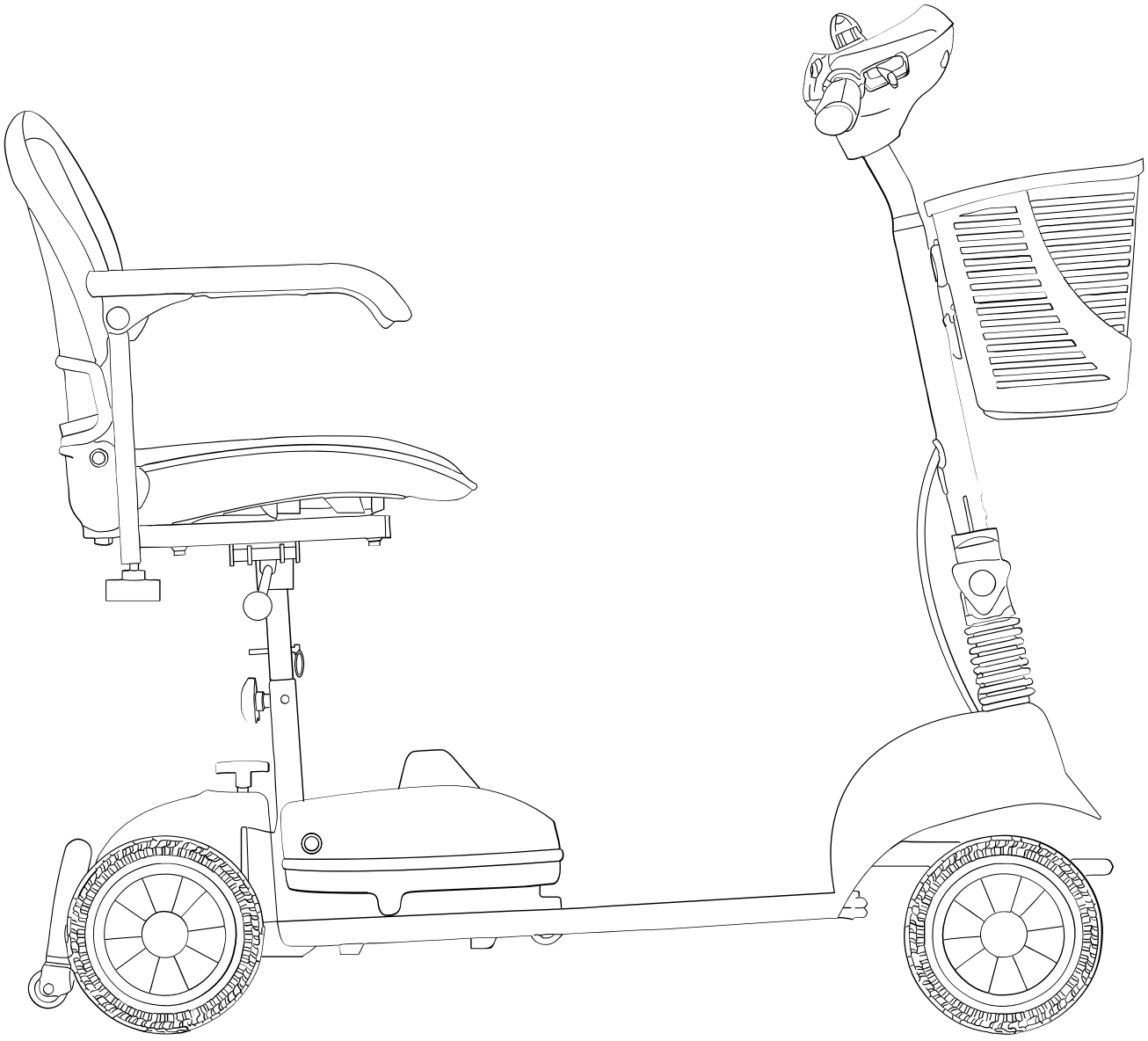
eFly

User Manual



Motion

1. Introduction

Thank you and congratulations on purchasing your new Motion Healthcare eFly Class 2 Mobility Scooter.

