Series 107 Powered Wheelchair With Standard Equipment Chief 107 Series

# Owners, Operators and Maintenance Manual

**User:** Before using the Series 107 power chair, please read and understand this manual. Custom made power chairs can require additional information.

Medi-Chair, LLC

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Customer Service Toll Free Number: 800-727-6684 Customer Service Fax: 520-546-5530

www.redmanpowerchair.com

### Warning

Do not operate the Series 107 power chair, its options, or its accessories without first reading and understanding this manual.

If you do not or are unable to understand the warnings, cautions, and instructions in this manual, contact a healthcare professional, Series 107 power wheelchair dealer, or Redman Power Chair Customer Service personnel before attempting to use the Series 107 power wheelchair.

Use of the Series 107 power wheelchair without understanding this manual may result in damage to the Series 107 power wheelchair, property and/or injury to the user. Please ensure proper use.

**DISCLAIMER**- Redman Power Chair provides custom power chairs. If there is information you need that is not covered in this manual please call 1-800-727-6684 (Option 2) for assistance.

The U.S. Department of Transportation has not approved any tie-down systems for the transportation, in a moving vehicle, of a user while in a wheelchair. Seat belts, chest belts, chest harnesses and similar restraints installed on the Series 107 Power Wheelchair are provided as positioning straps and body restraints while the user is in the Series 107 Power Wheelchair. Seat belts, chest belts, chest harnesses, and similar restraints installed on the Series 107 Power Wheelchair. Seat belts, chest belts, chest harnesses, and similar restraints installed on the Series 107 Power Wheelchair. Seat belts, chest belts, chest harnesses, and similar restraints installed on the Series 107 Powered Wheelchair are not intended to serve as body restraining system in a moving motor vehicle.

When traveling in a motor vehicle, Redman Power Chair recommends transferring the user to the occupant seating and restraining system approved for that motor vehicle.

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Dear Valued Customer,

Thank you for purchasing a Chief 107-ZRX power wheelchair and body-positioning system. You have selected a power chair incorporating some of the most innovative features available on any power chair in the Chief 107-ZRX

Our desire is to assure you that the 107-ZRX will exceed your expectations in product design that address both clinical and lifestyle needs. As you become familiar with the 107-ZRX's safety precautions, and operating and maintenance instructions, keep in mind that we are only a phone call away if you need any assistance or additional information.

Our Customer Service Department is available to you for any of your needs and you can contact them on their own toll-free number, (800)-727-6684 Option 2. The Customer Service representatives are your first stop when you need any assistance from Redman Power Chair.

Because we custom build each 107-ZRX to meet your individual needs, we feel a special bond to our customers that you will not find anywhere else in the industry. Your satisfaction with every facet of the 107-ZRX experience is paramount in our organization from the market researchers, to the sales reps, to the quality assurance and production personnel, to our customer service and delivery experts.

It is an honor to provide you with the 107-ZRX and we look forward to many years of continued service.

Sincerely,

Don Redman

### **General care**

- □ Avoid knocking your joystick controller against hard objects.
- □ Remove and protect the joystick when transporting your power chair.
- To prolong life of the joystick and other components of the electronic control system, avoid extreme weather conditions.
- Use a damp cloth to clean the joystick controller and other components of the electric control system.
- We highly recommend an annual preventative maintenance service. Please call customer service 1- (800) 727-6684 (option 2) to make arrangements
- Detach and turn over the knee bolster pad monthly.

#### **Daily checks**

- Charge batteries daily. Complete charge of the batteries can take up to 8 to 9 hours. It is important not to let your batteries completely drain before charging.
- Check that the joystick handle is not bent or damaged and returns to the center when released.

