

Smart BMS 14S-24S 200A 300A 400A 500A 600A 800A Bluetooth
RS485 Modbus Ebike Ecar Inverter Solar

TOPBMS

www.topbms.com

Smart BMS 14S-24S with B/T+RS485

Sodium-ion Battery



3V

Compatible with Li-ion NMC Battery/Lifepo4Battery/LTO Battery/Sodium-Ion Battery

Discharging/ Charging 200A/300A/400A/500A/600A/800A

With Alarm Buzzer+2NTC

Lifepo4 Battery



3.2V



Bluetooth APP



Relay

Lithium-ion Battery



3.7V

Lithium-Titanate Battery



2.3V

whatsapp: +8617841591535

Please go to the website :www.cleverbms.com to download bluetooth APP and rs485 software for PC

TOPBMS: Smart BMS14S-24S 200A 300A

400A 500A 600A 800A with bluetooth /PC

software ;This BMS is compatible with Both

Lithium-ion battery and Lifepo4 Battery / lithium-

titanate battery; this bms is compatible with

battery

14S ,15S ,16S,17S,18S,19S,20S,21S,22S,23S,

24S ; you can set the parameters via

Phone application or PC software; This bms

has rs485 communication; we can offer modbus

protocols;please contact me via

wechat/whatsapp:+8617841591535;Email:

zhxiwangdianzi@126.com if you are interested

TOPBMS

www.topbms.com

whatsapp:+8617841591535

Smart BMS 14S-24S with B/T+RS485

Compatible with Li-ion NMC Battery/Lifepo4Battery/LTO Battery/Sodium-Ion Battery

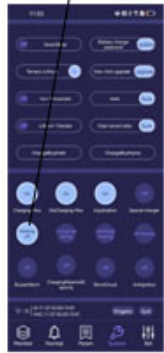
Discharging/ Charging 200A/300A/400A/500A/600A

With Alarm Buzzer+2NTC

Switch for discharge

(Attention: Before BMS works,
please short the 2 white cables)

Relay for heating



Phone APP

Relay for discharge /charge



BMS 14S-24S

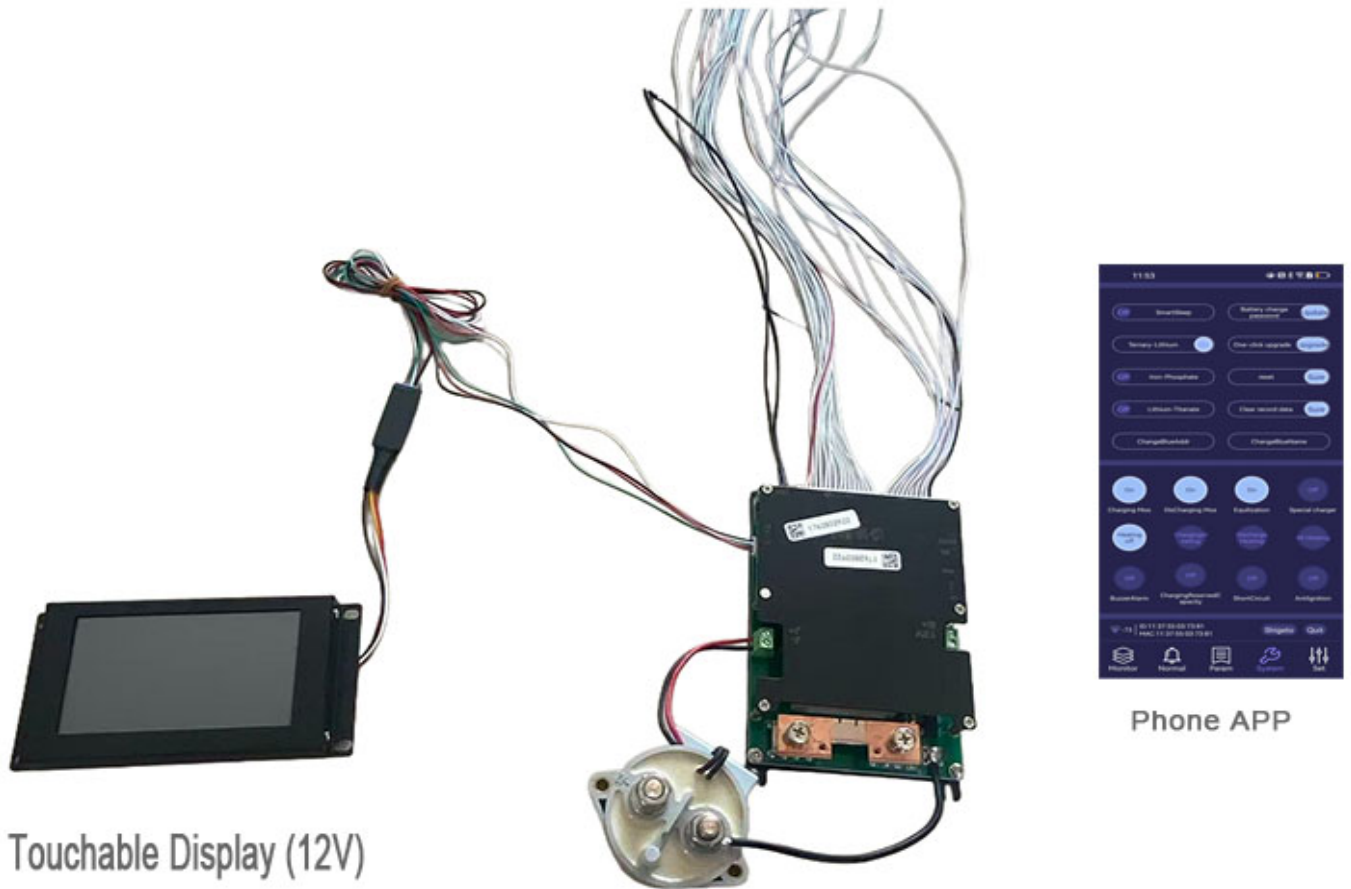


TOPBMS

www.topbms.com

Smart BMS 14S-24S with B/T+Display

Email: zhxiwangdianzi@126.com



Touchable Display (12V)

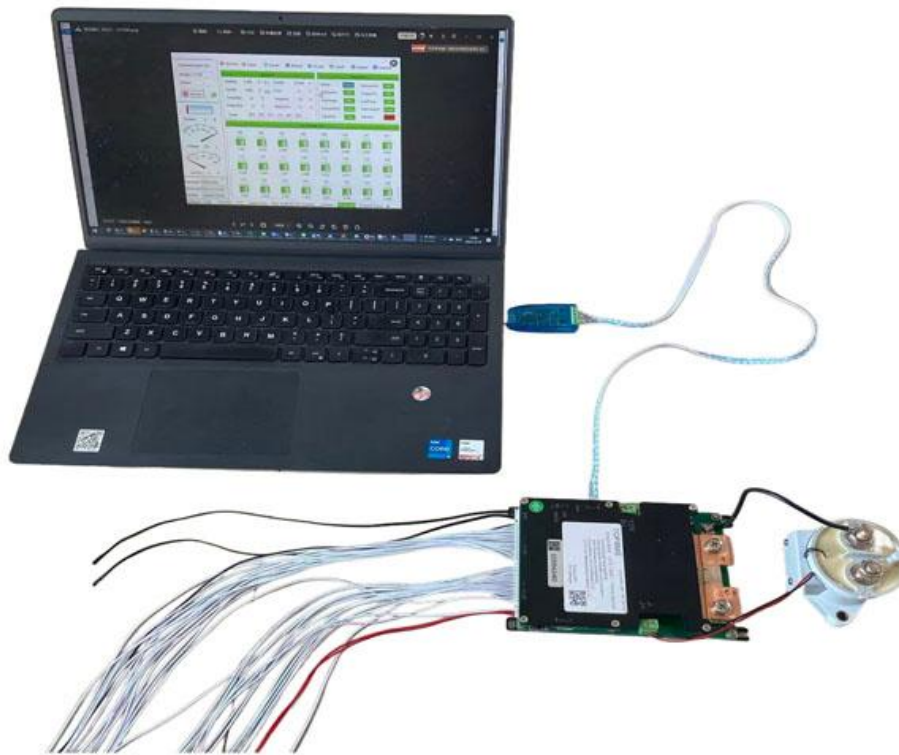
BMS 14S-24S

Phone APP

TOPBMS

www.topbms.com

BMS+BMS Monitoring Tool (PC software)

