

RANGER POWER USER MANUAL



Dealer: This manual must be given to the user of the wheelchair.
User: Before using, read this manual, and save for future reference.

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READ BEFORE USE

SELECTING THE BEST COMBINATION

A Ranger Chariot wheelchair offers the user many different combinations of styles, accessories, and options to best fit each individual; the final selection should be made by you and your health care advisor in conjunction with the dealer and based on factors such as:

The level of your coordination, balance, and physical strength

The conditions and challenges you will encounter in your environment (your home, workplace, frequent destinations etc.)

The best combination for your comfort and safety while using the equipment

REFER TO THIS MANUAL FREQUENTLY

Before you begin using this wheelchair, you - along with each person who will assist you - should carefully read this manual, making sure to follow all instructions, and become familiar with the contents to ensure proper use and easy reference for the future.

DEALER AND TECHNICIAN WARNING

Do not operate or service this wheelchair without consulting this manual. If you do not understand the instructions or terms in the manual contact customer service for assistance.

In addition, many power wheelchairs have printed circuit boards which must be handled carefully in accordance with the instruction provided.

POWER WHEELCHAIR AND PARTS

1. Back Cane - Push Handle
2. Flip-Up Armrest
3. Rear Seat Pivot
4. Free-Wheel Lever (Behind Tire)
5. Drive Wheel
6. 450 Watt Motor
7. Backrest (Not from Ranger)
8. Armrest (Full-Length Pictured)
9. Swing-Away Joystick
10. Cushion (Not from Ranger)
11. Rehab Seat Frame
12. Swing Away Leg Rest
13. Articulating Front Beam
14. Streamline Caster Fork
15. Foot Plate (Pictured: Aluminum Plates with Heel Loops)
16. Foot Plate Adjustment Bolt
17. Passive Dampening System
18. Front Caster Wheel
19. Fuse (Under Shroud, Above Left Motor)



BASIC SAFETY PRECAUTIONS

Make sure to study and comply with all the instructions contained here; failure to comply with these warnings may result in serious injury and/or damage to the equipment.

1. Prior to use, you should receive training from an authorized dealer and/or a health care advisor on safety and efficiency.
2. Take time to practice bending, reaching, and transferring while being supervised to familiarize yourself with the parameters of your new chair - remember to always turn off the power before any such activity
3. Never try a new maneuver on your own until you have confidence you can complete it safely.
4. Survey and evaluate the areas where you will be using your wheelchair to ensure you know how to navigate them safely, and noting any hazards that need to be avoided.
5. It is recommended to always use slower speeds during normal use. Always check to make sure the chair is fully charged prior to use.
6. Always ensure that the wheels roll smoothly and that all parts are working properly prior to use. Noise, vibrations or changes in ease of driving may indicate loose fasteners or damage to the chair - contact an authorized dealer for service and repairs.
7. Never use a chair if the joystick does not return to neutral on it's own or if the joystick or boot is damaged in any way.

EQUIPMENT GUIDELINES AND PRECAUTIONS

1. Do not exceed the published weight limit of 300 lbs. Please note the weight limit applies to the user and all items carried or loaded onto the chair, activities such as lifting weights or towing may damage the chair and void the warranty.
2. Unauthorized modification of the wheelchair or the use of non-Ranger parts may change the performance of the wheelchair and could represent a safety hazard as well as voiding the warranty.
3. Never travel in a vehicle or transport the chair while sitting in the chair unless properly outfitted with an EZ Lock or equivalent system. Any seatbelt on the chair is not crash tested and may fail to prevent movement while in transit. Serious injury or death may result from failing to use authorized lock-down components.
4. Never transport this chair if unsecured in a cargo space.
5. Do not attach straps or tie downs to the wheels, as the chair may tip over resulting in serious injury and damage to the wheelchair.
6. Do not stand on the footplates during transfers.
7. Never lift the wheelchair by the armrests or any other detachable component.
8. If the chair is equipped with pneumatic tires, the air pressure in the tires should be checked frequently and air added when necessary in accordance with the specifications noted on the tires. Failure to do so will result in loss of performance and pose a safety hazard.

