[9] TROUBLE CODE LIST

1. Trouble code list

Main code	Sub code	Content
E1	00	IMC PWB communication trouble
	10	IMC PWB trouble
	11	IMC ASIC error
	13	IMC PWB flash ROM error
	16	IMC PWB DIMM memory read/write check error
	81	Interface error in communication with IMC PWB (Parity)
	82	Interface error in communication with IMC PWB (Overrun)
	84	Interface error in communication with IMC PWB (Framing)
E7	01	Duplex model memory error
	02	LSU trouble
	10	Shading trouble (Black correction)
	11	Shading trouble (White correction)
	12	Shading trouble
	16	Abnormal laser output
F2	02	Toner supply abnormality
	04	Improper cartridge (destination error, life cycle error)
	40	ATC sensor abnormality
F5	02	Copy lamp lighting abnormality
F6	00	FAX board communication trouble
	10	FAX board trouble
	80	FAX board communication trouble (Protocol)
	81	FAX board communication trouble (Parity)
	82	FAX board communication trouble (Overrun)
	84	FAX board communication trouble (Framing)
	88	FAX board communication trouble (Time out)
	99	Machine - FAX language error
F9	00	MX-NB10 communication trouble
H2	00	Thermistor open
H3	00	Heat roller high temperature detection
H4	00	Heat roller low temperature detection
H5	01	5-time continuous detections of POUT not-reached jam
L1	00	Scanner feed trouble
L3	00	Scanner return trouble
L4	01	Main motor lock detection
	11	Shifter motor trouble
L6	10	Polygon motor lock detection
L8	01	No full wave signal
U1	03	FAX board battery error
U2	04	EEPROM read/write error (serial communication error)
	11	Counter check sum error (EEPROM)
	40	CRUM chip communication error
U9	00	Panel board communication trouble
	80	Panel board communication trouble (Protocol)
	81	Panel board communication trouble (Parity)
	82	Panel board communication trouble (Overrun)
	84	Panel board communication trouble (Framing)
	88	Panel board communication trouble (Time out)
	99	Panel language error
--		Auditor NOT READY
CH ON	None	Door open
CH Blink	None	Developing cartridge installed

2. Details of trouble codes

Main code	Sub code		Details of trouble
E1	00	Content	IMC PWB communication trouble.
		Detail	An abnormality occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness abnormality. MCU PWB connector disconnection. IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector and the harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
	10	Content	IMC PWB trouble.
		Detail	An abnormality occurs in the IMC PWB.
		Cause	USB chip error/CODEC error on the IMC PWB.
		Check and remedy	Replace the IMC PWB with a new one.
	11	Content	IMC ASIC error.
		Detail	An abnormality occurs in the IMC PWB.
		Cause	Abnormality in ASIC on the IMC PWB.
		Check and remedy	Replace the IMC PWB with a new one.
	13	Content	IMC PWB flash ROM error.
		Detail	An abnormality occurs in the IMC flash ROM.
		Cause	IMC PWB abnormality.
		Check and remedy	Replace the IMC PWB with a new one. If downloading of the program is abnormally terminated, it may cause an error. Download the program again to avoid this.
	16	Content	IMC PWB DIMM memory read/write check error.
		Detail	An installation error occurs in the IMC expansion compression memory module. An error occurs during access to the IMC expansion compression memory.
		Cause	Improper installation of the IMC expansion memory module. IMC expansion memory module abnormality. IMC expansion memory contact abnormality. IMC PWB abnormality.
		Check and remedy	Check installation of the expansion memory module. Replace the expansion memory module. Replace the IMC PWB with a new one.
	81	Content	Interface error in communication with IMC PWB (Parity).
		Detail	A parity error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect. Improper connection of the MCU PWB connector. IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.

