



NZ Lithium

CRITICAL INFORMATION

**YOU MUST READ THIS ESSENTIAL
INFORMATION BEFORE USING
YOUR BATTERY**

**IF YOUR BATTERY IS NOT USED
CORRECTLY YOUR WARRANTY MAY
BE VOID! PLEASE TAKE 5 MINUTES
NOW TO SAVE FUTURE ISSUES**

NZLITHIUM.CO.NZ



NZ Lithium



IMPORTANT INFORMATION



PLEASE READ BEFORE USING

NZ Lithium - Warranty and Usage Information

Thank you for purchasing or considering your purchase of a Lithium Battery from NZ Lithium.

For the best life out of your LiFePo4 Battery please adhere to the following operating requirements.

- A BMS (Battery Management System) must be used with all lithium battery installations. IF YOU CHOOSE NOT TO USE A BMS ALL WARRANTY WILL BE VOIDED.
- The total current draw from the battery must not exceed BMS current rating or cell current rating.
- Do NOT allow any metal objects to come into contact with the battery terminals.
- Do NOT try to jumpstart a vehicle with this battery.
- Do NOT use the battery for cranking/starting applications.
- Do NOT allow the battery to sit in a discharged state. <10% SOC
- The battery must be installed away from major heat sources, high voltage, and avoid exposure to sunlight for long periods of time.

Charging:

Your LiFePo4 Battery may be charged in a number of ways:

- Connecting to an alternator via a lithium compatible DCDC charger.
- Connecting to a solar panel via a lithium compatible regulator/controller
- Connecting to an AC power source via a 240V lithium compatible 12V charger

DO NOT EXCEED the below recommended charge voltages:

12V System - Charge - 14.2V Float - 13.5V

24V System - Charge - 28.4V Float - 27V

48V System - Charge - 56.8V Float - 54V

Operating and Charging Temperatures:

We recommend everyone running LiFePo4 batteries to have a real time battery temp sensor attached to the batteries especially during mid summer + mid winter periods when the temps are at their hottest + coldest for the year. Most of our BMS units have this functionality.

Charging : 0°C to +50°C

Discharge : -20°C to +50°C

Battery Storage:

If you intend on storing for prolonged periods of time please charge your battery to around 50-70% and keep within the below temperature & humidity ranges.

Temperature & Humidity Range

≤ 30 days -20°C ~ 50°C, 5 ~ 75% RH

≥ 90 days -10°C ~ 45°C, 5 ~ 75% RH

The batteries must still be given a top up charge at least once every 4 months even if they are being stored and no power is being used or drained from them.

DO NOT store or leave your batteries sitting directly on any concrete floor. If you do want to have them on a concrete floor then please place insulation between the batteries and the floor.



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IMPORTANT INFORMATION FOR DIY OWNERS

LiFePo4 cells will naturally expand and shrink during charge and discharge, providing adequate cell fixation or spacing between cells to allow for this is a MUST.

It is also necessary to regularly check and adjust your bus-bars to alleviate any potential loading on cell posts especially in larger systems using more than 4 cells.

It is fairly well accepted that LiFePo4 cells will swell around the anode/cathode areas of the cell under normal use whether cells are in a fixation or spaced.

If attempting to build compression into a fixture, care MUST be taken.

It is very easy to over compress cells.

As cells expand and contract the compression fixtures force must remain stable.

Exceeding the cell manufactures specification at any point will do far more harm than leaving cells under no compression.

Your DIY LiFePo4 cells will arrive to you in a top-balanced state.

Leaving the cells for months before assembly and use will potentially undo the initial top balance.

If you do not plan on assembling the pack straight away, then it may be advisable to purchase a benchtop power supply to top balance the cells yourself when you are ready, and for any further maintenance in years to come.

DIY Systems are sold under the expectation that the purchaser has adequate knowledge of assembling LiFePo4 battery systems OR has the intention of learning whats required to make/maintain a succesful install OR will be contracting an experienced installer to do so.

NZ Lithium is by no means a hub for learning all you need to know, there is plenty of information online regarding building Lifepo4 battery systems and the DIY'er is expected to do as much learning on their own time as possible.

If you have a question or want to confirm something by all means get in touch, but we do not have the resources to train every DIY pack owner.

