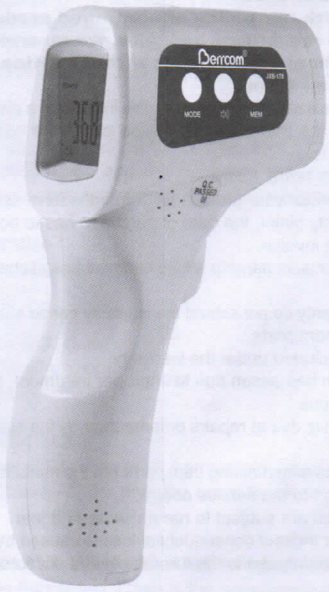
Berrcom®



Non-contact Infrared Thermometer
Model: JXB-178

⚠ NOTE:
You must read this instruction manual completely before use and follow all instructions. Keep the instructions for later use. You must check the device functions according to this instruction manual prior to each use and only use this device if it is in proper working condition.

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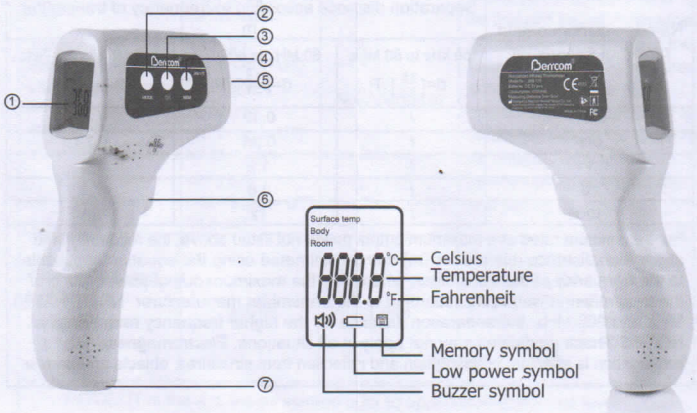
I. INTENDED USE

This device is an infrared thermometer that is intended to measure the forehead temperature of individuals of all ages without making contact with the individual whose temperature is being taken. It can be used by consumers in household environment and doctor in clinic as reference.

II. ⚠ WARNINGS AND PRECAUTIONS

- Only use this thermometer once you have read and understood the instructiofor use.
- Only use this thermometer for the specific purpose described in the instruction manual. Any misuse will void the warranty.
- This thermometer may be used for professional purposes or for personal home use.
- Using this thermometer is not a substitute for consulting a doctor and seeking medical assistance as needed. Do not self-diagnose or self-medicate on the basis of a self-measurement without consulting your doctor and obtaining your doctor's approval. Specially, do not take any new medication or change the type and/or dosage of any existing medication without consulting your doctor and obtaining your doctor's approval.
- Children must not be allowed to use this thermometer. Medical device is not toy.
- If this thermometer is stored in a location that is cooler or warmer than where it is being used, let it sit in the patient's room for at least 30 minutes before taking the measurement.
- After physical activity, a bath or spending time outdoors, wait approx. 30 minutes before you take a measurement on your forehead.
- To ensure an accurate measurement, this device must only be used indoors when the ambient temperature range is between 10°C (50°F) and 40°C (104°F).
- This thermometer must be kept in a clean, dry area.
- Do not expose this thermometer to electric shocks.
- Do not expose this thermometer to extreme temperature conditions of greater than 55°C (131°F) or less than -20°C (-4°F).
- Do not use this thermometer in relative humidity higher than 85%.
- Do not expose the thermometer to direct sunlight, extremely high or low temperatures, dirt or dust.
- Do not drop this thermometer.
- DO NOT TOUCH THE GLASS OF THE INFRARED SENSOR WITH YOUR FINGERS AS IT IS EXTREMELY FRAGILE AND COULD CAUSE INJURY.
- For cleaning, follow the instructions in section IX Cleaning and maintenance.
- Do not use this thermometer if it is damaged.
- Do not open up this thermometer. It contains small parts which might be swallowed by children.
- Do not expose the thermometer to water or other liquid, as it is not water resistant or waterproof.
- If an error occurs or if the device is damaged, DO NOT attempt to repair this device yourself, as this will void the warranty. Contact your dealer and only have repairs carried out by authorized service partners.
- Remove the batteries if you do not wish to use the unit for an extended period of time. Otherwise there is a danger that the batteries may leak.
- Keep the thermometer away from electromagnetic fields produced by objects such as microwave ovens, arc welders or induction heaters.
- A control measurement using a conventional thermometer is recommended in the following cases:
  1. If the reading is surprisingly low.
  2. For new-born infants up to 100 days old.
  3. For children under three years of age who have a weakened immune system or who react unusually in the presence or absence of fever.
  4. If you are using the thermometer for the first time or want to familiarise yourself with it.

