BASENGREEN

48300KITS/48314KITS (JK BMS) Assembly Instructions

WARNING:
If any parts are missing, damaged or worn, stop using this KITS. Repair the KITS with manufacturer supplied parts.

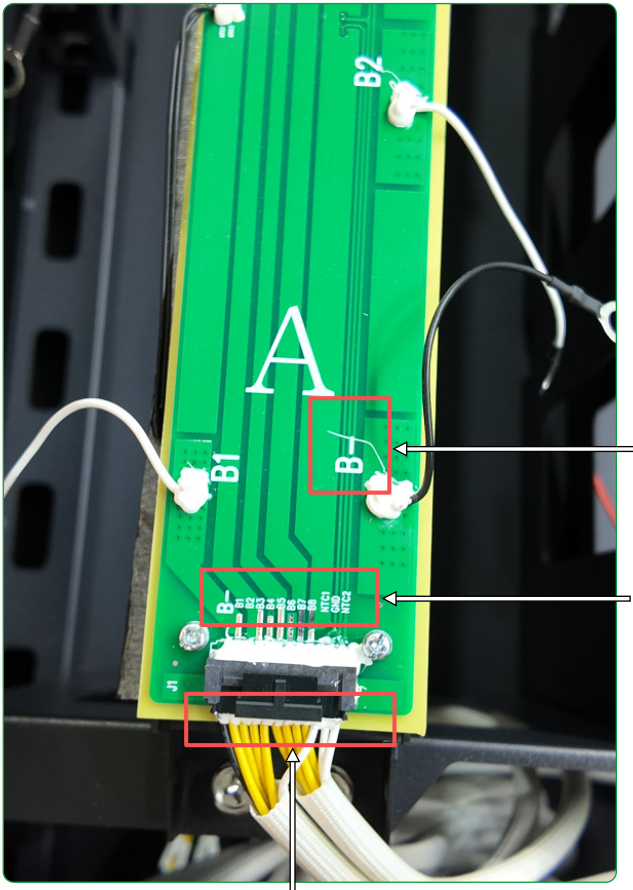
IMPORTANT:
Read these instructions carefully before beginning assembly. Failure to follow these instructions may result in serious injury.
Carefully unpack all parts and identify them with the parts list before attempting to assemble the KITS. Remove all cardboard and plastic covering from DIY KITS parts. Please examine all packing material before discarding it.

ALL DIY KIT accessories are included in the DIY box.

Wire pre-installation

When receiving the 48V kits accessories, the customers need to check whether the collection line of PCB bars is wrong inserted or not, it means that PCB1 and PCB2 have assembly errors, PCB 1/A and PCB 2/B board are marked, as shown in the following picture:

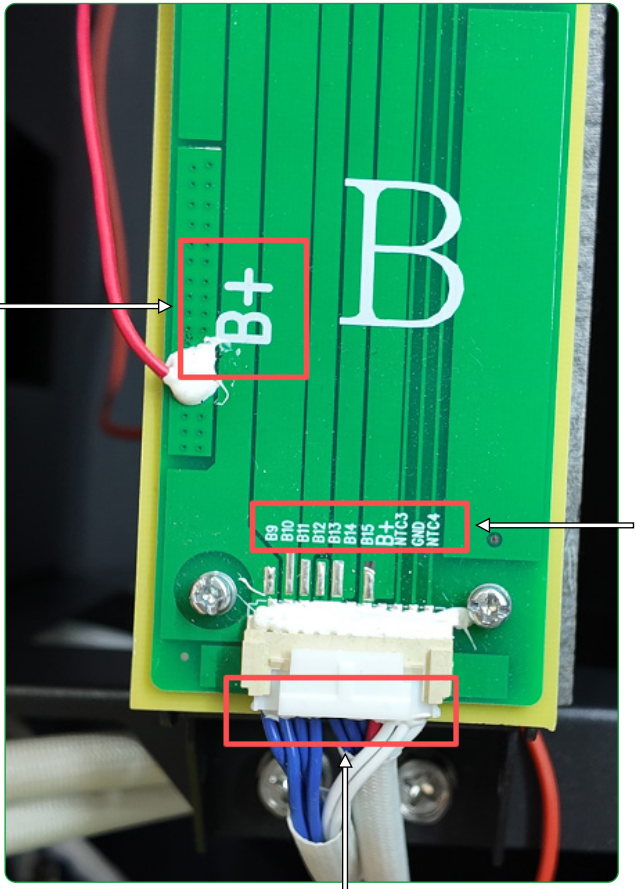
PCB 1/A



PCB 1/A board is marked with wires, they are B-, B1, B2, B3, B4, B5, B6, B7, B8, NTC1, GND, NTC2, There are 12 lines on the collector terminal;

You must confirm the wiring before inserting, or else it will damage the BMS, and we won't provide after-sales service.

PCB 2/B



B+

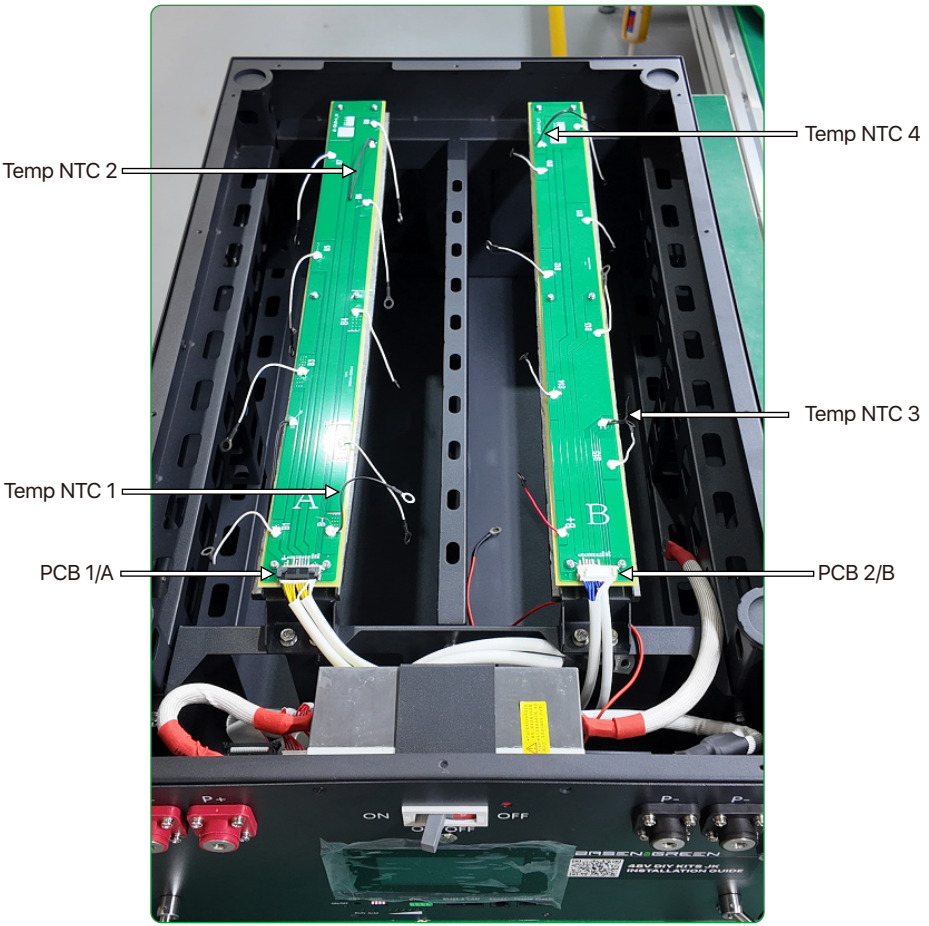
B9,B10,B11,B12,B13,B14
B15,B+,NTC3,GND,NTC4

