



# LITHIUM VANTAGE



## MOBILITY SCOOTER USER MANUAL

Congratulations on the purchase of your new Vantage Mobility Scooter! The advanced design of the Vantage with its 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.

## Contents

1.0	SAFETY GUIDELINES	3
2.0	PRE RIDE SAFETY CHECK	4
3.0	SPECIFICATION	5
4.0	COMPONENTS OF THE SCOOTER	6
5.0	OPERATION - CONTROL PANEL	7-9
6.0	OPERATION - SCOOTER ASSEMBLY	9-14
7.0	OPERATION - SCOOTER DISASSEMBLY	15-16
8.0	OPERATION - GETTING ON YOUR SCOOTER	17-18
9.0	OPERATION - OPERATING YOUR SCOOTER	18-20
10.0	OPERATION - GETTING OFF YOUR SCOOTER	20
11.0	OPERATION - BATTERIES AND CHARGING	21-24
12.0	EMI	25
13.0	CARE & MAINTENANCE	26-27
14.0	OTHER INFORMATION	28
15.0	BASIC TROUBLESHOOTING	29
16.0	FLASH CODES	30
17.0	WARRANTY	31-33

## 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 when using the scooter.

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 CHECKS

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 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.

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



**WARNING!** This complete user manual should be read and fully understood before using and driving the scooter.



**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.



**WARNING!** This scooter is not intended for use as a seat in a motor vehicle. The scooter could fail in a vehicle impact, leading to serious injury or death of the occupant or injury to others.

### 3.0 SPECIFICATION

Model Reference	Lithium Vantage 34ah
Speed (Max)	4mph (6km/h)
Travel Range (Max)*	2 mil. (32 km)*
Battery	1 x 24V 34Ah Lithium
User Weight (Max)	26st. (170kg)
Heaviest Part when Disassembled	18 kg
Total Weight W/O Batteries	47kg
Total Weight With Batteries	53kg
Overall Length	1200mm
Overall Width	550mm
Overall Height	940mm
Climbing Gradient (Max)	6 Degrees
Turning Radius (Min)	1540mm
Ground Clearance (Max Mid Frame)	110mm (4.5in.)
Seat Type	Deluxe Adjustable
Seat Width	460mm (18in.)
Seat Height	440-500mm
Front Tyre	230mm (9in.) Solid Puncture Proof/Pneumatic
Rear Tyre	230mm (9in.) Solid Puncture Proof/Pneumatic
Pneumatic Tyre Pressure	35 psi (Max)
Suspension	Adjustable Front & Rear
Lights	Front LED
Basket	Black Plastic
Tiller Lock	Yes
Tiller Type	Delta Handle
Charger	5 Amp Lithium
Charging Type	Off-board via Battery Box/Tiller Charger
Brake	Automatic Electromagnetic

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

\*Subject to user weight and terrain

## 4.0 COMPONENTS OF THE SCOOTER



1. Seat
2. Seat Arm Pad
3. Arm Rest Retaining Screw
4. Seat Swivel Lever
5. Seat Post Retaining Screw
6. Freewheel Lever
7. Anti Tip Wheel
8. Rear Wheel
9. Re-set Button
10. Charger Socket - Battery Box

