

[9] TROUBLE CODE LIST

1. List

Trouble code		Trouble contents	Trouble detection
Main code	Sub code		
A0	01	Security incompatibility error	
E1	00	IMC board communication trouble	MCU
	10	IMC board trouble	
	11	IMC ASIC error	
	12	IMC CODEC error	
	13	IMC board flash ROM error	
	14	IMC board expanded memory module (DIMM) error	
	15	IMC board Page Memory error/SRAM error	
	16	IMC board image compression store memory error	
	17	IMC board smoothing IC error	
	80	IMC PWB communication trouble (protocol)	
	81	IMC PWB communication trouble (Parity)	
	82	IMC PWB communication trouble (Overrun)	
	84	IMC PWB communication trouble (Framing)	
	88	IMC PWB communication trouble (Time-out)	
E7	02	LSU trouble	
	10	Shading trouble (black correction)	
	11	Shading trouble (white correction)	
	12	Shading trouble	
F1	00	Finisher communication trouble	FIN
	01	Finisher jogger shift trouble	
	06	Finisher shift motor abnormality	
	08	Finisher staple shift motor trouble	
	11	Pusher motor trouble	
	15	Finisher elevator motor trouble	
F2	02	Toner supply failure	
	04	Identification error	
		Model error	
		Type error	
		Destination error	
		Data abnormality	
Misc error			
F5	02	Copy lamp lighting abnormality	
F6	00	MCU-FAX communication trouble	MCU
	10	FAX control PWB trouble	
	80	FAX control PWB communication trouble (Protocol)	
	81	FAX control PWB communication trouble (Parity)	
	82	FAX control PWB communication trouble (Over-run)	
	84	FAX control PWB communication trouble (Framing)	
	88	FAX control PWB communication trouble (Timeout)	
	99	FAX control PWB destination error	

Trouble code		Trouble contents	Trouble detection
Main code	Sub code		
F9	00	MCU-PRT communication trouble	MCU
	10	Printer PWB trouble	
	80	Printer PWB communication trouble (Protocol)	
	81	Printer PWB communication trouble (Parity)	
	82	Printer PWB communication trouble (Overrun)	
	84	Printer PWB communication trouble (Framing)	
	88	Printer PWB communication trouble (Timeout)	
	99	Machine-PCL board language error	
	H2	00	Main heater lamp thermistor open hard detection
01		Sub heater lamp thermistor open hard detection	
H3	00	Main heater lamp abnormally high temperature hard detection trouble	
	01	Sub heater lamp abnormally high temperature hard detection trouble	
	10	Main heater lamp abnormally high temperature soft detection trouble	
	11	Sub heater lamp abnormally high temperature soft detection trouble	
H4	00	Main heater lamp abnormally low temperature detection	
	01	Sub heater lamp abnormally low temperature detection	
	20	Main heater lamp abnormally low temperature detection	
	21	Sub heater lamp abnormally low temperature detection	
H5	01	10 continuous POD1, POD2 or PPD2 JAM	
L1	00	Scanner feed trouble	
L3	00	Scanner return trouble	
L4	01	Main motor trouble	
	11	Shifter motor trouble	
L6	10	Polygon motor trouble	
L8	10	Power abnormality detection trouble	
U1	01	FAX battery error	
	02	PANEL LOW battery error	
U2	04	EEPROM communication error	
	20	Machine speed code data error	
	40	CRUM chip communication error	
U7	00	RIC communication trouble	
U9	00	MCU-OPE communication trouble	OPE
	80	Operation control PWB communication trouble (Protocol)	
	81	Operation control PWB communication trouble (Parity)	
	82	Operation control PWB communication trouble (Overrun)	
	84	Operation control PWB communication trouble (Framing)	
	88	Operation control PWB communication trouble (Time-out)	
	99	Operation panel language error	
	EE	EL	Developer adjustment trouble (Over-toned abnormality)
EU		Developer adjustment trouble (Under-toned abnormality)	
PF	00	RIC copy inhibit signal received	

