connector disconnection Harness abnormality between slave unit PWB and ICU PWB. Slave unit PWB mother board connector pin breakage Slave unit ROM abnormality/No ROM/ Reverse insertion of ROM/ROM pin breakage
		Check & Remedy	Check connector harness between slave unit PWB and ICU PWB. Check grounding of machine. Check slave unit PWB ROM.

MAIN	SUB	Details	
F6	01	Content	FAX expansion flash memory abnormality (ICU detection)
		Details	Flash memory cannot be deleted.
		Cause	Flash memory cannot be deleted.
		Check & Remedy	Check the FAX image storage Flash memory. Use SIM 66-10 to clear the flash memory.
	04	Content	FAX modem operation abnormality
		Details	FAX PWB modem chip operation abnormality
		Cause	Modem chip operation abnormality in FAX PWB
		Check & Remedy	Replace FAX PWB.
	20	Content	FAX write protect cancel
		Detail	The write protect JP is released.
		Cause	The write protect JP is set to "write allow." FAX interface PWB trouble FAX PWB trouble
		Check and remedy	Check the write protect JP. Replace the FAX PWB. Replace the FAX interface PWB.
21	Content	Combination abnormality of the TEL/LIU PWB and the FAX soft switch	
	Detail	Combination abnormality of the TEL/LIU PWB and the FAX PWB information (soft switch) Or the TEL/LIU PWB is not a new one for new MDMC PWB.	
	Cause	The destination of the installed TEL/LIU PWB differs. The FAX PWB information (soft switch) differs. TEL/LIU PWB trouble	
	Check and remedy	Check the destination of the TEL/LIU PWB. Check the FAX PWB information (soft switch). Replace the TEL/LIU PWB.	
97	Content	FAX-BOX skating trouble The FAX-BOX PWB is not one for the AR-FX12. (FAX detection)	
	Detail	The FAX-BOX MODEM controller is not one for the AR-FX12.	
	Cause	The FAX-BOX Modem controller PWB information (hard detection) is not for the AR-FX12. (The Modem controller PWB for the AR-FX5 or the AR-FX6 is used.)	
	Check and remedy	Check the FAX-BOX modem controller PWB. Replace it with a modem controller PWB for the AR-FX12.	

MAIN	SUB	Details	
F6	98	Content	Combination error of the FAX-BOX destination information and the machine destination information
		Detail	Combination error of the FAX-BOX destination information and the machine destination information
		Cause	Because of improper combination between the destination information stored in the EEPROM on the FAX-BOX PWB and that of the machine (set with SIM 26-6).
		Check and remedy	Check the destination of the FAX-BOX. Check the machine destination with SIM 26-6. Use a proper combination of the machine and the FAX-BOX.
F7	01	Content	FAX board EEPROM read/write error
		Details	EEPROM access error (read/write)
		Cause	EEPROM trouble FAX PWB EEPROM access circuit trouble
		Check & Remedy	When replacing the EEPROM, use SIM66-4/5 (Signal send level) and SIM66-14/15/16 (Dial test) for adjustment. However, note that all the soft switches are reset to the initial values. No need to adjust when the PWB is replaced.
H2	00... HL1	Content	Thermistor open Fusing unit not installed
		Detail	Thermistor is open. (An input voltage of 2.92V or above is detected.) Fusing unit not installed
	01... HL2	Cause	Thermistor trouble Control PWB trouble Fusing section connector disconnection AC power trouble Fusing unit not installed
		Check and remedy	Check harnesses and connectors from the thermistor to the control PWB. Use SIM14 to clear the self diag display.

