

**EQUIPMED®**



# **Electric Mobility Scooter – FreeRoam**

## **User Manual**

[Revision 3.0 August 2018]

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READ THIS MANUAL CAREFULLY BEFORE USE AND KEEP FOR FUTURE REFERENCE – FAILURE TO DO SO  
MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • Products covered by this manual  
may vary in appearance, assembly, inclusions, specifications, description and packaging.

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# Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

	You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.		You CAN be INJURED if you do not follow instructions or equipment damage may occur.
<p>It is important that you read and understand the instruction manual before use and keep the manual in a safe place for future reference. Safety information presented here is generic in nature – some advice may not be applicable to every piece of equipment.</p> <p>All safety precautions must be observed to reduce the risk of personal injury when operating the equipment.</p> <p>The term "equipment" refers to your product, be it electrical mains, battery or petrol engine powered.</p> <p><b>IMPORTANT</b> – Handle the equipment safely and carefully.</p> <p><b>BEFORE USE</b> - If you are not familiar with the safe operation/handling of this equipment, or are in any way unsure of any aspect of suitability or correct use it for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.</p> <p><b>WARNINGS</b></p> <ul style="list-style-type: none"> <li>Read all safety warnings and all instructions. Failure to follow warnings and instructions may result in electric shock, fire and/or serious injury.</li> <li>Never run a combustion engine in confined areas.</li> <li>Do not operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. Engine and equipment may create sparks or heat that may ignite vapours, dust etc.</li> <li>Keep clear of moving parts.</li> <li>This equipment may be a potential source of electric shock if misused.</li> <li>Do not operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.</li> <li>Do not allow others to use the equipment unless they have read this manual and are adequately trained.</li> <li>When using the equipment, basic safety precautions detailed here must always be followed to reduce the risk of fire, electric shock, personal injury and material damage.</li> <li>When wiring electrically powered equipment, follow all electrical and safety codes.</li> <li>Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting equipment.</li> </ul>	<p><b>General Work Area Safety</b></p> <p>Work areas should be clean and well lit. Do not operate the equipment if bystanders, animals etc. are within operating range of the equipment or the general work area.</p> <p><b>Personal Safety</b></p> <p>Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.</p> <p>Do not attempt to lift or move a power scooter by any of its removable parts. Personal injury and damage to the power scooter may result.</p> <p>Do not drive the scooter on a major roadway.</p> <p>Avoid driving in the dark or in times of limited vision.</p> <p>Do not connect any electrical or mechanical devices to the scooter. Doing so may cause personal injury or damage to equipment, and voids the manufacturer's warranty.</p> <p>Do not operate the scooter if it is not functioning properly. Contact the manufacturer or an authorised service personnel.</p> <p><b>Influence of Medication or Alcohol</b></p> <p>Check with your physician if you are taking any medications that may affect your ability to operate your power scooter safely.</p> <p>Do not operate your scooter while you are under the influence of alcohol, as it impairs your ability to operate your power scooter in a safe manner.</p> <p><b>General Equipment Use and Care</b></p> <p>Make sure that your weight does not exceed the recommended weight limit of the scooter.</p> <p>Always ensure that the power is switched off, when getting on or off the scooter.</p> <p>When getting on and off the scooter, do not step on the foot rest.</p> <p>Keep your feet on the foot rest always while driving.</p> <p>Be aware of the environment around you when choosing a desired speed. For indoor environments, we recommend that you select the slowest speed setting. For outdoor environments, select a speed that is comfortable for you to control the scooter safely.</p>	<p>Reduce speed when making sharp turns.</p> <p>Do not switch off the power when the scooter is still moving forward. This will bring the scooter to an extremely abrupt stop.</p> <p>Avoid jerky stop/start motions as it will result in excessive battery drain and increase tyre wear. To break in an emergency, simply release the forward/reverse lever.</p> <p>Make sure that the wheel release lever is in driving mode prior to operation.</p> <p>Make sure that the forward/reverse lever is in the proper position according to your desired direction.</p> <p><b>Ramps and Curbs (Sidewalks)</b></p> <p>Use extra caution when driving down a slope. Never drive across a slope.</p> <p>Do not turn sharply on a slope.</p> <p>Do not drive in reverse on a slope or on a bumpy surface.</p> <p>When driving over a curb or raised surface, make sure that the bottom of the scooter has sufficient clearance</p> <p><b>Product Use and Care</b></p> <p><b>WARNING!</b></p> <p>This product may feature one or more or a combination of; nuts, bolts, screws, clips, fasteners and/or locking, fixing or safety mechanisms. These items/mechanisms require checking/inspection to ensure they are tight or correctly secured and are operating correctly. Failure to adequately check this product before each use may result in serious injury due to fall, loss of control, loss of balance, loss of footing, tripping, crushing and/or impact. Additionally, regular inspection/servicing should be performed by a person who is qualified and competent in servicing this product - intervals will vary depending on product usage. Consult a qualified person to determine inspection/service intervals after communicating details of your usage to them.</p>			

