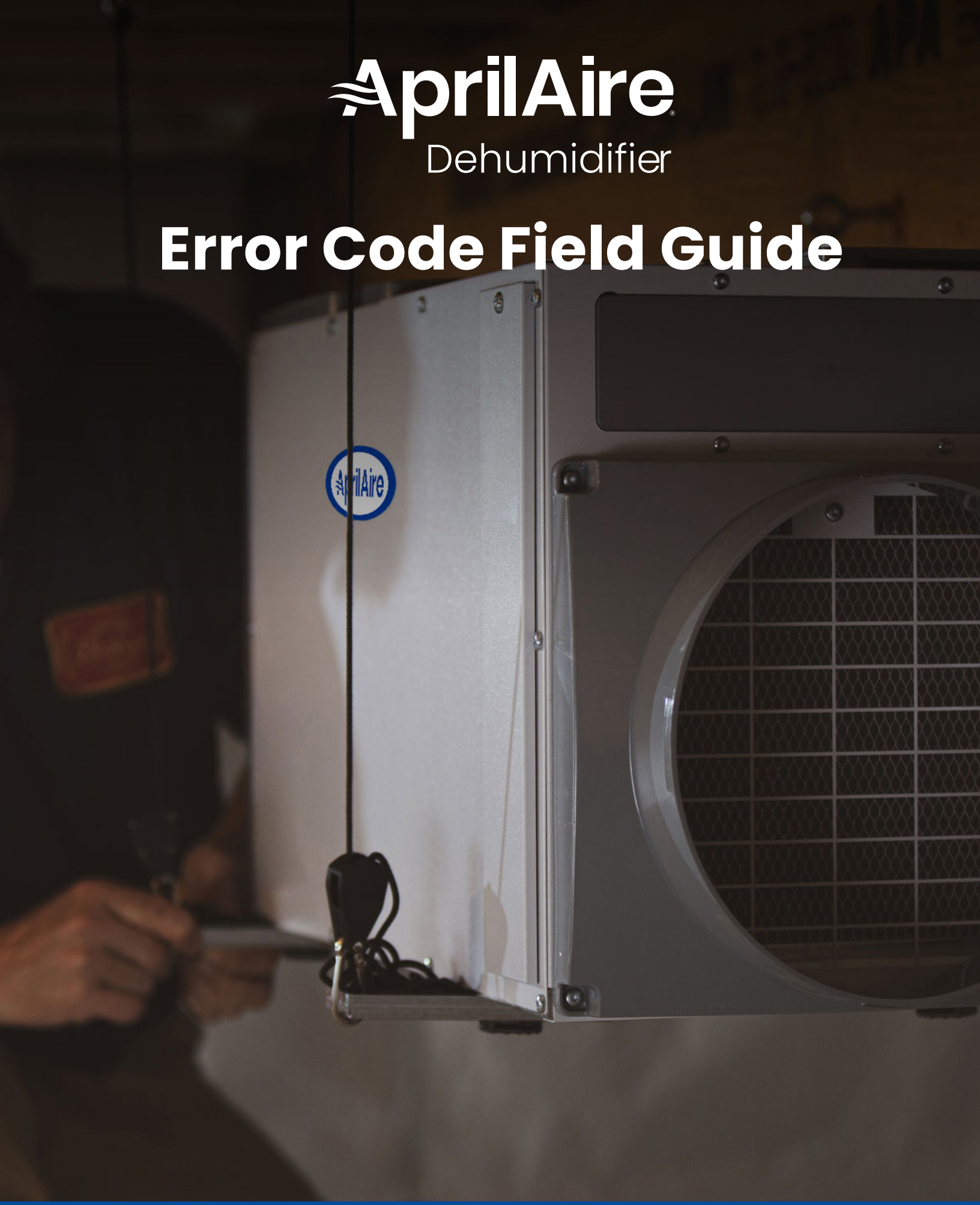
AprilAire

Dehumidifier

Error Code Field Guide

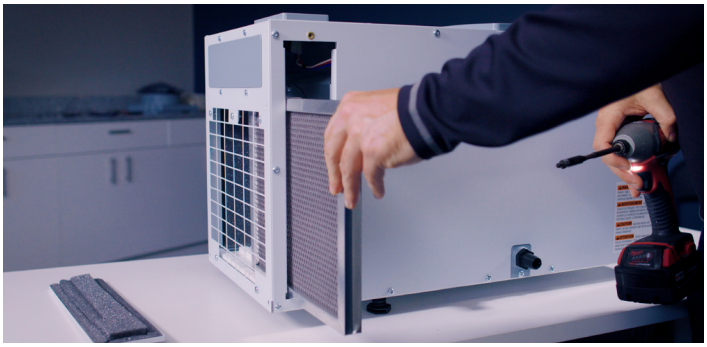


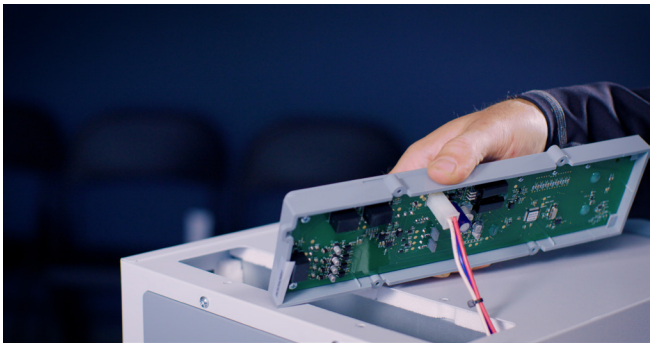
Healthy Humidity In Every Home.

E1: Internal Humidity or Temperature Sensor Failure

There is a problem with the user interface, and it needs to be replaced.

1. Turn off the rocker switch, or unplug the unit if there is no rocker switch.
2. Remove the filter access door.
3. Unscrew the user interface and remove the 3-wire connector.
4. Attach 3-wire connector to new user interface and screw into place.



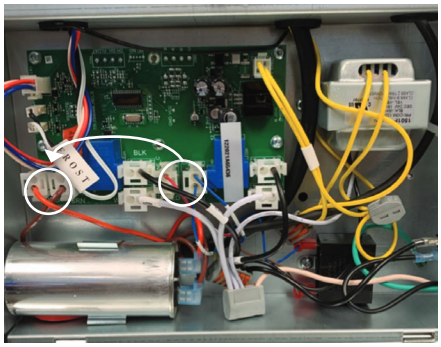


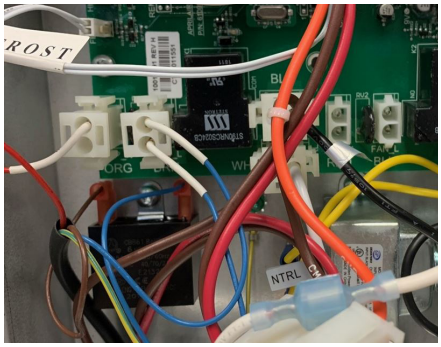
E2: High Refrigeration Pressure

The high temperature sensor is reading excessive temperatures which could be caused by the fan not operating, a faulty circuit board, or something impeding air flow to the unit.

1. Turn off the rocker switch, or unplug the unit, for 10 seconds and then turn the switch on, or plug the unit back in.
2. Lower the set point and check to see if the fan is running – if so, make sure there are no disruptions to the airflow from either the backflow damper, duct work, or objects that may be too close to the unit.
3. If the compressor kicks on after 3 minutes, but the fan never does, you will need to turn off the rocker switch, or unplug the unit, and remove the drain side panel, and circuit board cover.
4. Remove the compressor wires from the board and then move the fan wires to the two slots where the compressor wires were attached.*
5. Turn the rocker switch back on, or plug in the unit, and lower the set point. If the fan does not kick on after 3 minutes, the fan is faulty and will need to be replaced.
6. If the fan does turn on, the circuit board is faulty and will need to be replaced.

