Clore Automotive PL2320

Clore Automotive PL2320 20-Amp Fully-Automatic Smart Charger Instruction Manual

Model: PL2320

1. Introduction

The Clore Automotive PL2320 Pro-Logix Smart Charger is designed for professional technicians, offering fully automatic operation and compatibility with multiple battery types. This intelligent unit provides fast charging, battery repair, maintenance, and long-term storage charging. It also features a stable power supply mode for various applications. The PL2320 is suitable for virtually any lead-acid battery type, including Flooded, AGM, Gel Cell, Spiral Wound, Marine, and Deep Cycle batteries.

2. Key Features

- **6V and 12V Battery Compatibility:** Charges and maintains both 6-volt and 12-volt batteries.
- **Versatile Charge Rates:** Offers 2, 10, and 20 Amp charge rates for various charging needs.
- **Fully Automatic Operation:** Simplifies the charging process with intelligent, automated functions.
- **Advanced Multi-Phase Charging:** Utilizes a sophisticated charging process for optimal battery health and longevity.
- **Stable Power Supply Mode:** Provides consistent power to maintain system voltage, ideal for on-vehicle repairs and diagnostics.
- **Temperature Compensation:** Automatically adjusts charging parameters based on ambient temperature for efficient and safe operation in extreme conditions (up to 113°F and as low as -22°F).
- **Battery Type Versatility:** Capable of charging Flooded, AGM, Gel Cell, Spiral Wound, Marine, and Deep Cycle batteries.

3. What's in the Box

- 1 x Clore Automotive PL2320 6/12V Battery Charger/Maintainer - 20 Amp

4. Important Safety Information

Always read and understand the entire instruction manual before operating the charger. Failure to follow safety instructions can result in electric shock, fire, explosion, or serious injury.

- **Electrical Compatibility:** This unit is designed for **120V AC outlets ONLY**. Using it with incompatible voltage (e.g., 220-240V) can cause severe damage to the unit and pose a fire hazard. Verify your power supply before use.
- **Ventilation:** Ensure adequate ventilation during charging. Batteries can produce explosive gases. Do not charge in a confined area.

- **Spark Prevention:** Avoid creating sparks near the battery. Connect and disconnect charger leads only when the charger is unplugged from the AC outlet.
- **Polarity:** Always connect the positive (red) clamp to the positive battery terminal and the negative (black) clamp to the negative battery terminal or a grounded chassis point away from the battery.
- **Damaged Unit:** Do not operate the charger if it has been dropped, damaged, or shows signs of malfunction (e.g., smoke, burning smell). Immediately unplug and discontinue use if such issues occur.
- **Children and Pets:** Keep the charger and battery out of reach of children and pets.
- **Extension Cords:** If an extension cord is necessary, ensure it is in good condition and of adequate gauge to prevent voltage drop and overheating.

5. Setup

1. **Prepare the Battery:** Ensure battery terminals are clean and free of corrosion. If charging a flooded battery, check fluid levels and add distilled water if necessary.
2. **Connect Charger to Battery:**
    - Connect the **RED** positive (+) clamp to the positive (+) battery terminal.
    - Connect the **BLACK** negative (-) clamp to the negative (-) battery terminal or to the vehicle chassis away from the battery.
3. **Connect Charger to AC Power:** Plug the charger's AC cord into a standard 120V AC electrical outlet. The charger will automatically begin its diagnostic and charging sequence.

Figure 1: Clore Automotive PL2320 Smart Charger connected to a battery.

6. Operating Instructions

6.1. Automatic Charging Process

The PL2320 is a fully automatic charger. Once connected to the battery and power, it will:

1. **Analyze Battery:** The charger will automatically detect the battery voltage (6V or 12V) and type (Flooded, AGM, Gel, etc.).
2. **Select Charge Rate:** It will determine the optimal charge rate (2A, 10A, or 20A) based on battery condition.
3. **Multi-Phase Charging:** The charger employs an advanced multi-phase charging process to energize, soft start, bulk charge, absorb, and maintain the battery.
4. **Status Indicators:** The front panel display will show the charging status:
    - **Charging in Progress:** (Orange indicator) The battery is actively being charged.
    - **Charging Complete:** (Green indicator) The battery is fully charged and the charger has switched to maintenance mode.
5. **Temperature Compensation:** The charger automatically adjusts its output based on ambient temperature to ensure optimal charging performance and prevent over/undercharging.

Figure 2: Charger display showing charging status.

