TOUCH FREE Infrared Thermometer

NT61B

EN

 CE 2797   IP 22 RoHS REACH

EC	REP

MDSS GmbH
Schiffgraben 41
30175 Hannover Germany

AViTA Corporation
9F., No. 78, Sec. 1, Kwang Fu Rd.,
San Chung Dist., New Taipei City 24158, Taiwan, China

China, AViTA(WUJIANG)

Importer

Distributor

INSTRUCTION MANUAL

Please read this instruction manual carefully
before using your forehead thermometer

Contents

Introduction

Intended use
This Touch Free Infrared Thermometers is intended for home use and the intermittent measurement of human body forehead temperature in people of all ages.

Type of Use/ Reuse

Multiple patient multiple use

Intended User

The Patient is an intended operator.

Patient selection criteria: Handicapped persons and children are the exception of handicapped persons and children need assistance by another person to use the device.

1. Setting menu
2. Sound
3. Non-contact Forehead measurement
4. Object Measurement
5. Storage: 60 Measurements
6. Fever / No-Fever indicator (smiley symbols in LCD)
7. Backlight (turns on after each measurement for 5 seconds and in the memory mode)

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

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.

Product Identification
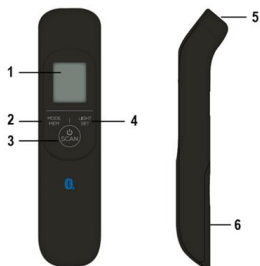
1   Display

2   MODE/MEM button

    MODE sets the measurement mode
    MEM   display stored measurement

3   ⏻ / SCAN button

    ⏻   Switch on the device.

    SCAN Starts the temperature measurement.

4   LIGHT/SET button

    LIGHT manual switch on/off the illuminated display
    SET   sets the basic functions

5   Measuring sensor

6   Battery compartment lid

Description of LCD Display

❈	Bluetooth
⬚	Object temperature mode
⬚	Room temperature mode
⬚	Forehead temperature mode
◁))	Acoustic signal symbol
TIME	Time
MEM	Memory function
DATE	Date
188.8	Temperature/memory space number display
🔋	Battery status indicator
☹	Measurement ≥ 38.0 °C (≥ 100.4 °F) "fever"
☺	Measurement < 37.5 °C (< 99.5 °F) "no fever"
🔅	Illuminated display symbol
°C	Temperature measurement unit Celsius
°F	Temperature measurement unit Fahrenheit
88:88	Year/date/time display

Battery Installation

Low battery warning:
If the batteries run out completely, the low battery symbol " $\boxed{}$ " will be displayed. 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:
The device requires two AAA (LR03) batteries.
- Open the battery compartment.
   To do this, push the battery compartment down.
- Take the used batteries out of the battery compartment.
- Insert new batteries.
   Make sure that the batteries are inserted the correct way round.
- Close the battery compartment.

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 on and setting the thermometer

To switch on the thermometer, briefly press the ⏻ / SCAN button.
After a brief self-test and two short beeps the thermometer is ready for
forehead measurement. The device always starts up in forehead
temperature mode 💭

Setting the basic functions

This menu allows you to set the following functions individually, one
after another.

Temperature measurement unit	→	Time format	→	Date	→	Time	→	Illuminated display	→	Acoustic signal	→	Bluetooth®

Temperature measurement unit

Insert the batteries or press and hold the LIGHT/SET button for 3
seconds when the thermometer is switched on. The temperature
measurement unit flashes on the display.
You can set the device to display the temperature in degrees Celsius (°C)
or degrees Fahr-enheit (°F).
• To display the temperature in Celsius, select °C using the
  MODE/MEM button and con-firm with the LIGHT/SET button.
• To display the temperature in Fahrenheit, select °F using the
  MODE/MEM button and confirm with the LIGHT/SET button.

Time format

The time format flashes on the display
• Use the MODE/MEM button to set your preferred time format, and
  confirm with the LIGHT/SET button.