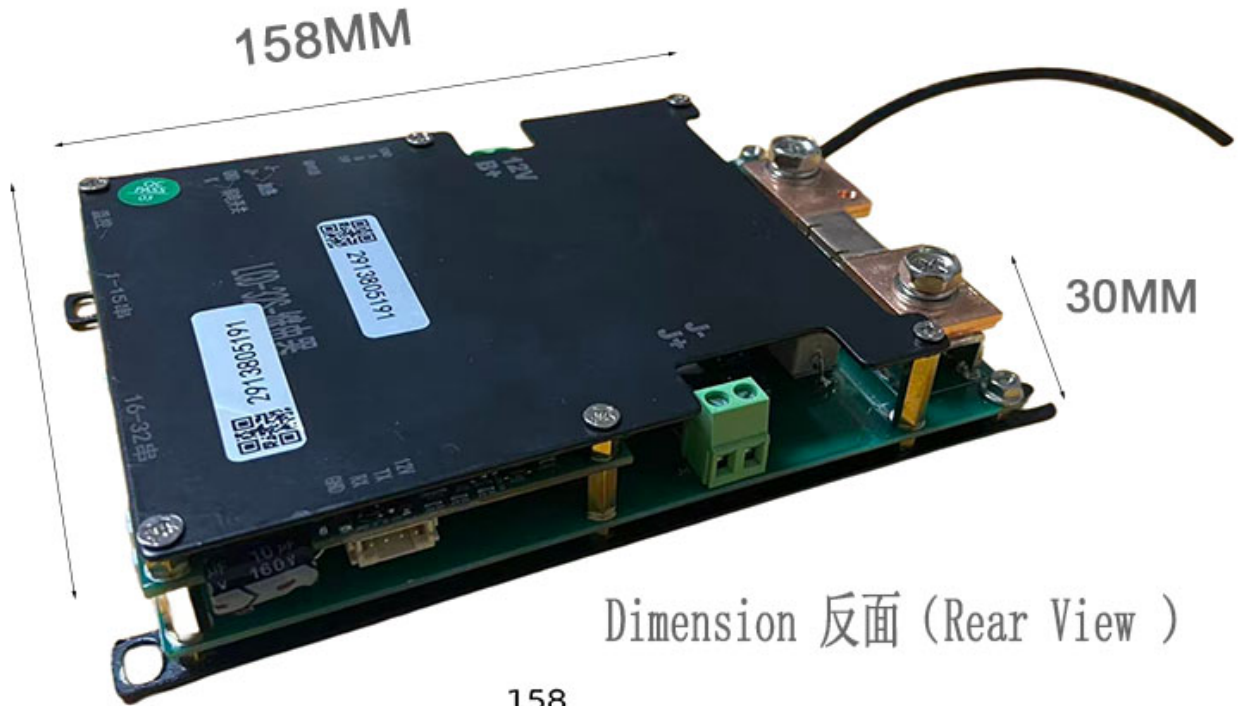


whatsapp:17841591535

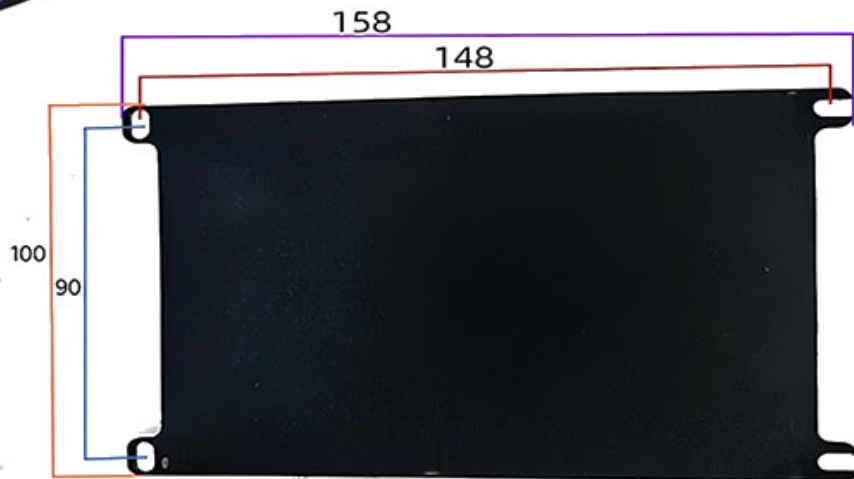
TOPBMS

www.topbms.com

Dimension 正面 (Front View)



Dimension 反面 (Rear View)



TOPBMS

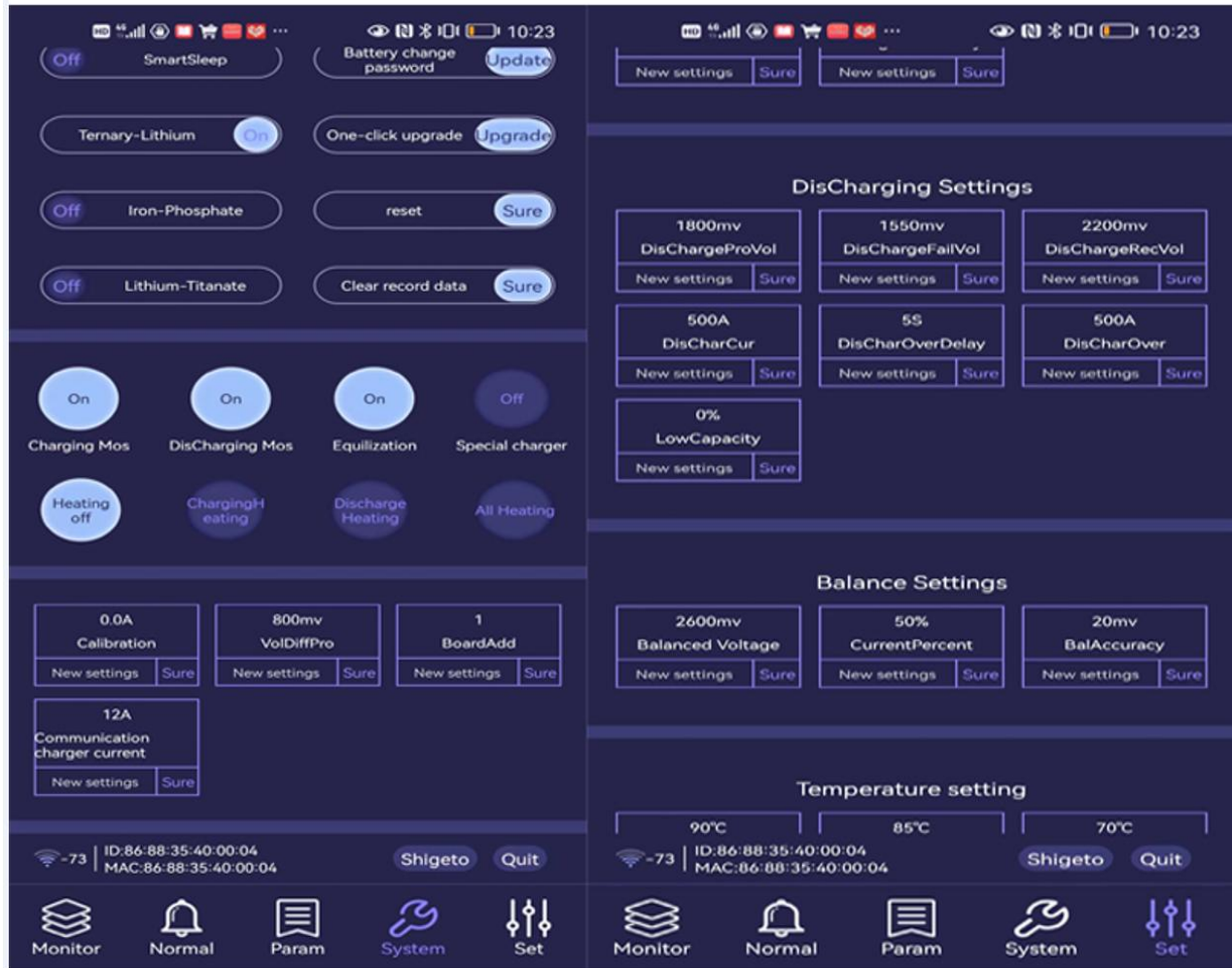
www.topbms.cn

Touchable Display



Phone APP

Password :123456



Note: Go to website(www.cleverbms.com) to see video of Phone APP Instrction

Cells Setting

BMS talk to PC via rs485

BMS Lithium Battery Management System

PortNo: COM4
DevNo: 1
Connect
English

Remain: 0 %
Voltage: 0 V
Current: 7 A

MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

Battery Info

CapacitySet: 20 ah CellSet: 14 C
CurrentPercent: 50 % LowCapacity: 0 %
BalAccuracy: 20 mv DisCharCapacity: 0 ah
BalanceVol: 3800 mv CalibrationCapacity: 0 ah

Battery Operation

Ternary-Lithium ReStart
Iron-Phosphate Reset
Lithium-Titanate Modify

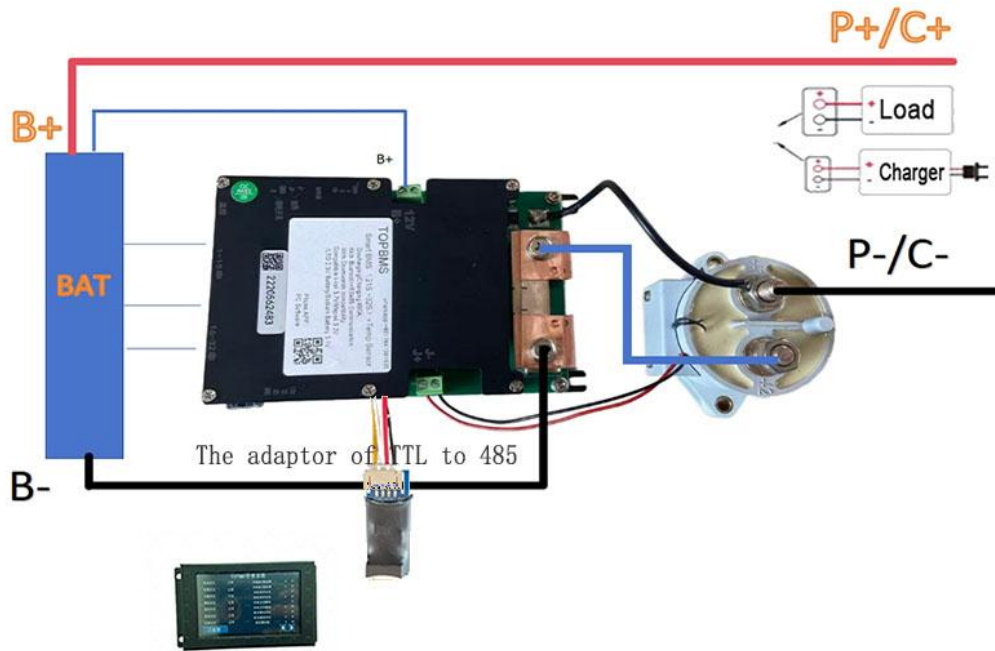
Charge MOS: Discharge MOS: Equalization: Special Charger:
HeaterClose: ChargeHeater: DisChargeHeater: AllHeater:

cell string

1 >. Wiring Diagram
(200A/300A/400A/500A/600A)

