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› HM Digital PHM80 Digital pH/Temperature Meter User Manual

HM Digital PHM80

HM Digital PHM80 Digital pH/Temperature Meter User Manual

Model: PHM80 | Brand: HM Digital

1. INTRODUCTION

The HM Digital PHM80 is a reliable digital pH/Temperature meter designed for various testing applications. It provides accurate measurements for pH levels and temperature, making it suitable for hydroponics, gardening, pools, spas, aquariums, water ionizers, and drinking water analysis. This manual provides detailed instructions for the proper setup, operation, and maintenance of your PHM80 meter.

2. PRODUCT FEATURES

- Measures pH and Temperature simultaneously.
- One-touch automatic digital calibration for pH 4.0, 7.0, or 10.0.
- Water-resistant body for durability.
- Sleek, lightweight design for portability.
- Large LCD display for easy reading.
- Automatic Temperature Compensation (ATC) for accurate readings regardless of temperature fluctuations.
- Auto-off function to conserve battery life.
- Data-hold function to freeze readings.
- Low-battery indicator.
- Includes storage solution and a single-use pH 7.0 buffer pack.

3. PACKAGE CONTENTS

Upon opening the package, ensure all the following items are present:

- HM Digital PHM80 Digital pH/Temperature Meter
- Protective Cap
- Batteries (pre-installed or separate)
- pH 7.0 Buffer Solution (single-use pack)

- pH Electrode Storage Solution (in sponge embedded in cap)
- User's Guide (this manual)



Image: The PHM80 meter along with the included pH 7.0 buffer solution and pH electrode storage solution.

4. PRODUCT DIAGRAM AND PARTS IDENTIFICATION

Familiarize yourself with the different parts of your PHM80 meter:

PRODUCT SPECIFICATION

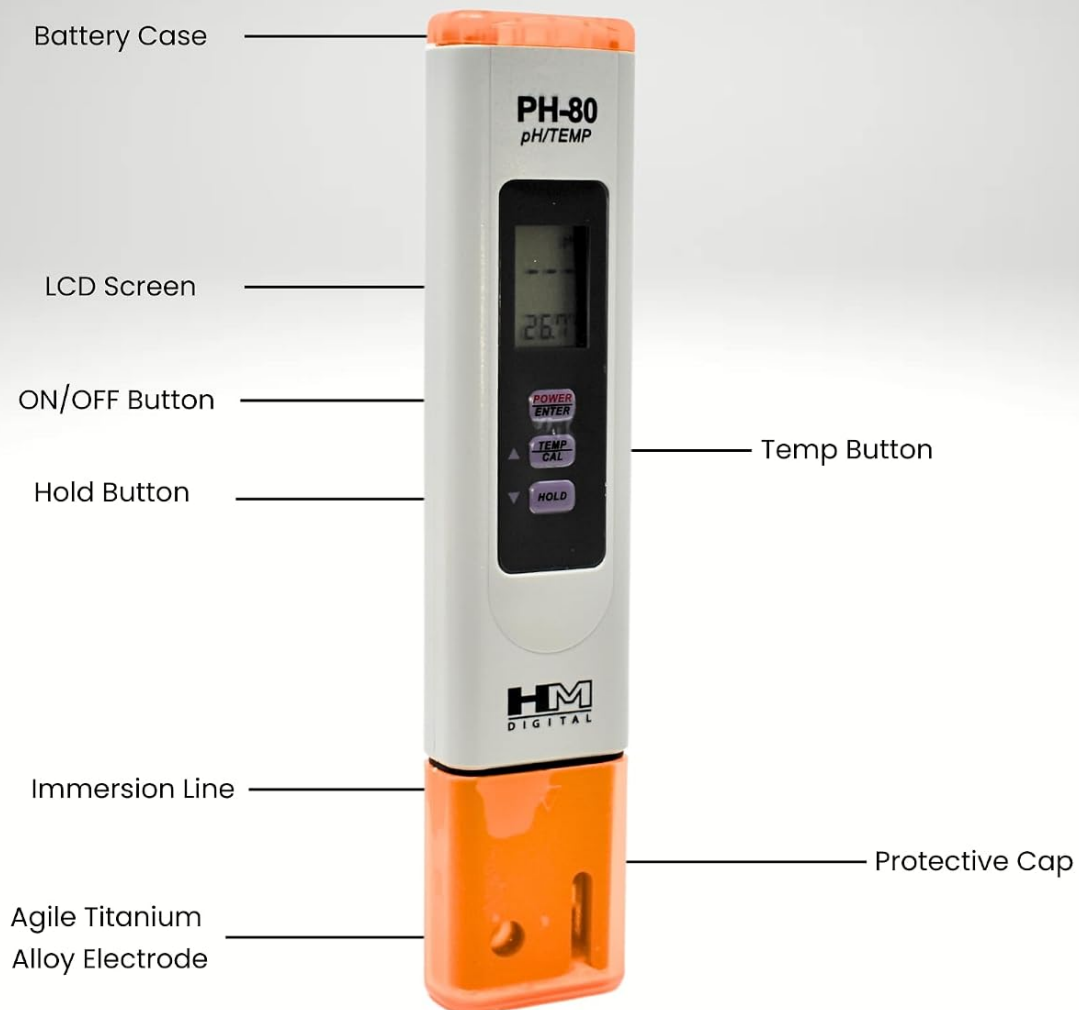


Image: A diagram illustrating the components of the PHM80 meter, including the Battery Case, LCD Screen, ON/OFF Button, Hold Button, Immersion Line, Agile Titanium Alloy Electrode, Temp Button, and Protective Cap.

