

# Compact Powerchair USER MANUAL

Models: SMARTIE – UL8WFE JIMMIE – UL8WPB



**SMARTIE - UL8WFE** 



JIMMIE – UL8WPB



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#### Introduction

Congratulations on insisting the best. Shoprider compact Powerchairs are the ultimate combination of style, comfort and portability. The compact features support easy transportation of your Shoprider Powerchair for today's active lifestyle. We know that your Powerchair will provide many years of mobility for you. Enjoy the freedom of mobility wherever you go!

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:

 Hand-held compact 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.



#### **Powered 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.

# **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 (Table 2).
- **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 2 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 compact 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 compact Powerchair for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours for the Jimmie. Smartie battery technology requires significantly less charging time (up to 3 hours). Charging the batteries completely prior to first time use will benefit battery efficiency and life of batteries.

#### **Feature Guide**



Fig. 1

- (1) Removable Armrests with Width, Height & Angle Adjustment (Flips Up for Easy Sideways Transfer)
- (2) Programmable nVSI Joystick Controller with Adjustable speed & Battery Life Indicator.
- (3) Charging Port
- (4) Deluxe Captain Seat
- (5) Adjustable Length, Height, Angle Foot Plate
- (6) Front Castor Assy
- (7) Rear Drive Wheel
- (8) Anti-tip Wheel



# **Getting to Know Your Shoprider Powerchair**

The Joystick Controller (nVSI) Overviews (Fig. 2)

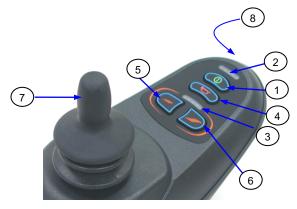


Fig. 2

#### On / Off Button (1)

This button turns the joystick controller (hereinafter referred to as nVSI) on and off. Do not use this button to stop the Powerchair, except in an emergency.

#### **Battery Gauge (2)**

The battery gauge shows you that the Powerchair is switched on. It also indicates the operating status of the wheelchair. Additionally, any fault in the Powerchairs electrical system is also indicated by this display. Refer to Table 1 for more details.

# **Maximum Speed Indicator (3)**

This is a 5-segment display, which indicates the maximum speed setting selected.

## Horn Button (4)

This button operates the Powerchairs horn.



## **Speed Decrease Button (5)**

This button decreases the maximum speed.

#### **Speed Increase Button (6)**

This button increases the maximum speed.

### Joystick (7)

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 brakes and stop the Powerchair.

#### **Charger & Programmer Port (8)**

Only plug into this port with the charger that was supplied by factory. This port should not be used as a power supply for any other electrical devices. Connection of other electrical devices may damage the controller or affect the E.M.C performance of the Powerchair.

# **Locking/Unlocking the nVSI Joystick**

**LOCK MODE:** The nVSI controller can be locked 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). In addition, the nVSI-50 will flash a fault code and beep steadily if turned on. Refer to Table 1 for more details. Both left and right sides must be in drive mode for power chair to operate. Otherwise the Powerchair will flash fault code of 5 lights and will not operate.

#### **Drive/Freewheel Mechanism**

The drive/freewheel levers are found toward the rear of the Powerchair, one on top left and one bottom right. These levers will allow you to disengage the drive mechanism and push the Powerchair while in freewheel mode. (Fig. 3)



Fig. 3



## **User Transferring**

You can transfer either forward, left or right from the Powerchair.

The armrests are hinged and can be pulled up and out of the way for sideways transfer. For support. Only use the armrests.

**Do Not** use the seat back as support.



Fig. 4

## **Reclining Seat**

The Powerchairs come with a reclining seat. The reclining seat lever is located on the left side below the armrest. Simply pull the lever up to adjust. This feature also allows the seat to be folded (Refer to Figure 5 for picture of folded seat).



Fig. 5

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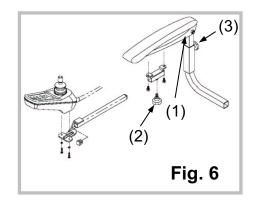
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#### **Arm Adjustments (Fig.6)**

#### **Angle**

Pull up on the end of the armrests and they will flip back up allowing easy transfer in and out of the seat. Under the armrest, there is a bolt and lock nut (1) that can be adjusted up or down to change the angle of the armrest.



#### **Length (Adjustable Controller Bracket)**

Located under the armrest controller bracket is a hand knob (2). By turning counter-clockwise to release, the controller bracket can be extended and reset in position by re-tightening the hand knob.

