



# EAR Thermometer



## READ ALL INSTRUCTIONS BEFORE USE

### 1. Signs and symbols

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

	<b>WARNING</b> Warning notice indicating a risk of injury or damage to health.
	<b>IMPORTANT</b> Safety note indicating possible damage to the unit/accessory.
	<b>Note</b> 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
	The CE labelling certifies that the product complies with the essential requirements of Directive 93/42/EEC on medical products.
	Permissible storage temperature and humidity

	Permissible operating temperature and humidity
	Manufacturer
	IP 22, protection against harmful ingress of water and dust

### 2. Intended use

The ear thermometer is intended for measuring the body temperature in the ear. Do not use the ear thermometer for measurements in other parts of the body. You can also use the ear thermometer to measure room and object temperatures.

The ear thermometer has been carefully developed for precise and rapid temperature measurements in the ear. It is a non-invasive ear thermometer with an infra-red detector to determine the body temperature in the auditory canal of adults and children aged over 6 months.

Use the device for the intended purpose only and in the manner specified in these instructions for use. Any form of improper use can be dangerous. The manufacturer is not liable for damage resulting from improper or careless use.

The quality of the device has been verified and conforms to the requirements of Council Directive 93/42/EEC (Medical Devices Directive) Annex I, Essential requirements, and the corresponding harmonised standards. ISO 80601-2-56:2009 Clinical ther-

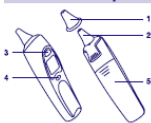
3

- 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.

### Risks to the device

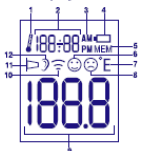
- Do not subject the device to mechanical impacts.
- Do not expose the device to direct sunlight.
- Do not expose the device to liquids. The device is not waterproof. Avoid all direct contact with water or other liquids.
- Have the device repaired by authorised service centres only, otherwise its warranty is invalidated.
- Portable and mobile HF communication systems may interfere with this device. More details can be requested from the stated Customer Services address or found at the end of the instructions for use.

### 4. Unit description



- 1 Protective cap
- 2 Measuring sensor
- 3 START button
- 4 ON/OFF button
- 5 Battery compartment

### LCD display



- 1 Room temperature mode
- 2 Displays room temperature/time/date
- 3 AM/PM display (time)
- 4 Battery symbol
- 5 Memory symbol
- 6 No fever symbol
- 7 Temperature unit (°C or °F)
- 8 Fever symbol
- 9 Temperature display
- 10 Object temperature mode
- 11 Protective cap symbol
- 12 Body temperature mode

5

### 6.2 Setting the temperature unit (°C or °F)

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

1. Press and hold the START button on the switched-off device for three seconds. "°C" appears on the display.	
2. Use the START button to select the temperature unit (°C or °F) and confirm using the ON/OFF button.	

### 7. Measuring

#### Note

Check before each use that the ear thermometer lens tip is intact. If it is damaged, contact your retailer or the service address. The ear thermometer needs to have been in the room in which the measurement is taken for at least 30 minutes before use to ensure an accurate reading.

#### 7.1 Measuring body temperature

#### WARNING

- Some people produce different readings in their left and right ear. In order to record temperature changes, always measure a person's temperature in the same ear.

7

**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.**

### Table of contents

1. Signs and symbols	3
2. Intended use	3
3. Notes	4
4. Unit description	5
5. Initial use	6
6. Settings	6
6.1 Setting the time/date	6
6.2 Setting the temperature unit (°C or °F)	6
7. Measuring	7
7.1 Measuring body temperature	7
7.2 Measuring object temperature	9
7.3 Displaying room temperature	9
7.4 Displaying stored measurements	10
8. Replacing the battery	10
9. Cleaning and storage	11
10. Disposal	11
11. What if there are error messages?	12
12. Technical data	13
13. Warranty	13

The Boots Ear Thermometer provides an accurate temperature reading in seconds. The thermometer is hygienic and easy to use, and works by using an infra-red detector to determine body temperature within the ear canal. It can also be used to measure the temperature of a room, or other objects such as food, bath water or bottled milk.

Suitable from 6 months+ to adult

### 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 Boots Customer Services or your local Boots Store.

### Boots Ear Thermometer

Protective case with stand

10 Disposable caps

2 1.5V AAA (LR03) batteries

Instruction booklet

### Subsequent purchase articles

Protective cap set replacement available: 40 protective caps, item no. 80-53-944.

2

monometers – Part 5: Performance of infra-red ear thermometers (with maximum device). Please note that portable and mobile HF communication systems may interfere with this device. More details can be requested from the stated Customer Services address or found at the end of the instructions for use.

