COREBOX H-15E

User Manual for COREBOX 12V/15A Smart Battery Charger

Model: H-15E

Introduction

The COREBOX 12V/15A Smart Battery Charger is a versatile and intelligent device designed for charging and maintaining various 12V lead-acid and LiFePO4 batteries. It features a 9-stage charging system, automatic temperature compensation, and multiple safety protections to ensure efficient and safe battery care. This manual provides essential information for the proper setup, operation, and maintenance of your battery charger.



Figure 1: COREBOX 12V/15A Smart Battery Charger with clamps.

Safety Information

Always prioritize safety when operating electrical devices. This charger is built with comprehensive safety features, but proper handling is crucial.

- Ensure the charger is connected to a compatible 12V battery type before plugging into a power outlet.
- Avoid short-circuiting the clamps. Connect the red clamp to the positive (+) terminal and the black clamp to the negative (-) terminal.
- Do not attempt to charge frozen or damaged batteries.
- Operate in a well-ventilated area to prevent gas accumulation.
- The charger includes safeguards such as temperature compensation, power-off protection, over-voltage/current/load prevention, short-circuit control, fire protection, and anti-reverse connection protection.
- In case of faults, the charger features an auto-shut/down mechanism.



Figure 2: Illustration of the charger's short circuit protection.

Product Features

- **High-Speed 12V/15A Charging:** Compatible with 0-15-amp batteries, including 1A, 1.75A, 2A, 4A, 6A, 8A, 10A, 12A.
- **Multi-Battery Compatibility:** Safely charges and repairs lead-acid (AGM, GEL, SLA, Flooded) and LiFePO4 batteries for vehicles, automotive, marine (boats), and trucks.
- **Intelligent 9-Stage Charging:** Features bulk, absorption, and float modes for efficient charging and overcharge prevention. Automatically switches to trickle/float mode for long-term maintenance.
- **Clear LCD Display:** Large color LED screen displays real-time metrics: charging voltage (12V), current (0-15A), internal temperature (°F/°C), charge percentage, and seasonal modes (summer/winter).
- **Comprehensive Safety Protections:** Built with fireproof materials and multi-layer safeguards including temperature compensation, power-off protection, over-voltage/current/load prevention, short-circuit control, fire protection, anti-reverse connection protection, and overheat protection.
- **Pulse Repair Function:** Automatically detects sulfation and acid stratification, utilizing high-efficiency pulse technology to restore battery performance and extend lifespan.
- **User-Friendly Design:** Intuitive interface simplifies charging for beginners. Includes spark-free clamps and a multilingual manual.

