EJBC21

BATTERY Indicator USER GUIDE

Thank You
FOR CHOOSING

Please read through the guide in detail before installing and using your new battery indicator. Should you have any questions concerning safety precautions, installation or use please contact us at info@batterycoulometer.com or call +86-755-23762949

PRODUCT INTRODUCTION
The BC21 Battery Indicator is a high-precision meter that captures instantaneous and integrated values in real-time. Through the use of a 75A/150A/500A current shunt, the battery monitor measures the discharge/recharge currents and calculates the Ampere-hours (Ah) going in and out of the battery. High-precision voltage measurements are taken and displayed in real-time through the use of a field-installed sense wire. BC21 battery Indicator is well-suited for lithium, lithium Ion, lead-acid and nickel-metal hydride batteries.

DATA DISPLAYED:
- Battery Voltage
- Battery Current
- Battery State of Charge (SOC)
- Total Ampere-hours

APPLICATIONS:
(Suitable for traction/mobile and stationary applications)
- Golf Cars & Utility Vehicles
- Floor Cleaning Machines
- AWP
- Marine
- RV
- Solar
- Backup

ELECTRICAL PARAMETERS

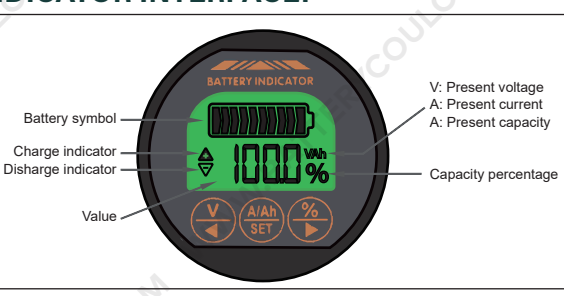
Parameter	Min	Max	Unit
Voltage	8.0	80.0	V
Current	0.0	75.0	A
	0.0	150.0	A
	0.0	500.0	A
Capacity	0.1	999.0	Ah
Temperature	0.0	35.0	℃
Active Parasitic Current		12.0	mA
Standby Parasitic Current		0.6	mA
Sleep Parasitic Current		60.0	uA
Voltage Accuracy	±1		%
Current Accuracy	±1		%
Capacity Accuracy	±1		%

INCLUDED COMPONENTS:
- Current shunt (Sampler)
- Shielded wire
- Display
- Butterfly nut

ADDITIONAL COMPONENTS NEEDED FOR INSTALLATION:
- Sense wire 22AWG (wire length depends on application)
- 1A fuse (recommended)
- Additional battery cable (for the negative terminal)
- 54mm hole saw or knock out tool (for panel-mount applications).

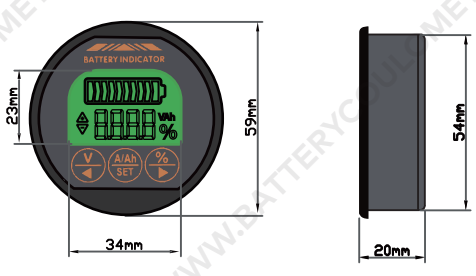
BATTERY INDICATOR INTERFACE:

FIGURE 1



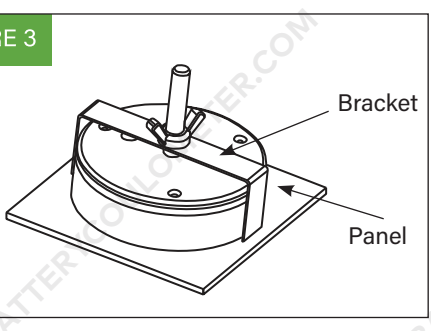
DIMENSIONS:

FIGURE 2



INSTALLATION:
The battery indicator may be panel-mounted and held in-place by the bracket and butterfly nut.

