

AWILCO

EXTENSION BATTERY FOR ES-2500/ES-3600

ES-EXTBAT25-36

USER MANUAL



Please be sure to read and save the entire manual before using the energy system. Misuse may result in damage to the unit and/or cause harm or serious injury.

**PLEASE KEEP THE MANUAL
FOR FUTURE REFERENCE**

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Disclaimer

Please read and fully understand this product user manual before use. And keep it well for future reference. If not use this product correctly, you would cause serious injury to yourself or others, or result in product damage and property damage. Once you use this product, you are deemed to have understood, recognized and accepted all terms and content of this user manual. You are solely responsible for your actions and all consequences arising therefrom. The Company is not responsible for all the losses caused by the user's failure to use the product in accordance with the User Manual.

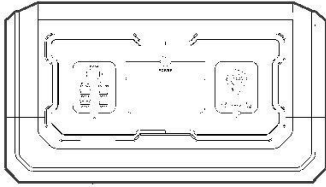
In compliance with laws and regulations, The Company reserves the right of final interpretation of this document and all related documents of this product. Subject to update, revision or termination without prior notice, please visit official website for the latest product information.

● The Company is not responsible for any damage caused by force majeure (e.g. fire, typhoon, flood, earthquake or customer's negligence, abuse or use in other unusual circumstances).

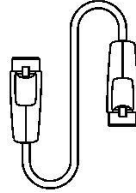
● The Company is not responsible for the loss caused by the use of non-standard connectors.

● The Company is not responsible for any damages caused by the wrong operation which don't follow the instructions of user manual.

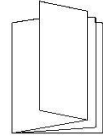
Product List



Smart Extra Battery



Extra Battery Cable



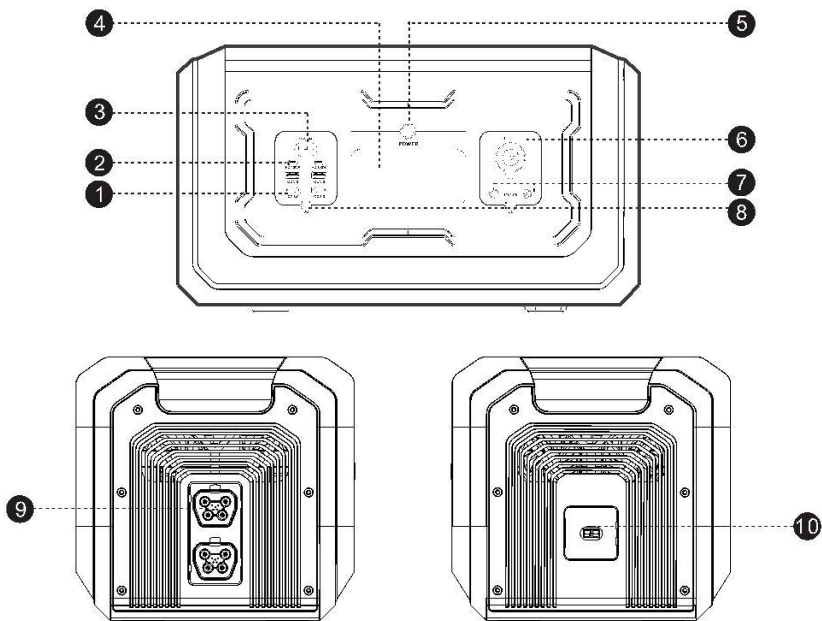
User Manual &
Warranty Card

Product Description

Parameter Specifications

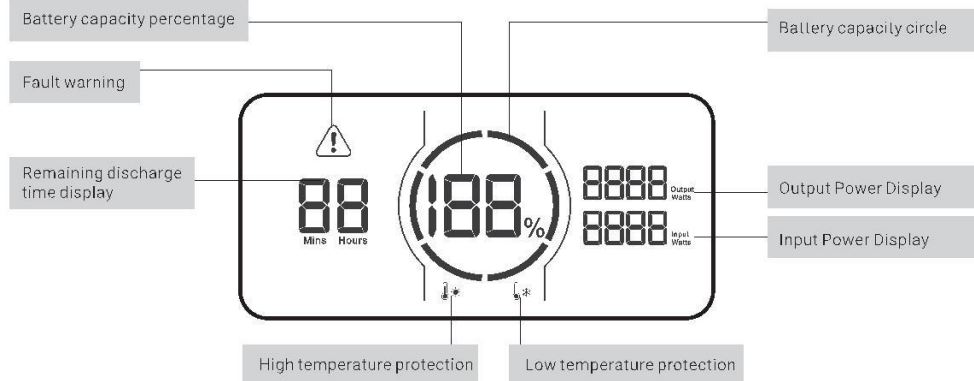
General Info		
Capacity	2048Wh	
Dimensions	18.1*10.6*12.0in (460*270*305mm)	
Net Weight	18.1*10.6*12.0in (460*270*305mm)	
Input		
PV(Anderson)Input	12~150Vd.c MPPT:18V-140V 15A Max 2100W Max	
Output		
DC 12V & Car lighter Output	Rated Voltage	12V
	Rated Power	10A
USB-A Output	5V/3A; 9V/2A; 12V/1.5A 【 18W Max 】	
USB-C Output	5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/5A 【 100W Max 】	
Anderson Output	12V/30A	
Battery Info		
Cell Chemistry	LiFePO ₄	
Cycle Life	3500+ cycles	
Other		
Working Temperature	0~40℃	
Best environmental temperature	20℃~30℃	

