

SOLARKING

Active Battery Balancer

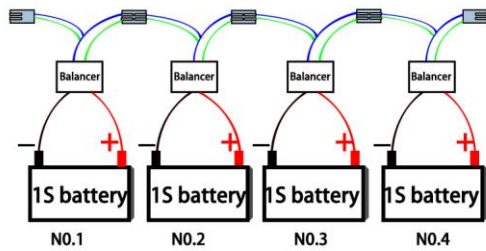
User Instructions

SK-BB2S

Main parameter

Battery capacity limited	Unlimited
Battery count limited	2S~unlimited At least balance 2 Batteries
Battery type limited	Battery:Lifepo4,LiMnO4 etc AGM,Gell,Flooded battery and so on
Working voltage	9V~15V (Multiple 12V battery equalization)
Power consumption	<50mW per 1S
Balance method	Energy transfer &Dynamic
Voltage difference VS Balance current	300mV-1A; 1V-3A
Voltage difference after using the equalizer	<10mv(non-lighted equalizer) <20mv(lighted equalizer) <30mv(12V lead acid)
Working efficiency when balance current is 1A	>94%
Working temperature	-40~+80°C or -40°F to 176°F
Storage temperature	-40~+100°C or -40°F to 212°F
BMS limited	can work with BMS Or can work independently

Wiring diagram for SK-CB2S single equalizer



Always start connecting the balancers from the negative terminal on each battery. The first white connector on the left and the last white one on the right are to be left un-connected.

Description of LED lights for SK-BB2S, please read the following instructions:

LED Instructions for 1S Lighted Balancer				
N0.	Left Light	Right Light	Status	Remarks
1	ON ●		Normal	one separate light stands for this status
2		ON ●	Discharging the cell	one separate light stands for this status
3		ON ●	Charging the cell	one separate light stands for this status
4	ON ●		Over balance current Protection and short circuit protection	balance current>2.8A, Release in 10seconds
5	OFF ○	OFF ○	Disconnected or defective	
6	ON ●	OFF ○	Balanced	Balance is complete for this battery

INSTALLATION INSTRUCTIONS:

-Prepare your cells and equalizer. Connect the equalizer together first before connecting them to the cells. Don't mix using the equalizer for lithium and lead acid batteries.

-Once you have the modules connected you may start to wire to module to the cells. The first connection should be to the B1- port on the module to the negative terminal on cell #1 (there only needs to be one connection to a negative terminal per application)

-For the rest of the connections, start with cell #1 positive and B1+ on the module and work your way through your pack in order from 1, 2, 3 and so on.

-If installed correctly there should be a slight humming sounds coming from the module.

-please use no smaller than 17AWG wires. Try the best to shorten the wire lengths between equalizer to each battery that ensures better balance performance.

WARNING:

First, after finishing installation, please watch for about 5min~30minutes. **If any equalizer becomes very hot, it means the wiring is wrong.** Please disconnect balance connector of that hot equalizer quickly. Double check the wiring.

Second, the balance current is dependent on the voltage difference, the higher volt difference, the higher balance current will have; vice versa. The balance speed is determined by how different your batteries are, how large is your battery, how long the equalizers are installed. They will improve your batteries gradually only if the wiring is correct. So please be patient and wait for more days.

Third, for less than 50AH batteries, recharge the batteries at least once a month. for over 50AH batteries, at least once two months. if you don't use the batteries over 3months, please disconnect the equalizers. Disconnect balance wires first and then disconnect wires from each battery.