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# Assembly and Disassembly

## Assembly

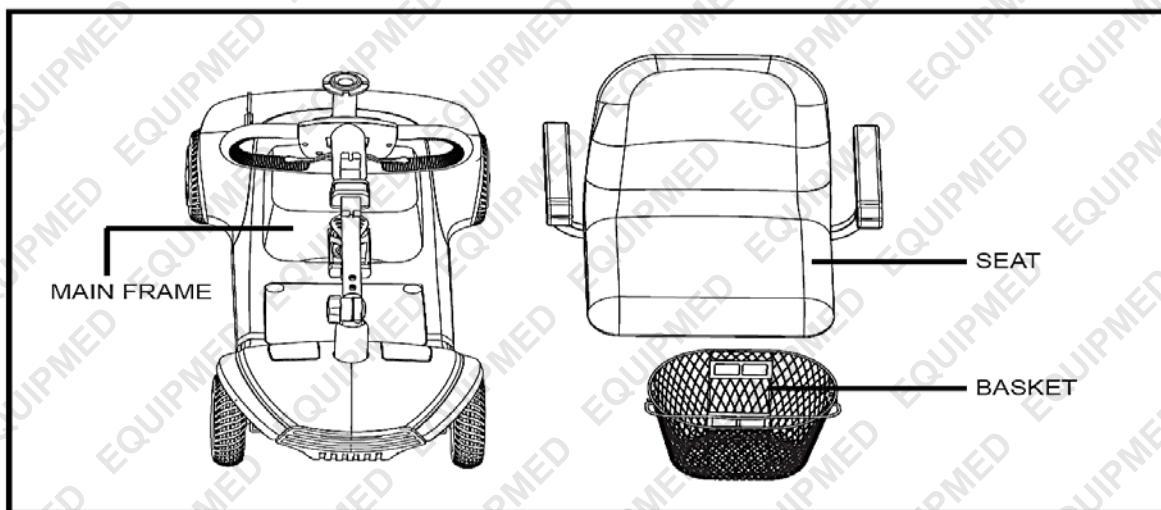
**To assemble the Scooter:**

1. Loosen the tiller adjustment knob, raise the tiller to its desired position, and re-tighten the tiller adjustment knob.
2. Turn the tiller lock knob to its UNLOCKED position.
3. Install the battery pack and battery compartment cover.
4. Install the seat.
5. Install the basket.

## Disassembly

You can disassemble the Scooter into five pieces: the seat, main frame, battery pack, battery compartment cover, and basket. See image below. No tools are required to disassemble or assemble your Scooter, but keep in mind that the disassembled sections of the Scooter take up more floor space than the assembled unit. Always disassemble or assemble your Scooter on a level, dry surface with sufficient room for you to work and move around your Scooter-about 5 feet in all directions. Remember that some Scooter components are heavy and you may need assistance when lifting them.

**WARNING!** Do not lift beyond your physical capability. Ask for assistance when necessary while disassembling or assembling your Scooter.

