

125.0 mm

ASTS

No Touch Infrared Forehead Thermometer

The most advanced touch-free infrared thermometer



Up to



Fast



Clinically tested



High precision

120.0 mm

ASTS

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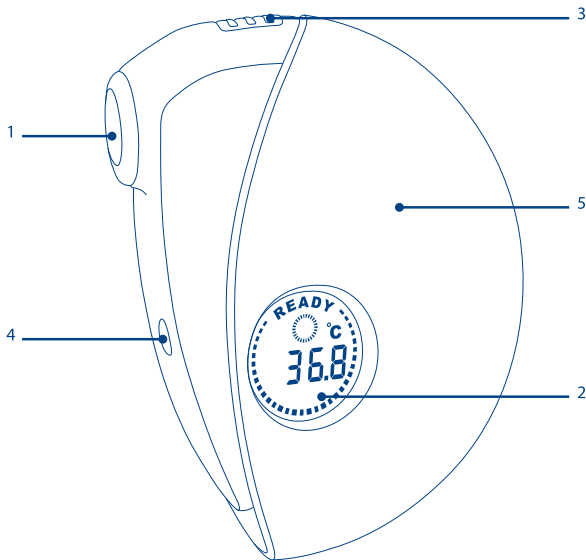


Fig.1

Dear user,

Thank you for purchasing of our product! This thermometer was designed by a very experienced group of engineers and was produced in conformance to all the requirements of international standard of ISO 13485:2003 (Medical devices — Quality management systems -) and FDA ASTM standards. The thermometer measures the infrared light emitted from the forehead surface and converts these measurements into an oral equivalent temperature and shows a very stable and reliable reading.

Characteristics

1. Probe
2. Display
3. Measurement Button
4. Memory Button
5. Protective, rotating cover

Body temperature

Like blood pressure, body temperature varies from person to person and undergoes different fluctuations during the course of the day, running approximately from 35.5°C to 37.8°C (95.5°F - 104.04°F).

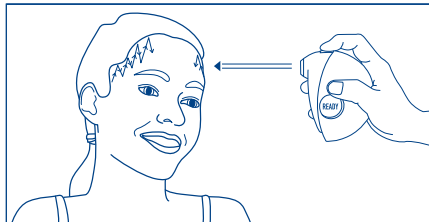
For these reasons, to correctly determine the temperature, it is best to know one's normal, healthy forehead temperature at various times of the day. This will provide a valid reference when evaluating any real rise in temperature. To determine if one has a fever, compare the temperature detected with the person's normal temperature. Remember, a rise over the reference body temperature of 1° C (1.8°F) or more is generally indication of fever.

How to take a measurement

- 1) The thermometer must be set in an environment where the reading is to be taken 20-25 minutes before taking the reading. The person who will be taking the reading must also be in the room for at least 20-25 minutes.
- 2) Clean all sweat, make-up, etc. from the forehead and wait a few minutes before taking the reading.
- 3) Open the thermometer by turning the cover (fig. 1 - no. 5). The thermometer goes on automatically. A blue ray appears which helps ensure correct positioning of the probe when taking the measurement. In fact, this ray indicates the exact point where the reading will be taken. Wait until the "READY" message appears before taking the reading.



- 4) Position the thermometer's detector at a distance of not more than 10 cm (4 inch) and not less than 0.5 cm (0.2 inch) from the forehead. Press the "Measurement" button (fig. 1 - no. 3) and explore the entire temple area. The best position is above the left side of the left eyebrow or above the right side of the right eyebrow, just under the hairline.



While scanning, the thermometer emits short beeps to indicate that the temperature measurement is in progress.

- 5) 4 sharp “beeps” indicates that measurement is completed. At this point you can read the temperature on the display.
- 6) The thermometer turns off automatically 1 minute after the measurement has been completed. To turn off the blue positioning ray, turn the protective cover (remember, if the cover is not closed, the ray will continue to operate and use up the power supply batteries).

Note: Correct measurement can be taken at any distance up to 10 cm.

Important: For repeated measurements, always position the thermometer at the same point on the forehead.

Important notes

- After physical exercise, bathing or eating, wait 30 minutes before taking a temperature reading.
- For greater accuracy wait at least 2 minutes between readings.
- When pointed toward a hot object, the thermometer detects the temperature remotely. To prevent incorrect readings, position the thermometer as soon as the “READY” message appears.
- Avoid direct sunlight, other sources of heat and direct air conditioning as they can affect the forehead during the temperature reading, modifying the result.
- If the light ray is no longer visible, replace its batteries.
- Never expose the thermometer to extreme temperatures, dust or abrupt movements.
- Never let the thermometer get wet.
- Never use the thermometer on irritated skin or when the forehead presents other problems.
- Never use the thermometer when the forehead is particularly sweaty, the reading will not be reliable.

Memory function

The memory function records 8 readings and remembers them for 64 hours. The last reading performed before the thermometer is turned off is recorded to memory. To use the memory function, turn the protective cover (fig. 1 - no. 5), press the “M” button (lo-


cated under the probe, fig. 1 - no. 4) and release it. The display alternates the following information four times:

- previous measurement
- how many hours ago the measurement was taken.

Pressing and releasing the “M” button again will call up the second to last measurement taken. You can read all the values saved by continuing to press the memory button.

