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> [CAMWAY Battery Monitor with Shunt \(Model B092HLVT35\) User Manual](#)

## CAMWAY B092HLVT35

# CAMWAY Battery Monitor with Shunt User Manual

Model: B092HLVT35

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your CAMWAY Battery Monitor with Shunt. This device is designed to accurately measure and display the voltage, current, power, real capacity, and remaining time of various battery types, including Lithium, Lithium Iron Phosphate, Lead Acid, and Nickel Hydrogen batteries, within an 8V-120V range and up to 500A.

The monitor is suitable for a wide range of applications such as RVs, golf carts, motorhomes, electric vehicles, and other equipment requiring precise battery status monitoring.

## 2. WHAT'S IN THE BOX

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Please verify that all components are present in the package:

- Battery Monitor Display Unit
- 500A Shunt/Sampler
- Shunt/Sampler Holder (Plastic insulation fixing bracket)
- 5-meter (16.4 ft) Shielded Wire
- User Manual

# ★ Wiring Method of 500A Sampler

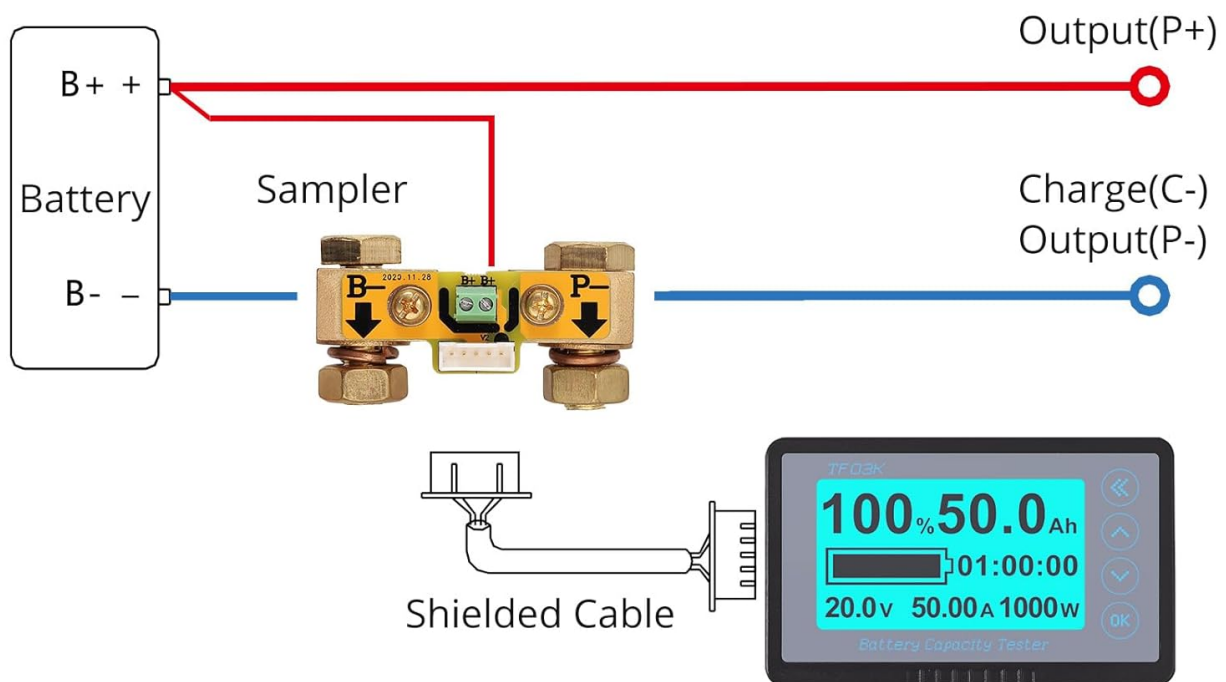


Figure 2.1: Package Contents. This image displays the main components included: the battery monitor display, the 500A shunt, a clear plastic holder for the shunt, and the 5-meter shielded cable.

## 3. PRODUCT FEATURES

- **Wide Voltage and Current Range:** Supports batteries from 8V to 120V, with current measurement up to 500A. Compatible with Lithium, Lithium Iron Phosphate, Lead Acid, and Nickel Hydrogen battery types.
- **Comprehensive Monitoring:** Accurately detects Voltage, Current, Power, Real Capacity (Full capacity voltage, Zero capacity voltage), and Remaining Time of the battery.
- **Extended Shielded Wire:** Includes a 5-meter (16.4 ft) shielded cable for convenient remote installation and improved signal stability, reducing interference.
- **Waterproof Design:** Allows for installation in various environments, both indoors and outdoors.
- **Low Capacity Alarm:** Features a visual (flashing percentage and battery symbol) and audible (buzzer) alarm when battery capacity falls below a set threshold.
- **Data Storage:** Automatically stores the last tested data when the system is powered off, ensuring continuity of information.
- **Backlit Large LCD:** Displays multiple electronic parameters clearly. The backlight can be activated with a soft touch and can be turned on/off as needed.

