

iHealth®

iHealth thermometer User's manual

Manufacturer info

Manufacturer: Dongguan Yimai Industrial;
Address: Dongguan city, Changan Town, Jinsha Hexi Industrial Zone, 212 Road;
Contact phone + 86-769-89272488;
Index: 523853;
License number for the production of medical equipment: a license to produce food and medicine in Guangdong Province 20112017;
Product Registration Number: Guangdong Province No. 2200464 from 2014;
Registered product standards: YZB / Guangdong 0100-2014.

Overview

Thank you for choosing our products.
This device is a high-tech infrared thermometer for measuring body temperature by placing it to the forehead, after which you instantly get information about the health status of you or your loved ones.

Title: Infrared thermometer;
Model: FDIR-V14.

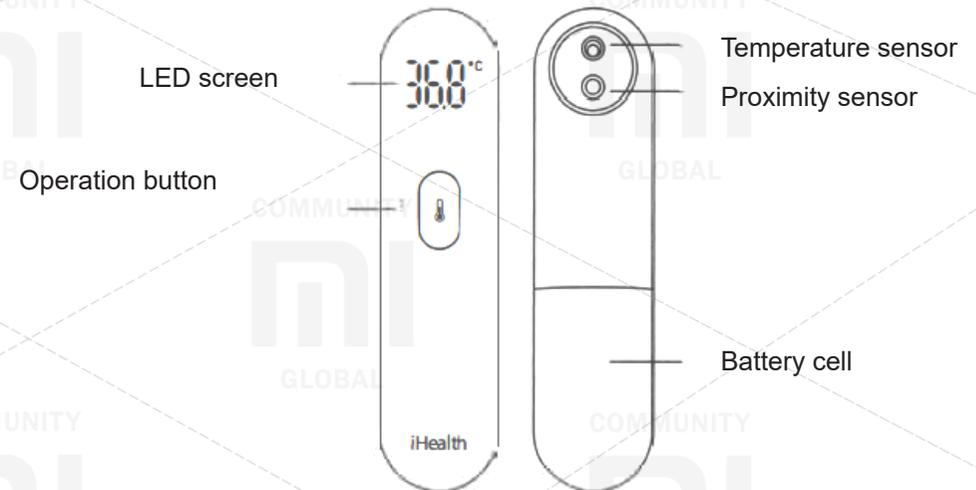
Dimensions: 137mm x 34mm x 39mm;
Screen: 25.7mm x 19.1mm;
Weight: 90g.



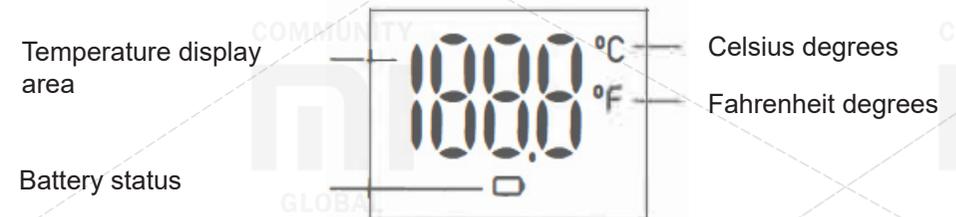
Components of the device

The external body of the thermometer is made of plastic. The device is equipped with an infrared temperature sensor, MCU, electro-acoustic components, batteries, LED-screen, battery components, and backlighting.

Appearance of the device



LED screen



1. Place of measurement: the center of the forehead;
2. Measurement distances: less than 3 cm;
3. Power supply: DC 3V, 2 x 1.5V AAA batteries;
4. Measuring range: 32.0 ° C-42.9 ° C;
5. The accuracy of the measurement: 35.0 ° C-42.0 ° C within ± 0.2 ° C, with another range within ± 0.3 ° C;
6. Resolution: 0.1 ° C;
7. Accuracy in comparison with the indications of a medical mercury thermometer: within ± 0.3 ° C;
8. Operating environment range: 16.0 ° C-35.0 ° C, <85% RH, 70kPa - 106kPa;
9. Service life: 5 years.

Scope of the device

This device is designed to measure body temperature using a high-tech infrared sensor by placing it to the forehead. It can be used to measure the temperature of newborns, children and adults. Now you can forget about the mercury thermometer, especially when measuring a temperature of newborns and children.

Reminder: for people with different skin color, the temperature measurement distance is slightly different.

