LVYUAN 2000W (F-2000P)

LVYUAN 2000W Pure Sine Wave Power Inverter User Manual

Model: 2000W (F-2000P)

1. Introduction

This manual provides essential information for the safe and efficient operation of your LVYUAN 2000W Pure Sine Wave Power Inverter. This device converts 12V DC battery power into 120V AC household power, suitable for various applications including RVs, trucks, outdoor activities, and solar power systems. Please read this manual thoroughly before installation and use.

2. Safety Information

Adhering to these safety guidelines is crucial to prevent injury and damage to the inverter or connected devices.

- **Proper Ventilation:** Ensure the inverter is installed in a well-ventilated area to prevent overheating.
- **Correct Polarity:** Always connect the positive (+) terminal first, then the negative (-) terminal. Incorrect polarity can cause severe damage.
- **Secure Connections:** Ensure all cable connections are tight to prevent loose connections, which can lead to heat generation, efficiency loss, terminal melting, and insulation degradation. Use a torque wrench to confirm proper tightening.
- **Avoid Overload:** Do not exceed the inverter's rated continuous power output (2000W) or peak power (4000W).
- **Environmental Conditions:** Avoid exposing the inverter to moisture, water, or extreme temperatures.
- **Qualified Personnel:** Installation and servicing should ideally be performed by qualified personnel.
- **Protection Features:** The inverter includes overload, short circuit, overheating, reverse polarity, and under/over voltage protection. Understand these features for safe operation.



Figure 2.1: Importance of Correct and Secure Connections. Always connect the positive terminal first, then tap the negative cable to the battery terminal once for preliminary discharge before fully tightening. Confirm no further rotation is possible using a torque wrench.

3. Package Contents

Verify that all items are present in the package:

- LVYUAN 2000W Pure Sine Wave Power Inverter
- Battery Cables (1 pair, red for positive, black for negative)
- Remote Control (1 pc)
- Extra Fuses (6 pcs)



Figure 3.1: Inverter and Included Accessories. The package includes the inverter unit, two 15.75-inch battery cables, one remote control, and six extra fuses.

4. Product Overview

Familiarize yourself with the components of your power inverter.

