

drive

 **DeVilbiss®**
HEALTHCARE



UltraFold Auto Folding Scooter

Instructions for use



CONTENTS

1. INTRODUCTION.....	4
2. CONTACT INFORMATION.....	4
3. PRODUCT DESCRIPTION.....	5
3.1 Environment.....	5
3.2 Intended User Group.....	5
3.3 Intended Use.....	5
3.4 Indications.....	5
3.5 Product Overview.....	6
4. SAFETY.....	7
4.1 Warnings & Cautions.....	7
4.2 Risk Assessment.....	7
4.3 Contraindications.....	7
4.4 Scooter Loading.....	8
4.5 Training.....	8
4.6 General Warnings.....	8
5. TRANSPORT & STORAGE.....	10
6. SYMBOL DEFINITION.....	12
7. PARTS IDENTIFICATION.....	14
8. CHARGING & PREPARING FOR USE.....	15
8.1 Charging the Battery.....	15
8.2 Folding & Unfolding.....	17
8.3 Transferring Users.....	19
8.4 Handlebar Height Adjustment.....	19
8.5 Checking the Scooter.....	19
9. OPERATION OF THE SCOOTER.....	20
9.1 Operational Limits.....	20
9.2 Control Panel.....	20
9.3 Battery Gauge.....	22
9.4 Driving & Braking.....	23
9.5 Steps, Kerbs & Fixed Obstacles.....	25
9.6 Inclines.....	26
9.7 Outdoor Operation & Inclement Weather Precautions.....	27
10. CLEANING.....	28
11. MAINTENANCE & SERVICING.....	29
11.1 General Guidelines.....	29
11.2 Battery Care & Maintenance.....	30
11.3 Fault Finding.....	31
12. DISPOSAL OF PARTS.....	32
13. ELECTROMAGNETIC COMPATIBILITY (EMC).....	33
14. SPECIFICATION.....	34
14.1 Scooter Data.....	34
14.2 Electrical Data.....	35
15. WARRANTY.....	36
16. NOTES.....	37
17. QUICK START GUIDE.....	38
18. MAINTENANCE RECORD CHART.....	39

1. INTRODUCTION

Thank you for purchasing this product. These instructions for use should be read carefully and understood before operating the scooter. Improper use or unfamiliarity of the scooter may result in harm, injury or traffic accidents. A repair maintenance record chart and quick start guide are also included at the back. Keep this manual with the scooter, or in a safe place.

Contact your dealer or check our website for the latest version of this document. Users with visual, reading or cognitive disabilities should seek advice from a professional care provider for an appropriate format. If this is not viable, users should contact their provider or dealer. If you have any questions concerning the operation or maintenance of the scooter, contact your provider.

2. CONTACT INFORMATION

For assistance in setting up, using, maintaining your scooter, to report unexpected operation or for any service, warranty, sales or customer service information regarding this product, please contact your provider. If in doubt, contact Drive DeVilbiss Healthcare Ltd. at the following address:

Drive DeVilbiss Healthcare Ltd.
Holmfield, Halifax
West Yorkshire
HX2 9TN
United Kingdom

Contact your distributor for safety notices and product recalls. Provide a product description with all recall notices, including the name, make, model and any distinguishing features, batch, or serial numbers. The serial code for the scooter can be found at the front of the scooter base.

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the MHRA or competent authority of your Member State. Please quote the product serial code on all correspondence.

Service & Maintenance

Tel: +44 (0)1422 233136

Customer Service

Tel: +44 (0)845 0600 333

Spares email: sparesenquiries@drivedevilbiss.co.uk

info@drivedevilbiss.co.uk

| www.drivedevilbiss.co.uk

For Service & Support outside the United Kingdom, please contact the local distribution company from where this equipment was purchased. Failure to do so may result in the product warranty becoming void.

3. PRODUCT DESCRIPTION

3.1 Environment

The UltraFold Auto Folding Scooter can be used in both indoor and outdoor environments, where appropriate. The UltraFold Auto Folding Scooter can be used on flat, even path surfaces, however the user should avoid grass, gravel, gradients greater than 6° and motorised roads. Additional care should be taken to avoid inclement weather and wet surfaces.

3.2 Intended User Group

The UltraFold Auto Folding Scooter is intended for a single user of weight up to 115 kg (18st). The intended user group for this device is any mobility restricted individual that requires assistance with transport.

The patient / occupant is the only intended operator. Professional users and lay users are intended operators of the scooter. Users must be both mentally and physically capable of operating the device with minimal risk of injury to themselves.

3.3 Intended Use

The intended use of the scooter is to transport an end user with restricted mobility, as defined in section 3.2.

The scooter is intended to support a single occupant. A risk assessment must always be performed on the suitability of the user to the scooter and any ancillary accessories.

3.4 Indications

To provide transport mobility to an end user with restricted mobility.

3.5 Product Overview

This product has been designed to provide a comfortable and secure solution for users who have difficulty walking long distances and are capable of operating a compact mobility scooter. The product is a class A scooter (under EN 12184:2014), class I medical device and class 2 invalid carriage (under The Use of Invalid Carriages on Highways Regulations 1988).

As a Class A scooter, this scooter is compact, manoeuvrable and intended primarily for indoor use. The rated slope is 6°. For specific guidance with outdoor use, see section 9.7.

This Owner's Manual is composed from the product design and specifications at the time of publication. As designs change, some illustrations and pictures in the manual may not correspond to the scooter that you purchased. We reserve the right to make design modifications.

4. SAFETY

4.1 Warnings & Cautions



Warning

Warnings in this user manual highlight potential hazards that if disregarded could lead to injury or death.



Caution

Cautions in this user manual highlight potential hazards that if disregarded could lead to equipment damage or failure.

4.2 Risk Assessment

Before using the scooter, a risk assessment must be performed by a competent individual to ensure the safe use of the scooter on a user-by-user basis. It is the responsibility of users and carers to determine that they are both mentally and physically capable of operating the scooter with minimal risk of injury to themselves or others.

