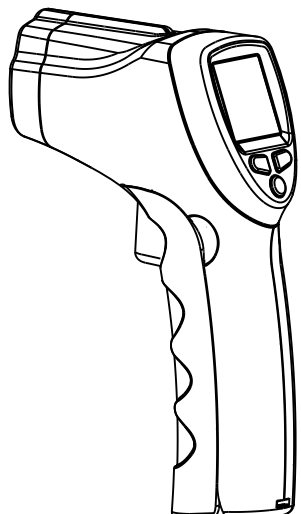
User’s Manual

Mini Infrared Thermometer



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

11. Accessories

① User's manual

② 9V Batter

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.

Contents

1. Introduction

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

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

2. Features

- Fast and easy measurement
- Precise non-contact measurement
- The built-in laser pointer increases the target accuracy
- Max/Min Record

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 down motion until the hot spot is located.

(5)Notice

- Not recommend for measuring

10. Notes

(1) Work Principle

- The infrared thermometer is designed for measuring surface temperature of an 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,

- Backlight LCD display
- Emissivity adjustable from 0.1 to 1.0
- Automatic measurement range selection with resolution 0.1℃/℉
- Automatic trigger off
- Auto power off

3. Application

This unit is 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.

CAUTION

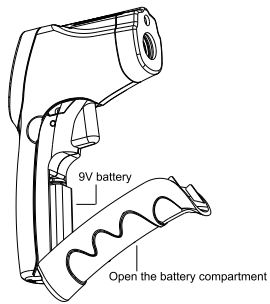
Don't target human and animal eyes

WAVELENGTH 630-670nm
OUTPUT:<1mW
CLASS Ⅱ LASER PRODUCT
EN 60825-1:1994/A11:1996/A2:2001/A1:2002

Safety Symbol

CE Comply with EMC

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.

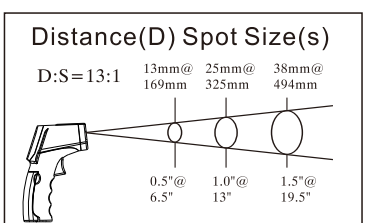
③ MODE button:

- During measuring, press “MODE” button once to display MAX/MIN readings.

- During measuring, keep pressing “MODE” button until " ε " icon appears on the LCD screen, then release the button to adjust the emissivity, press button "℃/℉" or "▲" to increase or decrease the emissivity value. then press “MODE” button to exit.

5. Field of View

The meter's field of view is 13:1, for example, if the meter is 13 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℃～550℃; -58℉～1022℉
Accuracy	-50℃～0℃/-58℉～32℉; ±4℃/7.2℉
	0℃～550℃/32℉～1022℉; ±2%(±2℃/3.6℉)
Emissivity	Adjustable 0.1～1.0
Optical Resolution	D:S=13:1
Resolution	0.1℃ (0.1)℉
Spectral Response	8～14um
Polarity Display	Auto display, "-" indicates negative, while positive with no sign.

change, allow it at least 30 minutes to adjust to it.

The laser is designed for aiming only; it can be shut off while operating in short distance to save the battery.

B. Button Function

① ℃/℉ button: In Measurement Mode, press button“  ”to switch the temperature unit ℃ or ℉.

② Laser pointer/Backlight button: In Measurement Mode, press button“  ” to turn on/off backlight; In“HOLD”Mode, press button“  ”to turn on/off laser pointer.

9. Operating Instruction

A. Operating steps:

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

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

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

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

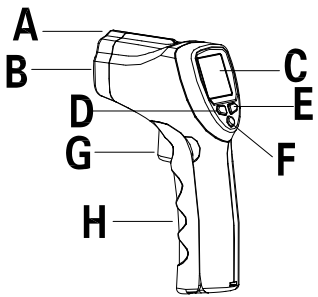
⑤ The meter will automatically shut off after 20 seconds.

Measurement Note:

If the meter used in an ambient temperature with wide temperature

Diode Laser	Output＜1mW，630～670nm,class 2(Ⅱ)
Auto Power Off	Auto shuts off after 20 seconds inactivity
Operating Temp.	0℃ to 50℃ / 32℉ to 122℉
Storage Temp.	-20℃ to 60℃ / -4℉ to 140℉
Relative Humidity	Operating:10～95%RH,Storage:<80%RH
Power Supply	9V battery
Dimensions (L*W*H)	155.5*98.8*27.5mm
Weight	176g

7. Meter Description



A. Laser pointer beam

B. IR Sensor

C. LCD Display

D. ℃/℉ Switch Button

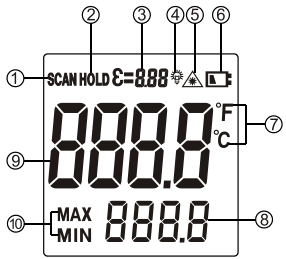
E. Laser Pointer/Backlit

F. MODE Button

G. Measurement Trigger

H. Battery Compartment Cover

8. LCD Display Description



① Measurement Icon

② Data Hold Icon

③ Emissivity Icon

④ Backlit Icon

⑤ Laser Icon

⑥ Low Battery Indication

⑦ Temperature Unit(℃/℉)

⑧ Max/Min Record Reading

⑨ Current Reading

⑩ Max/Min Icon