On PCB 2/B board, B9, B10, B11, B12, B13, B14, B15, B+, NTC3, GND, NTC4. There are 11 lines on the acquisition line terminals.

You must confirm the wiring before inserting, otherwise it will damage the BMS and we will not provide after-sales service.

Note:

Please make sure that the goods you receive are as follows. If you receive the goods and they are inconsistent with the picture, you should report to our customer service in time. Do not assemble them without permission.

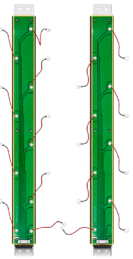


Packing list

Please check the product carefully after receiving it, if any accessories are missed, please contact BASEN.

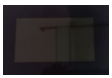
A (Pre-installed)
Shell*1

B (Pre-installed)
Cover plate*1



C (Pre-installed)
PCB bars*2
(integrated with
Temp NTC leads)

D (Pre-installed)
Front plate*1,Handle*2



E (Pre-installed)
LCD Display*1

F (Pre-installed)
JK 16S 200A BMS*1

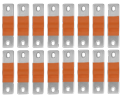
G
Fire extinguishing
aerosol*2

H (Pre-installed)
16S voltage
acquisition cable*1

I
Fiberglass
Insulation plate*24

J
EVA cotton*4

K
Screws*32



L
Flexible busbar*15

M
Inverter
communication cable*1

N
USB-RS485
communication cable*1

O
Parallel
communication cable*1

P
Toggle Latch
Ring Pull*2

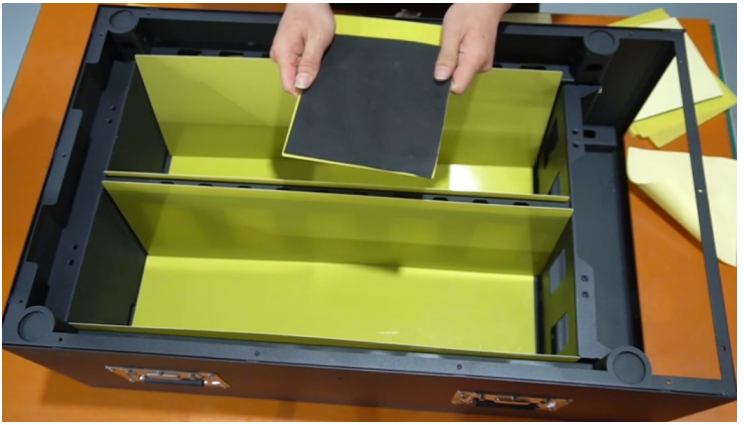
Install video: https://youtu.be/GBZCqZVvyl8

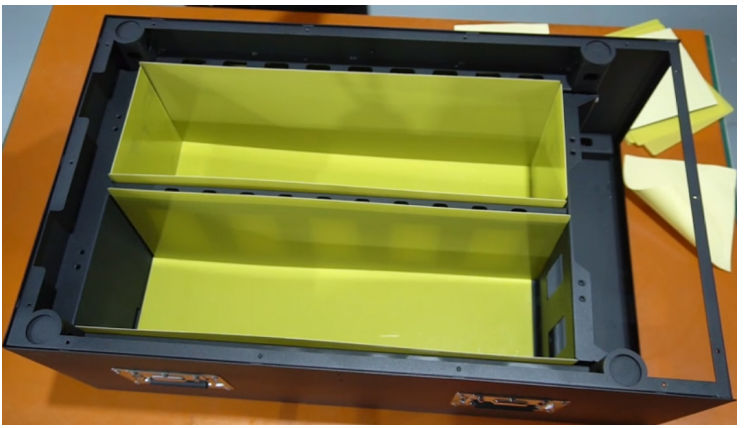
Remove the cover plate(B)

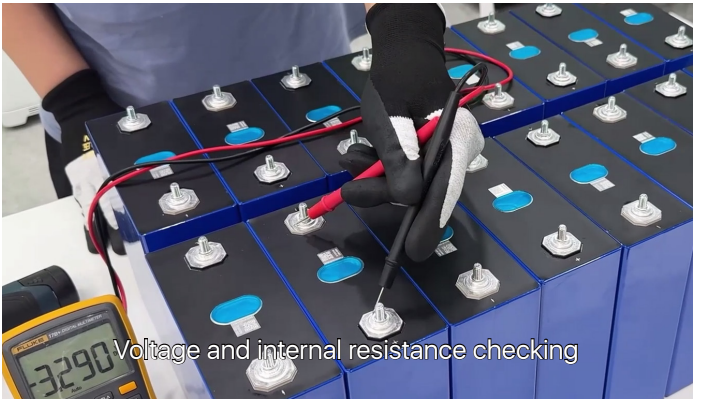
Remove the PCB bars(C)

Remove the BMS front plate(D)

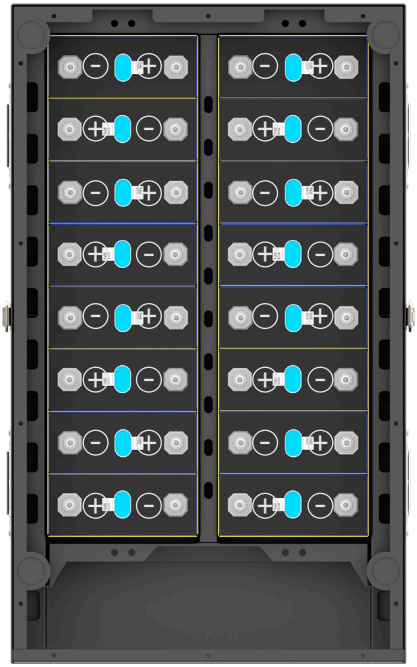
Put the fiberglass insulation plate(I) and EVA cotton(J)







