

ALLWEI SGR-PPS2400-3

ALLWEI Portable Power Station 2400W with 400W Solar Panel Instruction Manual

Model: SGR-PPS2400-3

INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient use of your ALLWEI Portable Power Station 2400W and the included 400W Solar Panel. Please read this manual thoroughly before operating the device to ensure proper function and longevity. The ALLWEI Portable Power Station is designed to provide reliable power for various applications, from outdoor activities to home backup during outages.

The kit includes a 2400W LiFePO4 Portable Power Station and a 400W Solar Panel, along with necessary cables for AC, car, and solar connections. It features a 2048Wh capacity, 2400W output, and supports expandable battery packs for increased capacity up to 10240Wh. Key features include fast charging, a long-lasting LiFePO4 battery with 3500+ cycles, a reliable UPS function, and smart app control.

PACKAGE CONTENTS

Upon unpacking, verify that all items listed below are present and in good condition:

- 1x ALLWEI 2400W LiFePO4 Portable Power Station
- 1x ALLWEI 400W Solar Panel
- 1x AC Power Cable
- 1x Car Cigarette Cable
- 1x Conversion Cable
- 1x Solar Connect Cable
- 2x User Manuals (this document)

If any items are missing or damaged, please contact ALLWEI customer support.

Efficient Output for RV

2400-3 solar generator transforms into power source for RV batteries, surveillance, routers, speakers and radios on the go.



Image: Contents of the ALLWEI Portable Power Station 2400W and 400W Solar Panel package, including the power station, solar panel, and various cables.

SETUP

1. Initial Charging

Before first use, fully charge the power station. Multiple charging methods are available:

- **AC Wall Outlet:** Connect the AC power cable to the power station and a standard wall outlet. The power station can charge from 0-80% in approximately 60 minutes using AC input.
- **Solar Panel:** Connect the 400W solar panel using the provided solar connect cable. Place the solar panel in direct sunlight for optimal charging. Charging from 0-80% with one 400W solar panel takes approximately 6-8 hours. Using two 400W solar panels can reduce this to 3-4 hours.
- **Car Charging:** Use the car cigarette cable to charge the power station from your vehicle's 12V or 24V outlet. A 12V car charge takes 14-16 hours, while a 24V car charge takes 7-8 hours.
- **AC + Solar:** For the fastest charging, combine AC and solar input.



10+ Hrs
Mini Cooler(200W)



4+ Hrs
Heated Blanket(550W)



2+ Hrs
Electric Grill(1600W)



19+ Hrs
Mini Fridge(100W)



37+ Hrs
LED Light(50W)



2+ Hrs
RV Battery(1500W)

Image: Various charging methods for the ALLWEI Portable Power Station, including AC wall outlet, solar panels, and car charging.



Image: The power station being charged by a single 400W solar panel in an outdoor setting, indicating a 6-8 hour charging time.