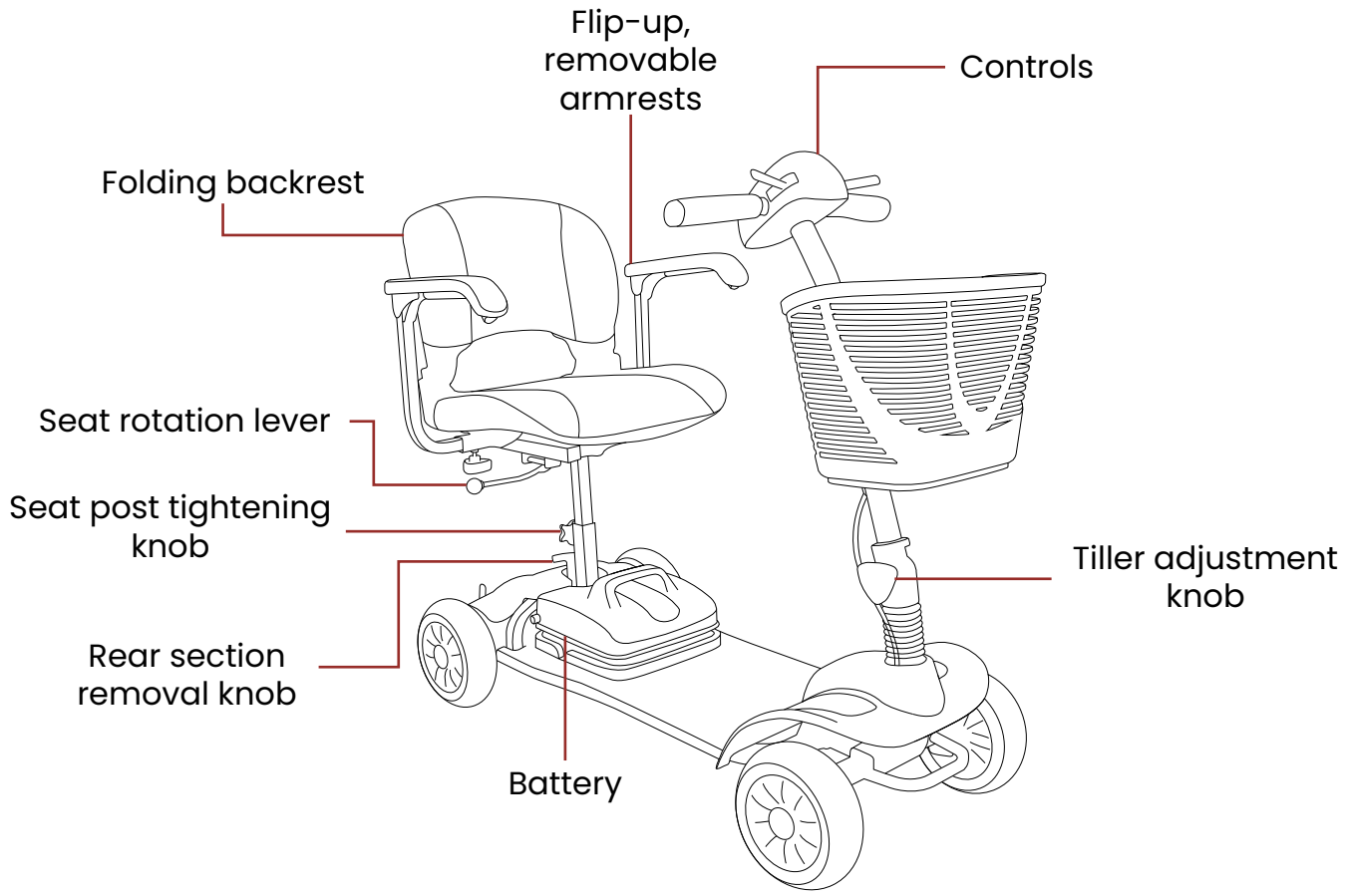
Your new device is designed to provide transportation indoors and outdoors for a person whose ability to walk is impaired, but who in terms of eyesight, dexterity and cognitive ability are able to safely operate the device.

