STATIM 7000 Troubleshooting Guide

STATIM 7000	STATIM 7000S	Cycle Fault Number & Message	Description of Fault	Potential Cause(s) of Fault	Step	Troubleshooting Steps & Corrective Actions
●	●	Cycle Fault #1	The Cassette temperature failed to reach boiling temperature within a time-out period.	Large cassette leak in conjunction with an extremely large load	(1)	Run an Unwrapped Cycle with empty cassette and see if problem recurs. If large steam leak is observed, reinstall or replace cassette seal. If it does not, the cycle fault is likely due to overload.
				Blown thermal fuse(s) in steam generator	(2)	Check for blown thermal fuse(s) in steam generator, replace if necessary.
				Contaminated steam generator or a faulty steam generator triac	(3)	Replace steam generator if defective.
				Faulty steam generator (steam generator resistance failed open)	(4)	Replace steam generator if defective,
●	●	Cycle Fault #3	The Cassette has failed to pressurize to achieve a temperature of 110°C within a time-out period.	Improperly-installed cassette seal	(1)	Check to make sure that cassette seal is properly installed, re-install if necessary.
				Defective cassette seal	(2)	Check to make sure that the cassette seal is not damaged or cracked. Replace if necessary.
				Damaged cassette	(3)	Check to make sure that the cassette is not damaged, replace with new cassette if necessary.
				Leaky check valve (may damage Air Compressor)	(4)	Check to make sure that steam generator check valve is not leaking.
				Leaky pressure relief valve	(5)	Check to make sure that the pressure relief valve cap is seated properly.
				One or more exhaust solenoid valves stuck open	(6)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck open. Replace solenoid valve(s) as required.
●	●	Cycle Fault #4	The Cassette has failed to achieve sterilization conditions within a timeout period after the chamber has first reached 110°C.	Refer to list of causes in CF3	(1)	Refer to corrective actions corresponding to CF3.
●		Cycle Fault #6	The software has detected the filtered Validation thermocouple temperature 5°C greater than the chamber during the sterilization phase of a cycle.	One or more exhaust tubing kinked or pinched	(1)	Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
				Visible steam leaks from Cassette seal, lid, tray or couplings	(2)	Check for visible steam leaks from the cassette seal, lid, tray or couplings. Replace cassette or cassette seal/couplings as required.
				One or more exhaust solenoid valves stuck open	(3)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck open. Replace solenoid valve(s) as required.
				Validation thermocouple or chamber temperature sensor mis-calibration	(4)	Recalibrate validation thermocouple or chamber thermocouple

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●		Cycle Fault #7	Chamber temperature drops bellow the sterilization temperature (134°C /121°C) by less than 3°C for more than 1 second for a third consecutive time. When chamber temperature drops below the sterilization temperature by less than 3°C for the 1st & 2nd time, unit returns to pressurizing phase until it reaches Sterilization temperature+2°C. Following that Sterilization phase restarts. Restart of sterilization timer is done to a maximum of two times per cycle.	Refer to list of causes in CF3	(1)	Refer to corrective actions corresponding to CF3.
●		Cycle Fault #8	The software has detected the filtered Validation Thermocouple temperature 5°C less than the chamber during the sterilizing phase of a cycle.	Clogged exhaust duct mesh screen in the cassette	(1)	Check the exhaust duct mesh screen in the cassette and remove any debris.
				One or more exhaust solenoid valves stuck open	(2)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck open. Replace solenoid valve(s) as required.
				Input voltage too low resulting in solenoid valves not fully opened	(3)	Check input voltage. If voltage is correct, one or more solenoid valves are defective. Replace solenoid valve(s) if defective.
				Validation thermocouple or chamber temperature sensor mis-calibration	(4)	Recalibrate validation thermocouple or chamber thermocouple
				Water pump flow too high	(5)	Check water pump flow (look for high flow) using test bottle and replace water pump if necessary.
●	●	Cycle Fault #10	The cassette temperature has failed to drop to 115°C during the Unwrapped or Wrapped Cycle or 110°C during the Rubber and Plastics Cycle in the purge conditioning stage.	Clogged exhaust duct mesh screen in the cassette	(1)	Check the exhaust duct mesh screen in the cassette and remove any debris.
				One or more exhaust tubing kinked or pinched	(2)	Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
				One or more exhaust solenoid valves stuck close	(3)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck close. Replace solenoid valve(s) as required.
				One or more 2A fuses blown in Main PCB and/or SHS adapter PCB	(4)	Check for blown 2A fuses on main PCB and SHS adapter PCB. Replace as required.
●	●	Cycle Fault #11	The cassette temperature has failed to drop to 102°C within a timeout period at the end of a cycle during venting.	Refer to list of causes in CF10	(1)	Refer to corrective actions corresponding to CF10.

