Dual Mode Infrared Thermometer



**Owner's Manual** 





# **System Owner**

Thank you for purchasing the Dual Mode Infrared Thermometer. Please read this instruction manual first so you can use this thermometer safely and correctly. Please keep this instruction manual for future reference. This innovative medical device uses advanced infrared (IR) technology to measure temperature instantly and accurately on the forehead, ear or object.

## **IMPORTANT SAFETY INSTRUCTIONS READ BEFORE USE**

The following basic safety precautions should always be taken.

1.Close supervision is necessary when the thermometer is used by, on, or near children, handicapped persons or invalids.

2.Use the thermometer only for the intended use described in this manual.

Do not use the thermometer if it is not working properly, or if it has suffered any damage.

### **KEEP THIS INSTRUCTION IN A SAFE PLACE**

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# Cautions and Warnings

- As with any thermometer, proper technique is crucial to obtaining accurate temperature readings.
   Please read this manual thoroughly and carefully before using.
- Always operate the thermometer in an operating temperature range 16°C to 40°C (60.8°F to 104°F), and relative humidity less than 85%.
- Always store the thermometer in a cool and dry place
   -25°C to 55°C (-13°F to 131°F) and relative humidity less than 95%.
- Avoid direct sunlight.
- Avoid dropping the thermometer, if it happens and you think the thermometer may be damaged, please contact customer services immediately.
- Do not touch the lens.
- Do not disassemble the thermometer.
- Basic safety precautions should always be observed, especially when the thermometer is used on or near children and disabled persons.
- This thermometer is not intended to substitute for a consultation with your physician.
- This thermometer and the patient must remain in a stable environment for at least 30 minutes before measuring the temperature.
- When the measured temperature falls within the fever temperature range of ≥37.5°C (99.5°F) and
   <43°C (109.4°F), as indicated by the red LED on display, please consult with your physician immediately.</li>

### **Restrictions of Use**

This thermometer is clinically proven to produce accurate temperature measurements. However, please be advised that the accuracy can not be ensured when the thermometer is not clean. Check that the probe is clean before taking a measurement.

### **Intended Use**

Infrared Thermometer is intended for the intermittent measurement and monitoring of human body temperature from forehead or ear measurement at home.

A control measurement using a conventional thermometer is recommended in the following cases:

- 1. If the reading is surprisingly low.
- 2. For new-born infants up to 100 days old.
- 3. For children under three years of age who have a weakened immune system or who react unusually in the presence or absence of fever.

### How does it work

The thermometer measures the infrared heat generated by the surface of the skin or the ear cannal over the vessel and its surrounding tissue. The thermometer then converts it into a temperature value.

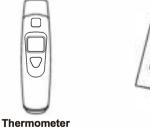
#### NOTE:

The thermometer does not emit any infrared signal.

## **Highlighted Features**

- Dual mode (ear & forehead) measure the body temperature.
- Automatically power off if left idle for 1 minute.
- Memory function allows you to recall previous results up to 20 previous results.
- Easy to read LCD with green backlight in a dark environment.
- Color visible indication of alarm (red) and measurement in progress (green).

# **Package Content**



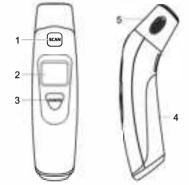




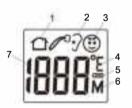
anual 1.5V AAA batteries

## **Meter Overview**

# Display Screen



1	SCAN/Memory Button	4	Battery Cover
2	Display Screen	5	Probe cap
3	ON/MODE Button		



1	Object temperature indicator	5	Low battery indicator
2	Ear temperature indicator	6	Memory mode
3	Forehead temperature indicator	7	Temperature reading
4	Temperature unit		

# **Display Mode**



Three modes can be selected.

#### 1. Forehead Mode

This mode is used to measure the forehead temperature.



Ear mode

#### 2. Ear Mode

This mode is used to measure the ear temperature.



### 3. Object Mode

This mode is used to measure the object temperature.

### **Select the Temperature Unit**

This meter provides two measurement units used for indicating the body/object temperature, °C or °F, for your preferred selection.

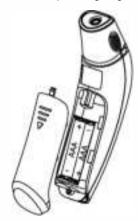
- 1. Long press the "Scan" button until display the temperature unit with the shutdown state.
- 2. released the "Scan" button , short press the "Scan" button again , switch the temperature to °C or °F.



