Gen-mate inside

OWNER'S MANUAL

Smart Mobile

POWER

Wi-Fi

PPSiL Series

PPS1000iL / PPS1500iL / PPS2000iL

HYSOLIS™

VER1.0-20201022

CONTENT

INTRODUCTION

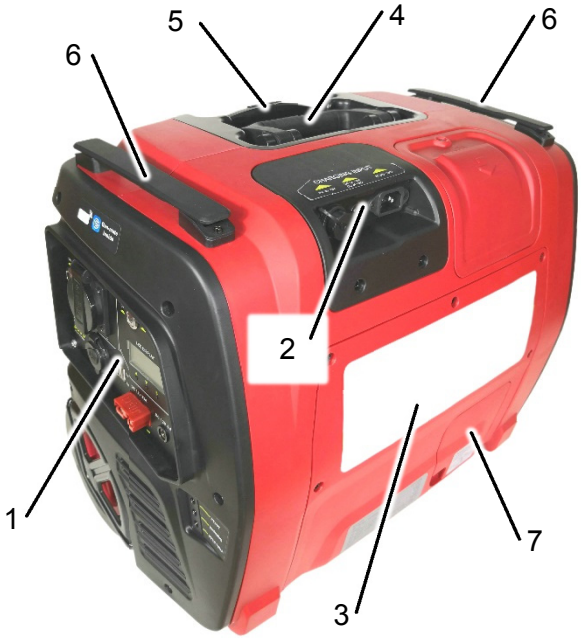
Congratulations on your selection of a marvelous mobile power. This manual will provide you with a good basic understanding of the safe operation and maintenance of this machine, please read it carefully.

⚠ WARNING

- **Read this manual carefully before operating this mobile power. This manual should stay with this generator if it is sold.**
- **The mobile power is a potential source of electrical shock if misused. Do not expose the mobile power to moisture, rain or snow. Do not let the mobile power get wet, and do not operate it with wet hands.**
- **Electrical equipment (including lines and plug connections) should not be defective.**
- **Do not connect to a building electrical system unless an isolation switch has been installed by a qualified electrician.**
- **Place the generator in a place where pedestrians, children and pets are not likely to touch. Do not let children operate the generator without supervision. Protect children by keeping them at a safe distance from the generating set.**
- **Keep this owner's manual handy, so you can refer to it at any time. We reserve the right to modify this product or manual at any time without any notice.**
- **We continually seek advancements in product design and quality. Therefore, while this manual is the newest, there may be slight difference between your mobile power and this manual.**
- **If you have any questions, please consult an authorized dealer.**
- **Please DO NOT modify the unit in any way, otherwise factory may reserve the right not to provide the complete warranty.**

1. UNIT DESCRIPTION

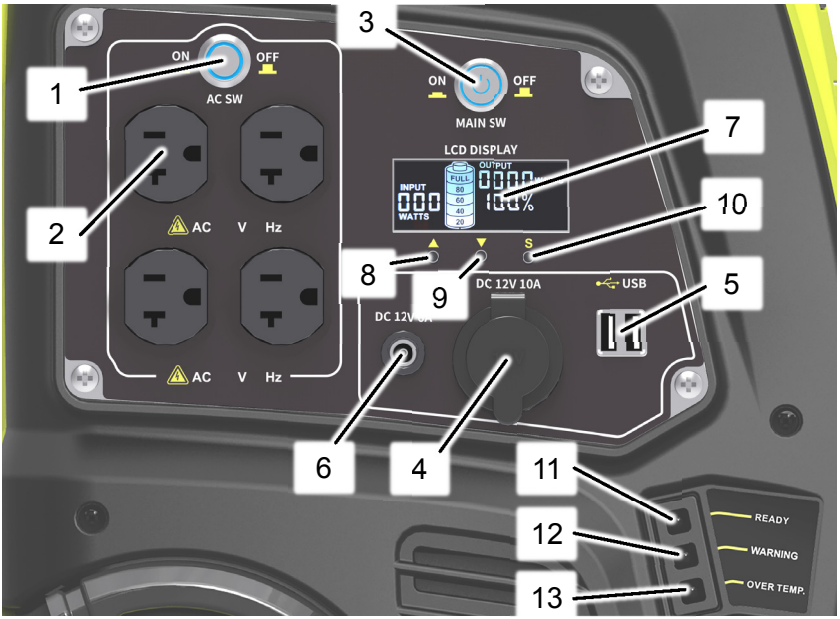
1.1 COMPONENTS IDENTIFICATION



(1). Output Panel: Location of mobile power controls and output receptacles.
(2). Charging Input Panel: Location of mobile power charging input receptacles.
(3). Maintenance Cover: Remove the cover to install or replace battery in the mobile power.
(4). Carrying Handle: Lift the generator by this handle.
(5). Draw Bar Handle: Pull the handle to wheel this mobile power around.
(6). Front Handle / Rear Handle: Two persons can carry the mobile power easily by these two handles.
(7). Connector Cover: Open the cover to connect the Battery

Connector before charging or operating the mobile power.

1.2 OUTPUT PANEL



(1). AC Switch: This switch turns ON or OFF AC output of the mobile power.
(2). AC Receptacle: AC output receptacles for connecting AC devices.
(3). Main Switch: This switch turns ON or OFF DC output of the mobile power, and AC Switch is available only after the main switch is turned on.
(4). Cigarette Lighter Receptacle: 12V DC output receptacle for cigarette lighter plug.
(5). USB Receptacle: 5V DC output receptacle for USB plug.
(6). 6mm Port: 12V DC output receptacle for 6mm plug.
(7). LCD Display: Display remaining capacity of the battery, input/output watts, remaining operation hours or charging hours of the

battery, battery voltage, total running time, and fault warnings. When the mobile power is charging, the battery segments in the LCD screen will blink. The mobile power is fully charged when all battery segments stop blinking and remain solid.

(8). Display button ▲: You can activate the display backlight or value display for remaining capacity of the battery by pressing the button once, and for total running time by pressing the button twice.

(9). Display button ▼: You can activate the display backlight or value display for battery voltage by pressing the button.

(10). Display button **S**: You can activate the display backlight by pressing the button, and the factory or authorized dealer can use this button to initialize the LCD Display.

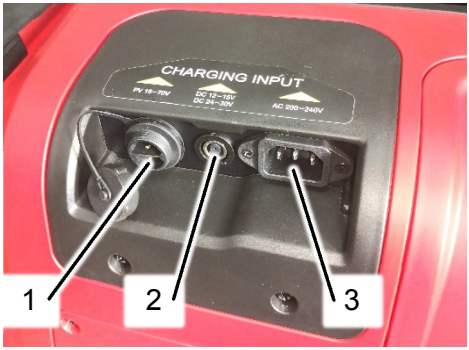
(11). Ready LED: Ready LED light comes ON when the AC output is ready.

(12). Warning LED: The light comes ON and flashes when the following problems occur:

- AC output is overloaded.
- AC output is short-circuited.
- AC output is under voltage.
- AC output is over voltage.
- Over temperature in the inverter.
- Battery is under voltage.
- Battery is over voltage.

(13). Over Temperature: The light comes ON and flashes when the temperature in the mobile power is over high.

1.3 CHARGING INPUT PANEL



(1). PV Charging Input: Charge the mobile power from solar panels.
(2). DC Charging Input: Charge the mobile power from car or any 12V/24V source.
(3). AC Charging Input: Charge the mobile power from wall outlet or other AC source.

1.4 BATTERY CONNECTOR

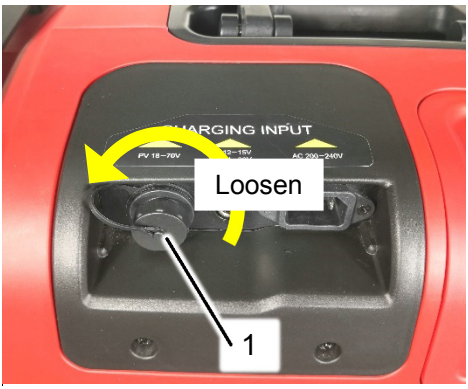
You need to connect the battery connector 2 before charging or using the mobile power:
(1). Open the connector cover 1.
(2). Connect the battery connector 2, otherwise the mobile power cannot be charged or used.

