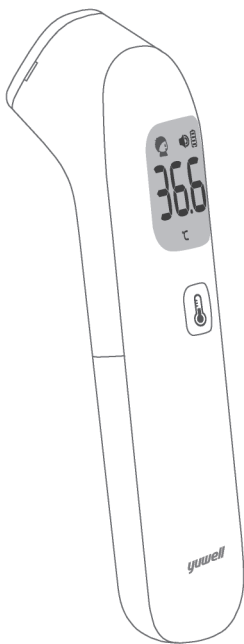


# yuwell



## YHW-5 Infrared Thermometer

### User Manual And Technical Instruction

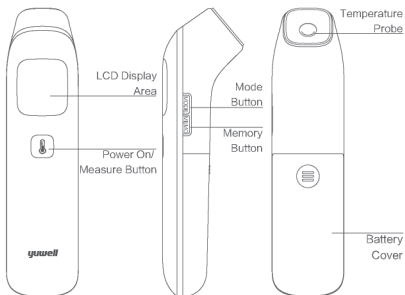
Please read the user manual carefully and follow the instructions before use. For date of manufacture, please refer to the packing. The picture is for reference only, please refer to the actual product.

## 1. Product Overview And Performance

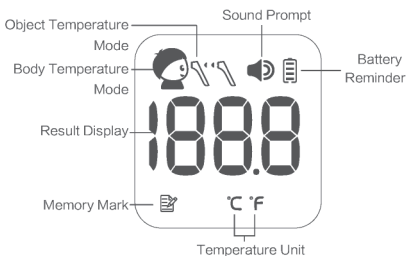
- Product name: Infrared thermometer
- Model / Specification: YHW-5
- Intended use: This device is used to measure the body temperature by passively sensing infrared heat radiation collected from the human body's forehead.
- Contraindication: None
- Temperature display range:  
Body temperature mode: 32.0°C~43.0°C  
Object temperature mode: 0°C~60.0°C
- Display resolution: 0.1°C

## 2. Device Structure And Composition











- The infrared thermometer consists of an infrared sensor, a signal receiving processor, an LCD, a COB board, a buzzer, a plastic shell, a battery cover, a panel and buttons.



## 3. About The Display Screen



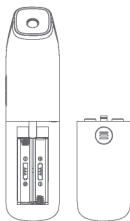
#### 4. The Symbols Related To Safety Requirements In This Device And Their Meanings:


Symbols	Implication
	Power on/ Measure button
	Equipment with type BF applied parts
	Caution! Follow instructions
	Paper recycling
	This side up
	Fragile
	Non-rainproof
	Not to be disposed of as ordinary waste
	Manufacturer
	Electronic information product pollution control mark, environmental protection use period is 10 years. Consumables are not included

#### 5. Installing The Battery



##### ● Installing the battery

The device is supplied with 2 AAA alkaline batteries. Push the battery cover downward and load the batteries into the battery compartment. 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:



 Note: The batteries attached to this machine is for trial use, please replace them with new batteries when testing.

##### ● Battery replacement method

When "  " symbol is displayed, please replace with 2 new AAA batteries. When "  " symbol is displayed, the device will shut down immediately and cannot be powered on, please replace with 2 new AAA batteries. If the device cannot power on, please check if the batteries are aligned properly as indicated inside the battery compartment and check the battery level.

## 6. How To Switch The Temperature Unit

### ● Temperature unit settings

This product provides two options for measuring temperature units in Celsius and Fahrenheit (°C/°F).

Step 1: In shutdown state, press and hold the Mode button for about 3 seconds.

Step 2: When a flickering temperature unit appears on the screen, press the Mode button again to select the temperature unit you want.

Step 3: Press Power on/Measure button "  " to confirm.

Caution:

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

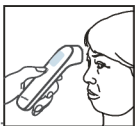
● Keep the battery out of reach of children. If swallowed, seek medical attention immediately.

● Please dispose of the used battery in accordance with relevant local regulations.

## 7. Correct Use Method

● Body temperature mode and object temperature mode are available on this product.


● Before taking the body temperature, please make sure to select the body temperature mode.




● Body temperature mode:




Step 1: Remove the cover.

Step 2: Point the infrared thermometer probe at the center of eyebrows, 0–3 cm away from the forehead (do not touch the forehead directly). As shown in the figure above.

Step 3: Press Power on/Measure button "  " once to power on (the mode is the body temperature by default).

Step 4: Press the Power on/Measure button "  " once, when you hear "di-di" sound, measurement is finished and the result will be displayed on the screen.

● Object temperature mode:


Press the Mode button once in boot state and "  " symbol flickers, press Mode button to switch mode. When the "  " symbol flickers, get close to the measured object and press the Power on/Measure button "  " to confirm and measurement result will be displayed.

● Sound on/off settings

Step 1: Press and hold Mode button in shutdown state.

Step 2: When a flickering temperature unit symbol appears on the screen, press the Memory button to enter the sound on/off selection interface, and then press the Mode button to select the sound on or sound off.