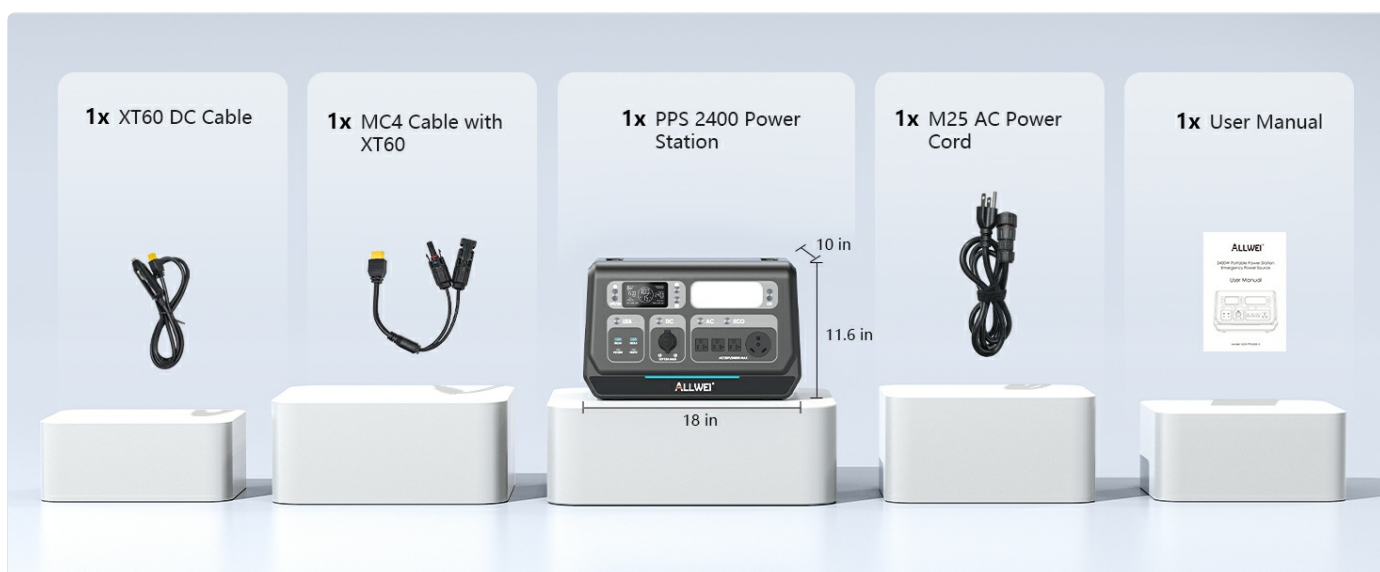


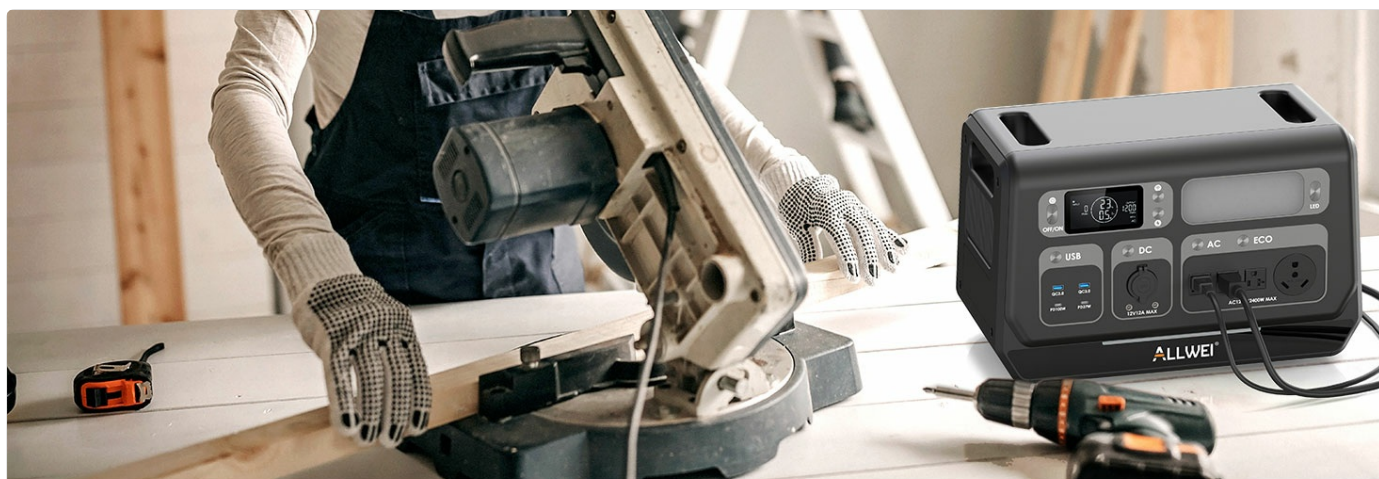
Image: The power station being charged by two 400W solar panels, showing a faster charging time of 3-4 hours.

<0.01S AUTOMATIC UPS

POWER OUTAGE



Image: The power station being charged by a single 200W solar panel, indicating a 12-13 hour charging time.



3+ Hrs
Circular Saw(680W)



4+ Hrs
Electric Hammer(480W)



3+ Hrs
Electric Drill(600W)



5+ Hrs
Hand Mixer(400W)



3+ Hrs
Cutting Machine(580W)

Image: The power station being charged by two 200W solar panels, showing a charging time of 6-8 hours.



Home Backup Power

UPS kicks in just 0.01S after a power outage, swiftly restoring power to appliances like computer, refrigerators or fish tanks.

Image: The power station being charged inside a car using the cigarette lighter port, showing charging times for 12V and 24V.

2. Understanding the Display and Ports

Familiarize yourself with the power station's display and various input/output ports. The display provides real-time information on battery level, input/output wattage, and estimated remaining runtime.



