Renogy RNG-INVT-3000-12V-P2-US

Renogy 3000W Pure Sine Wave Inverter User Manual

Model: RNG-INVT-3000-12V-P2-US
Brand: Renogy

Introduction

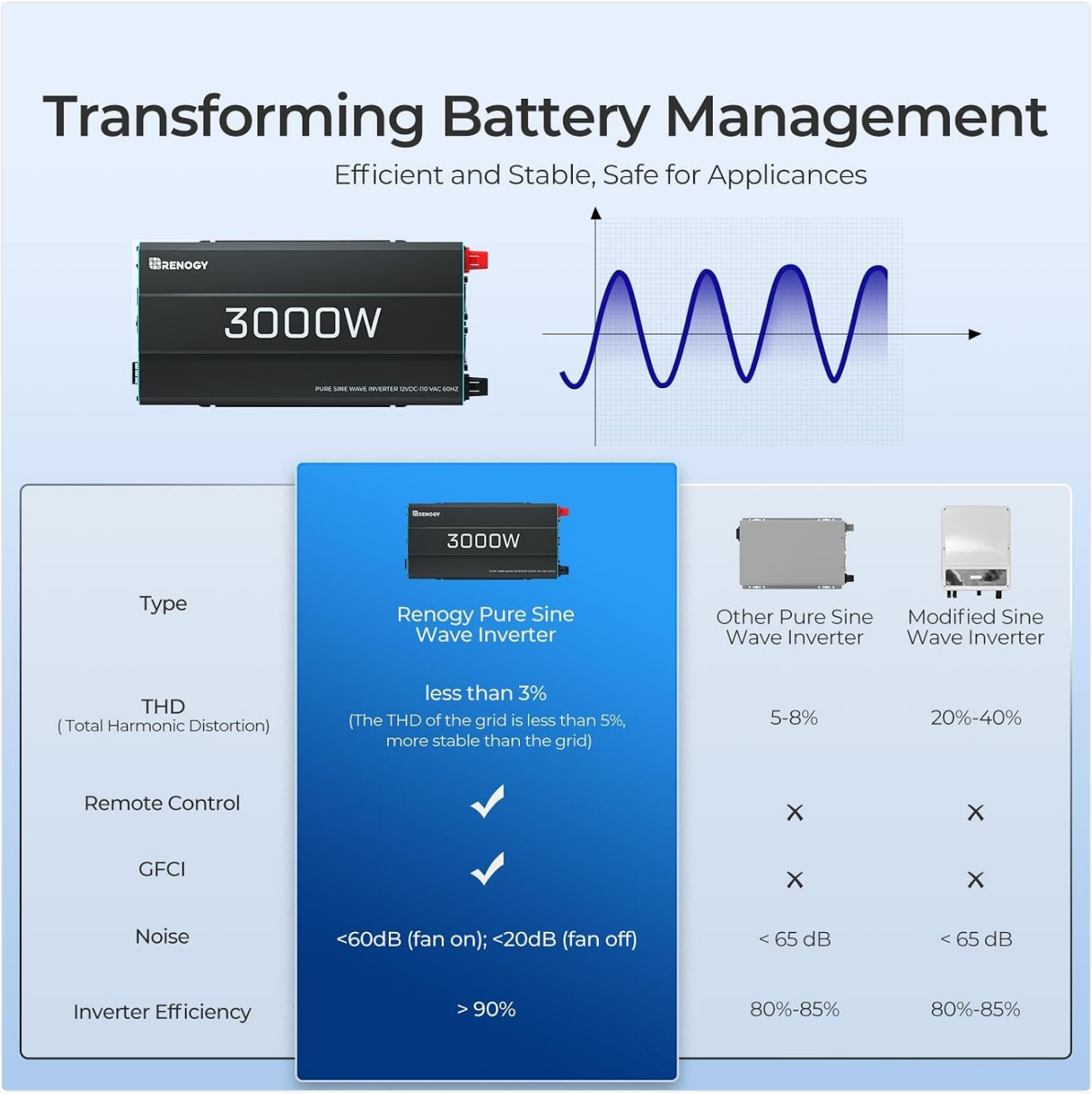
This manual provides detailed instructions for the safe and efficient operation of your Renogy 3000W Pure Sine Wave Inverter. Please read this manual thoroughly before installation and use.



The Renogy 3000W Pure Sine Wave Inverter, accompanied by its wired remote control and connection cable.

