

ANTIGRAVITY BATTERIES

RE-START AUTOMOTIVE

USER MANUAL



FOR ALL MODELS WITH WIRELESS KEYFOB REMOTE

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DANGER! IMPORTANT SAFETY INSTRUCTIONS.



PRIOR TO USE, READ AND UNDERSTAND PRODUCT SAFETY INFORMATION AND THIS USER MANUAL.

Failure to follow these safety instructions may result in **ELECTRICAL SHOCK, EXPLOSION, or FIRE**, which may result in a **SERIOUS INJURY, DEATH, DAMAGE TO DEVICE or PROPERTY**. DO NOT DISCARD YOUR USER MANUAL.

Introduction

THANK YOU

Thank you for purchasing this Antigravity RE-START Battery. The RE-START Series represents the latest in Lithium-Ion Technology for Automotive Starter Batteries and offers great starting performance as well as incredible weight savings over Lead/Acid Batteries. The dramatic weight savings aids in handling improvements, shorter braking distances, better acceleration and even better mileage. On average a 35lbs weight reduction can be had by using the RE-START battery!

OUR PATENTED RE-START FEATURE OFFERS THESE BENEFITS:

- 1) Each RE-START Battery comes with Wireless Built-In Jump Starting, so you will never be stranded with a dead Battery and unable to start your car. For example if you leave your lights on, the Antigravity RE-START Battery will intelligently monitor the battery's Voltage and, just before going dead, it will put itself to sleep, yet save enough reserve energy for a few emergency starts. In the event you come back to a dead battery, simply press the Wireless Keyfob's button to turn the battery "ON" again, start the car and drive away. No need for a Jump-Starter or roadside assistance.
- 2) Additionally, the Antigravity RE-START battery has a full Battery Management System (BMS) onboard with protections against Over-Charge, Over-Discharge, Short-Circuit, and Thermal protections. It also has Cell Balancing for the longest life. The benefit of all these protections makes for an exceptionally safe battery that can last up to 8 years!

For more information feel free to Contact us.

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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. 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 on batteries.



Explosion. Batteries can spark! The potential of Explosion exists if batteries are used around areas where flammable fumes or high dust content is present. Do not attempt to jump-start a damaged or frozen battery. Do not mix battery chemistries such as lead/acid and lithium batteries. Do NOT charge this battery with a LEAD/ACID Battery Charger. Use only approved Lithium-Ion Chargers.



Fire. Use Battery only as intended. Do not leave any battery unattended while charging. Do not jump-start damaged or frozen battery. Do not mix battery chemistries. Use only approved Lithium Chargers to charge this battery.



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

1 PERSONAL PRECAUTION

Only use product as intended. When working on or around this battery, 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 is dropped onto 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.

2 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. Do not handle product or any electrical components near any liquid. Store and operate product in dry locations.

3 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.

4 ACCESSORIES

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

5 LOCATION

Make sure product is installed correctly. Position cable leads to avoid accidental damage by moving vehicle parts (including hoods and metal parts), moving engine parts (including fan blades, belts, and pulleys), or what could become a hazard that may cause injury or death. Do not install next to metal objects that could cause a short-circuit. Failure to follow guidelines could result in fire, death, personal injury, or property damage.

6 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.

7 RADIO FREQUENCY INTERFERENCE

Product is designed, tested, and manufactured to comply with regulations governing radio frequency emissions. Such emissions from this product can negatively affect the operation of other electronic equipment, causing them to malfunction.



Safety Warnings (Continued)

8 OPERATION TEMPERATURE

This product is designed to work in ambient temperatures between -5°C to 60°C (23°F to 140°F). For best performance do not operate outside of temperature ranges. Do not jump-start a frozen battery. Do not charge a frozen battery. Only charge within the range of 0°C to 45°C (33°F to 113°F). Discontinue use of product immediately if the battery becomes excessively warm.

9 STORAGE

Store your product on a 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.

10 COMPATIBILITY

The product is only compatible with 12-volt stock systems in vehicles. Do not attempt to use product with any other types of batteries or in series or parallel; the interior electronics will be damaged. Use with or Jump-starting other battery chemistries may result in fire, explosion, injury, death or property damage. Contact Antigravity Batteries prior to attempting to jump start the battery. Do not jump-start a battery if you are unsure of the battery's specific chemistry or voltage.