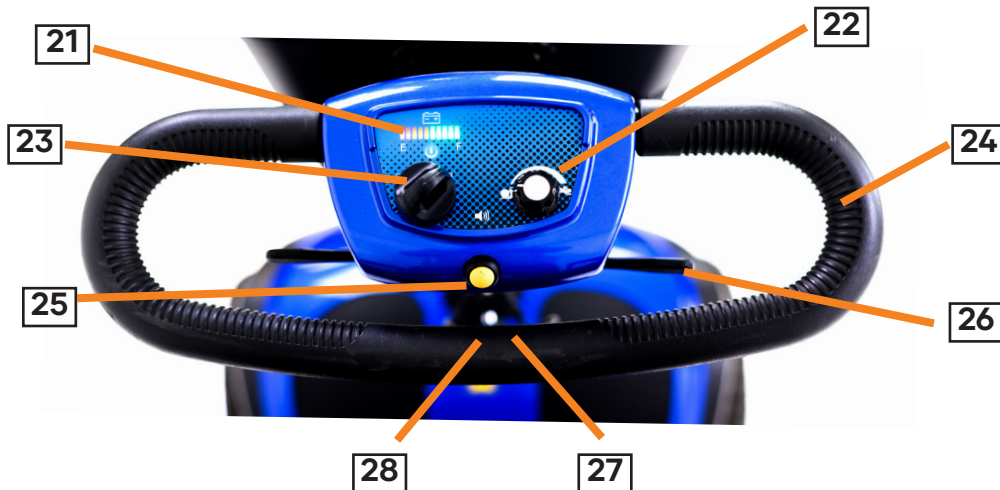
11. Hub Cap
12. Front Wheel
13. Battery Box
14. Seat Post Pin
15. Seat Post
16. Control Panel
17. Basket
18. Front Light
19. Tiller Adjuster
20. Tiller Lock

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.

## 5.0 CONTROL PANEL

- 21. Battery Indicator/Gauge
- 22. Speed Adjustment Dial
- 23. Key Switch
- 24. Tiller Handle

- 25. Horn Button
- 26. Throttle Lever Forward/Back
- 27. Charger Socket – Tiller
- 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)

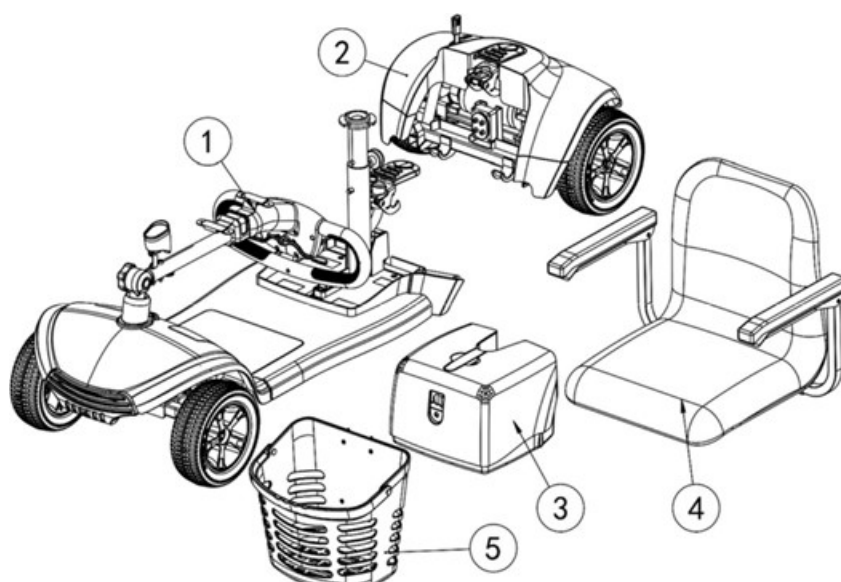
The light switch turns the front LED light on and off.



**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:



1.	Front Section
2.	Rear Section
3.	Battery Box
4.	Seat
5.	Basket

- 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

The scooter Tiller (handlebar) can be quickly folded and un-folded by the following:

- To un-fold, loosen off the Tiller adjustment knob (Fig 6.1.1) by turning it anti-clockwise.
- Raise the tiller to the required position and hold in position.
- With your other hand fully tighten the Tiller adjustment knob making sure the teeth are fully engaged.
- Reverse the procedure to fold the Tiller back down. Be careful not to let the Tiller fall as doing so can damage the Tiller part.

Fully tighten the adjustment knob by turning clockwise making sure the tiller is securely positioned with the teeth fully engaged together.



Fig 6.1.1.

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 (Fig 6.2.1). 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 (Fig 6.2.2).

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



Fig 6.2.1

**Tiller Lock in locked position:**



Fig 6.2.2



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

### 6.3 Connecting Front & Rear Sections

The unique design of your Komfi-Rider scooter allows for quick and easy assembly of the front and rear scooter sections.