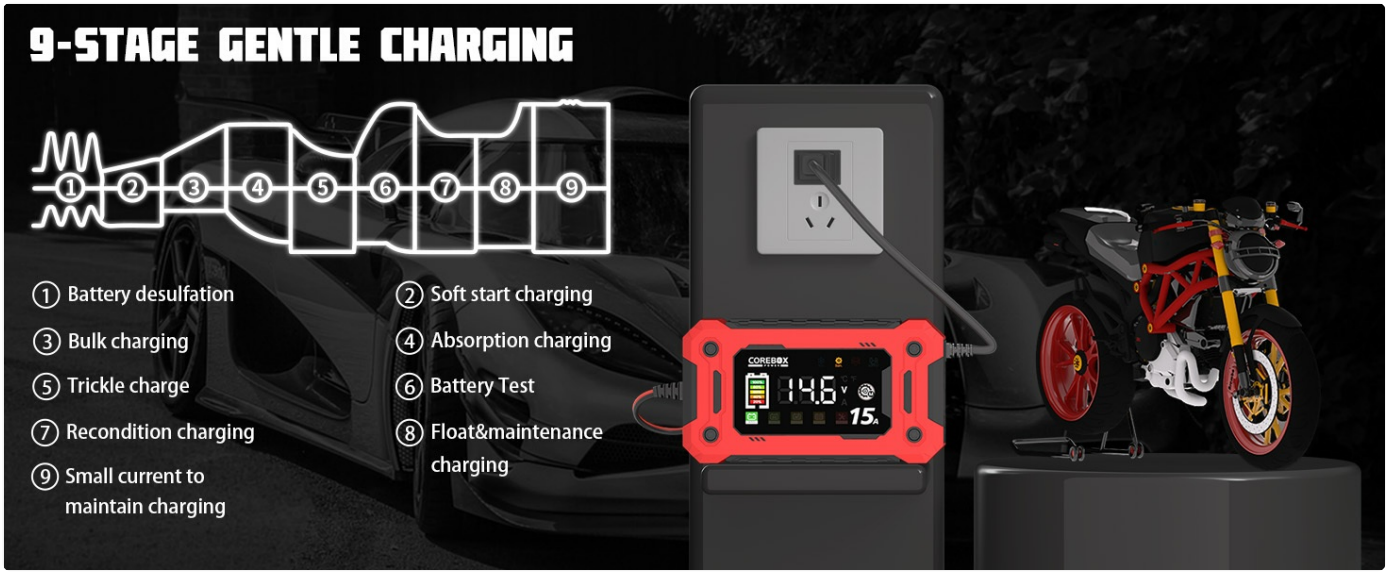


Figure 3: Diagram illustrating the 9-stage charging process.

Setup and Connection

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion.
2. **Connect Clamps:**
    - Connect the **red** positive (+) clamp to the positive (+) terminal of the battery.
    - Connect the **black** negative (-) clamp to the negative (-) terminal of the battery.
3. **Plug in Charger:** Once the clamps are securely connected to the battery, plug the charger's power cord into a standard electrical outlet. The LCD display will illuminate.
4. **Automatic Detection:** The charger will automatically detect the battery type and current status.