## 4. SETUP AND INSTALLATION

Proper installation is crucial for accurate readings and safe operation. Follow these steps carefully:

### 4.1 Wiring Diagram

Large Backlit LCD Displays the Voltage, Current, Power, Real Capacity and Remaining Time of the Battery Pack and multi-parameters

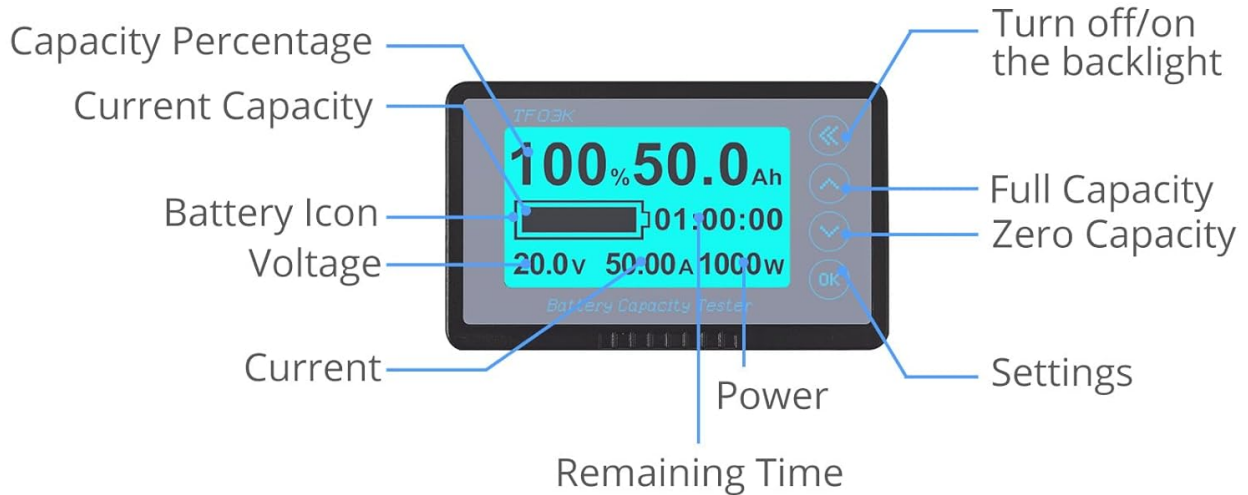


Figure 4.1: Wiring Diagram for 500A Shunt. This diagram illustrates how to connect the battery, shunt, and monitor. The B- terminal of the shunt connects to the battery's negative terminal, and the P- terminal connects to the negative side of the load/charger. The B+ terminal of the battery connects to the positive side of the load/charger and also provides power to the monitor via a separate wire.

### 4.2 Installation Steps

- 1. Mount the Shunt:** Securely mount the 500A shunt using the provided holder in a dry, accessible location close to the battery. Ensure good ventilation.
- 2. Connect Battery Negative to Shunt:** Connect the negative terminal of your battery (B-) to the 'B-' terminal on the shunt.
- 3. Connect Load/Charger Negative to Shunt:** Connect the negative terminal of your load (P-) and charger (C-) to the 'P-' terminal on the shunt. All current flowing into or out of the battery must pass through the shunt for accurate measurement.

4. **Connect Battery Positive:** Connect the positive terminal of your battery (B+) to the positive side of your load and charger.
5. **Connect Monitor to Shunt:** Use the provided 5-meter shielded wire to connect the display unit to the shunt. Ensure the connectors are firmly seated.
6. **Power the Monitor:** The monitor typically draws power from the battery via the shielded cable connection to the shunt. Verify the display powers on after all connections are made.

**Important:** Ensure all connections are tight and secure to prevent resistance and inaccurate readings. Incorrect wiring can damage the device or your battery system.

## 5. OPERATING INSTRUCTIONS

The CAMWAY Battery Monitor provides real-time data on your battery's status. Familiarize yourself with the display and controls.

