

**alvita™**

**Infrared Ear Thermometer**

**Thermomètre auriculaire à infrarouge**

**Infrarot-Ohrthermometer**

**Termometro auricolare a infrarossi**

**Termómetro de oído por infrarrojos**

**Termómetro Auricular de Infravermelhos**



The Alvita Infrared Ear Thermometer has been carefully developed for accurate, safe and fast temperature measurements in the ear. It is a non-invasive ear thermometer using an infrared detector to detect body temperature in the ear canal for adults and children.

The quality of the Alvita Infrared Ear Thermometer has been verified and conforms to the provisions of the EC council directive 93/42/EEC (Medical Device Directive) Annex I essential requirements and applied harmonised standards, including EN 12470-5:2003 Clinical thermometers-Part 5: Performance of infrared ear thermometers (with maximum device)

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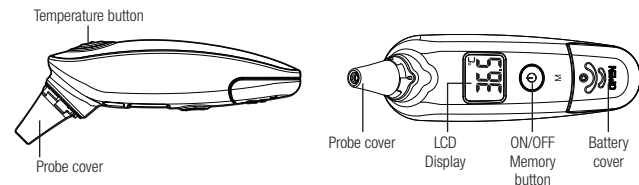
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## Introduction

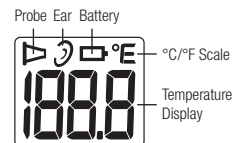
### Health advice

- Consult a doctor if you feel that you are in poor health
- Do not judge your health only on the presence or absence of a fever.
- Measurement results are for reference only, diagnosis or treatment should be made on the advice of a healthcare professional.

### Thermometer Parts



### LCD Display



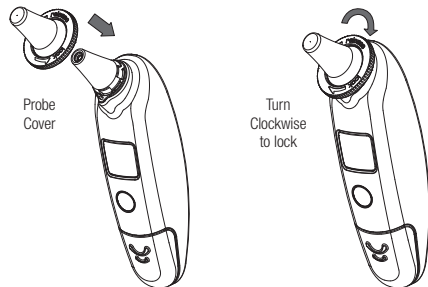
	The device is ready to measure temperature and that a probe cover should be used.
	When the battery icon shows, please replace the battery

## How to use the Alvita Infrared Ear Thermometer

To obtain accurate measurements, make sure a new, clean probe cover is attached to the thermometer before each measurement and that the ear canal is clean.

### Step 1

Attach the probe cover by rotating it clockwise to lock into position.  
(Remove the probe cover by rotating it anti-clockwise to release).



⚠ The correct attachment of the probe cover ensures accurate temperature measurements.

This thermometer must only be used with Alvita probe covers. Other covers can lead to inaccurate measurements. Replacement Alvita probe covers can be purchased from your local retailer.

### Step 2

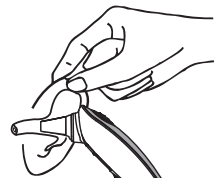
Press the grey  "On/Off Memory" button. The thermometer is ready to use when the ear icon flashes and two beeps sound.

⚠ When the device has been stored below 10°C (50°F) or above 40°C (104°F), place it in the correct temperature range for at least 30 minutes before use.

### Step 3

Gently pull the ear upwards and back to straighten the ear canal and snugly position the probe into the ear canal.

⚠ The ear thermometer must be inserted correctly into the ear to obtain the correct temperature measurement.  
This thermometer is only designed to measure the ear temperature.  
Do not use it in any other body site



### Step 4

Press the blue  "Temperature" button. A long beep will sound when the measurement is complete.

For the next measurement, remove the used probe cover and attach a new one.

⚠ Replace the probe cover after use, to ensure an accurate measurement and avoid cross contamination.  
Only use Alvita probe covers.


### Step 5

If the recorded temperature:

Is lower than 34°C (93.2°F)	The display will show "Lo" (4 short beeps will sound)
Is between 34°C (93.2°F) and 37.5°C (99.5°F)	The display will show the temperature 1 long beep will sound)
Is higher than 37.5°C (99.5°F)	Fever Alarm: The display will show the temperature flashing (4 short beeps will sound)
Is higher than 42.2°C (108.0°F)	The display will show "Hi" (4 short beeps will sound)

It is recommended that you take 3 measurements from the same ear. If the 3 measurements differ, select the highest temperature.

### Step 6



The device will automatically shut off if unused for more than 1 minute, to maintain the battery life. Alternatively press the grey  "On/Off Memory" button for at least 3 seconds to turn the device off.

### Step 7

The probe must be cleaned after use, according to the "Cleaning and Storage" instructions, to avoid cross contamination.

