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› Ohaus 30087993 Replaceable pH Electrode Compatible with ST20 Pen Meter User Manual

Ohaus 30087993

Ohaus 30087993 Replaceable pH Electrode User Manual

Model: 30087993

INTRODUCTION

This manual provides essential information for the proper use, maintenance, and troubleshooting of the Ohaus 30087993 Replaceable pH Electrode. Designed for compatibility with Ohaus ST20 Pen Meters, this electrode ensures accurate and precise pH measurements. Please read this manual thoroughly before operating the electrode.



Figure 1: Ohaus 30087993 Replaceable pH Electrode. This image shows the electrode, typically a slender probe with a sensing bulb at one end, designed for pH measurement.

SETUP

Proper setup is crucial for accurate readings and electrode longevity.

1. **Unpacking:** Carefully remove the pH electrode from its packaging. Inspect for any visible damage.
2. **Storage Solution Removal:** The electrode tip is typically stored in a protective cap containing a storage solution (e.g., 3M KCl solution). Gently remove this cap. *Do not discard the cap or solution, as they are needed for proper storage.*
3. **Rinsing:** Rinse the electrode tip thoroughly with distilled or deionized water. Gently blot dry with a lint-free tissue. Do not wipe vigorously, as this can create static charges or damage the sensitive membrane.
4. **Connection:** Connect the electrode to the compatible Ohaus ST20 Pen Meter or other Ohaus bench/portable meters. Ensure the connection is secure and clean.
5. **Conditioning (if dry):** If the electrode has been stored dry or appears to be giving unstable readings, immerse the tip in a pH 7 buffer solution for at least 30 minutes, or ideally, overnight.

OPERATING INSTRUCTIONS

Follow these steps for accurate pH measurements.

1. **Calibration:**

- Always calibrate the electrode before first use, daily, or when high accuracy is required.
- Use fresh, high-quality pH buffer solutions (e.g., pH 4.01, 7.00, 10.01).
- Follow the specific calibration procedure outlined in your Ohaus ST20 Pen Meter's manual. Typically, this involves immersing the electrode in buffer solutions sequentially and allowing the meter to recognize and stabilize.

2. **Measurement:**

- Rinse the electrode with distilled or deionized water between samples and after calibration.
- Immerse the electrode tip into the sample solution, ensuring the sensing bulb and reference junction are fully submerged.
- Gently stir the solution to ensure homogeneity and stable readings.
- Allow the reading to stabilize before recording the pH value. The meter will usually indicate when the reading is stable.

3. **Temperature Compensation:** This electrode includes a temperature sensor for automatic temperature compensation (ATC), ensuring accurate measurements across varying sample temperatures. Ensure the ATC function on your meter is enabled.

MAINTENANCE

Proper maintenance extends the life and accuracy of your electrode.

- **Rinsing:** Always rinse the electrode thoroughly with distilled or deionized water after each use and before storage.
- **Cleaning:**
 - For general deposits, soak the electrode in a mild detergent solution for 15-30 minutes, then rinse thoroughly.
 - For protein deposits, soak in a pepsin/HCl solution.
 - For inorganic deposits, soak in a 0.1 M HCl or 0.1 M HNO₃ solution.
 - Always follow cleaning with a thorough rinse and re-conditioning in pH 7 buffer.
- **Storage:**
 - For short-term storage (daily), keep the electrode tip immersed in pH 7 buffer or the original storage solution.
 - For long-term storage, ensure the electrode cap is filled with the recommended storage solution (e.g., 3M KCl) and securely placed over the tip. Never store the electrode in distilled water, as this will deplete the reference electrolyte and shorten its lifespan.
- **Electrolyte Refill (if applicable):** This electrode is a sealed unit and does not require electrolyte refilling.

TROUBLESHOOTING

Refer to the table below for common issues and their solutions.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Unstable or Drifting Readings	Dirty electrode, air bubbles, insufficient conditioning, expired buffer, temperature fluctuations.	Clean electrode, gently tap to remove bubbles, re-condition, use fresh buffers, allow sample to reach stable temperature.
Slow Response Time	Clogged reference junction, aged electrode, protein/sulfide coating.	Clean electrode with appropriate solution, re-condition. If problem persists, electrode may need replacement.
Incorrect Readings / Calibration Failure	Contaminated buffers, damaged electrode, incorrect calibration procedure, meter issue.	Use fresh buffers, inspect electrode for damage, review meter manual for calibration steps. Test with another electrode if possible.
No Reading	Loose connection, completely dry electrode, severely damaged electrode.	Check connection, re-condition electrode for extended period, replace if damaged.

SPECIFICATIONS

Key specifications for the Ohaus 30087993 Replaceable pH Electrode.

- **Model Number:** 30087993 (Item model number: 1185M84EA)
- **Compatibility:** Ohaus ST20 Pen Meter and other Ohaus bench/portable meters.
- **Electrode Type:** Replaceable pH Electrode
- **Shaft Material:** Plastic or Glass (depending on specific variant)
- **Temperature Sensor:** Integrated for Automatic Temperature Compensation (ATC)
- **Manufacturer:** Ohaus Corporation
- **ASIN:** B013KLAU00

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Ohaus website or contact Ohaus customer service directly. Keep your purchase receipt as proof of purchase.

- **Official Ohaus Website:** www.ohaus.com
- **Customer Service:** Refer to the contact information provided on the Ohaus website for your region.