51.2V 345/314/280Ah Stackable PACE DIY Kits Assembly Instruction

WARNING

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

IMPORTANT

Assembly warnings and packaging inspection align with diesel generator installation guidelines emphasizing safety checks and post-unpacking procedures.

Removing protective layers corresponds to warnings about protective films in equipment handling.

Verifying components mirrors standardized unpacking protocols for technical devices.

ALL DIY Kit accessories are included in the DIY box

Remove all screws from the DIY box and keep them safely for securing the battery during reassembly.
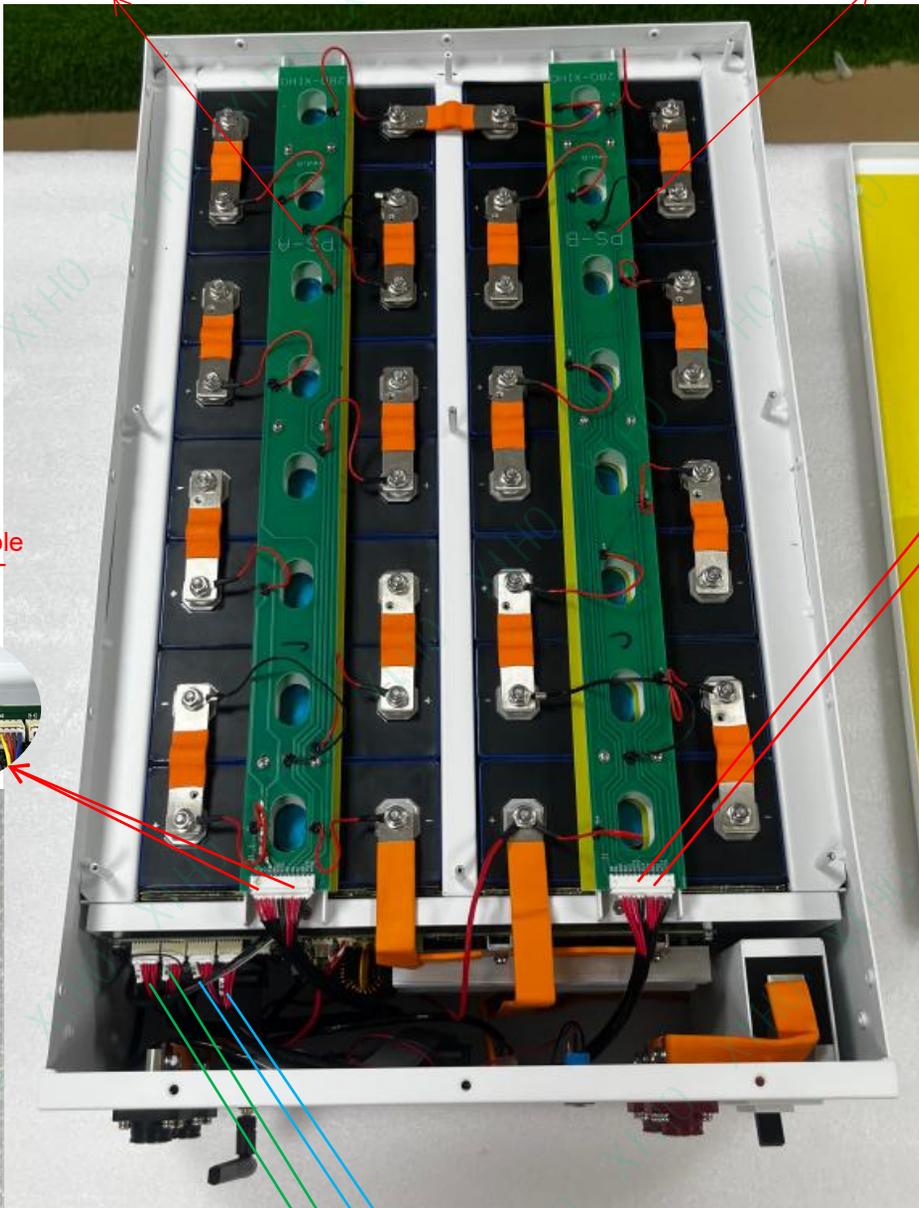

Wire pre-installation

Note： **Please check the PCB board connection line** upon receiving the DIY kit accessories. Incorrect assembly contrary to the manual instructions will void the warranty. Refer to the image below for labels on PCB-A (PS-A) and PCB-B (PS-B) boards.

PCB-B(PS-A)
In the left
(In picture direction)

PCB-B(PS-B)
In the right
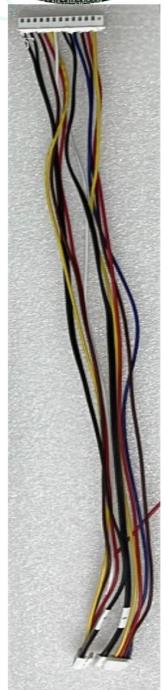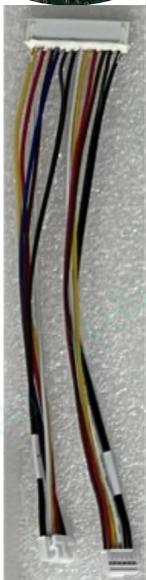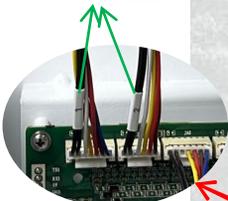(In picture direction)

PCB-A Wire
Short Wire
Line number:
#1、#2
Note: Black
numbered cable
is on the LEFT

PCB-B Wire
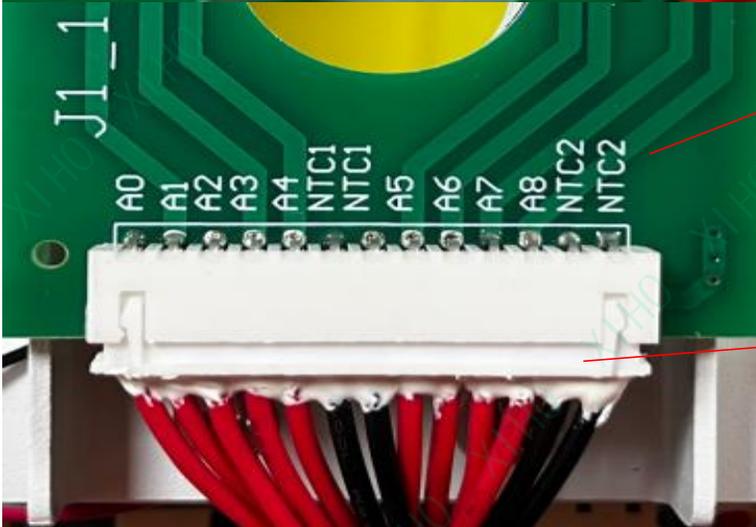Long Wire
Line number:
#3、#4
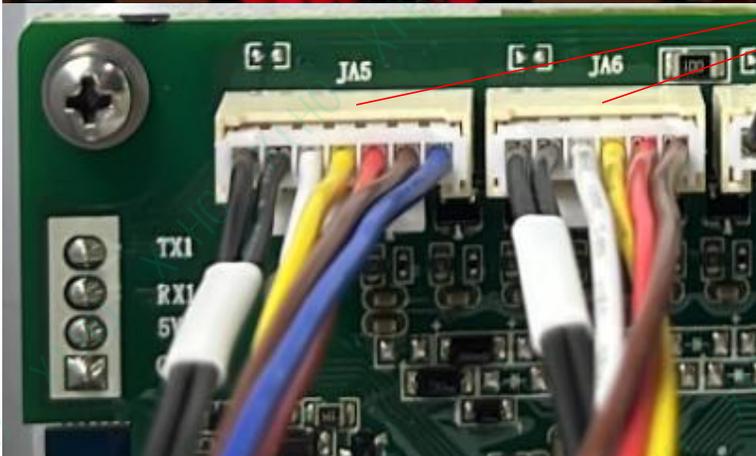Note: Black
numbered cable
is on the LEFT

Connection Note: Ensure the black numbered cable is on the LEFT. Incorrect orientation will short-circuit and permanently damage the PCB board.

![XIHO ENERGY logo]

PCB-A (PS-A)

A0,A1,A2,A3,A4，
A5,A6,A7,A8,
NTC1,NTC2

PCB-A Wire
Short Wire
Line number:
#1、#2

Connection Note: Ensure the black numbered cable is on the LEFT. Incorrect orientation will short-circuit and permanently damage the PCB board.

PCB-A(PS-A) board is marked with wires, they are **JA5、JA6**, and there are **11 lines** on the collector terminal;
PCB-A(PS-A) connect Line number:#1、#2,It corresponds to the BMS motherboard,you must confirm the wiring before inserting, or else it will damage the BMS, and we won't provide after-sales service.

PCB-B(PS-B)

B8,B9,B10,B11,B12,
B13,B14,B15,B16,
NTC3,NTC4

PCB-B Wire
Long Wire
Line number:
#3、#4

Connection Note: Ensure the black numbered cable is on the LEFT. Incorrect orientation will short-circuit and permanently damage the PCB board.
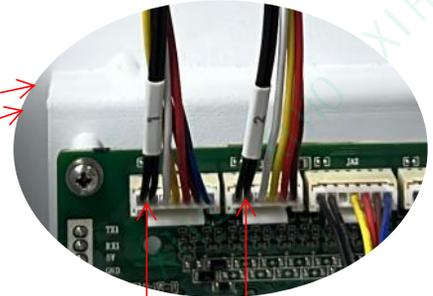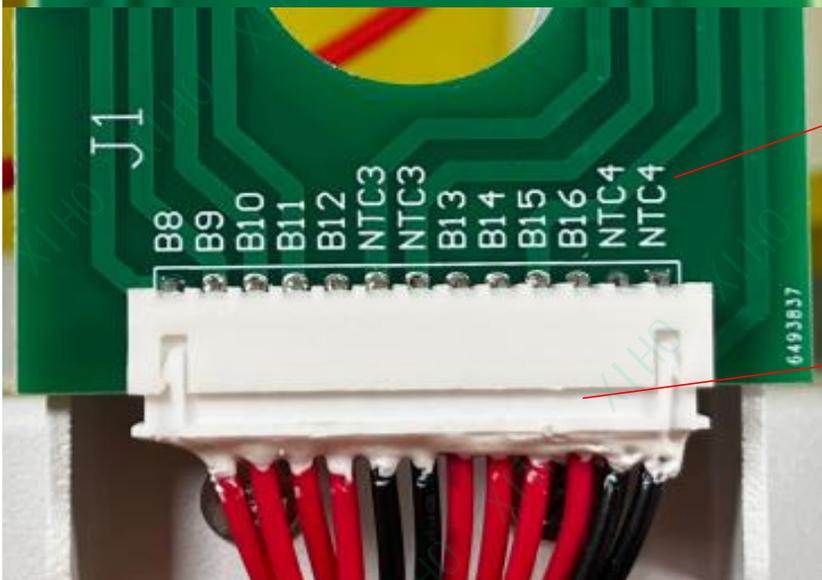
PCB-B(PS-B) board is marked with wires, they are **JA2、JA4**, and there are **11 lines** on the collector terminal;
PCB-B(PS-B) connect Line number:#3、#4 , It corresponds to the BMS motherboard,you must confirm the wiring before inserting, or else it will damage the BMS, and we won't provide after-sales service.

Note： Please make sure that the products you receive are as follows. If you receive the products and they are inconsistent with the picture, you should report to our customer service in time. Do not assemble them without permission.
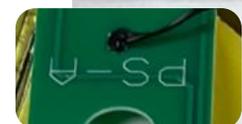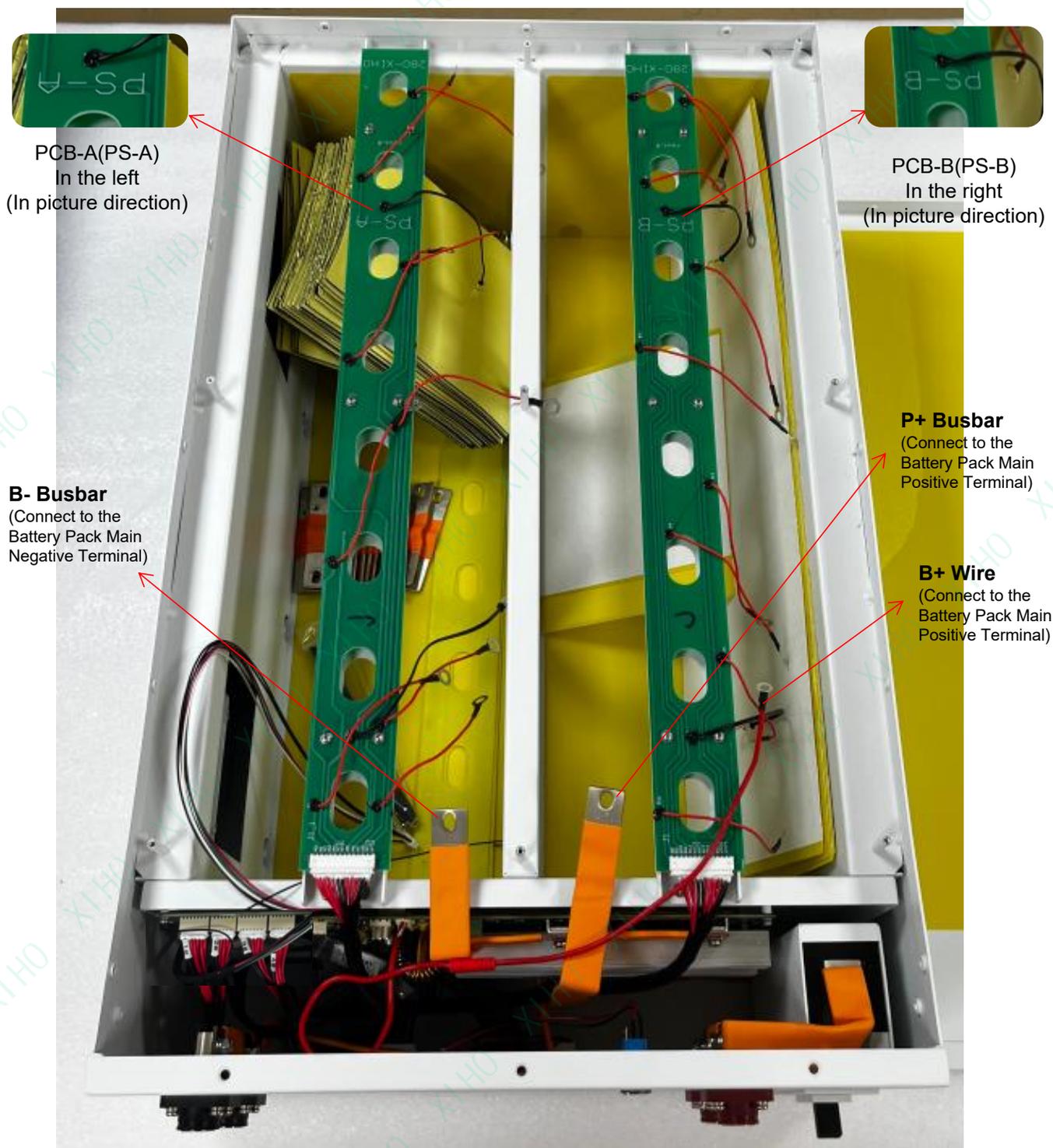
PCB-A(PS-A)
In the left
(In picture direction)

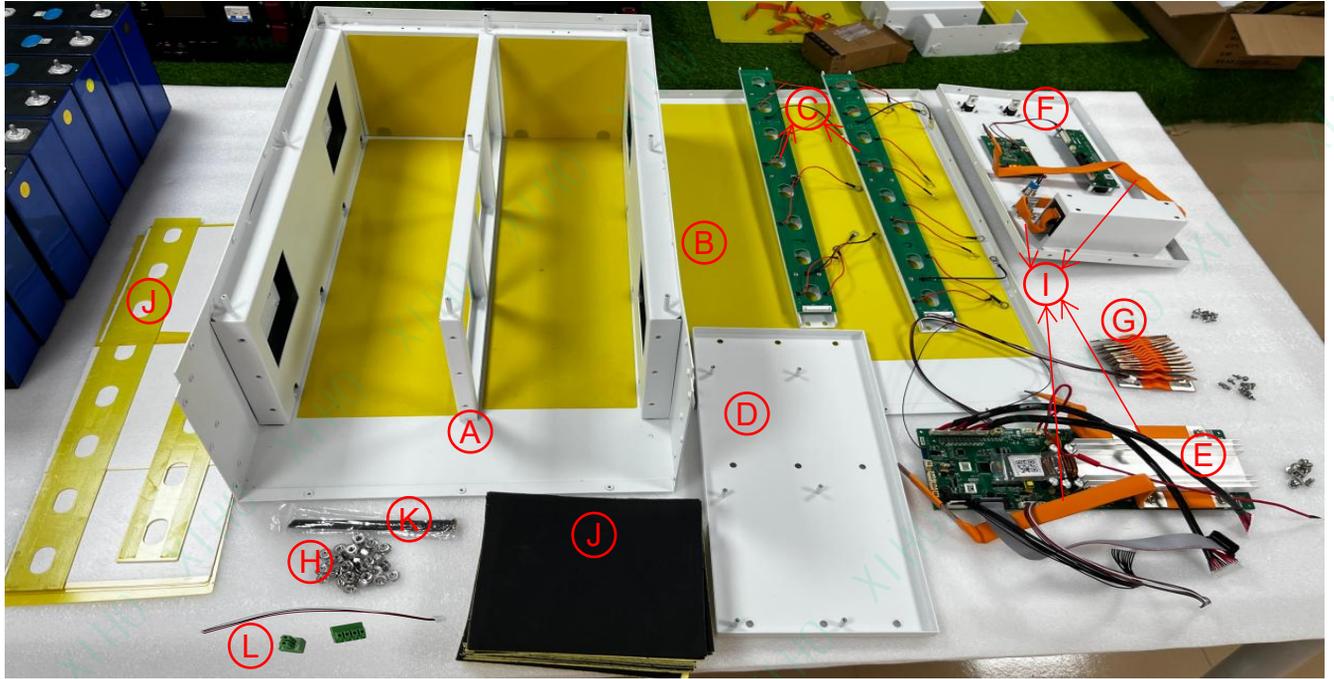PCB-B(PS-B)
In the right
(In picture direction)

