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CE 0044

IB IR1DQ1-1(IR1DF1-1) EN 0917

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Microlife EAR - IR1DQ1-1(IR1DF1-1)

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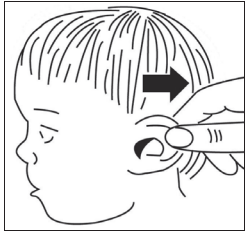

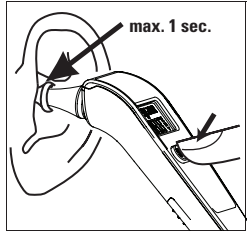

Read the instruction manual carefully before using this device,especially the safety instructions,and keep the instruction manual for future use.

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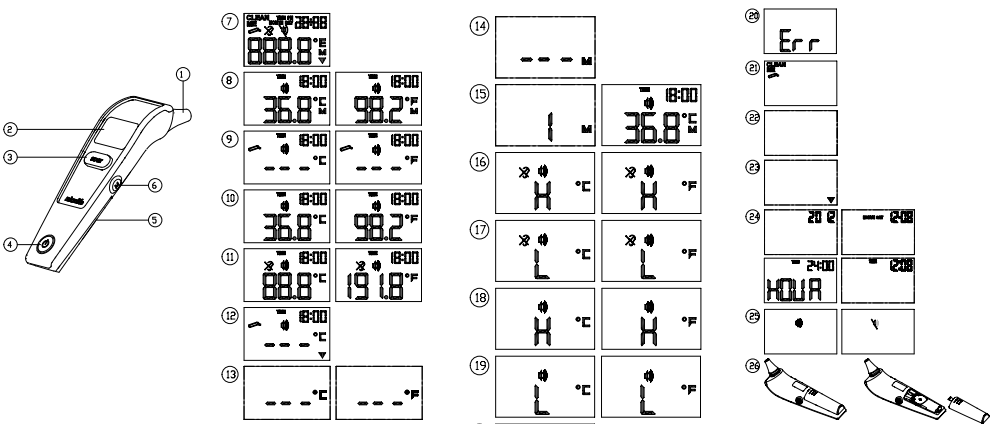
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Microlife IR1DQ1-1(IR1DF1-1)

EN

① Measuring Sensor
② Display
③ START Button
④ ON/OFF Button
⑤ Battery Compartment Cover
⑥ Memory Button
⑦ All Segments displayed
⑧ Memory
⑨ Ready for Measuring
⑩ Measurement complete
⑪ Out-of-ear Temperature Indicator
⑫ Low Battery Indication
⑬ Changing between Celsius and Fahrenheit
⑭ Recall Mode
⑮ Recall the last 30 Readings
⑯ Measured Temperature too high
⑰ Measured Temperature too low
⑱ Ambient Temperature too high
⑲ Ambient Temperature too low
⑳ Error Function Display
㉑ Clean Me Display
㉒ Blank Display
㉓ Flat Battery
㉔ Date and Time Settings
㉕ Beeper Function Setting
㉖ Replacing the Battery

This Microlife Ear Thermometer is a high quality product incorporating the latest technology and tested in accordance with international standards. With its unique technology, this thermometer can provide a stable, heat-interference-free reading with each measurement. The instrument performs a self-test every time it is switched on to always guarantee the specified accuracy of any measurements.

This Microlife Ear Thermometer is intended for the periodic measurement and monitoring of human body temperature at home. It is intended for use on people of all ages.

This thermometer has been clinically tested and proven to be safe and accurate when used in accordance to the operating instruction manual.

Please read through these instructions carefully in order for you to understand all functions and safety information.

Read the instruction manual carefully before using this device,especially the safety instructions,and keep the instruction manual for future use.

Type BF applied part

Table of Contents

1. The Advantages of this Ear Thermometer

Multiple Uses (Wide Range Measurement)

This thermometer offers a wide measurement range from 0 °C to 100.0 °C (32.0 °F to 212.0 °F), meaning the unit can be used as an ear thermometer to measure body temperature , it also has a feature allowing it to be used to measure surface temperature of the following examples:

- Milk surface temperature in a baby's bottle
- Surface temperature of a baby's bath
- Ambient temperature

Probe Cover Free and Probe LED

This thermometer is more user-friendly and more cost-effective since a probe cover is not required.

