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› Redodo Bluetooth 24V 50Ah LiFePO4 Battery and 29.2V 20A Charger Instruction Manual

Redodo Bluetooth 24V 50Ah LiFePO4 Battery

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Model: Bluetooth 24V 50Ah LiFePO4 Battery

1. PRODUCT OVERVIEW

The Redodo Bluetooth 24V 50Ah LiFePO4 Battery is a smart lithium iron phosphate battery designed for various deep cycle applications, including trolling motors, marine use, RVs, fishing finders, solar systems, and off-grid power. It features integrated Bluetooth monitoring and an upgraded Battery Management System (BMS) for enhanced safety and performance. This package also includes a dedicated 29.2V 20A LiFePO4 battery charger.

Key Features:

- **Bluetooth Monitoring & Control:** Track charge status, cycles, temperature, and battery health via a mobile application. Manage discharge and power-off functions remotely.
- **Compact & Lightweight:** Weighing approximately 21.14 lbs, this battery offers a lightweight solution for various applications.
- **Optimized for 24V Trolling Motors:** Designed to power trolling motors with up to 100 lbs of thrust, providing continuous power with a 60A discharge current.
- **Fast Charging:** The included 29.2V 20A charger can fully charge a 24V 100Ah LiFePO4 battery in approximately 5 hours.
- **Advanced BMS Protection:** Equipped with safeguards against overcharge, over-discharge, short circuits, over-current, over-temperature, and low-temperature cut-off.
- **Long Lifespan:** Built with Grade A cells, offering over 4,000 cycles at full depth of discharge.
- **Expandable Capacity:** Can be scaled up to 10.24kWh (max 4P2S) for increased power needs.



Image: Redodo 24V 50Ah LiFePO4 Battery powering a trolling motor on a boat, highlighting its application.

2. SAFETY INFORMATION

Read all safety instructions before operating the battery and charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

General Safety Precautions:

- Do not disassemble, modify, or puncture the battery.
- Keep the battery away from fire, heat sources, and direct sunlight.
- Do not immerse the battery in water or other liquids.
- Use only the specified Redodo 29.2V 20A charger or a compatible LiFePO4 charger with a lithium activation function.
- Ensure proper ventilation during charging and operation.
- Wear appropriate personal protective equipment (PPE), such as gloves and eye protection, when handling the battery.
- Avoid short-circuiting the battery terminals.
- Keep out of reach of children.

Charger Safety Functions:

- Output Short-Circuit Protection
- Over-Temperature Protection
- Output Over-Voltage Protection
- Reverse Polarity Connection Protection

Output Short-Circuit Protection

Temperature Protection

Output Over-Voltage Protection

Reverse Polarity Connection Protection

100%

Reliable safety protection

Keeps the battery in good performance and extend its lifespan

*Automatically turns off when the battery is fully charged.

Image: Diagram illustrating the safety protection functions integrated into the 29.2V 20A charger.

3. WHAT'S IN THE BOX

Upon unpacking your Redodo battery and charger, please verify that all items listed below are present and in good condition:

- Redodo Bluetooth 25.6V 50Ah LiFePO4 Battery with Low Temp Cut Off
- Insulating Caps for Terminal Bolts
- M8- 5/8" Terminal Bolts
- Redodo 29.2V 20A LiFePO4 Battery Charger



Image: The Redodo 24V 50Ah LiFePO4 battery and its accompanying 29.2V 20A charger.

4. SETUP AND INSTALLATION

Initial Activation:

Redodo Bluetooth batteries are shipped in a powered-off state to ensure safety during transit. To activate the battery, connect it to a compatible LiFePO4 charger (such as the included 29.2V 20A charger) or an MPPT solar charge controller that has a lithium activation function. The battery will activate automatically upon receiving a charge.

