

Ansmann 1001-0143

ANSMANN BC 6-12V/2A Smart Charger Instruction Manual

1. INTRODUCTION

The ANSMANN BC 6-12V/2A Smart Charger is an intelligent, automatic 8-stage battery charger designed for safe and efficient charging of various 6V and 12V batteries. It is suitable for lead-acid, lead-gel, lead-fleece, and 12V LiFePO4 batteries with capacities ranging from 4 Ah to 60 Ah. This charger ensures optimal battery performance and extends battery life through its advanced charging process and comprehensive safety features.

Included in the Box:

- ANSMANN BC 6-12V/2A Smart Charger Unit
- Battery Clamps (Alligator Clips)
- Ring Terminals
- Instruction Manual

2. SETUP AND CONNECTION

Before connecting the charger, ensure the charger is unplugged from the mains power supply. Select the appropriate connection method for your battery: battery clamps for temporary connection or ring terminals for a more permanent installation.

Connection Steps:

1. Connect the red positive (+) charger cable to the positive (+) terminal of the battery.
2. Connect the black negative (-) charger cable to the negative (-) terminal of the battery.
3. Ensure all connections are secure.
4. Plug the charger into a suitable mains power outlet. The charger will automatically begin its initial checks.



Figure 1: ANSMANN Smart Charger with included accessories for various connection types.



Figure 2: Example of connecting the charger to a car battery using battery clamps.



Figure 3: Example of connecting the charger to a motorcycle battery.

3. OPERATING INSTRUCTIONS

The charger features an 8-stage fully automatic intelligent charging process. Use the 'MODE' button to select the appropriate charging program and current for your battery.

Selecting Charging Programs:

Press the **MODE** button to cycle through the available charging programs:

- **6V STD:** For 6V lead-acid and lead-gel batteries.
- **12V STD:** For 12V lead-acid and lead-gel batteries.
- **12V LFP:** For 12V Lithium Iron Phosphate (LiFePO₄) batteries.

For each program, you can select a charging current of either 1A or 2A. The LCD display will indicate the selected mode and charging status.

8-Stage Automatic Charging Process:

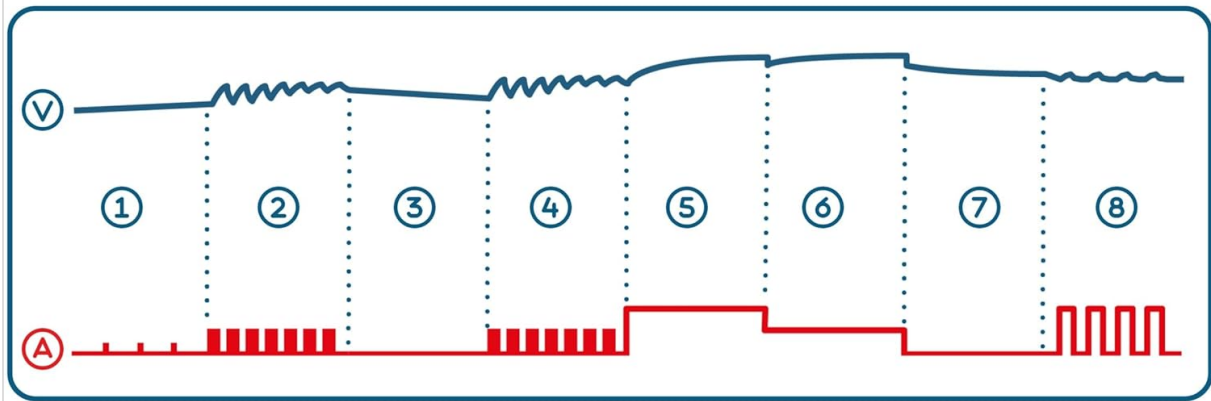
The charger automatically progresses through the following stages to optimize battery charging and maintenance:

1. **Battery Check:** Assesses the battery's initial status and voltage.
2. **Desulfation:** Applies pulsed current and voltage to break down sulfate crystals on lead plates, restoring battery capacity.
3. **Analysis:** Temporarily halts charging to measure the battery's no-load voltage.
4. **Reactivation Charge:** Prepares the battery for the main charge, resuming desulfation if necessary.
5. **Main Charge:** Charges the battery with a constant current until it reaches a high state of charge.
6. **Charge Optimization:** Gradually reduces the charging current to achieve maximum battery capacity.
7. **Voltage Control:** Monitors the battery's charge status to ensure optimal voltage levels.

