

NOCO
LITHIUM

**BTZ5S Lithium
Powersport
Battery**



NOCO LITHIUM BTZ5S Lithium Powersport Battery User Guide

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NOCO LITHIUM BTZ5S Lithium Powersport Battery



Product Information

Specifications

- **BCI Size:** NLP5, NLP9, NLP14, NLP20, NLP30
- **Type:** Lithium-Ion
- **Chemistry:** Lithium Iron Phosphate (LiFePO4)
- **Nominal Voltage (V):** 12.8
- **Amp-Hours:** NLP5 – 2, NLP9 – 3, NLP14 – 4, NLP20 – 7, NLP30 – 7.8
- **Watt-Hours (Wh):** NLP5 – 25.6, NLP9 – 38.4, NLP14 – 51.2, NLP20 – 89.6, NLP30 – 99.84
- **Starting Current:** NLP5 – 250, NLP9 – 400, NLP14 – 500, NLP20 – 600, NLP30 – 700
- **Continuous Current:** NLP5 – 20A, NLP9 – 30A, NLP14 – 40A, NLP20 – 70A, NLP30 – 80A
- **Charging Voltage (V):** 14.6V
- **Charging Current (A):** NLP5 – 6A (Max), NLP9 – 9A (Max), others have corresponding values
- **Operating Temperature:** Charging Temperature, Storage Temperature
- **Housing Protection:** IP66 waterproof rated
- **Dimensions (Inches):** Varies by model
- **Weight (Lbs):** Varies by model

Product Usage Instructions

Installation Process

1. Ensure the product is fully charged before installation.
2. Visually inspect the product for any damage like cracks or dents.
3. Clean the battery terminals from dirt, oxidation, or corrosion.
4. Install the product horizontally or vertically, avoiding downward terminal orientation.

Battery Fitment

Refer to the table for specific battery fitment and required spacers/foam for proper height, width, and length.

Charging

1. Connect a compatible lithium-ion charger to the positive and negative terminals.
2. Use a charger with a recommended voltage of 14.6V for optimal charging.
3. The product allows rapid charging of internal lithium-ion cells.
4. Refer to the table for charging times using NOCO Genius Smart Battery Chargers based on depth-of-discharge.

FAQ

Q: What should I do if the product experiences over-charge or over-discharge?

A: The product will recover when the appropriate action is taken, such as applying or removing an external load or charger.

Q: How do I troubleshoot if there is a short-circuit or over-temperature issue?

A: In case of short-circuit or over-temperature, the product will recover when returning to its normal operating conditions.

Q: What is the warranty coverage for the product?

A: The product is covered by NOCO's Five-Year Limited Warranty which includes repair or replacement in case of defects.

SYMBOLS

DANGER



- **READ AND UNDERSTAND ALL SAFETY INFORMATION BEFORE USING THIS PRODUCT.**

- Failure to follow these safety instructions may result in ELECTRICAL SHOCK, EXPLOSION, and FIRE, which may result in a SERIOUS INJURY, DEATH, or PROPERTY DAMAGE.



- **Electrical Shock.** The product is an electrical device that can shock and cause serious injury. Do not submerge in water or get wet.



- **Explosion.** Never short-circuit the battery terminals. Do not use an incompatible charging device. Do

not attempt to jump-start, charge, or discharge the battery if damaged or frozen.

- Never charge or discharge the product outside its operating temperatures. Never over-charge or over-discharge the battery. Never exceed the maximum charging currents of the battery. Never incinerate.



- **Fire.** The product is an electrical storage device that can emit heat. Do not cover the product or place objects on top of the product. Keep the product away from combustible materials.



- **Eye Injury.** Wear eye protection when operating the product. Batteries can explode and cause flying debris. In the case of contamination of eyes or skin, flush the affected area with running clean water and contact poison control immediately.

