Troubleshooting

Service Call Conditions

Summary

There are four levels of service call conditions.

Level	Definition	Reset Procedure
A	To prevent damage to the machine, the main machine cannot be operated until the SC has been reset by a service representative (see the note below).	Enter SP mode, and then turn the main power switch off and on.
B	If the SC was caused by incorrect sensor detection, the SC can be reset by turning the main power switch off and on.	Turn the main power switch off and on.
C	The main machine can be operated as usual, excluding the unit related to the service call.	Turn the main power switch off and on.
D	The SC history is updated. The machine can be operated as usual.	The SC will not be displayed. Only the SC history is updated.

⬇ Note

- If the problem concerns electrical circuit boards, first disconnect then reconnect the connectors before replacing the PCBs.
- If the problem concerns a motor lock, first check the mechanical load before replacing motors or sensors.

SC Code Descriptions

No.	Definition	Symptom	Possible Cause
101	B	Exposure Lamp Error The standard white level was not detected properly when scanning the white plate.	- Exposure lamp defective - Exposure lamp stabilizer defective - Exposure lamp connector defective - Dirty scanner mirror or scanner mirror out of position - SBU board defective - SBU connector defective - Lens block out of position - Incorrect position or width of white plate scanning (p.141)
120	B	Scanner home position error 1 The scanner home position sensor does not detect the off condition	- Scanner home position sensor defective - Scanner drive motor defective

No. Definition		Symptom	Possible Cause
		during initialization or copying.	▪ Scanner home position sensor connector defective ▪ Scanner drive motor connector defective ▪ BICU board defective
121	B	Scanner home position error 2	
		The scanner home position sensor does not detect the on condition during initialization or copying.	▪ Scanner home position sensor defective ▪ Scanner drive motor defective ▪ Scanner home position sensor connector defective ▪ Scanner drive motor connector defective ▪ BICU board defective
143	D	SBU white/black level correction error	
		The automatic SBU adjustment has failed to correct the black level. The automatic SBU adjustment has failed to correct the white level twenty times consecutively.	▪ Exposure lamp defective ▪ Dirty white plate ▪ Incorrect position or width of white plate scanning (☛ p.141) ▪ BICU board defective ▪ SBU board defective
144	B	Communication Error between BICU and SBU	
		The BICU board cannot detect the SBU connect signal.	▪ The flat cable between the BICU board and the SBU has a poor connection ▪ The flat cable between the BICU board and the SBU is damaged ▪ BICU board defective ▪ SBU defective
145	D	Automatic SBU adjustment error	
		During the automatic SBU adjustment, the machine detects that the white level read from the white plate or paper is out of range. (☛ p.141)	▪ Exposure lamp defective ▪ Dirty white plate ▪ Incorrect position or width of white plate scanning (☛ p.141) ▪ BICU board defective ▪ SBU board defective
193	B	Image transfer error	
		Scanned images are not transferred to the controller memory within 1 minute.	▪ BICU board defective ▪ Controller board defective
198	B	Memory address error	
		The BICU board does not receive memory addresses from the controller board.	▪ The firmware programs of the engine and the controller do not match. ▪ BICU board defective ▪ Controller board defective
302	B	Charge roller current leak	
		A current leak signal for the charge roller is	▪ Charge roller damaged ▪ High voltage supply board defective

No. Definition		Symptom	Possible Cause
		detected.	• Poor connection of the PCU
320	B	Polygonal mirror motor error	
		The polygon mirror motor does not reach operating speed within 10 seconds after the motor ON signal is sent, or does not turn on within one of the 200 ms check intervals during operation.	• Polygon mirror motor defective • Poor connection between the polygonal mirror motor driver and the BICU board • Damaged cable between BICU and polygonal mirror motor driver • BICU board defective
321	C	No laser writing signal (F-GATE) error	
		The laser-writing signal (F-GATE) fails to turn Low after the laser crosses 5 mm on the drum surface from the laser writing start position.	• BICU board defective • The fax controller or printer controller has a poor connection • Fax controller or printer controller defective
322	B	Laser synchronization error	
		The main scan synchronization detector board cannot detect the laser synchronization signal for more than 5 consecutive 100 ms intervals.	• Poor connection between the LD unit and the BICU board • Damaged cable between BICU and LD unit • LD unit out of position • LD unit defective • BICU board defective
390	B	TD sensor error	
		The TD sensor outputs less than 0.2 V or more than 4.0 V 10 times consecutively during copying.	• TD sensor abnormal • Poor connection of the PCU
391	B	Development bias leak	
		A development bias leak signal is detected.	• Poor connection of the PCU • High voltage supply board defective
392	B	TD sensor initial setting error	
		TD sensor initial setting is not performed correctly.	• ID sensor defective • No developer • Drum does not turn • Development roller does not turn • Poor connection of the PCU • The voltage is not applied to charge roller
401	B	Transfer roller leak error 1	
		A current leak signal for the transfer roller is detected. A current feedback signal for the transfer roller is not detected.	• High voltage supply board defective • Poor connection of the PCU • Transfer/separation unit set incorrectly • Transfer roller damaged
402	B	Transfer roller leak error 2	

