



XIHO 51.2V 280/300/314Ah

Vertical DIY Kits

Assembly Instruction



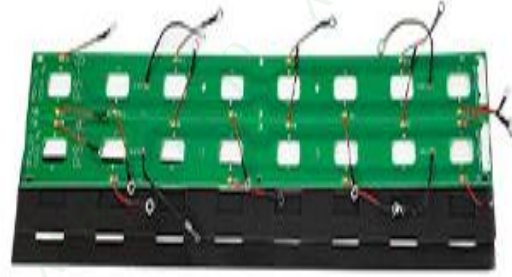
XIHO 15-16KWH Vertical DIY Kits Assembly Instruction

1.Product List:

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



A.Metal Box*1



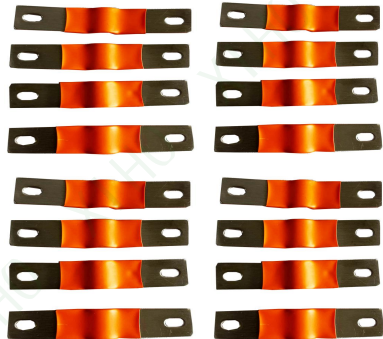
B.XIHO PCB Board*2



**C.Smart BMS*1
LED Screen*1**



**D.EVA Foam*17
Epoxy Board*10**



**E.Copper Flexible
Busbar*17**



**F.Terminals*4
(Black and Red)**



**G.6AWG Wires*4
(Black and Red)**



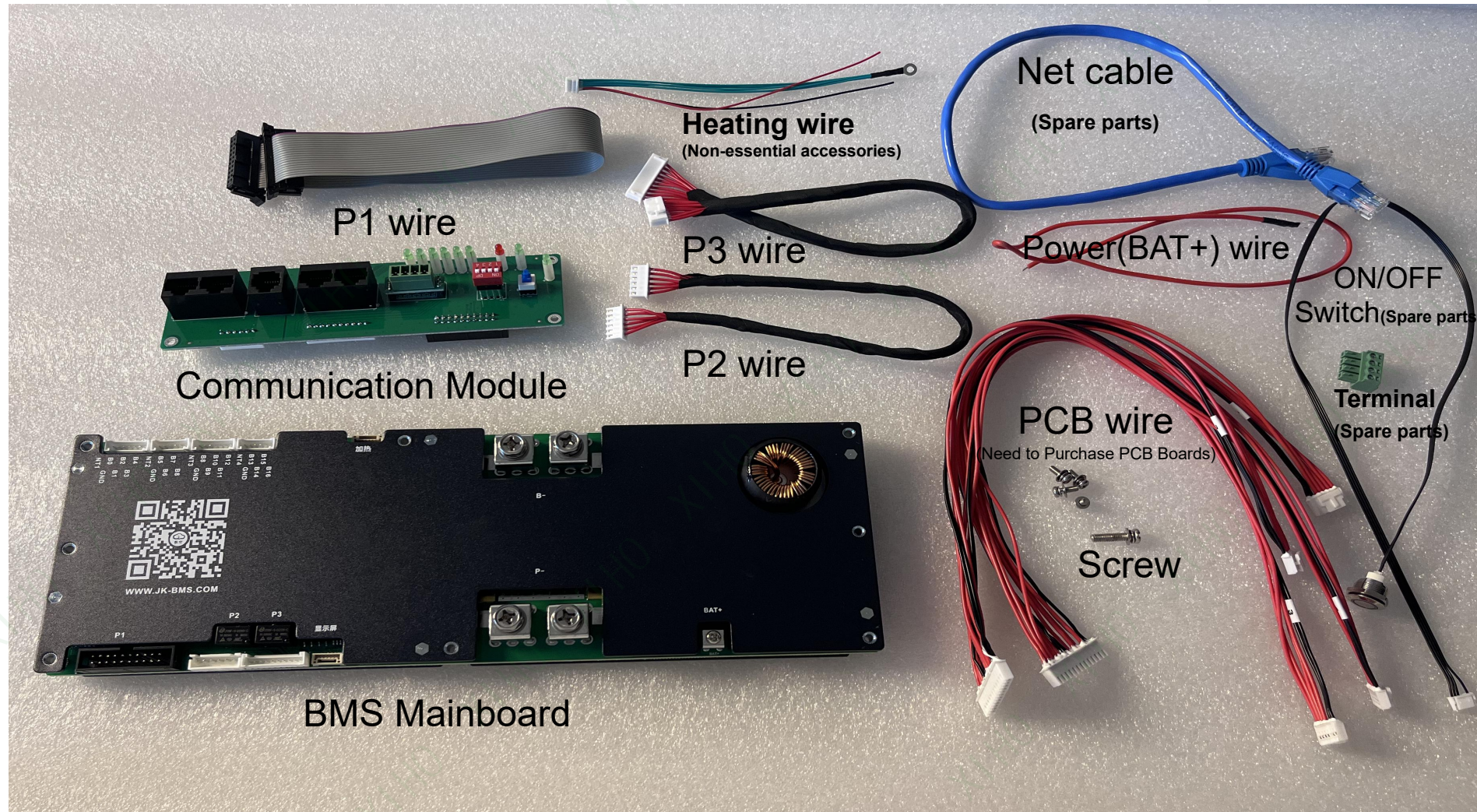
**H.Foma Wheel*4
(Pre-installed)**

See the **YOUTUBE** video for complete assembly steps:
<https://www.youtube.com/watch?v=4foSUuBRkek>

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2.JK-PB2A16S-20P List:

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

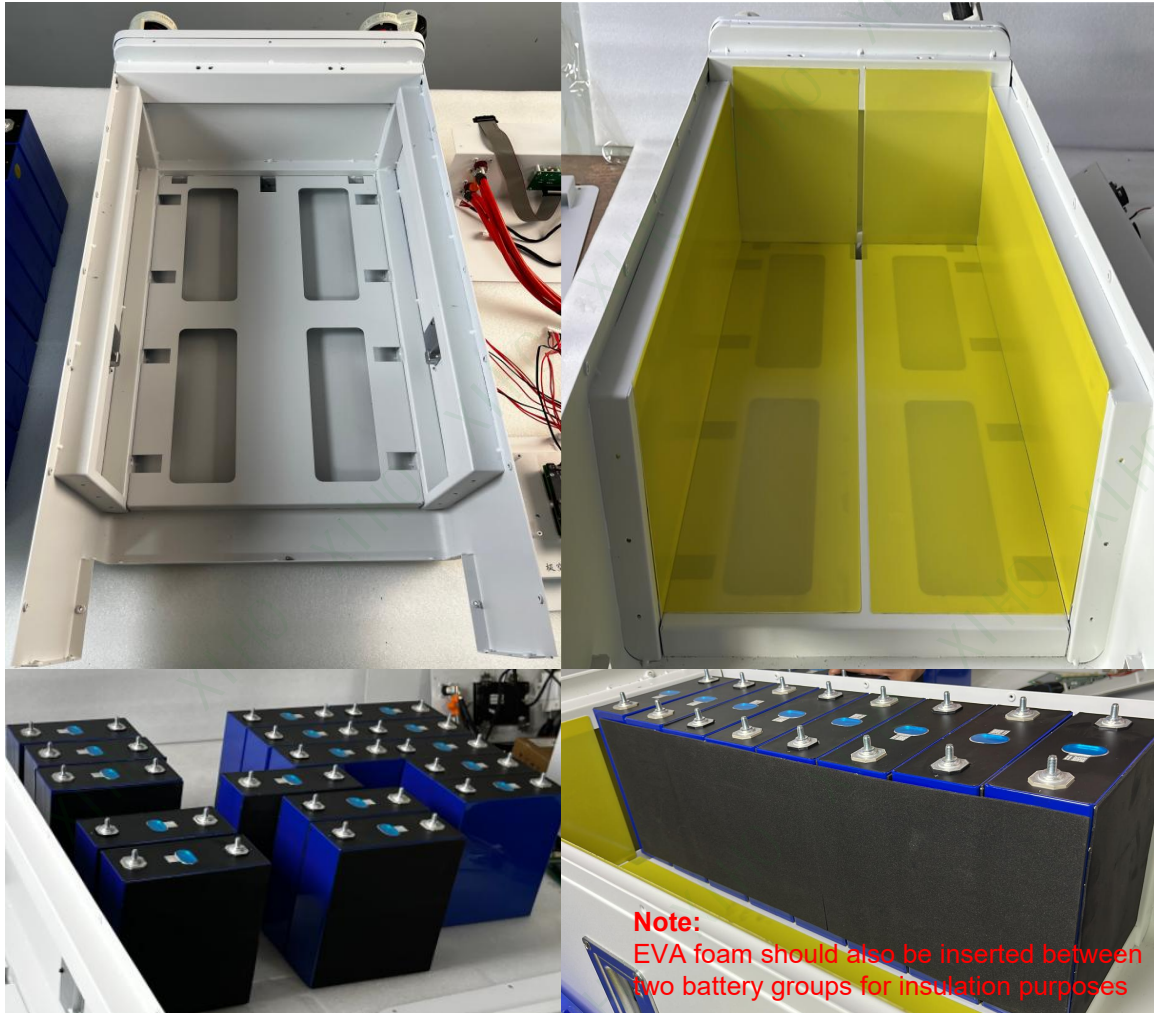


See the **YOUTUBE** video for more details:

<https://www.youtube.com/watch?v=GXUxj66DeIM>

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3.Assembly Steps: 1-2(Marking * is an important step, please pay attention to it)



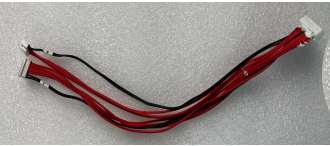
Step 1: Prepare for the housing, paste epoxy resin plate and EVA foam on the inner surfaces of housing



***Step2:** 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

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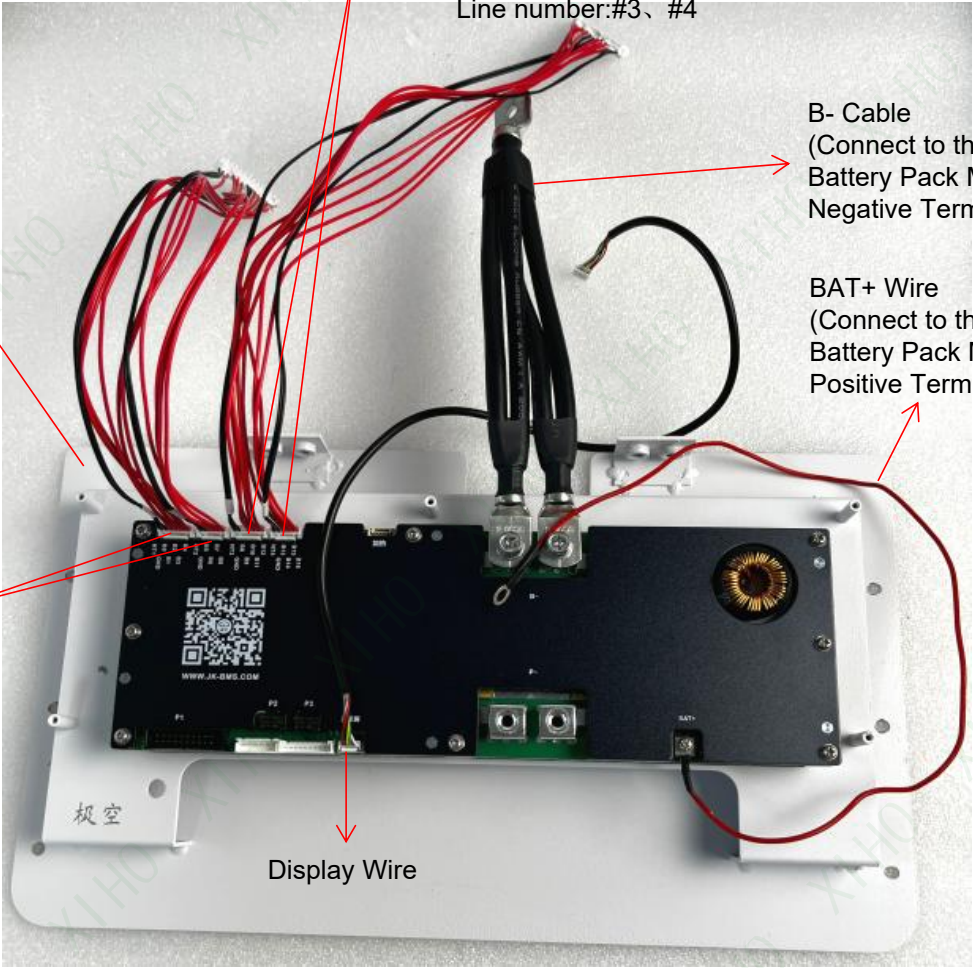
3.Assembly Steps: 3-4(Marking * is an important step, please pay attention to it)



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



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

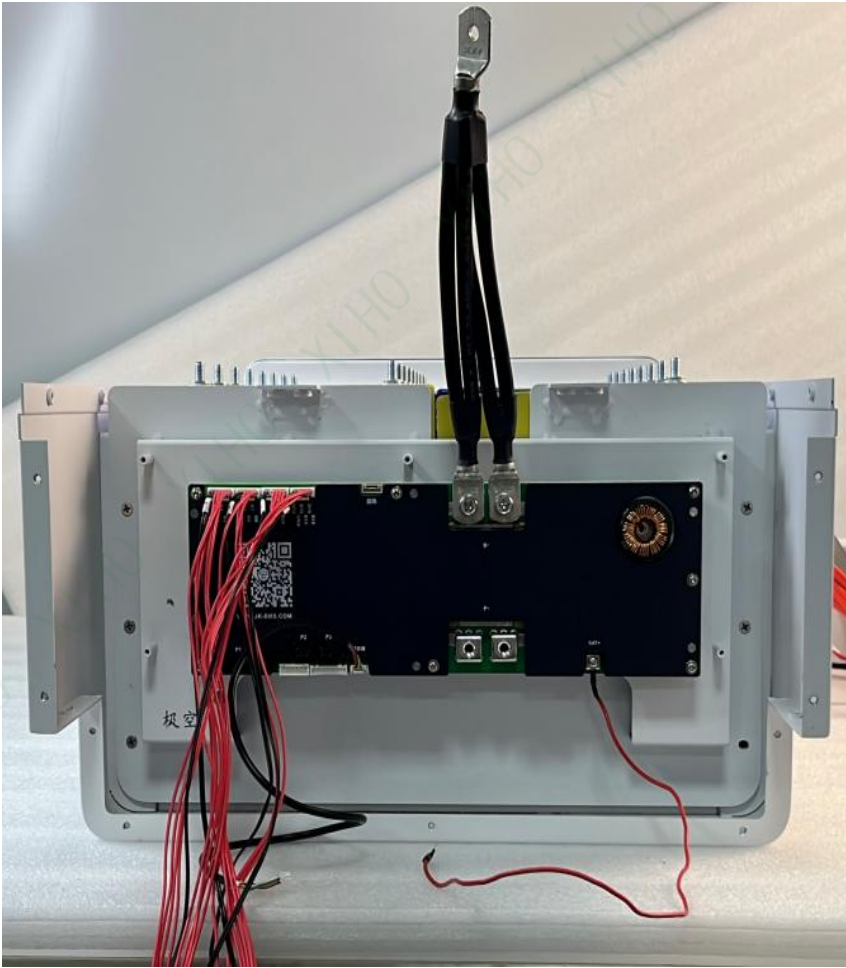


B- Cable
(Connect to the
Battery Pack Main
Negative Terminal)

