

Solar Panel

User Guide

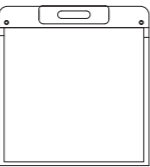
Model: PV220

Contact Us:
www.bluettipower.com
service@bluettipower.com

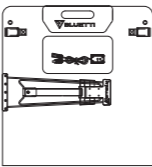


User Guide

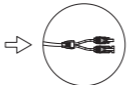
What is in the box



Solar Panel



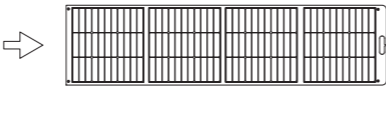
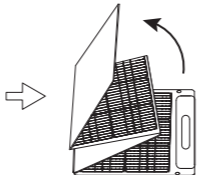
MC4 Cable



User Manual &
Warranty Card

How to use

1 Unfold

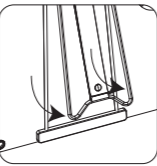


2 Adjust the kickstand

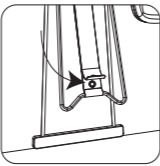


3 How to use the kickstand

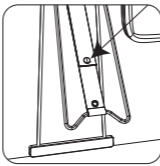
Open the kickstand, adjust the angle, stabilize the panel, fold the kickstand.



Pull out

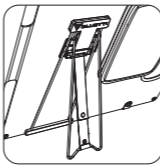


Unbuckle

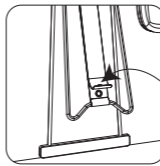


Buckle up

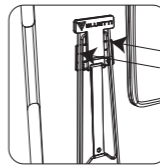
User Guide



Fix

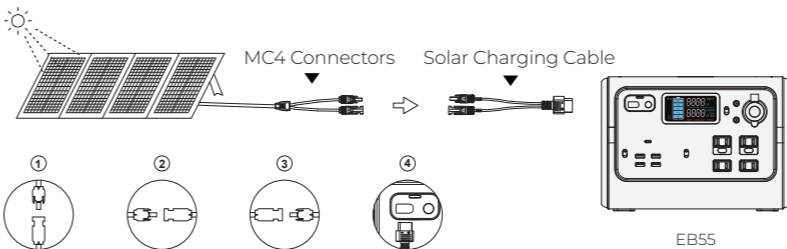


Buckle up



Press to fix

4 Connect to power station



Note:

Use ONLY ONE PV220 solar panel with EB55,EB70.
Whether connected in series or parallel, make sure the total voltage of solar panels is under the power station's input voltage limit.

Attention

Regular inspection and maintenance are required to prolong the lifespan of solar panels.



No fall



No soak



No bend



No shading



No scratch

Warning:

Do not use solar panels in extreme weather conditions like thunderstorms, floods, typhoons, etc.
Always use solar panels within the specified temperature range (14-149°F/-10-65°C).

User Guide

Technical details

PV220		
Maximum Power(Pm)		220W*
Open circuit voltage		21.6V
Short circuit current		13.5A
Cell efficiency		Up to 23.4%
Cell lamination		ETFE
Cell type		Monocrystalline silicon
Operating temperature		14-149°F/-10-65°C
General		
Weight		20.5lbs / 9.3Kg
Dimensions	Unfolded	94.2*23.8in / 2395*605mm
	Folded	23.8*25.1*1.7in / 605*638*45mm
Warranty		
12 Months		

* STC: Irradiation 1000W/m², cell temperature 25°C, atmospheric mass number AM 1.5, measurement tolerance ±3 % (Pm).

Frequently asked questions

Is the solar panel waterproof ?

No. The solar panel is IP65 water-resistant that provides protection against water splash. Please do not leave it in the rain or water for a long time.

What will affect the final conversion efficiency of solar panels ?

The actual solar panel efficiency may be affected by several factors, like weather, sun intensity, shading, panel orientation, temperature, location, dust and dirt. For example, if you live in a place without much sunlight or your panels are covered by shade, you'll get a very low output or none at all.

