

NON-CONTACT FOREHEAD THERMOMETER

INSTRUCTION MANUAL



Non-contact Infrared Forehead Thermometer

Instruction Manual

Table of Contents

1. Features

2. Important Safety Instructions

3. Product Overview

4. Icons and Control Display

5. Directions of Use

6. Reference Site Measurement

7. Switching Between °C and °F

8. Recalling Readings in Memory Mode

9. Error Messages

10. Cleaning and Storage

11. Battery Replacement

12. Guarantee

13. Technical Specifications

Thank you for purchasing the BIOS Diagnostics Non-contact Forehead Thermometer. To correctly utilize all the advantages of this product, please familiarize yourself with these operating instructions before using the infrared thermometer for the first time. Keep the instructions in a safe place for future reference.

Indications for Use:

This digital forehead thermometer (195DI) is intended to measure the human body's temperature in regular mode, using advanced infrared technology on the forehead. This device was designed to be reusable for clinical or home use, on people over 2 years of age.

1. Features

Non-contact Measurement within Seconds

The innovative infrared sensor measures temperature without even touching the patient for a safe and sanitary measurement within seconds.

Human and Object Measurement

Conveniently measures the temperature of a human being or an object with its sliding switch.

Customized and Localized Option of Measurement

Reference site selection function enables you to take measurement for readings comparable to readings taken at conventional measuring sites (rectal, oral, axillary) with a common pen-type thermometer.

Tracking Light

Blue tracking light easily keeps you concentrated to the measured area while scanning the forehead above the eyebrow with the thermometer at a distance.

Fever Alarm

Ten short beeps and a red LCD backlight alerts the patient that he/she may have a temperature above 37.4°C (99.3°F).

Multiple Reading Recalls

Users will be able to recall the last 30 readings when entering the recall mode, enabling efficient tracking of temperature variations.

Auto-Display Memory

The last reading is automatically displayed for 2 seconds when the unit is switched on.

Please read these instructions carefully before using this thermometer and keep both in a safe place.

2. Important Safety Instructions

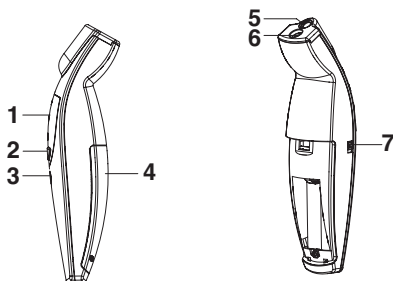
- This product is not intended for use by children, adults should administer the measurement on young children.
- This instrument may only be used for the purposes described in this booklet. The manufacturer cannot be held liable for damage caused by incorrect application.
- **Never** immerse the thermometer into water or other liquids (not waterproof). For cleaning, please follow the instructions in the "Cleaning and Storage" section.
- Keep the instrument away from direct exposure to the sun and keep it in a dust-free, dry area with a temperature between -20°C to 50°C (-4°F to 122°F).
- **Do not** use the thermometer if there are signs of damage on the probe area or on the unit itself. If damaged, do not attempt to repair the instrument.

- This thermometer consists of high-quality precision parts. Do not drop the unit. Protect it from severe impact. Do not twist the unit or the measuring probe.

⚠ Warning:

- The use of this thermometer is not a substitute for consultation with your physician.
- Ensure that children do not use the thermometer unsupervised; some parts are small enough to be swallowed.
- It is not recommended to use infrared thermometers on children under 2 years of age.
- Infrared thermometers should not be used to manage important health concerns, and therefore parents should not rely solely on temperature readings to evaluate the status of your child's health. If you have any concerns, consult with your doctor.

3. Product Overview



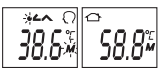
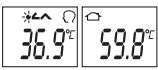
No.	Item	Mode	Description
1	Display area	-	Displays measurements and other thermometer symbols
2	Start button	Power Off	• Press and release immediately to enter Memory Mode. • Press and hold for 3 seconds to switch between °C and °F.
		Power On	Press to measure the temperature.
3	O/I button	-	Press to switch the thermometer on or off.
4	Battery cover	-	Covers the battery for protection.
5	Tracking light	-	Focus on the subject to measure temperature.
6	Probe	-	Infrared sensor to measure the temperature.
7	Slide switch	Power On	Sliding the switch down and up again activates the reference site selection. See "Selecting the Reference Site".
		Power On/ Off	• Slide the switch up to activate the body mode. • Slide the switch down to activate the object mode.