#### Weekly checks

- Turn on the system and check that after a few seconds the battery level gauge remains on or flashes slowly.
- Push and release the joystick forward until you hear the electrical brakes operate (the chair may move forward).Immediately release the joystick. You must be able to hear the electric brakes operate within a few seconds. Repeat the test three times, pushing the joystick backwards, left and right respectively.
- If your 107-ZRX has the Safety Lighting Package, check the operation of the lights.
- Check that all connectors are secure, properly mated and free from damage

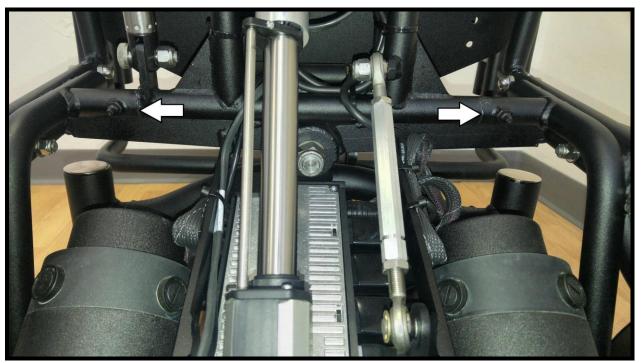
- Check that the joystick controller is mounted to its bracket securely.
- Check condition of all cables for signs of damage.
- Check the joystick rubber boot visually for damage or splitting.

#### Other recommended care and maintenance

- Keep the 107-ZRX power chair clean and free of dirt and debris, especially on moving parts and pivot points.
- Clean upholstered parts by vacuuming and wiping clean with a damp cloth. Some upholstered parts can be removed and laundered following washing instructions.
- Clean all tubes that slide and pivot points using a damp rag and lubricate frequently (WHERE ARROWS INDICATE BELOW) using only a silicone based lubrication.



**Arrows Indicate Lubrication Points** 



Lubrication Point for 18 x 18 Chair only (Upper Picture)



Lubrication point (Both Sides)



Bearings on the front wheel fork assembly need periodic lubrication with a moly or lithium grease and may in time need adjusting if you experience wheel chatter. To do this: tilt chair slightly and prop using a block of wood. Rotate the front tiller bar down and remove chrome cap using a screwdriver to pry off. With a 15/16" socket, repeat the procedure for the other side.

#### <u>Tires</u>

- If your chair is equipped with inflatable tires check tire pressure monthly to assure that tires are inflated to the proper pressure.
  - 12 X3 Drive tires, inflate to 35 psi. Off Road tires, inflate to 40 psi. (Not to exceed 50)

(Note: Both rear tires should have the same (equal) pressure to assure that the power chair will drive and turn correctly. Tires with uneven pressures will effect drive quality.)



From left to right. (4" rear casters, 12x3 Drive Wheels, 6" front wheels) Note: Chairs with an off road package will have different size wheels.

#### **Batteries**

- Charge your batteries daily. If the chair will not be in use for a long period of time you should charge the batteries at least every two weeks. It is important you do not keep them plugged into the charger for these long periods of time. Do not run the batteries in the red zone as this will result in more frequent replacement.
- When replacing your batteries, observe and note how they are connected.



Standard power chairs are equipped with a Group 22 Battery



Battery Box Screws. 2 on either side, 4 total. Appropriate screw driver needed for removal.

The 107-ZRX is equipped with a master circuit breaker located on the battery box. The circuit breaker can be manually reset by pressing the popped out center button back to the "IN" position. When the master circuit breaker is in the "IN" position, the batteries are connected to the rest of the electronic control system. When the master circuit breaker is in the "OUT" position, the batteries are disconnected from the rest of the electronic control system.

