ACOPOWER®
OUTDOOR INNOVATIONS

WELDING INTEGRATED POWER STATION

WP-4041

Warning:
Please read this manual before using this product!

Operation Manual

Attention

Dear users, thank you very much for choosing our mobile power station. It is our honor to provide you with high- quality equipment and service. Under the call of the era of developing new energy, after years of efforts, the company's independent research and development,the mobile power station using new energy has been officially put into the market. The company's new energy mobile power station is portable, safe, efficient and pollution-free, which can greatly reduce labor intensity. It is the most practical tool and equipment for mobile construction, and is also the preferred product for outdoor emergency power station with big power.

Warning: Please read this manual carefully before use! Improper use may cause serious danger and equipment damage! Battery short-circuit or damage will cause an explosion, fire and other safety accidents! The user will be responsible for all consequences caused by any improper use and neglecting the important warnings. Our company will not take any responsibility

⚠ Attention

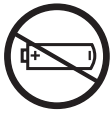
This device is designed for temporary power supply in outdoor engineering. For other purposes, please contact the factory's technical department for approval.
When using equipment, it is not allowed to exceed the performance requirements. Any overloading or non-standard use will cause equipment damage and pose a risk to personal safety. The equipment needs to be inspected at designated locations or returned to the factory every two years to eliminate potential performance hazards.

This equipment is suitable to work in temperature -20~45℃;
The charger is suitable to work in temperature 0~40℃;
Do not charge the battery below 0°C;

Severe shaking or high-frequency vibration of the equipment is strictly prohibited.
High altitude falls, high-intensity collisions, squeezing, and punctures can cause equipment damage and lead to dangerous accidents.

When using multi-outlet sockets to use other electrical equipment!
• Ensure that the two connected power cords are not less than 2.5 mm²;
•Ensure that the connected power cords and sockets are not damaged and make sure that the connected power cords and sockets are dry;

There is strong electricity inside the device. Non professionals are not allowed to open the device casing.



It is strictly to modify and disassemble the chargers and battery packs manufactured by our company !

It is strictly prohibited to use chargers other than our company to charge the device. If you insist on using them, please contact relevant technical personnel first;

It is strictly prohibited to operate this equipment in flammable and explosive environments, otherwise it may cause a fire.Explosion hazard. Metal dust, strong acids, and salt spray in the usage environment can cause damage to the equipment.

Fatal electric shocks or burns can occur if you touch electric parts

1.Please do not touch live parts, including electrodes.
2.Qualified professionals are required to install, use or repair the machine in accordance with the regulations, and reliably ground the welding machine and the base metal
3.The switch or circuit breaker other than the machine must be disconnected to cut off the input power.
4.Please do not operate with the welding machine shell, terminal cover or cover plate removed.
5.Please use dry insulating gloves.

Welding can cause fire, explosion, and rupture.

1.Do not place flammable materials or flammable gases near the welding place.
2. Please do not weld sealed cans or tubes.
3. Please place a fire extinguisher near the welding site, just in case.

Fume and gas generated during welding are harmful to health. Welding operations in confined places can cause oxygen deficiency and suffocation.

1.The head should be free from welding fumes.
2. Please use ventilation devices to discharge welding fumes and gases to avoid contamination of the work area.
3. In a narrow place, please fully ventilate, or wear breathing protection equipment, and perform welding operations under the supervision of a monitor.
4.When welding metal-plated steel plates, please use breathing protection equipment.

Arc light, splashes, and noise are the causes of eye inflammation, skin burns, and abnormal hearing.

1. Please use a welding mask that can adequately shield the light.
2. Please use protective equipment such as leather gloves, long-sleeved clothing, instep cover leather, and aprons.
3. Please use noise protection equipment in places with loud noises.

Charger indoor use only, There should be protections when outdoor use!

Malfunctions-when you have difficulties, please seek help from professionals.

- If you have difficulties during installation and operation, please check the relevant contents of this manual accordingly;
- If you still cannot fully understand after reading it, or if the problem cannot be solved according to the guidelines of this manual, you should immediately contact your supplier or manufacturer's service center and seek help from professionals.

