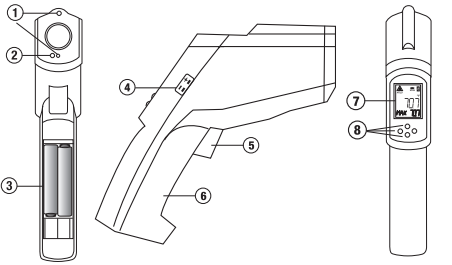
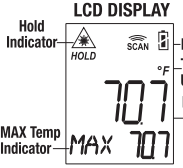
Ultra Temp Dual Laser Thermometer Operating Instructions

The Ultra Temp Dual Laser Thermometer offers infrared and multiple probe capabilities. Fully review all instructions as this unit offers many mathematical and memory functions. Please keep away from children and **DO NOT** use for safety related applications.

1. Laser
2. LED (option)
3. Battery Compartment (2 AAA)
4. Thermocouple Socket
5. MEAS. Button
6. Battery Cover
7. LCD Display
8. EMISSIVITY, UP, DOWN and Mode Buttons





Simply aim the thermometer at the measure target and press the **MEAS.** button to display the surface temperature.
The Distance : Spot is 50 : 1. The two laser points are the reference for the target spot. Make sure the target area is within the field of view.

FUNCTIONS:

Press the **MODE** button to scroll through the following: **E, MAX, MIN, DIF, AVG, HAL, LAL, PRB**

EMISSIVITY:

Press Emissivity button to display emissivity ΛEV, followed by the **UP** and **DOWN** button to set the emissivity levels. Continue by pressing the **MODE** button to confirm your setting in the memory. The emissivity can be changed from .10 (10E) to 1 (100E).

Note: Default emissivity setting is .95 which will be applicable to most common material surfaces. Further emissivity uses can be checked on a published list.

MAX, MIN, DIF or AVG Temperature Measurement:

Press the **MODE** button to view the desired function. Press and hold the **MEAS.** button and start scanning. During the measurement, the special modes reading will be displayed beside the mode icon.

HAL, LAL:

Alarms can be set on this unit as warnings or notice of certain temperatures. Simply press the **MODE** button several times and scroll until you view (HAL), High Alarm Level and (LAL), Low Alarm Level on your screen. Once on either function, you can press the **UP** and **DOWN** buttons to lower or raise the desired alarm temperature. Once these numbers are set your unit will sound an alarm if these parameters are reached or passed.

PRB:

To use your probe or surface temp. wire, simply scroll with the **MODE** button until you can view the (PRB) or probe function on your screen. Plugging the Thermocouple into the Thermocouple Socket will automatically activate your probe or surface temp. wire. The unit will display the surface temperature in the lower right corner of the screen. The unit is also capable of measuring with the infrared while in the (PRB) mode, offering both surface and laser readings simultaneously.

Note: Surface and laser readings may differ due to the emissivity!

Note: To see the MIN or MAX data while in the (PRB) mode, press and hold the UP or DOWN button.

In MAX, MIN DIF & AVG Mode	**ºF or ºC**	Press the **DOWN** button to switch display between ºF and ºC
	Lock	Press the **UP** button for LOCK mode ON/OFF.
Backlight		Hold down the **MEAS.** button and press the **UP** button at the same time to activate the backlight.

LASER:

Hold down the **MEAS.** button and press the **DOWN** button at the same time to turn the laser ON or OFF.

Note: Non-contact infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

The thermometer will automatically shut off if left to idle for more than 60 sec, unless in **PRB mode. (In **PRB** mode, it will shut off if left idle for more than 9 minutes.)

ATTENTION!

- ***DO NOT LOOK DIRECTLY INTO THE 2 LASER BEAMS, PERMANENT EYE DAMAGE MAY RESULT.***
- ***USE EXTREME CAUTION WHEN OPERATING THE LASER!***
- ***NEVER POINT THE DEVICE TOWARDS ANYONE'S EYES!***
- ***KEEP OUT OF REACH OF CHILDREN!***

STORAGE & CLEANING

The thermometer should be stored at room temperature between -4º to 149ºF (-20º to 65ºC). 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. Allow the lens to fully dry before using the thermometer. Do not submerge any part of the thermometer.

LCD ERROR MESSAGES

HI / LOW — **HI** or **LO** is displayed when the temperature being measured is outside of the settings of (HAL) High Alarm Level and (LAL) Low Alarm Level.

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 -32ºF (0ºC) or 122ºF (50ºC). The temperature 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, wait for auto power off, remove the battery and wait for a minimum of one minute, reinsert the battery and turn it on. If the error message remains please contact the Service Department for further assistance.

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

BATTERY REPLACEMENT

(Remember to power off the unit before replacing the battery).

BATTERY OK | **BATTERY LOW** | **BATTERY EXHAUSTED**

When the Low Battery icon displays, the batteries should be replaced. (AAA batteries – 2 pcs.)
Dispose of used battery promptly and keep away from children.

SPECIFICATIONS	
Non-Contact Temp. Range	-76º to 1832ºF (-60º to 1000ºC)
Thermocouple Temp. Range	-83.2º to 1999ºF (-64º to 1400ºC)
Full Range Accuracy	±2% of reading or 2˚C (4˚F) whichever is greater
Resolution	0.1ºF (0.1ºC)
Response Time (90%)	1 second
Distance : Spot	50 : 1
Battery Life	Typically 180 hrs, Minimally 140 hours continuous use (Alkaline, without Laser and Back Light)
Dimensions	1.85 x 7.71 x 7.90" (47 x 195.9 x 200.6 mm)
Weight (Including batteries)	13.62 oz (386.1 grams)