

NOCO NLP20

NOCO Lithium NLP20 Ultra-Light 12V Powersport Battery User Manual

Brand: NOCO | Model: NLP20

1. INTRODUCTION

The NOCO Lithium NLP20 is a next-generation 12V lithium powersport battery designed for superior performance compared to traditional lead-acid batteries. It offers enhanced power, longer life, and minimal maintenance. This manual provides essential information for the safe and effective use of your NLP20 battery.



Figure 1: NOCO Lithium NLP20 Powersport Battery

2. WHAT'S IN THE BOX

Your NOCO Lithium NLP20 package includes the following items:

- (1) NLP20 600A Lithium Powersports Battery
- (2) 3-Way Battery Terminals with (4) M6 Hex Screws
- (1) Hex Key
- (1) Removable Mounting Bracket
- (1) 12mm Spacer
- (3) 15mm Spacers
- 5-Year Limited Warranty Information

ADJUSTABLE SIZING.

COMPATIBLE WITH MOST BRANDS.



COMPATIBLE BATTERY SIZES.

B16L-B	B50-N18L-A3
BTX15L-BS	BTX20L-BS
BTX20L	BTX15L
B18L-A	ETX16
BTZ20L	ETX16L
B16CL-B	ETX20L
BTX20HL-BS	YTX20HL-BS
GYZ20L	YTX20HL-BS-PW
GYZ20HL	YIX20HL-BS
YTX20HL	YTX15L
YIX20HL	YTX20L
YTX20HL-PW	YB16CL-B
YTX15L-BS	SYB16L-B
YTX20L-BS	Y50-N18L-A3
YB16HL-A-CX	YB16L-B

YTX® and ETX® are registered trademarks of GS Yuasa Corporation and East Penn Manufacturing Co. and are not affiliated with NOCO.

Figure 2: Included components with the NLP20 battery.

3. KEY FEATURES

- **Enhanced Performance:** Delivers over 600 amps of starting power, offering 2X more power, 10X more starts, and 5X longer life than traditional lead-acid batteries.
- **Intelligent Battery Management System (BMS):** Safeguards against overcharge, short-circuit, over-discharge, and extreme temperatures. Actively balances cells for long-term reliability without requiring manual resets.
- **Ultra-Lightweight Design:** Significantly lighter than lead-acid alternatives, simplifying installation and reducing overall vehicle weight.
- **Fast Charging:** Optimized lithium technology allows for rapid charging, providing enough current to start your engine with just 5 minutes of charge.
- **Universal Fit:** Features a multi-terminal design supporting front, side, top, and female connections. Modular trays and a removable mounting block adapt to various legacy group sizes and tight installation spaces.
- **Maintenance-Free:** Designed for zero sulfation, no acid, and no activation required.

WHAT'S IN THE BOX.



Figure 3: Dynamic Battery Management System (BMS) for active protection.

4. SETUP AND INSTALLATION

The NLP20 battery is designed for straightforward installation. Always refer to your vehicle's specific service manual for battery replacement procedures.

1. **Preparation:** Ensure your vehicle's ignition is off and remove the old battery following manufacturer guidelines.
2. **Fitment Adjustment:** Use the included modular trays and spacers (12mm and 15mm) to achieve the correct height and width for your battery compartment. The removable mounting block can also assist in adapting to various legacy group sizes.
3. **Terminal Connection:** The multi-terminal design supports front, side, top, and female connections. Attach the positive (+) cable first, then the negative (-) cable. Ensure all connections are secure using the provided M6 hex screws and hex key.
4. **Secure Battery:** Place the battery securely in the compartment. If necessary, use the removable mounting bracket to further stabilize the battery.

BETTER THAN LEAD ACID.

NO ACTIVATION.
NO SULFATION.
NO ACID.
NO WATER.

NO MAINTENANCE.



Figure 4: Adjustable sizing with modular spacers for universal fit.

Installation Video Reference:

Your browser does not support the video tag.

Video 1: General battery removal and installation steps.

Your browser does not support the video tag.

Video 2: Motorcycle battery wiring guide for correct terminal connections.

5. CHARGING THE BATTERY

The NLP20 ships pre-charged, but it is recommended to fully charge it before initial installation for optimal performance and extended life. The advanced lithium technology allows for superfast charging.

- **Recommended Charger:** Always use a smart, Lithium-specific battery charger.

- **Voltage Limit:** The charging voltage should **never exceed 15.0 volts** to prevent damage to the battery.
- **Avoid Desulfation Mode:** Do not charge the battery with a charger that has an automatic desulfation mode if it uses a voltage higher than 15.0 volts.
- **Rapid Charge:** With just 5 minutes of charge, the battery can deliver enough current to crank your engine.

6. OPERATING THE BATTERY

The NLP20 is designed to provide reliable starting power for a wide range of powersport and utility equipment. Its intelligent BMS continuously monitors and protects the battery during operation.

- **Starting Power:** Expect consistent and powerful starts due to its high cranking amps.
- **BMS Protection:** The integrated BMS actively protects against common issues like overcharge, over-discharge, short-circuits, and extreme temperatures, ensuring stable performance.

7. MAINTENANCE

The NOCO Lithium NLP20 battery is engineered for minimal maintenance, offering a hassle-free experience.

