

386 SERIES TYPE J THERMOCOUPLE THERMOMETER USER INSTRUCTIONS

The 386 Microprocessor Thermocouple Thermometer was designed specifically for harsh, commercial applications requiring the highest accuracy of temperature measurement. The shock resistant housing incorporates molded thermoplastic endcaps in combination with a custom aluminum extrusion for outstanding durability and impact resistance. The thermometer is sealed against moisture and other contaminants and the circuit board is coated with a conformal coating to protect the electronic components from the environment.

The instrument can be used with any ANSI type J thermocouple with miniature thermocouple connector.

The instrument uses a single AA 1.5VDC battery and provides over 1000 hours of battery life under typical usage. Battery replacement is performed by removal of an easy access battery hatch cover on the lower end of the unit.

The instrument features include the **F/C** function to allow selection between the Fahrenheit or Celsius temperature scale and the **AUTO-OFF** feature that will automatically turn off the unit after five minutes of keypad inactivity in order to conserve battery life.

OPERATION:

Insert an ANSI type J thermocouple probe into the connector openings at the top of the instrument. Observe the correct polarity when inserting the probe (note the different size connector prongs).

To turn instrument on, press the **ON/OFF** keypad momentarily. To turn instrument off, repeat step.

NOTE: To conserve battery life, the thermometer has an Auto-Off feature that will automatically turn off the unit after five minutes of keypad inactivity.

To change temperature scale display from Fahrenheit to Celsius, press the **F/C** keypad.

PROBE SENSOR TYPE:

ANSI type J thermocouple with miniature thermocouple connector.

An open probe will indicate "LO". Replace probe to correct the problem.

BATTERY REPLACEMENT:

A battery icon will appear in the lower right corner of LCD when it is time to replace the battery. When the battery voltage falls to approximately 0.9VDC, "bAtt" appears on the display and the unit will shut-off and not operate until a new battery is installed.

To replace the AA 1.5VDC battery, turn battery hatch cover counter-clockwise to open and remove battery cover. Install a new alkaline cell (Energizer® E91 or equivalent) ensuring correct polarity. Align tabs on battery hatch with housing and while pressing in slightly, twist cover clockwise 1/4 turn to secure in place.

CALIBRATION:

This instrument was factory calibrated under controlled conditions using N.I.S.T. traceable test equipment.

SPECIFICATIONS:

RANGE: -40°F to 1382°F (-40.0°C to 750°C)

INSTRUMENT ACCURACY: $\pm 0.9^\circ$ ($\pm 0.5^\circ$) from -40°F to 495°F (-40.0°C to 257.0°C) $\pm 0.6\%$ of reading throughout remainder of range at ambient temperatures between 68°F and 86°F (20°C and 30°C)

INSTRUMENT AMBIENT TEMPERATURE LIMITS: 5°F to 122°F (-15°C to 50°C) operating. -13°F to 158°F (-25°C to 70°C) storage.

BATTERY LIFE: 1000 hours typical

TRACEABILITY:

This instrument has been calibrated to temperature and electrical standards traceable to the U.S. Department of Commerce National Institute of Standards and Technology.

27-958546

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