TOPBMS

www.topbms.com

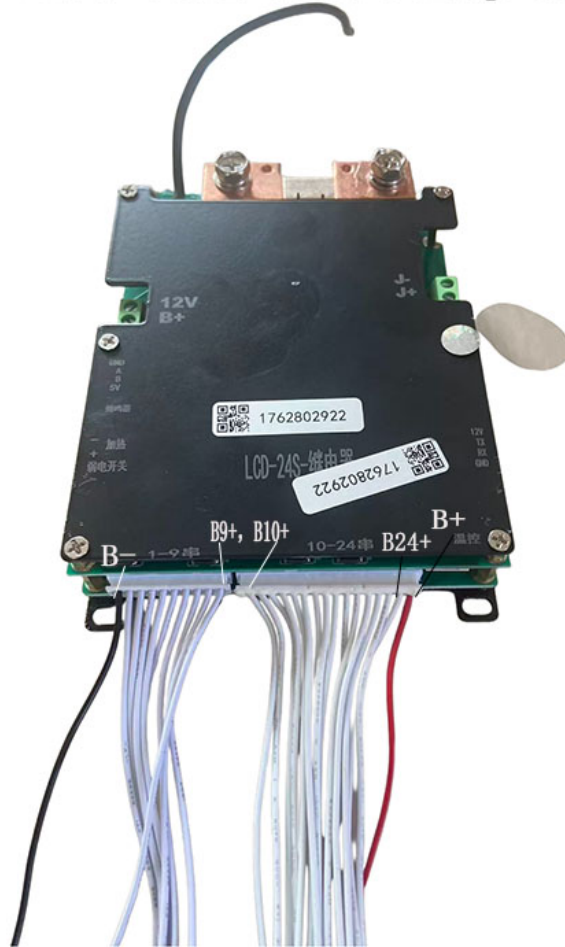


Email:zhxiwangdianzi@126.com

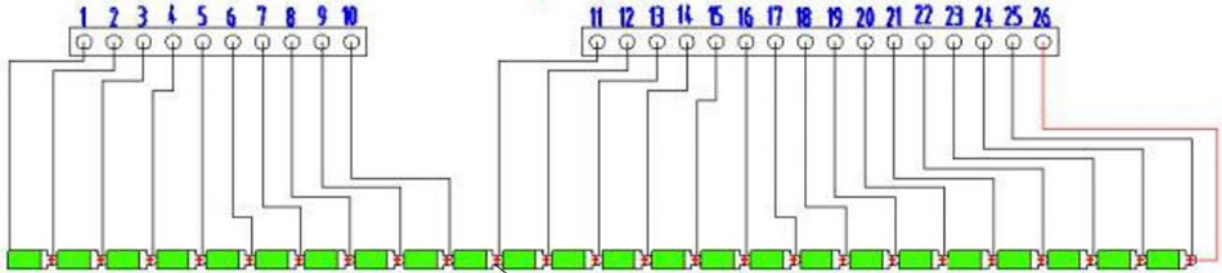
TOPBMS

www.topbms.com

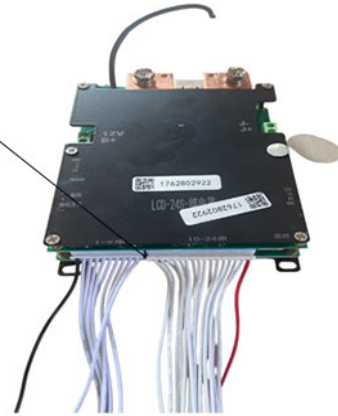
How to wire cell measuring cables ?



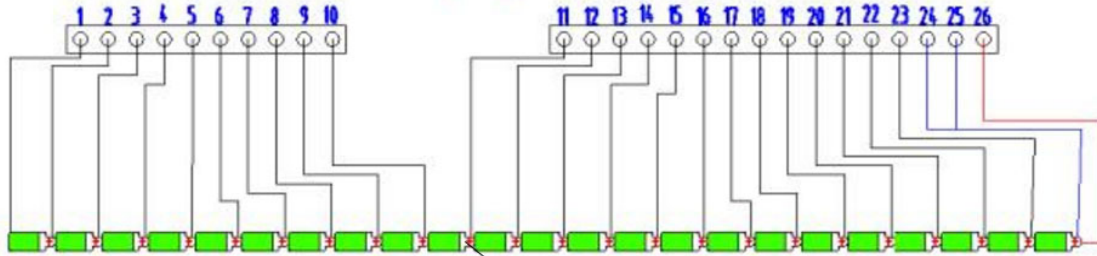
24串接线图



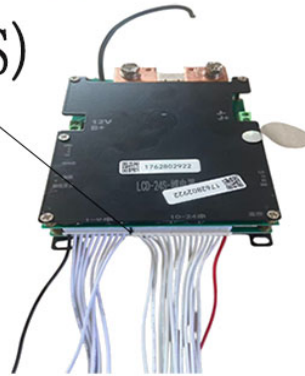
(Wiring for 24S)



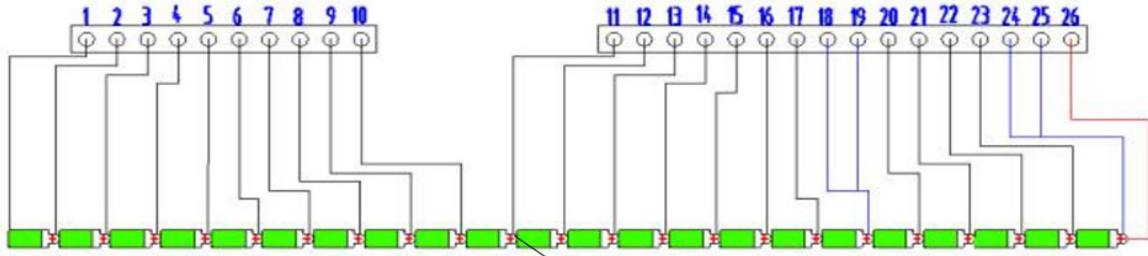
23串接线图



(Wiring for 23S)



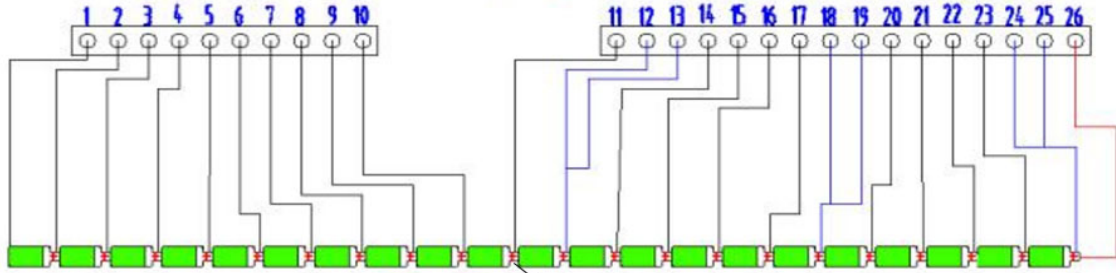
22串接线图



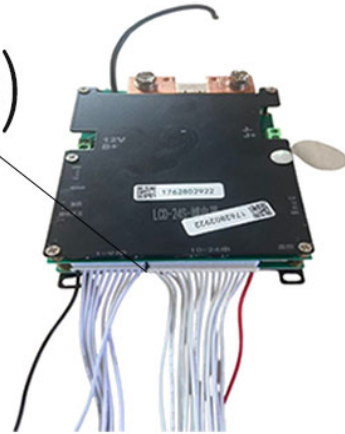
(Wiring for 22S)



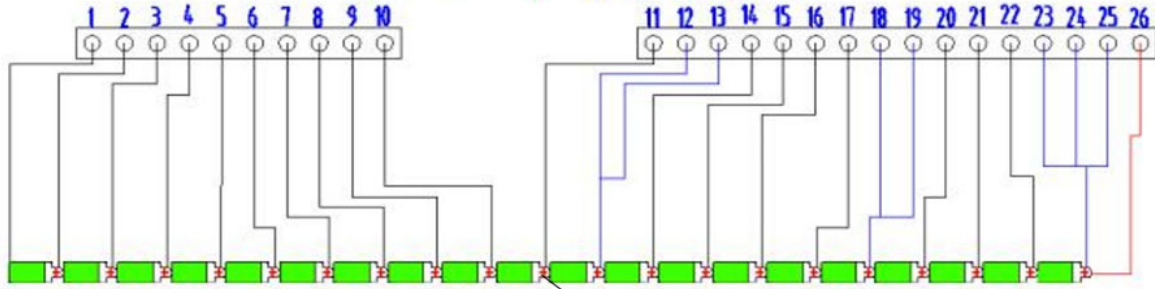
21串接线图



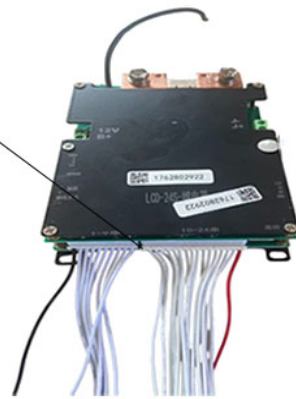
(Wiring for 21S)



