

# Mid-Wheel Powerchair USER MANUAL



Model: 6Runner 10 (888WNLM)



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## INTRODUCTION

Congratulations on insisting on the best. Shoprider Powerchairs are the ultimate combination of style and comfort. The 6Runner 10 features support easy maneuverability and smooth control for today's active lifestyle.

The innovative design of the 6Runner 10 includes articulating double frames that move in any direction. This intelligent feature keeps all 6 wheels on the ground at all times, even when driving on uneven terrain, hence the name 6Runner 10. Combine this with the programmable joystick controller, adjustable arm assemblies, flat-free tires, deluxe reclining captain seat, easy access to batteries and quick-change color shrouds for a complete powerchair package. We know that your 6Runner 10 Powerchair will provide many years of dignified independent mobility.

This manual contains important information regarding the safe use of your Shoprider Powerchair. Please read this manual carefully and thoroughly before using your Powerchair and make sure you understand all the instructions.



### EMI WARNING

#### Electromagnetic Interference (EMI) from Radio Wave Sources

Powered electric chairs may be susceptible to electromagnetic interference, which is a kind of interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones. The interference (from radio wave sources) can cause the power chairs to release its brakes, move by itself or move in unintended directions. It can also permanently damage the powered chair's control system.

The sources of radiated EMI can be broadly classified into three types:

1. Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkies", security, fire and police transceivers, cellular telephones and other personal communication devices

NOTE: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.

- 2. Medium-Range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis. These usually have the antenna mounted on the outside of the vehicle.
- 3. Long-Range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, cassette players and small appliances such as electric shavers and hair dryers, so far, as we know, are not likely to cause problems to your Powerchair.



#### Power Chair Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense the closer one moves to the transmitting antenna (source), the EM fields from handheld radio sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the Powerchair's control system while using these devices. This can affect the Powerchair's movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the Powerchair.

#### WARNINGS

The following warnings listed below should reduce the chance of unintended brake release or Powerchair movement, which could result in serious injury.

- 1. Do not operate hand-held transceivers (transmitter-receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the Powerchair is turned ON.
- 2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them.
- 3. If unintended movement or brake release occurs, turn the Powerchair OFF as soon as it is safe.
- 4. Be aware that adding accessories or components, or modifying the Powerchair may make it more susceptible to EMI.

## NOTE: There is no easy way to evaluate the overall immunity of the powered chair.

Report all incidents of unintended movement or brake to your Powerchair provider, and note whether there are sources of EMI nearby.

## NOTE: The VR2 controller EMI rating is FDA Regulated and conforms to federal regulations.



## **Safety Instructions**

Please use your Powerchair to enhance your active lifestyle. With increased mobility, please observe a few rules to ensure safe operation of your Powerchair. So please...

- **1. Do not** drive the Powerchair without reading this manual.
- 2. Do not exceed the safe climbing maximum angle (Fig. 4).
- **3. Do not** use the joystick in an erratic manner when going up or down an incline.
- **4. Do not** carry passengers or exceed the maximum weight limit (Table 2).
- 5. Do not turn off the joystick controller by switching the On/Off Button when moving at any speed. This will bring the electromagnetic brakes on immediately and could cause damage to the joystick controller.
- 6. Do not drive over deep and soft terrain (soft dirt, loose gravel, deep grass).
- 7. Do not attempt to mount a curb height above 1.5 inches.
- 8. Do not mount or dismount the Powerchair unless the electromagnetic brakes are engaged and the joystick controller is off.
- 9. Do not operate the Powerchair if the unit is in freewheel mode.
- **10.** Do not use on the road, except when crossing between sidewalks.
- **11. Do not** sit on the Powerchair when in a vehicle, but transfer to a vehicle seat.
- **12.** Do not exceed any grade over 6 degrees (10%).
- **13.** Always stop fully before changing forward or reverse direction.
- **14. Always** engage a slow speed when going down gradients (move the joystick slowly towards center position to reduce the speed).
- 15. Always approach and climb over curbs at slow speed.
- **16.** Always approach curbs and gradients at 90 degrees.
- **17.** Always use the safety belt.
- 18. Always keep the feet on the leg rest while driving.



