



# E-MERGE™

Operator's Manual

# E-MERGE Operator's Manual

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Part #: 1017472

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## **WARNING**

**WHEN OPERATING VEHICLE ON PUBLIC ROADS: THIS VEHICLE OFFERS MUCH LESS CRASH PROTECTION THAN A REGULAR CAR, VAN, OR TRUCK. THIS MEANS A HIGHER RISK OF INJURY OR DEATH IN COLLISIONS, EVEN AT LOW SPEEDS. THE HIGHER THE SPEED OF THE TRAFFIC AROUND YOU, THE HIGHER THE RISK OF INJURY.**

- To reduce these risks:
- Obey all traffic regulations.
- Only licensed drivers should operate the vehicle.
- Avoid roads with regular traffic, even if the speed limit is low.
- Whenever possible, stay on roads and lanes limited to low-speed vehicles.
- Wear your safety belts at all times.
- Avoid operating vehicle at night, because your vehicle may be hard for others to see.
- To reduce the chance of the vehicle tipping over, reduce speed when turning and maneuvering through curves and hills.
- This vehicle is intended for use on improved or groomed surfaces, rough terrain may result in loss of control.
- Do not drive while under the influence of alcohol, drugs or medicine. Not only is driving intoxicated unsafe but doing so may violate state and local laws.


## **WARNING**

**THIS PRODUCT CONTAINS OR EMITS CHEMICALS OR SUBSTANCES THAT HAVE BEEN DETERMINED BY THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.**

## **WARNING**

- Do not leave unattended children in vehicle at any time.
- This vehicle is not designed to be used in conjunction with child safety seat.
- Do not use or install child safety seat in any seat or position in the vehicle.
- Always obey and follow laws and regulations regarding the transportation of children.
- Children that require the use of a child safety seat in a regular type automobile should not be transported in this vehicle.

 **WARNING**  
DEATH OR SEVERE PERSONAL INJURY CAN RESULT FROM FAILURE TO FOLLOW THESE INSTRUCTIONS



- Do not use child safety seats in this vehicle.
- Obey all laws regarding the transport of children in motor vehicles.
- Children that require the use of a child safety seat in a regular type automobile should not be transported in this vehicle.

## **INTRODUCTION**

Thank you for the purchase of your Tomberlin E-Merge. Your satisfaction with your new vehicle is important to all of us at Tomberlin.

All vehicle operators must read this Operator's Manual and abide by all safety and operation warnings before allowing anyone to operate your new E-Merge. Familiarizing yourself with the Operator's Manual and warnings will help avoid possible personal injury and property loss.

We hope that you will consider this manual as an indispensable part of the vehicle. The information contained in this document is subject to change without notice.

Tomberlin reserves the right to make design changes to vehicles without obligation to make these changes on units previously sold.

The Tomberlin E-Merge may be configured with lead acid batteries or lithium batteries. Where applicable, operator instructions are segmented between the two types of batteries.

## **IMPORTANT OPERATING NOTES:**

- ALWAYS OPERATE YOUR E-MERGE IN COMPLIANCE WITH YOUR STATE AND LOCAL VEHICLE REGULATIONS INCLUDING REGISTRATION, TITLING, INSURANCE, SEAT BELT USAGE, AND OPERATOR'S LICENSING.
- IT IS REQUIRED TO READ THE OPERATORS MANUAL COMPLETELY PRIOR TO OPERATING THE VEHICLE OR ATTEMPTING REPAIR WORK. ANY VIOLATIONS OF INSTRUCTIONS IN THE MANUAL MAY LEAD TO PROPERTY LOSS, SERIOUS INJURY, OR EVEN DEATH.
- COME TO A COMPLETE STOP AND MAKE SURE E-BRAKE IS ENGAGED BEFORE EXITING DRIVER'S SEAT.
- OBEY ALL TRAFFIC LAWS.
- ALWAYS FASTEN YOUR SEAT BELTS!
- TO EXTEND THE LIFE OF YOUR BATTERIES:
  - KEEP BATTERIES FULLY CHARGED WHENEVER POSSIBLE.
  - AVOID DEEP DISCHARGING OF BATTERIES WHENEVER POSSIBLE.
  - IF CONFIGURED WITH LEAD ACID BATTERIES, CHECK BATTERY ELECTROLYTE LEVELS OFTEN AND ADD DISTILLED WATER AS NECESSARY.
  - FOLLOW ALL BATTERY MANUFACTURE SAFETY, CARE AND MAINTENANCE GUIDENCE.