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●	●	Cycle Fault #12	This indicates a problem with the temperature measuring system.	Disconnected, broken or faulty auxiliary heater thermocouple	(1)	Check for defective auxiliary heater thermocouple; replace if necessary. Check yellow thermocouple connector to make sure the "+" and "-" wires are properly connected and secured.
				Disconnected, broken or faulty chamber thermocouple	(2)	Check for defective chamber thermocouple; replace if necessary. Check yellow thermocouple connector to make sure the "+" and "-" wires are properly connected and secured.
				Disconnected, broken or faulty cassette inlet thermocouple	(3)	Check for defective cassette inlet thermocouple; replace if necessary. Check yellow thermocouple connector to make sure the "+" and "-" wires are properly connected and secured.
				Disconnected, broken or faulty validation thermocouple (non-S unit only)	(4)	Check for defective validation thermocouple; replace if necessary Check yellow thermocouple connector to make sure the "+" and "-" wires are properly connected and secured.
				Defective Main PCB	(5)	Replace main PCB if defective.
				Defective SHS adapter PCB	(6)	Replace SHS PCB if defective.
				Data communication cable between SHS adapter PCB and Main PCB was installed incorrectly	(7)	Check the data communication cable on the main PCB end to make sure it is connected properly (not off by one row of pins).
●	●	Cycle Fault #14	The cassette inlet temperature sensor detected a temperature above the high threshold	Microbiological air filter not installed	(1)	Check to make sure that the microbiological air filter is installed.
				Clogged microbiological air filter	(2)	Check for dirty/clogged microbiological air filter, replace as required.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered on continuously as soon as the unit is powered on causing the Auxiliary Heater to overheat and burn out.	(3)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Defective solid-state relay	(4)	Replace solid-state relay if defective.
●	●	Cycle Fault #15	The cassette temperature raised above the high threshold during the Sterilization phase of a cycle or above 138.6°C during conditioning or pressurizing phase of the cycle	Refer to list of causes in CF10	(1)	Refer to corrective actions corresponding to CF10.

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●	●	Cycle Fault #16	The steam generator temperature went above a predefined ceiling temperature	Water reservoir not fully inserted	(1)	Make sure the water reservoir is fully inserted into the unit.
				Reed switch adjustment incorrect in water receiver assembly causing unit to recognize water reservoir as fully inserted even if it's not	(2)	Make sure the Water Reservoir is not fully inserted into the unit and start a cycle. If unit does not display "REFILL RESERVOIR, EMPTY BOTTLE" after starting a cycle, either the reed switch is not adjusted properly or the float switch is defective in the water receiver assembly. Replace water receiver assembly,
				Defective float switch (failed close) causing unit to sense water in reservoir even if there isn't any	(3)	Enter service mode, go to Conductivity Setup. Remove water reservoir from unit. A "-" should be displayed to the left of the "R". If an "L" is displayed instead, the float switch is defective. Replace water receiver assembly.
				Water filter inserted backwards	(4)	Check if water filter is inserted backwards and if so reinsert it in proper orientation.
				Water filter not fully inserted into water receiver assembly allowing ingress of air during priming	(5)	Make sure that water filter cartridge is fully inserted into the unit.
				Water filter cracked allowing ingress of air during priming	(6)	Check water filter for damage or leak, replace if necessary.
				Partially or completely clogged water filter outlet sintered filter	(7)	Replace water filter cartridge with a new one. If CF disappears after replacement, the root cause is a clogged water filter.