- **19. Always** make sure the batteries are fully charged before setting out on a journey.
- **20.** Always charge the Powerchair in a well ventilated area to prevent any possible risk.
- **21. Always** check that the drive wheels are engaged. Someone may have left the Powerchair in freewheel mode.
- 22. Always reduce your speed when turning sharply.
- 23. Avoid turning sharply on a slope or gradient.
- 24. To brake in an emergency simply release the joystick.
- **25.** Always try to find a "dropped curb" or "curb cutout" whenever possible.
- **26.** Always keep your Powerchair properly maintained.
- **27.** Never try to use your Powerchair beyond it's limitations as described in this manual.
- **28. Always** put seat in most upright position whenever driving up an incline.

#### **Important Notes**

The Shoprider Powerchair is designed to assist in your individual mobility needs. Any usage outside of the guidelines in this manual may result in damage to the chair or injury to the user or third party.

#### Please do not lift the wheelchair by the armrests.

## First Time Use

Prior to using your 6Runner 10 Powerchair for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours. Charging the batteries completely prior to first time use will benefit battery efficiency and life of batteries.



Feature Guide



- (1) Headrest (adjustable with selected height)
- (2) Armrest (adjustable with selected width, angle and height) (Flips Up for Easy Sideways Transfer)
- (3) VR2 Joystick (mounted onto the armrest) & Main Controller (mounted onto the frame)
- (4) Charging Port
- (5) Deluxe Reclining Captain Seat
- (6) Footrest
- (7) Front Castor Assembly (7")
- (8) Main Drive Wheel (10")
- (9) Rear Castor Assembly (7")
- (10)Chassis Shroud



## **Getting to Know Your Shoprider Powerchair**

### The Seat and Arm Assemblies

The seat is built for comfort, style, and stability. Your seat comes with a reclining back for comfort. The flip-up arm-rests are especially built for easy side access for getting in and out of your 6Runner 10, with the greatest of ease. The arm-rests have a built in height adjustment knob, that adjusts the arm pad to a comfortable level for the driver. The seat is covered in a durable long lasting gray vinyl for comfort and style.



#### Armrest Width Adjustments

Beneath the rear of the seat there are two hand knobs, one on each side. Release the hand knob and slide each arm assembly outward. Re-tighten the hand knob when in the desired position.





#### Seat Height Adjustment and Easy Battery Access

1. Tightening knob that allows for the seat to be removed if needed, if not, there is a pivot point that allows for the seat to move up and away from the base.

2. Adjustment pins that can be used to adjust the height of the seat to fit the user.

3. Release levers; allow for the rear of the seat to be lifted and moved away from the base for easy battery access, without removing entire seat.

4. U-Hooks hold the seat in place.

5. Bottom shroud is easily popped off, to allow for battery access.

6. Philip screws that are used to fasten the mounting plate for main controller. Batteries can be easily accessed and changed after the removal of main controller assembly.









8

Fig.

1

4

5

2

6

7

3

#### The Joystick Controller (VR2) (Fig.2)

- 1. **On-Off Button**: This button turns the joystick controller (hereinafter referred to as VR2) on and off. Do not use this button to stop the power chair, except in an emergency.
- 2. **Battery Gauge**: This is a 10-segment display, which indicates if the VR2 is switched on and gives the state of charge of the battery. Additionally, any faults in the Powerchair electrical system are also indicated by this display. Refer to Table 1 for more details.
- 3. **Maximum Speed Indicator**: This is a 5segment display, which indicates the maximum speed setting selected.
- 4. **Horn Button**: This button operates the Powerchair's horn.
- 5. **Speed Decrease Button**: This button decreases the maximum speed.
- 6. Speed Increase Button: This Button Increases the maximum speed.
- 7. Joystick: This controls the speed and direction of the Powerchair. Push the joystick in the direction you want to go. The further you push it, the faster the speed will be. Releasing the joystick will automatically engage the brakes and stop the Powerchair.
- 8. **Charging Port**: This is the primary charging port for the 6Runner 10. When using this charging port only plug into this port with the qualified Shoprider charger certified by the original manufacturer of the Powerchair. This port should not be used as a power supply for any other electrical devices. Doing either of these as stated above will void the warranty of the Powerchair.

