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Renogy REGO 3000W

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1. PRODUCT OVERVIEW

The Renogy REGO 3000W Pure Sine Wave Inverter Charger is a versatile device designed to convert 12V DC power from batteries into 120V AC power, suitable for powering various household and recreational appliances. It integrates a powerful inverter with a sophisticated 4-stage battery charger and offers convenient monitoring via Bluetooth.



The Renogy REGO 12V 3000W Pure Sine Wave Inverter Charger unit.

Key Features

- **Powerful Output:** Provides 3000W continuous pure sine wave AC output and up to 9000W peak power. Conversion efficiency exceeds 90%, allowing it to power most heavy-duty appliances.
- **Battery Compatibility:** Compatible with various 12V battery types, including Gel, AGM, Sealed Lead Acid (SLA), Flooded (FLD), Calcium (CAL), and Lithium-iron Phosphate (LI). A USER mode is available for customizing charging parameters.
- **Bluetooth Connectivity:** Features built-in Bluetooth technology for monitoring the inverter charger's status via the Renogy App on your smartphone. It is compatible with Renogy ONE M1 & Core.
- **Efficient 4-Stage Charging:** Utilizes a 4-stage charging process (Bulk, Boost, Float, Equalization) to ensure efficient and automatic charging to 100%, maximizing battery lifespan. Includes a lithium reactivation function for self-heating lithium batteries.
- **Comprehensive Protection:** Offers robust protection against overload, overcharge, over-discharge, short circuit, and over temperature, ensuring maximum efficiency and safety. Certifications include FCC Class A Part 15 Compliant, UL458, and CSA-C22.2 No 107.1.

2. SETUP INSTRUCTIONS

Unpacking and Inspection

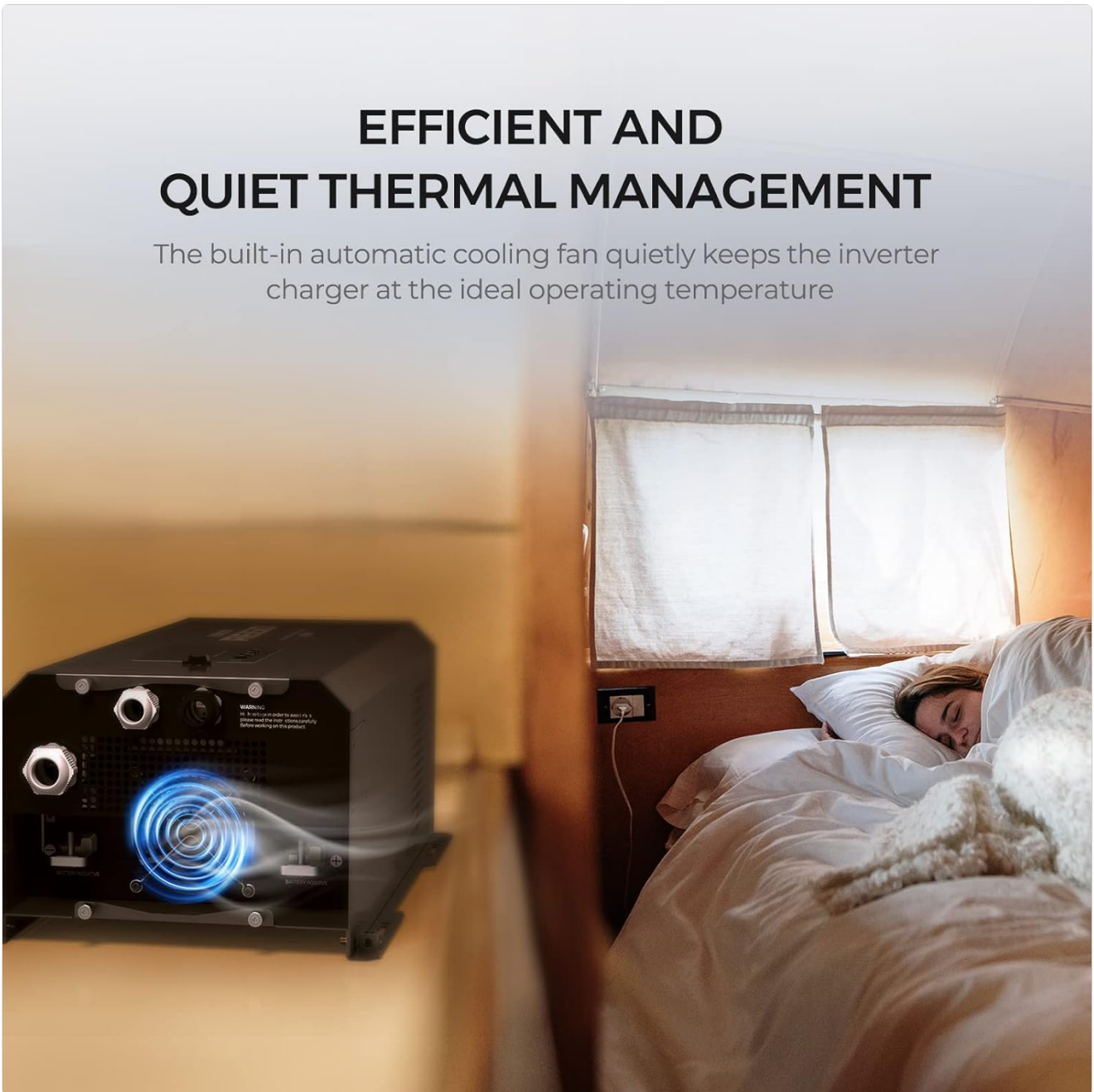
Carefully unpack the inverter charger and inspect all components for any signs of damage. The standard package includes the 3000W Pure Sine Wave Inverter Charger unit, a Battery Temperature Sensor, and an Inverter Wired Remote Control.

