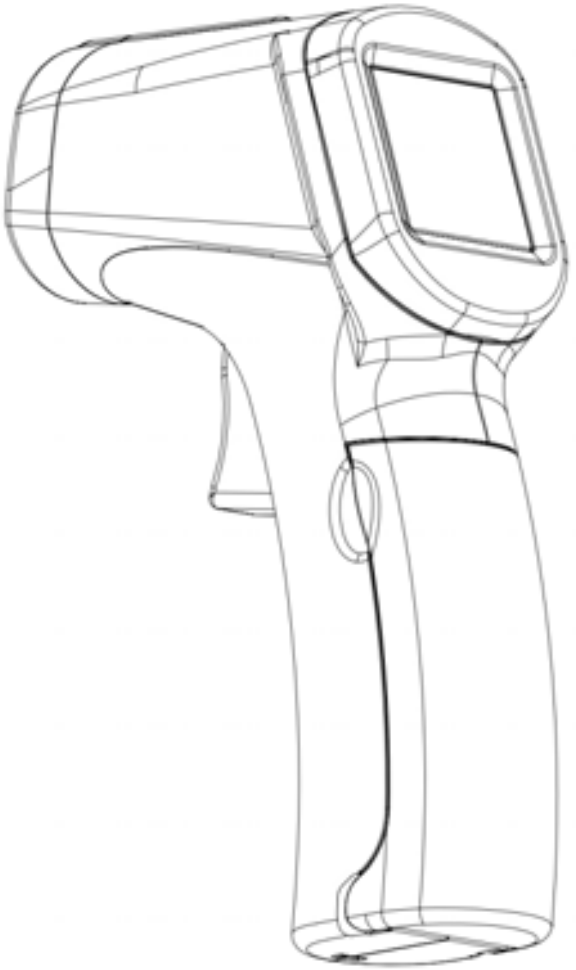
User’s Manual

Mini Non-contact Infrared Thermometer



Please read this user's manual thoroughly before using this unit and keep it properly for your future reference.

Contents

1. Introduction

Congratulations on your purchase of our professional non-contact infrared thermometers.

These units can provide fast, easy and accurate temperature readings. With the non-contact (infrared) technology, they can be used to measure the surface temperature of hard-to-reach objects like electrified equipment or moving objects, without any damage or pollution to them.

2. Features

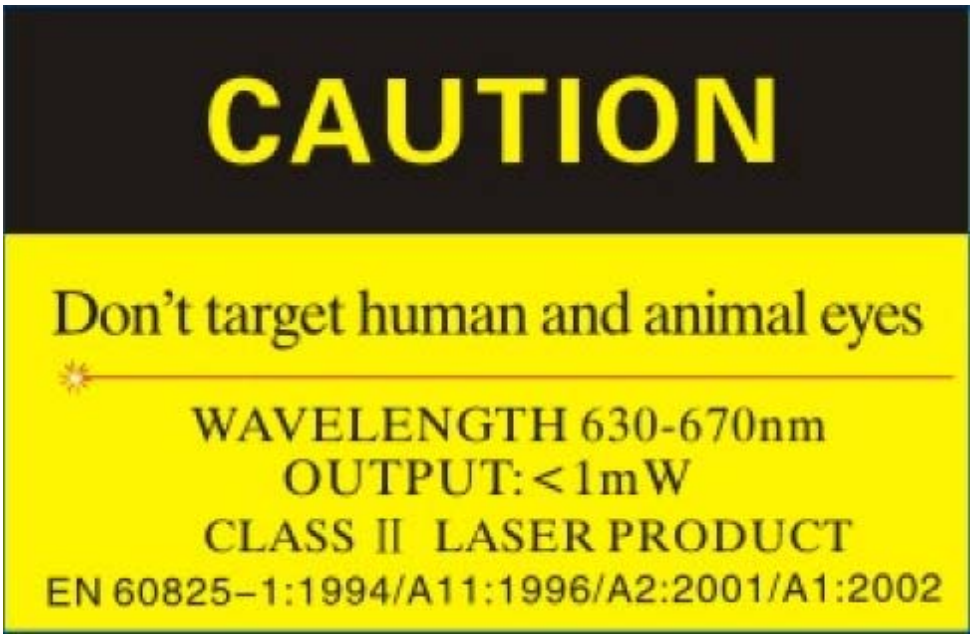
- Compact size
- Fast and easy measurement
- Precise non-contact measurement
- The built-in laser pointer increases the target accuracy
- Backlight LCD display
- Automatic measurement range selection with resolution 0.1℃/ 0.1℉
- Data hold
- Auto power off
- User selectable units
- D:S=12:1

3. Application

These units are widely used in Food preparation, Safety and Fire inspection, Plastic molding, Asphalt, Marine, Printing ink and dryer temperature, Diesel and Fleet maintenance.

