

Absaar PRO 4.0 Li

Absaar Pro 4.0 Battery Charger User Manual

Model: PRO 4.0 Li | Brand: Absaar

1. INTRODUCTION AND PRODUCT OVERVIEW

The Absaar Pro 4.0 is an advanced 11-step processor-controlled battery charger designed for a wide range of 6V and 12V batteries, including lead-acid, AGM, Gel, and LiFePO4 types. It is suitable for use with motorcycles, cars, motorhomes, lawnmowers, and boats.

This versatile device functions as a charger for batteries up to 95Ah and as a maintainer for batteries up to 140Ah, ensuring optimal battery health and longevity. The charger incorporates comprehensive protection features against overload, short circuits, overheating, and reverse polarity, effectively preventing battery damage due to charging errors. It provides a charging capacity of up to 4A for both 6V and 12V batteries and features a highly readable LCD display for clear status indication.



Figure 1: Front view of the Absaar Pro 4.0 Battery Charger, showing the LCD display and control button.

2. SAFETY INSTRUCTIONS

Please read all safety instructions carefully before operating the Absaar Pro 4.0 Battery Charger. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Read the Manual:** Always read and understand the entire instruction manual before using the charger.
- **Ventilation:** Ensure adequate ventilation when charging batteries. Batteries can produce explosive gases.
- **No Sparks or Flames:** Do not smoke or allow sparks or flames in the vicinity of the battery or charger.
- **Eye Protection:** Always wear eye protection when working with batteries.
- **Correct Polarity:** Connect the charger leads to the correct battery terminals (red to positive, black to negative). Reverse polarity protection is built-in, but correct connection is crucial.
- **Disconnect Power:** Always disconnect the AC power from the charger before connecting or disconnecting the battery leads.
- **Indoor Use:** This charger is designed for indoor use. Do not expose it to rain or excessive moisture.
- **Damaged Cables:** Do not operate the charger with damaged cords or cables.
- **Children and Pets:** Keep the charger and battery out of reach of children and pets.

3. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- Absaar Pro 4.0 Battery Charger Unit
- Battery Clamps (Red and Black)
- Ring Terminal Connectors (Red and Black)
- AC Power Cable



Figure 2: The Absaar Pro 4.0 Battery Charger shown with all standard accessories, including battery clamps and ring terminal connectors.

4. SETUP AND CONNECTION

Follow these steps to properly set up and connect your battery charger:

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If necessary, clean them with a wire brush.
2. **Choose Connectors:** Select either the battery clamps or the ring terminal connectors based on your application.
3. **Connect to Battery:**
 - Connect the **red (positive)** charger lead to the **positive (+)** battery terminal.
 - Connect the **black (negative)** charger lead to the **negative (-)** battery terminal.

Important: Ensure a secure connection. The charger has reverse polarity protection, but correct connection is always recommended.

4. **Connect to AC Power:** Plug the AC power cable into a standard wall outlet (220-240V AC). The charger will power on and display the current battery voltage or a default screen.



Figure 3: Detail of the red (positive) and black (negative) battery clamps for direct battery connection.

