
Ultralite 355 / 355XL Scooter

Owners Manual & Service Record



ELECTRIC MOBILITY **EURO**

ULTRALITE™
VEHICLES

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Thank you for purchasing your UltraLite™ Vehicle. With proper care, your vehicle will give you loads of fun and excitement. You will enjoy the freedom to go where you want, when you want, and to do what you want to do.

UltraLite Vehicles' mission is to provide easy to use, convenient and portable mobility products to help you get more out of your life. UltraLite Vehicles is a new division of Electric Mobility Corporation (EMC). Twenty years ago, EMC introduced the revolutionary Rascal Scooter which changed the mobility industry because it was more lightweight, portable, and versatile than conventional electric wheelchairs. Today, the Rascal is recognised as the world leader in mobility vehicles.

Our new UltraLite is another revolutionary vehicle that is destined to change the way people get around like the Rascal did in 1983. Lightweight, portable and powerful, this new electric convenience vehicle is so easy to use; it just folds to go wherever you want it to go!

Please tell your friends about your wonderful new mobility vehicle. For free literature on the UltraLite Vehicle, just call 01460-258100. Your satisfaction means everything to us. Information on our service and warranties are spelled out throughout this manual. Please call us at 01460-258100 if you have any questions.

Sincerely,



President

Electric Mobility Euro Ltd offers these innovative lightweight scooters for convenient indoor and outdoor use. They can be easily and quickly folded and dismantled for transporting in the boot of a car.

So long as your scooter is maintained and operated in accordance with this manual it should last for many years, and provide you with freedom and independence.

Please read this manual thoroughly before using this scooter. If you have any doubts about warnings or instructions, ask your dealer for an explanation. If at any time you feel you may not be able to control the vehicle safely, do not drive, but consult your dealer for a solution.

If you think the scooter may be damaged, do not drive it but contact your dealer for advice.

We suggest that you keep this manual in a safe place. It contains essential information on the operation of the scooter and includes the maintenance records.



Warning!

This manual contains important safety notices. Please take time to read and understand them. Ignoring them may endanger you or others.

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EMI Warning

Electromagnetic Interference (EMI) From Radio Wave Sources

Powered motorised electric vehicles may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radio, and cellular phones. The interference (from radio wave sources) can cause the powered vehicle to release its brakes, move by itself or move in unintended directions. It can permanently damage the powered vehicle control system. The source of radiated EMI can be broadly classified into three types.

Hand-held portable transceivers (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, “walkie-talkie”, security, fire and police transceivers, mobile telephones and other personal communication devices.

Note: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used.

Medium-Range mobile transceivers, such as those used in police cars, fire trucks, ambulances and taxis. These usually have the antenna mounted on the outside of the vehicle.

Long-Range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

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

Powered Vehicle Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered vehicle control system while using these devices. This can affect powered vehicle movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered vehicle.



Warning!

The following warnings listed below should reduce the chance of unintended brake release or powered vehicle movement, which could result in serious injury.

- Do not operate hand-held transceivers (transmitters-receivers), such as citizen band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered vehicle is turned ON.
- Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them.
- If unintended movement or brake release occurs, turn the powered vehicle OFF as soon as it is safe.
- Be aware that adding accessories or components, or modifying the powered vehicle, may make it more susceptible to EMI (NOTE: There is no easy way to evaluate the overall immunity of the powered vehicle).

Report all incidents of unintended movement or braking to UltraLite Vehicles, and note whether there are sources of EMI nearby.

Safety Information



Read this manual thoroughly before driving or operating the vehicle. This handbook is applicable for all 355 and 355 XL Models.



Within this manual there are important safety notices. They are clearly marked with the sign (left) Make sure that you understand all these notices. If you have any doubt, phone your dealer.

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Intended use of the vehicle

This vehicle is designed for use by adults with a disability (up to the maximum recommended weight) who require a light and easily transportable scooter that is ideal for indoor use as well as shopping and other visits. Model 355 scooters have been specifically designed to be quickly and easily folded for transportation by car.

The scooters are intended for use in the home, and for shopping areas and trips on reasonably paved areas. Kerbs should be avoided, but the scooters can, with care, mount kerbs and small obstacles - see technical specification for further information. Users could endanger themselves and others if they are not capable of driving this scooter safely. Dealers will advise on the most suitable vehicle from the Electric Mobility range, but it is up to users to ensure that they have the manual dexterity to drive the vehicle, adequate sight and hearing to perceive danger in time, and can at all times operate the scooter safely in the expected conditions. If in doubt we suggest you consult a healthcare professional or your nearest dealer for advice on the most suitable scooter for your particular condition. Users should also regularly assess their ability to operate their vehicle safely.

The Model 355 scooters have small wheels to enable easy transportation; they should not be used on uneven, rutted or potholed surfaces or on slippery grassy areas.

Safety Information

General Warnings

Warning ! The operation of scooters can endanger the life of the driver or third parties. Any driver should always be fully capable of operating this vehicle safely.

Warning ! Sitting for long periods may increase the chance of thromboses or pressure sores. Users prone to such conditions are advised to take medical advice.

Warning ! The Model 355 scooters have been designed and tested for drivers up to 220 lbs or 100 kgs. This weight should never be exceeded.

Warning ! Front Basket. The basket mounted on the front has a weight limit of 10 lbs or 4.5 kgs. Do not



exceed this as it could affect steering. Do not carry or attach anything to the handlebars or controls as this could affect the driving safety.

Warning ! Passengers. Passengers, even children, should never be carried.

Warning ! Electromagnetic interference may affect the driving of this scooter:

- Do not operate devices such as CB radios or mobile phones while the vehicle is switched on.
- Avoid getting close to transmitter masts, such as television and radio stations.
- If your vehicle ever starts to operate by itself switch it off and report this to your Dealer.

Warning ! The operation of any scooter may affect sensitive electronic circuits such as alarm systems, garage doors or automatic doors in shops.

Warning ! Do not attempt to open the battery vent plugs.

Driving

Warning ! Freewheel device. Before getting on the scooter, always check that the freewheel lever is in the "Drive" Position. When the lever is in the Freewheel position there is no braking and the scooter could run down a slope and cause injury or even death.

NEVER SIT ON THE SCOOTER WHEN IN FREEWHEEL.

Warning ! Tiller Lock. Before driving off, always check that the tiller is locked and secure.

Warning ! Seat Catch. Before driving off, always check that the seat catch is engaged, the front seat legs are in their sockets and that the seat is locked and secure.

Warning ! Damage. Before driving off check the scooter for damage, particularly that which might affect the steering, or the security of the seat.

Warning ! Battery Charge. Before driving off always check the battery indicator. If you are in any doubt, ensure the batteries are fully charged before starting on a journey.

Warning ! Slopes. On steep slopes the scooter could topple over. Always try to avoid slopes and in particular crossing a slope. If you have to cross a slope, take great care to avoid tipping. Never make sharp turns on slopes. Never drive on slippery or icy slopes. Never back down a slope as your scooter could tip over backwards. If you are not comfortable with the hill gradient, consider an alternative route.

Warning ! Kerbs. Because of the Model 355 has small wheels for ease of transportation, it should not be driven up or down kerbs as this may cause the scooter to topple. Avoid kerbs and use access ramps wherever possible. If you have to climb or descend a low kerb, always tackle it straight on.

Warning ! Speed. Turning at maximum speed might cause the scooter to topple over. Always slow down for turns.

Warning ! Stopping. If the scooter stops suddenly when turning, the scooter might topple. Try not to brake when turning.

Warning ! Leaning Over. Do not lean sideways, as this could cause the scooter to topple.

Warning ! Escalators. Never drive this scooter onto an escalator as this could cause toppling and severe injury.

Warning ! Roads. Model 355 scooters are not for use on roads, apart from crossing roads at designated places.

Warning ! Sunlight. If the vehicle is left out in the sun, surfaces could become extremely hot. Always try to park the vehicle in the shade.

Warning ! This vehicle is not suitable for use as a seat for an occupant when in a motor vehicle.

Dealer Information

**This is your contact number
for service and support**

Dealer Stamp

Telephone:

Email:

Product Model Number

Serial Number

Date of Purchase

Owner

For product information see serial number plate on the seat post under the seat.

