

ROARBATT 4000PSWI

ROARBATT 4000W Pure Sine Wave Power Inverter User Manual

Model: 4000PSWI

1. INTRODUCTION

Thank you for choosing the ROARBATT 4000W Pure Sine Wave Power Inverter. This device is designed to convert 12V DC battery power into 110V/120V AC household power, providing reliable electricity for a wide range of appliances. With a continuous output of 4000W and a peak power of 8000W, it is suitable for use in RVs, trucks, cars, solar systems, and during power outages. This manual provides essential information for safe and efficient operation, setup, and maintenance of your inverter.

2. PRODUCT FEATURES

- **Advanced Protection Features:** Includes Over Voltage, Low Voltage, Overload, Short Circuit, Over Heat, and grounding protection to extend the inverter's lifespan.
- **Durable Construction:** Features a robust aluminum housing that protects the inverter from drops and bumps.
- **Efficient Cooling:** A built-in cooling fan ensures quiet operation and maintains optimal temperature for safety and efficiency.
- **High Power Output:** Provides true rated continuous 4000W and 8000W peak power pure sine wave output.
- **High Conversion Efficiency:** Converts DC 12V to 120/110V AC with over 90% efficiency and low no-load loss, extending battery life (no load current $0.6 \pm 0.1A$).
- **Multiple Outlets:** Equipped with 4 AC outlets, 1 AC Terminal Block, and 2 USB ports (5V 3.4A) for versatile connectivity.
- **Clear LED Display:** Displays input/output voltage, battery capacity, and protection indications for easy monitoring.
- **Remote Control:** Includes a 15ft remote controller for convenient on/off operation from a distance.

► Positive

► Intelligent Cooling fan

(When Temperature Exceeds $104 \pm 41^\circ$ Fan load Is 480Watt It Will Operate When Exceeding.)