## Contents

INTRODUCTION.....	1
IMPORTANT OPERATING NOTES:.....	1
PRECAUTIONS .....	3
SAFETY REGULATIONS .....	3
GENERAL WARNINGS .....	4
E-MERGE Controls .....	6
CONTROLS.....	8
ADDITIONAL FEATURES .....	10
PRE-OPERATING INSPECTION .....	14
GENERAL OPERATION .....	14
TOWING INSTRUCTIONS .....	16
AUXILIARY BATTERY .....	17
LONG TERM STORAGE.....	18
MAINTENANCE.....	19
SCHEDULED INSPECTON PROCEDURES .....	20
SCHEDULED OILING/LUBRICATION PROCEDURES .....	21
CHECKING HYDRAULIC BRAKE FLUIDS .....	22
BATTERY PACK CARE AND MAINTENANCE.....	23
VEHICLE SPECIFICATION .....	28
VARIABLES THAT INCREASE OR DECREASE DRIVING DISTANCE.....	29
WARRANTY .....	30

## PRECAUTIONS

The E-Merge is designed and manufactured as a PTV or an LSV. It is important that every operator become familiar with safe operation of the vehicle as described in this Operating Manual and with all applicable state, local, and community regulations governing the use of an LSV, Golf Car or PTV.



Safety warning signs may appear shocking at first glance. Safety Warnings are there to remind you to avoid serious accidents and personal injury.

## SAFETY REGULATIONS

It is required to read the Owner's Manual completely before operating the vehicle or attempting repair work. Any violations of instructions in the manual may lead to property loss, serious injury, or even death.

Pay special attention to important statements with the words such as "Danger", "Warning", "Caution", "Attention" etc...

If any of the operation/warning decals are damaged, defaced, destroyed, or illegible it is important that they be replaced with new decals. Please contact the manufacturer or your distributor to obtain new decals.

### **DANGER**

DANGER indicates an immediate hazard that if ignored, will result in severe personal injury or death.

### **WARNING**

WARNING indicates an immediate hazard that if ignored, could result in severe personal injury or death.

### **CAUTION**

CAUTION indicates a hazard or unsafe practice that if ignored, could result in minor personal injury or product or property damage.

## GENERAL WARNINGS

Any reference to battery care or maintenance is intended as general safety guidelines. Always consult and follow the recommendations of your battery manufacturer if contrary to those expressed herein. Never exceed your skill level by performing services you are not trained to accomplish. When in doubt, stop and call a professional.

### **DANGER**

- The E-Merge contains batteries which can emit quantities of explosive gases. Keep the vehicle in a well-ventilated area and away from sparks and open flames.
- Ventilate when charging or operating the vehicle in enclosed areas.
- Do not perform service or maintenance on batteries while vehicle is charging.
- The E-Merge does not offer protection from lightning, flying debris, or other storm hazards. Upon indication of severe weather conditions, seek appropriate shelter immediately.

### **WARNING**

- Inspect battery terminals, cables and batteries before each use.
- Always wear a full-face shield, rubber gloves and rubber apron when working with or near batteries.
- Turn the ignition switch to the off position, remove the key, unplug the charger and place the run/tow switch to the tow (Primary) position before inspecting or performing any type of service on the vehicle.
- Connections should be tight and free of corrosion.
- Utilize insulated tools when working with electrical connections.
- Battery terminal nuts should not be loose or over tightened—which can cause battery failure, explosion and/or fire. The torque requirements for each battery type are:
  - Conventional lead-acid: 95-105 inch-pounds.
  - NexSys lead-acid: 60 inch-pounds.
  - EVOLVE Lithium batteries: 124-142 inch-pounds.
- Do Not Overfill the Batteries and keep batteries clean and free of moisture.
- Do not use pressure washers or other high pressure water source to clean batteries.
- If any high heat condition or burning smell is noticed immediately park the vehicle in a safe location, place the ignition in the off position, move yourself and passengers away quickly to a safe distance from the vehicle and contact your dealer for assistance and repair. If fire or smoke is detected contact your local fire department immediately. Do not store your vehicle inside if any of these conditions exist.
- Only use recommended batteries of the correct size.

**⚠ WARNING**

- Only authorized mechanics should perform maintenance or repair on the E-Merge. It is required to abide by all regulations and safety decals on the vehicle while performing any type of maintenance or repairs.
- To perform repair work: turn the parking brake switch to the “Normal” or middle position (see Figure 1). This position will keep the electric parking brake engaged. Turn the vehicle off, remove the key and check tires.



Figure 1: Parking brake switch in the middle position.

- Use only insulated tools to handle the battery pack and electrical components. Remove all jewelry and loose items before performing maintenance procedures.
- Improper application or maintenance will lead to deterioration of vehicle performance and reduce the overall life of the vehicle.
- Do not attempt to alter the vehicle in any manner which would affect stability, control, or top speed. Such alterations may lead to serious injury or death, violate state and local laws, and will void the manufacturer's warranty.

