3-5-1 Self diagnostic function

(1) Self diagnostic display

This machine is equipped with a self-diagnostic function. When the machine detects a problem with itself, it disables copying. Symbol “C” and three digits (010 - 971) indicating the content of the self diagnostic content is displayed (a part of code is not displayed) on the touch screen. A message requesting the user to call for service is also displayed on the touch screen together with the telephone number preset by simulation 75.

Problems detected by the self diagnostic function are ranked A, B, C, and D according to their contents. The motion of the machine after detection of the problem is as follows.

Rank A: The machine stops the first time the problem is detected, and also the service call display appears.
Rank B: The service call display appears, then the machine enters partial operation control.
Rank C: The machine self-recovers by reseting CPU so on.
If the is problem detected again after the machine self-recovers, rank A or B motion will occur.
Rank D: Only the service call count takes place. The machine does not stop.

To clear the service call, the front cover safety switch, paper feed cover safety switch 1/2, or eject cover safety switch are turned OFF then ON again or when the main switch is turned OFF then ON again, after the cause of the breakdown has been removed. However, “C030” (CPU communication problem) and “C640” (fixing unit thermistor short circuit/abnormally high fixing temperature) can only be cleared by turning the main switch OFF then ON again.

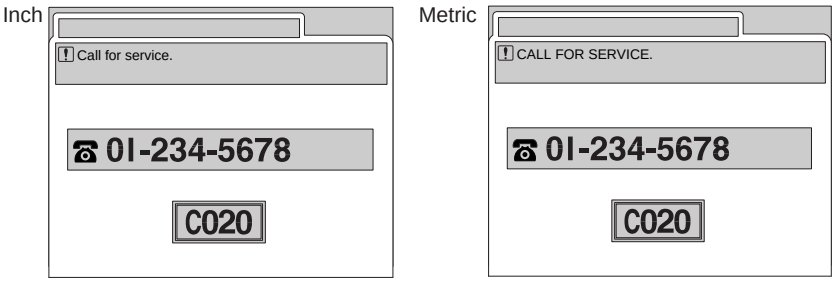

Figure 3-5-1 Self diagnostic display

(2) Partial operation control

If a problem is detected several times in succession when a certain part or function is used, only the part or function concerned is rendered unusable. Other functions that do not contain a problem can continue to be used.

(List of self diagnostic display)

Item	Code	Rank	C call	Contents
CPU and peripheral circuit problem	C010	D	-	Backup memory data problem
	C020	A	o	RAM read/write problem
	C030	C (A)	-*1	CPU communication problem
	C031	A	o	Scanner CPU communication problem
	C032	B	o	RDH communication problem
	C033	D	-	Sorter communication problem
	C034	A	o	Sub CPU communication problem
Illumination system problem	C100	A	o	Exposure problem
Cool and drive system problem	C210	A	o	Drive motor problem
	C220	B	o	Side registration motor problem
	C230	A	o	Image forming motor problem
	C240	A	o	Paper feed motor problem
	C253	B	o	Upper paper cassette lift motor problem
	C254	B	o	Lower paper cassette lift motor problem
	C255	B	o	Large paper deck right/left motor problem
Optical scanner system problem	C310	A	o	Locked scanner motor
	C311	A	o	Scanner home position switch problem
	C320	A	o	Scanner motor problem 1
	C321	A	o	Scanner motor problem 2
	C322	A	o	Scanner motor problem 3
	C330	A	o	Scanner control PCB problem 1
	C331	A	o	Scanner control PCB problem 2
	C337	A	o	Scanner watch dog problem
	C340	A	o	Scanner microcomputer problem
Lens system problem	C410	A	o	Lens carriage motor problem
	C430	A	o	Mirror motor problem
High-voltage system problem	C510	A	o	Main charger problem
	C520	A	o	Abnormally high voltage of the transfer charger belt
	C550	A	o	Drum surface potential sensor problem 1
	C551	A	o	Drum surface potential sensor problem 2
	C560	D	-	Potential compensation problem 1
	C561	D	-	Potential compensation problem 2
	C570	D	-	Light amount compensation problem 1
	C571	D	-	Light amount compensation problem 2
Fixing system problem	C610	A	o	Broken fixing heater M•S wire
	C630	A	o	Broken fixing unit therrmistor wire

*1: Displayed that CPU does not return, even if resetting the optical control side.

