



BATTERY & CHARGER TIPS

Battery Types:

- **Lead Acid in Water Base (AGM)** – EV Rider scooters use sealed lead acid batteries.
- **Lead Acid in GEL Base (GEL)** – Gel-based batteries are used for cold climates because the gel has a lower freezing temperature.
- **Lithium Ion** – Will be introduced when reliable and economical.

Battery Usage:

- **Surge Protectors** – Always use a surge protector. The US electricity grid is deteriorating over time. Your charger will thank you!!
- **Initial Charging** – All EV Rider units arrive with a fully load-tested but the battery is still on it's 'storage' charge. Before using an EV Rider unit for the first time, the end-user must charge the battery for 4 – 6 hours. Running on the 'storage charge will damage the scooter's controller.
- **Battery Replacement** – Batteries must be used in matched pairs with the same manufacturing date code. AGM batteries cannot be used with GEL batteries. EV Rider chargers do not operate with GEL batteries.
- **Charging** – Always fully charge the batteries before use or on a daily basis. Overcharging is not an issue with current charger technology. Today's chargers are 'voltage limited' and will shut off automatically. MK AGM batteries do not have a "use it or lose it" capacity robbing effect known as "memory."
- **Usage Estimates** – Manufacturer usage specifications are based on hard flat surfaces with *average* load capacities for each model. Characteristics vary: weight, riding style, local terrain, primary use, etc. High load weights and hilly terrain will deplete the battery faster.
- **Storage** – When storing, you **MUST** complete one full charging cycle every month or the batteries will dry out. Fully charged AGM batteries can hold a charge for up to 6 months, but they should always be fully charged before use.
- **Temperature During Storage** – Avoid hot and cold extremes. Lead acid (AGM) batteries w/no charge may freeze. With a 40% charge, their solution will freeze at approx. 16° F (-9° C). Fully charged batteries freeze at approx. -92° F (-69° C).
- **Commercial Use** – Commercial clients usually purchase an extra battery box set for rotating use.

Battery Lifecycle:

- **Life Cycle** – Most batteries have a life is measured in "Charging Cycles." Approximately 175 charging cycles are expected for a set of batteries.

Charger Tips:

- **Chargers** - All chargers are dedicated to the model type. You cannot use the charger from one model on another model. Doing this will burn up the charger and void the warranty. **Not all chargers have the same polarity.**
- **Charger Types** – There are (4) ways to charge the batteries: The main charger types are:
 - **Off-Board Chargers** – All EVR scooters come with an "off-board" charger. These chargers are small, external to the unit, and are carried with the unit (in the back pocket of the seat or in the basket).
 - **On-Board Chargers** – Are hard-wired to the unit at all times. EV Rider does not sell this type.
 - **Charging Adaptors** – The Batteries are placed in a tray and brought into the house. The Charging adaptor plugs into an outlet for in-home charging.
 - **Car Chargers** – For charging batteries in between rides while traveling. Make sure your vehicle is running while you are charging to prevent draining down your car battery.

Note: Never use an automotive or 'wet-type' charger on Sealed Gel or AGM batteries. It will damage them.



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Charger Tips Cont'd:

- **Depth of discharge** – The harder a battery has to work, the shorter it's life expectancy.
- **Extreme Use** - Avoid deep discharging and never drain your batteries completely.

The EV Rider Battery Warranty:

- Batteries are warranted for (6) months from the purchase date. Batteries that come *with the unit for free* (Classic, Elite & Gusto) are fully tested to ensure function, but cannot be warranted. You may inquire about purchasing replacement batteries under warranty.

The EV Rider Charger Warranty:

- Chargers are warranted for (1) year under the electronics portion of the overall EV Rider General Product Warranty. SNR chargers are warranted for (6) months under the SNR Product Warranty.
- **WARNING - How to void your EV Rider Charger Warranty:**
 - Do NOT use your charger with Gel Batteries – doing this will void the warranty.
 - Do NOT open the charger for any reason - you will void the warranty.
 - Do NOT use the charger on another scooter – even if the plug fits. Doing this may burn up the charger and void the warranty.

Safety – Batteries Can Be Hazardous:

- Dropping a tool or touching a watch or bracelet across the terminals can result in an electrical shock, sparks, smoke, fire and even an explosion. Use extreme caution around exposed battery terminals.
- Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.
- BE CAREFUL! Batteries produce explosive gases. Keep sparks, flames & cigarettes away from batteries at all times. ALWAYS wear safety glasses and a face shield when working on or near batteries. Do not install in an airtight container.
- DO NOT ATTEMPT TO OPEN VENTS.
- All old batteries are considered “hazardous material” and must be recycled through an approved agency. Lead-acid (AGM) batteries are 100% recyclable. Be sure to return your used AGM batteries to a retailer. In most areas, it is illegal to discard such batteries in the trash. UPC codes and serial numbers can trace ownership.

Traveling w/Batteries:

Note: Scooter damage by airlines is extremely common. Photograph your scooter when handing it off to baggage handlers or carrier staff.

- AGM MK Batteries are sealed and safe for air travel.
- EV Rider will provide a **Safety Certification Letter** to document batteries for travel.
- Ride to the Gate & Hand Load: Classics & Elites
- Checked Baggage: Gusto & SNR
- Cargo Freight: Royale & Vita
- **Serious Tip:** Take a photo of your scooter with the airline staffer you hand it too. Tell them to smile.