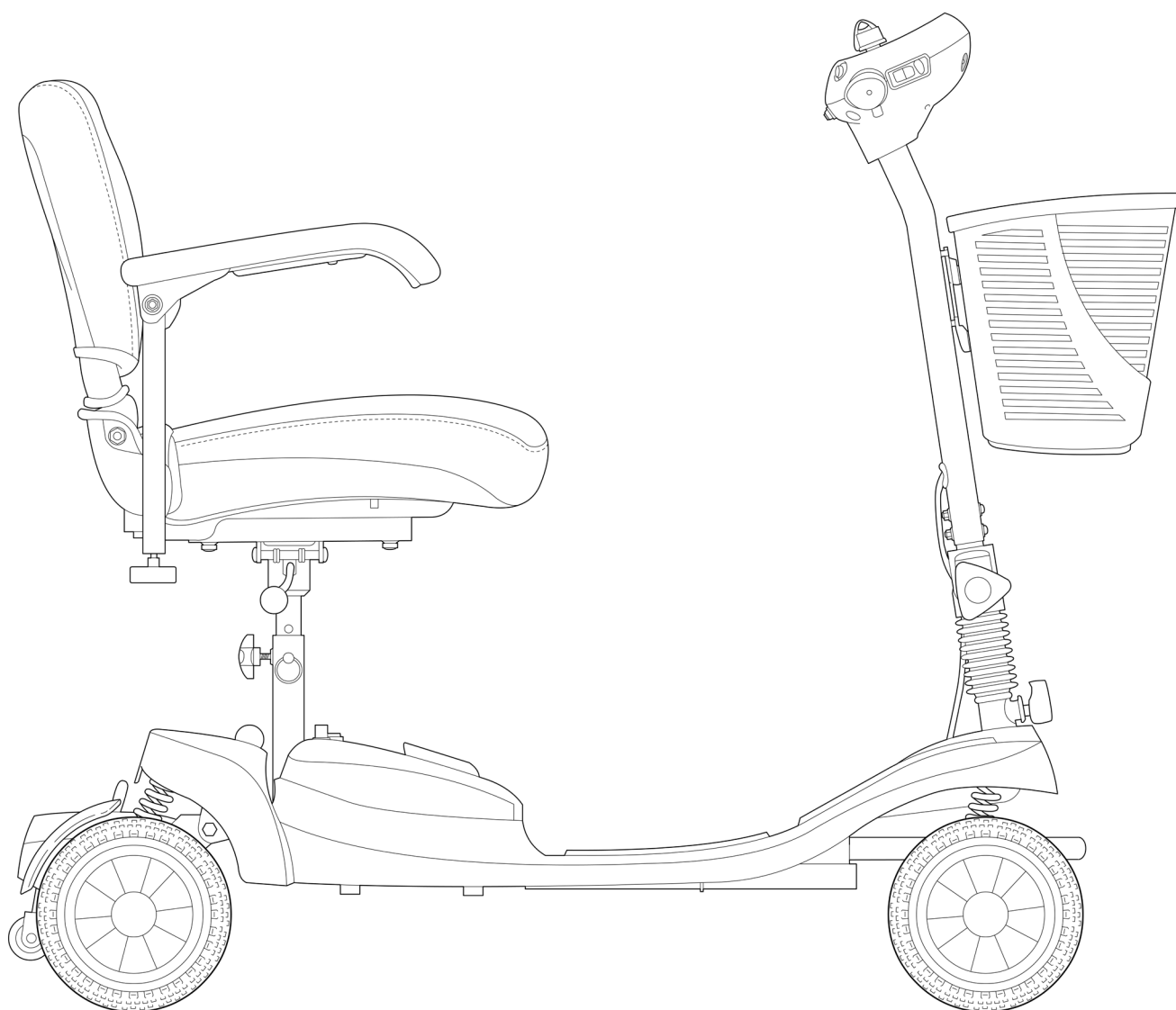


LITHILITE

User Manual



Motion



1. Introduction

Thank you and congratulations on the purchase of your new Motion Healthcare Lithilite Mobility Scooter.

