

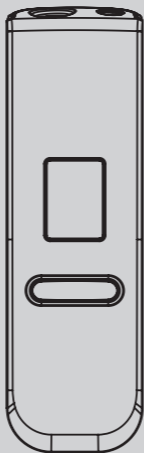
# FORA<sup>®</sup> Diamond NEXUS MINI

Non-Contact Infrared Forehead Thermometer

Infrarot-Stirnthermometer für Messungen ohne Kontakt

Thermomètre frontal infrarouge sans contact

Termometro frontale a infrarossi senza contatto



**Owner's Manual**

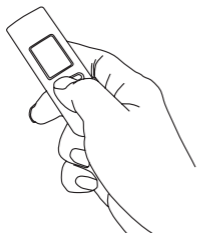
**Benutzerhandbuch**

**Manuel de l'utilisateur**

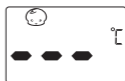
**Manuale dell'utente**



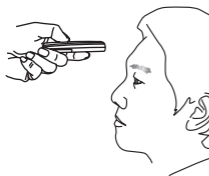
1-1



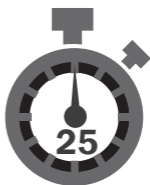
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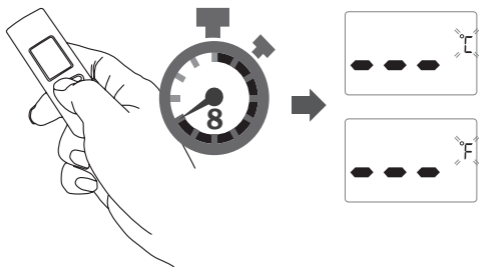
1-3



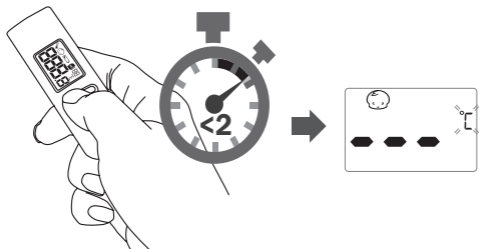
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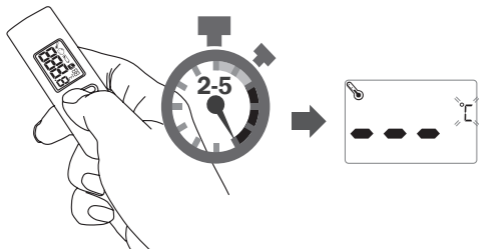
2-1



3-1



3-2



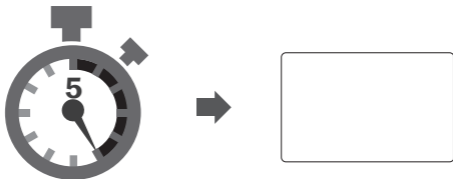
4-1



4-2



4-3



# Dear FORA Diamond NEXUS MINI System Owner:

Thank you for purchasing the **FORA Diamond NEXUS MINI** 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 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.
3. Do not use the thermometer if it is not working properly, or if it has suffered any damage.

**KEEP THESE INSTRUCTIONS IN A SAFE PLACE**

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# BEFORE YOU BEGIN

## 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 95%.
- Always store the thermometer in a cool and dry place -20 °C to 50 °C (-4 °F to 122 °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** 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 subject 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  $\geq 37.5^{\circ}\text{C}$  (99.5 °F) and  $< 43^{\circ}\text{C}$  (109.4 °F), as indicated by the red backlight on display, please consult with your physician immediately.



## Restrictions of Use

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

## Intended Use

FORA Diamond NEXUS MINI Thermometer is intended for the intermittent measurement and monitoring of human body temperature from forehead 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 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

- Non-contact measurement that does not require detecting sensor cover, there by saving cost of replacement.
- Automatically power off if left idle for 25 seconds and the backlight switch off in first 5 seconds.
- Memory function allows you to store 20 most recent body mode temperature results.
- Easy to read LCD with white backlight in a dark environment.
- Color visible indication of alarm (red) and normal reading (green).
- Distance between device and forehead measurement within 5 cm.

