



## User Manual



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## 1. Disclaimer

Thank you for purchasing this product. Read all instructions carefully before using this product. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. This manual is intended to assist you in using the product. Software and hardware specifications in this manual are for reference purpose only. For detailed specifications of your product, see the Purchase Agreement (if any) of your product or consult your local dealer. All pictures shown in this manual are for illustration purpose only. Actual product may vary. BigBlue reserves the right of final interpretation for the contents in this manual and all documents associated with this product. We also reserve the right to update, change or terminate this manual without prior notice. If you have any questions or comments, please contact us at [support@ibigblue.com](mailto:support@ibigblue.com). We will get back to you as soon as possible.

## 2. Introduction

Thank you for using Cellpowa 2500. The product is intended to provide electricity for your electrical or electronic appliances in the event of a power outage or during a trip. Equipped with DC output, USB output and AC output, the product can supply electricity to devices such as mobile phones, tablets, notebooks as well as lighting and automobile devices. The product has a built-in LifePO4 battery, which is the safest and most reliable.

## 3. Safety Instructions

**Read all instructions carefully before using this product.**

1. Keep the product out of the reach of children. Close supervision is necessary when the product is used near children.
2. Use accessories only recommended or sold by BigBlue. Otherwise, it may cause electric shock.
3. Disconnect the product from the power supply when the product is not in use.
4. Never disassemble the product. Disassembling the product may cause hazards such as fire or electric shock.
5. Charge the product in a well-ventilated area. Never cover the ventilation slots on the product in any way.
6. Put the product in a ventilated and dry place to prevent water entering the product. Risk of electric shock!

7. Follow local rules to dispose of your old product. Never dispose of the built-in battery with normal household waste to avoid pollution.
  8. Do not put your finger, palm or any part of your body into the product.
  9. Do not store the product with metal objects such as coins, jewelry and keys, etc.
  10. Do not throw the product into fire, water or other liquids. Protect the product from extreme temperatures and direct sunlight.
  11. Do not place the product under heavy objects. Do not subject the product to strong impacts, such as letting it fall.
  12. Do not cover the product with towels and clothes when it is in use.
  13. Disconnect the product from the power outlet promptly after it is fully charged.
  14. Never insert metal objects into the connectors or other openings on the product.
- Risk of personal injury!

## 4. Technical Data

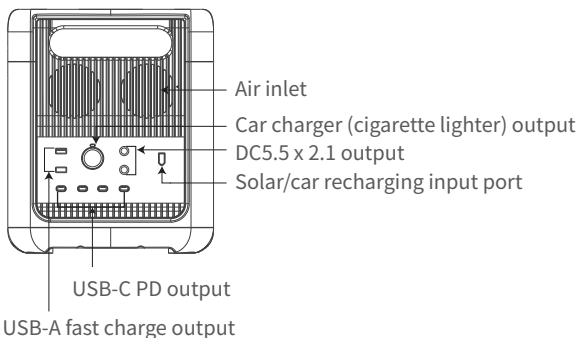
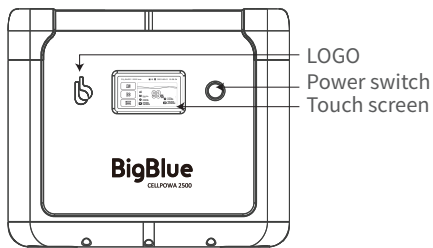
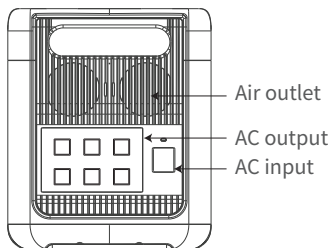
Battery	
Battery capacity	1843.2Wh (36Ah / 51.2V)
Built-in battery	LiFePO4 battery (electric vehicle grade)
Life cycle	≥3500 times (capacity ≥ 80%)
Recharging	
AC recharging	1200W
Car recharging	12-24V = 10A (max. 240W)
Solar recharging	12-65V = 22.5A (max. 25A/1200W)
Time to recharge	
AC recharging	1.5 hours (charge to more than 80%)
Car recharging	12-14 hours (12V), 6-7 hours (24V) (charge to 80%)
Solar recharging	1.5 hours (charge to 80% via six BigBlue SP200 or three BigBlue SP400 solar panels) At standard irradiance of 1000W/m <sup>2</sup>

