Lithi2-16 Battery

Closed Loop Communication with Inverters

Content

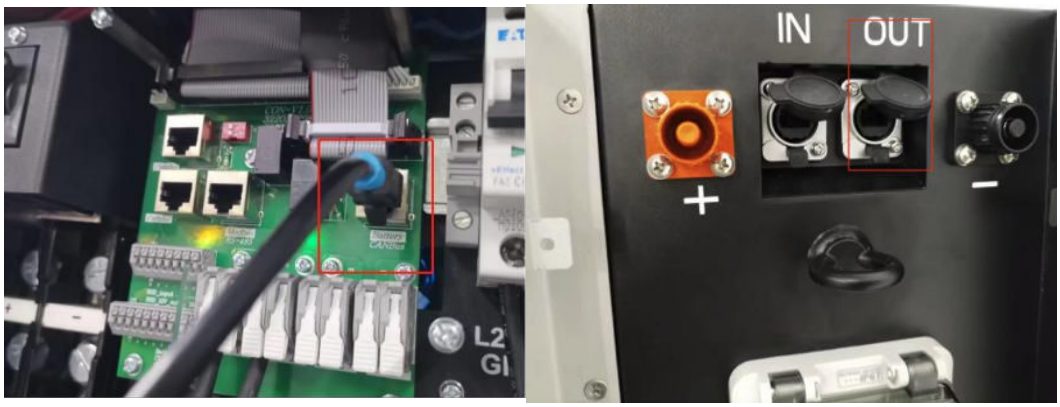
1. Solark/Deye/Sunsynk
2. EG4–18KV/EG4 6000XP/EG4 12000XP(IV–15000–XP–IN–01)
3. Victron CCGX/Cerbo GX
4. Solis
5. EG4 Flex boss21
6. Growatt
7. EG4 3000EHV–48
8. SUNON10
9. RX–12K
10. Schneider
11. Senergy
12. SUNON3.6K
13. SUNON7.2K
14. Voltronic/MPP/Alpha outback
15. SMA
16. SUNON12
17. Luxpower LXP–LB–US 8—12K

1.Solark/Deye/Sunsynk

Communcation Cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the **master** battery OUT port to the BMS communication port on the inverter.

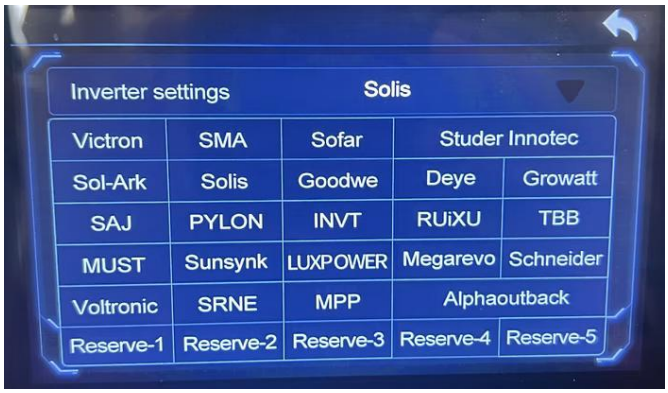


Battery Setting：

Please choose the relevant inverter brands from the **master battery** display

Setting-->inverter settings-->Sol-ark/Deye/Sunsynk

No setting is required for the slave battery.



Inverter Setting:

Batt Capacity: 314Ah x #Parallel_Batteries

Max A Charge: 210 x #Parallel_Batteries

Max A Discharge: 210A x #Parallel_Batteries

(For 12k and below models, simply set the charging and discharging current according to the maximum allowed by the inverter)

Max A Grid Charge: 78A x #Parallel_Batteries

TEMPCO: 0mV/C/Cell

BMS Lithium Batt: 00

Float V: 54.6V

Absorption V: 56V

Equalization V: 56V

Equalization Days: 30

Equalization Duration: 1 Hours (tops off battery)

Recommended Shutdown V / Percentage: 50.2V & 20%

Recommended Low Batt V / Percentage: 50.6V & 30%

Recommended Restart V / Percentage: 51.0V & 40%

Battery Resistance: 8mOhms ÷ (battery Count)

Battery Charge Efficiency: 99%

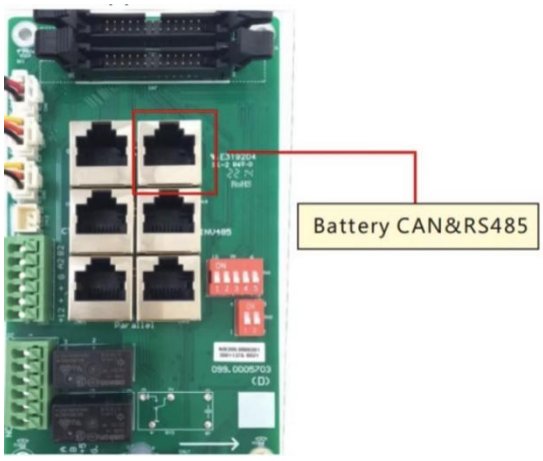
Battery Empty Voltage: 47V

2. EG4-18KV/EG4 6000XP/EG4 12000XP(IV-15000-XP-IN-01)

Communcation Cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the **master** battery OUT port to the BMS communication port on the inverter.



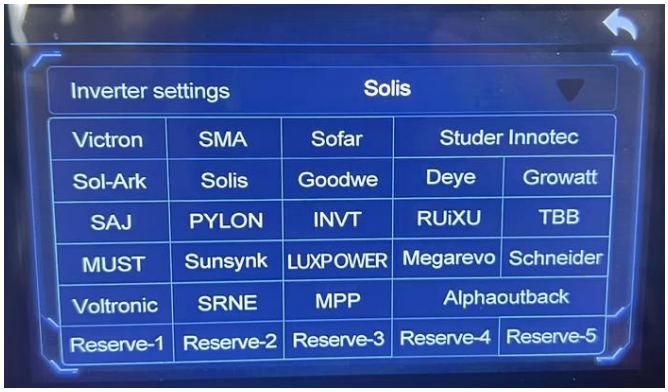


Battery Setting:

Please choose the relevant inverter brands from the **master battery** display

Setting-->inverter settings-->**Luxpower**

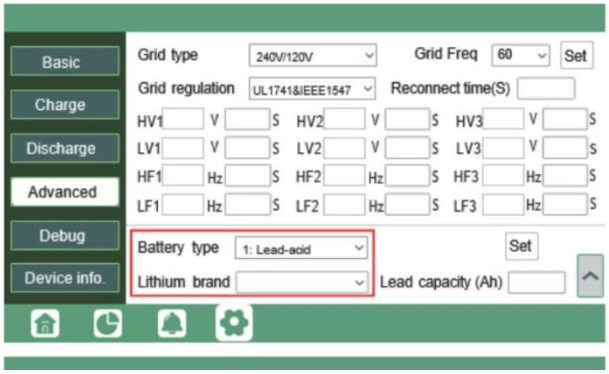
No setting is required for the slave battery



Inverter Setting:

Select“Lithium”under ‘battery type’

