

VOLT CRAFT LWT-100

VOLT CRAFT LWT-100 (TDS) Conductivity Meter User Manual

Model: LWT-100

1. PRODUCT OVERVIEW

The VOLT CRAFT LWT-100 is a high-quality conductivity meter designed for rapid determination of conductivity, salinity, and Total Dissolved Solids (TDS) values in various liquids. Featuring a superior graphite measuring cell and IP67 water resistance, this device ensures accurate and reliable measurements in demanding environments.



Figure 1: Front view of the LWT-100 Conductivity Meter. The device features a clear digital display showing conductivity and temperature readings, along with intuitive control buttons for navigation.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device. Failure to do so may result in injury or damage to the meter.

- Do not immerse the entire device in water beyond its IP67 rating. The measuring cell is designed for liquid contact, but the main body should be protected from excessive moisture.

- Avoid dropping the device or subjecting it to severe impacts.
- Do not attempt to open or repair the device. Refer all servicing to qualified personnel.
- Keep out of reach of children.
- Clean the measuring cell carefully as described in the Maintenance section.

3. PRODUCT COMPONENTS

The VOLTcraft LWT-100 package typically includes:

- 1 x VOLTcraft LWT-100 Conductivity Meter
- User Manual (this document)



Figure 2: Back view of the LWT-100 Conductivity Meter. The rear label provides essential product information, including the model name, measurement range, and serial number.

4. SETUP

The VOLTcraft LWT-100 is designed for immediate use. It operates on an internal power source and does not require user-replaceable batteries. Follow these steps for initial setup:

1. **Unpacking:** Carefully remove the meter from its packaging.
2. **Initial Inspection:** Check the device for any visible damage. If damaged, do not use and contact

customer support.

3. **Power On:** Press the power button (usually indicated by a power symbol or a specific button on the front panel) to turn on the device. The display should illuminate.
4. **Self-Test:** The device may perform a brief self-test upon startup. Wait for the display to show stable readings or a ready indicator.

5. OPERATING INSTRUCTIONS

The LWT-100 allows for quick and accurate measurement of conductivity, salinity, and TDS. Ensure the measuring cell is clean before each use.

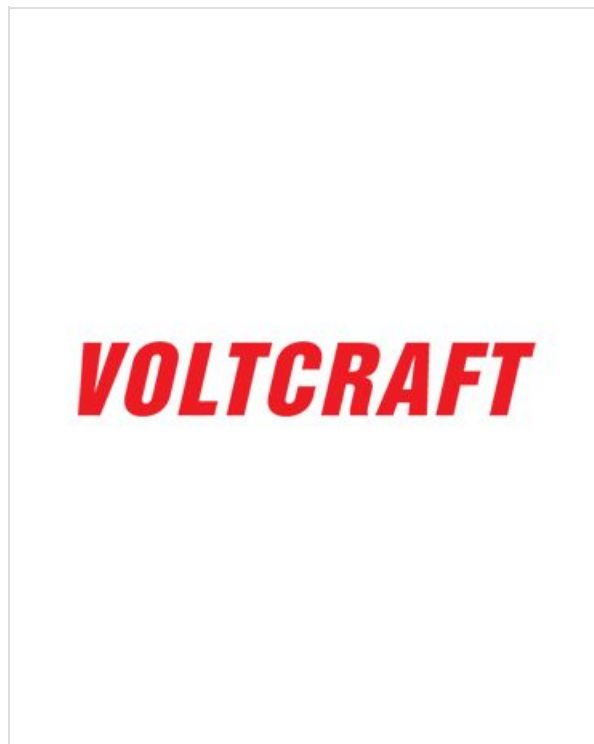


Figure 3: Close-up of the LWT-100 display. The screen clearly shows the measured conductivity in microSiemens (μS) and the corresponding temperature in degrees Celsius ($^{\circ}\text{C}$).

5.1 Taking a Measurement

1. **Prepare Sample:** Ensure the liquid sample is at a stable temperature and free of large particles that could obstruct the sensor.
2. **Immerse Sensor:** Carefully immerse the graphite measuring cell (located at the bottom of the device) into the liquid sample. Ensure the sensor is fully submerged and no air bubbles are trapped around it.
3. **Read Display:** Wait for the reading on the display to stabilize. The device will show the conductivity value (e.g., in $\mu\text{S}/\text{cm}$ or mS/cm) and the temperature.
4. **Record Data:** Note down the measured values as needed.
5. **Clean Sensor:** After each measurement, rinse the measuring cell with distilled or deionized water to prevent contamination and residue buildup.

5.2 Changing Measurement Modes (if applicable)

The LWT-100 can measure conductivity, salinity, and TDS. Use the designated mode button (refer to the button labels on your device, typically indicated by an arrow or 'MODE' symbol) to cycle through the available measurement modes. The active mode will be indicated on the display.

6. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your VOLTcraft LWT-100.

- **Cleaning the Measuring Cell:** After each use, rinse the graphite measuring cell thoroughly with distilled or deionized water. For stubborn residues, gently wipe the electrodes with a soft, lint-free cloth. Do not use abrasive materials or harsh chemicals.
- **Cleaning the Device Body:** Wipe the exterior of the device with a soft, damp cloth. Do not use solvents or strong detergents.
- **Storage:** Store the meter in a cool, dry place, away from direct sunlight and extreme temperatures. Ensure the measuring cell is clean and dry before storage.
- **Calibration:** While the LWT-100 is designed for high accuracy, periodic calibration with known conductivity standards may be required for critical applications. Refer to specific calibration instructions if provided with your device or consult VOLTcraft support.

