

User Manual**Wall-mounted LiFePO4 Battery Series User Manual****51.2V 100Ah/5.12kWh**

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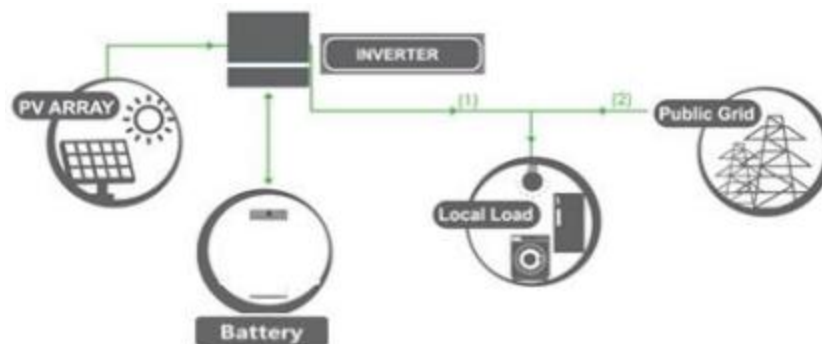
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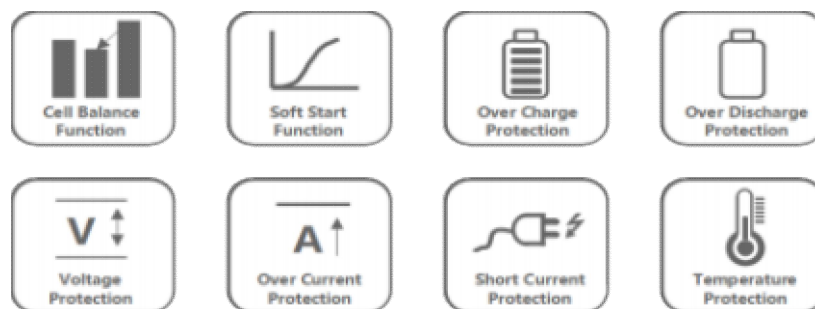
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1.Application

Be specially designed for multiple energy storage application scenarios including household, data center, and commercial building, bank, hospital, school, railway station, airport and telecom, etc.



2.Feature



3.Advantages

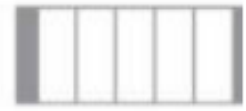
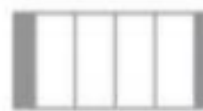
- | | |
|-----------------------|-----------------------|
| ❶ Long Design Life | ❷ Multiple Protection |
| ❸ Modular Design | ❹ Dekra Certification |
| ❺ Scalable & Flexible | ❻ Easy Maintenance |

User Manual**4. MEG-BATT-1 Specification**

No.	Items	Specification
1	Product Name	Ultra Slim LiFePO4 Battery
2	Module Model	MEG-BATT-1
3	Battery Type	LFP 16S
4	Nominal Capacity	5.12kWh
5	Usable Capacity	4.86kWh (95% DOD)
6	Nominal Voltage	51.2V
7	Working Voltage	43.2 ~58.4Vdc
8	Charging Voltage	58.4V
9	Max. Charge Current	100A
10	Max. Discharge Current	150A
11	Communication Port	RS485, CAN, DRY CONTACT, RS232
12	Storage Temperature	-10℃~35℃ (Recommended)
13	Storage Humidity	≤85% (RH)
14	Working Temperature	Charging: 0℃ ~ 50℃ Discharging: -20℃ ~ 60℃
15	Working Humidity	≤95% (RH) No Condensation
16	Working Altitude	≤2000m
17	Ingress Protection	IP55
18	Protective Class	1
19	Weight	49kg
20	Dimension	780*698*68mm
21	Design Life	10 Years (25℃)
22	Cycle Life	>6000 (25℃) , 60% EOL
23	Scalability	Module: Max. 16 in parallel (Capacity 81.92kWh)
24	Certification	CE, IEC62619, UN38.3 (upcoming)

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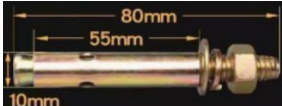