Select“6”（luxpower protocol）under ‘Lithium brand’



3.Victron CCGX/Cerbo GX

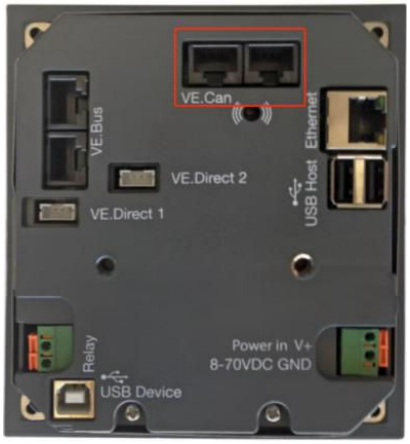
Communcation Cable

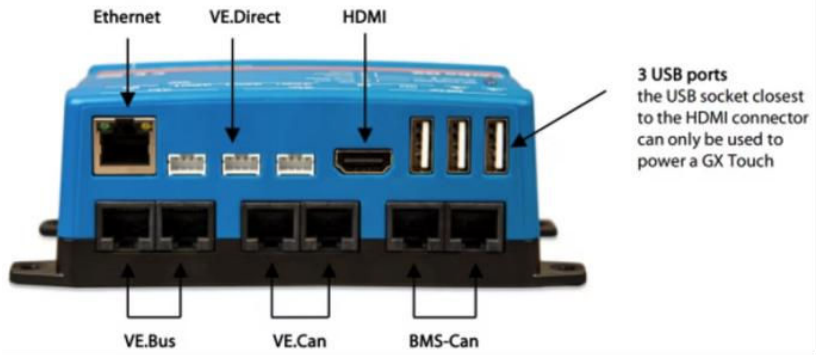
1)If make the cable by your self,pls refer to **Version II** CAN as the appendix

2) Purchase the cable on https://dealer.ruixubattery.com/products/

Connect the **master** battery OUT port to the VE.Can of Victron

Colour-Control-GX or BMS-CAN of cerbo-GX





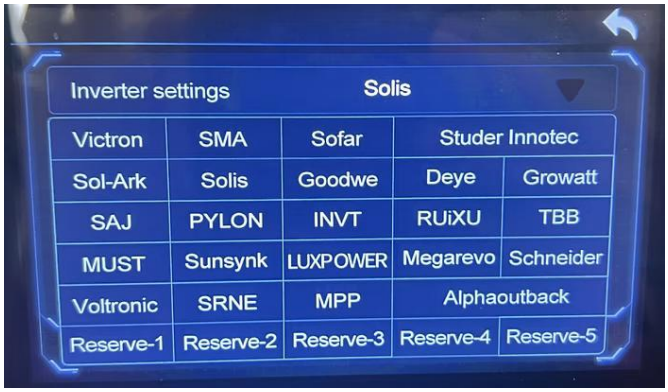


Battery Setting:

Please choose the relevant inverter brands from the **master battery** display

Setting-->inverter settings-->**Victron**

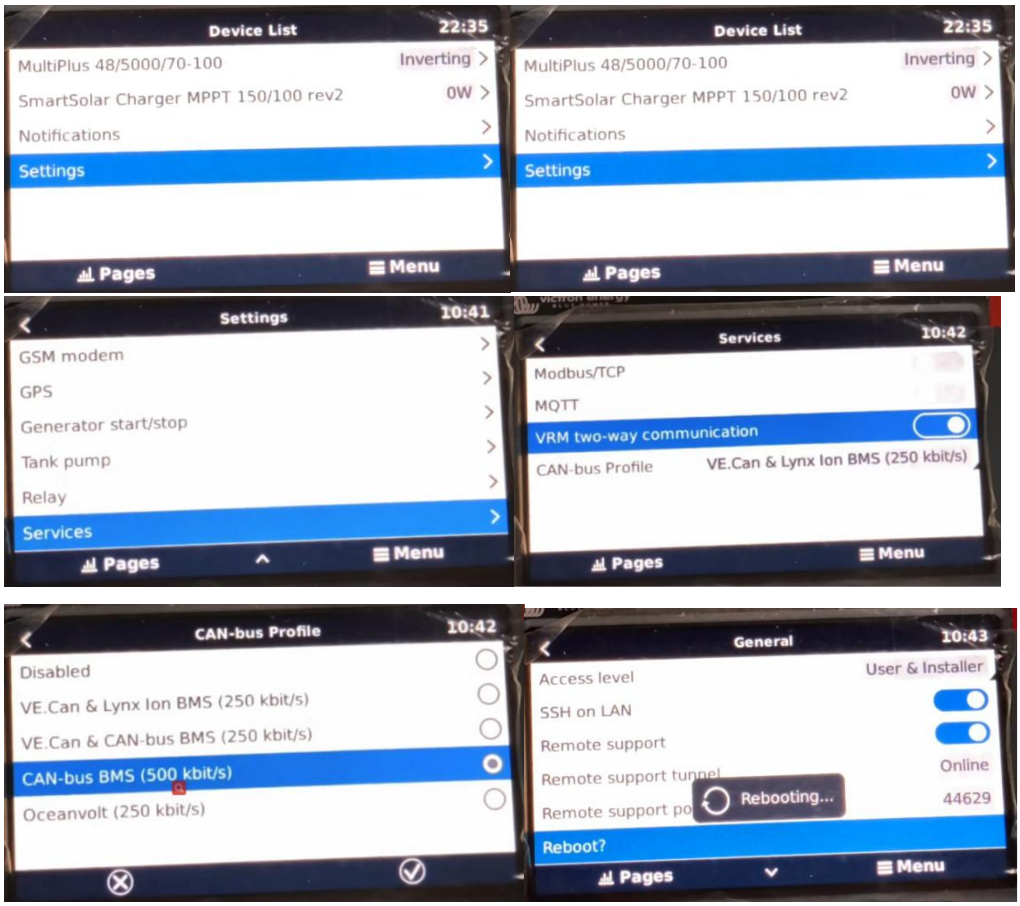
No setting is required for the slave battery.



Inverter Setting:

CCGX Setting：

Menu>settings>services>CAN-bus Profile,select CAN-bus BMS(500kbit/s),Confirm and restart(Menu>settings>general>reboot?)



Cerbo GX Setting:

Once the communication connection is OK, the Cerbo GX will automatically connect with the battery and display it in the device list (accessible by clicking Menu)

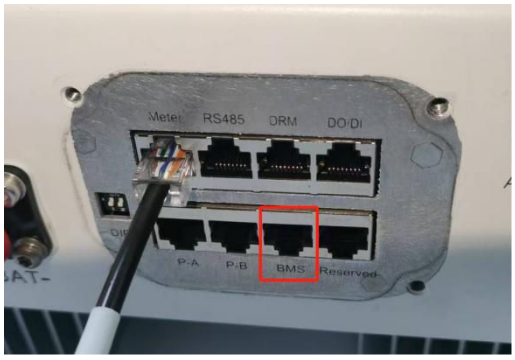


4.Solis

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port on the inverter.