WARNINGS FOR THE USER

1. **YOU ARE CONSIDERED A PEDESTRIAN.** Do not attempt to operate the chair on streets or highways. When crossing the street make sure to make eye contact with motorists and always wait until you are confident it is safe to proceed.
2. If you are required to use the chair at night or when lighting is poor, use reflective tape on the chair or reflective clothing to ensure safe visibility.
3. Do not attempt to use the chair to traverse rough terrain; do not use the chair on sandy, wet, oily, or icy surfaces.
4. **DO NOT ATTEMPT** any grade steeper than 12° without assistance.
5. Always use curb cut outs or ramps. Attempting to ride over curbs and large obstacles may result in damage to the chair and risk of injury.
6. Never use the chair on an escalator.
7. Never attempt to stop the progress of the chair by reaching out limbs, or hands; keep your hands and feet away from the wheels at all times.
8. Always ensure the motors are engaged and chair turned off while transferring, reaching, or bending.
9. Do not attempt to reach out by moving forward in the seat or leaning over the back of the chair. which
10. Do not attempt to pick up anything by reaching between your legs, instead carefully lean over the side while using the armrest for support.

WHEELCHAIR SAFETY AND HANDLING

1. Please make use of your Chariot Wheelchair often and let it expand your horizons. The more mobility your Chariot brings you, the happier we will be! But, as with all things, observing a few rules will ensure safe motoring. So please...
2. Do not carry passengers.
3. Do not back up your Chariot unless the speed governing dial is set to low speed. Never back up onto uneven inclines or surfaces.
4. Do not turn suddenly at full speed.
5. Do not ride your Chariot where you cannot safely or legally walk.
6. Do not ride your Chariot over deep, soft terrain. (e.g. soft dirt, deep grass, loose gravel or sand)
7. Do not drink alcoholic beverages and then ride.
8. Always approach curbs at a 90 degree angle. Do not stop with rear wheels butting up to the curb, then accelerate.
9. Always proceed carefully while riding, especially as you approach the downgrade of a ramp or hill, and while riding on uneven surfaces. When on a downgrade select lower speed setting.
10. Always strap down the wheelchair, then transfer to vehicle seat, fasten safety belt.
11. Please consult your physician or therapist if in doubt about your ability to operate a wheelchair.

DRIVING AND HANDLING INSTRUCTIONS

BASIC DRIVING

Make sure you are properly seated on the Chariot. Ensure that the Speed Control Dial is turned to slow.

Pull or push on the joystick, as described earlier. You will gently accelerate. Release the joystick and you will gently stop. Practice these two basic functions until you get used to them.

Steering the Chariot is easy and logical. Just move your joystick in which ever direction and the wheelchair will follow. Just be sure to remember to give wide clearance when turning. Try to avoid making rapid turns, instead make an exaggerated wide arc around the obstacle.

If you must steer in a tight spot, such as entering a doorway or when turning around, stop, turn the speed dial to slow and gently move the joystick in the direction you wish to travel. After trying this several times you will gain confidence in the fact that the Chariot will move gently, and with complete stability.

Backing up requires attention. Be sure your Speed Control Dial is turned to slow before you back up. Pull the joystick towards you and remember that the Chariot will move in the direction you point the joystick. Practice is required here.

Going up and down ramps and hills is now simple. To stop simply release your joystick. Because of the power of the Chariot you are able to keep your speed control turned down low so that you have total control going up or down an incline, ramp or curb.

DISMOUNTING

Stop the Chariot in a nice flat location with enough room around for you to comfortably dismount. Turn the power off by depressing the on/off button. The light inside the button should go out. Now you are ready to dismount.

DRIVING AND HANDLING INSTRUCTIONS (CONTINUED...)

In Control through the Tight Spots

Chances are good that when you start really using your CHARIOT you will meet some obstacles that will require some practice to drive through smoothly.

