

EN: EMERGIX – USER MANUAL

Intelligent Impulse Car Battery Charger and Starter



TECHNICAL SPECIFICATIONS

Dimensions: 146 × 81 × 60 mm

Input Voltage: 110–220 V (50–60 Hz)

Output Current: 6 A

Net Weight: 410 g

Input Cable Length: 90 cm

Output Cable Length: 65 cm

Output Voltage: 13.8–15.5 V DC

Applicable Battery Types: Suitable for servicing 12 V lead-acid batteries from 2 Ah to 100 Ah.

USER INSTRUCTIONS

Connecting the Charger:

Connect the red clamp to the **positive (+)** terminal of the battery, and the black clamp to the **negative (–)** terminal. Once the clamps are correctly attached, the display will turn on and show the current voltage and ambient temperature.

If the clamps are connected incorrectly, the display will flash “E1” to indicate a reverse polarity warning.

Starting the Charging Process:

Plug the AC power cord (110–220 V) into a wall socket. The charger will start automatically. The

display will cycle between battery voltage, current, and ambient temperature.
Select the appropriate charging mode for your battery (see “**Mode Selection**” section).

When the charging indicator bar reaches **100%** and the display shows “**FUL**”, charging is complete.
For optimal results, continue charging for approximately **one additional hour**.
Afterward, unplug the charger and disconnect the clamps from the battery terminals.

MODE SELECTION

1. Several charging modes are available for different vehicle types.
2. The available modes include **Automobile**, **Motorcycle**, and **Repair**.
3. **Automobile Mode**: Designed for standard passenger cars, SUVs, and light trucks (battery capacity range 15–100 Ah).
4. **Start Mode**: Used for quickly jump-starting car batteries within the supported amperage range (10–100 Ah).
5. **Motorcycle Mode**: Suitable for all types of motorcycles and small 12 V lead-acid batteries (typical range 2–24 Ah).
6. **Repair Mode**: Designed for restoring deeply discharged or long-unused batteries. This mode activates and helps recover the battery’s capacity.

AMBIENT TEMPERATURE AND AUTOMATIC ADJUSTMENT

1. **Winter Temperature Range**: 0–10 °C
Summer Temperature Range: above 26 °C
Normal Operating Temperature: 11–25 °C
2. The built-in microcomputer automatically detects the ambient temperature and adjusts the charging voltage accordingly. No manual adjustment is required.

REPAIR MODE

1. Connect the battery to the charger and plug the device into the power source. Press the “**Mode**” button four times to activate **Repair Mode**. The display will show “**PUL**”, and the charge indicator will blink between 20% and 100% as the repair process begins.
2. **Recommended Repair Time**: approximately **5 hours for motorcycle batteries** and **8 hours for car batteries**.
The maximum repair time is **24 hours**. Monitor battery temperature closely; if it becomes too hot, stop the process immediately.
3. Repair Mode provides a controlled pulsing current that can help desulfate and restore the battery. Once the charge indicator reaches 100% and the display shows “**FUL**”, it is recommended to continue charging for about one more hour.
4. To stop the repair or charging process, press the “**Mode**” button to exit or simply unplug the charger.
5. After completion, turn off the AC power and verify the battery voltage. If it is fully charged, disconnect the clamps and store the device properly.

Note: In **Motorcycle Mode**, the charger automatically switches to **float charge mode** to maintain the battery's voltage.

Even if the display shows **"FF"**, the charger continues to monitor voltage levels. If the voltage drops below **12.5 V**, it will automatically resume charging to maintain full capacity.

CONTROLS OVERVIEW

Indicator Explanations:



1. Ambient Temperature
2. Air Cooling / Fan Indicator
3. Power Supply (Current)
4. Charging Completed
5. Repair Mode Active
6. Power Switch
7. Winter Mode
8. Summer Mode
9. Battery Recovery Mode
10. Reverse Polarity Warning
11. Power Level Indicator

IMPORTANT SAFETY PRECAUTIONS

1. **Do not use this device** to charge non-lead-acid batteries, batteries with voltages other than 12 V, non-rechargeable batteries, or damaged/disconnected lithium batteries.
 2. **Before charging**, remove the battery from the vehicle and place it in a well-ventilated area away from flammable or explosive materials. The manufacturer is not responsible for damage caused by unsafe charging environments.
 3. **Do not leave the charger unattended** for more than 12 hours. Prolonged unsupervised charging is strictly prohibited.
 4. **Avoid exposure** to rain, moisture, and direct sunlight. Do not cover the device during operation. Keep it away from open flames and heat sources. Always charge and store the device in a well-ventilated area.
 5. **Inspect the charger** and cables for damage before use. If defects are found, stop using the device immediately and contact the seller for service or professional repair.
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TROUBLESHOOTING GUIDE

1. Display does not turn on when battery is connected.

Cause: Incorrect connection or loose clamps. The battery may be too weak or not connected properly.

Solution: Check that the positive and negative clamps are correctly attached and tightened. Use a multimeter to verify battery voltage.

2. Voltage is shown on display, but charger does not start when powered on.

Cause: No AC power supply (110–220 V).

Solution: Ensure the charger is properly connected to a functioning AC outlet.

3. Battery is weak, but the display shows “FUL.”

Cause: Battery sulfation, lack of electrolyte, low voltage, or extended inactivity. High internal resistance can cause false full readings.

Solution: Use the **Repair Mode** to attempt battery restoration.

4. Battery takes an unusually long time to charge.

Cause: Battery may be heavily sulfated or have insufficient electrolyte. In such cases, charging efficiency is reduced, and the battery may overheat.

Solution: Stop charging if the battery becomes hot. Check electrolyte levels (for wet batteries). If necessary, replace the battery.

Important notice:

This device is intended for **personal and household use only**. It is not designed for commercial or industrial applications.

INSTRUCTIONS FOR RECYCLING AND DISPOSAL:



This label means that the product cannot be disposed of as other household waste throughout the EU. To prevent potential damage to the environment or human health from uncontrolled waste disposal. Recycle responsibly to promote the sustainable use of material resources. If you want to return a used device, use the drop-off and collection system, or contact the retailer from whom you bought the product. The retailer can accept the product for environmentally safe recycling.



A declaration by the manufacturer that the product complies with the requirements of the applicable EU Directives.