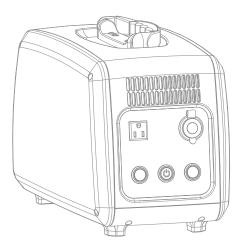
# **Operating Manual**

Portable Power Station

## PS10B



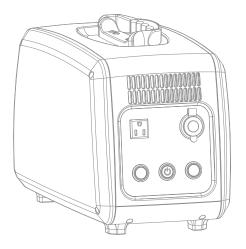
Many thanks for buying this Portable Power Station. In order to use this product safely, please read this manual carefully; and please safekeep this manual so that you can read it any time you need. Please also keep the receipt for your order as proof of purchase.

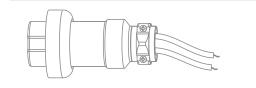
Note:	Disobeying safety considerations may cause human injury such as fire hazard or
NOLE.	electric shock, etc.

## Contents

1. Packed Items			• • •	• • •	• • •	• • •	• • •	• • •	• • •	•••			•	•••		1
2. Preface · · · · · · · · ·		• • •						• • •	• • •	• • •	• •	• •	• •	• •	•	2
3. Safety Considerations	;							•••		• •	• •	• •	• •	• •	•	3
4. Name of Parts ••••		• • • •				• • •	•••	•••	•••	• •	• •	• •	• •	• •	•	7
5. Lifting & Handling							• • •	• • •			• •	• •				8
6. AC Charging •••••		• • •					• • •	•••	• • •	• •	• •	• •	• •	• •	•	9
7. Solar Charging							• • •		• • •		• •	• •	• •			10
8. AC Output		• • • •				• • •	• • •	• • •	•••	• •	• •	• •	• •	• •	•	12
9. Estimated Backup Tim	1e ••••					• • •		• • •	•••	• •	• •	• •	• •	• •	•	15
10. Charging & Discharg	0															16
11. Storage						• • •	• • •	• • •	• • •	• •	• •	• •	• •	• •		17
12. Lithium Ion Battery I	_ifespan						• • •	• • •	• • •	• •	• •	• •	• •	• •		18
13. Recycling of LiFePO	4 Battery					• • •					• •	• •			•	19
14. Maintenance		• • • •					• • •	• • •	• • •	• •			• •	• •		20
15. Product Specificatio	n Paramet	ers						•••	•••	• • •	• •	• •	• •		•	21
16. Warranty& After-ser	vice •															21

## 1. Packed Items





Solar Input Plug × 1



AC input Plug × 1

Product specifications and guarantee

 $\times$  1

## 2.Preface

Please pay attention to the following content when reading the operating instructions.

- Changes to this manual will not be mentioned in the future.
- Product appearance changes or specifications will not be mentioned to users in the future.
- We have tried our best to make this manual. Please contact us for elaboration, mistakes or omissions.

#### Disclaimer

- Our company is not liable for the damage caused by fires, earthquakes, third party use or other accidents, customer's willful misconduct, misuse and other abnormal conditions.
- Please do not repair the connector if it fails, when using the product.
- See separate warranty document for warranty information.
- Our company refuses to take responsibility for damages caused by operation for disobeying operation manual.

## 3. Safety Considerations

#### Please follow the instructions for safe use.

#### **Display Description**

Danger indicates that	Incorrect operation will very likely to result in death or serious injury.
Warning indicates that	Incorrect operation will lead to the possibility of death or serious injury.
Notice indicates that	Incorrect operation may result in injury or property damage.

Serious injury: refers to blindness, injury, burns, electric shock, fractures, poisoning, etc that may lead to complications, hospitalization or regular treatment.

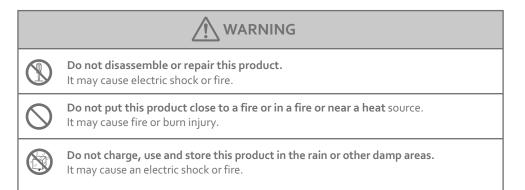
Harm: refers to injuries, burns, electric shock, etc that does not need hospitalization or regular treatment.

Property damage: refers to damage to houses, family property, pet, etc.

#### Symbol Indicator

$\bigtriangleup$	Triangle means attention to fire, fracture, high temperatures, etc. The picture describes the specific attention content.
$\bigcirc$	Means the behavior is prohibited during operation of the product. The specific prohibited behavior is illustrated or described in the picture.
	Circle means behavior that is required during the operation of the product. The specific required behavior is illustrated or described in the picture.

