



# Owner's Manual

(M1 Plus)

# How to use this manual



## How to use this manual

Your scooter will reach you in excellent condition having been personally inspected before leaving the factory. By following the guidelines for maintenance your scooter will maintain its first class condition and give you years of complete reliability and satisfaction.

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# 1.Introduction

With over 8 years' experience, we are one of the longest established mobility equipment manufacturers in the China. All of our Scooters, Wheelchairs and Power Chairs undergo rigorous tests to ensure they meet our requirements for comfort, safety and durability.

Our success is based on the strong traditions of quality, value for money and genuinely caring for our customers. We pride ourselves not only on designing and building the most innovative products, but also on our commitment to offer an excellent standard of customer service both during and after sale.

Before using your scooter please **read this manual carefully**. It will provide you with all the information you will require. However, if you have any queries about the use, maintenance or safety of your scooter, please contact your local dealer. If you have any other questions please write to the address below.

The scooter is classified as a category C vehicle under the European wheelchair standard EN 12184.

It is intended for the use of people of all ages who may have difficulty walking distances or for periods of time. It is ideal for outdoor use and suitable for users up to 120kg in weight, 264lbs. Differing user weights can cause performance variation. Maximum user weight tested using a 120kg test dummy.

The scooter is designed to be driven on footpaths and to cross roads. It has been manufactured to comply with the requirements of the Medical Device Directive 93/42/EEC, the radio interference requirements of EEC Directive 89/336/EEC and the battery charger requirements of EEC Directive 73/23/EEC and 89/336/EEC. Electro Magnetic fields, such as those emitted by shop alarms may be disturbed by use of the scooter. The function of the scooter may also be disturbed by Electro Magnetic fields emitted by shop alarms.

We are dedicated to providing products of exacting quality that conform fully and reliably to the requirements of their intended use. We are BS/EN ISO 9001 accredited which is the internationally recognized standard for quality management systems. This approval ensures we provide quality in all areas of our business from development through to final delivery. Should you require any further assistance then please contact your local dealer.

## 2. General Warnings

**DO NOT OPERATE THE SCOOTER BEFORE READING AND UNDERSTANDING THIS INSTRUCTION MANUAL.**

**IF YOU ARE IN DOUBT ABOUT THE MEANING OF THESE INSTRUCTIONS, OR ANY OF THE CAUTIONS AND WARNINGS, PLEASE CONSULT YOUR HEALTHCARE PROFESSIONAL, DEALER OR RELEVANT TECHNICAL PERSONNEL.**

**FAILURE TO FULLY UNDERSTAND THE SCOOTER OPERATION MAY RESULT IN AN UNEXPECTED RESPONSE FROM THE EQUIPMENT WHICH CAN IN TURN LEAD TO POSSIBLE INJURY OR DAMAGE.**

### **NOTES**

Warning and Caution notices used in this manual, apply to hazards and unsafe practices that could result in personal injury or damage to property.

### **WARNING**

We supply an extensive range of mobility scooters to meet the varying needs of individual users. It is the responsibility of the individual user and their healthcare advisor qualified in making such choices, to decide which scooter is suitable for the user's intended purpose.

With regards to restraints, seat positioning straps, posture correction or other positional aids and accessories, it is the obligation of the qualified healthcare professional in conjunction with the dealer to ensure the suitability of such equipment for the safe operation of the scooter.

Serious injury can occur in the event of a fall from a mobility scooter. We **DO NOT RECOMMEND** that a scooter user is transported in any type of vehicle when seated in the scooter.

At this time, there are no approved Tie-down Systems for the transportation of a user in ANY moving vehicle whilst seated in a scooter. It is our opinion that users of mobility scooters should be transferred into the appropriate vehicle seating system and use should be made of the restraints available to the auto industry.

### **Intended Use**

This mobility scooter would be used by disabled, sick or old person.

## 3.Quick Start Guide

### **Assembly**

When lifting always keep the back straight, bend the knees and use the lifting handles provided.

Ensure your freewheel mechanism is fully engaged, so your scooter can not move while assembling.

Set the tiller by rotating the Tiller folding knob while moving the tiller upwards. Remove the basket from the footboard and place on the bracket located on the front of the tiller.

Lift the seat onto the seat post and press down to ensure it is fully engaged.

### **Battery Charging**

The battery **MUST** be charged for 12 hours before first use. Do not be tempted to use the scooter unless the battery has been fully charged as failure to do this will result in battery damage. Connect the battery charger to the mains supply and the charging socket located on the battery pack. Switch on the mains supply and then switch on the battery charger.

RED light = Power On,

YELLOW Light = Charging

GREEN Light = Charge Complete.

Charge the scooter overnight after each use to maintain battery condition.

If you are in any doubt then please turn to pages 21 and 22 of this manual.

### **Typical Use**

Designed for use on footpaths, for crossing roads and shopping. It should not be driven through mud, water, snow, sand, loose gravel, long grass or any other unsound surfaces.

### **Control Functions**

Your scooter is equipped with the following features that can be found on the tiller fascia panel:

On/ Off Switch, Battery Gauge, Speed Control, head Light, Horn and Directional Control Levers.

If you have previously used or owned a scooter before you **MUST** still read the Owners Manual carefully to fully understand the controls and safety warnings.

If you are in any doubt of their functions then please turn to pages 13 and 16 of this manual.

## **Transporting**

Your scooter may be disassembled quickly and simply for transportation:

1. Lift off the front basket.
2. Remove the seat, leaving the seat stem in position.
3. Place the basket on the floor mat appropriately.
4. Lower the tiller, using the folding knob, to its lowest setting locking in the basket. Make sure that there is at least 30mm between Tiller and battery pack.
5. using the lifting handles provided carefully lift the scooter safely and securely into the luggage compartment of the vehicle.

### **TIP:**

Using the front bumper and rear lifting handle provided carefully lift the scooter.

To reassemble the scooter reverses the sequence above.

### **Important:**

When reassembling the scooter, remember to insert the battery locking pin, because failure to do so may result in the batteries disengaging during use. Always secure your scooter parts before transportation. Remember to engage the drive unit by pushing the freewheel lever forwards to stop the scooter from moving.

# 4.Features



## Control Panel





## 5. Getting On or Off your Scooter

### Getting on to your scooter

1. Ensure that the key switch is turned to the off position (Photo 5.1).
2. Push forward the seat swivel lever located under the seat on the Right-hand side and rotate the seat to face you (Photo 5.2).
3. Put the armrests into the fully down position and use them to steady yourself as you gently lower yourself into the seat (Photo 5.3).
4. Push forward the seat swivel lever and gently swivel the seat to face Forward (Photo 5.4).
5. Ensure that both feet are placed firmly on the floorboard of the scooter and the seat is secure (Photo 5.5).