## Package Content



Thermometer

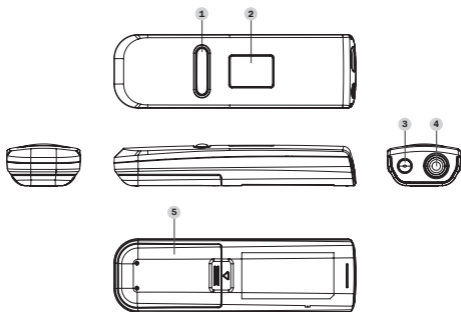


User's Manual



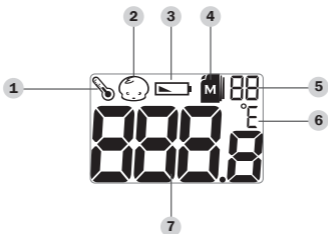
3V CR2032  
Battery

## Meter Overview



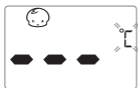
- 1 On/Scan Button
- 2 Display Screen
- 3 Guiding Light
- 4 Detecting Sensor
- 5 Battery Compartment

## Display Screen



- 1 Object temperature indicator
- 2 Body temperature indicator
- 3 Low battery indicator
- 4 Memory mode
- 5 Memory set
- 6 Temperature unit
- 7 Temperature reading

# Display Mode



Two modes can be selected.

## 1. Body Mode

**Press On/Scan button for less than 2 seconds to turn on the thermometer first and enter into body mode. When °C or °F blinks, the device is standby for measurement.**

This mode is used to measure the forehead temperature.



## 2. Object Mode

**Press On/Scan button for 2~5 seconds to turn on the thermometer first and enter into object mode. When °C or °F blinks, the device is standby for measurement.**

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.




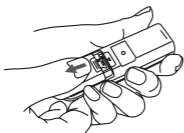
When device is off, press On/ Scan button for 8 seconds (the memory recall interface will display before entering into unit selection operation) to set up the unit, as °C or °F is blinking, press the On/ Scan button to switch between unit °C and °F. The device is standby for measurement



The device will switch off since no button pressed within 5 seconds.

## Replacing the Battery

The thermometer comes with one 3V CR2032 lithium battery. The meter will display "  " to alert you when the meter power is getting low, please follow the steps below to replace new battery immediately.

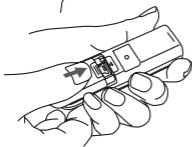


**1.** Press the buckle on battery cover and lift up to remove the cover.




**2.** Remove the old battery with battery hook by lifting the battery slightly upward and replace with one new 3V CR2032 lithium battery.

battery hook



**3.** Close the battery cover.

### NOTE:

1. Although the thermometer works when "  " appears, we still recommend that you change the battery to obtain an accurate result.
2. Remove the battery if stored for a long period of time.
3. The battery should be kept away out of child's reach. If they are swallowed, promptly see a doctor for help.
4. The battery shall be properly disposed according to your local environmental regulations.
5. Follow the national requirement to dispose the unit.

# 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 FORA Diamond NEXUS MINI 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.

Table\*<sup>1</sup> 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

\*1. Body Temperature at WebMD;

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



# PERFORM THE TEST

## Using the Device

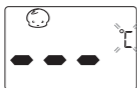
### As a Body Measurement Thermometer



**1. Press On/Scan button for less than 2 seconds to turn on the thermometer first and enter into body mode.** The full display will be showed on the meter for 2 seconds.

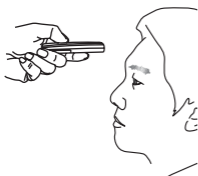


**2. The last memory displays for 2 seconds.**



**3. When °C or °F blinks, the device is standby for measurement.**

The temperature unit flashes.