5. Capacity Expansion Solution



Product Name	High Capacity Expandable Battery System			
Product Model	MEG-BATT-1-2P	MEG-BATT-1-3P	MEG-BATT-1-4P	MEG-BATT-1-5P
Normal Capacity (kWh)	10.24	15.36	20.48	25.6
Normal Voltage (V)	51.2	51.2	51.2	51.2
Working Voltage(V)	43.2~58.4Vdc	43.2~58.4Vdc	43.2~58.4Vdc	43.2~58.4Vdc
Charging Voltage(V)	58.4	58.4	58.4	58.4
Max. Charge Current (A)	200	200	200	200
Max. Discharge Current (A)	200	300	300	300
Weight (kg)	49*2	49*3	49*4	49*5
Dimension(MM)	780*698*68(*2)	780*698*68(*3)	780*698*68(*4)	780*698*68(*5)
Design Life	10 years (25℃)	10 years (25℃)	10 years (25℃)	10 years (25℃)
Scalability	Max. 16 in parallel	Max. 16 in parallel	Max. 16 in parallel	Max. 16 in parallel

User Manual**6. Folding Inspection**

Please check the product before installation. Make sure nothing in the packaging is damaged or missing. You should receive the following items in the package:

No.	Picture	Category	Quantities
1		Wall-mounted LiFePO4 Battery	1
2		User's Manual (Please keep it for future reference)	1
3		Mounting Plate	2
4		Expansion Screw	8
5		Parallel power cable of battery (L=1500mm) Connecting two batteries in order to connect two or more batteries in parallel	Optional Accessories
6		Paralle communication line RJ45(L=1500m) Communication cable between batteries, keeping two or more batteries	Optional Accessories

7. Preparation before Inspection

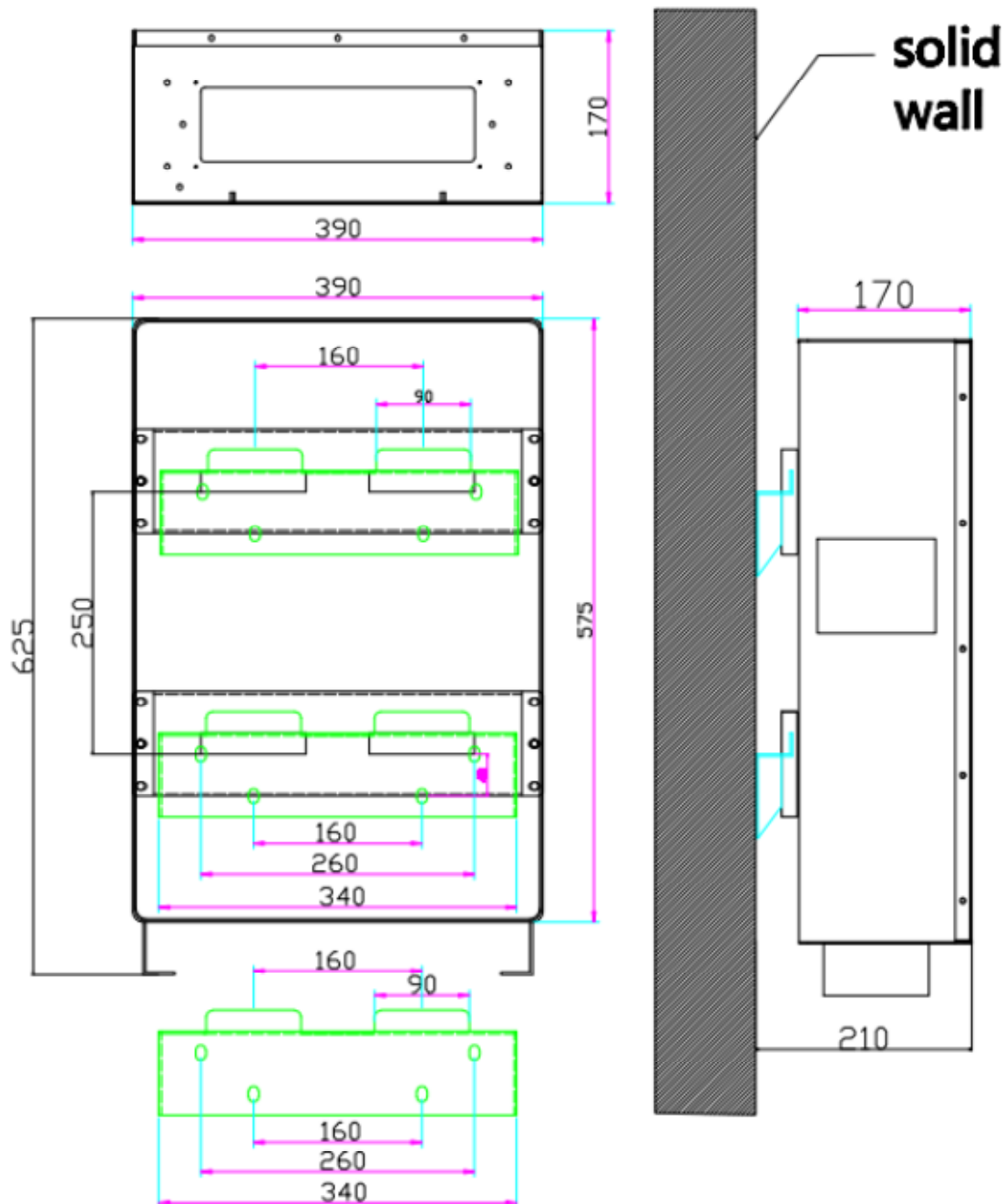
Before choosing an installation location, consider the following:

- 7.1 Do not install this product on surfaces of flammable building materials.
- 7.2 Mounted on the surface of a solid material.
- 7.3 Please install this energy storage battery at eye level for a more intuitive view of the the LCD.
- 7.4 For heat dissipation, ensure that the distance is 20cm from both sides and 50cm from the bottom of the u7nit.
- 7.5 The ambient temperature of the installation location should be between 0~45 degrees Celsius to ensure optimal operation.
- 7.6 The recommended installation position should e vertically attached to the wall and kept at a safe distance from other objects and surfaces to ensure sufficient space for heat dissipation and wire collection.

User Manual**8. Installation Dimension Drawing**

NOTE: The following picture is only a schematic diagram of the equipment. If the actual chassis does not conform to the schematic due to a structural upgrade, it is subject to prior notice.

Only suitable for installation on concrete or other non-combustible solid surface.



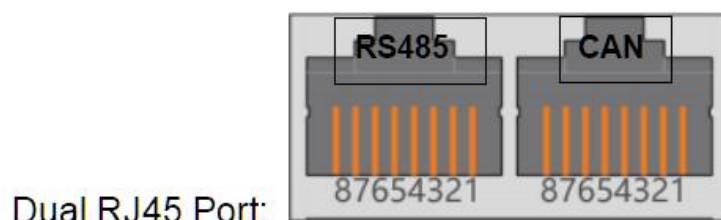
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Appendix

Communication Setting With Multiple Brands' Inverters

1. TIGFOX lithium battery RS485/CAN Communication Cable Order (sequence) Instruction

as below:

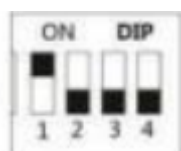


PIN Number	RS485 PORT		PIN Number	CAN Port
Pin1	RS485-B		Pin1	NC
Pin2	RS485-A		Pin2	NC
Pin3	GND		Pin3	GND
Pin4	NC		Pin4	CANH
Pin5	NC		Pin5	CANL
Pin6	GND		Pin6	GND
Pin7	RS485-A		Pin7	NC
Pin8	RS485-B		Pin8	NC

2. Dial-up switch settings when PACK is used in parallel

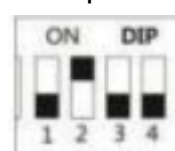
2.1 Different PACK can be distinguished by setting the dialing switch on BMS to avoid setting the same address. The definition of BMS dial switch refers to the following table;

2.2 RS485 performing muti-machine parallel communication operation, it is necessary to configure the DIP address of each PACK first. The dialing code adopts BCD code format, the



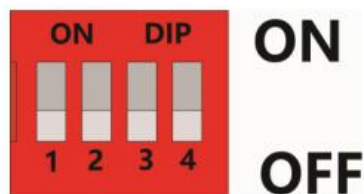
definition of address 1(master) is

,address 2 is



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Dial switch:

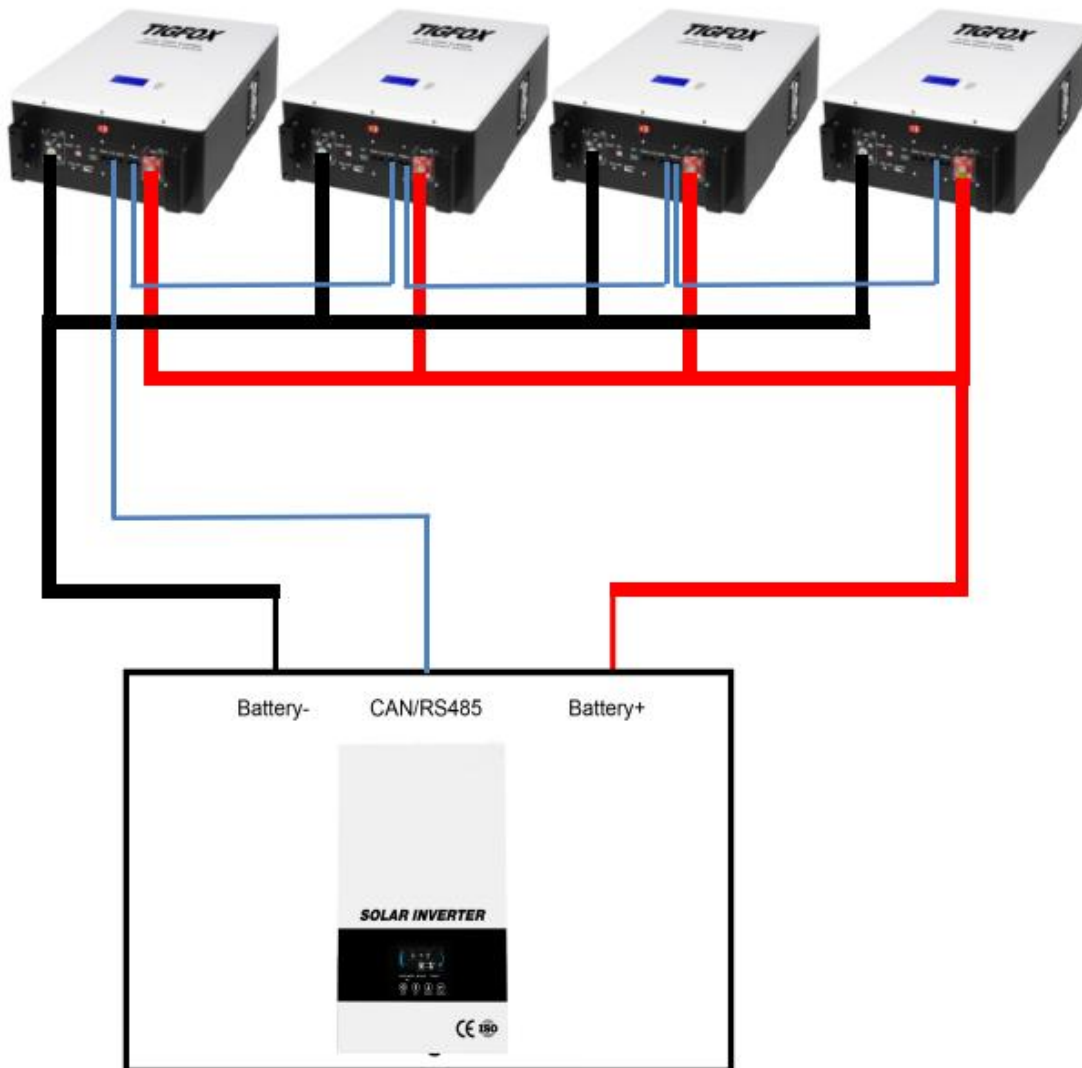


2.3 BCD CODE:

Address	Codes the switch position			
	#1	#2	#3	#4
1 master	ON	OFF	OFF	OFF
2 slave	OFF	ON	OFF	OFF
3 slave	ON	ON	OFF	OFF
4 slave	OFF	OFF	ON	OFF
5 slave	ON	OFF	ON	OFF
6 slave	OFF	ON	ON	OFF
7 slave	ON	ON	ON	OFF
8 slave	OFF	OFF	OFF	ON
9 slave	ON	OFF	OFF	ON
10 slave	OFF	ON	OFF	ON
11 slave	ON	ON	OFF	ON
12 slave	OFF	OFF	ON	ON
13 slave	ON	OFF	ON	ON
14 slave	OFF	ON	ON	ON
15 slave	ON	ON	ON	ON

