

SolarPlay Q2501

SolarPlay Q2501 Portable Power Station User Manual

Model: Q2501

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your SolarPlay Q2501 Portable Power Station. The Q2501 is a high-capacity 2400W/2160Wh portable power station designed for emergency power backup, outdoor activities, and travel. It features a durable LiFePO4 battery, multiple charging options, and an Uninterruptible Power Supply (UPS) function.

2. SAFETY INSTRUCTIONS

Read all safety warnings and instructions before using this product. Failure to follow the warnings and instructions may result in electric shock, fire, or serious injury.

- Do not disassemble, repair, or modify the unit.
- Do not expose the unit to fire or high temperatures.
- Keep the unit away from water and other liquids.
- Use only approved accessories and charging cables.
- Ensure proper ventilation during use and charging.
- Avoid dropping or subjecting the unit to strong impacts.
- The unit features a Battery Management System (BMS) for protection against overcharge, overdischarge, overcurrent, short circuit, overload, low voltage, high temperature, and low temperature.

Power 14 Devices Simultaneously



Figure 2.1: The internal Battery Management System (BMS) provides comprehensive protection for safe operation.

3. PACKAGE CONTENTS

Verify that all items are present in your package. If any items are missing or damaged, contact customer support.

- SolarPlay Q2501 Portable Power Station
- Foldable Cart
- AC Charging Cable
- MC4 XT90 Solar Charging Cable
- User Manual

4. PRODUCT OVERVIEW

The SolarPlay Q2501 is equipped with various input and output ports to accommodate a wide range of devices. It also includes a foldable cart for enhanced portability.



Figure 4.1: SolarPlay Q2501 Portable Power Station with Foldable Cart.

4.1. Port Layout

The Q2501 features 14 output ports for versatile connectivity:

- 4 x AC Outlets (2400W total)
- 2 x USB-A (QC3.0) Ports
- 3 x USB-C (PD 20W) Ports
- 1 x USB-C (PD 100W) Port
- 1 x Cigarette Lighter Port (12V/10A)
- 2 x DC5521 Ports (12V/3A)
- 1 x XT60 Output Port (12V/25A)

Input ports include AC Input (1100W) and XT90 Input Port for solar charging.

Reliable & Safe



Figure 4.2: Q2501 Port Layout and Controls.

4.2. Foldable Cart

The included foldable cart facilitates easy transportation of the power station. Refer to the diagram for dimensions and assembly instructions.



Figure 4.3: Foldable Cart Dimensions.

5. SETUP

Before first use, ensure the power station is fully charged.

1. **Unpack:** Carefully remove the power station and all accessories from the packaging.
2. **Inspect:** Check the unit and accessories for any visible damage.
3. **Initial Charge:** Connect the power station to an AC outlet using the provided AC charging cable. Allow the unit to charge completely before its first use.

6. OPERATING INSTRUCTIONS

6.1. Charging the Power Station

The Q2501 supports multiple charging methods:

- **AC Charging:** Connect the AC charging cable to the AC input port and a standard wall outlet. The unit can be fully charged in approximately 2 hours at 1100W.
- **Solar Charging:** Connect compatible solar panels (11.5V to 48V, max. 500W) to the XT90 input port using the MC4 XT90 solar charging cable.
- **Car Charging:** Use a 12V/24V car cigarette socket.
- **Dual Charging:** Combine AC and solar charging for the fastest charge, achieving 0-100% in approximately 1.5 hours.



Figure 6.1: Multiple Charging Methods and Times.

6.2. Adjustable Input Power

The power station offers five adjustable input power levels (300W, 500W, 700W, 900W, 1100W). Adjusting the input power allows for charging according to environmental conditions and extends battery life by reducing stress on components.

ADJUSTABLE INPUT POWER

Choosing A Lower Power Can Extend Life



Figure 6.2: Adjustable Input Power Settings.

6.3. Discharging and Powering Devices

To power a device, connect it to the appropriate output port on the Q2501. Ensure the power station is turned on and the specific output section (e.g., AC, USB) is activated if necessary.

The Q2501 can power up to 14 devices simultaneously, including smartphones, laptops, power tools, cooking appliances, and more. Its 2160Wh capacity provides extended runtimes for various electronics and appliances.

