

TN2 Thermometer Operating Instructions

The TN2 thermometer is a non-contact infrared thermometer. Simply aim the thermometer at the target and press the measurement button to display the surface temperature. By partially pressing the measurement button, the device will begin to measure the temperature of the target. When the measurement button is completely depressed, the laser will operate. **CAUTION - DO NOT look directly into the laser beam - permanent eye damage may result.**

MINIMUM OR MAXIMUM MODE

To utilise the TN2's minimum or maximum mode, firstly turn the instrument on by pressing the measurement button, then press the mode button once for minimum or twice for maximum function. The 'MIN' or 'MAX' icon will flash, then press the measurement button to confirm the minimum or maximum mode. The TN2 will display the minimum or maximum reading only.

LOCK MODE

The lock mode is particularly useful for continuous monitoring of temperatures. To utilise the TN2's lock mode, firstly turn the instrument on by pressing the measurement button, then press the mode button three times for the lock mode function. The 'LOCK' icon will flash, then press the measurement button to confirm the lock measurement mode. The TN2 will continuously display the temperature for up to 60 minutes or until the measurement button is pressed.

°C or °F MODE

To change the TN2 from °C to °F or from °F to °C, firstly turn the instrument on by pressing the measurement button, then press the mode button four times, the '°C' or '°F' icon will flash, press the measurement button to change the scale, then press the measurement button to confirm the mode.

EMISSIVITY

The TN2 infrared thermometer is supplied with a default emissivity of 0.95. The emissivity of the TN2 can be changed from 0.01 (1E) to 1 (100E). Changes should only be carried out by experienced personnel. To change the TN2's emissivity, firstly turn the instrument on by pressing the measurement button, then press the mode button five times for emissivity function. The 95E will flash on the LCD screen, then press the measurement button to adjust the emissivity value, press the mode button again to exit the set up screen. For information relating to the emissivity of specific materials, please contact the ETI Sales Office. Note: non-contact infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

LCD ERROR MESSAGES

The TN2 incorporates visual diagnostic messages as follows:



'Hi' or 'Lo' is displayed when the temperature being measured is outside of the range of the instrument, 'Hi' when higher than +220°C and 'Lo' when lower than -33°C.



'Er2' is displayed when the TN2 is exposed to rapid changes in the ambient temperature. 'Er3' is displayed when the ambient temperature of the TN2 exceeds -10 or +50°C. In both cases you should allow plenty of time (minimum 30 minutes) for the TN2 to stabilise to the working/room temperature (0 to +40°C).



For all other error messages it is necessary to reset the TN2. To reset the TN2, turn the instrument off, remove the battery and wait for a minimum of one minute, insert the battery and turn on. If the error message remains please contact the ETI Service Department for further assistance.

BATTERIES

The TN2 has two separate batteries. The battery closer to the side of the laser beam output is for laser operation only. The other battery is designated for temperature measurements. The TN2 can still measure temperature properly, even without the laser battery.

The TN2 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

BATTERY REPLACEMENT

When the 'Low Battery' icon indicates the batteries are low, the batteries should be replaced immediately with two CR2032 lithium cells (ETI Order Code: 839-095). The batteries are located under the twist covers at the rear of the TN2. Please note: It is important to turn the instrument off before replacing the batteries otherwise the TN2 may malfunction.

STORAGE & CLEANING

The sensor lens is the most delicate part of the TN2. 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 TN2, do not submerge any part of the TN2. The TN2 should be stored at room temperature between +10 to +40°C.

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.

PRODUCT WARRANTY & GUARANTEE

This instrument carries a one-year warranty and guarantee against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ETI Ltd, be either repaired or replaced without charge. The product warranty and guarantee does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification, or use with non-ETI Ltd hardware/software. No warranty of fitness for a particular purpose is offered and the user assumes the entire risk of using the product. Any liability by ETI Ltd is limited only to the replacement of defective materials or workmanship, and ETI Ltd accepts no responsibility for consequential loss. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.



Electronic Temperature Instruments Ltd

Dominion Way · Worthing · West Sussex · BN14 8NW

Tel: 01903 202151 · Fax: 01903 202445

E-mail: sales@etiltd.co.uk · Website: www.etiltd.co.uk