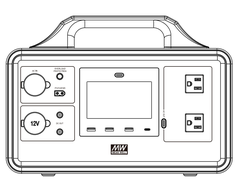
overload protection

ES-S500-US

Portable Power Station Instruction Manual



Attention! This manual is generally used in energy storage system products with an AC output range of 100-240V/50Hz-60Hz. The actual specifications of the product, especially the AC output, will be customized according to different countries, regions and users. Please read this manual carefully before using this product.

LED Display Switch

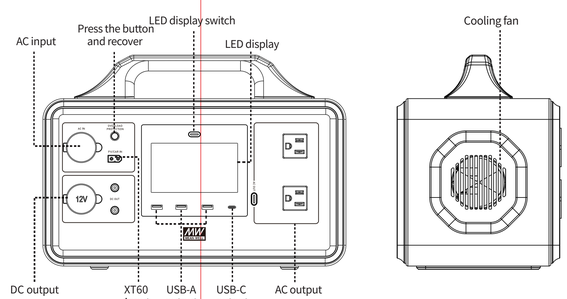
Short Press to control LED display on/off
Long press 2s clear the BT bind list

Input

1. AC: 500W Max.
2. Solar XT60: 200W Max.
3.Car Charger: 120W Max.

Output

1. USB-C: PD 100W
2. USB-A 1/2/3: 12W
3. Car Charger/DC Output shared 120W
4. AC: Stable at 500W, Peak at 1000W



Chargeable device

USB Output: Smartphone, Smartwatch, Digital Camera, E-reader, Tablet, etc.
12V Car charger Outlet: Light, Car Adaptor, etc.
AC Output：Laptop, LED screen, Household appliances, etc.

AC Output:

- LED lights 12V/5W (85 h)
- Camera 16WH (25 times)
- Laptop 60WH (7 times)
- TV 110W (3.8 h)
- Drone 60WH (7 times)
- Fan 45W (9.5 h)
- Wall breaking machine 250W (1.7 h)
- Projector 100W (4.3 h)

USB Output:

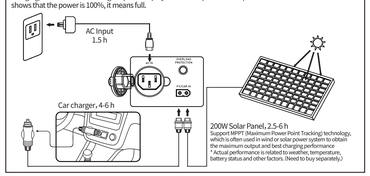
- iPhone 12 2851mAh (40 times)
- Nintendo Switch 4310mAh (27 times)
- Ipad pro2021 28.65Wh (15 times)

DC Output

- Car charger Outlet Car refriggerator 65W (6.5 h)

Charging Method

Before using or storing the product, please charge it with the charger cable. When connected to the mains for charging, the LED screen will light up and display the current power of the product. When the LED screen shows that the power is 100%, it means full.



200W Solar Panel, 2.5-6 h
Support MPPT (Maximum Power Point Tracking) technology, which is often used in wind or solar power system to obtain the maximum output and best charging performance
* Actual performance is related to weather, temperature, battery status and other factors. Need to buy separately.)

Operating Temperature range

Low temperature may affect the battery capacity of the product, The product can be charged in a temperature range of 0°C- 40°C. Charge the product when the temperature is below 0°C, We recommend placing the product in an insulated cooler or other temperature conditions, also connect it to a power source (AC output socket, solar photovoltaic panel). The product can charge the device in the temperature range of -10°C- 40°C.

Specifications

Capacity	Weight	Dimension	AC Input	Solar Input	Car charger Output	DC Output	USB-C Output	USB-A Output	AC Output
518Wh (27000mAh/ 19.2V)	7.4 kg	335*180* 236mm	500W Max.	XT60 200W Max.	120W Max.		PD100W	12W Max.	Stable at 500W Peak at 1000W

Battery Cell	Cycle times	Storage Temperature	Operation Temperature	Charging Temperature	Protect system	Bluetooth	Warranty	Certificate
LiFePO4 Battery	3000times	-10-45°C	-10-40°C	0-40°C	Overcharge protection, Over-discharge protection, Overcurrent protection, Over-temperature protection, Short-circuit protection, Overvoltage protection	Bluetooth 5.0 with App	12 months	FC RoHS

Packing list



Portable power supply | AC charger cable | User manual

Use Instructions

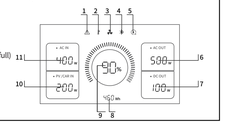
How to use it:
1. Press the switch button next to the port you would like to use.
2. When the indicator light next to the port is light up, the output will be turned on, and the responding device can be charged.
3. AC output is stable at 500W (peak at 1000W). If the rated power of the devices you are charing exceeds the maximum power, the power supply will be automatically turned off to protect the product from overload.
4. If the AC output is not loaded for 2 hours, it will be turned off. When the DC output is unloaded for 12 hours, it will be turned off.
5. If the product is not used for a long time, it should be recharged every three months. Also, it is better to keep the power at 60%-80% and store it in a cool and dry place.

Attention! If the AC port is not in use, please turn it off to save power.

LED Screen Instructions

The LED screen of this product displays the product usage status. When any function is activated, the screen will light up. When the screen display is not needed, you can press the button to turn off the LED screen.

1.Overcharge alarm
2.Temperature alarm
3.Fan identification
4.WIFI&Bluetooth status display
5.Charging status display
(Blinking: charging medium/Steady on: full)
6.AC output power
7.DC output power
8.Battery capacity
9.Battery level display
10.Solar charge power
11.AC charge Power



APP Instructions

Power Zero can connect all your devices via Bluetooth or wi-fi to track your energy use and production in real time, dynamically display the status data of the device in real time, and control the energy of the device in its own hands.
This software could be operated on mobile phones with Android 6.0 and IOS12.0 or above.

