

Model 350/355

Owners Manual



ULTRALITE™
VEHICLES

Canal Way
Ilminster, Somerset England TA19 9DL
01460-258100

CE

EMC Part: 19289500
Rev. 01 • Date: 03/06/03

Thankyou for purchasing your UltraLite TM 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 recognized 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, Michael Flowers

President

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EMI WARNING

Electromagnetic Interference (EMI) From Radio Wave Sources

Powered motorized 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, cellular 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.

WARNINGS

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.

DISCLAIMER

The UltraLite Vehicle is to be used for recreation and transportation. It is not intended to be used by individuals with physical limitations that could prevent the user from operating the vehicle safely. UltraLite Vehicles disclaim all responsibility for any personal injury or property damage which may occur as a result of improper or unsafe use of its products. Mechanical or electrical defects will be dealt with on a contingency liability basis.

The following guidelines are intended to assist you in the safe operation of your UltraLite electric powered vehicle. If you have any questions about the correct operation of your vehicle, please contact the Customer Service department of UltraLite Vehicles at 01460-258100.

LIMITED WARRANTY TERMS

Please keep a note of your serial number and make sure to keep your proof of purchase. The serial number is located on the front of the main frame battery pack holder, in the upper right corner.

For future reference, record your serial number here: _____

Your UltraLite Vehicle is warranted for 12 months from the date of purchase against defects in manufacture or materials.

Parts replaced or repaired under the terms of this warranty will be covered for the balance of the warranty period.

This limited warranty applies only to parts supplied or approved by UltraLite Vehicles. This warranty is not transferable.

EXCLUSIONS: This warranty does not extend to consumable items which may need replacing due to normal wear and tear (tires, upholstery, motor brushes, fuses, batteries, etc.) or damage to the product caused by misuse or accident for which UltraLite Vehicles cannot be held responsible.

This warranty does not apply if your UltraLite Vehicle shows signs of excessive wear and abuse or has been modified.

Servicing of the speed controller or battery charger must only be carried out by your local authorized UltraLite Vehicles Service Center. Any attempt to open or dismantle these items will void the warranty on that item.

Batteries: Batteries do not carry a limited warranty from the original manufacturer.

WARNING!

Do not attempt to open the battery vent plugs.

GETTING TO KNOW YOUR ULTRALITE VEHICLE



A full technical specification for this model can be found on page 21 of this manual.

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 true patent pending front dual wheels provide the maneuverability of a 3-wheel vehicle. In addition, the vehicle incorporates a convenient removable folding camp seat with adjustable width, folding arm rests.

Model 355 Accessories

The Model 355 comes with the following additional accessories to complement your riding enjoyment:

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

Please note these accessories are not available on UK models

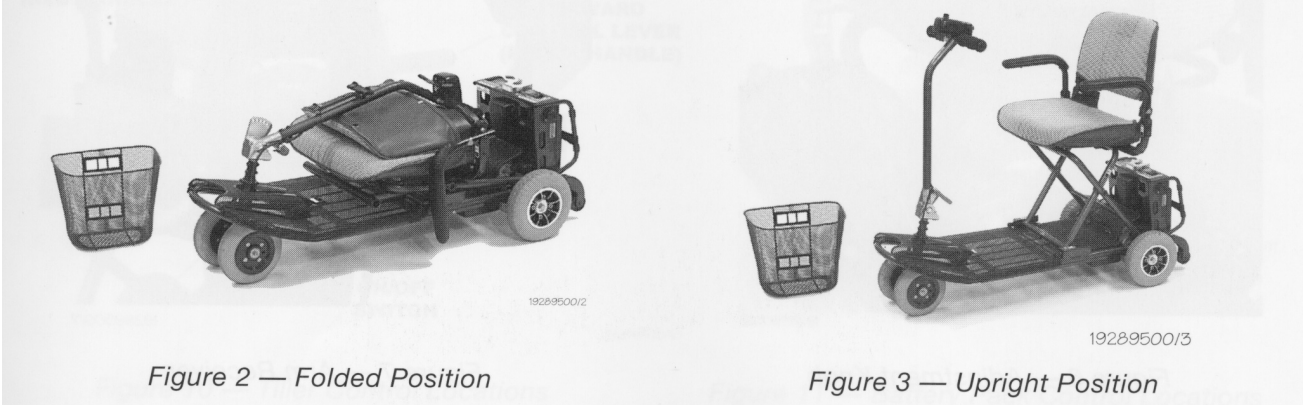
OPERATING YOUR ULTRALITE VEHICLE

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.