Mounting

Mount the inverter charger in a dry, well-ventilated area, away from direct sunlight, heat sources, and flammable materials. Ensure adequate clearance around the unit for proper airflow to prevent overheating.

EFFICIENT AND QUIET THERMAL MANAGEMENT

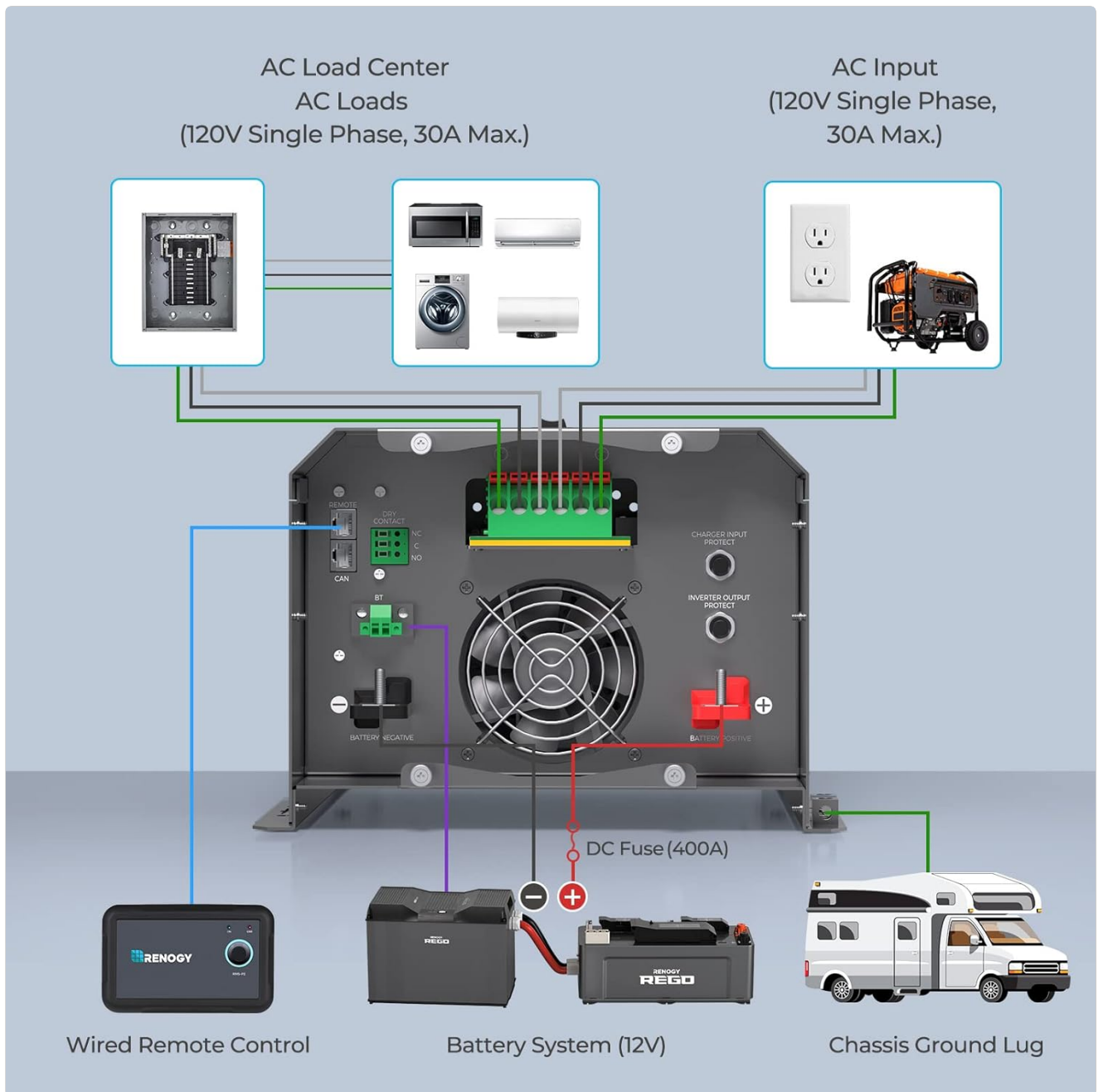
The built-in automatic cooling fan quietly keeps the inverter charger at the ideal operating temperature