Item	Code	Rank	C call	Contents
Fixing system problem	C640	A	o	Fixing unit thermistor short circuit/abnormally high fixing temperature
	C650	A	o	Detection of low fixing temperature after fixing is stabilized.
Developing and Drum system problem	C710	A	o	Toner sensor problem
	C720	A	o	Broken drum thermistor wire
	C730	A	o	Drum thermistor short circuit
	C731	A	o	Broken drum heater wire
	C751	A	o	Broken outside thermistor wire
	C752	A	o	Outside thermistor short circuit
	C753	A	o	Broken developing thermistor
	C754	A	o	Developing thermistor short circuit
	C760	A	o	Toner hopper problem
Sorter problem	C810	B	o	*Sorter paper conveying motor problem*[*2]
	C811	B	o	Sorter conveying motor circuit problem[*2]
	C820	B	o	*Sorter bin unit motor problem*[*2]
	C821	B	o	Sorter shift motor circuit problem[*2]
	C830	B	o	*Sorter table motor problem*[*2]
	C831	B	o	Sorter bin slide motor problem[*2]
	C832	B	o	*Sorter paper holder motor problem*[*2]
	C833	B	o	Sorter side registration motor problem[*2]
	C840	B	o	Detection of sorter bin unit upper limit[*2]
	C841	B	o	Detection of sorter bin unit lower limit[*2]
	C850	B	o	*Sorter punch motor problem*[*2]
	C851	B	o	*Sorter stapler motor problem*[*2]
	C851	*B*	*o*	*Sorter reverse stapler moter problem*[*2]
	C852	B	o	Sorter stapler motor circuit problem[*2]
	C860	B	o	Sorter shutter problem[*2]
	C861	B	o	*Sorter hand moter problem*[*2]
	C862	B	o	Multihand problem[*2]
	C863	B	o	Multicommunication problem[*2]
	C864	*B*	*o*	*Sorter intermediate tray motor problem*[*2]
	C865	*B*	*o*	*Sorter stack tray motor problem* [*2]
	C870	*B*	*o*	*Sorter arm solenoid problem*[*2]
RDH and other option problem	C910	B	o	Original feed motor problem
	C920	B	o	Original conveying motor problem
	C930	B	o	Original eject motor problem
	C940	B	o	Original moving plate problem
	C941	B	o	Original partition plate problem

*2: Detects at the side of the sorter.

(Self diagnostic codes)

Code	Contents	Causes	Check procedures/corrective measures
C010	**Backup memory data probelm** • Data in the specified area of the backup memory do not match the specified values at power on.	Backup memory has a problem.	Turn the front cover safety switch off and on, and run simulation 70 to set the backup memory contents again.
		Defective BUPCB or MPCB.	If the C010 count increases again (check in simulation 76) after resetting the backup memory contents, replace the BUPCB or MPCB.
C020	**RAM read/write problem** • The read and write values do not match.	Defective MPCB.	Replace the MPCB and check for correct operation.
		Defective BUPCB.	Replace the BUPCB and check for correct operation.
C030	**CPU communication problem** • There is no reply after three attempts at communication between CPU1 (IC33) on the MPCB and the CPU (IC17) on the OMPCB.	Defective MPCB or OMPCB.	Replace the MPCB or OMPCB and check for correct operation.
C031	**Scanner CPU communication problem** • There is no reply after five attempts at communication between CPU1 (IC33) on the MPCB and CPU (IC10) on the SCPCB.	Defective MPCB.	Replace the MPCB and check for correct operation.

Code	Contents	Causes	Check procedures/corrective measures
C032	**RDH communication problem** • Communication errors from CPU2 (IC11) on the main PCB: No communication: there is no reply after three retries. Abnormal communication: a communication error (parity or checksum error) is detected five times in succession.	Poor contact in the connector terminals.	Check if CN13 on the MPCB and CN4 on the RDHMPCB are inserted correctly and check for continuity across the connector terminals. Repair or replace them if necessary.
		Defective MPCB.	Replace the MPCB and check for correct operation.
		Defective RDHMPCB.	Replace the RDHMPCB and check for correct operation.
C033	**Sorter communication problem** • Communication errors from CPU2 (IC11) on the main PCB: No communication: there is no reply after three retries. Abnormal communication: a communication error (parity or checksum error) is detected five times in succession.	Poor contact in the connector terminals.	Check if CN13 on the MPCB and the connector on the sorter MPCB are inserted correctly and check for continuity across the connector terminals. Repair or replace them if necessary.
		Defective MPCB.	Replace the MPCB and check for correct operation.
C034	**Sub CPU communication problem** • The sub CPU counter (DRAM) shows no change.	Defective MPCB.	Replace the MPCB and check for correct operation.