Manufacturer



Electric Mobility Euro Limited

Canal Way, Ilminster, Somerset TA19 9DL

Company Registration in England No. 2419231

Features and Layout

A great deal of thought has gone into the design of your UltraLite Vehicle. Its 4-wheel design provides the stability of much larger vehicles while the front dual wheels provide the manoeuvrability of a 3-wheel vehicle. In addition, the vehicle incorporates a convenient removable folding camp seat with adjustable width, folding arm rests. A full technical specification for this model can be found later in this manual.



Figure 1 - Model 355 UltraLite Vehicle

Accessories

The following optional accessories are available to complement your riding enjoyment:

- Folding Basket
- Beverage "Caddy"
- Lifting Harness
- Head & Tail Lights
- Seat Bag

Instructions concerning these standard accessories are provided in this manual.

Operating your Ultralite vehicle

Adjusting Your Tiller

The tiller of your vehicle is uniquely designed to allow you to position it in a comfortable driving position. It can be placed in its full upright position or folded down for transportation. Positioning the tiller is accomplished by flipping the tiller lock lever located on the bottom of the T-bar.

Folded and upright positions are shown in Figures 2 and 3. For rider comfort, the tiller easily locks in any of five positions using the tiller lock lever as shown in Figures 4 and 5.



Figure 2 - Folded position



Figure 3 - Upright position



Figure 4 - Lever in Open Position



Figure 5 - Lever in Locked Position



Warning! Always make sure the tiller lock lever is in one of the locked positions and secure before driving your vehicle.

Seat arms installation and adjustment

Your UltraLite Vehicle may be equipped with Width Adjustable Folding Arms on the seat.

To install the arms

1. Loosen the Adjustment Knobs on the Arm Receiver under the rear of the seat (Figure 6).
2. Slide the square end of the Arm into the Arm Receiver and position the Arm at the desired width (Figure 7).
3. Firmly tighten the Adjustment Knobs to secure the arms.



Figure 6 - Adjustment knob



Figure 7 - Arm receiver

The arms may be readjusted at any time by loosening the knobs and sliding the arms inward or outward and re-tightening the knobs.

Armrest Adjustment

When getting seated on the scooter lift the armrest up.
When riding always have the armrest in the down position.
Avoid pinching fingers as you lower the armrest. Never drive with the armrest up.



Figure 8 - Armrest in raised position

Warning! Never use the arms of the vehicle for transfers. The arms are designed for comfort and convenience only and will not support your weight during transfers.



Be sure to tighten the adjustment knobs securely. To ensure that the user is sitting centrally, the armrests should always be adjusted to be equidistant from the centre of the seat. Do not adjust the arms to more than 69 cm wide.

Control Features

Your controls are located on the handle bar dashboard. Control locations are shown in Figure 9.

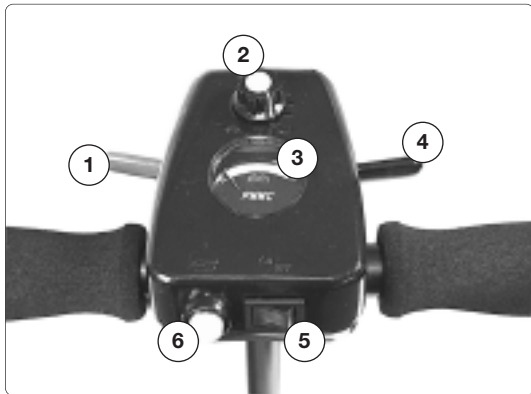


Figure 9 - Tiller control locations

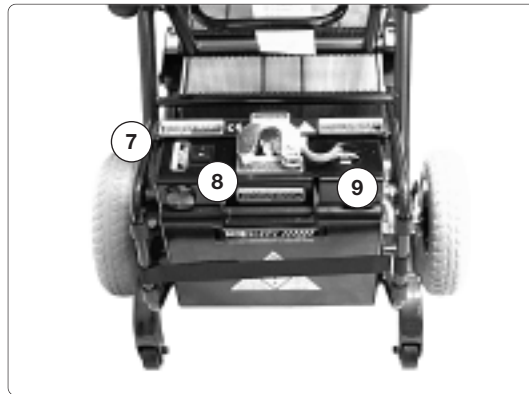


Figure 10 - Battery pack control locations

Tiller

1. Reverse control lever
2. Speed dial
3. Battery Gauge
4. Forward control lever
5. On/off switch
6. Horn

Battery

7. Charger Connection
8. On/off switch
9. Battery Gauge

On-off Switches

The ON-OFF Switches are in two locations. The main switch is located on the top of the battery pack at the rear of the vehicle (Figure 10). The secondary switch is located facing the rider on the dashboard on the tiller. To turn on your vehicle, toggle the main switch on the battery pack to the “ON” position. The battery gauge needle should move to the right into the green bar area. (If the needle does not move refer to the troubleshooting section of this manual).

NEXT: Toggle the ON-OFF switch on the dashboard to the “ON” position. The switch should light and the battery gauge needle should move to the right into the green bar area.

NOTE: If the main switch on the battery pack is not in the “ON” position, the dashboard switch and the vehicle will not operate.

To turn off your vehicle, toggle the ON/OFF switch to the “OFF” position.

Battery Indicator Gauge

The Battery Indicator Gauges are located on the Battery Pack and on the dashboard. When your vehicle is turned on, the needle on the gauges will move to the right over the green area of the indicator scale indicating fully charged batteries. As the power decreases, the needles will move gradually to the left indicating power discharge. When the needles move into the yellow area on the left side of the gauge, your batteries should be charged (see Batteries and Battery Charging section of this manual). For maximum battery life, it is recommended that you charge your batteries before they are fully discharged (as indicated by the red portion of the gauge).

Speed Adjustment Dial

This allows you to pre-select your maximum desired speed. The dial selects different speed levels and can be set anywhere between low and high speed. Turn the Speed Adjustment knob counter-clockwise towards minimum for slow operation and clockwise towards maximum to increase your speed.

NOTE: When attempting to climb slopes, you will need to set the dial to a high speed setting. Remember, the further clockwise you set your speed dial, the faster your vehicle will travel when the engager finger lever is squeezed.

Finger Lever Control

The Finger Lever Control is located forward of the handlebar grips. Your speed for forward and reverse motion is controlled by this lever. The right finger (black) lever moves your vehicle in a forward motion and also controls the rate of speed by the proportional amount of pressure applied. Releasing the lever will return it to the neutral position causing the vehicle to come to a gentle stop and automatically engage the parking brake.

The left finger (red) lever moves the vehicle in a reverse direction and controls the rate of speed by the amount of pressure applied.

Warning! If you are not an accomplished outdoors powered vehicle driver, we strongly recommend that you first practice in an open, safe area that's free from traffic. We also recommend that you have a companion with you who can assist you.



Freewheel Lever

When the vehicle is switched off the brakes are automatically engaged. This is called “Failsafe Braking”. Also, if the batteries are flat, the brakes are applied.

There may be occasions where you may wish to move the vehicle without power. To do this there is a Freewheel Device fitted.

- Make sure the ignition is switched off.
- Move the lever forward. The vehicle can now be pushed in Freewheel.
- Move the lever back to engage drive. The vehicle is now braked. This is the normal operating position.

IF YOU ARE NOT COMPLETELY SURE OF THIS FEATURE CONTACT YOUR DEALER BEFORE OPERATING THE SCOOTER.

The Free-Wheel Lever is located on the back right side of the motor (Figure 11). Move the red release lever forward to disengage the brakes. This will enable you to free wheel (roll) the vehicle and push it around.



Figure 11 - Free-wheel Lever

Freewheeling (Rolling) Your UltraLite Vehicle

Free-wheeling is used when you want to move (roll) your unit without riding on it. If you want to free wheel your vehicle, there are two ways to accomplish this:

1. **By disengaging the parking brake**, or
2. **Lifting the front of the unit and pulling it on its anti-tip wheels** at the rear of the vehicle.

To disengage the parking brakes with the power “OFF”, simply move the free-wheeling lever located on the right side of the motor upward until it “clicks”. You can easily reach it without having to take the unit apart. When you are finished moving your vehicle, always remember to move the free wheeling lever to the down position until it “clicks”.

Rolling your vehicle

Your vehicle is equipped with a safety clutch which keeps the vehicle from rolling too fast. The clutch activates at the speed of a brisk walk. You may feel the clutch activate as you are pushing the vehicle - this is normal - simply slow your pace to deactivate the clutch. This feature reduces uncontrolled vehicle rollaway.



