

## FERVE F-2507

# Ferve F-2507 Automatic Lead-Acid Battery Charger User Manual

Model: F-2507 | Brand: FERVE

## 1. INTRODUCTION

Thank you for choosing the Ferve F-2507 Automatic Lead-Acid Battery Charger. This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your new charger. Please read this manual thoroughly before using the product and retain it for future reference.



Image 1.1: Ferve F-2507 Automatic Battery Charger. This image shows the compact, red and black charger unit with its display and cables, including battery clamps and ring terminals.

## 2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent personal injury or damage to the charger or battery.

- Read all instructions before use.
- Use the charger only for charging lead-acid batteries (Liquid, GEL, AGM, EFB) with 12V or 24V nominal voltage and capacities between 14 Ah and 230 Ah.
- Do not charge non-rechargeable batteries.
- Ensure adequate ventilation during charging to prevent gas accumulation.

- Avoid open flames, sparks, or smoking near the battery during charging.
- Wear eye protection and gloves when handling batteries.
- Keep out of reach of children.
- Do not expose the charger to rain or excessive moisture. The unit has an IP65 rating, meaning it is protected against dust ingress and low-pressure water jets, but it is not designed for submersion.
- Disconnect the AC power before connecting or disconnecting the battery clamps.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.

### 3. PACKAGE CONTENTS

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Verify that all items are present in the package:

- 1 x Ferve F-2507 Automatic Battery Charger Unit
- 1 x Set of Battery Clamps (Red for positive, Black for negative)
- 1 x Set of Ring Terminals (for permanent connection)
- 1 x AC Power Cord
- 1 x User Manual (this document)

### 4. PRODUCT OVERVIEW AND FEATURES

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The Ferve F-2507 is a high-frequency automatic battery charger designed for versatility and ease of use.

- **Automatic Operation:** Fully automatic, simply connect and forget.
- **Wide Compatibility:** Suitable for all types of lead-acid batteries (Liquid, GEL, AGM, EFB) with 12V and 24V nominal voltages.
- **Charging Current:** Provides 12V-4-8A and 24V-4A charging capabilities.
- **Microprocessor Controlled:** Ensures optimal and safe charging.
- **Backlit LCD Screen:** Displays battery voltage and charge status.
- **RF Technology:** Allows charging without disconnecting the battery from the vehicle, protecting electronic memories and devices.
- **Auto Restart Function:** In case of power interruption, the charger restarts and resumes the last selected charging program.
- **Battery and Alternator Test Function:** Helps diagnose battery and vehicle charging system health.
- **Winter Charging Mode:** Special charging mode for temperatures below 3°C (37.4°F), providing extra energy to the battery.
- **IP65 Rated Enclosure:** Protected against dust and low-pressure water jets.

**F-2507**

**12V - 4-8A / 24V - 4A**

**CARGADOR DE BATERÍAS  
AUTOMÁTICO HF**

230 x 115 x 65 mm  
850 g

**FERVE**



CE

Image 4.1: Overview of Ferve F-2507 features, including its 12V-4-8A / 24V-4A charging capabilities and dimensions (230 x 115 x 65 mm, 850 g).



**MODOS DE CARGA ESPECIAL  
PARA INVIERNO CUANDO LA  
TEMPERATURA ES INFERIOR A 3°C**

**INVIERNO - WINTER**



Image 4.2: The Ferve F-2507 features a special charging mode for winter conditions, specifically when the temperature is below 3°C.



# UNIVERSAL BATTERY CHARGER

**FERVE**

- CON TECNOLOGÍA RF, CARGA LA BATERÍA SIN DESCONECTARLA DEL VEHÍCULO, PROTEGIENDO LAS MEMORIAS Y DISPOSITIVOS ELECTRÓNICOS.
- FUNCIÓN CHARGE RESTART : EN CASO DE INTERRUPCIÓN DE LA CORRIENTE ELÉCTRICA, EL CARGADOR SE REINICIA CUANDO SE RESTABLECE EL SUMINISTRO, CONSERVANDO EL ÚLTIMO PROGRAMA DE CARGA SELECCIONADO.
- 100% AUTOMÁTICO. CONECTE EL CARGADOR Y OLVÍDESE.
- FUNCIÓN TEST DE BATERÍA Y ALTERNADOR.
- PANTALLA LCD RETROILUMINADA.
- CONTROLADO POR MICROPROCESADOR.
- GRADO DE PROTECCIÓN IP65.



