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# MOBILITY SCOOTER USER MANUAL

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Congratulations on the purchase of your new Illusion Mobility Scooter! The advanced ultra light-weight design of the Illusion with its superb leg room and streamline design ensures many years of enhanced trouble-free mobility. Correct use improves your mobility and quality of life.

**Your safety is important to us.**

Please read this owner’s manual before using the scooter. Improper use of the scooter could result in harm, injury or traffic accidents. Correct use improves your mobility and quality of life. This owner’s manual includes operation instructions for every aspect of the scooter.

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## 1.0 SAFETY GUIDELINES



**WARNING!** An authorized Provider or qualified technician must perform the initial setup of this scooter and must perform all of the procedures in this manual.

The symbols below are used throughout this owner's manual and on the scooter to identify warnings and important information. It is very important for you to read them and understand them completely.



**WARNING!** Indicates a hazardous situation that could result in serious injury or death if it is not avoided.



**CAUTION!** Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.



**IMPORTANT!** Indicates a hazardous situation that could result in damage to property if it is not avoided.



**USEFUL TIP!** Recommendations and information for efficient, trouble-free use.

Your scooter is a state-of-the-art life-enhancement device designed to increase mobility. We provide an extensive variety of products to best fit the individual needs of the scooter user. Please be aware that the final selection and purchasing decision regarding the type of scooter to be used is the responsibility of the scooter user who is capable of making such a decision and his/her health care professional (i.e., medical doctor, physical therapist, etc.).

The contents of this manual are based on the expectation that a mobility device expert has properly fitted the scooter to the user and has assisted the prescribing health care professional and/or the authorized provider in the instruction process for the use of the product.

There are certain situations, including some medical conditions, where the scooter user will need to practice operating the scooter in the presence of a trained attendant. A trained attendant can be defined as a family member or care professional specially trained in assisting a scooter user in various daily living activities.

As you begin using your scooter during daily activities you will probably encounter situations in which you will need some practice. Simply take your time and you will soon be in full and confident control as you manoeuvre through doorways, on and off elevators, up and down ramps, and over moderate terrain.

Additional general information can be found on the supplemental information sheets and booklets included in your Owner's Package. Please fully read and review the information, and keep it readily available for future reference.

## 2.0 PRE-RIDE SAFETY CHECK

Get to know the feel of your scooter and its capabilities. We recommend that you perform a safety check before each use to make sure your scooter operates smoothly and safely.

**Perform the following inspections prior to using your Travel Scooter:**

- Check the condition of the tyres. Make sure they are not damaged or excessively worn.
- Check all electrical connections. Make sure they are tight and not corroded.
- Check all harness connections. Make sure they are secured properly.
- Check the battery condition meter to ensure the batteries are fully charged.
- Ensure the manual freewheel lever is in drive mode before sitting on the Travel Scooter.
- Ensure the On/Off switch on the battery box is in the 'On' position. If you have the Endurance model choose which battery you are to have on first and switch accordingly.

If you discover a problem, contact your authorized Provider for assistance. Please refer to the Contact Information insert in your Owner's Package.



**WARNING! Never exceed the maximum permissible load – see 3.0 Specifications and never use the scooter to transport more than one person.**



**WARNING! Never drive the scooter under the influence of medication or alcohol.**



**WARNING! Never attempt to get onto or off your scooter without first removing the key from the key switch. This will prevent the scooter from moving if accidental throttle control lever contact is made.**



**WARNING! Never drive the scooter with tiller lock in the locked position.**

### 3.0 SPECIFICATION

Model Reference	Illusion
Speed (Max)	4 mph (6 km/h)
Travel Range (Max)*	10 mi. (16 km)*
Travel Range (Max)*- Endurance	20 mi. (32 km)*
Battery	1 x 24V 10Ah Lithium
Battery - Endurance	2 x 24V 10ah Lithium
User Weight (Max)	18 st. (115kg)
Heaviest Part When Disassembled	9.9 kg
Total Weight W/O Batteries	25 kg
Total Weight With Batteries	28 kg
Overall Length	1035 mm (41 in.)
Overall Width	490 mm (19 in.)
Overall Height	920 mm (36 in.)
Climbing Gradient (Max)	10 Degrees
Turning Radius (Min)	1370 mm (54 in.)
Ground Clearance (Max Mid Frame)	55 mm (2 in.)
Seat Type	Standard
Seat Width	460 mm (18 in.)
Seat Height	400-480 mm
Front Tyre	190 mm (7.5 in.) Solid Puncture Proof
Rear Tyre	190 mm (7.5 in.) Solid Puncture Proof
Suspension	Full Active Front & Rear
Lights	Front LED
Basket	Black Plastic
Tiller Lock	Yes
Tiller Type	Delta Handle
Charger	2 Amp
Charging Type	Battery Box / Tiller
Brake	Automatic Electromagnetic

**REMARK: One Rehab** reserves the right to modify the specification if necessary. The final specification is subject to the individual scooter you purchase from your dealer.

Note: Optional use arms and basket not included in weights shown.

\*Subject to user weight and terrain

## 4.0 COMPONENTS OF THE SCOOTER



- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1. Seat                            | 10. Charger Socket – Battery Box |
| 2. Seat Arm Pad                    | 11. Hub Cap                      |
| 3. Arm Rest Retaining Screw        | 12. Front Wheel                  |
| 4. Seat Swivel Lever               | 13. Battery Box                  |
| 5. Seat Post Retaining Screw       | 14. Seat Post Pin                |
| 6. LED Light                       | 15. Seat Post                    |
| 5. Tiller Adjuster Knob            | 16. Control Panel                |
| 6. Freewheel Lever                 | 17. Basket                       |
| 7. Anti Tip Wheel                  | 18. Front Light                  |
| 8. Rear Wheel                      | 19. Tiller Adjuster              |
| 9. On/Off Battery Box Switch*      | 20. Tiler Lock                   |
| 9. Left/Right Battery – Endurance* |                                  |

Your scooter is equipped with a number of elements and parts. You should know these before using the scooter. Designs and specifications may change without prior notice.

