

Quick Start Guide

Battery Monitor



MODEL: RS-BM500

Introduction



No. Description

- 1 Remaining Capacity
- 2 Charge/Discharge Indicator
- 3 Percent Remaining
- 4 Back Button
- 5 Up Button
- 6 Down Button
- 7 OK Button
- 8 Time Remaining
- 9 Watts in/out of Battery
- 10 Amps in/out of Battery
- 11 Battery Voltage

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Includes



Remote Display





25' (8m) Shielded cable



500A Shunt

3'(1m) B+ Wire

Specifications

Model	RS-BM500
Battery Voltage Range	8-120V
Working Dissipation	10mA
Standby Dissipation	1mA
Capacity Accuracy	±1.0%
Voltage Accuracy	±1.0%
Current Accuracy	±1.0%
Backlight On Current	80mA
Capacity Setting Value	0.1-9999Ah
Current Range	0-500A
Temperature Range	-10°C -60°C

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Installation and Wiring-Overview

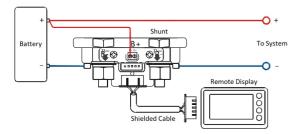
The RS-BM500 shunt should be mounted as close to the battery as possible and the remote display is intended to be mounted on a wall.

Recommended Tools

- Wrench
- Drill
- Jig saw
- 2 ring terminals of appropriate size for battery cable
- · Crimp tool for ring terminals

Wiring Diagram

The following wiring diagram will be referenced in the next section.



Installation

- Before doing anything, disconnect all wires from the negative side of the battery.
- Cut the negative cable for the battery and crimp on new ring terminals. Alternatively, use a new wire of appropriate gauge to carry the full current demand of your system.
- 3. Install the shunt as shown in the wiring diagram above. Note: The negative terminal of the battery must connect directly to the "B-" side of the shunt and there should be no other connections to the negative terminal of the battery for accurate measurements.

- 4. Use the B+ wire included in the package to connect the B+ terminal of the shunt to the positive side of the battery. Note: Do not stack smaller terminals under large ones.
- 5. Connect the shunt to the remote display using the included shielded

Mounting the Remote Display

- 1. Plan the location of your remote display and keep in mind there is a cable that needs to route all the way to the shunt.
- 2. Drill a hole in the center of the planned location and use the jig saw to cut a hole according to the following picture.



Visit richsolar.com to print the mounting template.

- 3. Connect the shielded cable to the shunt and route it such that you can bring it through the hole.
- 4. Connect the shielded cable to the remote and snap the remote into place.

Basic Setup

- Hold the "Ok" button for 3 seconds to enter the settings screen. The up and down arrows are used to navigate as well as change parameters. The "Ok" and "<<" button are used to enter and exit a setting.
- 2. Set the "CAP" setting to match the capacity of your battery or battery bank.
- Optionally set the "HIGH V" and "LOW V" values to the voltages at which you want remaining capacity/percentage to reset to 100% and 0% respectively.
- 4. Alarm is the minimum Ah value that will trigger an audible alarm.
- 5. Once all of these settings are complete, hit 🔇 and your BMK is set up.

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