### Scanning Mode

If you continuously obtain different measurements, it is recommended that you use Scanning Mode. This mode allows you to measure the temperature of the entire ear canal to find the highest temperature.

To use the Scanning Mode gently pull the ear upwards and back to straighten the ear canal and snugly position the probe into the ear canal. Press and hold the blue  "Temperature" button for 3 seconds until hearing a long beep. While holding the blue  "Temperature" button gently pivot the probe from side-to-side within the ear. A further two beeps will sound to indicate that the thermometer is ready to take another measurement.

### Cleaning and Storage

The probe is the most delicate part of the thermometer. Care should be taken when cleaning the lens, to avoid damage.



1. A cotton swab dipped in Alcohol (70% concentration) should be used to clean the lens.
2. Allow the probe to dry for at least 5 minutes. Keep the device dry and away from any liquid and direct sunlight. The probe should not be submerged into liquids.

### Memory function




If the measurement is within the range 34°C to 42.2°C (93.2°F to 108°F), the measurement is saved to the memory.

The thermometer stores 9 recent measurements in the memory




To review the measurements in the memory:

1. Turn the device on
2. Press the grey  "ON/OFF/Memory" button again, to display the measurements stored.

### Switching the sound off

1. Turn the device off
2. Hold down the blue  "Temperature" button, then press and hold the grey  "ON/OFF/Memory" button until the LCD shows °C. Release both buttons.
3. Press the grey  "ON/OFF/Memory" button again to switch the sound off, then release the button.
4. Use the same process to turn the sound on.

### Switching between Fahrenheit and Celsius

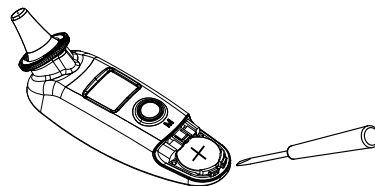
1. Turn the device off.
2. Hold down the blue  "Temperature" button then press and hold the grey  "ON/OFF/Memory" button until the LCD shows °C. Release both buttons.
3. Press the blue  "Temperature" button again to change the °C to °F, then release the button.
4. Use the same process to change the LCD display from °F to °C.










### Replacing the battery

The thermometer is provided with one lithium battery (CR2032).

1. Turn off the thermometer before replacing the battery.
2. Open the battery cover, and flip the battery out with a small screwdriver.
3. Insert the new battery with the positive (+) side up. Press it down until you hear a click.
4. Replace the battery cover.



## Troubleshooting


Error Message	Problem	Solution
 bi-bi-bi	The room temperature is outside the operating range for the device: 10°C to 40°C (50°F to 104°F)	Allow the thermometer to rest for at least 30 minutes at room temperature: 10°C to 40°C (50°F to 104°F)
 bi-bi-bi	The system is not functioning properly.	Remove the battery, wait for 1 minute, replace it & turn the device on. If the message reappears, contact the retailer for advice.
	The device does not start	Change the battery. If the message reappears, contact the retailer for advice.
 bi-bi-bi-bi	Temperature taken is higher than 42.2°C (108.0°F)	Check that the probe cover is attached correctly, clean and take a new measurement.
 bi-bi-bi-bi	Temperature taken is lower than 34°C (93.2°F)	Check that the probe cover is attached correctly, clean and take a new measurement.
	Low battery: The battery icon flashes but can still be used.	Replace the battery soon.
	Dead battery: The battery icon is permanently displayed - no further measurements can be taken.	Replace the battery.

## Caution


- Please note that this is a home healthcare device only, and it is not intended to serve as a substitute for the advice of a physician or medical professional.
- Temperature measurements from the Alvita Infrared Ear Thermometer are comparable with measurements taken from an oral thermometer.
- Temperature measurements from the Alvita Infrared Ear Thermometer cannot be compared with measurements taken from the rectum or underarm
- Measurements can be taken regularly to find out the normal ear temperature, and can be used as the basis for comparison with measurements taken when a fever is suspected.
- Do not use the device if it operates irregularly or any error message is showing.
- Clean the device before storing.

- This device may not meet its performance specification if it is stored or used outside temperature and humidity ranges specified in this booklet.
- Keep the device dry and away from where it might be exposed to moisture, liquids, direct sunlight, high temperature, or excessive dust.
- This device is not shock-protected. Do not drop or expose to heavy shock.
- Do not bend the device.
- Do not disassemble or make modifications to the device.
- Please do not dispose of the device in the household waste. Disposal should be at an appropriate collection point provided in your country.
- Do not boil the probe.
- Do not use thinner or benzene to clean the device.
- Remove the battery if the device is not to be used for a long time.
- If this device is used according to the operation instructions, periodic re-calibration is not required. If you still have questions, contact the manufacturer listed on the carton.
- The battery should not be charged or placed in extreme heat, as it may explode.
- The thermometer contains small parts that can be swallowed by children, therefore never leave the thermometer unattended.