Important Safety Warnings

- **Proposition 65. WARNING:** This product can expose you to chemicals including lead and exhaust fumes, which are known to the State of California to cause cancer and birth defects or other reproductive harm.
- For more information go to www.P65Warnings.ca.gov. Personal Precaution. Only use the product as intended. In case of an emergency, have someone nearby while using this product. Wear complete eye protection and protective clothing while working near a battery. Always wash your hands after handling batteries and related materials. Do not handle or wear any metal objects when working with batteries, including; tools, watches, or jewelry. If metal is dropped onto the battery, it may spark or create a short-circuit resulting in electrical shock, fire, and explosion, which may result in injury, death, or property damage.
- **Minors.** If the product is intended by the “Purchaser” to be used by a minor, the purchasing adult agrees to provide detailed instructions and warnings to any minor before use.
- The “Purchaser” agrees to indemnify NOCO for any unintended use or misuse by a minor.
- **Choking Hazard.** Accessories for the product may present a choking hazard to children. Do not leave children unattended with the product or any accessory. The product is not a toy.
- **Handling.** Handle the product with care. The product can become damaged if impacted. Do not use a damaged product, including, but not limited to, cracks in the casing. Humidity and liquids may damage the product. Do not handle products or any electrical components near any liquid. Store products in dry locations. Do not operate the product if it becomes wet. If the product is already operating and becomes wet, discontinue use immediately.
- **Modifications.** Do not attempt to alter, modify, or repair any part of the product. Disassembling the product may cause injury, death, or property damage. If the product becomes damaged, malfunctions, or comes in contact with any liquid, discontinue use, and contact NOCO. Never disable the internal battery management system (BMS) for any reason. Any modifications to the product void your warranty.
- **WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.
- **Operating.** The operating temperature range is -4°F (-20°C) to 140°F (60°C). The charging temperature range is 14°F (-10°C) to 122°F (50°C). Do not operate outside of the recommended temperature ranges.
- **Storage.** The recommended storage temperature range is -4°F (-20°C) to 140°F (60°C). Never exceed 140°F (60°C) under any circumstances. For optimal longevity, store at 77°F (25°C) and a state-of-charge (SOC) higher than seventy percent (70%). The storage self-discharge rate is less than five-percent (5%) per month. It is not recommended to store the battery for more than 6 months without charging. Ventilation. The product does

not release gas during regular use, so there are no specific ventilation requirements. However, it is crucial to minimize temperature extremes or restrict airflow to the product. A minimum of 0.50" (12.7 mm) of space should be kept around the product to allow for adequate airflow.

- **Disposal.** The product must be recycled or disposed of separately from household waste. Disposal of the product in household trash is unlawful under state and federal environmental laws and regulations. Always take the product to your local battery recycling center.
- **Retrofit.** Lithium-ion batteries weigh substantially less than lead-acid batteries of comparable capacity. Some equipment is designed to utilize the weight of lead-acid batteries to achieve weight distribution. Using the product as a replacement battery could impact the weight distribution of the equipment. Understand the consequences of modified weight distribution and ensure safe weight distribution. You assume all responsibility and liability for any damages, injuries, or accidents that may occur due to degraded stability.
- **Charging.** The product is a 12-volt lithium-ion battery. Do not use a charger that utilizes a pulse charge or a desulfation feature. For optimal performance, we recommend only using the 12-volt lithium mode on NOCO Genius chargers. If using a third-party charger, it must be compatible with 12-volt Lithium Iron Phosphate (LiFePO₄) batteries with a charging voltage of 14.6 volts, and be certified under one or more of the following standards: IEC60601, UL1236, RCM, PSE or CE (LVD, EMC). Be cautious of using low-quality chargers, as they may present a severe electrical risk that can result in injury to person and property, as well as shorten the life of the product and cause the product to malfunction. NOCO is not responsible for the user's safety when using accessories or chargers that are not approved by NOCO. During charging, if the battery becomes excessively warm, deforms, swells, or emits smoke or odor, discontinue use immediately and contact support.
- **Connections.** Make sure all connections to the product are secure. Use 70-90-inch pounds of torque to secure the connections properly. Loose connections may cause reduced performance and increased heat due to resistance that may cause the melting of the enclosure or potentially a fire.
- **Medical Devices.** The product contains magnetic components that may emit electromagnetic fields, which may interfere with pacemakers, defibrillators, or other medical devices. Consult with your physician before use if you have any medical device. If you suspect the product is interfering with a medical device, stop using the product immediately, and consult your physician.
- **Cleaning.** Disconnect and remove the product before cleaning. Immediately dry the product if it comes in contact with liquid or any contaminant. Use a soft, lint-free (microfiber) cloth. Do not use a pressure washer to clean the battery.
- **Explosive Atmospheres.** Obey all signs and instructions. Do not operate the product in any area with a potentially explosive atmosphere, including fueling areas or areas that contain chemicals or particles such as grain, dust, or metal powders.
- **High-Consequence Activities.** Do not use the product where the failure of the product could lead to injury, death, or severe environmental damage.
- **Radio Frequency Interference.** This product complies with regulations governing radio frequency emissions. Such emissions from the product may negatively affect the operation of other electronic equipment, possibly causing them to malfunction.