User Manual**3. Schematic diagram of parallel connection**

3.1 4 batteries, connect the positive power line of each battery with the positive power line, and the negative power line with the negative power line, as follows:



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4. How to set the communication for multiple brands of inverters by host computer

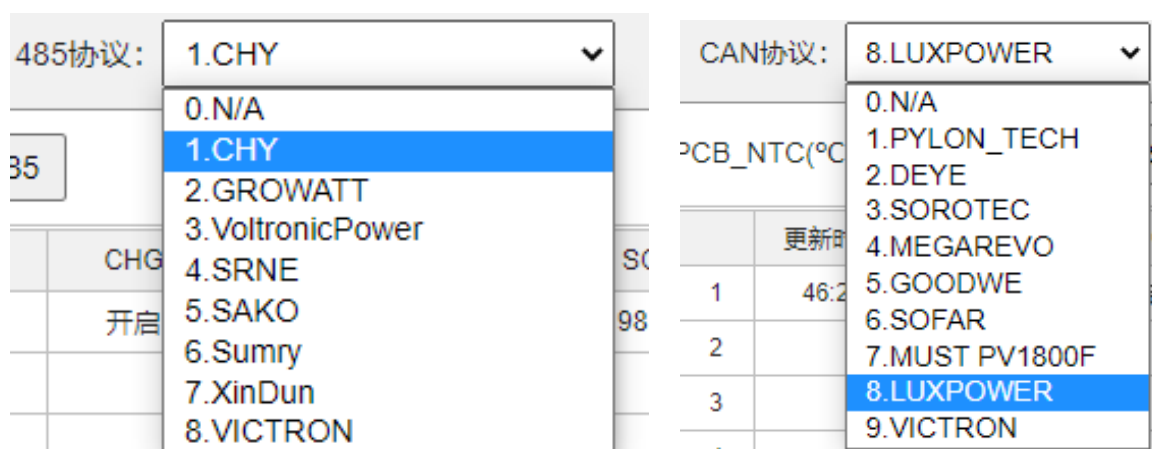
4.1 Factory default setting of inverter communicate, RS485 is Growatt, CAN is DEYE, SUNSYNK,LUXPOWER. If need switch to other protocol, the RS232 crystal head of the communication cable is inserted into the battery communication port, the USB end is inserted into the computer;

4.2 Open the BMS tool:



4.3 Select the corresponding inverter protocol from BMS Tool, click setting(设置),then restart the BMS ON/OFF , the inverter protocol will be set successful;

4.4 RS485 protocol and CAN protocol as below:



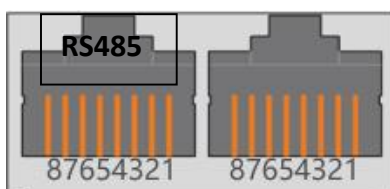
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4.5 Remark of inverter protocol code:

Inverter protocol code remark

RS485 Protocol		CAN Protocol	
Protocol code	Inverter brand	Protocol code	Inverter brand
CHY	ChuangHuiYuan 创汇原	PYLON TECH	PYLON TECH 派能
GROWATT	GROWAT 古瑞瓦特	DEYE	DEYE (SUNSYNK) 德业
VoltronicPower	VoltronicPower 日月元	SOROTEC	SORO Power 索瑞德
SRNE	SRNE 硕日	MEGAREVO	MEGAREVO 迈格瑞能
SAKO	SAKO 三科	GOODWE	GOODWE 固得威
Sumry	Sumry 三瑞	SO FAR	SO FAR 首航
XinDun	XinDun 欣顿	MUST	MUST 美克
		PV1800F	
VICTRON	Victron 维克托	LUXPOWER	Luxpower 鹏程
		VICTRON	Victron 维克托

5. CHY Inverter RS485 Communication Setting



Dual RJ45 Port(RS485 & CAN):

BMS		Inverter	
Pin1	RS485B	Pin1	
Pin2	RS485A	Pin2	
Pin3		Pin3	
Pin4		Pin4	
Pin5		Pin5	RS485A
Pin6		Pin6	RS485B
Pin7		Pin7	
Pin8		Pin8	

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Process of installation:

Step 1. Use the RS485 cable to connect inverter and lithium battery .

