WOODPECKER®

Infrared thermometer Instruction Manual

Model: WT-2

· Thank you for purchasing Woodpecker Non-contact Infrared thermometer.
· In order to use this product safely, please read the instruction manual before use.
· After reading, please keep it in a safe place for easy check and reference.
· This product is powered by 3V. Please use AAA alkaline batteries. Consumers need to buy a suitable AAA battery by themselves.
· This product is for temperature measurement only, not for disease diagnosis.
· Please consult your doctor for all treatments.

Guilin Woodpecker Medical Instrument Co., Ltd.

Contents

1. Description

This product is a thermometer that uses infrared technology to measure human body temperature. It can measure human body temperature by just pointing the product at the human forehead, pressing the measurement button. The body temperature will be displayed on screen within 1 seconds. It is simple and fast.

2. Intended use and scope of application

By measuring the heat radiation from the forehead, it can show the body temperature of the target group. The product can be reused.

3. Operational environment

Ambient temperature: 16 ℃ ~ 35 ℃
Relative humidity: ≤93%
Atmospheric pressure: 70kPa-106kPa

4. Structure and component

Product structure and composition: It is mainly composed of infrared sensor, circuit board, displaying components and casing

5. Technical data

Product name: Infrared thermometer
Model: WT-2
Measurement site: Forehead
Measuring range: 32.0 ℃ ~ 42.5 ℃
Resolution: 0.1 ℃
Maximum allowable error: 32.0 ℃ ~ 42.5 ℃ ± 0.3 ℃
Battery prompts: low battery prompts
Automatic shutdown time: If there is no operation for 60s, the device will automatically shut down.
Size: about 153 × 93 × 41mm (length x width x height)

6. Features

1. This product can quickly measure human body temperature through the forehead of the human body, with simple operation and fast measurement.
2. Type of protection against electric shock: Internal power supply equipment
3. Degree of protection against electric shock: BF applied part
4. Degree of protection against harmful ingress of water: Ordinary equipment
5. Degree of safety application in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide: Equipment cannot be used in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.
6. Type of operation mode: Continuous operating device
7. The Infrared thermometer does not have an application part that protects against the effects of defibrillation discharge.
8. The Infrared thermometer has no signal input or signal output.
9. Rated voltage of the equipment: DC 3V.
10. Non-permanently installed equipment

7. Configurations

Infrared thermometer	X1	Manual	X1
Certificate	X1		

8. Contraindication

N/A

9. Installation and adjustment

1. Battery installation and replacement

If the product display indicates low battery, replace the battery. Before first use, load the battery.

Open the battery cover, load two AAA batteries as the picture shown, and install the battery cover.

2. Function setting:

2.1℃ and ℉ temperature unit conversion

Press the “ ⏻ ” key to turn on / off, press the “℃ / ℉ ” key to enter the temperature unit conversion mode, and select “℃ or ℉ ”.

2.2 Conversion of body measurement and object measurement modes

Press the “ ⏻ ” key for power on, and press the “MODE” key to select the body measurement mode or object measurement modes.

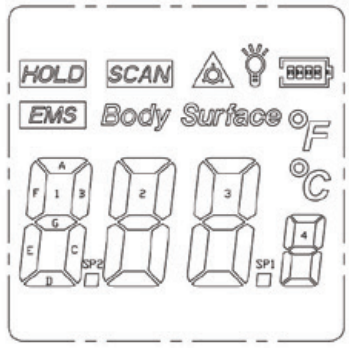
2.3 Measurement

Press and hold the measurement key to test.

10. Operation method

1. Body temperature measurement

Press the “ ⏻ ” key for power-on, wait for the display for about 2 seconds, and the buzzer will beep once which means that the product enters the forehead temperature measurement mode. Point the device at human forehead, and press the measurement button. With a “beep” sound, the measurements ends and the temperature will be displayed on screen. As shown below:



⚠ Note: When measuring, you need to aim at the forehead, <5cm for temperature measurement.

2. Power-off

If there is no operation after the measurement, the product will automatically shut down in about 60 seconds.

3. Cleaning and disinfection

The product and its accessories cannot be autoclaved. Do not use strong acid or alkaline solution for disinfection.

