

YINMIK YK-4

YINMIK YK-4 Digital 4-in-1 pH, EC, TDS, and Temperature Meter Instruction Manual

Model: YK-4

1. INTRODUCTION

Thank you for choosing the YINMIK YK-4 Digital 4-in-1 Meter. This device is designed to accurately measure pH, Electrical Conductivity (EC), Total Dissolved Solids (TDS), and temperature in various water solutions. It is an essential tool for hydroponics, DWC systems, RO/DI water, drinking water, tap water, home brewing, pools, aquariums, and more. This manual provides detailed instructions for proper setup, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your meter.

2. PRODUCT OVERVIEW

Key Features:

- **Multiparameter Measurement:** Measures pH, EC ($\mu\text{S}/\text{cm}$ / mS/cm), TDS (ppm), and Temperature ($^{\circ}\text{F}/^{\circ}\text{C}$).
- **Easy Calibration:** Automatic 3-point pH calibration (7.00, 4.00, 10.01). EC and TDS are pre-calibrated.
- **Clear Readability:** Large HD-LCD display with green backlight for easy reading at various angles and in low light.
- **Data Hold Function:** Lock readings for convenient recording.
- **Stable and Reliable:** Enhanced chip for stable readings, reducing interference.
- **Automatic Temperature Compensation (ATC):** Ensures consistent readings regardless of liquid temperature (32 to 122 $^{\circ}\text{F}$).
- **Waterproof Design:** IP67 rated, allowing submersion for up to 5 minutes.
- **Replaceable Probe:** Extends product lifespan and reduces maintenance costs.

Components Diagram:

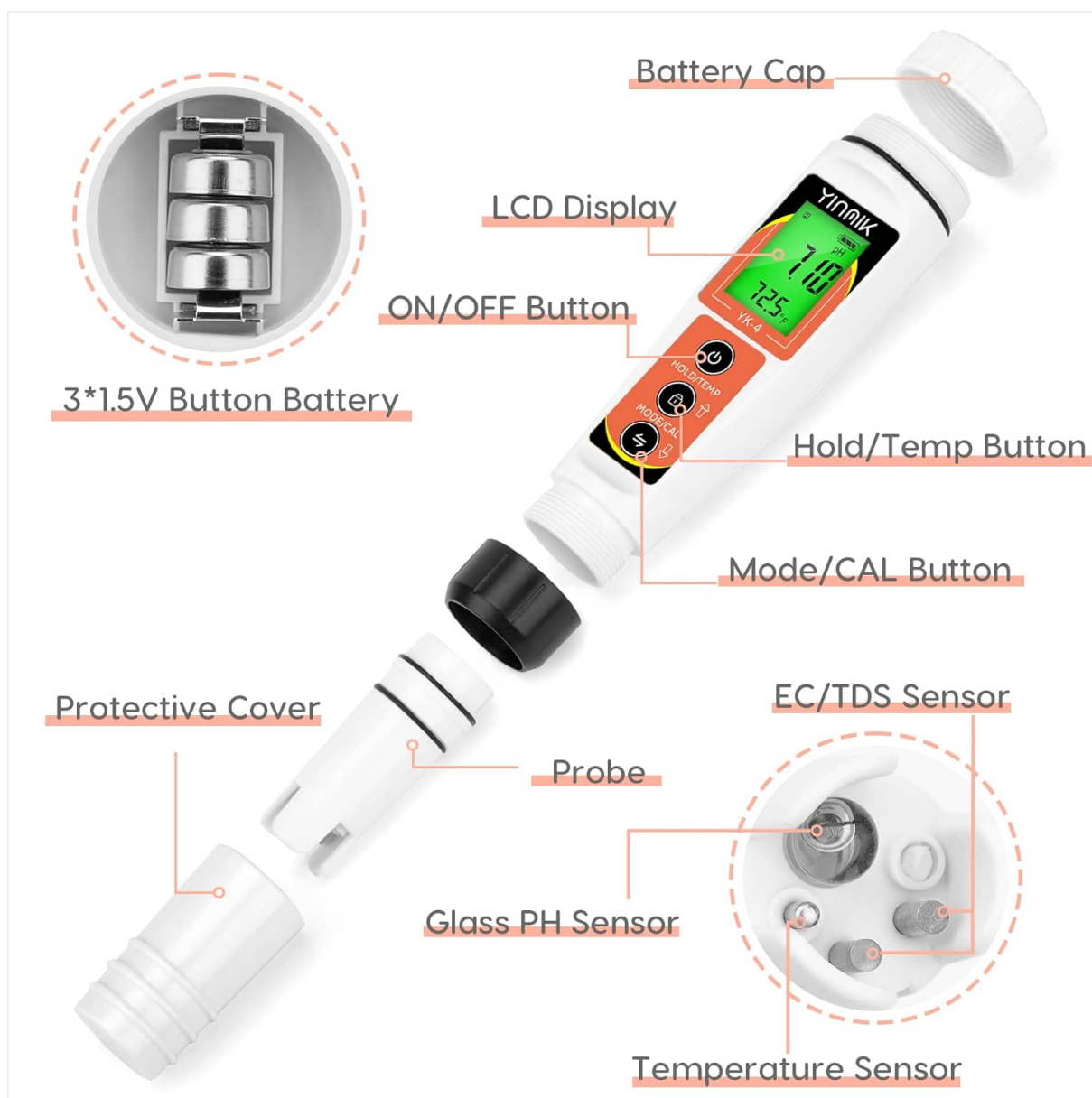


Figure 1: Exploded view of the YINMIK YK-4 meter, showing the Battery Cap, LCD Display, ON/OFF Button, HOLD/TEMP Button, Mode/CAL Button, Protective Cover, Probe, EC/TDS Sensor, Glass PH Sensor, and Temperature Sensor.