If the DIY'er chooses not to learn the basics and has issues with their packs performance unrelating to cell defects, **ignorance will not be an acceptable claim on warranty.**

A+ Grade - 4 Year Warranty A- / B Grade - 2 Year Warranty

- If the consumer suspects they have received a damaged or defective product within the stated warranty term they should make contact via email immediately and suspend any further use of the product.
- The consumer will be required to return the defective item back to base for thorough testing and assessment.
- Once testing is completed, if it is deemed the product is defective and not damaged from misuse, the consumer will be supplied a replacement at no cost.
- Warranty on cells is void if an appropriate BMS is not being used
- Warranty on cells is void if High/Low voltage safety parameters are set outside of the cells safe working limits
- Voltage fluctuation between cells in the upper/lower knees of the charge/discharge curve is not a valid warranty claim
- BMS units have specific wiring connections, if instructions are not followed correctly the BMS may emit smoke and will be permanently damaged, this is also not a valid warranty claim



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NZ Lithium - Warranty Information and Terms

The following warranty terms relate to any product sold by NZ Lithium:

NZ Lithium shall not be liable for direct, indirect, incidental or consequential damages or losses arising out of the sale or relating to the use of this product, and the purchaser / buyer / user assumes all responsibility for all personal injury and property damage resulting from the handling, possession or use of the product. In no event shall the liability of NZ Lithium for any and all claims, including claims of breach of warranty or negligence, exceed the purchase price of the product.

We reserve the right to look at your system setup and battery data before we accept any warranty claim to check whether the battery has been used within correct parameters or not before any warranty claim may be approved.

Batteries MUST be returned to NZ Lithium for any warranty claim (with costs of return paid for by the consumer.) All warranty claims must be accompanied with the original invoice, receipt or order or a copy of + pictures of the exact setup they were running / installed in + values / records of temps & charging / discharging voltages + currents etc.

5 Year Limited Pro Rata Warranty Terms

ASSEMBLED PRODUCTS ONLY

Battery Cells and other components (excluding BMS)

- 3+2 Year Warranty: 3 year replacement or repair warranty with 2 years pro rata warranty

3 Year Repair/Replacement

- When a battery is repaired or replaced free of charge, the warranty period is not renewed or extended as a result of a warranty repair or replacement

Warranty periods will NOT be renewed or extended after a product repair: the warranty is fixed from the first date of purchase unless pro rata applies.

2 year pro rata if battery fully failed:

- Between 36-60 Months, the customer will pay between 60-100% of the purchase price of the battery at time of purchase.
- If purchased as a bundle, price of battery at time of purchase is itemised price of battery alone
- If purchasing a new battery under the Pro Rata Scheme, that customer is entitled to an additional full 3 year replacement/repair + 2 Year Pro Rata

BMS - 2 Year Replacement Warranty

2 Year BMS Replacement Warranty

- When a BMS is repaired or replaced free of charge, the warranty period is not renewed or extended as a result of a warranty repair or replacement
- A set fee of \$250 for replacement of BMS outside of the 2 year warranty
- When a customer purchases a new BMS under this payment scheme, an additional 2 years warranty will be applied to the BMS only



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The Lithium Battery Warranty does not cover

- Cells purchased individually for DIY.
- When the product has not been used in accordance with the correcting operating ranges.
- When a battery has completed in excess of 2000 cycles.
- Warranties are non-transferable: they are limited to the original purchaser
- Any Damage resulting from improper use.
- Faulty installations or modifications made during the installation.
- Transport charges should the product be found in operable condition.
- The cost of removing and reinstalling the product.
- When exposed to excessive sunlight.
- Any loss directly or indirectly associated with the product failing to operate.
- Damage caused by mold, insects, animals, misuse, incorrect operation, adverse weather, accidents.
- Conditions and warranties are excluded to the extent that they are permitted by law.
- When wired in series or parallel with other Brand Batteries to increase the total voltage or storage of the battery.
- When stored in a discharged state (less than 10% SoC) for extended periods of time.
- When used for cranking vehicles with battery attached to starter motor.
- Where the battery has been altered or modified in anyway from its original design and construction.
- Short circuiting of the battery.

Limitations of warranty

- A reduction in battery capacity of approximately 1% Rated Capacity per 100 cycles is considered normal (if cycled at 0.2C at 25 Degrees, discharging to 80% Depth of Discharge)
- A reduction in battery capacity of 3-5% Rated Capacity per Year is considered normal due to normal cell degradation

Warranty terms may be updated from time to time. By continuing to use our products you agree to be bound by any amendments made.

**IF YOU ARE UNSURE ABOUT ANYTHING LISTED IN THIS DOCUMENT PLEASE CONTACT US
EMAIL: SALES@NZLITHIUM.CO.NZ**

**Thanks again.
NZ Lithium**