2. Self diagnostics

Trouble code		Details of trouble	
Main code	Sub code		
A0	01	Content	Security incompatibility error
		Details	When the PCL or the FAX board is installed, it does not match with compatible/incompatible setup of the MCU board security.
		Cause	The security compatibility/incompatibility of the installed PCL or FAX board does not match with that of the MCU board.
		Check and remedy	Check the security compatibility/incompatibility of each board. Match the security compatibility/incompatibility of the boards.
E1	00	Content	MCU-IMC communication trouble
		Details	Communication establishment error/framing/parity/protocol error
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	10	Content	IMC PWB trouble
		Details	Communication trouble between MCU and IMC PWB
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	11	Content	IMC board ASIC error
		Details	ASIC abnormality on IMC board
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
12	Content	IMC board CODEC IC error	
	Details	CODEC IC (JBIG chip) abnormality on IMC board	
	Cause	IMC board abnormality	
	Check and remedy	Replace the IMC PWB.	
	Remarks	JBIG IC abnormality	
13	Content	IMC board flash ROM error	
	Details	Flash ROM abnormality on IMC board	
	Cause	IMC board abnormality	
	Check and remedy	Replace the IMC PWB. "When the program download is abnormally terminated, a error may occur. In this case, download the program again."	
	Remarks	Program ROM abnormality	

Trouble code		Details of trouble	
Main code	Sub code		
E1	14	Content	IMC board expanded memory module (DIMM) error
		Details	IMC extended compression memory module installation error IMC extended compression memory access error
		Cause	IMC expanded memory module installation trouble IMC expanded memory module trouble IMC expanded memory contact trouble IMC board abnormality
		Check and remedy	Check installation of the expanded memory module. (Spec: Added to Slot 1.) Replace the expanded memory module. Replace the IMC PWB.
		Remarks	Extend memory abnormality for compressed image store (DIMM module)
		15	Content
	15	Details	IMC Page Memory Work SRAM abnormality
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
		Remarks	Print Buffer Page Memory or Work SRAM abnormality
	16	Content	IMC board compression image store memory error
		Details	Access error of IMC standard compression memory
Cause		IMC board abnormality	
Check and remedy		Replace the IMC PWB.	
17	Content	IMC board smoothing IC error	
	Details	IMC smoothing IC abnormality	
	Cause	IMC board abnormality	
	Check and remedy	Replace the IMC PWB.	
80	Content	IMC PWB communication trouble (protocol)	
	Details	Communication trouble between MCU and IMC PWB (Protocol error)	
	Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure	
	Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.	
	81	Content	IMC PWB communication trouble (Parity)
81	Details	Communication trouble between MCU and printer IMC (Parity error)	
	Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure	
	Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.	

Trouble code		Details of trouble	
Main code	Sub code		
E1	82	Content	IMC PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and IMC PWB (Overrun error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	84	Content	IMC PWB communication trouble (Framing)
		Details	Communication trouble between MCU and IMC PWB (Framing error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	88	Content	IMC PWB communication trouble (Time-out)
		Details	Communication trouble between MCU and IMC PWB (Time-out error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
E7	02	Content	LSU trouble
		Details	BD signal from LSU is not detected in a constant cycle. (Kept OFF or ON)
		Cause	LSU connector or LSU inside harness trouble or disconnection Polygon motor rotation abnormality Laser does not illuminate. MCU PWB failure
		Check and remedy	Check for disconnection of the LSU connector. Check the LSU operation with SIM 61-1. Check that the polygon motor rotates normally. Check laser LED lighting. LSU replacement Replace the MCU PWB.
	10	Content	Shading trouble (black correction)
		Details	CCD black reference plate scan level abnormality when the copy lamp turns off.
		Cause	Flat cable installation failure to CCD unit CCD unit error
		Check and remedy	Check flat cable installation to the CCD unit. Check CCD unit.