Main code	Sub code		Details of trouble
E1	82	Content	Interface error in communication with IMC PWB (Overrun).
		Detail	An overrun error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect. Improper connection of the MCU PWB connector. IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
	84	Content	Interface error in communication with IMC PWB (Framing).
		Detail	A framing error occurs in communication between the MCU PWB and the IMC PWB.
		Cause	IMC PWB-MCU PWB harness defect. Improper connection of the MCU PWB connector. IMC PWB ROM defect/data abnormality.
		Check and remedy	Check connection of the connector/harness between the IMC PWB and the MCU PWB. Check the ROM of the IMC PWB.
E7	01	Content	Duplex model memory error.
		Detail	The memory capacity for the duplex model machine is improper. Insufficient memory capacity.
		Cause	The memory capacity of the MCU PWB is improper.
		Check and remedy	Use SIM 26-39 to check that the memory capacity is 32MB. If it is not 32MB, replace the MCU PWB with a suitable one.
	02	Content	LSU trouble.
		Detail	The BD signal from the LSU cannot be detected in a certain cycle. (Always OFF or always ON)
		Cause	LSU connector or LSU harness defect or disconnection. Polygon motor rotation abnormality. Laser beams are not generated. MCU PWB abnormality.
		Check and remedy	Check connection of the LSU connector. Execute SIM 61-03 to check the LSU operations. Check that the polygon motor rotates normally. Check that the laser emitting diode generates laser beams. Replace the LSU unit. Replace the MCU PWB.
	10	Content	Shading trouble (Black correction).
		Detail	The CCD black scan level is abnormal when the shading.
		Cause	Improper connection of the CCD unit flat cable CCD unit abnormality. MCU PWB abnormality.
		Check and remedy	Check connection of the CCD unit flat cable. Check the CCD unit.

Main code	Sub code		Details of trouble
E7	11	Content	Shading trouble (White correction).
		Detail	The CCD white scan level is abnormal when the shading.
		Cause	Improper connection of the CCD unit flat cable Dirt on the mirror, the lens, and the reference white plate. Copy lamp lighting abnormality. CCD unit abnormality. MCU PWB abnormality(When occurred in the SPF scan position). Improper installation of the mirror unit.
		Check and remedy	Clean the mirror, lens, and the reference white plate. Check the light quantity and lighting status of the copy lamp (SIM 05-03). Check the MCU PWB.
	12	Content	Shading trouble.
		Detail	White correction is not completed in the specified number of operations.
		Cause	CCD unit flat cable connection failure. Dirt on mirrors, lenses, and the reference white plate. Copy lamp lighting abnormality. CCD unit abnormality. MCU PWB abnormality .
		Check and remedy	Clean mirrors, lenses, and the reference white plate. Check the copy lamp light quantity (SIM 05-03) and lighting. Check the CCD unit. Check the MCU PWB.
	16	Content	Abnormal laser output.
		Detail	When the laser output is stopped, HSYNC is detected.
		Cause	Laser abnormality. MCU PWB abnormality.
		Check and remedy	Check the laser emitting diode operation. Replace the MCU PWB.
F2	02	Content	Toner supply abnormality
		Detail	When toner near end is detected with the toner supply time of 50% or less. When the toner supply time exceeds 300%.
		Cause	ATC sensor abnormality Toner supply abnormality
		Check and remedy	Replace the toner cartridge. Replace the developing unit.