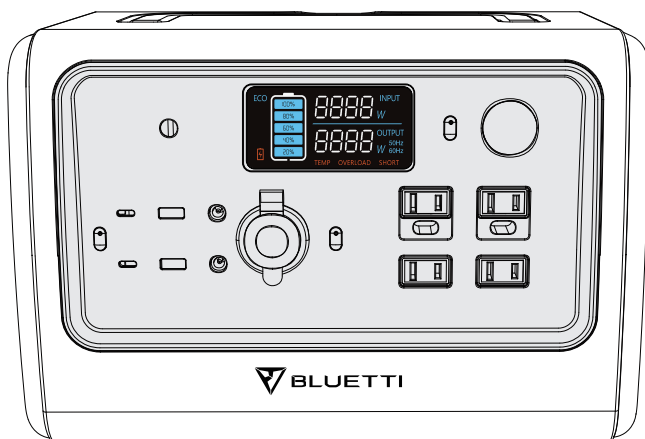
Is the BLUETTI' s solar panel compatible with the third party' s power station ?

Yes. Make sure BLUETTI solar panels' voltage is compatible with your power stations' voltage limit, while you're using the same connector. Please feel free to contact us for compatibility with other power stations.



BLUETTI EB70S

User Manual



Thank You

Thank you for making BLUETTI a part of your family.

From the very beginning, BLUETTI has tried to stay true to a sustainable future through green energy storage solutions for both indoor and outdoor use while delivering an exceptional eco-friendly experience for our homes and our world.

That's why BLUETTI makes its presence in 70+ countries and is trusted by millions of customers across the globe.



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Before You Begin

The information contained herein is subject to change without notice.

For the latest version, please visit <https://www.bluettipower.com/pages/user-guides>.

- The user manual contains instructions and notes on the operation and use of this unit.
- BLUETTI recommends that you use genuine accessories from BLUETTI.
- BLUETTI shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the BLUETTI.
- For your safety and benefit, please read carefully before using and keep it handy for future reference.

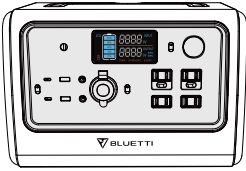
Safety Instructions

Failure to follow these guidelines may cause damage to your unit and injury to yourself or others.

- Keep this unit away from fire, humidity and dust.
- Make sure the place where you are using the unit is well ventilated and spacious.
- DO NOT place the unit on an unstable or tilted surface.
- Turn off the unit IMMEDIATELY in case of malfunction.
- When not using the unit for extended periods of time, power off the unit and disconnect the AC adapter from the outlet.
- Recommended storage temperature: 14-113°F/-10-45°C.
- Charge the unit to 80% SOC every 3-6 months for long-term storage.

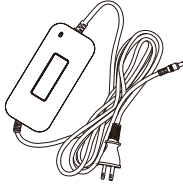
What's In The Box

Standard Packaging



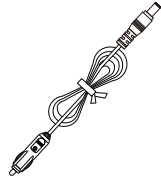
①

Power Station



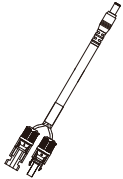
②

AC Adapter



③

Car Charging Cable



④

Solar Charging Cable



⑤

User Manual



⑥

Warranty Card

* **AC Adapter:** 120cm/47in.

