

Title:	Electric Heat General Troubleshooting
---------------	---------------------------------------

Table of Contents

Overview	1
Electric Heat Sequence Of Operation	1
Preliminary Electric Heat Troubleshooting	1
Additional Electric Heat Troubleshooting Steps	2
Not all heat strips are pulling the proper amperage	2
Heat is not coming on	2
Heat came on but shut off shortly after	2
Looking For Additional Support?	2

Overview

This document covers electric heating sequence of operations and various troubleshooting steps for electric heat related performance issues.

Electric Heat Sequence Of Operation

1. An input signal is sent from the space temperature sensor to the I-controller.
2. A 24VAC signal from the i-Controller routes through all the heat safety devices, energizes the safety relays and then turns on the first stage of electric heat.
3. If the 2nd stage of heat is required, a 24 VAC output signal is sent from the controller through previously closed safety relays and turns on the second stage of electric heat.
4. If the 3rd stage of heat is required, a 24 VAC output signal is sent from the controller through previously closed safety relays and turns on the third stage of electric heat.
5. If the 4th stage of heat is required, a 24 VAC output signal is sent from the controller through previously closed safety relays and turns on the fourth stage of electric heat.
6. After the call for heating setpoint is met, heat stages will turn off.

NOTE: Our supply fan is continuous duty, or constant air volume, so the blower on and off delay terminals ARE NOT used.

Preliminary Electric Heat Troubleshooting

1. Verify that the Space Temperature Sensor is mounted appropriately inside of the store and it is reading a correct temperature.
2. Verify that the Supply Air Temperature Sensor is mounted correctly (see IN-GEN-04 for details of correct SAT placement, found under [Sensor Installation Guides on systemsflo.com](https://www.systemsflo.com)) and it is reading a correct temperature.
3. Verify any safeties are open, such as Main Limit Switches, High Limit switches and to make sure that the voltage is passing from the controller to the contactor.

Title:

Electric Heat General Troubleshooting

Additional Electric Heat Troubleshooting Steps

Not all heat strips are pulling the proper amperage

1. Check the heating strips by removing the supply fan door to see if any are broken or have debris within the heat strips, or by using a meter to check the strips for continuity.
2. Check to see if the contactors are energized for each stage of heat and that the legs of voltage are sending the appropriate voltage to the heating strips.
3. Check to make certain screws or bolts/nuts are tight.

Heat is not coming on

1. Make sure that the safeties are made leading up to the low voltage side of the contactors
2. Make sure that the supply fan motor is running and that the Air Flow Switch for the Flo Controller is made.

Heat came on but shut off shortly after

1. Check the main and auxiliary limit switches to see if any have failed open causing for the signal to drop out.
2. Check the 24VAC signal call coming from the I-controller board.
3. Make sure the VFD is running at full speed.

Looking For Additional Support?

If you require additional support to resolve a heating issue or request replacement parts, please contact our technical support team using one of the following channels:

1. Call Flō Tech Support (888-598-1198 option 1)
2. Email Flō Tech Support (techsupport@systemsflo.com)
3. Use the Flō websites "[Contact Tech Support](#)" form