	Outputs
AC	EU: 220V-240V~10.8A, continuous 2500W (peak 5000W); 50Hz (2xAC: max. 2500W) US: 120V~20.83A, continuous 2500W (peak 5000W); 60Hz (6xAC: max. 2500W)
2 x USB-A (fast Charge)	5V~3A,9V~2A,12V~1.5A,max. 18W (2 x USB-A:max. 36W)
2 x USB-C (PD)	5V,9V,12V,15V~3A,20V~2.25A,max. 45W (2 x USB-C:max. 90W)
2 x USB-C (PD)	5V,9V,12V,15V~3A,20V~5A,max. 100W (2 x USB-C:max. 200W)
2 x DC 5.5mm	12V~5A,max. 60W
1 x Car charger (cigarette lighter)	12V~10A,120W (2 x DC + 1 x car charger: max. 120W)
other	
Weight	about 25.3kg / 55.77lbs
Dimensions	384 x 274 x 325mm / 15.12 x 10.79 x 10.8inch
Discharging temperature	-15°C~45°C (5°F~113°F)
Charging temperature	0°C~45°C (32°F~113°F)
What' s in the box	1 portable power station, 1 AC charging cable, 1 MC4-XT60 cable, 1 cigarette lighter-XT60 cable, 1 user manual (with warranty card),1 accessory bag

Technical data above are provided by BigBlue Laboratory. Actual data may vary depending on the operating environment, how the product is used as well as the charging duration. Technical data are subject to change without notice.

