TOUCH FREE Infrared Thermometer

NT66B

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EC REP

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INSTRUCTION MANUAL

Please read this instruction manual carefully
before using your forehead thermometer

Contents

Introduction

Intended Use:
Touch Free Infrared Thermometer is intended for home use and the intermittent measurement of human body forehead temperature in people of all ages.
Features:

1. 2 in 1 thermometer: Human Body/Object
2. Fever Indication (Human Body Mode only)
3. °C/°F Switch-able Function
4. Multi-memory Recall
5. One-second Reading
6. Power Saving-Auto Power Off
   Auto power-off after idling to ensure battery life.
7. Warning indication
   "low battery" symbol, and "Lo"/ "Hi" symbol indicating out of measuring range.
8. Large LCD Display
9. Large Button Design
10. Economic design and convenience
    This is a "Non-contact" medical thermometer that enables temperature readings, designed for sanitary conditions, cleanliness, and convenience. Simply move the thermometer close to the subject's forehead or object at the distance indicated by the device.
11. Accurate and Reliable
12. User Friendly
    Due to our unique design of the measuring software, users don't need to have special skill to operate this device.
13. Instant Measurement
    By using our unique technology, users can get their precise body temperature instantly and accurate.
14. Handicapped persons and children need assistance by another person to use the device.

Important Information before Use

When using this product, please be sure to follow all the notes listed below. Any action against these notices may cause injury or affect the accuracy.

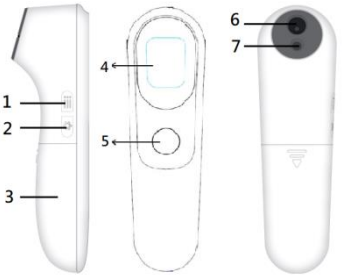
1. Do not disassemble, repair, or remodel the thermometer.
2. Be sure to clean the thermometer lens each time after usage.
3. Avoid direct finger contact with the lens.
4. No modification of this equipment is allowed.
5. It is recommended that user may take 3 temperatures. If they are different, use the highest reading.
6. Do not expose the thermometer to extreme temperature, very high humidity, or direct sunlight.
7. Avoid extreme shock or dropping the device.
8. Before the measurement, patients and thermometer should stay in steady state room condition for at least 30 minutes.
9. Avoid measuring temperature in 30 minutes after exercise, bathing, or returning from outdoor.
10. To protect the environment, dispose of empty batteries at appropriate collection sites according to national or local regulations.
11. Please use the thermometer solely for its intended purpose.
12. There are no absolute body temperature standards. Keep reliable records of your personal temperature to serve as a reference for judging a fever.
13. Under any circumstances, the temperature taking result is ONLY for reference. Before taking any medical action, please consult your physician.
14. The thermometer is calibrated at the time of manufacture. If at any time you question the accuracy of temperature measurements, please contact an authorized distributor for sending calibration services, additional cost may apply for return shipping fee.

15. ⚠ CAUTION: Please keep this device away from pets, pests, and children.
16. ⚠ CAUTION: Please keep away from children and pets, because small parts may be inhaled or swallowed.
17. If any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user is established.
18. If you would require any assistance during setting up, using or maintaining, please contact the manufacturer.
19. Avoid using the device near an operating cell phone or microwave oven.

Contraindications:

1. Scarred or compromised tissues on measurement site.
2. Patient' s skin' s on certain medication of measurement site.

Product Identification



1	Memory Button
2	Mode Button
3	Battery Cover
4	Display LCD
5	Measure Button
6	Measurement Sensor
7	Distance Detection Sensor

Description of LCD Display


Measuring sequence in process


Night Mode (Mute Mode)


Human Mode


Object Mode


Degree of measurement

°C
Celsius Scale

°F
Fahrenheit Scale


Low battery indicator


Frowning Face
(temperature is equal or higher than 38°C)


Smiling Face
(temperature is lower than 38°C)


Memory Symbol and sets of records

Battery Installation

Low battery warning:
When the battery power becomes low, the low battery symbol "  " will appear on the display. The thermometer can still be used during this time, but the batteries should be replaced as soon as possible. If the batteries run out completely, "Lo" will be displayed along with the low battery symbol "". In this case, the batteries will need to be replaced before using the thermometer again.

⚠ CAUTION:
1. Risk of explosion if battery is replaced by an incorrect type.
2. It is recommended not to use rechargeable, unqualified or different spec of batteries as it may damage the device or cause circuit shortcut.

Replacing the Battery:
1. Gently slide the battery cover back.
2. Carefully remove the old batteries and properly discard.
3. Insert new batteries (Two 1.5V alkaline AAA(LR03) Size) according to the proper polarity.
4. Slide the battery cover back on.