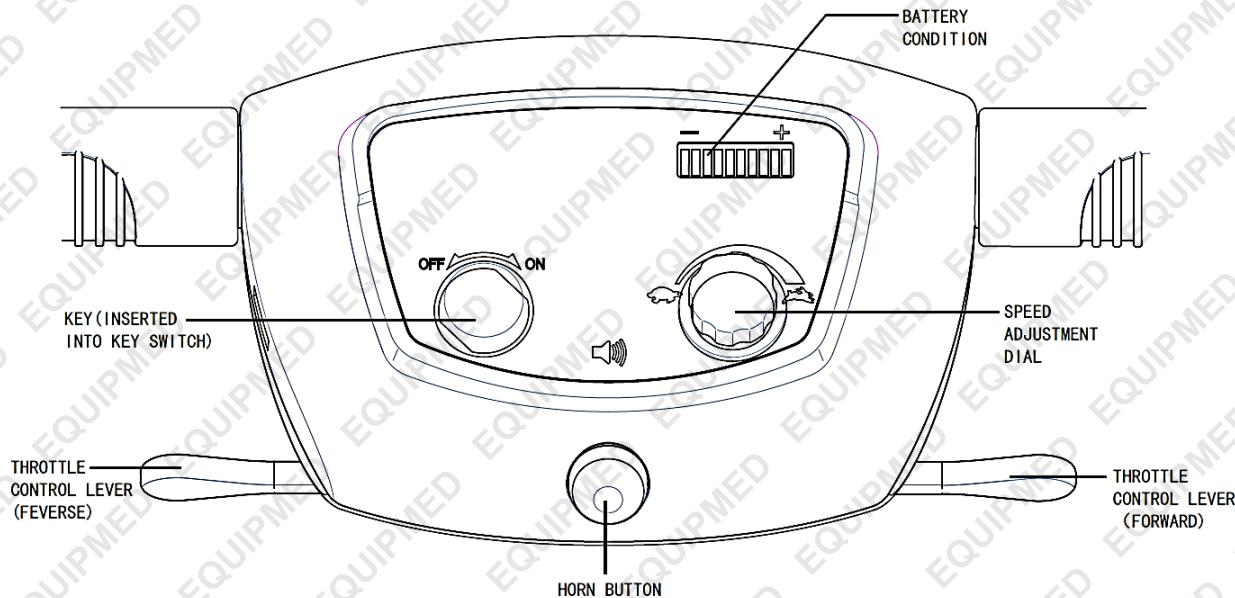
**To disassemble the Scooter:**

1. Turn the tiller lock knob to its locked position. See Your Scooter section.
2. Remove the seat by lifting it straight up and off the Scooter.
3. Remove the basket by lifting it straight up and off the securement bracket.
4. Remove the battery pack. Re-install the battery compartment cover during transport to protect from damage.
5. Loosen the tiller adjustment knob and lower the tiller to its lowest point, then tighten the tiller adjustment knob.

# Operation

## Tiller Console Components

The tiller console houses all controls needed to drive your Scooter, including the key switch, throttle control lever, horn button, speed adjustment dial, and the battery condition meter. See image below.



### Key Switch

- Insert the key into the key switch and turn it clockwise to power up (turn on) your Scooter.
- Turn the key counter clockwise to power down (turn off) your Scooter.

### Throttle Control Lever

This lever allows you to control the forward speed and the reverse speed of your Scooter up to the maximum speed you have set with the speed adjustment dial.

- Place your right hand on the right-hand grip and your left hand on the left-hand grip.
- Use your right index finger to pull the right side of the lever to disengage your Scooter's brakes and move forward.
- Release the lever and allow your Scooter to come to a complete stop before pushing the other side of the lever to move in reverse.
- When the throttle is completely released, it automatically returns to the centre "stop" position and engages your Scooter's brakes.

### Horn Button

This button activates a warning horn. The Scooter must be "on" for the horn to be operational. Do not hesitate to use the warning horn when doing so may prevent accident or injury.

### Battery Condition Meter

When the key is fully inserted into the key switch, this meter indicates approximate battery strength. For further information on the battery condition meter, see [Batteries and Charging](#) section.

### Speed Adjustment Dial

This dial allows you to preselect and limit your Scooter's top speed.