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

Display Wire

***Step 3:** Mount the BMS main board on the middle panel and install PCB wire、 P- Cable、 Display Wire、 BAT+ Wire

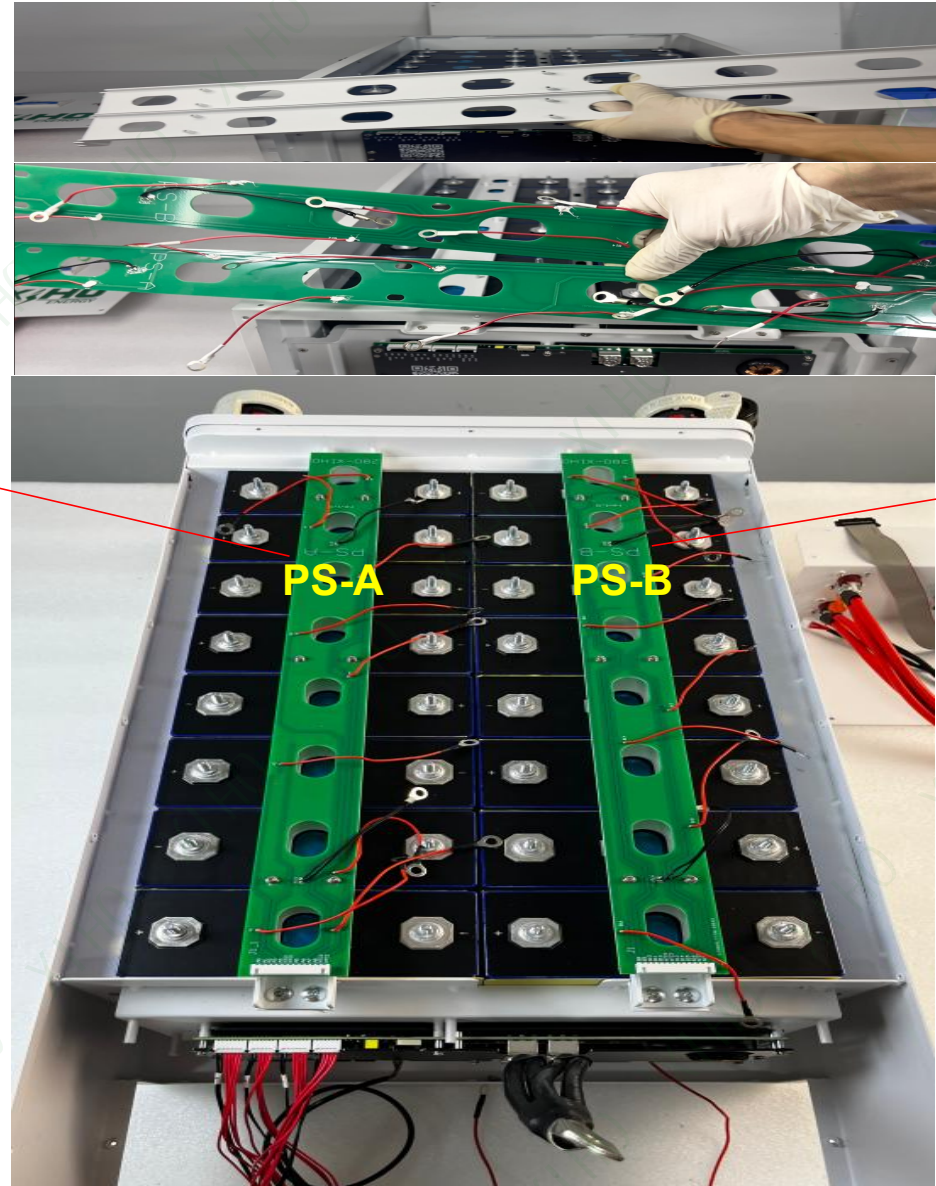


Step 4: Install the middle plate and securely fasten the screws.

3.Assembly Steps: 5(Marking * is an important step, please pay attention to it)



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

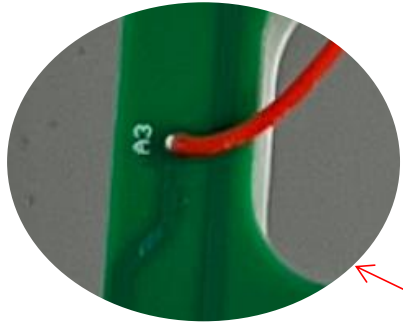


PCB-B(PS-B)
In the Right
(In picture direction)

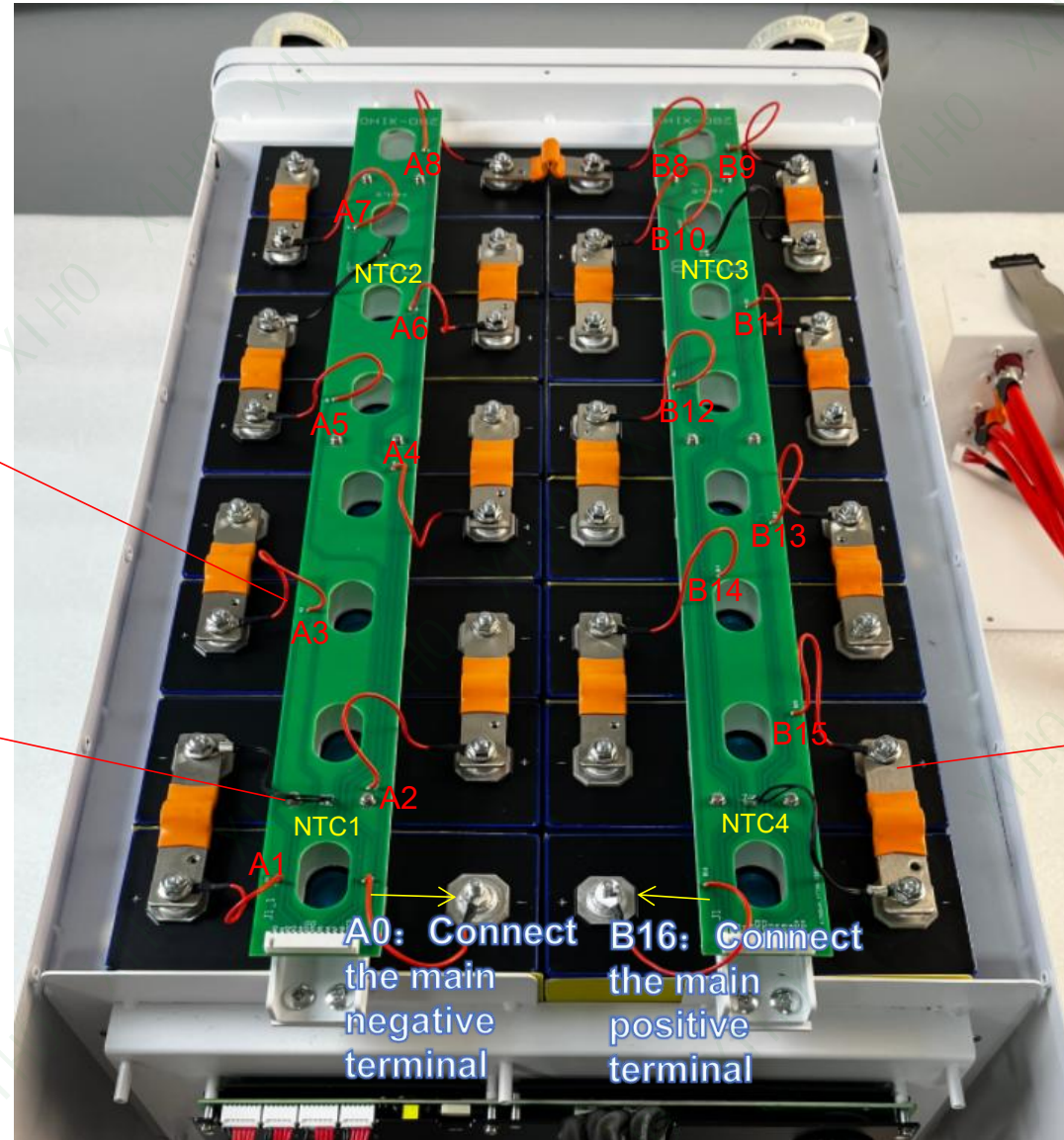
***Step5:** Secure the battery and Install PCB board, Pay attention to the position.