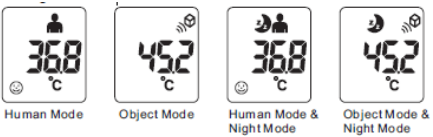
NOTE: Battery-operated
1. Please properly dispose of the batteries away from small children and heat.
2. It is recommended to remove the batteries if the unit will not be used for an extended period of time.
3. Batteries must be disposed of in accordance with local environmental and institutional policies.
4. Dispose of used batteries in accordance with the applicable legal regulations. Never dispose of batteries in the normal household waste.

Switching Between Fahrenheit or Celsius

Your thermometer can display results in either degrees Celsius (°C) or degrees Fahrenheit (°F). With combination of Memory and Mode button are able to change the mode to either °C or °F with a beep sound.

Switching between 4 Kinds of Measuring Mode

1 Under power on status, you can press the Mode Button to switch different measuring mode. There are 4 kinds of mode which including Human, Object, Human/Night, and Object/Night Mode (in order).
2. The beep sounds will be off (mute) when your choice in Human/Night Mode, and Object/Night Mode, and the Moon symbol "☽" will appears on the LCD in both Night Modes.



NOTE:
Each press will comes with a beep sound to ensure the setting is activated. (Except both Night Modes)

Tips for Measuring Human Temperature

Bear in mind that the thermometer needs to have been in the room in which the measurement is taken for at least 30 minutes before use.

NOTE:

- Attempting to take temperature readings from sites on the body other than the forehead may produce inaccurate results.
- The patient should remain still while the reading is being taken.
- Readings taken while asleep should not be compared directly to readings taken while awake, as body temperature while asleep is typically lower.
- Do not take body temperature readings within 30 minutes of being outdoors, exercising or bathing.

Measuring Human Temperature

Taking a Measurement

1. Press the Power Button to power on the thermometer. The unit will run a self-test and the LCD will briefly display all of its symbols during this time. When the device is ready, "-- "appear on the screen, and the thermometer is ready to take a measurement.
2. Select the desired mode by pressing and releasing the Human/Object Button.

Note:

- When taking a patient' s temperature, ensure that the thermometer is in Human Mode; the Human symbol " " will appear on the display.
- If the patient' s skin is covered with hair, sweat, or dirt, clean the area and wait 10 minutes before taking a measurement.
- Ensure that the thermometer is held firmly during measurement and that the patient does not move until the measurement is complete. Movement can impact the measurement.

3. Position the thermometer under 3cm (around 1 inch) from the center of the patient's forehead with the sensor aimed between the eyebrows.
4. Press and release the Measure Button.
5. Slowly move the device toward or farther from the forehead until you have reached the correct distance. (If the distance is beyond the correct distance, the dash-icon on the display flashes in this sequence until the correct distance is achieved.)

Note:
When the user presses the Measure Button, this workflow begins and they require time for device to capture the temperature. After capture the temperature, the display turns to stand-by mode.

6. As you hear a short beep means this temperature reading has been completed and accompany with a back-light.
7. If the temperature measurement is below 38°C, a "Smiling Face" will appear next to the reading. If the reading is 38°C or above, a "Frowning Face" will display and the LED light up to alert.
8. After about 60 seconds after use, the thermometer will automatically beep and shut off.

Fever Alarm:
Only in Human Mode and Human/Night Mode.

Measuring Object/Liquid Temperature

1. Press the "Measure Button" to turn the thermometer on. All symbols on the display will momentarily appear.
2. Ensure that the thermometer is in Object Mode; the Object symbol "  " will be on the display. To alternate between modes press and release the Human/Object Mode Button until you see the desired measurement symbol on the display.
3. Position the thermometer under 3cm (around 1 inches) from the object.
4. Release the "Measure Button" and the temperature reading will be displayed.
5. After use, the thermometer will automatically beep and shut off after idling.

Memory Function

Memory Recall:

You can recall up to 10 measurements currently stored in memory to share with your physician or trained healthcare professional.

1. When the device is on, press once briefly on the Memory Button, then pass it again to show the last measurement accompanied by "  " symbol.
2. The "  " symbol or "  " symbol will appear with each measurement stored in memory to indicate whether a person or object temperature was taken.
3. Each press of the same button recalls a previous measurement.

Memory Deletion:

1. Under power on status, you may hold press the "Memory button" to delete all the readings. The LCD shows "- -" with one beep sound to indicate that all memories are cleared.
2. Remove batteries, memory will be cleared.

