

# 48230KITS/48300KITS 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.

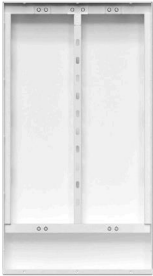
Carefully unpack all parts and identify them with the parts list before attempting to assemble the KITS. Remove all cardboard and plastic covering from DIY KITS parts.

Please examine all packing material before discarding it.

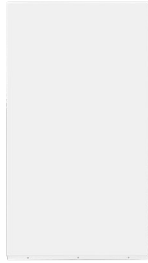


# Packing list

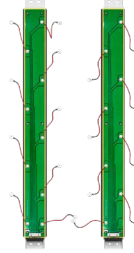
Please check the product carefully after receiving it, if any accessories are missed, please contact BASEN.



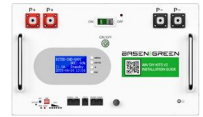
**A (Pre-installed)**  
Shell\*1



**B (Pre-installed)**  
Cover plate\*1



**C (Pre-installed)**  
Balance bars\*2



**D (Pre-installed)**  
Front plate\*1



**E (Pre-installed)**  
Handle\*2



**F (Pre-installed)**  
LCD Display\*1



**G (Pre-installed)**  
BASEN GREEN  
16S 200A BMS\*1



**H (Pre-installed)**  
Temperature  
NTC leads\*1



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



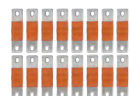
**J (Pre-installed)**  
16S 2A active  
equalizer\*1



**K**  
Fiberglass  
Insulation plate\*24



**L**  
Screws\*32



**M**  
Flexible busbar\*16

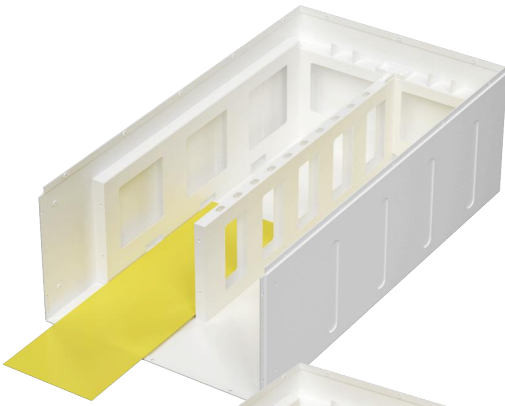


**N**  
Inverter communication cable\*1

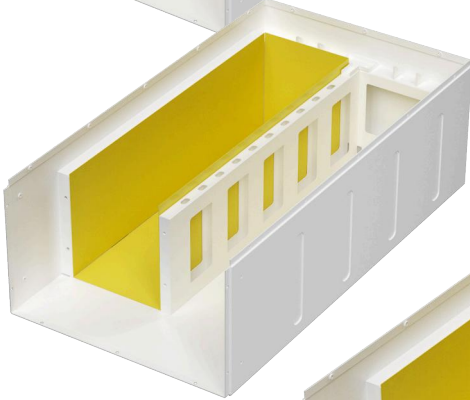
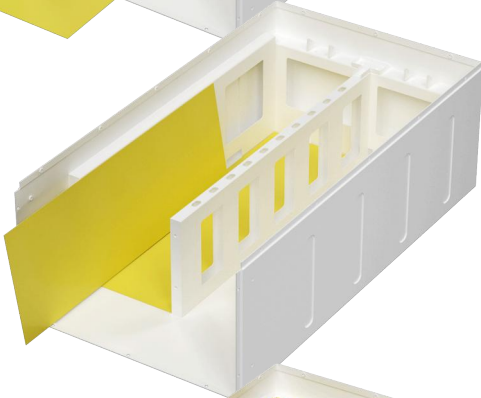