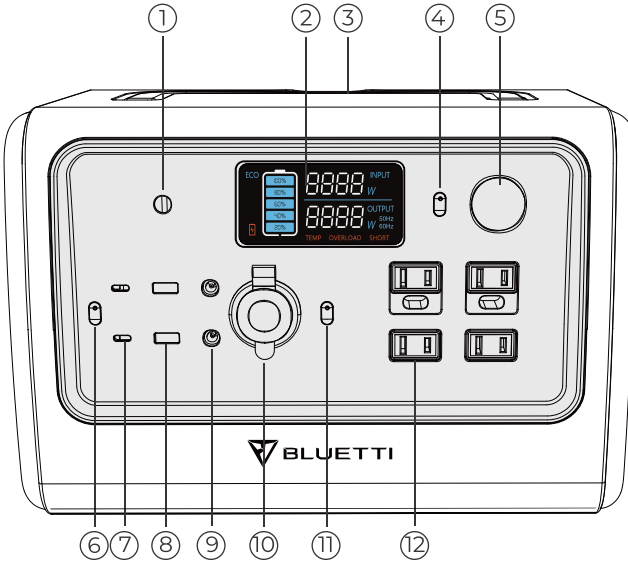
Car Charging Cable: 72cm/28in. Cigarette lighter port to DC7909.

Solar Charging Cable: 150cm/59in. MC4 to DC7909.

Note: Package details are subject to change without prior notice.

Product Overview

Diagram

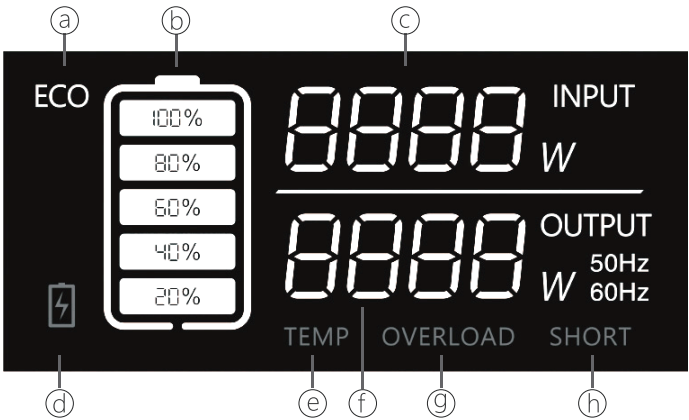


- | | |
|--------------------------|----------------------------|
| 1. Charging Port | 7. USB-C Port |
| 2. LCD Screen | 8. USB-A Port |
| 3. Wireless Charging Pad | 9. DC5521 Port |
| 4. LED Lamp Button | 10. Cigarette Lighter Port |
| 5. LED Lamp | 11. AC Power Button |
| 6. DC Power Button | 12. AC Outlet |

Specifications		
EB70S		
General		
Battery Capacity	716Wh	
Cell Type	LiFePO4	
Dimensions (L*W*H)	12.6*8.5*8.7IN/320*216*221MM	
Weight	21.4LB/9.7KG	
Discharging Temperature	-4-104°F/-20-40°C	
Charging Temperature	32-104°F/0-40°C	
Working Humidity	10-90%	
AC Output		
Power	120V	800W
	220-240V	1000W
Surge	1400W	
Frequency	50-60Hz	
DC Output		
Cigarette Lighter Port *1	Voltage	12VDC
	Current	10A
DC5521 *2	Voltage	12VDC
	Current	10A
USB-A *2	Voltage	5VDC
	Current	3A
USB-C PD3.0 *2	Power	100W Max. (5/9/12/15/20VDC, 3A; 20VDC, 5A)
Wireless Charging *1	Power	15W Max.
AC Input		
Power	200W Max.	
Voltage	12-28VAC	
Current	8A Max.	
PV Input		
Power	200W Max.	
Open Circuit Voltage (OCV)	12-28VDC	
Current	8A Max.	
Car Charging		
Voltage	12-24VDC	
Current	8A Max.	

Operation

LCD Screen



- a: ECO Mode
- b: Battery Capacity
- c: Input Power
- d: Low-battery Alert
- e: Temperature Anomaly Alert
- f: Output Power
- g: Overload Alert
- h: Short-circuit Alert

Powering On/Off

Powering on: Press the AC/DC Power Button to start up corresponding output.