Warning! If the freewheel device is in “freewheel” the braking is disabled. Never select the freewheel device if the scooter is on a slope or could be pushed onto a slope.

Warning! Never sit on your vehicle with the parking brake in the disengaged free-wheel position. When the parking brake is disengaged, you will roll if pushed or on an incline. Do not park your vehicle on a incline with the parking brake disengaged. If your vehicle is in the free wheel mode when you pull the speed control, the vehicle will not operate. To correct this, make sure unit is in “off” position and move the free-wheel lever down to the engaged position until it “clicks”. Turn your vehicle on to operate.

General: If you are able to push your vehicle, the free-wheel lever is on, and the parking brake is disengaged.

Tyres and wheels

Your Model 355XL scooter is fitted with solid foam filled tyres which do not need inflating. If these tyres appear to be damaged, they should be replaced. You should not attempt to replace the wheels and tyres yourself but you should contact your dealer who will replace the tyre and also check the scooter has not suffered any damage.



Figure 12 - Foam filled tyres

Installing Accessories

Your UltraLite Vehicle has the following optional accessories that can be installed by the user before using. These include:

- Folding Basket
- Headlight & Taillight
- Beverage “Caddy”
- Seat Bag

Instructions to install these accessories are provided in the following.

Installing the Folding Basket

The Folding Basket accessory can be installed in place of the existing basket as a space-saving alternative that can be easily expanded (unfolded) when needed or collapsed (folded) to improve front end clearance of the vehicle. The Folding Basket is installed onto the Basket Mount on the front of the tiller.

To unfold the basket:

- Flip the latch at the top up
- Pull out front and sides
- Flip bottom down until it latches with front

To fold:

- Lift bottom up towards rear
- Collapse front and sides so that they flatten against front of tiller
- Secure in folded state by latching front

Installing Headlight and Taillight

The battery-powered headlight and taillight accessories can be installed onto your vehicle for increased visibility and safety. Both the headlight and taillight include adjustable, detachable brackets and separate light fixtures designed for installation onto the tiller (headlight) and seat frame (taillight). The headlight accessory requires 4 AAA (LR03) batteries. The red taillight accessory requires 2 AA batteries. Batteries are not included. Install batteries into the headlight by removing the 4 Philips-head screws from the back of the fixture and insert 4 AAA batteries as shown. Install batteries into the taillight by prying the red lens from case and insert 2 AA batteries as indicated within case. Test both fixtures before installing to ensure batteries are functioning. Attach corresponding mounting bracket to tiller (headlight) and seat frame (taillight). Install fixtures onto brackets accordingly.

Installing the Beverage “Caddy” Accessory

This accessory allows you to use a convenient folding, adjustable Beverage “Caddy” onto your UltraLite Vehicle to securely transport a wide assortment of cups, cans, bottles, etc. Installation consists of mounting the supplied Cup Holder Bracket onto the tube of the tiller, then attaching the Cup Holder using the supplied hardware. Use the following to install.

- Select desired location on tiller for Beverage “Caddy” to be installed.
- Install Round Tube Bracket and secure using supplied screw.
- Attach Cup Holder Mount onto bracket using the two supplied philips-head screws.
- Position Cup Holder onto mount and use winghead screw to attach.

Select desired positioning (pitch) before tightening winghead screw so that you can easily and comfortably reach the Cup Holder.

Seat Bag

The Seat Bag accessory is a zippered nylon fabric bag with adjustable straps to attach it to the backrest of the seat. To install, loop straps around front of backrest and tighten straps to secure.

Driving the Vehicle



Warning! Read this before driving the vehicle!

Whether or not this is your first mobility vehicle, please read these guidelines as all vehicles differ. Failure to do this may cause damage to you, a third party or the vehicle.

- 1. Before you set out**, do check the weather forecast. We suggest that you make sure you are wearing suitable clothing, whether your journey is long or short.
- 2. If you are taking medication** check with your doctor or physician that your ability to control the vehicle will not be impaired and do not drink alcohol and drive.
- 3. Only use the vehicle for the purpose its intended for.** Do not drive through water or on slippery surfaces; do not transport more than one person; do not tow other vehicles or carry excess weight.
- 4. Before getting onto your scooter**, check the freewheel lever is not in the Freewheel position and the steering lock is disengaged. Make sure the vehicle is on level ground.
- 5. Check the battery charger is disconnected.**
- 6. Check the seat and chassis are securely assembled.** (see assembly instructions)
- 7. Check the Tiller is locked.**
- 8. Check you have adjusted the seat arms** as instructed in this manual, and they are locked in position – get comfortable.
- 9. Speed Control.** Set the speed control knob to a low setting.
- 10. Make sure the way ahead is clear.**
- 11. Switch on the vehicle** by pushing in the ignition pin. Check the ignition light illuminates steadily and the battery level indicator is in the green area.
- 12. Pull in right hand lever slowly.** The vehicle will now move off. The more you pull the lever in the faster the vehicle will go.
- 13. To brake, release the lever.** If you become unsure or feel unsafe release the lever immediately.
- 14. As you get accustomed to the power** you can increase the speed.

Driving the vehicle - hazards



Warning! Before driving the scooter you should be aware that, under certain circumstances it could become unstable and tip over. Your scooter has been designed to operate on paved, even surfaces and should not be used on rough terrain like fields, rutted tracks or over potholes.

- 1. Getting on and off the vehicle:** When getting on make sure that the vehicle is on level ground, and not in freewheel mode. Ensure that the armrests are secure. When getting off, park on level ground, turn off the ignition and remove the key before leaving your seat. Make sure you get off the vehicle in a safe area.
- 2. Tiller Position:** Drive with the tiller in an upright position that feels comfortable with the controls in easy reach.
- 3. Kerbs and Obstacles:** Try to avoid kerbs and obstacles. Use ramps wherever possible. Never ride up or down kerbs or obstructions higher than that in the Technical Specification Sheets. Always tackle obstacles head on. Always try to avoid crossing a slope. If you have to cross a slope, take great care to avoid tipping. Never make sharp turns on slopes. Note that the anti-tip rollers at the rear of the scooter may contact the kerb as you descend; this is normal.
- 4. Hills & Slopes: Going Up Hill. Lean forward when going up.** Make sure you have enough speed to climb the slope. Do not stop or turn the vehicle around. If you have to turn while climbing an incline, keep going until you reach a level area. If you have to start on an incline, lean forward and apply power slowly – do not start and stop. Never make turns on slopes. If you are not comfortable about tackling a gradient, consider an alternative route. Note: Always check that the battery level is high; going up hill takes a lot of energy. If the level drops too low the vehicle will cut out leaving you stranded.
- 5. Hills & Slopes: Going Down Hill.** Lean back in the seat when going down, and turn the speed control dial to low. If you are not comfortable about tackling a gradient, consider an alternative route.

Try to avoid crossing slopes – always try to drive straight up and down the slope NEVER BACK DOWN A SLOPE!

- 6. Turning:** Slow down and look in the direction you are travelling – If there is a blind corner sound the horn.
- 7. Bad Weather:** If it is snowing or icy stay at home! Remember that ice, snow and slippery surfaces such as manhole covers, wet grass and drains could affect braking and steering. Use caution at all times.
- 8. Tyres:** Your vehicle is fitted with solid tyres. Should they become damaged they should be replaced by your dealer. Do not attempt to replace them yourself.

Learning to get around

Getting on

Whenever you get on or off your scooter make sure you and your vehicle are stable on a level surface and your scooter is not in freewheel.

Turn the battery pack power switch "ON". Make sure that the power switch on the dashboard is "OFF" before sitting on the vehicle. When you sit on the vehicle, make sure both of your feet are on the deck of the vehicle. Next, turn the "speed adjustment dial" fully counter clockwise to the lowest speed setting, and toggle the on/off switch to the "ON" position. The switch should light and the battery state indicator needle will move. Pull the right finger control lever to start you in a forward motion. To stop simply let go; the brakes will automatically engage.



Warning! Please take care not to have your finger on the forward/reverse lever when you switch your vehicle "On." This will result in a fault mode, and your vehicle will not work. Switching it "Off" then "On" again without touching the control lever clears this fault.

Getting off

Always switch your vehicle "OFF" using the dashboard switch before getting off the vehicle. Make sure you are on a level surface when you get off the vehicle.

Basic Driving

After your first few rides, and you have become more confident, you can increase the speed setting. Pull the "lever control" as described earlier. You will slowly accelerate. Release the lever and you will gently stop. Practice these two basic functions until you feel comfortable with them.

