

# INSTRUCTION MANUAL

# TenderTEMP<sup>®</sup> One-Second Ear Thermometer

Model 18-200-000

Please read this detailed guidebook  
completely before operating this unit.

*For hygienic purposes and to ensure accuracy,  
TenderTemp must be used with probe covers.*



## Limited Two-Year Warranty

Your Ear Thermometer is guaranteed to be free of manufacturing defects for a period of two years from the date of purchase under normal use. If the unit fails to operate during the warranty period, return it postage prepaid along with \$5.00 for return shipping and insurance to: MABIS Healthcare, Attn: Repair Department, 1931 Norman Drive South, Waukegan, IL 60085. If MABIS Healthcare determines that the unit failed to operate due to a manufacturing defect, the unit will be repaired or replaced at the option of MABIS Healthcare. Repair or replacement of the unit is the sole remedy under this limited warranty. This warranty gives you specific legal rights, which vary from state to state. As a condition of this warranty, the enclosed warranty registration card must be completed and sent to us within 10 days of the purchase date.

This Limited Warranty constitutes MABIS Healthcare's only responsibility and obligation to repair and /or replace materials or components. We make no other express or implied warranties, arising by operation of law or otherwise, or any warranty of merchantability or fitness for a particular use or purpose whether or not the use or purpose has been disclosed to MABIS Healthcare in specifications, drawings or otherwise, and whether or not MABIS Healthcare's products are specifically designed and/or manufactured by MABIS Healthcare for the buyer's use or purposes, except for the limited warranty stated above. MABIS will not be responsible for any indirect, incidental, special, consequential, or punitive damages or other loss, including, but not limited to, damage to or loss of other property or equipment and personal injuries, whether to purchaser or others. MABIS shall in no event be liable to the purchaser for any amount in excess of the cost of repair and/or replacement of the unit.



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## Introduction

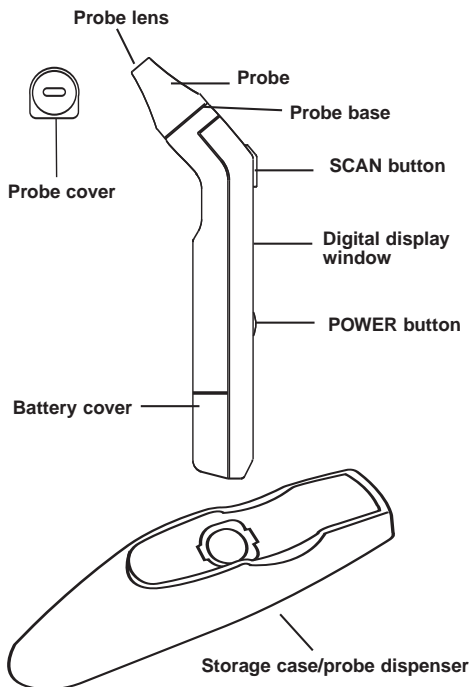
Thank you for purchasing a MABIS Ear Thermometer. Please read the following instructions to achieve the most accurate temperatures and safe operation. With proper care and use, your thermometer will provide you with many years of reliable readings.

Your Ear Thermometer is intended for monitoring human body temperature and is appropriate for all ages. It is less threatening than a rectal thermometer, is easier and faster than standard oral measurements and can even be used while a child is sleeping.

In one second, multiple readings are taken. These readings are converted into a single temperature with the peak temperature displayed on the screen. Its patented technology assures consistent, reliable and accurate measurements each and every time.

**NOTE:** Measurements taken with this Ear Thermometer are comparable to oral readings. Please read the instructions carefully as improper technique may result in low readings.

## Product Features



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## General Care & Important Information

- Never use for purposes other than body temperature measurement.
- Only use under the supervision of an adult. Never leave the thermometer or probe covers with unattended infants or children.
- For accurate measurements and to prevent cross contamination always use a new, undamaged probe cover for each measurement.
- Earwax in the ear canal may cause an inaccurate reading.
- Do not use if there are signs of damage to the probe or to the thermometer. Do not attempt to disassemble it, except to replace the battery.
- Protect the thermometer from severe impact or shocks. Keep stored in the protective storage case.

Your Ear Thermometer measures the heat radiated from the eardrum and the surrounding tissue. This energy is transferred through the probe and converted into a single temperature value. Although readings taken from the eardrum (tympanic membrane) can provide the most accurate readings, improper technique can generate lower readings, resulting in a misdiagnosed fever.