11 THE BATTERY

The built-in lithium-ion battery in the product should be replaced or serviced only by Antigravity Batteries, and must be recycled or disposed of separately from household waste. Do not attempt to service or replace the battery yourself and do not handle a damaged or leaking lithium-ion battery. 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 an odor, deformed, cut, or is demonstrating an abnormal occurrence, immediately stop all use and contact Antigravity Batteries (info@antigravitybatteries.com).

12 BATTERY CHARGING

Use only approved Lithium-Iron Phosphate specific chargers for 12.8v LifePo4 Lithium Chemistries with this battery. 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.

13 MEDICAL DEVICES

Product may emit electromagnetic fields. Product contains magnetic components which interfere with pacemakers, defibrillators, or other medical devices. Consult with your physician prior to use if you have any medical device including pacemakers. If you suspect the product is interfering with a medical device, stop using the product immediately and consult your physician.

14 CLEANING

Power off the devices before attempting any cleaning. Clean and dry product immediately if it comes in contact with liquid or any type of contaminant. Use a soft, lint-free (micro fiber) cloth. Avoid getting moisture in openings.



Contents

- 1 pc- RE-START Battery (though sizes may differ, operation will be the same for all models).
- 2 pcs -Wireless Keyfobs to remotely turn ON the RE-START (built-in Jump Starting) feature.



RE-START BATTERY



WIRELESS KEYFOBS

Specifications

BATTERY TYPE: Lithium Iron-Phosphate (LifePo4) with built-in Battery Management System

VOLTAGE: 12.8V (nominal)

CAPACITY: 24-80 Ah (see battery label)

CRANKING AMPS: 1000-2000 peak (see battery label)

DIMENSIONS: (varies per model)

WEIGHT: 8-25 lbs (varies per model)

MAX CHARGING RATE: 20 Amps

MAX CHARGING VOLTAGE: 14.6V

CHARGER TYPE: Lithium-Iron Phosphate for 12.8V Batteries



Installation of RS-Series



IF UNSURE, HAVE A PROFESSIONAL INSTALL THE BATTERY

Before Installation make sure the location of the Antigravity Battery will be free from potential short-circuiting of the cables, terminals and other electrical connections. Be aware of other potentially dangerous situations including moving parts or extremely hot parts such as exhaust pipes. Make sure your Charging System is in good operating condition and not charging above 14.6v.

The Antigravity Battery is designed to be a “drop-in” replacement for Lead/Acid Batteries provided you bought the same Group Size as the Lead/Acid Battery you are replacing. You will be using the same mounting hardware as the original battery. Due to the differences in vehicles we cannot give specific instructions. So we ask that you have a professional install the battery if you are not familiar with replacing a Car battery.

PLEASE NOTE: Some Modern Cars may need to be “Coded or Registered” in the Car’s onboard Computer System when a new battery is installed. This is a process for professionals who have the Equipment to do this.



BATTERY INSTALLATION

Remove the existing Battery in the Vehicle, install the Antigravity Battery and securely mount in place. Connect the Vehicle’s Positive Cable to the Positive Terminal (“+” symbol) of the battery, then install Negative Cable to the Negative Terminal (“-” symbol) of the battery. Start vehicle and check Installation for potential hazards.



Antigravity Battery Overview



ABOUT THE RS SERIES

The Antigravity Lithium-Ion Battery is a fantastic replacement for Lead/Acid Starter Batteries. It operates as a direct replacement for your Lead/Acid Battery, works great in START/STOP Cars and charges fine in all vehicles using the standard Automotive 12-Volt Charging System. But where it really offers benefits is in its extreme cranking power, massive weight reduction and long life. Its incredible weight savings actually increase your vehicle's performance in several key areas such as handling, decreased braking distances, improved acceleration and even better gas mileage.



GENERAL OPERATION

The Antigravity Lithium Battery operates and functions the same as any Lead/Acid Battery while in your vehicle. However, you should only use a Lithium-Ion, Lifepo4 12.8v Charger/Maintainer rather than a Lead/Acid type. The Lead/Acid Chargers can damage lithium batteries due to their different charging characteristics such as a "De-Sulphate Mode" which is not intended for use on Lithium Batteries.

Use only a Lithium-Specific Charger/Maintainer designed for 12.8v Lifepo4 Lithium-Ion Batteries and not exceeding a 20 Amp Charge rate, or above 14.4v when charging.



USING THE RE-START FEATURE (BUILT-IN EMERGENCY JUMPSTARTING)

The Antigravity Lithium Battery RE-START feature acts as a built-in Jump Starter. The RE-START feature will allow for a few emergency start attempts if the battery is ever over-discharged.