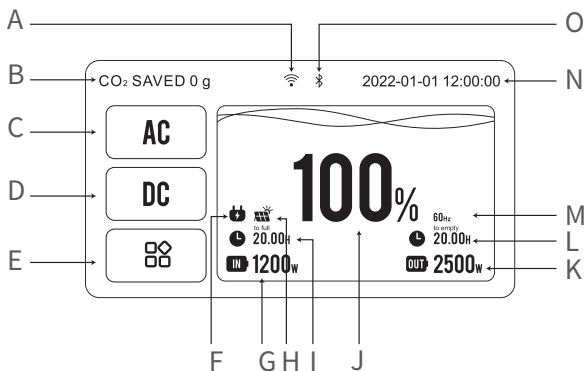
## 5. Product Overview

### 5.1 Connectors



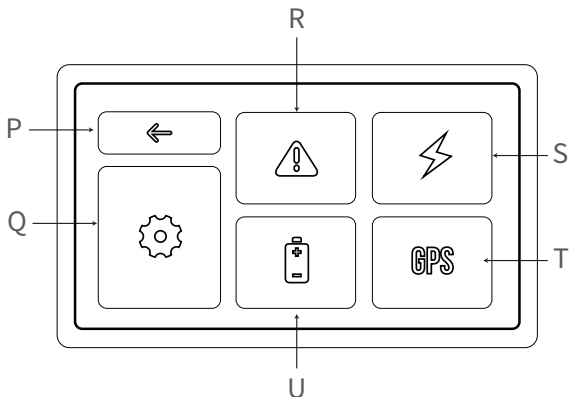
## 5.2 Screen

### 5.2.1 Primary User Interface



- A. Wi-Fi: The Wi-Fi icon is displayed on the home screen when the Wi-Fi connection is completed. To connect to the network for the very first time, enter your account and password.
- B. Reduction of CO<sub>2</sub>: Amount of CO<sub>2</sub> reduced through solar charging using the product.
- C. AC: Tap the AC icon to activate the AC output.
- D. DC: Tap the DC icon to activate the DC, USB-A and USB-C outputs.
- E. MENU: Tap the MENU icon to view/change the device information, including the output/input parameters, battery, time and network settings.
- F. AC charging: AC input icon.
- G. Input power: Current input power.
- H. Solar charging: solar input icon.
- I. Time to recharge: Determined based on the current power consumption.
- J. Battery percentage: Current remaining battery. Recharge the product when the remaining battery is less than 10%.
- K. Output power: Current output power.
- L. Remaining battery in hours: Determined based on the current electricity consumption.
- M. AC frequency: Current AC frequency of the inverter.
- N. Date and time: Current date and time, which can be reset in Settings.
- O. Bluetooth: Bluetooth is enabled.

## 5.2.2 Secondary User Interface



P. Back: Tap to return to the previous menu.

Q. Settings: Tap to enter the system settings.

R. Warning.

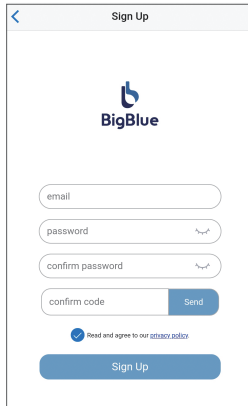
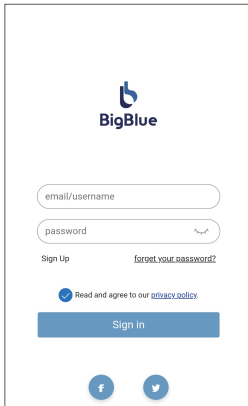
S. Charge and discharge information: Displays AC/DC charge and discharge power, voltage, current and temperature.

T. GPS: Tap to enter the GPS positioning. When positioning is completed, the longitude and latitude coordinates are displayed.

U. Battery information: Tap to view the remaining battery, remaining capacity, health data, voltage, temperature, time to recharge and remaining battery in hours.



## 6. APP Guide



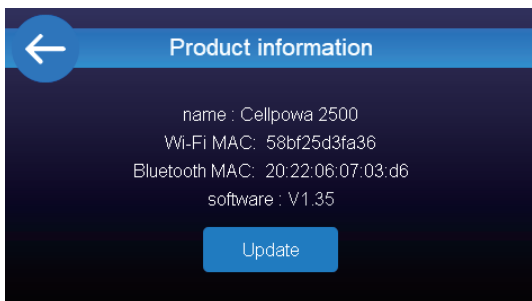
### 6.1 Registration and Login

- You are allowed to control the product via app. Download and install the “BigBlue Energy” app on the App Store, Google Play or the BigBlue official website <https://bigblue-tech.com>.
- Create an account first. Tap “Register” and fill in your email address (used to receive the verification code) and password.
- Tap “Send”. Enter the verification code received in your email and tap “Register” to finish the registration process. Enter your account and password to log in to the app.

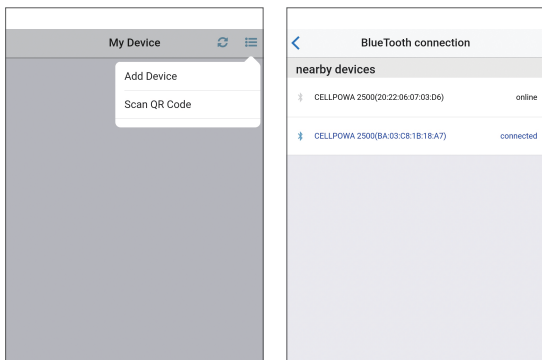
### 6.2 Connect to Cellpowa 2500

1. Add a device first. Go to the Menu → Settings → Product Information to view the Bluetooth Mac address of the product (each device has a unique Mac address).
2. Turn on Bluetooth on your phone. Open the BigBlue Energy app and tap “+” at the upper right of the app to add device. Search the Bluetooth Mac address of the device you want to add in the device list. Tap “OK” in the popup window to complete the addition, then you can control the Cellpowa 2500 via the app.
3. Bluetooth connection.

