

# 48230KITS Assembly Instructions

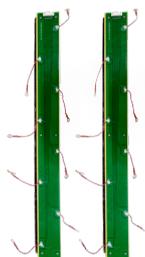
## Packing list



**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)**  
16S 200A BMS\*1



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



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



**J**  
USB-RS485  
communication cabl\*1



**K**  
Fiberglass  
Insulation plate\*20



**L**  
Screws\*16



**M**  
Flexible busbar\*16



**N**  
Inverter communication cable\*1

**WARNING:**

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

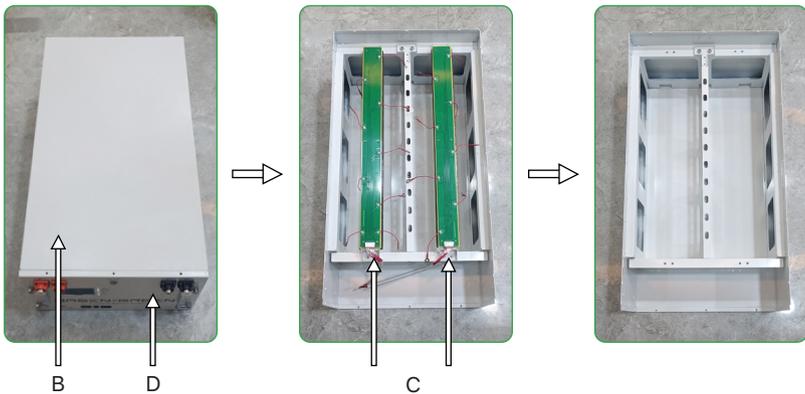
**IMPORTANT:**

Read these instructions carefully before beginning assembly. Failure to follow these instructions may result in serious injury.

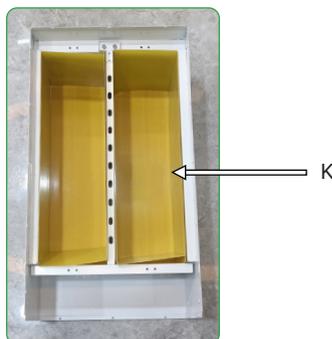
Carefully unpack all parts and identify them with the parts list before attempting to assemble the KITS. Remove all cardboard and plastic covering from DIY KITS parts. Please examine all packing material before discarding it.



1. Remove the BMS front plate(D), the cover plate(B), and the balance bars(C) as shown in figure 1.

**Figure 1**

2. Put the fiberglass insulation plate (K) as shown in figure 2.

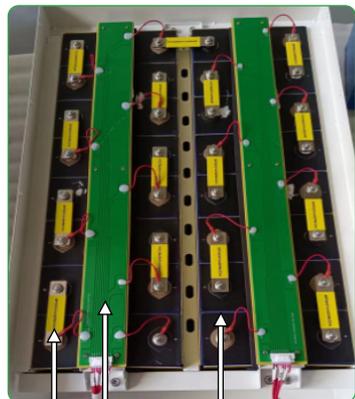
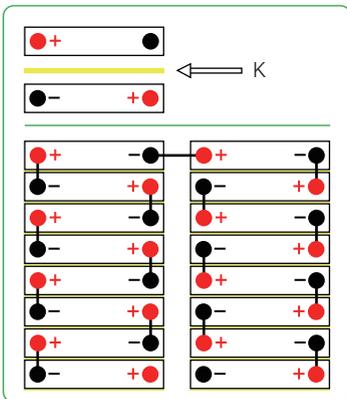
**Figure 2**

3. Put the cells into the case, connect the cells with the flexible busbars (M), the temperature NTC leads (H) and the balance bars(C) as shown in figure 3, and the cells should be divided by fiberglass insulation plate (K), as shown in figure 3.

