



ShenZhen Pecron Technology CO.,LED

Outdoor Portable Power Station Specification

Model: S1500



Thanks for choosing pecron outdoor portable power station S1500

Please read the manual carefully before you use!

Shenzhen Pecron Technology Co.,Ltd

[Http://www.pecron.com](http://www.pecron.com)

Content

1. Introduction:	1 -
2. Panel Function Description:	2 -
3. Product Specification:	6 -
4. Environmental Conditions:	7 -
5. Electrical Specifications:	8 -
5.1-5.4 Specifications	8 -
5.5-5.7 Protection Instructions	9 -
6. Operating Instructions And Precautions:	10 -
6.1 How To Use AC :	10 -
6.2 How To Operate:	11 -
6.3 How To Charge:	12 -
6.4 How To Use DC 12V and USB	13 -
7. Product Function Test:	13 -
7.1 Test Conditions:	13 -
7.2 Basic Function Test Display	15 -
8. Misuse And Countermeasures:	18-
9. Package:	19-

1. Introduction:

Pecron S1500 is a functional outdoor portable power station, it has safe Lithium-ion battery and inverter conversion technology, with light weight, high capacity, high power function, to provide portable power solutions, its main function is as below:

- ◆ Pure sine wave output
- ◆ DC output 12V10A、 USB*4 (QC3.0)
- ◆ DC output 12V10A、 USB*4 (QC3.0) LCD smart display screen
- ◆ Support solar charging, car charging (need to add an external car charger adapter)

S1500 can be used in series smart products, such as mobile phones, satellite telephone, digital camera, mobile driver, digital camera, tablet, car start, outdoor illumination, water pump, post and telecommunications, medical device, and it also can use in these areas: financial, first aid, dig, exploration, military, science, media, tourism, disaster relief, medical assistance and areas with widespread power shortages.

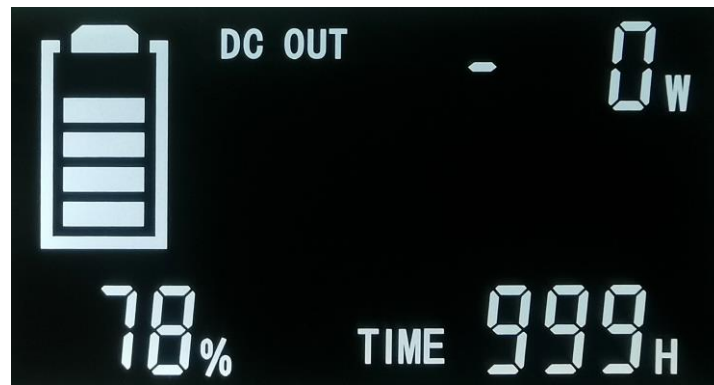
Please read the user manual carefully before you use, and please save it with the purchase certificate for future reference.

2. Panel Function Description:



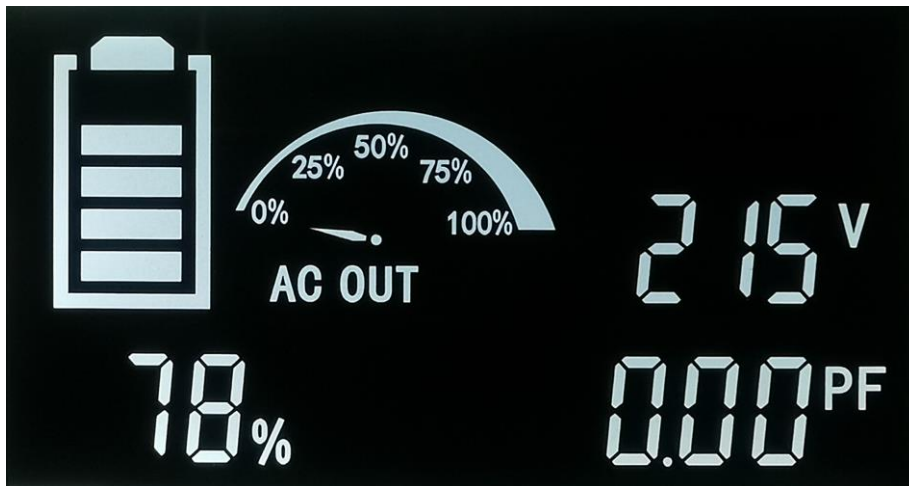
①Power Switch: Lightly press the power switch to initialize the dynamic percentage display, the full screen will light up and resume normal after 1 second. At the same time, the brightness of the LCD will be 100%. At this time, the power station is on, lightly press the power switch again, the brightness of LCD will change to 50% (lightly press the power switch to adjust the LCD brightness after it is on), and then press and hold the switch for 1 second to shut down and enter sleep mode.

