

Owner's Manual



Roadster S3

► S731

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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 contact your local dealer, who has the tools and knowledge 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 warranty registration form and return it to your local dealer. The information is necessary for providing you with the best service and to be sure all your needs are met.

Practice Before Operating

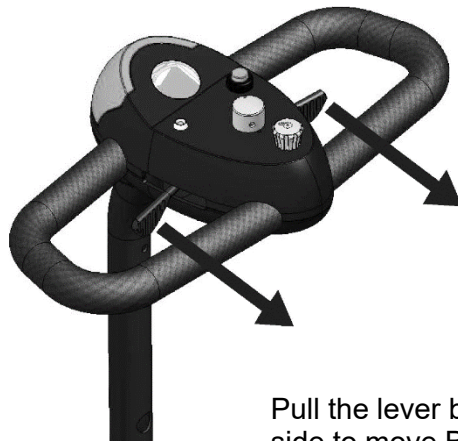
Find an open area such as a park and have an assistant help you practice until you have confidence operating this vehicle.

Make sure the unit is OFF before getting on or off. Set the speed control knob according to your driving ability.

We recommend that you keep the speed at the slowest position (fully counterclockwise) until you are familiar with the driving characteristics of this vehicle.



Stop, forward, and reverse operation practice



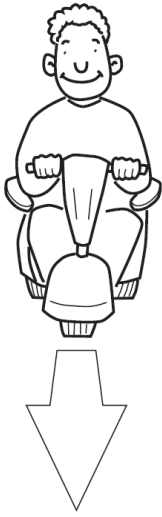
Pull the lever back on the right side to move FORWARD

Pull the lever back on the left side to move BACKWARD

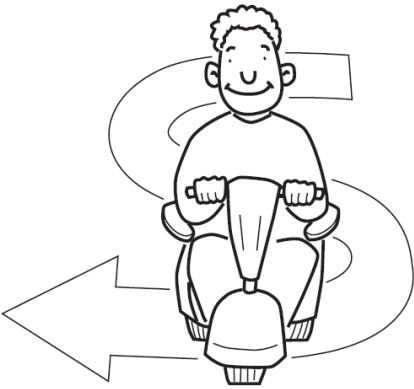
Release levers on both sides to stop.

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 making "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



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 interferences (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 States requires the proceeding statement be incorporated into the user manuals for all electric powerchairs and scooters.

Powered wheelchairs and electric scooters (in this text, both will be referred to as powered wheelchairs) may be susceptible to electromagnetic 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 higher the immunity level, the greater the protection. At this time, current technology can provide 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 severe 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 FOLLOWING:

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 ensure they provide a reasonable degree of immunity against EMI. The letter states that powered wheelchairs should have an immunity level of at least 20 V/m, which provides a reasonable degree of protection against the more common sources of EMI. The higher the level, the greater the protection.

Driving Outdoors



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 in the rain.



NO!

If possible, do not drive in or on the snow.



NO!

Do not drive off-road or on uneven surfaces.



NO!

If possible, do not drive at night



NO!

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

We recommend setting the speed knob at the lowest speed for reversing.



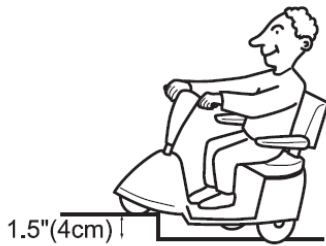
NO!

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 times.



NO!

Do not attempt to climb curbs greater than 1.5"(4cm).



NO!

Do not attempt to cross over a gap greater than 3"(7.5cm).

Use caution when driving on inclines



NO!

Do not attempt to climb an incline greater than 6°



NO!

Do not reverse while driving up an incline.

Forward only. If you reverse while moving up an incline, 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!

Do not get on or off on an incline.

Always stop on a level surface to get on or off the vehicle.



NO!

Use low speed while driving down an incline.

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



NO!

Do not load or carry heavy items in the basket while driving down an incline.



YES!

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

The Batteries

Your scooter is equipped with a removable battery pack, which contains two maintenance free, sealed lead-acid 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.

To Charge

1. Plug the charger's power cord into the battery pack.
2. If required, remove the battery pack.
3. Pull the end of the rubber cover on the battery pack (as shown in photo). Then connect the charger's round plug into the charging socket.
4. Switch on the plug socket.

The battery pack can be charged on-board the scooter (as shown) Alternatively, the battery pack can be removed from the scooter and charged away from the scooter.



Onboard Charging



Off board Charging

To Remove Battery Pack

1. Switch the ignition key off.
2. Lift the scooter battery pack up by the handle.

To Install Battery Pack

1. Remove the charger from the battery pack.
2. Drop the battery pack into the void on the scooter.
3. Press down lightly on the battery pack to ensure it is securely installed.



