

826-2031 Thermatron Board Installation

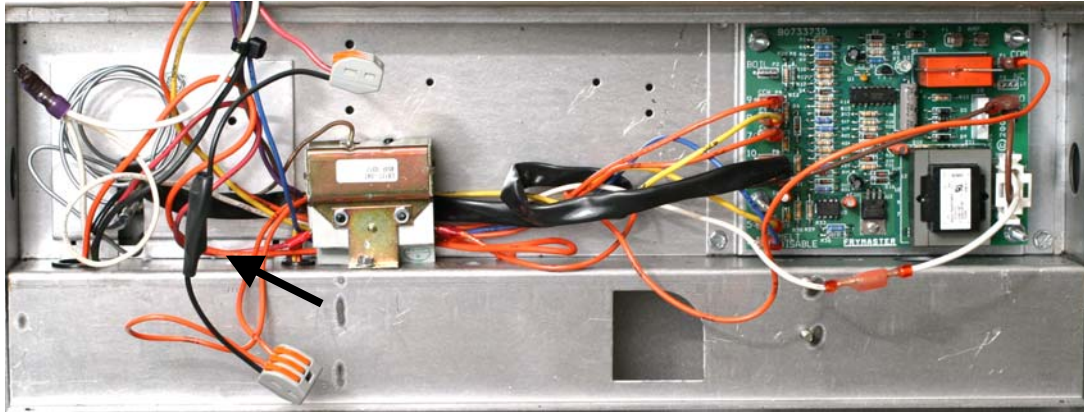


Figure 1: The new board and the new resistor (see arrow) are shown installed on a fryer with the boilout option. The board can be located in other positions on older fryers.

This kit replaces the existing board on a Dean fryer with a newly designed board. The new board is shown in place in the photo above. On fryers with a boilout switch option, the installation requires the replacement of an in-line resistor. (See arrow above.)

The new board has these added features:

- Replaceable relay, 807-3922.
- Onboard fuse, 807-3843.
- Heat light, which illuminates when the board calls for heat.
- Tighter temperature control.
- Limited temperature range, 375°F.

Follow these steps to install the new Thermatron board.

1. Remove power from unit.
2. Gain access to the existing Thermatron board and remove it by removing its mounting plate.
3. Attach the provided power wiring harness to the new board, aligning the white wire pin to Common on the board. Attach the brown wire to the normally open spade on the board and plug the pinned end into the appropriate power outlet on the plug, 115V in center and 230V at rear. See **figure 2**.

In Kit 826-2031		
Part #	Description	Qty
106-0165	120/230V Thermatron board	1
106-4308	Power connection adapter	1
809-0097	Screws	4
809-0250	Nuts	4
809-0916	Washer	8
819-6086	Instructions	1
802-2319	Faceplate	1
106-4954	Boilout resistor assembly	1
807-4056	Snap connectors	2

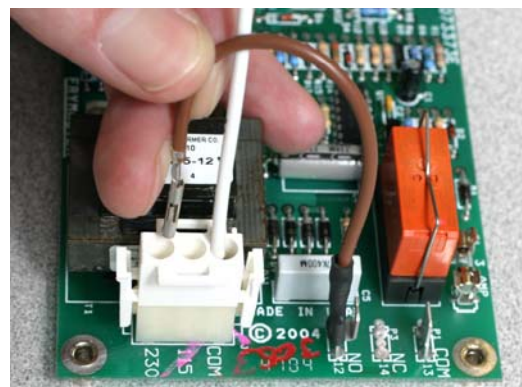


Figure 2: Plug the brown wire into the appropriate power outlet on the plug, 115 or 230.

4. Remove the old board from the mounting plate, leaving the wires intact.
5. Place the new board on the mounting plate, ensuring the existing standoffs are in place and the traces on the rear of the new board are clear of the mounting plate. Secure the board to the mounting plate prior to placing it in the cabinet. Use washers on the back of the screws used to attach the board to the mounting plate. See **Figure 3**.
6. Remove the wires from the existing board and attach them to the new board. See **figure 4**.



Figure 3: Use washers on the screws that attach the board to its mounting plate.

