

# Owner's Manual



➤ S745



## Quick Reference Guide ( S745 )

1. Tiller
2. Control Panel
3. Tiller Adjustment Lever
4. Removable Seat
5. Adjustable Armrest
6. Rear Light
7. Free Wheel Lever
8. Anti-Tip Wheel
9. Seat Pivot Lever
10. Floor Mat
11. Front Bumper
12. Head Light
13. Turn Indicator
14. Front Basket



Model No.	S745	
Length	47" / 120 cm	
Width	24" / 61 cm	
Seat Height (from deck)	17" ~ 18.5" / 42 ~ 47 cm	
Front wheel	10" / 26cm x 2pcs	
Rear wheel	10" / 26cm x 2pcs	
Weight Capacity	300 lbs / 136 kg	
Speed	5mph / 8 kph	6.25mph / 10 kph
Range	20 miles / 32 km	
Turning Radius	60" / 153 cm	
Gradient	8°	6°
Light	Full Led Light System	
Battery	12V / U1 x 2 pcs	
Brakes	Intelligent, regenerative and electromagnetic brakes	
Anti-tip	2 rear anti-tip wheels	
Bumper	Front / Rear	
Unit Weight (w/ battery)	Captain 190 lb / 86 kg	
Charger	4A off-board	

Welcome aboard your new Merits scooter. We wish to thank you for letting us improve your freedom and independence. This model has been designed with your practical needs in mind. It is equipped with modern high-tech electronics and special features for a more comfortable ride. Its safety and performance will provide you with years of excellent service and pleasure.

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**Failure to follow these instructions may result in damage to the powerbase wheelchair or serious injury.**

## ■ Practice Before Operating

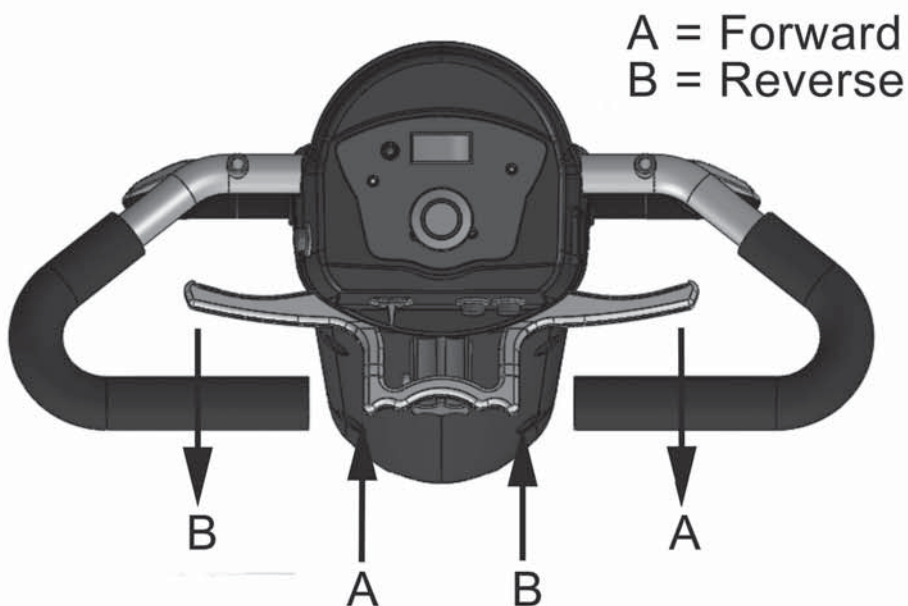
Find an open area such as a park and have an assistant to help you practice until you have confidence operating this vehicle.

Make sure that the power is off before getting in or out of the seat. Set the speed control button according to your driving ability.

**We recommend that you keep the speed control at the slowest position until you are familiar with the driving characteristics of this vehicle.**



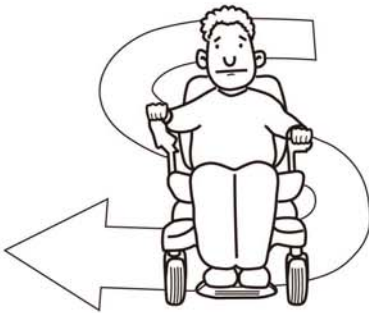
Stop, forward, and reverse operation practice



## Getting familiar with this vehicle



First, practice moving forward.  
Be sure to set the speed to the lowest setting.



After becoming familiar with moving forward,  
practice marking "S" turns.



Once you are familiar with "S" turns, practice  
moving in reverse.