\*See page 10/11 battery switch use and page 18/19 for charging.

## 5.0 CONTROL PANEL

- |                             |                                 |
|-----------------------------|---------------------------------|
| 21. Battery Indicator/Gauge | 25. Horn Button                 |
| 22. Speed Adjustment Dial   | 26. Throttle Lever Forward/Back |
| 23. Key Switch              | 27. Charger Socket – Tiller     |
| 24. Tiller Handle           | 28. Light Switch                |



### 5.1 Battery Indicator/Gauge: (21)

Indicates the voltage of the batteries:

- Green – batteries are fully charged.
- Yellow – batteries are half full.
- Red – batteries need charging.
- Beeping sound continuing – batteries are out of charge. Please re charge batteries.

### 5.2 Speed Adjustment Dial: (22)

This dial allows you to preselect and limit your Scooter's top speed in the range of 0mph – 4mph:

- The image of the snail represents the slowest speed setting.
- The image of the hare represents the fastest speed setting.

### 5.3 Key Switch: (23)

This turns the power on and off your scooter.

- Insert the key into the key switch.
- Turn the key clockwise to turn on your scooters power. The battery indicator will light up to indicate that the power is on.
- Turn the key anti-clockwise to turn off your scooter's power. The battery indicator light will turn off to indicate the power is off.

### 5.4 Horn Button: (25)

This button activates a warning horn. Your scooter must be turned on for the horn to be operational. Do not hesitate to use the warning horn when doing so may prevent an accident or injury.

## 5.5 Throttle Control Lever – Forward/Back: (26)

This lever allows you to control the forward speed and the reverse speed of your scooter up to the maximum speed you pre-set with the speed adjustment dial.

Place your right hand on the right hand tiller handle and your left hand on the left hand tiller handle.

**To move forward, use either of the following:**

- Use your left thumb to push the left side of the throttle control lever.
- Use your right hand fingers to pull back on the right side of the throttle control lever.

**To move backward, use either of the following:**

- Use your right thumb to push the right side of the throttle control lever.
- Use your left hand fingers to pull back on the left side of the throttle control lever.

Release the lever and allow your scooter to come to a complete stop before pushing the other side of the lever to move in reverse. When the scooter is moving in reverse, the reverse beeper will sound.

When the throttle is completely released, it automatically returns to the centre “stop” position and engages your scooter’s brakes.

## 5.6 Charger Socket – Tiller: (27)

The Tiller Charger Socket allow the batteries to be charged without having to bend down and charge from the battery box charging socket – see ‘11.0 Batteries and Charging’ for further information.



**WARNING! Chargers are selected precisely for particular applications and are especially matched to the type, size, and chemical formulation of specific batteries. For the safest and most efficient charging of your scooter’s batteries, we recommend use of the charger supplied as original equipment with your product only. Any charging method resulting in batteries being charged individually is especially prohibited.**



**WARNING! Do not attempt to disassemble the battery from the battery pack or refit the battery.**



**WARNING! If your battery charger has not been tested and approved for outdoor use, then do not expose it to adverse or extreme weather conditions. If the battery charger is exposed to adverse or extreme weather conditions, then it must be allowed to adjust to the difference in environmental conditions before use indoors. Refer to the manual supplied with the battery charger for more information.**

## 5.7 Light Switch: (28)

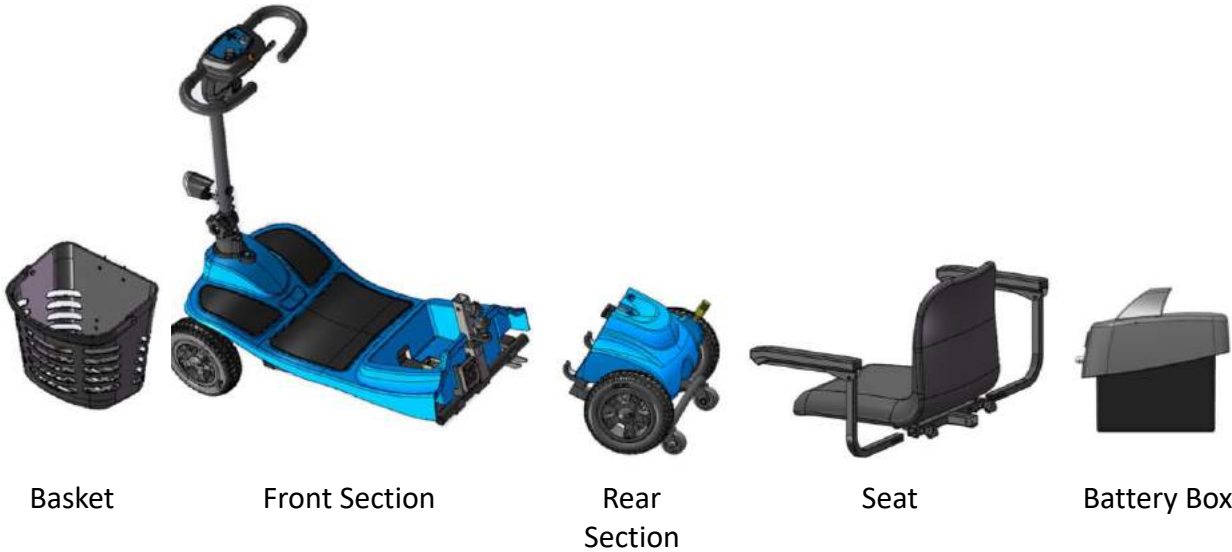
The light switch turns the front LED light on and off.