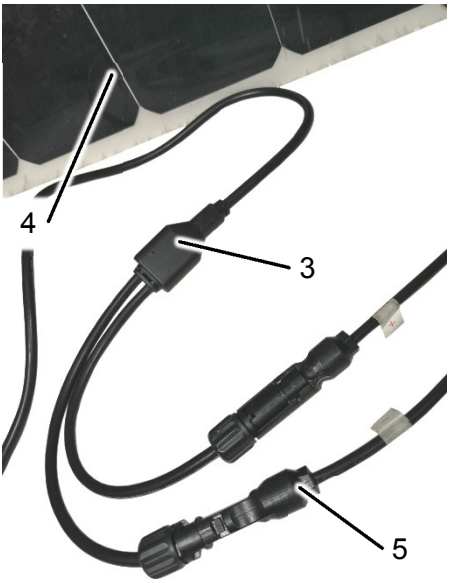
2. CHARGING THE MOBILE POWER

NOTE

- **When the mobile power is charging, the battery segments in the LCD screen will blink.**
- **The mobile power is fully charged when all battery segments in the LCD screen stop blinking and remain solid.**
- **You can charge the mobile power quickly from several solar panels in series if the solar panel power is small. But the total voltage of the solar panels in series CAN NOT exceed the PV INPUT voltage range.**

2.1 PV CHARGING INPUT





You can charge the mobile power from solar panels as follows:

(1). Remove the cover 1 from PV charging port 2.

(2). Connect PV charging port 2 to MC4 port 5 of solar panels 4 by PV

charging cable 3, which can be found in the packing box.

2.2 AC CHARGING INPUT

You can charge the mobile power from wall outlet or other AC source as follows:

Connect AC charging port 1 to any wall receptacle by the AC charging cable 2, which can be found in the packing box.

2.3 DC CHARGING INPUT

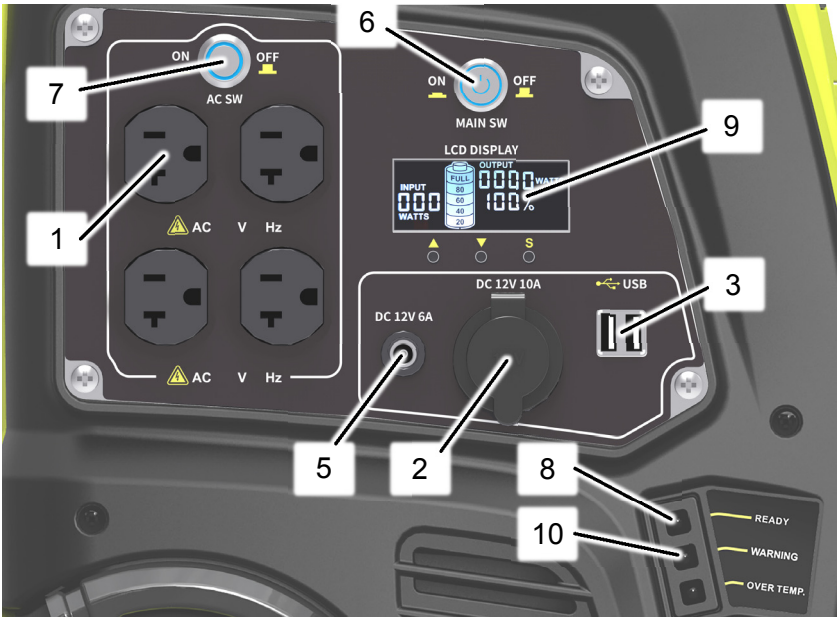
You can charge the mobile power from car or any 12V/24V source as follows:

Connect DC charging port 1 to cigarette lighter receptacle of 12V or 24V car by DC charging cable 2, which can be found in the packing box.

NOTE

The car engine must run when charging the power station from the car.

3. OPERATING THE MOBILE POWER



3.1 DC OPERATION

You can use the DC output from the mobile power as follows:

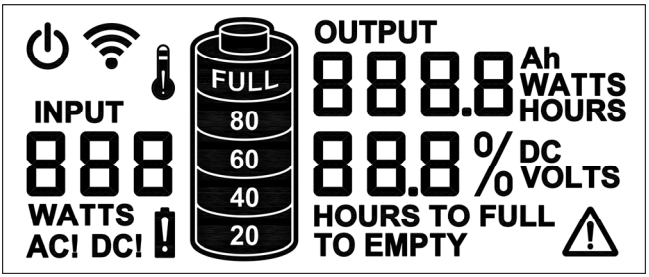
(1). Push the main switch 6 to "ON" position.

(2). Receptacle 2 and 5 all are 12V DC output port, according to the plug type of 12V DC electric devices to choose suitable one to connect.

(3). USB receptacle 3 is 5V DC output port.

NOTE

- **Be sure the receptacle load current is within receptacle rated current.**
- **If the DC output is overloaded (in excess of rated current), or if there is a short circuit in a connected appliance, the DC! icon and ⚠ icon in LCD Display 9 will show（as shown in the figure below）, and the DC output to the connected appliance(s) will shut off.**



3.2 AC OPERATION

You can use the AC output from the mobile power as follows:

(1). Push the main switch 6 to "ON" position.

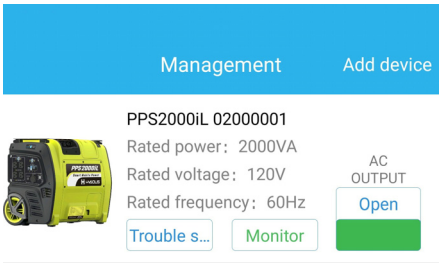
(2). Push the AC switch 7 to "ON" position.

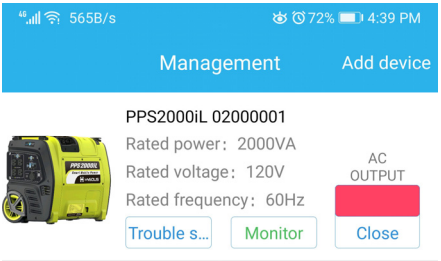
(3). Make sure the ready LED 8 comes on.

(4). Connect plug to the AC receptacle 1 for AC electric devices.

NOTE

If the mobile power is equipped with Gen-mate unit (optional equipment), the AC output also can be switched on or off by Gen-mate APP in smartphones except for above step 2 as follows:





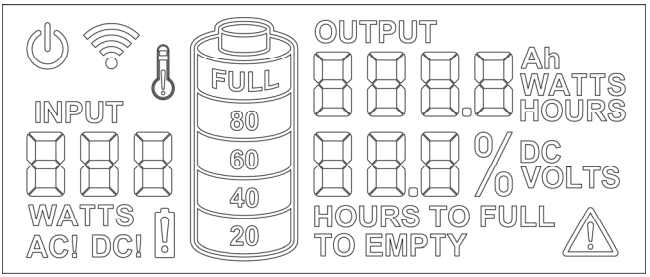
⚠ WARNING

- **AC output voltage is very high, operators must be protected from electric shock at all times.**
- **Do not operate with wet hand.**
- **Do not operate by children without supervision.**
- **Do not expose the mobile power to rain, moisture or snow.**

NOTE

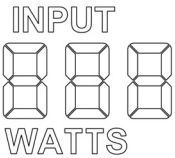
- **Be sure all electric devices including the lines and plug connections are in good condition before connection to the mobile power.**
- **Be sure the total AC load is within the mobile power rated output.**
- **If the AC output is overloaded (in excess of rated power), or if there is a short circuit in a connected appliance, the warning LED 10 will go ON, and the AC output to the connected appliance(s) will shut off.**

4. LCD DISPLAY

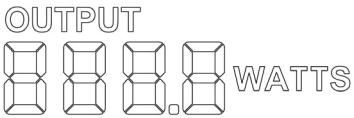


You can activate the display backlight by pressing any of the three buttons ▲/▼/**S**. The built-in LCD Display can indicate some important information:

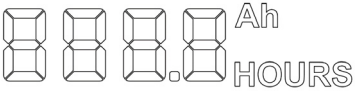
Battery icon: When the mobile power is charging, the battery segments in the LCD screen will blink. The mobile power is fully charged when all battery segments stop blinking and remain solid. If the remaining capacity of the battery it too low, the battery segments become blank and will blink as a prompt of recharging.



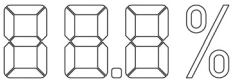
INPUT shows the amount of power (watts) going into the battery while charging. If charging from solar, you will see the watts change as you reposition the panels into/out of the sunlight.



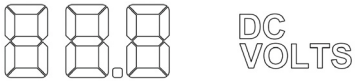
OUTPUT shows the amount of power (watts) that your appliances are using while plugged into the mobile power.



Shows the value in Ah for remaining capacity of the battery by pressing the button ▲ once, and for total running time in HOURS by pressing the button ▲ twice.

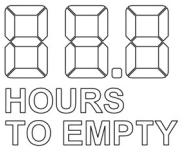


Shows remaining capacity of the battery in %.



Shows the battery voltage by pressing the button ▼.

Shows remaining charging hours of the battery while charging.



Shows remaining operation hours of the battery while discharging.

