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› Renogy 2000W 12V Pure Sine Wave Power Inverter Instruction Manual

## Renogy R-INVT-PUH1-201235

# Renogy 2000W 12V Pure Sine Wave Power Inverter

MODEL: R-INVT-PUH1-201235

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## Introduction

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This manual provides essential information for the safe and efficient operation of your Renogy 2000W 12V Pure Sine Wave Power Inverter. This device converts 12V DC battery power into 230V AC household power, suitable for a wide range of electronic devices and appliances. Please read this manual thoroughly before installation and use, and retain it for future reference.



Image: The Renogy 2000W Pure Sine Wave Power Inverter, a black rectangular unit with blue accents, shown in a typical outdoor setting.

## Safety Instructions

- **Electrical Safety:** Always ensure proper grounding. Do not expose the inverter to water, rain, or excessive moisture. Operate in a well-ventilated area.
- **Battery Connection:** Connect the inverter directly to a 12V deep cycle battery. Ensure correct polarity (positive to positive, negative to negative). Incorrect connections can damage the inverter and battery.
- **Load Capacity:** Do not exceed the inverter's continuous power rating of 2000W or peak power rating of 4000W. Overloading can cause damage and pose a fire hazard.
- **Ventilation:** Ensure adequate airflow around the inverter to prevent overheating. Do not block ventilation openings.
- **Children and Pets:** Keep the inverter out of reach of children and pets.
- **Maintenance:** Disconnect all power before performing any maintenance or cleaning.

## Package Contents

Verify that all items are present in the package:

- Renogy 2000W 12V 220V Pure Sine Wave Inverter x 1
- 20 mm<sup>2</sup> Cable x 1
- Remote Control (cable length: approximately 3m) x 1

## Top Quality Accessories

**Copper wire cable** carries enough current without getting too hot



Image: A close-up of a high-quality copper cable, indicating the type of accessory included for optimal performance.

### Product Features

- **Powerful DC-AC Conversion:** Provides 2000W continuous power (4000W peak) from 12V DC to 230V AC with 90% conversion efficiency.
- **Pure Sine Wave Technology:** Delivers stable, clean power comparable to grid electricity, protecting sensitive electronics and extending their lifespan.
- **Comprehensive Protection System:** Features LED indicators for under-voltage, over-voltage, over-temperature, overload, and short-circuit protection. Includes a cooling fan and internal DC fuse for enhanced safety.
- **Integrated Grid Priority Circuit:** Ensures continuous 230V power by automatically switching between shore power and inverter power.
- **Wide Application Range:** Suitable for PCs, laptops, tablets, medical devices, and various household appliances.
- **User-Friendly Design:** Equipped with 2 AC outlets and a remote control for convenient operation.
- **Durable Construction:** Robust metal casing protects against impacts. High-speed fans maintain optimal operating temperature.

# Efficient and Stable Output

Pure Sine Wave technology ensures powerful and continuous loading capacity while protect your sensitive appliances