Figure 3



Cell difference within 20mA



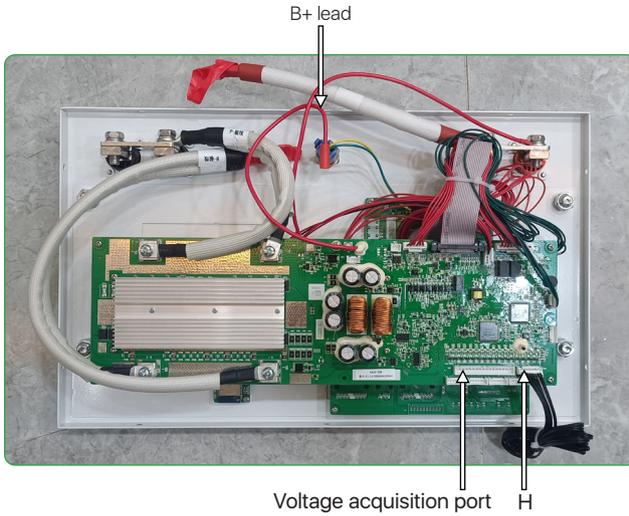
M

C

K

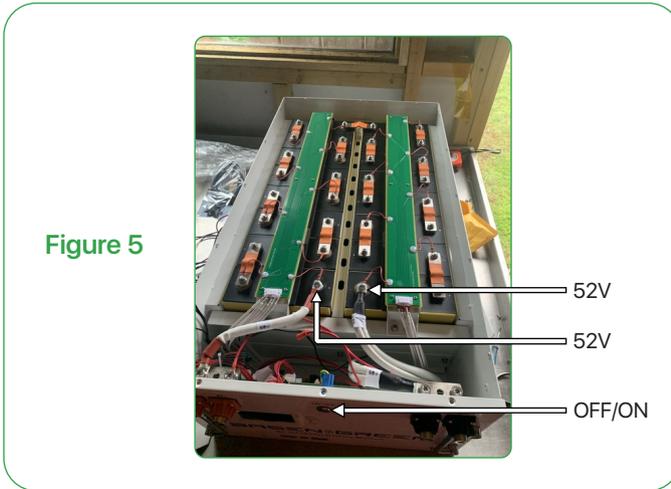
4. Put the BMS front plate(D) on, plug the voltage acquisition lead P+ lead to the main positive, and B- lead to the main negative, then put the B+ lead on, and stick the temperature NTC leads(H) on the cells by heat proof tape as shown in figure 4.

Figure 4



5. 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, as shown in figure 5.

Unbox and install video: <https://www.youtube.com/watch?v=6FZf448Nujk&t=22s>



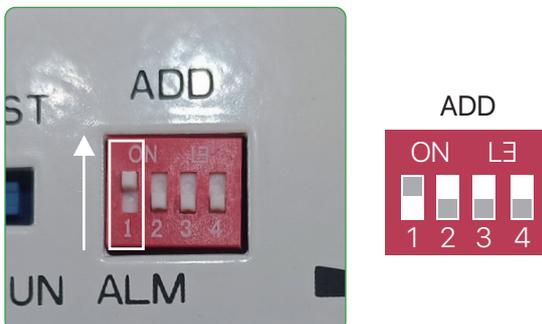
## 6. Operation of Upper System and Bluetooth

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 follow the path:

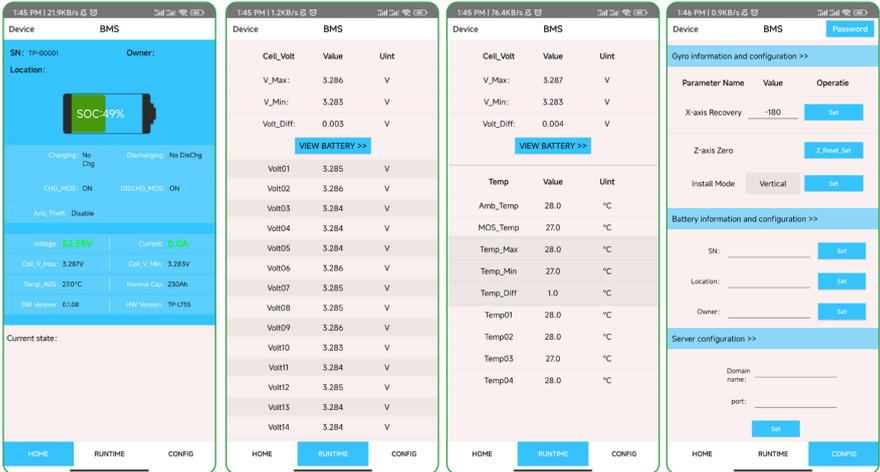
CONFIG—Type the password "888888"—auto goes the interface—SN code—Read—Rename the Bluetooth(Format"TP-XXXX")—Write.

**Notice:** Please do not modify any other parameter setting without permission.





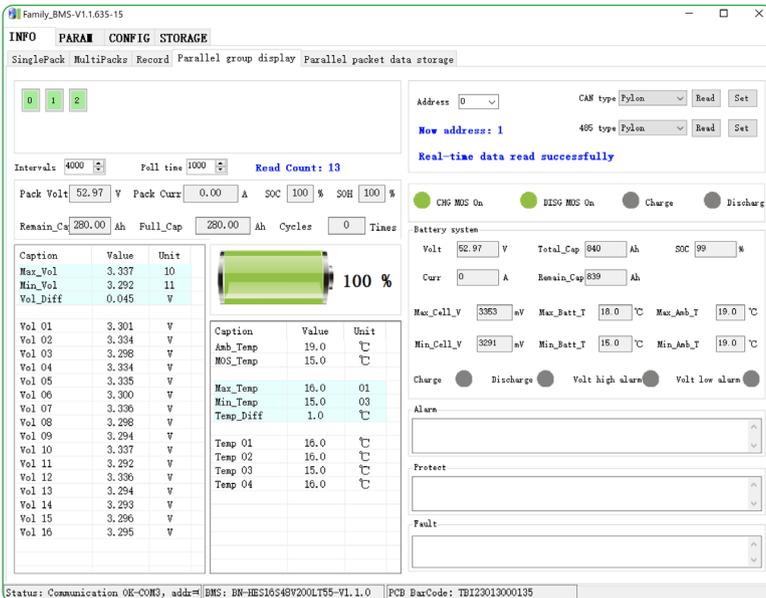
7. Download the APP(Android only, the IOS are developing), click the Bluetooth name to check the status.