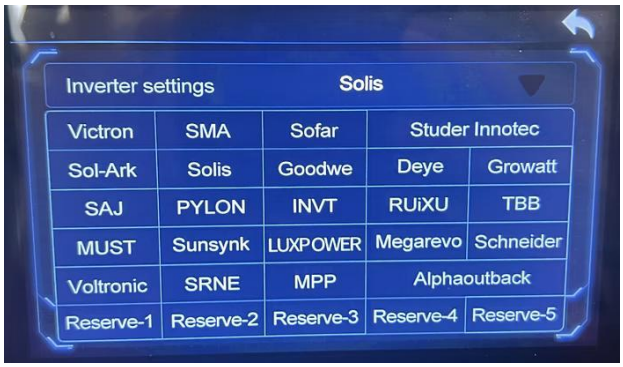


Battery Setting:

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->**Solis/pylon**

No setting is required for the slave battery



Inverter Setting:

Solis Cloud APP Setting:

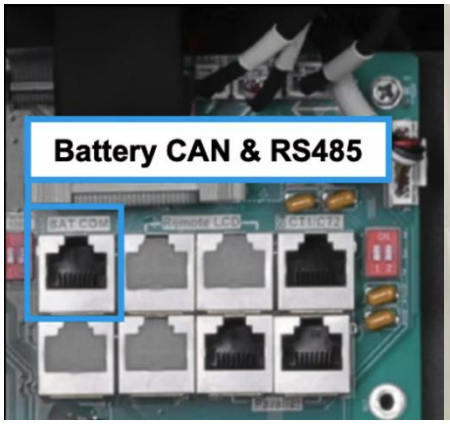
Select 'Lithium LV/ RUIXU' under “Battery model”

5.EG4 Flex boss21

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the **Version I** communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port on the inverter.





Firmware

Lithi2–16 battery requires firmware version "RX03" or higher

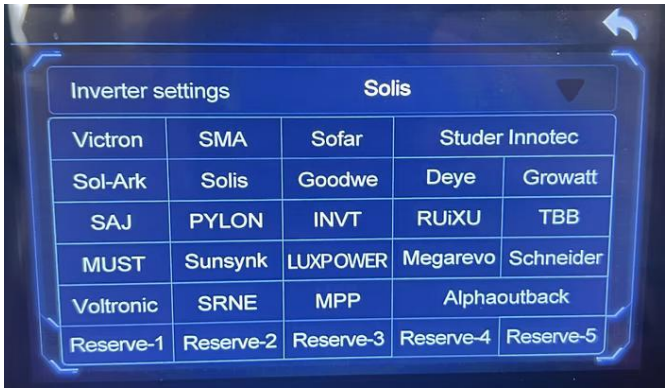
https://dealer.ruixubattery.com/downloads/

Battery Setting:

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->**PYLON**

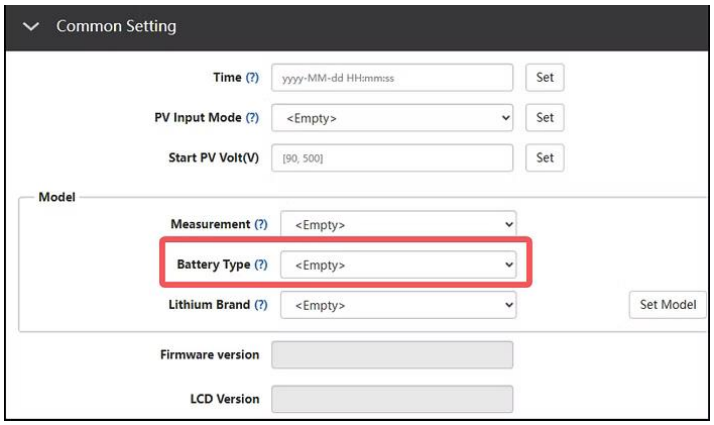
No setting is required for the slave battery



Inverter Setting

Battery Type select 'Lithium'

Lithium Brand select'Type1'



6.Growatt

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port on the inverter.



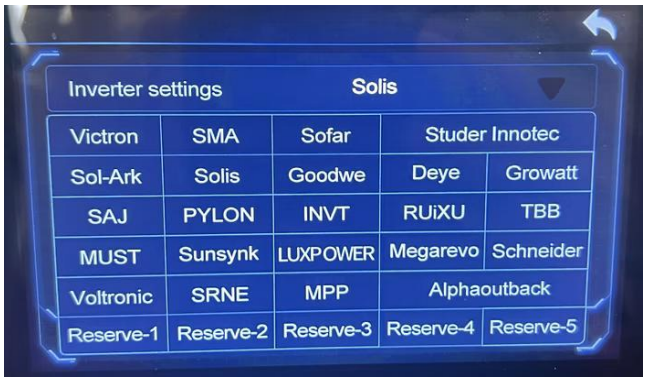
Battery Setting：

Please choose the relevant inverter brands from the master

battery display

Setting-->inverter settings-->**Growatt**

No setting is required for the slave battery



Inverter setting:

1) pressing and holding ENTER button for 3 seconds, the unit will enter

setting mode.

2) Press “UP” or “DOWN” button to select setting programs to program

05.

3) press “ENTER” button to enter battery type setting ,Press “UP” or

“DOWN” button to select the battery type as “Li” and then press

“ENTER” to confirm.

4) It will switch to Program 36, choose communication protocol as “L52”(If the Settings are incorrect, the battery pack will not be able to connect to the inverter). Press “ENTER” to confirm and then press “ESC” button to exit.

7. EG4 3000EHV-48

Firmware:

First, you need to determine whether the battery firmware version supports the establishment of a closed-loop communication connection between the inverter and the battery model.

The Lithi2-16 requires the 'TX04' firmware. If you need this version of the firmware, please contact technical support at techsupport@ruixubattery.com.

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the **Version I** communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port(rs485 port) on the inverter.

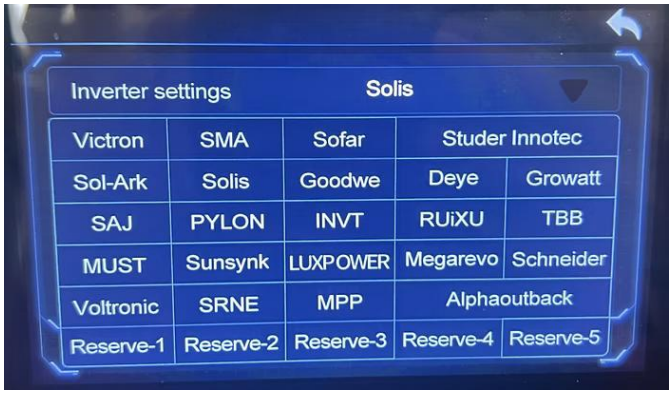


Battery Setting：

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->**Growatt**

No setting is required for the slave battery



Inverter Setting:

Battery type:Set to LI 4;

8.SUNON10

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the

Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port on the inverter.