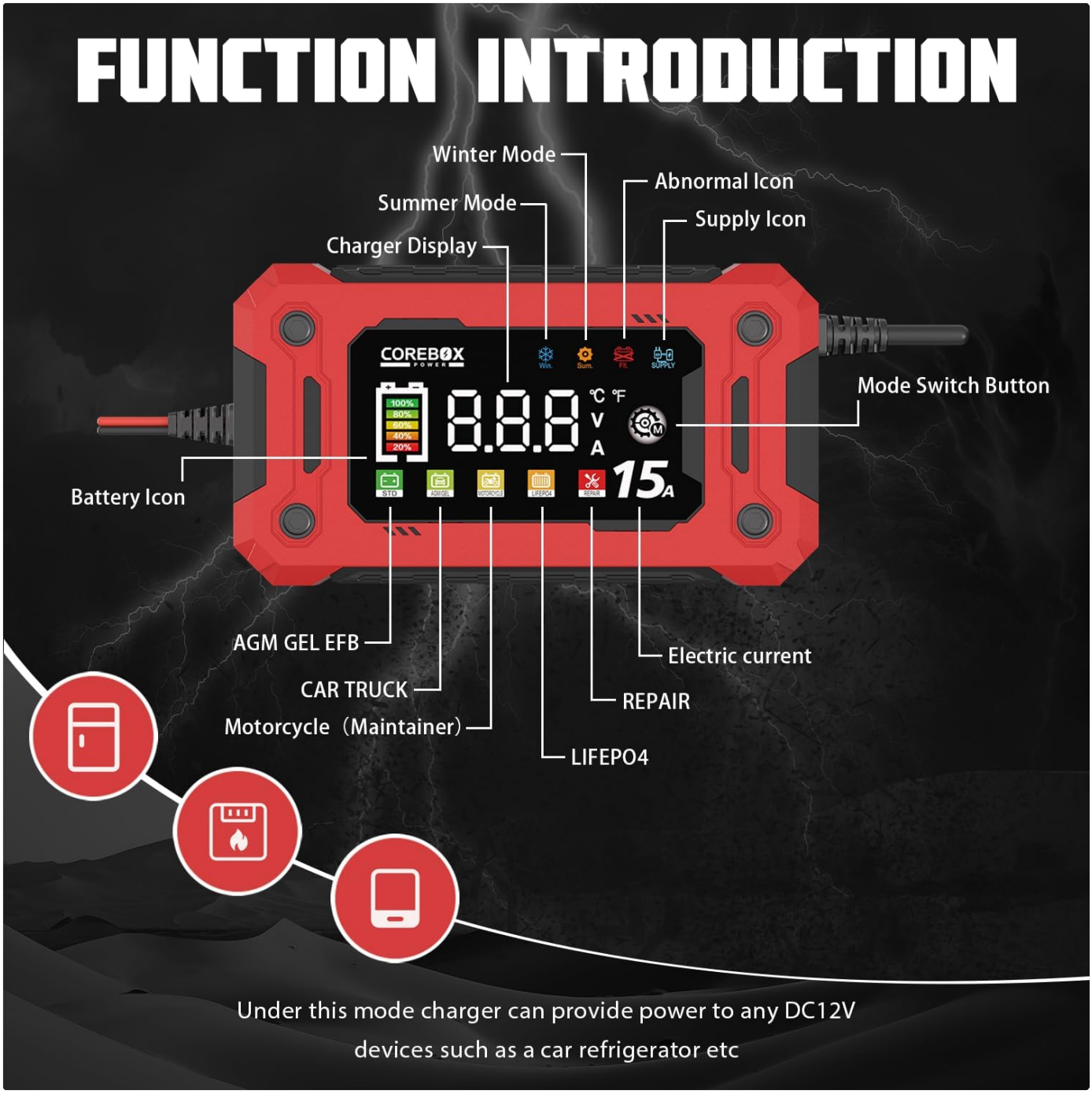


Figure 4: Overview of the charger's display and function buttons.

Operating Modes

The COREBOX charger offers various modes to suit different battery types and charging needs. Use the "Mode Switch Button"

(indicated by 'M' or gear icon on the display) to cycle through the available modes.

- **STD (Standard):** For ordinary lead-acid batteries and maintenance-free batteries.
- **AGM/GEL:** For AGM and GEL batteries.
- **Motorcycle:** Optimized for motorcycle batteries.
- **LiFePO4:** Specifically for Lithium Iron Phosphate batteries.
- **Repair:** This function is for batteries that cannot be charged normally due to sulfation or acid stratification. The charger uses pulse technology to attempt to restore these batteries.
- **Supply Mode:** Press the mode switch button for 3 seconds. When the "SUPPLY" indicator appears and the screen displays "SUP", the supply mode is on. This mode can provide power to any DC12V devices such as a car refrigerator. Press the mode switch button again to exit supply mode.

The charger also features automatic seasonal modes (Summer/Winter) based on ambient temperature, adjusting charging parameters accordingly.



Figure 5: Visual representation of automatic summer and winter modes.

Maintenance

- **Charger Care:** Keep the charger clean and dry. Store it in a cool, dry place when not in use.
- **Battery Health:** For long-term storage of batteries (e.g., during winter), the charger's auto-maintenance (trickle/float) mode helps preserve optimal battery levels.
- **Cooling:** The charger is equipped with high-quality cooling fans for effective heat dissipation during operation. Ensure vents are not blocked.



Figure 6: Illustration of the charger's cooling system.

Troubleshooting

Problem	Possible Cause	Solution
Charger not turning on.	Not plugged in, power outlet issue, or incorrect battery connection.	Ensure power cord is securely plugged in. Check the power outlet. Verify correct polarity (+ to +, - to -) of battery clamps.
"OFF" or "ErrO" displayed.	Fault detected (e.g., short circuit, reverse polarity, over-voltage).	Disconnect from power and battery. Recheck connections for correct polarity and ensure no short circuits. Reconnect. If error persists, battery may be severely damaged.
Battery not charging.	Incorrect mode selected, battery too deeply discharged, or damaged battery.	Ensure the correct battery type mode is selected. Try the "Repair" mode for deeply discharged or sulfated batteries. If still no charge, the battery may need replacement.
Charger feels hot.	Normal operation during charging, or blocked ventilation.	Some heat is normal. Ensure the charger's vents are clear and it is in a well-ventilated area. The charger has overheat protection.