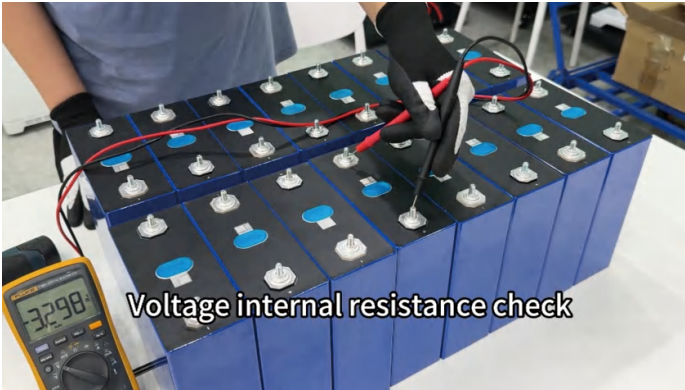
**O**  
USB-RS485 communication cable\*1



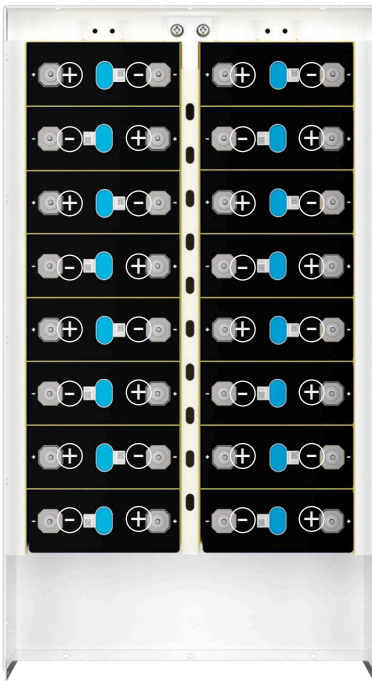


Put the fiberglass insulation plate (K)

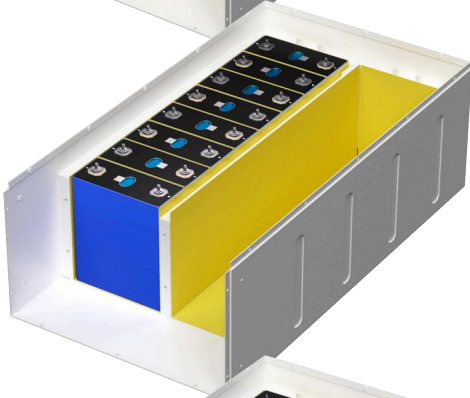
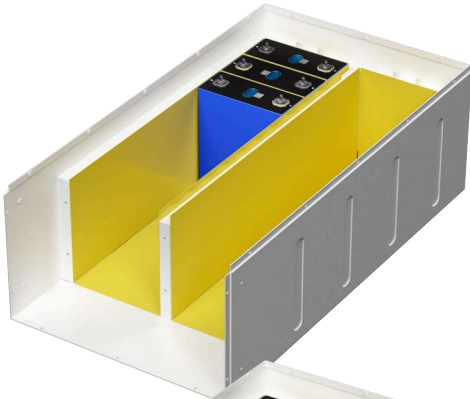


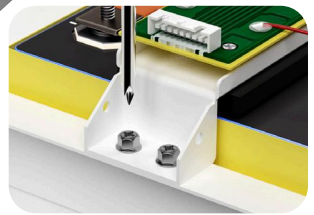
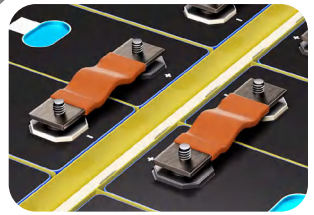