Code	Contents	Causes	Check procedures/corrective measures
C100	**Exposure problem** • The value reduction of the drum surface potential sensor is 5 bit or less when the halogen lamp is turned ON during the light amount compensation.	Broken halogen lamp filament.	Check for continuity. If none, replace the halogen lamp (see page 3-3-43).
		Defective CPCB.	Replace the CPCB and check for correct operation.
		Defective MPCB.	Replace the MPCB and check for correct operation.
		Defective drum surface potential sensor.	Replace the drum surface potential sensor and check for correct operation.
C210	**Drive motor problem** • LOCK ALARM signal remains high for 1 s after the drive motor has turned on.	Poor contact in the drive motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the drive motor.	Replace the drive motor.
		Malfunction of the drive motor due to a broken driving gear, etc.	Check for broken driving gears in the drive motor and replace if any.

Code	Contents	Causes	Check procedures/corrective measures
C220	**Duplex side registration motor problem** • A problem where the side registration home position switch does not turn off after the side registration motor has turned 30 steps or the side registration home position switch does not turn on after the motor has turned 265 steps is detected twice in succession. (The first time, the copier indicates that the duplex unit is not inserted correctly, requesting the user to open and reinsert the duplex unit. After the second detection, the copier enters partial operation control.)	Poor contact in the connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective side registration motor.	Replace the side registration motor.
		Defective side registration home position switch.	Replace the side registration home position switch, if the main PCB terminal CN4-8 shows no change when the side registration home position switch is turned ON/OFF.
		Malfunction of the side registration guides.	Check if the side registration guides operate smoothly. If not, repair.
C230	**Image forming motor problem** • 1 s after the image forming motor started driving, the lock alarm signal turns to “H” level status and holds it for 1s.	Poor contact in the image forming motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the image forming motor.	Replace the image forming motor.
		Malfunction of the image forming motor due to a broken driving gear, etc.	Check for broken driving gears in the image forming motor and replace if any.

Code	Contents	Causes	Check procedures/corrective measures
C240	**Paper feed motor problem** • 1 s after the paper feeding motor started driving, the lock alarm signal turns to “H” level status and holds it for 1s.	Poor contact in the paper feed motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the paper feed motor.	Replace the paper feed motor.
		Malfunction of the paper feed motor due to a broken driving gear, etc.	Check for broken driving gears in the paper feed motor and replace if any.
C253	**Upper paper cassette lift motor problem** • A problem where the upper lift limit switch does not turn on within 10 s after the upper paper cassette lift motor has turned on is detected twice in succession. (The first time, the copier indicates that the upper cassette is not inserted correctly, requesting the user to open and reinsert the drawer. After the second detection, the copier enters partial operation control.)	Poor contact in the upper paper cassette lift motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective upper paper cassette lift motor.	Rreplace the upper paper cassette lift motor.
		Poor contact in the upper lift limit switch connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective upper lift limit switch.	Replace the upper lift limit switch, if the main PCB terminal CN2-11 shows no change when the upper lift limit switch is turned ON/OFF.

Code	Contents	Causes	Check procedures/corrective measures
C254	**Lower paper cassette lift motor problem** • A problem where the lower lift limit switch does not turn on within 10 s after the lower paper cassette lift motor has turned on is detected twice in succession. (The first time, the copier indicates that the lower cassette is not inserted correctly, requesting the user to open and reinsert the drawer. After the second detection, the copier enters partial operation control.)	Poor contact in the lower paper cassette lift motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective lower paper cassette lift motor.	Replace the lower paper cassette lift motor.
		Poor contact in the lower lift limit switch connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective lower lift limit switch.	Replace the lower lift limit switch, if the main PCB terminal CN2-12 shows no change when the lower lift limit switch is turned ON/OFF.