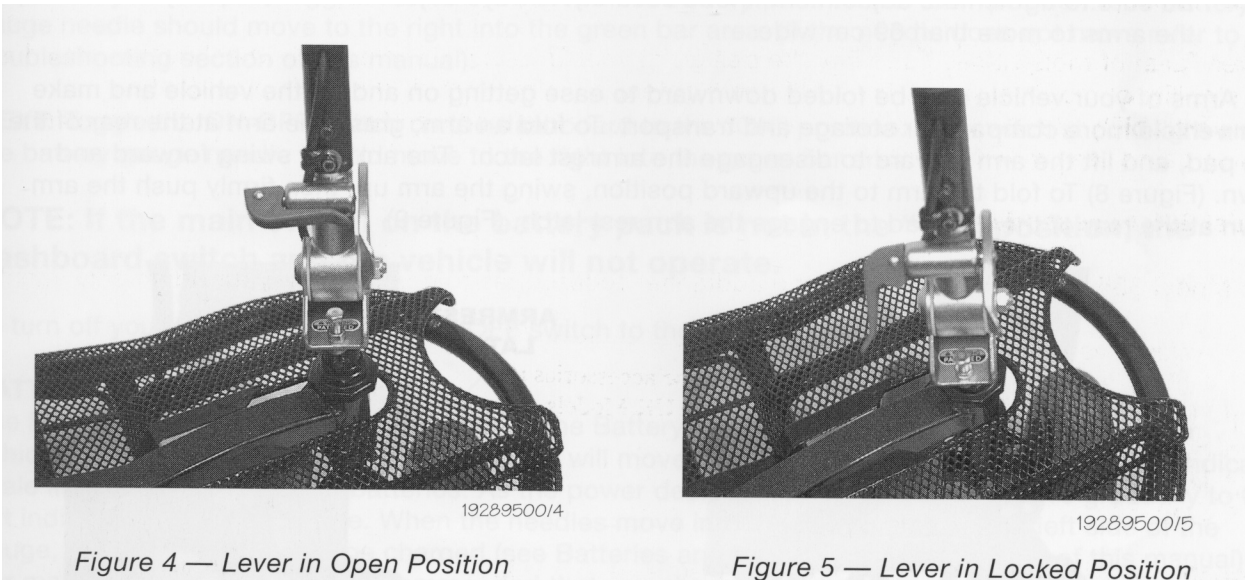
Folded and upright positions are shown in Figures 2 and 3.

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



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.

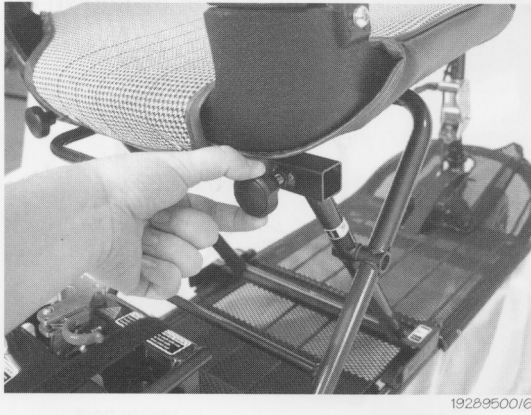


Figure 6 — Adjustment Knob



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

CAUTION!

Be sure to tighten the adjustment knobs securely. Always adjust the arms equally. Do not adjust the arms to more than 69 cm wide.