RE-START feature should only be used as an Emergency starting method. It should not be activated during normal battery operation. Use in non-emergencies could damage the battery.



ACTIVATING RE-START (IN EVENT BATTERY ENTERED SLEEP MODE)

- 1) Prior to attempting to start the vehicle, you should turn Off all items like Lights, Air Conditioners, or other Accessories. This will allow all power to go to the emergency re-start.
- 2) There are two ways to activate the Re-Start feature:

A) KEYFOB: Use the provided Wireless Keyfob to turn "ON" the battery. Simply press the area of the Keyfob that says "PRESS". The battery will turn "ON" and you will then start the vehicle. When using this method, the RE-START feature will Automatically turn off after 10 minutes, so there is nothing more to do after starting; simply drive the car.

B) MANUALLY: To operate the RE-START feature "Manually" you would press the RE-START Button located on top of the battery. You will notice it lights up in a RED color. At that point start your car and leave running.

You MUST return to the battery and TURN-OFF the RE-START Button when Manually activating. Failure to do so will damage battery. Turning off RE-START Button is only necessary when MANUAL operation is used.

After starting, immediately drive the vehicle at least 30 minutes for a partial recharge, or one hour for a full recharge, or place the battery on a Lithium Charger to fully recharge.



Overview (Continued)



WARNINGS FOR USE OF RESTART

- 1) The RE-START feature is for Emergency use. It should only be used if you come back to the vehicle with a dead battery. It does not take the place of regular maintenance and charging of your Battery. Please maintain your battery appropriately if storing or not driving often.
- 2) The RE-START feature may not work as intended in extremely cold weather, or if you have not sized your battery correctly. There is a minimum of Reserve Capacity available, so if you have a Hi-Performance Motor that requires higher Cranking Amps you may need to make sure you have sized the battery correctly for your application. A larger Amp Hour Capacity of the Antigravity Battery is required for extreme cold weather.
- 3) After using the RE-START feature you MUST re-charge your battery again by either driving for a minimum of 30 minutes or by putting the battery on a Charger. Keep in mind your battery is severely over-discharged if you have needed to use the RE-START feature, so it must be RE-CHARGED.

Battery Care & Maintenance



CHECKING THE BATTERY

The Antigravity Battery does not require maintenance for the most part, but as with any battery, it should be checked once every few months as a precaution. The Antigravity Battery does not have any liquids/fluids to check. The basic check is a visual inspection of the Battery; make sure the mounting is secure, and check the voltage and state of charge. The key to long life for any battery chemistry is to not allow the battery to get below 10.5v in general. Below 10.5v, damage to the cells may occur, and the lower the voltage, the more potential for damage.

Fortunately, with our RE-START Technology and built-in BMS (Battery Management System) you should not have to worry about over-discharge or going below 10.5v. This is because our RE-START Technology senses the low-voltage of the battery and puts it to sleep well before damage can be caused to the battery. So, even if you leave your lights on, the battery will shut-off before damage occurs. But you should still check your battery every few months.

Even with the RE-START Technology, the battery can drain within 4-6 months while in Sleep Mode. So when not in use, or in storage, you should check the battery's voltage every 3-4 months. Also note that even though the RS-Series has built-in protections, make sure to fully recharge the battery if you have used the RE-START feature.

The RE-START feature is for emergency use, not something to take the place of standard maintenance, and keeping the battery charged!



CLEANING

To clean the Antigravity Battery, use a clean dry cloth. Do not use harsh chemicals or solvents, DO NOT directly spray the battery with a Pressure Washer or Hose.



STORING

To store the Antigravity Battery put it in a cool dark place and protect the Terminals with the plastic cover your battery came with. Check Voltage once every 3-4 months when in storage, and if connected to your car, check monthly.



Troubleshooting

1 NO VOLTAGE AT TERMINALS

The Battery might be over-discharged and put itself into "sleep-mode". Press the RE-START Button and again check for Voltage. If Voltage shows, then turn off RE-START button, and charge the battery with a Lithium (Lifepo4 12.8v) specific charger and re-charge the battery fully.

2 WILL NOT HOLD CHARGE

Battery will not hold a charge in vehicle more than a few days or weeks without going into SLEEP MODE: This is most likely caused by your vehicle having a fast "Parasitic Drain" on the battery. Many modern cars/vehicles have high milli-amp draws due to onboard computers, theft alarms, interior lights, GPS systems and other accessories. These items use the battery's energy and in some cases quite rapidly.

