

## WEIZE BAC-0132VWEI

# WEIZE 12V 100Ah Group 24 Bluetooth LiFePO4 Lithium Battery User Manual

Model: BAC-0132VWEI

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation of your WEIZE 12V 100Ah Group 24 Bluetooth LiFePO4 Lithium Battery. Please read this manual thoroughly before installation and use to ensure optimal performance and longevity of your battery.

The WEIZE 12V 100Ah LiFePO4 battery is designed for deep cycle applications, offering high energy density, a long cycle life, and integrated Bluetooth monitoring. It is suitable for various uses including RVs, camping, solar energy systems, and trolling motors.

## 2. SAFETY INFORMATION

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**WARNING: Failure to follow these safety instructions may result in electric shock, fire, serious injury, or death.**

- Always wear appropriate personal protective equipment (PPE) including safety glasses and insulated gloves when handling batteries.
- Do not short-circuit the battery terminals.
- Do not immerse the battery in water or expose it to excessive heat.
- Use only chargers specifically designed for LiFePO4 batteries. Do not use lead-acid chargers.
- Do not attempt to open, disassemble, or modify the battery. It contains a built-in Battery Management System (BMS) for protection.
- Ensure proper ventilation during charging and discharge.
- Keep out of reach of children.
- In case of fire, use a Class D fire extinguisher. Water can exacerbate lithium battery fires.

## 3. PRODUCT OVERVIEW

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The WEIZE 12V 100Ah LiFePO4 battery features advanced technology for reliable power delivery.

### Key Features:

- **12V 100Ah LiFePO4 Chemistry:** Provides stable power and a long cycle life.
- **Built-in 120A BMS:** Protects against over-charge, over-discharge, over-current, short-circuit, and extreme temperatures.
- **Bluetooth Functionality:** Allows real-time monitoring of battery status via a smartphone application.
- **Low-Temperature Protection:** Ensures safe operation in cold environments.
- **Lightweight Design:** Approximately 1/3 the weight of comparable lead-acid batteries.
- **High Cycle Life:** Over 2000 cycles at 100% Depth of Discharge (DoD), up to 8000 cycles at 50% DoD.



Figure 3.1: WEIZE 12V 100Ah LiFePO4 Lithium Battery. This image shows the top and front view of the battery, highlighting the terminals, handles, and product labeling including "WEIZE", "LiFePO4 Group 24", "12.8V-100Ah", and the Bluetooth logo.

# POWERFUL, EFFICIENT SAFE & LONG-LASTING

- ✓ 1/3 Ultra Lightweight-only 23.15lbs
- ✓ 3X Longer Lifespan-10 years lifespan
- ✓ 2X Energy Output-a full day of fishing
- ✓ Extra Safe with BMS System



(Comparing to a lead-acid battery)

Figure 3.2: Internal view illustrating the Built-in Smart BMS. The image highlights the protective features of the BMS: Over Charge, Over Discharge, Over Current, Short Circuit, and Low & High Temperature Protection.

## 4. SETUP AND INSTALLATION

### 4.1 Unpacking

Carefully remove the battery from its packaging. Inspect the battery for any visible damage. If damage is observed, contact customer support immediately.

### 4.2 Mounting

The WEIZE LiFePO4 battery can be mounted in any position due to its sealed design and lack of liquid acid. Ensure the mounting location is secure, well-ventilated, and protected from direct sunlight, moisture, and extreme temperatures.

### 4.3 Connections

1. Ensure all power sources are disconnected before making any connections.
2. Connect the positive (+) terminal of the battery to the positive (+) terminal of your load/charger.
3. Connect the negative (-) terminal of the battery to the negative (-) terminal of your load/charger.
4. Use appropriate gauge cables and connectors for your application to prevent overheating and ensure efficient power transfer.
5. Tighten all connections securely to prevent loose connections, which can cause resistance and heat buildup.

**IMPORTANT: Do not connect more than two batteries in series. For parallel connections, ensure all batteries are at a similar state of charge before connecting.**

## 5. OPERATING INSTRUCTIONS

### 5.1 Initial Use

It is recommended to fully charge the battery before its first use to ensure optimal performance and

calibration of the BMS.

## 5.2 Bluetooth Monitoring

The battery features integrated Bluetooth for real-time monitoring via a smartphone application. Follow these steps to connect:

1. Download the official WEIZE battery monitoring application from your device's app store (iOS/Android).
2. Ensure Bluetooth is enabled on your smartphone.
3. Open the WEIZE app and search for available devices.
4. Select your battery from the list to connect. The app will display real-time data such as voltage, current, state of charge (SOC), temperature, and BMS status.



Figure 5.1: Smartphone displaying the WEIZE Bluetooth app interface. The app shows battery status including State of Charge (SOC), voltage, current, and temperature, allowing users to monitor and control the battery remotely.

## 5.3 BMS Reactivation

If the BMS cuts off the battery due to protection (e.g., over-discharge, low voltage), the battery will automatically reactivate after 1 second once the fault condition is removed. No external higher voltage input is required for reactivation.