The Arms of your vehicle may be folded downward to ease getting on and off the vehicle and make your vehicle more compact for storage and transport. To fold an arm, grasp the arm at the rear of the arm pad, and lift the arm upward to disengage the armrest latch. The arm will swing forward and down. (Figure 8) To fold the arm to the upward position, swing the arm up, then firmly push the arm down at the rear of the arm pad to engage the arm rest latch. (Figure 9)



Figure 8 — Folding the Armrest

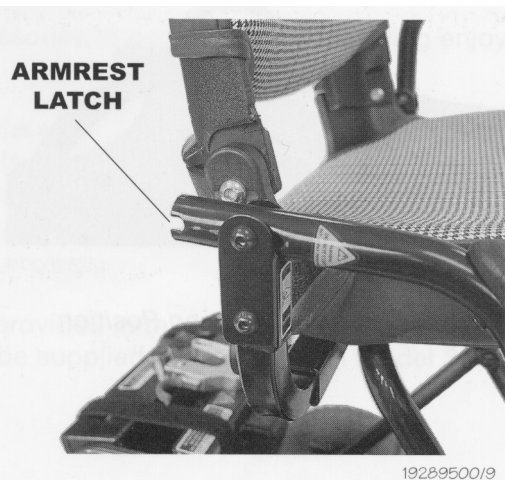


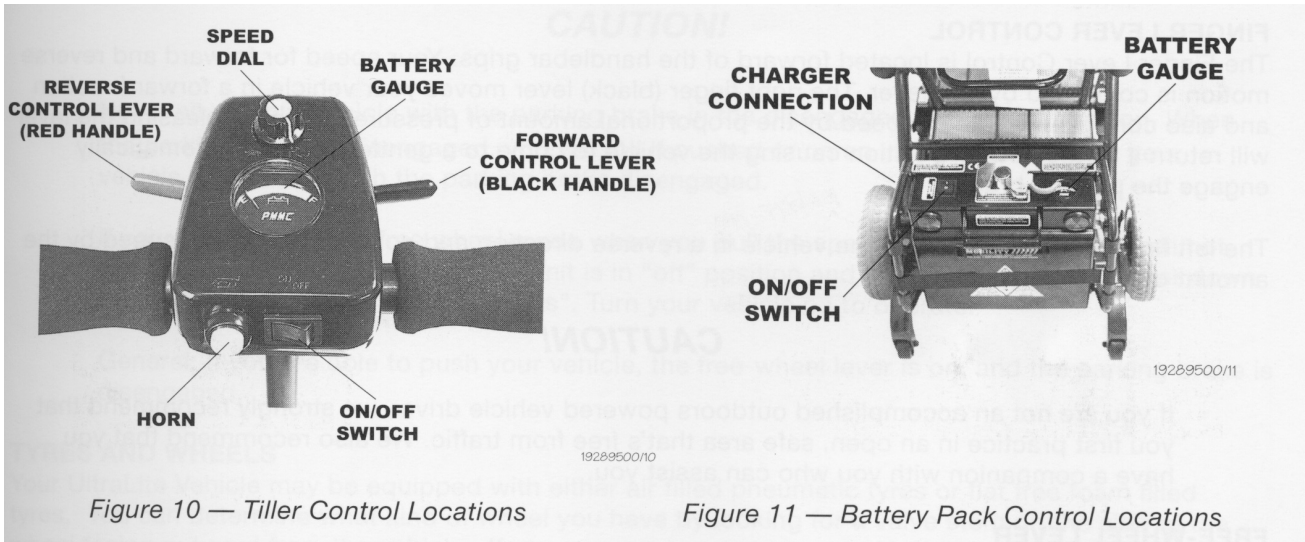
Figure 9 — Armrest Latch

CAUTION!

Be sure the arm latches are engaged before putting any weight on the arms. 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.

CONTROL FEATURES

Your controls are located on the handle bar dashboard. Control locations are shown in Figure 10.



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 11). 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.

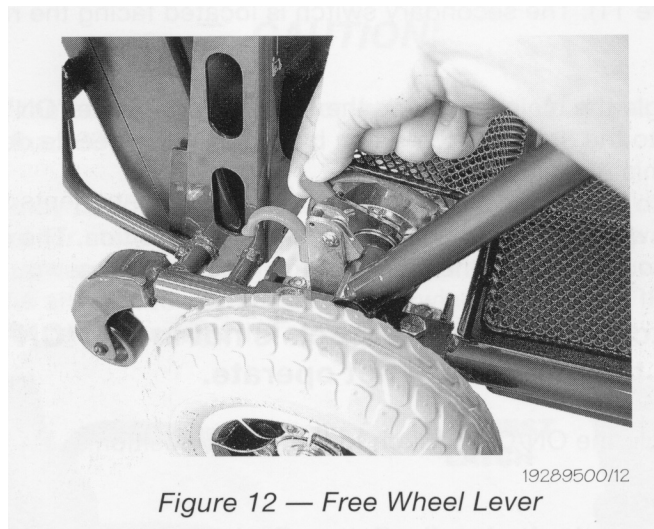
The left finger (red) lever moves the vehicle in a reverse direction and controls the rate of speed by the amount of pressure applied.