► Negative



► LED Display

► Power Indicator

► Power On/Off

► 2X0~3.4AUSB

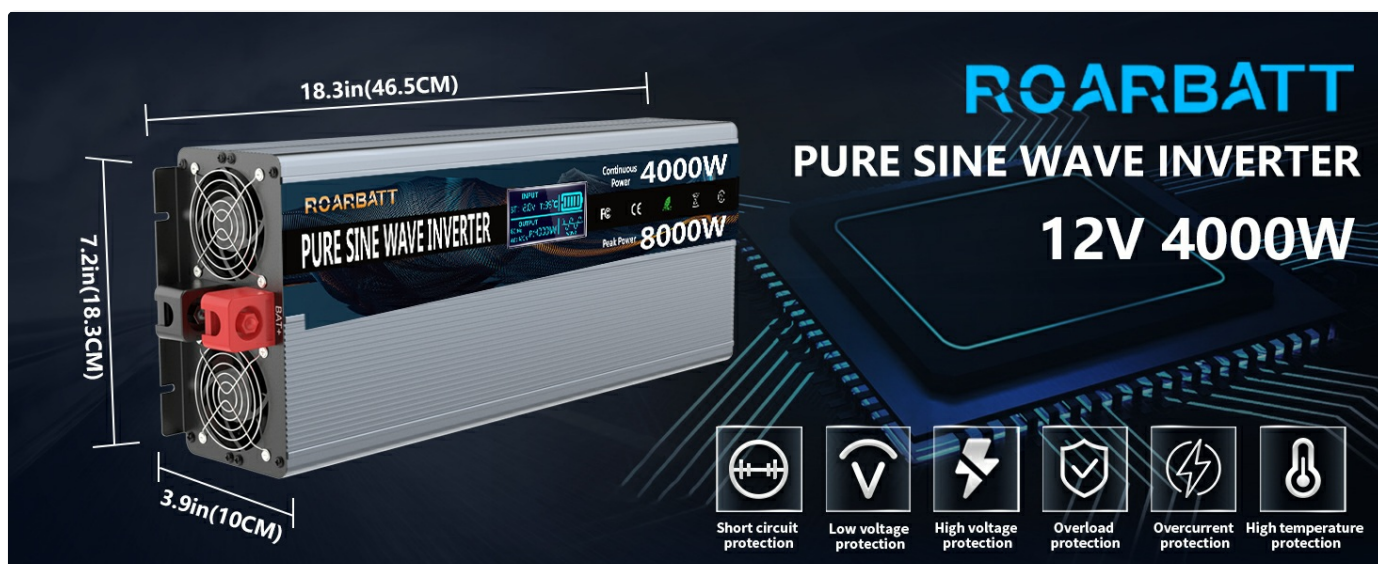
► Remote Controller

► 4 X AC Outlets

► AC Terminal Blocks for 4000W-8000W Heavy Duty

► Earth Wire

Figure 2.1: Key features of the ROARBATT 4000W Pure Sine Wave Power Inverter, highlighting terminals, cooling, and display.



3. WHAT'S IN THE BOX

Upon opening your ROARBATT 4000W Pure Sine Wave Power Inverter package, you should find the following items:

- 1 x 4000W Pure Sine Wave Inverter
- 1 x 15ft Remote Controller
- 1 x Instruction Manual (this document)
- 2 pairs of Battery Cables (1 black, 1 red)
- 6 x 40A Fuses
- 1 x Wrench
- 2 x Earth Wire



Remote Control



The Cable is A 4.5-Meter -long
Standard Network Cable



Wrench



Earth Wire

Battery Cables



31.5 in(80 cm)

4. SETUP INSTRUCTIONS

Proper setup is crucial for the safe and efficient operation of your inverter. Please follow these steps carefully:

1. **Choose a Suitable Location:** Place the inverter in a dry, well-ventilated area, away from direct sunlight, heat sources, and flammable materials. Ensure there is sufficient space around the inverter for proper airflow and cooling.
2. **Ensure Power Source is Off:** Before making any connections, ensure that the 12V DC power source (e.g., battery) is disconnected or turned off.
3. **Connect Battery Cables:**
 - Connect the **red** battery cable to the **positive (+)** terminal of the inverter and the positive (+) terminal of your 12V battery.
 - Connect the **black** battery cable to the **negative (-)** terminal of the inverter and the negative (-) terminal of your 12V battery.
 - Ensure all connections are tight and secure to prevent loose connections, which can cause overheating or damage.
4. **Connect Grounding Wire:** Connect one of the provided earth wires to the grounding terminal on the inverter and the other end to a proper ground point (e.g., vehicle chassis, earth rod). This is a critical safety step.
5. **Connect Remote Control (Optional):** If you wish to use the remote control, plug its cable into the designated remote port on the inverter.
6. **Initial Power-Up:** Once all connections are secure, connect or turn on your 12V DC power source. The inverter's LED display should illuminate.