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3.Assembly Steps: 6(Marking * is an important step, please pay attention to it)

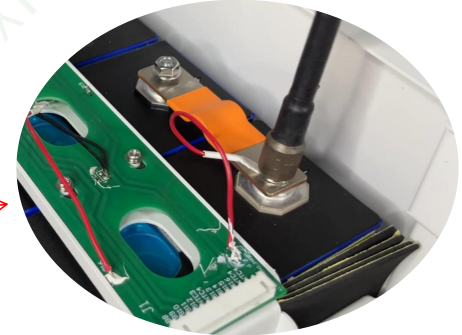
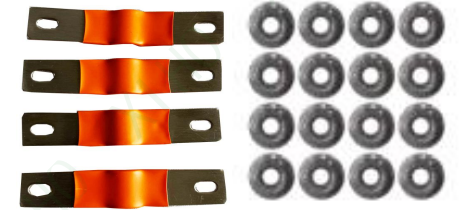


***Pay attention to the component designators on the PCB and their connections to the battery terminals**



A0: Connect the main negative terminal

B16: Connect the main positive terminal

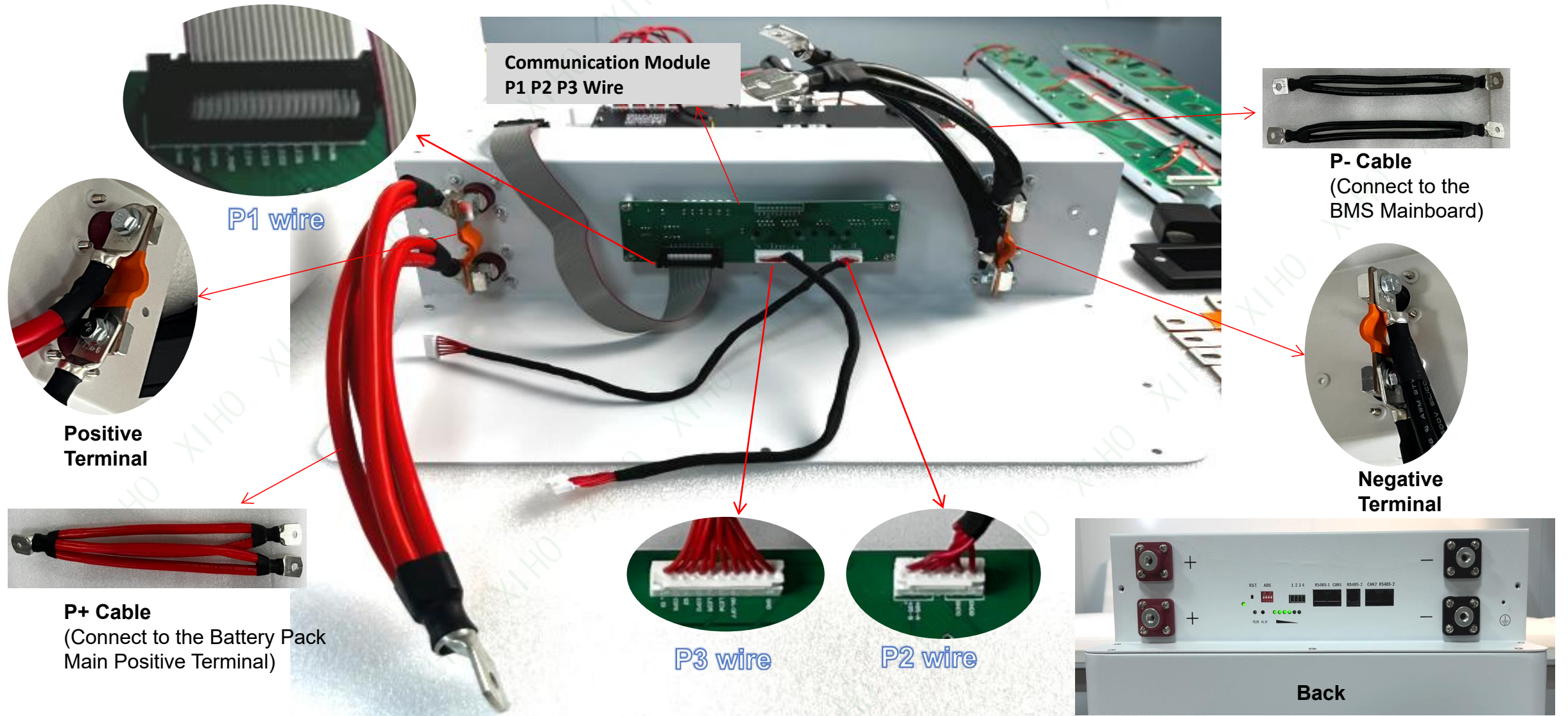


Screw up(Torque: 5-6 Nm)

***Step6:** Assemble the flexible busbar(H) and PCB bars harness in the sequence shown in the diagram, then torque the screws