**Note:** The controller can be fitted to suit either right or left-handed users. Please contact your provider for further assistance.



## \*\*\*\*PLEASE NOTE\*\*\*\*

**LOCK MODE:** The VR2 controller may be programmed to have a lock mode function enabled to prevent unauthorized use. The locking method is achieved through a sequence of key presses and joystick movements, as detailed below.

To lock Powerchair controller:

- While the controller is switched on, depress and hold the on/off button.
- After 1 second the controller will bleep. Now release the on/off button.
- Push the joystick forward until the controller bleeps.
- Push the joystick in reverse until the controller bleeps.
- Release the joystick, there will be a long bleep.
- The Powerchair controller is now locked.

To unlock the Powerchair controller:

- Use the on/off button to switch the controller on. The maximum speed/profile indicator will be rippling up and down.
- Push the joystick forward until the controller bleeps.
- Push the joystick in reverse until the controller bleeps.
- Release the joystick, there will be a long bleep.
- The Powerchair is now unlocked.

**SLEEP MODE:** If the controller is left on and not used for more than ten minutes, the controller will automatically "go to sleep". This is recognized by a slow intermittent flash of the battery indicator lights. Simply turn the controller off and back on to reset.

**Always leave the chair in drive mode.** The freewheel option is there only to allow the chair to be pushed manually when the need arises (i.e., to store or push unit out of a tight space). Following the sticker picture put each lever in the direction of the person sitting down driving the chair.



The Powerchair will not function while the drive mechanism is disengaged (in freewheel).

Both left and right sides must be in drive mode for power chair to operate. Otherwise the Powerchair motors will spin, but the unit will not move, until both freewheel levers are engaged. Unit will spin in circles if only one side is in drive mode.

\*\*\* DO NOT PUT INTO DRIVE MODE WHILE MOTORS ARE SPINNING \*\*\*\*

The drive/freewheel levers are found toward the rear of the Powerchair (Fig. 3). The freewheel levers (with yellow end cap) will allow you to disengage the drive mechanism (When the levers are **pulled out** away from the unit) the Powerchair is in freewheel mode. \*\*\***NOTE**\*\*\* the VR2 will not work in Freewheel mode. When the levers are **pushed in** (towards the inside of the unit) the motors are engaged and the powerchair is in drive mode.



<u>Fig. 3</u>

Sticker indicating position the brakes are locked or unlocked.

Freewheel lever \*\*NOTE\*\* There is a lever on opposite side



## Driving Your Shoprider Powerchair Ramps, Slopes and Cambers

The indoor/outdoor Powerchair has the ability to negotiate ramps, slopes and cambers of a low to medium gradient. It is of the utmost importance that the following points are observed:

- 1. **Never** attempt to go up or down an incline which has a rough, wet or slippery surface (loose gravel, tree roots, wet grass, polished floor, etc.)
- 2. Always approach an incline head on, not at an angle
- 3. Always travel at a speed that you are comfortable with and that you feel in complete control
- 4. **Avoid** sudden or erratic action with the joystick
- 5. **Always** have the reclining seat in the most upright position when driving up an incline
- 6. When riding along in a straight line you may experience "veering to one side". This is due to the natural camber in the construction of the pavement. To correct this you simply have to steer slightly against it, as you continue to move forward



Fig.4



## **Caring for Your Shoprider 6Runner 10 Powerchair**

## First Time Use

Prior to using your Powerchair for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours. Charging the batteries completely prior to first time use will benefit battery efficiency and battery life.

