GIDIGI pH Meter Pen

GIDIGI pH Meter Pen Instruction Manual

Model: pH Meter Pen

1. Introduction

Thank you for choosing the GIDIGI pH Meter Pen. This device is designed for accurate measurement of pH levels in various liquids, making it ideal for applications such as aquariums, hydroponics, swimming pools, and general water quality testing. This manual provides detailed instructions for the proper setup, operation, calibration, and maintenance of your pH meter to ensure optimal performance and longevity.

The GIDIGI pH Meter Pen is suitable for various applications including hydroponics, pool water testing, and measuring acidic or alkaline solutions.

2. Safety Information

- Keep the device out of reach of children.
- Do not immerse the entire meter in water; only the electrode tip should be submerged.
- Handle the glass electrode with care to prevent damage.
- Do not drink the calibration or storage solutions. In case of accidental ingestion, seek medical attention immediately.
- Store calibration and storage solutions in a cool, dry place away from direct sunlight.

3. Package Contents

Please check the package to ensure all items are present:

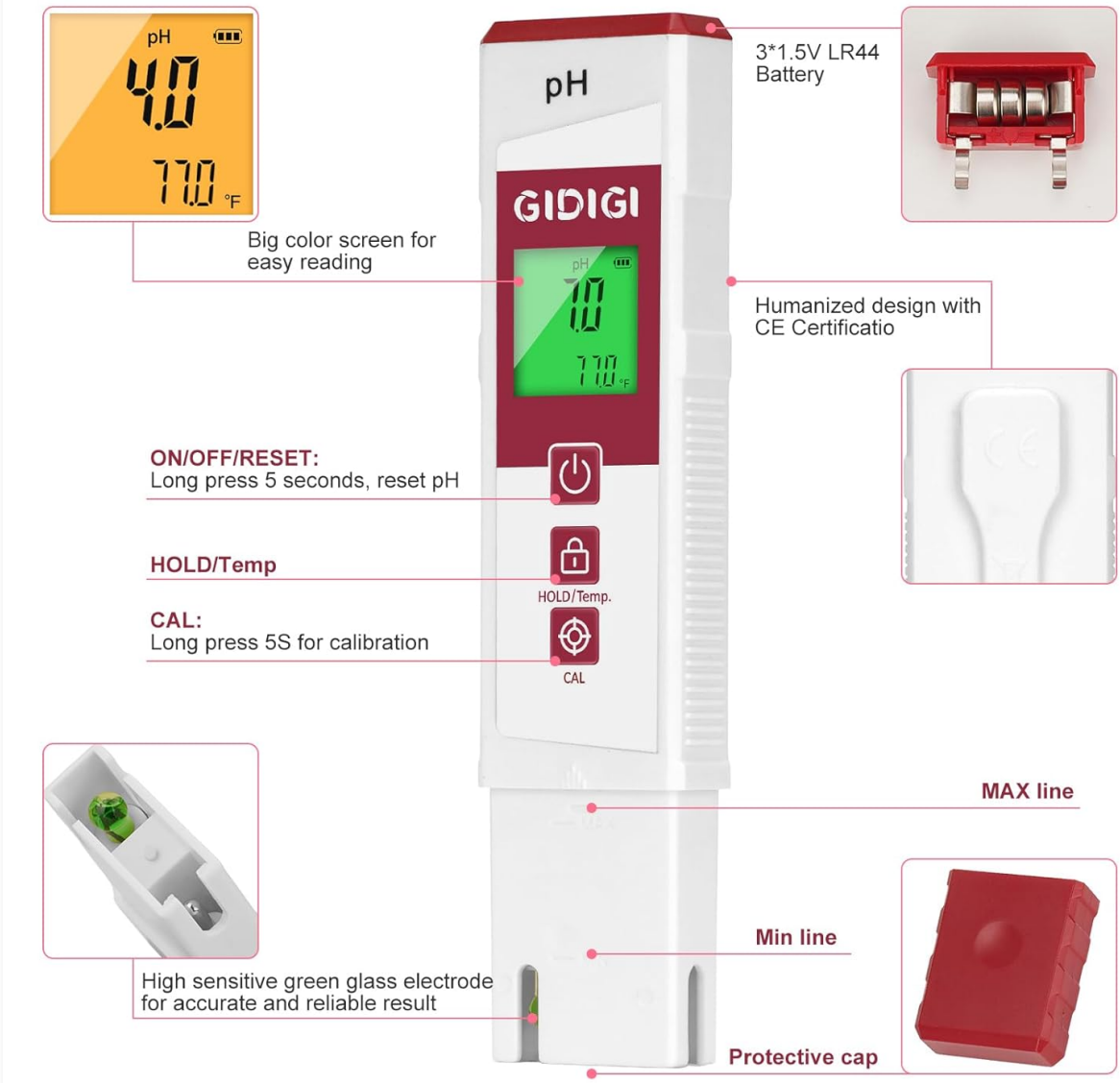
- GIDIGI pH Meter Pen
- pH 4.00 Buffer Solution (250ml)

