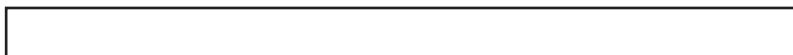
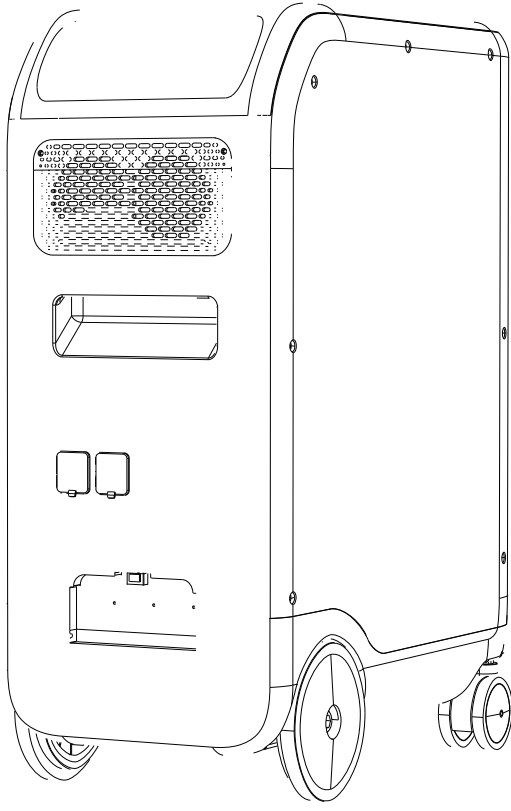




BLUETTI

EP500 POWER STATION





Contents

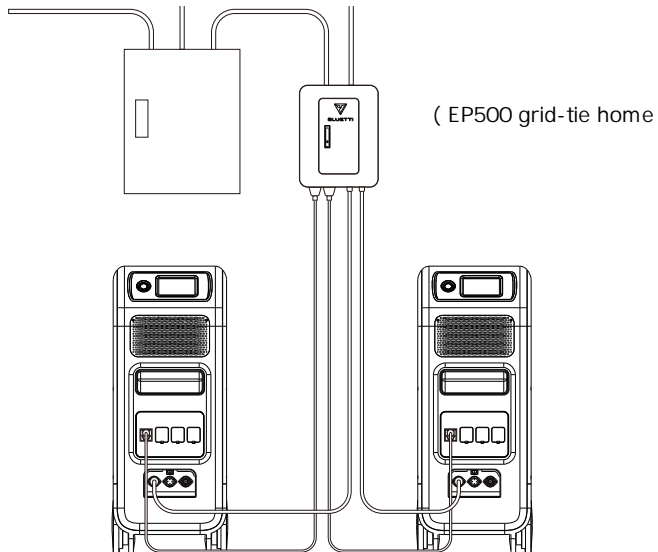
01. EP500 Introduction

1.1. Introduction

- of its first home energy storage system series - the EP500 with four smooth-

designed to be a "No Installation Needed", plug-and-play mobile UPS that can
- The EP500 system uses a dual-core controller (ARM controller + DSP

the DC-to-DC module, and the battery module.
-
-



1.2. Abbreviation

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●ECO Mode: Power saving function for power station, turn of the AC output port

02. General Safety Instructions

●A licensed electrician is required to install the grid-tie power system as

-

the equipment in an environment with flammable, explosive gas, or smoke. It

-

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- If necessary, only dry powder fire extinguisher is suitable for the product.

-

for the equipment. We are not liable for damage caused by third-party

2.1. Installation (for grid-tie system)

-

the contact point to confirm that there is no danger of electric shock.

-

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-

- All wiring holes need to be sealed. Use fire-resistant mud to seal the wiring

-

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repaired in a timely manner. Long-term scratches are strictly prohibited and

- Before operation, the equipment should be secured onto a floor or other

-

-

2.1.1. Personal Safety

-
-
- confirmed by relevant experts.