Trouble code		Details of trouble			
Main code	Sub code				
E7	11	Content	Shading trouble (white correction)		
		Details	Improper CCD white reference plate reading level for copy lamp lighting		
		Cause	Flat cable installation failure to CCD unit "Dirt on the mirror, lens, and reference white plate" Copy lamp operation error CCD unit abnormality MCU PWB abnormality (Occurred in the SPF scan position.)		
		Check and remedy	"Clean the mirror, the lens, and the reference white plate." Check the copy lamp light quantity and its operation. (SIM 5-3) Check CCD unit. Check MCU PWB.		
		12	Content	Shading trouble	
			Details	White correction is not completed in the specified number of times.	
	12	Cause	Flat cable installation failure to CCD unit "Dirt on the mirror, lens, and reference white plate" Copy lamp lighting trouble CCD unit abnormality MCU PWB abnormality		
		Check and remedy	"Clean the mirror, the lens, and the reference white plate." Check the copy lamp light quantity and its operation. (SIM 5-3) Check CCD unit. Check MCU PWB.		
		F1	00	Content	Finisher communication trouble
				Details	Communication line test error occurs when power is turned on or after the exit of a simulation mode. Error in Finisher communication
	Cause		Connection trouble or disconnection of the connector and harness between the body and the finisher. Finisher control PWB trouble Control PWB failure Malfunction by noises		
	Check and remedy		Turn off/of the power to cancel the trouble. Check connector/harness of communication line Replace the finisher control PWB.		
01	Content		Side guide plated home position error		
	Details		The side guide plate cannot return to the home position.		
01	Cause	Side guide plate drive motor abnormality Side guide plate home position sensor abnormality Finisher PWB abnormality			
	Check and remedy	Use SIM3-3-1 to check the side guide plate motor operation.			
06	06	Content	Offset motor trouble		
		Details	When the offset motor of the finisher is driven it does not reach the specified position.		
	Cause	Offset motor abnormality Offset motor origin sensor abnormality Finisher PWB abnormality			
	Check and remedy	Use SIM 3-3-6 to check the offset motor operation.			

Trouble code		Details of trouble	
Main code	Sub code		
F1	08	Content	Staple motor error
		Details	The staple motor cannot return to the home position.
		Cause	Staple motor abnormality Staple motor home position sensor abnormality Staple unit abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-7 to check the staple motor operation.
	11	Content	Rear edge plate home position error
		Details	The rear edge plate cannot return to the home position.
		Cause	Rear edge plate drive motor abnormality Side guide plate home position sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-2 to check the rear edge plate motor operation.
	15	Content	Finisher lift-up motor trouble
		Details	The finisher lift-up motor does not reach the specified position.
		Cause	Lift-up motor abnormality Lift-up motor upper limit sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-5 to check the lift-up motor operation.
F2	02	Content	Toner supply failure
		Details	The value judged from the actual toner supply hysteresis differs greatly from the toner sensor value.
		Cause	Developing unit trouble Toner supply abnormality caused by installation of unpacked toner cartridge
		Check and remedy	Replace the developing unit Use SIM 25-1 to perform DV stirring.

Trouble code		Details of trouble		
Main code	Sub code			
F2	04	Content	Identification error	
			Model error	
			Type error	
			Destination error	
			Data abnormality	
		Details	Misc error	
			Identification error When the CRUM trademark differs. When the CRUM company code differs.	
			Model error When the boot program model code does not match with the CRUM model information.	
			Type error When the CRUM type is other than [Genuine/Conversion/Production rotation].	
			Destination error The destination of the body differs from that of the CRUM.	
			Data abnormality The initial check information includes an erroneous value. When the max. toner supply time is 00: When the print hard stop is 00:	
			Cause	CRUM chip failure Erroneous developing unit
			Check and remedy	Replace the CRUM chip. Replace the developing unit
			F5	02
Details	The copy lamp does not light up.			
Cause	Copy lamp error Copy lamp harness abnormality CCD PWB harness abnormality			
Check and remedy	Check the copy lamp (SIM 5-3) When the lamp lights: Check the harnesses and connectors between the CCD unit and the MCU PWB. When the lamp does not light: Check the harness and connector between the copy lamp and the MCU PWB. Replace the copy lamp unit. Replace the MCU PWB.			
Remarks	Copy lamp disconnection Cable is not attached.			
F6	00	Content	MCU-FAX communication trouble	
		Details	Communication establishment error/ framing/parity/protocol error	
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error	
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.	

Trouble code		Details of trouble	
Main code	Sub code		
F6	10	Content	FAX control PWB trouble
		Details	Communication trouble between MCU and FAX control PWB
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error IC on FAX PWB causes abnormality
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM. Replace the FAX PWB.
	80	Content	FAX control PWB communication trouble (Protocol)
		Details	Communication trouble between MCU and FAX control PWB (Protocol error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	81	Content	FAX control PWB communication trouble (Parity)
		Details	Communication trouble between MCU and FAX control PWB (Parity error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	82	Content	FAX control PWB communication trouble (Over-run)
		Details	Communication trouble between MCU and FAX control PWB (Overrun error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	84	Content	FAX control PWB communication trouble (Framing)
		Details	Communication trouble between MCU and FAX control PWB (Framing error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.

