

Talking ear & forehead thermometer

DH239

Please retain these instructions for future reference.

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General Description

This talking ear and forehead thermometer is to be used to gauge your body temperature by either placing against your forehead or by inserting gently into your ear.

Orientation

Position the thermometer so the front of it is facing towards you. The front has a small LCD display with two white buttons above and below the display, which has a mauve case around it. The forehead probe is at the bottom on the back of the thermometer.

At the top on the front is a small speaker grille, which emits the audible announcements of the thermometer.

On the lower half is the small LCD display. The oval-shaped button above the display activates the LED torch and display backlight. The round button below the display is used when taking a temperature reading.

There are two mauve buttons on the side of the thermometer. The top one is the MEM/SET button (this is to access the memory and to set functions) and the one below is the TALK/OK button (which announces the time/ambient temperature in normal mode, and body temperatures when in memory mode).

When the thermometer is off, by pressing any of these buttons will switch the thermometer on and activate the LCD display.

On the back of the thermometer at the top is the battery compartment. This can be located by running a finger along the back until you feel two raised edges.

Below the battery compartment you will feel a raised plastic part. This is a cover which sits over and protects the LED torch.

At the bottom of the back of the thermometer is the forehead probe. This protrudes about $1\frac{1}{2}$ inches from the thermometer. The forehead probe can be removed, and then exposes the ear probe underneath.

The thermometer comes supplied with a stand. The base of the stand is manufactured with a non-slip material. The thermometer fits into the stand by putting the probe into the hole of the stand so it rests in it.

Fundamental functions

- 1. Current date and time display: Range of date display falls within Gregorian calendar year 2001- 2099. The time display mode includes either 12 or 24 hours. The initial date set is January 01, 2006.
- 2. Measurement and display of temperature: Measurement ranges from 32C to 42.9C (89.6F to 109.3F).
- 3. 20 sets of measurement records: Maximum 20 sets of temperatures stored. Each set has a maximum storage time of 30 days. Temperature is stored together with date, time and measurement mode (ear or forehead).
- 4. Measurement and display of room temperature: Measurement ranges from 5C to 59.9C (41F to 139.8F).
- 5. Voice prompt: report measurement results (in degrees Celsius (C) or degrees Fahrenheit (F)), room temperature and current time.
- 6. Built-in white LED torch.

How to take a measurement

To measure ear temperature

Remove the forehead probe to expose the ear probe. Carefully insert the probe into the ear as deep as possible without discomfort and press the round button below the display once to start the measurement and you will hear one beep. Upon completion you will hear a short melody, and then the result will be announced via the speaker and it will be shown on the display.

To measure forehead temperature

Ensure that the forehead probe has been put onto the unit, over the ear probe. Gently position the probe onto the centre of the forehead, midway between the eyebrow and hairline. Press the round button underneath the display once to start the measurement and you will hear one beep. Upon completion you will hear a short melody, and then the result will be announced via the speaker and it will be shown on the display.

The result will be stored into the memory automatically. If there are already 20 results in the memory, the oldest set of data will be removed. This will continue when every new result enters the memory. Also, the recorded data will be removed automatically when it has exceeded 30 days in the memory.

If a reading is considered irregular, try taking the temperature again at the same point up to a maximum of three times. If the reading is still irregular, wait 10 minutes and then try again.

Display of measuring results

True value display for results falls between 32C to 42.9C (89.6F to 109.3F).

The letters "HI" are displayed if a result exceeds 43.9C (109.3F).

The letters "LO" are displayed if a result falls below 32C (89.6F).

At completion of measurement, the unit automatically returns to the normal time mode after 30 seconds.

The display will be turned off one minute after the last key is pressed (when in sleep mode).

Advanced operation

Clock mode

The display shows a sequence of year, month, date, day, hour and minute. At the bottom of the display the time (hour and minute digits) and the room temperature alternate every five seconds. Press the TALK/OK button to report the time and room temperature.

To disable the talking function, ensure that the thermometer is switched on and then press and hold the TALK/OK button until you hear one beep. The sound icon on the display will disappear. During measurement, with the talking function disabled, the thermometer will beep to indicate that the measurement has been taken and will then show the result on the display.

To enable the talking function, ensure that the thermometer is switched on and then press and hold the TALK/OK button until you hear two beeps. The sound icon will re-appear on the display. Press the TALK/OK button again once to confirm that the talking function is enabled.

Setup mode

Some sighted assistance may be required for this setting.