P+ Busbar
(Connect to the Battery Pack Main Positive Terminal)

B- Busbar
(Connect to the Battery Pack Main Negative Terminal)

B+ Wire
(Connect to the Battery Pack Main Positive Terminal)

Packing list: Please check the product carefully after receiving it, if any accessories are missed, **please contact XIHO**.
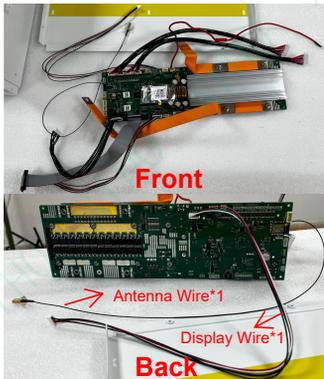
A.(Pre-installed)
Metal Box*1

B.(Pre-installed)
Cover plate*1
Cover Epoxy Board*1

C.(Pre-installed)
PCB Board*2
(PS-A*1,PS-B*1)

D.(Pre-installed)
Middle panel*1

Front
Antenna Wire*1
Display Wire*1
Back

E.(Pre-installed)
BMS Mainboard*1
Antenna Wire*1 / J1 Wire*1
J28 Wire*1 / J29 Wire*1
PCB Wires*2 / B+ Wire*1
Display Wire*1

ON
OFF

F.(Pre-installed)
Front plate*1
Screen*1 / Switch Wire*1
Communication Module*1
Positive and negative
terminals*4
Circuit Breaker*1

G.Copper
Flexiable
Busbar*15

H.Screws*32
(Accessory
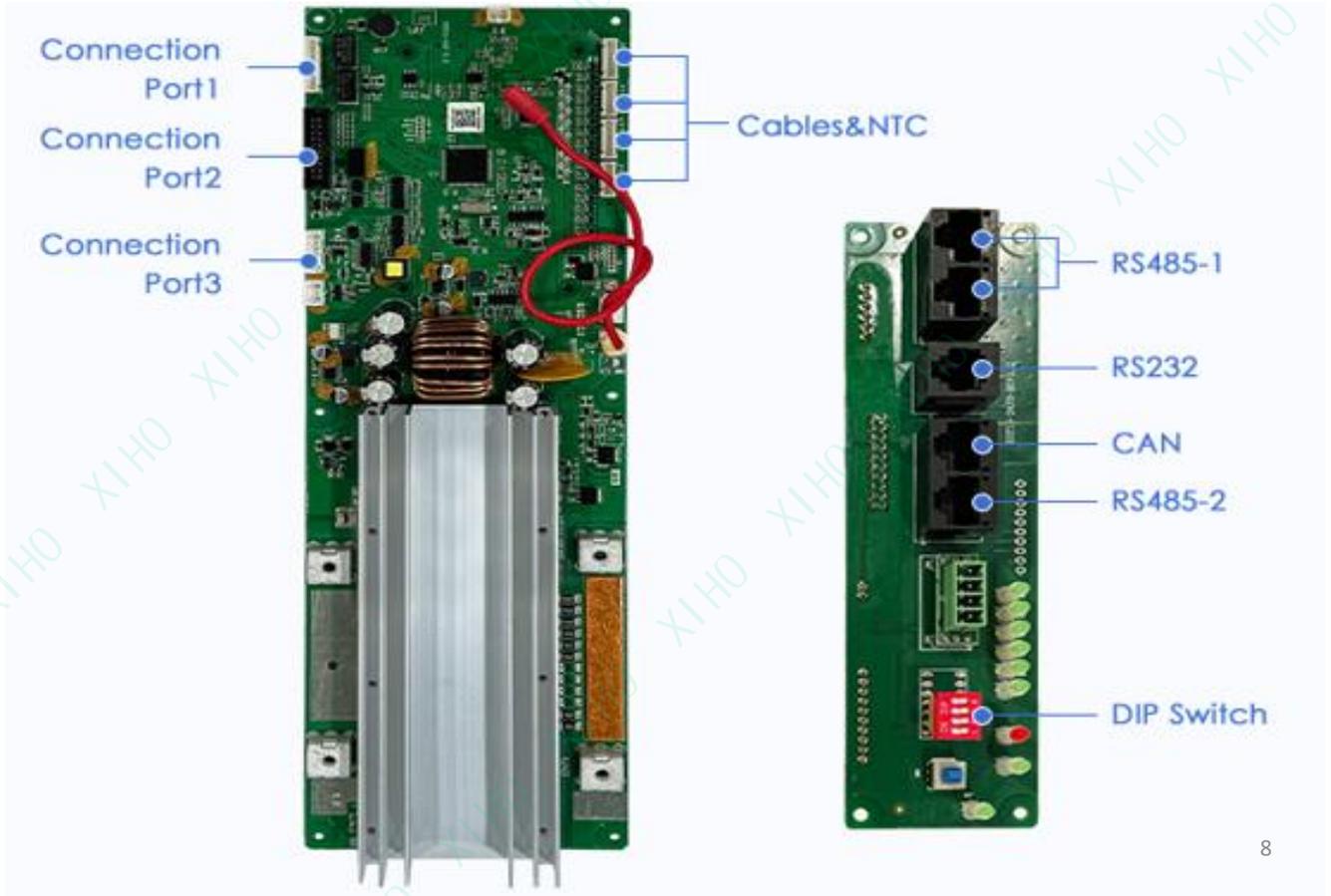provided with
battery purchase)

I.(Pre-installed)
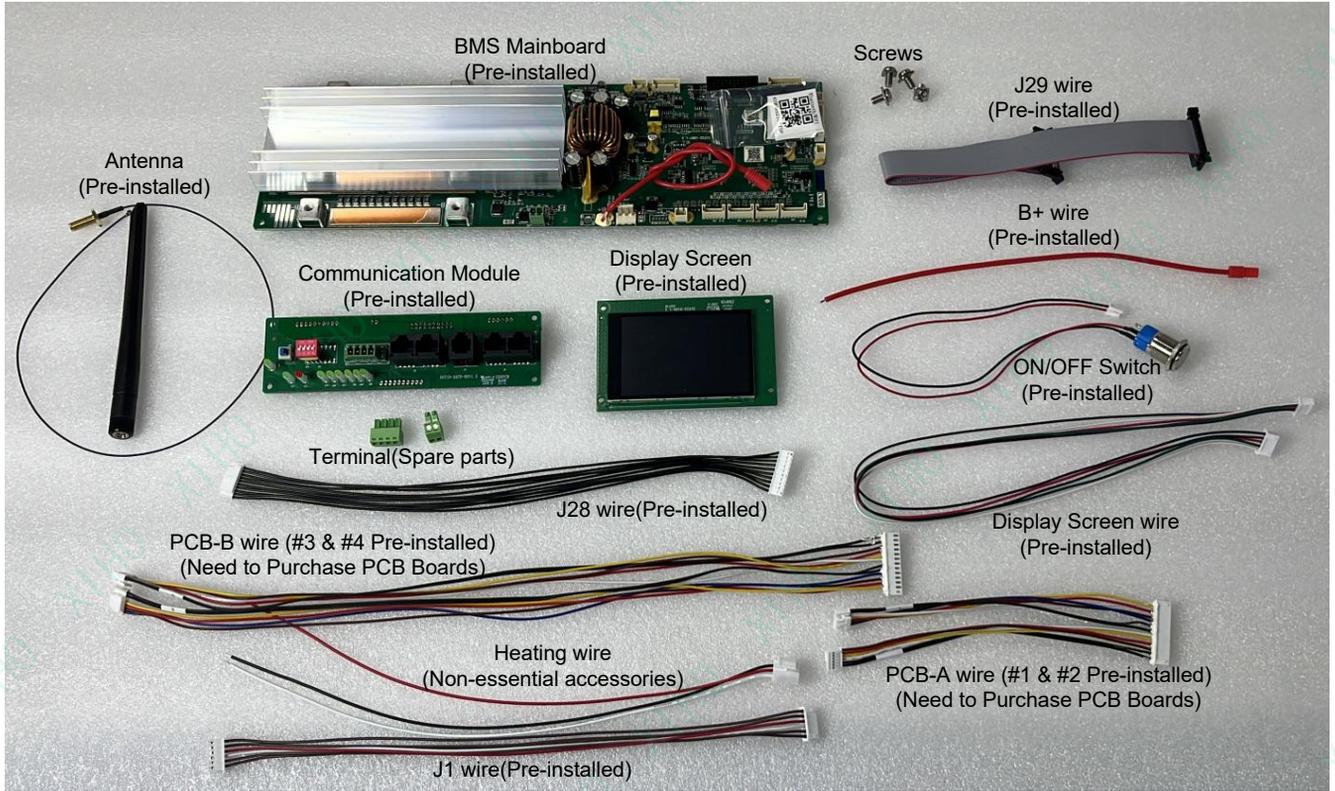Copper Busbars*4

J.EVA Foam*22
Epoxy Board*12

K.Antenna*1

L.Heating wire*1
Terminal*1
(Spare parts)

PACE 16S200A List：Please check the product carefully after receiving it, if any accessories are missed, **please contact XIHO**.

Antenna (Pre-installed)

BMS Mainboard (Pre-installed)

Screws

J29 wire (Pre-installed)

B+ wire (Pre-installed)

Communication Module (Pre-installed)

Display Screen (Pre-installed)

ON/OFF Switch (Pre-installed)

Terminal(Spare parts)

J28 wire(Pre-installed)

Display Screen wire (Pre-installed)

PCB-B wire (#3 & #4 Pre-installed) (Need to Purchase PCB Boards)

Heating wire (Non-essential accessories)

PCB-A wire (#1 & #2 Pre-installed) (Need to Purchase PCB Boards)

J1 wire(Pre-installed)

Connection Port1

Connection Port2

Connection Port3

Cables&NTC

RS485-1

RS232

CAN

RS485-2

DIP Switch

Assembly Steps:

1.Remove Cover plate and Epoxy Cover Plate(B).
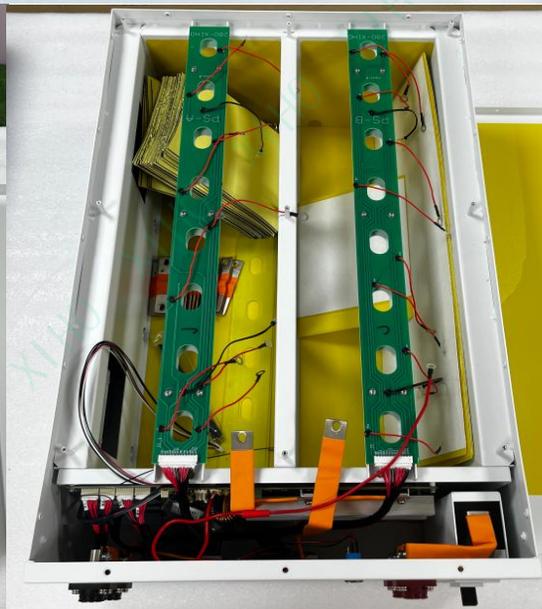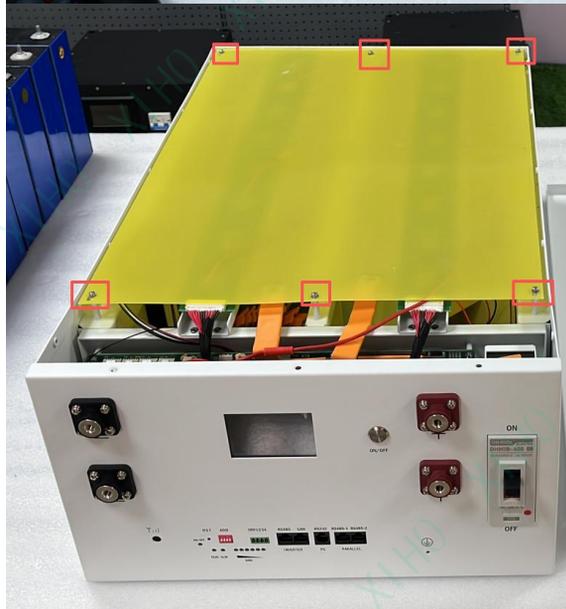
Assembly Steps:

2.Disconnect the PCB-A and PCB-B wire.
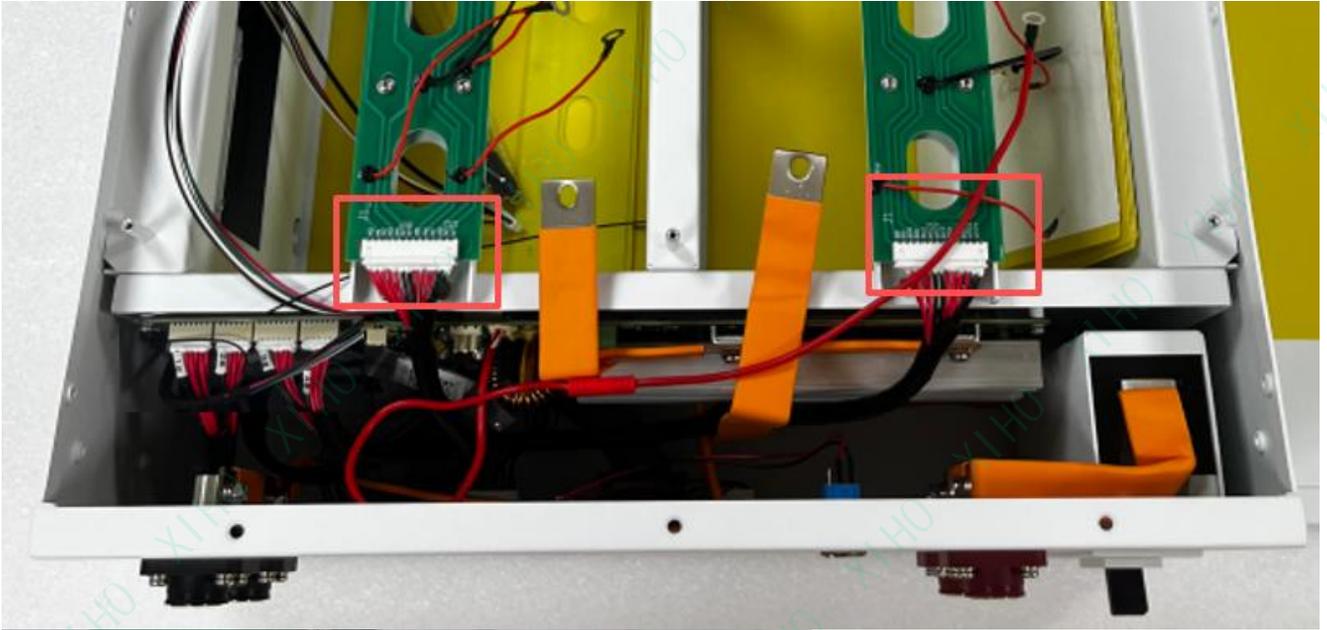
Note:
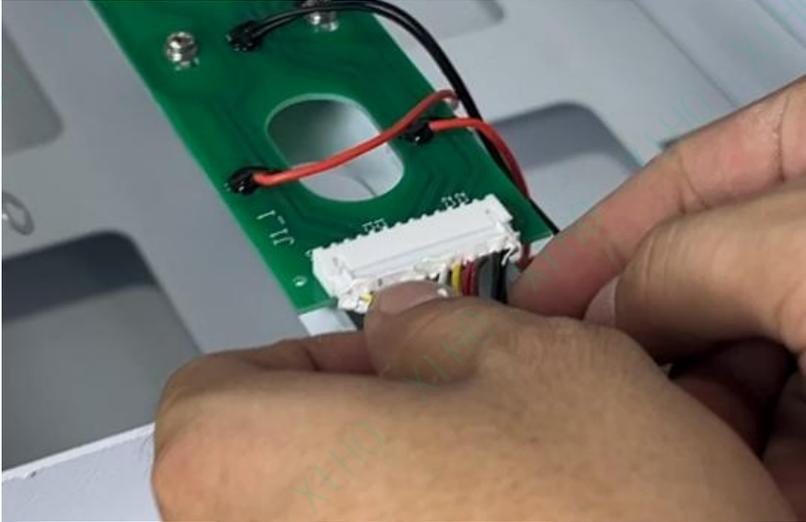Gently press both ends inward and squeeze toward the center to release the connector.
Do not pull the cable forcefully to avoid breakage.

