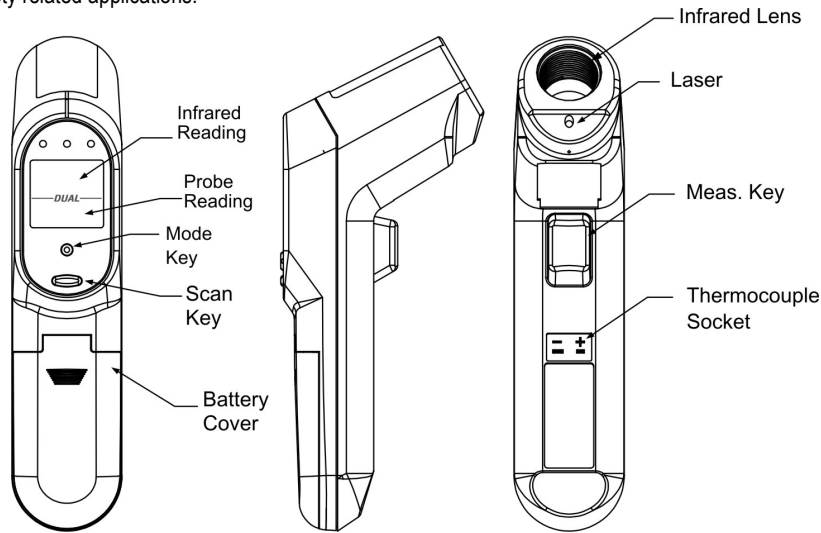


# Thermometer Operating Instructions

The thermometer is a non-contact infrared thermometer, also with Probe thermometer. You can select only one Mode at the same time but can change the Mode at will. Please remember to keep away from baby and children and don't use it for safety related applications.



## In Non-contact Infrared Thermometer function (IRT Mode)

# The laser will automatically turns on while the Scan button is pressed.

Distance:Spot (FOV)= 12:1  
Emissivity = 0.1~1 Step.01  
Wave Length = 8um-14um

Simply aim the thermometer at the measure target with "Infrared Lens" and press Meas.(infrared) key to display the surface temperature. The distance to target ratio is 12:1.Please make sure the target size is within the field of view

While scanning, the newest temperature will be updated on the LCD and the measurement will continue as long as the Meas.(infrared) key is depressed. When the Meas.(infrared) key is released, icon "Hold" will appear on the display and the last measurement will remain visible for 15 seconds before the display goes blank.

### 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.

### Mode Selection

MIN → MAX → LOCK → °C/ °F → EMIS

## MINIMUM OR MAXIMUM MODE

The thermometer will display the minimum or maximum reading during the measurement period only until the Mode key is pressed.

To utilize the minimum mode, please press Meas.(infrared) key → Mode key → Meas.(infrared) key. And keep pressing Meas.(infrared) key for measurement.

To utilize the maximum mode, please press Meas.(infrared) key → Mode key \*twice→ Meas.(infrared) key. And keep pressing Meas.(infrared) key for measurement.

## LOCK MODE

The lock mode is particularly useful for continuous monitoring of temperatures. The thermometer will continuously display the temperature for up to 60 minutes or until the Meas.(infrared) key button is pressed.

To utilize the lock mode, please press Meas.(infrared) key → Mode key \*three times→ Meas.(infrared) key.

## °C OR °F MODE

To change the °C or °F mode, please press Meas.(infrared) key → Mode key \*four times→ Meas.(infrared) key.

Same steps can be taken when switching from °F to °C.

## EMISSIVITY

The infrared thermometer is supplied with a default emissivity of 0.95. The emissivity can be changed from 0.10 (10E) to 1 (100E). Changes should only be carried out by experienced personnel. For information relating to the emissivity of specific materials, please contact the nearest retailer. Note: non-contact infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

To change the emissivity, please Meas.(infrared) key → Mode key \*five times→ Meas.(infrared) key for each 0.01 (1E) adjustment→ Mode key.

## In Contact Thermocouple Probe function (COT Mode)

Connect the thermocouple with Thermocouple socket and put the probe in/on the target. Press Scan key to continuously display the temperature for up to 4 minutes. After that the device will automatically shut off to extend the battery life. Press Scan key will interrupt the scanning to display the last temperature with a 'Hold' wording. To reenter scanning just press Scan key again.

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

⚠ The measure range is for thermometer only. User should choose proper probe types for different kinds of application. 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.

## HACCP check

The "HACCP CHECK" feature is incorporated in our thermometer temperature to graphically indicate critical temperature zone. The icons and LED indicators located above the display indicate a food product stays in a safe or unsafe HACCP "Danger Zone" temperature. The green and red LED light will always be lit before power off.

A Green LED appears with icon "❄" indicates a safe cool or frozen condition below 4°C(40°F) or appears with icon "🔥" indicates a safe holding temperature above 60°C(140°F).

When temperature is between 4°C and 60°C, the red LED with icon "🚫" will appear and indicate that the temperature is fallen within the HACCP "Danger Zone" from 4°C to 60°C (40~140°F).

HACCP		
■	■	■
↓ 4 °C	4-60 °C	↑ 60 °C
↓ 40 °F	40-140 °F	↑ 140 °F
○	⊘	○

## 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.

## 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.

「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 0°C (32°F) or +50°C (122°F). The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature.

「Er」

For all other error messages it is necessary to reset the thermometer. To reset it, waiting for auto power 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

The thermometer incorporates visual low battery indication as follows:



'Battery OK': measurements are possible



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



'Battery Exhausted': measurements are not possible

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

## SPECIFICATION

	Infrared Scan function (IRT Mode)	Thermocouple Probe Scan function for (K type; probe not included.)
Measurement Range	-55~250°C (-67~482°F)	-55~330°C (-67 to +626 °F)
Operating Range	0~50°C (32~122°F)	
Accuracy (Tobj=15-35°C, Tamb=25°C)	+/-0.6°C (1.1 °F)	+/-1°C or 1% of the reading, whichever is greater
Accuracy (Tamb=23+/-3°C)	-33~0: +/- (1°C+0.1/degree) 0~ 65: +/-1°C 65~250: +/-1.5% of reading	
Emissivity Range	0.95 default – adjustable 0.1 to 1 step .01	
Resolution (-9.9~199.9°C/°F)	0.2°C/0.5°F, otherwise 1°C/1°F	
Distance:Spot	12:1	
Dimension	175.2 x 39.0 x 71.9mm(6.9×1.54×2.83 inch)	
Weight (with battery)	179 grams(6.31 oz) including batteries (AAA*2pcs)	
Battery Life	Typ.18, min 14 hours continuous use (Alkaline, with Laser)	

## ⚠EMC/RFI

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



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