Trouble code		Details of trouble		
Main code	Sub code			
F6	88	Content	FAX control PWB communication trouble (Timeout)	
		Details	Communication trouble between MCU and FAX control PWB (Timeout error)	
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error	
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.	
	99	Content	FAX control PWB destination error	
		Details	The machine destination setup does not coincide with the FAX board destination setup.	
		Cause	The machine destination setup (Sim 26-6) does not coincide with the FAX board setup	
		Check and remedy	Check the variety of FAX LIU PWB. Check the machine destination setup (Sim 22-6) and FAX country code (Soft SW table).	
	F9	00	Content	MCU-PRT communication trouble
			Details	Communication establishment error/framing/parity/protocol error
			Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		10	Content	Printer PWB trouble
Details			Communication trouble between MCU and printer PWB	
80		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance	
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.	
		Content	Printer PWB communication trouble (Protocol)	
80	Details	Communication trouble between MCU and printer PWB (Protocol error)		
	Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance		
80	Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.		

Trouble code		Details of trouble	
Main code	Sub code		
F9	81	Content	Printer PWB communication trouble (Parity)
		Details	Communication trouble between MCU and printer PWB (Parity error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	82	Content	Printer PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and printer PWB (Overrun error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	84	Content	Printer PWB communication trouble (Framing)
		Details	Communication trouble between MCU and printer PWB (Framing error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	88	Content	Printer PWB communication trouble (Timeout)
		Details	Communication trouble between MCU and printer PWB (Timeout error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.

Trouble code		Details of trouble	
Main code	Sub code		
F9	99	Content	Machine-PCL board language error
		Details	The machine language setup does not coincide with the PCL board language setup.
		Cause	PCL board connection error SIM setup error
		Check and remedy	Check the firmware of the PCL board and the combination of the panel screen data, and download the correct version, if necessary. Check the machine language information. (Machine language setup: SIM 26-22)
H2	00	Content	Main heater lamp thermistor open hard detection
		Details	Main heater lamp thermistor open detection Fusing unit not installed
		Cause	Thermistor defect Control PWB failure Fusing section connector contact failure Fusing unit not installed
		Check and remedy	Check the harness and the connector of the thermistor and the MCU. Clear the display of self-diagnostics with SIM 14.
		Remarks	Thermistor open
		01	Content
	Details	Sub heater lamp thermistor open detection Fusing unit not installed	
	Cause	Thermistor defect Control PWB failure Fusing section connector contact failure Fusing unit not installed	
	Check and remedy	Check the harness and the connector of the thermistor and the MCU. Clear the display of self-diagnostics with SIM 14.	
	Remarks	Thermistor open	
H3	00	Content	Main heater lamp abnormally high temperature hard detection trouble
		Details	The fusing main heater thermistor causes abnormally high temperature.
		Cause	Main heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
Check and remedy	Check the main heater lamp blinking with SIM 5-2-1. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.		

