

bobo-scan

INSTRUCTION MANUAL

NON-CONTACT INFRARED THERMOMETER

Remove the plastic cap before the measurement is performed.

EN

I. FEATURES

1. Special design to take the Human Body Temperature with a 3 cm-5 cm (1.2 in-2 in) distance from forehead.
2. Reliable and stable measurement, thanks to the advantage Infrared Detection System.
3. Audible alarm if temperature is more than 38°C(100.4°F).
4. Memorize the last 32 temperature measurements.
5. Backlit LCD digital display screen.
6. Temperature unit can be displayed in either Celsius or Fahrenheit.
7. Automatic power-off (30 secs) to conserve energy.
8. Longevity use (40,000 readings).
9. Practical, easy to use.
10. Thermometer is used to measure surface, (e.g.: food in a bottle, water in a bathtub, nourishment)

II. SAFETY PRECAUTIONS

- Follow the maintenance advice stipulated in this instruction manual.
- This device may be used for professional purposes or for personal home use.
- This device must only be used for the purposes described in this instruction manual.
- This device must only be used in an ambient temperature range of between 10°C (50°F) and 40°C (104°F).
- This device must be always kept in a clean, dry area.
- Do not expose this thermometer to electric shocks.
- Do not expose this thermometer to extreme temperature conditions of >55°C (131°F) or <-20°C(-4°F).
- Do not use this device in relative humidity higher than 85%.
- Do not touch the glass of the infrared sensor with your fingers.
- Clean the glass with a cotton bud lightly moistened with 95% alcohol.
- Do not expose the thermometer to sunlight or to water.
- Do not use outdoors
- Never drop the device.
- Should a problem occur with your device, please contact your retailer. Do not attempt to repair this device yourself.

III. BEFORE USE

It is not necessary to calibrate the device when starting it up. However, in order to obtain reliable results, you are advised to allow the thermometer to acclimate to ambient temperature for 15 to 20 minutes before using each time there is a significant change in environmental temperature.

It is also important to allow a 3-5 seconds interval between measurements.

Note: Using conditions - Wait 15-20 minutes after bringing the device home in order to take a measurement.

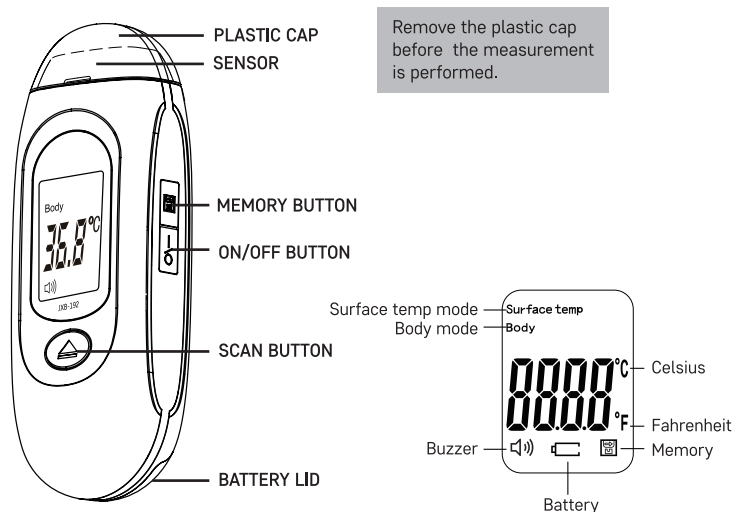
IV. HOW THE NON-CONTACT INFRARED THERMOMETER WORKS

All objects, solid, liquid or gas, emit energy by radiation. The intensity of this energy depends on the temperature of the object. The Bobo-scan infrared thermometer is therefore able to measure the temperature of a person by the energy the person emits. This measurement can be taken thanks to an external temperature probe on the device which permanently analyses and registers the ambient temperature. Therefore, as soon as the operator holds the thermometer near the body and activates the radiation sensor, the measurement is taken instantly by detection of the infrared heat generated by the arterial blood flow. Therefore body heat can be measured without any interference from the heat of the surrounding environment.