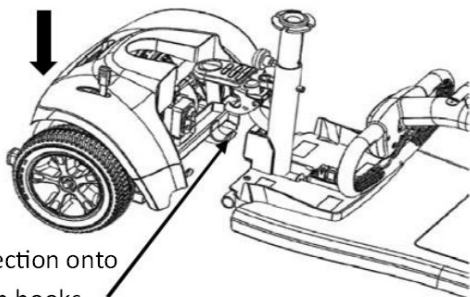
You need to set up your scooter on a flat surface area such as a tarmac car park and where you have enough space to assembly the scooter parts. Do not try and set up the scooter on bumpy even ground as this may prevent you connecting the scooter together correctly.



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

- Connect the front and rear sections by aligning them (Fig 6.3.1), making sure the rear section is tipping back as shown in Fig 6.3.1.
- Carefully lift the rear of the front section by holding onto the seat post and gently lower the front section onto the two rear hooks of the rear section (Fig 6.3.2).
- Once you have located the front section correctly onto the rear section hooks (Fig 6.3.2) then push down gently on the seat post making sure the splitting release lever (Fig 6.3.3) has fully located correctly and 'sprung back' level with plastic shroud.

Fig 6.3.1



Lift front section onto rear section hooks .

Fig 6.3.2

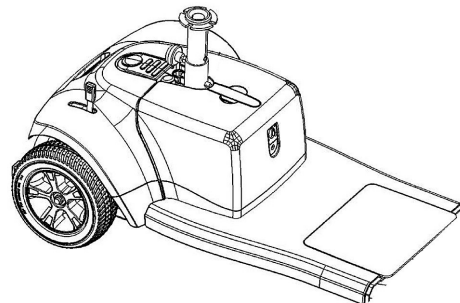


Fig 6.3.3

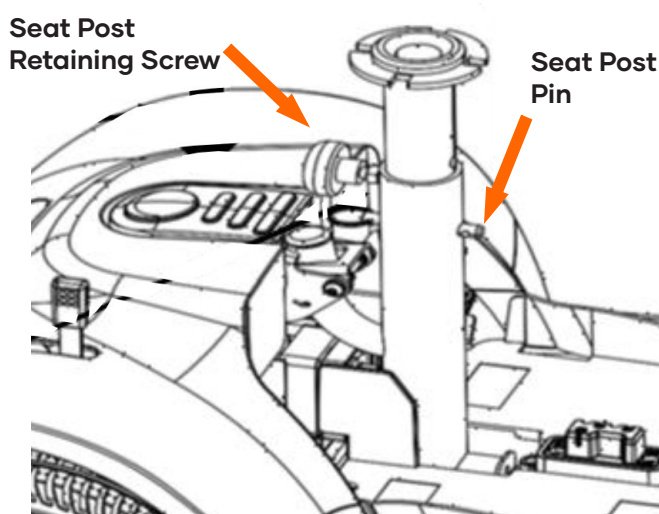


## 6.4 Seat Post Installation

The scooter seat post can be quickly adjusted in height by the following:

- First make sure the seat post is installed into the lower section fixed to the chassis.
- Remove the seat post pin (Fig 6.4.1).
- Then loosen off the seat post retaining screw (Fig 6.4.1).
- You will now be able to move the seat post up or down as required to your desired height.
- Line-up the hole in the seat post with the lower section hole and re-insert the seat post pin.
- Lastly fully tighten up seat post retaining screw (Fig 6.4.2)

Fig 6.4.1



**WARNING! Never sit on the seat without the seat pin and seat post retaining screw being correctly fitted.**

## 6.5 Fitting the Battery Box & Basket

The scooter battery box can be fitted or removed from the scooter quickly and simply as below. Note; it is easier to fit or remove the battery box with the seat removed.

