Berrcom®
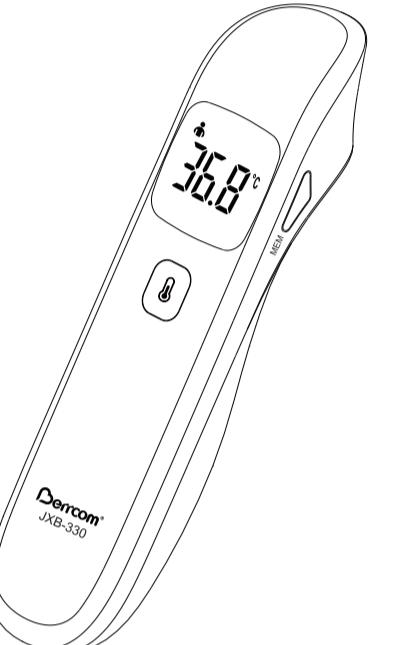• Use identical or equivalent battery types only.

Non-contact Infrared Thermometer
 # JXB-330

Version: V.00

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.

Contents

I. Intended use
The device is an infrared thermometer intended to measure forehead temperature of infants and adults without contacting human body. 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 instruction for 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 no substitute for consulting a doctor. Do not self-diagnose or self-medicate on the basis of the measurements without consulting your doctor. In particular, do not start taking any new medication or change the type and/or dosage of any existing medication without prior 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.
• This thermometer must be operated by adults, and be placed out of the reach of infants.
• Ensure that children do not use this device unsupervised; some parts are small enough to be a choking hazard or be swallowed.
• If this thermometer is stored in a location that is cooler or warmer than where it is being used, please put it in operation place 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 thermometer must only be used indoors when the ambient temperature range is between 10°C (50°F) and 40°C (104°F).
• Before and after each use, the thermometer should be cleaned according to the requirement of this manual to avoid possible bacterial infections.
• 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 put this product in the place with direct sunlight, high temperature, high humidity, excessive dust, or the place where it may contact with corrosive gas or liquid, and do not use this product in the above environment.
• 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.
• 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.

• Never immerse the device in water or other cleaning liquids, and do not let any liquid enters the interior of this product,
• 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.

III. Operating principle
All objects, solid, liquid or gas, emit energy by radiation. The intensity of this energy depends on the temperature of the object. The JXB-330 infrared thermometer is therefore able to measure the temperature of a person by the energy the person emits. This measurement can be taken thanks to anexternal temperature probe on the device which permanently analyses and registers the ambient temperature, Therefore, as soon as the operator holds the thermometer near the body and activates the radiation sensor, the measurement is taken instantly by detection of the infrared heat generated by the arterial blood flow. Body heat can therefore be measured without any interference from the heat of the surrounding environment.

How to use your Berrcom Non-contact Infrared Thermometer
1.Install two batteries according to manual provided in Section VIII.
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 the On/Scan button " 🌡 ", place 0-3 cm (0-1.2in) away from forehead, aim the infrared sensor toward forehead, Make sure the measurement mode is body temperature mode " 🌡 ", press the thermometer's On/Scan button " 🌡 " 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 significant change in the ambient temperature due to a change in environment for at least 30 minutes before taking the measurement,
• 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.

IV. Basic instrument

LED display — ON/OFF Button — Mem Button — Mode Button — Infrared sensor — Battery compartment

Body temperature mode — Surface temperature mode

Celsius — Temperature — Fahrenheit — Memory — Low Battery

Non-contact Infrared Thermometer
JXB-330
Measuring distance: ≤3cm
Batteries: DC 3V ===
IP22
Guangzhou Berrcom Medical Device Co., Ltd.

Additional usage(Non-Medical Function):
JXB-330 can also be used to measure the temperature of a baby-bottle or bath (by using the Surface Temp Mode), or room temperature (by using the Room Mode).

V. Instructions
1.Install battery.
2.For the first use or when inserting new Battery, wait from 10~15 minutes for the warm-up of the unit. This will allow the unit to become acclimated to the temperature of the room.
3.When measuring the body temperature, the product should be pointed to the center of the forehead - - it should keep vertical and above the eyebrow, The measurement area should not be covered by hair, the product and the forehead's distance should be kept within 3cm (the optimal distance is the
adult index finger's thickness), Do not touch the forehead directly, In the switch on state, press the " 🌡 " button to take the temperature, and the product body will be vibrated, and the measurement is completed, At the same time the screen will display the measure data, If the distance between the product and the forehead is more than 3cm, the product body is not vibrating, the product display interface is flashing, and it will be returned to standby after 5 seconds,
Tip 1: The product cannot be removed from the location when the measurement is not completed,
4.Before taking the temperature, make sure to remove hair and perspiration from the forehead.

