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SigmasTek SP12-35



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1. INTRODUCTION

This manual provides essential information for the safe and effective use of your SigmasTek SP12-35 12 Volt 35 Amp-Hour (AH) Absorbent Glass Mat (AGM) battery. The SP12-35 is a sealed lead-acid (SLA) battery designed for various applications, including as a replacement for the Lawn Mower GT262 battery. It features maintenance-free operation and spill-proof construction, ensuring reliability and convenience.



Image 1.1: SigmasTek SP12-35 12V 35AH AGM Battery. This image displays the compact design and terminal configuration of the battery.

2. SAFETY INFORMATION

Please read and understand all safety precautions before handling or installing the battery. Failure to follow these instructions can result in serious injury or damage.

- **Eye Protection:** Always wear appropriate eye protection (safety glasses) when working with batteries.
- **Ventilation:** Ensure adequate ventilation in the work area. Although sealed, batteries can emit gases during charging.
- **No Sparks or Flames:** Keep batteries away from sparks, open flames, and smoking materials.
- **Insulated Tools:** Use insulated tools to prevent short circuits.
- **Proper Disposal:** Dispose of old batteries responsibly according to local regulations. Do not incinerate.
- **Keep Out of Reach of Children:** Batteries contain hazardous materials and should be stored safely.
- **Avoid Short Circuits:** Do not allow metal objects to bridge the battery terminals.

3. SETUP AND INSTALLATION

Before installation, verify that the SigmasTek SP12-35 battery is compatible with your equipment and that its dimensions fit the battery compartment. Always ensure the equipment is turned off before beginning installation.

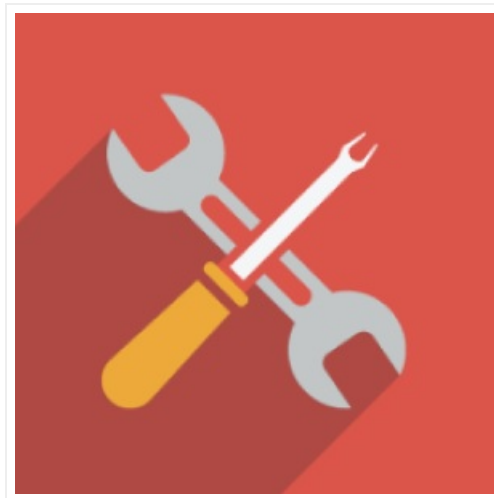


Image 3.1: Tools for installation. This icon represents the need for appropriate tools during battery setup.

Installation Steps:

1. **Preparation:** Turn off the equipment and remove the ignition key. Ensure the area is well-ventilated.
2. **Disconnect Old Battery:** First, disconnect the negative (-) terminal cable, then disconnect the positive (+) terminal cable from the old battery. Carefully remove the old battery.
3. **Inspect Compartment:** Clean the battery compartment and inspect cables for corrosion or damage. Replace damaged cables if necessary.
4. **Position New Battery:** Place the SigmasTek SP12-35 battery securely in the compartment.
5. **Connect New Battery:** First, connect the positive (+) terminal cable to the positive (+) terminal of the new battery. Then, connect the negative (-) terminal cable to the negative (-) terminal of the new battery. Ensure connections are tight and secure.
6. **Secure Battery:** Use any existing battery hold-downs or straps to secure the battery in place,

preventing movement during operation.

4. OPERATING INSTRUCTIONS

The SigmasTek SP12-35 is a rechargeable sealed lead-acid battery. It is designed to provide reliable power for your applications. Proper charging is crucial for optimal performance and lifespan.

