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Welcome aboard your new scooter, and thank you for choosing our product. Please read this manual carefully, and follow all instructions before attempting to operate your scooter for the first time. If there is anything in this manual that you do not understand, or if you require additional assistance for setting up your scooter, please contact your local dealer.

This latest model is designed for specific practical user needs, combining solid, rugged construction, and modern high-tech electronics, to enhance safety and performance.

With a state-of-the-art, programmable electronic control system, your scooter can be programmed and adjusted within a given range of its performance characteristics, to suit your individual needs. The controller is set up at the factory to give the scooter nominal operating performance characteristics.

After becoming familiar with the basic operation of the scooter, you may wish to customize the settings to fit your own personal preferences. A wide range of customization options can be adjusted such as acceleration, deceleration, maximum speed, turning speed, safety controls, and so on. Contact your local dealer for advice on additional equipment you may need.

Having your scooter checked regularly by your local dealer is the best way to ensure smooth operation, and safety.

This manual provides users practical tips and information on safety issues, operation, and maintenance. Please read it very carefully to ensure your maximum enjoyment and to fully benefit from your independence and mobility.

Whenever special advice or attention is needed, please do not hesitate to contact your local dealer, who has the tools and know-how to provide expert servicing for your scooter.

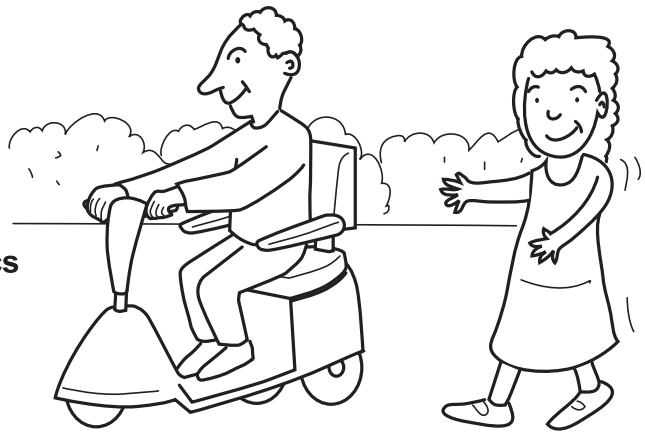
Your satisfaction and opinions are highly valued by both your local dealer and Merits. Please be sure to fill out the enclosed guarantee form, and return it to your local dealer. The information is necessary for providing you with the best service, and to be sure all of your needs are met.

Failure to follow these instructions may result in damage to the scooter or serious injury.

Practice Before Operating

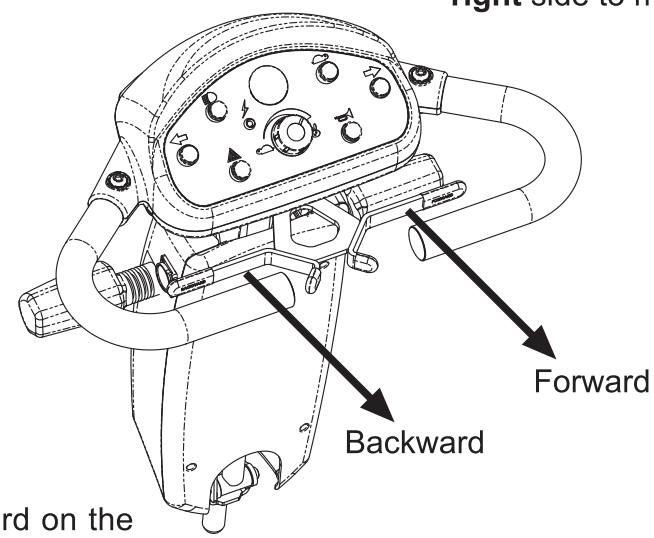
Find an open area such as a park and have an assistant to help you practice until you have confidence operating this vehicle.

Make sure that the unit is off before getting in or out of the it. Set the speed control knob according to your driving ability. **We recommend that you keep the speed at the slowest position (fully counter-clockwise) until you are familiar with the driving characteristics of this vehicle.**



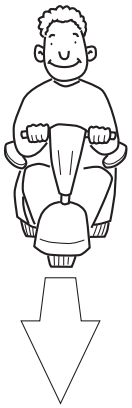
Stop, forward, and reverse operation practice

Pull the lever forward on the **right** side to move **forward**

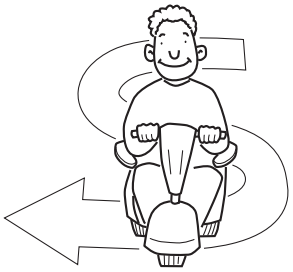


Pull the lever forward on the **left** side to move **backward**

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.

