

Redodo 40A MPPT Controller, 1000W Inverter

Redodo 40 Amp MPPT Solar Charge Controller and 1000W Pure Sine Wave Inverter User Manual

Model: 40A MPPT Controller, 1000W Inverter

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Redodo 40 Amp MPPT Solar Charge Controller with Built-in Bluetooth Module and 1000W Pure Sine Wave Inverter. This integrated system is designed to manage solar power input, charge batteries, and convert DC power to AC power for various applications.

The system features advanced MPPT tracking technology for maximum solar energy harvesting, a pure sine wave inverter for stable AC output, a convenient built-in Bluetooth module for remote monitoring, and comprehensive safety protections.

2. SAFETY INFORMATION

- Read all instructions carefully before installation and operation.
- Ensure all wiring is correctly connected and securely fastened to prevent loose connections and potential hazards.
- Install the unit in a well-ventilated area, away from flammable materials, direct sunlight, high temperatures, and water.
- Always connect the battery to the charge controller first, and disconnect it last.
- Do not disassemble or attempt to repair the unit. Contact qualified personnel for service.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

3. PRODUCT FEATURES

- **12/24V MPPT with 99% Tracking Technology:** Features advanced tracking technology with tracking efficiency up to 99% and peak conversion efficiency up to 98%. It tracks the maximum power point of the array to get maximum power for battery charging and load.
- **Pure Sine Wave Inverter:** Provides 1000W continuous power and 2000W peak surge power with lower power consumption and high conversion efficiency. Pure sine wave output ensures stable voltage and current, extending appliance life and producing less noise than modified sine wave inverters.
- **Convenient Built-in Bluetooth Module:** The 40A MPPT controller can communicate via its built-in Bluetooth module or through the RJ12 port (RS485, cable included). This allows remote monitoring of solar panels, batteries, and loads, simplifying operation.

- **Fully Safety Protections:** The 1000W pure sine wave inverter includes comprehensive safety features such as low voltage protection, over voltage protection, inverter overheat prevention, output overload protection, and output short circuit protection.
- **Digital LCD Screen:** Displays critical information including battery power supply, battery input voltage, AC output voltage, and output power, enabling easy monitoring of the inverter's operational status.

4. PRODUCT STRUCTURE AND COMPONENTS



Image: Redodo 40A MPPT Solar Charge Controller. The image shows the front panel with an LCD display, control buttons, and connection terminals for PV, Battery, and Load. Dimensions are indicated as W18cm, H8.25cm, and 24.5cm length. Weight is 4.41lb/2kg. Combination type is 12V/24V 40A.



Image: Redodo 1000W Pure Sine Wave Inverter. The image displays the inverter unit with its branding and power rating (12VDC | 110-120VAC | 60Hz).



Image: Redodo 1000W Pure Sine Wave Inverter Product Structure. This diagram illustrates the AC side with two AC outlets, a monitoring screen, and an ON/OFF switch. The DC side shows positive and negative terminals and cooling fans.

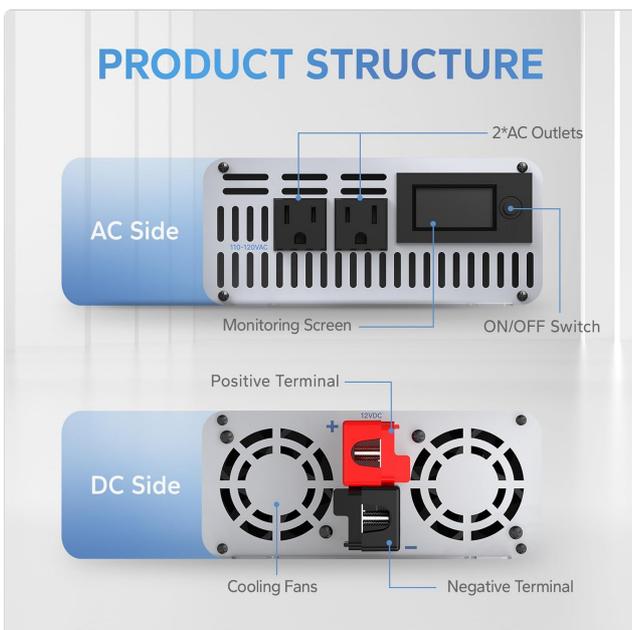


Image: Redodo 40A MPPT Solar Charge Controller Intuitive Display. The image highlights the intuitive display of the MPPT controller, showing indicators for PV (solar panel), BAT (battery), LOAD, and ERROR.

