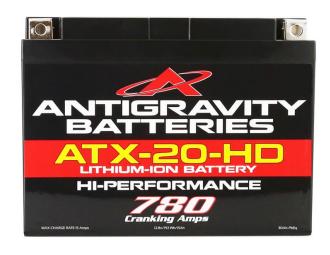
### ANTIGRAVITY BATTERIES

# HEAVY DUTY ATX-20/30-HD

### **USER MANUAL**





FOR MOTORCYCLE/POWERSPORT "HD" MODELS

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NOTE: Lithium-Ion has different maintenance procedures than Lead/Acid batteries! READ THIS MANUAL!



### **DANGER - WARNING!**



PRIOR TO USE, READ AND UNDERSTAND THIS MANUAL AND SAFETY INFORMATION. Failure to follow the instructions may result in ELECTRICAL SHOCK, EXPLOSION, or FIRE, which may result in SERIOUS INJURY, DEATH, or DAMAGE TO VEHICLE or PROPERTY. Do not discard this information.

### Introduction

#### THANK YOU

Thank you for purchasing Antigravity Batteries high performance "Heavy Duty" (HD) LITHIUM Starter Battery. This battery represents the latest in Lithium-Ion Technology and offers better starting performance, longer service life as well as incredible weight reduction over comparable Lead/Acid Batteries.

This battery is intended for use in Motorcycles and Powersport Vehicles requiring or desiring a larger, more powerful battery. This battery offers a larger lithium battery pack inside which provides for more Amp Hour Capacity and more Starting Power.

#### OUR HEAVY DUTY VERSION OFFERS THE FOLLOWING CAPABILITIES:

- 1. In the event your battery is over-discharged (for example you left your lights on) our battery will put itself into a "sleep mode" and save the battery from over-discharge which could damage the battery. After the battery goes into sleep mode it must be recharged.
- 2. Our Intelligent Battery Management System (BMS) allows you to put the Battery to Sleep during times of storage or transport, which does not allow discharge of the battery and cuts power to the terminals.
- 3. This battery is equipped with full Battery Management protection including over-discharge, over-charge, overcurrent, thermal protections, and balancing of the lithium cells. This makes for a safer, longer-lasting battery.

### For more information feel free to Contact us.

info@antigravitybatteries.com antigravitybatteries.com themicrostart.com 310 527 2330 **Antigravity Batteries** 15622 Broadway Center St. Gardena CA 90248



**BEFORE FIRST USE, THIS BATTERY MUST BE AWAKENED.** PRESS THE STATUS BUTTON FOR 3 SECONDS TO AWAKEN!

### **IMPORTANT! READ FIRST!**



### **DANGER!**



READ AND FULLY UNDERSTAND ALL SAFETY INFORMATION BEFORE USING THIS PRODUCT. Failure to follow these safety instructions may result in ELECTRICAL SHOCK, EXPLOSION, or FIRE, which may result in a SERIOUS INJURY, DEATH, or PROPERTY DAMAGE.



Shock. This product is an electrical device that may shock or may cause serious injury if not handled correctly. Do not wear jewelry or other metallic objects when working with batteries.



Explosion. Batteries can spark! The potential of Explosion exists if batteries are used around areas where flammable fumes or high dust content are present. Do not attempt to jump-start a damaged or frozen battery. Do not mix battery chemistries such as lead/acid and lithium, nor combine batteries of different voltages, amp hours or brands/models. Do NOT charge this battery with a LEAD/ ACID Battery Charger. Use only approved Lithium-Ion Lifepo4 12v Chargers. Use only with OEM stock Charging systems.



Fire. Use this Battery only as intended. Do not leave any battery unattended while charging. Do not mix battery chemistries, voltages, amp hours, brands/models. Use only approved Lithium Lifepo4 12v Chargers to charge this battery. Do not jumpstart a damaged or frozen battery. Do not jump-start batteries below 10-volts. Use only with OEM stock Charging systems.



