



**Gen-mate  
inside**

# OWNER'S MANUAL

# PORTABLE POWER STATION

**Wi-Fi**

## DPiL Series

DP1000iL / DP1500iL / DP2000iL / DP2500iL



VER2.1-20220309

# CONTENT

1. UNIT DESCRIPTION .....	- 3 -
1.1 COMPONENTS IDENTIFICATION .....	- 3 -
1.2 OUTPUT PANEL .....	- 4 -
1.3 CHARGING INPUT PANEL.....	- 7 -
1.4 BATTERY CONNECTOR.....	- 8 -
2. CHARGING THE POWER STATION .....	- 8 -
2.1 PV CHARGING INPUT .....	- 9 -
2.2 AC CHARGING INPUT .....	- 11 -
2.3 DC CHARGING INPUT .....	- 12 -
2.4 WIND CHARGING INPUT (optional) .....	- 12 -
2.5 DC QUICK CHARGING INPUT (optional) .....	- 14 -
3. OPERATING THE POWER STATION .....	- 15 -
3.1 DC OPERATION .....	- 16 -
3.2 AC OPERATION.....	- 17 -
4. LCD DISPLAY .....	- 19 -
5. CONNECT THE EXTERNAL BATTERY .....	- 22 -
6. REPLACE THE BATTERY .....	- 23 -
6.1 REMOVE THE BATTERY .....	- 23 -
6.2 INSTALL THE BATTERY.....	- 25 -
6.2.1 BIND THE BATTERY .....	- 25 -
6.2.2 REINSTALL THE BATTERY INTO THE POWER STATION.....	- 26 -
6.2.3 CONNECT THE BATTERY.....	- 27 -
7. TRANSPORTATION AND STORAGE.....	- 28 -
8. PROTECTION.....	- 29 -
8.1 INPUT PROTECTION.....	- 29 -
8.2 OUTPUT PROTECTION .....	- 29 -
9. TROUBLE SHOOTING .....	- 31 -
10. SPECIFICATIONS.....	- 34 -

## INTRODUCTION

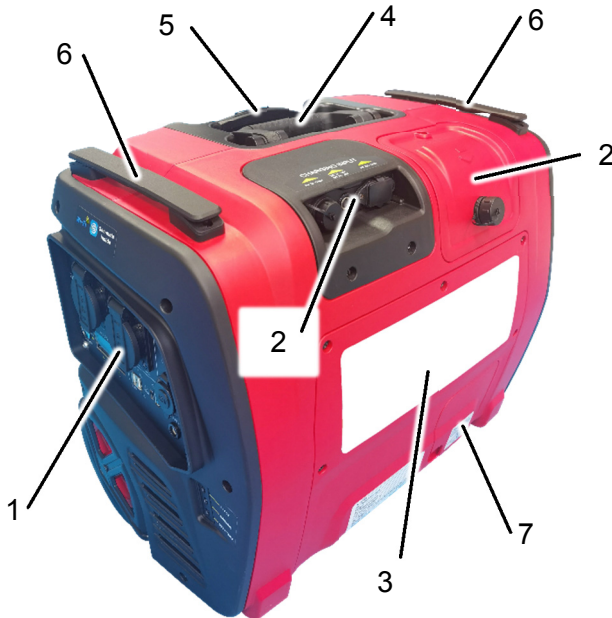
Congratulations on your selection of a marvelous power station. This manual will provide you with a good basic understanding of the safe operation and maintenance of this machine, please read it carefully.

### **⚠ WARNING**

- Read this manual carefully before operating this power station. This manual should stay with this power station if it is sold.
- The power station is a potential source of electrical shock if misused. Do not expose the power station to moisture, rain or snow. Do not let the power station 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 power station in a place where pedestrians, children and pets are not likely to touch. Do not let children operate the power station 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 power station 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

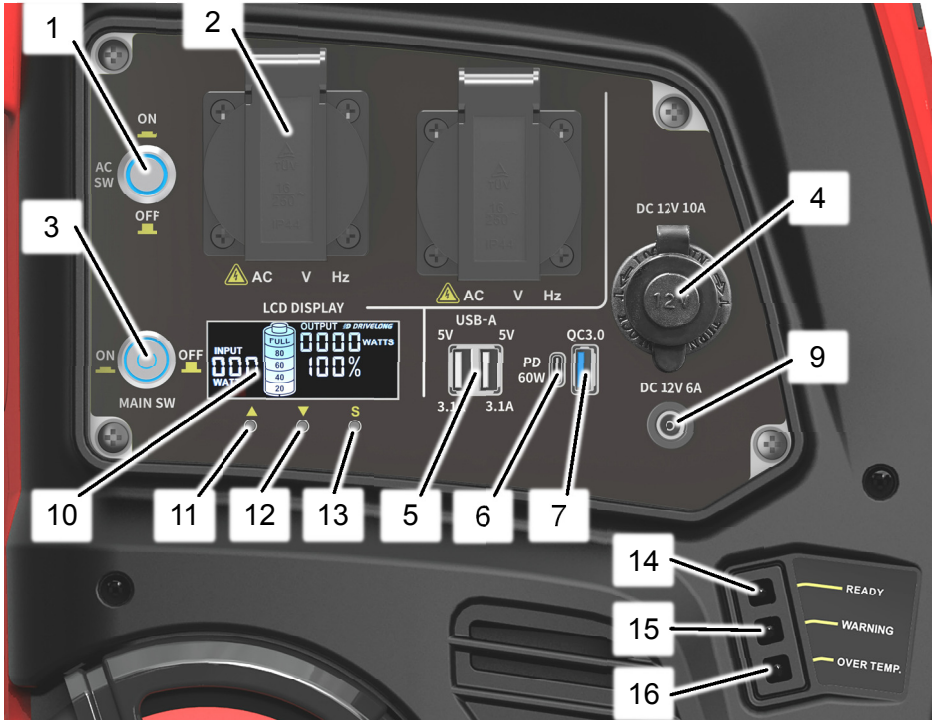
## 1.1 COMPONENTS IDENTIFICATION

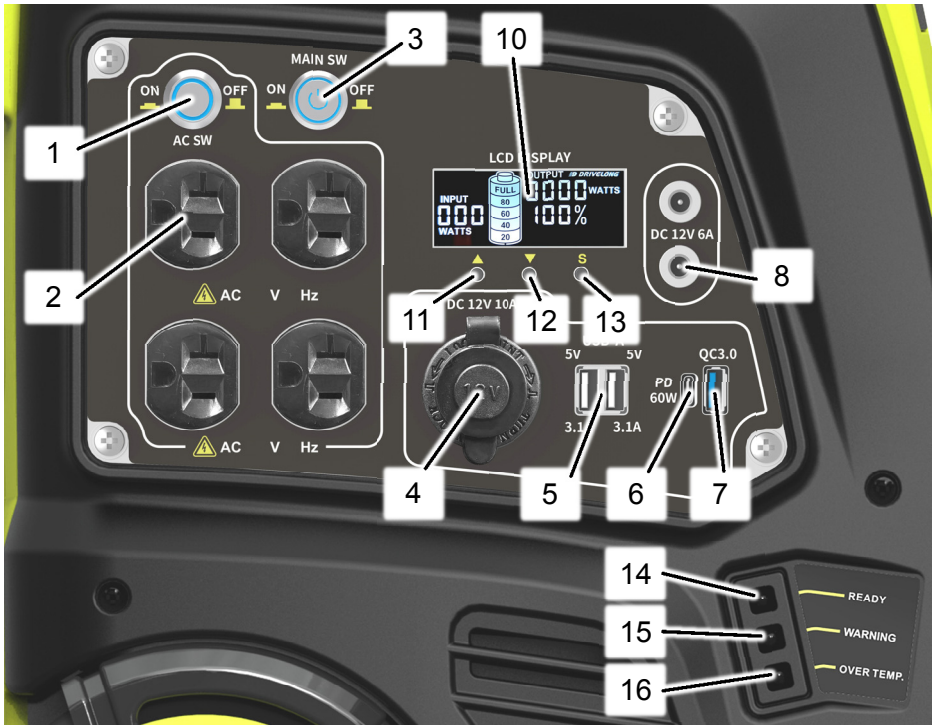


- (1). Output Panel: Location of power station controls and output receptacles.
- (2). Charging Input Panel: Location of power station charging input receptacles.
- (3). Maintenance Cover: Remove the cover to install or replace battery in the power station.
- (4). Carrying Handle: Lift the power station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

Connector before charging or operating the power station.

## 1.2 OUTPUT PANEL

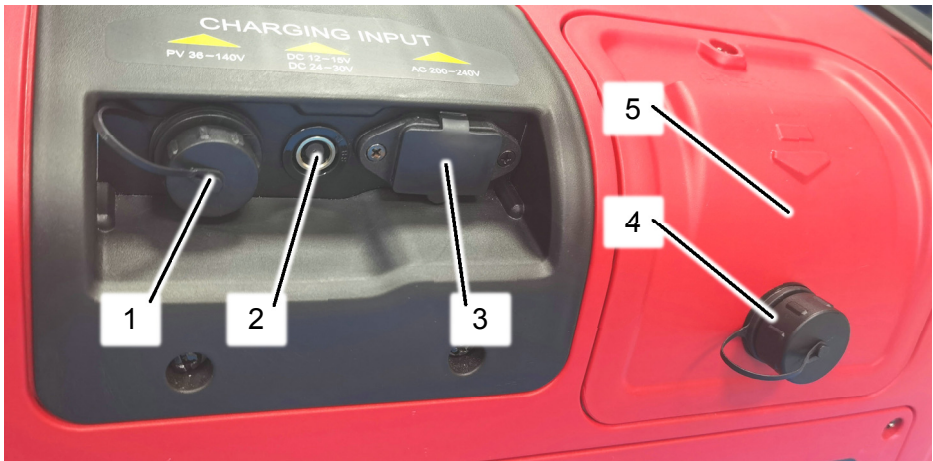




- (1). AC Switch: This switch turns ON or OFF AC output of the power station.
- (2). AC Receptacle: AC output receptacles for connecting AC devices.
- (3). Main Switch: This switch turns ON or OFF DC output of the power station, and AC Switch is available only after the main switch is turned on.
- (4). Cigarette Lighter Receptacle: the 12V DC output receptacle for cigarette lighter plugs.
- (5). USB Receptacle: the 5V DC output receptacle for USB plugs.
- (6). Type-C Receptacle: the PD60W DC output receptacle for Type-C plugs.
- (7). USB Receptacle: the QC3.0 DC output receptacle for USB plugs.

- (8). 5.5mm Port: the 12V DC output receptacle for 5.5mm plugs.
- (9). 6mm Port: the 12V DC output receptacle for 6mm plugs.
- (10). 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 power station is charging, the battery segments in the LCD screen will blink. The power station is fully charged when all battery segments stop blinking and remain solid.
- (11). 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.
- (12). Display button ▼: You can activate the display backlight or value display for battery voltage by pressing the button.
- (13). 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.
- (14). Ready LED: the Ready LED light comes ON when the AC output is ready.
- (15). 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.
- (16). Over Temperature: The light comes ON and flashes when the temperature in the power station is too high.

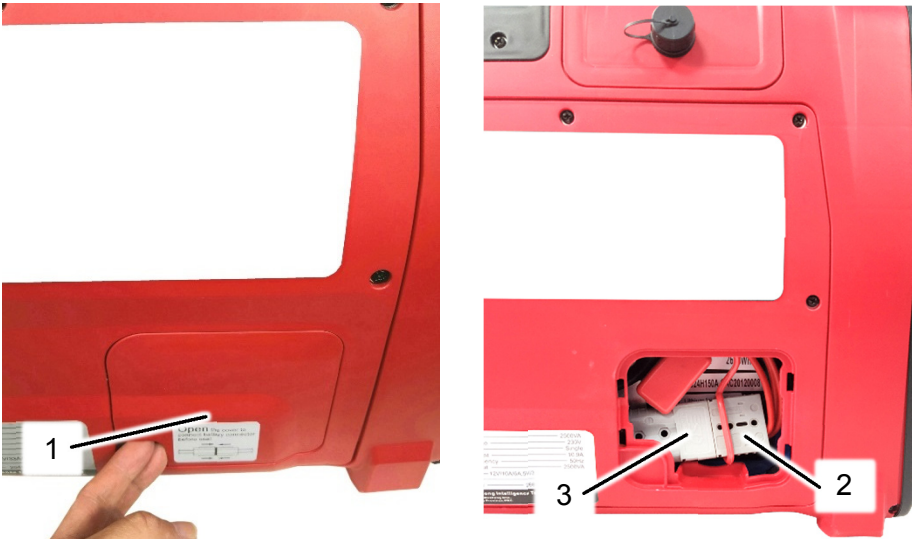
## 1.3 CHARGING INPUT PANEL



- (1). PV Charging Input: Charge the power station from solar panels (optional equipment).
- (2). DC Charging Input: Charge the power station from cars.
- (3). AC Charging Input: Charge the power station from wall outlets or other AC power source.
- (4). Wind Charging Input (optional): Charge the power station from wind turbines (optional equipment).
- (5). DC Quick Charging Input (optional): Charge the power station from DC 24V power unit (optional equipment).



## 1.4 BATTERY CONNECTOR



**You need to connect the battery connector 2 before charging or using the power station:**

- (1). Open the connector cover 1.
- (2). Connect the battery connector 2 securely together with the connector 3 of the power station, otherwise the power station cannot be charged or used.

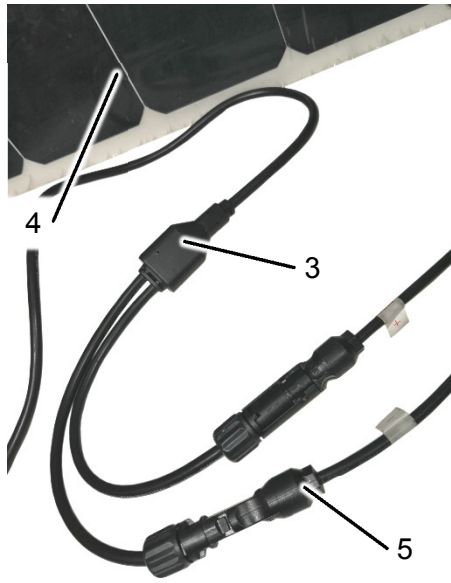
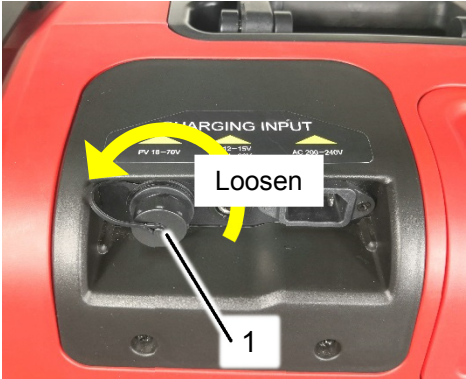
## 2. CHARGING THE POWER STATION

### NOTE

- Before using for the first time, or after long-term storage, please charge the power station fully from AC charging for at least 10 hours to calibrate the battery capacity of the power station.
- During storage, please make sure to charge the power station at least every six (6) months.
- When the power station is charging, the battery segments in the LCD screen will blink.

- The power station is fully charged when all battery segments in the LCD screen stop blinking and remain solid.

## 2.1 PV CHARGING INPUT





**You can charge the power station 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 (optional equipment) by PV charging cable 3, which can be found in the packing box.

**NOTE**

**You can charge the power station 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.**

## 2.2 AC CHARGING INPUT



**You can charge the power station from wall outlets or other AC source as follows:**

Connect AC charging port 1 to wall outlets or other AC source by the AC charging cable 2, which can be found in the packing box.

### **NOTE**

- **The voltage of the AC charging CAN NOT exceed the AC INPUT voltage range.**
- **Before using for the first time, or after long-term storage, please charge the power station fully from AC charging for at least 10 hours to calibrate the battery capacity of the power station.**

## 2.3 DC CHARGING INPUT



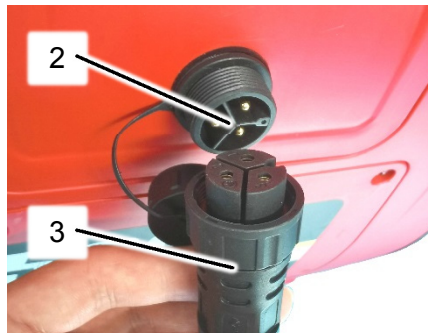
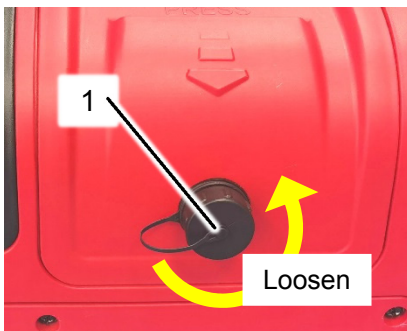
**You can charge the power station from cars as follows:**

Connect DC charging port 1 to cigarette lighter receptacle of 12V or 24V cars 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.

## 2.4 WIND CHARGING INPUT (optional)





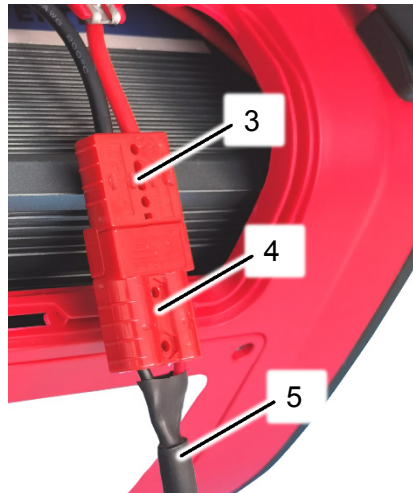
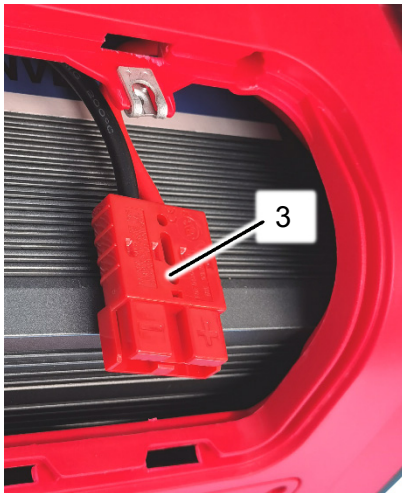
**You can charge the power station from wind turbines as follows:**

- (1). Remove the cover 1 from wind charging port 2.
- (2). Connect wind charging port 2 to wind charging cable 4 of wind turbines (optional equipment) by wind charging plug 3, which can be found in the packing box.

**NOTE**

**The voltage of the wind turbine CAN NOT exceed the WIND INPUT voltage range.**

## 2.5 DC QUICK CHARGING INPUT (optional)



**You can charge the power station from DC 24V power unit as follows:**

(1). Unscrew the screw 1, and then open the cover 2.

(2). Connect DC quick charging port 3 to DC quick charging cable 5 of DC 24V power unit (optional equipment) by DC quick charging plug 4, which can be found in the packing box.

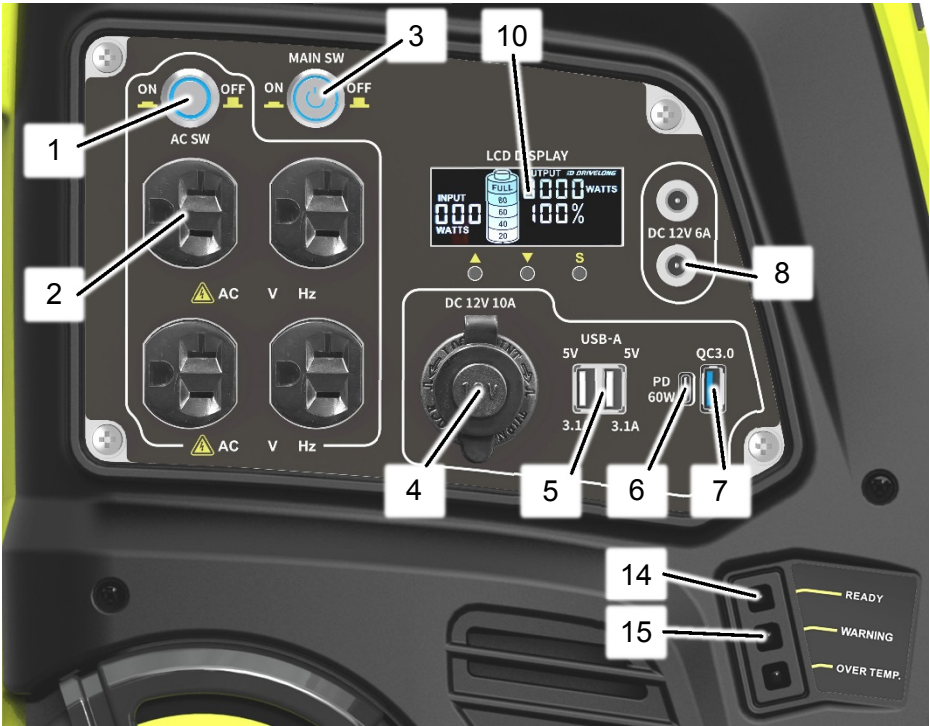
## NOTE

- The voltage of the DC power unit **CAN NOT** exceed the DC **QUICK INPUT** voltage range.
- **DO NOT** short circuit the DC quick charging port 3!

## 3. OPERATING THE POWER STATION








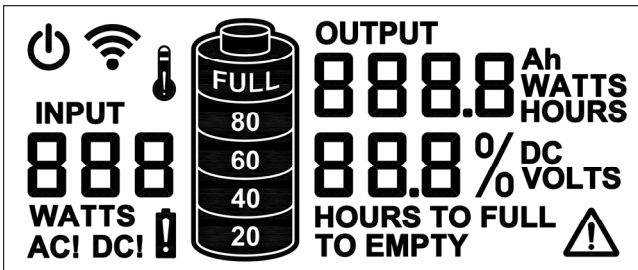
### 3.1 DC OPERATION

**You can use the DC output from the power station as follows:**

- (1). Push the main switch 3 to "ON" position.
- (2). Receptacle 4, 8 and 9 all are 12V DC output port, according to the plug type of 12V DC electric devices to choose suitable one to connect.
- (3). Receptacle 5, 6 and 7 all are DC output ports for USB or Type-C plugs. The maximum output power of the Type-C 6 is 60W, and the maximum output power of the USB 7 is 18W. These receptacles can automatically identify electric devices and then select the corresponding voltage and current for power supply.

## 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 10 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 power station as follows:

- (1). Push the main switch 3 to "ON" position.
- (2). Push the AC switch 1 to "ON" position.
- (3). Make sure the ready LED 14 comes on.
- (4). Connect plug to the AC receptacle 2 for AC electric devices.

## NOTE

If the power station 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:

Management Add device




DP2500iL 01000001  
 Rated power: 2500VA  
 Rated voltage: 230V  
 Rated frequency: 50Hz

AC OUTPUT

Open

Trouble... Monitor

Management Add device



DP2500iL 01000001  
 Rated power: 2500VA  
 Rated voltage: 230V  
 Rated frequency: 50Hz

AC OUTPUT

Close

Trouble... Monitor

**⚠ WARNING**

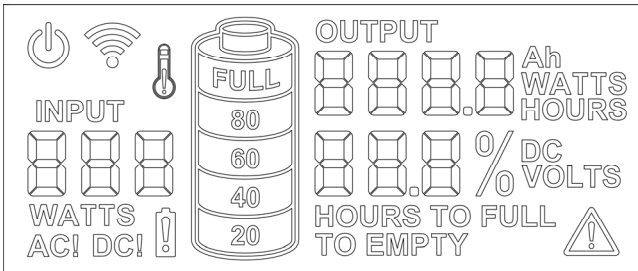
- AC output voltage is very high, operators must be protected from electric shock at all times.
- Do not operate with wet hand.
- Do not operate by children without supervision.
- Do not expose the power station to rain, moisture or snow.

**NOTE**

- Be sure all electric devices including the lines and plug connections are in good condition before connection to the power station.
- Be sure the total AC load is within the power station rated output.
- The rated and maximum output power of the power station is based on resistive load, and is not applicable to inductive load and capacitive load. Since the power factor of inductive load and capacitive load are less than 1, the rated power of inductive load and capacitive load shall be small enough compared with the rated power of the power station, and the ratio of the two shall not exceed the power factor of the load, otherwise the power station may be overloaded or damaged. For example, if the power factor of the inductive load is 0.6, and if the rated output power of the power station is 2000VA, the rated power of this load cannot exceed:  $0.6 * 2 = 1.2\text{kW}$ , otherwise the power station may have overload protection or damage.

- 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 15 will go ON, and the AC output to the connected appliance(s) will shut off.

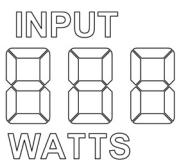
## 4. LCD DISPLAY



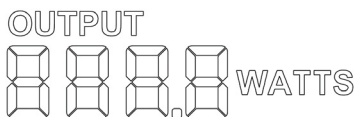
You can activate the display backlight by pressing any of the three buttons ▲/▼/S. The built-in LCD Display can indicate some important information:



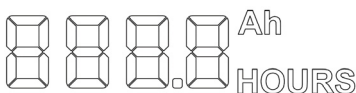
**Battery icon:** When the power station is charging, the battery segments in the LCD screen will blink. The power station is fully charged when all battery segments stop blinking and remain solid. If the remaining capacity of the battery is too low, the battery segments become blank and will blink as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



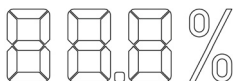
INPUT shows the amount of power (watts) going into the battery while charging. If charging from solar, you will see the watts change as you reposition the panels into/out of the sunlight.



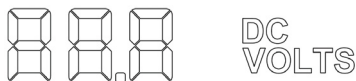
OUTPUT shows the amount of power (watts) that your appliances are using while plugged into the power station.



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.



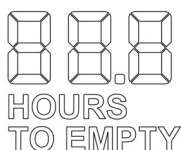
Shows remaining capacity of the battery in %.



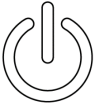
Shows the battery voltage by pressing the button ▼.



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 power station is operating normally.



Wi-Fi icon will flash slowly when the power station 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 power station is too higher. Turn off all appliances and put the power station in a cool place to cool it until the warning icons clear.

## 5. CONNECT THE EXTERNAL BATTERY



If the internal battery in the power station is empty, you can connect an external battery directly to increase the capacity without taking out the internal one:

- (1). Open the connector cover 1, and disconnect the battery connector 2.
- (2). Install the connector cap 3 on the battery connector 2 of the internal battery, and put the battery connector 2 into the power station.
- (3). Open the connector cap 6 on the battery connector 5 of the external

battery, and connect the battery connector 5 securely together with the connector 4 of the power station.

#### **NOTE**

- Do not connect the battery connector 5 of the external battery to the battery connector 2 of the internal battery, otherwise the two batteries may be damaged.
- Before using for the first time, please charge the power station fully from AC charging for at least 10 hours to calibrate the capacity of the external battery.

## **6. REPLACE THE BATTERY**

### **⚠ WARNING**

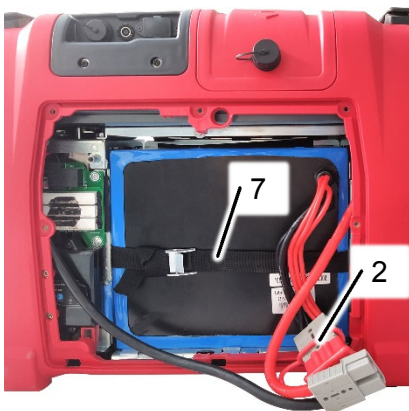
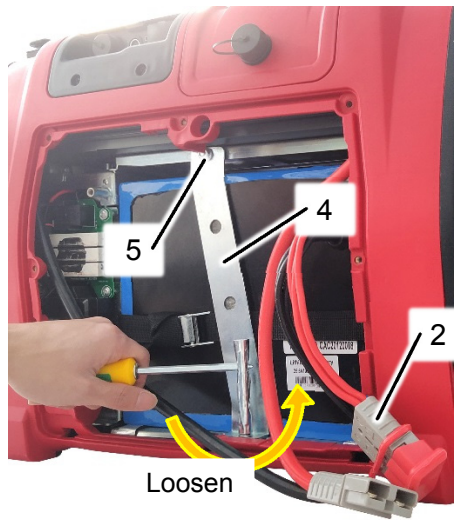
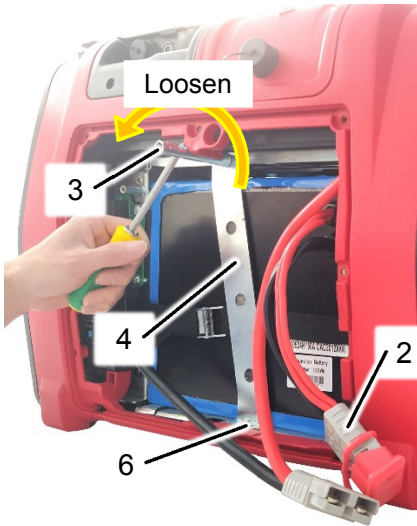
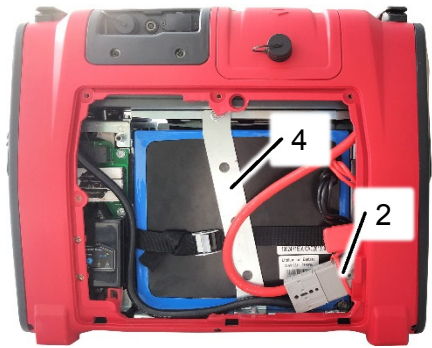
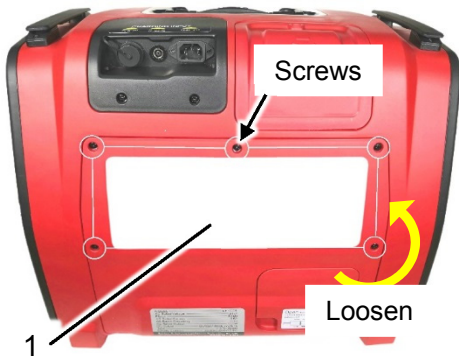
- Read the instructions before you begin, and make sure you have the tools and skills required.
- Shut off the power station before starting to replace the battery.
- If you are not familiar with maintenance work, have an authorized dealer do it for you.
- Use ours or equivalent specifications/quality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

#### **NOTE**

The max size of the battery in the power station is: 265mmX190mmX230mm. Please make sure your battery' size is no more than the max size.

### **6.1 REMOVE THE BATTERY**

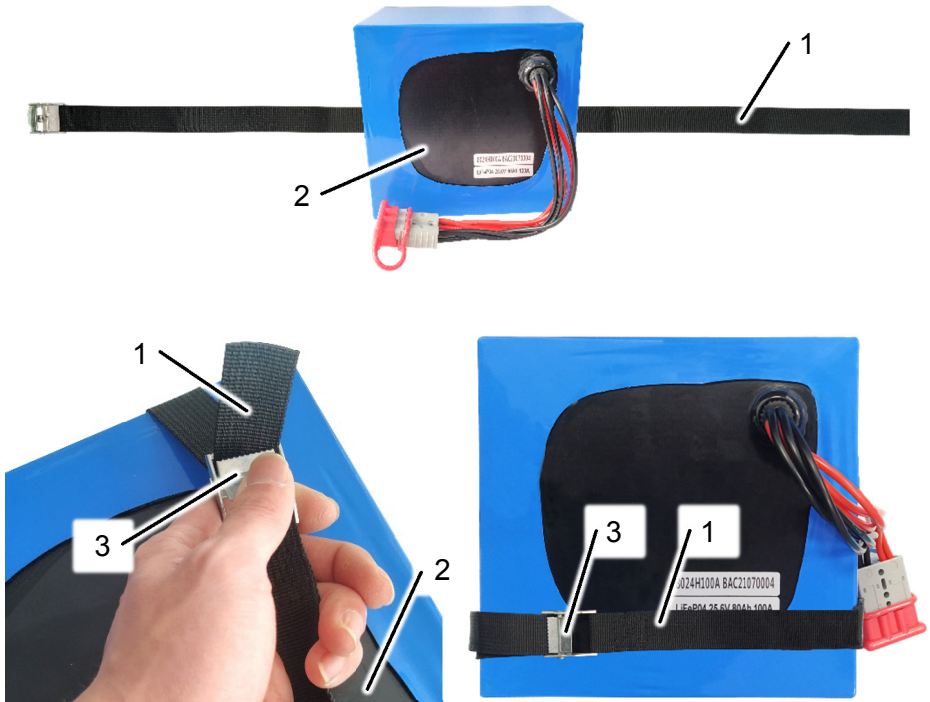




- (1). Loosen five screws and remove the maintenance cover 1.
- (2). Disconnect the battery connector 2.
- (3). Loosen the screws 5, 6 with a box spanner 3 to remove the battery baffle plate 4. The spanner 3 can be found in the packing box.
- (4). Hold the bandage 7 that is bound to the battery, and then take out the battery from the power station.

## 6.2 INSTALL THE BATTERY

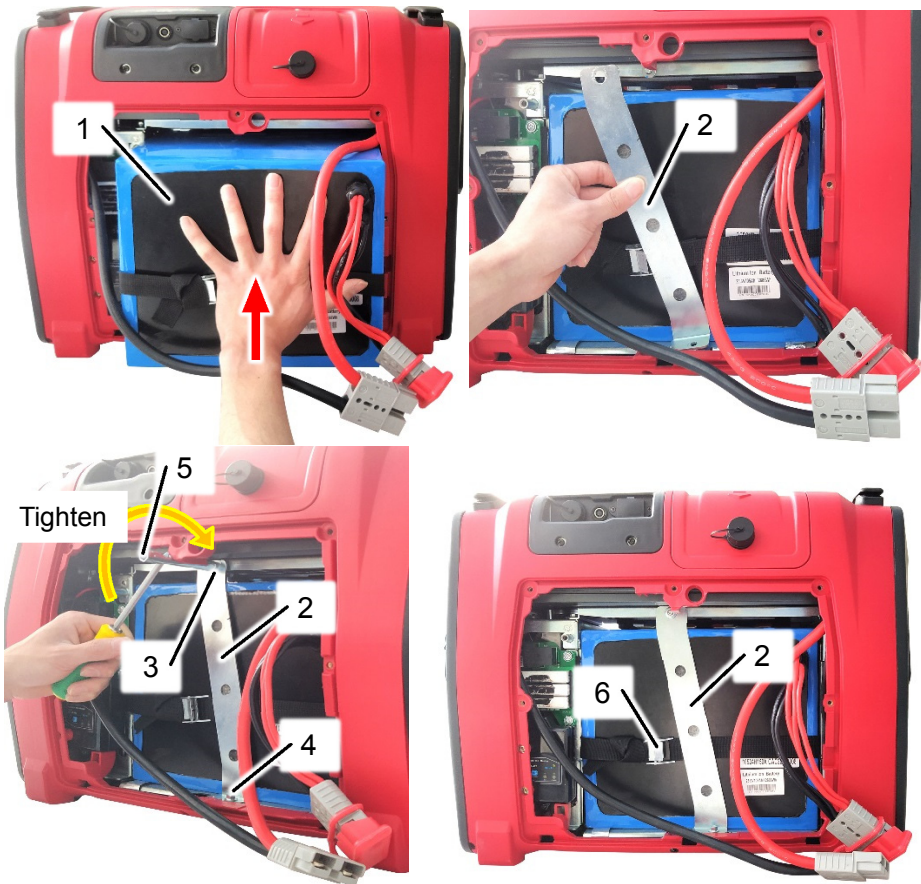
### 6.2.1 BIND THE BATTERY



- (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.

## 6.2.2 REINSTALL THE BATTERY INTO THE POWER STATION

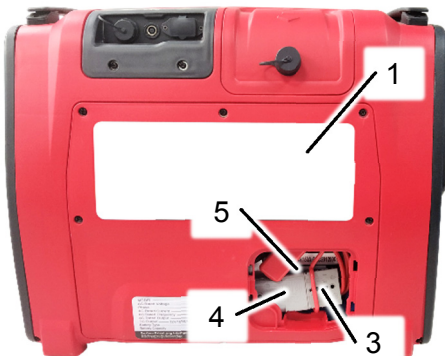
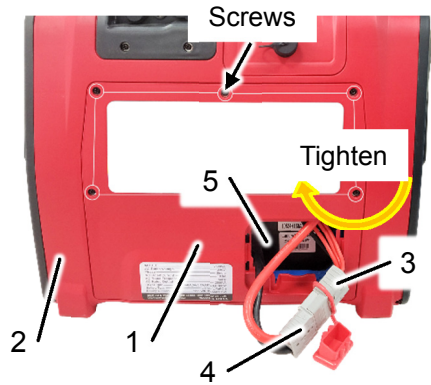
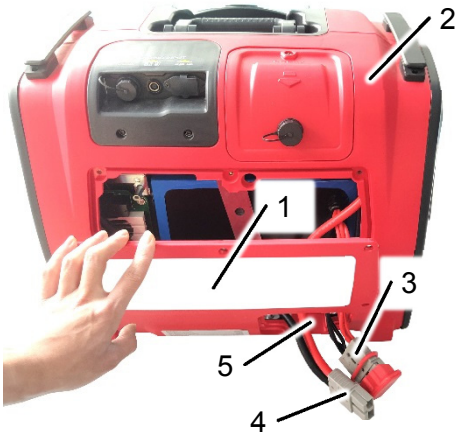


- (1). Hold the battery 1 and put the battery 1 totally into the power station.
- (2). Insert bottom end of baffle plate 2 into the bottom hole on the battery support, and then tighten the screw 3, 4 with a box spanner 5, which can

be found in the packing box.

(3). Make sure the metal buckle 6 has enough distance from the baffle plate 2 to avoid interfere.

### 6.2.3 CONNECT THE BATTERY



(1). Take out the battery connector 3 and the connector 4 of the power

- station from the connector window 5 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). Connect the battery connector 3 securely together with the connector 4 of the power station.
  - (5). Put the battery connector 3 and the connector 4 of the power station into the right place in the power station through the connector window 5 as shown in the figure above.
  - (6). Put on the connector cover 6 closely.

#### **NOTE**

**Before using for the first time, please charge the power station fully from AC charging for at least 10 hours to calibrate the capacity of the new battery.**

## **7. 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.**
- **Before using for the first time, or after long-term storage, please charge the power station fully from AC charging for at least 10 hours to calibrate the capacity of the battery connected to the power station.**
- **During storage, please make sure to charge the power station at least 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 the 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.**

## **8. PROTECTION**

### **8.1 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.

### **8.2 OUTPUT PROTECTION**

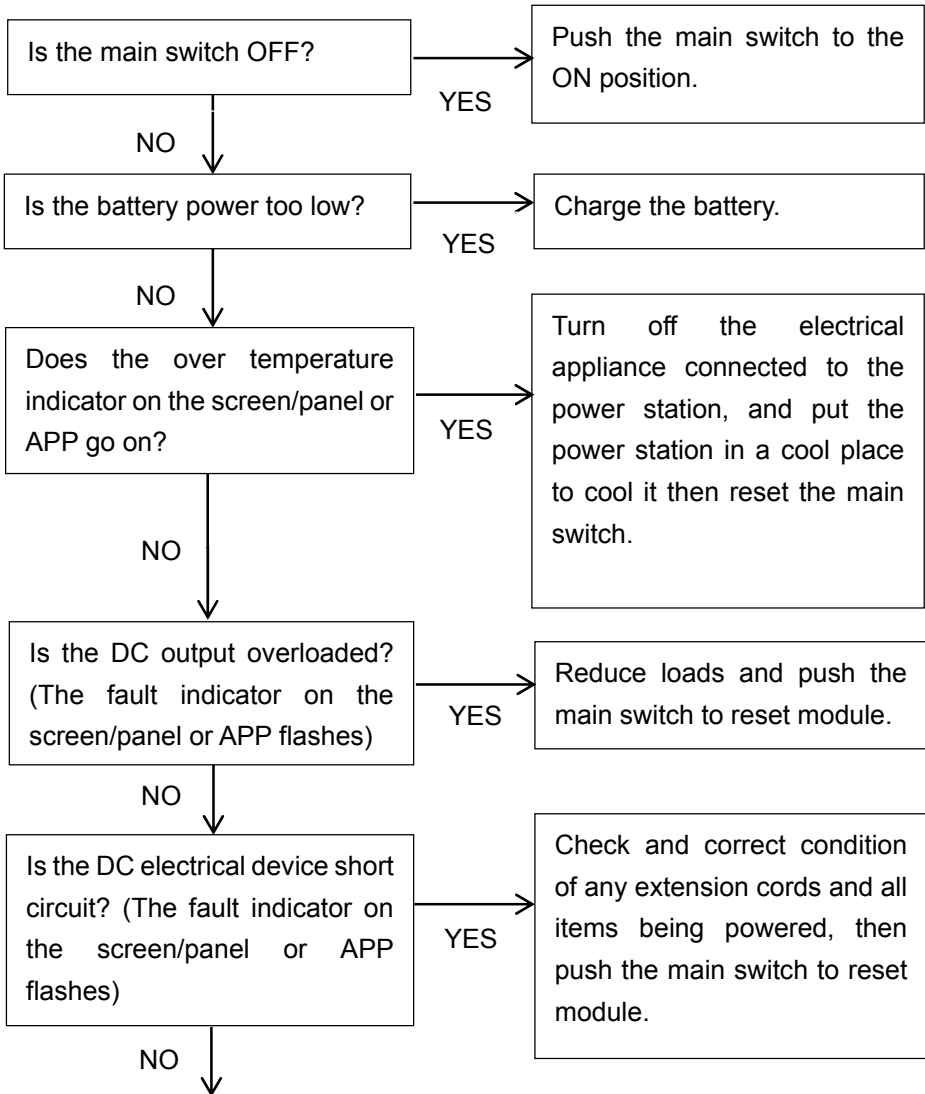
- When AC output is overloaded (in excess of rated power) or short-circuited, the AC output will automatically shut down. The buzzer alarm will sound 3 times uninterruptedly and the warning light flashes 3 times at the same time. Reset the AC switch can recover the AC output after reducing loads or eliminating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

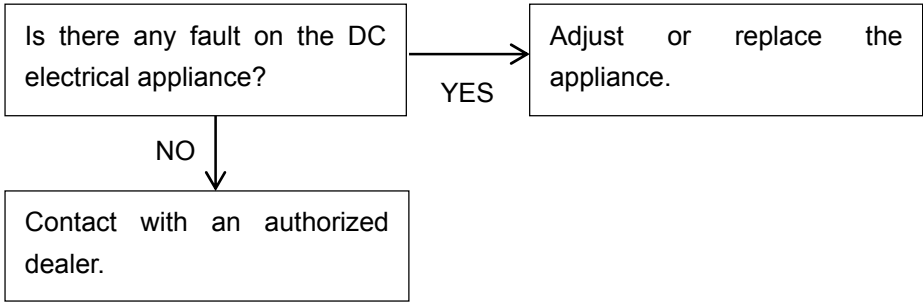
- Inverter Over Temperature Protection: When the temperature in the inverter is too higher, AC output will automatically shut down. The buzzer alarm will sound 5 times uninterruptedly and the warning light flashes 5 times at the same time. Turn off the electrical appliance connected to the power station, and put the power station in a cool place to cool it then reset the AC switch.
- Over Temperature Protection: When the temperature in the power station 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 power station, and put the power station in a cool place to cool it then reset the main switch.

# 9. TROUBLE SHOOTING

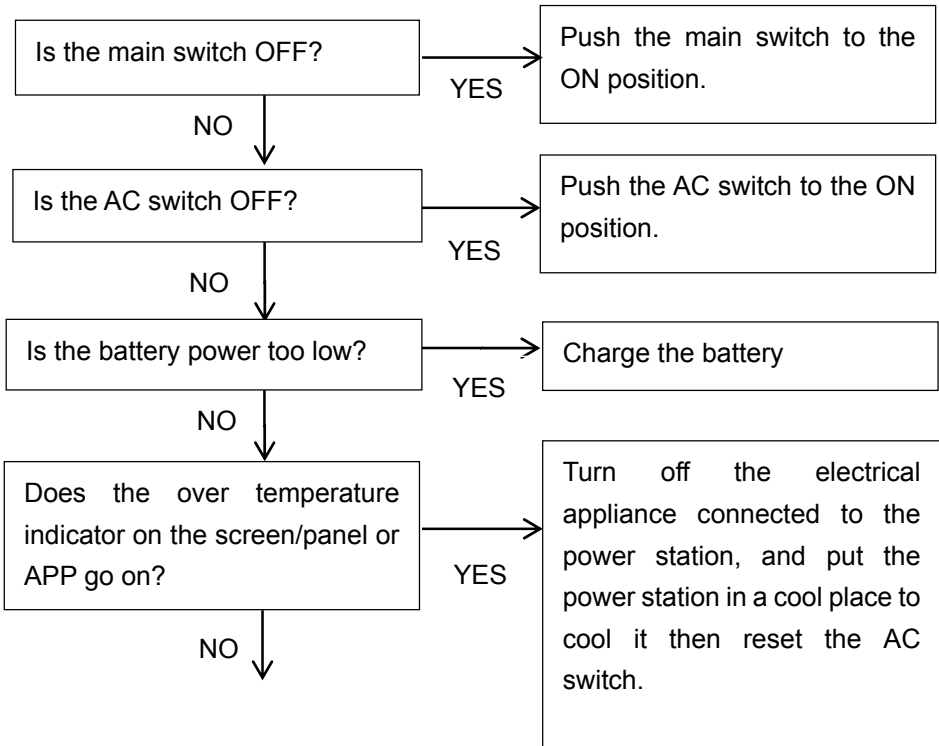
## No DC Output

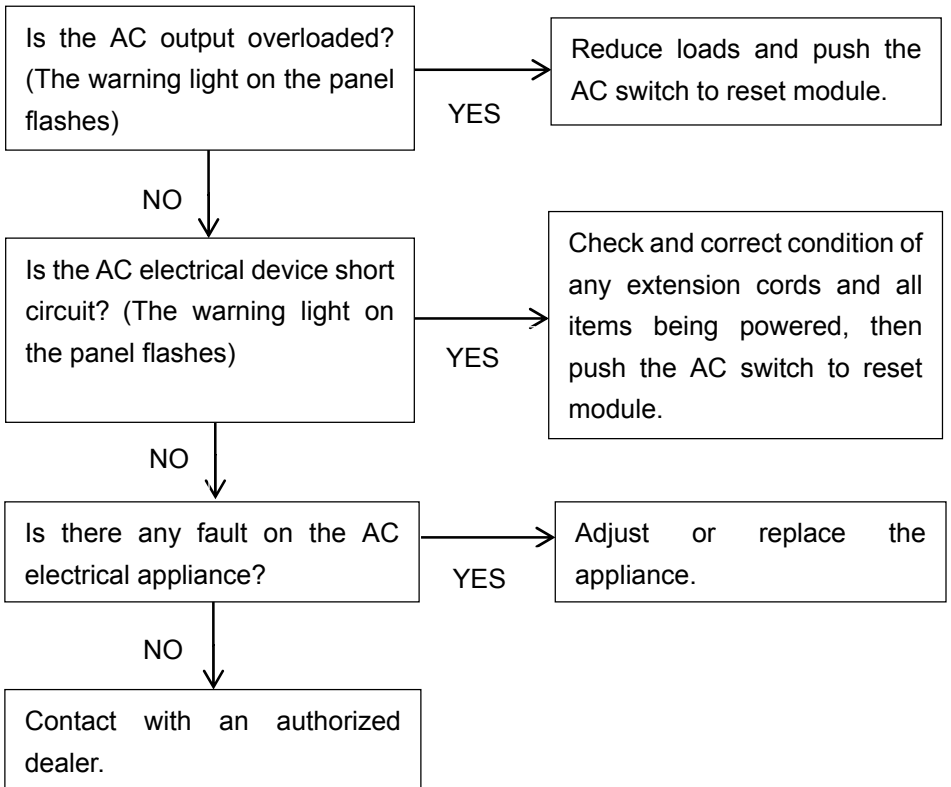






## No AC Output





# 10. SPECIFICATIONS

## DPIL SERIES SPECIFICATIONS

Model	DP1000iL	DP1500iL	DP2000iL	DP2500iL
Rated Power	1000VA	1500VA	2000VA	2500VA
Peak Power	2000VA	3000VA	4000VA	5000VA
Dimensions	530mm(20.9 in)X320mm(12.6 in)X430mm(16.9 in)			
Weight	34kg (75 lbs)		36kg (79 lbs)	41kg (90 lbs)
Battery Type	LiFePO <sub>4</sub>			
Battery Capacity	2048Wh, 80Ah(25.6V)			2688Wh 105Ah (25.6V)
Battery Cycle Life	>2000 cycles			

## OUTPUT

AC Output	Output Waveform	Pure-Sine Wave, THD<3%
	Rated Voltage*	100/110/120/220/230/240V
	Rated Frequency*	60/50Hz
DC Output	Cigarette Lighter	12V/10A
	5.5mm/6mm Port	12V/6A
	USB	5V/3.1A, QC3.0
	Type-C	PD60W

## CHARGING INPUT

Model		DP1000iL	DP1500iL	DP2000iL	DP2500iL
AC	Wall Outlet	100~120V / 200~240V, Max. 300W, 8.5 hours fully charged			100~120V / 200~240V, Max. 300W, 12 hours fully charged
Solar	MPPT Control System	36~140V, Max. 600W, 4 hours fully charged			36~140V, Max. 600W, 5 hours fully charged
Car	8mm Port	12~15V / 24~30V, Max.160W, 18 hours fully charged			12~15V / 24~30V, Max.160W, 24 hours fully charged
Wind (1)	3AC Port	3AC 22~26V, Max. 600W, 4 hours fully charged			3AC 22~26V, Max. 600W, 5 hours fully charged
DC Quick (1)	Anderson SB50/120	24~28V, Max.1200W, 2 hours fully charged			24~28V, Max.2000W, 1.5 hours fully charged

### NOTE

(1).The wind turbine charging and DC quick charging are optional functions.

(2). The rated and maximum output power of the power station is based on resistive load, and is not applicable to inductive load

and capacitive load. Since the power factor of inductive load and capacitive load are less than 1, the rated power of inductive load and capacitive load shall be small enough compared with the rated power of the power station, and the ratio of the two shall not exceed the power factor of the load, otherwise the power station may be overloaded or damaged. For example, if the power factor of the inductive load is 0.6, and if the rated output power of the power station is 2000VA, the rated power of this load cannot exceed:  $0.6 * 2 = 1.2\text{kW}$ , otherwise the power station may have overload protection or damage.

(3).The output specifications are based on the standard ambient temperature: 25°C.

\*Specific parameters to see labels on the product.

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