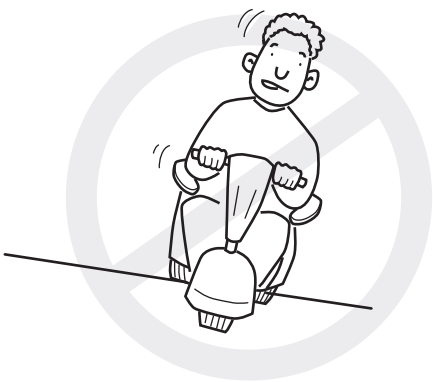
Once you are familiar with "S" turns, practice moving in reverse. Note that at any speed control setting, the vehicle moves more slowly in reverse than forward

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 persona 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 communucation 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 sasceptible 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.

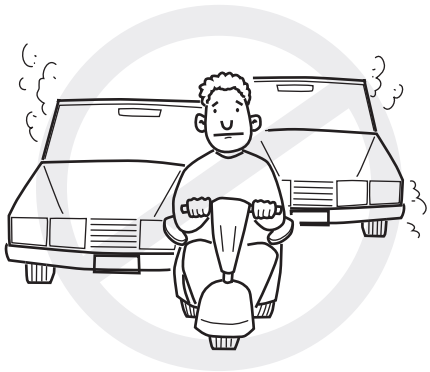
TURN OFF YOUR SCOOTER AS SOON AS POSSIBLE WHEN EXPERIENCING ANY OF THE FOLLOWEING:

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 immunitylevel 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 up the speed knob at the lowest speed for reversing.

NO!

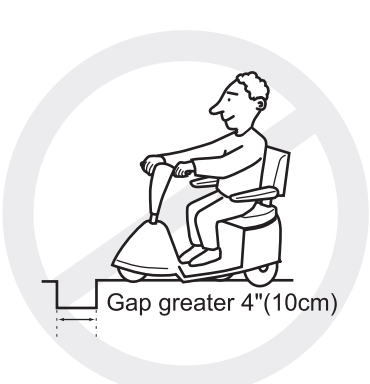
Do not make sudden stops, weave erratically, or make sharp turns.

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 that 2"(5cm).



NO!

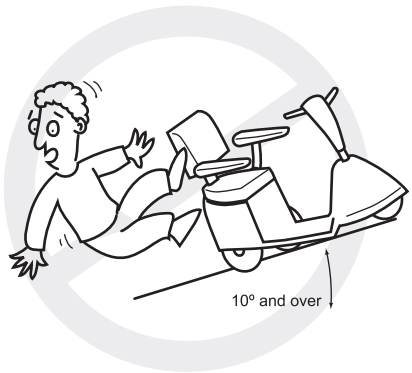
Do not attempt to cross over a gap greater that 4"(10cm).

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 that 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 iin the basket while driving down hill.

YES!

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

Feature Diagram

S 139

1. Tiller
2. Control panel
3. Tiller adjustment lever
4. Removable seat
5. Adjustment armrest
6. Rear light
7. Drive wheel
8. Rear shroud
9. Seat pivot lever
10. Seat position adjuster
11. Rug
12. Front wheel
13. Front bumper
14. Front shroud
15. Basket
16. Turn signal
17. Headlight

Feature Diagram

S149

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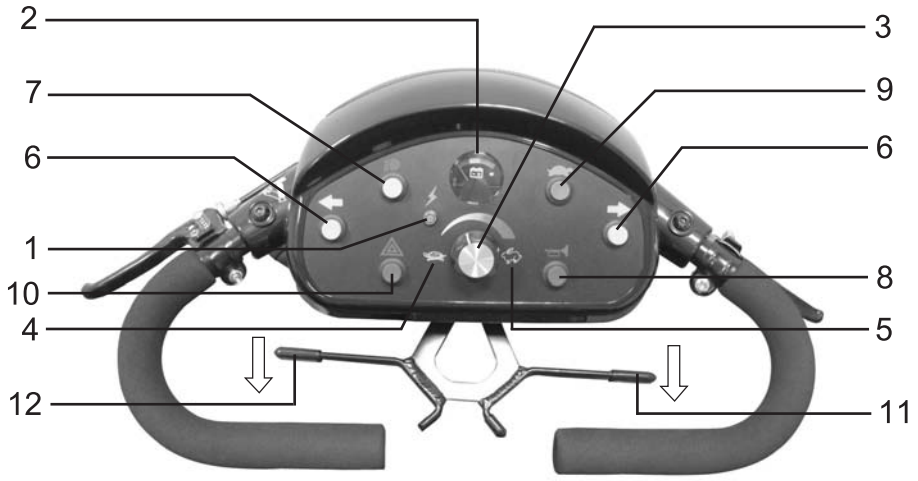
13. Front bumper
14. Front shroud
15. Basket
16. Turn signal
17. Headlight

