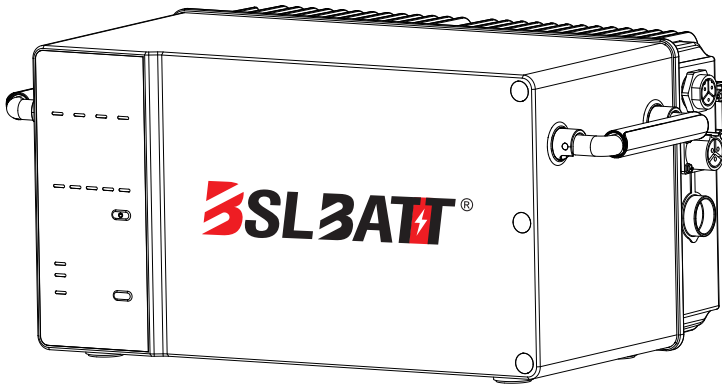


Balcony Photovoltaic Energy Storage Power System

User Guide



Thank you very much for purchasing MicroBox 800 balcony photovoltaic energy storage power supply. Be sure to read the book to use the product correctly before you use it. When this book is required for product compensation, please take good care of this book together with the invoice and other purchase certificates.

To ensure the safety of the product during retransportation, the product is only charged about 30% when packaging. Please charge immediately after opening for use.

Charging of this product can be directly used with the wall socket, please do not use the extension wire and cable subconnector. When using two or more sockets, do not use products other than this product on the same socket.



Precautions for use

1. Please avoid at high temperature and high humidity. The product is used in the direct solar environment and near places where there is fire.
2. Do not decompose and transform this product, will cause use failure and fire.
3. Please waste or recycle the product according to the method specified by the local law.
4. Be careful not to make the product fall from high places to give a strong impact on the product.
5. Keep or use the product out of the child's reach
6. Accessories please use the company genuine, the use of non genuine bad may not be free maintenance.
7. When using the product, do not hinder the product cooling, please put the product in a good place of air convection position.
8. For long-term storage, please use power from full power consumption to no power once for about 3 months, and then charge to about 50% for storage.
9. When the body and auxiliary lines and connection equipment of this product are suspected, please do not use it to avoid faults.
10. Please do not keep the product for a long time in extreme high and low temperature places such as cars and field warehouses to avoid faults such as shortened battery life.
11. Please do not use it with the smart socket and smart meter of other brand products. Please use the smart meter or smart socket of this brand.
12. When used with multiple battery packs, place the product on a flat ground and fix the product on the wall if necessary

Disposal

1. If possible, drain the battery completely before handling it. Please consult your local law for battery recycling and disposal.
2. If the battery cannot be fully charged due to a product failure, please contact a professional battery recycling company for subsequent processing.
3. When processing secondary cells or cells, the cells or cells of different electrochemical systems are separated from each other.

Catalogue

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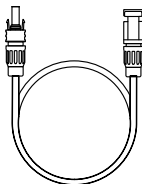
Parameter Specifications

Basic Parameters	Model	MicroBox 800
	Weight	23kg
	Dimensions	438×292.5×235.5mm
	Capacity	1958Wh
	Wireless Type	Wi-Fi / Bluetooth
Output	Grid-connected Output Power	800W
	Off-grid Output Power	1200W
Input	PV Input	2000W
	Off-grid Input Power	1200W
Operating Environment	Operating Temperature	-20 - 55℃
	Waterproof Rating	IP65
	Operating Humidity	≤90%

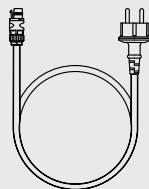
Package Contents



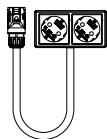
Balcony Photovoltaic
Energy Storage Power Supply



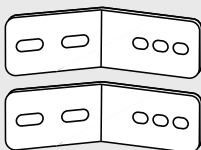
Solar Panel Extension Cable
3m (×8)



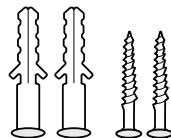
AC Cable (with Plug)
5m



Aviation Connector Output
Cable



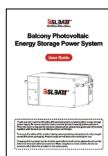
L-shaped Wall Mount Bracket
(×2)



M5×60 Self-sealing
Expansion Bolt (×2)



M5×10 Cross Recessed
Composite Screw (×2)



