

Infrared Thermometer

Model:YK-IRT4



Forehead temperature



Automatic shutdown



Hospital & Family

PREFACE

Before using this Infrared thermometer, please read the user's manual carefully and use it accordingly. Please keep the user's manual properly for reference at any time. (The pictures in this manual are for reference only)

version number: V1.3
The latest revision date: 03-2023
ENSMIRT4202304177WHH
24110415.010 / 13.14. 002.0672

1 Product Introduction

1.1 Intended use

The infrared thermometer of we produced is specially for measuring body temperature, it can measure human forehead temperature, it suitable for medical unit and home use.

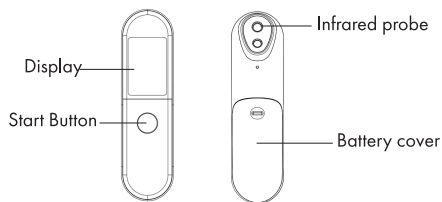
1.2 Contraindications

None

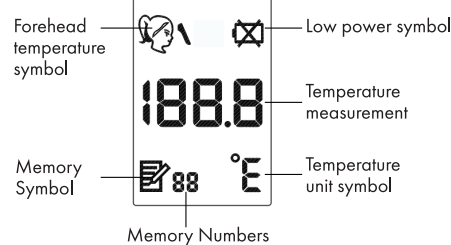
1.3 Features

- 1 second measure the temperature, easily and fast.
- Sensor measurement technology, high precision.
- Automatically power-off, if left idle for 15 seconds.
- One-key measurement, easy to use.
- Prompt for fever, better to know your physical condition.
- Stores 32 sets recent measurement data, easy for your data contrast.
- Safety by infrared measuring, avoid the damage of the measuring by traditional mercury thermometer.

1.4 Structure

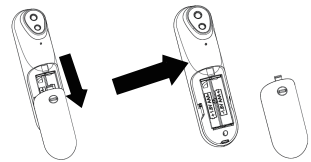


1.5 Display

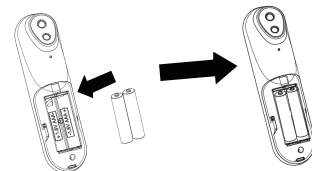


2 Battery Installation Usage

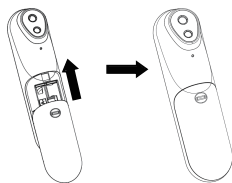
- 1) Remove the battery cover as the arrow direction according.



- 2) Inset 2 AAA powerful batteries, ensure each battery is in the proper direction.



- 3) Close the battery cover.



3 Measurement

The infrared thermometer can measure the forehead temperature.

3.1 Measuring Steps

Step 1: Place the probe between the eyebrows on the forehead, less than 3 cm away (do not touch the forehead directly).

Step 2: Gently press the Start Button, about one second later, the Infrared Thermometer sound prompt, display the measurement results.

If there is no forehead in front, the temperature shows "--".

Step 3: If there is no operation in 15 seconds, the standby state will be entered. The last measurement result is saved automatically.

3.2 Memory View

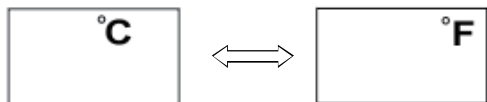
In the power-on state, long press the start button to enter the memory mode. In memory mode, press the button to view 1-32 groups of memories.

3.3 Delete the memory value

When viewing the memory, long press the start button for 2 seconds to clear all memory and display "CLR".

3.4 °C/°F Switch

Unit switch: In the shutdown state, long press the start button, after full display °C/°F will switch, and then you release it.



3.5 Fever Prompt Function

The Infrared thermometer has fever prompt function. When body temperature is over 38.0 °C during measurement, the Infrared thermometer will give out a "beep---beep---beep" sound in order to remind the person who is under test that he/she gets a fever. At the same time, backlight of 3 different colors will indicate the state of temperature: normal, on the high side or fever.