• For safe use of PS10B, we pasted a notice label. Please use the product with reference to the manual content and label.







Do not touch this product and connector socket when your hands are wet. It may cause an electric shock.

Do not connect the metal to AC input and output. It may cause an electric shock or fire.



Do not dispose this product as normal waste. This may cause an electric shock or fire.

Do not use the un-specified AC connector wire. It may cause an electric shock, fire, etc.

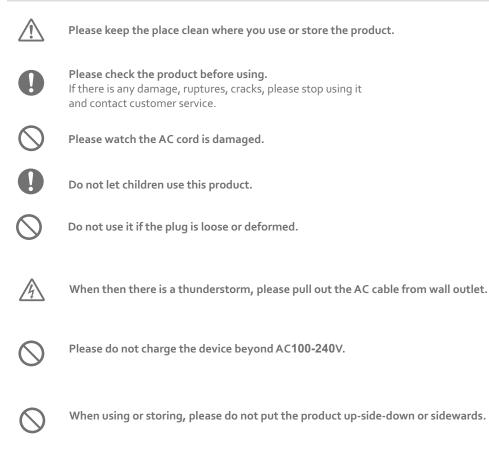


Do not exceed the rated voltage, current, or power specifications. It may cause an electric shock, fire, etc.

Do not drop this product. It may cause electric shock, fire, product damage, etc.

Please do not move the product when it is being charged or used. It may case fire or electric shock and other injuries or product damage.









If you notice any over-heating, please stop using the product immediately and contact customer service.



This product is very heavy, please mind when operation.



For transportation, the product conforms with all the legal requests about batteries.



Please make the product stable when shipping it by automobile.



Product must connect to AC ground wire when charging .



Do not expose to water or other liquids.



Please charge, use and store at these temperatures: 32F to 104F (0C to 40C). It will cause low efficiency or heating if product is used beyond this temperature range.



Please read carefully the instructions of the electrical device to connect to this product.

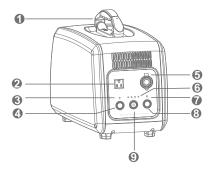


Please ensure that the device is turned off before connecting.



When the protection function starts and the product shuts down the output, please disconnect electrical appliances from the AC output outlet.

## 4. Name of Parts





- Handle
- AC Output Outlet
- AC Output Indicator
- AC Output On/Off
- O DC12V Output Outlet
- **(**) Capacity Indicator
- DC Output Indicator

- Output On/Off
- Power On/Off Button
- AC Input Socket
- AC Input Indicator
- Solar Input Indicator
- Solar Input Socket

## 5.Lifting & Handing

1. Pull the handle up



Notice Keep the product away from anything moving. 2. Moving by carry handle





3. Place in a stationary place



4.Do not place it where it is unsteady



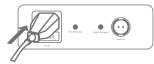
## 6.AC Charging

#### 1.Press the power on/off button

Power indicator lights up, also the capacity indicators show battery capacity.



2.Connect AC cable



\land Notice

Make sure the AC cable plug is inserted into the AC input socket

3.Connect AC cable to wall AC outlet



Please make sure AC cable plug is inserted into standard AC outlet. (PS10B-P1:100V/110V/120V;PS10B-P2:220V/230V/240V) Capacity indicator flash every 2 seconds, AC input indicator lights up.

4.After fully charged: 4 green indicators lights up.



Charging time alters based on ambient temperature or charger internal state.

5.Press Power on/off button to stop charging



Power off, stop charging and disconnect the AC input cable from wall AC outlet.