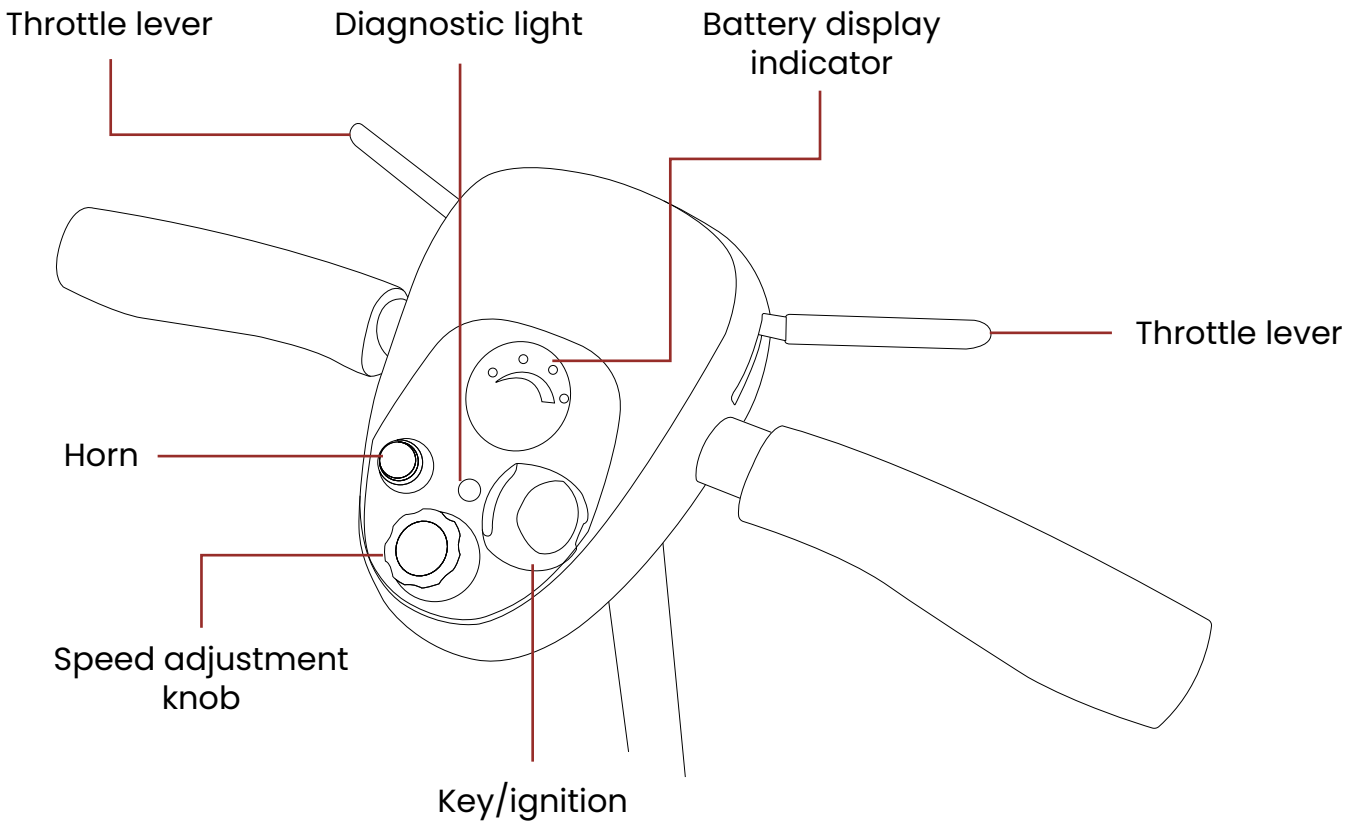
We pride ourselves on providing safe, comfortable and high quality products and our goal is to ensure your complete satisfaction, we sincerely hope we achieve that and you enjoy your Motion Healthcare device.

