

# One-Arm Manual-Powered Wheelchair *User Manual*

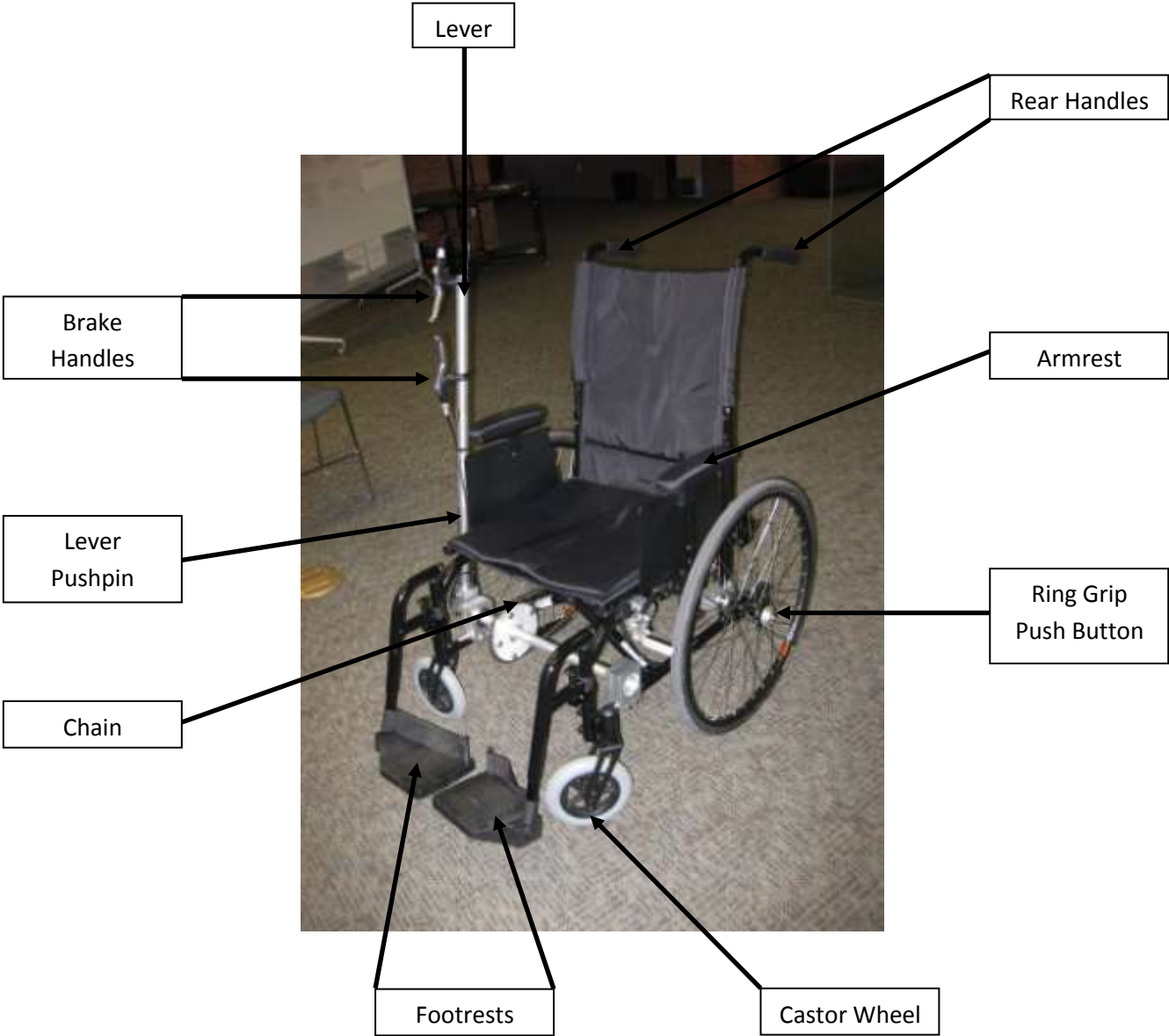


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**NOTE:** Select warnings and content used from Drive Medical Design & Manufacturing Cougar Wheelchair User Manual for completeness.

