

# Manual of Medical infrared thermometer

# Directory

scope of application .....	3
properties of products .....	3
product characteristics .....	3
special storage conditions and methods.....	3
technical index.....	4
the product description and shape.....	4
instructions for use.....	5
warranty.....	7
troubleshooting.....	8
maintenance.....	9
warranty card.....	10

**In order to use the product safely, please be sure to read the instruction before use.  
Please keep it properly after reading, so as to consult and refer to it at any time.  
Please read the instructions carefully before use to ensure the product safety. After  
reading, please keep it in a safe place so that you can refer to it at any time.**

This product is powered by 3V, please use no.7 alkaline battery. This product (It) is only used for temperature measurement, not for disease diagnosis. Please follow the doctor's advice

#### scope of application

The body temperature of subject is shown by measuring the thermal radiation on the forehead.

#### properties of products

Product performance measurement error:  $\leq \pm 0.2^{\circ}\text{C}$ .

Fast: measuring time less than 1 second.

Easy to use: one-key measurement, easy to operate.

Non-contact: forehead measurement, no contact with human skin, avoid cross infection.

Overtemperature tip: set the overtemperature tip temperature freely. Usage: 100,000 keys.

Large screen display: large screen LCD backlight display, clear reading at night.

Storage data: 5 sets of measurement data are stored for easy analysis and comparison.

Settings modification: Settings parameters can be modified.

#### product characteristics

1. Shock-proof type: internal power equipment.
2. According to the degree of shock prevention: BF type application part
3. According to the degree of protection against harmful liquid intake: common equipment.
4. According to the safety level of flammable anesthetic gas mixed with air or mixed with oxygen or nitrous oxide: equipment that cannot be used in the presence of flammable anesthetic gas.
5. Operating mode: continuous running mode.
6. The thermometer does not have the application part of protection against defibrillation discharge effect.
7. The thermometer has no signal input and signal outlet.
8. Rated voltage of the equipment: DC 3V.
9. Non-permanent installation of equipment.
10. Electromagnetic compatibility: GB 4824 classification; Group I , Class B equipment.

### Contraindications

do not apply.

### special storage conditions and the method

Products must be kept in a clean and dry place.

Do not place the product where there is an electric shock.

Do not store the product in extreme environments where the temperature exceeds 50°C or below 0°C and the humidity exceeds 85%.

### Technical index

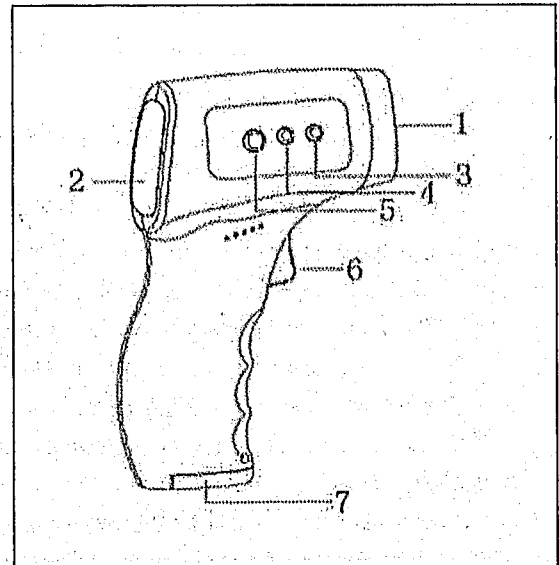
Normal working environment conditions: temperature:	1. 16 ° C ~ 35 ° C; relative humidity: < 85%; atmospheric pressure: 70kpa - 106kpa
power supply voltage:	DC 3V (2 No.7 alkaline batteries);
Product size:	149mmx77mmx43mm (length x width x height);
Host weight:	172g (excluding electric pool);
Measurement range: accuracy:	body temperature mode: ± 0.2 ° C in the range of 35 ° C – 42 ° C, ± 0.3 ° C out of the range of 35 ° C – 42 ° C.
power dissipation	< 450mw
measuring distance:	3cm-5cm
automatic shutdown:	15s

### product description and shape structure

this product is composed of infrared temperature sensor, probe cover, display unit, power supply circuit and measuring circuit. The infrared temperature sensing method is used to measure the temperature display.