The inverter charger features an efficient and quiet thermal management system with a built-in automatic cooling fan.

Wiring Connections

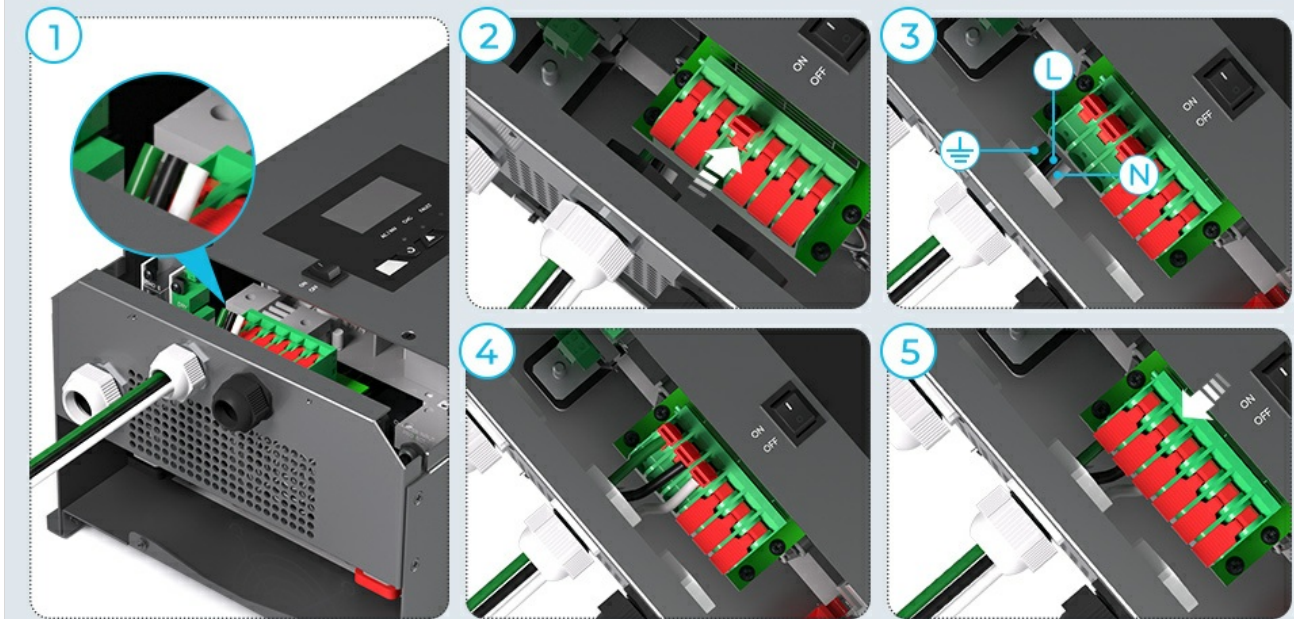
Proper and secure wiring is essential for the safe and efficient operation of the inverter charger. Follow the diagrams and instructions below for connecting to batteries and AC loads.