### 5.1 Display Overview

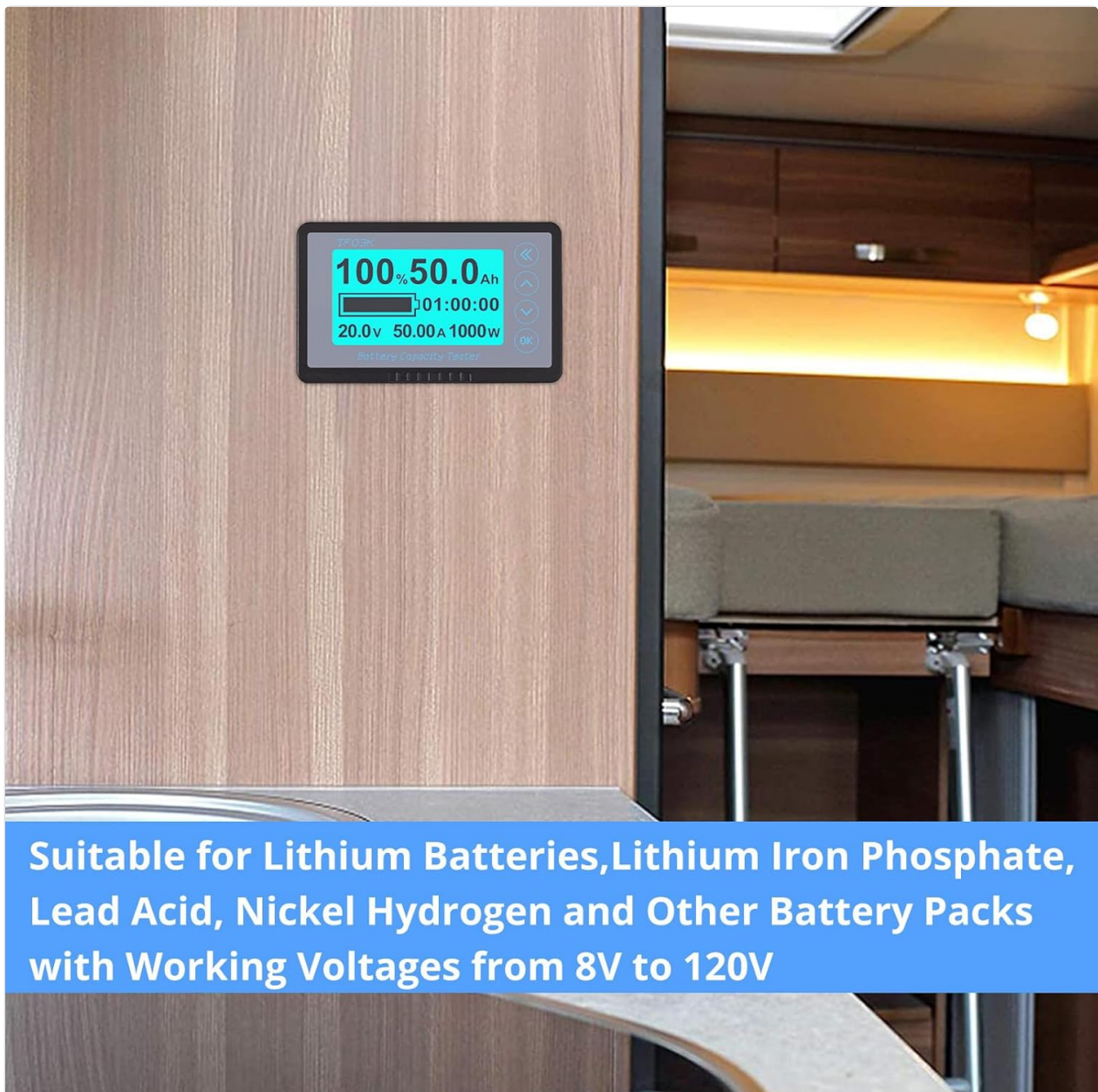


Figure 5.1: LCD Display Layout. This image highlights the various indicators on the display, including capacity percentage, current capacity (Ah), battery icon, voltage (V), current (A), power (W), and remaining time. It also points out the buttons for backlight control, full/zero capacity settings, and general settings.

## 5.2 Basic Operation

- **Power On:** The monitor will power on automatically once correctly wired to the battery.
- **Backlight Control:** Briefly press the 'Left Arrow' button to cycle through backlight brightness levels or turn it off.
- **View Parameters:** The main screen displays key parameters. Use the 'Up' and 'Down' arrow buttons to switch between different display modes or parameters if available.
- **Access Settings:** Press the 'OK' button to enter the settings menu. Use the arrow buttons to navigate and 'OK' to select or confirm.

## 5.3 Setting Battery Parameters

To ensure accurate readings, you must configure the monitor with your battery's specifications, particularly its total capacity (Ah).

1. **Enter Settings:** Press the 'OK' button.
2. **Navigate to Capacity Setting:** Use the 'Up'/'Down' arrows to find the 'Capacity' or 'Ah' setting.
3. **Adjust Capacity:** Use the 'Up'/'Down' arrows to set the total Amp-hour (Ah) capacity of your battery. Confirm with 'OK'.
4. **Set Voltage Alarms (Optional):** You can also set high and low voltage alarm thresholds within the settings menu.