### To avoid inaccurate measurements:

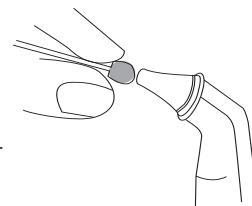
- 1) Always use with TenderTemp probe covers for accuracy and hygiene. The unit has been calibrated to work with our special probe covers.
- 2) Ear measurements are comparable to oral measurements. Remember temperatures can vary from 97.0°F to 99.0°F (36.1°C to 37.2°C) and still may be considered "normal". Time of day, level of activity, exercise and other activities can attribute to variations in temperature. However, unlike oral temperatures, factors such as smoking, talking and drinking do not affect ear measurements.

## Cleaning and Storage

To ensure accurate measurements, keep the probe lens clean and free of scratches. Fingerprints and earwax can cause inaccurate readings.

### To Clean:

- Using an alcohol swab or a soft cotton swab moistened with alcohol (70% Isopropyl), carefully wipe the probe tip and lens. Make sure not to saturate the unit. Do not use paper towels – the fibers may scratch the lens.
- Make sure that liquid does not enter the interior of the thermometer.
- Never use abrasive cleaning agents, thinners or gasoline for cleaning.
- Do not immerse into water or other cleaning liquids.
- The thermometer is not waterproof.



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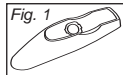
## To Store:

- Remove the battery if the thermometer will not be used for an extended period of time.
- Store in a sun-free and dust-free, dry area at a temperature between -13.0°F – 131.0°F (-25.0°C – 55.0°C).
- Protect the thermometer from severe impact or shocks. Keep stored in the protective storage case.

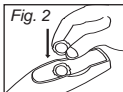
## Probe Cover Application

Prior to every measurement, make sure a TenderTemp probe cover is properly applied to the probe. Using the dispenser and following the steps below:

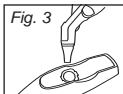
- Position the dispenser vertically on a flat stable surface, *Fig. 1*.



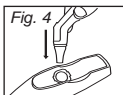
- Place a probe cover over the dispenser hole with the paper side up. Match the shape of the cover to the outline of the hole, *Fig. 2*.



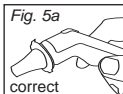
- Hold the thermometer and point the probe in a straight downward position. Align the lens of the probe, flat, over the center of the probe cover window. Make sure that the probe is completely perpendicular to the hole, *Fig. 3*.



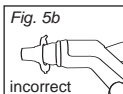
- Firmly thrust the probe into the probe cover window, *Fig. 4*. Continue to firmly push until complete resistance is felt from the base of the probe meeting the dispenser.



- Lift with the cover securely attached, making sure that the lip of the cover fits securely around the base of the probe, *Fig. 5a*.



- NOTE:**
- Probe covers can create a choking hazard for children. Never leave a child or infant unattended with a thermometer or probe cover.
  - Use a new probe cover for each measurement to avoid cross contamination.
  - Discard torn, damaged or improperly fitted probe covers.
  - Make sure the probe cover is securely attached before use.



## Troubleshooting

Probe cover tears when trying to apply – See Fig. 3 for proper positioning of the probe. Make sure the probe is in a straight downward position.

Probe cover does not completely cover the probe – See Fig. 4. Firmly thrust the probe through the center of the probe. The dispenser is designed to absorb the force.

## Taking a Reading

After applying a properly fitted probe cover,

- Press the POWER button. The system will perform a self-test, *Fig. 1*.



Fig. 1

- The last measured temperature will display for approximately 3 seconds, *Fig. 2*.

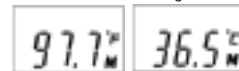


Fig. 2

- The thermometer will beep and an °F or °C symbol will flash indicating the thermometer is ready for measurement (See 'Changing Modes'), *Fig. 3*.



Fig. 3

- Straighten the ear canal to give a clear view of the eardrum.
  - For children under 1 year, pull the ear straight back, *Fig. 4*.
  - For ages 1 year to adult, pull the ear up and back, *Fig. 5*.

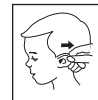


Fig. 4



Fig. 5

- While pulling on the ear, insert the probe snugly into the ear canal and press the SCAN button, *Fig. 6*. A long beep will sound indicating measurement is complete.



Fig. 6

- If the temperature is 99.5°F (37.5°C) or above, a series of 12 rapid double beeps will sound to indicate a fever.

- Remove the thermometer from the ear. The display will show the measured temperature, *Fig. 7*.

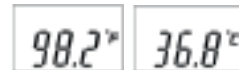


Fig. 7

- Replace the probe cover after every measurement.

To ensure accuracy, please wait at least 30 seconds between successive readings.

**NOTE:** It is possible for the elderly, infants under 3 months of age, and those with compromised immune systems or other medical conditions not to have an elevated temperature even when they are ill.

Special situations such as ear canal drainage, infection, or other conditions such as prior ear surgery (tubes), may preclude the use of ear thermometers in one or both ears or may affect the accuracy of the reading.