III. PRODUCT DESCRIPTION



① LCD display
② MODE button
③ 🔊 button
④ MEM button
⑤ Infrared sensor
⑥ On/Scan button
⑦ Battery compartment lid

Buttons	Functions
MODE	Set the measurement mode.
🔊	Turn on or off the beep.
MEM	Display of the saved measurements.
On/Scan	Switch on the device. Measure temperature.

IV. HOW TO USE YOUR NON-CONTACT INFRARED THERMOMETER

1.Install 2 AA batteries according to instructions provided in Section VII.
2.For the first time use after installing batteries, wait 10-15 minutes for the device to warm up and adjust to the room temperature.
3.Press On/Scan button, place 3-5cm (1.5-2 in) away from forehead, aim lens toward forehead. Make sure the measurement mode is "BODY", press the thermometer's On/Scan button, and the temperature will be displayed instantly.
4.Before taking an individual's temperature, make sure any hair, dirt or dust is removed from forehead and forehead is dry. Wait 10 minutes after such removal prior to measuring temperature.

⚠ For reliable results:

- Do NOT attempt to take an individual's temperature by aiming the device at a body part other than the forehead (i.e. arms, legs, torso, etc.).
- Do NOT move the thermometer before the final result is displayed.
- Do NOT take an individual's temperature near any drafts (i.e. wind, air conditioner, fans).
- Do NOT take an individual's temperature shortly after he or she participated in vigorous physical activity, bathed, took medicine, ate or drink, or had a cold or warm compress on his or her forehead.
- Do NOT take an individual's temperature when there has been a significant change in ambient conditions. Allow the device to adjust to a significant change in the ambient temperature due to a change in environment for 30 minutes before using the device.
- Wait at least 3 to 5 seconds between measurements.
- We recommend that you take three measurements on the forehead, and if the results of three measurements are different, use the one with the highest value."

V. TURNING ON AND SETTING THE THERMOMETER

1. Turning on the device.
   Press the "On/Scan" button. The display will illuminate, will enter the "Standby Mode" and will display "---°C" or "----°F". Next, place the device 3-5 cm (1.5-2 in) away from the individual's forehead, aim the sensor of the device toward the forehead, and press the "On/Scan" button again, which will then take the individual's temperature. The device will automatically shut off after 30 seconds of non-use.
2. Setting the MODE when the device is on
   a. Press "MODE" button, and the screen will display: Body…°C
   b. Press again "MODE" button and the screen will display: Room…°C
   c. Press again "MODE" button and the screen will display: SurfaceTemp…°C
   Note: The thermometer default is set to BODY mode.

⚠ IMPORTANT

The surface temperature differs from the body temperature. To obtain the body temperature must use the "BODY" mode.
When measure the temperature of a baby-bottle or bath (by using the Surface Temp Mode), or room temperature (by using the Room Mode).

