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› [FOXSUR Multifunctional Smart Battery Charger \(12V/6A, 24V/3A\) User Manual](#)

FOXSUR FBC122406D

FOXSUR Multifunctional Smart Battery Charger User Manual

Model: FBC122406D (12V/6A, 24V/3A Automatic Battery Charger/Maintainer)

Brand: FOXSUR

1. SAFETY INFORMATION

Please read this manual carefully before using the charger. Failure to follow instructions may result in electric shock, injury, or property damage.

- Always wear eye protection and protective clothing when working with batteries.
- Ensure adequate ventilation during charging to prevent gas accumulation.
- Never charge a frozen battery.
- Keep the charger away from water, rain, or excessive moisture.
- Do not operate the charger if it has been dropped or damaged.
- The charger features **reverse-polarity protection, over-current protection, overload protection, over-voltage protection, over-charge protection, and over-temperature protection.**

2. PRODUCT OVERVIEW

The FOXSUR Multifunctional Smart Battery Charger is a microprocessor-controlled, 7-stage automatic charger and maintainer designed for a wide range of 12V and 24V batteries. It automatically adjusts the charge current and maintainability, ensuring optimal charging for various battery chemistries.

It is compatible with **SLA, WET, MF, FLOODED, GEL, VRLA, AGM, EFB, Lithium, and LiFePO4 batteries**, making it suitable for cars, motorcycles, boats, lawnmowers, ATVs, tractors, trucks, SUVs, and more.

The charger features a backlit LCD display that clearly shows charging status, battery status, charge voltage, charge current, internal temperature, and selected modes.



Image: The FOXSUR Smart Battery Charger connected to different battery types, including a car battery and a motorcycle battery. The charger's display is visible, showing its multi-functional capabilities.

3. SETUP

Follow these steps to safely connect and prepare your charger for operation:

1. **Connect the Charger to the Battery:** Attach the red positive (+) clamp to the positive battery terminal and the black negative (-) clamp to the negative battery terminal. Ensure a secure connection.
2. **Connect to Power:** Plug the charger's AC power cord into a suitable electrical outlet. The charger will automatically detect the battery voltage (12V or 24V).
3. **Select Charging Mode:** Within 30 seconds of plugging in, touch the 'MODE' button to cycle through the available charging modes (Lithium, Lead, LiFePO4, Repair). If no mode is selected within 30 seconds, or if you need to reset the charging mode, disconnect the clamps from the battery and reconnect them.



Image: The FOXSUR Smart Battery Charger properly connected to a car battery, showing the red clamp on the positive terminal and the black clamp on the negative terminal.



Image: The FOXSUR Smart Battery Charger with its attached battery clamps and AC power plug, ready for connection.

4. OPERATING INSTRUCTIONS

Once connected and a mode is selected, the charger will begin its 7-stage charging process. The LCD display provides real-time information:

- **Voltage Display:** Shows the current battery voltage.
- **Current Display:** Indicates the charging current in Amperes.
- **Temperature Display:** Displays the internal temperature of the charger.
- **Battery Full Indicator:** Illuminates when the battery is fully charged.
- **Summer/Winter Mode:** The charger automatically adjusts charging parameters based on ambient temperature.

