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› OSRAM BATTERYcharge 904, 4A Smart Battery Charger and Maintainer for 6V/12V Vehicles

OSRAM BATTERYcharge 904 (OEBCS904)

OSRAM BATTERYcharge 904: 4A Smart Battery Charger and Maintainer User Manual

1. INTRODUCTION

Thank you for choosing the OSRAM BATTERYcharge 904. This intelligent 4A battery charger and maintainer is designed to efficiently charge and maintain 6V and 12V vehicle batteries, including those found in motorcycles and most smaller vehicles. It incorporates advanced multi-stage charging technology and various safety features to ensure optimal battery health and user protection. Please read this manual thoroughly before operating the device to ensure safe and correct usage.

2. SAFETY INFORMATION

Always prioritize safety when working with electrical devices and vehicle batteries. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Read All Instructions:** Before using the charger, read all instructions and cautionary markings on the charger, the battery, and the vehicle.
- **Ventilation:** Ensure the charging area is well-ventilated. Batteries can produce explosive gases during charging.
- **Eye Protection:** Always wear eye protection and protective clothing when working near batteries.
- **Avoid Sparks:** Do not smoke or allow a spark or flame in the vicinity of the battery or engine.
- **Disconnect Power:** Always disconnect the AC power cord from the outlet before making or breaking the connections to the battery.
- **Reverse Polarity Protection:** The device includes reverse polarity protection. However, always double-check connections before powering on.
- **Short-Circuit Protection:** The device is equipped with short-circuit protection. Avoid direct contact between the positive and negative clamps.
- **Children and Pets:** Keep the charger and battery out of reach of children and pets.
- **Damaged Equipment:** Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged.

3. PACKAGE CONTENTS

Verify that all components are present in the package:

- OSRAM BATTERYcharge 904 Unit
- Battery Clamps (Red and Black)
- Ring Terminal Connectors



Image 3.1: The OSRAM BATTERYcharge 904 unit shown with its standard accessories: red and black battery clamps, and ring terminal connectors for permanent installation.

4. PRODUCT FEATURES

The OSRAM BATTERYcharge 904 offers a range of features for effective battery charging and maintenance:

- **Intelligent Multi-Stage Charging:** Features a 7-stage charging cycle for Lithium batteries and a 9-stage cycle for lead/AGM batteries, optimized for efficient and safe charging.
- **Automatic Maintenance Mode:** Automatically switches to a long-term maintenance mode once the battery is fully charged, preventing overcharging and ensuring battery readiness.
- **Digital Display:** An integrated digital display provides clear information on the charging process and battery status.
- **Safety Protections:** Includes reverse polarity protection and short-circuit protection for enhanced user safety and device longevity.
- **Start/Stop Compatibility:** Suitable for vehicles equipped with Start/Stop systems.
- **Winter Mode:** Protects batteries and optimizes charging performance in cold temperatures.





Image 4.1: The front of the OSRAM BATTERYcharge 904, highlighting its user-friendly digital display and central mode selection button.

5. SETUP

Follow these steps to set up your OSRAM BATTERYcharge 904:

1. **Prepare the Battery:** Ensure the battery terminals are clean and free of corrosion. If necessary, clean them with a wire brush and a mixture of baking soda and water.
2. **Connect to Battery:**
 - Connect the **red positive (+)** clamp or ring terminal to the **positive (+)** battery terminal.
 - Connect the **black negative (-)** clamp or ring terminal to the **negative (-)** battery terminal.
 - For vehicle batteries, if connecting to the chassis, connect the black clamp to a metal part of the vehicle chassis away from the battery and fuel line.
3. **Connect to Power:** Plug the charger's AC power cord into a standard electrical outlet. The charger will power on and perform a self-test.
4. **Select Mode:** Use the 'MODE' button on the charger to select the appropriate charging program for your battery type (e.g., 6V, 12V, Lithium, AGM, Winter). The digital display will show the selected mode and battery voltage.