Use Bobo-scan Non-rontact Infrared Thermometer:

- When you have reason to believe you are sick.
- When you are recovering from surgery, illness or exhaustion.
- For monitoring body temperatures.
- When exercising, hiking, or doing strenuous physical activity.
- When traveling or when you are under abnormal stress.

V. DEVICE DESCRIPTION



VI. NORMAL TEMPERATURES ACCORDING TO AGE

Age	°C	°F
0-2 years	36.4-38.0	97.5-100.4
3-10 years	36.1-37.8	97.0-100.0
11-65 years	35.9-37.6	96.6-99.7
>65 years	35.8-37.5	96.4-99.5

VII. TEMPERATURE MEASUREMENT

1. Insert the battery.
2. Before first use or after insertion of a new battery, wait 10-15 minutes until the device has adjusted to the ambient temperature.

NOTE Before the measurement is performed, select the body measurement mode (BODY) or the surface measurement mode (SURFACE).

REMOVE THE PLASTIC CAP BEFORE THE MEASUREMENT IS PERFORMED.

• Non-contact temperature measurement on the forehead

First, select the body measurement mode (BODY) (section Settings and functions). Clean and dry the skin on the forehead before the measurement. Switch on the device by pressing the button "▲" all the symbols will flash on the screen and the device will enter the ready mode (symbols "---°C or ---°F will be displayed).

Place the thermometer in front of the forehead (in the area of the right or left temple) at a distance of 3-5 cm. Press and release the button "▲" the measurement result will be displayed within one second. If no button is pressed, the device will shut down automatically within 30 seconds.

• Non-contact surface temperature measurement

First, select the surface measurement mode (SURFACE) (section Settings and functions). Switch on the device by pressing the button "▲", all the symbols will flash on the screen and the device will enter the ready mode (symbols "---°C or ---°F will be displayed). Place the thermometer in front of the desired object at a distance of 3-5 cm. Press and release the button "▲", the measurement result will be displayed within one second. If no button is pressed, the device will shut down automatically within 30 seconds.

NOTE The measurement reliability is not guaranteed if the measurement is performed on a different body part (the arm, the chest, etc.)

Before measurement:

- Remove hair and sweat from the forehead.
- Avoid draughts.
- Wait 3-5 seconds before another measurement.

VIII. SETTING AND FUNCTION OF MENU

1. Measurement mode selection

Bobo-scan was specially designed for measurement of human body temperatures – this is accomplished via the "Body" mode. The measurement range for this mode varies from 32°C to 42.9°C (89.6°F-109.2°F). The Bobo-scan thermometer can also be used to measure surface temperatures (objects, foods or liquids). Use the "Surface" mode for this purpose. The measurement range for this mode varies from 0°C to 60°C (32°F-140°F). When the device is on, select the measurement mode by pressing the top button "■" in order to select the body measurement mode (BODY) or the surface measurement mode (SURFACE).

NOTE The surface temperature (SURFACE mode) differs from the internal body temperature (BODY mode). Remember to set the mode "BODY" to measure the body temperature or the mode "SURFACE" to measure the surface temperature.

Tip: "BODY" is the default mode on the Bobo-scan thermometer.

2. Activating/deactivating sound

When the device is on, press the top and bottom buttons ("▲", "■") at the same time for approximately five seconds. Press the top button "■" in order to activate sound or press the bottom button "▲" in order to deactivate (mute) sound. Press the button "▲" in order to save the settings and go on to set the temperature unit °C or °F.

3. Selection of temperature unit °C or °F

When the device is on, press the top and bottom buttons ("▲", "■") at the same time for approximately five seconds. Next press the button "▲" one of the temperature units °C or °F will begin flashing. Press the top button "■" in order to select Celsius (°C) or the bottom button "▲" to select Fahrenheit (°F). Press the button "▲" in order to save the settings and go on to device calibration.

IX. INSTRUCTIONS FOR RECALIBRATION SET

When to use it?