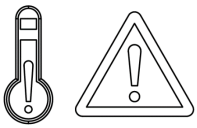
POWER icon will show when the Gen-mate unit (optional equipment) inside the mobile power is operating normally.

Wi-Fi icon will flash slowly when the mobile power equipped with Gen-mate unit (optional equipment) is connected to the Gen-mate APP in Smartphone by Wi-Fi.

Fault code 032 means that DC output is overloaded or short-circuited. Check DC appliances / cables /plugs, and reduce power of appliances.

Fault code 004 means that the battery voltage is too lower. Charge the battery immediately.

Fault code 008 means that the battery voltage is too higher. Stop charging the battery immediately and contact an authorized dealer.



Fault code 016 means that the temperature in the mobile power is too higher. Turn off all appliances and put the mobile power in a cool place to cool it until the warning icons clear.

5. REPLACE THE BATTERY

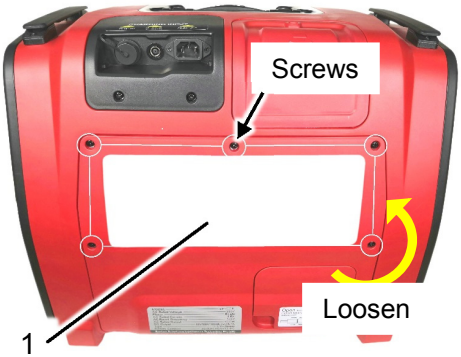
⚠ WARNING

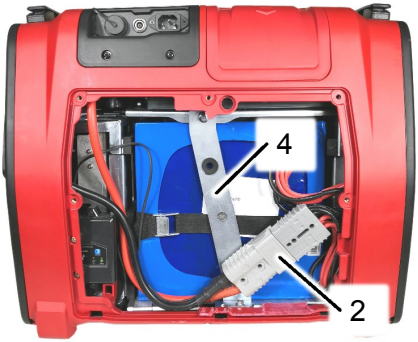
- **Read the instructions before you begin, and make sure you have the tools and skills required.**
- **Shut off the mobile power before starting to replace the battery.**
- **If you are not familiar with maintenance work, have an authorized dealer do it for you.**
- **Use ours or equivalent specifications/quality batteries for replacement. Ask an authorized dealer for further attention.**

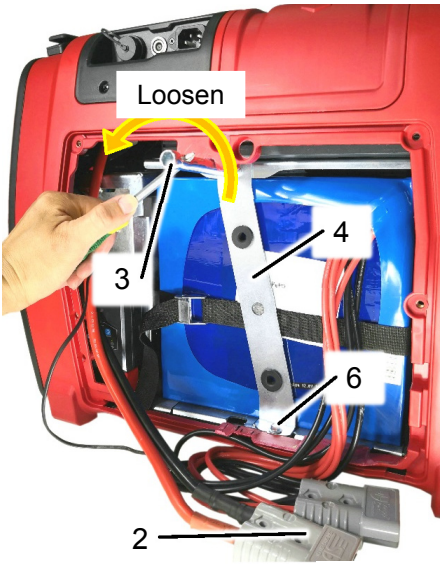
NOTE

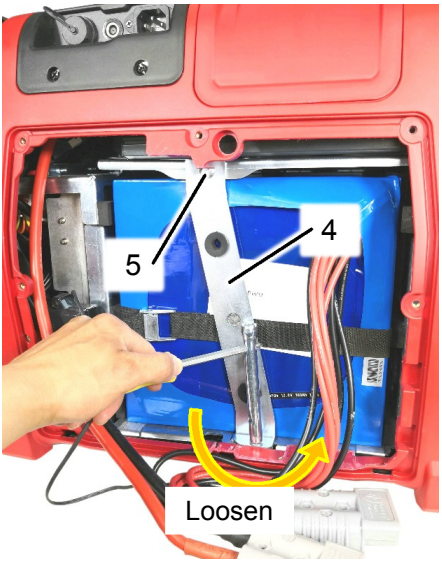
The max size of the battery in the mobile power is: 245mmX180mmX235mm. Please make sure your battery' size is no more than the max size.

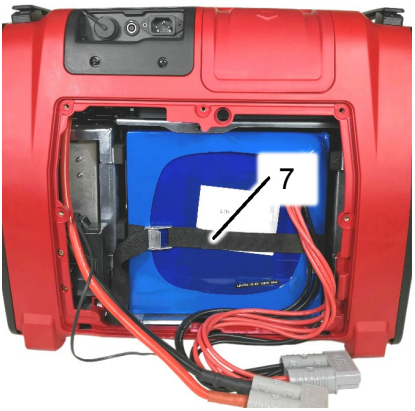
5.1 REMOVE THE BATTERY


Screws
Loosen
1


4
2


Loosen
3
4
6
2


5
4
Loosen



(1). Loosen five screws and remove the maintenance cover 1.

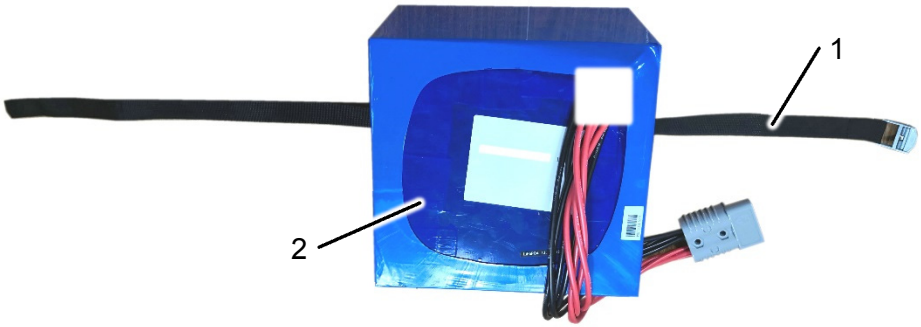
(2). Disconnect the battery connector 2.

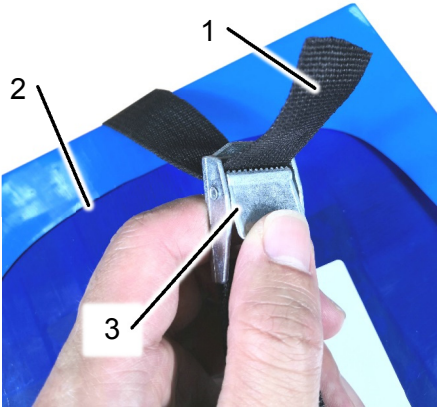
(3). Loosen the screws 5, 6 with a box spanner 3 to remove the battery baffle plate 4. The spanner 3 can be found in the packing box.

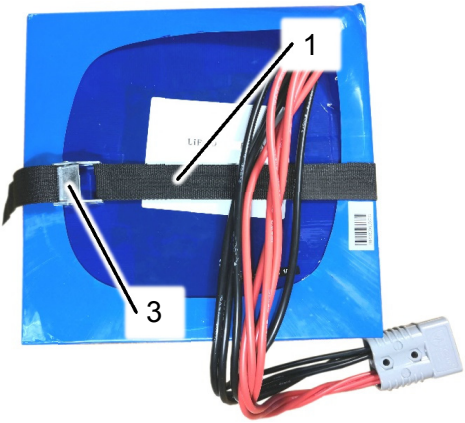
(4). Hold the bandage 7 that is bound to the battery, and then take out the battery from the mobile power.