The risk assessment should include, but not be limited to:

- Entrapment
- Falling out of the scooter
- Small adults (and children)
- Individuals who lack capacity
- Users with visual, reading or cognitive disabilities
- Very active occupants
- Unauthorised people with access to the scooter

4.3 Contraindications

- The end user exceeds maximum weight capacity indicated in section 4.4
- The end user has postural support needs
- Inability to safely guide a power mobility device
- Inadequate cognitive function, judgment, vision, motor coordination or the presence of a sufficiently serious spatial neglect, to preclude with reasonable certainty, safe operation of the device

Other contraindications may be relevant which are specific to an individual and / or care environment.

4.4 Scooter Loading

The maximum user weight of the scooter is: 115 kg (18 stone)

Maximum user weight is the sum of the user mass and the mass of ancillary attachments or accessories. Exceeding the maximum weight capacity will void your warranty. Drive DeVilbiss Healthcare Ltd will not be held responsible for injury and / or damages resulting from failure to observe weight capacities.



Warning

- The maximum load is for the scooter to be occupied by one person only. Additional weight could damage components or destabilise the scooter, potentially causing injury.
- The scooter may only be used to transport one person at a time. It should not be used for climbing. The backrest is not designed to support an entire person's body weight — risk of collapse, entrapment.
- The scooter is not a toy. Children should not be allowed to play near or operate the scooter, as they are at risk of harm.

4.5 Training

All individuals operating the scooter are to be suitably familiar with the functionality and limitations prior to use. It is the responsibility of the user to ensure they are suitably trained to use the scooter and any associated parts safely and correctly. Every effort should be made to resolve deficiencies and should include consideration of retraining, falls prevention and equipment alterations and modifications.

If these instructions for use are not deemed sufficient and the need for training is required, please contact your dealer or Drive DeVilbiss Healthcare Ltd (see section 2) who can discuss training options with you.

4.6 General Warnings



Warning

- Do not use a damaged or badly worn scooter — risk of harm.
- This device is a small four-wheel scooter, designed mainly for indoor use. Extreme care should be taken when cornering and negotiating drops, obstacles and gradients.
- Under no circumstances should the scooter be used as a seat in a motor vehicle.



Warning

- The scooter is to be installed and put into service following the information provided in these instructions for use. Any serious incident that has occurred in relation to the device should be reported to the dealer and manufacturer.
- Avoid unnecessary movement of the scooter.
- The scooter is designed for occupants who weigh less than 115 kg; overloading may put the user at risk of falling or entrapment.
- Do not touch any exposed contacts or connectors while using the product or while in contact with other individuals.
- Misused electrical equipment can be hazardous.
- Only manufacturer approved parts, specified for the UltraFold scooter, should be used. Accessories that have not been approved or designed for use with the scooter are not to be used – a hazard could be introduced due to product combination incompatibility. If in doubt, contact Drive DeVilbiss Healthcare Ltd
- Do not remove the anti-tip wheels or transit wheels. Modification of the scooter, its parts or features is not allowed without the permission of Drive DeVilbiss Healthcare Ltd – a hazard could be introduced.
- The scooter is electrically operated, so should not be used in oxygen-rich environments, in the presence of flammable gases, sources of heat or naked flames – risk of explosion / fire. Damaged or worn upholstery increases the risk of fire hazard, and should be replaced immediately.
- Individuals unable to drive the scooter without assistance or supervision must not use the scooter without such supervision. Unsupervised use of the scooter must be avoided if there is any doubt about the ability of an individual to operate it safely.
- If the scooter is to be used by a disabled person living on their own, then a communication device (e.g. personal alarm system) shall be installed in the area of use, so that users can summon assistance in the event of an emergency.
- If children, adults with learning difficulties or pets pose a potential risk of tampering with the scooter, its suitability for use is to be considered during the initial user / product risk assessment.

5. TRANSPORT & STORAGE

Environmental conditions for transport and storage:

Ambient temperature: -20°C to +45°C

These conditions should be followed when transporting or storing the scooter:

- The scooter should be stored fully folded, on a flat and level floor.
- Always fully charge, then remove the battery prior to long-term storage.
- The scooter should be stored in clean and dry conditions. Cover to protect from fluid ingress, dirt, dust, extreme temperatures etc.
- Scooters should not be stored on their side, on their backs, or stacked atop each other.
- When transporting scooters by vehicle, they should be securely stowed in the back of a van, truck, or trunk of a car. Adjustable parts should be removed or properly secured during transport.
- The battery must not be left at high temperatures (+45°C or more).
- Keep the keys and instructions for use with the scooter or in a safe place.

This vehicle is suitable for land and air transport. The UltraFold Auto Folding Scooter comes with a lithium battery pack, which may require special packaging provisions in line with IATA or UN Guidelines.

Note: When using public transportation, contact your carrier's ticket counter in advance to determine their specific requirements. You may also need to remove the battery when stowed away. See this section for details on how to do this.

If your scooter is stored for a prolonged period, flat spots may develop in the wheels, causing an uneven sensation when driving. This should work itself out over time. Drive DeVilbiss Healthcare Ltd suggest placing a sturdy platform under the frame to lift the wheels off the ground, and take weight off the wheels during storage. If you notice flat spots after continued use, replace the scooter wheels immediately.



Caution

- Always lift your scooter by the frame. Do not attempt to lift by any removable parts (e.g. seat or body shrouds).
- Infrequently charged batteries, or batteries stored without a full charge are susceptible to permanent damage, causing unreliable performance from your scooter.
- Avoid placing the scooter in direct sunlight — this could damage the electrical system and / or cause label fading.
- Remove the key from an unattended scooter.



Warning

- Improper storage of your scooter may result in permanent damage to the frame and electronics.
- Do not sit on the scooter while in a moving vehicle.
- To prevent the risk of cross infection, prior to removal, transport or storage, ensure the scooter has been cleaned and disinfected in line with section 10 of these instructions for use. Ensure that disposable gloves are used for all decontamination activities and that they are then discarded appropriately, unless the scooter and ancillary parts have been suitably cleaned and disinfected.