3. SETUP

Battery Installation:

The YINMIK YK-4 meter requires 3 LR44 button batteries, which are included. To install or replace batteries, unscrew the battery cap at the top of the meter and insert the batteries according to the polarity markings. Ensure the cap is securely fastened after installation.

Initial Preparation:

1. Remove the protective cover from the probe.
2. Rinse the probe with distilled water and gently dry it with a clean tissue.

4. OPERATING INSTRUCTIONS

General Operation:

1. **Power On/Off:** Press the **ON/OFF** button to turn the meter on or off.
2. **Mode Switching:** Short press the **MODE/CAL** button to cycle through pH, EC ($\mu\text{S}/\text{cm}$), and TDS (ppm) measurement modes.
3. **Temperature Unit Switching:** Long press the **HOLD/TEMP** button for 5 seconds to switch between Celsius ($^{\circ}\text{C}$) and Fahrenheit ($^{\circ}\text{F}$).
4. **Data Hold:** Short press the **HOLD/TEMP** button to lock the current reading on the display. Press again to unlock.

Measurement Steps:

1. Turn on the meter and select the desired measurement mode (pH, EC, or TDS).
2. Immerse the probe into the sample solution up to the immersion line.
3. Gently stir the meter and wait for the reading to stabilize.
4. Use the HOLD function if you need to record the reading.
5. After measurement, rinse the probe with distilled water and replace the protective cap.

How to Use the 4-in-1 pH Meter:

Video 1: Demonstrates the general usage of the YINMIK YK-4 meter, including turning it on, switching modes (pH, EC, TDS), and taking measurements in hydroponic systems.

Calibration Procedures:

Regular calibration ensures the accuracy of your meter. EC and TDS meters are pre-calibrated from the factory. pH calibration is recommended periodically or if readings appear inaccurate.

pH Calibration (3-point: 7.00, 4.00, 10.01):

1. Prepare three clean beakers with pH 7.00, pH 4.00, and pH 10.01 calibration solutions, respectively. Also, have a beaker of distilled water for rinsing.
2. Turn on the meter and ensure it is in pH mode.
3. Rinse the probe with distilled water and dry it.
4. Immerse the probe into the pH 7.00 solution. Gently shake and wait for the reading to stabilize.
5. Press and hold the **MODE/CAL** button for 5 seconds until 'CAL' appears and '7.00' flashes three times. Release the button.
6. Rinse the probe with distilled water and dry it.
7. Immerse the probe into the pH 4.00 solution. Gently shake and wait for the reading to stabilize.
8. Press and hold the **MODE/CAL** button for 5 seconds until 'CAL' appears and '4.00' flashes three times. Release the button.
9. Rinse the probe with distilled water and dry it.
10. Immerse the probe into the pH 10.01 solution. Gently shake and wait for the reading to stabilize.
11. Press and hold the **MODE/CAL** button for 5 seconds until 'CAL' appears and '10.01' flashes three times. Release the button.
12. The pH calibration is now complete. Turn off the meter and replace the protective cap.

Video 2: Step-by-step guide on how to perform a 3-point pH calibration for the YINMIK YK-4 meter using 7.00, 4.00, and 10.01 pH buffer solutions.

EC Calibration (1413 $\mu\text{S}/\text{cm}$ and 12.88 mS/cm):

1. Prepare two clean beakers with 1413 $\mu\text{S}/\text{cm}$ and 12.88 mS/cm EC calibration solutions. Also, have a beaker of distilled water for rinsing.
2. Turn on the meter and switch to EC ($\mu\text{S}/\text{cm}$) mode.

3. Rinse the probe with distilled water and dry it.
4. Immerse the probe into the 1413 $\mu\text{S}/\text{cm}$ solution. Gently shake and wait for the reading to stabilize.
5. Press and hold the **MODE/CAL** button for 5 seconds until 'CAL' appears. The display will show a value.
6. Use the **MODE/CAL** button (down arrow) to adjust the displayed value until it matches '1413'. Release the button and wait for the value to stop flashing.
7. Rinse the probe with distilled water and dry it.
8. Immerse the probe into the 12.88 mS/cm solution. Gently shake and wait for the reading to stabilize.
9. Press and hold the **MODE/CAL** button for 5 seconds until 'CAL' appears. The display will show a value.
10. Use the **MODE/CAL** button (down arrow) to adjust the displayed value until it matches '12.88'. Release the button and wait for the value to stop flashing.
11. The EC calibration is now complete. Turn off the meter and replace the protective cap.