Trouble code		Details of trouble	
Main code	Sub code		
H3	01	Content	Sub heater lamp abnormally high temperature hard detection trouble
		Details	The fusing sub heater thermistor causes abnormally high temperature.
		Cause	Sub heater lamp Thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
H3	10	Content	Main heater lamp abnormally high temperature soft detection trouble
		Details	A/D value the fusing main heater lamp thermistor causes abnormally high temperature (over 230°C).
		Cause	Main heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the main heater lamp blinking with SIM 5-2-1. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
11	11	Content	Sub heater lamp abnormally high temperature soft detection trouble
		Details	A/D value the fusing sub heater lamp thermistor causes abnormally high temperature (over 230°C).
		Cause	Sub heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
H4	00	Content	Main heater lamp abnormally low temperature detection
		Details	The setup temperature (about 90°C) is not reached within the specified time (about 17sec) from turning on the power ON SW. (When the temperature of main heater lamp thermistor falls below 140°C in the standby mode or printing.) Whether temperature of main heater lamp thermistor falls below 50°C in the pre-heat mode.
		Cause	Main heater lamp thermistor defect Main heater lamp failure Main thermostat failure Control PWB failure
		Check and remedy	Check the heater lamp blinking with SIM 5-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
01	01	Content	Sub heater lamp abnormally low temperature detection
		Details	The setup temperature (about 90°C) is not reached within the specified time (about 17sec) from turning on the power ON SW. (When the temperature of sub heater thermistor falls below 140°C in the standby mode or printing.) Whether temperature of sub heater lamp thermistor falls below 50°C in the pre-heat mode.
		Cause	Sub heater lamp thermistor defect Sub heater lamp failure Sub thermostat failure Control PWB failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
H4	20	Content	Main heater lamp abnormally low temperature detection
		Details	The setup temperature (about -25°C: Sim 43-1-1) is not reached within the specified time (about 32sec) from turning on the power ON SW. (When the temperature falls below 140°C in the standby mode.)
		Cause	Main heater thermistor defect Main heater lamp failure Main thermostat failure Control PWB failure
		Check and remedy	Check the main heater lamp blinking with SIM 5-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
	21	Content	Sub heater lamp abnormally low temperature detection
		Details	The setup temperature (about -25°C: Sim 43-1-1) is not reached within the specified time (about 32sec) from turning on the power ON SW. (When the temperature falls below 140°C in the standby mode.)
		Cause	Sub heater thermistor defect Sub heater lamp failure Sub thermostat failure Control PWB failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
H5	01	Content	10 continuous POD1, POD2 or PPD2 JAM
		Details	POD1, POD2, PPD2 JAM was detected 10 continuous times from turning on the power ON.
		Cause	The fusing JAM is not completely removed. (Jam paper remains.) POD1, POD2, PPD2 sensor breakdown or harness connection trouble Fusing unit installation failure
		Check and remedy	Check for jam paper in the fusing section. (paper winding, etc.) Check fusing unit installation. Check the POD1, POD2 or PPD2 sensor. Clear the trouble with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
L1	00	Content	Scanner feed trouble
		Details	Scanner feed is not completed within the specified time.
		Cause	Mirror unit defect Scanner wire disconnection Origin detection sensor error Mirror motor harness abnormality
		Check and remedy	Check the scanning operation with SIM 1-1. Mirror base feed trouble Check for disconnection of the scanner wire. Check the harness and connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. When the mirror feeds: Check the mirror home position sensor with SIM 1-2.
L3	00	Content	Scanner return trouble
		Details	Scanner return is not completed within the specified time. "When OC copying with the mirror at the home position, the mirror is not in the home position. "
		Check and remedy	Check the scanning operation with SIM 1-1. Mirror base return trouble Check for disconnection of the scanner wire. Check the harness and connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. When the mirror feeds: Check the mirror home position sensor with SIM 1-2.
L4	01	Content	Main motor trouble
		Details	The main motor does not rotate. The motor lock signal is detected for 1sec or more after the main motor rotates. The motor lock signal is detected for 1sec during rotation of the main motor.
		Check and remedy	Check the main motor operation with SIM 25-1. Check connection of the main motor harness and connector. Replace the main motor. Replace the MCU PWB.

