

Mulanfei®



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1.Product introduction

This infrared forehead thermometer is a high-quality product. It uses infrared technology. Each time it is turned on, it will enter a self-test to ensure the accuracy of the measurement. This infrared forehead thermometer is mainly used to measure the temperature of the human forehead. This product can accurately and stably perform temperature measurement. Users only need to point the probe head to the forehead and press the measurement button, and the body temperature can be measured quickly and accurately in one second. In order to ensure the accuracy of the measurement results and the safety of use, please read the instructions carefully before use.

This product is widely used in schools, customs, hospitals, homes, etc.

Scope of application

Display the temperature of the subject by measuring the thermal amplitude of the forehead

Structure and composition

Consists of housing, infrared temperature sensor, signal receiving processor, buttons, COB board, buzzer and LCD display

Preventive check

1. Calibrate the infrared thermometer before measurement, check the function of each part and maintain the good performance of the infrared thermometer.
2. Keep the power supply sufficient to determine whether the external environment meets the product's specified operating environment.
3. After the product is packaged, it is allowed to be transported by common transportation, but it should avoid rain, moisture, and mechanical collision of squeeze boxes.

statement

The clinical accuracy or clinical deviation of the thermometer has passed clinical verification, and its safety and effectiveness meet the requirements of relevant national laws and regulations. For the method of verifying the claimed performance of the product, you can obtain it by contacting our customer service department

2.Safety instructions

This product is only suitable for the purpose described in the instructions, such as damage caused by abnormal use. The manufacturer is not legally responsible.

2.1 Never put this product into water or other liquids. For cleaning, wipe with a damp soft cloth.

2.2 If you think this product is damaged or abnormal, please prohibit the use of the product.

2.3 Do not open this product without permission

2.4 In the early stage of fever, vasoconstriction will occur, and the temperature of the skin surface will drop. At this time, the measured temperature will be abnormally low.

2.5 If the measurement result does not match the patient's diagnosis or the measurement temperature is abnormally low, repeat the measurement every 15 minutes or take another measurement of the core body temperature area to verify the previous measurement results.

2.6 This equipment includes sensitive originals and must not be treated. Description of storage and operation adjustment

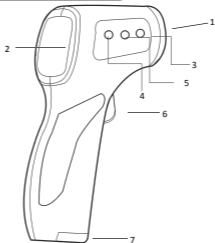
2.7 contains small parts, in order to avoid accidental eating, children need to use under adult supervision

** Please stay away from the following situations

- a) Extreme temperature b) Shock and drop
- c) pollution and dust d) direct sunlight
- e) Hot and cold environment f) If it cannot be used for a long time, please remove the battery and place it

3. Productstructure introduction

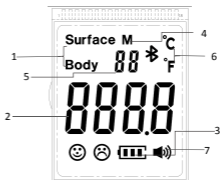
- 1-Infrared detector
- 2-LCD display
- 3-down button
- 4-up button
- 5-set button
- 6-Measure button
- 7-Battery compartment cover



4.Product display

Test mode

2. Display value
3. Battery symbol
4. Storage location
5. Read out stored data
6. Temperature unit
7. Beep symbol



5.How to install the battery

This machine comes with two DC.3V (AAA batteries). When the low voltage icon flashes on the screen, you need to replace the battery.

Remove the battery back cover in the direction indicated (Step 1)

Replace the battery, and reproduce the battery correctly according to the positive and negative poles indicated (step two)

1: Hold the unit and open the battery back cover in the direction indicated

2: Insert two DC.3V (AAA batteries) batteries and pay attention to the battery polarity indication

Expendable battery replacement cycle and replacement method

The removable parts of this product mainly include the battery. Before installing the accessories, please confirm whether the specifications and models are consistent with the original ones. Be sure to use the parts specified by our company. If necessary, please contact the seller or manufacturer.

Battery installation and replacement: When the low voltage reminder symbol appears on the display, please replace the special battery installation

6. Set operation

This product provides five function settings such as temperature unit, tone switch, temperature alarm point, temperature offset, and test mode. The measurement mode is set by the mode switch key. Other settings are set in the setup menu.

menu	Features	"-"key	"+" Key	Initial value	Note
F1	Temperature unit	°C	°F	°C	

F2	Temperature alarm point	Decrease 0.1 °C	Increase by 0.1 °C	38°C	
F3	Temperature offset	Offset 0.1 °C	Offset 0.1 °C	0.0	range -3 °C ~ +3 °C
F4	Beep switch	turn off	open	open	
F5	Two modes	human body	Object surface	human body	

7. Test method

The infrared forehead thermometer has no display on the LCD display in the standby mode. Press the test button in the standby mode, the LCD display will be fully displayed for about 2 seconds, the backlight is turned on at the same time, the buzzer will beep twice, The screen displays the last test temperature value, and the infrared forehead thermometer enters the temperature measurement mode.

