

Victron Energy SHU050130050

Victron Energy SmartShunt Battery Monitor (Bluetooth) - User Manual

Brand: Victron Energy

Model: SHU050130050

INTRODUCTION

The Victron SmartShunt is an all-in-one smart battery monitor designed to provide detailed battery insights directly to your smartphone. It enables advanced functionalities and optimized charging by wirelessly sharing live battery data with other devices within your system. Its design prioritizes ease of installation and adaptability for both new and existing setups.

This manual provides comprehensive instructions for the installation, operation, and maintenance of your SmartShunt battery monitor, ensuring you get the most out of its capabilities.

KEY FEATURES

- **All-in-One Smart Battery Monitor:** Provides comprehensive battery insights on your phone, enabling smart functionalities and optimized charging.
- **Detailed In-App Insights:** Battery monitor data is conveniently presented in the VictronConnect app, offering instant readouts of all important data without Bluetooth pairing delays. Alarm notifications keep you informed of urgent matters.
- **Precision Shunt Technology:** Utilizes highly accurate shunt technology to calculate critical data including Current State of Charge, Time Remaining, Voltage, Current, Amp Hours, Number of Charge Cycles, Deepest Discharge, Highest Voltage, and Lowest Voltage.
- **Smart Integrations:** Wirelessly shares battery sensor data with other Victron devices for optimized charging efficiency via VE.Smart Networking. Can also connect to a communication center for VRM - Remote Management and DVCC (Distributed Voltage and Current Control).
- **Auxiliary Connections:** The Aux cable connection supports various applications, such as monitoring a second battery, monitoring the mid-point of a battery bank, or connecting to an optional temperature sensor. The SmartShunt can also function as a versatile DC energy meter.

WHAT'S IN THE BOX

- 1x SmartShunt 300A Battery Monitor

Note: Additional cables (e.g., VE.Direct cable, temperature sensor) and a wrench for M8 bolts are not included and may be required for specific installations.

SETUP AND INSTALLATION

Physical Installation

The SmartShunt is designed for easy mounting in a small space near your battery. Ensure the installation location is dry and protected from environmental elements. The shunt requires M8 wire lugs for connections to the negative battery terminal and the load/bus block.



Figure 1: SmartShunt components and basic connections. Note that the wrench and some cables are not included.

Wiring Diagrams

Proper wiring is crucial for accurate battery monitoring. The SmartShunt should be installed on the negative side of your battery bank. All loads and chargers must be connected to the system side of the shunt, ensuring that only the battery negative terminal is connected to the battery side of the shunt.

Remote management

Connect a communication center to the VE.Direct port of the SmartShunt to enable remote monitoring and see battery information on a premium screen.

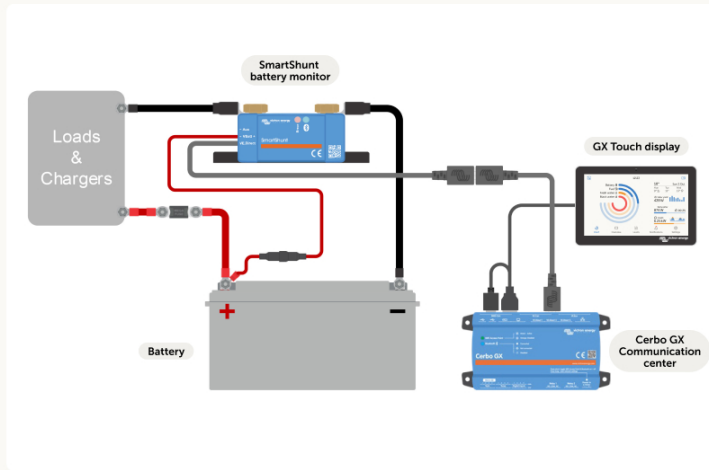


Figure 2: Basic wiring diagram for SmartShunt installation. All loads and chargers connect to the system side of the shunt.

For remote monitoring and advanced system integration, the SmartShunt can be connected to a communication center, such as a Cerbo GX, via its VE.Direct port.

Monitor starter battery

Use the AUX port to measure the voltage of the starter battery (or any second battery) or the midpoint of a battery bank.