# E-MERGE Controls

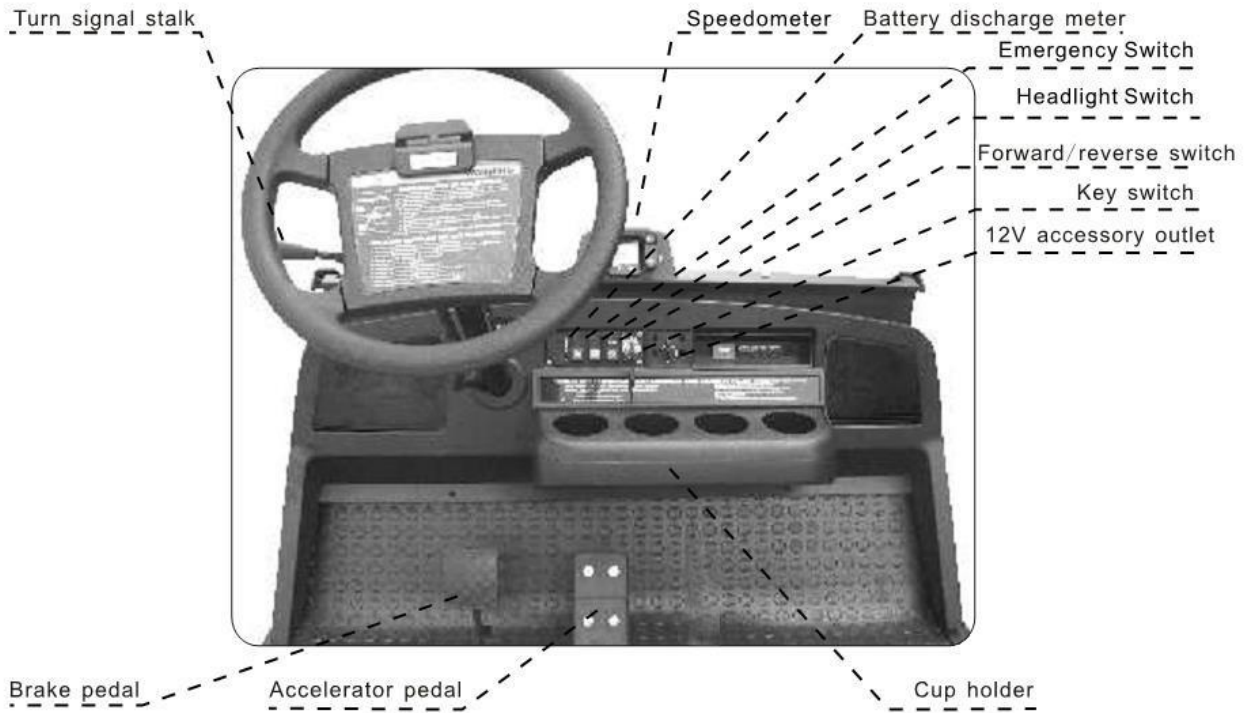


Figure 2-1 (Revenge)

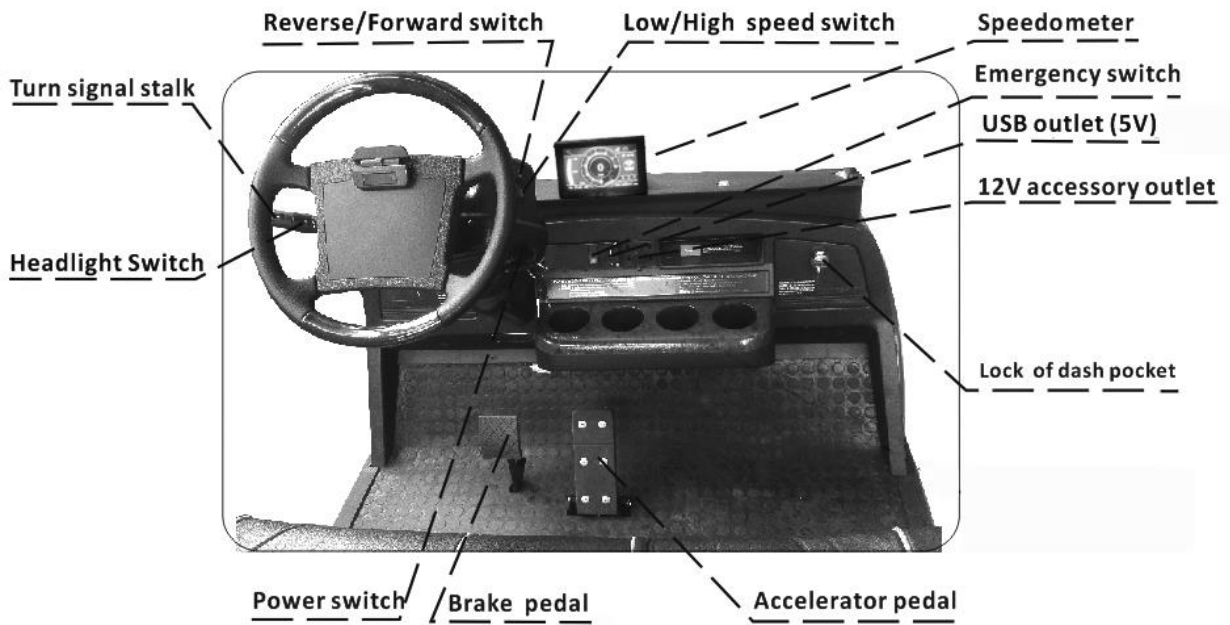


Figure 2-2 (LE Plus & SS Coupe/Saloon)



