



PB2 Series User Manual

Residential Energy Storage Battery

Version: 20230202

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Information on this Document

Validity

This document is valid for the PB2-5.1 and PB2-10.2 of PowerBox2 series.

Scope

This document describes the characteristics, installation, electrical connection, operation and troubleshooting of PowerBox2 series products.

Target Group

The instructions in this manual can only be performed by qualified personnel. Qualified personnel refer to qualified electricians or installation personnel who are trained and have all the following skills and experience:

- ✓ Knowledge of how the batteries work and are operated
- ✓ Knowledge of how the inverter works and is operated
- ✓ Knowledge of the installation and commissioning of electrical devices
- ✓ Knowledge of and adherence to the locally applicable connection requirements, standards and directives
- ✓ Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods
- ✓ Knowledge of and adherence to this guide and all safety precautions and best practices

Levels of Warning Messages

The following level of warning messages may occur in this document:

DANGER
Indicates a hazardous situation that, if not followed, could result in serious injury or death.

WARNING
Indicates a hazardous situation which, if not followed, may result in serious injury or equipment damage.

NOTICE

Indicates that property damage may result if the instructions are not followed.

Abbreviation in the Manual

BST: BST POWER (SHENZHEN) LIMITED

PB2: PowerBox2

SOC: State of Charge

BMS: Battery Manager System

Before the Beginning**DANGER**

Read this entire document before installing or using this product. Follow the instructions in this document during use.

In addition, the illustrations in this manual are used to help explain the system configuration and installation instructions and may differ from the actual project.

1 Safety

When using this product, the installer must comply with local safety regulations and relevant operating procedures.

WARNING

Please read the entire documentation before installing or using the product. Failure to do so or to follow any instructions or warnings in this document may result in electric shock, serious injury or death, or may damage the product and make it inoperable.

BST shall not be liable for injury or property damage caused by unqualified personnel attempting to repair or failing to correctly follow these instructions.




1.1 Product Label

Nameplates and warning labels are attached to the side of the PB2.

BST 电科电源

Model:	PB2-xxx	Battery type:	Rechargeable Li-ion Battery
Capacity :	xxx.x Ah	Nominal voltage :	51.2Vdc
Energy:	xxxxx Wh	Operating Voltage Range :	43.2Vdc~56.8Vdc
Max Power:	xxxxx W		

Designation: Red(+) Black(-) (IFpP50/160/115/[16SxP]M/0+50/95)
Manufacture Date: YYMMDD

CAUTION - WARNING   

- This unit is heavy and should be carried carefully. Lifting this unit with a single person may cause injury or break the product.
- When connecting and disconnecting this unit, make sure both the power battery and inverter are switched off.
- This product contains no user-serviceable parts. Do not disassemble or repair. Attempts to service this unit may cause electric shock or fire and will void the manufacturer warranty.
- Do not charge or discharge arbitrarily. It may lead to fault, electric shock or burns.
- Do not install this unit if it has received a sharp blow, been dropped, or otherwise damaged in any way. In such cases, contact your local BST representative immediately or info@bstbattery.com.
- In the event of electrolyte leakage, avoid contact with eyes, skin or clothes. If contact occurs, flush with water and seek medical attention immediately.
- Do not place this unit near an open flame or incinerate, it may lead to fire or explosion.
- Do not immerse in sea water or get it wet.
- Do not place or stack heavy objects on this unit.
- Keep this unit out of reach of children or animals.
- Inverter must be matched by BST product.

1.2 Installation safety precautions

For safety reasons, it is the responsibility of the installer to familiarize himself with all the contents and warnings of this manual before installation.

1.2.1 General Safety Precautions

The following safety measures must be observed:

DANGER

- ◆ **Danger 1: Explosion**
 - Do not subject the PB2 to strong impact.
 - Do not crush or puncture the PB2.
 - Do not dispose of the PB2 in a fire.

DANGER

- ◆ **Danger 2: Fire**
 - Do not expose the PB2 to temperatures above 60 °C.
 - Do not place the PB2 near a heat source, such as a fireplace.
 - Do not expose the PB2 to direct sunlight.
 - Do not allow the battery connector to contact conductive objects such as wires.

DANGER

- ◆ **Danger 3: Electric shock**
 - Do not disassemble the PB2.
 - Do not touch the PB2 with wet hands.
 - Do not expose the PB2 to liquid.
 - Keep the PB2 away from children and animals.

DANGER

- ◆ **Danger 4: Damage to PB2**
 - Do not let the PB2 contact with liquid.
 - Do not subject the PB2 to high voltage.
 - Do not place anything on the top of the PB2.

1.2.2 PB2 Operation Guide

- ✧ Only use the PB2 according to the instructions.
- ✧ The communication address of the product must be set before use, which can be realized through DIP Switch.

- ✧ If the PB2 is defective, cracked, damaged or otherwise damaged or unable to work, do not use it.
- ✧ Do not attempt to open, disassemble, repair or modify the PB2.
- ✧ Do not bump, pull, drag or step on the PB2, and do not let it be under any pressure.
- ✧ Do not install the battery in a closed place with poor ventilation.
- ✧ Do not mix batteries of different models or manufacturers.
- ✧ This product can be installed indoors and outdoors. However, if it is installed outdoors, please do not expose it to sunlight or water, because they may cause performance degradation, shortened warranty period or even product damage.
- ✧ Ensure that there is no water source above or near the PB2, including faucet and downpipe.
- ✧ This product can only be used with compatible inverters. Please contact dealer for a list of compatible inverters.

1.3 Emergency Handling

When the following emergencies occur, please follow the corresponding guidelines.

1.3.1 Fire

FM-200 or CO2 fire extinguisher is recommended. If the fire is not from the battery, ABC fire extinguisher is recommended.

WARNING

If there is a fire where the PB2 is installed, do the following:

1. When a fire occurs around the battery, please extinguish the fire as soon as possible to prevent the battery from catching fire.
2. If the PB2 has caught fire, do not try to extinguish the fire, and evacuate people immediately.
3. If the battery is on fire, it will produce toxic and harmful gases. Keep away from it.

1.3.2 Wading Battery

If the PB2 is wet or immersed in water, do not try to approach it. Please contact

your dealer for technical advice.

1.3.3 Damaged Battery

The damaged battery is very dangerous, which may cause personal injury or property loss. It cannot be used again and must be handled with extreme care. If the PB2 appears to be damaged, please pack it in the original box and return it to the dealer.

WARNING

A damaged battery may leak electrolyte or produce flammable gases. If you suspect such damage, please contact your dealer for advice.

2 Product Overview

PB2 series includes PB2-5.1 and PB2-10.2, which are energy storage products of lithium iron phosphate battery integrated with BMS developed and produced by BST. They can be used with single-phase and three-phase inverters to store the energy generated by roof photovoltaic panels for use when needed. It can help you achieve the goals of self consumption of energy, reducing the cost of electricity and improving the reliability of power supply.