24H ↔ 12H

Date

The year flashes on the display

• Use the MODE/MEM button to set the year, and confirm with the LIGHT/SET button.
  The day/month flashes on the display
• Use the MODE/MEM button to set the day and month, and confirm with the LIGHT/SET button

ⓘ If the hour format is set as 12 h, the day/month display sequence is reversed. Be sure to set the date and time correctly. Otherwise, you will not be able to save your measured values correctly with a date and time and access them again later.

$$2018 \rightarrow \; _{DATE}\,0101 \; \rightarrow \; _{DATE}\,0101$$

Time

The hour flashes on the display

• Use the MODE/MEM button to set the hour, and confirm with the LIGHT/SET button.
  The minute flashes on the display
• Use the MODE/MEM button to set the minute, and confirm with the LIGHT/SET button.

ⓘ In the 12 h format, the time is displayed with AM/PM.

$$0101 \rightarrow \; 0101$$

Illuminated display

The illuminated display symbol flashes on the display.
You can activate or deactivate the automatic illuminated display (appears following forehead temperature measurement).

- To activate the automatic illuminated display, use the MODE/MEM button to select On , and confirm with the LIGHT/SET button.
- To deactivate the automatic illuminated display, use the MODE/MEM button to select OFF, and confirm with the LIGHT/SET button.

Acoustic signal

The acoustic signal symbol flashes on the display.

You can activate/deactivate the acoustic signals (device activation, measurement in progress, measurement completion).

- To activate the acoustic signals, use the MODE/MEM button to select On , and confirm
with the LIGHT/SET button.
- To deactivate the acoustic signals, use the MODE/MEM button to select OFF, and confirm with the LIGHT/SET button.
- Hold the thermometer 2 to 3 cm in front of the forehead measuring point. Press the (¹) / SCAN button.

(i) If the measurement is less than 37.5°C (99.5°F), appears in the display to indicate no fever; this indicates that the body temperature is in the normal range.

The measurement is automatically saved with the date/time and the

"fever" ☹ / "no fever" ☺ classification.

The device is ready to take another measurement when two short beeps sound and the forehead symbol stops flashing.

The device automatically switches off after approx. 60 seconds or you can press the (¹) / SCAN button for 5 seconds to switch it off.

Displaying stored measurements

The device only stores measurements in forehead temperature mode .
The device automatically stores the values from the last 60
measurements.

When 60 memory spaces are exceeded, the oldest value is deleted.

- The memory can be called up as follows:
- With the thermometer switched on, press and hold the MODE/MEM
  button for 3 seconds.
  The most recent measurement is displayed.
- Pressing the MODE/MEM button again will display the measured
  value.
- In the upper line, the time and date are displayed alternately.

Measuring Object and Room Temperature

Object temperature mode 🌡

If you want to measure an object temperature with this thermometer, switch to object temperature mode.
- With the thermometer switched on, briefly press the MODE/MEM button. The device switches to the object temperature mode 🌡.
- Hold the thermometer 2 to 3 cm from the measuring point. Briefly press the ⏻ / SCAN button and read the temperature on the display.

The device automatically switches off after approx. 60 seconds or you can press the ⏻ / SCAN button for 5 seconds to switch it off.
Measurements taken in object temperature mode are not stored.

Room temperature mode 🌡

If you want to use the thermometer to measure the room temperature you need to switch to room temperature mode.
- With the thermometer switched on, briefly press the MODE/MEM button twice.

  The device switches to room temperature mode 🌡.
- The room temperature is immediately displayed.
  The device automatically switches off after approx. 60 seconds or you can press the ⏻/ SCAN button for 5 seconds to switch it off.

Measurements taken in room temperature mode are not stored.

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.

Error message	Problem	Solution
$Er\ 1$	Measurement during self-test, device not yet ready for measurement.	Wait until the forehead symbol stops flashing.
$Er\ 3$	Room temperature below 10 °C or over 40 °C (<50 °F, >104 °F).	Room temperature must be between 10 °C and 40 °C (<50 °F, >104 °F).
Hi	(1) Forehead temperature mode: The temperature recorded is higher than 42.2 °C (108 °F). (2) Object temperature mode: The temperature recorded is higher than 80 °C (176 °F).	Operate the thermometer only between the specified temperature ranges. In the event of a repeated error message, contact your retailer or Customer Services.
Lo	(1) Forehead temperature mode: The temperature recorded is lower than 34 °C (93.2 °F). (2) Object temperature mode: The temperature recorded is lower than -22 °C (-7.6 °F).	Operate the thermometer only between the specified temperature ranges. In the event of a repeated error message, contact your retailer or Customer Services.
▭	The batteries are empty.	Replace the batteries.

