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1.Product introduction and classification

This product measures body temperature by collecting infrared thermal radiation emitted from the human forehead. Its simple operation fast and accurate measurements. The user only needs to point the probe head at the forehead and press the measuring key to measure the body Temperature. Widely used in schools, customs, hospitals, families.This product is a class II medical device, belongs to the internal power supply equipment, B-type application part, the protection level is general ip-to-device (IPXO). Cannot be a mixture of flammable anesthetic gas and air, oxygen or nitrous oxide use for continuous running of the device.

The EU is classified as class II.a.

Scope of application: The body temperature of the subject is displayed by measuring the heat radiation on the forehead.

Legends and warning markers mean the following:

⚠ Indicates attention 🚶 for the Type B application

Contraindications: None

2.The basic operational principle

Any object releases infrared radiant energy, and the surface temperature directly determines the size and wavelength of the radiated energy. Based on this principle, this product uses a German high-precision infrared sensor designed to detect the release of 5-14um infrared radiation energy by the human body, and accurately measures the body temperature through precise calculations and various compensation corrections.

3.Product features

- High-precision infrared sensor, stable and reliable performance
- Strong ambient temperature adaptability, still can be used in complex environments
- New proprietary-intellectually-sourced probe head structure to ensure more accurate measurements
- Save the last measurement automatically
- Large LCD screen with three-color high-brightness backlight for clear and soft display
- Two temperature units are optional, Celsius and Fahrenheit

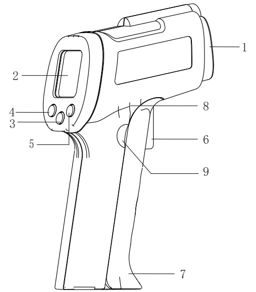
Automatic shutdown and energy saving

4.Technical Specification

Model No.	JM-CWJ001
How to measure	Non- Contact
Measuring distance	3cm-5cm
Measuring range	32℃-42. 5℃(89.6℉-108. 5℉)
Maximum allowable error	Within 35℃-42℃ ±0.2℃ , Without 35℃-42℃ ±0.3℃
Show resolution	0. 1℃
Operating environment	0℃-42℃(50℉-104℉) Humidity≤85%
Transport storage environment	0℃-50℃(32℉-122℉) Humidity≤85%
Power	DC 3V(2pcs 1.5V AAA Battery)
Power tips	Tips for low power
Backlight	three-color high-brightness backlight
Show units	Celsius (℃)/ Fahrenheit (℉)
Auto-shutdown	15 seconds after no operation
Size	160.5X99X42.1mm
Net Weight	180g

5.External structure

1-Infrared detector
2-LCD display
3-Mode selection switch(M)
4-Button up (+)
5-Button down(-)
6-Measure switch (⏻)
7-Battery cover
8-Buzzer window
9-Open battery cover



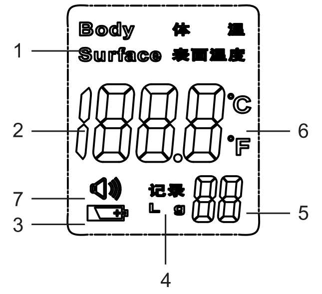
6.Components

This product is composed of infrared sensors, microprocessors, memory, power supplies, electroacoustic components, LCD screens and Shell.

Product accessories: instructions, warranty cards, certificates.

7.Definition of Display Icon

Icon Definition	Icon	Status Description	
Measurement mode	1	Body temperature/surface temperature measurement mode	
Show values	2	Measuring temperature values	
Low battery symbol	3	Non-Display	Full power
		Flashing display	Low power
Storage location	4	Memory Group Location	
Get data out	5	Show value as memory	
Temperature unit	6	Centigrade ℃	
		Fahrenheit ℉	
Buzz symbol	7	Show	Show buzzer open with tone
		No display	Buzzer off, silent



8.Setup actions

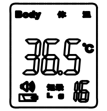
This product provides five functional settings, such as temperature unit, tone switch, temperature alarm point, temperature offset and measurement mode. Measurement mode settings are set by the mode toggle key, and other settings are set within the settings menu.

