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> JIGUUN 1500W Pure Sine Wave Inverter with 30A Charger and UPS Function User Manual

JIGUUN 1500W12V

JIGUUN 1500W Pure Sine Wave Inverter User Manual

Model: 1500W12V

1. INTRODUCTION

The JIGUUN 1500W Pure Sine Wave Inverter is designed to convert 12V DC power from batteries into high-quality 230V AC power, suitable for a wide range of electronic equipment and household appliances. With a continuous output of 1500W and a peak power of 3000W, this inverter features advanced pure sine wave technology for stable and efficient operation. It also includes an integrated 30A charger, mains priority circuit, and UPS (Uninterruptible Power Supply) function to ensure continuous power supply during outages. A wireless remote control and an intelligent LCD display provide convenient monitoring and control.



Image 1.1: JIGUUN 1500W Pure Sine Wave Inverter in an outdoor setting.

2. SAFETY INSTRUCTIONS

Please read and understand all safety instructions before installing or operating the inverter. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Ventilation:** Ensure the inverter is installed in a well-ventilated area to prevent overheating. Do not block ventilation openings.
- **Environment:** Avoid exposure to water, moisture, direct sunlight, heat sources, or flammable materials. Operate the inverter in a dry, cool environment.
- **Electrical Connections:** All wiring must comply with local electrical codes and regulations. Use appropriate gauge cables for DC and AC connections. Ensure all connections are tight and secure to prevent loose contacts and overheating.

- **Grounding:** The inverter must be properly grounded. Connect the ground terminal to an appropriate earth ground.
- **Battery Safety:** Work with batteries in a well-ventilated area. Wear eye protection and gloves. Avoid short-circuiting battery terminals.
- **Maintenance:** Disconnect all power sources before performing any maintenance or cleaning. Do not attempt to open or service the inverter yourself; refer to qualified service personnel.
- **Children:** Keep the inverter and its components out of reach of children.



Image 2.1: Inverter protection features.

3. PRODUCT FEATURES

The JIGUUN 1500W Pure Sine Wave Inverter offers a range of advanced features for reliable power conversion and management:

- **Pure Sine Wave Output:** Converts 12V DC to 230V AC with a pure sine wave, ensuring compatibility with sensitive electronics and reducing harmonic distortion. Continuous output of 1500W, with a peak power of 3000W.
- **Integrated 30A Charger:** Features an advanced Power Factor Correction (PFC) charging function with a maximum charging current of 30A, providing efficient battery charging.

- **Mains Priority & UPS Function:** Automatically switches to inverter power within 20 milliseconds during a power outage, ensuring an uninterrupted power supply for connected devices. Prioritizes mains power when available.
- **Wireless Remote Control:** Allows convenient control of the inverter from a distance, enhancing usability in various setups.
- **Intelligent LCD Display:** Provides real-time monitoring of input/output voltage, input/output frequency, load voltage, operating time, and error messages.
- **Multiple Protection Mechanisms:** Built-in safeguards against overload, overvoltage, undervoltage, overheating, and short circuits to protect both the inverter and connected devices.
- **Versatile Output:** Equipped with two EU standard AC outlets and a 2.4A USB charging port for various power needs.

