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ALLWEI SGR-PPS2400-3

ALLWEI LiFePO4 Portable Power Station 2400W User Manual

Model: SGR-PPS2400-3 | Brand: ALLWEI

INTRODUCTION

The ALLWEI LiFePO4 Portable Power Station 2400W (Model SGR-PPS2400-3) is a versatile and reliable solar generator designed for various power needs, including RV camping, emergency home backup, outdoor activities, and general home use. Featuring a 2048Wh capacity and 2400W (4800W surge) output, this power station utilizes a durable LiFePO4 battery, offering exceptional longevity and performance. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your power station.



Figure 1: ALLWEI LiFePO4 Portable Power Station with included 200W Solar Panel.

SAFETY INFORMATION

- Keep the power station dry and away from water or high humidity.

- Avoid exposing the unit to extreme temperatures (hot or cold).
- Do not disassemble, repair, or modify the unit yourself. Contact qualified service personnel.
- Keep out of reach of children and pets.
- Ensure proper ventilation during use and charging to prevent overheating.
- The integrated Battery Management System (BMS) provides protection against overcharge, over-discharge, over-current, and short-circuiting.

WHAT'S IN THE BOX

Your ALLWEI LiFePO4 Portable Power Station package includes the following items:

- 1x 2400W LiFePO4 Portable Power Station
- 1x 200W Solar Panel
- 1x AC Power Cable
- 1x Car Cigarette Cable
- 1x Conversion Cable
- 2x User Manuals

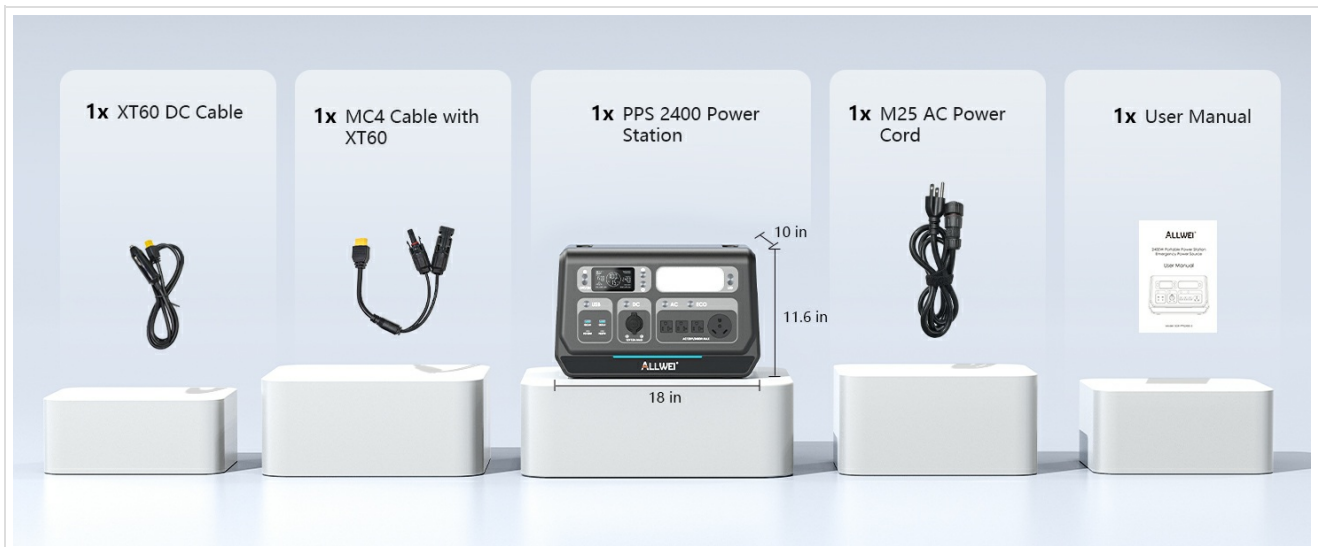


Figure 2: All components included in the ALLWEI Power Station package.

PRODUCT OVERVIEW

Familiarize yourself with the various ports and controls on your power station:



Figure 3: Front panel layout with labeled ports and buttons.

- **LCD Display:** Shows battery level, input/output wattage, remaining runtime, and other status indicators.
- **AC Outlets:** Four 120V AC outlets (2400W total, 4800W surge) for powering household appliances.
- **DC Outputs:** Includes a 12V/15A RV port, a 12V/12A DC output, and a 12V cigarette lighter port.
- **USB Ports:** Two USB-A ports, two USB-C PD ports (PD100W and PD27W) for fast charging mobile devices.
- **LED Light:** Integrated light with multiple brightness levels and an SOS mode for emergencies.
- **ON/OFF Button:** Powers the unit on or off.
- **AC/DC/USB Buttons:** Activate or deactivate specific output sections.