Ensure that the thermometer is switched on by pressing any button. Press and hold the MEM/SET button until you hear one beep to enter the setup mode. The display will flash between 12/24hr modes (with 24hr as pre-set). Press the MEM/SET button again and it will beep once to indicate that it is set to 12-hr mode. Press the

MEM/SET button again to set to 24-hr mode, and the unit will beep twice. When ready to confirm press the TALK/OK button.

The hour digits will then start to flash. Press the MEM/SET button to change the hours and press TALK/OK to confirm. The unit will beep and then the minute digits will flash. Repeat the above process and then the setup mode moves through to year, month, date, sleep mode on/off. Remember to press the MEM/SET button to change the time or date and toggle between sleep mode on/off, and then press TALK/OK to confirm. The unit will beep each time to confirm that it has set and moved onto the next setup.

The unit will automatically return to clock mode after 30 seconds if no button is pressed.

Memory mode

A reading will automatically enter the memory, once it has been taken.

Press the MEM/SET button to enter the memory mode and retrieve the recorded temperatures. The thermometer will beep three times. If empty the display will show two quotation marks on the display. Press the TALK/OK button and the thermometer will announce the reading. When in this mode, press the MEM/SET button once and it will cycle through to the previous record. Simply press the TALK/OK button again and it will announce that reading too.

A maximum of 20 records will be stored in the memory.

The unit will return to the clock mode automatically after five seconds if no button is pressed.

Other important functions

Change between Celsius/Fahrenheit

Some sighted assistance may be required for this setting.

To toggle between the temperature settings of degrees Celsius or degrees Fahrenheit, remove the battery compartment on the back of the unit by locating the two raised plastic ridges. Push the compartment away from the unit and then remove. Turn the thermometer so the probe is at the top facing towards you. With the batteries exposed, there is a small button on the left of the batteries as far as you can feel in the battery compartment, near the left edge. The easiest way to change between the temperature settings is to press the button using a pen or something with a thin tip, such as a paper clip. The unit will speak either "Celsius" or

"Fahrenheit" when changed. It is advised that this is done at the beginning before using the thermometer.

Reset

Some sighted assistance may be required for this setting.

The button on the right side of the batteries is the reset button. If the thermometer is not working properly or the display is missing any information, reset the unit. Resetting follows the same process as changing between Celsius and Fahrenheit and requires a pen or paperclip to press the small button. The unit will beep when reset and the time will have defaulted to 12am, and the date will be January 1, 2006. The memory of measurements will also be deleted. When complete, replace battery cover.

Lights

Ensure that the thermometer is switched on by pressing any button.

Press the oval button above the display to activate the backlight of the display. This will automatically turn off after eight seconds.

Press and hold the same oval button for two seconds to turn on the white LED torch (the bulb is located on the rear of the unit, just below the probe). The LED torch will automatically turn off after five seconds.

Sleep mode

This is activated in setup mode, detailed above. The system enters into sleep mode one minute after the last button has been pressed.

Recommendations

For unskilful users, it is recommended to measure the same ear three times for the first time. The maximum reading shall be recorded in case of different results since any thermometer used continuously is deemed to see a slight difference of about +/-0.3C or +/- 0.5F.

If repeating a measurement wait about 30 seconds before measuring to avoid excessive cooling of the skin.

For users in sound health, both ears are almost the same in terms of body temperature.

Please clean the ear before measurement.

Don't use the product for other purposes.

It is not a waterproof device. Only clean gently with a damp cloth.

Don't leave the product exposed to any chemical solvent, direct sunshine or high temperatures.

Try not to drop or cause any heavy impact to the product.

Don't use a mobile phone when using or when near the thermometer.

Please dispose of batteries in accordance with your local council's directive on waste and re-cycling.

Take out the batteries if you're not going to use the thermometer for a long period of time.

Warnings

It is dangerous for patients to perform a self-evaluation and self-treatment based on the measuring results. Be sure to follow your doctor's instructions. A self-evaluation may cause deterioration of health.

Don't touch or blow the infrared sensor. A polluted infrared sensor may cause inaccuracy.

Clean a polluted infrared sensor with a soft wet cloth in a gentle manner. Cleaning with toilet tissue or a paper towel may scratch the infrared sensor, causing inaccuracy.

Keep the machine out of children's reach. A self-measurement by children may cause ear damage. For accidental swallowing of a battery, please consult a doctor immediately.

Prior to using the thermometer it is recommended that it is stored at room temperature at least 30 minutes before. Failing to do so may cause inaccuracy.

Stop using the product if any pain occurs. It is likely to damage the ear hole.

It is not recommended to use this product with others who may have suffered from ear diseases such as otitis external and tympanitis.