Shape:

1. Infrared detector
2. LCD
3. Button down
4. Button up
5. Set button
6. Switch
7. battery cover



Attachment : Manual: 1 No.7 ne certificate card:1, no. 7 alkaline batteries:2

Instructions for use:

Notes:

- merge the operation manual and technical manual of the product.
  - this product has no parts for users to repair or debug, so this manual does not provide the circuit diagram, component list and other technical information, if the qualified technical personnel of users need to obtain from the production enterprise, the production enterprise will provide according to the contract.
  - This product has no parts for users to repair and debug. Therefore, this manual does not provide technical information such as circuit diagrams and parts lists. If the user needs to obtain qualified technical personnel from the production enterprise, the production enterprise will provide it according to the contract.
  - follow the maintenance recommendations in this manual.
  - this product is suitable for professional or family use.
  - please keep this product out of reach of children.
  - the ambient temperature of this product must be between 16°C and 35°C.
  - the product must be kept clean and stored in a dry place.
  - do not place this product where there is an electric shock.
  - do not place the product in extreme temperatures: above 50°C or below 0°C.
  - do not place the product in an environment with humidity higher than 85%.
  - the infrared detector in the front of this product is fragile.
  - do not touch the infrared detector with your finger.
  - do not expose infrared detectors to sunlight or immerse them in water. - do not drop the product.
  - if any problem is found, please contact the seller and do not repair the product by yourself. **Note: measurement errors may occur if parts supplied by non-manufacturers are substituted for the original parts.**
- Note: Measurement errors may occur when parts provided by non-manufacturers replace the original parts.
- this product is a metering product. It is recommended to check the accuracy of the

- product with manufacturers or qualified third party organizations at intervals of one year.
- do not use in an electromagnetic interference environment.
  - please dispose of the waste and residue of the product according to local laws and regulations.

#### Battery Installation:

use 2 no. 7 alkaline batteries. Please note that the positive and negative electrodes of the battery cannot be installed in reverse.

#### Instructions for use:

correct use method is the key to measure accuracy, otherwise it may cause measurement error. As the Infrared temperature measurement has serious demand on the surrounding environment, please follow the following instructions.

1. In the shutdown state, press the "switch/measure" button to start the machine, and the LCD screen will fully display for 1 second, and "-- °C or --° F" will be displayed to indicate that the machine is in standby state (if there is no button operation within about 30 seconds of standby time, the product will automatically shut down or shut down after pressing the "switch/measure" button for more than 3 seconds); In standby mode, press "on/Off/measure" key measurement to start, when the LCD screen display temperature or after the end of the prompt sound to complete the measurement, the time is about 1 second.

#### Tips:

1. The product cannot be moved away from the position of measuring temperature before the measurement is completed.
2. When taking the temperature, The product should be pointed to the center of the front forehead -- above the brow center and kept vertical. The measuring area should not be covered by hair. The distance between the product and the forehead is recommended to be about 3cm ~ 5cm.

Warm tips: If the measured part (forehead) cannot be guaranteed;

1. it is recommended to use the body surface without exposure
2. measurement (such as chest or abdomen)

3. When the measured person comes from a place where there is a big difference with the measured ambient temperature, the measured person should stay in the measured environment for at least 5 minutes, and the measured temperature should be consistent with the ambient temperature, otherwise the measured result will be affected.

- 4, the measurement result will be on the low side if fever patients' forehead sweat, or they had cold compresses and quantitative other cooling measures, this should be avoid.

- 5 products from the place where and environmental temperature differences under

- test file when using, should place the product in the environment for 20 minutes,
6. when the person to be tested under the environment should be stable, do not take temperature in the outlet of the fan, air conditioner and so on airflow larger
  7. Do not use the product in direct sunlight.
  8. It is recommended to measure for about 3 times during measurement, and the interval time for each measurement is 3-5 seconds, whichever group of data is displayed the most shall prevail.