## ■ Safety Considerations

**DO NOT** do any of the following



**NO!**

Do not carry any passengers



**NO!**

Do not drive across a slope



**NO!**

Do not drink and drive

Consult your physician to determine, if your medications impair your ability to control this vehicle



**NO!**

Do not tow a trailer



**NO!**

Do not turn on or use hand-held personal communication devices such as citizens band (CB) radios and cellular phones

This vehicle has an immunity level of 20 V/m which should protect it from Electromagnetic Interference(EMI) from Radio Wave Sources. The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (radio) waves that are emitted by television, radio and communication signals. These EM waves are invisible and their strength increases as one approaches the source. All electrical conductors act as antennas to the EM signals and, to varying degrees, all power wheelchairs and scooters are susceptible to electromagnetic interference (EMI). This interference could result in abnormal, unintentional movement and/or erratic control of the vehicle. The United Statement be incorporated to the user's manual for all electric scooter.

Powered wheelchairs and electric scooters(in this text, both will be referred to as powered wheelchairs) may be susceptible to electomagnetic interference(EMI), which is interfering electromagnetic energy 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 powered wheelchair to release its brakes, move by itself or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called the "immunity level." The highedr the immunity level, the greater the protection. At this time, current technology is capable of providing at least 20 V/m of immunity level which would provide useful protection against common sources of radiated EMI.

Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement that could result in serious injury:

- 1) Do not turn on hand-held personal communication devices such as citizens band (CB) radios and cellular phones while the powered wheelchair 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 powered wheelchair off as soon as it is safe.
- 4) Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to interference from radio wave sources. (Note: there is no easy way to evaluate their effect on the overall immunity of the powered wheelchair).
- 5) Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer, and note whether there is a radio wave source nearby.

**TURN OFF YOUR SCOOTER AS SOON AS POSSIBLE WHEN EXPERIENCING ANY OF THE FOLLOWEING:**

1. Unintentional motions.
2. Unintended or uncontrollable direction.
3. Unexpected brake release.

The FDA has written to the manufacturers of power wheelchairs, asking them to test their new products to be sure they provide a reasonable degree of immunity against EMI. The letter says that powered wheelchairs should have an immunity level of at least 20 V/m, which provide a reasonable degree of protection against the more common sources of EMI. The higher the level, the greater the protection.

■ **Driving Outdoors**

When you are on the road, please pay attention to the following:



**NO!**  
Do not drive in traffic.



**NO!**  
Do not drive beside a river, port, or lake without a fence or railing.



**NO!**  
If possible, do not drive during the rain.



**NO!**  
If possible, do not drive during or on snow.



**NO!**  
Do not drive off-road or on any uneven surfaced roads.



**NO!**  
If possible, do not drive at night.



**NO!**

**Make sure that there are no obstacles behind you when in reverse.**

We recommend to set the speed knob at the lowest speed for reversing.



**NO!**

**Do not make sudden stops, weave erratically, or make sharp turns.**



**NO!**

**Keep your arms on or inside the armrests and feet on the footrest at all time.**



**NO!**

**Do not attempt to climb curbs greater than 2"(5cm).**



**NO!**

**Do not attempt to cross over a gap greater than 4"(10cm).**

## ■ Use caution when driving on hills

Driving on hills is more dangerous than on level surfaces. If you fail to heed these warnings, a fall, tip-over or loss of control may occur and cause severe injury to the vehicle user or others.



### **NO!**

Do not attempt to climb a hill greater than 10°



### **NO!**

Do not reverse while driving up a hill.

Forward only. If you reverse while moving up a hill, it may cause the vehicle to tip over.



### **NO!**

Do not attempt to drive across a sloping surface greater than 3°

Driving across a slope greater than 3° is very dangerous and may cause the vehicle to tip over.



### **NO!**

Use caution when driving over soft, uneven or unprotected surfaces such as grass, gravel and decks.



**NO!**

**Use low speed while driving down hill.**

When going down hill, the tiller will become harder to reach and handle. When braking while moving down hill, the scooter will take longer to come to a complete stop.



**NO!**

**Do not get in and off on a hill.**

Always stop on the level surface to get in and get out of the vehicle.



**NO!**

**Do not load or carry heavy items in the basket while driving down hill.**



**YES!**

**Always climb or descend gradients perpendicular to the slope or ramp.**

In this section, we will acquaint you with the many features of your scooter and how they work. Upon receipt of your scooter, inspect it for any damage. Your scooter consists of a frame assembly, drivetrain assembly, seat assembly, tiller assembly, battery charger, and owner's manual. Contact your sales agent if any question arise.

