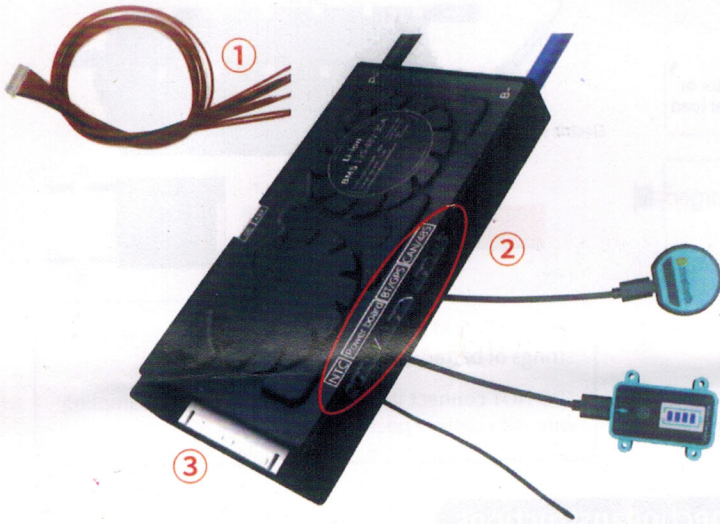


# SMART BMS wire connection instruction (Bluetooth part)



## I SMART BMS wiring connection steps :

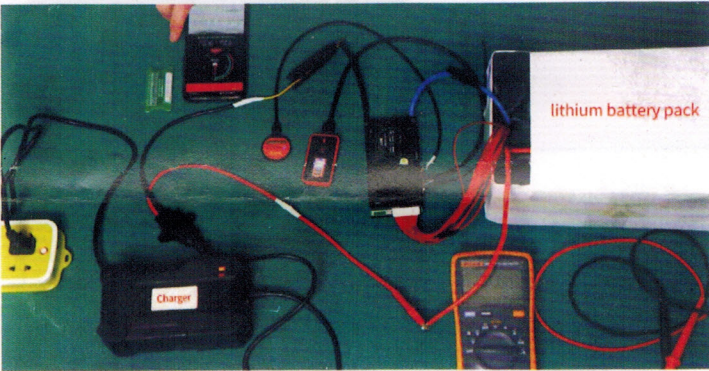
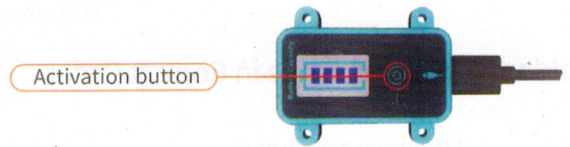
- Step 1: sampling cable connect to the battery pack all poles with right order refer to common bms sampling cable connection
- Step 2: accessories (NTC ,Bluetooth , BMS screen(Optional), power display board (Optional), GPS(Optional), PC connection usb(Optional)), **NTC is crucial**, without NTC connecting smart bms will not be working
- Step 3 : sampling cable with pins end to the bms



## II Activate the smart bms

**Method 1:** with activation button on power display board (need to buy apart; Do not work with smart bms (Li-ion 3s, LiFePO4 4s) and 30A~60A of 6s~16s.

**Method 2:** Charge to activate (while in charging or discharging , bms B- wire must be connected with battery pack total negative pole)



### Notice:

- Please do the battery pack capacity calibration at first time connection, write the capacity value as per the real capacity.
- Reset password : 123456.
- If you want to keep the smart bms bluetooth working , please set the "sleep waiting time" as 65535. BUT smart bms (Li-ion 3s, LiFePO4 4s) and 30A~60A of 6s~16s set it as 15300.
- Please keep the charging MOS and discharging MOS be ON while connecting.
- Balance can be working automatically under 3 conditions :
  - in charging ;
  - single cell voltage at : lifepo4 3.2v , li-ion 3.8v , lto 2.4v
  - Voltage difference > 50mV.
- For bluetooth module connection only works with smartphone, NOT tablet ,NOT PC/computer; there are Android version and IOS version , please scan the correct code and download the right SMART BMS APP.
- If your phone is Android system , please turn on the location service and be sure you have the correct smart bms app.
- Smartphone system protection settings , sometimes the smart phone will make restrictions to the smart bms app automatically , please identify the unseen blocks and release it ,then try to connect it in the smart bms app.

☆Do Not use a smart charger to do activation charging , use a common charger

Project	Machine	Setting
type of battery	Li-ion	Set
rated capacity	30.0AH	enter Set
cell reference volt	3.60V	enter Set
sleep waiting time	65535S	enter Set
SOC set	50.0%	enter Set

set it as real battery capacity

Charge to full and set it as 100

## SMART BMS APP download



Android



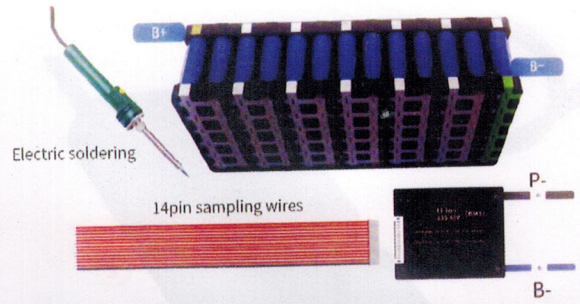
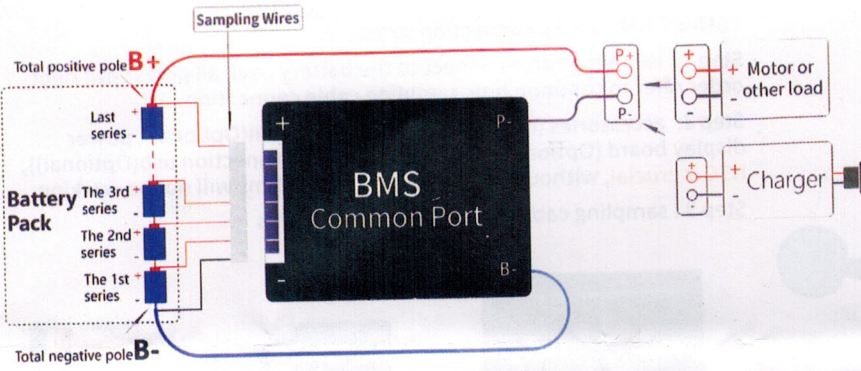
IOS

