SOLAR SPORTS 1500W Sump Pump Battery Backup

SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter User Manual

Model: 1500W Sump Pump Battery Backup

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1. Introduction

The SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter is designed to provide reliable emergency power for your sump pump during AC power failures. This system automatically switches to battery power when the main power is interrupted and recharges the battery once AC power is restored, ensuring continuous operation and protection against basement flooding.

Image: SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter with included battery cables and AC power cord.

2. Safety Information

Please read all safety instructions carefully before operating this device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Battery Compatibility:** This inverter is designed for use with 12V deep cycle batteries (lithium, AGM, etc.). Do not use with non-deep cycle batteries. Battery is sold separately.
- **Ventilation:** Ensure adequate ventilation around the inverter. Do not place debris within 2 inches above or around the unit to prevent overheating. The unit features dual cooling fans for enhanced safety and extended life.
- **Electrical Connections:** All electrical connections must be secure and correctly polarized to prevent damage to the unit and connected devices.
- **Overcharge Protection:** The built-in 30A power charger includes overcharge protection to prevent battery damage.
- **CE Certified:** This product is CE certified, ensuring it meets European safety standards.
- **Environment:** Install the inverter in a dry, well-ventilated area, away from flammable materials and direct sunlight.

Image: Safety and reliability features of the inverter.

3. Package Contents

Verify that all items are present in the package:

- 1 x SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter
- 1 x Set of Battery Connection Cables (Red and Black)
- 1 x AC Power Cord

4. Product Overview

The 1500W Sump Pump Battery Backup Inverter is a pure sine wave power inverter designed for critical applications like sump pump backup. It features:

- **1500W Continuous Power:** Provides stable 120 VAC output for sump pumps and other essential devices.

- **Automatic Switching:** Seamlessly transitions to battery power upon AC power failure.
- **LCD Display:** Shows real-time status, including DC voltage, AC voltage, and frequency.
- **Multiple Outlets:** Two grounded AC outlets and one USB charge port for versatility.
- **Advanced Protection:** Includes input reverse polarity, over-charge, over-voltage, over-load, short-circuit, and over-temperature protection.
- **Efficient Cooling:** Dual smart cooling fans maintain optimal operating temperature.

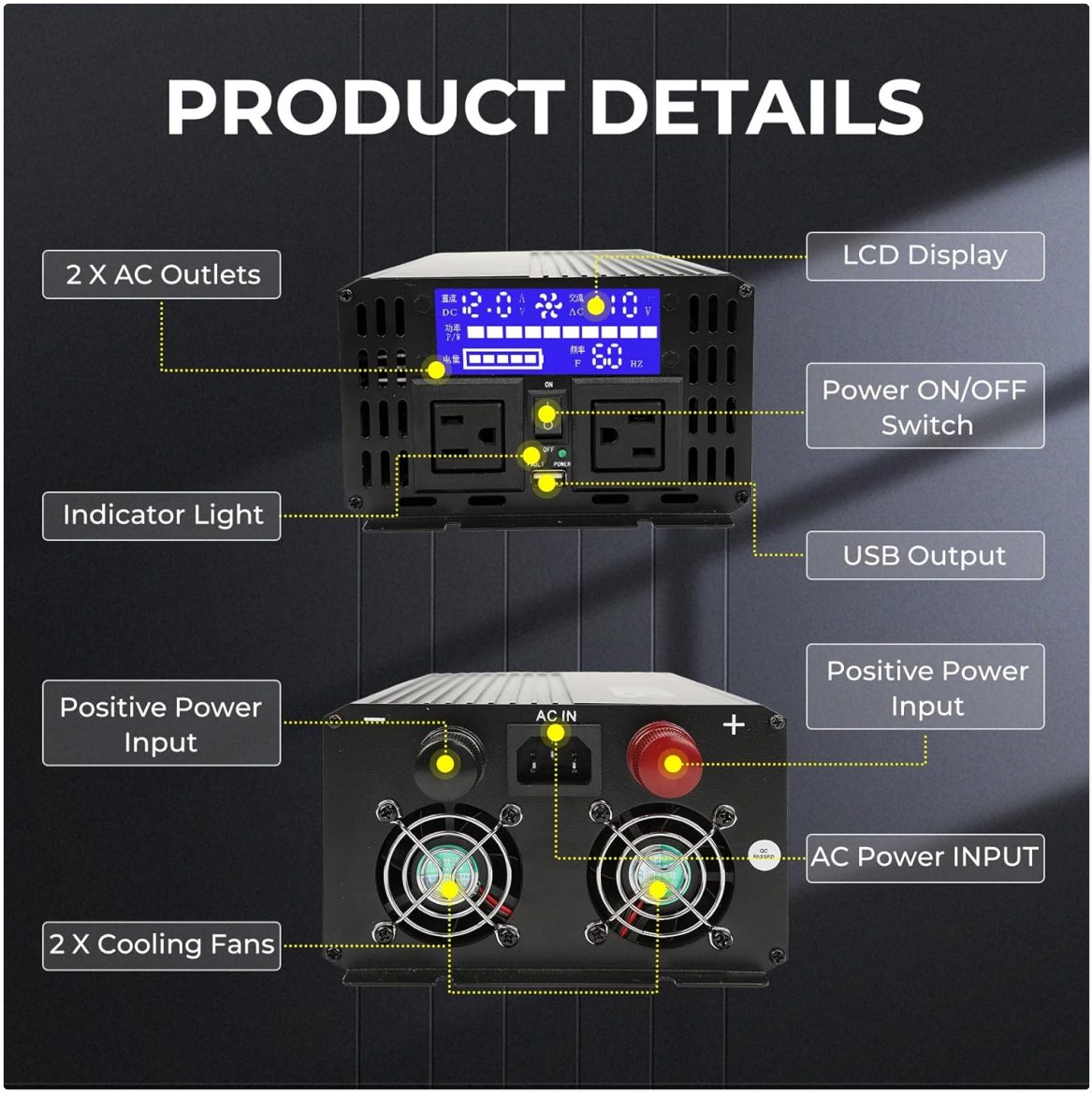

Image: Detailed view of the inverter's front and rear panels.

