

WHEELCHAIR MAINTENANCE AND MINOR REPAIRS

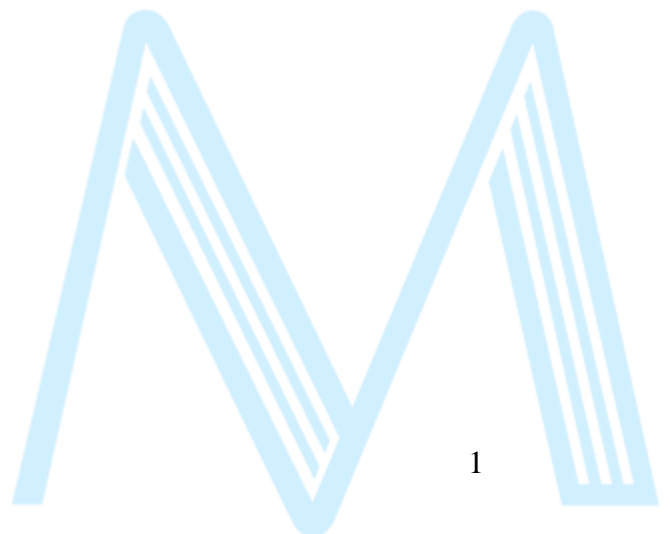
Tools for basic repairs:

- Hex (Allen) wrenches 5/32 and 3/16 and 4mm and 5mm most common, but a set will cover all needs
- Socket wrench ¼" drive or 3/8" drive with 3/8", 7/16", ½", 9/16" sockets or metric as appropriate for your wheelchair
- Adjustable wrench 10" and 12"
- Phillips head screwdriver
- 2 tire levers for pneumatic tires
- Tire pump
- Owner's Manual

Emergency Tool kit:

Items to carry with you at all times:

1. Spare inner tube (as appropriate)
2. Hex (Allen) wrenches 5/32" and 3/16" or 4mm and 5mm (as appropriate)
3. Small adjustable wrench
4. Hand pump or air cartridge



Power Wheelchair Maintenance:

Daily:

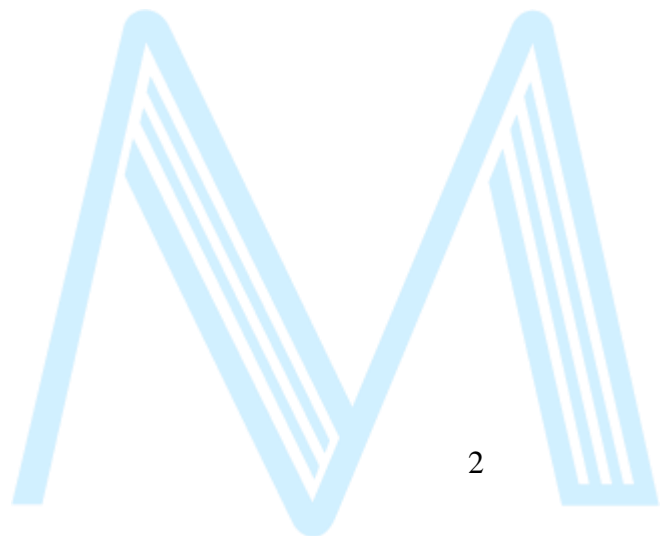
- Charge battery every night
- Check joystick and rubber boot for wear
- Visually inspect for frayed or exposed wires

Weekly:

- Wipe down chair
- Check tire pressure as appropriate
- Check wheelchair cushion for bottoming out

Monthly:

- Clean your cushion and cover
- Check headrest and footrest for proper positioning
- Check lumbar support and other inserts for proper positioning
- Check for loose nuts and bolts
- Clean and wax your frame



Recharging the battery -

Steps

1. Attach battery charger connector wire to the battery charger.
2. Plug the charger's AC power cord into a ground, 3-prong outlet. If you need to plug the charger into an extension cord, make sure it is an industrial type extension cord with a 3-prong plug, and 15 ampere current rating.
3. Wait until charging is complete.

