

AlveyTech 24BC5000T-4

AlveyTech 24 Volt 5.0 Amp XLR SLA/Gel Battery Charger

Model: 24BC5000T-4

INTRODUCTION

This manual provides essential instructions for the safe and effective use of your AlveyTech 24 Volt 5.0 Amp XLR SLA/Gel Battery Charger. This charger is designed for use with mobility scooters and power chairs equipped with off-board charging female XLR sockets, supporting both standard AGM and Gel cell batteries. Please read all instructions carefully before use.

SAFETY INFORMATION

Important Safety Warnings:

- **Battery Compatibility:** Only use this charger on Sealed Lead Acid (SLA) batteries. **Not compatible with lithium batteries.** Using with incompatible batteries may cause damage or injury.
- **Ventilation:** Explosive gases can be produced during charging. Prevent flames and sparks near the charger and battery. Always provide adequate ventilation during the charging process.
- **Connections:** Disconnect the power supply from the AC outlet before making or breaking any connections to the battery.
- **Short Circuit Protection:** The charger features short circuit protection to prevent damage. It is self-recovering once the short circuit condition is removed.
- **Reverse Polarity Protection:** This charger prevents damage if positive and negative polarities are connected in reverse.
- **Indoor Use:** This charger is intended for indoor use only.

PRODUCT OVERVIEW

The AlveyTech 24 Volt 5.0 Amp XLR Battery Charger is designed for efficient and safe charging of 24V SLA and Gel batteries (17 Ah or larger) found in mobility scooters and power chairs. It features a 3-stage charging process and multiple safety mechanisms.

Key Features:

- **Dual Battery Type Support:** Compatible with both standard AGM and Gel cell batteries via a selector switch.
- **Automatic Shut-off:** Automatically stops charging when the battery is full, preventing overcharging.
- **3-Stage Charging Process:** Includes Bulk Charge, Absorption, and Maintenance/Float modes for optimal battery health.
- **LED Indicators:** Three LED lights display power status, charging status, and fully charged status.
- **Low Voltage Protection:** Charger will not initiate charging if the battery voltage is below 18 volts.
- **Lightweight Design:** Switch mode technology makes the charger portable and efficient.



Image: The AlveyTech 24 Volt 5.0 Amp XLR Battery Charger, showing the main unit and the XLR output connector.

SETUP

1. **Identify Battery Type:** Determine if your battery is an AGM (Absorbed Glass Mat) or Gel cell type.
2. **Set Selector Switch:** Locate the GEL/AGM selector switch on the charger. Set it to the appropriate position for your battery type.



Image: A close-up view of the charger's side, highlighting the GEL/AGM selector switch and the LED status indicators.

3. **Connect to Battery:** Plug the XLR connector from the charger into the charging port of your mobility scooter or power chair. Ensure a secure connection.



Image: A detailed view of the 3-pin XLR output connector.

4. **Connect to Power Outlet:** Plug the AC power cord into the charger's input port, then plug the other end into a standard 100-240V AC wall outlet.



Image: The AC power input port on the charger unit.



Image: The detachable AC power cord with a standard US plug.

OPERATING INSTRUCTIONS

1. Once properly connected, the charger will automatically begin the charging cycle.
2. Observe the LED indicators:
 - **Power On:** Indicates the charger is receiving power.
 - **Charging:** Indicates the battery is actively being charged (Bulk Charge or Absorption stage).
 - **Charged:** Indicates the battery is fully charged and the charger has switched to Float Mode.
3. Charging time will vary depending on the battery's state of depletion.
4. The charger can remain connected indefinitely in Float Mode to maintain a full charge without overcharging.

MAINTENANCE

- Keep the charger clean and dry.
- Store the charger in a cool, dry place when not in use.
- Regularly inspect the power cord, XLR connector, and charger casing for any signs of damage. Do not use if

damaged.

- Ensure adequate ventilation around the charger during operation.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Charger not operating / No LED indication	No AC power; Battery voltage below 18V; Loose connections	Check AC outlet and power cord connection. Ensure battery voltage is above 18V. Verify all connections are secure.
Charging LED not illuminating	Incorrect GEL/AGM switch setting; Battery already fully charged; Faulty battery	Confirm GEL/AGM switch matches battery type. If battery is full, charger will be in float mode. Test battery condition.
Charger repeatedly stops/starts	Short circuit detected; Overheating	Inspect cables for damage. Ensure adequate ventilation. Disconnect and allow to cool if overheating is suspected.
Battery not holding charge after charging	Battery issue, not charger issue	Consult a battery specialist to assess battery health.

SPECIFICATIONS

- **Model Number:** 24BC5000T-4
- **Input Voltage:** AC 100-240V ~ 3.0A, 50-60Hz
- **Output Voltage:** DC 24V === 5A
- **Connector Type:** XLR
- **Application:** Sealed Lead Acid (SLA) or Gel batteries (17 Ah to 50 Ah)
- **Manufacturer:** Universal Power Group (UPG) / AlveyTech
- **Certifications:** ERAC BAA-172133-EA, ETL EP5020506, UL 1012 (E245476), CE, FCC
- **Item Weight:** Approximately 2.8 pounds
- **Package Dimensions:** Approximately 11 x 8 x 6 inches



Image: The product label displaying detailed electrical specifications and certifications.

SUPPORT

For further assistance, technical support, or inquiries regarding your AlveyTech 24 Volt 5.0 Amp XLR SLA/Gel Battery Charger, please contact AlveyTech customer service. Refer to your product packaging or the AlveyTech website for contact information.