

Ohaus ST2200-B

Ohaus ST2200-B pH Meter User Manual

Model: ST2200-B

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of the Ohaus ST2200-B pH Meter. Please read this manual thoroughly before using the instrument.

The Ohaus ST2200-B is a high-precision benchtop pH meter designed for accurate and reliable pH measurements in laboratories, research facilities, and industrial applications. It features a large, easy-to-read LCD display, intuitive controls, and automatic temperature compensation (ATC) to ensure precise readings across a wide pH range. The high-quality pH electrode provides fast response times and long-lasting performance. With multiple calibration points, stability indicators, and user-friendly operation, the ST2200-B simplifies complex measurements while maintaining accuracy. It is ideal for water analysis, chemical testing, and educational use.

2. SAFETY INFORMATION

Always observe the following safety precautions:

- Use the instrument only as described in this manual.
- Do not operate the instrument in hazardous environments.
- Ensure the power supply matches the instrument's requirements.
- Handle the pH electrode with care; it contains glass and can be fragile.
- Dispose of chemicals and waste solutions according to local regulations.

3. PACKAGE CONTENTS

Verify that all items are present and undamaged:

- Ohaus ST2200-B pH Meter Unit
- pH Electrode

- Electrode Stand (if included with specific model variant)
- Power Adapter
- Instruction Manual (this document)
- Calibration Buffer Solutions (if included)



Figure 1: The Ohaus ST2200-B pH Meter unit, shown with its accompanying pH electrode and a separate electrode stand. The main unit features a digital display and control buttons. The electrode is a slender probe connected to the main unit.

4. SETUP

1. **Unpacking:** Carefully remove all components from the packaging.
2. **Placement:** Place the pH meter on a stable, level surface away from direct sunlight, heat sources, and strong electromagnetic fields.
3. **Electrode Connection:** Connect the pH electrode to the designated BNC connector on the back of the meter. Ensure a secure connection.
4. **Temperature Probe (if applicable):** If your model includes a separate temperature probe, connect it to its dedicated port.
5. **Power Connection:** Connect the power adapter to the meter's power input and then plug it into a suitable electrical outlet.
6. **Initial Power On:** Press the power button to turn on the meter. The display should illuminate.

5. OPERATING INSTRUCTIONS

5.1. Calibration

Regular calibration is crucial for accurate pH measurements. It is recommended to calibrate daily or before each series of measurements.

1. Prepare fresh calibration buffer solutions (e.g., pH 4.01, 7.00, 10.01).
2. Rinse the electrode thoroughly with distilled water and blot dry with a lint-free tissue.
3. Immerse the electrode into the first buffer solution (e.g., pH 7.00).
4. Press the "CAL" button on the meter. The meter will automatically recognize the buffer and stabilize.
5. Once stable, the meter will prompt for the next buffer. Rinse the electrode and immerse it into the second buffer (e.g., pH 4.01 or 10.01).
6. Repeat for additional calibration points as needed.

7. After the final buffer, the meter will save the calibration and return to measurement mode.

5.2. Taking Measurements

1. Ensure the meter is calibrated.
2. Rinse the electrode with distilled water and blot dry.
3. Immerse the electrode into the sample solution, ensuring the sensing bulb is fully submerged.
4. Gently stir the solution to ensure homogeneity and allow the reading to stabilize.
5. Read the pH value displayed on the screen once the stability indicator disappears or stabilizes.
6. After measurement, rinse the electrode thoroughly with distilled water.

6. MAINTENANCE

6.1. Electrode Care

- **Storage:** Always store the pH electrode in its protective cap filled with electrode storage solution or 3M KCl solution. Never store in distilled water.
- **Cleaning:** If the electrode becomes sluggish or readings are erratic, clean it according to the electrode manufacturer's instructions. Typically, this involves soaking in a cleaning solution.
- **Rinsing:** Always rinse the electrode with distilled or deionized water between measurements and before storage.

6.2. Meter Cleaning

Wipe the exterior of the meter with a damp cloth. Do not use abrasive cleaners or solvents. Ensure no liquid enters the meter casing.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display/Power off	No power supply; loose connection	Check power adapter and outlet; ensure secure connection.
Erratic readings	Dirty electrode; air bubbles; expired buffer; damaged electrode	Clean electrode; gently tap electrode to remove bubbles; use fresh buffers; replace electrode if damaged.
Cannot calibrate	Incorrect buffer used; electrode not immersed; electrode faulty	Verify buffer values; ensure electrode is fully submerged; clean or replace electrode.
Slow response time	Electrode dry; clogged junction; old electrode	Rehydrate electrode in storage solution; clean electrode; replace electrode.

8. SPECIFICATIONS

- **Model:** ST2200-B
- **Brand:** Ohaus
- **Measurement Range:** Typically 0.00 to 14.00 pH

- **Resolution:** 0.01 pH
- **Accuracy:** ± 0.01 pH (meter only)
- **Temperature Compensation:** Automatic Temperature Compensation (ATC)
- **Calibration Points:** Up to 3 points (e.g., 4.01, 7.00, 10.01)
- **Display:** Large LCD
- **Power Supply:** AC Adapter (specific voltage/current details usually on adapter)
- **Dimensions:** (Refer to product datasheet for exact dimensions)
- **Weight:** (Refer to product datasheet for exact weight)

9. WARRANTY AND SUPPORT

Ohaus products are manufactured under strict quality control. This instrument is warranted against defects in materials and workmanship for a period typically specified at the point of purchase or on the product's official warranty card. Please retain your proof of purchase.

For technical support, service, or warranty claims, please contact your local Ohaus distributor or visit the official Ohaus website for contact information.

Ohaus Official Website: www.ohaus.com