When there is the difference between Bobo-scan and mercury thermometer, and you believe mercury thermometer from its temperature but it is not convenient to use. You can use recalibration function to adjust the Bobo-scan to make it the same test result with mercury thermometer after recalibration.

Besides, when you use Bobo-scan for the people with different skin color (For example: the yellow race, the white race, black people and so on) you can use recalibration too. When the device is on, press the top and bottom buttons ("▲", "■") at the same time for approximately five seconds, next press the button "▲" twice to enter the calibration mode. Press the top button "■", in order to add 0.1°C or 0.1°F or press the bottom button to deduct 0.1°C or 0.1°F. Press the button "▲" to confirm or exit the settings mode.

TIP: If the temperature unit is Fahrenheit, the adjustment range varies from +5.4 to -5.4°F. If the temperature unit is Celsius, the adjustment range varies from +3.0 to -3.0°C.



X. BROWSING RESULTS

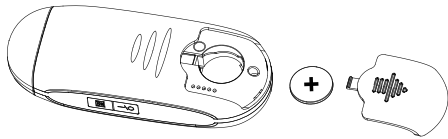
When the device is on, press the bottom button "▲" to display the last temperature measurement. In order to display previous measurement results, keep pressing the bottom button "▲".

XI. ERASING MEMORY

When the device is on, press the bottom button "▲" for approximately five seconds to erase the whole memory. Next, press the bottom button "▲", Clr will be displayed on the screen (all the measurement results have been removed).

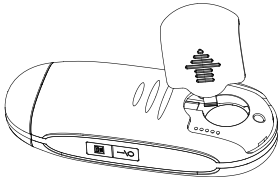
XII. BATTERY LOW VOLTAGE DETECTION AND CHANGING BATTERY

If the battery voltage is not more than 2. 7V, Bobo-scan Non-contact Infrared Thermometer Thermometer will display the flashed symbol "  " to remind you to replace the battery. This Bobo-scan is with a piece of 3V CR2032 battery for 3,000 times use. When the LCD screen displays "  ", the battery should be replaced. Open the lid and chang the battery , taking great care with the correct positioning A mistake with this could cause damage to the unit and compromise the guarantee of your Non-Contact Infraed Thermometer.



Remove the battery

Use battery cover (or toothpick) to press the metal shrapnel in the battery holder, the battery will pop up automatically.



XIII. TECHNICAL SPECIFICATIONS

Normal using condition	
Ambient temperature	10°C-40°C (50°F-104°F)
Relative humidity	≤ 85%
Batteries	DC 3V
Unit size	125x49x27mm (L x W x H)
Unit weight	about 64g (Including Battery)
Temperature display resolution	0.1°C (0.1°F)
Measuring range	
In body mode	32°C-42.9°C (89.6°F-109.2°F)
In surface mode	0°C-60°C (32°F-140°F)
Precision	
32.0°C-34.9°C (89.6°F-94.8°F)	±0.3°C(±0.6°F)
35.0°C-42.0°C (95°F-1 07 .6°F)	±0.2°C(±0.4°F)
42.1°C-42.9°C (107.8°F-109.2°F)	±0.3°C(±0.6°F)
Consumption	≤ 300mW
Accuracy	±0.3°C (±0.6°F)
Measuring distance	3cm-5cm (1.2in-2.0in)
Automatic power-<1ff	after 30 secs.
Memory	32 sets
Kit includes	Battery (3V button cell, Model:CR2032:1 pcs), instruction manual

XIV. LONGEVITY OF THE PRODUCT

The Non-contact Infrared Thermometer was conceived for an intense and professional use. Its longevity is guaranteed for 40,000 takings.


XV. MAINTENANCE OF THE PRODUCT

- The infrared sensor is the most important and fragile part of the thermometer. Take care when using, storing or cleaning.
- Clean infrared sensor with cotton fabric dampened with a 95% alcohol solution.
- Do not throw battery in fire. Please dispose of battery properly.
- Remove the battery when thermometer is not used for an extended period of time.
- Do not expose the thermometer to water or excessive sunlight.
- An impact may damage the product.

