Thank you for your purchase of the EV-BM350 EXPION360 Battery Monitor

Application

The Expion360 Battery Monitor is designed to measure the current state of a batteries function. It measures voltage, current and capacity in real time. The monitor will show both power consumption as well as power replenishment. The monitor can be used with Lithium, Lithium Iron Phosphate, Lead Acid, AGM, Gel Cell and Nickel Metal Hydride batteries with a voltage range of 8V to 80V.

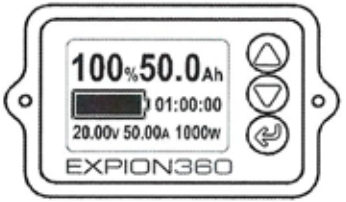
Wiring Instructions

Shunt: Attach the shunt B- to the negative (black -) terminal on the battery. Attach the P- side of the shunt to the negative side of the load. The shunt can be attached right side up or up side down for a better fit.

Monitor Power: Attach the short red monitor power wire to either B+ terminal (Green terminal) on the shunt. Attach the other end with the ring terminal to the positive (red+) terminal on the battery. This connection provides power to the battery monitor screen.

Monitor Data Line: Plug in one end of the battery monitor data line to the data inlet on the shunt and the other end to the display unit (screen). Your battery connections are now complete.

Display Screen Functions



% - Percentage: Upper Left Corner. This shows current power status as a percentage from 0% empty to 100% full.

Ah - Amp Hour: Upper Right Corner. Abbreviated as Ah. This shows current power status in amp hours. The amp hour capacity of the battery(s) being monitored must be entered in when programing the monitor for the first time for this value to measure correctly.

Battery Symbol: Middle Left. This shows current capacity as a battery symbol. When the battery is being charged it will cycle to show it is filling. When the battery is full this symbol will be shaded and when it is empty it will not be shaded.

Hour Counter: Middle Right. This will show run time remaining at the current rate of discharge until the battery is empty while under a load or time remaining until the battery is full when charging.

V - Voltage: Bottom Left. This shows the current voltage level the battery is at.

A - Amperage: This shows the current amperage being used while discharging or amperage being supplied when charging.

W - Wattage: This shows the current wattage being used while discharging or wattage being supplied while charging.

Screen: The screen backlighting will pulsate while charging or during a higher state of charging than discharging. The screen will remain solid during discharging or during a higher state of discharge than charge.

Settings Menu

To access the settings menu to enter the battery(s) capacity, maximum voltage and minimum voltage for your monitor to read correctly

↵ 1) Press and hold the left arrow key on the faceplate. This will show the three values you need to enter.

▲▼ 2) Press the up-down arrow keys to select the setting you want to change.

↵ 3) Press the left arrow key again to select that setting.

▲▼ 4) Press the up-down arrow keys again to select the number you need.

↵ 5) When you are done entering the information press and hold the left arrow key one last time to save your settings. Within a few seconds the screen will automatically return to the home screen with your settings saved.

Set Battery capacity to empty or full

The last step in the setup is to set the battery to its starting point at either empty or full capacity to start the monitoring process. We recommend starting at full unless you are unsure of the capacity of the battery being monitored. If unsure of the battery capacity start with the battery fully depleted (Empty) and set the monitor to its highest capacity, then charge the battery fully and record the capacity when charging is complete. Enter that Ah reading for capacity.

▲ From the home screen press the up arrow to set to full as your starting point.

▼ From the home screen press the Down arrow to set to empty as your starting point.

Technical Specifications

WORKING VOLTAGE RANGE	10-80VDC
WORKING POWER CONSUMPTION	10.0mA
STANDBY POWER CONSUMPTION	0.8mA
MAX. BATTERY CAPACITY	590Ah
MAX. SHUNT AMPERAGE	350A
ACCURACY	+-2%