Contents

User's guidance

This series of equipment is a rechargeable industrial mobile power supply, suitable for power supply for wireless construction operations and field operations. Some devices are equipped with AC120/240V inverter and low-voltage DC welding machine circuits, making the equipment lightweight, portable, and powerful. The rated power of the inverter is 4KW, and it can withstand an instantaneous impact of twice the rated power, with superior economic efficiency. This device has no noise, emissions, or vibration, and the current output is constant and stable. Welding spatter is low, forming aesthetically pleasing, greatly reducing user labor intensity, making it a new generation of high-tech innovative products. Especially suitable for places that require high-power mobile power sources such as power installation engineering, railway maintenance, road and bridge maintenance, petrochemical pipelines, municipal sanitation and landscaping, outdoor advertising installation, fire rescue, and field rescue.

Function Features

1.Integrated design with foot wheels, lightweight and easy to carry;

2.Battery compartment protection design, sun and rain protection;

3.Multiple protection systems for battery modules ensure safety without any risks;

4. Rated power output of 4KW, capable of withstanding instantaneous double rated power impact, suitable for all AC120V/240V powered equipment;

5.Pure DC welding function, suitable for welding electrodes with a diameter of 1.6-5.0mm, smooth welding, and beautiful forming;

6.High power supply equipment that is noise free, emission free, vibration free, safe and efficient;

7. The economic efficiency and energy consumption of equipment are only one tenth of that of fuel powered power generation equipment;

8.The device is equipped with full functional safety protection for battery undervoltage, short circuit, reverse connection, overcharging, over discharging, overload, overheating, etc;

9.The device comes with built-in power monitoring and intelligent start stop function for fans;

10. The device is equipped with an input soft start circuit, which reduces the instantaneous surge current during startup and effectively protects the device.

11. The device is equipped with a built-in Bluetooth system, which is compatible with Android and Apple systems. Check and adjust the battery module base parameters at any time after connecting the phone.

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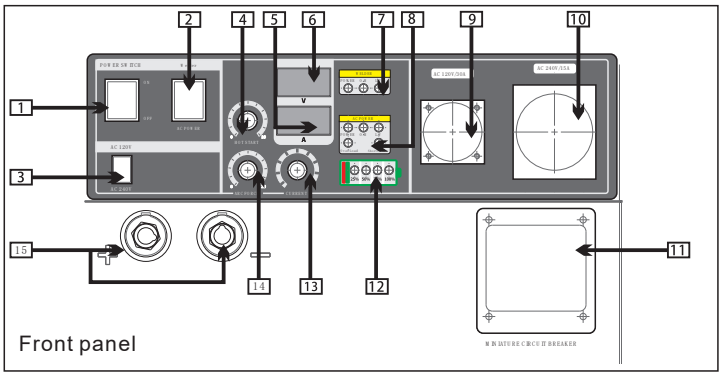
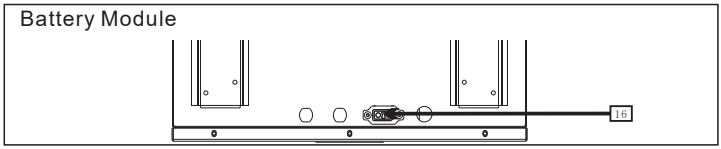
Introduction to Front and Back panel

WP-4041





1	Power Switch
2	AC POWER/Welder function switching
3	AC120V/240V function switching
4	Hot start regulation
5	Current display
6	Voltage display
7	Welder: power light , overheat light, low voltage light
8	AC power : power light , overheat light, low battery light, over load light, short circuit light
9	AC120V output（30A）
10	AC240V output（15A）
11	Miniature circuit breaker
12	Battery meter
13	Welding current regulation
14	Arc force regulation
15	Welding output positive and negative electrode interfaces
16	Charge Interface

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Equipment Use Rules

1. Wear protective equipment at work, and pay attention to safety when working at high places to avoid falling from a high place to cause safety accident.
2. The working temperature of this equipment is -20~45℃, and the working temperature of the charger is 0~40℃. It is strictly prohibited to charge the battery below 0℃. The charger is only suitable for indoor use, please pay attention to do protection for it when using it outdoor. Please use the charger from our factory. It is strictly prohibited to use other chargers to charge our battery. When using the equipment at a high temperature above 35°C, keep the battery above 60cm from the ground. Pay attention to shield it and keep it well ventilated. Prevent equipment and batteries from being exposed to the sun or rain.