2.1 Feature

- ✓ Cobalt free LiFePO4 battery
- ✓ Simple installation, can be placed indoors or outdoors
- ✓ Flexible scalability, up to 10 in parallel
- ✓ High Safety, Long Lifespan, High power
- ✓ Compatible with Goodwe, Solis, Sofar, Deye, Victron, Voltronic, BST Inverters

2.2 Technical Data

2.2.1 Product Diagram

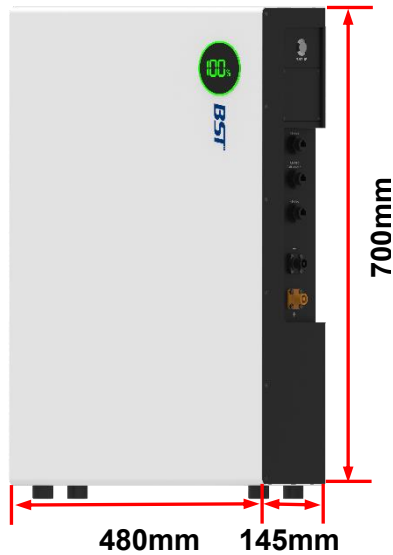


Figure 2.2.1.a Diagram of PB2-5.1

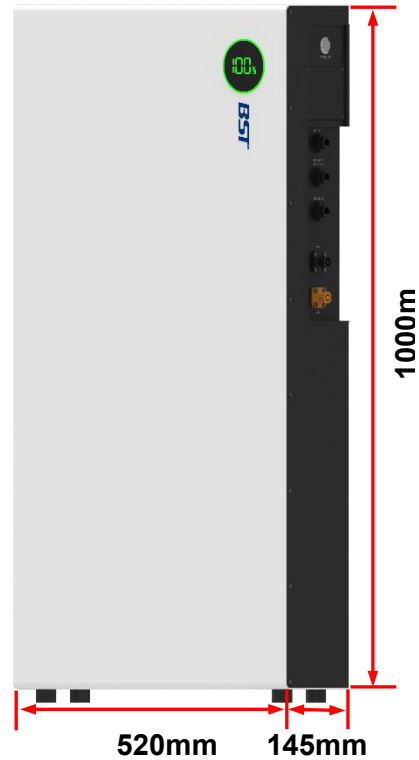


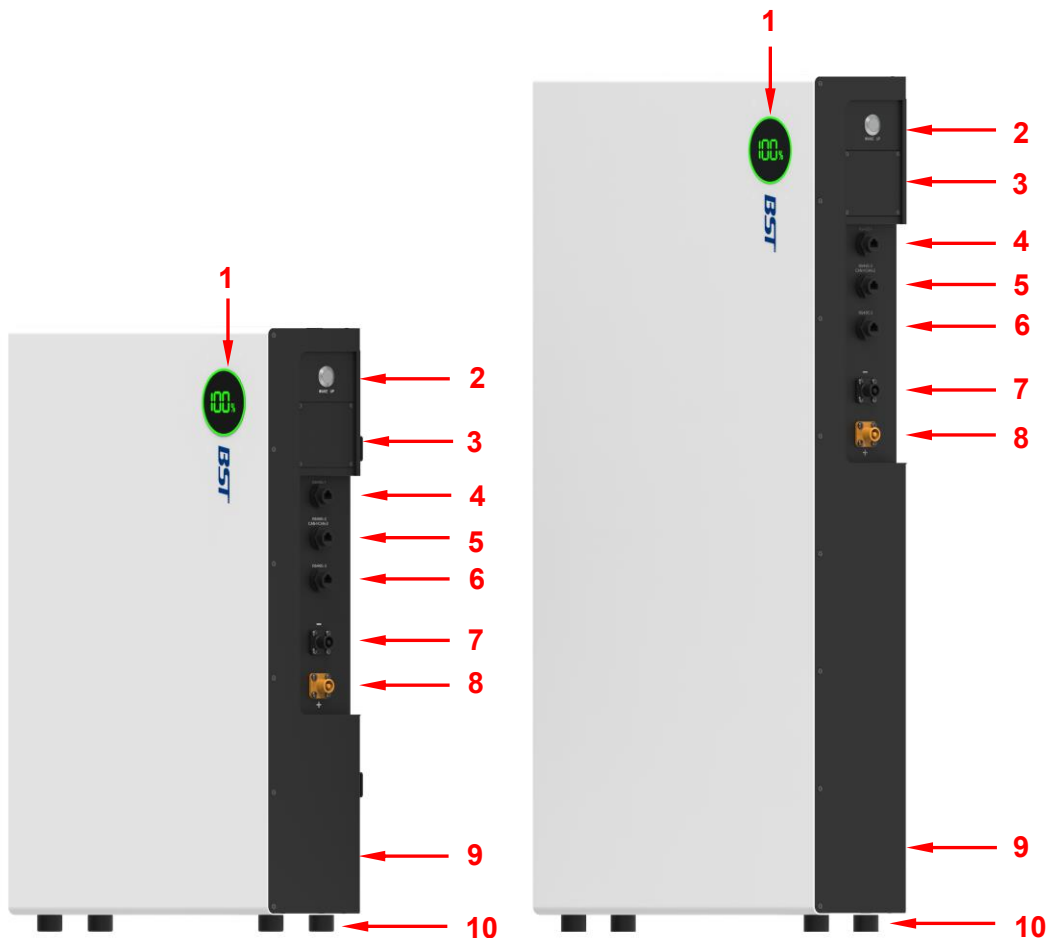
Figure 2.2.1.b Diagram of PB2-

2.2.2 Performance

Model	PB2-5.1	PB2-10.2
General		
Nominal Energy (kWh)	5.12	10.24
Usable Energy (kWh)	5.12	10.24
Scalability	Max. 10 in parallel (51.2kwh)	Max. 10 in parallel (102.4kwh)
Dimensions (W x H x D, mm)	480 x 700 x 145	520 x 1000 x 145
Weight (kg)	~ 58	~110
Installation	Indoor / Outdoor, Floor / wall mounted	Indoor / Outdoor, Floor
Design Life	10 Years	10 Years
Electrical		
Nominal Voltage (V)	51.2	51.2
Operating Voltage Range (V)	43.2 ~ 56.8	43.2 ~ 56.8
Max. Power (kW) ¹⁾	5	6

Peak Discharge Power (kW) ²⁾	10 for 1 sec.	15 for 1 sec.
Operation		
Charge Temperature (°C)	0 ~ 50	
Discharge Temperature (°C)	-10 ~ 50	
Storage Temperature (°C)	-20 ~ 45	
Humidity	5 ~ 95% RH (No Condensation)	
Altitude	≤ 4000m	
Ingress Protection	IP65	
Communication Interface	CAN / RS485 (Optional WIFI / BLE)	
Compatible Inverters	Goodwe /Solis/Sofar,/Deye ,/Victron /Voltronic /BST....	
Certification		
UN38.3, EN 61000-6-1, EN 61000-6-3, IEC62619		

2.3 Interface Definition



- 1 Display panel 2 WAKE UP button 3 Protective box 4 RJ45 port
 5 RJ45 port 6 RJ45 port 7 Negative power socket
 8 Positive power socket 9 Grounding point 10 Rubber pad

Table 3.3 Description of main components

No.	Mark	Description
1	-	Display the operating mode, SOC, error code of the battery
2	WAKE UP	Turn the PB2 on or off
3	-	1. DIP switch for setting battery communication address. 2. Fuse used to protect the main circuit of battery.
4	RS485-1	For communication with BMS monitor or EMS
5	RS485-2 / CAN-1 / CAN-2	For communication with BST, Deye, Goodwe, Sofar, Solis, Victron, Voltronic and other inverters. For cascade communication between batteries.
6	RS485-3	For cascade communication between batteries
7	-	Negative power socket
8	+	Positive power socket
9	⊕	Grounding point

2.3.1 Display Panel

The display panel lights up when the battery is turned on. After 5 minutes, the display panel will turn off automatically. Press the wake-up button for 1 second and then release it to make the display panel light up again.

