



USER'S MANUAL

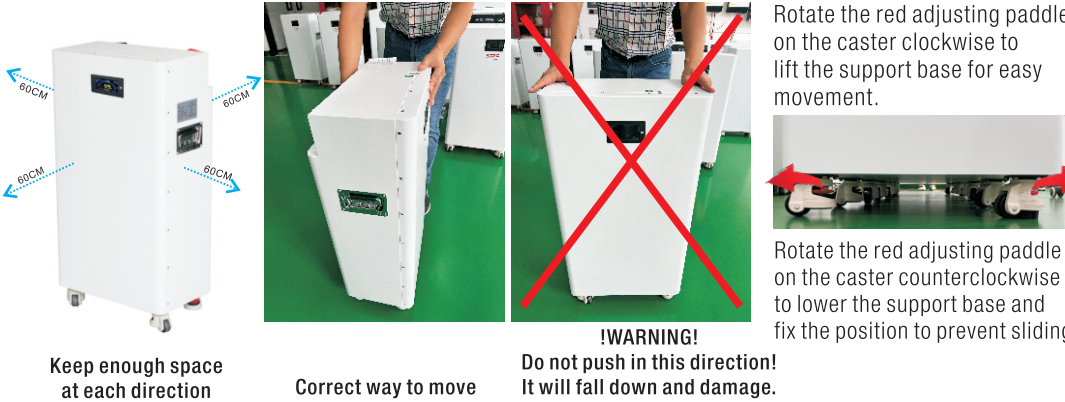
Energy Storage LiFePO4 Battery Pack

1 Declaration!

1.1 The Manual covers the detailed descriptions of lithium iron phosphate battery pack; please read the instructions carefully before operation and comply with relevant industrial safety regulations. We accept no responsibility for damages arising from improper operation or any operation in violation of provisions as stipulated herein.
1.2 The document is subject to change by virtue of product version update or other reasons without prior notice. Unless otherwise agreed herein, the document is only used as the guideline, and no presentations or suggestions may constitute any express warranty.

2 Safety Instruction

2.1 Please read the safety instructions before operating the equipment. The safety precautionary measures as mentioned herein are only used as the supplement to all safety precautions, without representing all safety precautions to be complied with. Please comply with local safety rules and regulations when installing, operating and maintaining the equipment.
2.2 Only trained professionals are allowed to install, operate and maintain the equipment, and we are no responsible for losses arising from violating the general safety operation requirement or violating the safety standard for equipment design, production and use. Installation and maintenance personnel must have the technical ability of operation in high voltage and AC power supply.
2.3 Do not wear any conductive object such as watch, chain bracelet, bracelet and ring when installing, operating and maintaining the equipment, and keep the equipment away from moisture.



WARNING: DO NOT USE THE BATTERY IF IT HAS FALLEN DOWN ON THE GROUND. IT MAY CAUSE SHORT CIRCUIT AND FIRE IN WORSE CASE.

Warning Sign	Warning	Instructions
	Danger	If the relevant requirements are not followed, it may cause serious loss of life and property
	Caution	If the relevant requirements are not followed, the equipment may suffer physical damage or destruction
	Risk of electric shock	Please do not attempt to open the lithium battery
	Fire risk	Please use the lithium battery in a separate and isolated space. Do not short-circuit the positive and negative terminals

3 Prepare for installation

Before installation, Check the battery package and its appearance, Do not use the battery if there was a damage in the package or if there is a sign of damage on the battery cabinet.

3.1 Ensure that the LCD display on the front panel of the battery is in the OFF state.



3.2 Ensure that the Battery circuit breaker is at the back of the battery is in the OFF position.



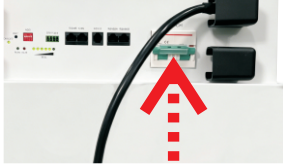
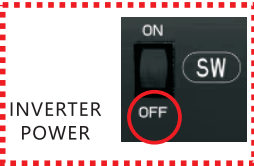
4 Wiring the battery to the inverter

4.1 Use the enclosed red battery wire to connect the positive terminal of the battery(+) at one end and to the inverter (BAT+) at the other end.
4.2 Use the enclosed Black battery wire to connect the negative terminal of the battery(-) at one end and to the inverter (BAT-) at the other end.
4.3 Use a screwdriver to completely tighten all the screws of the battery terminals and all the screws connected to the inverter.
4.4 Use enclosed plastic terminal caps to cover all the terminals.



