

IMPORTANT SAFETY INSTRUCTIONS for LiFe Batteries

1) SAVE THESE INSTRUCTIONS

2) Do not throw away the box or any foam packing until after the installation is complete.

CAUTIONS

- a) Do not immerse in water.
- b) Do not short terminals together.
- c) Do not use or store the battery near sources of fire or heat.
- d) Do not reverse the positive (+) or negative (-) terminals.
- e) Do not put the battery into a fire or apply direct heat to it.
- f) Do not pierce the battery casing.
- g) Do not strike, throw, or subject the battery to severe physical shock.
- h) Do not solder directly to the battery terminals.
- i) Do not attempt to modify the battery in any way.
- j) Do not place the battery in a microwave oven or pressurized container.
- k) Do not use the battery if it gives off an odor or generates heat.
- l) Do not allow charge voltage in excess of 14.8Volts.
- m) The batteries optimal operating range is 40°F to 140°F. (See Usage section, paragraph (f) for cold weather use.
- n) Do NOT use lead-acid chargers which employ a high-voltage "antisulfation" routine.
- o) Keep batteries away from pets and children.
- p) Fully discharge before disposal.

WARNING

- a) Be extra cautious to reduce risk of dropping a metal tool onto battery. It might spark or short-circuit battery or other electrical parts that may cause explosion.
- b) Remove personal metal items such as rings, bracelets, necklaces, and watches when working with any battery. A battery can produce a short circuit current high enough to weld a ring or the like to metal, causing a severe burn.
- c) To reduce risk of battery explosion, follow these instructions and those published by the manufacturer of any equipment you intend to use in vicinity of this battery. Review cautionary markings on these products and on engine. Once installed apply a good quality anti-corrosion spray to the terminals.
- d) Reinstall the vehicles protective battery caps, and cover the unused terminals with the supplied caps to ensure the battery cannot short against any part of the vehicle.
- e) AEROVOLTZ Lithium batteries are pre-charged to 70% of capacity and must be charged before use.

USAGE

- a) There are a couple of damaging conditions for any Lithium starter battery; they include prolonged storage in high temperatures and allowing the battery to be deeply discharged.
- b) Compared to lead-acid batteries, the Aerovoltz® Lithium battery has less than 5% of the average self-discharge rate and can be stored for much longer periods without maintenance.
- c) If there is no current draw from your vehicle when your ignition is off the Aerovoltz® Lithium battery can be stored for one year without damage.
- d) For long term storage the ideal temperature is 1°C (34°F).
- e) The battery should be stored in a minimum charge state of 70%.
- f) A lithium battery's cranking performance decreases as its temperature approaches freezing. Most vehicles will start normally on the first try in temperatures down to 40°F. If the engine fails to start on the first try in cold weather, a load such as the marker lights can be used to warm the battery. The length of time it takes to warm the battery depends on its temperature. The colder the weather, the longer it will take to warm the battery sufficiently. Five minutes is a good rule of thumb when the temperature is

below freezing. Keeping the battery fully charged will improve cold weather starting.

CHARGING

- a) Do not use a desulphation or pulse charger, doing so will damage the battery and void the warranty.
- b) Standard lead-acid chargers may be used, as long as they do not exceed 14.8Volts during charging.
- c) Maximum charge rate is 10Amps.
- d) The use of a lithium specific charger such as the units in the Aerovoltz® Lithium Charger series is strongly recommended
- e) Do not allow the lithium battery to discharge below 8Volts as this will damage the battery and void the warranty.
- f) Do not charge the battery in temperatures below -10°C (14°F).

Batter Management System (BMS)

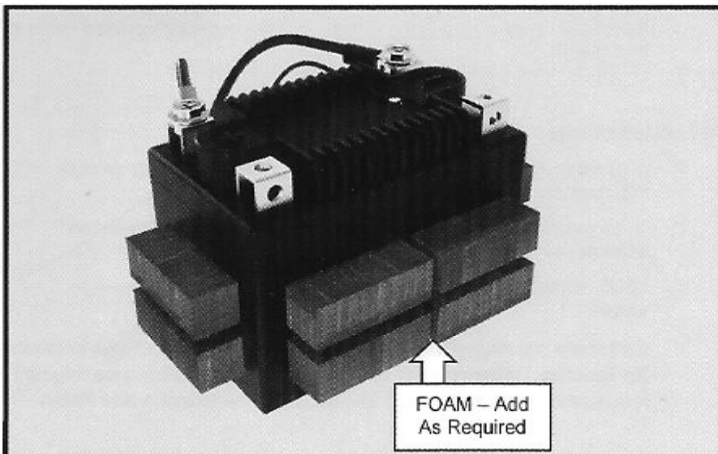
All Aerovoltz Intelligent Lithium Batteries contain a BMS system. A battery management System is an electronic management system inside the battery that manages the charging of the Battery by protecting it from overcharging, balancing the cells during the charging process and make sure the battery operates in a safe environment.

