kinetik
WELLBEING

Ear & Forehead Thermometer

REF ET-100EF

User Manual

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Introduction

Please read the instructions carefully before using.

The infrared thermometer is an electronic thermometer using an infrared sensor to measure human body temperature in people of all ages, its operation is based on measuring the natural thermal radiation emanating from the ear canal or forehead.

Support

Our manual should provide you with all the information you need to set up & use this product. If you have a question, have a look at our troubleshooting page! For further assistance, why not contact our customer care team directly? We're here to help! Our customer care team are available from 9am - 5pm, Monday to Friday (excluding bank holidays). We promise to respond to all queries and will ensure to resolve any issue you may be having. You can reach us by...

Live Chat
Simply visit www.kinetikwellbeing.com and send us a message.

Email
customercare@kinetikwellbeing.com

Post
Kinetik Medical Devices Ltd
Unit 11 Perrywood Business Park,
Honeycrock Lane,
Salfords,
Redhill,
RH1 5JQ

About Age-Exact™

The Kinetik Wellbeing Ear & Forehead Thermometer is expertly designed to deliver precise and reliable temperature readings for every stage of life. Research shows that fever thresholds vary by age*.

Our innovative Age-Exact™ technology accounts for these age-specific differences, providing a clear, colour-coded result that instantly indicates whether the temperature is normal, a low-grade fever, or a high fever.

Age Range		Green Within normal range	Yellow Low-grade fever	Red High
	Babies: Under 3 months old	≥35.8 - ≤37.4 °C		>37.4 °C
	Children: 3 months to 3 years	≥35.4 - ≤37.6 °C	>37.6 - ≤38.5 °C	>38.5 °C
	Over 36 months	≥35.4 - ≤37.7 °C	>37.7 - ≤39.4 °C	>39.4 °C

* Herzog L., Phillips S. Addressing Concerns About Fever. Clinical Pediatrics. 2011; 50(#5): 383-390.

Specification

This appliance conforms to the standard of ISO 80601-2-56-2017AMD.1:2018 Medical electrical equipment -- Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement. This device complies with the requirements of IEC 60601-1, IEC 60601-1-11 and IEC 60601-1-2.

Range of displayed temperature:
Ear Mode: 34.0°C ~ 44.0°C (93.2°F ~ 111.2°F)
Forehead Mode: 32.0°C ~ 42.9°C (89.6°F ~ 109.2°F)
Display 'Lo' when the temperature is lower than the displayed temperature range.
Display 'Hi' when the temperature is higher than the displayed temperature range.

Operating ambient:
Temperature: Ear Mode: 16°C ~ 35°C (60.8°F ~ 95.0°F).
Forehead Mode 10°C ~ 40°C (50°F ~ 104°F).
Humidity: ≤85%RH.
Atmospheric pressure: 700 ~ 1060hPa.
Altitude: <3000m.

Storage and transport condition:
Temperature: -25°C to 55°C (-13°F to 131°F).
Humidity: ≤85%RH.

Display resolution temperature range:
0.1°C (0.1°F).

Accuracy:
Ear Mode: ±0.2°C (35.0°C ~ 42.0°C) / ±0.4°F (95.0°F ~ 107.6°F).
±0.3°C (＜35.0°C/＞42.0°C) / ±0.5°F (＜95.0°F/＞107.6°F).
Forehead Mode: ±0.3°C (32.0°C ~ 42.9°C) / ±0.4°F (89.6°F ~ 109.2°F).

Display:
Liquid crystal illuminated display, 3 digits. Tricolor illuminated display:
Green: Normal temperature.
Orange: Low fever.
Red: High fever.

Temperature unit:
Centigrade or fahrenheit.

Display of memory:
Last ten memories.

Low voltage display:
The LCD displays '▭'.

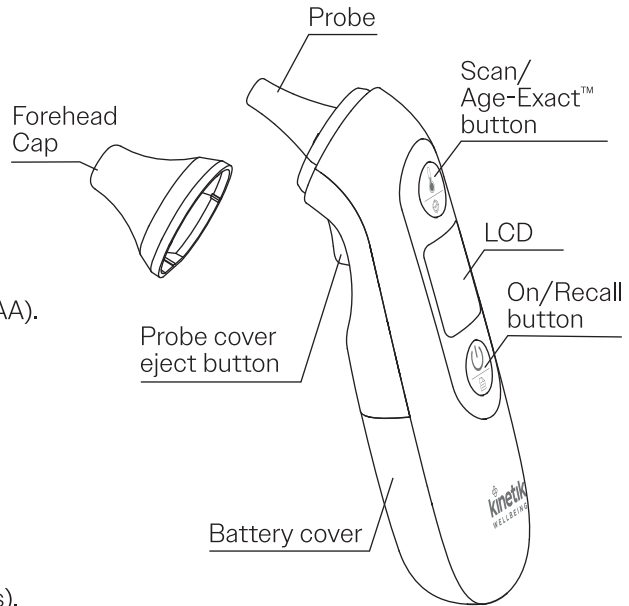
Power consumption:
≤60mW.

