

beurer

FT 90

EN Non-contact thermometer
Instructions for use



CE 0483

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Read these instructions for use carefully and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

Dear customer,

Thank you for choosing one of our products. Our name stands for high-quality, thoroughly tested products for applications in the areas of heat, gentle therapy, blood pressure/diagnosis, weight, massage and air. Please read these instructions for use carefully and observe the information they contain.

With kind regards,
Your Beurer team









Included in delivery










Check that the delivery has not been tampered with and make sure that all components are present. Before use, ensure that there is no visible damage to the device or accessories and that all packaging material has been removed. If you have any doubts, do not use the device and contact your retailer or the specified Customer Services address.

- Thermometer
- 2 x AAA (LR03) batteries
- Storage box
- Instructions for use

1. Signs and symbols

The following symbols appear in these instructions for use and on the device:

	WARNING Warning notice indicating a risk of injury or damage to health.
	IMPORTANT Safety note indicating possible damage to the unit/accessory.
	Note Note on important information.
	Observe the instructions for use
	Application part, type BF
	Disposal in accordance with the Waste Electrical and Electronic Equipment EC Directive – WEEE
	CE labelling This product satisfies the requirements of the applicable European and national directives.
	Manufacturer

Storage/Transport  	Permissible storage and transport temperature and humidity
Operating  	Permissible operating temperature and humidity
IP22	Protected against solid foreign objects 12.5 mm in diameter and larger, and against drops of water when the housing is angled up to 15°
	Serial number
	Important information/tip
	Cross-reference to another section.
  PAP	Dispose of packaging in an environmentally friendly manner

2. Use

This clinical thermometer is intended for non-contact measurement of forehead, object and room temperature. It allows you to quickly and easily measure body temperature. Values are saved automatically.

3. Warnings and Safety

3.1 Risks to the user

- Only use the device once you have read and understood these instructions for use.
- Retain these instructions for use. The instructions for use must be accessible to all users. All instructions must be followed.
- The thermometer needs to be in the room in which the measurement is taken for at least 30 minutes before use.
- The FT 90 thermometer is only designed for the measuring area on the human body stated in the instructions for use.
- The device is only intended for the purpose stated in these instructions for use.
- Children must not be allowed to use the device. Medical devices are not toys.
- Check before each use that the lens is intact. If it is damaged, please contact your retailer or the service address.
- The device has been designed for practical use, but is not a substitute for a visit to the doctor.
- Should you have any questions about using the device, please contact either your retailer or Customer Services.

3.2 Risks to the device

- Do not subject the device to mechanical impacts.
- Do not expose the device to direct sunlight.
- Do not expose the device to liquids. The device is not waterproof. Avoid all direct contact with water or other liquids.
- Have the device repaired by authorised service centres only, otherwise its warranty is invalidated.
- Portable and mobile HF communication systems may interfere with this device.

3.3 Notes on handling batteries

- If your skin or eyes come into contact with battery fluid, flush out the affected areas with water and seek medical assistance.

- ⚠ **Choking hazard!** Small children may swallow and choke on batteries. Store the batteries out of the reach of small children.
- Observe the plus (+) and minus (-) polarity signs.
- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Protect the batteries from excessive heat.
- ⚠ **Risk of explosion!** Never throw batteries into a fire.
- Do not charge or short-circuit batteries.
- If the device is not to be used for a long period, take the batteries out of the battery compartment.
- Use identical or equivalent battery types only .
- Always replace all batteries at the same time.
- Do not use rechargeable batteries.
- Do not disassemble, split or crush the batteries.

4. Information about this thermometer

The temperature measurement varies depending on the part of the body where the measurement is taken. In a healthy person, the variance can be between 0.2°C and 1°C (0.4°F and 1.8°F) in different parts of the body.