NOTE:

All the readings will be cleared no matter record in Human Mode or Object Mode.

Cleaning and Disinfecting

For home use device disinfection, 75% alcohol (available in the pharmacy) can be used.

- Measurement Sensor
  Clean the measurement sensor with an alcohol swab before and after each measurement.
- Thermometer:
  Use a soft, dry cloth to clean thermometer body. Never use abrasive cleaning agents, thinners or benzene for cleaning. Do not scratch the surface of the probe lens or the display. Do not expose the thermometer to extreme temperatures, humidity, direct sunlight, or shock.

Error Codes

When a malfunction or incorrect temperature measurement occurs, an error message will appear as described below.

Display	Cause	Solution
	The temperature measured is higher than measurement range. Human mode: 43°C (109.4°F) Object mode: 100°C (212.0°F)	Operate the thermometer only between the specified temperature ranges. If necessary, clean the sensor tip. In the event of a repeated error message, contact your retailer or Customer Services.
	The temperature measured is lower than measurement range. Human mode: 34°C (93.2°F) Object mode: 0°C (32.0°F)	
	The operating temperature is not in the range: 15°C~40°C (59°F~104°F)	Operate the thermometer only between the specified temperature ranges.

Troubleshooting

Trouble	Probable Case	Recommended Action
Failed to power on.	Batteries are drained.	Replace with a new battery
	Batteries are not correctly aligned with terminals.	Reinsert batteries correctly.
	The thermometer is damaged.	Contact your retailer or Customer Services.
Low battery symbol appears.	Low battery.	Replace with a new battery as soon as practical
	In colder temperature batteries have weaker electrical charges.	Warm up the batteries or use the device in a warmer setting.
The measurement is abnormal or if there is any doubt on the measured result	Incorrect measure position.	Reposition the probe point center of the forehead.
	The measuring distance is too far.	Maintain a distance of 3 cm.
	The measuring is hampered by hair, perspiration, oil, sweat, makeup, etc.	Remove obstructions from forehead.
	The lens of probe is dirty.	Clean the lens according to *cleaning and disinfecting*.
	You have just come	Stay in steady state

	from extreme temperatures environment.	room at least for 30 minutes.
	The thermometer has been stored in a cold room or exposed to direct sunlight.	Put the thermometer in steady state room at least for 30 minutes.
	Measurement was taken in surface temperature mode.	Switch mode to human mode.
Power switches off automatically.	System design.	Push the power button again.
	Batteries are drained.	Replace with a new battery
	The thermometer is damaged.	Contact your retailer or Customer Services.

Operating the Bluetooth function

This product is an TOUCH FREE Infrared Thermometer with Bluetooth function. design without entering personal information. If the device has a transmission function, the transmission measurement data is designed to be encrypted and transmitted, and will not be tampered with or retrieve user-related information during the transmission process. The firmware and software of the product have been programmed in the production process, and the programming interface is different from the data transmission interface. When programming to the microcontroller, use an encrypted programmer, so there is no need to worry about the software being tampered with during transmission.

Bluetooth function requirement:

- An Android device with Android version 4.3 or above and hardware support for Bluetooth 4.2.
- An iOS device with iOS version 5 or above and hardware support for Bluetooth 4.2.

How to activate the Bluetooth function:
Please refer to the instruction manual of your mobile phone or computer for how to activate the Bluetooth function.

Set Up Process

(1) Please determine your mobile phone or computer has BLE4.2.
(2) Turn on the NT66B device, when the Bluetooth icon shows on the device , it means NT66B device is under broadcast condition.
(3) Please check the connecting condition from your mobile phone or computer. The device name should be “NT66B”.
(4) Every measure reading will be transfer to your mobile phone or computer automatically..

Technical Specification

- Measuring range :
  Human Body : 34°C~43°C (93.2°F~109.4°F)
  Object : 0°C~100°C (32.0°F~212.0°F)
- Calibration Accuracy:
  Human Body : ±0.2°C(±0.4°F): from 34°C~43°C (93.2°F~109.4°F)
  Object : < 40°C ± 2°C; > = 40°C ± 5%
- Display resolution : 0.1°C
- Operating environment : 15°C~40°C (59°F ~ 104°F)
  with relative humidity 15% to 95% (non condensing)
  Atmospheric pressure: 700~1060 hPa 
- Storage/ Transportation environment :
  -25 to 55 °C(-13 to 131 °F) 
  with relative humidity 15% to 95% (non condensing)
  - Atmospheric pressure: 700~1060 hPa 
- Power supply : 2 x 1.5V AAA size alkaline batteries
- Weight : approx. 120g (with batteries)
- Memory: 10 sets
- Dimensions : approx. 142mm×42mm×43.9mm (L×W×H)
- Operation Distance : 3 cm
- Frequency : 2402~2480GHz
- Output power range : <=4dBm
- Battery Operation Time:
  about 90 minutes (Depends on different brand of batteries.)
- Shelf Life ： 3 years
- Reference body site: Ear temperature
- For Customer Service
  To obtain further service please contact AViTA Corp. for the address of the repair location. Enclose the Proof of Purchase. Include $10.00 USD for the return shipping and handling. Include a letter, with your name, address, phone number, and description of the specific problem. Pack the product carefully to prevent damage in transit. Because of possible loss in transit, we recommend insuring the product with return receipt requested.

