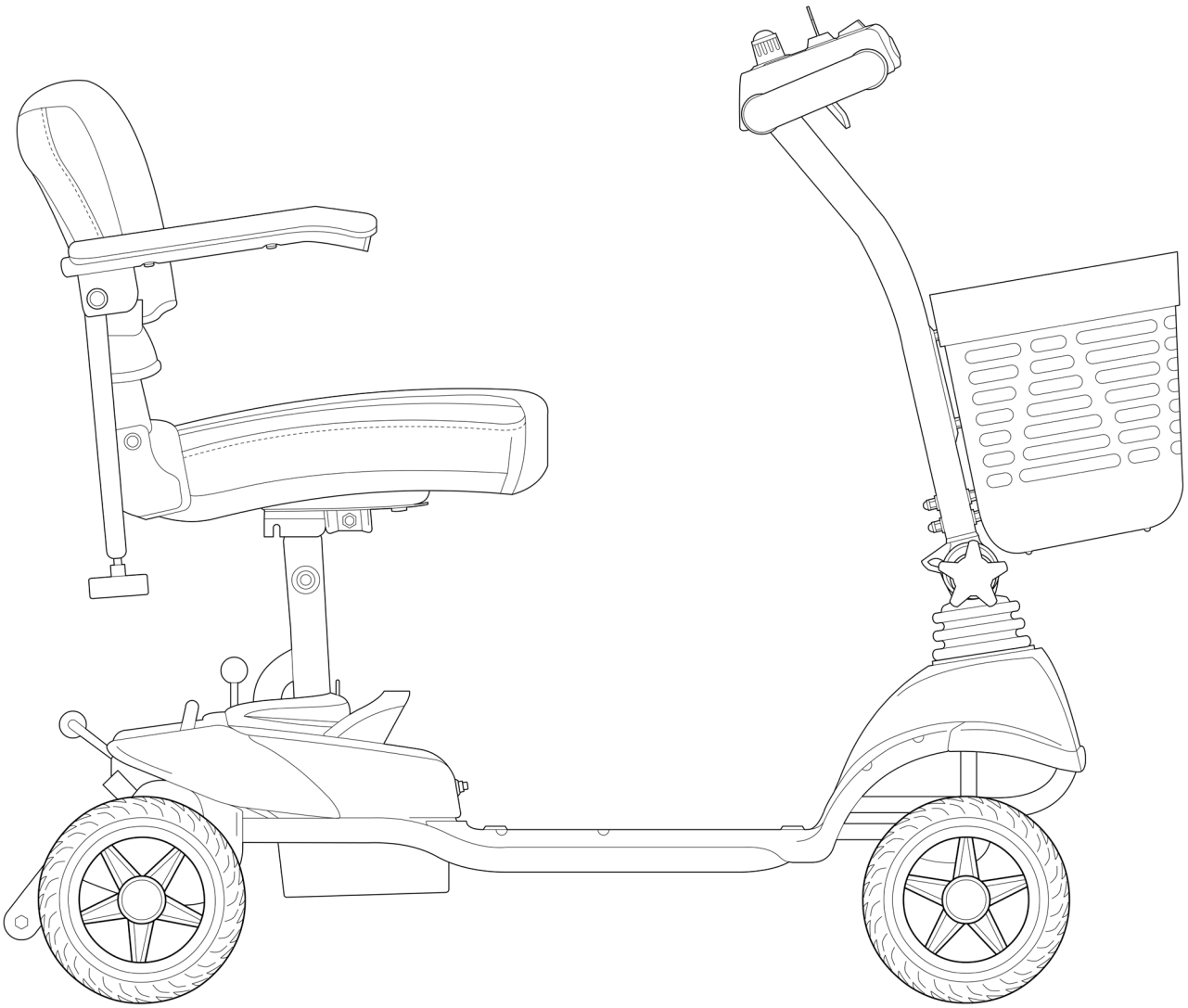
Evolite

User Manual



Motion

1. Introduction
Thank you and congratulations on the purchase of your new Motion Healthcare Evolite Class 2 Mobility Scooter.