Normal temperature range with various thermometers

	Measurements	Thermometer used
Forehead temperature	35.8°C to 37.6°C (96.4°F to 99.7°F)	Forehead thermometer
Ear temperature	36.0°C to 37.8°C (96.8°F to 100.0°F)	Ear thermometer
Oral temperature	36.0°C to 37.4°C (96.8°F to 99.3°F)	Conventional thermometer
Rectal temperature	36.3°C to 37.8°C (97.3°F to 100.0°F)	Conventional thermometer



Beurer tip

- Temperatures measured with different thermometers should never be compared with one another.
- Tell your doctor what type of thermometer you used to take your temperature and on what part of the body. Also bear this in mind if you are diagnosing yourself.



Holding the thermometer for too long in the hand before taking a measurement can cause the device to warm up. This means the measurement could be incorrect.

Influences on body temperature

- A person's individual metabolism
- Age

Body temperature is higher in babies and toddlers than in adults. Greater temperature fluctuations occur faster and more often in children. Normal body temperature decreases with age.

- Clothing
- Outside temperature
- Time of day

Body temperature is lower in the morning and increases throughout the day towards evening.

- Activities

Physical and, to a lesser extent, mental activities increase body temperature.



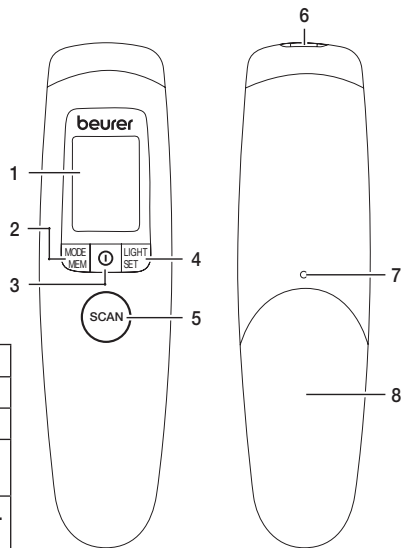
Beurer tip

Taking the body temperature provides a current measurement of a person's temperature. If you are uncertain about interpreting the results or if the values are abnormal (e.g. fever), please consult your doctor. This also applies in the case of slight temperature changes if there are other symptoms of illness such as agitation, severe sweating, flushed skin, fast pulse rate, tendency to collapse, etc.

5. Unit description

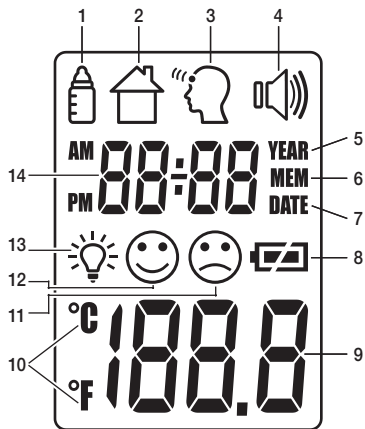
- 1 Display
- 2 **MODE/MEM** button
- 3 On/Off button **⓪**
- 4 **LIGHT/SET** button
- 5 **SCAN** button
- 6 Measuring sensor
- 7 Battery compartment lock
- 8 Battery compartment lid

Buttons	Functions
⓪	Turns the device on and off.
SCAN	Starts the temperature measurement.
MODE/MEM	MODE Sets the measurement mode. MEM Displays stored measurements.
LIGHT/SET	LIGHT Manual switch on of the illuminated display. SET Sets the basic functions.



5.1 Display description

- 1 Object temperature mode
- 2 Room temperature mode
- 3 Forehead temperature mode
- 4 Acoustic signal symbol
- 5 Year
- 6 Memory function
- 7 Date
- 8 Battery level
- 9 Temperature/memory space number display
- 10 Celsius/Fahrenheit measurement unit
- 11 Measurement $\geq 38.0^{\circ}\text{C}$ ($\geq 100.4^{\circ}\text{F}$) "fever"
- 12 Measurement $< 38.0^{\circ}\text{C}$ ($< 100.4^{\circ}\text{F}$) "no fever"
- 13 Illuminated display symbol
- 14 Year/date/time display



6. Initial use

If provided, pull out the battery insulating strip at the battery compartment or remove the protective film from the battery and insert the battery with the correct polarity.


▷ 11. Batteries

After a brief self-test and two short beeps the thermometer is ready for forehead measurement.

7. Switching on and setting the thermometer

Briefly press the On/Off 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 .