- On the Home screen, go to Menu → Settings → Product Information to view the Bluetooth Mac of the product (A unique Mac address is assigned to each machine).




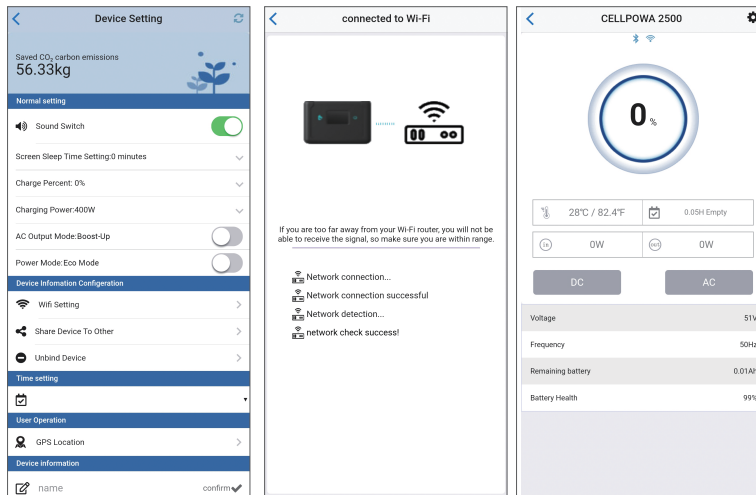
- Open the BigBlue Energy app. Tap “Add Device” at the upper right corner. Tap the Bluetooth Mac address of the device you want to add. Once the device is added, the device name turns blue, indicating successful connection.



#### 4. Connect to Wi-Fi

- Connect your mobile phone to a Wi-Fi network.

Tap the device bound via Bluetooth. Tap “” at the upper right corner to enter the Settings interface. Go to the Wi-Fi Settings, select a Wi-Fi and enter the password to connect.



#### 5. OTA upgrade

- This product supports OTA upgrade. You can implement an OTA upgrade via the app when Wi-Fi is connected.

### 6.3 APP Operation

The app allows you to turn on/off the AC/DC output of Cellpowa 2500, as well as view and set the product specifications in real time.

## 6.4 APP Download

Download and install the “BigBlue Energy” app on the App Store, Google Play or by scanning the QR code below. For more information about the BigBlue Energy app, please visit the BigBlue website [bigblue-tech.com](http://bigblue-tech.com)



## 7. Operation

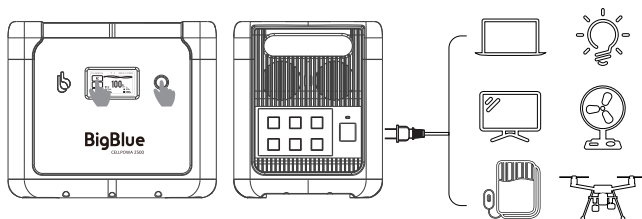
This product includes a resistive touch screen. Use your fingertips to tap the screen and release after hearing a beep.

### [Notes]

- The current power and remaining battery in hours displayed are for reference only. Actual data may vary.
- The product supports intelligent temperature control. The intelligent cooling fan is automatically turned on to cool the product down when the product temperature exceeds the limit. The cooling fan runs at low speed when the input power is 0 to 600W, runs at medium speed when the input power is 600W to 1500W and runs at high speed when the input power is above 1500W. The cooling fan may produce noise, which is a normal phenomenon.
- Under the temperature protection mode, Cellpowa 2500 automatically stops and a triangle warning icon appears on the screen. Wait until the battery temperature returns to the normal range and restart the Cellpowa 2500. Cellpowa 2500 will enter the temperature protection mode and stop operating when its temperature becomes too low or too high.
- With multiple AC/DC output ports, the product can deliver a max. AC output of 2500W and a max. DC output of 420W, totally 2900W.
- This product supports Pass-through charging. The AC, DC and USB outputs are available when the power station is operating.