MAIN	SUB	Details	
H3	00... HL1	Content	Fusing section high temperature trouble
		Detail	The fusing temperature exceeds 242°C. (An input voltage of 0.27V or above is detected.) Fusing temperature control is started, and 242°C is detected three or more times continuously in sampling in the specified interval. (Every 300msec)
	01... HL2	Cause	Thermistor trouble Control PWB trouble Fusing section connector disconnection AC power trouble
		Check and remedy	Use SIM5-2 to check the heater lamp Blinking operation. If the heater lamp blinks normally: Check the thermistor and its harness. Check the thermistor input circuit in the control PWB. If the heater lamp keep lighting: Check the AC PWB and the lamp control circuit in the control PWB. Use SIM14 to cancel the trouble
H4	00... HL1	Content	Fusing section low temperature trouble
		Detail	The set temperature is not reached within the specified time (3 min) after turning on the power relay, or the temperature does not reach 80°C within 80 sec. When the heater lamp is not turned off in the specified time (3 min) from starting warm-up, or the temperature does not reach 80°C within 80 sec. After completion of warm-up operation, a temperature 50°C lower than the temperature control level is detected 5 times continuously in sampling in the specified interval. (every 300msec)
	01... HL2	Cause	Thermistor trouble Heater lamp trouble Control PWB trouble Thermostat trouble AC power trouble Interlock switch trouble
		Check and remedy	Use SIM5-2 to check the heater lamp Blinking operation. If the heater lamp blinks normally: Check the thermistor and its harness. Check the thermistor input circuit in the control PWB. If the heater lamp does not light: Check for heater lamp disconnection and thermostat disconnection. Check the interlock switch. Check the AC PWB and the lamp control circuit in the control PWB. Use SIM14 to cancel the trouble.

MAIN	SUB	Details	
H5	01	Content	5-time continuous POD1 not-reaching jam detection
		Detail	5-time continuous POD1 not-reaching jam detection
		Cause	A fusing section jam is not properly removed. (Jam paper remains.) POD1 sensor trouble, or harness disconnection Improper installation of fusing unit
		Check and remedy	Check jam paper in the fusing section. (winding, etc.) Check POD1 sensor harness, and check the fusing unit installation. Use SIM14 to cancel the trouble.
L1	00	Content	Scanner feed trouble
		Details	Scanner feed is not completed within the specified time.
		Cause	Scanner unit abnormality Scanner wire disconnection
		Check & Remedy	Check scanning with SIM 1-1.
L3	00	Content	Scanner return trouble
		Details	Scanner return is not completed within the specified time.
		Cause	Scanner unit abnormality Scanner wire disconnection
		Check & Remedy	Check scanning with SIM 1-1.
L4	01	Content	Main motor lock detection
		Detail	The motor lock signal is detected for 1.5sec during rotation of the main motor.
		Cause	main motor trouble Check connection of harness between the PCU PWB and the main motor. Control circuit trouble
		Check and remedy	Use SIM25-1 to check the main motor operation. Check harness and connector between the PCU PWB and the main motor.
	02	Content	Drum motor lock detection
		Detail	The motor lock signal is detected for 1.5sec during rotation of the drum motor.
		Cause	Drum motor trouble Improper connection of harness between the PCU PWB and the drum motor. Control circuit trouble
		Check and remedy	Use SIM6-1 to check the drum motor operation. Check harness and connector between the PCU PWB and the drum motor.

MAIN	SUB	Details	
L4	30	Content	Controller fan motor lock detection
		Detail	The motor lock signal is detected during rotation of the controller fan motor. The motor lock signal is detected during rotation of the HDD fan motor.
		Cause	Fan motor trouble Improper connection of the harness between the controller PWB and the fan motor. Control circuit trouble
		Check and remedy	Use SIM 6-2 to check the fan motor operation. Check the harness and the connector between the controller PWB and the fan motor.
L6	10	Content	Polygon motor lock detection
		Detail	It is judged that the polygon motor lock signal is not outputted. Lock signal is checked in the interval of 10sec after starting the polygon motor, and it is judged that the polygon motor does not rotate normally.
		Cause	The LSU connector or harness in the LSU is disconnected or broken. Polygon motor trouble
		Check and remedy	Use SIM61-1 to check the polygon motor operation. Check connector and harness connection. Replace LSU.
L8	01	Content	No fullwave signal
		Detail	Full wave signal is not detected.
		Cause	The PCU PWB connector or the power unit harness is disconnected or broken. PCU PWB trouble 12V power source trouble
	02	Check and remedy	Check connection of the harness and connector. Replace PCU PWB. Replace the power unit. Replace the controller connection mother board.
		Content	Full wave signal width abnormality
		Detail	It is judged as full wave signal frequency abnormality. (When the detection cycle is judged as 69Hz or above or 42.5Hz or below)
02	Cause	The connector or harness of the PCU PWB and the power PWB is disconnected. PCU PWB trouble Power unit trouble	
	Check and remedy	Check connection of the harness and connector. Replace the PCU PWB. Replace the power unit.	