- Carefully lower the battery box into position onto the scooter (Fig 6.5.1) making sure the box is securely and fully connected to the battery connector. (Fig 6.5.2)
- Place basket onto bracket and make sure it is securely fixed. (See Fig 6.5.3)

Fig 6.5.1



Fig 6.5.2



Fig 6.5.3



## 6.6 Fitting the Seat

The scooter seat is designed to be fitted by the following method.

- Hold the seat with both hands and lower the seat onto the seat post (Fig 6.6.1) making sure the seat pin fully locates into the top of the seat post (Fig 6.6.2).
- To swivel the seat, lift the swivel lever (Fig 6.6.3) and turn the seat to your desired position.
- To lock the seat from turning, gently release the seat swivel lever to allow it to lock the seat in your desired position. (Fig 6.6.4).
- Fix arm rests and adjust to the required width by inserting the lock pin in the desired setting (Fig 6.6.5). Then tighten arm rest retaining screws securely (Fig 6.6.6).

Fig 6.6.1



Fig 6.6.2



Fig 6.6.3



Fig 6.6.4



Fig 6.6.5



Fig 6.6.6



**CAUTION!** Make sure the seat is fully inserted onto the seat post before sitting. Never seat on the seat if the seat is still able to swivel.



**WARNING!** The seat mechanism is fixed to the base of the seat. Do not change this position as doing so could dramatically change the stability of the scooter.

## 6.7 Freewheel Lever

The Freewheel lever on the scooter is located on the rear section of the scooter. Before driving the scooter the lever needs to be placed 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.



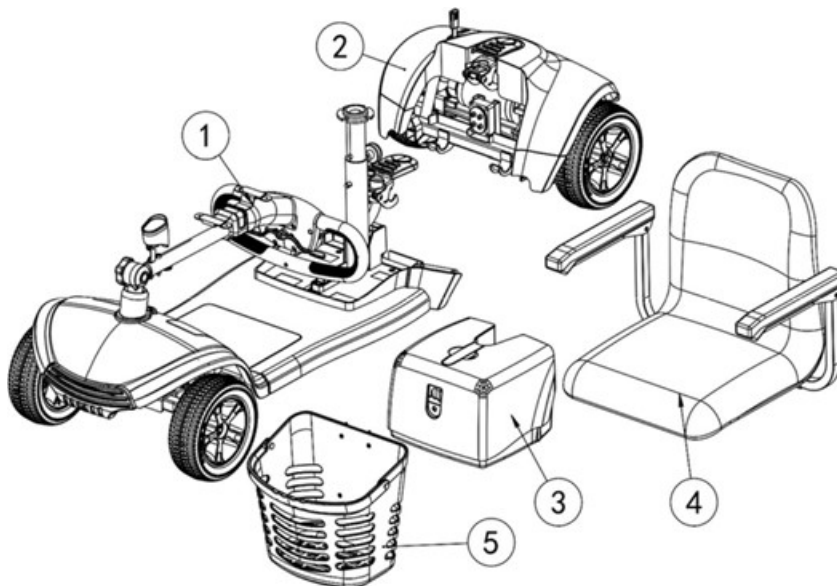
**WARNING!** After you have finished pushing your scooter, always return it to the drive mode to lock the brakes.



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

## 7.0 DISASSEMBLY OF YOUR SCOOTER

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



1.	Front Section
2.	Rear Section
3.	Battery Box
4.	Seat
5.	Basket

- 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 Removing the seat:** Stand behind the scooter and fold the seat back down, then with both hands lift seat directly upwards.