Step 2: Press Power on/Measure button "  " once to confirm and the thermometer will shut down.

 Note: When the measurement result is beyond temperature display range (body temperature mode: 32.0°C~43.0°C), the screen shows orange backlight. Please make sure the measure method is correct and environment is normal.

When the body temperature is 37.6°C or higher, the device will make a " di " followed by quick continuous "di-di-di" sound and the screen shows orange backlight.

## 8. Matters Need Attention

This product is suitable for people: no age limit, no gender limit.

● The measurement results are only for reference and cannot replace the diagnosis of doctors.

Self-judgment and treatment of measurement results are dangerous. Please follow the doctor's instructions.

● The patient and thermometer should remain under the similar indoor conditions for at least 30 min.


● Please put the thermometer out of the reach of children.

● Do not use this device in the high-humidity environment.

● Before and during body temperature measurement, the patient should not drink wine, eat or do exercise.

● Do not move the thermometer away from the measured area until the sound prompt ends.

● Keep the device at the same area all the time when measuring because the temperature reading may vary with the areas.

 Note: Under the following circumstances, it is suggested to measure three times and take the highest temperature as the final result:

● Children under 3 years of age with compromised immune systems and those who have a fever or not have a great impact on them.

● When a user learns to measure first time, measure many times till he/she is familiar with this device and able to get stable result.

● The measurement result is abnormally low.


The temperature result measured at different points should not be compared, because they will vary with

the measured points and time. Even in a day, the human body temperature is the highest at dusk and the lowest one hour before waking up.


## 9. Error Information And Solution

Phenomenon of breakdown	Possible cause	Troubleshooting methods
The screen display "Lo"	In body temperature mode, when the measurement result is less than 32.0°C ; in object temperature mode, when the measurement result is less than 0.0°C	Please remeasure following the product instruction
The screen display "Hi"	In body temperature mode, when the measurement result is greater than 43.0°C; in object temperature mode, when the measurement result is greater than 60.0°C	Please remeasure following the product instructions
The screen display "Er1"	Operating temperature is lower than the set value	Keep the device at a temperature environment between 10°C and 40°C for 30 min before measuring. If the method doesn't work, please contact the dealer and the manufacturer for repair.
The screen display "Er2"	Operating temperature is higher than the set value	
The screen display "Er4"	Sensor error	Please contact the dealer for repair.
The screen display "□"	The power of batteries is shortage	Replace with new batteries

## 10. Memory Function

Step 1: Press the Power on/ Measure button "  " to power on.


Step 2: Press the Memory button to query the memory value. The infrared thermometer can store 20 sets of memory values. When the specified number of groups is exceeded, the latest memory value will cover the earliest memory value.

Step 3: Exit the memory state, you may press the Power on/Measure button "  " or the device will power off automatically without any operation for 60s.

## 11. Important Safety Instructions

The infrared thermometer measures the temperature by detecting the infrared energy radiated by a person's forehead or other targets. When measuring human body temperature, by detecting the position of the center of eyebrows, the probe's built-in infrared sensor collects infrared signals and converts them into temperature values. This product is only suitable for the use described in the instructions. The manufacturer bears no responsibility for any damage due to improper use .

- Never soak this device in water or other liquids.
- If the product is found to be obviously abnormal, send the product for repair.
- Please do not disassemble this device without authorization.
- In the early stages of fever, vasoconstriction occurs and the skin surface temperature drops. The temperature measured at this time will be abnormally low.
- If the measurement result is inconsistent with the diagnostic result or the measured temperature is abnormally low, measure once every 15 minutes or measure another core temperature area to verify the previous measurement result.
- Since this device contains temperature sensitive elements, treat it with care. For the storage and operating conditions, refer to "Symbols and meaning related to safety requirements for this device" herein.
- Since there are tiny parts in the device, children can use it only under supervision of an adult so as to prevent them from being accidentally swallowed.
- Keep away from the following situations: 1. Extreme temperature; 2. Impact and drop; 3. Pollution and dust; 4. Direct sunlight; 5. Alternating hot and cold environment.
- If the device will not be used for a long time, please remove the batteries and store them.

 **Warning:** The use of this device is not a substitute for seeking medical attention. This device is not waterproof, please do not immerse it in liquid.

## 12. Maintenance Method

Keep the thermometer surface clean and tidy, which will help to extend the life of the thermometer. If the machine is dirty, please wipe it with clean soft cotton cloth. If the dirt is not easy to remove, you can wipe it with a soft cotton cloth dipped in medical alcohol.



Note: Do not let water or other liquids enter inside the device.

### 13. Precautions For Storage:

● This thermometer contains sensitive electronic components and should be avoided directly used in an environment with strong electromagnetic wave interference (e. g., near mobile phone, microwave oven, etc.) to prevent temporary impact on its accuracy.

● Please do not use such liquids as volatile oil, diluent or gasoline to wipe this device.

● Please do not store the device in the place where there is direct sunlight, high temperature and humidity, much dust or corrosive gas.

● If the device is not used for a long time (over 3 months), please take out the batteries.