- The image of the hare represents the fastest speed setting.
- The image of the tortoise represents the slowest speed setting.

## Lower Tiller Components

### Tiller Adjustment Knob

Your Scooter is equipped with an adjustable pivoting tiller that you can position to maximize your ergonomic comfort.

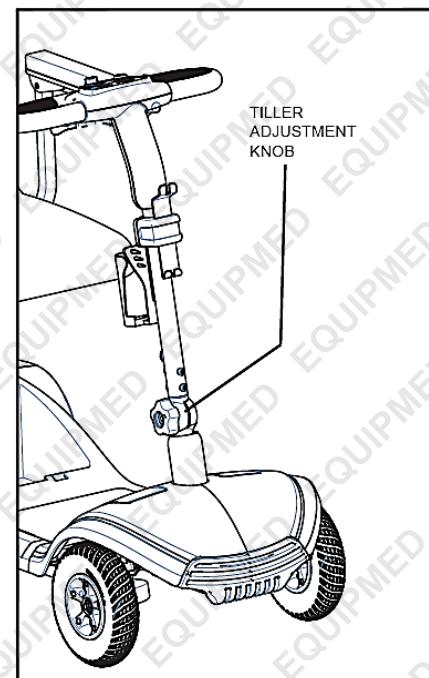
#### To use the tiller adjustment knob:

1. While supporting the tiller, turn the tiller adjustment knob counter clockwise to loosen the tiller. See image at the right.
2. Move the tiller to a comfortable position.
3. Turn the tiller adjustment knob clockwise to secure the tiller in position.

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**NOTE:** To lower the tiller to its lowest point, you must first remove the seat.

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### Seat Adjustments

#### To adjust the seat height:

1. Remove the seat by lifting it straight up and off the Scooter.
- DETENT PIN**
2. Use the attached ring to pull and remove the detent pin from the lower seat post. See image at the right.
3. Raise or lower the upper seat post to the desired seat height.
4. While holding the upper seat post at that height, align the adjustment holes of the upper and lower seat posts.
5. Fully insert the detent pin.
6. Reinstall the seat.

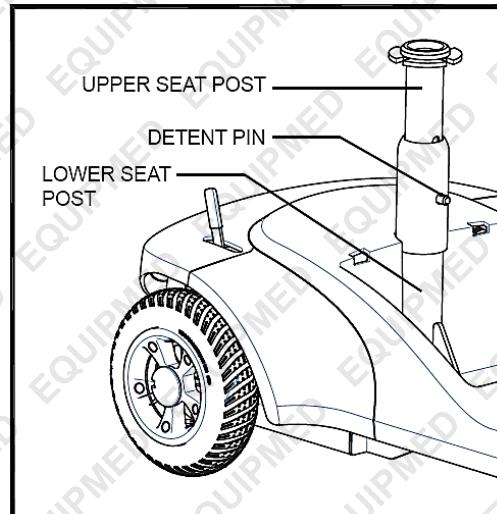
#### To adjust the armrest width:

1. Loosen the armrest adjustment knobs located at the rear of the seat.
2. Slide the armrests in or out to the desired width.
3. Tighten the armrest adjustment knobs as required.