Cells Voltage difference  $\leq 20\text{mV}$



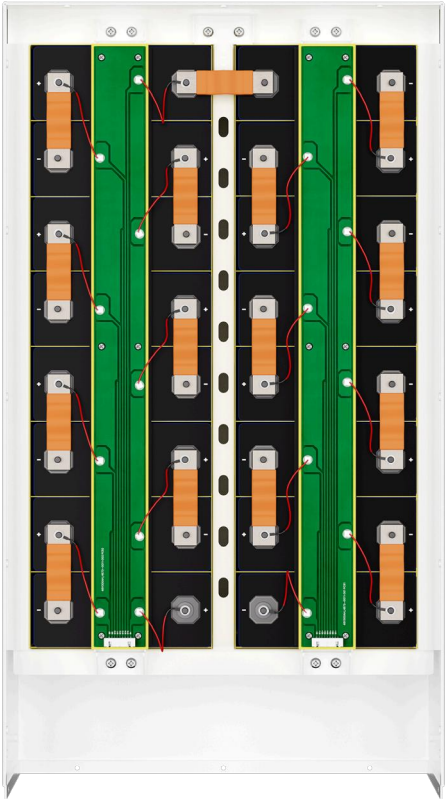
Place the battery cells in the chassis, separated by fiberglass insulation plate (K)



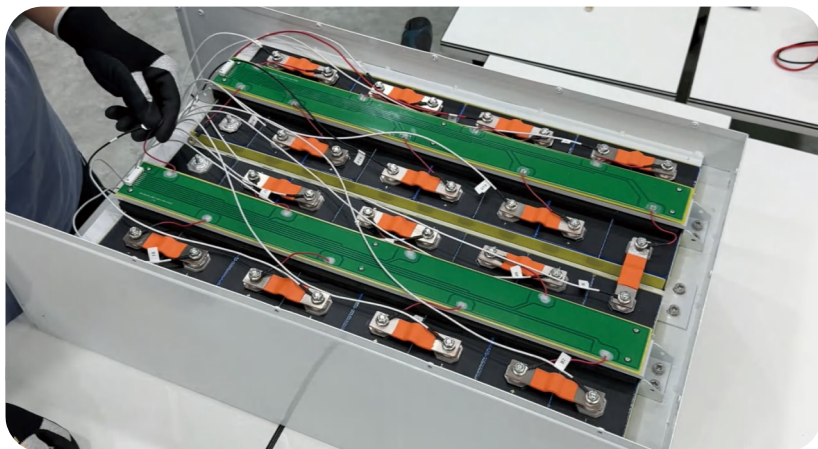




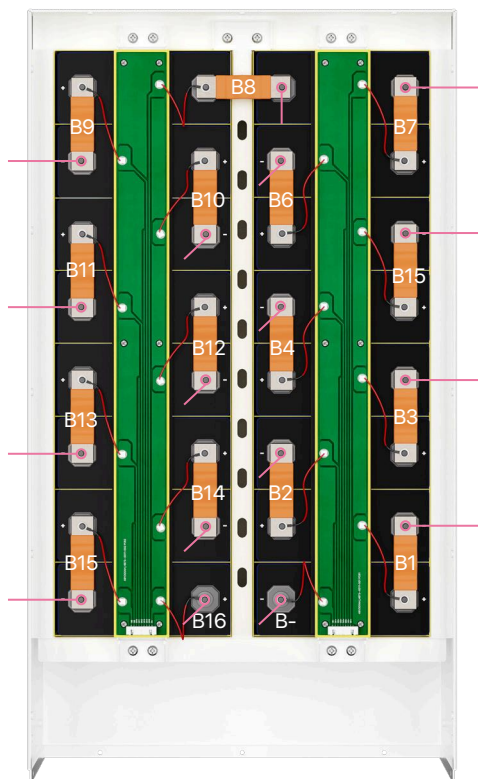
Linking Balance bars (C) and Flexible busbar (M)



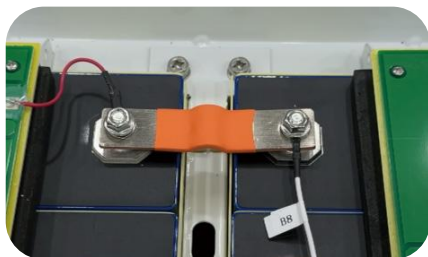
Installation of Equalizer (J)