**4. Move the detecting sensor close to the forehead.**

Make sure the detecting sensor is flat and close to the forehead, not at an angle. Perform a forehead measurement with a distance within 5 cm. Press On/Scan button for up to 3 seconds, the meter will take measurement.



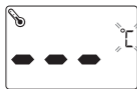
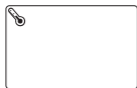
**5. Read the result.**


The measurement result will be done once releasing the button. The reading is shown together with green backlight and three short beeps.

**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 detecting sensor 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 FORA Diamond NEXUS MINI thermometer during or after breastfeeding because the skin temperature may then be lower than the internal body temperature.
- If the reading is  $< 32^{\circ}\text{C}$  ( $89.6^{\circ}\text{F}$ ), the display will show "L" together with red backlight and three short beeps.
- If the reading is  $\geq 32^{\circ}\text{C}$  ( $89.6^{\circ}\text{F}$ ) and  $< 37.5^{\circ}\text{C}$  ( $99.5^{\circ}\text{F}$ ), the display will show together with green backlight and three short beeps.
- If the reading is  $\geq 37.5^{\circ}\text{C}$  ( $99.5^{\circ}\text{F}$ ) and  $< 43^{\circ}\text{C}$  ( $109.4^{\circ}\text{F}$ ), the display will show together with red backlight and ten short beeps.
- If the reading is  $\geq 43^{\circ}\text{C}$  ( $109.4^{\circ}\text{F}$ ), the display will show "H" together with red backlight and ten short beeps.
- The interval for the next measurement should be 3 seconds.
- Device is standby for another measurement with last readings stays on the display,  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$  is blinking. The device cannot do another measurement during previous measurement shows on the display with backlight that lasts for 5 sec.
- The thermometer will automatically turn off if left idle for 25 seconds and the backlight switch off in first 5 seconds.

## As an Object Measurement Thermometer



**1. Press On/Scan button for 2~5 seconds to turn on the thermometer first and enter into object mode.** The object mode icon  will appear with a short beep during this operation. The full display will be showed on the meter for 2 seconds.

**2. The last memory displays for 2 seconds.**

**3. When °C or °F blinks, the device is standby for measurement.** The temperature unit flashes.

**4. Move the detecting sensor close to the object.**

Make sure the detecting sensor is flat and close to the object, not at an angle. Perform an object measurement with a distance within 5 cm. Press On/Scan button for up to 5 seconds, the meter will take measurement.



**5. Read the result.**

The measurement result will be done once releasing the button. The reading is shown together with green backlight and three short beeps.

**NOTE:**

- If the reading is  $< 0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ ), the display will show “L” together with red backlight and three short beeps.
- If the reading is  $\geq 0^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ ) and  $< 100^{\circ}\text{C}$  ( $212^{\circ}\text{F}$ ), the display will show together with green backlight and three short beeps.
- If the reading is  $\geq 100^{\circ}\text{C}$  ( $212^{\circ}\text{F}$ ), the display will show “H” together with red backlight and ten short beeps.
- The interval for the next measurement should be 3 seconds.
- Device is standby for another measurement with last readings stays on the display,  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$  is blinking. The device cannot do another measurement during previous measurement shows on the display with backlight that lasts for 5 sec.
- The thermometer will automatically turn off if left idle for 25 seconds and the backlight switch off in first 5 seconds.

# METER MEMORY

## Recalling the Memory

Your thermometer stores 20 most recent body temperature readings



1. Be sure the thermometer is OFF before recalling this memory.
2. Press On/Scan button for 5~8 seconds to enter the memory mode.



Each time you press the On/Scan Button, a result will be displayed in the order (latest result shown first), together with "M" and number ( from 1 to 20 ).

Backlight 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 On/Scan Button again to return the first record.

If there is no readings existed, ●●● ™ will be shown on the display while "M" is blinking.

