

How to test cells voltage before wiring?

—. **Make sure the balance wires connected correct.**

Let's make an example use 7S batteries but 8 pin lines.

Lines:

Negative wire: black color(B-)

Positive wire: red color(From B1 to last one all are positive wires)

B-: Total negative wire

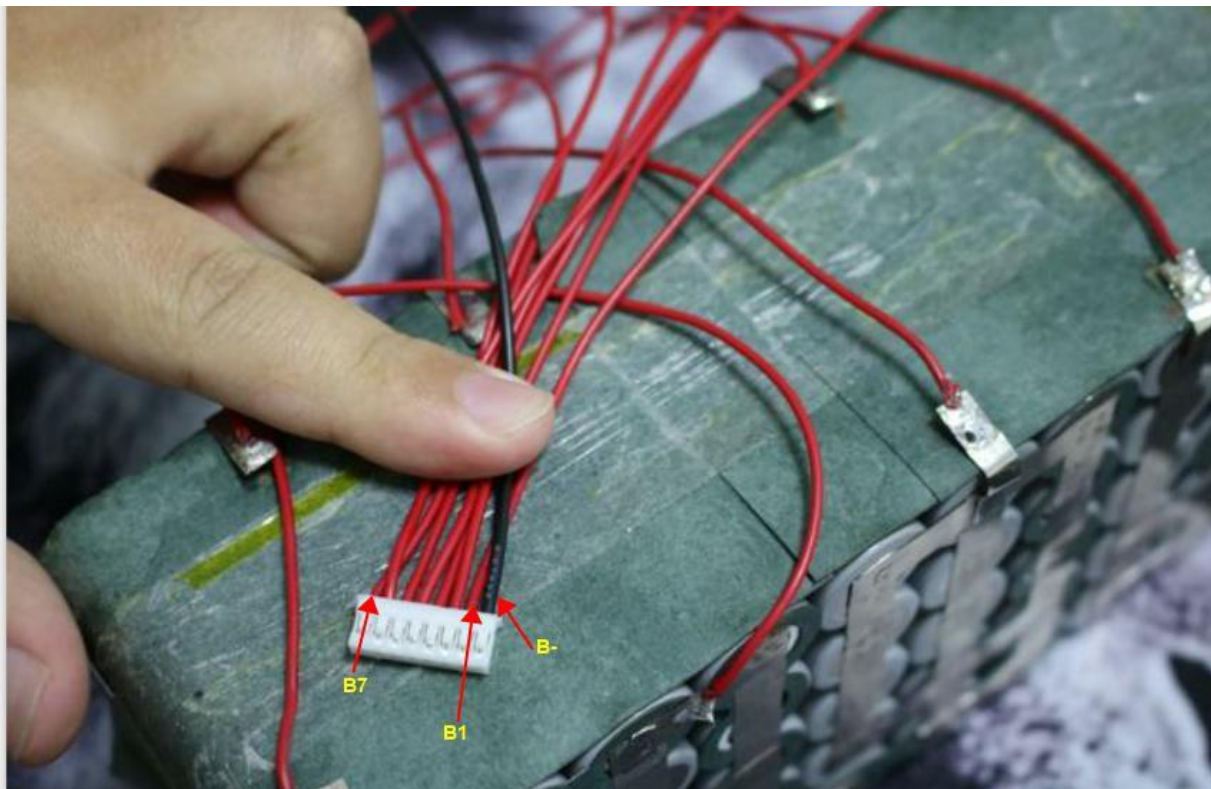
B1: Closest by B-. This is the first string positive wire