7.1 Setting the basic functions

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



Time format

- With the thermometer switched on, press and hold the **LIGHT/SET** button for 5 seconds.

The time format option flashes on the display (fig. 1).

- Use the **MODE/MEM** button to set your preferred time format and confirm with the **LIGHT/SET** button.

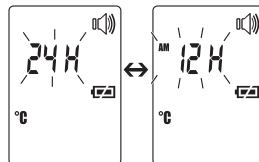


Fig. 1

Date

The year flashes in the display (fig. 2).

- Use the **MODE/MEM** button to set the year and confirm with the **LIGHT/SET** button.

Day/month flashes in the display (fig. 3).

- Use the **MODE/MEM** button to set the day and month, and confirm with the **LIGHT/SET** button.

ⓘ In the 24h format, the date is displayed as day/month. In the 12h format, it is displayed as month/day.

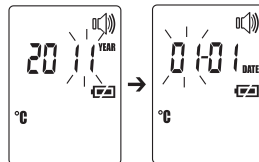


Fig. 2

Fig. 3

The time flashes in the display (fig. 4).

- Use the **MODE/MEM** button to set the time and confirm with the **LIGHT/SET** button.

① In the 12h format, the time is displayed as AM/PM.



Fig. 4

The temperature measurement unit flashes in the display (fig. 5).

You can set the device to display the temperature in degrees Celsius (°C) or degrees Fahrenheit (°F).

- To display the temperature in Celsius, select °C using the **MODE/MEM** button and confirm 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.

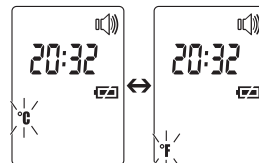




Fig. 5

The acoustic signal symbol flashes in the display (fig. 6).

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

- To activate the acoustic signals, select  using the **MODE/MEM** button and confirm with the **LIGHT/SET** button.
- To deactivate the acoustic signals, select  using the **MODE/MEM** button and confirm with the **LIGHT/SET** button.

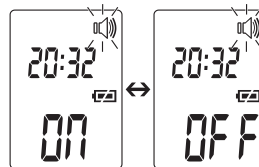


Fig. 6

The light symbol flashes in the display (fig. 7).

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

- To activate the automatic illuminated display, select **ON** using the **MODE/MEM** button and confirm with the **LIGHT/SET** button.
- To deactivate the automatic illuminated display, select **OFF** using the **MODE/MEM** button and confirm with the **LIGHT/SET** button.

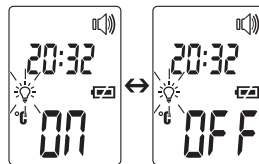



Fig. 7

You can also activate the illuminated display manually by briefly pressing the **LIGHT/SET** button. The display lights up for 5 seconds.

i The automatic and manual illuminated display cannot be used while measurement is in progress.

8. Forehead measurement

Briefly press the On/Off button **i**.

After a brief self-test and two short beeps the device is ready for forehead temperature measurement. The device is in forehead temperature mode. This is indicated by the  symbol.



Beurer tip

Remember that

- physical activity, increased perspiration on the forehead, taking vasoconstrictive medication and skin irritations can distort the result,
- the forehead, or the temples, must be free from perspiration and cosmetics.

Hold the thermometer 2 to 3 cm from the measuring point. Press the **SCAN** button and move the thermometer from side to side over the forehead area (fig. 8).

During measurement you will hear short beeps (only if the acoustic signal is activated), which signal that the thermometer has found a new highest measurement.

End of measurement is signalled by a long beep.

Release the **SCAN** button.

You can now read the measured value.

In addition to the temperature, the fever ☹️ or no fever 😊 symbols also appear in the display:

The no fever symbol 😊 indicates that the body temperature is within normal range; the fever symbol ☹️ indicates a measurement equal to or higher than 38°C (100.4°F), which triggers a temperature alarm.

If the acoustic signal is switched on, three beeps will sound once the measurement is complete if the temperature is equal to or higher than 38°C (100.4 °F).

The measuring time is usually 2 seconds but may take up to 30 seconds.