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				Cracked or damaged water receiver housing or silicone tubing	(8)	Check water receiver assembly, associated silicone tubing and drain tubing for damage, replace if necessary.
				Failed or weak water pump	(9)	Check water pump flow (look for low flow) using test bottle; check for debris in water pump inlet mesh or outlet bushing; replace water pump if necessary,
				Blocked water pump outlet tube	(10)	Check water pump outlet PTFE tube for debris and blockage, replace PTFE tube if necessary.
				Contaminated steam generator	(11)	Replace steam generator if too much corrosion inside.
●	●	Cycle Fault #17	The auxiliary heater temperature sensor detected a temperature above the high threshold	Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered on continuously as soon as the unit is powered on causing the Auxiliary Heater to overheat and burn out.	(1)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Auxiliary Heater thermocouple junction opened permanently or opens intermittently at high temperature	(2)	Run another Unwrapped Cycle and if CF12 occurs immediately or CF17 recurs, auxiliary heater thermocouple is defective. Replace auxiliary heater.
				Defective solid-state relay	(3)	Replace solid-state relay if defective.
				Defective SHS adapter PCB	(4)	Replace SHS PCB if defective.
●	●	Cycle Fault #18	Ambient temperature (as sensed by the PCB cold junction temperature sensor) increased over a preset threshold	Blockage to air intake	(1)	Check to make sure that nothing is blocking the front bottom of the unit where the air intake is.
				One or more 2A fuses blown in Main PCB and/or SHS adapter PCB	(2)	Check for blown 2A fuses on main PCB and SHS adapter PCB. Replace as required.
				Failed cooling fan	(3)	Replace cooling fan if defective,
				defective SHS adapter PCB	(4)	Replace SHS PCB if defective.
				defective Main PCB	(5)	Replace main PCB if defective.
●		Cycle Fault #19	The Validation Thermocouple calibration is invalid.	When a new PCB or Microprocessor is installed or when the unit has been subjected to a strong static discharge corrupting the memory	(1)	Calibrate the Validation Thermocouple.
●	●	Cycle Fault #20	The cassette temperature raised above 138.6°C during the Drying phase of a cycle.	Microbiological air filter not installed	(1)	Check to make sure that the microbiological air filter is installed.
				Clogged microbiological air filter	(2)	Check for dirty/clogged microbiological air filter, replace as required.

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				Clogged exhaust duct mesh screen in the cassette	(3)	Check the exhaust duct mesh screen in the cassette and remove any debris.
				One or more exhaust tubing kinked or pinched	(4)	Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
				One or more exhaust solenoid valves stuck close	(5)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck close. Replace solenoid valve(s) as required.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered on continuously as soon as the unit is powered on causing the Auxiliary Heater to overheat and burn out.	(6)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Defective solid-state relay	(7)	Replace solid-state relay if defective.
				Defective Auxiliary Heater	(8)	Replace auxiliary heater if defective.
				Defective SHS adapter PCB	(9)	Replace SHS PCB if defective.
●	●	Cycle Fault #25	The software has failed to detect a need to pump water within 90 seconds after the start of the cycle	Improperly-connected steam generator leads (loose or unconnected).	(1)	Check to make sure that the lead wires are properly and securely connected to the steam generator.
				Excess water left behind in steam generator from previous cycle	(2)	Turn unit off for 30 seconds and after that restart a cycle, this will force a priming phase to evaporate excess water from steam generator.
				One or more thermal fuses blown in steam generator	(3)	Check for blown fuse in steam generator and replace power cable as required.
				Defective steam generator heating element	(4)	Verify steam generator resistance. Replace steam generator if necessary.
				Defective Main PCB causing water pump to pump water to steam generator continuously	(5)	Replace main PCB if defective.
●		Cycle Fault #26	The sterilization phase has failed to start within 3 minutes of the cassette reaching sterilization temperature. CF26 is displayed when it occurred in 3 consecutive cycles (Cycle Interrupted is displayed for the first two cycles). CF26 counter is reset whenever a successful cycle is completed.	Defective Water Filter	(1)	Check water filter for leakage/damage and replace with new water filter if necessary.
				One or more exhaust solenoid valves stuck open	(2)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck open. Replace solenoid valve(s) as required.
				Weak Water Pump	(3)	Check water pump flow using test bottle and replace water pump if necessary.
				Improper Validation Thermocouple calibration	(4)	Recalibrate the validation thermocouple.

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●	●	Cycle Fault #27	The temperature of the steam generator failed to drop bellow a set-point temperature (150°C or 165°C) in a timeout period	Refer to list of causes in CF16	(1)	Refer to corrective actions corresponding to CF16.
	●	Cycle Fault #28	The cassette pressure rose above a ceiling value.	Refer to list of causes in CF10	(1)	Refer to corrective actions corresponding to CF10.
				Gross pressure and/or temperature sensor mis-calibration	(2)	Re-calibrate chamber temperature sensor,
				Defective pressure sensor	(3)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #30	The theoretical cassette temperature calculated from the measured cassette pressure failed to reach the sterilization temperature within 15 seconds of the cassette temperature reaching the sterilization temperature.	Refer to list of causes in CF50	(1)	Refer to corrective actions corresponding to CF50.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
●	●	Cycle Fault #32	Water Filter failed to prime within a timeout period	Refer to list of causes in CF16	(1)	Refer to corrective actions corresponding to CF16.
	●	Cycle Fault #50	For the Rubber and Plastics cycle, the chamber temperature dropped below the sterilization temperature, allowing for measurement error (i.e. Tchm < 121°C).	Steam leak in the system	(1)	Check for visible steam leaks from the cassette seal, lid, tray or couplings. Replace cassette or cassette seal/couplings as required.
				Poor air removal during conditioning due to one or more blocked exhaust solenoid valves, clogged exhaust duct mesh screen in the cassette and/or exhaust tubing kinked or pinched	(2)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck close. Replace solenoid valve(s) as required. Check the exhaust duct mesh screen in the cassette and remove any debris. Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
				One or more exhaust solenoid valves stuck open during sterilization phase	(3)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck open. Replace solenoid valve(s) as required.
				Chamber temperature sensor mis-calibration	(4)	Run another cycle to see if CF1, CF3, CF10 or CF16 occurs. If it does, refer to list of causes and corrective actions corresponding to the cycle fault. Re-calibrate chamber temperature sensor.
				Unable to generate steam	(5)	Run another cycle to see if CF1, CF10, CF16 or CF25 occurs. If it does, refer to list of causes and corrective actions corresponding to the cycle fault.