## Specification

Temperature measurement range	34.0°C-42.2°C (93.2°F-108.0°F)
Accuracy	±0.2°C (0.4°F) between 35.0°C-42.2°C (95°F-108.0°F) ±0.3°C (0.5°F) outside these temperatures.
Operating temperature range	10°C-40°C (50°F -104°F) RH≤ 95%; 700-1060 hPa
Storage and transportation temperature	Temperature: -25°C-55°C (-13°F-131°F) RH≤ 95%; 700-1060 hPa
Memory	9 measurements
Display resolution	0.1
Battery	3v, lithium CR2032
Weight (with battery)	55g
Size	12.0cm (L) x 3.5cm (W) x 2.8cm (H)
Probe covers	20
Auto shutdown	60 seconds.
Battery life	3000 consecutive measurements, or 1 year with 1-2 measurements per day
Safety classification	 Type BF equipment
Clinical repeatability	±0.08°C (<1 year old) ±0.10°C (1 - 5 years old) ±0.07°C (> 5 years old)
IP classification	IP22. Protection against harmful ingress of water and particulate matter

# EMC guidance and manufacturer's declaration

Guidance and manufacturer's declaration-electromagnetic emissions			
The Alvita Infrared Ear Thermometer is intended for use in the electromagnetic environment specified below. The user of the Alvita Infrared Ear Thermometer should ensure that it is used in such an environment.			
Emission Test	Compliance	Electromagnetic environment-guidance	
RF emissions CISPR 11	Group 1	The Alvita Infrared Ear Thermometer 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 Alvita Infrared Ear Thermometer 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 IEX 61000-3-3	Not applicable		
Guidance and manufacturer's declaration-electromagnetic immunity			
The Alvita Infrared Ear Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the Alvita Infrared Ear Thermometer should ensure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance level	Electromagnetic environment-guidance
Conducted RF IEC 61000-4-6	3 Vrms 150KHz to 80Mhz	3 V/m	Portable and mobile RF communication equipment should be used no closer to any part of the RA600 series, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  Recommended separation distance: $d = 1.2 \sqrt{P}$ $d = 1.2 \sqrt{P}$ 80MHz to 800MHz $d = 2.3 \sqrt{P}$ 800MHz 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, (a) should be less than the compliance level n each frequency range. (b) interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3V/m 80mHz to 2.5 GHz		

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 structure, objects and people.
a. 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 FM transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Alvita Infrared Ear Thermometer is used exceeds the applicable RF compliance level above, the Alvita Infrared Ear Thermometer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Alvita Infrared Ear Thermometer. b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Guidance and manufacturer's declaration-electromagnetic immunity			
The Alvita Infrared Ear Thermometer is intended for use in the electromagnetic environment specified below. The user of the Alvita Infrared Ear Thermometer should ensure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 9 kV air	± 6 kV contact ± 9 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%.
Electrical fast transient/burst IEC 61000-4-4	± 2kV for power supply lines ± 1kV for input/output lines	Not applicable Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1kV line(s) to line(s) ± 2kV line(s) to earth	Not applicable Not applicable	Mains power quality should be that of a typical commercial or hospital environment
Voltage Dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 seconds	Not applicable Not applicable Not applicable Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Alvita Infrared Ear Thermometer requires continued operations during power mains interruptions, it is recommended that the Alvita Infrared Ear Thermometer be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	The Alvita Infrared Ear Thermometer 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

Recommended separation distance between portable and mobile RF communications equipment and the Alvita Infrared Ear Thermometer

The Alvita Infrared Ear Thermometer is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The user of the Alvita Infrared Ear Thermometer can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Alvita Infrared Ear Thermometer 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 √ P	80 MHz to 800 MHz / d=1.2 √ P	800 MHz to 2.5 GHz / d=2.3 √ P
0.01	N/A	0.12	0.23
0.1	N/A	0.38	0.73
1	N/A	1.2	2.3
10	N/A	3.8	7.3
100	N/A	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.



**WARNING:** The symbol on this product means that it's an electronic product and following the European directive 2012/19/EU the electronic products have to be disposed on your local recycling centre for safe treatment.

## Warranty

This instrument is covered by a 2 year guarantee from the date of purchase. Batteries and accessories are not covered by the guarantee. Opening or altering the instrument invalidates the guarantee. The guarantee does not cover damage, accidents or non-compliance with the instruction manual. Please contact your retailer.

ALV4829/3

CNP 6301838

PIP Code 376-5690



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**REF** RA600



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