**7.2 Removing the battery box:** Grip the battery box handle firmly and lift directly upwards and off the scooter.

**7.3 Removing the basket:** Stand in front of the scooter and lift basket directly upwards off the basket bracket.

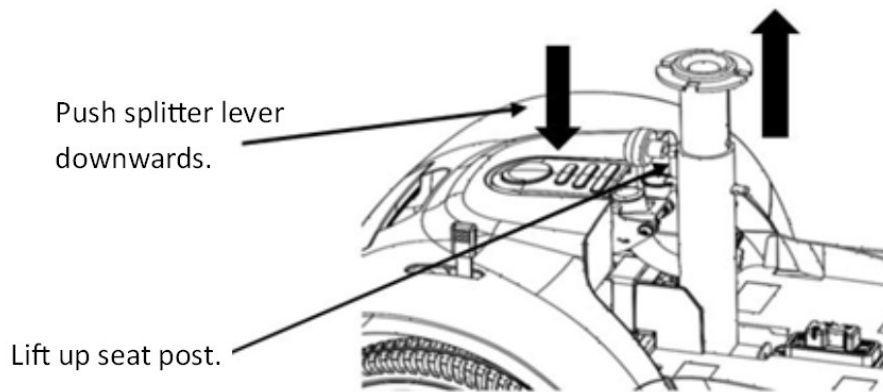
**7.4 Folding down the tiller:**

- 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

- Push down the splitter release/lock lever and at the same time lift the seat post upwards lifting the front section off the rear section hooks, disconnecting the front section from the rear. (See Fig 7.5.1)

Fig 7.5.1



## 7.6 Lifting and Handling

- With the scooter disassembled, if possible, lift the front section with the help of another person. One person can lift by holding the front bumper and the other holding the rear.
- If you are having to lift the front section by yourself, then make sure the tiller is folded and with the tiller knob tightened and the tiller lock in the 'lock' position. You can then lift the scooter with one hand holding the tiller and your other hand holding either the seat post (if fitted) or by the holding the rear end of this front section (Fig 7.6.1).
- The rear section of scooter can be lifted with two hands, one holding the front of the rear section and the other hand holding the rear lift handle (Fig 7.6.2).



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

Fig 7.6.1



Fig 7.6.2





## 8.0 GETTING ON YOUR SCOOTER

- Never leave the manual freewheel lever in the forward position unless you are manually pushing your scooter.
- Make certain that the key is removed from the key switch.
- Make sure the tiller is in the un-locked position.
- Only transfer on and off your scooter on a firm and level surface.



**WARNING! Surface temperatures can increase when exposed to external sources of heat (e.g. sunlight).**



**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 with tiller lock in the locked position.**



**WARNING! The stopping distance on slopes can be significantly greater than on level ground.**



**CAUTION! When transferring onto and off your scooter, always make sure you are on a firm and level surface.**

### 8.1 Getting onto your scooter

1. Stand at the side of your scooter.
2. Disengage the seat rotation lever by lifting the lever up (Fig 8.1.1.), you will then be able to rotate the seat until it is facing you (Fig 8.1.2.).

Fig 8.1.1



Fig 8.1.2



Fig 8.1.3



4. Position yourself comfortably and securely in the seat.
5. Once safely seated, disengage the seat rotation lever by lifting it upwards (Fig 8.1.1.) and rotate the seat into the forward facing driving position. (Fig 8.1.3).
6. Make certain that the seat is secured into position.
7. 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 (Fig 9.3.2).
- 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.

FIG 9.3.1



General driving posture.

FIG 9.3.2



When driving up any incline move your body position forward.



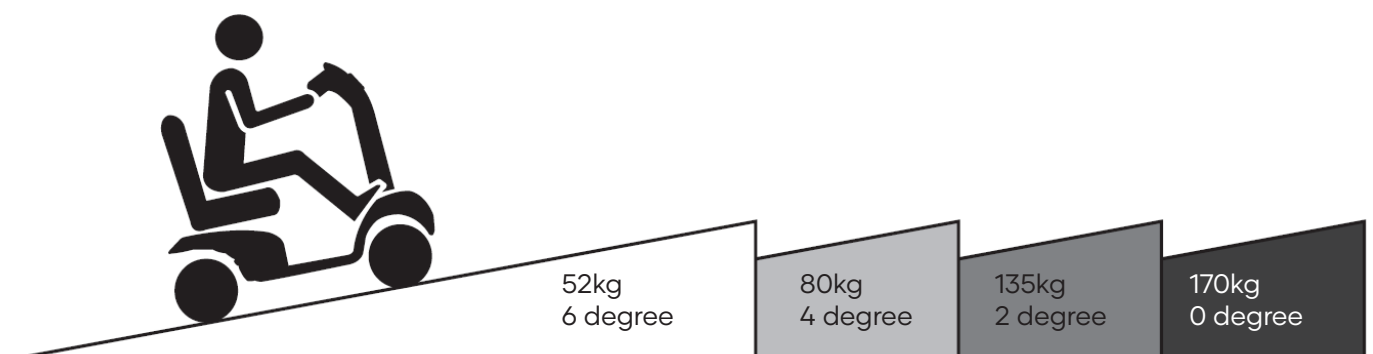
**WARNING! Never descend or climb a gradient which is greater than the recommended maximum see 3.0 Specifications°.**



