

# THERMAL

## ENGINEERING COMPANY

### MODEL D4101 OPERATING INSTRUCTIONS

#### INSTALLING BATTERY

Slide OFF- C° - F° switch to OFF position. Failure to turn switch to OFF when installing battery may cause damage to the instrument. Install 9 volt battery. "LO BAT" indicator will appear on the digital readout when battery is low. Replace with a new 9 volt battery.

#### MEASURING TEMPERATURE

Insert thermocouple probe into jack #1. Push in probe selector button #1. Slide the OFF - C° - F° switch to C° or F°, whichever is preferred. Readout now displays temperature at the tip of the probe. To use probe positions #2, #3, and #4, select the appropriate button.

**NOTE:** A thermocouple probe must be plugged in and the probe switch set to the proper jack for the instrument to operate. A reading of "-1 " on the left of the display will occur if no probe is plugged in.

#### MEASURING TEMPERATURE DIFFERENTIAL (TD)

Insert probes into Jacks #1 and #2 and push the gray TD button. Readout now displays the temperature difference between probes #1 and #2. If the temperature at probe #2 is greater, temperature difference reads negative.

#### SPECIFICATIONS

Range: -40° to 1400°F, -40° to 760°C  
Accuracy: +/- 1 % of reading +/- 1 digit

MADE IN U.S.A.

#### PROBE REPAIR

The thermocouple probe can be repaired in the field. To repair the plug end of the thermocouple, unscrew the cover to the plug. Strip back the outer insulation 1/2" exposing a white and a red wire. Connect the white wire to the positive screw on the plug. Connect the red wire to the negative screw. To repair sensing tip, strip back the outer and inner insulation 1/4" to expose two bare wires. Twist wires together and solder the connection using rosin core solder (do not use acid core solder).

#### REPAIR INFORMATION

Instruments returned for warranty repair must include a detailed description of the nature of the malfunction and proof of purchase. Estimates may be requested in advance of the repair for out of warranty repairs. All repairs should be carefully packaged and returned to place of purchase or shipped prepaid to the factory at:

#### ACCESSORIES

D4109 Low temp Thermocouple probe ( -40° to 220°F )  
D4111 High temp Thermocouple probe ( -40° to 1400°F )  
04113 25 ft. Thermocouple Extension  
D4115 High temp Immersion probe  
14116 Flexible Probe Clamp

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