Do:

1. Recharge the battery nightly when the chair is not in use. In general, allow 8 hours for normal recharging minimum. The life of the battery is extended if the charge level is maintained well above a low condition. If the battery is not charged for more than 3 or 4 weeks, there is a high probability that it will no longer take a charge and will need to be replaced.

Don't:

1. Attempt to recharge the batteries and operate the power chair at the same time.
2. Charge the batteries for a short period of time.
3. Make it a habit to discharge the battery to the lowest level.
4. Tip or tilt the battery.
5. Attempt to recharge the battery by attaching cables directly to the battery terminal. Always use the authorized battery charger.

When to Replace the Battery -

A battery needs to be replaced when the length of time a battery holds a charge begins to decrease, thereby requiring more frequent charging. A battery will typically last one to two years depending on its use.

Check joystick and rubber boot - With the controller turned off make sure that the joystick is not bent or damaged and that it returns to the center when you release it. Check the rubber boot around the base of the joystick for damage.

If it is ripped or damaged have it replaced IMMEDIATELY as it leaves the underlying electronics susceptible to moisture. Any water or moisture in the electronic equipment can short out the electronics and cause extensive damage. It is very important to keep it dry. The power chair is designed to withstand some moisture such as going out in the rain for short periods of time. If you need to be out in the rain it is a good idea to secure a couple of plastic bags around the joystick to help prevent excess moisture from getting into the electronic components.

Visually inspect for frayed or exposed wires – Any frayed or exposed wires should be repaired immediately. An authorized vendor should perform these repairs. If for any reason you need to work on any of the electrical system, make sure that the lead connection to the negative pole of the battery is removed before you begin. If you did not understand the previous sentence, then you have no business messing with the electronic system.

Motors – Listen to your motor. It is a good idea to become familiar with the healthy sound of your wheelchair when it is new. Over time, just like a car, it will become a little noisier, but if your ear is tuned to how it sounds when it is healthy, you will be able to notice when there is excessive noise. Increased noise might indicate worn bearings, out of line belts, or frame problems. Some chairs have a motor for each wheel. Each should sound the same.

Headrest hardware – Check the alignment of the headrest pad. If out of alignment, loosen the bolts on the headrest hardware, re-align the pad, and retighten the bolts. You may have to loosen all the bolts to get enough free movement for the proper alignment. There is usually a small square collar on the post to keep the headrest at the correct height after the headrest has been removed and then re-installed. A general guideline is that the pad is centered at the base of the head.

Joystick swing-away mount – Check for excessive play and loose bolts/nuts in the linkage. If loose, tighten

bolts/nuts, but do not over tighten. If linkage is bent, then it will need to be replaced.

Armpads - check for loose screws or bolts on the underside of the armpads. Tighten screws/bolts. If screws are missing or stripped, replace with a bolt/screw of the same thread and length.

Footrests or footboards - Adjustable angle footplates can become loose and move out of position. If out of alignment, loosen the appropriate bolt, re-align the footplate and then tighten. If the legrest or footrest is bent, then it will need to be replaced.

Most footboards have an angle adjustment screw, which can be turned one direction to angle the board up and turned the opposite direction to angle the board down.

Check lumbar supports and any other inserts for proper positioning - Some lumbar supports as well as other inserts are normally attached with Velcro onto your backrest, usually between the backrest shell and the backrest pad. They have the tendency over time to shift out of place. Simply check to ensure they are properly placed and adjust if necessary. If you don't know where they should be positioned ask your therapist to mark the proper position on the backrest with tape or a marker. Then, in the future, you will know you are readjusting them to the proper position.

If your wheelchair comes in contact with water

Although your power wheelchair is designed to withstand minor water contact, any contact with significant quantities of water should be avoided. Direct exposure to water can cause the electrical components to corrode or short out and the frame to rust. You should not spray your chair with water to clean it and you should not drive your chair through large puddles of water.

If your chair comes in contact with water, you should:

1. Dry your chair as thoroughly as possible with a towel.
2. Allow the chair to sit in a warm, dry place for 24 hours to allow unseen water to evaporate.

3. Check the joystick operation and brakes before using your wheelchair again. If water gets in the joystick, you may be able to turn the joystick upside down and allow excess water to drain away from the electronic components; then use a hairdryer to dry the area thoroughly.



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