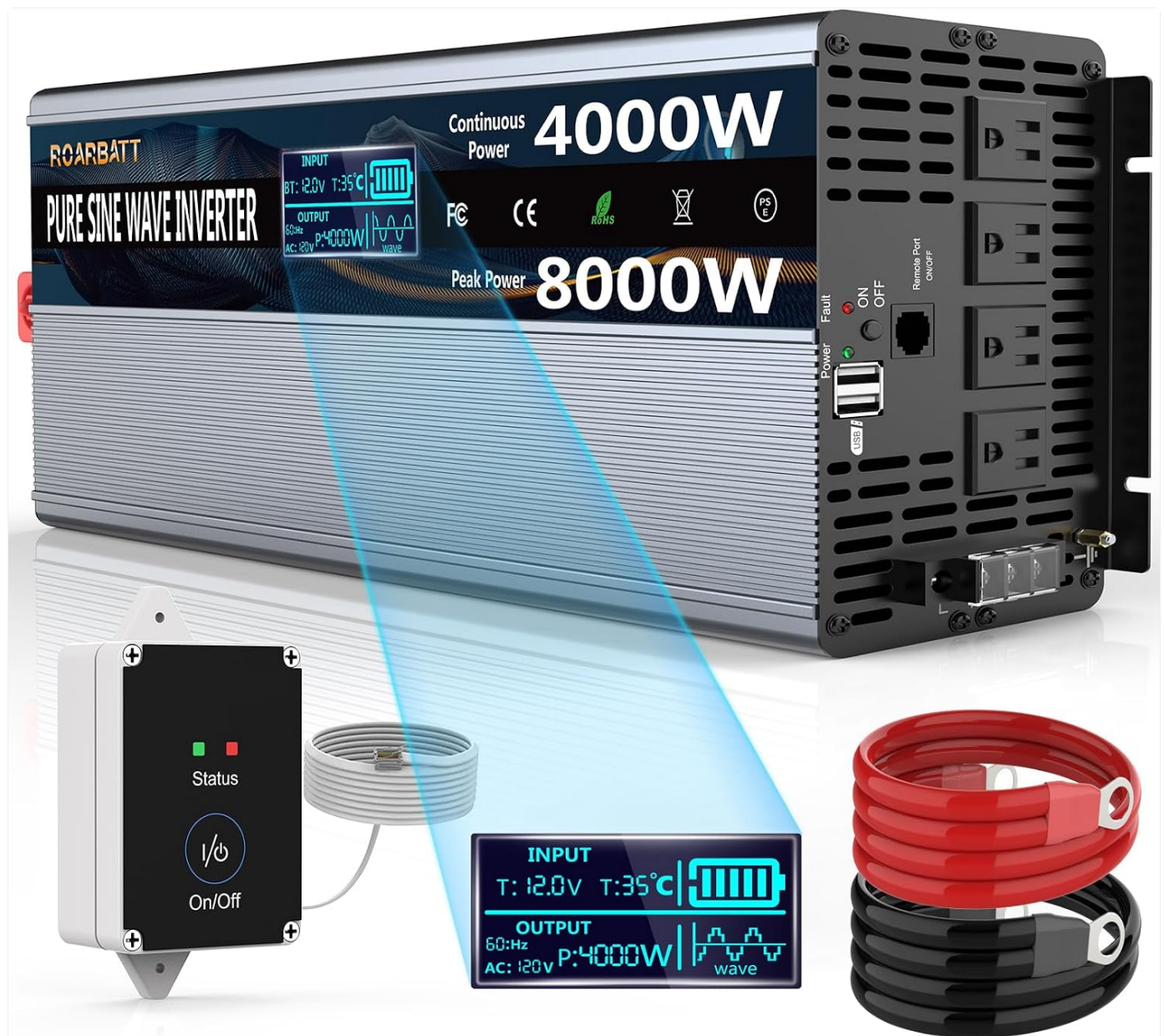


Figure 4.1: Overview of the inverter and its connection accessories.



Figure 4.2: Detail of the inverter's output ports and terminal block for high-power loads.

5. OPERATING INSTRUCTIONS

Once the inverter is properly set up, you can begin using it to power your AC appliances.

1. **Turning On/Off:** Use the ON/OFF switch on the inverter or the remote control to power the unit on or off.
2. **Monitoring with LED Display:** The integrated LED display provides real-time information:
 - **BT:** Input voltage data (battery voltage).
 - **T:** Working temperature of the inverter.
 - **AC:** Output voltage.
 - **Battery Icon:** Indicates battery power level.
 - **Wave:** Confirms Pure Sine Wave output.
3. **Connecting Appliances:** Plug your 110V/120V AC appliances into the AC outlets. For high-power loads, utilize the AC Terminal Blocks. You can also charge USB devices via the 5V 3.4A USB ports.
4. **Load Management:** Ensure the total continuous power draw of your appliances does not exceed the inverter's rated continuous power (4000W). Be mindful of the starting (surge) power of certain appliances, which can be up to 8000W for a short duration.

Figure 5.1: Understanding the Intelligent LED Display and its indicators.

