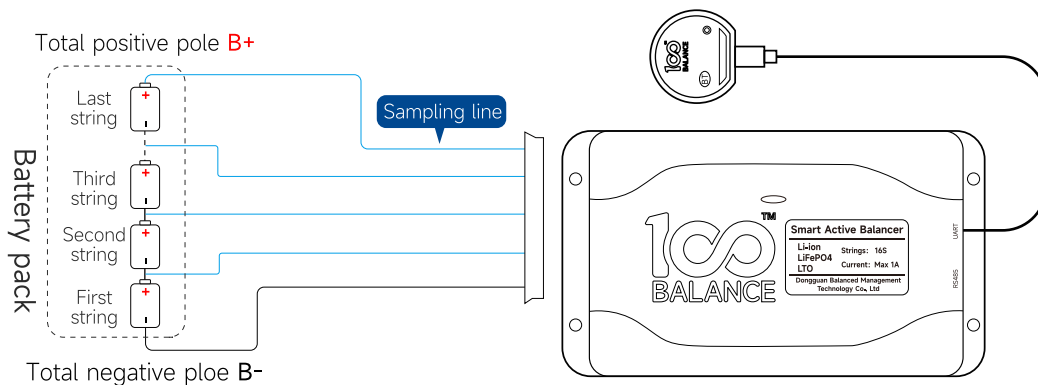


1A Smart Active Balancer Module Instruction

— Dongguan Balanced Management Technology Co., Ltd —

Wiring Diagram

- ※**Notice:** (1) the sampling cables of different manufacturers are not universal, please make sure to use the right cables; Active balancer module strings must match the same number of strings of battery. (eg: 4S active balancer module only use for 4S battery pack).
- (2) The active balancer module needs to match the BMS with the same number of strings, and different numbers of strings cannot be mixed.



I. Smart Active Balancer Connection Steps

Attention!!! When soldering the sampling cable, do not insert the cable into the active balancer module.

1. Solder the cable.

The cable is connected from the thin black wire to the total negative B-, the second wire (the first red wire) is connected to the positive electrode of the first string of batteries, and the positive electrode of each string of batteries is connected in turn, until the last red wire is connected to the total battery. Positive B+.

2. Voltage measuring.

After the cable is connected, do not plug into the active balance module directly, Pls measure the voltage between every two adjacent metal terminals on the back of the plug. Make sure to collect the correct voltage for each string before proceeding to the next step.

Note: If it is NMC battery, the voltage should be between 3.0~4.15V; the LFP battery should be between 2.5~3.6V; the LTO battery should be between 1.8~2.8V.

3. Insert the bluetooth module.

Insert the bluetooth module into the UART port of the active balance module.

4. Plug the sampling cable in.

Insert the plug of the sampling cable into the connector of the active balance module.

II.The using method of active balance module after wiring.

1.Download the App.

The smart active balance module needs to download the software. (Balance BMS on the mobile phone, PC software on the computer)

Huawei App store:

Google App store:“Balance BMS”

IOS App store: “Balance BMS”

2.Turn on the phone's position location service and bluetooth function.

3. Open the APP (Balance BMS), you can see the Bluetooth serial number on the first page (the same as the serial number of Bluetooth), click the Bluetooth serial number to enter the first interface of the APP.

4.On the [Active Balance] page, the user can set the balance parameters according to the actual status of the battery. The setting parameter: (1) balance current is 0~1A, (2) balance voltage difference must be $\geq 20\text{mV}$.

5.The strings of active balancer must be consistent with the battery strings. It only show following information including Discharge high temperature protection, discharge low temperature protection, single break over voltage protection, and single cell under voltage protection but it doesn't have protection function.

6. The default sleep time is set to 3600S. If you need to cancel the sleep function, you need to set this value to 65535.

Note: The active balancer has RS485 and UART communication functions, which can be set through the PCMaster in computer. Scan the QR code below to download PCMaster.

II.The using method of active balance module after wiring.

The smart active balance module needs to download the communication software. (Balance BMSAPP on the mobile phone, PC software on the computer)

1.The balancer only has the function of showing battery real time but without protection function, it cannot replace BMS function.

2.The active balance module have been set when it is shipped from factory., it is suitable for NMC /LFP batteries. Customers can use them directly without setting parameters. LTO battery customers need to set the balance turn-on voltage before use it.

3.Activebalance module 2 working condition:(1) Any string reach the balancing turn-on voltage (the default is 3.3V), (2) Reach the balancing turn-on voltage difference (the default is 0.2V).

4.Description of the status light of the smart active balance module : green light on - balancing on; green light off - balancing off.

IV.Finally, if you have any other questions, please contact customer service or sales staff to help you to solve it.

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