FCC

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, under Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used under the instructions, may cause harmful interference to radio communications. However,

there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

Installation

Before installing the product, make sure it's fully charged. Visually inspect the product for any signs of damage (e.g., cracks, dents). Make sure the battery terminals are free from dirt, oxidation, or corrosion. Install the product in any horizontal or vertical orientation, except with the terminals facing downward. Follow the below steps for the installation process:

1. Remove the original battery following the manufacturer's guidelines.
2. Compare the height of the original battery to the product. If the original battery dimensions are larger than the product, use the included spacers and foam to adjust the height to match the original battery as closely as possible. For more information on fitment, see our battery fitment guide.
3. Securely fasten the battery to the battery tray/box, making sure the battery cables reach both battery terminals.
4. Using the included fastening hardware, attach the positive (+) battery cable to the positive (+) battery terminal and the negative (-) battery cable to the negative (-) battery terminal. Make sure the battery cables connect to the correct polarity.
5. Securely fasten to the battery by using 70-90 inch pounds of torque. Do not over-tighten.

Battery Fitment

The following table provides the battery fitment and the corresponding spacers and foam needed to achieve proper height, width, and length for retrofit applications.

Model	Battery Fitment	Spacers
NLP5	BTZ5S	None
	BTX4L-BS	None
	BTX5L-BS	(1) 20mm
	BTX7L-BS	(1) 20mm, (1) 24mm
NLP9	BTX7A-BS	None
	BTX9-BS	(1) 12.5mm
NLP14	BTX12-BS	(1) 12.5mm, (1) 25mm
	BTX14-BS	(2) 25mm
	BTX16-BS	(1) 17mm, (2) 25mm
	B16A-AB	(1) 12.5mm, (3) 25mm
	BTZ10S	None
NLP20	BTX20L-BS	(1) 12mm, (1) 15mm
	B50-N18L-A3	(2) 15mm, (4) 7.5mm Foam
	B16CL-B	(3) 15mm, (3) 7.5mm Foam
NLP30	BTX30L	None

Troubleshooting

Dynamic BMS.

- The product utilizes a dynamic Battery Management System (BMS) that monitors the internal lithium-ion cells and disconnects them if a fault occurs.
- The BMS protects against over-charge, over-discharge, over-current, short-circuit, over-temperature, and under-temperature fault conditions.
- The BMS also includes cell balancing to maintain voltage balance between individual cells to ensure optimal battery performance.
- The BMS automatically recovers from fault conditions without user intervention.
- In extremely cold temperatures, the battery may be slow to provide power initially. If this occurs, attempt to start the equipment again.
- Repeated attempts will self-heat the lithium cells and allow them to provide sufficient power.
- To protect the lithium cells, the BMS will not allow charging below -10°C (14.0°F). Once the battery temperature reaches -10°C (14.0°F) or higher, charging will be allowed.
- To protect the lithium cells, the BMS will not allow charging or discharging when the battery temperature reaches 60°C (140°F).
- This situation can occur with high ambient temperature and repeated starting attempts that self-heat the battery.
- Once the battery cools the BMS will allow charging and discharging.