Set the menu comparison table below:

Function	"M" Mode Key	"+" Key	"-" Key	Initial Value
Memory temperature		Stores 32 sets of temperature values	Stores 32 sets of temperature values	
Switch between body temperature and surface temperature	Short press 1 second			The default temperature
Temperature unit switch	Press and hold for 3 seconds	℃	℉	Default Celsius
Temperature Alarm	37. 5			Automatic
warning tone				Automatic

Measurement mode settings:

In the power-on state, the screen displays the current measurement mode (Figure 8.1), repeatedly press "M" mode to select the key, select the desired measurement mode (Figure 8.2). The default temperature measurement mode setting takes effect immediately.

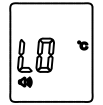


(Figure8. 1)

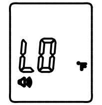
(Figure8. 2)

Temperature unit settings:

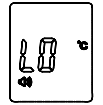
Press and hold the "M" mode key for 3 seconds, press the "M" key repeatedly, select (Celsius) or (Fahrenheit) temperature units (Figure 8.4) (Figure 8.5).



(Figure8. 3)

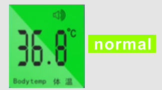


(Figure8. 4)



(Figure8. 5)

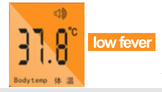
Temperature alarm point prompt - normal:



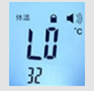
Below 37.5, the screen displays a green backlight with a long beep prompt. HI occurs when the body temperature is higher than 42.5℃.

It will show HI when body temperature higher than 42.5℃

Temperature alarm point setting - high :



Body temperature 37.5, the screen shows orange backlight, with 1 time long and 3 times short beep prompt L O occurs when the body temperature is lower than 32℃



it will show LO when body temperature lower than 32℃

Temperature alarm point setting - fever:

Body temperature 38.1 . The screen displays a red backlight, a flashing temperature and 10 times short beep prompt.

- Temperature mode measurement range 32-42.5 degrees
- When the temperature is measured above 38 degrees
- The screen flashes and beeps
- Remind you to get a fever, please see doctor in time

Tips:

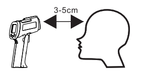
1. The temperature mode is used to measure the body temperature and to make dynamic compensation from the ambient temperature and the surface temperature of the forehead.

2. According to the environmental temperature, measuring distance, specific individual skin differences and other factors, the temperature offset value can be corrected by the target measurement, the correction range is -0.5 degrees C to 0.5 degrees C, the factory setting is the default.

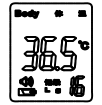
9Calibration method: press the upper key and the lower key at the same time, then press the measurement switch, the F2 mode typed status, press the upper or lower key to modify the gain value, press the measurement switch to exit this calibration mode.

9.Measurement method

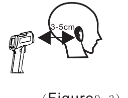
Make sure that the measurement mode above the screen is body temperature mode. Align the thermometer probe in the middle of the forehead and remain vertical, about 3-5 cm away (Figure 9.1). Press the measurement key, about 1 second after the "drop" sound, show the measurement value (Figure 9.2), the measurement is complete. If the measurement exceeds the temperature alarm point (the default is 38.1), the screen flashes with a "drop: Drops"five-tone alarm.



(Figure9. 1)



(Figure9. 2)



(Figure9. 3)

When changes in ambient temperature affect the temperature of the forehead, please measure behind earlobe as(Figure 9.3)

⚠ Tips:

1. Before and after use, keep the sensor and probe cavity clean.
2. Place the thermometer in a stable temperature environment. When the ambient temperature changes significantly (e.g. from indoor to outside), place about ten minutes for measurement.
3. Do not start measuring body temperature immediately after measuring the temperature of an object at extremely high or extremely low temperatures, please place it after ten minutes.
4. When the object is from a place that is quite different from the temperature of the measuring environment, it should stay in the test environment for at least five minutes or more.
5. Try not to measure in the case of hair blowing, water, sweating, applying cosmetics, etc. Do not take your body temperature for 30 minutes after exercise, bathing or eating.

10.Replace the battery

When the battery icon "🔋" flashes on the LCD display, the battery is in a low state.

Operation:

1 . Open the battery compartment cover and replace the battery

- Do not misload the positive or negative poles of the battery.
- Please use the specified battery (AAA No. 7) and the non-rechargeable battery cannot be recharged.
- Remove the dry battery when not in use for a long time (more than 1 month).
- Do not mix old and new batteries with different types of batteries.

