Yuasa NP12-12

Yuasa NP12-12 12V 12Ah SLA Battery User Manual

Model: NP12-12

1. Introduction

This manual provides essential information for the safe and effective use of your Yuasa NP12-12 12 Volt 12 Amp-Hour Sealed Lead Acid (SLA) battery. The Yuasa NP12-12 battery is designed with Oxygen Recombination Technology, ensuring a sealed, leak-proof construction and maintenance-free operation. It is a rechargeable battery suitable for various applications, offering high energy density and resistance to shocks and vibrations.

2. Safety Information

Please read and understand all safety instructions before handling or operating the battery. Failure to follow these instructions may result in personal injury or damage to the battery.

- **Avoid Shorting Terminals:** Do not allow metal objects to bridge the battery terminals. This can cause a short circuit, leading to heat, fire, or explosion.
- **Do Not Charge in a Gas-Tight Container:** Ensure adequate ventilation during charging to prevent gas accumulation.
- **Do Not Disassemble:** The battery contains corrosive electrolyte. Do not attempt to open or disassemble the battery.
- **Handle with Care:** The battery is heavy. Use proper lifting techniques to avoid injury.
- **Eye and Skin Protection:** Wear appropriate eye protection and gloves when handling batteries. In case of contact with electrolyte, flush immediately with water and seek medical attention.
- **Fire Hazard:** Keep away from open flames, sparks, and heat sources.

3. Product Overview

The Yuasa NP12-12 is a 12 Volt, 12 Amp-Hour Sealed Lead Acid (SLA) battery featuring F2 terminals. It is designed for reliable performance in various applications.

Figure 1: Front view of the Yuasa NP12-12 battery, displaying the F2 terminals and product labeling.

Figure 2: Angled view of the Yuasa NP12-12 battery, illustrating its compact and robust design.

Key Features:

- 12 Volt, 12 Amp-Hour capacity
- Sealed Lead Acid (SLA) / Absorbent Glass Mat (AGM) technology
- Maintenance-free and spill-proof construction
- F2 Terminal type
- Rechargeable and can be mounted in any position
- Resistant to shocks and vibration

4. Setup and Installation

Follow these steps for proper installation of your Yuasa NP12-12 battery:

1. **Inspect the Battery:** Before installation, visually inspect the battery for any signs of damage, cracks, or leaks. Do not install a damaged battery.
2. **Prepare the Installation Area:** Ensure the battery compartment or installation area is clean, dry, and free from corrosive materials.
3. **Positioning:** The Yuasa NP12-12 can be mounted in any position (except inverted for prolonged periods) due to its sealed design. However, ensure it is securely fastened to prevent movement during operation.
4. **Connect Terminals:** Connect the positive (+) terminal of the battery to the positive lead of your device/system, and the negative (-) terminal to the negative lead. Ensure connections are tight and secure to prevent arcing and power loss. The F2 terminals are designed for standard connectors.
5. **Verify Polarity:** Double-check that the polarity is correct before applying power. Incorrect polarity can damage the battery and the connected equipment.

5. Operation

The Yuasa NP12-12 battery is designed for reliable power delivery. Proper charging is crucial for maximizing its lifespan.

Charging Instructions:

- **Use a Compatible Charger:** Always use a charger specifically designed for 12V Sealed Lead Acid (SLA) or AGM batteries. Using an incompatible charger can damage the battery.
- **Charging Voltage:** For cyclic applications, the recommended charging voltage is typically between 14.4V and 15.0V. For standby applications, it is usually between 13.5V and 13.8V. Refer to your charger's manual for specific settings.
- **Charging Current:** The recommended maximum charging current is 0.3C (30% of the battery's Ah rating). For a 12Ah battery, this would be 3.6 Amps. Exceeding this can shorten battery life.
- **Temperature Compensation:** Charging voltage should be adjusted based on ambient temperature. Consult your charger's specifications for temperature compensation guidelines.
- **Avoid Overcharging/Undercharging:** Both overcharging and undercharging can reduce battery capacity and lifespan. Use a smart charger with automatic cut-off.

Discharge:

Avoid deep discharges whenever possible. Repeated deep discharges can significantly reduce the battery's cycle life. For optimal performance, recharge the battery as soon as possible after discharge.

6. Maintenance and Storage

The Yuasa NP12-12 is a maintenance-free battery, but proper care and storage practices will ensure its longevity.

Maintenance:

- **Keep Clean:** Periodically clean the battery terminals and casing with a dry cloth to remove dust and dirt. Ensure terminals are free of corrosion.
- **Check Connections:** Regularly inspect terminal connections to ensure they remain tight and secure.
- **No Water or Electrolyte Checks:** As a sealed battery, it does not require water additions or electrolyte level checks.

Storage:

- **Charge Before Storage:** Fully charge the battery before placing it into storage.
- **Cool, Dry Place:** Store the battery in a cool, dry, and well-ventilated area, away from direct sunlight, heat sources, and corrosive materials.
- **Recharge Periodically:** For extended storage, recharge the battery every 3-6 months to prevent self-discharge from dropping the voltage too low, which can cause irreversible damage.
- **Temperature:** Ideal storage temperature is between 20°C and 25°C (68°F and 77°F). Extreme temperatures can accelerate self-discharge.

7. Troubleshooting

If you encounter issues with your Yuasa NP12-12 battery, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Battery not holding a charge	Undercharging, overcharging, sulfation, end of life	Ensure proper charging voltage and current. Use a smart charger. If battery is old, replacement may be necessary.
Battery not charging	Faulty charger, loose connections, deeply discharged battery	Check charger functionality and connections. Some chargers cannot revive deeply discharged batteries; a specialized recovery charger might be needed.
Reduced run time	Battery degradation, high load, cold temperature	Battery capacity naturally decreases over time. Reduce load if possible. Battery performance is reduced in cold temperatures.
Overheating during charge	Overcharging, high charging current, internal short	Stop charging immediately. Verify charger settings. If overheating persists, discontinue use and replace the battery.

8. Specifications

Detailed technical specifications for the Yuasa NP12-12 battery:

- **Brand:** Yuasa
- **Model Number:** NP12-12-250EBALT10 (Primary model identifier: NP12-12)

- **Voltage:** 12 Volts
- **Capacity:** 12 Amp Hours (Ah)
- **Battery Type:** Sealed Lead Acid (SLA) / Absorbent Glass Mat (AGM)
- **Terminal Type:** F2 Terminal
- **Product Dimensions (L x W x H):** 5.94 inches x 3.86 inches x 3.82 inches (15.09 cm x 9.80 cm x 9.70 cm)
- **Item Weight:** Approximately 9 pounds (4.08 kg)
- **Automotive Fit Type:** Universal Fit
- **UPC:** 878999000116

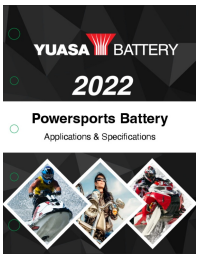
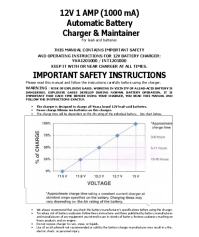
9. Warranty Information

The Yuasa NP12-12 battery comes with a Full One Year Warranty. For warranty claims or further details, please refer to your purchase documentation or contact Yuasa customer support.

10. Disposal

Batteries contain materials that can be harmful to the environment if not disposed of properly. Do not dispose of the Yuasa NP12-12 battery in household waste. Please recycle this battery at an authorized recycling facility. Contact your local waste management authority for information on battery recycling programs in your area.

Related Documents - NP12-12

	Yuasa Powersports Batteries: Applications & Specifications Guide Comprehensive guide to Yuasa powersports batteries, covering applications, specifications, battery types (AGM, Conventional, Yumicron), features, benefits, safety, charging, activation, installation, maintenance, and storage for motorcycles, ATVs, UTVs, PWC, and snowmobiles.
	Yuasa YUA1P2AMPCH 1.2 Amp Automatic Battery Charger & Maintainer Owner's Manual Comprehensive owner's manual for the Yuasa YUA1P2AMPCH 1.2 Amp Automatic Battery Charger & Maintainer. Includes specifications, safety instructions, setup, operation, troubleshooting, and warranty information.
	Yuasa 12V 1A Automatic Battery Charger & Maintainer User Manual User manual for the Yuasa 12V 1A Automatic Battery Charger & Maintainer, covering safety instructions, operation, features, specifications, and troubleshooting for lead-acid batteries.

	[Yuasa YUA1201000 / INT1201000 12V 1A Automatic Battery Charger & Maintainer - User Manual] User manual for the Yuasa YUA1201000 / INT1201000, a 12V 1A automatic battery charger and maintainer for lead-acid batteries. Includes comprehensive safety instructions, operating procedures, features, specifications, and troubleshooting guidance.
	[Yuasa SWL Series Valve Regulated Lead-Acid Batteries Datasheet] Technical specifications and features of Yuasa SWL Series Valve Regulated Lead-Acid Batteries, including charging characteristics, discharge curves, and self-discharge rates.
	[Yuasa Powersports Battery Applications and Specifications Guide] Discover the comprehensive Yuasa Powersports Battery Applications and Specifications Guide. This document details the GYZ, YTZ, and Yumicron battery series, covering applications for motorcycles, ATVs, UTVs, scooters, and more. Learn about Yuasa's history, manufacturing, and commitment to quality since 1979.