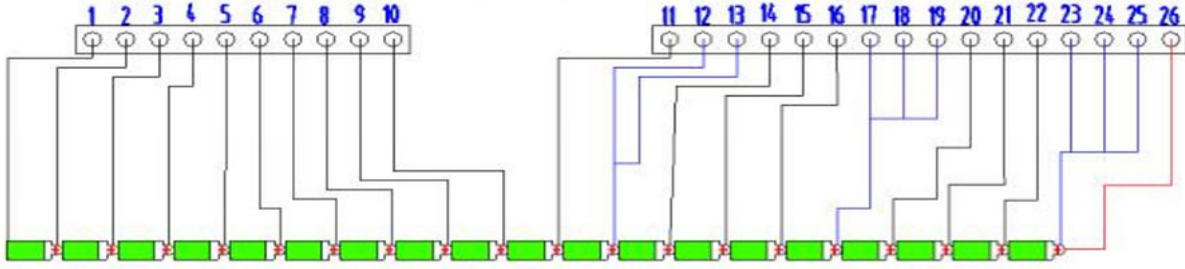
20串接线图



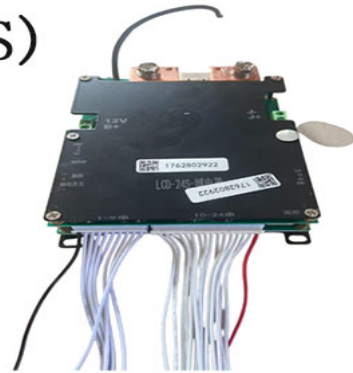
(Wiring for 20S)



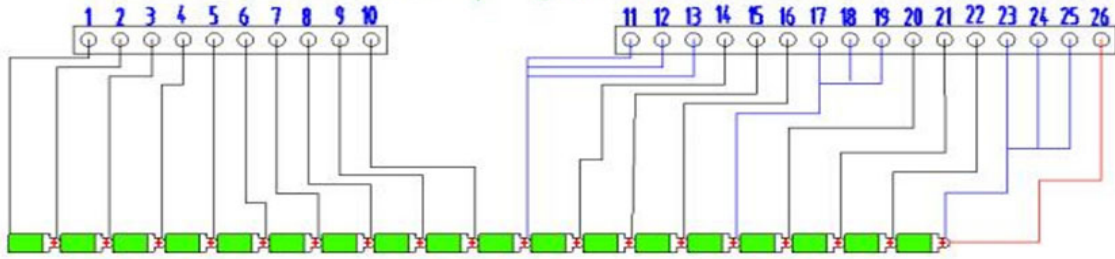
19串接线图



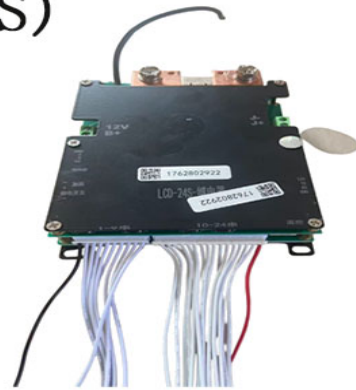
(Wiring for 19S)



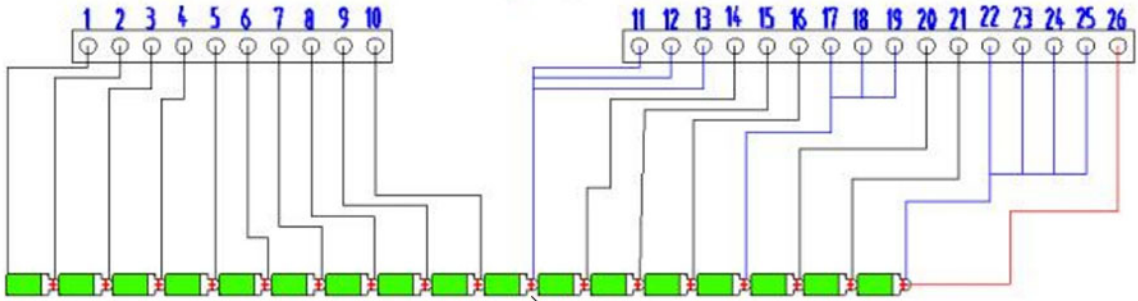
18串接线图



(Wiring for 18S)



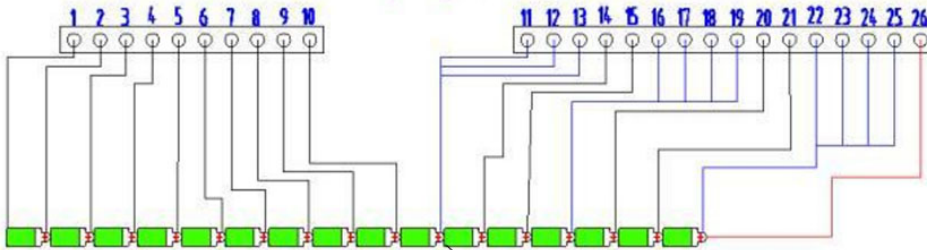
17串接线图



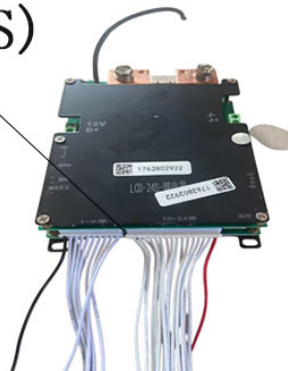
(Wiring for 17S)



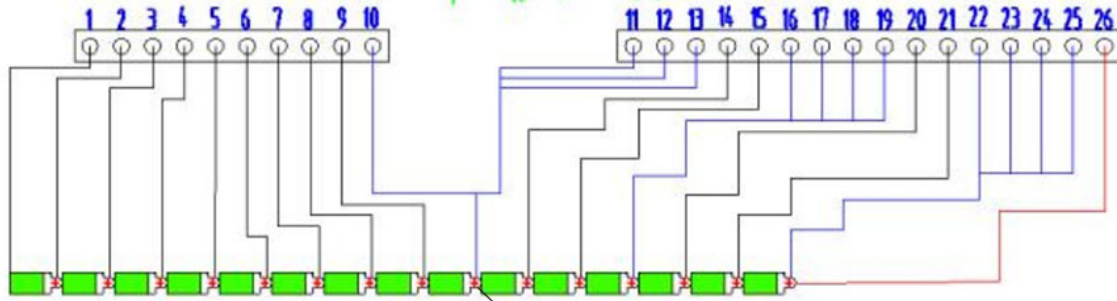
16串接线图



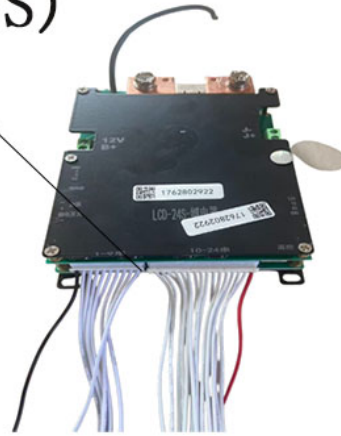
(Wiring for 16S)



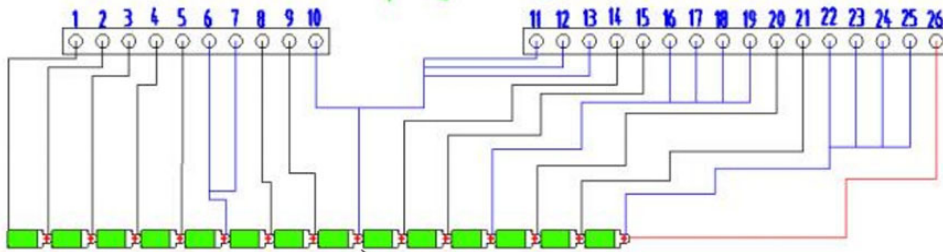
15串接线图



(Wiring for 15S)



14串接线图



(Wiring for 14S)