B2: Closest by B1. The second one wire

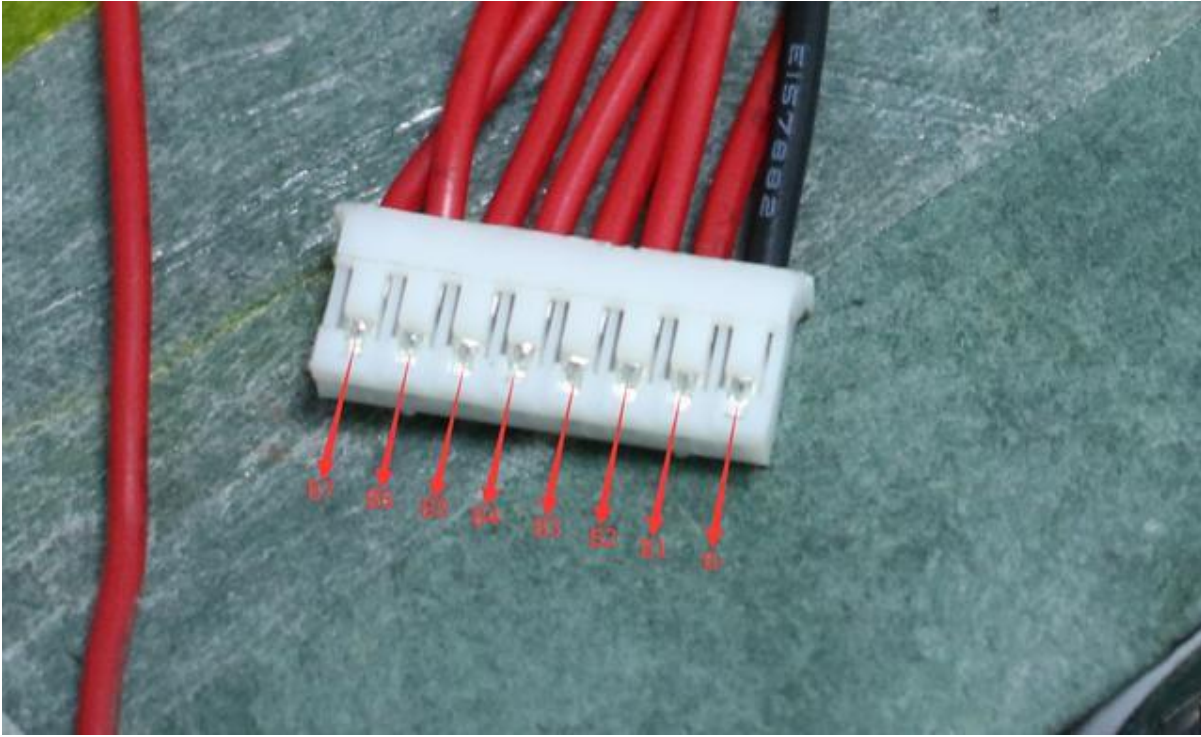
B3~B7

PS: The last wire, above is B7, it should connect on the total positive position.

Below is balance wires for you reference.



Below is connector's picture for you reference.



Pls connect each wire to each battery.

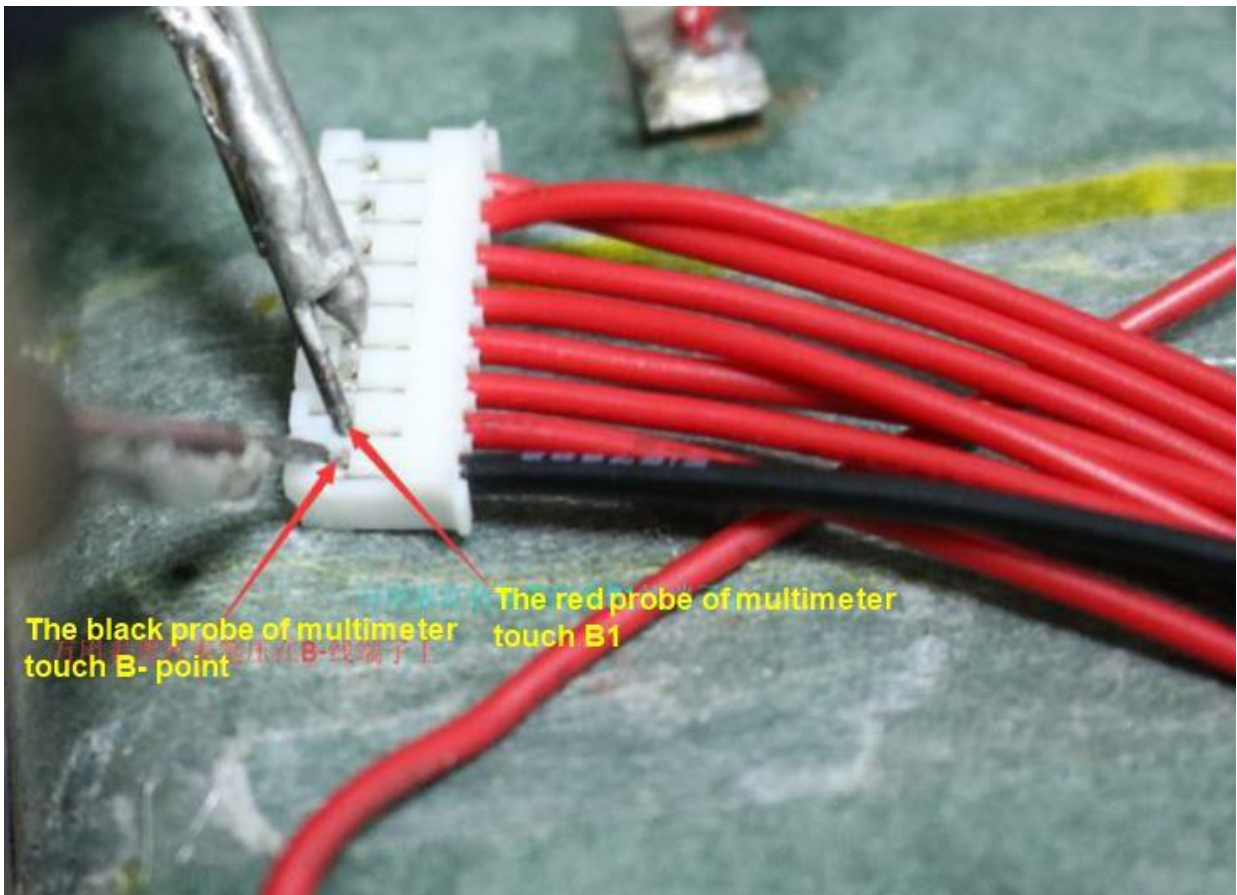
二. Pls test it if you connected correct or not use multi-meters