5 Start up the battery and operation

5.1 Before turning on the battery, please ensure that all switches on the inverter are in the OFF position. Double check that battery + and - are correctly connected to inverter BAT+ and BAT -, reverse connection will damage both inverter and battery.
5.2 Press the white switch on the right side of the front panel LCD display to turn on the BMS. At this time, the screen will light up and show the remaining battery power.
5.3 Pull the circuit breaker at the back of the battery upwards to turn ON the battery and energize the connection.



5.4 Wait for 1 to 2 minutes to ensure that all protection codes on the battery LCD have disappeared before turning on the inverter.



There is a protection code. At this time, the inverter cannot be turned on.

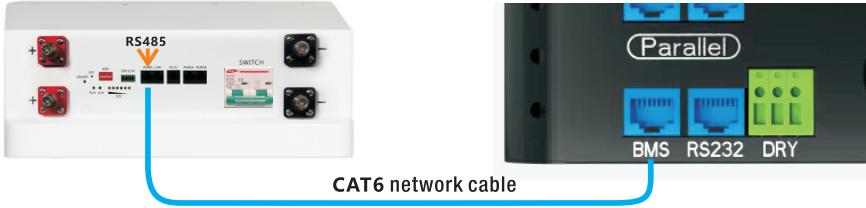


The inverter can only be turned on after the protection code disappear.

6 Turn on the inverter and put on the load.

6.1 After all the self-check protection codes displayed on the LCD have disappeared, you can turn ON the inverter switch to power it.
6.2 This battery is equipped with a 200A BMS. Please note that when operating with a single battery, the inverter load should not continuously exceed a total power of 8 kW.

7 Communication with Inverter



7.1 Use a CAT 6 network cable to connect the RS485 or CAN port on the back of the battery to the BMS communication port of the inverter. By default, Both CAN and Rs485 port are set with "PYLON LOW VOLTAGE PROTOCOL". If your inverter has another communication protocol other than PYLON, ask your inverter supplier about the protocol and follow 7.2 to set the correct one.

7.2 Set the communication p rotocol on Jikong BMS APP.
7.2.1 Scan the following QR code to download the "Jikong BMS" APP in your appstore.(Better with Iphone)
7.2.2 Turn on your phone's Bluetooth (allow new connections)
7.2.3 Enter the APP & Connect the battery
7.2.4 Enter the registration password if it is required : 1234
7.2.5 Go to "Settings-> Authorization Settings -> Password 12345678-> advance Setting-> UART 1 Protocol No. or CAN Protocol No.
7.2.6 Select the protocol that matches the inverter from the UART1 protocol No. or from CAN protocol NO.
7.2.7 Save the protocol by press OK next to the selected protocol no. then exit the APP.

Only when the communication between the BMS and the inverter is successfully established, the inverter can read the SOC information from the battery pack. otherwise it can only read the battery voltage and innacurate SOC (state of charge)



8 Release BMS from Protection

If the BMS entered into protection mode for any reason, the ALM LED on the back of the battery light on in RED.
1. Press and hold the BMS switch on the LCD screen for 5 seconds to turn OFF the BMS. and then press it again to turn it ON. the protection will be released and the red ALM LED goes OFF.
2. Eneter Jikong BMS APP, go to CONTROL-> Verify PWD.->Enter password 12345678 -> Turn On Charge ,Discharge, Balance. Leave all other settings unchanged.