## FEATURE GUIDE ( S745 )



- |                            |                     |
|----------------------------|---------------------|
| 1. Tiller                  | 8. Anti-Tip Wheel   |
| 2. Control Panel           | 9. Seat Pivot Lever |
| 3. Tiller Adjustment Lever | 10. Floor Mat       |
| 4. Removable Seat          | 11. Front Bumper    |
| 5. Adjustable Armrest      | 12. Headlight       |
| 6. Rear Light              | 13. Turn Indicator  |
| 7. Free Wheel Lever        | 14. Front Basket    |

## ■ Batteries

### ***Charge the batteries completely (8-12 hours) prior to first use.***

The Scooter is supplied two 35Ah , 12 Volt sealed lead acid batteries. The batteries are situated under the front of the seat and can be removed by lifting them away from the chassis.

Low temperatures, rough terrain and the weight of the user can affect battery performance. Your battery gauge is a guide only to the level of charge remaining in your batteries and will give its best indication while the scooter is moving.

### **Battery Charger**

The battery charger is a 4-amp switch type off board.

Before using your scooter for the first time be sure to fully charge the batteries, this may take up to 12 hours.

To charge the batteries connect the 3-pin male charger plug into the charging socket on the tiller. Plug the 3-pin mains plug into a wall socket and switch on. A constant red light will show when the battery charger is connected and charging is underway (The green LED will flash if there is a break in the connection).

The red light indicates that the batteries are receiving charge.

The green LED will light when the charging cycle is complete. Always turn off mains power to the charger before disconnecting the plug from the tiller.



***Caution! Always charge the batteries in a well-ventilated indoor area. You must still maintain charging the batteries even if the scooter is not to be used for a prolonged period of time (2 to 3 weeks). Failure to do so could result in permanent damage and render the batteries unusable. Wherever possible do not interrupt the charge cycle until the batteries are fully charged. Continual interruption can permanently damage the batteries. If the charging lead should get damaged discontinue use immediately and seek a replacement from your dealer. ONLY USE THE CHARGER SUPPLIED WITH YOUR SCOOTER. Do not leave the charger plugged into to the charger port after the charge is complete. ALWAYS remove the keys from the scooter when charging.***

