1-5-2 Self-diagnosis

(1) Self-diagnostic function

This unit is equipped with a self-diagnostic function. When a problem is detected, copying is disabled. "C" and a number between 011 and 731 altenates, indicating the nature of the problem.
After removing the problem, the self-diagnostic function can be reset by turning safety switch off and back on.

(2) Self diagnostic codes

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C011	**Backup memory data problem** • Data in the specified area of the backup memory does not match the specified values.	Problem with the backup memory data.	Turn safety switch off and back on and run maintenance item U020 to set the contents of the backup memory data again.
		Defective backup RAM.	If the C011 is displayed after re-setting the backup memory contents, replace the backup RAM.
C021	**Printer board* communication problem** • There is no reply after 20 retries at communication.	Poor contact in the connector terminals.	Check the connection of connector CN20 on the main PCB and the connector on the printer board. Repair or replace if necessary.
		Defective main PCB or printer board.	Replace the main PCB or printer board and check for correct operation.
C040	**DIMM* problem** • Information on DIMM cannot be read out correctly at power-on.	Poor contact of the memory board**.	Check the insertion of the memory board**.
		DIMM installed incorrectly.	Check if the DIMM is inserted into the socket on the memory PCB correctly.
		Defective DIMM.	Replace the DIMM and check for correct operation.
C041	**Bitmap problem** • There is a problem with the data or address bus of the bitmap DRAM.	Poor contact of the memory board**.	Check the insertion of the memory board**.
		DIMM installed incorrectly.	Check if the DIMM is inserted into the socket on the memory PCB correctly.
		Defective DIMM.	Replace the DIMM and check for correct operation.
C043	**DMA problem** • DMA transmission of compressed, decompressed, rotated, relocated or blanked-out image data does not complete within the specified period of time.	Poor contact of the memory board**.	Check the insertion of the memory board**.
		Defective main PCB or memory board.	Replace the main PCB or memory board and check for correct operation.

*: Optional. **: Standard for 18 cpm copier/optional for 15 cpm copier.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C100	**Exposure lamp problem** • Check the CCD input value for the lighting status of the exposure lamp 100 ms after the exposure lamp is lit and the carriage is moved to the shading position. If the exposure lamp does not light, turn off the lamp. After 500 ms, light the lamp again and, a further 500 ms later, check the CCD input. The exposure lamp does not light after 5 retries.	Poor contact of the connector terminals.	Check the connection of connector CN12 on the main PCB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective exposure lamp.	Replace the exposure lamp.
		Defective main PCB or inverter PCB.	Replace the main PCB or inverter PCB and check for correct operation.
		Incorrect shading position.	Adjust the position of the contact glass (shading plate). If the problem still occurs, replace the scanner home position switch.
		CCD PCB output problem.	Replace the ISU.
C104	**Optical system problem** • After AGC, correct input is not obtained at CCD.	Poor contact of the connector terminals.	Check the connection of connector CN12 on the main PCB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective exposure lamp.	Replace the exposure lamp.
		Defective main PCB or inverter PCB.	Replace the main PCB or inverter PCB and check for correct operation.
		Incorrect shading position.	Adjust the position of the contact glass (shading plate). If the problem still occurs, replace the scanner home position switch.
		CCD PCB output problem.	Replace the ISU.
C310	**Scanner carriage problem** • The home position is not correct when the power is turned on or at the start of copying using the contact glass.	Poor contact of the connector terminals.	Check the connection of connector CN15 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Defective scanner home position switch.	Replace the scanner home position switch.
		Defective main PCB.	Replace the main PCB and check for correct operation.
		Defective scanner motor.	Replace the scanner motor.
C400	**Polygon motor synchronization problem** • The polygon motor does not reach a stable speed within 19 s of the polygon motor remote signal turning on.	Poor contact of the connector terminals.	Check the connection of connector CN3 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Defective polygon motor.	Replace the LSU.

