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> YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger with Booster Mode - User Manual

YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger

Learn how to safely and effectively use your YONHAN 10/20Amp LiFePO4 Car Battery Charger with this infographic, covering setup, operation modes, and essential maintenance tips.

YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger with Booster Mode - User Manual

Model: 10/20Amp 12/24V LiFePO4 Car Battery Charger

Brand: YONHAN

IMPORTANT SAFETY INFORMATION

Read all instructions carefully before using the charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always wear eye protection and protective clothing when working with batteries.
- Ensure the charger is disconnected from the AC power outlet before making or breaking connections to the battery.
- Use the charger in a well-ventilated area. Do not operate in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Keep the charger away from water, rain, or excessive moisture.
- Do not charge frozen batteries. Allow the battery to warm to room temperature before charging.
- The repair mode is designed for old/idle lead-acid batteries and cannot activate a completely dead battery or repair a physically damaged battery. **LITHIUM BATTERIES ARE NOT ALLOWED** for repair mode.
- Do not attempt to disassemble or modify the charger. Refer all servicing to qualified personnel.
- Keep out of reach of children.

PRODUCT OVERVIEW

The YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger is a fully-automatic smart charger designed to charge and maintain various 12V and 24V lead-acid automotive, marine, and deep-cycle batteries, including AGM, GEL, SLA, and

Flooded types. It also features a dedicated mode for LiFePO4 batteries and a repair function for lead-acid batteries.

Key Features:

- 10-Amp and 20-Amp charging options.
- Compatibility with 12V and 24V battery systems.
- Integrated thermal sensor for temperature-adaptive charging.
- Advanced battery repair mode for lead-acid batteries.
- Multiple protection circuits: overcharge, overvoltage, overcurrent, short circuit, reverse connection, overheat, undervoltage.
- Backlit LCD display for charging status and battery information.



Image: The YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger, showing its compact design, LCD display, and included battery clamps.

BATTERY COMPATIBILITY

Charge and repair all 12V or 24V lead-acid or LifePO4 Batteries
[AGM, GEL, SLA, Flooded, WET, EFB etc..]



Image: Illustration demonstrating the charger's compatibility with various battery types, including LiFePO4 and Lead-Acid batteries (AGM, GEL, SLA, Flooded, WET, EFB).

SETUP

Follow these steps to set up your YONHAN battery charger:

- 1. Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If necessary, clean them with a wire brush and a mixture of baking soda and water.
- 2. Connect Battery Clamps:**
 - Connect the **RED** positive (+) clamp to the positive (+) battery terminal.
 - Connect the **BLACK** negative (-) clamp to the negative (-) battery terminal.
 - For vehicle batteries, if connecting to the chassis, connect the BLACK clamp to a non-painted, heavy gauge

metal part of the vehicle chassis or engine block, away from the battery and fuel line.

3. **Connect to Power:** Plug the charger's AC power cord into a standard 100-240V AC electrical outlet. The charger will power on and display the current battery voltage.
4. **Initial Check:** The charger will automatically detect the battery voltage (12V or 24V) and begin the charging process. Verify the display shows appropriate information.

Note: Always ensure proper polarity when connecting the clamps to avoid damage to the charger or battery.

OPERATING INSTRUCTIONS

The YONHAN charger features an intelligent charging process with multiple modes and an intuitive LCD display.

Mode Selection

The charger offers four primary modes: CAR, LiFePO4, MOTO, and REPAIR. Press the "MODE" button to cycle through these options. The selected mode will be indicated on the LCD display.

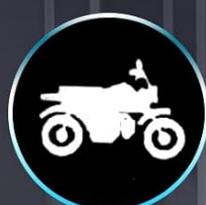
4 MODES SELECTION



CAR



LiFePO4



MOTO



REPAIR



Button Design,
More Sensitive



Automatically lock after the 30s of charging
and it can be reselected after powering off.

Image: The charger's display showing the four selectable modes: CAR, LiFePO4, MOTO, and REPAIR. The mode button is highlighted.

TOUCH BUTTON FOR PRECISE SWITCHING



Standard



Start/stop



Water battery



Motorcycle



Repair



MODE SELECTION



Image: A close-up of the charger's touch button interface, illustrating the various icons for mode selection and other functions.

- **CAR Mode:** For standard 12V/24V lead-acid batteries in cars, SUVs, trucks.
- **LiFePO4 Mode:** Specifically for 12V/24V Lithium Iron Phosphate batteries.
- **MOTO Mode:** Optimized for smaller 12V/24V lead-acid batteries found in motorcycles, ATVs, lawnmowers.
- **REPAIR Mode:** Designed to recover old, idle, or sulfated lead-acid batteries. This mode uses high-frequency and low-frequency pulse technology. *Note: This mode cannot repair physically damaged batteries or activate completely dead batteries. Not for Lithium batteries.*

Charging Process

Once a mode is selected, the charger will automatically begin the 7-stage charging process. The LCD display will show real-time information including battery voltage, charging current, and charging status (e.g., battery percentage).