②DC Switch:After the power station on,press and hold the DC switch for 1 second,the USB and 12V output will be on,at the same time,the LCD screen shows the battery percentage,DC discharge time(H)、 DC discharge power, DC OUT symbol(shown as picture 1,Page11). After DC output on, press the DC switch and hold 1 second, the USB and 12V output shut down; After powering on,lightly press DC switch,switch the real-time battery percentage /Battery real-time voltage mode.

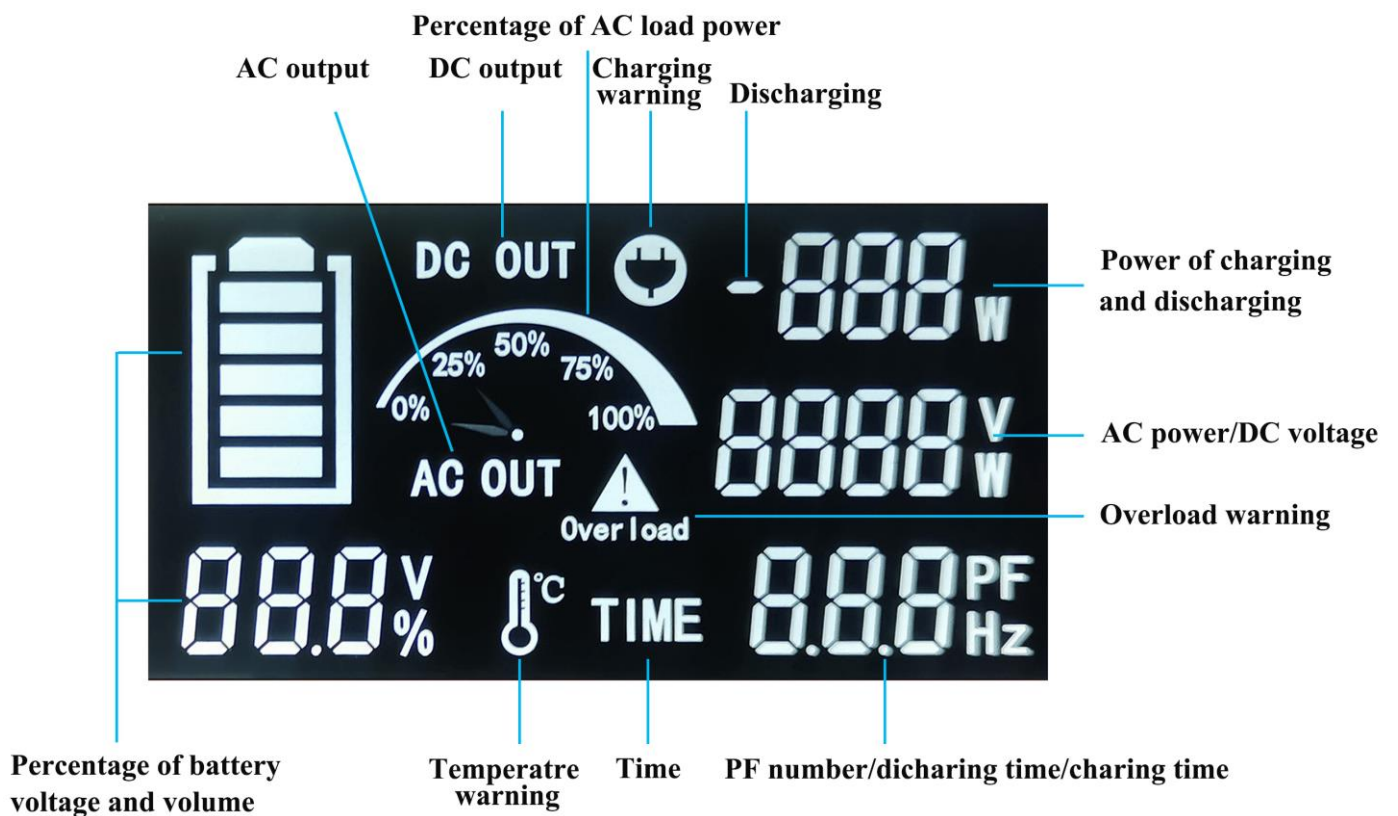


Picture 1

③AC Switch:After powering on,press the AC switch and hold 1 second,the AC output will be on,at the same time the LCD screen shows battery capacity percentage / battery voltage、 AC discharge time(h)、 AC discharge power,AC output power percentage、 “AC OUT”symbol(shown as picture 2,Page11).After AC output is on,press the AC switch and hold 1 second,the AC output will shut down; After AC output on,lightly press the AC switch to AC discharge power + AC discharge time / AC discharge voltage + PF value mode(shown as picture 2/3)



Picture 2



Picture 3

④LCD smart display screen

⑤USB Output port: When DC switch is on,it can supply USB device.



⑥Cooling fan outlet

⑦DC output 16MF two core aviation connector (1 is positive, 2 is negative) :
When DC switch turn on,it can supply power to DC appliance(12V 10A)

⑧DC input 16MF 4 core aviation connector (1、2 is positive, 3、4 is negative) :
When the power station need to charge,you can use the power adapter to connect to the 16MF 4 core aviation connector. (29.4V9A)

⑨AC output socket*2: When AC turn on,you can use the appliance to connect to the AC socket .

⑩Cooling air inlet

3. Product Specification:

NO.	Introduction	S1500		
1	Rate Power	1500W		
2	Peak Power	3000W		
3	AC Output	220V/50Hz (Version)	AC110V60Hz (Version)	AC100V50Hz (Version)
4	Output Waveform	Pure sine wave		
5	DC Output	DC 12V10A USB*4 (QC3.0)		
5	Battery Type	18650-20P7S(3.6V2.9Ah)		
6	Battery Capacity	1461.6Wh (25.2V58Ah)		
7	Battery Type	Lithium-ion		
9	Charging Time	7~ 8H		
10	Charging Voltage And Current	DC29.4V9A Solar panel 36V20A(MAX)		
11	Protection Function	Over-voltage, low-voltage, over-temperature, overload, AC short circuit protection		
12	Working Temperature	0°C~45°C (Charge) -20°C~60°C (Discharge)		
13	Product Dimension	L352*W187*H260(mm)		
14	Shell Material	UL94-V0 PC+ABS		
16	Net Weight	11.6kg		

4. Environmental Conditions:

NO.	Test Project	Specification	Unit	Remark
1	Working Temperature	0 ~ 45	°C	
2	Storage Temperature	-20 ~ 60	°C	
3	Humidity	45% ~ 85%	RH	
4	Cooling type	Air-cooled		Cooling \geq 45°C
5	Altitude	3000	m	
6	Mean time between failures	\geq 5000	H	

5. Electrical Specifications:

5.1-5.4 Specifications

NO .	Test Project	Specification	Unit	Remark
5.1	AC Charging			
5.1.1	Rated Voltage	100 / 240	VAC	
5.1.2	Rated Frequency	50/60	Hz	
5.1.3	Input Voltage	29.4	VD	
5.1.4	Input Current	≤10	A	
5.2	Solar Charging			
5.2.1	Load Voltage	29.4-40V	VD C	Open Circuit Voltage < 44V
5.2.2	Current	≤20	A	
5.3	AC Output			
5.3.1	Rated Voltage	220±5% (Version)	110±5% (Version)	100±5% (Version) VAC
5.3.2	Rated Frequency	50±1%	60±1%	50±1% Hz
5.3.3	Rated Power	1500		W
5.3.4	Harmonic	< 3%		
5.3.5	Conversion	≥85%		
5.4	DC Output			
5.4.1	USB Voltage	5±5%		VD
5.4.2	USB Current	2.0±10%		A
5.4.3	Aviation Connector Output Voltage	12±5%		VD C
5.4.4	Aviation Connector Output Current	10±10%		A