MAIN	SUB	Details	
U1	01	Content	FAX battery abnormality
		Detail	FAX backup SRAM battery voltage fall
		Cause	Battery life Battery circuit abnormality
		Check and remedy	Check that the battery voltage is about 2.5V or above. Check the battery circuit.
	02	Content	RTC read abnormality (common with FAX, on ICU PWB)
		Details	The value read from RTC on ICU PWB is [EE]h (abnormal).
		Cause	RTC circuit abnormality Battery voltage fall Battery circuit abnormality
Check & Remedy	Set the time again with key operation, and check that time advances properly. Check RTC circuit. Check that battery voltage is about 2.5V or above. Check battery circuit.		
U2	00	Content	EEPROM read/write error (ICU)
		Detail	EEPROM write error
		Cause	EEPROM trouble EEPROM is not initialized. ICU PWB EEPROM access circuit trouble
		Check and remedy	Check that EEPROM is properly inserted. Save the counter/adjustment values with the simulation. Use SIM16 to cancel U2 trouble. Replace the ICU PWB.
U2	11	Content	Counter check sum error (ICU)
		Detail	Counter data area check sum error
		Cause	EEPROM trouble Control circuit trouble by noise ICU PWB EEPROM access circuit trouble
		Check and remedy	Check that EEPROM is properly inserted. Save the counter/adjustment values with the DIAG simulation. Use DIAG (SIM16) to cancel U2 trouble. Replace the ICU PWB.
	12	Content	Adjustment value check sum error (ICU)
		Detail	Adjustment data area check sum error
		Cause	EEPROM trouble Control circuit trouble by noise ICU PWB EEPROM access circuit trouble
		Check and remedy	Check that EEPROM is properly inserted. Save the counter/adjustment values with the simulation. Use SIM16 to cancel U2 trouble. Replace the ICU PWB.

MAIN	SUB	Details		
U2	22	Content	SRAM memory check sum error (ICU)	
		Detail	MFPC section SRAM memory check sum error	
		Cause	SRAM trouble Control circuit runaway due to noises ICU PWB SRAM access circuit trouble	
		Check and remedy	Initialize the communication management table registered in the SRAM and the FAX soft switch. Since the registered data are deleted, register the data again. Use SIM16 to cancel U2 trouble. Replace the ICU PWB.	
		23	Content	SRAM memory individual data check sum error (ICU)
	Detail	Check sum error for every data in the SRAM memory of the MFPC section (Communication management table, sender registration data, etc.)		
	Cause	SRAM trouble Control circuit runaway due to noises ICU PWB SRAM access circuit trouble		
	Check and remedy	Automatically initialize the data related to the check sum error by turning OFF/ON the power. Since the registered data are deleted, register the data again. Use SIM16 to cancel U2 trouble. Replace the ICU PWB.		
	U2	50	Content	HD section individual data check sum error (ICU)
			Detail	Check sum error for every individual data in HD of the MFPC section (One-touch, Group, Program, etc.)
Cause		HDD write/read error Control circuit runaway due to noises ICU PWB HD access circuit trouble		
Check and remedy		Automatically initialize the data related to the check sum error by turning OFF/ON the power. Since the registered data are deleted, register the data again. Use SIM 16 to cancel the U2 trouble. Replace the HD PWB. Replace the ICU PWB.		
80		Content	EEPROM read/write error (Scanner)	
Details	Scanner EEPROM write error			
Cause	EEPROM abnormality Scanner PWB EEPROM access circuit abnormality			
Check & Remedy	Check that EEPROM is set properly. Record counter/adjustment values with the simulation to protect the data from being deleted. Cancel U2 trouble with SIM 16. Replace scanner PWB.			