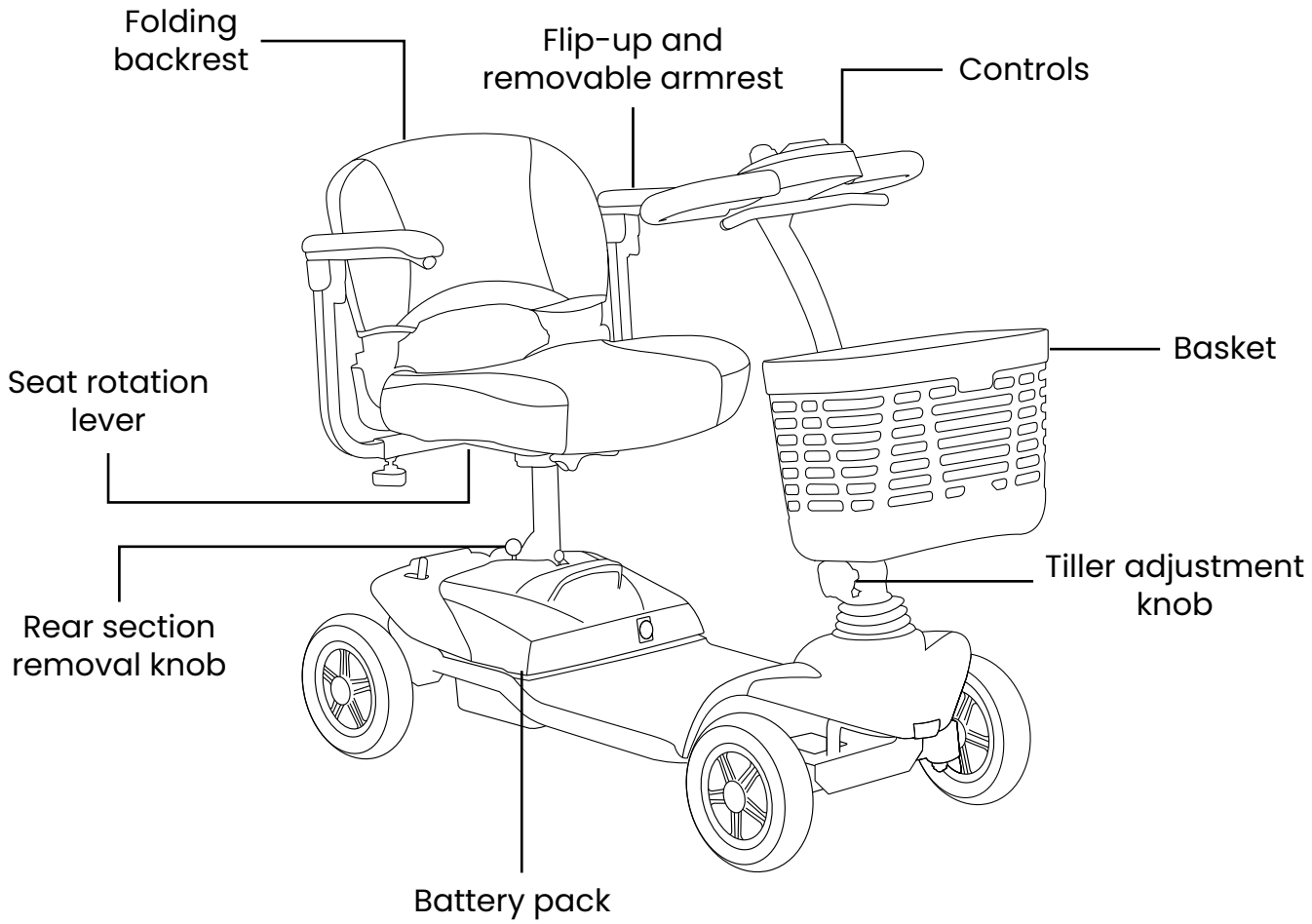
Your new device has been designed to enable individuals with limited walking ability whose vision, dexterity and cognitive abilities allow them to operate the device safely, indoors and outdoors.