Eye Injury. Wear eye protection when working with battery products. Batteries can explode and cause flying debris.

CALIFORNIA RESIDENTS PROPOSITION 65: Related accessories may contain materials that are known to the State of California to cause cancer and birth defects and other reproductive harm.

### **Important Safety Warnings**

PERSONAL PRECAUTION

Only use this product as intended. When working on or around batteries use caution. It can produce extremely high discharge currents when short-circuited. Someone should be within range of your voice or close enough to come to your aid in case of emergency. Wear complete eye protection and protective clothing while working near a battery. Always wash 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 comes in contact with a battery, it may spark or create a short-circuit resulting in electrical shock, fire, or explosion which may result in injury, death or property damage.

**HANDLING** 

Handle product with care. The product can become damaged if impacted. Do not use a damaged product, including, but not limited to, cracks to the casing or other physical damage or swelling. Do not handle product or any electrical components near any liquid. Store and operate product in dry locations.

**MODIFICATIONS** 

Do not attempt to alter, modify or repair any part of the product. Disassembling product may cause injury, death or damage to property. If product becomes damaged, malfunctions or is submerged, discontinue use, and contact Antigravity Batteries. ANY MODIFICATIONS TO THE PRODUCT WILL VOID YOUR WARRANTY.

**ACCESSORIES** 

This product is only approved for use with Antigravity Batteries approved accessories. Antigravity Batteries is not responsible for user safety or damage when using accessories not approved by Antigravity Batteries.

INSTALLATION

Make sure product is installed correctly. Position cables to avoid accidental damage from moving vehicle parts, moving engine parts, or what could become a hazard. Do not install next to metal objects that could cause a short-circuit. Do not install next to headers, or high heat areas. Failure to follow guidelines could result in fire, death, personal injury, or property damage.

HIGH CONSEQUENCE/RISK ACTIVITIES

This product is not intended for use where the failure of the product could lead to injury, death or severe environmental damage.

**CLEANING** 

Use a soft, lint-free (micro fiber) cloth. Avoid getting moisture in openings. Use only mild cleaners on product and no solvents or harsh chemicals. Do not use pressure washers near or on product.

### **Important Safety Warnings**

**OPERATION TEMPERATURE** 

This product is designed to work in ambient temperatures between -10°C to 48°C (14°F to 120°F). Do not operate outside of temperature ranges. Do not jump-start a frozen battery or battery with voltage below 10v. Do not charge a frozen battery. Only charge within the range of 0°C to 45°C (32°F to 113°F). Discontinue use of product immediately if the battery becomes excessively warm or swells.

DO NOT PLACE IN HIGH HEAT AREAS OF A VEHICLE SUCH AS NEAR EXHAUSTS, OIL BAGS in Custom V-Twin Motorcycles. These areas get too hot and damage batteries.

STORAGE

Store your product on a flat, secure surface so it's not prone to falling. Store your product in a dry location. The storage temperature is -20°C to 25°C (-4°F to 77°F), average temperature. Never exceed 80°C (176°F) under any condition. This battery can be put into storage mode by holding down the Status Button for 8-10 seconds; then check voltage of battery to make sure it is off and put into storage.

10 COMPATIBILITY

> The product is only compatible with 12-volt stock/standard OEM charging systems; no other uses are advised. Do not attempt to use the battery product with any other types of batteries, or in series or parallel with each other; damage or fire may occur. Unintended uses may result in fire, explosion, injury, death or property damage. Do not jump-start a battery if you are unsure of the battery's specific chemistry or voltage, or if the battery is severely over-discharged below 10v.

П THE BATTERY

> The lithium-ion (lithium-iron phosphate/LiFePO4) battery inside this product should be replaced or serviced only by Antigravity Batteries. Do not attempt to service or replace the battery yourself. Do not use a damaged or swelled lithium-ion battery. This battery must be recycled or disposed of separately from household waste. Never dispose of battery in household trash. Disposal of batteries in household trash is unlawful under state and federal environmental laws and regulations. Always take used batteries to your local battery recycling center. If the battery is excessively hot, emitting odor, deformed, cut, broken, or is demonstrating an abnormal occurrence, immediately stop all use and contact Antigravity Batteries (email info@antigravitybatteries.com or call 310 527-2330).

