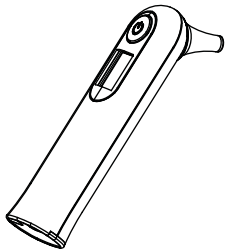




INSTRUCTION MANUAL



Infrared Ear Thermo meter

Model KI-8190



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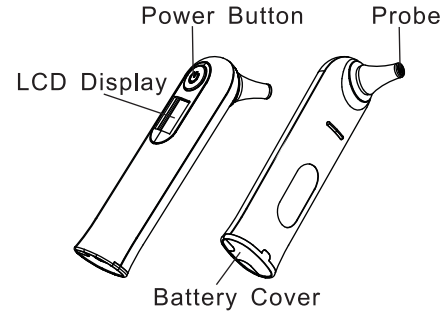
⚠ PRECAUTION:

1. Please consult your physician to verify your body temperature.
2. DO NOT scrape or scratch the lens as it will hamper the effectiveness of the device.
3. The device is intended for consumer use only.
4. Calibration is recommended every two years.

POWER SOURCE
SIZE AAA (1.5V) x 2

WARRANTY:
LIMITED ONE YEAR FROM THE
DATE OF PURCHASE

Parts Identification



Why an IR ear thermometer?

The tympanic membrane (eardrum), and the hypothalamus, the part of the brain which controls body temperature, share a common blood supply so tympanic readings rise and fall rapidly with core temperature (deep body temperature). This makes the ear temperatures one of the best indicators of internal body (core) temperature.

What are normal temperature values?

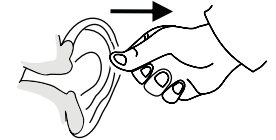
Human body temperature varies from person to person, some run in the lower range (96-97°F) and some run in the higher range (98-99°F). Also, your normal body temperature changes throughout the day and can vary at different times of the year. It is very important to know your *normal* body temperature range. We recommend measuring yourself when healthy to establish reference temperatures. This will help you feel more confident of the measured temperature readings when ill.

Information You Should Know Before Operating the IR Ear Thermometer

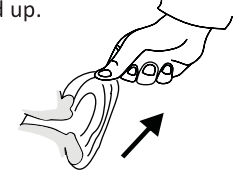
How to correctly use the IR ear thermometer

1. It is useful to try this thermometer on yourself first to become familiar with it's operations.
2. Do not take the temperature immediately upon waking. Sleeping on the ear can cause the temperature to be higher than normal.
3. It is common for the readings to be slightly different between the right and left ear. We suggest using the same ear to obtain temperature readings.

- 4. Straighten the ear canal for measuring:**
Children under 12 months:
 Straighten ear canal by gently pulling the ear back.



- Children over 12 months and Adults:
 Straighten the ear canal by gently pulling the ear back and up.



5. This IR ear thermometer automatically converts the measured ear temperature reading to oral temperature.
6. Make sure the ear canal is dry, clean and free of wax or particulates.

Batteries

INSTALLING/REPLACING THE BATTERY

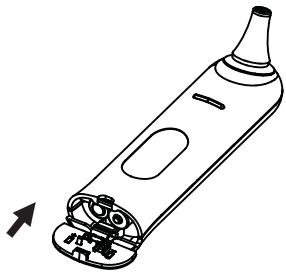
1. Pull the battery cover off in the direction shown.
2. Prior to installing new batteries you must clean the metal contact ends of the batteries and the metal springs and contacts for the batteries in the battery compartment.
3. Install 2 new "AAA" batteries into the battery compartment matching correct polarities.
4. Replace the battery cover securely.

WARNING:

Do not put used batteries in trash. Recycle or manage as hazardous waste. Never dispose of batteries in fire. Dispose in recycling trash only. Do not recharge, put in backwards or disassemble. This may cause explosion, leakage and injury.

CAUTION:

When replacing batteries, do not mix old ones and new ones. Do not mix alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium) batteries.