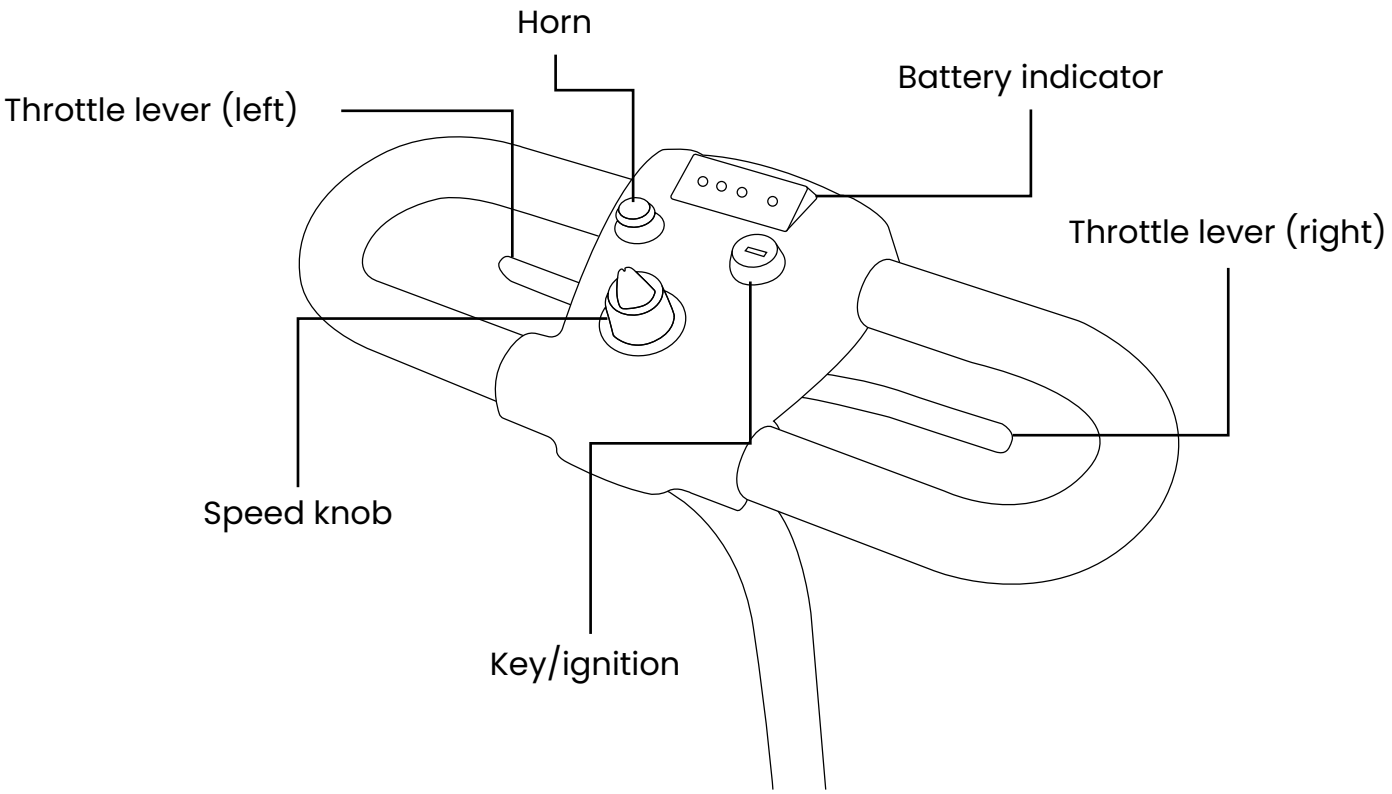
We pride ourselves on providing safe, comfortable and high quality products and our goal is to ensure your complete satisfaction. We sincerely hope that we succeed in this and that you enjoy using your Motion Healthcare device.

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

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

2. Getting to know your device





3. Important safety information

Before using your device, please read and understand all information provided for your safety. As with the operation of any vehicle, you should only drive with full attention to ensure safety. Please follow the warnings below to avoid damage or injury from improper use of your device. You are responsible for taking appropriate safety precautions and we are not liable for any personal injury and/or damage to the product resulting from incorrect use of the appliance.