When two short beeps sound and the forehead symbol 🗑️ stops flashing, the device is ready to take another measurement.

The measurement is automatically saved with the date/time and the “fever” ☹️ / “no fever” 😊 classification.

8.1 Displaying saved measurements

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

When 60 storage places 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 5 seconds. The most recent measurement is displayed.
- With each subsequent pressing of the **MODE/MEM** button, first the storage space number is displayed followed by the measurement upon release.
- In the upper line, the time and date are displayed alternately.




Fig. 8

9. Measuring object temperature/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 in the display (fig. 9).


Measurements taken in object temperature mode are not stored.



Fig. 9

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 the room temperature mode .
- The room temperature is immediately displayed (fig. 10).


Measurements taken in room temperature mode are not stored.



Fig. 10

10. Error messages

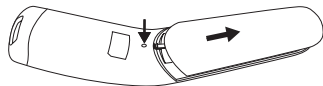
Error message	Problem	Solution
	Measurement during self-test, device not yet ready for measurement.	Wait until the forehead symbol stops flashing.

Error message	Problem	Solution
H_i	(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.
L_o	(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.

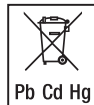
11. Batteries

The device requires two AAA (LR03) batteries.

- Open the battery compartment.
Use a pointed object to press down on the battery compartment lock and at the same time slide the battery compartment downwards.
- Take the used batteries out of the battery compartment.
- Insert new batteries.
Make sure that the batteries are inserted the right way round.
- Close the battery compartment.



- 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.
- The codes below are printed on batteries containing harmful substances:
Pb = Battery contains lead,
Cd = Battery contains cadmium,
Hg = Battery contains mercury.



12. Cleaning the device



- The measuring sensor is the most sensitive part of the thermometer. Take great care of the measuring sensor when cleaning the device.
 - Do not use any harsh cleaning products.
 - Always observe all safety notes for user and device.
- ▷ 3. Warnings and Safety
-

Clean the measuring sensor after each use. Use a clean cloth or cotton bud that can be moistened with disinfectant or 70 % alcohol.

To clean the entire device, please use a soft cloth slightly moistened with a mild soapy solution. Under no circumstances may liquid enter the device.

Do not use the device again until it is completely dry.

13. Storing the device



The device must not be stored or used at an excessively high or low temperature or humidity (see technical specifications), in sunlight, in association with an electrical current or in dusty locations. Otherwise inaccuracies can occur.

If prolonged storage is planned, you should remove the batteries.

14. Disposing of the device

- For environmental reasons, do not dispose of the device in the household waste at the end of its useful life. Dispose of the unit at a suitable local collection or recycling point. Dispose of the device in accordance with EC Directive – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the local authorities responsible for waste disposal.



15. Technical Data

If the device is used other than in accordance with the specifications, perfect functioning cannot be guaranteed! The accuracy of this thermometer has been carefully checked and developed with regard to a long useful life. If using the device for commercial medical purposes, it must be regularly tested for accuracy by appropriate means. Precise instructions for checking accuracy may be requested from the service address. We reserve the right to make technical changes to improve and develop the product.

Type	FT 90/1
Measurement method	Non-contact infrared measurement
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 of ≤95 %
Storage conditions	-20 °C to 50 °C (-4 °F to 122 °F) with a relative humidity of ≤85 %
Measurement distance	2 to 3 cm from the measuring point

Measurement range and accuracy of forehead temperature measurement	Forehead temperature measurement 34 °C to 42.2 °C (93.2 °F to 108 °F) Measurement accuracy 36 °C to 39 °C: ± 0.2 °C (96.8 °F to 102 °F: ± 0.4 °F) In the remaining measurement range ± 0.3 °C (± 0.5 °F)
Clinical repeat precision	0.23 °C (0.41 °F)
Measurement range and accuracy Object temperature measurement	Object temperature measurement -22 °C to 80 °C (-7.6 °F to 176 °F) Measurement accuracy $\pm 4\%$ or ± 2 °C (± 4 °F)
Memory function Body temperature measurement	Automatically stores the last 60 measurements.
Acoustic signal (can be set)	With device activation, during measurement, when measurement is complete.
Display	LCD display
Energy saving functions	Device automatically switches off after 1 minute.
Dimensions Width x depth x height	approx. 47.6 mm x 29.0 mm x 188.0 mm
Weight	82 g (without batteries)
Batteries	2 x AAA (LR03) batteries Batteries last for approx. 3000 measurements Activated functions such as acoustic signal or illuminated display also reduce the battery life.