CAUTION!

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.

FREE-WHEEL LEVER

The Free-Wheel Lever is located on the back right side of the motor (Figure 12). Move the red release lever forward to disengage the brakes. This will enable you to free wheel (roll) the vehicle and push it around.



Free-Wheeling (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.

CAUTION!

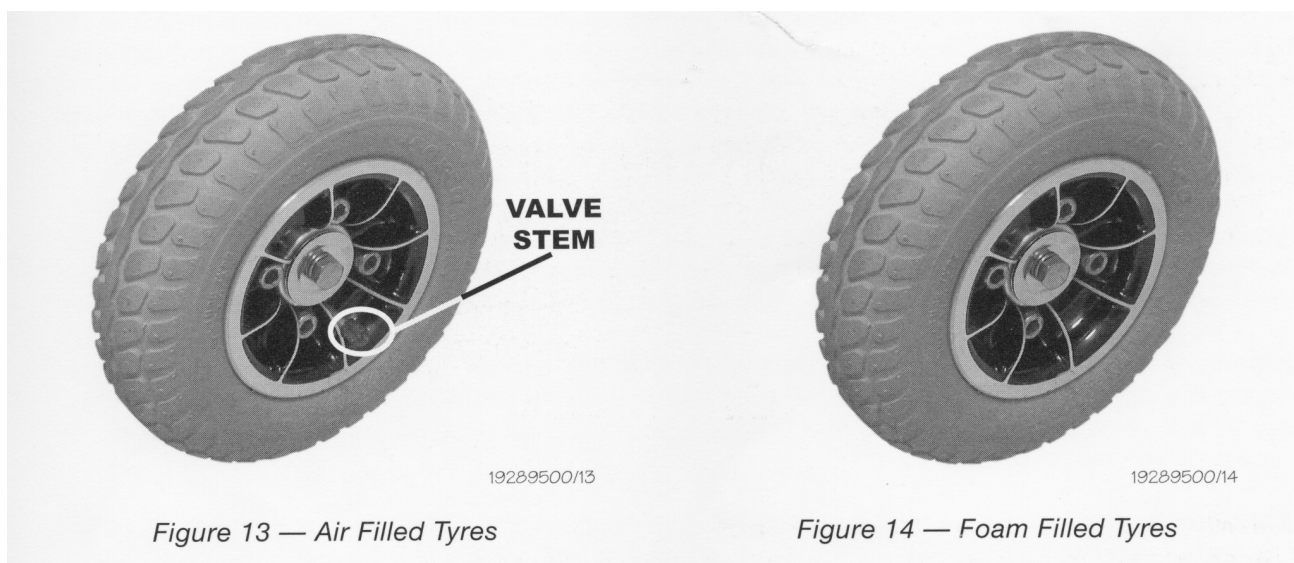
Never sit on your vehicle with the parking brake in the disengaged free-wheel position. When the parking brake is disengaged, you will roll if pushed or on an incline. Do not park your vehicle on a incline with the parking brake disengaged.

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 UltraLite Vehicle may be equipped with either air filled pneumatic tyres or flat free foam filled tyres. You can determine what kind of wheel you have by looking for a valve stem on the side of the wheel facing outward from the vehicle. If you see a valve stem, your vehicle is equipped with air filled tyres. (Figure 13). If there is no valve stem, your vehicle is equipped with flat free, foam filled tyres (Figure 14).



Air filled tyres should be maintained with 35 to 40 psi. air pressure. Do not ride your vehicle with under-inflated or over-inflated tyres. Tyres should be checked periodically for pressure. Please see the maintenance section of this manual for specific details about tyre care.

LEARNING TO GET AROUND

GETTING ON

The first time you ride your UltraLite Vehicle, make sure that you and your vehicle are on a level surface.

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.

CAUTION!

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 maneuver 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 red 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.