3. When connecting the battery, attention must be paid to avoiding reverse polarity, strictly following the operating rules, and avoiding safety accidents caused by short circuits between the positive and negative poles of the battery. Avoid falling from high places or strong impact during mobile transportation or storage.

4. Due to the different output power characteristics, in order to ensure the safety of battery use, this device cannot use AC120 V/240V output in the front panel and 76. 8V output in the back panel at the same time.

5. The equipment should not be damp or immersed in water, and it is strictly forbidden to work in an environment with corrosive gas or full of metal dust.

6.The device is a new energy rechargeable mobile power station. The power supply battery module is a lithium iron phosphate battery. The output voltage of the battery is DC76. 8V. The inverter output AC120V/240V adopts isolation circuit. AC120V/240V is completely isolated from the power grid and the earth. If the user accidentally touches any one of the two wires at work, it will not cause electric shock hazard. However, when the user touches two wires at the same time, it will still cause electric shock hazard. When using it, you must wear the protective equipment required by the safety standard and pay attention to the use safety.

7.This equipment has a built-in inverter with AC120V/240V pure sine wave output function. The rated power output is 4KW and can withstand the twice instantaneous impact of the rated power. It is suitable for different kinds of electric power tools, motors and other inductive loads, as well as various household appliances. When using construction tools and equipment, ensure that the total power of all equipments does exceed the rated output power of the equipment. As the instantaneous power of the motor and other inductive loads is 3-5 times of the rated power of the motor itself, it should be avoided to switch on and off the big power inductive load tools at the same time.

8.When users need to use multi- hole socket to expand the ues of electrical equipments, the power line and socket connected to the equipment should be ensured that both of the connected two power lines are not less than 2.5 mm², and ensure that the connecting lines and sockets are free from skin damage, and ensure that the connecting lines and sockets are dry. Pay attention to safety!

9. The AC120V/240V inverter of this device adopts overload automatic protection. When the power of the electrical appliances exceeds the maximum output power of the device, the device will stop AC120V/240V output. When the power of the electrical appliances is lower than the maximum output power of the device, the device will automatically recover.

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10. This device is equipped with a built-in fan for forced air cooling, which is intelligently controlled. When the internal temperature of the device reaches a certain level, the fan will automatically start. When the temperature of the device drops to a certain level, the fan will automatically stop. When using this device, ensure that the front air outlet and rear air inlet are unobstructed to prevent metal foreign objects from entering the device through the air outlet and causing equipment damage.

11. The welding machine circuit of this device is protected from overheating during use. Please ensure to rest for 5 minutes when the machine is turned on. After the internal cooling of the machine is restored, it can be used. Please pay attention to shielding the battery equipment under direct sunlight to avoid overheating and equipment protection.

12. The output quick connector of this equipment's welding machine should ensure that the bolts are tightened to prevent the welding cable from loosening during use and causing the connector to burn out or be damaged.

13. The welding machine and inverter of this device are designed with undervoltage indicators on the panel. When the battery voltage is below 60V, the undervoltage indicator light will light up. Please charge it in a timely manner. The device needs to be left unused for a long time, please be sure to charge it to over 80%.

14. This device is equipped with a built-in welding circuit, suitable for welding J422, 506, 507 welding rods with a diameter of 1.6-5.0mm. It can weld various low carbon steel, high carbon steel and other metal materials. It can also be used in conjunction with a scratch arc welding gun for argon arc welding of metals such as stainless steel and copper, but it is not suitable for welding low-density metals such as magnesium, aluminum alloys, brass, etc.

15. When using an AC120V/240V inverter on this device, it is strictly prohibited to connect other 76. 8V devices. If necessary, please note that the power consumption of 76. 8V does not exceed 20A.

16. In order to reduce power consumption and meet the requirements of shell protection, the battery level display of this device is only displayed when the button is pressed.

17. This device does not support the use of two or more devices in parallel, which may cause equipment damage and safety accidents. Please strictly follow the functions and usage methods described in the device.