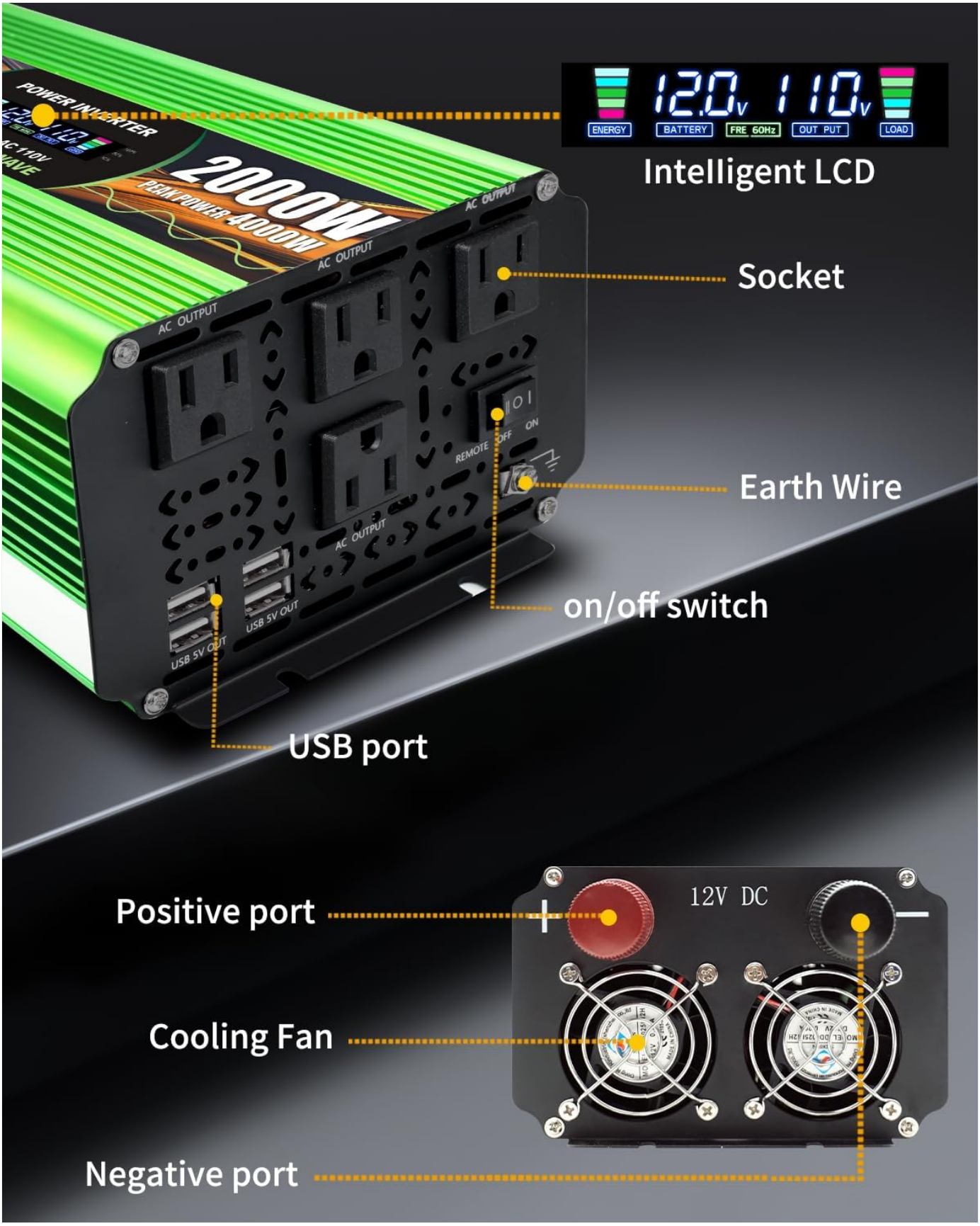


Figure 4.1: Inverter Components. Key components include the Intelligent LCD display, multiple AC sockets, an Earth Wire connection, an on/off switch, USB ports, positive and negative DC input terminals, and cooling fans.

4.1. Intelligent LCD Display

The LCD display provides real-time operational status and diagnostic information.

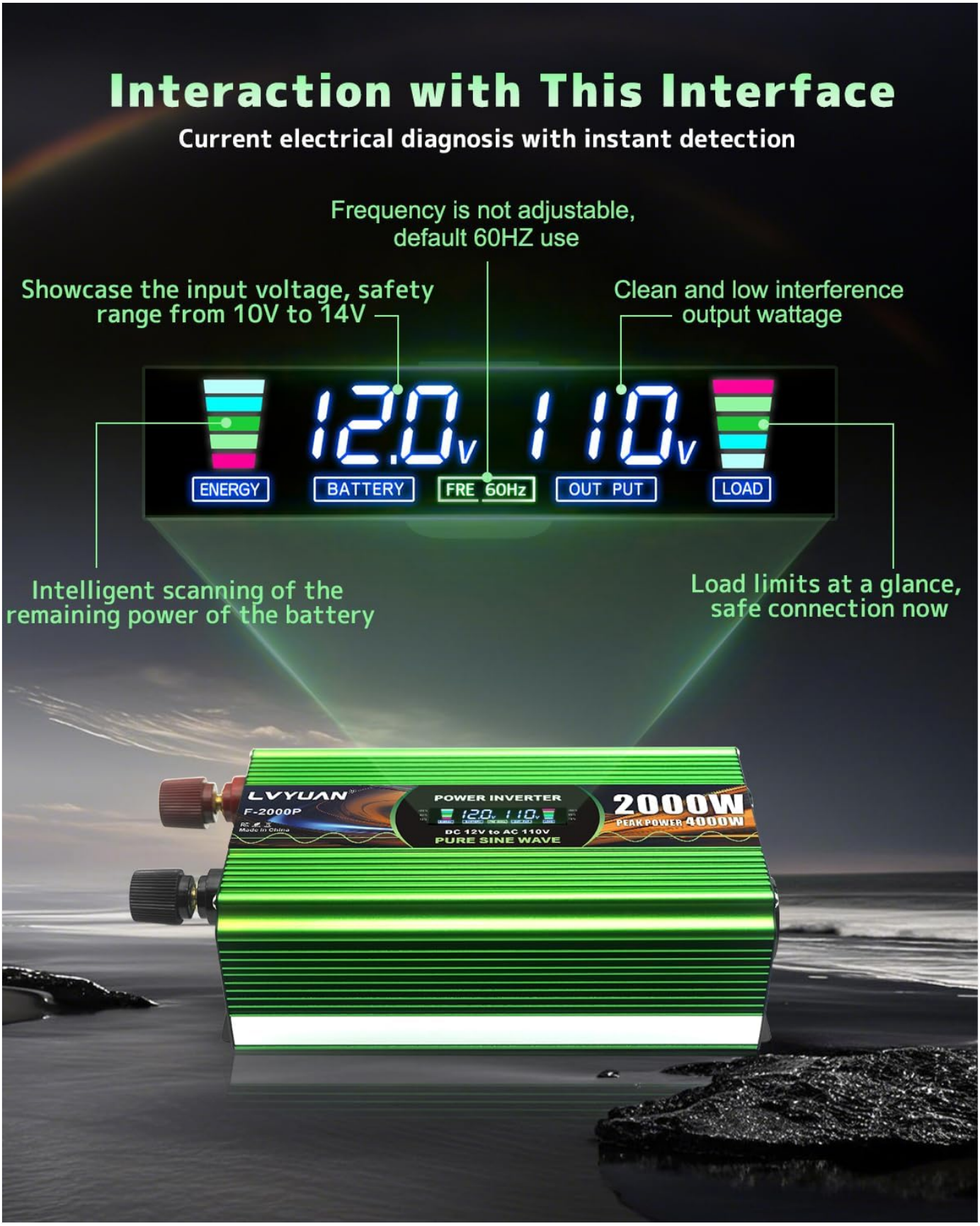


Figure 4.2: LCD Display Interface. The display shows input voltage (safety range 10V to 14V), output voltage (default 60Hz), remaining battery power, and current load levels for instant electrical diagnosis.

