Wall Mounted Battery

Pack Installation & Operation Manual

BR-OW-LV 11KWH
BR-OW-LV 14KWH
BR-OW-LV 15KWH
BR-OW-LV 16KWH

BASENGREEN

1. Preface

This manual will provide detailed product information and installation instructions for users of the wall-mounted series products. Please read this manual carefully, and put this manual in a place where you can install, operate, and obtain it conveniently.

The safety precautions mentioned in this manual do not cover all possible safety issues, but serve as supplementary guidelines. When installing, operating, or maintaining the equipment, do not wear any conductive objects such as watches, bracelets, or rings, and prevent moisture from entering the equipment. The manufacturer will not be responsible for any losses caused by violations of general safety operation requirements or safety standards related to the design, production, and use of the equipment. Installation and maintenance personnel must have high-voltage and AC power operation skills. When installing, operating, and maintaining equipment, do not wear any conductive objects, such as watches, bracelets, or rings, and prevent moisture from entering the equipment.

Safety Instructions

High Voltage Danger

The high-voltage power supply provides power for the operation of the equipment. Direct or indirect contact with a high-voltage power supply, especially through wet objects, can be fatal.

Use Professional Tools

Always use professional tools instead of personal tools when working with high voltage and AC power

Anti-static

The static electricity generated by the human body will damage the electrostatic sensitive components on the board. Before touching the plug-in, circuit board or chip, make sure to take proper anti-static measures.

Operate Attention

The power must be cut off first before operation, Do not perform live-line operations.

DC Short Circuit Danger

The power system provides a regulated DC power supply. A DC short circuit can damage the equipment and cause personal injury.

2. Product Description

This product is a lithium iron phosphate (LiFePO4) battery composed of 8 or 16 cells in series, suitable for home energy storage systems. It can be customized according to customer needs to meet various application scenarios and provide stable power for different user equipment.

3. Product Advantages

a. Built-in Battery Management System (BMS): Overcharge, over-discharge, overcurrent, temperature control, short circuit and other protection functions.

b. Passive Balance Function: It features a voltage equalization function during charging.

c. High Cost Performance: High safety performance, long service life, stable and reliable quality.

d. Equipped with RS232/RS485/CAN bus ports, supporting up to 15 units in parallel.

e. Wide Working Temperature: -20℃ to 60℃, excellent high temperature discharge performance.

f. Convenient: Modular design, compact size, lightweight, and easy to install and maintain.

4. Product Technical Parameters

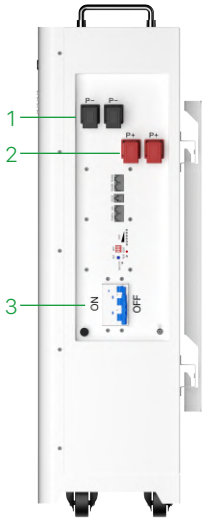
4.1 Specification

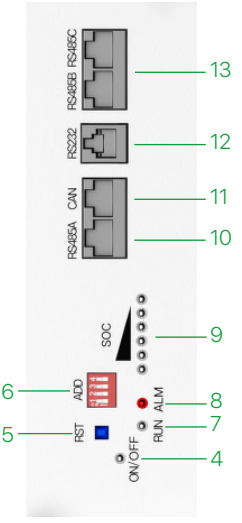
Item	Specifications			
Model	BR-OW-LV 11KWH	BR-OW-LV 14KWH	BR-OW-LV 15KWH	BR-OW-LV 16KWH
Nominal Voltage	51.2V	51.2V	51.2V	51.2V
Operating Voltage	43.2V-57.6V	43.2V-57.6V	43.2V-57.6V	43.2V-57.6V
Nominal Capacity	230AH	280AH	300AH	314AH
Total Energy	11776Wh	14336Wh	15360Wh	16076Wh
Configuration	1P16S	1P16S	1P16S	1P16S
Charging Cut-off Voltage	58.4V	58.4V	58.4V	58.4V
Discharge Cut-off Voltage	43.2V	43.2V	43.2V	43.2V
Operation Temperature	-20℃～60℃	-20℃～60℃	-20℃～60℃	-20℃～60℃
Standard Charging Current	50A	50A	50A	50A
Max Continuous Charging Current	200A	200A	200A	200A
Max Continuous Discharge Current	200A	200A	200A	200A
Dimension	500*232*670mm	500*255*770mm	500*255*770mm	500*255*770mm
Net weight	98KG	112KG	112KG	112KG

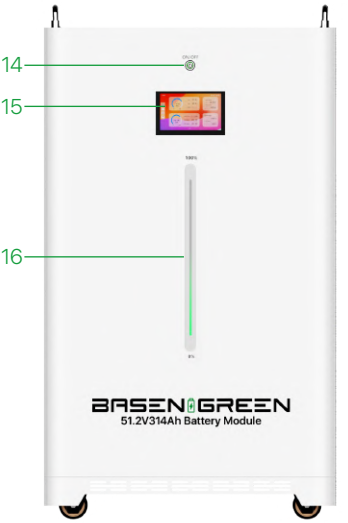
4.2 Interface Overview

P.S.: There will be some differences in the appearance of the battery due to the version.
Please ask the supplier for the exact details

Take BR-OW-LV16KWH as example







Position	Item	Description
1	P-	The negative terminal of the battery, can be connected to the negative pole of the inverter through a cable for DC output.
2	P+	The positive terminal of the battery, can be connected to the positive pole of the inverter through a cable for DC output.
3	Circuit breaker	Protect the battery against overloads and short circuits
4	Power Indicator	Turn on then light-on, turn off then light-off
5	RST	Manual-return switch button
6	ADD	Setting up battery parallel communication and inverter communication
7	RUN	Indicating the normal operation status of the battery
8	Alarm	Indicating the abnormal state of the battery
9	SOC	6 indicators, indicating the remaining power status.
10	RS485 A	RS485 port for the inverter or the PC Monitoring Software communication
11	CAN	CAN port for the inverter communication
12	RS232	Communication port for the PC Monitoring Software.
13	RS485 B/C	RS485 port for parallel communication
14	Power switch	The switch for turn on/turn off the battery pack.
15	Touch Colorful Screen	Display battery voltage, SOC, temperature, etc.
16	LED Strip	Display the Battery SOC

4.3 Battery Management System（BMS）

4.3.1 Overcharge Protection

When the voltage of any single cell or whole battery pack is higher than the set value during the charging, and the duration reaches the limited time, the system enters the overcharging protection state automatically, the charging MOS is turned off at the same time, and the battery cannot be charged. After the voltage of each cell and the whole battery pack drops below the cell overcharging recovery value, the overcharging protection state is released. It can also be released by discharging to return to normal state.