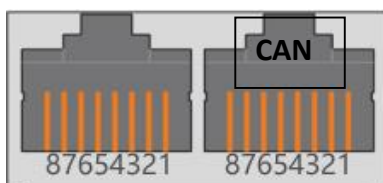
Step 2. Replace the battery BMS protocol to “CHY” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

Step 3. Turn on the switch of battery , power output ready .

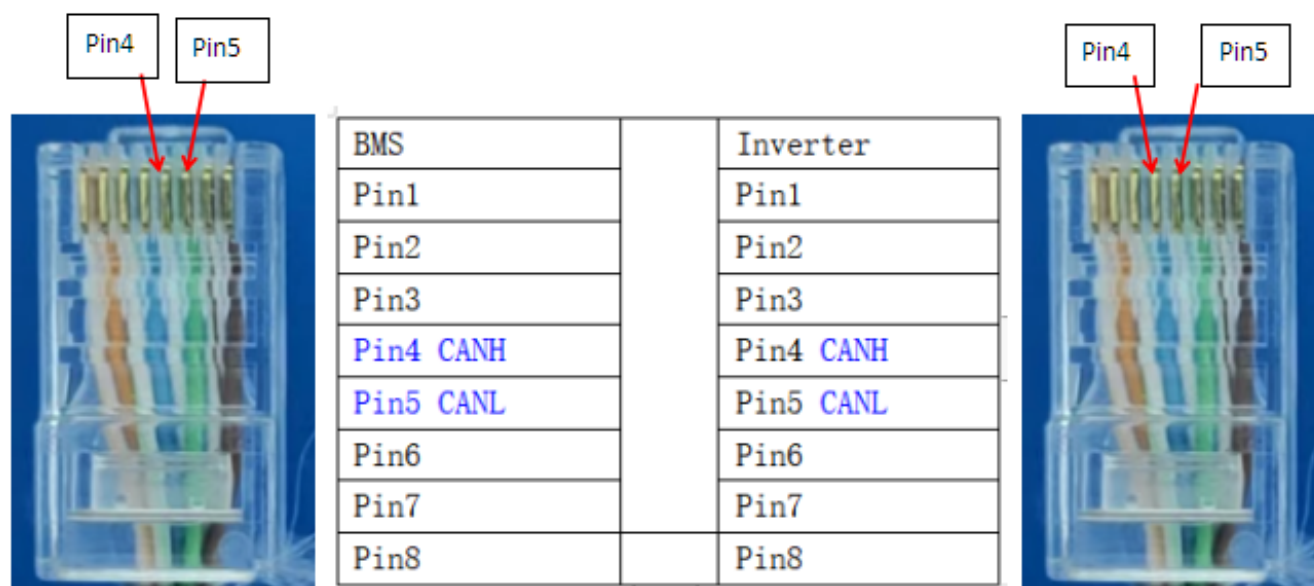
Step 4. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**), and set the program 05 as “LIB” on the LCD, then restart the inverter.

Step 5. Press the ESC button continuously 5 seconds and you can view the BMS communication data.

6. LUXPOWER Inverter CAN Communication Setting (Default protocol)



Dual RJ45 Port(RS485 & CAN):



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Process of installation:

Step 1. Use the CAN cable to connect inverter and lithium battery .

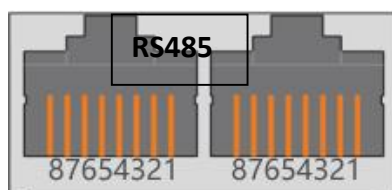
Step 2. Replace the battery BMS protocol to “LUXPOEWR” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

Step 3. Turn on the switch of battery , power output ready .

Step 4. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**)

Step 5. To connect battery BMS, need to set the battery types as “Li-ion” in Program 03. After set“Li-ion”in Program 03, then choose battery brand to “2 Pylon Battery”.

7. Voltronic Inverter RS485 Communication Setting



Dual RJ45 Port(RS485 & CAN):

Pin1	Pin2			Pin3	Pin5
BMS			Inverter		
Pin1 RS485B			Pin1		
Pin2 RS485A			Pin2		
Pin3			Pin3 RS485B		
Pin4			Pin4		
Pin5			Pin5 RS485A		
Pin6			Pin6		
Pin7			Pin7		
Pin8			Pin8		

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Process of installation:

Step 1. Use the RS485 cable to connect inverter and lithium battery .Please choose the RS485 inverter

Step 2. Replace the battery BMS protocol to “VoltronicPower” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

Step 3. Press the button to start lithium battery , power output ready .