CONTROL THROUGH DOORS

Approach an unfamiliar door slowly 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! You need not strain.

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

The vehicle performs admirably on grass, gravel and on hills. ***BUT YOU MUST NOT EXCEED THE PARAMETERS ESTABLISHED IN THIS MANUAL.*** Please refer to the "Rules for Safe Use" section. Safety must come first. 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.

CAUTION!

Your vehicle is powerful enough to safely climb small inclines, but the **MAXIMUM GRADIENT LIMIT IS 120**. The reason for this is to ensure good stability.

Always make certain your vehicle is in full working order before attempting to climb obstacles.

Never attempt to operate beyond the design capability of your vehicle. Please be observant of weather conditions because ice and rain will affect your level of traction.

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 sidewalk. 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 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.

WARNING!

Be aware of potential pinch points when folding.

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. (Figure 15)

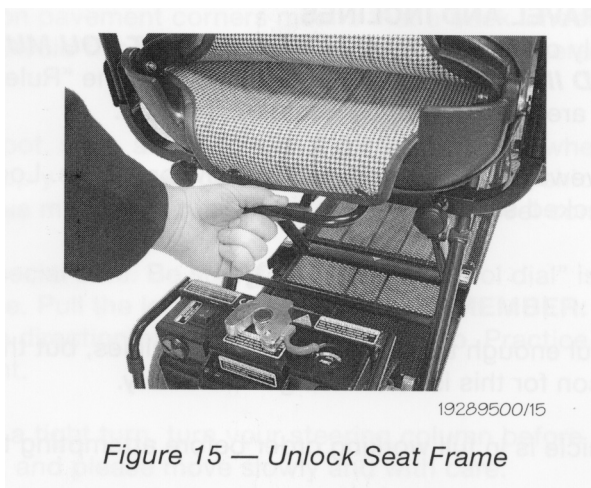
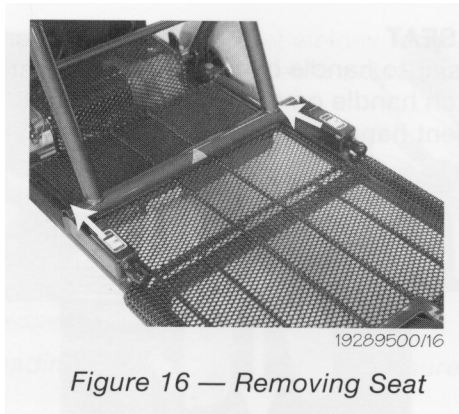
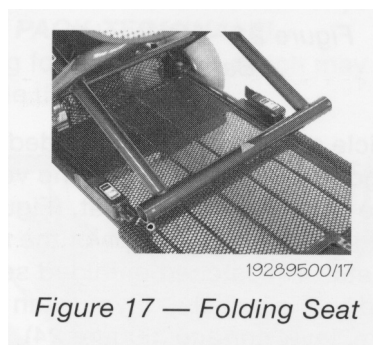


Figure 15 — Unlock Seat Frame

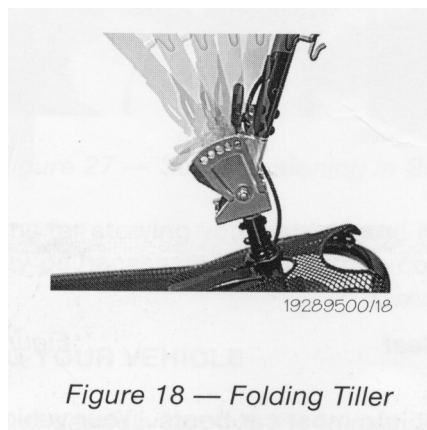
2. Swing the inner seat legs away from the latch while lifting the seat by the seat handle. This will move the lower portion of the inner seat legs to the rear and out of the front seat leg sockets. (Figure 16)



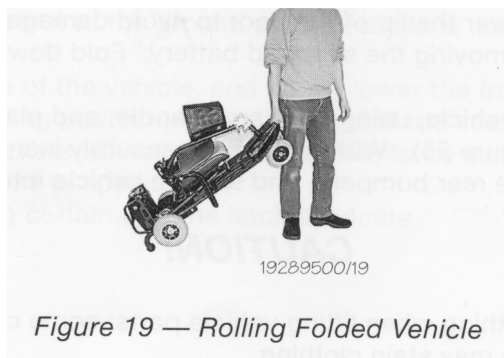
3. Swing the inner seat leg forward, and gently lower the seat to the frame, fold down the seat back and arms. The seat will nest neatly on the vehicle frame. (Figure 17)



