

YONHAN Adjustable Current Battery Charger

YONHAN Battery Charger 1A/5A/10A 12V/24V Adjustable Current LiFePO4 Car Battery Charger Instruction Manual

1. INTRODUCTION

This manual provides comprehensive instructions for the YONHAN Adjustable Current Battery Charger (Model: B0FD9TJ146). This versatile 3-in-1 smart charger functions as a battery charger, maintainer, and desulfator, offering adjustable current settings (1A, 5A, 10A) for various 12V/24V battery types including LiFePO4, AGM, GEL, and Lead-Acid batteries. It features intelligent detection, pulse repair technology, and temperature compensation to ensure optimal charging and battery longevity.

2. IMPORTANT SAFETY INFORMATION

Please read and understand all safety instructions before using the charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always verify battery specifications with the manufacturer before charging.
- Ensure proper ventilation during charging to prevent gas accumulation.
- Do not expose the charger to direct sunlight or high-temperature environments.
- Avoid contact with battery acid. If contact occurs, rinse immediately with water and seek medical attention.
- Do not charge frozen, damaged, or completely dead batteries.
- Always connect the charger to the battery terminals first, then plug into the AC outlet. Disconnect in reverse order.
- This charger is not intended for use by children or persons with reduced physical, sensory, or mental capabilities unless under adult supervision.

- The charger features multiple protections including reverse polarity, overcurrent, overcharge, short circuit, and over-temperature protection.



Image: The YONHAN charger highlighting its 8 safety protections, including low voltage, reverse polarity, overcurrent, over-temperature, over-voltage, short circuit, overcharge, and automatic stop.

3. PRODUCT OVERVIEW

The YONHAN Adjustable Current Battery Charger is designed for ease of use and reliability. Its compact, durable casing houses advanced technology for efficient battery management.

Key Features:

- **Adjustable Current:** Selectable 1A, 5A, or 10A charging currents.
- **Wide Compatibility:** Supports 12V/24V LiFePO4, AGM, GEL, and Lead-Acid batteries.
- **Smart Detection:** Automatically detects battery type and voltage.
- **Pulse Repair Technology:** Helps recover sulfated or idle batteries.
- **Temperature Compensation:** Adjusts charging rate based on ambient temperature (Winter/Summer modes).
- **12V DC Mode:** Can charge batteries below 5V or act as a DC power supply.
- **Comprehensive Protections:** Includes reverse polarity, overcurrent, overcharge, short circuit, and over-temperature.
- **LCD Smart Display:** Provides real-time information on voltage, current, temperature, and battery status.



Image: Close-up of the YONHAN charger's LCD Smart Display, indicating voltage, current, temperature, battery power, Winter/Summer mode, and Repair mode.

4. SETUP AND CONNECTION

Follow these steps to safely connect the charger to your battery:

1. **Identify Battery Terminals:** Locate the positive (+) and negative (-) terminals on your battery.
2. **Connect Red Clamp:** Attach the red (+) charging clamp to the positive (+) battery terminal.
3. **Connect Black Clamp:** Attach the black (-) charging clamp to the negative (-) battery terminal.
4. **Plug into Power:** Once the clamps are securely attached, plug the charger's AC power cord into a standard 110V AC electrical outlet.
5. **Initial Display:** The LCD display will illuminate, showing the battery voltage, temperature, and automatically detecting the battery type (12V or 24V).



Image: The YONHAN charger connected to a car battery, demonstrating proper clamp placement on the positive (red) and negative (black) terminals within an engine compartment.

5. OPERATING INSTRUCTIONS

The YONHAN charger offers various modes and current settings for optimal battery care.

Selecting Charging Modes:

- Press the "MODE" button to cycle through the available charging currents: 1A, 5A, and 10A.
- The charger will automatically detect 12V or 24V batteries.
- Choose the current based on your battery's capacity:
 - **1A:** For 12V/24V 6-30AH batteries (e.g., motorcycles, small vehicles).
 - **5A:** For 12V/24V 20-100AH batteries (e.g., cars, SUVs).
 - **10A:** For 12V/24V 40-200AH batteries (e.g., trucks, boats, RVs).
- The LCD display will show the selected charging mode and the charging progress.