3. Choosing the temperature unit
   When the device is on, Press "MODE" button for 2 seconds, the screen will display "F1", then press "MODE" button to transfer between degree Celsius and Fahrenheit, Confirm by pressing "MEM" button.
4. Alarm setup
   When the device is on, Press "MODE" button for 2 seconds, the screen will display "F1", then press "MEM" button once, the screen will display "F2", press "MODE" button to choose the alarming temperature from 37.3°C to 39.1°C (99.1°F to 102.4°F), Confirm by pressing "MEM" button.
   Note: The alarm threshold default value is 38°C (100.4°F)
5. When the device is on, Press "MEM" (Memory) button, which will then display the last temperature, and allows for a view of the last 32 measurements.
   In the switch on state, Press "MEM" button and hold for 5 seconds, all data in memory will be deleted. Then press "MEM" button again, the display will show "CLr"
6. When the device is on, press " 🔊 " to turn the buzzer on or off.
   When the screen shows "ON", the buzzer opened.
   When the screen shows "OFF", the buzzer closed.

7. Recalibrating the device using the F4 MENU
   Instructions for recalibration:
   When the device is on, Press "MODE" button for 2 seconds, the screenwill display "F1", then press "MEM" button twice ,the screen will display "F4", press "MODE" button to choose the Offset value from -3°C to 3°C (-5.4°F to 5.4°F), Confirm by pressing "MEM" button.
   Recalibrate the device after any seasonal or environmental changes, when you are using the device on people of different skin tones, or when you believe the device is not measuring the same temperature as a mercury thermometer.

VI. TECHNICAL SPECIFICATIONS

1.Normal using condition
  Ambient temperature: 10°C – 40°C (50°F – 104°F)
  Relative humidity: less than 85%
  Pressure altitude: 700 hPa to 1060 hPa
2.Storage and shipping condition
  Ambient temperature: -20°C – 55°C (-4°F – 131°F)
  Relative humidity: less than 95%
  Pressure altitude: 700 hPa to 1060 hPa
3.Batteries: DC 3V (2 pcs AA batteries)
4.Unit size: approx. 155 x 100 x 40 mm (L x W x H)
5.Unit weight (without battery): approx. 105g
6.Temperature display resolution: 0.1°C (0.1°F)
7.Measuring range:
  In body mode: 32.0°C – 42.9°C (89.6°F – 109.2°F)
  Under body mode, there is three color backlits:
  Green color backlit: less than 37.3°C (99.1°F), means normal temperature.
  Orange color backlit: 37.4°C - 37.9°C (99.3°F - 100.2°F), means may be low fever.
  Red color backlit: more than 38°C (100.4°F), means may be high fever.
  In surface temp mode: 0°C – 60°C (32°F – 140°F)
  In room mode: 0°C – 40°C (32°F – 104°F)
8.Accuracy:

32.0°C – 34.9°C (89.6°F – 94.8°F)	±0.3°C(±0.6°F)
35.0°C – 42.0°C (95°F – 107.6°F)	±0.2°C(±0.4°F)
42.1°C – 42.9°C (107.8°F – 109.2°F)	±0.3°C(±0.6°F)

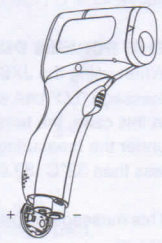
9.Consumption: less than 300mW
10.Measuring distance: 3cm – 5cm (1.2in – 2in)
11.Automatic power-off: less than 30 secs
12.Memory capacity: 32 readings
13.Expiration date: The JXB-178 may last, but is not guaranteed, for up to 5 years from the date of the manufacturing

⚠ **Note:** In the BODY mode, the JXB-178 can take temperature readings below 32°C or above 42.9°C (below 89.6°F or above 109.2°F), however, the temperature reading may be unreliable.

VII. BATTERIES

1. CHAGING THE BATTERIES

When the battery symbol " ▭ " flashes on the LCD display screen, the batteries need to be changed.
To change the batteries, open the lid on the back of the device and ensure the batteries are positioned in the correct manner. Improperly installing the batteries could cause damage to the device. Do NOT use rechargeable batteries. Only use single-use batteries.



2. DISPOSING OF BATTERIES

To protect environment, dispose of empty batteries at appropriate collection sites according to national or local regulations.

