

## FR-1418 Thermocouple Input Calibration

The analog thermocouple inputs used on Hakko FR-1418 systems do not require periodic calibration. The values set using the procedure outlined herein establish a one-time calibration for the design level of the board and firmware. Thermocouple readings should be verified periodically (typically every 6 months) by plugging a quality Type-K thermocouple simulator into the thermocouple inputs and checking the readings. The allowable tolerance is  $\pm 3^{\circ}\text{C}$  for readings between  $0^{\circ}\text{C}$  and  $400^{\circ}\text{C}$ . If the reading is not within this tolerance, you should suspect bad hardware or connections, but it is possible that one of the calibration parameters has been corrupted in the system's firmware. This situation can be fixed by performing the following procedure:

1. Log on to the FR-1418 Rework System Controller
2. Start the calibration procedure with the command P0 followed by ENTER
3. Enter the number of the channel you are calibrating (enter a number 1 through 4 followed by ENTER)
4. Apply the correct signal with your thermocouple simulator for  $0^{\circ}\text{C}$  and let the system stabilize for a few moments
5. Type P1 followed by ENTER
6. Apply the correct signal with your thermocouple simulator for  $100^{\circ}\text{C}$  and let the system stabilize for a few moments
7. Type P2 followed by ENTER
8. Apply the correct signal with your thermocouple simulator for  $400^{\circ}\text{C}$  and let the system stabilize for a few moments
9. Type P3 followed by ENTER

If you need to calibrate another channel, start the process over again at Step 2 above.

When you are completed, power cycle the system by turning it off from the power switch, waiting for about 30 seconds, then turning the system back on.

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