

CEM DT-8807S

CEM DT-8807S Digital Infrared Thermometer User Manual

Brand: **CEM** | Model: **DT-8807S**

1. INTRODUCTION AND OVERVIEW

The CEM DT-8807S is a versatile non-contact infrared thermometer designed for quick and accurate temperature readings. It is suitable for measuring body temperature (forehead mode) as well as surface temperatures of objects and liquids. Its intelligent features, including a multi-color LCD backlight and memory function, make it a reliable tool for various applications.

This manual provides essential information for the safe and effective use of your DT-8807S thermometer. Please read it thoroughly before operation and retain it for future reference.

2. SAFETY INFORMATION

- This device is intended for non-contact temperature measurement. Do not use it for purposes other than those described in this manual.
- Do not immerse the thermometer in water or other liquids.
- Keep the device out of reach of children and pets.
- Avoid direct eye contact with the infrared sensor.
- Do not expose the thermometer to direct sunlight, extreme temperatures, or high humidity.
- If the device is damaged, do not attempt to repair it yourself. Contact customer support.
- Temperature readings from this device are for reference only and should not replace a medical diagnosis. Consult a healthcare professional if you have concerns about your temperature.

3. PRODUCT FEATURES

- **Non-Contact Measurement:** Reads temperature from the forehead without physical contact,

reducing cross-infection risk.

- **Fast & Accurate:** Equipped with advanced infrared technology for instant readings in approximately 1 second, with an accuracy of $\pm 0.1^{\circ}\text{C}$ ($\pm 0.5^{\circ}\text{F}$).
- **Multifunctional 2-in-1 Mode:** Designed for all ages, including adults, babies, and elders. Can measure forehead temperature (89.6°F to 107.6°F / 32.0°C to 42.0°C) and surface temperature of objects/liquids (32.0°F to 140.0°F / 0°C to 60°C).
- **Intelligent Display & Alarm:** Features a large, clear LCD backlight with 3 different colors indicating temperature status (normal, elevated, fever). Abnormal temperatures are accompanied by a warning sound.
- **Memory Function:** Automatically stores up to 32 sets of measurements for easy tracking of temperature changes.
- **Silent Mode:** Option to mute the buzzer for quiet operation, ideal for sleeping infants.
- **Auto-Off:** Automatically shuts off after 7 seconds of inactivity to conserve battery life.
- **$^{\circ}\text{C}/^{\circ}\text{F}$ Switchable:** Easily switch between Celsius and Fahrenheit units.
- **Ergonomic Design:** 15° arc design for comfortable holding and easier measurement.

4. COMPONENTS AND PARTS

Your CEM DT-8807S package includes the following items:

- CEM DT-8807S Digital Infrared Thermometer
- Instruction Manual
- Quick User Guide
- Two 1.5V AAA Batteries
- Carrying Case (may vary by package)
- Gift Box (packaging)



Figure 4.1: Contents of the CEM DT-8807S package, including the thermometer, manual, and batteries.

Thermometer Parts Overview

- **IR Sensor:** Located at the front, used for detecting infrared radiation.
- **Measurement Button:** Press to take a reading.
- **LED Display:** Shows temperature readings, mode, and indicators.
- **Battery Cover:** Located at the bottom for battery insertion.

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NON-CONTACT FOREHEAD



Figure 4.2: Key features and modes of the CEM DT-8807S thermometer.

5. SETUP

5.1 Battery Installation

1. Locate the battery cover at the bottom of the thermometer.
2. Slide the battery cover open.
3. Insert two 1.5V AAA batteries, ensuring correct polarity (+/-).
4. Close the battery cover securely.

5.2 Power On/Off

To power on the device, simply press the measurement button. The thermometer will perform a self-test and display the last reading. The device will automatically power off after 7 seconds of inactivity.