Code	Contents	Causes	Check procedures/corrective measures
C255	**Large paper deck left/right lift motor problem** • A problem where the large paper deck level switch 1•2 does not turn on within 30 s after the Large paper deck left/right lift motor has turned on is detected twice in succession. (The first time, the copier indicates that the large paper deck is not inserted correctly, requesting the user to open and reinsert the drawer. After the second detection, the copier enters partial operation control.)	Poor contact in the large paper deck left/right lift motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective large paper deck left/ right lift motor.	Replace the large paper deck left/ right lift motor.
		Poor contact in the large paper deck level switch 1•2 connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective large paper deck level switch 1•2.	Replace the large paper deck level switch 1/2, if the main PCB terminal CN8-6A or CN8-9B shows no change when the large paper deck level switch 1/2 is turned ON/OFF.
C310	**Locked scanner motor** • Less than 20 encoder pulses are counted during 60 ms after the scanner started driving.	Poor contact in the scanner motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the scanner motor.	Replace the scanner motor.
		Malfunction of the scanner motor due to a broken driving gear, etc.	Check for broken driving gears in the scanner motor and replace if any.

Code	Contents	Causes	Check procedures/corrective measures
C311	**Scanner home position switch problem** • The scanner home position switch does not turn OFF 200 ms after the start of normal rotation. • The scanner home position switch does not turn ON 4 s after the start of reverse rotation.	Poor contact in the scanner motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the scanner motor.	Replace the scanner motor.
		Malfunction of the scanner motor due to a broken driving gear, etc.	Check for broken driving gears in the scanner motor and replace if any.
		Poor contact in the scanner home position switch connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective scanner home position switch.	Replace the scanner home position switch, if the scanner control PCB terminal CN6-19 shows no change when the scanner home position switch is turned ON/OFF.
		The scanner drive belt is off.	If it is off, refix it and adjust its tension.
		Loose scanner wire.	If it is loose, refix it.
		Loose fixing screw of the scanner wire retainer.	If it is loose, refix it and adjust image focusing.
C320	**Scanner motor problem 1** • The input receives no encoder signal after the scanner motor started driving.	Poor contact in the scanner motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the scanner motor.	Replace the scanner motor.
		Malfunction of the scanner motor due to a broken driving gear, etc.	Check for broken driving gears in the scanner motor and replace if any.

Code	Contents	Causes	Check procedures/corrective measures
C321	**Scanner motor problem 2** • The input receives the reverse rotation encoder signal while the scanner motor is rotating in the normal direction.	Poor contact in the scanner motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the scanner motor.	Replace the scanner motor.
		Malfunction of the scanner motor due to a broken driving gear, etc.	Check for broken driving gears in the scanner motor and replace if any.
C322	**Scanner motor problem 3** • The input receives the normal rotation encoder signal while the scanner motor is rotating in the reverse direction.	Poor contact in the scanner motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective rotation control circuit in the scanner motor.	Replace the scanner motor.
		Malfunction of the scanner motor due to a broken driving gear, etc.	Check for broken driving gears in the scanner motor and replace if any.
C330	**Scanner control PCB problem 1** • The overrun of 229 pulses during the scanner motor's normal rotation	Defective SCPCB.	Replace the SCPCB.
C331	**Scanner control PCB problem 2** • The overrun of 193 pulses during the scanner motor's reverse rotation	Defective SCPCB.	Replace the SCPCB.
C337	**Scanner watch dog problem** • The hang-up of the scanner control PCB's CPU	Defective SCPCB.	Replace the SCPCB.

Code	Contents	Causes	Check procedures/corrective measures
C340	**Scanner microcomputer problem** • The hardware bug of the scanner control PCB's CPU	Defective SCPCB.	Replace the SCPCB.
C410	**Lens carriage motor problem** • The lens carriage home position switch does not turn ON or OFF after being removed for 2471 pulses during the initial operation.	Poor contact in the lens carriage motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective lens carriage motor.	Replace the lens carriage motor.
		Poor contact in the lens carriage home position switch connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective lens carriage home position switch.	Replace the lens carriage home position switch, if the scanner control PCB terminal CN6-11 shows no change when the lens carriage home position switch is turned ON/OFF.
		The lens carriage drive belt is off.	If it is off, refix it.
C430	**Mirror motor problem** • The mirror home position switch does not turn ON or OFF after being removed for 1335 pulses during the initial operation.	Poor contact in the mirror motor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective mirror motor.	Replace the mirror motor.
		Poor contact in the mirror home position switch connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective mirror home position switch.	Replace the mirror home position switch, if the scanner control PCB terminal CN6-12 shows no change when the mirror home position switch is turned ON/OFF.