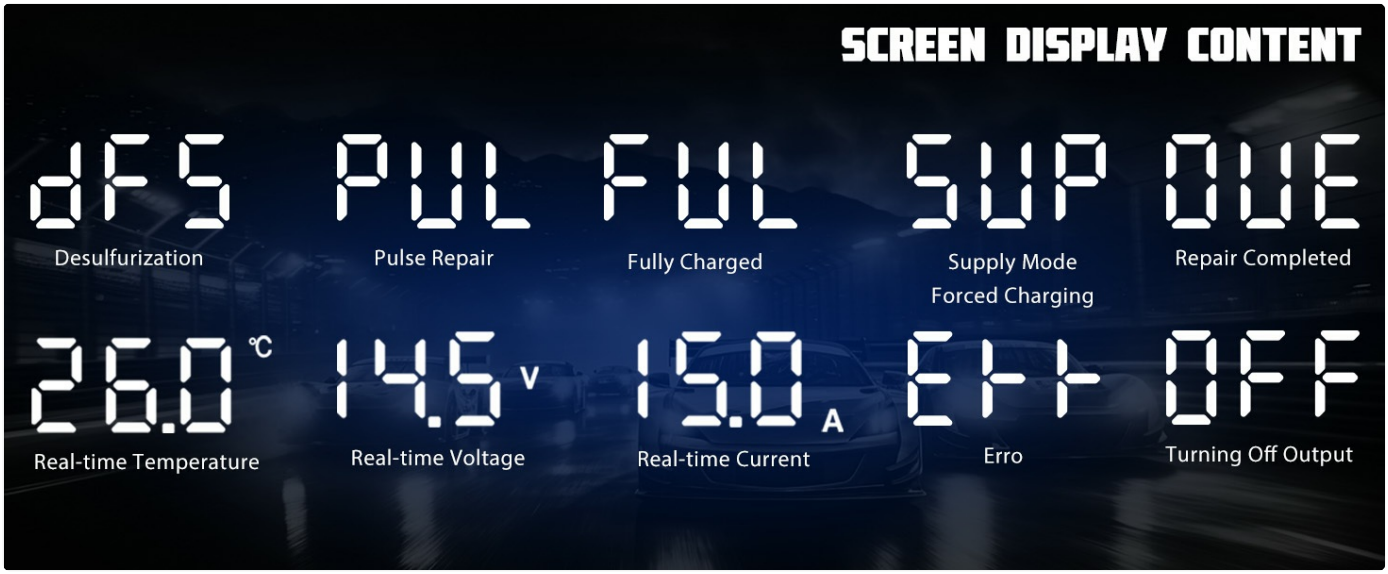


Figure 7: Explanation of various indicators on the charger's display.

Specifications

Feature	Detail
Model No.	H-15E
Output Current	DC-15A
Output Voltage	DC 6V 3.3-14.7V
Input Voltage	AC100-240V 50/60HZ
Net Weight	1.37 pounds (600g)
Product Dimensions	8.4"D x 2.6"W x 4.3"H (15.25 x 8.40 x 5.51 cm)
Scope of Application	12V 2AH-100AH Lead-acid Batteries
Certifications	CE/FCC/RoHS-certified



Figure 8: Diagram showing product dimensions and specifications.

Compatible Products

The COREBOX 12V/15A Smart Battery Charger is designed for a wide range of 12V battery applications, including:

- Cars
- Motorcycles
- Lawn Mowers
- SUVs
- Trucks
- Yachts / Boats
- Jeeps
- Other 12V battery-powered vehicles and equipment.



Figure 9: Examples of vehicles compatible with the charger.

Warranty and Support

All COREBOX car battery chargers are CE/FCC/RoHS-certified, ensuring compliance with international safety and quality standards. For any questions, technical support, or warranty claims, please refer to the contact information provided with your product packaging or visit the official COREBOX website.

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

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