2.1.2. Personnel Requirements

- equipment must first undergo rigorous training to understand various safety
-
-

2.1.3. Anti-static requirements

When installing the sub-panel with your main panel, you must wear anti-static gloves or an anti-static wrist strap before touching the device. The other end of the anti-static wrist strap should be properly grounded. Do not touch any bare

2.1.4. Drilling

-
-
-

2.2. Installation environment requirements

- dissipation system in order to prevent high temperatures and/or fires.
-
- It is forbidden to install below air-conditioning vents, vents, outlet windows
- If liquid is found inside the device, please turn off the power immediately and
- floors must be damp-proof. Add a rat-proof baffle at the door of the machine

03. What`s in the Box

No.	Category	Quantity
	Certificate of QC PASS	

No.	Category

04. APP User Guide

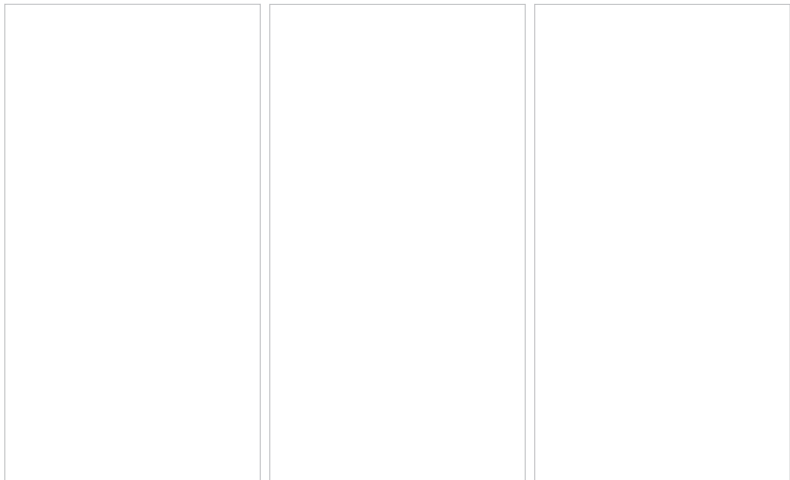
Please make sure the Bluetooth & Wi-Fi State is "ON" before connecting EP500

(Main Interface - Settings - Next - Next - Next)

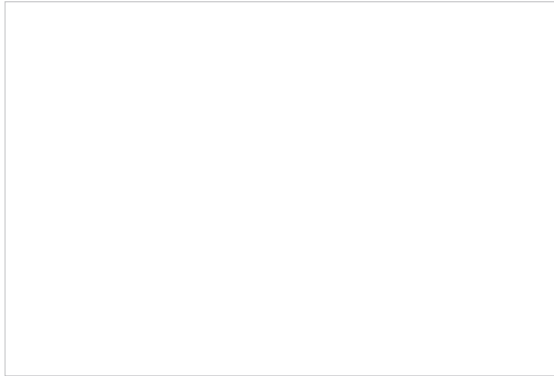
Step 1:

- Please search "BLUETTI" on the App Store (for IOS devices) or Google Play (for

EP500 can be controlled via Bluetooth or Wi-Fi. To activate the remote control, please launch the BLUETTI App, and tap the "LOGIN" icon to register

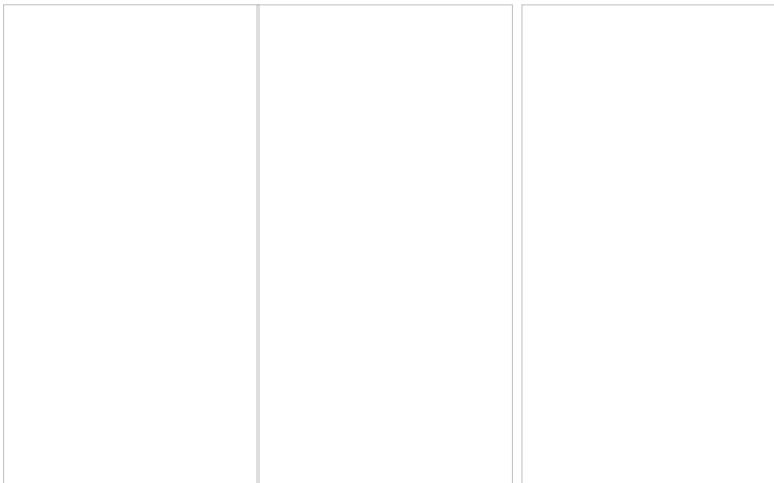


- Check your email account you used in the BLUETTI App for the verification code sent from BLUETTI and fill in the activation code located within the

