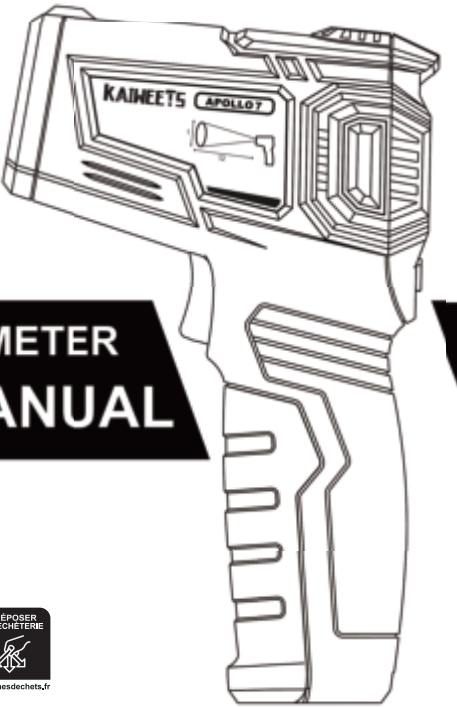
KAIWEETS



Apollo7

IR THERMOMETER
USER MANUAL

FR
Les piles et batteries recyclent
À DÉPOSER EN MAGASIN
OU
À DÉPOSER EN DÉCHÈTERIE
Points de collecte sur www.quefairedemesdechets.fr

FR
Cet appareil et ses accessoires se recyclent
À DÉPOSER EN MAGASIN
OU
À DÉPOSER EN DÉCHÈTERIE
Points de collecte sur www.quefairedemesdechets.fr

RoHS MADE IN CHINA

Contact us:support@kaiweets.com

Contents

User Manual-EN

Introduction

The KAIWEETS infrared thermometer is suitable for non-contact temperature measurement. The thermometer determines the surface temperature of the object by measuring the infrared energy of the radiation from the surface of the object.
This unit consists of an optics system, photoelectric sensor, signal amplifier, signal processing circuit and LCD display.

Symbols & Safety Markings

	Laser, warning
	Warning, important safety mark
°C	Centigrade degree
°F	Fahrenheit degree
	Low battery
CE	Product complies with all relevant European laws
	Do not discard this product into household garbage

Warning & Maintenance

Warning

- **DO NOT** point laser directly at eye or indirectly at reflective surfaces.
- **DO NOT** view the beam with optical instruments.
- **DO NOT** allow children to operate the device.
- **DO NOT** connect the battery terminals together.
- **DO NOT** disconnect or squeeze the battery.

- **DO NOT** store batteries in containers that may cause short circuit terminals.
- **DO NOT** place the batteries near the heat source or the fire source.
- **DO NOT** shine the batteries under the sun.
- **PLEASE** remove batteries for storage if the meter is not used for a long time.
- **PLEASE** make sure that the batteries are correct in order to prevent battery leakage, do not use it again if leakage occurs.

Cautions

To avoid damaging the KAIWEETS thermometer or the tested equipment, please protect it from the following effects:

- EMF (electromagnetic fields) from arc welders, induction heaters.
- Do not put the thermometer near or put it on a high-temperature object.
- Keep the thermometer clean and avoid dust entering the barrel.

Maintenance

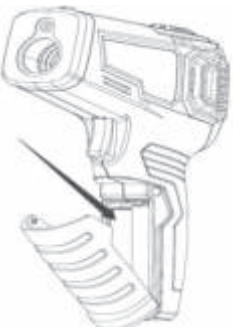
Lens tube clean: Use compressed air to remove dust particles from the lens barrel. Carefully wipe the surface with a cotton swab dipped in water.
Surface clean: Wet the sponge or soft cloth with soap and water. Do not use abrasives or solvents. Never immerse the thermometer in water.

Replacing the batteries

1) Open the battery cover and load two 1.5V AAA batteries.

2) Pull the trigger to turn on the unit.

Note: When the battery power is insufficient, the meter displays the "▭" symbol and the battery must be replaced at this time.