4. Icons and Control Display

The icons on the display indicate different settings of the thermometer:

Icon	Setting	Description
	Body mode	The thermometer will take or has taken a body temperature.
	Object mode	The thermometer will take or has taken an object temperature.
	Celsius display	The thermometer will take or has taken a temperature in degree Centigrade.
	Fahrenheit display	The thermometer will take or has taken a temperature in degree Fahrenheit.
	Oral reference site	When this icon flashes, the body temperature measured corresponds to the oral temperature.
	Axillary reference site	When this icon flashes, the body temperature measured corresponds to the axillary temperature.
	Rectal reference site	When this icon flashes, the body temperature measured corresponds to the rectal temperature.
M	Memory recall	The thermometer displays a stored temperature from the memory.

In different stages of the operation sequence, the display shows different types of information.

Display area	Sequence	Description
	Power On	Press the ON button to turn on the unit. All segments are displayed for 2 seconds.
	Last Memory	The last reading is displayed for 2 seconds with M icon, measuring Mode icon (body or object), and reference site icon (rectal, oral or axillary)
	Ready	The °C or °F icon is continuously flashing. The unit is ready for measurement with measuring Mode icon (body or object), and reference site icon (rectal, oral or axillary) in Body mode.
	Measurement Completed	The reading is shown on the display area with measuring Mode icon (body or object), and reference site icon (rectal, oral or axillary) in Body mode.
	Further Measurement	After 2 seconds, the °C or °F icon flashes again. The unit is now ready for the next measurement.

5. Directions of Use

Measuring Body Temperature

1. Make sure the mode switch is in the upper position to enter the Body Mode.
2. Press the **O/I** button. The LCD is activated and performs an all segment check.
3. The last reading is displayed on the LCD for 2 seconds.
4. The thermometer is ready for measurement when
 - ✓ A short beep sound is heard
 - ✓ The °C/°F and the reference site icon on the LCD are flashing.
5. Starting the measurement, aim the probe at the center of the forehead with any distance of no more than 5 cm. If the forehead area is covered with hair, sweat or dirt, please remove them beforehand to improve the reading accuracy.
6. Press and hold the **START** button. The blue tracking light is activated as a reference of area under detection. You can take measurement at any distance within 5 cm of the blue light. Steadily move the thermometer towards the temple to detect the body temperature. As the sensor scans the area, quick beep sounds will be emitted as indicator of temperature detecting process. A long beeping sound will emit to acknowledge the completion of measurement.
7. Release the **START** button to get the result. Stop aiming the probe. The display area shows the measured temperature.
8. If the measurement detects a body temperature greater than 37.4°C (99.3°F), it will make 10 short beeping sounds and the LCD will light up Red, indicating a potential fever.



Note:

- Before measurement, remain in a stable environment and avoid exercise and bathing for 30 minutes prior.
- Wait at least 2 minutes between consecutive measurements. The Thermometer must be turned off and on again.
- Don't take a measurement while or immediately after nursing a baby.
- Don't use the thermometer in high humidity environments.
- Patients should not drink, eat, or exercise before/while taking the measurement.
- Before aiming the probe, clean the scan area; remove dirt, hair or sweat.
- Before aiming the probe at an object, remove water, dust or dirt.
- Don't move the thermometer away from the measuring area before hearing the termination beep.
- Always clean the probe accordingly before and after each use. (See cleaning and storage)
- Always take the temperature in the same location, since the temperature readings may vary from different locations.
- In the following situations, it is recommended to perform a reference measurement with a common pen-type thermometer (make sure the measuring site, rectal, oral, or axillary, is the same site also selected with the forehead thermometer):

1. If the measurement result is surprisingly low/high
2. Children under three years of age with a compromised immune system and for whom the presence or absence of fever is critical.

Measuring Object Temperature

1. Make sure that the mode switch is in the lower position to enter the Object Mode.
2. Press the **O/I** button. The LCD is activated and performs an all segment check.
3. The last reading is displayed on the LCD for 2 seconds.
4. The thermometer is ready for measurement when:
 - ✓ A short beep sound is heard.
 - ✓ °C/°F icon on the LCD is flashing.
5. Aim the probe at the center of the object with any distance of no more than 5 cm. If there is water, dust or dirt, please wipe them beforehand to improve the reading accuracy.
6. Press and hold the **START** button. The blue tracking light is activated and the sensor measures the temperature.
7. Release the **START** button after a few seconds to get the result and a long beep will be heard. Stop aiming the probe. The display area shows the measured temperature.