## 7.1 Output Mode

### 7.1.1 AC Output



1. Press and hold the power switch for 3 seconds to turn the power station on. Tap the AC icon on the touch screen to enable the AC output.

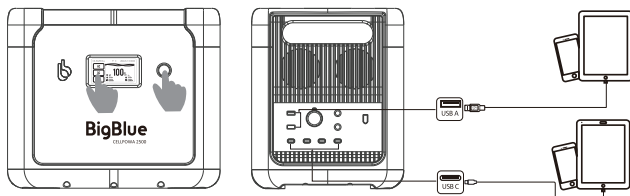
2. Uninterruptible Power Supply (UPS): To use the UPS function, connect Cellpowa 2500 to a wall outlet with the AC charging cable, then connect your devices with the AC output ports on Cellpowa 2500. At this time, the electricity supplied to your devices comes from the grid. When the grid goes down, Cellpowa 2500 automatically supplies electricity to your devices through its battery within 10ms. Before using this power station to supply electricity to devices with stronger need for power supplies, such as CPAP machine, perform repeated tests to ensure the compatibility with UPS.

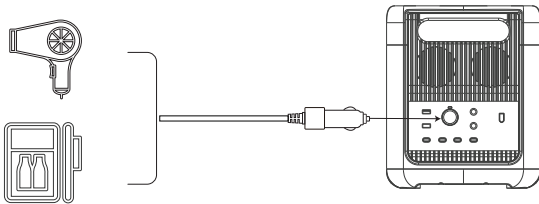
#### [Notes]

- Cellpowa 2500 supports Boost-Up mode, which is recommended when the total power required by the load equipment is more than 2500W. In this mode, Cellpowa 2500 can support the normal operation of connected devices with a load of up to 3500W. The Boost-Up mode is not applicable for all electric appliances. Some electric appliances such as those with rated power of more than 2,500W, strict voltage requirements and voltage protection (e.g., precision instruments) may not work in the Boost-Up mode. Perform tests to approve the feasibility before adopting this mode. When the Boost-Up mode is not enabled, output exceeding 2500W will trigger overload protection and shut down the AC output in 5 minutes. After three consecutive overloads, the AC output will become unavailable. You need to recover it by restarting the power station.

- Cellpowa 2500 supports Pass-through charging. When Cellpowa 2500 is connected to the AC socket and load at the same time, the equipment will be preferentially powered by the grid (Bypass mode). In Bypass mode, the total power cannot exceed the bypass input limit 15A, which is 1500W in Japan, 1800W in the United States and 2300W in Europe). Otherwise, overload protection will be triggered and the AC output will be stopped. We assume no liability for any resulting product failure or damage if you do not follow the instructions on proper operating the product and testing the device compatibility.
- A short circuit in AC output will trigger the short-circuit protection and shut down the AC output.
- Power Saving mode:  
In Power Saving mode, when the load power is less than 5W, the AC output will be shut down in 10 minutes and Cellpowa 2500 will be turned off in 6 hours. Switching off the Power Saving mode will enable stable AC output over an extended period. But Cellpowa 2500 will be turned off in 6 hours when the AC load power is less than 5W.
- We assume no liability for any resulting product failure or damage if you do not follow the instructions on proper operating the product and testing the device compatibility.