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

Parallel Tiller

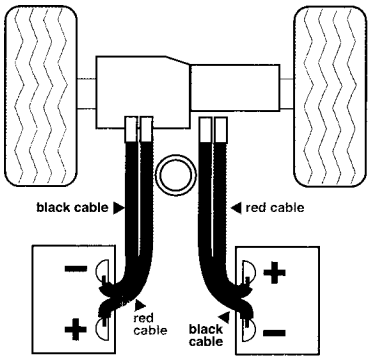


1. Status indicator
2. Battery condition meter
3. Speed adjustment dial
4. Slow speed
5. Fast speed
6. Turn signal button (L/R)
7. Light button
8. Horn
9. Half speed button
10. Hazard light button
11. Throttle control lever (forward)
12. Throttle control lever (backwards)
13. Key switch
14. Tiller angle adjustment lever
15. Off board charger receptacle

Safety Precautions

- Do not carry passengers or exceed the maximum weight limit of 135kg (300 lbs).
- Do not exceed any incline over 12º. Ask for assistance when descending or ascending steep gradients.
- Do not attempt to mount a kerb higher than 5 cm (2")
- Do not use on the road, except when crossing between pavements. When crossing the carriageway of a public road always take extra care and observe the Highway code.
- Do not turn off the controls by switching the key off when moving at speed. This will bring the brakes on immediately and could cause damage to the controls.
- Do not ride through water, deep soft terrain (soft dirt, loose gravel, deep grass).
- Do not mount or dismount the scooter unless the brakes are engaged and the controls are switched off.
- Do not operate the scooter if the unit is in freewheel mode.
- We recommend that you do not sit on your scoother when in a vehicle, but transfer to a vehicle seat and stow the scooter in the vehicle storage space.
- Do not turn suddenly at full speed. Always stop before making a sharp change of direction.
- Always engage a slow speed when going down gradients.
- Always keep your feet on the footplate when moving.
- Do not expose the scooter to direct rain or high humidity as it may cause it to malfunction (electrically or mechanically).
- Always make sure that the batteries are sufficiently charged before setting out on a journey.
- Do not use parts, accessories or adapters other then those authorised by Merits.

Batteries



Your scooter is equipped with maintenance free, sealed lead acid batteries. These batteries require no maintenance other than ensuring that they are properly charged. If other batteries are used, check with your battery supplier for proper battery care and maintenance instructions.

Your scooter comes supplied with two battery cables. Attach the red wire of the first cable to the (+) terminal of the first battery. Attach the black wire of the first cable to the (-) terminal of the first battery. Repeat this procedure for the second battery.

Charging the batteries

Note: because your batteries may only have a partial charge when you first receive your scooter, you may not experience full riding time until you have fully charged them. Your scooter is equipped with a battery charger. Charging your batteries as specified below will ensure maximum life, power and range.

WARNING!

Use of a non-grounded receptacle could result in an electric shock

Using Off Board Charger

1. Turn off the power on the scooter.
2. Plug the charger cable into an outlet.
3. Plug the charger cable into the power socket on the tiller. (You will need to flip up the rubber safety covering on the power socket)
4. Leave the scooter to charge. As it charges, you will see progress lights on the charger unit. A RED light means the charger is ready to use, a WHITE light means charging is in progrees, and a GREEN light means the charger is finished, and the scooter is fully charged.

Disassembly the scooter

This scooter can be separated into six parts, the front section, rear section, rear shroud, seat, basket and the battery. Follow the procedures below to disassemble your scooter and transport it with care.

