

Instruction Manual

Mobile Power Station

EN



AC 2000W



Fast Charge



Type-C PD 100W



Power Multiple Devices



MARS I PLUS Art.55602

Introduction

Thank you for choosing our product. For safe and efficient use of this equipment, please keep this User Manual properly and read it carefully before use. After unpacking, please check the product carefully. Check the items against the Packing List. In case of any inconsistency, please contact your local dealer.

The relevant design schemes and manufacturing technology used in this product are protected by patents.

The contents are subject to change without notice.



NOTE: Before disposing of damaged goods, check with your state Environmental Protection Agency to find out about special restrictions on the disposal of the lamp and batteries or return them to a certified service center for recycling.

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This manual will explain how to use the unit safely and effectively. Please read and follow these instructions and precautions carefully.

Safety Tips and Precautions

Please keep this User Manual properly and read it carefully before use. This User Manual describes how to use the equipment safely and efficiently. Be sure to follow the instructions during its use.

- 1.1 Install the grounding device correctly according to the application standard.
- 1.2 Please use the product in a clean and dry environment to ensure the working position is safe.
- 1.3 There shall be no flammables or explosives in the working space.
- 1.4 Workers implanted with cardiac pacemaker shall consult the doctor before using the equipment.
- 1.5 The product shall not be dumped or used upside down.
- 1.6 The built-in battery of the equipment shall be used under the environment specified in this Manual.
- 1.7 Avoid violent vibration and collision since the equipment contains lithium battery.
- 1.8 Do not store the equipment with other items. There shall be no heavy objects on top of it.
- 1.9 Do not disassemble the equipment by yourself in case of failure.
- 1.10 Keep away from high temperature objects such as fire sources.
- 1.11 Avoid rainwater from seeping into the equipment.
- 1.12 Do not cover the machine, do not affect the ventilation and heat dissipation when it is working.

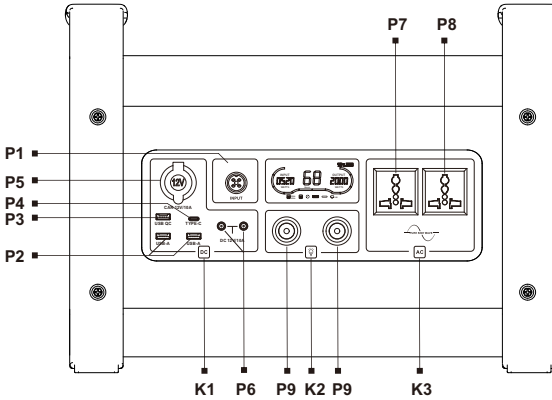
Note:

- ★ If the equipment needs maintenance and repair, we recommend users to contact the nearest authorized unit of factory. If the user delivers the equipment to an unauthorized service center for maintenance or repair, the user is no longer entitled to the manufacturer's warranty service.

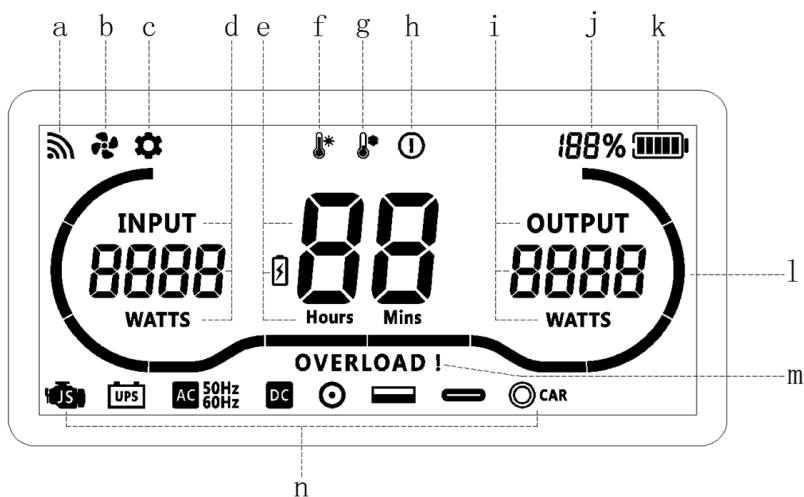
Product Information

2.1 Appearance














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SN.	Name	Function
P1	Charging input port	Connect the charger
P2	USB output	Dual 5V 2.4A output
P3	USB QC output	MAX 65W output
P4	USB Type-C port	PD 100W output
P5	12V Cigarette port	DC 12V 10A output
P6	12V DC port	DC 12V 10A output
P7	AC socket 1	2000W output
P8	AC socket 2	2000W output
P9	Lighting	On/Flashing/Off
K1	DC button	Turn on/off the DC power
K2	LED button	Turn on/off the light
K3	AC button	Turn on/off the AC power/Long press for five seconds to switch 50/60HZ