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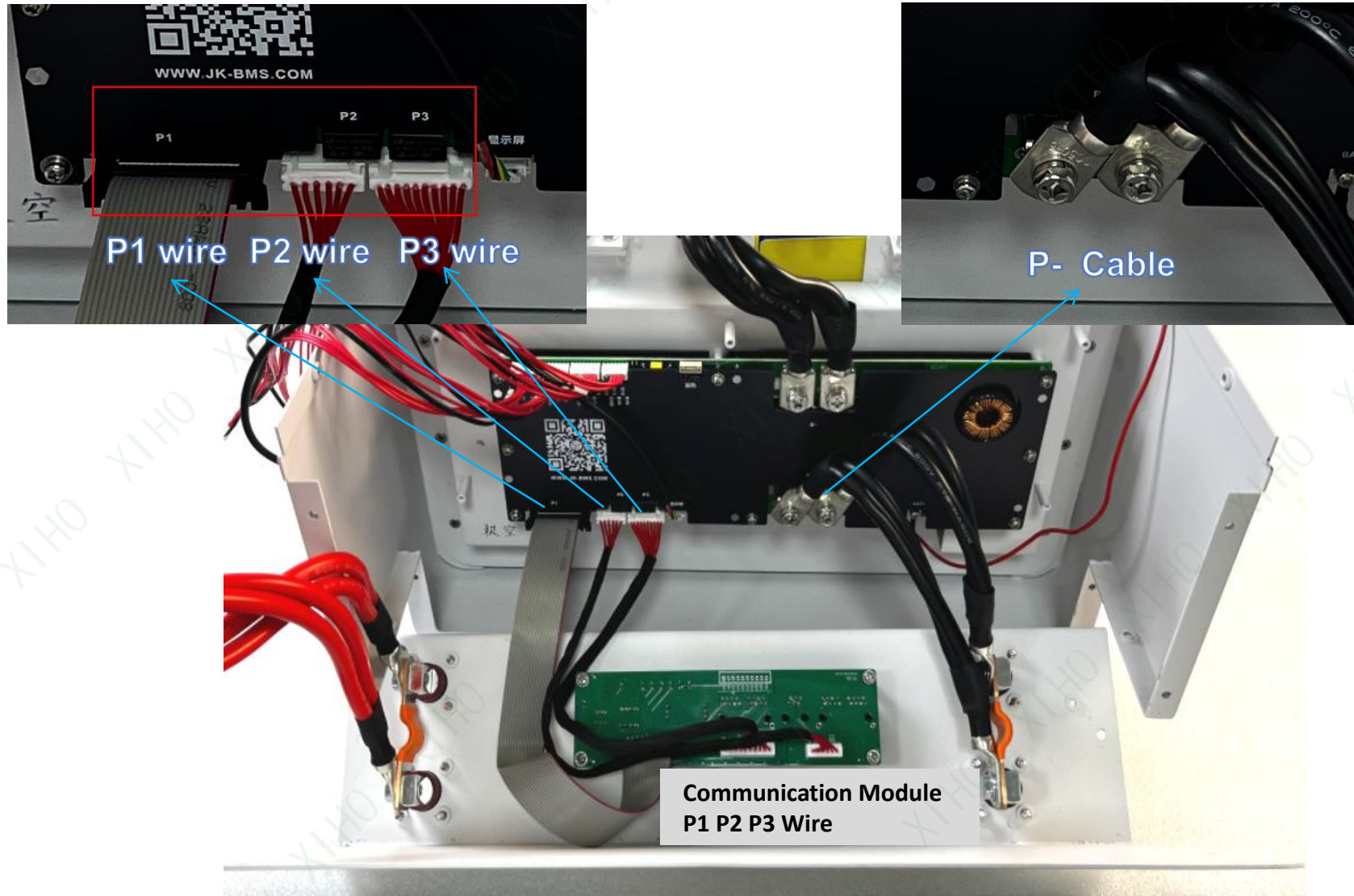
3.Assembly Steps: 7(Marking * is an important step, please pay attention to it)



Step7: Installation of positive and negative terminals 、 P+ cable、 P- cable、 Communication Module as shown in the figure above

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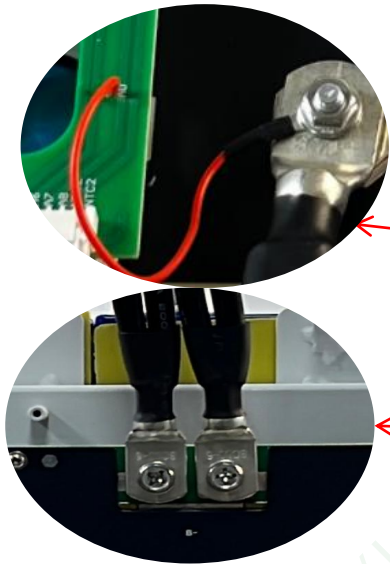
3.Assembly Steps: 8(Marking * is an important step, please pay attention to it)



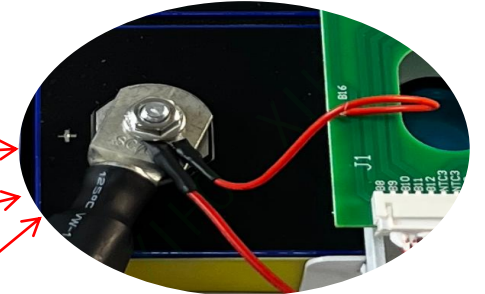
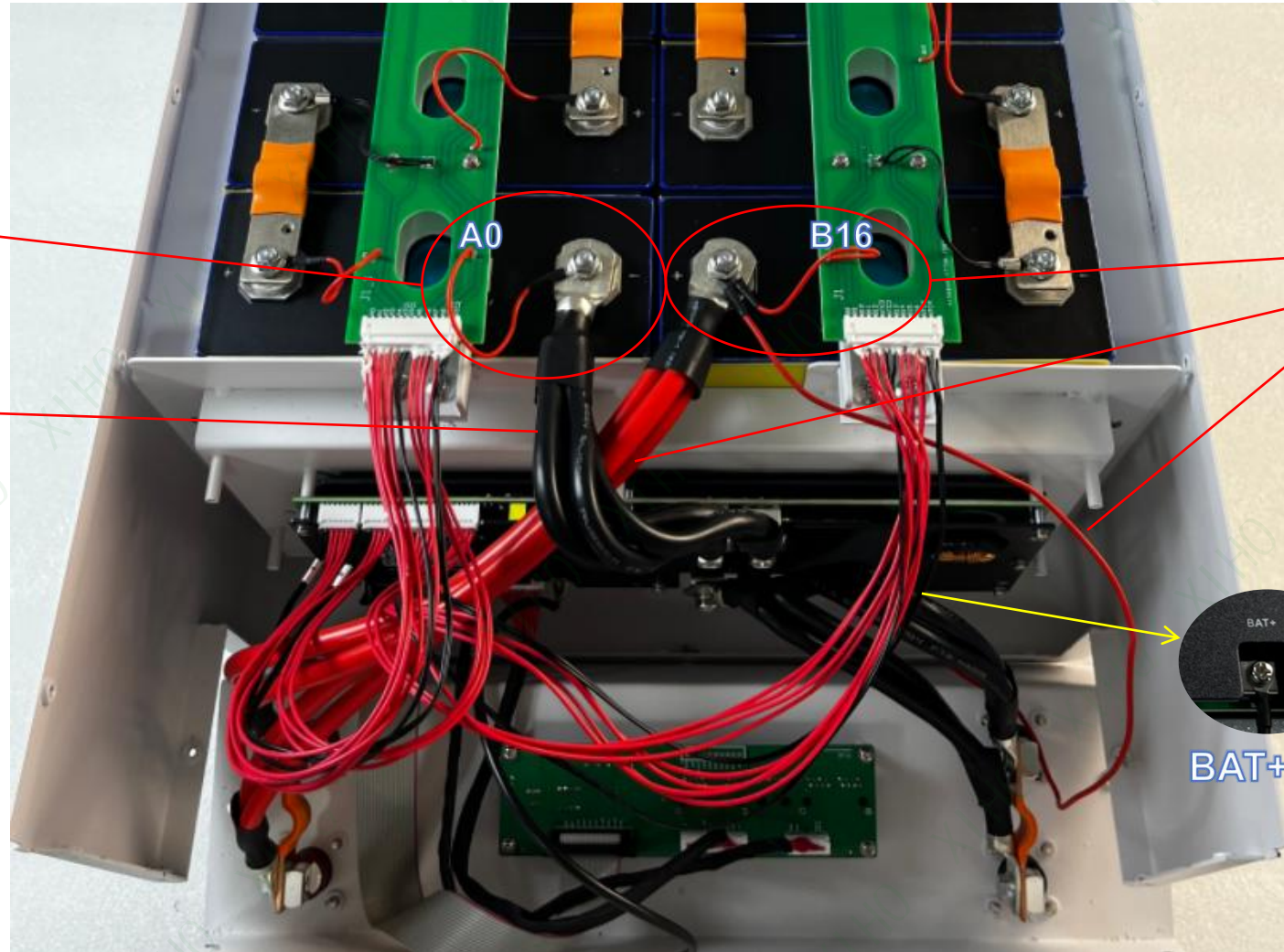
Step 8: Connect the BMS main board to the communication module and the P- cable, As shown in the picture above.