Assembly Steps:

3.Remove PCB Board(C)、 Front plate(F)、 BMS Mainboard(E)、 Middle panel(D),Retain all removed screws securely for reassembly.
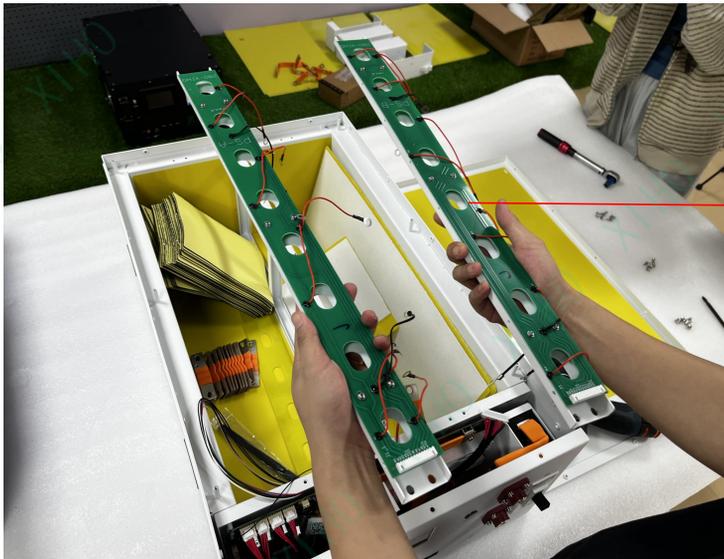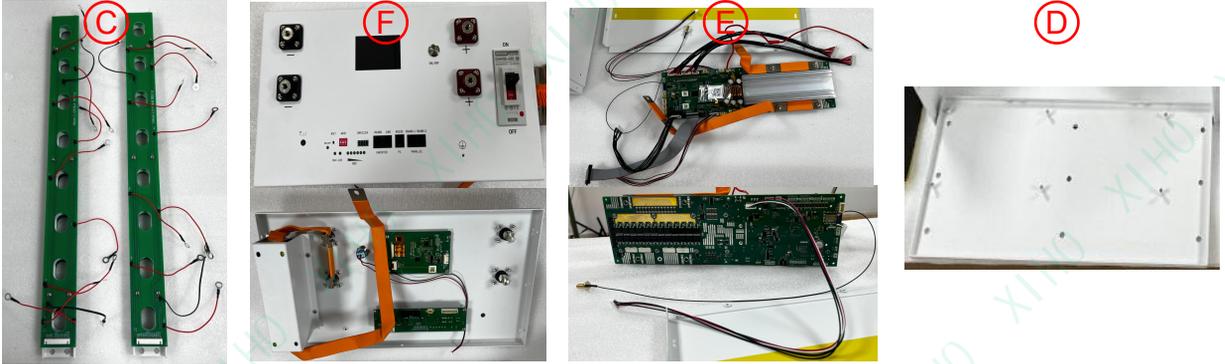
Remove PCB Board(c)
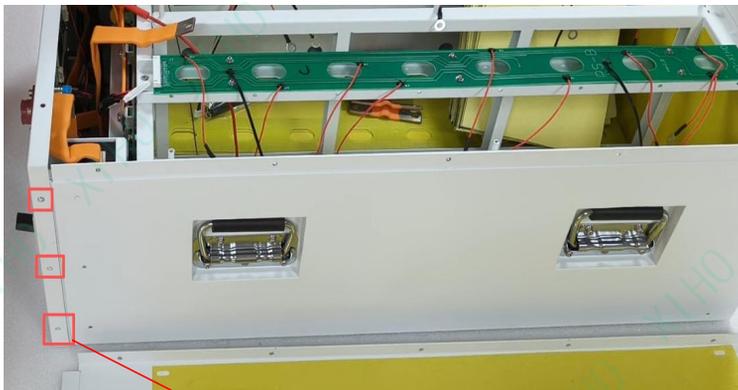
Remove the screws on the front plate, then open the plate.

Assembly Steps:
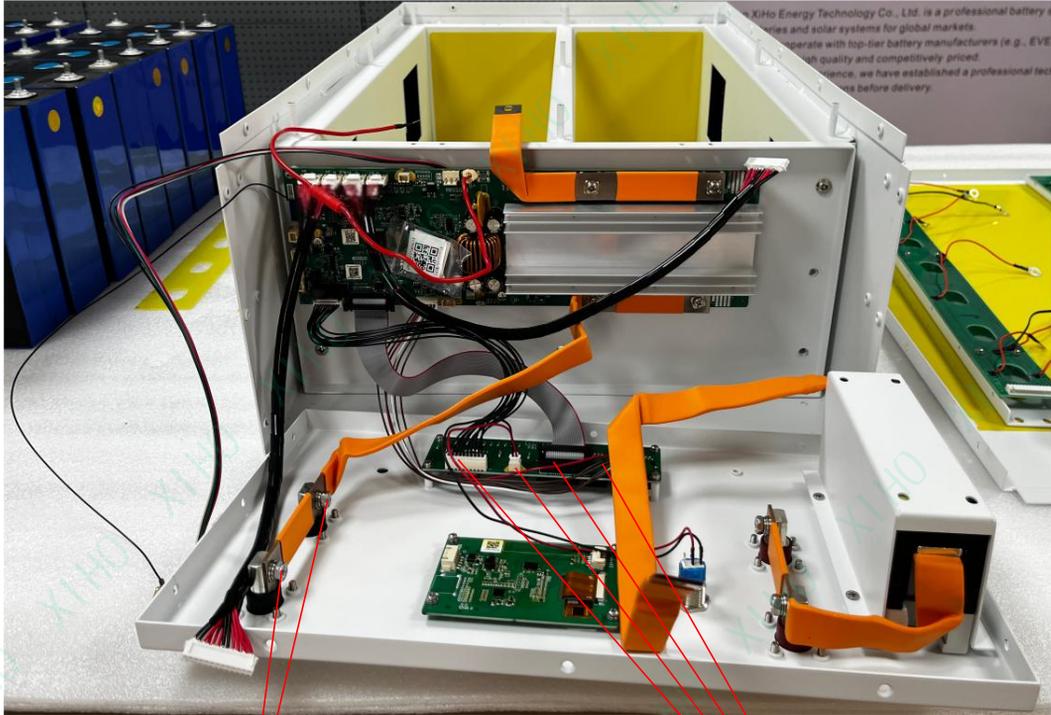
Remove the negative terminal connector busbar
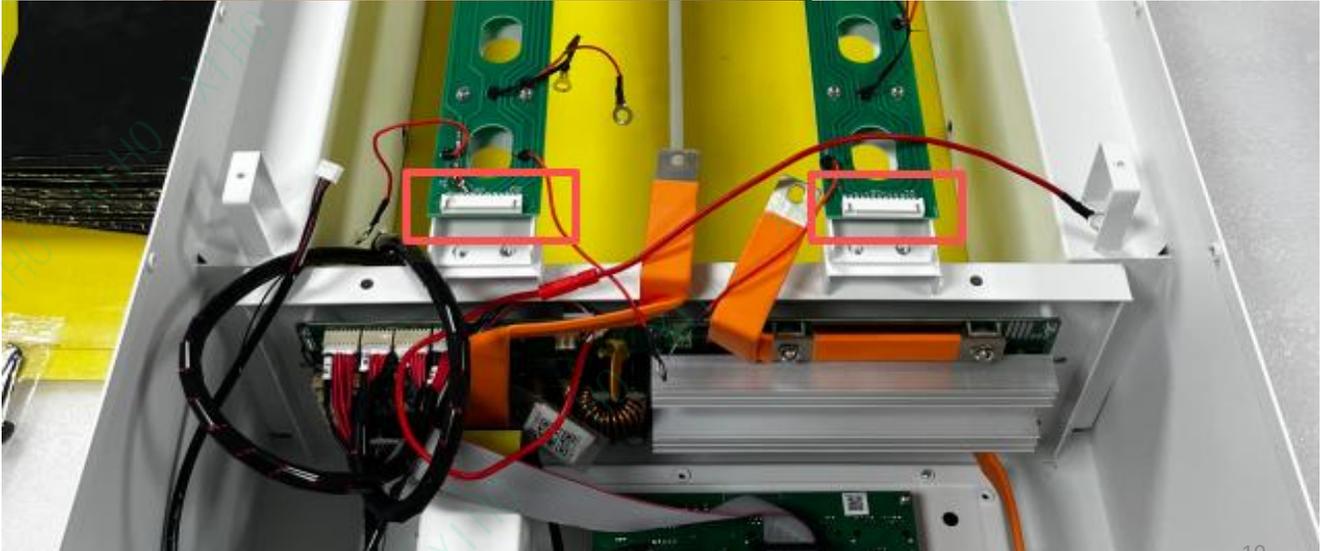
Remove the J1, J28, J29 wires and switch wire On the communication module
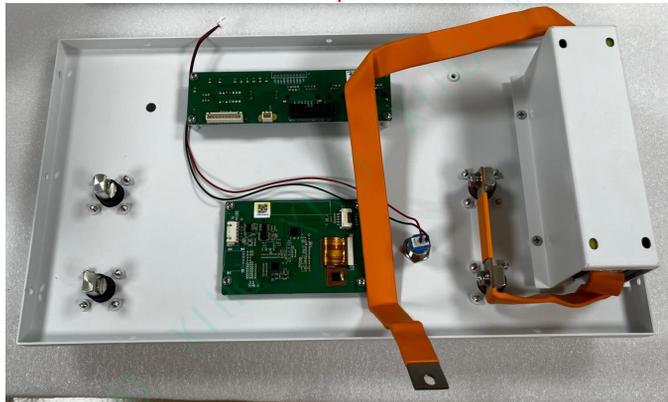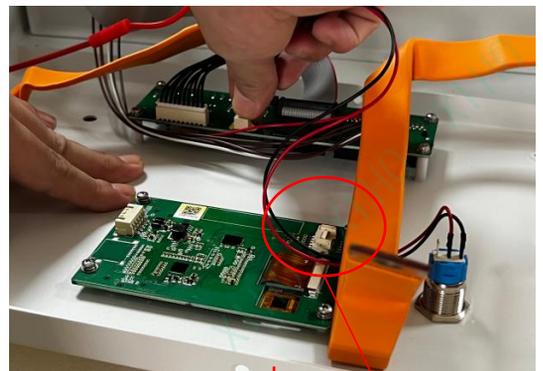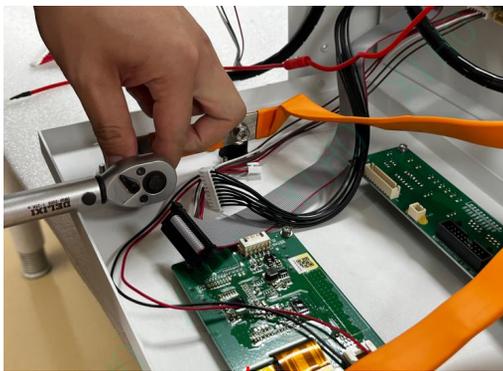
Note: If there are cables on the screen, they also need to be removed.

The front panel(F) has been successfully removed

Assembly Steps:

Remove all screws securing the BMS mainboard to the middle panel
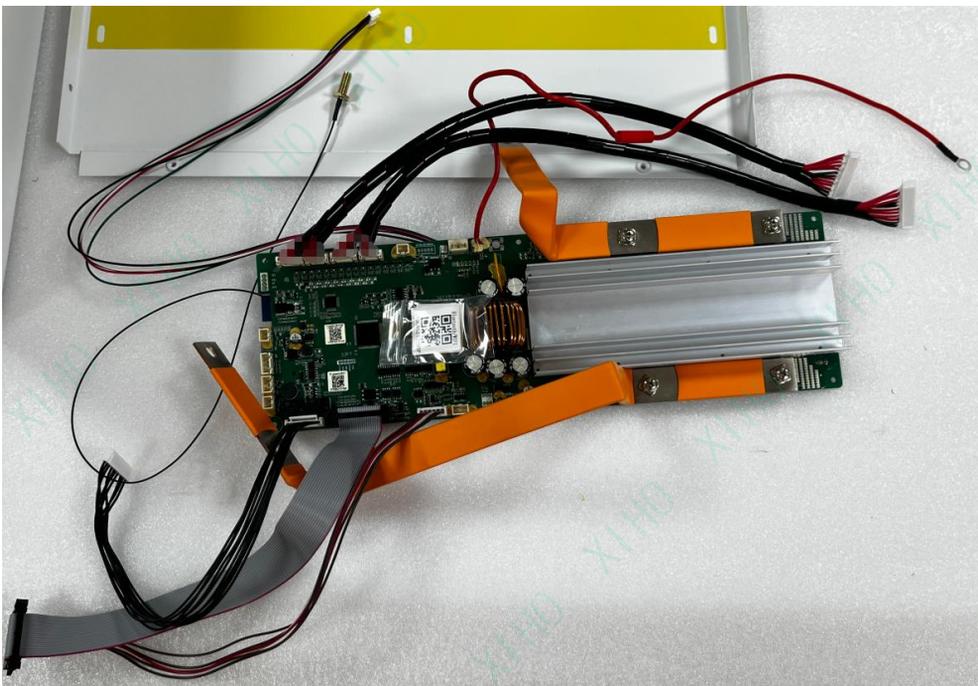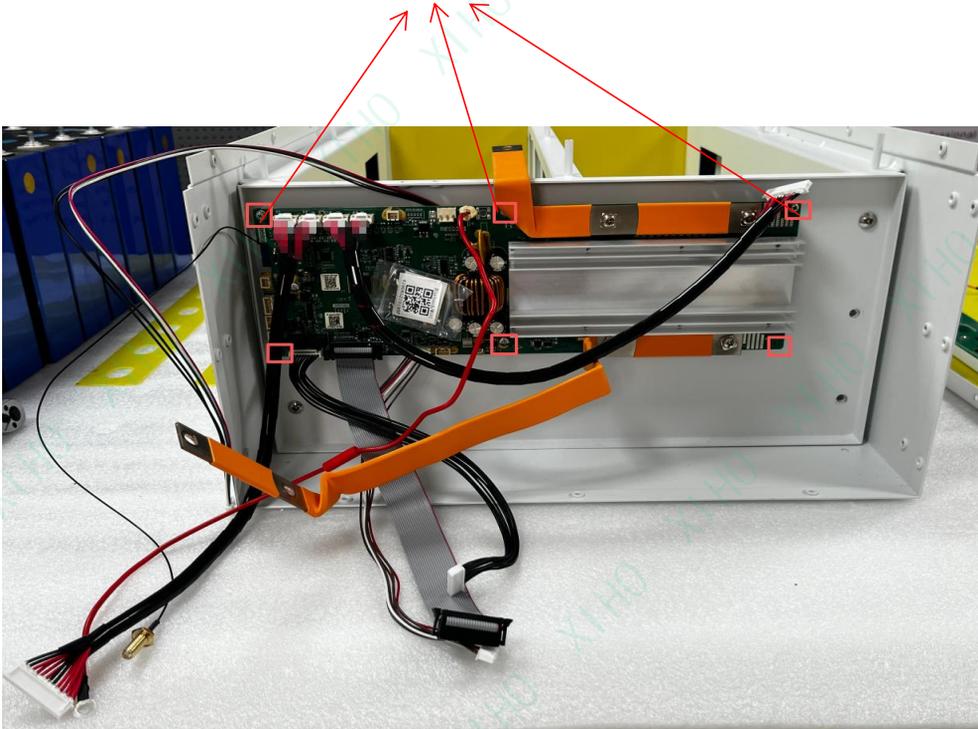
The BMS mainboard(E) has been successfully removed

Assembly Steps:

Remove all middle panel(D) screws

![XIHO ENERGY logo]
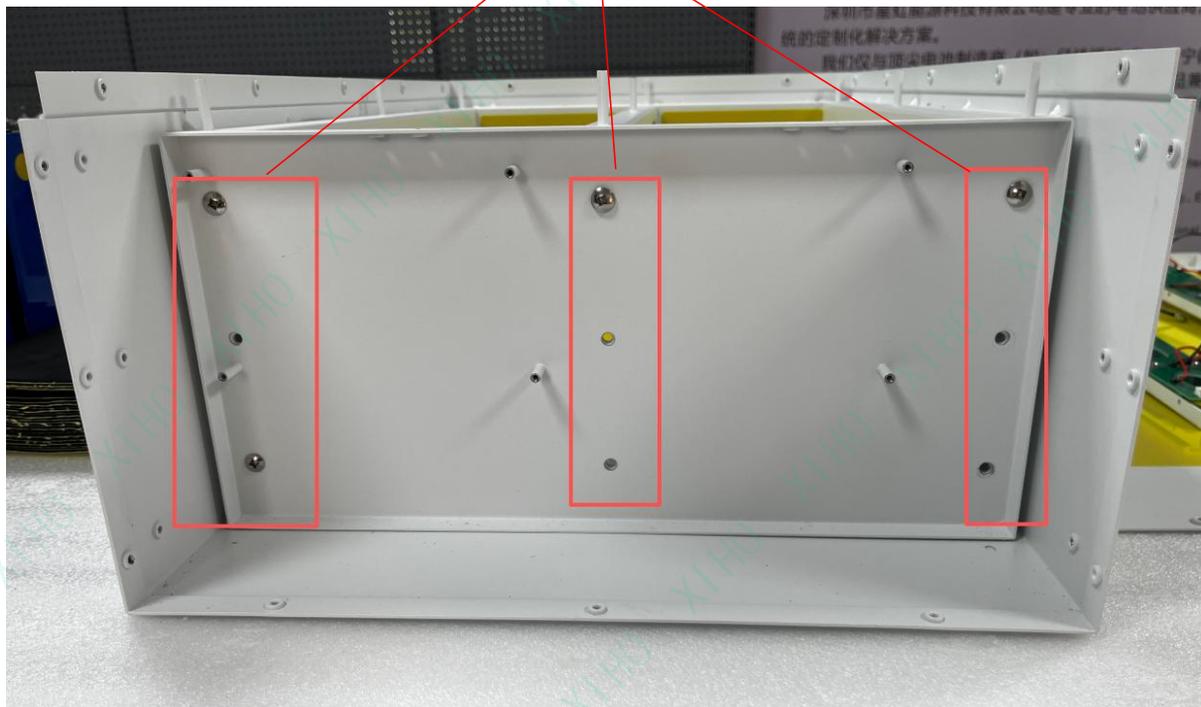
Assembly Steps:

4.Put the epoxy board (J) and attach the EVA foam (J) padding onto the battery cells.
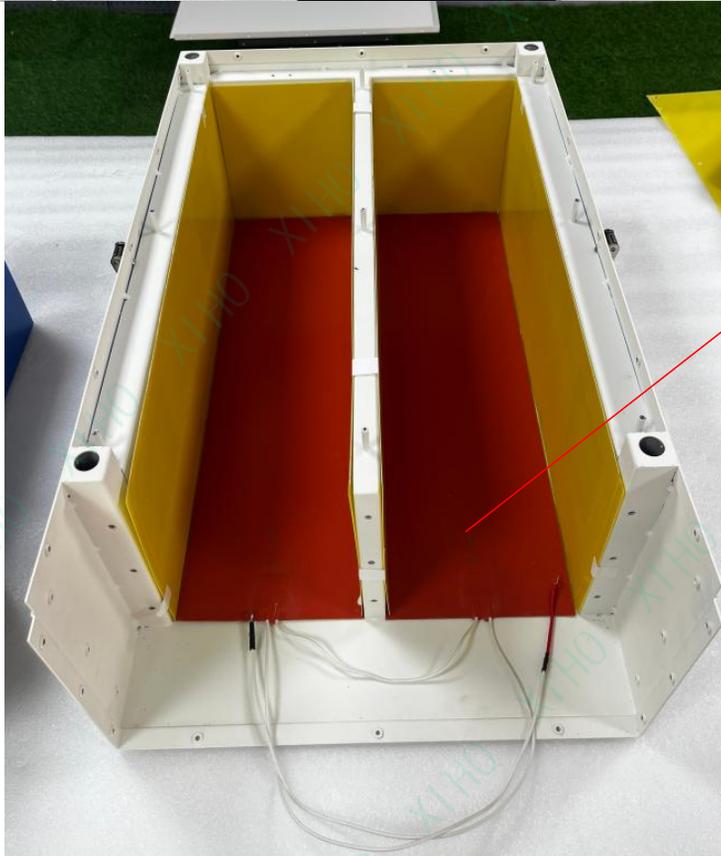
Note:
The heating pad is optional. If installing, place it at the very bottom of the battery.

