

# BATTERY CHARGER AND BATTERIES

## ***Purpose***

Batteries and their chargers are specifically designed to provide a prolonged charge for your mobility equipment. Batteries and battery chargers come in many different types, sizes, and amperages.

## ***Types***

Batteries are specifically designed to provide a specific power output to meet your equipment needs. It is essential that you obtain your batteries and chargers from a medical equipment supplier. Batteries for power-operated vehicles are very different from their automotive or marine counterparts. Car batteries have cranking amps and are designed to provide all their power when you start your car. A deep-cycle battery, for your power-operated vehicle, provides a consistent power supply.

There are two basic types of batteries, wet or lead acid, and sealed. Wet batteries have electrolyte (battery acid) that must be filled and maintained and will spill when tipped over. Sealed batteries have their electrolyte solution sealed in chambers or solidified in a gel material. They are maintenance-free and never need water.

Chargers also come in different models and are specific for different battery types. Make sure your charger is designed to charge the batteries installed on your mobility equipment. Most chargers will automatically stop charging when batteries are fully charged. If you have an older model you may have to disconnect the charger when the batteries are fully charged.

## ***Use***

If you are a daily user, charge daily. If you are an occasional user, charge before use and always after active use. Ideal recharging is at about 50% charging level. If you have any questions, please call your medical equipment provider. All newly installed batteries should be fully charged before initial use.

To get the most out of a battery charge, the following tips are recommended:

- Fully charge the batteries before use.
- Plan your route on flat surfaces (avoid hills and uneven surfaces).
- Reduce weight being transported in storage compartments.
- Maintain an even speed and avoid frequent stopping and starting.

## **Safety**

The safe use of batteries requires it to be used as instructed, which includes the following safety precautions:

- Never attempt to recharge batteries by attaching cables directly to battery terminals.
- Do not recharge batteries while operating the equipment.
- Do not recharge batteries if batteries or equipment have been exposed to moisture.
- Do not sit in or on equipment when recharging batteries.
- Always make sure charging cords have been unplugged and stowed properly prior to operating equipment.
- Do not use any three (3) prong to two (2) prong electrical adapters.
- Do not use an extension cord when connecting the battery charger.
- Place your mobility equipment in a well ventilated area when installing and removing batteries.
- Lift batteries with an approved battery lifting strap.

## **Maintenance**

Wet acid batteries have an electrolyte solution that must be checked and maintained each month. Only fill the chambers with *distilled* water up to about ½ inch over the battery separators. Overfilling or under filling will cause battery damage and reduce performance. Sealed batteries require no maintenance except keeping terminals free from corrosion and making sure cable connections are secure.

Always disconnect batteries from the power source and wear eye and skin protection when maintaining. Never allow any tools and/or battery cables to contact both battery terminals at the same time. In addition, always check the battery box (or area) for damage due to battery acid leaks. If you do not have the facilities to work safely on your batteries, your medical equipment provider can perform these duties. It is recommended that only qualified personnel perform battery replacement or installation.

When your batteries start to require more frequent recharging or take longer to charge, it is recommended that you have them replaced.

## **Storage and Disposal**

Always store your batteries fully charged. Check them once a month and recharge as needed. Cold environments may require additional checking and charging. Never store batteries around any combustible or flammable material.

All batteries must be disposed through an approved source. Do not place batteries in your trashcan. Your medical equipment provider can assist you with battery disposal.