Geratherm®
non Contact

GT-101

CE 0197

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INSTRUCTION MANUAL

Geratherm®
non Contact

Contactless Clinical Infrared Thermometer

GT-101

CE 0197

Dear customer,

Thank you for your confidence in Geratherm® and congratulations on your purchase!
By purchasing the Geratherm® non Contact thermometer you have acquired a quality product by Geratherm®.
This thermometer has been clinically tested and proven to be safe and accurate when used in accordance with its operating instruction manual.
Please read through these instructions carefully so that you understand all functions and safety information.

Best regards,
The Geratherm® Team

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DESCRIPTION OF PARTS

ADVANTAGES OF THE THERMOMETER

Fast and contactless temperature measurement
The innovative infrared technology ensures safe and hygienic temperature measurement within seconds.

Multifunctional
The extended measuring range (0 °C - 100 °C; 32 °F - 212 °F) permits the measurement of body temperature and of the temperature of objects or surfaces, e.g. baby bottles, bath water, ambient temperature.

Safe and hygienic
The avoidance of direct skin contact means reduced transmission of viruses and other germs.

Accurate and reliable
The unique measuring probe, which incorporates an advanced infrared sensor, ensures that, when applied correctly, each measurement is accurate and reliable.

Fever indicator
10 short beeps and a red LCD backlight indicate that the patient's temperature is at or above 37.5 °C (99.4 °F).

Memory
The last 30 readings can be recalled from the memory, enabling efficient tracking of temperature variations.

INTENDED USE

This thermometer is intended for the periodic measurement and monitoring of human body temperature.

⚠ SAFETY PRECAUTIONS

- This instrument may only be used for the purposes described in this booklet.
- It is intended only for the forehead measurements and not for rectal, oral or axillary body temperature measurement.
- Please read the notes to measuring body temperature carefully.
- The unit is not waterproof. Never immerse this instrument in any liquids.
- For cleaning and disinfection, please follow the instructions in the section entitled “Cleaning and Disinfection”.
- Do not use the instrument if you think it is damaged or if you notice anything unusual.
- Never open the instrument (except for battery change purposes).
- Observe the storage and operating conditions described in the «Technical Data» section.
- Ensure that children do not use the instrument unsupervised.
- Protect it from:
  - extreme temperatures
  - impact and dropping
  - contamination and dust
  - direct sunlight
  - heat and cold
- If the instrument is not going to be used for a prolonged period, the batteries should be removed.
- Use of this instrument is not intended as a substitute for consultation with your physician.

IMPORTANT INFORMATION ABOUT TEMPERATURE MEASUREMENT

This thermometer measures infrared energy radiated from the forehead as well as from objects. This energy is collected through lenses and converted into a temperature value.
Temperature readings obtained by scanning above the eyebrow area will provide the greatest accuracy.

TECHNICAL DATA

Model:	GT-101
Measuring range: body mode: object mode:	 34.0 °C to 42.2 °C (93.2 °F to 108.0 °F) 0 °C to 100 °C (32 °F to 212 °F)
Resolution:	0.1 °C or 0.1°F
Accuracy (laboratory):	36.0 °C – 39.0 °C: +/- 0.2 °C (96,8 °F - 102,2 °F: +/- 0,4 °F); other ranges +/- 2%
Measuring time:	approx. 3 seconds
Display:	Liquid crystal display, 4 digits
Battery:	2 x 1.5 V, size AAA
Lifetime of battery:	approx. 1000 measurements
Fever indicator:	10 short beeps and red LCD backlight if the reading is equal to or greater than 37.5 °C (99.4 °F)
Memory:	Storage of up to 30 measured values
IP Classification:	IP22 (effective against bigger solid bodies; protected against dripping water)
Dimensions:	165 mm x 40 mm x 20 mm (LxWxH)
Weight:	approx. 81 g, including battery
Operating conditions:	Body mode: 16 °C to 40 °C (60.8 °F to 104 °F), Object mode: 5 °C to 40 °C (41°F to 104 °F), Humidity: 15 % to 95 % RH
Storage conditions:	-20°C to +50 °C (-4 °F to +122 °F), Humidity: 15 % to 95 % RH
Automatic switch-off:	approx. 3 min after last measurement

TECHNICAL DATA

Reference to standards:
ASTM E1965; IEC 60601-1; IEC 60601-1-2 (EMC)
The unit conforms to the Council Directive 93/42/EEC concerning medical devices
Geratherm® is certified in accordance with Council Directive 93/42/EEC and EN ISO 13485 and is entitled to affix the CE-mark CE 0197 (Notified Body: TÜV Rheinland LGA Products GmbH).