Assembly Steps:

5.Align the battery cells according to the sequence as showed in following picture.
Pay attention to the 1st and 16th battery cells, the negative and positive terminals cannot be reversed.

Voltage and internal resistance checking
Cells Voltage difference ≤ 20mV

Assembly Steps:

6.Install the **middle panel (D)** and securely fasten the screws.
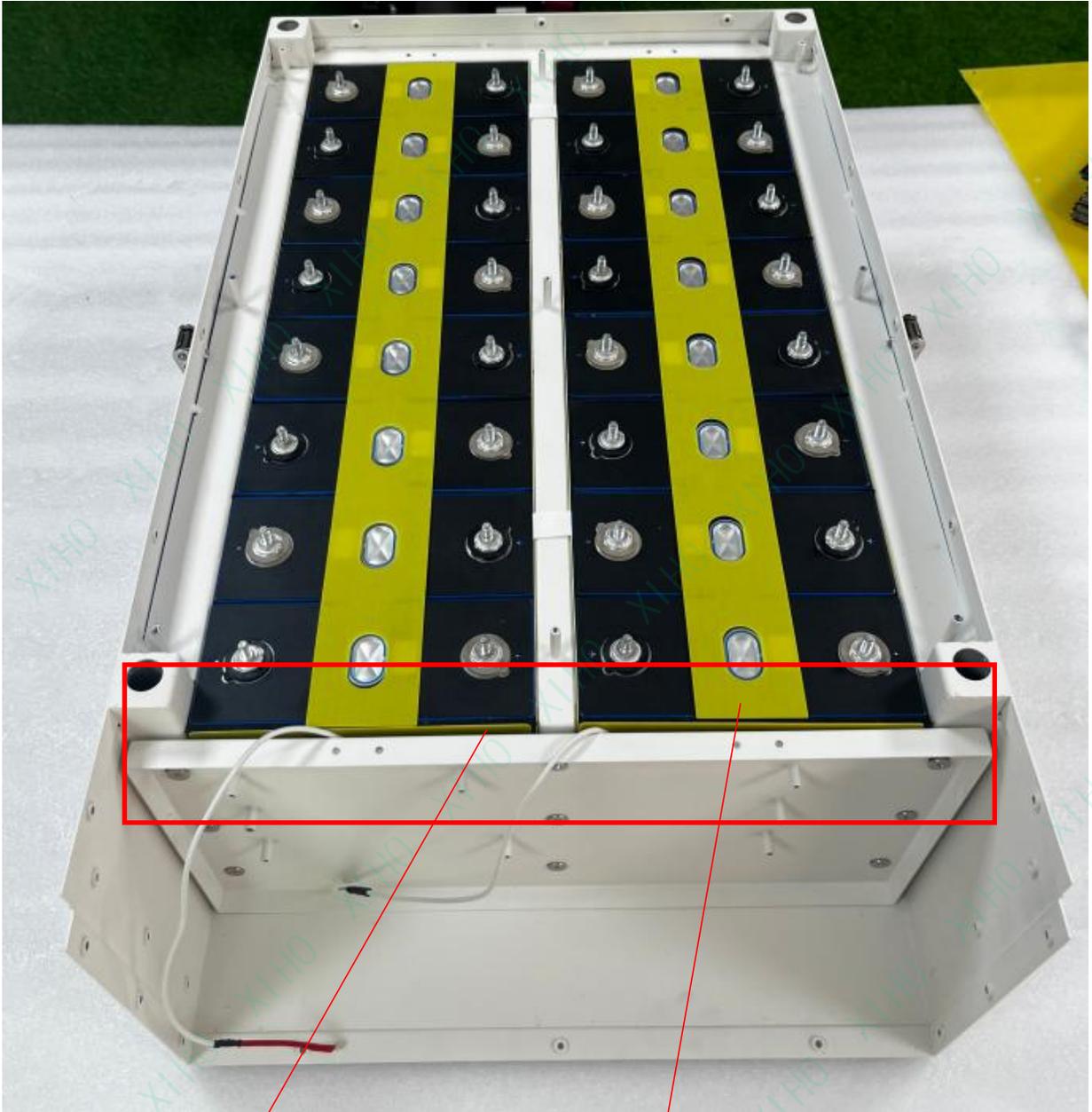
Note:

An epoxy board(J) or EVA foam(J) layer must be installed between the front plate and the battery cells to provide electrical isolation and prevent short circuits.

Install the PCB epoxy board.

Assembly Steps:

7. Install PCB board(C), **Pay attention to the position.**

PCB-A(PS-A)
In the left
(In picture direction)
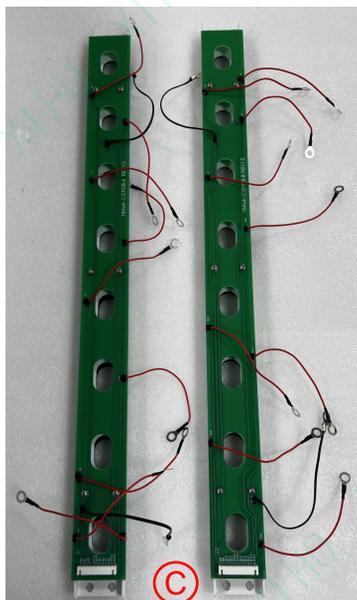
PCB-B(PS-B)
In the right
(In picture direction)

Ⓒ
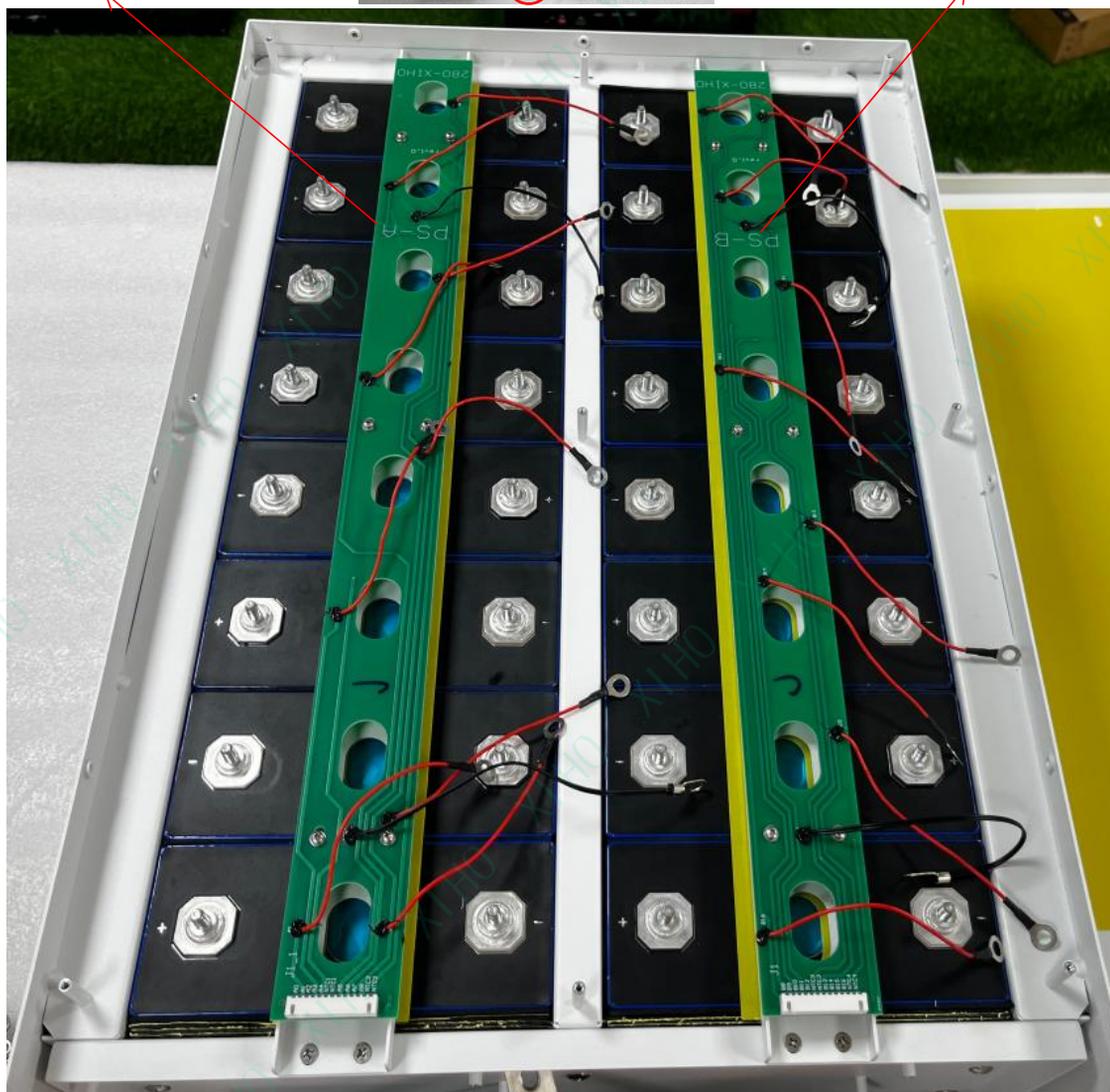
Assembly Steps:

8.Prepare the **BMS mainboard(E)** (removed in Step 3).

PCB-A (#1 & #2)Wire (Connect to the PCB-A Board)

PCB-B (#3 & #4)Wire (Connect to the PCB-B Board)

B+ Wire (Connect to the Battery Pack Main Positive Terminal)

B- Busbar (Connect to the Battery Pack Main Negative Terminal)

Display Screen Wire

Antenna Wire

J28 wire
J29 wire
J1 wire

P- Busbar (Connect to the Negative Terminal)

Antenna Wire

Display Screen Wire

BMS Mainboard Back (Pre-connected at the factory. Image for illustration only. Do not reinstall.)

Assembly Steps:

9. Install BMS mainboard(E), **Secure the screws.**
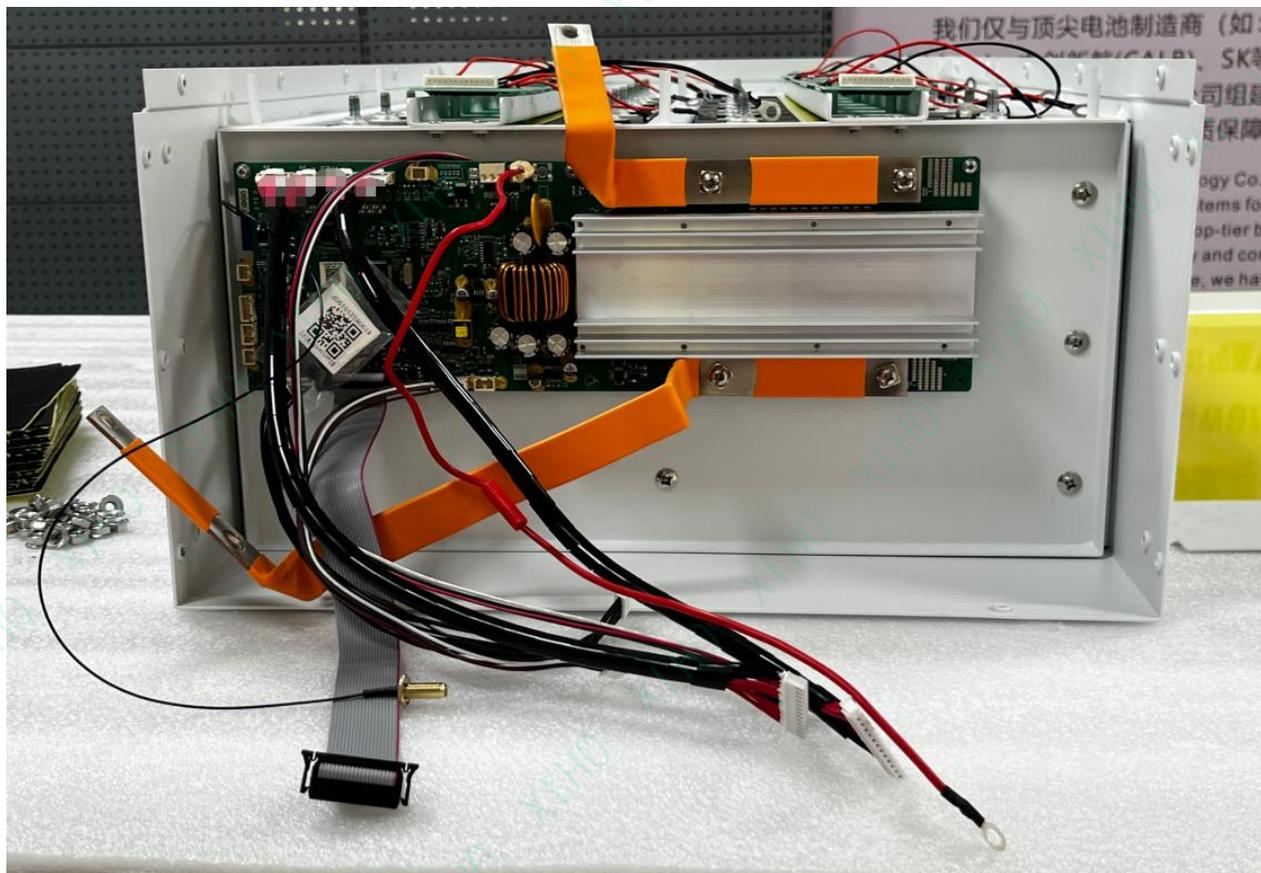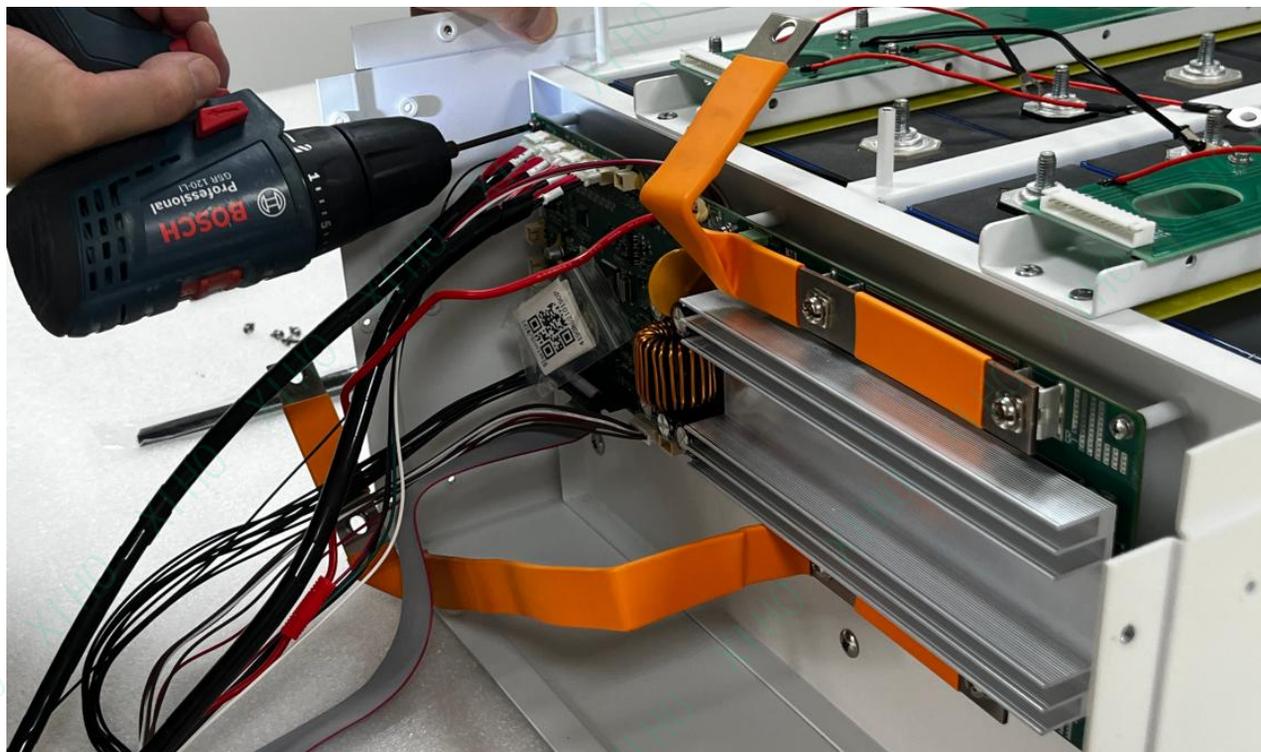
Assembly Steps:

10.Assemble the flexible busbar(G) and PCB bars harness in the sequence shown in the diagram, then torque the screws(H).