P5.1



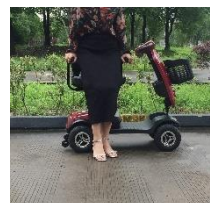
P5.2



P5.3



P5.4



P5.5

### Getting off your scooter

1. Bring your scooter to a stop and turn the key switch to off.
2. Push forward the seat swivel lever located under the seat on the right-hand side and rotate the seat 90 degrees to Exit (Photo 5.2).
3. Put BOTH feet on the ground and gently leave the seat using the arm rests to assist you out of the chair (Photo 5.3).

## 6. Control Panel

### Hand Controls

All of the drive controls for the scooter are to be found on the Tiller Control Box (Photo 6.1).

### The Preset Speed Knob

Turning this knob to the left, reduces your available maximum speed. Turning it to the right, increases the available maximum speed.

### The Battery Gauge

This gives an approximation of battery charge and is illuminated for clarity.

The gauge is “RED” empty, to “YELLOW” charge required, to “GREEN” charged.

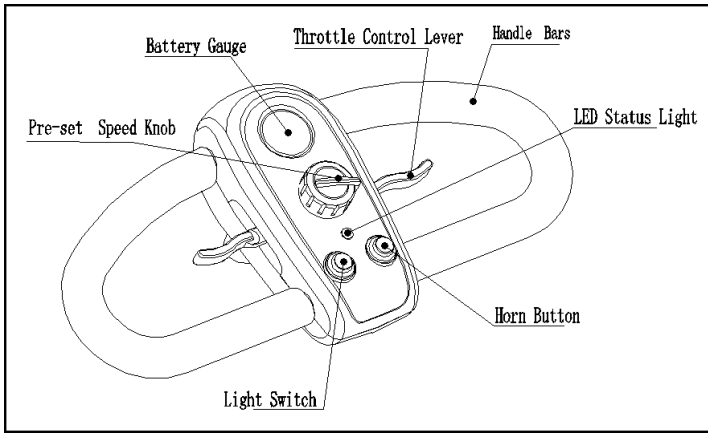
As the scooter moves over differing terrain, the Battery Gauge will dip up and down, this is normal. For a more accurate indication, stop the scooter and note the reading. In cold, damp weather the gauge will dip more often as the capacity and efficiency of all batteries drops in such conditions.

### TIP:

If your battery gauge has gone into the “RED” section you can increase your remaining range by reducing your maximum speed. Remember you **MUST** charge your battery overnight as soon as you can to prevent battery damage.

### Operating the Lights

The lights are operated by pressing the blue button on the front fascia panel. Press the button once to illuminate the lights, press the button again to switch the lights off. Switch the lights on to make yourself more visible in low levels of light, day or night.



P6.1

## 7.Tiller Control Functions

### Throttle Lever

The throttle lever offers finger-tip control of your scooter.

It controls the speed as well as forward and reverse motion. To move the scooter in a FORWARD motion PULL the lever with the RIGHT HAND or PUSH the lever with the LEFT THUMB (Photo 7.1 ,Photo 7.2).

To move the scooter in a REVERSE motion PULL the lever with the LEFT HAND or PUSH the lever with the RIGHT THUMB. The lever will return by itself when released and the scooter will slow to a stop (Photo 7.1 ,Photo 7.2).

The more you move the lever, the more your speed increases up to its preset maximum. It is possible to operate your scooter using one side of the throttle lever. To do this you must PUSH and PULL on the chosen side of the throttle lever.

### Horn Button

Pressing the horn button operates an audible warning sound. Use this function to warn pedestrians of your presence when necessary



P7.1



P7.2

### Key Switch



P7.4



P7.5



P7.6

The key switch switches the scooter ON and OFF.

Please note that the key cannot be removed when it is in the ON position

(Photo 7.4.).

Make sure that this switch is in the OFF position BEFORE Getting on or off the scooter. Remove the key to make sure The scooter is OFF (Photo 7.5). Turning the key to OFF whilst driving will cause the scooter To stop very abruptly. This is not recommended except in Emergency stop, as continual use of this function could Result in damage to the scooter.

### **Off Board Charging Socket**

The socket to connect the off-board charger is located on the battery pack (Photo 7.6).

To use the socket, swivel the plastic cover to the left or right to reveal the socket connections. The charger output plug can now be connected ready to accept charge current from the battery charger.

After use, ensure that the plastic swivel cover is rotated back into place. This action helps prevent water from entering the socket connections.

### **WARNING.**

**Do not attempt to charge your scooter outdoors or in damp/wet conditions. Failure to comply with this instruction may lead to a shock / fire hazard.**

## 8. Freewheel Mechanism

### Freewheel mechanism

A freewheel device disengages the power drive to allow manual operation P8 (i.e. the scooter can be pushed at a walking pace). This safety function can prevent your scooter from being driven by someone illegally when parking. By pushing BACKWARD the lever that is located on the right hand side of the scooter rear panel can engage the motor for you to drive. (P8).



P 8

### WARNING:

**Use extreme caution in the freewheel mode especially on slopes/inclines. Letting go of your scooter whilst it is in freewheel, can cause the scooter to roll unexpectedly.**

ALWAYS re-engage the freewheel device after use, failure to do so may result in injury.

# 9.Seat Removal and Adjustment

## Removing the Seat

**Please note that these instructions are to be used as a guide only.**

1. Lift armrests upwards for ease of access (Photo 9.1).
2. Stand behind the seat and fold the backrest down(Photo 9.2).
3. Grasp the seat base and keeping a firm grip, lift the seat vertically, keeping your back straight. Bend knees ifrequired (Photo 9.3).
4. Place seat at desired location for stowage, keeping back posture straight at all times, bend knees where required (Photo 9.4).

**Note: Exercise caution when lifting the seat.**



P9.1

P9.2

P9.3

P9.4

## Seat Adjustment

1. To adjust seat height, remove the seat as described (Photo 9.5).
2. Move the seat post to the new position and refit the seat pin.
3. Refit the seat.(Photo 9.6)



P9.5

P9.6

## Armrest Adjustment

1. Pull the lock-pin out from the seat base(photo 9.7),
2. Loose the adjustable bolt(photo 9.8).
3. Moving the armrests to the desired position andre-tightening the thumbwheel knobs to adjust the width of the armrest.



P9.7

P9.8



## 10. Tiller, Battery and Charging

### Tiller Adjustment

The scooter features an infinitely adjustable tiller which allows you to lock the tiller in the most comfortable driving position. This feature also lets you fold the tiller down fully, for transportation and stowage.

The folding knob is located on the bottom of the tiller.

1. Support the tiller with your left hand.
2. Rotate the folding knob anticlockwise to release the tiller (Photo 10.1-10.2).
3. Move the tiller to the desired location.
4. Rotate the folding knob clockwise to lock the tiller (Photo 10.2).



P10.1



P10.2



P10.3

### Battery Removal

It is important to remove the seat and seat post first to allow better access to the batteries.