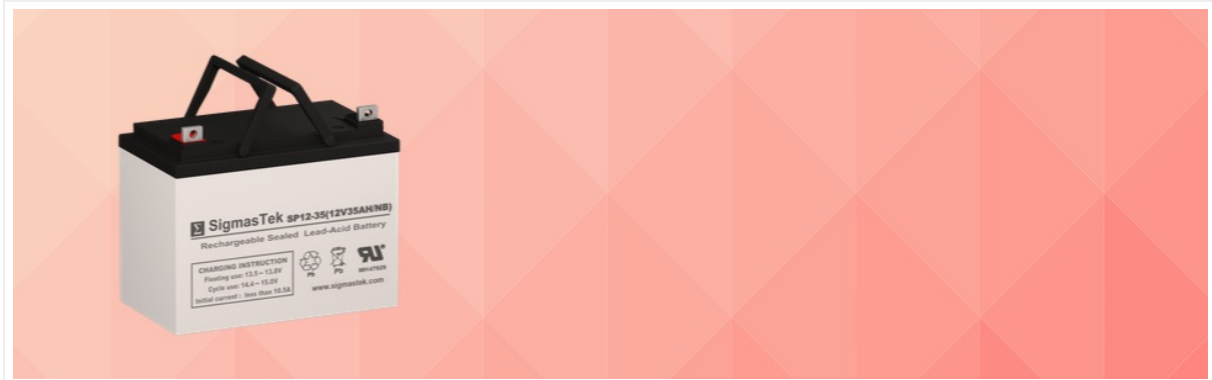


Image 4.1: SigmasTek SP12-35 battery showing charging parameters. This image provides specific voltage and current recommendations for charging.

Charging Guidelines:

- **Floating Use (Standby):** For applications where the battery is continuously connected to a charger, maintain a voltage between **13.5V and 13.8V**.
- **Cycle Use (Deep Cycle):** For applications involving regular discharge and recharge cycles, charge the battery at a voltage between **14.4V and 15.0V**.
- **Initial Current:** The initial charging current should be less than **10.5 Amperes (A)**.

Always use a charger compatible with 12V sealed lead-acid batteries and ensure it adheres to the recommended charging parameters to prevent overcharging or undercharging, which can reduce battery life.

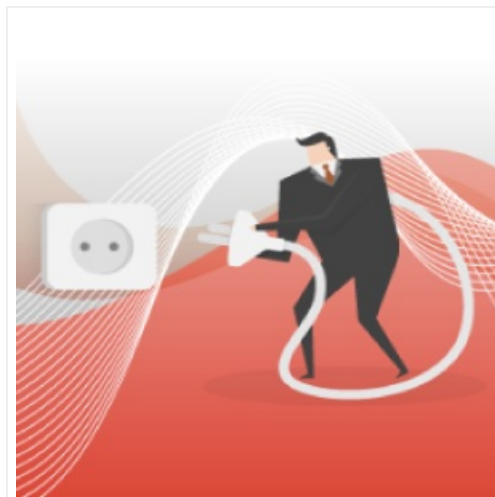


Image 4.2: Electrical plug icon. This icon symbolizes the charging process for the battery.

5. MAINTENANCE

The SigmasTek SP12-35 battery is designed with Absorbent Glass Mat (AGM) technology, making it a maintenance-free unit with spill-proof construction. This means there is no need to check electrolyte levels or add water.

Recommended Checks:

- **Visual Inspection:** Periodically inspect the battery casing for any signs of damage, cracks, or swelling.
- **Terminal Connections:** Ensure that the battery terminals and cable connections remain clean, tight, and free of corrosion. Clean terminals with a wire brush if necessary and apply a thin layer of dielectric grease to prevent corrosion.
- **Storage:** If storing the battery for an extended period, ensure it is fully charged and stored in a cool, dry place. Recharge periodically (every 3-6 months) to maintain optimal charge and prevent sulfation.

6. TROUBLESHOOTING

If you encounter issues with your SigmasTek SP12-35 battery, consider the following common troubleshooting steps:

- **Equipment Not Starting/Powering On:**
 - Check battery terminal connections for tightness and corrosion.
 - Verify the battery's charge level using a voltmeter. A fully charged 12V battery should read approximately 12.6V or higher.
 - Ensure the equipment's charging system (if applicable) is functioning correctly.
- **Battery Not Holding Charge:**
 - Confirm that the charger is operating within the recommended voltage and current specifications (refer to Section 4).
 - Check for parasitic drains on the equipment that might be discharging the battery prematurely.
 - If the battery is old, its capacity may have diminished over time.
- **Swollen or Damaged Casing:**
 - A swollen battery casing indicates overcharging or internal damage. Discontinue use immediately and replace the battery.

If troubleshooting steps do not resolve the issue, contact SigmasTek customer support for further assistance.