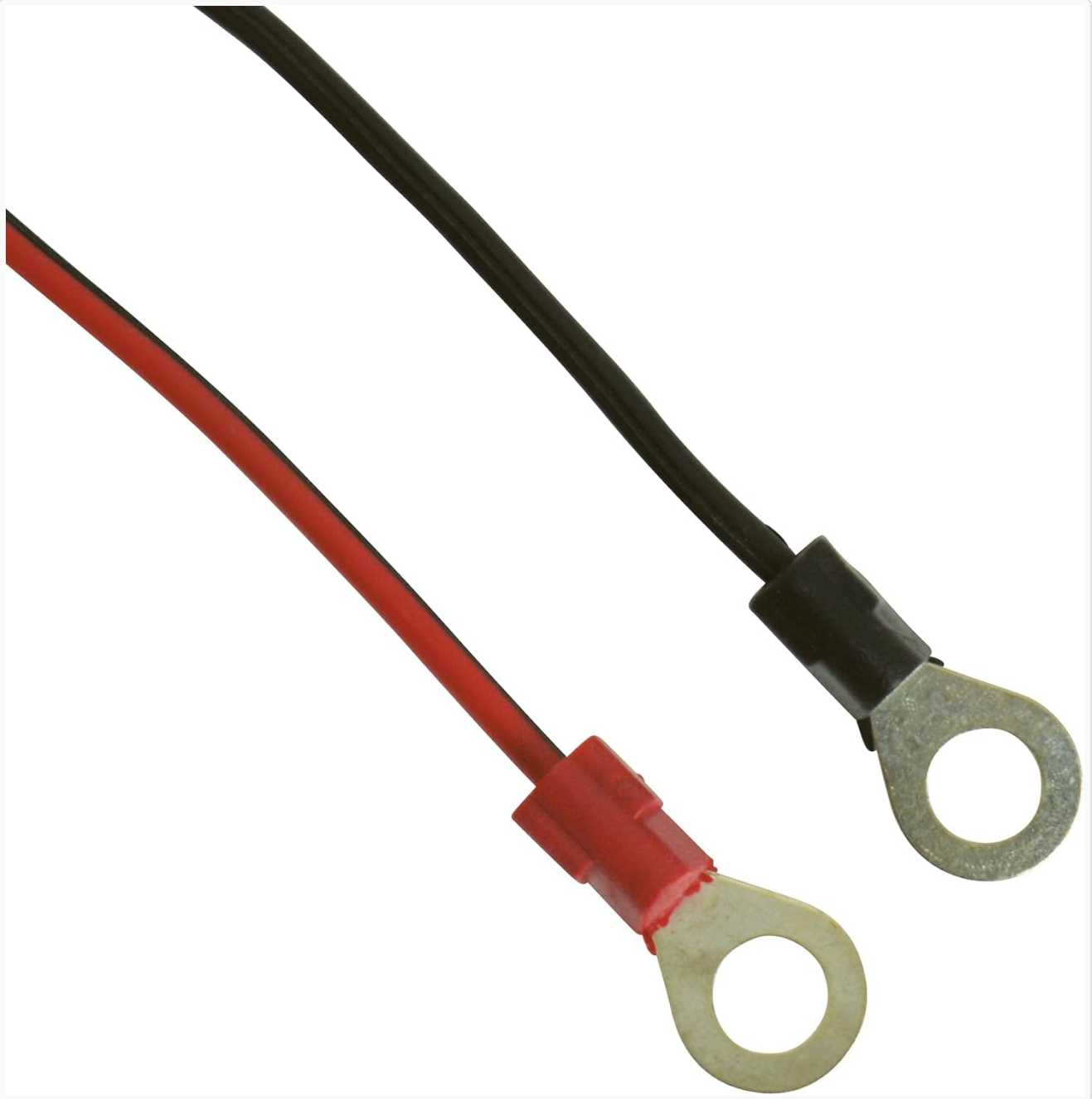


Figure 4: Detail of the red (positive) and black (negative) ring terminal connectors for permanent or semi-permanent battery connection.

5. OPERATING INSTRUCTIONS

The Absaar Pro 4.0 features an 11-step charging process and an intuitive LCD display for easy operation.

5.1. LCD Display and Mode Selection

The clear LCD display shows charging status, battery voltage, and selected mode. Use the "MODE" button on the charger to cycle through the available charging programs:

- **6V Mode:** For charging 6-volt lead-acid, AGM, or Gel batteries.
- **12V STD Mode:** For standard 12-volt lead-acid batteries.
- **12V AGM Mode:** For 12-volt AGM (Absorbed Glass Mat) batteries.
- **12V GEL Mode:** For 12-volt Gel batteries.
- **12V LiFePO4 Mode:** For 12-volt Lithium Iron Phosphate batteries.

The charger automatically detects the battery voltage (6V or 12V) in most cases, but manual selection of the battery type (STD, AGM, Gel, LiFePO4) is required by pressing the MODE button.

5.2. Charging Process

Once the correct mode is selected, the charger will initiate its 11-step charging process. This multi-stage process optimizes charging for different battery conditions, ensuring a full and safe charge while extending battery life. The LCD will indicate the charging progress.

The charger can charge batteries up to 95Ah and maintain batteries up to 140Ah. When the battery is fully charged, the charger will automatically switch to maintenance mode to prevent overcharging.

5.3. Protection Features

The Absaar Pro 4.0 is equipped with several safety features:

- **Overload Protection:** Prevents damage from excessive current.
- **Short-Circuit Protection:** Protects against accidental short circuits.
- **Overheating Protection:** Shuts down if the unit becomes too hot.
- **Reverse Polarity Protection:** Prevents damage if battery leads are connected incorrectly.

6. MAINTENANCE

To ensure the longevity and optimal performance of your Absaar Pro 4.0 Battery Charger, follow these simple maintenance guidelines:

- **Cleaning:** Wipe the charger 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 to prevent damage.
- **Cable Inspection:** Periodically inspect the AC power cable and battery leads for any signs of damage, fraying, or exposed wires. Do not use the charger if any cables are damaged.

7. TROUBLESHOOTING

If you encounter issues with your Absaar Pro 4.0 Battery Charger, refer to the following common troubleshooting tips:

- **Charger Not Powering On:**
 - Ensure the AC power cable is securely plugged into a live wall outlet.
 - Check the wall outlet with another device to confirm it has power.
- **Battery Not Charging / Error Indication:**
 - Verify that the battery leads are connected with correct polarity (red to positive, black to negative) and are making good contact with the battery terminals.
 - Ensure the battery terminals are clean and free of corrosion.
 - Confirm that the correct battery type (STD, AGM, Gel, LiFePO4) has been selected using the MODE button. The charger may indicate a fault if the wrong program is selected or if the clamps are not properly connected.
 - The battery might be severely discharged or faulty. The charger may not be able to charge batteries below a certain voltage.
- **Charger Overheating:**
 - Ensure the charger is in a well-ventilated area and not covered.

- If the charger repeatedly overheats, there may be an internal fault. Discontinue use and contact support.

8. SPECIFICATIONS

Feature	Specification
Model	PRO 4.0 Li
Input Voltage	220-240V AC (Standard Wall Outlet)
Output Voltage	6V DC, 12V DC
Max Charging Current	4A
Battery Types	Lead-acid, AGM, Gel, LiFePO4 (6V & 12V)
Charging Capacity	Up to 95Ah
Maintaining Capacity	Up to 140Ah
Charging Stages	11-step processor-controlled
Protection Features	Overload, Short-circuit, Overheating, Reverse Polarity
IP Rating	IP65 (Dust tight and protected against water jets)
Dimensions (L x W x H)	33 x 7 x 19 cm (approximate)
Weight	640 g

9. WARRANTY AND SUPPORT

The Absaar Pro 4.0 Battery Charger comes with a **2-year guarantee**, reflecting the quality and reliability of German engineering.





Figure 5: Product packaging highlighting the 2-year guarantee and German engineering.

For technical support, warranty claims, or further assistance, please contact your retailer or the Absaar customer service department. Refer to the contact information provided with your purchase documentation.