1. Pls use the black probe of the multi-meters to touch connector of B- and red probe of the multi-meters to touch the connector of B1, you would get the first serier's voltage is: 3.584V

2. Pls use the black probe of the multi-meters to touch connector of B1 and red probe of the multi-meters to touch the connector of B2, you would get B2'S voltage is: 3.584V

And other strings test like as the same as above.

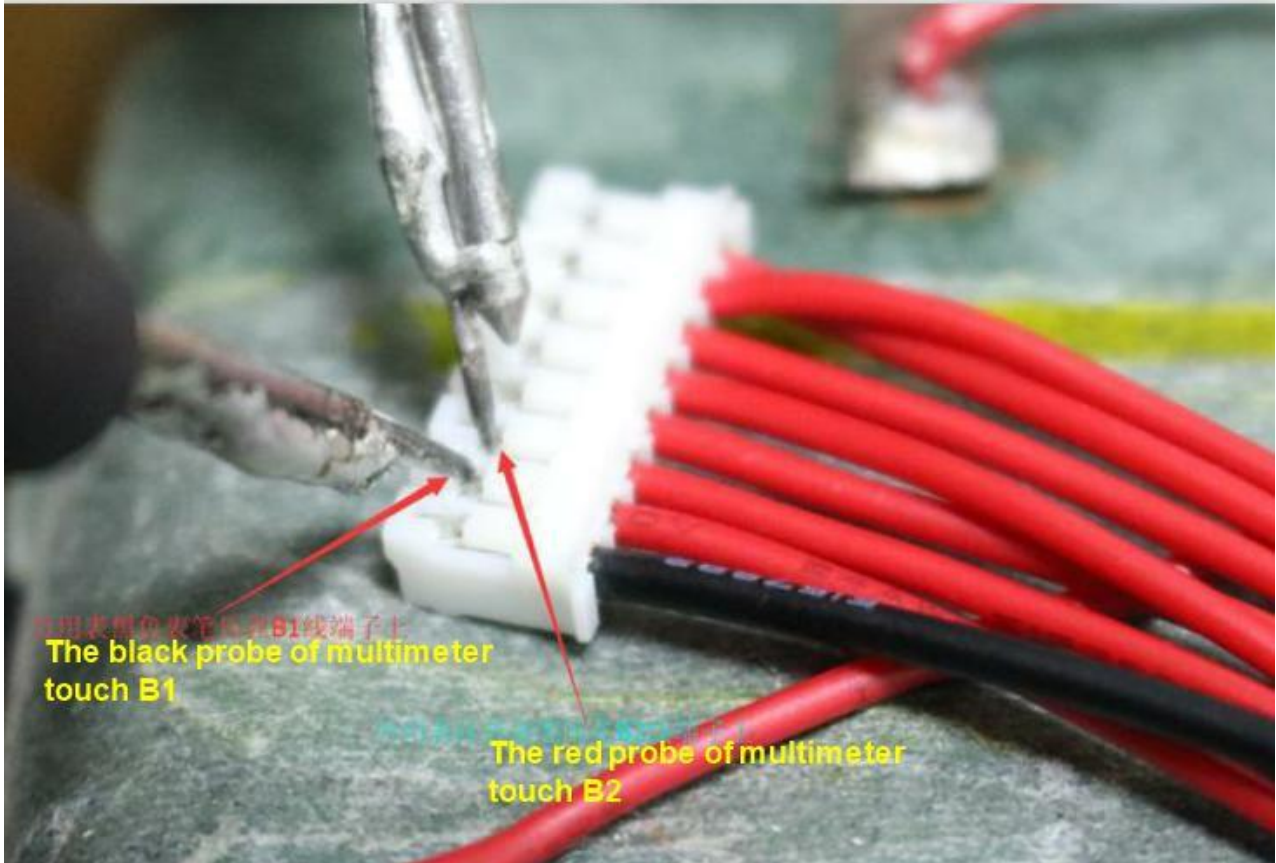
3. You can get result through above method as below:



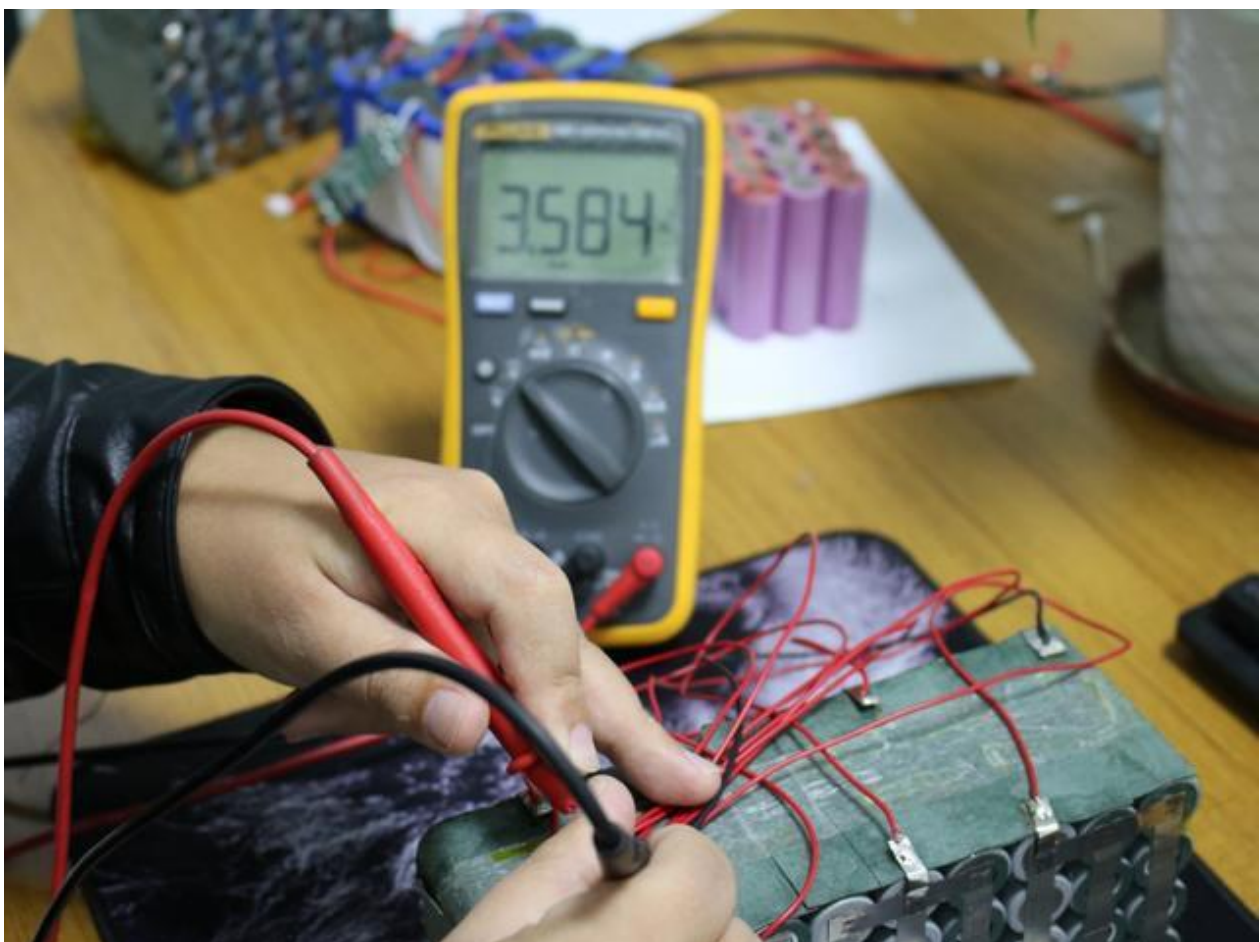
The B1 is: 3.584V



Test B2



B2 voltage: 3.584V



After tested all, the data as follow:

B1: 3.584V

B2: 3.584V

B3: 3.585V

B4: 3.585V

B5: 3.583V

B6: 3.583V

B7: 3.584V

You can see that above all 7 strings' voltage are about 3.58V. It means the connecting was correct. And the voltage difference is below 0.002V, it proves the uniformity of battery is very good.