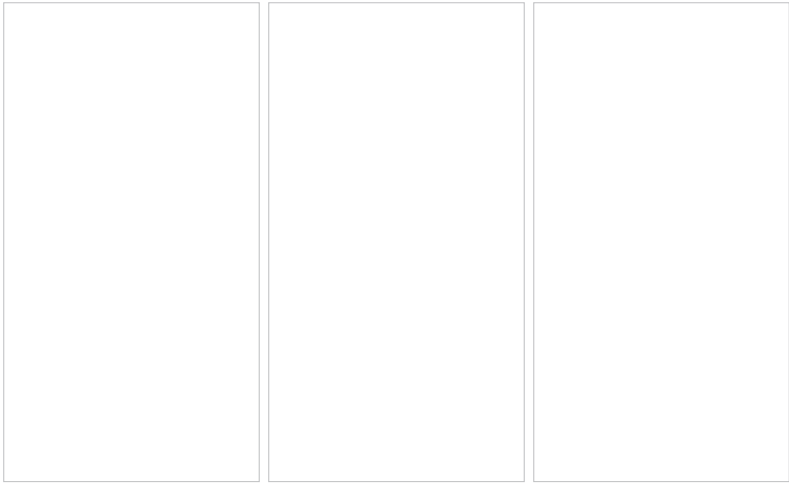


Step 2 :

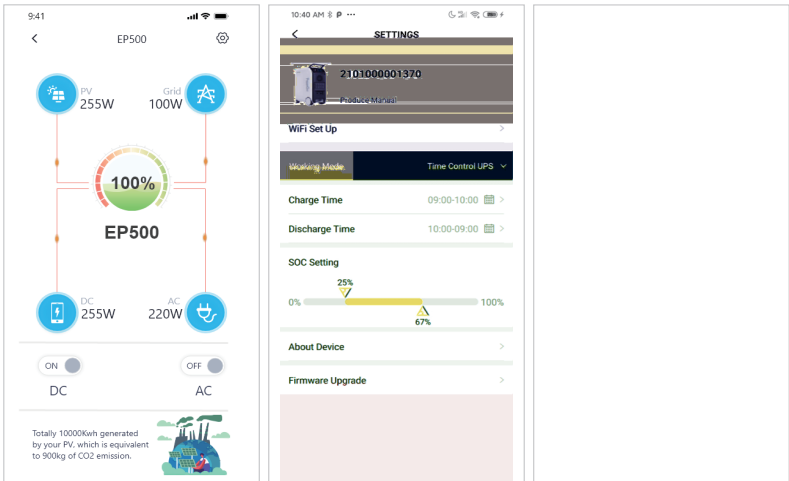
- list on the App, and fill it with the password of your **2.4G** Wi-Fi network to



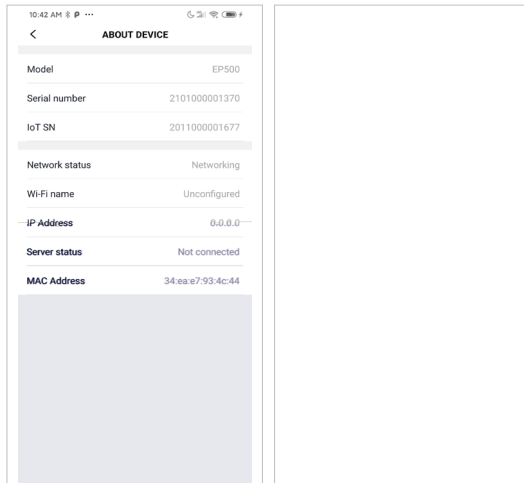
- For Bluetooth Connecting, click "CONNECT" at the homepage to connect EP500
press "settings-product info" on EP500 to view the SN number of your unit.



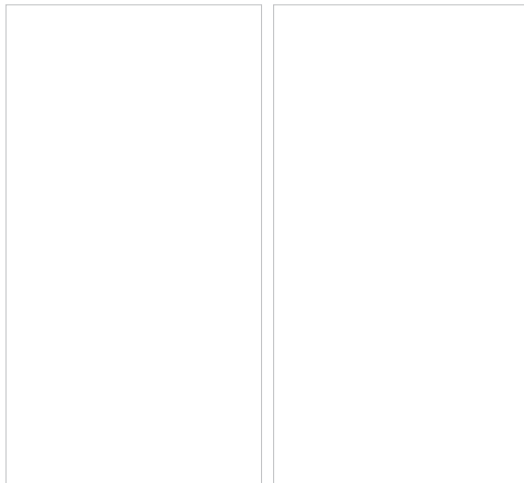
- Press "gear icon" to customize the current working mode and parameters of your EP500 under "Settings".