# Wheelchair Structure



**CAUTION: Stability** - Wheelchair is designed to be safe and stable as long as center of gravity is maintained while going about normal activities. Care must be taken while performing activities that shift your center of gravity in the chair. Never reach so far that require you to shift in the seat or bend over out of the chair. When you have to reach for objects that require you to lean, be certain front casters are pointing in a forward position that extends the wheel base and will stabilize the chair.

**CAUTION: Ramps** - Be sure of your own capabilities, limitations and strength before attempting to go up a ramp. Correct techniques on ramp negotiation should be shown to you by a qualified professional. Assistance is recommended when going up or down inclines greater than  $10^{\circ}$ . If you must stop on an incline, avoid sudden, abrupt movement when you resume movement. Because of backward angle of the chair, sudden abrupt movement could cause instability. Attempting to use the wheel lock brakes could result in accidental locking, tipping to one side, or cause a sudden stop. Avoid changing direction when going down an incline, as this could result in instability of tipping over.

**I. Assembly / Disassembly**

**a. Assembly**

- i. Attach each wheel by lifting up the back of the frame and sliding the hub of the wheel onto the axle. Make sure that the square of the hub seats into the square of the axle.
- ii. Press the ring grip push button into the hub of the wheel. Rotate the push button by the d-ring until it is locked in place. Ensure that the pushpin is secure by pulling on the metal loop. There should be no movement.
- iii. Turn the rear handles outwards and ensure that the pushpins click into place into their respective locations.
- iv. Lift seat-back into the upright position. Ensure that both sides snap into place and the seat-back is secure.
- v. Press in the pushpin on upper portion of lever and secure the upper portion of lever into lower half. Be sure that the pushpin is locked into position.
- vi. Attach the swing-away footrests by sliding them down in the outward position and once they slide down rotating then inward until the ball lock pin clicks in place.
- vii. Place armrests into the appropriate locations on the sides of the wheelchair. The plates should be closest to the inside of the seat.

**b. Disassembly**

- i. Fold the push lever onto the seat by pressing the button on the side at the connection between the lower and upper sections of the lever and then lifting the upper lever section out of the lower section, and then lay the upper section on the top of the seat cushion.

- ii. Fold seat-back down by lifting up both tabs behind the chair.



- iii. Fold the rear push handles inward by pressing in the buttons in the back of the chair.

- iv. Remove the swing-away footrests by pushing on the ball lock pin. Swing the footrest outwards and sideways. Lift to remove.



- v. Lift up the armrests to remove.
- vi. Press the ring grip push button located in the center of the wheel and pull to remove wheel. Repeat for opposite wheel.



## **Weight Capacity: 250 lbs.**

### **II. How to Operate**

- a. Sit down in wheelchair, taking care not to step on the footrests, as this will cause the wheelchair to tip forward, and possibly cause injury.
- b. Grab wheelchair lever and push and pull repeatedly to initiate motion.
- c. Maintain this motion as long as it is necessary to travel in a straight line.
- d. To turn left, grab and press the bottom brake handle to initiate the brake and differential system. NOTE: The more the brake handle is pressed, the sharper the turn will be.
- e. To turn right, grab and press the top brake handle to initiate the brake and differential system. NOTE: The more the brake handle is pressed, the sharper the turn will be.
- f. To stop, grab and press both the top and bottom brake handle. NOTE: The more than handles are pressed, the faster the wheelchair will stop.
- g. To get out of the wheelchair, ensure that the parking brake is engaged, and take care to not step on the footrests, as this will cause the wheelchair to tip forward.



