WZRELB SPVC10K24V

WZRELB 10000W 24V Pure Sine Wave Split Phase Power Inverter

Model: SPVC10K24V User Manual

1. Introduction

This manual provides essential information for the safe and efficient operation of your WZRELB 10000W 24V Pure Sine Wave Split Phase Power Inverter. Please read this manual thoroughly before installation and use, and retain it for future reference.

2. Safety Instructions

- **Read All Instructions:** Before operating the inverter, read all instructions and cautionary markings on the inverter, the batteries, and all appropriate sections of this manual.
- **Qualified Personnel:** Installation and maintenance should only be performed by qualified personnel.
- **Ventilation:** Ensure adequate ventilation around the inverter. Do not install in a zero-clearance compartment.
- **Avoid Moisture:** Do not expose the inverter to rain, snow, spray, or bilge water.
- **Proper Battery Connection:** Connect the inverter to a 24V battery system only. Incorrect voltage can damage the inverter.
- **Grounding:** Ensure the inverter is properly grounded to prevent electrical shock.
- **Emergency Disconnect:** Know how to quickly disconnect power in an emergency.

3. Package Contents

Upon opening the package, verify that all components are present and undamaged:

- WZRELB 10000W 24V Pure Sine Wave Split Phase Power Inverter

- DC Connection Cables (AWG5 cables, typically 2 black for negative, 2 red for positive)
- Fuses
- User Manual

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Video: Unboxing and overview of the WZRELB Pure Sine Wave Inverter, showing included cables and manual. Note: Video title mentions 6000W, but content is relevant to general inverter features and setup.

4. Product Overview

The WZRELB 10000W 24V Pure Sine Wave Split Phase Power Inverter converts 24V DC battery power to 120V/240V AC power. It features a high efficiency design, an LCD display for monitoring, and multiple protection functions.