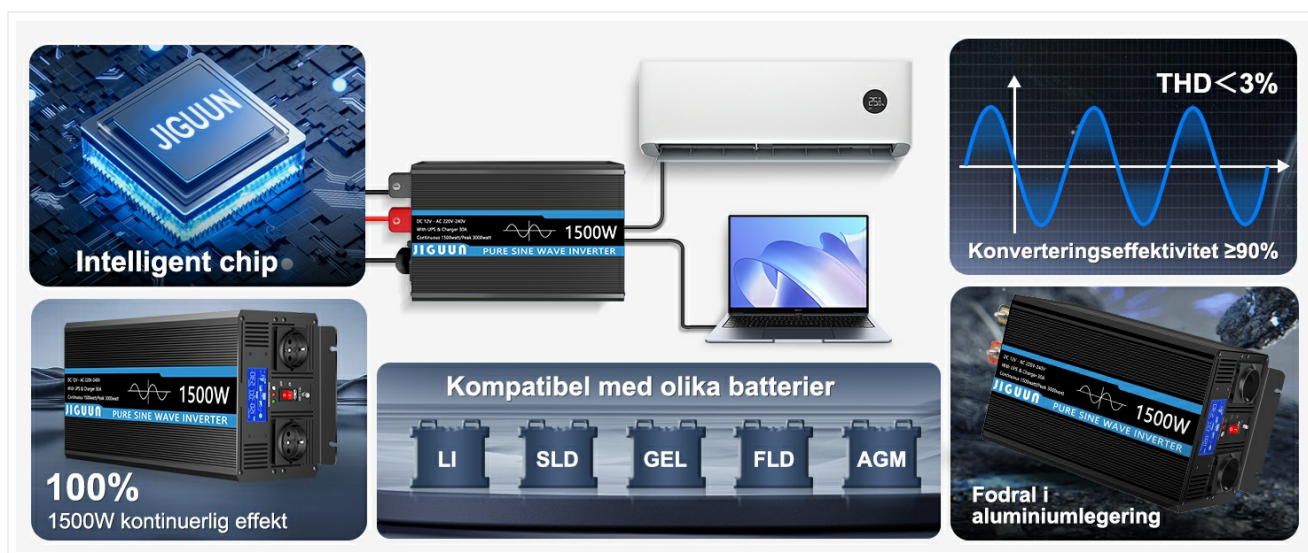


Image 3.1: Key features including intelligent chip and battery compatibility.

Smart Charging Process

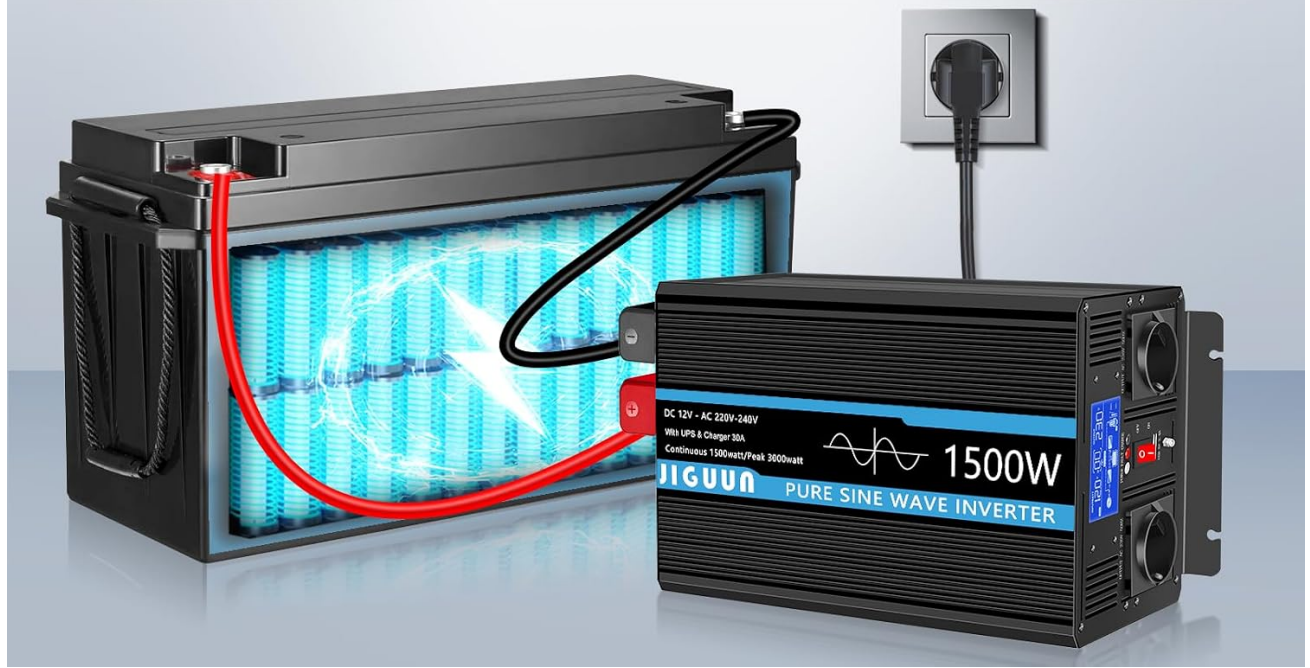
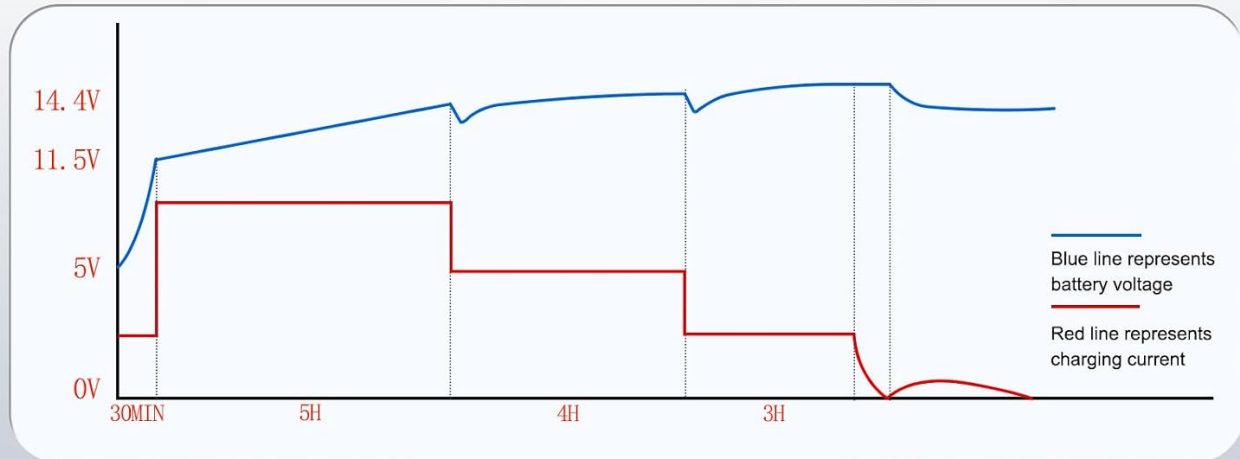