### <u>Tires</u>

Since your tires are flat free tires, there is no need to ever worry about tire air-pressure. When tread is worn, it is highly recommended to replace tires.



#### **General Maintenance and Lubrication**

- Inspection for loose wheel bolts, seat and arm tightening bolts, castor nuts and other nuts and bolts is recommended on a regular basis.
- Most lubricated components on the Powerchair are designed to be maintenance free and are sealed. Therefore, lubrication is not required for these components. However, the driving wheel axles and seat post should always have a very light coat of multi-purpose grease. \*\*NOTE\*\* Never put grease or oil in the breather cap located on the top of each worm gear.

## DO NOT USE TOO MUCH GREASE!

#### Drips may stain or damage carpets, furnishings, etc.

- It is recommended that the driving axles (inside the drive wheel assembly) and castor assemblies be checked and cleaned occasionally for hair and debris build-up, which will hinder the performance of the unit.
- Check the 6Runner 10's batteries on a regular basis. For extended battery life, it is highly recommended that the batteries be fully charged after each use. If the batteries are weak, severely discharged or old, a variety of problems may occur with the unit including charging problems, reduced speed, loss of range, loss of charge capacity and others. Please contact your provider for battery replacement and proper disposal. Note: Charging your batteries daily will enhance the life of your batteries. If the batteries are left unattended for extended periods of time, it is recommended that they be left in a fully charged state. Leaving your batteries in a discharged state, or not charging them regularly will diminish the life of your batteries.



## **Batteries & Battery Charging**

#### **Batteries**

The Shoprider 6Runner 10 Powerchairs are designed to operate on 12 volt 35/36Ah sealed lead acid aka SLA (AGM or gel-cell type) maintenance free batteries. The life of the batteries may be affected by temperature, terrain, weight of user, driving methods, and care of batteries. The active user will need to charge the batteries after using approximately 30% of battery capacity. As an inactive user, only using from once a week to every other day, the recharge point would be at 50% of discharge (Refer to Fig. 5). For extended battery life, it is highly recommended that these guidelines be followed. You cannot over charge the batteries.

- Active users: Charge daily
- Occasional users: Charge your battery before any outing and always after active use.

#### \*Keeping the batteries charged extends the life of the batteries\*

SLA batteries should be kept fully charged at all times. They <u>must not</u> be left in a discharged state if the unit is not being used for some time or the batteries will be permanently damaged and will no longer hold a charge. The SLA batteries should be checked once a month and kept charged as needed. Typically SLA batteries have up to about 400 charging cycles.



**Fig.5** 



## How to Charge Your Unit

1) Plug the A/C power cord into the wall. Plug the male three-pin charger plug into the female 3-pin receiver located on the bottom of the VR2.

The battery charger's light indicator is as follows: One light charger (5Amp)

The indicator light on the charger gives advice as follows:

Blinking Green – Power on at stand-by mode,

Steady Orange – Battery charging,

Steady Green – Charging complete.

Please refer to the LED indicator description based on charging status of the charger.

**NOTE:** It is very important to check the charger light color. If there is no light or a different color light on than should be, refer to the charging trouble shooting section in this manual.

Depending on the amount of battery discharge, the charge time can take up to 12 hours. The battery charger has an electronic switch that will terminate the charge when the batteries are fully charged. Do not remove the battery charger until the charging cycle is complete. Be sure to unplug charger from the wall first before unplugging charger from the Powerchair.

WARNING! Only use the original manufacturer approved charger! This charger is for indoor use only. Do not expose it to rain or water spray.

Do not leave the charger plugged into the Charging Port if the charger is not charging.



## Troubleshooting

The Self-Help Guide (Table 1) is intended to assist in the location of a fault that may occur in a certain part of the Powerchair.