*Pay attention to the component designators on the PCB and their connections to the battery terminals

*Screw up(Torque: 5-6 Nm)

Assembly Steps:

11. Prepare the front panel(F) (removed in Step 3).

Positive Terminal

P+ Busbar (Connect to the Battery Pack Main Positive Terminal)

ON/OFF Switch Wire (Connect to the Communication Module)

Negative Terminal

Circuit Breaker

Display Screen

ON/OFF

ON

DIHOOL ELECTRIC
DHM1B-400

ON

OFF

RST ADD DRY1234 RS485 CAN RS232 RS485-1 RS485-2

ON/OFF

RUN ALM SOC

INVERTER PC PARALLEL
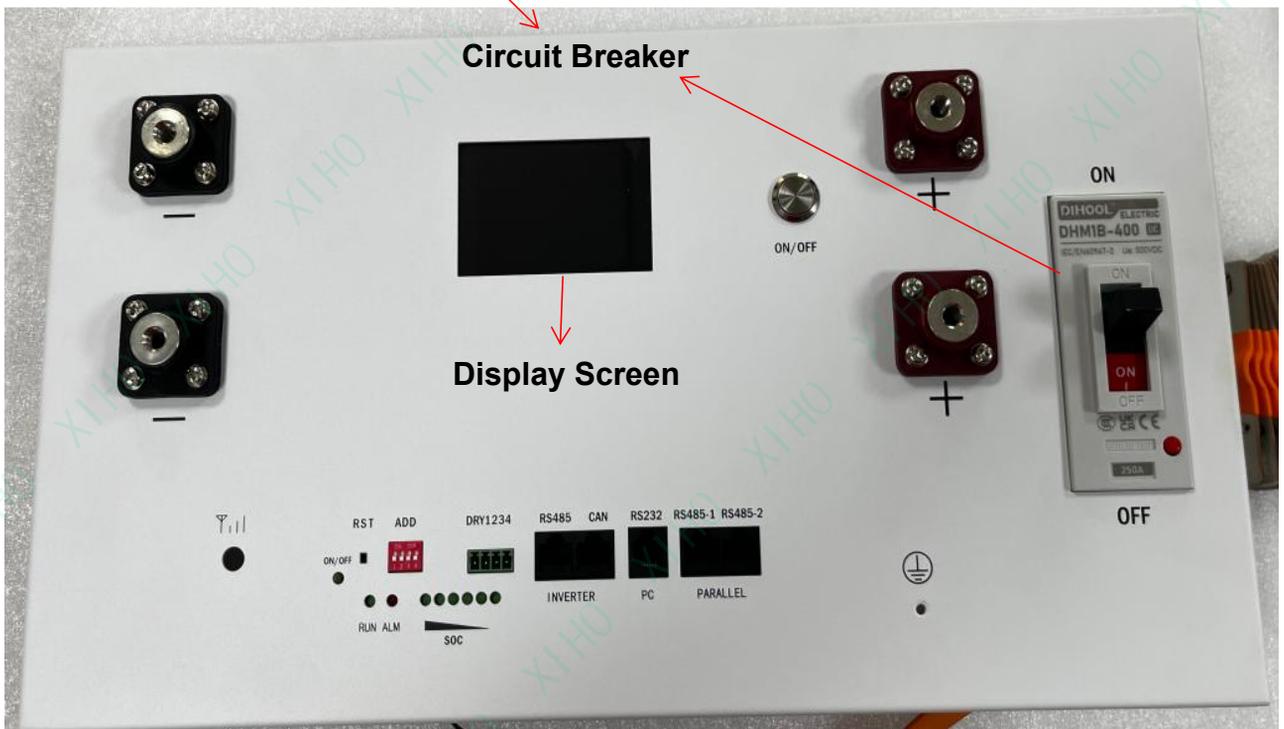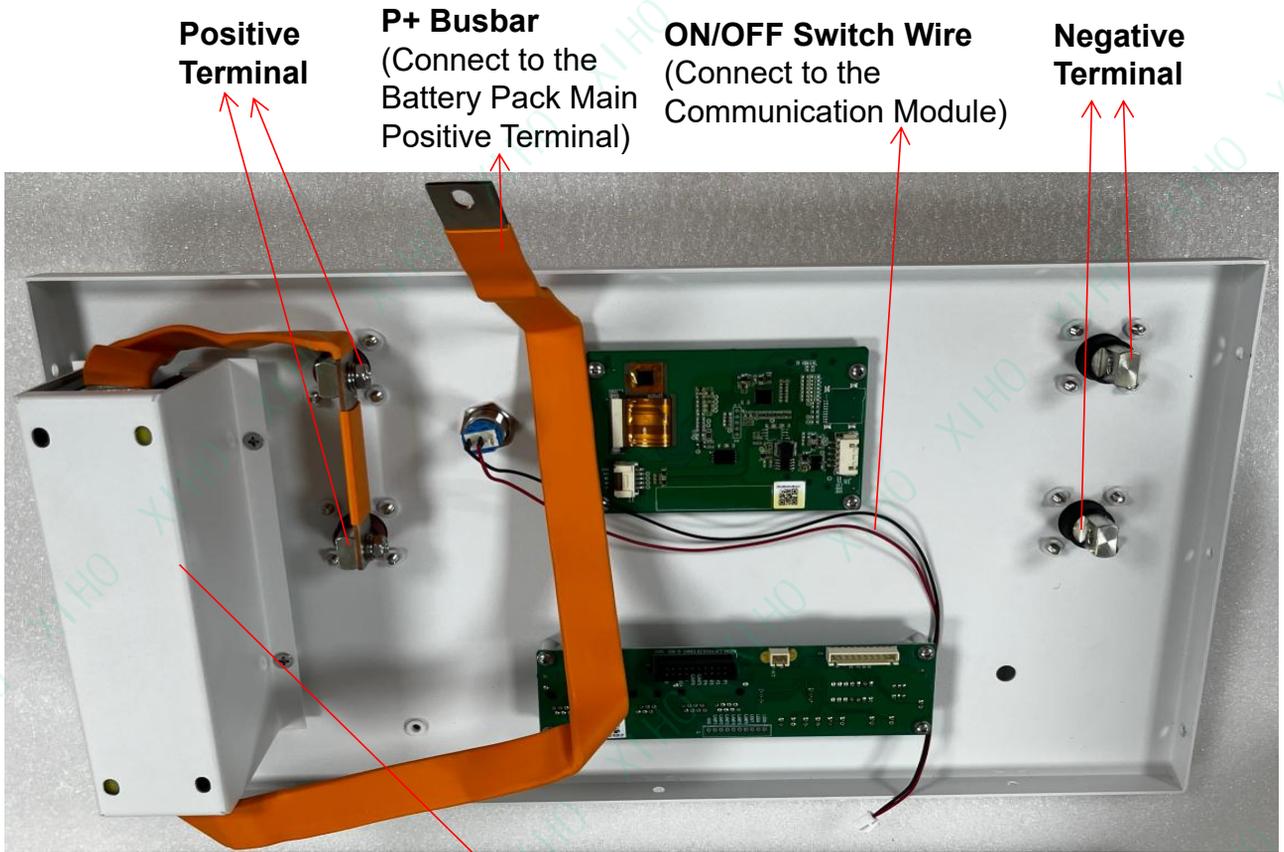
Assembly Steps:

12. As shown in the following image, connect **the front panel(F)** to the **BMS mainboard(E)，** **Connect all wires (J1/J28/J29, Antenna, Switch,Display) and the negative terminal connector busbar as shown in the diagram.**

Display wire (Red mark)

Antenna Accessories

Antenna wire

Note: The antenna is fragile and can break easily, so handle with extra care.

Switch wire

J28 wire

J29 wire

J1 wire
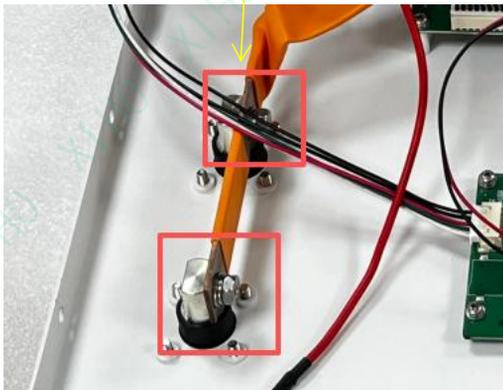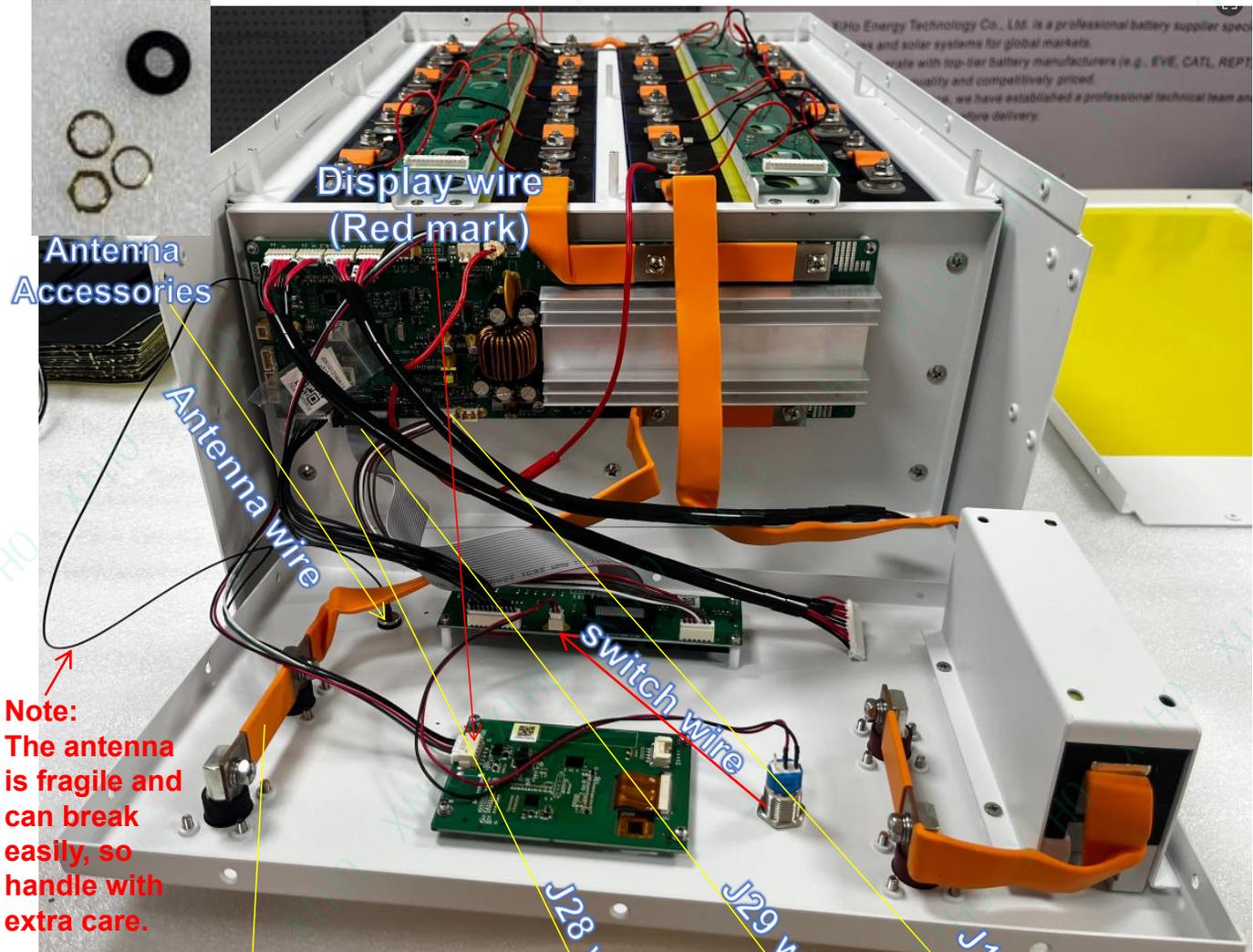
The negative terminal connector busbar ▲
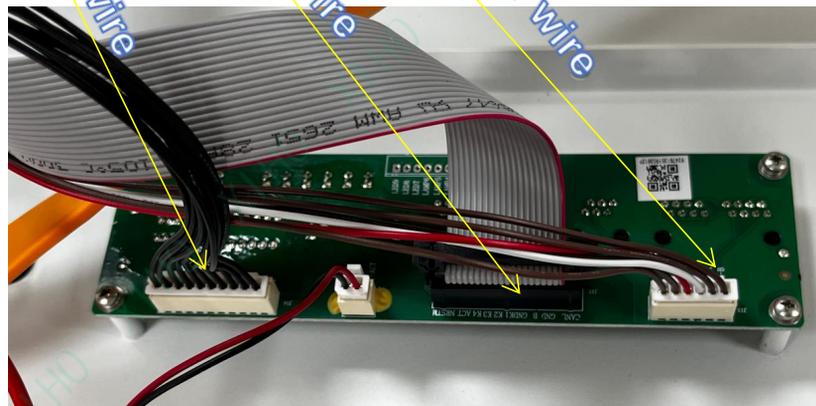
Connect all wires (J1/J28/J29, Antenna, switch) ▲

Assembly Steps:

13.**Warning:** Always disconnect the BMS switch wire before connecting the main battery terminals.
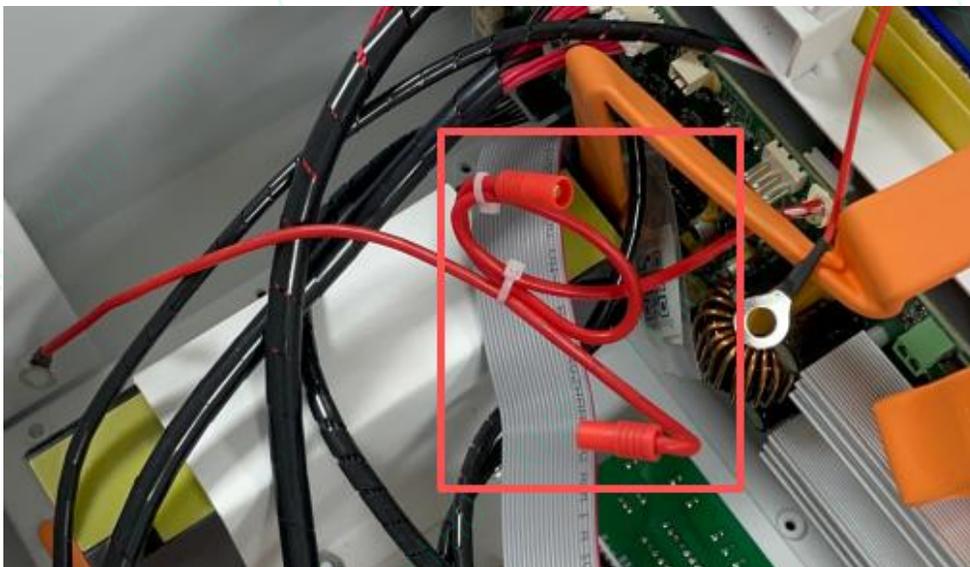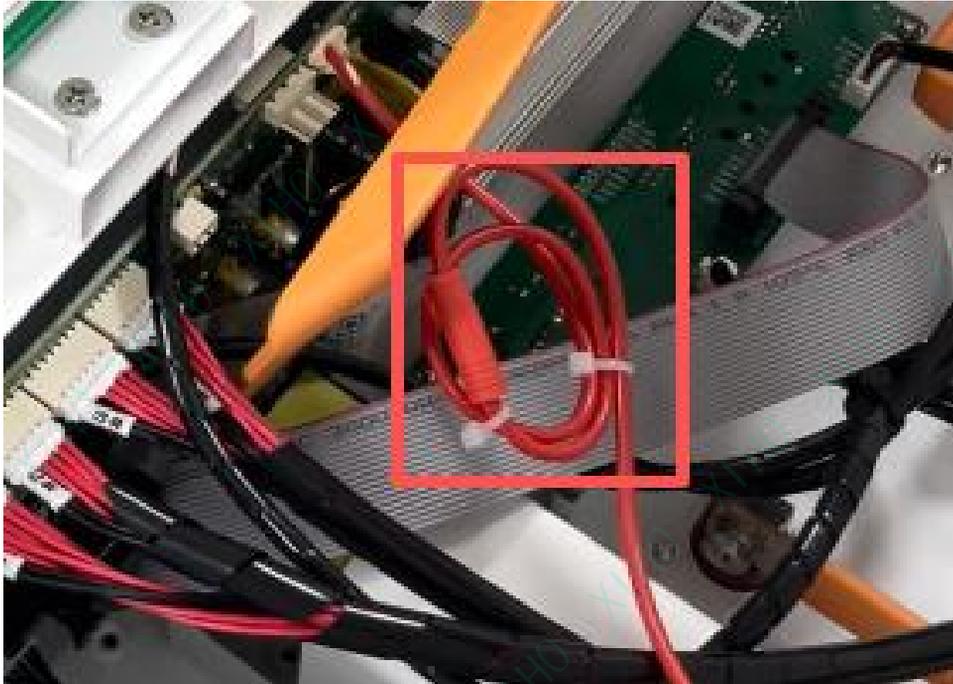
Assembly Steps:

14.Connect the battery pack's main positive and main negative terminals separately, then torque the screws(H).

