ANTIGRAVITY BATTERIES®

Antigravity Batteries Warranty Explanation and Battery Maintenance Information

In an effort to educate users of this new Lithium-Ion Technology for Starter Batteries, and to go over what is covered by our Warranty we have provided this documentation. You will find the Warranty attached after this document. This document covers what issues are Warranty covered issues and what are not. Additionally, you will find information on the most common causes associated with damage to Lithium-Ion Starter Batteries.

In simple terms related to Antigravity Batteries Products Warranty Claims, the following holds true.

1) If your battery fails as a result of workmanship, or if a component in your battery fails as a result of a defect in the materials used in production, then Antigravity Batteries will repair, replace or warrant the battery for a period of up to 3 years prorated (please see attached warranty for details).

2) On the other hand, if there was an issue with the installation or the maintenance of the battery or vehicle, such as allowing the battery to Over-Discharge below 10 Volts, a faulty Voltage Regulator leading to over-charge, an incorrect charger was used, if it was installed in a way that could lead to short-circuiting, or other potential issues beyond our control, then that is an issue we cannot be held responsible for. It is NOT due to a faulty battery but rather issues involved with the installation of the battery, the vehicle's maintenance, or the parasitic draw of the vehicle discharging the battery. We do not Warranty such issues.

3) We want the User to get the best life and use out of our products, but our Batteries are often installed or maintained in ways beyond our control and we cannot be expected to be responsible for faulty installation, lack of battery maintenance, or a vehicle's potential problems. It is ultimately the Users responsibility to maintain, use and install the Antigravity Battery properly and in a safe manner. We make no claims of functionality in non-stock vehicles using aftermarket parts, used for Racing purposes, or installed in customized applications. Use the battery only as directed per the User's Manual.

Antigravity Batteries uses the highest quality components in the industry and builds our product to withstand the most vigorous uses and severe vibration, but something as simple as the battery over-discharging, or over-charging can damage or ruin your battery in a short period of time. Please see below, we have a list of the common reasons for damage to a battery and how to avoid them.

All batteries require some form of maintenance and proper, safe installation. It will be the User's/Installer's responsibility to make sure they maintain the battery in a state of charge that is not below 10 volts, and to install it in a safe manner away from extreme-heat, or near metal surfaces that can create short circuit situations. Additionally, it is necessary to make sure your Voltage Regulator and Charging System is in good operating condition. Older bikes often have bad Voltage Regulators that will over-charge the Lithium Antigravity Battery. If the Voltage Regulator goes bad this leads to spiking very high voltages and could potentially damage the battery and create a dangerous situation with potential for explosion or fire or vehicle damage in worst case scenarios.

In the overwhelming majority (90%) of cases of Warranty Claims seen by Antigravity Batteries, the battery has been over-discharged. This is not a Warranty issue… that fact is the battery has been drained of its energy by the vehicles accessories such as ECU, Instrument Cluster, Power Commander, theft alarm, other accessories or perhaps a potential "short circuit" on the vehicle that might draw energy from the battery while it is connected. A battery is NOT and endless supply of energy, the energy taken from the battery MUST be replaced or the battery can be over-discharged. So you must ride the bike to charge the battery if it is low on energy, or you can use a Lithium (Lifepo4) specific Charger/Maintainer design for use with our Battery. Keep in mind if you disconnect your Antigravity Battery it will easily holds its charge for OVER a YEAR! Only when there is a draw on the battery will the battery be discharged of energy. If you store the vehicle or don't ride for a period of time, simply disconnect the battery and it will hold it last charge for a year. But do not store in a state of charge lower than 13v when putting it into storage.

Make sure you monitor your vehicle and battery… It can be as simple as checking the voltage every once in a while to make sure the battery is charged, or taking it for a ride to recharge it, or charge it. But forgetting about it and not recharging it can at lead to an over-discharged condition that can damage your battery. We do NOT want that to happen to you. You can expect many years of excellent performance from your Antigravity Battery if it is checked and not allowed to over discharge. These batteries are extremely durable and can handle vibration and other elements well, but an over-charge or over-discharge are the main culprits for battery damage. So if your vehicle is in good working order, and you check your charge level or ride enough to keep the battery charged the battery you will get a very long life cycle from your battery. If you plan storage just disconnect it.

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Potential Reasons for Damage to your Lithium-Ion Batteries…

Below are the common causes of damage to your Antigravity Battery. Please make sure to note them. These conditions/situations WILL damage your battery or in extreme cases and conditions there could be a potential for Fire or Explosion!

Over-Charge due to faulty Voltage Regulator- This usually happens on older Harleys, or Older 60s-80s bikes due to defective Voltage Regulators… The Voltage Regulator is old and then goes bad creating a large spike in voltage charging the Lithium Battery. The tell-tale sign of this is a "puffed" battery … the battery become physically distorted and ballooned by overcharging. In worst case scenarios the battery can be over-charged to a point that causes a meltdown (thermal runaway) of the battery and potential for fire. So please make sure your electrical system is operating correctly and not over-charging at any time over 14.4volts. Often time After-Market charging systems are not regulated as a stock system is, be aware of this if you use and aftermarket charging system.