- pH 7.00 Buffer Solution (250ml)
- pH Electrode Storage Solution (30ml)
- Measuring Cups (2 units)
- User Manual (this document)

The kit includes pH 4.00 and pH 7.00 buffer solutions, pH electrode storage solution, and two measuring cups.

4. Product Overview

Familiarize yourself with the components of your GIDIGI pH Meter Pen:



This diagram illustrates the key parts of the pH meter, including the display, control buttons, battery compartment, and the sensitive green glass electrode.

- **Display:** Shows pH and temperature readings.
- **ON/OFF/RESET Button:** Long press for 5 seconds to turn on/off or reset pH.
- **HOLD/Temp Button:** Press to hold the current reading or switch between temperature units.
- **CAL Button:** Long press for 5 seconds to enter calibration mode.
- **Battery Compartment:** Houses 3*1.5V LR44 batteries.
- **High Sensitive Green Glass Electrode:** For accurate and reliable results.
- **MAX/MIN Immersion Lines:** Indicate the appropriate immersion depth for the electrode.
- **Protective Cap:** Covers the electrode when not in use.

5. Setup

5.1 Battery Installation

1. Locate the battery compartment at the top of the meter (refer to Product Overview image).
2. Open the compartment and insert three 1.5V LR44 button cell batteries, ensuring correct polarity.

3. Close the battery compartment securely.

5.2 Initial Preparation

1. Remove the protective cap from the electrode tip.
2. Rinse the electrode with distilled water and gently blot dry with a clean, soft tissue. Do not rub.

6. Operating Instructions

6.1 Taking a Measurement

Follow these simple steps to obtain an accurate pH reading.

1. Long press the ON/OFF/RESET button for 5 seconds to turn on the meter.
2. Immerse the electrode into the sample solution, ensuring the liquid level is between the MAX and MIN immersion lines.
3. Gently stir the meter to remove any air bubbles around the electrode.
4. Wait for the reading on the display to stabilize (typically a few seconds). The meter will show both pH and temperature.
5. Press the HOLD/Temp button to freeze the current reading on the display. Press again to release.

6. After use, rinse the electrode with distilled water and replace the protective cap.
7. Long press the ON/OFF/RESET button for 5 seconds to turn off the meter.

6.2 Understanding the Display

The meter features a color display that shows both the pH value and the temperature. The pH value is presented clearly, often with a color indication that changes according to the value, similar to pH test strips but with precise numerical data.

The GIDIGI pH meter provides clear digital readings with color changes, offering a more precise alternative to traditional pH test strips.

7. Calibration

Regular calibration is essential for maintaining the accuracy of your pH meter. It is recommended to calibrate the meter before first use, after prolonged storage, or if you suspect inaccurate readings.