Removing battery

4. Ensure the charger is removed from the mains and the scooter or battery pack after charging. Failure to do this may flatten the battery. Do not remove the battery pack while the scooter is switched on.



1. Do not disconnect the charger cord until charging is completed and the light is lit Green.
2. When fully charged the battery charger will still trickle charge the battery for optimum range.
3. Even when not in use, the scooter should be charged at least every week to ensure battery longevity.
4. Ambient temperature will affect charging time. Charging time will be longer in cold environments.
5. The batteries carry a 1-year warranty which covers manufacturing defects only. It does not cover battery faults as a result of not following the guidelines herein.

1. Only use the charger supplied with the scooter. Using the wrong type of charger may cause damage. Never disassemble or modify the scooter.
2. Always charge the scooter in a well-ventilated space. Avoid direct sunlight or contact with water and moisture.
3. Do not charge or operate the scooter in temperatures below -10°C or above 50°C. Do not expose the battery pack to these temperatures.

If battery pack loses contact with the scooter during operation switch the key ignition off, re-insert the battery pack and switch the ignition back on.

About the Battery Pack

- The battery pack contains two 12V 12ah batteries. The batteries are sealed lead acid type and are maintenance free and are non-spillable. They are fitted with spade terminals.
- The batteries require charging every week to ensure battery longevity.
- The batteries supplied as standard with the battery pack are classified as safe for air transport under IATA special provision A67.

Battery Care

1. You should recharge the batteries after each time the scooter is used to ensure maximum battery range. The batteries should be charged at least once a week even if the scooter is not used.
2. After charging or replacing a new battery, drive the scooter for a short period to ensure battery capacity is sufficient.
3. In cold environments, the battery may respond more slowly, and range will be reduced.
4. When driving on a gradient, the battery gauge will fluctuate. This is a normal occurrence.
5. Battery range is reduced when driving up gradients or on rough terrain, as the scooter uses more power.
6. The batteries should not be charged for more than 24 hours.

Battery Replacement

It is natural for the battery capacity to reduce with time, even if the battery is charged as directed above. When the battery range is about half of its peak performance, we recommend that the batteries are changed. Continuing to use an old battery will result in a rapid reduction in the range of the scooter and can cause excessive wear and tear on other parts of the scooter.