5.2 INSTALL THE BATTERY

5.2.1 BIND THE BATTERY

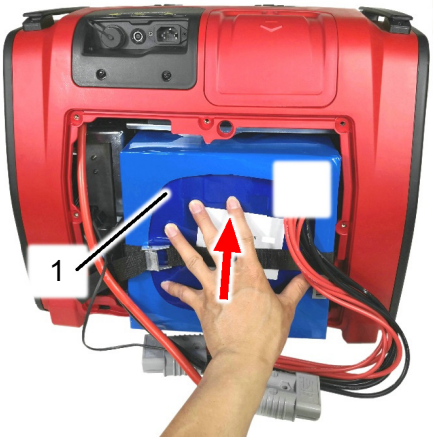


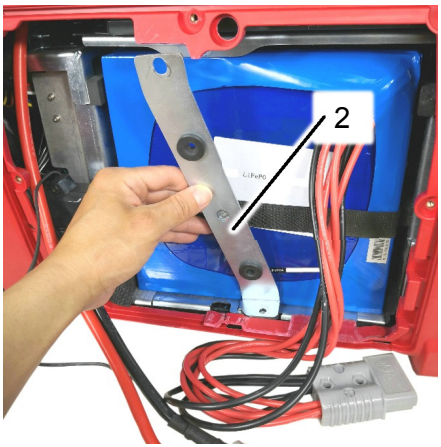


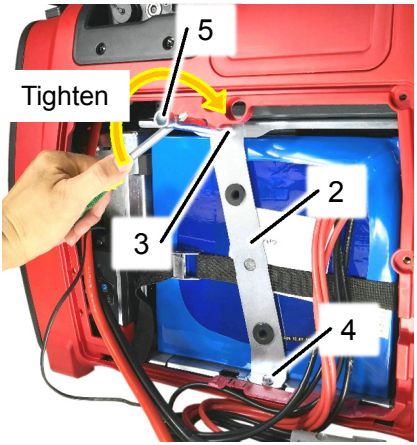


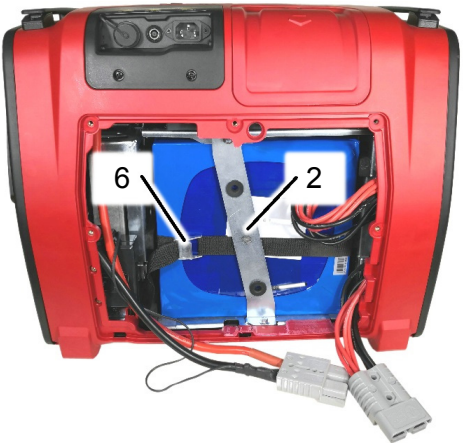
(1). Take out the battery bandage 1 from the packing box.
(2). Place the bandage 1 at the side of the battery 2, as shown in the figure above.
(3). Bind the bandage 1 around the battery 2.
(4). Make sure the bandage 1 through the metal buckle 3 and pressed tightly by the metal buckle 3 as shown in the figure above.
(5). The metal buckle 3 should be located on the left side as shown in the figure above.

5.2.2 REINSTALL THE BATTERY INTO THE MOBILE POWER



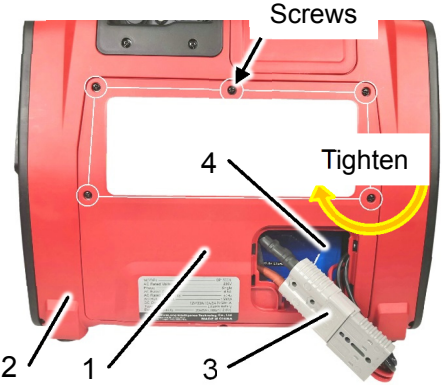






(1). Hold the battery 1 and put the battery 1 totally into the mobile power.
(2). Insert bottom end of baffle plate 2 into the bottom hole on the battery support, and then tighten the screw 3, 4 with a box spanner 5, which can be found in the packing box.
(3). Make sure the metal buckle 6 has enough distance from the baffle plate 2 to avoid interfere.

5.2.3 CONNECT THE BATTERY



(1). Take out the battery connector 3 from the connector window 4 on the maintenance cover 1.
(2). Insert the three bulge parts at the bottom of the maintenance cover 1 into the three installation holes at the bottom of the main case 2. Then put on the maintenance cover 1.
(3). Tighten the five screws to reinstall the maintenance cover 1.
(4). Make sure the battery connector 3 is connected securely together.
(5). Put the battery connector 3 into the right place in the mobile power through the connector window 4 as shown in the figure above.
(6). Put on the connector cover 5 closely.

6. TRANSPORTATION AND STORAGE

- **Make sure turn OFF the main switch before transportation or storage.**
- **Disconnect the battery connector before long-distance transport or long-term storage.**

- **The mobile power must be fully charged and discharged at least once every six (6) months.**
- **Keep all cooling holes open and clear of debris, mud, water, etc. Cooling holes are located on the front panel and back panel of power station. If the cooling holes are blocked, the power station may overheat and damage the battery, or inverter.**
- **Store the unit in a clean, dry place. If possible, store the unit indoors and cover it to give protection from dust and dirt.**

7. PROTECTION

7.1 INPUT PROTECTION

- Battery Charging Protection: When the battery is fully charged, the charging input will automatically shut down, and the all battery segments in the LCD screen will stop blinking and remain solid.
- Battery Low Voltage Protection: When the battery voltage is too lower, the DC and AC output will automatically shut down. Fault code 004 will show in the LCD screen. Charge the battery immediately.
- Battery Over Voltage Protection: When the battery voltage is too higher, the charging input will automatically shut down. Fault code 008 will show in the LCD screen. Stop charging the battery immediately and contact an authorized dealer.

7.2 OUTPUT PROTECTION

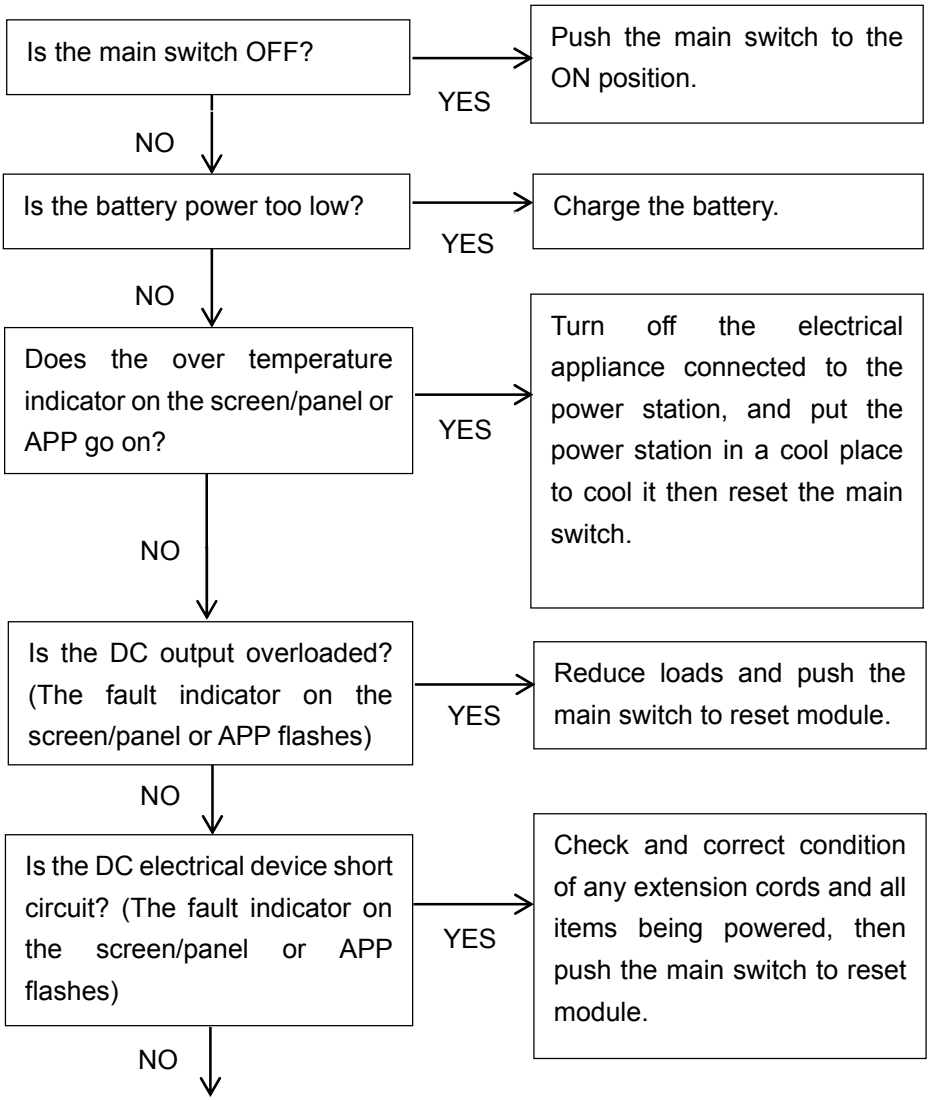
- When AC output is overloaded (in excess of rated power) or short-circuited, the AC output will automatically shut down. The buzzer alarm will sound 3 times uninterruptedly and the warning light flashes 3 times at the same time. Reset the AC switch can recover

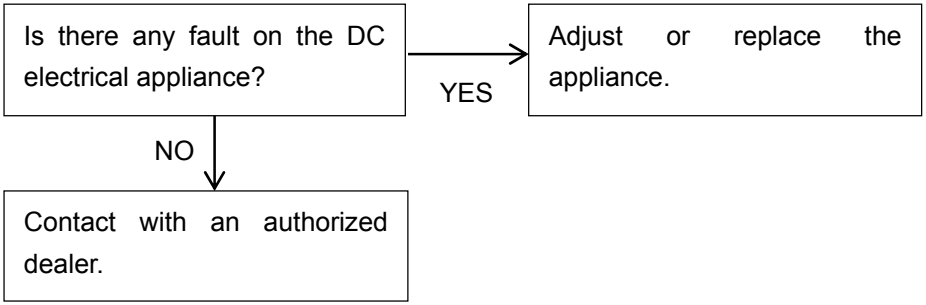
the AC output after reducing loads or eliminating short-circuited problems.

