

Power Chair Batteries

Rules & Instructions

5 Battery Rules to Live By:

1. Know the size of the batteries in your power chair, and recognize range limitations.
2. Understand that some uses discharge power chair batteries quicker than others - be aware of how your uses affect your power chair's range each day, i.e. tilt.
3. Don't abuse your batteries by discharging them beyond practical need.
4. Charge your power chair correctly and completely after each day's use.
5. Replace older batteries before there's an issue, i.e. noticeable decline in range.

Power Chair Battery Rules To live by

Users who attentively follow simple battery rules can dramatically increase their power chairs' performance, all but eliminating ever having battery issues.

1. Recognize Real-World Ranges

Like all energy reserves, power chair batteries have limitations in how much power they can store and deliver. Like an automobile's gas tank, the larger a power chair's battery, the farther it can travel. As a result, in selecting a power chair, it's vital to understand the size of batteries that you require per your lifestyle, and realistically how far you can travel.

Battery Size	Real-World Range*
U1 30Ah - 40Ah	10- to 12-miles
NF22 50Ah – 60Ah	11- to 14-miles
Group-34 60Ah	12- to 15-miles
Group-24 70Ah to 80Ah	14- to 16-miles
Group-27 95Ah to 105Ah	18- to 22-miles

***Ranges are approximate, varying among individual powerchair models.**

Real-world ranges reflect the realistic distance a power chair may travel per charge (as opposed to ideals listed on many power chair brochures). For example, a fully charged, 6.5mph power chair with Group-24 batteries, traveling around town on reasonably hospitable terrain of sidewalks and sporadic grades, will travel between 14- to 16-miles, at which point it will reach 80% to 90% discharge. However, range is dramatically affected by individual use. Maneuvering a power chair on carpet in a house at low speeds can use two to three times the current draw as a high-speed outdoor run (like accelerating a bike from a stand-still, it takes a lot of power to turn and accelerate a power chair from a stop). Similarly, grass, gravel, and other rough, soft terrain can prove taxing on a power chair's range. Pay close

attention to the conditions under which you operate your power chair, and know how they affect its range - that is, if you zip around your house all morning, you likely don't want to then try racing 5-miles across town, then back.

2. Respect Your Batteries' Depletion Levels

From day one; battery depletion should be treated with care. The fact is, drained batteries lead to sulfating and other life-robbing states, decreasing battery performance. (In fact, according to battery researchers, a deep-cycle battery that's only discharged 50% every day, then recharged, will last about twice as long as if it is discharged to 80%). Now, this doesn't mean that power chair batteries can't be discharged to 80% when use dictates.

However, if you wish to get the greatest range and life span out of your batteries, try not to dramatically discharge them day after day.

3. Be in Charge of Charging

Without question, proper charging is the most important step in maintaining battery performance. Power chair batteries should be charged as soon as possible after each day's use (again, drained batteries invite issues, where sulfating can begin with 24-hours of a battery's discharge). Whether you use the power chair for one hour or sixteen hours per day, charge the batteries each night after use.

In the charging process, make absolutely certain that your charger is functioning correctly every time you plug in your power chair - look for the charger's meter to register or for its lights to properly illuminate. Before unplugging the chair at the end of the charge cycle, always confirm that the charger unquestionably shows that the charge is complete.

Except in cases of urgency, you should never use a power chair that isn't finished charging. It's important to note that a charge time of 8-, 10-, or 12-hours is sometimes required for significantly discharged power chair batteries, so don't underestimate time needed for a complete charge. Additionally, do not rely on your power chair's joystick battery gauge to check if a charge is complete.

Charge your power chair accurately and completely after every day's use.

4. Don't Wait Until It's Too Late to Get New Batteries

If you are a daily power chair user, who follows the above rules, the average life span of your batteries will likely prove 1-1/2 to 2 years. Obviously, if you witness consistently decreased range - while practicing proper use and charging - you should have your batteries checked and replaced, if needed, as soon as possible. On the other hand, if your batteries are 1-1/2 or 2 years old, and all seems fine, it's wise to replace your batteries at that point - don't wait until there's a problem. Most insurers fund new batteries annually, and replacing your batteries on a regular schedule will all but eliminate experiencing a sudden drop in range due to failing batteries.