● Please do not use this device for any purposes other than its intended use. When it is used for children, please observe the general safety precautions.

● If the probe or the device itself has been damaged, do not continue to use it.

● Please do not throw the device onto the ground, so as to avoid strong impact and shock on it.

● Under the condition which meets the requirement of storage, the use period of the device is 3 years(excluding fragile and consumable parts).



Note:

● Please keep the battery out of reach of the children. If the battery is swallowed by children, please seek medical attention immediately.

● Please dispose of the used battery in accordance with relevant local regulations.

● Please do not place the battery near any combustion source or put into fire to avoid explosion. Do not use when the battery leaks or becomes moldy.

● In order to avoid short circuit, please do not put metal objects such as battery, coin or a string of keys in the same pocket with batteries or other containers that might lead to battery short circuit.




Note: The company will not be responsible for the quality of the machine failure caused by your failure to observe the above storage precautions and other correct use methods.

### 14. Product Technical Parameters

● Power supply: DC 2 × 1.5V( ± 10%)

● Temperature display range(Body temperature mode): 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: Type BF applied parts 
- Operation mode: continuous operation
- Temperature units: °C/°F
- Degrees of protection provided by enclosures (IP code): IPX0
- 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: 152 × 38 × 43(mm)
- Product weight: about 70g (not including batteries)
- Number of memory groups: 20 groups
- Measurement method: non-contact measurement
- Measurement site: forehead

## 15. Measurement And Transport Storage Environment

- Measurement environment:  
Environment temperature: 16°C ~ 35°C  
Relative humidity: ≤85%, no condensation  
Atmospheric pressure: 70kPa ~ 106kPa
- Transportation and storage environment:  
Ambient temperature: -20°C ~ +55°C  
Relative humidity: ≤85%, no condensation  
Atmospheric pressure: 70kPa ~ 106kPa

## 16. Clinical Accuracy And Safety Verification

Through clinical comparison, its clinical accuracy and safety comply with the clinical use requirements and can meet the clinical application demand.

## 17. List Of Accessories

- |                              |                 |
|------------------------------|-----------------|
| Infrared thermometer: 1      | Instructions: 1 |
| Certificate of conformity: 1 | Cover: 1        |
| AAA alkaline batteries: 2    |                 |

During warranty service, if the circuit diagram and other necessary materials are needed, or if there is any problem in the overhaul of the electrical circuit, please contact the manufacturer.

After opening the package, check the items according to the list of accessories and check

whether the thermometer is mechanically damaged. If you find any problems, please contact the manufacturer or distributor immediately.

## 18. 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 GB 4824	Group 1	The product uses radio frequency energy only for their internal functions. As a result, its RF emission is very low and there is little chance of interference with accessory electronics.
RF radiation GB 4824	Class B	The product is suitable for use in non-domestic and all installations not directly connected to the public low-voltage power supply network for domestic residences.
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	IEC 60601 Test level	Compliance level	Electromagnetic environment guideline

Electrostatic discharge (ESD) GB/T 17626.2	Exposure ± 6 kV contact ± 8 kV air	Exposure ± 6 kV contact ± 8 kV air	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	IEC60601 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	<p>Portable and mobile RF communications equipment should be used no closer to any part of the thermometer, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance  <math>d = 1.2 \sqrt{P}</math>                      80 MHz ~ 800 MHz  <math>d = 2.3 \sqrt{P}</math>                      800 MHz ~ 2.5 GHz                      where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey a), should be less than the compliance level in each frequency range b).</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol: </p>
<p>Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people</p> <p>a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted</p>			

theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the thermometer is used exceeds the applicable RF compliance level above, the thermometer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re orienting or relocating thermometer.

b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m

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 $d=1.2\sqrt{P}$	80 MHz ~ 800 MHz $d=1.2\sqrt{P}$	800 MHz ~ 2.5 GHz $d=2.3\sqrt{P}$
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
<p>For those transmitters whose maximum rated outputs are not included in the above table, the recommended separation distance <math>d</math> expressed in meters (m) can be computed by the equation associated with the transmitter frequencies, where <math>P</math> stands for the maximum rated output expressed in watts (W) as specified by the manufacturer of the transmitter.</p> <p>Note 1: When the frequency ranges from 80 MHz to 800 MHz, the separation distance for the higher frequency should be applied.</p> <p>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.</p>			

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 $\leq 1000$ PPM	Mercury and its compounds $\leq 1000$ PPM	Cadmium and its compounds $\leq 100$	Hexavalent chromium and its compounds $\leq 1000$ PPM	Polybrominated biphenyl and its compounds $\leq 1000$	Polybrominated diphenyl ether and its compounds $\leq 1000$ 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.

19. Warranty Card

Warranty card

Product name:  
Infrared thermometer

Model:  
YHW-5



JIANGSU YUYUE MEDICAL EQUIPMENT & SUPPLY CO.,LTD.

No.1 Baisheng Road Development Zone, Danyang,

Jiangsu 212300 CHINA

[www.yuwell.com](http://www.yuwell.com)

R



3: Jan. 2022

230614-0A