SMART BMS APP download for Android:  
<https://appgallery1.huawei.com/#/app/C102450269>

SMART BMS APP download for IOS:  
<https://apps.apple.com/cn/app/smart-bms/id1519968339?l=en>



# Common BMS Wiring Diagram



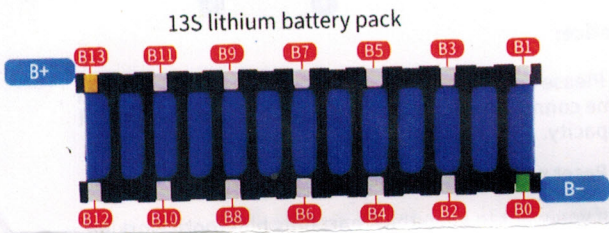
\* The strings of bms must be exactly the same with the strings of battery pack  
 \*DO NOT connect the bms while welding the sampling wire with battery pack poles .

Separate port bms wiring: Charger connect C-(Yellow wire), load connect to P-(Black thick wire). Apart from this, other connection is the same with common port bms

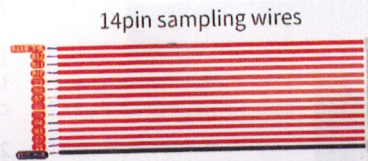
## Common bms wiring connection instructions

(Take the Li-ion 13s bms as an example)

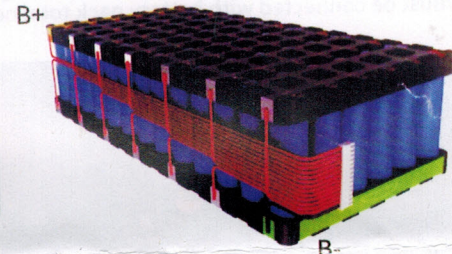
### I Soldering Samplig Cable in Correct Order



Picture -1



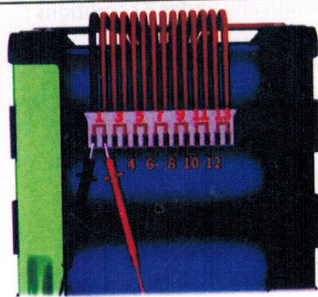
Picture -2



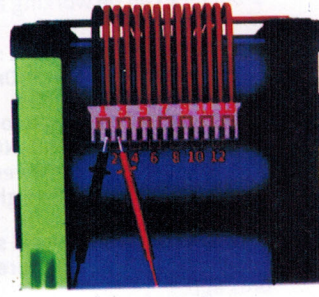
Picture -3

1. Please check the the total negative pole of battery pack and mark it as B0, joint between first string and second string remark it as B1, to be continue like this till the 13rd string , it's the total positive pole of battery pack which has no negative pole to connect with, remark it as B13.

2. Connect the first sampling wire (thin black one) with B0, then the second sampling wire (thin red one)connect with B1, to be continue like this with the exactly right order till the B13, as per the following picture -3



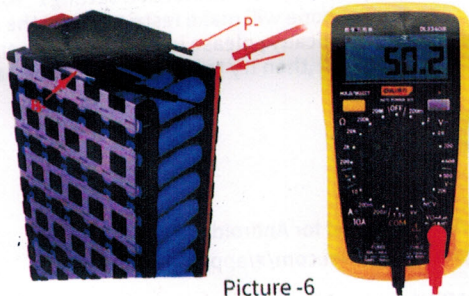
Picture -4



Picture -5

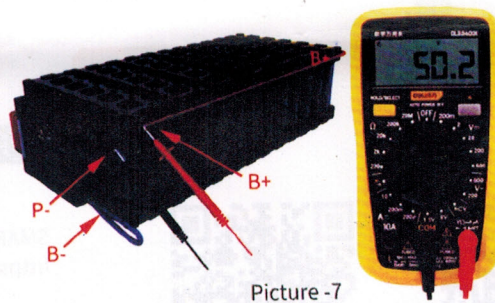
3. Please do the voltage detection to check if all sampling cable connection properly. Turn the multimeter to position DC voltage , and detect voltage of each string of battery pack like the picture -4,-5

☆ For li-ion battery pack rated 3.7v, voltage range should be 2.8v~4.2v ;  
 lifepo4 battery pack rated 3.2v, voltage range should be 2.5v~3.6v ;  
 Lto battery pack rated 2.0v, voltage range should be 1.8V~2.7v ;  
 if voltage beyond the range that means there are wires are in wrong connection.



Picture -6

voltage of battery pack



Picture -7

voltage via bms and battery pack

### II To make sure you have the right circuit connection

Please: detect voltage between battery pack total positive pole and battery pack total negative pole : picture 6

Detect voltage on battery pack total positive pole and bms P- : picture 7

If the picture 6 and picture 7 has the same voltage or voltage difference less than 0.6v , then it works.