If you are experiencing this effect, then you may have to connect the Battery to a Lithium specific Charger/Maintainer if you are not driving often enough to recharge the battery. For example some Sports Cars are not driven as the daily driver and sit for longer periods of time, yet they have on-board computer systems or accessories that draw significant energy from the battery. In this case you may be required to keep the battery on a Maintainer during low use times to prevent the battery from over-discharging.

3 BATTERY IS SLUGGISH IN COLD TEMPERATURES

Cold weather (39F and below) creates resistance in Lithium batteries. On the initial start attempt, you may notice sluggish starting performance. There is nothing wrong with the battery and with the next start attempt, the battery power will come back as the battery self-warms from the Current-Discharge during the start attempt. Another method to self-warm the battery is to turn on your lights for a few minutes before attempting a start. Depending on the size of the motor, and the Amp Hour Capacity of your Battery, this may or may not be an issue for you, or have any effect on the starting performance of the battery in cold weather.



Warranty (Non-Transferable)

1 WARRANTY PERIOD

For full Warranty terms and information visit our [Warranty page](#).

All warranty claims are handled by Antigravity Batteries directly. All warranty claims must be accompanied by the original receipt from your retailer or your Antigravity Batteries Invoice. Antigravity Batteries LLC warrants to the original purchaser that our batteries are free of defects in material and workmanship for the Prorated term of 5 years. This will encompass a 3 year Direct Replacement period, with the final 2 years being prorated. All batteries must be registered within the first 30 days from the original purchase date or original purchaser must provide copy of original receipt in order to be eligible for a warranty claim. Warranties are non-transferable. Returns will only be accepted from the original Purchaser.

2 WARRANTY DOES NOT COVER

- 1) Any physical damage caused by abuse, negligence, improper installations, or lack of general maintenance.
- 2) Any modification to any part of the battery or its parts, any disassembly of the battery.
- 3) Damage from direct "short-circuiting" of the battery caused by improper use or installations, grounding problems or accidents.
- 4) Use of any Chargers intended for Lead/Acid batteries: Trickle chargers, Battery Tenders, etc. **DO NOT USE LEAD ACID CHARGERS.**
- 5) Use of Chargers NOT intended specifically for Lifepo4 Lithium Batteries, or with a maximum charge voltage over 14.6 volts.
- 6) Overcharging due to a defect with vehicle's voltage regulator or defective charging system, or performance charging systems.
- 7) Overcharging battery above 14.6 volts, OR Overdischarge of battery below 10.5 volts.
- 8) Excessive over-cranking, or using the incorrect size battery (too small a battery where a larger battery is needed).
- 9) 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.)
- 10) Parasitic drains that discharge the battery to below 10v (please check your electrical system and accessories for parasitic drains).

3 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.

ANTIGRAVITY BATTERIES LLC LIABILITY IS LIMITED TO REPLACEMENT OF THE BATTERY ACCORDING TO THE TERMS STATED ABOVE. ANTIGRAVITY BATTERIES WILL NOT BE RESPONSIBLE FOR ANY EXPENSES FOR INSTALLATION, TOWING, ELECTRICAL SYSTEM TESTS, CHARGING A BATTERY, LOSS OF TIME, OR OTHER EXPENSES WHICH WOULD BE CONSIDERED AS INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY DOES NOT COVER DAMAGE TO THE BATTERY CAUSED BY ABUSE OR NEGLIGENCE, A FAILURE TO KEEP THE BATTERY PROPERLY CHARGED OR MAINTAINED, FIRE, COLLISION, EXPLOSION, FREEZING, THEFT, OVERCHARGING, OR DAMAGE CAUSED BY MODIFICATIONS.

This warranty shall be IN LIEU OF any other warranty, express or implied, including but not limited to, any implied warranty of MERCHANTABILITY or fitness for a particular purpose.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS, WHICH MAY VARY BY STATE.



Warranty (Continued)



REGISTERING YOUR BATTERY

You must register your Antigravity Battery product in order to validate the Limited Warranty. You can register the product Online at our [Registration](#) page. Complete the requested information and click "send".

Contact Us

When you need help or have questions, our knowledgeable support team is here for you! Please feel free to call us during our Office Hours 7:30am-4pm Pacific Time, Monday-Friday; or you can write to us any time!

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VISIT OUR WEBSITES FOR MORE COOL PRODUCTS, ACCESSORIES AND INFO

ANTIGRAVITYBATTERIES.COM

THEMICROSTART.COM