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How to Operate the Thermometer

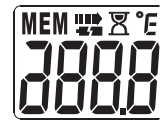
1. Press and release the Power button to turn on the unit. (Figure 1)
A beep is heard. After about 2 seconds, the display shows that the unit is ready for measurement. (Figure 2)
2. Place the probe into the ear canal then press and release the Power Button again to start measuring.
3. While it is measuring, the display will show an "arrow" sign. (Figure 3)
4. A "beep-beep" sound is heard when the measurement is completed. (Figure 4)
5. The temperature and back light color shows on the display. The back light color will light according to the reading:

Reading in °F	Reading in °C	Back Light Color
UP TO 98.9	UP TO 37.1	GREEN
99.0 – 99.4	37.2 – 37.4	YELLOW
99.5 AND UP	37.5 AND UP	RED

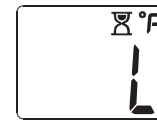
6. If the temperature reading is above 99.5°F, eight consecutive beeps will be heard to indicate fever alarm.
7. After the happy face stops flashing, You can repeat measurement by pressing the Power button again.
8. Turn off the unit by pressing and holding the Power button for 3 seconds until the OFF message is displayed. A long beep is heard. (Figure 5)

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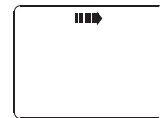
How to Operate the Thermometer



(Figure 1)



(Figure 2)



(Figure 3)



(Figure 4)



(Figure 5)

For Centigrade and Fahrenheit Switchable Models:

The Centigrade or Fahrenheit mode can be switched by turning the unit on then pressing the POWER button again immediately and holding it down. The display will show "CH" with "F" or "C". Release the button when the mode you desire is in the display window. The unit will show "L" with the degree sign and the happy face symbol in the display and is ready to take a new temperature reading.



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How to Operate the Thermometer

OPERATIONAL HINTS:

1. Between each measurement, please allow a 5-second interval in order to obtain the most accurate result.
2. Ensure that the probe lens is clean before each measurement. Dirty probe lens may cause inaccurate measurement.
3. Because the thermometer is a very sensitive device, it must be at room temperature (approx. 60.8 ~ 104.°F) for at least 30 minutes before using to avoid any incorrect measurements.

Warning:

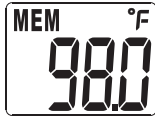
Performance of the device may be degraded if the device is operated or stored outside the stated temperature and humidity range of if the patient's temperature is below ambient (room) temperature.

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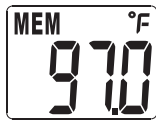
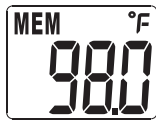
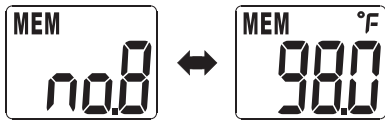
Memory Mode

RECALLING MEMORY:

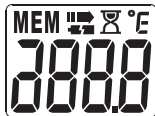
1. If the power is on, turn off the power first.
2. Press and hold the Power button for about 3 seconds until the last Recorded Temperature is displayed.



3. For models with 9 memories press the Power button will go to previous memories.



4. Release the Power button and the unit will return to the Measurement mode.



5. "L" will appear on the display. The unit is then ready for Measurement again.



6. It is now ready to take a new temperature reading.

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Memory Mode

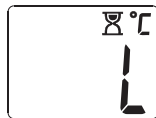
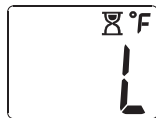
DELETING MEMORIES:

1. Repeat the first two steps of "Recalling Memories."
2. Press and hold the Power button for three seconds until "dEL" is displayed.



3. (a) To delete:
Press and release the Power button to erase all of the records in the unit. A beep is heard.

- (b) To cancel:
DO NOT press the Power button for 10 seconds until the display "L" appears. At that moment, the unit is ready for measurement again.