4.1. Front Panel (AC Output)

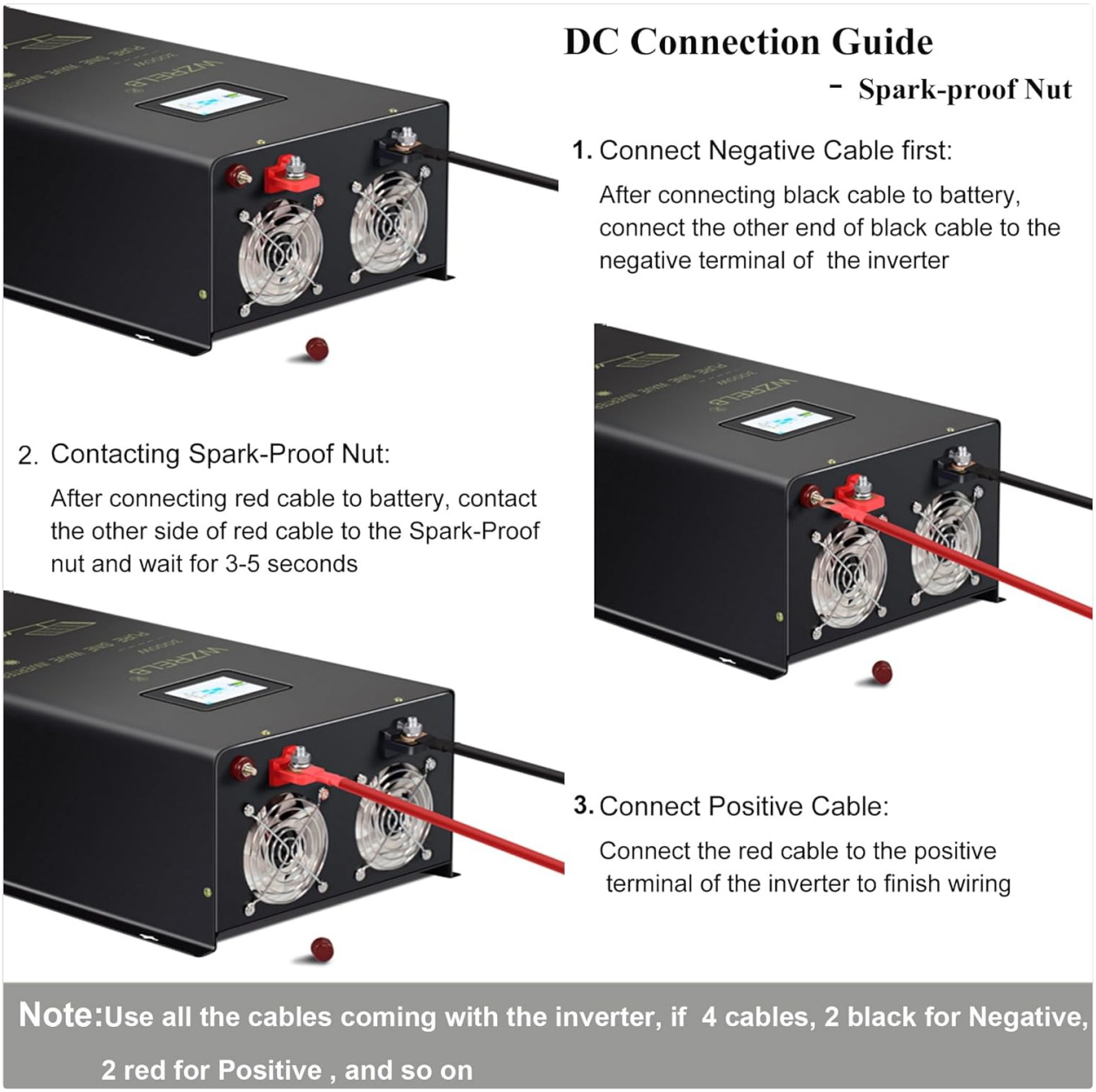

Image: Front panel of the inverter with two 120V AC outlets and hardwire terminals for 120V and 240V output.

- **120VAC Outlets:** Two standard 120V AC outlets, each supporting up to 5000W.
- **240VAC Hardwire Terminal (3-wire):** For 240V AC output, up to 10KW max (L+N=240V).

- **Multi-mode Hardwire Terminal (4-wire):** Supports L1+L2=240V, L1+N=120V, L2+N=120V, allowing simultaneous 120VAC and 240VAC output.
- **Power Switch:** To turn the AC output on or off.
- **Ground Wire Connector:** For safety grounding.

4.2. Rear Panel (DC Input)

Image: Rear panel of the inverter, featuring positive and negative DC input terminals and cooling fans.

- **Positive (+) Terminal:** Red terminal for positive battery connection.
- **Negative (-) Terminal:** Black terminal for negative battery connection.
- **Cooling Fans:** Temperature-controlled fans for efficient heat dissipation.
- **Spark-Proof Nut:** Designed to minimize sparks during connection.