6. Reference Site Measurement

This thermometer is designed to take forehead measurements and can display the equivalent measurement from an ordinary pen type thermometer that is used at the 3 conventional measuring sites: rectal, oral and axillary.

By changing the reference site on this thermometer, the measurement taken will be comparable to measurements taken by an ordinary pen type thermometer. To set the reference site:

1. Turn on the unit in Body Mode and wait until the °C or °F symbol is flashing to indicate that the thermometer is ready for measurement.
2. Slide the **MODE** switch down and up again (if the slide switch is already down, you need to slide up, down and up again). The present reference site icon flashes while the other two icons are steady.
3. Press the **START** button repeatedly to scroll between the three measuring sites.



A short beep sound is heard when changing the reference site.

4. The symbol for the selected mode flashes and after 5 seconds, the flashing icon will be set as the reference site and the unit will automatically enter the ready for measurement mode.

Note: After setting the reference site use the thermometer as instructed in section 5: Direction of use.

7. Switching Between °C and °F

This thermometer can display the measured temperature in either Celsius or Fahrenheit.

To switch between °C and °F, turn the unit off. Press and hold the **START** button for 3 seconds. The flashing °C or °F icon is shown on the LCD. To switch the measurement scale, press the **START** button again.

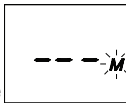
Settings are finalized after 5 seconds and the thermometer will automatically enter the ready for measuring mode.



8. Recalling Readings in Memory Mode

The thermometer can recall the last 30 readings. To recall readings, do the following:

1. Press and release the **START** button when in the off mode to enter the Memory Mode. The **M** icon flashes.
2. Press and release the **START** button again and 1 is shown briefly on the LCD, then the latest reading is displayed.



3. Press and release the **START** button again and 2 is shown briefly on the LCD, then the second latest reading is displayed.



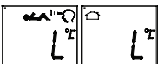
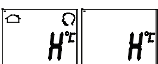
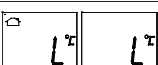
4. Press and release the **START** button repeatedly to recall the readings in succession. Up to 30 readings can be recalled.



Pressing the **START** button after the last 30 readings will resume the sequence from reading 1.

9. Error Messages

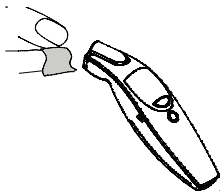
The thermometer is equipped with predefined error messages to notify the user of measurement discrepancies.

Display Area	Display Meaning	Possible cause and remedy
	Measured temperature is too high.	Measured temperature is higher than: • 42.2°C or 108.0°F (Body Mode) • 100°C or 212°F (Object Mode)
	Measured temperature is too low.	Measured temperature is lower than: • 34.0°C or 93.2°F (Body Mode) • 0°C or 32.0°F (Object Mode)
	Ambient temperature is too high.	Ambient temperature is higher than: • 40.0°C or 104.0°F (Body and Object Mode)
	Ambient temperature is too low.	Ambient temperature is lower than: • 16.0°C or 60.8°F (Body Mode) • 5.0°C or 41.0 °F (Object Mode)
	Error function display	When the system has a malfunction.
	Blank display	Check if the batteries are loaded correctly.
	Low battery indication	The battery level is low. Please replace the batteries immediately.

10. Cleaning and Storage

Use an alcohol swab or cotton tissue moistened with 70% Isopropyl alcohol 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. Never immerse the thermometer into water or other cleaning liquid. Be careful not to scratch the surface of the probe lens and the display.

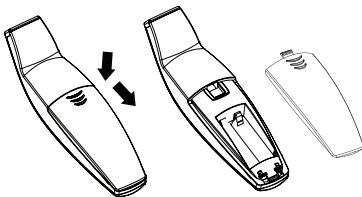
Remove the batteries from the instrument if it is not required for extended periods of time to avoid potential damage to the thermometer resulting from leaking batteries.