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 **NT61B device**, when the Bluetooth icon shows on the device , it means **NT61B device** device is under broadcast condition.
(3) Please check the connecting condition from your mobile phone or computer. The device name should be "**NT61B**" .
(4) Every measure reading will be transfer to your mobile phone or computer automatically..

Technical Specification

Model	NT61B
Measurement method	Non-contact infrared measurement Measuring site: Forehead Reference body site: Ear
Basic functions	Forehead temperature measurement Object temperature measurement Room temperature measurement
Measurement units	Celsius (°C) and Fahrenheit (°F)
Operating conditions	10 °C to 40 °C (50 °F to 104 °F) with a relative humidity 15% to 95 %
Storage conditions	-25 °C to 55 °C (-13 °F to 131 °F) with a relative humidity 15% to 95 %
Measurement distance	2 to 3 cm from the measuring point
Measurement range and accuracy of forehead temperature measurement	Forehead temperature measurement 34 °C to 43 °C (93.2 °F to 109.4 °F) laboratory accuracy 34 °C to 43 °C: ± 0.2 °C (93.2 °F to 109.4 °F: ± 0.4 °F)
Clinical repeat precision	Forehead: Children 1 – 5 years ± 0.07 °C (0.13 °F) Adults: ± 0.08 °C (0.14 °F)
Measurement range and accuracy Object temperature measurement	Object temperature measurement 0 °C to 80 °C (32 °F to 176 °F) Measurement accuracy ± 4% or ± 2 °C (± 4 °F)
Memory function Body temperature measurement	Automatically stores the last 60 measurements.
Acoustic signal	With device activation, during measurement, when measurement is complete (can be set).
Display	LCD display
Energy saving functions	Device automatically switches off after 1 minute.
Dimensions Width x depth x height	approx. 166.9*40.62*33.35mm
Weight	67 g (without batteries)
2 x AAA (LR03) batteries	Batteries last for approx. 2000 measurements Activated functions such as acoustic signal or illuminated display also reduce the battery life.
Frequency	2402~2480GHz
Output power range	<=4dBm
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. Shelf Life : 3 years

EMC Tables

NT61B is intended for use in the electromagnetic environment specified below. The customer or the user of NT61B 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 **NT61B** can be requested from supplier using the contact information provided in this manual. However, it is advisable to keep the electromechanical aerosol 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.

Explanation of Symbols

$C\mspace{-2mu}E$ 2797	The CE marking with the Registration Number of the Notified Body. This denotes the compliance of **Regulation (EU) 2017/745**
MD	Medical Device
▲▲	Manufacturer
EC REP	Authorized representative in the European Community
◠◠	Date of manufacture (YYMMDD or YYYY-MM)
LOT	Batch code (YYMMWWWW)
SN	Serial number (YYMWWWXXXXX)
☂	Keep dry
🌡	Temperature limit

⌣%⌣	Humidity limitation
⊖•⇔	Atmospheric pressure limitation
⚠	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
RoHS	This product fulfilling the requirements of the RoHS Directive 2011/65/EU.
REACH	This product fulfilling the requirements of the REACH Directive EC 1907/2006 and its amendments, do not contain Substances of Very High Concern in concentration above the limit of 0.1 %. No substance(s) is/are present in the parts of the product above the concentration of 0.1 % weight by weight.
⏻	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 ∅ and greater and against vertically falling water drops when enclosure tiled up to 15°)
� symbol	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.
📦	Importer
📦➡	Distributor
#	Model Number
⌂CN	Country of Manufacturer
UDI	Unique Device Identifier

AI	Data Element	Data Type/Format
(01)	Device Identifier(GTIN)	Numeric
(11)	Manufacturing Date	Numeric: YYMMDD
(10)	Lot Number	Alphanumeric
(21)	Serial Number	Alphanumeric

☀	Keep away from sunlight

Electronic IFU available at http://www.avita.com.tw

NT61BP-22456AV
2023-05-30