Image 3.2: Smart charging process diagram.

4. PACKAGE CONTENTS

Upon unpacking, please verify that all items listed below are included in your package:

- 1 × JIGUUN 1500W Pure Sine Wave Inverter (12V to 230V)
- 1 × User Manual
- 1 × Battery Cable Set (1 red, 1 black)
- 1 × Wireless Remote Control
- 1 × Earth Ground Cable
- 2 × Protective Covers
- 4 × Fuses

What's in the Box

Equipped with an Array of Accessories



Image 4.1: What's in the Box.

5. PRODUCT OVERVIEW

Familiarize yourself with the various parts and connections of your JIGUUN 1500W Inverter.



Image 5.1: Front and Rear Panel Overview.

Front Panel Components:

- **LCD Display:** Shows operational status and error codes.
- **Power Indicator:** LED light indicating power status.
- **ON/OFF Switch:** Main power switch for the inverter.
- **AC Outlets (x2):** Standard EU sockets for connecting AC appliances.
- **USB Port:** 2.4A USB output for charging devices.
- **Ground Connection:** Terminal for connecting the earth ground cable.

Rear Panel Components:

- **DC Negative Terminal:** Connects to the negative terminal of the battery.
- **DC Positive Terminal:** Connects to the positive terminal of the battery.
- **AC Input:** For connecting to mains power when using the charger and UPS functions.
- **Input AC Fuse:** Protection for the AC input circuit.

- **Cooling Fans (x2):** Automatically activate to dissipate heat during operation.