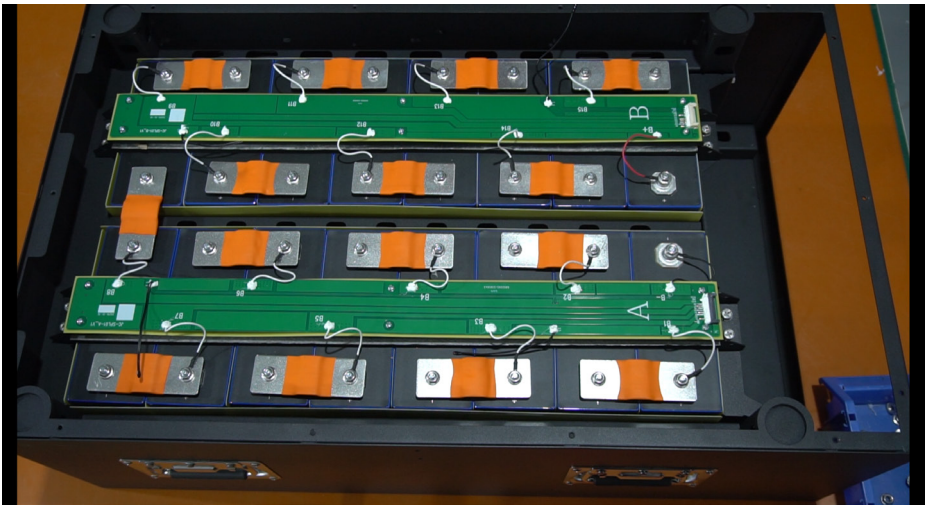
Cells Voltage difference ≤ 20mV

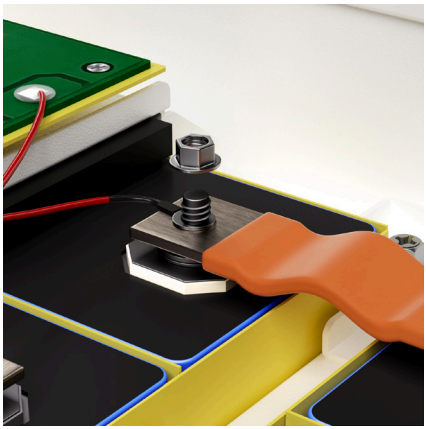


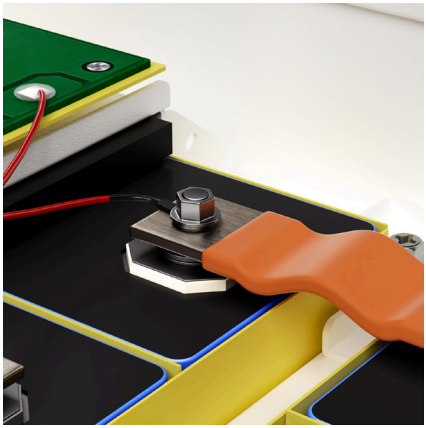
Place the battery cells in the chassis, separated by fiberglass insulation plate (I)

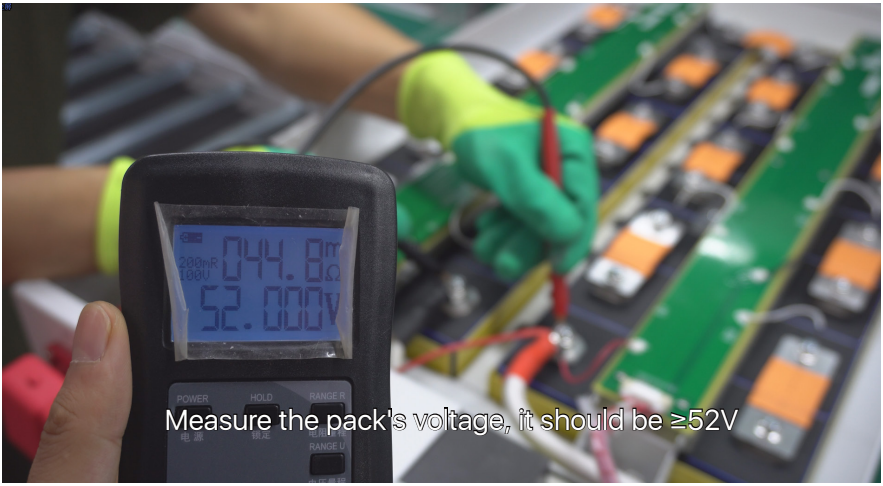
Ensuring the positive and negative terminals are in the correct positions.

Link the PCB bars(C) and flexible busbar(L), then screw up(Torque: 6 Nm)

