Yewhick US-YY-1070

Yewhick US-YY-1070 7-in-1 Digital Water Quality Tester Instruction Manual

Model: US-YY-1070

1. Introduction

The Yewhick US-YY-1070 is a versatile 7-in-1 digital water quality tester designed for accurate measurement of various parameters in water. This device can measure Free Available Chlorine (FAC), pH, Salinity (Salt), Total Dissolved Solids (TDS), Electrical Conductivity (EC), Oxidation-Reduction Potential (ORP), and Temperature. It is suitable for use in swimming pools, hot tubs, saltwater aquariums, brackish fish tanks, freshwater tanks, hydroponics, and drinking water.

Image 1.1: The Yewhick US-YY-1070 7-in-1 Digital Water Quality Tester, shown partially submerged in water.

Video 1.1: An overview of the Yewhick Free Chlorine Tester for Pool, demonstrating its application in various water environments like pools, hot tubs, and aquariums, and highlighting its ability to measure FAC, pH, and salinity.

2. Product Overview and Components

Familiarize yourself with the components of your Yewhick US-YY-1070 tester for optimal use.

Backlit LCD Dispaly Easy To Read	**Waterproof** IP67 Water Proof	**Probe** Highly Sensitive Probe
Electrode Detachable Replacement	**Battery** 4*1.5V Button batteries	**ATC** 0°C-50°C;32°F-122.0F
pH 0.00-14.00 PH	**Salt** 0,01%-25,00%; 0-10000ppm;10,1-200,0ppt	**FAC** 0.1- 4.00ppm

Image 2.1: Exploded view diagram of the Yewhick US-YY-1070 tester, showing the LCD display, MODE/CAL button, ON/OFF button, HOLD/TEMP button, electrode fixing nut, protective cover, 4*1.5V button battery compartment, and highly sensitive probe.

Image 2.2: A detailed view of the Yewhick US-YY-1070's LCD backlit display and the multi-sensor electrode, highlighting its 7-in-1 upgraded probe for various measurements.

3. Setup and Calibration

3.1 Battery Installation

The device uses 4*1.5V button batteries. To install or replace batteries, unscrew the battery compartment cap as shown in Image 2.1, insert the batteries with correct polarity, and securely reattach the cap.

3.2 Calibration Procedure

Regular calibration ensures accurate readings. The device supports calibration for ORP and pH.

3.2.1 ORP Calibration

1. Take off the protective cap and turn on the tester.
2. Press the "MODE/CAL" button to switch to ORP mode (mV).
3. Clean the probe with distilled water and wipe it dry.
4. Immerse the probe into the ORP 222mV calibration solution. Wait for the reading to stabilize.
5. Press and hold the "CAL" button for 8 seconds until the display blinks 3 times, indicating successful calibration.

Video 3.1: This video demonstrates the ORP calibration process for the Yewhick YY-1070 tester, including preparing the device, switching to ORP mode, using the 222mV buffer solution, and confirming calibration.

3.2.2 pH Calibration

1. Take off the protective cap and turn on the tester.
2. Press the "MODE/CAL" button to switch to pH mode.
3. Clean the probe with distilled water and wipe it dry.
4. Immerse the probe into the pH 7.00 calibration solution. Wait for the reading to stabilize.
5. Press and hold the "CAL" button for 8 seconds until the display blinks 3 times, indicating successful calibration.
6. Repeat steps 3-5 for pH 4.00 calibration solution.

Video 3.2: This video illustrates the pH calibration procedure for the Yewhick YY-1070 tester, detailing the use of pH 7.00 and pH 4.00 buffer solutions and the steps to achieve accurate pH readings.

4. Operating Instructions

4.1 General Testing Procedure

1. Ensure the tester is clean and calibrated according to the instructions in Section 3.
2. Turn on the tester using the ON/OFF button.
3. Press the "MODE/CAL" button to cycle through the different measurement modes (FAC, pH, Salt, TDS, EC, ORP, Temp) until the desired parameter is displayed.
4. Immerse the probe into the water sample up to the immersion line.
5. Gently stir the tester and wait for a few seconds for the reading to stabilize on the display.
6. Record the reading.
7. After testing, rinse the probe with clean water and wipe it dry before storing.