The procedure below shows how to fold up the scooter and disconnect the battery for transportation. This should be done by competent persons, such as approved service engineers:



1. Switch the scooter on and off. Remove the key and exit the scooter. Remove the battery compartment lid with a flat head screwdriver (or similar such as a key). If required, remove the battery pack from the battery void and place beside the scooter, but do not disconnect the battery.
2. Press the red FOLD button to fold the scooter. Alternatively, on the remote, press and hold the red button for 4 seconds and then press the green button. If this does not function switch the scooter on and off with the key.
3. Separate the blue and black connectors to disconnect the battery from the scooter.
4. Once your journey is complete, please refer to section 17, QUICK START GUIDE for instructions on how to set up your scooter after transportation.



6. SYMBOL DEFINITION

The following symbols are found on this scooter:

Symbol

Description



Warning
Beware of potential hazard



Caution
Beware of potential product damage



Refer to instructions for use - Recommended
Failure to read the instructions for use could introduce a hazard



Refer to instructions for use - Mandatory
Failure to read the instructions for use could introduce a hazard



Medical Device



Safe working load



Do not create a stack of more than 2 boxes

















Fragile, handle with care



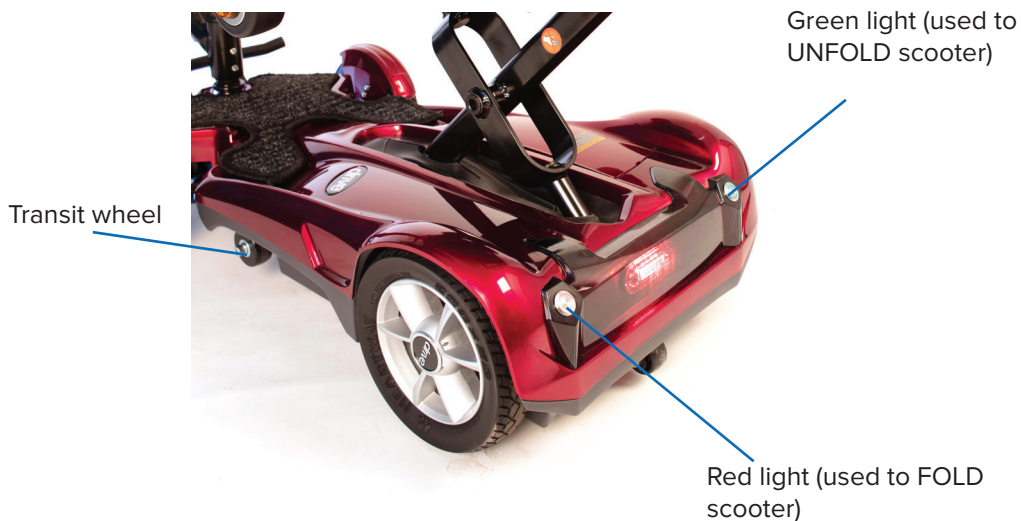
Use no hooks



This way up

Symbol	Description
	Serial number
	Product code
	Model Number
	Quantity
	UK Responsible person
	Authorised EU Representative
	Manufacturer
	Date of manufacture
	Importer
	Distributor
	W.E.E.E Label - Found on individual parts of electrical system (Waste Electrical and Electronic Equipment) Refer to section 13)
	Keep away from rain
	Beware of trapping points
	This device must not be used as a seat in a motor vehicle.

7. PARTS IDENTIFICATION



8. CHARGING & PREPARING FOR USE



Warning

- Before preparing the scooter, ensure these instructions have been read and fully understood.
- Prepare the scooter indoors before exposing in wet conditions – risk of electric shock.
- Only competent persons are to prepare the scooter for use. If in doubt, contact your dealer or Drive DeVilbiss Healthcare Ltd.
- Ensure a risk assessment in line with local health and safety policy is undertaken to ensure that staff are not put at risk when performing assembly activities.

8.1 Charging the Battery

Before you first use your scooter, remove the battery from the packaging and charge it for 24 hours.

To charge your scooter, position the front of the unit next to a standard electrical outlet. Plug the charger into the scooter, and then into the electrical outlet. When the batteries are fully charged, remove the charger from the scooter.

The location of the charging socket is shown in the photo above.



Warning

- Do not open the battery.
- Do not connect an extension cord to the battery charger.
- Keep metal objects away from the battery terminals; electric shock may occur.
- Ensure the charging cable is not under excessive tension to avoid cable damage — damaged cables can create an electrocution / fire risk.
- Ensure the battery is not exposed to direct sunlight or a secondary heat source — direct heating of the battery via an external source could pose a fire risk or cause an explosion.
- Do not drive the scooter while the charging cable is attached or connected.



Caution

- Only charge the UltraFold Auto Folding Scooter with the charger approved by the manufacturer. Never charge the scooter using a different charger.
- Charge fully before each use.

The battery light on your charger indicates different charge statuses. The table below shows the lighting modes. Any other signals may indicate faulty equipment.

Light indicator	Status
Red	Charging is in operation
Green	Bulk charging (95% charge) is complete and the charger is trickle charging the battery.

Note: The light on the charger is also green when the charger is not charging. If you have put your scooter onto charge and the light has not gone red, then check the charger is connected and that there is not a fault with the battery.

With regular use, we recommend charging the battery after every trip and prior to using the scooter. If you do not frequently use the scooter, fully charge the batteries every two weeks to prevent battery failure.

If the battery gauge drops to RED, charge the scooter as soon as possible. Completely discharging the batteries may damage the batteries, or shorten the expected life of the batteries.

There are many factors that affect the range of your batteries, including the surfaces, inclines, curves, or wind you encounter when operating your scooter. If not ideal conditions, all of these factors will reduce the travel time or distance between charges.

Follow these suggestions to maximise battery life and driving range:

- Fully charge the batteries prior to any trip
- Plan your trip in advance to avoid inclines
- Limit baggage and accessory weight to essential items
- Maintain an even speed avoiding stop-and-go driving

For any concerns about the electrical parts or indicators, see section 11.3 for fault finding, contact your dealer or contact your provider.