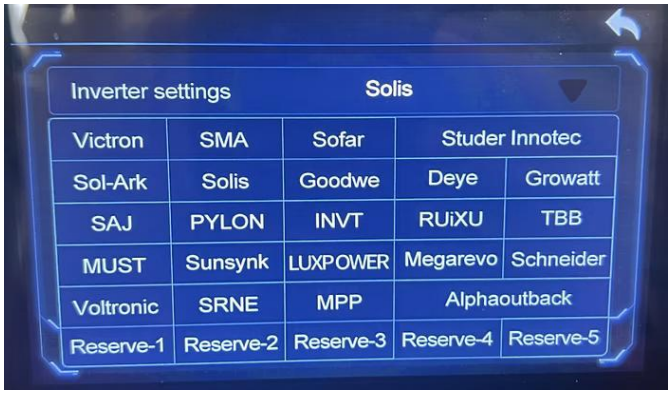


Battery Setting：

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->RUiXU

No setting is required for the slave battery



Inverter setting:

08 set to L16;

30 keep default 1;

32 set to CAN;

33 set to RUIXU;

9.RX-12K

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the

Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port

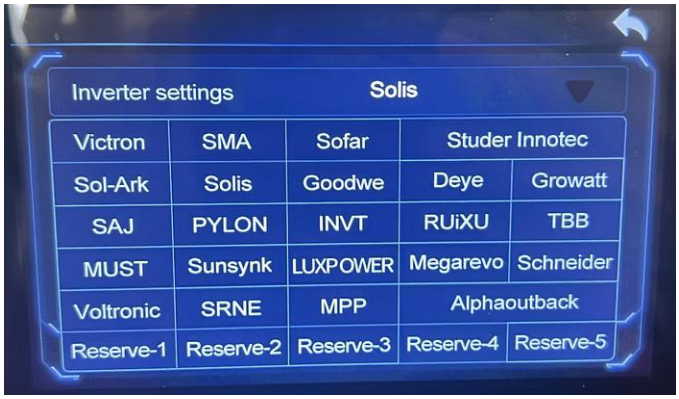


Battery Setting:

Please choose the relevant inverter brands from the master battery display

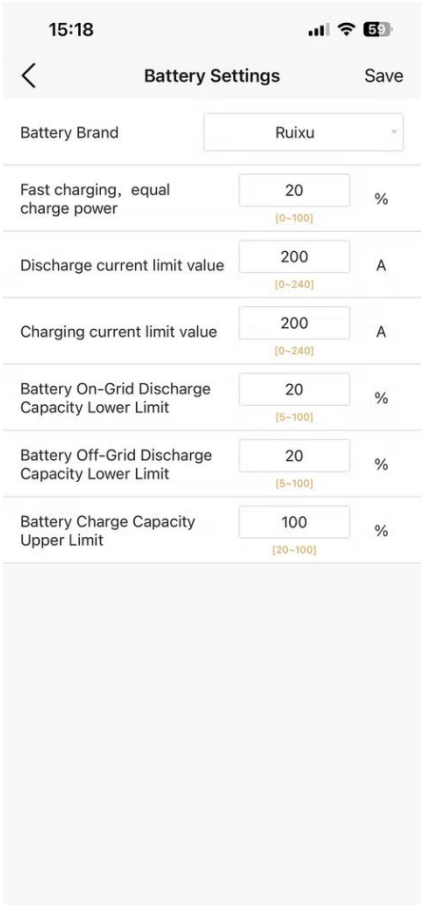
Setting-->inverter settings-->**RUiXU**

No setting is required for the slave battery



Inverter setting:

Click Battery settings-->Battery parameters-->select **Ruixu** in battery brand-->save



10.Schneider

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters).

(1)If you are using **Gateway** /**Insight facility** monitoring device

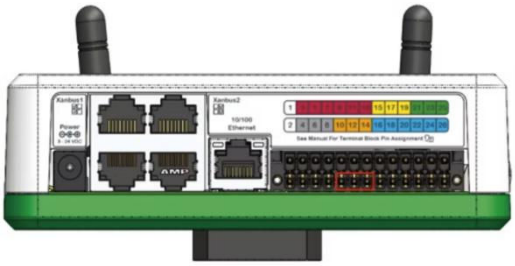
It is the pls choose Version IV communication cable in the appendix.

(2)If you are using **Insighthome** monitoring device

It is the pls choose Version V communication cable in the appendix.

Connect the master battery **OUT** port to the BMS communication port



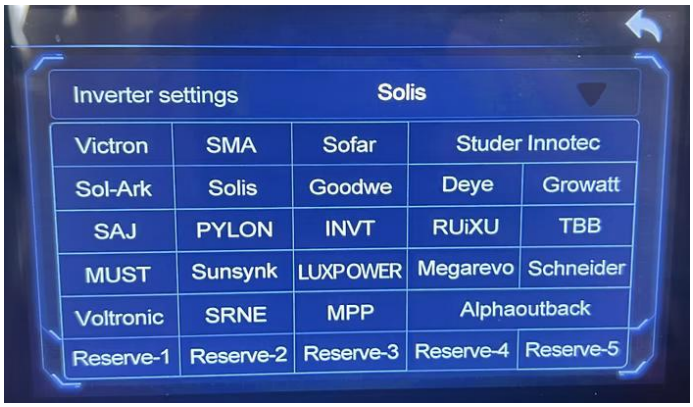


Battery Setting：

Please choose the relevant inverter brands from the master battery display

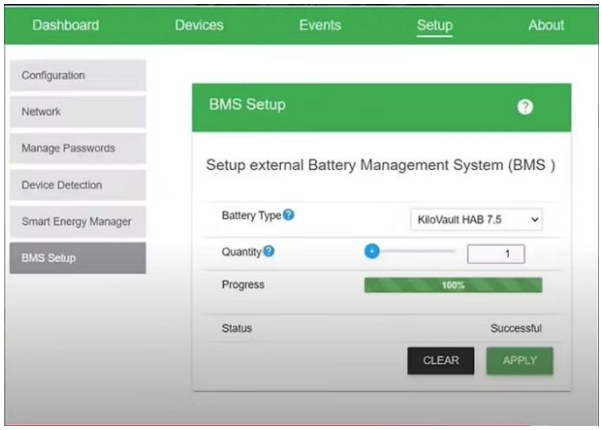
Setting-->inverter settings-->**Schneider**

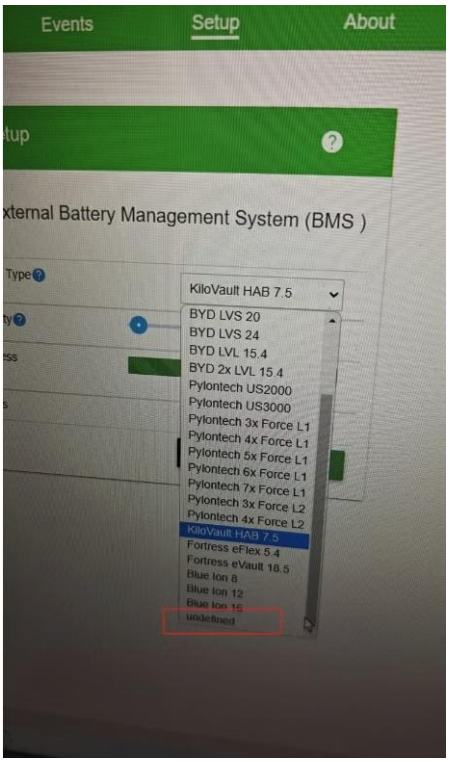
No setting is required for the slave battery



Inverter setting：

In the Settings screen, under the setup>BMS setup>battery type drop-down box, select "**undefined**". Once selected, the inverter and battery will communicate with each other using Schneider's communication protocol.





