

8

Troubleshooting

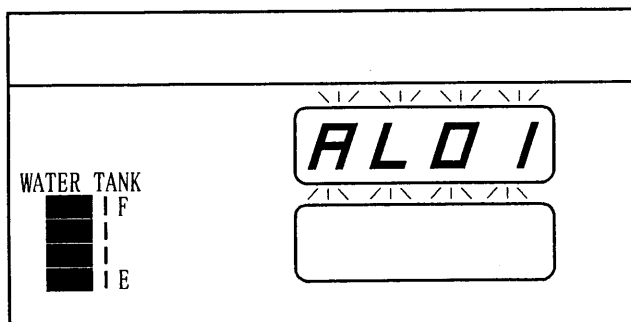
Major failure with this chamber are detected through chamber self-checks. The details of the failure are displayed and a buzzer sounded to notify the user. This function is referred to as an alarm. This chapter explains the causes and remedial action of alarms and other failure. Contact us in the following cases.

- ① When the chamber fails to operate normally after taking the prescribed remedial action.
- ② Where "Call service" is indicated in this chapter.

8.1 Failure indicated by alarm

When an alarm generates, take the following action.

- ① Check the alarm code indicated in the display.



- ② Take the remedial action prescribed for the alarm code in Table 8.1 Alarm code list.

Table 8.1 Alarm code list

Alarm code	Item	Symptom	Probable cause	Remedial action	Reset method
AL00	Burn out	Temperature sensor failure	Temperature sensor disconnection	Turn OFF the main power supply switch and correctly connect the sensor.	After taking remedial action, turn ON power supply again.
AL01	Automatic overheat protection	Temperature inside the chamber rose above automatic overheat set value.	Specimens generated excessive heat.	Remove heated specimen.	When taking remedial action, automatically recovers. *1
AL02	Upper temperature limit alarm	Temperature inside the chamber rose above upper temperature limit alarm setting.	Upper temperature limit alarm setting too low.	Change the upper temperature limit alarm setting. (normally +15 °C)	After taking remedial action, turn ON power supply again.
			Specimens generated excessive heat.	Remove heated specimen.	
AL03	Lower temperature limit alarm	Temperature inside the chamber dropped below lower temperature limit alarm setting.	Lower temperature limit alarm setting too high.	Change the lower temperature limit alarm setting.	After taking remedial action, turn ON power supply again.
AL06 AL11 AL06 and AL11 alternately display.	Heating system error	Temperature inside the chamber rose above independent temperature overheat protector setting.	Specimens generated excessive heat.	Remove heated specimen.	After taking remedial action, turn ON power supply again.
			Independent overheat protector setting too low.	Change the independent overheat protector setting.	
		Temperature inside the chamber increased and thermal fuse blew.	Specimens generated excessive heat.	Call service	
		Temperature inside the chamber increased and temperature switch blew.	Specimens generated excessive heat.	Call service	
AL07	Air circulator protection	The air circulator temperature switch tripped.	Air circulator shaft lock	Call service	
AL08	Refrigerator protection	The refrigerator thermal switch tripped.	Dust accumulated in the condenser fan.	Clean the condenser fan.	After taking remedial action, turn ON power supply again.
			Ambient temperature too high.	Lower the ambient temperature.	
			Abnormality in refrigeration circuit.	Call service	

Alarm code	Item	Symptom	Probable cause	Remedial action	Reset method
AL21	Humidifying system error	Boil dry protector tripped.	Water not supplied to humidifying circuit.	Call service	
	Wick alarm	The wick replacement mechanism switch tripped.	Wick replacement mechanism was removed for 5 min. or more.	Correctly install the wick replacement mechanism.	When taking remedial action, automatically recovers. #1
AL22	Upper humidity limit alarm	Humidity inside the chamber rose above upper humidity limit alarm setting.	Upper humidity limit alarm setting too low.	Change the upper humidity limit alarm setting.	When taking remedial action, automatically recovers. #1
AL23	Lower humidity limit alarm	Humidity inside the chamber dropped below lower humidity limit alarm setting.	Lower humidity limit alarm setting too high.	Change the lower humidity limit alarm setting.	When taking remedial action, automatically recovers. #1
AL26	Water tank alarm	Water tank water level switch tripped	Insufficient water in water tank.	Supply pure water to the water tank.	When taking remedial action, automatically recovers. #1
	Water circuit error	Water remaining in the humidifying tray froze due to low temperature operation.	Water in water circuit is not drained during low temperature operation.	After frost is defrosted, automatically recovers. #1	
		Water not supplied to humidifying circuit.	Defective water circuit.	Call service	
	Water suspension detection #2	Water not supplied to water tank although pure water automatic supply circuit is installed.	Pure water supply on the primary side is not operating.	Correct so pure water is supplied to primary side.	When taking remedial action, automatically recovers. #1
			Defective tap water supply circuit.	Call service	
AL50	Reverse phase relay input detection (CRH, CR type)	Reverse phase detected on primary side power supply.	Poor connection of primary side power supply.	Correctly connect the power supply.	After taking remedial action, turn ON power supply again.

Alarm code	Item	Symptom	Probable cause	Remedial action	Reset method
ALB2	CYCLE operation prohibited alarm	Operation was started with incorrect CYCLE operation settings.	The temperature/humidity setting values of each step exceed the upper/lower limit alarm settings.	Set the temperature/humidity setting values of each step to be within the upper/lower limit alarm settings.	If a correct setting value is input, the CYCLE operation can be started.
			Time setting values are all 0:00.	Set the time setting value.	
			Steps extend over into temperature setting value and are set in the plus/minus region.	Set the temperature setting value to a correct value.	

- *1 For an alarm that automatically recovers, control can be resumed after recovery, but to retain the history, only the alarm code displays.
 (If keys other than the **START/STOP** key and the **KEY LOCK** key are pressed, the alarm code will go out although you should press the ▽ and △ key as much as possible.)
- *2 Detected only when the optional pure water supply circuit is installed.