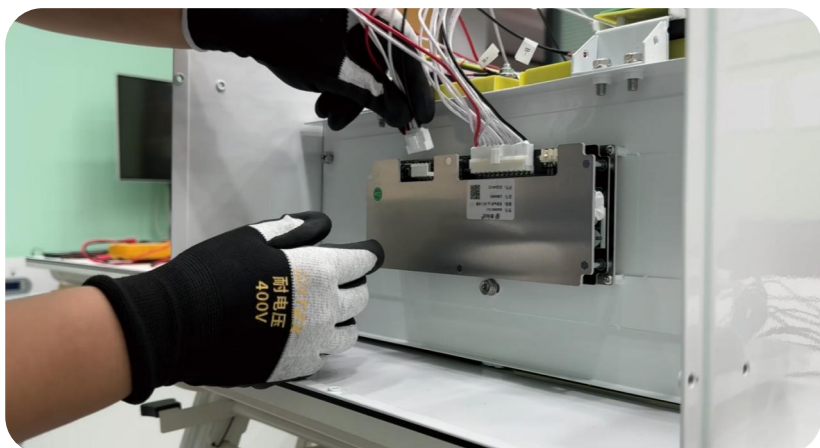
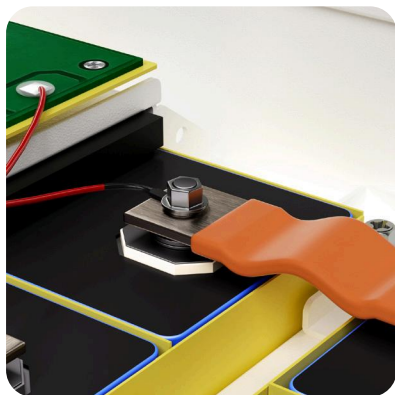
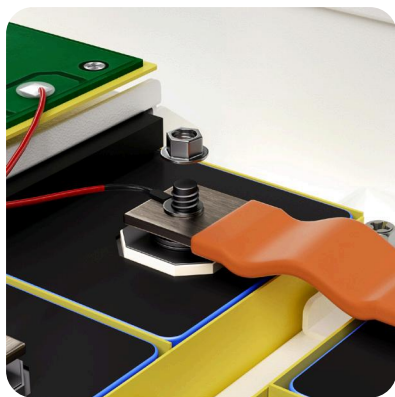
Linking Equalizer Cables (J)



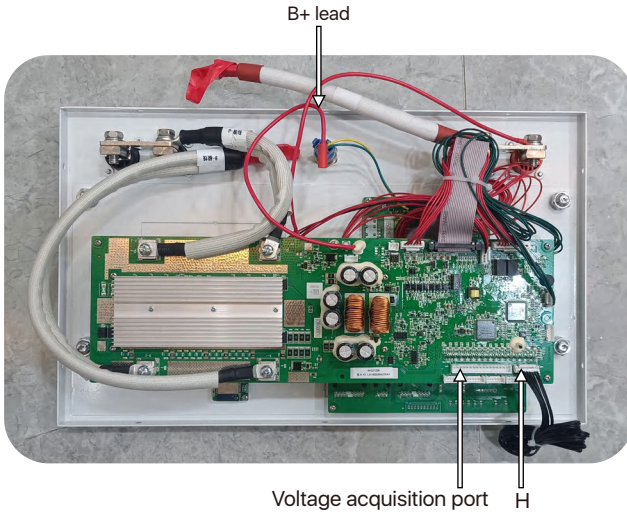
Each wire has a corresponding label



Link the other end of the Flexible busba according to the corresponding value.