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

### 9.4 Weight Climbing limits:

- The weight capacity limits are shown in the below.



- The climbing degree will be affected by weight capacity, driving speed, and ramp degree, and scooter parameter.
- To prevent any danger of damaging the motor, please avoid driving up long ramps & hills or any 'off-road' uneven terrain.



**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.



**WARNING!** Stopping distances can be significantly increased when driving on slopes compared to driving on level ground.

#### 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 your scooter's axle and potential damage to the scooter.
- Avoid driving on loose gravel, this will result in loss of control of the scooter.



**WARNING!** 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.

### 11.2 Charging your battery:

- Before charging your battery make sure you have fully read and understand the instructions and safety/warning notes on charging and battery care in this manual and also the charger's manual.
- Turn off the scooter power and remove the key.
- Position your scooter/ battery box near to a mains electrical socket.
- Decide on which charging socket to use - You have a choice of two charging sockets:
  1. Battery Box Socket (Fig 11.2.1) (allows you to charge batteries 'off board' e.g. in your house).
  2. Tiller Charging Socket (Fig 11.2.2) (saves you having to bend down to plug in charger).
- 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.



- 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.
- Note: The LED light will show red when the charger is switched on at the mains but not charging.

### 11.3 Battery Charging & Care

To extend your battery's useful life as long as possible, you need to care for it properly. That means adopting good charging habits and taking care with battery storage. Following the points set out below will help to significantly lengthen your battery's useful life.



#### • **Do not overcharge:**

- Lithium-ion batteries cannot tolerate overcharging and because of this should not be trickle charged continuously.
- The closer the battery gets to 100 % charge the slower it charges: the charger is actively reducing the current to go easy on the battery cells. However, since these final few percent put a lot of stress on the cells, batteries also tend to get much warmer at the end of the charge cycle.
- Overcharging can result in the deposition of lithium metal on one of the electrodes, which then becomes a fire hazard.
- If the charge level is at 80 % or more you should avoid recharging the battery before using it.



#### • **Do not fully discharge:**

- Avoid regularly fully discharging your battery and it is best not to let your battery go under 20%.
- If the battery is empty, you should avoid charging it to only 20 % and then using it.
- An empty battery should be charged to 30 % or even better 70 % as quickly as possible.



#### • **Avoid full charge/discharge cycles:**

- Full charge/discharge cycles should be avoided if possible.



#### • **Correct charging methods:**

- Only use the charger supplied with the scooter, or a charger that has been approved by Komfi-Rider.
- 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.
- 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.
- The battery must be charged using a charger that follows a rigid charging regime and has both overheat protection and time-out protection.
- When charging your battery do not leave them on charge unattended / in an unoccupied area.
- Regularly observe the lithium battery during charging and for 15 minutes afterwards to check. Turn off your charger immediately if your battery gives off an odour, generates heat or appears abnormal in any way.



#### • **Correct battery storage:**

- Do not store your battery fully charged for extended periods of more than 24 hours. Discharge to about 50-60% capacity for storage for long periods.

- Do not store your battery at low charge, charge it before storing, you should charge it to 50-60% and keep it between 30 and 70 % at all times.
- Lithium-ion batteries don't like extreme temperatures. Whenever possible store in temperatures between 10 to 30°C and avoid leaving your battery in a hot vehicle that's in direct sunlight or in chilly rooms.
- Do not store your battery in damp or dirty/dusty locations.
- Do not crush, break open or physically abuse the batteries or the equipment that contains them.



