

# SHOPRIDER®

## Mid-Size Scooters



## User Manual

## Contents

<b>INTRODUCTION</b> .....	3
<b>FEATURE GUIDE (FIG. 1-4)</b> .....	3
<b>SAFETY ADVICE</b> .....	5
<b>EMI Warning</b> .....	6
<b>ADJUSTMENTS</b> .....	7
Tiller Angle Adjustment (Fig. 5A&B).....	7
Seat Slide & Swivel Adjustment (Fig. 6).....	7
Seat Removal (Fig. 7).....	7
Seat Height Adjustment (Fig. 7).....	7
Armrest Width Adjustments (Fig. 8).....	7
Armrest Angle Adjustment (Fig. 9).....	8
Retractable charger cord (Fig. 10).....	8
<b>SCOOTER TILLER CONTROLS (FIG. 11A&amp;B)</b> .....	9
Speed Controls.....	9
Battery Level Indicator/Gauge.....	9
Lights.....	9
Horn.....	9
Thumb/Finger Lever Controls.....	9
On/Off Key Switch.....	9
Indicator Switch.....	9
Hazard Warning Switch.....	9
Electromagnetic Brake.....	10
<b>FREE WHEEL OPERATION (FIG. 12)</b> .....	10
Anti-tip wheels.....	10
<b>STARTING TO DRIVE YOUR SCOOTER</b> .....	10
Getting Started.....	10
Starting Scooter Movement.....	10
Steering.....	11
Reversing.....	11
Dismounting.....	11
<b>EXTRA GUIDELINES IN THE CONTROL OF YOUR SCOOTER</b> .....	11
Ramps.....	11
Grass and Gravel.....	11
<b>TRANSPORT / STORAGE</b> .....	12
Dismantling.....	12
<b>BATTERIES AND BATTERY CHARGER</b> .....	13
Battery Charger.....	13
Charging.....	13
<b>MAINTENANCE</b> .....	13
Lubrication.....	13
Wheels and Tires.....	14
<b>TROUBLE SHOOTING GUIDE</b> .....	14
Circuit Breaker.....	14
Check List.....	14
<b>TECHNICAL SPECIFICATIONS</b> .....	15
<b>QUARTERLY INSPECTION</b> .....	16
<b>WARRANTY</b> .....	17
<b>DISCLAIMER</b> .....	17

## INTRODUCTION

Congratulations on your purchase of the Shoprider® scooter. This scooter incorporates the latest innovative designs patented and only available on a Shoprider® scooter. This scooter can be used in confined spaces both indoors and out. Direct drive transaxles and electromagnetic brakes give a safe and efficient ride. This Shoprider® scooter is designed for persons with limited mobility.

*Please ensure that you read this manual carefully, it is important for your safety that you understand the guidelines and instructions given.*

### FEATURE GUIDE (FIG. 1-4)

#### Sovereign B3 (Figure 1)

1. Tiller control head
2. Head light
3. Rear reflectors
4. Side reflectors
5. Adjustable width armrests
6. Swivel seat
7. Seat height adjustment
8. Adjustable angle fold down detachable seat
9. Foot rest
10. Tiller steering column and steering wheel angle adjustment
11. Front bumper
12. Detachable basket
13. Battery charging inlet



Figure 1

#### Sovereign B4 (Figure 2)

1. Tiller control head
2. Head light
3. Rear reflectors
4. Side reflectors
5. Adjustable width armrests
6. Swivel seat
7. Seat height adjustment
8. Adjustable angle fold down detachable seat
9. Foot rest
10. Tiller steering column and steering wheel angle adjustment
11. Front bumper
12. Detachable basket
13. Battery charging inlet



Figure 2

### Sovereign LE3 (Figure 3)

1. Tiller control head
2. Head light
3. Rear lights & indicators
4. Turn signal indicators
5. Adjustable width armrests
6. Swivel seat
7. Seat height adjustment
8. Black leatherette pillow top reclining captain's seat
9. Foot rest
10. Tiller steering column w/ Vespa style cover and steering wheel angle adjustment
11. Detachable basket
12. Retractable charging cord
13. Articulating front wheels



Figure 3

### Sovereign LE4 (Figure 4)

1. Tiller control head
2. Head light
3. Rear lights & indicators
4. Turn signal indicators
5. Adjustable width armrests
6. Swivel seat
7. Seat height adjustment
8. Black leatherette pillow top reclining captain's seat
9. Foot rest
10. Tiller steering column w/ Vespa style cover and steering wheel angle adjustment
11. Detachable basket
12. Retractable charging cord