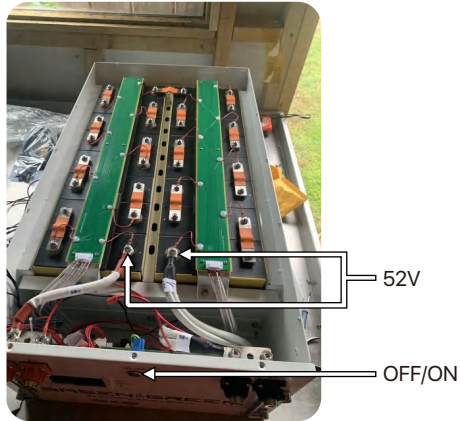


Put the BMS front plate(D) on, plug the voltage acquisition lead P+ lead to the main positive, and B- lead to the main negative, then put the B+ lead on, and stick the temperature NTC leads(H) on the cells by heat proof tape.



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.

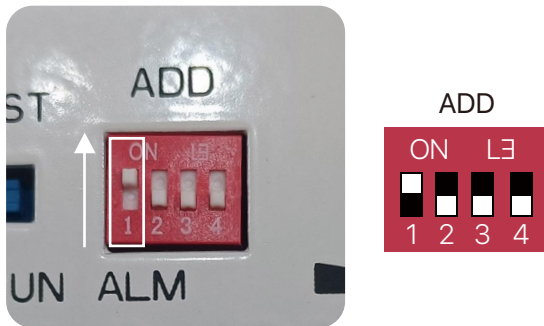
Unbox and install video: <https://www.youtube.com/watch?v=KxcEyd8IVSY&t=7s>



### Operation of Upper System

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





## Operation of Bluetooth

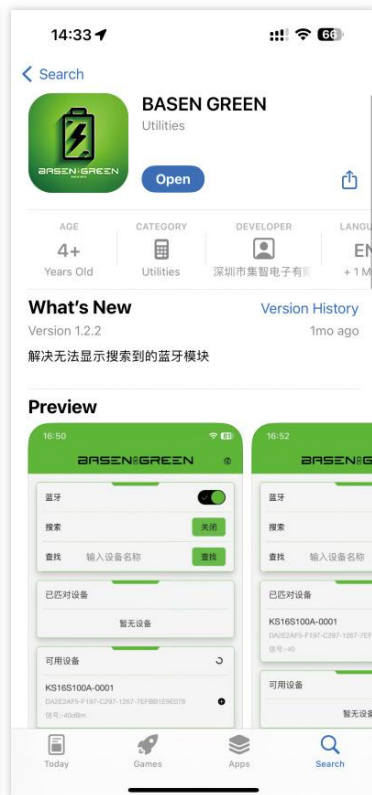
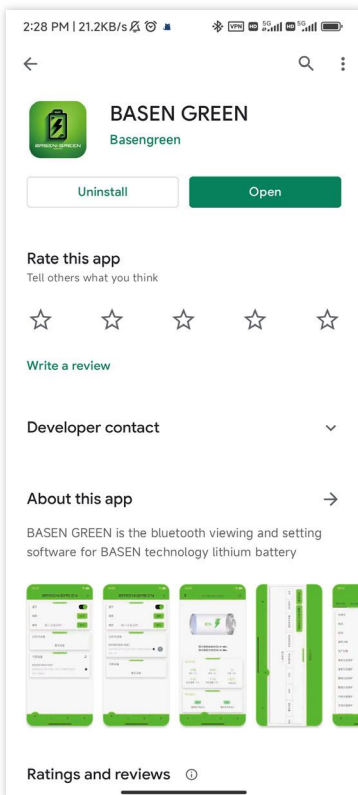
DIY KIT is equipped with a Bluetooth function, supports APP monitoring battery statuses. All information available in the battery, such as the state of charge, voltage, operating current, temperature, and other operating information are transmitted in real-time via the Bluetooth transmitter. The parameters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

