

# Infrared Thermometer

Model No.: SK-T008



## Operating Instruction

Date: Mar 2020

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## Product Warranty

From the date of purchase, the warranty card with seal shall enjoy 1-year free warranty. We do not provide free warranty service for the following faults caused by users:

1. Faults caused by unauthorized disassembly and refitting of the product.
2. Faults caused by careless drop during use and transport.
3. Faults due to lack of reasonable maintenance
4. Faults caused by failure to operate according to the correct instructions in the operation manual.
5. Faults caused by improper repair of unauthorized repair shop, etc.
6. Maintenance services beyond the scope of warranty will be charged according to related regulations.
7. Please call our customer service hotline: 0755-26914205 when you require warranty service.
8. Please refer to the relevant national regulations for the product parts warranty.

## Warranty Card

Product Name: \_\_\_\_\_ Product Model no.: \_\_\_\_\_  
 Purchase Date: \_\_\_\_\_ Customer Name: \_\_\_\_\_  
 Company Name: \_\_\_\_\_ Telephone no.: \_\_\_\_\_  
 Address: \_\_\_\_\_ Post Code: \_\_\_\_\_

Stamp: \_\_\_\_\_

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## 1. Range of Application

Display the temperature of subject by measuring thermal radiation of forehead.

## 2. Product Composition

The thermometer is composed of infrared sensor, microprocessor, liquid crystal display, etc.

## 3. Precautions, Taboos and Warnings

1. Please read this manual carefully before use
2. Working temperature of this product is 10C to 40C, the optimal working temperature is 25C.
3. Please do not use this product in the environment with temperature higher than 40C or lower than 10C.
4. Please do not place this product too close to the charged object to avoid electric shock.
5. Please do not use this product in the environment with humidity higher than 80%.
6. Please do not place this product too close to the electromagnetic range (such as radio, mobile phone, etc.)
7. Please do not expose this product to the sun or near the stove, and keep away from water.
8. Please do not bump or drop this product, and do not use when it is damaged.
9. Hair, sweat, hat or scarf on forehead will affect the accuracy of measurement data.
10. Please make sure that the measuring distance is not more than 15cm.

In order to get accurate, stable and reliable measurement, please measure from behind the earlobe when your forehead temperature cannot properly reflect body temperature due to sweating or other reasons.

12. In case of alcohol to gently wipe the surface of this product when needed.
13. In the event of a problem with this product, please contact the distributor and do not attempt to repair it by yourself.

## Taboos

There is no standard body temperature. Please consult your doctor for fever.

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## Warnings

1. Make sure to remove the hair and sweat from your forehead before measuring.
2. To use this product cannot replace doctor's diagnosis.
3. In the event of a problem with this product, please contact the distributor and do not attempt to repair it by yourself.
4. The protective glass on LCD frame is very important, which is the fragile part of this product. Please handle with care.
5. Please do not charge non-rechargeable battery and do not throw battery into fire.
6. Please do not expose this product to the sun or near the stove, keep away from water.

## 4. 技术指标

Transport & Storage	Temperature: 20°C ~ 55°C Relative Humidity: <93%
Atmospheric Pressure	70kpa-106kpa
Indicating Unit Resolution	0.1°C
Accuracy	Body Temperature Mode: 35.0°C ~ 42.0°C Within range ±0.1°C Body Temperature Mode: 35.0°C ~ 42.0°C Out of range ±0.3°C
Measuring Range	Body Temperature Mode: 32.0°C ~ 42.9°C
Measuring Distance	5-15cm
Operating Temperature	10°C-40°C
Operating Humidity	<80%
Power Supply	DC9V Battery
Automatic Power Off	90Sec
Product Size	100X46X160mm (Length*Width*Height)
Product Weight	125g (Battery not included)

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## 5. Advice before Use

The infrared forehead thermometer requires relatively high surrounding environment, correct use method is key to get the accurate temperature.

- (1) This product is a professional infrared forehead thermometer for measuring human body temperature. Different people may get different body temperature value.
- (2) Please place infrared forehead thermometer indoor for 20 minutes before use when the environment temperature changes greatly.
- (3) When the tested person comes from place with different environment temperature, let table shall stay in the measuring environment for at least 5 minutes to start measuring.
- (4) The environment around the tested person shall be stable, should not in places with large air flow, such as near fan or air conditioner.
- (5) Please do not use this product outdoors in a place with strong sunlight.
- (6) Please do not hold the front of the thermometer by hand when measuring.
- (7) The measured part shall not be covered by hair; please use a dry towel to wipe sweat before measurement when needed, otherwise the measurement result will be affected.
- (8) The measurement results of febrile patients may be on the low side after his / her forehead/cold compresses or sweating and other cooling measures, with which the measurement should be avoided.
- (9) Comparison of different measurement methods. The temperature measured by different methods will be different. See the table below for the specific temperature difference.

