

1. Device use and applicant scope

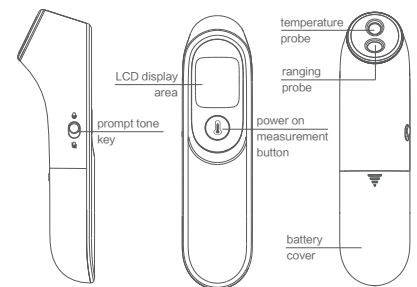
● This device is used to measure the body temperature by passively sensing infrared heat radiation collected from the human body's forehead, which can be used for families and medical departments to measure the body temperature.

● Intended use and application scope: This device is used to measure the forehead temperature of the human body, which is applicable to infants, children and adults.

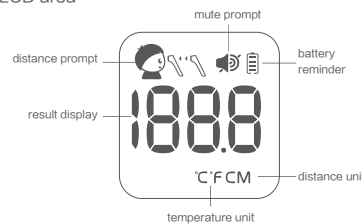
● Contraindication: None.

2. Device structure and composition

● Device main structure and composition
The thermometer consists of a housing, a sensor, a display, and a circuit board.



● LCD area



● Appendix:
Instructions, Quick Operation Guide, 2 Section 7 Alkaline Batteries.

3. The symbols related to safety requirements in this device and their meanings:

Symbols	Implication
	Type BF application part
	Caution! Consult instruction of product
	Paper recycling
	This side up
	Fragile
	Non-rainproof
	Not to be disposed of as ordinary waste
	Electronic information product pollution control mark environmental protection use period is 10 years. Consumables are not included

4. Matters need attention

1. The measurement result is only for reference, which is not a substitute for a physician's diagnosis. It is very dangerous to self-judge and treat only based on the measurement result. Please follow the doctor's instructions.

2. Please put the battery out of the reach of children, otherwise it is dangerous.

3. When the product is not used for a long time (more than 3 months), remove the battery from device to prevent the battery leakage.

4. It is forbidden to immerse the infrared thermometer in any liquid, and it is forbidden to use it for a long time under too high or low temperature condition. No collisions, drops and mixing with sharp objects.

5. Do not put the battery close to the fire or into the fire to avoid the battery explosion. Do not use the battery when it leaks or molds; when discarding batteries or this product, it should be following local regulations to avoid contamination.

6. This product contains sensitive electronic components, should avoid strong electromagnetic interference.

7. Please read this instruction carefully before use to confirm that the battery is installed.

8. Do not disassemble, repair or remold this device, which may lead to measurement error or machine malfunction.

9. This product is not waterproof and should be used carefully to prevent liquid from entering the product. When the product gets wet due to contact with steam, use after it become dry or gently wipe with a soft dry cloth or cotton ball, otherwise it will cause measurement errors.

10. If there is temperature difference compared environment of the device storage with that of the measuring environment, place the device in the measuring environment for more than 30 minutes, otherwise there may be error for the measurement result.

11. When lens of sensor becomes dirty, please wipe it gently with a soft dry cloth or cotton swab. Do not wipe it with other material, otherwise it may cause lens surface of sensor abrasion or machine malfunction.

12. Do not try to measure when the device is wet, which may cause measurement results inaccurate.

13. Before measurement, please make sure that there is no sweat, cosmetics or oil stains on the forehead of subject.

14. Before measuring, please make sure that the subject does not take a bath, exercise or have a meal within 30 minutes, and the body is measured at a steady state.

15. Before use, please keep sensor and cavities clean.

16. During measurement, do not let the subject directly face the air outlet of the sun, air conditioner or heater, which will change the temperature of the forehead. Please conduct measurement in a stable environment as far as possible.

17. Under the condition which meets the requirement of storage, the usage period of the device is 5 years (fragile and consumable parts are not included).

5. Installation and usage

● Installing the battery

The device is supplied with 2 Section 7 alkaline batteries. Push the battery cover downward and load the battery into the battery compartment. At this time, the device will start self-inspection. Pay attention to the positive and negative poles instruction in the battery compartment and cover the battery cover. Refer to the picture at right:

● Setting measure unit

In the shutdown state, long press the starting measuring button "" for 10 seconds to enter the temperature unit conversion state, and then short press the starting measuring button "" to select "°C" and "°F" temperature unit.

● Measure temperature of human body

1. Point the infrared thermometer probe at the center of eyebrow, within 0–5cm of the forehead (do not touch the forehead directly).