#### Height

The vertical square tube connected with the armrest can be reset to the desired position by re-tightening the hand knob (3) for armrest height adjustment.

#### Width

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.

# Footrest Adjustments (Fig.7) Length (A)

Pull out connecting pin from the first hole in the footrest slide tube. Slide out the footrest tube and refit the connecting pin in the appropriate hole when the required length is reached.



Height (B)
Pull out the connecting pin located at the

back of the footrest slide tube and position the footrest at the required height. Three heights are available. Refit the connecting pin in the appropriate hole and make sure the connecting pin protrudes through the other side of the tube and is secure.



#### **Disassembling/Transporting the Shoprider Smartie Powerchair**

WARNING! We advise caution when disassembling and lifting items. You must ensure that the person undertaking these actions is able to handle the weight.

- **STEP 1** Ensure that the area in which the Powerchair is to be dismantled is spacious enough to accommodate all the components.
- **STEP 2** The arms may removed to make the seat lighter to lift. Under the rear of the seat you will find tow "hand knobs". Release both by turning anti-clockwise and slide out arms from each side.
- STEP 3 Fold seatback forward
- **STEP 4** Disconnect the power cord coming from the joystick/controller at the back of the Powerchair by pressing on the latch with your left hand and firmly pulling the cable plug with your right hand.
- **STEP 5** Release the black tightening lever underneath the seat. Stand behind the seat and while holding on with both hands lift straight up until the seat is released from the seat post.
- **STEP 6** Hold onto the seat post with one hand. With your other hand pull the yellow release lever to release and separate the main body from the transaxle (rear portion) on the Powerchair.

To reassemble the Powerchair, reverse the procedures described above.



Fig.8



# **Driving Your Shoprider Compact Powerchair**

#### Ramps, Slopes and Cambers

The compact 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.

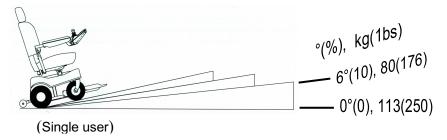


Fig. 9



# Caring for Your Shoprider Powerchair First Time Use

Prior to using your compact Powerchair for the first time, you must charge the batteries fully (refer to Battery Charging Procedures). Charging may take up to 12 hours for the Jimmie, and up to 3 hours for the Smartie. Charging the batteries completely prior to first time use will benefit battery efficiency and battery life.

#### **Tires**

Since your tires are flat free tires, there is no need to ever worry about tire air-pressure.

#### **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 compact 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.

#### 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 assy) and castor assemblies be checked and cleaned occasionally for hair and debris build-up, which will hinder the performance of the unit.
- Smartie battery technology is virtually maintenance free and has a significantly longer battery life.



# **Batteries & Battery Charging Batteries**

#### Jimmie

The Shoprider Jimmie Powerchair is designed to operate on two 12 volt/12Ah sealed lead acid (AGM or gel-cell type) aka SLA maintenance free batteries. For easy handling, the SLA batteries are contained within a battery-pack. The life of the batteries may be affected by temperature, terrain, weight of user, driving methods, and care of batteries. The battery gauge is a guide on the remaining charge of the 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. For extended battery life, it is highly recommended that these guidelines be followed. You cannot over charge the batteries.

\*Keeping the batteries charged extends the life of the batteries\*
\*Turn battery pack off after use at battery pack switch\*

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.

# **Batteries & Battery Charging Batteries Smartie**

The Shoprider Smartie PowerChair is the next generation Powerchair with new Envirofriendly battery technology.

The Smartie's battery, called Envirofriendly battery, is a phosphate based lithium iron battery that is inherently safe for the environment. The Envirofriendly battery has many features and benefits including:

- •Virtually zero maintenance over the long life of the battery, saving from high maintenance costs and wasted time
- •Lightweight, high performance, high energy (2 times energy at same size and three times energy at same weight as standard SLA batteries)
- •Outstanding charging cycles ability. Increased charging cycles at 80% depth of discharge and excellent deep discharge capability
- •No battery memory effect. No loss of capacity at partial depths of discharge/charge
- •No battery damage on full depth of discharge. Realize full capacity of battery: no wasteful over-sizing needed. Low capacity loss discharge rates increase. More usable energy at high discharge rates. No temporary voltage drop. Protects sensitive equipment from damage
- •Sleep mode (low self-discharge). No seasonal conditioning needed for long term storage. No sudden death syndrome. Linear and predictable battery fade is reliable down to 50% of original capacity
- •No explosive hydrogen gassing. No corrosion on battery terminals. No free electrolyte. No equalization charge needed. No wasted time babysitting batteries. Flat discharges curve over time. Maintains higher voltage/power even at end of charge
- •Environmentally friendly. Below EPA toxicity (TCLP). No recycling needed. Check and follow local laws governing proper disposal. \*\*Note\*\*Due to Smartie's high energy battery, the nVSI battery indicator will show a full charge until batteries are close to complete discharge. It is highly recommended that inactive users charge the batteries at least twice a week or more and active users charge the batteries everyday. You cannot overcharge the batteries. Charging usually takes no more than 2.5 hours for the Smartie but can take up to 5 hours if battery pack is completely discharged.
- •\*\*WARNING\*\* Do not drop. Handle with care. Do not connect the terminals with any foreign matter. Must charge up the battery with the factory approved charger. Without factory written approval, do not modify, disassemble or use this battery pack for any others purposes. Keep away from fire, heat or water.



#### **Battery Charging Procedure**

Charging the Shoprider compact Powerchair:

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 nVSI (Refer to Figure 2, #8).

The battery charger's light indicator is as follows:

Red - Charging

Green - Charging complete

Depending on the amount of battery discharge, the charge time can take up to 12 hours (Jimmie Only). 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 charge r 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**

If a system trip occurs, you can find out what has happened by counting the number of flashes of the battery gauge. Below is a list of self-help actions. Try to use this list before you contact your provider. Go to the number in the list which matches the number of flashes of the battery gauge and follow the instructions.

If the problem persists after you made the checks described above contact you authorized dealer.

Table 1

10010 1					
BATTERY GAUGE	POSSIBLE FAULT				
1 Flash	The battery needs charging or there is a bad connection to the battery. Check the connections to the battery. If the connections are good, try charging the battery.				
2 Flashes	The left hand motor has a bad connection. Check the connections to the left hand motor.				
3 Flashes	The left hand motor has a short circuit to a battery connection. Contact your authorized dealer.				
4 Flashes	The right hand motor has a bad connection. Check the connections to the right hand motor.				
5 Flashes	The right hand motor has a short circuit to a battery connection. Contact your authorized dealer.				
7 Flashes	A joystick fault is indicated. Make sure that the joystick is in the center position before switching on the controller.				
8 Flashes	A controller fault is indicated. Make sure that all connections are secure.				
9 Flashes	The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.				
10 Flashes	An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.				

#### **Specifications**

#### Table 2

	SMARTIE UL8WFE	JIMMIE UL8WPB	
Overall Dimensions: L1 x W x H	28.7" x 21.5" x30.5-33.5	28.7" x 21.5" x30.5-33.5	
Number, Size of Front Tires	2, 6 Inches	2, 6 Inches	
Number, Size of Rear Tires	2, 8 Inches	2, 9 Inches	
Total Weight of Unit With Seat and Batteries	104 Lbs.	93 Lbs.	
Maximum User Weight (on level ground)	250 Lbs.	250 Lbs.	
Battery Capacity	Envirofriendly® Battery 24V 10Ah	SLA Battery 12V 12Ah x 2	
Charger	Off Board, 2 Amp	Off Board, 2 Amp	
Maximum Speed	3.75mph	3.75mph	
Safe Climbing Angle, Maximum Single User Weight	Refer to figure 9	Refer to figure 9	
Range <sup>2</sup>	10 Miles	10 Miles	
Turning Radius	27 Inches	27 Inches	
Output Power of Motor x2 (Reference Only)	0.45 hp	0.45 hp	

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.

- 1. The weight of the user
- 2. Ground surface condition
- 3. Battery condition
- 4. Type of charger
- 5. Ambient temperature
- 6. Driving style
- 7. Terrain8. After battery and mechanical moving parts have broken in

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

<sup>\*</sup>Proceed up any incline with seat in upright position\*

## **QUARTERLY INSPECTION**

For your own safety, quarterly inspection and service on the product has to be performed and signed by an authorized provider. 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.

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

Service Record:			Date of Purchase: / /		
Purchaser:					
Model #:		Serial #:			
Dealer Unit V	Vas Purchase	d 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



#### **Disclaimer**

Congratulations on your purchase of the Shoprider compact 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-Provider Stamp Serial No.:

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