12 **BATTERY CHARGING** 

> Use ONLY approved Chargers specifically for 12.8v LiFePO4 (Lithium-Iron Phosphate) chemistries with this battery. Only use Chargers that do not exceed the Max. Charging Amps listed on the battery's front label. Using damaged cables or chargers, or charging with other than intended battery chargers could result in damage to battery, fire, or explosion which may result in injury, death or property damage. Never leave any battery being charged unattended. Make sure your vehicle is charging correctly.

IMPORTANT NOTICE ON CHARGING

The charging system in your vehicle may go bad or be charging at excessively high voltages if not operating correctly. This occurs most often in older vehicles (pre-1990s), or vehicles with modified or aftermarket charging systems. This could result in damage to battery, fire, or explosion which may result in injury, death or property damage. It is important that YOU check your vehicle's charging system BEFORE installing this battery. Make sure it is operating correctly and not charging above 14.6v. THIS BATTERY IS NOT INTENDED FOR USE IN NON-STOCK/OEM or MODIFIED CHARGING SYSTEMS.

## In the Box

1 pc- Antigravity HEAVY DUTY (HD) Battery (operation will be the same for ATX20-HD and ATX30-HD)

1 set- Terminal Hardware

1 set- Foam or Plastic Spacers



## **Specifications**

BATTERY TYPE: Lithium Iron-Phosphate (LiFePo4)

VOLTAGE: 12.8V (nominal)

CAPACITY: Check label on the battery for Amp Hours

CRANKING AMPS: Check label on the battery

DIMENSIONS: Varies per model

WEIGHT: Varies per model

MAX CHARGING RATE: Check label on the battery

MAX CHARGING VOLTAGE: 14.6V for all models

CHARGER TYPE: Lithium-Iron Phosphate Chargers specifically for 12.8v Motorsport Batteries



Please see website for specific details

### **Battery Care & Maintenance**



#### **CHECKING THE BATTERY**

Antigravity Batteries do not require maintenance if they are kept in a good state of charge (13.2v), but as with any battery, they should be checked every few months as a precaution. Visually inspect the battery for cracks, check the mounting and cables are secure and check the voltage. The key to long life for any battery is to not allow it to get deeply over-discharged. Below 11v damage to the battery cells may occur. The lower the voltage and longer the time in an overdischarged state, the more potential for damage to your battery and shortened life and performance.



#### **GENERAL CARE**

The best thing you can do for your battery is to maintain it in a good state of charge. This goes for any battery. 13.2v is considered a good charge on this battery. With the Antigravity Batteries Battery-Management feature, your battery is protected from getting over-discharged to the point of damage, but you still need to maintain the battery in a good state of charge by keeping it on a Charger when necessary or riding enough to allow the Vehicle Charging system to keep the battery well charged. If you will be storing it in the winter you can put this battery into sleep mode to save the energy level and come back to a charged battery.



### **CLEANING**

Use a clean dry cloth to wipe away dirt or grime. Do not use harsh chemicals or solvents. Do not directly spray the battery with a Pressure Washer or Hose.



#### STORING

If you are going to store your vehicle for over 2 months, it is best to put the battery into its "STORAGE MODE" or disconnect it. This will prevent over-discharge of the battery during storage. If the battery is stored out of the bike, put it in a cool dark place. Check the battery voltage each 4-5 months and recharge as necessary. Some quality Maintainer/ Chargers can be left attached to the battery if you choose to not put the battery into storage mode.