Electromagnetic compatibility (EMC):
The present medical product is a device with an extremely high degree of noise immunity. Therefore, the enclosure with the EMC tables was not printed out.

Specifications are subject to change.

BATTERY REPLACEMENT

This instrument is supplied with 2 new 1.5 V size AAA batteries. The batteries need replacing when this icon " ▼ " is the only symbol shown on the display.

Slide the battery cover open and insert 2 new batteries, then close the battery cover again. When replacing the batteries, ensure correct polarity by referring to the symbols in the battery compartment.

⚠ **Attention:**
Keep the thermometer and batteries out of the reach of young children. Do not dispose of the batteries in a fire. They may explode.

ALTERNATING BETWEEN BODY AND OBJECT MODE

To switch from body to object mode (and vice versa), push the mode button.

⚠ SAFETY PRECAUTIONS TO MEASURING BODY TEMPERATURE

- In order to ensure accurate measurement, the patient should first rest for 30 minutes in the same room as the thermometer.
- Do not take a baby's temperature during or directly after breastfeeding.
- Do not use the thermometer in a humid environment.
- Use of the unit under operating conditions outside the range indicated may result in false readings.
- Patients should not drink, eat, or exercise before/while taking the measurement.
- Do not move the measuring device away from the area to be measured until the termination beep has sounded.
- 10 short beeps and a red LCD backlight indicate that the patient's temperature is at or above 37.5 °C (99.4°F).
- Always take the temperature at the same measuring site, otherwise the temperature readings may vary.
- A control measurement using a conventional thermometer is recommended in the following cases:

    1. In the case of new-born infants within the first 6 months.
    2. In the case of children under three years of age with a compromised immune system, for whom the presence or absence of fever is critical.
    3. While the user is learning how to use the thermometer, until such time as he/she has become thoroughly familiar with the instrument and obtains consistent readings.
    4. If the measurement is suspiciously low.

MEASURING BODY TEMPERATURE

1. Press the ON/OFF button ⏻. The display is activated to show all segments for 2 seconds. The instrument performs a self-test every time it is switched on to always guarantee the specified accuracy of measurements.

2. The last measurement reading will automatically be shown on the display for 2 seconds with the "**M**" icon.

3. The thermometer is ready for measurement as soon as the "**°C**" or "**°F**" icon starts flashing and a beep sound is heard.

4. Press the mode button until you see a symbol in the form of a head on the display. Now you are in the body temperature measurement mode.

5. Aim the thermometer at the centre of the forehead, holding it no more than 5 cm away from the skin surface. If the forehead is covered with hair, perspiration or dirt, please remove this beforehand in order to ensure accurate measurement.

6. Press the START button and steadily move the thermometer from the middle of the forehead to the temple area (about 1 cm above the eyebrow). The activated blue tracking light will indicate the measurement area.

7. After 3 seconds a long beep will verify the completion of measurement. If the temple area has not been reached by the time the long beep is heard, repeat the measurement as described above, but move the thermometer a little faster.

8. Read the recorded temperature from the LCD display.
   - If the reading is below 37.5 °C (99.4 °F), you will hear a long beep and the backlight of the display will be green.
   - If the reading is at or above 37.5 °C (99.4 °F), you will hear 10 short beeps, and the backlight of the display will be red.

MEASURING BODY TEMPERATURE

NOTE:
Readings from different measuring sites should not be compared, as normal body temperature varies depending on the measuring site and the time of day.

Normal body temperature ranges:

- In the rectum (rectal): 36.6 °C - 38.0 °C (97.9 °F - 100.4 °F)
- In the mouth (oral): 35.5 °C - 37.5 °C (95.9 °F - 99.5 °F)
- In the armpit (axillary): 34.7°C - 37.3°C (94.5 °F - 99.1 °F)
- Geratherm® non Contact: 35.4 °C - 37.4 °C (95.7 - 99.3 °F)

MEASURING THE TEMPERATURE OF AN OBJECT

1. Follow steps 1-3 in the chapter on Measuring Body Temperature.
2. Press the mode button until you see a symbol in the form of a house on the display. Now you are in the object temperature measurement mode.
3. Aim the thermometer at the centre of the object whose temperature you wish to measure, holding it no more than 5 cm away from the surface. Press the START button. After 3 seconds a long beep will verify the completion of measurement.
4. Read the recorded temperature from the LCD display.