Main code	Sub code		Details of trouble
F2	04	Content	Improper cartridge (destination error, life cycle error)
		Detail	The destination of the machine differs from that of the CRUM. The life cycle information is other than "Not used (FFh)".
		Cause	CRUM chip defect. Improper developing unit .
		Check and remedy	Replace the CRUM chip. Replace the developing unit.
		Identification error	The trade mark code of the CRUM differs. The company code of the CRUM differs.
		Model error	The boot program model code does not coincide with the CRUM model code.
		Type error	When the CRUM type is other than genuine/ conversion/production rotation.
		Destination error	The machine destination differs from the CRUM destination.
		Data abnormality	When an error value is included in the initial check information. When the max. toner supply time is 00. When the print hard stop is 00.
		Misc error	When the Misc information is other than "Not used (FFh)".
	40	Content	ATC sensor abnormality
		Detail	ATC sensor value abnormality
		Cause	Connector connection trouble Toner cartridge installation trouble Sensor breakdown
		Check and remedy	Connect the connector again. Install the developing unit again. Replace the developing unit with a normal one.
F5	02	Content	Copy lamp lighting abnormality.
		Detail	The copy lamp does not turn on.
		Cause	Copy lamp abnormality. Copy lamp harness abnormality. CCD PWB harness abnormality.
		Check and remedy	Use SIM 5-3 to check the copy lamp operations. **When the copy lamp lights up.** Check the harness and the connector between the CCD unit and the MCU PWB. **When the copy lamp does not light up.** Check the harness and the connector between the copy lamp unit and the MCU PWB. Replace the copy lamp unit. Replace the MCU PWB.
F6	00	Content	FAX board communication trouble.
		Detail	FAX board communication error.
		Cause	No command can be sent from the MCU to the FAX.
		Check and remedy	Check connection of the FAX board. Replace the FAX board.
	10	Content	FAX board trouble.
		Detail	FAX board abnormality detection.
		Cause	FAX controller and FAX board memory abnormality.
		Check and remedy	Replace the FAX board.

Main code	Sub code		Details of trouble
F6	80	Content	FAX board communication trouble (Protocol).
		Detail	A break error occurs in communication between the MCU and the FAX board.
		Cause	MCU PWB connector connection failure/ Garbled data.
		Check and remedy	Check connection of the FAX board. Replace the FAX board. Reset the machine (Power OFF/ON).
	81	Content	FAX board communication trouble (Parity).
		Detail	A parity error occurs in communication. between the MCU and the FAX board.
		Cause	MCU PWB connector connection failure/ Garbled data.
		Check and remedy	Check connection of the FAX board. Replace the FAX board. Reset the machine (Power OFF/ON).
	82	Content	FAX board communication trouble (Overrun).
		Detail	An overrun error occurs in communication between the MCU and the FAX board.
		Cause	MCU PWB connector connection failure/ Garbled data
		Check and remedy	Check connection of the FAX board. Replace the FAX board. Reset the machine. (Power OFF/ON).
	84	Content	FAX board communication trouble (Framing).
		Detail	A framing error occurs in communication between the MCU and the FAX board.
		Cause	MCU PWB connector connection failure/ Garbled data.
		Check and remedy	Check connection of the FAX board. Replace the FAX board. Reset the machine (Power OFF/ON).
	88	Content	FAX board communication trouble (Time out).
		Detail	FAX board communication error.
		Cause	There is no respond command from the FAX for 30sec or more.
		Check and remedy	Check connection of the FAX board. Replace the FAX board. Reset the machine (Power OFF/ON).
	97	Content	Combination error between the FAX unit and the main unit
		Detail	Combination error between the FAX unit and the main unit
		Cause	When this fax unit is installed to the machine that can not install this.
		Check and remedy	Check the model name of the main unit
	99	Content	Machine - FAX language error.
		Detail	Discrepancy of the destination of the machine and the FAX board.
		Cause	The destination of the machine differs from that of the FAX board. When installing to the machine that can install only AR-FX11.
		Check and remedy	Change the destination setting with SIM26-6. Replace the FAX board with one which. conforms to the destination of the machine.
F9	00	Content	MX-NB10 board communication trouble.
		Detail	MX-NB10 print data reception error.
		Cause	Print data cannot be received from the MX-NB10 for 3 min or more.
		Check and remedy	Reset the machine (Power OFF/ON).