## Helpful Hints

- For infants, it is best to position child laying flat with the ear facing upwards.
- For children and adults, it is best to stand behind and slightly to the side.
- Always take measurements in the same ear since temperature readings may vary from ear to ear.
- Readings taken while a child is sleeping should not be compared to readings taken while awake.
- It is recommended to take three readings in the same ear with the highest interpreted as the reading for:
  - newborn infants in the first 100 days,
  - anyone with a comprised immune system or other conditions where the absence of fever is critical,
  - a new user of an Ear Thermometer until proper technique is established.

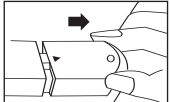
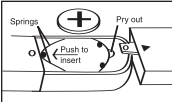
## Changing Modes

The TenderTemp can display temperature readings in either Fahrenheit or Celsius. To switch between °F or °C, turn the unit off by pressing the POWER button. Press and hold the SCAN button for approximately 5 seconds. °F or °C will be displayed. Release the button and press the SCAN button again to toggle between the modes. Five seconds after completing the selection, the unit will prepare for a measurement and beep to indicate that it is ready.

## Replacing the Battery



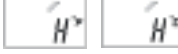




Your TenderTemp Ear Thermometer requires one lithium battery, type CR2032. The battery needs to be replaced when the low battery symbol appears on the display.

### To replace the battery:

- 1) Use a screwdriver to loosen the screw from the battery cover.
- 2) Using a non-metal pointed tool, carefully remove the battery and insert the new battery with the positive (+) side facing up.
 

- 3) Replace the battery by pushing against the contact springs.
- 4) Carefully slide the battery cover back into place. Be careful not over tighten the screw.

**NOTE:** Please properly dispose battery away from children and heat.

## Troubleshooting

Display Symbol	Condition/Cause	Corrective action
	Measurement is above normal temperature range	Retake temperature following steps in 'Taking a Reading'.
	Measurement is below normal temperature range	Retake temperature following steps in 'Taking a Reading'.
	Room temperature is too high	Move thermometer to a room with a temperature less than 104.0°F (40.0°C). Wait 30 minutes before retaking a temperature.
	Room temperature is too low	Move thermometer to a room with a temperature greater than 50.0°F (10.0°C). Wait 30 minutes before retaking a temperature.
	System malfunction	Check battery. Possible damage due to water or dropping.
	Blank display	Check battery polarity or voltage. May need to replace battery.
	Low battery	Replace battery immediately.

## General Care

1. The thermometer should only be used under the supervision of an adult.
2. Do not walk, run or talk during temperature taking.
3. Clean the thermometer before and after each use.
4. Store the unit in the protective case when not in use.
5. Do not store the unit where it will be exposed to direct sunlight, dust or humidity. Avoid extreme temperatures.
6. Dropping or subjecting your thermometer to strong shocks should be avoided.
7. Do not attempt to disassemble the unit, except to replace the battery.
8. If ERR displays and measurement is not attainable, the unit must be replaced.

**NOTE:** Performance of the device may be degraded if: operated outside of stated temperature and humidity range; stored outside of stated temperature and humidity range; thermometer undergoes mechanical shock (drop); patient temperature is below ambient temperature.

## Product Specifications

<b>Name and model number</b>	TenderTemp One-Second Ear Thermometer, 18-200-000
<b>Display system</b>	Liquid Crystal Display with 0.1°F (0.1°C) resolution
<b>Accuracy</b>	±0.4°F, 89.6°F – 108.0°F (±0.2°C, 32.0°C – 42.2°C)
<b>Measuring range</b>	89.6°F – 108.0°F (32.0°C – 42.2°C)
<b>Memory</b>	Automatically displays the last measured temperature
<b>Tone</b>	One short beep will sound when the unit is turned ON. After the measurement is complete, one long beep will sound. If the temperature is 99.5°F (37.5°C) or above, a series of 12 rapid double beeps will sound to indicate a fever. For system errors, malfunctions, or 'Hi' 'Low' measurements, 3 short beeps will sound.
<b>Operating temperature</b>	50.0°F to 104.0°F (10.0°C to 40.0°C)
<b>Storage temperature</b>	-13.0°F to 131.0°F (-25.0°C to 55.0°C)
<b>Automatic power-off</b>	Automatic shut off after approximately 1 minute of non-use.
<b>Battery</b>	1 each, CR2032 battery
<b>Dimensions</b>	5-3/4" (L) x 1" (W) x 3/4" (H) (14.6 cm x 2.5 cm x 1.9 cm)
<b>Weight</b>	With battery, 1.6 ounces (45 grams); without battery, 1.4 ounces (40 grams).
<b>Accessories</b>	Storage case/probe cover dispenser, 40 probe covers
<b>Standards</b>	Manufactured to meet US ASTM E-1965 and European PrEN12470-5 requirements.

*Specifications are subject to change without notice.*