### 3. Notes

#### Safety notes

#### WARNING

- To measure temperature, insert the sensor tip of the ear thermometer carefully into the ear.
- Use of the ear thermometer on different persons can be inappropriate in the event of certain acute infectious diseases because of the possible spread of germs despite cleaning and disinfection. If you have any doubts, please consult your doctor.
- The body temperature measured in the mouth, rectum or armpits. Any comparison of these values is therefore futile. Measure temperature regularly to understand the normal ear temperature and then use these measurements as a basis for comparison when taking measurements in the event of a suspected high temperature.
- This ear thermometer is intended for measuring the temperature in the ear. Do not use this ear thermometer for measurements in other parts of the body.

- Replace the protective cap after each use to ensure an accurate measurement and prevent cross-contamination.
- The ear thermometer may only be used with Boots Ear Thermometer Replacement Caps; other protective caps may result in faulty measurements. If you have run out of protective caps, contact the manufacturer or retailer for replacements.
- **Choking Hazard!** Small children may swallow and choke on replacement caps. Store protective caps out of reach of small children.
- Temperature is not the only indication of illness. If you are concerned regarding you/your child's health, whether or not you/they have a high temperature, seek medical advice.

#### Notes on handling batteries

#### WARNING

- If your skin or eyes come into contact with battery fluid, rinse 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.
- Seek medical advice if battery has been swallowed.
- If a battery has leaked, put on protective gloves and clean the battery compartment with a dry cloth.
- Protect 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 relatively long period, take the batteries out of the battery compartment.

4

### 5. Initial use

The batteries are already inserted in new devices. Before first use, remove the protruding plastic insulating strip from the battery compartment. The ear thermometer will then switch on automatically.



### 6. Settings

#### 6.1 Setting the time/date

Before beginning to take measurements, we recommend that you set the current time and date. This will allow you to organise the saved measurements more easily later.

1. Press and hold the ON/OFF button on the switched-off device for three seconds. "24 H" appears on the display.	
2. Use the START button to select the hour format (12h or 24h) and confirm using the ON/OFF button.	

3. The hour setting appears on the display. Use the START button to select the current hour and confirm using the ON/OFF button.	
4. The minute setting appears on the display. Use the START button to select the current minute and confirm using the ON/OFF button.	
5. The year setting appears on the display. Use the START button to select the current year and confirm using the ON/OFF button.	
6. The day flashes on the display. Use the START button to select the current day and confirm using the ON/OFF button.	
7. The month flashes on the display. Use the START button to select the current month and confirm using the ON/OFF button. The device then switches itself off automatically. The date and time are now saved.	

6

1. Place a clean protective cap on to the sensor tip of the ear thermometer.	
2. Press the ON/OFF button to switch on the ear thermometer. Three acoustic signals sound and the display switches on.	
3. As the ear canal is slightly curved, you have to pull the ear slightly up and backwards before inserting the sensor tip. This is important so that the tip of the protective cap can be pointed directly at the eardrum.	
4. Insert the sensor tip with the protective cap carefully into the ear canal and press the START button to begin the measurement.	
5. After approx. one second, a long acoustic signal sounds and the measurement is shown in the display.	

8

6. Press the ON/OFF button to switch off the ear thermometer.	
<b>Note</b> If none of the buttons are pressed for one minute after the measurement, the ear thermometer automatically switches itself off again.	

#### Fever indicator

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; this is accompanied by a short single beep for temperatures below 37.5°C and two short beeps for temperatures between 37.5 and 37.9°C.

The **Fever symbol** indicates a measurement equal to or higher than 38°C (100.4°F); this is accompanied by a short, long and three short beeps, one after the other.

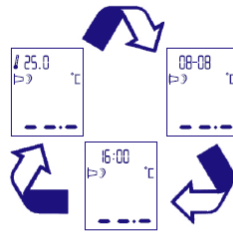
Temperature	Smiley Symbol	Sound
<37.5 °C (99.5 °F)		1 short beep
37.5–37.9 °C (99.5–100.2 °F) indicates a "raised temperature"		1 short beep -> 2 short beeps
≥38 °C (100.4 °F)		1 short beep -> 3 short beeps

## 7.2 Measuring object temperature

1. Remove the protective cap from the sensor tip of the ear thermometer (if it is on).	
2. Press the ON/OFF button (⏻) to switch on the ear thermometer. Three acoustic signals sound and the display switches on.	
3. Ensure that you are in object temperature mode (☐). <b>To switch between body temperature and object temperature mode, briefly press and hold the ON/OFF button (⏻) and the START button at the same time.</b>	
4. Hold the sensor tip of the ear thermometer 1 to 2 cm from the desired measuring point and press the START button.	
5. After one second, a long acoustic signal sounds and the measurement is shown in the display. Briefly press the ON/OFF button (⏻) to switch off the ear thermometer.	

