

# INSTRUCTION MANUAL

## K TYPE WATERPROOF THERMOMETER



CE

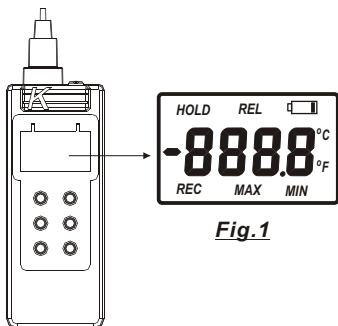
Model: ■ 8811

## INTRODUCTION

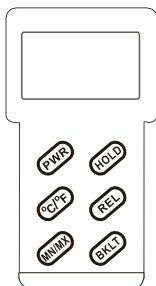
The 8811 is a 3 1/2 digit, hand-held waterproof thermometer designed to use K-type thermocouple as temperature sensor and waterproof to Ip66 . Simple and use to be used .

## SAFETY

- ✘ To avoid electrical shock, disconnect the thermocouple connectors from the thermometer before removing the battery cover and do not use this meter on voltage at the measurement surface beyond 24V AC or 60V DC.
- ✘ To avoid damage or burns, do not apply this meter in microwave ovens.
- To ensure lead quality, avoid repeating sharp bends in the leads as it can damage the thermocouple leads, especially near the connector.



## BUTTON DESCRIPTION



<b>PWR</b>	Power on and power off
<b>°C/°F</b>	Unit selectable °C or °F
<b>HOLD</b>	Freeze the current reading
<b>MN/MX</b>	Record maximum and minimum measurement.
<b>BKLT</b>	Backlight button
<b>REL</b>	Relative button

## OPERATION

※ Plug thermocouple in the meter as shown Figure 2 .

Press **PWR** button to start ,the meter will be full displaying (Fig.1) in 4 sec., , then shows **0.0°C** in 2 seconds , the meter turns to the normal display and reflects to the current temperature measurement (See Fig.3).

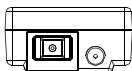


Fig.2



Fig.3

## SELECTING °C / °F

Press **°C/°F** button to select **°C** or **°F**.  
The display will show "**°C**" or "**°F**" to indicate which scale has been selected.

See Fig.3 and Fig.5 ,an example to toggle unit from **°C** to **°F**.

## NO-SLEEP MODE DISABLEMENT

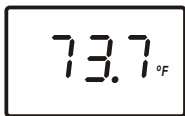
Press **PWR** button to turn on the meter. The meter will auto shut off if no button is pressed within 20 minutes.

To disable auto power off, press **HOLD** and **PWR** key simultaneously, until an "**n**" appears on the screen (See Fig.4 ), then release **PWR** button and **HOLD** button, the meter turns to the normal reading (Fig.5).

Operate the same procedure before using the meter, otherwise, the meter is default to the auto power off about 20 minutes.



*Fig.4*



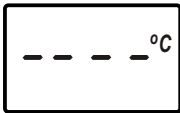
*Fig.5*

## TEMPERATURE MEAS.

The meter displays the temperature of the thermocouple connected to the selected input.

**Note:**

Make sure the thermocouple is plugged at the left side on the top . No reading but 4 dashes (----) (Fig.6) will be appeared until you plug in a K type thermocouple.



*Fig.6*



*Fig.7*

**MAX/MIN FUNCTION**

Select the desired input, then press the **MN/MX** button. The meter will record and update the maximum values.

"**REC**" appears on the display.(Fig.7)

, press the **MN/MX** button again, the unit shows "**REC**" and "**MAX**" (See Fig.8) ,

the meter is recording and will update the maximum measurement display with a new maximum reading .Press and hold "**MN/MX**" button for 2 seconds , either at the mode of "**REC**" and "**MAX**" or "**REC**" and "**MIN**" to disable recording .

Press the **MN/MX** button again, the meter is recording and will update the minimum measurement display with a new minimum reading ,display shows "**REC**" and "**MIN**" (See Fig.9).

