

HLZ Hi-Limit Kit, 826-1825

The 826-1825 kit adds a hi-limit to the HLZ. The normally closed hi-limit opens if the temperature in the air cowling exceeds safe limits, shutting off the 12-volt power supplied to the computer and effectively shutting off power to the heating elements. See wiring diagram, Figure 7.

Follow these steps to install the hi-limit:

1. Remove power from unit and allow it to cool.
2. Move unit to a clear space for disassembly.
3. Remove the interior cover from the air tower cowling.
4. Rest the unit on its air tower cowling and place the provided hi-limit on the interior aluminum panel (as shown in Figure 1) with the hole in the hi-limit's mounting flange parallel with the mounting hole in the RTD mounting bracket.
5. Mark the aluminum panel to be drilled for mounting holes.
6. Use an 1/8-inch drill bit to carefully drill through the aluminum. **Caution:** Drill only through the first panel. Clear any drill tracings from the unit before proceeding.
7. Remove screws on the bottom of the unit holding the computer cowling in place. Unplug the computer plug and set cowling aside.
8. Carefully pry the heating plate from the base assembly. **Note:** Return power to the unit, plug in the computer and allow the unit to heat for five minutes to loosen the adhesive if the plate proves too difficult to remove from a cold unit.
9. Remove the shield over the air heater. See Figure 2
10. Remove the brace on the left side of the base assembly, exposing the wire raceway. See Figure 2.
11. Remove the grommet the RTD wiring passes through.

Included in Kit 826-1825

| Part Number | Quantity | Description |
|-------------|----------|-------------------|
| W17C77 | 1 | Wire |
| 805-1044 | 1 | Wiring Diagram |
| 807-3631 | 1 | Hi-Limit |
| 811-1042 | 1 | Single-sided tape |
| 809-0897 | 2 | Spacer |
| 809-0164 | 2 | Screw |
| 814-0015 | 3 | Tie Wrap |
| 819-5913 | 1 | Instructions |
| 013-0738 | 1 | Hi-Limit locator |

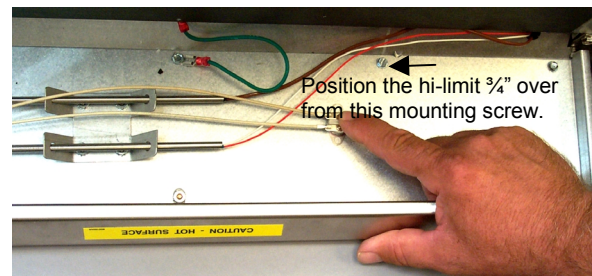


Figure 1: Use the hi-limit's mounting flange as a template for mounting holes. Position the hi-limit 3/4 inch left of the panel mounting screw. (see photo annotation) with the flange mounting tabs parallel with the mounting holes on the RTD bracket.

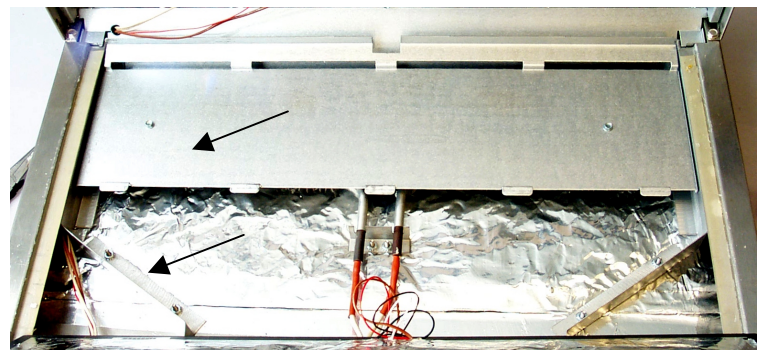


Figure 2: The shield above the air heater and the bracing along the left side of the unit (both marked with arrows) are removed to route the wires for the hi-limit.

12. Slip the wires from the hi-limit into the passage the RTD wires pass through, using the slot to the left. Widen the slot, if necessary, with a screwdriver blade. See Figure 3.
13. Mount the hi-limit with the spacers, providing a stand-off from the panel. See Figure 4.
14. Push the wires through the raceway toward the transformer on the controller side of the HLZ.
15. Remove the grommet near the transformer and slip the wires from the hi-limit into the area occupied by the transformer. See Figure 5.
16. Slip the hi-limit wires into the removed grommets and snap back into place.

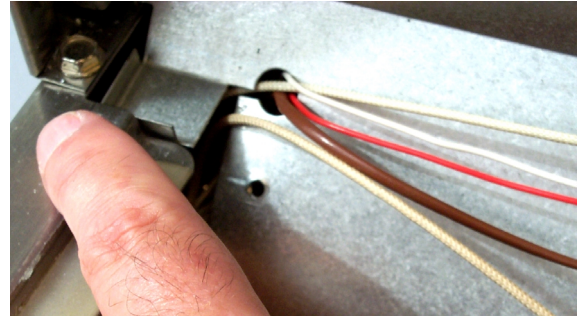


Figure 3: The wires for the hi-limit are routed through the hole used by the RTD wiring. Slip the wires into slot (shown above) and into the hole.

17. With a pin pusher, remove wire 17C from pin 3 of the plug. See Figure 6.

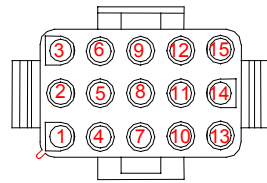


Figure 6: The numbering arrangement of the computer plug is shown above.