5.5-5.7 Protection Instructions

NO .	Test Project	Specification	Unit	Remark
5.5	Inverter			
5.5.1	Over Temperature	Inverter cooling $\geq 65^{\circ}\text{C}$	$^{\circ}\text{C}$	Lock, AC No output,Until the
5.5.2	Over Load	> 1500	W	Locked, no output, until disconnected and restart
5.5.3	AC Output Short Circuit	—	W	Locked, no output, until disconnected
Remark	When 5.5.2 ,5.5.3 in the protection state, the AC current switch needs to be turned off. When it is turned on again, the AC output will be turned on.			
5.6	Controller			
5.6.1	USB Over Current	3	A	Output shut down
5.6.2	DC12V Output Over Current Protection	15	A	Output shut down
5.6.3	Solar charging protection	29.2-29.7	V	Stop charging after achieve voltage
5.7	Battery Pack			
5.7.1	Single-cell overcharge voltage protection	4.2 V	V	Disconnect input , keep output
5.7.2	Single-cell over-discharge voltage protection	2.8V	V	Shut down output
5.7.3	Battery pack over-temperature protection	≥ 65	$^{\circ}\text{C}$	Shut down input and output
5.7.4	Short circuit protection	Yes		Shut down output

5.7.5	Battery pack over current protection	120-180	A	Shut down output
-------	--------------------------------------	---------	---	------------------

6. Operating Instructions And Precautions:

To make sure safety transportation,when you receive the power station,the power station is under low capacity status,please charge the power station to full capacity before you use.

If you want fast charge,please use our standard original power adapter to charge it,or use 36V 200~300W solar panel to charge it.

To make sure safety,please use our standard charger,when PECRON-S1500 is full charge,please disconnect the charger.

6.1 How To Use AC

Please note the following below before using:

- (1) Please make sure the input voltage and frequency is same as S1500
- (2) Please make sure the appliance rated power is lower than 1500W, it is better that don't over 80% rated power.
 - * If you violate these,the charger may damage or out of work.
 - * If your appliance power higher than 1500W, please choose other higher power portable power station.

Remark: Because when some appliances turn on,its consumption power is higher than the rated power,such as sensitive load device start up current normally is 3-8 times than its rated power,Energy-saving lamps start up power is dozens of times than its rated power,if their start up power is higher than the emergency power station's peak power,it will trigger the over load protection,and shut down the power station.The S1500 is with over load,short circuit,over temperature protection.

- (3) When the following happens,S1500 will stop output to protect the appliance:
 - ① When the appliance load power is higher than the power station rated power.

- ② AC output or appliance circuit
- ③ The internal temperature of power station is too high
- ④ The internal battery voltage is too low

6.2 How To Operation:

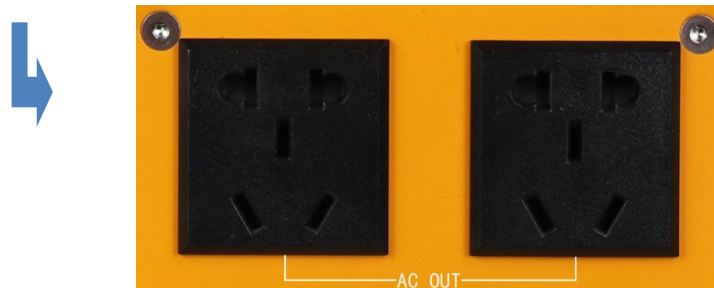
Step 1:Lightly press “ON/OFF”,after the power is on,press “AC ON/OFF” and hold for 1 second,at this time,the AC output is on.



Step 2:Check whether the load input voltage and frequency correspond.

Step 3:Check the load power and make sure it does not exceed the amount of this power supply.

Step 4:Plug the device into this AC outlet and turn on the load switch



Step 5:After using the power station,please lightly press the ON/OFF to shut down.

Step 6:If the power of the power supply is exhausted or insufficient at this time, please charge the power supply in time for the next use!

6.3 How To Charge:

You can use the following methods to charge the power station:

(1) Use our standard power adapter to charge the power station: Please connect the power cord with the adapter, and connect to the power station input port, then plug to the grid, start to charge.