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3.Assembly Steps: 9(Marking * is an important step, please pay attention to it)



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



Note: Connect the negative terminal as the second step
 *Connect the BAT+ wire on the BMS mainboard, the B16 Wire on PCB-B (PS-B), and the positive cable from the front panel to form the main positive terminal



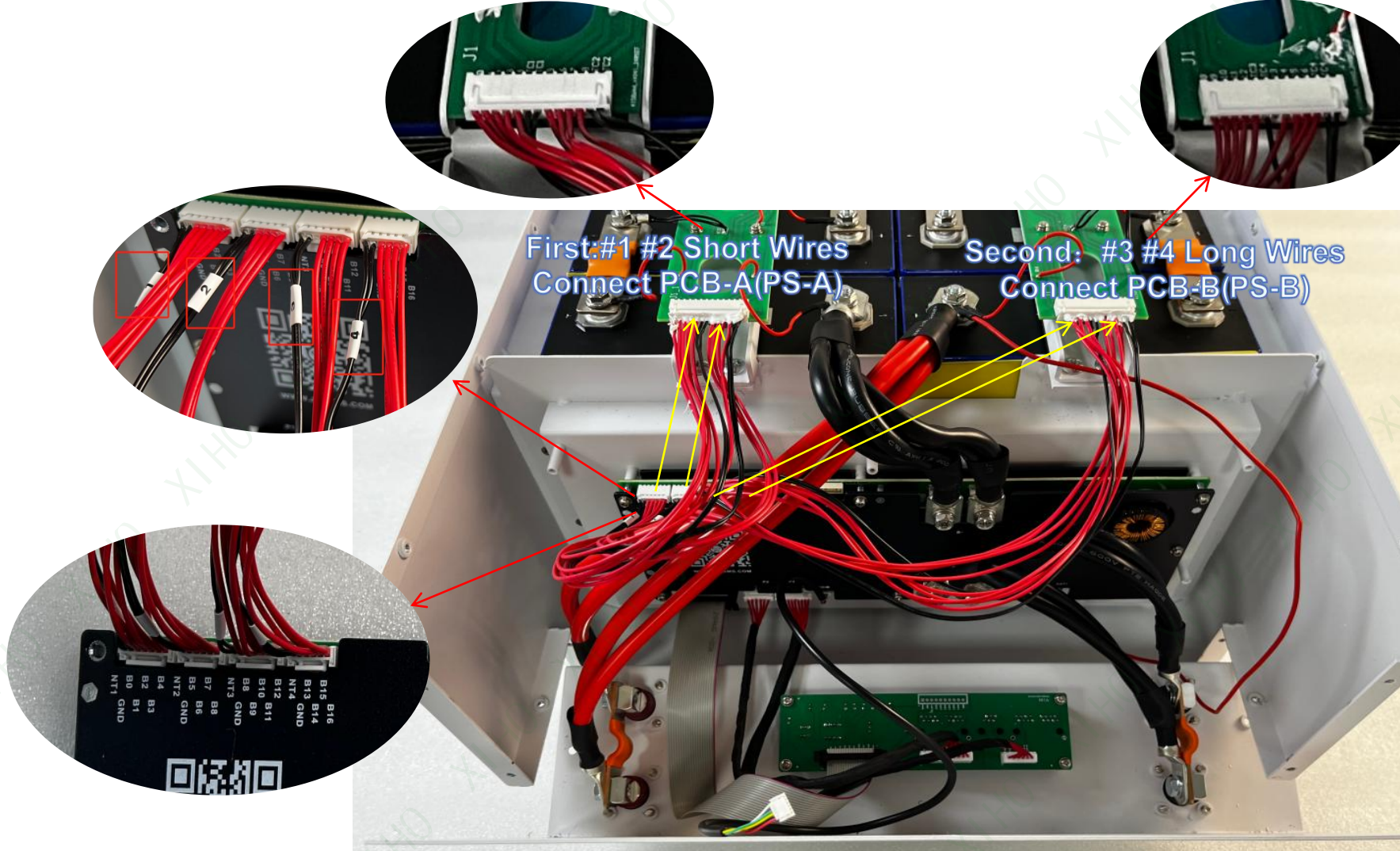
BAT+ Wire

***Step9:** Connect the battery pack's main positive and main negative terminals separately, then torque the screws.

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

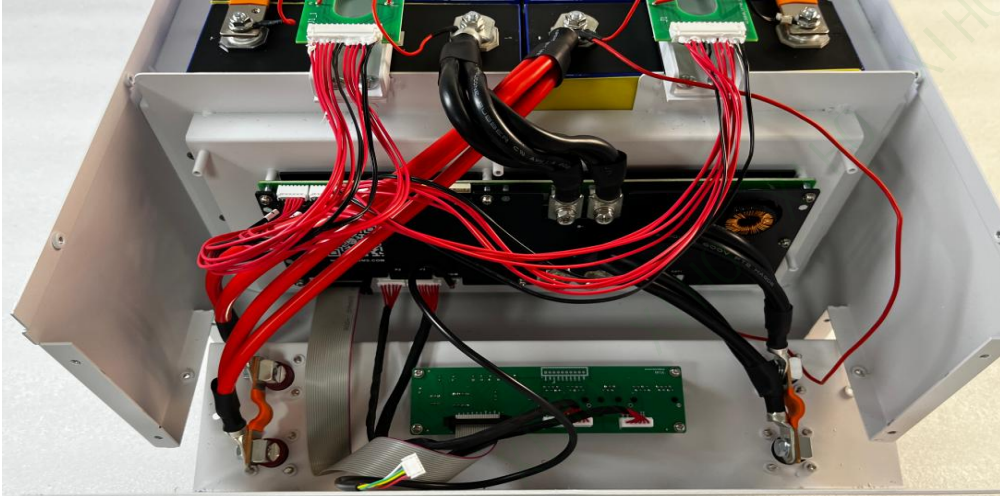
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3.Assembly Steps: 10(Marking * is an important step, please pay attention to it)



***Step10:** 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.

3.Assembly Steps: 11-12(Marking * is an important step, please pay attention to it)

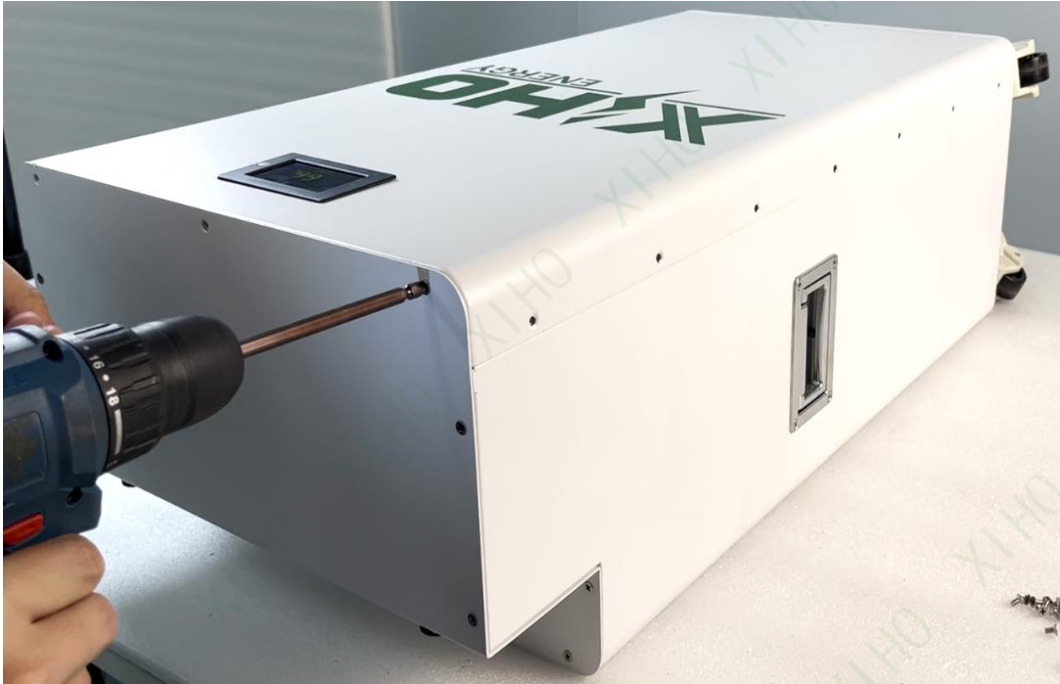


Step11:Close the front panel and secure the screws



Step12:Install the LED screen onto the cover panel and connect the display cable to the BMS mainboard before closing the cover panel