Over-Charge due to using a LEAD/ACID Charger or incorrect charger for Lithium-Ion Lifepo4 Specific Batteries-
Antigravity Batteries have Lifepo4 based lithium battery cells rated at 12.8 Volts. They work perfectly fine with a stock vehicles charging system that is regulated to charge at a maximum of 14.4 volts. So if you do need to charge your Antigravity Battery use only Chargers specifically designed for charging Lifepo4 Lithium Powersports Batteries and charging at the correct voltage. Never use 16 Volt Chargers on 12-Volt Batteries. Do not use Lead/Acid Chargers as they can enter Desulfinate modes which can spike the Voltage and create an Over-Charge condition. Also the cheap Battery Tender Jr. will damage your lithium battery as they keep cycling and charging a lithium battery when it no longer needs a charge. This could result in a severe over-charge condition and possibility of explosion or fire in worst case scenarios. So only use the proper charger for any battery. Contact us for suggestions.

Over-Discharge: Accessories are drawing energy while the bike sits with the Key off. Most modern bikes since the 90's have an energy draw on the battery regardless if the key is off. The battery's energy is being taken to power the ECU, Alarm, Instrument Cluster, or other electronics you might have. These accessories on some vehicles draw a lot of energy out of the battery and can drain the batteries voltage down quickly to an over-discharge state. Alarms, GPS, Heated Grips can all be left on and discharge a battery fast. Additionally, note that too many accessories on a bike can overwhelm the wattage output on a vehicles charging system and create a drain on the battery even when riding. This is NOT a fault of the battery, nor a warranty issue. It is something the User is responsible for watching.

As stated, Over-Discharge is the #1 cause of battery damage be it lead/acid or Lithium. The battery is allowed to drain below 10v or lower for a period of time. The vehicle is not being ridden or driven enough to recharge the battery and the accessories on the bike are constantly drawing energy out of the battery… ultimately leading to a dead battery. This diminishes capacity of the battery, ruins the ability to discharge high amperage to start the vehicle, and often results in batteries that won't recharge. Check your vehicle for how fast the parasitic drain is occurring on your vehicle. Even a short-circuit can case a Parasitic Drain. If you have many extra accessories, your battery can reach an over-discharge state quite quickly so watch your system.

Too small of a battery for your motor size. Some Users want the smallest battery possible for their vehicle to save weight or to use for a Custom Application… yet they might expect it to start a very large motor. While we make batteries that can do this better than any battery in the industry… the fact is you still cannot put a very Small Battery into a large Electric Start V-Twin and expect it to turn it over as well as a battery 5 times larger. It puts additional stress on the battery and you want a very easy start for your vehicle as the most important factor. Choose the right size battery for your application. We are glad to help with this so please contact us for suggestions.

High Heat Damage. High heat can cause damage to any battery and you can expect a much shorter lifespan. While this is NOT the concern of most Users there are many Custom Bike builders putting their batteries in an "OIL BAG", or right next to a header. So the battery is effectively sitting in a compartment surrounded by extremely and excessively high temperature oil or extremely high heat. This will surely damage the battery and could cause potential damage to the battery and worst case fire. A battery is not intended to sit in over 160 degree temperatures. Locate a battery in an area away from direct heat. This is dangerous and not a Warranty issue.

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ANTIGRAVITY BATTERIES LIMITED WARRANTY

Antigravity Batteries LLC warrants to the original purchaser that our batteries are free of defects in material and workmanship for the Prorated term of 3 years. All batteries must be registered within the first 30 days from the original purchase date or original purchaser must provide a copy of the original receipt in order to be eligible for a warranty claim. Warranties are non-transferable. Returns will only be accepted from the Original Purchaser. The Applicable Warranty Period begins from the date of purchase with original receipt.

WARRANTY DOES NOT COVER ANY OF THE FOLLOWING PHYSICAL and INSTALLATION ISSUES

☐ Any physical damage caused by abuse, mis-use or improper installations
☐ Any modification to any part of the battery or its parts
☐ Physical damage to battery after purchase by impact, neglect, or misuse.
☐ Installations in Custom Crafted Vehicles using other than stock charging systems
☐ Installations in "Oil Bags" or High Heat areas(this is too high heat for a battery to survive, and dangerous)
☐ If the battery is used in sanctioned competition "Race" use of any kind
☐ If the battery is used in a manner for which it was not intended

WARRANTY DOES NOT COVER THE FOLLOWING ELECTRICAL RELATED ISSUES.

☐ Damage from "short-circuiting" of the battery
☐ Damage occurring from faulty Voltage Regulators (overcharging of battery by vehicle)
☐ Custom installation using aftermarket or performance electrical parts such as Stators, Regulators
☐ Using a Battery Tender or similar Lead/Acid type Maintainer product on the Antigravity Lithium-Ion Battery (do not use Lead/Acid type trickle chargers)
☐ Use of Chargers NOT intended specifically for Lifepo4 Lithium Batteries with a maximum charge voltage not over 14.4v
☐ Over-Charging/Over-Discharging due to a defect with vehicle's voltage regulator or defective or non-complaint charging system on the vehicle
☐ Over Charging battery above 14.6v
☐ Over Discharge of battery below 9.8v
☐ Allowing voltage to drop below 9.8v by lack of maintenance
☐ If the Battery is used for an application that requires higher cranking power or a greater reserve rating than the Battery is designed to deliver, or the Battery capacity is less than the Battery capacity specified by the vehicle manufacturer, or the Battery is otherwise used in applications for which it was not designed, such as "Total-Loss" systems
☐ Parasitic drains that discharge the battery to below 9.8v

All warranty claims are handled by Antigravity Batteries directly. All warranty claims must be accompanied by a copy of the original receipt from your retailer or your Antigravity Batteries Invoice along with a Warranty Claim form. Do not contact your reseller for warranty claims.