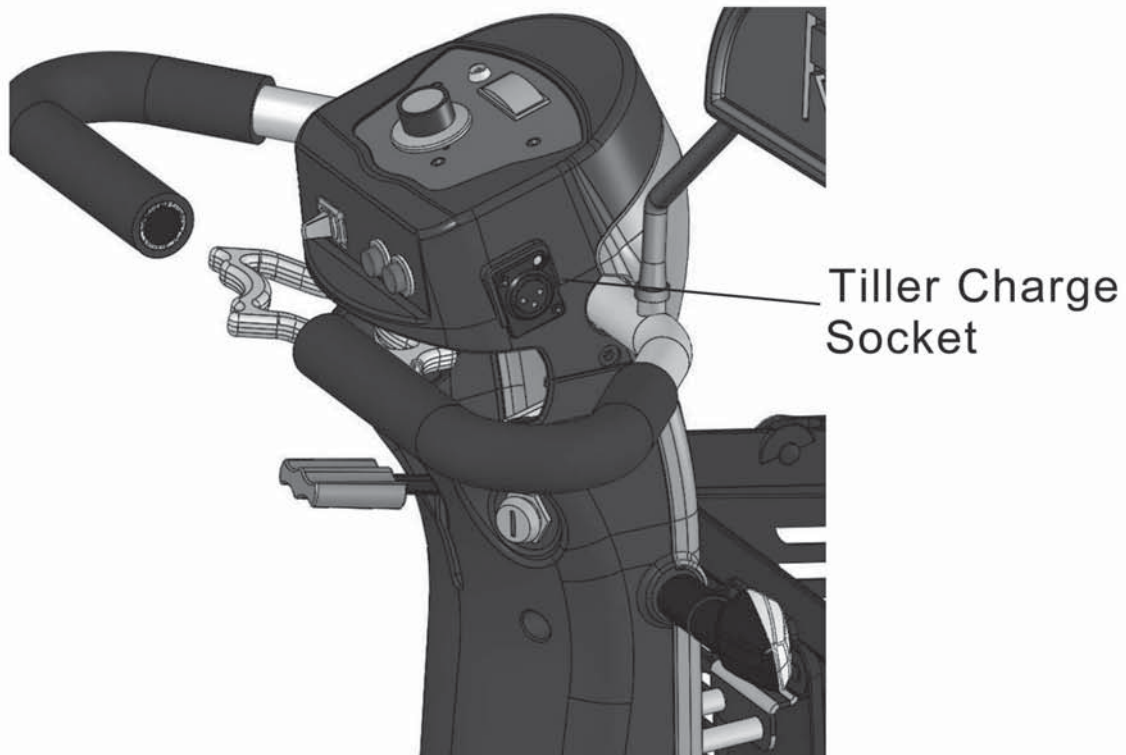


### ***Disposing and recycling of used batteries***

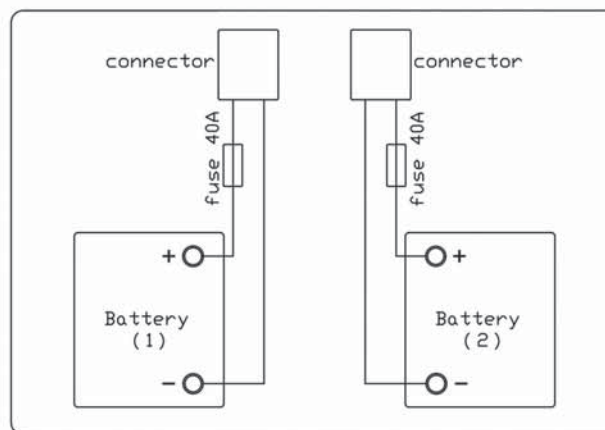
Batteries must always be recycled correctly. Do not dispose of them with your domestic refuse.



For further information regarding your nearest recycling facility please contact your local authority. z



## Battery connection For S745

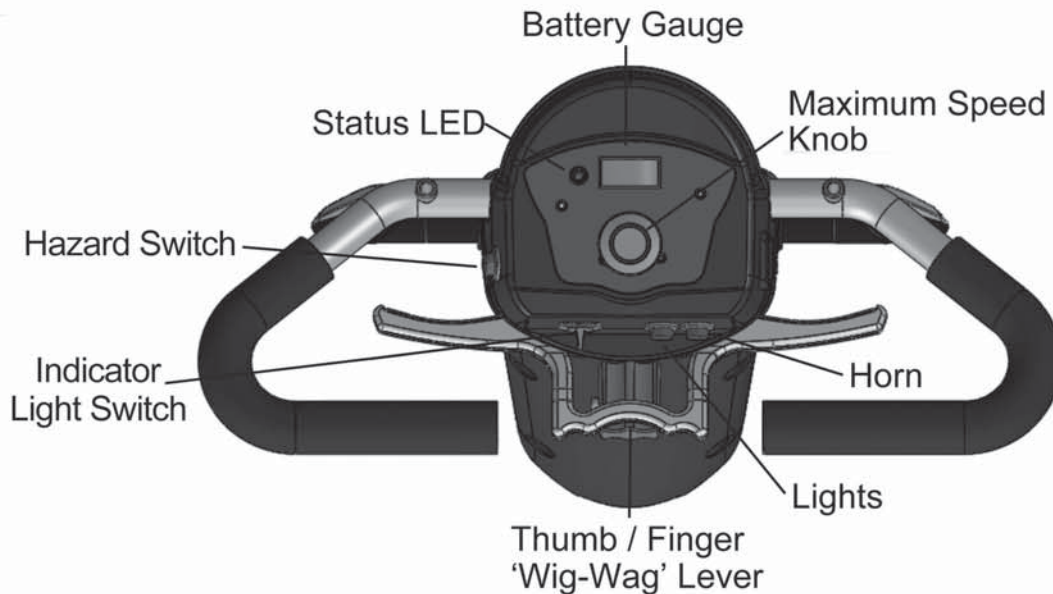


Your scooter is equipped with maintenance free, sealed leadacid or gel batteries. These batteries require no maintenance other than ensuring they are properly charged. If other batteries are used, check with your battery supplier for proper battery care and maintenance instructions. Your scooter is supplied with two battery cables (which plug into the control box cable). Now using the battery cable attach the red wire to the (+) terminal of the first battery. Attach the black wire to the (-) terminal of the first battery, the second battery wiring is the same as the first using the second battery. (refer to diagram above).