VI. Setting and function of menu
1.Switch on the device
Press the " 🌡 " button one second after the screen panel in full display, It will enter the standby mode with the sign "—°C" or "—°F",
Then press the " 🌡 " button again, you will get the measuring result in 1 second, But if there is no more operation, it will turn off in 30 seconds automatically, or press the " 🌡 " button more than 3 seconds will be turned off,
2.Temperature mode setting
In the switch on state, press the "MODE" button, the screen will display " 🌡 ", it is "Body temperature mode", When press the "MODE" button again, the screen will display " 🏠 ", it is "Surface temperature mode", Press "MODE" button again.
Note: The thermometer default is set to Body temperature mode.
3.Temperature overall offset setting
Under the standby mode, press and hold the "MODE" button for 2 seconds, After the screen displays "F4", enter the temperature overall offset setting. When " 🌡 " and "0,0°F(°C)" is flashing, press the "MEM" button to increase 0.1°C(°F), press

" 🌡 " button to decrease 0.1°C(°F), offset value can be in range of -3°C – 3°C(-5.4°F – 5.4°F) by the internal setting, press the "MODE" button twice, and the setting data will be returned to the standby state.
Note: The thermometer default is set to +0.0°C(°F).
4.Temperature unit setting
In the switch on state, press and hold the "MODE" button for 2 seconds, the screen will display "F4", press the "MODE" button again, the screen will display "F5", when enter the temperature unit setting, then "F5" and the unit symbol "°C" or "°F" will be flashed continuously, press the "MEM" button to select Celsius °C, press the " 🌡 " button to select Fahrenheit °F, then press the "MODE" button to save and return to the standby state,
5.Memory query and clear
In the switch on state, press the "MEM" button, the screen will display the last measured data, and can review up to 32 groups of the data, press the "MEM" button for 5 seconds, all current memory data will be cleared, and restore to the factory setting,
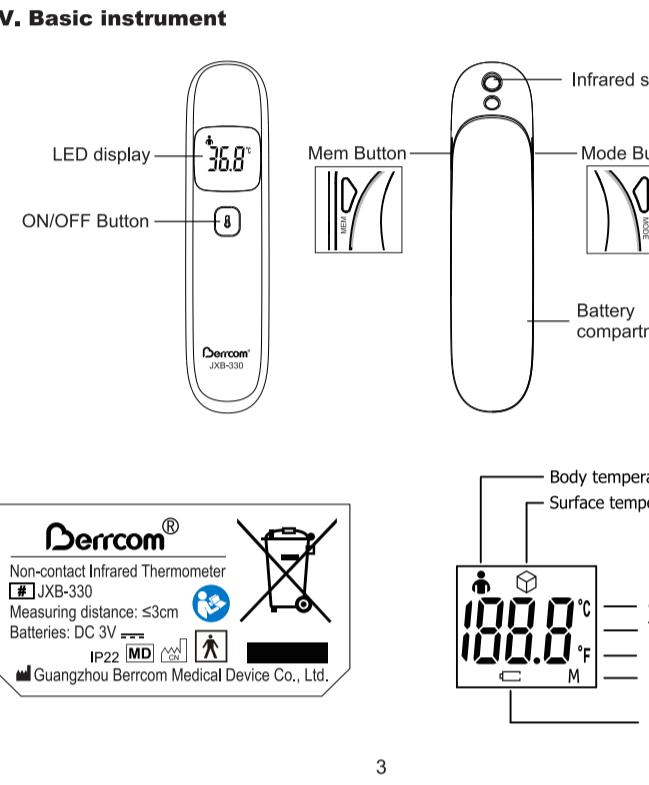6.Over temperature prompt function
Under the body temperature mode, if the measured body temperature is higher than or equal to 38.0°C(100,4°F), the product will be vibrated for three times.