### Before you begin

## **Replacing the Battery**

The thermometer comes with two 1.5 V AAA alkaline batteries. The meter will display " " to alert you when the meter power is getting low, please follow the steps below to replace new batteries immediately.



- 1. Remove the battery cover as the arrow direction accordingly.
- 2. Remove the old batteries and replace with two 1.5V AAA size alkaline batteries.
- 3.Close the battery cover.

#### NOTE:

- Although the thermometer works when papearing, we still recommend that you change the batteries to obtain an accurate result.
- 2. Remove the batteries if stored for a long period of time.
- 3. The batteries should be kept away out of children's reach. If they are swallowed, promptly see a doctor for help.

### **Detailed information**

## **About Normal Body Temperature & Fever**

The temperature in the forehead and temple area differs from the internal temperature, which is taken orally or rectally. Vasoconstriction, an effect which constricts the blood vessels and cools the skin, can occur during the early stages of a fever. In this case, the temperature measured by the Infrared Forehead thermometer may be unusually low. If the measurement therefore does not match the patient's own perception or is unusually low, repeat the measurement every 15 minutes. As a reference, you can also measure the internal body temperature using a conventional oral or rectal thermometer. Body temperature can vary from one individual/person to next. It also varies by location on the body and time of day. Below shows the statistical normal ranges from different sites. Please keep in mind that temperatures measured from different sites, even at the same time, should not be directly compared. Fever indicates that the body temperature is higher than normal. This symptom may be caused by infection, overdressing or immunization. Some people may not experience fever even when they are ill. These include, but are not limited to, infants younger than 3 months old, persons with compromised immune systems, persons taking antibiotics, steroids or antipyretics (aspirin, ibuprofen, acetaminophen), or persons with certain chronic illnesses. Please consult your physician when you feel ill even if you do not have fever.

#### **Detailed information**

Table\*1 Body Site Normal Temperature Range

Oral	0.6°C (1°F) or more above or below 37°C (98.6°F)
Rectal/ear	0.3°C to 0.6°C (0.5°F to 1°F) higher than oral temperature
Axillary (armpit)	0.3°C to 0.6°C (0.5°F to 1°F) lower than oral temperature

<sup>\*1.</sup> Body Temperature at WebMD;

website: http://firstaid.webmd.com/body-temperature retrieved at 2010 Jan 7.

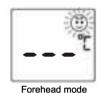
### Perform the test

## **Using the Device**

### **As a Forehead Measurement Thermometer**



1. Touch "ON/MODE" Switch to turn on the thermometer first.



2. Press the Mode button to select Forehead mode.

The temperature unit flashes.



3. Move the probe close to the forehead.

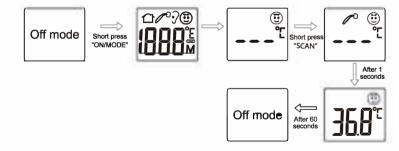
Make sure the probe is flat and close to the forehead, not at an angle. Perform a forehead measurement with a distance within 0~2 cm. press the "SCAN" button ,after a short beeper sound ,the temperature result will display on LCD . If you need measure the temperature again , should wait the backlight was turned off automatic .

### Perform the test



#### 4. Read the result.

The measurement result will be done in 1 seconds. The reading is shown together with green LED and three short beeps.



### Perform the test

#### NOTE:

- As the forehead measurement temperature is likely to be affected by sweat, oil and the surroundings, the reading shall be taken as a reference only.
- If the probe is placed at an angle close to the forehead measurement, the reading will be affected by surrounding temperature. Babies' skin reacts very quickly to the ambient temperature. Therefore, do not take their temperature with the Infrared Forehead thermometer during or after breast feeding, because the skin temperature may then be lower than the internal body temperature.
- If the reading is < 32°C (89.6°F), the display will show " \( \bigcup^\cup \)" or " \( \bigcup^\cup \)" and three beeps.
- If the reading is ≥ 37.5 °C (99.5°F) and < 43°C (109.4°F), the display will show together with red LED and ten short beeps.

If the reading is >43°C (109.4°F), the display will show " $\mathbf{H}^{\mathsf{T}}$ " or " $\mathbf{H}^{\mathsf{F}}$ " and ten beeps.

• The thermometer will automatically turn off if left idle for 60 seconds.

#### Perform the test

#### AS an ear measurement thermometer



1. Touch "ON/MODE"

Switch to turn on the thermometer first.