8. How to switch the communication protocol.

Open the PC software and follow the path:

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



## Communication compatible list:

Inverter Brand	Communication method	Protocol Name	Protocol Remarks	Communication Potter rate	Interface Definition	
古瑞瓦特-SPF Growatt-SPF	 Growatt	485	Growatt BMS-RS485-protocol-1x5VxP_ESSL_V2.01 Growatt BMS-RS485-protocol-V2.0	MODBUS Standard protocols	9600	1B、2A
古瑞瓦特-SPF Growatt-SPF	 Growatt	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L
古瑞瓦特-SPH Growatt-SPF	 Growatt	CAN	Growatt BMS communication protocol of growatt low voltage-V1.01	Active Upload	500K	4H、5L
尚科-Scolar	 SOLAR	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L
固德威-Goodwe	 GOODWE	CAN	Goodwe-CAN-V1.7-220228-SolarinverterFamily-EN	Active Upload	500K	4H、5L
日月元-Voltronic Power	 Voltronic Power	485	Voltronic Power-485-V1.03-200325	MODBUS protocols	9600	3B、5A
首航-SOFAR	 SOFAR	CAN	SOFAR-CAN-V1.00-211117-Rev6	Active Upload	500K	1H、2L
索瑞德-SOROTEC	 SOROTEC Power Solutions Expert	CAN	CAN Protocol 1.0(SOROTEC Protocol)	MODBUS Standard protocols	500K	
索瑞德 SOROTEC	 SOROTEC Power Solutions Expert	485	Protocol between Sorotec Inverter and Lithium Battery (RS485)	Active Upload	500K	
德业 Deye	 Deye 德業	CAN	Deye LV-CAN communication protocol	Active Upload	500K	4H、5L
德业 Deye	 Deye 德業	485	485 Modbus Protocol(4)-deye	MODBUS protocols	9600	1B、2A
锦浪-Solis	 solis Solar Inverter Technology	CAN	Solis-CAN-V1.0-191228-lowVoltage	Active Upload	500K	4H、5L
鹏城-Luxpower	 LUXPOWER <sup>TEK</sup>	CAN	Luxpowertek Battery CAN Protocol -2021	Active Upload	500K	4H、3L
派能-Pylontech	 PYLONTECH	485	Pylon-485-V3.5-161216-low voltage protocol	1363	115200	
派能-Pylontech	 PYLONTECH	485	Pylon-485-V3.5-161216-low voltage protocol	1363	9600	
派能-Pylontech	 PYLONTECH	CAN	Pylon-CAN-V1.2-180408-lowVoltage	Active Upload	500K	
SOL-ARK	 Sol-Ark MULTIPLY ENERGY	CAN	Sol-Ark CAN Bus Protocol V1.2.pdf4-25-22	Active Upload	500K	
硕日-Srne	 SRNE	485	shuor BMS Modbus Protocol for RS485 V1.3(2020-11-24)	MODBUS	9600	7A、8B
美世乐 Must	 MUST 美世乐	CAN	PV1800F-CAN communication Protocol1.04.04	Active Upload	100K	6H、5L
艾思玛 SMA	 SMA	CAN	SMA-CAN-V1.0.0-210630-FSS-ConnectingBat-TI-en-20W	Active Upload	500K	4H、5L
迈格瑞能 MEGAREVO	 MEGAREVO	CAN	Shenzhen MEGAREVO Hybrid Inverter-5K BMS Protocol V1.01	Active Upload	500K	
MPP Solar	 MPP Solar Power Solutions Expert	485	BMS 485 communication protocol 20200325(2)	MODBUS	9600	
拓宝-TBB	 TBB PCH-GPI	CAN	CAN BUS Protocol of TBB Lithium Battery BMS Platform V 1.1	Active Upload	500K	
盛能杰-Senergy	 Senergy 盛能杰	CAN	SenergyINV&BMS_CAN_Protocols	Active Upload		
维克托-Victron	 victron energy	CAN	Victron-CAN-V1.00-211135	Active Upload	500K	7H、8L