- Consult your doctor regularly to ensure that there are no health or physical conditions that could restrict or impair your ability to operate the device safely.
- Consult your doctor if you are taking any prescription or over-the-counter medications to check whether they have any side effects that may limit or impair your ability to use the device safely.
- Do not operate the appliance under the influence of alcohol, as this may impair your ability to operate it safely.
- Do not use the device for purposes other than those for which it is intended. Avoid any use, such as strength training, sports, athletics, pulling, moving or dragging objects, which can lead to safety risks and excessive strain on the device.
- Your device is intended for one person only. Do not carry passengers.
- We strongly recommend that you do not smoke while sitting on your device. If you wish to smoke while sitting on your device, you must observe the following safety guidelines: Do not leave burning cigarettes unattended. Keep ashtrays at a safe distance from the device. Always ensure that cigarettes are fully extinguished before disposing of them.
- Replace worn or damaged upholstery immediately to reduce the risk of flammability.
- Always keep all electrical connections clean, dry and away from sources of moisture to prevent damage to the electrical system and/or injury.

- Check the electrical components regularly for signs of corrosion and, if necessary, have them replaced as soon as possible by the company from which you purchased the appliance.
- Do not make any changes to your device. Contact an authorised company for the installation of accessories.
- Adding accessories to your device may change certain specifications such as overall weight, size and/or centre of gravity. Please note that some changes may cause damage to objects in your environment.
- 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 authorised company if you notice that your ability to control the device has changed.
- Do not put the device into "Freewheel" mode while it is switched on. Always switch the device off before activating or deactivating "Freewheel" mode.
- Switch off the device if you expect to remain in a stationary position for a long period of time. This prevents unexpected or unintentional movements.
- Do not connect any other devices to the electrical system of the appliance and do not use the batteries for purposes other than your appliance.
- To avoid uncontrolled rolling, never set the device to "freewheel" mode on a slope or downhill.
- Risk of suffocation! Make sure that clothing, cords, necklaces, other jewellery, bags and other accessories that you are wearing or carrying with you while sitting on or operating the device cannot get caught in the armrests or gas handles.
- To avoid unintentional or uncontrolled movements of the appliance, do not use any accessories that could impair the function of the controls.
- Keep yourself, your clothing and all other objects away from the wheels while travelling. Do not allow any objects to be dragged behind the appliance during the journey. Loose clothing or other objects can get caught in the wheels.
- If your appliance is used with a lifting device, always switch off the appliance, make sure that it is not in freewheel mode and DO NOT sit on the appliance.
- Do not remove any fuses from the battery or the device. If the fuse is damaged, contact the company from which you purchased the device.
- To avoid overloading the appliance and possible tipping over, do not carry objects weighing more than 6.8 kg (15 lbs) and do not fill the bag/basket with contents.
- Do not use the armrests (if fitted) to support weight as this may cause the appliance to tip over.

4. Safe entry and exit

To get on and off the appliance safely, always make sure that it is switched off first. If you do not do this, you could accidentally touch the throttle and set the appliance in motion unexpectedly. Make sure that the engine lock is switched on so that the appliance does not move while you are getting on or off. Place your appliance as close as possible to the seat from which you want to transfer and step back as far as possible on the seat. This will reduce the risk of missing the chair or falling off it.

The absolutely correct transfer method depends on your personal circumstances. Therefore, work with your healthcare professional to learn how to position your body and support yourself during the transfer.
We also recommend that you get help from another person until you are confident that you can carry out the transfer on your own.

5. Safe driving

Always pay attention to the following when driving your device:

- Always obey all local pedestrian and traffic regulations. It may be difficult for others to see you when you are working with your device. Wait until your path is clear and then proceed with extreme caution. The use of safety equipment such as reflectors/reflective clothing, lights and safety flags is recommended.
- Every piece of equipment is different. Take the time to familiarise yourself with the operation of this equipment before you set off.
- Familiarise yourself with the areas in which you intend to use the appliance. Be aware of potential hazards and learn how to avoid them.
- Never use your device to climb stairs or escalators.
- To avoid tipping over, you should reduce your speed when turning and avoid sharp bends. When turning, ensure that your centre of gravity is stable and avoid shifting your weight in the opposite direction to the bend.
- When travelling on slopes or low kerbs, drive your device straight up with the wheels perpendicular to the slope or low kerb; both front wheels should touch the slope/low kerb at the same time. To reduce the risk of a fall, do not drive at an angle and do not place one wheel or one side of the device on the slope or low kerb first. Always be extremely careful when travelling on a ramp or kerb.
- Avoid driving on potentially dangerous surfaces and/or slopes, including but not limited to areas covered with snow, ice, mown grass or wet leaves.
- If you are driving up an incline, it is advisable to keep the vehicle moving. If you have to stop, start up again slowly and accelerate carefully.
- When travelling down a slope, drive at the lowest possible speed. If the descent is faster than desired, release the accelerator pedal to stop the device. Then step carefully on the accelerator pedal to control the speed of your descent.
- The maximum recommended incline angles (see specifications) have been tested in a controlled environment. The ability of your device to climb slopes is influenced by your weight, speed and the angle at which you approach the slope, among other factors.