Before each use, the applied part on patient should be wiped and disinfected with 75% medical alcohol.

The product does not need to be cleaned and disinfected frequently during normal use. When the following conditions are found, please follow the instructions.

(1) External dirt: Wipe the dirt with a clean soft cloth and water, or wipe with a cotton swab and medical alcohol. Wiping with medical alcohol can also have sterilization effect. Take care not to add too much water or alcohol to prevent damage to the product if it flows into the interior.

(2) Internal dirt: The internal infrared detector is an important device. Do not touch or press with your fingers or other objects, otherwise the accuracy of the measurement value will be affected. When the infrared sensor is found to be dirty, wipe it with a cotton swab moistened with 95% absolute alcohol.

Note: Do not wipe the infrared detector with 75% sterilized alcohol (as the water traces will remain). Do not wipe the IR detector with other chemicals (as it will damage the IR detector).

4. Q&A

FAQ 1: The temperature cannot be displayed, and the full-screen display is repeated after booting. What is the cause?

Answer: If this kind of problem occurs in the Infrared thermometer, it can be basically determined that the battery is low. You can try to replace the battery with a new one.

FAQ 2: When some people's body temperature is measured in the same environment, if the screen displays "Lo", what is the reason?

Answer: The possible causes to be excluded are as follows:

1. When the person's forehead is covered with hair or sweat, the patient had been pasted with antipyretic paste or taken antipyretic drugs, or the forehead is pointed at the air conditioner and strong wind is blown across the surface, "Lo" may appear. Please have a rest in a stable environment for 5-10 minutes before measuring.

2. There are extremely few people whose surface temperature is lower than other people. If an individual shows "Lo" for each measurement, you can compare the forehead temperature with the back of the hand with others, and then test the body temperature of other people for comparison.

B: When the body temperature of an individual (not all human bodies) appears "Lo", it can be deemed as a normal body temperature. The main concern is the over-temperature prompts ("HI"). The appearance of "Lo" indicates that the surface temperature of the forehead of the human body is very low at this time, which is beyond the display range of the product. The main reasons why the screen shows Lo:

Reasons why the screen shows Lo	**Advice**
There is hair or sweat on the forehead when reading temperature.	Make sure there are no obstacles on the forehead
Cold air blows forehead	Make sure no cold air is blowing directly on the forehead
Forehead just cold applied	Wait for 10 minutes after cold compress before measuring
The measurement distance is too long	Recommended measurement distance is 3-5cm

FAQ 3: Is the product harmful to the human body and is it radiating to the human body?

Answer: The principle of the product is to calculate the body temperature of the human body by collecting the infrared radiation of the human body. The product does not directly contact the human body and does not cause cross infection of different human bodies. Therefore, it is harmless to the human body, so please rest assured that the use of.

FAQ 4: What is the difference between an Infrared thermometer and a mercury thermometer?

Answer: 1.The Infrared thermometer is non-contact type. The mercury thermometer needs to directly contact the human body, which is likely to cause cross infection between different human bodies.

2. The mercury thermometer has a long measurement time, which makes it not easy to read and not safe, especially when measuring the temperature of children, it is not easy to pinch because children are active, which brings great inconvenience to parents.

11. Troubleshooting

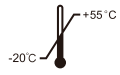
Abnormality	Cause	Solution
Display object temperature as "Hi" and "L0	Ambient temperature exceeds the specified range	Use the product under its using environment conditions
Display body temperature as "Hi"	Body temperature is higher than 43.0 ℃	1. Strict operation according to instructions 2. Contact the manufacturer
Display body temperature as "H0"	Body temperature is below 32.0 ℃	1. Strict operation according to instructions 2. Contact the manufacturer
Battery level indicator flashes	Low battery	Replace the battery
Err	Defective sensor or hardware	Contact the manufacturer

