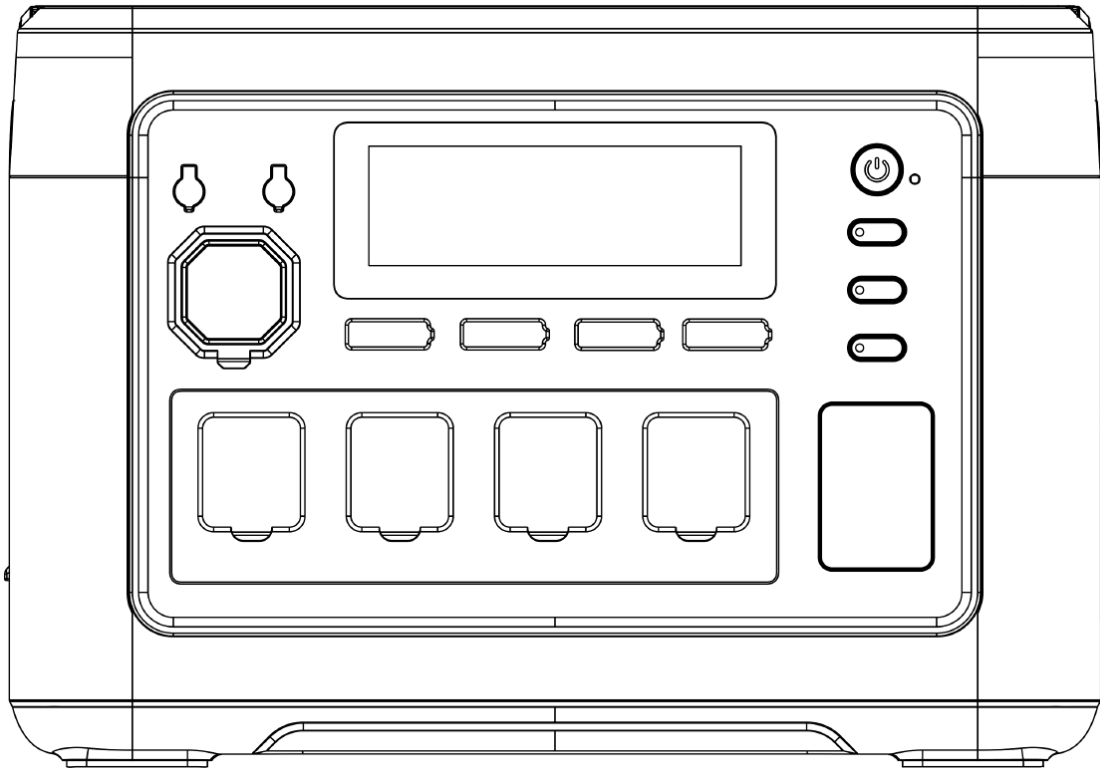




Model: PSSK1810H

1800W Portable Power Station OPERATOR'S MANUAL



Caution:

- Before using your power station, please read this manual carefully to understand proper use.
- Keep this manual with the power station.



Warning: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



DO NOT RETURN TO STORE!

HAVE QUESTIONS OR NEED SERVICE?



1-866-591-8921



support@pulsar-products.com

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Introduction

Thank you for choosing **Pulsar Products**!

This manual provides instructions on how to safely and correctly operate your power station. Please read and fully understand this manual before using your power station. If you have any questions, contact us at **1-866.591.8921 (Monday–Friday)** or at **support@pulsar-products.com** before using your power station.

For transportation safety, the power station is shipped with a low battery level (approximately 30%). It is recommended to fully charge the unit before first use.

When charging the power station from a wall outlet, it is recommended to connect the unit directly to the outlet whenever possible. To reduce the risk of overheating or electrical hazards, avoid using extension cords or power strips, and do not share the same outlet with other high-power electrical devices.

All details and images in this manual are believed to be accurate at the time of publication. Pulsar Products reserves the right to make updates to this manual at any time. For the latest updates, please contact Pulsar Support at **866.591.8921** or **support@pulsar-products.com**.

This manual is a permanent part of the power station. If the power station is resold, please include this manual with it.

