

## Testo 0560 8312

# Testo 0560 8312 830-T1 IR Thermometer Instruction Manual

Model: 0560 8312

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## 1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of the Testo 0560 8312 830-T1 IR Thermometer. This device is designed for non-contact measurement of surface temperatures in various industrial and trade applications. It features 12:1 optics and a dual laser for precise targeting, allowing for accurate temperature readings even on smaller objects from a safe distance.

## 2. SAFETY INFORMATION

Please read this section carefully before operating the device to ensure safe and proper use.

- Do not point the laser directly into eyes or at other people.
- Do not use the device in explosive atmospheres.
- Protect the device from extreme temperatures, impacts, and strong vibrations.
- Keep the device clean and dry.
- Only use the device for its intended purpose as described in this manual.
- Repairs should only be carried out by authorized personnel.

## 3. PRODUCT OVERVIEW

The Testo 830-T1 IR Thermometer is a handheld device designed for quick and accurate non-contact temperature measurements.



Figure 1: Testo 830-T1 Infrared Thermometer with included battery.



Figure 2: Front view of the Testo 830-T1, showing the display, measurement trigger, and control buttons.

### 3.1 Components

- **Infrared Sensor:** Located at the front of the device, used for non-contact temperature measurement.
- **Dual Laser Pointers:** Two laser dots indicate the measurement spot size.
- **Display:** Shows temperature readings, measurement units, battery status, and other indicators.
- **Measurement Trigger:** Activates the measurement and laser.
- **Control Buttons:** For navigating menus, adjusting settings (e.g., emissivity, units), and accessing functions like MIN/MAX.
- **Battery Compartment:** Located in the handle for battery installation.

## 4. SETUP

### 4.1 Battery Installation

1. Locate the battery compartment cover on the handle of the thermometer.
2. Open the cover.
3. Insert two AAA batteries, ensuring correct polarity (+/-). The device requires 2 AAA batteries, which are included.
4. Close the battery compartment cover securely.

## 4.2 Initial Power-On and Unit Selection

Upon first use or after battery replacement, the device will power on. You may need to select your preferred temperature unit (Celsius or Fahrenheit).

- To change units: Typically, this involves pressing and holding a specific button (often the 'Mode' or 'Set' button, or an arrow button) while the device is off, then powering it on, or accessing a menu option. Refer to the on-screen prompts or the official Testo documentation for the exact procedure for your specific device firmware, as methods can vary.

## 5. OPERATING INSTRUCTIONS

### 5.1 Taking a Measurement

1. Point the infrared sensor towards the target object.
2. Press and hold the measurement trigger. The dual laser pointers will activate, indicating the measurement spot.
3. The temperature reading will appear on the display.
4. Release the trigger to hold the last measured value (HOLD function).



Figure 3: The Testo 830-T1 in use, measuring the surface temperature of a radiator.

### 5.2 Understanding 12:1 Optics and Dual Laser

The 12:1 optics mean that at a distance of 12 inches, the measurement spot diameter is 1 inch. The dual laser pointers converge at the center of this measurement spot, helping you accurately identify the area being measured. This is particularly useful for measuring smaller objects or from a greater distance.

### 5.3 MIN/MAX Function

The device can display the minimum and maximum temperatures recorded during a continuous measurement. This function is useful for monitoring temperature fluctuations over a period.

- To activate MIN/MAX: Press the appropriate button (refer to your device's specific button layout, often an arrow or 'Mode' button) while taking a measurement. The display will cycle through current, minimum, and maximum values.

## 5.4 Emissivity Adjustment

Emissivity is a measure of an object's ability to emit infrared energy. Different materials have different emissivities. For accurate readings, adjust the emissivity setting on your thermometer to match the material being measured. Common emissivity values:

- **0.95 (default for many devices):** Most organic materials, painted surfaces, water, plastic.
- **0.85-0.90:** Concrete, brick, rough wood.
- **0.60-0.70:** Polished metals (can vary significantly).

Consult an emissivity table for specific materials. Incorrect emissivity settings will lead to inaccurate temperature readings.

## 6. MAINTENANCE

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### 6.1 Cleaning

To ensure optimal performance and longevity, keep the device clean.

- Wipe the device exterior with a clean, damp cloth. Do not use abrasive cleaners or solvents.
- Carefully clean the infrared lens with a soft, lint-free cloth or a lens cleaning wipe. Avoid scratching the lens.