Product Features

- **POWERFUL DC-AC:** This power inverter 12V to 110V provides 3000W continuous DC to AC power, 6000W peak surge during load start-up, 12V to 120VAC pure sine wave with conversion efficiency >90%, reduces conversion loss.
- **SAFE FOR USE:** LED indicators for under-voltage and over-voltage protection, over-temperature protection, over-load protection, and short circuit indication. Cooling fans and ground-fault circuit interrupter (GFCI) protection.
- **PROTECT YOUR ELECTRONICS:** Advanced pure sine wave technology provides quality AC equivalent to grid power which will protect and extend the life of your electronics and appliances, such as flood light, TV, freezer, Laptop, tablet etc. With its quiet and high inductive loads, the solar inverter operates with no buzzing sounds when your electronics are turned on and allow them to run smoother, cooler, and quieter.
- **EASY-TO-USE:** This 3000W inverter 12V offers a built-in 5V/2.1A USB port, 3 AC Outlets and 1 AC Terminal Block, a 16.4ft Wired Remote. Perfect for outdoor emergency AC power supply during work trips, camping and more.
- **RELIABLE QUALITY:** UL 458 & CSA C22.2 No. 107.1 certified product ensures safety and quality. Durable metal housing protect the 12v to 110v converter from bumps and impact. High-speed ventilation fans help keep the pure sine wave inverter running at a low temperature.



A comparison chart highlighting the superior performance of the Renogy Pure Sine Wave Inverter, including Total Harmonic Distortion (THD) less than 3%, presence of remote control and GFCI, and inverter efficiency greater than 90%.