- Only reverse on level ground. When reversing with your device, drive at a low and steady speed. Stop frequently and make sure that the path is clear of obstacles. To avoid tipping over, do not reverse on a slope or incline.
- Avoid any change in position or movement that could alter your centre of gravity while driving.
- Please note that a lowered kerb or a small bump at the bottom of a slope can stop the front wheels and cause the device to tip forwards.

6. Safe transport

When transporting your device, please 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 could move and distract the driver.
- Never sit on your device when it is in a moving vehicle.
- Do not tow your appliance with a car. When towing, the maximum permitted speed may be exceeded, which may result in damage to essential parts of the device.

7. Air travel

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

Before travelling, passengers should inform the operator of the type of batteries installed in the mobility aid and how the device can be protected against unintentional operation. - **The batteries installed in your device are lithium-ion batteries. To prevent unintentional operation, switch off the device, remove the key from the ignition and ensure that the device is not in freewheel mode (see section 13 for further instructions).**

At the airport, the airline must check whether the:

- the battery should be removed and stored in the passenger compartment.
- the battery connections must be protected against short circuits (by insulating the connections, e.g. using adhesive tape over exposed connections); - **there are no exposed connections on the battery pack of your device**.
- the battery must be protected from damage (e.g. by a protective cover for each battery).
- The battery pack should be removed from the mobility aid in accordance with the manufacturer's or device owner's instructions. - **The battery pack can be easily lifted and removed from the Evolite base plate (see section 9 for further instructions).**
- the battery must not exceed 300Wh. **The Evolite 11.6Ah battery has a capacity of 300.44Wh (25.9V x 11.6Ah = 300.44Wh).**
- A maximum of one spare battery with a maximum of 300Wh or two reserves with a maximum of 160Wh each may be carried.

8. Battery charging & care

New batteries should be fully charged before first use (approx. 24 hours) to fully activate the batteries. Otherwise, the service life of the battery may be shortened.

The service life of the batteries can be affected by the temperature, the weight of the user, the storage conditions and the charging process.

As a rule of thumb, you should charge your batteries as often as possible to ensure the longest possible service life and minimise the charging time required. Plan to charge the batteries when you are not going to use your device. Ensure that the batteries are fully charged at least every 4-6 weeks when you are not using your device. If you do not charge them, the batteries may be permanently damaged.

Always ensure that the batteries are stored in a dry, well-ventilated environment and are not stored in a cold environment (3° and below) for a long period of time, as this may prevent the batteries from charging and cause permanent damage.

Warnings

- Batteries contain corrosive chemicals.
- There is a risk of explosion.
- Do not use batteries with different ampere-hour capacities (ah).
- Keep tools and other metal objects away from the battery terminals. Contact with tools can lead to an electric shock.
- Batteries contain flammable material. Do not expose them to heat sources such as naked flames or sparks. Do not transport batteries together with flammable or combustible objects.
- Contact the authorised company from which you purchased the batteries to dispose of or recycle them.
- Do not use any 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 charge status of the batteries before you set off on a journey to avoid a breakdown.
- Do not attempt to remove the batteries from their housing. This should only be carried out by an authorised company.

How to recharge 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 and assembling

Dismantling

1. Lift up the seat rotation lever and lift the seat upwards to remove it.
2. Pull the battery clip forwards and the handle on the battery lift up to remove the battery pack. 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 as close to the floor pan as possible then tighten the tiller adjustment knob to keep it in place.
4. Lift up the rear section removal knob 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. 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.
3. Insert the battery pack into the floorpan. Push down to ensure it is secured.
4. Slide the seat on to the seat post. Always check and ensure the seat is secure before sitting on the device.

