

Redodo 12V200AH Plus Pack2

Redodo 12V 200Ah Plus Lithium LiFePO4 Battery Instruction Manual

Brand: Redodo | Model: 12V200AH Plus Pack2

1. INTRODUCTION AND KEY FEATURES

This manual provides essential information for the safe and efficient use of your Redodo 12V 200Ah Plus Lithium LiFePO4 Battery. Please read thoroughly before installation and operation.

- **High Capacity:** Two 12.8V 200Ah batteries provide 5120Wh total energy, allowing for powerful 12V 400Ah or 24V 200Ah systems.
- **High Power Output:** Delivers 2560W of power, suitable for high-wattage devices.
- **Advanced BMS Protection:** Integrated 200A Battery Management System protects against over-charge, over-discharge, over-current, over-temperature, and short circuits.
- **Lightweight & Efficient:** Offers 2.56kWh usable energy at significantly less weight compared to lead-acid batteries.
- **Long Lifespan:** Engineered with automotive-grade LiFePO4 cells for up to 15000 cycles and a 10-year lifespan.
- **Expandable System:** Can be connected in configurations up to 4P4S for a 51.2V 800Ah system (40.96kWh).

2560W Power, 2560Wh Energy

Compatible with High-Wattage Devices



Figure 1.1: The Redodo 12V 200Ah Plus LiFePO₄ Battery provides 2560W of power, capable of running various high-wattage devices for extended periods, such as a portable fridge (36.6 hours), coffee maker (3.2 hours), electric kettle (1.7 hours), and microwave (2.5 hours).

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the battery:

- Do not short circuit, disassemble, crush, heat, or incinerate the battery.
- Do not immerse the battery in any liquid.
- Ensure screws are properly tightened when connecting batteries.
- Use only a LiFePO₄ battery charger with activation function. Other chargers may not recognize the battery when its voltage is low.
- Charge the battery within the rated voltage and current range.
- It is recommended to charge the battery to 50% every 3 months if it is to be left unused for a long time.
- Supports up to 4 units in series and 4 in parallel connection.
- Do not use for starting car or golf cart engines.
- Connect batteries of the same brand, type, voltage, BMS, and age (within 1 month).