This thermometer includes a probe LED light which enables the user to find the correct ear position in the dark and is used as a reminder (blinking LED and probe light) to clean the thermometer

after each body temperature measurement.

Measurements in 1 second

The innovative infrared technology allows the measurement of ear temperature in only 1 second.

Accurate and reliable

The unique probe assembly construction, incorporates an advanced infrared sensor, ensuring that each measurement is accurate and reliable.

Gentle and Easy to Use

- The ergonomic design enables simple and easy use of the thermometer.
- This thermometer can even be used on a sleeping child without causing any interruption.
- This thermometer is quick, therefore child-friendly.

Multiple Reading Recall

Users will be able to recall the last 30 readings with a time and date record when entering the recall mode, enabling efficient tracking of temperature variations.

Safe and Hygienic

- No risk of broken glass or mercury ingestion.
- Completely safe for use on children.
- Cleaning of the probe can be done with an alcohol-moistened cotton tissue, making this thermometer completely hygienic for use by the whole family.

Fever Alarm

10 short beeps and a red LCD backlight alert the patient that he/she may have a temperature equal to or higher than 37.5 °C.

2. Important Safety Instructions

- 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 this instrument in water or other liquids. For cleaning please follow the instructions in the «Cleaning and Disinfecting» section.**
- Do not use the instrument if you think it is damaged or notice anything unusual.
- Never open the instrument.
- Earwax in the ear canal may cause a lower temperature reading.

  Therefore it is important to ensure the subject's ear canal is clean.
- This instrument comprises sensitive components and must be treated with caution. Refer to the storage and operating conditions described in the «Technical Specifications» section.
- Do not use this device close to strong electromagnetic fields such as mobile telephones or radio installations. Keep a distance from such devices when using this unit.
- Protect it from:
  - extreme temperatures
  - impact and dropping
  - contamination and dust
  - direct sunlight
  - heat and cold
- If the instrument is not going to be used for a prolonged period the battery should be removed.
- Ensure that children do not use the instrument unsupervised; as some parts are small enough to be swallowed.

WARNING: Use of this instrument is not intended as a substitute for consultation with your physician.This instrument is NOT waterproof so do not immerse in liquids.

3. How this Ear Thermometer measures Temperature

This thermometer measures infrared energy radiated from the eardrum and the surrounding tissue. This energy is collected

through the lens and converted to a temperature value. The measured reading obtained directly from the eardrum (Tympanic Membrane) can ensure the most accurate ear temperature.

Measurements taken from the surrounding tissue of the ear canal generate lower readings and may result in misdiagnosis of fever.

To avoid an inaccurate measurement:

1. Switch on the thermometer by pressing the ON/OFF button ④ .
2. After one beep is heard (and the temperature scale icon is flashing), straighten the ear canal by gently pulling the middle of the ear back and up.
3. Place the probe ① firmly into the ear canal, press the START button ③ and keep the probe in the ear until the thermometer beeps to signal the completion of the measurement.

4. Control Displays and Symbols

- **All segments displayed** ⑦ **:** Press the ON/OFF button ④ to turn on the unit; all segments will be shown for 1 second.
- **Ready for measurement** ⑨ : When the unit is ready for measurement, the «**°C**» or «**°F**» icon will keep flashing. Probe LED light is activated for 10 seconds and the unit auto-off after 60 seconds. Press the START button to measure.
- **Measurement complete** ⑩ :The reading will be shown on the display ② with the «**°C**» or «**°F**» icon; the unit is ready for the next measurement, when the «**°C**»or«**°F**»icon is flashing again.
- **Out-of-ear temperature indicator** ⑪ : A crossed-ear-icon will appear on the display ② if the reading falls outside the range 32.0 - 42.2 °C (89.6 - 108.0 °F).
- **Low battery indicator** ⑫ : When the unit is turned on, the triangle icon will keep flashing to remind the user to replace the battery.

5. Set Date, Time and Beeper functions

- After the new batteries are fitted, the year number flashes in the

display ㉔. You can set the year by pressing the START button ③. To confirm and then set the month, press the M button ⑥ .