1. Front Section
2. Rear Section
3. Rear Shroud
4. Seat
5. Basket
6. Battery

Disassembly and Assembly of the Scooter

1. 
Move the tiller to the forward position then pull up on seat release and remove seat.

2. 
Loosen the screw knob.

3. 
Remove cover.

4. 
Disconnect both batteries.

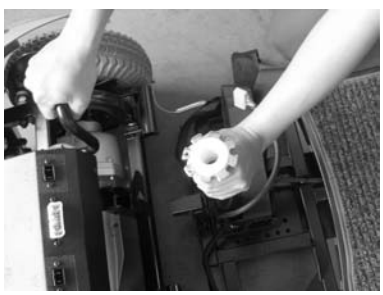
5. 
Remove both batteries.

6. 
Disconnect the connector.

7. 
Pull down the linkage then pull the brake cable to backward.

8. 
Take away the brake cable.

9. 
Remove the connecting pin.

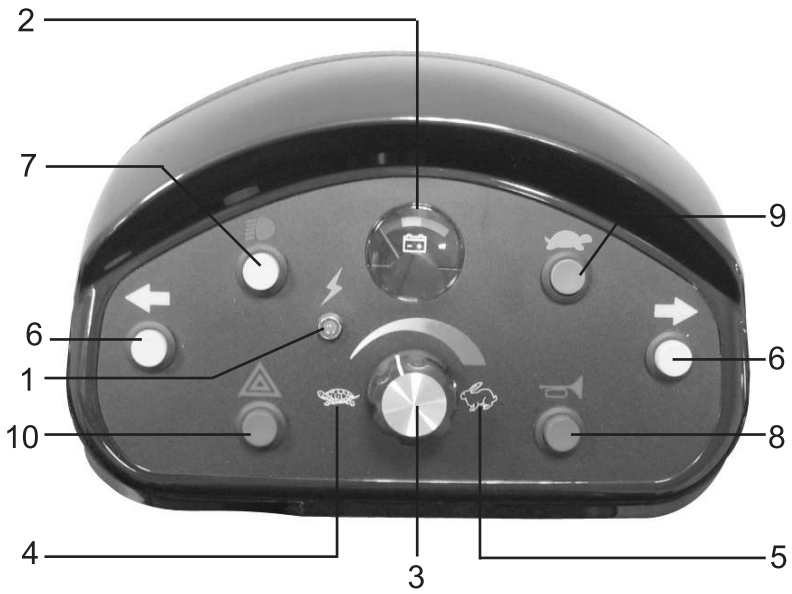
10. 
Pull the motor section away from the front section.

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.**

1.Status Indicator: When the scooter is on, and all conditions are normal, the Status Indicator will glow Green.
If there is a special condition that requires attention, the light will flash a code, which will be repeated after a 2 second pause. Please refer to the "Flash Code" chart below for the codes before contacting your.

1:Battery needs recharging
2:Battery voltage too low
3:Battery voltage too high
4:Current time limit out
5:Magnetic brake fault
6:Not in neutral at power up
7:Speed pot error
8:Motor volts error
9:Other internal error



2.Battery Level Indicator: When power to the vehicle is turned "ON", the needle on this display will move to the right to indicate the available battery reserve. When the batteries are fully charged, the needle should be well into the green area of the display when the scooter is stationary. If the scooter is being driven at high power consumption levels (i.e. high speeds, up hills and/or with heavy loads) the needle will move progressively to the left and possibly into the red area. This situation is normal but this type of driving is not recommended for prolonged periods. The needle positioned in the red area of the scale when the scooter is stationary indicates very low battery reserves and the scooter should be recharged as soon as possible.

3.Speed Control: This knob set the maximum speed of the vehicle. When knob is rotated fully counter clockwise (**4**), input commands of the throttle levers cause slower vehicle response and speed. As the knob is incrementally turned in a clockwise direction (**5**), the scooter will move faster for a given command. When learning to drive the vehicle or operating in confined areas, we strongly recommend that the control is set fully counter clockwise.

4.Slow Speed: Picture of Tortoise indicates slow setting of speed knob (**4**).

5.Fast Speed: Picture of Hare indicates fast setting of speed knob (**5**).

6.Indicator Switch: Left and right indicators can be operated by gently moving the toggle switch to the left (⬅) or right (➡), as desired, if you wish to indicate that turning maneuver to others around you. To cancel the indicators simply return the toggle switch to the central position. You may draw the attention of others to your maneuver by tooting the horn once or twice.