2. Press the Start measuring button "". After about 1 second, the infrared thermometer will have vibration and sound prompts to display the measurement results.

Notes:

① When the measurement distance is more than about 5 cm, the word "0-5" will be displayed on the screen, please close to the subject, as the picture shown at right;



[close to the measurement indication]

② When the measurement distance is less than about 5 cm, the device will automatically measure, after the measurement, it will vibrate and have "di" sound, and measurement result will be displayed.

③ When temperature is 37.6 °C or higher, the device will make quick continuous three-time "di-di-di" alarm sound.

④ When the measured result is beyond device measurement range (32 °C~43 °C), thermometer will make quick continuous three-time "di-di-di" alarm sound, please make sure the measurement method and the external environment is normal at this time.

● Sound on/off setting

When the prompt on/off button slides to "", the sound is off;

When the prompt on/off button slides to "", the sound is on.

● Power off

① Long press Starting measurement button "" for 3~5 seconds to turn off the device;

② In the absence of any operation, the device will automatically shut down after about 30 seconds.

6. Product maintenance and upkeep method

As the product is reusable device, please pay attention to cleaning and disinfection after use.

If the product is dirty, please keep the sensor and probe cavity clean, otherwise the measurement accuracy will be affected.

How to clean sensor and probe cavity: gently wipe the inner cavity or sensor mirror with a clean soft cloth or

cotton swab.

Disinfection of the product and its head: Gently wipe the surface of the product and the head used for measurement with a cotton swab dipped in a little medical alcohol (70%), it can be used until the alcohol has completely evaporated.

● Precaution for storage

This product should be stored in a dust-free, dry place, please avoid direct sunlight; do not store in places with high temperature, humidity, dust and corrosive gas.

This product is a high-precision device, please do not drop the device! Avoid drastic collisions and jolts and other adverse possibilities for transport.

If the probe or the product itself has been damaged, do not continue to use it. Please do not use this product for any purposes other than its intended use. When it is used for children, please observe the general safety precautions.

7. Common failures and troubleshooting methods

Phenomenon of breakdown	Possible cause	Troubleshooting methods
The screen display "Lo"	The measurement temperature is lower than 32°C, which is beyond the measurement range	Please re-measure following the product instruction
The screen display "Hi"	The measurement temperature is higher than 43°C, which is beyond the measurement range	Please re-measure following the product instruction
The screen display "Er1"	The environment temperature is too high or too low	Please measure under the 16°C~35°C environment temperature
The screen display "□"	The power of cell is shortage	Change the cell
No display or abnormal display	The positive and negative poles of the cell are reversed or the device is abnormal	Re-install the cell, or contact the dealer

8. Measurement and transport storage environment

● measurement environment:

Environment temperature: 16°C~35°C

Relative humidity: ≤85%(RH)

Atmospheric pressure: 70kPa~106kPa

● Transportation and storage environment:

Environment temperature: -20°C~+55°C

Relative humidity: ≤85%(RH)

Atmospheric pressure: 70kPa~106kPa

9. Product technical parameters

● Power source: DC 3V(2 Section 7 alkaline batteries)

● Measurement range: 32.0°C~43.0°C

● Display resolution: 0.1°C

● Measurement accuracy: ±0.2°C in the range of 35.0°C~42.0°C
±0.3°C in the range of 32.0°C~34.9°C and 42.1°C~43.0°C

● Electric shock protection: the device is supplied by internal power

● Applied part: BF Type

● Running mode: continuous running

● Temperature units: °C/°F

● Degrees of protection against ingress liquid: IP20 (solid foreign matter whose diameter are greater than or equal to 12.5mm can be prevented from entering, no protection against ingress liquid)

● Safety classification: the device that cannot be used in the presence of flammable anesthetic gases mixed with air or oxygen or nitrous oxide

● Product size: 149 × 38 × 42(mm)

● Product weight: about 68g (not including cell)

10. Warranty card

Warranty card
Product name:
Infrared thermometer
Model:
YT-1

11. The Use of Electromagnetic Environment Guidance

This product complies with the Electromagnetic Compatibility (EMC) standard for safe operation of electrical equipment for medical use and YY0505-2012.

The standard of YY0505-2012 (item 6.8.2.201) stipulates that users should be provided with detailed information related to EMC environment for safe operation of equipment. And the following is the description of technical instructions related to EMC. (For details, please refer to YY0505-2012.)