Warning: When connecting, follow the correct sequence — connect the negative terminal first, then connect the positive terminal.

Note：Connect the negative terminal first
*Connect the B- busbar on the BMS main board to the A0 wire on PCB-A (PS-A) to form the main negative terminal

A0   B16
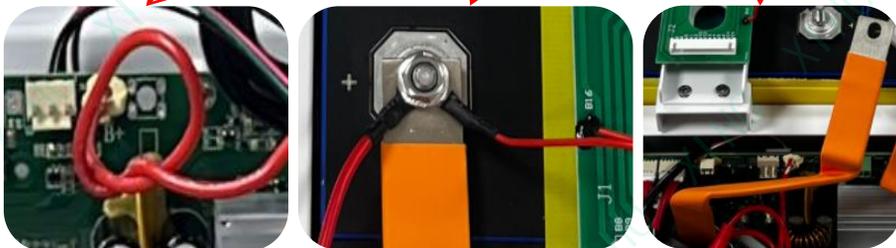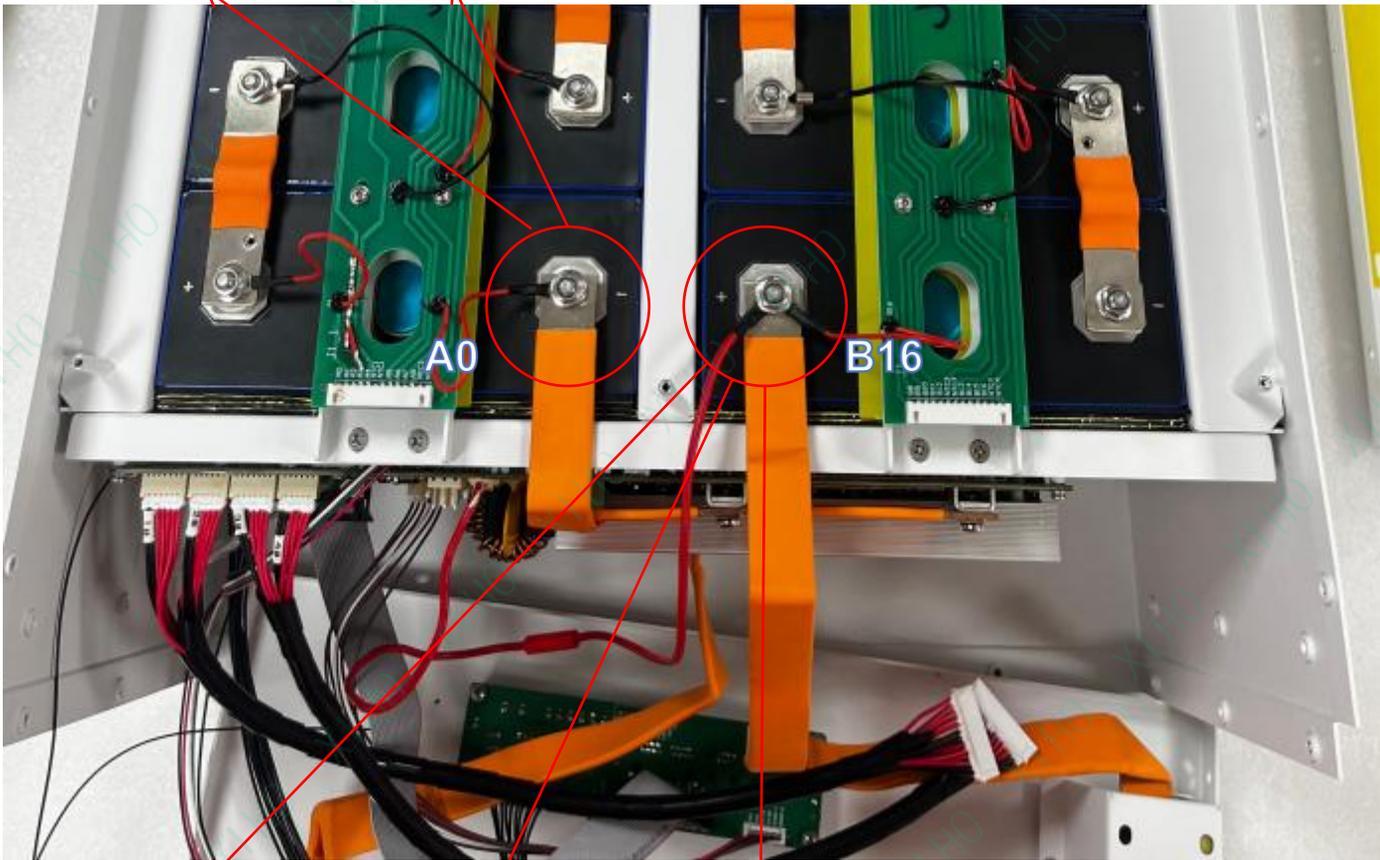
Note:Connect the positive terminal as the second step
*Connect the B+ wire on the BMS mainboard, the B16 Wire on PCB-B (PS-B), and the positive busbar from the back plate to form the main positive terminal

Assembly Steps:

15.Connect the PCB wiring on the BMS mainboard to the PCB board according to the designated wiring sequence numbers**(Please Pay attention to the connection sequence, otherwise it may cause a short circuit).**

Warning: Connect lines 1 and 2 first, then connect lines 3 and 4. Follow this sequence strictly; otherwise, the BMS may malfunction or fail to operate.
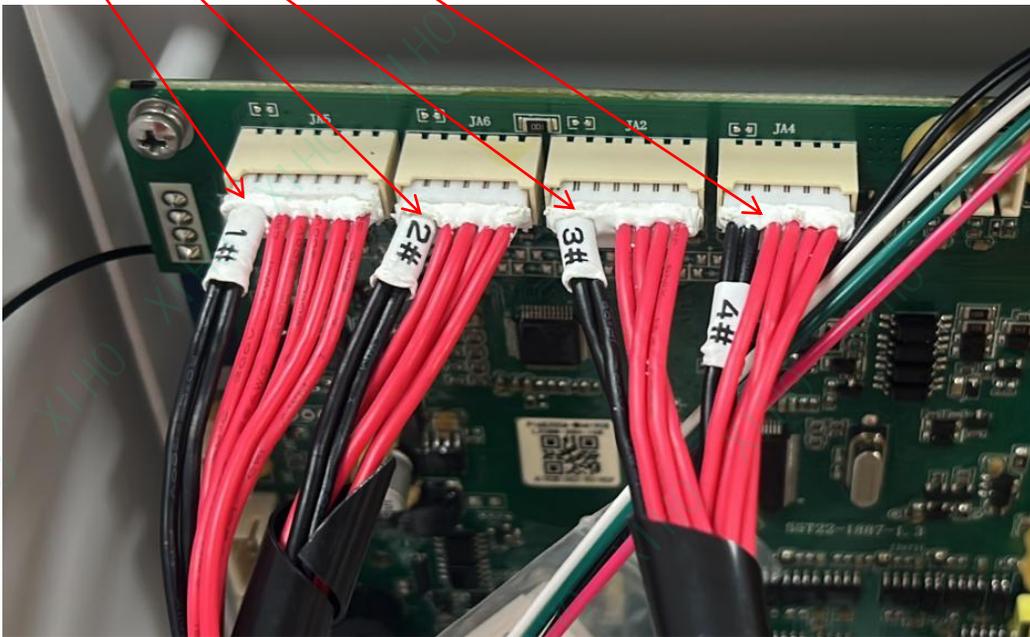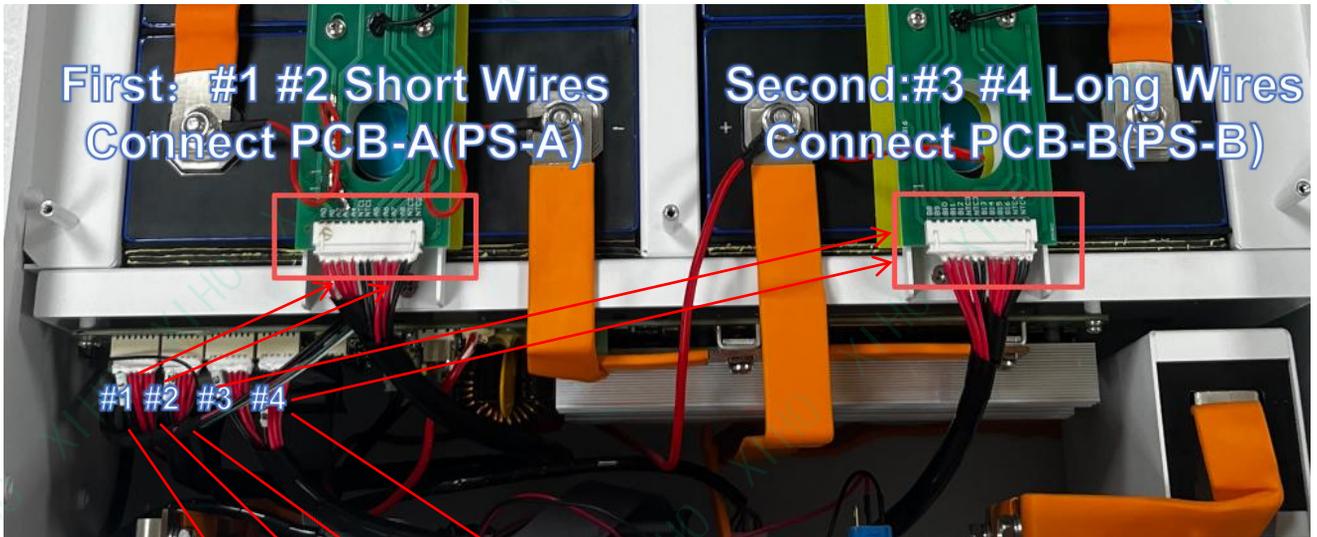
Assembly Steps:

16.After connecting the PCB wiring harness, reconnect the BMS switch wire as shown in the following diagram.
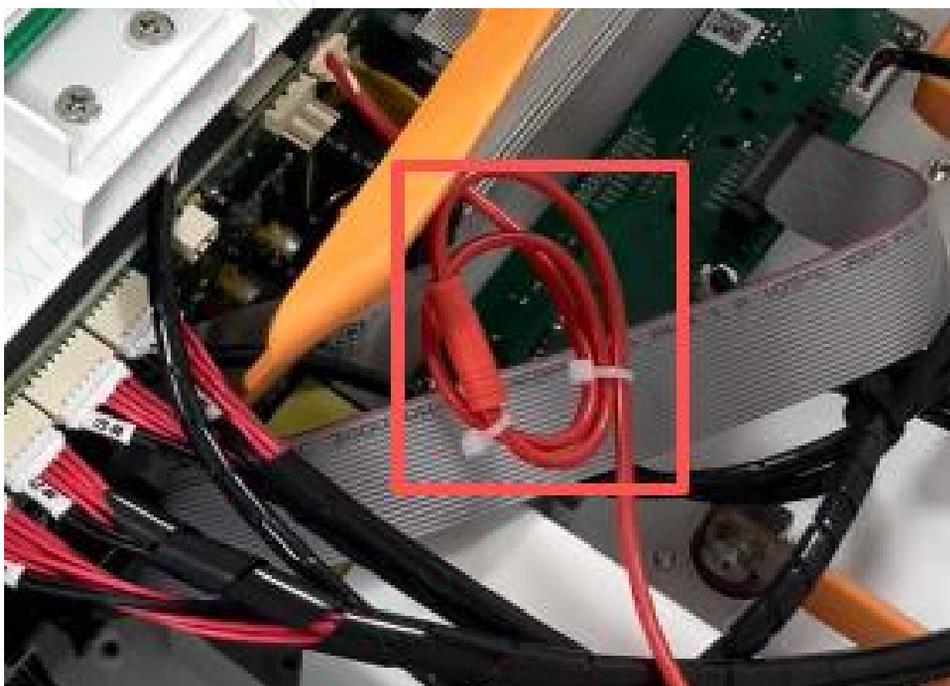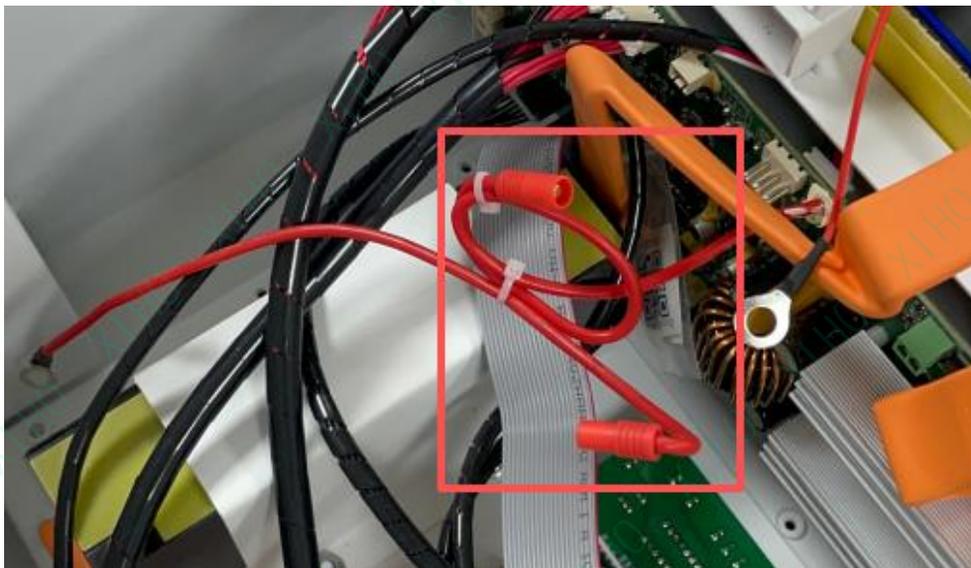
Assembly Steps:

13. Close the front panel(F) and secure the screws.

Install the epoxy plate and tighten the screws.

Close the upper cover plate (B), and tighten the screws to complete the assembly.

Assembly Steps:

14.Install the antenna to complete the entire DIY assembly.
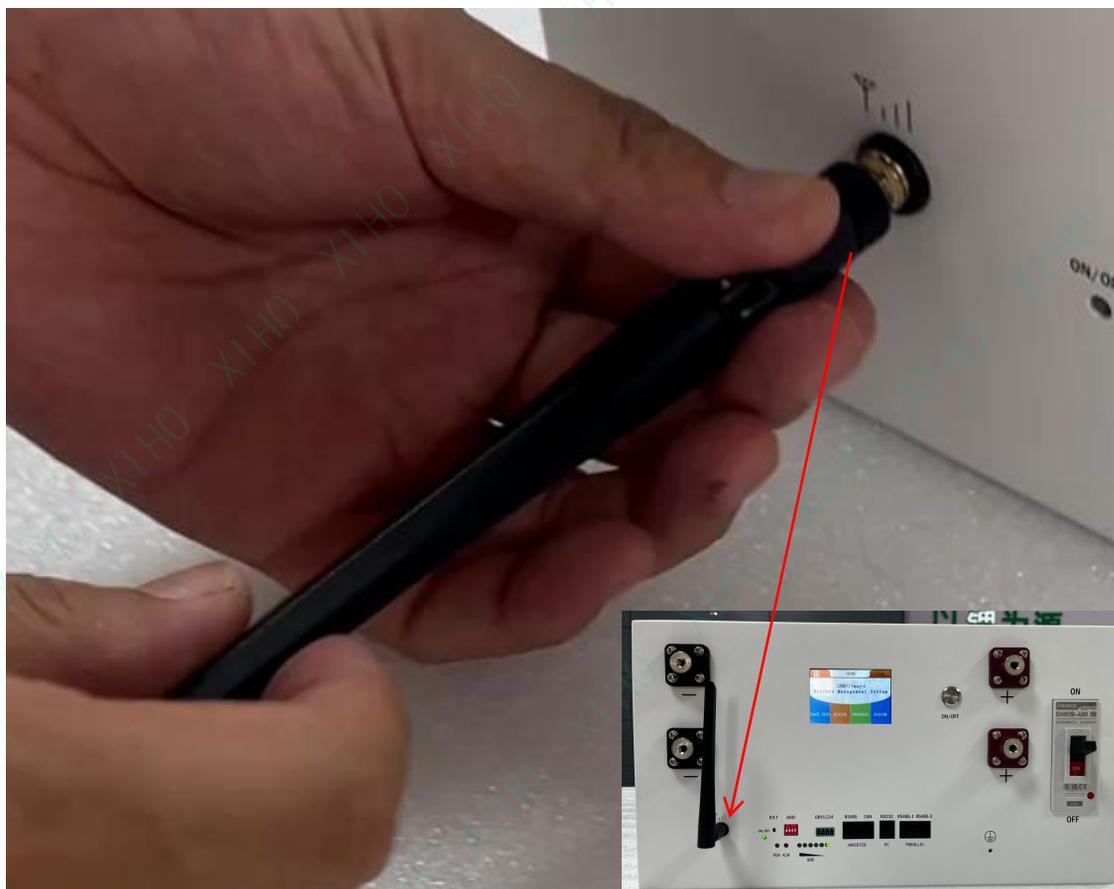
Battery Pack Operation

1. Pre-Startup Check

1.1 Check that all positive, negative cables, and communication cables are correctly and securely connected.

1.2 Check that the battery installation is firm, convenient for operation and maintenance, and check ventilation.

1.3 Insulate unused ports.

2. Startup

2.1 Turn on the switch on the battery.

2.2 The green RUN LED should illuminate normally (check the LED indicator status).

2.3 If the battery system cannot be started, check that all electrical connections are correct.

2.4 If the electrical connections are correct but the battery system still cannot start, contact our sales personnel within 48 hours.