Connecting the Battery:

1. Ensure all loads are disconnected from the battery before making connections.
2. Connect the positive (+) terminal of the battery to the positive (+) terminal of your application (e.g., trolling motor, inverter).
3. Connect the negative (-) terminal of the battery to the negative (-) terminal of your application.
4. Secure all connections tightly using the provided M8- 5/8" terminal bolts and insulating caps. Loose connections can cause overheating and damage.
5. If connecting multiple batteries in series or parallel, refer to the 'Expandable Capacity' section for specific wiring diagrams and safety guidelines.

Bluetooth Pairing:

Download the official Redodo app from your smartphone's app store. Ensure your battery is activated and within Bluetooth range. Open the app and follow the on-screen instructions to pair with your battery. This will enable real-time monitoring and control features.

Smart Bluetooth Monitor & Secure Your Cruise



Image: The Redodo battery with a smartphone showing the Bluetooth monitoring interface for capacity, voltage, and state of charge.

5. OPERATING INSTRUCTIONS

Charging the Battery:

Use the provided Redodo 29.2V 20A LiFePO4 battery charger. Connect the charger to a suitable power outlet, then connect the charger's output to the battery terminals. The charger features an indicator light:

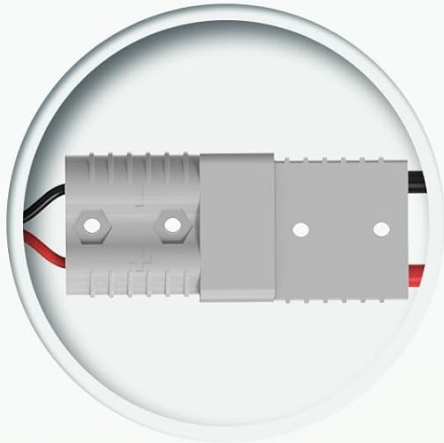
- **Red/Orange:** Charging
- **Green:** Fully Charged / Standby

The charger will automatically stop charging when the battery is full. Charging time for a 24V 100Ah battery is approximately 5 hours with the 20A charger.

PRODUCT DETAILS

29.2V 20A Lifepo4 Battery Charger

Pluggable connection,
simple and convenient wiring



Humanized design of
charging indicator

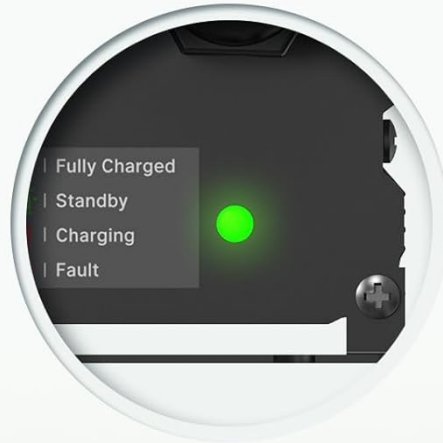


Image: The Redodo 29.2V 20A LiFePO4 battery charger, detailing its connection and indicator light.

Discharging and Application:

The battery is designed for deep cycle applications. It can deliver a continuous discharge current of 60A, suitable for high-power devices like trolling motors up to 100 lbs of thrust. Monitor battery status via the Bluetooth app to ensure optimal performance and avoid over-discharge.

Optimized for 24V Trolling Motors

Up to 100lbs of Thrust



Image: The Redodo battery in a marine application, demonstrating its capability for 24V trolling motors with up to 100 lbs of thrust.

Low-Temperature Protection:

The battery features a low-temperature cut-off protection. This ensures the battery's longevity and safety by preventing charging or discharging outside safe temperature ranges:

- **Below -4°F (-20°C):** Discharging stops.
- **Below 32°F (0°C):** Charging is disabled.
- **Above 41°F (5°C):** Charging resumes.

Low-Temp Cutoff Protection



Image: Visual representation of the battery's low-temperature cutoff protection, indicating temperature thresholds for discharging and charging.