Measuring Body Parts	Normal Temperature
Anal	36.6°C ~ 38.0°C
Oral	35.5°C ~ 37.5°C
Armpit	34.7°C ~ 37.3°C
Cochlear	35.8°C ~ 38.0°C
Forehead	35.8°C ~ 37.8°C

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## 6. Quick Use

- 6.1 Battery Installation
- 6.2 Install batteries properly for first time use.
- 6.3 Align the measuring part of thermometer with forehead at a distance of 5-15cm. Make sure no hair, sweat, cosmetics or hat covering. Press the switch to start measurement.
- 6.4 Please measure from behind earlobe when the change of ambient temperature or sweat on forehead affects measurement. Meanwhile make sure there is no hair, sweat, cosmetics or hat covering.

Notes: Based on different skin color, thickness and body parts, as well as large changes in ambient temperature, the measured temperature value will be different, which is very normal. Because the more exposed human body is, the greater impact from ambient temperature will be.

## 7. Battery Replacement

With 9V battery, this product can be used more than 4000 times continuously under normal circumstances. When battery symbol appears or flashes on the upper right of the screen, it indicates that battery is low and needs to be replaced as soon as possible.

- (1) Open cover to replace battery. Please pay attention to correct positive and negative poles. The product is designed with battery and reverse connection device, even if the battery polarity is installed reversely it will not cause damage to the product, but product will not work.
- (2) Please do not use rechargeable battery, but disposable battery, alkaline battery is recommended.
- (3) The static current is tiny when this product is not working. It is recommended to take out the battery when it is not used for a long time, to avoid battery leakage and damage the product.

## Precautions:

1. When opening battery cover to replace battery, please pay special attention to polarity of battery, which may cause product damage if misplaced.
2. When product is not used for a long time, please take out the battery to prevent the thermometer from being damaged due to battery leakage.
3. Do not use this product in case of battery leakage or spillage.
4. Do not place the battery close to or into fire to avoid explosion.
5. Do not store battery in high temperature or high humidity environment.

6. To avoid short circuit, please do not put battery in the same pocket or other containers together with metal objects such as coins or keys.

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## 8. Operating Instructions

### 8.1 Thermometer Components



- (1) When the thermometer is in body temperature measurement mode, press and hold the power on button will keep it measuring incessantly. If no need long time measurement, press the power on key once only to get temperature.
- (2) Body temperature and material temperature switching: Body temperature: press and hold "M" button (Notes: keep pressing), click backlight button to display human body temperature (Notes: there are body temperature highlighted on the screen). Material temperature: press and hold "M" button (Note: keep pressing), click buzzer button to display the material surface temperature (Notes: the body temperature on the screen are dim). After the switching, click the measurement button, then you can get temperature measured.
- (3) Historical data viewing: The instrument will automatically record up to 32 historical measurement data. If you want to view, please press "+" or "\*" to view the 1st or "L" or "R" press "-" to view the last temperature record, press "+" for the farthest record. Press "+" or "-" again to view one by one.

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## 9. Button Instructions

- (1) Press "M" button once to view historical measurement data, short press "+" or "\*" to circle the records, up to 32 historical measurement data available.
- (2) If measurement result display "Lo" or "Hi", it is invalid measurement. These measurement results will not be recorded counted.
- (3) Short press backlight button to turn on and off the backlight.
- (4) Short press buzzer button to turn the sound on and off.

## 10. Routine Maintenance

In process of using this product, please follow prompts when you find following situations.

- (1) External smudge: wipe the dirt with a clean soft cloth, or wipe it with a cotton swab soaked with medical alcohol, which also have sterilization and disinfection function. Please make sure do not use too much water or medical alcohol or it may flow into product to cause damage.
- (2) Internal smudge: the lens of measure probe is an important component. To assure the accuracy of measurement please do not touch or press it with fingers or other objects. Wipe surface of lens with a cotton swab soaked with anhydrous alcohol with purity more than 95%.

