

PRODUCT FAQs

MICRO-START FAQ / [ANTIGRAVITY BATTERY FAQ](#)

WHAT ARE ANTIGRAVITY BATTERIES?

Antigravity Batteries are the latest Lithium Motorsport battery technology. Our starter batteries work perfectly in all 12V vehicle applications (not recommended for use in passenger cars). Our batteries are the smallest, lightest and most POWERFUL batteries available for motorsports vehicles regardless of some of the misleading claims of other manufacturers. Our batteries can offer OVER twice the cranking amps as lead/acid while offering a weight savings of up to 80% and be half the size! They do not need any maintenance or trickle charging (if there are no parasitic drains), plus have a longer life than lead acid and are Non-toxic!

WHAT ARE BENEFITS OF ANTIGRAVITY BATTERIES?

- ⚡ **POWER** – Antigravity Batteries are the most powerful battery in the smallest, lightest package that is available today. On average the Antigravity Battery is 1/2 to 2/3 the size of a lead acid battery, yet puts out TWICE the cranking amps. We are also significantly more powerful than some other lithium batteries on the market.
- ⚡ **BETTER STARTING** – Because of the high power of our batteries you will notice a faster turn-over of the motor, but in addition to that you will have a larger ignition spark due to the fact that the voltage stays much higher than lead/acid on the starting pulse – this aids dramatically in starting the vehicle.
- ⚡ **LIGHT WEIGHT** – Antigravity Batteries are on average 70-80% lighter than the lead acid battery they replace. When seen in person the size and weight difference is quite extraordinary. Antigravity Batteries are a fraction of the cost of Titanium or Carbon Fiber, yet offer up 20 times the weight savings of those very expensive products!
- ⚡ **COMPACT SIZE** – Antigravity Batteries are usually from 1/2 to 2/3 the size of the lead battery they replace (when using the small case models)! This can be a great benefit to anyone installing Power Commanders or extra electronics, or for the custom builder who desires to hide the battery or have more room to lower the seat on a custom build.
- ⚡ **NO MAINTENANCE** – These batteries are a no-maintenance battery: there are no liquids to spill, no trickle charging needed to keep the battery charged (provided there are not parasitic drains occurring). If your electrical system is functioning properly, and you do not have accessories that drain the battery while your bike is off, you should not have any issues with the battery.
- ⚡ **NOT DAMAGED BY VIBRATION or HEAT** – This is an extremely important point. Lead batteries are damaged by vibration and heat; it is one of the causes of early failure in lead/acid batteries. If you have a performance bike or high vibration vehicle like a large twin the effect is more pronounced. Antigravity Batteries are not affected by vibration!
- ⚡ **NON-TOXIC** – The chemical make-up does **not** contain highly toxic materials such as acid or lead within the battery.

WHAT SETS ANTIGRAVITY BATTERIES APART FROM YOUR COMPETITORS?