In the thermometer measurement mode, turn the function selection key to the body temperature direction, press the measurement key once, the backlight turns on, and the infrared forehead thermometer starts to measure the target temperature. After about 1 second, the buzzer emits a corresponding beep sound and the measurement result. Displayed on the LCD display, you can press the power button again to measure the temperature.

8. Maintenance and precautions

- Keep the inner cavity of the sensor and probe clean, otherwise it will affect the measurement accuracy.
- Cleaning method:
- 1 Surface cleaning: Wipe the dirty area with a clean soft cloth or cotton swab dipped in a little medical alcohol or water.
- Before using, please read this instruction manual carefully and confirm that the battery is installed.
- It is forbidden to enter the thermometer into any liquid, and it is forbidden to be placed in an excessively high or low temperature environment for a long time.
- It is forbidden to collide, drop or mix sharp objects, and it is forbidden to disassemble by yourself.

9. Troubleshooting

1. Ambient temperature below 10 degrees or above 35 degrees shows Err
2. Question mode, LO below 32 degrees
3. Body temperature mode above 43 degrees shows Hi









10. Product Specifications

Display range:	32°C~43°C
Temperature resolution	0.1°C/°F
Measuring distance	1cm~2CM
Memory array	32 groups
Clinical repeatability	±0.3°C
Maximum allowable error	±0.2°C
Operating environment	Temperature: 10 °C ~ 40 °C Relative humidity: ≦ 85%
Transportation and storage environment	Temperature: -20 °C ~ 55 °C Relative humidity: ≦ 85%
Automatic standby time	20 S
power supply	DC.3V (Two AAA batteries)
size	160×100×40mm (Length width height)
weight	123g

1. Warning and informative instructions

- (1) Make sure to remove the hair and sweat from the forehead before measuring
- (2) Use of this product cannot replace doctor's diagnosis
- (3) Please contact the distributor if there is a problem with the product, do not try to repair it by yourself
- (4) The protective glass outside the LCD frame is very important, and it is also the fragile part of the meter. Please use it with care.
- (5) Please do not charge the non-rechargeable battery and do not throw the battery into a fire.
- (6) Please do not expose this product to the sun.

12. Medical device graphics

	Reference instructions		Note, refer to the attached file
	Keep dry		B-type application equipment
	Avoid the sun		Low battery alert
	Place up		Fragile, handle with care

13. Electromagnetic compatibility related

note:

This product complies with the relevant electromagnetic compatibility requirements of YY0505 standard;

Users should install and use according to the electromagnetic compatibility information provided in the random files;

Portable and mobile RF communication equipment may affect the performance of this product. Avoid strong electromagnetic interference when using it, such as near mobile phones, microwave ovens, etc.

Warning:

This product should not be used close to or stacked with other equipment. If it must be used close to or stacked, it should be observed to verify that it can operate normally in the configuration in which it is used;

Class A equipment is intended for use in an industrial environment. Due to the

radiated disturbance of this product, it may be potentially difficult to ensure electromagnetic compatibility in other environments: except for cables sold by the manufacturer of this product as spare parts for internal components, use of Accessories and cables may cause increased emissions or reduced immunity of this product.

annex:

Guidance and manufacturer's declaration-electromagnetic emissions		
This product is intended for use in the electromagnetic environment specified below. The purchaser or user of this product should ensure that it is used in this electromagnetic environment. Use:		
Launch test	Compliance	Electromagnetic Environment-Guide
Radio frequency emission GB 4824	team 1	This product uses radio frequency energy only for its internal functions. So it 's Radio frequency emissions are low and there is little chance of interference with nearby electronics.
Radio frequency emission GB 4824	Class A	This product is suitable for use in non-domestic and residential public All facilities in the low-voltage power supply network.
Harmonic emission GB 17625.1	Not applicable	
Voltage fluctuation / flicker emission GB 17625.2	Not applicable	