- Press the START button ③ to set the month. Press the M button ⑥ to confirm and then set the day.
- Follow the instructions above to set the day, 12 or 24 hours System mode, hours and minutes.
- Once you have set the minutes and pressed the M button ⑥, the date and time are set and the time is displayed.
- If you want to change the date and time, press and hold the M button ⑥ down for approx. 3 seconds until the year number starts to flash ㉔. Now you can set the new values as described above.
- Clicking the ON/OFF button ④ during time setup (after battery insertion) will remove the device from setting the time and the LCD will show Date /TIME icons respectively with "--:--" After that press the ON/OFF button ④ to start the test or if no further action is taken within 20 seconds, the device will automatically turn off.
- When the device switched off, press and hold the ON/OFF button ④ for 5 seconds to set the beeper ㉕.
  Press the ON/OFF button ④ to turn the beeper on and off. The thermometer will indicate whether the beeper is activated by displaying a beeper icon on the screen.
  If no button is pressed for 5 seconds, the device automatically switches into the ready for measurement mode.

6. Directions for Use

1. Press the ON/OFF button ④ . The display ② is activated to show all segments for 1 second.
2. When the «°**C**» or «°**F**» icon is flashing, a beep sound is heard and the thermometer is ready for measuring. The blue probe LED is activated and will automatically turn off after 10 seconds. Press the START button for measuring or auto-off after 60 seconds ⑨ .
3. Straighten the ear canal by pulling the ear up and back to give

a clear view of the eardrum.

- For children under 1 year; pull the ear straight back.
- For children of 1 year to adult; pull the ear up and back.

Also refer to the short instructions at the front.

4. While gently pulling the ear, insert the probe snugly into the ear canal (**about 1 sec.**) and **immediately** press the START button ③. Release the button and wait for the beep sound. This indicates the end of the measurement.
5. Remove the thermometer from the ear canal. The display shows the measured temperature ⑩ .

NOTE:

- **To ensure accurate readings, wait at least 30 sec. after 3-5 continuous measurements.**
- Accumulation of ear wax on the probe can result in less accurate temperature readings or cross infection between users **Therefore, this thermometer will remind a user to clean the probe before turning-off the thermometer.(Clean me is shown on the LCD and probe LED will flash for 3 seconds ㉑.** For cleaning, follow the instructions in the «**Cleaning and Disinfecting**» section.
- **After cleaning the measuring sensor ① with alcohol, wait 5 minutes before taking the next measurement, in order to allow the thermometer to reach its operating reference temperature.**
- 10 short beeps and a red LCD backlight alerts the patient that he/ she may have a temperature equal to or higher than 37.5°C.
- For an infant, it is best to have the child lying flat with his/her head sideways so the ear is facing upwards. For an older child or adult, it is best to stand behind and slightly to the side of the patient.
- Always take the temperature in the same ear, since the temperature readings may be different from ear to ear.
- Wait for a few minutes to take the ear temperature after

sleeping.

- In the following situations it is recommended that three temperatures in the same ear be taken with the highest one taken as the reading:
  1. New born infants in the first 100 days.
  2. Children under three years of age with a compromised immune system and for whom the presence or absence of fever is critical.
  3. When the user is learning how to use the thermometer for the first time until he/she has familiarized himself/herself with the instrument and obtains consistent readings.
  4. If the measurement is surprisingly low.

7. Changing between Celsius and Fahrenheit

This thermometer can display temperature readings in either Fahrenheit or Celsius. To switch the display between°C and °F, simply turn OFF the unit, **press and hold** the START button ③ for 5 seconds; after 5 seconds, the current measurement scale («**°C**» or «**°F**» icon) will flash on the display ② . Change the measurement scale between °C and °F by pressing the START button ③ . When the measurement scale has been chosen, wait for 5 seconds and the unit will automatically enter the «ready for measuring» mode.

8. How to recall 30 readings in Memory Mode

This thermometer can recall the last 30 readings with a record of both time and date.

- **Recall mode ⑮ :** Press the M button ⑥ to enter Recall mode when the power is off. The memory icon «**M**» will flash.
- **Reading 1 - the last reading ⑮ :** Press and release the M button ⑥ to recall the last reading. Number "1" and a flashing "M" are displayed to indicate the last recalled reading.
- **Reading 30 - readings in succession:** Press and release the M button ⑥ consecutively to recall the last 30 readings in

succession.