CHARGING THE POWER STATION

Your ALLWEI Power Station can be recharged using multiple methods:

- **AC Wall Socket:** Fully charge the power station in approximately 1.5 hours using the included AC power cable in Q Mode, or 5.5-6 hours in standard mode.
- **Solar Panel:** Connect the included 200W solar panel for eco-friendly charging. Charging times vary based on sunlight intensity:
 - 1x 200W Solar Panel: 12-13 hours
 - 2x 200W Solar Panels: 6-8 hours
 - 1x 400W Solar Panel: 6-8 hours
 - 2x 400W Solar Panels: 3-4 hours
- **Car Socket:** Use the car cigarette cable to charge from your vehicle:
 - 12V Car Charging: 14-16 hours
 - 24V Car Charging: 7-8 hours
- **AC + Solar:** Combine AC wall charging with solar input for the fastest recharge, achieving 0-80% in 1.5-2 hours.

5 WAYS TO RECHARGE

Max. 1500W Input



Wall Socket

Q: **1.5-2** Hrs N: **4-5** Hrs S: **6-7** Hrs



Wall Outlet+Solar

1.5-2 Hrs



Solar Panel

1*200W: **12-13** Hrs

2*200W: **6-7** Hrs



Car Socket

12V: **14-16** Hrs

24V: **7-8** Hrs



Generator



Figure 4: Visual representation of various charging methods and approximate times.

OPERATING THE POWER STATION

Powering On/Off

Press and hold the main ON/OFF button to power the unit on or off. The LCD display will illuminate upon activation.

Using Outputs

To use the AC, DC, or USB outputs, press the corresponding button for each section. The LCD display will show the active outputs and real-time power consumption.



Figure 5: Examples of devices powered by the ALLWEI Power Station in a home.

Uninterruptible Power Supply (UPS) Mode

The PPS2400-3 features a reliable UPS function, providing emergency power to your essentials within 10 milliseconds of a power outage. This ensures critical devices like refrigerators or medical equipment remain operational without interruption.



Figure 6: The power station's rapid UPS switching capability.

Smart App Function

Control and monitor your power station remotely using the ALLWEI Landbook APP via Wi-Fi or Bluetooth. The app allows for real-time status checks, parameter configuration, software updates, and customized settings.

APP REMOTE CONTROL

Everything at your fingertips

Bluetooth APP Control



The image shows an ALLWEI Power Station on a wooden table, connected to a wall outlet. A smartphone in the foreground displays the Landbook App interface, which includes a battery level indicator (77%), a remaining available time of 12:07:10 min, and various control options for AC, DC, USB, and MIG. A person's hand is also visible holding another smartphone.

500W MAX 2048Wh

1500W MAX UPS < 10ms

APP Function ECO Function

ETL Certification 5 Years Service

Download the **Landbook** APP

Figure 7: Remote control and monitoring via the ALLWEI Landbook App.

Integrated LED Light

The built-in LED light offers three levels of brightness and an SOS flashing mode for emergencies. It's bright enough to comfortably illuminate a dark room or tent.

