

**THERMOMETER X6**

**I Product Overview**

Product name: Infrared thermometer  
 Common name: Forehead thermometer  
 Product model: X6 Infrared thermometer  
 Usable range: Display the temperature of the measured object by receiving the heat radiation from the forehead  
 Contraindication: None

**II Product Performance**

Temperature measurement range: Body temperature mode: 32~42°C (89.6~107.6°F)  
 Temperature measurement time: about 2 seconds  
 Resolution: 0.1°C  
 Maximum allowable error:  
 Within 35.0°C~42.0°C: ±0.2°C/±0.4°F;  
 Beyond 35.0°C~42.0°C: ±0.3°C/±0.5°F;  
 Display method: LCD  
 Appearance size: 105.3 × 57 × 3.6CM (length×width×height)  
 Weight: about 94G  
 The infrared thermometer can achieve automatic power-off and self-check  
 Current consumption: static OFF ≤ 20uA, dynamic ON ≤ 20mA  
 DC power supply: two AAA dry batteries (AAA batteries)

**III Working conditions**

1. Ambient temperature: 10°C~45°C  
 2. Relative humidity: 15%~85%  
 3. Atmospheric pressure: 700Pa~1013Pa  
 4. Internal DC power supply DC 3V, ±0.1% relative error of ±0.2V

**IV Technical characteristics**

1. Measurement time is about two seconds  
 2. Automatic power-off in 10 seconds  
 3. °C/°F switching, with flashing function  
 4. With backlight, the backlight is blue and orange  
 5. Memory recall function  
 6. Measurement range of infrared thermometer: (32°C~42°C) (89.6°F~107.6°F)  
 7. Service life: more than 100,000 times normally

**V Use and Operation**

1. This product provides two measurement modes: body temperature measurement and physical measurement.  
 2. Please be sure to choose the body temperature measurement mode before measuring body temperature.  
 Step 1: Complete the measurement mode selection from the main menu of the product's external display screen and press the power key to enter the measurement mode.  
 Step 2: In the process of measurement, make the LCD display the current temperature. When you press the power key, the LCD display the measurement result. The measurement result will be stored in the memory and will be recalled by the power key (see below).

Reference values for different measuring parts

MEASURING PART	NORMAL TEMPERATURE
ANUS	36.6~38°C
ORAL CAVITY	35.7~37.5°C
DEXTER	34.7~37.3°C
EAR	35.8~38°C

Reference values for different ages

AGE	NORMAL TEMPERATURE
0~2 YEARS	36.4~38°C
3~10 YEARS	36.1~37.8°C
11~65 YEARS	35.9~37.6°C
> 65 YEARS	35.8~37.5°C

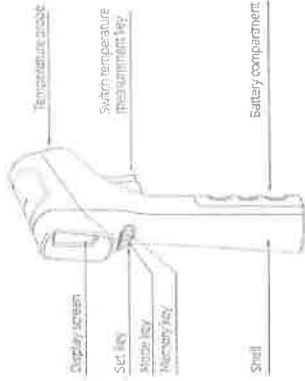
The maximum allowable error of human clinical diagnostic test accuracy is specified by the following formula:

$$\text{TERROR} = \frac{|T1 - TREF| + |T2 - TREF|}{2} \leq 0.3^{\circ}\text{C}/0.6^{\circ}\text{F} \text{ (FOR 95\%)}$$

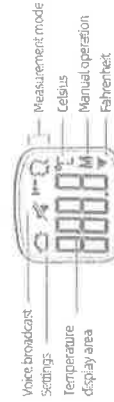
T1 and T2 are the temperature readings of the thermometer under test.

**VI Structural Function**

1. Main structures



**Introduction of display screen**



**2. Physical temperature / thermometry**

Press and hold the trigger button, the machine will automatically turn on the power switch, the unit automatically, and the screen will display the temperature of the measured object. When the body temperature is lower than 37.5°C and higher than 34.8°C, the screen will use the blue backlight to light the LCD, and at the same time "dip" sound will remind.

3. High / low temperature alarm  
 When the measured temperature is higher than 38°C and lower than 34.2°C, the screen will use orange backlight to light the LCD, and at the same time, the "dip" sound will alarm.