Battery:
Two 1.5V alkaline batteries (AA).

Battery life:
2,500 measurements.

Dimensions:
147mm x 47mm x 40mm.

Net weight:
60g (not including batteries).



Shelf life:
3 years.

Beeper sign:
On/off, measuring finish.

Self-check test:
Press the 'On/Recall' button to turn on the thermometer and all of the symbols (see Fig A) should be displayed on the LCD in one second.

Calibration frequency:
If used privately no calibration is needed. For professional use it is recommend to check once a year.

Manufacturing and Calibration date:
See manufacturing date on label.

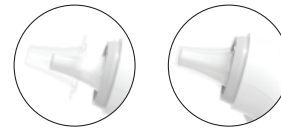
Cautions

1. Before measuring, the thermometer shall be stabilised for at least 30 minutes under operating condition.
2. A new disposable probe cover is required for each ear measurement, otherwise inaccurate readings will occur.
3. Please keep your ear canal clear, if not, the measuring result shall be inaccurate.
4. The symbol '' on the LCD shows you can measure in the ear. The symbol '' on the LCD shows you can measure from the forehead.
5. Please don't scratch the probe membrane, if scratched the thermometer shall lose efficacy.
6. If the LCD freezes and does not change when pressing any button, please take the batteries out, wait a few seconds and reinsert them.
7. Please don't use the thermometer in ear mode if your ear canal is inflamed.
8. Do not expose this thermometer to electric shock.
9. Do not expose the thermometer to direct sunlight or to water.
10. Do not use near strong electromagnetic fields, i.e. Keep it away from any radio systems and mobile phones.

11. Do not modify this device without authorization of the manufacturer.
12. This device must always be kept in a clean, dry area.
13. If the temperature is not in the normal range, please consult your doctor.
14. Do not drop/impact the thermometer, otherwise it may affect the accuracy of the measurement.
15. This device includes small parts, don't inhale or swallow them.
16. Do not apply a strong shock to, drop, step on, or vibrate the main unit.
17. Keep out of reach of children.

Notes:

- In order to avoid spreading germs, please use a new disposable probe cover for each ear measurement.
- Check to ensure the probe cover is fitted on firmly before use (please see the diagrams right). If the probe cover is broken, discard and apply a new one immediately. Remove the forehead cap before using the thermometer in ear mode and fit a new probe cover. You will hear a “click” sound then the probe cover is fitted correctley. To remove the probe cover pull the probe cover eject button.



How to take an ear temperature

1. Remove the forehead cap, fit probe cover and press the ‘On/Recall’ button to turn on the thermometer; a beep is heard, and the LCD displays all icons for 1 second (Fig A). The display then shows the Ear symbol, Age symbol and --- °C (Fig B); now it is ready for use.
   Note: If the probe cover symbol is flashing on the LCD as Fig C this indicates the disposable cover is not fitted correctley. Refit the probe cover until the probe cover symbol stays off as Fig B.
2. Insert the thermometer into the ear canal, press ‘Scan/Age-Exact™’ button then release it. When you hear a beep the measurement is complete and displays on the LCD (Fig D).
   For children under 1 year. Pull the ear straight back.
   For children ages 1 year to adult. Pull the ear up and back.



Fig A

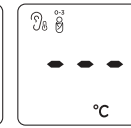


Fig B

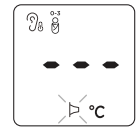


Fig C

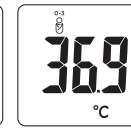
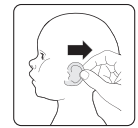
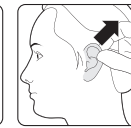


Fig D


Newborn - 1 year


1 year - adult

How to take a forehead temperature

1. With the forehead cap fitted press the 'On/Recall' button to turn on the thermometer; a beep is heard, and the LCD displays all icons for 1 second (Fig A). The display then shows the Forehead symbol, Age symbol and --- C (Fig E); now it is ready for use.

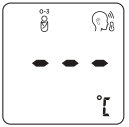


Fig E

2. Point the thermometer to the forehead about 1-3 cm away from the skin surface. Press the ‘Scan/ Age-Exact™’ button then release it. When you hear a beep the measurement is complete and displays on the LCD (Fig F).