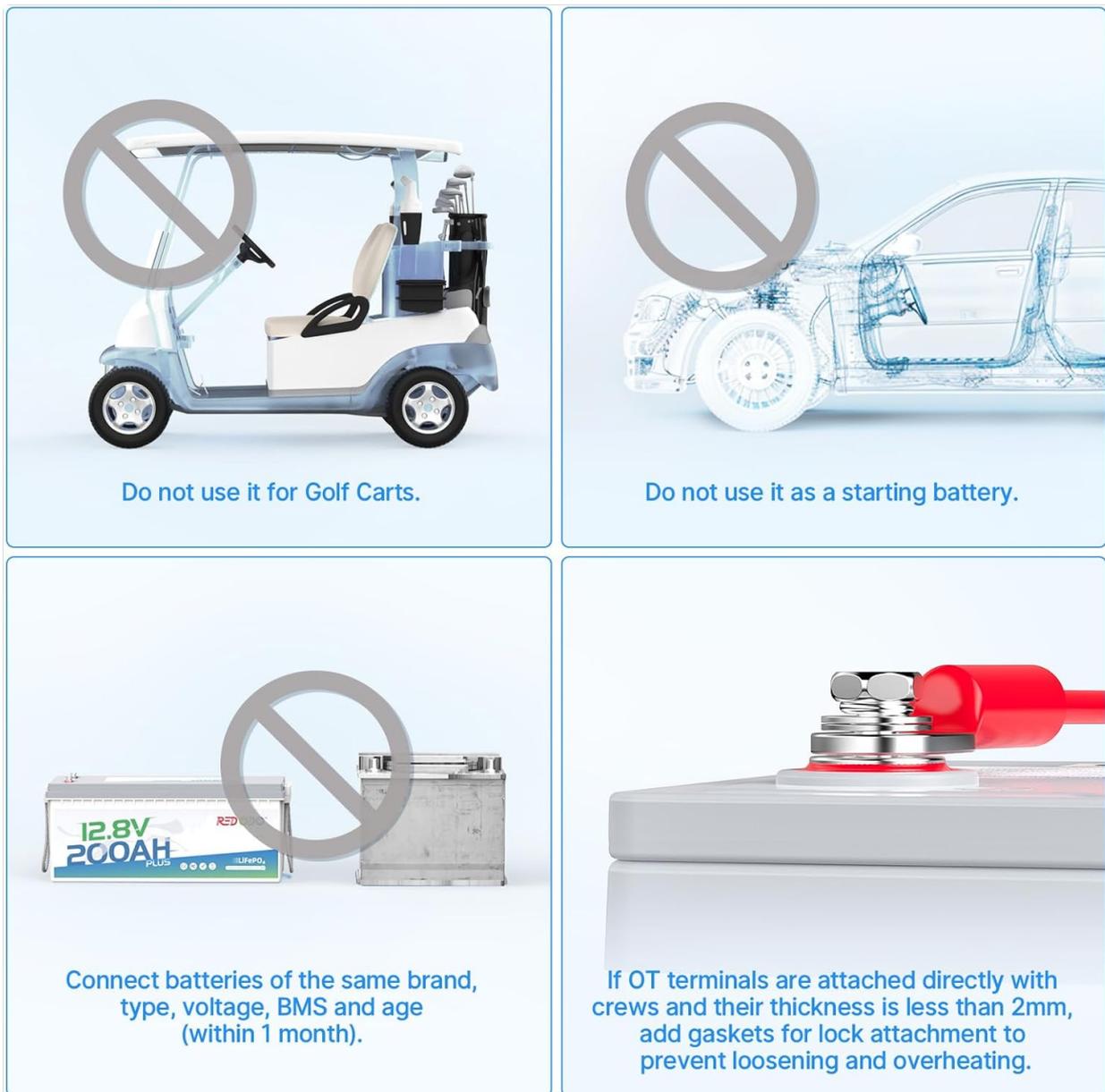


Figure 2.1: Important safety guidelines for battery usage, including restrictions on use for golf carts and starting car engines, and proper connection of terminals.

3. PACKAGE CONTENTS

Your Redodo 12V 200Ah Plus Lithium LiFePO4 Battery package includes:

- 2 x 12V 200Ah LiFePO4 Battery (Shipped Separately)
- M8-5/8" Terminal Bolts
- Insulating Caps for Bolts

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Video 3.1: An unboxing video demonstrating the contents of a Redodo battery package, including the battery, terminal bolts, and insulating caps. This video provides a visual guide to what is included with your purchase.

4. INSTALLATION AND CONNECTION

The Redodo 12V 200Ah Plus LiFePO4 Battery is designed for versatility in various applications. Follow these guidelines for proper installation and connection:

- **Terminal Connection:** Use the provided M8-5/8" terminal bolts to secure connections. Ensure all

connections are tight to prevent loosening and overheating. If using OT terminals with thickness less than 2mm, add gaskets for lock attachment.

- **Series/Parallel Connections:** The battery supports up to 4 units in series and 4 in parallel. Always connect batteries of the same brand, type, voltage, BMS, and age (within 1 month) for optimal performance and safety.
- **Applications:** Ideal for home solar storage, RV, marine, trolling motors (30-70lb), off-grid systems, cabins, and UPS.

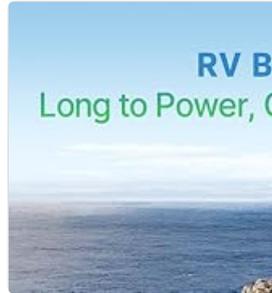


Figure 4.1: Example connection diagram for a 12V 100Ah battery in an RV solar setup, showing connections to a solar panel, MPPT charge controller, and inverter.



Figure 4.2: Illustration of a large-scale battery system supporting 4 serial and 4 parallel connections, ideal for powering an entire home or providing substantial backup during outages.