18. When installing the battery, avoid twisting and squeezing the power cord connecting the battery. The connector between the battery and the device has been treated with anti reverse connection. This plug is a dedicated quick coupler. After the direction of the plug and socket is correct, please firmly grip one end with the handle and the other end, and insert it into the coupling position. When replacing the battery, please grip one end of the handle tightly and the other end, unplug and separate the socket, and avoid pulling the power cord too hard.

19. When charging the charger, it is required to have someone on duty. When fully charged, unplug the charger plug. When unplugging the plug, pinch the quick coupler tightly and unplug it. It is not allowed to unplug the power cord. Pulling the power cord will cause the wire to fall off and there is a risk of short circuit.

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Battery Use Instructions

1. Batteries and chargers should be kept away from water sources, fire sources, flammable and explosive materials, and avoid strong shaking, bumps, and short circuits. Batteries and chargers should avoid direct sunlight and pay attention to ventilation and heat dissipation;

2. Do not disassemble batteries and chargers at will;

3. Do not invert the positive and negative poles of the charging and discharging ports;

4. Prohibit using metal to directly connect positive and negative poles for short circuit;

5. It is strictly prohibited to immerse batteries in water;

6. It is strictly prohibited to drop, impact, squeeze, or puncture the battery;

7. Please use the original lithium battery charger for charging to ensure safe charging and battery life.

Charger Use Instructions

1. The charger is only for indoor use, please protect it when used outdoors!

2. When users need to charge, please connect the AC input end of the charger to an AC240V socket and connect the charging output interface to the battery charging port. The charger starts charging, and the corresponding function indicator lights for each working stage will flash or remain on.

3. After the charger is charged, the full charge indicator light will remain on, and the charger will intelligently switch between trickle and full charge modes to ensure that the battery is fully charged on the basis of overcharging.

4. If the user needs to use the battery pack after fully charging or during the charging process, please disconnect the AC power cord and charging connection cable at both ends of the charger to start using the battery pack normally.

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External Equipment Use

Equipment Use

1. When using the welding machine function, please connect the welding clamp wire and ground clamp wire to the welding output port of the machine panel separately, ensure that the bolts are tightened, turn on the panel welding machine switch, and adjust the welding current of the welding machine according to the diameter of the welding rod to perform welding. When performing welding operations, do not turn off the main power switch or switch the switch to the inverter state. Only after stopping welding can the main power switch be turned off or the switch be switched to the inverter state.

2. When using the inverter function, insert the electrical plug into the AC output socket, ensure that the electrical switch is in the off state, turn on the panel inverter switch, and turn on the electrical switch to use. When using an inverter to power appliances, do not turn off the main power switch or switch the switch to the welding machine state. Only after turning off the electrical switch can the main power switch be turned off or the switch be switched to the welding machine state.

3. When using a welding machine or inverter, if you need to check the battery level, please press the power display button. You can also see the battery level, usage power, and various working status of the device through Bluetooth connection.

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Technical data

		WP-4041
External 76.8V welding machine	Input voltage	DC 60-86.4V
	Input current	20A-120A(MAX)
	Output voltage of welding machine	20.4V -28V
	Output current of welding machine	10A -200A
	Electrodes diameter	Φ 1.6 -Φ 5.0
Inverter (power station)	Input voltage	DC 60-86.4V
	Input current	55A-120A(MAX)
	Output voltage	AC120V/240V
	Rated output power	4KW
	Frequency	60HZ
	Max. output power	8KW(2s)
Battery	Output voltage	DC 60 ~ 86.4V
	Charging current	20A(MAX)
	Rated capacity	4147WH
Charger	Input voltage	AC240V(50-60Hz)
	Output voltage	DC 60-86.4V
	Output current	20A(MAX)

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Battery Runtime Table of Different Appliances

Appliances	Power	Load Rate	Battery Runtime
			86V/4147WH
Air conditioner	1HP	50%	10.9h
Refrigerator	100W	15%	274.1h
Induction cooker	2000W	50%	4h
Electric breaker	1500W	30%	9.2h
Electric hammer	680W	30%	2546 holes (withΦ 14 drill)
350mm cut-off saw	2200W	30%	6.1h
Air compressor	750W	50%	10.9h
Welding machine	3700W	15%	7.5h
Angle grinder	550W	30%	24.8h
Electric drill	370W	30%	36.9h
LED light	100W	100%	41.1h

*The above data is calculated based on the ideal condition, for your reference only!