Power Your Outdoors

4 types of add-on battery packs are available, allowing you to select the one that best suits your power requirements.

Image: A detailed view of the ALLWEI Portable Power Station, highlighting the various ports and control buttons such as USB, DC, AC, ECO, LED, AC Charging Mode Switch, WiFi Button, Circuit Protector, Grounding Port, and Battery Expansion port.

- **ON/OFF Button:** Powers the unit on or off.
- **LCD Display:** Shows battery status, input/output power, and remaining time.
- **USB Ports:** Includes USB-A (QC3.0*2) and USB-C (PD100W, PD27W) for charging mobile devices.
- **DC Output:** 12V/12A max for DC-powered devices.
- **AC Outlets:** Multiple 120V/60Hz/15A MAX outlets, including a NEMA TT-30R outlet for RVs.
- **ECO Button:** Activates ECO mode for power saving.
- **LED Button:** Controls the built-in LED light.
- **AC Charging Mode Switch:** Selects charging modes (Q, N, S).
- **WiFi Button:** For connecting to the Landbook App.
- **Battery EXT:** Port for connecting optional ALLWEI SGR-B200 PRO expansion batteries.

3. Expanding Capacity (Optional)

The ALLWEI 2400-3 electric generator supports up to 4 expandable battery packs (ALLWEI SGR-B200 PRO, sold separately) to increase capacity from 2048Wh to 10240Wh. Connect expansion batteries to the "Battery EXT" port on the main unit.

POWER UP YOUR HOME

With Max 10240Wh



Image: The ALLWEI Portable Power Station connected to multiple expansion batteries, demonstrating its expandable capacity to power a refrigerator and other home appliances for extended periods.

OPERATING INSTRUCTIONS

1. Powering On/Off

Press and hold the main ON/OFF button for a few seconds to turn the power station on or off. The LCD display will illuminate upon activation.

2. Using Output Ports

Once the power station is on, activate the desired output section (USB, DC, or AC) by pressing its respective button. The display will show the output wattage. Connect your devices to the appropriate ports.

- **AC Outlets:** Suitable for household appliances, power tools, and RVs. The 125V RV port allows easy charging of RV batteries.
- **USB Ports:** Ideal for charging smartphones, tablets, laptops, and other USB-powered devices.
- **DC Ports:** For devices requiring 12V DC power.

2048WH POWERFUL GENERATOR

Power Your Expectations



46+ Hrs
Laptop(40W)



46+ Hrs
CPAP(40W)



26+ Hrs
Drone(70W)



17+ Hrs
TV(110W)



4+ Hrs
Refrigerator(500W)



4+ Hrs
Coffee Maker(550W)



3+ Hrs
Electric Grill(1600W)



21+ Hrs
Mini Cooler(90W)



23+ Hrs
Electric Tools(80W)



2+ Hrs
Microwave(1200W)



Image: The ALLWEI Portable Power Station providing power to a variety of devices, including a laptop, CPAP machine, drone, TV, refrigerator, coffee maker, electric grill, mini cooler, electric tools, and microwave, with estimated runtimes.

Charging by two 400W solar panels

2x 400W Solar Panel (in full sun)

3-4 Hrs



Image: Individuals enjoying outdoor activities with the ALLWEI Portable Power Station, powering various devices like phones, laptops, cameras, drones, CPAP machines, and fans, with estimated runtimes.

Charging by one 200W solar panel

1x 200W Solar Panel (in full sun)

12-13 Hrs



Image: A family utilizing the ALLWEI Portable Power Station in a kitchen environment to power appliances such as a coffee maker, kettle, refrigerator, microwave, washer, and blender, with estimated runtimes.

<0.01s Automatic UPS

After a power outage, the UPS automatically starts within 10ms to ensure that your household necessities maintain a stable power supply. PPS2400 supports solar charging and AC input synchronous operation to ensure longer operating time for household essential devices.



Image: A person using the ALLWEI Portable Power Station to power various power tools like a circular saw, electric hammer, electric drill, hand mixer, and cutting machine, with estimated runtimes.

3. Uninterruptible Power Supply (UPS) Function

The PPS2400-3 features a reliable UPS function. When connected to an AC wall outlet and powering devices, it automatically switches to battery power within 10 milliseconds during a power outage. This ensures continuous operation for critical devices like computers, refrigerators, or medical equipment.