Trouble code		Details of trouble	
Main code	Sub code		
L4	11	Content	Shifter motor trouble
		Details	The shifter home position detection signal is not detected when the shifter is operating.
		Cause	Shifter motor trouble or harness connection trouble and disconnection Shifter home position sensor trouble
		Check and remedy	Check the shifter motor operation with SIM 3-11. Check connection of the shifter motor harness/connector. Replace the shifter motor. Replace the MCU PWB.
L6	10	Content	Polygon motor lock trouble
		Details	The polygon motor does not rotate. The motor lock signal is detected for 6sec or more after the polygon motor rotates. The motor lock signal is detected for 1sec during rotation of the polygon motor.
		Cause	Polygon motor unit failure Polygon motor connection, harness trouble or disconnection MCU PWB failure
		Check and remedy	Check the polygon motor operation with SIM 61-1. Check connector/harness of polygon motor Replace the polygon motor. Replace the MCU PWB.
L8	10	Content	Power abnormality detection trouble
		Details	The power status monitoring signal keeps power OFF state after passing the specified time (2sec).
		Cause	Circuit around the power status monitoring signal failure.
		Check and remedy	Check whether power status monitoring signal on MCU PWB is OPEN or not. Replace MCU PWB.
U1	01	Content	FAX battery error
		Details	The SRAM backup battery voltage on FAX PWB falls.
		Cause	The SRAM backup battery voltage on FAX PWB falls.
		Check and remedy	Check voltage of the SRAM back up battery. Replace the battery.
	02	Content	PANEL LOW battery error
		Details	The voltage of the panel clock function battery falls.
02	Cause	The voltage of the panel clock function battery falls.	
	Check and remedy	Check voltage of panel clock function battery. Replace the battery.	
U2	04	Content	EEPROM communication error
		Details	MCU PWB EEPROM access circuit failure
		Cause	EEPROM defective ICU PWB EEPROM access circuit failure
		Check and remedy	Check that the EEPROM is properly set. Clear trouble with SIM 16. Replace the MCU PWB.
		Remarks	EEPROM abnormality

Trouble code		Details of trouble	
Main code	Sub code		
U2	20	Content	Machine speed code data error
		Details	The machine (Boot) speed information is not identical to the model code speed information.
		Cause	EEPROM defective SIM operation error
		Check and remedy	Check that the machine set with SIM 26-57 is identical to the model information.
	Remarks	When the boot program speed code does not match with the body model information.	
	40	Content	CRUM chip communication error
		Details	Error in MCU-CRUM chip communication
		Cause	CRUM chip failure Developing unit contact trouble MCU PWB failure
Check and remedy		Replace the CRUM chip. Check installation of the developing unit. Clear the trouble with SIM 16. Replace the MCU PWB.	
Remarks	CRUM communication error		
U7	00	Content	RIC communication trouble
		Details	Error in communication with RIC Error in communication test after turning on the power or canceling SIM.
		Cause	Connector harness contact trouble or disconnection RIC control PWB trouble MCU PWB failure Malfunction by noises
		Check and remedy	Check the communication cable, connectors from the RIC box to the main body.
U9	00	Content	MCU-OPE communication trouble
		Details	Communication establishment error/ framing/parity/protocol error
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier. Check ROM on the operation control PWB.
	80	Content	Operation control PWB communication trouble (Protocol)
		Details	Communication trouble between MCU and the operation control PWB (Protocol error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.

Trouble code		Details of trouble	
Main code	Sub code		
U9	81	Content	Operation control PWB communication trouble (Parity)
		Details	Communication trouble between MCU and the operation control PWB (Parity error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
	82	Content	Operation control PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and the operation control PWB (Overrun error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
U9	84	Content	Operation control PWB communication trouble (Framing)
		Details	Communication trouble between MCU and the operation control PWB (Framing error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
	88	Content	Operation control PWB communication trouble (Time-out)
		Details	Communication trouble between MCU and the operation PWB (Time-out error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
99	Content	Operation panel destination error	
	Details	An error occurred in checking the destination of the operation panel and the main body.	
	Cause	Erroneous connection the operation panel unit SIM setup error	
	Check and remedy	Check the destination information of the operation panel unit and the MCU. (Use SIM 26-6 for the destination of the body.)	

Trouble code		Details of trouble	
Main code	Sub code		
EE	EL	Content	Developer adjustment trouble (Over-toned abnormality)
		Details	An abnormality occurred in execution of automatic developer adjustment. Sample data was detected over-toner.
		Cause	Toner concentration sensor abnormality Toner concentration trouble Developing unit trouble MCU PWB failure
		Check and remedy	Use SIM 25-2 to perform the auto developer adjustment.
	EU	Content	Developer adjustment trouble (Under-toned abnormality)
		Details	An abnormality occurred in execution of automatic developer adjustment. Sample data was detected under-toner.
		Cause	Toner concentration sensor abnormality Toner concentration trouble Developing unit trouble MCU PWB failure
		Check and remedy	Use SIM 25-2 to perform the auto developer adjustment.
PF	00	Content	RIC communication error
		Details	The copy inhibit command from RIC is received.
		Cause	Judged by the host.
		Check and remedy	Inform to the host.