- DC output is overloaded or short-circuited: the DC output will automatically shut down. Fault code 032 will show in the LCD screen. Reset the main switch can recover the DC output after reducing DC loads or eliminating short-circuited problems.
- Inverter Over Temperature Protection: When the temperature in the inverter is too higher, AC output will automatically shut down. The buzzer alarm will sound 5 times uninterruptedly and the warning light flashes 5 times at the same time. Turn off the electrical appliance connected to the mobile power, and put the mobile power in a cool place to cool it then reset the AC switch.
- Over Temperature Protection: When the temperature in the mobile power is too higher, the charging input, DC and AC output will automatically shut down. Fault code 016 will show in the LCD screen. Over temperature light comes on at the same time. Turn off the electrical appliance connected to the mobile power, and put the mobile power in a cool place to cool it then reset the main switch.

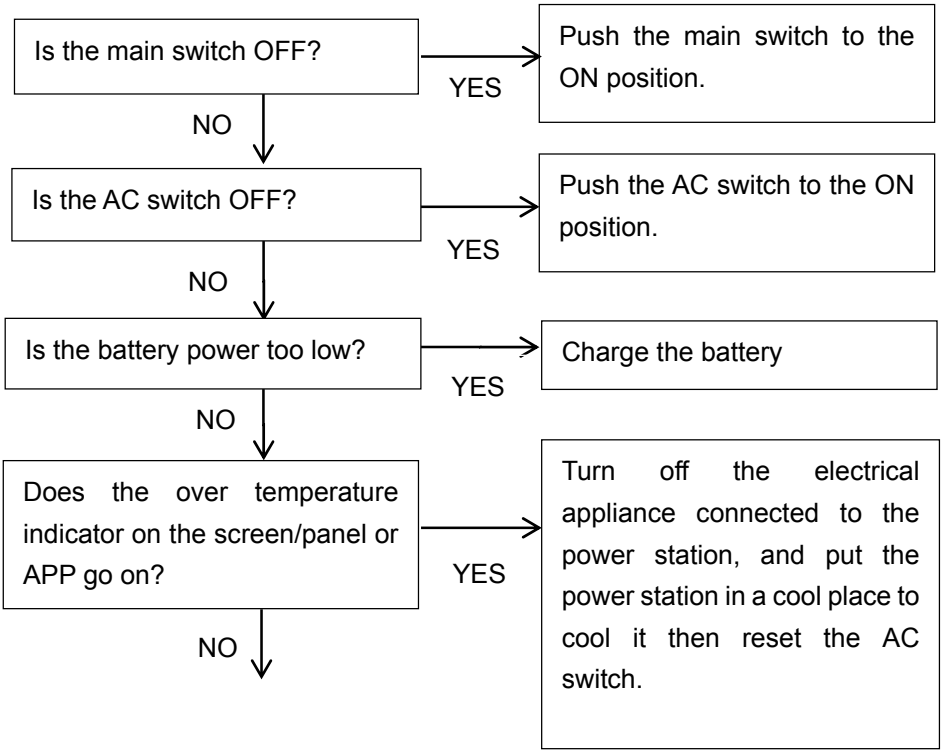
8. TROUBLE SHOOTING

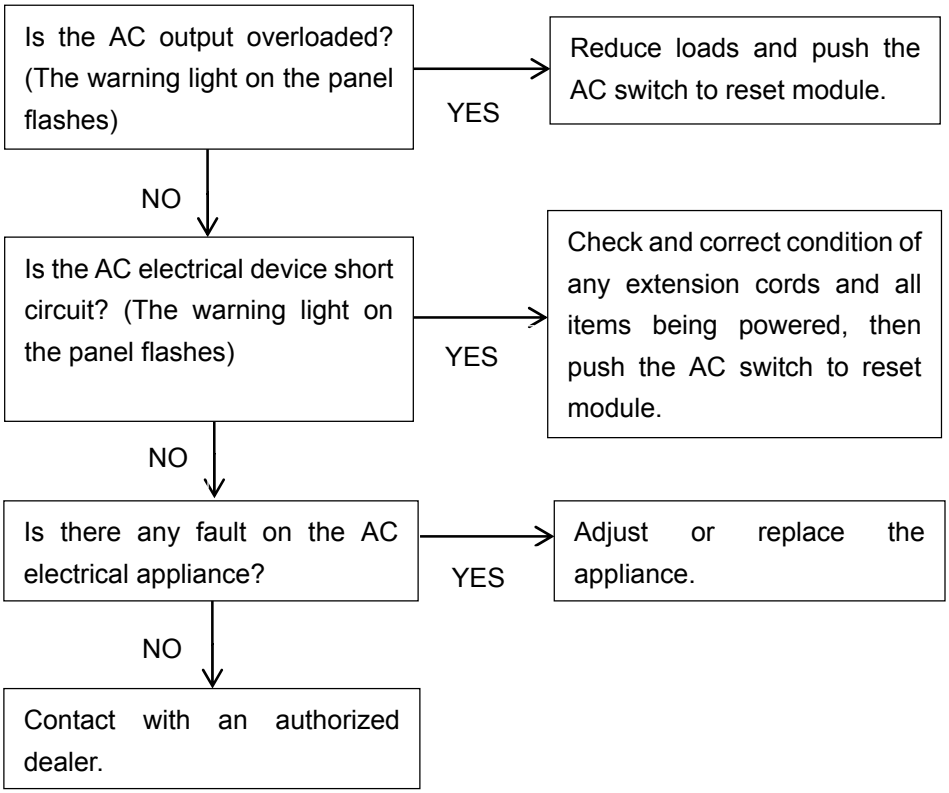
No DC Output




Is there any fault on the DC electrical appliance?
YES
Adjust or replace the appliance.
NO
Contact with an authorized dealer.

No AC Output


Is the main switch OFF?
YES
Push the main switch to the ON position.
NO
Is the AC switch OFF?
YES
Push the AC switch to the ON position.
NO
Is the battery power too low?
YES
Charge the battery
NO
Does the over temperature indicator on the screen/panel or APP go on?
YES
Turn off the electrical appliance connected to the power station, and put the power station in a cool place to cool it then reset the AC switch.
NO


Is the AC output overloaded? (The warning light on the panel flashes)
YES
Reduce loads and push the AC switch to reset module.
NO
Is the AC electrical device short circuit? (The warning light on the panel flashes)
YES
Check and correct condition of any extension cords and all items being powered, then push the AC switch to reset module.
NO
Is there any fault on the AC electrical appliance?
YES
Adjust or replace the appliance.
NO
Contact with an authorized dealer.

9. SPECIFICATIONS

PPSiL SERIES SPECIFICATIONS

Model	PPS1000iL	PPS1500iL	PPS2000iL
Rated Power	1000VA	1500VA	2000VA
Peak Power	2000VA	3000VA	4000VA
Dimensions	530mm(20.9 in)X320mm(12.6 in)X430mm(16.9 in)		
Weight	34kg (75 lbs)	34kg (75 lbs)	36kg (79 lbs)
Battery Type	$LiFePO_4$		
Battery Capacity	2048Wh, 80Ah(25.6V)		
Battery Cycle Life	>2000 cycles		

OUTPUT

AC Output	Output Waveform	Pure-Sine Wave, THD<3%
	Rated Voltage	120V
	Rated Frequency	60Hz
DC Output	Cigarette Lighter	12V/10A
	6mm Port	12V/6A
	USB	5V/2A/1A

CHARGING INPUT

AC	Wall Outlet	100~120V, Max. 300W, 8.5 hours fully charged
Solar	MPPT Control System	36~140V, Max. 600W, 4 hours fully charged
Car	8mm Port	12~15V / 24~30V, Max.100W 26 hours fully charged

NOTE

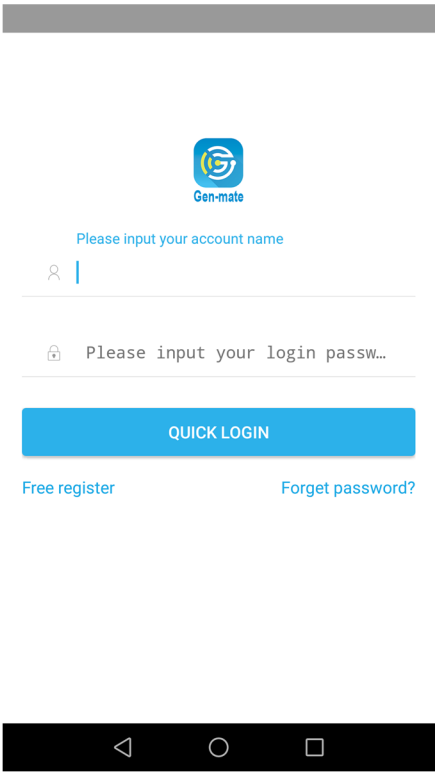
The output specifications are based on the standard ambient temperature: 25℃.

