PmoYoKo EZ-9901

PmoYoKo Digital pH Meter Tester Pen User Manual

Model: EZ-9901 | Brand: PmoYoKo

1. Product Overview

The PmoYoKo Digital pH Meter Tester Pen (Model EZ-9901) is a versatile 3-in-1 device designed for precise measurement of pH, Total Dissolved Solids (TDS), and temperature. Featuring 0.01 resolution and automatic temperature compensation (ATC), it provides accurate and fast readings for various water quality testing needs, including household drinking water, pools, aquariums, and more.

Image: The PmoYoKo Digital pH Meter Tester Pen shown with the included pH buffer powders.

Image: Quick guide diagram illustrating the components of the pH meter, including the battery compartment, LCD backlight, ON/OFF switch, HOLD/TEMP button, MODE/CAL button, protective cap, external reference, and agile glass electrode.

2. What's in the Box

- 1 x PmoYoKo Digital pH Meter
- 3 x pH Buffer Powders (pH 4.00, pH 6.86, pH 9.18)

Image: Close-up of the three included pH buffer powder packets (pH 4.01, pH 6.86, pH 9.18).

3. Setup

3.1 Initial Preparation

For optimal accuracy and user experience, it is recommended to soak the TDS meter digital water tester in clear water for 5 minutes before its first use or before starting calibration after a long period of disuse. This helps to condition the electrode and prevent inaccurate readings.

3.2 Battery Installation

The device uses button batteries. To install or replace batteries, locate the battery compartment at the top of the meter. Twist or slide the cap to open, insert the batteries according to the polarity indicators, and securely close the compartment.

4. Operating Instructions

4.1 Power On/Off

Press the **ON/OFF** button to turn the meter on or off.

4.2 Switching Modes

The meter can measure pH, TDS, and temperature. Short press the**MODE/CAL** button to cycle between pH and TDS modes. Temperature is displayed concurrently.

4.3 Holding Readings

While taking a measurement, short press the**HOLD/TEMP** button to lock the current reading on the display. Press it again to release.