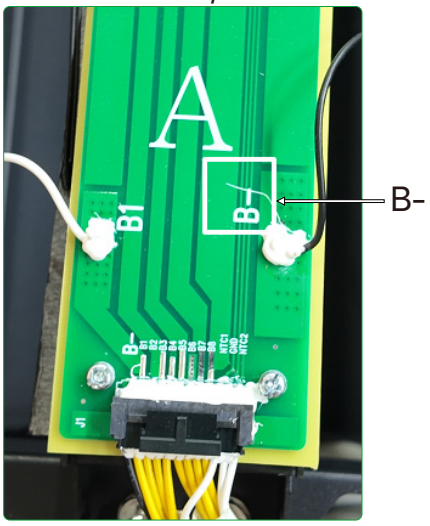




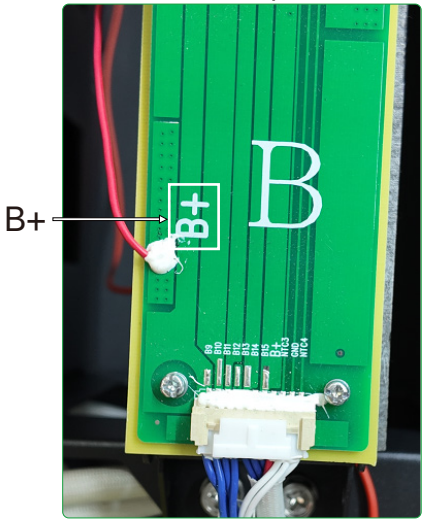




PCB 1/A

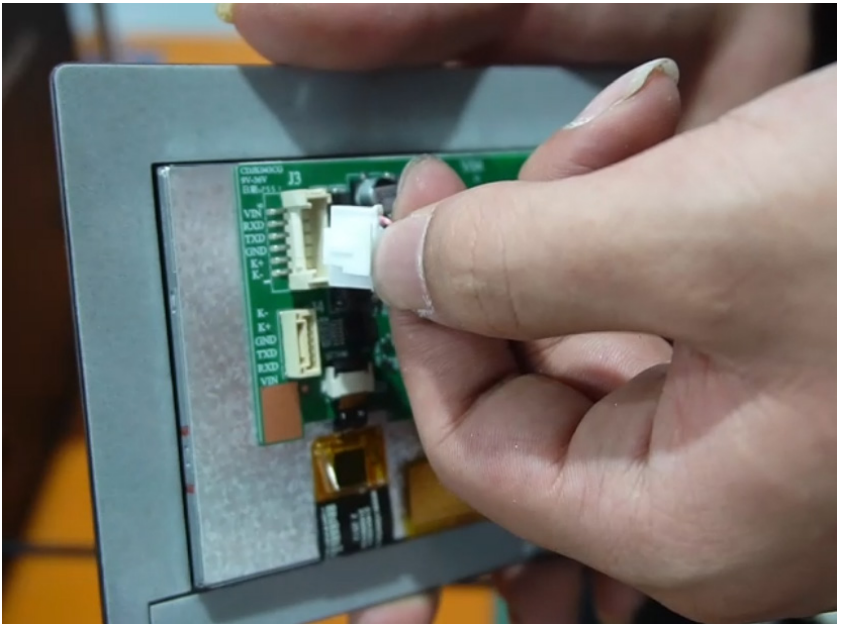


PCB 2/B

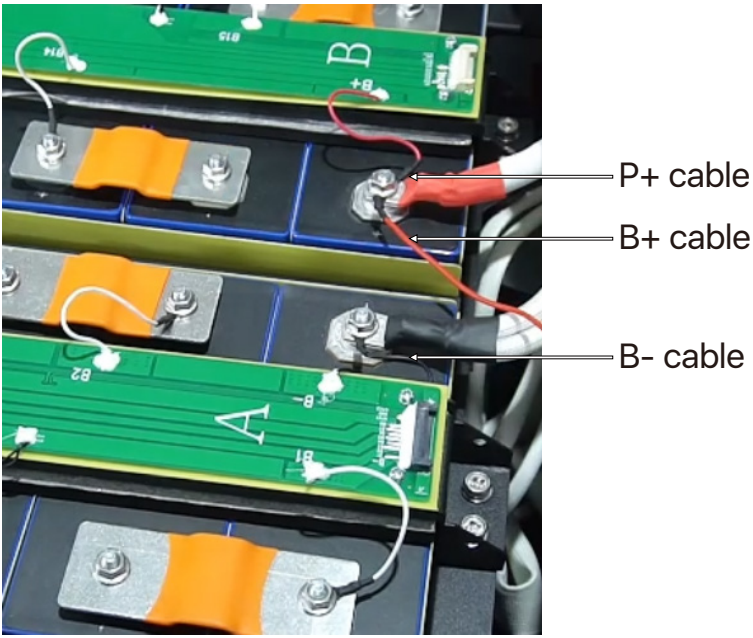


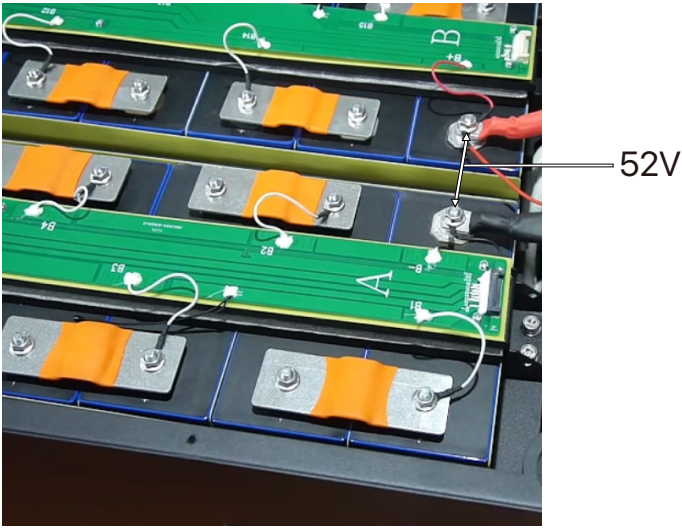
Noticed: When plugging the voltage sampling line, first, it is always need to plug in the line located on the PCB1/A side (B-) , and then insert the line located on the PCB2/B side (B+)

Link the Cable of LCD screen(E) and install into the Front plate(D)



Check every connection, the voltage between the main positive and the negative is >52V, then turn the button on, the LCD and the indicator work out, then the assembly operation is completed.





P.S.: It is recommended to do 1-2 times of complete cycle(fully charged and discharged) in the first running of the battery pack.

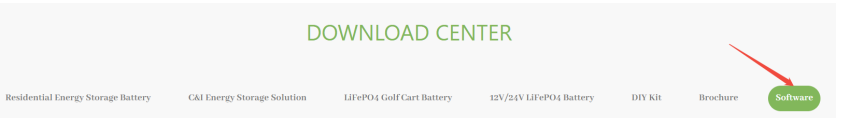
Please refer to the table below to set the DIP switch for parallel connection of different batteries.

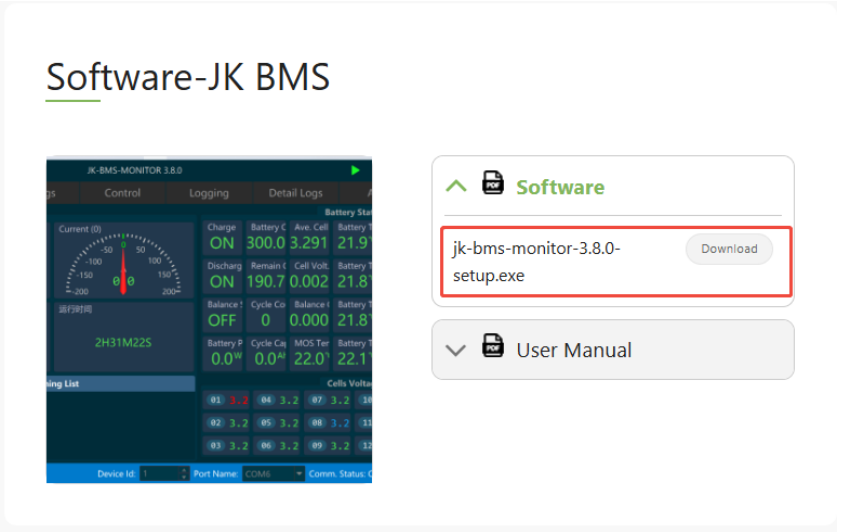
4-BIT					
Address	Dip Switch Position				Illustration
	#1	#2	#3	#4	
0	OFF	OFF	OFF	OFF	
1	ON	OFF	OFF	OFF	
2	OFF	ON	OFF	OFF	
3	ON	ON	OFF	OFF	
4	OFF	OFF	ON	OFF	
5	ON	OFF	ON	OFF	
6	OFF	ON	ON	OFF	
7	ON	ON	ON	OFF	
8	OFF	OFF	OFF	ON	
9	ON	OFF	OFF	ON	
10	OFF	ON	OFF	ON	
11	ON	ON	OFF	ON	
12	OFF	OFF	ON	ON	
13	ON	OFF	ON	ON	
14	OFF	ON	ON	ON	
15	ON	ON	ON	ON	

Important: In a parallel system, every battery must have a unique DIP switch address between 1–15. Duplicate addresses will cause communication failure.