## 5.4 Low Capacity Alarm

When the battery capacity drops below the preset low capacity alarm threshold, the display's percentage and battery symbol will flash, and an audible buzzer will sound (10 times per second) to alert you.

# 6. MAINTENANCE

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To ensure the longevity and accurate performance of your CAMWAY Battery Monitor, follow these maintenance guidelines:

- **Keep Clean:** Regularly wipe the display screen and unit with a soft, dry cloth. Avoid abrasive cleaners or solvents.
- **Check Connections:** Periodically inspect all wiring connections, especially at the shunt, to ensure they remain tight and free from corrosion.
- **Environmental Protection:** Although waterproof, avoid prolonged submersion or exposure to extreme temperatures beyond the specified operating range.
- **Software Updates:** Check the manufacturer's website for any available firmware updates, though this device typically does not require user-performed updates.

# 7. TROUBLESHOOTING

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If you encounter issues with your battery monitor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Monitor does not power on.	Incorrect wiring; loose connection; no power from battery.	Verify all wiring according to the diagram (Section 4.1). Check for loose connections at the shunt and monitor. Ensure the battery has sufficient charge.
Inaccurate readings (Voltage, Current, Capacity).	Incorrect battery capacity setting; shunt not properly installed; high resistance in wiring.	Ensure the correct Ah capacity is set in the monitor's settings (Section 5.3). Confirm all current flows through the shunt. Check for tight, clean connections.
Low capacity alarm triggers prematurely or not at all.	Incorrect alarm threshold setting.	Adjust the low capacity alarm threshold in the settings menu to match your desired level.
Display is dim or flickering.	Backlight setting; low battery voltage.	Adjust backlight brightness (Section 5.2). Check battery voltage; if low, charge the battery.

If the problem persists after attempting these solutions, please contact CAMWAY customer support.

## 8. SPECIFICATIONS

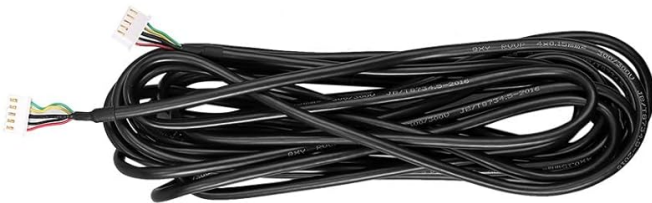
Feature	Specification
Brand	CAMWAY
Model	B092HLVT35
Power Source	Battery Powered, Electric
Color	Black
Item Weight	75 Grams (2.65 ounces)
Min. Operating Voltage	8 Volts
Max. Operating Voltage	120 Volts
Max. Current Capacity	500 Amps (with 500A shunt)
Measurement Type	Ammeter, Voltmeter
Shielded Wire Length	5 Meters (16.4 Feet)
Upper Temperature Rating	35 Degrees Celsius
Specification Met	IEC 61010-1, EN 61010-1
Package Dimensions	6.02 x 5.91 x 2.13 inches



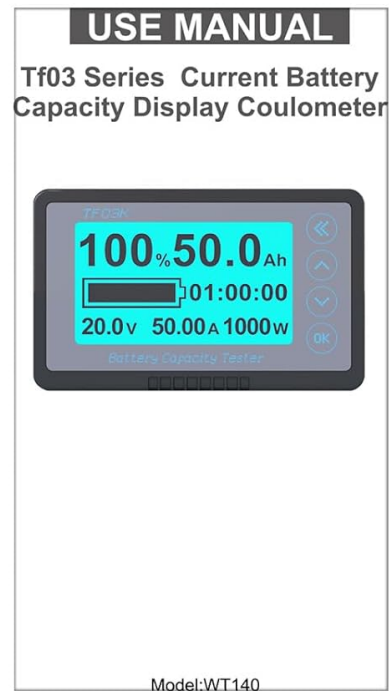
Battery Capacity Monitor



Shunt/Sampler Holder



5m Shielded Wire



User Manual



500A Shunt/Sampler

Figure 8.1: Product Dimensions. This image provides the physical measurements for the display unit and the shunt, useful for installation planning.

## 9. PRODUCT OVERVIEW VIDEO

Watch this official video for a visual overview of the CAMWAY Battery Monitor and its features.

Your browser does not support the video tag.

Video 9.1: CAMWAY Battery Monitor Overview. This video demonstrates the physical components, basic connections, and display functions of the CAMWAY Battery Monitor, highlighting its waterproof design and various measurement capabilities.

## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your CAMWAY Battery Monitor, please contact CAMWAY customer service directly. Refer to the contact information provided with your purchase or visit the official CAMWAY website.

Please retain your proof of purchase for warranty claims.

