

NISSEI MT-500

Non-Contact Thermometer

User manual English

Thank you for purchasing this product.
Please read the manual thoroughly and use the product correctly.

Issued on 2. 21. 2020



Operating Principles and Intended Use

The product measures body temperature by measuring the peak wavelength of the infrared rays emitted from the forehead to measure forehead temperature without touching the forehead. It then calculates body temperature using the correction value calculated from the relationship between forehead and body temperature. It converts the amount of infrared radiation detected to body surface temperature. The product can also measure the surface temperature of other objects and room air temperature.

MT-500 is a clinical thermometer designed for the professional use in medical institutions, and it is intended to be used for patients with all ages except for pre-term infants and small for gestational age (SGA) newborns.

The product is also intended to be used during professional transportation of a patient outside the healthcare facility and home healthcare environment.

Safety Precautions

[Usage Conditions]

- Do not use the product near flammable gas, such as anesthetic gas in hospitals, or in locations with high oxygen concentration such as hyperbaric oxygen chambers or oxygen tents.
Otherwise this may cause combustion or ignition.

- Do not use in combination with the electrical medical equipment below.

- MRI (magnetic resonance imaging) equipment
- Hyperbaric oxygen treatment equipment

Otherwise this may cause an accident or malfunction.

- Do not make any diagnoses or treat yourself based on your own measurement results.

Measure the temperature under direction from the doctor, receive a professional diagnosis, and follow their directions on taking medicine.

- Do not use the product near devices that produce electromagnetic waves (microwaves, electromagnetic cookers, etc.) or near devices that generate radio waves (cell phones, PHS, etc.).
Otherwise this may cause product malfunction.

- The correct temperature may not be displayed in the following situations.

- When measured in an area near an air conditioner or in windy areas
- When the forehead is in direct sunlight
- When the forehead is wet due to sweat or similar
- When the subject was in a different location with a different temperature just before measuring
- When the product was in a different location with a different temperature just before measuring
- When there is hair, foundation, or anything that interrupts measurement between the forehead and the sensor

- Do not use outside of the specified operating temperature range.

Otherwise the accuracy of the measurement cannot be guaranteed.

- Do not use the product at the environment with dust, lint and direct sunlight.

Since the product includes precision parts, they may cause the malfunction of the product.

[Measuring]

- Use the forehead to measure body temperature.
If used on another body site the measurement will not be accurate.
- When taking a measurement for an infant, please make sure that he/she is in calm state.
Emotional states of infants may affect the measurement results.

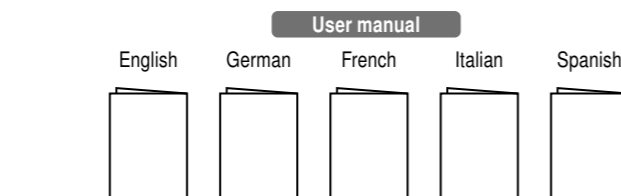
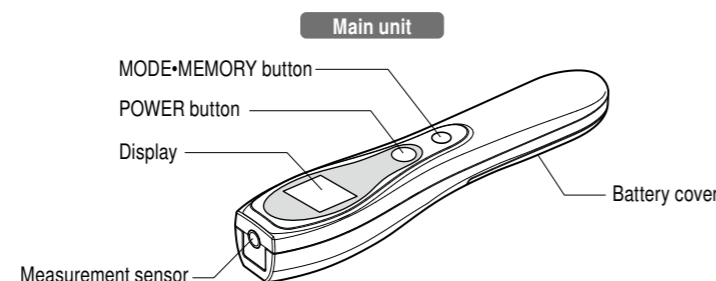
[Handling the Product]

- Check that the product is not dirty or wet.
Refer to the instructions on cleaning the product.
- Remove the battery when not using the product for a long period of time.
Leaving the battery in for a long time may cause battery fluid to leak and damage the product.
- When replacing the battery do not touch the battery or battery terminal and another person at the same time.
A conductive connection may be formed.
- Do not allow children to handle the product alone or leave the product in a place children or pets can reach.
Otherwise this may cause injury.
- Do not drop or apply strong impacts to the product.
We recommend taking the product to the store to be inspected if it is dropped from a height of 1 m or more, or is impacted strongly in any other way.
- Do not disassemble, repair or modify the product.
Otherwise this may cause product malfunction.
- If the product stops functioning properly, stop using it.
Ask for it to be inspected or repaired.
- Stop using the product immediately and contact your dealer or the manufacturer in case any visible damage is found on the product.
- Follow the regulations of your local area when disposing of the product or used batteries.

Part Names and Product Components

Check that following items are included.

If any of the parts are missing, contact the store where the product was purchased.



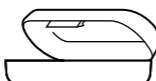
AAA alkaline battery (LR03)

(for test use)



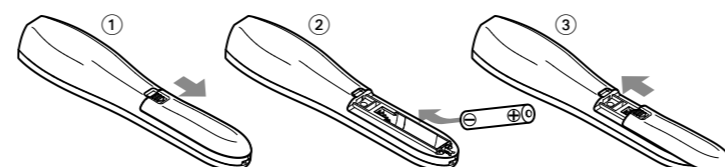
* The battery included is for test use.
It may have a shorter life than commercially sold batteries.