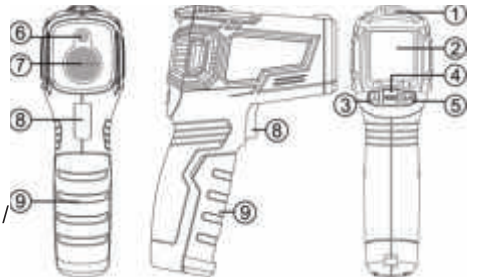


⚠ WARNING

Batteries contain dangerous chemicals that may cause burns or explosions. If you are exposed to chemicals, wash or seek medical advice with water. To prevent injury and ensure safe work and maintenance.

Component & Display

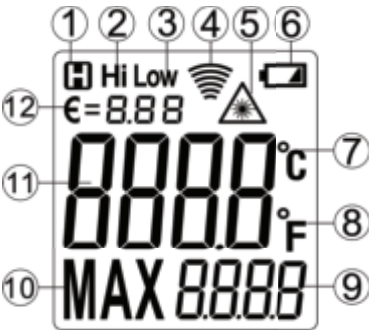
Component description



① Alarm indicator
② LCD display
③ Laser key /
Digital decreases▼
④ Mode key
⑤ Temperature unit key /
Digital increases▲
⑥ Laser hole
⑦ Infrared sensor induction zone
⑧ Measure trigger switch
⑨ Battery cover

LCD description

① Data hold indicator
② Temperature upper limit alarm indicator
③ Temperature lower limit alarm indicator
④ Measuring indicator
⑤ Laser on indicator
⑥ Low battery indicator
⑦ Centigrade degree unit
⑧ Fahrenheit degree unit
⑨ Maximum display
⑩ Maximum indicator
⑪ Temperature display
⑫ Emissivity display



Emissivity

The radiant rate represents the ability of an object to radiate infrared radiation. The greater the radiation rate is, the stronger the radiation ability of the object's surface is. The emissivity of most organic or metal oxide surfaces is between 0.85~0.98. The thermometer adjustable emissivity ranging from 0.10~1.00. And 0.95 is the preset emissivity.

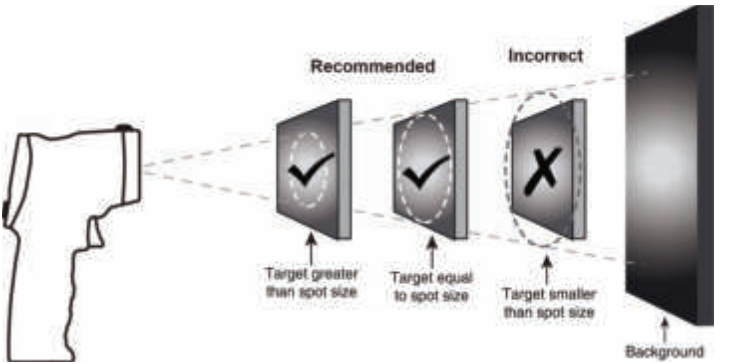
NOTE: The emissivity of the instrument should be consistent with the emissivity of the measured object when measuring. Attention should be paid to the effect of radiation on measurement results.