11.Senergy

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port



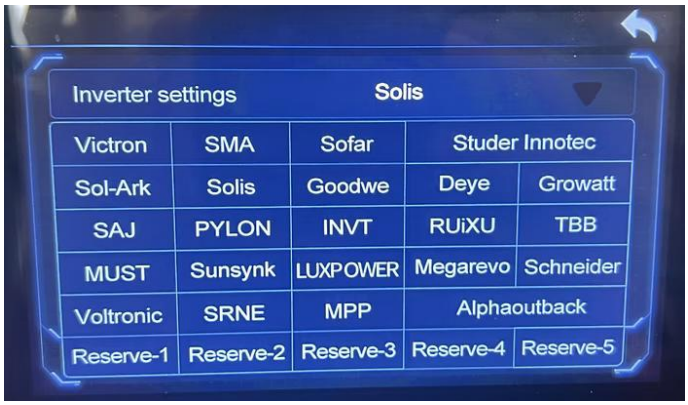
Battery Setting：

Please choose the relevant inverter brands from the master

battery display

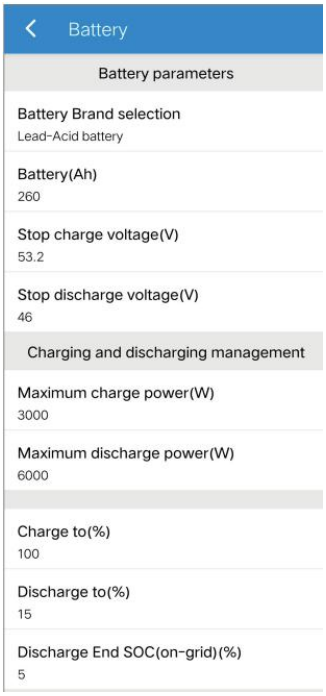
Setting-->inverter settings-->**PYLON**

No setting is required for the slave battery



Inverter setting:

Battery Brand select'**UZ**'



12. SUNON3.6K

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the

Version I communication cable in the appendix.

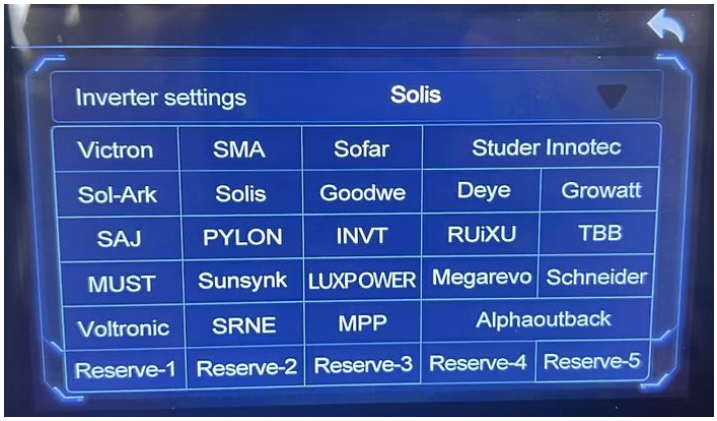
Connect the master battery OUT port to the BMS communication port



Battery Setting：

Please choose the relevant inverter brands from the master battery display Setting-->inverter settings-->**RUIXU**

No setting is required for the slave battery



Inverter setting:

08 set to L16

23 set to RS485

24 set to VOL

32 keep default 1

13. SUNON7.2K

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the

Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port



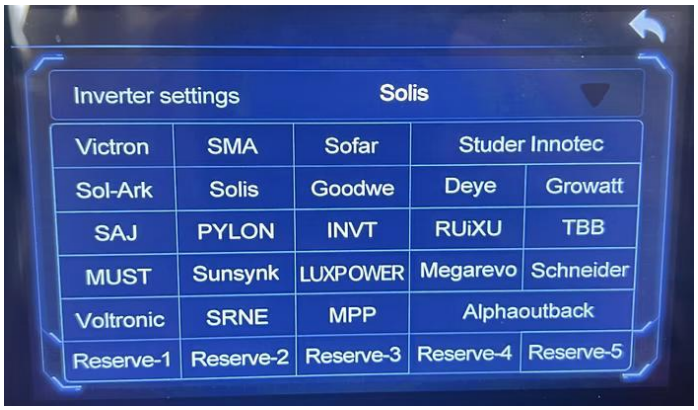
Battery Setting：

Please choose the relevant inverter brands from the master

battery display

Setting-->inverter settings-->**RUIXU**

No setting is required for the slave battery



Inverter setting:

Battery type:LFP16

BMS select:CAN-BMS

BMS protocol settings:Pylon-CAN

14. Voltronic/MPP/Alpha outback

Communcation Cable

1)If make the cable by your self,pls refer to **Version III** CAN as the appendix

2) Purchase the cable on https://dealer.ruixubattery.com/products/

Connect the **master** battery OUT port to the Inverter BMS port.

Battery Setting：

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->**Voltronic/Mpp/Alphaoutback**

No setting is required for the slave battery

Inverter setting

1) Press and hold “Enter”key for 3 seconds to access the main menu.

2) Using the up and down arrows, navigate to setting program 5(Some models are program4, refer to the Inverter manual). Press the “Enter” keyto change the setting. Using the up and down arrows, select battery type as”LIB”. Press the”Enter”key to save the setting.

The communication between the battery string and the inverter is configured

15. SMA

Communication cable

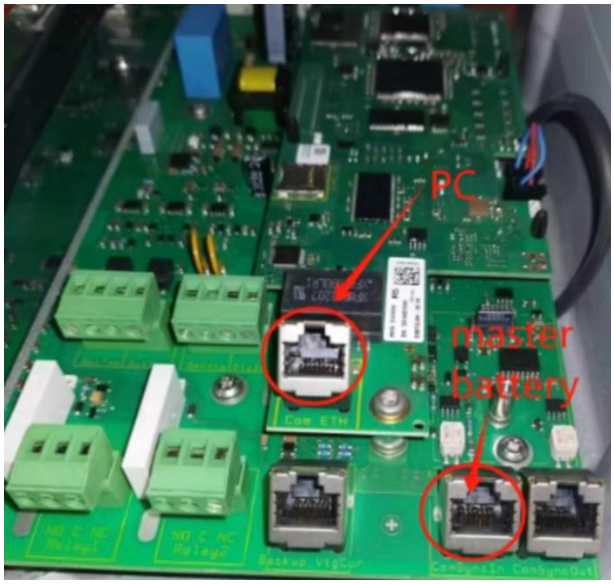
Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Click "Settings" on the master battery display and select the battery brand as "SMA"

Use standard network cable to connect the inverter Com-ETH to the computer network cable port, or use WiFi to connect the inverter (on the side of the inverter there is the relevant WiFi hotspot information, WiFi hotspot name is SMA+serial NO., password is the character after "WPA2-PSK")

Open the browser and type "https://smalogin.net" to enter the SMA host interface, select login(login).Select user user /installer installer,Enter password login.