Here are some common problems, with tips that will help you master them quickly. You will soon be in control through heavy doors, into and out of elevators, up and down ramps, up and over curbs, through grass, gravel, and up grades with surprising ease by following these tips.

In Control In Elevators

To begin with, be aware that elevator doors have a safety mechanism. The door has a rubber protrusion. When you press the rubber, it moves into the door, and the door stops and then reopens. It will remain open for a few seconds, or for as long as you keep pressing.

So if the door does hit the wheelchair, it is soft rubber that makes the contact, and then the door reopens. Unfortunately, some elevators are rather jerky and unpredictable. The strategy is the same for all of them. Keep the door from closing by keeping pressure on the rubber for as long as you need. This is easier than it sounds.

Approach the elevator button and press it. You can use a special button pushing wand to do this without getting up. Then line yourself up so that you can go through the door quickly and easily when it opens. If there is a choice of doors, and no indication which will open, position yourself so that you can go through either one. Going straight in without turning works best. If, however, it is a very short elevator, you may need to turn just a little as you go in. Be sure the back wheel is clear of the door's path. If it is not, the doors will not close.

When the door opens, gently back out. Back out slowly, avoiding the feet of those who may want to go into the elevator. Practice makes perfect. In a short time, elevators won't present a problem.

In Control On Ramps

More and more buildings have ramps or wheelchair access. Some have a switchback in the middle, and good cornering is required.

Always approach hills so that gravity is pulling you either forward or backward. Never let gravity pull you sideways, as this can be a stability problem. In other words, go straight up, or straight down, but do not turn on the hill, and do not steer toward one side or the other.

Going down the ramp, keep the dial set to "slow". This will keep you in a safely controlled descent. If you wish to stop completely, release the joystick. With a little practice, you'll always be in control.

DRIVING AND HANDLING INSTRUCTIONS (CONTINUED...)

In Control Over Curbs

Chances are good that when you start really using your CHARIOT you will meet some obstacles that will require some practice to drive through smoothly.

Most curbs have wheelchair access ramps at intersections. If there are none, and you can't find a driveway ramp either, you may be able to go over the curb, if it is small enough.

BUT BE CAREFUL. Going up or down a curb must be done **ONLY AT A DIRECT 90 DEGREE ANGLE**. Always approach the curb so that both back wheels go over at the same time, in the same way. Never go up or down hills on an angle. It can cause stability problems.

Going down a curb is simple, but must be done slowly to avoid a jarring thump. Slowly drive the front wheel over the curb. Use as little power as possible. Next, drive ahead so the back wheels are at the edge together. Going up a curb, turn your speed adjustment dial up to top speed. Start 2 or 3 feet back from the curb. Apply power gently, increasing as needed. Steer straight and go straight up. Be prepared to feel a bump as each tire reaches and climbs the curb.

In Control Over Grass, Gravel, and Grades

CHARIOT performs admirably in grass, gravel and on hills. **BUT YOU MUST NOT EXCEED THE PARAMETERS SET DOWN IN THIS MANUAL.** Please refer to the rules on page 1. Safety must come first. If you are unsure about a situation, avoid it.

Feel free to use your CHARIOT on lawns or in park areas. Avoid long, unkempt grass. Otherwise, just follow the rules.

Packed gravel, such as on driveways or roads will present no problem. Loose, deep gravel should be avoided, as well as loosely packed sand.

Because of the power of your CHARIOT wheelchair, you are able to climb steep hills. But the maximum grade limit is 22%, or an incline of 22 inches to every 100 inches (shown below). The reason for this is to ensure proper stability. Remember, read and follow the **RULES** at the front of this manual.

POWER WHEELCHAIR CONTROLS

VR2 System (P & G)

Your wheelchair is equipped with a VR2 System from PG Drives.

- 70 Amp Controller
- Ergonomic Joystick Module
- Standard LED Display
- Dual Push Button Speed Control
- Dual Push Button Speed Control
- Programmable Drive Modes

Your controls are located on the joystick module, the black box found on the front end of your armrests.