**i USEFUL TIP!** There is also a switch on the back of the light so check that this is on if the light is not working.



## 6.0 ASSEMBLY OF YOUR SCOOTER

The scooter assembles from five main pieces: the basket, front section, rear section, seat and battery box as shown below:



- When disassembling or assembling your scooter, always make sure you have sufficient room to move the parts around. You may need assistance to lift some of the scooter components.
- See “Specifications” for individual component weights.
- No tools are required to disassemble or assemble your scooter. Always disassemble or assemble your scooter on a level, dry surface with sufficient space for you to work and move around your scooter. Keep in mind that the disassembled sections of the scooter take up more floor space than the assembled scooter.



**CAUTION! Lifting weight beyond your physical capability may result in personal injury. Ask for assistance when necessary while disassembling or assembling your scooter.**

### 6.1 TILLER ADJUSTMENT KNOB

- Loosen the tiller adjustment knob by tuning anti-clockwise - see below.
- Raise the tiller to the required position.
- Fully tighten the adjustment knob by turning clockwise making sure the tiller is securely positioned with the teeth fully engaged together.



Tiller adjustment knob



**WARNING! Never operate the scooter unless the tiller is raised, the teeth are fully engaged and the tiller adjustment bolt fully tightened and securely positioned.**

## 6.2 TILLER LOCK

- The scooter has been provided with a tiller lock which makes transporting and carrying the scooter easier. It is only to be used when the scooter is dismantled, either for transportation or storage.
- To unlock - fully press the tiller lock button down then quickly release your finger. The button will spring up to the unlocked position. The tiller will now move sideways.
- To lock – set the wheels to be directly facing forward, press the tiller lock button down firmly and release your finger. The button will stay down in the locked position.

**Tiller Lock in un-locked position:**



**Tiller Lock in locked position:**



**WARNING! Never drive the scooter with tiller lock in the locked position.**

## 6.3 CONNECTING FRONT & REAR SECTIONS

- Connect the front and rear sections by aligning them and gently lifting the front section onto the two hooks of the rear section. (See Fig 6.3.1) Make sure the rear section is tipping back to allow the front section to lower into the correct position.
- Make sure the front and rear sections are securely and correctly connected. (See Fig 6.3.2)



**CAUTION! When assembling the front and rear sections together keep fingers well clear of 'pinch points'.**



Fig 6.3.1



Fig 6.3.2

#### 6.4 SEAT POST

- Adjust seat post to your require height by using the seat post pin provided. Then securely tighten seat post retaining screw. (See Fig 6.4.1)



Fig 6.4.1

#### 6.5 FITTING & USE OF BATTERY BOX

- Carefully lower the battery box into position on the scooter making sure the box is securely and fully connected to the battery connector. (See Fig 6.5.1)



Fig 6.5.1

- **For the standard size 10ah** battery, switch the On/Off switch (see Fig 6.5.2) on the front of the battery pack to the 'On' position. The switch needs to 'On' for both driving and charging the scooter, (see page 18/19 for battery charging). For storage and travel it is recommended to switch to the Off position.



Fig 6.5.2

- **For the Endurance twin 10ah battery model** select which battery you are to use first and switch accordingly (Fig 6.5.3), (see page 18/19 for battery charging). Note; The Endurance box will not switch off.



Fig 6.5.3

- You are now able to drive the scooter.
- When the battery indicator gauge gets to the last amber light shown on the battery indicator, stop the scooter and turn the switch (Fig 6.5.3) to the other battery. If at all possible, avoid full discharges of the battery.

**!** **IMPORTANT!** Do not let the batteries fully discharge as this will decrease battery life.

**!** **IMPORTANT!** When using the Endurance twin battery box, if you are not always using both batteries then alternate the use of the two batteries to maintain even use and help prolong battery life.



**CAUTION!** The Endurance twin batteries need to be both used and charged as individual batteries.

## 6.6 FITTING SEAT

- Stand behind the scooter and with both hands lower the seat onto the seat post making sure the seat is straight above the seat post. (See Fig 6.6.1) If the seat is not straight on the seat post you will not be able to fully lock the seat. Make sure seat has fully locked onto seat post.
- Fix arm rests and adjust to the required width, then tighten arm rest retaining screws securely. (See Fig 6.6.2)



Fig 6.6.1



Fig 6.6.2



**CAUTION!** Make sure the seat is fully locked onto the seat post before sitting.

## 6.7 FREEWHEEL LEVER

- The Freewheel lever on the scooter is located on the rear section of the scooter. Before driving the scooter needs to be put into the drive position. The two positions are:

**1. Drive position** - is indicated by 'Closed' - pull the lever backwards for this position. (Fig 6.7.1)

**2. Freewheel position** - is indicated by 'Open' – push the lever forwards for this position. (Fig 6.7.2)

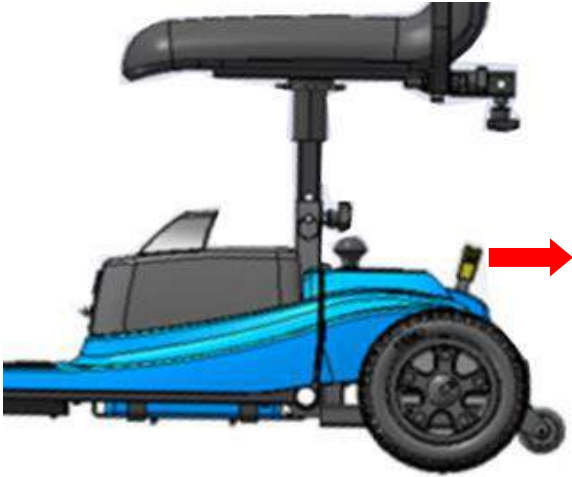


Fig 6.7.1 Drive Mode (Closed)

