



ThermoProbe

TL3-A
TL3-W
TL3-R

USER MANUAL



ThermoProbe Models TL3A, TL3W and TL3R



EU Declaration of Conformity according to directive 2014/34/EU (ATEX)

Thermoprobe, Inc. hereby declares the TL3-A, TL3-R and TL3-W products to be in accordance with the following standards and directives:

Name and address of Manufacturer

ThermoProbe, Inc.
112A Jetport Dr.
Pearl, MS 39208 USA

Description of Devices

TL3-A, TL3-R and TL3-W
Portable Electronic Thermometers

Ex-Designation

 II 1 G Ex ia IIC T4 Ga

EC-Type Examination Certificate

ITS19ATEX205407X

Notified Body

Intertek Italia SPA
Via Guido Miglioli, 2/A
20063 Cernusco sul Naviglio (MI), Italy
Identification Number: 2575

Auditing body (QAN)

Intertek Testing & Certification Limited
Intertek House
Cleeve Road
Leatherhead,
Surrey KT22 7SB, UK
Identification Number: 0359

Applied Harmonized Standards

EN 60079-0: 2018
EN 60079-11: 2012

Explosive atmospheres – Part 0: Equipment – General requirements
Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety ‘i’

Applied European Directives

2014/34/EU - Equipment and protective systems intended for use in potentially explosive atmospheres

ThermoProbe, Inc.

Luke Bartkiewicz
President

3/4/2021, JK



USER INSTRUCTIONS – TL3-A, TL3-W & TL3-R

INTRODUCTION

This manual describes the basic function, use and safety instructions for the model TL3-A, TL3-W and TL3-R portable digital reference thermometer instruments.

REPLACING BATTERY

When the battery voltage is low, the display will show ‘Lo bAtt’.

Replace the battery as soon as possible in a safe location after the low battery is noticed. This will avoid possible malfunctioning. Do not attempt to calibrate the instrument if the low battery indicator is displayed.

WARNING:

- Batteries must be changed in Non-hazardous area.
- Batteries must be of correct approved type.
- Batteries must be installed with correct polarity making sure the (+) end of the battery is aligned with (+) symbol embossed in the battery case.
- Batteries must not be installed with polarity reversed where one cell could charge another cell.

a) Ensure the instrument is in a non-hazardous area & powered off.

b) Use a #2 Phillips drive to remove the 1 screw holding the back cover on the TL3.

c) Replace each new battery making sure the (+) end of the battery is aligned with (+) symbol embossed in the battery case.

d) Reinstall the cover. Make sure the rubber gasket is seated in its groove around the case opening (TL3-W, TL3-R).

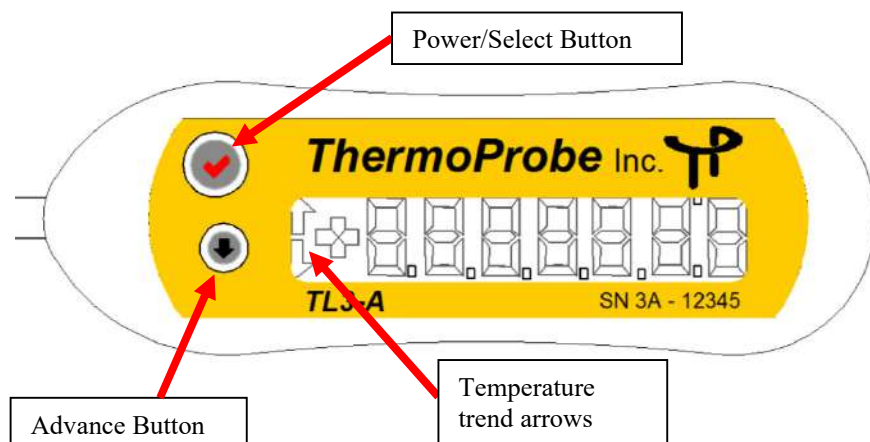
CERTIFIED Batteries for the TL3-A, TL3-W and TL3-R are as follows:

Model	Type	Duracell	Panasonic
TL3-A	(1) CR2032 LiMnO ₂	DL2032	CR2032
TL3-W, TL3-R	(2) AAA (LR03) Alkaline	MN2400	LR03XWA

AUTHORIZED REPAIR

It is recommended that service beyond the scope of this manual be performed by ThermoProbe, Inc. or one of its authorized distributors.

USER INTERFACE



Power/Select Button:

Pressing the Power button once will turn on the device. (Note: The instrument will automatically power off 20 minutes after the last button push.) Pressing and holding the “Power” button until it displays ‘OFF’ will turn off the instrument.