4. Unlock the tiller latch, and fold the tiller down. (Figure 18)



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 19)



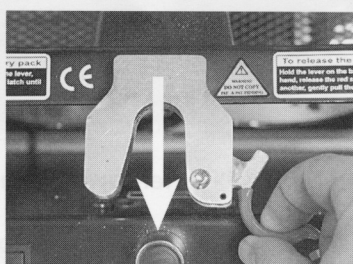
REMOVING BATTERY PACK AND SEAT

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 20, 21 and 22)



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Figure 20 — Unlatching Battery



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Figure 21 — Releasing Battery



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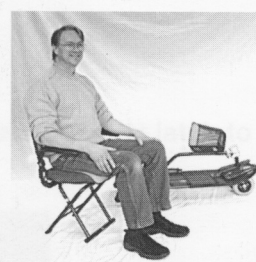
Figure 22 — Removing Battery

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 23) 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 24)



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Figure 23 — Unlatching Seat



19289500/24

Figure 24 — 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 25). 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 26).

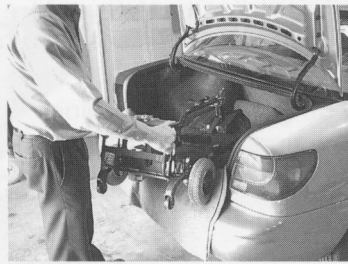
CAUTION!

TAKE CARE: Protect clothing when lifting vehicle parts; some components may have surface lubricants on them which may stain clothing.



19289500/25

Figure 25 — Boot Loading



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Figure 26 — Positioning in Boot

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 27).
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.



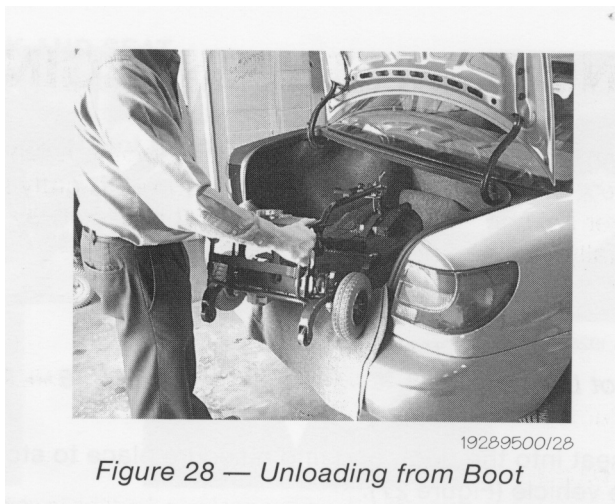
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Figure 27 — Seat Positioning in Boot

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.

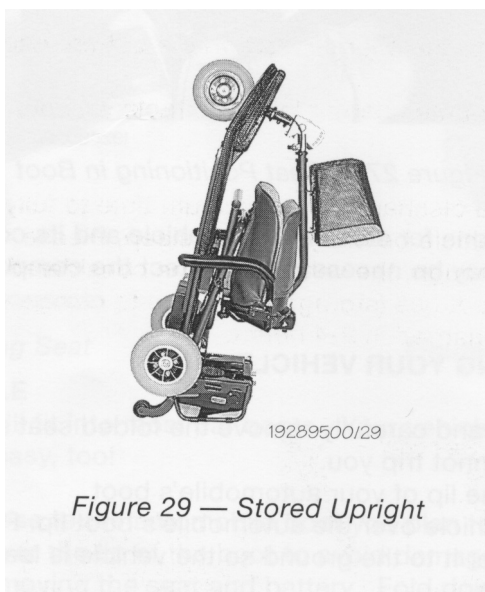
REMOVING AND REASSEMBLING YOUR VEHICLE

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 28).
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.



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 29). If you have room for a golf bag, you have room for your UltraLite!



BATTERIES AND BATTERY CHARGING

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.