Main code	Sub code		Details of trouble
H2	00	Content	Thermistor open.
		Detail	The thermistor is open. The fusing unit is not installed.
		Cause	Thermistor abnormality. Control PWB abnormality. Fusing section connector disconnection. The fusing unit is not installed.
		Check and remedy	Check the harness and the connector between the thermistor and the PWB. Use SIM 14 to clear the self diagnostic display.
H3	00	Content	Heat roller high temperature detection.
		Detail	The fusing temperature exceeds 240C°.
		Cause	Thermistor abnormality. Control PWB abnormality. Fusing section connector disconnection.
		Check and remedy	Use SIM 5-02 to check the heater lamp blinking operation. **When the lamp blinks normally.** Check the thermistor and its harness. Check the thermistor input circuit on the control PWB. **When the lamp keeps ON.** Check the power PWB and the lamp control circuit on the MCU PWB. Use SIM 14 to clear the self diagnostic display.
H4	00	Content	Heat roller low temperature detection.
		Detail	When the fusing temperature is lower than 150C° after 55sec from the start of warming up. When the warming up complete temperature is not reached in 30sec from reaching 150C°. When the fusing temperature is lower than 100C° after 20sec from ready start. When the fusing temperature is lower than 145C° when printing.
		Cause	Thermistor abnormality. Heater lamp abnormality. Thermostat abnormality. Control PWB abnormality.
		Check and remedy	Use SIM 5-02 to check the heater lamp blinking operation. **When the lamp blinks normally.** Check the thermistor and its harness. Check the thermistor input circuit on the control PWB. **When the lamp does not light up.** Check for disconnection of the heater lamp and the thermostat. Check the interlock switch. Check the power PWB and the lamp control circuit on the MCU PWB. Use SIM 14 to clear the self diagnostic display.
H5	01	Content	5-time continuous detections of POUT not-reached jam.
		Detail	Paper not-reached jams are detected 5 times or more continuously by the paper exit sensor (POUT). The jam counter is backed up and used for jobs after turning on the power.
		Cause	A fusing jam is not canceled completely. (A jam paper remains in the machine.) Paper exit sensor trouble or harness connection trouble Defective installation of the fusing unit.
		Check and remedy	Check the fusing section jam (for winding, etc.). Check the POUT sensor harness. Check installation of the fusing unit. Use SIM14 to clear the self diag display.

Main code	Sub code		Details of trouble
L1	00	Content	Scanner feed trouble.
		Detail	The scanner does not complete feeding in the specified time.
		Cause	Mirror unit abnormality. The scanner wire is disconnected. The origin detection sensor abnormality. Mirror motor harness abnormality.
		Check and remedy	Use SIM 1-1 to check the mirror reciprocating operations. **When the mirror does not feed.** Check for disconnection of the scanner wire. Check the harness and the connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. **When the mirror does feed.** Use SIM 1-2 to check the mirror home position sensor.
L3	00	Content	Scanner return trouble.
		Detail	The scanner does not complete returning in the specified time. The mirror is not in the home position when OC copying is started with the mirror standby in the home position.
		Cause	Mirror unit abnormality. Scanner wire disconnection. Origin detection sensor abnormality. Mirror motor harness abnormality.
		Check and remedy	Use SIM 1-1 to check the mirror reciprocating operations. **When the mirror does not return.** Check for disconnection of the scanner wire. Check the harness and the connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. **When the mirror does feed.** Use SIM 1-2 to check the mirror home position sensor.
L4	01	Content	Main motor lock detection.
		Detail	The main motor does not rotate. The motor lock signal is detected for 1sec or more after rotation of the main motor. The motor lock signal is detected for 1sec during rotation of the main motor.
		Cause	Main motor unit abnormality. Improper connection or disconnection the main motor and the harness. MCU PWB abnormality.
		Check and remedy	Use SIM 25-01 to check the main motor operations. Check connection of the main motor harness/ connector. Replace the main motor. Replace the MCU PWB.
	11	Content	Shifter motor trouble.
		Detail	The shifter home position detection signal is not detected when initializing the shifter.
		Cause	Shifter motor abnormality, improper connection or disconnection of the harness, shifter home position sensor abnormality.
		Check and remedy	Use SIM 03-11 to check the shifter motor operations. Check connection of the harness/connector of the shifter motor. Replace the shifter motor. Replace the MCU PWB.