8.2 Folding & Unfolding

Prior to using your scooter, familiarise yourself with the automatic folding and unfolding feature through either the keyless remote or buttons integrated on the rear of the scooter.



Warning

- Some components of your scooter are heavy, and you may need assistance to lift or carry. Please refer to section 14.1 for component weights.
- Do not make any adjustments while an occupant is seated in the scooter.
- Always fully unfold the scooter before use. Keep a clear gap approx. 2 cm / 1" between the transit wheels and the floor.
- Be aware that the folding function is active until the red and green lights go out. Take care as accidentally operating the fob will cause the folding mechanism to operate.



Caution

Ensure the backrest is folded and there are no obstructions under the seat or behind the tiller before folding. Otherwise, this may cause damage or injury.

TO FOLD THE SCOOTER:

1. Switch off and exit the scooter.
2. Fold the backrest down.
(The backrest is designed to automatically assist with this.)
3. If the scooter has been switched off longer than 5 minutes, then the red and green lights will go out. To illuminate the lights again switch the scooter on and off.
4. Before starting to fold the scooter please fold down the armrests by pressing the yellow reflector on each side of the armrests and push back.
5. To fold the scooter using the FOB press and HOLD the top RED button on the remote fob for 4 seconds then release and press the bottom GREEN button.



6. To fold the scooter **without** using the remote FOB press and release the RED button on the rear left-hand-side of the scooter (pictured).

The scooter will start folding and will automatically stop when complete.



TO UNFOLD THE SCOOTER:

1. Switch the scooter on and off with the key.
Ensure the scooter is switched off and the rear wheels are on the ground.
2. To unfold the scooter press and release the GREEN button on the rear right-hand-side of the scooter (pictured), or the GREEN button on the remote fob.



The scooter will start unfolding and will automatically stop when complete. Please ensure to raise the armrests back up by pressing the side reflectors and pushing forward.



Warning

- Do not press the FOLD or UNFOLD button whilst the scooter is folding or unfolding, unless there is an emergency such as an obstruction. Pressing the buttons will cause the scooter to stop mid cycle and will not be fully folded or unfolded.
- Do not attempt to fold or unfold the scooter whilst somebody is sat on the scooter. This may cause damage or injury.

8.3 Transferring Users

Always have an attendant present while transferring in and out of your scooter. Safely reduce the distance between your scooter and the object you are transferring onto, and turn the power off.



Warning

Position yourself as far back as possible before transferring, and never place your weight or downward force on adjustable parts.

8.4 Handlebar Height Adjustment

Turn the large adjustment knob on the front of the tiller anti-clockwise to release the handlebar. Slide the handlebar to the required position, then turn the knob clockwise to secure the handlebar in place.

The handlebar should be adjusted to suit each user.



Warning

Failure to properly secure the handlebar may introduce a risk while driving.

8.5 Checking the Scooter

Before it is put into use, ensure the scooter has been correctly assembled and set up by carrying out the following checks:

- Electrical connections and wire harness – secure and free from corrosion
- Batteries – fully charged and free from corrosion
- Brake – check the electromagnetic brake is functioning
- Folding system – ensure the scooter is fully folded out



Warning

Damaged or worn upholstery increases the risk of fire hazard, and should be replaced immediately.

We cannot be held responsible for any injury or incident which relates to the use of any product combinations not approved by the manufacturer.

9. OPERATION OF THE SCOOTER

9.1 Operational Limits

Ambient temperature: -10°C to $+45^{\circ}\text{C}$

In extremely cold conditions your batteries may freeze depending on the battery charge, usage, and composition of the batteries. In extremely hot conditions your scooter may operate at a lower speed. This is due to the safety mechanism built into the unit to prevent damage to the gearbox and other electronic functions when operating too hot.

Should your scooter come in contact with water or moisture, dry your scooter thoroughly with a towel. Allow your scooter to sit in a dry place for 8 to 12 hours to allow unseen moisture to evaporate. Check the throttle operation and brakes before using your scooter again. If any items require service, please contact your authorised service provider.

9.2 Control Panel

Please refer to the diagram below to identify your scooter control panel and its functions. Familiarise yourself with the terminology to better understand references throughout these instructions.



Make sure the scooter functions work correctly before operating, using the checklist in section 8.5 for guidance.

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



Warning

Do not turn the ignition off whilst driving as this will lead to an emergency stop and possible risk of damage or injury.

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



Warning

- Do not adjust the speed dial whilst driving as this could result in loss of control.
- Do not set to the highest speed whilst driving indoors.
- DO NOT touch the rear shroud while driving or shortly after driving as it may be hot.

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

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

Light. Press the light switch to turn on the headlight. Press light switch again to turn the light off.

Note: The light will only operate if the scooter is switched on at the ignition.

Note: When the battery gauge falls into the red sector, your batteries are low on power and need to be recharged. Users should recharge batteries when the battery gauge enters the red zone. The system will power off when the battery voltage is lower than 21.0V.

Note: System will be automatically power off when the vehicle is not in use over 30 minutes. You need to remove the key and insert the key to restart the scooter.

9.3 Battery Gauge

The battery gauge on the tiller console lights LEDs to show remaining power:

Green (3 or 4 LEDs lit) — 40–100% capacity
Yellow (2 LEDs lit) — draining charge (10–30%)
Red (1 LED lit) — immediate recharge is necessary.



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



Warning

- Do not operate both left and right hand sides of the wigwag simultaneously. You will not be able to control the scooter.
- **If the battery symbol light is flashing on the battery gauge, then the scooter has detected a fault.** If this happens, follow the procedure below:
 1. **Release the Wigwag paddle, then switch the scooter off and on.** If this does not clear the fault, then proceed to step 2 below.
 2. **Switch the scooter off and recharge the battery fully.** If this does not clear the fault, then proceed to step 3 below.
 3. **Count the number of flashes.** The symbol will flash a number of times before a long pause. Count the number of flashes between pauses and report this to your dealer. The flash error codes are listed in section 11.3 for reference.