5. SETUP AND INSTALLATION

5.1 Mounting the MPPT Charge Controller

- Choose a vertical surface protected from direct sunlight, high temperatures, and water.
- Ensure good ventilation. Check the ventilation clearance above the controller for at least 3.94 inches (100mm) and below the controller for at least 7.87 inches (200mm).
- Use the provided mounting hardware to secure the controller.

5.2 Wiring Connections

Follow the wiring sequence carefully to ensure safe and proper operation. Always connect the battery first, then the solar panels, and finally the load.

1. **Connect the Battery:** Connect the battery cables to the BAT terminals on the MPPT controller. Ensure correct polarity (positive to positive, negative to negative). The controller will power on once the battery is connected.
2. **Connect the Solar Panels:** Connect the solar panel cables to the PV terminals on the MPPT controller. Ensure correct polarity.
3. **Connect the DC Load (Optional):** If using a DC load directly from the controller, connect it to the LOAD terminals.
4. **Connect the Inverter:** Connect the 1000W Pure Sine Wave Inverter to the battery terminals (or a dedicated battery bank) using appropriate gauge cables. Ensure correct polarity.

5.3 Bluetooth Module Connection

The MPPT controller has a built-in Bluetooth module for wireless monitoring. For detailed instructions on Bluetooth installation and operation, refer to the official Redodo Power website: [Redodo MPPT Controller Bluetooth Installation and Operation](#).



Image: Redodo 40A MPPT Solar Charge Controller Bluetooth Connection. This image shows the MPPT controller alongside a smartphone displaying the Bluetooth monitoring app, indicating battery state of charge, PV input, and battery bank status. A QR code for the Bluetooth APP is also visible.

6. OPERATING INSTRUCTIONS

6.1 MPPT Controller Display and Buttons

The digital LCD screen on the MPPT controller displays real-time system information. Use the control buttons to navigate through different display modes and adjust settings.

- **Display Modes:** Short press the 'UP' or 'DOWN' button to cycle through various parameters like battery voltage, charging current, load status, etc.
- **Setting Parameters:** Long press the 'SET' button to enter parameter setting mode. Use 'UP' and 'DOWN' to adjust values and 'SET' again to confirm.

6.2 Inverter Operation

- **Turning On/Off:** Use the ON/OFF switch on the inverter to power it on or off.

- **Connecting AC Devices:** Plug your AC appliances (up to 1000W continuous, 2000W peak) into the AC outlets on the inverter.
- **Monitoring:** The inverter's digital LCD screen displays AC output voltage, output power, and other relevant information.



Image: Redodo 1000W Pure Sine Wave Inverter Wide Application Compatibility. This image shows the 1000W inverter connected to a fan, illustrating its suitability for various daily electrical appliances below 1000W, such as mobile phones, small electric drills, coffee machines, ovens, kettles, and fans.

7. MAINTENANCE

- Regularly inspect all wiring connections for tightness and corrosion.
- Keep the MPPT controller and inverter clean and free from dust and debris to ensure proper heat dissipation.
- Check the battery terminals for any signs of corrosion and clean if necessary.
- Ensure adequate ventilation around both units to prevent overheating.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Controller/Inverter not powering on	Loose battery connection, low battery voltage, blown fuse.	Check battery connections, ensure battery voltage is above minimum operating level, inspect and replace fuses if necessary.
No solar charging	Solar panel disconnected, insufficient sunlight, incorrect PV polarity.	Verify solar panel connections, ensure panels are exposed to direct sunlight, check PV polarity.
Inverter overload/shutdown	Connected appliance exceeds inverter's rated power.	Reduce the load connected to the inverter. Ensure total wattage is within 1000W continuous / 2000W peak.
Bluetooth connection issues	Bluetooth disabled on device, app not installed, distance too far.	Ensure Bluetooth is enabled on your smartphone, install the correct app, reduce distance to the controller (within 10M).

9. SPECIFICATIONS

- **Brand:** Redodo
- **MPPT Controller Current:** 40 Amp
- **MPPT Controller Voltage:** 12V/24V DC Input
- **Inverter Type:** Pure Sine Wave
- **Inverter Continuous Power:** 1000W
- **Inverter Peak Surge Power:** 2000W
- **AC Output Voltage:** 110V
- **Display Type:** LCD
- **Connectivity:** Built-in Bluetooth Module, RS485 (RJ12 port)

10. WARRANTY AND SUPPORT

Redodo products are designed for reliability and performance. For specific warranty details, please refer to the product packaging or contact Redodo customer support.

For technical assistance or support, please contact Redodo customer service. Multi-channel customer support and technical team are available to guarantee a response within 24 hours.

- **Return Policy:** 30 days (refund/replacement) as per Amazon's policy.