Charger



Figure 3

### Saloon/Coupe with Headliner



Accent Light Switch

Camp light (Rear Light)  
Switch



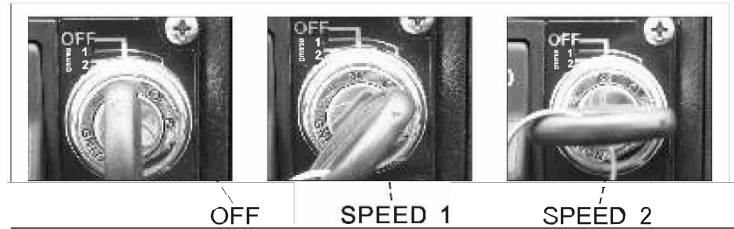
Figure 3-2 (SS Coupe & Saloon)

## CONTROLS

- It is imperative all operators of the E-Merge are familiar with the controls prior to operation.
- To avoid unintentional acceleration and vehicle damage, do not turn the direction selector switch (forward/reverse) until the vehicle has come to a complete stop.

### Key Switch on REVENGE

The key switch is located on the right side of dash panel and has three positions: OFF/SPEED 1/SPEED 2. The key can only be removed in the off position.



### Key Switch on LE & SS SALOON/COUPE

The key switch is located on the right-side cover of steering column and has two positions OFF/ON. The key can only be removed in the OFF position.

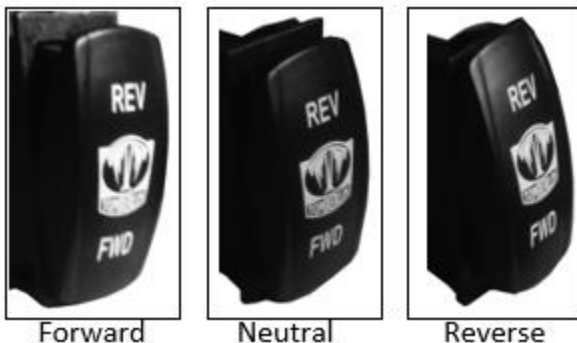


### High/Low Speed Switch

The High/Low speed switch is located on the dashboard or right-side cover of steering column.

Turtle = Slow Speed  
Rabbit = High Speed

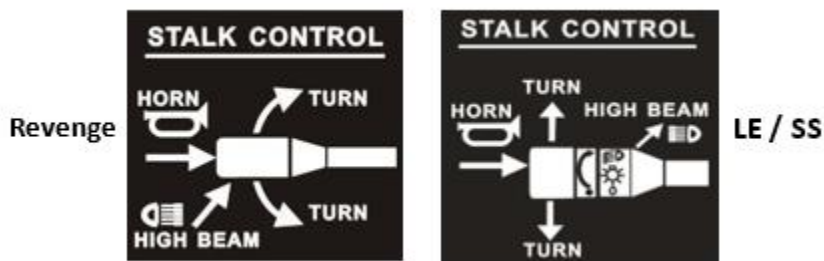
### Direction Selector



The direction selector is located on the dashboard or right side of the steering column. It has three selections: FWD (forward), REV (Reverse), and Neutral (halfway between FWD and REV). Note: While switch is on the REV position, it will activate the rear camera system (if equipped).

### Multifunction Stalk: Turn Signals/Horn/High Beam/Low Beam

The Multi-Function Stalk is a multi-feature control, and is different for the Revenge and LE / SS models (depicted and explained below). It is located on the left side of the steering wheel and functions like an automobile for the turn signals and also includes the high beam and horn control.



#### Turn Signal

Pushing down on the stalk indicates a left turn, pushing up indicates a right turn.

Note: For the Revenge model, the turn signal stalk will not automatically return to the off position after a turn, the operator should manually move the stalk to the center position upon completing each turn.

#### Horn

To activate the horn, press the end of the stalk.



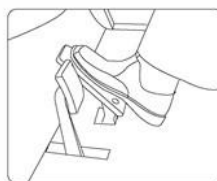
#### Headlights

Engage the headlamp switch on the dashboard (Revenge) or on steering column (LE / SS models) to activate the headlamps.

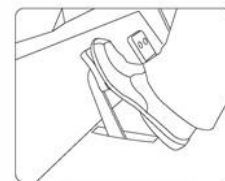
- Revenge: Pulling the multi-function stalk up will initiate the low beam, while pushing the multi-function stalk down will initiate the high beam; at the same time, the blue indicator on speedometer will illuminate to show that the high beam headlamp is on.
- LE / SS Models: Pulling the multi-function stalk up will initiate the high beam.

#### Brake Pedal

The brake pedal is the larger foot pedal located to the left of the accelerator pedal. The brake pedal engages all four of the E-Merge wheels for shorter stopping distances. To slow the vehicle down, the operator should depress the brake pedal.