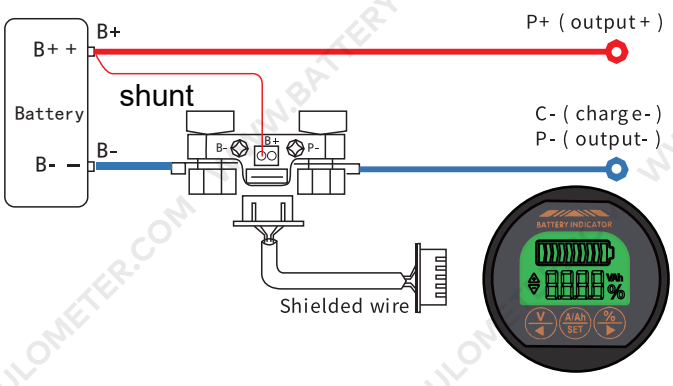
FIGURE 3



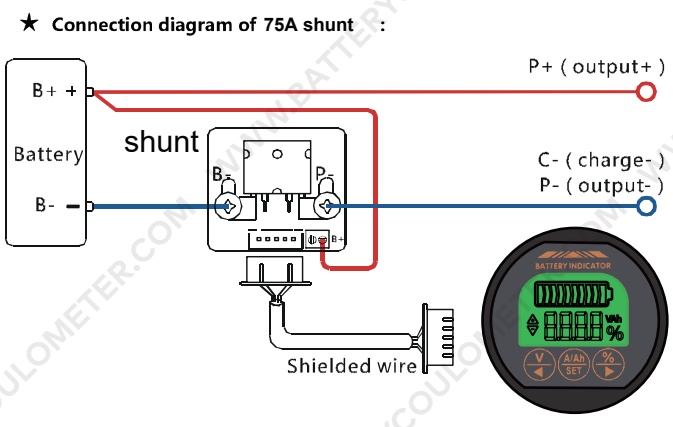
PREPARATION STEPS:
Fully charge the battery bank such that it reaches 100% SOC before connecting the battery indicator. Failure to take this step will lead to erroneous SOC readings.

ELECTRICAL CONNECTIONS:
As shown in figure 4, connect the B- terminal of the shunt to the negative terminal of the battery. Connect the P- terminal of the shunt to the load or the charger. Connect a sense wire (not provided) to the positive terminal of the battery. It is recommended that a 1A fuse be installed in series with the sense wire. The sense wire should be 22AWG and should have a voltage insulation rating of 300V and at least 60°C. Finally, connect one end of the shielded cable to the battery indicator's display cable (already installed on the display) and the other end of the shielded cable the current shunt.

FIGURE 4 ★ **Connection diagram of 150A/500 A shunt**



★ **Connection diagram of 75A shunt :**



SETTING UP THE BATTERY INDICATOR:
1. Ensure the battery indicator displays the discharge current and the charge current correctly. Use the charge and discharge indicators to ensure it is capturing the appropriate currents.
2. Ensure that the battery voltage is displayed correctly.
3. To reset the capacity, press the button for three seconds to set the capacity to 100%.
4. To enter the capacity, press the button for three seconds. Use the button and the button to increase or decrease the capacity. Press the button when done.
5. For parallel connections, enter the total capacity of the system by adding the capacities in Ahs of each battery. For example, three 50Ah batteries will sum up to 150Ah.
6. For series connections:
   a. The system capacity will equal the capacity of a single battery
   b. For single charging systems, the voltage sense wire should be connected to the system terminals.
   c. For multi-bank charging systems, connect the shunt and voltage sense wire to the battery that has the positive terminal of the system. This will allow the fuel gauge to monitor one battery to represent all the batteries in the system.

WARRANTY:
One-year limited warranty.

TECHNICAL SUPPORT

If you have technical questions about your Battery Indicator, please contact the original place of purchase or BatteryCoulometer directly:

info@batterycoulometer.com

+86-755-23762949

www.batterycoulometer.com