Selection MENU:

Use the Advance (down arrow) button for the following selections:

C-F: Select Celsius or Fahrenheit temperature display

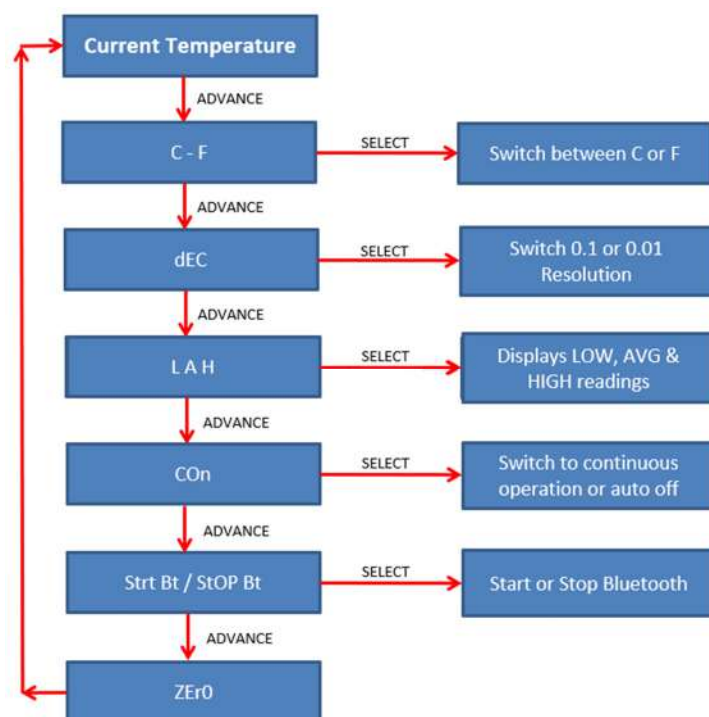
DEC: Select 0.1 or 0.01 display resolution (0.01/0.001 for TL3-R)

LAH – Displays Lowest reading (LO), Average reading (AVG) and Highest reading (HI)

CON: Switches between auto off or continuous operation

STRT BT / STOP BT: Start or Stop Bluetooth (TL3-W or TL3-R)

ZERO: Allows user to view or adjust the zero correction
(* TL3-R model only - See Zero Correction section)



Lowest, Highest & Average readings

The lowest, highest and average temperatures recorded while the TL3 is powered on can be accessed from the menu. These are indicated by LO, AVG or HI indicators shown on the display immediately before the corresponding reading is displayed. These readings are deleted after the unit is powered off.

Bluetooth® Wireless (TL3-W or TL3-R models only)

Bluetooth can be enabled from the menu to transmit temperature data to supported Bluetooth devices. Please go to

Display Codes

OPEN Ct - Indicates the sensor is operating above its temperature limit, or the sensor is damaged.

Shrt Ct - Indicates the sensor is operating below its temperature limit or the sensor is damaged.

Lo bAtt - Indicates the battery voltage is low.

Zero Correction (TL3-R model only)

Note: A password ('247') is required to enter Zero Correction mode.

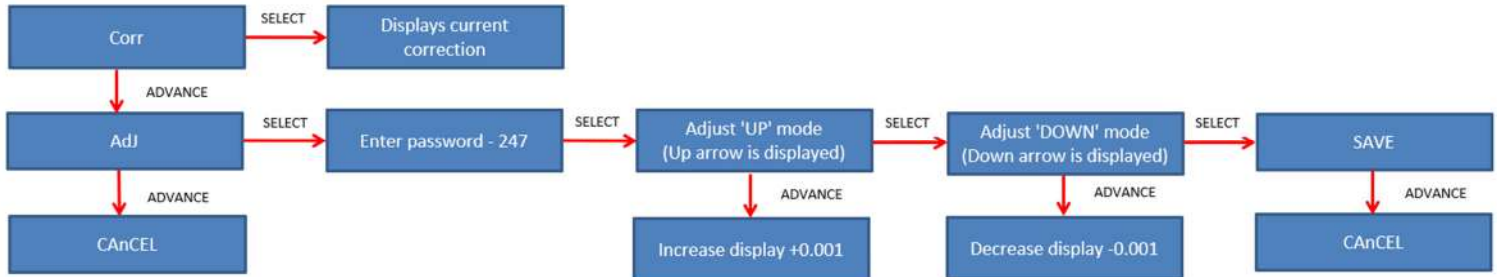
Corrections made will offset temperature over the entire range of the device.

Zero correction should only be performed by qualified personnel with proper reference instrumentation.

Zero Correction is intended to be performed at water freezing point 0°C (32°F).

The Zero Correction can be accessed by selecting ZERO from the menu.

From the Zero Correction menu, selecting Corr will display the current zero correction.