The serial number is located on the device or in the battery compartment.

16. Guidelines

The device complies with the EU Medical Devices Directive 93/42/EEC, the German Medical Devices Act (Medizinproduktgesetz), the ASTM E 1965 - 98 and the European standard EN 60601-1-2 (in accordance with CISPR11, IEC61000-4-2, IEC61000-4-3, IEC61000-4-8) and is subject to particular precautions with regard to electromagnetic compatibility.



Notes on electromagnetic compatibility

- The device is suitable for use in all environments listed in these instructions for use, including domestic environments.
- The use of the device may be limited in the presence of electromagnetic disturbances. This could result in issues such as error messages or the failure of the display/device.
- Avoid using this device directly next to other devices or stacked on top of other devices, as this could lead to faulty operation. If, however, it is necessary to use the device in the manner stated, this device as well as the other devices must be monitored to ensure they are working properly.
- The use of accessories other than those specified or provided by the manufacturer of this device can lead to an increase in electromagnetic emissions or a decrease in the device's electromagnetic immunity; this can result in faulty operation.
- Failure to comply with the above can impair the performance of the device.

17. Warranty/service

Beurer GmbH, Söflinger Straße 218, 89077 Ulm, Germany (hereinafter referred to as “Beurer”) provides a warranty for this product, subject to the requirements below and to the extent described as follows.

The warranty conditions below shall not affect the seller's statutory warranty obligations which ensue from the sales agreement with the buyer.

The warranty shall apply without prejudice to any mandatory statutory provisions on liability.

Beurer guarantees the perfect functionality and completeness of this product.

The worldwide warranty period is 5 years, commencing from the purchase of the new, unused product from the seller.

The warranty only applies to products purchased by the buyer as a consumer and used exclusively for personal purposes in the context of domestic use.

German law shall apply.

During the warranty period, should this product prove to be incomplete or defective in functionality in accordance with the following provisions, Beurer shall carry out a repair or a replacement delivery free of charge, in accordance with these warranty conditions.

If the buyer wishes to make a warranty claim, they should approach their local retailer in the first instance: see the attached “International Service” list of service addresses.

The buyer will then receive further information about the processing of the warranty claim, e.g. where they can send the product and what documentation is required.

A warranty claim shall only be considered if the buyer can provide Beurer, or an authorised Beurer partner, with

- a copy of the invoice/purchase receipt, and
- the original product.

The following are explicitly excluded from this warranty:

- deterioration due to normal use or consumption of the product;
- accessories supplied with this product which are worn out or used up through proper use (e.g. batteries, rechargeable batteries, cuffs, seals, electrodes, light sources, attachments and nebuliser accessories);
- products that are used, cleaned, stored or maintained improperly and/or contrary to the provisions of the instructions for use, as well as products that have been opened, repaired or modified by the buyer or by a service centre not authorised by Beurer;

- damage that arises during transport between manufacturer and customer, or between service centre and customer;
- products purchased as seconds or as used goods;
- consequential damage arising from a fault in this product (however, in this case, claims may exist arising from product liability or other compulsory statutory liability provisions).

Repairs or an exchange in full do not extend the warranty period under any circumstances.

Contracted Manufacturer: AVITA (WuJiang) Co. LTD
Factory address: No. 858, Jiao Tong Rd., Wujiang Economic Development Zone, Suzhou City, Jiangsu Province, P.R.C.
Phone number: 0512-82078288
Product Name: Touch Free Infrared Thermometer
Model: FT 90
ISO Standard: ISO 80601-2-56:2017
China medical production Licence No: SSYJXSCX20040018
Manufactured in China



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