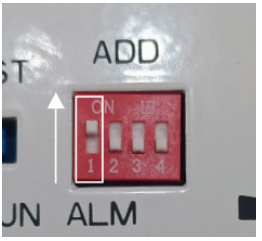
Operation of Upper PC Software

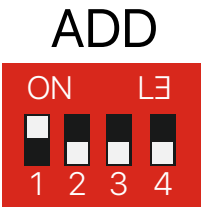
Download: https://www.basenpower.com/download/

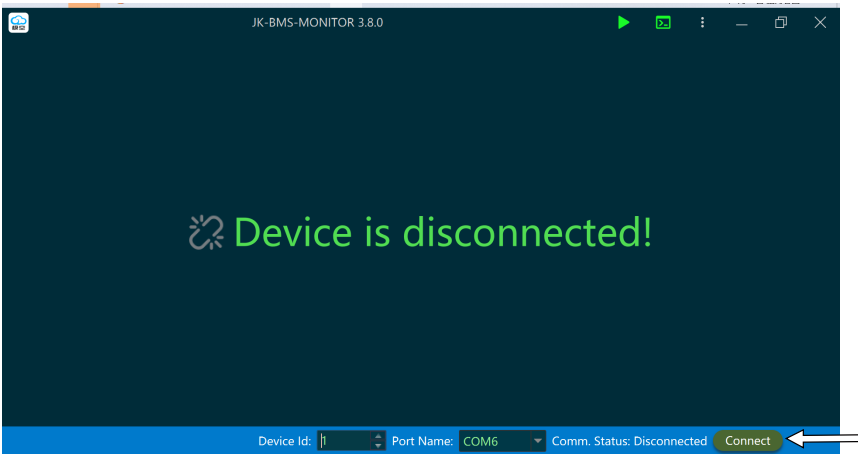


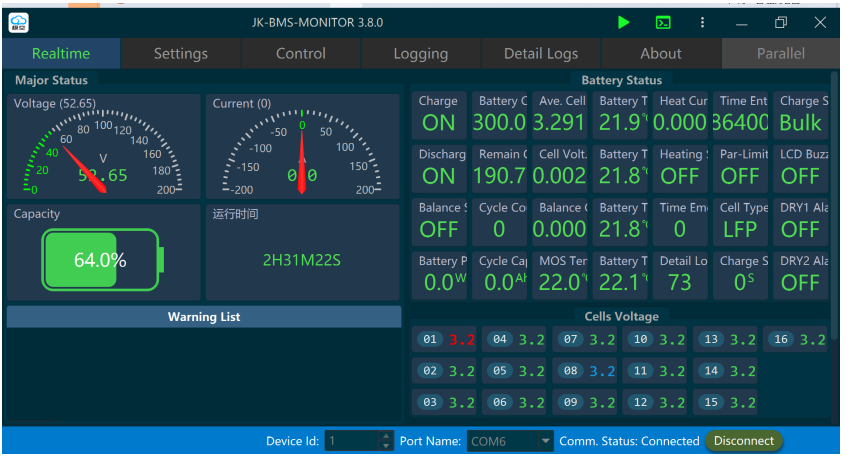


Firstly, connect the USB to RS485 Cable from Battery to the PC/Laptop, dip switch 1 on the front
plate, download the PC software and open it.
Secondly, modify the language, and check the status of the battery pack