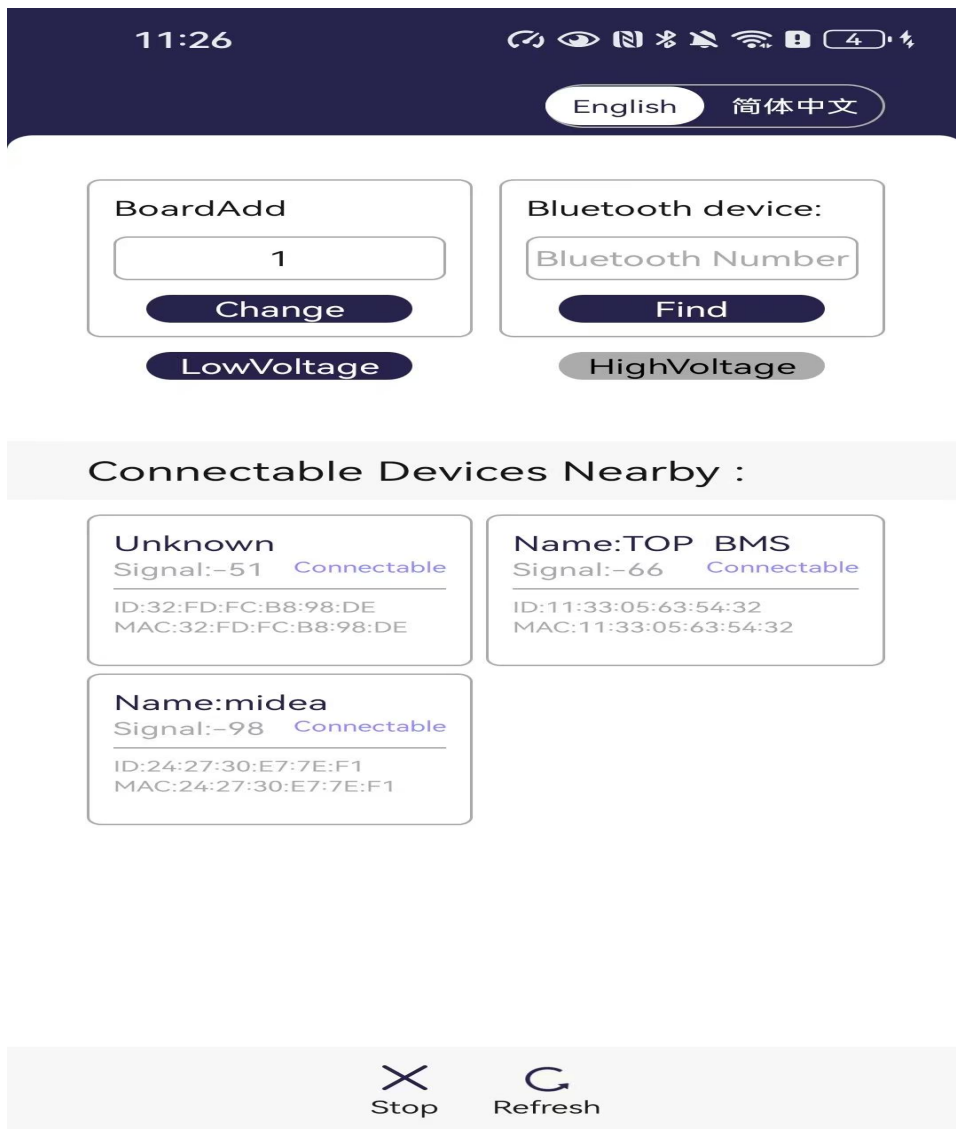
Phone APP & BMS PC software Working Instructions

The download link of Phone APP and BMS PC Software : <https://www.topbms.com/news/93.html>

[Phone APP :](#)

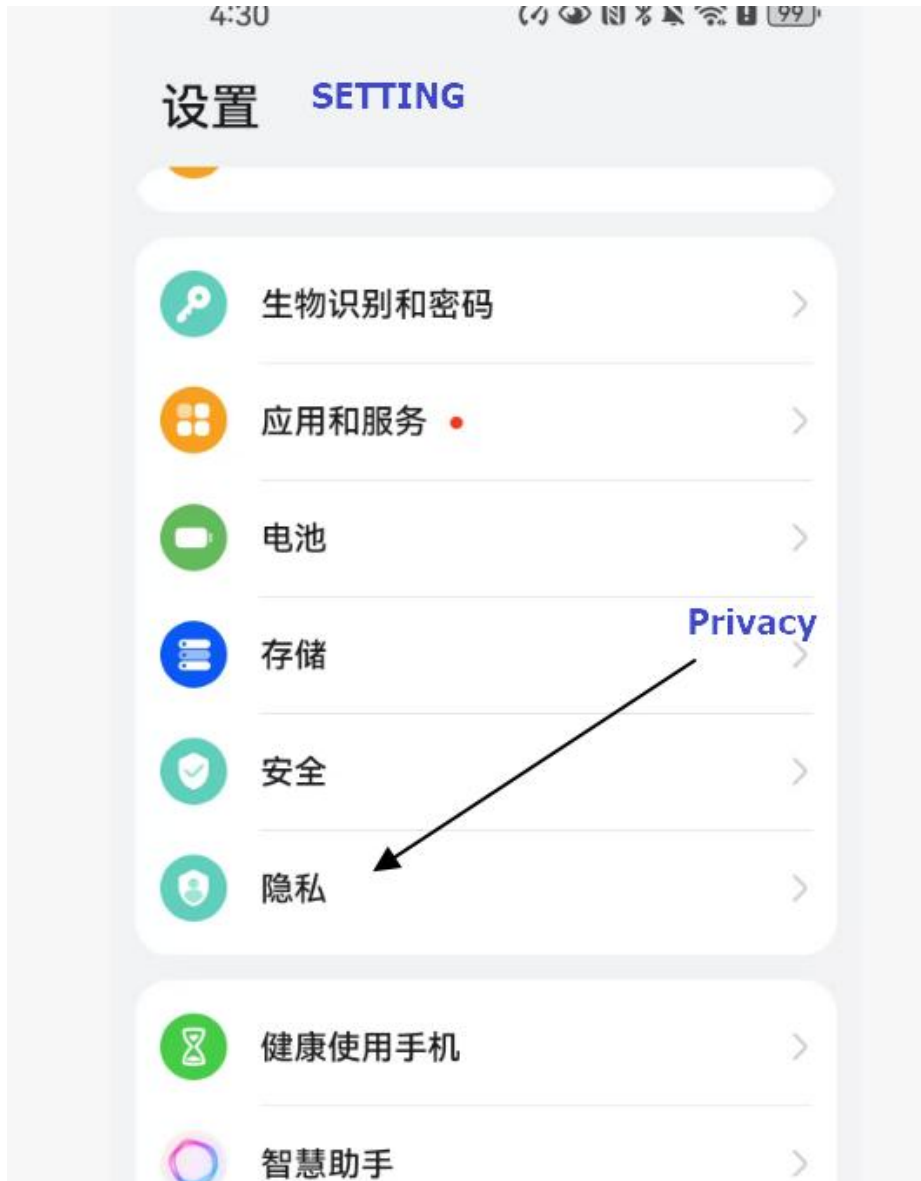
[Please select “Low Voltage ” and then enter the APP](#)

[Please be aware that don;t change the number of “Board Add”; otherwise , you will not enter the APP](#)



How to install a mobile phone APP: First of all , enable " privacy" and "GPS location "on your phone.

Then, in WeChat, use QQ Browser to open the APK file. Please follows:





6:59



< 3

Andy-17841591535



选择其他应用打开



QQ 浏览器 (默认)
体积小, 速度快。



保存至云空间



UC浏览器



设为默认

仅一次



小程序



使用腾讯文档, 多人协作, 随时随地
腾讯文档

更多

其他应用中打开

检测到此文件为安装包



BMS

版本1.23

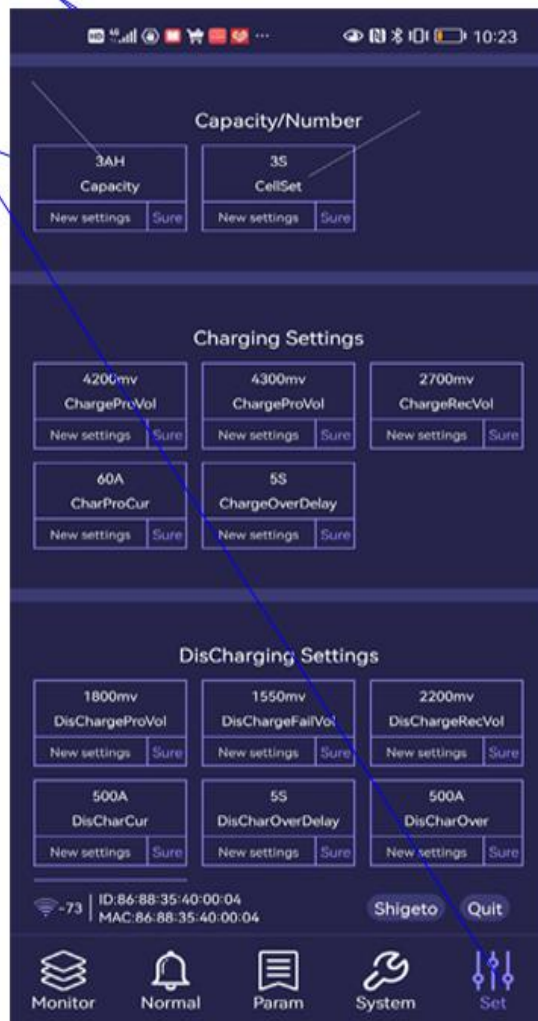
Install

安装



STEP1 Start Up of BMS and Relay

After you enter the phone app, please go to the button "SET" and then set the correct batteries capacity and cell series in the app.



Step 2:How to Set Discharging /Charging

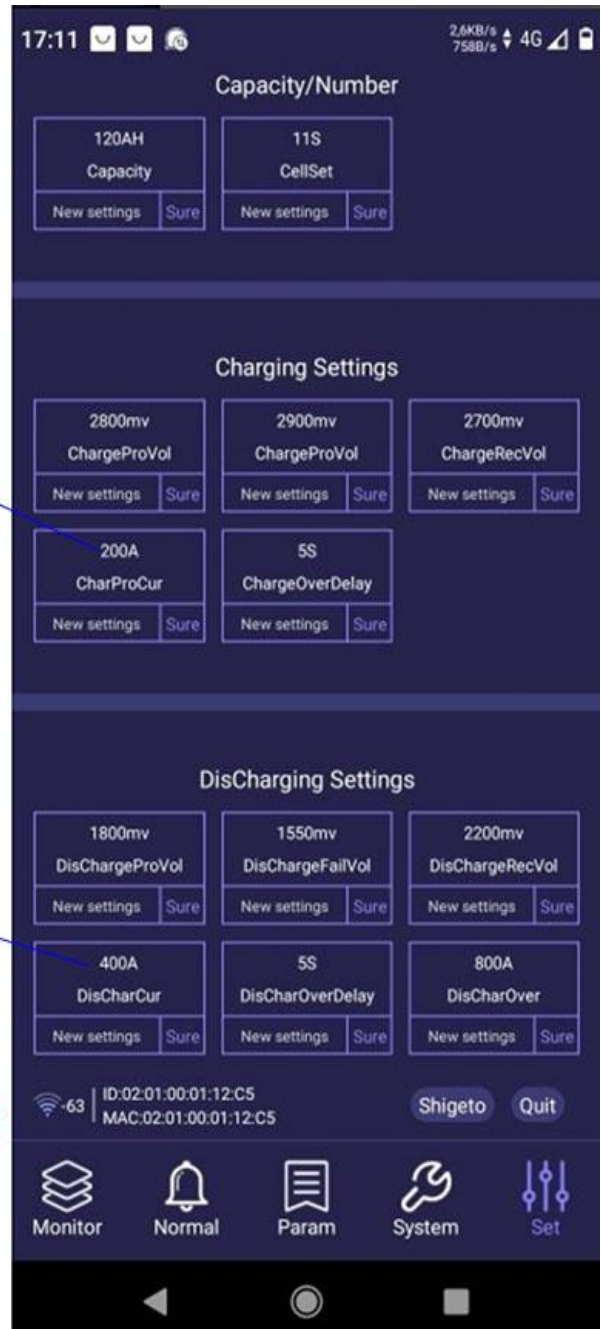
Charging Setting:

Please make sure to set charging current larger than actual one in the charging settings

Discharging Setting :

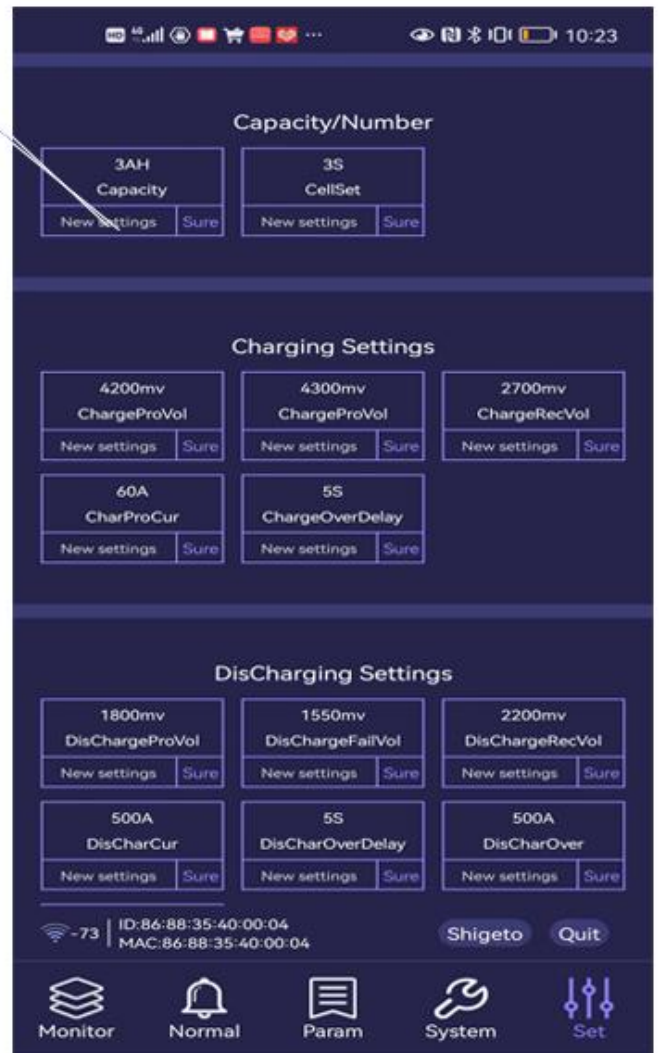
Please make sure to set discharging current larger than the actual one in the discharging settings;
Discharging over current is 2 times larger than discharging current

Attention:the bms will be dead if the set discharging/charging is less than actual one !!



Step 3 SOC Calibration

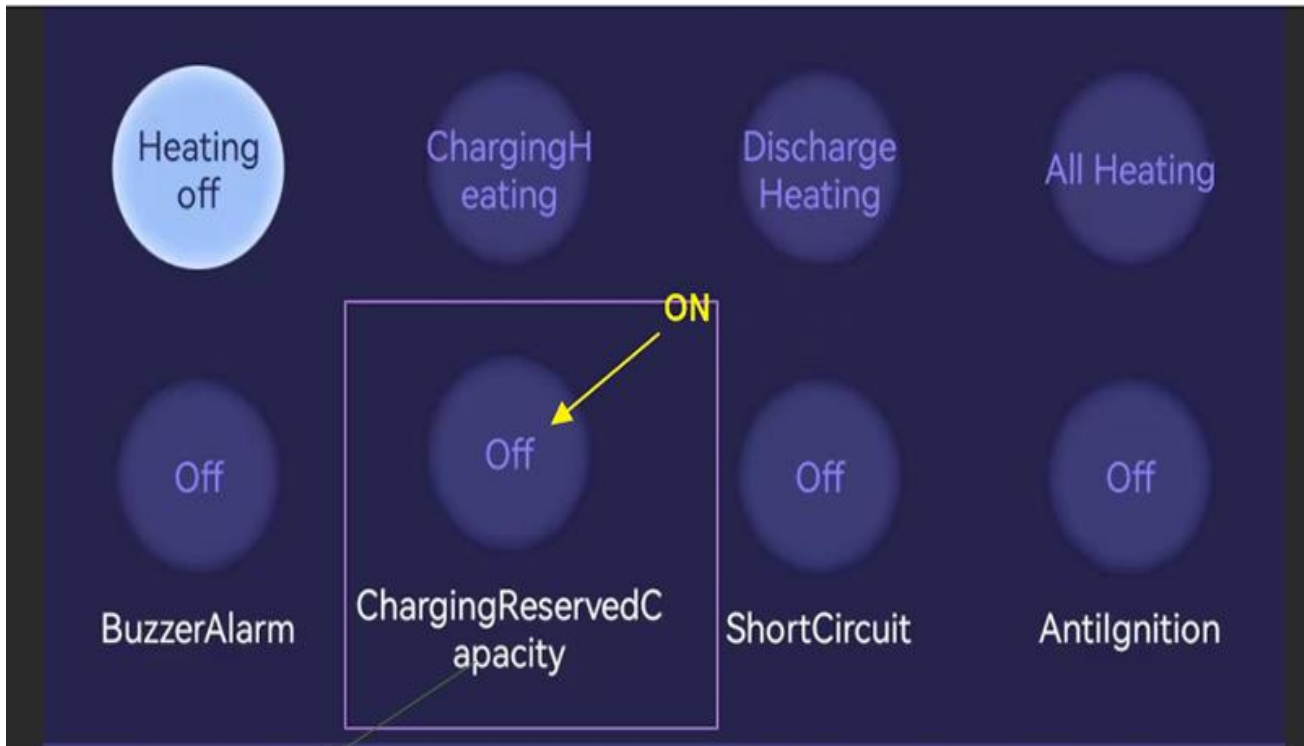
Set the actual capacity of the batteries pack in the phone APP ,and Discharge the batteries to under-voltage protection and then Charge batteries to the over voltage protection and then SOC can be corrected and calibrated