Figure 4

## SAFETY ADVICE

- Do not carry passengers.
- Do not exceed inclines over 8 degrees (14% grade).
- Do not turn on steep inclines.
- Do not turn suddenly at high speeds.
- Do not get on or off the scooter unless the brake is on and the scooter is switched off.
- Do not switch off the scooter while the scooter is moving.
- Do not drive the scooter where you can not safely or legally walk.
- Do not attempt to drive over curbs greater than 2 inches (5cm.) in height. Doing so could cause your scooter to turn over, causing injury or damage to the scooter. For curbs less than 2 inches, always approach them at an angle of 90 degrees and at a low speed.
- Do not drink or use a mobile phone when driving your scooter.
- Do not exceed the suggested user weight limit. Doing so, could cause personal injury and invalidate the warranty.
- Always keep your feet on the scooter when moving.
- Consult your doctor if there is any doubt about your ability to use a scooter safely.
- Always slow down and proceed carefully when traveling over rough or uneven ground.
- For individuals with balance problems, practice getting on the scooter with the assistance of a qualified healthcare professional.
- If equipped, DO NOT operate the scooter without anti-tip wheels installed.
- Do not use an escalator to move a scooter between floors. Serious injury could occur.
- Do not drive the scooter on an incline that has oil, water or ice film on it.
- Do not try to lift the scooter by its seat, tiller, rear chassis cover, or any removable parts. Any of these could cause injury to the user or damage to the scooter.
- Do not use parts or accessories that are not authorized by Shoprider® Mobility Products.
- Before sitting in or exiting the scooter, REMOVE the key from the ignition. This will insure the POWER is off and the scooter can not move under its own power.
- As a general precaution, always remove the key from the ignition while the scooter is not in use. This will prevent use by untrained and unauthorized persons.
- Do not connect any medical device to the scooter battery. This could cause failure of the device, the scooter and personal injury.
- Make sure the tiller is properly adjusted to the user or damage and injury could result.
- Shoprider® Mobility Products doesn't recommend that scooter users be transported in a vehicle WHILE they are in the scooter...and will not be responsible for any injury or damage that might result.
- Do not use the scooter in the rain, near a shower or in a damp bathroom. Direct exposure to rain or dampness could cause the scooter to electrically malfunction and prematurely rust.

## EMI Warning

Shoprider® scooters may be susceptible to electromagnetic interference (EMI), which is a kind of interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radio, and cellular phones. The interference (from radio wave sources) can cause the scooter to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the scooter'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 talkie", 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, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause problems to the scooter.**

### Scooter Electromagnetic Interference (EMI)

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

### WARNINGS

1. Do not operate hand-held transceivers (transmitters-receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the scooter 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 scooter OFF as soon as it is safe.
4. Be aware that adding accessories or components, or modifying the scooter may make it more susceptible to EMI.

**NOTE! There is no easy way to evaluate the overall immunity of the scooter.**

5. Report all incidents of unintended movement or braking to your Shoprider® dealer, and note whether there are sources of EMI nearby.

***WARNING: Shoprider® Mobility Products is not responsible for damage or injury incurred due to improper and unsafe use of our scooter.***

## ADJUSTMENTS

### Tiller Angle Adjustment (Fig. 5A&B)

On the left hand side at the base of the tiller is a red lever/black knob. Push/pull the lever to release the pin and select the required tiller angle. Refit the pin into one of the five location holes.

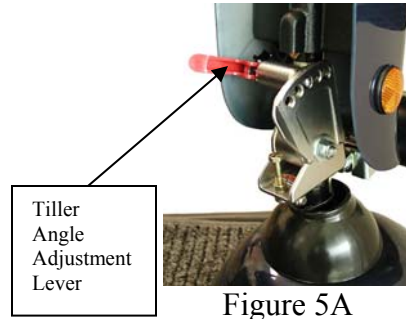


Figure 5A



Figure 5B

### Seat Slide & Swivel Adjustment (Fig. 6)

Pulling up on the seat slide lever allows the seat position to be adjusted forward or backward. Release the lever and the seat will lock in that position. Under the right side of the seat there is a spring loaded red lever. Pulling up on the lever allows the seat to swivel, when released the seat will lock into one of 4 positions.