4.3.2 Over-discharge Protection

When the voltage of any single cell or whole battery pack is lower than the set value during discharging, and the duration reaches the limited time, the system enters the over-discharge protection state, the discharge MOS is turned off, and the battery cannot be discharged. After the over-discharge protection of the battery pack occurs, it can be released by charging the battery pack.

4.3.3 Overcurrent Protection

During charging and discharging, when the current exceeds the set value of the protection current, and the duration reaches the limited time, the system enters the overcurrent protection state, the charging and discharging MOS will be turned off automatically, and the battery cannot be charged and discharged, charging and discharging the battery pack can release the overcurrent protection state.

4.3.4 Over Temperature Protection

When the NTC detects the temperature of the battery cell surface is higher than the setting value of over temperature protection during charging and discharging, the management system enters the over temperature protection state, the charging or discharging MOS is turned off, and the battery pack cannot be charged or discharged in this state.

4.3.5 Low Temperature Protection

When the NTC detects that the temperature of the cell surface is lower than the setting value of low temperature protection during charging and discharging, the management system enters the low temperature protection state, the charging or discharging MOS is turned off, and the battery pack cannot be charged or discharged in this state.

5. Installation and configuration

5.1 Packing

a. After receiving the battery, open the box to check the battery surface if found damaged, cracks or other bad phenomenon; if found damaged, please do not install, and need to contact the supplier, and wait for the supplier's reply before proceeding to the next step.

b. Please ensure that the following items are included in the packaging:

Battery*1


Mounting Bracket*1


Expansion bolts*10


Positive and negative cable 100cm 35mm2


M8*12mm combination screws*4


Inverter communication cable*1


Parallel communication cable*1


PC Monitoring Software communication cable*1

5.2 Recommended Tools

Before installing the battery pack, the user needs to have the tools as following list:

Picture	Item	Description
	Level	Make sure the bracket is properly installed
	Hammer Drill	Drill holes on the wall
	Impact Wrench Set	Locking expansion bolts
	Electric Screwdriver	Wiring

	Hammer	Hanging the bracket
	Crimping Tool	Crimping tool for RJ45 terminal
	Crimping Plier	Crimping tool for insulated electric connectors
	Adjustable wrench	Loosening/tightening screws

5.3 Notice for Installation

a. The installation wall should be a solid brick or concrete wall with sufficient load–bearing capacity, and the wall thickness should be at least 100mm.

b. For indoor installation, ensure there is enough space for easy installation and operation, and pay attention to ventilation. Do not place flammable materials near the battery.

c. For outdoor installation, provide adequate protective measures and ensure rain protection.

5.4 Installation Procedure

a. Mark the drilling position using the wall mounting plate, and level using a spirit level.

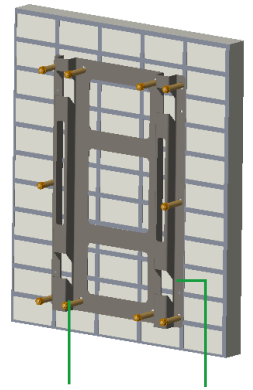
b. Place the wall mounting plate close to the wall firmly, mark the drilling position, and remove the wall mounting plate.

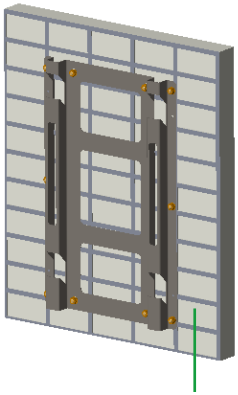
c. Drill holes in the wall using the drill. The hole diameter is 12mm and the depth is 60mm.

d. Fix the M8 Expansion bolts, tightening torque: 20N.m

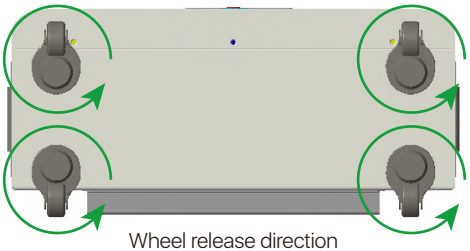
e. Loosen the 4 wheels on the battery, lift the battery parallel to the ground, and hang the battery module on the bracket as shown in the following figure:

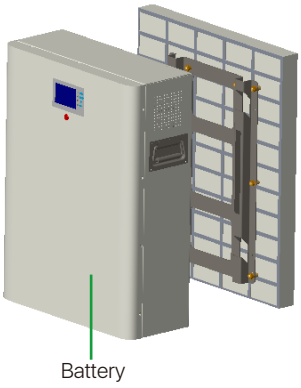
Installation Diagram

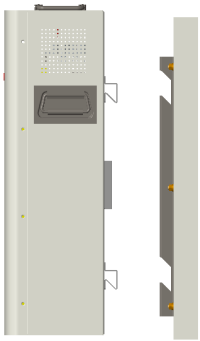




Notice: some of the models are equipped with fixed-direction wheels only.
It can be removed by using a Phillips screwdriver