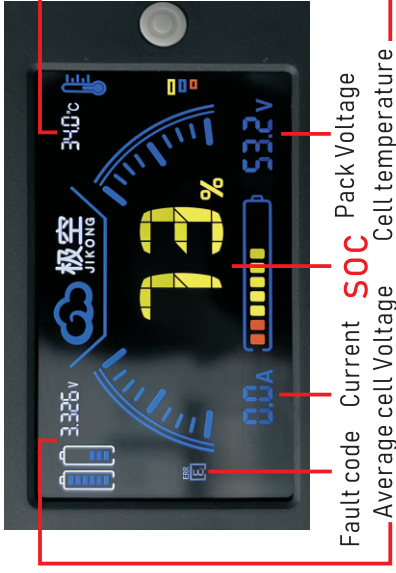
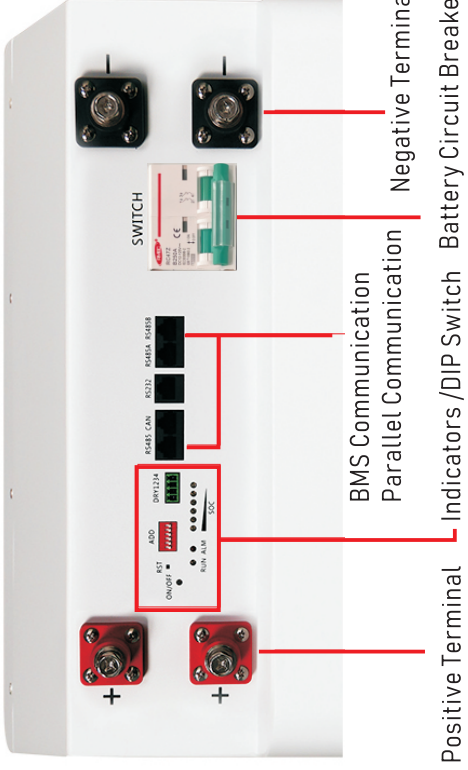
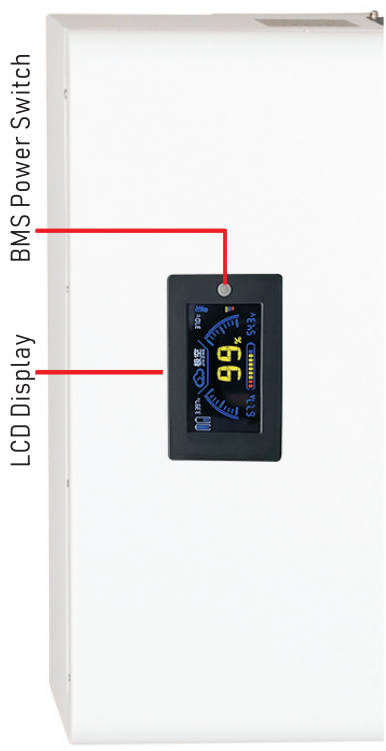
If the SOC is always incorrect, go to:

Settings-> Basic Settings-> Battery Capacity-> Input 314-> Press OK-> Press OK on the popup warn window->

Totally Discharge the battery to 0%->

Recharge the battery to 100%.