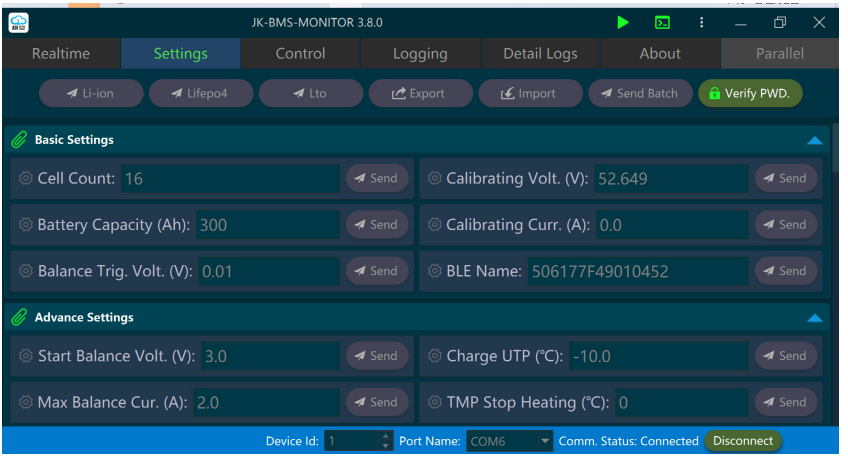


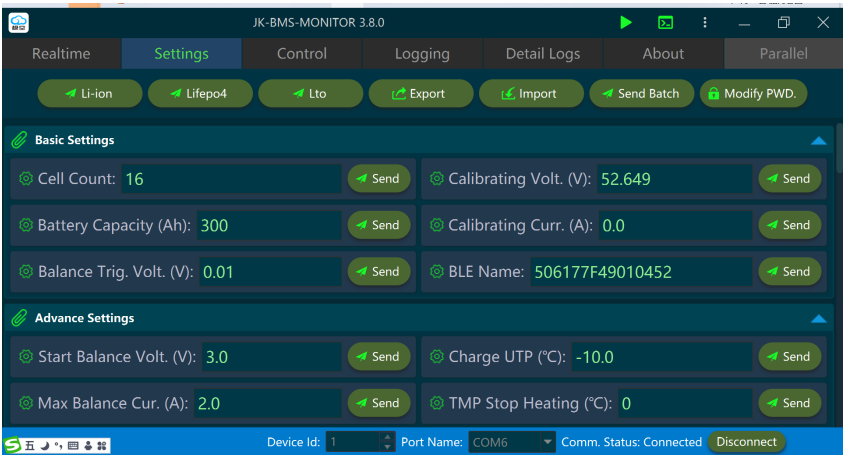


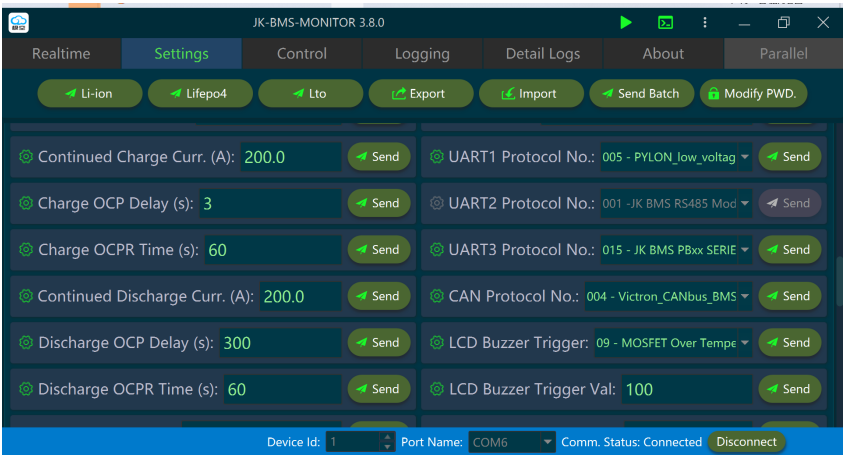




Password: 66666 or 888888


JK-BMS-MONITOR 3.8.0
Realtime
Settings
Control
Logging
Detail Logs
About
Parallel
Li-ion
Lifepo4
Lto
Export
Import
Send Batch
Verify PWD.
Basic Settings
Cell Count: 16
Send
Calibrating Volt. (V): 52.649
Send
Battery Capacity (Ah): 300
Send
Calibrating Curr. (A): 0.0
Send
Balance Trig. Volt. (V): 0.01
Send
BLE Name: 506177F49010452
Send
Advance Settings
Start Balance Volt. (V): 3.0
Send
Charge UTP (℃): -10.0
Send
Max Balance Cur. (A): 2.0
Send
TMP Stop Heating (℃): 0
Send
Device Id: 1
Port Name: COM6
Comm. Status: Connected
Disconnect


JK-BMS-MONITOR 3.8.0
Realtime
Settings
Control
Logging
Detail Logs
About
Parallel
Li-ion
Lifepo4
Lto
Export
Import
Send Batch
Modify PWD.
Basic Settings
Cell Count: 16
Send
Calibrating Volt. (V): 52.649
Send
Battery Capacity (Ah): 300
Send
Calibrating Curr. (A): 0.0
Send
Balance Trig. Volt. (V): 0.01
Send
BLE Name: 506177F49010452
Send
Advance Settings
Start Balance Volt. (V): 3.0
Send
Charge UTP (℃): -10.0
Send
Max Balance Cur. (A): 2.0
Send
TMP Stop Heating (℃): 0
Send
Device Id: 1
Port Name: COM6
Comm. Status: Connected
Disconnect


JK-BMS-MONITOR 3.8.0
Realtime
Settings
Control
Logging
Detail Logs
About
Parallel
Li-ion
Lifepo4
Lto
Export
Import
Send Batch
Modify PWD.
Continued Charge Curr. (A): 200.0
Send
UART1 Protocol No.: 005 - PYLON_low_voltag
Send
Charge OCP Delay (s): 3
Send
UART2 Protocol No.: 001 -JK BMS RS485 Mod
Send
Charge OCPR Time (s): 60
Send
UART3 Protocol No.: 015 - JK BMS PBxx SERIE
Send
Continued Discharge Curr. (A): 200.0
Send
CAN Protocol No.: 004 - Victron_CANbus_BMS
Send
Discharge OCP Delay (s): 300
Send
LCD Buzzer Trigger: 09 - MOSFET Over Tempe
Send
Discharge OCPR Time (s): 60
Send
LCD Buzzer Trigger Val: 100
Send
Device Id: 1
Port Name: COM6
Comm. Status: Connected
Disconnect

Operation of Bluetooth

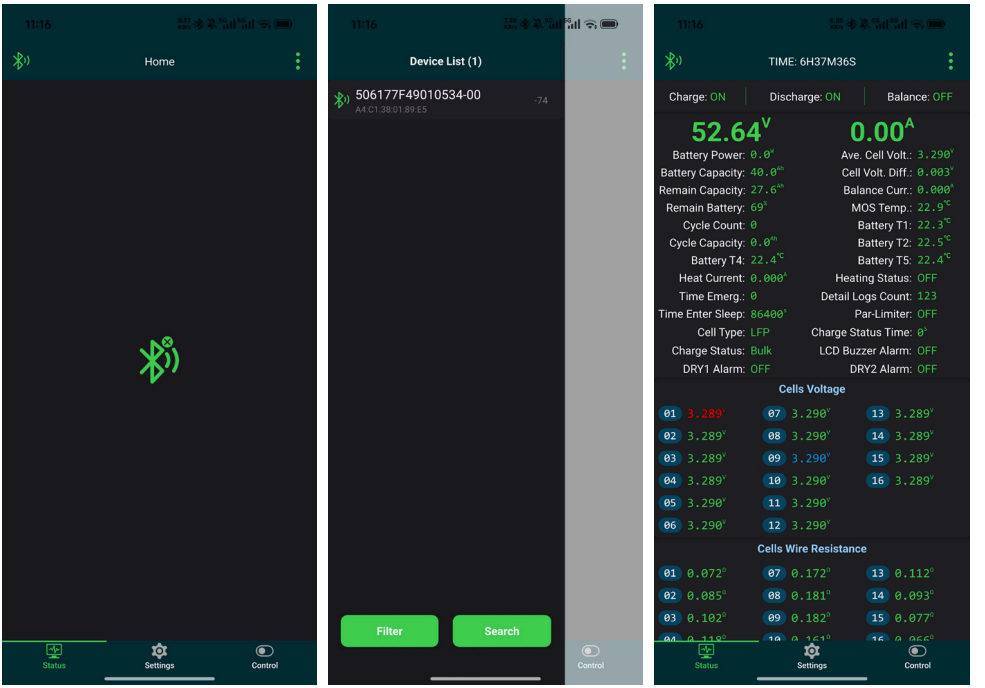
DIY KIT is equipped with a Bluetooth function, supports APP monitoring battery statuses. All informa tion available in the battery, such as the state of charge, voltage, operating current, temperature, and other operating information are transmitted in real-time via the Bluetooth transmitter.
The parameters can be made visible with the JK BMS App.