Lift battery vertically out of its battery tray using the handle provided (Photo 10.4).

Remember to keep the knees bent and the back straight.

### Battery Replacement

To replace the batteries reverse the sequence above Important:

Remember to keep the knees bent and the back straight.

When reassembling the scooter, remember to insert the locking pin, because failure to do so may result in the batteries disengaging during use. Ensure the battery wells are free from dirt and grit - this will affect the performance of the battery contacts.

### Off-Board Battery Charger

Your scooter is supplied with an off-board charging facility (Photo 10.5). Please note that only chargers with a capacity of minimum 3.0 Amps and maximum of 6.0 Amps supplied by your local authorized dealer should be used.

1. Switch your scooter off at the key switch(Photo 7.5).
2. Swivel the charge connector cover located on the batter pack and connect the charger (Photo 10.6 / Photo ②).
3. Ensure that the charger plug is dry and intact before connecting it to the mains and switching it on.
4. A reset button is located on the battery.

Please check that the button is pressed in (Photo 10.7).



P10.4



P10.5



P10.6



P10.7

#### Note:

**The charger is capable of charging from 240V to 100V, and 2Amp**, off-board charger has 3 possible indications:

1. **RED = Power is on.**
2. **YELLOW = Charging.**
3. **GREEN = fully charged.**

Ensure the scooter is switched off before commencing the charging process. After charging, always swivels the charging socket cover back into place. This helps prevent water getting into the socket.(Photo 10.6 / Photo ②)

Please note that the scooter has a safety circuit to prevent it from being

driven off during charging. If your scooter fails to respond to normal control after a charging period, please check that the battery charger has been completely disconnected from the scooter.

**The off-board charger must be kept dry in temperatures between -25°C and 40°C and not be subjected to mechanical damage.**

**In all cases, the charger must only be repaired by an authorized dealer.**

### **WARNING!**

**You can only use the original charger from our company. Use other brand charger may shorten your warranty period, and use unknown charger may cause damage to your scooters, and use wrong charger may cause a fire.**

**Use extreme caution to manage the battery and charger.**

**Don't throw the battery into the fire. You should manage the exhausted battery according to the local law.**

**Don't put the battery near to any heating device, which may cause the battery to bomb.**

**Don't press the battery or stab it, or let it endure any high pressure, which may cause short circuit or overheating.**

**WARNING!**

**NO SMOKING OR NAKED FLAMES WHEN CHARGING BATTERIES.**

**DO NOT TOUCH BATTERY PACK TERMINALS WITH METAL OBJECTS.**

**ONLY USE APPROVED REPLACEMENT BATTERIES.**

**IF DAMAGE TO BATTERIES OR BATTERY BOXES IS EVIDENT, CONTACT YOUR LOCAL DEALER IMMEDIATELY - DO NOT ATTEMPT TO SERVICE THE BATTERIES.**

**DEALER WARNING!**

**REMOVE METALLIC JEWELLERY WHEN WORKING WITH BATTERIES.**

**WEAR GLOVES AND GOGGLES IF MOVING LEAKING BATTERIES.**

**REPLACE DAMAGED OR LEAKING BATTERIES IMMEDIATELY.**

**Fuses**

There is a reset button as described previously. If a fault occurs, the button will pop out. Switch the scooter off, press the button in and switch the scooter back on.

There is a 30A fuse fitted to the positive terminal of battery. These fuses must be replaced by an authorized service agent.

There is also a 2.5A fuse fitted in the charger and a fuse in the mains plug of the battery charger. These fuses must be replaced by an authorized service agent.

# 11. Transportation

## Packaging

We package the mobility scooter may prevent it from removing in the package, shaking in the package or any scratch, by following the below steps:

1, put the scooter into the prepared carton (Photo 11.1), like the position in Photo 11.2.

2, Cover the carton and fix the whole carton with professional ropes for packaging. (Photo 11.1 and Photo 11.2).



(P11.1)



(P11.2)



(P11.3)



(P 11.4)

## Important

Our cartons comply with GB/T4857.18 (equals to ISO4180/2):

1. Comply with test dropping from 500mm height
2. Pass transport testing requirements of 2.5m stacking;

Notes

- 1, Please make sure there is no any obvious damage on the outside of the carton, crushed area or serial no. before open it.
- 2, reverse the packaging steps to get the scooters, owner manual, warranty card, inspection report or quality certificates, and so on.
- 3 read the owner's manual carefully to familiar with assembling or operating your scooters.
- 4 turn on the scooter and check whether it is normally operated.

## Transportation

Your scooter may be disassembled quickly and simply for transportation.

1. Switch off the scooter, make sure the motor is engaged.
2. Remove the basket.
3. Remove the seat, leaving the seat stem in position.
4. Place the basket on the floor mat appropriately(photo 11-1).
5. Lower the tiller, using the folding knob, to its lowest setting locking in the basket. Make sure that there is at least 30mm between Tiller and battery pack(photo 11-5).
6. Using the lifting handles provided carefully lift the scooter safely and securely into the luggage compartment of the vehicle(photo 11-6,7).

### TIP:

1. Please put all the parts after disassembling into the original carton from us to insure the safe transportation.
2. To reverse the above steps to reassemble your scooter.

### Important:

When reassembling the scooter, remember to insert the battery locking pin, because failure to do so may result in the batteries disengaging during use. Always secure your scooter parts before transportation. Remember to engage the drive unit by pushing the freewheel lever forwards to stop the scooter from moving. Don't sit on the scooter during transportation.



P11-5



P11-6



P11-7

## Packaging and transportation environment conditions

The mobility scooters can be transported by common transportation vehicles, but you need to prevent them from strong impact, vibrating or any snow or rain. This is clarified in the order contract.

The packaged scooters should be put into an environment between -20°C ~ 45°C temperature, and humidity less than 93%, no congeal or corrosive air with good ventilation.

# 12.Guidance for Safe Operation and Use

## Basic Driving

### Caution!

It is advisable during the first few sessions of operating your scooter that the area around you is clear of obstacles and pedestrians.

Before operating your scooter, ensure the seat height and position has been adjusted to your satisfaction and the tiller angle has been set for optimum safety and comfort.

Please see the “General Warnings”, “Getting on Your Scooter” and “Tiller Adjustment” sections in this handbook.

1. Make sure you are properly seated on the scooter and that the speed control knob is turned fully to the left.

2. Turn the key switch to the “ON” position.

3. On the tiller, use the throttle lever as described earlier. You will gently accelerate. Release and you will gently stop. Practice these two basic functions until you get used to them.

4. Steering the scooter is easy and logical. Be sure to remember to allow enough clearance when turning corners so that the rear wheels clear any obstacle.

5. Shortcutting a pavement corner can cause the back wheel to go off the pavement, causing problems if the corner is very rough. Avoid this at all times by steering an exaggerated curve around the obstacle.