10. Operating elements

<u>Switching on and off</u>

To switch on your device, insert the key into the ignition lock and turn it 90 degrees clockwise until the lights on the battery indicator light up.
To switch off your device, turn the key 90 degrees anti-clockwise and remove the key from the ignition lock so that the lights on the battery indicator no longer light up.

<u>Setting the speed</u>

To adjust the speed of your device, make sure you are not moving and turn the speed control knob. To increase the speed, turn the knob clockwise (in the direction of the hare) and to decrease the speed, turn it anti-clockwise (in the direction of the tortoise).

<u>Driving forwards and backwards</u>

To drive forwards slowly, pull the right-hand throttle lever (labelled F) towards the steering column. The further you pull the lever, the faster you will drive. Alternatively, you can also push the left-hand throttle lever (labelled R) away from the steering column with your hand. To stop, release the lever.
To reverse slowly, pull the left-hand throttle lever (labelled R) towards the steering column. The further you pull the lever, the faster you will drive. Alternatively, you can push the right-hand throttle control lever (labelled F) away from the steering column with your hand. To stop driving, release the lever.

Sounding the horn

To activate the horn, press the red button on the steering column.

11. Seatbelt fitting & adjustment

This model is not equipped with a safety belt.

12. Tiller adjustment

1. To adjust the steering column, hold the steering column with one hand and turn the steering column adjustment knob anti-clockwise with the other hand until the toothing is released and the steering column can be moved forwards and backwards freely.
2. When the steering column is in the desired position, turn the steering column adjustment knob clockwise until it is as tight as possible.

13. Freewheel mode

The freewheel levers are located at the rear of the device, 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 with the help of the controls)

14. Daily checks

Please check the following points before using your device. If you notice anything unusual or are unsure, contact the company where you purchased the device for further advice or a check before using the device.

Tiller stability

- Make sure that it is not too loose.
- Make sure that it can be turned smoothly to the left and right as far as it will go.

Controls

- When the appliance is switched off, make sure that the controls can move freely.
- Make sure that your device moves accordingly when the controls are retracted.

Speed adjustment

- When the device is switched off, make sure that the buttons or knobs can move freely.
- Make sure that the speed of your device changes as desired when adjusting the controls.

Battery indicator

- Make sure that the battery indicator shows the battery level when you switch on the device and that there are no flashing lights.

Horn

- Make sure that the horn sounds as desired when you press the horn button.

Key

- Make sure that the key can be easily inserted into and removed from the ignition lock.
- Make sure that the key is firmly inserted in the ignition lock.
- Make sure that your device switches on and off when the key is inserted in the ignition lock and removed.

Motor, transaxle and electromagnetic brake

- Make sure that no unusual noises are coming from your device
- Make sure that no unusual odours are emanating from your appliance

Wheels

- Make sure that the tyres of your appliance are not cracked or deformed.
- Make sure that the wheels turn without wobbling.
- Make sure that there are no foreign objects in the tread of the tyres.
- Make sure that the tread of the tyres is not excessively or unevenly worn.
- Make sure that no unusual noises are coming from your appliance.

Battery case

- Make sure that the battery box is not cracked or deformed.
- Make sure that the battery box can be inserted and removed properly.

Seat

- Make sure that there are no unusual movements when the chair is locked in the correct position.
- Make sure that the chair moves as it should.

Freewheel lever

- Make sure that the freewheel lever engages and disengages the electromagnetic brakes correctly.

15. Cleaning, maintenance and disposal

Cleaning

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

- Make sure that your appliance is switched off during cleaning.
- Ensure that no electrical connections are present during cleaning.
- Do not use a garden hose, high-pressure cleaner or spray water directly on your appliance.
- Do not use abrasive cleaners or liquids when cleaning.

Maintenance

Ensure that your device is checked before travelling. In addition to cleaning and daily checks, it is recommended that all maintenance work is carried out by an authorised company. It is recommended that you have your device serviced at least every 12 months.