User Guide

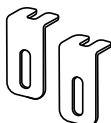
Optional Accessories

※ The following accessories must be ordered separately:

Balcony Energy Storage Battery Pack



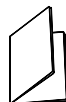
Balcony Energy
Storage Battery Pack



Fixed Mounting Bracket
(×2)

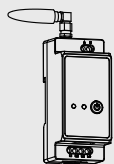


M5×10 Cross Recessed
Composite Screw (×2)

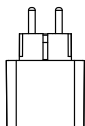


Safety Manual

Smart Meter and Smart Socket



Smart Meter



Smart Socket (×4)



Safety Manual

Product Introduction

This product is a grid-tied/off-grid multifunctional balcony photovoltaic energy storage power system designed for versatile scenarios. It utilizes highly safe LiFePO₄ batteries with cell cycle life of up to 6,000 cycles.

Serving as a compact home energy storage solution, it can act as emergency backup power during sudden outages or disasters, provide living electricity for camping and RVs, and supply power to various electric tools in any environment.

With 1200W high-power pure sine wave AC output, it supports high-wattage household appliances like dryers, microwaves, and refrigerators, while also powering electronics such as personal computers.

Featuring 2000W PV input, the system generates 7kWh daily electricity based on 3.5 effective solar hours per day, significantly reducing energy costs. Offering both grid-tied and off-grid discharge modes, it ensures convenient access to green energy whether in areas with or without grid connectivity.

Button Functions Description



- ① Main Power Switch
- ② Off-Grid Switch
- ③ Grid-Tied Switch

① Main Power Switch

Operation: Long press the Power button for 3 seconds to activate the system. Long press again for 3 seconds to shut it down.

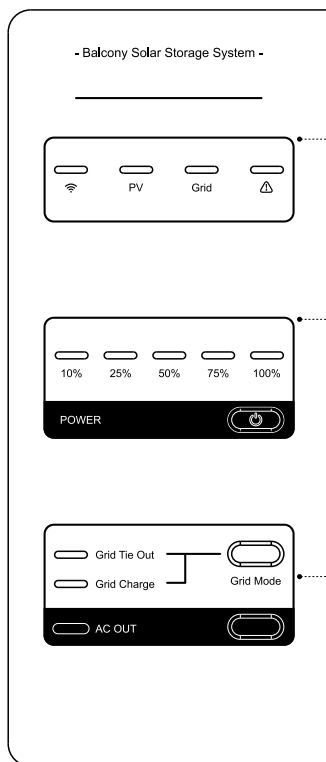
② Off-Grid Switch

1. Short press once to enable AC output, with the AC LED indicator illuminating.
2. Short press again to disable AC output, with the AC LED indicator turning off.

③ Grid-Tied Switch

1. Short press once to activate grid-tied mode (grid-tied indicator illuminates).
2. Short press again to switch to off-grid mode (off-grid indicator illuminates).
3. Short press once more to enter standby mode (all indicators turn off).

Indicator Lights Overview



1. WiFi, PV Charging, AC Discharge, and Alarm Indicators. When an anomaly occurs, the corresponding indicator will blink.



2. The five Battery Level Indicators represent 10%, 25%, 50%, 75%, and 100% battery levels.

During charging: The indicators activate in a chasing light pattern (cycling left to right).

At 0% battery: The 15% indicator will blink continuously.

BMS protection mode: All indicators blink simultaneously.



3. The bottom row of indicators, from top to bottom, represent grid-tied charging, grid-tied power supply, and off-grid status.

When connected to the grid: Press the Change button to cycle between three modes: Grid-tied charging / Grid-tied power supply/ Grid-tied standby (no charging/discharging).

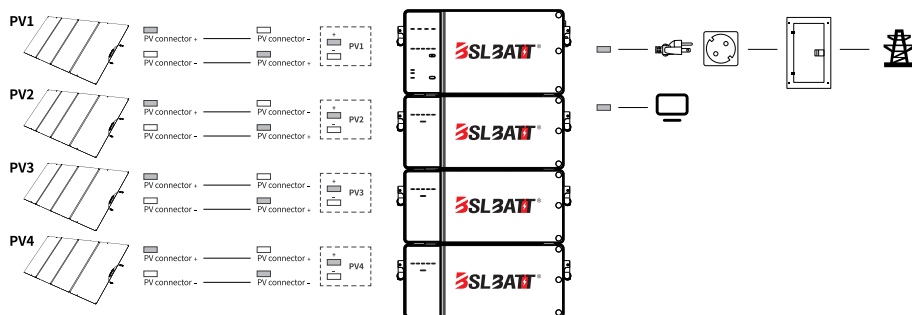
In off-grid mode: The off-grid icon illuminates.