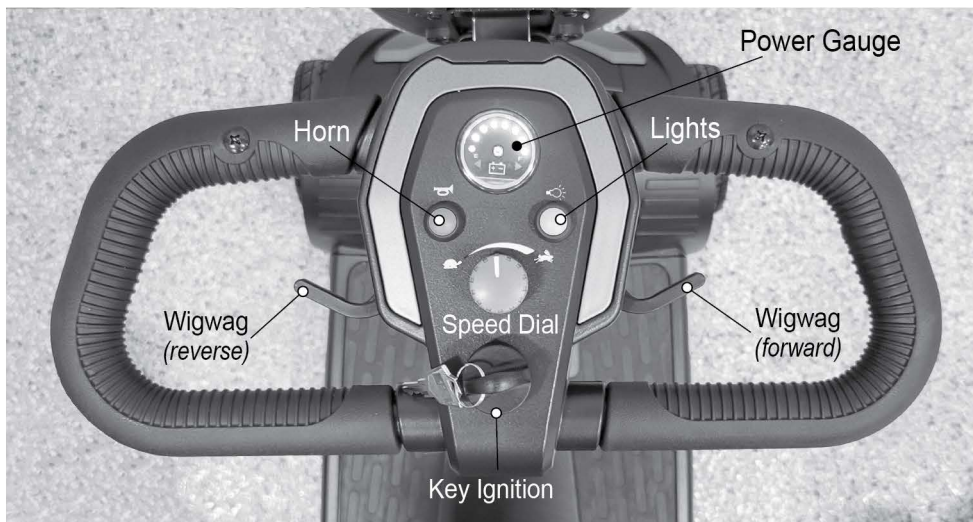
Terminology

1. Tiller - Similar in operation to the handlebars of a bicycle, this device is used to steer the vehicle. It also contains the controls necessary to propel and control the vehicle.
2. Tiller angle Adjustment Knob - When loosened, allows the tiller angle to be set for optimum driver comfort. During operation of the vehicle, this lever must be fully tightened.
3. Operator's Seat - This adjustable seat can be swiveled to ease mounting and dismounting to / from the vehicle and can be removed for easier transportation of the vehicle.
4. Anti-tip Wheels - Not visible in figure but positioned one each side of the vehicle at the rear, these wheels prevent a tip-over backwards.
5. Pin Key - "Plug in" is on, "Pull up" is off.
6. Wig-Wag Control Lever - this is used to control the speed and direction of drive.
7. Manual Brake Release - This lever must be in the lower position to drive the vehicle. In this position the electric brake is controlled by the vehicle controller, will be released for drive, and engaged when stopped. On occasions when it is desirable to push the vehicle, this lever is moved to the upper position to permanently hold the brake release. When the Manual Brake Release lever is in the upper position, the vehicle cannot be driven under power.
8. Removable Battery Pack - This pack holds the two 12-volt batteries and the battery charger. This module can be removed from the vehicle to reduce the vehicle weight when you intend to lift the vehicle. i.e.- into the trunk of a vehicle.
9. Removable Front Basket - This basket clips to the front of the tiller and is used to carry small personal items.
10. Arm-Rests - are width and angle adjustable. (See seating adjustments later in this manual).
11. Anti-tip Wheels - Not visible in figure but positioned one each side of the vehicle at the rear, these wheels prevent a tip-over backwards.

Diagram



CONTROL PANEL



Disassembling the Scooter

The scooter can be disassembled into five parts for easy transportation and/or storage:



1

1. Lift basket up to remove it from front tiller.
2. Remove the seat. Push the seat swivel lever forward and then pull on the seat whilst rotating the seat.
3. Remove the Battery Pack. Pull up on the battery pack handle to remove.
4. Separate the front and rear sections. Press down on the handle of the rear section whilst pulling up using the lever on the front section.
5. Lower the tiller on the front section. Turn the tiller adjustment knob to loosen then lower the tiller. Turn the Tiller slightly so the Tiller will fold flat without hitting the seat post.



2



4



3



5

Assembling the Scooter

Use the procedure below to assemble the scooter:



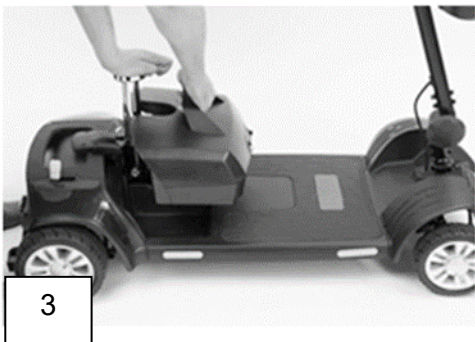
1. Raise the tiller on the front section. Turn the tiller adjustment knob towards the rear of the scooter and then lift up on the tiller by turning the knob towards the front of the scooter.

2. Connect the front and rear sections together. Hold the back of the rear section and lift the front section into place using the lever. Then release the rear section and lower the front section with the lever. Release the lever and ensure the sections are securely linked.



3. Drop the battery pack into the void in the scooter. Press lightly on the top of the battery pack to ensure the battery pack is fully installed.

4. Insert the seat into the seat post. Push the seat lever forward and swivel the seat until it locks into position.



5. Place the basket into the front of the tiller.



How to Operate Your Scooter

Key Ignition. The key ignition acts as the power switch for the scooter. To switch the power on, turn the key clockwise and the battery gauge should illuminate. To switch the power off, turn the key counterclockwise, and the key can be removed.

DO NOT turn the ignition off while driving as this will lead to an emergency stop and possible risk of damage or injury.

Speed Dial. Turn the Speed Dial to determine the maximum speed of the scooter. Turn the dial clockwise to increase the speed setting and turn the dial counterclockwise to decrease the speed setting.

DO NOT adjust the speed dial while driving. DO NOT set to the highest speed for indoors.

Moving and Braking. To move forward, squeeze the right-hand side of the wigwag paddle towards you. To move backwards, squeeze the left-hand side of the wigwag paddle toward you (audible alarm). To brake, release the wigwag paddle which will return to neutral and activate the electromagnetic brake automatically and bring the scooter to a prompt stop. The wigwag paddle allows you to control the speed of the scooter up to a max speed determined by Speed Dial. The further the wigwag paddle is deflected, the faster the scooter will go (up to 4mph).

NOTE: wait at least 2 seconds before operating the wigwag paddle after starting the scooter with the key. Operating the wigwag paddle at the same time as the key switch will cause the scooter to diagnose an error.

DO NOT push both left- and right-hand sides of the wigwag simultaneously. You will not be able to control the scooter.

Horn Button. Press the horn button to sound the horn. Release the button to stop the horn. The horn is the yellow button located on the control panel.

Braking – Electromagnetic Brake. Release the wigwag paddle completely, and the electromagnetic brake will be activated automatically, and the scooter will stop.

