Fact Sheet 18

Maximise Performance

How to extend the lifespan of your batteries…

NO VEHICLE performs to its full potential without an efficient fuel system. Electrically powered wheelchairs and scooters are no exception.

The batteries fitted to powered wheelchairs and scooters act as their fuel tanks and should be topped up and well maintained accordingly if users are to enjoy the full freedom and mobility they expect.

Because mobility batteries are 'Traction' or 'Deep Cycle' type batteries they start with a very low capacity and over a period of time the capacity (available power) builds up and eventually peaks at its maximum level.

This will affect the range of powered vehicles, from 60% to 100% of the stated range, depending on the number of charge cycles. Therefore, in its early life, it will appear to have low power (approximately 50% capacity available).

After using the batteries between 10 and 15 times (charge/discharge) the battery should achieve almost 100% of its capacity.

The British Healthcare and Trades Association (BHTA) have issued some battery guidelines with the cooperation of leading mobility vehicle manufacturers and battery manufacturers.

There are around 350 BHTA member companies with over 17,000 employers who manufacture and retail assistive technology products and services.
Here they answer some of the most frequently asked questions about batteries.

Q. What is the best way to commission/prepare mobility batteries in order to get the most out of them?
A. Even though your mobility supplier should have fully charged the batteries on your equipment prior to delivery, it is always a good idea to charge the batteries before first use.
Once you have finished for the day put the batteries on charge and LEAVE them on charge until you next need to use them.
The cost of overnight charging is minimal and, as long as a suitable automatic charger is being used, there is no reason to disconnect the charger until the equipment is next needed for use.

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Q. What lifespan can I expect from my batteries?
A. Although BHTA member manufacturers normally offer a 12-month warranty against manufacturing defects on batteries, mobility batteries should deliver an average lifespan of up to 18 months, depending on usage.
In a light mobility application the battery could deliver up to three years lifespan. In a much heavier application, such as powered wheelchairs, the lifespan could be between 12 and 18 months.

Q. What are the factors that can affect range on powered mobility equipment?
A. Weight of the vehicle or user, ambient temperature, state of battery charge, tyre pressures and terrain can all affect the range of a battery.
If the temperature ranges outside of out yearly averages i.e. above 35 degrees Celsius and below freezing, this will affect the range of the battery.
If the battery's 'state of charge' is low, then consequently the battery capacity will be low.

Q. Can my batteries be transported by air?
A. Most sealed mobility batteries can be transported by aeroplane. Your battery or wheelchair supplier can provide an IATA Certificate to prove this.
Alternatively, the battery may be marked on top with a sticker explaining it is IATA approved.

MORE BATTERY TIPS

Never run your batteries completely flat. Take care not to leave lights or any other auxiliary equipment on after use.
Daily users – Charge after use for equipment used for mobility outside the home daily.
Occasional users – Charge your equipment before an outing and always after use (ideally when the 'fuel gauge' is at approximately 50%).
When storing a powered wheelchair or scooter for more than two weeks it is advisable to fully charge the batteries and disconnect them. Check and recharge the batteries monthly.
Never switch off the charger before the 'charge complete' indicator comes on.
Always unplug the charger from the equipment, as well as the mains, after charging. Some chargers can drain batteries if left plugged while switched off or unplugged from the mains.
Always dispose of your old batteries through an approved source to prevent improper disposal. Contact your supplier to find an appropriate agent.