



# Safety & Maintenance Guidelines For The HME Battery User



## The Benefits Of An Advanced Sealed Gel and AGM Battery.

Battery technology has changed tremendously in just the past few years. In fact, size-for-size, MK's advanced sealed Gel and AGM batteries deliver more power and more consistent performance than other types and brands of batteries used for mobility. MK's performance-proven sealed Gel and AGM designs:

- Can last longer than other batteries due to high quality manufacturing standards.
- Are A-67 DOT/FAA/IATA Standard approved for airline and public transportation.
- Do not need to be fully discharged before recharging.
- Do not develop a "memory" that limits their recharging.
- Will not automatically discharge if put on concrete.

While MK sealed Gel and AGM batteries aren't among the lowest priced brands, like a good set of radial tires for your car, they're designed to enhance performance and safety, last longer and, ultimately, be more cost-efficient.

## Take A Tip From Top Mobility Equipment Makers.

There's a simple reason why MK is the Number One brand of mobility battery among all major wheelchair manufacturers and leading rehab equipment suppliers. These industry leaders cannot afford to have their reputations riding on anything but the best power source available.

That's why the MK Powered name is your assurance of getting the best battery available for your wheelchair, scooter or other mobility device.



## You'll Cover More Ground With An MK Battery.

Although a wet lead-acid design is initially less expensive, a wet lead-acid battery has a much shorter service life, requires regular maintenance and poses a much higher safety risk because of potential battery acid contact and/or explosion.

An MK Gel battery features an inherently safer, truly maintenance-free design. MK Gel batteries have provided years of proven performance and a significantly longer life - averaging 1 to 2 years or longer when properly charged.

MK Battery also offers a line of AGM (absorbed glass mat) batteries for lighter duty mobility use. Although AGM batteries will not match the cycle-life performance of our Gel batteries, they do offer a lower initial cost and will supply sufficient functionality to meet the less critical needs of certain lighter duty mobility applications. For heavy daily use and traditional rehab applications, continued utilization of our heavy duty Gel batteries is highly recommended.

## Safety: First, Last And Always!

All batteries can be hazardous. So, always read and follow the instructions and warnings attached to any battery you purchase.

All mobility batteries contain lead and sulfuric acid. Both elements are toxic and considered dangerous. In addition, when they are charged, batteries produce hydrogen gas, which is highly flammable and can cause an explosion.

Proper handling of batteries is mandatory at all times. Improper handling may result in any of the following:

- **Explosion!** – Improper charging, poor maintenance or battery failure can cause low acid/electrolyte levels, resulting in high concentrations of hydrogen gas within the battery. This could potentially cause an explosion. While possible with all batteries, an explosion is much less likely in sealed Gel and AGM batteries.
- **Fire!** – Dropping a tool or touching a watch or bracelet across the terminals can result in a shock, sparks, smoke and even an explosion.
- **Pollution** – All old batteries must be recycled through an approved agency to prevent improper disposal. MK Battery uses only EPA certified smelters. Improperly disposed batteries can result in major fines and criminal prosecution.

**REMEMBER:** Always have your batteries installed by a properly trained wheelchair or scooter technician. They have the proper training and tools required to do the job safely and correctly.



## Proper Battery Charging Procedures.

To properly charge your mobility battery, follow these simple procedures:

- Use the manufacturer's automatic charger for all routine charging.
- Never use an automotive or wet-type charger on sealed Gel or AGM batteries. (This will damage your battery).
- Never run your battery completely flat.
- Don't "top off" the battery with frequent charging.



### How often should a battery be charged?

- **Daily Users** – Charge daily. This applies to anyone who actually uses their equipment for community mobility outside the home.
- **Occasional Users** – Charge your battery before an outing and always after active use (ideally when the "fuel gauge" is at about 50%).