0.01m Auto- UPS

Automatically shifts to backup power during outages to ensure continuous operation.



Image: The ALLWEI Portable Power Station connected to a computer setup, demonstrating its 0.01m Auto-UPS feature that automatically shifts to backup power during outages.



Image: The ALLWEI Portable Power Station providing backup power to a refrigerator in a kitchen, illustrating its UPS function during a power outage.



Image: A visual comparison demonstrating the ALLWEI Power Station's fast 0.01s automatic UPS response during a power outage, keeping critical devices like a refrigerator running, compared to other systems.

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Video: Demonstrates the seamless switch during power outages with the PPS2400 UPS function, showing a real-time test.

4. Smart App Control

The Landbook App allows you to monitor the power station's status, toggle switches, activate charging modes, perform firmware upgrades, and customize settings remotely via Bluetooth or WiFi.

MOBILE DEVICE SMART APP CONTROL

Monitor & Control with Ease



Image: A smartphone screen showing the Landbook App interface, used for monitoring and controlling the ALLWEI Portable Power Station with features like real-time monitoring and versatile connections.

Noise $\leq$ 40dB

Choose S Mode Charging, PPS2400 power station operates under 40dB, ensuring reliable, undisturbing power, allowing you to enjoy a quiet night.

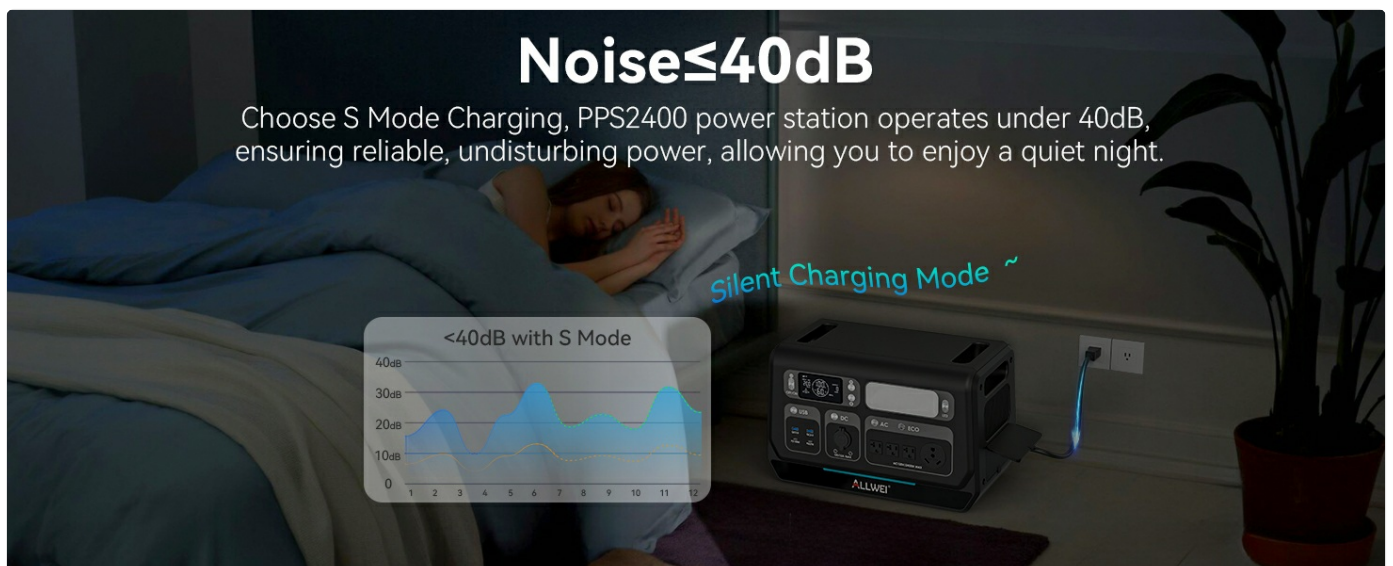


Image: A living room scene demonstrating the APP Remote Control feature of the ALLWEI Portable Power Station, allowing real-time status monitoring, parameter configuration, and firmware upgrades via Bluetooth and WiFi.

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Video: Showcases the APP content and solar charging capabilities of the ALLWEI Portable Power Station.

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Video: Explores the features of App Remote Control and various AC charging modes (Q/N/S).

5. Silent Charging Mode

For quiet environments, select 'S Mode Charging' via the AC Charging Mode Switch. In this mode, the PPS2400 power station operates under 40dB, providing undisturbed power.