This diagram illustrates how to connect the inverter charger to AC loads, AC input, a 12V battery system with a DC fuse, and a wired remote control, including chassis ground lug connection.

The integrated terminal block simplifies AC wiring. Ensure all connections are tight and correctly polarized. For battery connections, use appropriate battery inverter cables with 3/8 inch lugs. When connecting to a REGO System Combiner Box, use a 4/0AWG Anderson Adaptor Cable.

Integrated Terminal Block, Simplifies Set-Up



Detailed view of the integrated terminal block for simplified wiring, showing steps for secure AC input and output connections.

3. OPERATING INSTRUCTIONS

Powering On/Off

To power on the inverter, press and hold the power button on the wired remote control until it emits a beep and the green indicator light illuminates. The LCD display on the main unit will activate, showing the current system status.



Close-up of the inverter's LCD display showing LED indicators, function keys, and the on-off switch for easy operation.

The LCD display provides real-time information on input voltage, output power, battery status, and any fault indicators. Use the function keys to navigate through settings and monitor performance.

Battery Charging

The inverter charger features an advanced 4-stage charging process (Bulk, Boost, Float, Equalization) designed to optimize battery health and extend its lifespan. It automatically adjusts charging parameters based on the selected battery type, ensuring efficient and complete charging.

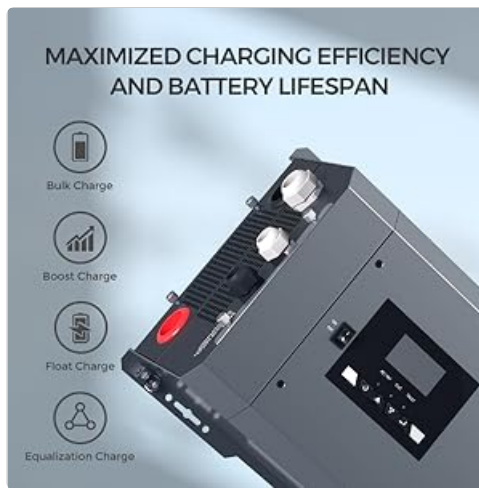
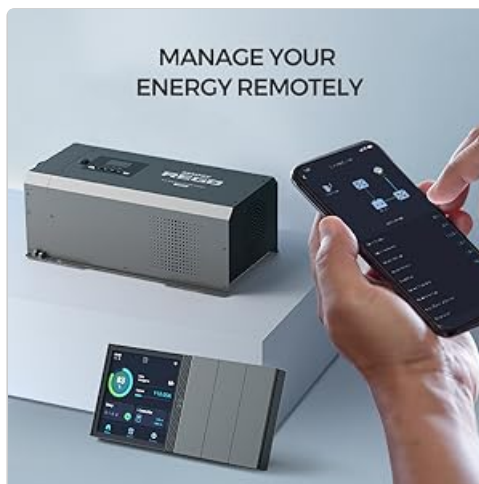


Diagram illustrating the four-stage charging process: Bulk Charge, Boost Charge, Float Charge, and Equalization Charge, for maximized battery efficiency and lifespan.

Remote Monitoring (Bluetooth)

Utilize the built-in Bluetooth functionality to connect the inverter charger to the Renogy App on your smartphone. This allows for convenient remote monitoring of system performance, battery status, and adjustment of various settings from your mobile device.



A smartphone displaying the Renogy app interface, enabling users to manage and monitor their energy system remotely.

Integrated Transfer Switch

The integrated transfer switch enables seamless and automatic switching between shore power (grid) and battery power. This ensures a continuous power supply to your loads with minimal interruption, typically less than 10 milliseconds.