6. MAINTENANCE

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

- **Regular Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean terminals with a wire brush if necessary and ensure they are securely fastened.
- **Cleaning:** Keep the battery clean and dry. Wipe down the battery case with a damp cloth. Do not use harsh chemicals or solvents.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50-70% State of Charge (SOC). Store in a cool, dry place, away from direct sunlight and extreme temperatures. Disconnect all loads.
- **Avoid Deep Discharge:** While the BMS protects against over-discharge, it is best practice to recharge the battery before it reaches critically low levels to maximize cycle life.

7. TROUBLESHOOTING

If you encounter issues with your Redodo battery or charger, refer to the following common troubleshooting steps:

Battery Not Activating:

- Ensure the battery is connected to a compatible LiFePO4 charger or MPPT with a lithium activation function. The battery is shipped in a powered-off state and requires an initial charge to activate.
- Check all connections for proper polarity and tightness.

Battery Not Charging:

- Verify the charger is properly plugged into a working power outlet and the battery.
- Check the charger's indicator light. If it's green, the battery might be fully charged or in standby. If it's off, check the power supply.
- Ensure the ambient temperature is above 32°F (0°C), as the battery has a low-temperature charging cut-off.
- Inspect the charger and battery cables for any damage.

Battery Not Discharging / Low Power Output:

- Check the battery's State of Charge (SOC) via the Bluetooth app. Recharge if the SOC is low.
- Ensure the ambient temperature is above -4°F (-20°C), as the battery has a low-temperature discharging cut-off.
- Verify that the load (e.g., trolling motor) is not exceeding the battery's maximum continuous discharge current (60A).
- Check for loose or corroded connections at the battery terminals and the load.

Bluetooth Connectivity Issues:

- Ensure the battery is activated and powered on.
- Make sure your smartphone's Bluetooth is enabled and you are within close proximity to the battery.
- Restart the Redodo app and try pairing again.
- If issues persist, try restarting your smartphone.

For persistent issues not covered here, please contact Redodo customer support.

8. SPECIFICATIONS

Feature	Specification
Brand	Redodo
Model Name	Bluetooth lithium 24V 50ah deep cycle marine trolling motor battery
Model Number	Bluetooth 24V 50Ah LiFePO4 Battery
Number of Batteries	1 Lithium Ion battery required
Battery Cell Composition	Lithium-Phosphate (LiFePO4)
Voltage	25.6 Volts
Capacity	50 Ah
Battery Weight	21.14 Pounds
Item Weight	21.1 Pounds
Charger Voltage	29.2 Volts
Charger Current	20 Amps
Built-In Media	Bluetooth 25.6V 50Ah LiFePO4 Battery Low Temp Cut Off, Insulating Caps for Bolts, M8-5/8" Terminal Bolts

Small Size Superior Performance



Image: Dimensions of the Redodo 24V 50Ah LiFePO4 battery, indicating its compact size.

Upgraded BMS for Peak On-Water Performance



Smart BMS with Multi-Protection

Over-Charge Over-Discharge
Over-Current Short-Circuit
Over-Temperature Low-Temperature

BMS Upgrade Design

Overload Protection
Self-Recovery Function(30s)
Pre-Charging Function
Moisture-Proof
Salt-Spray-Resistant

Image: Detailed view of the upgraded BMS, highlighting its multi-protection features for peak performance and safety.

9. WARRANTY AND SUPPORT

Warranty Information:

The Redodo Bluetooth 24V 50Ah LiFePO4 Battery comes with a **5-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

The warranty does not cover damage caused by misuse, neglect, improper installation, unauthorized modifications, or natural disasters.

Customer Support:

For technical assistance, warranty claims, or any questions regarding your Redodo product, please contact our customer support team. We aim to provide a 24-hour response to inquiries.

- **Website:** Visit the official Redodo website for support resources and contact information.

- **Email:** Refer to your product packaging or the official website for the support email address.

Please have your model number (Bluetooth 24V 50Ah LiFePO4 Battery) and purchase date ready when contacting support.