**Download: Android: "BASENGREEN" in Play Store**

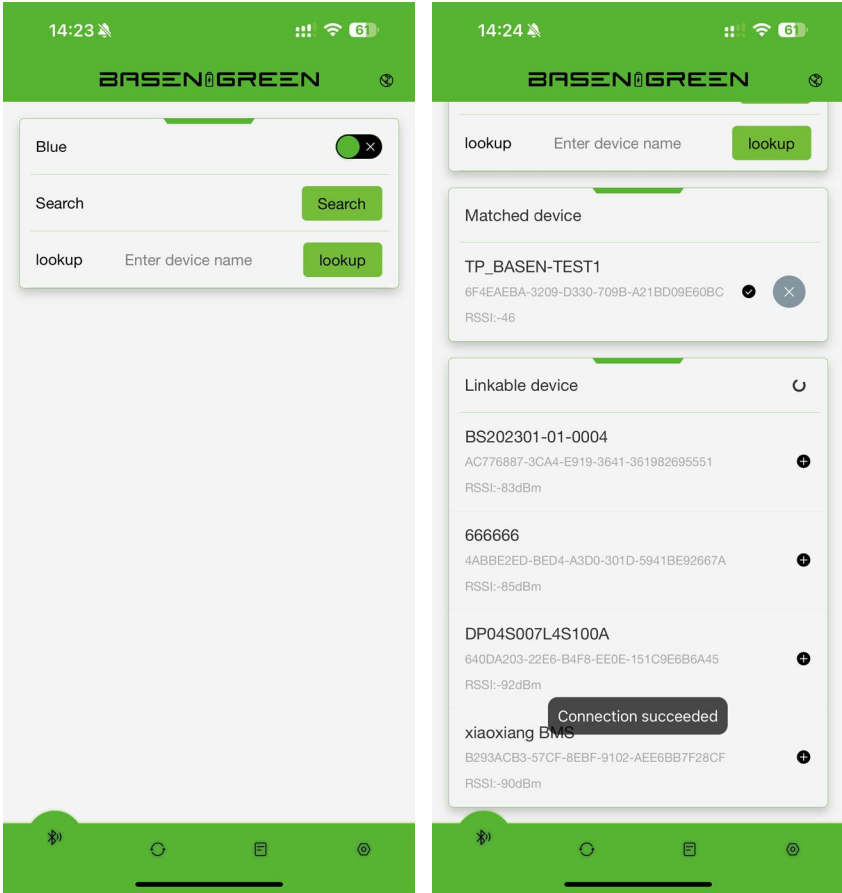
**iOS: "BASENGREEN" in Apple Store**

## Bluetooth

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



2. Turn on Bluetooth and search for the corresponding product's Bluetooth code

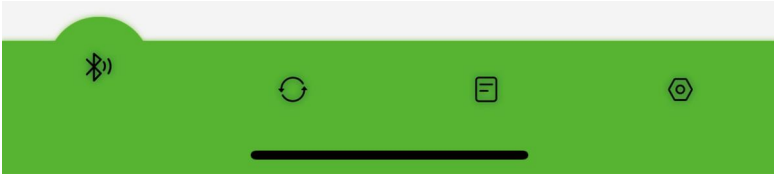


**NOTE:**

- a. If you selected a battery to connect to and the app doesn't confirm the connection, it might be someone else is already connected to the battery. Only one device connects to the battery at the same time.
- b. The Bluetooth app supports status monitoring only. It does not support any modified operation except communication protocol switching



### 3. Menu



**Bluetooth list:** Check the Device list and connect it.

**Homepage:** Check the status of battery-SOC, Volt, Current, Temperature, etc.

**Historical Data:** Not available

**Setting:** Base Message: Check the pack voltage, current, cycle time, etc.

**Cell Voltage:** Check the cells voltage.

**Language:** English/Chinese switching.

**Fault Data:** Not available

**System Parameter:** Not available

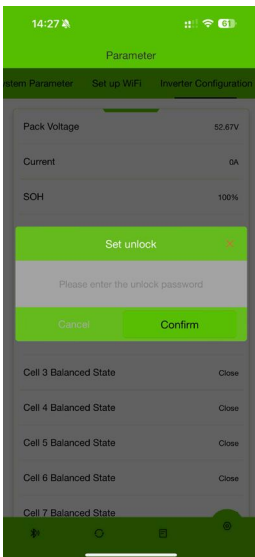
**Set up WiFi:** Setup WiFi function(Not available)