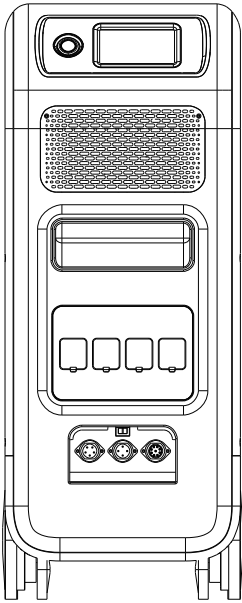
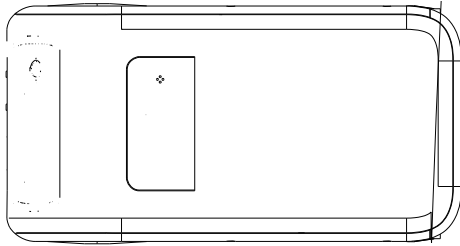
- BLUETTI App supports “Firmware Update” function to access the latest version of firmware for a better user experience.



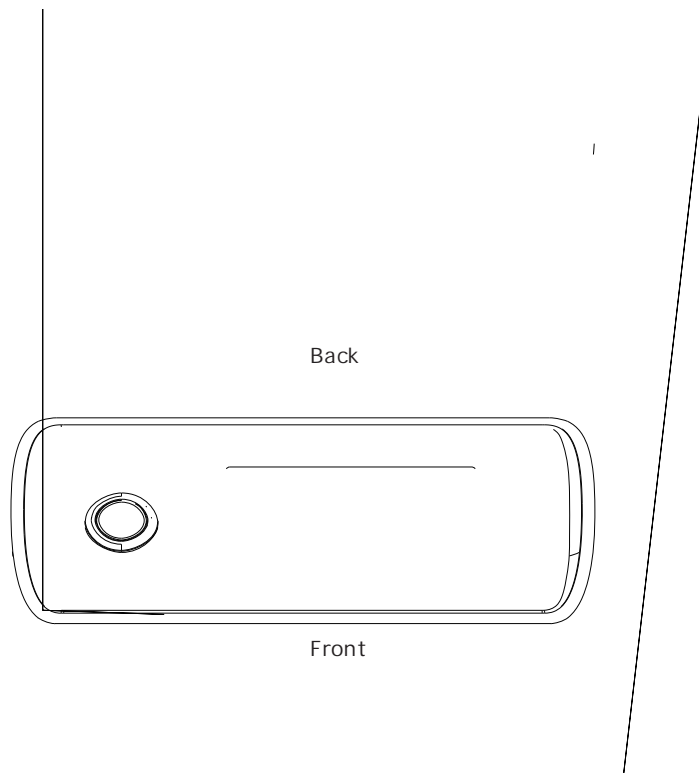
NOTE: Please keep your phone 5m/16.4ft within the EP500 for better connection during update.
Please follow the instruction listed below if the IOS version BLUETTI APP failed to connect to internet. By tapping Settings - scroll down until BLUETTI icon shows up - Enable the Wireless and Data.



05. Features of EP500



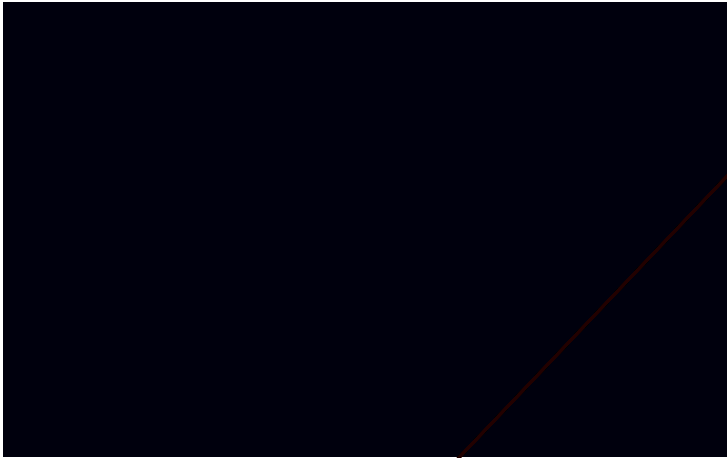
06. Start up & Power off



07. User Interface

7.1. Home Page

operating the touchscreen that you press lightly with the edge of your fingernail until it "beeps" when it registers a press. (**NOTE: Touchscreen sounds can be disabled in the Settings menu**)