6.2. Power Supply Mode

The Power Supply Mode provides a stable voltage output, essential for maintaining vehicle system voltage during diagnostic work, module programming, or other on-vehicle repairs. This prevents voltage drops that could disrupt sensitive electronic systems.

- To activate Power Supply Mode, refer to the specific instructions in the full user manual.
- Ensure the vehicle's electrical load does not exceed the charger's maximum output in this mode.

Figure 3: Charger in Power Supply Mode.

6.3. Battery Type Selection

The charger automatically identifies the battery type. However, you can manually select specific battery types if needed. The PL2320 supports:

- Flooded (Standard)
- AGM (Absorbed Glass Mat)
- Gel Cell
- Lithium (LiFePO4 Compatible)
- Deep Cycle
- Spiral Wound
- Marine Batteries

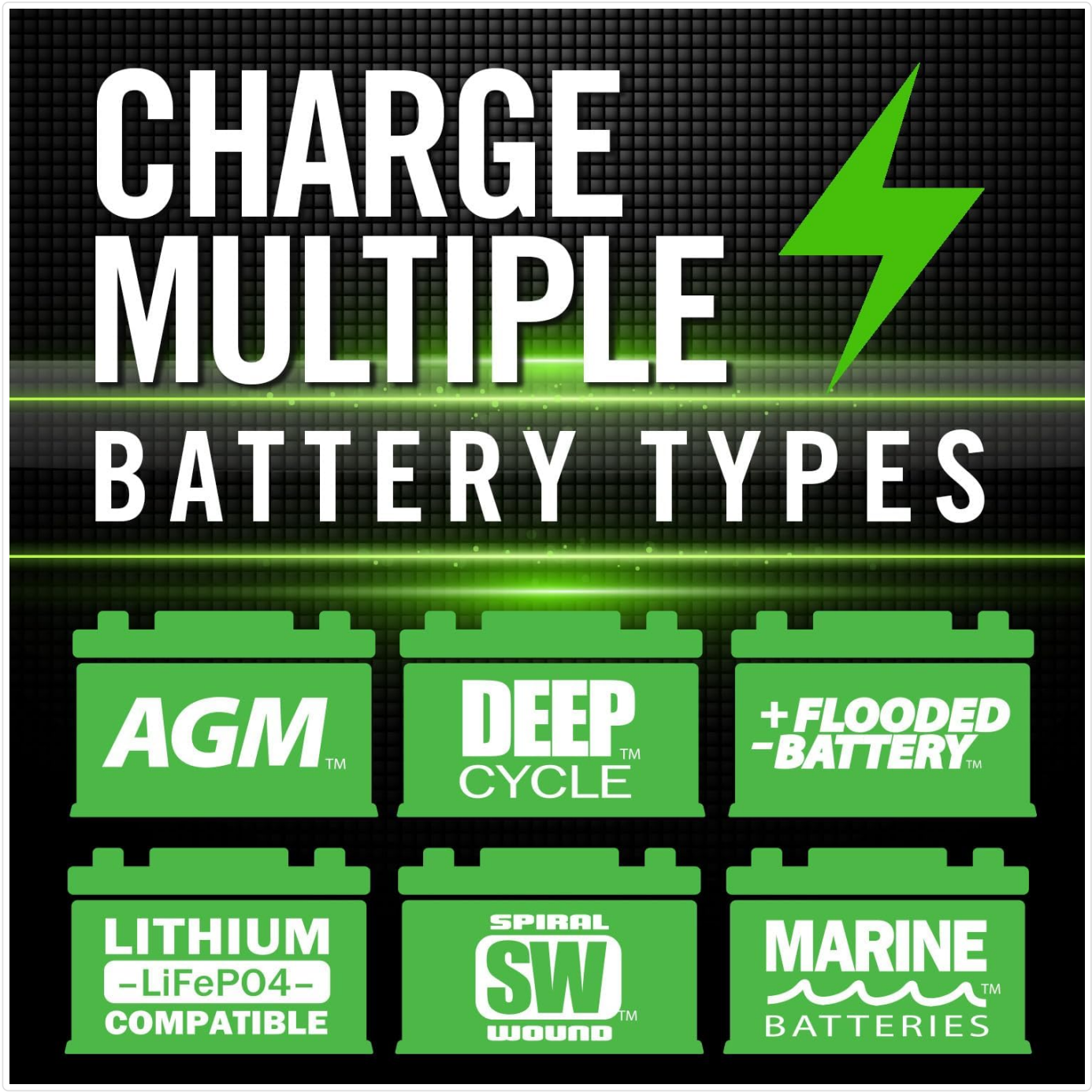


Figure 4: Charger compatibility with various battery types.