6. When steering in a tight spot, such as entering a doorway or when turning around, stop the scooter and then turn the handlebar to where you want to go, then apply power gently. This will make the scooter turn very sharply. It is also recommended that the preset speed is set to a slower setting to aid control in tight spots.

**7. Reversing requires attention - exercise caution when reversing especially down slopes.**

When reversing, always turn the handlebars in the opposite direction to the way you want to go.

The more you operate the throttle lever, the faster you will go.

Reverse speed is 50% slower than forward speed. If the scooter does not move in reverse, carefully turn the speed control knob clockwise until the scooter moves gently backwards.

### Important:

**To preserve battery power there is a “sleep timer” feature built into the controller. Should the scooter be left ON, but not operated for**

**15minutes the scooter will go into “sleep mode”. To reset this, switch the scooter OFF and then back ON again.**

**Note: The user’s visual standards must be higher than 0.5.**

### **Hill climbing**

This scooter has been tested to climb an incline of no more than 10° with a maximum user weight of up to 120kg (264 lbs) (Photo 12.1). Do not attempt to climb inclines in excess of this.

Always reduce your speed when reversing on slopes. Do not reverse down hills in excess of 8° and always use extreme caution when reversing down hills.

Do not attempt to drive along with the wheels at different levels, e.g. along the footpath and road simultaneously.

Hill climbing capability and distance travelled between battery charges will be adversely affected by such things as:

1. The weight of the user.
2. Terrain (e.g. grass or gravel).
3. Steepness of hills.
4. Level of charge and the age of the batteries.
5. Extremes of temperature.
6. Use and weight of accessories.



P12.1



P12.2



P12.3

### **Traveling across slopes**

Care should be taken traversing across a slope, always reduce your speed. Do not traverse across the face of a slope in excess of 10°(Photo 12.2) .

**Note: Where possible always travel up or down hills or ramps directly facing the slope of the hill.**

**Do not traverse across the face of a slope in excess of 10°. Disregard of this advice could result in your scooter tipping.**

### **Braking**

To bring the scooter to a standstill simply let go of the throttle control lever (Photo 12.3).

Remember to keep both of your hands on the handlebars whilst the scooter is braking.

Release the control lever will stop your scooter in seconds.

**Note: Automatic braking is not instantaneous and will engage within 1/2 a wheel turn once the scooter has stopped.**

### **Emergency Braking**

In the unlikely event of an unwanted movement of the scooter or other emergency, switching off the key switch will bring the scooter to a stop.

Though very effective, emergency braking is extremely abrupt and must never be used under normal circumstances.

Letting go of the throttle lever will slow the scooter to a controlled stop.

### **Switching off**

The scooter must always be switched off at the key switch.

When the scooter is stowed or not in use for a long period of time, always charge the batteries for 12 hours and then disconnect the battery pack before storing. If the scooter is to be stored for a long period of time remove the fully charged battery packs and store, at or near room temperature, out of freezing conditions i.e. greater than 0°C.

### **Use on the footpath**

When using your scooter on the footpath always be aware of pedestrians and situations which might require extra care. For example, young children and pets. Remember, especially when driving in public places, to drive with caution

and regard for others at all times. When maneuvering in confined areas, including shops, ensure the minimum speed is selected (Photo 12.4). If you leave your scooter outside a shop ensure that it does not obstruct the footpath or vehicular access.



P12.4

Always switch off and take your key with you.

### **Crossing roads**

Your scooter is not capable of mounting and dismounting kerbs and other obstacles in excess of 45mm.

Remember before crossing the road, drive forwards and position the scooter at 90° to the road, stopping about 30 - 60cm (1 - 2 feet) away from the edge of the footpath .Check that it is clear to cross. Select a medium to high speed setting and when safe to do so, drive across without stopping.

**Note: Heavier users will require higher speed settings.**



**Note: Low speed settings are recommended when traveling down hill, particularly in reverse. Also, reduce your speed when turning corners. The anti-tip devices fitted to the scooter must not be removed.**

### **Turning corners**

Always reduce your speed when turning corners, particularly when travelling downhill. Disregard of this advice could lead to your scooter tipping over.

### **Use of mobile phones**

Mobile telephones or two way radio devices must not be used while operating the vehicle. Use of mobile phones or two way radios can cause excessively strong electromagnetic fields. This may interfere with the vehicle's electronic systems.

If mobile phones or mobile radios are required to be used, the vehicle must be brought to a halt and the power turned off before any such device is used.

### **Tyres**

Your scooter has solid tyres all round. It is good practice to inspect the tyres for damage or wear regularly.

### **Emergency Braking**

Turning off the power switch whilst moving will switch off the power causing immediate and full braking. This method of stopping is not recommended except in an emergency.

### **Caution!**

Routine use of emergency braking will cause damage to your scooter.

### **Freewheel mechanism**

#### **Caution!**

Transporting the scooter along a slope in freewheel mode can be dangerous. Take extra care if this is necessary. Always re-engage the freewheel device after use.

Never sit on your scooter whilst in freewheel since the scooter will no longer automatically stop.

## 13. Battery and Charging Information

### General information

Batteries are the power source for almost all of the modern mobility products available today. The design of batteries used in mobility products is significantly different from the batteries used to start a car for example. Car batteries are designed to release a large amount of power over a short period of time, whilst mobility batteries (commonly called deep cycle batteries) release their power evenly over a long period of time. Therefore, due to the lower production volumes and increased technological requirements, mobility batteries are typically more expensive. Commonly two 12 volt batteries are used together in a mobility product giving a total voltage of 24 volts. The size of the battery (e.g. its available power) is expressed in amps per hour (e.g. 10amp/hr). The higher the number, the bigger the battery size, weight and, potentially, the greater the distance you can travel.

### Batteries

Your scooter is fitted with batteries that require no maintenance, other than regular charging.

If a battery is physically damaged, please use extreme caution when handling it.

**Beware!** Battery fluids are corrosive and care should be taken at all times to avoid contact with it. If it comes into contact with the skin or clothing, wash immediately with soap and water. If it comes into contact with the eye, immediately flood the eye with running cold water for at least 10 minutes and seek medical attention.

In such an event, call your local dealer for assistance.

Please do not dispose of batteries in normal waste, always recycle in accordance with local laws.

### Maintenance free

This is the type of battery used in the battery pack. It uses GEL electrolyte which is totally sealed within the battery's outer case. As the name implies, no maintenance is required other than regular charging. As the battery case is sealed, you can safely transport this type of battery without fear of acid spilling. Furthermore, they are approved for transportation on aircraft, boats and trains.

It is recommended that the batteries are always transported and stored upright.

Only use batteries supplied by an authorized dealer.

### **Battery care**

We have set out a battery care plan for maintenance free batteries. If a different care plan is followed, this may result in lower than expected performance from your mobility vehicle.

