The offset controls are set at the factory to allow for the variations found in standard thermocouples. By adjusting the offset controls, found on the side of the unit, you can optimize measurement accuracy for a particular thermocouple at a particular temperature. This unit has been calibrated Traceable® to standards provided by the National Institute of Standards and Technology (NIST). While offset adjustments are possible, they will interfere with the factory calibration. Traceable® recalibration must be made by the factory (see Recalibration).

**OFFSET ADJUSTMENT (Fine tuning)**

- For warranty, service, or recalibration, contact:
  - Control Company
  - 4455 Rex Road
  - Friendswood, Texas 77546 USA
  - Ph. 281 482-1714
  - Fax 281 482-9448
  - E-mail: sales@control3.com
  - www.control3.com

**ACCESSORIES**

- **Stainless Steel Triple Purpose Probe**
  - Control Cat. No. 4014—
  - Probe diameter 1/8" (0.32cm), probe length 6" (15.2cm), overall length 9" (22.9cm), cable length 50" (127cm).

- **Surface Probe**
  - Control Cat. No. 4008—
  - Flat disk on end has a diameter of 0.39" (1cm), overall length 9" (23cm), cable length 36" (91.4cm).

- **Ultra-fast response, naked bead thermocouple**
  - Control Cat. No. 4022—
  - (Identical to probe supplied with unit) cable length 48" (122cm).

- **Low-Temperature Probe**
  - Control Cat. No. 8039—
  - Stainless-steel with handle; triple purpose (liquids, air/gas, and semi-solids). Dimensions: diameter 0.17 inch; stem length 12 inches; overall length 17 inches.

- **High-Temperature Probe**
  - Control Cat. No. 8613—
  - Teflon insulation. Maximum operating temperature range for this thermocouple is 500°F (260°C).

- **Surface Probe**
  - Control Cat. No. 4008—
  - Flat disk on end has a diameter of 0.39" (1cm), overall length 9" (23cm), cable length 36" (91.4cm).

- **Stainless Steel Triple Purpose Probe**
  - Control Cat. No. 4014—
  - Probe diameter 1/8" (0.32cm), probe length 6" (15.2cm), overall length 9" (22.9cm), cable length 50" (127cm).

**OPERATION**

Insert the probe plug into the receptacle located on the front of the thermometer. The plug and receptacle are keyed with a small and a large pin. Make certain that the plug is inserted properly.

Set the thermometer to desired resolution 0.1° or 1°. Place the probe tip in contact with the material to be measured and read the temperature on the display.

**ALL OPERATIONAL DIFFICULTIES**

If this thermometer does not function properly for any reason, please replace the battery with a new high quality battery (see “Battery Replacement” section). Low battery power can occasionally cause any number of “apparent” operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

**BATTERY REPLACEMENT:**

- A “<” symbol will appear on the LCD display when the battery needs replacement. Before replacing the battery turn the unit off and unplug the probe. Remove the three screws from the back of the thermometer and lift off the back of the case. (NOTE: When the top middle screw is removed, the 2-piece stand with come off the case). Remove the exhausted battery and replace it with a new 9-volt alkaline battery. Replace the back of the thermometer, replace the 2-piece stand, reinstall the three screws and tighten securely.

**DISPLAY MESSAGES**

- OL indicates that no probe is present
- “<” indicates the battery is low and needs replacement (see battery replacement).

**SPECIFICATIONS**

- **Range:** –58 to 1999 °F (–50 to 1300 °C)
- **Resolution:** 0.1° or 1° (selectable)
- **Accuracy:** ±0.3% + 1°C
- **Sampling Rate:** 2.5 times per second
- **Display:** 3½ digit LCD, % high digit (1.5cm)
- **Fail-safe:** Low battery indicator
- **Power:** 9 volt alkaline battery
- **Accessories:** Type-K thermocouple, rubberized case and flip-out stand

**RECORER OUTPUT**

A voltage proportional to the display reading appears at the recorder OUTPUT socket located on the right side of the unit. Output is via a standard 3-pole 3.5 mm jack.

**Output specifications are as follows:**

- 1 mV output per degree in the 0.1° display mode
- 0.1 mV output per degree in the 1° display mode

**Output examples:**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Readings</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1°</td>
<td>26.5°</td>
<td>26.5 mV</td>
</tr>
<tr>
<td>1°</td>
<td>150°</td>
<td>150.0 mV</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

- **Control Cat. No. 4014—**
  - Stainless Steel Triple Purpose Probe, probe diameter 1/8" (0.32cm), probe length 6" (15.2cm), overall length 9" (22.9cm), cable length 50" (127cm).

- **Control Cat. No. 4008—**
  - Surface Probe, flat disk on end has a diameter of 0.39" (1cm), overall length 9" (23cm), cable length 36" (91.4cm).

- **Control Cat. No. 4028—**
  - Ultra-fast response, naked bead thermocouple. (identical to probe supplied with unit) cable length 48" (122cm).

- **Control Cat. No. 8039—**
  - Low-Temperature Probe - Stainless-steel with handle; triple purpose (liquids, air/gas, and semi-solids). Dimensions: diameter 0.17 inch; stem length 12 inches; overall length 17 inches.

- **Control Cat. No. 8613—**
  - High-Temperature Probe - Ten-foot-long 0.19-inch diameter braided metal wire cable with smooth tip measures -73 to 982°C continuous or 1093°C short-term use.

**DISPLAY MESSAGES**

- OL indicates that no probe is present
- “<” indicates the battery is low and needs replacement (see battery replacement).