4. Memory reading  
 In the power on mode, press the "mode" button, the last measured data will be displayed on the screen, and up to 32 groups of measured data can be viewed.

5. Temperature measurement mode switching  
 In the power on state, click the set button to switch between the object temperature and human body temperature.

5.1 Press the middle mode key in the power on state, and the screen will display set °F, press < key, or > key, and switch in °C / F state.  
 5.2 Press the middle mode key again, and beep will be displayed on the screen. Press < key, or > key to switch between the adult and prompt tone or without prompt tone.

5.3 Press the middle mode key again, the screen displays h38 °C, press < key, or > key to increase and decrease the temperature high temperature alarm setting value.

5.4 Press the middle mode key again, the screen will display 34.7 °C, press < key, or > key to increase and decrease the temperature low alarm setting value.

5.5 Press the middle mode key again, the screen will display the set object temperature / human body temperature mode, press < key, or > key to change the setting state.  
 5.6 In the setting state, press the trigger key to exit the setting state.

**VII Cautions**

Infrared thermometer is a precise electronic product, please use it with caution  
 1. The infrared thermometer must be used under the working conditions required in this instruction.  
 2. Do not remove the thermometer from the measured part until the "Beep" sound starts.

3. Always keep the thermometer in the same position, because different positions may cause differences in body temperature.  
 4. The measured temperature will vary because of different skin color and thickness.

5. Make sure the forehead is clean and free of sweat, hair or hat when measuring the temperature of the forehead. Otherwise, the temperature will be too low.

6. Do not drop to the ground or onto the body.  
 7. Do not close to other equipment or stick it with other equipment, if it must be close to it, please use other equipment, only two eyes can be stacked.

8. The display screen of temperature sensor can be wiped and disinfected with alcohol cloth. Do not put it in water or boil it in hot water for disinfection.

**Note: For the following situations, three measurements are recommended.**

- The highest reading is the final result.  
 1. For children under three years of age with impaired immune systems and for those whose fever has a significant mode.  
 2. When the user's eyes have to measure, he or she should measure for many minutes and the is familiar with the device and can read stable data.  
 3. If the measurement result is abnormally low.  
 In short, the temperature reading from different measurement points should not be compared because the measured values will vary depending on the measurement time. During the day, a person's body temperature is highest at dusk and lowest in the hour before waking up in the morning.

**VIII Error Message and Solution**

Screen display	Beep prompt	Possible cause	Solution
HI	"Beep"	When the measurement result is > 43°C	Please reset the instrument carefully and take another measurement
LO	"Beep"	When the measurement result is < 32.2°C	

**IX Battery Installation and Replacement**

Power supply:  
 2pcs AAA battery (not included in the standard packages).  
 Please follow these steps to install the battery:  
 Step 1: Push the battery cover downwards in the direction indicated by the arrow.  
 Step 2: Remove the battery cover.  
 Step 3: Place the battery in the battery jar, and pay attention to the positive and negative anodes of the battery.  
 Step 4: Close the battery cover.

**X. Battery replacement**

When the LCD screen shows that the battery is in a low power state, the battery must be replaced as soon as possible to ensure the accuracy of the measurement.

**XI Important safety instructions**

- The infrared thermometer measures temperature by detecting a person's forehead or the infrared energy radiated from other targets. It collects energy through its lens and converts it into a temperature value. It obtains the temperature reading by detecting the thermal shift to get the maximum accuracy value.
- It is only for the purposes described in the instruction. The manufacturer will not assume legal liability for the damage caused by incorrect use.
- Do not immerse the device in water or other liquids.
- If the product is found to be abnormal, send the product for repair. Except for replacing the battery, do not open this device arbitrarily.
- Operation mode continuously operable.
- Classification of equipment type: medical power supply equipment. Classification of anti-shock degree: type B application.
- Keep away from extreme temperature, shock and drop, pollution and dust, direct sunlight, hot and cold environments.
- Warning: This device is not a substitute of doctor. This device is not waterproof, do not use in the shower.
- Use caution when using the device during the early stage of fever and the surface temperature of the skin decreases, so the measured temperature will be abnormally low.
- If the measurement result does not match the patient's diagnosis or the measurement temperature is abnormally low, reset the measurement every 15 minutes or measure another core temperature area to verify the previous measurement result.
- This device includes sensitive components and must be treated with care. The storage and operating conditions are described in the "Symbols and Meaning of Safety Requirements in This Manual" section.
- It contains small parts. To avoid swallowing, children need to use it under adult supervision.
- Remove the battery when the device is not used for a period of time. Do not remove the battery until the battery is fully charged. Please protect the environment.
- Precaution: Do not use the device in the presence of flammable and explosive gas mixed with air or flammable and explosive gas mixed with oxygen or nitrous oxide.