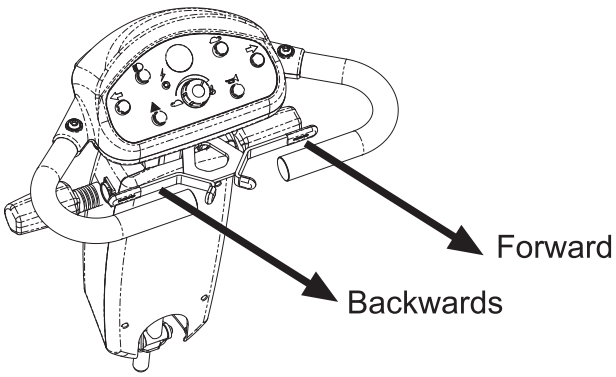
7.Headlight Switch: The headlight is activated by gently pressing the headlight button in. The headlight can be turned off by gently pressing the switch again.

8.Horn: The horn is activated by pressing the horn button. Releasing the button deactivates the horn. The hornis useful to warn people or animals that you are approaching. You may also find it helpful to use when rounding blind corners.

9.Half Speed Switch: The switch next to the ignition switch can be used to manually limit the scooter to a more manageable speed when traveling in confined areas. Gently press the switch to activate this function. A light will glow inside the switch to remind you it is on. Gently press the switch again to release the switch and deactivate this function. When driving at speed (as a safety feature), this function will activate automatically if the steering is turned.

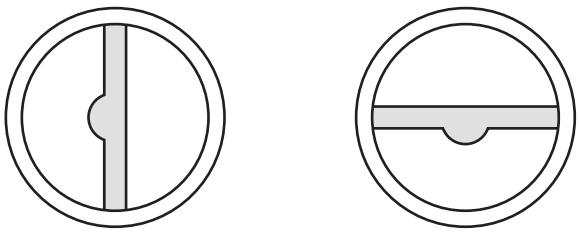
10.Hazard Button: The hazard lights are activated by pressing the hazard light button. Pressing the button a second time will turn the light off.

Forward / reverse



Pull the right lever to go forward and the left lever to go backward.

Key switch



When the key is turned to a vertical position,the scooter is ON and ready to drive. When the key is turned to a horizontal position, the scooter is OFF.

Brakes and throttle control lever:
Whenever the speed lever is pushed, the electromagnetic brake will automaticly release and your scooter will move. When the speed lever is released, it will return to the neutral position and the scooter will decelerate and come to a complete stop. The parking brake will then engage preventing further movement of your scooter.

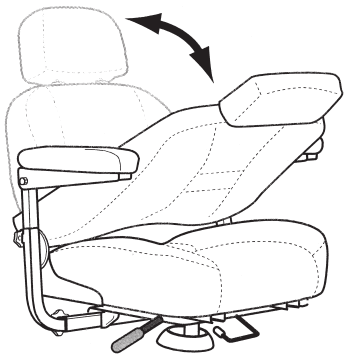
Your unit is equipped with a programmable controller that has as high peddle disable feature. This will prevent unexpected acceleration of the scooter, if the soeed lever is being pushed at the same time you turn the key 'ON'. To reset the controller, release the speed engage lever and turn the key 'OFF' for a couple of seconds and then turn it back 'ON'.

! If your scooter ever moves in an unexpected manner, release the speed lever and turn off the power.

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.

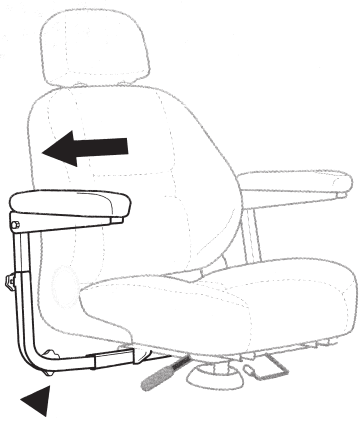
- Pull the swivel lerver up to unlock and rotate the seat.
- Pivot the seat to the position you desire.
- Release the lever and try to turn the seat back and forth slightly allowing the lever to lock into position.

Armrest hight:

- 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:

The tiller angle adjustment allows you to position the dash closer or further away from you for better access to the controls.

- Locate the angle adjusting lever where is located on the inside center of the tiller boot.
- Hold the weight of the tiller with on hand and loosen the lever by pulling up the lever with the other hand. Pushing down will release the tiller locking mechanism, allowing you to move the tiller freely.
- Release the lever and try to move the tiller back an forth slightly allowing the lever to lock.

Freewheel Mode

Manul free wheel mode: your scooter features a features freewheel mode for manual operation. To activate manually, turn the key switch OFF and locate the freewheel lever at the back of the scooter. Pull lever to "UP" position to disengage the brake and allow the scooter to be pushed freely. Push the lever to the "DOWN" position to reengage the brrake. Remember, when the scooter is in manul freewheel mode, you will have mo brakes. You will be unable to operate the scooter. When you wish to push your scooter a short distance, you may put it into manual freewheel mode.