*Fig.8*



Fig.9



## HOLD FUNCTION

Press the **HOLD** button to apply data HOLD Function. The "**HOLD**" appears on the display then(Fig.10). When **HOLD** function is set, the meter holds the present readings and stops all further measurement. To release **HOLD** function ,press the **HOLD** button again. The meter will resume taking measurements.

Fig.10



## RELATIVE FUNCTION

Power on the meter to a normal mode display shows current temperature, for example : While at 23.9°C (Fig.12) , press "**REL**" button , you will see "**REL**" shows at the top and "0.x" (Fig.13) or "-0.x" (Fig.14) is displayed . This means the meter uses 23.9°C as a related reference value , "0.x" or "-0.x" shows the difference related to 23.9°C .

Fig.12



Fig.13



Fig.14

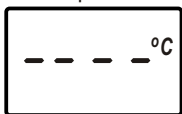


## TROUBLE SHOOTING

? "----" appear.

Check the measurement thermocouple is plugged in the right input. If there is no thermocouple is plugged, then four dashes (----) will appear.

Put the thermocouple in the correct input.



?  indication.

Replace with a new battery when the icon is displayed.

Fig.15



## MATERIAL SUPPLIED

This package contains:

1. The meter x 1
2. Type K thermocouple probe x 1
3. Battery 9.0 volt x 1
4. Instruction manual x 1

## SPECIFICATION


<b>RANGE</b>	-200°C to 1300°C (-328°F to 2372°F)
<b>ACCURACY</b>	-200°C to 1000°C ± 0.3% rdg + 1°C 1000°C to 1300°C ± 0.5% rdg + 1°C -328°F to 2372°F ± 0.3% rdg + 2°F (18 to 28°C Ambient Temperature)
<b>DISPLAY</b>	37mm X 42mm LCD, max.
<b>SAMPLING RATES</b>	2.5 per second
<b>DIMENSION</b>	181mm X 71mm X 30mm

Temperature Coefficient:

0.1 times the applicable accuracy specification per°C from 0°C to 18°C and 28°C to 50°C

## REPLACING THE BATTERY

Replace your 9-volt battery when:

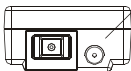
- ✓ The  icon appears on the left top of the screen (See Fig.15).
- ✓ The meter will not power on.

Even if the battery was recently replaced, check its voltage level if you get no response from your instrument.

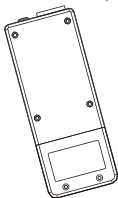


To replace the battery:

1. Lay the instrument face-down on a clean, flat surface.(See Fig.16)
2. Remove the battery by screw driver follow the arrow sign and observe indicated polarity and close the cover after replacing with a new battery.



**Fig.17**



**Fig.16**

Remove battery from instruments that you do not plan to use for a month or more. Do not leave battery in instrument. There is another way to operate the meter by using adaptor without battery , see Fig. 17 , first remove the clear cap .

## **WARRANTY**

The meter is warranted to be free from defects in material and workmanship for a period of one years from the date of purchase.

This warranty covers normal operation and does not cover batteries, misuse, abuse, alteration, tampering, neglect, improper maintenance, or damage resulting from leaking batteries. Proof of purchase is required for warranty repairs.

## RETURN AUTHORIZATION

Authorization must be obtained from the supplier before returning items for any reason.

When requiring a RA (Return Authorization) , please include data regarding the defective reason, the meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss .

## CE CERTIFICATION

**The meter conforms to the following standards:**

\* **EN 50081-1/1992** : EN 55022

\* **EN 50082-1/1997** : EN 55024

(EN 61000-4-2/-3/-8, ENV 50204)

, the meter complies with the essential protection requirements of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.



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- ▲ K type Thermometer
- ▲ K.J.T. type Thermometer
- ▲ K.J.T.R.S.E. type Thermometer
- ▲ pH Meter
- ▲ Conductivity Meter
- ▲ T.D.S. Meter
- ▲ D.O. Meter
- ▲ Saccharimeter
- ▲ Manometer
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