Accelerator pedal



Brake pedal

#### Accelerator Pedal

The accelerator pedal is the smaller pedal to the right of the brake pedal. When depressed:

- The accelerator pedal will engage the drive motor in the direction the FWD/REV switch is set.
- The vehicle will accelerate up to its top speed of just under 25 mph at which time power will be reduced to the motor.
- If the vehicle speed begins to exceed 25 mph, automatic motor braking will occur.
- When the reverse position is selected, the vehicle's top speed is reduced.
- Smooth, slow acceleration will substantially increase the vehicle's range.

## ADDITIONAL FEATURES

### Power Plug DC 12 outlet



### Emergency Switch

The emergency switch is located on the dashboard.



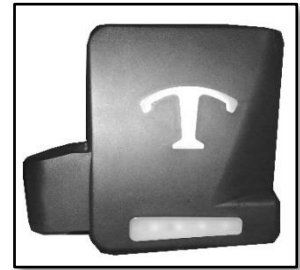
### Glove Box Door Lock

Is located on the Dash Pocket Door. Insert the key into the keyhole, turn the key to right, then press the key in, and then clasp under the key with middle finger, and pull to outside.



### Rear side mirrors

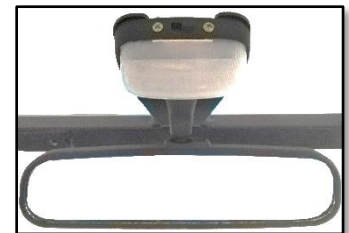
The rear side mirrors are located on the Windshield frame with turn signal. Pushing down on the stalk indicates a left turn, pushing up indicates a right turn.



### Rearview Mirror and Dome light

The switch is located above the mirror.

The button is turned to left = "OFF" and turned to right = "ON."



### Windshield Wiper

(If equipped) the windshield wiper switch is on the wiper motor which located at the left corner of windshield frame. When the power switch is in the "ON" position, pull out the wiper switch to engage the wiper motor, push it forward to disengage.



### Revenge Speedometer/Odometer

The Revenge speedometer is located on top of the vehicle dash and will read vehicle speeds from 0 to 25 mph. The gauge will also record the total distance traveled.

Within the speedometer is a trip odometer which can be set by depressing the set buttons. This feature is especially useful in measuring the distance between each charge cycle.



Revenge miles

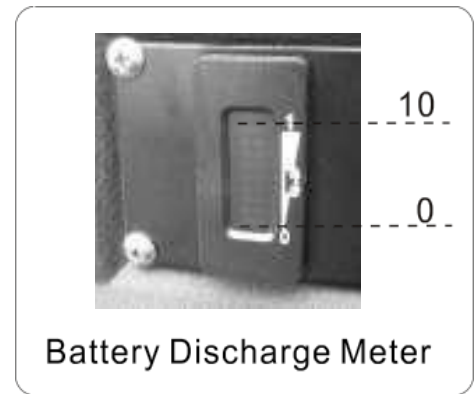
The reading of the speedometer can be programmed to read out in either miles or kilometers. To change the display simply press and hold the small button on the left side.

### Revenge Battery Discharge Meter

The E-Merge is equipped with a Battery Discharge Meter. It functions similarly to a fuel gage in an automobile. The Battery Discharge Meter is an indicator of the remaining power in the battery pack.

The Battery Discharge Meter had 10 indicator lights:

- When the light bar is at the top of indicator, the battery pack contains a full charge.
- When the vehicle is at 70% discharge, the two remaining lights will flicker as a warning.
- When the vehicle is at 80% discharge, reduced performance will occur indicating the immediate need to recharge the batteries. Continued operation beyond this discharge state will result in reduced battery life and possible damage to the batteries.



Battery Discharge Meter

### LE / SS LCD Display



- How to set the clock:** depress the left button for a couple of seconds then press the right button.
- How to toggle between miles and kilometers:** depress the right button.
- How to clear the trip odometer:** Long depress the right button.

## Battery Indicator for E-MERGE Equipped with EVOLVE Lithium Battery

The energy in the EVOLVE is allocated to support four different modes:

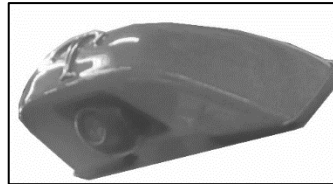
1. **Normal Driving Mode:** The green indicator bar on the left side of the display indicates available battery energy for normal driving. When 10% remains, the green bar will change to flashing orange. This indicates you are nearing Limp Mode and need to charge as soon as possible.
2. **Limp Mode:** Able to drive vehicle. Begins when the remaining orange flashing disappears and the Tomberlin logo begins to flash. The vehicle's maximum speed drops to 8 mph. This is a physical indicator to the driver that they must charge the vehicle immediately. The approximate driving distance in limp mode is 2-6 miles.
3. **Emergency Mode:** Vehicle will stop and you are not able to drive the vehicle. Begins when Limp Mode energy is depleted. Limp Mode supports disengagement of the E-Brake for pushing the vehicle (by moving the switch under the driver's seat to Primary), and if lights are needed. (See Towing Instructions.)
4. **Battery Shut Down Mode:** Not able to drive vehicle. Begins when Emergency Mode is depleted. This mode is to ensure the battery is not fully discharged (which can cause damage). In addition, the E-Brake is applied. See Auxiliary Battery section in this document if this occurs.



