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Renogy 1000W

Renogy 1000W Pure Sine Wave Inverter Instruction Manual

Model: 1000W

1. INTRODUCTION

The Renogy 1000W Pure Sine Wave Inverter is designed to convert 12V DC power from your battery bank into clean, stable 120V/110V AC power, suitable for a wide range of applications including off-grid solar systems, RVs, and home backup power. Featuring advanced Pure Sine Wave technology and an intelligent ECO Mode, this inverter ensures efficient and reliable power delivery for your sensitive electronics and appliances.



Image: The Renogy 1000W Pure Sine Wave Inverter, showcasing its sleek black and blue design with the

1000W rating clearly visible on the top panel.

2. SAFETY INFORMATION

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

- **Electrical Hazards:** Always ensure the inverter is turned **OFF** before connecting or disconnecting any wiring.
- **Battery Connections:** When connecting to batteries, always connect the **positive (red) cable first**, then the negative (black) cable. When disconnecting, remove the negative (black) cable first, then the positive (red) cable.
- **Tight Connections:** Ensure all wiring connections are tight to prevent overheating and potential fire hazards. Loose connections can cause excessive heat and damage.
- **Ventilation:** Install the inverter in a well-ventilated area to allow for proper heat dissipation. Avoid enclosed spaces with poor airflow.
- **Personal Protective Equipment:** Always wear appropriate safety gloves and eye protection when handling batteries and performing electrical connections.
- **Sparking:** A small spark may occur when connecting the negative battery cable. This is normal, but ensure no flammable materials are nearby.
- **Grounding:** Ensure the inverter and its enclosure are properly grounded to the earth to prevent electrical shock.

3. PRODUCT OVERVIEW

The Renogy 1000W Pure Sine Wave Inverter is engineered for robust performance and reliability. Its design incorporates key features for user convenience and safety.

Front Panel Features:

- **AC Outlets:** Provides standard 120V/110V AC power for your devices.
- **AC Terminal Block:** For hardwiring AC loads.
- **DIP Switches:** Used for frequency selection (50Hz/60Hz) and ECO Power-Saving Mode activation.
- **Communication Port (RS485):** For connecting monitoring accessories like the BT-2 for Renogy App compatibility.
- **Remote Port:** Connects the wired remote control for convenient power management.
- **ON/OFF/REM Power Button:** Main power switch for the inverter.
- **LED Indicators:** Visual cues for Fault (Red), GF (Yellow), and Power (Green) status.

Rear Panel Features:

- **Positive (+) and Negative (-) Terminals:** For connecting DC input from your battery bank.

- **Cooling Fans (x2):** High-speed ventilation fans ensure efficient heat dissipation, crucial for prolonged operation and inverter longevity.

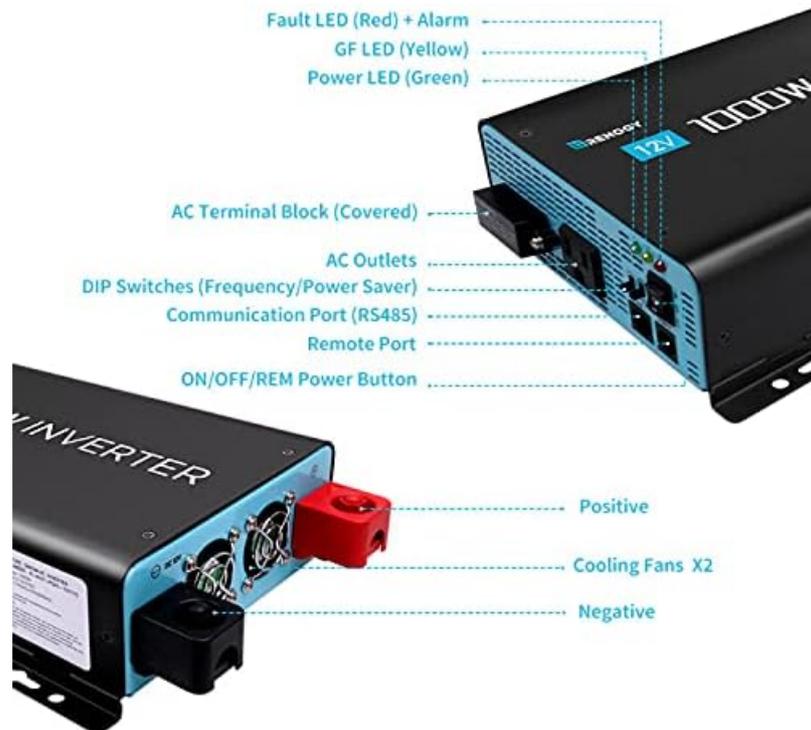


Image: Detailed view of the Renogy 1000W Inverter's front and rear panels, highlighting the various ports, switches, and cooling fans.