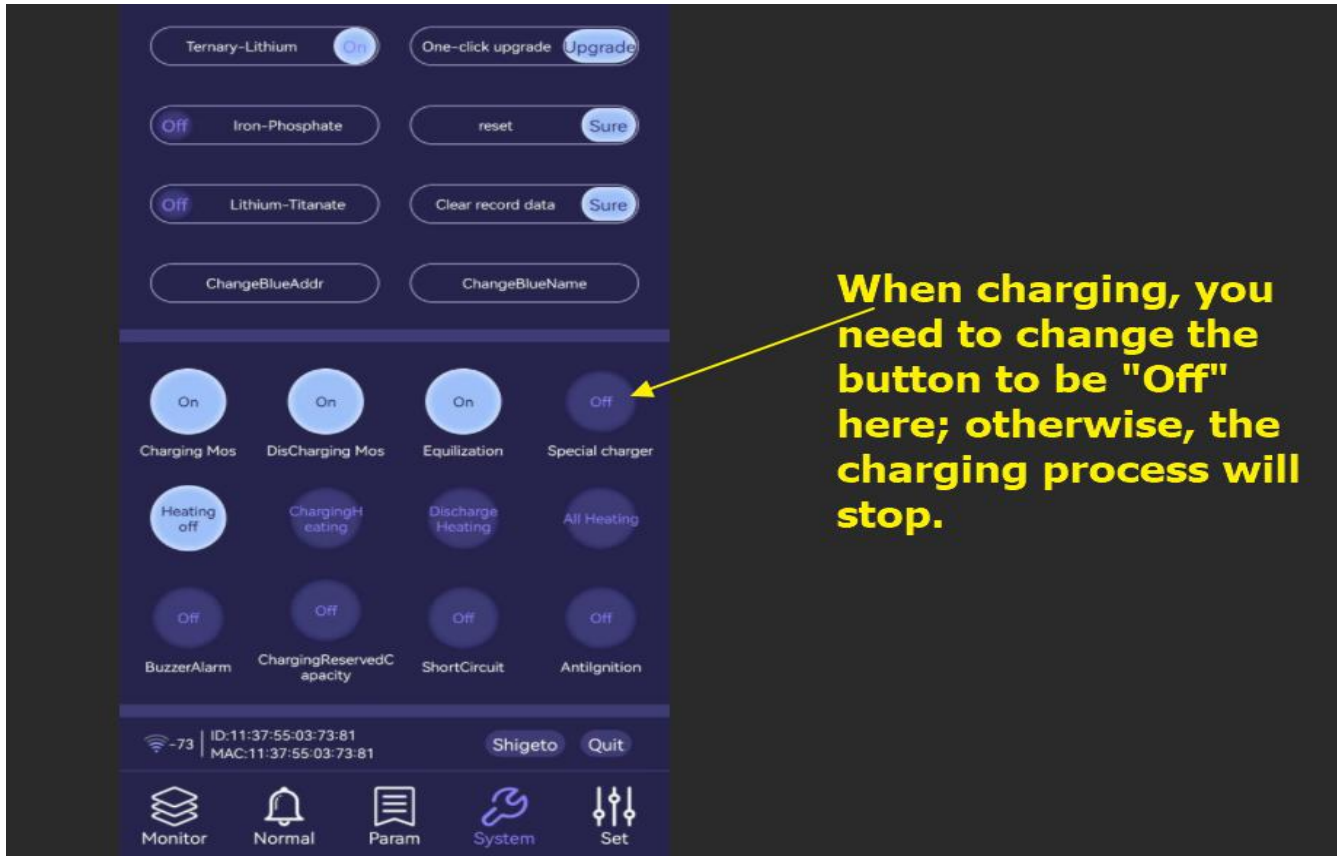
Step 4

Please make sure that smart lock is off before discharge/charge

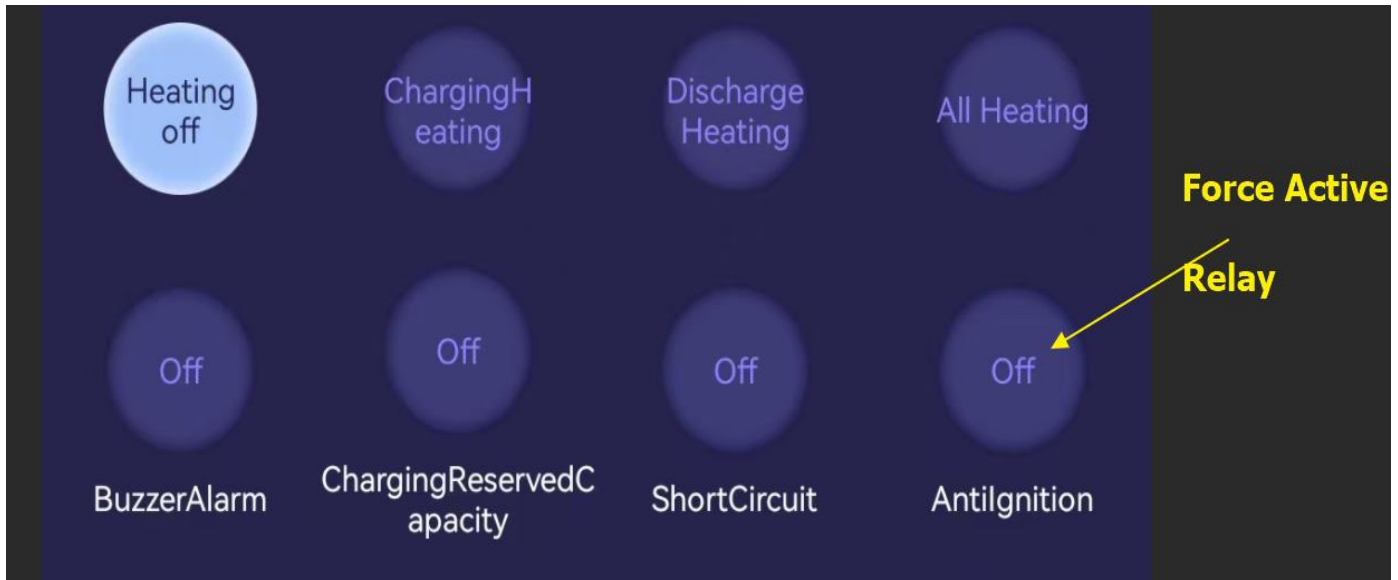


Charging Reserved Capacity:

When EV goes downhill, and you apply the brakes, Braking energy is charged back to battery and it can make battery voltage go up quickly and bms stop working since the voltage reach over vltage protect ;
now when you press this button to be "ON", It can avoid this situation!



How to forcibly active relay ? Click the button to be "ON"



BMS PC Software Instruction

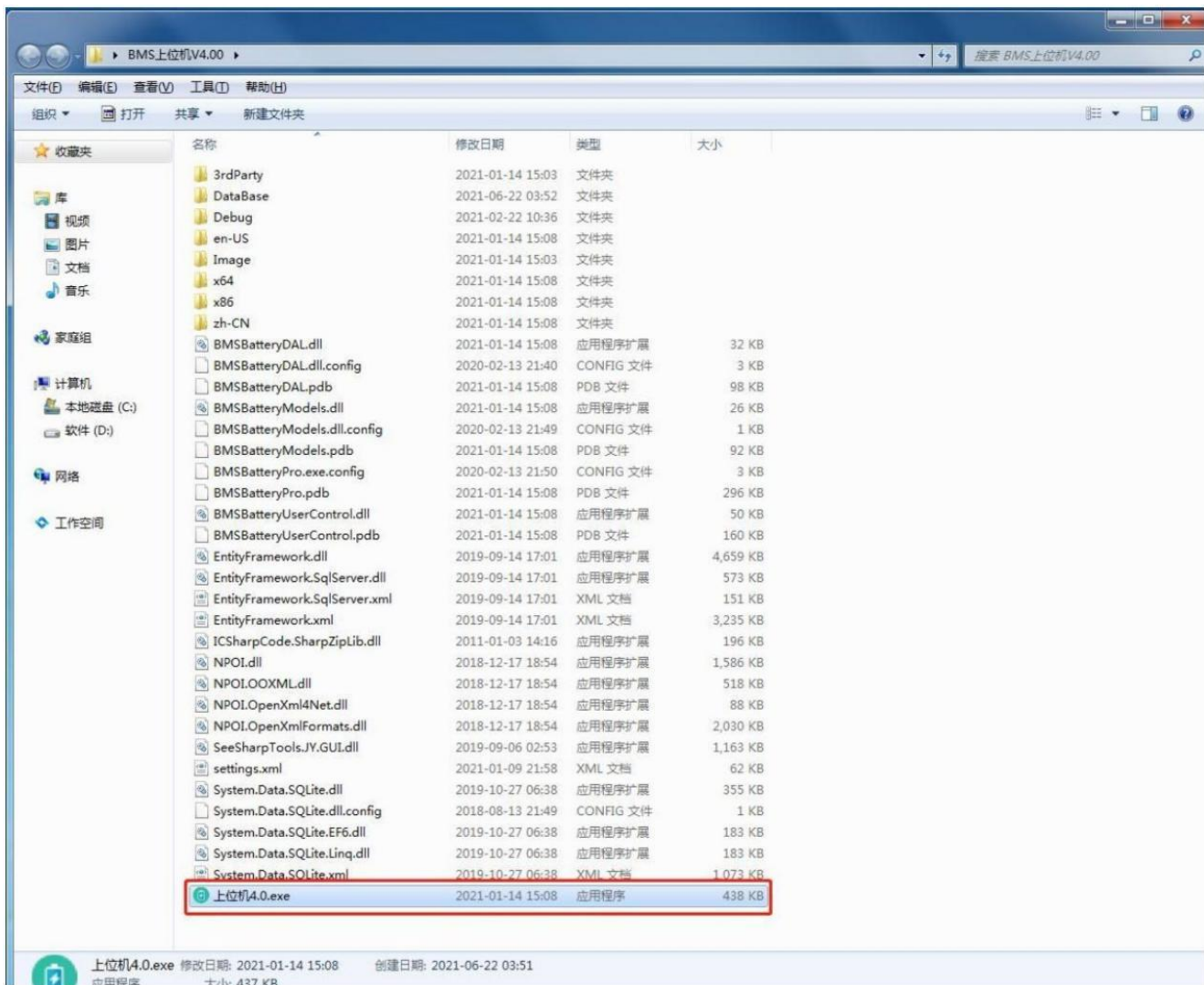
BMS PC Software :

Password : 123456

You need to configurate bms after entering password 123456;

And select correct port

Step1 : PC Software Installation



Step2 : Select the correct Port

BMS Lithium Battery Management System

PortNo: COM4
DevNo: 1

Connect

English

Remain: 0 %

Voltage: 0 V

Current: 7 A

MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

Battery Info

CapacitySet:	20 ah	CellSet:	14 C
CurrentPercent:	50 %	LowCapacity:	0 %
BalAccuracy:	20 mv	DisCharCapacity:	0 ah
BalanceVol:	3800 mv	CalibrationCapacity:	0 ah

Battery Operation

Ternary-Lithium ReStart

Iron-Phosphate Reset

Lithium-Titanate Modify

Charge MOS: Discharge MOS: Equalization: Special Charger:

HeaterClose: ChargeHeater: DisChargeHeater: AllHeater:

Step3 : The address “ 1 ” cannot be changed. After this, press the button "Connect"

The screenshot displays the TOPBMS-V1 software interface. On the left side, there is a control panel with a 'PortNo:' dropdown, a 'DevNo:' field containing '1', and a 'Connect' button. Below these are language selection options for 'English' and '中文', a battery icon, and a 'Remain: 00.0 %' indicator. Further down are two analog gauges: 'Voltage: 0.000 V' and 'Current: 0.000 A'. At the bottom left, there are fields for 'MacCode: 00000000', 'BlueTooth: 00000000', and 'Factory: 2000-01-01'. The main area features a navigation bar with 'Monitor', 'Alarm', 'Param', 'Normal', 'DLoad', 'Graph', 'Update', and 'LeaseSet'. The 'Monitor' section is active, showing 'BasicInfo' and 'StatusInfo' panels. The 'BasicInfo' panel lists various parameters like VolMax, VolMin, TempMax, PowerTem, and Temp, all showing 0.000 values. The 'StatusInfo' panel shows 'Status' as 'Stand' and several other indicators like 'DisChaPro', 'ChargePro', 'OverTemp', 'ChargeMOS', 'OverPDif', 'DisChaMOS', and 'Balance' with 'OK' or 'Open' status. Below this is a 'Cell-Voltage (V)' section with a grid of 24 cells, each showing a voltage of 0.000 V. The bottom status bar indicates 'Software: V4.10', 'Firmware: V4.10', 'System Time: 2022-02-16 15:54:00 Wednesday', and 'Password Status: 🚫'.