**XII Maintenance**

1. Keeping the surface of the thermometer clean and tidy often will help extend the life of the thermometer.
  2. If the device is dirty, wipe it with a clean soft cotton cloth. If the dirt is not easy to remove, the soft cotton cloth can be wetted with water or neutral detergent to wipe, and then wipe it with a dry cloth.
- Note: Do not allow liquids such as water to enter the body.

**XIII Notes for storage**

1. The thermometer contains sensitive electronic components. Avoid using it directly in an environment with electromagnetic interference (such as near mobile phone, microwave oven, etc.) to prevent temporarily affecting its accuracy.
2. Do not use liquids such as volatile oil, thinner or gasoline to wipe the thermometer.
3. Do not store the product in a place exposed to direct sunlight, high temperature, humidity, dust and corrosive gases.
4. Please remove the battery from the product when the thermometer is not used for a long time (more than 3 months).
5. Do not use the thermometer for purposes other than its original design. When using it for children, please follow general safety precautions.
6. Do not use it more if the probe or the thermometer itself is damaged.
7. Please do not drop the thermometer to the ground hard to avoid strong impact and display.
8. In order to avoid short circuit, please do not put the battery in the same pocket with metal objects such as coin or a string of keys or with other containers that may cause short circuit of battery.
9. Do not place the battery near the fire source or throw it into the fire to prevent the battery from exploding. Do not use the device if the battery is leaking or badly dispose of the battery or this product should be in accordance with local regulations.
10. During the warranty period, if the circuit diagrams and necessary materials need to be provided, and for problems of electrical circuit, please contact the manufacturer.

- Note: If the device fails due to your failure to observe the above notes for storage and other proper use methods, our company will not be responsible for the quality.

**XIV Other Matters Needing Attention**

Service life  
The product's service life is 3 years (except for vulnerable and consumable parts) under the condition of complying with storage requirements. The thermometer must be returned to the manufacturer for calibration.

See certificate of quality for date of manufacture.  
Product transportation and storage Environment for product transportation and storage:  
Temperature: -20°C~+50°C Relative humidity: 15~45%  
Atmospheric pressure: 70kPa~106kPa

**XV Accuracy of Clinical Measurement and Safety Test**

It is proved that through clinical comparison, the clinical accuracy and safety of the infrared thermometer meet the requirements of clinical use and can meet the needs of clinical application.

**XVI List of Accessories**

- Host: 1;  
Certificate of quality: 1  
During the warranty period, if the circuit diagrams and necessary materials need to be provided, and for problems of electrical circuit, please contact the manufacturer.

**XVII Guide on the Use in Electromagnetic Environment**

Excerpts of EMC-related guide lines and statements from the manufacturer's accompanying documents

Part name	Maximum use in comparison with 5000PPM	5000PPM	15000PPM	45000PPM	150000PPM
Radio	○	○	○	○	○
Mobile phone	○	○	○	○	○
Bluetooth	○	○	○	○	○
Wi-Fi	○	○	○	○	○
Power line	○	○	○	○	○
Power supply	○	○	○	○	○
Power supply	○	○	○	○	○
Power supply	○	○	○	○	○

The infrared thermometer is intended for use in electromagnetic environment where the maximum rated output power of the transmitter is as follows:

Maximum rated output power of the transmitter (m)	Maximum use in comparison with 5000PPM	5000PPM	15000PPM	45000PPM	150000PPM
0.01	Not applicable	○	○	○	○
0.1	Not applicable	○	○	○	○
1	Not applicable	○	○	○	○
10	Not applicable	○	○	○	○
100	Not applicable	○	○	○	○

Note: The infrared thermometer is intended for use in electromagnetic environment where the maximum rated output power of the transmitter is as follows:

Maximum rated output power of the transmitter (m)	Maximum use in comparison with 5000PPM	5000PPM	15000PPM	45000PPM	150000PPM
0.01	Not applicable	○	○	○	○
0.1	Not applicable	○	○	○	○
1	Not applicable	○	○	○	○
10	Not applicable	○	○	○	○
100	Not applicable	○	○	○	○

Immunity test	EC60601 test level	Conform to the level	Electromagnetic environment-Guide
Radio frequency conductive (GB/T17626.2)	3V (effective value) 150kHz-80MHz	Not applicable	Portable and mobile RF communication equipment should not be used closer than 1m from the infrared thermometer than the recommended location of use, including vehicles, and this distance should be calculated by the formula corresponding to the emission frequency. Recommended location of use is: 1. 1.5m for 150kHz-100kHz 2. 1.5m for 100kHz-10MHz 3. 1.5m for 10MHz-100MHz 4. 1.5m for 100MHz-10GHz 5. 1.5m for 10GHz-100GHz 6. 1.5m for 100GHz-10THz 7. 1.5m for 10THz-10PHz 8. 1.5m for 10PHz-10THz 9. 1.5m for 10THz-10PHz 10. 1.5m for 10PHz-10THz 11. 1.5m for 10THz-10PHz 12. 1.5m for 10PHz-10THz 13. 1.5m for 10THz-10PHz 14. 1.5m for 10PHz-10THz 15. 1.5m for 10THz-10PHz 16. 1.5m for 10PHz-10THz 17. 1.5m for 10THz-10PHz 18. 1.5m for 10PHz-10THz 19. 1.5m for 10THz-10PHz 20. 1.5m for 10PHz-10THz 21. 1.5m for 10THz-10PHz 22. 1.5m for 10PHz-10THz 23. 1.5m for 10THz-10PHz 24. 1.5m for 10PHz-10THz 25. 1.5m for 10THz-10PHz 26. 1.5m for 10PHz-10THz 27. 1.5m for 10THz-10PHz 28. 1.5m for 10PHz-10THz 29. 1.5m for 10THz-10PHz 30. 1.5m for 10PHz-10THz 31. 1.5m for 10THz-10PHz 32. 1.5m for 10PHz-10THz 33. 1.5m for 10THz-10PHz 34. 1.5m for 10PHz-10THz 35. 1.5m for 10THz-10PHz 36. 1.5m for 10PHz-10THz 37. 1.5m for 10THz-10PHz 38. 1.5m for 10PHz-10THz 39. 1.5m for 10THz-10PHz 40. 1.5m for 10PHz-10THz 41. 1.5m for 10THz-10PHz 42. 1.5m for 10PHz-10THz 43. 1.5m for 10THz-10PHz 44. 1.5m for 10PHz-10THz 45. 1.5m for 10THz-10PHz 46. 1.5m for 10PHz-10THz 47. 1.5m for 10THz-10PHz 48. 1.5m for 10PHz-10THz 49. 1.5m for 10THz-10PHz 50. 1.5m for 10PHz-10THz 51. 1.5m for 10THz-10PHz 52. 1.5m for 10PHz-10THz 53. 1.5m for 10THz-10PHz 54. 1.5m for 10PHz-10THz 55. 1.5m for 10THz-10PHz 56. 1.5m for 10PHz-10THz 57. 1.5m for 10THz-10PHz 58. 1.5m for 10PHz-10THz 59. 1.5m for 10THz-10PHz 60. 1.5m for 10PHz-10THz 61. 1.5m for 10THz-10PHz 62. 1.5m for 10PHz-10THz 63. 1.5m for 10THz-10PHz 64. 1.5m for 10PHz-10THz 65. 1.5m for 10THz-10PHz 66. 1.5m for 10PHz-10THz 67. 1.5m for 10THz-10PHz 68. 1.5m for 10PHz-10THz 69. 1.5m for 10THz-10PHz 70. 1.5m for 10PHz-10THz 71. 1.5m for 10THz-10PHz 72. 1.5m for 10PHz-10THz 73. 1.5m for 10THz-10PHz 74. 1.5m for 10PHz-10THz 75. 1.5m for 10THz-10PHz 76. 1.5m for 10PHz-10THz 77. 1.5m for 10THz-10PHz 78. 1.5m for 10PHz-10THz 79. 1.5m for 10THz-10PHz 80. 1.5m for 10PHz-10THz 81. 1.5m for 10THz-10PHz 82. 1.5m for 10PHz-10THz 83. 1.5m for 10THz-10PHz 84. 1.5m for 10PHz-10THz 85. 1.5m for 10THz-10PHz 86. 1.5m for 10PHz-10THz 87. 1.5m for 10THz-10PHz 88. 1.5m for 10PHz-10THz 89. 1.5m for 10THz-10PHz 90. 1.5m for 10PHz-10THz 91. 1.5m for 10THz-10PHz 92. 1.5m for 10PHz-10THz 93. 1.5m for 10THz-10PHz 94. 1.5m for 10PHz-10THz 95. 1.5m for 10THz-10PHz 96. 1.5m for 10PHz-10THz 97. 1.5m for 10THz-10PHz 98. 1.5m for 10PHz-10THz 99. 1.5m for 10THz-10PHz 100. 1.5m for 10PHz-10THz
Radio frequency magnetic (GB/T17626.3)	3V/m	3V/m	3V/m
Electrostatic discharge (GB/T17626.4)	8kV	8kV	8kV
Surge (GB/T17626.5)	1kV	1kV	1kV
Power frequency magnetic field (GB/T17626.8)	3A/m	3A/m	3A/m