- **No Sulfation:** Lithium batteries do not suffer from sulfation, a common issue with lead-acid batteries.
- **No Acid:** No acid to spill or maintain.
- **No Activation:** The battery comes ready to use with no initial activation process required.
- **Regular Checks:** Periodically inspect battery terminals for cleanliness and tightness.

8. TROUBLESHOOTING

The intelligent Battery Management System (BMS) in the NLP20 is designed to prevent most common battery issues. If you experience problems, consider the following:

- **No Power/Starting Issues:** Check all terminal connections to ensure they are clean and tight. Verify the battery's charge level.
- **BMS Protection:** The BMS may have activated to protect the battery from extreme conditions (e.g., over-discharge, over-temperature). Recharge the battery if it indicates a low charge.
- **Charging Problems:** Ensure you are using a compatible lithium-specific charger and that the charging voltage does not exceed 15.0 volts. Avoid chargers with automatic desulfation modes that operate above this voltage.

For persistent issues, consult the NOCO support resources or your vehicle's service manual.

9. COMPATIBILITY

The NLP20 is engineered for broad powersports and utility equipment applications. It replaces numerous lead-acid group

sizes, making it a versatile upgrade.

- **Vehicle Types:** Compatible with motorcycles, ATVs, UTVs, scooters, jet skis, lawn mowers, generators, and more.
- **Replaces Lead-Acid Battery Sizes:** B16L-B, B16CL-B, B18L-A, BTX15L, BTX15L-BS, BTX20L, BTX20LBS, BTZ20L, BTX20HL-BS, B50-N18L-A3, ETX16L, ETX20L, GYZ20L, GYZ20HL, YTX15L, YTX15L-BS, YB16HL-A-CX, YB16L-B, YB16CL-B, SYB16L-B, YTX20HL, YIX20HL, YTX20HL-PW, YTX20HL-BS, YTX20HL-BS-PW, YIX20HL-BS, YTX20L, YTX20L-BS, and Y50-N18L-A3.

BETTER THAN LEAD ACID.

NO ACTIVATION.
NO SULFATION.
NO ACID.
NO WATER.

NO MAINTENANCE.



Figure 5: Advantages of Lithium over Lead-Acid batteries.

10. TECHNICAL SPECIFICATIONS

Specification	Value
Brand	NOCO

Model	NLP20
Voltage	12V
Capacity	7Ah (89Wh)
Starting Power (CCA)	600A
Number of Cells	4
Item Weight	2.38 pounds
Product Dimensions	7.83"D x 7.64"W x 8.15"H
Terminal Type	Stud Terminal (3-way)
Automotive Fit Type	Universal Fit
UL Certified	Yes

11. IMPORTANT SAFETY WARNINGS

- **Do Not Disassemble:** Do not attempt to open or disassemble the battery under any circumstances. If accidental contact with inner content of the battery occurs, wash the affected area of skin and contact a doctor for further medical assistance.
- **Charging Voltage:** Do not use this battery in a vehicle where the alternator produces voltages higher than 15.0 volts. Do not charge the battery with a charger with automatic desulfation mode using a higher voltage than 15.0 volts.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
- **Proper Handling:** Always handle the battery with care. Avoid dropping or subjecting it to severe impacts.
- **Ventilation:** Ensure adequate ventilation during charging and operation.

12. WARRANTY AND SUPPORT


The NOCO Lithium NLP20 battery is backed by a **5-year limited warranty**. For warranty claims, technical support, or further assistance, please refer to the contact information provided in your product packaging or visit the official NOCO website.

13. OFFICIAL PRODUCT VIDEOS

Your browser does not support the video tag.

Video 3: Overview of NOCO Lithium Powersport Batteries, highlighting key benefits and applications.





Related Documents - NLP20

	<p>NOCO NLP Lithium Battery User Guide & Warranty</p> <p>Comprehensive user guide and warranty for NOCO NLP Lithium Powersport Batteries (NLP5, NLP9, NLP14, NLP20, NLP30), covering safety warnings, installation, charging, troubleshooting, technical specifications, and warranty details for these 12-volt LiFePO4 batteries with advanced BMS.</p>
---	--



[NOCO Lithium NLP Powersport Battery User Guide and Warranty](#)

Comprehensive user guide and warranty information for NOCO Lithium NLP powersport batteries, covering safety, installation, charging, troubleshooting, and technical specifications.

	<p>NOCO Lithium Powersport Battery User Guide & Warranty</p> <p>Comprehensive user guide and warranty information for NOCO Lithium Powersport Batteries (NLP series). Learn about safety, installation, technical specifications, and troubleshooting for your NOCO battery.</p>
	<p>NOCO Lithium NLP Battery User Guide and Warranty</p> <p>Comprehensive guide for NOCO Lithium NLP batteries, covering safety, installation, operation, troubleshooting, and warranty information. Learn about product features, specifications, and best practices for optimal performance and longevity.</p>
	<p>NOCO NLP Lithium Powersport Battery User Guide & Warranty</p> <p>Comprehensive user guide and warranty information for NOCO NLP Lithium Powersport Batteries (NLP5, NLP9, NLP14, NLP20, NLP30). Includes safety, installation, troubleshooting, charging, and technical specifications.</p>
	<p>NOCO Lithium Powersport Battery User Guide & Warranty</p> <p>Comprehensive user guide and warranty information for NOCO Lithium Powersport Batteries (NLP series). Includes safety warnings, installation, charging, troubleshooting, and technical specifications.</p>