The BMS will manage the following functions:

- Overcharge Protection
- Over Current Protection
- Over Discharge Protection
- Short Circuit Protection
- Temperature Protection HIGH and LOW
- Self discharging in non-active mode

INSTALLATION INSTRUCTIONS

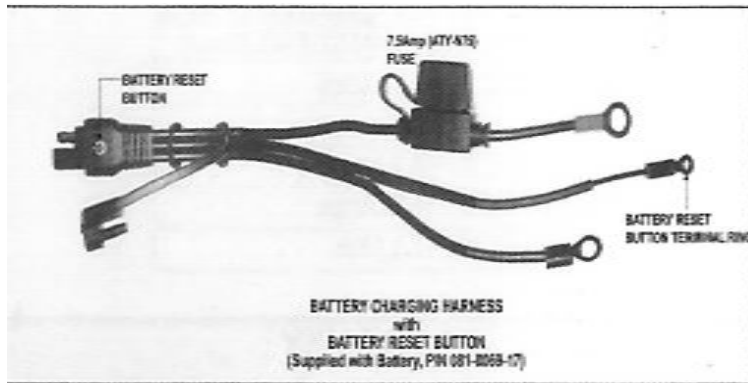
- a) Carefully remove the existing lead-acid battery from your vehicle following the manufacture's guidelines.
- b) Next place the original battery next to your Aerovoltz ® Lithium battery to compare the variation in size. The original battery may be the same width but is longer in length and taller in height. To make up the difference apply the appropriate amount of the adhesive foam to either the Lithium battery or the battery box.



- c) Ensure the battery now fits surely in the battery box and allows the battery cables to reach the battery terminals with no issues.

Wiring Harness and Reset button installation

- a) The Aerovoltz ® Lithium battery allows the cable eyelets to be either connected from the top or front side of the terminals. Choose the side that matches your configuration the best.
- b) Contained in the box is the wiring harness to be able to charge the battery when not in use and also has the built-in reset button should the batteries BMS system go into fault mode due to any of the parameters is protects from.
- c) IF YOU DO NOT INSTALL THE WIRING HARNESS YOU WILL NOT BE ABLE TO RESET THE BATTERY FROM A FAULT MODE
- d) Use the supplied 3mm screw to attach the SMALL ring terminal to the reset connection on top of the battery. (do not overtighten as this bolts directly to the circuit board. The LARGE ring terminals can be attached to either side, whichever fits your application the best. Again, do not overtighten bolts
- e) Use the supplied hardware to attach the terminal rings to your battery. Do not over-tighten the screws. (See diagram below)



- c) Check our website <http://www.aerovoltz.net> for the latest updated warranty information.
- d) Warranty is not transferable from original purchaser.

WARRANTY

(North America)

Warranty

- a) Aerovoltz ® offers a Limited Three-Year Warranty for its Lithium Batteries, for defects in material and or workmanship.
- b) Do NOT return any product without an RMA# (Return Merchandise Authorization) or before first contacting Aerovoltz ® to perform some simple diagnostics. In many cases issues can be resolved

Warranty Periods

- 1) 0-12 months: Replace free of charge with original receipt.
 - 2) 13-24 months: 50% off MSRP with original receipt.
 - 3) 25-36 months: 35% off MSRP with original receipt.
- * Customers are responsible for paying the initial shipping charge to return the batteries. Aerovoltz will pay shipping on replacement batteries returned to customers, except those without a copy of the receipt and/or RMA#.

Returns MUST be accompanied by:

- a) A copy of the Original Receipt.
- b) an Aerovoltz ® RMA#.

Returns without a receipt

- a) If there is no receipt but we can determine from the serial code that the battery is still in the warranty period, or within the first three years of Aerovoltz selling the battery then the customer receives 35% off MSRP for that battery type.
- b) The customer is responsible for all shipping charges.

No Fault Found

a) Any product found NOT defective after testing in house at Aerovoltz Batteries will only be returned to customers at their expense for shipping.

Conditions Not Covered

- a) Any physical damage to the battery occurring after purchase.
- b) Any modifications to the battery, including but not limited to the terminals.
- c) Any corrosion including salt water.
- d) Any over-voltage charging of the battery.
- e) Battery discharged below 8Volts.
- f) Purchased from an unauthorized source.

Shipping Damage

- a) Any item damaged in transit must be reported to the Shipper Immediately upon opening the package.
- b) Also notify Aerovoltz of the situation.
- c) All original packing must be retained until further notice.
- d) Aerovoltz will respond with further instructions.

Contact Info:

Aerovoltz Batteries
3003 Campfire Ct
Jamestown, NC 27282
336-688-3479
steve@aerovoltz.com
www.aerovoltz.com