Please read and observe all warnings and instructions provided in this user manual before you operate the various functions of your device and please retain this user manual for future reference.

If you have any questions, please contact the company you purchased from.

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.

• Please consult your doctor routinely to ensure there are no health or physical conditions that may limit or impair your ability to safely operate your device.

• Consult your doctor if you are taking prescription or over-the-counter medications to see if any side effects may limit or impair your ability to safely operate your device.

• Do not operate your device while you are under the influence of alcohol, as this may impair your ability to operate it safely.

• Do not use the device other than for its original purpose. Avoid any use, such as weight training, sports, athletics, hauling, moving or towing anything, that may lead to safety hazards and undue stress on the device.

• Your device is designed for one person only. Do not carry passengers.

• We strongly recommend that you do not smoke cigarettes while seated on your device. You must adhere to the following safety guidelines if you decide to smoke cigarettes while seated on your device: Do not leave lit cigarettes unattended. Keep ashtrays at a safe distance from the device. Always make sure cigarettes are completely extinguished before disposal.

• Replace worn or damaged upholstery immediately to reduce the risk of flammability.

• Keep all electrical connections clean, dry and away from sources of dampness at all times to prevent damage to the electrical system and/or personal injury.

• Check electrical components frequently for signs of corrosion and if found contact the company you purchased from to replace these as soon as possible.

• Do not modify your device. For any accessories, please contact an approved company for installation.

• The addition of accessories to your device may change certain specifications such as overall weight, size, and /or the centre of gravity. Please take note of how some of the changes may damage any objects around you.

• Exercise extreme caution when using oxygen in close proximity to electrical circuits and combustible materials. Contact your oxygen provider for information on using oxygen safely.

• Do not change the settings of the controller. Please contact an approved company if you notice any change in your ability to control your device.

• Do not place the device in “freewheel” mode while it is turned on. Always turn off the device before engaging or disengaging “freewheel” mode.

• If you anticipate being seated in a stationary position for an extended period of time, turn off the power to the device. This will prevent unexpected or unintended movement.

• Do not connect any device to the devices electrical system or use the batteries to power anything other than your device.

• To prevent the device from rolling uncontrollably on its own, never place the scooter in “freewheel” mode on any incline or decline.

• Possible strangulation hazard! Be aware that clothing, lanyards, necklaces, other jewellery, purses, and other accessories worn or carried by you while you are seated on or operating your device may get caught around the armrests or throttle control lever.

• Avoid using any accessories that may interfere with the operation of the controls to avoid unintended or uncontrolled movement of the device.

• Keep yourself, clothing, and all other objects away from the wheels while driving. Do not allow any objects to drag behind the device when driving. Loose-fitting clothing or other objects can get caught in the wheels.

• When your device is used with any type of hoist/lift, always turn off the power of the device, make sure the device is not in “freewheel” mode and do NOT sit on your device.

• Do not remove any fuses from the battery or device. If the fuse appears damaged, contact the company you purchased from.

• To avoid overloading the device and potential tipping, never carry anything or fill the bag/basket with contents weighing more than 15lbs (6.8kg).

• Do not use the armrests (if fitted) for any weight bearing purposes as this may cause the device to tip.

4. Mounting & Dismounting Safely

To safely mount and dismount your device always make sure it is first turned off, if you fail to do so you may accidently touch the throttle control and cause your device to move unexpectedly. Make sure motor locks are engaged to keep the device from moving while you mount/dismount. Move your device as close as you can to the seat you are transferring from and transfer as far back onto the seat surface as you can, this will reduce the risk that you will miss the seat or fall.

The full correct transfer method varies based on your personal circumstances so work with your health care professional to learn how to position your body and how to support yourself during a transfer.

We also advise you have someone help you until you are sure you can safely transfer on your own.