9.4 Driving & Braking

You must exercise awareness, caution, care, and common sense when operating your scooter. Always keep in mind your own limitations and substance use.

Users may encounter difficult manoeuvring situations such as narrow doorways, travelling up and down ramps, cornering, and travelling on uneven terrain. Be sure to lower the speed, take your time, and carefully manoeuvre the scooter.



Warning

- Never use your scooter while tired, smoking, under the influence of alcohol or other mind-altering substances. Be aware of precautions, warnings, and safety issues when taking prescribed or over-the-counter drugs before driving.
- If there is a history of active seizures in the last 6 months, clearance should be obtained from a neurologist that the patient's seizures do not prohibit safe use of a motorised device.
- When operating the scooter, the occupant is expected to be positioned appropriately in the seat, with limbs clear of moving parts to prevent entrapment. Never reach, lean or bend when driving the scooter.
- Always make sure the power is off, with the scooter and backrest fully unfolded before getting on and off the scooter.
- Carers should keep clear once the scooter is powered on. Do not operate the controls while anyone is entering or leaving the scooter – a hazard may be introduced.
- Do not let children play near or operate the scooter.
- Keep your feet on the foot board at all times during operation. Do not stand on the foot board.
- Keep your hands and feet away from moving parts while driving. Be aware of loose-fitting clothes that can become caught in the drive wheels.
- Always reduce your speed and maintain a stable centre of gravity when turning corners.



Caution

Always check the scooter is free of obstructions before use.

To move forward, squeeze the right hand side of the wigwag paddle with your hand towards you whilst holding the handle bars. Squeeze the left hand side of the wigwag paddle towards you and the scooter will move backwards.

Your scooter is equipped with two types of brake systems:

- Regenerative brakes – when the throttle is returned to the centre position, or stop neutral position, regenerative brakes use electricity to quickly decelerate the vehicle.
- Park brake – once the scooter comes to a complete stop the park brake activates automatically locking the drive wheels. If the scooter is in the free wheel mode (motor is disengaged), you can use the manual parking brake function by moving the engaging / disengaging lever back into the engaged position by an attendant.

The wigwag paddle allows you to control the speed of the scooter up to a maximum speed determined by the Speed Dial. The further the wigwag paddle is deflected, the faster the scooter will go (up to 4 mph).

To brake, slowly release the wigwag paddle. The throttle will return to the neutral centre position and activate the electromagnetic brake automatically, bringing the scooter to a prompt stop.

Note: Quickly moving the throttle in the opposite direction of travel will cause the scooter to come to an abrupt stop, and if held continuously in the opposite direction may cause erratic movements if you are unfamiliar with the controls.



Warning

- Do not operate both left and right hand sides of the wigwag simultaneously. You will not be able to control the scooter.
- Do not switch off the power while driving. This will bring the scooter to an extremely abrupt stop.
- To ensure the user's familiarity with the scooter's operation, practice driving manoeuvres, decelerating, turns and inclines at low speeds in a spacious, hazard-free area.

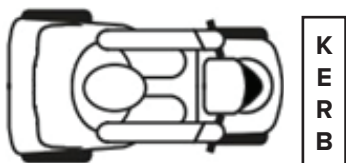
9.5 Steps, Kerbs & Fixed Obstacles

Use extreme caution when operating your scooter near kerbs, porches, stairs, escalators, drop-offs, unprotected ledges, and raised areas. Approach slowly, and make sure the front of the scooter is perpendicular to the obstacles.

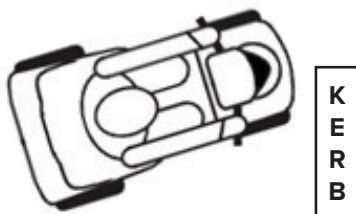
To manoeuvre up a fixed obstacle – Increase the forward speed until the scooter has cleared the obstacle, and then you may reduce the speed or return the throttle to neutral.

To manoeuvre down a fixed obstacle – Reduce the forward speed just before the front wheels come in contact with the obstacle, and remain at the reduced speed until scooter has cleared the obstacle, and then you may increase the forward speed.

Correct Approach:



Incorrect Approach:



Warning

- Never attempt to navigate your scooter over a kerb or other fixed obstacle taller than the maximum ground clearance. Refer to section 14.1 for this information.
- Never attempt to navigate your scooter backwards over an obstacle. Make sure that there are no steps, kerbs or other obstacles behind you while reversing – tipping / falling risk.
- Never attempt to operate your scooter on steps or escalators.

9.6 Inclines

Use caution when approaching inclines or declines; if necessary lower the speed before travelling on a slope.

When travelling up an incline, try to keep the scooter moving forward. If you must come to a stop, use caution and slowly accelerate the scooter forward. When travelling down an incline, lower the speed on your scooter to the slowest setting, and proceed cautiously.

If the scooter is travelling down the incline faster than you expected, slowly release the throttle to come to a stop, then slightly push the throttle forward to continue safely down the incline.



Warning

- Drive your scooter straight up or down an incline, never backwards. Erratic movements, or back and forth patterns may increase the chance of tipping.
- Be careful when driving on inclines. Inclines vary, and doing so may decrease stability.
- Do not, under any circumstances, travel on a slope greater than the maximum stability angle for this scooter. Refer to section 14.1 for this information. Exceeding the stability angle may cause unstable conditions.

9.7 Outdoor Operation & Inclement Weather Precautions

While your scooter is purposed for indoor use to assist you in daily living activities; we understand there are times you need to operate the scooter outdoors, so has been designed to perform on level outdoor surfaces.

Exposure to inclement weather should always be avoided. If you find yourself caught in inclement weather while operating your scooter, proceed to the closest shelter immediately. Completely dry your scooter before operating, charging, or storing.