Precautions

I about measuring

1. Do not use a self-medication and do not make a diagnosis yourself, relying only on the thermometer. If necessary, consult a doctor.
2. The human body temperature does not have a standard value to make the right conclusions about your health (about the presence or absence of heat), you need to know your normal temperature.
3. Before measuring the temperature, make sure that there is no make-up, sweat, cream, etc. on the forehead.
4. Before measuring the temperature, make sure that in the last 30 minutes a person who needs to measure the temperature did not take a bath, did not exercise, or did not eat. In this case, the body temperature will be the most accurate.
5. Ensure that there are no wounds or inflammation at the temperature measuring point on the forehead.
6. Do not measure the temperature in the place on the forehead where there are scars, otherwise the thermometer may be distorted. Scars affect the conductivity of temperature in the body.
7. If there is a significant difference in the room temperature between the thermometer storage location and the temperature measuring point, leave the thermometer in the new environment for 30 minutes before proceeding to measure body temperature.
8. Do not measure the temperature immediately after taking medication.
9. With a continuous measurement of temperature, a slight error is possible, this is normal. Since, as a result of continuous measurement, the temperature of a person's body has already been transferred to a thermometer, subsequent indicators may be inaccurate. We recommend that you measure the temperature no more than three times in a single period of time.
10. When measuring temperature, try not to be affected by air conditioning, sun and other heating appliances, otherwise there will be a measurement error.
11. Do not measure the temperature in a room with strong electromagnetic interference (with the microwave oven turned on, induction cooker, in case of talking on the phone at the moment, etc.), otherwise there will be a measurement error or an error.
12. This product is a personal thing and requires special cleaning and disinfection to avoid the spread of infection.
13. If the thermometer sensor is dirty, lightly wipe it with cotton swabs soaked in 75% alcohol solution, then leave the device for 15 minutes before its next use.

II about thermometer

1. This device is designed to perform accurate measurements. After each use of the thermometer, put it in a packing box for safe storage. Avoid getting liquid, do not allow dust or other small particles to settle on the device, otherwise this can have a negative effect on the efficiency of temperature measurement.
2. Avoid dropping and stressing the thermometer on other objects, do not disassemble it.
3. Avoid direct contact of the fingers with the sensor, otherwise the IR sensor may be damaged or contaminated, which will lead to errors in measuring the temperature.
4. Keep the device out of reach of children to avoid injury or unforeseen situations.
5. Do not drop the device and batteries into a fire to prevent an explosion.
6. If the thermometer is not used for more than 1 month, remove the batteries from the device.

Contraindications

No contraindications.

Using the device

1. Setting the device

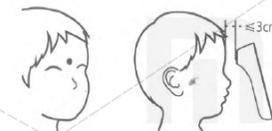
Insert two batteries into the special battery compartment, at this time the thermometer self-test starts, wait for the device to switch to the temperature measurement mode (if the battery level is low, replace the batteries).

2. Measuring

- direct the thermometer to the center of the forehead and keep it at a distance of less than 3 cm (at the distance of the index finger), do not allow direct contact;

- lightly press the button to start the measurement;

- after a successful temperature measurement, the thermometer vibrates and a number appears on the screen; In the case of a measurement error, the image «----° C» appears on the screen.



Causes, that may lead to measurement error:

- A. The measurement distance is greater than 3 cm;
- B. The ambient temperature does not meet the requirements or the temperature difference is too great;
- C. The temperature is outside the permissible range.

3. Switching off the device

If you no longer need to measure the temperature, wait 8 seconds for the thermometer to turn off automatically.

4. Switching units of measure.

- 1) In the off state, press and hold the measurement button for 8 seconds to enter the unit selection mode (° C and ° F simultaneously blink).
 - 2) In this mode, after pressing the measurement button on the device screen, Celsius and Fahrenheit degrees will automatically switch.
 - 3) After selecting the unit of measure, press and hold the measurement button for 8 seconds to confirm your selection and exit the unit switching mode.
- Reminder: if you did not press and hold the button for 8 seconds before confirming your selection, your settings will not be saved and the unit of body temperature measurement will be the same.

5. Installation and changing a batteries

Each time the thermometer is turned on, it automatically detects the battery level. If you measure the temperature, then along with the measurement results, an image, indicating a low level of charge, appears on the screen of the device; if the charge level is so low that even a temperature measurement can not be performed, a low charge image will appear on the thermometer screen, and after 8 seconds the device will automatically turn off. For further use of the thermometer, it is necessary to replace the batteries.

6. Changing a batteries

- 1) While holding the battery compartment cover with your fingers, slide it down to fully open the battery compartment.
 - 2) Remove the old batteries and install new ones.
 - 3) In accordance with the marking indicating the polarity of the batteries, install new ones according to this markup (plus plus, and minus to minus).
 - 4) Close the battery compartment panel.
- dispose of old batteries in accordance with the requirements of legislative and regulatory acts.
 - Do not dispose of batteries in debris.
 - remove the batteries if the device is not used for a long time.

- Do not dispose of batteries in a fire.

Information on body temperature

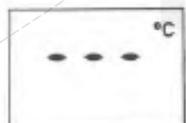
Normal body temperature of a person has certain limits, while the normal temperature of different people may vary slightly or vary at different times of the day.