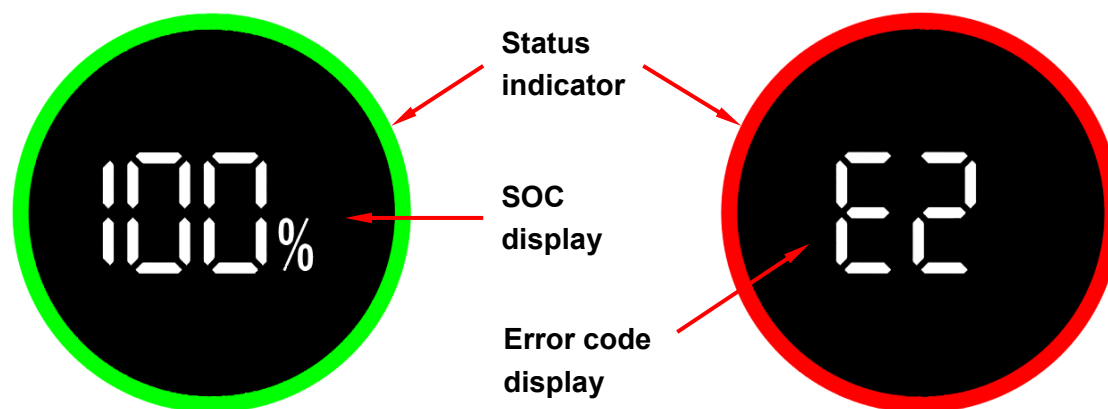


Figure 2.3.1.a Normal state

Figure 2.3.1.b Alarm state

The status indicator has three display states: Green indicator flashing, green indicator is normal on and red indicator is normal on.

The SOC indicator will display the current SOC of the battery in real time. When the battery has an alarm or protection, the SOC indicator will display an error code.

Table 2.3.1 Display description of different indicate modes

Operating Mode	State	Status Indicator			Error Code
		Solid green	Flashing green	Solid red	
Standby	Normal		√	-	-
	Alarm	-	-	√	-
Charge	Normal	√	-	-	-
	Alarm	-	-	√	-
	Low temperature alarm and protection	-	-	√	E5
	Over temperature alarm and protection	-	-	√	E3
	Overcurrent protection	-	-	√	E7
	Short circuit protection	-	-	√	E0
Discharge	Normal	-	√	-	-
	Alarm	-	-	√	-
	Battery over discharge protection	-	-	√	E2
	Cell over discharge protection	-	-	√	E1
	Low temperature alarm and protection	-	-	√	E6
	Over temperature alarm and protection	-	-	√	E4
	Overcurrent protection	-	-	√	E8
	Short circuit protection	-	-	√	E0

ALL	MOS over temperature alarm and protection	-	-	√	E9
-----	---	---	---	---	----

2.3.2 DIP Switch

The positions of DIP switches are 1, 2, 3, and 4 from left to right. The dial down is OFF, and the dial up is ON.

As shown in the right figure:

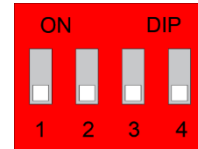
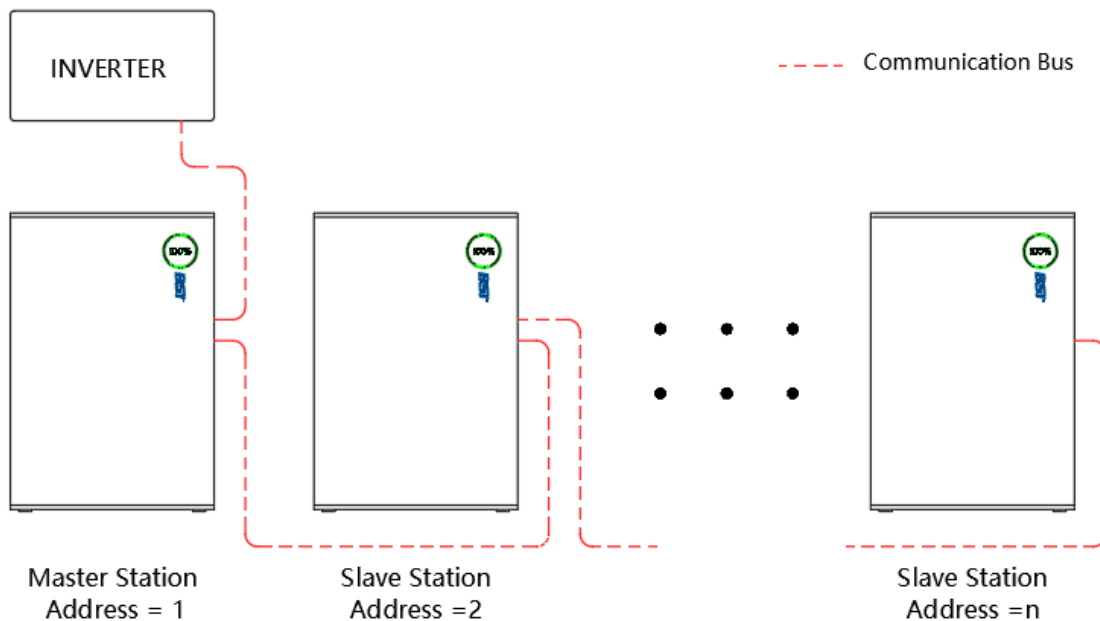


Table 2.3.2 Setting of communication address

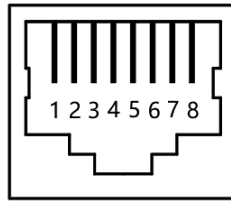
Address	Dial Switch Position			
	1	2	3	4
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF

Address	Dial Switch Position			
	1	2	3	4
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

The communication address of each equipment is unique and the one establishes communication with the inverter is the master station which communication address should be set as 1. The rest are slave stations whose communication addresses are set as 2 to 10. As shown in the figure below:



2.3.3 RJ45 Port



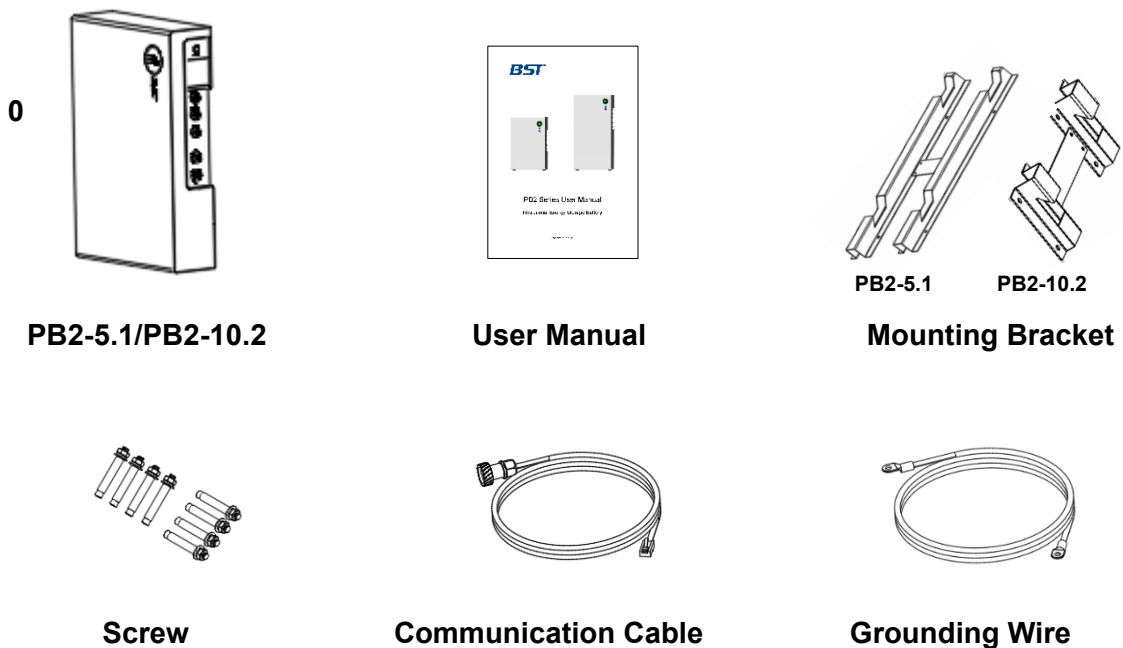
RJ45 port of battery

Table 3.3.4 Definition of RJ45 Port Pin

Pin	RS485-1	RS485-2/CAN-1/CAN-2	RS485-3
	Definition		
1	RS485-B	CAN-1 H	RS485-A
2	RS485-A	CAN-1 L	RS485-B
3	GND	CAN-2 H	NC
4	NC	CAN-2 L	NC
5	NC	RS485-A	NC
6	GND	RS485-B	NC
7	RS485-A	RS485-A	RS485-A
8	RS485-B	RS485-B	RS485-B