## Vehicles Configured with a Rear Camera and LCD Screen

The rear camera is located on the rear top of canopy.

Turn on the power switch and move the Forward/Reverse switch to "REV" (Reverse), the LCD screen will show the rear camera view.



## Fuse box

For your convenience, all the fuses have been consolidated in a central location under the seat. All fuses in the fuse box are marked with their names and functions.



## Seat Belts

The two passenger E-Merge (E2) has one bench seat and is equipped with two safety belts, one for the driver and one for the passenger. The 4-Passenger E-Merge (E4) has a second, forward facing bench seat with two additional passenger seat belts. The safety belts should always be worn while operating the vehicle.

The E-Merge is not equipped for child safety seats or infant carrying seats. Children under 12 years of age should not be transported in the E-Merge. Children under 12 years of age should be transported in a full-size car with appropriate child restraints. Pregnant, disabled, or injured persons should consult their doctor for specific recommendations before operating the E-Merge.

To properly secure the seatbelts, pull the metal tab out away from the retractor and insert into one of the two the buckles located near the center of the seat. A click will be heard when the tab is securely latched. Position the lap belt as low as possible on the hips not the waist. Properly adjust and ensure a snug fit by pulling the shoulder portion upward. The retractor will lock the belt during sudden stops. It may also lock if the person leans forward too quickly. Slow, easy motions will allow for free travel. To release the safety belt, press the buckle release button and allow the belt to retract. If the belt does not retract, check for kinks or twists.

### **WARNING**

- Always operate the vehicle with seat belts properly fastened.
- Make sure the seat belts are latched securely and are free from twists or kinks.
- Position the shoulder belt across the top of the shoulder.
- Do not Place the shoulder belt under an arm.
- Loose fitting safety belts significantly reduce protection. Keep belts snug and positioned low on the hips.
- Do not exceed the recommended number of occupants for the vehicle—which is based upon the number of seat belts configured for each occupant. For example, an E-MERGE E2 includes 2 seatbelts for 2 forward-facing passengers (or a maximum of 2 occupants). If the E-MERGE E2 is also configured with a rear-facing seat (with 2 additional seat belts), 2 additional passengers may also ride on the vehicle via the rear-facing seat (for a total of 4 occupants). This same rule applies for the E-MERGE E4, and E6. Simply stated, the number of occupants should not exceed the number of seatbelts.

### **CAUTION**

- Inspect the safety belt webbing and hardware periodically. Check for cuts, frays or loose parts. Replace components if excessive wear or damage is noticed.
- Keep safety belts clean and dry. To clean, use mild soap and warm water. Do not use bleach, dye or abrasive cleaners as this will weaken the belt webbing material.
- Do not insert any foreign objects into the retractor mechanism.
- Periodically check for smooth operation and replace if the mechanism is not operating properly.

## PRE-OPERATING INSPECTION

Each vehicle has been thoroughly inspected by both the manufacturer and dealer. Before the initial operation, it is important that the user inspects the vehicle using the following guidelines:

- Ensure that all parts are securely fastened to the vehicle, no parts are missing, and all screws or nuts are properly tightened.
- Review all warning decals and placement on the vehicle.
- Safety Belts: visually inspect and test for safe operation.
- Tires: check for proper inflation as identified on the vehicle certification label.
- Batteries: check electrolyte level in all of the cells of each battery. If any cell is low, add distilled water as described in the Battery Care section of this manual.
- All wires should be free of corrosion.
- Batteries should be fully charged before first use of vehicle.
- Brakes - check hydraulic fluid level. If it is low, immediately call a qualified mechanic for service.
- Charger cord, plug, and receptacle inspect for cracks, loose connections, or frays.

The following items should be checked daily prior to using the vehicle:

- **Forward/Reverse Switch** - ensure proper operation
- **Brakes** - make sure the brake pedal is operating smoothly. It should not go more than half way to the floor when depressed. The vehicle should come to a smooth stop when operating. If excessive or low pedal pressure, pulling to one side, or unusual noise is noticed while braking, have the vehicle serviced immediately.
- **Reverse Buzzer** - the reverse buzzer should sound when the key is in the on position and the direction is set to reverse.
- **Pedestrian Alert / Noise Generator** – Vehicles configured as a LSV will generate a noise when the high-speed switch is selected and the vehicle's speed is between 0 MPH and 18.6 MPH. The noise generator becomes silent when driving above 18.6 MPH. This functionality complies with NHTSA requirements. The noise generator will not create a noise when the low-speed switch is selected.
- **Steering** - steering should be smooth and consistent with no excessive play in the steering wheel.
- **General** - listen for any unusual noises such as squeaks or rattles. Check the vehicle's ride and performance. Have a certified Tomberlin Dealer or authorized technician investigate anything unusual.