**Note: Do not expose any part of the battery to direct heat and when charging always place on a hard surface in a room with good ventilation. You should not charge the batteries in outdoor conditions. Do not smoke when in the vicinity of charging batteries. Exclude all naked flames from the area.**

**Do not allow the batteries to freeze.**

### **Battery pack care plan**

1. Only use the approved battery charger compatible with the vehicle to be charged.

2. Charge your batteries over night, regardless of the amount of use your mobility device has had during the day.

3. Do not interrupt the charging cycle.

4. If your mobility device is not required for use, it should remain on charge. This will not damage the batteries, so long as the mains socket/plug is left switched on.

**Do not leave the charger still connected to the batteries when the mains has been switched off. This will eventually deplete the battery charge.**

5. If you leave your vehicle for an extended period (more than 5 days) first charge your batteries for 12 hours, then remove charger and ensure the batteries are disconnected.

6. Failure to allow for full recharge will damage the batteries and can lead to shortened distances and permanent failure.

7. Do not top up the charge of your batteries during the day except in an emergency. Wait until the evening for a full overnight charge.

### **Caution**

**Remember to remove the plug from your scooter when charger is off, to prevent driving away whilst attached. The scooter cannot be operated when being charged.**

8. The batteries need to be checked regularly for signs of damage. If any damage is apparent, contact your local mobility dealer immediately.

## **Caution!**

**Take care not to short circuit the battery terminals. Remove all conductive jewelry (e.g. watches, necklaces etc.) before checking the batteries.**

9. Following all the eight points above should result in a healthier battery, greater range for the vehicle user and a longer life for your batteries.

## **The range of your vehicle**

Most manufacturers of mobility products state the range of their vehicles either in the sales literature or within the Owner's Manual.

The range stated sometimes differs from manufacturer to manufacturer even though the battery size is the same. We measure the range of our vehicles in a consistent and uniform manner, but variances still occur due to motor efficiencies and overall product load weight.

The range figures are calculated to I.S.O. Standard 7176, Part 4: Scooter Energy Consumption Theoretical Range.

The range figures stated should be seen as a theoretical maximum and could be reduced if any single, or combination, of the following circumstances occur:

1. User weight heavier than 120kg.
2. Batteries whose age and condition are less than perfect.
3. The terrain is difficult or unsuitable e.g. very hilly, sloping, muddy ground, gravel, grass, snow and ice.
4. The vehicle climbs ramps regularly.
5. The ambient temperature is very hot or very cold.
6. Damage occurring to one or more tyres.
7. Lots of start/stop driving.
8. Also thick pile carpets within the home can affect range.

Always check that the batteries are sufficiently charged before setting off.

Always ensure that your batteries are in good condition and that no leakage has occurred.

Do not expose any part of your charger, battery or scooter to direct heat (i.e. gas fires or naked flame).

**Note: If you are out on your scooter and the battery gauge is reading low the remaining range can be increased slightly by decreasing the maximum available speed.**

## 14. General Warnings

### PERSONAL & OPERATIONAL GUIDELINES

Drive profiles should only be adjusted by healthcare professionals and approved agents/dealers, who are totally conversant with the process. They must also fully understand the user's capabilities and the user's ability to operate the scooter safely.

Incorrect settings may cause injury or damage to the user, bystanders, the scooter and/or nearby property.

To determine personal mobility limitations, practice combinations of bending, reaching, mount and dismount techniques, whilst in the presence of a healthcare professional. Practice the above techniques BEFORE actively using the scooter.

For users with balance problems, practice the above techniques with the aid of an assistant, in the presence of a healthcare professional.

**DO NOT** attempt to pick up objects that cause you to shift your weight in the seat, or require you to bend excessively in any direction. Such action may result in the scooter tipping over, or in injury to the person or both.

**DO NOT** use an escalator to move the mobility scooter between floors as serious bodily injury could arise from such actions.

**DO NOT** drive on the road, dual carriageways or motorways.

**DO NOT** drive up, down or across inclines that have water, ice, oil or any other slippery substance on the surface. Failure to note the above conditions could cause loss of control.

**DO NOT** attempt to drive over kerbs or obstacles in excess of 45mm. Disregarding this warning could cause the mobility scooter to tip resulting in possible bodily harm.

**DO NOT** make sharp turns in forward or reverse at high speeds.

**DO NOT** lift the mobility scooter by its Tiller, Seat, Body Panels or by any detachable assemblies. Always disassemble the scooter into its stowable parts and then lift each assembly one at a time.

**DO NOT** carry passengers on your scooter.

**DO NOT** attempt to tow another vehicle.

**DO NOT** operate the mobility scooter without first checking that it is safe to do so. Always be aware of your surroundings.

**DO NOT** attempt to use your mobility scooter without first checking that all wiring harnesses are connected and all detachable parts/assemblies are correctly aligned and firmly fixed in place.

**DO NOT** use your mobility scooter without the anti-tipper wheels attached.  
**DO NOT** attempt to fit parts, accessories or adapters that are not authorized.

**DO NOT** mount or dismount your mobility scooter without first withdrawing the ignition key. This will ensure that the power is off and the scooter cannot move unexpectedly.

**DO NOT** leave the ignition key in your scooter whilst it is unattended. Children or inexperienced people may attempt to drive your scooter which may result in damage or personal injury.

**DO NOT** connect any medical device, such as a ventilator, life support machine etc. to the scooter's electrical system. Failure of the equipment may result from such connections.

**DO NOT** operate your mobility scooter whilst under the influence of alcohol, drugs or prescription medication that may impair judgement.

**DO NOT** operate your mobility scooter if you feel acutely unwell.

**DO NOT** operate your mobility scooter if your vision is seriously impaired.

**If you have any doubts about medical conditions, health problems or treatments that may affect your ability to operate the mobility scooter safely, please consult your healthcare professional.**

**We specifically disclaim responsibility to all personal injury and property damage that may occur during use which does not comply with the relevant national or local statutes.**

Do not attempt to operate your scooter whilst standing next to it.

Always ensure that you are able to operate all the controls from a seated position, that the rear view mirror (if fitted) is set correctly and that the seat is securely locked into place.

**Attention: Switch on the scooter lights (if fitted) to make yourself visible when there are low levels of light, day or night.**

The rear body panel (where fitted) is designed to cover the Drive Assembly, Wiring Harness and Electrical Connectors.

**DO NOT** stand on any of the body panels, only the footboard.

**DO NOT** stand on the scooter seat.

**DO NOT** attempt to transfer into or out of the scooter seat without first

checking that it is LOCKED into position. Attempting unsafe transfers can result in bodily injury and/or damage.

**DO NOT** drive your scooter if the seat is not LOCKED in the FORWARD position. The seat must be secured in the FORWARD facing position BEFORE and DURING operation of the scooter. Attempting to operate the scooter with the seat not secured in the front facing position, could result in damage and/or bodily injury.