PRODUCT PRESENTATION



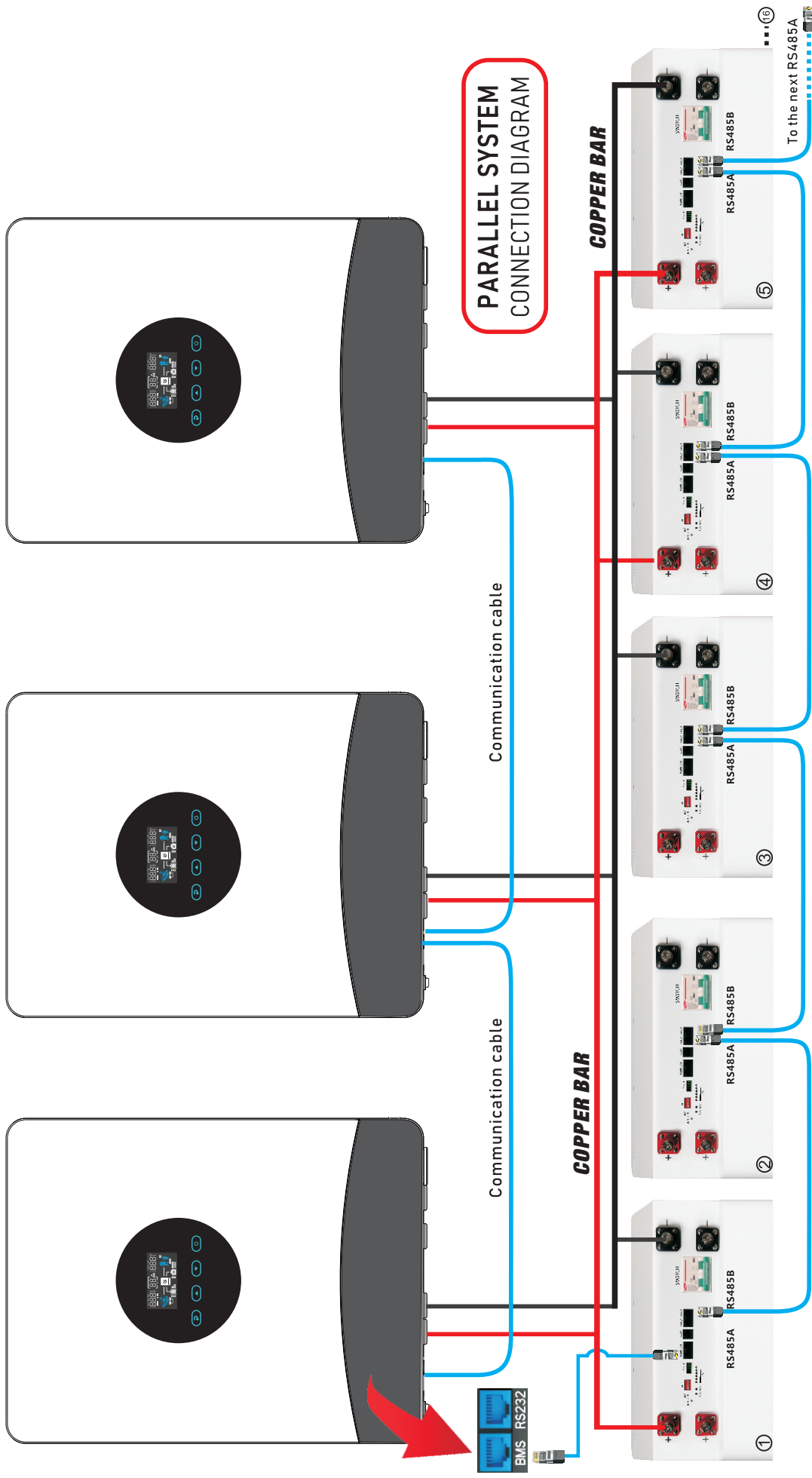
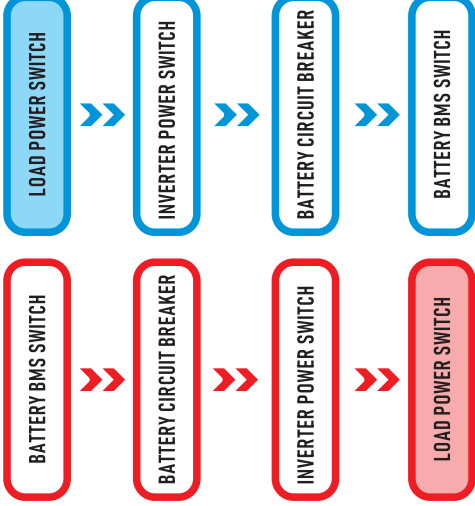
IMPORTANT NOTICE

1. Charge the battery full at the 1st time of use.
2. When you connect the battery into a solar system, strictly follow the power-on and power-off sequence shown in the right figure.