**WARNING!** Risk of explosion and destruction of batteries if the wrong battery charger is used. Only every use the battery charger supplied with your vehicle, or a charger that has been approved by Komfi-Rider.



**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!** When charging batteries do not leave them on charge unattended / in an unoccupied area in case, through a latent defect, they burst into flame during the process. There needs to be someone present who knows how to deal with an emergency.



**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. Contact your authorized provider.



**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 and with dry hands.



**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.



**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.



## 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 CARE AND MAINTENANCE

### 13.1 DAILY CHECK Please always check your scooter daily, for the follownig:

ITEM TO CHECK	INSPECTION	IF THE INSPECTION FAILS
Freewheel Lever	Check for correct function..	Contact your dealer.
Horn	Check for correct function.	Contact your dealer.
Throttle	Pull the throttle control lever to test that the scooter drives correctly.	Contact your dealer.
Electromechanical Brake	Pull the throttle control lever to drive a little then release throttle controll lever to check the brake works correctly.	Contact your dealer.
Battery Gauge	Check the battery gauge that it is displaying and if its showing low power.	Contact your dealer if battery gauge s not working. Recharge the battery immediately if low.
Anti Tip Wheels	Are the ant tip wheels fitted correctly.	Contact your dealer.

### 13.2 WEEKLY CHECK Please always check your scooter weekly for the follownig:

ITEM TO CHECK	INSPECTION	IF THE INSPECTION FAILS
Speed Dial	Check for correct function..	Contact your dealer.
Seating	Check that armrest screws are tightened correctly. Check that the seatpost is correctly fitted and tightened correctly.	Contact your dealer.
Wheels/Tyres	If your scooter has pneumatic tyres, inflate to the correct pressure. Drive wheels turn without wobbling. Tire thread depth is not less than 0.5mm. There are no foreign objects in the tires. That the wheel bolts are correctly tightened.	Contact your dealer.
Motor	Does the motor sound normal?	Contact your dealer.
Battrey Box	Check for signs of damage to the case.	Contact your dealer.
Battery Charger	Check that the charger is functioning correctly and the batteries are charging correctly.	Contact your dealer.

### 13.3 MONTHLY CHECK Please always check your scooter monthly for the follownig:

ITEM TO CHECK	INSPECTION	IF THE INSPECTION FAILS
Upholstery	Check for worn fabric.	Contact your dealer.
Tiller Handle	Check it is tight and not loose.	Contact your dealer.

### **13.4 REGULAR SERVICING**

To make sure your scooter continues to perform to its best and is maintained in good working order you will need to regularly have your scooter checked and serviced by your scooter dealer.

### **13.5 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. If you have pneumatic tyres then check the pressure regularly. See 3.0 Specifications for the correct psi.

### **13.6 UNIQUE IDENTIFICATION NUMBER**

Your scooter has a unique identification number which is located on your scooter at several different locations, on the rear and front chassis and under the seat. This unique number will enable your authorized supplier to confirm with Komfi-Rider if necessary, the age of your scooter and when it was purchased.

### **13.7 CLEANING**

- 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.
- Use a dry or moist cloth and mild, non-abrasive cleanser to clean the plastic and metal parts of your Travel Scooter. Avoid using products that may scratch the surface of your Travel Scooter. If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.
- Please take the scooter to authorized dealers for repairs and adjustments. Improper adjustments could lead to accidents and scooter malfunction.
- Regularly check all wiring connections. Regularly check all wiring insulation, including the charger power cord, for wear or damage. Have your authorized dealer repair or replace any damaged connector, connection, or insulation that you find before using your Scooter again.
- You should keep electrical connections away from sources of dampness, including direct exposure to water or bodily fluids and incontinence. Check electrical components frequently for signs of corrosion and replace as necessary.