Steer the vehicle by turning the handlebars in the direction you wish to ride. Be sure to remember to give enough clearance when turning so that the rear wheels follow the path of the front ones instead of cutting short. Cutting short on pavement corners means that a back wheel may go off the pavement causing a stability problem. Avoid this at all times by steering an exaggerated wide arc around the obstacle.

If you must steer in a tight spot, stop, and then turn the handlebars to where you want to go. Set the speed control to slow and apply the power gently. This will make the vehicle turn sharply while remaining stable. Practice this manoeuvre in an open area until you feel confident.

Riding in reverse requires special care. Be sure your "speed control dial" is turned to "slow" before you operate the vehicle in reverse. Pull the left reverse lever. **REMEMBER:** when you are in reverse, you have to steer in the opposite direction of the way you want to go. Practice riding in reverse in an open space until you feel confident. **REMEMBER:** When making a tight turn, turn your steering column before applying power. Steer wide of all corners and obstacles; and please move slowly and with care.



Warning! Do not turn your vehicle off while it is in motion. Failure to observe this warning may irreparably damage the main electronic speed control unit or drive transmission. Always make sure your vehicle is fully stopped before you switch the vehicle off.

Warning! Never back down a slope as this could result in tipping over backwards.

Control Through Doors

Approach an unfamiliar door slowly by sizing it up. Does it have a knob or a push bar? Does it open toward you or away? Think in terms of using the power of the vehicle to do the work for you!

Hold the doorknob or bar in one hand and apply power with the other hand (Remember that you can drive forward by using your left finger to move the throttle lever away from you). If the door is self-closing, you can go through allowing the door to close behind you. If the door is not self-closing, just stop when you are clear of the door, and push it closed. If the door opens towards you, hold the knob or bar with one hand, and gently let the reverse power do the work. When the door is open wide enough, go ahead quickly, leaving the hand on the door to keep it free of the vehicle and letting go as you pass the doorjamb. It is an easy technique. Practice makes perfect. Remember, your vehicle can do the work without wearing you out!

Control on Ramps

More and more buildings are equipped with ramps for wheelchair access. Some have a change of direction in the middle, and good steering skills are required. Make a wide maneuver with your front wheels around tight corners, so that your back wheels follow in a wide arc to stay clear of the corner. If you stop while facing uphill, the automatic parking brake will hold the vehicle from rolling backward. To start again, simply pull the forward direction lever; the parking brake will be released, and you will start to move.

Warning! Always lean forward when climbing up ramps or inclines to prevent accidentally tipping over backwards.



While going down the ramp, keep the speed dial set to “slow” (1/minimum). This will keep you in a safely controlled descent. If you wish to stop completely, release the control lever, and you will slow to a gentle stop.

Control over Grass, Gravel and Inclines

Your scooter is designed for paved surfaces. You can also tackle smooth grass, packed gravel pathways and gentle slopes, but **do not exceed the Maximum Safe Slope recorded in this manual**. If you are unsure about a situation, avoid it. Packed gravel such as on driveways or roads will present few problems. Loose, deep gravel should be avoided, as well as loosely packed sand.

DO NOT DRIVE THROUGH WATER OR LEAVE YOUR VEHICLE EXPOSED TO HEAVY RAIN.

Only attempt a turn when all wheels are on or off the pavement. Failure to observe this warning could result in the vehicle becoming unstable and toppling over. Always lean forward when ascending kerbs. This will enable you to climb easily and help eliminate instability.

PLEASE NOTE: The rear stability of your vehicle is dependent on a number of factors which you should consider before attempting to climb a steep slope or other obstacle:

- Your height
- The angle of your backrest
- Your weight
- The angle of the slope or height of obstacle you are attempting to climb.
- Position of your upper body
- The angle of the slope or height of obstacle you are attempting to climb.
- Position of your upper body weight (lean forward to prevent near tipovers)

All of these factors can affect the rear stability of your vehicle. If you are unsure of your capability to climb an obstacle, always think “safety first”.

Parking in public

If you need to park and leave your vehicle, toggle both power switches to the off position. This will keep the parking brake on and will make your vehicle difficult to move. A cable lock accessory is available for added security.

Taking your vehicle along

Whether for holiday, visiting family and friends or a trip to the shops, you can take your vehicle along. Follow these simple steps to make your UltraLite Vehicle fit easily into virtually any car. This procedure is quick and requires no tools. Always make sure both power switches are in the "OFF" position before transporting your vehicle.

Folding your UltraLite Vehicle

1. **Grasp the seat handle** at the rear of the seat bottom, and depress the seat latch to unlock the seat frame.
2. **Swing the inner seat legs away from the latch while lifting the seat by the seat handle.** This will move the lower portion of the inner seat legs to the rear and out of the front seat leg sockets.
3. **Swing the inner seat leg forward, and gently lower the seat** to the frame, fold down the seat back and arms. The seat will nest neatly on the vehicle frame. (Figure 15)
4. **Unlock the tiller latch, and fold the tiller down.** (Figure 16)
5. **With the vehicle in this folded position, you can easily lift the front end** by the frame handle, and roll the vehicle on the anti-tip wheels. (Figure 17)



Figure 13 - Unlock seat frame

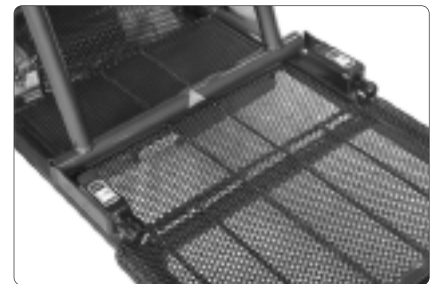


Figure 14 - Removing seat

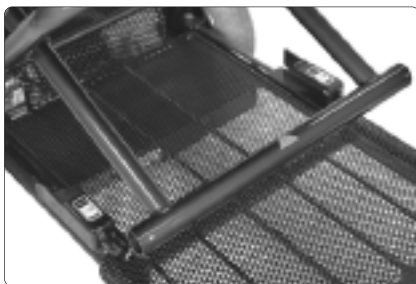


Figure 15 - Folding seat



Figure 16 - Folding tiller



Figure 17 - Rolling folded vehicle



Warning! Dismantling the scooter involves lifting and handling heavy parts. Weights are given in the Technical Specification; consider if you need help in handling parts before you try to lift them. The Model 355 has been designed to be easily folded and stowed in a car. Contact your dealer for advice on how best to transport your scooter in your vehicle

Warning! Pinching or Crushing. Be careful to avoid being pinched or having your hands crushed when lifting or handling parts. Wear gloves whenever possible.

Warning! This vehicle is not suitable for use as a seat for an occupant in a motor vehicle. To transport your scooter you will need to dismantle it. Follow these instructions. Do not attempt this unless you are capable of lifting 13kg or 28lb. You are advised to wear gloves.

Removing Battery Pack and Seat

You can make your vehicle even easier to handle by removing the battery pack and seat. To remove the battery pack, release the red latch handle on top of the battery pack mount, and swing the battery pack to the rear. Using the convenient handle, carefully lift the battery pack up and away from the vehicle. (Figures 18, 19 and 20)



Figure 18 - Unlatching battery



Figure 19 - Releasing Battery



Figure 20 - Removing Battery

You can remove the seat from the vehicle either folded or unfolded. To remove the seat in its folded position, release the red seat latch handle at the right rear of the vehicle, and lift the seat away from the vehicle. Be sure to hold the seat frame while you lift the seat. (Figure 21) To remove the seat in its unfolded position, release the red seat latch handle, and pivot the rear of the seat upward; slide the front legs rearward out of the leg sockets. The latched unfolded seat may be used as a portable, lightweight seat when it is not attached to the vehicle. If you sit in the seat when it is detached from the vehicle, be sure to place it on a firm, level surface. (Figure 22)



Figure 21 - Unlatching seat



Figure 22 - Detached seat

Transporting your Vehicle

In its folded state, your vehicle will fit into most car boots. Your vehicle is so lightweight putting it in and taking it out of your boot is easy, too!

- 1. Drive or bring your vehicle close to the automobile boot you plan to use.** Open the boot and place a blanket or protective pad over the lip of the boot to avoid damage to the vehicles' finish.
- 2. Disassemble your vehicle,** removing the seat and battery. Fold down the tiller and secure with vehicle straps.
- 3. Carefully lift the front of the vehicle,** using the frame handle, and place it over the lip of the boot, on top of the protective pad (Figure 23). With the vehicle securely leaning against the automobile, lift the back of the vehicle by the rear bumpers, and slip the vehicle into the boot (Figure 24).