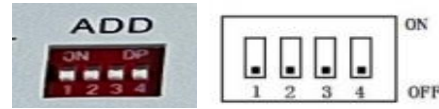
3.Assembly Steps: 13(Marking * is an important step, please pay attention to it)



Step13:Close the cover panel, secure the screws, power on the device, and connect to your smartphone via Bluetooth to view battery pack information

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4.Operation of Upper System: When multiple battery packs are connected in parallel, each pack must be assigned a unique address via DIP switches for proper operation. The address configuration table for the DIP switches is shown below.



Adress	Dip Switch Position			
	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

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5.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 JK BMS App

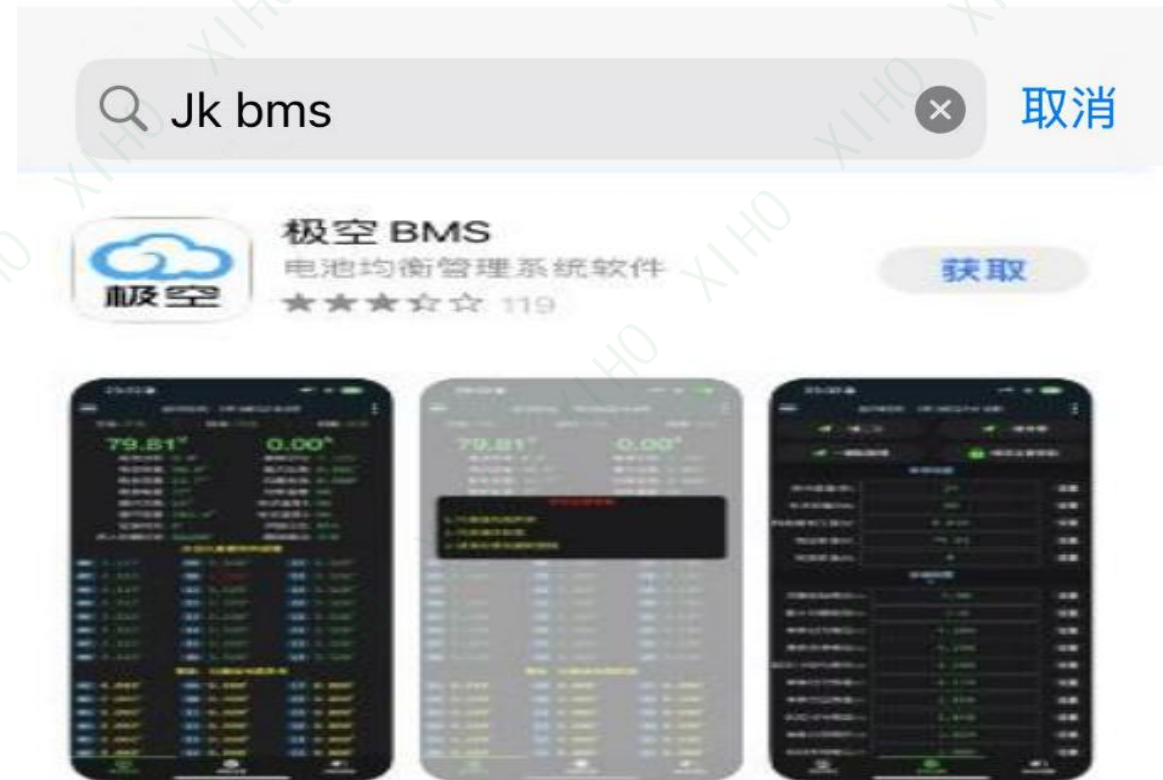
Download:

Android: "jk bms" in Google Play Store

iOS: "jk bms" in Apple Store



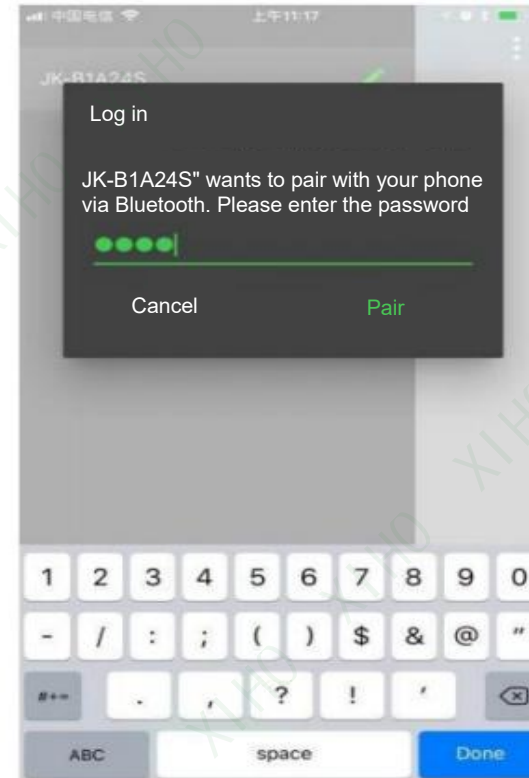
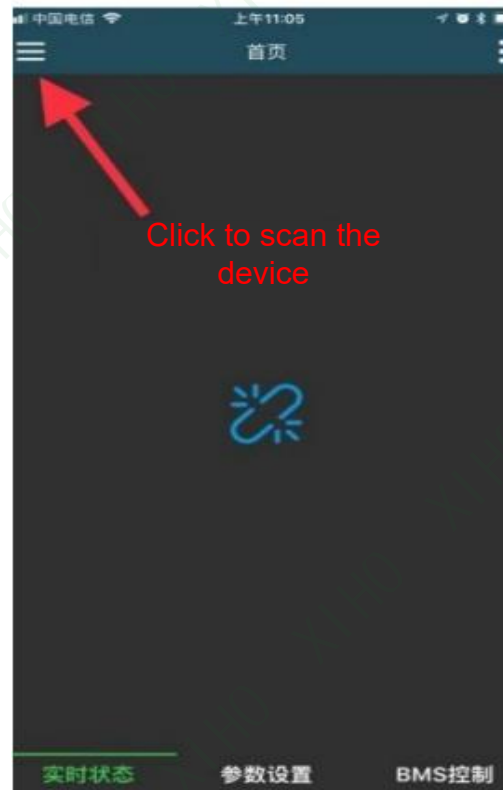
此APP用于电池管理系统，与主动均衡器通过蓝牙连接，实现主动均衡器的参数显示与设置



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5.Operation of Bluetooth:

1. First, enable Bluetooth on your smartphone.
2. Open the app and tap the icon in the top-left corner to scan for devices.
3. After the scan completes, select the target device name (e.g., 'JK-B1A24S') from the list.
4. During the initial connection, the app will prompt for a pairing code. Enter the default password '**1234**'.
5. Once connected, the app automatically stores the password. For subsequent connections, simply open the app and tap the device name in the saved list to establish a link without re-entering credentials.
6. The password input interface is shown in the diagram below.