SN.	Icon	Function	Function
a		Network connection instructions	It is not displayed when the machine is not connected to the Internet, and displayed when the device is connected to the Internet. (Not available)
b		Cooling fan indication	Rotating means the fan is on.
c		Development mode	Used for engineering testing before leaving the factory.
d		Input power	Display the current input power level.
e		Remaining charge/discharge time	According to the power consumption, the remaining use/charging time is displayed, and the battery lightning symbol lights up to indicate how long it will take to fully charge.
f		High temperature indication	Indicates that the temperature of the machine is too high, pay attention to cooling down.
g		Low temperature indication	Indicates that the temperature of the machine is too low, and it should be moved to an environment where the machine can work and allowed to heat up naturally before use.

h		Fault indication	When this prompt appears, stop using it immediately, follow the instructions, or contact after-sales service.
i	OUTPUT  WATTS	Output power	Display the current output power.
j		Remaining battery percentage	Display the remaining battery power, 0~100%.
k		Battery level indicator	Indicate the remaining power, and display the running light when charging.
l		Atmosphere light	According to the use of the machine, the combination shows different states.
m	OVERLOAD !	Overload indication	Displayed in combination with different functional modules, indicating the corresponding module overload protection.
n		Function indication	Car start function (not available)
			UPS function (not available)
			AC output, 50/60HZ
			DC total output
			DC 12V port output
			USB-A port output
			USB-C port output
			Cigar lighter 12V output

2.2 Technical Parameters

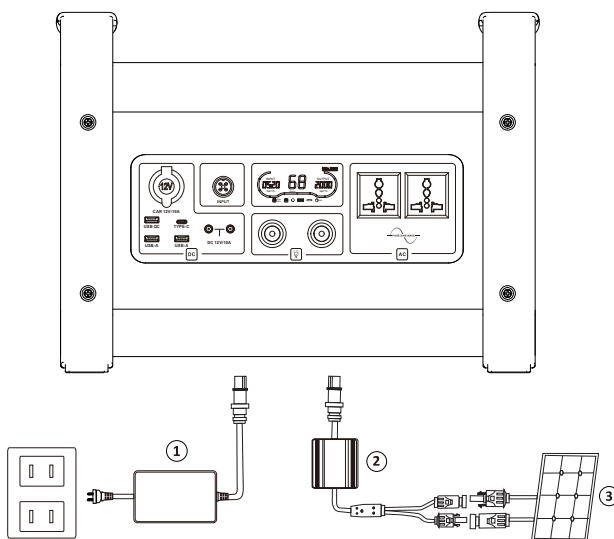
Technical Specifications	
Model	MARS I PLUS
Battery Capacity	1536Wh
Battery Type	LiFePO4
Wall Charging Time	54V/10A About 3 hours
Wall Charging Mode	CC-CV
Solar Charging Time	54V/7.5A MAX 3-4 hours
Solar Controller Mode	MPPT
Charging Temperature Range	0°C-45°C
Life Cycles	2000 times
USB Port	5V/2.4A * 2
USB-QC Port	Max 65W
USB-Type-C Port	PD 100W
12V Cigarette Port	12V/10A
12V DC port	12V/10A * 2
LED Light	2W * 2
Rated AC output	2000W
Peak AC output	4000W
Output Voltage	220VAC ± 10%
Output Frequency	50/60HZ
Waveform	Pure sine wave
THD	<3%
Discharging Temperature Range	-10°C-60°C
Weight	21KG
Dimension	394*223*320mm

Instructions for Use

3.1 Battery Level Checking

Under the power off state, press the DC Button(K1) to observe the remaining battery capacity through Battery percentage(j/k). It will shut down again if the Standby Button(K1) is pressed again.

3.2 Charging Mode



Note:

- ★ Please connect the charger correctly when the power of the device is low. The input power (d) displays the charging power, the atmosphere light (l) displays cyclically, and the remaining time (e) displays the remaining charging time.
 - ★ After being fully charged, the battery percentage will display 100%, the atmosphere light (l) will stop, and the LCD will turn off after 10 seconds and enter the standby mode.
- ① Wall charger (54V 10A) takes about 3 hours to recharge.
 - ② Standard solar charger (54V 7.5A max) with 36V 400W solar panels takes 3-4 hours to recharge depending on the solar conditions.
 - ③ Recommend to solar panels above 100W, voltage 36V (16V-50V) with MC4 connector.