6. Connection

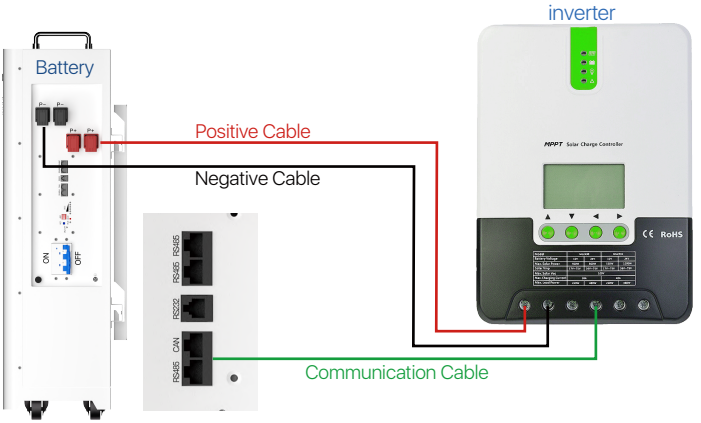
6.1 Precautions Before Connecting The Inverter

a. Use a multi-meter to measure whether connection of the positive and negative cables are conducting, and check whether the connections are loose.

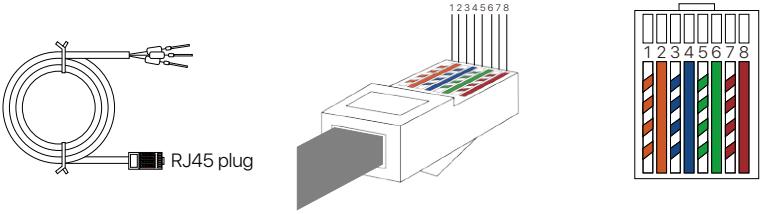
b. The battery should be switched off before wiring to ensure that there is no DC output from the battery.

c. Connect the positive terminals of the battery and inverter using a red power cable, and the negative terminals with a black power cable.

d. Connect both communication ports of the battery(RS485A/CAN) and the inverter(BMS port) with the communication cable, BMS ports of inverter have different definitions for some brands, please check the inverter manual.

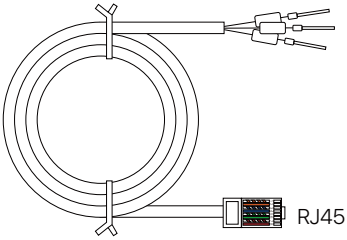


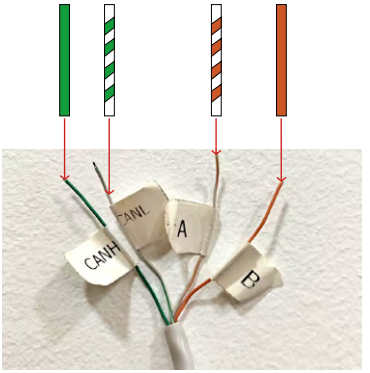
Communication cable connection Pin definition is as follows:

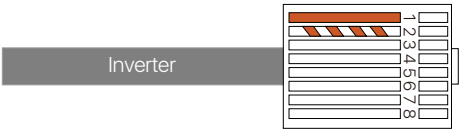


RS485A Port	PIN	1	2	3	4	5	6	7	8
	Define	RS485-B	RS485-A	GND	NC	NC	GND	RS485-A	RS485-B
CAN Port	PIN	1	2	3	4	5	6	7	8
	Define	NC	NC	NC	CAN-H	CAN-L	NC	GND	NC

6.2 RJ45 Connector Diagrams of Inverter's port





RJ45 Connector Diagrams	Communication
 Brand： DEYE, Growatt, Goodwe, Solis	CANH->pin4 CANL->pin5
 Brand: Victron	CANH->pin7 CANL->pin8
 Brand: Pylon, Growatt	RS485B->pin1 RS485A->pin2
 Brand: Voltronic	RS485B->pin3 RS485A->pin5
Please set up the RJ45 connector according to the pin definition of the inverter	

6.3 Precautions Before Connecting The Inverter with The Battery Pack in Parallel

⚠ **Ensure all packs are at same voltage before parallel connection!**

a. Use a multi-meter to measure whether connection of the positive and negative cables are conducting, and check whether that connections are loose.

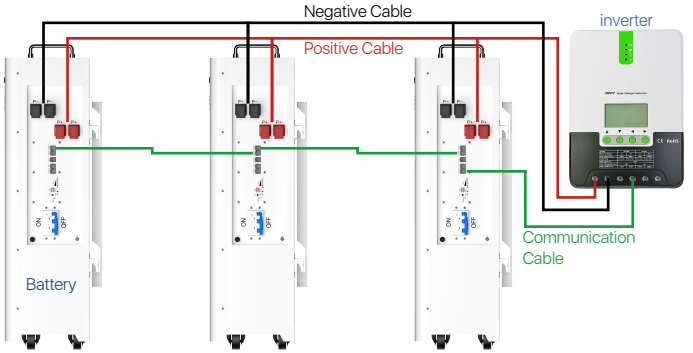
b. The battery should be switched off before wiring to ensure that there is no DC output from the battery.

c. Lock the parallel cable wires to the positive terminal of the battery pack first, then connect another end to the negative terminal.

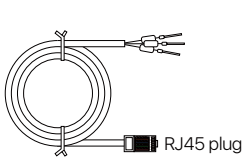
d. Parallel communication cable to the RS485 port of the battery pack.

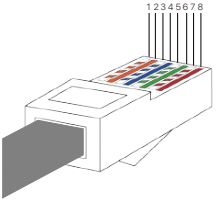
e. Connect the positive terminals of the battery and inverter using a red power cable, and the negative terminals with a black power cable.

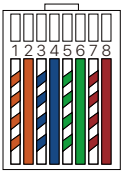
f. Connect both communication ports of the battery(RS485A/CAN) and the inverter(BMS port) with the communication cable, BMS ports of inverter have different definitions for some brands, please check the inverter manual.