4.2 Specific Parameter Testing

The Yewhick US-YY-1070 provides digital readings for various water quality parameters, offering a more precise alternative to traditional test strips.

Image 4.1: Comparison illustrating the Yewhick US-YY-1070 digital tester's multi-parameter digital display versus traditional test strips, highlighting the ease of reading and comprehensive data provided by the digital device.

4.2.1 Salinity (Salt) Testing

To test the salt level, switch the tester to Salinity mode. The device can display salinity in %, PPT, or PPM. When the PPM value reaches 10000, it will automatically convert to PPT value. Note: 1 ppt = 10000 ppm = 0.1%.

Image 4.2: Display modes for salinity on the Yewhick US-YY-1070, showing readings in percentage (%), parts per thousand (PPT), and parts per million (PPM), along with examples for fresh water, normal saline, aquarium water, and sea water.

4.2.2 Multi-environment Application

The tester is suitable for various water types, including pools, hot tubs, aquariums, hydroponics, and drinking water.

Image 4.3: The Yewhick US-YY-1070 being used in different applications such as swimming pools, aquariums, hydroponics, and for testing drinking water, demonstrating its multifunctional capabilities.

5. Understanding Readings and Ideal Levels

Understanding the ideal ranges for each parameter is crucial for maintaining healthy water conditions.

5.1 Pool and Hot Tub Parameters

For saltwater pools and hot tubs, specific ranges are recommended for optimal water quality.

- **Ideal Salt Level:** For saltwater pools, 2700-3400 ppm. For saltwater hot tubs, 1900-3000 ppm.
- **Ideal pH Level:** Between 7.2 and 7.8.
- **Ideal Free Available Chlorine (FAC) Level:** Between 1-3 ppm (mg/l).

Image 5.1: Visual representation of ideal salt, pH, and FAC levels for spas, hot tubs, and swimming pools, with the Yewhick US-YY-1070 displaying readings in each scenario.

Image 5.2: A chart illustrating recommended pH levels for pools, indicating that pH between 7.2 and 7.8 is optimal, while levels below 7.2 can corrode the pool and levels above 7.8 may lead to poor cleaning effectiveness.

5.2 Aquarium Parameters

- **Ideal Saltwater Aquarium Salinity:** 30-35 ppt, pH: 8.2-8.6.
- **Ideal Brackish Aquarium Salinity:** 5-30 ppt, pH: 7.5-8.4.
- **Ideal Freshwater Aquarium Salinity:** 0-5000 ppm, pH: 7.0-7.2.

5.3 Hydroponics and Drinking Water

- **Optimal EC Range for Hydroponics:** 800-2400 uS/cm. Regular monitoring helps maintain correct pH and EC for plant growth.
- **TDS for Drinking Water:** The tester can monitor TDS levels to check the purity of drinking water and the operation of reverse osmosis (RO)/DI systems.

6. Maintenance and Storage

- **Cleaning:** After each use, rinse the probe thoroughly with clean water to remove any residue.
- **Drying:** Gently wipe the probe dry with a soft cloth or tissue.
- **Storage:** Always replace the protective cap on the probe before storing the tester in a dry place. Proper storage helps maintain the electrode's longevity and accuracy.
- **Electrode Replacement:** Electrodes are replaceable. For non-human damage, they typically have a 3-month interval for replacement.

7. Troubleshooting

If you encounter issues with your Yewhick US-YY-1070 tester, consider the following:

- **Inaccurate Readings:** Ensure the tester has been recently calibrated. Recalibrate if readings appear inconsistent or significantly different from other testing methods.
- **"0.0" or No FAC Reading:** Verify that the pH level is within the recommended range (6.5-8) and ORP is between 487-840 for the FAC value to display properly. If these conditions are met and FAC still reads zero, recalibrate the device.
- **Dark or Difficult-to-Read Display:** Check battery levels. Ensure adequate lighting when reading the display.
- **Slow Stabilization:** Ensure the probe is clean and free from debris. Allow sufficient time for the reading to stabilize in the solution.
- **General Malfunction:** Try replacing the batteries. If the issue persists, refer to the warranty and support section for further assistance.