7. SPECIFICATIONS

Key technical specifications for the SigmasTek SP12-35 battery:

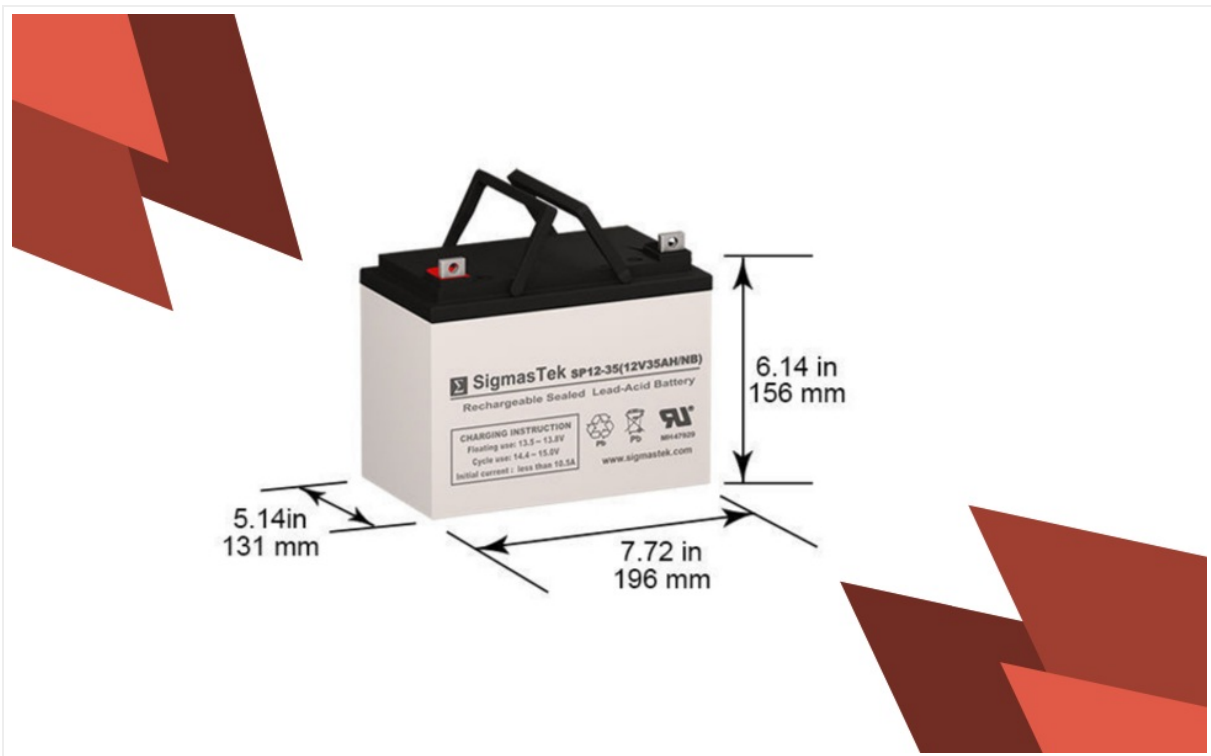


Image 7.1: SigmasTek SP12-35 Battery Dimensions. This diagram illustrates the physical measurements of the battery.

| Specification | Value |
|--------------------------------|------------------------------------------------|
| Model Number | SP12-35 |
| Voltage | 12 Volts |
| Capacity | 35 Amp-Hours (AH) |
| Technology | Absorbent Glass Mat (AGM) |
| Terminal Type | Nut & Bolt |
| Product Dimensions (L x W x H) | 7.72 x 5.14 x 6.14 inches (196 x 131 x 156 mm) |
| Weight | 24.7 Pounds |
| Manufacturer | SigmasTek |

8. WARRANTY AND SUPPORT

Warranty Information:

The SigmasTek SP12-35 battery comes with a **1-Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use and service. It does not cover damage resulting from misuse, neglect, improper installation, or unauthorized modifications.

Customer Support:

For technical assistance, warranty claims, or any questions regarding your SigmasTek SP12-35 battery, please contact SigmasTek customer support. Refer to your purchase documentation or the official SigmasTek website for contact details.