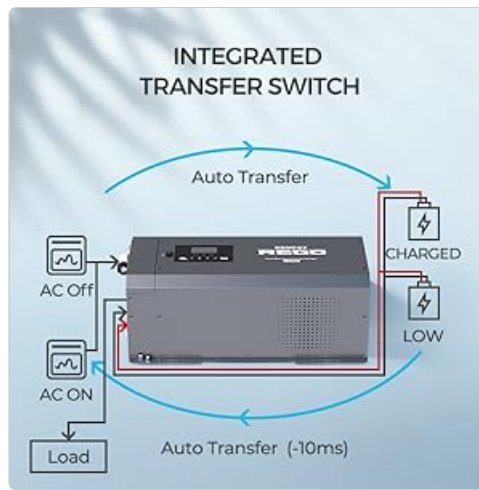


Diagram illustrating the automatic transfer between AC power (grid) and battery power, ensuring uninterrupted supply to loads.

4. MAINTENANCE

General Care

To ensure optimal performance and longevity, keep the inverter charger clean and free from dust and debris. Regularly check that all ventilation openings are unobstructed to allow for proper cooling. Periodically inspect all electrical connections for tightness and any signs of corrosion. Loose connections can lead to poor performance or safety hazards.

Battery Maintenance

Regularly inspect battery terminals for corrosion and ensure they are clean and securely fastened. Follow the battery manufacturer's guidelines for specific maintenance procedures, such as checking electrolyte levels for flooded batteries or monitoring battery health via the Renogy App for lithium batteries.

5. TROUBLESHOOTING

Common Issues and Solutions

- Unit Not Inverting:** If the unit passes power through from the grid but does not convert DC to AC power, first check all battery connections to ensure they are secure. Verify that the battery voltage is within the operational range specified in the technical specifications. Review the settings on the LCD display or through the Renogy App to confirm correct operating mode and battery type.
- Insufficient Power Output:** If connected appliances are not running correctly or the inverter trips under load (e.g., an 1100W microwave with a 3000W unit), ensure that your battery bank has sufficient capacity and that the wiring gauge is appropriate to handle the peak and continuous loads. While the inverter provides 3000W continuous output and 9000W peak, limitations from the battery system or undersized wiring can affect actual performance.
- Missing Cables/Accessories:** The core package includes the inverter charger, a battery temperature sensor, and a wired remote control. Some specific cables (e.g., for advanced Bluetooth features, solar panel connection, or specific battery types) may need to be purchased separately. Refer to the product documentation or Renogy support for a complete list of included items and compatible accessories.
- Loud Fan Noise:** The inverter charger incorporates an automatic cooling fan for efficient thermal management. Some fan noise is normal, especially when the unit is under heavy load or operating in warmer environments. If the noise is unusually loud, persistent, or accompanied by other fault indicators, ensure ventilation openings are clear and consider contacting support.

Contacting Support

For issues that cannot be resolved using the troubleshooting steps above, or for more complex technical problems, please contact Renogy customer support. When contacting support, have your product model number and a detailed description of the issue readily available to facilitate a quicker resolution.

6. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	Renogy
Model Name	REGO 3000W
Wattage	3000 Watts (Continuous), 9000 Watts (Peak)
Voltage	12 Volts DC Input, 120 Volts AC Output
Frequency	60 Hz (Adjustable 50/60Hz)
Electrical Output Waveform	Pure Sine Wave
Conversion Efficiency	> 90%
Display Type	LCD
Item Dimensions (L x W x H)	20.1" x 11.2" x 7.6"
Item Weight	63.5 Pounds
Certifications	FCC Class A Part 15 Compliant, UL458, CSA-C22.2 No 107.1
Built-In Media	3000W Pure Sine Wave Inverter Charger x 1, Battery Temperature sensor x 1, Inverter Wired Remote Control x 1
Model Number	810009711773
UPC	810081407908

7. WARRANTY AND SUPPORT

Warranty Information

The Renogy REGO 3000W Pure Sine Wave Inverter Charger is backed by a 2-year warranty. To make a warranty claim, please retain your original proof of purchase. The warranty covers defects in materials and workmanship under normal use and service.

Customer Support

For technical assistance, troubleshooting guidance, or to inquire about warranty service, please visit the official Renogy website or contact their dedicated customer support team. Renogy is committed to providing prompt

responses and professional technical guidance to ensure your satisfaction with their products.