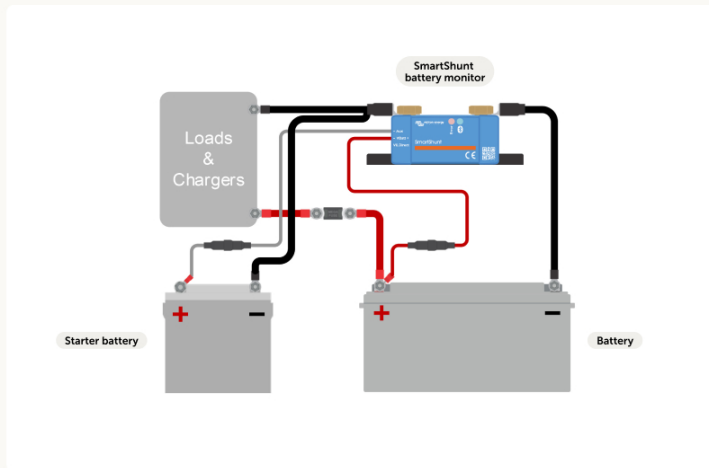


Figure 3: Wiring diagram for remote management using a Cerbo GX communication center.

Initial Setup via VictronConnect App

The SmartShunt is configured and monitored using the VictronConnect app, available for smartphones and tablets. Download the app from your device's app store or scan the QR code below for direct access.

Everything you need and want to know



Figure 4: VictronConnect app interface showing battery state of charge.

To connect, ensure Bluetooth is enabled on your device and open the VictronConnect app. The SmartShunt should appear in the device list. Select it to connect and begin the initial setup, which includes inputting battery information and other parameters.

For app download and further information, scan this QR code:<http://ve3.nl/65>

OPERATING INSTRUCTIONS

Monitoring Battery Data

Once connected via the VictronConnect app, you can view real-time battery data. The app provides an instant readout of critical information such as State of Charge (SOC), voltage, current, consumed amp-hours, and time remaining until discharge. This data is essential for understanding your battery's health and performance.

Accuracy to rely on

Alarms to stay on top



Precision shunt
technology



99.6% accurate
current reading



Configurable alarm
app notifications



Figure 5: SmartShunt's precision technology ensures accurate readings and allows for configurable alarms.

Auxiliary Connections

The SmartShunt's auxiliary connection offers versatile monitoring options:

- **Battery Temperature Monitor:** Connect an optional temperature sensor (sold separately) to monitor the battery's temperature, which is crucial for battery health and charging optimization.
- **Starter Battery Monitoring:** Monitor the voltage of a second battery, such as a starter battery, or other auxiliary batteries.
- **Midpoint Deviation Monitoring:** For battery banks with multiple series-connected batteries, monitor the midpoint voltage to detect imbalances.

One AUX cable multiple options

- ✓ Battery temperature monitor
- ✓ Starter battery monitoring
- ✓ Second battery monitor (bow thrusters, etc.)
- ✓ Midpoint deviation monitoring