4.2. Remote Control

The inverter comes with a portable remote control for convenient power management.



Figure 4.3: Remote Control and USB Ports. The remote control panel provides a stable connection for monitoring and toggling power. The inverter also features 20W Type-C and 5V 3.1A USB ports.

5. Setup and Installation

Follow these steps to properly set up your LVYUAN power inverter.

5.1. Connecting to a 12V DC Power Source

1. Ensure the inverter's power switch is in the OFF position.
2. Connect the red (positive) battery cable to the inverter's positive (+) terminal. Secure it firmly.
3. Connect the black (negative) battery cable to the inverter's negative (-) terminal. Secure it firmly.
4. Connect the other end of the red (positive) battery cable to the positive (+) terminal of your 12V DC battery.
5. Connect the other end of the black (negative) battery cable to the negative (-) terminal of your 12V DC battery. Ensure all connections are tight and secure.

Your browser does not support the video tag.

Video 5.1: Inverter Connection Demonstration. This video illustrates the correct procedure for connecting the LVYUAN power inverter to a 12V DC battery, showing the attachment of positive and negative cables to both the inverter and the battery terminals.

5.2. Remote Control Connection

The remote control connects to the inverter via a cable (not explicitly shown in package contents but implied by remote control image). Plug the remote control cable into the designated port on the inverter.

6. Operating Instructions

Learn how to operate your inverter effectively.

6.1. Powering On/Off

- **To Power On:** After ensuring all connections are secure, press the ON/OFF switch on the inverter or the 'ON' button on the remote control. The LCD display will illuminate, showing operational status.
- **To Power Off:** Press the ON/OFF switch on the inverter or the 'OFF' button on the remote control.

6.2. Connecting AC Devices

Plug your 120V AC devices into the inverter's AC outlets. For USB-powered devices, use the available USB ports.



Figure 6.1: Versatile Applications. The inverter is suitable for RV energy, workshop power, portable power needs, and home PV systems.

6.3. Example Applications and Power Consumption

The 2000W inverter can power a wide range of devices. Always check the wattage requirements of your appliances.

- **Outdoor Use:** Electric Chainsaw (1200W), Electric Drill (400W-800W), Circular Saw (1350W), Weeders (550W), Angle Grinder (600W), Electric Hammer (1400W).
- **Camping/RV Use:** Light (10W), Fan (40W), Air Conditioner (1150W), Coffee Machine (550W), Projector (100W), Car

Refrigerator (60W).

- **Home Use:** Refrigerator (15W-520W), Air Conditioner (1150W), Microwave Oven (1160W), Oven (800W), Router (15W), TV (150W).



Figure 6.2: Powering Tools. The inverter supports various power tools for outdoor or workshop use.



Figure 6.3: Powering Outdoor and Camping Appliances. Common appliances like coffee makers and air conditioners can be powered.



Figure 6.4: Powering Home Appliances. The inverter can support essential home appliances during power outages or off-grid living.

7. Maintenance

Regular maintenance ensures optimal performance and longevity of your inverter.

- **Keep Clean:** Periodically clean the inverter's exterior with a dry cloth. Ensure ventilation openings are free from dust and debris.
- **Check Connections:** Regularly inspect battery and output connections for tightness and corrosion. Tighten as necessary.
- **Storage:** If storing the inverter for an extended period, disconnect it from the battery and store it in a cool, dry place.

8. Troubleshooting

The inverter features four distinct protection modes to help diagnose issues. Refer to the LCD display for error codes or indicators.

- **No Output Power:** Check battery connections, ensure the inverter is switched ON, and verify the battery voltage is within the operating range (10V-14V).
- **Overload Protection:** If the inverter shuts down due to overload, reduce the connected load and restart the inverter.
- **Overheating:** Ensure adequate ventilation. If the inverter overheats, it will shut down. Allow it to cool down before restarting. Dual high-efficiency cooling fans help maintain optimal temperature.
- **Low/High Voltage Protection:** The inverter will shut down if the input DC voltage is too low or too high to protect the battery and inverter. Check your battery's charge level or charging system.
- **Short Circuit Protection:** If a short circuit is detected, the inverter will shut down. Disconnect the faulty device and restart.
- **Remote Control Issues:** Ensure the remote control cable is securely connected. Check the remote's battery if applicable (for wireless models).

9. Specifications

Model Name	2000W (F-2000P)
Continuous Wattage	2000 watts
Peak Power	4000 watts
Input Voltage	12V DC
Output Voltage	120V AC
Output Waveform	Pure Sine Wave
Efficiency	>90%
Product Dimensions	5.5 x 3.9 x 12.6 inches
Item Weight	9.08 pounds
Power Source	Solar and Battery Powered
Manufacturer	Guangzhou LVYUAN Technology Co., Ltd.

10. Warranty and Support

For warranty information or technical support, please refer to the contact details provided with your purchase or visit the official

LVYUAN website. Keep your purchase receipt for warranty claims.

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

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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