Litime 12V140Ah H190 BT

LiTime 12V 140Ah H190 Bluetooth LiFePO4 Battery User Manual

Model: 12V140Ah H190 BT

1. Introduction

Welcome to the LiTime 12V 140Ah H190 Bluetooth LiFePO4 Battery user manual. This document provides comprehensive instructions for the safe installation, operation, and maintenance of your new battery. Designed for deep cycle applications, this battery is ideal for RVs, campers, solar energy systems, marine vessels, and off-grid power storage. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.



Figure 1: LiTime 12V 140Ah H190 Bluetooth LiFePO4 Battery.



Figure 2: Versatile applications for the LiTime 12V 140Ah LiFePO4 battery, including recreational vehicles, solar installations, marine use, and home backup power.

2. Safety Information

Adhering to safety guidelines is crucial for preventing injury and damage. Always follow these precautions:

- Do not short-circuit the battery terminals.
- Do not expose the battery to fire, high temperatures, or direct sunlight for extended periods.
- Keep the battery away from children and pets.
- Use only chargers specifically designed for LiFePO4 batteries.
- Do not disassemble, puncture, or modify the battery.
- Ensure proper ventilation during charging and discharging.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection when handling the battery.
- This battery is not intended for use as a starting battery for internal combustion engines.

- In case of fire, use a Class D fire extinguisher. Water can exacerbate lithium battery fires.

3. Product Features

The LiTime 12V 140Ah H190 Bluetooth LiFePO4 Battery offers advanced features for reliable power:

- **High Capacity & Energy:** 140 Ampere-hours (Ah) and 1920 Watt-hours (Wh) of energy storage.
- **Compact Design:** H190 standard dimensions (35.8 x 17.7 x 18.9 cm) designed to fit European RV battery compartments.
- **Lightweight:** Weighs only 12.96 kg, significantly lighter than traditional lead-acid batteries.
- **Bluetooth 5.0 Connectivity:** Monitor battery status (State of Charge, voltage, current, temperature) in real-time via the LiTime mobile application.
- **Advanced 150A BMS:** Integrated Battery Management System provides over 20 types of protection, including over-voltage, under-voltage, over-current, short-circuit, and low-temperature charge/discharge cut-off. Features intelligent fault recovery.
- **Automotive Grade LiFePO4 Cells:** Ensures high energy density, safety, and stability. The battery is non-explosive and non-flammable.
- **Extended Cycle Life:** Offers 4000 to 15000 deep cycles (at 100% Depth of Discharge), providing a lifespan of approximately 10 years.
- **Low-Temperature Protection:** Automatically stops charging at temperatures below 0°C and stops discharging below -20°C to prevent damage. Charging resumes when the temperature is 5°C or higher.



Figure 3: Dimensions (35.8 x 17.7 x 18.9 cm) and weight (12.96 kg) of the LiTime 12V 140Ah H190 battery, designed for European RVs.



Figure 4: Intelligent monitoring and control via the LiTime Bluetooth 5.0 application, showing real-time battery data.



Figure 5: Internal view illustrating the 150A intelligent BMS and automotive-grade cells, providing multiple protections like overcharge, over-discharge, over-current, overheating, and short-circuit.



Figure 6: Low-temperature protection mechanism, intelligently interrupting charging and discharging processes to safeguard the battery.

4. Setup

Follow these steps for initial setup:

1. **Unpacking and Inspection:** Carefully remove the battery from its packaging. Inspect for any visible damage. Report any damage to the supplier immediately.
2. **Terminal Connections:** Ensure all connections are clean and secure. When replacing an AGM battery, you may need M8 adapters for compatibility with existing wiring. Connect the positive (+) terminal to the positive load/charger and the negative (-) terminal to the negative load/charger. Ensure correct polarity to avoid damage.
3. **Initial Charge:** It is recommended to fully charge the battery before its first use. Use a compatible LiFePO4 charger.
4. **Bluetooth App Installation:** Download the LiTime app from your smartphone's app store. Follow the in-app instructions to connect to your battery via Bluetooth.



Figure 7: Various charging options for your LiTime LiFePO4 battery, including dedicated chargers, solar panels, and generators.

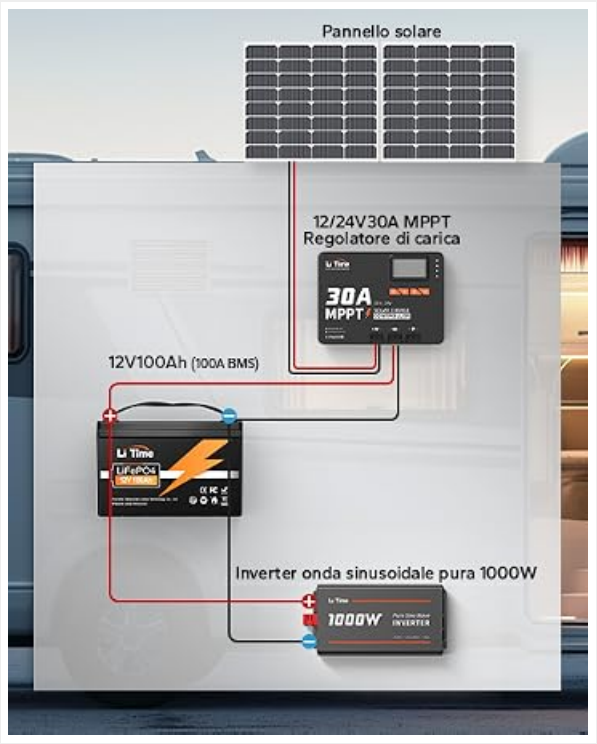


Figure 8: Example wiring diagram for a solar power system integrating the LiTime battery.