Surprisingly large capacity 2160Wh Compatible with 99% of electrical products

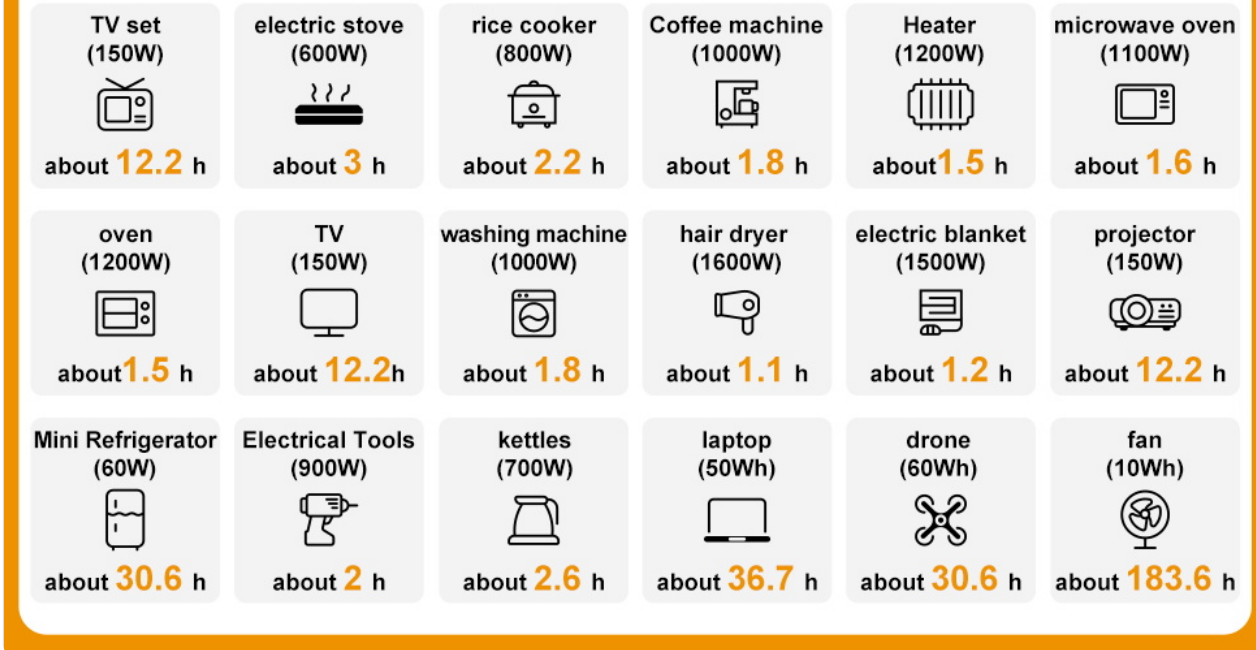


Figure 6.3: Estimated Appliance Runtimes.

6.4. Uninterruptible Power Supply (UPS) Function

The Q2501 features a UPS function. When connected to an AC outlet and powering devices, it acts as a pass-through. In the event of a power outage, the unit automatically switches to battery power within 0.08 seconds, ensuring continuous operation for connected devices.

UPS Provides Power Within 10 ms to Ensure AC Output



Figure 6.4: UPS Function in Action.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your SolarPlay Q2501.

- **Battery Care:** The Q2501 uses a high-quality LiFePO4 battery designed for over 3500 charge/discharge cycles, providing a lifespan of approximately 10-15 years with regular use. Avoid fully discharging the battery frequently to maximize its lifespan.
- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures. For long-term storage, charge the unit to 50-80% every 3-6 months.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Do not use harsh chemicals or abrasive materials.
- **Ventilation:** Ensure the ventilation vents are clear of obstructions during operation to prevent overheating.

**IF YOU USE IT ONCE A DAY
IT CAN BE USED FOR 10
YEARS OR EVEN MORE!**

3500+ CYCLE

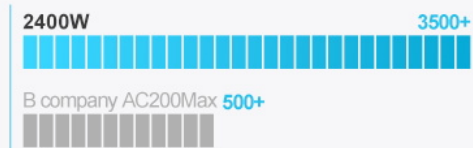


Figure 7.1: LiFePO4 Battery Lifespan (3500+ Cycles).

8. TROUBLESHOOTING

If you encounter issues with your SolarPlay Q2501, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Unit does not turn on	Battery is completely discharged; Power button not pressed correctly.	Charge the unit using an AC adapter; Press and hold the power button for a few seconds.
No output from ports	Output port not activated; Device requires more power than available; Overload protection triggered.	Ensure the specific output section (AC/USB) is turned on; Check device power requirements; Reduce connected load and restart the unit.
Unit not charging	Charging cable not connected properly; Charger fault; Input power setting too low for solar.	Verify cable connections; Try a different charging method; Adjust input power setting.
Overheating	Blocked ventilation; Excessive load.	Ensure vents are clear; Reduce connected load. Allow unit to cool down.

If the problem persists after attempting these solutions, please contact SolarPlay customer support.

9. SPECIFICATIONS

Feature	Specification
Brand	SolarPlay
Model Name	Q2501 Power Station
Battery Type	LiFePO4
Capacity	2160Wh
Rated Output Power	2400W
Peak Output Power	Not specified (typically higher than rated)
AC Input	1100W (Adjustable)
Solar Input	11.5V to 48V, Max 500W
Voltage	110 Volts
Item Weight	51 Pounds
Product Dimensions	11.22"L x 12.56"W x 15.39"H
Material	ABS, Plastic
Special Features	Overload Protection, Portable, USB Port, UPS Function
Recommended Uses	Camping, Commercial, Residential
UPC	698746308117
Manufacturer	Shenzhen Qianxing Technology Co., Ltd

10. WARRANTY AND SUPPORT

10.1. Warranty Information

The SolarPlay Q2501 Portable Power Station comes with a **5-Year Manufacturer Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

10.2. Customer Support

For technical assistance, warranty claims, or any questions regarding your SolarPlay Q2501, please contact SolarPlay customer support. Refer to the contact information provided in your product packaging or visit the official SolarPlay website.