3 Packing List

3.1 Packing list of PB2-5.1/ PB2-10.2





Rubber Pad

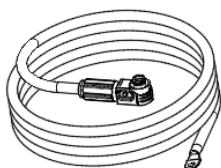
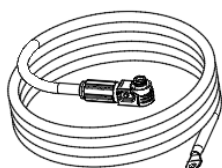


Lifting Ring

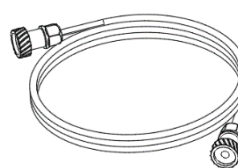
Figure 3.1.a Standard packing list of PB2-5.1/10.2

No.	Item	Description	Unit	Qty.
1	PB2-5.1/ PB2-10.2	51.2V, 5.12kWh / 51.2V, 10.24kWh	PCS	1
2	User Manual	For PB2 Series	PCS	1
3	Mounting Bracket	For PB2-5.1 / For PB2-10.2	PCS	1
4	Screw	JB/ZQ4763-2006 / M8*70 / Carbon steel / Color-Zinc / Screw	PCS	8
5	Communication Cable	For CAN communication / 2m	PCS	1
6	Grounding Wire	Black / 1.5m / 10AWG	PCS	1
7	Rubber Pad		PCS	4
8	Lifting Ring		PCS	2

3.2 Optional accessories



Power Cable



Cascade communication cable

Figure 3.3.a Optional accessories list

The quantity of optional accessories shall be subject to the actual quantity purchased.

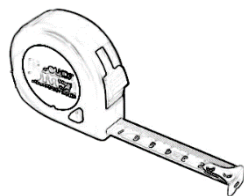
No.	Item	Description
1	Power cable	L=1.5m / 4AWG / 120A / Red and Black / UL1015

2	Power cable	L=2.0m / 4AWG / 120A / Red and Black / UL1015
3	Cascade communication cable	L=1.0m
4	Cascade communication cable	L=2.0m

4 Installation

4.1 Preparation before installation

a. The following tools are required to install the PB2:



Tape measure



Pencil



Cross screwdriver



Multimeter



Percussion drill (M8)



Adjustable wrench

b. When handling the PB2, it's required to wear the following safety gears:



Insulated gloves



Safety goggles



Safety shoes

NOTICE

Use properly insulated tools to prevent accidental electric shock or short

circuit.

4.2 Installation Position

The installation position shall meet the following requirements:

- ✓ There are no inflammable and explosive materials nearby.
- ✓ The ambient temperature shall be within the range of - 10 °C to 50 °C.
- ✓ It must be installed on the horizontal floor or wall that can support its weight.
- ✓ The distance from the air outlet of the inverter shall be more than 0.5m.
- ✓ It shall be installed under the eaves indoors (such as garage or basement) or outdoors to avoid direct sunlight and water immersion.

Suggestion:

- ✧ The installation area shall be dry, ventilated and free of corrosive gas;
- ✧ The area has the least dust and dirt;
- ✧ The product should be installed in a place where children and animals cannot reach;
- ✧ The ambient temperature range is 10 °C~35 °C.

NOTICE

If the ambient temperature exceeds the working range, the PB2 will stop working and enter the protection state.

Frequent exposure to harsh temperatures may reduce the performance and life of the PB2.

4.3 Physical Requirements

PB2-5.1 supports floor and wall mounted installation. When it is installed on the floor, it must also be fixed on the adjacent wall. In these two installation methods, the wall must be able to support the weight of the PB2-5.1 body and its accessories. It is recommended that the minimum strength of the wall shall not be less than 17Mpa (concrete) or 10Mpa (masonry).

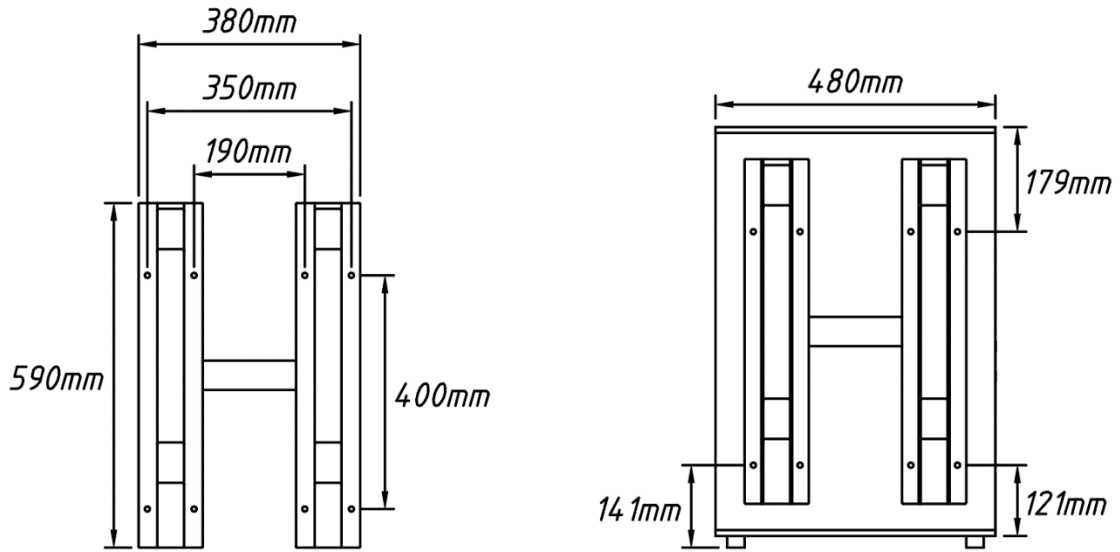


Figure 4.3.a PB2-5.1 Mounting Bracket Dimensions

PB2-10.2 only supports floor mounted installation, and the floor must be able to support the weight of PB2-10.2 body and its accessories. Its fixing bracket is only used to prevent dumping.