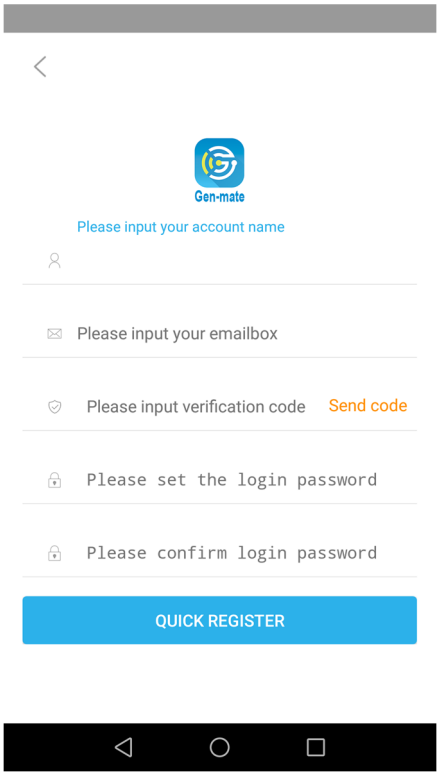
10. APP Registration And Login

10.1 Download **Gen-mate** APP and install.

- For iOS system, download “Gen-mate” APP from App Store and install as instructed.
- For Android system, download “Gen-mate” APP from Google Play and install as instructed.

10.2 Click "Free register" to complete user registration according to relevant prompts.

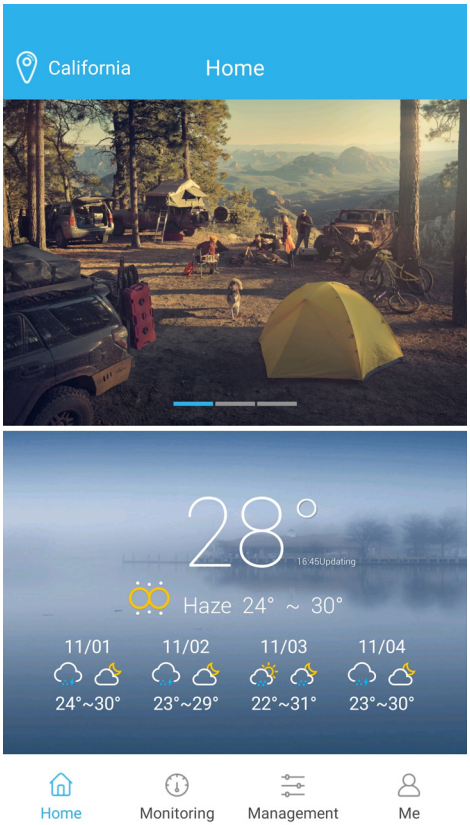




NOTE

When you install this APP, please choose “TRUST this APP” when there is the prompt.

10.3 Log in with the registered user name and password.



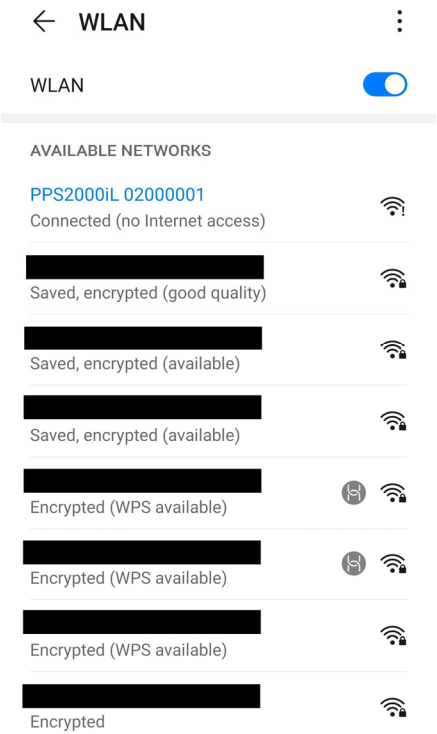
11. Add Power Station Into The APP

11.1 Open the WLAN on the phone, to choose Wi-Fi sent from power station’s monitor and connect. The Wi-Fi signals are named with the starting of power station’s model number. For example, the one Wi-Fi signal of PPS2000iL is "PPS2000iL 02000001". The 02000001 is the serial number of Gen-mate.

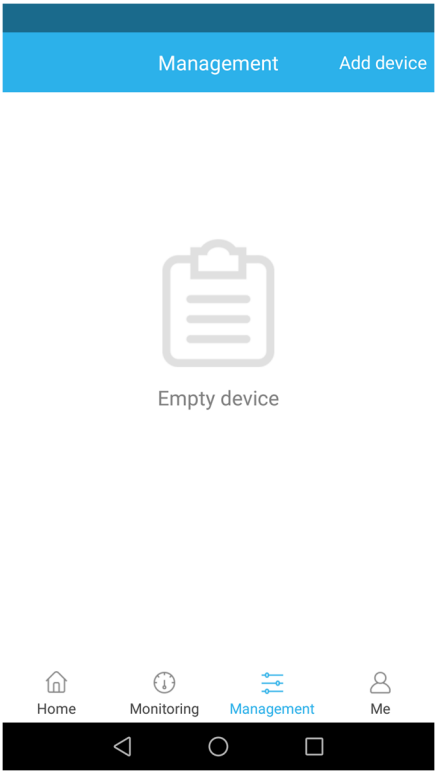
NOTE

1. This APP can be only connected to power stations with Gen-mate (monitor) installed inside.

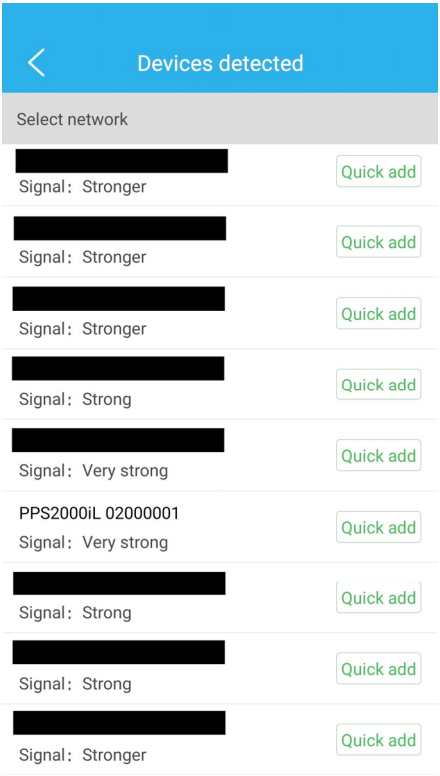
2. For some models, the monitor Wi-Fi from power station is available only after the Main Switch 1 is turned on.

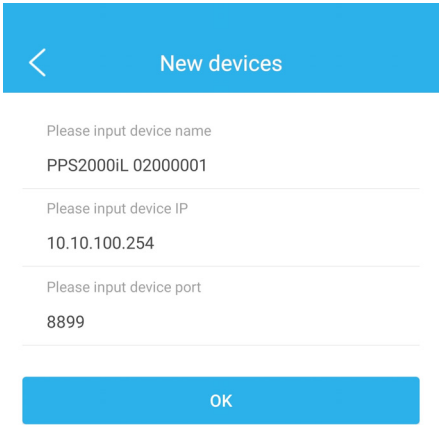


11.2 Click on the gen-mate icon on the phone screen to enter the gen-mate APP. Click "Management" item at the bottom of the APP screen, and then enter the "Management" page.

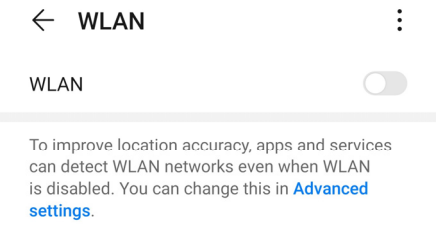


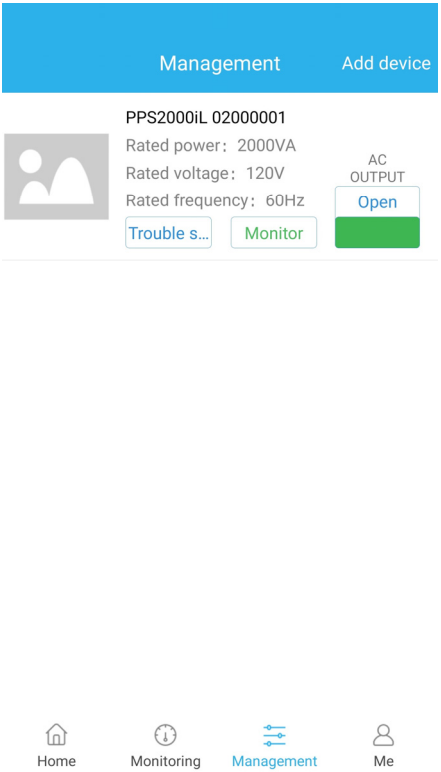
11.3 Click on "Add device", choose the WIFI signal that matched with your power station model in "Devices detected" page, click on the "Quick Add" on the right side of the signal.