(2) Use solar panel to charge: Use the solar cable to connect to the solar panel, and the other side connect to the input port, start to charge (Solar panel max voltage can't over 40V, min voltage not lower than 29.4V).

(3) Use car adapter to charge: when you use car charging, after you start up the car, and then just insert the cigar connector to the car cigar port, the other side connect to the power station input port. When the car is not on start up status, please don't use car charge.

Notes:

① Our S1500 standard power adapter only use in our S1500, please don't use in other device and keep away from rain.

② When you use car charge and solar charge, please pay attention to the positive and negative.

③ When the portable power is left unused for a long time, the battery will run out. Please make sure to charge it every six months.

6.4 How To Use DC 12V and USB:



=>DC output 16MF two core aviation connector,press DC switch for 1 second,DC 12V output turn on,its rated current is 10A,press DC switch for 1 second,the DC output will turn off.



=> USB output,press DC switch for 1 second,USB output turn on,press DC switch for 1 second,USB output turn off.

7. Product Function Test:

7.1 Test Conditions:

No.	Test Project	Test Conditions	Check Item
1	High-altitude test	1. Pressure \leq 11.6Kpa, T =20 \pm 5 $^{\circ}$ C	1. Appearance 2.Power
2	Temperature test	1. Temperature between 40 \pm 2 and 75 \pm 2 $^{\circ}$ C	1. Appearance 2.Power

3	Vibration test	<p>Amplitude: 1.52mm,</p> <p>Scanning frequency range: 5Hz ~ 10Hz, Scan speed: About 10 m²/ S3,</p> <p>Scanning frequency range: 0Hz ~ 200Hz, Scan speed: About 3 m²/ S3,</p> <p>Scanning frequency range: 200Hz ~ 500Hz, Scan speed: About 1 m²/ S3,</p> <p>The duration of each vibration is 20 minutes. It vibrates from all directions of the X, Y and Z axes.</p>	<p>1. Appearance</p> <p>2. Power performance</p>
---	-----------------------	---	--

7.2 Basic Function Test



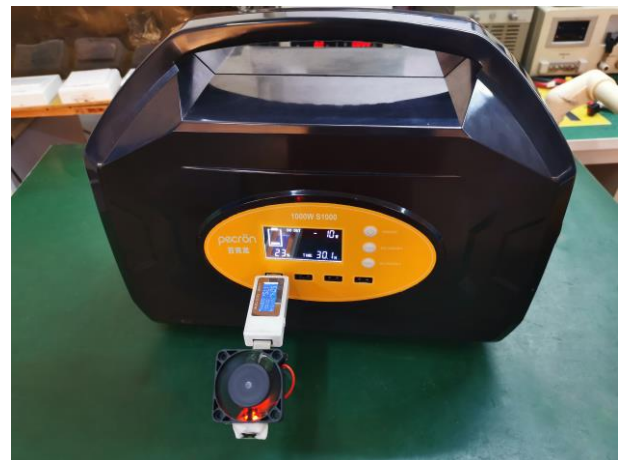
7.2.1 Discharge test under load



7.2.2 Charge test



7.2.3 12V DC output test



7.2.4 USB output test

8. Misuse And Countermeasures

Error	Root	Solution
Press any switch,no LCD display or output	Interior battery protection	Charge up
Power station turn on,press AC switch,no output	Over temperature	Disconnect the load and wait until it cooling down
	Over load	Check the loading power and decrease it
	Load voltage	Charge up
USB no output	DC switch turn off	Press DC switch for 1 second
12V or USB consume energy quickly	AC switch is on; standby current is too large	Turn off AC switch during DC output
Not full charged by solar panel charger	1.The solar panel is not suitable 2.Sunshine is not enough	Choose another solar panel that is much more suitable. And ensure that the charging voltage is not lower than 29.4V.

9. Package Content

NO .	Package Content	Quantity
1	S1500 Power Station	1
2	Power Adapter	1
3	Power Cord	1
4	DC Output Cable 1+4 (4 in 1 cable)	1
5	Solar Cable + accessory bag	1
6	Car charger (optional)	1
7	User Manual And Warranty Card	1