After entering the Inverter Settings page, select Li-ion battery type





Battery Setting：

Please choose the relevant inverter brands from the master battery display

Setting-->inverter settings-->**SMA**

No setting is required for the slave battery

Inverter setting：

Use a standard network cable to connect the inverter's Com-ETH port to the computer's network port, or use WiFi to connect to the inverter (the relevant WiFi hotspot information is on the side of the inverter. The WiFi hotspot name is SMA+serial NO., and the password is the characters after WPA2-PSK).

Once connected, click the network icon on the computer desktop, and a list of network connections will pop up. Click Network and Internet Settings > Status > Properties; check the IPv4 and record the IP address corresponding to IPv4.

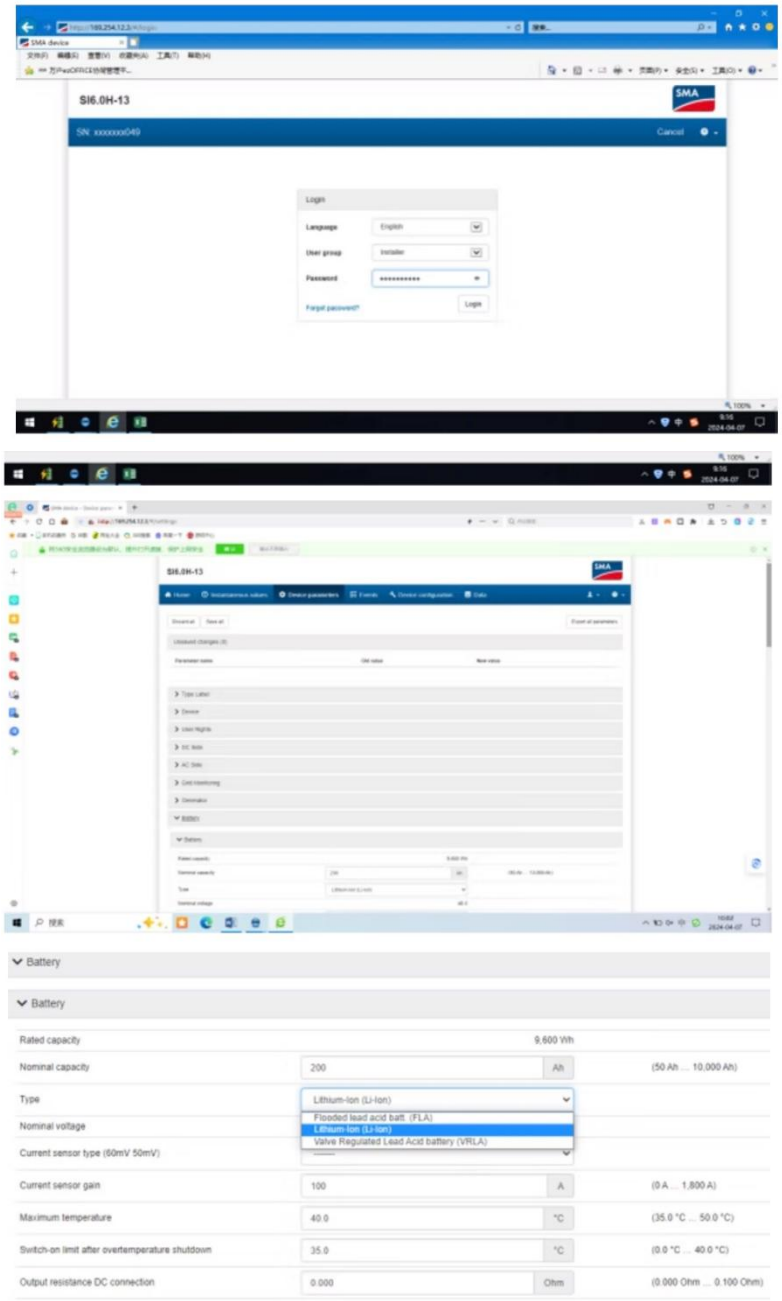


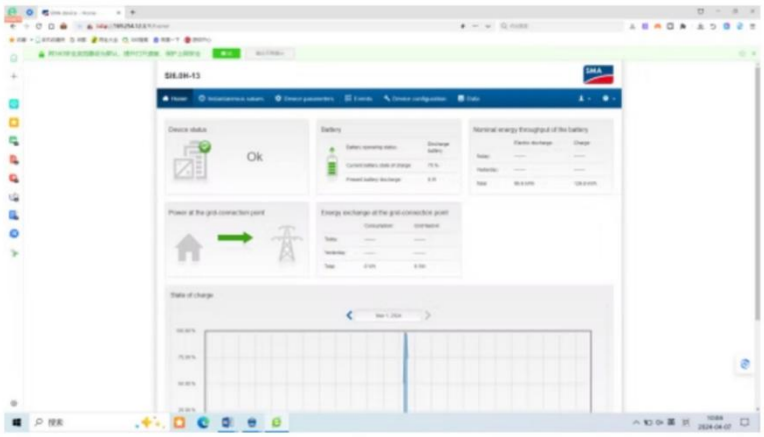
After opening the browser, enter the above IP address to access the SMA upper computer interface and select "login."

Choose "user" or "installer."

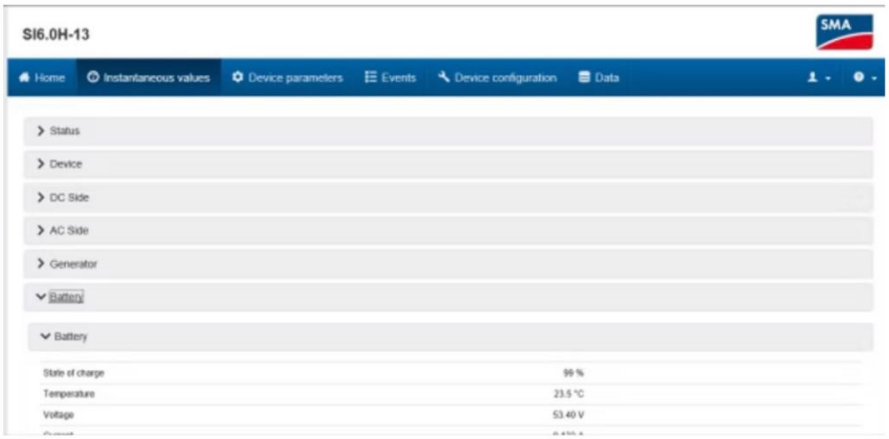
Enter the password to log in.

After entering the inverter settings webpage, select the battery type as "Li-ion."





After the settings are completed, you will be able to see that the inverter has read the battery information (voltage, current, temperature, SOC).



