

Troubleshooting Guide

IMPORTANT

Only allow certified electrician or qualified Carbontec installer to inspect and troubleshoot the Carbontec system. Ensure that you disconnect all electrical power sources before checking suspected connection points causing the fault. Shut off electrical power source, and flip the transformer switches into the "OFF" position before continuing. If the electrical system has been delivering power to the transformer but not to the heaters, let the transformer cool down sufficiently before continuing the troubleshoot process.

If the Carbontec System malfunctions for any reason please conduct the following troubleshooting steps.

- Check circuit breaker panel: Ensure that the breaker is not already in the faulted position. Ensure that the number of Carbontec systems do not exceed the circuit breaker rated amperage (1000W Transformer = 8.9 Amps) or (500W Transformer = 4.5 Amps)
- Check controller connection: Whether if you have a programmable thermostat, light switch, dimmer, mechanical or programmable timer; ensure that the power connections are secure. Along with power connections being secure, check the load connection wires running from the controller to the transformer.
- Open the Transformer enclosure to check AC power source connections in the transformer (*Please be sure to let the transformer cool down sufficiently before opening the transformer enclosure*): Ensure that the wires are intertwined properly and firmly secured with a wire connector (wire nut).
- While the Transformer enclosure is opened, check terminal block and check heater wire connections within the load terminal block. Ensure that all screws are firmly tightened for a proper connection.
- If all connections are secure proceed to provide power supply to the Carbontec system.
- Before providing power to the Carbontec heating system, ensure that your controller is set to the "OFF" or minimum power setting. Additionally, ensure that the transformer switches are in the "OFF" position as well.



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 - Once power has been restored to the system begin checking power availability at every junction and connection within the Carbontec system.
 - Check power availability to the controller leads and output terminals with a voltmeter. While checking the controller, ensure the functionality of the controller to determine power delivery to the transformer. If there is no power available at the controller there may be a fault or disconnection between the AC power supply and the controller.
 - If your Carbontec system is using a thermostat with a temperature sensor, check the functionality of the temperature sensor before proceeding. Please use the manufacturer's operating manual.
 - If you have conducted a proper operational check on the controller, proceed to flip the transformer switches in the "ON" position. Once the switches are in the "ON" position, open the enclosure if it is not already open and take a voltage reading on the Terminal Block. Please be sure that all the screws are firmly tightened for a proper connection.
 - If you do not register a voltage reading at the Terminal Block within the transformer, there could be a fault or disconnection between the transformer and the controller.
 - If you do register a voltage reading at the terminal blocks, but still cannot register a temperature reading at heater placement, disconnect heater wire from terminal block and conduct a continuity test on each heater strip.
 - If a heater strip does not pass the continuity test; there maybe a fault or disconnection between transformer and heater strip. If it is at all possible, visually inspect heater wire from transformer and heater strip.
 - If there are no visible disconnections or faults between transformer and heater strip, please call Carbontec Worldwide at (855)-737-4328 for assistance.