2. Press the Mode button to select Ear mode.
The temperature unit flashes.



3. Insert the probe into the ear canal , then press the "SCAN" button, then the temperature result will display on LCD. If you need measure the temperature again, should wait the backlight was turned off automatic .



### Perform the test



#### 4. Read the result.

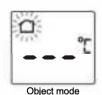
The measurement result will be done in 1 seconds. The reading is shown on LCD.

### As an object Measurement Thermometer



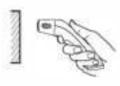
1. Touch "ON/MODE"

Switch to turn on the thermometer first.



2. Press the Mode button to select Object mode.
The temperature unit flashed

### Perform the test



### Move the probe close to the object.

Make sure the probe is flat and close to the object, not at an angle. Perform an object measurement with a distance within 0~2 cm. press the "SCAN" button ,then the temperature result will display on LCD . If you need measure the temperature again , should wait the backlight was turned off automatic .



#### 3. Read the result.

The measurement result will be done in 1 seconds.

The reading is shown together with green LED and three short beeps.

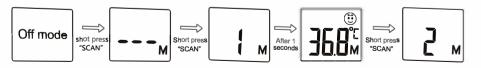
# **Meter memory**

## **Recalling the Memory**

Your thermometer stores 20 most recent readings



- 1. Be sure the thermometer is OFF before recalling this memory.
- 2. Short Press the "SCAN" button ,display a flashing "M",enter the inquire state. Each time you press the "SCAN"Button, a result will be displayed in the order of dates (latest result shown first), together with "M" and number (from 1 to 20). LED in green or red will appear according to the memory reading. When the memory is full, the oldest result is deleted as the new one added. When the last record displayed in the Display, press Memory Button again to return the first record.



## **Recalling the Mamory**



### 3. Delete the memory.

Long press (about 8 seconds )the "Scan button" with the shutdown state ,after flashing 3 times "CLr" icon and three beeps ,the measurement record will be deleted .



### Maintenance

# Care & Cleaning

- The probe is not waterproof. Please wipe with a clean and dry cotton swab to clean the probe on the inside.
- The body of the thermometer is not water-resistant. Never put the thermometer under a running tap or submerge it into water. Use a soft and dry cloth to clean it. Do not use abrasive cleaners.
- Store the thermometer in a cool and dry location. Free from dust and away from direct sunlight.

## System troubleshooting

# Measurement Result

MESSAGE	WHAT IT MEANS
	Measured temperature falls outside the displayed temperature range of 32°C to 43°C (89.6°F to 109.4°F), is shown on the display.
	H-temperature ≥43°C (109.4°F)     L-temperature<32°C (89.6°F)

8

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## System troubleshooting

# Measurement Result

MESSAGE	WHAT IT MEANS
36.8°C	Measured temperature falls in normal reading, within the range of 32°C to 37.5°C (89.6°F to 99.5°F), is shown on the display with green LED.
	Measured temperature falls in fever reading, ≥37.5°C (99.5°F) and ≤ 43°C (109.4°F), is shown on the display with red LED.

## System troubleshooting

# Troubleshooting

The table below shows problems you may encounter.

All error messages below would be shown together with backlight. Please follow "what to do" to resolve problems. If the problem still exists, please call your local dealer for help.

MESSAGE	WHAT IT MEANS	WHAT TO DO
	Appear when environ- mental temperature is below system operation range.	Put the thermometer under operating temperature range of 16°C to 40°C(60.8°F to 104°F) Body Mode 16°C to 40°C(60.8°F to 104°F) Object Mode 5°C to 40°C(41°F to 104°F)

# System troubleshooting

# Troubleshooting

MESSAGE	WHAT IT MEANS	WHAT TO DO
H	Appear when environ- mental temperature is above system operation range.	Put the thermometer under operating temperature range of 16°C to 40°C(60.8°F to 104°F)  Body Mode  16°C to 40°C(60.8°F to 104°F)  Object Mode  5°C to 40°C(41°F to 104°F)
	Power is low and "	Please replace batteries as soon as possible.

# System troubleshooting

# Troubleshooting

MESSAGE	WHAT IT MEANS	WHAT TO DO
Err	If the thermometer is broken or affected by EMF.	Please contact the customer service line.