## ■ Controls (Analog dashboard)

Only drive within your control limitations. Loss of control of your scooter could result in serious injury to yourself or others. If your speed becomes difficult to control, release the speed engager lever and your scooter will come to a complete stop. **Only use the on/off switch to stop your scooter in an emergency.**



### Thumb / Finger Lever (Wig-Wag)

The thumb levers control the reverse and forward motion of the scooter – see ‘**Starting To Drive**’ for operation. Remember, more pressure = more speed. Release the thumb lever and the scooter will automatically come to a safe stop as the electromagnetic brake is applied. **Always release the lever if the scooter behaves erratically.**

### Horn Button

The red button operates the scooters horn. **This should only be used to warn others of your presence and not as a rebuke of any form.**

### Battery Level Indicator Gauge

This gauge gives you a guide to the amount of charge left in the scooters batteries. This will give the truest reading when the scooter is in motion. **Always fully charge the batteries before driving your scooter and never let the batteries become completely drained, as this may cause permanent damage to the batteries.**

### On/Off Key

The keyswitch is located on the right side of the tiller. Simply insert the key and turn clockwise to switch the power on. The battery gauge needle will move and the status LED will light up green. There may be a slight delay before the thumb levers operate as the controller checks the scooters circuits. **Never leave the key in the switch unattended to prevent unauthorised use. Do not switch the power off to stop the scooter unless it is an emergency. The scooter will stop very abruptly if stopped in this way.**

### Maximum Speed Knob

The speed control enables you to set the maximum speed of the scooter. Turn clockwise to increase the maximum speed and anti-clockwise to decrease.

**Always start at a slow speed until accustomed with the characteristics of your scooter. Do not put excessive pressure on the dial. Only turn as far as the stops.**

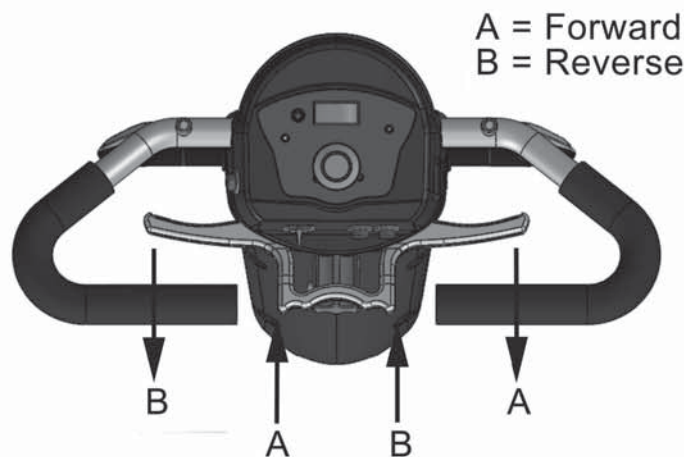
**When driving in pedestrian areas such as shopping precincts and busy pavement areas always respect other pedestrians and turn the maximum speed down so that the scooter travels at the walking pace of others around you.**

### Getting Started

✓ Note: You must fully charge the batteries prior to first use (see 'Batteries and Charging')

Select an area with plenty of space.

Mount the scooter by lifting the arm and sliding onto the seat. Ensure the seat is securely locked in the forward facing position before driving. Adjust the tiller and seat if necessary (see 'Adjustments'). DO NOT use the tiller to fully support you during transfers.



The Scooter has a dual operation thumb / finger lever which enables use by both fingers and thumbs. The direction of the scooter is determined by which part of the lever is pushed / pulled as outlined above.

If the lever is operated in direction 'A' at the relevant point it will move forward, the 'B' direction will cause the scooter to reverse.

### Moving Off

Insert the key and switch on the power and initially set the speed control to a low setting. The further you push / pull the lever the faster the scooter will travel, but only to the maximum speed that has been selected. Release the lever and the scooter will come to a smooth controlled stop.



**Caution! DO NOT switch off the power to stop the scooter as this will cause the transmission to lock and the scooter will come to a sharp stop, which could possibly cause injury. This procedure should only be used in an emergency.**

### Steering

Steering the scooter is light and easy. Ensure you give obstacles a wide clearance to avoid the rear wheels catching. When steering through limited spaces, turn the tiller in the direction that you wish to go and apply power gently. The scooter can turn very tightly with complete stability at slow speeds.



**Caution! NEVER turn sharply at high speeds as it can make the scooter unstable. The maximum speed should be set at 50%.**

### Reversing

Before reversing ensure the area behind the scooter is free from any obstacles or hazards. Adjust the speed setting to low before you reverse. Steer wide of all corners and obstacles.