Your new device is designed to provide indoor and outdoor transport for a person whose ability to walk is limited, but whose eyesight, dexterity and cognitive abilities enable them to operate the device safely.

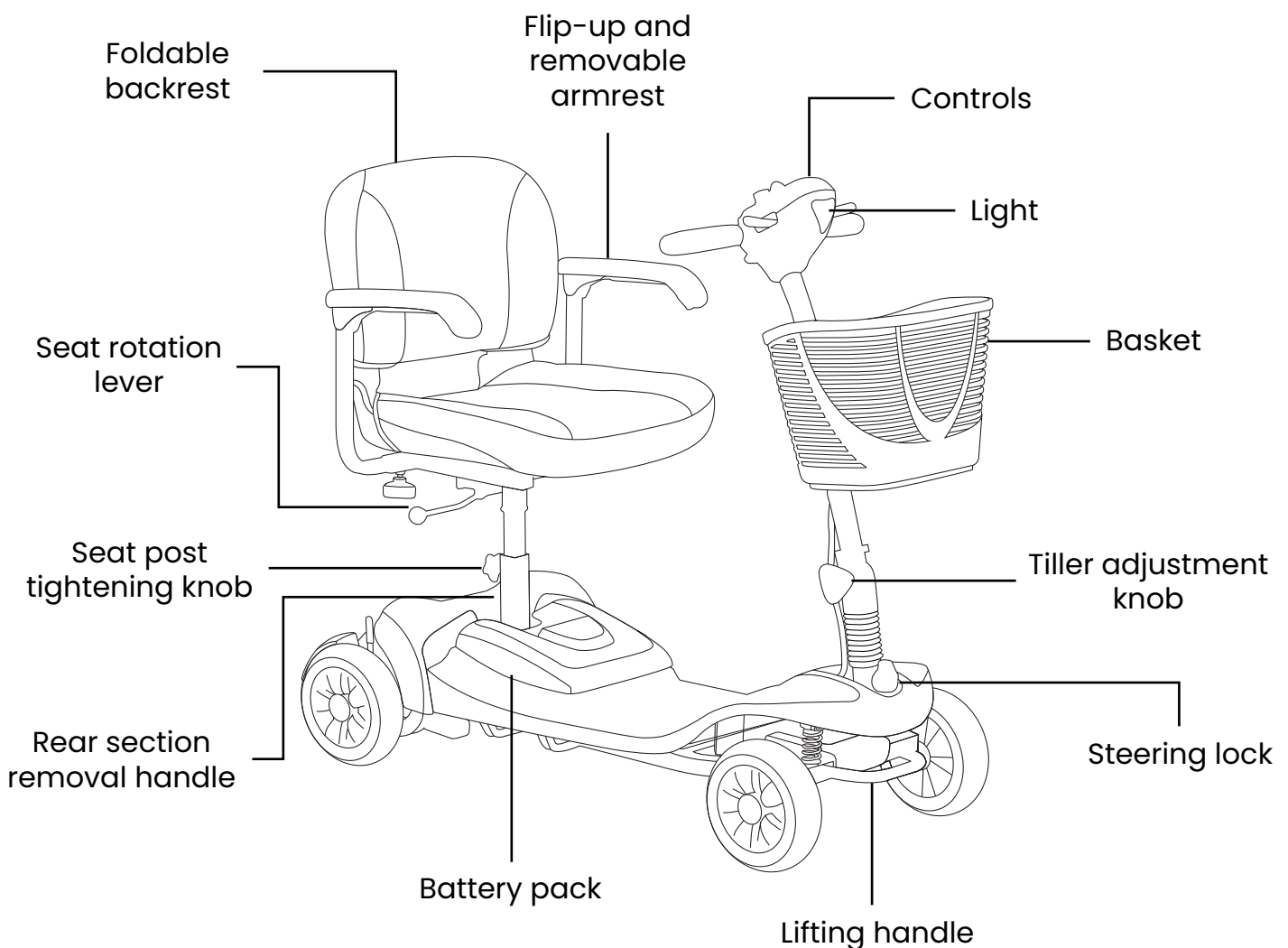
We pride ourselves on providing safe, comfortable and high-quality products and our goal is to ensure your complete satisfaction. We sincerely hope that we achieve that and you enjoy your Motion Healthcare device.