Download: Android: "JK BMS" in Play Store
iOS: "JK BMS" in Apple Store

1. For Android users, please visit the Google Play Store and search for 'JK BMS'. For iOS users, go to the Apple Store and look up 'JK BMS'.

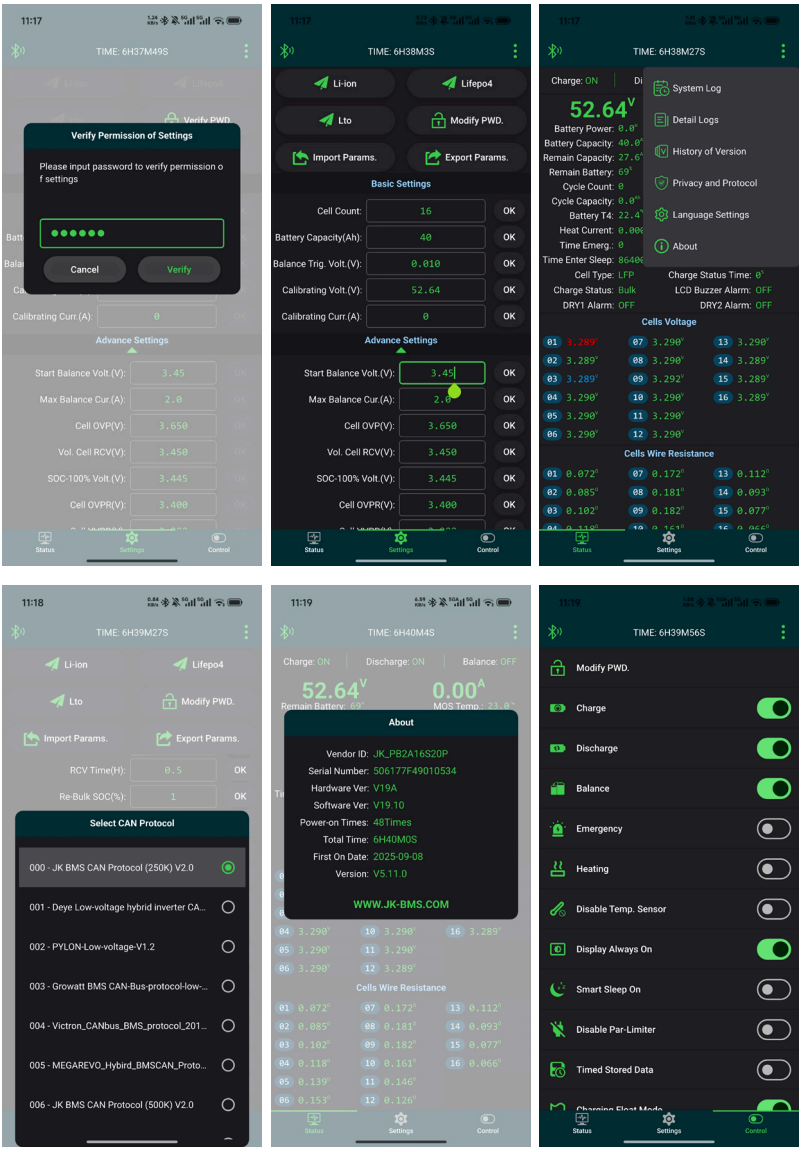
2. Turn on the Bluetooth function, then open the Bluetooth APP. Tap the icon in the upper-left corner to check the available device. Then select the device name you want to connect to. When connecting for the first time, the APP will prompt you to enter a pairing password. The default pairing password of the device is "1234". After the device is connected, the APP will automatically save the password, so you will not need to enter it again the next time.

Once connected, you can enter the real-time status interface to check the device status, as shown in the figure below.



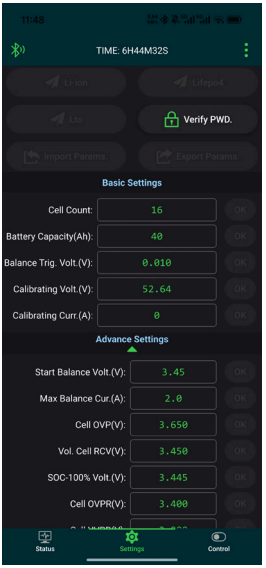
3. Go to setting page to modify the "start balance volt", The default password is "888888", before using the battery, please change the value to 3.45V (important).

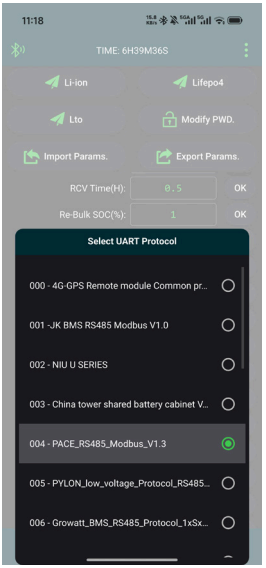
Please note that unauthorized modification of parameters that results in damage to the BMS/battery will not be covered under warranty.

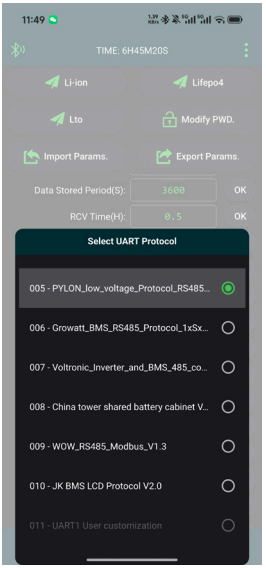


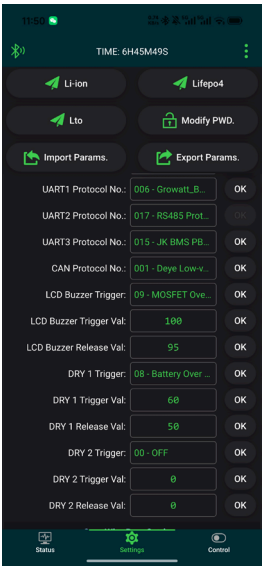
Operation of Communication Protocol Switch (Via Bluetooth App)

From setting part, it is support change the communication protocol (UART 1 protocol/CAN protocol=RS485/CAN)