## GENERAL OPERATION

- **Zero Speed Detect:** with the run/tow switch in the run (Normal) position, the E-Merge's motor will inhibit the vehicle from rolling until the accelerator is depressed. When pushed, motor braking should only allow the vehicle to travel 1 to 3 mph. When such motion is detected, a buzzer will sound.
- **Motor Braking:** the top speed of the E-merge is limited even while going down an incline. The motor will engage to limit the top speed of the vehicle. The motor acts as a generator, transferring some of the excess energy to recharge the batteries.
- **Pedal-Up Braking:** The E-Merge will also apply some slight motor braking while stopping. A slight extra force may be felt while coming to a complete stop. This indicates a transfer of some of the excess energy back into the batteries.



## **WARNING**

### **DRIVING INSTRUCTIONS**

- All drivers must have a valid driver's license.
- Always wear seat belts.
- No more than two occupants at one time on a 2-Passenger (one single bench seat) E-Merge and four occupants on 4-Passenger (two forward facing bench seats) E-Merge.
- Do not carry children on your lap or between the seats.
- Do not allow anyone to hang onto any part of the vehicle while operating.
- Obey all traffic regulations.
- Ensure all persons have read the operator's manual and can properly operate the vehicle.
- Ensure the passengers can properly operate the safety belts before allowing them to ride.
- Avoid operating at night because the vehicle may be difficult to see by others. If the vehicle must be operated at night, make sure you use headlamps and tail lamps.
- Bring the vehicle to a complete stop prior to shifting between FWD/REV. Failure to do so may injure an unsuspecting passenger and/or damage the vehicle.
- Operate the vehicle from the driver's seat only.
- To help prevent the risk of serious injury, driver and passenger should always keep all body parts inside the vehicle.
- Avoid sudden and sharp turns.
- To help avoid the possibility of losing control of the vehicle, reduce speed of the vehicle for adverse conditions such as snow, ice, wet grass or rough terrain.
- Use vehicle brakes to reduce speed when coasting downhill.
- Travel straight up or down a hill, avoid traversing across a hill to reduce the chance of tipping over.
- To reduce the chance of the vehicle tipping over, reduce speed while making sharp turns.
- Do not drive while under the influence of alcohol, drugs or medicine. Not only is driving intoxicated unsafe but doing so may violate state and local laws.

### **Starting the Vehicle**

1. Study and understand the controls.
2. Remove the battery charger cable if connected.
3. Make sure everyone is seated with seat belts properly fastened.
4. Adjust rear view mirrors.
5. Read the safety decals on the steering wheel and dash areas.
6. Place the key in the on position and turn the wheels in the desired" direction of motion.
7. Select direction of motion with the FWD/REV switch.
8. Slowly apply the accelerator.
9. Use the brake pedal to stop and limit vehicle speed.

## **WARNING**

Avoid driving through water as doing so may damage the drive motor and also reduce braking performance. If driving through water cannot be avoided, check brake operation by gently applying pressure to ensure normal operation occurs.

## **CAUTION**

When stationary on a hill, use the footbrake parking brake (E-brake) to hold position. Do not use the accelerator pedal. Holding the accelerator pedal will reduce the life of the batteries and motor.

## **TOWING INSTRUCTIONS**

### **WARNING**

Do not tow behind an automobile or truck on any public roads. To tow the vehicle on public roads, use a trailer with a minimum load rating of 3,000 lbs.

**The following instructions are based upon the batteries having an insufficient charge to disengage the e-brake (automatic emergency brake). If the batteries are dead / or insufficient power remains:**

- The E-brake will remain engaged and you will damage the vehicle if towed. E-brake disengagement requires a sufficient battery charge to disengage the e-brake.
- Contact your dealer.
- Do not attempt to tow the vehicle.
- NEVER attempt to plug an electric power cable into the electrical connector next to the Parking Brake Switch. This connector is intended for an auxiliary battery. See next page for more info.

**The following instructions are based upon a sufficient battery charge for the duration of the tow:**

- To tow the vehicle, turn the ignition switch to the off position and place the FWD/REV switch in neutral.
- Place the Parking Brake Switch (depicted to the right) located under the driver's seat to the Primary position. This will apply electricity to disengage the e-brake. You should be able to push the vehicle manually. (If not, there's insufficient battery charge.)
- Do not exceed 5 mph (8 kph).
- Use extreme caution while turning.
- Do not allow persons in the vehicle while being towed.
- Avoid stopping on a hill when towing. Do not allow to roll backwards as this may cause the vehicle to overturn.
- Return the Parking Brake Switch to the Normal position when you are completed towing the vehicle.



## AUXILIARY BATTERY

The auxiliary battery is used when there are no batteries installed in the cart, or when lead-acid batteries are fully discharged, or when the EVOLVE battery has reach Battery Shut Down Mode. The auxiliary battery does not have sufficient power to drive the cart. It has sufficient power to disengage the E-Brake so that the cart may be pushed by hand or towed. An auxiliary battery may be purchased from Tomberlin.

The graphics below depict the auxiliary battery components on the left, and a connected auxiliary battery on the right.