Battery Case: Located at the top, houses the batteries.

LCD Screen: Displays pH and temperature readings.

ON/OFF Button: Powers the device on or off.

Hold Button: Freezes the current reading on the display.

Immersion Line: Indicates the minimum depth for probe immersion.

Agile Titanium Alloy Electrode: The sensor for pH and temperature measurements.

Temp Button: Toggles temperature display between Celsius and Fahrenheit.

Protective Cap: Covers and protects the electrode, containing a sponge for storage solution.

5. SETUP AND INITIAL PREPARATION

5.1. Battery Installation

The PHM80 meter typically comes with batteries pre-installed. If not, or if replacing batteries:

1. Open the battery case cover at the top of the meter.
2. Insert the required button cell batteries (3 x 1.5V LR44 or equivalent), ensuring correct polarity.
3. Close the battery case cover securely.

5.2. Initial Calibration

The PHM80 is factory calibrated to pH 7.0. However, it is recommended to perform an initial calibration upon first use or after extended storage to ensure optimal accuracy.

6. OPERATING INSTRUCTIONS

6.1. Measuring pH and Temperature

1. Remove the protective cap from the electrode.
2. Press the **ON/OFF** button to turn on the meter.
3. Immerse the electrode into the solution to be tested, ensuring the immersion line is covered. Stir gently.
4. Wait for the reading to stabilize on the LCD display. The pH value and temperature will be shown simultaneously.
5. To switch between Celsius and Fahrenheit for temperature, press the **TEMP** button.
6. To hold the current reading, press the **HOLD** button. Press again to release.
7. After use, press the **ON/OFF** button to turn off the meter.

7. CALIBRATION

Regular calibration ensures the accuracy of your PHM80 meter. It is recommended to calibrate weekly or bi-weekly, or if readings appear inconsistent.

7.1. Digital Calibration Process

The PHM80 features a simple one-touch digital calibration process using pH 4.0, 7.0, or 10.0 buffer solutions.

1. Prepare fresh pH buffer solutions (e.g., pH 7.0, pH 4.0, pH 10.0) in separate clean containers.
2. Turn on the meter and immerse the electrode into the pH 7.0 buffer solution. Stir gently.
3. Wait for the reading to stabilize.
4. Press and hold the **CAL** button (often integrated with the **TEMP** or **ENTER** button, refer to your specific unit's button labels if different from diagram) until the display shows "CAL" or starts flashing.
5. The meter will automatically recognize the buffer solution and calibrate itself. Once calibration is complete, the display will show "END" or stop flashing, then return to normal measurement mode.
6. Rinse the electrode with distilled water and repeat the process for pH 4.0 and/or pH 10.0 buffer solutions if a multi-point calibration is desired for wider range accuracy.

8. MAINTENANCE AND STORAGE

8.1. Cleaning the Electrode

After each use, rinse the electrode thoroughly with distilled or deionized water to remove any residue from the tested solution. Do not wipe the glass bulb of the electrode, as this can damage it.

8.2. Proper Storage

Proper storage is crucial for maintaining electrode longevity and accuracy.

- 1. Ensure the sponge inside the protective cap is kept moist with pH electrode storage solution. Add a few drops of storage solution if it appears dry.
- 2. Place the protective cap back onto the electrode securely after cleaning.
- 3. Store the meter upright in a cool, dry place. Avoid extreme temperatures.

9. SPECIFICATIONS

Detailed technical specifications for the HM Digital PHM80 meter:



Image: A table detailing the specifications of the PHM80 meter, including pH and temperature ranges, accuracy, resolution, operating environment, calibration method, probe type, power source, and other features.

Parameter	pH	Temperature
Range	0 - 14 pH	1 - 55 °C (32 - 130 °F)

Accuracy	±0.02 pH	±2 %
Resolution	0.1 pH	0.1 °C / 0.1 °F
Operating Environment	0 - 50 °C (32 - 122 °F)	
Calibration	Digital calibration by push button	
Probe	Glass sensor and reference tube electrodes	
Power Source	3 x 1.5V button cell (LR44 or equivalent)	
ATC	Automatic Temperature Compensation	
Other Features	Auto shut-off / Low battery indicator	



Image: The PHM80 meter with size specifications, showing a length of 6 inches and a width of 1 inch.

10. TROUBLESHOOTING

If you encounter issues with your PHM80 meter, consider the following:

- **Inaccurate Readings:** Recalibrate the meter using fresh buffer solutions. Ensure the electrode is clean and properly stored in solution.
- **No Display/Faint Display:** Check battery installation and replace batteries if necessary.
- **Slow Response:** Ensure the electrode is clean. If the electrode has dried out, soak it in storage solution for several hours.
- **Error Messages:** Refer to the specific error code (if any) in a more detailed HM Digital troubleshooting guide or contact customer support.

11. WARRANTY INFORMATION

The HM Digital PHM80 Digital pH/Temperature Meter comes with a **Limited Lifetime Warranty**. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the official HM Digital warranty policy or contact customer support.

12. SUPPORT AND CONTACT INFORMATION

For further assistance, technical support, or inquiries, please contact HM Digital:

- **Website:** hmdigitalindia.com
- **Sales:** +91 93777-16055 | sales@hmdigitalindia.com
- **Customer Service and Support:** +91 78498-21150 | support@hmdigitalindia.com

QR Describe
originality of the
product



Image: A QR code on the back of the meter, which can be scanned for product originality and additional information.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question