INTRODUCTION

BOOTS Non-Contact Thermometer is a hand held, battery powered device that is intended to be used for the monitoring of body temperatures of people of all ages. It measures the infrared energy emitted from the skin surface of the forehead so there is no need for contact with the skin. It is accurate and simple to operate and can be used in the home or by a doctor in a clinic.

The device is designed to be clinically accurate and allows you to measure body temperature without touching. This means that when your child is sick, you can take their temperature hygienically, without waking or disturbing them. It can also be used to measure the temperature of a room, washing machine or food.
3. Unit description

Display
- Turns the device on and off.

MODE/MEM button
- Starts the temperature measurement.
- Sets the measurement mode.
- Displays stored measurements.

SCAN button
- Manual switch on of the illuminated display.
- Sets the basic functions.

Measuring sensor
- Battery compartment lock
- Battery compartment lid

3.1 Display description

- Object temperature mode
- Room temperature mode
- Forehead temperature mode
- Body temperature mode
- Acoustic signal symbol
- Year
- Memory function
- Date
- Battery level
- Temperature/temperature space number display
- Celsius/Fahrenheit measurement unit
- Measurement: 38.0°C (±0.4°C) “low”
- Measurement: <38.0°C (±0.4°C) “no fever”
- Illuminated display symbol
- Year/date/time display

4. Initial use

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

9 Batteries

After a brief self-test, the thermometer is ready for forehead measurement. The default acoustic signal setting is OFF.

5. Switching on and setting the thermometer

Briefly press the On/Off button ④. After a brief self-test, the thermometer is ready for forehead measurement.

5.1 Setting the basic functions

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

Time format → Date → Time → Temperature scale → Illuminated display

- 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.

The year flashes in the display (fig. 3).

- Use the MODE/MEM button to set the year and confirm with the LIGHT/SET button.
- Day/month flashes in the display (fig. 8).
- Use the MODE/MEM button to set the day and month, and confirm with the LIGHT/SET button.
- In the 12th format, the date is displayed as day/month. In the 24th format, it is displayed as hour/minute.

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

- Use the MODE/MEM button to set the time and confirm with the LIGHT/SET button.
- In the 12th format, the time is displayed as AM/PM.

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.

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

- You can activate/deactivate the acoustic signals device when the measurement is in progress, measurement completion (the default setting is OFF).
- To activate the acoustic signals, select “ON” using the MODE/MEM button and confirm with the LIGHT/SET button.
- To deactivate the acoustic signals, select “OFF” using the MODE/MEM button and confirm with the LIGHT/SET button.

6. Forehead measurement

Before taking a measurement please:
1. 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. 9).
2. Measuring greater than 5 cm from the forehead will provide inaccurate results.
3. 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.
4. End of measurement is signified by a long beep.
5. Release the SCAN button. The measuring time is usually 3 seconds but may take up to 30 seconds.
6. You can now read the measured value.

In addition to the temperature, the lower or no lower symbols also appear in the display. The no lower symbol (°F) indicates that the body temperature is within normal range; the lower symbol (°F) indicates a measurement equal to or higher than 38°C (100.4°F).

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).

When the forehead symbol flashes, the device is ready to take another measurement.

The measurement is automatically saved with the date/time and the “lower” classification.

6.1 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:
1. With the thermometer switched on, press and hold the MODE/MEM button for 5 seconds.
2. The most recent measurement is displayed.

Notes

- Prevent or reduce the risk of infection.
- Increased perspiration on the forehead, taking vasodilator medication, and skin irritation may distort the result.
- The forehead, or the temple, must be free from perspiration and cosmetics.
7. Measuring object temperature/room temperature

If you want to measure an object temperature with this thermometer, switch to the object temperature mode.
- With the thermometer switched on, briefly press the MODE/MEM button.
- The device switches to the object temperature mode. (Fig. 9)
  Hold the thermometer 2 to 3 cm from the measuring point. Briefly press the SCAN button and read the temperature in the display. Measurement greater than 5 mm from the object will provide inaccurate results.

Measurements taken in object temperature mode are not stored.

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. (Fig. 10)
  The room temperature is immediately displayed (Fig. 10).

Measurements taken in room temperature mode are not stored.

- 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.

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 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. The batteries in this device do not contain any pollutants.

10. Cleaning the device

The measuring sensor is the most sensitive part of the thermometer. Take 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.
  Safety notes: Page 12.

Clean the measuring sensor after each use. Use a clean cloth or cotton bud that can be moistened with distilled water or 75% alcohol.

To clean the entire device, please use a soft cloth slightly moistened with a mild soapy solution. Under no circumstances may you let water get into the device.

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

11. 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.

