

SERVICE FLASH

Electronic Thermistor Replacement

RF0804

BRAND Frigidaire

MODEL/SERIAL # Upright Freezers with Electronic Controls

PROBLEM Two types of replacement thermistors, a terminated connector or a wire splice.

SOLUTION The thermistor is located on back wall underneath the evap cover on upper right-hand side (near the wire passageway). Part number is 297110400. There's a connector on this harness so the tech does not have to splice into the wire.

Below is a resistance tolerance chart, for testing the thermistor resistance at different temperatures.

Resistance of Thermistor in K- Ohms vs Temperature

Temp (°C)	Temp (°F)	K- Ohms Nominal	K-Ohms Minimum	K-Ohms Maximum	Tolerance
25°	77°	10	9.7	10.3	3.41
0°	32°	32.7	31.7	33.6	2.91
(-15°)	5°	72.9	70.6	75.3	3.21
(-20°)	(-4°)	97.1	93.8	100.3	3.32
(-30°)	(-22°)	177	170.7	183.3	3.55
(-40°)	(-40°)	336	322.9	349.1	3.91

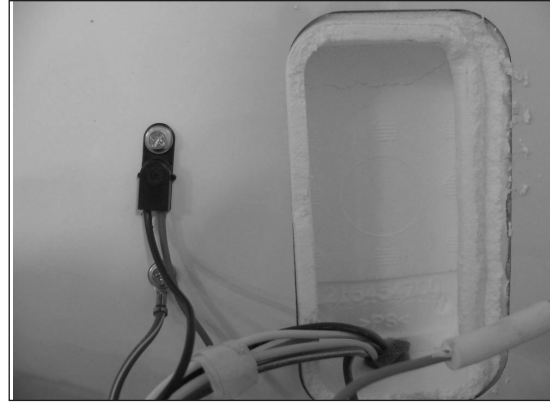
Thermistor Diagnosis

If there is a thermistor error, the display will alternate between "E" and the temperature setting. You may identify the type of error in diagnostics mode.

If there is, a failure in relation to the thermistor the freezer will enter full; compressor run mode makes it a fail-safe situation.

Press the ALARM RESET button to display the thermistor status.

- If the thermistor is operating correctly, "--" is displayed.
- If the thermistor is open-circuited, "0" is displayed.
- If the thermistor is short-circuited, "S" is displayed.

Electronic Thermistor Replacement**Thermistor with Plastic Connector****Thermistor Requiring Splice-In**

Any harness that requires the 297018400 thermistor replacement component, the resistor value will remain the same due to the low impedance of the circuit. The harness thermistor component replacement sequence is as follows:

The thermistor is located on back wall underneath the evaporator cover on upper right-hand side (near the wire passageway).

Service replacement thermistor Part number is 297018400 for harness.

1. Cut internal harness leads (2) to the respective lengths of part number 297018400.
2. Connect terminal leads (2) with common terminal connector; for 22 gauge wire.
Add standard PVC tape to terminal connectors (2) to ensure no ground continuity.
3. Install evaporator panel in reverse order.

The 2008 redesign has a common internal cabinet harness, 2972375, for all door mounted electronic models. These models designate the thermistor service part number in all BOM.

The diagnostic code sequence for a defective thermistor are as follows:

Thermistor Error Mode

If the thermistor is in an open or shorted condition the compressor will run continuously. Defrost mode after 12 hours of compressor run time will still occur. If an "Open Thermistor" condition is present the display will alternately display an "E" for 0.5 seconds and "9" for 0.5 seconds. If a "Shorted Thermistor" condition is present the display will alternately display an "E" for 0.5 seconds and an "8" for 0.5 seconds.