7. TROUBLESHOOTING

If you encounter issues with your LWT-100, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not turn on.	Internal power source depleted or fault.	Ensure the power button is pressed firmly. If the issue persists, contact customer support.
Inaccurate or fluctuating readings.	Dirty measuring cell; air bubbles around sensor; sample contamination; sensor damage.	Clean the measuring cell thoroughly. Gently tap the device to dislodge air bubbles. Use a fresh, clean sample. If problem persists, sensor may be damaged; contact support.
Display shows error message.	Out of range measurement; internal fault.	Ensure the sample's conductivity is within the device's specified range. Turn the device off and on again. If the error persists, contact customer support.

8. SPECIFICATIONS

Feature	Specification
Model Number	1720718 (VC-8603590)
Manufacturer	VOLTcraft
Dimensions (L x W x H)	2.8 x 5.4 x 10.8 cm

Feature	Specification
Weight	200 Grams
Ingress Protection (IP) Rating	IP67 (Waterproof)
Measuring Cell Type	High-quality Graphite
Power Source	Internal (Manually Powered)
Country of Origin	Germany


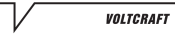
9. SUPPORT INFORMATION



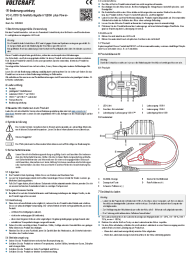

For technical support, warranty claims, or spare parts availability, please contact VOLT CRAFT customer service. Refer to the official VOLT CRAFT website or your purchase documentation for contact details.

Spare parts availability: 1 Year.

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Related Documents - LWT-100

<div><p>③ Bedienungsanleitung VC-BT300PRO VOLT CRAFT OBDII + Batterietester Best.-Nr. 3348024 Seite 2 - 38</p><p>④ Operating Instructions VC-BT300PRO VOLT CRAFT OBDII + Battery Tester Item No. 3348024 Page 39 - 72</p><p>⑤ Mode d'emploi VC-BT300PRO VOLT CRAFT OBDII + Testeur de batterie N° de commande 3348024 Page 73 - 108</p><p>⑥ Gebruiksaanwijzing VC-BT300PRO VOLT CRAFT OBDII + Batterijtester Bestelnr. 3348024 Pagina 109 - 144</p><p>CE</p></div>	<p>VOLT CRAFT VC-BT300PRO OBDII + Batterietester Bedienungsanleitung</p> <p>Umfassende Bedienungsanleitung für den VOLT CRAFT VC-BT300PRO, ein Diagnosewerkzeug für OBD-II und Batterietests. Enthält Funktionen, Sicherheitshinweise und technische Daten.</p>
<div><p>③ Bedienungsanleitung VC-513 80A AC/DC-Stromzange Item-No. 330844</p><p>④ Operating Instructions VC-513 80A AC/DC Clamp Meter Item-No. 330844</p><p>⑤ Mode d'emploi Pince ampèremétrique VC-513 80 A C/CC N° de commande 330844</p><p>⑥ Gebruiksaanwijzing VC-513 80A AC/DC Stroomtang Bestelnr. 330844</p><p>CE</p></div>	<p>VOLT CRAFT VC-513 80A AC/DC Stromzange Bedienungsanleitung</p> <p>Umfassende Bedienungsanleitung für die VOLT CRAFT VC-513 80A AC/DC Stromzange. Erfahren Sie mehr über sichere Bedienung, Messverfahren für Strom, Spannung, Widerstand und mehr, sowie technische Spezifikationen.</p>

 <p>VOLTcraft. Digital Multimeters User Manual</p> <p>■ VC-7060BT ■ VC-7200BT</p>	<p>VOLTcraft Digital Multimeters VC-7060BT & VC-7200BT User Manual</p> <p>Comprehensive user manual for VOLTcraft VC-7060BT and VC-7200BT digital multimeters, covering safety, operation, functions, measurement tutorials, troubleshooting, and technical specifications.</p>
 <p>VOLTcraft. MF-100 Moisture Meter User Manual and Technical Specifications</p>	<p>VOLTcraft MF-100 Moisture Meter User Manual and Technical Specifications</p> <p>Detailed operating instructions, safety guidelines, technical specifications, and disposal information for the VOLTcraft MF-100 moisture meter. Learn how to accurately measure moisture levels in various building materials.</p>
 <p>VOLTcraft. VC-CJS10 1200A Jump Starter and Power Bank User Manual</p>	<p>VOLTcraft VC-CJS10 1200A Jump Starter and Power Bank User Manual</p> <p>User manual for the VOLTcraft VC-CJS10 1200A jump starter and power bank. Learn about its features, intended use, safety instructions, operation, and technical specifications for jump-starting vehicles and charging devices.</p>
 <p>VOLTcraft. Digital Multimeters Quick Guide</p> <p>■ VC-7060BT ■ VC-7200BT</p>	<p>VOLTcraft VC-7060BT & VC-7200BT Digital Multimeter Quick Guide</p> <p>Comprehensive quick guide for VOLTcraft VC-7060BT and VC-7200BT digital multimeters. Learn about safety, operation, measurements, and troubleshooting.</p>