5. Driving Safely

When driving your device always be aware of the following:

- Always obey all of the local pedestrian and traffic rules. It may be difficult for others to see you when you are seated on your device. Wait until your path is clear of traffic, and then proceed with extreme caution. Use of safety equipment such as reflectors/reflective clothing, lights, and safety flags is advisory.
- Every device is different. Take the time to learn the feel of this device before driving.
- Get to know the areas where you plan to use device. Look for hazards and learn how to avoid them.
- Never use your device to negotiate stairs or escalators.
- To prevent tipping reduce your speed when turning and do not make any sharp turns. Always maintain a stable centre of gravity while turning and avoid shifting your weight in the opposite direction of a turn.
- While driving up inclines or low kerbs, drive your device straight on with the wheels perpendicular to the incline and/or low kerb; both front wheels should contact the incline/low kerb at the same time. To reduce the possibility of a fall, do not drive at an angle; do not get one wheel or side of the device on the incline/low kerb first. Always exercise extreme caution when negotiating an incline or kerb.
- Do not travel up or down potentially hazardous surfaces and/or inclines, including but not limited to areas covered with snow, ice, cut grass, or wet leaves.
- When climbing an incline, try to keep the device moving. If stopping is necessary, start up again slowly and then accelerate with caution.
- When descending an incline, use the slowest speed possible. If the descent is faster than you desire, release the throttle control to stop the device. Then press the throttle control gently to control the speed of your descent.
- The maximum recommended incline angles (see specifications) are tested in a controlled environment. Your device's ability to climb up inclines is affected by your weight, speed and the angle you approach the incline among other factors.
- Only drive backwards on a flat surface. When driving backwards, operate your device at a lower and even speed. Stop often and check to make sure your path is clear of obstacles. To prevent tipping, do not travel down an incline or ramp backwards.
- Avoid any change of position or movement that may change your centre of gravity while the device is moving.
- Be aware a dropped kerb or small bump at the bottom of a slope can stop the front wheels and cause the device to tip forward.

6. Safe Transportation

When transporting your device always be aware of the following:

- Do not use your device as a seat in any motor vehicle.
- Always secure the device and its batteries when it is being transported. Do not transport the device or batteries with any flammable or combustible items.
- Never transport the device in 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 threshold, resulting in damage to critical components of the device.

7. Air Travel

The Civil Aviation Authority's guidance for wheelchairs and mobility aids powered by non-spillable acid or alkali batteries is below. Please see our notes in **BOLD** to help you with your device:

Before travel, passengers must advise the operator of the type of batteries fitted to the mobility aid and how the device can be protected against inadvertent operation. – **The batteries fitted to your device are sealed lead-acid batteries. To protect against inadvertent operation, you must turn off the scooter, remove the key from the ignition and ensure the scooter is not in freewheel (see section 13 for more instructions)**

At the airport, the airline must verify that the:

- the battery must be removed and carried in strong, rigid packaging and stowed in the cargo compartment.
- the battery terminals must be protected from short circuit (by insulating the terminals, e.g. by taping over exposed terminals); - **There are no exposed terminals on your scooter's battery pack.**
- the battery must be protected from damage (e.g. by placing each battery in a protective pouch).
- removal of the battery from the mobility aid must be performed by following the instructions of the manufacturer or device owner. – **The battery pack simply lifts up and off of the eFly floorpan (see section 9 for more instructions)**
- the battery must not exceed 300 Wh – **the 10ah battery is 252Wh (25.2v x 10ah = 252 Wh)**
- a maximum of one spare battery not exceeding 300 Wh or two spares not exceeding 160 Wh each may be carried.

It is recommended that passengers make arrangements with their airline at least 48 hours in advance of travel.

8. Battery Charging & Care

New Batteries must be charged fully (approximately 24 hours) prior to first use to fully activate the batteries, if this does not happen battery life can be reduced.

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

As a general rule you should charge your batteries as often as possible to ensure the longest possible life and minimise the required charging time. Plan to recharge them when you do not anticipate using your device. When not using your device make sure that the batteries are charged fully at least every 4-6 weeks. If left uncharged it will permanently damage the batteries.