Main code	Sub code		Details of trouble
L6	10	Content	Polygon motor lock detection.
		Detail	The polygon motor does not rotate. The motor lock signal is detected for 6sec after rotation of the polygon motor. The motor lock signal is detected for 1sec during rotation of the polygon motor.
		Cause	Polygon motor unit abnormality. Improper connection or disconnection of the polygon motor and the harness. MCU PWB abnormality.
		Check and remedy	Use SIM 61-1 to check the polygon motor operations. Check connection of the polygon motor harness/connector. Replace the polygon motor. Replace the MCU PWB.
L8	01	Content	No full wave signal.
		Detail	The zero cross signal is not detected.
		Cause	Power unit abnormality. MCU PWB abnormality.
		Check and remedy	Check connection of the harness and connectors. Replace the MCU PWB. Replace the power unit.
U1	03	Content	FAX board battery error.
		Detail	FAX board backup battery error.
		Cause	The voltage of the backup battery of SRAM which is installed to the FAX board falls below a certain level.
		Check and remedy	Replace the battery.
U2	04	Content	EEPROM read/write error (serial communication error).
		Detail	EEPROM access process error.
		Cause	EEPROM abnormality.
		Check and remedy	Check that the EEPROM is properly set. Use SIM 16 to cancel the trouble. Replace the MCU PWB.
	11	Content	Counter check sum error (EEPROM).
		Detail	Check sum error of the counter area in the EEPROM.
		Cause	EEPROM abnormality.
		Check and remedy	Check that the EEPROM is properly set. Use SIM 16 to cancel the trouble. Replace the MCU PWB.
	40	Content	CRUM chip communication error.
		Detail	An error occurs during communication between the MCU and the CRUM chip.
		Cause	CRUM chip abnormality. Developing unit disconnection. MCU PWB abnormality.
		Check and remedy	Replace the chip. Check installation of the developing unit. Use SIM 16 to cancel the trouble. Replace the MCU PWB.

Main code	Sub code		Details of trouble
U9	00	Content	Panel board communication trouble.
		Detail	Communication trouble with the panel board.
		Cause	No command can be sent from the MCU to the panel.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	80	Content	Panel board communication trouble (Protocol).
		Detail	An error occurs in communication between MCU -Panel PWB.
		Cause	MCU PWB - Panel PWB harness trouble/ Garbled data.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	81	Content	Panel board communication trouble (Parity).
		Detail	A parity error occurs in communication between the MCU and the Panel PWB.
		Cause	MCU PWB - Panel PWB harness trouble/ Garbled data.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	82	Content	Panel board communication trouble (Overrun).
		Detail	An overrun error occurs in communication between the MCU and the panel board.
		Cause	MCU PWB - Panel PWB harness trouble/ Garbled data.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	84	Content	Panel board communication trouble (Framing).
		Detail	A framing error occurs in communication between the MCU and the Panel PWB.
		Cause	MCU PWB - Panel PWB harness trouble/ Garbled data.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	88	Content	Panel board communication trouble (Time out).
		Detail	A time-out error occurs in communication between the MCU and the Panel PWB.
		Cause	A command is completely sent from the MCU to the panel.
		Check and remedy	MCU PWB - Panel PWB harness trouble. Replace the panel or the MCU PWB. Machine reset (Power OFF/ON).
	99	Content	Panel language error.
		Detail	Language discrepancy error.
		Cause	Discrepancy between the machine language and the panel language.
		Check and remedy	Replace the panel or the MCU PWB. Reset the machine. (Power OFF/ON).