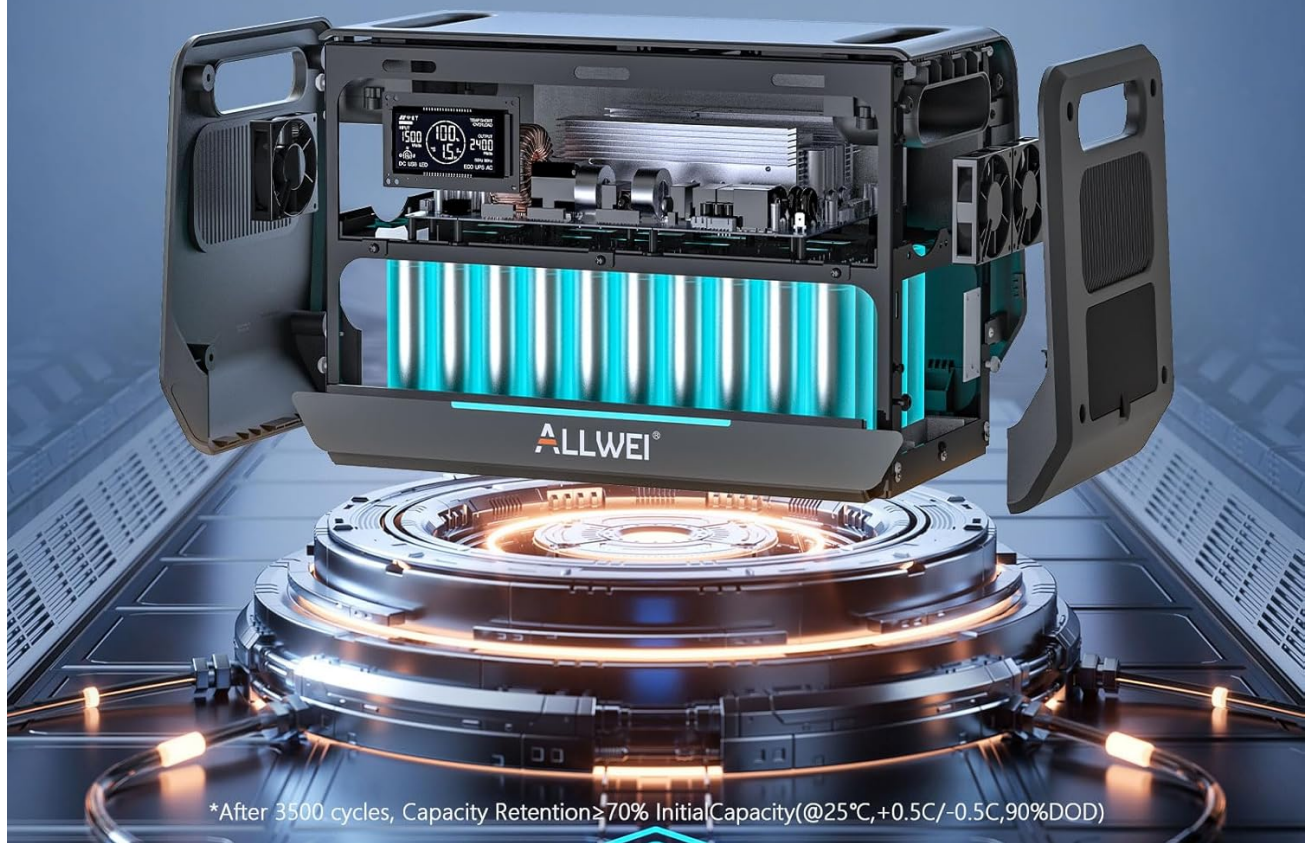
MAINTENANCE

The ALLWEI Power Station features a LiFePO4 battery, known for its exceptional longevity, offering over 3500 battery cycles and an estimated 10-year lifespan with proper care.

LIFEPO4 BATTERY

2048Wh | 640000mAh

🔄 **3500+** Lifecycles 🔋 **10** Years Lifespan



*After 3500 cycles, Capacity Retention ≥ 70% Initial Capacity (@25°C, +0.5C/-0.5C, 90%DOD)

Figure 8: The durable LiFePO4 battery ensures long-term reliability.

- **Regular Topping Up:** To maintain battery health, it is recommended to top up the power station every three months, even if unused.
- **Silent Charging:** The power station operates under 40dB in S Mode, ensuring quiet charging without disturbance.
- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures.

TROUBLESHOOTING

If you encounter issues with your ALLWEI Power Station, consider the following:

- **No Output:** Ensure the specific output (AC, DC, USB) is activated by pressing its respective button. Check if the device you are trying to power exceeds the station's wattage limits. The BMS will automatically cut off power if overloaded.
- **Charging Issues:** Verify that all charging cables are securely connected. Ensure the power source (wall outlet, solar panel, car) is functional.
- **Display Not Working:** Try restarting the unit. If the issue persists, contact customer support.

SPECIFICATIONS

Feature	Specification
Brand	ALLWEI
Model Name	SGR-PPS2400-3
Wattage	2400 watts
Peak Wattage	4800 watts
Battery Type	LiFePO4
Capacity	2048Wh
Lifecycles	3500+ cycles (to 70% capacity)
AC Output Voltage	120 Volts (AC)
Total Power Outlets	5 (AC) + DC/USB
Item Weight	51 Pounds
Product Dimensions	18.3"L x 10.2"W x 11.6"H
Material	ABS, Polycarbonate
UPC	723849278392

WARRANTY & SUPPORT

ALLWEI offers a 5-year service for the PPS2400-3 Portable Power Station. Additionally, protection plans are available for extended coverage:

- 3-Year Protection Plan
- 4-Year Protection Plan
- Complete Protect (monthly renewal option)

For detailed information, please refer to the official user manual PDF:[ALLWEI User Manual \(PDF\)](#)