⚠ Notes on halding batteries

- If your skin or eyes come into contact with battery fluid, rinse the affected area with water and seek medical assistance.

⚠ **Chocking hazard!** Small children may swallow and choke on batteries. Store batteries out of the reach of small children.
If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.

- Protect batteries form excessive heat.

⚠ **Risk of explosion!** Do not throw batteries into a fire.

- Use idetical or equivalent battery types only.
- Always replace all batteries at the same time.
- Do not use rechargeable batteries.
- Do not disassemble, split or crush the batteries.

VIII. INCLUDED IN DELIVERY

Non-Contact Infrared Thermometer	1 pc
User Manual	1 pc

IX. CLEANING AND MAINTENANCE

- Do not touch the glass of the infrared sensor with your fingers as it is extremely fragile and could cause injury. Protect it from dirt and damage. Clean the glass with a cotton ball that is lightly moistened with 95% Isopropyl Alcohol.
- Cleaning needs to be done regularly as needed.
- To clean the entire device, use a soft cloth slightly dampened with mild soapy water or 70% isopropyl alcohol. Under no circumstances may liquid enter the thermometer.
- Do not use the thermometer again until it is completely dry and keep it stand still at least 30 minutes.
- Never use aggressive cleaning agents, thinners, benzine or tough brushes.

X. GUIDEIINES

This device complies with the EU. Directive 93/42/EEC concerning medical products, the ISO 80601-2-56 and the European Standard EN60601-1-2 and is subject to particular precautions with regard to electromagnetic compatibility.

XI. CLASSIFICATION

1. Internally powered equipment;
2. Type Bf applied part;
3. IP22;
4. Sterilization or disinfection: N/A;
5. Category AP / APG equipment: N/A;
6. Continuous operation;

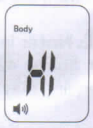
XII. TROUBLESHOOTING

If you have problems while using your thermometer, please refer to this guide to help resolve the problem. If the problem persists, please contact our customer service.

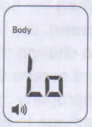
THE SCREEN DISPLAYS TEMPERATURE HIGHER THAN 42.9°C (109.2°F):
The temperature is in Fahrenheit. Change the measurement to Celsius.

THE SCREEN DISPLAYS TEMPERATURE LOWER THAN 32°C (89.6°F):
To take the surface temperature, press the "MODE" button and set to the reading called "Body" , If the device is in Surface Temp Mode, the 89.6°F (32°C) temperature displayed is showing the external temperature of your body, rather than the internal.

THE SCREEN DISPLAYS THE MESSAGE HI
When using the JXB-178 Thermometer, the message "HI" can show on the screen. In this case,the temperature is above the measurement range selected, either above 42.9°C (109.2°F) in Body Mode.



THE SCREEN DISPLAYS THE MESSAGE LO
When using the JXB-178 Thermometer, the message "LO" can show on the screen. In this case, the temperature analyzed is under the measuring range selected, either less than 32°C (89.6°F) in Body Mode.



This message displays for various reasons. Please find below a list of the main issues:

Reasons for LO message display	Advice
Temperature reading hampered by hair or perspiration.	Make sure there is no obstruction or dampness prior to taking temperature.
Temperature hampered by an air draft or dramatic change in ambient temperature.	Make sure there is no air blowing in the area of use; this could affect the infrared reading.
Temperature readings are too close together, and the thermometer did not have time to reboot.	Wait a minimum of 3 to 5 seconds between readings; a 15 second pause is recommended
The measuring distance is too far.	Hold the device 1.5-2 inches (3-5 cm) away from forehead.