### 7.1.2 DC, USB-A and USB-C Outputs





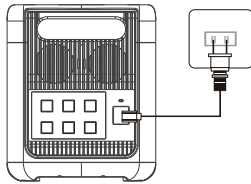
1. Press and hold the power switch for 3 seconds to turn the power station on. Tap the DC icon on the touch screen to enable the DC, USB-A and USB-C outputs.
2. 2 x USB-A QC 3.0 fast charge ports: Each port supports a power output of 5V $\rightarrow$ 3A, 9V $\rightarrow$ 2A and 12V $\rightarrow$ 1.5A, with a maximum output of 45W.
3. 2 x PD 45W USB-C ports: Each port supports a power output of 5V/3A, 9V/3A, 12V $\rightarrow$ 3A, 15V $\rightarrow$ 3A and 20V $\rightarrow$ 2.25A, with a maximum output of 45W. These ports can be used to offer fast charging for smart devices which support PD fast charge protocol, such as mobile phones and laptops.
4. 2 x PD 100W USB-C ports: Each port supports a power output of 5V $\rightarrow$ 3A, 9V $\rightarrow$ 3A, 12V $\rightarrow$ 3A, 15V $\rightarrow$ 3A and 20V $\rightarrow$ 5A, with a maximum output of 100W.
5. 2 x DC5521 ports: 12V $\rightarrow$ 5A (single port), 12V $\rightarrow$ 10A in total.
6. 1 x car cigarette lighter port: 12V $\rightarrow$ 10A, sharing 12V $\rightarrow$ 10A with the 2 x DC5521 ports.

#### [Notes]

- To use the USB-A/USB-C ports, you must turn on the DC switch first. When the DC output is not in use, turn off the DC switch in time.
- If the USB port is short-circuited or the load power exceeds the output power of the USB port, the short-circuit protection or overcurrent protection will be triggered and the port in use will be disabled. After the load is disconnected, the output will be recovered automatically.
- The output voltage of the 2 x DC5521 ports and the car cigarette lighter is 12.5V-13.5V.
- The output of each DC5521 port is 12V/5A. When the output power of a single port exceeds 100W, overcurrent/overload protection will be triggered and the port in use will be disabled. When the total output power of the two ports exceeds 140W, overcurrent/overload protection will be triggered and both ports will be disabled. After the load is disconnected, the output will be recovered automatically.
- The output of the car cigarette lighter is max. 140W. When the output exceeds 140W, overcurrent/overload protection will be triggered and the car cigarette lighter port will be disabled. After the load is disconnected, the output will be recovered automatically.

## 7.2 Input Modes

### 7.2.1 AC Input



1. To recharge the Cellpowa 2500 power station, connect it to a wall outlet with the AC charging cable, then connect the AC charging cable to the AC input port on the power station. There are three levels of AC input power: 400W, 800W and 1200W. You may change the recharging input power on the power station or via the app.
2. When the product is recharging, the current remaining battery displayed on the screen is increasing. Meanwhile, the current battery percentage, current charging power and time to recharge will be changing on the screen.
3. The product is fully charged when the battery percentage displayed turns 100%. Disconnect the AC charging cable from the wall outlet.
4. The maximum battery charge level of the product can be set to 20-100%. If you are going to keep Cellpowa 2500 connected to the electric grid, it is recommended to set the maximum battery charge level to below 80% to protect the battery to the greatest extent. To use the power station during a trip, set the charge level to 100% for the longest possible use.

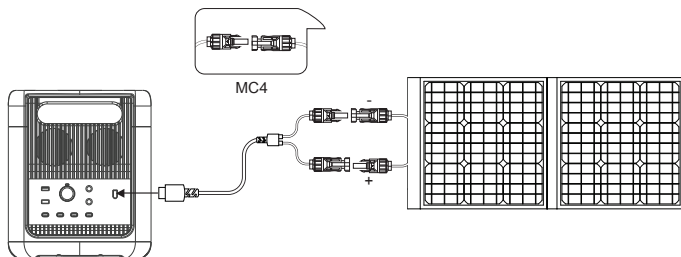
#### [Notes]

- The intelligent cooling fan is automatically turned on and off according to the charging power and product temperature. The cooling fan may produce noise, which is a normal phenomenon.
- After Cellpowa 2500 is fully charged, if the charging cable is not disconnected, charging protection will be triggered to shut down the charging. Cellpowa 2500 will consume the battery power to maintain its operation, causing the remaining battery to reduce slowly. This is a normal phenomenon. The product will restart recharging when its remaining battery drops by 5%.