Image 4.3: Key features of the Ferve F-2507 Universal Battery Charger, highlighting RF technology, auto restart, full automation, battery/alternator test, backlit LCD, microprocessor control, and IP65 rating.

## 5. SETUP

Follow these steps to set up your Ferve F-2507 battery charger:

1. Ensure the charger is disconnected from the AC power outlet.
2. Identify the battery terminals: positive (+) and negative (-).
3. Connect the red (+) clamp or ring terminal to the positive (+) battery terminal.
4. Connect the black (-) clamp or ring terminal to the negative (-) battery terminal.
5. Ensure connections are secure and free from corrosion.
6. Plug the AC power cord into a suitable wall outlet.

**Important:** Always connect the battery to the charger before plugging the charger into the AC power outlet. Disconnect the AC power before disconnecting the battery.

## 6. OPERATING INSTRUCTIONS

Once connected, the Ferve F-2507 operates automatically.

### 6.1 Automatic Charging

- After connecting the battery and plugging in the charger, the unit will automatically detect the battery voltage (12V or 24V) and begin the charging process.
- The backlit LCD screen will display the current battery voltage and charging status.
- The charger will automatically switch to maintenance mode once the battery is fully charged to prevent overcharging.

6.2 Understanding the Display and Charge Status

The LCD screen shows the battery voltage. Refer to the table below to understand the approximate charge level based on the displayed voltage for different battery types.