# Symbol information

SYMBOL	REFERENT	
<b>③</b>	Consult instructions for use	
***	Manufacturer	
SN	Serial number	
$\triangle$	Caution, consult accompanying documents	
<b>C€</b> <sub>0197</sub>	CE mark	
[ EC ] REP]	Authorized representative in the European Community	
<b> </b>	Type BF Equipment	
<b>©</b>	Do not use if package is damaged	

## **Specifications**

**Dimension & Weight:** 150 x 50 x 38.5 mm, 75 g (include batteries)

Power Source: 2 x 1.5 V AAA alkaline batteries

### Displayed temperature range:

Body.Forehead: 32°C to 43.0°C (89.6°F to 109.4°F)

Object: 0°C to 100.0°C or 32°F to 199.9°F

Display resolution: 0.1

### Accuracy:

### FOR FOREHEAD MODE:

≤±0.2°C(±0.4°F)from35.9°C(96.6°F)to39.0°C(102°F) ≤±0.3°C(±0.5°F)from32.0°C(89.6°F)to35.8°C(96.4°F)

And from39.1°C(102.3°F)to43.0°C(109.4°F)

#### **FOR EAR MODE:**

 $\leq \pm 0.2$ °C( $\pm 0.4$ °F)from35.9°C(96.6°F)to39.0°C(102°F)  $\leq \pm 0.3$ °C( $\pm 0.5$ °F)from32.0°C(89.6°F)to35.8°C(96.4°F)

And from39.1°C(102.3°F)to43.0°C(109.4°F)

### **Specifications**

FOR OBJECT MODE

≤±4°C(±7.2°F)from0°C(32°F)to4.9°C(40.8°F)

≤±1°C(±2°F)from5°C(41°F)to60°C(140.0°F)

≤±4°C(±7.2°F)from60.1°C(140.1°F)to 100.0°C(or 199.9°F)

Temperature unit: °C or °F

Operating temperature range:
Boby Mode:16°C to 35°C (60.8°F to 95°F)

Object Mode: 5°C to 35°C(41°F to 95°F)

Operating humidity: 85% RH or less

Storage temperature range: -25°C to 55°C (-13°F to 131°F)

Storage humidity: 95% RH or less

Memory capacity: 20 measurements

## Disposal

Adhere to the applicable regulations when disposing of the device.

This product must not be disposed of together with domestic waste.

All users are obliged to hand in all electrical or electronic devices, regardless of whether or not they contain toxic substances, at a municipal or commercial collection point so that they can be disposed of in an environmentally acceptable manner.

Please remove the batteries before disposing of the device/unit.

Do not dispose of old batteries with your household waste, but at a battery collection station at a recycling site or in a shop.

### Reference standards

### Device Standard:

Device Corresponds to the requirements of the standard for infrared thermometers

ASTM E1965-98:2009

IEC 60601-1-2:2007/AC:2010

IEC 60601-1-4:1996

IEC 60601-1-6:2010

### **Electromagnetic Compatibility:**

Device fulfills the stipulations of the standard

IEC 60601-1-2

**(€**019

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

## Warranty

purchase.

- This product to be free of defects in workmanship and materials for a period on One year from the date of
- If this product is found to be defective during the waranty period, please contact the supplier and send it back with the purchase receipt and the Warranty Certificate to have it repaired or replaced free of charge. After such a repair, replacement or exchange, the product will be warranted from the date of purchase.
- This warranty is valid only if the Warranty Certificate and Warranty Registration Card are duly complete with date of purchase, serial number and dealer's stamp, and if the Warranty Registration Card is sent to
- with date of purchase, serial number and dealer's stamp, and if the Warranty Registration Card is sent to local distributor office not later than 14 days from the date of purchase.

   This warranty is void if this product has been repaired or serviced by unauthorized person. This warranty

does not cover defects caused by misuse, abuse, accident, tampering, poor maintenance, fire or any other

Except as stated in lhe above paragraphs, disclaims all other warranlies, implied or expressed, including lhe warranties of merchantability of fitness for a particular purpose with respect to lhe use of lhis product. shall not be liable for any direct, consequential or incidental damages arising out of the use or inability to use product.

	Two-Year Warranty Re	gistration Card	
Complete this warranty	card and mail it promptly		
Name			
Street Address			
APT#	City	Country	
State / Zip	н	ome Telephone	
Date of Purchase			
(Month-Day-Year)			
I would like to receive s	pecial offers and updates		
			PLACE
	30		STAMP HERE