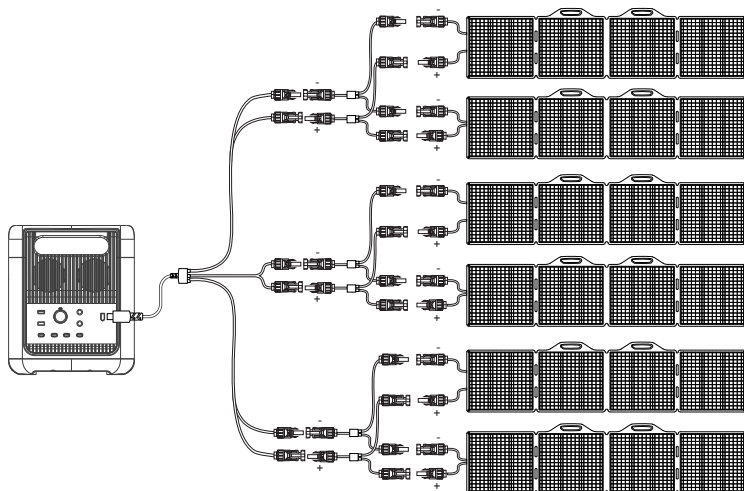


## 7.2.2 Solar Recharging

### Connection diagram of a single solar panel



### Connection diagram of six Solarpowa 200 panels in parallel



1. Recharge your Cellpowa 2500 by connecting to the BigBlue Solarpowa 200 or Solarpowa 400 solar panel with the MC4-XT60 cable.
2. When the product is recharging, the current remaining battery displayed on the screen is increasing. Meanwhile, on the left side of the screen the solar recharging MPPT icon is displayed, and the current charging power and time to recharge keep changing.
3. The product is fully charged when the battery percentage displayed turns 100%. Disconnect the charging cable from the wall outlet.
4. With a built-in MPPT controller, the XT60 input port is specially designed for solar recharging and car recharging purposes. Do not use an adapter to recharge this product. Doing this can damage the charging circuit of the built-in MPPT.
5. The solar input port supports a maximum input of 12-65V, 22.5A (max. 25A), totally 1200W.
6. If the maximum battery charge level is often set to below 80%, after every five charge/discharge cycles, please manually set it to 100% and complete at least one full charge/discharge cycle to maintain the accuracy of battery SOC.

#### [Notes]

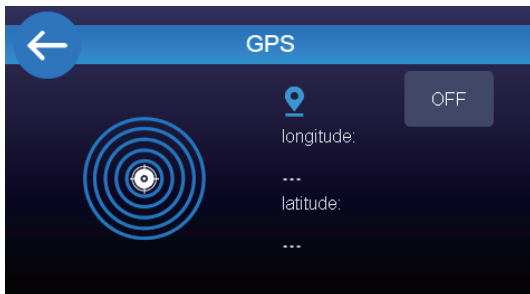
- When recharging with solar panels, do not expose the power station to sunlight to avoid shortened product life and other unpredictable risks.
- Do not use the power station in a humid environment. Moisture that enters the power station can damage its internal circuits and components.

#### 7.2.3 Car Recharging

- You can also recharge the product through the car recharger. The product supports 12V/24V=10A car recharging input. Start your car before using the car recharger to recharge your power station. Ensure that the car recharger port and cigarette lighter of the car recharging input cable are properly connected. We assume no liability for any resulting personal injury or damage to property if you do not follow the instructions on proper operating the product.

### 7.3 GPS Positioning

- Tap the MENU icon → tap the GPS icon → turn on the GPS switch → GPS positioning starts automatically → the longitude and latitude coordinates are displayed when positioning is completed.