Pure Sine Wave Technology:

Advanced pure sine wave technology provides quality AC equivalent to grid power, protecting and extending the life of your electronics and appliances. It ensures quiet operation and handles high inductive loads without strange buzzing sounds, allowing devices to run smoother, cooler, and quieter.



Image: Diagram illustrating the benefits of Advanced Pure Sine Wave Technology, including smooth, quiet operation and energy saving.

continuous power, quiet operation, and handling of high inductive loads.

4. WHAT'S IN THE BOX

Your Renogy 1000W Pure Sine Wave Inverter package includes the following components:

- 1 x Renogy 1000W Pure Sine Wave Inverter
- 1 x Pair of Inverter Cables (4AWG)
- 1 x 16.4ft Wired Remote Control



Image: Visual representation of the Renogy 1000W Inverter along with its included accessories: the remote controller with its 16.4 ft cable and the 4 AWG battery cables.

5. SETUP & INSTALLATION

5.1 Battery Preparation

Before connecting the inverter, ensure your 12V batteries are fully charged. For optimal performance and longevity, especially with LiFePO4 batteries, a full charge is recommended prior to first use.

5.2 Inverter Placement

Choose a suitable location for the inverter. It should be placed in an upright position within a well-ventilated enclosure to prevent overheating. Avoid laying the inverter on its side or upside down.

5.3 Wiring the Inverter

1. Ensure the inverter's main power switch is in the **OFF** position.
2. Connect the **red (positive) inverter cable** to the positive (+) terminal on the inverter. Tighten the stainless steel nut securely.
3. Connect the other end of the **red (positive) inverter cable** to the positive (+) terminal on your 12V battery. Tighten securely.
4. Connect the **black (negative) inverter cable** to the negative (-) terminal on the inverter. Tighten the stainless steel nut securely.
5. Connect the other end of the **black (negative) inverter cable** to the negative (-) terminal on your 12V battery. Tighten securely. A small spark may occur during this final connection; this is normal.
6. Slide the protective caps over the terminals to prevent accidental contact.

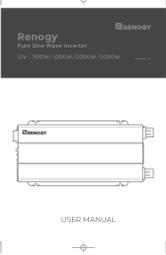
5.4 Remote Control Connection (Optional)

For convenient remote operation, connect the wired remote control:

1. Ensure the inverter's main power switch is in the **OFF** position.
2. Plug the remote control cable into the

Related Documents - 1000W

	<p>Renogy 12V Pure Sine Wave Inverter Core Series - Technical Specifications and Features</p> <p>Explore the Renogy 12V Pure Sine Wave Inverter Core Series, featuring efficient power conversion, quiet operation, and advanced safety features. Ideal for off-grid systems. Includes technical specifications for RIV1210PU-126, RIV1220PU-126, and RIV1230PU-126 models.</p>
	<p>Renogy 12V Pure Sine Wave Inverter with Transfer Switch User Manual</p> <p>Comprehensive user manual for Renogy 12V Pure Sine Wave Inverters (1000W, 2000W, 3000W) with Transfer Switch, covering installation, operation, safety, troubleshooting, and specifications.</p>
	<p>Renogy 12V Pure Sine Wave Inverter with Transfer Switch User Manual</p> <p>This user manual provides comprehensive instructions for the Renogy 12V Pure Sine Wave Inverter with Transfer Switch, available in 1000W, 2000W, and 3000W models. It covers installation, operation, safety precautions, troubleshooting, and technical specifications for off-grid applications.</p>

	<p>Renogy 12V Pure Sine Wave Inverter User Manual: 700W, 1000W, 2000W, 3000W</p> <p>Comprehensive user manual for Renogy 12V Pure Sine Wave Inverters (700W, 1000W, 2000W, 3000W). Covers installation, operation, safety, specifications, and troubleshooting for off-grid power systems.</p>
	<p>Renogy Pure Sine Wave Inverter User Manual</p> <p>User manual for Renogy 12V Pure Sine Wave Inverters (700W, 1000W, 2000W, 3000W). Covers safety, installation, operation, troubleshooting, dimensions, and specifications.</p>
	<p>Renogy 12V Pure Sine Wave Power Inverter Manual</p> <p>Comprehensive manual for Renogy 12V Pure Sine Wave Power Inverters (700W, 1000W, 2000W, 3000W), covering safety instructions, installation, operation, troubleshooting, and specifications for off-grid and mobile power applications.</p>