Fig F

3. Memory Recall: Press the ‘On/Recall’ button to turn on the thermometer, a beep is heard, and the LCD displays all icons for 1 second. Then shows Ear or Forehead symbol, Age symbol and --- °C. Press and release the ‘On/Recall’ button repeatedly it will scroll through the memories (Fig G).

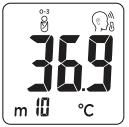


Fig G

4. Changing the Age-Exact™ Temp Range: Press the ‘On/Recall’ button to turn on the thermometer, a beep is heard, and the LCD displays all icons for 1 second. Then shows Ear or Forehead symbol, Age symbol and --- °C. Press and hold ‘Scan/Age-Exact™’ button for 3 seconds. ‘Age-Exact™’ symbol flashes, release button (Fig H). Press and release ‘Scan/Age-Exact™’ button to cycle through ‘0-3’, ‘3-36’ & ‘36+’ age ranges. After no press of the ‘Scan/Age-Exact™’ button for 3 seconds the ‘Age-Exact™’ temp range is set. The ‘Age-Exact™’ symbol is solid and the display shows Ear or Forehead symbol, Age symbol and --- °C. Follow the ‘How to take an ear temperature’ or ‘How to take a forehead temperature’ step 2 instructions.

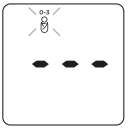


Fig H

5. Changing from Celsius to Fahrenheit: Press the 'On/Recall' button to turn on the thermometer, a beep is heard, and the LCD displays all icons for 1 second. Then shows Ear or Forehead symbol, Age symbol and --- °C. To switch the display between °C and °F, press and hold the 'On/Recall' button for 3 seconds, the display will switch to C-F °F (°F icon is flashing) (Fig I), release the 'On/Recall' button at this time, the screen will display --- °C. To change back, press and hold the 'On/Recall' button again for 3 seconds, the screen will display C-F °F (°C icon is flashing), release the 'On/Recall' button at this time, the screen will display --- °C.



Fig I



Fig J

6. Auto off: The thermometer shall automatically turn off if no button is pressed for one minute.
7. Manual off: To manually turn off the thermometer press and hold the 'On/Recall' button for 5 seconds (Fig J).
8. The LCD will display 'Er1' and cannot display temperature when the ambient temperature is out of the range of 10°C to 40°C.

Note: Before measuring, the thermometer shall be stabilized at the operating ambient condition for at least 30 minutes.

Product disposal

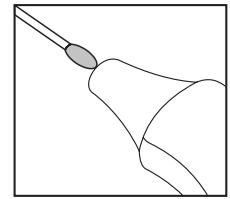
Please ensure the environmental protection. Batteries do not belong to the domestic waste. Please hand them in at the collection point or the municipal recycle material centre as special waste.



This symbol on products and/or accompanying document means that consumed electronic products must not be mixed with conventional domestic waste. Take these products to the corresponding collection points for correct treatment and recycling, where they will be accepted free of charge. For more information on the close set collection point, please enquire with your local authorities.

Cleaning and storage

1. Store the thermometer and the disposable probe cover in a dry location free from dust and contamination and away from direct sunlight. The ambient temperature of the storage location should remain fairly constant and within the range of -25°C to 55°C.
2. Use an alcohol swab or cotton swab moistened with alcohol (70% Isopropy) to clean the thermometer casing and the measuring probe. Ensure that no liquid enters the interior of the thermometer.
3. Never use abrasive cleaning agents, thinners or gasoline for cleaning and never immerse the instrument in water or other cleaning liquids. Take care not to scratch the surface of the probe membrance or display.



Replacing the batteries

1. When the voltage of the batteries is low, the LCD will display the symbol ‘  ’, please replace the batteries. The thermometer cannot work accurately under the condition of low voltage.
2. The thermometer is supplied with two 1.5V ALKALINE BATTERIES (AA). Insert the new batteries when the low voltage symbol appears on the LCD.
3. Remove the battery cover and take out the old batteries.
4. Place two new alkaline batteries according to the ‘+’ or ‘-’.
5. The disposal of the probe cover, battery and device shall comply with the local environment requirements.
6. The disposal of the battery and the device shall comply with the local environment requirements.

Explanation of symbols


Battery is empty


Product disposal instructions for electronic devices


The battery in this product complies with the requirements stated in European Directives 2006/66/EEC


Memory


Type BF equipment


CE conformity marking

Lo°C or Lo°F Subject temperature is under 34°C

Hi°C or Hi°F Subject temperature is above 44°C


Follow instructions for use


Importer's information


Date of Manufacture / Made in China


Read IFU carefully


European Authorised Representative


Manufactured by

IP22 Classification according to the degree of protection against ingress of water as detailed in IEC 60529


Lot Number


Catalogue Number / Model Number


Medical Device


Recyclable


Serial Number


Unique Device Identifier


Temperature Limitation


Humidity Limitation

Quality warranty

This thermometer is guaranteed for one year under proper use according the operating manual from the date that the product is sent out the factory. The manufacturer will make available on request circuit diagrams, component part lists, descriptions, calibration instructions, or other information that will assist service personnel to repair those parts of device.