4.3. LCD Display

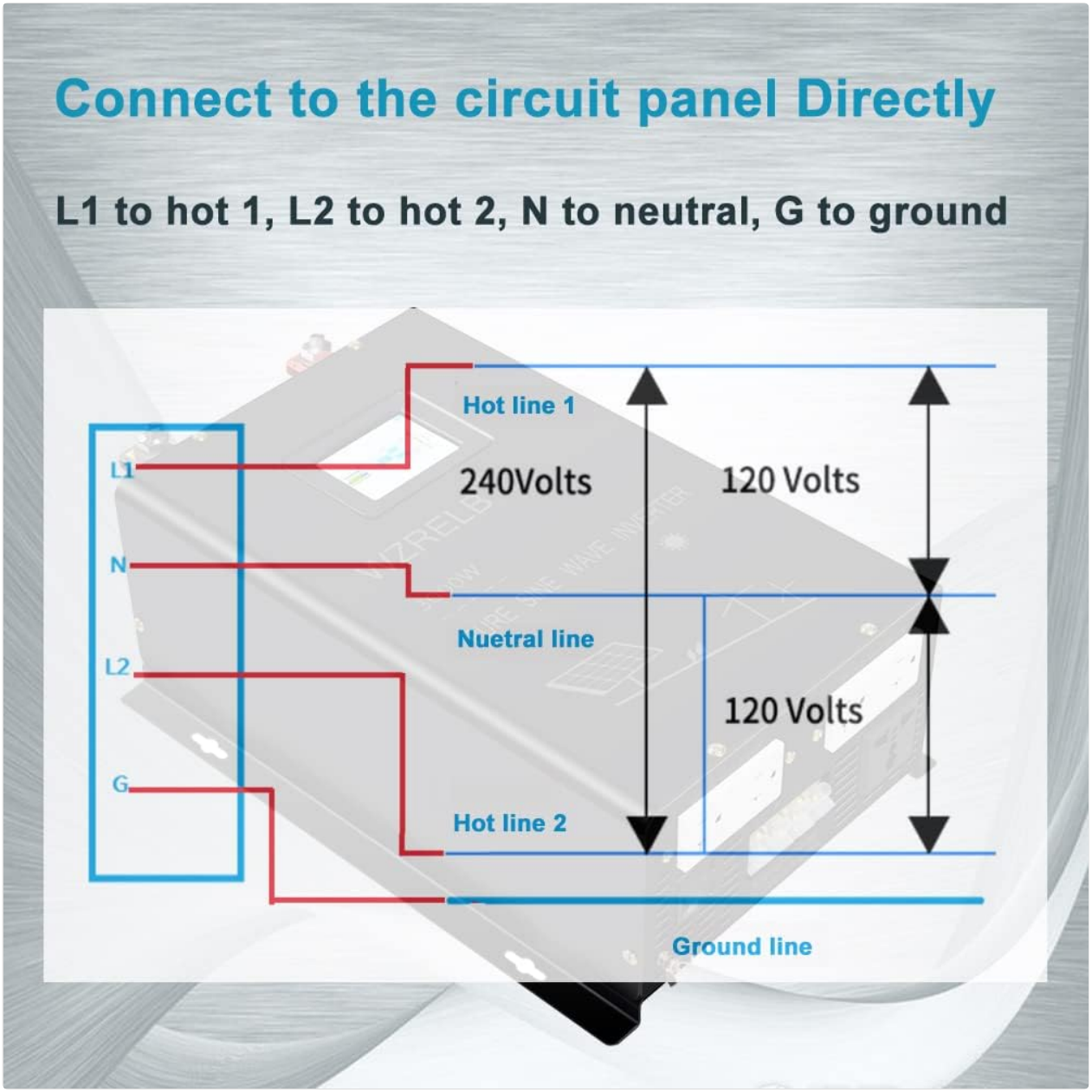

Image: LCD display showing various operational parameters of the inverter.

The LCD display provides real-time monitoring of the inverter's status:

1. Inverter working status (Normal/Fault)
2. Working temperature inside the inverter
3. Battery voltage and capacity
4. AC1 120V voltage and amperage
5. AC2 120V voltage and amperage
6. Output of 240V and frequency (60Hz)

5. Installation

5.1. DC Battery Connection (24V System)

The inverter requires a 24V DC battery system. For a 24V system using two 12V batteries, connect them in series (positive of one battery to negative of the other). Ensure the battery bank is properly sized for your power needs.

Image: Step-by-step guide for connecting DC cables to the inverter, emphasizing spark-proof connection.

1. **Connect Negative Cable First:** After connecting the black cable(s) to the battery's negative terminal, connect the other end of the black cable(s) to the inverter's negative terminal.
2. **Contact Spark-Proof Terminal:** Briefly touch the spark-proof terminal with the positive cable for 3-5 seconds to discharge any residual capacitance.
3. **Connect Positive Cable:** Connect the red cable(s) to the battery's positive terminal, then connect the other end to the inverter's positive terminal.

Important: Use all provided cables. For 4 cables, use 2 black for negative and 2 red for positive. Ensure all connections are tight to maintain stable current flow.

5.2. AC Output Wiring

The inverter supports both 120V and 240V AC output. You can use the standard 120V outlets or the hardwire terminals for direct connection to your electrical panel.

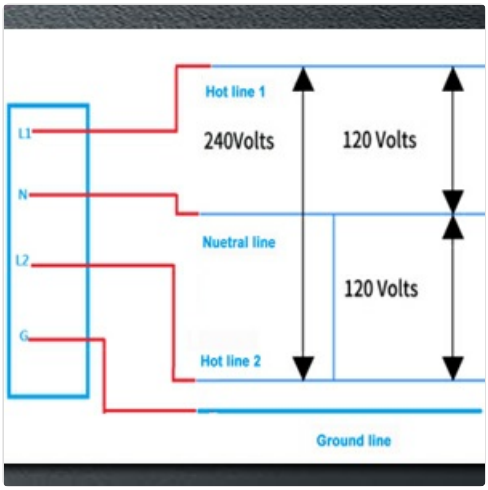

Image: Detailed view of the AC output terminals, including L1, N, L2, and G (Ground) connections.