Solar Panel Connection

Our products can be connected to solar panels for solar charging.

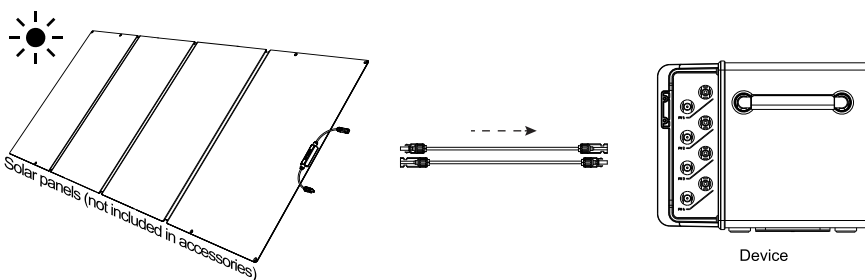
※Solar charging power depends on weather conditions and sunlight availability.

※Exceeding 60V solar panel voltage may damage the device and is not covered under warranty.



Solar Panel Charging

• Charging Setup



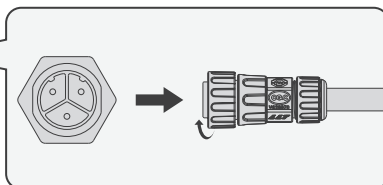
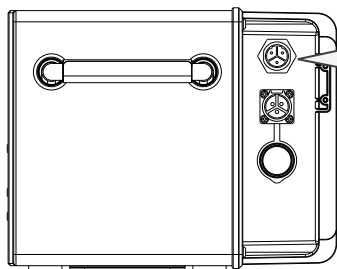
Important Notes

- ※ When charging the product with ECO PLAY 200W or 400W solar panels (individually wired), follow the instructions provided with the solar panels.
- ※ Before connecting solar panels, ensure their output voltage does not exceed 60V Voc (open-circuit voltage) to avoid product damage.
- ※ MPPT voltage range: 22-60VDC; open-circuit voltage: 65VDC.
- ※ MC4 parallel cables are not included.

Connection

Grid-Tied Connection

- Grid-Tied Connection Cable

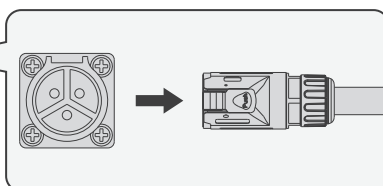
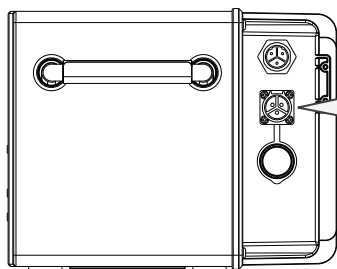
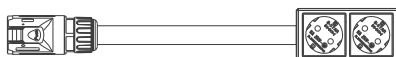


When connecting the grid-tied cable, first connect the cable to the main unit and tighten the nut. Then plug the socket into a household power outlet.

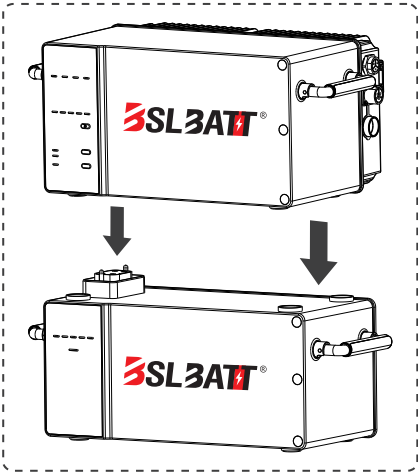
After installation, verify that all nuts are securely tightened.

Off-Grid Connection

- Aviation Socket Output Cable



Main Unit and Battery Pack Connection



When connecting the battery pack:
First align the right-side guidance mark and position the host unit's footpad into the battery pack's fixing slot. Then align the left-side guidance mark, gently lower the left side, and securely connect the host unit's parallel port to the battery pack's parallel port.

When separating the host and slave units:
Gently lift the right side by 1-2 cm. Carefully wiggle the left parallel port to loosen the connection. Lift the entire unit to complete separation.