### **13.8 STORAGE**

- The best place to store your scooter – either overnight or for longer periods – is in a dry, clean and secure space, ideally with a mains electricity socket so you can charge it at the same time. A lockable garage or a secure shed is ideal.
- When storing for long periods of time your scooter should still be charged regularly. See 11.0 Batteries and Charging for more information.

### RECYCLING & DISPOSAL

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

- The equipment wrapping is potentially recyclable.
- The metal parts are used for scrap metal recycling. The plastic parts are used for plastic recycling.
- Electric components and printed circuit boards are disposed of as electronic scrap.
- Exhausted or damaged batteries can be returned to your medical equipment supplier.
- Disposal must be carried out in accordance with the respective national legal provisions.
- Ask your city or district council for details of the local waste management companies.

### SERVICE LIFE

We estimate a service life of five years for this product, provided it is used in strict accordance with the intended use as set out in this document and all maintenance and service requirements are met. The estimated service can be exceeded if the product is carefully used and properly maintained, and provided technical and scientific advances do not result in technical limitations. The service life can also be considerably reduced by extreme or incorrect usage. The fact that we estimate a service life for this product does not constitute an additional warranty.

## 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 'Free-wheel 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 re-charge</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	Effect On The Scooter	Solution
1	Battery charge is too low.	Scooter continues to drive	<ul style="list-style-type: none"> <li>• Charge batteries.</li> <li>• Check all battery wiring connections.</li> <li>• Contact your service agent.</li> </ul>
2	Battery charge is depleted	Scooter stops driving	<ul style="list-style-type: none"> <li>• Charge batteries.</li> <li>• Check all battery wiring connections.</li> <li>• Contact your service agent.</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 may charge the batteries when running down hill and when braking. Switch off the scooter for a few minutes, then turn back on again.</li> </ul>
4	Power time exceeded.	Scooter stops driving	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.
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.</li> <li>• Check the splitter connectors between the front and back sections of the scooter.</li> <li>• Contact your service agent.</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 Pot – contact you service agent.</li> <li>• Check the wig wag is tightened correctly onto the Throttle Pot – If it isn't tighten the grub screw.</li> </ul>
7	Speed Pot or Throttle Pot error.	Scooter stops driving	<ul style="list-style-type: none"> <li>• The Throttle Pot or its wiring could be faulty.</li> <li>• The Speed Pot or its wiring could be faulty.</li> <li>• Contact your service agent.</li> </ul>
8	Motor voltage error.	Scooter stops driving	<ul style="list-style-type: none"> <li>• The motor or its wiring is faulty.</li> <li>• Check the splitter connectors between the front and back sections of the scooter.</li> <li>• Contact your service agent.</li> </ul>
9	Other internal errors.	Scooter stops driving	<ul style="list-style-type: none"> <li>• Check all wiring connections including main battery connections.</li> <li>• The controller needs replacing.</li> <li>• Contact your service agent.</li> </ul>

## 17.0 WARRANTY

### WARRANTY POLICY:

#### LIMITED WARRANTY. IMPORTANT NOTICE:

To ensure your product warranty is validated you must complete the online application form within 14 days of purchase at the following website link:

**To complete your warranty please visit:**  
[www.komfi-rider.co.uk/warranty-registration/](http://www.komfi-rider.co.uk/warranty-registration/)

### 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 Komfi-Rider.**

**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 **Komfi-Rider**.
9. Circumstances beyond the control of **Komfi-Rider**.

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 **Komfi-Rider** 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.

## 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.





## Warranty Application Form

Important Notice – To ensure your product warranty is validated you must complete the online application form within 14 days of purchase.

**To complete your warranty please visit:**

[www.komfi-rider.co.uk/warranty-registration/](http://www.komfi-rider.co.uk/warranty-registration/)

**The Komfi-Rider Team**

INTENTIONALLY BLANK

INTENTIONALLY BLANK

# LITHIUM VANTAGE



Manufacture: Komfi-Rider, Fernwood Estate, Shillinglee Road, Surrey, GU8 4SX

Authorized Dealer:

