

## TROUBLE SHOOTING (ERROR CODES)

ERROR		CONDITION	CHECK CONTENTS		REASON	SOLUTION
E-03	Short-circuit of the Water thermistor	The water thermistor detected under 3 kΩ of resistance value.	Check the resistance value of the thermistor.	Under 3kΩ of resistance value is NG.	•The water thermistor failure	•Exchange the water thermistor.
E-08	Power frequency error	The power frequency is under 45Hz or over 65Hz when the unit starts operating.	Check the frequency of the power.	Under 45Hz or over 65Hz is NG.	•Power frequency malfunction	•Correction of the power.
E-13	Water thermistor is disconnected	The water thermistor detected over 864kΩ of resistance value.	Check the resistance value of the thermistor.	Over 864kΩ of resistance value is NG.	•The water thermistor failure	•Exchange the water thermistor.
E-40	Water temperature is too low.	<ul style="list-style-type: none"> <li>• The temperature of circulating water is not 100 °F (38°C) after 30 mins from operating start.</li> <li>Or</li> <li>• Once the temperature of circulation water was detected over 90 °F (32°C) after operating start, but the temperature keeps under 90 °F (32°C) after that.</li> </ul>	Can you see whether water is circulating or not?	Not circulate the water.	• Circulation pump malfunction	• Check circulation pump and water circulating line.
					• Air lock in the water pipe	• Check the water circulation line.
					• The valve is closed.	• Check the water circulating line.
			Is the temperature of circulating water high?	Circulate the water but water temp. is too low.	• Does the heat source equipment such as water heater start operating?	• Check the heat source equipment.
				• The setting temperature of heat source equipment is low.	• To set the proper temperature of heat source equipment.	
F-0	"POWER" switch has been pressed when the power was restored.	• The power is coming to operation switch when the power distribution starts.	Check the power distribution of operation switch.	It is NG if there is always a conduction.	• Operation switch malfunction	• Exchange the operation switch (Lamp circuit board).

TROUBLE SHOOTING (NO ERROR CODES)

ERROR		CAUSE	CHECK	SOLUTION
1	Does not operate (Non-indication)	•Power outage.	Check the power voltage.	Correct the power voltage.
		•Power supply code is disconnected.	Check whether the power plug is connecting to wall socket or not.	Connect the power plug.
		•Breaking of electric current fuse wire (Control)	Check the electric fuse conduction.	Exchange the fuse wire if there is no electric continuity.
		•Output voltage malfunction of the transformer	Check the output of the transformer.	Exchange the transformer if the output is malfunction.
		•Breaking of the FFC cable	Check the conduction.	Exchange the cable if it is malfunction.
		•Malfunction of the FFC cable connection	Check whether two sides of the wire are opposite or not.	Connect the wire correctly.
2	Warm air does not blow (The temperature indication shows as usual)	•Room temperature is higher than set temperature when unit is in "AUTO Fan Mode"	Check whether the set temperature is proper temperature or not.	Change the set temperature.
		•Water temperature is too low at the time of start of operation. The temperature of the circulation water is less than 100° F (38° C).	Check whether the water is circulate or not.	Check the water circulation line.
		Malfunction of the circulation equipment (Only the case that the pump is controlled by external output from this unit.)	Check whether the temperature of circulating water is high or not.	Check the set temperature of the heat unit.
			Output the connecting output to the external output terminal.	Check the water circulation line.
3	Warm air does not blow and the displayed room temperature is much different from actual temp.	•Unit is exposed to direct sunlight.	The room thermistor may get the direct rays of the sun.	Cut off the direct rays of the sun.
		•Room thermistor is exposed a heat source.	The room thermistor detects the heat.	Move the room thermistor further away from the heat.
4	The unit operates, but indicator is malfunction.	•Malfunction of the FFC cable connection	Check the FFC cable.	Exchange the wires if they are malfunctioned.
5	Any of buttons do not work.	•Child Lock is on.	Check the child lock mark.	Keep pushing the child lock button for more than 3 sec. and cancel the child lock mode.
6	Heating performance has declined.	•Clogged or dirty Air Filter.	Check the dirt on the filter.	Clean the filter.
		•The fins of the heat exchanger are flogged with dust or something.	Check the fin of the heat exchanger.	Clean the heat exchanger.
		•Water pipe flow has been restricted.	Check whether the quantity of circulation water drop or not.	Check the pump and pipe.
		•Be clogged with something inside the pipe of heat exchanger.	Check inside the pipe.	Check the circulation water.
7	"Ticking" noise.	•Noise of relay, valve and/or fan motor. Normal.		Not malfunction
8	Cannot be operated, beeping noise, and "OFF" is shown on digital display.	• "POWER" switch has been turned off while Child Lock is turned on.	Can you see the "child lock mark" and "OFF" on the indicator?	Keep pushing the child lock button for more than 3 sec. and cancel the child lock mode.
9	Water running noise.	•Hot water is flowing into the unit. Normal		Not malfunction
10	Air flow is poor.	•When the temperature of the circulation water is between 100° F and 110° F (38° C and 43° C), the unit will operate at the low fan speed only.	Has the temperature of circulation water been 100° F ~110° F (38° C ~43° C)?	Change the water temperature set.
		•The Air Filter is clogging.	Check the dirt on the filter.	Clean the filter.
11	Power lamp blinks.	•Indicating that the power failure occurred. To stop the blinking power lamp, press any button once.	Was there any temporary voltage interruption such as power failure?	To solve the flashing lamp, push the any buttons.