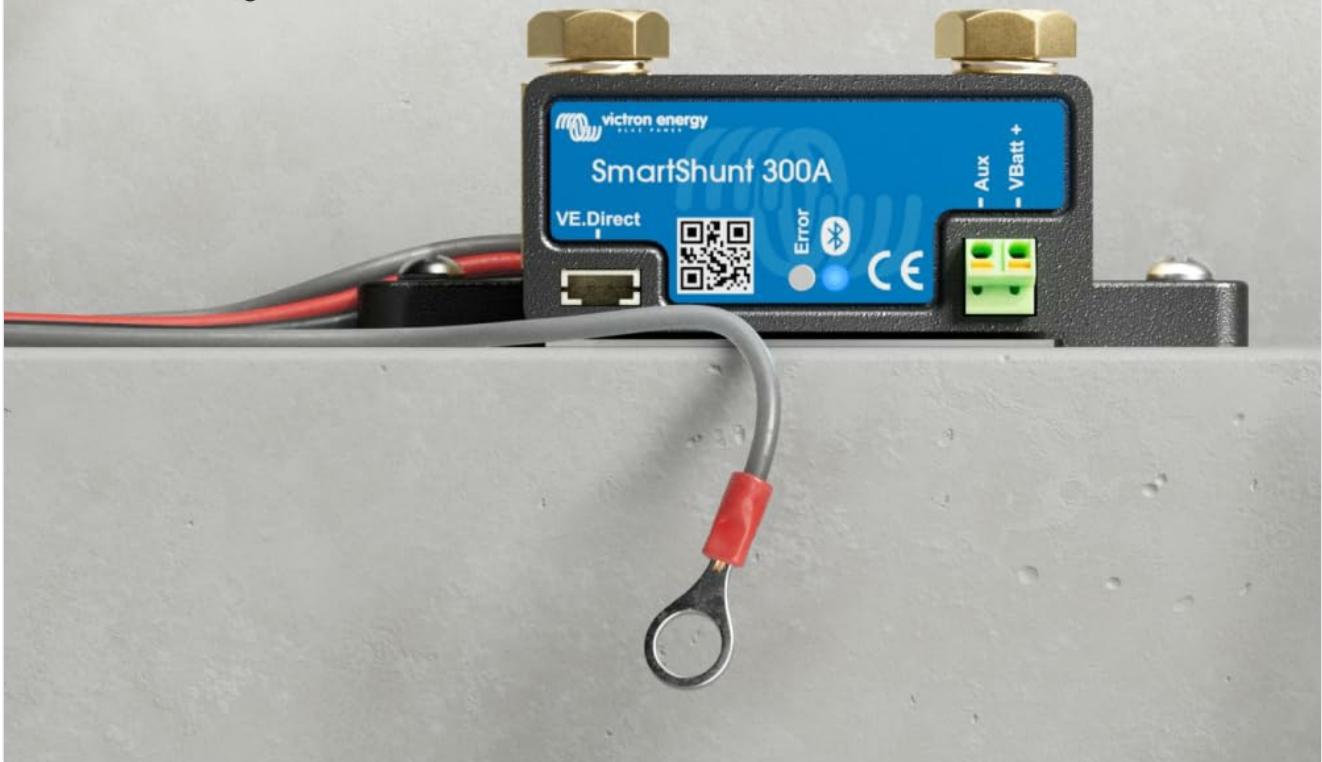
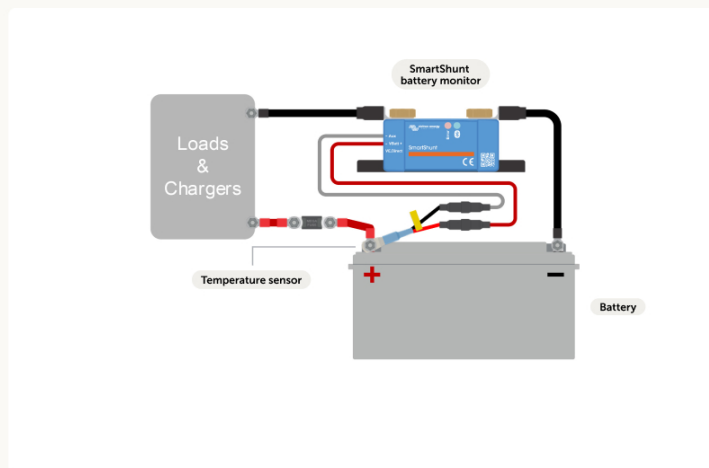


Figure 6: Auxiliary cable connection options for the SmartShunt.

Measuring battery temperature



Utilize the temperature sensor (sold separately) to gauge the battery's temperature.

Figure 7: SmartShunt configured to monitor a starter battery.