7.1 Calibration Procedure (Two-Point Calibration)

1. Prepare two clean beakers or measuring cups. Pour a small amount of pH 4.00 buffer solution into one and pH 7.00 buffer solution into the other.

2. Turn on the pH meter.
3. Rinse the electrode with distilled water and gently blot dry.
4. Immerse the electrode into the pH 7.00 buffer solution.
5. Long press the **CAL** button for 5 seconds until the display shows 'CAL' and then '7.00'. The meter will automatically recognize the buffer and begin calibration.
6. Wait for the reading to stabilize and for the meter to confirm calibration (e.g., 'END' or a stable 7.00 reading).
7. Rinse the electrode with distilled water and gently blot dry.
8. Now, immerse the electrode into the pH 4.00 buffer solution.
9. Long press the **CAL** button for 5 seconds again. The meter will recognize the buffer and begin calibration for pH 4.00.
10. Wait for the reading to stabilize and for the meter to confirm calibration.
11. After successful calibration, rinse the electrode with distilled water and store it properly.

Note: Always calibrate with pH 7.00 first, then with pH 4.00 (or pH 10.00 if needed for alkaline range). Ensure the buffer solutions are at room temperature for accurate calibration.

8. Maintenance

8.1 Electrode Cleaning

After each use, rinse the electrode thoroughly with distilled water to remove any residue. If the electrode becomes dirty or contaminated, gently clean it with a soft brush and a mild detergent solution, then rinse thoroughly with distilled water.

8.2 Electrode Storage

Proper storage of the electrode is crucial for its lifespan and accuracy. Always keep the electrode moist by storing it in the provided pH Electrode Storage Solution. Never store the electrode dry or in distilled water, as this can damage the glass membrane.

Use the GIDIGI pH Electrode Storage Solution to keep the electrode moist, which helps maintain its lifespan and accuracy.

8.3 Buffer and Storage Solution Care

- Keep buffer and storage solutions in a dry, cool place away from light.
- The bottle mouth is sealed with a thick foam pad and an easy-to-tear gasket for double-layer protection against leakage.
- The solutions are designed to be stable and not easily evaporate after opening.
- Discard used calibration solution after each use; do not pour it back into the original bottle to avoid contamination.
- Unopened solutions are valid for 3 years; once opened, they are valid for 1.5 years.

The upgraded pH solutions are formulated for stability, accuracy, and extended use, with features to prevent evaporation.

9. Troubleshooting

Problem	Possible Cause	Solution
Inaccurate readings	Uncalibrated meter, dirty electrode, expired buffer solutions, damaged electrode.	Calibrate the meter, clean the electrode, use fresh buffer solutions, replace electrode if damaged.
Meter does not turn on	Dead batteries, incorrect battery installation.	Replace batteries (3*1.5V LR44), ensure correct polarity.
Slow response time	Dry electrode, contaminated electrode.	Soak electrode in storage solution for 30 minutes, clean electrode.

Problem	Possible Cause	Solution
Display shows 'Err' or '---'	Calibration error, electrode issue.	Recalibrate the meter carefully, check electrode for visible damage.

10. Specifications

- **Product Name:** GIDIGI pH Meter Pen
- **Accuracy:** +/- 0.01 pH (at 25°C)
- **Power Supply:** 3 x 1.5V LR44 Button Cell Batteries
- **Electrode:** High sensitive green glass electrode
- **Buffer Solution Capacity:** 250ml each (pH 4.00, pH 7.00)
- **Electrode Storage Solution Capacity:** 30ml
- **First Available Date:** April 25, 2025

11. Warranty and Support

For warranty information or technical support, please refer to the product packaging or contact GIDIGI customer service through the retailer where the product was purchased. Keep your purchase receipt as proof of purchase.

12. Disposal Information

This product contains electronic components and batteries. Do not dispose of it with general household waste. Please follow local regulations for the proper disposal of electronic waste and batteries to protect the environment.