*If the fan wires do not reach, you may need to remove the plastic wire clamp and remove the fan capacitor to provide more slack



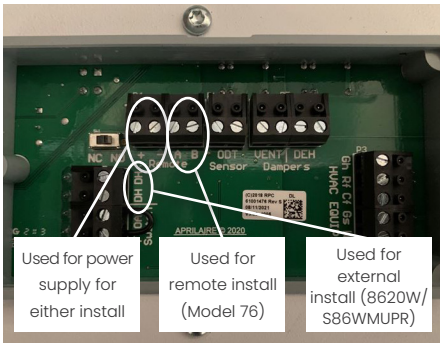


E3: Remote Control Communication Loss

There is a problem with the dehumidifier communicating with the humidistat or thermostat being used to control it.

1. Make sure the dehumidifier is wired correctly. For remote mode (Model 76), make sure the wires are connected to the +/- & AB terminals on the unit. For external mode (8620W/S86WMUPR), the wires should be connected to the +/- and DH terminals.
2. Depending on the application, make sure only remote or external is enabled and disable the other.
    a. With the user interface in the "OFF" position, press and hold the mode button until REMOTE appears on the screen.
    b. Use the up/down arrows to select ENABLED/DISABLED on the right side of the screen.
    c. Press the mode button three more times until EXTERNAL appears on the screen.
    d. Use the up/down arrows to select ENABLED/DISABLED on the right side of the screen.
    e. Hit the mode button one last time.
3. If the code still appears, check each of the connections to make sure the wires are stripped properly and that they are making contact correctly.
4. If everything appears to be connected properly, use new wires to see if the problem is in the wires or the control.
5. After re-wiring, if the E3 code still appears, then you will need to replace the control.

Remote - used in crawl space applications where the unit is controlled from inside the home (Model 76), but reading RH from the dehumidifier.
External - used in ducted HVAC applications or for Wi-Fi capability (8620W/S86WMUPR). Reads RH at the location of the external control.



E4: Insufficient Capacity

The dehumidifier is not seeing a temperature difference between the air coming in and the refrigerated coil inside the cabinet.

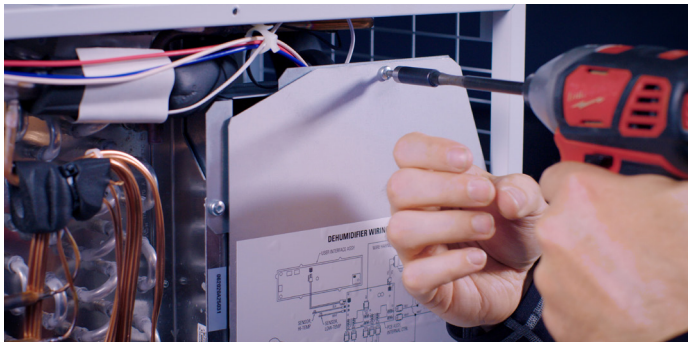
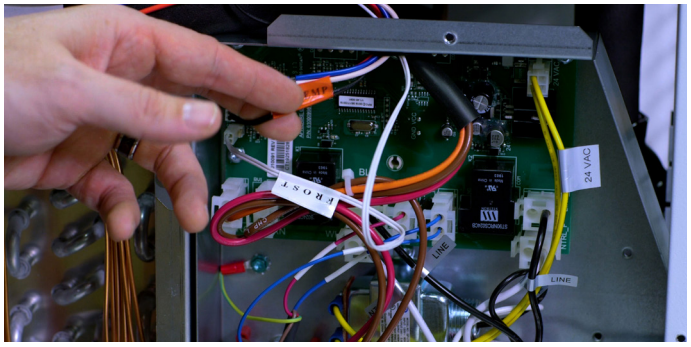
1. This could mean that the unit is cold and simply needs to warm up. If the unit is in an unconditioned space, this code will appear until the temperature gets above the set point. This code could also appear if the unit was being stored in a cold place before install and just needs to sit for about an hour to acclimate to the temperature.