PS: The voltage of each cell should be:

Li-ion(NMC) is 3-4.2V;

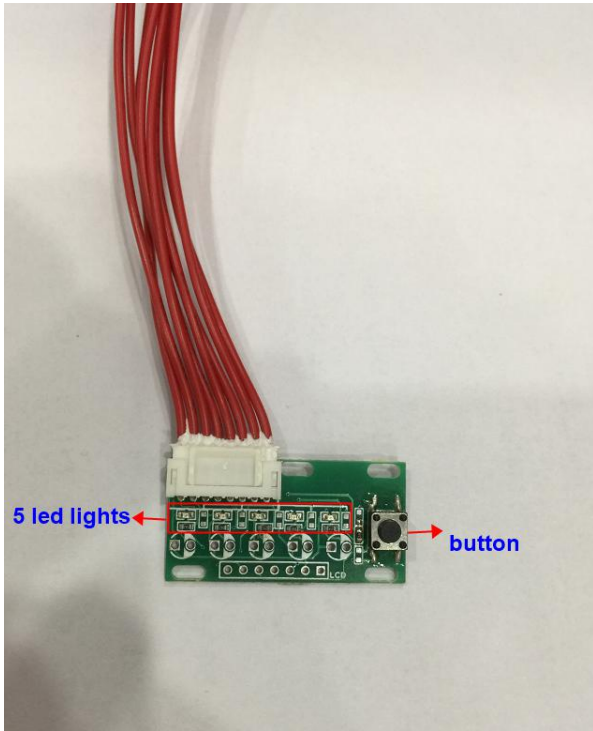
Lifepo4(LFP) is 2-3.6V;

LTO is: 1.5-2.75V

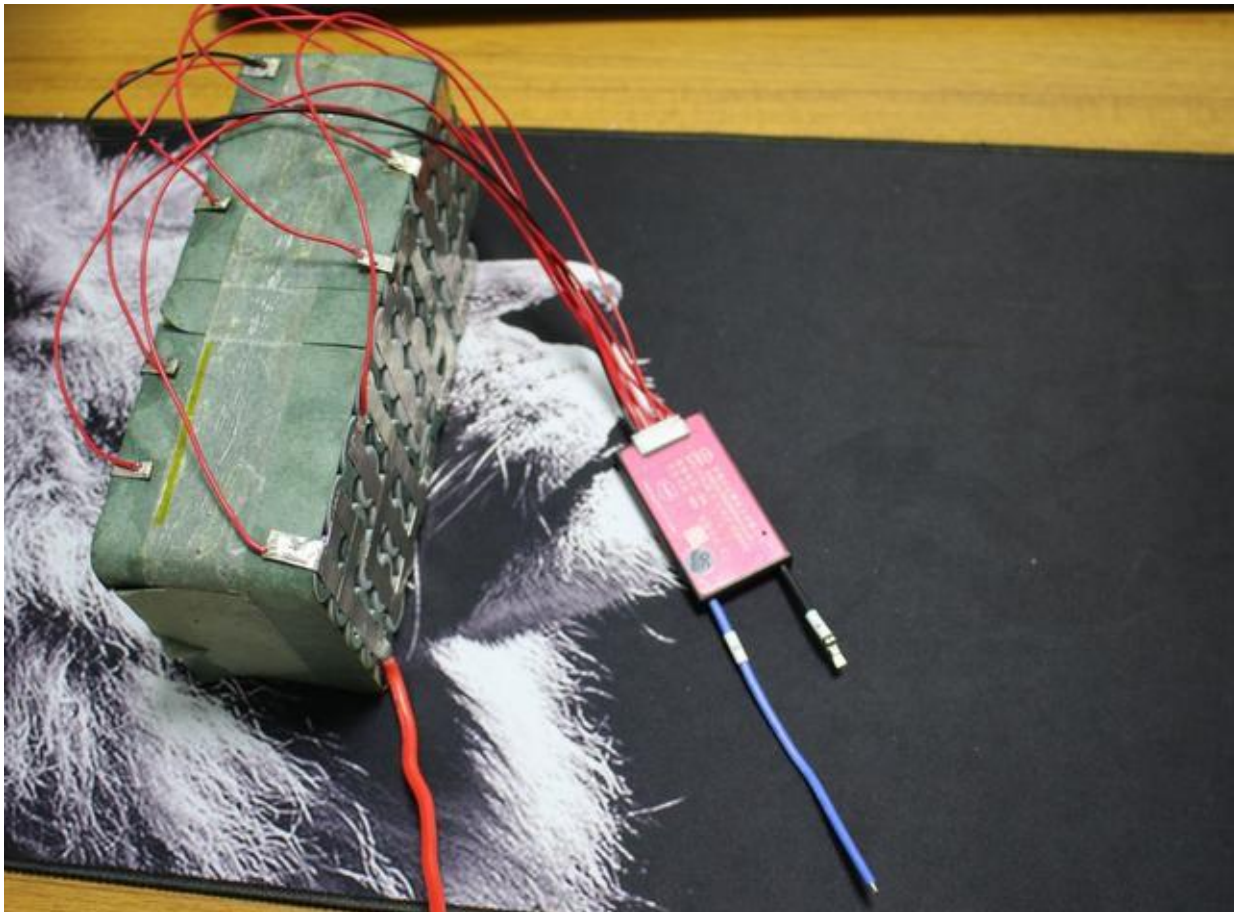
If any adjacent voltage is over 2V, it means connected wrong, should connect again.