Image: A graphic demonstrating the silent charging mode (S Mode) of the PPS2400 power station, which operates under 40dB for quiet operation, suitable for nighttime use.

MAINTENANCE

To ensure the longevity and optimal performance of your ALLWEI Portable Power Station and Solar Panel, follow these maintenance guidelines:

- **Battery Care:** The LiFePO4 battery is designed for over 3500 charge cycles, providing a 10-year lifespan with capacity retention of $\geq 70\%$ after 3500 cycles. For best results, avoid completely draining the battery frequently. Store the unit with at least 50% charge if not used for extended periods.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the power station and solar panel. Do not use abrasive cleaners or solvents. Keep ports free of dust and debris.
- **Storage:** Store the power station in a cool, dry place, away from direct sunlight and extreme temperatures. Ensure the unit is turned off during storage.
- **Solar Panel Care:** Regularly clean the surface of the solar panel to remove dirt, dust, or leaves that may reduce charging efficiency.

LIFEPO4 BATTERY

With an upgraded **LFP** battery, charge and recharge 3500+ times

3500 times

2400-3

500 times

other

3500+ Lifecycles



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

Image: A graphic highlighting the LiFePO4 battery's impressive lifespan of over 3500 cycles, ensuring reliability for more than 10 years.

TROUBLESHOOTING

If you encounter issues with your ALLWEI Portable Power Station, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Power Station does not turn on.	Battery is completely drained; unit is off.	Connect to an AC outlet for charging. Ensure the ON/OFF button is pressed and held until the display illuminates.
Devices are not charging/powering.	Output port not activated; device exceeds wattage limit; cable issue.	Ensure the specific output section (USB, DC, AC) is turned on. Check if the device's power requirement is within the 2400W limit. Verify cable connections.

Problem	Possible Cause	Solution
Solar charging is slow or not working.	Insufficient sunlight; dirty solar panel; incorrect connection.	Position solar panel in direct sunlight. Clean the panel surface. Ensure solar connect cable is securely attached to both the panel and power station.
UPS function not engaging during outage.	Power station not connected to AC input; UPS mode not active.	Ensure the power station is connected to an AC wall outlet and devices are plugged into the power station's AC outlets. The UPS function is automatic when AC input is present.
App connection issues.	Bluetooth/WiFi off; app not updated; incorrect pairing.	Ensure Bluetooth/WiFi is enabled on your device and the power station. Update the Landbook App to the latest version. Follow in-app instructions for pairing.

If the problem persists, please contact ALLWEI customer support for further assistance.

SPECIFICATIONS

Feature	Detail
Brand	ALLWEI
Model Name	SGR-PPS2400-3
Wattage (Rated)	2400 watts
Output Wattage	2400 watts
Peak Power	4800 watts
Battery Type	LiFePO4
Battery Capacity	2048Wh
Battery Lifespan	3500+ cycles (to 70% capacity)
Expandable Capacity	Up to 10240Wh with ALLWEI SGR-B200 PRO (sold separately)
AC Input	1500W Max
Solar Input	1200W Max
AC Output Voltage	120 volts_of_alternating_current
UPS Function	Automatic switch in 10ms
Control	Smart App Control (Landbook App)
Noise Level	≤40dB (in S Mode Charging)
Item Weight	86 pounds
Dimensions (L x W x H)	18.3"L x 10.2"W x 11.6"H

Feature	Detail
Material	ABS, Polycarbonate
UPC	732133488379



Image: A comprehensive overview of the ALLWEI Portable Power Station's features, including 2400W/2048Wh, LFP Battery, 3500+ Cycles, UPS Function, APP Function, 11 Power Outputs, Expansion Function Support, and 10-Year Battery Life.

WARRANTY

The ALLWEI Portable Power Station 2400W (Model SGR-PPS2400-3) comes with a **5-Year Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, please refer to the official ALLWEI website or contact customer support.



Image: ALLWEI 5-Year Premium Warranty information, indicating longer protection than industry standard.

SUPPORT

For any questions, technical assistance, or warranty claims, please contact ALLWEI customer support:

- **Email:** support@allweipower.com
- **Online:** Visit the official ALLWEI website for FAQs and additional resources.

ALLWEI offers a 30-day no-hassle return policy. For returns, please follow the instructions provided by your retailer.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question