5.3 Switching Temperature Units (°C/°F)

To switch between Celsius (°C) and Fahrenheit (°F):

1. Ensure the thermometer is powered on.

2. Locate the small button inside the battery compartment or a dedicated mode button (refer to the quick user guide for exact location if not obvious).
3. Press this button to toggle between °C and °F. The display will update to show the selected unit.



Figure 5.1: Easily switch between Fahrenheit and Celsius temperature units.

6. OPERATING INSTRUCTIONS

6.1 Taking a Forehead Temperature (Body Mode)

1. Ensure the thermometer is in Body Mode (indicated by a person icon on the display). If not, switch modes as per the quick user guide.
2. Aim the thermometer probe at the center of the forehead from a distance of less than 1.18 inches (3 cm).
3. Press the measurement button once.
4. Wait for the thermometer to beep (if silent mode is off) and display the reading. The reading will appear in approximately 0.5 seconds.
5. The LCD backlight color will indicate the temperature status: green for normal, orange for elevated, and red for fever (with an audible alarm).

15° ARC DESIGN, COMFORTABLE TO HOLD

Angled probe design, easy to measure, clearer readings



Figure 6.1: The 15° arc design allows for comfortable and accurate forehead temperature measurement.

6.2 Taking Object/Surface Temperature (Surface Mode)

1. Ensure the thermometer is in Surface Mode (indicated by a house icon on the display). If not, switch modes as per the quick user guide.
2. Aim the thermometer probe at the surface of the object or liquid you wish to measure.
3. Press the measurement button once.
4. The reading will be displayed on the screen.

2 in 1 MODE-MULTIPLE USES



Surface mode:
32°F to 140°F / 0°C to 60°C



Surface mode:
89.6°F to 107.6°F / 32.0°C to 42°C

Figure 6.2: The thermometer supports both body and surface temperature measurement modes.

6.3 Understanding Display Indicators

- **"Lo" or "Hi":** Indicates the measured temperature is outside the device's operating range for the selected mode. For body temperature, "Lo" means below 95°F (35.0°C) and "Hi" means above 107.6°F (42.0°C).
- **Low Battery Symbol:** A battery icon will appear on the display when the battery level is low, indicating it's time to replace the batteries.