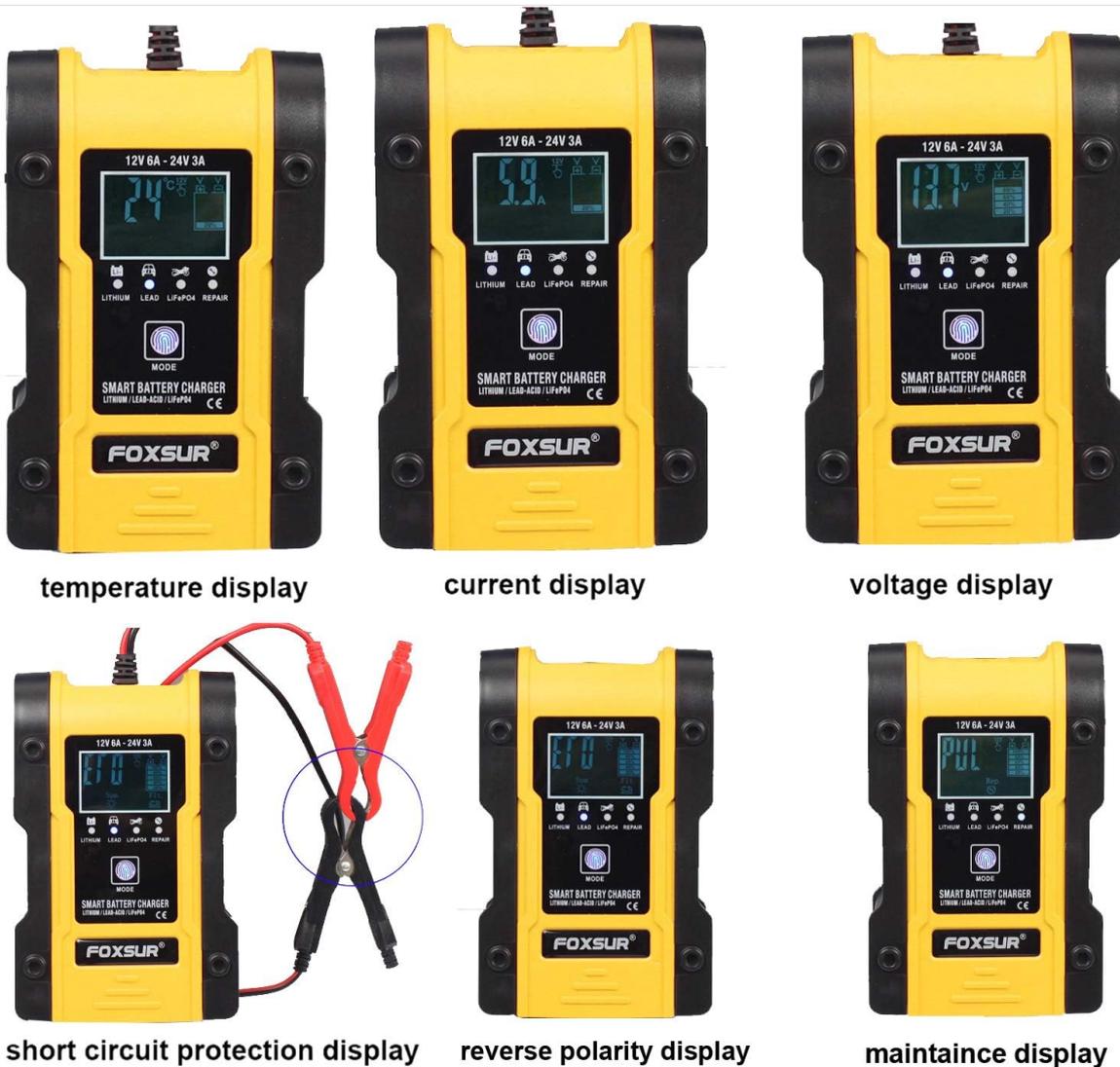


Image: A series of close-up views of the charger's LCD display, illustrating the temperature, current, voltage, short circuit protection, reverse polarity protection, and maintenance indicators.

Charging Modes

- **Lithium Mode:** For Lithium-ion batteries.
- **Lead Mode:** For standard Lead-Acid batteries (SLA, WET, MF, FLOODED, GEL, VRLA, AGM, EFB).
- **LiFePO4 Mode:** Specifically for Lithium Iron Phosphate batteries.
- **Repair Mode (Pulse Repair Function):** This mode is designed to repair and activate old and weak **Lead-Acid batteries only**, potentially prolonging battery life. It cannot activate a dead battery or repair a severely damaged battery, nor can it restore a battery to 100% new condition.

5. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your charger:

- **Cleaning:** Disconnect the charger from power and the battery before cleaning. Use a soft, dry cloth to wipe the casing. Do not use solvents or abrasive cleaners.
- **Storage:** Store the charger in a cool, dry place when not in use. Ensure cables are neatly coiled and not kinked.

- **Cable and Clamp Inspection:** Regularly inspect the charging cables and clamps for any signs of damage, wear, or corrosion. Replace if necessary.

6. TROUBLESHOOTING

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

- **Charger Not Turning On:** Ensure the AC power cord is securely plugged into a live outlet and the battery clamps are correctly connected to the battery terminals.
- **Battery Not Charging:** Verify that the correct charging mode is selected for your battery type. Check battery voltage; if it's extremely low, the charger may not initiate charging.
- **"EFO" Error Displayed:** This indicates a reverse polarity connection. Disconnect the clamps immediately and reconnect them with the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal. The charger will automatically cut off current and prevent damage in this situation.
- **Short Circuit Protection:** If the clamps accidentally touch or a short circuit occurs, the charger will enter standby mode and display a warning. Separate the clamps to resume normal operation.
- **Over-Temperature Protection:** If the charger becomes too hot, it will automatically reduce the charging current or stop charging to prevent damage. Allow it to cool down in a well-ventilated area.

7. SPECIFICATIONS

Feature	Specification
Model	FBC122406D
Input Voltage	100-240V AC, 50/60Hz (Max. 110W)
Output Voltage/Current	DC 12V 6A, 24V 3A
Minimum Start Voltage	8.0V
Battery Range	6-120Ah
Thermal Protect	65°C +/- 5°C
Efficiency	App. 85%
Dimensions	25.3 x 16.1 x 6.6 cm
Weight	598 g
Compatible Battery Types	Lithium, LiFePO4, Lead-Acid (SLA, WET, MF, FLOODED, GEL, VRLA, AGM, EFB)

ASIN	B087TM6D6M
UPC	086291492861

8. WARRANTY AND SUPPORT

For warranty information, please refer to the specific warranty policy provided with your product packaging or visit the manufacturer's official website. Keep your purchase receipt as proof of purchase.

For technical support or further inquiries, please visit the official FOXSUR website: www.foxsur.com