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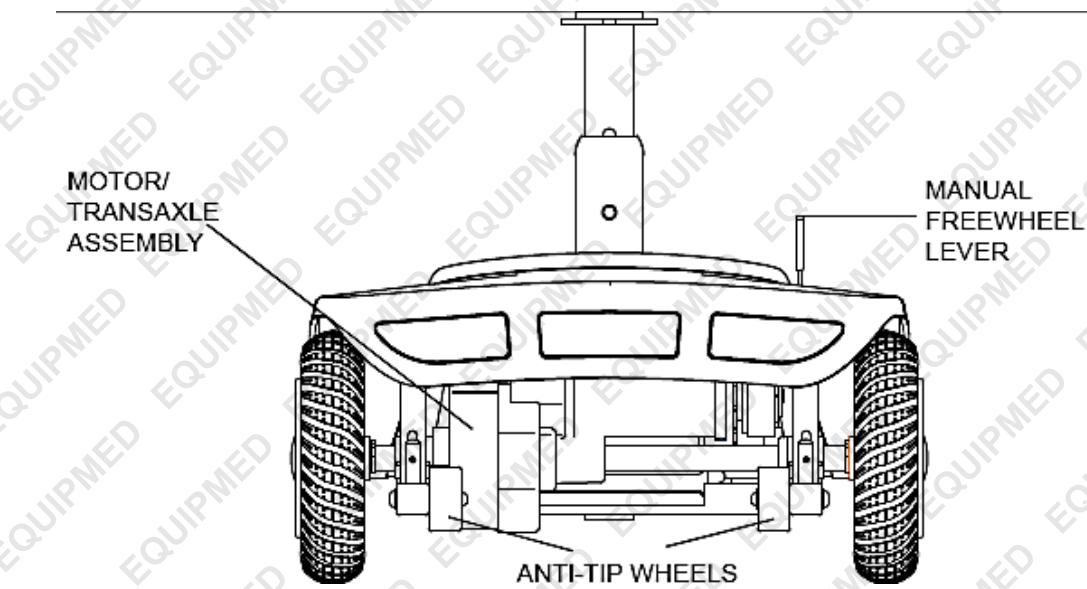
**NOTE:** The armrests can also pivot upwards to aid in getting onto and off the Scooter.

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## Rear Section Components

The manual freewheel lever, anti-tip wheels, motor/transaxle assembly, and charging system components are located on the rear section of your Scooter. See image below.



### Manual Freewheel Lever

Whenever you need or want to push your Scooter for short distances, you can put it in freewheel mode. The manual freewheel lever is located at the top right of the rear section.

1. Push forward on the manual freewheel lever to disable the drive system and the brake system. You may now push your Scooter.
2. Push rearward on the manual freewheel lever to reengage the drive and the brake systems; this takes your Scooter out of freewheel mode.

### Anti-Tip Wheels

The anti-tip wheels are an integral and important safety feature of your Scooter. They are bolted to the frame at the rear of your Scooter.

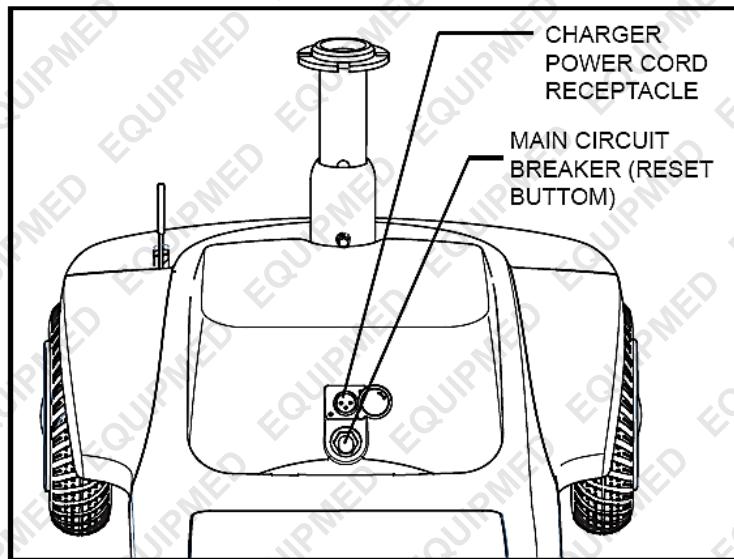
**PROHIBITED!** Do not remove the anti-tip wheels or modify your Scooter in any way that is not authorised.

### Motor/Trans-axle Assembly

The motor/trans-axle assembly is an electro-mechanical unit that converts electrical energy from your Scooter's batteries into the controlled mechanical energy that drives the Scooter's wheels.