Large HD blacklist screen clear reading in the dark

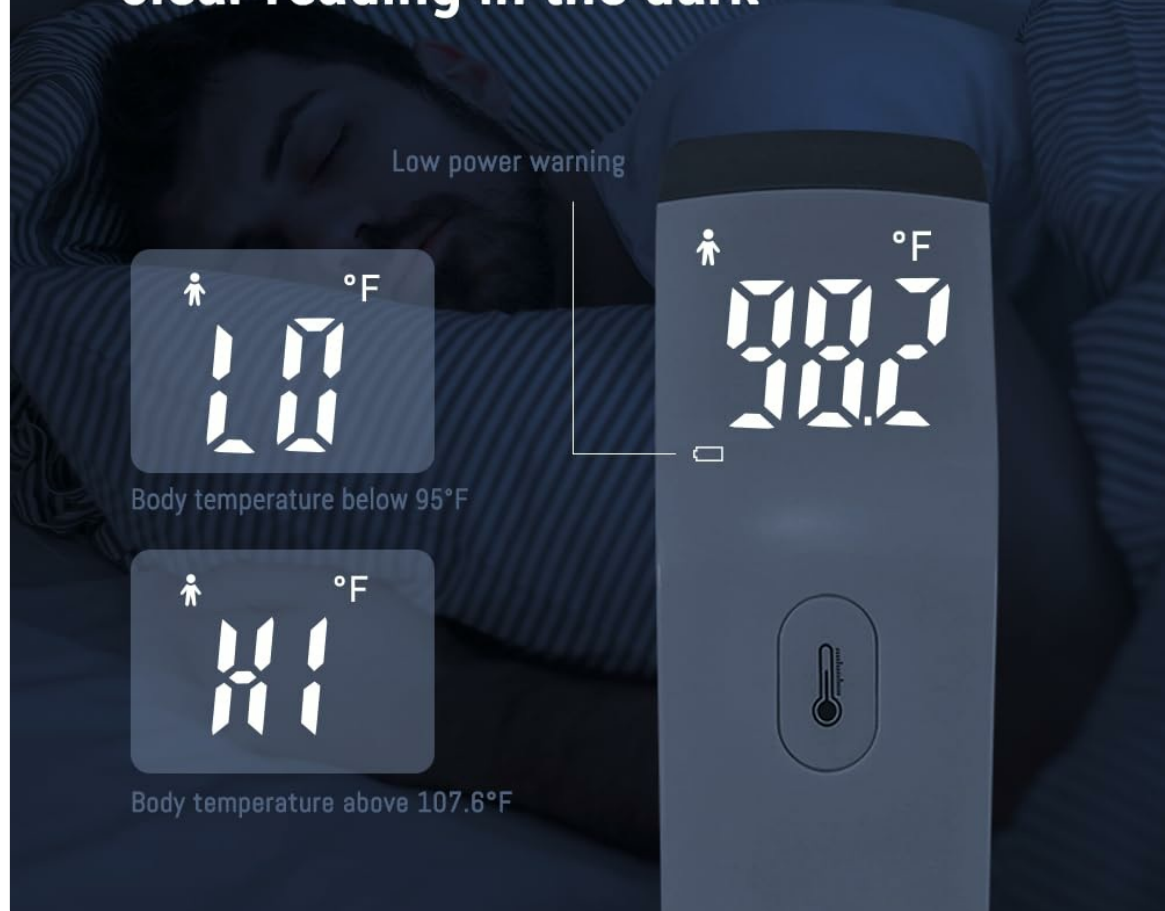


Figure 6.3: The large HD screen provides clear readings and warnings, even in low light.