Function Description



- | | | |
|-------------------------|----------------------------------|-------------------------------|
| 1. USB-A Output Port | 5. Main Power On/Off Switch | 9. Power pack connection port |
| 2. USB-C Output Port | 6. Car Charger Output Port | 10. Anderson input Port |
| 3. Anderson Output Port | 7. 5521 Output Port | |
| 4. LCD Screen | 8. DC Output Power On/off Switch | |

LCD Screen Description



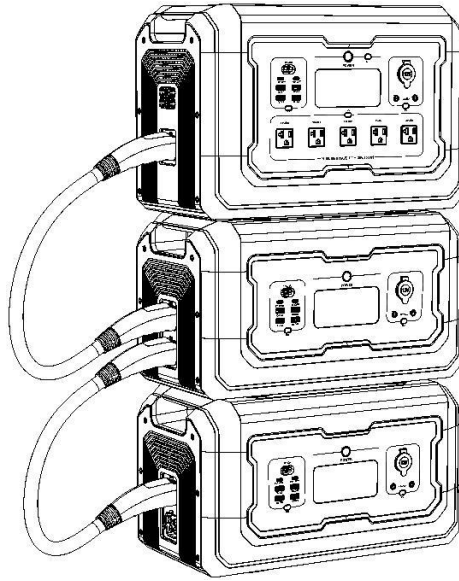
Instructions for use

The LCD Battery Capacity Circle indicates the remaining capacity. The capacity circle is divided into six segments, accounting for about 17% ~ 35% ~ 51% ~ 68% ~ 85% ~ 100% of the capacity. The LCD display will wake up automatically when used.

When discharging, the blue capacity segment goes off from the display, indicating the remaining capacity. When charging, the blue battery capacity circle flashes clockwise along the trajectory, which indicates that the current device is in the state of charging, the number on the right side of the energy circle shows the real-time input power at this time. When fully charged, all blue capacity segments will shine and remain stable. After charging, please unplug the charger.

Long press the main power button once to turn on the product, then the LCD screen lights up and the main power indicator becomes breathing white; Press and hold the main power button for at least 3 seconds to turn off the product, meanwhile, the LCD screen also goes off.

After turning on the main power, lightly press the separate button of each part, the LCD screen will light up the corresponding function icon and the function is on; lightly press the separate button again to close the corresponding function icon and the function stops.

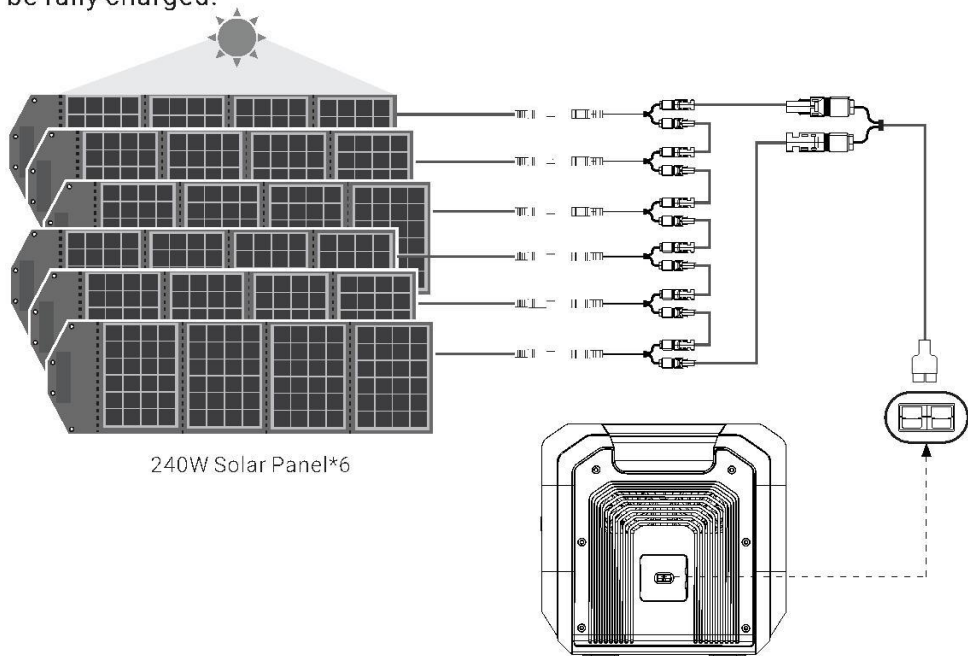


Notice:

1. Please make sure that both the product and the power pack are turned off before connecting.
2. After this product is connected to the power pack, press any of their power buttons, if both of them can be switched on at the same time, then they are connected successfully and can be normally used; if you are using the APP, it will also show the data of the power pack.
3. Do not connect or remove the power pack directly during the charging and discharging process. If you need to connect or remove the power pack, please turn off the power before operating.
4. Do not use your hands or other objects to touch the metal terminals at the connection port of the power pack. If there are foreign objects attached to the metal terminals, please lightly wipe with a dry cloth.
5. Please connect this product with the specified power pack and cable in strict accordance with the operation specifications. The company is not responsible for equipment damage caused by improper operation.