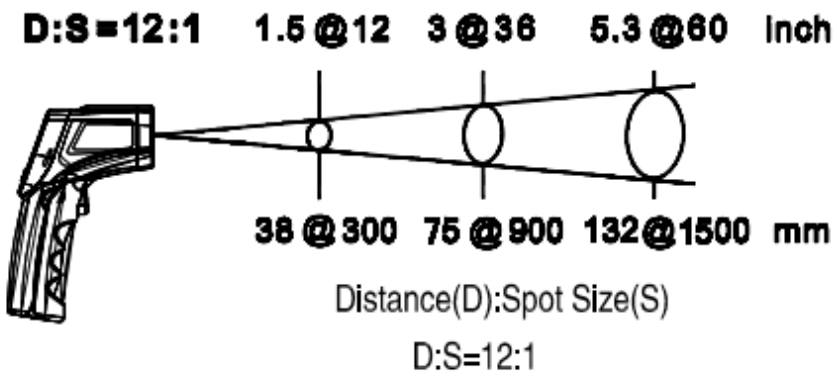
4. Safety

- Use extreme caution when the laser beam is turned on.
- Do not point the beam toward anyone or any animals.
- Do not allow the beam to strike the eye from a reflective surface.
- Do not use the laser near explosive gases.



5. Field of View

The meter's field of view is 12:1, for example, if the meter is 12 inches from the target spot, the diameter of the target must be at least 1 inch. Other distance ratios are show below in the field of view diagram.

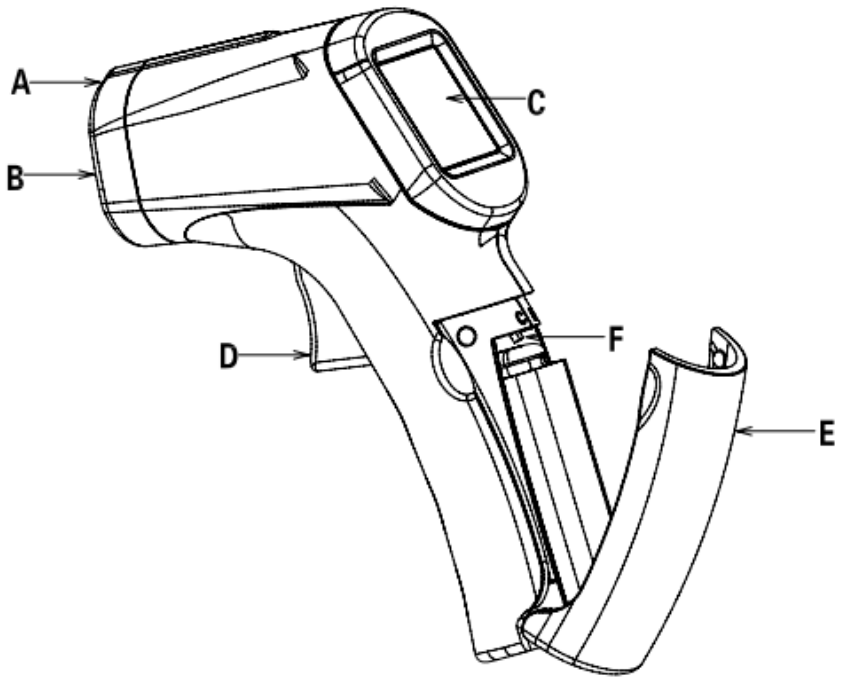


6. Specifications

Range	-50℃～330℃ (-58℉～626℉)
Accuracy	-50℃～0℃/-58℉～32℉： ±4℃/7℉ 0℃～330℃/32℉～626℉： ±2% ±2℃/4℉
Field of View	D:S= Approx. 12:1 (D=distance, S=spot)
Response Time	＜1s
Emissivity	0.95 fixed at value

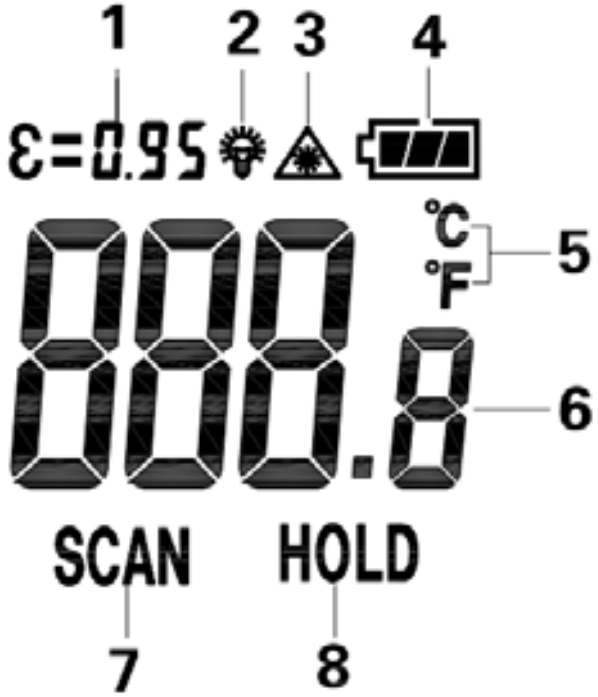
Resolution	0.1℃ / 0.1℉
Spectral Response	8～14um
Polarity Display	Auto display, "-" indicates negative, while positive with no sign.
Diode Laser	Output＜1mW, 630～670nm,class (Ⅱ)
Automatic Power Off	Meter shuts off automatically after 20 seconds of inactivity
Operating Temperature	0℃ to 50℃ / 32℉ to 122℉
Storage Temp	-20℃ to 60℃ / -4℉ to 140℉
Relative Humidity	Operating Humidity：10 to 95%RH Storage Humidity：＜80%RH
Power Supply	9V battery
Weight	145g
Dimensions (L*W*H)	134X88.5X36