No. Definition		Symptom	Possible Cause
		A current leak signal for the transfer roller is detected. A current feedback signal for the transfer roller is not detected.	▪ High voltage supply board defective ▪ Poor connection of the PCU ▪ Transfer/separation unit set incorrectly ▪ Transfer roller damaged
500	B	Main motor lock	
		A main motor lock signal is not detected for more than 7 consecutive checks (700 ms) after the main motor starts to rotate, or the lock signal is not detected for more than 7 consecutive checks during rotation after the last signal.	▪ Too much load on the drive mechanism ▪ Main motor defective
502	C	Tray 2 lift motor malfunction (Optional paper tray units)	
		The paper lift sensor fails to activate twice continuously after the tray lift motor has been on for 18 seconds.	▪ Paper lift sensor defective ▪ Tray lift motor defective ▪ Too much load on the drive mechanism ▪ Poor tray lift motor connection
503	C	Tray 3 lift motor malfunction (optional paper tray units)	
		The paper lift sensor fails to activate twice continuously after the tray lift motor has been on for 18 seconds.	▪ Paper lift sensor defective ▪ Tray lift motor defective ▪ Too much load on the drive mechanism ▪ Poor tray lift motor connection
504	C	Tray 4 lift motor malfunction (optional two-tray paper tray unit)	
		The paper lift sensor fails to activate twice continuously after the tray lift motor has been on for 18 seconds.	▪ Paper lift sensor defective ▪ Tray lift motor defective ▪ Too much load on the drive mechanism ▪ Poor tray lift motor connection
506	C	Paper feed motor lock (optional paper tray units)	
		A motor lock signal is not detected for more than 1.5 s or the lock signal is not detected for more than 1.0 s during rotation.	▪ Paper feed motor defective ▪ Too much load on the drive mechanism
541	A	Fusing thermistor open (center)	
		The fusing temperature detected by the thermistor is below 71C and is not corrected after the main power switch is turned on.	▪ Fusing thermistor defective or out of position ▪ Power supply board defective ▪ Loose connectors
542	A	Fusing temperature warm-up error (center)	
		The fusing temperature rises less than 7 degrees in 2 seconds, and this	▪ Fusing thermistor defective or out of position ▪ Fusing lamp open

No. Definition		Symptom	Possible Cause
		continues 5 times consecutively. The fusing temperature is not detected in 25 or 35 seconds.	▪ Power supply board defective
543	A	Fusing overheat error (center)	
		The fusing temperature is over 230C for 1 second (detected by the thermistor).	▪ Fusing thermistor defective ▪ Power supply board defective
544	A	Fusing overheat error (center) 2	
		The fusing temperature is over 250C for 1 second (detected by the fusing temperature monitor circuit).	▪ Fusing thermistor defective ▪ Power supply board defective
545	A	Fusing lamp overheat error (center)	
		After the fusing temperature reaches the target temperature, the fusing lamp does not turn off for 12 consecutive seconds.	▪ Fusing thermistor defective or out of position ▪ Power supply board defective
546	A	Unstable fusing temperature (center)	
		The fusing temperature varies 50C or more within 1 second, and this occurs 2 consecutive times.	▪ Thermistor defective or out of position ▪ Power supply unit defective
547	B	Zero cross signal malfunction	
		Zero cross signals are not detected within 5 seconds after the main power switch is turned on, or are not detected within 1 second after operation begins.	▪ Power supply board defective ▪ BICU defective
551	A	Fusing thermistor open (rear)	
		The fusing temperature detected by the thermistor is below 71C and is not corrected after the main power switch is turned on.	▪ Fusing thermistor defective or out of position ▪ Power supply board defective ▪ Loose connectors
552	A	Fusing temperature warm-up error (rear)	
		The fusing temperature rises less than 7 degrees in 2 seconds, and this continues 5 times consecutively. The fusing temperature is not detected in 25 or 35 seconds.	▪ Fusing thermistor defective or out of position ▪ Fusing lamp open ▪ Power supply board defective