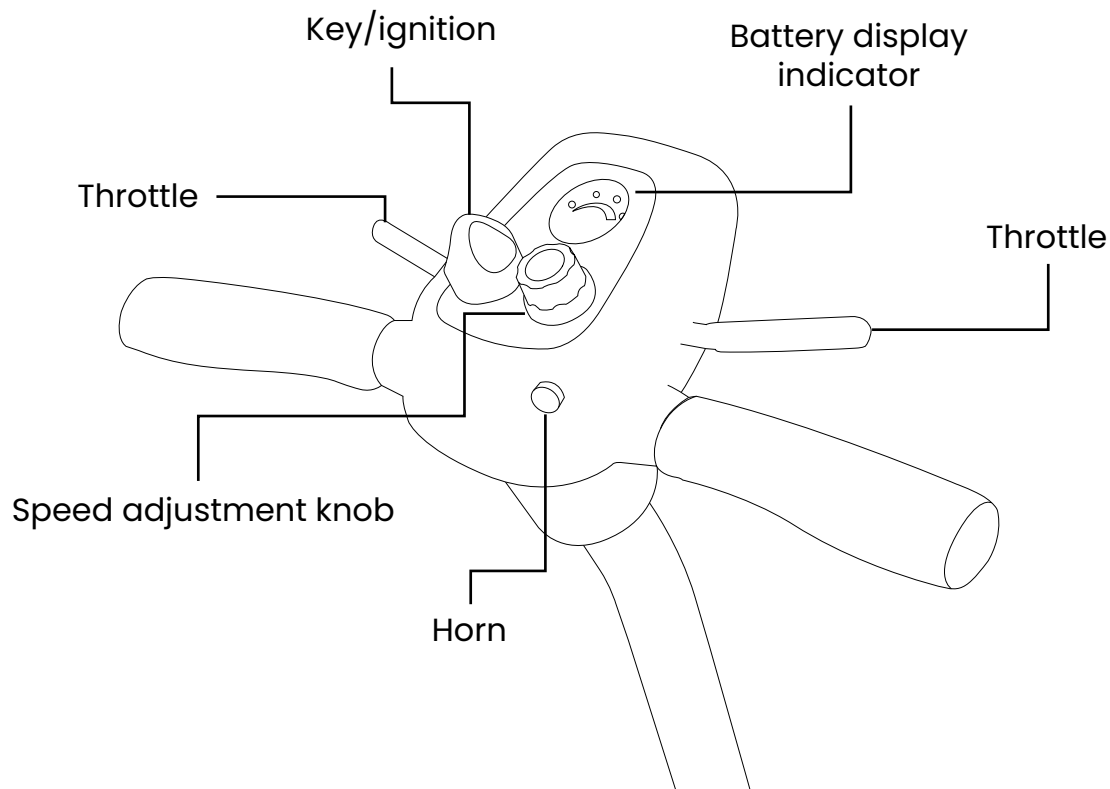
Please read all warnings and instructions in this user manual carefully before operating the various functions of your device, and keep this user manual for future reference.

If you have any questions, contact the company where you bought the product.

Motion Healthcare

2. Getting to Know Your Scooter





3. Important safety information

Before you operate your device, please read and understand all of the information provided for your safety. As with operating any vehicle, only drive with full alertness to ensure safety. Please observe the warnings below to avoid any damage or injury resulting from improper use of your device. You are responsible for taking proper safety measures and we will not be held liable for personal injury and/or product damage resulting from improper use of the device.