(Correspond to table 204 in YY0505-2012)

**Warranty Card**

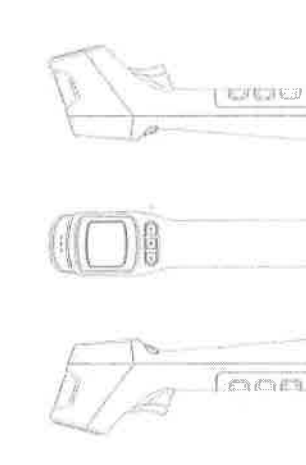
Purchase date	Product number
Invoice number	(Sealed by dealer)
User name	Phone
User address	

Warranty record

Date	Content	Repairer

..... Cut along imaginary line

(Correspond to table 202 in YY0505-2012)



Emission test	Conform to	Electromagnetic environment-Guide
Radio-frequency emission (GB61024)	1 set	The infrared thermometer uses radio frequency energy only for its internal functions. Therefore, its radio-frequency emission is low and has low possibility of interfering nearby electronic equipments.
Radio-frequency emission (GB61024)	B Class	The infrared thermometer is suitable for use in all facilities that are not domestic and are not already connected to the public low-voltage power supply network of the residential home.
Harmonic emission (GB/T7626.1)	Not applicable	
Voltage fluctuation / flicker emission (GB/T7626.2)	Not applicable	

Guide and manufacturing statement: electromagnetic immunity  
The infrared thermometer is suitable to be used in the electromagnetic environment specified below, and the purchaser or user should ensure that it is used in this electromagnetic environment.

Immunity test	EC60601 test level	Conform to the level	Electromagnetic environment-Guide
Electrostatic discharge (GB/T17626.2)	4kV contact discharge, 8kV air discharge	Not applicable	The floor should be wood, concrete or tile, if the floor is covered with synthetic material, the relative humidity should be at least 30%.
Electric fast transient pulse group (GB/T17626.4)	2kV to power line, 1kV to input/output	Not applicable	Not applicable
Surge (GB/T17626.5)	2kV wire to wire, 2kV wire to ground	Not applicable	Not applicable
Shock, interruption and voltage change (GB/T17626.6)	<5kV T, combine for 0.3 cycle (dip > 5% on U <sub>T</sub> ); 10kV U <sub>T</sub> , combine for 5 cycles (dip > 5% on U <sub>T</sub> ); 70kV U <sub>T</sub> , combine for 25 cycles (dip > 30% on U <sub>T</sub> ); 200kV U <sub>T</sub> , combine for 5 seconds (dip > 5% on U <sub>T</sub> ).	Not applicable	Not applicable
Power frequency magnetic field (GB/T17626.8)	3A/m	3A/m, 50Hz	If the device does not work properly, it is necessary to keep the device away from the power frequency magnetic field source.

Note: U<sub>T</sub> refers to the AC grid voltage before the test voltage is applied.