Warning

- Do not take your scooter on roads or highways.
- Be cautious when driving your scooter in busy areas or shopping malls.
- If the you get caught in the rain, seek shelter immediately and dry the scooter with a cloth.
- Do not drive your scooter at night without proper lighting.
- Avoid exposure to moisture, standing water, rain, snow, ice or salt when possible. Operating in rain, snow, salt, mist and on icy or slippery surfaces may have an adverse effect on the electrical system.
- At extreme temperatures, the batteries may freeze, and your scooter may not be able to operate. In extreme high temperatures, it may operate at slower speeds due to a safety feature of the controller that prevents damage to the motors and other electrical components.
- Operational limits stated in section 9.1 must be observed



Caution

When operating outdoors, avoid uneven terrain, soft surfaces, tall grass, loose gravel, loose sand, fresh water, salt water, edges of streams, lakes or oceans. If you are unsure about a surface, avoid it.

10. CLEANING



Warning

- Always disconnect the scooter from the mains supply prior to cleaning. Cover the connection ports to protect them from ingress.
- PPE must be worn during manual decontamination to prevent the risk of infection.
- Regular cleaning and disinfection of the scooter and relevant parts will help to prevent the risk of cross-infection.
- Clean and disinfect the device and relevant accessories between users to avoid risk of cross-contamination.
- Deviating from the specified cleaning instructions could cause a biological hazard, especially in multi-user environments, and adversely affect the life and efficiency of the product.



Caution

- Never use any neat bleach or similar chemicals on the upholstery of your seat, as this may cause the seat to dry out and crack.
- Do not use pressure hoses on the scooter or expose it to direct contact with water. This could cause damage to the electrical components.
- Do not clean the connection ports.

To clean your scooter, use a damp cloth with a mild, non-abrasive cleaner on the plastic and metal parts. If necessary, clean your scooter with an approved disinfectant safe for use on your unit. The scooter needs to be cleaned more regularly and thoroughly when used more frequently, or when exposed to excessive amounts of dirt. Ensure that all residues are cleaned away and the scooter is fully dry before reuse.

Infection control and routine cleaning must be carried out in accordance with your local infection control policy or regulatory body.

Note: With regular use, we recommend cleaning and disinfecting the scooter and relevant parts every two to three days. If multiple persons use the scooter, clean and disinfect before different persons use the device.

11. MAINTENANCE & SERVICING



Warning

- Always disconnect the scooter from the main power supply prior to performing any maintenance procedures (where viable).
- Never attempt to deconstruct the enclosures, re-wire any components or replace internal battery components. Modification of the scooter is not allowed without the permission of the manufacturer and electrical system components are only to be replaced by authorised service personnel.
- No maintenance or servicing should be conducted while the device is in use – risk of electric shock, entrapment, loose parts, etc. If not possible due to the occupant's mobility, a risk assessment should be carried out, and if deemed safe to proceed, care should be taken to avoid contact with the occupant when working on electrical items.
- Failure to carry out the following checks at the stated frequencies could negatively influence the essential performance of the scooter and as a result put individuals at risk.
- The motor surface can reach temperatures greater than 41°C after driving. Do not touch these parts when disassembling the scooter, or wait until the motor is cooled down.



Caution

All maintenance on the device specified in this section shall only be done by a competent person. Disassembling the controller, motor, or charger by anyone other than an approved service engineer is prohibited, and voids any applicable warranty. For any maintenance concerns, contact your dealer or Drive DeVilbiss Healthcare Ltd.

11.1 General Guidelines

The UltraFold Auto Folding scooter is an advanced mobility device, and with the correct routine maintenance you can ensure years of maximum use. While some of the maintenance can be done by yourself, you may need assistance from an authorised service provider. If you have any doubts, contact your provider or Drive DeVilbiss Healthcare Ltd.

For Service & Support outside the UK, please contact the local distribution company from where this equipment was purchased. Failure to do so may result in the manufacturer's warranty becoming void.

If there are any signs of damage, or the scooter is not performing as it should, withdraw it from service until the scooter has been repaired and is fit for use.

Preventative maintenance is key to keeping your scooter in prime operating condition. Follow the Maintenance Schedule at the end of this manual to periodically inspect your scooter for serviceable items.

- Avoid abuse to the throttle and control functions.
- Avoid prolonged exposure to extreme heat or cold.
- Keep the scooter clean and free from moisture.
- Never use a conditioner on the tread of the wheels.

The following conditions may indicate a serious problem with your scooter. Contact your provider if one of the following conditions occurs:

- Motor or gearbox noise
- Frayed electrical harnesses
- Cracked or broken connections
- Uneven wear on the tyres
- Veering to one side
- Bent or broken wheel assemblies
- Will not power on
- Loose seat or seat components

If in doubt about the correct replacement of a component, contact your dealer or Drive DeVilbiss Healthcare Ltd.. Refer to the service manual for cable routing diagrams, parts codes/lists, maintenance instructions etc. Copies are available from your dealer.

11.2 Battery Care & Maintenance

To ensure maximum life from your batteries, and continued use of your scooter please follow these charging guidelines based on your usage:

- If you use your scooter on a daily basis, charge the batteries as soon as you are finished with the day's activities, and leave it on charge until you are ready to use the following day.
- If you use your scooter infrequently, charge the batteries once a week for 10 to 14 hours and / or whenever you have used the scooter.

11.3 Fault Finding

Listed below are flashing modes for the battery indicator. The number of flashes indicate a set of electrical faults that may occur within the service life of the scooter. If a fault does occur, please try the following suggestions, as these may help in diagnosing or resolving the fault.

If the charging cable seems to be faulty, use a replacement charger. Contact your provider for order codes to purchase replaceable parts.