## 8. Battery Instructions

- The product comes with a built-in EV-grade lithium iron phosphate (LiFePO<sub>4</sub>) battery. LiFePO<sub>4</sub> batteries have larger capacity, longer life span and show no memory effects. The power station can work normally at -15°C to 45°C. However, due to the chemical characteristics of lithium iron phosphate batteries, the battery charge and discharge capacities are reduced at low temperatures (e.g., below -10°C).
- To achieve the optimal charge and discharge capacity, it is recommended to use the power station at 10°C to 30°C.
- To prolong the life span of the power station and its LiFePO<sub>4</sub> battery, it is recommended to charge and discharge the battery completely once every 3 months.

## 9. RECYCLING

Dispose of your old product, battery and packaging materials at a dedicated local collection site to prevent uncontrolled disposal and help promote waste recycling.

### Product



Electronic devices are recyclable waste and must not be disposed of in the household waste. At the end of its service life, dispose of the product according to the relevant statutory regulations. Remove any inserted (rechargeable) batteries and dispose of them separately from the product.

### Rechargeable batteries



As the end user, you are required by law (Battery Ordinance) to return all used rechargeable batteries; disposal of them in the household waste is prohibited! Contaminated rechargeable batteries are labeled with this symbol to indicate that disposal in the domestic waste is forbidden. The designations for the heavy metals involved are: Cd = Cadmium, Hg = Mercury, Pb = Lead (name on rechargeable batteries, e.g. below the trash icon on the left). Used rechargeable batteries can be returned to collection points in your municipality, our stores or wherever rechargeable batteries are sold. You thus fulfill your statutory obligations and contribute to the protection of the environment.

## 10. Warranty

BigBlue products are guaranteed for a period of 24 months from the date of purchase.

## 11. Contact Information

If you have any questions or comments, please contact us at [support@ibigblue.com](mailto:support@ibigblue.com). We will get back to you as soon as possible.

## 12. Certifications



## 13. FAQ

Q: Can I use third-party solar panels to recharge this product?

A: Yes. Any solar panel with an XT60 female connector as well as an output of 12-65V/22.5A (max. 25A) and max. 1200W can be used to recharge the Cellpowa 2500 power station.

Q: Does the Cellpowa 2500 power station use a pure sine wave inverter?

A: Yes. all BigBlue portable power stations use pure sine wave inverters, which won't damage the product components when in use.

Q: Why should over-discharge and overcharge be avoided?

A: Overcharge and over-discharge will shorten the battery's life span. It is recommended to keep the battery charge between 20% and 80%.

Q: Why can't I use the UPS function?

A: Enable that the AC switch is turned on before using the UPS function.

Q: Why doesn't GPS work indoors?

A: In most indoor cases, GPS signals will be blocked or reflected by obstructions. So, it is recommended to use the GPS positioning in an open air.

Q: What is the material of the shell of Cellpowa 2500? Is it environmentally friendly?

A: The shell of CP2500 is made of 94V-0 rated flame retardant high-strength ABS+PC. The material is environmentally friendly.

Q: What are the advantages of lithium iron phosphate (LiFePO4) batteries?

A: Lithium iron phosphate batteries use LiFePO4 as the cathode material, offering the advantages such as superior safety performance, longer life cycle and lower self-discharge rate.

# Warranty Card

## User Profile

Name		Phone number	
Email		Name of shop	
Model		Order number	
UPC No.		Date of purchase	
Address for repair			



support@ibigblue.com  
(US/EU/AU)



support.jp@ibigblue.co.jp  
(JP)



@BigBlue Official



@BigBlue\_Official



@BigBlue\_Official





[www.bigblue-tech.com](http://www.bigblue-tech.com)



[BigBlue\\_Official](#)



[BigBlue\\_global](#)



Email: [service@bigblue-tech.com](mailto:service@bigblue-tech.com)



[BigBlue\\_Official](#)