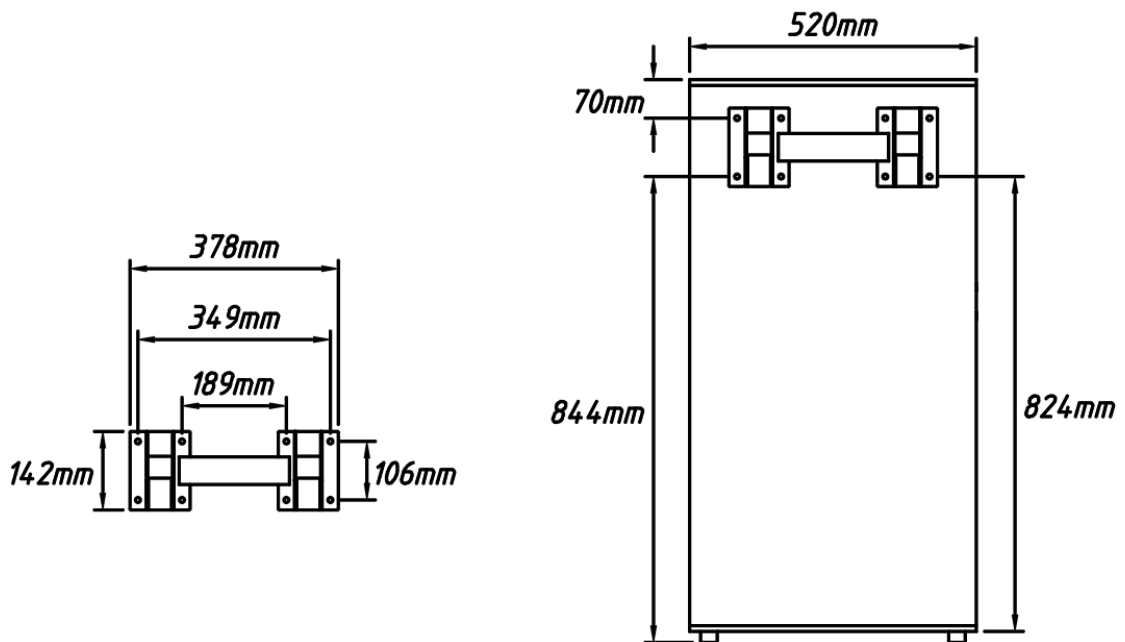


Figure 4.3.b PB2-5.1 Mounting Bracket Dimensions

The left side, right side and top of the product shall be reserved for easy installation and ventilation, as shown in the following figure:

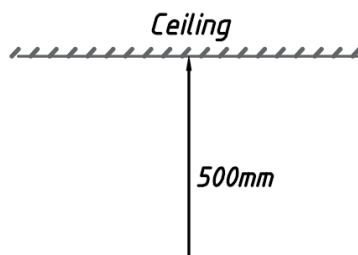
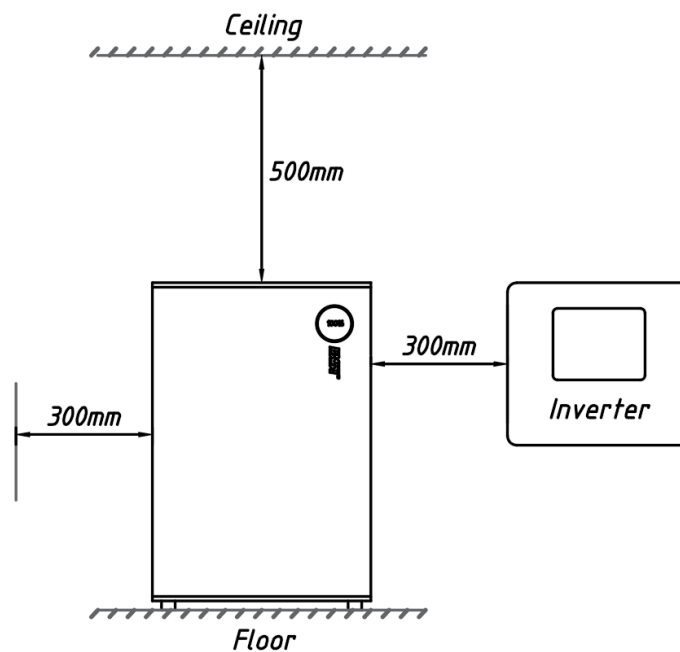


Figure 4.3.3 Battery installation clearance**Figure 4.3.4 System installation clearance**

4.4 Installing the PB2

4.4.1 Shipment

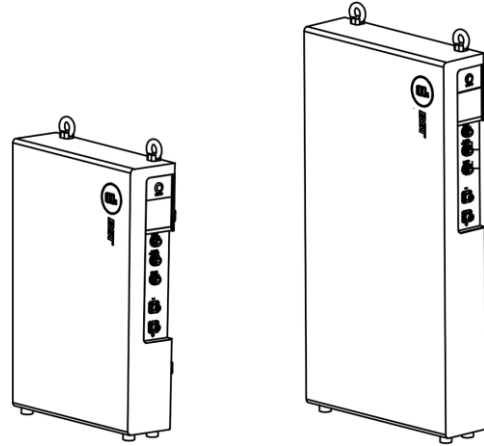
Deliver the product to the installation site, and lay the box flat (face up) during transportation.

WARNING

PB2 series products are too heavy, which may make it difficult for one person to carry them. It is recommended that two or more people carry them, or install lifting rings, and use lifting equipment to move it.

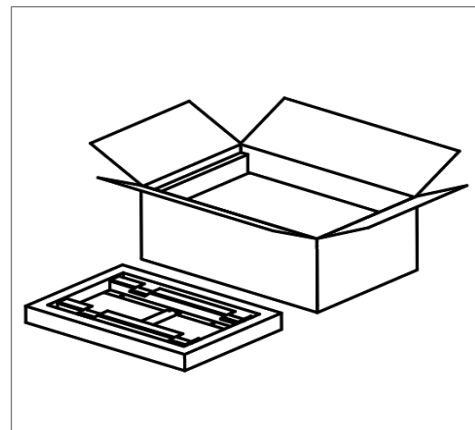
Tips:

PB2 series products with lifting rings are shown in the right figure. After the product is installed, the lifting ring can be disassembled.

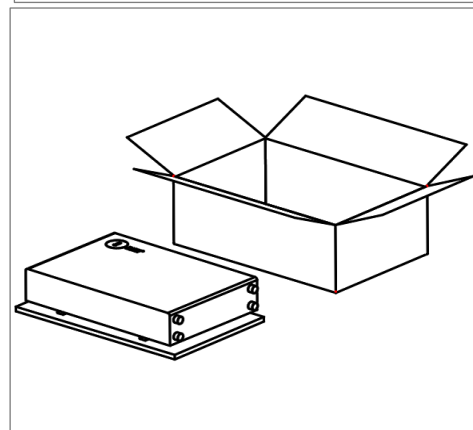
**4.4.2 Installation**

1. Cut the packing strap, open the carton and take out the mounting bracket and accessories.

Verify whether the materials are intact according to Chapter 2 'Packing List'.



2. Fix 4 rubber pads to the product.
(You can choose whether to install according to your personal needs)



3. Refer to the following figure for the minimum distance between the mounting

bracket of PB2-10.2 and the ground.

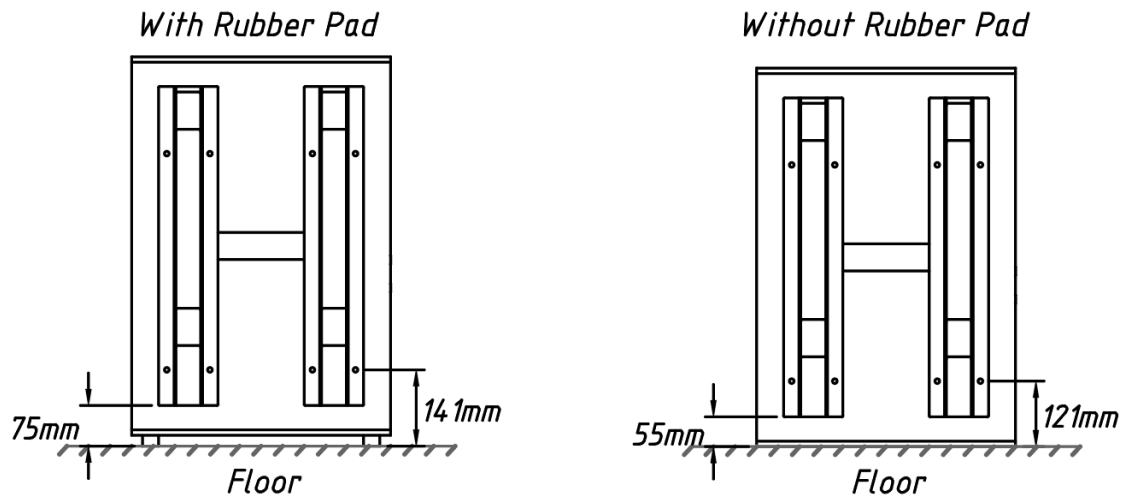


Figure 4.4.2.a Mounting bracket of PB2-5.1

Refer to the following figure for the maximum distance between the mounting bracket of PB2-10.2 and the ground.