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	●	Cycle Fault #51	For the Rubber and Plastics cycle, the chamber temperature rose more than 4 C° above the sterilization temperature, allowing for measurement error (i.e. Tchm > 125°C).	Chamber temperature sensor mis-calibration	(1)	Run another cycle to see if CF1, CF3, CF10 or CF16 occurs. If it does, refer to list of causes and corrective actions corresponding to the cycle fault. Re-calibrate chamber temperature sensor.
				poor air removal during conditioning due to one or more blocked exhaust solenoid valves, clogged exhaust duct mesh screen in the cassette and/or exhaust tubing kinked or pinched	(2)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck close. Replace solenoid valve(s) as required. Check the exhaust duct mesh screen in the cassette and remove any debris. Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
	●	Cycle Fault #52	For the Rubber and Plastics cycle, the theoretical chamber temperature as calculated from the measured chamber pressure was more than 2°C below the measured chamber temperature, allowing for measurement error.	Refer to list of causes in CF51	(1)	Refer to corrective actions corresponding to CF51.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #53	For the Rubber and Plastics cycle, the theoretical chamber temperature as calculated from the measured chamber pressure was more than 2°C above the measured chamber temperature, allowing for measurement error.	Refer to list of causes in CF52	(1)	Refer to corrective actions corresponding to CF52.
	●	Cycle Fault #54	For the Rubber and Plastics cycle, the theoretical cassette temperature calculated from the measured cassette pressure was below the sterilization temperature, allowing for measurement error (i.e. Pchm < 204.8 kPa).	Refer to list of causes in CF50	(1)	Refer to corrective actions corresponding to CF50.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #55	For the Rubber and Plastics cycle, the theoretical cassette temperature calculated from the measured cassette pressure was more than 4°C above the sterilization temperature, allowing for measurement error (i.e. Pchm > 232 kPa).	Refer to list of causes in CF51	(1)	Refer to corrective actions corresponding to CF51.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #60	For a 134°C cycle, the chamber temperature dropped below the sterilization temperature, allowing for measurement error (i.e. Tchm < 134°C).	Refer to list of causes in CF50	(1)	Refer to corrective actions corresponding to CF50.

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	●	Cycle Fault #61	For a 134°C cycle, the chamber temperature rose more than 4 C° above the sterilization temperature, allowing for measurement error (i.e. Tchm > 138°C).	Refer to list of causes in CF51	(1)	Refer to corrective actions corresponding to CF51.
	●	Cycle Fault #62	For a 134°C cycle, the theoretical chamber temperature as calculated from the measured chamber pressure was more than 2°C below the measured chamber temperature, allowing for measurement error.	Refer to list of causes in CF51	(1)	Refer to corrective actions corresponding to CF51.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #63	For a 134°C cycle, the theoretical chamber temperature as calculated from the measured chamber pressure was more than 2°C above the measured chamber temperature, allowing for measurement error.	Refer to list of causes in CF52	(1)	Refer to corrective actions corresponding to CF52.
	●	Cycle Fault #64	For a 134°C the theoretical cassette temperature calculated from the measured cassette pressure was below the sterilization temperature, allowing for measurement error (i.e. Pchm < 304 kPa).	Refer to list of causes in CF50	(1)	Refer to corrective actions corresponding to CF50.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #65	For a 134°C cycle, the theoretical cassette temperature calculated from the measured cassette pressure was more than 4°C above the sterilization temperature, allowing for measurement error (i.e. Pchm > 341.2 kPa).	Refer to list of causes in CF51	(1)	Refer to corrective actions corresponding to CF51.
				Pressure sensor mis-calibration	(2)	Re-calibrate pressure sensor. Replace pressure sensor if defective.
	●	Cycle Fault #70	The time maintained by the internal timer of the processor didn't match the time maintained by the external real-time clock.	Transient electromagnetic disturbance (problem won't repeat) Damaged microprocessor or crystal (STATIM Controller Board) Damaged real-time clock or crystal	(1)	If cycle fault recurs, replace main PCB.
	●	Cycle Fault #71	Pressure reading is outside the possible range	Misconnected, disconnected or damaged pressure sensor.	(1)	Check the pressure sensor connection to make sure if is properly and securely connected to the sensor and the main PCB. Replace pressure sensor if defective.
●	●	Cycle Fault #79	Error in communication with the RFID adapter or Cassette Seal RFID tag.	Defective RFID tag in Cassette Seal	(1)	Install a different cassette seal and if it works, it was a defective RFID tag.
				RFID adapter PCB not connected properly	(2)	Make sure the RFID adapter PCB is properly and securely connected to the main PCB.

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				Defective RFID adapter PCB	(3)	Replace RFID adapter PCB if defective.
●	●	Cycle Fault #80	Superheated steam did not reach a target temperature in a specified period of time during the steam-drying phase.	Too much water inside the Auxiliary Heater from previous cycle faults	(1)	Run one Wrapped Cycle to purge the auxiliary heater of any water and see if CF80 recurs.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered off at all times	(2)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered on continuously as soon as the unit is powered on causing the Auxiliary Heater to overheat and burn out.	(3)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				One or more blown fuses in SHS adapter PCB	(4)	Check for blown fuse in SHS adapter PCB and replace as required.
				Defective solid-state relay	(5)	Replace solid-state relay if defective.
				Defective Auxiliary Heater	(6)	Replace auxiliary heater if defective.
				Defective SHS adapter PCB	(7)	Replace SHS PCB if defective.
				Defective Main PCB	(8)	Replace main PCB if defective.
●	●	Cycle Fault #81	Compressed air did not reach a target temperature in a specified period of time during the air-drying phase.	Microbiological air filter not installed	(1)	Check to make sure that the microbiological air filter is installed.
				Clogged microbiological air filter	(2)	Check for dirty/clogged microbiological air filter, replace as required.
				Cassette inlet temperature sensor wire connection reversed	(3)	Check to make sure the cassette inlet thermocouple wire connections are correct, correct connection if wires were reversed.
				one or more blown fuses in SHS adapter PCB	(4)	Check for blown fuse in SHS adapter PCB and replace as required.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered off at all times	(5)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Incorrect connection of solid-state relay wires to the Main PCB will cause Auxiliary Heater to be powered on continuously as soon as the unit is powered on causing the Auxiliary Heater to overheat and burn out.	(6)	Check connections in solid-state relay and in the main PCB and make sure the wires are properly connected.
				Defective solid-state relay	(7)	Replace solid-state relay if defective.
				Defective Auxiliary Heater	(8)	Replace auxiliary heater if defective.

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				Defective SHS adapter PCB	(9)	Replace SHS PCB if defective.
				Defective Main PCB	(10)	Replace main PCB if defective.
●	●	Cycle Fault #82	Unit failed to cool down in a specified period of time during cooling down phase	Refer to list of causes in CF20	(1)	Refer to corrective actions corresponding to CF20.
				Failed Air Compressor triac	(2)	Replace main PCB if defective,
				Defective Air Compressor	(3)	Replace air compressor if defective.
				Defective Main PCB	(4)	Replace main PCB if defective.
●	●	Cycle Fault #90	Corrupted or not initialized chamber calibration value.	When a new controller board or microprocessor has been installed or when the unit has been subjected to a strong static discharge corrupting the memory	(1)	Perform a chamber calibration (if CF90) or pressure calibration (if CF91).
	●	Cycle Fault #91	Corrupted or not initialized pressure calibration	When a new controller board or microprocessor has been installed or when the unit has been subjected to a strong static discharge corrupting the memory	(1)	Perform a chamber calibration (if CF90) or pressure calibration (if CF91).
●	●	Cycle Fault #98	Main PCB not communicating with Auxiliary Heater PCB.	Data communication cable between SHS adapter PCB and Main PCB was installed incorrectly	(1)	Check the data communication cable on the main PCB end to make sure it is connected properly (not off by one row of pins).
				Microprocessor not installed properly in socket	(2)	Extract MCU, and verify pins not shorted. Replace MCU if necessary.
				Failed SHS adapter PCB voltage reference	(3)	Replace SHS adapter PCB,
				Defective SHS adapter PCB	(4)	Replace SHS PCB if defective.
				Damaged A-D converter in Main PCB	(5)	Replace main PCB.
				defective Main PCB	(6)	Replace main PCB if defective.
●	●	NO CONFIGURATION EEPROM (in English only)	No communication between EEPROM and Microprocessor.	Incorrect orientation of EEPROM in socket or no EEPROM installed in Main PCB	(1)	Check to make sure EEPROM is installed in socket and installed in the correct orientation.
●	●	CYCLE ABORTED	This error message is displayed on the printout only, followed by the message "NOT STERILE", as a result of the operator pressing the STOP button to stop the cycle or as a result of any other abnormal cycle termination, including CYCLE FAULT errors.	If this is due to a cycle fault, refer to cycle fault code displayed	(1)	Refer to corrective actions corresponding to the cycle fault code displayed.