3.3 Solar Controller

3.3.1 Controller Technical Specifications

Input	16V~50V/25A(MAX)
Output	54V/7.5A(MAX)
Controller mode	MPPT
MPPT efficiency	≥99%
No load loss	< 5mA
Over voltage protection	58V±1.5V
Anti reverse connection protection	When the positive and negative poles of the battery are connected reversely, the fuse will blow. The user needs to replace the 15A, φ 5 × 20 glass tube fuse.
Working temperature	-25°C - 65°C
Weight	0.8Kg
Size	L115×W111×H43(mm)

3.3.2 Controller operation and status indication

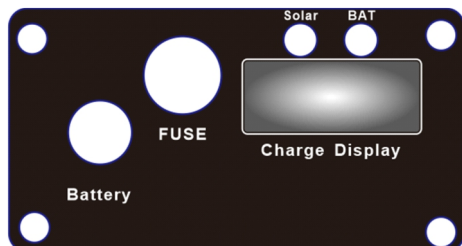
After the connection of the whole system is correct, if the sunlight is sufficient, the LED light will flash several times and then the tube will light up, the controller will start to work, the tube will display the system parameters in a cycle, and the LED light will indicate green normally.

Status indication, as shown in the table below:

Show contents	state	Status description
The first digit of tube	red	Solar panel access
	green	Battery charging
Show contents	b	Battery voltage
	c	Solar panel input voltage
	d	Solar panel charging current

3.3.3 Output indication

- Solar (solar indicator light)
- Bat (output indicator)
- Fuse (15A)
- Battery (output line)
- Charge Display



3.3.4 Precautions

- 1) The controller can adapt to 18V and 36V solar panels, please do not use solar panels with open circuit voltage higher than 50V, otherwise there is a risk of burning.

Please do not overload the controller. The maximum power of 18V solar panels is 200W. If two 18V solar panels have a total power of more than 200W, please use them in series. The maximum power of 36V solar panels is 400W. If there are two or more solar panels, please use them in parallel. (Solar panel parameter reference: 18V solar panel working voltage is 18V, open circuit voltage is 22V; 36V solar panel working voltage is 36V, open circuit voltage is 44V. Please check the parameters on the back of the solar panel carefully before connecting.)

- 2) The controller will generate heat during operation, so it is recommended to install it in a ventilated and heat dissipation environment.
- 3) When using the system, it is recommended to connect the controller and the solar panel first, and then connect the controller to the product equipment, otherwise the phenomenon of ignition will appear when wiring.
- 4) The input and output of the system adopt isolation design, and do not share negative pole, let alone positive pole.
- 5) There are no maintenance and repair parts in the controller, and the internal voltage is higher than human safety. Please do not disassemble the controller by yourself.
- 6) Please do not put water or corrosive liquid into the controller, which will damage the controller.
- 7) When operating, pay attention to use insulating tools and keep them dry.

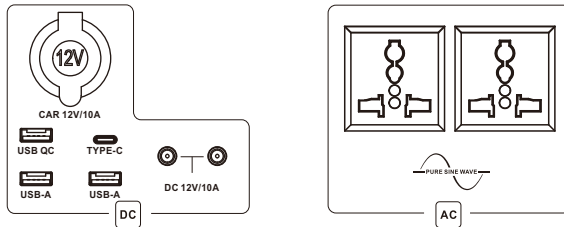
3.4 Lighting function

Press the lighting button (K2), the illumination LED (P9) lights up; Press the lighting button (K2) again, the illumination LED (P9) turns up lighter; Press the lighting button (K2) for the 3rd time, the illumination LED (P9) turns off; Press the lighting button (K2) stay 2S, the illumination LED (P9) SOS flashes; Press the lighting button (K2) again, the illumination LED (P9) turns off, and it can be cycled.

3.5 USB/12V DC Output Port

Under the power off state, press the DC Button (K1), screen displays the power of the power device in real time (if the load power is less than 1W, it cannot be displayed), press the DC Button again, USB /12V DC Output Port is off.

If the load power is less than 1W, the DC module will shut down automatically in 24 hours.



3.6 AC Output






Press the power button (K3), the AC turns on and starts the internal inverter. After the AC indicator (n) lights up, the AC sockets output the rated AC voltage. If no load or load power less than 10W, the AC module will automatically shut down in 12 hours.

Note:

- ★ Before power on the AC power, make sure that the appliance is not short circuited.
- ★ When starting up, first press the AC button (K3) to turn it on, then turn on the external electrical equipment.
- ★ When shutting down, first turn off the external electrical equipment, then press the AC Button (K3) to turn it off.

