

## TRACEABLE AO-94460-parent

# Traceable High-Accuracy Refrigerator/Freezer Thermometer (Model AO-94460-parent) User Manual

Model: AO-94460-parent | Brand: TRACEABLE

## 1. INTRODUCTION

This manual provides instructions for the proper setup, operation, and maintenance of your Traceable High-Accuracy Refrigerator/Freezer Thermometer. This device is designed to monitor temperatures in various environments such as liquids, baths, air/gas, incubators, refrigerators, and freezers. It features a triple display for current, minimum, and maximum temperatures, along with programmable alarms and a stainless steel probe.

## 2. PRODUCT OVERVIEW

### 2.1 Features

- **Triple Display:** Simultaneously shows current, minimum, and maximum temperatures.
- **Built-In Memory:** Stores minimum and maximum temperatures until manually cleared.
- **Precise Temperature Alarms:** Allows setting of high and low alarms in 1° increments. An audible alarm activates when temperatures exceed or fall below set points.
- **Versatile Probe:** Includes a 10-ft (3-m) submersible stainless steel micro-cable probe.
- **Multiple Mounting Options:** Can be mounted using included hook-and-loop strips, wall-mount slots, or the integrated flip-open stand.
- **NIST-Traceable Calibration:** Supplied with a NIST-traceable calibration certificate.

### 2.2 What's in the Box

- Traceable High-Accuracy Refrigerator/Freezer Thermometer unit
- 1 Stainless Steel Probe
- NIST-traceable calibration certificate with data
- Plastic stand
- Double-back tape and hook-and-loop fastener for mounting
- Two AA batteries

## 3. SETUP

### 3.1 Battery Installation

1. Locate the battery compartment on the back of the thermometer unit.
2. Open the compartment cover.
3. Insert the two AA batteries, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.

### 3.2 Probe Connection and Placement

1. Connect the stainless steel probe cable to the designated port on the thermometer unit.
2. Place the probe in the desired monitoring location (e.g., inside a refrigerator or freezer). The micro-cable design allows doors to close over it without damage.

### 3.3 Mounting the Unit

The thermometer unit offers several mounting options:

- **Benchtop:** Use the integrated flip-open stand on the back of the unit to place it on a flat surface.
- **Wall Mount:** Utilize the wall-mount slots on the back of the unit with appropriate screws (not included).
- **Surface Mount:** Apply the provided double-back tape or hook-and-loop fastener to attach the unit to any clean, flat surface.



Figure 1: Front view of the Traceable High-Accuracy Refrigerator/Freezer Thermometer with the stainless steel probe connected. The display shows current, minimum, and maximum temperatures, along with control buttons.



Figure 2: Back view of the Traceable High-Accuracy Refrigerator/Freezer Thermometer, showing the flip-open stand and wall-mount slots.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Power On/Off

The thermometer typically powers on automatically once batteries are installed. Refer to the unit's buttons for a dedicated power button if available, or it may operate continuously.

### 4.2 Reading Temperatures

The display simultaneously shows three temperature readings:

- **Current Temperature:** The real-time temperature at the probe's location.
- **Minimum Temperature (MIN):** The lowest temperature recorded since the last reset.
- **Maximum Temperature (MAX):** The highest temperature recorded since the last reset.

### 4.3 Clearing Memory (MIN/MAX)

To clear the stored minimum and maximum temperature readings, press the designated "CLEAR" or "RESET" button on the unit. This will reset the MIN/MAX values to the current temperature, allowing for a new monitoring period.

### 4.4 Setting Alarms

The thermometer allows you to set high and low temperature alarms:

1. Press the "ALARM SET" button (or similar) to enter alarm setting mode.
2. Use the "UP" and "DOWN" arrows (or similar buttons) to adjust the desired high temperature limit.

3. Press "ALARM SET" again to confirm the high limit and proceed to set the low temperature limit.
4. Adjust the low temperature limit using the "UP" and "DOWN" arrows.
5. Press "ALARM SET" one more time to save the settings and exit alarm mode.
6. When the temperature goes above the high limit or below the low limit, an audible alarm will sound. The alarm will continue until acknowledged or the temperature returns to the non-alarm range.

### 4.5 Temperature Unit Selection (°C/°F)

To switch between Celsius (°C) and Fahrenheit (°F), locate and press the "°C/°F" button on the unit. The display will update to show temperatures in the selected unit.

## 5. MAINTENANCE

### 5.1 Cleaning

To clean the thermometer unit and probe, wipe them with a soft, damp cloth. Do not immerse the main unit in water. The stainless steel probe is submersible and can be cleaned with mild soap and water. Avoid using abrasive cleaners or solvents.

### 5.2 Battery Replacement

When the display becomes dim or the unit stops functioning, it is time to replace the batteries. Follow the battery installation steps in Section 3.1.

### 5.3 Calibration

The thermometer comes with a NIST-traceable calibration certificate. Regular calibration checks are recommended to ensure continued accuracy, especially in critical applications. Refer to the calibration certificate for details on traceability and recommended recalibration intervals. For recalibration services, contact Traceable customer support.

## 6. TROUBLESHOOTING

- **No Display/Unit Not Turning On:** Check battery installation and ensure batteries are fresh. Replace if necessary.
- **Inaccurate Readings:** Ensure the probe is correctly positioned and fully immersed in the substance being measured (if applicable). Verify the probe cable is securely connected. Consider recalibration if accuracy issues persist.
- **Alarm Not Sounding:** Check alarm settings to ensure they are correctly configured. Verify the alarm volume is not muted or set too low (if applicable).
- **Erratic Readings:** This may indicate a loose probe connection or a damaged probe. Reconnect the probe or contact support for a replacement.

## 7. SPECIFICATIONS

Specification	Detail
Model Number	AO-94460-parent
Brand	TRACEABLE

Special Feature	High Accuracy
Display Type	Digital
Outer Material	Stainless Steel (Probe)
Power Source	Battery Powered (2 AA batteries included)
Product Care Instructions	Freezer Safe, Wipe Clean
Specification Met	NIST
Probe Cable Length	10-ft (3-m)
Package Dimensions	10.3 x 3.7 x 3.7 inches
Item Weight	7.83 ounces

## 8. WARRANTY AND SUPPORT

### 8.1 Warranty Information

Specific warranty details for this product are typically provided at the time of purchase or can be obtained directly from the manufacturer, TRACEABLE (an Antylia Scientific company). Please retain your proof of purchase for warranty claims.

### 8.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or inquiries regarding calibration services and replacement parts, please contact TRACEABLE customer support. Contact information can usually be found on the manufacturer's website or on the product packaging.