They are as follows:

1. **Speed Adjustment Buttons:** This allows you to pre-select your desired top speed. They can be set anywhere between 0 and 6 mph. Push the right hand button to go faster and the left hand button to slow down. This device will ultimately govern your speed and related settings.
2. **On / Off Button:** Press it to turn your chair on and off. The button will light up when the power is on.
3. **Joystick Control:** Use this joystick to control your chair. Simply push forward and your chair will gently move ahead. Turn in left or right and the chariot will respond by moving in the selected direction. If you wish to back up just pull on the joystick and you will begin to move in the reverse direction.

Optional controls for a leg raising and chair reclining functions. If your chair is equipped with these functions simply move the toggle switch towards you to raise your feet and/or recline your chair. Hold it until a comfortable position is achieved and release. Move the toggle switch away from you to return to the original position.

TRANSFERS

It is potentially dangerous to attempt unaided transfers; exceptional balance and agility is required. To ensure safety during transfers complete the following steps first:

1. ALWAYS TURN OFF THE CHAIR USING THE POWER BUTTON ON THE JOYSTICK!
2. Work with your health care advisor to learn how to position your body for maximum support, and always have assistance until you can confidently complete the transfer process repeatedly.
3. Always engage the wheel locks by turning the chair off prior to transfer.
4. Ensure the tire pressure is appropriate and that the wheel locks engage the tires fully.
5. Move the chair as close to the surface you are transferring to (or from) as possible - employ a transfer board to bridge the distance if you can.
6. Rotate the front casters forward completely.
7. Make sure not to catch your legs or feet on the front frame or leg rest assembly.
8. Remove the armrests if they might interfere with the direction of the transfer.
9. Try to position yourself as far back into the chair as possible when transferring into the chair.

MAINTENANCE

TIRE PRESSURE

The rear tire pressure should be kept at 27 psi and the front tire pressure at 25 psi. We recommend a maintenance check up every 12 - 18 months.

If you have a back problem and the ride seems too bumpy, there are two things that you can do easily to smooth the ride:

1. Consult the tire pressure guide above and subtract three pounds (psi) from each indicated pressure.
2. A 2" foam cushion can work wonders. You can do this yourself or see us about a specially made upholstered orthopedic foam seat.

CIRCUIT BREAKER

If your wheelchairs stops for no apparent reason, it is probably due to the circuit breakers on the batteries.

19 on the Diagram

On rare occasion, it happens that there is a temporary overload on the electric circuit. If this happens, the circuit breakers will pop out. It is merely a matter of pressing them back in, and you're going again. They are white buttons marked 30. Turn the power off, press the buttons, and turn the power on again. The circuit breakers can be found underneath the seat of your chair.

MAINTENANCE (CONTINUED...)

CARE OF BATTERIES

CHARIOT wheelchairs have two long lasting 12 volt batteries. They are sealed and are maintenance free. The charger is fully automatic. There is no danger of spillage. They will work or transport in any position.

BATTERY CHARGING

PLEASE, always follow the procedure in this sequence:

1. Turn the on/off button to the off position.
2. Plug the charger into the wall and leave the charger switch turned OFF.
3. The front of the black control box that houses the joystick, speed dial and on/off button has two outlets in it. Locate the plug that matches the plug on the line from your charger.
4. Take the matching plug (coming from the charger) in one hand. Push the plug in. It is now ready to charge.
5. Turn the charger switch to the ON position.
6. Be sure the on/off button is turned OFF when you are charging.
7. Leave the batteries charging for 10 to 14 hours. The CHARGING METER will be pointing to zero when the batteries are fully charged or a green light will glow.
8. If you use your wheelchair at all during the day, put it back on charge when you stop using it. It is fully automatic, so will not overcharge, and your Chariot will be ready to give you full service the next time you use it.