![XIHO ENERGY logo]

APP Operation

XIHO battery packs feature integrated Bluetooth and WiFi connectivity, enabling real-time remote monitoring via a dedicated mobile app. Critical operational parameters — including State of Charge (SOC), voltage, operating current, temperature, and system diagnostics — are transmitted wirelessly. All data is visualized through an intuitive app interface.

Please note: WiFi functionality may not be included in some product models. Specifications are subject to the actual delivered product.

Apple: PACEEX BMS - Download from Apple App Store

Android: PACEEX - Download from Google Play Store

1. Bluetooth Connection

1.1 Taking an Android phone as an example, turn on the phone's Bluetooth;

1.2 Directly search for nearby Bluetooth signals, connect one-to-one, control devices — no account login required, no binding records, ready for immediate use;

2.3 Monitoring interface displays: SOC/Voltage/Current/Temperature.
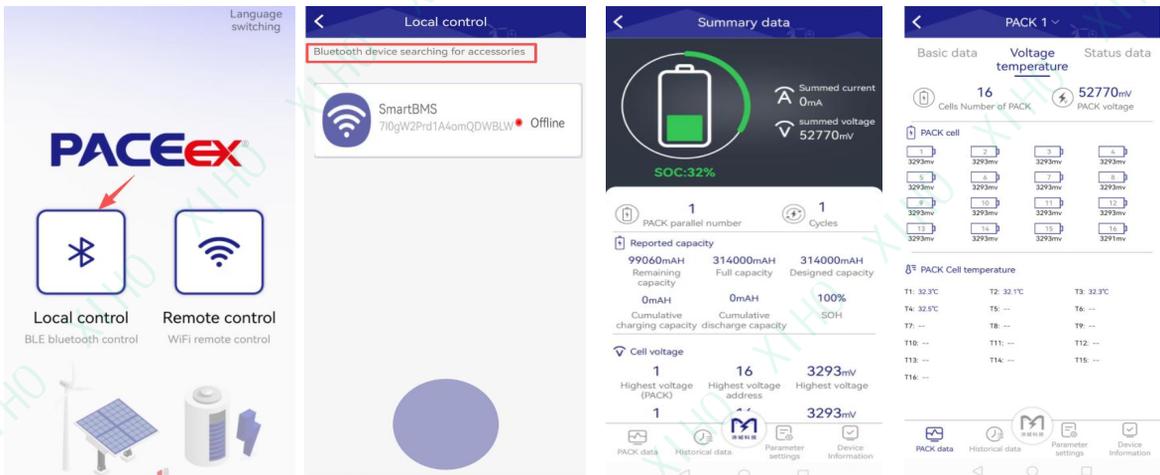
2. WiFi Remote Control

WiFi communication enables remote device control across geographically separated locations. This requires account registration/login, device binding records, and network provisioning operations.

2.1 Account Register & Login: Create account via email + password + verification code, Select actual country/region during registration. All devices added under this account will connect to corresponding regional servers. Use registered email and password.Password Reset: Via email verification;
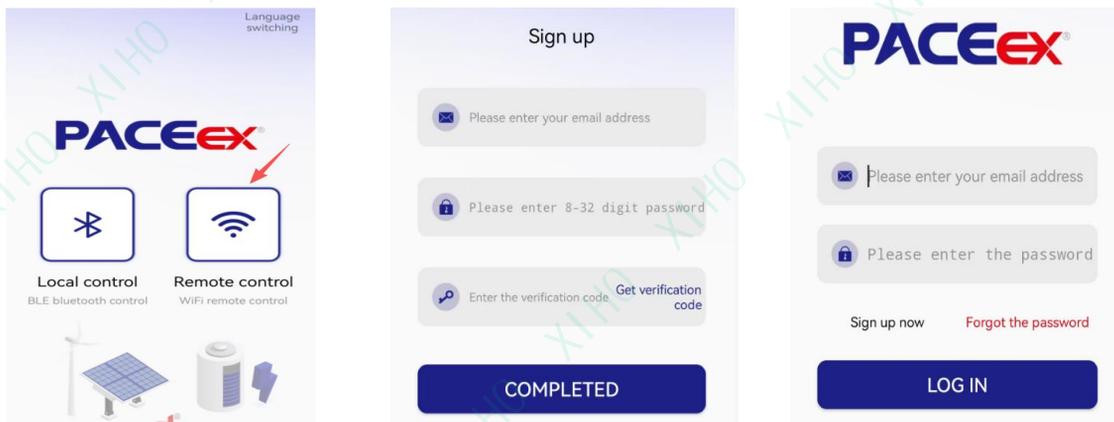
2.2 WiFi Module Factory Reset

Press RST button on module baseboard for 5-10 seconds;

LED status(LED状态): Double flash: Factory reset done, BLE discoverable

Slow flash: Connecting to router

Rapid flash: Router connected, linking to cloud server

Steady on: Server connection established

2.3 Device Search: Tap "Add" or "+" icon,Note: This step requires enabling "Bluetooth", "Location Services", and "WiFi" on the mobile phone; otherwise, network provisioning cannot be completed;

Scanning QR Code   Network Provisioning
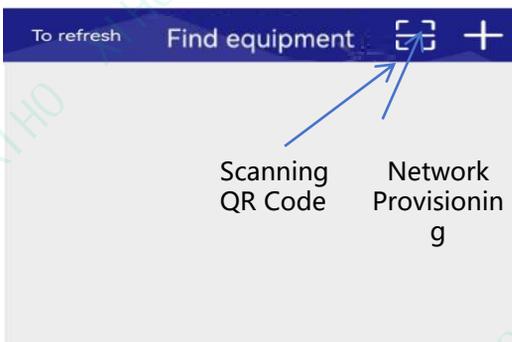
2.4 Network Configuration Input:①Tap discovered device; ②Enter target WiFi SSID and password;③Tap "Next" to start provisioning; **Note: Phone must connect to the same 2.4GHz WiFi; Module only supports 2.4GHz networks.**
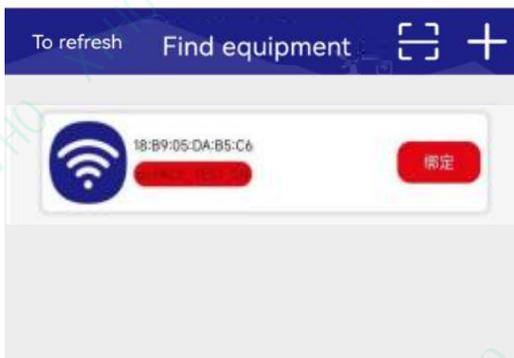
2.5 When provisioning completes, the system will redirect to this page. Tap "Save" to successfully add the device and automatically return to the device list; If provisioning fails, follow the APP prompt messages, check and restart from step b). If repeated failures occur, save this error screen and contact us。

2.6 Device Sharing: Long press the device item. As the device administrator (account bound during initial provisioning), you can generate a QR code for this device, allowing other users to add it by scanning.Note: Non-administrators cannot reshare. Each generated QR code supports only one-time scanning and is valid for scanning within 30 minutes.
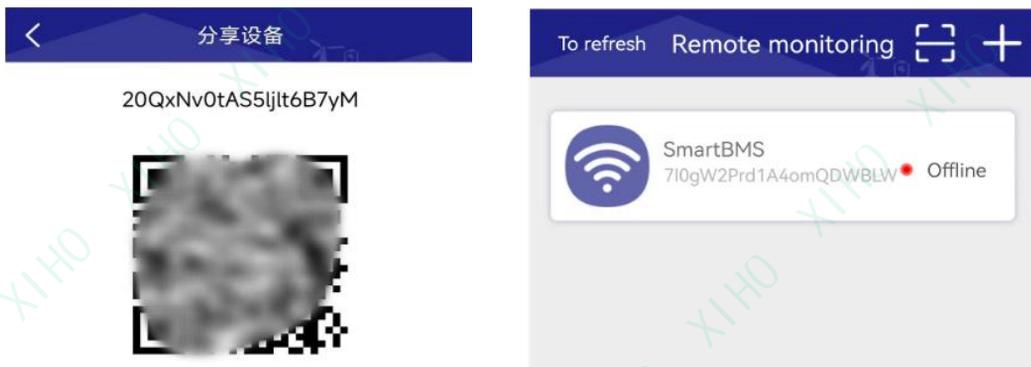
Note：

　　①.Default password "bms12580",Administrator password"4321". If encountering password errors, contact sales personnel promptly to resolve.
　　②.If you select a battery to connect to and the app does not confirm the connection, it may be because another device is already connected to that battery. Only one device can be connected to the battery at a time.

![XIHO ENERGY logo]

Battery Pack Parameter Settings

After connecting your phone to Bluetooth and entering the PACE APP it is recommended to set the battery pack parameters as follows. Of course, you may also customize the battery pack settings as long as safety is ensured.

Taking the 314AH battery cell as an example, the content marked with the red frame needs to be modified to match the suggested parameters in the image.

⊖ Device sleep information   >

≋ **Overall overcharge and overdischarge function**   ⌄

Overall overcharging function control   ◯ ON

Overall overcharge alarm	56.8	V

Overall overcharge protection delay	1000	ms

Overall overcharge protection	57.6	V
Overall overcharge recovery	54	V

Overall over discharge function control   ◯ ON

Overall over discharge alarm	44.8	V

Overall over discharge protection delay	1000	ms

Overall overdischarge protection	43.2	V
Overall overdischarge recovery	47.2	V

◎ Single overcharge and overdischarge function   >

PACK Data	Historical data	浦城科技	Parameter settings	Device information

protection   43.2 V

Overall overdischarge
recovery   47.2 V

⚙ **Single overcharge and
overdischarge function**   ⌄

Single overcharging
function control   [ON]

Single overcharge alarm   3.55 V

Single overcharge
protection delay   1000 ms

Single overcharge
protection   3.6 V

Single overcharge recovery   3.38 V

Single body over discharge
function control   [ON]

Individual over
discharge alarm   2.8 V

Single body over discharge
protection delay   1000 ms

Individual over
discharge protection   2.7 V

Single body over
discharge recovery   2.95 V

🔋 **Charge and discharge
overcurrent function**   >

PACK Data   Historical data   沛蛭科技   **Parameter settings**   Device information
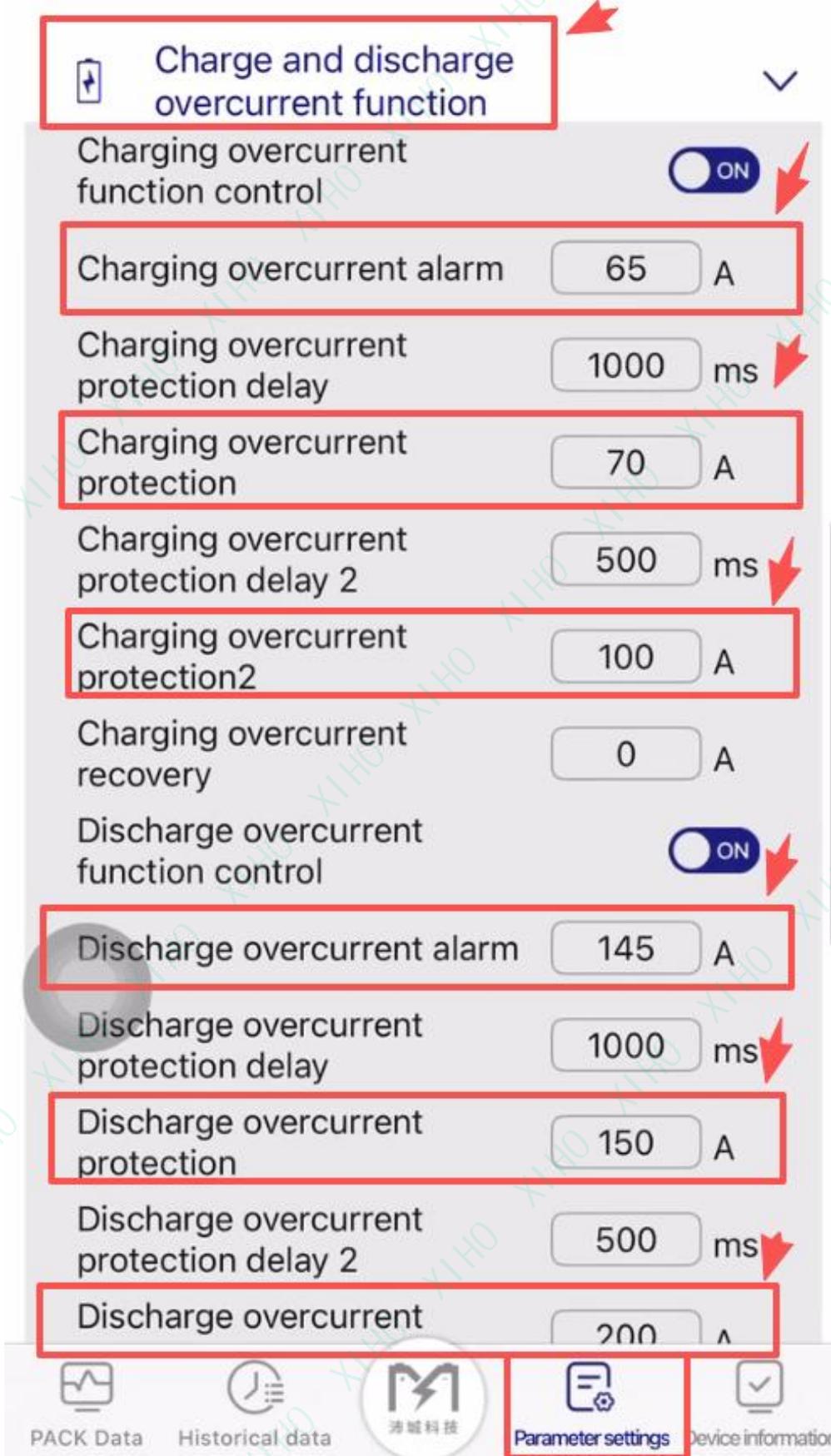
Charge and discharge overcurrent function

Charging overcurrent function control	ON	
Charging overcurrent alarm	65	A
Charging overcurrent protection delay	1000	ms
Charging overcurrent protection	70	A
Charging overcurrent protection delay 2	500	ms
Charging overcurrent protection2	100	A
Charging overcurrent recovery	0	A
Discharge overcurrent function control	ON	
Discharge overcurrent alarm	145	A
Discharge overcurrent protection delay	1000	ms
Discharge overcurrent protection	150	A
Discharge overcurrent protection delay 2	500	ms
Discharge overcurrent	200	A

PACK Data   Historical data   涛城科技   Parameter settings   Device information

Communication Protocol Switching

1. First connect to the Bluetooth APP and complete pairing;

2. Select Protocol - Set Successfully - Restart Battery Pack - Setup Complete.

Device Information

General settings

Software version   P16S200A-41908-1.00

Hardware version   21887V130
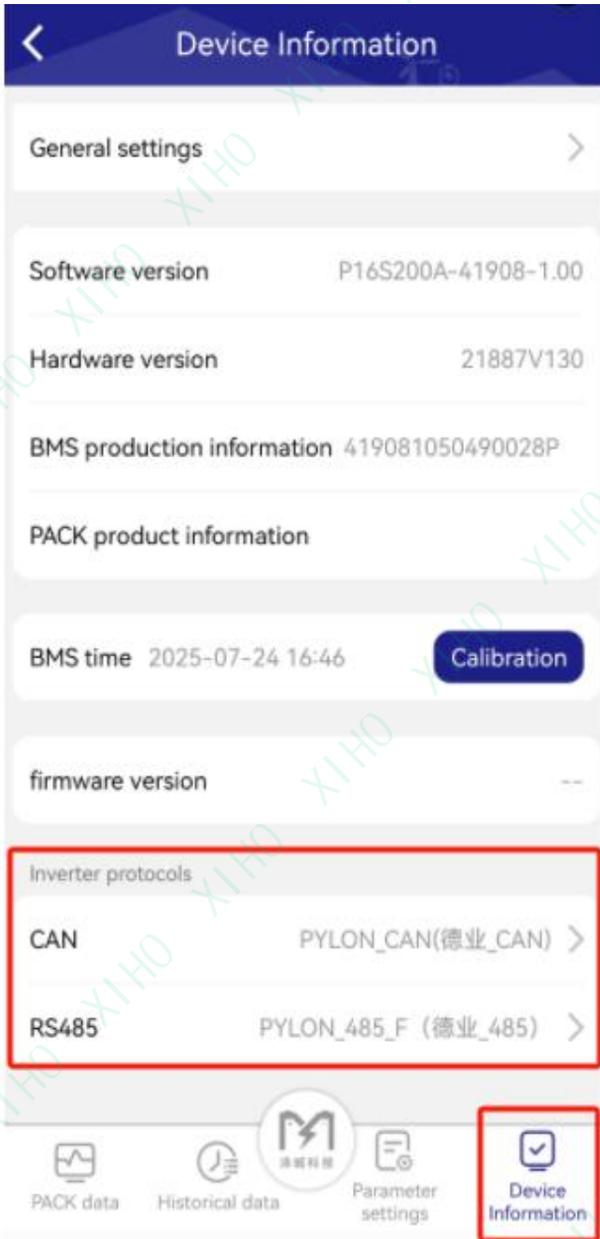
BMS production information 419081050490028P