Safety Warnings and Notices

WARNING: Save This Manual for Future Reference

This manual contains important information regarding the safety, operation, maintenance, and storage of this product. Before use, you must read and fully understand all cautions, warnings, instructions, and product labels. Failure to do so could result in serious personal injury and/or property damage.

Safety Definitions

 This safety alert symbol appears with most safety statements. It means to pay attention and be alert, your safety is involved! Please read and abide by the message that follows the safety alerts symbol.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

Failure to follow the instruction may result in the damage to your power station and other property.

Safety Instructions

Safety Precautions

WARNING

Failure to follow these safety warnings may result in serious injury, death, or property damage.

- This product contains a lithium iron phosphate (LiFePO_4) battery.
- Do not disassemble, modify, or attempt to repair the product.
- Do not expose the product to fire, high heat, or direct sunlight.
- Do not use or store the product in wet or humid environments.
- Do not drop the product or subject it to strong impact.
- Keep the product out of reach of children.
- Ensure adequate ventilation during operation. Maintain at least 30 cm (12 in.) of clearance around all air inlet and outlet openings.
- If abnormal conditions occur, including unusual noise, odor, smoke, or overheating, stop using the product immediately and contact customer service.

WARNING

Electromagnetic fields generated during operation may affect implanted medical devices.

Users with such devices should consult the device manufacturer before use.

General Use

CAUTION

Failure to follow these instructions may result in minor or moderate injury or product damage.

- Use the product only within the specified operating temperature range.
- Do not block ventilation openings.
- Turn off the power station and disconnect all cables when not in use.

Charging Safety

WARNING

Improper charging may result in fire, electric shock, or equipment damage.

- Use only manufacturer-approved charging cables.
- When charging from a wall outlet, it is recommended to connect the unit directly to the outlet whenever possible.
- To reduce the risk of overheating or electrical hazards, avoid using extension cords or power strips.
- Do not share the same outlet with other high-power electrical devices during charging.

Safety Instructions

LiFePO₄ Battery Safety

WARNING



Improper handling of lithium iron phosphate (LiFePO₄) batteries may result in fire, electric shock, serious injury, or property damage.

- This product contains a high-capacity LiFePO₄ battery pack. Do not disassemble, crush, puncture, or modify the battery.
- Do not expose the battery to fire, high heat, or direct sunlight for extended periods.
- Do not immerse the product in water or allow liquid to enter the battery compartment.
- Do not use the product if the battery housing is damaged, swollen, leaking, or emitting unusual odor or heat.
- Do not short-circuit the battery terminals.
- Use only the charging methods specified in this manual. Do not use incompatible chargers or charging cables.
- Stop using the product immediately if the battery shows signs of abnormal operation, including excessive heat, smoke, or noise.

CAUTION

Failure to follow these instructions may shorten battery life or cause battery damage.

- Operate and store the product within the specified temperature range.
- Avoid fully discharging the battery for long periods.
- For long-term storage, maintain the battery at approximately 50% charge and recharge every three months.
- Do not place heavy objects on the product or subject it to strong mechanical impact.

LiFePO₄ Disposal and Recycling

NOTICE

This product contains a lithium iron phosphate (LiFePO₄) battery and must be disposed of or recycled properly.

- Do not dispose of the battery or the product with household waste.
- Follow all applicable local, state, and federal regulations regarding battery disposal and recycling.
- Many communities offer battery recycling or household hazardous waste collection programs.
- Before disposal or recycling, ensure the product is powered off and disconnected from all external power sources.
- If you are unsure how to properly dispose of or recycle this product, contact your local waste management authority for guidance.

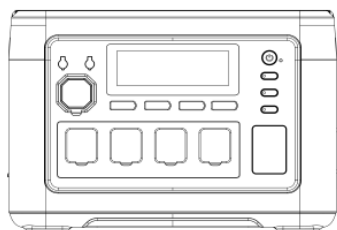
Storage Safety

CAUTION

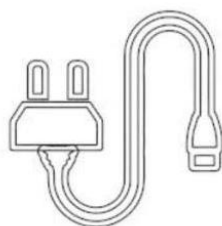
Improper storage may shorten battery life or cause battery damage.

- For long-term storage, recharge the battery to approximately 50% every three months.
- Avoid storing the product in vehicles or environments subject to extreme temperatures.
- Do not store the product for extended periods above 40°C (104°F) or below -10°C (14°F).

