

RB410E

User Manual

SIGMA 4V 300 mAh 0.3Ah RECHARGEABLE SEALED LEAD-ACID BATTERY

Model: RB410E

1. Introduction

This manual provides essential information for the safe and effective use of your Sigma 4V 300 mAh 0.3Ah Rechargeable Sealed Lead-Acid Battery. Please read these instructions carefully before installation and use to ensure optimal performance and longevity of the product.

2. Safety Information

Observe the following safety precautions to prevent damage to the battery or injury to yourself:

- **CAUTION: DO NOT SHORT CIRCUIT.** Short-circuiting can cause overheating, fire, or explosion.
- Keep the battery dry at all times. Avoid exposure to moisture or liquids.
- Do not overcharge the battery. Overcharging can reduce battery life and pose safety risks.
- The charging voltage should not exceed 6 Volts. Use only chargers compatible with 4V lead-acid batteries.
- Do not disassemble, puncture, or modify the battery.
- Store in a cool, dry place away from direct sunlight and extreme temperatures.

3. Product Overview

The Sigma 4V 300 mAh 0.3Ah battery is a compact, rechargeable sealed lead-acid battery designed for various low-power applications. It is commonly used in devices such as mosquito killer bats, toys, torches, emergency lights, and DIY electronic projects requiring a 4-volt power source.



Image 1: Front view of the Sigma 4V 300 mAh 0.3Ah Rechargeable Sealed Lead-Acid Battery, showing the Sigma branding, voltage, capacity, and safety warning.

Key Features:

- **Type:** Sealed Lead-Acid
- **Voltage:** 4 Volts
- **Capacity:** 0.3Ah / 300mAh
- **Electrodes:** 7 mm Long
- **Dimensions:** Approximately 40mm (L) × 25mm (W) × 19mm (H)
- **Weight:** 35 Grams

4. Setup and Installation

Before installing the battery, ensure that the device it will power is turned off and disconnected from any power source. Verify that the battery's dimensions (40mm×25mm×19mm) and voltage (4V) are compatible with your device.

1. Identify the battery compartment in your device.
2. Carefully insert the battery, ensuring correct polarity (positive to positive, negative to negative). The battery features 7mm long electrodes for connection.

3. Secure the battery within the compartment if applicable.
4. Close the battery compartment.

It is recommended to fully charge the battery before its first use.

5. Charging Instructions

To charge your Sigma 4V 300 mAh battery:

- Use a compatible charger designed for 4V lead-acid batteries.
- Connect the charger to the battery, observing correct polarity.
- The approximate charging time is **2-3 hours**.
- The charging voltage should be between **4-6 Volts**. Do not exceed 6 Volts.
- Avoid leaving the battery on charge for extended periods after it is fully charged to prevent overcharging.

6. Operation and Usage

Once installed and charged, the battery is ready for use in your compatible device. The backup time provided by the battery will vary depending on the load (power consumption) of the device it is powering.

Compatible Applications:

- Mosquito Killer Bats
- Rechargeable Bulbs
- Torchlights
- DIY Projects
- Other electronic devices that use a DC 4-volt battery

7. Maintenance

Proper maintenance ensures the longevity and performance of your battery:

- **Keep Dry:** Always ensure the battery is kept in a dry environment.
- **Regular Charging:** If the battery is not in use for an extended period, charge it periodically (e.g., every 3-6 months) to prevent deep discharge, which can permanently damage lead-acid batteries.
- **Clean Terminals:** Keep the battery terminals clean and free from corrosion. Use a dry cloth to wipe them if necessary.
- **Avoid Extreme Temperatures:** Do not expose the battery to extreme heat or cold, as this can affect its performance and lifespan.

8. Troubleshooting

If you encounter issues with your battery, consider the following:

- **Battery Not Charging:**
 - Ensure the charger is working correctly and is compatible with 4V lead-acid batteries.
 - Check all connections for proper contact and polarity.

- Verify that the charging voltage is within the 4-6V range.
- **Device Not Powering On:**
 - Confirm the battery is fully charged.
 - Check that the battery is correctly installed with the right polarity.
 - Inspect the device for any internal issues or loose connections.
- **Short Backup Time:**
 - Ensure the battery is fully charged before use.
 - The backup time is dependent on the load of the device. High-power devices will drain the battery faster.
 - Battery capacity may degrade over time with repeated charge/discharge cycles.

9. Specifications

Specification	Value
Model Number	RB410E
Battery Type	Sealed Lead-Acid
Voltage	4 Volts
Capacity	300 mAh (0.3Ah)
Reusability	Rechargeable
Charging Voltage	4-6 Volts (Do not exceed 6V)
Approximate Charging Time	2-3 hours
Electrode Length	7 mm
Dimensions (L x W x H)	40mm x 25mm x 19mm
Weight	35 Grams
Included Components	Battery Set Of 2

10. Warranty and Support

Warranty: This product comes with a 1-month warranty against manufacturing defects only. The warranty does not cover damage caused by improper use, short-circuiting, overcharging, physical damage, or exposure to moisture.

For technical support or warranty claims, please contact the retailer or manufacturer with your purchase details and a description of the issue.