3.7 Protection Status Indication

List of Normal Protection Status of Control Panel

Display	Status	Measures
	Low Battery	The battery icon flashes, indicating that the battery is exhausted. Please charge the machine in time.
	High Battery Temperature	The constant light indicates that the battery is charged at a high temperature, and the machine will automatically charge after cooling down; The flashing indicates that the battery is discharged at a high temperature, please cool down before use.
	Low Battery Temperature	Constant light indicates that the battery is charged at a low temperature, and the machine will automatically charge after heating up; Flashing indicates that the battery is discharged at a low temperature, please warm up the machine before using it.
DC OVERLOAD !	DC Overload Protection	DC and overload icons flash together, please remove the DC load, the machine will automatically recover.
DC 	DC Over Temperature Protection	DC and high temperature icons flash together, please remove the DC load, turn off the DC function and wait for a while before using it again.
AC OVERLOAD !	AC Overload Protection	AC and overload icons flash together, please remove the AC load and restart it to recover.
EXX 	System Error	The Error icon flashes and displays E01~E16. Try to shut down and restart. If it still fails to recover, please contact after-sales service.

Common Failures and Countermeasures

Common failures	Measures
No AC output	Check if the electrical equipment is connected reliably.
	Check if the high temperature indicator is flashing.
	Shut down and wait for 60S and restart.
The battery is not fully charged even after more than 12 hours of charging	Check whether the charging cable is connected properly.
	Check whether any temperature prompt is given.

For other non-common failures, if multiple restarts cannot be recovered, please contact your local dealer or authorized service point.

Maintenance, Storage and Scrapping

5.1 Maintenance

- 5.1.1 After use, remove the plug before performing maintenance.
- 5.1.2 Use a piece of dry cloth to remove the dust and oil stains on the wires and casing.
- 5.1.3 Do not disassemble the equipment. There are no parts that may be repaired by users, and all repair services shall be provided by qualified maintenance personnel.

5.2 Storage

- 5.2.1 Before long-term storage, the equipment shall be fully charged, that is, the power indicator fully lights up.
- 5.2.2 Storage environment: temperature around 25°C, dry and ventilated.
- 5.2.3 Do not completely discharge the battery.
- 5.2.4 It is recommended to fully charge the product after each use.
- 5.2.5 When it is not frequently used, charge it at least once every 3 months to avoid excessive discharge.

5.3 Scrapping

For the scrapping of this product, please refer to the regulations of the specific country or region on lithium battery scrapping and recycling.

After-sales Service

Please keep the warranty card properly. This product is guaranteed for one year, calculating from the date of purchase. For any question, please contact your local dealer or call our service department.

For failure caused by defects in materials or workmanship, local dealer or authorized service point will provide free maintenance service for one year from the date of shipment. This warranty does not cover failures caused by normal wear or misuse. For further details on warranty coverage and warranty information, please contact the After-sales Service of the company.

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Packing List

Name	Specification	Quantity
Mobile power generator	MARS I PLUS	1
Wall charger	54V/10A	1
Solar power controller	54V/7.5A MAX	1
Manual	English	1

Warranty Time

The product warranty is valid for one year from the date of shipment of the product (the shipping fee after initial failure is borne by the customer).

- * The initial failure period is one month from the date of product shipment.
- * Be sure to keep the main unit, accessories, and instruction manual (warranty card).
- * Repair may take some time depending on the content of the problem.
- * If repair is not possible, we will replace it, but if it is out of stock, you may have to wait until the next arrival.
- * For repairs, please fill in the required items on the warranty card and enclose it. If the warranty card is not enclosed, the warranty will be void.

Warranty Range

The warranty of this product is to provide repair (replacement) in the event of a failure despite normal use.

- * Even within the warranty period, if any of the following items apply, it will not be applicable.
- * Failure or damage caused by incorrect use or improper repair or modification.
- * Failure or damage caused by transportation, movement, dropping, etc.
- * Damage caused by external factors such as fire, earthquake, flood, lightning strike, and other natural disasters.
- * Wear due to use, deterioration over time, etc.
- * If the product itself, warranty card, accessories, etc. are missing.
- * If we cannot specify the sale date because the warranty card is not enclosed or the order number is unknown.
- * Dirt, scratches, dents, etc. that do not cause any problems in use.
- * Purchases other than authorized retailers, such as individual sales, resale, second-hand sales, etc.
- * Failure due to misuse by the customer or usage environment (high temperature and humidity, place with a lot of dust / dust, etc.).

Disclaimer

The product warranty policy promises to repair defective parts of this product and replace it free of charge.

The Company shall not be liable for any accidents or damages caused by the failure of this product or its use.

Precautions

The warranty is valid only for items that we have officially sold and handled.

The nominal value depends on the usage conditions and is not covered by the warranty. If repair parts or replacement parts are out of stock, you may have to wait until the next arrival date.

This warranty is subject to change without notice.

Product warranty

This manual promises to repair the product free of charge according to the contents of the "Warranty Policy" in the event of a failure during the following period from the date of purchase.

Please note that the personal information you provide may be used for repairs within the warranty period and for subsequent safety inspection activities.