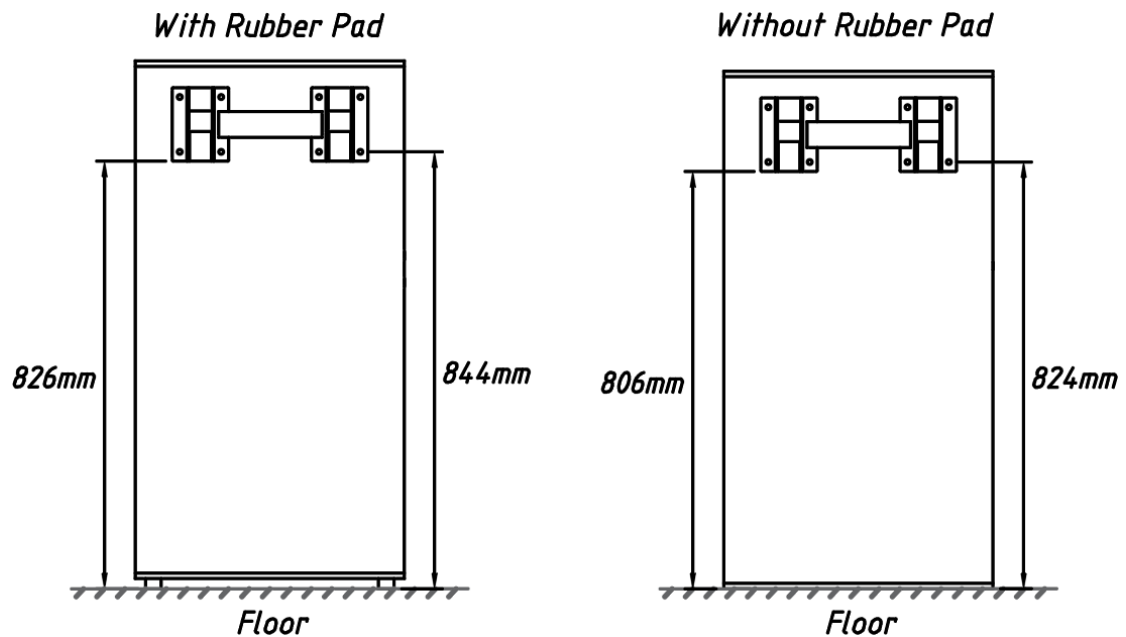
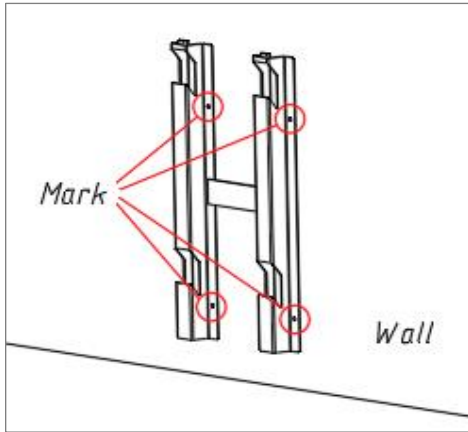
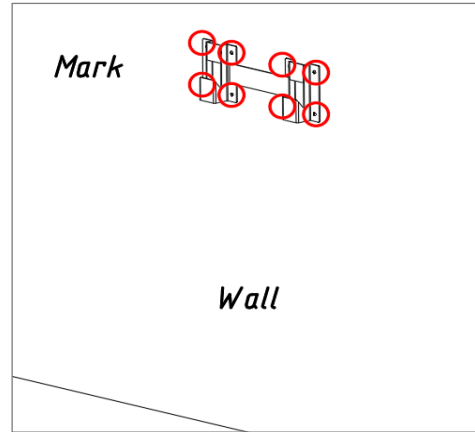