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		Causes	Check procedures/corrective measures
C400	**Polygon motor synchronization problem** • The polygon motor does not reach a stable speed within 19 s of the polygon motor remote signal turning on.	Defective power source PCB.	Check if 24 V DC is present at CN1-2 on the power source PCB. If not, replace the power source PCB.
C401	**Polygon motor steady-state problem** • The polygon motor rotation is not stable for 400 ms after the polygon motor rotation has been stabilized.	Poor contact of the connector terminals.	Check the connection of connector CN3 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Defective polygon motor.	Replace the LSU.
		Defective power source PCB.	Check if 24 V DC is present at CN1-2 on the power source PCB. If not, replace the power source PCB.
C420	**BD steady-state problem** • The VTC detects a BD error for 800 ms after the polygon motor rotation has been stabilizad.	Poor contact of the connector terminals.	Check the connection of connector CN18 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Defective LSU.	Replace the LSU.
		Defective main PCB.	Replace the main PCB and check for correct operation.
C510	**Main charger problem** • MC ALM signal is detected continuously for 800 ms when MC REM signal is turned on.	Poor contact of the high-voltage transformer PCB connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, repair or replace the cable.
		Defective high-voltage transformer PCB.	Replace the high-voltage transformer PCB.
		Leakage during main charging.	Check and clean the main charger unit.
		Deformed high-voltage transformer PCB terminal spring.	Replace the spring.
C610	**Broken fixing heater wire** • It takes 15 s or more for the fixing temperature to reach 50°C/122°F after the power is turned on or the safety switch is turned off and on. • It takes 10 s or more for the fixing temperature to reach 100°C/212°F from 50°C/122°F. • It takes 24 s or more for the fixing temperature to reach the secondary stabilization fixing temperature from the primary stabilization fixing temperature.	Fixing heater installed incorrectly.	Check and reinstall if necessary.
		Broken fixing heater wire.	Check for continuity. If none, replace fixing heater.
		Poor contact in the fixing unit thermistor connector terminals.	Check the connection of connector CN11 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Broken fixing unit thermistor wire.	Measure the resistance. If it is $\infty\ \Omega$, replace the fixing unit thermistor.

Code	Contents	Remarks	
		Causes	Check procedures/corrective measures
C610	**Broken fixing heater wire** • It takes 15 s or more for the fixing temperature to reach 50°C/122°F after the power is turned on or the safety switch is turned off and on. • It takes 10 s or more for the fixing temperature to reach 100°C/212°F from 50°C/122°F. • It takes 24 s or more for the fixing temperature to reach the secondary stabilization fixing temperature from the primary stabilization fixing temperature.	Fixing unit thermistor installed incorrectly.	Check and reinstall if necessary.
		Fixing unit thermostat triggered.	Check for continuity. If none, replace the fixing unit thermostat.
C620	**Abnormally low fixing unit thermistor temperature** • The fixing temperature remains below 90°C/194°F for 10 s during copying.	Fixing heater installed incorrectly.	Check and reinstall if necessary.
		Broken fixing heater wire.	Check for continuity. If none, replace fixing heater.
		Poor contact in the fixing unit thermistor connector terminals.	Check the connection of connector CN11 on the main PCB and the continuity across the connector terminals. Remedy or replace if necessary.
		Broken fixing unit thermistor wire.	Measure the resistance. If it is $\infty\ \Omega$, replace the fixing unit thermistor.
		Fixing unit thermistor installed incorrectly.	Check and reinstall if necessary.
		Fixing unit thermostat triggered.	Check for continuity. If none, replace the fixing unit thermostat.
C630	**Abnormally high fixing unit thermistor temperature** • The fixing temperature exceeds 230°C/446°F for 10 s.	Shorted fixing unit thermistor.	Measure the resistance. If it is $0\ \Omega$, replace the fixing unit thermistor.
		Broken fixing heater control circuit on the power source PCB.	Replace the power source PCB.
C710	**Toner sensor problem** • The sensor output voltage is outside the range of 0.5 to 4.5 V during toner control. • The toner sensor control voltage cannot be set within the setting range when maintenance item U130 is run.	Defective toner sensor.	Replace the toner sensor.
		Poor contact of the toner sensor connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, repair or replace the cable.
		Developer problem.	Replace the developer.

Code	Contents	Remarks	
		Causes	**Check procedures/corrective measures**
C730	**Broken external temperature thermistor wire** • The input voltage is above 4.5 V.	Poor contact of the humidity sensor PCB connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, repair or replace the cable.
		Defective external temperature thermistor.	Replace the humidity sensor PCB.
C731	**Short-circuited external temperature thermistor** • The input voltage is below 0.5 V.	Poor contact of the humidity sensor PCB connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, repair or replace the cable.
		Defective external temperature thermistor.	Replace the humidity sensor PCB.