

[manuals.plus](#) /

› [superplay](#) /

› [SolarPlay Q2402M Portable Power Station User Manual](#)

superplay Q2402M

SolarPlay Q2402M Portable Power Station User Manual

Model: Q2402M

1. INTRODUCTION

Thank you for choosing the SolarPlay Q2402M Portable Power Station. This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your power station. Please read this manual thoroughly before using the product and retain it for future reference.

The SolarPlay Q2402M is a high-capacity portable power station designed to provide reliable power for various applications, including home backup, outdoor activities, and emergency situations. It features a 2304Wh LiFePO4 battery, 2500W AC output, and multiple charging options.

Built in LiFePO4 Battery Supply for up to **10 Years**

Lifecycle To 80%
3500+



▪ The BMS manages power station inputs and outputs, minimizing energy use and optimizing power supply and equipment protection.

Image 1.1: The SolarPlay Q2402M Portable Power Station, showcasing its compact design and integrated handles.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent injury or damage to the product:

- Do not disassemble, repair, or modify the unit.
- Keep the unit away from heat sources, direct sunlight, and flammable materials.
- Do not expose the unit to rain or moisture.
- Ensure proper ventilation during use and charging.
- Keep out of reach of children and pets.
- Use only original or certified accessories.
- In case of fire, use a dry powder fire extinguisher.

3. PACKAGE CONTENTS

Verify that all items are included in your package:

- SolarPlay Q2402M Portable Power Station
- 2x200W Solar Panels
- AC Charging Cable
- XT90 MC4 Solar Charging Cable
- User Manual (this document)

4. PRODUCT OVERVIEW

Familiarize yourself with the various ports and controls of your SolarPlay Q2402M Power Station.



Image 4.1: Detailed diagram of the SolarPlay Q2402M Portable Power Station, highlighting its 14 output ports and control buttons, including AC outputs, USB ports, DC outputs, power switches, and the LED light switch.

Key components include:

- **AC Outputs:** Four standard AC outlets for household appliances.

- **USB Outputs:** Multiple USB ports (QC 3.0, PD 20W, PD 100W) for charging mobile devices.
- **DC Outputs:** DC5521 and XT60 ports for various DC-powered devices.
- **Cigar Lighter Port:** For 12V car accessories.
- **AC Input:** For charging the power station via wall outlet.
- **XT90 Input:** For solar panel or car charging.
- **Power Switch:** Main power button for the unit.
- **AC/DC/USB Switches:** Individual switches to activate output sections.
- **LED Light:** Integrated light for illumination.
- **LCD Display:** Shows battery level, input/output wattage, and other status indicators.

5. SETUP

5.1 Unpacking

Carefully remove all components from the packaging. Inspect for any shipping damage. If any items are missing or damaged, contact customer support immediately.

5.2 Initial Charging

It is recommended to fully charge the power station before first use. The Q2402M supports multiple charging methods:

- **AC Wall Charging:** Connect the AC charging cable to the AC input port and then to a standard wall outlet. The unit can be fully charged in approximately 1.5 hours with 1100W AC charging.
- **Solar Charging:** Connect the solar panels to the XT90 input port using the XT90 MC4 solar charging cable. Optimal charging requires direct sunlight. The unit can reach 80% charge in approximately 4.5 hours with solar input.
- **Car Charging:** Connect the car charger (not included, sold separately) to the XT90 input port and your vehicle's 12V auxiliary power outlet. Full charge takes approximately 19 hours.

1.5-hour fast charging

AC CHAGING Adjustable Power for Charging(300W, 500W, 700W, 900W, 1100W)



1100W AC Charging
100% within **2h**



PV Charging
80% within **4.5h**



Car Charging
100% within **19h**



AC+PV Charging
100% within **1.5h**



Image 5.1: Illustration of various charging methods for the SolarPlay Q2402M, including AC wall charging, solar panel charging, and car charging, with estimated charging times.

5.3 Connecting Solar Panels

To connect the included 2x200W solar panels:

1. Unfold the solar panels and position them in direct sunlight.
2. Connect the MC4 connectors from the solar panels to the XT90 MC4 solar charging cable.
3. Plug the XT90 connector into the XT90 input port on the power station.
4. The LCD display will indicate incoming solar power.

6. OPERATION

6.1 Powering On/Off

Press and hold the main power button for 3 seconds to turn the power station ON or OFF. The LCD display will illuminate upon activation.

6.2 Using AC Outlets

Press the AC power button to activate the AC outputs. Plug your devices into the AC outlets. The LCD display will show the AC output wattage. Ensure the total wattage of connected devices does not exceed 2500W.