Warning! Protect clothing when lifting vehicle parts; some components may have surface lubricants on them which may stain clothing.



- 4. Carefully lift the folded seat into the boot**, and find a secure place to store it so it will not be damaged or damage the vehicle (Figure 25).
- 5. Carefully return the battery pack to its holder** at the rear of your vehicle. **AVOID ANY METAL CONTACT WITH THE BATTERY PACK TERMINALS!**
- 6. Gently close the boot lid** checking for any contact which may cause damage to the vehicle or automobile. Reposition the vehicle if necessary.

Experiment to find the best positions for stowing your vehicle and its components. This may vary for different automobiles. Padding may be necessary to protect the components from rubbing against each other.



Figure 23 - Boot loading



Figure 24 - Positioning in boot



Figure 25 - Seat positioning in boot

Removing and Reassembling Your Vehicle



Warning! Assembling the scooter involves lifting and handling heavy parts. The 355 Scooter has been designed to be easily assembled. Your dealer should advise you on the best way to assemble your scooter.

Warning! Pinching or Crushing. Be careful to avoid being pinched or having your hands crushed when lifting or handling parts. Wear gloves whenever possible.

Warning! Never unload your scooter on sloping or uneven ground. It could run down the slope and injure someone.

- 1. Open your automobile's boot and carefully remove the folded seat** and battery pack. Place them on a solid surface where they cannot trip you.
- 2. Put the protective pad over the lip of your automobile's boot.**
- 3. Carefully lift the rear of the vehicle over the automobile's boot lip.** Pivot the rear of the vehicle over the boot lip and carefully lower it to the ground so the vehicle is leaning on the automobile (Figure 26).
- 4. Grasp the front frame handle of the vehicle**, and gently lower the front of the vehicle to the ground.
- 5. Lift the vehicle's tiller into riding position**, unfold and install the seat being certain to insert the front frame legs into the frame sockets. Check the seat latches to be sure they are secure. Lift the seat back, and unfold the seat arms (if applicable).
- 6. Install the battery pack** being certain that the latch is secure.

Finally check the scooter is not damaged and it is properly assembled. You are now ready to drive the scooter away.

Storing Your Vehicle

The compact size of your vehicle makes it very easy to store. Once folded, your UltraLite Vehicle can be stored horizontally or vertically standing on its rear bumpers (Figure 27). If you have room for a golf bag, you have room for your UltraLite!



Figure 26 - Unloading from boot



Figure 27 - Stored upright

Batteries and Battery Charging

Warning! When charging batteries **NEVER** smoke, or do this in a place where there are naked flames such as gas-fired heaters as, under exceptional circumstances, batteries may give off gases that could ignite and explode. Always make sure that battery box is not damaged.

Warning! When charging batteries **NEVER** connect or disconnect the charger while it is still connected to the mains.



Your UltraLite Vehicle has plenty of power for a small vehicle. Keeping it functioning up to its maximum potential means that its battery must be maintained with full power. Nightly recharging after use will help give your battery a longer life and will ensure that your vehicle is always ready to go when you are. Your vehicle's battery is virtually maintenance-free.

Battery Charger

The battery charger supplied is unique to the vehicle, and it may not be suitable for any other powered mobility product. Only use the charger supplied with your UltraLite Vehicle. Use of other model chargers may permanently damage your battery.

Charging the Battery Pack

Your battery will need to be recharged when the battery state indicator located on the dashboard or battery pack is reading in the yellow position. **NOTE:** The battery will have a longer life if you recharge it as soon as the battery gauge reaches the yellow zone. The yellow zone represents that it's time to recharge.

NOTE: It is good practice to charge your battery after each daily use.

Charging Procedure

1. Switch your vehicle "OFF".
2. Your vehicle's battery pack can be charged either on the scooter or removed from the scooter.
3. Plug the three-pronged end into the charger port on the battery pack (Figure 28).
4. Plug the standard AC plug from the charger into a suitable wall outlet. Your charger is now activated.

5. Depending on the depth of the discharge, the minimum time to fully recharge serviceable battery is overnight.

Just plug in your vehicle before you go to sleep. Please note that this time may increase, as your battery gets older, although, the vehicle may be considered ready to use after 6-8 hours of charging. During periods without use (storage), it is wise to charge the battery weekly. A partially discharged battery can be recharged in 2-4 hours.

Always position your machine in an area that is dry and well ventilated. Make sure a power point is nearby. Check the mains switch is off. Never connect or disconnect the charger with the mains on.



Figure 28 - Charging battery

Care of Batteries

The batteries are the lifeblood of your vehicle. Their characteristics can change depending on charging, temperature, usage and other factors. Listed below are guidelines to prolong battery life.

1. After using your vehicle always charge it at the end of the day even after a short journey.
2. If you do not use your vehicle for a prolonged period, place it on charge once a week, overnight.
3. Always use the correct charger with the correct batteries.
4. If the batteries have been flat for a long time (about 2 months) it is recommended you contact your dealer before charging:
5. Do not charge the vehicle in the open – it may rain and the battery charger is not waterproof.
6. Keep the vehicle in a well-ventilated area and away from any naked flame.
7. Do not part charge the batteries. Allow the charger to complete its cycle for every battery fitted.

Batteries are expensive to replace – it is wise to look after them.

Batteries are heavy – make sure you always lift them correctly.

Disposal

Return your unserviceable batteries to your supplier or ensure they are disposed of in accordance with the environmental regulations applicable at the time.

You will find that the distance that your vehicle can travel will gradually increase over the first few weeks of use as the batteries reach their optimum efficiency after approximately 12 cycles of full discharge and full recharge. Make sure that the charger indicator light is green before you unplug your charger.



Warning!

- If batteries are damaged they could heat up when charging and, in an extreme case, explode.
- Do not smoke or use an open flame while your battery is being charged.
- Do not use an extension cord unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock.
- Do not use the charger if it has received a sharp blow, been dropped or otherwise misused in any way. Contact UltraLite Vehicles Customer Service.
- Do not dismantle the charger. This will void the warranty.
- Do not switch off, unplug or interrupt the recharge cycle until the charging cycle has completed. Doing this may shorten the life of your battery.

A Guide to Making Your Battery Last

- For longest life, your battery should be recharged after use, preferably overnight.
 - If your vehicle is not used for a period of time, a refreshing charge should be given every month. Never leave your battery in a discharged condition. This is particularly important to sealed batteries which are the type used in your vehicle.
 - If your vehicle has been stored away for some time, recharge your battery before reusing it.
 - Every six months, check the connections on the battery pack, making sure they are clean.
 - Batteries carry no warranty from the original manufacturer.
-

355XL “Take Apart System”

Instructions on how to split the frame for transportation

The 355 XL chassis can be split forward of the rear wheels to make it even easier to stop in the boot of a car. Should you wish to use this facility please follow the instructions below:

- Under the title “Folding your Ultralite Vehicle” carry out instruction “1, 2 & 3” on page 18 & 19. (Removing the seat & Battery)
- You should now have removed the seat and battery.
- Fold the tiller down “Point 4 on page 18”
- Secure the tiller with the Velcro strap (see photo) this stops the tiller from moving when the frame is separated

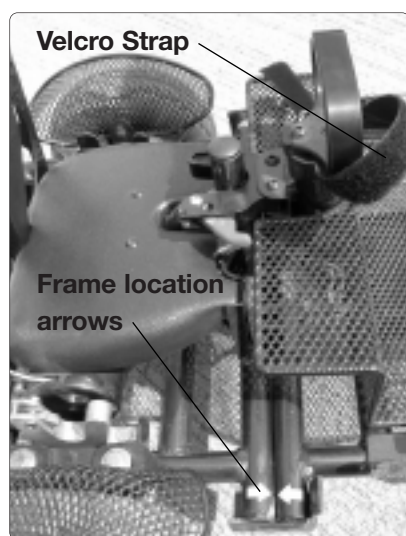


Figure 29



Figure 30



Figure 31

- Locate the frame release handle and push to release
- With one hand hold the rear of the frame and the other hand hold the grab handle
- Push gently upwards and the frame will separate
- The vehicle is now ready to transport

To assemble

- Hold the 2 frame parts, lift the front frame into the slots (see sets of arrows)
- Slot the front frame into the rear section and allow the automatic lock to click in
- The frame is now connected

Do not force the frames together ensure that the front half of the frame is securely attached to the rear half before proceeding with the assembly detailed on page 20.