### How should a battery be stored?

- Always store your batteries FULLY CHARGED.
- Check all batteries once a month and recharge as needed.
- Sealed Gel and AGM batteries can hold a charge for up to 6 months.
- When storing a chair or scooter for more than 2 weeks, charge the batteries and then disconnect them.
- Avoid hot and cold extremes when storing.



## All Mobility Batteries Are Not Created Equal.

Do you know the difference between an “SLI” (Starting Lighting and Ignition) versus a “deep-cycle” battery? What about a “wet lead-acid” versus a sealed Gel or AGM battery?

In virtually all wheelchair, scooter and other mobility applications, a deep-cycle, sealed Gel or AGM design is best. And here’s why:

- SLI’s are automotive-type “starting” batteries designed to provide rapid bursts of power. While they can be recharged quickly via alternator, the number of times they can be recharged is relatively few.
- Deep-cycle batteries, unlike SLI’s, are specially designed to provide a more constant flow of power for a longer period of time. They’re also designed to be charged and recharged hundreds of times.
- Wet lead-acid batteries need to have water added on a regular basis and are not recommended for mobility use.
- Sealed Gel or AGM batteries are exactly that – sealed – and need no additional water. Truly “maintenance-free,” they provide extra convenience and safety.
- NOTE OF CAUTION: Many marine batteries are actually SLI batteries which have no application in wheelchair or scooter use. Also, not all Gel and AGM batteries are approved for air transportation as non-hazardous cargo. MK’s sealed Gel and AGM batteries are approved for airline travel.



## Who We Support and Why They Support You!

Many believe that mobility equipment is just another commodity item and that one size fits all. We believe that mobility devices should be provided to individuals to meet individual needs. We support the following organizations that fight for your right to obtain appropriate mobility equipment.

- **NRRTS - National Registry of Rehabilitation Technology Suppliers**
- **RESNA - Rehabilitation Engineering Society of North America**
- **AA Homecare**
- **CAMPS • NEMED • PAMES**
- **PAMS • WAMES • MAMES**

We support the Darrell Gwynn research fund at The Miami Project to Cure Paralysis. For more information, call: **800 STAND UP** (800-782-6387).



## There’s Only One Place To Buy Mobility Batteries.

MK Batteries are sold exclusively through HME suppliers throughout North America. MK does not sell direct to consumers for one reason. The best source for your batteries is the well-trained wheelchair technician at your local supplier. They know your equipment, inside and out, and which batteries best fit your mobility equipment’s specific needs. For quality MK Battery products and peak performance, visit the following authorized MK Battery supplier:



MK Battery supports and endorses the new ANSI/RESNA Sealed Battery Standard for mobility equipment.

# The HME Battery Guide



## Compliments of MK Battery



## What Are Your Freedom and Independence Really Worth?

Battery-powered mobility systems provide thousands of Americans with additional freedom and independence.

None of these ingeniously designed vehicles, however, can perform to their full potential without a top-quality battery as the fuel source.

In fact, choosing the right battery for your equipment can enhance performance and safety, simplify charging and maintenance and, in the long-run, save you time, money and peace of mind.

Before you buy any battery, take a few minutes to review the facts and tips this guidebook provides. They include:

- **Types of Batteries**
- **Proper Charging**
- **Facts About Performance**
- **Routine Maintenance**
- **Safety Concerns**
- **Where To Buy**

This guidebook will help you maximize your current battery’s performance and, better still, help you make a smart decision when it’s time for replacement. All of this adds up to greater freedom and independence.

## Getting Started With New Gel Batteries

Active power wheelchair users deep cycle their batteries daily. This stringent application requires a unique battery design that compromises initial capacity for the sake of long life. The most obvious indicator of a high quality deep cycle Gel battery is that it requires 15-20 cycles before reaching full capacity. Deep Cycle Gel construction requires a break-in period to fully activate the battery. Durability and Longevity is the consumers’ reward.

**Be Patient - Be Rewarded**



AGM batteries, for lighter duty mobility applications, require no break-in period, however, their cycle life can be considerably shorter than that of Gel batteries.