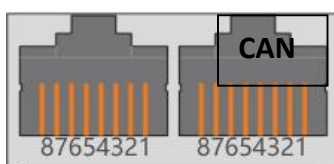
Step 4. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**).

Step 5. To connect battery BMS, need to set the battery type:Llb-protocol. After selected,Maximum charging

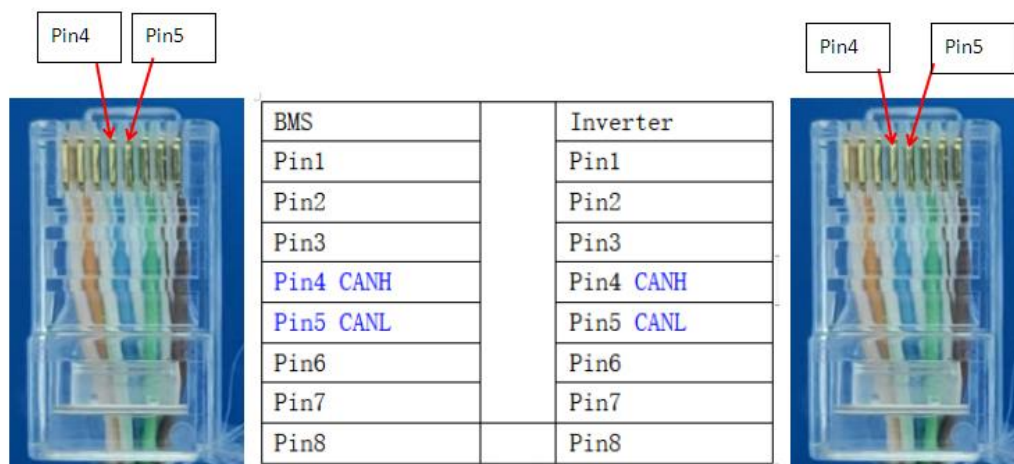
current, Bulk charging voltage (C.V voltage), Floating charging voltage and Low DC cut off voltage setting

will be automatically set up, no need for further setting.

8. DEYE Inverter CAN Communication Setting (Compatible Sunsynk,Default protocol)



Dual RJ45 Port(RS485 & CAN):



User Manual**Process of installation:**

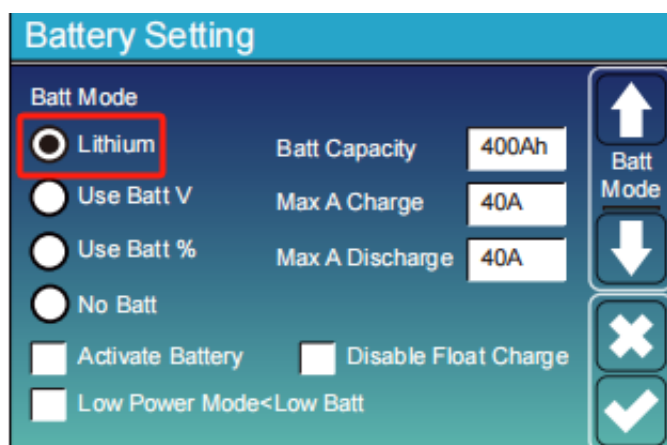
Step 1. Use the CAN cable to connect inverter and lithium battery .

Step 2. Press the button to start lithium battery , power output ready . Replace the battery BMS protocol to “DEYE” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

Step 3. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**).

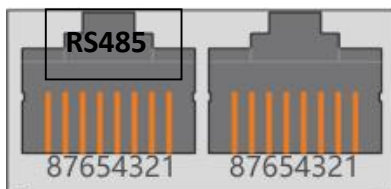
Step 4. Be sure to select inverter work model type as “Lithium Model: 00” on the inverter screen. As below picture.

If communication between the inverter and battery is successful, the inverter screen will show the battery system real-time status.