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Cleaning and Care

	<p>Please do not drop the unit. It is not shock-proof. Warning: following mechanical shock, the unit should not be used before recalibration.</p>
	<p>Please do not modify or disassemble the unit.</p>
	<p>Use a moist cotton swab to clean the surface of sensor and device. For disinfecting the sensors between uses, use a cotton swab with rubbing alcohol to gently clean the surface of the sensor. Before next measurement, wait at least 40 minutes for the unit to dry.</p>






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Cleaning and Care

	<p>Never use abrasive cleaning agents, thinners or benzene for cleaning and never immerse the device or sensor in water or other cleaning liquids. DO NOT BOIL OR CLEAN IN THE DISHWASHER. This will damage your device and will void the warranty.</p>
	<p>Please remove the batteries if the unit will not be used for a long time.</p>
	<p>Please keep the unit in a suitable place avoiding high temperature, direct sunlight, high moisture and dust. The unit is not water proof.</p>

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Error Message

Message	Correction
	The temperature measured was higher than the specified measuring range. Please measure again.
	The temperature measured was lower than the specified measuring range. Please measure again.
	The ambient (room) temperature was outside the operating range. Keep it at room temperature (approx 60.8 ~ 104.0°F) for 30 minutes before using.
	Failed self-diagnostic test. Reinstall batteries and try again.
 or No display	Replace the two "AAA" batteries

Specifications

Measurement Site	Ear canal
Measurement Time	1 second
Measuring range	90.0~109.9°F (32.2 ~ 43.3°C)
Accuracy	<ul style="list-style-type: none"> • 96.8 – 102.2°F (36 – 39°C) ±0.4°F (0.2°C) • Less than 96.8°F (36°C) or Greater than 102.2°F (39°C) ±0.5°F (0.3°C)
Resolution	±0.1°F (°C)
Memory Sets	9 sets
Operating Environment	60.8 – 104°F (16 – 40°C) 15 – 95% RH (non condensing)
Storage Environment	-4 – 122°F (-20 – 50°C)
Battery	AAA x 2
Battery Life	Approx. 5000 measurements
Auto Shut Off	After 1 minute of non-use
Dimensions	128mm x 38mm x 45mm
Weight	65g including batteries
Warranty	1 year limited
Guarantee of Quality	Certification ISO 13485 Conformity EN12470-5 & IEC 60601-1

This device complies with all requirements of ASTM E1965-98 Standard Specification for Infrared Thermometers for Intermittent Determination of Patient Temperature, EN 12470-5 Clinical thermometers – Part 5: Performance of Infrared ear thermometers (with maximum device)

Calibration is recommended every two years.
Device Standards : Device corresponds to the requirements of the standard for Infrared thermometers; ASTM E 1965, IEC 60601-1, IEC 60601-1-2.
Electromagnetic Compatibility: Device fulfills the stipulations of the Standard IEC 60601-1-2

Limited Warranty

This device (batteries excluded) is guaranteed for one year from the date of purchase against manufacturer's defect under normal use and without evidence of tampering.







WARRANTY EXCLUSIONS:

- Device is not properly operated according to the instructions as described in this manual.
- Device shows any signs of tampering or attempted modification.
- Evidence of improper handling or storing, such as dropping, heat, liquid or cleaner damage.
- Natural disasters (such as fire, flood, earthquake, lightning).
- **No receipt or proof of purchase showing date of purchase**

Following the instructions closely will ensure years of dependable operation.

If the device does not function properly, please contact 180 INNOVATIONS at info@180innovations.com or call 1-877-299-6700. Our representative will provide further instruction to correct the trouble or will ask you to return it along with proof of purchase for repair or replacement.

Explanation of Symbols

	Manufacturer (reference label on the device and relevant section in the instruction)
	Batch code (reference the label on the device)
	Caution (reference relevant section in the instruction)
	BF type : Type BF applied part
	Authorized Representative in the European community
	Stand-by

FCC Statement

NOTE: POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for USA Only)

Operation is subject to the following two conditions:
1) This device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the product does cause harmful interference to radio or television reception, which can be determined by turning the product on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the product and the receiver.
- Consult the dealer or an experienced radio/tv technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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