Self-treatment and self-diagnosis based on thermometer indicators are dangerous, please, if necessary, consult a doctor.

The following table contains information on the temperature characteristic of most people (iHealth thermometer indicators correspond to the temperature in the armpit):

Temperature in the armpit	36.0°C—37.4°C
Temperature in mouth	36.7 °C—37.7 °C
Rectal temperature	36.9°C—37.9°C

Troubleshooting

Problem	Problem causes	Solution
	Batteries are exhausted Batteries not installed correctly Bad battery contact	Replace the batteries Install them correctly Install the batteries correctly
	Charge is too low	Replace the batteries
	The distance for measuring the temperature is too high. The temperature reading is out of range.	In accordance with the instruction, repeat the temperature measurement
	The screen shows all the symbols and indicators, but they flash continuously.	Contact the service after-sales service
	Charge is too low	Replace the batteries

Maintenance and storage

1. Sensors (temperature sensor and distance sensor) are very fragile and important parts of the thermometer. They must be clean and unharmed, the accuracy of temperature measurement depends on this.

Care of the sensors:

Gently wipe the surface of the sensor with a soft cloth or with a cotton swab moistened with medical alcohol or 75% alcohol solution.

2. If the sensor is damaged, contact the service center.

3. Use a soft, clean cloth to wipe the screen of the device and its outer surface. If there are relatively large spots on the thermometer, lightly dab the cloth in medical alcohol and remove them.

4. This device is not waterproof, do not use detergent to clean it, do not immerse the thermometer in water or other liquids.

5. No other companies and individuals are authorized by the manufacturer to repair and maintain the device. Do not disassemble the thermometer yourself.

6. The infrared thermometer is a very complex component device, improper maintenance, disassembly and adjustment will result in inaccurate thermometer measurements.

7. If there are any problems or issues during the warranty period, please contact the after-sales service center.

Conditions of work and transportation

1. Conditions of work

Working environment:

Temperature: 16.0 ° C - 35.0 ° C;

Humidity: <85% RH;

Atmospheric pressure: 70kPa - 106kPa.

2. Transportation and storage

Temperature: -20.0 ° C - 55.0 ° C;

Humidity: <95% RH;

Atmospheric pressure: 70kPa - 106kPa;

Packed thermometers can be transported by means of conventional vehicles, but it is necessary to prevent their falling, impacts on other objects, as well as falling under rain and snow.

Accessories

Use only original parts

IR sensor	1 шт.	AAA batteries	2 шт.
Manual	1 шт.	Brief manual	1 шт.
Warranty	1 шт.		

Information on additional component parts

Name	Model	Supplier
IR sensor	XWIR007-334	F001
IC	XWIC009B	A102
Housing	ABS	D014

Information on electromagnetic compatibility

- The device complies with the electromagnetic compatibility standard YY 0505.
- Installation and use of the device must be carried out in accordance with the information on electromagnetic compatibility.
- Portable devices, mobile phones and other communication equipment can have a negative impact on the characteristics of the device. When using the device, avoid strong electromagnetic interference from a mobile phone, microwave oven (if nearby), etc.

Caution:

- Do not use the thermometer near other sources of electromagnetic waves and do not stack it together with other devices. If nevertheless it is necessary to use the thermometer next to other devices, recheck its readings and make sure it is working properly.
- The use of electrical cables and parts that are not included in the initial configuration of the thermometer and are not original, may result in an increase in radiation or a decrease in the device's noise immunity.
- If the device is used in an inappropriate condition, the performance and efficiency of the device may be reduced.

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Contact phone: 400-626-3881

Working hours: 09: 00-17: 00 (excluding holidays from Monday to Sunday)

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Optional equipment

Table 1: Manufacturer’s manual and instructions for electromagnetic radiation
The FDIR-V14 infrared thermometer is designed for use in the electromagnetic environment specified below. The purchaser or user must ensure that the specified environment exists when working with the device.

Radiation during testing	Accordance	Electromagnetic environment - guidance
GB4824 RF (radio frequency) radiation	group 1	The device uses radio frequency energy (RF) for its internal functions. Therefore, its level of radio frequency radiation is very <u>low</u> and it does not significantly affect the nearby electronic equipment.
GB4824 RF (radio frequency) radiation	type B	FDIR-V14 IR thermometer is suitable for use at home, as well as in premises with a low-voltage electrical network.
GB17625.1 Harmonic radiation	not applicable	
GB17625.2 Voltage fluctuations / flashing radiation	not applicable	

Note 1: At 80 MHz and 80 MHz, the high-frequency range is used.