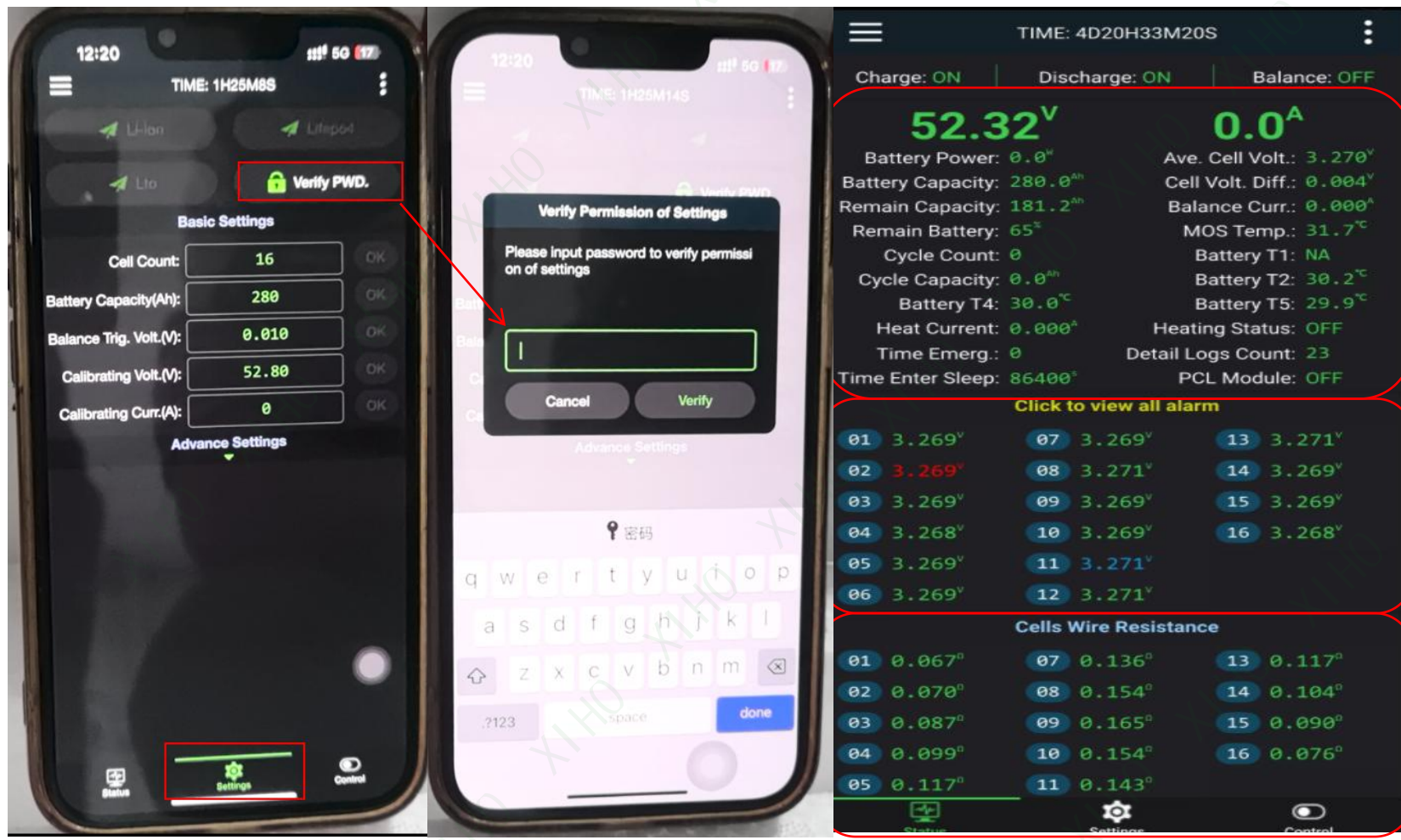


See the **YOUTUBE** video for more details:
https://youtu.be/jnVWLsIE3-Q?si=uuBFxYLM-vypc_lx

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5.Operation of Bluetooth:

Parameter Configuration: To modify the protection board's operational parameters, you must first click the 'Authorized Settings' button and enter the parameter configuration password to verify access privileges. The default factory password for parameter settings is '**123456**'. Parameter adjustments are permitted only after successful password authentication. Note that the parameter configuration password and the device's Bluetooth pairing password are independent of each other



Area 1: Battery Information Summary Panel

Charge: ON | Discharge: ON | Balance: OFF

52.32^V | 0.0^A

Battery Power: 0.0^W | Ave. Cell Volt.: 3.270^V

Battery Capacity: 280.0^{Ah} | Cell Volt. Diff.: 0.004^V

Remain Capacity: 181.2^{Ah} | Balance Curr.: 0.000^A

Remain Battery: 65% | MOS Temp.: 31.7^{°C}

Cycle Count: 0 | Battery T1: NA

Cycle Capacity: 0.0^{Ah} | Battery T2: 30.2^{°C}

Battery T4: 30.0^{°C} | Battery T5: 29.9^{°C}

Heat Current: 0.000^A | Heating Status: OFF

Time Emerg.: 0 | Detail Logs Count: 23

Time Enter Sleep: 86400^s | PCL Module: OFF

Area 2: Cell Voltage Monitoring Zone

Displays real-time voltage data of each individual cell in the battery pack. The cell with the lowest voltage is highlighted in red, while the highest voltage cell is marked in blue.

Cell	Voltage (V)	Cell	Voltage (V)	Cell	Voltage (V)
01	3.269 ^V	07	3.269 ^V	13	3.271 ^V
02	3.269 ^V	08	3.271 ^V	14	3.269 ^V
03	3.269 ^V	09	3.269 ^V	15	3.269 ^V
04	3.268 ^V	10	3.269 ^V	16	3.268 ^V
05	3.269 ^V	11	3.271 ^V		
06	3.269 ^V	12	3.271 ^V		

Area 3: Balancing Line Resistance Zone

Shows the balancing line resistance values calculated through the protection board's self-check. These values provide preliminary detection of wiring errors or poor contact. If the resistance exceeds a predefined threshold, the indicator turns yellow, and balancing functionality is disabled to prevent system instability.

Cell	Resistance (Ω)	Cell	Resistance (Ω)	Cell	Resistance (Ω)
01	0.067 ^Ω	07	0.136 ^Ω	13	0.117 ^Ω
02	0.070 ^Ω	08	0.154 ^Ω	14	0.104 ^Ω
03	0.087 ^Ω	09	0.165 ^Ω	15	0.090 ^Ω
04	0.099 ^Ω	10	0.154 ^Ω	16	0.076 ^Ω
05	0.117 ^Ω	11	0.143 ^Ω		

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6.Communication Compatible List:

No.	Brand Name	LOGO	Protocol	Baud Rate
1	GOODWE		CAN	500K
2	VICTRON		CAN	500K
3	GROWATT		CAN	500K
4	SOLAX		CAN	500K
5	SOFAR		CAN	500K
6	LUXPOWER		CAN	500K
7	MUST		CAN	500K
8	SOLIS		CAN	500K
9	SOROTEC		CAN	500K
10	MEGAREVO		CAN	500K
11	DEYE		CAN	500K
12	SMA		CAN	500K
13	VoltronicPower		RS485	9600
14	SRNE		RS485	9600
15	PYLON TECH		RS485	9600
16	GreatWatt		RS485	9600

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.



Need additional information?

|

Just Contact XIHO!
YOUR RELIABLE POWER

|

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