Always ensure your batteries are stored in a dry, well-ventilated environment and not left in cold conditions (3° and under) for extended periods of time as this will result in the battery being unable to receive a charge and will result in permanent damage.

Warnings

- Corrosive chemicals are contained in batteries.
- Explosive conditions exist.
- Do not use batteries with different amp-hours (ah) capacities.
- Keep tools and other metal objects away from battery terminals. Contact with tools can result in electric shock.
- Flammable material contained in batteries. Do not expose to heat sources such as open flame or sparks. Do not transport batteries with flammable or combustible items.
- To dispose of or recycle your batteries please contact the approved company you purchased from
- Do not use a different charger type than the one supplied.
- Do Not attempt to recharge the batteries and operate the device at the same time.
- Do Not attempt to recharge the batteries by attaching cables directly to the battery terminals or clamps.
- Always check your battery level before starting a journey to avoid being stranded.
- Do not attempt to remove batteries from their cases. 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 charger into the battery charge 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. Dismantling & Assembling

Dismantling

1. Lift up the seat rotation lever and lift the seat upwards to remove it.

2. Lift up the battery pack to remove it. Be aware the battery is secured in place with Velcro so if you are struggling to remove it push down on the seat post to help make it easier.

3. Fold down the tiller by first loosening the tiller adjustment knob and then slowly pushing the tiller down towards the floorpan. Once the tiller is resting on the floor pan the tighten the tiller adjustment knob to keep it in place.

4. Lock the tiller in place using the tiller lock by pushing the lock in and rotating it 90 degrees clockwise.

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

Assembling

1. 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 knob. 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.

2. Unlock the tiller by pushing the lock in and rotating it 90 degrees anti-clockwise.

3. Lift up the tiller by first loosening the tiller adjustment knob and then slowly lifting the tiller up away from the floorpan. Once the tiller is upright then tighten the tiller adjustment knob to keep it in place.

4. Insert the battery pack into the floorpan. Push down to ensure it is secured.

5. Lift up the seat rotation lever and place the seat on the seat post.

10. Controls

Turning On & Off

To turn your device on insert the key into the ignition until the lights on the battery display indicator are illuminated.

To turn off your device remove the key from the ignition until the lights on the battery display indicator are not illuminated.

Adjusting the Speed

To adjust the speed of your device always ensure you are stationary and rotate the speed adjusting knob. To increase speed, rotate the knob clockwise (towards the hare) and to decrease speed rotate it anti-clockwise (towards the turtle).

Driving Forwards & Backwards

To drive forwards slowly pull the right-hand throttle lever (marked F) towards the tiller handle. The more you pull the lever the faster you will move. Alternatively, you can use your hand to push the left-hand throttle lever (marked R) away from the tiller handle. To stop moving then let go of the lever.

Sounding the Horn

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

11. Seatbelt Fitting & Adjustment

This model does not have a seat belt fitted.

12. Tiller Adjustment

To adjust the tiller, hold the tiller in one hand and turn the tiller adjustment knob anti clockwise with the other until the teeth disengage and the tiller can move up and down freely.

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

13. Freewheel Mode

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

Forwards - Neutral Mode (the device can be pushed or pulled by hand)

Backwards - Drive Mode (the device will only move using its controls)

14. Daily Checks

Check the following items before using your device. If you find anything abnormal or that you are unsure of, contact the company you purchased from for further advice or inspection before using your device.

Tiller Stability

• Ensure it not excessively loose.

• Ensure it can be smoothly turned left and right fully.

Controls

• With your device turned off ensure the controls have the full range of movement.

• Ensure when the controls are pulled your device moves as it should.

Speed Adjustment

• With your device turned off ensure the knob/buttons have the full range of movement.

• Ensure when the controls are adjusted your devices speed changes as it should.

Battery Gauge

• Ensure when your device is turned on that the battery gauge indicates the battery level and there are no flashing lights.

Horn

• Ensure when the horn button is pushed that the horn sounds as it should.

Key

• Ensure the key easily moves in and out of the ignition barrel.