MAIN	SUB	Details	
U2	81	Content	Memory check sum error (Scanner)
		Details	Scanner memory check sum error
		Cause	EEPROM trouble EEPROM which is not initialized is installed. Control circuit freeze by noises Scanner PWB EEPROM access circuit trouble
		Check & Remedy	Check that EEPROM is set properly. Record counter/adjustment values with the simulation to protect the data from being deleted. Cancel U2 trouble with SIM 16. Replace scanner PWB.
	90	Content	EEPROM read/write error (PCU)
		Detail	PCU EEPROM write error
		Cause	EEPROM trouble PCU PWB EEPROM access circuit trouble
		Check and remedy	Check that EEPROM is properly inserted. Record counter/adjustment values with the simulation to protect the data from being deleted. Use SIM16 to cancel U2 trouble. Replace the Controller PWB.
	91	Content	Memory check sum error (PCU)
		Detail	PCU memory check sum error
		Cause	EEPROM trouble EEPROM which is not initialized is installed. EEPROM is not initialized. PCU PWB EEPROM access circuit trouble Hang of control circuit due to noises
		Check and remedy	Check that EEPROM is properly inserted. Save the counter/adjustment values with the simulation. Use SIM16 to cancel U2 trouble. Replace the Controller PWB.
U6	00	Content	Desk/LCC communication trouble
		Detail	Desk/LCC communication error Communication cable test error after turning on the power or exiting SIM.
		Cause	Improper connection or disconnection of connector and harness Desk control PWB trouble Control PWB (PCU) trouble Noise or interference
		Check and remedy	Canceled by turning OFF/ON the power. Check connection of the harness and connector in the communication line.
	01	Content	Desk/LCC No. 1 tray lift-up trouble
		Detail	Desk/LCC No. 1 tray lift-up trouble
		Cause	Sensor trouble Tray trouble Defective connection or disconnection between the PWB and the motor. Desk control PWB trouble Lift-up motor trouble
		Check and remedy	Use SIM4-2 to check the upper limit sensor detection. Use SIM4-3 to check the lift-up motor operation.

MAIN	SUB	Details	
U6	02	Content	Desk No. 2 tray/LCC1 lift-up trouble
		Detail	Desk No. 2 tray/LCC lift-up trouble
		Cause	Sensor trouble Tray trouble Defective connection or disconnection between the PWB and the motor. Desk control PWB trouble Lift-up motor trouble
		Check and remedy	Use SIM4-2 to check the upper limit sensor detection. Use SIM4-3 to check the lift-up motor operation.
	03	Content	Desk No. 3 tray/LCC2 lift-up trouble
		Detail	Desk no. 3 tray lift-up trouble
		Cause	Sensor trouble Tray trouble Defective connection or disconnection between the PWB and the motor. Desk control PWB trouble Lift-up motor trouble
		Check and remedy	Use SIM4-2 to check the upper limit sensor detection. Use SIM4-3 to check the lift-up motor operation.
	10	Content	Desk/LCC transport motor trouble
		Detail	Desk/LCC transport motor operation trouble
		Cause	Motor lock Drive abnormality Defective connection or disconnection between the PWB and the motor. Motor rpm abnormality Overcurrent to the motor Desk control PWB trouble
		Check and remedy	Use SIM4-3 to check the transport motor operation.
U7	00	Content	RIC communication trouble
		Detail	RIC communication trouble Communication cable test error after turning on the power or exiting SIM.
		Cause	Disconnection of connector and harness RTC control PWB trouble Control PWB (ICU) trouble Noise or interference
		Check and remedy	Canceled by turning OFF/ON the power. Check connector and harness in the communication line.
EE	EL	Content	Auto developer adjustment trouble (Over-toner)
		Detail	The toner concentration output is detected as 1.5V or below in the auto development adjustment.
		Cause	Toner concentration sensor trouble Charging voltage, developing voltage abnormality Insufficient toner concentration Developing unit trouble PCU PWB trouble
		Check and remedy	Use SIM25-2 to perform auto developer adjustment.