XVI. TROUBLESHOOTING

If you have problems while using your thermometer, please refer to this guide to help resolve the problem. If the problem persists, please contact our customer service.

THE SCREEN DISPLAYS TEMPERATURE LOWER THAN 32°C (89.6°F):

To take the surface temperature, press the "  " button and set to the reading called "Body". If the device is in Surface Temp Mode, the 32°C (89.6°F) temperature displayed is showing the external temperature of your body, rather than the internal.

THE SCREEN DISPLAYS THE MESSAGE HI

When using bobo-scan non-contact infrared thermometer the message "HI" can show on the screen. In, this case the temperature is above e measurement range selected in

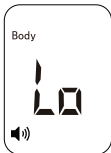
- Body Mode - above 42.9 c (109.2 f)
- Surface Mode - above 60°C (140°F)



THE SCREEN DISPLAYS THE MESSAGE LO

When using Bobo-scan Non-contact Infrared Thermometer, the message "LO" can show on the screen. In this case, the temperature analyzed is under the measuring range selected in










- Body Mode less than 32 C (89.6 F)
- Surface Mode less than 0°C (32°F)



This message displays for various reasons. Please find below a list of the main issues:

Reasons for L0 message display	Advice
Temperature reading hampered by hair or perspiration.	Make sure there is no obstruction or dampness prior to taking temperature.
Temperature hampered by an air draft or dramatic change in ambient temperature.	Make sure there is no air blowing in the area of use; this could affect the infrared reading.
Temperature readings are too close together, and the thermometer did not have time to reboot.	Pause for 3-5 seconds minimum between readings; a 15 seconds pause is recommended.
The measuring distance is too far.	Take measurements at the recommended distance (app. 3cm-5cm; 1.2in-2.0 in).

EXPLANATION OF SYMBOLS

	Batch code		Keep away from sunlight		Catalogue number
	Date of manufacture		Keep dry		Direct current
	Manufacturer		Caution		Type BF
	Consult instruction for use	IP22	Ingress protection	Rev.	Last version of the instruction for use



WASTE DISPOSAL

Dispose of the appliance and its accessories in compliance with the regulations in force. Do not dispose of this appliance in the environment!



WARNING! The manufacturer reserves the right to alter the specifications of the Product without prior notification.

WARNING! Portable, wireless communication device may affect medical electrical equipment.

Required technical data is available at: www.diagnosis.pl/normy


Diagnosis S.A.
ul. Gen. W. Andersa 38A,
15-113 Białystok, POLAND
www.diagnosis.pl

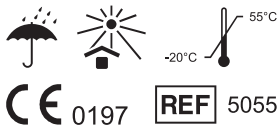
WARRANTY CARD

DEVICE NAME
MODEL
SERIAL NUMBER DATE OF SALE

WARRANTY TERMS

1. Diagnosis S.A. grants a warranty:
24 months for Bobo-scan.
Hardware defects revealed during the warranty period will be rectified free of charge within 21 days. The term runs from the date of delivery of the equipment to the service center.
2. The purchaser shall be entitled to replace the equipment for a new one, free of defects, when:
the repair has not been made within the time limit set in item 1
an authorized service center found an irreparable manufacturing defect during the warranty period, 4 repairs were effected, and the equipment still shows defects that prevent its use in accordance with its intended purpose.
The concept of repair shall not include operations related to equipment check and cleaning.
3. The warranty shall not cover: batteries, products with illegible or damaged serial number, damage due to the operation and storage inconsistent with the user manual, ingress of liquids or foreign bodies, overvoltage of mains, repairs by unauthorized persons and random events.
4. Faulty equipment should be delivered by the buyer to the address of the main service center or one of the Authorized Service Centers (listed in the appendix).
5. The warranty for the sold consumer goods shall not exclude, restrict, or suspend the powers of the buyer resulting from non-conformity of the goods with the contract.
6. The only basis for the warranty rights shall be the warranty card with the date of sale, stamp and signature of the salesperson. If the card is not completed, filled in wrongly, with traces of corrections and entries made by unauthorized persons, illegible as a result of damage - it shall be invalid.

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