11.4 Before you click on "OK" in the "New devices" page, you will need to turn off the WLAN first but keep the page on. Then open the mobile network, to make sure mobile phone can connect to the mobile network, and then click "OK" in the "New devices" screen. You can see "add success" tip, the power station has been added into the APP.



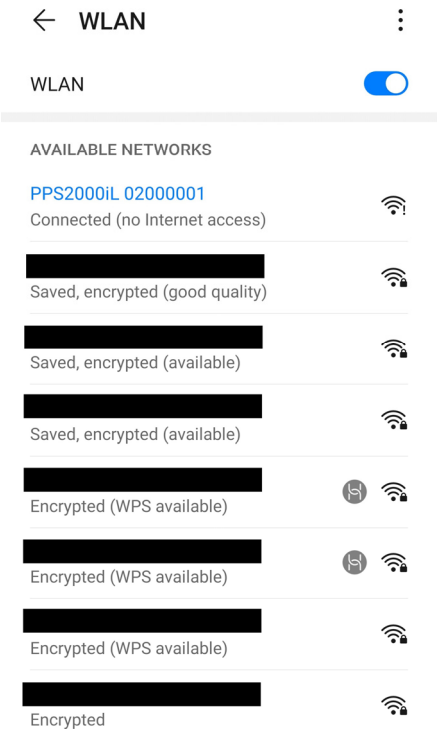


NOTE

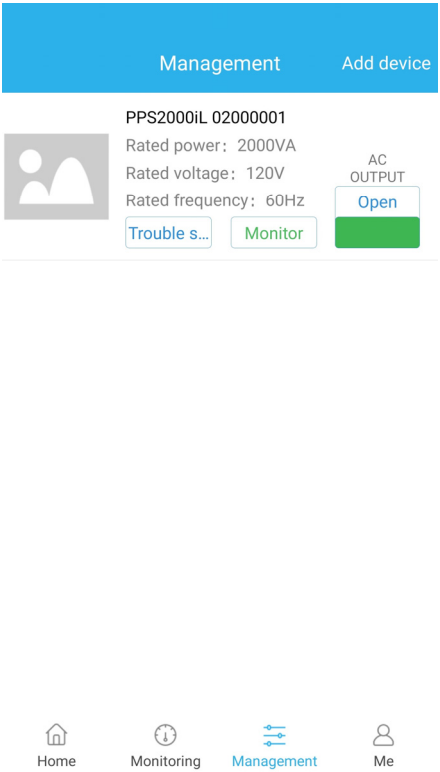
Once the power station is added in management, it will be kept in it unless you delete it by yourself.

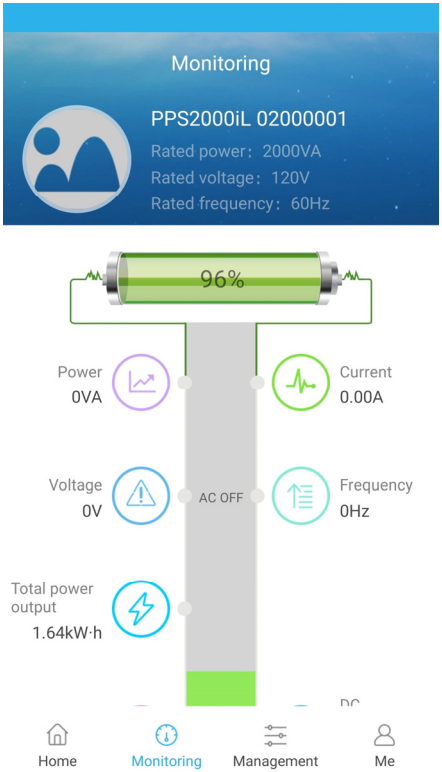
12. Connecting And Monitoring Power Station.

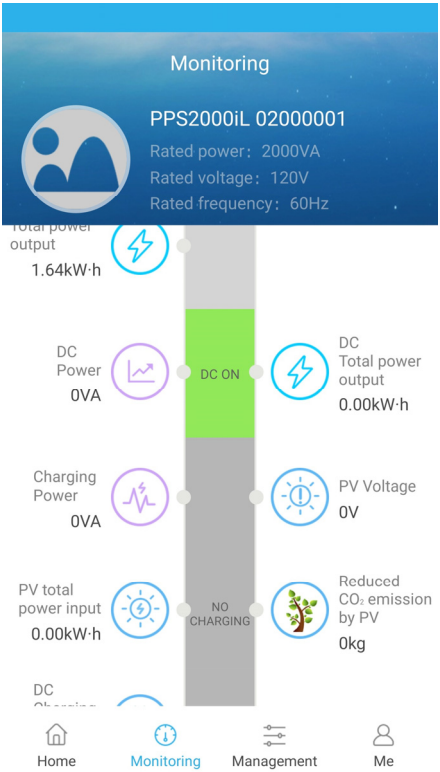
12.1 Turn on the WLAN on the phone and connect the Wi-Fi from power station again.

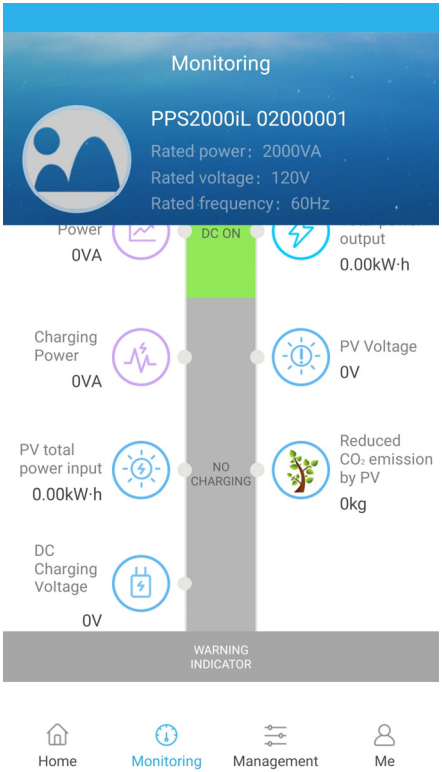


12.2 Click on "monitor" on "Management" item, you can do the monitoring in the "monitoring" page. You can monitor the following items: Battery Remaining Power, Power, Current, Voltage, Frequency, Total Power Output, DC Power, DC Total Power Output, Charging Power, PV Voltage, PV Total Power Input, Reduced CO_2 emission by PV, DC Charging Voltage, Fault and Over Temperature Warning.


Management
Add device
PPS2000iL 02000001
Rated power：2000VA
Rated voltage：120V
Rated frequency：60Hz
AC OUTPUT
Open
Trouble s...
Monitor
Home
Monitoring
Management
Me


Monitoring
PPS2000iL 02000001
Rated power：2000VA
Rated voltage：120V
Rated frequency：60Hz
96%
Power
0VA
Current
0.00A
Voltage
0V
AC OFF
Frequency
0Hz
Total power output
1.64kW·h
Home
Monitoring
Management
Me



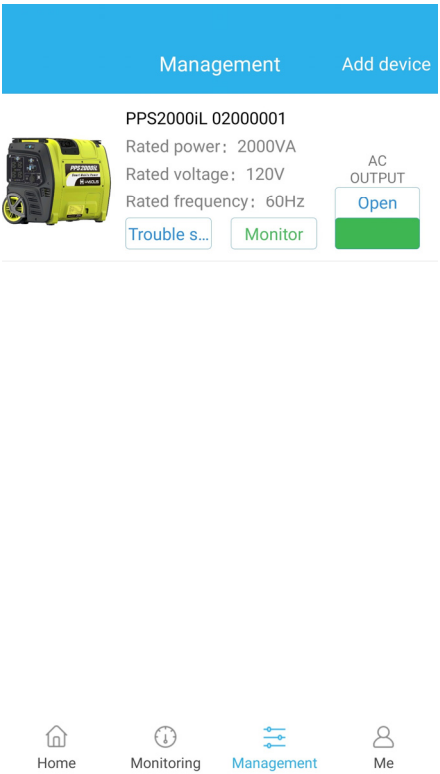


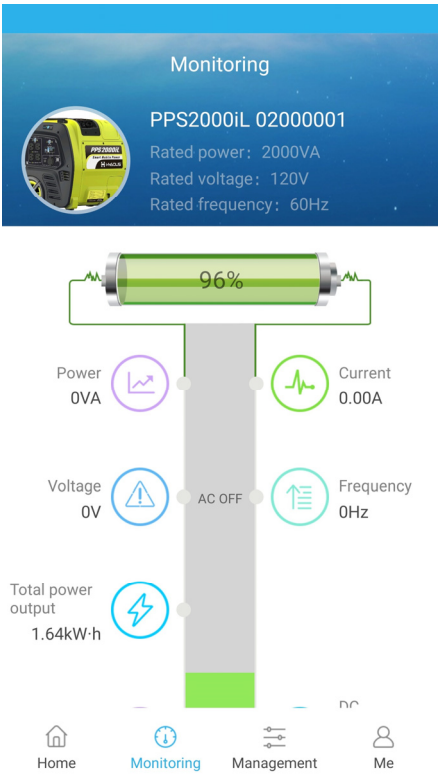
NOTE

- **When the battery remaining power is too low, the battery icon will flicker to remind you to charge it.**
- **Left Warning Indicator at the bottom of "Monitoring" page will flicker when the following faults occur: Battery error (DC output is overloaded or short-circuited), Charging over current, Battery under voltage or Battery over voltage.**
- **Right Warning Indicator at the bottom of "Monitoring" page will flicker when the power station is over temperature.**
- **The environment can influence the max monitoring distance between generator and APP in smartphone. If it is placed at the open zone, the max monitoring distance can exceed 100 meters.**

13. Guide The Picture Into The APP

13.1 Once you monitor the power station, the rated parameters of the power station will be guided into the APP. Then you can turn off the WLAN, and turn on the mobile network. When you enter the APP again, the power station picture will be successfully downloaded.





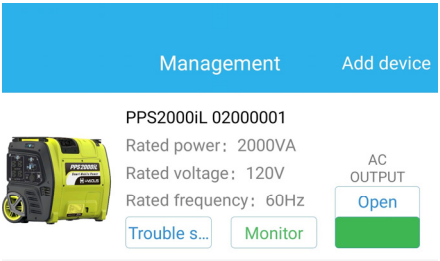
13.2 When you connect to the power station and do the monitoring, the power station picture, the Gen-mate serial number and some monitoring items will be shown at the bottom of "Home" page.

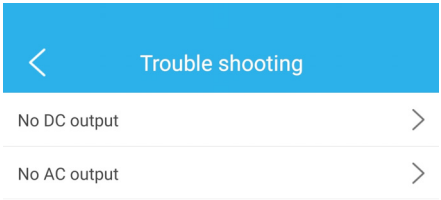
NOTE

- **The power station picture and rated parameters will be saved by APP after you guide them into for first time. You need not do it again unless you delete this power station.**
- **Please keep the phone is connected to the Wi-Fi from power station while you monitor the power station.**
- **During the whole process of using, only when you use it for the first time, you need to use mobile network shortly (when you add the device and guide the picture into the APP). After that, you needn't mobile network anymore; you can use it for free because APP is connected to the power station by the Wi-Fi from the monitor itself.**

14. Trouble Shooting By The APP

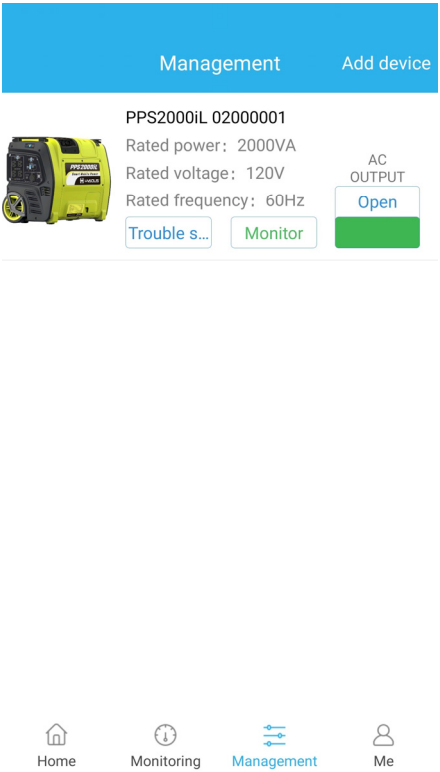
If you have trouble with the power station, you can click on "trouble shooting", and do trouble shooting with the step-by-step guide.

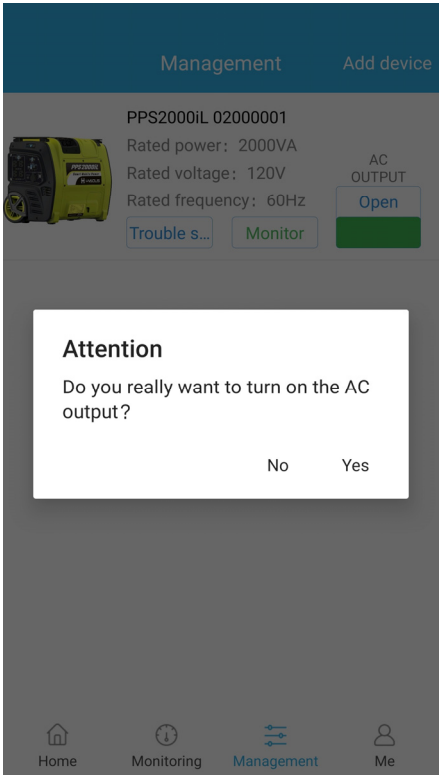




15. Turn On AC Output Of Power Station By The APP

To make sure your smartphone is connected to the Wi-Fi from power station, you can turn on AC output of the power station by clicking on "Open" icon in "Management" item.



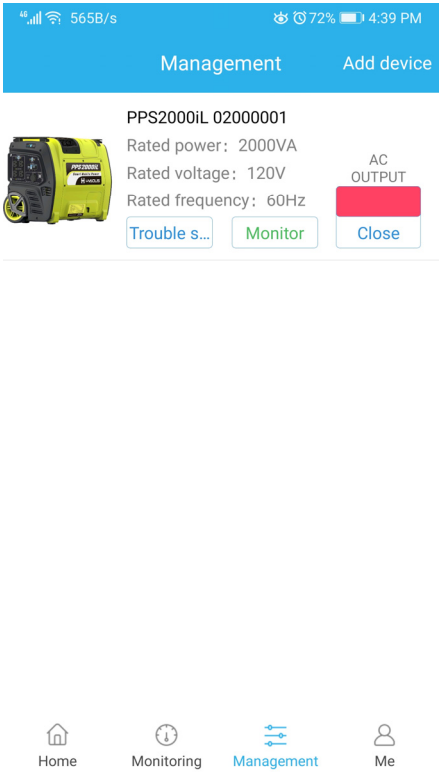


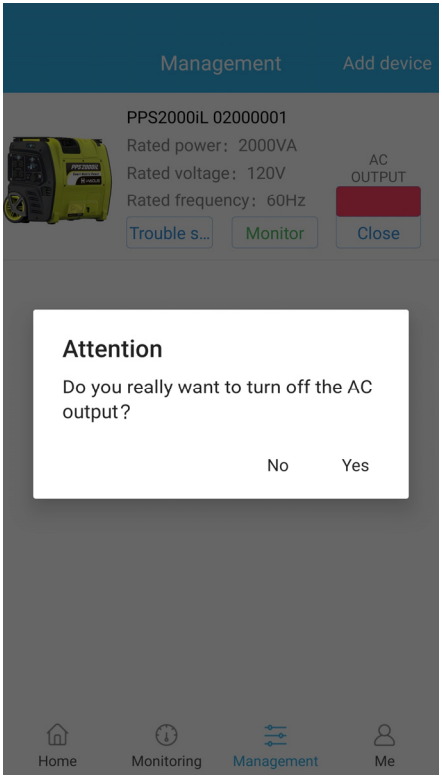
NOTE

The environment can influence the max control distance between generator and APP in smartphone. If it is placed at the open zone, the max monitoring distance can exceed 100 meters.

16. Turn Off AC Output Of Power Station By The APP

To make sure your smartphone is connected to the Wi-Fi from power station, you can turn off AC output of the power station by clicking on "Close" icon in "Management" item.





NOTE

- **Please TURN OFF all electrical loads connected to the power station before shutting down.**
- **The environment can influence the max control distance between generator and APP in smartphone. If it is placed at the open zone, the max control distance can exceed 100 meters.**

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