Pressing and releasing the M button ⑥ after the last 30 readings have been recalled will resume the above sequence from reading 1.

9. Error Messages

- **Measured temperature too high ⑯ :** Displays «**H**» when measured temperature is higher than 100.0 °C or 212.0 °F.
- **Measured temperature too low ⑰ :** Displays «**L**» when measured temperature is lower than 0 °C or 32.0 °F.
- **Ambient temperature too high ⑱ :** Displays «**H**» when ambient temperature is higher than 40.0 °C or 104.0 °F.
- **Ambient temperature too low ⑲ :** Display «**L**» when ambient temperature is lower than 10.0 °C or 41.0 °F.
- **Error function display ⑳ :** The system has a malfunction.
- **Blank display ㉒ :** Check if the battery has been installed correctly. Also check polarity (<+> and <->) of the battery.
- **Flat battery indication ㉓ :** If the triangle icon is the only symbol shown on the display, the battery should be replaced immediately.

10. Cleaning and Disinfecting

Use an alcohol swab or cotton tissue moistened with alcohol (70% Isopropyl) 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 and never immerse the instrument in water or other cleaning liquids. Take care not to scratch the surface of the probe lens and the display.

11. Battery Replacement

This instrument is supplied with one lithium battery, type CR2032. Replace with a new CR2032 battery when the triangle symbol appears on the display ㉓ .

Remove the battery cover by sliding it in the direction shown. Remove the battery and replace with a new one ㉖ .

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

12. Guarantee

This instrument is covered by a **2 year guarantee** from the date of purchase. The guarantee is valid only on presentation of the guarantee card completed by the dealer (see back) confirming date of purchase or the receipt.

- The guarantee covers the instrument. Batteries and packaging are not included.
- Opening or altering the instrument invalidates the guarantee.
- The guarantee does not cover damage caused by improper handling, discharged batteries, accidents or non-compliance with the operating instructions.

Please contact Microlife-service.

13. Technical Specifications

Type:	Ear Thermometer IR1DQ1-1
Measurement range:	0 °C to 100.0 °C (32.0 °F to 212.0 °F)
Resolution:	0.1 °C / °F
Measurement accuracy:	Laboratory: ±0.2 °C, 32.0 - 42.2 °C (±0.4 °F, 89.6 - 108.0 °F)
Operating temperature:	10 °C to 40 °C (41.0 °F to 104 °F) 15-95 % relative maximum humidity
Display:	Liquid Crystal Display, 4 digits plus special icons
Acoustic:	• The unit is turned ON and ready for the mea-

surement: 1 short beep
- Complete the measurement : 1 long beep
- System error or malfunction: 3 short beeps
- Fever alarm: 10 short beeps

Memory: • 30 readings recall with time and date record in the Memory Mode

Backlight:
- The display light will be GREEN for 1 seconds, when the unit is turned ON.
- The display light will be GREEN for 5 seconds, when a measurement is completed with a reading less than 37.5 °C (99.5 °F).
- The display light will be RED for 5 seconds, when a measurement is completed with a reading equal to or higher than 37.5 °C (99.5 °F).

Storage temperature: -25 °C to 55 °C (-13 °F to 131 °F)
15-95 % relative maximum humidity

Automatic Switch-off: Approx. 1 minute after last measurement has been taken.
Battery CR2032 Battery (X1) 3V
Dimensions 139 × 39× 42 (mm)
Weight: 54.5 g (with battery), 51 g (w/o battery)
Reference to standards: EN 12470-5; ASTM E1965; IEC 60601-1; IEC 60601-1-2 (EMC)
Expected service life of device: 2 years
Battery life: Approximately 800 measurements
IP22: Protected against solid foreign objects of 12.5 mm diameter and greater. Protected against vertically falling water drops when the device is tilted up to 15°.

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The stipulations of EU-Directive 93/42/EEC for Medical Devices Class IIa have been fulfilled.
Technical alterations reserved.

According to the Medical Product User Act a biennial technical inspection is recommended for professional users.
Please observe the applicable disposal regulations.

14.www.microlife.com

Detailed user information about our blood pressure monitors as well at www.microlife.com.

Guarantee Card

Name of Purchaser _____

Serial Number _____

Date of Purchase _____

Specialist Dealer _____

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