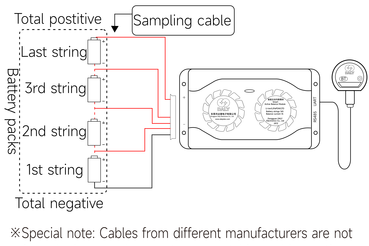
DALY Smart Active Balance Module Instruction

1、 Product catalog

DALY Smart Active Balance Module Selection		
Product name	UART/RS485 Active Balance Module	Dual UART Active Balance Module
Product Photo		
Strings	3-24S	3-24S
Balanced current	≤1A	≤1A
Battery Type	Li-ion、LiFePO4	Li-ion、LiFePO4、LTO
MOTE:If the total battery voltage is less than 10V, forbidden the active balance module.		

2、UART/RS485 Smart active balance module Connection Steps



※Special note: Cables from different manufacturers are not universal, please make sure to use matching cables; active equalizers must match BMS with the same number of strings, and different string numbers cannot be mixed.

Special attention: the cables of different manufacturers are not universal，please make sure to use the matching cables.Active balance module must match BMS with the same number of strings，and cannot be mixed with different numbers of strings.

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

1.1 Solder the cable:
The cable is connected from the thin lack 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 co-nnected in turn, until the last red wire is connected to the total battery Positive B+;

1.2 Voltage measuring:
After the cable is connected, do not insert the plug directly into the active balance module, first 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:The voltage of each string of ternary lithium should be around 3.0~4.15V，and LiFeP04 should be between 2.5 and 2.5V~3.6V,make sure the voltage is correct before proceeding to the next step;

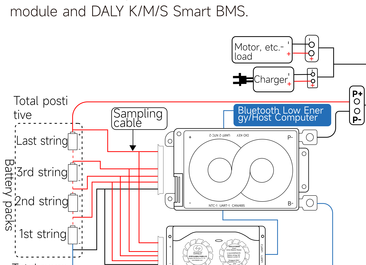
1.3 Insert the bluetooth module:
Insert the bluetooth module into the UART port of the active balance module.

1.4 Plug the cable in:
Insert the plug of the cable into the buckle position of the active balance module.

3、Dual UART smart active balance module Connection Steps

Special attention: the cables of different manufacturers are not universal,please make sure to use the matching cables.Active balance module must match BMS with the same number of strings, and cannot be mixed with different numbers of strings.

1、Connection steps between dual UART active balance module and DALY K/M/S Smart BMS.



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

1.1 Solder the cable:
The cable is connected from the thin lack 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+;

1.2 Voltage measuring:
After the cable is connected, do not insert the plug directly into the active balance module, first 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:The voltage of each string of ternary lithium should be around 3.0~4.15V，and LiFeP04 should be between 2.5 and 2.5V. ~3.6V, LTO should be between 1.8~2.8V, make sure the voltage is correct before proceeding to the next step;

1.3 Connect the active balance module and DALY K/M/S Smart BMS through the UART line, and then connect the BMS to Bluetooth low energy or the host computer for communication.
(Note: The active balance module communicates with the DALY K/M/S smart BMS and can only be connected to the BMS UART-1 port);

1.4 Plug the cable in.Insert the plug of the cable into the buckle position of the active balance module.

2. When the dual UART active balancing modules are used independently, the wiring method is the same as the UART/RS485 model.

2、Active balance module communication usage tutorial

1.Down load the App.The smart active balance module needs to download the communication software. (Smart BMS APP on the mobile phone, PC software on the computer)
On the mobile phone, search for Smart BMS in the "Huawei App Store", download and install it. (f you cannot download, please contact the sales staff);

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

3.Open the APP (SMART BMS),select "local monitoring" or "remote control" on the first screen to enter, and then select "single group" parallel "or" series "according to the battery connection status, find the Bluetooth string number consistent with the Bluetooth physical, click the Bluetooth string number to enter the APP;

4.On the Active Balance page, you can set balance parameters based on actual battery properties.

5.The number of battery string Settings must be consistent with the number of purchased strings, there is a BMS also need to be consistent with the number of BMS.

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 balance module has communication functions, and the parameters can be set through the PCMaster host computer or APP. You can scan the QR code to download the PCMaster host computer or APP.

Download QR code(Foreign):

DALY PC/APP download link

Download URL:

https://www.dalybms.com/download-bluetooth-app/（Foreign website）

5、Precautions

1.The active balance module only has the function of transfering the power of the battery celLs, without the protection function, and cannot replace the BMS;

2. The factory parameters of the active balance module have been set, and are suitable for NMC and LFP batteries.Customers can use them directly without setting parameters.LTo customers need to set the balanced turn-on voltage after receiving the goods;

3.UART/RS485 Smart active balance module must meet two conditions at the same time,one is to reach the balancing turn-on voltoge (the deault is 3.3V) and the otheris to achieve the balancing turn-on voltage difference (the default is 20mV);

4.The dual UART active balance module meet two conditions at the same time,one is to achieve the balanced operating voltage (default is 3V to 3.7V), the second is to achieve the balanced opening pressure difference (default is 50mV);

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

6.The UART/RS485 Active Balance Module is disabled for battery packs lower than 2V, and the dual UART Active Balance Module is disabled for battery packs lower than 1.5V;

7. When the dual UART Active Balance Module does not communicate with the DALY K/M/S BMS, when the Bluetooth changes from UART1 to UART2, you need to restart the APP or restart the Bluetooth of the mobile phone.