Code	Contents	Causes	Check procedures/corrective measures
C510	**Main charger problem** • The MC ALARM signal is detected continuously for 400 ms.	The main charger leaks.	Check the main charger assembly. Clean it if it is dirty.
		Broken main charger wire.	Check the main charger wire and replace it if it is broken (see page 3-3-37).
		Defective HVTPCB.	Detach the main charger assembly and if C510 persists, replace the HVTPCB.
C520	**Abnormally high voltage of the transfer charger belt** • The TC ALARM signal is detected continuously for 400 ms.	The transfer charger leaks.	Check the transfer charger assembly. Clean it if it is dirty.
		Broken tranfer charger belt.	Check the transfer charger belt and replace it if it is broken (see page 3-3-94).
		Defective TCBPCB.	Detach the transfer charger assembly and if C520 persists, replace the main TCBPCB.
C550	**Drum surface potential sensor problem 1** • The 200 voltage value and the 500 voltage value is reversed or their difference is 5bit or less during the potential sensor calibration.	Poor contact of the drum surface potential sensor connector terminal.	Check if the connector terminal is conductive. Replace the connector terminal if it is not conductive.
		Defective drum surface potential sensor.	Replace the drum surface potential sensor.
		Defective MPCB.	Replace the MPCB.
C551	**Drum surface potential sensor problem 2** • The target value of the drum surface potential sensor is calculated to be 255 or more during the potential compensation or the light amount compensation.	Poor contact of the drum surface potential sensor connector terminal.	Check if the connector terminal is conductive. Replace the connector terminal if it is not conductive.
		Defective drum surface potential sensor.	Replace the drum surface potential sensor.
		Defective MPCB.	Replace the MPCB.

Code	Contents	Causes	Check procedures/corrective measures
C560	**Potential compensation problem 1** • Maximizing the grid output can not set the potential during the potential compensation.	The main charger leaks.	Check the main charger assembly. Clean it if it is dirty.
		Broken main charger wire.	Check the main charger wire and replace it if it is broken (see page 3-3-37).
		Defective HVTPCB.	Replace the HVTPCB.
		Defective MPCB.	Check that the value (30 - 230 bit) of simulation 30 and 34 is correct. If so, replace the MPCB.
C561	**Potential compensation problem 2** • Minimizing the grid output can not set the potential during the potential compensation.	Defective HVTPCB.	Replace the HVTPCB.
		Defective MPCB.	Check that the value (30 - 230 bit) of simulation 30 and 34 is correct. If so, replace the MPCB.
C570	**Light amount compensation problem 1** • Maximizing the exposure output can not set the correct exposure during the light amount compensation.	*Any of the mirror, dust shield glass or pseudo-document is dirty.*	*Clean up the mirror ,dust shield glass or pseudo-document.*
		The scanner section thermostat is working.	Check that the optical section fan motor rotates during the halogen lamp lightening when the optical section thermostat operates. Reset by pushing the reset button of the scanner section thermostat.
		The halogen lamp is deteriorated or burned out.	Replace the halogen lamp. (See page 3-3-43)
		Defective CPCB.	Replace the CPCB.
		Defective MPCB.	Replace the MPCB.
		The drum surface potential sensor is set too high.	Reset the drum surface potential sensor. (See page 3-3-42)
		Defective drum surface potential sensor.	Replace the drum surface potential sensor.