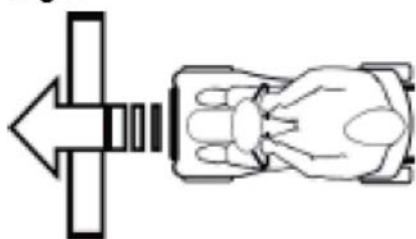


**Caution! Do not reverse onto a main thoroughfare.**

### Ramps / Slopes

The stability of your scooter depends on several factors such as seat height, angle of gradient and the user's height and weight. When approaching an incline, do so directly and not at an angle and avoid making turns where possible.

Right



Wrong



### Surfaces

Your scooter will perform well over many surfaces. However, avoid long grass, loose gravel, sand, mud and ice.

### Transferring

Lift up the armpad from the side yoke to leave or sit on the scooter. Use an u-wis aid for balance if required. DO NOT use the tiller or armrests to support the full weight during transfers.

## ■ Seat adjustment

### Backrest angle:

- Fold the backrest down for easy transport.



### Seat turnability

The seat swivel lever (located on the side of the seat) allows the seat rotation in 45 degree increments.

You may use this feature to make it easier to transfer in and out of the seat.

- Pull the swivel lever up to unlock and rotate the seat.
- Pivot the seat to the position you desire.
- Release the lever and try to turn the seat back and forth slightly allowing the lever to lock into position.



### Armrest height:

- Loosen the clamping nut at the rear of the handle.
- Turn the bolt in to lower the angle of the armrest to your desired angle.



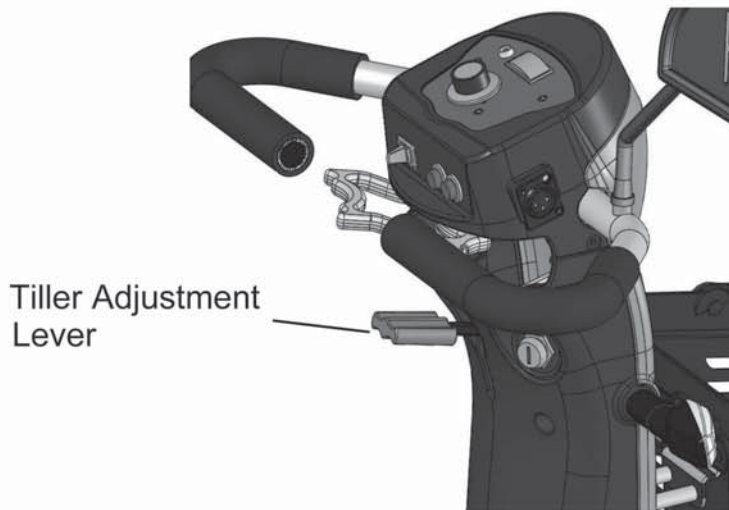
### Armrest width:

- Locate the width clamping nut (follow the armrest support down to the base of the seat).
- Loosen the clamping nut by turning counterclockwise.
- Pull the armrest in or out to reach your desired position.
- Tighten the width clamping nut.



## ■ Tiller Angle Adjustment

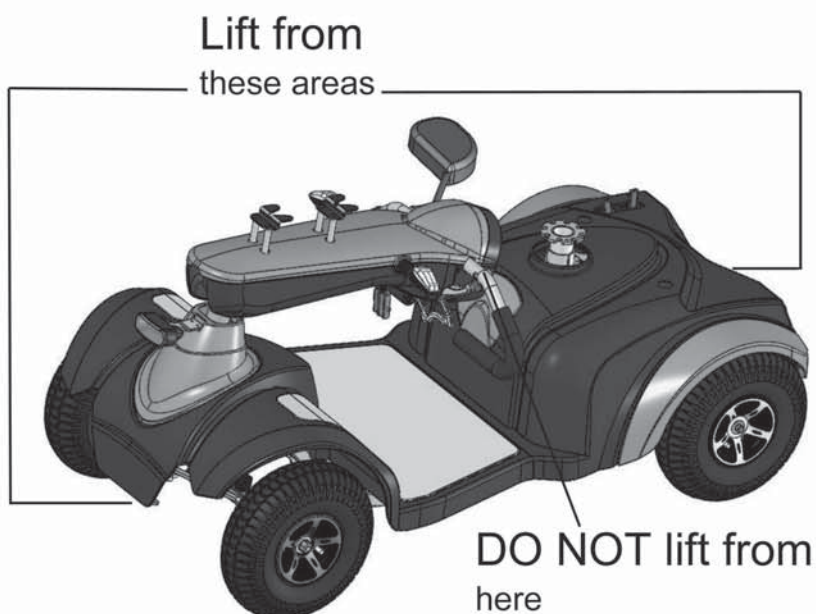
Mid-way up the tiller stem is the angle adjustment lever. Gently push the lever down and adjust the tiller to the desired angle and release the lever to lock in position. Ensure the tiller is fully secure before using the scooter.