Protection	Recovery Process
Over-Charge	Recovers when an external load is applied.
Over-Discharge	Recovers when a charger is applied.
Over-Current	Recovers when an external load is removed.
Short-Circuit	Recovers when an external load is removed.
Over-Temperature	Recovers when returning to its operating temperature range.
Under-Temperature	Recovers when returning to its operating temperature range.

Charging

To recharge the product, connect a compatible lithium-ion charger to the positive (+) and negative (-) battery terminals. The recommended charging voltage is 14.6 volts.

The product uses advanced lithium-ion technology that allows for the rapid charging of the internal lithium-ion cells. This is a table of the charging times, based on 100% depth-of-discharge (DOD), using recommended

NOCO Genius Smart Battery Chargers:

Recharge Times Using NOCO GENIUS Chargers.

	GENIUS1	GENIUS2	GENIUS5	GENIUS10
NLP5	2hr	1hr	24min	–
NLP9	3hr	1.5hr	36min	–
NLP14	4hr	2hr	48min	24min
NLP20	7hr	3.5hr	1.4hr	42min
NLP30	8hr	4hr	1.6hr	48min

Technical Specifications

NLP5 NLP14 NLP9 NLP20 NLP30

BCI Size	5	9	14	20	30
Type	Lithium – Ion				
Chemistry	Lithium Iron Phosphate (LiFePO4)				
Nominal Voltage (V)	12.8				
Amp-Hours	2	3	4	7	7.8
Watt-Hours (Wh)	25.6	38.4	51.2	89.6	99.84
Starting Current	250	400	500	600	700
Continuous Current	20A	30A	40A	70A	80A
Charging Voltage (V)	14.6V				
Charging Current (A)	6A (Max)	9A (Max)	12A (Max)	21A (Max)	24A (Max)
Operating Temperature	-20°C to 60°C				
Charging Temperature	-10°C to 50°C				
Storage Temperature	-20°C to 60°C				
Housing Protection	IP66 waterproof rated				
Dimensions: Inches (cm)	3.35×4.45×2.76 (8.5×11.3×7.01)	3.66×5.87×3.43 (9.29×14.9×8.71)	3.66× 5.87×3.43 (9.29×14.9×8.71)	5.0×6.9×3.4 (12.7×17.5×8.6)	7.0×6.5×5.0 (17.7×16.5×12.7)
Weight: Lbs (kg)	1.5 (0.69)	2.29 (1.03)	2.58 (1.17)	3.73 (1.7)	5.0 (2.27)

Limited Warranty

NOCO Five (5) Year Limited Warranty.

- **IMPORTANT:** BY USING THIS PRODUCT, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THE NOCO FIVE (5) YEAR LIMITED WARRANTY (“WARRANTY”) AS SET OUT BELOW. DO NOT USE THE PRODUCT UNTIL YOU HAVE READ THE TERMS OF THE WARRANTY. IF YOU DO NOT AGREE TO THE TERMS OF THE WARRANTY, DO NOT USE THE PRODUCT AND RETURN IT. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE, COUNTRY, OR PROVINCE. OTHER THAN AS PERMITTED BY LAW, NOCO DOES NOT EXCLUDE, LIMIT, OR SUSPEND OTHER RIGHTS YOU MAY HAVE, INCLUDING THOSE THAT MAY ARISE FROM THE NONCONFORMITY OF A SALES CONTRACT. FOR A FULL UNDERSTANDING OF YOUR RIGHTS, YOU SHOULD CONSULT THE LAWS OF YOUR STATE, COUNTRY, OR PROVINCE.
- TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ARE EXCLUSIVE AND IN PLACE OF ALL OTHER WARRANTIES, REMEDIES, AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS, OR IMPLIED. NOCO DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND

FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS, TO THE EXTENT PERMITTED BY LAW. IN SO FAR AS SUCH WARRANTIES CANNOT BE DISCLAIMED, NOCO LIMITS THE DURATION AND REMEDIES OF SUCH WARRANTIES TO THE DURATION OF THIS EXPRESS WARRANTY AND, AT NOCO'S OPTION, THE REPAIR OR REPLACEMENT OF PRODUCTS DESCRIBED BELOW. SOME STATES, COUNTRIES, AND PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY – OR CONDITION – MAY LAST, SO THE LIMITATION DESCRIBED ABOVE MAY NOT APPLY TO YOU.

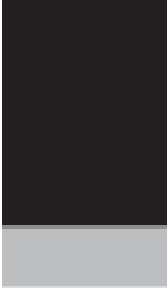
- NOCO warrants the NOCO-branded Products contained in the original packaging ("NOCO Product") against defects in materials and workmanship when used normally under NOCO's published guidelines for a period of FIVE (5) YEARS from the date of original retail purchase or delivery date by the end-user purchaser ("Warranty Period"). NOCO's published guidelines include but are not limited to, the information contained in this Warranty, technical specifications, and user manuals. IN SOME STATES,
- COUNTRIES, OR PROVINCES, NATIONAL LAW MAY PROVIDE MORE EXTENDED WARRANTY PERIODS. As such, the benefits of the Limited Warranty are intended to supplement, and not replace, the rights provided by consumer protection laws.
- NOCO'S LIABILITY IS LIMITED TO REPLACEMENT OR REPAIR. NOCO SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION OR UNDER ANY OTHER LEGAL THEORY, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST REVENUE, LOST BUSINESS, PROPERTY DAMAGE, PERSONAL INJURY, OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER.
- This Warranty is non-transferable and does not cover return packaging and transportation costs.
- This Warranty does not apply: (a) to damage caused by accident, abuse, misuse, fire, liquid contact, or other external cause, (b) mishandling, improper installation, modifications, disassembly, or attempted unauthorized repair, (c) cosmetic damage – such as dents or scratches – that doesn't affect the functionality of the Product, (d) to damage caused by operating the Product outside NOCO's published guidelines, (e) to defects caused by normal wear and tear or otherwise due to the normal aging of the Product, or (f) if any serial number has been removed or defaced from the Product.
- If, during the Warranty Period, you submit a claim, NOCO will, at its option: (a) repair the Product that has been tested and passed our functional requirements, (b) replace the Product with a replacement product of the same model (or with your consent a product that has the same or substantially similar features as the original Product – e.g., a different model with the same features), that is new or like-new and has been tested and passed our functional requirements, or (c) exchange the Product for a refund of your purchase price. We require certain information, including proof of purchase, to process Limited Warranty claims.

To claim under the Limited Warranty, please get in touch with NOCO Support at:

- (Web) <https://no.co/support>
- (Email) support@no.co
- (US/CA/MX) +1.800.456.6626
- (UK) +44 20 4520 7738
- (EU) +31 20 214 0047
- AU) +61 2 4062 0068
- JP) +81 3 6893 3017
- For more information and support visit: www.no.co/support

- For patent information visit www.no.co/ip
- NOCO UK
- 18 Soho Square,
- London W1D 3QL,
- United Kingdom
- +44 20 4520 7738

Documents / Resources

	<p>NOCO LITHIUM BTZ5S Lithium Powersport Battery [pdf] User Guide BTZ5S, BTZ5S Lithium Powersport Battery, Lithium Powersport Battery, Powersport Battery, Battery</p>
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References

-  P65Warnings.ca.gov
-  [NOCO: Intellectual Property Reference](#)
-  P65Warnings.ca.gov
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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