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●	●	STOP BUTTON PRESSED	The operator pressed the STOP button to stop the cycle. The LCD shows the message "NOT STERILE" as a result.	None	(1)	None.
●	●	CYCLE INTERRUPTED or CYCLE INTERRUPTED (CFXX)	This message is displayed when one of the following has occurred: (i) (non-S unit only) the sterilization phase has failed to start within 3 minutes of the cassette reaching the sterilization temperature. If it occurs in 3 consecutive cycles, "CYCLE INTERRUPTED (CF26) is displayed in the 3rd cycle (ii) (S-unit only) the sterilization phase has failed with CF6x or CF5x. The message "CYCLE INTERRUPTED (CFXX)" is displayed. If it occurs in three consecutive cycles, Cycle Fault #6x or #5x is displayed in the 3rd cycle. (iii) the unit lost power before the cycle ended	Power failure	(1)	If there was indeed a power failure, press STOP to reset error message.
				Loose power cord connection	(2)	Check for loose power cord connection at the back of the unit and at the wall outlet.
				Refer to cycle fault code displayed	(3)	Refer to corrective actions corresponding to the cycle fault code displayed.
●	●	PRESS STOP TO RESET	This message is displayed for all error faults. The user MUST press the STOP button on the keypad to reset the unit; otherwise the user will be unable to initiate another cycle.	Refer to cycle fault code displayed	(1)	Refer to corrective actions corresponding to the cycle fault code displayed.
WATER RESERVOIR / RECEIVER / FILTER						
●	●	ORDER WATER FILTER EXPIRING SOON	This message is displayed in every cycle when (i) the water conductivity reaches 8µS/cm or (ii) the filter is within 6 days of the average usage time for this unit or (iii) the filter is due to expire in 10 days based on the 60-day limit.	If this happens shortly after a new filter is installed, it can be due to one or more of the following: (i) a bad water filter (initially clogged) which will cause the water conductivity to exceed 8µS/cm right after priming (ii) priming new water filters too often (presumably due to bad water filters) which skewed (shortened) the average usage time (iii) the priming of a new water filter being interrupted and the filter is subsequently being manually primed by activating the water pump from the Service menu.	(1)	Order Water Filter Cartridge part # SCWF1 (single cartridge) or part # SCWF6 (package of 6 cartridges). NEVER manually prime water filters using the water pump from the Service Menu or else the 60-day limit will not be reset.

STATIM 7000	STATIM 7000S	Cycle Fault Number & Message	Description of Fault	Potential Cause(s) of Fault	Step	Troubleshooting Steps & Corrective Actions
				If this occurs in less than 2 weeks of usage, it is likely that the water hardness in this location is very high (>180 ppm or 10 d°H)	(2)	Further water treatment will be required to reduce water hardness at this location.
●	●	ORDER WATER FILTER X DAY(S) REMAINING	This message is displayed in every cycle when the filter is due to expire in 5 days based on the 60-day limit.	If this happens shortly after a new filter is installed, it can be due to the priming of a new water filter being interrupted and the filter is subsequently being manually primed by activating the water pump from the Service menu.	(1)	Order Water Filter Cartridge part # SCWF1 (single cartridge) or part # SCWF6 (package of 6 cartridges). NEVER manually prime water filters using the water pump from the Service menu or else the 60-day limit will not be reset.
				If this occurs in less than 2 weeks of usage, it is likely that the water hardness in this location is very high (>180 ppm or 10 d°H)	(2)	Further water treatment will be required to reduce water hardness at this location.
●	●	WATER FILTER EXPIRED REPLACE WATER FILTER	This message is displayed when the Water Filter has been in use for 60 days or water quality is above 10µS/cm. The Water Filter must be replaced otherwise the user will be unable to initiate another cycle.	Defective water filter (crosstalk) if this message is displayed immediately after a new water filter cartridge has been installed	(1)	Install a new water filter. If message does not disappear after a new (dry) water filter is installed, the 60-day limit has not been reset which points to a defective water filter that has internal leakage (crosstalk).
				If this occurs in less than 2 weeks of usage, it is likely that the water hardness in this location is very high (>180 ppm or 10 d°H)	(2)	Further water treatment will be required to reduce water hardness at this location.
●	●	REFILL RESERVOIR EMPTY BOTTLE	This message is displayed when the water level in the Water Reservoir is below minimum or the Water Reservoir is not present when a cycle is initiated.	Defective water reservoir (magnet damaged or missing)	(1)	Check if magnet is missing or damaged in the water reservoir. If so replace water reservoir with a new one.
				Improper adjustment of proximity switch in water receiver assembly (out-of-box failure only) or defective proximity switch	(2)	Enter service mode, go to Conductivity Setup. Insert an empty water reservoir in the unit and an ""R"" should be displayed in the lower left corner of the screen. If a ""-"" is displayed instead, it is either a defective proximity switch or improper adjustment of the switch. Replace water receiver assembly.
				Defective float switch (failed open), cannot detect water presence	(3)	Enter Service mode, go to Conductivity Setup. Refill water reservoir to the MAX level and insert the water reservoir completely in the unit. An "L" should be displayed to the left of the "R". If a "-" is displayed instead, the float switch is defective. Replace water receiver assembly.

STATIM 7000	STATIM 7000S	Cycle Fault Number & Message	Description of Fault	Potential Cause(s) of Fault	Step	Troubleshooting Steps & Corrective Actions
●	●	POOR WATER QUALITY REPLACE FILTER/WATER	This message is displayed when Water Bypass Cartridge are used together with distilled water and water quality exceeds 10 µS/cm	Contaminated distilled water	(1)	Replace water in water reservoir with fresh distilled water and re-insert water reservoir in the unit.
				Tap water is used by mistake instead of distilled water	(2)	Extend the drain tube from behind the unit and remove the drain plug to flush the contaminated water out and re-prime the unit then replace the drain plug. Make sure the drain tube is FULLY extended from the chassis or else water will not come out which gives the false impression that the water receiver is already drained.
CASSETTE						
●	●	LUBRICATE CASSETTE COUPLING O-RINGS	This message is displayed once every 250 cycles.	Not lubricating cassette coupling o-rings can lead to cassette difficult to insert or o-ring damage prematurely causing steam leak	(1)	Used Q-Tips & lubricant provided with unit and replacement seals to lubricate the cassette coupling o-rings.
●	●	OEM SEAL NOT PRESENT CHECK / REPLACE SEAL	This message is displayed when the unit does not detect the presence of the RFID tag in the Cassette Seal	Cassette Seal not yet installed in Cassette Lid	(1)	Make sure a genuine cassette seal is properly installed in the cassette lid.
				Defective or missing RFID tag in Cassette Seal		Check RFID tag location to see if there is any damage or cracks in the silicone sealant.
				Cassette presence microswitch failed close		Check for an audible click when the Cassette is inserted to ensure microswitch is functioning properly. If there is no click, it is a defective microswitch. Replace microswitch if defective.
●	●	SEAL LIFE WARNING X CYCLES REMAINING	This message is displayed after 1,000 cycles and will continue to display in every cycle until the cassette seal has gone through 1,100 cycles or a new Cassette Seal is installed	Cassette Seal has gone through 1,000 cycles	(1)	Order replacement cassette seal to have a spare seal around.
●	●	SEAL LIFE EXPIRED REPLACE W/ OEM SEAL	This message is displayed when the cassette seal has gone through 1,100 cycles. Cassette seal must be replaced otherwise the user will be unable to initiate another cycle	Cassette Seal has gone through 1,100 cycles	(1)	Replace existing cassette seal with a new cassette seal. Replace cassette coupling flange seals and o-rings from the same seal kit. Order replacement cassette seal to have a spare seal around.

