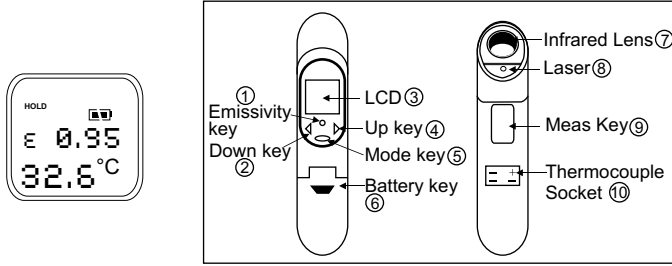


## TN408XC / TN408LC Thermometer

**Operating Instructions** Model : TN408LC (with Laser)

The thermometer is a non-contact infrared thermometer. There are many mathematical modes for the Infrared function. Please remember to keep away from children and don't use it for safety related applications.



Simply aim the thermometer at the measure target with lens (7) and press Meas. Key (9) to display the surface temperature. The Distance:Spot is 1:1. Please make sure the target area is within the field of view.

### FUNCTION

Press Emissivity key (1) for setting the emissivity

Press Emissivity key (1), then press Up key (4) to set the emissivity, then press Mode key (5) to confirm it. The emissivity can be changed from 0.10 (10E) to 1 (100E)

Press Mode key (5) for scrolling more display function as follows.

ε	Here will show the emissivity data. (The default emissivity is 0.95)
MAX MIN DIF AVG	Press Mode key (5) 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 (4) or Downkey (2) key to change the High Alarm (HAL) or Lo Alarm (LAL), then press Meas. key (9) to confirm it. For example: When the reading 27°C < LAL 27.1°C, the Low icon will flash and you will hear a beep sound.
PRB	Connect the thermocouple with Thermocouple socket (10) 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 (4) or Downkey (2). △ After measure high temp, the probe may remain HOT for a while.

\*\* The thermometer will automatically shutoff if left idle for more than 60sec, unless in PRB mode. (In PRB mode, it will shutoff if left idle for more than 12 minutes.)

### ADD VALUE

In MAX, MIN, DIF, AV	Press Up key (4) for LOCK mode ON/OFF. The lock mode is particularly use ful for continuous Monitoring of temperatures for upto 60 minutes. Press Downkey (2) for °C or °F transferred.
In all modes: First hold on the Meas. Key (9)	And press Up key (4) for back light function ON/OFF And press Down key (2) for laser function ON/OFF. (Only for model TN408LC.)

### CAUTION

- WHEN DEVICE IS IN USE, DO NOT LOOK DIRECTLY INTO THE LASER BEAM - PERMANENT EYE DAMAGE MAY RESULT.
- USE EXTREME CAUTION WHEN OPERATING THE LASER.
- NEVER POINT THE DEVICE TOWARDS ANY ONE'S EYES.
- KEEP OUT OF REACH OF ALL CHILDREN.

### STORAGE AND CLEANING

The thermometer should be stored at room temperature between -20 - +65°C (-4 - 149°F).

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 MESSAGE

The thermometer incorporates visual diagnostic messages as follows :

((( HI LOW )))

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

Er2

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.

Er3

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.

Er

### BATTERIES

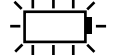
The thermometer incorporates visual low battery indication as Follows:



'Battery OK' : measurements are possible



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



'Battery Exhausted' : measurements are not possible

△ When the 'Low Battery' icon indicates the battery is low, the battery should be replaced immediately with AM, 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 & keep away from children.

### SPECIFICATION

Item	Non Contact Infrared Scan Function	Thermocouple Probe Scan function (k Type not included)
Measurement Range	-60 to 500°C (-76 to +932°F)	-64 to +1400°C (-83.2 to +1999°F)
Operating Range	0 ~ 50°C (32~122°F)	
Accuracy (T <sub>object</sub> =15-35°C, T <sub>ambient</sub> =25°C)	±1.0°C (1.8°F)	±1% of reading or 1°C (1.8°F) whichever is greater (Test Under T <sub>ambient</sub> =23±6°C)
Accuracy (T <sub>object</sub> =33-500°C, T <sub>ambient</sub> =23±3°C)	±2% of reading or 2°C (4°F) whichever is greater	
Resolution (-9.9 199.9°C)	0.1°C / 0.1 °F	
Response Time (90%)	1 Sec	
Distance : Spot	11:1	
Battery life	Type. 180, min 140 Hr Continuous use (Alkaline, without laser & Back Light)	
Dimensions	175.2 x 39.0 x 71.9mm	
Weight	179 grams including batteries (AAA *2pcs)	
Note	Under the electromagnetic field of 3V/m from 200 to 600MHz, the maximum error is 10°C (18°F)	

### EMC/RFI

Readings may be affected if the unit is operated with in 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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