Flash sequence	Status
1 Flash * _ * _ *	Low Battery. Battery voltage has dropped below 23.3V. Recharge batteries as soon as possible. This is the only time the light will flash and the scooter will still drive. In all other instances of fault diagnosis, the drive function is disabled.
2 Flashes * _ * _ * _ *	Battery voltage too low. Voltage has dropped below 16.5V. Recharge batteries or leave scooter switched off a few minutes.
3 Flashes * _ * _ * _ * _ * _ * _ *	Battery voltage too high. Unplug the charger from the scooter if it is plugged in. Turn the scooter off and on. Reduce speed down any gradients.
4 Flashes * _ * _ * _ * _ * _ * _	Current limit time-out. The scooter has drawn too much current for too long. Turn the scooter off and leave for a minute. If the problem persists, check loom and motor for shorts.
5 Flashes * _ * _ * _ * _ * _ * _ * _ *	EM Brake Fault. Check the brake connector is plugged in firmly.
6 Flashes * _ * _ * _ * _ * _ * _ * _ * _	Out of Neutral at Power Up. Return wigwag paddle to neutral then turn off and on again. If problems persist, wigwag paddle may need re-calibrating
7 Flashes * _ * _ * _ * _ * _ * _ * _ * _ * _ *	Speed Pot Error. Wigwag paddle or its wiring is faulty. Check the paddle is calibrated and check for open or short circuits.
8 Flashes * _ * _ * _ * _ * _ * _ * _ * _ * _ * _ * _ *	Motor Volts Error. Motor or its wiring is faulty. Check the paddle is calibrated and check for open or short circuits.
9 Flashes * _ * _ * _ * _ * _ * _ * _ * _ * _ * _ * _ *	Other Fault. Contact your Dealer

12. DISPOSAL OF PARTS

When the scooter, the electrical system or any associated packaging and accessories have come to the end of their useful life, follow W.E.E.E. (Waste Electrical and Electronic Equipment) policies, local and national regulations for recycling and disposal.

Individual parts can be separated and disposed according to the type of material. The electrical components of the scooter should not be disposed in municipal waste. Some of these electrical components could be harmful to the environment and where viable, can be recovered and reused / recycled.

When the scooter is unpacked for the first time, the cardboard box, and plastic packaging used can be recycled at recycling centres that offer suitable cardboard and polymer recycling programmes respectively.

For further information about disposal, contact your local waste agency, recycling centre, or provider. If in doubt, contact your dealer or Drive DeVilbiss Healthcare Ltd..



Warning

The scooter and any associated parts are to be decontaminated before disposal to avoid the risk of cross-contamination.

13. ELECTROMAGNETIC COMPATIBILITY (EMC)

Electromagnetic interference (EMI) tests have shown to produce adverse effects on the performance and control of electrically powered mobility devices. EMI can be produced from different sources, such as cellular phones, amateur radio transmitters (HAM), microwave signals and emergency vehicle transceivers. The EMI produced from hand-held radios are of special concern.

The EMI waves can cause unintentional movement of the scooter, or damage to the controller. Every electrically powered mobility device has a resistance to EMI. The higher the resistance level the greater the protection. The intensity of the interference can be measured in Volts per meter, V/m.

If the scooter or any alternative equipment is found to be operating abnormally, turn off the piece of equipment that is believed to be causing the interference (if possible, as soon as it is safe) to identify the source of the RF energy. Once identified, mitigation measures are to be taken, such as the separation distances being increased and / or the device(s) being re-orientated. If the scooter continues to operate abnormally, turn off at the mains supply and contact your dealer.

The warnings listed below are recommended to prevent possible interference with the control system of your scooter. Your scooter, with no modifications, has an immunity level of 20 V/m. For specific emissions and immunity information relating to the scooter, contact Drive DeVilbiss Healthcare Ltd. or your local distributor. Report EMI incidents to Drive DeVilbiss Healthcare Ltd.



Warning

- Do not operate hand-held transceivers or turn on personal communication devices while the scooter is powered on. Avoid use adjacent to or stacked with other equipment where possible. If adjacent use is necessary, the scooter should be observed to verify normal electrical operation in the configuration in which it is to be used.
- Use of accessories and cables other than those specified or provided by Drive DeVilbiss Healthcare Ltd. could result in increased electromagnetic emissions or decreased electromagnetic immunity of the scooter and result in improper operation or driving performance.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm to any part of the scooter (including its cables), otherwise a degradation in performance could result.

14. SPECIFICATION

14.1 Scooter Data

Product name: UltraFold Auto Folding Scooter
Models: HW011COP-U, HW011PUR-U, HW011RD-U

Product codes: S21F-COP-U - Copper
S21F-PUR-U - Purple
S21F-RD-U - Red

Top Speed* 4 mph (6 kph)
Maximum Range* 7.5 miles (12 km)
Rated slope 6°
Maximum Stability Angle 6° (static) 3° (dynamic)
Ground Clearance 2.5cm (1") in centre, 1.7cm (2/3") anti-tip wheels
Turning Radius 111 cm (44")

Scooter Dimensions:

Unfolded (L x W x H) (cm / in) 89 x 41 x 86 cm / 35" x 16" x 34"
Folded (L x W x H) (cm / in) 73 x 44 x 42 cm / 28¾" x 17¼" x 16½"
Seat Width x Depth 40 cm (16") x 32 cm (12½")

Wheels:

Front Wheels 18 x 4 cm (7" x 1.5")
Rear Wheels 20 x 5 cm (8" x 2")
Anti-Tip Wheels 5 x 1.5 cm (2" x 0.5")
Wheel type Solid, PU

Maximum user weight: 115 kg (18 stone)

Product weight: 23.5 kg (51.8 lb)

Base weight: 22 kg (48.5 lb)

Battery weight: 1.5 kg (3.3 lb)

Application environment: See section 3.1

* Speed and range may vary depending upon user weight, type and incline of terrain, weather, battery charge and condition, operating speed and general driving situation.

14.2 Electrical Data

Charger in: 110/240V 50/60Hz

Charger out: 24Vdc, 2.5 A off-board

Motor: 180 W, 24 V

Controller current: Dynamic 50 A

Battery type: 24V, 11.5 Ah, Lithium-ion
The rating of the battery pack is 25.2V / 289Wh.
A material safety data sheet is available on request.

Battery UN number: UN3480 — Class 9 is applicable.

The battery charger is considered a detachable part of the scooter equipment.