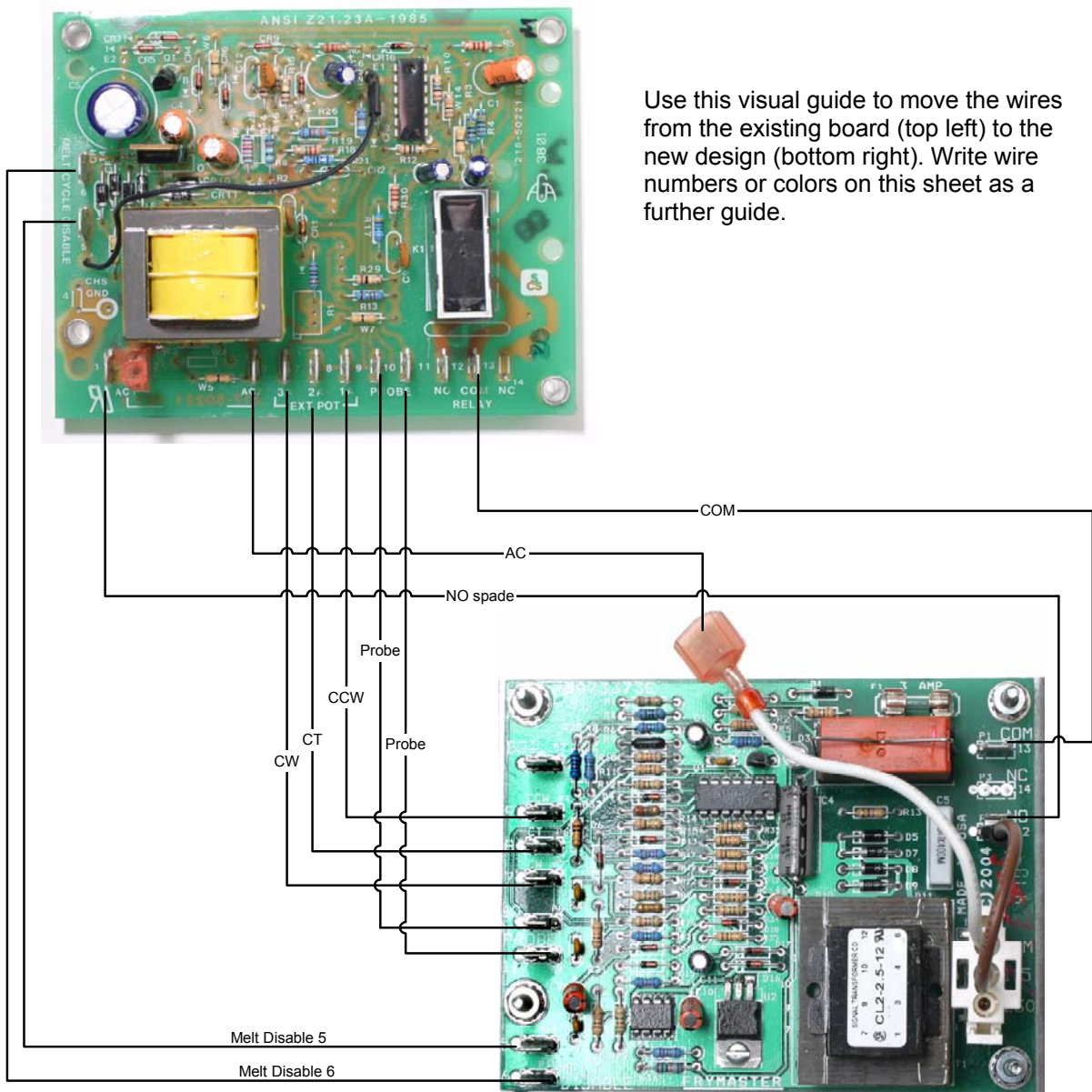


Figure 4: Route wiring to the new board as shown above.

6. Remove the plate holding the potentiometer faceplate in place. Examine the rear of the potentiometer and remove the small resistor. See **figure 5**.
7. Remove the knob from the potentiometer and the nut that secures the shaft.
8. Position the new potentiometer faceplate over the existing faceplate, aligning the new faceplate with the old by aligning the holes. See **figure 6**.
9. On fryers without a boilout option, reinstall the potentiometer, leaving the knob off, and skip to the calibration steps.
10. On fryers with a boilout option, locate the resistor in the potentiometer lead (usually near the hi-limit). See **figure 7**. Remove the protective coating and remove the resistor, which is attached to two wires on one end and one wire at the other. Wire the new resistor in the same manner, using the provided connectors. See **figures 1 and 8**.
11. Reassemble the fryer and return power.

Calibration

1. Twist the potentiometer fully to the leftmost stop, the lowest setting.
2. Using your thumb as a visual guide, rotate the shaft to approximately the 350°F position on the faceplate.
3. Turn the fryer on. Allow it to heat until it reaches setpoint and cycles on and off three times.
4. Measure the temperature of the oil with a thermometer. Position the knob on the shaft with the pointer aligned toward the measured temperature and tighten.

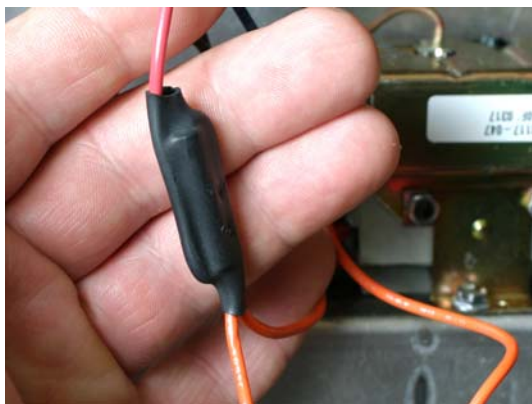


Figure 7: On units with the optional boilout feature, an in-line resistor must be replaced.



A small trim resistor (left) must be removed from the potentiometer.

Figure 5

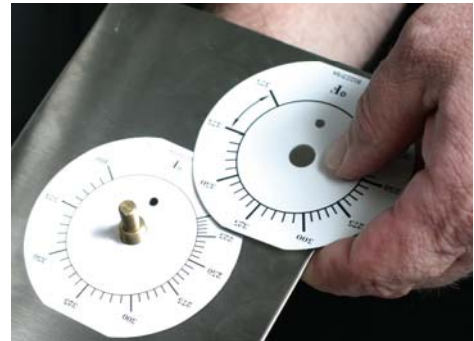


Figure 6: The faceplate on the potentiometer must be replaced. Align the new one with the holes on the existing faceplate.



Figure 8: The new resistor is shown installed with provided connectors.