**DO NOT** operate the scooter without ensuring that the Tiller is properly adjusted and secured. After making any adjustment to the Tiller position you must check that the Tiller is locked and secured into position BEFORE driving. To check, gently push and pull the Tiller to make sure it is secured. An unsecured Tiller could result in damage and/or bodily injury.

**DO NOT** attempt to climb, ascend, or descend ramps greater than 10 degrees, or transverse slopes with a gradient greater than 10 degrees.

**DO NOT** attempt to reverse down slopes in excess of 8 degrees.

When negotiating ramps or inclines, if the throttle lever is released a roll back will occur.

In FORWARD or REVERSE motion the scooter will ROLLBACK approximately 30cms. (1ft), before the brake engages.

Check that all electrical connections are secure before using your scooter.

**DO NOT** under any circumstances, disconnect, cut, extend or otherwise modify ANY of the wiring harnesses installed within or connected to your mobility scooter.

**DO NOT** under any circumstances, disconnect, cut, extend or otherwise modify ANY of the wiring harnesses installed within or connected to your mobility scooter battery charger.

It is important that your mobility scooter battery charger is connected to a properly installed electrical socket with an earthed outlet.

**Failure to comply with the above requirements could result in a possible SHOCK HAZARD.**

**DO NOT** use any batteries that are not DEEP CYCLE GEL, AGM or SEALED LEAD-ACID type. Other types of batteries are NOT SUITABLE. Please read battery/battery charger information before installation.

**This scooter has been tested to ISO 7176 Part 9 “Climatic Tests for**

### **Electric Wheelchairs.”**

The test provides the scooter user or their attendant, sufficient time to remove the mobility scooter from a rain storm, whilst retaining normal operation of the mobility scooter.

**DO NOT** operate your mobility scooter during an electrical storm.

**DO NOT** leave your mobility scooter in a rain storm of any kind.

**DO NOT** use your mobility scooter in a shower or leave it in a damp bathroom or sauna.

**DO NOT** leave your mobility scooter in a damp area for any length of time.

**DO NOT** Jet wash, hose down, or use an automated car-wash on your mobility scooter.

Direct exposure to rain, sea spray or moisture could cause the mobility scooter to malfunction electrically and mechanically and may cause rusting.

### **Maximum User Weight Limitations.**

SW1000S Plus = 120Kg (264lbs).

Running noisy≤70db.

### **DISPOSAL**



The symbol above means that in accordance with local laws and regulations your product should be disposed of separately from household waste. When this product reaches the end of its life, take it to the collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects the environment.

Ensure you are the legal owner of the product prior to arranging for the product disposal in accordance with the above recommendations.



## 15.EMC (EMI) Warnings

### **CAUTION:**

**IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTRO MAGNETIC CONTAMINATION, (EMC) ON YOUR MOBILITY SCOOTER. SOMETIMES THIS EFFECT IS ALSO KNOWN AS ELECTRO MAGNETIC INTERFERENCE (EMI).**

### **EMC (EMI) FROM RADIO-WAVE SOURCES.**

Mobility scooters may be susceptible to EMC, which is interference from electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur (HAM) radio transmitters, two way radios and mobile phones. The interference (from radio sources) can cause the mobility scooter to release its brakes, move by itself, or move in an unintended way. Permanent damage can also be done to the mobility scooter's control system.

The intensity of the interfering EM energy can be measured in volts per meter (V/m.).

Each mobility scooter can resist EMC up to a certain intensity.

This is known as the scooter's "immunity level".

The higher the immunity level, the greater the protection.

Current technology offers useful protection of at least 20 V/m. which provides protection from the more common sources of radiated EMC.

There are a number of relatively strong electromagnetic fields present in the everyday environment. Most of these sources are obvious and easy to avoid, others are not so obvious and can be unavoidable.

By following the warnings listed, your risk of exposure to EMC will be minimized.

### **EMC sources can be broadly classified into three types:**

1. Hand-held portable transceivers (transmitter-receivers with on-board antenna). Examples are Walkie-Talkie, CB Radio, security, emergency services and mobile phones. Note that some cellular phones can transmit signals while they are switched on but not being used.
2. Medium range mobile transmitters such as those used on emergency services vehicles, taxis etc. These usually have antennae 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.

**Note: Other types of hand-held devices such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, cassette players and small appliances, such as electric shavers and hair dryers, are not likely to cause any EMC problems to your mobility scooter.**

**Mobility scooter electromagnetic contamination (EMC).**

EM energy rapidly intensifies the closer one moves to the transmitting antenna, the source. Because of this it is possible to bring strong EM fields unintentionally close to your mobility scooter's control system. Mobile hand-held radio type transceivers are of particular concern.

Whilst such devices are in use, it is possible that the EM radiation can affect the mobility scooter's movement and braking.

The following warnings are recommended to help prevent possible interference with your mobility scooter's control system.

1. Do not operate hand-held transceivers, such as CB radio or turn ON cellular phones, whilst your mobility scooter is turned ON.
2. Be aware of nearby radio or television transmitters and try to avoid coming too close to them.
3. If you experience unintended movement or brake release, switch your scooter OFF as soon as it is safe to do so.
4. Adding accessories, components or modifying the mobility scooter, may increase susceptibility to EMC (EMI).

**Note:**

**There is no easy way of assessing the effect of any modification on a scooter's EM immunity.**

5. If you experience any EMC (EMI) related incidents, please report them to your dealer, noting if there is a possible source of EM transmission nearby.



**Notes:**

(SW-1000S Plus mobility scooter) complies with **IEC 60601-1-2** standard EM requirements.

Users should assemble or use the scooter according to the EM requirements owner's manual.

Portable or mobile RF communication device may affect the scooter, so please keep it away from EM interference such as mobile phone or microwaves.

Please check the attachments for the guidance and manufacturer's declaration



## Warnings

- This device or system should be kept away from other equipments. If they must be put together, pls check whether the device or system can run normally.
- You should consider the original manufacturer of the device or system as the sole supplier. Failure to do so may cause EMC increase and or decrease anti-EMC ability.

## Attachments:

<b>Guidance and manufacturer's Declaration–electromagnetic emission</b>		
<p>(SW-1000S Plus scooter) is intended for use in the electromagnetic environment specified below. The customer or the user of the (SW-1000S Plus scooter) should assure that it is used in such an environment.</p>		
<b>Emission Test</b>	<b>Compliance</b>	<b>Electromagnetic environment–guidance</b>
RF Emission CISPR 11	Group 1	(SW-1000S Plus scooter) use RF energy only for its internal function. Therefore, it's RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emission CISPR 11	Class B	(SW-1000S Plus scooter) is suitable for use in all establishments, including domestic establishment and those directly connected to the public low-voltage power
Harmonic Emissions IEC 61000S-3-2	Class A	

Voltage fluctuation/flicker emissions IEC 61000S-3-3	complies	supply network that supplies buildings used for domestic purposes.
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**Guidance and manufacturer's Declaration–electromagnetic emission**

(SW-1000S Plus scooter) is intended for use in the electromagnetic environment specified below. The customer or the user of the (SW-1000S Plus scooter) should assure that it is used in such an environment.