7. Meter Description



A. Laser pointer beam
B. IR sensor
C. LCD display
D. Measurement trigger
E. Battery compartment cover
F. ℃/℉ switch button

8.LCD Display Description



1. Emissivity Icon
2. Backlit Icon
3. Laser Icon
4. Battery Icon
5. Temperature Unit(℃/℉)
6. Current Reading
7. Measurement Icon
8. Data Hold Icon

9. Operating Instruction

A. Operating steps:

①Hold the meter by its handle grip and point it toward the surface to be measured.

②Pull and hold the Trigger to turn the meter on, the "SCAN" icon will appear and begin testing.

③The surface temperature being tested will be displayed on the LCD screen.

④Release the trigger, the "HOLD" icon will appear, and the reading will be hold for several seconds.

⑤Release the trigger, the meter will automatically shut off after 7 seconds.

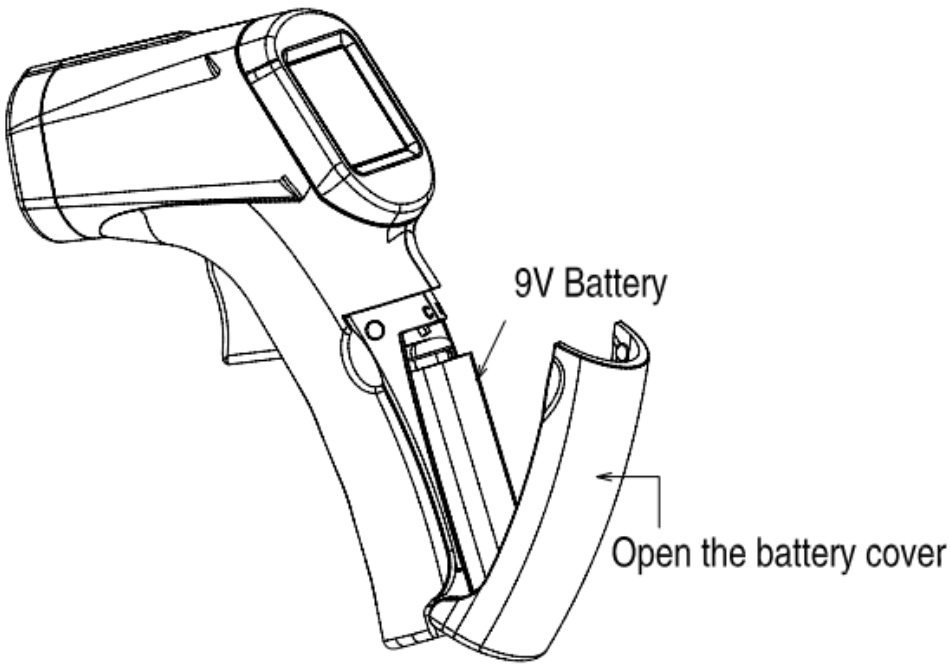
Measurement Note：

If the meter used in an ambient temperature with wide temperature change, allow it at least 30 minutes to adjust to it.

B. Button Function

① ℃/℉button: In Measurement Mode, press ℃/℉ switch button at the upper battery compartment to switch the temperature unit ℃ or ℉.

C. Battery Replacement



① When the low battery icon“ ”appears, replace the meter's battery.

② Open the battery compartment, replace the 9V battery and close the battery compartment cover.

10. Notes

(1) Work Principle

- The infrared thermometer is designed for measuring surface temperature of and object.
- The optical sensor can emit, reflect and transmit energy, which is collected and focused on a detector, then translate it into the temperature reading by electronics and displayed on the LCD screen.
- The laser is used for aiming the target object only.

(2) Field of View

- The object under test should be larger than the spot size calculated by the field of view diagram.
- The smaller the target object is, the closer the meter should be to it for accurate measuring.
- When accuracy is critical, make sure the target is at least twice as large as the spot size.

(3) Distance & Spot Size

- As distance (D) from the object increases, the spot size (S) of the area measured by the unit becomes larger.

(4) Locating a hot spot

- To find a hot spot, first aim the thermometer to the

outside of target area, then scan across in an up and motion until the hot spot is located.

(5) Notice

- Not recommend for measuring shiny or polished metal surfaces like stainless steel, aluminum, etc.
- Do not make measurement through transparent surface such as glass.
- If the surface of the object under test is covered with frost, oil, grime, etc., clean before taking measurement.

(6) Maintenance

- Do not use volatile liquids to clean the unit, swipe it with dry soft cloth.
- Do not disassemble the unit, repair it by qualified personnel
- Do not immerse it in water.
- Do not store it in high temperature or humidity.

11. Accessories

① User's Manual

② 9V Battery