User Maintenance

It is important for safety that you carry out the following checks Daily or Before Use

- 1. Visually check the machine for damage.**
- 2. Visually check the tyres for damage.**
- 3. Check the steering moves freely.**
- 4. Check that the Tiller is secure and that the tiller lock is engaged.**
- 5. Check the folding seat is securely attached to the chassis.**
- 6. Check the armrests are secure**
- 7. The Battery should be fully charged.**
- 8. Ensure the front basket is secure (if fitted).**
- 9. Keep your vehicle clean by using a damp cloth and soapy water – never use a hose.**

Important – Possible faults

As you get used to your vehicle you will get a feel for how it behaves. If something feels unusual, for instance the vehicle does not accelerate or brake smoothly; the brakes are not holding on a slope or the steering feels different, contact your dealer immediately and explain to the engineer exactly what the problem is.

Disposal

Contact your dealer for advice before you consider disposing of your scooter. They will be aware of the environmental regulations in force at the time and will assist you to meet the applicable environmental legislation.

Servicing and Maintenance

1. This vehicle is designed for minimum maintenance. However it is recommended that your vehicle is serviced at least once a year, by an approved Electric Mobility Dealer. If the vehicle is used constantly we recommend a twice yearly maintenance.
2. Ensure the engineer stamps the Service Log on completion for all servicing carried out on this vehicle. Keep all receipts for servicing and repairs with this handbook. This may add value when selling the vehicle.
3. When the vehicle is due for its annual service make sure you report any concerns you have, preferably when you book the service (See points to look out for below).
4. On completion of the service, always test the vehicle before the engineer leaves and make sure you are satisfied with the work carried out.

Points to look out for:

- Are there any unusual noises from the wheels or does the frame creak or are there difficulties in folding the Model 355 e.g. stiffness, or damage to the seat sockets or frame attachment?
- Are there any difficulties in assembling the front and rear sections of the chassis ?
- Is the battery charging up correctly – is the “full” charge green light on after charging?
- Is the steering tight or is it loose when turning? Is there any play in the steering or in the steering lock?
- Has anything come loose?
- Does the vehicle perform as well as it did when it was new?
- Are there noises or rattles that were not there before?
- Are there any signs of damage or cracking?

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 - Are there any difficulties in assembling the front and rear sections of the chassis ?
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 - Has anything come loose?
 - Does the vehicle perform as well as it did when it was new?
 - Are there noises or rattles that were not there before?
 - Are there any signs of damage or cracking?
-

Engineer’s Checklist for Model 355 and 355 XL

Obtain all comments from the customer on the condition and serviceability of the scooter and then complete an Initial diagnostic road test. Record all defects to be corrected. Now check, test and complete the following:

- Wheel bearings wear and lubricate
- Wheel alignment and tracking
- Speed dial works correctly
- Wear or damage to tyres or wheels
- Bodywork fixtures for damage, or cracking
- Throttle play and adjustment
- Battery box contacts & signs of corrosion, clean or replace as necessary
- Check all cables for damage, abrasion, corrosion and that screening is intact. Replace as necessary
- Steering bearing (adjust as required)
- Tiller adjustment - functioning, wear and damage
- Seat mounting for wear or damage, particularly the folding mechanism and the front leg sockets
- Handlebar alignment
- Motor brush wear
- Drive shaft for wear, damage or cracking
- Gearbox for leaks and smooth operation
- Motor speed check
- Electromagnetic brake operation
- Freewheel operation
- Frame for damage or cracks
- Front and rear chassis attachment points for corrosion, wear or damage and catches for correct operation
- General check for corrosion, repair or protect as necessary
- All operational controls work correctly
- Battery condition and charger operation
- Tighten all nuts & bolts using the correct torque settings
- Correct all defects found and determine if the vehicle is roadworthy.
- Final road test
- Clean vehicle
- Customer road test

Care and Maintenance

Your UltraLite Vehicle is virtually maintenance free. You can help keep your vehicle in good condition by following this simple guide.

- Seat Upholstery** A damp cloth and a mild soap will keep your seat and backrest looking good. Do not use abrasive cleaners as this will damage the coating. Upholstery can also be damaged by chemical cleaners. Ultra-violet light can also reduce the life of the upholstery coating material. This is a normal aging process and cannot be guaranteed.
- Bodywork** The bodywork on your vehicle can be lightly washed with a damp cloth and mild soap and water. Auto polish can be used to keep the paint in pristine condition. Do not use abrasive cleaners or strong detergents because this will fade the color. **CAUTION:** Do not hose down your vehicle. Water could penetrate the electronics and cause permanent damage.
- Storage** **DO NOT** store your vehicle in damp conditions. This may affect the electronics if left for very long periods of time. Your vehicle can be folded and stored flat, on its wheels or in an upright position on the rear bumper. You can store it fully assembled or disassembled with the seat and/or battery removed.
- Electronics** Servicing of the drive electronics and charger should only be carried out by your local UltraLite Vehicles service center. These units are sealed and should not be opened. **BROKEN SEALS WILL VOID YOUR WARRANTY. DO NOT** operate your vehicle in extreme weather conditions, i.e. very heavy rain or snow. **DO NOT** drive through water. This may damage the main electronic controller of your vehicle. **SAFETY NOTE:** For your own safety, we recommend that you check the function of your vehicle brakes prior to a journey.
- Motor Brakes** If the motor brakes are functioning correctly, you will not be able to push your vehicle when it is switched off or switched on with the control lever in the neutral position. If your vehicle can be pushed as described above, the motor brake(s) may be faulty. Please do not use the vehicle, and contact your local UltraLite Vehicles service center or call 01460-258100.
- Driving Brake** When you drive your vehicle and let go of the control lever, your vehicle should reduce speed very quickly and come to a gentle stop. If you notice a change in the normal driving/slowning condition, and your vehicle does not slow down quickly, please do not use your vehicle, and contact your local UltraLite Vehicles service center or call 01460-258100.
- Tyres** Check the condition of your tyres regularly. Look for signs of wear, cuts and foreign objects lodged in the tread. Since your vehicle has foam filled tyres, it eliminates the need to check or maintain air pressure.
- Battery** Keep your battery well charged (see Battery Charging section). Keep battery clean and in a dry frost-proof place. Keep battery contacts clean. To clean, brush lightly with fine sandpaper. **IMPORTANT:** It is not possible to predict the life expectancy of your battery. This is mainly due to different workloads a battery may be subjected to. Some UltraLite Vehicle users will use their vehicle every day and for long periods of time. Their battery will receive a near total discharge, and the life of their battery will be short (12 to 24 months in some cases). Other users will use their vehicles less frequently putting their battery through a less demanding discharge lifestyle. These batteries will probably have a longer life (12 to 36 months or longer). When you need to replace the battery, order from UltraLite Vehicles by calling 01460-258100. The battery for your vehicle must be replaced with genuine UltraLite Vehicles parts.

Troubleshooting

If your vehicle will not start:

1. **Make sure that the power switches are turned on.** If they are, the battery gauges will be operating and the dashboard switch will be lit.

IF THE BATTERY CONDITION GAUGE FAILS TO OPERATE WHEN THE SWITCHES ARE IN THE “ON” POSITION, CHECK THE FOLLOWING:

1. **Make sure the battery pack is fully engaged** on the frame.
2. **Make sure the battery terminals are clean.**
3. **Make sure your battery is charged** and in good condition.

IF YOUR VEHICLE DOES NOT SLOW DOWN OR THE VARIABLE SPEED CONTROL DOES NOT WORK:

1. **Turn off the power.**
2. **Inform your local UltraLite Vehicles Service Center** or call 01460-258100.

Warning! If you find, for any reason, your vehicle doesn't reduce speed when you let go of the control lever, switch your vehicle “OFF”. The parking brake will activate immediately and stop your vehicle. Beware, the vehicle will stop very suddenly so brace yourself against the handlebars; sit back on your seat.



If you feel, for any reason, that your vehicle is not driving correctly or making unusual noise, stop using the vehicle. Be SAFE, contact your local UltraLite Vehicles Service Center, they will be able to advise you. Find out who your local Service Center is by calling Customer Service at 01460-258100.