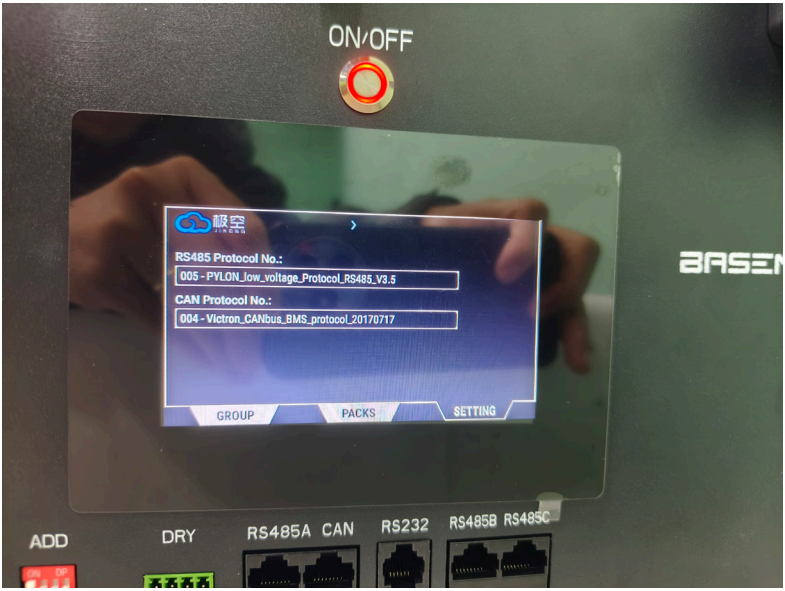




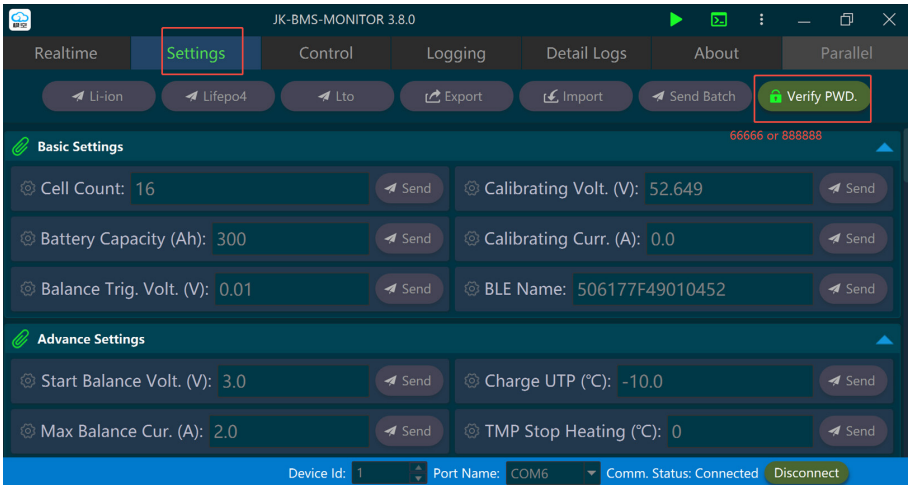


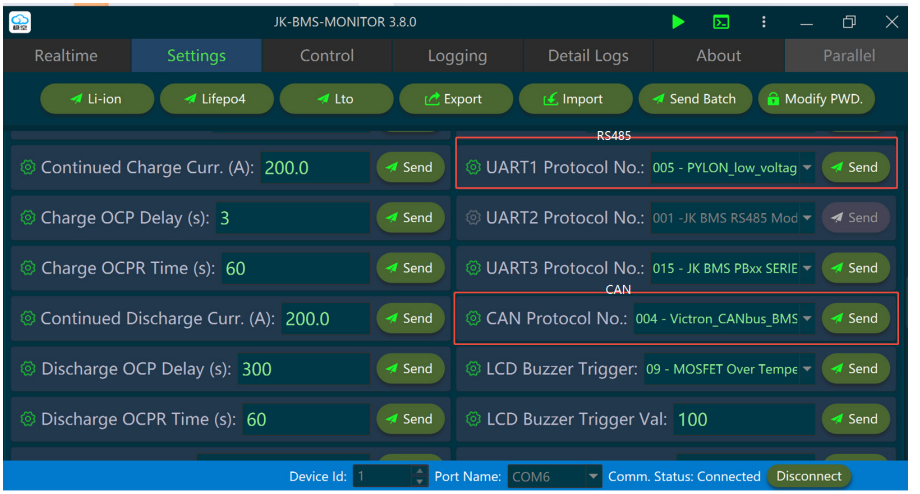


Communication Protocol Switching via Screen



Operation of Communication Protocol Switch(Via PC Software)





Communication Compatible List

BASENGREEN 深圳市贝森科技有限公司 Shenzhen Basen Technology Co.,Ltd

JK BMS Inverter Communication Protocol Matching Table

Inverter Brand		Communication method	Protocol Name	Communication Potter rate	Interface Definition
维克托-Victron	victron energy	CAN	Victron-CAN BUS BMS-V1.00-201707	500K	7H、8L
古瑞瓦特-SPF Growatt-SPF	Growatt	485	Growatt BMS-RS485-protocal-1xSxxP_ ESSL _V2.01 Growatt BMS-RS485-protocal-V2.0	9600	1B、2A
古瑞瓦特-SPF Growatt-SPF	Growatt	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	500K	4H、5L
德业 Deye	Deye 德業	CAN	Deye LV-CAN communication protocol	500K	4H、5L
固德威-Goodwe	GOODWE	CAN	Goodwe-CAN-V1.7-220228-SolarinverterFamily-EN	500K	4H、5L
日月元-Voltronic Power	Voltronic Power	485	Voltronic Power-485-V1.03-200325	9600	3B、5A
派能-Pylontech	PYLONTECH	485	Pylon-485-V3.5-161216-low voltage protocol	115200	1B、2A
派能-Pylontech	PYLONTECH	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	500K	4H、5L
硕日-Srne	SRNE	485	shuori BMS Modbus Protocol for RS485 V1.3(2020-11-24)	9600	7A、8B
美世乐 Must	MUST美世乐	CAN	PV1800F-CAN communication Protocol1.04.04	100K	6H、5L
艾思玛 SMA	SMA	CAN	SMA-CAN-V1.0.0-210630-FSS -ConnectingBat-TI-en-20W	500K	4H、5L
英威腾 INVT	invt	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	500K	4H、5L
首航-SOFAR	SOFAR	CAN	SOFAR-CAN-V1.00-211117-Rev6	500K	1H、2L

Need additional information?

Just Contact BASEN!

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YOUR RELIABLE POWER

Web: www.basenpower.com

Fax: (+86)0755-84737145

Tex: (+86)130 0887 9993

Email: info@Basengroup.com

Shenzhen Basen Technology Co., Ltd.

Add: Room 303,Building 3, 1980 Culture and Technology Industrial Park, Donghuan Road,Longhua District,Shenzhen