

REED

Model ST-610B

Digital Thermocouple
Thermometer



Instruction Manual

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Safety

Read the safety and operation instructions before using this thermometer.

Warnings

- Avoid electrical shock by not using this instrument when voltages at the measurement surface exceed 24V AC or 60V DC. Also do not disconnect the thermocouple connectors from the thermometer before removing the cover.
- To avoid damage or burns do not make temperature measurements in microwave ovens.

Cautions

- Repeated sharp flexing can break the thermocouple leads. To prolong lead life, avoid sharp bends in the leads, especially near the connector.
- The  symbol on the instrument indicates that the operator must refer to “**input protection**” in this manual (see page 3).

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Environmental

Ambient Operating Range: 0°C to 50°C (32°F to 122°F)

Storage Temperature: -20°C to 60°C (-4°F to 140°F)

Relative Humidity: 0% to 80% (0°C to 35°C) (32°F to 95°F)
0% to 70% (35°C to 50°C) (95°F to 122°F)

General

Display: 3 ½ digit liquid crystal display (LCD)
with a maximum reading of 1999

Battery: Standard 9V battery (NEDA 1604, IEC 6F22)

Dimensions: 162mm (H) × 76mm (W) × 38.5mm (D)

Weight: 210g

Optional Accessories:

Model LS-109 Surface Probe: Ribbon-style surface probe

Model LS-139 Surface Probe: Spring loaded probe is ideal for all high temperature applications

Model LS-104 Right Angle Surface Probe: Unique right angle design allows temperature of hard to reach areas to be taken

Model LS-103 Air/Gas Probe: Perforated shield permits fast response while providing element protection

Model LS-134A Needle Tip Probe: Medium gauge hypodermic needle tip, used to measure softer foodstuffs, rubber and solids

Model LS-107 General Purpose Probe: Used to measure both air and liquids, but is recommended for immersion applications

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Operating Instructions

Selecting the Temperature Scale

Readings are displayed in either Celsius (°C), Fahrenheit (°F) or Kelvin (K). When the thermometer is turned on, it is set to the temperature scale that was in use when the thermometer was last turned off. To change the temperature scale, press the °C, °F or K buttons.

Selecting the Display Resolution

The thermometer allows two choices of resolution:

High resolution: 0.1°C or 0.1°F

Low resolution: 1°C or 1°F

Additional Functions

Overload Display

The digital display will indicate “1” when the input exceeds the measurement range selected.

If measuring above 199.9°, change the resolution to 1°. Be certain to seat the thermocouple connector properly and that the leads are not broken.

Hold Mode

Pressing the **HOLD** button to enter the Data Hold mode, the “HOLD” indicator is displayed. When “HOLD” mode is selected, the thermometer will “freeze” the present readings and stops all further measurements. Pressing the **HOLD** button again cancels “HOLD” mode, causing the thermometer to resume taking measurements.

Max Mode

Press the **MAX** button to enter the “MAX” mode. The thermometer then records and updates the maximum values and the “MAX” indicator appears on the display. Press the **MAX** button again to exit the “MAX” recording mode. In the “MAX” mode, press the **HOLD** button to stop the recording, press **HOLD** again to resume recording.

Backlight Mode

Press the **BACKLIGHT** button to turn on the LCD backlighting function. The LCD Backlighting will automatically turn off approximately 5 seconds after the **Backlight** button is released.


Tc (Temperature Compensator) Checking Mode

Press and hold the **Tc** button to enter the Temperature Compensator-Checking mode. The thermometer will display the inside temperature.

Battery Replacement

WARNING: To avoid possible electric shock, disconnect the thermocouple connectors from the thermometer before removing the cover



The low battery symbol "  " appears on the lower right of the LCD when the 9V battery needs to be replaced.

1. Turn the meter off and disconnect the temperature probe.
2. Remove the rubber holster that surrounds the entire meter by pulling it over the top of the meter.
3. Remove the small Phillips head screw on the rear of the meter.
4. Open the battery compartment and replace the 9V battery.
5. Re-assemble the meter before operating.