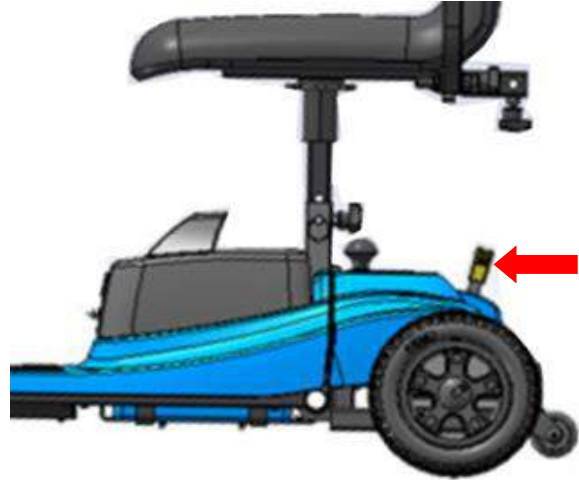


Fig 6.7.2 Freewheel Mode (Open)



**WARNING!** Before placing your scooter into or taking it out of freewheel mode, remove the key from the key switch. Never sit on the scooter when it is in freewheel mode. Never put your scooter in freewheel mode on any incline.



**WARNING!** When your scooter is in freewheel mode, the braking system is disengaged.



**WARNING!** Disengage the drive motors only on a level surface.



**WARNING!** Ensure the key is removed from the key switch.



**WARNING!** Stand to the side of the scooter to engage or disengage freewheel mode. Never sit on a scooter to do this.



**WARNING!** After you have finished pushing your scooter, always return it to the drive mode to lock the brakes.

## 6.8 FITTING BASKET

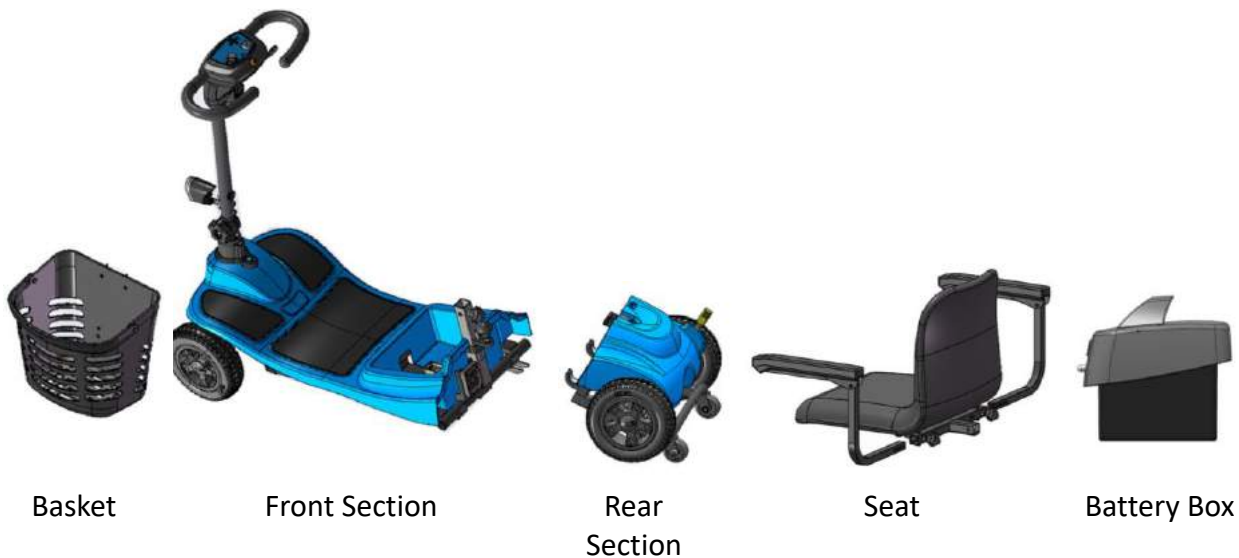
- Place basket onto bracket and make sure it is securely fixed. (See Fig 6.8.1)



Fig 6.8.1

## 7.0 DISASSEMBLY OF YOUR SCOOTER

The scooter disassembles into five main pieces: the basket, front section, rear section, seat and battery box as shown below:



- When disassembling or assembling your scooter, always make sure you have sufficient room to move the parts around. You may need assistance to lift some of the scooter components.
- See “Specifications” for individual component weights.
- No tools are required to disassemble or assemble your scooter. Always disassemble or assemble your scooter on a level, dry surface with sufficient space for you to work and move around your scooter. Keep in mind that the disassembled sections of the scooter take up more floor space than the assembled scooter.

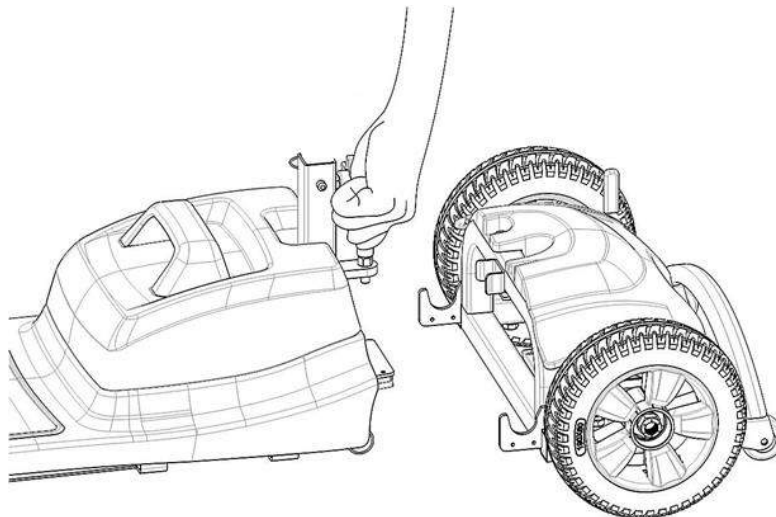


**CAUTION! Lifting weight beyond your physical capability may result in personal injury. Ask for assistance when necessary while disassembling or assembling your scooter.**

