

Intelligent indicator operation manual

Introduction

The intelligent indicator is used to show the information of Bestgo's preferred battery packs. By pressing buttons it can switch to show the voltage, ampere current, capacity (Ah) and rated SOC percentage. It works together with current sensor which is built in the battery pack, the ampere current value is calculated based on that.

Because all the settings and data are stored in chipset which is located inside indicator, but not in the battery pack, so operator need to initialize the second indicator when connected to the battery pack. Please initialize it as below instructions. Then should run a complete discharging charging cycle, after that it will show the battery symbol and all works rightly well. If the indicator on battery pack meet some problem, operator can also use below way to reset the indicator.



Operation interface

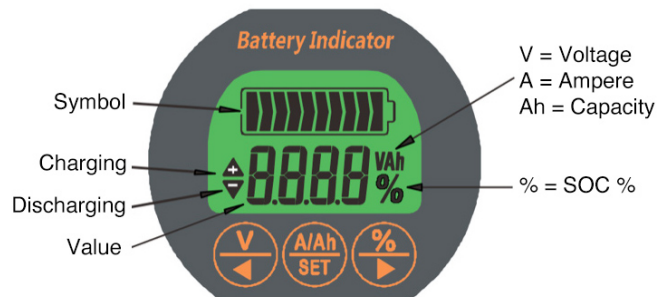
Firstly, press "A/Ah/set" button to light on indicator, then, If press "V/<" button, it will show Voltage.

If press "%/>" button, it will show SOC percentage.

If press "A/Ah/Set" button, it will show Current (Ampere), again press "A/Ah/Set" button, it will show rest Capacity (Ah).

Each time by press "A/Ah/Set" button, it will shift to show the status between current and available capacity.

(Each state will show the related sign like "V", "Ah", "%" etc.)



Be careful when connecting the connector of indicator to the multi-pins socket on lid of battery pack, those pins has electricity, make sure the connecting is in the right angle and location to avoid short circuit among those pins.

Initialize the indicator (necessary)

After installed the second optional indicator, please initialize the indictor as below operations specified.

(For the indicator built on lid of battery pack, no need to do initialization because in factory it has been done.)

Firstly, charge the battery pack to completely full. Then, let indicator to **show capacity** by shortly pressing "A/Ah/Set" button several times, it will show as xxx **Ah**. After that, press and hold on the "A/Ah/Set" button for 3 seconds, then can input the rated capacity value of battery pack. To press the "V/<" button is to decrease the capacity value, to press the "%/>" Botton is to increase the capacity value. After adjusted, shortly press "A/Ah/Set" button again to save the state and exit.

Then, let indicator to **show the SOC state** by shortly pressing "%/>" button, it will show as xx.x %, After that, press and hold on the "%/>" button for 3 seconds, the indicator will set this status as 100% SOC, then shortly pressing "A/Ah/Set" button again to save the state and exit. Please discharge the battery pack to empty then charge to full, so SOC can be calculated rightly. Then indicator will automatically calibrate the SOC in the future. (For parallel configured packs, please modify the indicators on batteries if they cannot calculate SOC rightly.)

***Set the datum line of voltage value which calculated as "0% SOC" started** (Optional operations).

Please note this operation is not necessary for everyone, only when customer has some special requirement, and indicator can not modify it automatically, then please try this modification accordingly.

For example, if customer want to treat as 3.0V per cell volt as 0% SOC for the LiFePO4 battery pack, and he is using the 25.6V LiFePO4 battery pack, so he can set this datum line of voltage value to "3.0V*8=24.0V". When battery pack has volt reach 24.0V it will calculated as 0% SOC.

Let indicator to **show the voltage** by shortly pressing "V/<" button, after that, press and hold for 3 seconds on the "A/Ah/Set" button, then can input the voltage value, to press the "V/<" button is to decrease the voltage value, to press the "%/>" Button is to increase the voltage value. After adjusted, shortly press "A/Ah/Set" button again to save the state and exit.

Power consumption of indicator

Power consumption	Min	Typical	Max	Unit
In working state		10.0	12.0	mA
In standby state		0.5	0.6	mA
In sleeping state		50	60	uA
Backlight on	80.0		120.0	mA

Working state means here is a discharging or charging current, indicator is in working state.

Standby state means here is no discharging or charging current, indicator is in ready state.

Sleeping state means here is no discharging or charging current for a period of time, indicator get in sleep.

If charging current or discharging current is less than 50A, the backlight will be turned off automatically. If you want to all the time turn off the backlight function, press "A/Ah/SET" to light on screen, then holding press two buttons of "V/<" and "%/>" till backlight is off. If need to recover this function, please repeat this operation again.

Related components

The optional second indicator set is sold separately, which contains 1 set indicator with wire, 3 sets of extension wires, 1 set of 8-pins connector.

The optional second indicator with wire has total length of 1.9 meters,

The extension wire has wire length of 2.0 meters, they can be connected to each other to increase wire length.

The 8-pins connector with wire has length of 0.3 meter.

The optional second indicator with wire can be directly connected to 8-pins connector, or can firstly connected to extension wire to increase the wire length, then connected to the 8-pins connector.

For the pro-version battery pack, which has 12-pins connector already. Please discard the 8-pins connector, and connect to the S connector of 12-pins connector.

Please review diagrams in next page for the reference.