Resistance to ignition: Class V-0
(Plastic battery pack and connector housings,
in accordance with ISO 7176-14:2008)

Environmental conditions:

	Operational Limits**	Transportation/Storage Limits
Ambient Temperature	-10°C to +45°C	-20°C to +45°C

Expected service life: 5 years***

** Always ensure the scooter is brought to room temperature before plugging in or operating
– We recommend the scooter is left for at least two hours to cool / warm from storage temperatures.

*** The service life of the scooter and its components are dependent on it being serviced and maintained in accordance with section 11 of these instructions.

The information contained herein is correct at the time of publication; we reserve the right to alter specifications. The above specifications may have been achieved using optimal test conditions. For information about materials, contact your dealer.

15. WARRANTY

Drive DeVilbiss Healthcare Ltd. guarantees this product is free from defects in material and workmanship under normal use for 2 years (1 year for scooter parts and accessories, 1 further year for main frame, seat post, platform and frame welds only) from the date of purchase from Drive DeVilbiss Healthcare Ltd, and its subsidiary companies or its authorised dealers (Your Supplier). All implied warranties, of fitness and merchantability, are limited in the total duration of 2 years from date of purchase. Proof of purchase must be presented with any claim.

Drive DeVilbiss Healthcare Ltd, makes no other warranties, expressed or implied and all implied warranties of merchantability, non-infringement and fitness for a particular purpose are hereby disclaimed. In no event will Drive DeVilbiss Healthcare Ltd be liable for punitive, special, or consequential damages.

Except as provided herein, this warranty will not apply to any Drive DeVilbiss Healthcare Ltd. products that have been (a) damaged by lightning, water, or power surges, (b) neglected, altered, abused, or used for a purpose other than the purpose for which they were designed, (c) repaired by you or any other party without Drive DeVilbiss Healthcare Ltd. prior written authorisation, (d) used in conjunction with a third-party product or products not approved in advance by Drive DeVilbiss Healthcare Ltd. (e) damaged or failed by or attributes to acts of God, (f) damaged, caused by failure to follow instructions, or (g) otherwise used in a manner inconsistent with any instructions provided by Drive DeVilbiss Healthcare Ltd. The warranty explicitly exempts consumable items.

This warranty contains the entire agreement between You, your supplier and Drive DeVilbiss Healthcare Ltd. with respect to any warranty matters and supersedes any and all other written or oral statements, representations or agreements relating to the subject matter of this warranty.

In the event of a product defect during the warranty period you should contact your Supplier, whether it be Drive DeVilbiss Healthcare Ltd., its subsidiary companies, authorised dealers or international distributors who will at their option, unless otherwise provided by law; do one of the following: a) correct the defect by product repair within the terms of the warranty b) replace the product with one of the same or similar design or c) refund the purchase price.

Please note if a fault is outside of the warranty terms and conditions (please see above), any repair undertaken will be charged for.

All replaced parts and products on which a refund is made become the property of Drive DeVilbiss Healthcare Ltd. Repaired or replaced parts and products are warranted for the remainder of the original warranty period.

You will be charged for repair or replacement of the product made after the expiration of the warranty period.

Drive DeVilbiss Healthcare Ltd. cannot be held responsible for any injury or incident which relates to the use of this product in conjunction with accessories manufactured by companies other than Drive DeVilbiss Healthcare Ltd. Drive DeVilbiss Healthcare Ltd. has a policy of continual product improvement and reserves the right to amend specifications covered in this document. No part of this document may be reproduced without the written approval of Drive DeVilbiss Healthcare Ltd.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no text or other markings on the paper.

17. QUICK START GUIDE

1. Unpack the scooter and position on the ground, as shown below



2. The battery is already in position but requires connecting. Connect the two blue connectors together, and then connect the two black connectors together.



3. Press the button illuminated green for one second. The button is located at the rear right hand side of the scooter. (If the button is not lit, initialise it by turning the scooter on and off with the key.



4. Push the cables in the small void behind the battery. Install the battery cover over the battery compartment (as shown below)



5. Press the yellow reflector on each side of the scooter and raise the armrests into position. Lift up the seat backrest.

6. Turn the tiller adjustment knob anticlockwise to loosen. Pull up the tiller to the desired height. Turn the knob clockwise to secure.



7. Insert the key and turn clockwise to start the scooter.



18. MAINTENANCE RECORD CHART

Inspect your scooter routinely for service issue or wearable items.

Inspection	DAILY	WEEKLY	MONTHLY
The throttle is not bent when in neutral or rest position			
Electrical harnesses are not frayed or have exposed wires			
Check for flat spots on tyres			
Seat and front riggings for loose hardware or damage			
Batteries are free from corrosion			
Wiring harnesses to the controller are securely fastened			
Check the brakes for functionality at lowest speed setting			
Check the anti-tip wheels for wear, and contact with the ground while at rest			
Check for sufficient tread on the tyres			
Check the entire scooter for loose hardware or changes in performance.			
Check the entire scooter and clean any mud, dirt, hair, food, drink, etc. on the unit			

SUGGESTION – Once a year, take your scooter to your provider or an authorised service engineer for inspection and maintenance.



Drive DeVilbiss Healthcare Ltd
Sidhil Business Park, Holmfield, Halifax, West Yorkshire, HX2 9TN, Great Britain
Tel: 0845 0600 333
Email: info@drivedevilbiss.co.uk
www.drivedevilbiss.co.uk

Drive DeVilbiss Sidhil Ltd.
4 Trench Road, Mallusk, Newtownabbey, BT36 4TY, Northern Ireland



Emergo Europe
Prinsessegracht 20, 2514AP, The Hague, Netherlands



Heartway Medical Products Co., Ltd.
18 Jingke Central 1st Road, Nantun District, Taichung City, 40852, Taiwan

Drive DeVilbiss Healthcare Ltd provide these instructions for use and product markings.

NB. IMAGES CONTAINED IN THIS DOCUMENT ARE FOR ILLUSTRATION AND PARTS IDENTIFICATION PURPOSES ONLY,
AND MAY NOT REFLECT FINAL PRODUCT OUTLOOK APPEARANCE.