The Electromagnetic Compatibility (EMC) standard represented by YY0505 set a criterion for the safe operation of electrical equipment for medical use. The standard stipulates that the interference of the noise generated by the equipment to other devices should be controlled within a certain range, so is the electromagnetic wave dry disturbance emitted by other devices (mobile phones, etc.).

1. Definition of EMC (electromagnetic compatibility)
EMC refers to the ability to satisfy the following two requirements.

● No unallowable electromagnetic interference noise will be emitted to other nearby electronic devices.

(Radiation)

● The device can work normally in the electromagnetic environment with noise and other interference from other electronic devices. (Noise immunity)

2. Technical specification on EMC (electromagnetic compatibility)

Electrical equipment for medical use requires specific instructions for EMC and should be operated in accordance with the following EMC information.

● This device requires special instructions on electromagnetic compatibility (EMC). Please use the device in accordance with the EMC information described in this manual.

● Portable and wireless radio frequency (RF) communication devices may affect the device.

● When using this device, do not place it adjacent to or stack it with other devices.

Table 1 – Guidelines and Manufacturer's Declaration – Electromagnetic Radiation --About all medical electrical equipment and systems.

Guidelines and Manufacturer's Declaration – Electromagnetic Radiation		
The product should only be operated in the electromagnetic environment specified below. Purchasers and users should ensure that the product is operated in the specified electromagnetic environment.		
Radiation test	Compliance	Electromagnetic environment – guidelines
RF radiation GB4824	Group 1	This product uses RF energy only for its internal functions. Therefore, the RF radiation is extremely low, which is less likely to produce interference with surrounding electronic devices.
RF radiation GB4824	Type B	This product applies to all facilities, including the following ones, namely, the facilities of public low-voltage power grid which are directly connected to family facilities and buildings to achieve power supply.
Harmonic radiation GB 17625.1	NA	
Voltage Variation/ Scintillation GB 17625.2	NA	

Table 2–Guidelines and Manufacturer's Declaration – Electromagnetic Immunity--About all medical electrical equipment and systems

Guidelines and Manufacturer's Declaration – Electromagnetic Immunity			
The product should only be operated in the electromagnetic environment specified below. Purchasers and users should ensure that the product is operated in the specified electromagnetic environment.			
Immunity test	YY0505 Test level	Compliance level	Electromagnetic environment guideline

Electrostatic discharge (ESD) GB/T 17626.2	Exposure ± 6kV Air ± 8kV	Exposure ± 6kV Air ± 8kV	It is highly recommended to pave the ground with wooden, concrete or tile floorings. When the flooring is coated with synthetic materials, the relative humidity (RH) is recommended to be reduced by 30%.
EFT / Burst GB/T 17626.4	Power circuit ± 2kV Incoming/output circuit ± 1kV	NA	NA
Surge GB/T 17626.5	± 1 kV wire to wire ± 2 kV wire to earth wire	NA	NA
The voltage dip, short-time outage and voltage variation of power input circuit GB/T 17626.11	<5% U _T (>95% U _T 's dip) 0.5 cycle 40% U _T (60% U _T 's dip) 5 cycles 70% U _T (30% U _T 's dip) 25 cycles <5% U _T (>95% U _T 's dip) 5 cycles	NA	NA
Power frequency (50/ 60 Hz) Magnetic field GB/T 17626.8	3 A/m	3 A/m	The level of the power frequency magnetic field in commercial environments or hospitals should be same with that in general venues.

Note: U_T represents AC grid voltage before applying testing voltage.

Table 3 – Guidelines and Manufacturer's Declaration – Electromagnetic Immunity – About medical electrical equipment and systems for non-life support