11.Maintenance and precautions

- Keep the sensor and probe cavity clean, as this will affect measurement accuracy.
  Cleaning method:
  1. Surface cleaning: wipe the dirt with a clean soft cloth or cotton swabs sticking a little medical alcohol or water.
  2. Sensor and probe inner cavity cleaning: Gently wipe the inner cavity or sensor top of the probe with a little medical alcohol with a clean soft cloth or cotton swab. Use until alcohol is fully volatile.
- Please read this instruction manual in detail before use, please make sure the battery is installed.
- It is prohibited to invade the thermometer into any liquid and to place it too high or at low temperatures for long periods of time.
- No collision, fall and mixing with sharp objects, Self-disassembly prohibited

- Thermometers should not be used in sunlight or water.
- Do not use in highly electromagneticly disturbed environments.
- Place the thermometer in a position that the child cannot touch.
- It is recommended to practice several times to familiarize yourself with the measurement method and try not to change the product's factory settings.
- Measurements are not a substitute for physician diagnosis.
- No special maintenance is required during use, please contact the seller or manufacturer for failure.
- Please dispose of waste and residue at the end of the life of the product in accordance with local laws and regulations.

12.Troubleshooting

Error Description	Disposal Method
Screen display "L0" or "HI"	1.Check the measuring object, forehead blowing, water, sweating, applying cosmetics, etc. can not guarantee measurement. 2. Check the temperature offset value setting, factory set to 0.0. 3. Check the operating environment. Environmental changes have a greater impact on measurements. If the ambient temperature changes too much, or if the instrument has just measured the ultra-high temperature object directly into the measurement of low temperature object, the test difference will occur, should be placed in a relatively stable environment after about 10 minutes to obtain a new test thermal balance before use. 4. Check the measuring distance (3-5cm).
Keys unresponsive	1. Reload the battery. 2. Check if you are operating under the settings menu.
No display or display exceptions	1. Reload the battery.
Silent tone	1. Check that the prompt tone setting is off.
Turn off immediately after powering-on	1. Check the battery level and reload the battery

13.Quality commitment and after-sales service

The life time of this item is 3 years and with warranty 12 months.

Note: Any damage caused by malfunction or unauthorized disassembly due to personal reasons of the user will not provide free repair services.

The date of production is shown in the package.

Compile Date of user manual: February 10, 2020 Version No: V1.1

Appendix ---Electromagnetic compatibility statement

The infrared thermometer complies with EMC test ingress standard YY0505-2012.

Table 1

Electromagnetic Launch Guide and Statement - Non-Life Support Equipment and Systems

This equipment shall be used in the prescribed electromagnetic environment, and the customer or user shall ensure that the equipment is used in the electromagnetic environment specified below.

Launch test	Compliance	Electromagnetic Environment – Guide
radio-frequency emission CISPR 11	Group 1	This device uses radio frequency energy only when it is running its internal functions, so its RF emission is very low. No electromagnetic interference with electronic devices near them
radio-frequency emission CISPR 11	ClassB	This device is suitable for home and direct connection to residential public low voltage power networks.
Harmonic radiation IEC61000-3-2	N/A	
Voltage fluctuations and flickering radiation 61000-3-3	N/A	

Table 2

Electromagnetic Anti-Jamability Guide and Statement - Non-Life Support Equipment and Systems

This equipment shall be used in the specified electromagnetic environment and the customer or user shall ensure that the equipment is used in the electromagnetic environment specified below

Immunity test	IEC60601 Test level	Conforms to the grade	Electromagnetic Environment-Guide
Electrostatic discharge (ESD) IEC 61000-4-2	±6kV Contact discharge ±8kV Air discharge	±6kV Contact discharge ±8kV Air discharge	The floor must be wood, concrete or tile. If the ground is covered with synthetic material, the relative temperature is at least 30%.
Electric Fast Pulse Group (EFT) IEC 61000-4-4	±2kV Power line ±1kV I/O Cables (length>3M)	N/A	The quality of the network power supply must be a typical commercial or hospital environment.
Surges IEC 61000-4-5	±1kV Difference Mode ±2kV Common mode	N/A	
Voltage drops, short interruptions and voltage changes IEC 61000-4-11	<5% UT(Fall>95% UT)0.5 Cycle 40% UT(Fall 60% UT)5 Cycle 70% UT(Fall 30% UT)25 Cycle <5% UT(Fall>95% UT)5 second	N/A	The quality of the network power supply must be a typical commercial or hospital environment. If this device needs to be continuously operated during a network power outage, we recommend an uninterruptible power supply UPS
Frequency magnetic field (50/60Hz) IEC 61000-4-8	3 A/m	3 A/m	The frequency magnetic field must be the level of a typical location in a typical commercial or hospital environment.