Figure 6

### Seat Removal (Fig. 7)

Fold down the back of the seat. Pull up the swivel seat adjustment lever (fig. 6) and lift seat off. Remove the hand-knob and locking pin that secures the seat adaptor. Lift the seat adaptor out of the seat post.

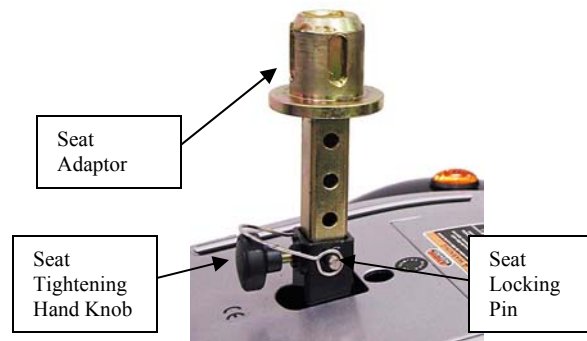


Figure 7

### Seat Height Adjustment (Fig. 7)

Remove seat as described above. Loosen the seat tightening hand knob. The seat height can be adjusted to 5 different settings by inserting the steel locking pin in the required hole. Retighten the hand knob and replace the seat.

### Armrest Width Adjustments (Fig. 8)

On the underside of the seat there are two hand knobs, one either side. Loosening the hand knob allows the arm rest to be adjusted to the required width, or removed for transportation.

***Do not use the scooter without the arms being fitted.***

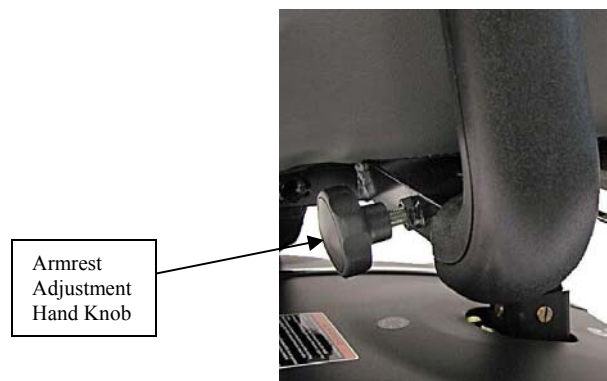


Figure 8

**Armrest Angle Adjustment (Fig. 9)**

Flip up the armrests to allow access to the adjustment screw and lock nut, unscrew the lock nut and screw the bolt in or out to increase or decrease the angle. Re-tighten the lock-nut.

Your scooter is dispatched from the factory with the armrests set parallel to the floor.

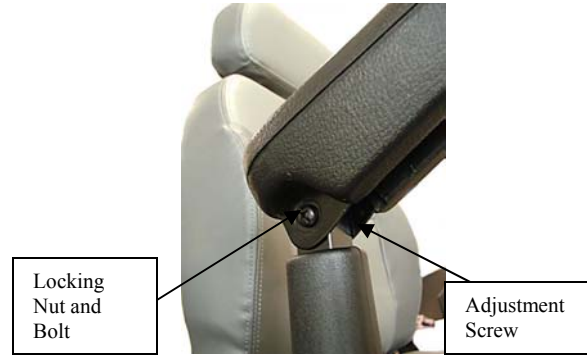


Figure 9

**Retractable charger cord (FOR Sovereign LE3 & LE4 ONLY) (Fig. 10)**

Pull cord by the cord handle to length desired. To retract cord, slightly pull cord and release. Cord will retract automatically.

***WARNING!! Releasing the cord too fast can cause the cord to hit the shroud and crack it!!***

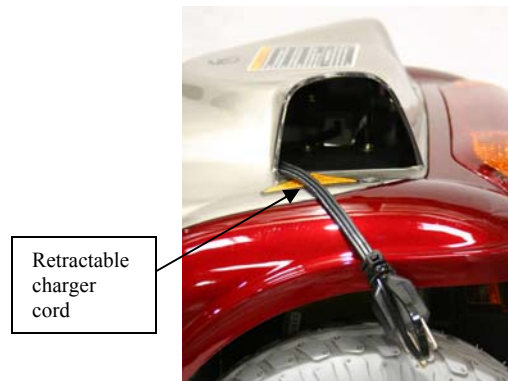


Figure 10



## SCOOTER TILLER CONTROLS (FIG. 11A&B)

### Speed Controls

The speed control allows you to set a speed between 1 (minimum) and 10 (maximum).