Figure 4.4.2.b Mounting bracket of PB2-10.2

4. Select the installation position of the mounting bracket and mark the position to be drilled with a pencil.

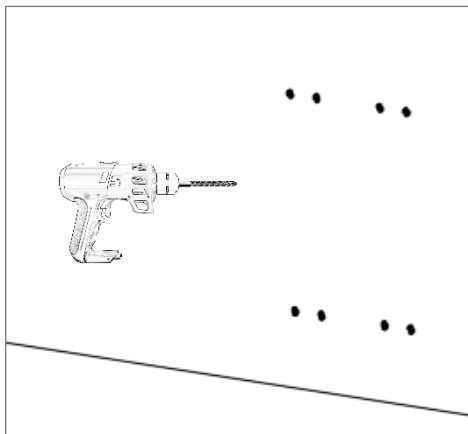


PB2-5.1

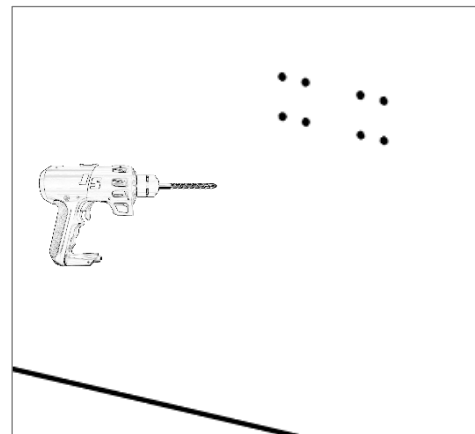


PB2-10.2

5. Put the mounting bracket aside and drill holes at the marked positions with an impact drill.

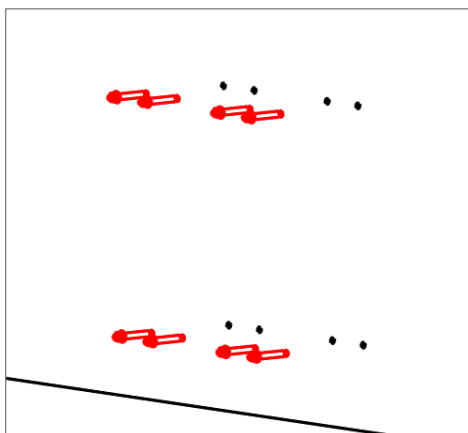


PB2-5.1

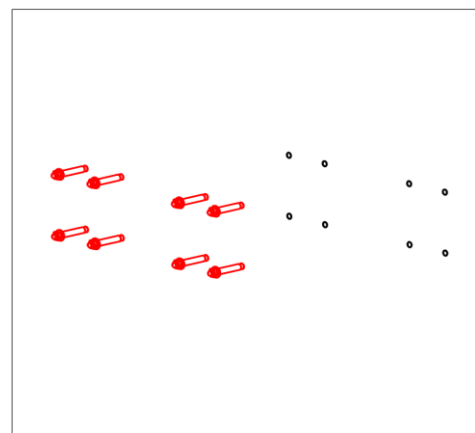


PB2-10.2

6. Put eight M8-70 screws into the hole.

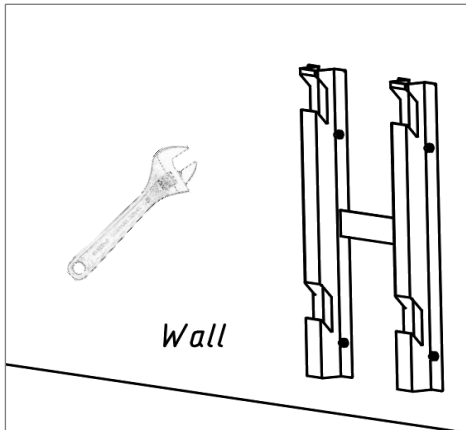


PB2-5.1

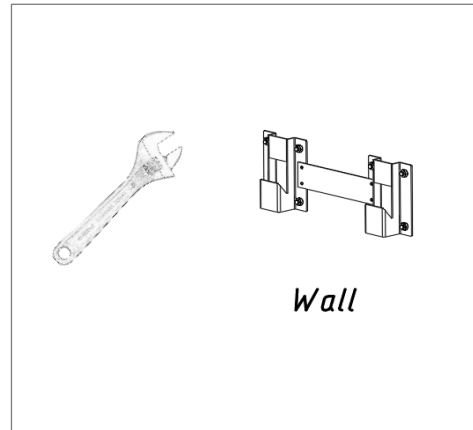


PB2-10.2

7. Fix the mounting bracket to the wall with a adjustable wrench and screws.

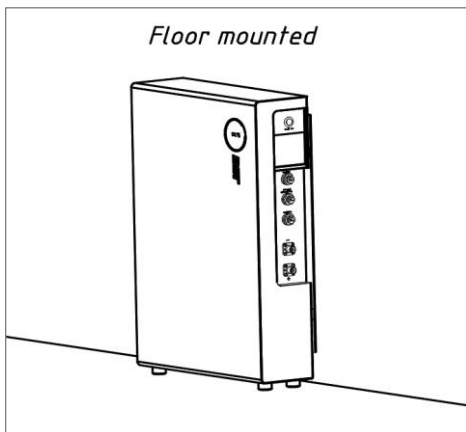


PB2-5.1

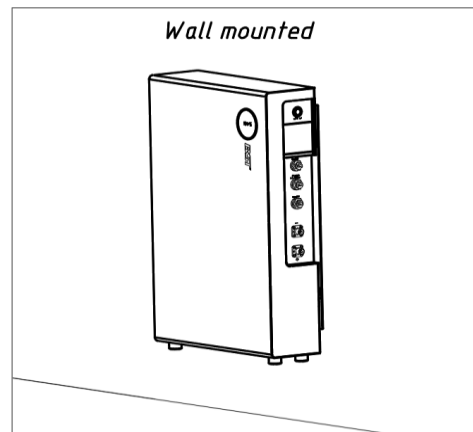


PB2-10.2

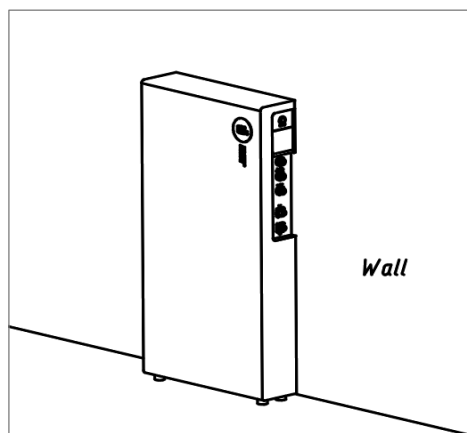
8. PB2-5.1: Hang the product on the mounting bracket.



PB2-5.1



PB2-10.2: Buckle the product onto the mounting bracket.



PB2-10.2

4.4.3 Power on Self-test

- 1. Measure the open circuit voltage of the product in the shutdown state. The normal state should be 0V;**
- 2. Press the wake-up button for 2-3 seconds, the display panel will light up, and then measure the open circuit voltage of the product again. The voltage range under normal condition should be 43.2V~56.8V;**
- 3. After checking, press the wake-up button for 3-6 seconds to turn off the battery module.**

Tips:

If any abnormality is found, please contact the dealer for help.

4.4.4 Wiring and Setting

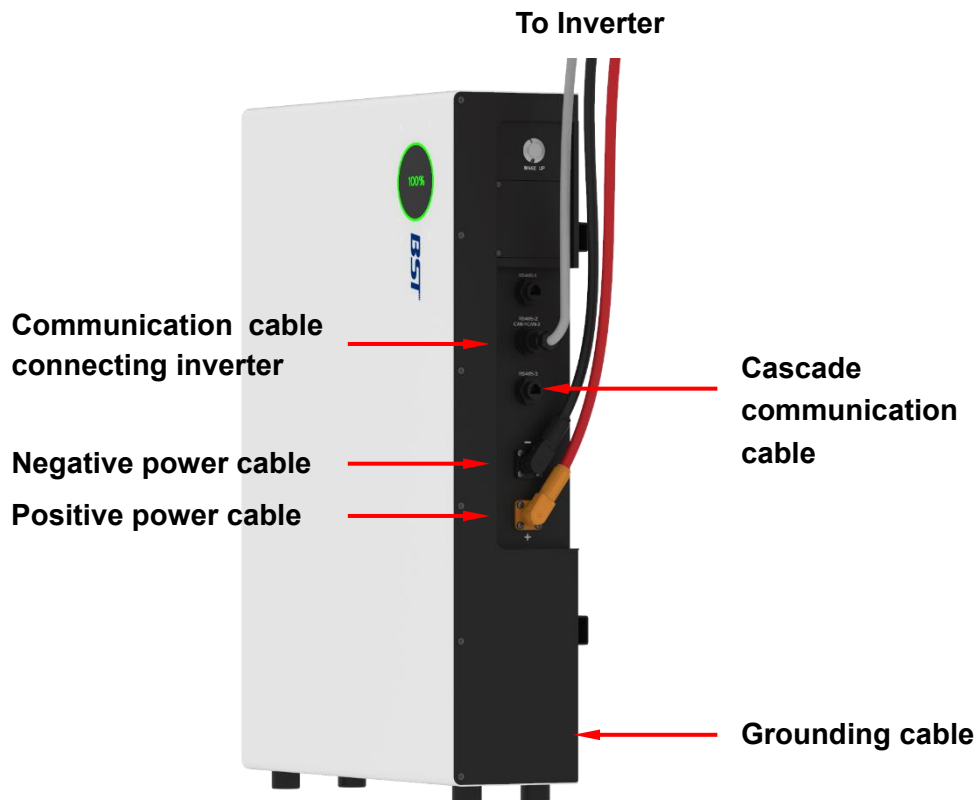
a. When using single PB2:

- 1. Turned off the inverter.**
- 2. Connect the PB2 and inverter with power cables and communication cables.**

The positive cable (orange quick plug terminal) is inserted into the battery positive socket, and the OT terminal is connected to the battery positive input terminal of the inverter. The negative cable (black quick plug terminal) is connected to the battery negative socket, and the OT terminal is connected to the battery negative input terminal of the inverter.