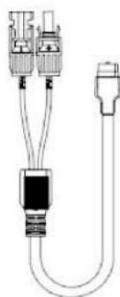
Packing List



PPSK1810H
Portable Power Station with Operator's Manual

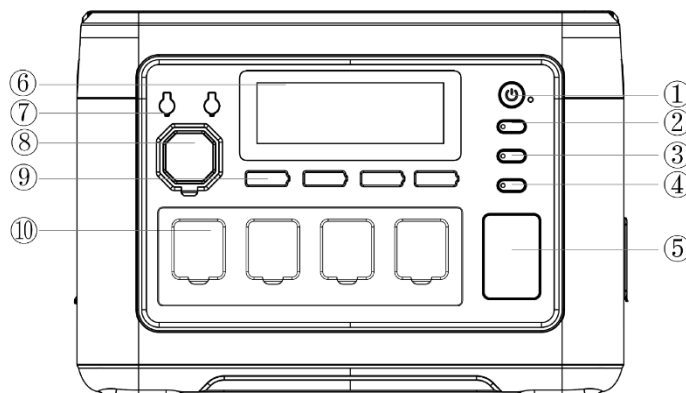


AC Power Cable



MC4 to XT60 Solar
Charging Cable

Front Panel



1. **Power Switch:** Press and hold the Power Switch for 3 seconds to turn the power station ON and activate the LCD display.

Press and hold the switch again for 3 seconds to turn the power station OFF.

2. **DC Switch:** When the power station is ON, short press the DC Switch to turn ON the DC output ports. Short press the switch again to turn OFF the DC output ports.

DC Output Ports Include:

Cigarette Lighter Output: 12V / 10A

DC5521 Output ×2: 12V / 3A

USB-A Output ×2: QC 3.0, up to 18W

USB-C Output ×1: PD 20W

USB-C Output ×1: PD 100W

3. **AC Switch:** When the power station is ON, short press the AC Switch to turn ON the AC output ports. Short press the switch again to turn OFF the AC output ports.

NOTICE

The power station is equipped with 4 AC output ports. The total connected load must not exceed 1800W.

AC output voltage and frequency standards vary by country. Verify that the connected equipment is compatible with the AC voltage and frequency before use.

Press the AC Switch and LED Switch simultaneously for 3 seconds to switch the AC frequency between 50Hz and 60Hz.

Press the AC Switch 10 times consecutively to switch the AC output voltage between 100V / 110V / 120V.

Control Panel

4. LED Light Switch

5. LED Light:

Short press the LED Switch to turn on Constant Light Mode. Short press again to switch to SOS Mode. Short press again to switch to Flashing Mode.

Long press the LED Switch to enable Silent Mode.
Long press again to disable Silent Mode.

6. LCD Display:

Displays real-time operating information, including battery capacity, input and output power, operating modes, protection status.

7. DC5521 Output Ports (12V / 3A):

8. Cigarette Lighter Output (12V / 10A)

9. USB-A Ports (QC 3.0, up to 18W) USB-C Ports (PD 20W / PD 100W)

10. AC Output Ports (120V, total 1800W, 50/60Hz)

11. AC Charging Port with Overload Protection Button:

Use the supplied AC charging cable to connect the power station to a wall outlet for charging.

Before charging, ensure that the AC voltage and frequency of the power source match the product specifications.

If the AC input voltage is unstable (such as during lightning or power surges), the overload protection circuit breaker will automatically activate and disconnect the AC input to protect the unit.

To restore AC input function:

Turn OFF the power station and unplug all connected devices. Confirm that there are no abnormalities with the unit or cables, then turn the power station ON. Press the Overload Protection Button and reconnect the AC charging cable.

12. External Grounding Terminal:

If required, a grounding wire may be connected to this port to ground the power station.

13. AC Fast / Slow Charging Adjustment Switch:

Fast Charging Mode:

When set to fast charging mode and the input voltage is 100–120V, the maximum AC charging power is 1200W.

Slow Charging Mode:

When set to slow charging mode and the input voltage is 100–120V, the maximum AC charging power is 500W.

14. PV / Car Input Port:

Use the standard PV / Car charging cable to connect a solar panel or vehicle power source to charge the power station.