Note 2: This manual is not applicable to all situations. Electromagnetic impact is subject to absorption and reflection from surrounding structures, objects and living beings.

a) The field strength from a fixed transmitter, for example, base stations for radiotelephones (cellular / wireless) and terrestrial mobile radios, amateur radio transmitters, AV and FM broadcasts, television, can not be accurately predicted theoretically. To access the electromagnetic environment from fixed radio transmitters, it is necessary to take into account the studies of the electromagnetic object. If the measured electromagnetic field strength in the zone of use of the IR-Thermometer of the IR thermometer exceeds the applicable level of RF compliance, it is necessary to monitor the operation of the device and, if violations are detected, to perform additional measurements and reorient or relocate the device.

b) In the frequency range above 150 kHz - 80 MHz, the field strength should be less than 3 V / m.

Table 2: Manufacturer’s manual and instructions for electromagnetic radiation
The FDIR-V14 infrared thermometer is designed for use in the electromagnetic environment specified below. The purchaser or user must ensure that the specified environment exists when working with the device.

Stability test	CB9706 test level	Conformity level	Guidance on electromagnetic environment
Electrostatic discharge (ESD) GB/T 17626.2	±6 kV contact ±8 kV air	±6KV contact ±8KV air	It is necessary to have wooden, concrete or ceramic floors. If the floors are covered with synthetic material, the relative humidity should be maintained at a level of at least 30%.
Short-circuit voltage / pulse GB/T 17626.4	± 2 kV for the power line ± 1KV on the input / output of the network	not applicable	The quality of consumed power should correspond to a typical commercial or medical environment.
Impulses GB/T 17626.5	±1 kV differential mode ±2 kV common mode	not applicable	The quality of consumed power should correspond to a typical commercial or medical environment.
Voltage drop, short interruptions and voltage variations on the input power line GB / T 17626.11	<5% UT during 0.5 cycles (95% drop of UT) 40% UT during 5 cycles (60% drop of UT) 70% UT during 25 cycles (30% drop of UT) <5% UT during 5 cycles (95% drop of UT)	not applicable	The quality of consumed power should correspond to a typical commercial or medical environment. If the user of the device needs to work continuously during power outages, it is recommended that the FDIR-V14 IR thermometer be powered from an uninterrupted power supply or from a battery.
Magnetic Field of Industrial Frequency (50 / 60Hz) GB / T 17626.8	3A/m	3A/m, 50/60Hz	The quality of consumed power should correspond to a typical commercial or medical environment.

Caution: UT is the voltage in the AC network before the test

Table 3: Manufacturer's manual and instructions for electromagnetic radiation
The FDIR-V14 infrared thermometer is designed for use in the electromagnetic environment specified below. The purchaser or user must ensure that the specified environment exists when working with the device.

Stability test	CB9706 test level	Conformity level	Guidance on electromagnetic environment
Conducting RF GB/T 17625.6	3V rms 150 kHz - 80 MHz	not applicable	Portable and mobile radio-frequency equipment should not be located in relation to any part of the device, including the cable, closer than the distance recommended by calculation according to the equations applied to the transmitter's frequency. Recommended distance: $d=1.2\sqrt{P}$ $d=1.2\sqrt{P}$ 80MHz – 800 MHz $d=1.2\sqrt{P}$ 800MHz – 2.5 GHz, where P - maximum output power of the transmitter in watts (W) according to the manufacturer of the transmitter; d - recommended distance in meters (m). The field strength of a fixed RF transmitter, a) as determined for electromagnetic objects, should be b) below the correspondence level in each frequency range.
Radiating RF GB/T 17626.3	3V/m 80 MHz - 2,5 GHz	3 V/m	

For transmitters with a maximum rated output not included in the table above, the recommended separation distance d in meters (m) can be estimated using an equation applicable to a particular transmitter frequency, where P is the maximum nominal transmitter output power in watts (W), according to characteristic from the manufacturer.
Note 1: At 80 MHz and 80 MHz, the high-frequency range is used.
Note 2: This manual is not applicable to all situations. Electromagnetic impact is subject to absorption and reflection from surrounding structures, objects and living beings.

The presence of toxic and harmful substances

Name	Toxic and harmful substances or elements					
	Pb	Hg	Cd	CrV1	PBB	PBDE
Housing	O	O	O	O	O	O
PCB	X	O	O	O	O	O

These tables are provided in accordance with SJ / T 11364.
About: toxic and harmful substances in all components of this device contained in quantities below the limit value according to the standard GB / T 26572.
X: presence of toxic and harmful substances, at least in one of the components of this device in an amount exceeding the limit value, according to GB / T 26572.

Table 4: Recommended distance between mobile and mobile radio frequency communication equipment and FDIR-V14 IR thermometer.

Nominal maximum input power level of transmitter W	Distance, according to the frequency response of the transmitter		
	150 kHz - 80 MHz $d=1.2\sqrt{P}$	80 MHz - 800 MHz $d=1.2\sqrt{P}$	800 MHz - 2,5 GHz $d=2.3\sqrt{P}$
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