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- › [VIHELM](#) /
- › [VIHELM C-600 7-in-1 Water Quality Tester User Manual](#)

VIHELM C-600

VIHELM C-600 7-in-1 Water Quality Tester User Manual

Model: C-600

INTRODUCTION

This manual provides detailed instructions for the operation, maintenance, and troubleshooting of the VIHELM C-600 7-in-1 Water Quality Tester. This device is designed to accurately measure pH, TDS, EC, ORP, Salinity, Specific Gravity (S.G), and Temperature.



Image: The VIHELM C-600 7-in-1 Water Quality Tester, showing its compact design and digital display.

PRODUCT OVERVIEW AND COMPONENTS

The VIHELM C-600 is a versatile water quality testing instrument. Familiarize yourself with its main components:

- **Digital Display:** Shows measurement readings and indicators.
- **Control Buttons:** For power, hold/temperature, and mode/calibration functions.
- **Electrode Probe:** The sensing element for water quality parameters.
- **Protective Cap:** Covers the electrode when not in use.
- **Battery Compartment:** Located at the top, for battery installation.



Image: A close-up view of the highly sensitive electrode probe of the C-600 meter, designed for accurate measurements.



Image: Diagram illustrating the dimensions of the C-600 meter (183mm height, 37mm width) and highlighting key features such as data retention (HOLD), IP67 waterproof rating, automatic temperature compensation, and temperature unit conversion (°C/°F).

SETUP

Battery Installation

The C-600 meter uses 3 x 1.5V (LR44) button cell batteries. To install or replace batteries:

1. Unscrew the top cap of the meter.
2. Remove the old batteries if present.
3. Insert new LR44 batteries, ensuring correct polarity.
4. Securely screw the top cap back on.

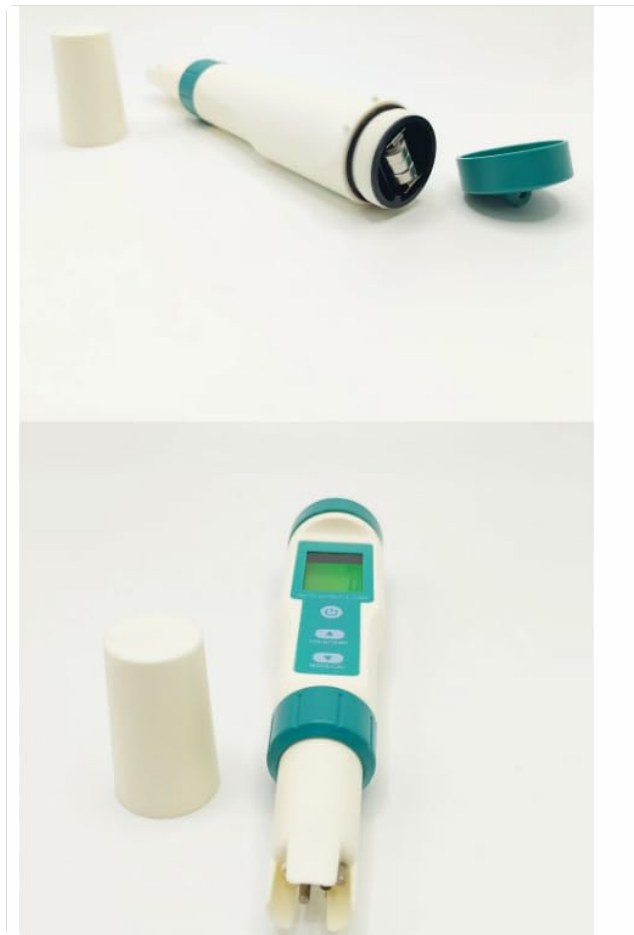


Image: The VIHELM C-600 meter with its protective cap and top cap removed, illustrating access to the battery compartment and the electrode area.

Initial Preparation

Before first use, or after prolonged storage:

- Remove the protective cap from the electrode.
- Rinse the electrode with distilled water.
- Gently blot dry with a clean tissue. Do not rub.

OPERATING INSTRUCTIONS

Power On/Off

Press the **POWER** button to turn the meter on or off.