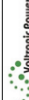
FAULT CODE LIST

Fault Code	Alarm Content	Fault Code	Alarm Content
1	Cell Over-discharge	6	Short Circuit
2	Cell Over-charge	7	Internal communication abnormal
3	Over-current	8	Equalization Line resistance too high
4	MOS Over-temperature	9	String drop-out (String Loss)
5	Battery Over-temperature		

POWER OFF



1. A maximum of 16 battery packs can be connected in parallel if parallel connection is required.
2. For parallel use of multiple batteries, connect the positive and negative terminals of batteries in accordance with the figure above.
3. Use CAT6 network cables to connect the RS485-B port of the first battery to the RS485-A port of the second battery, and complete the network cable communication connection of all batteries in this sequence.
4. Set the ADD address dial codes of all batteries sequentially from left to right according to the table below.
5. To communicate with the inverter and obtain battery SOC data, connect the BMS network port on the inverter to the RS485/CAN network port of the **1st** battery via CAT6 network cable, then select the corresponding communication protocol via the JiKong BMS APP. (**PYLON PROTOCOL is set by default**)
- 5.1 If the inverter adopts RS485 communication protocol, select the matching protocol in the UART1 PROTOCOL list then press OK.
- 5.2 If the inverter adopts CAN communication protocol, select the matching protocol in the CAN PROTOCOL LIST and press OK

Inverter Brand		Protocol	Port
德业		低压储能CAN通信协议 V1.0	CANBUS-500K
Deye		Low-voltage hybrid inverter CAN communication protocol V1.0	
KTAC		派能 CAN 总线协议 V1.2	CANBUS-500K
PAYLONTECH		PYLON CANBUS Protocol V1.2	
SOLIS		派能低压 RS485 通信协议 V3.5	RS485-9600-115200
		PYLON low voltage RS485 Protocol V3.5	
古瑞瓦特		古瑞瓦特低压 CAN 总线协议 V1.08	CANBUS-500K
Growatt		Growatt BMS CAN-Bus-protocol -low-voltage V1.08	
		储能机与电池PACK之间RS485通讯协议 V2.01	RS485-9600
		Growatt xxSxxP ESS Protocol V2.01	
维克多		维克多 CAN 总线协议 201707	CANBUS-500K
Victron		CAB-BUS BMS Protocol 201707	
英威腾		英威腾户用储能逆变器低压 BMS 通信协议 (V00)	CANBUS-500K
Invnt		INTV BMS CAN Bus protocol V00	
固德威		固德威低压 CAN 总线协议 V1.7 (ES/EM/S-BP/BP 系列)	CANBUS-500K
GoodWe		GoodWe L V BMS Protocol (CAN) V1.7 (For ES/EM/S-BP/BP Series)	
SMA		SMA 电池与逆变器通信协议 V1.0	CANBUS-500K
日月元		FSS-ConnectingBat-TI-en-10 Version 1.0	
Voltronic		日月元逆变器与 BMS RS485 通信协议 20200325	RS485-9600
		Voltronic Power Inverter and BMS 485 communication protocol 20200325	
靖日		靖日 Modbus 通信协议	RS485-9600
SRNE		PAGE BMS Modbus Protocol for RS485 V1.3	
美世乐		美世乐 PV1800F- 系列 CAN 通信协议 1.04.04	CANBUS-100K
MUST		MUST PV1800F-CAN communication Protocol 1.04.04	
迈格瑞能		迈格瑞能混合逆变器 CAN 通信协议	CANBUS-500K
MEGAREVO		MEGAREVO Hybrid_BMSCAN_Protocol	
鹏城		鹏城 CAN 通信协议 V01	CANBUS-500K
Luxpowertek		Luxpowertek Battery CAN Protocol V01	

LEFT ▼

SUPPORT LIST OF VARIOUS INVERTER BRANDS

RIGHT  **DIP SWITCH SETTING**

ADD



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