

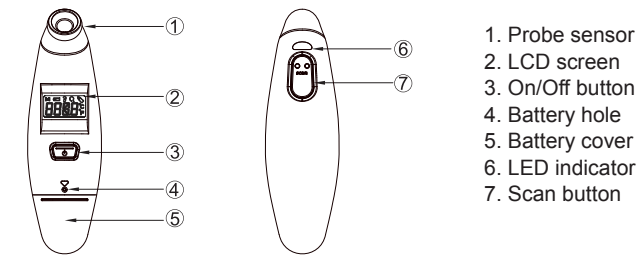
21x36cm

mubeca RT7112 (GE-TF11) Non-Contact Infrared Thermometer

PRECAUTIONS FOR USE

- Any potential difference will happen due to user's operating way and environments.
- Use of the device is not intended to be a substitute for consultation with your physician.
- Before you use the unit, please read this user manual thoroughly and carefully.
- Disregarding the information given in this instruction manual is considered to be abnormal use.
- The device is for indoor use only. Please do not use the device under a noisy environment.
- After showering, exercising, eating or drinking, wait for 30 minutes before you intend to measure your temperature.
- Sweat will affect the reading result on the forehead, so please make sure your forehead is clean before measuring.
- Keep the thermometer out of reach of children.
- Do not drop the unit and protect it from severe impact and shock. Once it happens, do not use the unit until it is recalibrated.
- Do not expose the unit to direct sunlight or high temperatures.
- Normally speaking, body temperatures in the morning (lower) will be different from those in the afternoon (higher). So, please measure your body temperature in the same place and at the same time of day.

PRODUCT DESCRIPTION



PRODUCT SPECIFICATION

Body temperatures

Measurement range:	34°C ~ 42°C (93.2°F ~ 107.6°F)
Accuracy:	±0.2°C (±0.4°F) - 35.5°C ~ 42°C (95.9°F ~ 107.6°F) ±0.3°C (±0.5°F) - 34°C ~ 35.4°C (93.2°F ~ 95.7°F)
Red LED:	37.8°C ~ 42°C (100°F ~ 107.6°F)
Green LED:	34°C ~ 37.7°C (93.2°F ~ 99.9°F)

Wide temperatures

Measurement range:	0°C ~ 100°C (32°F ~ 212°F)
Accuracy:	±1°C (±2°F)
Red LED:	Not applicable
Green LED:	0°C ~ 100°C (32°F ~ 212°F)

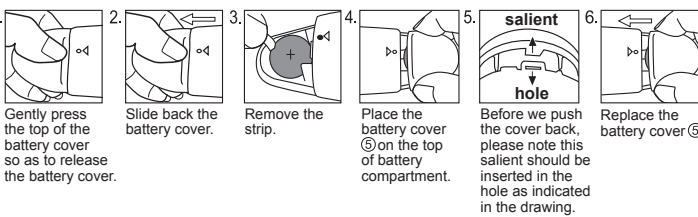
General specification

Display unit:	0.1°C or °F
Battery:	One Lithium CR2032 battery
Battery life:	1,000 measurements approximately (under normal use)
Weight:	Approx. 40 grams including battery
Dimensions:	126 mm x 38.2 mm x 31.6 mm
Operation condition:	16°C ~ 35°C (61°F ~ 95°F)
Storage (transport) condition:	-25°C ~ 55°C (-13°F ~ 131°F)
Applying standards:	EN 60601-1, EN 60601-1-2, EN12470-5, ASTM E1965
Classification:	According to IEC 60601-1, the whole unit is • [A] type BF applied parts • IPX0 • not suitable for use in an oxygen rich environment • continuous operation
Clinical repeatability:	Clinical repeatability has been carried out in accordance with EN12470-5:2003, section 6.3.4. The test result proves that it complies with the requirement, i.e. the clinical repeatability does not exceed ±0.3°C.

This thermometer converts the forehead temperature to display its "oral equivalent." (according to the result of the clinical evaluation)

BEFORE FIRST USE

The thermometer is delivered with a lithium battery (CR2032) already in place. However, in order to extend the battery life, we've inserted a strip in the battery compartment. Therefore, before your first use, please follow instructions below so as to take off the strip.



°C / °F SWITCH

To switch between °C and °F, press and keep pressing the scan button ⑦ for 5 seconds when power off, then the LCD screen ② will show the opposite unit (if default is °C, it will show °F). After that, the thermometer will turn on automatically.

OPERATION

Steps	Drawings	Instructions
1		Press the on/off button ③ to turn the thermometer on.
2		The LCD screen ② will display all segments for 1 second.

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3		At this segment, we can choose the type of measurement (body or wide temperature) by pressing the scan button ⑦.
4		Then, the last measured value will be shown on the LCD screen ② with the "M" icon (memory).
5		After that, forehead/bottle symbol will be shown with "---" symbol on the LCD screen ② for system-check.
6		Finally, when you see "OK" on the LCD screen ②, it means the thermometer is ready to measure.
7		Aim the probe sensor ① at the center of the forehead with a distance not exceeding 5 cm. Press the scan button ⑦ for 1 second only. If the forehead is covered with hair, sweat, or dirt, please remove the obstacle beforehand to improve reading accuracy.
8		Remove the probe sensor ① from the forehead and you will hear one beep sound, which means the measurement is finished.
9		The LCD screen ② displays the measured value.
10		When "Q" mode: If the LCD screen ② shows temperatures between 37.8°C ~ 42°C (100°F ~ 107.6°F), the fever alarm function will be activated by short "bi-bi-bi" sound and the LED indicator ⑥ will show "red".
11		For re-measurement, please wait for 2 seconds until "C" and "Q" start to flicker again.
12		To turn off the thermometer, press the on/off button ③ again.