- 7.1 REMOVE THE SEAT** - Stand behind the scooter and fold the seat back down, then with both hands lift seat directly upwards.
- 7.2 REMOVE THE BATTERY BOX** - Grip the battery box handle firmly and lift directly upwards and off the scooter.
- 7.3 REMOVE THE BASKET** – Stand in front of the scooter and lift basket directly upwards off the basket bracket.
- 7.4 FOLD DOWN THE TILLER**
  - Loosen the tiller adjustment knob by turning anti-clockwise.
  - Carefully lower the tiller.
  - With the tiller in its lowered position, tighten the adjustment knob by turning clockwise making sure the tiller is securely positioned – see Assembly 6.1
  - Lock the tiller lock – see Assembly 6.2

#### **7.5 DISCONNECTING FRONT & REAR SECTIONS**

- Lift the tiller splitter knob. (See Fig 7.5.1) The front and rear sections will then be disconnected.



**Fig 7.5.1**

#### **8.0 BEFORE GETTING ON TO YOUR SCOOTER**

- Keep your batteries fully charged and avoid deeply discharging your batteries.
- Never leave the manual freewheel lever in the forward position unless you are manually pushing your scooter.
- Make sure the On/Off switch on the battery box is in the 'On' position. If you have the Endurance model, choose which battery to be on first.



**WARNING!** Never attempt to get onto or off of your scooter without first removing the key from the key switch. This will prevent the scooter from moving if accidental throttle control lever contact is made.



**WARNING! Never sit on the scooter when it is in freewheel mode.**



**WARNING! Never exceed the maximum permissible load – see 3.0 Specifications and never use the scooter to transport more than one person.**



**WARNING! Never drive the scooter under the influence of medication or alcohol.**



**WARNING! Never drive the scooter with tiller lock in the locked position.**

## **8.1 GETTING ONTO YOUR SCOOTER**

1. Make certain that the key is removed from the key switch.
2. Make sure the tiller is in the un-locked position.
3. Stand at the side of your scooter.
4. Disengage the seat rotation lever and rotate the seat until it is facing you.
5. Make certain that the seat is secured into position.
6. Position yourself comfortably and securely in the seat.
7. Disengage the seat rotation lever and rotate the seat until you are facing forward.
8. Make certain that the seat is secured into position.
9. Make certain that your feet are safely on the floorboard.



**WARNING! The following can adversely affect steering and stability while operating your scooter:**

- Holding onto or attaching a leash to walk your pet.
- Carrying passengers (including pets).
- Hanging any article from the tiller.
- Towing or being pushed by another motorized vehicle.



**IMPORTANT! Keep both hands on the tiller and your feet on the floorboard at all times while operating your scooter. This driving position gives you the most control over your vehicle.**



## 9.0 OPERATING YOUR SCOOTER

### 9.1 STARTING

- Make sure you are seated safely and properly on your scooter.
- Turn the speed adjustment dial fully anti-clockwise to the slowest setting.
- Insert the key into the key switch.
- Turn the key clockwise to the "On" position.
- Place your hands on the handgrips:
  - Pull on the left hand grip to steer your scooter to the left.
  - Pull on the right hand grip to steer your scooter to the right.
- Move the tiller to the centre position to drive straight ahead.
- Slowly engage the throttle control lever to gently accelerate your scooter forwards by either:
  - Use your left thumb to push the left side of the throttle control lever forward.
  - Use your right hand fingers to pull back on the right side of the throttle control lever.
- To stop release the throttle control lever to allow your scooter to stop gradually. The electronic brakes will automatically engage when your scooter comes to a stop.

### 9.2 STEERING

- Place both hands on the handgrips of the tiller, turn the tiller to the right to travel right – never turn at high speeds as this will result in loss of control.
- Turn the tiller to the left to turn left – never turn at high speeds as this will result in loss of control.
- Make sure to maintain sufficient clearance when turning your scooter so that the rear wheels will be clear of any obstacles.
- Show even greater caution when steering in reverse.



**WARNING! Turning your scooter too sharply at high speed will cause loss of control and balance and will result in the scooter tipping over resulting in serious injury or death.**

### 9.3 DRIVING ON INCLINES, HILLS, SLOPES AND RAMPS

- When driving your scooter, never descend or climb a gradient which is greater than recommended – see 3.0 Specifications. Failure to do so could result in serious injury or death.
- When driving up a ramp, curb or incline - lean forward to move the centre of gravity of the scooter forward for maximum stability and safety.
- Drive with extreme caution when attempting to drive up or down any incline, access ramp etc, always drive at a slow speed.
- Always drive straight up or straight down an incline, ramp, slope etc.
- Never drive across (traverse) an incline, ramp etc, in any direction – Driving across an incline, ramp etc could result in turning the scooter over resulting in serious injury or death.
- Try to keep your scooter moving when climbing or descending an incline. If you have to stop, restart and accelerate slowly and carefully.



**WARNING!** Never descend or climb a gradient which is greater than the recommended maximum see 3.0 Specifications°.



**WARNING!** Never drive across (traverse) an incline, ramp etc, in any direction.



**WARNINIG!** The anti-tip wheels are only effective on firm ground. They will sink into soft ground such as grass, snow or mud if the scooter rests on them. They will lose their effect and the scooter can tip over.



**WARNING!** While you are driving down a slope, if your scooter starts to move faster than you feel safe, release the throttle control lever slowly. It will allow your scooter to decelerate and slow down.

#### **9.4 DROP CURBS**

- Always be cautious when descending a drop curb.
- Approach the curb so that both back wheels of your scooter go over the curb at the same time.
- Never go down curbs by traversing them. Doing this will cause the scooter to tip over resulting in serious injury or death.
- Drive down curbs slowly to avoid jarring bumps.

