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1. The Statement

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**Caution**

"Caution" mark refers to the condition and operation which may cause damage to the instrument or equipment.

It requires that you must be careful during the execution of the operation. If incorrectly perform the operation or do not follow the procedure, it may damage the instrument or equipment. In the circumstances that such conditions are not met or not fully understood, please do not continue to perform any operation indicated by the caution mark.



“Warning” mark indicates the condition and operation which may cause danger to users.

It requires that you must pay attention during the execution of this operation. If incorrectly perform the operation or do not follow the procedure, it may result in personal injury or casualties. In the circumstances that such conditions are not met or not fully understood, please do not continue to perform any operation indicated by the warning mark.

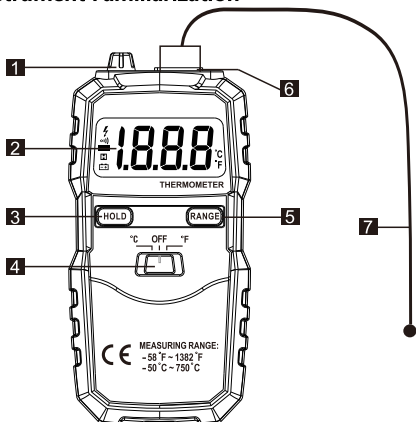
Before using the instrument, Please read this manual carefully and pay attention to the relevant safety warning information.

2. Overview

The instrument is a portable digital thermometer. It has stable performance, high precision, low power consumption, novel structure. Safe and reliable, it' s an ideal measuring instrument for the majority of users.

This manual includes the relevant safety information, warning notices and so on, please read the related contents carefully before using the instrument, and strictly follow all warnings and precautions.

3. Instrument Familiarization



- 1** Room temperature sensor
- 2** LCD display
- 3** Data hold key
- 4** Slide switch
 OFF : power off °C : Celsius display unit
 °F : Fahrenheit display unit
- 5** Range selection key : Range switching 0.1 or 1 resolution
- 6** Thermocouple jack
- 7** K type thermocouple probe

4. Method of use

1. K type thermocouple is inserted into the thermocouple jack
2. The sliding switch sliding to °C or °F
3. The thermocouple probe in contact with the measured object
4. Then read the results from the display
5. If the display value is less than 200, you can choose to display the 0.1 range resolution by pressing the RANGE key

Note

- ◆ When not inserted into the thermocouple or thermocouple open, instrument will display environment temperature.
- ◆ The instrument is not suitable for fast measuring changes in ambient temperature.
- ◆ Thermocouple cold end compensation in the meter head, it and measuring environment to achieve thermal equilibrium will take time. So when measuring to be placed to obtain more accurate readings in the measurement environment for a period of time.
- ◆ This instrument uses K type thermocouple probe.

Warning



With thermocouple, thermocouple probe can not contact the charged objects, otherwise it might damage the instrument, and may shock or injuries.

Caution



Do not place the thermocouple leads folded into an acute angle. Repeated bending over a period of time may cause the wire broken.

5. General Specifications

- Environment condition of using :
Working environment : 0~40°C (<80%RH) 。
Storage environment : -10~60°C (<70%RH , without batteries) 。
- Sampling rate : about 2 times/second。
- Display: 3 1/2 bit LCD。
- Thermocouple open indication :
When not connected to a thermocouple or thermocouple open, display environment temperature。
- Low battery indication :
when the battery voltage is lower than the normal working voltage, " " will be displayed on the LCD display。
- Power requirement: 2x1.5V AAA batteries

- Dimension: 128x61x25mm
- Thermocouple probe : TP-01 type K thermocouple probe with plug

Is a speeding reaction bead thermoelectric coupling, generally applicable to many fields.

Range : -50°C ~250°C (-58°F ~482°F).

Accuracy : $\pm (0.5\% + 1^{\circ}\text{C})$.

Length : 1 m , With a miniature plug.

6. Accuracy Specifications

The accuracy applies within one year after the calibration.

Reference condition: the environment temperature 18°C to 28°C, the relative humidity is no more than 80%.

6.1 Centigrade

Range	Resolution	Accuracy
-50.0°C ~ -20.0°C	0.1°C	$\pm 6^{\circ}\text{C}$
-20.0°C ~ 0.0°C	0.1°C	$\pm 3^{\circ}\text{C}$
0.0°C ~ 200°C	0.1°C	$\pm (1.0\% \text{read} + 2^{\circ}\text{C})$
200°C ~ 500°C	1°C	$\pm (1.0\% \text{read} + 2^{\circ}\text{C})$
500°C ~ 750°C	1°C	$\pm (1.0\% \text{read} + 3^{\circ}\text{C})$

6.2 Fahrenheit

Range	Resolution	Accuracy
-58.0°F ~-4.0°F	0.1°F	±8°F
-4.0°F ~32.0°F	0.1°F	±5°F
32.0°F ~200°F	0.1°F	±(1.0%read+4°F)
200°F ~932°F	1°F	±(1.0%read+4°F)
932°F ~1382°F	1°F	±(1.0%read+5°F)

7. Instrument Maintenance

This section provides the basic maintenance information, including description of replacing fuse and batteries.

Do not try to repair the instrument unless you are experienced repair person and have associated calibration, performance test and maintenance information.

Warning



To prevent possible dangers:

- ◆ When the cabinet is opened, do not use the instrument to do any measurement operation.
- ◆ Specified replacement parts shall be used. Please ask the qualified technicians to repair the instrument.

8. General Maintenance

Use a damp cloth and a small amount of detergent to clean the outer casing of the instrument. Please do not use abrasive or chemical solvents.

9. Replace Battery



- ◆ To avoid erroneous readings, when it displays “” on the screen, the batteries should be replaced in a timely manner.
- ◆ To ensure safety operation and product maintenance, when the instrument will not be used for an extended period of time, please remove the batteries to avoid any product damage caused by battery leakage.

Please follow the following steps to replace the battery:

- ❶ Turn off the power supply of the instrument.
- ❷ With screw wire gongs knife loosening the fixing of the battery cover, remove the battery cover
- ❸ Remove the old batteries, replace with new batteries.
- ❹ Mount the back cover, tighten the screws.