ROARBATT REMOTE CONTROLLER

An Essential Source of Power for Travel

ON or OFF
STATUS

Normal Use Fault State

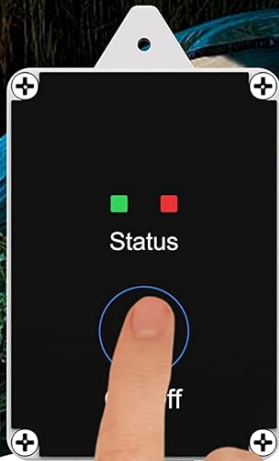


Figure 5.2: Using the remote control for convenient operation.

PURE SINE WAVE INVERTER

Ideal for Sensitive Loads



Figure 5.3: Examples of sensitive loads and appliances compatible with the inverter.

6. MAINTENANCE

To ensure the longevity and optimal performance of your ROARBATT Power Inverter, regular maintenance is recommended:

- **Keep Clean:** Regularly wipe down the exterior of the inverter with a dry, soft cloth to remove dust and debris. Do not use liquid cleaners.
- **Ensure Ventilation:** Periodically check that the cooling fan vents are clear of obstructions to allow for proper airflow. A built-in cooling fan helps maintain safe operating temperatures.
- **Check Connections:** Routinely inspect all battery cable connections and the grounding wire to ensure they remain tight and free from corrosion. Loose connections can lead to power loss or overheating.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No Output / Inverter Not Turning On	Loose battery connections, low battery voltage, faulty fuse, inverter switch off.	Check battery cable connections for tightness. Ensure battery voltage is sufficient (above 10.5V for 12V system). Check and replace fuses if blown. Ensure the ON/OFF switch is in the 'ON' position.
Error Code 'Err H1' (Input/Output High Voltage Protection)	Input voltage is too high.	Verify the input voltage from your battery. Ensure it does not exceed the inverter's maximum input voltage (typically 15.5V for 12V systems). Disconnect and reconnect if voltage stabilizes.
Error Code 'Err L0' (Input Low Voltage Protection)	Input voltage is too low.	Recharge or replace the battery. The inverter will shut down to protect the battery from deep discharge.
Error Code 'Err OH' (High Temperature Protection)	Overheating due to excessive load, poor ventilation, or high ambient temperature.	Reduce the load on the inverter. Ensure adequate ventilation around the unit. Allow the inverter to cool down. Clean any dust from the fan vents.
Error Code 'Err OL' (Over Current Protection) / Overload Protection	Connected appliance(s) draw too much power, exceeding the inverter's capacity.	Disconnect the appliance(s) causing the overload. Reduce the total load to within the inverter's continuous power rating (4000W). Restart the inverter.
Short Circuit Protection	Short circuit detected in the output.	Immediately disconnect all loads. Check for any short circuits in the wiring or connected appliances. Rectify the short circuit before reconnecting loads and restarting the inverter.

If the problem persists after attempting these solutions, please contact ROARBATT customer service for further assistance.

8. SPECIFICATIONS

Specification	Value
Model Name	4000W Pure Sine Wave Power Inverter
Item Model Number	4000PSWI
Continuous Power	4000W
Peak Power	8000W
Input DC Voltage	12V
Output AC Voltage	110V / 120V
USB Output	5V DC, Max. 3.4A (2 ports)
No-Load Current Draw	0.6 ± 0.1A
Product Dimensions	18.3 x 7.2 x 3.9 inches (46.5 x 18.3 x 10 cm)

Specification	Value
Item Weight	15.82 pounds
Working Temperature	0~40°C
Storage Temperature	-10~45°C
Remote Controller Cable Length	15ft



Figure 8.1: Inverter dimensions and key protection features.

9. WARRANTY AND SUPPORT

ROARBATT is committed to providing high-quality products and excellent customer service. Your ROARBATT 4000W Pure Sine Wave Power Inverter comes with dedicated customer support.

- **Customer Service:** We provide 24 hours friendly customer service. If you have any questions, concerns, or require assistance with your product, please do not hesitate to contact us.
- **Warranty Information:** For detailed warranty terms and conditions, please refer to the product packaging or contact ROARBATT customer support directly.

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