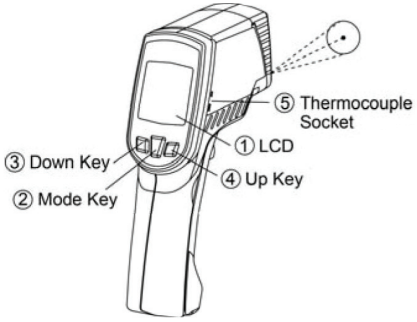
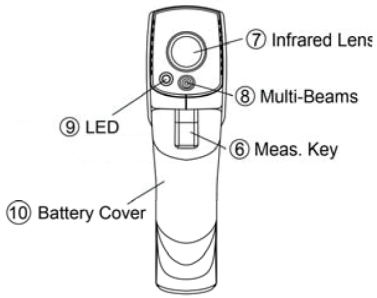
Traceable® Circle Laser Infrared Thermometer with Type K Input



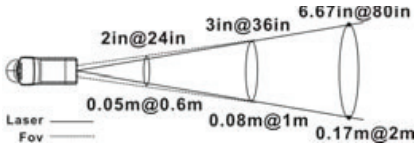


SPECIFICATIONS

Range:
Infrared: –60 to 550°C (–76 to 1022°F)
Type K: –64 to 1400°C (–83.2 to 2552°F)*
Resolution: 0.1°C/0.1°F at –83.2 to 999.9(°C/°F), otherwise 1°C/1°F
Accuracy:
Infrared: ±1.0°C (1.8°F); ±2% of reading or 2°C (4°F) whichever is greater
Type K: ±1% of reading or 1°C (1.8°F) whichever is greater
Response Time: 1 second
Emissivity: adjustable from 0.1 to 1.00 in increments of 0.01; defaults to 0.95
Laser Sighting: circle dot lasers, Class IIIa
Distance-to-Spot Ratio: 12:1
Operating Range: 0 to 50°C (32 to 122°F)
Power: two AAA alkaline batteries; minimum 140 hours continuous use (without laser and backlight)
Dimensions: 119.2 x 47.5 x 171.8 mm (4.7 x 1.87 x 6.76 inch)
Weight: 255.7 g (9 oz) including batteries

Note: Under the electromagnetic field of 3V/m from 200 to 600 MHz, maximum error is 10°C (18°F).

*Range for included Type K probe is –40 to 250°C continuous or 300°C short-term use. If reading temperatures above 300°C, use a higher range probe.



Circle Laser identifies the approximate measurement area for better targeting.

OPERATION

Simply aim the thermometer at the measure target with Lens ❼ and press Meas. key ❻ to display the surface temperature. The Distance-to-spot ratio is 12:1. Please make sure the target area is within the field of view. Press Mode key ❷ for scrolling more display function as follows.

FUNCTION

E	Emissivity data (The default emissivity is 0.95.)
E	Press Mode key ❷ , then press Up key ❹ or Down key ❸ to set the emissivity, then press Mode key ❷ to confirm it. The emissivity can be changed from 0.10 (10E) to 1 (100E).
MAX MIN DIF AVG	Press Mode key ❷ for the Maximum (MAX), Minimum (MIN), Different between MAX and MIN (DIF) and Average (AVG) modes. During the measurement, the special modes reading will be displayed beside the mode icon.
HAL LAL	Press Up key ❹ or Down key ❸ to change the High Alarm (HAL) or Lo Alarm (LAL), then press Meas. key ❻ to confirm it. When the reading is outside the High Alarm (HAL) or Lo Alarm (LAL) limit, the High or Low icon will flash and you will hear a beep sound.
PRB	Connect the thermocouple with Thermocouple socket ❺ and put the probe in/on the target. The thermometer will display the temperature automatically without pressing any button. To see the minimum or maximum data during the probe measurement, please hold down the Up key ❹ or Down key ❸.

⚠ **After measuring a high temp, the probe may remain HOT for a while.**

Thermometer will automatically shut off if left idle for more than 60 seconds, unless in PRB mode. (In PRB mode, it will shut off if left idle for more than 12 minutes.)

In E, MAX, MIN, DIF, AVG mode:	Press Up key ❹ for LOCK mode ON/OFF. The lock mode is particularly useful for continuous monitoring of temperatures for up to 60 minutes.
	Press Down key ❸ to toggle between °C or °F.
In all modes: First hold on the Meas. key ❻ and then:	and Press Up key ❹ for backlight function ON/OFF.
	and Press Down key ❸ for Class IIIa laser function ON/OFF.

LCD ERROR MESSAGES

The thermometer incorporates visual diagnostic messages as follows:

Hi Lo — 'Hi' or 'Lo' is displayed when the temperature being measured is outside of the measurement range.

HI LOW — 'Hi' or 'Lo' is displayed when the temperature being measured is outside of the alarm settings of HAL and LAL.

Er2 / Er3 — 'Er2' is displayed when the thermometer is exposed to rapid changes in the ambient temperature. 'Er3' is displayed when the ambient temperature exceeds the range of 0°C (32°F) ~50°C (122°F). The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature.

Er — Error 5-9, for all other error messages it is necessary to reset the thermometer. To reset it, turn the instrument off, remove the battery and wait for a minimum of one minute, reinsert the battery and turn on. If the error message remains please contact the Service Department for further assistance.

BATTERIES

Thermometer incorporates visual low battery indication as follows:

Battery OK: measurements are possible.

Battery Low: battery needs to be replaced, measurements are still possible.

Battery Exhausted: measurements are not are possible.

STORAGE & CLEANING

It should be stored at room temperature. The sensor lens is the most delicate part of the thermometer. The lens should be kept clean at all times, care should be taken when cleaning the lens using only a soft cloth or cotton swab with water or medical alcohol, allowing the lens to fully dry before using the thermometer. Do not submerge any part of the thermometer.

⚠CAUTION

1. WHEN DEVICE IS IN USE, DO NOT LOOK DIRECTLY INTO THE LASER BEAM– PERMANENT EYE DAMAGE MAY RESULT.
2. USE EXTREME CAUTION WHEN OPERATING THE LASER.
3. NEVER POINT THE DEVICE TOWARDS ANYONE'S EYES.
4. KEEP OUT OF REACH OF ALL CHILDREN.

WARNINGS

⚠ When the ‘Low Battery’ icon indicates the battery is low, the battery should be replaced immediately with AAA, 1.5V batteries.

Note: It is important to turn the instrument off before replacing the battery otherwise the thermometer may malfunction.

⚠ Dispose of used battery promptly and keep away from children.

⚠ If the device is not to be used for a long time, turn the power off, remove and store the batteries in a cool, dry place.

⚠ **Caution:** The measure range is for thermometer only. User should choose proper probe types for different kinds of application. Measuring range for included Type K probe is –40 to 250°C continuous or 300°C short-term use. If reading temperatures above 300°C, use a higher range probe.
Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.

⚠ To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.

⚠ **EMC/RFI:** Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.

WARRANTY, SERVICE, OR RECALIBRATION

Traceable®

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Traceable® Products are ISO 9001:2015 Quality-Certified by DNV and ISO/IEC 17025:2017 accredited as a Calibration Laboratory by A2LA.

Item No. 37803-95
Model No. 4485

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