<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>electromagnetic environment-guidance</b>
Electrostatic discharge (ESD) IEC 61000S-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/ burst IEC 61000S-4-4	±2kV for power supply lines ±1kV for input/output lines	±2kV for power supply lines ±1kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000S-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.

<p>Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000S-4-11</p>	<p>&lt;5 % UT, (&gt;95% dip in, UT ) for 0.5 cycle 40 % UT (60% dip in, UT) for 5 cycles 70 % UT, (30% dip in, UT) for 25 cycles &lt;5 % UT, (&gt;95% dip in, UT) for 5 sec</p>	<p>Mains power quality should be that of a typical commercial or hospital environment. If the use of the (SW-1000S Plus scooter) requires continued operation during power mains interruptions, it is recommended that the (SW-1000S Plus scooter) be powered from an uninterruptible power supply or a battery. Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</p>
<p>Power frequency (50/60Hz) magnetic field IEC 61000S-4-8</p>	<p>3A/m</p>	
<p>NOTE: UT is the a.c. mains voltage prior to application of the test level.</p>		
<p><b>Guidance and manufacturer's Declaration–electromagnetic immunity</b></p>		
<p>(SW-1000S Plus scooter) is intended for use in the electromagnetic environment specified below. The customer or the user of the (SW-1000S Plus scooter) should assure that it is used in such an environment.</p>		

<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>electromagnetic environment-guidance</b>
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<p>Conducted RF IEC 61000S-4-6</p> <p>Radiated RF IEC 61000S-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 Vrms</p> <p>3 V/m</p>	<p>Portable and mobile RF communications equipment should be used or closer to any part of the (SW-1000S Plus scooter) , including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1.2 \sqrt{P}$ $d = 1.2 \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2.3 \sqrt{P} \quad 800 \text{ MHz to } 2.5 \text{ GHz}$ <p>Where P is the maximum output power rating of the transmitter in watts(W) according to the transmitter manufacturer and d is the recommended separation distance in the meters( m).b</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range.</p> <p>Interference may occur in the vicinity of the equipment marked with the following symbol:</p> 
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NOTE 1: At 80MHz and 800MHz, the higher frequency range applies.

NOTE 2: These guidance may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the [SW-1000S Plus scooter] is used exceeds the applicable RF compliance level above, the [SW-1000S Plus scooter] should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the [SW-1000S Plus scooter].

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

**Recommended separation distances between portable and mobile RF communications equipment and the [SW-1000S Plus scooter]**

The [SW-1000S Plus scooter] is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the [SW-1000S Plus scooter] can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the [SW-1000S Plus scooter] as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter /W	Separation distance according to frequency of transmitter /m		
	150 kHz ~ 80 MHz $d = 1.2 \sqrt{P}$	80 MHz ~ 800 MHz $d = 1.2 \sqrt{P}$	800 MHz ~ 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3

100	12	12	23
<p>For transmitters rated at a maximum output power not listed above, the recommended separation distance <math>d</math> in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p>NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

# 16.Specifications

**MEASUREMENTS ARE FOR GUIDANCE ONLY. SMALL DIFFERENCES MAY OCCUR**

PARAMETER	SW1000S
LENGTH	1000Smm
REAR WIDTH	490mm
HEIGHT	840mm
MAX. USER WEIGHT	120 kg (264 lbs)
BATTERY CAPACITY	12Ah
MAX SAFE SLOPE	10 degrees at 120 kg
TURN RADIUS	1500mm
NARROWEST FOR TURNING	2000mm
SEAT - BASE HEIGHT	350mm
MAX SPEED	8km/h
WHEEL DIAMETER FRONT	177.8mm*63.5mm
WHEEL DIAMETER REAR	203.2mm*76.2mm
CHARGER OFF-BOARD	2A
RANGE	18km
OVERALL WEIGHT	48kg
SEAT WEIGHT	12.5kg
BATTERY WEIGHT	5.0kg
FRONT BASKET WEIGHT	0.8kg
GROUND CLEARANCE	45mm
CONTROLLER (Dynamic)	DR50-A01 (Programmable by Dealer)
According to prevent electric shock category classification A.1.4	Internal power class
According to prevent electric shock category classification	B class
According to the classification on the degree of protection into the liquid	IPX4
In mixture with air of flammable gas and oxygen or nitrous oxide mixture of flammable gas conditions, classify by the safety degree	Not AP/APG
According to the operation pattern classification	continuous operation
volts of the mobility scooter power	24VDC (2 units)
Type of power	D.C.24V

## 17. Routine Maintenance

The following table gives an indication as to when routine maintenance checks should be made.

<b><i>There is no service manual available. Maintenance, fault finding and servicing should be carried out by an authorized dealer unless otherwise indicated</i></b>	Daily	Weekly	Quarterly	Annually
<b>The checks below can be carried out by the user</b>				
<b>Battery charge check (Fig. C)</b> Look at battery charge indicator on tiller before use to ensure batteries carefully charged.	•			
<b>Wipe over with a damp cloth</b> Use a damp soft cloth and mild detergent on panels, battery wells, tiller and seat.		•		
<b>Check tyres</b> Each tyre should be free of debris, oil, deep cuts or distortion.		•		
<b>Long overnight battery charge</b> Please ensure that the batteries are charged for a minimum of 8 hours.		•		
<b>Check tyres for wear (See Fig. A and Fig. B)</b> Look at the tyres to ensure that the tread is visible and continuous.			•	
<b>The checks below must be carried out by an authorized dealer</b>				
<b>Seat swivel, seat slide(where fitted)</b>				•
<b>Inspection of wiring and connectors for chafing and wear</b>				•
<b>Battery terminals</b>				•

Clean and protect with petroleum jelly.				
<b>Ensure parking brake (where fitted) is correctly adjusted</b>				●
<b>Check stabilizer wheels for wear</b>				●
<b>Inspect motor brushes</b>				●
<b>Full service by dealer</b>				●

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Fig.A

Fig.B

Fig.C

### **Storage**

When storing your scooter for long periods (in excess of one week), charge batteries for 12 hours and then disconnect the batteries to minimize battery discharge.

### **Electronic faults**

Do not attempt to investigate faults in the control box, the control pod or charger as the design and set up of the electronics is of a safety critical nature.

Spare parts and service are available from authorized dealers.

### **Replacing LED (where fitted)**

**Caution!** Disconnect batteries before changing LED.

### **Wheels**

Note: Wheels should only be removed and refitted by an authorized dealer.