- ⚡ **We are devoted to building the best product available** in performance and durability, but also in regards to design and innovation. We are the only company to offer direct OEM (stock size) replacement batteries in high-power lightweight lithium, AND in ultra-compact "Small-Case" batteries for racers, performance riders or custom builders. So the customer has the option of ultra-high power and lightweight in a stock size OR they can have the ultra-compact "Small-Case" preferred by Racers and performance vehicles.
- ⚡ **We are honest** about our Cranking Amp and Amp Hour numbers. There are a few companies putting out highly inflated, misleading Cranking Amp and Amp Hour numbers. Rest assured that NO company offers more cranking amps or a more powerful battery than Antigravity Batteries. We have the smallest and most powerful batteries of ANY company in our Small Case batteries, and have a model as high as 720 Cranking Amps yet only 6" x 3.4" x 5.1" tall. No other company offers that kind of performance in such a lightweight and compact size!
- ⚡ **We are the only "waterproof" lithium battery available** – others claim water resistant, or are not waterproof at all (Shorai) and will void the warranty if wet. Antigravity IS basically waterproof. Antigravity does not void the warranty if you get salt on the terminal or over-tighten a terminal. Shorai and Ballistic will void your warranty if these conditions happened. Additionally, we have a 1 year warranty for race use. The warranty on Ballistic or Shorai is voided for race use. We know our product can handle the toughest use and stand behind it!
- ⚡ **We offer the best warranty in Lithium or Lead Batteries.** Our warranty is 3 years, a full year longer warranty than Shorai, and we do not have some of the warranty-voiding limitations that they do, such as "battery cannot be discharged below 12.8 volts" (what battery does not go below 12.8v at some time?). We build a solid product and do not have quality limitations like our competitors. Read the warranties from Antigravity vs. other Lithium battery companies.
- ⚡ **We make our batteries here in America** and we use Power Cells made by the American manufacturer who provides lithium batteries to World Class companies like Ford, GM, Toyota, Tesla just to name a few. We do NOT use the inferior Chinese Lifepo4 copy cells or the lower powered Pouch/Prismatic Cells that are found in some of the other brands like Shorai. We out-perform other Lithium batteries and build our product to withstand the demands of racing and hard use. When you purchase an Antigravity Battery you are getting the best and highest quality in every component from the Power Cells to our overall design and build quality.
- ⚡ **We are TRUE innovators and developers** of lithium battery products. We have the knowledge and understanding of lithium-ion technology for Motorsports and Powersports. This is ALL we do and WHAT our company does. This is our expertise and we are known as one of the leading Lithium Battery companies in the world of Powersports and Motorsports. We supply lithium ion batteries for Race Teams as well as the everyday rider. We are used by some of the top riders and teams in the worlds of Auto, Motorcycle and Powersport Racing.
- ⚡ Once you start to look closely at your choices and learn about this great new technology we feel Antigravity Batteries will warrant being on first choice list.

WHAT BATTERY CELL DOES ANTIGRAVITY USE & WHY? (I see Shorai uses Prismatic Cell and Antigravity is Cylindrical)

The cell is the heart of any battery and there are major quality differences and power differences in them. There are two formats of cells used in Lifepo4 technology: Cylindric and Prismatic. Cylindric is a small cylindric shaped cell with a metal exterior and Prismatic is a wide flat rectangle wrapped in a foil type covering. Cylindric (like we use) is capable of putting out a much higher Pulse Discharge than the Prismatic form of the battery, and puts out a higher constant current as well.

The Power Cell we use is the most tested, reliable, durable and powerful Lifepo4 battery cell made, period. A123 Systems is the originator of this type of Nano-Technology cell and no company has yet to produce an equivalent level of performance that this cell offers. The Prismatic form is less expensive and less powerful but does offer lightweight and no maintenance features – but Antigravity believes in having the highest power possible for use as a starting battery. So we stick with the proven, most powerful cells available.

As an example of the power to size ratio of the Antigravity Battery Power Cell vs. Prismatic Cell: a Prismatic Lifepo4 18 amp hour (PbEq) battery puts out 220 Cold Cranking Amps. Our 16-cell is a 16 amp hour (PbEq) yet puts out an incredible 480 Cold Cranking Amps – DOUBLE the power of the Prismatic, yet amazingly is smaller than the Prismatic. This battery can turn over the Big V-Twins like 124 cubic-inch high-compression motors, where the larger Prismatic will fail to get past the compression stroke. We always go for POWER first and foremost and we trump all other batteries in this area.

WHAT IS THE RANGE OF VOLTAGE FOR THE BATTERIES?

The Antigravity Battery normal voltage is 13.2V. The battery will read up to 14.7V immediately after charging. The normal operating range will read between 13.3-14.5V. After a few hours it will self-balance to the 13.3-7 range which is its normal state of charge. The maximum voltage the battery should be exposed to is 14.7V. On the lower end of the voltage range the battery should be put on a charger if the battery voltage drops below the 12.5V range while sitting. The voltage should not be allowed to drop below 11V while at rest. Permanent damage may occur below 11 volts...

DOES THIS BATTERY REQUIRE TRICKLE CHARGING?

In most cases no... The battery is Maintenance Free and can hold a charge for up to a year PROVIDED the bike/vehicle does not have a PARASITIC DRAIN or accessory taking the energy. IF your vehicle's charging system is in good working order and you do not have any "parasitic drains" on the bike you should not have to charge this battery; rarely if ever. If you do have longer layoffs, or your bike has accessories creating a drain, you can purchase one of our battery chargers specifically designed for this Lifepo4 technology.

ANY CONCERNS REGARDING THESE BATTERIES?

- ⚡ If you are using the smallest battery possible for your bike to save weight (for example for race use a 4-cell in a 600cc bike, or an 8-cell in a 1000cc bike) you may find in 50 degree weather and below it may be sluggish initially. But with each attempt to start, the battery actually warms itself from the amp discharge and gets back its full strength. If you often ride in weather below the 50s we recommend going up one or two sizes on the battery – this will give you more cranking amps to get power even if it's very cold.
- ⚡ You can ruin the battery if you let it drain to below 10.5 Volts!!! This is true of ANY battery, lead/acid or lithium. Draining a battery to this level will damage the battery cells. This is not a concern if you remember to turn off your ignition, or turn off any accessories that are not ignition switched and monitor your battery if you plan on not riding frequently. You should also make sure your vehicle does not have a "parasitic drain" or "short circuit". A "parasitic drain" is something like an accessory that is pulling energy from the battery even though the ignition is "off". This can drain your battery below 10.5V and ruin it. Sometimes a short can also be the cause of a drain on the battery though all accessories are "off". For the best battery life you should monitor your battery and if you do not ride for a time make sure you disconnect the battery.
- ⚡ Also important is that OVER CHARGING above 14.6V can damage Lead or Lithium batteries. For this reason older bikes should make sure their electrical system and specifically the Voltage Regulator is operating correctly or you will find yourself damaging your batteries if your bike's charging system's voltage to the battery is going above 15V.
- ⚡ DO NOT ABUSE the battery. These batteries express extremely high amperage and can get over heated if you keep cranking a bike repeatedly over 7 seconds multiple times in a row. Though they are made to start your bike with fantastic results they can become over heated if you keep trying to crank a bike that just isn't starting. 500 Cranking Amps can generate heat extremely quickly – a couple cranking attempts if fine... long term cranking of 500 cranking amps is not good for anything and can damage the starter and the battery.

HOW LONG WILL THE BATTERY LAST?

This battery should last about 4-5 years, but this will be determined ultimately by how it is used and treated by the consumer. The type of use as a "starter battery" application provides for long life especially if all is well with your electrical system. But in racing and abusive use the lifespan may be much less. Also Parasitic drains or over-discharging or over-charging the battery will shorten life dramatically or ruin the battery. Just make sure you are disconnecting the vehicle if in storage and that you do not over charge or let the battery drain below 11V and all will be good for a long time.

IS THERE A WARRANTY?

Yes a "best in the business" 3 year warranty; please check it out here: [WARRANTY](#).

When you look at a warranty between different manufacturers look at the detail... we see some of the other companies who make similar style batteries have shorter warranties and warranties that are voided if you get salt on their battery terminals, or if you tighten the terminal to over 5lbs of torque... or if you allow the voltage to drop below 12V... We feel these limitations only show a lower build quality of those batteries. Make sure you compare warranties in detail. We offer the strongest warranty out there.

HOW DO I CHARGE THE BATTERY?

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The Antigravity Battery comes ready to install, and start the bike/vehicle. We do offer two brands of Lifepo4 chargers. Our Antigravity Brand and the Optimate Brand. We have a 4-amp and an 8-amp charger. It will charge the battery to its intended peak voltage and will shut off when the battery is charged.

You should NOT use an automobile or motorcycle charger that is specific to Lead/Acid batteries! They can cause damage to the batteries because they charge in a different way than a specific Lifepo4 Lithium Charger. They often have a Desulfinate feature or over voltage "Quick Charging" feature – both of which will damage the Antigravity Battery. Lead Acid chargers in many cases will overcharge a lithium battery ending up in damage which is not covered under our warranty.

HOW DO I STORE THE BATTERY?

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In the case that you need to store your bike for a long period of time, you should disconnect the battery. If you're storing the battery out of the bike just put it in a cool dry place and cover the terminals with tape to protect from accidental shorting of the positive and negative terminals. The battery can hold its charge for up to a year, but check it every 6 months. Do not leave a battery connected if you know you will not be riding for a long time.

HOW DO I CHOOSE THE CORRECT BATTERY?

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Please use our BATTERY FINDER, or write us an email and we will help you decide.