6. SETUP AND INSTALLATION

Follow these steps for proper installation of your inverter:

1. **Mounting:** Choose a dry, cool, and well-ventilated location for mounting the inverter. Ensure there is sufficient space around the unit for airflow.
2. **Battery Connection:**
 - Connect the **red** battery cable to the **positive (+)** DC terminal on the inverter and the positive terminal of your 12V battery.
 - Connect the **black** battery cable to the **negative (-)** DC terminal on the inverter and the negative terminal of your 12V battery.
 - Ensure connections are tight and secure. Incorrect polarity will damage the inverter.
3. **Grounding:** Connect the included earth ground cable from the inverter's ground terminal to a reliable earth ground point.
4. **AC Input Connection (Optional, for Charger/UPS):** If using the integrated charger and UPS function, connect the inverter's AC input port to a standard 230V AC mains power outlet using a suitable power cord.
5. **AC Load Connection:** Plug your 230V AC appliances into the AC outlets on the front panel of the inverter. Do not exceed the inverter's continuous power rating of 1500W.

2 Modes - Inverter With Charger

20MS switching time enables rapid transition from mains to battery mode, ensuring uninterrupted power supply.

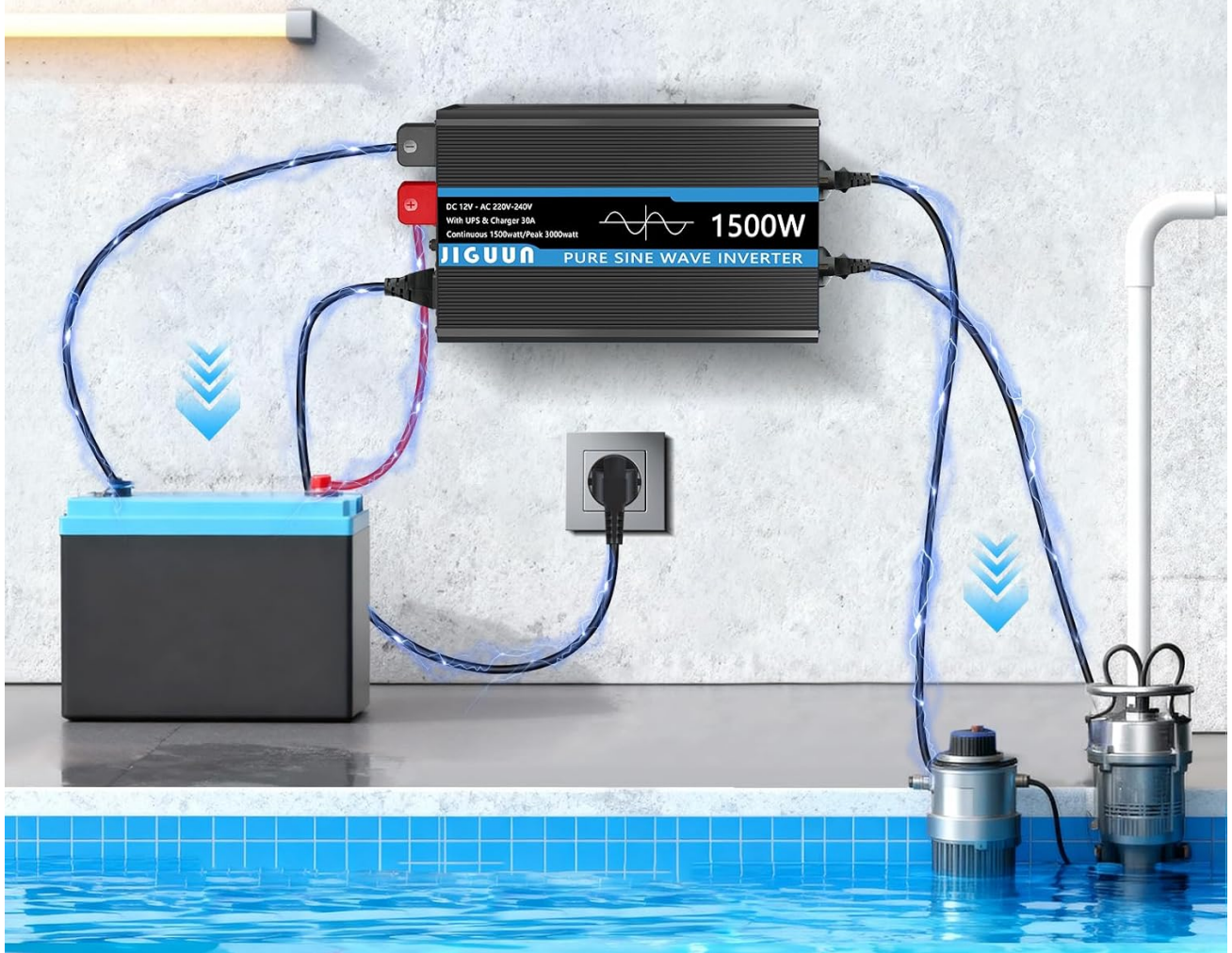


Image 6.1: Inverter connection example.