Code	Contents	Causes	Check procedures/corrective measures
C571	**Light amount compensation problem 2** • Minimizing the exposure output can not set the correct exposure during the light amount compensation.	Defective CPCB.	Replace the CPCB.
		Defective MPCB.	Replace the MPCB.
		The drum surface potential sensor is set too high.	Reset the drum surface potential sensor. (See page 3-3-42)
		Defective drum surface potential sensor.	Replace the drum surface potential sensor.
C610	**Broken fixing heater M/S wire** • Fixing temperature fails to stabilize within 17 minutes after the start of fixing temperature control.	Broken fixing heater.	Check for continuity across the fixing heater terminals. If none, replace the fixing heater M or S.
		The fixing unit thermostat 1 or 2 is open circuit.	Check for continuity. If none, find the cause and replace the thermostat 1 or 2 .
		Poor contact in the fixing heater connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		The fixing unit thermistor is installed incorrectly.	Check and remedy if necessary.
		Defective CPCB.	Check if the fixing heater M or S turns on when CN19-6 or CN19-7 on the MPCB fails to go low, if not, replace the CPCB.
C630	**Broken fixing unit thermistor wire** • The fixing temperature remains at 0°C/32°F for 30 s continuously when the fixing heater is ON (except when copying).	Broken fixing unit thermistor wire.	Measure the resistance. If it is ∞ Ω, replace the fixing unit thermistor.
		Defective fixing unit thermistor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
C640	**Abnormally high fixing temperature** • The fixing temperature exceeds 230°C/446°F for 20 s.	Shorted fixing unit thermistor.	Measure the resistance. If it is 0 Ω, replace the fixing unit thermistor.
		Defective CPCB.	Replace the CPCB and check for correct operation.

Code	Contents	Causes	Check procedures/corrective measures
C650	**Detection of low fixing temperature after fixing is stabilized.** • Detection of low fixing temperature after fixing is stabilized. The fixing temperature of 100°C/212°F or less is detected after fixing is stabilized.	Broken fixing unit heater M or S.	Check for continuity across the fixing heater terminals. If none, replace the fixing heater M or S.
		Defective assembling of the fixing heater M or S	Check and remedy if necessary.
		The fixing thermostat 1 or 2 is working.	Check if it is conductive. Replace the fixing thermostat 1 or 2 if it is not conductive.
		The fixing unit thermistor is installed incorrectly.	Check and remedy if necessary.
		Defective CPCB.	Replace the CPCB and check for correct operation.
C710	**Toner sensor problems** • The output of the toner sensor is 0.1 V or less, or 4.9 V or more, during the toner control. • The control output voltage can not be set in the specified range during the simulation “60”.	Defective toner sensor.	Replace the toner sensor.
		Poor contact in the toner sensor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
C720	**Broken drum thermistor wire** • The input of the drum thermistor is 4.5V or more for 5s continuously when the front cover is closed.	Broken drum thermistor wire.	Measure the resistance. If it is ∞ Ω, replace the drum thermistor.
		Poor contact in the drum thermistor connector terminals.	Check for continuity across the connector terminals. If none, replace them.

Code	Contents	Causes	Check procedures/corrective measures
C730	**Drum thermistor short circuit** • The input of the drum thermistor is 2.1 V or less for 5 s continuously when the front cover is closed.	Drum thermistor short circuit.	Measure the resistance. If it is 0 Ω, replace the drum thermistor.
		Defective MPCB.	Replace the MPCB and check for correct operation.
C731	**Broken drum heater wire.** • The output of the drum heater is 100% even at the point of 17 min after each safety switch turned on. • The drum temperature remains at 34°C/93°F or less for 1 min continuously during copying.	Broken drum heater wire.	Check for continuity across the drum heater terminals. If none, replace the drum heater.
		Poor contact in the drum thermistor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
		Defective CPCB.	Replace the composite PCB, if the drum heater light does not come on when the main PCB terminal CN19-1 is set at “L” level.
C751	**Broken outside thermistor wire** • The input of the thermistor is 4.5 V or more.	Broken outside thermistor wire.	Measure the resistance between the humidity sensor PCB terminals CN1 and CN2. Replace the humidity sensor PCB if it is infinity ohms.
		Defective outside thermistor connector terminal.	Check if the connector terminal is conductive. Replace the connector terminal if it is not conductive.
C752	**Outside thermistor short circuit** • The input of the thermistor is 0.5 V or less.	Outside thermistor short circuit.	Measure the resistance between the humidity sensor PCB terminals CN1 and CN2. Replace the humidity sensor PCB if it is zero ohms.
		Defective MPCB.	Replace the MPCB and check for correct operation.
C753	**Broken developing thermistor wire** • The input of the thermistor is 4.5 V or more.	Broken developing thermistor wire.	Measure the resistance. Replace the developing thermistor if it is infinity ohms.
		Defective developing thermistor connector terminal.	Check if the connector terminal is conductive. Replace the connector terminal if it is not conductive.

