

## Perel AC028

# Perel AC028 Intelligent Charger for 12V Lead-Acid Batteries - 1.5A User Manual

## INTRODUCTION

This manual provides essential instructions for the safe and efficient use of the Perel AC028 Intelligent Charger. This device is specifically designed for charging 12V lead-acid batteries, including Gel, AGM, and EFB types, utilizing a sophisticated 3-stage automatic charging cycle to optimize battery life and performance.

## SAFETY INSTRUCTIONS

Always read and understand all safety warnings and instructions before operating the charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- This charger is intended for 12V lead-acid batteries (Gel, AGM, EFB) only. Do not use with other battery types.
- Battery charging can produce explosive gases. Ensure adequate ventilation during charging and keep away from flames, sparks, and smoking materials.
- Always disconnect the charger from the mains power supply before making or breaking connections to the battery.
- Avoid charging a frozen battery. Allow it to thaw before attempting to charge.
- Keep the charger and battery out of reach of children and pets.
- Do not expose the charger to rain or excessive moisture. The unit has an IP65 rating, meaning it is protected against dust and low-pressure water jets, but it is not submersible.
- If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.

## PRODUCT FEATURES

- **3-Stage Automatic Charging Cycle:** Ensures optimal charging and extends battery life.
- **Battery Compatibility:** Designed for 12V lead-acid batteries, including Gel, AGM, and EFB types.
- **Rated Output:** 12 VDC, 1.5 A.
- **IP65 Protection Class:** Provides protection against dust ingress and low-pressure water jets from any

direction.

- **Compact Design:** Easy to store and transport.

## SPECIFICATIONS

<b>Model</b>	AC028
<b>Input Voltage</b>	220-240 VAC
<b>Frequency</b>	50/60 Hz
<b>Output Voltage</b>	12 VDC
<b>Output Current</b>	1.5 A
<b>Rated Current</b>	0.25 A
<b>Dimensions (L x W x H)</b>	147 x 72 x 42 mm
<b>Weight</b>	376 g
<b>IP Protection Class</b>	IP65
<b>Compatible Battery Types</b>	12V Lead-Acid (Gel, AGM, EFB)
<b>Main Cable Length</b>	1.5 m
<b>Charging Cable Length</b>	1 m

## SETUP

1. Ensure the Perel AC028 charger is disconnected from the mains power outlet.
2. Connect the red (+) clamp of the charger to the positive (+) terminal of the 12V lead-acid battery.
3. Connect the black (-) clamp of the charger to the negative (-) terminal of the 12V lead-acid battery.
4. Verify that both connections are secure and properly seated to prevent arcing or poor contact.
5. Plug the charger's main power cable into a suitable 220-240 VAC, 50/60 Hz mains power outlet.

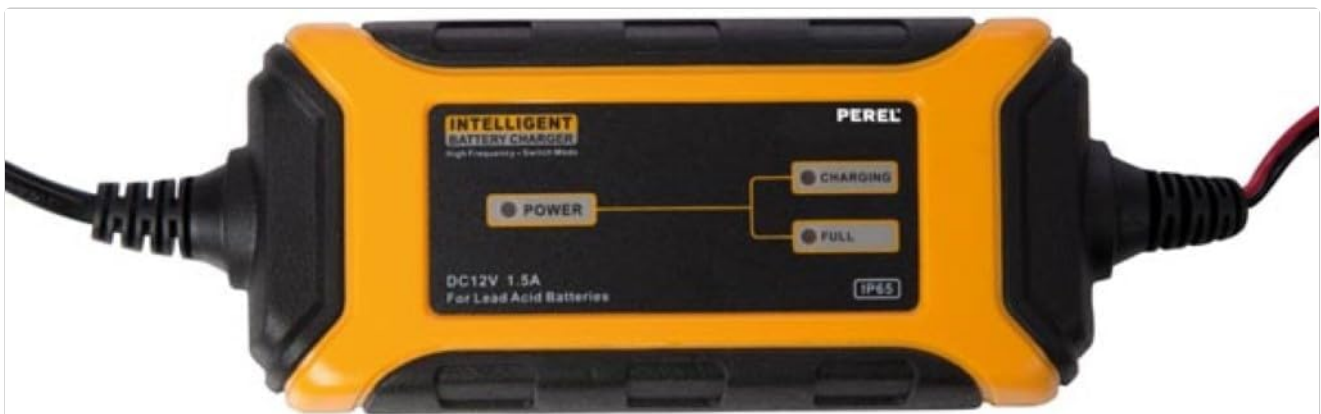


Image: The Perel AC028 charger connected to a car battery, demonstrating proper clamp attachment.

## OPERATING INSTRUCTIONS

Once connected to the battery and mains power, the charger will automatically initiate its 3-stage charging process.

- **Power Indicator:** The 'POWER' LED will illuminate when the charger is connected to the mains power supply.
- **Charging Indicator:** The 'CHARGING' LED will illuminate when the battery is actively being charged.
- **Full Indicator:** The 'FULL' LED will illuminate when the battery has reached a full charge. At this point, the charger will switch to a maintenance mode to prevent overcharging.

The charger can remain connected to the battery for extended periods for maintenance charging, ensuring the battery remains at an optimal charge level.



Image: Front panel of the Perel AC028 charger displaying the 'POWER', 'CHARGING', and 'FULL' indicator lights.

## MAINTENANCE

- Regularly inspect the charger's cables, clamps, and casing for any signs of damage, wear, or corrosion. Do not use the charger if any part is damaged.
- Keep the charger clean and free from dust and debris. Use a dry cloth for cleaning. Do not use solvents or abrasive cleaners.
- Store the charger in a cool, dry, and well-ventilated area when not in use.
- Ensure the battery terminals are clean before connecting the charger for optimal contact.

## TROUBLESHOOTING

The Perel AC028 charger is equipped with error indicators to help diagnose common issues:

Error Code	Description	Action
F01	Short circuit / Reverse connection / No connection	Check battery connections for correct polarity (+ to +, - to -). Ensure clamps are securely attached and there is no short circuit.
F02	Loose connection	Verify that the battery clamps are tightly connected to the battery terminals.
F03	Battery voltage too high	This charger is for 12V batteries. Ensure you are not attempting to charge a battery with a higher nominal voltage.
F04	Bad battery	The battery may be severely discharged, damaged, or at the end of its life. It might not be able to accept a charge. Consult a battery specialist.



Image: Rear label of the Perel AC028 charger detailing technical specifications and error code explanations.

## WARRANTY AND SUPPORT

For detailed warranty information, terms, and conditions, please refer to the documentation provided with your purchase or visit the official Perel website. For technical support or service inquiries, contact your retailer or the manufacturer's customer service department.