8. **Holding Charge (Maintenance):** Provides pulse maintenance charging as needed to prevent self-discharge and keep the battery fully charged.

8-Stufen Ladeverfahren

 Vollautomatische Technologie



- | | |
|------------------------|--------------------|
| ① Batterieprüfung | ⑤ Hauptladung |
| ② Desulfatierung | ⑥ Ladeoptimierung |
| ③ Analyse | ⑦ Spannungsscheck |
| ④ Reaktivierungsladung | ⑧ Erhaltungsladung |

Figure 4: Visual representation of the 8-stage automatic charging process.

4. MAINTENANCE

The ANSMANN BC 6-12V/2A Smart Charger is designed for durability and minimal maintenance. It is rated IP65, meaning it is protected against dust ingress and low-pressure water jets from any direction. This allows for safe use in various environments.

The charger can remain connected to the battery for extended periods, providing a continuous holding charge to prevent self-discharge. This feature is ideal for vehicles stored for long durations, ensuring the battery remains fully charged and ready for use.

Periodically inspect the charger cables and connectors for any signs of damage or wear. Keep the charger clean and free from excessive dust or debris.

5. TROUBLESHOOTING AND SAFETY FEATURES

The ANSMANN Smart Charger incorporates multiple safety features to protect both the user and the battery during operation. If an issue occurs, the charger's LCD display may indicate an error or the charging process may not initiate.

Safety Features:

- **Reverse Polarity Protection:** Prevents damage if the battery connections are reversed.
- **Overload Protection:** Protects against excessive current draw.
- **Deep Discharge Protection:** Prevents charging of severely discharged batteries that may be damaged.
- **Short Circuit Protection:** Automatically shuts off if a short circuit is detected.
- **Spark Protection:** Minimizes the risk of sparks during connection.
- **Splash Water Protection (IP65):** Ensures safe operation in damp conditions.
- **Defect Detection:** Identifies potentially faulty batteries.

Schutzfunktionen

Sicherer Gebrauch bei maximaler Leistung



Figure 5: The charger's robust design and protection features, including splash water resistance.

Universell

 Laden von Bleisäure-, Blei-Gel-, Blei-Vlies- und Lithium Akkus



Defekt-Erkennung



Auto. Nachladung



Figure 6: The charger's universal compatibility and defect detection capability.

Common Issues and Solutions:

- **Charger not turning on:** Ensure the charger is securely plugged into a working power outlet. Check for any visible damage to the power cord.
- **Charging not starting:** Verify that the battery connections are correct (positive to positive, negative to negative). Ensure the battery voltage matches the selected charging program (6V or 12V). The battery might be too deeply discharged or defective, triggering protection.
- **Error indicator on display:** Refer to the specific error codes in the full manual (if provided) or disconnect and reconnect the charger and battery to reset. If the error persists, the battery may be faulty.

6. SPECIFICATIONS

Feature	Specification
Model Number	1001-0143
Input Voltage	AC 100-240V, 50/60Hz
Output Voltage	6V / 12V (DC)
Charging Current	1A / 2A (selectable)

Battery Capacity	4 Ah - 60 Ah
Battery Types	Lead-Acid, Lead-Gel, Lead-Fleece, 12V LiFePO4
Charging Stages	8-Stage Automatic
Protection Rating	IP65 (Dust and Splash Water Protected)
Product Dimensions	7.09 x 3.11 x 1.93 inches (180 x 79 x 49 mm)
Item Weight	1.03 pounds (0.47 kg)

7. WARRANTY

The ANSMANN BC 6-12V/2A Smart Charger comes with a **3-year manufacturer's warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by misuse, unauthorized modifications, accidents, or normal wear and tear.

8. SUPPORT

For further assistance, technical support, or warranty inquiries, please contact ANSMANN customer service. You can find contact information on the official ANSMANN website or through your retailer. For more information about ANSMANN products, visit the [Ansmann Store on Amazon](#).