- Consult your doctor regularly to make sure there are no health or physical conditions that may limit or hinder your ability to operate your device safely.
- Consult your doctor if you are taking prescription or over-the-counter medication to check for side effects that may limit or interfere with your ability to operate your device safely.
- Do not operate your device while under the influence of alcohol as this may impair your ability to operate it safely.
- Do not use the device for purposes other than its intended use. Avoid any use, such as weight training, sports, athletics, pulling, moving or dragging objects, that may lead to safety hazards and excessive strain on the device.
- Your device is designed for one person only. Do not transport passengers.
- We strongly recommend not smoking while sitting on your device. If you choose to smoke while sitting on your device, please observe the following safety guidelines: Do not leave lit cigarettes unattended. Keep ashtrays at a safe distance from the device. Always make sure cigarettes are completely extinguished before disposing of them.
- Replace worn or damaged upholstery immediately to reduce the risk of flammability.

- Keep all electrical connections clean, dry and away from sources of moisture at all times to avoid damage to the electrical system and/or personal injury.
- Check electrical components regularly for signs of corrosion and, if found, contact the company where you bought the appliance to have them replaced as soon as possible.
- Do not modify your device. For accessories, contact an approved company for installation.
- Adding accessories to your device may change certain specifications such as overall weight, size and/or centre of gravity. Note that some changes may cause damage to objects in your area.
- Use extreme caution when using oxygen near electrical circuits and flammable materials. Contact your oxygen supplier for information on the safe use of oxygen.
- Do not change the controller settings. Contact an approved company if you notice a change in your ability to control your device.
- Do not place the device in 'freewheel' mode while it is switched on. Always switch off the device before enabling or disabling 'freewheel' mode.
- If you expect to sit in a stationary position for an extended period of time, switch off the power to the device. This prevents unexpected or unintended movement.
- Do not connect any device to the device's electrical system and do not use the batteries to power anything other than your device.
- To prevent uncontrolled rolling, never place the scooter in 'freewheel' mode on an incline or descent.
- Possible choking hazard! Be aware that clothes, cords, necklaces, other jewellery, bags and other accessories you wear or carry while sitting on or operating your device may get caught around the armrests or throttle handles.
- Do not use accessories that may interfere with the operation of the controls to prevent unintended or uncontrolled movement of the device.
- Keep yourself, clothing and all other objects away from the wheels while driving. Do not let objects drag behind the device while driving. Loose clothing or other objects may get caught in the wheels.
- When your device is used with a lifting device, always switch off the device's power, make sure the device is not in 'freewheel' mode and DO NOT sit on your device.
- Do not remove fuses from the battery or device. If the fuse appears damaged, contact the company where you bought the device.
- To avoid overloading the unit and possible tipping, never carry anything or fill the bag/basket with contents that weigh more than 15 lbs (6.8 kg).
- Do not use the armrests (if fitted) to carry weight as this may cause the device to tip over.

4. Getting on and off safely

To safely get on and off your device, always make sure the device is switched off first. If you fail to do so, you may accidentally touch the throttle and cause the device to move unexpectedly. Make sure the motor lock is on to prevent the device from moving while getting on or off. Move your device as close as possible to the seat you want to transfer from and transfer as far back onto the seat surface as possible, this will reduce the risk of missing or falling off the seat.

The completely correct transfer method varies depending on your personal circumstances, so work with your healthcare provider to learn how to position your body and support yourself during a transfer.

We also recommend that you have someone help you until you are confident that you can transfer safely on your own.