ALTERNATING BETWEEN °C AND °F

To switch the display between °C and °F, simply turn OFF the unit, then press and hold the START button for 5 seconds; after 5 seconds, the current measurement scale (“°C” or “°F” icon) will be flashing on the display.
Now switch the measurement scale between °C and °F by pressing the START button. After you have selected the desired measurement scale, wait for 5 seconds and the unit will automatically enter the “ready for measuring” mode.

RECALLING STORED DATA

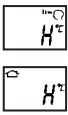
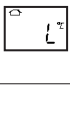
This thermometer can recall the last 30 readings.

1. Press START when the power is off. The memory icon “M” will flash.

2. Press START again to recall the last reading.

3. Press START repeatedly to recall the last 30 readings in succession.

ERROR MESSAGES

Display	Description
	**The measured temperature is too high** **H** appears if the reading is above 42.2 °C (108 °F) in body mode or 100 °C (212 °F) in object mode.
	**The measured temperature is too low** **L** appears if the reading is below 34 °C (93.2 °F) in body mode or 0 °C (32 °F) in object mode.
	**Ambient temperature is too high** **H** appears in connection with ⌂ if the ambient temperature is above 40 °C (104 °F).
	**Ambient temperature is too low** **L** appears in connection with ⌂ if the ambient temperature is below 16 °C (60.8 °F) in body mode or 5 °C (41 °F) in object mode.
	**Error indication on the display** 3 short signal beeps will sound.
	**Blank display** Check the position or polarity of the battery.
	**Flat battery indication** Insert new batteries.

CLEANING AND DISINFECTION

- Use a swab or cotton tissue moistened with alcohol (e.g. 70% Isopropyl) to clean the thermometer casing and the measuring probe. Ensure that no liquid enters the interior of the thermometer. Never use abrasive cleaning agents, thinners or benzene for cleaning and never immerse the instrument in water or other cleaning liquids.

- Take care not to scratch the surface of the measuring probe and the display.

- Do not reuse the thermometer until it is completely dry.

- Soiling on the display of the measuring sensor can affect the measurement reading. Make sure that the display is free of contaminants, and if required, clean as described above.

DISPOSAL

Observe the applicable regulations when disposing of the device and batteries.
This product must not be disposed of together with domestic waste.
All users are obliged to hand in all electrical or electronic devices, regardless of whether or not they contain toxic substances, at a municipal or commercial collection point so that they can be disposed of in an environmentally acceptable manner.
Please remove the batteries before disposing of the device/unit. Do not dispose of old batteries with your household waste, but at a battery collection station at a recycling site or in a shop.

WARRANTY

This thermometer is guaranteed for 2 years from the date of purchase against any manufacturing defect, conditional upon normal household use. If your unit does not work owing to defective parts or assembly, we undertake to repair it without charge. Apart from the battery, all parts of the unit are subject to this warranty. Damage to the unit caused by improper use is not covered by this warranty.
We recommend that the accuracy of the unit be checked annually by an authorised laboratory (mandatory in Germany). This checking procedure is not a service provided under the warranty.

SYMBOL INDEX

	Follow instructions for use
	Protect from moisture
	Store between 15 % and 95 % R.H.
	Store between -20 °C and +50 °C
	The device must not be disposed of with household waste.

	Type BF applied part
LOT	Batch code (mm/yyyy; month/ year)
SN	Serial number
	Manufacturer
	Caution! Read the instruction manual.
REF	Model

Geratherm Medical AG
Fahrenheitstraße 1
D-98716 Geschwenda
Germany

CE 0197

CERTIFICATE OF GUARANTEE

Geratherm® guarantees the non Contact thermometer against any manufacturing defect for two years from the date of purchase if it is returned to the dealer from whom it was purchased. During this period the unit will be repaired or replaced free of charge if the fault is due to defective design or assembly.
This guarantee does not cover any damage or defect caused by improper handling resulting from use that is not in compliance with these instructions, or caused by unauthorised attempts to repair it. Your local dealer cannot declare this manufacturer's guarantee invalid, but may expand it by additional guarantees at his discretion and at his own expense.

Model No.: .....

Serial No.: .....

Date of purchase: .....

Dealer's signature: .....

Invoice No. / Receipt No.: .....

Name and address of dealer: .....

.....

Geratherm Medical AG
Fahrenheitstraße 1
D-98716 Geschwenda
Germany

CONTACTLESS CLINICAL INFRARED THERMOMETER
Geratherm®
non Contact
GT-101

CE 0197

Geratherm
Medical Diagnostic Systems

GERMANY

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