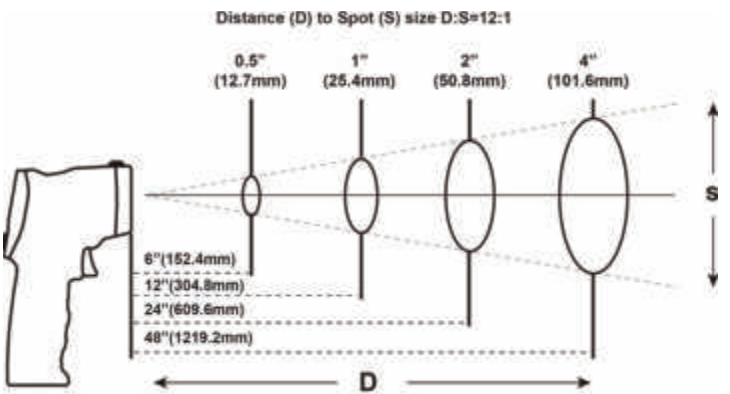
Marterial	**Emissivity**	**Marterial**	**Emissivity**
Aluminum	0.30	Iron	0.70
Asbestos	0.95	Lead	0.50
Asphalt	0.95	Limestone	0.98
Basalt	0.70	Oil	0.94
Brass	0.50	Paint	0.93
Brick	0.90	Paper	0.95
Carbon	0.85	Plastic	0.95
Ceramic	0.95	Rubber	0.95
Concrete	0.95	Sand	0.90
Copper	0.95	Snow	0.90
Dirt	0.94	Steel	0.80
Frozen food	0.90	Textiles	0.94
Hot food	0.93	Water	0.93
Glass (plate)	0.85	Wood	0.94
Ice	0.98		

D:S Ratio

Make sure that the target is larger than the unit's spot size. The smaller the target is, the closer you should be to it.

The ratio of the measured distance to the measured target size is 12:1, as shown in the following figure.





Function Setting

Press the “ MODE ” key and hold for more than 2 seconds to enter setting mode.

Then press “ MODE ” key (≤1Sec) to cycle through multiple function settings:

Hi→Low→EMS

High / Low temperature alarm setting

1) Press the “ MODE ” key and hold for more than 2 seconds to enter setting mode.

2) Press the “ MODE ” key (≤1Sec) to switch to the alarm high / low limit set. Display will show “ **Hi** ” / “ **Low** ”.

3) Long press the “▲/▼” button to increase or decrease to set the value quickly.

4) Press the trigger switch, or long-press the “ MODE ” key to exit settings.

Note: The instrument will alarm continuously when the measured value is higher than the high limit alarm value or is lower than the low limit alarm value.

Emissivity setting

1) Press the “ MODE ” key and hold for more than 2 seconds to enter setting mode.

2) Press the “ MODE ” key (≤1Sec) to switch to the emissivity set state. The emissivity display area of the meter flashes.

3) Press the “▲/▼” key to increase or decrease the set value, press and hold key to increase or decrease the set value quickly.

4) Press the trigger switch, or press the “ MODE ” key and hold for more than 2 seconds to exit settings.

Temperature unit setting

Press the “ °F/°C ” key to convert temperature units (°F/°C).

Laser on/off

Press “ ” key (≤1Sec) to turn on laser, press again to turn off laser. When laser turn on, the screen will show “ ”.

Operating thermometer

1) Once the battery is properly installed, press the measurement trigger to activate the device.
2) Point the Laser towards the surface of measurement and the ratio of the measured distance to the measured target size is 12:1.
3) Keep holding the trigger as you move the handle if you wish to scan the surface area for temperature measurement.
4) Once the laser is pointed to the desired point of measurement, release the trigger and the LCD display will lock the calculated temperature. The maximum display area of the meter will display the maximum value of the measure.
5) Press the measurement trigger once again to make another measurement.
6) After 30s without any operation, the thermometer will be turned off automatically. To restart the thermometer, pull the trigger.

HOLD to measure temperature continuously

RELEASE to lock temperature reading

Note:

DO NOT measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of these materials instead.

DO NOT measure in the environment of steam, dust, smoke. These particles can prevent accurate measurement by obstructing by the optics units.

Technical Specifications

Display	Color LCD display
D:S	12 : 1
Emissivity	0.10~1.00
Response spectrum	8~14um
Response time	About 0.5S, 95% Response
Auto power off	30 seconds
Work temperature	0~40°C(32°F ~104°F)
Storage temperature	-10~60°C(14 °F ~140°F)
Power supply	2 x 1.5V AAA battery
Measurement range	- 50°C~550°C (-58°F~1022°F)
Accuracy	**Max Error Range:** - 50°C~0°C (-58°F~32°F)：±3°C 0°C~550°C (32°F~1022°F)：±1.5% or ±2°C