Disposal

It is recommended that you dispose of your device via an authorised company. As your device contains a lithium battery, it is classified as hazardous material and must be disposed of properly. For more information, please contact the company from which you purchased the device. They will provide you with detailed instructions and information on how to dispose of the device properly.

16. Electromagnetic compatibility

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

Your device may be sensitive to electromagnetic interference (EMI), i.e. disturbing electromagnetic (EM) energy from sources such as radio transmitters, television transmitters, amateur radio (HAM) stations, two-way radios and mobile phones. The interference (from radio signals) can cause your device to release the brakes, move on its own or travel in unintended directions. They can also cause permanent damage to the device's operating system. The intensity of the 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. With today's technology, an immunity level of at least 20 V/m can be achieved, providing useful protection against the most common sources of radiated EMI. Your device is sold without accessories and without further modifications with an immunity level of 20 V/m.

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 are convinced that you can minimise the risk of EMI exposure by following the warnings below. Sources of radiated EMI can be broadly categorised into three types:

1. Portable handheld transmitters (transceivers where the antenna is attached directly to the transmitter unit). Examples are CB transmitters or handheld transmitters (security, fire and police transmitters), mobile phones and other personal communication devices. Some mobile phones transmit a signal when they are switched on, even when they are not in use.
2. Medium-range mobile transmitters and receivers, 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 receivers, such as commercial transmitters (radio and TV masts) and amateur radios (HAM).

Other types of portable devices, such as cordless phones, laptops, AM/FM radios, TVs, CD players and small appliances like electric razors and hair dryers, are unlikely to cause EMI problems for your electric device.

Electromagnetic interference (EMI) - EM energy increases rapidly the closer you are to a transmitting antenna (source). EM fields from radio wave transmitters (transceivers) are particularly problematic. It is possible to inadvertently bring high levels of EM energy close to the control system when using the device. This can affect the movement and braking of your appliance.

The following warnings are therefore recommended to avoid possible malfunctions of your device's operating system.

1. Do not use portable radios, such as CB radios, and do not switch on personal communication devices, such as mobile phones, while your device is switched on.
2. Pay attention to nearby transmitters, such as radio or television stations, and try to avoid them.
3. Switch off the appliance as soon as it is safe to do so in the event of unintentional movements or when releasing the brakes.
4. Be aware that adding accessories or parts or modifying the device may increase its sensitivity to EMI.
5. Report all cases of unintentional movement or brake release to the manufacturer and indicate whether there were any EMI sources in the vicinity.

17. Troubleshooting

Flash code	Possible issue	Possible solution(s)
1 2 3	The battery has no power or is not connected correctly	Check that the battery is correctly positioned on the floor platform. Check the connection pins of the battery on the floor platform. Check the connection on the underside of the battery. Try to fully charge the battery. Contact an Approved Partner to repair.
4	Motor current error	Contact an Approved Partner to repair.
5	Malfunction of the electromagnetic brake	Contact an Approved Partner to repair.
6	The controller is prevented from travelling	Contact an Approved Partner to repair.
7	Error in the throttle valve control	Contact an Approved Partner to repair.
8	Error in the throttle valve control	Contact an Approved Partner to repair.
9	Other error	Contact an Approved Partner to repair.

18. Warranty

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

Please contact the company from whom you purchased the product to find out the exact details of the warranty or to make a claim.

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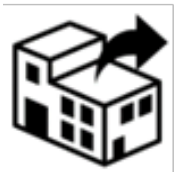

MHD Mobilitätshilfsmittel Deutschland GmbH
Lüneburger Str. 5
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Kirchgellersen
Germany

19. Specifications

Length	100 cm
Width	51 cm
Height	89 cm
Size of the front wheels	20 cm
Size of the rear wheel	20 cm
Total weight	35 kg
Heaviest part	10 kg
Battery weight	3 kg
Battery capacityt	25.9v 11.6ah Lithium
Battery watt hours	300.44 Wh
Range	9 miles
Speed	4 mph
Maximum user weight	18 stone
Seat width	43.5 cm
Motor size	250w 24v
Maximum incline	6 degrees
Ground clearance	3.5 cm
Turning circle	131 cm

www.motionhealthcare.co.uk
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