Video 3: Detailed instructions for calibrating the EC function of the YINMIK YK-4 meter using 1413 $\mu\text{S}/\text{cm}$ and 12.88 mS/cm solutions.

5. MAINTENANCE

Cleaning the Probe:

Always rinse the probe with distilled water before and after each use. Gently wipe the probe with a clean, soft tissue. Do not scrub the glass bulb, as this can damage it.

Probe Storage:

The protective cap contains a sponge. Keep this sponge moist with pH electrode storage solution (or distilled water if storage solution is unavailable) to prevent the probe from drying out. A dry probe can lead to inaccurate readings and reduced lifespan.

Probe Replacement:

If the probe becomes damaged or its performance degrades significantly, it can be replaced. Replacement pH probes for the YK-4 model are available at the YINMIK Store. To replace the probe:

1. Turn left and unscrew the probe ring.
2. Unplug the old probe.
3. Plug in the new probe, paying attention to its correct position.
4. Turn right and screw on the probe ring tightly.
5. After replacing the probe, recalibrate both pH and EC functions for accurate readings.

Video 4: Instructions on how to replace the probe of the YINMIK YK-4 meter. Replacement probes are available from the YINMIK Store.

6. TROUBLESHOOTING

Common Issues and Solutions:

- **Inaccurate or Unstable Readings:**
 - Ensure the probe is clean and free from debris.
 - Recalibrate the meter according to the instructions in Section 4.
 - Check if the protective cap's sponge is moist. A dry probe can cause instability.
 - Verify that the batteries are not low. Replace if necessary.

- Ensure the probe is fully immersed in the solution during measurement.

- **Calibration Failure:**

- Ensure you are using fresh, correct calibration solutions. Expired or contaminated solutions can lead to calibration issues.
- Follow the calibration steps precisely, including waiting for readings to stabilize and pressing/releasing the CAL button correctly.
- If the probe is old or damaged, consider replacing it.

- **Mold or Slime on Probe/Sponge:**

- Clean the electrode tip with a cotton swab or soft brush.
- Remove the sponge from the protective cap if it repeatedly molds. The manufacturer states that the meter can function without the sponge, especially with upgraded electrodes.
- Ensure the storage solution is clean and replaced regularly.

- **Display Not Turning On/Off:**







- Check battery installation and ensure batteries are not depleted.
- If the issue persists, contact customer support.

7. SPECIFICATIONS

Feature	Detail
Model Number	YK-4
Measurements	pH, EC, TDS, Temperature
Batteries	3 LR44 batteries (included)
Automatic Temperature Compensation	32 to 122 °F
Waterproof Rating	IP67
Package Dimensions	8.39 x 3.07 x 1.89 inches
Item Weight	5.29 ounces
Manufacturer	JiNan Huiquan Electronic Co., Ltd

8. WARRANTY AND SUPPORT

For any questions, technical assistance, or to purchase replacement parts such as pH probes or calibration solutions, please visit the official [YINMIK Store](#). The YINMIK YK-4 meter is designed for durability and ease of maintenance, with readily available replacement components to ensure long-term use.

	<p>YINMIK BLE-C600 Bluetooth 7-in-1 Water Quality Tester: Instructions and Specifications</p> <p>Comprehensive guide for the YINMIK BLE-C600 Bluetooth 7-in-1 Water Quality Tester, covering setup, operation, calibration, features, and warranty information.</p>
	<p>Bluetooth 6 In 1 Floating Pool Monitor Instruction Manual</p> <p>Comprehensive instruction manual for the Bluetooth 6 In 1 Floating Pool Monitor (pH/EC/SALT/CL/ORP/TEMP Meter), covering parameters, operation, calibration, data management, and warranty information.</p>
	<p>Floating Pool Monitoring Device User Manual</p> <p>This document provides the user manual for the floating pool monitoring device. It details Bluetooth connectivity via the YINMIK app, device operation, parameter measurements (pH, CL, EC, Salt, ORP, Temperature), calibration procedures, settings, data management, and warranty information.</p>
	<p>YINMIK BLE-9908 Bluetooth Water Quality Tester pH Calibration Guide</p> <p>Instructions for calibrating the YINMIK BLE-9908 Bluetooth 4-in-1 Water Quality Tester, detailing its parameters, range, and operation for accurate water quality testing.</p>
	<p>Multiparamètre Portable YINMIK BLE-9909 Bluetooth 5*1 : Spécifications Techniques</p> <p>Le YINMIK BLE-9909 est un testeur multiparamètre portable avec connectivité Bluetooth, conçu pour mesurer avec précision le pH, la conductivité, le TDS, la salinité et la température. Idéal pour les secteurs pharmaceutique, agroalimentaire et environnemental, il garantit des résultats fiables. Ce document détaille ses spécifications techniques et son contenu d'emballage.</p>
	<p>YY-103 Series Intelligent pH Meter Instruction Manual</p> <p>Comprehensive instruction manual for the YY-103 Series Intelligent pH Meter, covering parameters, functions of different models, operation, app usage, and calibration procedures. Includes details on electrode types, specifications, and quality assurance.</p>