### Battery Level Indicator

The number of LED bars lit, shows the amount of charge left in your batteries. The amount of charge will only show at its true level when the scooter is in drive.

**Caution – Do not allow the LED bars go out completely as complete discharge of the batteries could cause irreversible damage.**

### Lights

A blue colored button at the rear of the tiller operates the lights.

### Horn

A yellow button at the rear of the tiller operates the horn.

### Thumb/Finger Lever Controls

The left thumb/finger lever controls the reverse and the right thumb/finger lever controls the forward motion. The amount of pressure applied to each lever will determine the speed the scooter travels at. Release the lever and the scooter will slowly come to a stop and the electromagnetic brake will be applied.

### On/Off Key Switch

Insert the key in the right side of the tiller. Turn the key and the LED bars will light up. There is a delay before the thumb/finger lever control can be operated, while the controller is checking the circuits.

### Indicator Switch

Operates turn indicator lights.

### Hazard Warning Switch

A red button operates all indicator flashers.

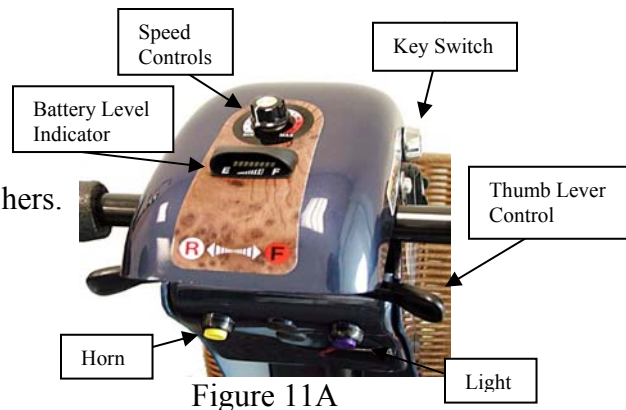


Figure 11A

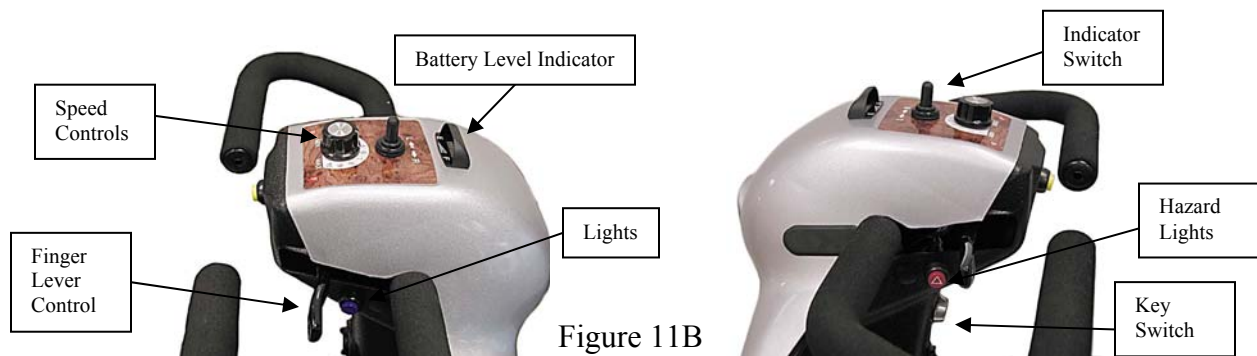


Figure 11B

## Electromagnetic Brake

The brake is automatically operated when the control levers are released. There is a slight delay when the scooter decelerates; this allows the scooter to come to a smooth stop.

## FREE WHEEL OPERATION (FIG. 12)

The free wheel release lever (red handle) is located inside the right rear wheel (Fig. 12). To disengage the motor, lift up the lever (the scooter can now be pushed). To re-engage the motor push down on the lever.

***WARNING! Always re-engage the free wheeling device after use.  
Failure to do so may result in injury.***

## Anti-tip wheels

The anti-tip wheels are located at the rear of the scooter frame (Fig. 12). The scooter should not be used unless the anti-tipping wheels are in place.

***Shoprider® Mobility Products is not responsible for damage or injury incurred due to improper or misuse of the scooter.***



Figure 12

## STARTING TO DRIVE YOUR SCOOTER

### Getting Started

- Select a level area with plenty of space.
- Mount the scooter, either by lifting the arm and sliding on to the seat or rotate the seat outwards and then rotate the seat back to face the tiller.
- Adjust the tiller and seat as described previously.