SMART BUZZ REMINDER

Mute and buzzer functions can be switched

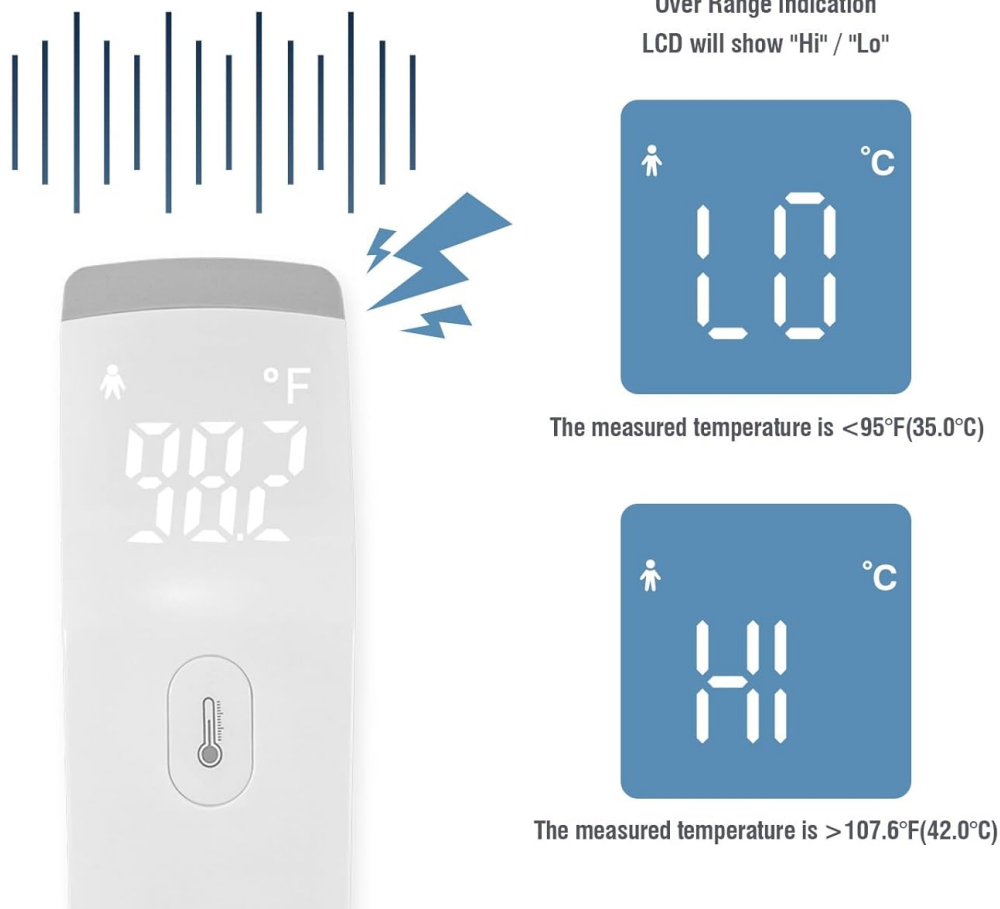


Figure 6.4: Smart buzz reminder and over-range indications.

6.4 Memory Function

The thermometer automatically stores the last 32 temperature readings. To access the memory, refer to the specific instructions in your Quick User Guide, as the method may vary slightly.

10 SETS OF MEMORY TEMPERATURE

Easy to Compare Baby's Temperature change



Figure 6.5: The memory function helps track temperature changes over time.

6.5 Official Product Video

Video 6.1: This official video from CEM Instrument demonstrates the features and usage of the DT-8807S No-Touch Forehead Thermometer, including body and surface temperature measurement.

7. MAINTENANCE AND CARE

- **Cleaning:** Wipe the thermometer clean with a soft, dry cloth. For disinfection, use an alcohol swab (70% isopropyl alcohol) and gently wipe the surface, especially the sensor area. Do not use abrasive cleaners or immerse the device in water.
- **Storage:** Store the thermometer in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity. Keep it in its carrying case when not in use to protect the sensor.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator appears to ensure accurate readings and proper device function. Dispose of used batteries according to local regulations.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power / Device does not turn on	Dead or incorrectly installed batteries.	Check battery polarity. Replace with new AAA batteries.
"Lo" or "Hi" displayed	Temperature is outside the measurement range for the selected mode.	Ensure you are measuring within the specified range for body (89.6-107.6°F) or surface (32- 140°F) modes. Ensure proper distance and aim.
Inaccurate readings	Improper measurement distance or angle; environmental factors (drafts, direct sunlight); dirty sensor; recent activity (exercise, bathing).	Ensure correct distance (less than 3 cm) and aim. Measure in a stable environment. Clean the sensor. Wait 15-30 minutes after activity before measuring body temperature.
No sound / Buzzer not working	Silent mode is activated.	Refer to the Quick User Guide to deactivate silent mode.

9. SPECIFICATIONS

- **Model:** DT-8807S
- **Display Type:** Digital LCD with Backlight
- **Connectivity Technology:** Infrared
- **Body Temperature Range:** 89.6°F to 107.6°F (32.0°C to 42.0°C)
- **Surface Temperature Range:** 32.0°F to 140.0°F (0°C to 60°C)
- **Accuracy:** $\pm 0.1^{\circ}\text{C}$ / $\pm 0.5^{\circ}\text{F}$ (Basic accuracy)
- **Measurement Time:** Approximately 0.5 seconds
- **Memory Storage:** 32 sets of measurements
- **Power Source:** 2 x 1.5V AAA Batteries
- **Auto-Off:** Yes, after 7 seconds of inactivity
- **Material:** Plastic
- **Dimensions (Package):** 7.68 x 3.54 x 2.64 inches
- **Weight (Package):** 5.61 ounces
- **Manufacturer:** SHENZHEN EVERBEST MACHINERY INDUSTRY CO.,LTD
- **Country of Origin:** China
- **Certifications:** FDA, CE (as per product title)

10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation included with your product or visit the official CEM website. Keep your purchase receipt as proof of purchase for any warranty claims.

If you encounter any issues not covered in this manual, please contact CEM customer service for assistance.