6. OPERATING INSTRUCTIONS

Once set up, the OSRAM BATTERYcharge 904 operates largely automatically:

1. **Initial Check:** After connecting to power and selecting the mode, the charger will analyze the battery's condition. The digital display will show the current battery voltage.
2. **Charging Process:** The charger will automatically begin the appropriate multi-stage charging cycle. The display will indicate the charging status and voltage.
3. **Monitoring:** Periodically check the charger's display for status updates. The charger will progress through its stages, optimizing the charge for your battery.

4. **Maintenance Mode:** Once the battery reaches full charge, the charger will automatically switch to a long-term maintenance mode. This mode keeps the battery at an optimal charge level without overcharging, making it suitable for extended periods of connection.
5. **Disconnecting:** To disconnect the charger, first unplug the AC power cord from the electrical outlet. Then, disconnect the black negative (-) clamp/terminal, followed by the red positive (+) clamp/terminal.



Image 6.1: Operating the charger: A user selects the charging mode while the device is connected to a vehicle battery.



Image 6.2: The digital display provides real-time information, such as battery voltage and charging status.

7. MAINTENANCE

Proper maintenance ensures the longevity of your OSRAM BATTERYcharge 904 and the batteries it services:

- **Cleaning:** Disconnect the charger from power and the battery before cleaning. Wipe the casing with a soft, dry cloth. Do not use harsh chemicals or abrasives.
- **Cable Inspection:** Regularly inspect the charging cables and clamps for any signs of damage, fraying, or corrosion. Replace if necessary.
- **Storage:** Store the charger in a cool, dry place when not in use. Ensure cables are neatly coiled to prevent damage. The integrated hook on the back of the unit can be used for convenient storage.
- **Battery Care:** For optimal battery life, ensure batteries are regularly charged and maintained, especially during periods of inactivity.



Image 7.1: The charger features an integrated hook for convenient storage when not in use.

8. TROUBLESHOOTING

If you encounter issues with your OSRAM BATTERYcharge 904, refer to the following table:

Problem	Possible Cause	Solution
Charger does not power on	No AC power; Faulty outlet; Damaged power cord.	Check AC power connection. Test outlet with another device. Inspect power cord for damage.
Charger displays "ERROR 1"	Incorrect battery connection (reverse polarity); Short circuit; Battery voltage too low for charging.	Disconnect charger, verify correct positive (+) and negative (-) connections. Ensure clamps are not touching. If connections are correct, the battery might be too deeply discharged to be recognized; try a different battery or consult a professional.

Problem	Possible Cause	Solution
Battery not charging	Incorrect mode selected; Severely sulfated battery; Damaged battery.	Ensure the correct charging mode is selected for your battery type. The charger may not be able to recover severely damaged or sulfated batteries. Have the battery tested by a professional.
Charger gets warm	Normal operation during charging.	Some warmth is normal. Ensure adequate ventilation around the charger. If it becomes excessively hot or emits smoke/odor, disconnect immediately and contact support.

9. SPECIFICATIONS

Specification	Value
Brand	OSRAM
Model	OEBCS904
Product Dimensions	8.5 x 5.3 x 14.6 cm
Product Weight	500 g
Output Voltage	6V / 12V
Rated Current	4 Amperes
Input Voltage	12 Volts (AC power input not specified, but implied by 'Corded Electric')
Power Source	Corded Electric
Battery Types Supported	Lead-acid, AGM, Lithium
Charging Cycles	7-stage (Lithium), 9-stage (Lead/AGM)
Safety Compliance	CE

10. WARRANTY AND SUPPORT

The OSRAM BATTERYcharge 904 comes with a **2-year guarantee**, as indicated on the product packaging. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official OSRAM website.

Spare parts availability in the EU is guaranteed for 1 year. For technical support, service, or warranty claims, please contact your retailer or the official OSRAM customer service channels.