Guidelines and Manufacturer's Declaration – Electromagnetic Immunity			
The product should only be operated in the electromagnetic environment specified below. Purchasers and users should ensure that the product is operated in the specified electromagnetic environment.			
Immunity test	YY0505 Test level	Compliance level	Electromagnetic environment
Conduction RF GB/T 17626.6 Radiation RF GB/T 17626.3	3 Vrms 150 kHz ~ 80 MHz 3 V/m 80 MHz ~ 2.5 GHz	NA 3 V/m	The portable and mobile RF communication devices should not be used within the recommended spacing distance calculated by the equation corresponding to the transmitter frequency, which is applicable for all parts of the product. The recommended spacing distance is not applicable. d=1.2 √P 80 MHz ~ 800 MHz d=2.3 √P 800 MHz ~ 2.5 GHz In which, P is Transmitter manufacturer specified by the transmitter manufacturer, which is expressed in Watt(W), and, d is recommended spacing distance, with its unit being meter(m). The electric field strength of a fixed RF transmitter is determined by a site survey of the electromagnetic field a) and should be lower than the compliance level in each frequency range. Interference may be triggered near equipment marked with the following symbols. 
Note 1: When the frequency ranges from 80 MHz to 800 , the separation distance for the higher frequency should be applied.			
Note 2: These guidelines are not applicable to all circumstances for the propagation of electromagnetic waves can also be affected by the absorption and reflection of buildings, objects, and human bodies.			
a) The electric field strengths produced by stationary transmitters from the base stations of wireless (mobile/wireless) telephones and land mobile radio , amateur radios, AM/FM broadcasts, and television stations cannot be theoretically estimated correctly.			

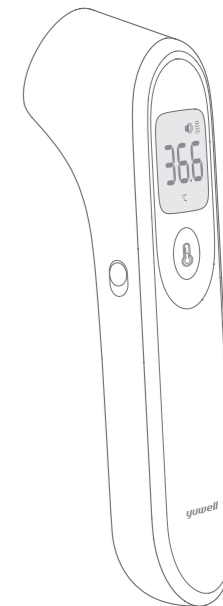
Table 4 – The recommended separation distance between portable, mobile RF communication devices and medical electrical equipment or systems

The recommended separation distance between portable , mobile RF communication devices and the product				
The product should be operated in an electromagnetic environment where the RF interference is under control. To restrain electromagnetic interference, purchasers or users of this product shall ensure that the minimum separation distance between the following recommended portable, mobile RF communication devices (transmitters) and the product is maintained according to the maximum rated output of the devices.				
The maximum output rating of the transmitter (W)	The separation distance based on the transmitter frequency (m)			
	150 kHz ~ 80 MHz d=1.2 √P	80 MHz ~ 800 MHz d=1.2 √P	800 MHz ~ 2.5 GHz d=2.3 √P	
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 those transmitters whose maximum rated outputs are not included in the above table, the recommended separation distance d expressed in meters (m) can be computed by the equation associated with the transmitter frequencies, where P stands for the maximum rated output expressed in watts (W) as specified by the manufacturer of the transmitter. Note 1: When the frequency ranges from 80 MHz to 800 , the separation distance for the higher frequency should be applied. Note 2: These guidelines are not applicable to all circumstances for the propagation of electromagnetic waves can also be affected by the absorption and reflection of buildings, objects, and human bodies.				

Toxic and hazardous substances and the associated compounds or elements

Part name	Toxic and hazardous substances and the associated compounds or elements					
	Lead and its compounds ≤ 1000 PPM	Mercury and its compounds ≤ 1000 PPM	Cadmium and its compounds ≤ 100 PPM	Hexavalent chromium and its compounds ≤ 1000 PPM	Polybrominated biphenyl and its compounds ≤ 1000 PPM	Polybrominated diphenyl ether and its compounds ≤ 1000 PPM
Plastic Enclosure	○	○	○	○	○	○
Internal cables	○	○	○	○	○	○
Circuit board (with LCD)	×	○	○	○	○	○
Battery*	○	○	○	○	○	○
Packing materials	○	○	○	○	○	○
The table is produced based on the stipulation of SJ/T11364 ○: It indicates that the content of toxic and hazardous substances in all homogeneous materials of the component is below the limit specified in GB/T26572 standard. ×: It indicates that the content of the toxic and hazardous substance in one of the homogeneous materials of the component exceeds the limit specified in GB/T 26572 standard.						

yuwell



YT-1
Infrared Thermometer

User Manual And Technical Instruction

Please read the user manual carefully and follow the instructions before use. For date of manufacture, please refer to the packing.

Registrant / Production Enterprise / After-sales Service Unit:
Jiangsu Yuyue Medical Equipment Co., Ltd.
Address / Production Address: Yunyang Industrial Park
(South of Zhenxin Road), Danyang City, Jiangsu Province
Tel: 0511-86900833
Zip code: 212300
Revision date: April, 2019



英文YT-1红外体温计说明书印刷要求

尺寸：420X160mm

色彩：准确、单色，层次分明

纸张：128g铜版纸、不需做圆角

印后加工：六折