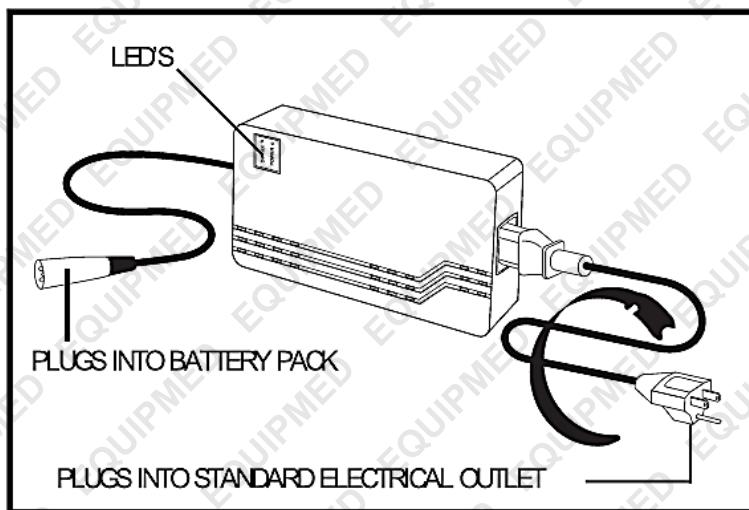
## Charger Power Cord Receptacle

The Scooter's 3-pin off-board charger cord plugs into this receptacle. See image below.



## Off-Board Battery Charger

The off-board battery charger, when plugged into the charger power cord receptacle and a standard electrical outlet, charges the Scooter's batteries. See image below.



The LED lights on the charger indicate different charger conditions at various times.

## Batteries and Charging

Your Scooter is equipped with two sealed, maintenance free, 12Ah batteries. Fully charge the batteries prior to using your Scooter for the first time. Keeping the batteries fully charged will keep your Scooter running smoothly.

### Reading Your Battery Voltage

The battery condition meter on the tiller console uses a colour code to indicate the approximate strength of your batteries. From right to left, green indicates fully charged batteries, yellow indicates a draining charge, and red indicates that an immediate recharge is necessary. See Figure 7. To ensure the highest accuracy, the battery condition meter should be checked while operating your Scooter at full speed on a dry, level surface.

To check the battery strength during charging, you must first unplug the charger power cord and turn on your Scooter.



## Charging Precautions



**PROHIBITED!** Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard electrical outlet.



**PROHIBITED!** Removal of the grounding prong can create an electrical hazard. If necessary, properly install an approved 3-pronged adapter to an electrical outlet having 2-pronged plug access.



**PROHIBITED!** Do not allow unsupervised children to play near the Scooter while the batteries are charging. It is recommended that you do not charge the batteries while the Scooter is occupied.



**MANDATORY!** Read the battery charging instructions in this manual before charging the batteries.



**WARNING!** Explosive gases may be generated while charging the batteries. Keep the Scooter and the battery charger away from sources of ignition such as flames or sparks and provide adequate ventilation when charging the batteries.



**WARNING!** You must recharge your Scooter's batteries with the supplied off-board charger. Do not use an automotive-type battery charger.

**WARNING!** Inspect the battery charger, wiring, and connectors for damage before each use. Contact an authorised Service Centre if damage is found.

**WARNING!** Do not attempt to open the battery charger case. If the battery charger does not appear to be working correctly, contact an authorised Service Centre.

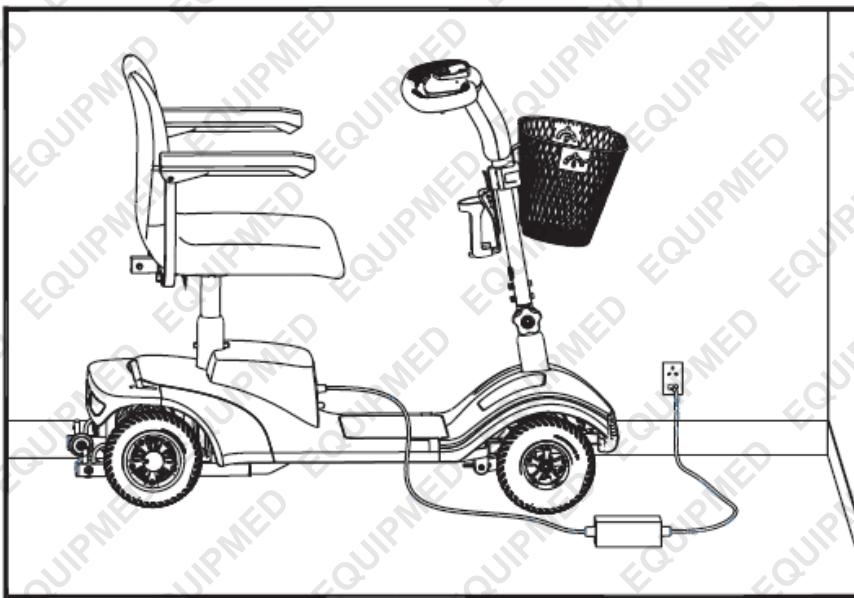
**WARNING!** If the battery charger is equipped with cooling slots, then do not attempt to insert objects through these slots.