Note: UT refers to the AC network voltage before the test voltage is applied

Table 3

Electromagnetic Anti-Jamability Guide and Statement - Non-Life Support Equipment and Systems

The device shall be used in the specified electromagnetic environment and the customer or user shall ensure that the equipment is used in the electromagnetic environment specified below.

Immunity test	IEC60601 Test level	Conforms to the grade	Electromagnetic Environment-Guide
Conduction Immunity IEC61000-4-6	3 Vrms 150k–80MHz	N/A	The floor must be wood, concrete or tile. If the ground is covered with synthetic material, the relative temperature is at least 30%.
Radiation immunity IEC61000-4-3	3 V/m 80M–2.5GHz	3 V/m	Portable and mobile RF communication devices must be used away from the required distance of any part of the device and/or system, including cables. This isolation distance is calculated based on the appropriate equation for the transmitter frequency. The recommended isolation distance is calculated as: $d = 1.2\times\sqrt{P}$ $d = 1.2\times\sqrt{P}$ 80 MHz to 800 MHz $d = 1.2\times\sqrt{P}$ 80 MHz to 2.5GHz The P is the transmitter's rated high output power,the unit is watts, d is the recommended distance, the unit is meters. The field strength of the RF transmitter obtained by measuring a through the electromagnetic field must be less than the compliance level within each frequency range b. Interference may occur near devices marked with the following symbols:

Note 1: At 80MHz-800MHz, a higher band formula is used.
Note 2: The above guidelines do not apply to all situations, as the structure of matter, objects and population groups can absorb and reflect electromagnetic waves, which affect electromagnetic propagation.

a Field strength of radio (cellular and wireless) mobile base stations and ground-based mobile radio receivers, antenna receivers, FM and FM radio broadcasts and television broadcasts cannot be accurately estimated using purely theoretical methods. In order to assess the electromagnetic environment generated by fixed RF transmitters, methods of using electromagnetic field measurements should be considered. If the field strength of the environment in which the device is measured exceeds the specified RF level, it must be observed that the equipment is functioning properly. Once an anomaly s found, measures must be taken, such as repositioning the device in the direction or moving it to another environment.
b. In the 150k-80MHz frequency range, the field strength should be less than 3V/m.

Table 4

The recommended distance between this device and portable/mobile RF communication equipment

The device can be used in electromagnetic environments where RF interference is controlled. To avoid electromagnetic interference, the customer or user should maintain a minimum recommended distance between the device and the portable/mobile RF communication device. The following recommended distance is calculated based on the maximum output power of the communication device

Maximum rated output power of the transmitter	The isolated distance (meters) is calculated based on the frequency of the transmitter		
	150kHz – 2MHz $d = 1.2\times\sqrt{P}$	80MHz – 800MHz $d = 1.2\times\sqrt{P}$	800MHz – 2.5GHz $d = 1.2\times\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.34
10	3.69	3.69	7.38
100	11.67	11.67	23.34

Non-contact Infrared Thermometer
JM−CWJ001

DONGGUAN JINMO ELECTRONIC TECHNOLOGY CO., LTD

Medical device registration number:
Product technical requirements number:
License number of medical device manufacturers:

Registrant/Production Enterprise/After-sales Service Company:
DONGGUAN JINMO ELECTRONIC TECHNOLOGY CO., LTD
Registrant's residence/production address:
No.37 Industrial Road, Qishi Wan Feng, Dongguan City, Guangdong Province

RoHS FDA FC CE ABS

JINMODZ®

The Product user manual

Non-contact Infrared Thermometer
JM−CWJ001

DONGGUAN JINMO ELECTRONIC TECHNOLOGY CO., LTD