Image: 1500W Power Inverter in a sump pump backup system.

5. Setup Instructions

Follow these steps to set up your sump pump battery backup system:

1. **Choose a Location:** Select a dry, well-ventilated area near your sump pump and a 120V AC outlet. Ensure there is at least 2 inches of clear space around the inverter for proper cooling.
2. **Connect the Battery:**
    - Ensure the inverter's power switch is in the 'OFF' position.
    - Connect the red battery cable to the positive (+) terminal of your 12V deep cycle battery and the positive (+) terminal on the inverter.
    - Connect the black battery cable to the negative (-) terminal of your 12V deep cycle battery and the negative (-) terminal on the inverter.
    - Ensure all connections are tight and secure.
3. **Connect the Sump Pump:** Plug your primary sump pump(s) into the AC outlets on the front of the inverter. The inverter can power two primary sump pumps simultaneously.
4. **Connect to AC Power:** Plug the inverter's AC power cord into a standard 120V AC wall outlet.

The inverter will begin charging the connected battery.

5. **Power On:** Flip the power switch on the inverter to the 'ON' position. The LCD display will illuminate, showing the system status.

Image: System setup diagram.

Image: Inverter with included cables.

6. Operating Instructions

Once properly set up, the SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter operates largely automatically.

- **Normal Operation:** When AC power is available, the inverter will pass through AC power to the connected sump pump(s) and simultaneously charge the backup battery. The LCD display will show charging status and current AC output.
- **Power Outage:** In the event of an AC power failure, the inverter will automatically and instantly switch to battery power, providing continuous electricity to your sump pump(s). The LCD display will indicate battery discharge and DC voltage.
- **Power Restoration:** When AC power is restored, the inverter will automatically switch back to AC power and resume charging the battery.
- **LCD Display:** Monitor the LCD display for information on input/output voltage, frequency, and battery charge level. A green indicator light signifies normal operation, while a red fault indicator signals an issue.
- **USB Port:** The USB port can be used to charge compatible devices during normal operation or during a power outage.

Image: Three-stage safe fast charging process.

7. Maintenance

Regular maintenance ensures the longevity and reliability of your inverter system.

- **Keep Vents Clear:** Periodically check that the cooling fan vents are free from dust and obstructions. Proper airflow is crucial for preventing overheating.
- **Battery Care:** The inverter's built-in charger maintains a 'trickle charge' to keep the battery fully powered. However, it is recommended to periodically check the battery terminals for corrosion and ensure they are clean and tight.
- **Regular Testing:** Test the system monthly by temporarily unplugging the inverter from the AC wall outlet to simulate a power outage. Verify that the sump pump operates correctly on battery power. Reconnect to AC power after testing.
- **Cleaning:** Clean the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners or solvents.

Image: Double fan cooling system on the inverter.

8. Troubleshooting

If you encounter issues with your inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Inverter does not power on / No output	Loose battery connections, discharged battery, inverter switch off, internal fault.	Check battery cable connections. Ensure battery is charged. Turn inverter switch ON. If problem persists, contact support.
Red fault indicator is lit	Overload, short circuit, over-voltage, under-voltage, over-temperature.	Reduce load. Check for short circuits in connected devices. Verify battery voltage. Ensure proper ventilation. Turn off and restart the inverter.
Sump pump does not run during power outage	Battery not charged, faulty sump pump, inverter not switching.	Ensure battery is fully charged. Test sump pump directly with AC power. Verify inverter is ON and functioning.

Problem	Possible Cause	Solution
Fans are noisy and run continuously	Normal operation, high ambient temperature, heavy load.	The fans are designed to run to maintain optimal temperature. Ensure adequate ventilation. This is often normal behavior.

If troubleshooting steps do not resolve the issue, please contact SOLAR SPORTS customer support.

9. Specifications

Feature	Specification
Brand	SOLAR SPORTS
Model Number	1500W Sump Pump Battery Backup
Rated Power	1500W
Peak Power	3000W
Input Battery Voltage	DC 12V
Output Voltage	AC 110V
Output Frequency	50Hz/60Hz
Output Waveform	Pure Sine Wave
USB Port	QC 3.0, 5V/1A
Display Style	LCD
Item Weight	7.06 pounds
Package Dimensions	15.79 x 7.95 x 5.59 inches

Product Specifications

Rated power	1500W
Peak powerx	3000W
Input battery voltage	DC 12V
Output voltage	AC 110V
Output frequency	50HZ/60HZ
Output wave form	Pure Sine Wave
USB port	QC 3.0 5V/1A
Indicator light	Greon power indicator, Red fault indicator

Image: Product specifications table.

10. Warranty and Support

The SOLAR SPORTS 1500W Sump Pump Battery Backup Inverter comes with a**1-year manufacturer warranty**. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or any questions regarding your product, please contact SOLAR SPORTS customer service. Refer to your purchase documentation for specific contact details or visit the official SOLAR SPORTS website.