**Communication port selection RS485-1/CAN-1/
CAN-2 port.**

- 3. Connect the grounding cable.**
- 4. Set the address refer to Section 3.3.3 "DIP Switch".**

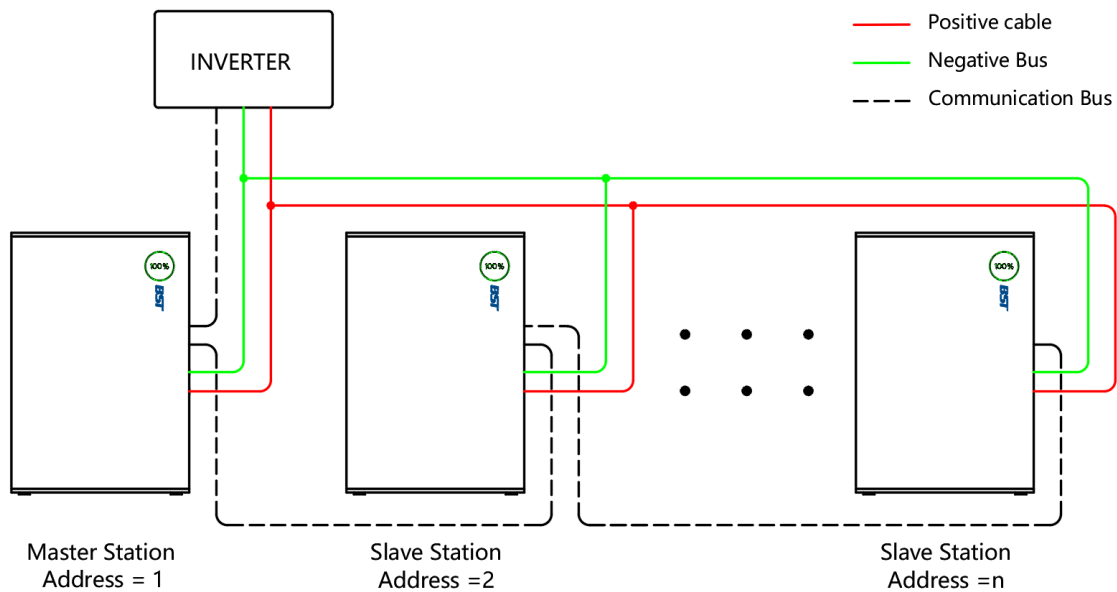


b. When using multiple PB2s:

- 1. Make sure the inverter is turned off.**
- 2. Connect all PB2s and inverter with power cables.**

The positive cable (orange quick plug terminal) is inserted into the battery positive socket, and the OT terminal is connected to the positive pole of the combiner box. The negative cable (black quick plug terminal) is connected to the battery negative socket, and the OT terminal is connected to the negative pole of the combiner box.

- 3. Use power cable to connect inverter and combiner box.**
- 4. Use the communication cable to connect the PB2 master station and inverter. Refer to Section 3.3 for the selection of RJ45 port at the battery side.**
- 5. Connect all PB2s with cascaded communication cables.**
- 6. Connect the grounding cable.**
- 7. Set the address according to Section 3.3.3 "DIP Switch".**



5 Operation

5.1 Power On

- Step 1. Press the WAKE UP button of each PB2 for 2 to 3 seconds, and the display panel will light up.
- Step 2. Observe whether the display panel of the PB2 indicates normal status.
- Step 3. When using a single PB2, skip to step 4. When multiple PB2s are used, close the switch of the combiner box.
- Step 4. Turn on the inverter.

5.2 Turn off

- Step 1. Turn off the inverter.
- Step 2. When using a single PB2, skip to step 3. When multiple PB2s are used, disconnect the switch of the combiner box.
- Step 3. Press the WAKE UP button of each PB2 for 3 to 6 seconds, release it when the status indicator flashes green quickly, the battery will shut down, and then the display panel will go out.

6 Troubleshooting

When the battery fails to work normally due to abnormal conditions, troubleshooting is required. Common battery failures and solutions are as follows:

Fault 1: Abnormal communication with the compatible inverter

Case A. RS485 Communication Exception

Case B. CAN Communication Exception

Solution: Set the address of each PB2 according to Section 3.3.3 DIP Switch, use the appropriate communication cable, select the correct communication interface, and confirm that the inverter uses the same baud rate as the battery. Set relevant parameters of inverter. Refer to the inverter user manual for its setting method.

Fault 2: Unable to turn on

Case C. Press the WAKE UP button for 2-3 seconds, and the display panel will not light up.

Solution: The battery capacity may be too low. Use the charger or inverter to supply more than 51V voltage to the battery. If the battery is turned on automatically, it can be charged, and the charging current is set to 0.05C. Use BMS monitor to check the battery status.

Fault 3: Unable to charge

Case D. After the battery is turned on, the display panel will display normally. But the battery cannot be charged.

Solution 1: When the battery is fully charged, SOC will display 100%. Do not recharge the battery.

Solution 2: The PB2 voltage is lower than 56.8V and SOC is less than 100%, but the battery is in charging state. No need to deal with it. The battery is charging and will be fully charged after a period of time.

Solution 3: The fuse is blown. Turn off the PB2 and contact the dealer for assistance.

Case E. After the battery is turn on, the status indicator is always red and the battery cannot be charged.

Solution 1: If the error code is E3 or E5, move the battery to an environment with a temperature range of 0 °C~50 °C.

Solution 2: If the error code is E7, reduce the charging current.

Solution 3: If the error code is E0, the short circuit fault should be eliminated immediately.

Fault 4: Unable to discharge

Case F. After the battery is turned on, the display panel displays normally and the battery cannot be discharged.

Solution: The fuse is blown. Turn off the PB2 and contact the dealer for assistance.

Case G. After the battery is powered on, the status indicator is red, and the battery cannot be discharged.

Solution 1: If the error code is E4 or E6, move the battery to an environment with a temperature range of $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$.

Solution 2: If the error code is E8, reduce the battery discharge power.

Solution 3: If the error code is E0, the short circuit fault should be eliminated immediately.

Solution 4: If the error code is E1 or E2 and the battery is dead, charge the battery immediately.

Fault 5: Error code = E9

Solution: Stop using the battery immediately and use it after the battery temperature returns to normal.

NOTICE

If the fault is still not eliminated after following the above steps, please contact the dealer for help.

7 Maintenance, Storage and Disposal

7.1 Maintenance

It is recommended that the battery system be cleaned periodically. If the enclosure is dirty, please use a soft, dry brush or a dust collector to remove the dust. Liquids such as solvents, abrasives, or corrosive liquids should not be used to clean the enclosure.

7.2 Storage

The battery module should be stored in an environment with a temperature range between $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$, and charged regularly according to the table below with no more than 0.5C (A C-rate is a measure of the rate at which a battery is discharged relative to its maximum capacity.) to the SOC of 40% after a long time of storage.

Storage environment temperature	Relative humidity	Storage time
$-20^{\circ}\text{C} \sim 45^{\circ}\text{C}$	10% ~ 95%	1 month
$-20^{\circ}\text{C} \sim 35^{\circ}\text{C}$	10% ~ 95%	3 month
$-20^{\circ}\text{C} \sim 25^{\circ}\text{C}$	10% ~ 95%	6 month

NOTICE

Please keep the battery away from heat source, ignition source and other heating and corrosive environments such as strong acid and alkali.

7.3 Disposal

Disposal of the system must comply with the local applicable disposal regulations for electronic waste and used batteries.

- ✧ Do not dispose of the battery system with your household waste.
- ✧ Avoid exposing the batteries to high temperatures or direct sunlight.
- ✧ Avoid exposing the batteries to high humidity or corrosive atmospheres.
- ✧ For more information, please contact your dealer for advice.

8 Warranty

BST provides a limited warranty during the warranty period when installing and using this product according to the instructions in this manual. Violating the installation procedure or using this product in any way not described in this manual will immediately invalidate all warranties of this product.

BST shall not be liable for any direct or indirect damages or defects caused by the following reasons:

- **Improper transportation or storage**
- **Incorrect installation, wiring or operation**
- **Non observance of BST installation instructions**
- **Using the product in an inappropriate environment**
- **Incorrect or improper operation**
- **Insufficient ventilation in the product use environment**
- **Failure to observe safety warnings or instructions**
- **Repair or modification by unauthorized personnel**
- **Inverter fault or overcurrent.**
- **External influences, such as abnormal physical or electrical stresses**
- **Used with incompatible inverter**
- **Not used for communication with inverter**
- **Force Majeure Event**

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