Solar Charging

Connect the standard solar panels to the device by using the fittings "Anderson to MC4 cable" ×1 and "MC4 to 7909 cable" ×6. Up to 6 standard solar panels can be connected to the device, which takes about 1.5 hours to be fully charged.



Notice :

1. The solar charging cable (MC4-7909 cable) and solar panel need to be purchased separately.
2. When using the matching solar panel to charge this product, please connect it according to the user manual.
3. Before connecting the solar panel, please confirm that the output open circuit voltage of the solar panel is within 150V to avoid damage to the product.

FAQ

1. What battery does the product use?

It uses high-quality lithium iron phosphate batteries(LiFePO4).

2. How long can the product charge my devices?

The charging time is shown on the product's LCD Screen, which can be used to estimate the charging time of most appliances with stable power usage.

3. How can I know if the product is charging?

When it's charging, the remaining charging time will be shown on the LCD Screen. Meanwhile, the charging indicator icon begins to rotate with the remaining battery percentage and the input power shown on the right of the circle.

4. How to clean the product?

Please gently wipe it with a dry, soft, clean cloth or paper towel.












5. How to store the product?









Before storing, please turn off the product first, and then store it in a dry, ventilated place at room temperature. Do not place it near water sources. For long-term storage, please discharge and charge it every three months to extend its battery life.

6. Can this product be taken on the plane?

No.

Fault Code and Trouble Shooting

Code	Description	Performance	Trouble Shooting
E007	PV input over-voltage and low voltage protection	No PV charging	It will recover automatically when input voltage adjust to the input voltage range
E008	12V30A overload short circuit protection	 flashing, no output	You need to manually press the DC power button to recover
E009	24V auxiliary power overload short circuit alarm	The DC board reports a fault, but does not turn off the output.	Reduce the load on the DC port
E010	Cigarette lighter port overload and short circuit	  flashing, no output	You need to manually press the DC power button to recover
E011	USB-A port overload and short circuit	  flashing, no output	You need to manually press the DC power button to recover
E012	USB-C port overload and short circuit	  flashing, no output	You need to manually press the DC power button to recover
E013	Battery low voltage protection when DC discharge	E013 code flashing, no output	After protection, restart corresponding function keys to restore functions, and recharge it timely
E014	PV charging over-temperature	 PV charging off	After the temperature recovers, the fault disappears automatically, and charging resumes
E015	PV output over-temperature	 flashing, no output	Press the DC button on the left to troubleshoot
E020	BMS communication failure	 flashing, no output	Check BMS communication cable
E021	Set the device aside and wait for the battery voltage to recover automatically	E021 code flashing	Set the device aside and wait for the battery voltage to recover automatically
E022	Single cell of the battery low-voltage	E022 code flashing, turn off the output	Connect the AC charging cable and keep charging until the voltage is normal
E023	The total voltage of the battery is too high	E023 code flashing, but does not turn off the output	Set the device aside and wait for the battery voltage to recover automatically
E024	The total voltage of the battery is too low	 flashing, no output	Connect the AC charging cable and keep charging until the voltage is normal

Code	Description	Performance	Trouble Shooting
E025	Battery cell over-temperature	  flashing, no output	Automatically recover when temperature cooling down
E026	Battery cell low-temperature	  flashing, no output	Automatically recover when temperature cooling down
E027	System overload	The AC icon flashes, AC output close, DC output is normal, the AC load is higher than 2600VA or AC+DC load is higher than 2600W	You need to manually press the AC power ON/OFF button to recover
E028	Charging over-temperature	  flashing, device stops input	Automatically recover when temperature cooling down
E029	MOS over-temperature	  flashing, no output	Automatically recover when temperature cooling down
E030	Power pack exceptions	Connect the wrong power pack	

Storage & Maintenance

1. Please store the product away from water, heat, and metal objects.
2. In order to prolong the service life of the battery, it is recommended to use or store this product in an environment temperature between 20°C to 30°C .
3. For long-term storage, please charge and discharge the product once every 3 months (discharge to 0% first, then fully charge, and then discharge to 60% for long-term storage). Products that have not been charged and discharged for more than 6 months will not be covered under warranty.
4. For safety, do not store this product in an environment temperature above 45°C or below -10°C for a long time.
5. If the product has been idle for too long and the battery is severely low, it will enter a deep sleep protection mode. In such case, please charge the product before using it again.



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FLEXIBLE POWER SOLUTIONS