7. OPERATING INSTRUCTIONS

7.1 Powering On/Off

- **To Power On:** Ensure all connections are secure. Press the ON/OFF switch on the front panel. The LCD display will illuminate, and the inverter will begin operating.
- **To Power Off:** Disconnect all AC loads. Press the ON/OFF switch. The LCD display will turn off.

7.2 Using the Wireless Remote Control

The wireless remote control allows you to power the inverter on or off from a convenient distance.

- Press the power button on the remote control to toggle the inverter's power state.
- Ensure the remote control has fresh batteries and is within range of the inverter.

Easy Control Of Inverter

Convenience in limited space



Image 7.1: Wireless remote control in use.

7.3 LCD Display Information

The intelligent LCD display provides critical operational data:

- **Input Voltage:** Displays the DC voltage from the battery.
- **Output Voltage:** Shows the AC output voltage (e.g., 230V).
- **Input Frequency:** Relevant when AC input is connected.
- **Output Frequency:** Displays the AC output frequency (e.g., 50Hz).
- **Load Voltage:** Indicates the current load on the inverter.
- **Running Time:** Shows how long the inverter has been operating.
- **Error Message:** Displays specific error codes if a fault occurs.

Intelligent Lcd Display

- Input Voltage
- Output Voltage
- Input Frequency
- Output frequency
- Running time
- Error message

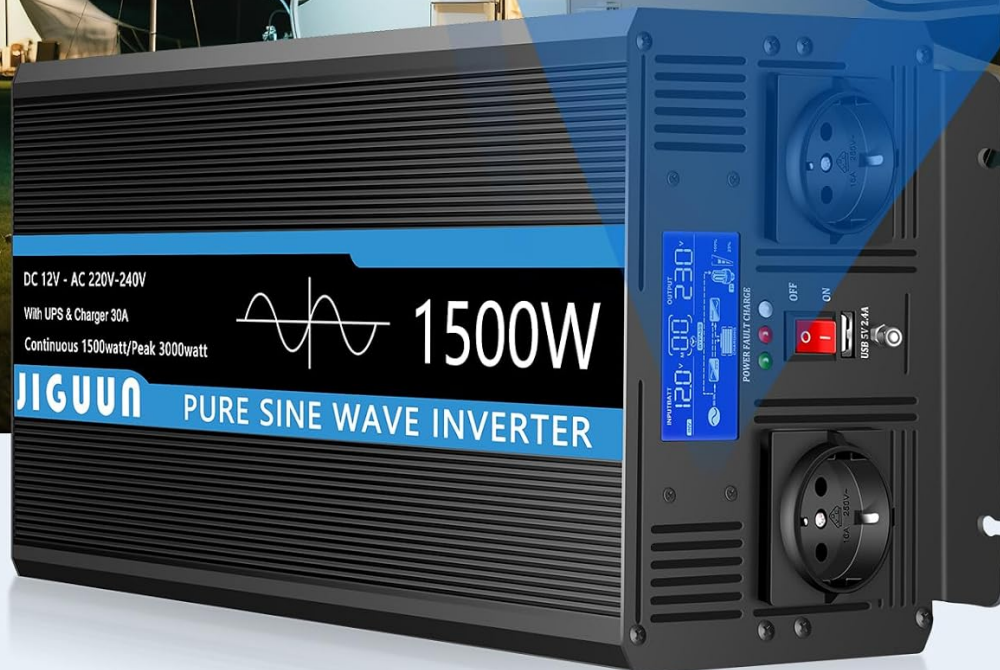
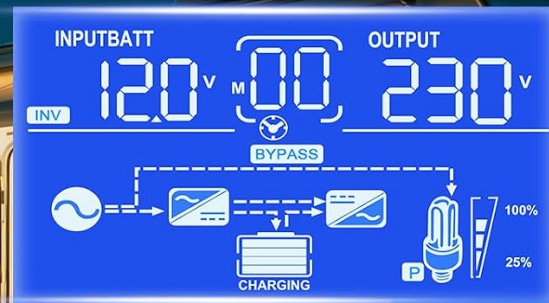


Image 7.2: Intelligent LCD display.