Parallel communication cable connection Pin definition is as follows:



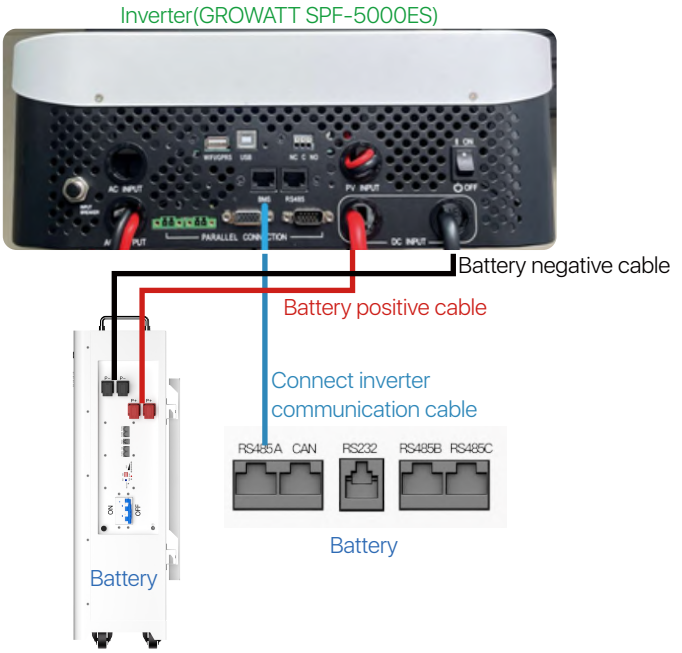




RS485 Parallel communication interface definition	PIN	1	2	3	4	5	6	7	8
	Define	RS485 -B	RS485 -A	GND	NC	NC	GND	RS485 -A	RS485 -B

6.4 Battery & Inverter Connection

Connect the positive and negative cables of the battery to the positive and negative terminals of the DC input of the inverter, insert the RJ45 plug at one end of the distributed inverter communication cable to the RS485 of the battery, and connect the other end to the BMS terminal of the inverter according to the defined line voltage, and then connect the battery to the inverter.



6.5 Dip Code Switch Definition and Setting

DIP address switch is a 4-bit DIP switch to manually distribute the communication address of parallel batteries.

The BMS will recognize the DIP address in a few seconds. When the DIP address is 0, the battery is configured as stand-alone working mode or master working mode; When the DIP address is 1 to 15, the BMS is configured as the slave working mode.

Please refer to the table below to set the DIP switch for parallel connection of different batteries.

Important: In a parallel system, every battery must have a unique DIP switch address between 1–15. Duplicate addresses will cause communication failure.

4-BIT					
Address	Dip Switch Position				Illustration
	#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	

7. Operation

7.1 Check Before Power on

a. Ensure all positive and negative cables, as well as communication lines, are correctly and securely connected.

b. Check the battery is firmly installed, easy to operate and maintain, and check ventilation.

c. Insulate the unused ports.

7.2 Power on

a. Turn on the switch on the battery.

b. The green running LED is normal on(Check the status of the LED indicators)

c. If it is failed to switch on the battery system, check if all the electrical connection is correct.

d. If the electrical connection is correct, but the battery system is still unable to switch on, contact our after-sale service within 48 hours

LED Indicator Status

Status	Charging					
Capacity Indicator	L1●	L2●	L3●	L4●	L5●	L6●
0～16.6%	Light	OFF	OFF	OFF	OFF	OFF
16.6～33.2%	Light	Light	OFF	OFF	OFF	OFF
33.2～49.8%	Light	Light	Light	OFF	OFF	OFF
49.8～66.4%	Light	Light	Light	Light	OFF	OFF
66.4～83.0%	Light	Light	Light	Light	Light	OFF
83.0～100%	Light	Light	Light	Light	Light	Light

Status	Discharge					
Capacity Indicator	L1●	L2●	L3●	L4●	L5●	L6●
0～16.6%	Light	OFF	OFF	OFF	OFF	OFF
16.6～33.2%	Light	Light	OFF	OFF	OFF	OFF
33.2～49.8%	Light	Light	Light	OFF	OFF	OFF
49.8～66.4%	Light	Light	Light	Light	OFF	OFF
66.4～83.0%	Light	Light	Light	Light	Light	OFF
83.0～100%	Light	Light	Light	Light	Light	Light

Flashing Definition

Item	Light	OFF
Flash 1	0.25 s	3.75 s
Flash 2	0.5 s	0.5 s
Flash 3	0.5 s	1.5 s

LED Flashing Faulty Please turn to the next page

<table>
<tr><td rowspan="2">Status</td><td rowspan="2">Normal/warning/ protection</td><td>RUN</td><td>ALM</td><td>Battery capacity LED</td><td>Specification</td></tr>
<tr><td>●</td><td>●</td><td>● ● ● ● ● ●</td><td></td></tr>
<tr><td>Power off</td><td>Sleep</td><td>OFF</td><td>OFF</td><td colspan="2">ALL OFF</td></tr>
<tr><td rowspan="2">Stand by</td><td>Normal</td><td>Flash1</td><td>OFF</td><td rowspan="11">Display according to the actual SOC</td><td></td></tr>
<tr><td>Warning</td><td>Flash1</td><td>OFF</td><td></td></tr>
<tr><td rowspan="5">Charging</td><td>Normal</td><td>Flash2</td><td>OFF</td><td></td></tr>
<tr><td>Warning (Not including temperature)</td><td>Flash2</td><td>OFF</td><td></td></tr>
<tr><td>Overcharging protection</td><td>Flash1</td><td>OFF</td><td>ALM OFF when protected during overcharging</td></tr>
<tr><td>Over Temperature, Low-temperature, Over current protection</td><td>Flash1</td><td>Flash2</td><td></td></tr>
<tr><td>Limited charging</td><td>Light</td><td>OFF</td><td></td></tr>
<tr><td rowspan="4">Discharging</td><td>Normal</td><td>Light</td><td>OFF</td><td></td></tr>
<tr><td>Warning</td><td>Light</td><td>Flash3</td><td>ALM OFF when discharge over current</td></tr>
<tr><td>Over discharge Protection</td><td>Flash1</td><td>OFF</td><td>ALM OFF when protected during overcharging</td></tr>
<tr><td>Over Temperature, Low-temperature 、Over current、
Shot Circuit、Reverse Polarity Protection</td><td>Flash1</td><td>Flash2</td><td></td></tr>
<tr><td>Invalidation</td><td>Error</td><td>OFF</td><td>Light</td><td>ALL OFF</td><td>Error refers to hardware defection such as BMS voltage sampling device,charging MOS damage, tempera ture sensor disconnection, etc.</td></tr>
</table>