## 7.3 Displaying room temperature

When you switch on the ear thermometer, the room temperature, the date and time appear alternately on the display every 3 seconds.



## 7.4 Displaying stored measurements

The ear thermometer automatically stores the last 10 temperature measurements of body and object temperature respectively (incl. date and time). To recall the stored measurements, proceed as follows:

1. Press the ON/OFF button (⏻) to switch on the ear thermometer.	
2. Press and hold the ON/OFF button (⏻) for 3 seconds. An M and the last stored measurement appear on the display.	
3. To switch between the individual stored measurements, press the ON/OFF button (⏻). With each subsequent pressing of the ON/OFF button (⏻), the memory space number is displayed first followed by the measurement.	
4. Press START to take a new measurement. Press and hold the ON/OFF button (⏻) for 3 seconds to switch off the ear thermometer.	

## 8. Replacing the battery

Follow equipment instructions carefully and always use the recommended type of batteries. Do not allow children to fit batteries without adult supervision. Before replacing the battery, ensure that the device is switched off.

1. Replace the batteries as soon as the battery symbol (⏻) appears on the display.	
2. Slide open the battery compartment and remove the used batteries from the battery compartment.	

3. Insert two new 1.5 V AAA batteries; do not mix old and new batteries of different types or brands. Make sure that the batteries are inserted the right way round, observing the + and - signs on the battery and product. Close the battery compartment, ensuring it is securely replaced.	
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## 9. Cleaning and storage

Protective caps are only intended for single use.

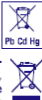
The sensor tip is the most sensitive part of the ear thermometer. Work carefully when cleaning the sensor tip to avoid causing any damage. Use a clean cloth or cotton bud that can be moistened with disinfectant, alcohol or warm water. To clean the entire device, use a soft cloth slightly moistened with a mild soapy solution. Do not use any harsh cleaning products. If prolonged storage is intended, you should remove the batteries. The device must not be stored or used at an excessively high or low temperature or humidity (see technical data). In sunlight, in association with an electrical current or in dusty locations, otherwise inaccuracies can occur.



## 10. Disposal

Used batteries should not be disposed of in normal household waste. You are legally required to dispose of the batteries. Dispose of them via your local Boots store or your local recycling point.

Note: The codes below are printed on batteries containing harmful substances: Pb = Battery contains lead, Cd = Battery contains cadmium, Hg = Battery contains mercury. In order to minimize hazards to health and the environment and ensure that materials can be recycled, this product should be disposed of at a separate collection facility for waste electrical and electronic equipment.



The Wheelie Bin symbol marked on products, batteries or their packaging is there to remind you.

## 11. What if there are error messages?

Error message	Cause	Solution
ER1	The ear thermometer is not yet ready for measurement.	Take measurements only once body (☐) or object temperature mode (☐) appears on the display.
ER2	The measured ambient temperature is not in the range from 10°C – 40°C (50 – 104°F).	Place the ear thermometer in a room with an ambient temperature between 10°C and 40°C (50°F and 104°F) for at least 30 minutes.
ER3	The ear thermometer is not placed in the ear correctly.	Please observe the notes in the chapter "Measuring". Perform the measurement again.
ER4	The ear thermometer registered a large change in the ambient temperature.	Place the ear thermometer in a room with an ambient temperature between 10°C and 40°C (50°F and 104°F) for at least 30 minutes.
ER5	The ear thermometer is not working properly.	Replace the batteries and try again. If the fault occurs again, contact Customer Services.
ER6	You are in the "Measuring object temperature" mode and the protective cap is still on.	The protective cap must be removed to measure object temperatures.

Error message	Cause	Solution
H <sub>i</sub>	In-ear measurement: the measured temperature is over 43°C (109.4°F). Object measurement: the measured temperature is over 100°C (212°F).	Ensure that the device and the protective cap are fully functioning. Perform the measurement again.
L <sub>o</sub>	In-ear measurement: the measured temperature is below 28°C (82.4°F). Object measurement: the measured temperature is below 20°C (68°F).	Ensure that the device and the protective cap are fully functioning. Perform the measurement again.
⏻	The batteries are empty.	Remove the two empty batteries and insert two new 1.5 V AAA batteries into the ear thermometer.

If you cannot find a solution to your problem here contact Boots Customer services or your local Boots store.