5. Safe driving

When driving your device, always pay attention to the following:

- Always obey all local pedestrian and traffic rules. It may be difficult for others to see you when you are on your device. Wait until your path is clear of traffic and then proceed with extreme caution. The use of safety equipment such as reflectors/reflective clothing, lights and safety flags is recommended.
- Each device is different. Take time to familiarise yourself with the operation of this device before driving.
- Get to know well the areas where you intend to use the device. Pay attention to potential hazards and learn how to avoid them
- Never use your device to climb stairs or use escalators.
- To avoid overturning, reduce your speed when making turns and do not make sharp turns. Always maintain a stable centre of gravity when making turns and avoid shifting your weight in the opposite direction of the turn.
- When driving on slopes or low kerbs, drive your device straight up with the wheels perpendicular to the slope and/or low kerb; both front wheels should make contact with the slope/low kerb at the same time. To reduce the risk of falling, do not drive at an angle or place one wheel or one side of the device on the slope/low kerb first. Always be extremely careful when negotiating a ramp or kerb.
- Avoid driving on potentially dangerous surfaces and/or slopes, including but not limited to areas covered with snow, ice, cut grass or wet leaves.
- When climbing a slope, it is advisable to keep the unit moving. If stopping is necessary, start back up slowly and accelerate gently.
- When descending an incline, use the lowest possible speed. If the descent is faster than you wish, release the throttle control to bring the device to a stop. Then gently press the throttle control to control the speed of your descent.
- The maximum recommended slope angles (see specifications) have been tested in a controlled environment. Your device's ability to drive up slopes is affected by your weight, speed and the angle at which you approach the slope, among other factors.
- Only drive in reverse on level ground. When reversing, operate your device at a lower and steady speed. Stop frequently and check that your path is clear of obstacles. To avoid tipping over, do not drive in reverse on a slope or incline.
- Avoid any change of position or movement that may alter your centre of gravity while the device is in motion.
- Be aware that a lowered kerb or small bump at the bottom of a slope can stop the front wheels and cause the unit to tip forward.

6. Safe transport

When transporting your device, always note the following:

- Do not use your device as a seat in a motor vehicle.
- Always ensure that the device and batteries are properly secured during transport. Do not transport the device or batteries together with flammable or combustible objects.
- Never transport the device on the front seat of a vehicle as it may move and distract the driver.
- Never sit on your device while it is in a moving vehicle.
- Do not tow your device with a car. Towing may exceed the maximum speed limit and result in damage to essential parts of the device.

7. Air travel

Only the 10Ah battery for the Lithilite falls under civil aviation regulations for safe air transport. Both the 20Ah and 40Ah batteries are too large.

Civil Aviation Authority guidelines for wheelchairs and mobility aids powered by lithium-ion batteries are as follows. Please see our comments in **BOLD** text to help you with your device:

Before travelling, passengers should inform the operator about the type of batteries installed in the mobility device and how to protect the device from unintended operation. – **The batteries installed in your device are lithium-ion batteries. To prevent unintended operation, switch off the scooter, remove the key from the ignition and ensure the scooter is not in neutral (see section 13 for more instructions).**

At the airport, the airline must verify that the:

- the battery should be removed and carried in the passenger cabin.
- the battery connections should be protected from short circuits (e.g. by insulating the connections with tape); – **There are no exposed connections on your scooter's battery.**
- the battery should be protected from damage (e.g. by placing each battery in a protective case).
- Removing the battery from the mobility aid should be done according to the manufacturer's or device owner's instructions. – **The battery pack can be easily lifted and removed from the Lithilite floor plate (see section 9 for more instructions).**
- the battery should not exceed 300 Wh – the 10ah battery is 252Wh (25.2v x 10ah = 252 Wh).
- A maximum of one spare battery may be carried, not exceeding 300 Wh, or two reserves not exceeding 160 Wh each.

8. Battery charging and maintenance

New batteries should be fully charged (about 24 hours) before first use to fully activate the batteries. Failure to do so may reduce battery life.

Battery life can be affected by temperature, user weight, the conditions in which the battery is stored, as well as the charging regime used.

As a general rule, it is advisable to charge your batteries as often as possible to ensure the longest possible life and minimise the charging time required. Schedule battery charging when you do not plan to use your device. Make sure the batteries are fully charged at least every 4-6 weeks when you are not using your device. Leaving them uncharged can cause permanent damage to the batteries.