8. Operation of Bluetooth

BASENGREEN 48V battery pack is equipped with a Bluetooth function, supports APP monitoring battery statuses. All battery information, such as state of charge, voltage, operating current, temperature, and other operational data, is transmitted in real time via Bluetooth.
These parameters can be viewed using the BASENGREEN App.

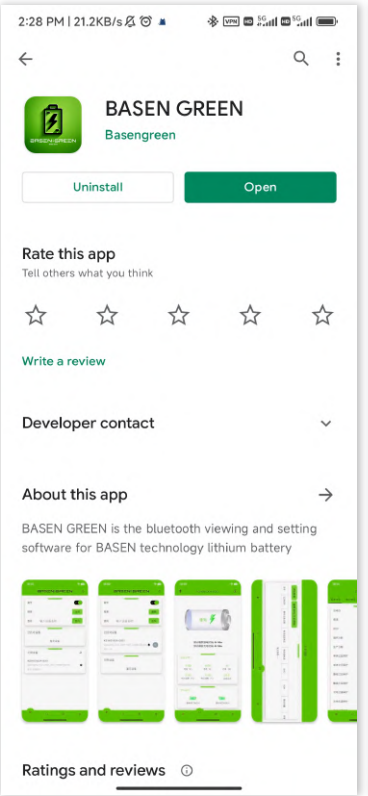
Download: Android: "BASENGREEN" in Play Store

iOS: "BASENGREEN" in Apple Store

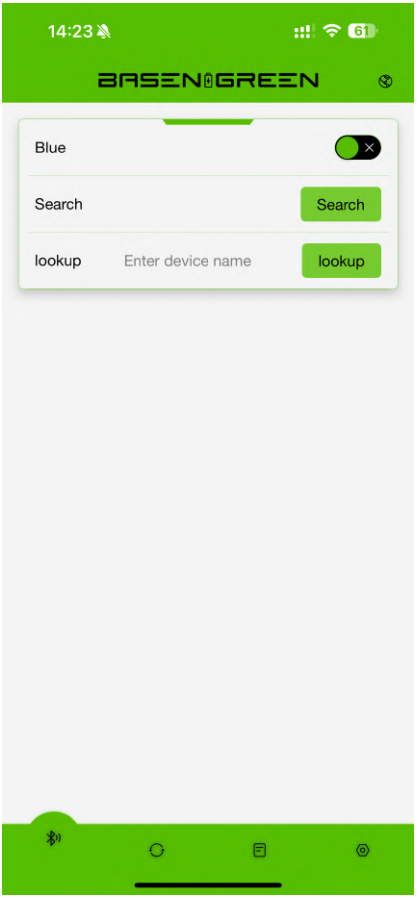
Bluetooth APP supports Android 8.0+ / iOS 12.0+, one device connection at a time.

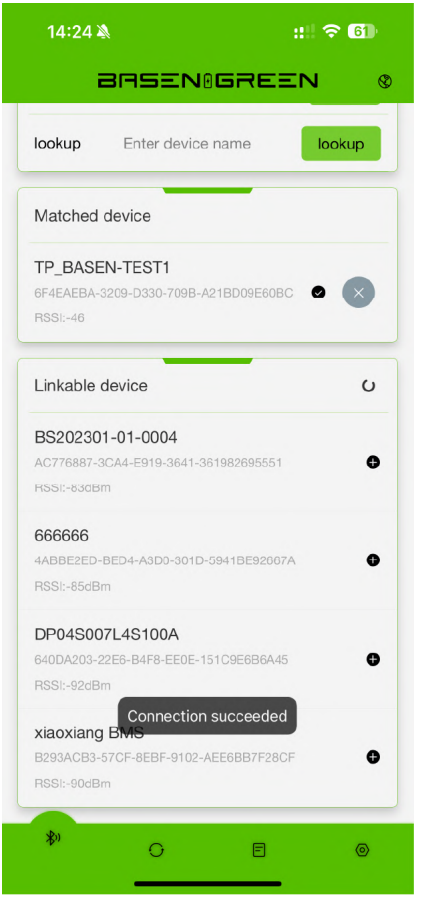
8.1 Bluetooth

a. For Android users, please visit the Google Play Store and search for 'BASENGREEN'. For iOS users, go to the Apple Store and look up 'BASENGREEN'.



b. Turn on Bluetooth and search for the corresponding product's Bluetooth code



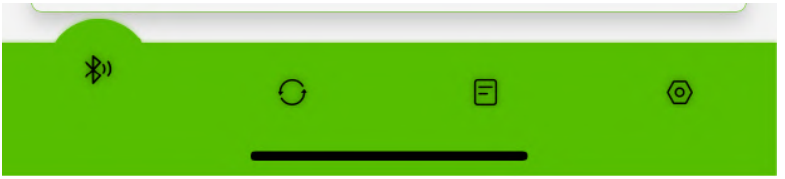


NOTE:

1.If you select a battery but the app does not confirm the connection, it may be because another device is already connected to the battery. Only one device connects to the battery at the same time.

2.The Bluetooth app supports status monitoring only and does not allow any modifications except for communication protocol switching.

c. Menu



Bluetooth list: Check the Device list and connect it.

Homepage: Check the status of battery-SOC, Volt, Current, Temperature, etc.