18. Disconnect wire 17C from the transformer, cut the wire tie holding the wiring assembly together and discard wire 17C.
19. Place the provided black wire into pin 3 of the computer plug. Ensure it snaps into place.
20. Plug the new black wire into a terminal of the hi-limit.
21. Plug the other hi-limit terminal onto the transformer.
22. Ensure all connections are tight.
23. Retie the wiring assembly with the provided wire tie.
24. Replace the brace, which forms the wire raceway.
25. Replace the metal shield over the air heater.
26. Clear away the old adhesive holding the heater plate in place.

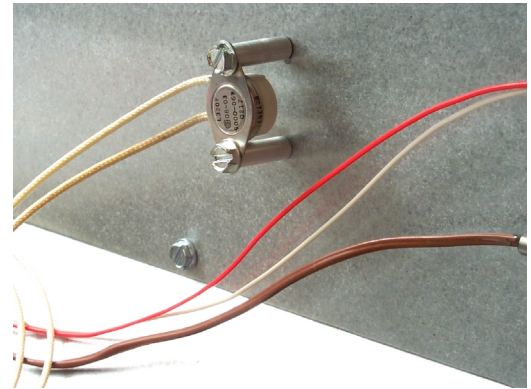


Figure 4: The hi-limit is shown mounted on its standoffs.

27. Put the single-back adhesive in place adhesive-side down and position the heater plate.



Figure 5: The wire is routed from the air cowling, through the raceway, emerging at the transformer.

28. Ensure its ground wire is reconnected.
29. Plug the 15-pin connector into the computer and replace the controller housing.
30. Reinstall the exterior shielding on the air cowling.
31. Ensure it is sealed properly against the heater plate.
32. Install the new wiring diagram on the bottom of the unit.
33. Return the HLZ to its operating position, plug it in and test for proper operation.

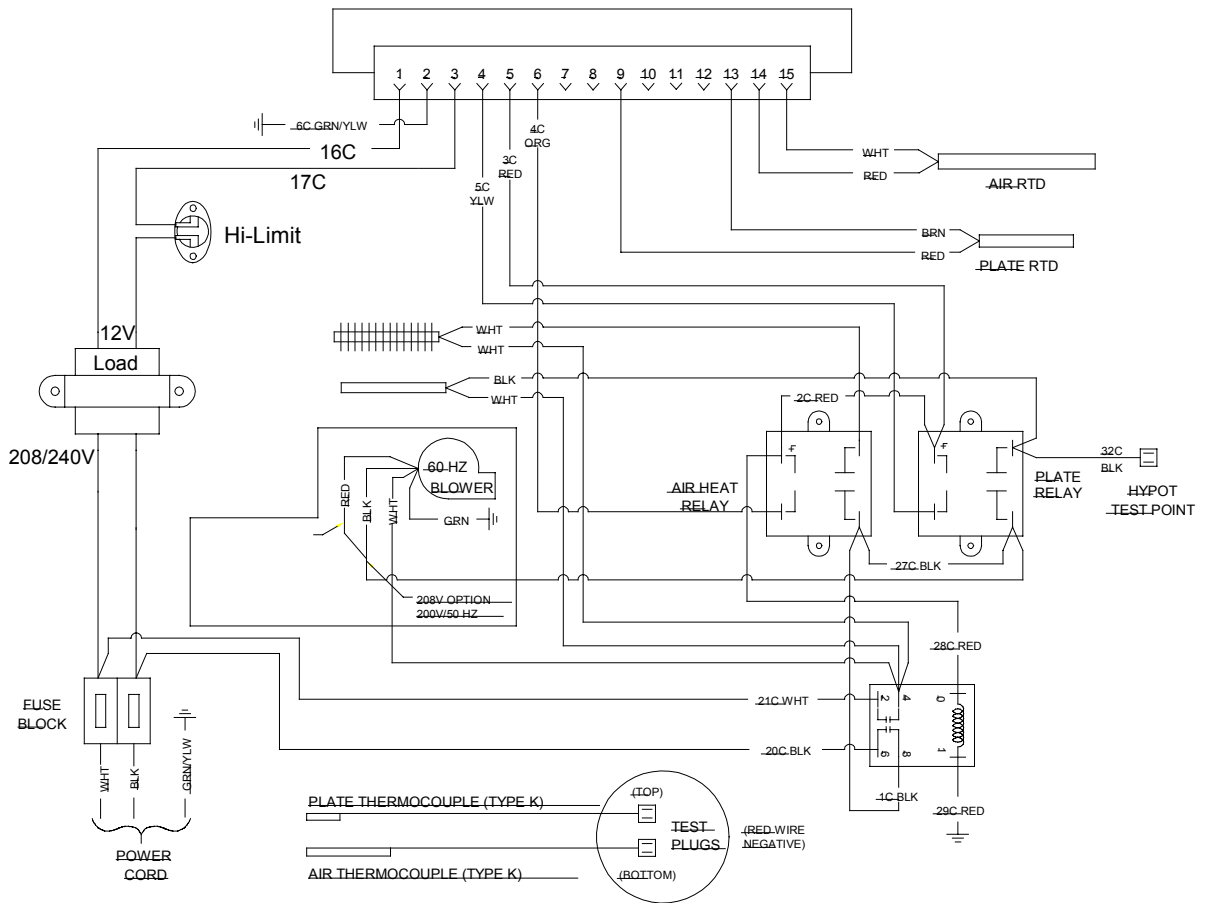


Figure 7: The wiring diagram with the hi-limit in place.