7.2.1. AC Output Voltage & Frequency



● **NOTE: Please check the output voltage, frequency, and date/time BEFORE using for the first time. The EP500 100-120V AC version cannot be set to 220-240V AC output and vice-versa.**

Output frequency and voltage can only be tweaked when the AC is OFF (tap the AC icon at main interface to turn off AC output if it`s ON).

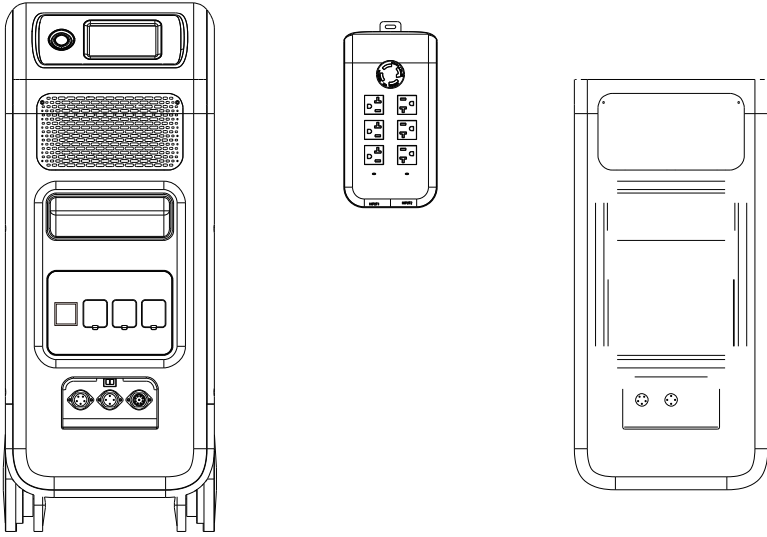


7.2.1. Language Setting & ECO Mode

Tap "English" or "Japanese" icon to set as the system language display of your

ECO: Turn of the AC output port if the load on AC is less than 20W over 4

7.2.3. Machine Type (for split phase setting, exclusive for 100-120V Version)



7.2.5. Max. Grid Input Current

- Please check the specification of your grid, sockets, connections, wires,



**Note: Only take effective when EP500 has been connected into grid.
The default Max. Grid Input Current: 15A.**



7.2.6. Date and time & Touch Sound & Backlight Brightness



7.2.7. Bluetooth & Wi-Fi Connection

The Bluetooth and Wi-Fi connection can be turned ON or OFF by tapping the

7.3. Data

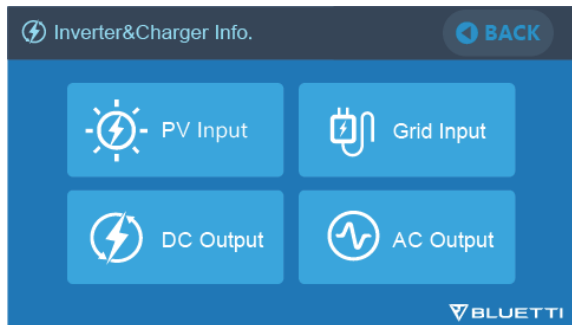
7.3.1. Product Info

- When you select the "Product Info" button, you can view the product model,



7.3.2. Inverter & Charger Info

When you select the "Inverter & Charger Info" button, you can view the PV



7.3.3. BMS Maintenance

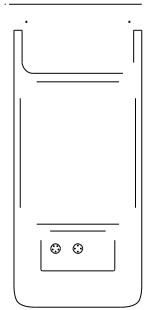
When you select the "BMS Maintenance" button, you can view the information

7.3.4. Alarm History

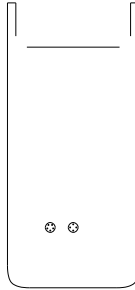
Click the "Alarm History" button, you can view all the alarm information

08. How to Recharge EP500 (INPUT)

- The EP500 includes 2 charging ports which can be recharged in 5 different methods. They will be covered in three different sections according to which



8.1.1. Charging Method 1: From Wall Outlet (by AC charging cable)



8.2. CP2 (2nd Charging Port)

o

Connect your MC4 Aviation to EP500 and finish the installation.