Important Vehicle Controller Information

The vehicle controller system incorporates a sophisticated microprocessor design. It is located under the cover of your vehicle. The vehicle controller continually monitors the vehicle system and ensures safe and reliable operation. Safety conditions monitored include:

- Speed control system integrity
- Internal voltages and circuits
- Motor voltages and circuits
- Safety isolate relay
- Battery voltage

For safety, the controller will not operate if the control lever is not in the neutral position when the vehicle is turned “ON.”

Limited Warranty

UltraLite Vehicles warrants the vehicle, other than its component battery or batteries, to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. If, within such warranty period, any such product shall be proven to UltraLite Vehicles satisfaction to be defective, such product shall, at option, be repaired or replaced. Sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement. This warranty includes parts and labor for one year and travel for 30 days. For warranty service, please contact UltraLite Vehicles at: 01460-258100.

Limitations and Exclusions

The foregoing warranty shall not apply to products subjected to negligence, accidents, improper operation, maintenance or storage, commercial, institutional, or service use other than normal application, or to products damaged by reason of repairs or modifications made to any product without the specific written consent of UltraLite Vehicles or products damaged by circumstances beyond UltraLite Vehicles control.

The foregoing warranty is exclusive and in lieu of all other express warranties, implied warranties, if any, including but not limited to the implied warranties of merchant ability and fitness for a particular purpose. The warranty shall not extend beyond the duration of the express warranty provided herein. UltraLite Vehicles shall not be liable for any consequential or incidental damages whatsoever.

Technical Specification - Ultralite 355

Wheelchair type Class	Class A, B or C	Class B
Department of Transport Class	Class 1 2 or 3	Class 2
Overall dimensions fully assembled	length x width x height mm (in)	1090 (43) x 520 (20.5) x 960 (38)
Dimensions seat removed tiller folded	length x width x height mm (in)	1090 (43) x 520 (20.5) x 410 (16)
Maximum Carrying Capacity	kg (lb)	100 (220)
Mass (weight) including batteries	kg (lb)	40 (88)
Battery voltage and capacity	volts and amperes	12v 2 x 10A
Mass (weight) of battery pack	kg (lb)	8 (17.6)
Type of seat		Folding Seat, can be separated from chassis
Mass (weight) of seat	kg (lb)	9.6 (21.5)
Mass (weight) of chassis	kg (lb)	22 (48.5)
Mass of (weight) of rear section, not separated	kg (lb)	Not applicable
Wheel size	front/rear mm (in)	178 (7) / 200 (8)
Type of tyres	type	Solid foam filled puncture proof
Tyre pressures normal	front/rear p.s.i. (bar)	Not applicable
Tyre pressure maximum - not to be exceeded	front/rear p.s.i. (bar)	Not applicable
Maximum speed	km/h (m.p.h.)	6 (3.8)
Minimum braking distance from maximum speed	metres (ft)	1.28 (4.2)
Range on full charge and flat ground	km (miles)	Up to 16 (10)
The turn-around width	m (ft)	1.9 (6.2)
The maximum safe slope	degrees of slope	6° - Do not exceed the scooter may topple
The maximum climbing ability facing upwards	degrees of slope	6°
Ground clearance	mm (in)	38 (1.5)
Maximum obstacle climbing ability	mm (in)	38 (1.5)
Maximum safe descendable kerb height	mm (in)	25 (1)

Technical Specification - Ultralite 355XL

Wheelchair type Class	Class A, B or C	Class B
Department of Transport Class	Class 1 2 or 3	Class 2
Overall dimensions fully assembled	length x width x height mm (in)	1090 (43) x 520 (20.5) x 960 (38)
Dimensions seat removed tiller folded	length x width x height mm (in)	1090 (43) x 520 (20.5) x 410 (16)
Maximum Carrying Capacity	kg (lb)	100 (220)
Mass (weight) including batteries	kg (lb)	44 (97)
Battery voltage and capacity	volts and amperes	12v 2 x 12A
Mass (weight) of battery pack	kg (lb)	9.7 (22)
Type of seat		Folding Seat, can be separated from chassis
Mass (weight) of seat	kg (lb)	9.6 (21.5)
Mass (weight) of front section	kg (lb)	11.4 (25.2)
Mass of (weight) of rear section	kg (lb)	12.8 (28.2)
Wheel size	front/rear mm (in)	178 (7) / 200 (8)
Type of tyres	type	Solid foam filled puncture proof
Tyre pressures normal	front/rear p.s.i. (bar)	Not applicable
Tyre pressure maximum - not to be exceeded	front/rear p.s.i. (bar)	Not applicable
Maximum speed	km/h (m.p.h.)	6 (3.8)
Minimum braking distance from maximum speed	metres (ft)	1.28 (4.2)
Range on full charge and flat ground	km (miles)	Up to 18 (11.5)
The turn-around width	m (ft)	1.9 (6.2)
The maximum safe slope	degrees of slope	6° - Do not exceed the scooter may topple
The maximum climbing ability facing upwards	degrees of slope	9°
Ground clearance	mm (in)	38 (1.5)
Maximum obstacle climbing ability	mm (in)	38 (1.5)
Maximum safe descendable kerb height	mm (in)	25 (1)

Contact your dealer if there is any part of this document you do not understand

* Range is calculated under test conditions. Weight, terrain and weather conditions can affect range of travel.

Electric Mobility Euro Ltd reserve the right to change specification without prior notice Doc.291D iss 1 7/6/5

Rules For Operating Your Ultralite Vehicle

Your UltraLite is a powerful electric vehicle. Please read the following notes carefully to ensure maximum safety at all times. Always make certain your vehicle is in full working order before using it.

1. **Do not ride your vehicle without reading this instruction manual first.**
2. **Do not exceed the Maximum Safe Slope recorded in the Technical Specification.**
3. **Do not carry passengers** or exceed the maximum weight.
4. **Do not get on or off your vehicle unless it has come to a full stop** and it is turned off.
5. **Do not switch your vehicle on with the forward/reverse lever depressed.**
6. **Do not back your vehicle onto uneven inclines or surfaces.** Be cautious when traversing slopes.
7. **Do not drive your vehicle in a confined space** unless the speed adjustment dial is set at low.
8. **Do not turn suddenly at full speed**, especially on uneven or hilly ground. Failure to observe this may result in tipping of your vehicle.
9. **Do not drive your vehicle over deep, soft terrain** (Example, soft dirt, sand, loose gravel).
10. **Do not operate your vehicle while under the influence of alcohol or certain drugs** which may impair your safety.
11. **Do not climb kerbs or cut outs that exceed your vehicle capability.** Do not turn when negotiating kerbs or slopes. Always approach kerb cut outs at low speed and straight.
12. **Always stop fully before changing direction** (forward or reverse).
13. **Always keep your feet on the vehicle when driving.**
14. **Always proceed carefully while riding your vehicle especially when approaching a ramp or a hill.**
15. **Always proceed carefully while riding on uneven surfaces.**
16. **Transport – Do not sit on your vehicle while being transported in a moving vehicle.** Always tie down your vehicle, and transfer yourself to a motor vehicle seat.
17. **Do not drive your vehicle through water or clean with a high-pressure hose.**
19. **Lean forward when riding up an incline.**

Additional Safety Information

Carrying Weight on the Vehicle

Optional Front Basket	The basket mounted on the front has a weight limit of 10lbs (4.5kgs). Do not exceed this as it could effect the steering.
Handlebars	Do not carry or attach anything to the handlebars. Anything attached to the handlebars will affect the control of the vehicle.
Floor Area	Do not use the floor area to carry things. They might fall off, or obstruct your movement.
Modifications	Unauthorised modifications could result in injury or permanent damage. Such modifications will invalidate any guarantees.
Other Items	Only fit approved products or accessories.

Child Safety

This product is designed to be operated by adults. Children should not be allowed to tamper with the controls or play on the vehicle. **Do not carry children as passengers.** The product is designed for single person use only. Keep all packaging well away from children. They could be harmed.

Frequently Asked Questions

I want to transport my vehicle in a car.

The Model 355 XL scooter is designed to be folded and dismantled to make it easier to load it into a car. There are various techniques. It depends on what type of vehicle you own and your physical capability. Make sure your dealer has demonstrated the easiest way of doing this.

Can I fit weatherproofing such as a canopy ?

No, the Model 355 scooters are too small to have canopies as they can adversely affect stability and handling.