Historical Data: Not available

Setting: Base Message: Check the pack voltage, current, cycle time, etc.

Cell Voltage: Check the cells voltage.

Language: English/Chinese switching.

Fault Data: Not available

System Parameter: Not available

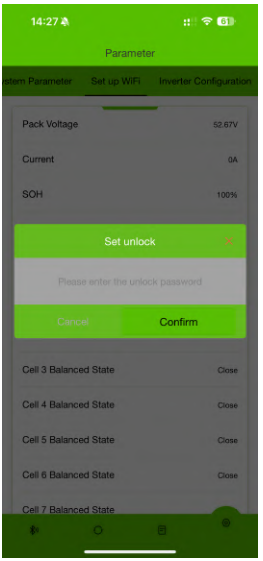
Set up WiFi: Setup WiFi function(Not available)

Inverter configuration: Communication protocol switching(Chapter 9.2)

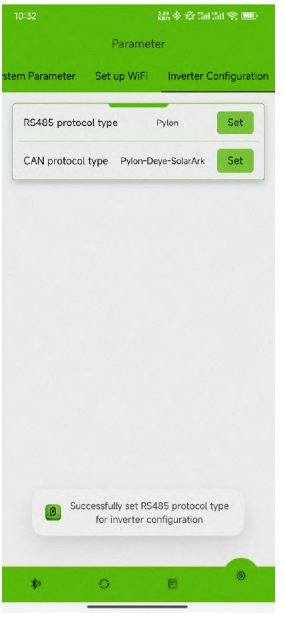
8.2. Operation of Communication Protocol Switch(Via Bluetooth App)

a. Connect to the Bluetooth app first(Chapter 9.1)

b. Swipe left to find 'Inverter Configuration'. Set unlock code is 888888



c. Choose the communication protocol and set, the battery pack will be restart after few second with "bee" sound. Then set up is successful.



9. Operation of PC Monitoring Software

BASEN 48V battery pack supports to connect with our PC Monitoring Software to monitor the status of the battery and modify the communication protocol, please contact our sales representative or visit our website to get the latest PC Monitoring Software software.

9.1 Log in

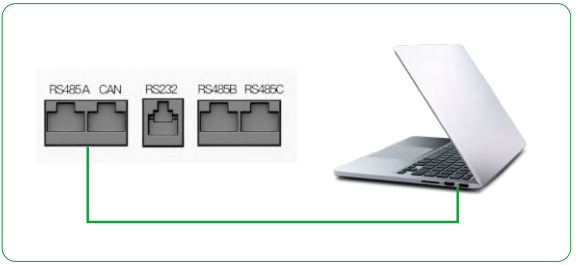
a. The PC Monitoring Software communication cable connects to the RS485 port on the battery and then to the USB port on the PC/Laptop

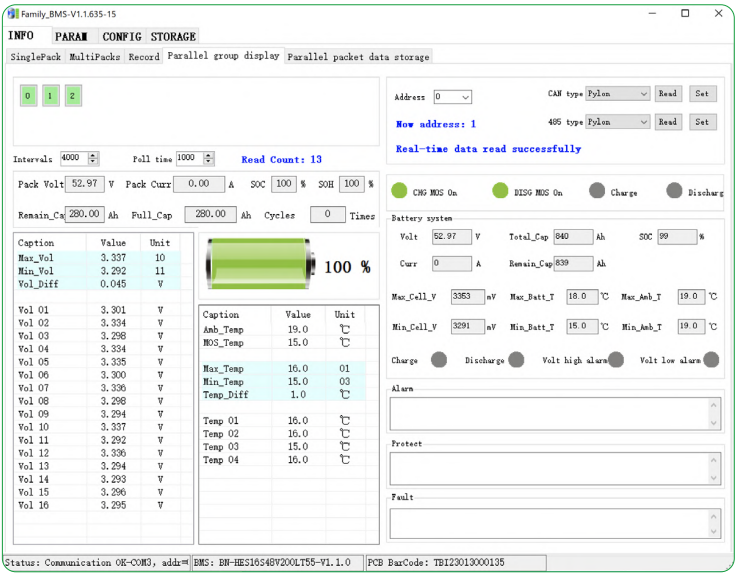
b. Download and open the PC Monitoring Software software

c. Modify the language

d. Updated the status of battery automatically

Notice: If it is failed to connect to the PC Monitoring Software, check if all the connection is correct. If the connection is correct, but the PC Monitoring Software is still unable to work, please contact our after-sale service

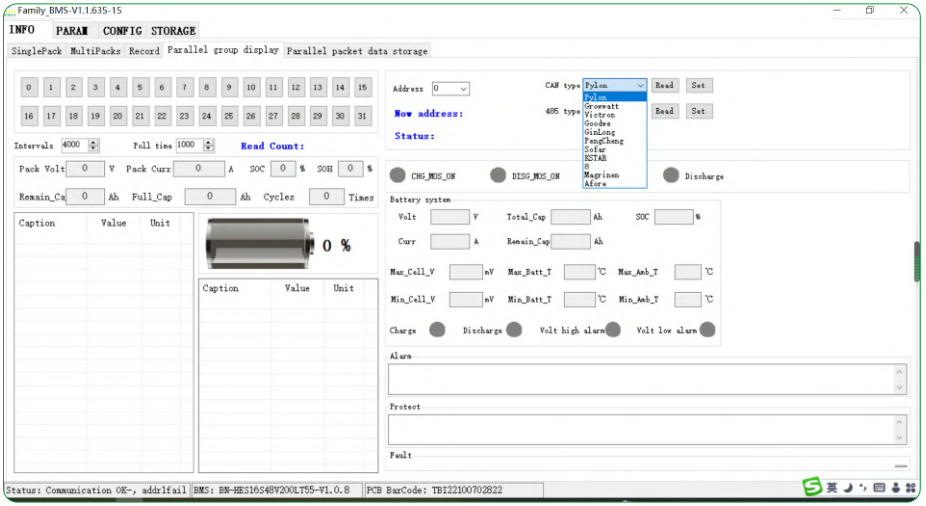




10.2 Switching communication protocols via PC

Connect to the PC Monitoring Software and follow the path:

INFO—Parallel Group Display—CAN Type/RS485 Type—Read—Choose the protocol—Set



9.3 Communication Protocol Switching Via Touch Screen

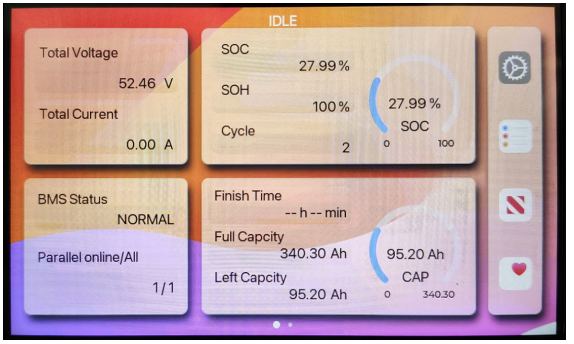
1. Introduction

Touch Colorful Screen

a. Colorful Display: Touch Screen, easy to operate.

b. Multi-language: Arabic, English, German, Spanish, Italian, French, Polish, Romanian

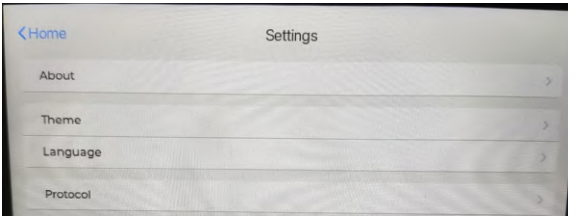
c. System Theme: Support Dark Theme



2. Switch the communication protocol

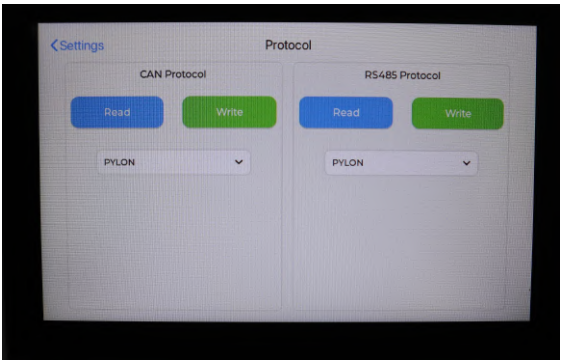
a. Turn on the battery, the screen will light up and show the data.

b. Click the "  ", then click protocol in the setting page



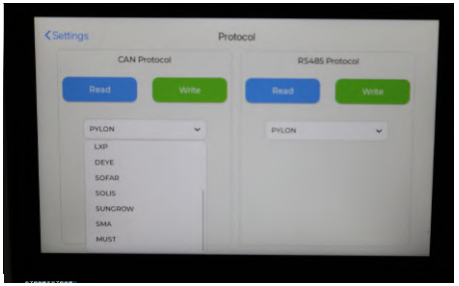
c. There are CAN/RS485 options, click "Read" to check the protocol

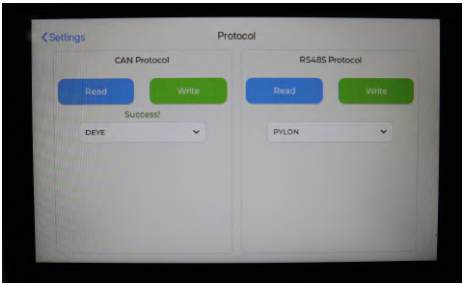
(Default communication protocol: Pylon)



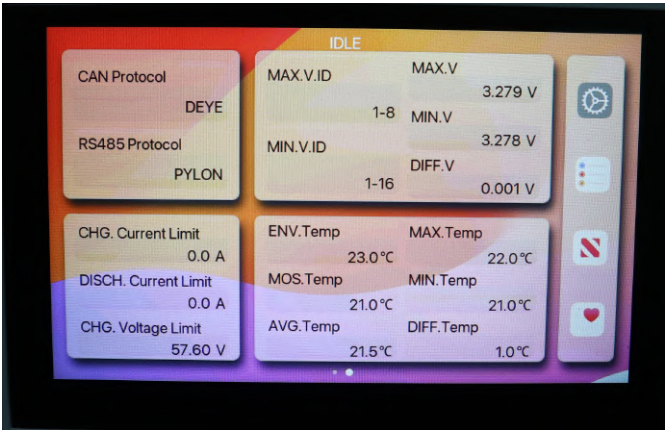
d. "Choose the protocol and Click 'Write' → wait for 'Success' message → system restarts with beep."

"If protocol setting fails, please recheck connection or contact technical support."





e. Back to the home page, Swipe left to go to the next view.



