

## 1. General

infrared thermometer is a kind of professional hand-held, non contact thermometer.

It is simple use with high accuracy and wide range of temperature measurement.

## 2. Specification:

1. Temperature range:  $-50^{\circ}\text{C}$  to  $380^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ - $716^{\circ}\text{F}$ ) or  $-50^{\circ}\text{C}$  to  $550^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ ~ $1022^{\circ}\text{F}$ )
2. Accuracy:  $\pm 2^{\circ}\text{C}$  or  $\pm 2\%$
3.  $^{\circ}\text{C}/^{\circ}\text{F}$  setting
4. MAX/ MIN value, data hold
5. Resolution:  $0.1^{\circ}\text{C}$  or  $0.1^{\circ}\text{F}$
6. Operating temperature:  $10 - 40^{\circ}\text{C}$ , humidity: 10-90RH
7. Storage temperature:  $-10^{\circ}\text{C} - 40^{\circ}\text{C}$

8. Response time:  $\leq 0.8\text{second}$

9. Distance to Spot Ratio: 12: 1

10. Emissivity setting: 0.1-0.99 (default value: 0.95, testing different material easy and accuracy)

11. Power: 2pcs 1.5V battery

12. Battery life: 12 hours

13. Back lighting

14. Automatic power off in 10 seconds

## 3. Indicator



setting (°C/°F setting: press “MODE” for 3 seconds for °C/°F setting) 5. Laser light  
6. Lens 7. Measure key  
8. Battery cover 9. Scan icon 10. Data hold icon 11. Laser signal 12. Buzzer  
13. Max/Min value 14. Emissivity (0.1~0.99 setting) 15. Lower battery symbol

#### **4. Using methods**

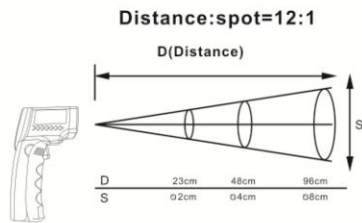
1. Power on: press measure key ⑦ to turn on unit
2. Measurement: point thermometer toward to object and press measure key ⑦ for single measurement or hold on measure key for constant measurement. (The interval not less than one second)
3. The unit will automatic power off without operation in 10 seconds.
4. Emissivity setting: Emissivity for most organic material and painted or oxidized surface is 0.95. but for some metal surface: copper, aluminum is lower than 0.95), the testing value is not accuracy. The emissivity could be setting. Press laser light

key ② first, then hold measure key ⑦ at same time for 3 seconds, the emissivity symbol  $\epsilon$  for tens place flash, you can press laser light key ② or back light key ③ to increases or decrease 0.1 by tens place, press MODE key access digit place setting, press laser light key ② or back light key ③ to increases or decrease 0.1 by digit place. Press MODE key to complete emissivity setting.

5. Replace battery : When LCD show low battery symbol (15), please replacement battery on time.

#### **5. D:S**

The further the object, the testing spot is bigger, D: S means distance and testing spot. When distance is 48 CM, the diameter of testing spot is 4CM, the units will show the diameter of 4CM regional average temperature



### 6. Cautions

1. While measuring, select the emissivity of the instrument according to the measured object.
2. The meter can not measure through glass or transparent surface. It will measure glass surface temperature.
3. Steam, dust or smoke will affect measurement accuracy
4. Before using, check plastic housing. Do NOT use damaged instrument.

5. When low battery icon show on LCD, replace battery on time.
6. Do not use the unit under explosive gas, vapor or dust
7. The unit may loss efficiency if use improperly.
8. Avoid being affected by arc welding machine and induction heaters, Electromagnetic field effects
9. In order to get more accurate value, the thermometer should be placed 10 minutes before using when remove to new place
10. Do not place the thermometer on or near hot objects

### **Warning:**

**DO NOT point the laser beam towards the eyes directly, or it may cause permanent damage to the eyes**

### Attached list

<b>Material</b>	<b>Emissivity</b>	<b>Material</b>	<b>Emissivity</b>	<b>Material</b>	<b>Emissivity</b>
aluminum	0.30	freeze food	0.90	skin	0.98
asbestos	0.95	hot food	0.93	plastic	0.95
asphalt	0.95	glass	0.85	rubber	0.95
brass	0.50	ice	0.98	snow	0.90
brick	0.9	iron	0.7	stainless steel	0.80
carbon	0.95	lead	0.50	paper	0.95
concrete	0.95	oil	0.94	water	0.93
copper	0.95	paint	0.93	wood	0.94