11. Battery Replacement

The thermometer requires 2 DC3V (AAA) batteries. Replace the batteries when the flashing battery icon appears on the display.

Replace the batteries - ensure correct polarity as shown by symbols in the compartment.



12. 2 Year Limited Warranty

This thermometer has a two year limited warranty against manufacturers defect under normal use by the original owner. The warranty does not cover damage from misuse or tampering. This warranty does not cover batteries or other power sources that may be provided with or used with the thermometer.

100% Satisfaction Guarantee

If at any time, you are not completely satisfied with the performance of this device, call our BIOS Medical Hotline and speak with a customer service representative, who will make arrangements to have the device tested or replaced to your full satisfaction.

If you have questions regarding the operation of your thermometer call the BIOS Medical Hotline: 1-866-536-2289, or email support@biosmedical.com

Should correction be necessary, return the unit with all component pieces. Enclose proof of purchase and \$5.00 for return shipping and insurance. Ship the unit prepaid and insured (at owners option) to:

Thermor Ltd.

Returns Department
16975 Leslie Street
Newmarket, ON L3Y 9A1
www.biosmedical.com

Please include your name, return address, phone number, and email address. Thermor Ltd. will test or replace (at Thermor Ltd.'s option) free of charge any parts necessary to correct the defect in material or workmanship.

Please allow 10 days for return shipping.

13. Technical Specifications

Type:	Non-contact Forehead Thermometer
Measuring Range And Accuracy:	Refer to the following table 1
Resolution:	0.1°C (0.2°F)
Display:	LCD, 4-digits plus special icons
Acoustic:	a. The unit is turned ON and ready for measurement: 1 short beep sound. b. Completion of Measurement: Body Mode: 1 long beep sound if the reading is less than fever level; 10 short beep sounds if the reading is equal to or higher than fever level Object Mode: 1 long beep sound c. System error or malfunction: 3 short beeps d. Fast and slow beeps during measurement.
Memory:	a. Auto-Display the last measured temperature when the unit is turned on. b. 30 readings recall in the Memory Mode.
Backlight:	a. The display light will be GREEN for 4 seconds, when the unit is turned ON. b. The display light will be GREEN for 5 seconds, when a measurement has been completed with a reading of less than 37.5°C (99.5°F). c. The display light will be RED for 5 seconds, when a measurement has been completed with a reading equal to or higher than 37.5°C (99.5°F).
Storage / Transport Temperature:	-20°C to +50°C (-4°F to 122°F)
Automatic Switch Off:	Approx. 3 minutes after the last measurement has been taken.
Battery:	Two DC 3V (AAA) batteries
Dimensions:	146.93mm (L) x 38.14mm (W) x 21.34 mm (H)
Weight:	48g (with battery), 45g (without battery)
Reference to standards	
Device standard:	Device corresponds to the requirements of the standard for infrared thermometers ASTM E 1965 IEC 60601-1 IEC 60601-1-2
Electromagnetic Compatibility:	Device fulfills the stipulations of the standard IEC 60601-1-2

Table 1

TECHNICAL CHARACTERISTICS	°C/°F scale
Body mode	
Forehead measuring range	34°C to 42.2°C (93.2°F to 108°F)
Ambient temperature working range	16°C to 40°C (60.8°F to 102°F)
From 36°C to 39°C (96.8°F to 102.2°F)	+/-0.2°C (0.4°F)
From 34°C to 35.9°C (93.2°C to 96.6°F) and from 39.1°C to 42.2°C (102.4°F to 108°F)	+/-0.3°C (0.6°F)
Object mode	
Measuring range	0°C to 100°C (32°F to 212°F)
Ambient temperature working range	5°C to 40°C (41°F to 102°F)
From 36°C to 39°C (96.8°F to 102.2°F)	+/-0.2°C (0.4°F)
From 0°C to 35.9°C (32°F to 96.6°F) and from 39.1°C to 100°C (102.4°F to 212°F)	+/-1°C (2°F)



Follow Instructions for Use. This document provides important product operation and safety information. Please read this document thoroughly before using the device and keep for future reference.



Type BF applied part



Batteries and electronic devices must be disposed of in accordance with the locally applicable regulations, not with domestic waste.



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 MANUFACTURED BY/FABRIQUÉ PAR :
THERMOR LTD.
 16975 LESLIE STREET
 NEWMARKET, ON L3Y 9A1
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