4.4 Understanding Readings

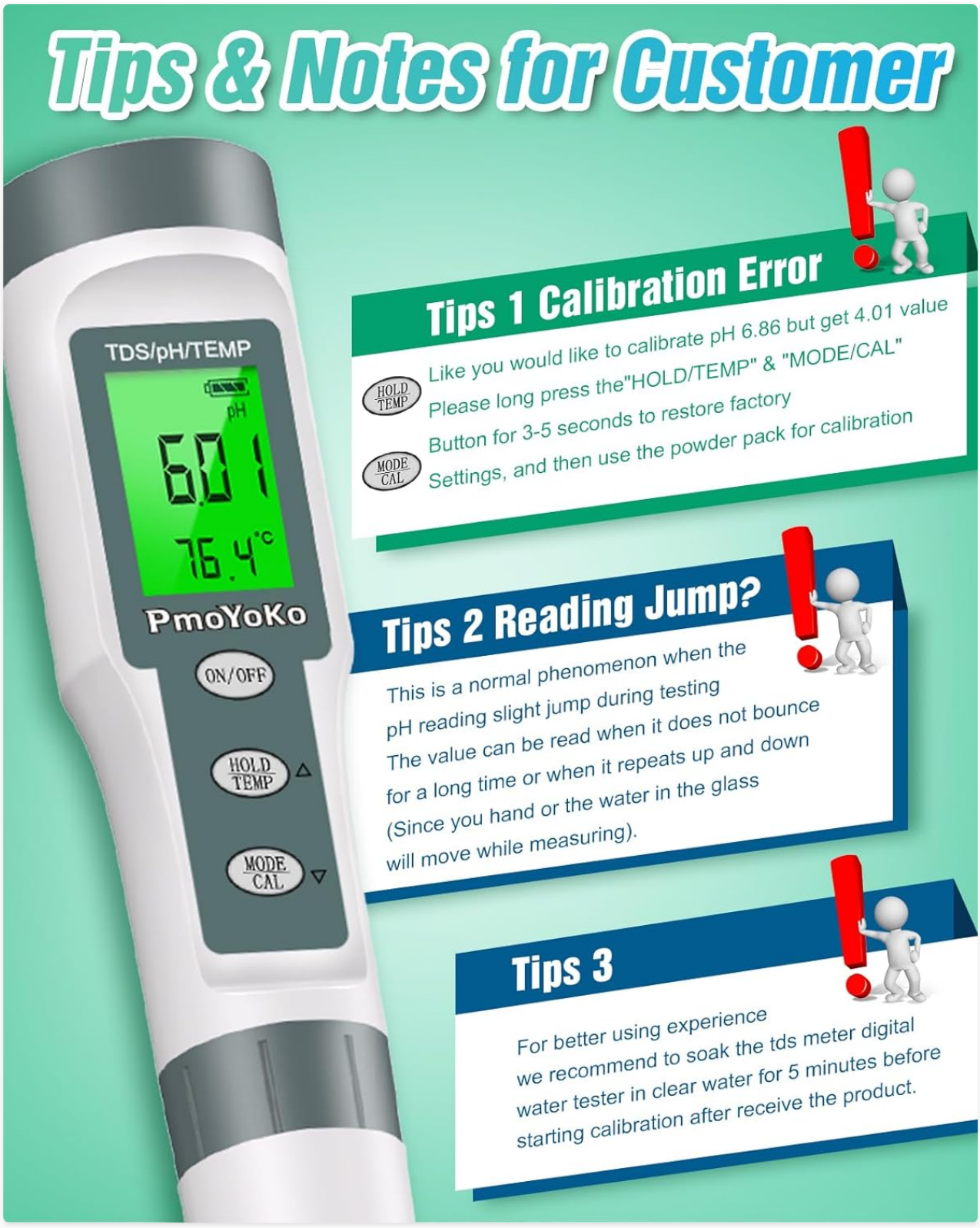

Image: A visual pH scale ranging from 0 (acidic) to 14 (alkaline) with examples of common substances at different pH levels, such as battery acid, vinegar, orange juice, water, sea water, baking soda, and drain cleaner.

Image: A chart explaining TDS (Total Dissolved Solids) in Parts Per Million (PPM) values, indicating ranges for ideal drinking water, average tap water, hard water, and disqualification water.

4.5 Calibration

The pH meter uses a 3-point calibration method for accuracy. It is recommended to use all three buffer powders (pH 4.00, pH 6.86, and pH 9.18) for the most accurate calibration, though you can calibrate with just one if necessary.

1. Prepare the buffer solutions: Add each pH buffer powder (pH 4.00, pH 6.86, pH 9.18) into separate containers with 250ml of distilled water and stir until fully dissolved.

Image: Step 1 - Adding pH buffer powder to water to prepare calibration solutions.

2. Turn on the meter and switch to pH mode. Immerse the electrode into the first standard solution (e.g., pH 6.86) and wait 5-10 seconds for the reading to stabilize.

Image: Step 2 - Pressing the MODE/CAL button to initiate calibration while the electrode is in the solution.

3. Press and hold the **MODE/CAL** button for 6 seconds. Release the button when the display flashes the target pH value (e.g., pH 6.86) three times and then stops flashing. This indicates successful calibration for that point.

Image: Step 3 - The meter display showing a calibrated reading of 4.01.

4. Rinse the electrode with distilled water and gently blot dry.

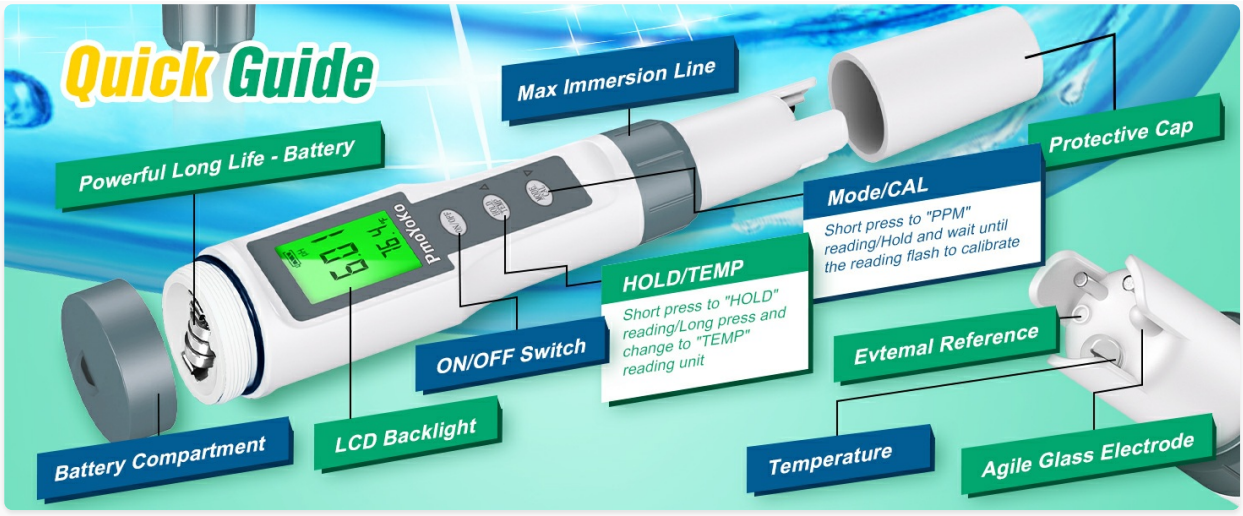

Image: Step 4 - Rinsing the electrode with clean water after calibration.