5. CHARGING

The Redodo LiFePO4 battery supports various charging methods for convenience and rapid recharge:

- **LiFePO4 Charger:** For best performance, charge daily at 0.2C with a 40A LiFePO4 charger.
- **Solar Panel + MPPT:** Utilize solar panels ($\geq 800W$ recommended) with an MPPT charge controller for efficient solar charging.
- **Alternator + DC-DC Charger:** Charge from your vehicle's alternator using a DC-DC charger.
- **Generator + AC-DC Charger:** Use a generator with an AC-DC charger for flexible charging options.
- **Rapid Recharge:** Achieve a full charge in 2-5 hours with 40A-100A charging.

4 Fast & Flexible Charging Methods

Ultra-Fast Charging in 2-5 Hours (40A-100A)



LiFePO4
Charger



Solar Panel ($\geq 800\text{W}$)
+ MPPT



Alternator
+ DC-DC Charger



Generator
+ AC-DC Charger



Figure 5.1: Overview of the four recommended fast and flexible charging methods for the Redodo 12V 200Ah Plus LiFePO4 Battery, enabling ultra-fast charging in 2-5 hours.

6. OPERATION

The Redodo 12V 200Ah Plus LiFePO4 Battery is designed for deep cycle use in various energy storage applications. It delivers 2560W of power, making it suitable for microwaves and AC units.

- **Power Output:** Enjoy uninterrupted power for your devices.
- **Versatile Use:** Perfect for RV and off-grid use, home energy storage, marine applications, and trolling motors.



Figure 6.1: Diverse applications of the Redodo LiFePO₄ battery, highlighting its suitability for solar home energy, trolling motors, UPS systems, off-grid setups, camping, and farm power needs.

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Video 6.1: A video demonstrating the capacity of the Redodo LiFePO₄ battery, showing it can exceed 101% of its rated capacity under certain conditions.

7. MAINTENANCE

Proper maintenance ensures the longevity and performance of your Redodo LiFePO₄ battery:

- **Regular Charging:** For optimal performance, charge the battery daily at 0.2C (e.g., 40A for a 200Ah battery).
- **Storage:** If storing the battery for extended periods, charge it to approximately 50% capacity every 3 months.
- **Inspection:** Periodically inspect terminals for corrosion and ensure connections remain tight.
- **Temperature:** Operate and store the battery within recommended temperature ranges to maximize lifespan.

8. TROUBLESHOOTING

The integrated BMS provides comprehensive protection. If you encounter issues, check the following:

- **No Power Output:** Check if the battery is fully charged. The BMS may have triggered due to over-discharge, over-current, or over-temperature.
- **Charging Issues:** Ensure your charger is a compatible LiFePO₄ charger. Verify charging voltage and current are within specifications.
- **Overcurrent/Overload:** The BMS will cut off power if current draw exceeds the 200A continuous or 240A peak discharge current. Reduce load and restart.
- **Temperature Protection:** The BMS will protect the battery if temperatures are outside the safe operating range (Charging: 32-131°F / 0-55°C; Discharging: -4-131°F / -20-55°C).

9. SPECIFICATIONS

Specification	Value
Brand	Redodo

Model	12V200AH Plus Pack2
Battery Cell Composition	Lithium Ion (LiFePO4)
Voltage	12.8 Volts
Battery Capacity	199.98 Amp Hours (per battery)
Amperage	200 Amps (Continuous Discharge)
Max Power Output	2560W
Product Dimensions	8.2"D x 21"W x 8.5"H
Resistance	40 Milliohms
Terminal Type	M8
Charging Temperature	32-131°F / 0-55°C
Discharging Temperature	-4-131°F / -20-55°C
Lifespan	4000-15000 Deep Cycles, 10-Year Life

10. WARRANTY AND SUPPORT

Redodo provides a 5-year warranty for this product. For technical support, warranty claims, or any questions, please contact Redodo customer service. Refer to the product packaging or the official Redodo website for contact details.