#### Setting adjustment:

this product can modify the default setting parameters. The factory setting has been made for different sales markets before leaving the factory. It is recommended that you do not modify the factory default value. If you really need to modify, please follow the following steps.

##### 1. Mode switching

When the screen is lit, press the "set" button to switch the two modes of object surface temperature and human body temperature.

##### 2. Temperature compensation setting

Press "+" and "-" to adjust the temperature compensation Settings.

##### 3. High fever alarm temperature setting

Long press the setting key to enter the function setting menu. First, pop out the F1 menu, then press the setting key again, pop out the F2 menu, and then press the "+" and "--" keys to set the alarm temperature. The machine defaults to 38 degrees.

##### 4. Temperature compensation setting

Long press the setting key to enter the function setting menu. First, pop out the F1 menu, press the setting key again, pop out the F2 menu, press the setting key again, pop out the F3 menu, and then press the "+" and "--" keys to switch the temperature unit. You can switch the temperature unit (°C/°F).

##### 5. Memory function

Press the "+" and "-" keys to view the history; There are 32 groups of historical records.

#### Battery replacement:

1. The product needs two AAA alkaline batteries, which can be used for about 20,000 times in theory. When the battery symbol "" appears on the screen and flashes, it indicates that the battery is insufficient and needs to be replaced.
2. Open the battery cover to replace the battery, and pay attention to whether the positive and negative electrodes of the battery are placed in the correct position.
3. The rechargeable battery does not meet the product requirements, please do not use it.
4. When not used for a long time, it is recommended to take out the battery to avoid battery leakage and damage the product.

When not in use for a long time, it is recommended to remove the battery to prevent battery leakage and damage to the product.

#### Routine maintenance:

the product does not need regular maintenance when it is in normal use. Please follow the instructions when the following situations are met.

1. External dirt: clean the dirt with a soft cloth with water, or with a cotton swab with medical alcohol wipe, with medical alcohol wipe can also have a bactericidal disinfection effect. Be careful not to allow too much water or alcohol to enter the product and cause damage.

2. Internal smudge: internal infrared detector is an important device. Do not touch or press with your fingers or other objects, or it will affect the accuracy of measurement. When found dirty infrared detector, please use cotton swab with 95% alcohol wipe. Note: do not use 75% disinfecting alcohol to wipe infrared detector (will remain traces of water). Do not wipe infrared detectors with other chemicals.

Storage: store in a dry, cool place out of direct sunlight.

#### warranty

1. from the day of purchase, you will enjoy a 1-year free warranty with the purchase invoice

2. We will not provide free warranty service for the failure caused by the following users.

(A) failure caused by unauthorized disassembly or modification of products;

(B) failure caused by accidental drop during use and handling;

(C) failure due to lack of proper maintenance;

(D) failure to operate in accordance with the correct instructions in the operating manual;

(E) failure caused by improper repair by a repair shop not authorized by us, etc.

3. The repair service beyond the warranty scope will be charged according to the regulations.

4. When you require warranty service, please consult the after-sales service department.

5. Guarantee to continue to provide repair parts within 3 years after the product is discontinued.

#### troubleshooting

1: the temperature cannot be displayed, after the boot all display (4 "8" shape), where is the problem? Answer: noncontact type infrared thermometer appears this kind of problem but basic judgment is the place that the battery power is insufficient to send, can try to replace new battery.

2. When the body temperature of part of the human body appears "Lo" in the same environment, what is the reason?

Answer: the reasons to exclude are as follows:

1, the measurement distance is too far, at this time the measurement may be the



temperature of the air, the instruction requirements is 3cm ~ 5cm distance.

2, when the measured one's forehead covered with hair, forehead has sweat, posted antipyretic paste or eat antipyretic medicine, forehead is aimed at the air conditioning blowing, there is a strong airflow blowing over the surface may appear "Lo", need to rest in a stable environment for 5~10 minutes to measure.