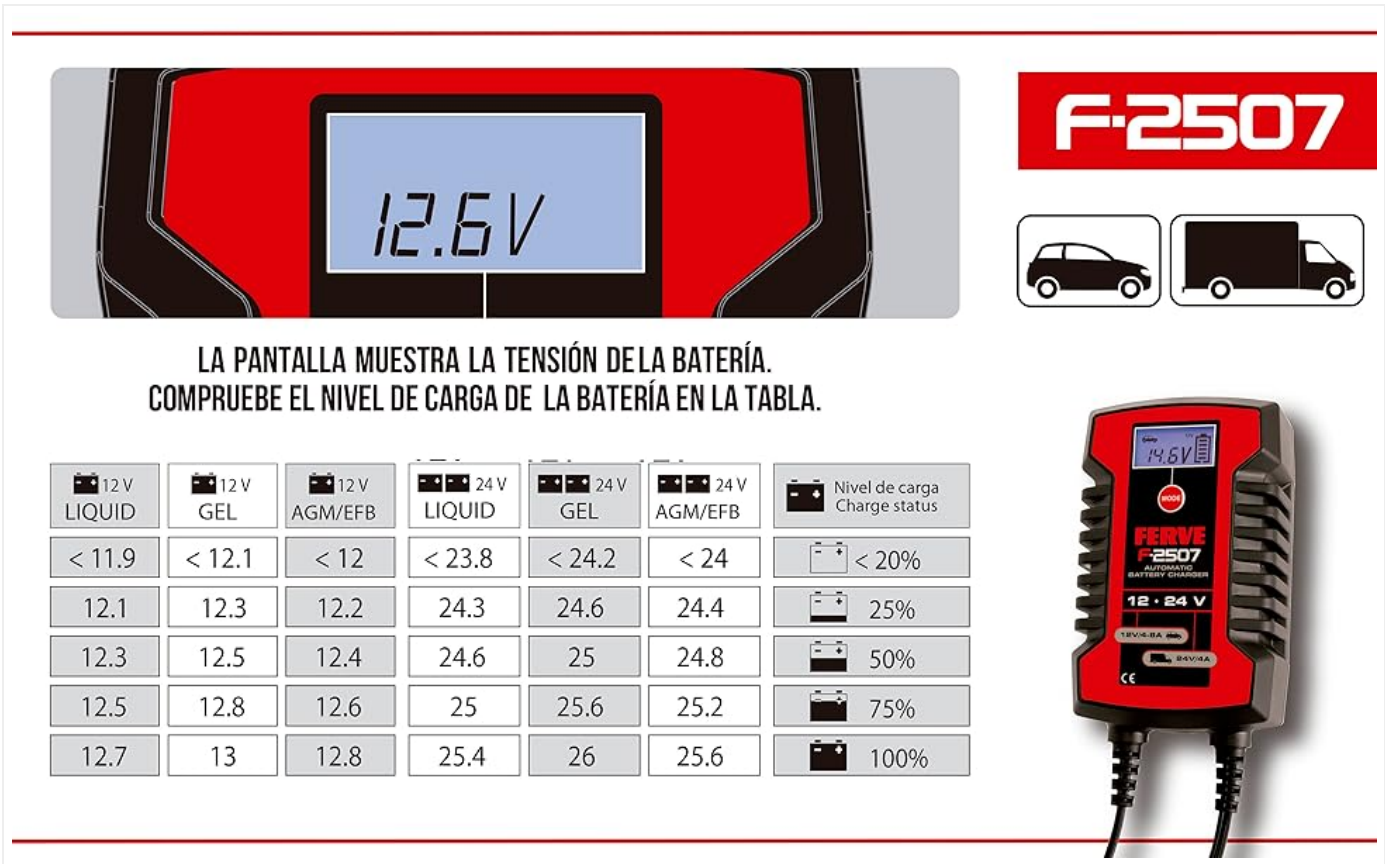


Image 6.1: This image displays a table indicating battery voltage levels and corresponding charge status percentages for 12V (Liquid, GEL, AGM) and 24V (Liquid, GEL, AGM/EFB) battery types.

Battery Voltage vs. Charge Status

| Charge Status | 12V Battery Voltage (V) |        |         | 24V Battery Voltage (V) |        |         |
|---------------|-------------------------|--------|---------|-------------------------|--------|---------|
|               | Liquid                  | GEL    | AGM/EFB | Liquid                  | GEL    | AGM/EFB |
| < 20%         | < 11.9                  | < 12.1 | < 12    | < 23.8                  | < 24.2 | < 24    |
| 25%           | 12.1                    | 12.3   | 12.2    | 24.3                    | 24.6   | 24.4    |
| 50%           | 12.3                    | 12.5   | 12.4    | 24.6                    | 25     | 24.8    |
| 75%           | 12.5                    | 12.8   | 12.6    | 25                      | 25.6   | 25.2    |
| 100%          | 12.7                    | 13     | 12.8    | 25.4                    | 26     | 25.6    |

6.3 Special Modes

- **Winter Mode:** The charger automatically detects ambient temperature. If the temperature is below 3°C, it activates a special charging program to optimize performance in cold conditions.
- **Battery/Alternator Test:** Use the "MODE" button to cycle through available functions, including the battery and alternator test. Follow the on-screen prompts for results.

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Video 6.1: A rotating view of the Ferve F-2507 Automatic Battery Charger, showcasing its design and various connection cables from multiple angles.

## 7. MAINTENANCE

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

- **Cleaning:** Disconnect the charger from power and battery. Wipe the casing with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place when not in use. Keep cables neatly coiled.
- **Cable Inspection:** Regularly inspect cables and clamps for any signs of damage, fraying, or corrosion. Replace if necessary.

## 8. TROUBLESHOOTING

If you encounter issues with your Ferve F-2507 charger, refer to the following common problems and solutions:

| Problem                           | Possible Cause   | Solution  |
|-----------------------------------|--|---|
| Charger not turning on.           | No AC power; Loose connection; Faulty outlet.  | Check AC power cord connection. Test outlet with another device. Ensure battery is properly connected.  |
| Battery not charging.             | Incorrect battery connection; Battery is severely discharged or faulty; Charger malfunction. | Verify positive and negative connections. Check battery voltage; if extremely low, it might not be recoverable. Consult a professional for battery testing. |
| Charger displays an error code.   | Short circuit; Reverse polarity; Overheating.  | Disconnect charger immediately. Check for short circuits or reverse polarity. Allow charger to cool down if it feels hot. Reconnect carefully.              |
| Charger switches off prematurely. | Battery fully charged; Overheating; Internal protection activated.                           | Check battery charge status. Ensure adequate ventilation around the charger. If problem persists, contact support.  |

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

## 9. SPECIFICATIONS

| Specification                  | Value   |
|--------------------------------|---|
| Model                          | F-2507  |
| Output Voltage                 | 12V / 24V                                       |
| Charging Current               | 12V: 4-8 Amperes, 24V: 4 Amperes                |
| Max Power                      | 140 W   |
| Battery Capacity Range         | 14 Ah - 230 Ah                                  |
| Battery Types                  | Lead-Acid (Liquid, GEL, AGM, EFB)               |
| Protection Rating              | IP65  |
| Product Dimensions (L x W x H) | 20.5 x 9.5 x 5.2 cm (8.07 x 3.74 x 2.05 inches) |

| Specification  | Value            |
|----------------|------------------|
| Product Weight | 810 g (1.79 lbs) |
| Color          | Red              |

## 10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation included with your purchase or visit the official FERVE website.

**Manufacturer:** FERVE, S.A.