No. Definition		Symptom	Possible Cause
553	A	Fusing overheat error (rear)	
		The fusing temperature is over 230C for 1 second (detected by the thermistor).	▪ Fusing thermistor defective ▪ Power supply board defective
555	A	Fusing lamp overheat error (rear)	
		After the fusing temperature reaches the target temperature, the fusing lamp does not turn off for 20 consecutive seconds.	▪ Fusing thermistor defective or out of position ▪ Power supply board defective
556	A	Unstable fusing temperature (rear)	
		The fusing temperature varies 50C or more within 1 second, and this occurs 2 consecutive times.	▪ Thermistor defective or out of position ▪ Power supply unit defective
559		Jam error detected 3 times in succession	
		▪ The exit sensor and the duplex sensor detect a paper jam 3 times in succession ▪ This condition can occur when SP 1159 1 is set to 'on'. The default is 'off'.	Paper jams can occur for the following reasons. ▪ Dampness ▪ Paper curl ▪ Incorrect paper setting in the paper tray ▪ Stripper pawls coming apart
590	B	Left exhaust fan motor error	
		The CPU detects an exhaust fan lock signal for more than 5 seconds.	▪ Loose connection of the exhaust fan motor ▪ Too much load on the motor drive
591	B	Rear exhaust fan motor error	
		The CPU detects an exhaust fan lock signal for more than 5 seconds.	▪ Loose connection of the exhaust fan motor ▪ Too much load on the motor drive
620	B	Communication error between BICU and ADF	
		The BICU does not receive a response from the ADF main board for 4 seconds or more. The BICU receives a break signal from the ADF main board.	▪ Poor connection between the BICU and ADF main board (DF connector) ▪ ADF main board defective ▪ BICU defective
621	B	ADF connection error	
		An incorrect ADF (an ADF for some other copier) is detected. (for Basic and GDI machines) An ADF (including the correct ADF) is installed while the copier is in the	▪ ADF incorrect (The ADF for B039/B040/B043 or B121/B122/B123 is installed on a B245/B268/B269/B276/B277.) ▪ The connector of the ADF is removed while the machine is in the energy saver mode.

No. Definition		Symptom	Possible Cause
		energy saver mode. (for GDI machine only)	
632	C	Accounting error 1 An error is detected during the communication with the MF accounting device.	▪ Accounting device defective ▪ Loose connection
633	C	Accounting error 2 After communication is established with the MF accounting device, a brake signal is issued.	▪ Accounting device defective ▪ Loose connection
634	C	Accounting RAM error An error is detected in the RAM that saves the information on the MF accounting.	▪ Accounting device defective
635	B	Accounting battery error An error is detected in the battery that is in the MF accounting device.	▪ Accounting device defective
670	C	Engine start error The engine-ready signal is not issued within 70 seconds after the switch is turned on.	▪ Engine board defective ▪ Controller defective ▪ Loose connection
692	B	Controller board communication abnormal Communication error between the printer part of the controller board and BICU.	▪ The connector is abnormal between the controller board and the BICU board.
694		Controller board communication abnormal Communication error between the scanner part of the controller board and BICU.	▪ The connector is abnormal between the controller board and the BICU board.
760	B	ADF gate abnormal 1 The ADF Gate signal line between the ADF main board and the BICU is disconnected.	▪ ADF main board defective ▪ Input/output board defective ▪ Poor connection (ADF Gate line) between the ADF main board and the BICU.
761	B	ADF gate abnormal 2 The FGATE signal is not issued from the ADF within 30 seconds after the ADF starts feeding.	▪ ADF connector defective ▪ SBU board defective
762	B	ADF gate abnormal 3 The FGATE signal is not terminated by the ADF	▪ ADF connector defective ▪ SBU board defective

No. Definition		Symptom	Possible Cause
		within 60 seconds after the ADF starts feeding.	
800	B	Startup without video output end error	
		Video transfer to the engine is started, but the engine did not issue a video transmission end command within the specified time.	▪ Controller board defective
804	B	Startup without video input end	
		A video transmission was requested from the scanner, but the scanner did not issue a video transmission end command within the specified time.	▪ Controller board defective
818	B	Watchdog error	
		The CPU does not access the watchdog register within a certain time.	▪ Controller board defective ▪ Software malfunction – download controller firmware again
819	B	Kernel mismatch error	
		Software bug	▪ Download controller firmware again
820	B	Self-Diagnostic Error: CPU	
		The central processing unit returned an error during the self-diagnostic test.	▪ Controller board defective ▪ Download controller firmware again
821	B	Self-Diagnostic Error: ASIC	
		The ASIC returned an error during the self-diagnostic test because the ASIC and CPU timer interrupts were compared and determined to be out of range.	▪ Controller board defective
823	C	Self-diagnostic Error: Network Interface	
		The network interface board returned an error during the self-diagnostic test.	▪ Network interface board defective ▪ Controller board defective
824	B	Self-diagnostic Error: NVRAM	
		The resident non-volatile RAM returned an error during the self-diagnostic test.	▪ Replace the NVRAM on the controller board ▪ Replace the controller board
826	B	Self-diagnostic Error: NVRAM/Optional NVRAM	
		The NVRAM or optional NVRAM returned an error	▪ Replace the NVRAM on the controller board