*The application is constantly improving. Therefore, the application description in this guide may not be consistent with the most recent version of the application.

Software installed

. Scan the QR code and install the opened app on your smartphone.

Power Zero

Login

. After installation, users can click the desktop icon to enter the login interface, you will enter the server switching interface when you open it at the first time.
. Select Register Account..Enter your e-mail address.A confirmation code will be sent to the email address previously provided for verification.Confirm your email in the app with the code you have just received and set a password.
. Log in with your e-mail address and the password you have chosen.
. If you have forgotten your password, select "Forgot Password?" and reset it.
. In the login interface click on the upper right corner -> enter the server selection interface, according to different regions to choose.If you select the wrong server, the app cannot retrieve device history data.

Adding devices

. After successful login, select "Add Device" in the upper left corner to add a device.
. Open Bluetooth® on your smartphone and location sharing on the phone and select the device to add it directly.
. Once the device has been successfully added, the name of your power station is displayed on the start page.
. Clicking on different devices in the device management page will switch the connection to different devices, left swipe on IOS system triggers modifying and deleting devices, long press on the device list on Android system triggers modifying and deleting devices.

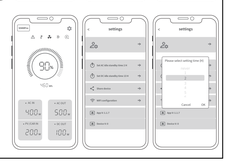


Equipment home page

Real-time display of device status: alarm, fan status, Bluetooth WIFI status, battery remaining, DC/AC output power, PV/AC input power.

App settings

Select the settings wheel at the top right to change settings or get information:
. Account Management.
. Set AC idle standby time.
. Set DC idle standby time.
. Share Equipment.
. Wireless network Settings.
. App and device information.



Fault diagnosis

If your device is not successfully charged with this product, please follow the steps below:
1.Ensure that the output port is open, LED indicator lights on the power button.
2.Check the LED power display, if it is 20% or less, please charge the product.
3.The power of the device you are using exceeds the maximum power of the port of the product.
4.The device link cable you are using is not plugged in well or has poor contact.

Frequently Q&A

Q: What is the battery type?
LiFePO4 Battery.

Q: Can the product be taken on the aircraft?
No, According to the airline transportation standards, 100Wh capacity of lithium battery can not board the aircraft.

Q: Can be charged with solar panels from a different brand?
Yes. Please use solar panels that meet the following specifications for charging. Voltage range: 12-28VDC, Rated output power (discharging): 200W max. (Choose our solar photovoltaic products, just insert the DC port, you can easily charge the product with solar energy. This product uses MPPT (Maximum Power Tracking) technology, which can compare the output voltage point of the solar panel with the battery voltage of the product in real time, so as to find the maximum power output point that the solar panel can provide and charge the battery of the machine to obtain the best charging efficiency. * Actual performance is related to weather)

Q: How to estimate the working time of the product?
The LED display of this product can help you better understand the working status of the power supply. You can recognize the remaining working time of the product by the battery percentage in the display.

Warranty and Contact Information

Under normal use of the product, it will not affect the result of defective workmanship and materials used in the product: This warranty period describes the complete and exclusive warranty obligations of the product, and we will not assign or authorize anyone to be responsible for any other products.

warranty period
Product warranty period of 1 year. In all cases, the warranty period starts from the date of purchase by the consumer. In order to ensure the start date of the warranty period, the consumer needs to provide proof of purchase or other reasonable supporting documents.

The following conditions are not covered by the warranty
1.The appearance of the product is damaged after use.
2.Unauthorized disassembly and maintenance of non-professionals.
3.Performance problems caused by human factors.
4.Damage caused by natural disasters, lightning Strikes, accidents and other irresistible factors.

How to get warranty service
You can contact our customer service through our official website or e-commerce platform. Thank you for your cooperation!

Chemical composition of toxic and harmful substances

Part Name	Toxic and harmful substances or chemical elements					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
Product shell	O	O	O	O	O	O
Circuit module	X	O	X	O	O	O
button	O	O	O	O	O	O
Small hardware	O	O	O	O	O	O
Charging Cable	O	O	O	O	O	O
Battery	X	O	O	O	O	O

O: The content of hazardous substances in homogeneous materials all components are limit requirement specified in GB / T 26572.

X: The content of hazardous substance in at least one of the average materials of the part exceeds the limit requirement of GB-T 26572, and there is no commercially available alternative, which meets the environmental protection requirements of the EU RoHS directive.

This information for reference purposes only and does not represent a binding agreement. Product (Color, Size, OSD, etc) in kind prevail.

Important safety information

Warnings!

Please notice the following safety precautions carefully.
A.Do not make a short-circuit. Please avoid storing the product together with metal objects, such as coins, jewelry, keys, etc.
B.Do not water or heat the product, such as putting in the fire or liquid, including direct sun light.
C.Do not place the product in a highly humid and dusty environment.
D.Do not disassemble the device in any way.
E.Do not drop, put heavy objects on or strongly impact the product.
F.Please place this product in a place where people with low physical, sensory and mental abilities, lack of experienced and relevant knowledge person can not reach, unless there is supervision or guidance by personnel responsible for their safety.
G.Please avoid children operating this product.
H.Do not cover the product with towels or clothing when using it.
I.Get hot when being charged is a normal phenomenon, please be careful.
J.Do not exceed the time request for this product to be charged.
K.Please disconnect with the product in time if the appliances are fully charged.
L.Please use the product normally and avoid electric shock.
M.Please deal with the scraps according to the regulations. Do not treat the built-in batteries as domestic garbage, so as not to cause explosion and pollution.
N.Only used for emergency power supply, can not replace standard DC power supply or AC power supply for household appliances or digital equipment.

RoHS
Made in china