Selecting Adj will display a password field of 3 digits. Enter the password (247) one digit at a time using the ADVANCE button to increment each display digit. Then use the SELECT button to go to the next digit. Pressing SELECT for the 3rd digit will take you to a temperature display where you can adjust the displayed temperature. The arrow indicator shows the direction you are changing the temperature. Press and hold the ADVANCE button to increment the value by 0.001 degrees until it reaches 10 and then it will increment at a rate of 0.01 degree per second. Use the SELECT button to go from adjust UP, adjust DOWN, Save correction, and Cancel (don't save). Once you have saved the adjustment you can view the zero adjustment being applied from the Zero→Corr→'Displays current correction' menu selection.

SAFETY INSTRUCTIONS – TL3-A, TL3-W & TL3-R

REV 042020

These ThermoProbe instruments are intended for use in both hazardous (potentially flammable or explosive) and non-hazardous areas under dry conditions at ambient temperatures between -20°C to 40°C.

The instruments are not intended for use in permanent outdoor installations and are not intended or tested for icing conditions. Additional means of protection should be used where the equipment may be exposed to excessive external stresses (e.g. vibration, heat, impact, etc.). The user must have a working knowledge of appropriate safety requirements. Be aware of aggressive substances and that extra protection may be needed. Exposure to excessive heat can melt the plastic components of the instrument.

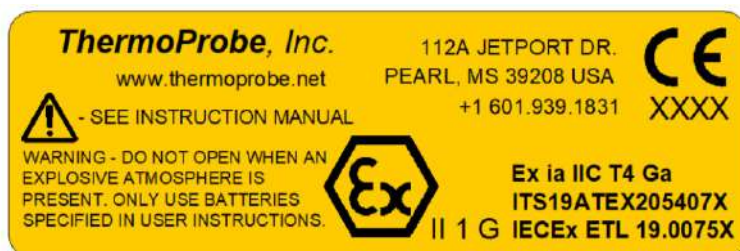
- a) The user must have a thorough knowledge of the products to be measured and must know of the safety precautions to be taken when working with the material to be measured.
- b) The instrument shall be checked concerning severe defects; check that instrument is complete, has good batteries, etc. If necessary, check measurement accuracy. If any defects are found, the instrument should not be used until repairs have been made.
- c) The instrument should be clean for safety and ease of use.
- d) The physical measurement location should be evaluated for primary and secondary risks.
- e) Power source must be removed before performing any maintenance.
- f) Exchange of components other than the batteries may compromise ATEX/IECEx or other certifications and shall only be undertaken by ThermoProbe or one of its qualified service providers. See also “Authorized Repair” section.

CAUTION:

The following metal parts have a capacitance in excess of 3pF, are isolated from ground and may pose a potential electrostatic charging hazard: (Metal probe - 19.5pF)

In the event that any part of the instrument should become electrostatically charged in a potentially hazardous location, follow company policies for testing and clearing the area of any hazardous gases before attempting to use the instrument in that location. If this is not possible allow sufficient time for the instrument to naturally dissipate any charges. Given the atmosphere, this could take several hours.

SAFETY APPROVALS FOR TL3-A, TL3-W AND TL3-R:



Ex ia IIC T4 Ga

Applicable Standards are:

IEC 60079-0:Ed 7, IEC 60079-11:Ed 6

EN 60079-0:2018, EN60079-11:2012

Agency or Safety Designation

IECEx: Internationally Recognized Body

ATEX: Europe

11/2020, JK

INTRINSIC SAFETY

Intrinsically safe equipment is defined as "equipment and wiring which is incapable of releasing sufficient electrical or thermal energy under normal or abnormal conditions to cause ignition of a specific hazardous atmospheric mixture in its most easily ignited concentration." (ISA-RP12.6) This is achieved by limiting the amount of power available to the electrical equipment in the hazardous area to a level below that which will ignite the gases.

In order to have a fire or explosion, fuel, oxygen and a source of ignition must be present. An intrinsically safe system assumes the fuel and oxygen are present in the atmosphere, but the system is designed so the electrical energy or thermal energy of a particular instrument loop can never be great enough to cause ignition.

BATTERIES

- Batteries must be changed in Non-hazardous area.
- Batteries must be of correct approved type.
- Batteries must not be mixed with batteries of other models or manufacturers.
- Batteries must be installed with correct polarity making sure the (+) end of the battery is aligned with (+) symbol embossed in the battery case.

CERTIFIED Batteries for the TL3-A, TL3-R and TL3-W are as follows:

<u>Model</u>	<u>Type</u>	<u>Duracell</u>	<u>Panasonic</u>
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TL3-W, TL3-R	AAA (LR03) Alkaline	MN2400	LR03XWA