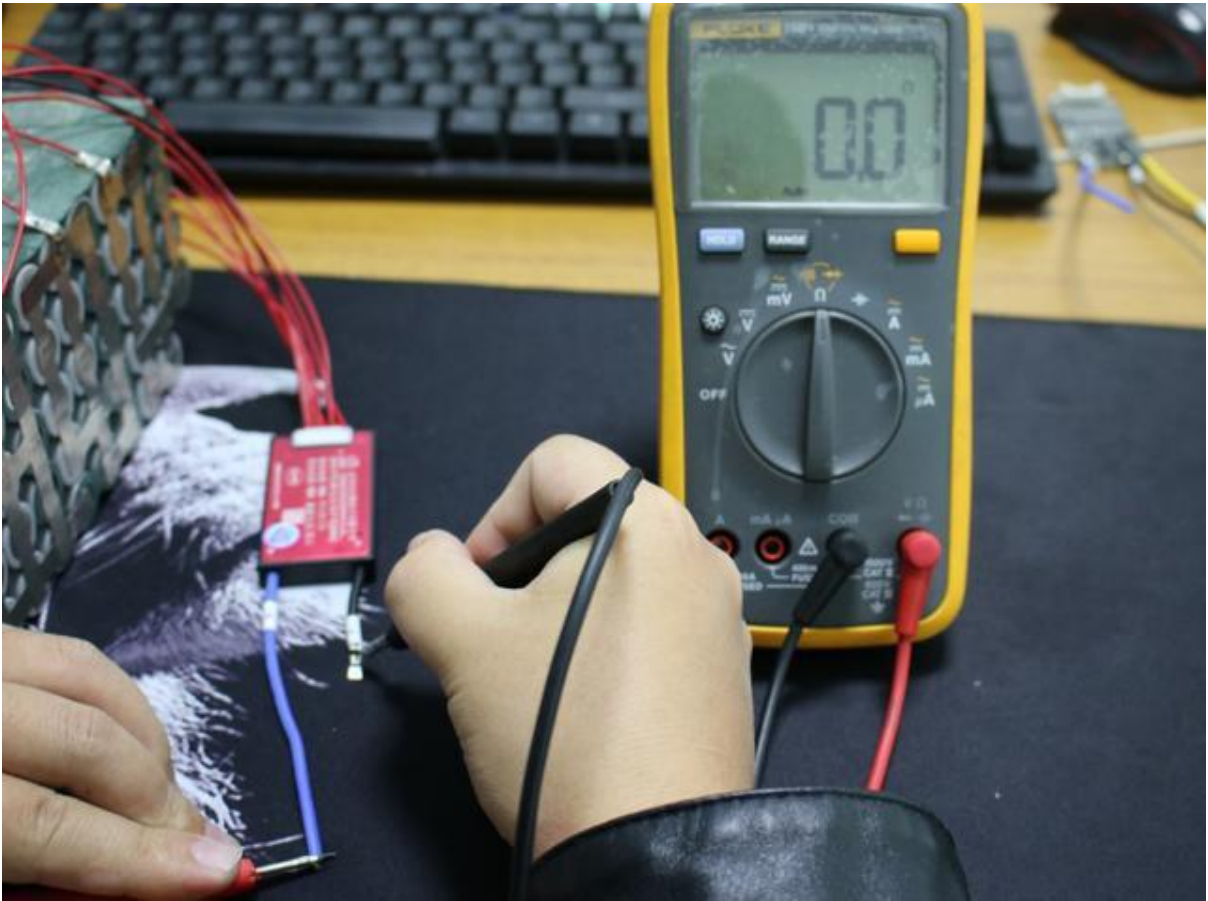
☰ . After passed the testing, pls insert balance wires into BMS. Also pls insert SOC LED light board into it (**below shows the pictures**). Press the button of light board to activate BMS. And then test the resistance between B- and P-. If it is 0Ω , it means connecting is very well, BMS without problem.

