OPERATION MANUAL
Digital thermometer
(Two K-type)

This thermometer is a 3 1/2 digit LCD displaying meter, which driven by 9V battery. Any K-type can be used as the temperature sensor.

Specification

1.Display：3 1/2digit large LCD display，Max. display 1999.

2.Sampling rate：approx. 2.5times /sec.

3. Over range display： "1"or"-1" will display.

4.Low battery indication：LCD display" ▭ ".

5.Working environment：-10～50℃，relative humidity<80%.

6.Store environment：-20～60℃，relative humidity<80%.

7.Battery：9V battery，006P or IEC6F22 or NEDA1604.

8.Battery life：alkaline battery about 200hours，carbon battery about 100hours.

9.Size：130mm（length ）×95mm（width）×28mm（height）.

10.Weight：Approx.240g（including battery）.

11.Accessories：Manual，case, TP01 probe, 9V battery.

Technical data

Accuracy： ±(a%×reading + digit)

1.Accuracy adjust environment： 23℃±5℃

2.Measurement range： -50℃～1300℃ ； -50℉～1999℉

3.Temperature will effect error coefficient： The coefficient is 0.1 ×accuracy/℃ when the temperature is lower than 18℃ or higher than 28℃.

Function	Measurement range	Accuracy	Resolution
Celsius	-50℃～0℃	±(0.5% reading value＋2℃)	1℃
Celsius	0℃～1000℃	±(0.4% reading value＋2℃)	1℃
Celsius	1000℃～1300℃	±(0.5% reading value +2℃)	1℃
Fahrenheit	-58℉～1000℉	±(0.4% reading value＋2℃)	1℉
Fahrenheit	1000℉～1999℉	±(0.7% reading value＋2℉)	1℉

T1－T2 input accuracy：

℃→±[0.3%（T1－T2 reading value）＋2℃]

℉→±[0.3%（T1－T2 reading value）＋3℉]

Note：

1. For ensuring the accuracy, please start to measure for 3 minutes later when the meter turn on.

2. The accuracy of table above not includes the error of probe. Please refer to the accuracy of the probe to adjust it.

Panel introduction

1.LCD：3 1/2 digit LCD display.

2.POWER：power key.

3.HOLD：it will display"HOLD"symbol when you hold the data.

4.℃/℉：℃ or ℉ key.

5.T1：T1 measurement jack selection key.

6.T2：T2 measurement jack selection key.

7.T1-T2：To select this key when you measure the temperature difference between T1 and T2, the value is T1-T2.

8.T1、T2 thermocouple input end, Max input voltage：DCV 60V or ACV 24V.
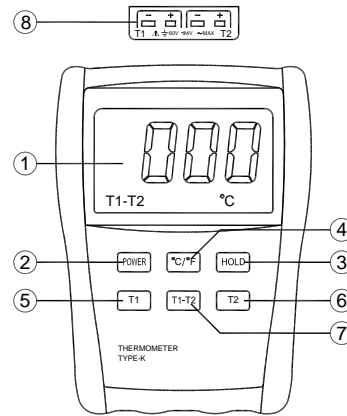
Operation Instruction

1.Ensure fit on the batter. If LCD display" ▭ ", it means need to replace a new battery.

2.Ensure function key is at the correct position (HOLD key is at the status of canceling, ensuring no HOLD display on LCD).

3.Check if the metempilstick inset into the temperature test jack.(Be ware of the polarity).

4.Separately Connecting two "K-type" with T1 and T2 temperature measurement jack as "＋""－" polarity.

5.Press Power key to turn on the thermometer to warm-up for 3 minutes. (It will turn off if you press POWER key again).

6.Select input end: T1 or T2 or T1-T2（The temperature difference between T1 and T2, reading value display T1 or T2）.

7.The measurement end of metempilstick can measure in any temperature condition.

Note：

1.At the measurement status of T1-T2, if an input end (T1 or T2) has no any input or no metempilstick, LCD will appear an unstable (jumping) value, this value is not correct.T1 or T2）（Please check T1 and T2 to ensure T1 and T2 at the normal working status.）

2.Under the measurement status of T1 or T2，LCD will display 1…… if the input jack is no any input .

3.Under the measurement status of T1-T2, LCD will display 000, if two input end haven't any input.

4.To avoid damage the meter, input end can't touch the object that voltage exceeds the allowed max input value.

K-Type thermocouple selection

Model	Range	field	Error
TP01	-50℃～250℃	Any condition	-50℃～250℃ ±2.2℃
TP02	-50℃～750℃	Liquid temperature	-50℃～750℃ ±0.4%
TP03	-50℃～1300℃	Solid temperature	-50℃～1300℃ ±0.3%