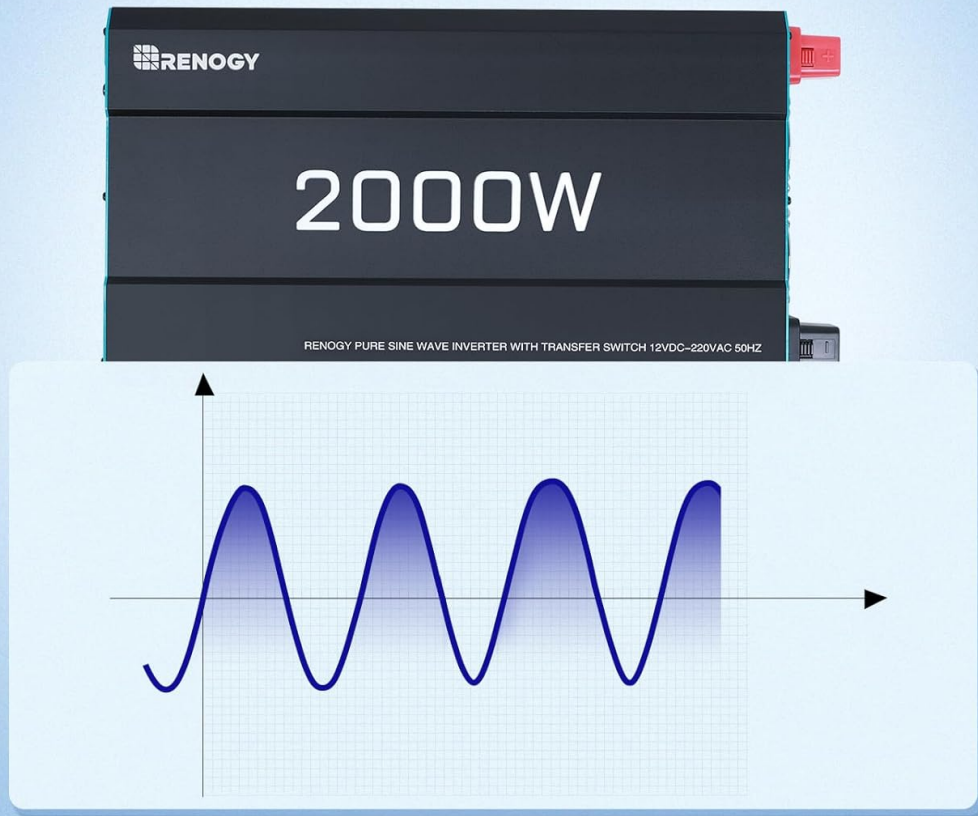


Image: Front view of the Renogy 2000W Inverter, highlighting the two AC outlets and the main power switch.

# Low Energy Consumption in No-Load Mode

Operate more efficiently as well as extended your battery life



Image: The Renogy 2000W Inverter displaying icons for its six electronic protection features, including over-temperature, short circuit, and overload protection.

## Powerful Heat Dissipation

Operates at peak performance even in extreme temperatures, ensuring your system is always running smoothly and efficiently



Image: Rear view of the inverter, showing the dual cooling fans designed for powerful heat dissipation and efficient system operation.

## Setup

### Installation Location

Install the inverter in a dry, cool, and well-ventilated area. Avoid direct sunlight, heat sources, and moisture. Ensure sufficient clearance around the unit for proper airflow.

## Wiring Diagram

Follow the diagram below for correct connection of the inverter to your solar power system. Ensure all connections are secure and properly insulated.

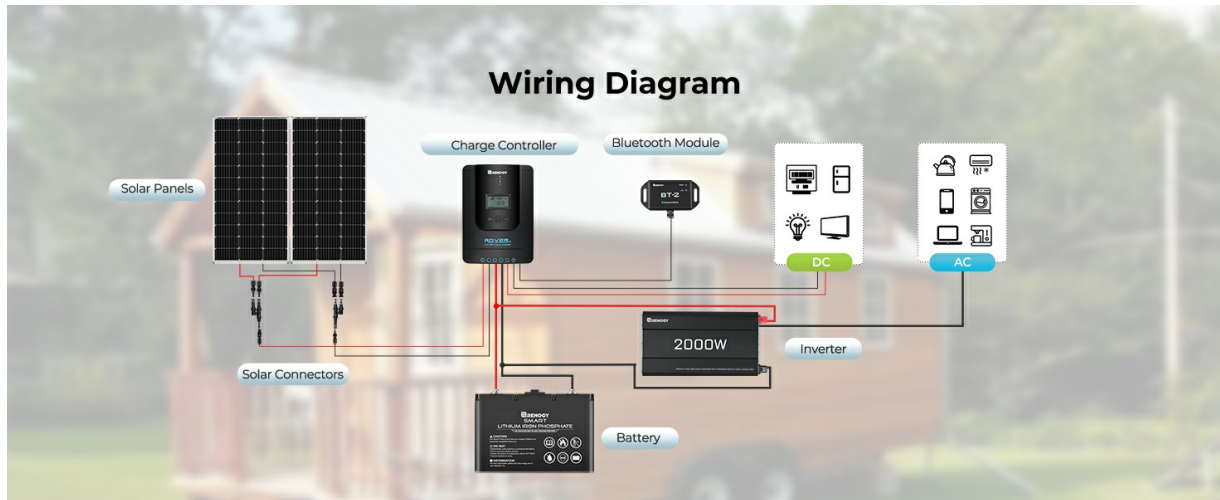


Image: A detailed wiring diagram illustrating the connections between solar panels, charge controller, battery, inverter, and various DC/AC loads in a solar power system.

## Connecting to Battery

1. Ensure the inverter is switched OFF.
2. Connect the supplied 20 mm<sup>2</sup> cable to the DC input terminals on the rear of the inverter. Ensure positive (+) is connected to positive and negative (-) to negative.
3. Connect the other end of the cables to your 12V deep cycle battery. Use appropriate fuses or circuit breakers as recommended for your system.
4. Tighten all connections securely to prevent loose contacts and arcing.