6.3 Using DC & USB Ports

Press the DC power button to activate the DC outputs (including the cigar lighter port). Press the USB power button to activate the USB outputs. Plug your devices into the respective ports. The LCD display will show the DC/USB output wattage.

6.4 Understanding the Display

The LCD display provides real-time information:

- **Battery Level Indicator:** Shows the remaining battery capacity.
- **Input Power:** Displays the current charging wattage (AC, Solar, Car).
- **Output Power:** Displays the current discharge wattage for AC, DC, and USB outputs.
- **Remaining Usage/Charge Time:** Estimated time based on current power consumption/input.
- **Warning Indicators:** Alerts for overload, overheating, or other issues.

6.5 UPS Functionality

The SolarPlay Q2402M features an Uninterruptible Power Supply (UPS) function. In the event of a power outage, the unit can provide uninterrupted power to connected devices within 0.08 seconds, ensuring continuity for sensitive electronics.

UPS (uninterruptible power supply)

In the event of a neighborhood power outage, a UPS (less than 0.08s) can provide uninterrupted power to ensure the continuity of your event or work.



Image 6.1: The SolarPlay Q2402M acting as an Uninterruptible Power Supply (UPS) for a desktop computer setup, demonstrating its capability to maintain power during outages.

6.6 Usage Examples

The Q2402M is versatile for various power needs:



Image 6.2: Examples of the SolarPlay Q2402M in use, including powering tools for outdoor work, serving as home backup power in a kitchen, and providing electricity for camping activities.

It can power devices such as:

- Car refrigerator (approx. 24 hours)
- Electric hammer (approx. 2 hours)
- Rice cooker (approx. 2.7 hours)
- And up to 14 devices simultaneously.

7. MAINTENANCE

7.1 Battery Care

The SolarPlay Q2402M uses a high-quality LiFePO4 battery, known for its longevity and safety. To maximize battery lifespan:

SolarPlay

SolarPlay
Empower Your Outdoors



Image 7.1: Visual representation of the LiFePO4 battery's durability, indicating a lifespan of up to 10 years and over 3500 charge cycles to 80% capacity, managed by an internal Battery Management System (BMS).

- Recharge the unit at least once every 3-6 months, even if not in use, to maintain battery health.
- Avoid fully discharging the battery frequently.
- Store the unit in a cool, dry place, ideally between 0°C and 40°C (32°F and 104°F).
- The integrated Battery Management System (BMS) optimizes energy use and protects the battery.

7.2 Storage Guidelines

When storing the power station for extended periods:

- Charge the battery to approximately 50-80% before storage.
- Turn off all output functions.
- Store in a well-ventilated area, away from direct sunlight and extreme temperatures.

7.3 Cleaning

Use a dry, soft cloth to wipe the exterior of the power station. Do not use abrasive cleaners or immerse the unit in water.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit does not turn on	Battery is completely discharged; Power button not held long enough.	Charge the unit; Press and hold the power button for 3 seconds.
AC output not working	AC output not activated; Overload protection triggered; Device wattage too high.	Press the AC power button; Reduce connected load; Check device wattage.
Solar charging not working	Panels not in direct sunlight; Cables not connected properly; Damaged solar panels/cable.	Reposition panels; Reconnect cables; Inspect for damage.
Unit overheating	Poor ventilation; Excessive load.	Ensure clear airflow around the unit; Reduce connected load.

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

9. SPECIFICATIONS

Feature	Detail
Model Number	Q2402M
Battery Type	LiFePO4
Capacity	2304Wh
AC Output Power	2500W (Rated)
AC Charging Time	Approx. 1.5 hours (1100W AC Charging)
Solar Charging Time	Approx. 4.5 hours to 80% (with 2x200W solar panels)
Car Charging Time	Approx. 19 hours
Product Dimensions	11.22"L x 12.56"W x 15.39"H
Special Features	Overload Protection, Portable, USB Port, UPS Function
Included Components	Power Station, 2x200W Solar Panel, AC Charging Cable, User Manual, XT90 MC4 Solar Charging Cable

10. WARRANTY

The SolarPlay Q2402M Portable Power Station comes with a **5-year manufacturer's warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or natural disasters. Please retain your proof of purchase for warranty claims.

11. CUSTOMER SUPPORT

For technical assistance, warranty claims, or any questions regarding your SolarPlay Q2402M Portable Power Station, please contact our customer support team:

- **Email:** support@superplay.com
- **Website:** [Visit the superplay Store on Amazon](#)

Please have your model number (Q2402M) and purchase date available when contacting support.