Always ensure that your batteries are stored in a dry, well-ventilated environment and not left in cold conditions (3° and below) for long periods of time, as this may result in the battery not being able to receive a charge and cause permanent damage.

Warnings

- Batteries contain corrosive chemicals.
- Explosive conditions exist.
- Do not use batteries with different amp-hour (ah) capacities.
- Keep tools and other metal objects away from battery terminals. Contact with tools may result in electric shock.
- Batteries contain flammable material. Do not expose them to heat sources such as open flames or sparks. Do not transport batteries together with flammable or combustible objects.
- Contact the approved company where you bought the batteries for their disposal or recycling.
- Do not use any type of charger other than the one supplied.
- Do not attempt to charge the batteries and use the device at the same time.
- Do not attempt to charge the batteries by attaching cables directly to the battery terminals or clamps.
- Always check the battery level before embarking on a trip to avoid getting stranded.
- Do not attempt to remove batteries from their casing. This should only be carried out by an approved company.

How to charge your batteries

- Turn the key to the 'Off' position.
- Plug the battery charger into the plug socket in the wall.
- Plug the battery charger into the wall socket.
- The LED light on the battery charger will turn red to indicate that the batteries are being charged.
- The LED light on the battery charger will turn green when the batteries are fully charged.

9. Disassembly & Assembly

Dismantling



Raise the seat rotation lever and lift the seat to remove it.



Use the handle on the battery to lift up to remove the battery pack. Be aware that the battery is secured in place with Velcro, so if you have trouble removing it, press on the seat post to make it easier.



Fold the steering column down by first loosening the tiller adjustment knob and then slowly pushing the steering column down towards the base plate. Once the steering column rests on the bottom plate, tighten the tiller adjustment knob to hold it in place.



Lock the steering column in place using the steering lock by pressing the lock and turning it 90 degrees clockwise.



Lift the rear section removal handle with one hand and pull the rear section down with the handle to separate the front and rear sections. Lift the front section up and away.

Assembly



Use one hand to pull down the rear section with the handle and lift the front section using either the seat post or rear section removal handle. Drop the front section into the rear section and push down until you hear a click. Always check that the sections are connected correctly before moving on to the next stage.



Unlock the steering by pressing the lock and turning it 90 degrees anti-clockwise.



Lift the steering column up by first loosening the tiller adjustment knob and then slowly lifting the steering column up, away from the base plate. Once the steering column is upright, tighten the tiller adjustment knob to hold it in place.



Insert the battery pack into the base plate. Press down to ensure it is firmly in place.



Slide the seat onto the seat post. Always check and make sure the seat is securely fastened before sitting on it.

10. Controls

Turn on & off

To switch on your device, insert the key into the ignition and turn the key until the lights on the battery display indicator light up.

To switch off your device, turn the key until the lights on the battery display indicator are no longer lit and remove from the ignition.

Adjusting Speed

To adjust the speed of your device, always make sure you are stationary and turn the speed adjustment knob. To increase the speed, turn the knob clockwise (towards the hare) and to decrease the speed, turn it anti-clockwise (towards the turtle).

Driving forward & backward

To drive slowly forward, pull the right throttle lever (marked F) towards the control stick. The further you pull the lever, the faster you will move. Alternatively, use your hand to push the left throttle lever (marked R) away from the stick. To stop moving, release the lever.

To reverse slowly, pull the left throttle lever (marked R) towards the tiller handle. The further you pull the lever, the faster you will move. Alternatively, use your hand to push the right throttle lever (marked F) away from the stick. To stop moving, release the lever.

Sounding the horn

To sound the horn, press the button located on the tiller.

11. Seat belt attachment and adjustment

This model does not have a seat belt built-in.

12. Tiller Adjustment



To adjust the steering column, hold the steering column with one hand and, with the other hand, turn the steering column adjustment knob anti-clockwise until the teeth unlock and the steering column moves up and down freely.



