

F-100™

Technical Bulletin

Temperature Measurement and Adjustment



Warnings: Refer servicing to qualified personnel.

To prevent the risk of electrical shock, disconnect power before servicing.



The F-100™ fixture operates at temperatures in excess of 460° F. If the fixture has been running, allow the fixture to cool for at least one hour before servicing.

You will need:

- Phillips screwdriver
- electronic thermometer with Type K calibration

Locate Trimpots on the PCB

Remove the 21 Housing Cover screws, disconnect the fluid container tube, and lift off the fixture's top housing to access the PCB (Printed Circuit Board). Locate the pin header marked "Not Used" on the PCB. Locate the two temperature trimpots on the PCB marked PT1 and PT2. PT1 is the high temperature trimpot and is indicated by the Heat LED on the remote panel. PT2 is the low temperature trimpot and is indicated by the Ready LED on the remote panel.

Adjust Temperature Settings

Attach an electronic thermometer (either digital or analog) with Type K calibration to the pin header marked "Not Used."

Note: The fixture uses a Type K thermocouple, therefore you must use a thermometer with Type K calibration to accurately set the temperature points. The wire is ansi-color coded for polarity; yellow is positive and red is negative. **Reversing polarity will damage the fixture.**

You will adjust temperature settings by turning the trimpot screws. Turn the trimpot screws using slow, fractional clockwise turns to decrease the temperature set points or counter-clockwise turns to increase the temperature set points.

Note: There will be a three second delay while the circuit "reads" the trimpot adjustment.

High Temperature Setting

Turn the fixture ON and measure the high temperature. (The fixture reaches its high temperature after approximately seven minutes.)

Caution: Constantly monitor the temperature. If the temperature exceeds 288° C/ 550° F, engage the pump to quickly decrease the block temperature.

The high temperature set point should be 238° C/460° F. Adjust the PT1 trimpot so that the Heat LED shuts off at 238° C/460° F.

Note: The temperature will continue to rise after the Heat LED and heating element shut off. This is the “swing temperature” and may reach 271° C/520° F. This temperature will level off and slowly decrease.

If the Ready LED is not on when performing the above procedure, decrease the lower set point until the Ready LED lights, then complete the above procedure.

Low Temperature Settings

To set the low temperature, allow the fixture to reach the high temperature set point (238° C/460° F). When the Heat LED turns off (from the high temperature point), engage the pump on full output for 15 seconds. Note the temperature at the end of the 15 second cycle. This temperature is the low set point and should be set at 182° C/360° F. Adjust the PT2 trimpot so that the Ready LED shuts off at 182° C/360° F.

If you need help during this procedure, notify High End Systems Customer Service at (800) 890-8989.