**Troubleshooting** 



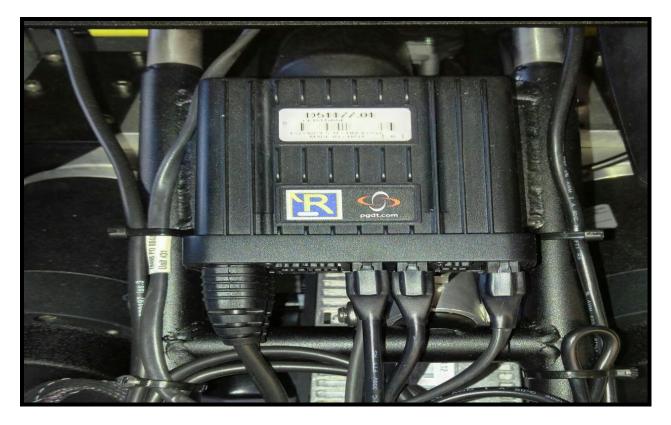
Top- 90 Amp Circuit Breaker (Pull for a "Hard Re-Set") Yellow Blade- 20 Amp Blade Fuse Red Blade- 10 Amp Blade Fuse Optional accessories, such as automotive horn and 12-volt outlet are connected to the batteries with separately fused circuits. Please check the fuses if you are experiencing any problem with the automotive horn and/or 12-volt outlet. The fuses are located on the exterior of the battery box.

#### **Mechanical Troubleshooting**

Power wheelchair veers left or right	Check for correct and equal tire pressure
Power wheelchair has sluggish turn performance	Check for correct and equal tire pressure. Adjust turn acceleration.
Front casters flutter	Check for correct and equal tire pressure. Check for loose front stem nuts/bolts

#### **Body Positioning Troubleshooting**

All other control components are under the power chair, in the event of a power failure of motor check to make sure connections are tight. The ISM controls the actuators for positioning. If the chair will not stand or positioning systems fail try a re-set by disconnecting the main power at the circuit breaker. Leave the circuit breaker pulled out for 8-10 minutes before pushing back in. If the component is defective and the chair will not stand to access the ISM you might have to remove the seat pan to access.



#### **Power Module**

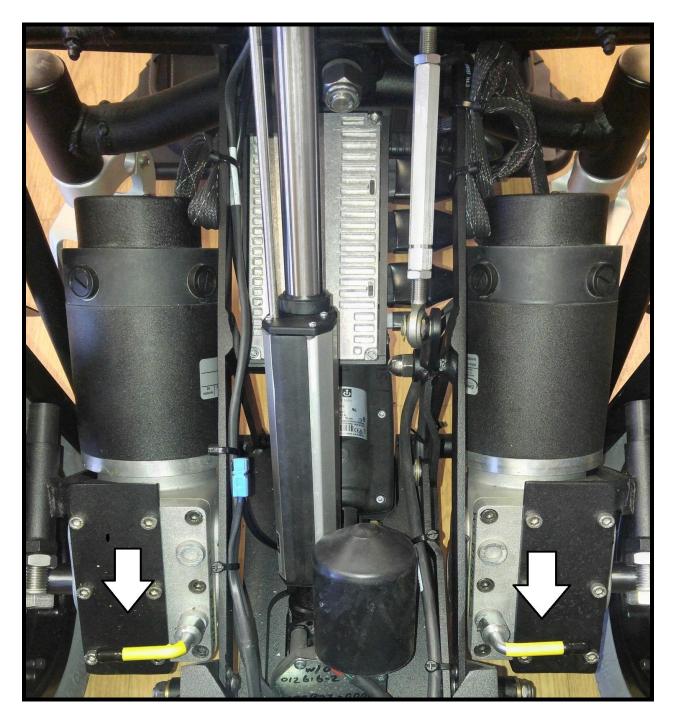
The Power Module location varies on the size of each individual chair. The controls, motors, batteries and aluminum housing are all plugged into this device.



Left to Right- Position # 1 Control System, Position # 2 Left Motor, Position # 3 Batteries, Position # 4 Right Motor, Position # 5 Aluminum Housing.