### Starting Scooter Movement

- Ensure that you are seated in a comfortable position.
- Turn the key to the ON position.
- Your speed setting should be on 1 or 2.

- Pull your right hand finger lever, the scooter will move forward slowly. The harder you pull the faster the scooter goes but will only reach the speed level that has been selected.
- Release the lever and the scooter will slowly come to a stop and the magnetic brake will be applied.

### **Steering**

Steering the scooter is light and easy. Ensure when starting off you give a wide clearance when turning so that the rear wheels clear any obstacle that you are passing. When steering through limited spaces such as a doorway or when turning around, turn the tiller handles where you want to go and apply power gently. The scooter will turn very tightly, but will still move with complete stability as long as the speed is not too high.

### **Reversing**

Before reversing ensure that the area behind is free from any hazards or obstructions. Adjust your speed setting to a low setting before you reverse. Pull/press the left thumb/finger lever, and steer wide of all corners and obstacles.

### **Dismounting**

Before dismounting ensure that the key is turned to the off position.

***CAUTION: Please ensure that care is exercised when entering or leaving the scooter and that the tiller and foot rest is not used for support.***

## **EXTRA GUIDELINES IN THE CONTROL OF YOUR SCOOTER**

### **Ramps**

The stability of your scooter is governed by several factors such as the seating position, the angle of the slope and your height and weight. When approaching an incline, do so directly and not at an angle and whenever possible avoid making turns. When going down a ramp or slope keep the speed settings to slow. This will ensure there is a safe controlled descent. When the finger levers are released the scooter will slowly stop.

***Caution - Do not turn off the control key while the unit is in motion***

### **Grass and Gravel**

Please follow the guidelines given previously and your scooter will perform admirably over many surfaces. Avoid long grass, loose gravel and sand.

***NOTE: You should not operate your scooter in wet weather or on wet surfaces. This may cause the motor to sort out.***

## TRANSPORT / STORAGE

The scooters are designed to be dismantled into separate sections for transportation and storage. Your scooter can be dismantled into the following sections:

### Sovereign B3 (Fig. 13)

- 1) Basket
- 2) Deluxe Captain Seat
- 3) Seat Post & Fasteners
- 4) Driving Unit

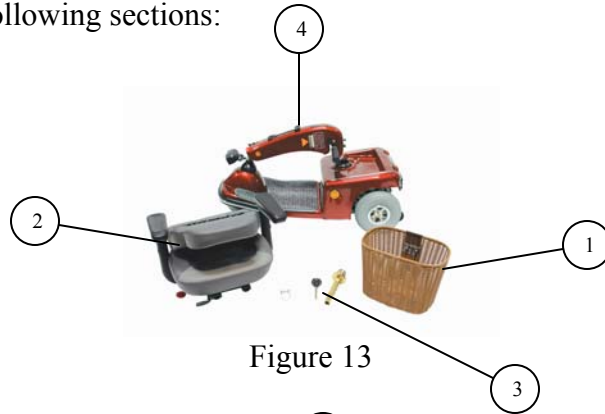


Figure 13

### Sovereign B4 (Fig. 14)

- 1) Basket
- 2) Deluxe Captain Seat
- 3) Seat Post & Fasteners
- 4) Driving Unit

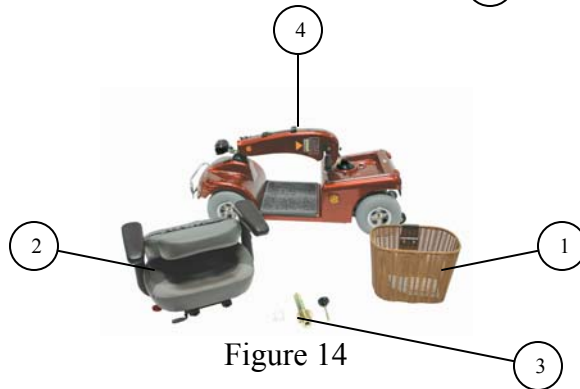


Figure 14

### Sovereign LE3 (Fig. 15)

- 1) Basket
- 2) Black Leatherette Pillow Top Seat
- 3) Seat Post & Fasteners
- 4) Driving Unit