### The Status Button



#### **IMPORTANT**

PLEASE NOTE: The automatic Sleep Mode protection feature is designed for emergency uses when your battery is over-discharged. It does NOT take the place of proper battery or vehicle maintenance. You still need to maintain this battery in a good state of charge and keep it on a charger if you are not riding often enough to charge the battery, or if your vehicle has a large Parasitic Drain from accessories that drain the battery quickly.

PLEASE NOTE! After the Sleep Mode is triggered you MUST recharge this battery fully as soon as possible because it is in a highly over-discharged state. Ride a minimum of 1 hour, or fully recharge on a charger!



### USING THE STATUS BUTTON (LOCATED ON TOP OF THE BATTERY)

The Status Button is used to view the Capacity Indicator, as well as to "awaken" the battery if the Sleep Mode protection was triggered, and to operate the Storage Mode.

- A. Quickly press the Status Button to see the Battery Capacity Indicator, which will show one of the three status lights: "LOW" (battery needs recharging), "MED" (has medium charge level), "FUL" (has full or nearly full charge).
- B. Press and hold the Status Button for 2-3 seconds to awaken the battery if it is in Sleep/Storage Mode.
- C. Press and hold the Status Button for 8-10 seconds to manually put the battery into Storage Mode.

After the battery goes into sleep mode it must be recharged. Immediately ride/drive to recharge the battery from the vehicle's charging system. Ride for a minimum of 1 hour to get an ok charge on the battery again. Or if you have a charger available, fully recharge the battery.

Only use the proper LiFePO4 Charger for charging Lithium Batteries (see "Choosing a Charger" section).

The Status Button gives you a quick way to check the general level of battery capacity remaining (low, medium, or full), indicated by colored lights. The Status Button is also used to "wake up" the battery, or put it to "sleep".



### **Storage Mode**



### **OVERVIEW**

The Antigravity Battery can hold a charge for roughly 10~12 months if not connected to anything. If connected to the vehicle, the length of time it can stay charged is fully dependent on Amp Hours of the battery (smaller batteries have less capacity and will drain faster); it will depend on how many accessories the vehicle has, and how high of a parasitic drains the vehicle might have. So be aware of this.

During times of transport or when storing your vehicle, it is best to put the battery into its "STORAGE MODE" or disconnect it; this will not allow further discharge of the battery for several months. The "Storage Mode" will also cut power to the terminals for safety. If you are storing the battery out of the bike, put the battery in a cool dark place on a flat, secure surface. Check voltage each 4-5 months, recharge when needed.



### **USING THE STORAGE MODE**

- 1. Press and hold the Status Button for 8-10 seconds and the battery goes into "storage mode" with no voltage at the terminals. Check that no voltage is at terminals after doing this to confirm storage mode is activated.
- 2. When you are ready to use the vehicle again you Wake-up the battery by pressing the Status Button for 2-3 seconds.
- 3. During storage, make sure you check the voltage each 4-5 months to verify the voltage has not gone too low; recharge as necessary with a Lithium-specific Maintainer/Charger.

## **Choosing a Charger**

- If using a standalone Charger/Maintainer, it must be designed for 12.8v LiFePO4 (Lithium-Iron Phosphate) motorsport starter batteries.
- DO NOT charge this battery with a charger made specifically for Lead/Acid.
- Some chargers are made for both Lithium and Lead/Acid chemistries. If using a dual-chemistry charger, make sure the correct profile (12v LiFePO4) is used; the wrong profile can damage your battery.
- Only use Chargers that do not exceed the Max. Charging Amps listed on the battery's front label.

#### **ANTIGRAVITY SUPER CHARGERS**

Antigravity offers a full range of chargers. Our "SUPER-CHARGER" series of multi-function chargers (COMING SOON) can be used with Lithium and Lead/Acid Batteries and are compatible with 12-volt as well as 6v batteries in some models. The SUPER-CHARGER offers many other useful features such as Voltage Test, BMS Wake-Up Mode, Power Supply mode, automatic Winter mode, and more.

#### **OTHER CHARGERS**

Along with our SUPER-CHARGERS we offer other approved brands of chargers on our website. If you buy or use a different brand charger, make sure it is compatible with 12v Lifepo4 Chemistries.

