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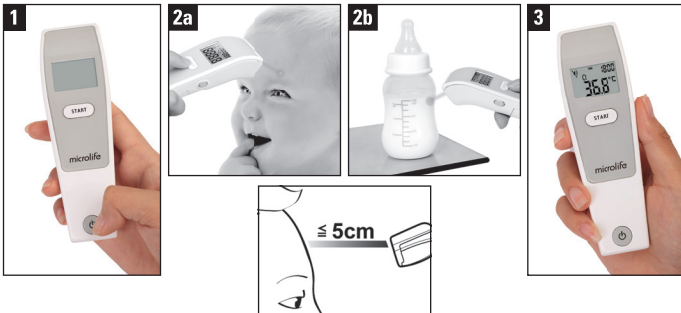## Microlife NON CONTACT - FR1MF1

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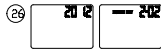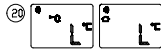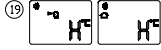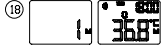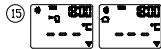
FR1MF1

1sec.

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

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Microlife FR1MF1

1. Measuring Sensor
2. Tracking light
3. Display
4. Start Button
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This Microlife 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 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.

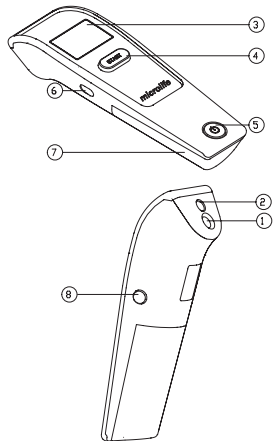Please read through these instructions carefully in order for you to understand all functions and safety information.

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

Type BF applied part

Keep dry

Table of Contents

1. The Advantages of this Thermometer

Measurements in 1 second.
The innovative infrared technology allows measurement without even touching the object. This guarantees safe and sanitary measurements within 1 second.

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 to measure body temperature or it can 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

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 within the date and time record when entering the recall mode,
enabling efficient tracking of temperature variations.

Safe and Hygienic
• No direct skin contact.
• No risk of broken glass or mercury ingestion.
• Completely safe for use on children.
• Cleaning of the sensor can be done with an alcohol-moistened cotton tissue.

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.
• A basic physiological effect called vasoconstriction can occur in the early stages of fever, resulting in a cool skin effect. The recorded temperature using this thermometer can, therefore,be unusually low.
• If the measurement result is not consistent with the patient's

finding or unusually low, repeat the measurement every 15 minutes or double check the result by another core body temperature measurement.
• This instrument comprises sensitive components and must be reated 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.
• Ensure that children do not use the instrument unsupervised; as some parts are small enough to be swallowed.
• 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 batteries should be removed

⚠ **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 Thermometer measures Temperature

This thermometer measures infrared energy radiated from the forehead as well as objects. This energy is collected through the lens and converted to a temperature value.
Temperature readings obtained by scanning above the eyebrow area will provide the greatest accuracy.

4. Control Displays and Symbols

• **All segments displayed** ⑨ : Press the ON/OFF button ⑤ to

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turn on the unit; all segments will be shown for 1 second.

- **Ready for measurement** ⑪ : When the unit is ready for measurement, the «°**C**» or«°**F**» icon will keep flashing while the mode icon (body or object) will be displayed.
- **Measurement complete** ⑫ : The reading will be shown on the display ③ with the «°**C**»or«°**F**» icon and the mode icon steady.
  The unit is ready for the next measurement as soon as the «°**C**» or «°**F**» icon is flashing again.
- **Low battery indicator** ⑮ : 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 ㉖. You can set the year by pressing the START button ④.To confirm and then set the month, press the M button ⑧.
- Press the START button ④ to set the month. Press the M button ⑧ 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 ⑧ , 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 ⑧ down for approx. 3 seconds until the year number starts to flash㉖. Now you can enter the new values as described above.
- Clicking the ON/OFF button ⑤ during time setup(after battery insertion) will remove the device from time setting Mode, the LCD will show Date/ TIME icons respectively with "--:--"After that press the ON/OFF button ⑤ to start the test or if no further action is taken within 20 seconds, the device will automatically turn off.

• When the device is switched off, press and hold the ON/OFF button ⑤ for 5 seconds to set the beeper ㉗. Press the ON/OFF button⑤to 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. Changing between Body and Object Mode

For changing from body to object mode, slide the mode Switch ⑥ at the side of the thermometer upwards.For switching back to body mode, slide the switch down again.

7. Directions for Use

Measuring in Body Mode

1. Press the ON/OFF button ⑤. The display ③ 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 ⑪.

3. **Aim the thermometer at the temple area with a distance of no more than 5 cm.** Please remove any hair, sweat or dirt from your forehead before measuring to improve the accuracy of the readings.

4. **Press the START button④and steadily positon the thermometer** pointing to the temple area (about 1 cm above the eyebrow). The activated blue tracking light will indicate the area being measured. After 1 second a long beep will verify the completion of measurement.

5. Read the recorded temperature from the LCD display.

Measuring in Object Mode

1. Follow steps 1-2 above, then aim the thermometer at the center of the object you want to measure with a distance of no more than 5 cm. Press the START button ④. After a long beep will verify the completion of measurement.

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2. Read the recorded temperature from the LCD display.