12. Cautions

1. Please read the instruction manual carefully before use. Improper use may cause loss of product performance and incorrect measurement values.
2. Other obstacles or local lesions at measured site such as inflammation, trauma, and postoperative will affect the accuracy of measurement.
3. This product has been calibrated. If it is used according to the instruction manual, it does not need to be recalibrated.
4. This product is not a substitute for physician consultation.
5. Please do not take shower or exercise before measurement. Please keep the person being measured and the product in the measurement environment for more than 30 minutes.
6. Please use it under the operating environment of this product.
7. Please do not drop the product on the ground, and please avoid strong impact and shock.
8. If it will not be used for a long time (more than 1 month), please remove the battery and put the product in the package.
9. Please do not store the product in environment with direct sunlight, high temperature and humidity, dusty and corrosive gas.
10. Do not use if the battery is leaking or moldy. Keep batteries away from fire or throw them into a fire to avoid explosion. Do not mistakenly install the positive and negative poles during use.
11. Dispose of the battery, the product or packaging should be in accordance with local regulations.
12. Please do not rub the product with toxic liquid or volatile oil, thinner or gasoline.

13. Icon description

WOODPECKER®	Trademark		Recovery
	BF Type Applied part		Keep dry

	Direct current		Handle with care
AAA	AAA battery		Keep away from sunlight
	Follow instructions for use		Atmospheric pressure for storage
	Temperature limit for storage		Humidity limit for storage
	Appliance compliance WEEE directive		

14. Maintenance

1. Always keep the product surface clean and tidy, which will help prolong the service life of the product.

2. Take out the battery if it will not in use for a long time, put the product in the package, and place it in a dry environment of about 25°, which will help extend the service life of the product.

3. If the product is dirty, wipe it with a dry soft cotton cloth.

4. The temperature measuring head should be kept clean. The screen surface must be free from dirt and scratches. If there is a foreign object, it can be cleaned with a cotton swab.

15. Special storage and transport conditions

• Storage conditions:

1. The product must be kept clean and stored in a dry place. Do not place the product in a place subject to electric shock.

2. Do not store the product in extreme temperature environments above 55 ° C or below 20 ° C and humidity above 93%.

• Transport conditions:

1. Excessive impact and shake should be prevented during transportation. Lay it

carefully and lightly.

2. Do not put it together with dangerous goods during transportation.

3. Avoid being exposed to sun, rain, and snow during transportation.

16. Electromagnetic Compatibility

⚠ Cautions:

- WT-2 Infrared thermometer meets the electromagnetic compatibility requirements of IEC 60601-1-2 standard.

- The user should install and use the device as per the electromagnetic compatibility information provided in the accompanying documents.

- Portable and mobile RF communication equipment may affect the performance of the WT-2 Infrared thermometer, so avoid strong electromagnetic interference when using it; therefore, please do not use it near mobile phones, microwave ovens, etc.

- Basic performance: The infrared forehead thermometer can measure human body temperature within the range of 32.0 ℃ -42.5 ℃ (maximum allowable error ± 0.3 ℃) without electromagnetic interference. When receiving electromagnetic interference, the infrared forehead thermometer can measure human body temperature in the range of 32.0 ℃ -42.5 ℃ .

- Guidance and manufacturer's declaration are detailed in the attachment.

⚠ Warnings:

- The equipment or system should not be used in close proximity to or stacked with other equipment. If it must be used close or stacked, it should be able to work normally in the configuration in which it is used.

- Except for cables sold by the equipment or system manufacturer as spare parts for internal components, the use of accessories and cables other than those specified may result in increased emissions or reduced immunity of the equipment or system.

Annex:

Guidance and manufacturer’s declaration – electromagnetic emissions		
WT-2 is intended for being used in the electromagnetic environment specified below. The customers or users of WT-2 should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment – guidance**

RF emissions GB 4824	Group 1	The WT-2 infrared forehead thermometer uses radio frequency energy only for its internal functions; therefore, its RF emissions are low and there is little chance of interference with nearby electronic equipment.
Conducted emissions GB 4824	Class B	WT-2 is suitable for being used in domestic establishment and in establishment that is directly connected to a low voltage power supply network which is for domestic power supply.
Harmonic emissions GB 17625.1	Not applicable	
Voltage fluctuations/ flicker emissions GB 17625.2	Not applicable	

Guidance and manufacturer's declaration – electromagnetic immunity			
WT-2 is intended for being used in the electromagnetic environment specified below. The customers or users of WT-2 should assure that it is used in such environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Electrostatic discharge（ESD） GB/T 17626.2	±6kV Contact discharge ±8kV Air discharge	±6kVcontact discharge ±8kV Air discharge	Floors should be made of wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should at least reach 30%.
Electrical fast transient bursts GB/T 17626.4	±2kV For power supply lines ±1kV For Input/ Output lines	N/A	N/A
Surge GB/T 17626.5	±1kV Line to line ±2kV Line to earth	N/A	N/A

Voltage dips, short interruption and voltage variations on power supply input lines. GB/T 17626.11	＜ 5%UT, (＞ 95% dip in UT) for 0.5 circle 40%UT, (60% dip in UT) for 5 circles 70%UT, (30% dip in UT) for 25 circles ＜ 5%UT, (＞ 95% dip in UT) for 5s	N/A	N/A
Power frequency magnetic field （50/60Hz） GB/T 17626.8	3A/m	3A/m 50Hz	Power frequency magnetic field should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note：U_T is the alternative current mains voltage prior to application of the test level.			
Conducted RF GB/T 17626.6 Radiated RF GB/T 17626.3	3 Vrms 150 kHz ~ 80 MHz 3 V/m 80MHz ~ 2.5GHz	3Vrms 3V/m	Portable and mobile RF communications equipment should not be used closer than the recommended separation distance to any part of WT-2, including cables. The separation distance should be calculated from the corresponding formula of transmitter frequency. Recommended separation distance: d=1.2/P d=1.2/P 80MHz ～ 800MHz d=2.3/P 800MHz ～ 2.5GHz P is the maximum rated power output of the transmitter in Watts (W) provided by transmitter manufacturer. d is the recommended separation distance in meters (m). As field strength from fixed RF transmitters is determined by an electromagnetic site survey a, therefore it should be less than the compliance level in each frequency range. Interference may occur near the device marked by the following symbols. 
Note 1: At 80MHz and 800MHz frequency, adopt formula of higher frequency range. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects, and human body.			

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 theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be taken into consideration. If the measured field strength in the location where WT-2 is used exceeds the applicable RF compliance level above, the WT-2 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the WT-2.

Recommended separation distance between portable and mobile RF communications equipment and the WT-2

WT-2 is intended for being used in electromagnetic environment where radiated RF disturbance is controlled. As per the maximum power output of communication device, the customer or user of WT-2 can help to prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communication device (transmitter) and WT-2 recommended below.

Maximum rated power output of transmitter/ W	Separation distance according to frequency of transmitter/ m		
	150kHz ～ 80MHz d=1.2/P	80MHz ～ 800MHz d=1.2/P	800MHz~2.5GHz d=2.3/P
0.01	N/A	0.12	0.23
0.1	N/A	0.38	0.73
1	N/A	1.2	2.3
10	N/A	3.8	7.3
100	N/A	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.
Note 1: At 80MHz and 800MHz, the separation distance for the higher frequency range applies.
Note 2: These guidelines may not apply in all solutions. Electromagnetic propagation is affected by absorption and reflection from buildings, objects, and human body.

17. Statement

The date of manufacture is listed on the product packaging label. Product service life: 5 years.

Warranty Card

· Warranty:

1. Since the date of sales, with warranty card, this device enjoys one-year free repair.
2. During the warranty period, all faults caused by product quality and process structure are covered by the warranty.
3. Failure caused by violation of operating procedures or failure to meet the requirements of the equipment is not covered by the warranty.
4. Equipment failure or damage caused by improper use or unauthorized disassembly is not covered by the warranty.
5. Equipment damage caused by user's improper transportation, storage or other reasons is not covered by the warranty.
6. If the warranty card does not have the seal of Woodpecker or the seal is incomplete, the warranty card is invalid.

Product: Infrared thermometer Model： WT-2

User name		Cell	
Address			
Model		Serial number	
Date of purchase		Responsible person	
Fault description			

Manufacturer: Guilin Woodpecker Medical Instrument Co., Ltd.
Plant address: Information Industrial Park, National High-tech Zone, Guilin, Guangxi, 541004 P. R. China.
Sales department: 0773-2350599/5873196
Fax: 0773-5822450
After-sales service department: 0773-5827898/13977382317
E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glzmn.com, http://www.glwoodpecker.com

Scan and Login website
for more information

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