No. Definition		Symptom	Possible Cause
		during the self-diagnostic test.	
827	B	Self-diagnostic Error: RAM	
		The resident RAM returned a verify error during the self-diagnostic test.	▪ Download controller firmware again
828	B	Self-diagnostic Error: ROM	
		The resident read-only memory returned an error during the self-diagnostic test.	▪ Controller board defective ▪ Download controller firmware again
829	C	Self-diagnostic Error: Optional RAM	
		The optional RAM returned an error during the self-diagnostic test.	▪ Replace the optional memory board ▪ Controller board defective
838	B	Self-diagnostic Error: Clock Generator	
		A verify error occurred when setting data was read from the clock generator via the I2C bus.	▪ Replace the controller board
850	C	Network I/F Abnormal	
		NIB interface error.	▪ NIB defective ▪ Controller board defective
857	C	USB I/F Error	
		USB interface error detected.	▪ Defective controller
900	B	Electrical total counter error	
		The electrical total counter does not work properly.	▪ NVRAM on the GDI controller board defective
901	B	Mechanical total counter	
		The mechanical total counter does not work properly.	▪ Mechanical total counter defective ▪ BICU defective ▪ Disconnected mechanical total counter
903	B	Engine total counter error	
		The checksum of the total counter is not correct.	▪ NVRAM on the BICU defective
920	C	Printer error	
		A fatal error is detected in the printer application program	▪ Printer application program defective ▪ Hardware configuration incorrect (including memory shortage)
921	C	Printer font error	
		Necessary font files are not found.	▪ Font file not installed
928	B	Memory error	
		The machine detects a discrepancy in the write/read data during its	▪ Memory defective ▪ BICU defective ▪ Poor connection between BICU and

No. Definition		Symptom	Possible Cause
		write/read test (done at power off/on and at recovery from low power or night/off mode).	memory
954	B	Printer application program error	
		The printer status does not become ready when the printer application program is necessary for image processing.	▪ Application program defective
955	B	Image transfer error	
		The controller is not able to transfer images when the engine needs them.	▪ Application program defective
964	B	Status error (laser optics housing unit)	
		The optics-housing unit does not become ready within 17 seconds after the request.	▪ Software defective
981	B	NVRAM error	
		The machine detects a discrepancy in the NVRAM write/read data when attempting to save actual data to the NVRAM (i.e. during actual use).	▪ NVRAM defective ▪ Poor connection between BICU and NVRAM ▪ NVRAM is not connected ▪ BICU defective
982	B	Localization error	
		The localization settings in the nonvolatile ROM and RAM are different (☛ p.146).	▪ First machine start after the NVRAM is replaced ▪ Incorrect localization setting ▪ NVRAM defective
984	B	Print image transfer error	
		Print images are not transferred.	▪ Controller defective ▪ BICU board defective ▪ Poor connection between controller and BICU
990	B	Software performance error	
		The software attempted to perform an unexpected operation.	▪ Software defective ▪ Internal parameter incorrect ▪ Insufficient working memory ▪ When this SC occurs, the file name, address, and data will be stored in NVRAM. This information can be checked by using SP 7403. Note the above data and the situation in which this SC occurs. Then report the data and conditions to your technical control center.
991	D	Software continuity error	
		The software attempted to	▪ No operation required. This SC code

No. Definition		Symptom	Possible Cause
		perform an unexpected operation. However, unlike SC990, the object of the error is continuity of the software.	does not appear on the panel, and is only logged.
992	B	Unexpected Software Error	
		Software encountered an unexpected operation not defined under any SC code.	▪ Software defective ▪ An error undetectable by any other SC code occurred
997	B	Application function selection error	
		The application selected by a key press on operation panel does not start or ends abnormally.	▪ Download the firmware for the application that failed ▪ An option required by the application (RAM board) is not installed
998	B	Application start error. After power on, the application does not start within 60 s. (All applications neither start nor end normally.)	▪ Download controller firmware ▪ Replace the controller board ▪ An option required by the application (RAM board) is not installed
999	B	Program download error	
		The download (program, print data, language data) from the IC card does not execute normally.	▪ Board installed incorrectly ▪ BICU board defective ▪ Controller board defective ▪ IC card defective ▪ NVRAM defective ▪ Loss of power during downloading ▪ Important Notes About SC999 ▪ Primarily intended for operating in the download mode, logging is not performed with SC999. ▪ If the machine loses power while downloading, or if for some other reason the download does not end normally, this could damage the controller board or the PCB targeted for the download and prevent subsequent downloading. If this problem occurs, the damaged PCB must be replaced.