**WARNING!** If your battery charger has not been tested and approved for outdoor use, then do not expose it to adverse or extreme weather conditions. If the battery charger is exposed to adverse or extreme weather conditions, then it must be allowed to adjust to the difference in environmental conditions before use indoors.

**Follow these easy steps to charge your batteries safely:**

1. Position your Scooter close to a standard electrical outlet. See image below.



2. Remove the key from the key switch.
3. Make certain that the manual freewheel lever is in drive mode
4. Remove the charger power cord receptacle cover from the charger power cord receptacle and plug the 3-pin off-board charger power cord into the receptacle.
5. Extend the charger power cord from the off-board battery charger and plug it into the electrical outlet. It is recommended that you charge your batteries for 8 to 14 hours.
6. When the batteries are fully charged, unplug the off-board charger power cord from the electrical outlet and then from the charger power cord receptacle.
7. Replace the charger power cord receptacle cover.

# Maintenance

Your Scooter requires a minimal amount of care and maintenance. If you do not feel confident in your ability to perform the maintenance listed below, you may schedule inspection and maintenance with an authorised Service Centre. The following areas require periodic inspection and/or care and maintenance.

## Tire Condition and Tread Wear

- Regularly inspect your Scooter's tires for signs of wear.
- Use a rubber conditioner on your Scooter's tire sidewalls to help to preserve them.

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**WARNING!** Do not apply rubber conditioner on tire tread; this may cause the tires to become dangerously slippery.

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## Wheel Replacement

If your Scooter is equipped with a solid tire insert, the entire wheel must be replaced. Contact an authorised Service Centre for information regarding replacement wheels for your Scooter.

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**WARNING!** Wheels on your Scooter should only be serviced/replaced by a qualified technician.

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## Cleaning and Disinfecting

- Use a damp cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your Scooter. Avoid using products that may scratch the surface of your Scooter.
- If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.

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**WARNING!** Follow all safety instructions for the proper use of the disinfectant and/or cleaning agent before applying it to your product. Failure to comply may result in skin irritation or premature deterioration of upholstery and/or Scooter finishes.

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## Battery Terminal Connections

- Make certain that the terminal connections remain tight and corroded.
- The batteries must sit flat in the battery well.

## Console, Charger, and Electronics

- Keep these areas free of moisture.
- If any of these items do become exposed to moisture, let them dry thoroughly before operating your Scooter again.

## Wiring Harnesses

- Check all wiring connections regularly.
- Check all wiring insulation, including the charger power cord, for wear or damage regularly.

## Storage

If you plan on not using your Scooter for an extended period, it is best to:

- Fully charge its batteries prior to storage.
- Store your Scooter in a warm, dry environment.

- Avoid storing your Scooter where it will be exposed to temperature extremes.

**WARNING!** Always protect batteries from freezing temperatures and never charge a frozen battery. Charging a frozen battery can result in damage to the battery.

## Proper Disposal of Your Scooter

Your Scooter must be disposed of according to applicable local and national statutory regulations. Contact your local waste disposal agency or an authorised Service Centre for information on proper disposal of packaging, metal frame components, plastic components, electronics, and batteries.