Solar Charging Limits:

Maximum solar input power: 500W
Maximum input voltage: 50V

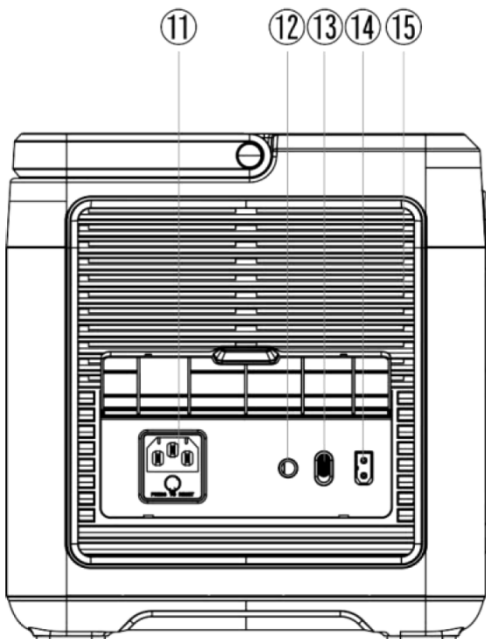
15. Cooling Air Inlet/Outlet:

When the internal temperature reaches a certain level, the cooling fan will automatically activate.

Side Panel

NOTICE

This product is not grounded by default.
Grounding is optional and intended only for special use scenarios.



⚠ WARNING

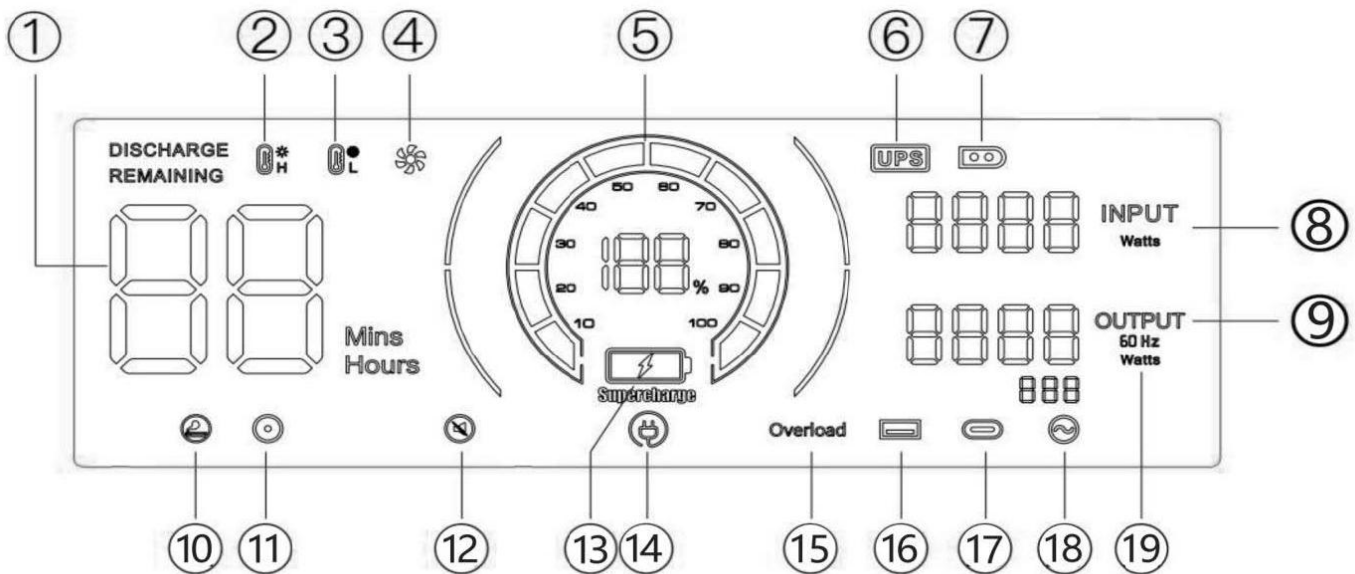
Input voltage exceeding 50V may cause permanent damage and is not covered by warranty.

⚠ CAUTION

Do not block the air inlet or outlet. Maintain at least 30 cm (12 in.) of clearance around the ventilation openings.