☞ **NOTE**

- **Patients and thermometer should stay in similar room conditions for at least 30 minutes.**
- 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
- Don't move the measurement device from the measuring area before hearing the termination beep.
- 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.
- Always take the temperature in the same location, since temperature readings may vary according to location.
- Doctors recommend rectal measurement for newborn infants within the first 6 months, as all other measuring methods might lead to ambiguous results.If using a non contact thermometer on those infants,we always recommend verifying the readings with a rectal measurement.
- In the following situations it is recommended that three temperatures are taken with the highest one taken as the reading
  1. Children under three years of age with a compromised immune system and for whom the presence or absence of fever is ritical
  2. 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 reading .
  3. If the measurement is surprisingly low.
- **Readings from different measuring sites should not be compared as the normal body temperature varies by measuring site and time of day,** being highest in the evening

and lowest about one hour before waking up.

Normal body temperature ranges:
- ☐ Axillar: 34.7 - 37.7 °C / 94.5 - 99.1 °F
- ☐ Oral: 35.5 - 37.5 °C / 95.9 - 99.5 °F
- ☐ Rectal: 36.6 - 38.0 °C / 97.9 - 100.4 °
- ☐ Microlife NC 150: 35.4 - 37.4 °C / 95.7 - 99.3°F

8. 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 ④ for 5 seconds; after 5 seconds, the current measurement scale («°**C**» or «°**F**» icon) will flash on the display ③ . Change the measurement scale between °C and °F by pressing the START button ④. When the measurement scale has been chosen, wait for 5 seconds and the unit will automatically enter the «ready for measuring» mode.

9. 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** ⑱**:** Press the «M» button⑧to enter Recall mode when the power is off. The memory icon «M» will flash.
- **Reading 1 - the last reading** ⑱ **:** Press and release the «M» button⑧ to recall the last reading. Number "1" and flashing M are displayed to indicate the last recalled reading.
- **Reading 30 - readings in succession:** Press and release the «M» button⑧ consecutively to recall the last 30 readings in succession.

Pressing and releasing the «M» button ⑧ after the last 30 readings have been recalled will resume the above sequence from reading 1.

10. Error Messages

- Measured temperature too high ⑲ **:** Displays «**H**» when measured temperature is higher than 42.2°C (108.0 °F) in body mode or 100 °C (212 °F) in object mode
- **Measured temperature too low** ⑳ **:** Displays «**L**» when measured temperature is lower than 34.0 °C (93.2 °F) in body mode or 0 °C (32 °F) in object mode
- **Ambient temperature too high** ㉑ **:** Displays «**H**» ⌂ when ambient temperature is higher than 40.0 °C (104.0 °F).
- Ambient temperature too low ㉒ **:** Displays «**L**» ⌂ when ambient temperature is lower than 16.0 °C (60.8 °F) in body mode or lower than 5 °C (41.0 °F) in object mode.
- **Error function display** ㉓ **:** The system has a malfunction.
- **Blank display** ㉔ **:** Check if the batteries have been installed correctly. Also check polarity (<+> and <->) of the batteries.
- **Flat battery indication** ㉕ **:** If this icon « ▼ »is the only symbol shown on the display, the batteries should be replaced immediately.

11. Cleaning and Disinfecting

Use an alcohol swab or cotton tissue moistened with alcohol (70% Isopropyl) to clean the thermometer casing and the measuring sensor. 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 sensor lens and the display.

12. Battery Replacement

This instrument is supplied with 2 new, long-life 1.5V, size AAA batteries. Batteries need replacing when this icon « ▼ » ㉕ is the only symbol shown on the display.
Replace the batteries ㉘ – ensure correct polarity as shown by the symbols in the compartment.

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

13. 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.

14. Technical Specifications

Type:	Non Contact Thermometer FR1MF1
Measurement range:	Body Mode: 34.0-42.2 °C (93.2-108.0 °F)
	Object Mode: 0-100.0 °C (32-212.0 °F)
Resolution:	0.1 °C / °F
Measurement accuracy:	Laboratory:
	±0.2 °C, 36.0 ~ 39.0 °C
	(±0.4 °F, 96.8 ~ 102.2 °F)
Display:	Liquid Crystal Display, 4 digits plus special icons
Acoustic:	• The unit is turned ON and ready for the measurement: 1 short beep
	• Complete the measurement:
	1 long beep (1 sec.) if the reading is less than 37.5 °C (99.5 °F), 10 short «beep» sounds,if the reading is equal to or greater than 37.5 °C(99.5 °F).
	• System error or malfunction:

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Memory:	• 30 readings recall in the Memory Mode with time and date record	
Backlight:	• The display light will be GREEN for 4 second 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 second, when a measurement is completed with a reading equal to or higher than 37.5 °C(99.5 °F).	
Ambient temperature:	Body Mode: 16 °C -40 °C (60.8°F)-104.0°F Object Mode: 5°C-40.0°C(41°F -104.0°F)	
Storage temperature:	-20 °C to 50 °C (-4 °F to 122 °F) 15-95 % relative maximum humidity	
Automatic	Approx. 1 minute after last measurement	

3 short beeps

Switch-off:	has been taken.
Battery	2 x 1.5 V Batteries; size AAA
Dimensions	141.1 × 43.3 ×36.9 (mm)
Weight:	90 g (with battery), 67 g (w/o battery)
Reference to standards:	ASTM E1965; IEC 60601-1; IEC 60601-1-2 (EMC) IEC 60601-1-11
IP21:	Protected against solid foreign objects of 12.5 mm diameter and greater, protected against the ingress of vertically falling water drops with the device positioned on a turntable.

Expected service life: 5 years

Battery Lifetime: Approximately 2,000 measurements

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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.

15.www.microlife.com

Detailed user information about our thermometers and blood pressure monitors as well as services can be found at www.microlife.com.

Guarantee Card

Name of Purchaser

Serial Number

Date of Purchase

Specialist Dealer

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