Don't use the product in a wet ear hole after swimming or bathing. It is possible to damage the ear hole.

It is suggested to carry out a measurement while rested, as doing so immediately after exercise can cause inaccurate results.

Don't throw batteries into fire. The battery is likely to explode in fire.

Changing the batteries

The thermometer uses two AAA batteries. To replace the batteries, locate the battery compartment on the back of the thermometer where there are two raised ridges. With a finger, move the compartment away from the unit and completely remove. Slide the first battery into the left of the compartment with the negative side going into the unit. The battery on the right should be the opposite, with the positive end being put into the compartment with the negative end sitting towards the bottom of the unit. When complete, replace battery cover until it clicks into place.

Replacement batteries are available from RNIB under product code CP05. NB: RNIB does not guarantee batteries.

Maintenance, storage and calibration

Maintenance

To clean the thermometer, wipe gently with a soft, dry cloth.

Don't wash with water or detergent containing abrasive or benzene.

Storage

When not in use put the thermometer into the stand to protect the lens.

Don't leave the thermometer exposed to or at risk of direct sunshine, high temperatures, dampness, fire, vibrations or heavy impact.

Remove the batteries if not using the unit for long durations.

Calibration

This thermometer is calibrated at the time of manufacture. If the unit is used according to the instructions, periodic recalibration is not required. If at any time you question the accuracy of the measurement, please contact the retailer immediately.

Don't attempt to modify or reassemble the thermometer, as this will invalidate your guarantee.

Troubleshooting

No response:

Is the battery low? Install new batteries.

Or is the battery inserted incorrectly? Adjust battery to correct polarity.

Battery symbol on LCD:

Low battery. Insert new batteries.

"Lo" displayed on screen (result below 32C or 89.6F):

Is the thermometer correctly pointed at the eardrum/forehead? Follow instructions for taking a measurement.

"Hi" displayed on screen (result above 42.9C or 109.3F):

Is the thermometer correctly pointed at the eardrum/forehead? Follow instructions for taking a measurement.

"ErrE" appears on display:

Ambient temperature is out of range. Do not use the thermometer under extreme temperatures.

"ErrU" appears on display:

Cannot measure. Follow instructions for taking a measurement.

"ErrH" appears on display:

Hardware problem. Contact your retailer.

"ErrS" appears on display:

Sensor error. Do not use the thermometer under extreme temperatures.

"ErrR" appears on display:

Hardware problem. Contact your retailer.

"ErrL" appears on display:

Battery low. Replace the batteries.

"ErrP" appears on display:

Hardware problem. Contact your retailer.

Specification

Product name: Talking multi-functional ear and forehead thermometer.

Model: HV-T46.

Power supply: DC3V (2 x AAA batteries).

Power consumption: <30mA (for voice prompts).

Temperature sensing part: IR sensor.

Measuring range: 32C – 42.9C (89.6F – 109.3F).

Room temperature: 5C - 59.9C (41F - 139.8F).

Measuring accuracy: $\pm -0.2C$ ($\pm -0.4F$); from 36C $\pm -39C$ (or 96.7F $\pm -102.2F$) $\pm -0.3C$ ($\pm -0.5F$); from 32C $\pm -35.9C$ (or 89.6F $\pm -96.6F$); from 39.1C $\pm -42.9C$ (or 102.3F $\pm -109.3F$).

Room temperature: +/- 1C.

Outer dimension: 200 x 50 x 25mm.

Weight: 110g.

Working environment: Temperature: $15C \sim 40C$ ($59F \sim 104F$). Relative humidity: $30\%RH \sim 80\%RH$.

Storage environment: Temperature: $-10C \sim 55C$ ($-14F \sim 131F$). Relative humidity: $30\%RH \sim 85\%RH$.

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- 1. Customer must contact RNIB Customer Services to obtain a returns authorisation number (RMA).
- 2. Items must be returned in original packaging and condition.

- 3. Goods must be marked "Returns" and must show the authorisation number.
- 4. Goods lost in transit will only be refunded on proof of postage.
- 5. Goods marked as "non returnable" in the RNIB catalogues cannot be returned for hygiene reasons unless faulty, and software products whose seal has been broken cannot be returned unless faulty.

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U.K.

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Product Regulations



This product is CE marked.

The materials, components, and assemblies in this product comply with 'The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2006' (RoHS).

Customers are advised to return this product, free of charge, to their supplier or the manufacturer at the end of its life. This is to comply with 'The Waste Electrical and Electronic Equipment Directive' (WEEE).

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