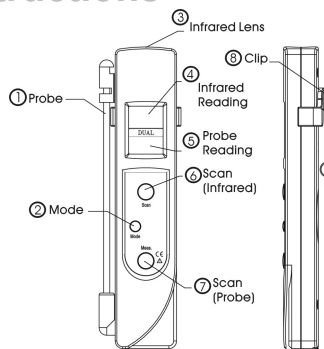


TCT103 Thermometer Operating Instructions

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.



- By pressing ⑥ (Scan (Infrared) button), directly enters the Non-contact Infrared Thermometer Function (IRT Mode).
- By pressing ⑦ (Scan (Probe) button), directly enters the Contact Thermometer Function (COT Mode).

⚠ If you need to enter IRT Mode from COT Mode directly, please press ⑥ only after COT is under 'Hold'.

In Non-contact Infrared Thermometer function (IRT Mode)

Simply aim the thermometer at the measure target with ③ and press ⑥ to display the surface temperature. The distance to target ratio is 1:1 therefore the thermometer should be positioned as close to the target as possible.

MINIMUM OR MAXIMUM MODE

The thermometer will display the minimum or maximum reading during the measurement period only until the ② button is pressed.

To utilize the minimum mode, please press ⑥→②→⑥. And keep pressing ⑥ for measurement.

To utilize the maximum mode, please press ⑥→②*twice→⑥. And keep pressing ⑥ 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 ⑥ button is pressed.

To utilize the lock mode, please press ⑥→②*three times→⑥.

°C OR °F MODE

To change the °C or °F mode, please press ⑥→②*four times→⑥.

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 ⑥→②*five times→⑥ for each 0.01 (1E) adjustment→②.

In Contact Thermometer function (COT Mode)

Attach the thermometer at the measure target with ① and press ⑦ to continuously display the temperature for up to 4 minutes. After that the device will automatically shut off to extend the battery life. Press ⑦ will interrupt the scanning to display the last temperature with a 'Hold' wording. To reenter scanning just press ⑦ again.

- ⚠ 1. Do not twist the probe and rotate the probe in wrong direction.
- 2. Over stress on probe may cause break.
- 3. After measure high temp, the probe may remain HOT for a while.
- 4. Probe is dangerous for human when the probe is in an open position. Remember to hold the probe back when not in use.

⚠ The probe of contact thermometer may be damaged if exceeding the specification of measurement temperature range.

⚠ 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.

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.

「Er 2」 「Er 3」 '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, 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

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 a CR2032 lithium cell. 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

Item	Non-contact Infrared Scan function	Contact Probe Scan function
Measurement Range	-33 to +220°C (-27 to +428 °F)	-55 to +330°C (-67 to +626 °F)
Operation Range	0 to +50°C (32 to +122°F)	
Accuracy	±2% of reading or 2°C which is greater (Tamb=23±3 °C)	±1% of reading or 0.8°C (1.4 °F) which is greater (tested in Tamb=23±6 °C)
Emissivity Range	0.95 default – adjustable 0.1 to 1 step .01	
Resolution(-9.9~199.9°C)	0.1°C/0.1°F, otherwise 1°C/1°F	
Distance:Spot	1:1	
Battery Life	Typ.40, min 30 hours continuous use (auto power off after 15 seconds)	
Dimensions	24.2 x 39.8 x 156 mm(0.95×1.57×6.14 inch)	
Weight	75 grams(2.65 oz) including battery	

EMC/RFI

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

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