**Inverter configuration:** Communication protocol switching(Chapter 9.2)

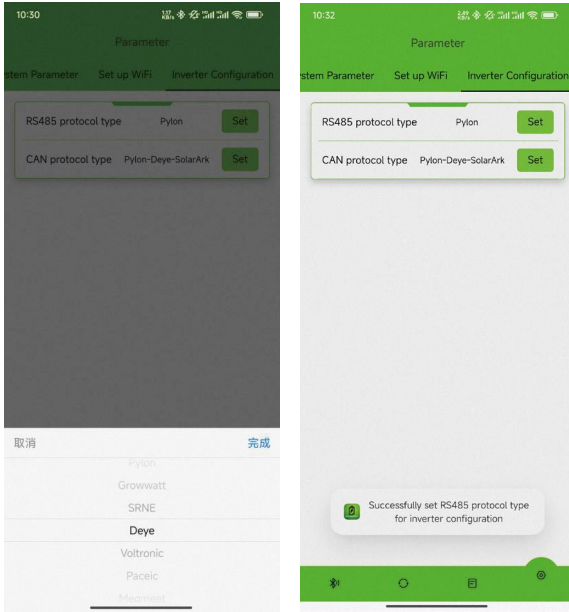
### Operation of Communication Protocol Switch(Via Bluetooth App)

a. Connect to the Bluetooth app first

b. Swipe left to find 'Inverter Configuration'. Set unlock code is 888888



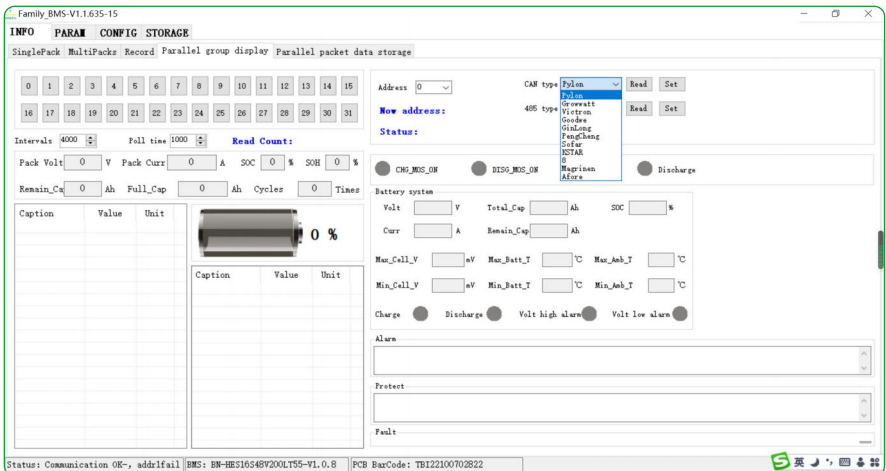
c. Choose the communication protocol and set, the battery pack will be restart after few second with “bee” sound. Then set up is successful.



## Switching communication protocols via PC

Open the PC software and follow the path:

INFO—Parallel Group Display—CAN Type/RS485 Type—Read—Choose the protocol—Set



# Communication Protocol Switching via Screen

## 1. Introduction



There are 4 buttons on the side of screen

**MENU** : Enter the "MENU" page

**ENTER** : Confirm the change/enter the next page

**▼** : Select items/turn pages

**ESC** : Back to the last page

## 2. Switch the communication protocol

a. Turns on the battery, the screen will light up and shows the data.



b. Click "MENU" button, then click ▼, enter the "CommType Set" page.



c. There are CAN/RS485 options, click the correct option based on the inverter model.  
(Default communication protocol: Pylon)



d. Choose the protocol and click the "ENTER" button.



e. All of the indicators will light up after 3-5 seconds, and then it has a "bee" sound. The screen will show the latest communication protocol, which means the protocol has been updated successfully.