Mode Selection

Press the **MODE/CAL** button to cycle through the different measurement modes: pH, TDS, EC, ORP, Salinity, S.G, and Temperature.

Taking a Measurement

1. Ensure the meter is clean and calibrated.
2. Immerse the electrode into the sample solution, ensuring the sensor is fully submerged.
3. Gently stir the meter to remove air bubbles and allow the reading to stabilize.
4. Read the stable value on the digital display.

EC: 0 - 10000us/cm , 10.01 - 19.9ms/cm , 20.1- 400ms/cm

Low quality wateret

High quality wateret

TDS:0-1000ppm,10.1-200.0ppt

| | |
|--------------------------------|--------------------------------------|
| 0 ~ 9 Pure water | 10 ~ 60 Mountain spring water |
| 60 ~ 100 Purified water | 100 ~ 300 Tap water |
| | > 300 Polluted water |

5.8
30.3

Image: The C-600 meter being used to measure water quality, with a pH scale reference chart and ORP value reference table displayed. The meter is shown submerged in a glass of water and in a hydroponic system.



Image: The C-600 meter in use, demonstrating its ability to measure EC (Electrical Conductivity) and TDS (Total Dissolved Solids). The image includes charts for interpreting EC and TDS values, categorizing water quality from pure to polluted.

Hold Function

Press the **HOLD/TEMP** button to freeze the current reading on the display. Press again to release.

Temperature Unit Conversion

While in measurement mode, press and hold the **HOLD/TEMP** button to switch between Celsius (°C) and Fahrenheit (°F).

Calibration

Regular calibration ensures accuracy. Refer to the specific calibration procedures for each parameter (pH, EC, TDS, Salinity) in the specifications section or the included quick guide.

To enter calibration mode, press and hold the **MODE/CAL** button.

MAINTENANCE

Electrode Cleaning

After each use, rinse the electrode thoroughly with distilled water to prevent contamination and buildup. If the electrode is heavily soiled, use a soft brush and a mild cleaning solution specifically designed for pH electrodes, then rinse thoroughly.

Important: Always clean the electrode after use to maintain accuracy and prolong its lifespan.

Storage

Always replace the protective cap on the electrode when not in use. For long-term storage, ensure the electrode is kept moist, ideally in a storage solution or pH 4 buffer solution. Do not store dry.

Battery Replacement

Replace batteries when the low battery indicator appears on the display or when the meter fails to power on. Refer to the "Battery Installation" section under Setup.

TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|------------------------------|---|---|
| Meter does not power on | Dead or incorrectly installed batteries. | Check battery polarity; replace batteries. |
| Inaccurate readings | Electrode is dirty or dry; meter needs calibration; expired calibration solution. | Clean electrode; recalibrate meter; use fresh calibration solutions. |
| Slow response time | Electrode is dirty or aged. | Clean electrode thoroughly; consider electrode replacement if issue persists. |
| Display shows "Err" or "---" | Measurement out of range; sensor malfunction. | Ensure sample is within measurement range; contact support if persistent. |

SPECIFICATIONS

New 7 in 1 PH/TDS/EC/ORP/Salinity /S. G/Temperature Meter C-600 Water Quality Tester for Drinking Water, Aquariums PH Meter with battery

Product Specification:

Waterproof Level: IP67
 Temperature: ATC 0-60°
 Operation Environment: 0-60.0°C (32.0-140°F) ; RH 100%
 TDS Factor : 0.5
 Temperature Range : 0.1-60.0C 32.0-140°
 Temperature Accuracy : ±0.5
 Temperature Resolution: 0.1°C/°F
 Automatic Shut-off : 5 minutes
 Display : LCD digital display
 Backlight: Backlight Optional
 Attention : Clean the electrode after using
 Battery : 3*1.5V (LR44) **(included)**
 Screen Size : 33*24mm
 Dimension Weight : 183*37*37mm(7.2*1.5*1.5in)/90g(3.2oz)

Function parameter:

1. EC:
 Range: 0-10000µs/cm , 10.01- 19.99mS/cm , 20.1400.0mS/cm (Convert range automatically) Resolution: 1µS/cm; 0.1mS/CM;
 Accuracy: ±2% F.S.
2. TDS:
 Range: 0-10000ppm, 10.1- 200.0ppt (Convert range automatically)
 Resolution: 1ppm; 0.1ppt
 Accuracy: ±2% F.S.
3. Temperature:
 Range: 0.1-60C 32.0-140F
4. Salinity:
 Range: 0-10000ppm , 10.1-200.0ppt , 0.01%-25.00%
 Resolution: 1ppm; 0.1ppt; 0.01%
 Accuracy: ±2%F.S. 0.01-5.00% (±0.1%); 5.1-25.0% (±1%)
5. pH:
 Range: 0.01-14.00pH
 Resolution: 0.01pH
 Accuracy: ±0.05
6. ORP:
 Range: ±999mv
 Resolution: 1mv
 Accuracy: ±2mv
7. S.G: 1.000 -1.222


Image: Detailed product specification sheet for the VIHELM C-600, outlining parameters such as waterproof level, operation environment, temperature range, accuracy, automatic shut-off, display type, backlight, battery type, screen size, and dimensions.

| Parameter | Range | Resolution | Accuracy |
|-------------|---|---------------------|---|
| EC | 0-10000µS/cm, 10.01-19.99mS/cm, 20.1-400mS/cm | 1µS/cm, 0.1mS/cm | ±2% F.S. |
| TDS | 0-10000ppm, 10.1-200.0ppt | 1ppm, 0.1ppt | ±2% F.S. |
| Salinity | 0-10000ppm, 10.1-200.0ppt, 0.01-25.00% | 1ppm, 0.1ppt, 0.01% | ±2% F.S., 0.01-5.00% (±0.1%), 5.1-25.0% (±1%) |
| pH | 0.01-14.00pH | 0.01pH | ±0.05 |
| ORP | 0-±999mV | 1mV | ±2mV |
| S.G | 1.000-1.222 | N/A | N/A |
| Temperature | 0.1-60.0°C (32.0-140°F) | 0.1°C/°F | ±0.5°C/°F |


- **Waterproof Level:** IP67
- **Operation Environment:** 0-60°C (32-140°F); RH 100%
- **Automatic Shut-off:** 5 minutes
- **Display:** LCD digital display
- **Backlight:** Optional
- **Battery:** 3*1.5V (LR44) (included)
- **Screen Size:** 33*24mm
- **Dimension Weight:** 183*37*37mm (7.2*1.5*1.5in) / 90g (3.2oz)



Image: An infographic detailing the application areas of the C-600 meter, such as aquaculture, drinking water, swimming pools, hydroponics, aquariums, and laboratories. It also visually summarizes the seven measurement parameters: EC, Salinity, TDS, pH, ORP, S.G, and Temperature.



Application Areas
 Aquaculture, drinking water
 swimming pool, hydroponics
 aquarium, laboratory, etc



7 IN 1
 Water quality tester

| | |
|---|--|
| <p>EC</p> <p>0 - 10000us/cm 10.01 - 19.99ms/cm 20.1 - 400ms/cm</p> | <p>Salinity</p> <p>0 - 10000ppm 10.1 - 200.0ppt 0.00 - 25.00%</p> |
| <p>TDS</p> <p>0-10000ppm 10.1-200.0ppt</p> | <p>°C/°F</p> <p>0.1-60.0°C 32.0-140°F</p> |
| <p>PH</p> <p>0.01-14.00pH</p> | <p>ORP</p> <p>0 - ±999mv</p> |
| <p>S.G.</p> <p>1.000-1.222</p> | |



Image: The VIHELM C-600 meter displayed alongside its product packaging, showing the device and its retail box.



Image: A visual representation of the C-600's IP67 waterproof rating, indicating protection against dust penetration and short soaking, with water splashing around the meter.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the manufacturer's official website or contact the seller directly. Keep your purchase receipt for warranty claims.

Manufacturer: VIHELM

Model Number: C-600

ASIN: B0DPKDMVCQ

Date First Available: November 30, 2024