Huai An Hua Lve Electronics Co., Ltd.
No.211 Yingchun Avenue, Xucheng Industrial Zone, Xuyi
Huai'an City, Jiangsu 211700, China

EU REP Shanghai International Holding Corp. GmbH (Europe)
Eiffestrasse 80, 20537 Hamburg Germany

Share Info GmbH
Am Schulzentrum 12, 41564 Kaarst, Germany

EMC table

Guidance and manufacture's declaration – electromagnetic emissions		
The device is suitable for use in the specified electromagnetic environment and it has meets the following standard's emission requirements.		
Phenomenon	Profession healthcare facility environment	Home healthcare environment
Home healthcare environment	CISPR 11, Group 1, Class A or B	CISPR 11, Group 1, Class B
Harmonic distortion	IEC 61000-3-2, Class A or not applicable	NA
Voltage fluctuations and flicker	IEC 61000-3-3 or not applicable	NA

Guidance and manufacture's declaration – electromagnetic immunity			
The device is suitable for use in the specified electromagnetic environment and it has meets the following immunity test levels. Higher immunity levels may cause the device's essential performance lost or degraded.			
Phenomenon	Basic EMC standard or test method	Professional healthcare facility environment	Home healthcare facility environment
Electrostatic discharge	IEC 61000-4-2	+/- 8 kV contact +/- 2 kV, +/- 4 kV, +/- 8 kV, +/- 15 kV air	

<table>
<tr><td rowspan="2">Radiated RF EM fields</td><td rowspan="2">IEC 61000-4-3</td><td>3V/m
80MHz-2.7GHz
80%AM at 1kHz or 2Hz</td><td>10V/m
80MHz-2.7GHz
80%AM at 1kHz or 2Hz</td></tr>
<tr><td colspan="2">1kHz or 2Hz can be specified by the manufacturer</td></tr>
<tr><td>Proximity fields from RF wireless communications equipment</td><td>IEC 61000-4-3</td><td colspan="2">See the RF wireless communication equipment table in "Recommended minimum separation distances".</td></tr>
<tr><td>Rated power frequency magnetic fields</td><td>IEC 61000-4-8</td><td colspan="2">30A/m; 50 Hz or 60Hz</td></tr>
<tr><td rowspan="2">Electric fast transients bursts</td><td>IEC 61000-4-4</td><td colspan="2">NA</td></tr>
<tr><td colspan="3">For input a.c. power port d.c. power lines or signal input/output lines whose length exceeding 3m</td></tr>
<tr><td rowspan="2">Surges</td><td>IEC 61000-4-5</td><td colspan="2">NA</td></tr>
<tr><td colspan="3">For 1.input a.c. power port;
2. all d.c. power ports connected permanently to cables >3m
3. output signal output lines connected directly to outdoor cables</td></tr>
<tr><td rowspan="2">Conducted disturbances induced by RF fields</td><td>IEC 61000-4-6</td><td colspan="2">NA</td></tr>
<tr><td colspan="3">For 1. input a.c. power port;
2. all d.c. power ports connected permanently to cables >3m
3. all patient-coupled cables
4. SIP/SOP whose maximum cable length ≥ 3m</td></tr>
</table>

Voltage dips	IEC 61000-4-11	NA
Voltage interruptions	IEC 61000-4-11	NA
UT: rated voltage(s); E.g. 25/30 cycles means 25 cycles at 50Hz or 30 cycles at 60Hz		

Recommended minimum separation distances

Nowadays, many RF wireless equipments have being used in various healthcare locations where medical equipment and/or systems are used. When they are used in close proximity to medical equipment and/or systems, the medical equipment and/or systems' basic safety and essential performance may be affected. This device has been tested with the immunity test level in the below table and meet the related requirements of IEC 60601-1-2:2014. The customer and/or user should help keep a minimum distance between RF wireless communications equipment and this device as recommended below.

Test frequency (MHz)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380-390	TETRA 400	Pulse modulation 18Hz	1.8	0.3	27
450	430-470	GMRS 460 FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28

710	704-787	LTE Band 13, 17	Pulse modulation 217Hz	0.2	0.3	9
745						
780						
810	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18Hz	2	0.3	28
870						
930						
1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217Hz	2	0.3	28
1845						
1970						
2450	2400-2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217Hz	2	0.3	28
5240	5100-5800	WLAN 802.11 a/n	Pulse modulation 217Hz	0.2	0.3	9
5500						
5785						



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