The charger features an intelligent memory function, defaulting to the last used mode after a power cycle.

Smart Repair Function (Lead-Acid Only)

The repair mode utilizes low-frequency pulse repair technology to help desulfate and recondition lead-acid batteries that

have been idle or have low voltage. This can help extend battery life.



Image: Visual representation of the smart repair function, showing its application for cars with long idle times, low voltage/weak power, and aging batteries that cannot be charged.

Thermal Compensation

The integrated thermal sensor automatically detects the ambient temperature and adjusts the charging voltage accordingly. This prevents over-charging in hot climates and under-charging in cold climates, optimizing battery health and charging efficiency.

THERMAL COMPENSATION, OPTIMIZED FOR ANY CLIMATE



Image: Depiction of the charger's thermal compensation feature, illustrating safe charging in summer (above 28°C) and powerful charging in winter (0-10°C).

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your YONHAN battery charger.

- **Cleaning:** Disconnect the charger from both the AC outlet and the battery before cleaning. Wipe the exterior with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Cable and Clamp Inspection:** Regularly inspect the charging cables and battery clamps for any signs of damage, fraying, or corrosion. Replace if necessary.
- **Storage:** Store the charger in a cool, dry place when not in use. Avoid extreme temperatures and direct sunlight. Ensure cables are neatly coiled and not kinked.
- **Ventilation:** Ensure the charger's ventilation openings are clear of dust and debris to prevent overheating.

TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Charger does not turn on.	No power from AC outlet; loose connection.	Check AC power cord connection. Test the outlet with another device.
Battery not charging or charging slowly.	Incorrect mode selected; poor clamp connection; battery is severely discharged or damaged.	Ensure correct mode (CAR, LiFePO4, MOTO) is selected. Check clamp connections for secure contact. If battery is very low, try Repair mode (for lead-acid only). If battery is damaged, it may not accept a charge.
"Error" or specific code on LCD.	Reverse polarity connection; short circuit; battery fault.	Disconnect charger, check battery clamp polarity (+ to +, - to -). Inspect cables for damage. If error persists, the battery may be faulty.
Repair mode does not work.	Battery is completely dead or physically damaged; attempting on LiFePO4 battery.	Repair mode is for lead-acid batteries only and cannot revive a dead or damaged battery. Ensure battery type is compatible.

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

SPECIFICATIONS

Technical specifications for the YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger:

Feature	Detail
Model	YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger
Input Voltage	100-240V AC
Output Voltage	12V / 24V DC (Auto-detection)
Output Current	10A / 20A (Selectable or Auto)
Max Input Power	300W

Feature	Detail
Compatible Battery Types	12V/24V Lead-Acid (AGM, GEL, SLA, Flooded, WET, EFB), 12V/24V LiFePO4
Charging Stages	7-Stage Automatic Charging
Protection Features	Overcharge, Overvoltage, Overcurrent, Short Circuit, Reverse Connection, Overheat, Undervoltage
Operating Temperature	Temperature compensated charging (optimized for various climates)

20 AMPS HIGH POWER SAVE YOUR CHARGER TIME



The image shows a rugged, black and red battery charger with a digital LCD screen. The screen displays '12.5 V' in large digits, with '12V', '12V ⇌ 24V', and '24V' at the top. Below the main display are icons for 'CAR', 'AGM LiFePO4', 'MOTO', and 'REPAIR'. A battery level indicator on the right shows 100%, 75%, 50%, and 25% levels. The charger has a handle on top and is being used on a car battery.

AC Input Voltage:
100 - 240V

input power with load:
Max 300W

Image: Display of the charger's power specifications, including AC Input Voltage (100-240V) and maximum input power with load (300W).

WARRANTY AND SUPPORT

YONHAN products are manufactured to high-quality standards. For information regarding warranty coverage, please refer to the warranty card included with your product or visit the official YONHAN website.

If you require technical assistance, have questions about product operation, or need to report a defect, please contact YONHAN customer support through their official channels. Provide your product model and purchase details when contacting support to ensure efficient service.

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

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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

Answered questions about this manual

How does the Repair mode work on the YONHAN 10/20Amp Smart Charger for an AGM battery, and should the 'PUL' indicator and 100% bar stop blinking when finished?

Based on the YONHAN charger's operation, here is how to interpret the Repair mode and your battery's behavior:Repair Mode Completion: In Repair mode, the charger uses pulse technology (indicated by PUL). While the manual...

[Read full answer](#)

I had my riding lawn mower battery on the YONHAN 10/20Amp 12/24V Charger in Repair mode for 16 hours, then switched to Motorcycle mode for trickle charging. The LCD display now shows 'tet'. What does this mean?

Based on the YONHAN 10/20Amp 12/24V LiFePO4 Car Battery Charger manual, there is no specific "tet" code listed in the standard troubleshooting section. However, it is highly likely that the display is actually showing...

[Read full answer](#)