• Ensure the key is tight in the ignition barrel.

• Ensure your device turns on and off when the key is inserted and removed from the barrel.

Motor, Transaxle and Electromagnetic Brake

• Ensure there are no unusual noises coming from your device.

• Ensure there are no unusual smells coming from your device.

Wheels

• Ensure there are no cracks or deformities on the tyres of your device.

• Ensure the wheels rotate without wobbling.

• Ensure there are no foreign objects in the tyre treads.

• Ensure there is no excessive or uneven wear to the tyre tread.

• Ensure there are no unusual noises coming from your device.

Battery Case

• Ensure the battery case has no cracks or deformities.

• Ensure the battery case inserts and removes as it should.

Seat

• Ensure there is no unusual movement when the seat is locked into position.

• Ensure the seat moves as it should.

Freewheel Lever

• Ensure the freewheel lever turns on and off the electromagnetic brake(s) as it should.

15. Cleaning, Maintenance & Disposal

Cleaning

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

• Ensure your device is turned off when being cleaned.

• Ensure you avoid any electrical connections when cleaning.

• Do not use a hose pipe, jet wash or splash water directly onto your device.

• Do not use abrasive or scouring 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 lead-acid 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 portion of the content will provide you with basic information about the problems with EMI (electromagnetic interference), protective measures can be used to either lessen the possibility of exposure or to minimize the degree of exposure; this section also shows some conditions that unexpected or erratic movements may cause. It is very important that you read this information regarding the possible effects of electromagnetic interference on your device.

Your device may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and mobile phones. The interference (from radio wave sources) can cause your device to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the devices control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Your device can resist EMI up to a certain intensity level. The higher the immunity level the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI. Your device as sold, with no further modification, has an immunity level of 20 V/m without any accessories.

There are a number of sources of relatively intense EM in the everyday environment. Some of these sources are obvious and easy to avoid, others are not and exposure is unavoidable. However, we believe that by following the warning listed below, your risk to EMI will be minimized. The sources of radiated EMI can be broadly classified into three types:

1. Hand-held portable transceivers (transmitter-receivers with the antenna mounted directly on the transmitting unit). Examples include: citizens band (CB) or hand held radios, (security, fire, and police transceivers), mobile telephones and other personal communication devices. Some mobile telephones transmit a signal while they are ON, even though they are not being used.

2. Medium-range mobile transceivers, such as those used in police cars, fire engines, ambulances and taxis usually have the antenna mounted on the outside of the vehicle.

3. Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, televisions, CD players, and small appliances such as electric shavers and hair dryers, are not likely to cause EMI problems to your powered scooter.

Electromagnetic Interference (EMI) EM energy rapidly becomes more intense the closer you are to a transmitting antenna (source). The EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the device control system while using these. This can affect your devices movement and braking, Therefore the warnings listed below are recommended to prevent possible interference with the control system of your device.

1. Do not operate hand-held transceivers-receivers, such as citizens band (CB) radios, or turn ON personal communication devices, such as mobile phones, while your device is turned on.