XIII. SIGNS AND SYMBOLS

Symbol	Description of symbol
Berrcom®	Trade mark
	Application part, Type BF
⎓	Direct current
IP22	Protected against access to hazardous parts with a finger and against vertically falling water drops when enclosure tilted up to 15°
	Refer to instruction manual / booklet
	DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
	Manufacturer
SN	Serial number
CE 0123	The CE labelling certifies that the product complies with the essential requirements of Directive 93/42/EEC on medical device.
FC	This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

XIV. EMC DECLARATION

Guidance and manufacturer's declaration – electromagnetic immunity

The "JXB-178" is intended for use in the electromagnetic environment specified below. The customer or the user of the "JXB-178" should ensure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered withsynthetic material, the relative humidityshould be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/ output lines	Not Applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Not Applicable	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec	Not Applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the "JXB-178" requires continued operation during powermains interruptions, it is recommended that the "JXB-178" be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercialor hospital environment.

NOTE UT is the a.c. mains voltage prior to application of the test level.

Guidance and manufacturer's declaration – electromagnetic immunity			
The "JXB-178" is intended for use in the electromagnetic environment specified below. The customer or the user of the "JXB-178" should ensure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
			Portable and mobile RF communications equipment should be used no closer to any part of the "JXB-178", including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance**
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	Not Applicable	$d=[\frac{3.5}{V1}]\sqrt{P}$ $d=[\frac{3.5}{E1}]\sqrt{P}$ 80MHz to 800MHz $d=[\frac{7}{E1}]\sqrt{P}$ 800MHz to 2.5 GHz
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	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). 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 Interference may occur in the vicinity of equipment marked with the following symbol:
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
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 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 "JXB-178" is used exceeds the applicable RF compliance level above, the Medical JXB-178 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the "JXB-178".		
b	Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.		

Recommended separation distances between portable and mobile RF communications equipment and the Medical JXB-178			
The "JXB-178" is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Medical JXB-178 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the "JXB-178 as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=[\frac{3.5}{V1}]\sqrt{P}$	80 MHz to 800 MHz $d=[\frac{3.5}{E1}]\sqrt{P}$	800 MHz to 2,5 GHz $d=[\frac{7}{E1}]\sqrt{P}$
0,01	/	0.12	0.23
0,1	/	0.38	0.73
1	/	1.2	2.3
10	/	3.8	7.3
100	/	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 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

XV. FCC DECLARATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

XVI. WARRANTY/SERVICE

In accordance with our policy of continued product improvement and subject to the regulations and rules, we reserve the right to make technical and optical adjustments without notice.

Warranty and repair terms

Please contact your dealer or the service centre in case of a claim under the warranty. If you have to return the thermometer, please enclose a copy of your receipt and state what the defect is.

The following warranty terms apply:

1. The warranty period for your product is 18 months from date of purchase. In case of a warranty claim, the date of purchase has to be proven by means of the sales receipt or invoice.
2. Defects in material or workmanship will be removed free of charge within the warranty period.
3. Repairs under warranty do not extend the warranty period either for the thermometer or for the replacement parts.
4. The following is excluded under the warranty:
   a. All damage which has arisen due to improper treatment, e.g. nonobservance of the user instructions.
   b. All damage which is due to repairs or tampering by the customer or unauthorised third parties.
   c. Damage which has arisen during transport from the manufacturer to the consumer or during transport to the service centre.
   d. Accessories which are subject to normal wear and tear.
5. Liability for direct or indirect consequential losses caused by the thermometer are excluded even if the damage to the thermometer is accepted as a warranty claim.

- GUANGZHOU BERRCOM MEDICAL DEVICE CO., LTD. EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- UNDER NO CIRCUMSTANCES SHALL BERRCOM HAVE ANY OBLIGATION OR LIABILITY FOR ANY LOSS OF PROFIT OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, OR CONTINGENT DAMAGES WHATSOEVER WITH RESPECT TO CLAIMS MADE BY ANY CUSTOMER, CONSUMER OR OTHER USER OF BERRCOM PRODUCTS.
- IN THE EVENT THAT ANY APPLICABLE LAWS IMPOSE WARRANTIES, CONDITIONS, OR OBLIGATIONS THAT CANNOT BE EXCLUDED OR MODIFIED, THIS PARAGRAPH SHALL APPLY TO THE GREATEST EXTENT ALLOWED BY SUCH LAWS.

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