### 6.2 Battery Replacement

When the battery indicator on the display shows low power, replace the batteries promptly to avoid interruption of operation. Follow the battery installation steps in Section 4.1.

### 6.3 Storage

Store the thermometer in a dry, dust-free environment within the recommended temperature range (refer to specifications). If storing for extended periods, remove the batteries to prevent leakage.

## 7. TROUBLESHOOTING

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If you encounter issues with your Testo 830-T1, refer to the following common problems and solutions:

- **Device does not power on:**
  - Check if batteries are correctly inserted with proper polarity.
  - Replace batteries with new ones.
- **Inaccurate readings:**
  - Ensure the infrared lens is clean.
  - Verify the emissivity setting matches the target material.
  - Ensure the measurement distance is appropriate for the target size (12:1 optics).
  - Avoid measuring through glass or highly reflective surfaces.
- **Laser not visible:**

- Check battery level.
- Ensure the measurement trigger is pressed.

If problems persist, contact Testo customer support for assistance.

## 8. SPECIFICATIONS







Feature	Detail
Model Number	0560 8312
Brand	Testo
Optics	12:1
Laser	Dual Laser Spot Marking
Special Feature	Non-Contact Measurement
Display Type	Digital
Power Source	2 AAA batteries (included)
Product Dimensions	2.95 x 1.5 x 7.48 inches
Item Weight	0.04 ounces
Outer Material	Plastic
Included Components	Testo T2 Infrared Thermometer
Specification Met	CE, FCC, ISO 9001
Connectivity Technology	USB (Note: Functionality may require specific software/cables, not detailed here)

## 9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Testo SE & Co. directly. Details regarding specific warranty periods and terms are typically provided with the product packaging or on the manufacturer's official website.

**Manufacturer:** Testo SE & Co.

Please retain your proof of purchase for warranty claims.

 <p>Manómetro de presión diferencial 521 - Medidor de gran precisión para HVAC</p>	<p><a href="#">Testo 521 Differential Pressure Manometer - High Precision Measurements</a></p> <p>Explore the Testo 521 series of differential pressure manometers, offering high precision measurements for various applications including HVAC, cleanrooms, and ventilation systems. Learn about models 521-1, 521-2, and 521-3, their technical specifications, and available accessories.</p>
 <p>Smart Valve 0560 5600</p>	<p><a href="#">Testo Smart Valve 0560 5600: Quick Start Guide and Regulatory Compliance</a></p> <p>Comprehensive guide to the Testo Smart Valve (Model 0560 5600), including setup instructions, product specifications, and international regulatory approvals from FCC, IC, EU, UK, Japan, and South Korea.</p>
 <p>Testo 512-1 and Testo 512-2 Digital differential pressure measuring instruments 0560 512 0560 512</p>	<p><a href="#">Testo 512-1 and 512-2: Digital Differential Pressure Measuring Instruments Instruction Manual</a></p> <p>Comprehensive instruction manual for the Testo 512-1 and Testo 512-2 digital differential pressure measuring instruments. Covers product features, intended use, operation via instrument and testo Smart App, technical specifications, and maintenance.</p>
 <p>Testo 176 - Datenlogger Bedienungsanleitung Testo 176 - Data loggers Instruction manual Testo 176 - Enregistreur de données Manuel d'utilisation</p>	<p><a href="#">Testo 176 Datenlogger Bedienungsanleitung</a></p> <p>Umfassende Bedienungsanleitung für die Datenlogger der Testo 176 Serie. Enthält technische Daten, Anwendungsbeispiele, Sicherheitshinweise und Wartungsinformationen.</p>
 <p>Testo 805 - Infrarot-Thermometer Bedienungsanleitung</p>	<p><a href="#">Testo 805 Infrared Thermometer Instruction Manual</a></p> <p>Comprehensive instruction manual for the Testo 805 infrared thermometer, covering general information, safety precautions, product description, technical data, operation, maintenance, and troubleshooting.</p>
 <p>Testo 625 - Digital Thermohygrometer Bedienungsanleitung</p>	<p><a href="#">Testo 625 Digital Thermohygrometer: Instruction Manual</a></p> <p>User manual for the Testo 625 digital thermohygrometer. Learn about its features for measuring humidity and temperature, operating instructions, Bluetooth connectivity with the testo Smart App, technical data, and maintenance.</p>