Image: Diagram illustrating the 1A, 5A, and 10A charging current options, specifying recommended battery capacities for each, and the 12V DC mode for low-voltage batteries or powering 12V devices.

Special Modes:

- **Repair Mode (PUL):** Activates pulse repair technology to help recover sulfated or idle batteries. This mode is indicated by "PUL" on the display. Note: This function cannot revive completely dead or severely damaged batteries.
- **12V DC Mode:** Use this mode for charging batteries with a voltage lower than 5V, or to convert the charger into a DC power supply for powering 12V DC devices (e.g., DC fan, oil changer) or as a memory retainer when replacing a battery.
- **Winter/Summer Modes:** The charger automatically detects ambient temperature and adjusts the charging rate to prevent overcharging in hot weather and undercharging in cold weather. This ensures optimal battery health year-round.



BRING BATTERIES BACK TO LIFE

AUTO DETECTION

Automatic sulfation and acid stratification detection.

REPAIR MODE

Repairs and reverses battery damage.

IMPROVED PERFORMANCE

Provides stronger engine starts and extended battery life.

Image: Visual representation of the charger's temperature adaptive feature, showing how it adjusts charging for summer (preventing overcharging in heat) and winter (ensuring full charging in cold weather).

Once the battery is fully charged, the charger will automatically switch to trickle maintenance mode to prevent overcharging and maintain optimal battery health.

6. MAINTENANCE

Regular maintenance ensures the longevity of your battery and charger.

- **Trickle Charging:** For vehicles or equipment stored for extended periods (e.g., over winter or during holidays), connect the charger in trickle mode to maintain battery charge and prevent self-discharge.
- **Pulse Repair:** Periodically use the Repair Mode to rejuvenate sulfated or idle batteries, extending their lifespan.
- **Cleaning:** Keep the charger and its cables clean and dry. Wipe with a soft, damp cloth. Do not use harsh chemicals.
- **Storage:** Store the charger in a cool, dry place when not in use.



ALL IN ONE 0-10A BATTERY CHARGER

Charger or repair all 12V and 24V LiFePO4 or lead-acid automotive, marine and deep-cycle batteries.

Image: The YONHAN charger's pulse repair function is shown, indicating its ability to address issues like poor starting force, reduced endurance, long idle time, and old batteries, though it cannot revive totally dead batteries.

7. TROUBLESHOOTING

If you encounter issues with your YONHAN Battery Charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger not turning on/display off.	No power from AC outlet; incorrect connection to battery.	Check AC power source; ensure clamps are correctly attached to battery terminals.
Battery not charging.	Battery is completely dead/damaged; incorrect mode selected; poor connection.	Try Repair Mode (PUL) for sulfated batteries (not dead ones); verify correct mode for battery type; ensure secure connections.
"ERR" or error code on display.	Reverse polarity; short circuit; over-temperature.	Disconnect and re-connect clamps correctly; check for short circuits; allow charger to cool down.

8. SPECIFICATIONS

Feature	Detail
Model	B0FD9TJ146
Brand	YONHAN
Input Voltage	110 Volts (AC)
Output Voltage	12 Volts (DC)
Adjustable Current	1A / 5A / 10A
Compatible Battery Types	12V/24V LiFePO4, AGM, GEL, Lead-Acid
Max Battery Capacity	Up to 200Ah
Product Dimensions	10 x 3.1 x 4.7 inches
Item Weight	1.52 pounds

9. OFFICIAL PRODUCT VIDEO

Watch this official video from YONHAN for a quick overview of the charger's adjustable current features and compatibility.

Your browser does not support the video tag.

Video: An official YONHAN product video demonstrating the 1A/5A/10A adjustable current settings and the charger's compatibility with various LiFePO4 car batteries.

10. WARRANTY AND SUPPORT

YONHAN warrants this product to be free from defects in material and quality for one (1) year from the date of purchase. For warranty claims or technical support, please contact YONHAN customer service. Keep your purchase receipt as proof of purchase.

For more information and support, visit the [YONHAN Store on Amazon](#).