9.4 Communication Compatible List

BASEN BMS Inverter Communication Protocol Matching Table						
Inverter Brand		Communication method	Protocol Name	Protocol Remarks	Communication Potter rate	Interface Definition
维克托-Victron	victron energy	CAN	Victron-CAN-V1.00- 211135	Active Upload	500K	7H、8L
古瑞瓦特-SPF Growatt-SPF	Growatt	485	Growatt BMS-RS485-protocal-1xSxxP_ ESSL _V2.01 Growatt BMS-RS485-protocal-V2.0	MODBUS Standard protocols	9600	1B、2A
古瑞瓦特-SPF Growatt-SPF	Growatt	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L
古瑞瓦特-SPH Growatt- SPF	Growatt	CAN	Growatt BMS communication protocol of growatt low voltage-V1.01	Active Upload	500K	4H、5L
德业 Deye	Deye 德業	CAN	Deye LV-CAN communication protocol	Active Upload	500K	4H、5L
德业 Deye	Deye 德業	485	485 Modbus Protocol(4)-deye	MODBUS protocols	9600	1B、2A
尚科-Scolar	SACOLAR	CAN	Growatt BMS CAN-Bus-protocol-low-voltage-V1.05	Active Upload	500K	4H、5L
固德威-Goodwe	GOODWE	CAN	Goodwe-CAN-V1.7-220228-SolarinverterFamily-EN	Active Upload	500K	4H、5L
日月元-Voltronic Power	Voltronic Power	485	Voltronic Power-485-V1.03-200325	MODBUS protocols	9600	3B、5A
首航-SOFAR	SOFAR	CAN	SOFAR-CAN-V1.00-211117-Rev6	Active Upload	500K	1H、2L
锦浪-Solis	solis	CAN	Solis-CAN-V1.0-191228-lowVoltage	Active Upload	500K	4H、5L
鹏城-Luxpower	LUXPOWER TEK	CAN	Luxpowertek Battery CAN Protocol -2021	Active Upload	500K	4H、3L
派能-Pylontech	PYLONTECH	485	Pylon-485-V3.5-161216-low voltage protocol	1363	115200	1B、2A
派能-Pylontech	PYLONTECH	485	Pylon-485-V3.5-161216-low voltage protocol	1363	9600	1B、2A
派能-Pylontech	PYLONTECH	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	Active Upload	500K	4H、5L
硕日-Srne	SRNE	485	shuori BMS Modbus Protocol for RS485 V1.3(2020-11-24)	MODBUS	9600	7A、8B
美世乐 Must	MUST美世乐	CAN	PV1800F-CAN communication Protocol1.04.04	Active Upload	100K	6H、5L
艾思玛 SMA	SMA	CAN	SMA-CAN-V1.0.0-210630-FSS -ConnectingBat-TI-en-20W	Active Upload	500K	4H、5L
阳光电源 SUNGROW	SUNGROW	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	Active Upload	500K	4H、5L
爱士惟 AiSWEI	AiSWEI	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	Active Upload	500K	4H、5L
英威腾 INVT	invt	CAN	Pylon-CAN-V1.2- 180408 -lowVoltage	Active Upload	500K	4H、5L
科士达 KSTAR	KSTAR	CAN	Kstar CAN_Protocol-V1.11	Active Upload	500K	4H、5L
艾伏 Afore	Afore	CAN	Afore Communication Protocol CAN Bus Version V1.02_20210104	Active Upload	500K	4H、5L
索瑞德-SOROTEC	SOROTEC	CAN	CAN Protocol 1.0(SOROTEC Protocol)	MODBUS Standard protocols	500K	4H、5L
索瑞德 SOROTEC	SOROTEC	485	Protocal between Sorotec Inverter and Lithium Battery (RS485)	Active Upload	500K	1B、2A
SOL-ARK	Sol-Ark	CAN	Sol-Ark CAN Bus Protocol V1.2.pdf4-25-22		500K	4H、5L
迈格瑞能 MEGAREVO	MEGAREVO	CAN	Shenzhen MEGAREVO Hybrid Inverter-5K BMS Protocol V1.01	Active Upload	500K	4H、5L
MPP Solar	MPP Solar	485	BMS 485 communication protocol 20200325(2)	MODBUS	9600	1B、2A
拓宝-TBB	TBB POWER	CAN	CAN BUS Protocol of TBB Lithium Battery BMS Platform V 1.1	Active Upload	500K	4H、5L
盛能杰-Senergy	Senergy 盛能杰	CAN	SenergyINV&BMS_ CAN_Protocols	Active Upload		4H、5L

10. Storage

a. External terminals of the battery pack are insulated and protected.

b. If the battery pack is stored for a long period of time without use, it is recommended that it be charged 30%-60%, and it is prohibited to store it completely uncharged.

c. Batteries stored for over 3 months should be recharged for 2-3 hours at a rate of 0.2C to 0.3C.

d. Batteries should be stored in a dry, clean, well-ventilated environment free from corrosive gases, away from sources of ignition and direct sunlight.

e. Do not store or expose the battery to temperatures above 60°C for extended periods, as this may cause performance deterioration and reduce lifespan.

11. Warning

To prevent possible battery leakage, heat generation, and explosion, please observe the following

Warning!

a. It is strictly forbidden to immerse the battery in seawater or water. When not in use, it should be placed in a cool and dry environment;

b. Do not drop, knock, or step on the battery pack under any circumstances

c. It is forbidden to use metal to directly connect the positive and negative electrodes of the battery to a short circuit;

d. Do not transport or store batteries together with metal objects such as hairpins, necklaces, etc.

e. Do not drop, knock, or step on the battery pack under any circumstances.

f. It is forbidden to directly weld the battery and pierce the battery with nails or other sharp objects.

Attention!

a. It is forbidden to use or place the battery under high temperatures (in the hot sun or in a very hot car), otherwise, it may cause the battery to overheat, catch fire or fail to function, and shorten its life; the recommended temperature for long-term battery storage is 10-45°C;

b. It is forbidden to throw batteries into fires or heaters to prevent fire, explosion, and environmental pollution. Scrapped batteries should be returned to the supplier or battery recycling point for disposal;

c. Do not use it in places with strong static electricity and strong magnetic fields, otherwise it will easily damage the battery safety protection device and bring unsafe hidden dangers;

d. If the battery leaks and the electrolyte gets into your eyes, do not rub them. Immediately rinse your eyes with clean water and seek medical attention. If the battery emits an odor, heats up, discolors, deforms, or exhibits any abnormality during use, storage, or charging, immediately remove it from the device or charger and stop using it.

e. It is forbidden to insert the positive and negative poles of the battery directly into the power socket, and a special charger for lithium-ion batteries must be used;

f. Check the battery voltage and connectors before installation, and only use the battery if everything is normal;

g. The battery should be stored at half charge. If it has not been used for three months, it should be recharged once.

h. If the electrode is dirty, it should be wiped with a dry cloth before use. Otherwise, it may cause poor contact and function failure;

Need additional information?

Just Contact BASEN!

BASEN GREEN

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