EMC Tables

NT66B is intended for use in the electromagnetic environment specified below. The customer or the user of NT66B must make sure that it is used in such an environment.		
Guidance and manufacturer’ s declaration - Electromagnetic emissions		
Phenomenon	Professional healthcare facility environment a)	HOME HEALTHCARE ENVIRONMENT a)
Conducted and radiated RF MISSIONS	CISPR 11 Group 1 Class A (Not BLE Function) Group 2 Class A (With BLE Function)	CISPR 11 Group 1 Class B (Not BLE Function) Group 2 Class B (With BLE Function)
Harmonic distortion	Not applicable (Note: Power by Battery or DC Input) Only the AC input needs to be tested	
Voltage fluctuations and flickering	Not applicable (Note: Power by Battery or DC Input) Only the AC input needs to be tested	
a) The equipment is suitable for use in Home Health Environments and Professional Health Care Environments limited to patient rooms and respiratory treatment facilities in hospital or clinics. The more restrictive acceptance limits of Group 1 Class B (CISPR 11) have been considered and applied. The equipment is suitable for use in the mentioned environments when directly connected to the Public Mains Network. b) The test is not applicable in this environment unless the ME EQUIPMENT and ME SYSTEM used will be connected to the PUBLIC MAINS NETWORK and the power input is otherwise within the scope of the Basic EMC standard.		
Guidance and manufacturer’ s declaration - Electromagnetic immunity - Enclosure port		

Phenomenon	Basic EMC standard or test method	Immunity test levels	
		Professional healthcare facility environment	HOME HEALTHCARE ENVIRONMENT
ELECTROSTATIC DISCHARGE	IEC 61000-4-2	± 8kV contact ± 2 kV, ±4kV ±, ±8 kV, ±15 kV air	
Radiated RF EM fields	IEC 61000-4-3	a)	10 V/m b) 80MHz - 2.7 GHz 80% AM at 1kHz

Proximity fields from RF wireless communications equipment	IEC 61000-4-3	COMPLIANT NOTE: Further information about distances to be maintained between portable and mobile RF communications equipment (transmitters) and the NT66B can be requested from supplier using the contact information provided in this manual. However, it is advisable to keep the equipment at an adequate distance of, at least, 0.5 m from mobile phones or other RF communications transmitters to minimise possible interference.
RATED power frequency magnetic fields.	IEC 61000-4-8	30 A/m c) 50 Hz or 60 Hz
a) The equipment is suitable for use in Home Health Environments and Professional Health Care Environments limited to patient rooms and respiratory treatment facilities in hospital or clinics. The more restrictive IMMUNITY acceptance limits have been considered and applied. b) Before modulation is applied. c) This test level assumes a minimum distance of at least 15 cm between the ME EQUIPMENT or ME SYSTEM and sources of power frequency magnetic fields.		

Federal communications commission interference statement

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. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

⚠CAUTION:
Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two 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.

RF exposure warning:
The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.
The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

Explanation of Symbols

MD	Medical Device
	Manufacturer
	Date of manufacture (YYYY-MM-DD or YYYY-MM)
LOT	Batch code (YYMMWWWW)
SN	Serial number (YYMWWWXXXXX)
	Keep dry
	Caution
	Consult the instruction for use
	Disposal information: Should you wish to dispose of the article, do so in accordance with current regulations. Details are available from your local authority. WEEE 2012/19/EU Directives

	Stand-by
	Device classification type BF
IP 22	This product meets the basic safety and essential performance requirements indicated in the IP22 conditioning test (protection against solid foreign objects of 12.5mm ø and greater and against vertically falling water drops when enclosure tiled up to 15°)
	The empty, completely flat batteries must be disposed of through specially designated collection boxes, recycling points or electronics retailers. You are legally required to dispose of the batteries.
	Country of Manufacturer
	Keep away from sunlight
	This device complies with part 15 of the FCC Rules. Operation is subject to the following two 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.

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