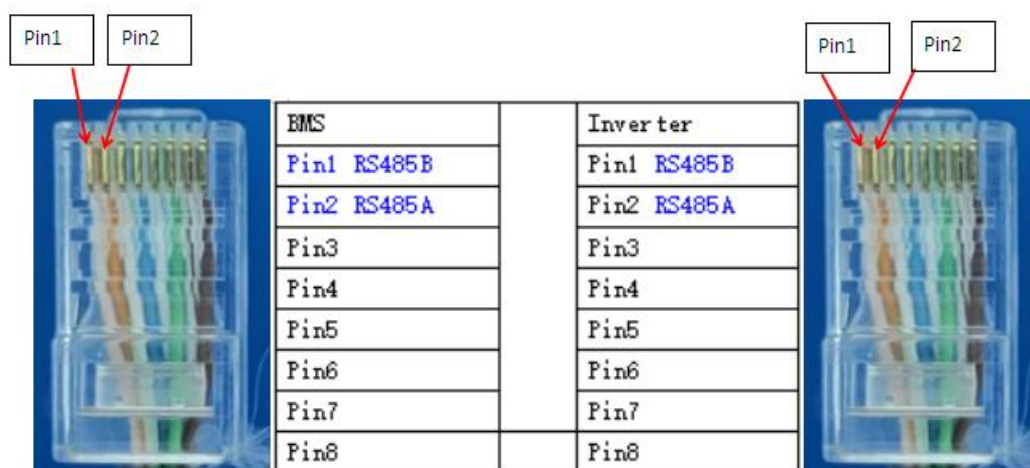
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9. Growatt Inverter RS485 Communication Setting (Default protocol)



Dual RJ45 Port(RS485 & CAN):



Process of installation:

Step 1. Use the RS485 cable to connect inverter and lithium battery .

Step 2. Replace the battery BMS protocol to “GROWATT” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

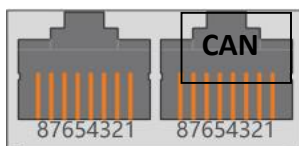
Step 3. Turn on the switch of battery , power output ready .

Step 4. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**);

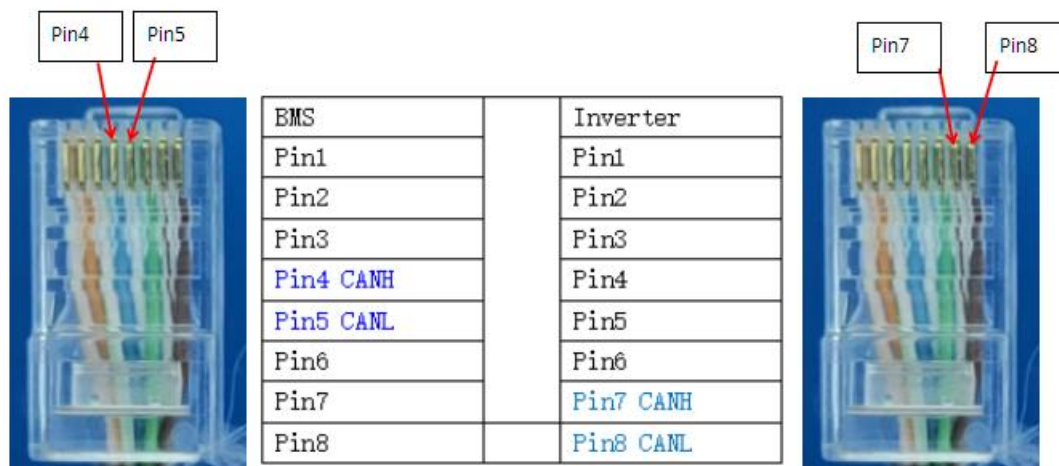
Step 5. Set the program 05 as “LI” on the LCD. After set “LI” in Program 05, it will switch to Program 36 to choose communication protocol, choose RS485 communication protocol L01~L50.

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10. VICTRON Inverter CAN Communication Setting



Dual RJ45 Port(RS485 & CAN):



Process of installation:

Step 1. Use the CAN cable to connect inverter and lithium battery .

Step 2. Press the button to start lithium battery , power output ready . Replace the battery BMS protocol to “VICTRON” by BMS tool and host computer.(Please refer to **page 4,point 4.2**)

Step 3. Turn on the inverter (**Warning: Turn on the battery first and then the inverter**).

Step 4. The inverter setting refer to the user manual of Victron, this setting is available in the Settings -> DVCC menu on the GX device.