## 6. CHARGING INSTRUCTIONS

Always use a dedicated LiFePO4 battery charger. Using chargers designed for other battery chemistries (e.g., lead-acid) can damage the battery and void the warranty.

### Recommended Charging Methods:

- **Method 1: Dedicated 12V 20A Lithium Charger**

A 12V 20A LiFePO4 charger can fully charge the battery in approximately 5 hours.

- **Method 2: Generator + 20A DC-DC Charger**

Connect a generator to a 20A DC-DC charger for charging. This method also takes approximately 5 hours.

- **Method 3: Solar Panel + MPPT Controller (>800W)**

For solar charging, use a solar panel array with an MPPT controller capable of delivering over 800W. Charging time will vary depending on sunlight conditions, typically one sunny day for a full charge.















PERFECT REPLACEMENT OF LEAD-ACID BATTERIES		
WEIZE LiFePO4	VS	LEAD ACID BATTERY
 BMS Protection	PROTECTION	 No protection
 100%	DEPTH OF DISCHARGE	 60%
 10 Years	WARRANTY	 3 Year
 4000-15000	CYCLES	 500
 Efficient & Fast Charging	CHARGEING	 Slow Multi Stage Charging
 Eco-friendly	ECO	 Toxic
 23.15 lbs		 60 lbs

Figure 6.1: Visual representation of three charging methods: a dedicated 12V 20A lithium charger, a generator with a 20A DC-DC charger, and solar panels with an MPPT controller. Each method indicates an approximate charging time.

**NOTE: The BMS includes low-temperature charging protection. If the battery temperature is too low, charging will be automatically suspended until the temperature rises to a safe level.**

## 7. MAINTENANCE

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WEIZE LiFePO4 batteries require minimal maintenance compared to lead-acid batteries.

- **Regular Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean terminals with a wire brush if necessary.
- **Storage:** If storing the battery for an extended period, ensure it is charged to approximately 50% State of Charge (SOC) and stored in a cool, dry place away from direct sunlight. Recharge every 3-6 months to prevent deep discharge.
- **Cleaning:** Clean the battery casing with a damp cloth. Do not use harsh chemicals or abrasive cleaners.

## 8. TROUBLESHOOTING

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If you encounter issues with your WEIZE LiFePO4 battery, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Battery not charging	Charger not connected or faulty. Charger not compatible with LiFePO4. Battery temperature too low (BMS protection). BMS in protection mode (e.g., over-discharge).	Check charger connections and functionality. Ensure a dedicated LiFePO4 charger is used. Move battery to a warmer environment. The BMS will reactivate automatically once the fault is cleared.
No power output from battery	Battery is fully discharged. BMS in protection mode (e.g., over-discharge, short circuit). Loose or corroded connections.	Charge the battery. The BMS will reactivate automatically once the fault is cleared. Check and tighten all connections.
Bluetooth connection issues	Bluetooth not enabled on device. App not installed or outdated. Battery too far from device.	Enable Bluetooth on your smartphone. Download/update the WEIZE battery app. Move closer to the battery.

If the problem persists after attempting these solutions, please contact WEIZE customer support.

## 9. SPECIFICATIONS

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Feature	Specification
Model	BAC-0132VWEI
Nominal Voltage	12.8V
Nominal Capacity	100Ah
Energy	1.28kWh
Max Continuous Discharge Current	120A

Feature	Specification
Peak Discharge Current (3s)	500A
Peak Discharge Current (5s)	300A
Built-in BMS	120A
Cycle Life	>2000 cycles @ 100% DoD, >8000 cycles @ 50% DoD
Dimensions (L x W x H)	10.24" x 6.61" x 8.46" (26cm x 16.8cm x 21.5cm)
Weight	24 Pounds (approx. 10.9 kg)
Terminal Type	Marine Terminal (F12/M8)
Operating Temperature	(Refer to product for specific ranges, includes low-temp protection)

## 1/3 WEIGHT OF THE LEAD-ACID BATTERY



### Dimension

L 10.24" x W 6.61" x H 8.46"

### Weight

23.15 lbs

### Terminal

F12/M8

Figure 9.1: Diagram showing the dimensions (Length 10.24", Width 6.61", Height 8.46") and weight (23.15 lbs) of the WEIZE 12.8V-100Ah LiFePO4 battery, along with its F12/M8 terminal type.

## 10. WARRANTY AND SUPPORT

### 10.1 Warranty Information

WEIZE LiFePO4 batteries typically come with a manufacturer's warranty. Please refer to the warranty card included with your product or visit the official WEIZE website for detailed warranty terms and conditions. The product description mentions a 10-year lifespan, which implies a significant warranty period.

## **10.2 Customer Support**

For technical assistance, troubleshooting, or warranty claims, please contact WEIZE customer support through their official website or the contact information provided with your purchase. When contacting support, please have your model number (BAC-0132VWEI) and purchase date available.

You can visit the [WEIZE Store on Amazon](#) for more information and support resources.