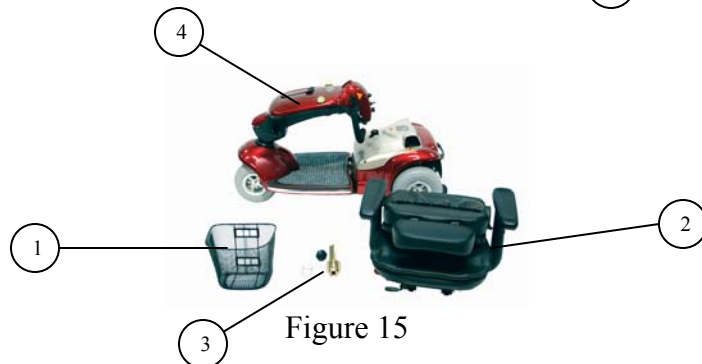


Figure 15

### Sovereign LE4 (Fig. 16)

- 1) Basket
- 2) Black Leatherette Pillow Top Seat
- 3) Seat Post
- 4) Driving Unit

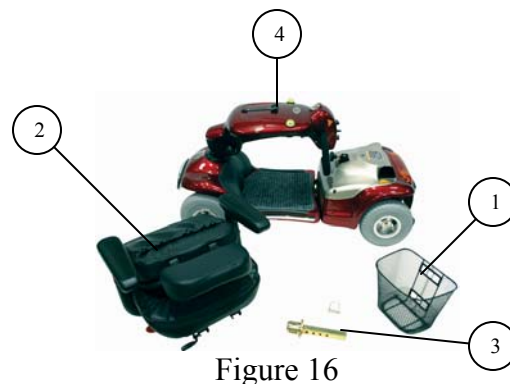


Figure 16

### Dismantling

1. Remove baskets.
2. Fold down the back of the seat.
3. Pull up on the red lever under the seat and at the same time lift and twist the seat off.
4. Unscrew tightening bolt and remove seat post.

## BATTERIES AND BATTERY CHARGER

The Shoprider® scooter is supplied with maintenance free, sealed lead acid batteries. Battery performance can be affected by temperature, terrain, condition of battery, the weight of the user, etc. The battery level indicator is only a guide and is most effective when the scooter is moving, only then is the true discharge level displayed.

- When the scooter stops the battery level indicator may indicate full.
- An active user can use up to 30% of battery capacity or more per day.
- Inactive users may only use 50% of battery capacity in a week.
- In both these instances the battery should be put on charge over night.

### Battery Charger

Batteries supplied with your scooter are specially designed. All the units require an automatic battery charger. These chargers have an electronic switch that will terminate the charge when the batteries are fully charged.

The battery chargers for the Sovereign B3 and Sovereign B4 are 3-amp transformer type off board chargers. The battery chargers for the Sovereign LE3 and Sovereign LE4 are 4-amp transformer type on board chargers.

### Charging

To charge the batteries connect the plug lead into the battery-charging socket on the scooter/battery pack and the 3-prong plug into the wall socket and switch on. **FOR Sovereign B3 and Sovereign B4 ONLY:** the battery charger has two lights. The red light when constant shows the battery charger is connected if the red light flashes; there is a break in the connection. The green light flashes when the batteries are receiving charge and is constant when the charge is complete. **FOR Sovereign LE3 and Sovereign LE4 ONLY:** Next to the charger is an LED indicator which gives you the status of your charge.

***CAUTION: Always ensure that the charging lead is in good condition and has not been damaged or stretched.***

## MAINTENANCE

### Lubrication

At six-month intervals you should lubricate the following parts with a light oil or similar lubricant:

- Seat pivot post.
- Seat release lever pinion.
- Wheel bearings.
- Axle of scooter.

***CAUTION – DO NOT USE WD40 TO LUBRICATE PARTS!! DO NOT LUBRICATE TRANSAXLE/GEAR BOX!! In the event of any difficulties please consult your dealer.***

## **Wheels and Tires**

The wheels of your scooter all have split rims. This allows any punctures to be repaired easily. To change the wheels remove the center bolt and slide the wheel off its axle. Ensure that when refitting the wheel the retaining bolt is fitted with a locking washer or the screw threads are treated with lock-tite or a similar adhesive. When changing a tire the inner tube must be deflated. Remove the four bolts from the wheel and split the rim. Tire pressure is recommended to be kept at 30 psi on the rear tires, and 25 psi on the front.