#### **9.5 GRASS AND GRAVEL**

- Your scooter performs well on short firm grass and hills but you must follow the operational parameters presented in this manual. If you are unsure about any situation, avoid it.
- Avoid driving in long grass, this will result in grass wrapping around you scooters axle and potential damage to the scooter.
- Avoid driving on loose gravel, this will result in loss of control of the scooter.



**WARNINIG!** The anti-tip wheels are only effective on firm ground. They will sink into soft ground such as grass, snow or mud if the scooter rests on them. They will lose their effect and the scooter can tip over.

## 10.0 GETTING OFF YOUR SCOOTER

1. Bring your scooter to a complete stop.
2. Remove the key from the key switch.
3. Disengage the seat rotation lever and rotate the seat until you are facing toward the side of your scooter.
4. Make certain that the seat is secured into position.
5. Carefully and safely get out of the seat and stand to the side of your scooter.
6. You can leave the seat facing to the side to facilitate boarding your scooter next time.



**WARNING! Never attempt to get onto or off of your scooter without first removing the key from the key switch. This will prevent the scooter from moving if accidental throttle control lever contact is made.**

## 11.0 BATTERIES AND CHARGING

### 11.1 GENERAL INFORMATION & INSTRUCTIONS ON CHARGING

Your scooter requires a lithium battery that is sealed and maintenance free. The battery is recharged by the supplied off-board charging system.

- Fully charge your travel scooter's battery for at least 10 to 12 hours prior to using it for the first time. The new battery will be at its full capacity after having run through approx. 10-20 charging cycles (break-in period). This break-in period is necessary to fully activate the battery for maximum performance and longevity.
- Keep the battery fully charged to keep your scooter running smoothly. Charge the battery daily after every discharge even after partly discharge. Depending on the level of discharge, it can take up to 12 hours until the battery is fully charged again.
- If the battery indicator has reached the red LED range, charge the battery for 16 hours minimum, ignoring the charge complete display!
- Even if the scooter is unused for long period of time, the battery should have a 24 hour charge once a week to make sure that it is fully charged.
- Do not cycle your battery at a low state of charge without regularly recharging it fully.
- Do not charge your battery under extreme temperatures. High temperatures above 30°C are not recommended for charging as well as low temperatures below 10°C.
- You cannot overcharge the battery when using the charger supplied with your vehicle, or a charger that has been approved by One Rehab.
- Protect your charger from sources of heat such as heaters and direct sunlight. If the battery charger overheats, charging current will be reduced and the charging process delayed.

### 11.2 CHARGING YOUR BATTERIES

- Make sure you read and understand the battery chargers user manual, if supplied, as well as the safety notes on the charger.
- Turn off the scooter power and remove the key
- Decide on which charging socket to use - You have a choice of two charging sockets:
  1. Battery Box Socket (allows you to charge batteries 'off board' e.g. in your house)  
(Fig 11.2.1)

2. Tiller Charging Socket (saves you having to bend down to plug in charger) (Fig 11.2.2)
- Slide away the cover of the charger outlet point either positioned on the front of the battery box (Fig 11.2.1) or the Tiller Charging Socket (Fig 11.2.2).



(Fig 11.2.1)



(Fig 11.2.2)

### 11.3 CHARGING THE STANDARD 10AH BATTERY

- **For the standard size 10ah battery**, switch the On/Off switch (see Fig 11.2.3) on the front of the battery pack to the 'On' position.
- Put the charger plug into the outlet point.
- Do not switch on the battery charger until all the plugs are in position.
- The LED light on the battery charger will show amber while charging.
- The LED light on the battery charger will show green when batteries are fully charged.
- Turn off the mains power to the charger before removing the charger plug from charging outlet.

### 11.4 CHARGING THE TWIN ENDURANCE BATTERY

- **For the Endurance model** with the twin battery box (see Fig 11.2.4) choose which battery you are to charge and press the button as shown for either the left or right battery.
- Put the charger plug into the outlet point.
- Do not switch on the battery charger until all the plugs are in position.
- The LED light on the battery charger will show amber while charging.
- The LED light on the battery charger will show green when batteries are fully charged.
- Now switch the button (Fig 11.2.4) to turn on the other battery and repeat the battery charging process for the second battery.
- Turn off the mains power to the charger before removing the charger plug from charging outlet.



Fig 11.2.3



Fig 11.2.4



**CAUTION!** The Endurance twin batteries need to be both used and charged as individual batteries.



**WARNING! Risk of explosion and electric shock if batteries are charged when incorrectly wired.** Never attempt to open or disassemble the battery box. If the batteries do not appear to be working correctly, contact your authorized provider.



**WARNING! Risk of explosion and destruction of batteries if the wrong battery charger is used.** Only ever use the battery charger supplied with your vehicle, or a charger that has been approved by One Rehab. Never charge 10 Ah batteries with a 5 Ah battery charger. Always use a 2 Ah battery charger.



**WARNING! Do not use or store the battery near sources of heat such as a fire or heater.**



**WARNING! Never attempt to open or disassemble the charger.** If the battery charger does not appear to be working correctly, contact your authorized provider.



**WARNING! Do not use the battery if it gives off an odour, generates heat or appears abnormal in any way.** If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue use.



**WARNING! Risk of electric shock and damage to the battery charger if it gets wet.** Always protect the battery charger from water and always charge in a dry environment.



**WARNING! Risk of short circuit and electric shock if the battery charger has been damaged.** Never use the charger if it has been dropped or damaged.



**WARNING! Risk of electric shock and damage to the batteries –** Never attempt to recharge the batteries by attaching cables directly to the battery terminals.



**WARNING! Risk of fire and electric shock if a damaged extension cable is used.** Only ever use an extension cable if it is absolutely necessary. If you have to use an extension cable make sure it is in good condition.