## 7.Solar Charging

1.Special solar input connector



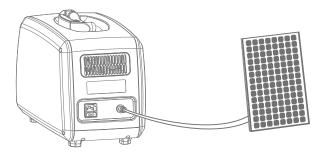
2. Connect the solar panel to solar input connector

Red wire connects to positive of solar panel and black wire connects to negative of solar panel. (attention: Open circuit solar panel voltage should be between DC18V ~ DC54V)

3. Press power on/off button: solar charging indicator lights up and also battery capacity indicators

4.Plug the solar input connector into solar charging input socket

Capacity indicator flashes once per second and also solar input indicator lights up. It's normal that if the product heats up (charging ambient temperature requires  $0\sim40$  °C)



5. Fully charged by solar panel: 4 green indicators light up (PV max input power 210 watts)



6. Power off to stop charging

Press the power on/off button, unplug solar input connector from solar input socket

#### 6. Capacity Indicator

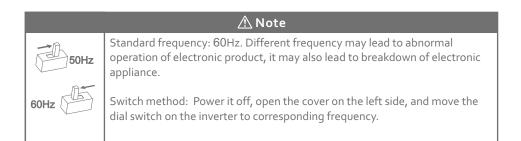
	Indicat	or State	Indication
	O O O O 25 50 75 100	4 indicators off	Power off or no electric inside
	25 50 75 100	1 green on	Flashing every second, charging, SOC 0%~25%
Normal	25 50 75 100	2 green on	Flashing every second, charging, SOC 25%~50%
	25 50 75 100	3 green on	Flashing every second, charging, SOC 50%~75%
	25 50 75 100	4 green on	Flashing every second, charging, SOC 75%~100% 4 lights means it's charged fully and charging stops
		Green on	Normal AC Input
		Light off	Abnormal AC Input or no input
	•	Red on	AC charging short-circuit protection
	AC input indicator	Red flashing	AC charging over temperature protection
tion		Orange on	Fan failure
Need confirmation		Orange flashing	Battery failure
con		Green on	Normal solar input
Need		Light off	Abnormal solar input or no input
2	Colorinout	Red on	Solar charging short-circuit protection
	Solar input indicator	Red flashing	Solar charging over temp protection
		Orange on	Fan failure
		Orange flashing	Battery failure

## 8.AC Output

#### 1.Press the on/off button

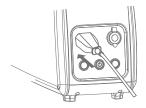


#### 2.Match the frequency of the electronic appliance (50Hz or 60Hz)



#### 3.Connect other electronic devices input plug to the AC output outlet.

Make sure the input plug of other electronic device is inserted into the AC output outlet.



#### \land Note

Connect electric appliance to AC output outlet and check whether well connected. Please make sure the electric appliance is powered off before connecting.

#### 4.Use of electrical appliances



Make sure electric appliances are powered off before using.

Confirm the battery capacity according to indicator 1-4 lights during processing.

Usage time is varied due to the ambient temperature or change of the built-in LiFePO4 battery.

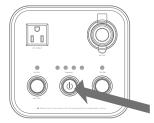
It's normal if the product heats up during output.

#### \land Note

Please make sure the electric appliance works well before using the product. The max AC load of power consumption for electric appliance is 500 Watts.

#### 5.Stop using the appliance

Power off: pull out the connector of electric appliance, press power on/off button.



#### \land Note

When the product operates more than 12 hours without load, AC output will cut down automatically to avoid self-consuming. Please restart the product when you use it.

#### 6. Discharging SOC Indicators

$\square$	Indi	cator State	Indication					
	• • • • 25 50 75 100	4 green on	Discharging, SOC 75 ~ 100%					
	• • • O 25 50 75 100	3 green on	Discharging, SOC 50~75%					
Normal	• • O O 25 50 75 100	2 green on	Discharging, SOC25 ~ 50%					
Nor	• O O O 25 50 75 100	1 green on	Discharging, SOC 0 ~ 25%					
		Green	Output 50Hz					
	AC output indicator	Red	Output 60Hz					
	<u></u>	Flashing between green and red	Inverter over load, over temp; battery low voltage, over voltage; fan failure. These are general alarms if inverter can still output.					
Abnormal	AC output indicator	Red Flashing	Inverter misoperation, no output from inverter: bad alarm Cut off load, check if there is over load, short-circuit.					
	O DC output indicator	Light off	Abnormal DC12V output.					

●…Light on 🎽…Twinkle ○… Light off

## 9. Estimated Backup Time (based on PS10B 1500Wh model)

Please ensure the load for power station is no more than 500 watt, matching electrical appliances with standard AC input.(PS10B-P1:100V/110V/120V;PS10B-P2:220V/230V/240V).

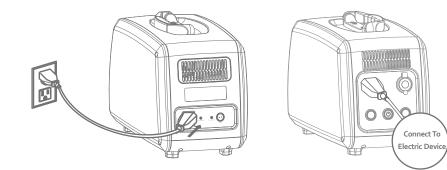
Power consumption	Estimated back up time
20W	~70hours
50W	~28 hours
100W	~14 hours
200W	~7 hours
300W	~4.5 hours
400W	~3.5 hours

#### • Estimated Backup Time

## 10. Function of Charging & Discharging Simultaneously

PS10B power station can be discharged while charging.

In the condition of charging, it can supply power to electric appliance at the same time.



## 11.Storage

#### 1.Full charge

Fully charge the power station before long term storage. Fully charge the power bank 4 times a year.



lo`o

#### 2.Shut down all the buttons

After fully charged, pull out AC input connector from AC input socket, shut down on/off buttons

#### 3.Clean

Keep the unit clean.



#### 4.Storage

Try to store the power station in a dry and low dust environment. Suitable storage temperature:  $0{\sim}40^{\circ}$ C, avoid direct sunshine. Please store the product at stable place.



## 12. Use Life of the LiFePO4 Battery

- Charge, discharge and storage at 0~40°C Using battery with too low or high temperatures may shorten battery cycle life.
- Don't connect loads with more than 500W Over load makes PS10B stop discharging automatically and may shorten battery cycle life.
- Don't charge battery after it's fully charged Pay attention to the SOC indicators, don't charge battery after fully charged or finishing fully charged. Otherwise, it shortens cycle life of LiFePO4 battery.
- Don't discharge battery when SOC is 0
- Fully charge the product for storage

For long-time no-use state, please keep the product fully charged for storage, and recharge it at least once a year.

## 13.Recycling LiFePO4 Batteries.

After use, complete LiFePO4 batteries can be recycled. Take to your local recycling facility.



Phenomenon	Status	Main reason	Resolution
	Cannot start charging	Not enough power	AC wire is not connected or not connected well
	Carrier charging	No solar input	Check whether wiring is normal
Unit is not charging	Charging more than two hours of battery shows no increase	Internal Temperature Problems	Place the product at a lower temperature 0~40°C.
			I
	Electrical output does not work correctly	No power supply	Confirm electrical plug is inserted into ac socket
		No matching frequency	Confirm the matching frequency
Output does not work	Electrical output starts	Overload protection function start, output stop	Restart AC output button, make sure load is < 500 Watts
	but stops after a minute	Electric power is less than 10W	Restart AC output button, confirm the total power (when the power is less than10W for more than 12 hours, the unit presumes no load and shuts off)
Electric work but short time			
		Electric overload	Lower total power of electricity
	Remaining capacity quickly reduce	Battery cycle life	Please stop charging immediately and contact customer support

## **15**.Specification

Model		PS10B-P1	L	PS10B-P2				
Battery Capacity	700Wh	1200Wh	1500Wh	700Wh	1200Wh	1500Wh		
	Output							
Rated Output Power	500 <b>VA</b>							
Peak Output	750VA 10s							
Output Voltage	100	V/110V/120	Vac	200	V/230V/2	40Vac		
Output Frequency			50Hz	z/60Hz				
Overload Ability	1209	% <load<13< td=""><th>30% @10r</th><td>min; 130%</td><td>%<load<15< td=""><td>50% @10s</td></load<15<></td></load<13<>	30% @10r	min; 130%	% <load<15< td=""><td>50% @10s</td></load<15<>	50% @10s		
Max Efficiency			90% (>	70% load)	1			
Car Plug Output			DC1	2V6A				
			AC C	Charge				
Input Voltage	88~264Vac							
Power Factor	≥0.94(full load)							
Input Frequency	50Hz/60Hz							
Max Charge Power	327W							
			Solar	Charge				
Max Input Power	210W							
Start - up Voltage	18Vdc							
MPPT Input Voltage	18~50Vdc							
Max Input Voltage	54Vdc							
	General							
Working Condition	Relative Humidity: 5%~90%							
working condition	Temperature: 0~40°C							
Dimension(mm)	$L405 \times 215 \times 261$ (Product)							
	L485×296×390(Packing)							
Weight	7.8/10/12Kg (Net Weight)							
Weight	9.4/11.4/13.6Kg (Gross Weight)							

## 16.Warranty & After-sale Service

#### Warranty

See separate warranty document.

Questions, please contact: Bioenno Power Phone: 888-336-7864 or +1714 234-7363 Email: sale@bioennopower.com