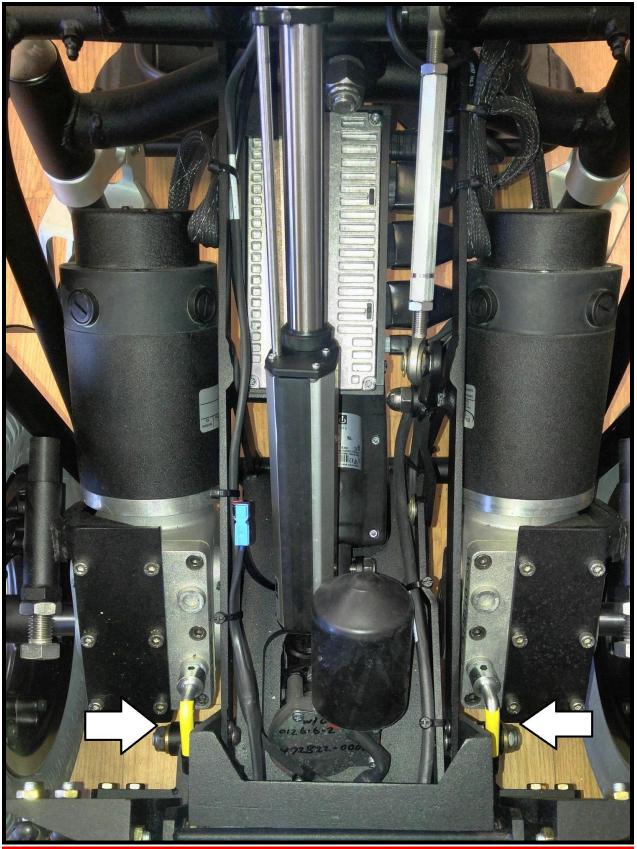
#### <u>Motors</u>

Your power chair can be free-wheeled by turning the motor levers, it is easier to reach the levers if you stand the chair. If the levers are vertical the chair is engaged. If the levers are horizontal they are dis-engaged.



Motors in engaged position





Motor dis-engaged position

#### **Adjustments**

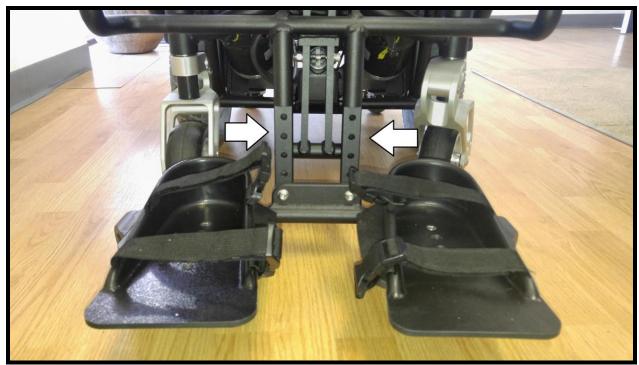
#### Please note- Do Not Make Any Adjustments without consent from Redman Power Chair.



**Arm Hoop Adjustments** 



Knee Bolster Adjustments



Foot Height Adjustments



Cable for adjusting Arm Hoop Angle

Remember the 107 Series Power Chair is custom built and fitted to each individual and accommodates their specific clinical and lifestyle needs. Changing any of the adjustable features on the chair may cause harm to the user and/or cause damage to the power chair.

### **Shoulder Harness Safety Warning**

To avoid serious injury, only use the shoulder harness in the vertical (backpack position). This means that the top of the right shoulder harness must be buckled to the bottom of the right shoulder harness strap and the top of the left shoulder harness must be buckled down to the bottom of the left shoulder harness.

Do NOT cross the shoulder harness straps in the front. If the shoulder harness straps are crossed, the straps can cause serious injuries. They may be crossed BEHIND THE NECK ONLY.

#### **Recline Actuator Warning**

When using the recline actuator, be sure to avoid adjusting the recline position to less than 25 degrees (from vertical) or when using the standing feature (up or down). If this is to occur, significant damage to the chair can result, requiring repair at the owner's expense.

### **Need technical support?**

Please call 800-727-6684 (Option 2) Support available 24 hours a day

www.redmanpowerchair.com