### 3. Exit the memory.

The device will switch off since no button pressed within 5 seconds.

#### NOTE:

- Only the body temperature records can be read in this memory mode.





# MAINTENANCE

## Care & Cleaning

- The detecting sensor is not waterproof. Please wipe with a clean and dry cotton swab to clean the detecting sensor 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 with red backlight. <ul style="list-style-type: none"><li>• Hi-temperature <math>\geq 43^{\circ}\text{C}</math> (109.4°F)</li><li>• Lo-temperature <math>&lt; 32^{\circ}\text{C}</math> (89.6°F)</li></ul>
	<ul style="list-style-type: none"><li>• Hi-temperature <math>\geq 43^{\circ}\text{C}</math> (109.4°F)</li><li>• Lo-temperature <math>&lt; 32^{\circ}\text{C}</math> (89.6°F)</li></ul>
	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 backlight.
	Measured temperature falls within the range of $\geq 37.5^{\circ}\text{C}$ (99.5°F) and $< 43^{\circ}\text{C}$ (109.4°F), is shown on the display with red backlight.

## 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 environmental temperature is below system operation range, or the object temperature is below displayed temperature range.	Put the thermometer under operating temperature range of 16°C to 40°C (60.8°F to 104°F), or under object temperature range of 0°C to 100 (32°F to 212°F)
	Appear when environmental temperature is above system operation range, or the object temperature is above displayed temperature range.	Put the thermometer under operating temperature range of 16°C to 40°C (60.8°F to 104°F), or under object temperature range of 0°C to 100 (32°F to 212°F)



MESSAGE	WHAT IT MEANS	WHAT TO DO
	<p>Battery is low and "  " appears on display.</p>	<p>Please replace battery as soon as possible.</p>
	<p>If the thermometer is broken or affected by EMF.</p>	<p>Please contact the customer service line.</p>

# SYMBOL INFORMATION

SYMBOL	REFERENT
	Consult instructions for use
	Manufacturer
<b>SN</b>	Serial number
	Caution, consult accompanying documents
	Authorized representative in the European Community
	Type BF Equipment
	Collection for electrical and electronic equipment

# SPECIFICATIONS

**Model No.:** 1267

**Dimension & Weight:** 100 x 30.5 x 18 mm, 38 g  
(include battery)

**Power Source:** One 3V CR2032 lithium battery

**Displayed temperature range:**

Forehead: 32 °C to 43 °C (89.6 °F to 109.4 °F)

Object: 0 °C to 100 °C (32 °F to 212 °F)

**Display resolution:** 0.1 °F/0.1 °C

**Accuracy:**

FOR BODY MODE:

±0.2 °C (±0.36 °F) from 36.0 °C (96.8 °F) to 39.0 °C  
(102.2 °F)

±0.3 °C (±0.54 °F) from 32.0 °C (89.6 °F) to 35.9 °C  
(96.6 °F) and from 39.1 °C (102.4 °F) to 43.0 °C ( 109.4 °F)

FOR OBJECT MODE:

± 1 °C (±2 °F) from 0 °C (32 °F) to 100 °C (212 °F)

**Temperature unit:** °C or °F

**Operating temperature range:**

16 °C to 40 °C (60.8 °F to 104 °F)

**Operating humidity:**

95% RH or less

**Storage temperature range:**

-20 °C to 50 °C (-4 °F to 122 °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

EN 12470-5

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

EN 60601-1-4:1996

EN 60601-1-6:2010

## **Electromagnetic Compatibility:**

Device fulfills the stipulations of the standard

EN 60601-1-2



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

# WARRANTY

This product is under warranty for 2 years after date of purchase against manufacturing, materials or workmanship related defects. The warranty does not cover battery or packaging. The warranty is not valid in case of accidental damage, misuse or neglect and in case of alterations or repair carried out by unauthorized people. All other damage claims excluded. A guarantee claim must be submitted with the purchase receipt.

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