7. Maintenance

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

- **Cleaning:** Disconnect the charger from power and the battery. Wipe the case and cables with a damp cloth. 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 to prevent damage.
- **Battery Terminals:** Keep battery terminals clean and free of corrosion for efficient charging.

8. Troubleshooting

If you encounter issues with your PL2320 charger, refer to the following common problems and solutions:

- **Charger Not Starting/Error Light:** If the charger does not begin charging or displays an ERROR light, check the following:
  - Ensure proper connection of clamps to battery terminals (positive to positive, negative to negative/chassis).

- Verify the AC power outlet is functional.
- The battery may be severely discharged (below 3-4V). Some smart chargers may not initiate charging on extremely low voltage batteries. In such cases, a brief jump-start or connection to a 'dumb' charger for a few minutes might raise the voltage enough for the smart charger to recognize it.
- The battery may be defective (e.g., shorted cell, heavily sulfated beyond repair). The charger's diagnostics will prevent charging of a faulty battery.

- **Slow Charging:** Ensure the correct charge rate is selected for the battery size. Larger batteries require longer charging times.
- **Overheating:** If the charger feels excessively hot, ensure it is in a well-ventilated area and not covered.

Video 1: Overview of the PRO LOGIX 20 Amp Battery Charger by Clore Automotive.

9. Specifications

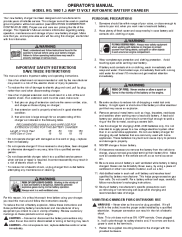
Model	PL2320
Brand	Clore Automotive
Input Voltage	120 Volts AC
Output Voltage	6V / 12V DC
Amperage	2 / 10 / 20 Amps
Item Weight	1.25 pounds (0.57 kg)
Product Dimensions	9.4 x 8 x 4.5 inches (23.9 x 20.3 x 11.4 cm)
Lift Type	Automatic
Special Features	Temperature Compensation, Power Supply Mode, Multi-Phase Charging

10. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the official Clore Automotive website or contact their customer service directly. Always retain your proof of purchase for warranty claims.

- **Manufacturer:** SOLAR
- **Customer Service:** Refer to the manufacturer's website for the most current contact information.

Related Documents - PL2320

	[PRO-LOGIX PL2140: 6/12V 4.0A Intelligent Battery Charger & Maintainer] Discover the PRO-LOGIX PL2140 by Clore Automotive, a versatile 6/12V 4.0A intelligent battery charger and maintainer. Featuring advanced multi-phase charging, LiFePO4 compatibility, recovery mode, and battery repair functions for optimal battery care.
	[Clore Automotive Model 1002 1.5 Amp 12 Volt Automatic Battery Charger Operator's Manual] This operator's manual provides essential safety, operation, maintenance, and storage instructions for the Clore Automotive Model 1002 1.5 Amp 12 Volt Automatic Battery Charger. Learn how to safely and effectively charge your vehicle's battery.
	[Clore Automotive Jump-N-Carry JNCAIR 1700 & JNC660 Jump Starter User Manual] Comprehensive user manual for Clore Automotive Jump-N-Carry JNCAIR 1700 Peak Amp Jump Starter with Air Compressor and JNC660 1700 Peak Amp 12 Volt Jump Starter. Includes safety guidelines, operating instructions, recharging procedures, battery replacement, troubleshooting, and warranty information for these portable power sources.
	[Clore Automotive JNC325 12V Jump Starter and Power Supply Operator's Manual] Comprehensive operator's manual for the Clore Automotive JNC325 12V Jump Starter and Power Supply. Covers safety, operation, maintenance, specifications, troubleshooting, and warranty information.
	[Clore Automotive VRLA Rechargeable Battery Safety Data Sheet (SDS) - JNC Jump Starters] Comprehensive Safety Data Sheet (SDS) for Clore Automotive VRLA Rechargeable Batteries and JNC Portable Jump Starters, detailing hazards, handling, first aid, and disposal information.
	[Safety Data Sheet: Clore Automotive VRLA Rechargeable Batteries and Portable Jump Starters] This Safety Data Sheet (SDS) provides comprehensive information on Valve Regulated Lead-Acid (VRLA) rechargeable batteries and portable jump starters from Clore Automotive. It details product identification, hazards, chemical composition, first-aid measures, fire-fighting procedures, accidental release measures, handling and storage, exposure controls, physical and chemical properties, stability, toxicological and ecological information, disposal considerations, and transport and regulatory information. Essential for safe handling, storage, and disposal of these products.