7.4 UPS and Mains Priority Function

When the inverter is connected to both a battery and an AC mains input, it operates in mains priority mode. It will use mains power to supply loads and charge the battery. If mains power fails, the inverter will automatically switch to battery power within 20 milliseconds, providing an uninterrupted power supply to connected devices.

Avbrottsfri strömförsörjning

Vid strömavbrott växlar 20MS sömlöst till växelriktarströmförsörjning (apparaten startar inte om)



Image 7.3: Uninterrupted power supply in action.

8. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your inverter:

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Ensure ventilation openings are free from dust and debris. Do not use liquid cleaners.
- **Connection Checks:** Regularly inspect all DC and AC connections for tightness. Loose connections can cause overheating and damage.
- **Battery Health:** Monitor your battery's health and charge level, especially if the inverter is used in an off-grid or backup power system.
- **Fuse Replacement:** If a fuse blows, replace it with a fuse of the same type and rating as specified in the manual or on the inverter. Always disconnect power before replacing fuses.

9. TROUBLESHOOTING

The LCD display provides error codes to help diagnose issues. Refer to the table below for common error codes and troubleshooting steps.

Intelligent LCD-display och trådlös fjärrkontroll

DC 12V - AC 220V-240V
With UPS & Charger 30A
Continuous 1500watt/Peak 3000watt

1500W
PURE SINE WAVE INVERTER

Trådlös fjärrkontroll
Bekvämlighet och effektivitet i begränsade utrymmen

Felkod	Felmeddelande
01	Överbelastning av utgång
02	Underspänning av batteri
03	Kortslutning av utgång, övertemperatur
04	Överspänning av batteri

Image 9.1: LCD display with error codes.

Error Code	Error Message	Possible Cause	Solution
01	Output Overload	Connected load exceeds inverter's continuous or peak power rating.	Reduce the connected load. Disconnect some appliances.
02	Battery Undervoltage	Battery voltage is too low. Battery is discharged or faulty.	Recharge the battery. Check battery connections and health.
03	Output Short Circuit, Overtemperature	Short circuit at the AC output or inverter is overheating.	Check AC output wiring for short circuits. Ensure adequate ventilation. Allow inverter to cool down.
04	Battery Overvoltage	Battery voltage is too high.	Check charging source (e.g., solar charger, mains charger) and battery voltage. Disconnect charging source if necessary.

General Troubleshooting Tips:

- If the inverter does not turn on, check battery connections and ensure the battery is charged.
- If there is no AC output, check the ON/OFF switch, AC load connections, and for any error codes on the LCD.
- If the remote control is not working, check its batteries and ensure it is within range.

10. SPECIFICATIONS

Specification	Value
Brand	JIGUUN
Model Name	1500W12V
Continuous Output Power	1500 Watts
Peak Output Power	3000 Watts
Input Voltage	12 Volt (DC)
Output Voltage	220 Volt (AC)
Output Waveform	Pure Sine Wave
Frequency	50 Hz
Charging Current (Max)	30A (PFC function)
UPS Switching Time	<20ms
Efficiency	≥90%
Display Type	LCD

Specification	Value
Item Weight	4 Kilograms
Certifications	CE
Recommended Uses	Boats, Camping, RVs, Off-grid systems, Outdoor work
UPC	784847722768
ASIN	B0F4JSFFWT

11. WARRANTY AND SUPPORT

JIGUUN stands behind the quality of its products.

- **Warranty:** This product comes with a one-year free replacement warranty from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use.
- **Customer Service:** For any questions regarding the use, performance, or troubleshooting of your JIGUUN inverter, please contact our friendly 24-hour customer service team.
- **Contact Information:** Please refer to the contact details provided on our official website or your purchase documentation for support.