16. SUNON12

Communication cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the

Version I communication cable in the appendix.

Connect the master battery OUT port to the BMS communication port



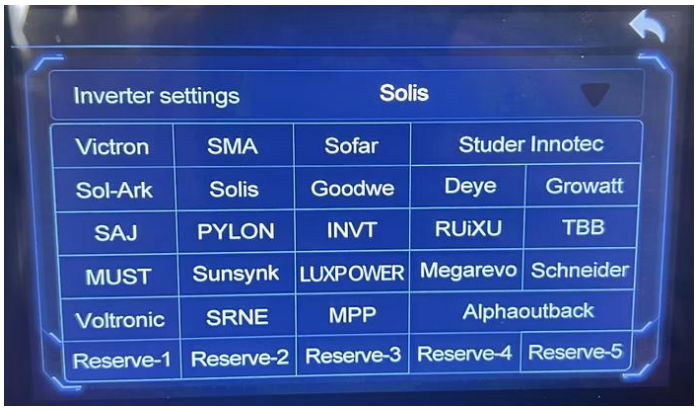
Battery Setting：

Please choose the relevant inverter brands from the master

battery display

Setting-->inverter settings-->**RUIXU**

No setting is required for the slave battery



Inverter setting:

Battery type:LFP16

BMS select:CAN-BMS

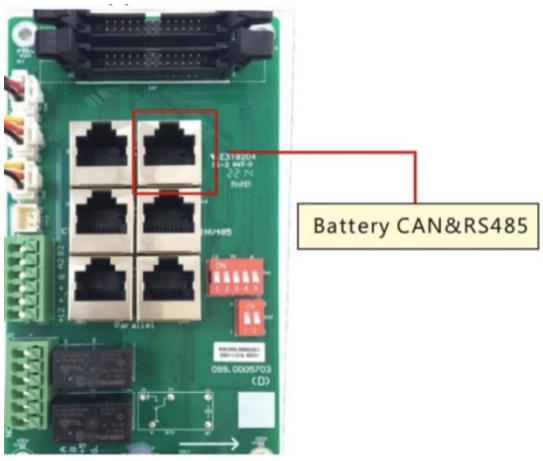
BMS protocol settings:Pylon-CAN

17. Luxpower

Communcation Cable

Use a standard RJ45/ T568B color code/ CAT5e Ethernet Cable (The maximum length is not more than 10 meters), It is the Version I communication cable in the appendix.

Connect the **master** battery OUT port to the BMS communication port on the inverter.



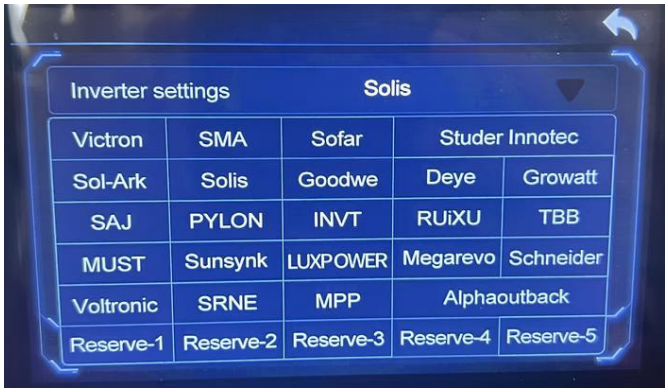


Battery Setting:

Please choose the relevant inverter brands from the **master battery** display

Setting-->inverter settings-->**Luxpower**

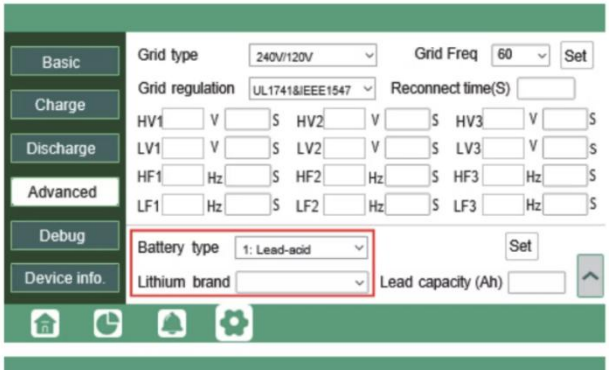
No setting is required for the slave battery



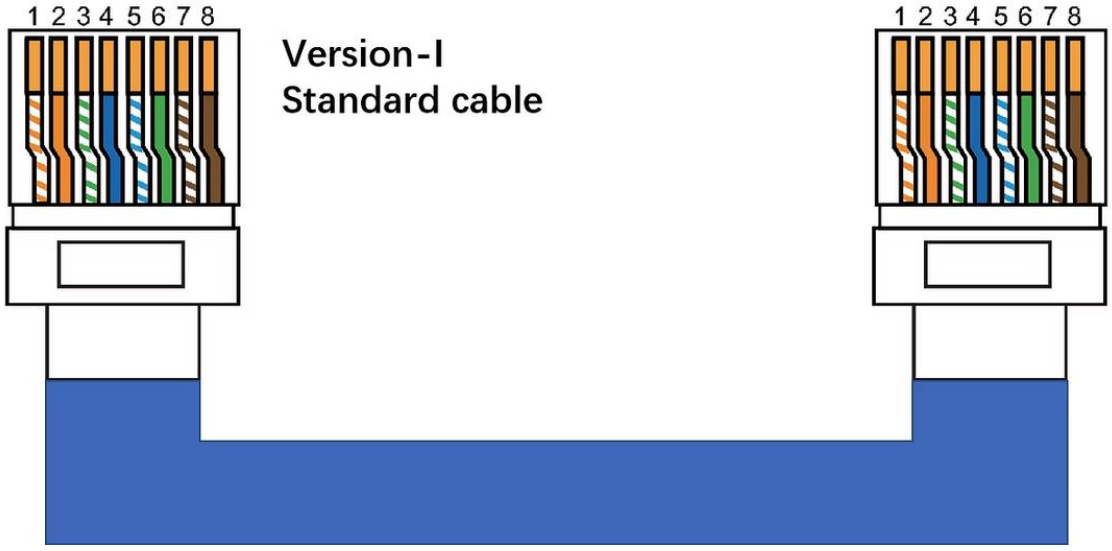
Inverter Setting:

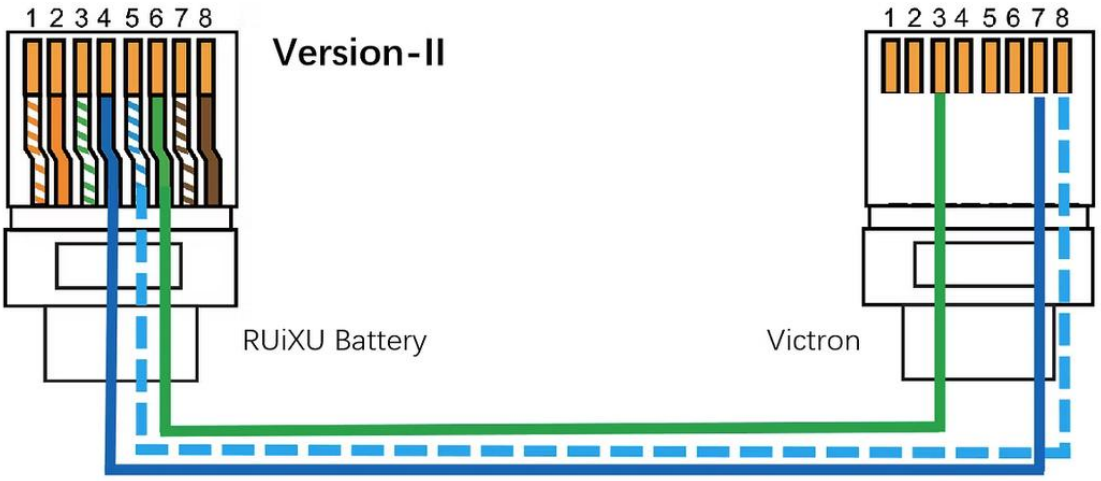
Select“Lithium”under ‘battery type’

Select“6”（luxpower protocol）under ‘Lithium brand’

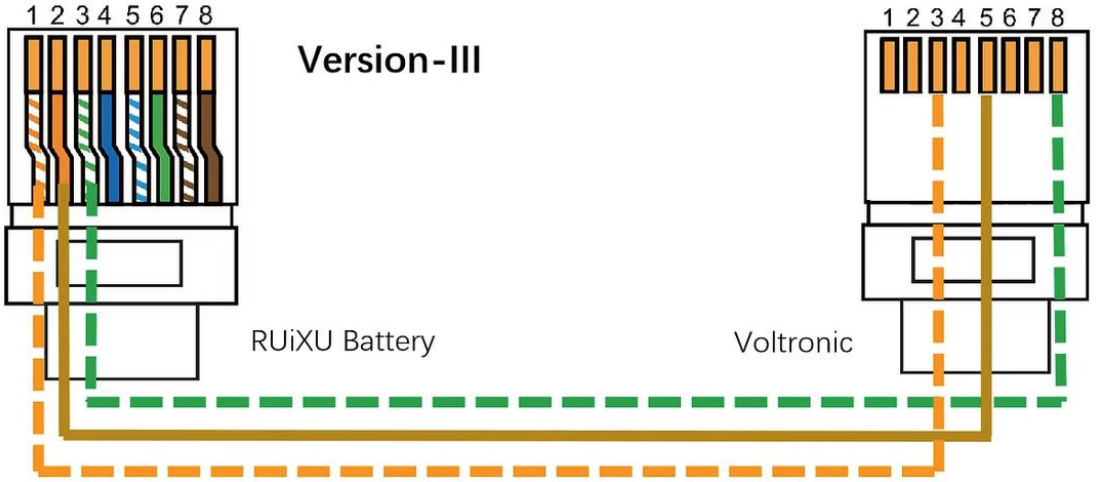


Appendix

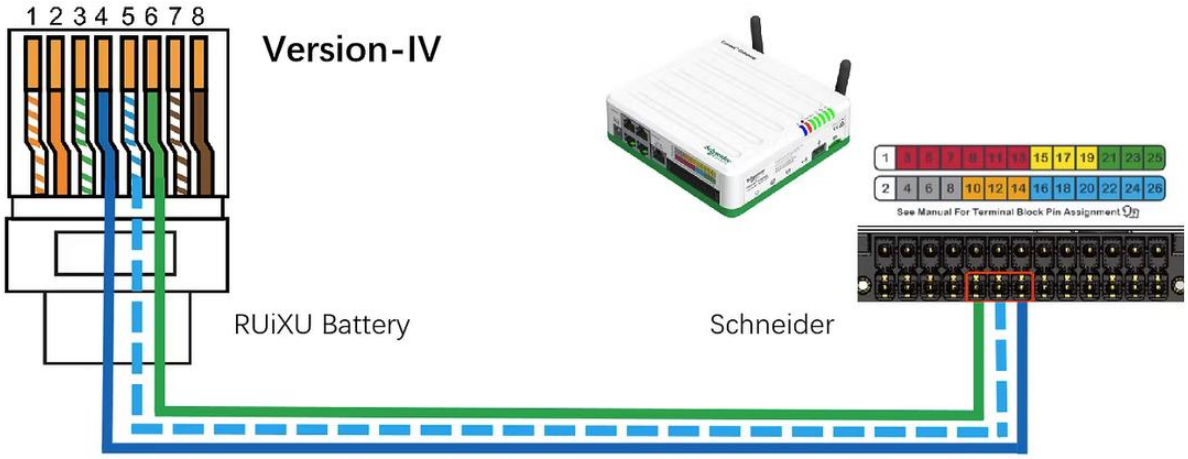




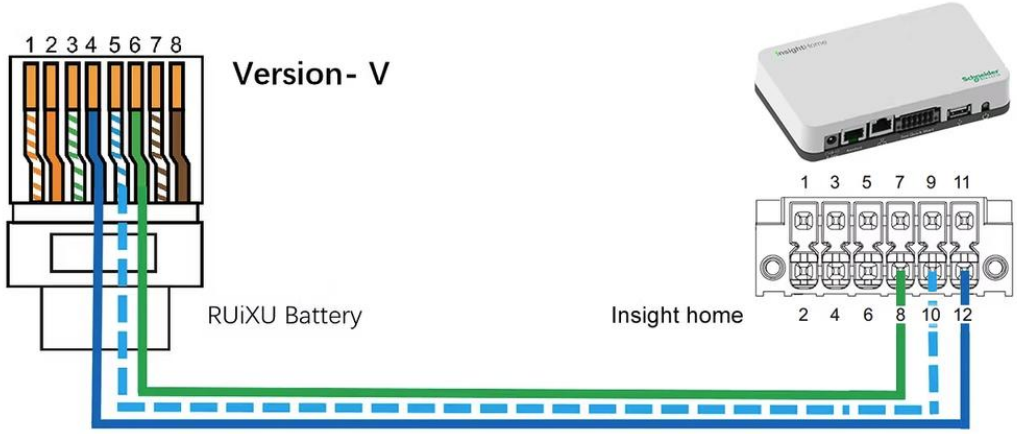
Definition	Battery C-UP/OUT port	Inveter BMS CAN port
CAN H	Pin4	Pin7
CAN L	Pin5	Pin8
GND	Pin6(optional)	Pin3(optional)



Definition	Battery C-UP/OUT port			Inveter BMS port
RS485-B	Pin1	or	Pin8	Pin3
RS485-A	Pin2		Pin7	Pin5
GND	Pin3/Pin6(optional)			Pin8(optional)



Definition	Battery C-UP/OUT port	Inveter BMS port
CAN H	Pin4	Pin14
CAN L	Pin5	Pin12
GND	Pin6 (optional)	Pin10 (optional)



Version V		
Defination	Battery C-UP/OUT port	Inverter BMS port
CAN H	Pin4	Pin12
CAN L	Pin5	Pin10
GND	Pin6(optional)	Pin8(Optional)