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Equipment Storge

1. Power station, battery and charger should be placed in a cool and dry environment after use. If the device, battery and charger are not used for a long time, put the device, battery and charger back to their original packaging and store them in a dry environment.

2. When the battery is not in use, the best storage temperature is 25±5°C, and it can also be placed in a cool and dry environment.

3. After the battery is used, it should be charged in time. It can't be stored for a long time if the battery is not fully charged. If the battery is not used for more than 3 months, the battery needs to be fully charged. If the battery is not used for 6 months, it is better to do one battery charging and discharging cycle. Regularly charging and discharging the battery can ensure the activity of the battery and prolong the life of the battery.

Equipment Maintenance

The phenomena listed here may be related to the accessories you are using, welding materials, environmental factors, and power supply conditions. Please try to improve the environment to avoid such situations.

A. It is difficult to start an arc, and it is easy to break the arc:
1 Make sure that the quality of the electrode you are using is good, and the electrode with poor quality may not meet the requirements for high-quality welding;
2 Electrodes that have not been processed by drying treatment are also not easy to start arc, and will bring arc instability, increase welding defects, and deteriorate welding quality.
3 A longer cable will cause the output voltage to drop too much. It is recommended that you shorten the cable length as much as possible.

B. The output current cannot reach the rated value:
1 The deviation of the battery voltage from the rated value will make the output current value become inconsistent with the set value; when the battery voltage is lower than the rated value, the maximum output current of the welding machine may also be lower than the rated value.

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C. The current cannot stay stable during the use of the welding machine. This situation may be related to the following factors:
1 The battery voltage changes
2 The welding output cable is entangled

D. Too much splash:
1 The current may possibly be adjusted too large, and the diameter of the electrode is too small;
2 The positive and the negative of welding machine output parts is connected reversedly. Under the normal process, a positive polarity welding is used, that is, the electrode is connected to the negative polarity and the workpiece is connected to the positive. Please interchange the positive and negative polarity.

Equipment Maintenance

1. The inverter(power station) has no AC 120V/240V output:
A: Inverter overload protection: Whether the power of the electrical appliances exceeds the rated power of the inverter(power station); When the electrical appliances are inductive load with big power motors, their starting power is greater than the instantaneous output power of the inverter(power station).
B: Whether the battery voltage is too low:Please check the battery level indicator light and check the inverter abnormal indicator light is on or not;
C: Inverter overheating protection:Please check whether the fan insie of the inverter(power station) works or not;Please check whether the air inlet and outlet of the power station are blocked or not.
2.The voltage of the electrical appliances connected to the power station(that is, the voltage of the appliances powered by this power station) is too low: Please check whether the AC120V/240V output socket and the electrical plug of appliances are connected too loosely or have poor connection;Please check whether the wire diameter of the expanded patch board used for connecting more appliances is too thin, resulting in an excessive voltage drop;

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Charger problems and solutions

1. The charger indicator light flashes or keeps on, and cannot enter the charging state:
A: Please check if the charger's charging output port and the battery charging port are connected too loosely or have poor connection;
B: Please check if the internal wires of the charger's charging output cord are aging or broken;
2. The charger indicator light is not on:
A: Please check if the charger AC input port and socket is connected too loosely or has poor connection;
b: Please check if the internal wires of the charger AC input cord are aging or broken;

Battery problems and solutions

1. The battery cannot discharge:
A: Check if the discharge port is loose or has poor contact;
B: Check if there are any debris at the discharge port;
C: Check if the discharge port contacts are black, oxidized, and have poor conductivity;
D: Check the battery's various working data through Bluetooth on your phone to see if the discharge port is closed.

2. The battery cannot be charged:
A: Check if the charging port is loose or has poor contact;
B: Check if there are any debris at the charging port;
C: Check if the charging port contacts are black, oxidized, and have poor conductivity;
D: Check if the battery is damaged due to long-term feeding.
E: Check the battery's various working data through Bluetooth on your phone to see if the discharge port is closed.

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