Getting in and out:

Your scooter is designed to make getting in and out of the scooter as easy as possible. Make sure the scooter is on a level surface and the key switch is tuned OFF. If necessary, raise the armrest to give you maximum space to transfer in or out of the seat. Once transfer is complete, return the armrest before operating the scooter.

! Never operate the scooter without your feet being placed on the scooter platform. Driving your scooter without your feet on the platform could cause serious bodily injury.

Technical Specification - S139/S149 (10" wheel)

Model No.	S139		S149	
max speed up to	8 kph / 5 mph		10 kph / 6.2 mph	
range up to	40 km / 25 mi		40 km / 25 mi	
turn radius	102.7 cm / 40.3 in		131.5 cm / 51.8 in	
ground clearance	12 cm / 4.7 in		12 cm / 4.7 in	
motor	DC24V, 210W	DC24V, 400W	DC24V, 210W	DC24V, 400W
controller	Rhino 70A	Rhino 110A	Rhino 70A	Rhino 110A
battery	U1 36AH / 50AH x 2pcs			
charger	5A off-board			
gradient	8º	12º	8º	12º
front wheel	10" (260 x 85) PU foam / 10" PT			
rear wheel	10" (260 x 85) PU foam / 10" PT			
brake	Intelligent, regenerative and electromagnetic brakes			
capacity	300 lb / 136 kg	350 lb / 158 kg	300 lb / 136 kg	350 lb / 158 kg

Technical Specification - S139/S149 (11" wheel)

Model No.	S139		S149	
max speed up to	12.5 kph / 7.8 mph		12.5 kph / 7.8 mph	
range up to	40 km / 25 mi		40 km / 25 mi	
turn radius	102.7 cm / 40.3 in		131.5 cm / 51.8 in	
ground clearance	12 cm / 4.7 in		12 cm / 4.7 in	
motor	DC24V, 210W	DC24V, 400W	DC24V, 210W	DC24V, 400W
controller	Rhino 70A	Rhino 110A	Rhino 70A	Rhino 110A
battery	U1 36AH / 50AH x 2pcs			
charger	5A off-board			
gradient	6º	10º	6º	10º
front wheel	10" PT		11" PT	
rear wheel	11" PT		11" PT	
brake	Intelligent, regenerative and electromagnetic brakes			
capacity	300 lb / 136 kg	350 lb / 158 kg	300 lb / 136 kg	350 lb / 158 kg

Dimensions - S139/S149

Model No.	S139	S149
length	121 cm / 47.6 in	121.9 cm / 48 in
width	63.5 cm / 25 in	63.5 cm / 25 in
height	115.6 cm / 45.5 in	115.6 cm / 45.5 in
wheel base	85.5 cm / 33.7 in	85.5 cm / 33.7 in
seat width	45.7 cm / 18 in	45.7 cm / 18 in
seat depth	40.6 cm / 16 in	40.6 cm / 16 in
seat height	45.7 cm / 18 in	45.7 cm / 18 in
seat height form deck	41.9 cm / 16.5 in	41.9 cm / 16.5 in
seat height form ground	59.9 cm / 23.6 in	59.9 cm / 23.6 in

Limited Warranty

Corporation warrants to the original pruchaser of this wheelchair product that it is free of defect in material and workmanship and that, when operated within the guidelines and restrictions of this manual, will remain so free of defect in material and workmanship for a period of One (1) year from the original date of purchase.

Excluded from this warranty is failure due to negligence, abuse, accident, operation outside of rated limits, commercial or institutional use, damage / wear to upholstery or tires and improper maintenance or storage. The batteries for this wheelchair product are not supplied by Corporation; contact the battery manufacturer / supplier if warranty replacement is requested.

This wheelchair product must not be modified in any way without the express written consent of Corporation. Any such unauthorized modification could cause unreliable and / or unsafe operation and will void this warranty.

Where a failure occurs within the 1- year warranty period that is not excluded above, the failed components will be replaced with similar new or reconditioned components at sole option. Corporation will not b eresponsible for labor and / or shipping charges.

The foregoing warranty is exclusive and in liew of all other warranties expressed or implied including, but not limited to, the implied warranty of merchantability and fitness for a particular purpose. Corporation will not be liable for any consequential or incidental damages whatsoever.

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!