## Communication Compatible List

 深圳市贝森科技有限公司 Shenzhen Basen Technology Co.,Ltd						
BASEN BMS Inverter Communication Protocol Matching Table						
Inverter Brand	Communication method	Protocol Name	Protocol Remarks	Communication Potter rate	Interface Definition	
维克托-Victron 	CAN	Victron-CAN-V1.00- 211135	Active Upload	500K	7H、8L	
古瑞瓦特-SPF Growatt-SPF 	485	Growatt BMS-RS485-protocol-1xSoP_ESSL_V2.01 Growatt BMS-RS485-protocol-V2.0	MODBUS Standard protocols	9600	1B、2A	
古瑞瓦特-SPF Growatt-SPF 	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L	
古瑞瓦特-SPH Growatt-SPF 	CAN	Growatt BMS communication protocol of growatt low voltage-V1.01	Active Upload	500K	4H、5L	
德业 Deye 	CAN	Deye LV-CAN communication protocol	Active Upload	500K	4H、5L	
尚科-Scolar 	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L	
固德威-Goodwe 	CAN	Goodwe-CAN-V1.7-220228-SolarinverterFamily-EN	Active Upload	500K	4H、5L	
日月元-Voltronic Power 	485	Voltronic Power-485-V1.03-200325	MODBUS protocols	9600	3B、5A	
首航-SOFAR 	CAN	SOFAR-CAN-V1.00-211117-Rev6	Active Upload	500K	1H、2L	
锦浪-Solis 	CAN	Solis-CAN-V1.0-191228-lowVoltage	Active Upload	500K	4H、5L	
鹏城-Luxpower 	CAN	Luxpowertek Battery CAN Protocol -2021	Active Upload	500K	4H、3L	
派能-Pylontech 	485	Pylon-485-V3.5-161216-low voltage protocol	1363	115200	1B、2A	
派能-Pylontech 	485	Pylon-485-V3.5-161216-low voltage protocol	1363	9600	1B、2A	
派能-Pylontech 	CAN	Pylon-CAN-V1.2-180408 -lowVoltage	Active Upload	500K	4H、5L	
硕日-Srne 	485	shuori BMS Modbus Protocol for RS485 V1.3(2020-11-24)	MODBUS	9600	7A、8B	
美世乐 Must 	CAN	PV1800F-CAN communication Protocol1.04.04	Active Upload	100K	6H、5L	
艾思玛 SMA 	CAN	SMA-CAN-V1.0.0-210630-FSS -ConnectingBat-TI-en-20W	Active Upload	500K	4H、5L	
索瑞德-SOROTEC 	CAN	CAN Protocol 1.0(SOROTEC Protocol)	MODBUS Standard protocols	500K	4H、5L	
索瑞德 SOROTEC 	485	Protocol between Sorotec Inverter and Lithium Battery (RS485)	Active Upload	500K	1B、2A	
SOL-ARK 	CAN	Sol-Ark CAN Bus Protocol V1.2.pdf4-25-22	Active Upload	500K	4H、5L	
迈格瑞能 MEGAREVO 	CAN	Shenzhen MEGAREVO Hybrid Inverter-5K BMS Protocol V1.01	Active Upload	500K	4H、5L	
MPP Solar 	485	BMS 485 communication protocol 20200325(2)	MODBUS	9600	1B、2A	
拓宝-TBB 	CAN	CAN BUS Protocol of TBB Lithium Battery BMS Platform V 1.1	Active Upload	500K	4H、5L	
盛能杰-Senergy 	CAN	SenergyINV&BMS_CAN_Protocols	Active Upload	500K	4H、5L	

# Need additional information?

Just Contact BASEN!

**BASEN  GREEN**

BASENGREEN  
YOUR RELIABLE POWER



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