Control Panel

Display Interface



- | | |
|--|---|
| <p>1. Using Time / Charging Time
Displays remaining usage time or estimated charging time.</p> <p>2. High Temperature Protection
Indicates high-temperature protection is active.</p> <p>3. Low Temperature Protection
Indicates low-temperature protection is active.</p> <p>4. Fan Status
Indicates cooling fan operation status.</p> <p>5. Power Status
Displays battery capacity level.</p> <p>6. Backup Mode
Indicates the unit is operating in backup mode.</p> <p>7. PV Charging Mode
Indicates solar charging is active.</p> <p>8. Total Input Power
Displays total input power in watts.</p> <p>9. Total Output Power
Displays total output power in watts.</p> <p>10. Cigarette Lighter (12V) Output
Indicates 12V car output is active.</p> | <p>11. DC (12V) Output
Indicates DC output is active.</p> <p>12. Silent Mode
Indicates silent mode is enabled.</p> <p>13. Fast Charging Mode
Indicates fast AC charging mode is active.</p> <p>14. Slow Charging Mode
Indicates slow AC charging mode is active.</p> <p>15. Overload Protection
Indicates overload protection is active.</p> <p>16. USB Output
Indicates USB output is active.</p> <p>17. PD Output
Indicates USB-C Power Delivery output is active.</p> <p>18. AC Output
Indicates AC output is active.</p> <p>19. Frequency Switching
Indicates AC frequency switching status.</p> |
|--|---|

Control Panel

Display Precautions



When the fan icon is displayed, ensure that the air inlet and air outlet on both sides of the product are not blocked.



When the high-temperature or low-temperature indicator flashes, the internal temperature of the unit is outside the normal operating range.

The product will automatically activate its protection function and stop operating. Allow the unit to return to a normal temperature before restarting.



When this icon flashes, the product is charging at high power (fast charging mode).



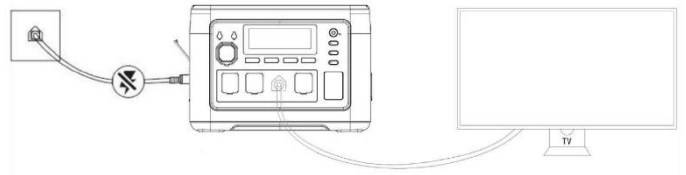
When an output port icon flashes, the corresponding port output is abnormal. Check the connected load and ensure it is within the rated power range.



When this icon flashes, the product has entered silent mode.

Operation

Backup Mode



Backup Mode allows the power station to provide backup power support for connected AC devices when utility power is available.

When utility AC power is present, the power station remains on standby and supplies AC output power directly from the utility power source through an internal bypass circuit.

- When the battery is not fully charged and utility power is present, the utility input power is shared between battery charging and load output.
- When the battery is fully charged and utility power is present, the power station can supply the full rated AC output power to the connected load through the bypass circuit.

In Backup Mode, connect the power station between the wall outlet and the electrical appliance and make sure the power station is turned ON.

During normal operation with utility power present, the connected appliance is powered directly by utility AC power.

If the utility AC input is interrupted, the power station will automatically switch to battery-powered inverter output within 10 ms and continue supplying power to the connected load at the rated AC output level.

⚠ WARNING

Exceeding the maximum backup output current may cause overload and output interruption.

Maximum backup output current (U.S.): 14A

When the output current exceeds the maximum limit, the backup indicator will flash, the AC output indicator will turn off, and output will be interrupted.

Operation

AC Charging

Use the supplied AC charging cable to connect the power station to a standard wall outlet.

Ensure the AC voltage and frequency of the power source match the product specifications.

AC charging supports fast charging and slow charging modes, selectable using the charging adjustment switch.

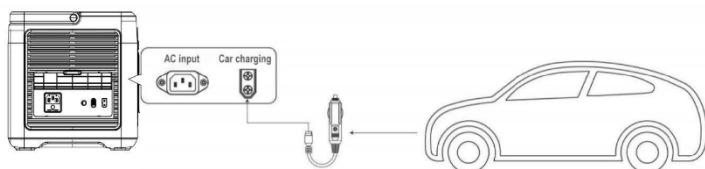
AC Charging Port (see control panel point 11.)

Car Charging

The power station can be charged using a vehicle's 12V cigarette lighter socket for mobile or emergency charging.