## 12. Technical data

Type	FT 58
Temperature range	<ul style="list-style-type: none"> <li>In ear: 28.0 – 43.0°C (82.4 – 109.4°F)</li> <li>Object temperature: -20 – 100°C (-4 – 212°F)</li> <li>Room temperature: 0 – 50°C (32 – 122°F)</li> </ul>
Laboratory measurement accuracy	<ul style="list-style-type: none"> <li>In ear: ±0.2°C (0.4°F) in measurement range of 35.5 – 42.0°C (85.9 – 107.6°F); ±0.3°C (0.5°F) in measurement range of &lt;35.5°C (85.5°F) and ≥42.0°C (107.6°F)</li> <li>Object temperature: ±0.4°C (0.7°F)</li> <li>Room temperature: ±2°C (±4°F)</li> </ul>
Clinical reproducibility	0.11°C (0.2°F)
Duration of measurement	Approx. one second
Operating temperature range	10 – 40°C (50 – 104°F), humidity 15 – 85% (non-condensing)
Storage temperature range	-25 – 55°C (-13 – 131°F), humidity 15 – 85% (non-condensing)
Memory	10 memory spaces
Display resolution	0.1°C or 0.1°F
Battery	DC 3 V 2 x AAA (LR03) batteries
Dimensions	155 x 38 x 47 mm
Weight	Approx. 83 g (without batteries)
Protective caps	10

Automatic switch-off	80 seconds
Battery operating life	3,000 measurements in succession or one year with one to two measurements per day, including standby mode.
Safety classification	Connected medical device of type BF
IP protection class	IP 22, protection against harmful ingress of water and dust

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

## 13. Warranty

In addition to your statutory rights, Boots UK Limited agrees that if any defect in materials or workmanship appears in the product within three years, after the original date of consumer purchase, it will repair or, at its option, replace the product free of charge. This applies only if the product has been used for domestic purposes and has not been damaged through misuse, accident or neglect and has not been modified or repaired by anyone other than Boots or its authorised agents. If a defect appears, please check that the article is being used in accordance with the instructions. If so, return it with this warranty and proof of purchase to your nearest Boots store which stocks this article or similar articles, as soon as possible. Boots UK Limited reserves the right to modify this product without notice.

The Boots Ear Thermometer model number is FT 58.

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## ELECTROMAGNETIC COMPATIBILITY INFORMATION

Table 1

Guidance and declaration of manufacturer-electromagnetic emissions		
The FT58 Ear Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the FT58 Ear Thermometer should ensure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The FT58 Ear Thermometer uses RF energy only for its internal function. Therefore, its emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The FT58 Ear Thermometer is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	


Table 2

Guidance and declaration of manufacturer-electromagnetic immunity			
The FT58 Ear Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the FT58 Ear Thermometer should ensure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tiles. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	
Surge IEC 61000-4-5	±1kV differential mode ±2kV common mode	Not applicable	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U <sub>n</sub> (>95% dip in U <sub>n</sub> ) for 0.5 cycles 40% U <sub>n</sub> (80% dip in U <sub>n</sub> ) for 5 cycles 70% U <sub>n</sub> (30% dip in U <sub>n</sub> ) for 25 cycles	Not applicable	
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: U<sub>n</sub> is the a.c. mains voltage prior to application of the test level.



**Table 3**

Guidance and declaration of manufacturer-electromagnetic immunity			
The FTSS Ear Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the FTSS Ear Thermometer should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3Vrms 150 kHz to 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of the FTSS Ear Thermometer, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. <b>Recommended separation distance:</b> $d = \left[ \frac{3.5}{f_1} \right] \sqrt{P}$ 80 MHz to 800 MHz
Radiated RF IEC 61000-4-3	3V/m 80 MHz to 2.5 GHz	3V/m	$d = \left[ \frac{7}{f_1} \right] \sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, <sup>a</sup> should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 
<b>NOTE 1</b> At 80 MHz and 800 MHz, the higher frequency range applies.			
<b>NOTE 2</b> These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast can not be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the FTSS Multi-function Thermometer is used exceeds the applicable RF compliance level above, the FTSS Multi-function Thermometer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the FTSS Multi-function Thermometer.			
Over the frequency range 150kHz to 80MHz, field strengths should be less than [V] V/m.			

**Table 4**

Recommended separation distances between portable and mobile RF communications equipment and the FTSS Ear Thermometer		
The FTSS Ear Thermometer is intended for use in an electromagnetic environment in which radiated therefore disturbances are controlled. The customer or the user of the FTSS Ear Thermometer can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the FTSS Ear Thermometer as recommended below, according to the maximum output power of the communications equipment.		
Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)	
	80 MHz to 800 MHz $d = \left[ \frac{3.5}{f_1} \right] \sqrt{P}$	800 MHz to 2.5 GHz $d = \left[ \frac{7}{f_1} \right] \sqrt{P}$
0.01	0.12	0.23
0.1	0.38	0.73
1	1.2	2.3
10	3.8	7.3
100	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

**NOTE 1** At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

**NOTE 2** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.