When the steering column is in the desired position, turn the steering column adjustment knob clockwise until it is as tight as possible.

13. Free Run Mode

Freewheel lever is located at the rear of the scooter, near the rear wheel. The lever has two positions:

Forward – Neutral mode (the device can be pushed or pulled by hand)

Reverse – Drive mode (the device only moves using the controls)

14. Daily Checks

Please check the following items before using your device. If you notice anything abnormal or if you are unsure about anything, contact the company where you bought the device for further advice or inspection before using the device.

Tiller stability

- Make sure it is not excessively loose.
- Make sure it can be turned smoothly left and right fully.

Controls

- With your device switched off, make sure the controls have full range of movement.
- Make sure that when the controls are pulled, your device moves appropriately.

Speed adjustment

- While your device is switched off, Ensure the buttons or knobs have full range of movement.
- Ensure that when the controls are adjusted, the speed of your device changes as it should.

Battery meter

- Ensure that when your device is switched on, the battery meter shows the battery level and there are no flashing lights.

Horn

- Ensure that when the horn button is pressed, the horn sounds as it should.

Key

- Ensure the key can be easily moved in and out of the ignition barrel.
- Ensure the key is firmly in the ignition barrel.
- Ensure your device turns on and off when the key is inserted into and removed from the ignition.

Motor, Transaxle and Electromagnetic Brake

- Ensure there are no unusual noises coming from your device.
- Ensure no unusual odours come from your device.

Wheels

- Ensure there are no cracks or deformations on the tyres of your device.
- Ensure the wheels turn without wobbling.
- Ensure there are no foreign objects in the tyre tread.
- Ensure there is no excessive or uneven wear on the tyre tread.
- Ensure there are no unusual noises coming from your device.

Battery housing

- Ensure the battery box has no cracks or deformation.
- Ensure that the battery box can be properly inserted and removed.

Seat

- Ensure there is no unusual movement when the seat is locked into position.
- Ensure the chair moves as it should.

Freewheel lever

- Ensure the freewheel lever engages and disengages the electromagnetic brake as it should.

15. Cleaning, maintenance and disposal

Cleaning

To clean your appliance, use a soft brush to remove dirt or dust. Use a damp cloth and mild detergent to wipe all surfaces clean. Allow your appliance dry naturally.

- Ensure your device is switched off when cleaning.
- Ensure you avoid electrical connections when cleaning.
- Do not use a garden hose, pressure washer or spray water directly on your device.
- Do not use abrasive materials or liquids when cleaning.

Maintenance

Ensure the daily checks are made on your device. Apart from cleaning and daily checks it is recommended that all maintenance is completed by an approved company. It is recommended that your device is serviced every at least every 12 months.

Disposal

It is recommended that your device is disposed of through an approved company. Because of the lithium battery in your device it is classed as hazardous goods and must be disposed of in the correct manner. For more information contact the company you purchased from.

16. Electromagnetic compatibility

This section of content provides you with basic information on electromagnetic interference (EMI) problems and the protective measures that can be taken to reduce the possibility of exposure or minimise the degree of exposure. This section also shows some conditions where unexpected or irregular movements may occur. It is very important that you read this information regarding the possible effects of electromagnetic interference on your device.

Your device may be sensitive to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted by sources such as radio stations, TV stations, amateur radio (HAM) stations, two-way radios and mobile phones. The interference (coming from radio signals) can cause your device to release the brakes, move by itself or move in unintended directions. It can also cause permanent damage to the device's operating system. The intensity of interfering EM energy can be measured in volts per metre (V/m). Your device can withstand EMI up to a certain intensity level. The higher the immunity level, the greater the protection. Currently, current technology is capable of achieving at least an immunity level of 20 V/m, providing useful protection against the more common sources of radiated EMI. Your device is sold with an immunity level of 20 V/m without accessories and without further modifications.