VII. BATTERIES
1.ChaNging the batteries
When the battery symbol " ⊏⊐ " flashes on the 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 handling batteries
• If your skin or eyes come into contact with battery fluid, rinse the affected area with water and seek medical assistance,

⚠ Choking 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 identical 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. Technical specifications

Items	Specifications
Battery	DC 3V 2 pcs AAA dry batteries
Temperature sensor	Infrared Sensor
Measuring distance	≤3cm (1.2in)
Measurement range	Body temperature mode: 32.0°C ~ 42.9°C (89.6°F ~ 109.2°F) Surface temperature mode: 0°C ~ 60°C (32°F ~ 140°F)
Measuring accuracy	Body temperature mode: 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)
Clinical repeatability	±0.2°C(0.4°F)
Display resolution	0.1°C (0.1°F)
Measurement Time	1 second
Memory	32 sets
Operation Environment	Ambient temperature: 10°C ~ 40°C (50°F ~ 104°F) Relative humidity: ≤85%RH Atmospheric Pressure: 700 hPa to 1060 hPa
Storage and transportation condition	Ambient temperature: -20°C ~ 55°C (-4°F ~ 131°F) Relative humidity: ≤ 95%RH Atmospheric Pressure: 700 hPa to 1060 hPa
Weight	Approx.70.6 (Battery excluded)
Product Size	Approx, 154 x 37 x 31 mm (L x W x H)
Expected Service Life	5 years
Automatic power-off	less than 30 secs

※ Note: The Non-contact Infrared Thermometer Model JXB-330 can take temperature readings below 32°C or above 42.9°C (89.6°F to 109.2°F) but precision is not guaranteed outside of this range.

IX. Cleaning and Disinfection
The thermometer is a multi-patient reusable device, and the cleaning and disinfection instructions were validated, please follow the instructions to cleaning/disinfect your thermometer prior to use,
Cleaning:
1) Use a cotton swab moistened with hot water or neutral detergent to throughout cleaning the casing of thermometer and measuring probe to removal of stain or oil.
2) Visual inspection the thermometer after cleaning process, ensure there is no soil or stain is seen, if the device is determined not to be visually clean at the end of the cleaning step, you should either repeat the relevant previous cleaning steps or safely dispose of the device, so that a visibly soiled device is not used again,
Disinfection:
1) Use an 95% ethyl alcohol swab or cotton swab moistened with 95% ethyl alcohol to disinfect the thermometer casing and the measuring probe about 30 seconds,
2) Repeat the above steps at least 3 times, then wipe surface and probe dry with a clean cloth, and wait about 1 minute for drying after disinfection process.
Note:
• Ensure that no liquid enters the interior of the thermometer.
• Never use abrasive cleaning agents, thinners or benzene for cleaning and never immerse the Thermometer in water or other cleaning liquids,
• Take care not to scratch the surface of the probe lens and the display,
• If the visual inspection identifies unacceptable deterioration such as corrosion, discoloration, pitting, cracked, then the device should be stop to use and discard.
• If the thermometer is been used for between patients, please visually inspect the thermometer to determine if there is stain or oil on the casing or probe after each use, and follow the instruction of cleaning and disinfection to cleaning your thermometer,

X. Accessories
Non-Contact Infrared Thermometer	1 pc
User Manual	1 pc

XI. Guidelines
This device complies with the European Standard EN60601-1-2 and is subject to particular precautions with regard to electromagnetic compatibility.

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 "BODY" button and set to the reading called "Body" , If the device is in Surface Temp Mode, the 32°C (89,6°F) temperature displayed is showing the external temperature of your body, rather than the internal,

THE SCREEN DISPLAYS THE MESSAGE HI
When using the JXB-330Thermometer, 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-330 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.	Pause for 3~5 seconds minimum between readings; a 15 seconds pause is recommended.
The measuring distance is too far.	Take measurements at the recommended distance (app. 0cm~3cm).

XIII. Explanation of 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
📅	Date of manufacture
#	Model number
MD	Medical device
🌐	Country of manufacture

XIV. EMC Declaration
The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare and clinic environments,
Warning: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high,
Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation, If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally,
Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation,"
Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the equipment JXB-330, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result,
1.All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the excepted service life,
Portable and mobile RF communication equipment may affect the performance of the JXB-330, avoiding strong electromagnetic interference when used, such as near mobile phones, microwave ovens, etc,
2.Guidance and manufacturer's declaration -electromagnetic emissions and Immunity.
Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	Compliance
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Not application
Voltage fluctuations/ flicker emissions	Not application

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity		
Immunity Test	IEC 60601-1-2 Test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Not application	Not application
Surge IEC 61000-4-5	Not application	Not application
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	Not application	Not application
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conducted RF IEC61000-4-6	Not application	Not application
Radiated RF IEC61000-4-3	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz

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

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity						
Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation	Distance (m)	IMMUNITY TEST LEVEL (V/m)
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment) 385	380–390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
450	430–470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment) 710	704–787	LTE Band 13,17	Pulse modulation 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 18 Hz	2	0.3	28
870						
930						
1720	1700–1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0.3	28
1845						
1970						
2450	2400–2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
5240	5100–5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9
5500						
5785						

XV. 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.

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