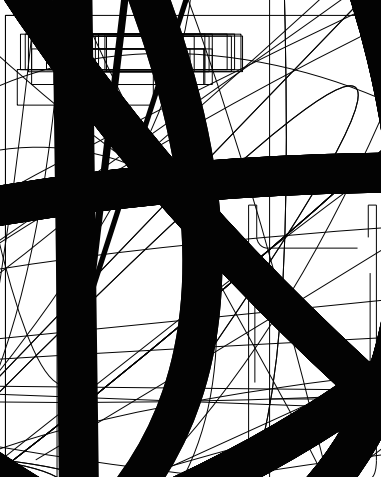
can handle: 55-100V DC, 20A.

This PV module does not work with solar panels that have built-in

Please check BLUEETTI YouTube channel: BLUEETTI Official for detailed

(PV) (Go Down Module)

8.3. Dual Earthing



CP1 Charging Port Select:

CP2 Charging Port Select:

8.4. How to calculate the recharging time of EP500

5120Wh / Total recharging power + 0.5-1Hrs (trickle charging time) = fully

E.g. : The total recharging power is 1100W(500W+ 600W) recharged by AC and 2nd adapter at same time, the estimation charging time will be 5.13-5.63Hrs.

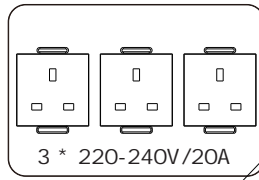
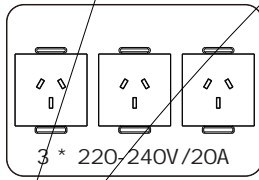
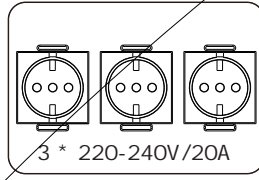
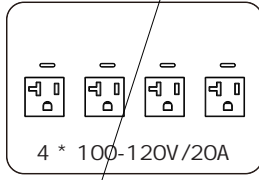
09. Discharge (OUTPUT)

The operational time of the EP500 is subject to many different factors such

9.1. The Output Port

9.1.1. AC Output Port





9.1.1. DC Output Port

- 4. * 1 USB-C
- 5. * 2 USB-A (fast charging)
- 6. * 2 USB-A

9.2. Operation Time Estimation



Refrigerator
150W(1200W)
4-5 Hrs



Electric Fry Pan
1500W
2.8 Hrs



Microwave Oven
1000W
4.1 Hrs



Washer
500W(1000W)
8.2 Hrs



Space Heater
1500W
2.8 Hrs



Air Conditioning
8000Btu
6.3-17.3 Hrs



Smart Phone
15Wh
280+ Times



Laptop
49Wh
80+ Times



Desktop
300W
14 Hrs



CPAP
40W
58.5 Hrs



Bench Grinder
1400W
2.5 Hrs



Welding Machine
1800W
2.3 Hrs



Circular Saw
1400W(2300W)
2.5 Hrs



Electric Vehicle(16A)
1800W
10-16 Miles



E-Bike
500W
100-150 Miles

The estimation operating time is only for reference

9.3. How to Calculate the Operation Time

● $5120Wh * DOD * \text{ / (load W) = operation time (unit: hour/time)}$

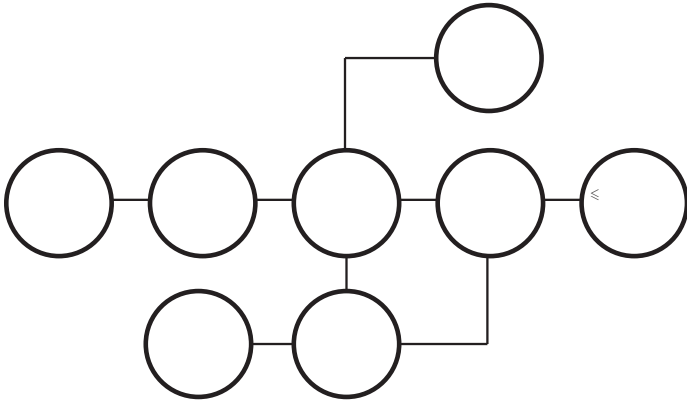
$5120Wh * 90\% * 90\% / 96W = 43 \text{ times}$