# 18. Service History

This section is designed to assist you in keeping a record of any service and repairs to your scooter. Should you decide to sell or exchange your vehicle in the future, this will prove most helpful to you. Your Service Agent will also benefit from a documented record and this manual should accompany the scooter when service or repair work is carried out. The Service Agent will complete this section and return the manual to you.

Customer Name _____					Date _____ scooter				
purchased _____									
Address _____					Model _____				
_____									
Color _____									
Postcode _____					Serial				
No. _____									
<b>YEAR</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>YEAR</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Service dates</b>					<b>Service dates</b>				
<b>Controller</b>					<b>Upholstery</b>				
On/off switch					Seat				
Output plug					Back				
Operation					Armrest				
Dynamic braking					<b>Wheels/tyres</b>				
Programmable settings					Wear				
<b>Batteries</b>					Bearings				
Levels					Wheel nuts				
Connections					<b>Test run</b>				

Discharge test					Forwards				
<b>Motors</b>					Reverse				
Wiring					Emergency Stop				
Noise					Left turn				
Connections					Right turn				
Brake					Up/down slope				
Brushes					Over obstacle				
<b>Chassis</b>					Parking brake (where fitted)				
Condition					List items repaired/adjusted				
Steering									
<b>Electrics</b>									
Connections									
Lights(where fitted)									
Dealer stamp					Dealer stamp				
Date:      Signed:					Date:                      Signed:				
Dealer stamp					Dealer stamp				
Date:                      Signed:					Date:                      Signed:				

## 19. Trouble Shooting Guide

SYMPTON	POSSIBLE CAUSE	SOLUTION
Shortened range	Batteries not charged for long enough	Charge batteries for eight hours or more
	Batteries weak and cannot hold charge	Replace battery pack
Battery pack not charging or battery gauge shows empty after charging	Battery pack fault	Replace charger
	Charge fault	Contact local mobility dealer
	Charger loom or plug damaged	Check plugs and looms
	Loose connection	Try a wall socket in a different room
	No output from wall outlet	Unplug from wall & change fuse
	Fuse in charger mains plug blown	Switch off and press button back in
	Button on battery pack has popped out	Switch off and press button back in
	Output fuse in charger blown	Unplug from wall and contact dealer
Battery charging current high	Faulty batteries	Replace battery pack
	Scooter switched on during charging	Turn Scooter off
No drive	Brake-release lever disengaged	Engage brake-release lever
	Flat batteries	Charge battery pack
	Scooter is not switched on with key	Ensure the key is switched on



	Battery pack not engaged properly	Check battery pack is fully engaged onto connectors
	Charger plugged in	Unplug charger
	Button on battery pack popped out	Reset circuit-breaker button
	Disconnected loom or plugs	Check all plugs & looms
	Control system fault	Contact dealer
Motor runs irregularly and/or noisily	Electrical malfunction	Contact dealer
	Control system fault	Contact dealer
<b>DO NOT ATTEMPT TO OPEN ANY PARTS OF THE SCOOTER CONTROL SYSTEM, BATTERY PACK, LOOMS, PLUGS OR BATTERY CHARGER.</b> <b>THE CONTROL SYSTEM IS SAFETY CRITICAL AND THERE ARE NO USER SERVICEABLE PARTS</b>		

Your scooter is fitted with a self diagnostic controller that will give a sequence of audible beeps when an error is detected to help you, or the authorized service agent, determine the drive electronics fault.

Should you switch on the scooter and hear the beeps note the number of beeps, separated by a short delay between each sequence, and refer to the table below.

NUMBER OF BEEPS	REPRESENT	POSSIBLE CAUSE	SOLUTION
1	Battery power low	Power not enough	The battery needs harging
2	Low battery voltage	Power not enough	The battery needs harging
3	High battery voltage	Too higher voltage, while overloading or climbing	Decrease speed while climbing
			Check battery connection

4	electric current over limit	electric current over limit of motor	Check motor and relative wiring connections
			Switch off and wait a few minutes and Switch on.
5	Freewheel level issue	The freewheel level is on	Check the relative wiring of the freewheel level
			Confirm the level is on the correct position
6	Accelerate the variable resistor issue	When turning on the controller, accelerate variable resistor isn't on the neutral position	Make sure the accelerate variable resistor is on the neutral position
			Accelerate variable resistor may need to recalibration.
7	Speed limited variable resistor issue	accelerate variable resistor, Speed limited variable resistor or other wiring issue	Check all the accelerate variable resistor, Speed limited variable resistor or other wiring
8	Motor voltage issue	Motor and other relative wirings issue	Check Motor and other relative wirings
9	Other issues	Some inner issues in the controller	Check all the connection and wirings
10	Pushing/Slipping issues	The speed of pushing or slipping is over limited	Switch off and on the controller

## 20. Guarantee

### Warranty condition

1. The repair or replacement will be carried out by an authorized Dealer/Service Agent.
2. To apply the warranty conditions should your scooter require attention under these arrangements, notify the designated Service Agent immediately giving full information about the nature of the difficulty. Should you be operating the scooter away from the locality of the designated Service Agent work under the “Warranty Conditions” will be carried out by any other service agent designated by the manufacturer.
3. Should any part or parts of the scooter require repair or replacement as a result of a specific manufacturing or material defect within two years from the date on which the possession of the scooter was transferred to the original purchaser, and subject to it remaining within that ownership, then the part or parts will be repaired or replaced completely free of charge if returned to the authorized service agent.  
Note: This guarantee is not transferable.
4. Any repaired or replaced part will benefit from these arrangements for the balance of the warranty period applicable to the scooter.
5. Parts replaced after the original warranty has expired are covered for a further three months.
6. Items of a consumable nature will not generally be covered during the normal warranty period unless such items have clearly suffered undue wear as a direct result of an original manufacturing defect. These items include amongst others upholstery, tyres, inner tubes, batteries, armpads, hand grips and other similar parts.
7. The above warranty conditions apply to all scooter parts for models purchased at full retail price.
8. Under normal circumstances, no responsibility will be accepted where the scooter has required repair or replacement as a direct result of:
  - (i) The scooter or part not having been maintained in accordance with the manufacturer’s recommendations, where such exist. Or failing to use only the specified original equipment parts.
  - (ii) The scooter or part having been damaged by neglect, accident or

improper use.

(iii) The scooter or part having been altered from the manufacturer's specifications, or repairs having been attempted prior to the Service Agent being notified.

Please keep a note of your local Service Agent's address and telephone number in the space provided. In the event of a breakdown, contact them and try to give all relevant details so they can help you quickly.

The scooter shown and described in this manual may not be exactly the same in every detail as your own model. However, all instructions are still entirely relevant, irrespective of detail differences.

The manufacturer reserves the right to alter without notice any weights, measurements, or other technical data shown in this manual. All figures, measurements, and capacities shown in this manual are approximate, and do not constitute specification.

**THIS IN NO WAY AFFECTS YOUR STATUTORY RIGHTS.**

**Your local service agent:**

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