If after checking the fault from the table below and the fault is still showing, <u>do not</u> use the Powerchair. Turn off the power and consult your provider immediately.

BATTERY GAUGE	POSSIBLE FAULT		
10 Bars flash	An excessive voltage has been applied to the control system. This is usually caused by a poor battery connection.		
9 Bars flash	The parking brakes have a bad connection. Check the parking brake and motor connections.		
8 Bars flash	A control system fault is indicated. Make sure that all connections are secure.		
7 Bars flash	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on the control system.		
6 Bars flash	Battery charger connected.		
5 Bars flash	Right-hand motor wiring fault.		
4 Bars flash	Right-hand motor disconnected.		
3 Bars flash	Left-hand motor wiring fault.		
2 Bars flash	Left-hand motor disconnected.		
1 Bar flashes	Low battery voltage.		

## Table 1

## **Battery/ Charging Troubleshooting**

Batteries that may go below a minimum voltage due to neglect will be unable to be re-charged. The orange light blinking is indicating that the batteries will not charge due to battery being damaged or aged. No light indicates a faulty or incomplete connection to be checked or consult your authorized provider.



## **Specifications**

## Table 2

ITEM	6Runner 10 888WNLM	
Overall Dimensions:	42" x 23" x 46.4"	
Total Weight of Unit With	176 Lbs. (w/ 35Ah	
Seat and Batteries	batteries)	
Maximum User Weight	300 Lbs.	
Battery Capacity	12V – U1 (35/36Ah) x 2	
Charger	Off Board, 5 amp	
Maximum Speed	Approx 3.1-3.8 mph	
Safe Climbing Angle,		
Maximum Single User	Refer to figure 5	
Weight		
Range <sup>2</sup>	16.3-17.5 Miles	
Turning Radius	21.5 Inches	
Ground Clearance	2"	
Output Power of Motor x2	0.78 hpx2	
(Reference Only)		

As a part of our ongoing product improvement initiative, Shoprider reserves the right to change specifications and design without prior notice. All specifications and dimensions are approximate. <sup>1</sup>Includes the anti-tip wheel.

<sup>2</sup>The actual driving range varies with the factors shown below:

- 1. The weight of the user
- 2. Ground surface condition
- 3. Battery condition
- 4. Type of charger
- 5. Ambient temperature
- 6. Driving style
- 7. Terrain
- 8. After battery and mechanical moving parts have broken in

\*Proceed up any incline with seat in upright position\*



## **QUARTERLY INSPECTION**

For your own safety, quarterly inspection and service on the product with inspection by an authorized dealer is strongly recommended. There may be a nominal dealer inspection fee for this service not covered by warranty. Maintenance records (below) should be kept at all times. The manufacturer / distributor / vendor will be indemnified from any product liability claim if the above maintenance / service requirement are not met.

## <u>NOTE! Regular (Monthly) inspection is strongly recommended by</u> <u>the manufacturer to ensure ultimate performance of the vehicle.</u>

Service Record:			E	Date of Purchase: / /			
Purchaser:							
Model #:		Serial #:					
Dealer Unit Was Purchased From:							
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		
M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y	M / D / Y		

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Congratulations on your purchase of the Shoprider 6Runner 10 Powerchair.

This Powerchair is not intended to be used by individuals with physical limitations that could prevent the user from operating the Powerchair safely. Shoprider disclaims all responsibility for any personal injury or property damage, which may occur as a result of improper or unsafe use of its products.

Warranty is only valid when genuine Shoprider parts are used. All modifications on the Powerchair, unless approved and authorized by Shoprider will automatically invalidate the warranties. Standard warranty does not extend to consumable items and parties other than the original user.

The preceding guidance is intended to assist you in the safe operation of this Powerchair. If you should have any questions about the correct operation of the Powerchair, please contact your authorized Shoprider provider.



## Model Name - 888WNLM

Provider Stamp		

Serial No.:

Shoprider Mobility Products, Inc. www.shoprider.com 800-743-0772