Green light(on the button)	ON
LCD Display	ON*

*The LCD screen is on for about 30-60 seconds. Please enable at least one of these ports (AC/DC) if you want the display to stay on longer.

Note: Please turn on the DC power to enable the wireless charging.

Powering off: Press and hold power buttons to shut down corresponding output.

Green light(on the button)	OFF
LCD Display	OFF

Mode

Setting Mode: When the AC output is off, press AC and DC power buttons simultaneously and the frequency indicator flashes.

ECO Mode¹: Under 'Setting Mode', press the DC power button to turn it on/off.

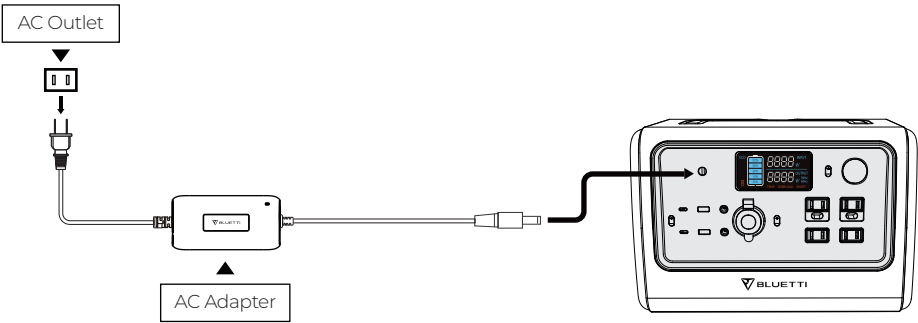
Setting

AC Frequency²: Under 'Setting Mode', press the AC power button to switch.

Charging

AC Charging

Simply plug the EB70S into a standard wall outlet and start charging.



¹When on this mode, the AC output will automatically turn off after 4-hour low ($\leq 10W$) or no load to save power.

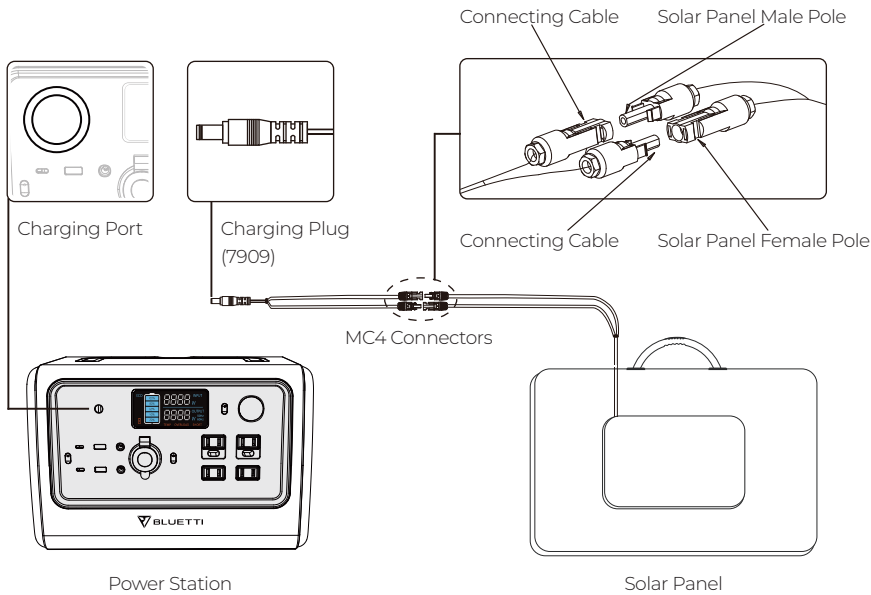
² AC Frequency: The number of alternating cycles per second in an AC sine wave. The utility frequency is usually 50/60Hz.

PV Charging

Connect the solar panels (in series or parallel) to EB70S via the solar charging cable.