Code	Contents	Causes	Check procedures/corrective measures
C754	**Developing thermistor short circuit** • The input of the thermistor is 0.5 V or less.	Developing thermistor short circuit.	Measure the resistance. Replace the developing thermistor if it is zero ohms.
		Defective MPCB.	Replace the MPCB and check for correct operation.
C760	**Toner hopper problem** • The toner level is not detected when toner empty is detected.	Defective toner level detection sensor.	Replace the toner level detection sensor.
		Poor contact in the toner level detection sensor connector terminals.	Check for continuity across the connector terminals. If none, replace them.
C810	***Sorter paper conveying motor problem***	*Sorter detects sorter paper conveying motor problem.*	See the sorter service manual.
C811	**Sorter conveying motor circuit problem**	The sorter detected a sorter conveying motor circuit problem.	See the sorter service manual.
C820	***Sorter bin unit motor problem***	*The sorter detected a sorter bin unit motor problem.*	See the sorter service manual.
C821	**Sorter shift motor circuit problem**	The sorter detected a sorter shift motor circuit problem.	See the sorter service manual.
C830	***Sorter table motor problem***	*The sorter detected a sorter table motor problem.*	See the sorter service manual.
C831	**Sorter bin slide motor problem**	The sorter detected a sorter bin slide motor problem.	See the sorter service manual.
C832	***Sorter paper holder motor problem***	*The sorter detected a sorter paper holder motor problem.*	See the sorter service manual.

Code	Contents	Causes	Check procedures/corrective measures
C833	**Sorter side registration motor problem**	The sorter detected a sorter side registration problem.	See the sorter service manual.
C840	**Detection of sorter bin unit upper limit**	The sorter detected a sorter bin unit upper limit.	See the sorter service manual.
C841	**Sorter bin unit lower limit detection**	The sorter detected a sorter bin unit lower limit.	See the sorter service manual.
C850	***Sorter punch motor problem***	*The sorter detected a sorter punch motor problem.*	See the sorter service manual.
C851	***Sorter stapler motor problem***	*The sorter detected a sorter stapler motor problem.*	See the sorter service manual.
C851	***Sorter reverse stapler motor problem***	*The sorter detected a sorter reverse stapler motor problem.*	*See the sorter service manual. *When the optional reverse stapler unit is attached.*
C852	**Sorter stapler motor circuit problem**	*The sorter detected a sorter stapler motor circuit problem.*	See the sorter service manual.
C860	**Sorter shutter problem**	The sorter detected a sorter shutter problem.	See the sorter service manual.
C861	***Sorter hand motor problem***	*The sorter detected a sorter hand motor problem.*	See the sorter service manual.
C862	**Multihand problem**	The sorter detected a multihand problem.	See the sorter service manual.
C863	**Multicommunication problem**	The sorter detected a multicommunication problem.	See the sorter service manual.

Code	Contents	Causes	Check procedures/corrective measures
C864	***Sorter intermediate tray motor problem***	*The sorter detected a sorter intermediate tray motor problem.*	*See the sorter service manual.*
C865	***Sorter stack tray motor problem***	*The sorter detected a sorter stack tray motor problem.*	*See the sorter service manual.*
C870	***Sorter arm solenoid problem***	*The sorter detected a sorter arm solenoid problem.*	*See the sorter service manual.*
C910	**Original feed motor problem** • The input receives no original feed motor FG signal for 800 ms while the original feed motor is driven.	Defective original feed motor pulse sensor.	Replace the original feed motor pulse sensor, if the level of the RDH main PCB terminal CN7-8 does not change while the original feed motor is driven.
		Defective original feed motor.	Check the coil-to-coil conductivity of the original feed motor. Replace the original feed motor if it is zero.
		Defective RDHMPCB.	Replace the RDH main PCB, if “C910” is displayed even when the level of the RDH main PCB terminal CN7-8 changes while the original feed motor is driven.
		Poor contact of the connector terminals of the original feed motor and its pulse sensor.	Check for continuity across the connector terminals. If none, replace them.
		Defective drive system.	Check the gears, drive belts, etc. Replace them if some defectives are found.