## Troubleshooting

Any electro-mechanical device requires occasional troubleshooting. However, most problems that arise can usually be solved with a bit of thought and common sense. Many of these problems occur because the batteries are not fully charged or because the batteries are worn down and can no longer hold a charge.

### Diagnostic Beep Codes

The diagnostic beep codes for your Scooter are designed to help you perform basic troubleshooting quickly and easily. A diagnostic beep code will sound in the event one of the conditions listed below develops.

**NOTE:** Your Scooter will not run unless the beep code condition is resolved and the Scooter has been turned off, then turned back on. Some procedures listed here may need to be performed by a service centre or qualified technician. • If problems persist after following all suggested actions, contact a service centre or qualified technician.

#### Flash 1

Possible Fault	Action
Battery Low	<p>The batteries are running low.</p> <ul style="list-style-type: none"> <li>Recharge the batteries.</li> </ul>

#### Flash 2

Possible Fault	Action
Low Battery Voltage Fault	<p>The batteries have run out of charge.</p> <ul style="list-style-type: none"> <li>Recharge the batteries.</li> <li>Check the battery and associated connections and wiring.</li> </ul>

#### Flash 3

Possible Fault	Action
High Battery Voltage Fault	<p>Battery voltage is too high. This may occur if overcharged &amp;/or travelling down a long slope.</p> <p>If travelling down a slope, reduce your speed to minimise the amount of regenerative charging.</p>

#### Flash 4

Possible Fault	Action
Current Limit Time-out or Controller too hot	<p>The motor has been exceeding its maximum current rating for too long.</p> <ul style="list-style-type: none"> <li>The scooter may have stalled. Turn the controller off, leave for a few minutes and turn back on again.</li> <li>The motor may be faulty. Check the motor and associated connections and wiring.</li> </ul>

**Flash 5**

Possible Fault	Action
Park Brake Fault	<p>Either a park brake release switch is active or the park brake is faulty.</p> <ul style="list-style-type: none"> <li>▪ Check the park brake and associated connections and wiring.</li> <li>▪ Ensure any associated switches are in their correct positions.</li> </ul>

**Flash 6**

Possible Fault	Action
Drive Inhibited	<p>Either a Stop function is active or a Charger Inhibit or OONAPU condition has occurred.</p> <ul style="list-style-type: none"> <li>▪ Release the Stop condition (seat raised etc.)</li> <li>▪ Disconnect the Battery Charger</li> <li>▪ Ensure the throttle is in neutral when turning the controller on.</li> <li>▪ The Throttle may require re-calibration.</li> </ul>

**Flash 7**

Possible Fault	Action
Speed Pot Fault	<p>The throttle, speed limit pot, SRW or their associated wiring may be faulty.</p> <ul style="list-style-type: none"> <li>▪ Check the throttle and speed pot and associated connections and wiring.</li> </ul>

**Flash 8**

Possible Fault	Action
Motor Voltage Fault	<p>The motor or its associated wiring is faulty.</p> <ul style="list-style-type: none"> <li>▪ Check the motor and associated connections and wiring.</li> </ul>

**Flash 9**

Possible Fault	Action
Other error	<p>The controller may have an internal fault.</p> <ul style="list-style-type: none"> <li>▪ Check all connections &amp; wiring.</li> </ul>

# Specifications

<b>Model</b>	FreeRoam
<b>Material</b>	Durable easy-clean vinyl
<b>Maximum Safe Slope</b>	8°
<b>Maximum Climbing Ability</b>	8°
<b>Turning Radius</b>	140cm
<b>Speed (Maximum)</b>	Variable up to 7km/h
<b>Range per Charge</b>	Up to 16km
<b>Motor</b>	24volt DC motor
<b>Weight Capacity</b>	110kg
<b>Drive System</b>	Rear-wheel drive
<b>Dual Braking System</b>	Electronic, regenerative and electromechanical
<b>Battery Requirements</b>	2x 12-volt, deep cycle, 12Ah
<b>Battery Charger</b>	2-amp off-board battery charger
<b>Battery Weight</b>	4 kg each
<b>Warranty</b>	1YR on the scooter and 6 months on the batteries

*Note: Minimal Assembly required*



**Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.



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