PACK product information

BMS time 2025-07-24 16:46   Calibration

firmware version   --

Inverter protocols

CAN   PYLON_CAN(德业_CAN) >

RS485   PYLON_485_F (德业_485) >

PACK data | Historical data | 添威科技 | Parameter settings | Device Information

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Device Information

General settings   >

Software version   P16S200A-41908-1.00

Hardware version   21887V130

RS485

PACE_MODBUS_485

GROWATT_485 (古瑞瓦特)

VOLTRON_485(日月元)

SE_485 (施耐德)

LUXPOWERTEK_V01_485(鹏程)

WOW_MOBUS (朔日)

PYLON_485_F (德业_485)

Cancel

CAN

PYLON_CAN(德业_CAN)

VICTRON_CAN (维克多)

SE_CAN (施耐德)

LUXPOWERTEK_CAN (鹏城)

SRD_CAN (索瑞德)

SMA_CAN

GOODWE_CAN

STUDER_CAN

PV_CAN (美世乐)

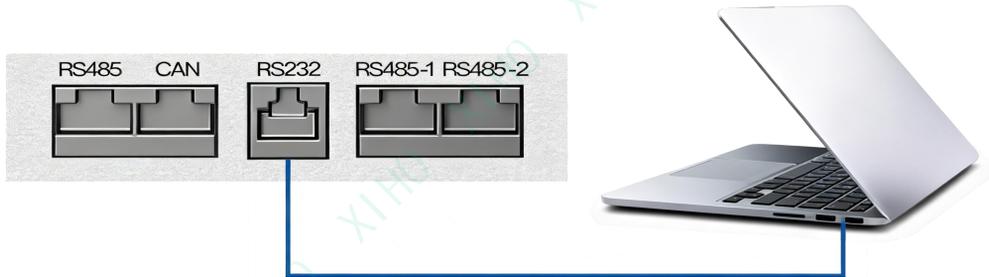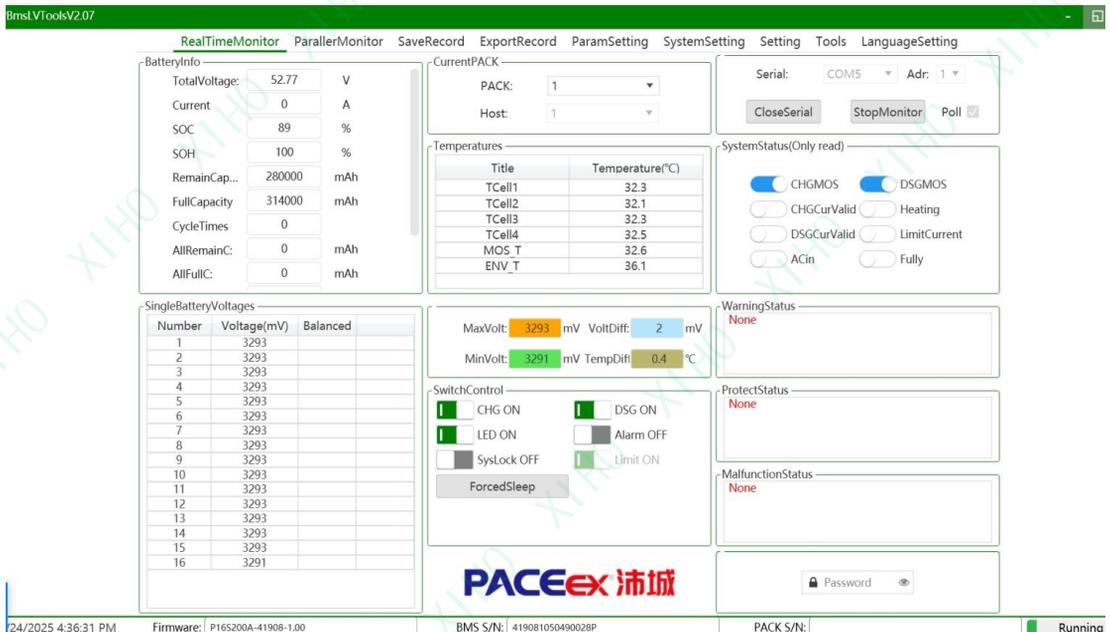JINLANG_CAN (锦浪)

SENERGYINV_CAN

Cancel

Operation of Upper System

XIHO battery packs support connection to PC software for monitoring battery status and modifying communication protocols. Please contact our sales representative or visit our website to obtain the PC software.

1. Login

1.1 Connect the PC software communication cable to the RS232 port on the battery, then to the USB port on the laptop;

1.2 Download and open the PC software;

1.3 Modify language, battery status updates automatically.

Note: Default password "123456",Administrator password"4321".If connection to the PC software fails, check that all connections are correct. If the connections are correct but the PC software still does not function, contact our sales service department.

2. Switching Communication Protocol via PC

System Settings - Inverter Protocol Settings - Read - Select Protocol - Write - Setup Complete
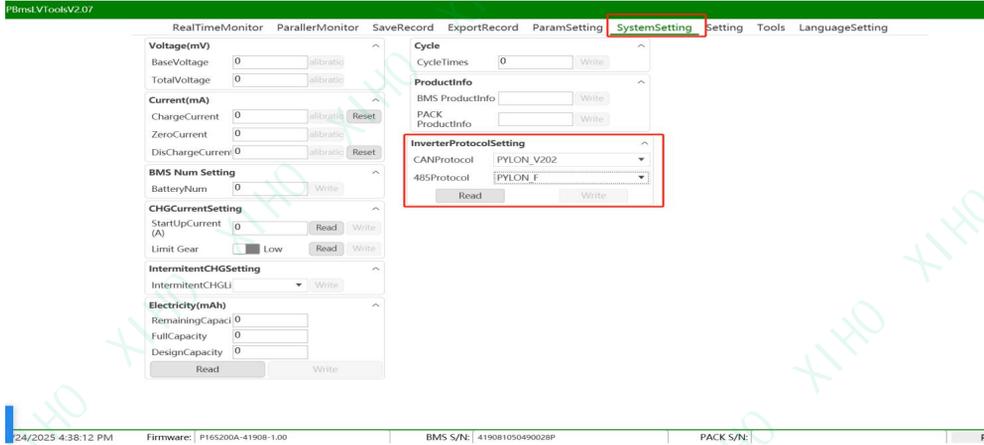
Communication Compatibility List

No.	Brand Name	LOGO	Communication
1	DEYE	iDeye	CAN/RS485
2	PYLON TECH	PYLONTECH	CAN/RS485
3	LUXPOWER	LUXPOWER TEK	CAN/RS485
4	SE	Schneider Electric 施耐德电气	CAN/RS485
5	GOODWE	GOODWE	CAN
6	VICTRON	victron energy	CAN
7	SMA	SMA	CAN
8	SOROODO	SOROTEC Power Solutions Expert	CAN
9	STUDER	STUDER	CAN
10	MUST	MUST 美世乐	CAN
11	SOLIS	solis	CAN
12	SENERGY	Senergy	CAN
13	GROWATT	GROWATT	RS485
14	VOLTRON	Voltronic Power	RS485
15	SRNE	SRNE	RS485

Connection

1. Battery Pack In Parallel (Supports up to 15 battery packs in parallel, see picture example)

1.1 Use a multimeter to measure whether the positive and negative cable connections are conductive, and check if the connections are loose.

1.2 Before wiring, turn off the battery switch to ensure no DC output from the battery.

1.3 First lock the parallel cable to the positive terminal of the battery pack, then connect the other end to the negative terminal (forming a ring connection between batteries).

1.4 Connect the parallel communication cable to the RS485 port of the battery pack (must be connected between different ports, e.g.: Master battery's RS485-1 connects to Slave battery's RS485-2, and the like).

First Battery
(Master battery)

Second Battery
(Slave battery)

Fifteenth Battery
(Slave battery)

Parallel Example ▲

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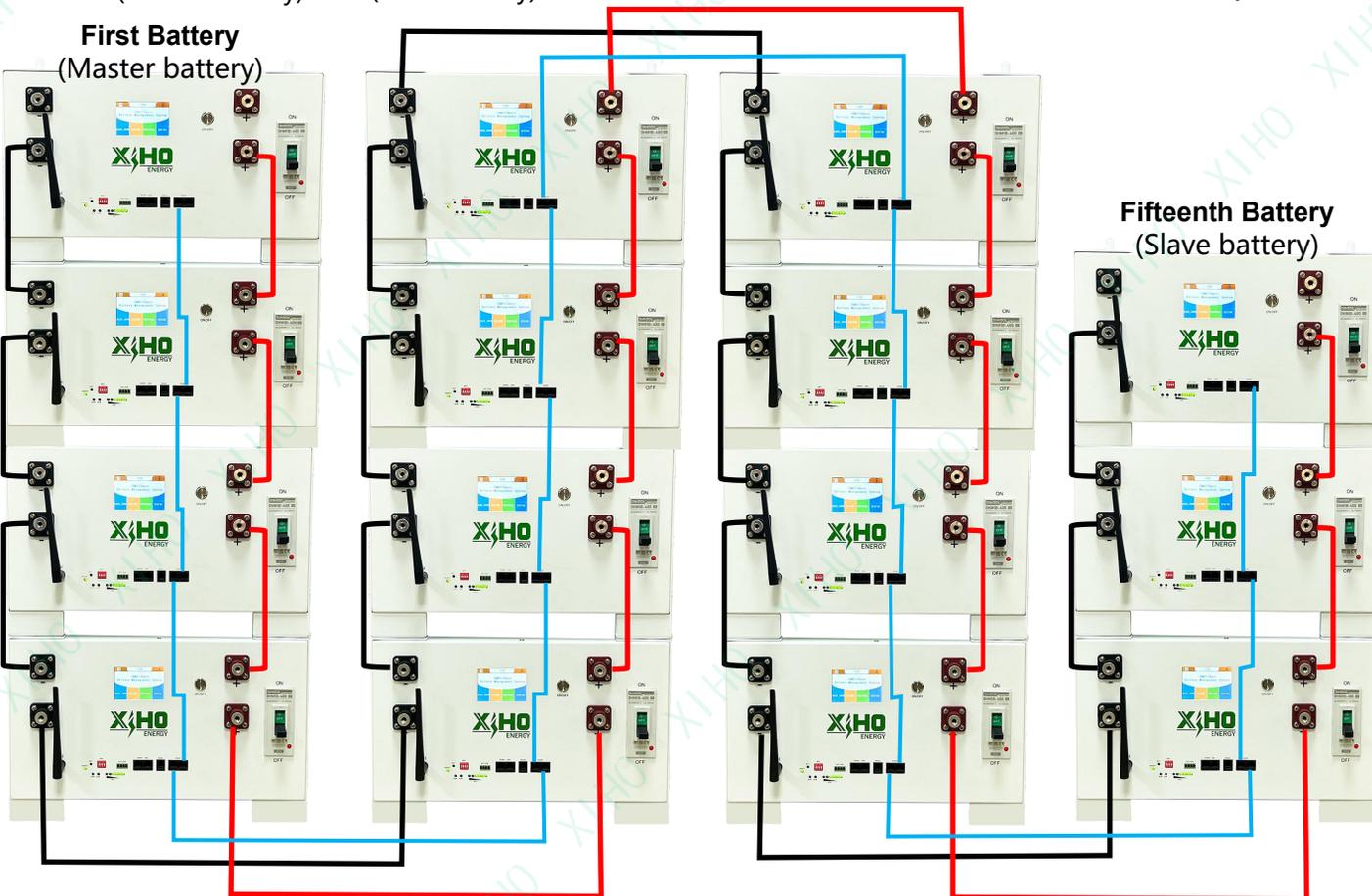
2. Battery Pack and Inverter Connection

2.1 Use a multimeter to measure whether the positive and negative cable connections are conductive, and check if the connections are loose.

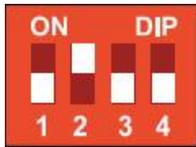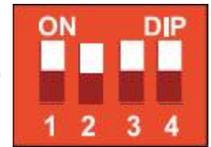2.2 Before wiring, turn off the battery switch to ensure no DC output from the battery.

2.3 Connect the battery and the inverter's positive terminals with a red power cable, then connect the negative terminals at both ends with a black power cable.

2.4 Connect the battery's communication port (RS485 or CAN) to the inverter's BMS port using a communication cable. The BMS port definitions for different inverter brands may vary; please consult the inverter manual.

Taking Megarevo 6KL1D-G2 as an example:
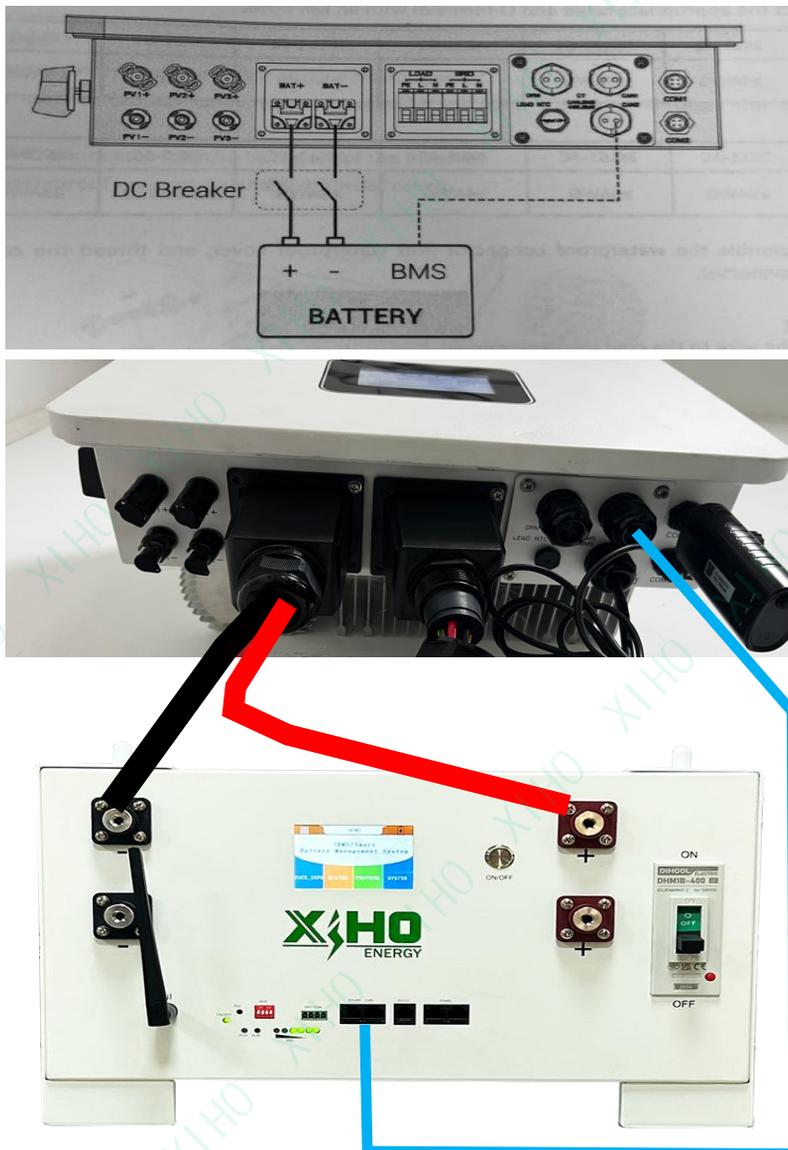
Warning：

Make battery pack must get all cells balanced before assembly.If there happens NOT know how to assembled or wrong assembly is not accepted refund.Professionals will detected voltage/resistance/appearance and other issues before every shipment,we can only ensure that the single battery cell is good,when arrival you can test the cells within 15 days after that means batteries have no problem,does not provide return nor refund.**If you found problems you can contact us for return or refund**.Battery can only be unused (the electrode intact,no welding,no wear,the appearance good)to provide return.Any return-behavior buyers need to be responsible for shipping fee.

1).Warranty period:

1 years(from the date of successful delivery)if the single battery capacity less than 80% initial capacity,take the test pictures or video to us,we willreplace it or give satisfied solution.

2).If any miss or damaged for the shipping.Please contact us firstly,then send us the picture or video to check.In case of loss of cargo or the battery is damaged and can not be used or there is a greater risk of use,we wil communicate with buyer if resend it or replace it or refund the product cost.If buyer send back the cells to seller,buyer should pay for the shipping cost.

3).These situations not provide return nor refund

①After the assembly or assembly process happen any problem,such as the protection board connected to the wrong wire burned lead to battery damage,charger failure,the assembly error or unbalanced assembly,etc.

②For damage caused,such as battery bulge/welded,battery pack without protection BMS caused by charging.

Storage

1. The external terminals of the battery pack should be insulated.
2. If the battery pack needs to be stored idle for a long time, it is recommended to charge it to 30%-60% capacity. Storage in a fully discharged state is strictly prohibited.
3. Batteries stored for more than 3 months need to be supplementary charged for 2-3 hours with a current of 0.2C~0.3C.
3. Batteries should be stored in a dry, clean, ventilated, non-corrosive gas environment, away from fire sources and direct sunlight.
4. Long-term storage in high-temperature environments exceeding 60°C is prohibited, as this will lead to performance degradation and shortened lifespan.

Notes

1. Temperature Management: Strictly prohibit exposure to high temperatures (>45°C). Storage temperature must be maintained between 10-45°C.
2. Hazard Avoidance: Keep away from fire sources/strong magnetic fields/strong static electricity. Only use dedicated chargers.
3. Abnormal Handling: If electrolyte enters eyes, immediately rinse with clean water and seek medical attention. If overheating or deformation occurs, stop using immediately and remove the battery.
4. Maintenance Specifications: Maintain storage capacity at 30%-60%. Batteries unused for three months must be recharged.
5. Safety Check: Verify voltage and connector status before use.
6.Disposal & Recycling: Waste batteries must only be handed over to suppliers or designated collection points.

Green Energy

Change Lives

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