## **TROUBLE SHOOTING GUIDE**

### **Circuit Breaker**

Your scooter is fitted with the latest in electronic controls that are programmed to protect the electrical system from abnormal overloads. Fitted for extra protection is a circuit breaker, should there be a situation that your scooter stops for no apparent reason please check that the circuit breaker has not popped out. The circuit breaker can be found under the rear chassis cover accessible through a port hole under the seat.

### **Check List**

If your scooter fails to operate, please check the following:

- Unit is switched on.
- All plugs and connectors are firmly fixed.
- Battery level shows full charge.
- Freewheeling device is in the drive position.

If the free wheel device has been operated with the scooter left switched on, then the scooter will not operate until the ignition key has been switched off and then on again.

Please consult your dealer if your scooter does not run after checking these points.

## TECHNICAL SPECIFICATIONS

UNIT SPECIFICATIONS		Sovereign B3	Sovereign B4	Sovereign LE3	Sovereign LE4
Overall Dimensions: L <sup>1</sup> x W x H	in (mm)	45 (1143) x 24 (610) x 38 (965)	49 (1245) x 22 ( ) x 38 ( )	48 (1230) x 24 (620) x 41 (1030)	49 (1250) x 24 (620) x 41 (1030)
Number, Size of Tires	Front	1 , 8"	2 , 7"	2 , 9"	2 , 10"
	Rear	2 , 8"	2 , 8"	2 , 10"	2 , 10"
Suggested User Weight (on the level road)	lb (kg)	Max. 300 (136)	Max. 300 (136)	Max. 300 (136)	Max. 300 (136)
Weight of heaviest part (w/o battery, baskets and seat)	lb (kg)	41 (19)	42 (19)		
Total Weight (w/ batteries, basket, seat)	lb (kg)	165 (75)	180 (82)	160 (73)	176 (80)
Each Battery Module Weight	lb (kg)	20 (9)	20 (9)	26 (12)	26 (12)
Battery Module Capacity	$\frac{V}{x}$ Ah x Pcs	12V33Ah x 2	12V33Ah x 2	12V36Ah x 2	12V36Ah x 2
Charger		Off Board (3A)	Off Board (3A)	On Board (4A)	On Board (4A)
Output Power of Motor	hp (W)	1 (750)	1 (750)	0.80 (600)	0.80 (600)
Maximum Speed <sup>2</sup>	mph (km/hr)	5 (8)	5 (8)	5 (8)	5 (8)
Maximum Climbing Angle (based on user weight of 90kg/200lb)/Safe Climbing Angle	% ( ° )	14 (8)	14 (8)	14 (8) / 21 (12)	14 (8) / 21 (12)
Range <sup>3</sup> (per charge w/ STD 33-36AH Battery / 200 lb User Weight) (After the battery and mechanical moving parts fully break in)	mile (km)	25 (40)	25 (40)	24 (38)	24 (38)
Turning Radius	in (mm)	37 (940)	50 (1270)	39 (1000)	53 (1400)
Handle Bar	Type	T	T	C	C

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

1. Include the Anti-Tip wheel.
2. Driver weight may exceed weight of the unit; speed must be reduced when turning.
3. The actual driving range varies with the factors shown below:
  - a) the weight of occupant
  - b) ground surface
  - c) battery conditions
  - d) type of charger
  - e) ambient temperature
  - f) the way of driving
  - g) etc.

## QUARTERLY INSPECTION

For your own safety, quarterly inspection and service on the product with signature by an authorized dealer is strongly recommended. 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 is 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 Was Purchased From:** \_\_\_\_\_

<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>
<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>
<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>	<b>M / D / Y</b>
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## Notes

## Notes

## Notes

## WARRANTY

Please refer to warranty information included with unit.

Serial No.

## DISCLAIMER

Congratulations on your purchase of the **Shoprider®**

It is not intended to be used by individuals with physical limitations that could prevent the user from operating this unit 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. Mechanical or electrical defects will be dealt with on a contingency liability basis.

The preceding guidelines are intended to assist you in the safe operation of your powered scooter. If you should have any questions about the correct operation of your scooter, please contact your authorized **Shoprider®** dealer.

Model No.

Serial No.

Dealer's Stamp

Shoprider® Mobility Products, Inc.  
(800) 743-0772  
[www.shoprider.com](http://www.shoprider.com)