5. Repeat steps 2-4 for the remaining pH buffer solutions (pH 4.00 and pH 9.18).

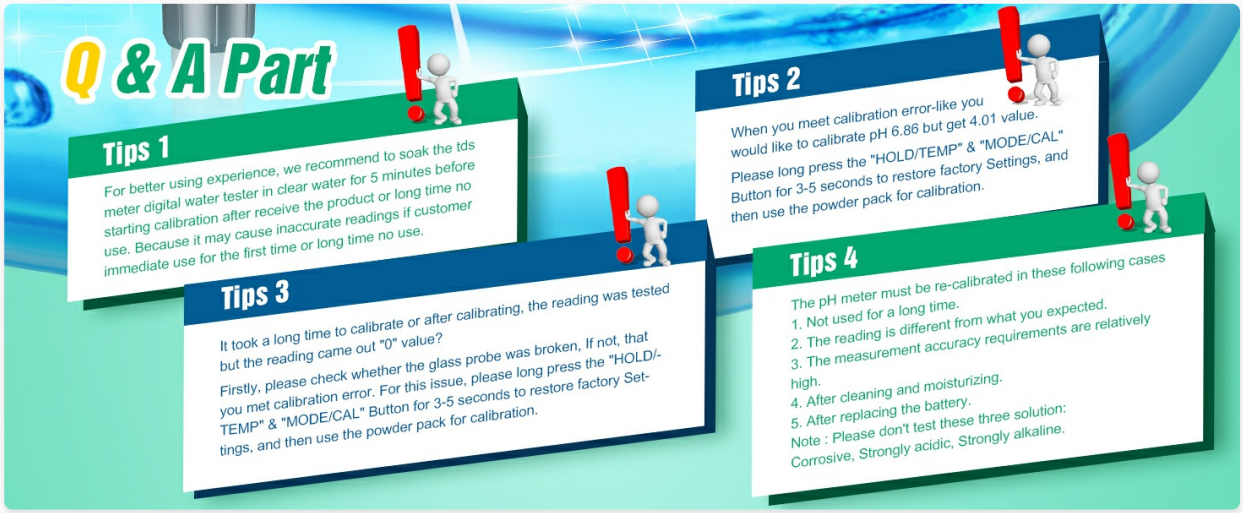

Image: Step 5 - Illustrating the process of calibrating with all three pH buffer solutions (4.01, 6.86, 9.18).

5. Maintenance

5.1 Electrode Care

Always rinse the electrode with distilled or clean water after each use to prevent contamination and ensure accurate future readings. Gently blot dry with a clean, soft cloth. Do not wipe vigorously, as this can damage the sensitive glass probe.

5.2 Storage

Store the pH meter with the protective cap securely in place to keep the electrode moist and protected. Avoid storing in extreme temperatures or direct sunlight.

5.3 When to Re-calibrate

The pH meter must be re-calibrated in the following cases:

- If the meter has not been used for a long time.
- If the reading is significantly different from what is expected.
- If measurement accuracy requirements are relatively high.

- After cleaning and moisturizing the electrode.
- After replacing the battery.

Note: Do not test highly corrosive, strongly acidic, or strongly alkaline solutions, as this may damage the electrode.

6. Troubleshooting

Image: A visual guide providing tips for common issues like calibration errors, reading jumps, and initial soaking recommendations.

6.1 Calibration Error (e.g., calibrating pH 6.86 but getting 4.01)

If you encounter a calibration error, such as attempting to calibrate to pH 6.86 but the meter displays 4.01, please long press the **HOLD/TEMP** and **MODE/CAL** buttons simultaneously for 3-5 seconds to restore factory settings. After resetting, proceed with calibration using the buffer powder packs as instructed in Section 4.5.

6.2 Reading Jump

A slight jump in pH readings during testing is a normal phenomenon. The value can be considered stable when it does not bounce significantly or when it repeats up and down within a small range. This can occur if the meter or the water sample is moved during measurement.

6.3 "0" Value Reading After Calibration or Long Use

If the meter displays a "0" value after a long period of use or immediately after calibration, first check if the glass probe is broken. If the probe is intact, this issue is likely a calibration error. To resolve, long press the **HOLD/TEMP** and **MODE/CAL** buttons simultaneously for 3-5 seconds to restore factory settings, then re-calibrate using the buffer powder packs.

7. Specifications

Feature	Detail
Product Dimensions	1.38 x 1.38 x 7.2 inches (3.5 x 3.5 x 18.3 cm)
Item Weight	5.93 ounces (0.17 Kilograms)

Item Model Number	EZ-9901
Measurement Range	0-14 pH
Accuracy	0.01 pH
Temperature Compensation	Automatic (32°F-140°F / 0°C-60°C)
Waterproof Grade	IP67 (Only prevents sudden fall into water; salvageable if retrieved quickly)
Display	Green Backlit LCD
Battery Type	Alkaline Button Battery

Image: Illustration demonstrating the IP67 waterproof rating, indicating protection against accidental submersion but not prolonged immersion.

Image: Visual representation highlighting the 0.01 resolution and high accuracy of the pH meter's electrode.