Please contact us at info@antigravitybatteries.com if you need help choosing the correct charger.

### **Charging**



### TO CHARGE/MAINTAIN YOUR ANTIGRAVITY HD BATTERY

Antigravity Batteries operate and are recharged correctly with any STOCK/OEM STANDARD CHARGING SYSTEM found in modern 12-volt Motorcycle/Powersports vehicles. Under normal operating conditions, and if you are riding/ driving enough to keep the battery charged, the Antigravity Battery should rarely need to be charged. The minimum "State of Charge" for this battery is 13.2v. In some circumstances your battery may become over-discharged below 13.2v due to not riding/driving enough, being in storage, or you have extra accessories that drain the battery quickly when the vehicle is not running. In these cases charging will be needed.

- 1. Only use a Lithium-Ion Charger designed specifically for 12.8 volt LiFePO4 (Lithium-Iron Phosphate) Starter Batteries. NOTE: The reason you cannot use a Lead/Acid Charger is because most Lead/Acid Chargers have a Desulfate Mode that spikes voltage to remove sulfates that can develop inside of Lead/Acid batteries; this effect can damage a Lithium Battery. But, a vehicle's charging system does not have this Desulfate Mode, so it will not damage a Lithium Battery.
- Follow all Manufacturer Instructions on Charger use.
- 3. Make sure that your battery has voltage at the Terminals and is not in "Sleep Mode". Sleep mode may prevent the Charger from "seeing" the battery. Press the Status Button for 2-3 seconds to "awaken" the battery before charging if the battery is in "Sleep Mode".
- 4. Connect the Charger to the Battery to begin Charging. Remove when fully charged.



#### CHARGING PRECAUTIONS

LIFEP04/(LFP) ONLY: DO NOT use Lead/Acid Chargers/Maintainers on this Antigravity Battery.

**12V ONLY:** DO NOT use 16-Volt or other Voltage Chargers on a 12-Volt Battery.

**COMPATIBILITY:** Use only APPROVED LIFEPO4 Chargers for your Battery's specific Voltage, Chemistry and Maximum Charge Rate. Check out the Antigravity "SUPER-CHARGER" Series of Chargers.

**CHARGING SYSTEM:** Check your Vehicle for proper Charging System Operation (especially Pre-1995 vehicles, see below). You may have a bad Voltage Regulator.

### CHARGING SYSTEMS WARNING-OLDER BIKES (PRE-1995 BIKES & CUSTOM BIKES)

Defective Voltage Regulators can severely over-charge and damage Lithium Batteries! If the vehicle's charging system is defective, or is a Custom Charging system, it might cause severe, dangerous overcharging of the Lithium-Ion battery. For example, most older bikes from Pre-1995 have Voltage Regulators that can fail mechanically (modern vehicles use Solid-State Voltage Regulators and do not have this problem often). If the voltage regulator is defective the Lithium battery can be dangerously "over-charged" by spiking voltages. It is imperative to check for proper operation of your vehicle's charging system, especially on older and/or Custom bikes! We recommend that a Professional checks your vehicle's system if your bike falls into this category. Failure to check the system could result in fire, explosion and damage to personal property. The most popular bikes that usually have older defective Voltage Regulators are Harley-Davidson, and older Japanese bikes from the 1960s-1990s. You may not realize the Voltage Regulator has become old and defective so please be alerted to this potential hazard. You can find modern solid-state plug-and-play systems for these vehicles. Defective Charging System components are not covered by our Warranty and are not a battery issue. We only approve modern OEM Solid-State Voltage Regulators for any Pre-1995 Motorcycles or Vehicles.

### **Installation**



#### INSTALLING THE ANTIGRAVITY BATTERY

The ATX20-HD and ATX30-HD are very easy to install. They have a 4-Terminal design so you can turn the battery onehalf turn to switch the Terminal Polarity location. For example, they will fit whether you have the Positive connections on the LEFT or RIGHT SIDE. Simply turn the Battery 1/2 turn to swap the Polarity location.