Storage case



Inserting the Battery

- Push the battery cover on the back of the device in the direction of the arrow to open it.
- Insert an AAA alkaline battery (LR03) as shown on the device.
Press the negative end (-) of the battery against the spring when inserting and removing the battery.
- Insert the battery cover in the direction of the arrow to close it.



- Replace the battery when the battery mark () is displayed. When the mark stops flashing and remains indicated no measurements can be taken.
- Follow the regulations of your local area when disposing of used batteries.
- Check the expiration date of the battery. If an expired battery is used the device may malfunction or break.
- Remove the battery if the device is not used for a long period of time. Otherwise battery fluid may leak and damage the device.
- Do not use a battery other than the one with designated type. The specified performance of the product may not be retained if such battery is used.

Measuring Body Temperature

- Press the POWER button to turn the device on.

Full display will appear for one second for functional test of LCD segments.



*The battery mark indication at full display doesn't mean the depletion of battery.

- Check that it is in body temperature mode.

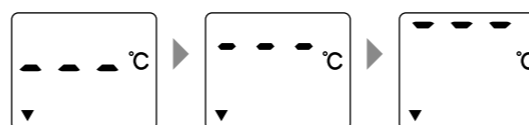
Body temperature mode



- Press the POWER button. The device will beep, and the distance sensor will start monitoring the distance.

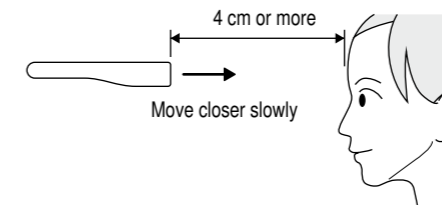
If the device is too close to the measurement site, a warning beep will sound repeatedly. Move the device away until the beeping stops.

The bars on the screen keep moving while the distance is monitored.



- Hold the device perpendicular to the forehead, hold it more than 4 cm away, and slowly move it closer. When the forehead and the device are about 4 cm away, a long beep will sound and the measurement result will be displayed.

The measurement results are automatically saved.



*In body temperature mode the measurement result will not be displayed unless the sensor and forehead are about 4 cm of each other.

*To stop the measurement, press POWER button.

- Press and hold the POWER button for 2 seconds or longer to turn off the device.

If the device remains turned on, the backlight will automatically turn off after 15 seconds, and the device will automatically turn off after 1 minute.

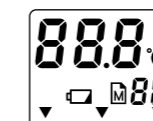
Cautions when measuring body temperature

- The device calculates internal body temperature (armpit temperature) from the forehead and room air temperature. Forehead temperature will be affected in the following situations and it may not be possible to accurately calculate internal body temperature.
 - When measured in an area near an air conditioner or in windy areas
 - When the forehead is in direct sunlight
 - When the forehead is wet due to sweat or similar
 - When the subject was in a different location with a different temperature just before measuring
 - When the device was in a different location with a different temperature just before measuring
 - When there is hair, foundation, or anything that interrupts measurement between the forehead and the sensor
 - When the forehead was covered with a hat or similar just before measuring.
- When measuring, do not put the hand or similar near the forehead. The measurement sensor will measure the temperature of other site than the forehead.
- Slowly move the device closer to the forehead. If it is moved quickly, accurate measurement may not be possible.
- Take measurements in an environment with a room air temperature of 10°C to 40°C.

Measuring Object Temperature

- Press the POWER button to turn the device on.

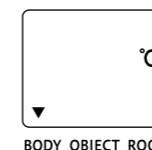
Full display will appear for one second for functional test of LCD segments.



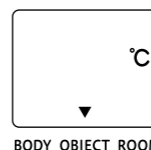
*The battery mark indication at full display doesn't mean the depletion of battery.

- Press and hold the MODE-MEMORY button to switch to object mode.

Body temperature mode



Object mode



- Hold the device perpendicular to the measuring surface and press the POWER button when the measurement sensor is around 2 - 3 cm away, facing the object. The device will beep and start measuring.

If the device is too far away it may not measure the temperature accurately.

Take measurements in an environment with a room air temperature of 10°C to 40°C.

- A long beep will sound and the measurement result will be displayed.

The measurement results are automatically saved.

- Press and hold the POWER button for 2 seconds or longer to turn off the device.

If the device remains turned on, the backlight will automatically turn off after 15 seconds, and the device will automatically turn off after 1 minute.

Cautions when measuring object temperature

- Steam or vapor may condensate on the measurement sensor when directly measuring hot liquids, making it impossible to measure accurately.

Measuring Room Air Temperature

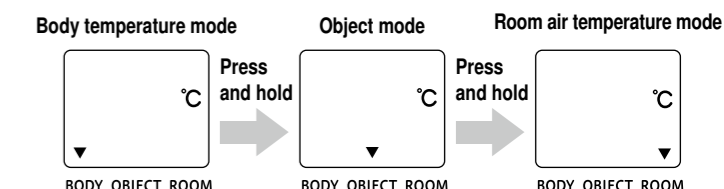
- Press the POWER button to turn the device on.

Full display will appear for one second for functional test of LCD segments.



*The battery mark indication at full display doesn't mean the depletion of battery.

- Press and hold the MODE-MEMORY button to switch to room air temperature mode.



- The room air temperature is displayed.

Room air temperature measurement results are not saved.

- Press and hold the POWER button for 2 seconds or longer to turn off the device.

If the device remains turned on, the backlight will automatically turn off after 15 seconds, and the device will automatically turn off after 1 minute.