- The host unit can connect to multiple battery packs via its parallel ports.

Balcony Photovoltaic Energy Storage Power Supply				
Balcony Energy Storage Battery Pack	0	× 1	× 2	× 3
Battery Capacity	1958Wh	3916Wh	5874Wh	7832Wh

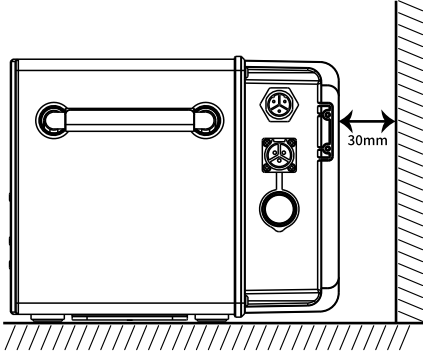
Safety Precautions

- Do not plug/unplug parallel cables while the product is operational. Perform connections/disconnections only when the device is powered off.
- Never short-circuit the host unit's parallel ports.

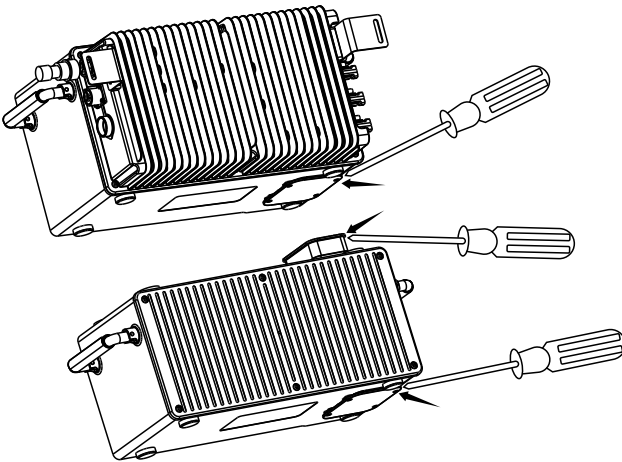
Installation

The following steps outline the installation process for one Balcony Photovoltaic Energy Storage Power Unit and one expansion battery:

1. Position the expansion battery: Place the expansion battery flat on the ground, ensuring it is 30 mm away from the wall.



2. Use a Phillips screwdriver to unscrew the four screws securing the waterproof cover plates on the bottoms of both the Balcony Photovoltaic Energy Storage Power Unit and the expansion battery. Remove the waterproof cover plates.



Battery Heating Function Guide

Each host battery pack and expansion power pack is equipped with a heating module. When the unit or expansion pack is charging and triggers low-temperature charging protection, it enters heating mode. During heating, the battery temperature gradually rises until the charger is disconnected or the minimum battery temperature reaches 10°C, at which point heating stops.

Operational Logic:

- (1) Auto Shutdown: If the unit is neither charging nor outputting power and remains idle for 5 minutes, it will automatically power off.
- (2) AC Always-On Function: When enabled, the AC output activates automatically upon startup but does not supply power when the battery level is 0%. In UPS mode, AC output remains active even at 0% battery level.

Enable/Disable:

- Press the AC Output button 4 times consecutively, two beeps will confirm activation.
- Press the AC Output button 6 times consecutively, three beeps will confirm deactivation.

Warranty

Warranty	
Name	
Address	
Phone Number	
Email	
Brand, Order Number	
Purchase Date	
Date Completed	
Please complete all the above information	

This product provides a 24-month warranty service from the date of purchase

- If there is a quality problem within the range of normal use, we provide warranty service.
- After purchasing our company's products, please keep this product together with invoices and other items. When maintenance services are needed, please provide information according to our company's request.
- In the case where the warranty is damaged or altered, and no stamp of the sales store on the warranty, the warranty service may not be provided.
- Damage caused by use beyond the normal range of use is not covered by the warranty service.
- The content of the warranty scope shall be subject to the content recognized by the company.
- Even within the scope of the warranty, sometimes it will be exchanged for products with the same function. The shipping and repair fees for products outside the warranty range shall be paid by the customer.
- Sometimes the specifications and functions of the product will be updated without prior notice.



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www.bsl-battery.com

Call: +86-752-2819-469

E-mail: inquiry@bsl-battery.com

Building 2, Area D, Qunyi Intelligent Manufacturing Industrial Park,
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