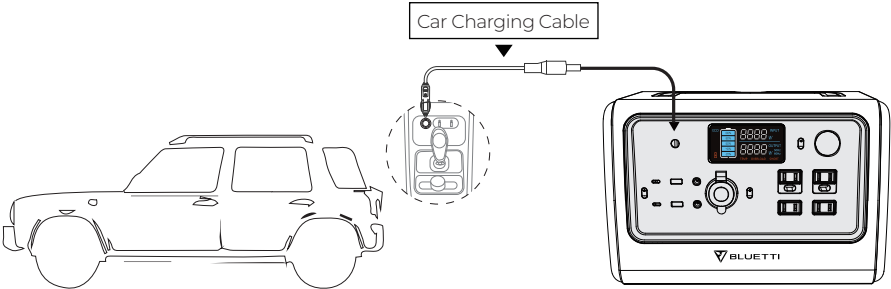
Note: Please make sure your solar panels comply with:

OCV³: 12-28V Input Current: 8A Max. Input Power: 200W Max.



Car Charging

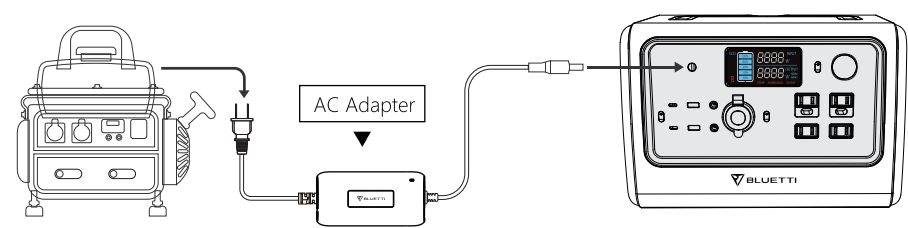
Connect the EB70S directly to the vehicle plug-in cigarette lighter port via the car charging cable.



³OCV: Open circuit voltage. The maximum voltage that the solar panel can produce with no load on it.

Generator Charging

Connect the AC adapter input plug to the generator while the output plug goes to the charging port of EB70S.



Discharging

<div>Smart Phone</div> <div>Around 50-60 Times 10Wh</div>	<div>LED Light Bulb</div> <div>Around 20-30 Hrs 20W</div>	<div>Television</div> <div>Around 7-8 Hrs 75W</div>
<div>Electronic Tools</div> <div>Around 7-8 Hrs 80W</div>	<div>Refrigerator</div> <div>Around 6-7 Hrs 90W</div>	<div>Slow Cooker</div> <div>Around 2-3 Hrs 200W</div>

$$716\text{Wh} \times \text{DoD} \times \eta \div (\text{load power}) = \text{charging time (estimated)}$$

Note: DoD refers to the Depth of Discharge, η is the local inverter efficiency. DoD=90%, η =90%.

Load power and charging time are measured in Watt and Hour.

Appendix

FAQs (Frequently Asked Questions)

Q: How do I know whether my devices will work well with this product?

A: Please evaluate the total constant load of your appliances. If it doesn't exceed the Max. output power of EB70S, you can use this power station to charge.

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

A: Yes, you can. As long as the specs of solar panels you're using fall in below range:

OCV: 12-28V

Input Current: 8A Max.

Input Power: 200W Max.

With the same power connector (MC4 or Anderson)

Q: Is there a button to turn on/off the wireless charging?

A: Yes. Press the DC Power Button to enable the wireless charging.

Q: Can it charge and discharge at the same time?

A: Yes. It supports pass-through charging. EB70S comes with the premium LiFePO4 battery and proprietary Battery Management System to ensure that it can charge and discharge at the same time.

Q: How can I clean this EB70S power station?

A: Using dry and non-abrasive cloths to wipe will be perfect.

Technical Support

Should you require any further assistance, please do not hesitate to contact BLUETTI service team.

BLUETTI POWER INC

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