There are several sources of relatively intense electromagnetic radiation in the everyday environment. Some of these sources are obvious and easy to avoid, while others cannot be avoided and exposure is unavoidable. However, we believe that following the warnings below will minimise your risk of EMI. Sources of radiated EMI can be broadly classified into three types:

1. Portable handheld transmitters (transmitter-receivers with the antenna mounted directly on the transmitting unit). Examples include: citizen-band (CB) or handheld transmitters (security, fire and police transmitters), mobile phones and other personal communication devices. Some mobile phones transmit a signal while they are ON, even when not in use.
2. Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis, usually have the antenna mounted on the outside of the vehicle.
3. Long-range transmitters and receivers, such as commercial transmitters (radio and television masts) and amateur (HAM) radios.

Other types of portable devices, such as cordless phones, laptops, AM/FM radios, televisions, CD players and small appliances like electric shavers and hairdryers, are unlikely to cause EMI problems for your electric scooter.

Electromagnetic interference (EMI) – EM energy intensifies rapidly the closer you are to a transmitting antenna (source). EM fields from radio wave handheld transmitters (transceivers) are of particular concern. It is possible to inadvertently bring high levels of EM energy very close to the device's control system while using it. This can affect the movement and braking of your device. Therefore, the warnings below recommended to avoid possible interference with your device's operating system.

1. Do not use handheld transceivers, such as CB radios, or switch on personal communication devices, such as mobile phones, while your device is switched on.
2. Be aware of nearby transmitters, such as radio or television stations, and try to avoid them.
3. If unintended movement or release of the brake occurs, switch off as soon as possible as soon as it is safe.
4. Be aware that adding accessories or parts, or modifying the device, can make it more sensitive to EMI.
5. Report all cases of unintended movement or brake release to the manufacturer and state whether there were sources of EMI nearby.

17. Troubleshooting

Flash Code	Possible problem	Possible solution(s)
1 2 3	Battery has no power or is not connected correctly	Check that the battery is correctly positioned on the floor pan. Check the battery connection pins on the floor pan. Check the connection at the bottom of the battery. Try to fully charge the battery. Contact an Approved Partner for repair.
4	Motor current fault	Contact an Approved Partner for repair.
5	Electromagnetic brake fault	Contact an Approved Partner for repair.
6	The controller is inhibited from driving	Ensure the battery charger is not plugged in.
7	Throttle control lever fault	Ensure the throttle lever is not pulled when turning on the device.
8	Motor voltage fault	Contact an Approved Partner for repair.
9	Other error	Contact an Approved Partner for repair.

18. Warranty

All Motion Healthcare products are sold to our partners with warranty. They, in turn, will sell the product to you with warranty. These are two separate agreements.

To find out specific details of the warranty you received or to make a claim, contact the company where you bought the product.



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19. Specifications

	Air	Standard	Pro
Length	104.5 cm	104.5 cm	104.5 cm
Width	50 cm	50 cm	50 cm
Height	94.5 cm	94.5 cm	94.5 cm
Front wheel size	19 cm	19 cm	19 cm
Rear wheel size	19 cm	19 cm	19 cm
Total weight	37.8 kg	38.8 kg	40.85 kg
Heaviest part	15 kg	15 kg	15 kg
Battery weight	2.2 kg	3.2 kg	5.25 kg
Battery capacity	25.2v 10ah Lithium	25.2v 20ah Lithium	25.2v 40ah Lithium
Battery watt hours	252 wh	504 wh	1,008 wh
Range	10 miles	15 miles	30 miles
Speed	4 mph	4 mph	4 mph
Maximum user weight	23.5 stone	23.5 stone	23.5 stone
Seat width	45 cm	45 cm	45 cm
Motor size	270w	270w	270w
Maximum incline	6°	6°	6°
Ground clearance	5 cm	5 cm	5 cm
Turning circle	125 cm	125 cm	125 cm



www.motionhealthcare.co.uk
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