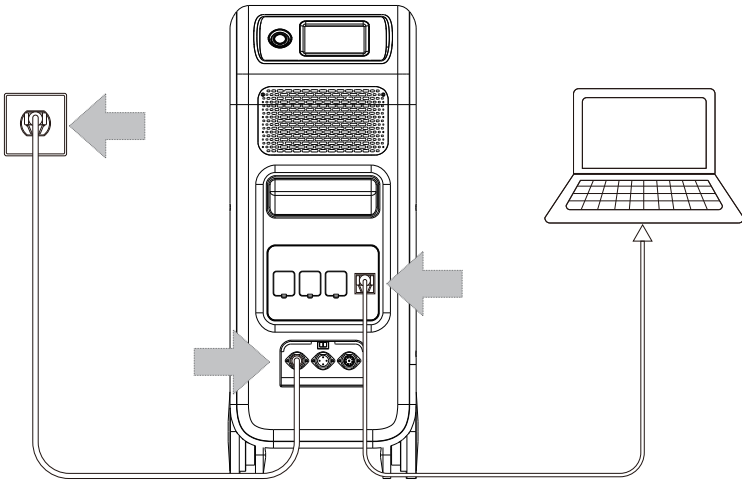
To extend the battery-life, the power station set the 90% DOD, which means that

to avoid damage to the battery due to over-discharge.

indicates local inverter efficiency. DOD=90%, $\eta = 90\%$.

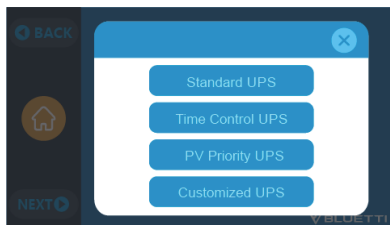


(EP500 grid-tied home power back-up system with Sub Panel and roof panels)



10.1.3. Turn On UPS Function

- Select “Setting” on the main touchscreen interface. Select “Next” and select “Running Mode” to choose UPS Mode.
- The default working mode is “UPS Mode”.

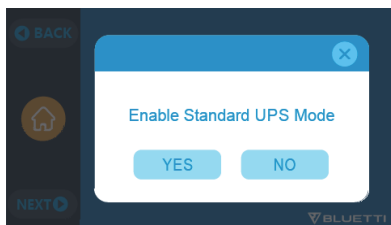


10.2. Enable UPS Running Mode

10.2.1 Standard UPS Mode

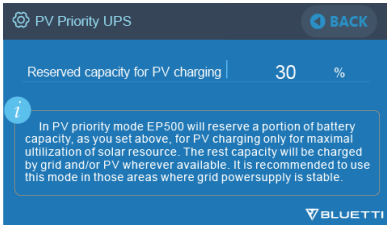
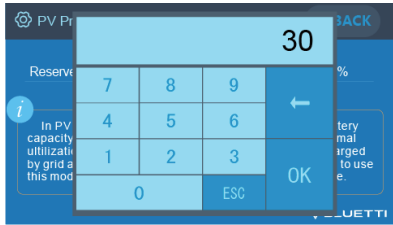
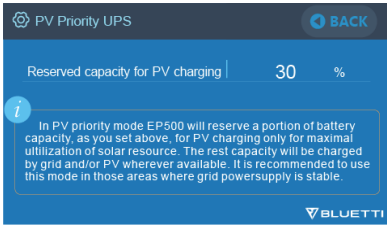
- Of ine UPS: Basic UPS working mode

●

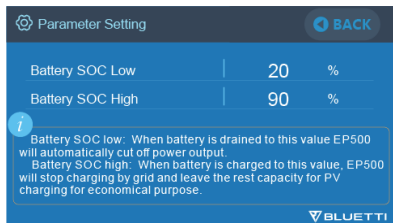
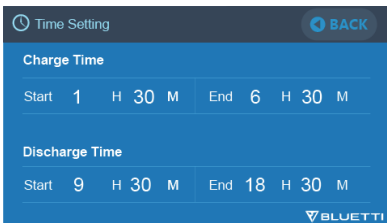


10.2.2. PV Priority Mode

- **Note:** In PV Priority Mode EP500 can only be recharged via grid to 20 % capacity, and discharge to 20% of the capacity (you can tweak it to 100% for full grid charging manually on screen or App) as the Reserved capacity setting in PV priority Mode. And rest of the capacity will be fully charged by solar power and 2nd adaptor only.