- 1. Make sure you have the correct or similar size Antigravity Battery to replace your older Battery.
- 2. Remove the Negative Cable, then Positive Cable from your old battery and remove it. Tuck the wires away for the moment.
- 3. Test fit your Antigravity Battery into place. Check for proper fitment, and make sure wires are free from hazards. Please note: Antigravity Batteries are designed to replace standard sizes of Lead/Acid Batteries, but there may be some minor variations in height or fitment. Use the provided plastic/foam blocks to raise or fill in any extra space if necessary.
- 4. After verifying the fitment of the battery, secure the battery. Replace Positive then Negative cables, making sure polarity is correct, and tighten the supplied bolts into the carrier nuts. A firm tightness is all that is needed (4.0 N-m or 3.5 ft-lb). Do not over-torque the battery terminals; damage could result.
- 5. Terminals that are not used on your battery should be left covered with the supplied plastic terminal covers for safety.



#### **USER SAFETY! FOLLOW THESE PRECAUTIONS**

- Battery MUST be securely mounted into vehicle to prevent movement.
- Be careful not to short-circuit the Battery connections on the frame, or other metal parts.
- Battery and Cables should not be installed near hot pipes, in high-heat areas, near sharp objects or metal parts.
- Battery Cables should have some slack and not be tightly stretched.
- Test for Parasitic Drains on your vehicle after battery installation (VERY IMPORTANT, see "Troubleshooting").
- Older bikes (1995 and earlier) should update to a modern solid-state voltage regulator. Your voltage-regulator is likely bad by now being it is roughly 30 years old!
- Test for properly operating charging system in your vehicle by a professional. Vehicles should not charge battery above 14.6v most of the time.

## **Troubleshooting**

THE BATTERY WILL NOT CHARGE

If your Battery has gone into "Sleep Mode" because the protective function has cut off voltage to the terminals, then your charger may not "see" the battery since there will be no voltage, or very low voltage at the terminals. In this case press the Status Button on the battery for 2-3 seconds to "awaken" the battery, and connect the charger. Now the Charger will be able to "see" the battery and begin to charge it. The Antigravity Batteries "SUPER-CHARGER" has a builtin BMS RESET feature so you do not need to awaken the battery by pressing the Status Button.

BATTERY IS LOSING VOLTAGE WHILE IN VEHICLE - PARASITIC DRAIN

The Antigravity Lithium Battery cannot drain itself quickly; if the battery is draining quickly it is usually due to a Parasitic Drain caused by the bike's system or items such as theft alarms, USB Devices, Cameras and/or other accessories. This is why it is important to check your voltage when not riding often, or when the bike is in storage. If not riding often, we suggest a Lithium-Battery Maintainer/Charger.

Though this battery does have Over-Discharge Protection and will prevent damage due to over-discharge, you should not forget that after too much storage time the battery can over-discharge beyond our protection level and be damaged. Therefore check the battery every 4-5 months and keep in the 13.2v range.

SLUGGISH PERFORMANCE ON INITIAL START IN VERY COLD WEATHER

In general this will not occur if using the proper size battery for your conditions. This is a normal effect of Lithium-Ion due to Resistance caused by the cold, but if you do a few quick presses of the starter button (not a full start attempt) to "bump" the starter, the battery current will flow and begin to "self warm" the internal battery. You may also leave the lights on for a few minutes prior to a start attempt to get the battery current flowing and self-warming. Once warmed, the battery's full power is available. For hard freezing weather, we recommend a battery warmer.

Do not try to charge or jump-start any frozen battery!