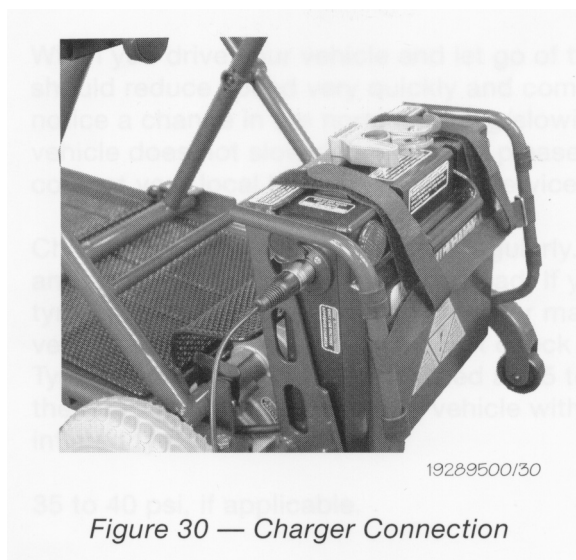
CHARGING THE BATTERY PACK

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 30).
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 monthly. A partially discharged battery can be recharged in 2-4 hours.



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.

WARNING!

- 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.

Make sure that the charger indicator light is green before you unplug your charger.

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.

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.

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 01 460-2581 00.

DRIVING BRAKE TYRES

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/slowing 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 01 460-2581 00.

Check the condition of your tyres regularly. Look for signs of wear, cuts and foreign objects lodged in the tread. If your vehicle has foam filled tyres, it eliminates the need to check or maintain air pressure. If your vehicle has air filled tyres, you must check the tyre pressure regularly. Tyre pressure should be maintained at 35 to 40 psi. **DO NOT** over inflate the tyres. **DO NOT** operate the vehicle with under inflated or over inflated tyres.

TYRE PRESSURE

35 to 40 psi, if applicable.

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 01 460-2581 00. The battery for your vehicle must be replaced with genuine UltraLite Vehicles parts.

VEHICLE STORAGE

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.

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 01 460-2581 00.

CAUTION!

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 01 460-2581 00.

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: 01 460-2581 00.

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.

SPECIFICATIONS

| | 355 | 350 |
|-----------------------------------|-------------------------|----------------------------|
| Length | 107 cm (42") | 107 cm (42") |
| Wheel Width | 48cm (19") | 48 cm (19") |
| Height | 94 cm (37") | 94 cm (37") |
| Folded Height with seat | 46cm (18") | 46cm (18") |
| Weight Capacity | 90 kg (200 lb.) | 90 kg (200 lb.) |
| Weight, with batteries | 39 kg (85.6 lb.) | 38 kg (84.2 lb.) |
| Weight, without batteries | 30 kg (67.8 lb.) | 30 kg (66.4 lb.) |
| Weight, heaviest part | 21 kg (46.5 lb.) | 21 kg (46.5 lb.) |
| Battery Weight | 8 kg (17.8 lb.) | 8 kg (17.8 lb.) |
| Seat Style | Flip Down ABS with arms | Flip Down ABS without arms |
| Drive Mechanism | Rear wheel differential | Rear wheel differential |
| Tyres | Flat Free | Pneumatic |
| Seat Height ¹ | 53 cm (21 ") | 53 cm (21 ") |
| Deck To Seat Height | 36 cm (14") | 36 cm (14") |
| Motor Size | 450W | 450W |
| Ground Clearance | 5 cm (2") | 5 cm (2") |
| Maximum Speed | 6.1 k/mh (3.8 mph) | 6.1 k/mh (3.8 mph) |
| Maximum Travel Range ² | 16 km (10 miles) | 12 km (8 miles) |
| Maximum Climbing Angle | 120 | 120 |
| Charger | 100/240V 1500 MA | 100/240V 1500 MA |
| Tyre Pressure | N/A | 35-40 psi |

¹
EMC Part: 19289500 . Rev. 01
03/06/03

Seat height measured from floor to top of seat cushion

²Unit speed and travel range

Specifications Are Subject To Change without Notice

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 gradient outline for your vehicle (see Specifications).
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.
18. Do not attempt to ride up an incline exceeding 12 Degrees or 21%.
19. Lean forward when riding up an incline.