Green backlight: Below 37.5 °C, indicating temperature is normal;

Yellow backlight: Between 37.6~38.0°C, indicating temperature is on the high side (should pay attention to the temperature);

Red backlight: over 38.1°C, indicating fever (should see a doctor as soon as possible).

Symbols and Definitions

Symbols	Definitions	Symbols	Definitions	Symbols	Definitions
	Type BF applied part		Stand-by		This way up
	Refer to instruction manual		Separate collection for electrical and electronic equipment		Model number
	Caution		Keep dry		Use-by date
	CE mark		Keep away from sunlight		Consult instructions for use
	Manufacturer		Humidity limitation		Unique Device Identifier
	Date of manufacture		Temperature limit		Medical device
	Authorized representative in the European Community / European Union	IP22	Protected against solid foreign objects greater than 12.5mm in diameter and dripping water when tilted up to 15°		Batch code
	Serial number				Not made with natural rubber latex

3.6 Common Malfunction and Solutions

Phenomenons	Possible Reasons	Solutions
	Power deficiency	Replace battery immediately
	The Infrared thermometer is power off automatically	Restart by pressing the power key
	Battery isn't installed properly	Check the battery board
	Battery has no power	Replace battery immediately
Lo	Screen is still blank	Contact distributor and send back the product for reparation
	TEMP is too low	----
Hi	Environment TEMP is too low	Measurement in proper environment
	TEMP is too high	----
	Environment TEMP is too high	Measurement in proper environmen

3.7 Notes

3.7.1 Note for Forehead Temperature Measurement

- Please measure at the same point when doing forehead temperature measurement, otherwise the temperature value will have difference.
- In order to ensure the measurement accuracy, there should no hair, sweat, cosmetics and dirt, etc on the forehead when measurement.
- Cold coverage, sweating, and other cooling measures on fever patient's forehead will make the measurement result lower. Users should avoid measurements in this case.

3.7.2 Others

- Please keep the sensor and probe clean before and after measurement;
- Best work environment temperature is between 15°C~40°C
- Don't use the Infrared thermometer in extreme environment, namely temperature is below 15°C or over 40°C, humidity is over 85%RH or below 30%RH.
- When the people being measured comes from a place where the temperature has a big difference from the test environment, he/she should stay in the test environment for at least 5 minutes in order to keep balance of the body temperature. Otherwise, the measurement result will be influenced.
- If the product is taken from a place where the temperature has a big difference from the test environment, then the product should be placed in the test environment for 20 minutes before measurement.
- Please keep the surrounding environment stable. Don't measure in the fan, air conditioning vent airflow circle.
- Please avoid using the thermometer under direct sunlight, even outdoor.
- Measurement time interval in 20s.
- Advise to measure few minutes later after waking up.
- Do not measure after swimming or bathing or other reasons not yet completely dry.
- Please do not measure temperature after exercising, bathing or meal within 30 minutes,
- Before measuring body temperature, do not make any diet, and do not engage in sports activities.
- Do not measure baby temperature during or after breast-feeding.
- The thermometer can take away from the temperature measurement sites, only after the end of the voice prompts to hear the temperature.

Recommendations made three measurements in the following three cases, then take the higher value as the measurement results.

- 1) Children under three with weakened immune systems (in particular, to judge by children or without fever thermometer);
- 2) Not yet fully familiar with the use of a thermometer, so each measured temperature value may not be the same;
- 3) When suspect the measurement value is low.

4 Manufacturer's Declaration of the EUT

Statement:

- The infrared thermometer or user should use the product in the electromagnetic environment specified in the following table, otherwise it may cause abnormal operation of the product.
- The internal structure of the infrared thermometer adds magnetic rings, magnetic beads, and conductive cloth to spray conductive paint to avoid electromagnetic interference, so as to prevent adverse events to patients and operators due to electromagnetic interference.
- The infrared thermometer can be maintained and calibrated once every two years, and the basic safety and basic performance of the infrared thermometer have been guaranteed.
- Infrared thermometer is a table-top equipment, it suitable for medical unit and home use.

Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission		
2	The Infrared thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of Infrared thermometer should assure that it is used in such an environment.	
3	Emissions test	Compliance
4	RF emissions CISPR 11	Group 1
5	RF emissions CISPR 11	Class B
6	Harmonic emissions IEC 61000-3-2	N/A
7	Voltage fluctuations / flicker emissions IEC 61000-3-3	N/A

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic immunity		
The infrared thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the infrared thermometer should assure that it is used in such an environment.		
Immunity test	EN 60601 test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 15 kV air	± 8 kV contact ± 15kV air
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	N/A
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	N/A
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5 % U _T (>95 % dip in U _T) for 0.5 cycle 40 % U _T (60 % dip in U _T) for 5 cycles 70 % U _T (30 % dip in U _T) for 25 cycles < 5 % U _T (>95 % dip in U _T) for 5 sec	N/A
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m
NOTE U _T is the a. c. mains voltage prior to application of the test level.		

Guidance and manufacturer's declaration – electromagnetic immunity – for EQUIPMENT and SYSTEM that are not LIFE-SUPPORTING

Guidance and manufacturer's declaration – electromagnetic immunity		
The infrared thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the infrared thermometer should assure that it is used in such an environment.		
Immunity test	EN 60601 test level	Compliance level
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	N/A

Table 9 - Test specifications for enclosure port immunity to RF wireless communications equipment

Test frequency (MHz)	Band ^{a)} (MHz)	Service ^{a)}	Modulation ^{b)}	Maximum power(W)	Distance(m)	Immunity TEST LEVEL (V/m)
385	380 -390	TETRA 400	Pulse modulation ^{b)} 18 Hz	1.8	0.3	27
450	430 - 470	GMRS 460, FRS 460	FM ^{c)} ± 5 kHz deviation	2	0.3	28
710	704 - 787	LTE Band 13, 17	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9
745						
780						
810	800 - 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation ^{b)} 18 Hz	2	0.3	28
870						
930						
1720						
1845	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation ^{b)} 217 Hz	2	0.3	28
1970						
2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation ^{b)} 217 Hz	2	0.3	28
5240	5100-5800	WLAN 802.11 a/n	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9
5500						
5785						

NOTE:

If necessary to achieve the immunity test level, the distance between the transmitting antenna and the me equipment or me system may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

a) For some services, only the uplink frequencies are included.

b) The carrier shall be modulated using a 50 % duty cycle square wave signal.

c) As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

5 About the Temperature

1) the concept of body temperature: the body temperature refers to the body's internal temperature, the so-called normal body temperature is a healthy person's body temperature, in accordance with the measurement location, time, different objects may show different results.

2) the normal body temperature, the different parts of the body to measure the results are not the same. Therefore, different parts of the measurement results should not be used to compare with each other. In physical health, multi test several times, prior to know their "normal temperature".

NOTE: Product measurement data are used only as an aid to diagnosis.

6 Maintenance and Attention

Please place Infrared thermometer in a cool and dry place, avoid direct sunlight;
- if a period of time not plan to use it, please cover the cap and remove the battery;

Please click the following ways to clean the probe:

Use a cotton swab or a soft cloth gently wipe with water or alcohol, and do not placed this product in water or a liquid immersion;

The packaging products should be stored in a temperature of - 20 °C - 55 °C, relative humidity is 15%~93% , non corrosive gases and well ventilated room.

For a long time (more than 3 months) is not in use, please remove the battery storage. In addition into the battery is not used for a long time, may be due to battery leakage caused by fault;

The treatment of waste batteries according to the city of relevant environmental protection regulations for processing;

- if there is in need of repair, can provide information required for the circuit diagram and maintenance, if there is any doubt from circuit maintenance , contact the manufacturer.