Tips: do not use 75% disinfectant alcohol to wipe the lens (there will be water leftover), and do not use other chemical liquid to wipe the lens (it will cause damage).

- (3) Storage: keep this product in a dry & dark place, not directly exposed in the sun.

## 11. Troubleshooting

If you found following problem when using our product, please refer to guides to solve the problem. Please call our after-sales service hotline if the problem still cannot be solved.

- (1) Temperature displayed on screen is higher than 42.5°C.
- (2) Temperature displayed on screen is lower than 32.0°C.
- (3) When temperature displayed is too high, please do not hold the front part of thermometer, holding the probe will make results measured on the high side.
- (4) "Hi" displayed on screen: "body temperature" mode, when the measured temperature exceeds 42.5°C, product will display "Hi", please first check whether the measured part of the human body has been exposed to external heat source. If not, please call our after-sales service hotline for further instructions.

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## (5) "LO" displayed on screen

In "body temperature" mode, when the measured temperature is lower than 32.0°C, product will display "L". Please follow prompts in following table to find out reason. If it is confirmed that it is not these reasons, please call our after-sales service hotline.

Reasons for display "LO"	Resolve advice
Hair cover or sweat	Make sure nothing cover or sweat on forehead
Cool Air slow forehead	Ensure the stability of air
Forehead being cold compressed	Wait for 10min to measure after cold compress
Measure distance too far	The optimal measurement distance is 5-15cm, thermometer no need touch skin.

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## 12. Graphic Symbol Instructions

Symbol	Instruction	Symbol	Instruction
	BF type device		No rain proof
	Refer to attached file		Hard touch forbidden
	Refer to user manual		Fragile
	Direct current		Upper side

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## 14. Appendix EMC

### 14.1 EMC (Electro Magnetic Compatibility)

1. Cautions:
  - This thermometer conforms to EMC (electromagnetic compatibility) standards YY0505.
  - The user shall install and use this product according to the EMC information provided in attached contents.
2. Portable and mobile RF communication equipment may affect the performance of this thermometer, avoid strong electromagnetic interference when using, such as near mobile phones, microwave ovens, etc.

3. See the attached table for guide and statement from manufacturer.

4. Warnings:
  - This thermometer shall not be used close to or stacked with other equipment. If it must be used close to or stacked, it shall be observed and verified that it can operate normally in the configuration.

5. In addition to the cables sold by the manufacturer for spare parts, the use of accessories and cables other than those specified may cause decrease in anti-interference function of this thermometer.

6. Wireless transmission and reception frequency: Transmission: 2400-2480MHz Reception: 2400-2480MHz

## Radiation Symbol:



- This thermometer may be interfered by other devices even when other devices meet the radiation corresponding standards.

## Table 1

Guidance and Manufacturer's Declaration - Electromagnetic Emission  
 This thermometer is expected to be used in the following specified electromagnetic environment, and the buyer or user shall ensure that it is used in electromagnetic environment:

Emission Test	Conformity	Electromagnetic Environment Guidance
RF Emission GB4824	Group 1	This thermometer only uses RF energy for its internal communication, and the possibility of interference to nearby electronic equipment is very small.
RF Emission GB4824	Class A	This thermometer is suitable for use in all facilities, in which the maximum rated output power of the transmitter provided by the manufacturer is less than 100mW and connected to public low-voltage grid for home use.
Harmonic Emission GB17625.1	Class A	
Voltage Fluctuation & Flicker Emission GB17625.2	Conform	

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## Table 2

Guidance and Manufacturer's Declaration - Electromagnetic Emission  
 This thermometer is expected to be used in the following specified electromagnetic environment, and the buyer or user shall ensure that it is used in electromagnetic environment:

Immunity Test	IEC 60951 Test Level	Conformity Level	Electromagnetic Environment Guidance
Electrostatic Discharge GB/T 17626.2	±8kV Contact Discharge ±8kV Air Discharge	±8kV Contact Discharge ±8kV Air Discharge	The floor shall be wood, concrete or tile, and the floor is covered with synthetic material, humidity shall be at least 30%.
Electrical Fast Transient Pulses GB/T 17626.4	±2kV For power cord	±2kV For power cord	The on-grid power supply should be of the quality typically used in commercial or hospital environment.
Surge GB/T 17626.5	±1kV Line to Line ±2kV Line to Ground	±1kV Line to Line ±2kV Line to Ground	The on-grid power supply should be of the quality typically used in commercial or hospital environment.
Voltage sag, temporary interruption and voltage change on power input line GB/T 17626.11	5% U <sub>n</sub> Keep 0.5period (±95% Sag on L) 40% U <sub>n</sub> Keep 5 period (±60% Sag on L) 70% U <sub>n</sub> Keep 25 period (±30% Sag on L) -5% U <sub>n</sub> Keep 5S (+95% Sag on L)	5% U <sub>n</sub> Keep 0.5period (±95% Sag on L) 40% U <sub>n</sub> Keep 5 period (±60% Sag on L) 70% U <sub>n</sub> Keep 25 period (±30% Sag on L) -5% U <sub>n</sub> Keep 5S (+95% Sag on L)	The on-grid power supply should be of the quality typically used in commercial or hospital environment. If the user of this thermometer needs to run continuously during power interruption, it is recommended to use the uninterruptible power supply or battery.
Power Frequency Magnetic Field GB/T 17626.8	3A/m	3A/m 50Hz, 60Hz (if 60Hz available)	The power frequency magnetic field should have the horizontal characteristics of typical place as commercial or hospital.

Note U<sub>n</sub> is AC voltage

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## Table 3

Guidance and Manufacturer's Declaration - Electromagnetic Immunity  
 This thermometer is expected to be used in the following specified electromagnetic environment, and the buyer or user shall ensure that it is used in electromagnetic environment:

Immunity Test	IEC 60951 Test Level	Conformity Level	Electromagnetic Environment Guidance
RF Transmission GB/T 17626.6	3V (Value Value)	3V (Value Value)	Portable and mobile RF communication equipment should not be used closer to any part of the thermometer than the recommended isolation distance, including cables. The distance is calculated by a formula corresponding to the transmitter frequency. The recommended separation distance: $d = 1.2 \sqrt{\frac{P}{f}}$ (100 MHz ~ 1000 MHz) $d = 2.3 \sqrt{\frac{P}{f}}$ (1500 MHz ~ 2.5 GHz) P: According to the maximum rated output power of the transmitter provided by the transmitter manufacturer, in watts (W); f: Recommended isolation distance in meters (m). Note: The range of a stationary RF transmitter is determined by surveying the electromagnetic field and should be lower than the coincidence level at each frequency range.

Note 1: at 80MHz and 800MHz, the formula of higher frequency band is used.  
 Note 2: these guidelines may not be suitable for all the situations due to electromagnetic propagation may be affected by buildings, objects and absorption / reflection of human body.

The field strength of stationary transmitters, such as base stations for wireless (cellular, cordless) telephones and ground mobile radios, ham radios, AM and FM radio broadcasts, and television broadcasts, cannot be accurately predicted in theory. In order to assess the electromagnetic environment of a stationary RF transmitter, magnetic field survey should be considered. If the field strength at the site of the thermometer is measured to be higher than the applicable RF coincidence level, the thermometer shall be observed to verify its normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorientation or repositioning of thermometer.  
 Throughout 150 KHz ~ 80 MHz frequency range, the field strength should be lower than 3 V/m

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## Table 4

The recommended isolation distance between portable and mobile RF communication equipment and this thermometer.

This thermometer is expected to be used in an electromagnetic environment where RF radiation disturbance is controlled. According to the maximum rated output power of the communication equipment, the purchaser or user can prevent electromagnetic interference by maintaining the minimum distance between portable or mobile RF communication equipment (transmitter) and this thermometer at recommended below.

The rated maximum output power of the transmitter (W)	150 MHz ~ 10 MHz $d = 1.2 \sqrt{\frac{P}{f}}$	10 MHz ~ 100 MHz $d = 1.2 \sqrt{\frac{P}{f}}$	100 MHz ~ 2.5 GHz $d = 2.3 \sqrt{\frac{P}{f}}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For the transmitter output power of the transmitter not listed above table, the isolation distance (in meters (m)) is recommended, which can be determined by the formula of the frequency list of the corresponding transmitter (in watts (W)). P is the maximum rated output power provided by manufacturer, in watts (W).  
 Note 1: at 80MHz and 800MHz, the formula of higher frequency band is used.  
 Note 2: these guidelines may not be suitable for all the situations due to electromagnetic propagation may be affected by buildings, objects and absorption / reflection of human body.

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