2. Be aware of nearby transmitters, such as radio or TV stations, and try to avoid getting close to them.

3. If unintended movement or brake release occurs, turn the device off as soon as it is safe.

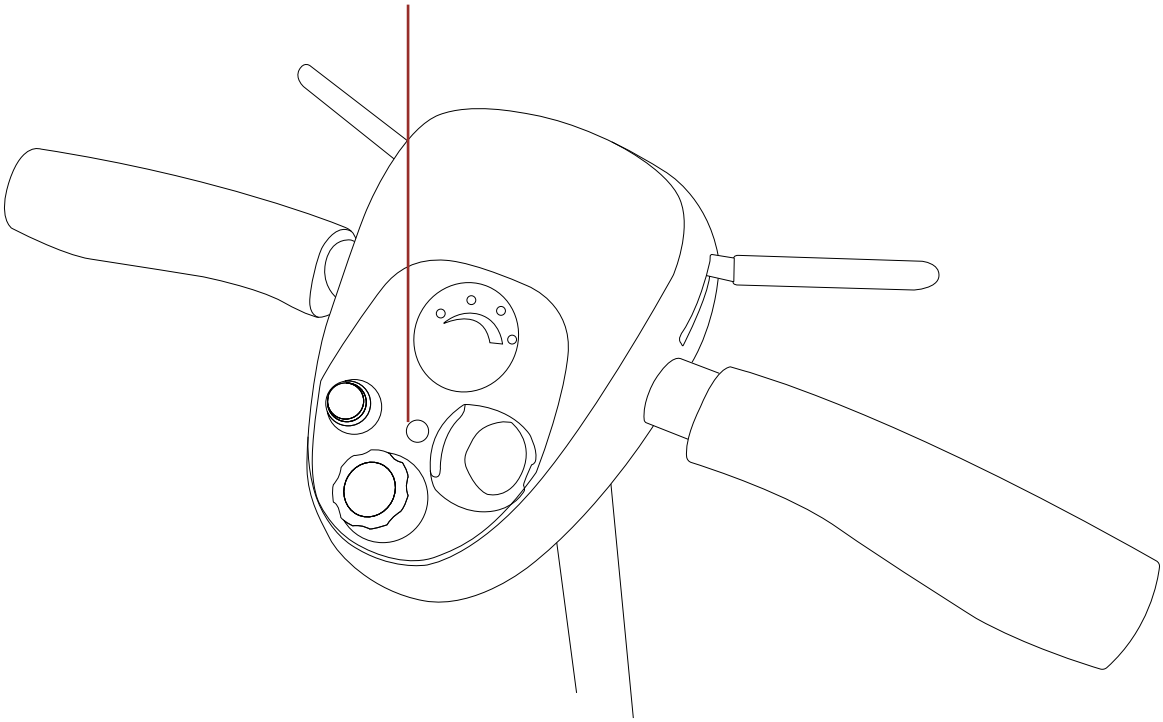
4. Be aware that adding accessories or components, or modifying the device, may make it more susceptible to EMI.

5. Report all incidents of unintended movement or brake release to the manufacturer, and note whether there were sources of EMI nearby.

17. Troubleshooting

In the event of an error with your scooter, please refer to the light on your control panel to diagnose the issue. Below, the table will demonstrate all the issues the scooter can report and guide you to a possible resolution.

Diagnostic light



Flash Code	Possible Issue	Possible Solution(s)
1	The battery has no power or is not connected correctly.	Check the battery pack is seated correctly on the floorpan. Check the battery connection pins on the floorpan. Check the connection in the bottom of the battery pack. Try fully charging the battery. Contact an approved company to repair.
2		
3		
4	Motor Current Fault	Contact an approved company to repair.
5	Electromagnetic Brake fault.	Contact an approved company to repair.
6	The controller is being inhibited from driving.	Ensure the battery charger is not plugged in
7	Throttle control lever fault.	Ensure the throttle lever is not pulled in when turning on the scooter.
8	Motor Voltage Fault	Contact an approved company to repair.
9	Other Error	Contact an approved company to repair.

18. Warranty

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

To find out specific details of the warranty you receive or to make any claim please contact the company you purchased from.

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School Road
Rayne, CM77 6SP

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GUANGDONG PROVINCE, CHINA

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UK REP

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Wandle House Associates
47 Wandle House
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19. Specifications

Length	102 cm
Width	49 cm
Height	92 cm
Front Wheel Size	19 cm
Rear Wheel Size	19 cm
Total Weight	36.4 kg
Heaviest Part	15 kg
Battery Weight	2.5 kg
Battery Capacity	25.2v 10ah Lithium
Battery Watt Hours	252 wh
Range (Up to)	7.5 miles
Speed	4 mph
Maximum User Weight	21 stone
Seat Width	43 cm
Motor Size	270w DC24v Brush Motor
Maximum Slope	6°
Ground Clearance	5 cm
Turning Circle	125 cm

www.motionhealthcare.co.uk
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