DISCONNECTING THE CHARGER

PLEASE, always follow this order of sequence:

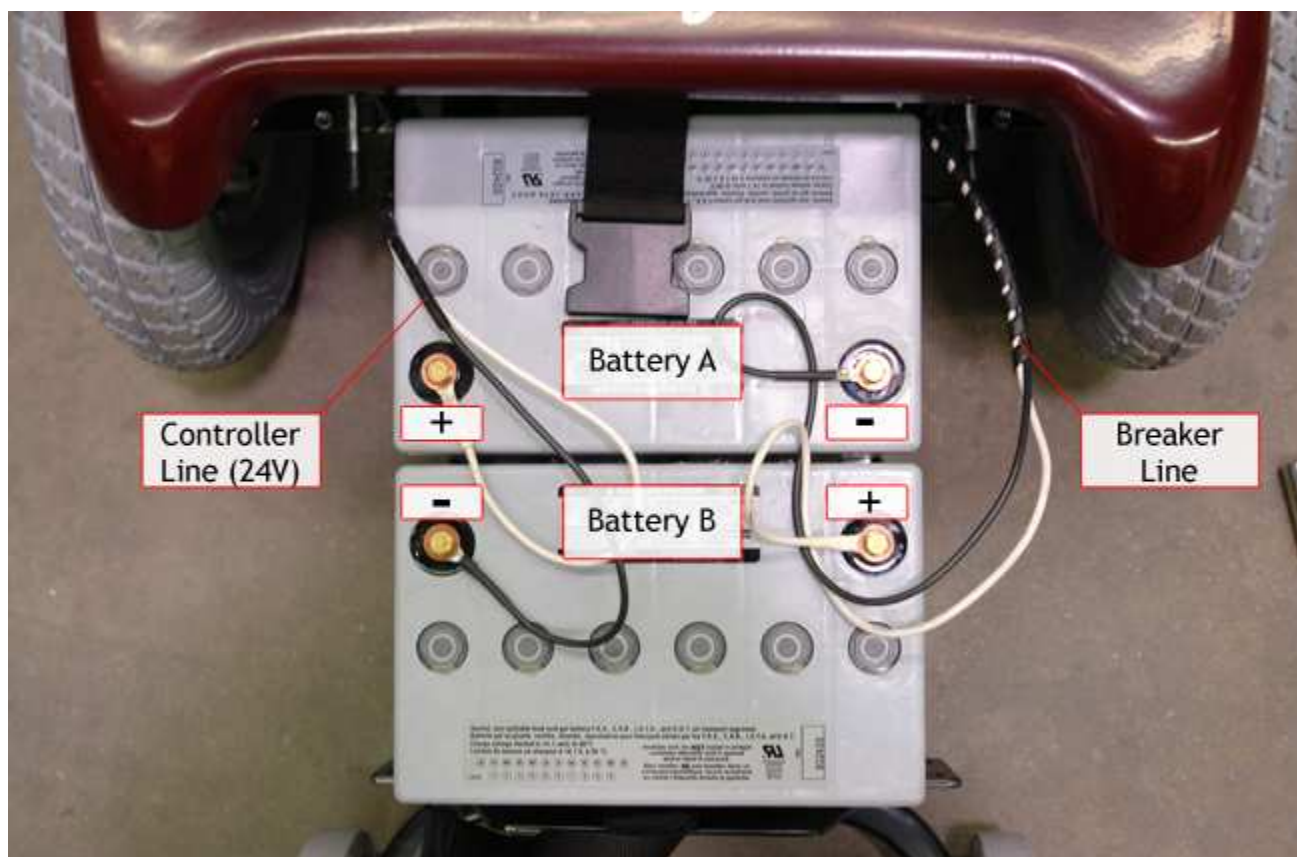
1. Turn the power switch on the charger to the OFF position.
2. Unplug the charger from the wheelchair.

Points To Remember

1. NEVER connect or disconnect the battery charger while the switch is in the on position.
2. ALWAYS turn the on/off button to the OFF position to charge.

MAINTENANCE (CONTINUED...)