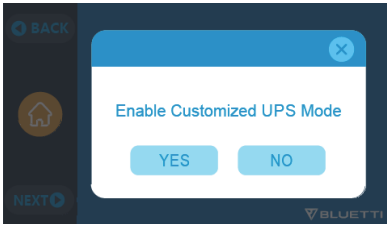
10.2.3. Time Control UPS



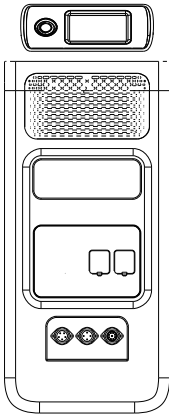
10.2.4. Customized UPS

-
-
-

effect on both PV Priority Mode, Standard UPS Mode, and Time Control Mode.



11. Split Phase Function





Note: Only one touchscreen will be active when two EP500 units are connected.

If one of the EP500 is out of power, the Split Phase Bonding function will be invalid.

Step 2: Plug the communication cables from each of the two EP500's to the

12. Technical Specification

Model	EP500-JP	EP500-US	EP500-EU/UK/AU
		0-40 (32-104)	
		-20-40 (-4-104)	
		-25-40 (-13-104)	
		10-90%	
Certification			

	40.0-58.4VDC		
Short-circuit Protection			
Over-temperature Protection			
	Built-in		
Over-temperature Protection			
Discharge Over-temperature	65		
Discharge Over-	55		
Charge Over-temperature	55		
Charge Over-temperature	45		
AC Output			
			220-240VAC
Power of Over-load	2500W	load	3000W, 8-10s; 3000W load 4800W, 500ms
Efficiency			
DC Output			
USB-A			
USB-A			
USB-C (Type-C)	*1 20VDC/5A; 5-15VDC/3A		
Note: Cigarette lighter port shares 10A current with *2 DC5521 ports in parallel circuit.			

AC Input			
	90-110VAC	102-132VAC	195-253VAC
	47Hz-63Hz		
Configurable Input Current			
	90-264VAC		
	47Hz-63Hz		
PV Input			
	55-145VDC		

13. Storage and Maintenance

- Please turn off the unit and charge it to 50-70% capacity every time before
-
-
-
- Avoid exposing the unit to rain or wet environment, and direct sunlight (32-113 °F, 0-45 °C), clean and dry environment is strongly recommended
- Dry, non-abrasive cloths to wipe will be perfect. The power station is a
-

		the specifications of the unit.
		specifications of the unit.
		specifications of the unit.
		specifications of the unit.
	Inverter Over-load	

		Please reset the "Master" unit or "Slave" unit.
		Please reset the "Master" unit or "Slave" unit.
		Check the input wire and whether the "Master" unit or "Slave" unit can work well.
		Please reset the "Master" unit or "Slave" unit.
		Please reset the configurations on "Settings".
	Misconfiguration	Please reset the configurations on "Settings".

	USB/TYPE-C/PD Locked	

15. FAQ (Frequently Asked Questions)

- Please place your after-sale requirement as the warranty card written to the
will take effects after the default warranty is void.
- The firmware including ARM, DSP, IoT and BMS can be upgraded online
- Yes, the unit supports pass-through charging function for both AC and DC
-

There can both be set to work of ine and online.



No delay for online UPS; 20ms from of ine UPS.



- Can I use third-party solar panels to charge the unit?

Yes, the third-party solar panels are available as long as they contain MC4



To install the grid-tie power system, an electrician with a professional technician certificate is required, connect the wires of critical equipment from

16. Declaration

- Some changes may not be noticed specifically such as appearance or specifications due to the exterior material or hardware improvement of the



such as fire, typhoon, flood, earthquake or the user's intentional negligence,

● No compensation for damages shall be made for utilizing non-standard

●

●

accidents, fires, or wrongful or negligent actions done to the machine and