## **WARNING**

**Do not attempt to propel the wheelchair in the reverse direction by any means. This will cause the motion lever to rotate backwards and collide with the arm rest, which could damage the system.**

### **III. Adjustability Guidelines for One-Arm Manual-Powered Wheelchair**

#### **a. Foot-rest Adjustment System**

##### **i. Footrest Height**

1. When adjusting length of foot rests or leg rests, user should be sitting in wheelchair with feet on the foot plates. Remove bolt on straight section of the foot-rest using a 5/32" allen wrench. Raise or lower foot plate to desired position (the five pre-existing slots) that will provide maximum support of thighs. Front rigging should not be so low that it causes uncomfortable pressure to thighs at front of seat upholstery. Footrest should not be lower than 2-1/2" from the ground to ensure clearance. Replace the bolt into the socket and tighten to secure.

##### **ii. Footrest Angle**

1. Remove bolt on the side of the foot-rest assembly using a 3/16" allen wrench. Remove the foot-rest and adjust the position angle using the arrow and five indicators imprinted on the part. After replacing the foot-rest in the appropriate position, place the bolt into its location and tighten to secure footrest into position.



#### **IV. Guidelines for Maintenance of the One-Arm Manual-Powered Wheelchair**

##### **a. General Care**

- i. Wipe wheelchair with a clean, soft cloth at least once a month.  
All metal parts can be cleaned with auto wax or similar products. If exposed to moisture, dry immediately. Do not use an abrasive cleanser that will scratch the finish.
- ii. Inspect overall tightness of nuts and bolts, especially the set screws on the stub axles, and the bolts where the lever meets the front axle.

##### **b. Wheels**

- i. Large rear wheels should be inspected at least once a month to ensure proper tightness. Check the ring grip push button to ensure that it is secure. Check to ensure that the spokes are tight with the hub. Inspect the square keyway on the hub to make sure that it is seated properly on the stub axle.

##### **c. Tires**

- i. Once a month, ensure tires are inflated to 75 to 100 psi.

##### **d. Front Casters**

- i. Casters should be checked periodically and lubricated occasionally. Lubricate by removing fork and greasing caster stem bearings. Lubricate wheel bearings by removing wheel from fork. Reassemble fork and wheel by tightening nuts until no play remains, but wheels roll freely. If nut is too loose, caster will shimmy; if too tight, chair will be hard to steer.

**e. Brakes**

- i. Lift each wheel off the ground and spin the wheel to ensure that the brake disc does not rub on the brake pad. If the brakes are too loose or too tight, a minor adjustment can be made by loosening or tightening the adjustment knob.

**f. Chain**

- i. Once a month, use bike chain oil to lubricate the chain to ensure smooth operation.

## **WARNINGS**

**Do not attempt to adjust or operate wheelchair without reading carefully all instructions in this manual.**

This wheelchair has not been approved as a seat that can be used within vehicles of any kind. Always transfer wheelchair user to a vehicle manufacturers approved seat and use safety restraints available.

Do not operate this wheelchair on roadways, streets or any surfaces with vehicular traffic.

Do not attempt to operate on inclines 10% or greater without proper assistance.

Be sure to completely engage wheel locks when getting in and out of wheelchair or when in elevator or wheelchair lift.

Wheelchair should be on a smooth, stable and level area with wheel locks engaged before transferring user in or out of wheelchair.

Do not adjust foot rests any lower than 2-1/2" from floor. When getting in or out of wheelchair, do not stand on or apply weight to foot rests.

Before reaching or leaning forward, rotate casters to front of the wheelchair engage wheel locks to help prevent wheelchair from tipping over.

Do not lean over or apply weight to the top of wheelchair back. This can cause wheelchair to tip over.

When trying to extend arms over back, only reach as far as your arm can extend without having to alter your seating position.

**DO NOT** stand on wheelchair.

**DO NOT** use wheel locks to slow your descent down an incline.

Abruptly changing directions while going down an incline could cause instability or possible tipping over.