**WARNING! Risk of injury if using the scooter during charging.** Do not attempt to recharge the batteries and operate the scooter at the same time. Do not sit in the scooter while charging the batteries.



**WARNING!** Chargers are selected precisely for particular applications and are especially matched to the type, size, and chemical formulation of specific batteries. For the safest and most efficient charging of your scooter's batteries, we recommend use of the charger supplied as original equipment with your product only. Any charging method resulting in batteries being charged individually is especially prohibited.



**WARNING!** Never attempt to disassemble the battery from the battery box or refit the battery. Contact your authorized provider.



**WARNING!** If your battery charger has not been tested and approved for outdoor use, then do not expose it to adverse or extreme weather conditions. If the battery charger is exposed to adverse or extreme weather conditions, then it must be allowed to adjust to the difference in environmental conditions before use indoors. Refer to the manual supplied with the battery charger for more information.



**WARNING!** Never use or store the battery where it is exposed to high temperatures. Leaving the battery in a car on a hot day or in an area of direct sunlight such as a window will reduce battery performance and shorten service life.

## **12.0 EMI / RFI**

The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (radio) waves that are emitted by television transmitters, cellular phones, citizen's band radios (CB's), amateur radios (ham radios), wireless computer left, microwave transmitters, paging transmitters etc. These electromagnetic (EM) waves are invisible and increase in strength the closer one gets to the source of transmission. When these energy waves act upon electrical devices and cause them to malfunction or to function in an erratic or uncontrolled manner, they are referred to as Electromagnetic Interference (EMI) or Radio Frequency Interference (RFI).

### **EMI / RFI and your scooter**

All electrically powered vehicles, including scooters are susceptible to Electromagnetic Interference / Radio Frequency Interference (EMI / RFI). This interference could result in abnormal, unintended movement of your scooter.



**WARNING!** Unintended movement or brake release can cause an accident or injury

The FDA has determined that each make and model of scooter can resist EMI / RFI to a certain level. The higher the level of resistance, the greater the degree of protection from EMI / RFI – measured in volts per meter (V/m). The FDA has also determined that current technology is capable of providing 20 V/m of resistance to interference. This product has been tested and has passed an immunity level of 20 V/m.

EMI / RFI recommendations

- Do not turn on or use hand-held personal electronic communication devices such as cellular phones, walkie-talkies and CB radios while your scooter is turned on;
- Be aware of any nearby transmitters (radio, television, microwave, etc.) on your intended route and avoid operating your scooter close to any of those transmitters;
- Turn off the power if your scooter is going to be in a stationary position for any length of time;
- Be aware that adding accessories or components or modifying your scooter may make it more susceptible to EMI / RFI;



**WARNING! Turn off your scooter as soon as it is safely possible if unintended or uncontrollable motion occurs or if unintended park brake release occurs.**

**13.0 DAILY CHECKING**

Check the following items before driving. If you find anything abnormal, contact your scooter dealer for a further inspection before using it.

Item	Inspection Content
Handle bar	Is it tight? Can they be turned left or right smoothly?
Speed Dial	Can it be adjusted freely and function well?
Throttle Lever	Does the scooter move when the lever is engaged? Does the scooter stop when the lever is released completely?
Motor	Is there any abnormal noise from the motor? Does the electromagnetic brake work properly?
Battery Gauge	Does the gauge move to green when switched “ON”? Is the remaining power enough for your trip?
Horn Button	Does the horn work?
Seat	Is the seat on properly?

**13.1 REGULAR CHECKING RECORD**

To make sure your scooter is in good condition, go to your scooter dealer regularly.

**13.2 CIRCUIT BREAKER**

There is one button for the circuit breaker (located on the battery pack), if the power switch is “ON” and the battery gauge does not move, it is possible an electric current has overloaded the scooter. Reset the circuit breaker by pressing the button.

### 13.3 TYRES

The condition of the tyres depends on how you drive and use your scooter.

#### Inspecting Tyre Treads

Please check the tread depth regularly. Replace the tyres when the tread depth is less than 0.5 mm.

### 14.0 MAINTENANCE

1. Do not use water, oil or other chemical solutions to clean your scooter. Be sure NOT to spray the scooter with the water as this can damage the electronic components. Please clean the scooter by wiping it with either a dry or moist cloth.
2. Please take the scooter to authorized dealers for repairs and adjustments. Improper adjustments could lead to accidents and scooter malfunction.

### 15.0 BASIC TROUBLESHOOTING

This table is only a guide to aid you in getting your scooter operating, should you have any problems. If you are unable to get your scooter operating, please contact your Scooter Dealer.

Symptom	Possible	Solution
Scooter does not move	<ol style="list-style-type: none"><li>1. Key switch is not "ON"</li><li>2. Main circuit breaker tripped</li><li>3. Brake release lever in 'Freewheel Mode'</li><li>4. Charger connected to outlet</li><li>5. Battery power low</li><li>6. Scooter shuts down to conserve battery</li><li>7. Controller error</li></ol>	<ol style="list-style-type: none"><li>1. Turn key switch to "ON"</li><li>2. Reset circuit breaker</li><li>3. Place lever in 'Drive Mode'</li><li>4. Disconnect charger</li><li>5. Recharge battery</li><li>6. Turn key switch "OFF", then "ON"</li><li>7. Check Power light for Flash Code (See 16.0 Flash Codes to get a solution)</li></ol>
Range less than expected	<ol style="list-style-type: none"><li>1. Charging too infrequently</li><li>2. Defective or worn out battery</li><li>3. Cold weather reduces battery life</li><li>4. Defective charger</li></ol>	<ol style="list-style-type: none"><li>1. Charge scooter more often</li><li>2. Load test batteries. If necessary replace.</li><li>3. Allow batteries to reach room temperature and then fully recharge</li><li>4. Contact your Scooter Dealer</li></ol>



## 16.0 FLASH CODES

### Scooter controller internal diagnostics

The diagnostic flash codes for your scooter are designed to help you perform basic troubleshooting quickly and easily. A diagnostic flash code flashes from the Power light in the event one of the conditions listed below develops.