Measurements range and accuracy of forehead temperature measurement

<table>
<thead>
<tr>
<th>Measurement range (°C)</th>
<th>Accuracy (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.0 to 42.2</td>
<td>±0.2</td>
</tr>
</tbody>
</table>

Clinical mean value practice

<table>
<thead>
<tr>
<th>Measurement range (°C)</th>
<th>Accuracy (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36.5</td>
<td>±0.5</td>
</tr>
</tbody>
</table>

Object temperature measurement

<table>
<thead>
<tr>
<th>Measurement range (°C)</th>
<th>Accuracy (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-25.0 to 60.0</td>
<td>±2.0</td>
</tr>
</tbody>
</table>

Memory function (forehead only)

- Automatically stores the last 60 measurements.

Acoustic signal

- Default setting is OFF. This can be set within the thermometer with device activation, during measurement, when measurement is complete. (See basic setting section).

Display

- LCD display

Energy saving function

- Device automatically switches off after 1 minute.

Dimensions

- Width: 45.6 mm, Height: 29.0 mm, Depth: 15.0 mm

Weight

- 82 g (without batteries)

2 x AAA (LR03) batteries

14. Guidelines

This device complies with the EU Directive 2014/53/EU concerning medical products, the Medical Devices Act, the ASTM E 1665 - 98 and the European Standard EN60601-1-2 and is subject to particular precautions with regard to electromagnetic compatibility.
16. Electromagnetic Compatibility Information

The Boots Non-Contact Thermometer model number is FT 90.

### Table 1

For all ME EQUIPMENT and ME SYSTEMS

<table>
<thead>
<tr>
<th>Guidance and manufacturer's designation - electromagnetic immunity</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The FT 90 is intended for use in the electromagnetic environment specified below.</td>
<td>The customer or the user of the FT 90 should ensure that it is used in such an environment.</td>
<td>The FT 90 is suitable for use in areas with lower requirements, including control and monitoring systems.</td>
</tr>
<tr>
<td>Emissions test</td>
<td>Group 1</td>
<td>The FT 90 uses little energy for its internal function. It does not emit emissions that are likely to cause harmful interference in nearby equipment.</td>
</tr>
<tr>
<td>RF emissions CISPR 11</td>
<td>Class B</td>
<td>The FT 90 is suitable for use in areas with lower requirements, including control and monitoring systems.</td>
</tr>
<tr>
<td>Harmonic emissions IEC 61000-3-2</td>
<td>Not applicable</td>
<td>The customer or the user of the FT 90 should ensure that it is used in such an environment.</td>
</tr>
<tr>
<td>Voltage fluctuations/Related emissions (IEC 61000-4-5)</td>
<td>Not applicable</td>
<td>The customer or the user of the FT 90 should ensure that it is used in such an environment.</td>
</tr>
</tbody>
</table>

### Table 2

For all ME EQUIPMENT and ME SYSTEMS

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 61000 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted ESD</td>
<td>EC 61000-4-2</td>
<td>3 kV</td>
<td>Portable and mobile RF communications equipment should be used to check to any point of the FT 90, including cables, from the recommended separation distance specified below, which is estimated by the equation specified in the frequency of the transmitter.</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-1</td>
<td>500 V</td>
<td>Portable and mobile RF communications equipment should be used to check to any point of the FT 90, including cables, from the recommended separation distance specified below, which is estimated by the equation specified in the frequency of the transmitter.</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-3</td>
<td>2500 V</td>
<td>Portable and mobile RF communications equipment should be used to check to any point of the FT 90, including cables, from the recommended separation distance specified below, which is estimated by the equation specified in the frequency of the transmitter.</td>
</tr>
</tbody>
</table>

### Table 3

For all ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING

<table>
<thead>
<tr>
<th>Guidance and manufacturer's designation - electromagnetic immunity</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The FT 90 is intended for use in the electromagnetic environment specified below.</td>
<td>The customer or the user of the FT 90 should ensure that it is used in such an environment.</td>
<td>The FT 90 is suitable for use in areas with lower requirements, including control and monitoring systems.</td>
</tr>
<tr>
<td>Immunity test</td>
<td>IEC 61000 test level</td>
<td>Compliance level</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>EC 61000-4-2</td>
<td>3 kV</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-1</td>
<td>500 V</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-3</td>
<td>2500 V</td>
</tr>
</tbody>
</table>

### Table 4

For all ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING

<table>
<thead>
<tr>
<th>Guidance and manufacturer's designation - electromagnetic immunity</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The FT 90 is intended for use in the electromagnetic environment specified below.</td>
<td>The customer or the user of the FT 90 should ensure that it is used in such an environment.</td>
<td>The FT 90 is suitable for use in areas with lower requirements, including control and monitoring systems.</td>
</tr>
<tr>
<td>Immunity test</td>
<td>IEC 61000 test level</td>
<td>Compliance level</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>EC 61000-4-2</td>
<td>3 kV</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-1</td>
<td>500 V</td>
</tr>
<tr>
<td></td>
<td>EC 61000-4-3</td>
<td>2500 V</td>
</tr>
</tbody>
</table>