## Connecting AC Loads

Plug your AC appliances directly into the 230V AC outlets on the front of the inverter. Ensure the total power consumption of your appliances does not exceed 2000W.

## Operating Instructions

### Powering On/Off

1. Ensure all DC and AC connections are correctly made.
2. Press the main power switch on the front of the inverter to the 'ON' position. The indicator lights will illuminate.
3. To power off, switch the main power switch to the 'OFF' position.

### Using the Remote Control

The included remote control allows you to power the inverter on or off from a distance, which is convenient when the inverter is installed in an inaccessible location.

# Strong Applicability to Harsh Environments

Efficient as always in high and low temperature scenarios

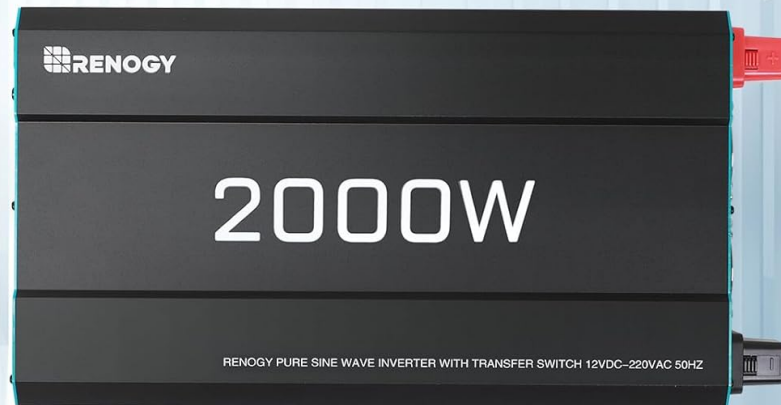


Image: The remote control unit for the Renogy inverter, featuring an on/off switch and indicator lights, mounted on a wooden surface.

1. Connect the remote control cable to the designated port on the inverter.
2. Use the switch on the remote control to turn the inverter ON or OFF.

## Indicator Lights

The inverter features LED indicators that provide status information and alert you to potential issues:

- **Green LED:** Indicates normal operation.
- **Red LED:** Indicates a fault or protection mode (e.g., overload, over-temperature, low voltage). Refer to the Troubleshooting section for details.

## Maintenance

- **Cleaning:** Periodically clean the exterior of the inverter with a dry cloth. Ensure ventilation openings are free from dust and debris. Do not use liquid cleaners.
- **Connection Check:** Regularly inspect all DC and AC connections for tightness and corrosion. Tighten any loose connections.
- **Battery Health:** Ensure your battery is well-maintained and charged to prolong its lifespan and the

inverter's performance.

## Troubleshooting

Problem	Possible Cause	Solution
Inverter does not turn on	Loose battery connection; Low battery voltage; Blown fuse	Check battery connections; Charge battery; Replace fuse (if applicable and safe to do so)
No AC output	Overload; Over-temperature; Low/High input voltage	Reduce load; Allow inverter to cool; Check battery voltage
Red LED indicator is on	Overload; Over-temperature; Input voltage out of range; Short circuit	Identify and resolve the specific fault condition. Disconnect loads, check connections, allow cooling.
Fan not operating	Normal operation (fan activates under load/temperature); Fan malfunction	Ensure inverter is under load or operating at higher temperatures. If no fan operation under load, contact support.

## Specifications

Specification	Value
Brand	Renogy
Model Name	R-INVT-PUH1-201235-DE/EU
Power (Continuous)	2000 Watts
Peak Output Power	4000 Watts
Input Voltage	12 Volts (DC)
Output Voltage	230 Volts (AC)
Output Waveform	Pure Sine Wave
Frequency	50 Hz
Total Power Outlets	2
Dimensions (L x W x H)	48.2L x 22W x 9.2H cm
Item Weight	4.8 Kilograms

Specification	Value
Recommended Uses	Powering sensitive electronics during camping or outdoor activities, medical devices, household appliances during travel or off-grid living.
Certifications	ETL, CE, UKCA, RoHS, ECE R10

## Warranty and Support

The Renogy 2000W 12V Pure Sine Wave Power Inverter comes with a **2-year warranty** covering materials and manufacturing defects.

For technical support, warranty claims, or any product-related inquiries, please contact Renogy customer service directly. If you encounter any issues, especially transport-related damage, please reach out via buyer message for assistance with replacement or partial refund options.

Please visit the official Renogy website or refer to your purchase documentation for the most current contact information.