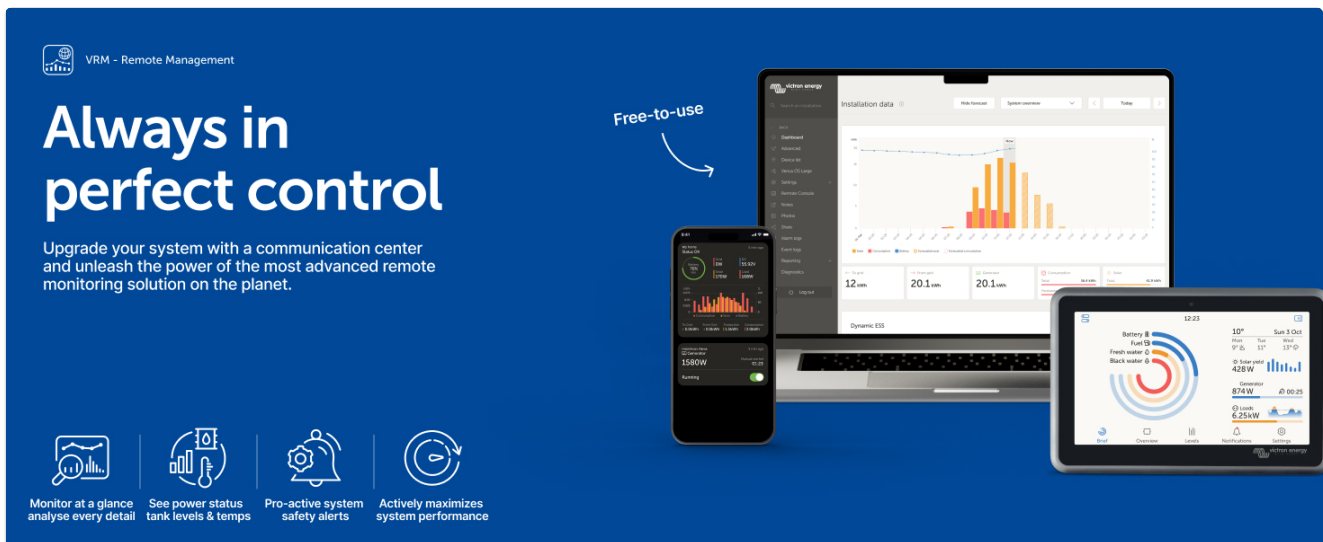


Figure 8: SmartShunt connected to an optional temperature sensor.

Remote Management (Optional)

For advanced users, the SmartShunt can integrate into a larger Victron Energy system, enabling remote monitoring and control through the Victron Remote Management (VRM) portal. This requires a Victron GX device (e.g., Cerbo GX) connected to the internet.



Figure 9: Victron Remote Management (VRM) portal interface.

The VRM portal allows you to monitor your system from anywhere, analyze historical data, receive alerts, and even perform remote firmware updates.

MAINTENANCE

The Victron SmartShunt is designed for minimal maintenance. Periodically inspect all cable connections to ensure they are secure and free from corrosion. Keep the device clean and free of dust and debris. Avoid exposing the unit to excessive moisture or extreme temperatures outside its specified operating range.

TROUBLESHOOTING

Common Issues and Solutions

- **No Bluetooth Connection:**

- Ensure Bluetooth is enabled on your smartphone/tablet.
- Verify the SmartShunt is powered on.
- Move closer to the SmartShunt; Bluetooth range can be limited, especially through obstructions.
- Restart the VictronConnect app.
- If the issue persists, try restarting your smartphone/tablet.

- **Inaccurate Readings:**

- Confirm all loads and chargers are connected to the "System Minus" side of the shunt, and only the battery negative is connected to the "Battery Minus" side. Any direct connection to the battery negative that bypasses the shunt will result in inaccurate readings.
- Check that the battery capacity settings in the VictronConnect app match your actual battery capacity.

- Ensure all connections are tight and free of corrosion.
- **SmartShunt Not Appearing in App:**
 - Check power supply to the SmartShunt. The LED indicators should be active.
 - Ensure no other device is currently connected to the SmartShunt via Bluetooth.
 - Try resetting the SmartShunt by temporarily disconnecting its power.

For more detailed troubleshooting or persistent issues, refer to the official Victron Energy documentation or contact customer support.

SPECIFICATIONS

Attribute	Value
Product Dimensions	2.24 x 4.69 x 6.5 inches
Item Weight	0.24 Kilograms (8.47 ounces)
Item Model Number	SHU050130050
Brand	Victron Energy
Color	Black
Included Components	1 Smartshunt 300A
Max. Continuous Current	300A
Voltage Range	6.5 - 70VDC
Battery Capacity Range	1 - 9999Ah
Shunt Connection	M8 bolts

OFFICIAL PRODUCT VIDEO

Your browser does not support the video tag.

Video: An overview of the Victron SmartShunt battery monitor, highlighting its features and integration within the Victron Energy ecosystem.

WARRANTY INFORMATION

Victron Energy products typically come with a standard manufacturer's warranty. For specific details regarding the warranty period and terms for your SmartShunt, please refer to the warranty card included with your product or visit the official Victron Energy website. Keep your proof of purchase for warranty claims.

SUPPORT

For technical assistance, product inquiries, or support, please visit the official Victron Energy website. They offer extensive documentation, FAQs, and a global network of dealers and trained experts to assist you.

Official Website: www.victronenergy.com

You can also find community forums and detailed wiring schematics on their platform.