FLASH CODE	FAULT	CONSEQUENCE FOR THE SCOOTER	SOLUTION
1	Battery charge is too low.	Scooter continues to drive.	<ul style="list-style-type: none"> <li>Charge batteries.</li> </ul>
2	Battery charge is depleted.	Scooter stops driving.	<ul style="list-style-type: none"> <li>Charge batteries.</li> </ul>
3	Battery voltage is too high.	Scooter stops driving.	<ul style="list-style-type: none"> <li>If the charger is connected, disconnect it from the scooter.</li> <li>The electronic system charges the batteries when running downhill and when braking. This fault is caused when the battery voltage becomes too high during this process. Switch the scooter off and on again and if traveling downhill reduce speed to the minimum setting.</li> </ul>
4	Power time exceeded.	Scooter stops driving.	<ul style="list-style-type: none"> <li>The maximum current has been exceeded over too long a period, probably because the motor has been overloaded. Switch the scooter off for a few minutes, then turn back on again.</li> </ul>
5	Brake error.	Scooter stops driving.	<ul style="list-style-type: none"> <li>Ensure the manual freewheel lever is in the drive position and restart the scooter.</li> <li>There is a fault with the magnetic brake or wiring – contact your authorized dealer of assistance.</li> </ul>
6	Throttle control lever not at centre position when switching on scooter.	Scooter stops driving.	<ul style="list-style-type: none"> <li>Put the throttle control lever in the central position, turn the power off and then turn on again.</li> <li>It may be necessary to replace the throttle control lever - Contact your authorized dealer for assistance.</li> </ul>
7	Speed Pot or Throttle Pot error.	Scooter stops driving.	<ul style="list-style-type: none"> <li>The Speed or Throttle Pot could be faulty or incorrectly connected - Contact your authorized dealer for assistance.</li> </ul>
8	Motor voltage error.	Scooter stops driving.	<ul style="list-style-type: none"> <li>The motor or its wiring is faulty - Contact your authorized dealer for assistance.</li> </ul>
9	Other internal errors.	Scooter stops driving.	<ul style="list-style-type: none"> <li>Contact your authorized dealer for assistance.</li> </ul>

## **17.0 WARRANTY**

### **WARRANTY POLICY:**

**LIMITED WARRANTY. IMPORTANT NOTICE – TO ENSURE THIS WARRANTY IS VALIDATED IT HAS TO BE COMPLETED AND RETURNED TO ONE REHAB WITHIN 14 DAYS OF PURCHASE**

### **17.1 TWO-YEAR LIMITED WARRANTY**

Two years on all structural frame components; fork, seat post, and frame.

Structural Frame Components, including

1. Main Frame
2. Fork
3. Seat Post
4. Tiller Frame

### **17.2 ONE-YEAR LIMITED WARRANTY:**

For one (1) year from the date of delivery, we will replace at our discretion to the original purchaser, free of charge, any part or electronic component found upon examination by an authorized representative of One Rehab to be faulty.

1. Electronic controllers
2. Transaxle
3. Motor & Brake: (electronic function ONLY).
4. Charger
5. Any other electrical subassembly

NOTE: If there is an increase in the noise level from the transaxle, the warranty does not apply. An increase in operational noise level usually occurs due to excessive strain on the scooter.

### **17.3 BATTERIES**

**Batteries are covered by a six (6) month warranty from the original manufacture and a further six (6) month warranty at the discretion of One Rehab.**

**Note: Gradual deterioration in performance due to batteries being left in a discharged state, left in cold conditions for long periods of time or worn out through heavy use is not covered.**

#### **17.4 WARRANTY EXCLUSIONS**

1. ABS plastic shrouds and footrest covers (wear items are not warranted).
3. Tyres and Anti-tip Wheels (wear items are not warranted).
4. Upholstery and seating (wear items are not warranted).
5. Motor Brushes.
6. Brake Pads (wear items are not warranted).
7. Fuses.
8. Repairs and/or modifications made to any part of the scooter without specific and prior consent from **One Rehab**.
9. Circumstances beyond the control of **One Rehab**.

Exclusions also include components with damage caused by:

1. Contamination (rain, etc).
2. Abuse, misuse, accident, or negligence.
3. Commercial use, or use other than normal.
4. Improper operation, maintenance, or storage.

**NOTE:** Gradual deterioration in performance because the battery has been left in a discharged state, left in cold conditions for an extended period of time, or worn out through heavy use is not covered by the warranty.

#### **17.5 SERVICE CHECKS AND WARRANTY SERVICE**

This warranty is extended only to the original purchaser. Your original receipt will be necessary as proof of purchase before any warranty performances are rendered.

This warranty only covers failures due to defects in materials or workmanship which occur during normal use and does not cover damage that occurs in shipment or failures which are caused by products not supplied by **One Rehab** or failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, commercial use or by anyone other than an authorized dealer, or damage that is attributable to the acts of God.

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 specifications.

#### **Important**

**This warranty is void if the original scooter serial number tag is removed or altered. To validate the warranty this form must be filled online (where applicable) or posted to One Rehab (Unit 1, Fernwood Estate, Shillinglee Road, Chiddingfold, GU8 4SX within 14 days of purchasing the scooter.**

#### **17.6 NOTICES TO CONSUMER**

There are no other express warranties. To the extent permitted by law, any implied warranty (including a warranty of merchantability or fitness for a particular purpose) is limited to:

1. One (1) year from the day of original delivery
2. Repair or replacement of the defective part only.

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