When on a gradient, never set the vehicle to freewheel mode. The brakes will not be applied.

Seat. The seat can be rotated and locked in position at 45° intervals. Push the seat lever forward and swivel the seat. Release the lever and then continue swiveling the seat until it locks in position.

NOTE: Return the seat to the forward position before driving.

Adjusting the Seat Height

Remove the seat by rotating the seat by pushing the seat swivel lever forward while pulling up on the seat. Remove the nut and bolt securing the chrome post into the chassis of the scooter. Reposition the seat post to the required height and then secure by reattaching the nut and bolt.



Adjusting the Armrest Width

Insert the armrest tubing into the seat so that the armrest is positioned at the required width.

Tighten the threaded knob to securely hold the armrest in place. Repeat for the other armrest.

Ensure that the armrests are equally positioned on both sides of the seat.



Adjusting the Armrest Width

Ensure the yellow line on the armrest is not visible outside the seat frame, when the threaded knob is locked tight.

Tiller Lock

When the tiller is centered, pull the tiller lock out and twist to secure the tiller for transportation. Push the tiller lock up to release.

Always ensure the tiller lock is disengaged when driving the scooter. Always check the tiller moves and turns freely before driving.



Battery Gauge

The LEDs will illuminate to show the amount of power remaining in the batteries. The more LEDs are lit, the more power is remaining. When only the three leftmost LEDs are lit, then the batteries should be recharged.

The remaining power indicated by the battery gauge will vary by the driving time incurred and how you drive. Repeated starting, stopping, and climbing will consume power more quickly. The gauge is shown previously.



If the blue status LED located in center of the gauge is illuminated solid, then the scooter is functioning normally.

If the scooter is beeping, this means the scooter has encountered a problem. The scooter will beep a number of times then pause. Count the number of beeps to determine the problem.

If you experience any beep sequences first restart the scooter, ensuring the wigwag paddle is released. If this does not remedy the problem, recharge the batteries. If the error persists, contact your dealer.

You should recharge the batteries after each use to ensure maximum range. Read the Battery Charging section in the manual before use.

Circuit Breaker

The circuit breaker may trip when the scooter is under excessive load or when travelling on steep inclines. It will be more prone to tripping when the scooter is low on battery charge. Under normal conditions the circuit breaker button will protrude by 2mm – 3mm. If the circuit breaker has tripped the button will protrude by 7mm. To reset the circuit breaker, push the button in and the scooter should operate as normal.



Freewheel Lever

The motor can be disengaged (put into freewheel) to allow the scooter to be pushed.

Push the lever forward to engage freewheel mode. Pull the lever back to engage drive mode.

The lever should only be set to FREEWHEEL when on flat ground and unoccupied by the user. Otherwise, there is a risk of damage or injury.



Tiller Adjustment






The tiller can be adjusted into many different positions to suit each user. To adjust follow the steps below:

1. Hold the tiller securely with your hand (see 1 on photo) to prevent the tiller from falling.
2. Fully slacken the knob (see 2 on the photo) so the tiller can move.
3. Using the other hand, reposition the tiller as required then retighten the knob to secure.



Technical Specifications – S731

Product Name	Roadster S3
Product #	S731
Weight Capacity	300 lbs
Range	up to 9 mi
Seat Width	18"
Seath Depth	18"
Backrest Height	14.5" from seat
Overall Length	40.5"
Overall Width	25.5"
Overall Height	36.6"
Turning Radius	47"
Ground Clearance	2.2"
Total Weight	99 lbs
Max Speed	4 mph
Basket Size	12.5wx10hx6d
Motor	24V 180W
Battery Size (2 required)	12V/12AH
Charger	29V2AH
Gradient (grade it can climb)	6°
Front Wheel (s)	7"
Rear Wheels	8"
Suspension	no
Optional Elevating Seat	na
Braking System	Parking electromagnetic brake
HCPSC Code	na
Standard Colors	Cherry Red and Navy Blue
Category	Travel Mobility

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

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

Serialization format for products

The first digit is the last one digit of the year for manufacture.

The second and third digits are the month for manufacture.

The fourth to seventh digits are counting of how many units were manufactured during the month.

■ Merits Limited Warranty

Merits Corporation warrants to the original purchaser 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 Merits 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 Merits 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 Merits sole option. Merits Corporation will not be responsible for labor and / or shipping charges.

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

■ Warranty Registration

MERITS HEALTH PRODUCTS INC.
WARRANTY REGISTRATION

MODEL NO. _____

SERIAL NO. _____

DATE PURCHASED _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

DEALER NAME _____

STAMP

RETURN ADDRESS