Old Version:



New Version(Aug,3rd,2020):





四. Another way to test if BMS have no problem is that:

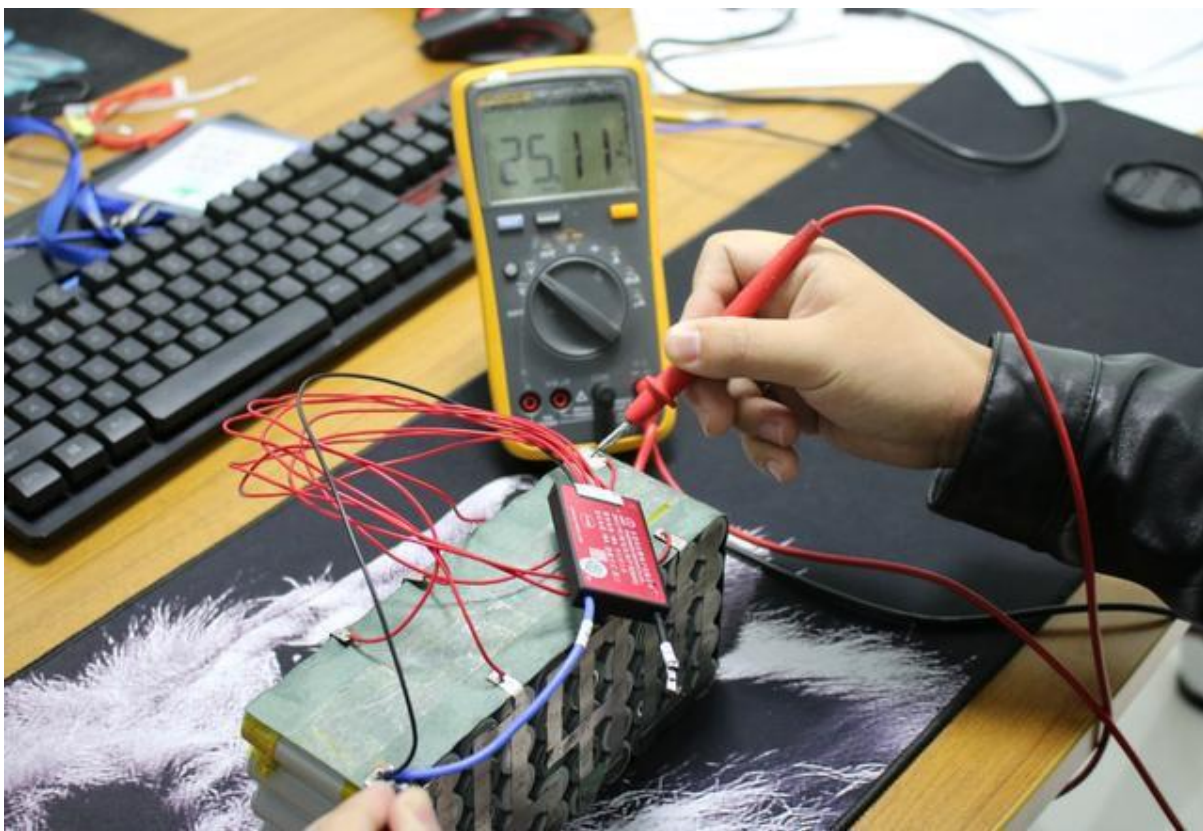
Pls connect B- wire with battery pack, and test the voltage from B- to total positive pole of battery pack.

Then test Voltage from P- to total positive pole of battery pack.