For hardwire connections:

- **L1 to Hot 1**
- **L2 to Hot 2**
- **N to Neutral**
- **G to Ground**

The inverter can run 120V and 240V appliances simultaneously. Ensure the total amperage does not exceed 25A for the connection.

6. Operation

Once the inverter is properly installed and connected to the battery bank, press the power switch on the front panel to turn it on. The LCD display will illuminate, showing the current operational status.

6.1. Connecting Appliances

Plug your 120V AC appliances into the standard outlets or connect 120V/240V appliances to the hardwire terminals. Ensure the total wattage of connected appliances does not exceed the inverter's continuous power rating of 10000W.

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Video: Demonstrates various applications of the inverter, powering appliances like electric stoves, baking pans, air fryers, and refrigerators. Note: Video title mentions 6000W, but content is relevant to general inverter applications.

The inverter is compatible with a wide range of appliances, including those for home, cabin, mobile business, RV, trailer, semi-truck, and boat use. It supports AGM, gel, flooded, lead-acid, and lithium-ion batteries.

7. Protection Features

The WZRELB inverter is equipped with multiple protection features to ensure safe and reliable operation:

- **Temperature-Controlled Cooling Fan:** Activates automatically to prevent overheating.
- **Low Voltage Alarm/Shutdown:** Protects batteries from over-discharge.
- **High Voltage Alarm/Shutdown:** Protects the inverter and connected devices from over-voltage.
- **Overload Protection:** Shuts down if connected load exceeds capacity.
- **Short Circuit Protection:** Prevents damage from short circuits.
- **Over Temperature Protection:** Shuts down if internal temperature becomes too high.
- **Internally Fused:** Provides additional circuit protection.
- **Battery Reverse Polarity Protection:** Guards against incorrect battery connections.

Image: Overview of the inverter highlighting its robust protection features.

8. Specifications

Feature	Specification
Brand	WZRELB
Model Name	SPVC10K24V

Wattage (Continuous)	10000 watts
Peak Output Power	20000 watts
Input Voltage	24 Volts DC
Output Voltage	120 Volts AC, 240 Volts AC
Electrical Output Waveform	Pure Sine Wave
Efficiency	Up to 91.6%
Display Type	LCD
Item Dimensions (L x W x H)	23"L x 12"W x 6.2"H
Item Weight	37 Pounds
Color	Black
Built-In Media	Inverter, Cables, Fuse
Energy Specifications Met	UL

9. Maintenance

- **Regular Cleaning:** Keep the inverter clean and free from dust and debris. Use a dry cloth for cleaning.
- **Check Connections:** Periodically inspect all DC and AC connections to ensure they are tight and free from corrosion.
- **Ventilation:** Ensure cooling fans are not obstructed and operate freely.
- **Battery Health:** Monitor your battery bank's health and charge levels regularly to prolong their lifespan and ensure optimal inverter performance.

10. Troubleshooting

If you encounter issues with your inverter, refer to the LCD display for error codes or status messages. Common issues and basic troubleshooting steps include:

- **No Power Output:** Check battery connections, ensure the inverter is turned on, and verify battery voltage is within the operating range. Check for tripped circuit breakers or blown fuses.
- **Overload Shutdown:** Reduce the load connected to the inverter. Ensure the total wattage of appliances does not exceed the inverter's capacity.
- **Low/High Voltage Shutdown:** Check battery voltage. If low, recharge batteries. If high, check charging system.
- **Over Temperature Shutdown:** Ensure adequate ventilation around the inverter. Clear any obstructions from the cooling fans. Allow the inverter to cool down.
- **Short Circuit:** Disconnect all loads and check for any short circuits in your wiring or appliances.

For persistent issues, contact customer support.

11. Warranty

The WZRELB 10000W 24V Pure Sine Wave Split Phase Power Inverter comes with a**1-year warranty** from the date of purchase. This warranty covers manufacturing defects and workmanship under normal use. It does not cover damage caused by misuse, improper installation, accidents, or unauthorized modifications.

Please retain your proof of purchase for warranty claims.

12. Customer Support

For technical assistance, warranty claims, or any questions regarding your WZRELB inverter, please contact WZRELB customer support through the retailer where you purchased the product or visit the official WZRELB website for contact information.