### Folding the Tiller Assembly (For transport purposes)

Release the adjustment mechanism as above and fold the tiller down fully until it reaches the position shown below.

***Do not carry the scooter by the tiller stem in the area indicated below.***

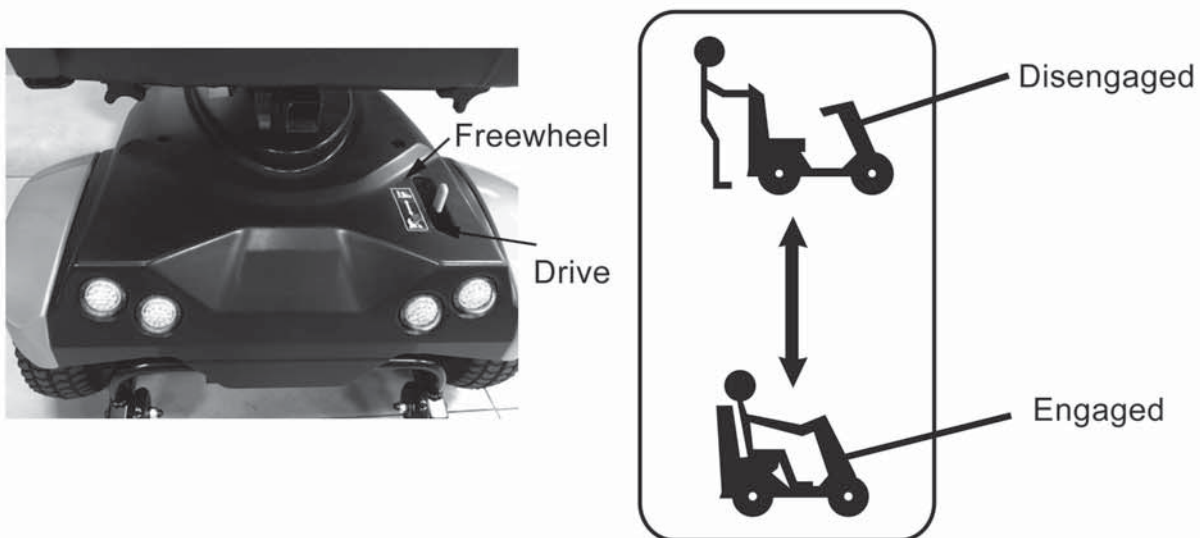


## ■ Freewheel Mode

### Brake Release / Freewheel Operation

The brake release lever is situated at the right rear of the scooter. This lever allows you to disengage the drive mechanism and push the scooter in 'freewheel' mode. To disengage the drive, pull the lever upward to the 'disengaged' position. The scooter can now be pushed.

Simply push the lever back down to re-engage the drive mechanism (the scooter can now be driven). The scooter will not operate when the lever is in the disengaged position. The scooter must be turned off and on by the key switch to reset the circuits before it will resume normal operation. The status led will flash continually if the brake is disengaged when it is switched on.



**Caution!** Never leave the scooter unattended whilst in freewheel mode as it will roll away down an incline. 'Freewheel' mode should only be used in an emergency to move the scooter due to power failure. NEVER move the scooter in this mode whilst it is occupied.

When in freewheel mode the scooter may be pushed on level ground at a walking pace. The scooter will 'auto-brake' if this speed is exceeded.

The Scooter is designed to be quickly and easily disassembled without tools into sections for transportation and storage:

### Guidelines for Disassembly

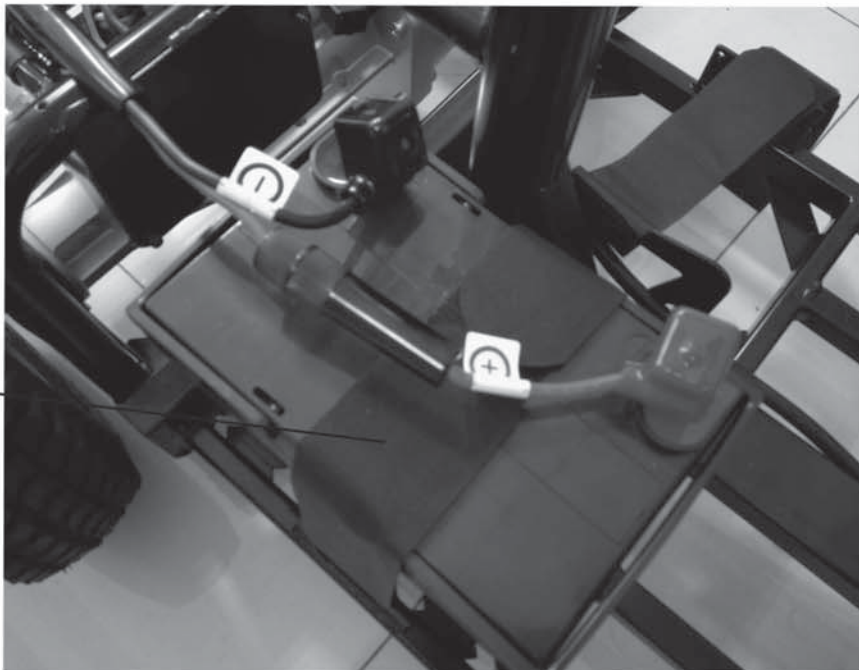
Follow the guide for the easy disassembly of your scooter:

(Ensure the scooter is switched off before disassembling)

1. Lift the basket up and off the bracket.
2. Remove the seat as described earlier.
3. Loosen the bandage, then lift the batteries out of the chassis.
4. Loosen the tiller adjustment knob and lower the tiller and re-tighten the knob. ***Do not carry the chassis by the tiller stem as shown previously.***

### Removing Batteries

1. Loosen the bandage



2. Remove the batteries

Assembly is the reverse of the above procedure.

The Scooter is now separated into three components for easy transportation or storage.

## ■ Driving up and down gradients



	8kph	10kph
10°	250 lbs / 114kg	200 lbs / 91kg
8°	300 lbs / 136kg	250 lbs / 114kg
6°	300 lbs / 136kg	300 lbs / 136kg
0°	300 lbs / 136kg	300 lbs / 136kg

## ■ Maintenance

### Product Life Expectancy

Your scooter has been designed to provide the user with a long, reliable life provided it is correctly maintained and regularly serviced by an authorised dealer. However, due to inevitable wear and tear and technological improvements it is recommended that the average useable life of this scooter is five years.

### General Cleaning

The shrouds and seat of the scooter should be cleaned using a damp cloth and gentle detergent. Do not use abrasive cleaners or solvents, as this will damage the plastic components. Do not spray water (hose or pressure washer) onto the scooter as this may cause damage to the electronics.



## Routine Maintenance

We suggest that your scooter should undergo a full service at least once a year by an authorised dealer.

Please check the following on a weekly basis:

- Tyres are in good condition (Pressure 25-30psi)
- Front wheels spin freely
- Moving parts, pivots and frame fixings are not damaged or worn
- All hand knobs and levers are secure

## ■ Troubleshooting

### Fuses

There are two 40 amp fuses in the battery leads to give protection against possible overload on the wiring.

***Caution! Do not attempt to replace the fuses.***

***Please take the scooter to an authorised dealer to replace any blown fuses.***



### Check List






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

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

If the freewheel device has been operated with the scooter switched on, the scooter will not operate until the key switch has been turned off and on again. Should a fault occur, the status light on the tiller head will indicate a flash sequence which relates to the fault in the table below.

Flash Code	Description	Scooter Condition	Action
1	Charge batteries	Scooter will not run	Batteries less than 23.3v. Charge as soon as possible.
2	Battery voltage too low	Scooter will not run	Batteries less than 16.5v. Charge immediately.
3	Battery voltage too high	Scooter will not run	Possible excessive re-gen charging by travelling downhill for long periods. Turn power off / on to reset controller.
4	Current time limit out	Scooter will not run	Excessive current draw over long periods. Turn off scooter and leave for a few minutes before restarting.
5	Brake fault	Scooter will not run	Check scooter is not in freewheel. Possible faulty brake.
6	Thumb lever displacement	Scooter will not run	Check thumb lever is centred. Faulty potentiometer.
7	Speed pot error	Scooter will not run	Action as above and check loom for damage / short circuit.
8	Motor error	Scooter will not run	Open motor circuit. Check motor brushes and connections for contact or short circuits.
9	Controller error	Scooter will not run	Possible controller fault. Refer to dealer.

✓ **Note: Should your scooter fail to operate after checking these possible problems, consult your local dealer immediately.**

ICE SYMBOLS	
	Caution, attention or consult accompanying documents.
	Alternating Current
	Type BF Equipment
	Double Insulation
	No Smoking or Naked Flames

Degree of protection against ingress of water is rated as IPx0.





We wish you a safe and comfortable riding experience!