STATIM 7000	STATIM 7000S	Cycle Fault Number & Message	Description of Fault	Potential Cause(s) of Fault	Step	Troubleshooting Steps & Corrective Actions
●	●	INSERT CASSETTE	This message is displayed when the user initiates a cycle and the Cassette is absent or when Cassette is not fully inserted into the Armature	Defective (failed open) or damaged microswitch if cassette is already fully inserted	(1)	Check to make sure cassette is fully inserted into armature and start a cycle. With the unit powered on, remove cassette from armature and use finger to press on the microswitch leveller at the back of the armature to check for an audible click. If there is no click, it is a defective microswitch. Check to make sure armature is secured properly to the chassis/chassis bracket using the three fasteners.
MICROBIOLOGICAL AIR FILTER						
●	●	CHECK/REPLACE AIR FILTER	This message is displayed every 500 cycles and will continue to display in every cycle until user manually resets the warning	If user resets the warning without replacing the microbiological air filter, the unit will soon experience CF10 or CF11	(1)	Replace existing microbiological air filter with a new air filter and make sure the filter is properly seated in the air filter housing.
PRINTER / DATALOGGER						
●	●	PRINTER FAULT (If optional printer is installed)	Printer is not printing. If a USB memory stick is used, reset the unit by turning the power off and back on. In order to reprint the last printout, enter the User Menu and select the option LAST PRINTOUT by pressing the R&P button.	Paper jam in printer	(1)	Check for paper jam and clear jam if found.
				Printer power is off	(2)	Make sure the printer is powered on.
				Printer cable is loose or improperly connected	(3)	Check that printer cable is properly and securely connected.
				Printer does not reset after a failure	(4)	Turn the printer power off and on to reset the printer.
				Defective printer	(5)	Replace defective printer.
				Unit tried to write to USB memory stick when it is full	(6)	Replace USB memory stick with a new one. Do NOT delete data from existing USB memory stick or reformat memory stick unless the data has been retrieved and/or backup.
●	●	MSD NOT CONNECTED INSERT MSD/FLASH	This message is displayed during idle when the unit is set to use USB memory stick but there is no USB memory stick present	No USB memory stick present	(1)	Make sure USB memory stick is inserted in datalogger port.
				Unit set to use USB memory stick by mistake	(2)	If USB memory stick mode is set by mistake, set it back to printer mode.
				Incorrect serial port bit rate set	(3)	Check to make sure that Serial Port Bitrate is set to 9600 via User Menu.
				Defective USB memory stick	(4)	Replace USB memory stick.
●	●	MSD NOT CONNECTED START TO BYPASS	This message is displayed when the unit is set to use USB memory stick but there is no USB memory stick present and the user initiates a cycle	No USB memory stick present when user tries to start a cycle	(1)	If the USB mode is set by mistake, reset it to PRINTER mode. If a USB memory stick is not present, insert a USB memory stick.

STATIM 7000	STATIM 7000S	Cycle Fault Number & Message	Description of Fault	Potential Cause(s) of Fault	Step	Troubleshooting Steps & Corrective Actions
●	●	MSD/FLASH FULL REPLACE MSD	This message is displayed during idle when the USB memory stick is full	USB memory stick has reached its storage capacity	(1)	Replace USB memory stick with a new one. Do NOT delete data from existing USB memory stick or reformat memory stick unless the data has been retrieved and/or backup.
PERFORMANCE						
●	●	N/A	Wrapped or pouched load does not dry after the Wrapped Cycle is completed with the default 12-minute drying time	Clogged exhaust duct mesh screen in the cassette	(1)	Check the exhaust duct mesh screen in the cassette and remove any debris.
				Clogged air compressor intake filter	(2)	Check for dirty/clogged air compressor intake filter, replace as required.
				Clogged microbiological air filter	(3)	Check for dirty/clogged microbiological air filter, replace as required.
				One or more exhaust tubing kinked or pinched	(4)	Make sure that none of the exhaust tubing leading to the condenser bottles is kinked or pinched.
				Insufficient Stat-Dri spray being applied in cassette	(5)	Apply copious amount of SAT-DRI spray to inside surfaces of cassette lid and tray and on top of the perforated plate before loading the cassette.
				Waste bottle full, hindering exhaust air flow during drying	(6)	Empty waste bottle.
				Overloaded cassette	(7)	Make sure the number of pouches and total weight of load do not exceed the recommendations listed in the Operator's Manual.
				Oversized pouches were used causing creases and folds to trap excessive condensate	(8)	Use smaller pouches for small load or, if feasible, increase the number of instruments in each pouch. When loading the pouches in the cassette, minimize any folding of the pouch edges.
				Excessive overlapping of pouches in cassette	(9)	Reduce overlap by reducing the number of pouches in the cassette or use the Cassette Pouch Load Rack (01-110301S, sold separately) to layout the pouches.
				Default drying time insufficient for the type and quantities of load being processed	(10)	Increase drying time.
				Humid environment resulting in moist air being used during air-drying stage	(11)	Increase drying time,
				One or more exhaust solenoid valves stuck close	(12)	Use Device Tools in Service Menu to check if one or more solenoid valves are stuck close. Replace solenoid valve(s) as required.