Charging Steps:

1. Turn the power station ON.
2. Connect the car charging cable to the vehicle's cigarette lighter socket.
3. Connect the other end of the cable to the PV / Car input port on the power station.
4. Start the vehicle engine. The LCD screen will display the input power.



CAUTION

Failure to start the vehicle engine during charging may discharge the vehicle battery.

- Typical car charging power: 90–240W
- Charging time is longer compared to AC charging.
- Car charging is intended for emergency or mobile use only.
- For faster charging, AC charging is recommended.

Car charging cable not included.

Solar Charging

The power station can be charged using compatible solar panels.

Maximum solar input power: 500W

Input voltage range: 12–50V

Charging performance depends on sunlight intensity, weather conditions, and panel configuration.

WARNING

Input voltage exceeding 50V may cause permanent damage and is not covered by warranty.

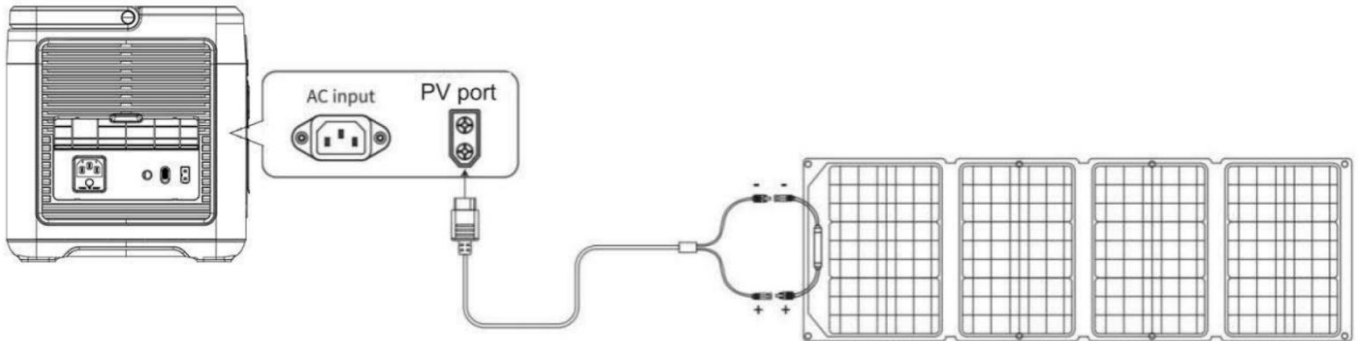
Power Station Storage

- Store and operate the product in an environment between 20°C and 30°C (68°F to 86°F).
- Keep the product away from water, excessive heat, and moisture.
- For safety reasons, do not store the product for extended periods in environments above 40°C (104°F) or below –10°C (14°F).
- If the product will not be used for an extended period, charge the battery to approximately 50% before storage.
- Storing the product with a severely depleted battery for a long time may cause irreversible battery damage and reduce battery cycle life.