To delete the memory, press the buttons “M” and “Measurement” simultaneously. This will turn off the thermometer and reset the memories.

Replacing the battery

No Touch Thermometer is powered by a 3V lithium battery (it also has two 1.5 V AAA batteries to power the light ray). The lithium battery can handle approximately 12,000 measurements. If the  symbol appears on the display or if the thermometer does not completely function, remove the battery as indicated below:

- remove the lid from the battery compartment;
- remove the old battery;
- insert the new battery with the positive side (+) facing up and the negative side (-) facing down;
- replace the battery compartment lid.



Warning: replace only with CR 2032 batteries (e.g.: Energizer, Varta, Panasonic). If there is no blue ray, replace the two AAA batteries, as indicated below:

- remove the lid from the battery compartment;

- remove the old batteries;
- insert the new batteries with the positive (+) and negative (-) sides positioned as indicated by the symbols on the housing;
- replace the battery compartment lid.

Warning: replace only with 1.5 V AAA batteries (e.g.: Duracell, Energizer).

Use of other types of batteries can cause explosions or fires.

Warning: the battery can explode if handled carelessly. Never recharge, remove or position the batteries near sources of heat higher than 100°C (212°F). Do not incinerate.

Maintenance


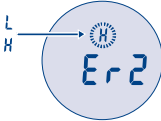



No Touch Thermometer has an infrared sensor located inside the probe. To prevent damage to the sensor, close the thermometer by turning the cover. If there is dust or water inside the probe, clean it delicately with a soft cloth and let it dry before closing.

It is best to occasionally clean the outside of the probe (without touching the sensor) using a 70% alcohol solution.


Switching between °F/°C

Open the thermometer by twisting the cover; turns off automatically after 1 minute; press button "M" to change from °C to °F readings and vice versa.

Troubleshooting

Display	Meaning	Action
	There is a general thermometer function problem.	Reset the thermometer by pressing the "ON" and "M" buttons simultaneously and keeping them pressed for 3 seconds. If the thermometer still does not function, contact technical services.
	The thermometer's temperature is not within the operating range of 16°C to 36°C "L" – lower than 16°C (60.8°F) "H" – higher than 36°C (96.8°F)	Place the thermometer in a room with the temperature range of 16°C (60.8°F) to 36°C (96.8°F). Wait 30 minutes before taking a new reading.
	The temperature taken is not consistent	Repeat measurement more slowly when moving up and down over the measurement area.
	The temperature measured is outside the measurement range 34.4°C - 42.6°C (93.4°F - 108.7°F)	Repeat the measurement and wait for the beep before moving the thermometer.
	The battery is low. Only a few more measurements can be taken.	Replace the old battery with a new one.

Troubleshooting

Display	Meaning	Action
	The battery is dead. No more measurements can be taken.	Replace the old battery with a new one.
The thermometer does not function or does not respond. The display does not go on or remains on steady.	The thermometer needs to be reset or the battery replaced.	Reset the thermometer by pressing the “ON” and “M” buttons simultaneously and keeping them pressed for 3 seconds or replace the old battery with a new one. If the thermometer still does not function, contact technical services.

Technical data

Measurement interval: 34.4°C - 42.6°C (93.4°F - 108.7°F)

Operating temperature: 16.0°C - 36.0°C (60.8°F - 96.8°F)

Laboratory precision: $\pm 0.2^{\circ}\text{C}$ ($\pm 0.36^{\circ}\text{F}$)

Batteries: 1 3V CR 2032 lithium battery (for the measurement functions)

2 1.5V AAA batteries (only for the light ray)

Classification according to EN60601-1 safety standards:

1. Internally powered equipment
2. Type BF
3. Continuous operation



Warning: refer to the instructions before use and keep them in a safe place.

The thermometer must be kept at room temperature in a dry place, away from any sources of heat and out of direct sunlight. Strong electromagnetic fields could interfere with correct functioning. Keep out of the reach of children. Never leave children alone when taking a temperature reading. If there is a rise in temperature, consult your doctor. Compliant with EEC directive 93/42.

2-year warranty

A S T S guarantees No Touch Thermometer from material and manufacturing defects for a period of two years from the date of purchase. The warranty applies when the unit is employed for normal home use, in compliance with what is outlined in this user's manual. In no case can A S T S be held responsible for any particular damages, inherent, direct or consequent to the purchase or use of this product or for costs higher than the original cost of the product.

The warranty does not cover any damages due to the batteries, accidents or improper use.

Additional warranties may vary from country to country.

Electromagnetic compatibility

The device is manufactured according to applicable standards and complies with all requirements on protection relating to electromagnetic compatibility; special precautions should however be taken for EMC and the device should be installed and operated in compliance with the information on EMC in this leaflet.

Portable and mobile radio communication equipment may affect the operation of the electromedical device. When electromagnetic disturbance occurs, repeat temperature reading if values are uncertain.

Guide to Manufacturer's Declaration – Electromagnetic Emissions		
The No Touch Thermometer digital electronic thermometer is designed to operate in the electromagnetic environment indicated below. The customer or user of the thermometer should ensure the device is used in this environment.		
Emissions test	Conformity	Electromagnetic environment - guide
RF emissions	Group 1	The No Touch Thermometer uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions	Class B	The No Touch Thermometer is suitable for use in all premises, including home use and rooms connected directly to a low voltage mains supply for domestic use.

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Model No. NT1020

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