TECHNICAL SERVICE BULLETIN

TSB C-GN-OT-0078

Date: July 16, 2025

To: All Service and Parts Managers

From: Technical Services Department

Subject: **Before Replacing the Furnace Control Board: Troubleshooting Error Codes**

NOTE: Before replacing the furnace control board, read this Technical Service Bulletin!

This is an important Technical Service Bulletin to be carried out by trained and certified service technicians. The intent of this bulletin is to inform our customers about troubleshooting error codes.

EEE Error Code: Internal Faults or IRQ (Interrupt ReQuest) Loss in integrated control board.

Although it is possible that an "**EEE**" code is caused by a permanent hardware failure, this is very unlikely.

Possible Causes: Loose or damaged power wiring. Miswiring or problems with components such as the blower motor, pressure switches, limit switches, ignitor or gas valve.

Troubleshooting Steps:

1. Check for other error codes in the furnace's control board history (F10 - Last 10 Faults).
2. Turn off the power to the furnace at the breaker for at least 3 minutes, then turn the power back on to the furnace (to see if the EEE code will reset).
3. Confirm the furnace has a 120-volt L1, neutral and ground wire from the breaker panel to the furnace. Inspect the field wiring for damage or loose connections.
4. Check internal furnace wiring for signs of overheating, damage or loose connections.
5. Trace power wiring and low voltage wiring to various components, looking for signs of damage or miswiring.
6. Use an ohmmeter to check the continuity of limit switches.
7. Inspect the ignitor for a cracked ceramic or loose wiring. Use an ohmmeter to measure resistance of the ignitor (at room temperature, ignitor should be 37 - 68 ohms).

EE5 Error Code: Open Fuse

An **EE5** error code typically means that the 3-amp fuse on the control board is blown or damaged. This code would also occur if the fuse was missing.

Possible Causes:

- The 24-volt wiring is shorted to ground or miswired.
- Backside of the control board is touching the control mounting panel. This can happen if the control board is missing the standoff plugs.

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Troubleshooting Steps:

1. Check wiring visually for signs of overheating, damaged insulation or loose connections.
2. Trace low voltage wiring from the transformer to the control board and from the control board to the limits, pressure switches, gas valve and other 24VAC components.
3. Use an ohmmeter to check the continuity of any suspected open wires.
4. If necessary, remove the low voltage wiring to the thermostat to determine if the short is in the field wiring or the thermostat.

Corrective Actions:

1. Locate and correct the shorted or miswired wiring.
2. Replace missing standoffs and ensure the backside of the control board is not touching metal.
3. Replace the fuse with a 3-amp automotive type fuse.
4. Operate the furnace in Heating and Cooling modes to verify the problem has been resolved.

EbL, & EbU Error Codes:

EbL: Circulator blower motor current after heat ON delay is lower than expected value. The most likely possibility is that the 115-volt L1 wire from the blower motor is not plugged into the CIRC-H connection on the furnace control board. **Before replacing the furnace control board**, verify the black 115-volt wire from the blower motor is connected to the CIRC-H connection instead of another 115-volt wire. Also check for loose wiring at the blower motor or the furnace control board.

EbU: Circulator blower motor current during inducer pre-purge is higher than expected value. The most likely possibility is that the circulator blower motor power wiring is reversed on the furnace control board. **Before replacing the furnace control board**, verify the black 115-volt wire from the blower motor is connected to the CIRC-H connection instead of the white neutral wire from the blower motor or another wire.

Furnace Grounding: If a furnace is not properly grounded, several different intermittent error codes may occur. A furnace can no longer be grounded to water lines (even copper water lines might not be earth grounded) and **must** not be grounded to gas piping (for obvious safety reasons). Metal conduit or the tiny strip of metal in BX cable should not be considered as a substitute for a copper ground wire from the breaker panel to the furnace. Junction boxes near the furnace and pigtails plugged into a receptacle should be checked for loose connections and the wiring should be on a dedicated circuit. The ground wire from the building's breaker panel to the ground rod should also be checked to confirm the ground rod and ground wire are securely connected to earth ground. **Before replacing a furnace control board**, confirm the furnace and the building are properly grounded.

NOTE: It is **very** important to remember that the 3-digit 7 segment LED display shows more information than just error codes. The LED display also provides status, such as **IdL** (Idle), **AC1** (first stage cooling) and **gA1** (low-stage gas heating) and the LED display shows active blower fan speed such as **F01** through **F09** for non-communicating 9 speed furnaces.

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IdL: The furnace is in Idle waiting for a call for heating, cooling or continuous fan. This is **not** an error code. If the thermostat is calling for Heat, Cool or Fan, check the wiring on the furnace control board to confirm the furnace is receiving this 24-volt signal.

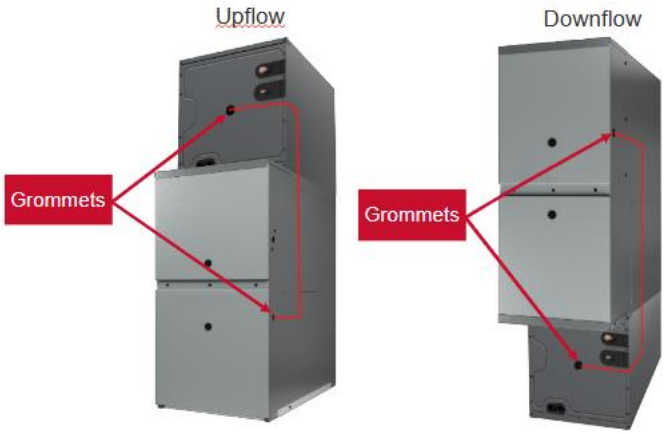
888: The display code "**888**" is **not** an error code. It is just a startup check to verify that all digit segments are operational. Also, it is an indication that the control power has just been turned on, or that the control software has just reset itself after an error handling sequence is complete. **Before replacing the furnace control board**, review error code history and confirm that all error codes have been addressed. In addition, confirm the furnace is properly grounded with a copper ground wire to the breaker panel.

Switching between F02 & F03:

We have received a few reports of 9-speed furnaces changing the airflow display during gas heating operation. These reports say the LED display will switch back and forth between **F02** and **F03** and the fan speed will change as well. The most likely cause is the use of a "power stealing" thermostat - thermostat with no "C" common wire from the furnace to the thermostat. Replacing the power stealing thermostat with one that has a common connection and adding a common wire from the furnace to the thermostat should resolve this fan speed change.

Other information about the R-32 compliant furnaces:

NOTE: Routing of the R-32 sensor wire must not interfere with circulator blower operation, routine maintenance or filter replacement. The R-32 sensor wire should not be routed near hot surfaces and should be protected from sharp edges.



If you have technical questions, please call 1-855-DAIKIN1, option 2 then 3, or e-mail TechnicalServicesDaikin@daikincomfort.com.

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