8. Specifications

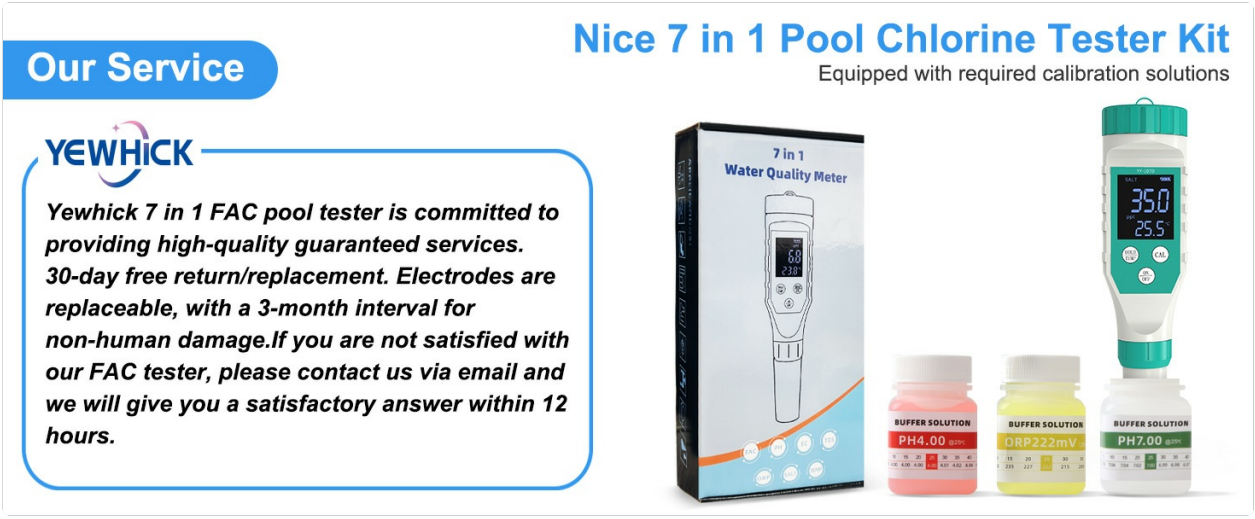

Image 8.1: A graphic detailing the product features and specifications of the Yewhick US-YY-1070, including its model number, functions, and measurement ranges for ORP, FAC, pH, TDS, Salt, EC, and Resolution.

Parameter	Value/Range
Model Number	US-YY-1070
Functions	pH, FAC, Salt, TDS, EC, ORP, Temp
Product Dimensions	4.7 x 1.1 x 1.1 inches
Item Weight	14.29 ounces
pH Range	0.00-14.00 pH
FAC Range	0.1-4.0 ppm
Salt Range	0.01%-25.00%; 0-10000 ppm; 10.1-200.0 ppt
TDS Range	0-10000 ppm; 10.1-200.0 ppt
EC Range	0-10000 uS/cm; 10.01-19.99 mS/cm; 20.1-400.0 mS/cm
ORP Range	±999 mV
Temperature Range	0°C-50°C (32°F-122°F)
Calibration Points	pH: 4.00/7.00/10.00; EC: 1413uS/cm, 12.88mS/cm; ORP: 222mV
Power Source	4*1.5V Button batteries

9. Warranty and Support

Yewhick is committed to providing high-quality products and customer satisfaction. Your 7-in-1 FAC pool tester comes with the following support:

- **Return/Replacement:** Enjoy a 30-day free return or replacement policy.
- **Electrode Warranty:** Electrodes are replaceable, with a 3-month interval for non-human damage.
- **Customer Support:** If you are not satisfied with your FAC tester or have any questions, please contact us via email. We aim to provide a satisfactory answer within 12 hours.