Guidance and manufacturer's declaration-electromagnetic immunity			
This product is intended for use in the electromagnetic environment specified below, and the purchaser or user should guarantee its use in this electromagnetic environment:			
Immunity test	IEC 60601 test level	Coincidence level	Electromagnetic Environment-Guide
Electrostatic discharge GB / T 17626.2	± 6 kV contact discharge ± 8 kV air discharge	± 6 kV contact discharge ± 8 kV air discharge	The ground should be wood, mixed Condensate or tiles, if the floor is covered with synthetic material, the relative

			humidity should be at least 30%.
Electrical fast transient burst GB / T 17626.4	$\pm 2\text{kV}$ to power line $\pm 1\text{kV}$ to input / output	Not applicable	Not applicable
surge GB / T 17626.5	$\pm 1\text{kV}$ differential mode voltage $\pm 2\text{kV}$ common mode voltage	Not applicable	Not applicable


Temporary voltage on power input line Drops, short interruptions and voltage changes Turn into GB / T 17626.11	<5% UT for 0.5 cycles (On UT, > 95% dips) 40% UT for 5 cycles (60% sag on UT) 70% UT for 25 cycles (30% sag on UT) <5% UT for 5s (On UT, > 95% dips)	Not applicable	Not applicable
Power frequency magnetic field (50 / 60Hz) GB / T 17626.8	3A/m	3A/m, 50/60Hz	Power frequency magnetic field should have power frequency magnetic field level characteristics in a typical place in a typical commercial or hospital environment
Note: UT refers to the AC network voltage before the test voltage is applied			

Guidance and manufacturer's declaration-electromagnetic immunity

This product is intended to be used in the electromagnetic environment specified below. The purchaser or user of this product should ensure that it is in this electromagnetic environment.

use:

Immunity test	IEC 60601 test level	Coincidence level	Electromagnetic Environment-Guide
			Portable and mobile RF communications equipment should not be used closer to any part of this product,

<p>Radio frequency conduction GB / T 17626.6</p>	<p>3 V (有效值) 150 kHz~80 MHz</p>	<p>不适用</p>	<p>including cables, than the recommended isolation distance. This distance should be calculated by a formula corresponding to the frequency of the transmitter.</p>
<p>Radio frequency radiation GB / T 17626.3</p>	<p>3 V/m 80 MHz~2.5 GHz</p>	<p>3 V/m</p>	<p>Recommended isolation distance $d = 1.2 P$ $d = 1.2 P$ 80 MHz to 800 MHz $d = 2.3 P$ 800 MHz ~ 2.5 GHz Where: P — based on the transmitter's maximum rated output power provided by the transmitter manufacturer, in watts (W); d—Recommended isolation distance in meters (m) b. The field strength of the fixed RF transmitter is determined by surveying the electromagnetic field c. In each frequency range d should be more than Low level. Interference may occur near the equipment marked with the following symbol.</p> 

Note 1: At 80MHz and 800MHz frequencies, the higher frequency band formula is used.

NOTE 2 These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and

people.

a Fixed transmitters, such as: base stations for wireless (cellular / cordless) telephones and terrestrial mobile radios, amateur radios, AM and FM radio broadcasts, and television broadcasts, the theoretical field strengths cannot be accurately predicted in theory. To assess the electromagnetic environment of fixed RF transmitters, surveys of electromagnetic sites should be considered. If the measured field strength of the product is higher than the applicable RF compliance level described above, the product should be observed to verify normal operation. If abnormal performance is observed, supplementary measures may be necessary, such as reorienting or repositioning the product.

b In the entire frequency range from 150KHz to 80MHz, the field strength should be lower than 3 V / m.

Recommended isolation distance between portable and mobile RF communication equipment and this product

This product is intended for use in an electromagnetic environment where radio frequency radiation disturbances are controlled. Depending on the maximum rated output power of the communication equipment, the purchaser or user can prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF communication equipment (transmitters) and this product as recommended below.

Transmitter rated maximum output Power / W	Transmitter's rated maximum output power / W		
	150 kHz ~ 80 MHz $d = 1.2 P$	80 MHz ~ 800 MHz $d = 1.2 P$	800 MHz ~ 2.5 GHz $d = 2.3 P$
0.01	Not applicable	0.12	0.23
0.1	Not applicable	0.38	0.73
1	Not applicable	1.2	2.3
10	Not applicable	3.8	7.3
100	Not applicable	12	23

For the transmitter's rated maximum output power not listed in the table above, the recommended isolation distance d is in meters (m), and the corresponding transmission can be used

The formula in the frequency column of the transmitter, where P is the maximum output power of the transmitter provided by the transmitter manufacturer, in watts (W)

As a unit.

Note 1: At 80 MHz and 800 MHz, the higher frequency range formula is used.

NOTE 2 These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and people.