**BATTERY HAS PUFFED OR SWELLED** 

- 1. This is the typical sign that a Lithium Battery has been "over-charged" and damaged. It can be from using a Lead/ Acid Charger or Lead/Acid "Tender" type charger. STOP USE, AND CONTACT US: 310-527-2330. Do not use a Lead/Acid Charger on this battery. See "Battery Specifications".
- 2. The other reason for over-charge can be from the vehicle's Voltage Regulator being defective, which would allow for high spiking voltages back to the battery while it is charging. This is not an issue due to the Battery, it is due to the defective/damaged voltage regulator. This mainly occurs in Pre-1995 bikes such as Harley-Davidson, Japanese Street bikes of 1960s-1990s, and other vehicles in these date ranges with old voltage regulators. Please make sure you update to a Solid-State Voltage Regulator in these vehicles. This is not covered by warranty. The vehicle's system must work correctly.

THIS CAN POSE A DANGEROUS SITUATION AND CAUSE THE BATTERY TO MELT OR EXPLODE! PLEASE CHECK YOUR SYSTEM! READ OUR SAFETY WARNINGS INCLUDED IN THIS USER'S GUIDE!

## **Limited Warranty**

П WARRANTY PERIOD

For full Warranty terms and information visit our Warranty page: https://antigravitybatteries.com/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 in stock vehicles using OEM standard charging systems. Race use and Total-Loss Systems are not covered. Scan the QR to see the full Warranty terms and to Register your Antigravity Battery. Warranty is not Transferable.

#### YOUR WARRANTY INCLUDES

Lifetime Support

Contact us via phone, email or live-chat for product support after your purchase.

30 Days Money Back Guarantee

You can return the product within the first 30 days for a full refund.

12 Months Free Replacement

If found to be defective due to manufacturing issues within 1 year we will repair/replace the unit. After 1 year, a prorated discount toward the purchase of a new battery will be applied.

### WARRANTY ELIGIBILITY

- 1. The Product must be purchased from an Authorized Dealer.
- 2. The Product must be registered within 30 days of purchase.

#### WARRANTY DOES NOT COVER

- Any physical damage caused by abuse, misuse, negligence, improper installations, or lack of general maintenance.
- Any modification to any part of the battery or its parts, any disassembly of the battery.
- Damage from direct "short-circuiting" of the battery caused by improper use or installations, grounding problems or accidents.
- Use of any Chargers intended for Lead/Acid batteries: Trickle chargers, Battery Tenders, improper Lithium Chemistry chargers, etc. DO NOT USE LEAD ACID CHARGERS.
- Use of Chargers NOT intended specifically for LiFePO4 Lithium Batteries, or with a maximum charge voltage over 14.6 volts or surpassing the maximum Amp charge rate.
- Overcharging due to a defect with vehicle's voltage regulator or defective charging system, or performance charging systems.
- Overcharging battery above 14.6 volts, or Over-discharge of the battery below 10 volts.
- Excessive over-cranking, or using the incorrect size battery for the application (too small a battery where a larger battery is needed).
- Any non-standard electrical systems such as total-loss systems, 24v or 16v systems, Race Systems etc. (Only standard, stock 12-volt systems are warrantied.)
- Parasitic drains that discharge the battery to below 9.8v (please check your electrical system and accessories for parasitic drains).

## **Limited Warranty**

#### REPLACEMENT

Antigravity Batteries are only eligible for one warranty replacement of a battery. Once a battery has been repaired or replaced under warranty, the replacement item only holds the remainder of the warranty period from the date of the original purchase of the battery, and covers only physical defects. The prorated discount toward the purchase of a new battery will be applied. Antigravity Batteries LLC reserves the right to deny any and all claims if all conditions and terms are not met.



#### REGISTERING YOUR BATTERY

Register the product Online at our Registration page: https://antigravitybatteries.com/warranty/registration/

You must register your Antigravity Battery product in order to validate the Warranty. Complete the requested information on the form and click "send".

### **Customer Service**



18 Months Limited Warranty Service



Lifetime Technical Support



info@antigravitybatteries.com



https://antigravitybatteries.com/help-center/



310-527-2330 Mon-Fri PST 7:30am-4pm



Live Chat with Our Techs