Step 4: According to different customers ,the PC software has English and Chinese version ; The monitoring can be used to check the data of each cell, battery situation



Step 5: if you want to set the parameters, please enter password :123456

The screenshot displays the TOPBMS software interface. On the left, there are control panels for serial port settings (COM3, address 1), a disconnect button, language selection (Chinese), and battery status indicators (90% remaining, 80.78V total voltage, 0A total current). The main area is divided into 'Basic Information' and 'Status Information' sections. A 'Password Verification' dialog box is overlaid in the center, prompting for a password with a masked input field and 'Confirm' and 'Cancel' buttons. The background shows a grid of 20 battery cells with their respective voltages and a status bar at the bottom indicating the system time and password status.

基本信息				状态信息				
最高电压	4.06 V	B3	单体压差	0.0380 V	电池状态	待机	电池掉线状态	正常
最低电压	4.022 V	B14	循环次数	0 T	放电保护失效	正常	充电保护失效	正常
最高温度	26 °C		最低温度	0 °C	电池超温状态	正常	电池低温报警	正常
功率板温度	26 °C		均衡板温度	23 °C	充电MOS管	开启	放电MOS管	开启
电池温度						正常	均衡状态	开启

密码验证

请输入密码: *****

确定 取消

Cell No.	Voltage	Cell No.	Voltage	Cell No.	Voltage	Cell No.	Voltage
1	4.037	6	4.054	7	4.054	8	4.054
9	4.058	10	4.026	11	4.031	12	4.029
13	4.028	14	4.022	15	4.026	16	4.026
17	4.027	18	4.026	19	4.028	20	4.052

上位机版本: V4.00 固件版本: V1.9 系统当前时间: 2021-06-22 04:01:02 星期二 密码状态: 🔒

Step6 :Enter data to be set to confirm the modification. The modification is successful

The screenshot displays the TOPBMS Lithium Battery Management System interface. The main window is titled 'TOPBMS Lithium Battery Management System' and features a menu bar with 'Monitor', 'Alarm', 'Param', 'Normal', 'Graph', 'Update', and 'LeaseSet'. The 'Param' tab is selected, showing a grid of parameters for 'Charging Voltage' and other settings. A 'ParamModify' dialog box is open, allowing the user to modify the 'CellSet' parameter. The dialog shows the current 'ActualValue' as 24 and a 'ModifyValue' field. The background interface includes a 'Charging Voltage' section with parameters like VoltageProtection (135 V), CharFailVol (4350 mv), CharProVol (4200 mv), CharRecVol (4150 mv), CharProCur (150 A), CharOverDelay (5 S), ChargerSet (12 A), CellSet (24 C), CapacitySet (20 ah), LowCapacity (0 %), DiffPreCtrl (3500 mv), PreDiffPro (800 mv), VoltageRecovery (130 V), DisCharRec (2900 mv), BalancedVoltage (-1 mv), BalAccuracy (20 mv), CurrentPercent (50 %), and BMS Power (10 mA). The status bar at the bottom indicates 'ConnectOK' and 'Status: 00:00:54'.

Step7 In the "Normal";No of battery in series can be set based on the actual situation ; In the meanwhile, according to the battery properties you can select the protection mode

BMS Lithium Battery Management System

PortNo: COM4
DevNo: 1
Connect
English

Remain: 0 %
Voltage: 0 V
Current: 7 A

MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

Monitor Alarm Param **Normal** DLoad Graph Update LeaseSet

Battery Info

CapacitySet:	20 ah	CellSet:	14 C
CurrentPercent:	50 %	LowCapacity:	0 %
BalAccuracy:	20 mv	DisCharCapacity:	0 ah
BalanceVol:	3800 mv	CalibrationCapacity:	0 ah

Battery Operation

Ternary-Lithium Iron-Phosphate Lithium-Titanate

ReStart Reset Modify

Charge MOS: Discharge MOS: Equalization: Special Charger:

HeaterClose: ChargeHeater: DisChargeHeater: AllHeater:

Setting of CELL in series

Step 8: you can set the protection parameters you expect

BMS Lithium Battery Management System

PortNo: COM5
DevNo: 1

Connect

English

Remain: 0 %

Voltage: 0 V

Current: 7 A

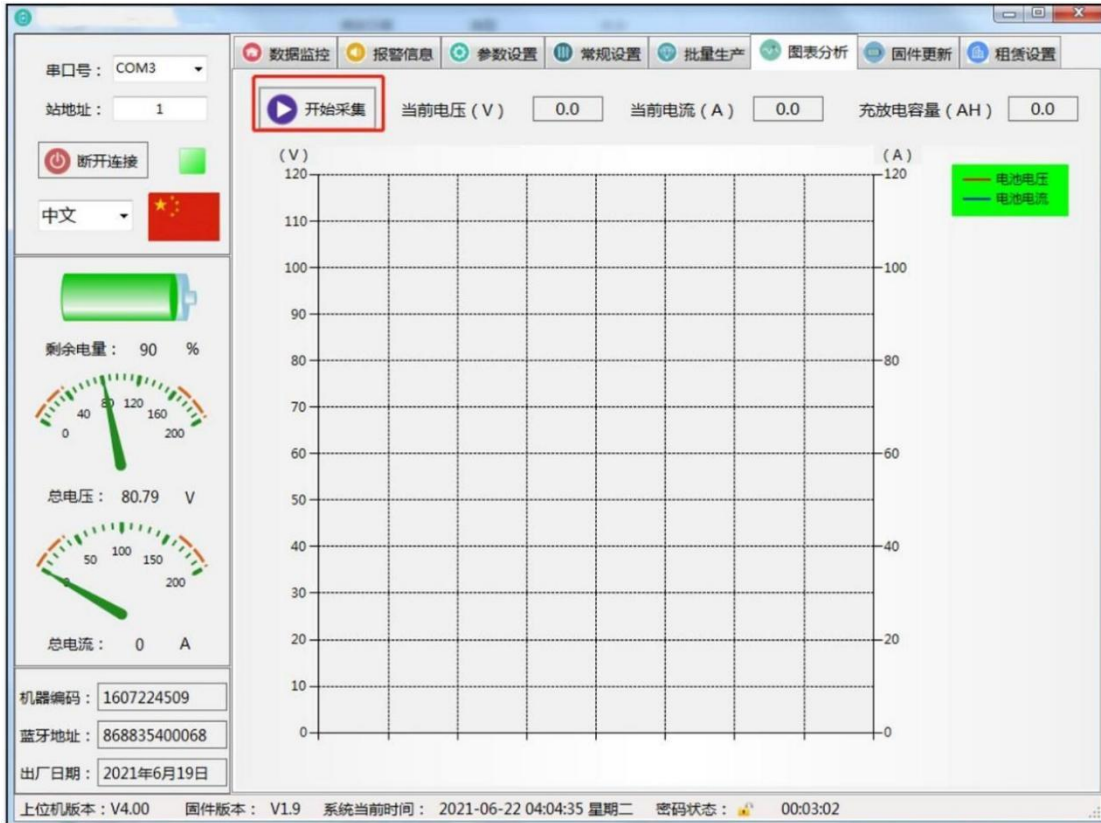
MacCode: 342589975
BlueTooth: 26541C98068E
Factory: 2012年12月31日

Monitor Alarm Param Normal DLoad Graph Update LeaseSet

Mass Production ParamSet

Parameter	Actual	Set	Result
Charge-Pro (mv) :	4350		Open
Charge-Pro (mv) :	4200		
Charge-Rec (mv) :	4150		
Charge-Pro (A) :	40		Save
Discharge-Fail-Pro (mv) :	2550		
Discharge-Pro (mv) :	2750		DLoad
Discharge-Pro (A) :	80		
Balance Voltage (mv) :	3800		
Capacity (AH) :	20		
Cell-Set (Cell) :	14		
PasswordSet:	123456		
BlueToothName:		Set	
Bluetooth-Reading:	0		Read

Step9: You can view the voltage curve and current curve



Step 10 Firmware can be updated for one-key

串口号: COM3
站地址: 1
断开连接
中文

剩余电量: 90 %
总电压: 80.79 V
总电流: 0 A

机器编码: 1607224509
蓝牙地址: 868835400068
出厂日期: 2021年6月19日

上位机版本: V4.00 固件版本: V1.9 系统当前时间: 2021-06-22 04:05:16 星期二 密码状态: 00:03:43

数据监控 报警信息 参数设置 常规设置 批量生产 图表分析 固件更新 租赁设置

固件更新过程

STEP 1: 选择固件文件
STEP 2: 发送重启命令
STEP 3: Baud9.6K连接
STEP 4: 发送0x20指令
STEP 5: 发送0x31指令
STEP 6: 正常返回0x43
STEP 7: 发送固件信息

文件选择 一键更新

烧录段号: 0
总计段长: 0

固件更新耗时: 00: 00: 00

其他设置

电流校准: 0 A
保护板地址: 1
压差保护值: 800 mv
一键休眠