How long will my batteries last ?

This is a difficult question as it depends on many factors. The life of a battery depends upon the number of cycles the battery goes through, the peak loads and on the conditions of use. Some general advice about battery care:

- Keep it charged, and do not let the battery run completely flat.
- Ensure all you battery is fully charged at the end of the charging cycle
- Batteries may not perform as well in very cold weather.
- Change your battery if you find it is not performing as well as new.

Care can prolong the life of the batteries but remember that, in time, all batteries will fail to perform to specification.

What range can I expect ?

The generally expected range is about 18 km or 11.5 miles, see Technical Specification sheet. However, range can be affected by many things such as:

- Temperature. Cold weather can reduce the output of the batteries.
- Type of terrain. Obviously climbing hills takes more energy than driving on the flat.
- Weight of the person.
- The condition and charge of the batteries.
- Faulty or old batteries or a
- Faulty charger

Important Rule: Always use the correct charger with the correct batteries and ensure all batteries are charged before you start out.

How long should I keep my vehicle before I change it?

It is important that the vehicle you have suits your needs and abilities. Your Ultralite model scooter should serve you well for many years but change it if at any time you feel it no longer meets your needs. Consult your dealer on the condition of your vehicle and remember vehicles of any type become more expensive to maintain the older they get.

Additional Information

Owners Manual: Replacement copies are available from: Electric Mobility Euro Ltd. Canal Way, Ilminster, Somerset, TA19 9DL Telephone: 01460 258100.

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety. Each vehicle comes with a copy of the BHTA Highway Code. Please make sure you read it. Telephone BHTA on 02077 022 141 for a new copy.

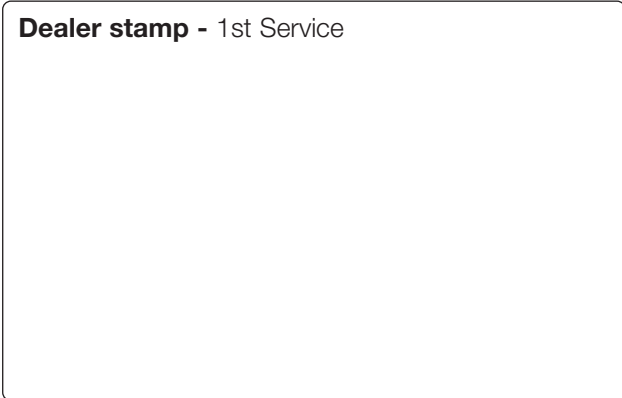
Important note on the BHTA Highway Code: On page 3 of the Code under “Consider Investing in a mobile phone” Read the section of this manual under “Safety Information”. If in doubt contact your dealer. For Information regarding other Electric Mobility products contact your dealer or log on to the Electric Mobility Website www.electricmobility.co.uk

Service Log

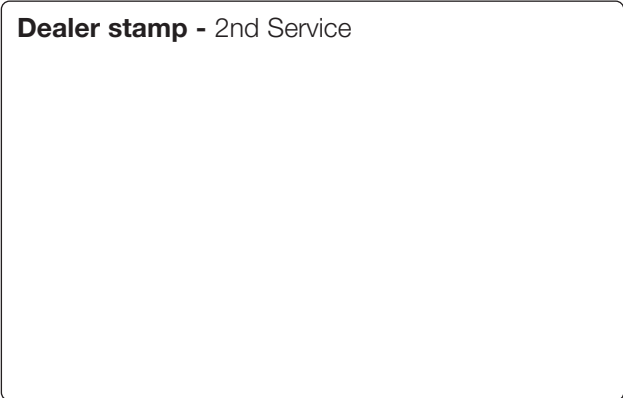
Notice for the Service Engineer.

Please make sure this part is stamped and dated after each service.

Dealer stamp - 1st Service



Dealer stamp - 2nd Service



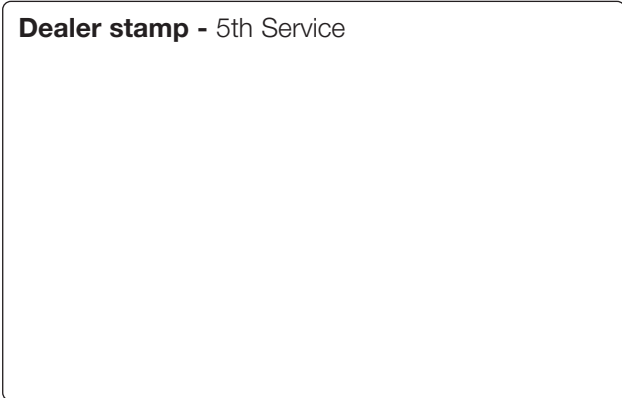
Dealer stamp - 3rd Service



Dealer stamp - 4th Service



Dealer stamp - 5th Service



Dealer stamp - 6th Service



Dealer stamp - 7th Service



Dealer stamp - 8th Service



Brochure Request

Do you have a friend or colleague that would be interested in an Electric Mobility product?
If so cut out this coupon and send it to the address shown on the back of the manual.

My Dealer's Company name is:	
<hr/>	
<input type="checkbox"/>	Please can I have a free no-obligation home demonstration.
<input type="checkbox"/>	Please send me a brochure of the range of products.
My friend's name is:	
<hr/>	
My friend's address is:	
<hr/>	
<hr/>	
County:	Postcode:
<hr/>	
My friend's telephone number is:	
<hr/>	

If you are visually impaired, please contact the Company to discuss your requirements. However, you should not drive a vehicle in a public place if you cannot see well enough to ensure your own, and others safety.

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



Dealer Information - Warranty Card

This section is to be filled out by the Dealer and sent to Electric Mobility Euro Ltd.

Dealer:	
<hr/>	
Product Description:	
<hr/>	
Serial No.:	Invoice No.:
<hr/>	
Customer Name & Address:	
<hr/>	
<hr/>	
County:	Postcode:
<hr/>	
Telephone No.:	
<hr/>	
Date received at Dealers:	
<hr/>	

Postage will be paid by: Electric Mobility Euro Ltd., FREEPOST (SWBI 1045), Ilminster, Somerset, TA19 9ZA



**Electric Mobility Euro Ltd.,
FREEPOST (SWBI 1045),
Ilminster,
Somerset,
TA19 9ZA**

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Ilminster,
Somerset,
TA19 9ZA**

Guarantee and Warranty

Lifetime Frame Guarantee

Electric Mobility Euro Ltd guarantees the frame of its vehicles to be free from defect in materials and workmanship under normal use as described in this document for the lifetime of the vehicle. Should a defect in materials or workmanship appear, Electric Mobility Euro Ltd, will repair, or at its option, replace the frame to the original owner.

One Year Limited Warranty

Electric Mobility Euro Ltd warrants its products against defects in material and workmanship for a period of one year, providing the products are properly assembled, operated and maintained in accordance with the vehicle Owners Manual. This limited warranty commences on the date of the original retail purchase or original use, whichever occurs first, providing the warranty card is fully and correctly filled out and returned to Electric Mobility Euro Ltd Customer Service Department within 15 days from receipt of product. If a defective part appears within the stated limited warranty period and the purchaser has given Electric Mobility Euro Limited immediate notice the Company will repair the part or at its option replace the part with a similar part. No allowance will be made for repairs to any equipment without the expressed written or verbal approval of Electric Mobility Euro Limited. Any description, specifications, samples, models, bulletins or similar materials used in connection with the sales of Electric Mobility Euro Limited products are for the sole purpose of identifying the equipment and are not to be construed as expressed warranties. Electric Mobility Euro Ltd shall not be liable for special, indirect or consequential damage. Electric Mobility Euro Ltd's liability on any claim of any kind including negligence for any loss or damage arising out of, connected to, or resulting from the order of the performance thereof the design, manufacture, sale, delivery, resale, direction and instructions, inspection, repair or use of any equipment covered by or furnished by, under this order, shall in no case exceed the price paid by the purchaser for the equipment. This limited warranty does not cover normal maintenance service, or periodic adjustments necessitated by use of wear. Under no circumstances will charges for labour, consequential damage or repair expense be allowed after 30 days from receipt of product.

Ultralite 355 / 355XL Scooter

Manufactured by



Electric Mobility Euro Limited, Canal Way, Ilminster, Somerset TA19 9DL
Telephone: 01460 258100 www.electricmobility.co.uk

P/N: ??????????

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