Solar Panel Connection

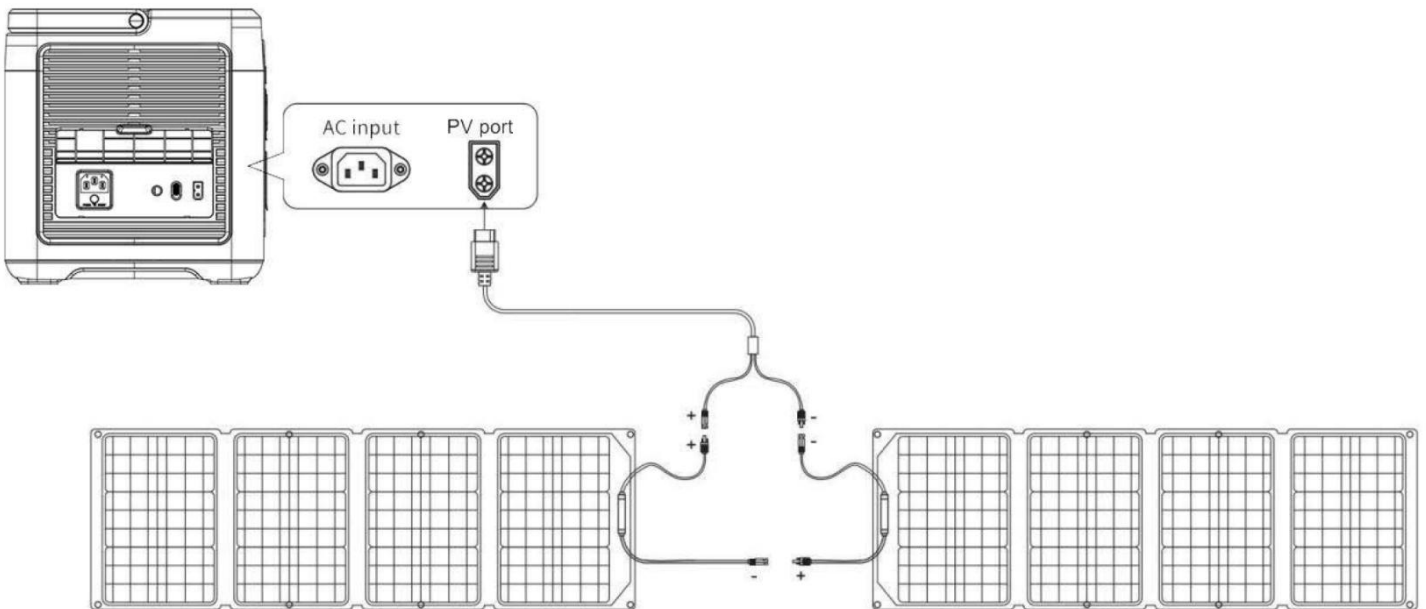
Option 1:

Connect solar panels using the standard PV charging cable as shown in the diagram.



Option 2:

Connect multiple solar panels using appropriate series or parallel connections, ensuring the total input voltage does not exceed 50V.



Solar panels and connection accessories not included.

Specifications

Item	Specification
Model	PPSK1810H
Battery Capacity	1024 Wh (51.2 V)
Battery Type	LiFePO ₄
Cycle Life	4000 Cycles
Same Time Charge & Discharge	Supported
Rated Power	1800 W
Surge Power	3600 W
Backup Rated Power	100–120 V, 15 A Max
Backup Start Time	< 10 ms
Rated Frequency	50 Hz / 60 Hz
Inverter Efficiency	≥ 90%
Depth of Discharge	DOD ≥ 90%
Output Waveform	Pure Sine Wave
AC Charging	Fast Charging: Max 1200, Slow Charging: Max 500 W
Solar Panel Charging	1 × XT60 Port, 12–50 V / 11 A, MPPT Max 500 W
Car Charging Input	12 V / 8 A, 24 V / 10 A
Protection	Short-Circuit, Over-Current, Over-Voltage, Under-Voltage, Over-Load, Over-Temperature, Over-Charge
Charging Temperature	0–40 °C (32–104 °F), Recommended: 20–30 °C
Discharging Temperature	–10–40 °C (14–104 °F), Recommended: 20–30 °C
Cooling Strategy	Dual Cooling Fans
Housing Material	ABS + PC, Fire Rating 94 V-0
Dimensions (L × W × H)	13.62 × 8.98 × 9.37 in
Net Weight	26 lb
Gross Weight	28 lb
Warranty	2 Years

Troubleshooting Guide

Problem	What to Do
Power station will not power connected devices even though the load is within the rated power range	Check the battery level and recharge the unit if the battery is low. Some devices require a higher startup (surge) power than their rated power. Disconnect the load and try a lower-power device.
Power station produces noticeable noise during operation	This is normal. Cooling fans may operate during use or charging. Some connected electrical devices may also generate operating noise.
Charging cable feels warm during charging	This is normal during high-power charging. Ensure the charging cable is securely connected and not covered or coiled tightly. Use only the supplied or approved charging cables.
What type of battery does the power station use?	The power station uses a lithium iron phosphate (LiFePO ₄) battery, which meets applicable safety standards.
AC output does not power certain appliances	Ensure the total connected load does not exceed 1800 W. Check that the current draw of a single AC outlet does not exceed its rated limit. Some appliances may have startup surges that exceed the power station's capability.
Unable to determine remaining usage time	The LCD screen displays estimated remaining usage time during operation. Usage time may change depending on load variation.
Unable to confirm whether the unit is charging	When charging, the LCD screen displays input power. The charging indicator and AC or PV charging icon will be displayed accordingly.