INSTALLING BATTERIES



1. Connect Cable for Controller:

- Positive (White) to Battery A Positive
- Negative (Black) to Battery B Negative

2. Connect Cable for Breaker:

- Positive (White) to Battery B Positive
- Negative (Black) to Battery A Negative

REMOVING BATTERIES

When removing the batteries, be sure to disconnect the Breaker Line first, then disconnect the Controller Line next.

MAINTENANCE (CONTINUED...)

MAINTAIN PERFORMANCE

To keep the chair functioning as efficiently as possible pay attention to the following procedures and conditions for your routine:

SAFETY CHECKLIST

The following items should be checked routinely to ensure optimal and safe performance of your wheelchair. If any of these things are not as outlined contact your dealer for service.

1. Wheelchair rolls straight - does not pull right or left.
2. Inspect frame for loose or missing hardware, as well as bent or damaged portions of the frame or cross braces.
3. Inspect the seat and back upholstery for rips or stretched mounting points.
4. Rear wheels should spin easily and with low vibrations and wobbles .
5. Front casters should spin freely and with no wobble.
6. Tires should be inflated to the pressure specified on the tire.
7. Free Wheel Levers should release the wheels entirely and when the chair is off and hold the wheels securely when the chair is turned off while in gear.

CLEANING

1. Clean the frame with mild soap every season, or after any exposure to muddy or oily surfaces.
2. Clean the areas around the axles and moving parts with a slightly damp cloth.
3. Hand wash removable seating elements and hang to dry. Wipe the seat upholstery with a damp cloth and a mild disinfectant cleaner.

STORAGE

1. Store the wheelchair in a clean, dry area preferably indoors.
2. Inspect the wheelchair fully if stored for longer than two weeks and have the wheelchair fully serviced by your authorized dealer if stored for longer than three months.

ADJUSTMENTS AND FITTING

SEATING

Your chair is equipped with a number of adjustable components that ensure proper fit, these adjustments may be made by yourself or your attendants as required - please ensure you have received training and instruction from your dealer and health care advisor prior to making any new changes.

A. Armrest Height

B. Foot Rest Height

Your footrests can be raised and lowered in relation to the seat to achieve a better fit. This should be done during set up by your authorized dealer. If they require changes, you should ensure your health care advisor is available to achieve the best seating posture for you.

1. Undo the bolts on the side of the Foot Rest Receiver
2. Make sure the inner sleeve is aligned properly.
3. Slide the footrest to the desired height in keeping with the available settings.
4. Reinsert and tighten the bolt at the new height.

NOTE: The bolts used for this function are specially selected and may not fit or work with standard tools.

Damage to the chair will result from improper adjustments or tools being used.

DISCLAIMER

Ranger Wheelchairs Ltd. is not responsible for any damage or injury incurred due to improper or unsafe use of the Chariot Wheelchair. Mechanical or electrical defects will be dealt with on a contingent liability basis. The part or parts will be replaced, but no responsibility for any damage or injury can be implied to Ranger Wheelchairs Ltd.

WARRANTY



LIMITED WARRANTY

The CHARIOT Wheelchair is built with safety and comfort in mind. This Warranty is to make it easy to enjoy new freedom and independence on your CHARIOT.

Ranger Wheelchairs Ltd. warrants the CHARIOT against defects in parts and workmanship for a period of one full year from the date of delivery. This includes all components which were installed at our factory. Chariot aircraft aluminum frame is warranted against structural fault for five years. This manufacturer's warranty covers replacement parts and labor specifically. Any alteration to the wheelchair voids the warranty.

Ranger Wheelchairs Ltd. further guarantees that your authorized dealer is prepared to provide SPEEDY SERVICE and repairs within and beyond the scope of this warranty. Pick up and delivery to ANY AUTHORIZED DEALER is your responsibility, but your dealer will be happy to do this at a nominal cost. This warranty is not transferable, because your Chariot is assessed as being appropriate for your needs.

Enjoy the superior quality of your CHARIOT Wheelchair. Dependability and service and the hallmarks of the CHARIOT and the company that stands behind it.