- if you don't comply with the above note matters and other proper use and lead to machine failure, the company does not assume responsibility for the quality.

NOTE: Please follow local laws to dispose of waste scrap.

Production specifications

No.	Item	Specifications
1	Name	Infrared Thermometer
2	Model	YK-IRT4
3	Product Categories	Internal power supply equipment BF type application part
4	Units of measurement	°C & °F key to switch
5	Range	34.0 C ~ 43.0 C
6	Range Indicator	<34.0 C Show Lo , >43.0 C Show Hi
7	Accuracy	< 34.0 C and >43.0 C : ±0.3 C 34.0 C ~ 43.0 C : ±0.2 C
8	Measuring position	Forehead
9	Measuring interval	About 6 s
10	Buzzer frequency	About 4kHz
11	Automatic shut-down	15 seconds after no operation
12	Low Voltage Tips	<2.4±0.4V , Battery symbol flashes
13	Memory function	Save last measured 32 memories (without memory Lo / Hi)
14	Operating Voltage	DC 2.4 ~ 3.3V
15	Working current	Standby: < 2uA , Power: <5 mA (VDD=3.0V)Without backlight
16	Power	2×1.5V AAA
17	Tri-color backlit	≤37.5 C Green , 37.6 C ~ 38.0 C Yellow , ≥38.1 C Red
18	Normal operating conditions	Ambient temperature: 15 C ~ 40 C Relative humidity: 30% ~ 85% Atmospheric pressure: 70kPa ~ 106kPa
19	Storage and transportation temperature	Ambient temperature: -20 C ~ 55 C Relative humidity: 15% ~ 93% Atmospheric pressure: 50kPa ~ 105kPa
20	Dimension	About 140mm×38mm×38mm (L×W×H)
21	Weight	About 50g
22	Service life	5 years
23	the time required for me equipment to warm from the minimum storage temperature between uses until it is ready for intended use; and	About 30min
24	the time required for me equipment to cool from the maximum storage temperature between uses until it is ready for intended use	About 20min
25	the time from switching "on" until the me equipment is ready for normal use, when it exceeds 15 s	About 10 seconds
26	Applied parts specified	Temperature probe and its circuit
27	Use specification	1.Expected medical instructions: Infrared thermometer can measure the human forehead temperature . 2.Expected patient population: Age: Adult/Children -Fever patient; -Other people who need to have their temperature taken 3.Expected use or interaction with body parts tissue type: Forehead 4.Expected user profile: Fever patients or people who need to measure their temperature, doctors, etc 5.Application environment: Avoid electromagnetic interference Extreme temperature Avoid pollution and dust Avoid direct sunlight, etc 6.Operating principle: Infrared thermometers measure temperature by detecting infrared energy radiating from a person's forehead.
28	Pollution degree	Pollution degree2:Micro-environment with non-conductive pollution,expect occasional conductivity caused by condensation
29	Overvoltage category classification	Class I
30	Accessories	2 AAA batteries

After-sale Service.

1.One year free warranty period will be provided after sales.

2.Our company cannot provide the free warranty service due to the malfunction caused by personal reason, details as follow:

- 1) The malfunction caused by disassemble and modify the product.
- 2) The product inner malfunction caused by dropping while picking up or operating.
- 3) The malfunction caused by improper used or lack of reasonable cared.
- 4) The malfunction caused by operating not following the operator's manual.
- 5) The malfunction caused by natural disasters, such as flooding, fire.
- 6) The malfunction caused by improper repaired by repaired shop which isn't our authorized.

3.Please show your valid warranty card and shopping vouchers when you need free service.

4.Please bring the product to repaired shop which is our authorized when you need free repaired.

5.When performing warranty service, if needed, you can provide information on product components to circuit diagrams and repairable identified by our qualified technical personnel.

6.We will collect reasonable charge when we repair some malfunctions which out warranty service.

Components

Components	Quantity
Host of infrared thermometer	1
AAA battery (Optional)	2
User manual	1

CE0123

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