5. Operating Instructions

Operating your LiTime battery is straightforward:

- **Monitoring with Bluetooth App:** Use the LiTime app to continuously monitor the battery's State of Charge (SOC), voltage, current, and temperature. This provides valuable real-time data for efficient power management.
- **Charging:** Always use a LiFePO4 compatible charger with appropriate voltage and current settings. Overcharging or undercharging with incompatible chargers can damage the battery. The BMS will protect against overcharge and over-discharge.
- **Discharging:** The battery is designed for deep cycle applications. The BMS will automatically cut off discharge if the voltage drops too low or if the current draw is too high.
- **Parallel/Series Connection:** For increased capacity or voltage, multiple LiTime batteries can be connected in parallel or series. Refer to the full technical manual or consult LiTime support for specific guidelines on connecting multiple units to

ensure proper balancing and BMS functionality.

6. Maintenance

The LiTime LiFePO4 battery is designed to be maintenance-free, offering convenience and reliability. However, periodic checks are recommended:

- **Terminal Inspection:** Periodically check battery terminals for corrosion or loose connections. Clean and tighten as necessary.
- **Housing Inspection:** Ensure the battery housing is free from cracks or damage.
- **Long-Term Storage:** If storing the battery for an extended period, charge it to approximately 50-70% of its capacity. Store in a cool, dry place, away from direct sunlight and extreme temperatures.
- **No Watering Required:** Unlike lead-acid batteries, LiFePO4 batteries do not require watering.

7. Troubleshooting

If you encounter issues, refer to the following common troubleshooting steps:

- **Battery Not Charging/Discharging:**
  - Check all cable connections for tightness and correct polarity.
  - Verify that your charger is compatible with LiFePO4 batteries and is functioning correctly.
  - Check the battery status via the LiTime Bluetooth app. The BMS may have activated a protection mode (e.g., over-voltage, under-voltage, low-temperature).
- **BMS Locked for Transport:** Some batteries may arrive with the BMS in a locked state for safety during transport. This can usually be unlocked by connecting the battery to a compatible LiFePO4 charger for a short period. If issues persist, contact LiTime technical support.
- **Low Temperature Cut-off:** If the ambient temperature is below 0°C (for charging) or -20°C (for discharging), the BMS will prevent these operations. Move the battery to a warmer environment or wait for temperatures to rise. Charging will resume automatically at 5°C or higher.
- **Overload Protection:** If the current draw exceeds the battery's maximum discharge current (150A), the BMS will temporarily cut off power to protect the battery. Reduce the load and the battery should reset automatically.

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

8. Specifications

Detailed specifications for the LiTime 12V 140Ah H190 Bluetooth LiFePO4 Battery:

Feature	Specification
Brand	Litime
Model Number	12V140Ah H190 BT
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage	12.8 Volts
Capacity	140 Ampere-hours (Ah)
Energy	1920 Watt-hours (Wh)

Feature	Specification
BMS	150A
Max Charge Current	140A
Max Discharge Current	150A
Peak Discharge Current (1s)	700A
Cycle Life	4000-15000 cycles (100% DOD)
Lifespan	Up to 10 years
Dimensions (L x W x H)	35.8 x 17.7 x 18.9 cm
Weight	12.96 kg
Low Temperature Charge Cut-off	0°C
Low Temperature Discharge Cut-off	-20°C
Recommended Uses	Caravan, Camper, Home Energy Storage, Boats, Solar System, Off-Grid Systems, Electric Trolling Motor
Connectivity	Bluetooth 5.0
Included in Box	Battery, Instructions, Guide Card, Screws and Insulating Caps (x2), Gaskets (x2)

9. Warranty and Support

LiTime is committed to providing high-quality products and excellent customer service.

- **Warranty:** This LiTime 12V 140Ah LiFePO4 battery comes with a 5-year warranty from the date of purchase. Please retain your proof of purchase for warranty claims.
- **Technical Support:** Professional technical support is available. For any questions or assistance, please contact our customer service team. We aim to respond to inquiries within 24 hours.
- **Local EU Warehouses:** LiTime maintains local warehouses within the EU to ensure fast shipping and efficient service for our European customers.

10. Official Product Videos

No embeddable video URLs from the seller were provided in the product data. Please refer to the official LiTime website or product page for any available video resources.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question