2. If the cold is not a factor, you will need to run a diagnostic test to make sure everything checks out.
    a. Turn the rocker switch off, or unplug the unit, for 10 seconds, and then turn it back on, or plug it back in.
    b. Lower the RH set point to 40 and make sure the compressor kicks on after 3 minutes – if it doesn't, do the same exercise from E2 but replace the fan wires with those of the compressor to see if the circuit board is faulty. If the compressor still does not kick on, you will need to replace the unit, but if it does, you can simply change the circuit board.
    c. If the compressor does kick on, let the unit run for 10 minutes.
    d. After 10 minutes, press and hold the Mode and Up buttons simultaneously for 3 seconds.
    e. The incoming air temperature will be displayed. Record that number and then use the down arrow to see and record the incoming RH and finally hit the down button once more to record the suction line temperature.
    f. Once you have recorded these three values, please call technical support to walk through the diagnosis (800.334.6011). If the unit does need to be replaced, you will also be able to gather appropriate warranty information on this call.

E5: High Temperature Thermistor Failure

The high temperature sensor is either unplugged or not working.

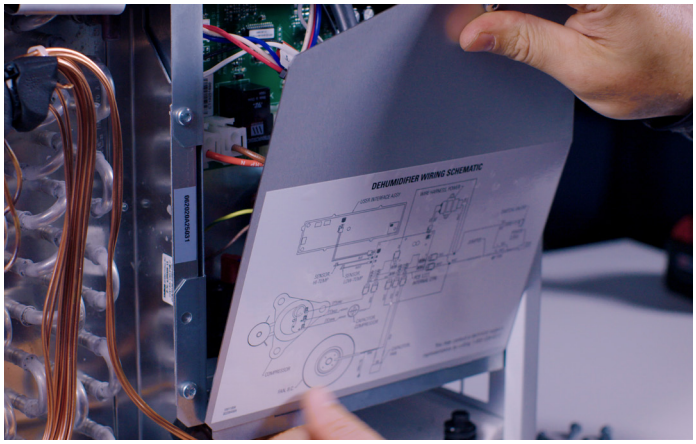
1. Turn the rocker switch to off, or unplug the unit.
2. Remove the drain side panel and circuit board cover.
3. Find the black wire labeled "HI-TEMP" and make sure it is plugged in and the wire is not damaged.
4. If everything appears to be connected correctly and you continue to get the E5 code, replace the high-temp sensor.

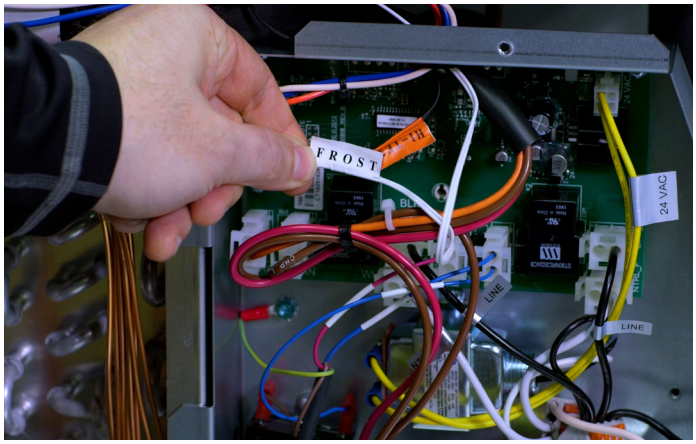



E6: Low Temperature Thermistor Failure

The low temperature sensor is either unplugged or not working.