3. A: the surface temperature of A very individual human body is lower than that of the average person. If an individual shows "Lo" in each measurement, the forehead temperature can be compared with others by induction with the back of the hand, and then try others for A comparison. B: when the body temperature of an individual (not all human bodies) appears "Lo", it can be judged when the body temperature is normal, and the main concern is the overtemperature prompt (the overtemperature prompt appears "HI"). The appearance of "Lo" indicates that the surface temperature of the human forehead is very low, which is beyond the display range of the product.

The reason for the Lo information	advice
read the temperature when the hair or sweat	make sure there is no obstacle to the forehead.
Cool air blows on the forehead to	make sure that there is no cold air directly blows on the forehead.
The forehead has just been cooled	After the cold compress, wait for 10 minutes and then measure the measurement
distance is too far,	the measurement distance is recommended to be 3cm~5cm

#### maintenance

- do not wash the thermometer in water or volatile solvents containing benzene or abrasive. Do not put thermometer and direct sunlight, high temperature, humidity, dust, extrusion of the environment.


- do not fade or remove the thermometer. Before use, please check whether the appearance is damaged, with alcohol swabs or soft cloth, gently wipe the lens of the temperature measuring head, such as alcohol dry, in the use of the thermometer.

- use a soft cloth to gently wipe the dirt on the fuselage after use.

- this product does not need to be sterilized. Please clean and disinfect the body with 75% alcohol before and after use.

- this product has been strictly calibrated and tested before delivery. Please contact us. Do not carry out any maintenance by yourself, if there is a quality problem or the correct measurement of the thermometer, please contact the us.

display information	possible cause
There was no reaction after pressing the measurement button	The battery is out of power, please replace the battery; Or the battery is not

	inserted into the correct place
	low voltage display, please replace the battery
ErrE	EEPROM abnormal, please send to the nearest service provider for maintenance
Err	the sensor is not welded well, please send to the nearest service provider for maintenance
H <sub>1</sub>	the measurement result over 42.2°C (108°F)
L <sub>0</sub>	The measured result was below 32 °C (89.6°F)
ErH	The ambient temperature is too high
ErL	the ambient temperature is too low

Warranty card  
(customer retention)

type/specification \_\_\_\_\_  
 machine serial number/batch number \_\_\_\_\_  
 purchase date \_\_\_\_\_  
 address \_\_\_\_\_  
 site seal \_\_\_\_\_  
 service tel \_\_\_\_\_

Maintenance record	The matters	Maintenance staff
note	Please show this card when the machine is under warranty!	

**The warranty**

I Purchase this product and read the following warranty terms carefully to ensure that the product can be effectively reported for repair.

1. The warranty period of the product is one years. During the warranty period, if the product falls due to poor quality of the original device or production problems, the company will provide free maintenance and component replacement

II the following reasons cause the product to be damaged and cannot be used normally, which is not within the warranty scope.

1. Damage caused by failure to operate and install according to the instruction.
2. All product damage caused by accident or thought.
3. Repair, modification or breakage of product seal sticker without approval of the company.
4. Aging of the shell on the product surface, touching and scratching.

III After the expiration of the warranty period, users can still get the maintenance service provided by the company, but to pay the corresponding fees.

## Warranty Card, Certificate

Warranty Card	
Buyer Information	Dealer Information
Date of purchase _____	Distributor Name _____
Model Purchased _____	Distributor Address _____
Customer Name _____	Dealer Phone Num _____
Contact _____	Distributor Stamp _____

Product name: Medical infrared thermometer

Manufacturer: Hunan Honggao Electronic Technology Co., Ltd.

Address : Building 5, Comprehensive Industrial Park, Tenghui Venture Park, Nanxian  
Economic Development Zone, Yiyang City, Hunan Province

Medical Device Registration Certificate Number: 20202070605

Medical Device production license number:20200041

Service phone:0737-2762899

Production date number see product

Life Span:five years

Last Edited:2020.02.23