- If the power is left on, the thermometer will automatically shut off after 1 minute to save power.
- For all types of thermometers, slight temperature variations can happen. Therefore, it is recommended to take several readings (removing the thermometer from the forehead between each measurement) and take the highest one into account.

MEMORY MODE

The thermometer automatically stores 8 memories. To check last 8 measured values, please follow instructions as below.

- Press the scan button ⑦ when power off. Then, the LCD screen ② will display the "M" icon.
- Press the scan button ⑦ once again. The LCD screen ② will display "M1", and then it will display the first memory automatically.
- Press the scan button ⑦ again. The LCD screen ② will display "M2", and then it will display the second memory automatically, and so on.

BATTERY REPLACEMENT

When the battery symbol "□" is displayed on the LCD screen ②, please replace the battery and follow instructions as below.

Steps	Drawings	Instructions
1		Gently press the top of the battery cover ④ so as to release the battery cover ⑤.
2		Slide back the battery cover ⑤.

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3		Use a stick to take the battery out. When placing a new battery, please make sure the polarity of battery ("+" is upward) is correct.
4		Place the battery cover ⑤ on the top of battery compartment.
5		Before we push the cover back, please note this salient should be inserted in the hole as indicated in the drawing.
6		Replace the battery cover ⑤.

- Do not recharge the battery.
- Do not swallow the battery which may be fatal.
- Do not dispose of the battery in fire as it may explode.
- Do not attempt to disassemble the unit except battery replacement.

ERROR INDICATIONS

Error signals	Problems & Solutions
	Q: If the temperature is more than 42°C/107.6°F (body temperature) or 100°C/212°F (wide temperature), the LCD displays "Hi". A: Recheck the measured object before measuring.
	Q: If the temperature is below 34°C/93.2°F (body temperature) or 0°C/32°F (wide temperature), the LCD displays "Lo". A: Recheck the measured object before measuring.
	Q: Informing battery replacement time. A: Replace the battery.
	Q: Informing inactivity due to low battery. A: Replace the battery.
	Q: Operation temperature is out of range. A: Put the device in a place with normal room temperature (16°C ~ 35°C/61°F ~ 95°F) for, at least, 30 minutes before measuring. If it still displays "Err", it means the device does not work properly and please consult the distributor.
	The device does not work properly and please consult the distributor.

EXPLANATION OF [LOT] NUMBER

The date of manufacture is included in the [LOT]. The [LOT] has 5 numbers. The first number means the year (0-9). The second number means the month (Jan. - Sep.: 1-9, Oct.: A, Nov.: B, Dec.: C). The third and fourth numbers mean the date (1-31). And the last number means the batch of the month.

Example:

CLEANING AND MAINTENANCE

- Sensor in the front of the probe is an extremely sensitive part. For accurate measurement, always keep it clean and do not damage it.
- Place the thermometer back to the storage case, and put the probe face down to prevent any dirt or liquid into it.
- Carefully clean the sensor by using a cotton-stick with alcohol (95%). After cleaning, allow, at least, 1-hour drying time for measurement.
- The outside of the probe should be cleaned with soft cloth moistened in alcohol or water.
- Do not immerse the product in water or any other liquid.
- Keep the device under normal room temperature (16°C ~ 35°C/61°F ~ 95°F).
- We recommend verifying the accuracy by an authorized laboratory every 2 years.

DISPOSAL

- Please dispose of the product and the battery separately.
- The product and the battery should not be disposed of with household waste.
- Please follow local waste / battery disposal regulations.

LIMITED WARRANTY

This thermometer is guaranteed for 2 years from the date of purchase against Manufacturer's defect under normal use. If your unit does not function properly due to defective parts or assembly, we will repair it free of charge. All parts are covered by this warranty except the battery and damage to the unit due to improper handling.

SYMBOL AND EXPLANATION

	The CE mark and Notified Body Registration Numbers, the requirement of Annex II article 3 from Medical Device Directive 93/42/EEC are met.		Manufacturer
	Read instructions in Printer Manual.		Authorized representative in the European Community.
	Degree of protection from Liquids.		Indicates this device is subject to the Waste Electrical and Electronic Equipment Directive in The European Union.



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Guidance and manufacturer's declaration-electromagnetic emissions

The RT7xxx series is intended for use in the electromagnetic environment specified below. The customer or the user of the RT7xxx series should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The RT7xxx series uses RF energy only for its internal function, therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The RT7xxx series is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacturer's declaration - electromagnetic immunity

The RT7xxx series is intended for use in the electromagnetic environment specified below. The customer or the user of the RT7xxx series should assure that it is used in such an environment.

Emissions test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE UT is the a.c. mains voltage prior to application of the test level.

Guidance and manufacturer's declaration - electromagnetic immunity

The RT7xxx series is intended for use in the electromagnetic environment specified below. The customer or the user of the RT7xxx series should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the RT7xxx series, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.2 \sqrt{P}$ $d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 1.2 \sqrt{P}$ 800 MHz to 2.5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the RT7xxx series is used exceeds the applicable RF compliance level above, the RT7xxx series should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the RT7xxx series.

- Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the RT7xxx series			
The RT7xxx series is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the RT7xxx series can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the RT7xxx series as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			