1. Turn the rocker switch to off, or unplug the unit.
2. Remove the drain side panel and circuit board cover.
3. Find the white wire labeled “FROST” and make sure it is plugged in and the wire is not damaged.
4. If everything appears to be connected correctly and you continue to get the E6 code, replace the low-temp sensor.

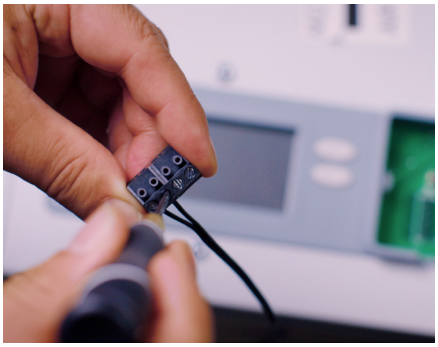


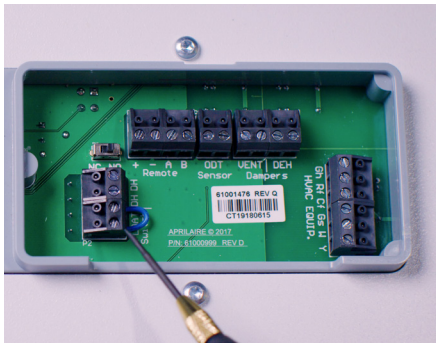


E7: Float Switch Open

The float switch on the unit or on an external condensate pump has been tripped.

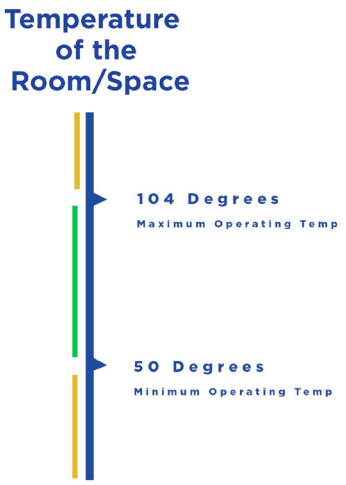
1. Remove any water from the external drain pan or condensate pump if one is connected.
2. Take the cover off the main terminal next to the user interface where the float switch is located and make sure either the jumper wire is connected to each float terminal (no condensate pump) or that both wires leading to the condensate pump are connected.
3. If steps 1 and 2 do not remove the error code, replace the user interface (See code E1).





E8: Inlet Air Temperature Out of Range

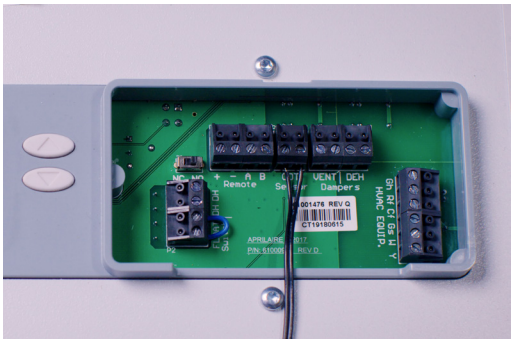
This is a self-correcting code telling you that the current environment is out of the range for the dehumidifier to operate – meaning the temperature is outside of 50-104 degrees or that the dew point is below 40. Once the appropriate range is reached, operation should begin as normal.



E9: Outdoor Temperature Sensor Failure

The outdoor temperature sensor is either open or shorted.

1. Make sure the sensor is correctly connected to the user interface.
2. If connected correctly, connect a new outdoor temperature sensor (Part #8052).
3. If steps 1 and 2 do not remove the error code, replace the user interface (See code E1).



Resistance Chart

Outdoor Temperature	Resistance kΩ
-30°F	230.6
-20°F	163.8
-10°F	117.6
0°F	85.4
10°F	62.6
20°F	46.3
30°F	34.6
40°F	26.1
50°F	19.9
60°F	15.3
70°F	11.9
80°F	9.4
90°F	7.4
100°F	5.9

Questions? Call AprilAire Technical Support

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