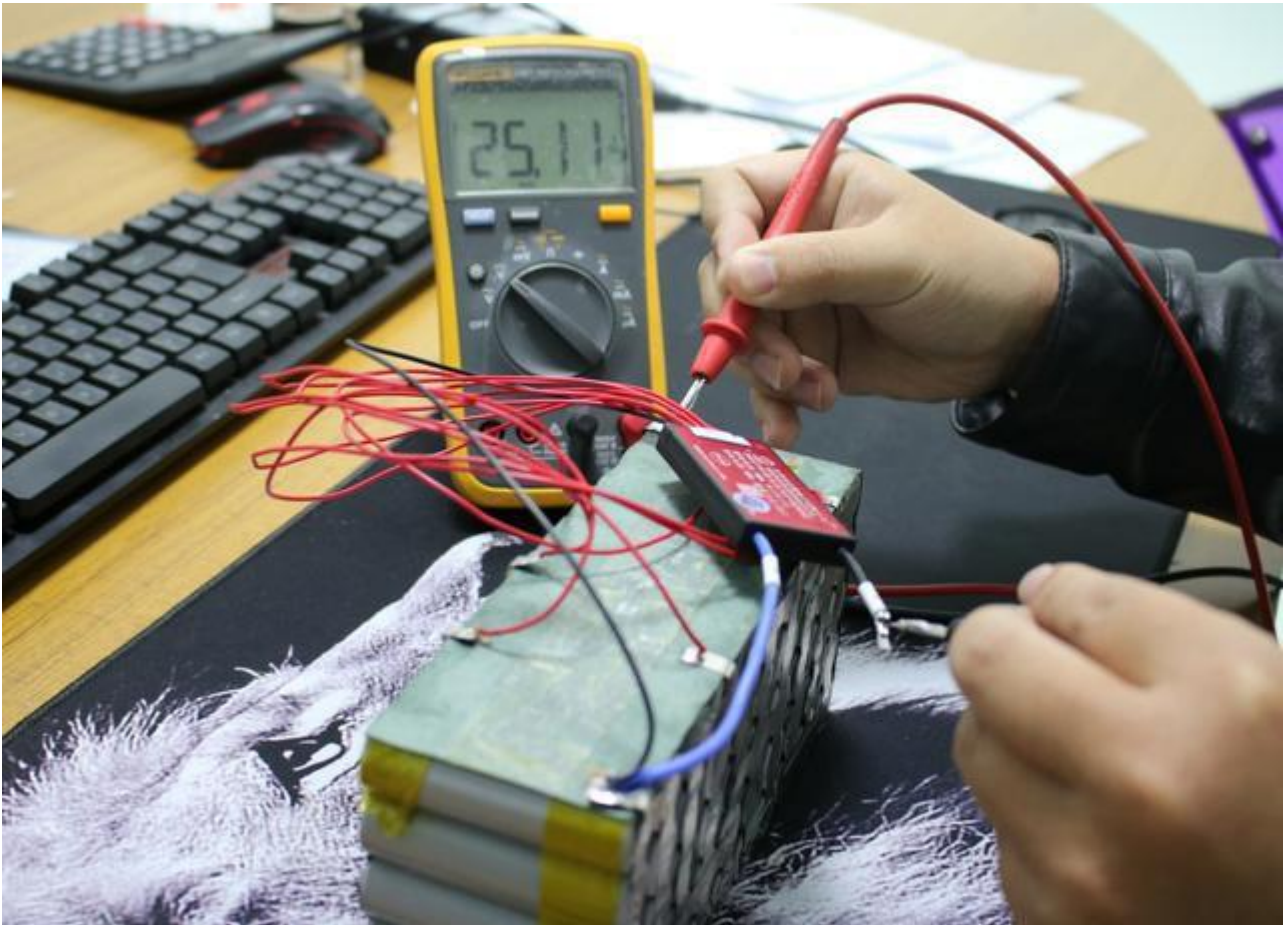
If these 2 voltage are the same, it means BMS have no problem.

Example:

B-to total positive pole is :25.11V



P-to total positive pole is: 25.11V



It means the voltage is the same, BMS have no problem.

Notes:

1. If P- discharge through large current, the voltage will be cut down a little. And BMS will emit heat (appro. 50 degrees), it is normal.
2. Pls pay attention to put the probe of multi-meter in correct, otherwise it will be short circuit and burn it.
3. Pls connect wires with batteries at first, then connect with BMS. If the order is reversed will cause BMS to be burn out.