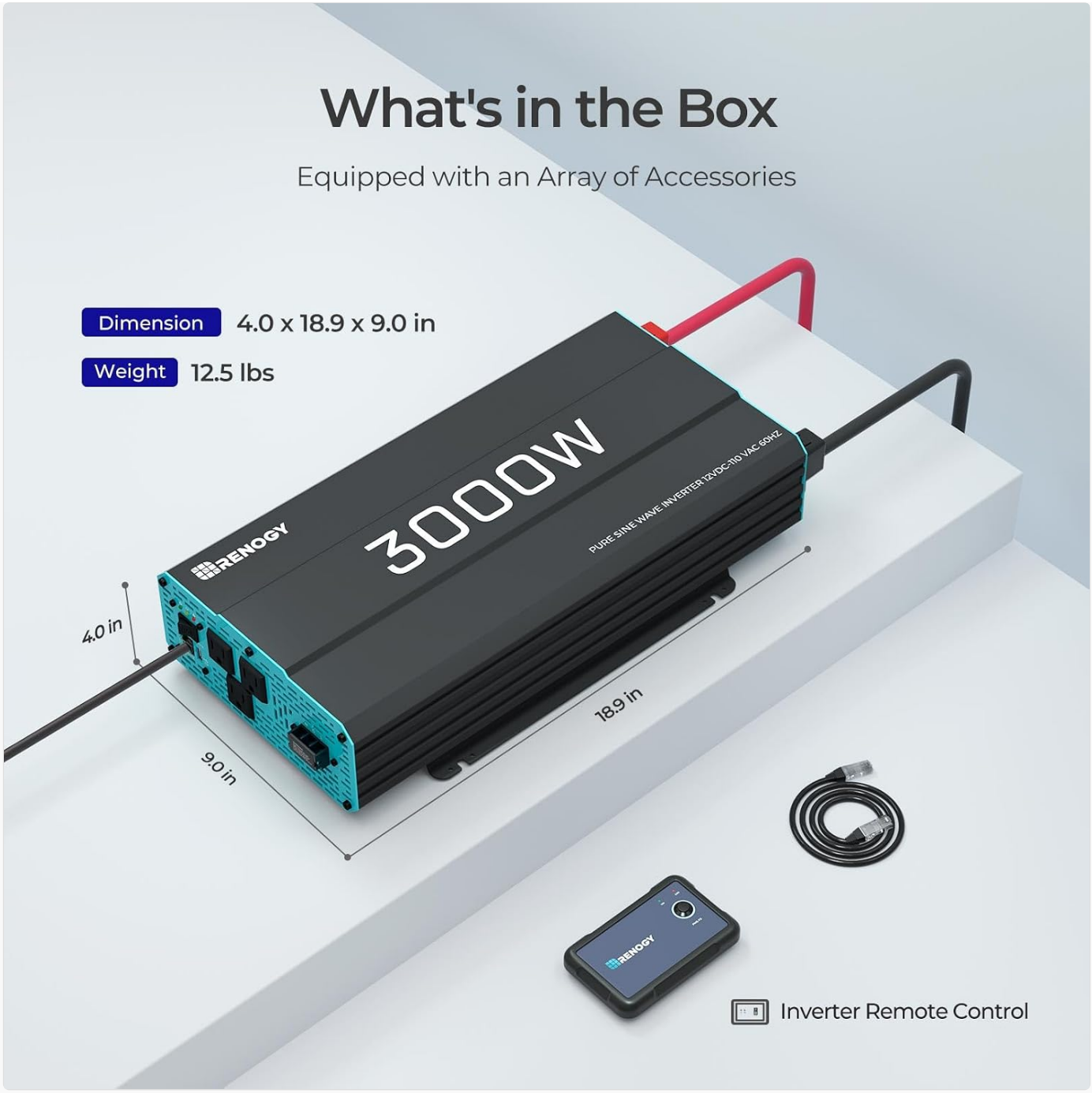


An illustration demonstrating the efficient cooling system of the Renogy 3000W inverter, featuring internal fans designed for optimal temperature control.

What's in the Box

Your Renogy 3000W Pure Sine Wave Inverter package includes:

- 3000W Inverter
- Inverter Remote control



A visual representation of the package contents, including the 3000W inverter, its dimensions (18.9 x 9.0 x 4.0 inches), weight (12.5 lbs), and the included inverter remote control and cable.

Setup

Installation Considerations

Ensure the inverter is installed in a well-ventilated area, away from direct sunlight and heat sources. Maintain proper clearance around the unit for airflow.



An image illustrating the importance of grounding the inverter chassis for essential safety protection, highlighting the GFCI feature.

Wiring Diagram

Refer to the following diagram for typical wiring connections in a solar power system.



A comprehensive wiring diagram showing the connection of solar panels, charge controller, Bluetooth module, battery, and the 3000W inverter to power both DC and AC loads in an off-grid system.

Operating the Inverter

Powering On/Off

Use the power switch on the inverter or the included remote control to turn the unit on or off.



The remote control unit for the Renogy 3000W inverter, allowing for convenient power switching from a distance, ideal for installations in limited spaces like RVs.

Connecting Devices

The inverter features three AC outlets, one AC terminal block, and a 5V/2.1A USB port for connecting various electronic devices.



The Renogy 3000W inverter positioned next to a lithium iron phosphate battery, illustrating its compatibility with various battery types including LI (Lithium), SLD (Sealed Lead Acid), GEL, FLD (Flooded), and AGM batteries.

Maintenance

- Keep the inverter clean and free from dust and debris.
- Ensure ventilation openings are not blocked.
- Periodically check all electrical connections for tightness and corrosion.
- Store the inverter in a dry, cool place when not in use for extended periods.

Troubleshooting

If you encounter issues with your inverter, refer to the following common problems and solutions. For more complex issues, contact Renogy customer support.

Problem	Possible Cause	Solution
Inverter not turning on	Low battery voltage, loose connections, blown fuse.	Check battery voltage, tighten all connections, inspect and replace fuses if necessary.
No AC output	Overload, short circuit, GFCI tripped.	Reduce connected load, check for short circuits in wiring, reset GFCI.
Over-temperature shutdown	Insufficient ventilation, excessive load.	Ensure proper airflow around the inverter, reduce load, allow unit to cool.
Buzzing sound from appliances	Incompatible appliance, modified sine wave inverter (not applicable for this pure sine wave model, but good to mention for general troubleshooting context).	(For this pure sine wave inverter, buzzing should be minimal. If present, check appliance compatibility or for loose connections.)



An illustration detailing the six electronic protection mechanisms integrated into the Renogy 3000W inverter, ensuring superior safety and reliability for connected appliances.

Specifications

Attribute	Value
Product Dimensions	18.9 x 9 x 4 inches
Item Weight	12.5 pounds
Item model number	RNG-INVT-3000-12V-P2-US
Frequency	60 Hz

Attribute	Value
Wattage	3000 watts
Power Source	Solar and Battery Powered
Brand	Renogy
Manufacturer	Renogy
Country of Origin	China
Date First Available	June 4, 2021

Warranty & Support

Warranty Information

This product is covered by Renogy's standard warranty. For specific warranty terms and conditions, please refer to the official warranty document provided with your purchase or visit the Renogy website.
For detailed warranty information, please refer to theOfficial Renogy Warranty Document.

Customer Support

For technical assistance, troubleshooting, or product inquiries, please contact Renogy customer support.
Visit the Renogy Store on Amazon for more products and support resources.

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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.

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