Code	Contents	Causes	Check procedures/corrective measures
C920	**Original conveying motor problem** • The input receives no original conveying motor pulse signal for 500 ms while the original conveying motor is driven.	Defective original conveying motor pulse sensor.	Replace the original conveying motor pulse sensor, if the levels of the RDH main PCB terminals CN7-10 and CN7-12 do not change while the original conveying motor is driven.
		Defective original conveying motor.	Check the coil-to-coil conductivity of the original conveying motor. Replace the original conveying motor if it is zero.
		Defective RDH MPCB.	Replace the RDH main PCB, if “C920” is displayed even when the levels of the RDH main PCB terminals CN7-10 and CN7-12 change while the original conveying motor is driven.
		Poor contact of the connector terminals of the original conveying motor and its pulse sensor.	Check for continuity across the connector terminals. If none, replace them.
		Defective drive system.	Check the gears, drive belts, etc. Replace them if some defectives are found.

Code	Contents	Causes	Check procedures/corrective measures
C930	**Original eject motor problem**	Defective original eject motor pulse sensor.	Replace the original eject motor pulse sensor, if the level of the RDH main PCB terminal CN3-24 does not change while the original eject motor is driven.
		Defective original eject motor.	Check the coil-to-coil conductivity of the original eject motor. Replace the original eject motor if it is zero.
		Defective RDH MPCB.	Replace the RDH main PCB, if “C930” is displayed even when the level of the RDH main PCB terminal CN3-24 changes while the original eject motor is driven.
		Poor contact of the connector terminals of the original eject motor and its pulse sensor.	Check for continuity across the connector terminals. If none, replace them.
		Defective drive system.	Check the gears, drive belts, etc. Replace them if some defectives are found.

Code	Contents	Causes	Check procedures/corrective measures
C940	**Original moving plate problem** • If the original moving plate home position switch does not turn on while the original moving motor is turned ON for 2.5 s in the reverse rotation, JAM is displayed after the same process is repeated 3 times. The original moving plate home position switch does not turn ON, if the whole process above is repeated 2 times after JAM is released.	Defective original moving home position switch.	Replace the original moving home position switch, if the level of the RDH main PCB terminal CN3-18 does not become “H” level when the original moving plate is returned to the home position.
		Defective original moving solenoid.	When the original moving plate is returned to the home position and while the original moving motor is driven, check the coil-to-coil conductivity of the original moving control solenoid if the original moving plate does not work. Replace the original moving control solenoid if the conductance is zero.
		Defective original moving motor.	When the original moving plate is returned to the home position, check the coil-to-coil conductivity of the original moving motor if the original moving motor does not work. Replace the original moving motor if the conductance is zero.
		Defective RDH MPCB.	Replace the RDH main PCB, if the levels of the RDH main PCB terminals CN3-12 and CN3-14 do not change while the original moving motor is driven.
		Poor contact of the connector terminals of the original moving home position switch, the original moving control solenoid, and the original moving motor.	Check for continuity across the connector terminals. If none, replace them.
		Defective drive system	Check the gears, drive belts, etc. Replace them if some defectives are found.

Code	Contents	Causes	Check procedures/corrective measures
C941	**Original partition plate problem** • If the original partition plate home position switch does not turn ON while the original moving motor is turned ON for 2.5 s in the reverse rotation, JAM is displayed after the same process is repeated 3 times. The original partition plate home position switch does not turn ON if the whole process above is repeated 2 times after JAM is released.	Defective original partition home position switch.	Replace the original partition home position switch, if the level of the RDH main PCB terminal CN6-2 does not become “H” level when the original partition plate is returned to the home position.
		Defective original partition solenoid.	When the original partition plate is returned to the home position and while the original moving motor is driven, check the coil-to-coil conductivity of the original partition control solenoid if the partition moving plate does not work. Replace the original partition control solenoid if the conductance is zero.
		Defective original moving motor.	Check the coil-to-coil conductivity of the original moving motor if the original moving motor does not work when the original partition plate is returned to the home position. Replace the original moving motor if the conductance is zero.
		Defective RDH MPCB.	Replace the RDH main PCB if the levels of the RDH main PCB terminals CN3-12 and CN3-14 do not change while the original moving motor is driven.
		Poor contact of the connector terminals of the original partition home position switch, the original partition control solenoid, and the original moving motor.	Check for continuity across the connector terminals. If none, replace them.
		Defective drive system.	Check the gears, drive belts, etc. Replace them if some defectives are found.