The Parking Brake Switch is located under the seat (driver's side). It has 3 toggled positions and an electrical connector. The toggled positions are:

- Normal: Selected when driving the cart (i.e. normal everyday operation).
- Primary: Selected when you need to push or tow the cart. For example, you may want to “fine tune” the positioning of the cart as you park into a tight area in the garage. Use of the primary position requires charged batteries (to provide power to the E-Brake to keep it disengaged).
- Auxiliary: This position is used in conjunction with the electrical connector and the auxiliary battery depicted above. For example, if there are no batteries in the cart (or they are fully discharged) the E-Brake is automatically engaged. If you need to move or tow the cart, plug in an auxiliary battery into the three-pronged connector (depicted to the right just below the switch) and move the switch to auxiliary. The auxiliary battery will provide power to the E-Brake to keep it disengaged.



### **⚠ WARNING**

The electrical connector on the Parking Brake Switch is used to connect an auxiliary battery. **NEVER** plug a wall-connected electric cable into the electrical connector. You will cause severe damage to the system.

## LONG TERM STORAGE

### DANGER

- Do not attempt to charge frozen batteries or batteries with bulged cases. Properly dispose/recycle the battery. Frozen lead-acid batteries can explode.

Here are considerations regarding long term storage for all types of batteries.

- Long term storage is greater than 1 month and less than 6 months. Vehicles should not be stored greater than 6 months.
- It is highly recommended to use jack stands to lift the vehicle's tires off the ground (to minimize the occurrence of flat spots). Also make sure the tires are at recommended pressure.
- Never store or charge a vehicle in sub-freezing temperatures, or subject to wind which may cause freezing to occur in above freezing conditions. "Warm" the vehicle before charging.

### Conventional Lead-Acid Batteries

1. Dirty battery tops can conduct small amounts of electricity and hasten the discharging of the batteries. Clean battery tops and terminals with a solution of water and baking soda. (1 gallon of water for 1 cup of baking soda). Do not allow this solution to enter the batteries.
2. Inspect and clean battery wires. Damaged or frayed wires should be replaced.
3. Turn the key off, place FWD/REV switch in Neutral.
4. Fully Charge the batteries. Keep the battery charger cable hooked up to the vehicle and electrical outlet so that the batteries will not discharge. The charger will automatically monitor and charge the batteries.
5. Add distilled water to battery cells that are below the "fill" line. It is highly recommended you install an automatic refill system. Otherwise, the battery water levels will need to be inspected once per month and filled as needed.
6. Store the vehicle in a cool, dry location.

### Returning vehicle to Service

1. Remove jack stands.
2. Check battery electrolyte levels. If needed, add distilled water to cover the plates (but not to the fill line). Fully charge then fill each cell with distilled water. Never fill then charge.
3. Disconnect the charger cord at the wall and then at the vehicle.
4. Perform Pre-Operation Inspection before use.

### NexSys Batteries

1. Turn the key off, place FWD/REV switch in Neutral.
2. Fully Charge the batteries. Keep the battery charger cable hooked up to the vehicle and electrical outlet so that the batteries will not discharge. The charger will automatically monitor and charge the batteries.
3. Store the vehicle in a cool, dry location.

### Returning vehicle to Service

1. Disconnect the charger cord at the wall and then at the vehicle. Then remove jack stands.
2. Perform Pre-Operation Inspection before use.

## EVOLVE Lithium Batteries

The storage requirements for lithium batteries are slightly different from conventional lead-acid and NexSys batteries because of advanced technology and very low discharge rate.

1. Make sure the ambient temperature remains between:
  - a.  $-4^{\circ}$  to  $104^{\circ}$  Fahrenheit (short term storage < 1 month)
  - b.  $-4^{\circ}$  to  $86^{\circ}$  Fahrenheit (long term storage 1 month to 6 months)
2. Turn the ignition key to the off position.
3. Fully charge the vehicle and verify it is 100% charged via the green LED indicator on the charger status display.
4. Disconnect the charge cable from the wall outlet, then disconnect the charge cable from vehicle.



Upon return:

1. Remove jack stands.
2. Connect one end of the charger cable to the vehicle and the other end to an electrical outlet.
3. Fully charge the vehicle.
4. Perform Pre-Operation Inspection before use.

## MAINTENANCE

### **WARNING**

1. Only a qualified technician should repair or inspect the vehicle. Abide by all procedures described in this manual and all safety signs such as "Danger", "Warning", or "Caution."
2. If a problem is found during routine maintenance or inspection, do not operate the vehicle until the problem has been repaired.
3. Wear proper safety apparel while repairing the vehicle. Proper safety apparel includes but not limited to: safety goggles or approved eye protection, insulated gloves, and face mask.
4. Remove all jewelry and loose apparel items.
5. Use insulated tools while working on any electrical components.
6. Set the key switch to Off and FWD/REV switch to Neutral. Use chocks to secure the tires.
7. Components such as the motor, controller, and resistor may become hot during operation. To avoid burns, allow these components time to cool before servicing vehicle.

## SCHEDULED INSPECTON PROCEDURES

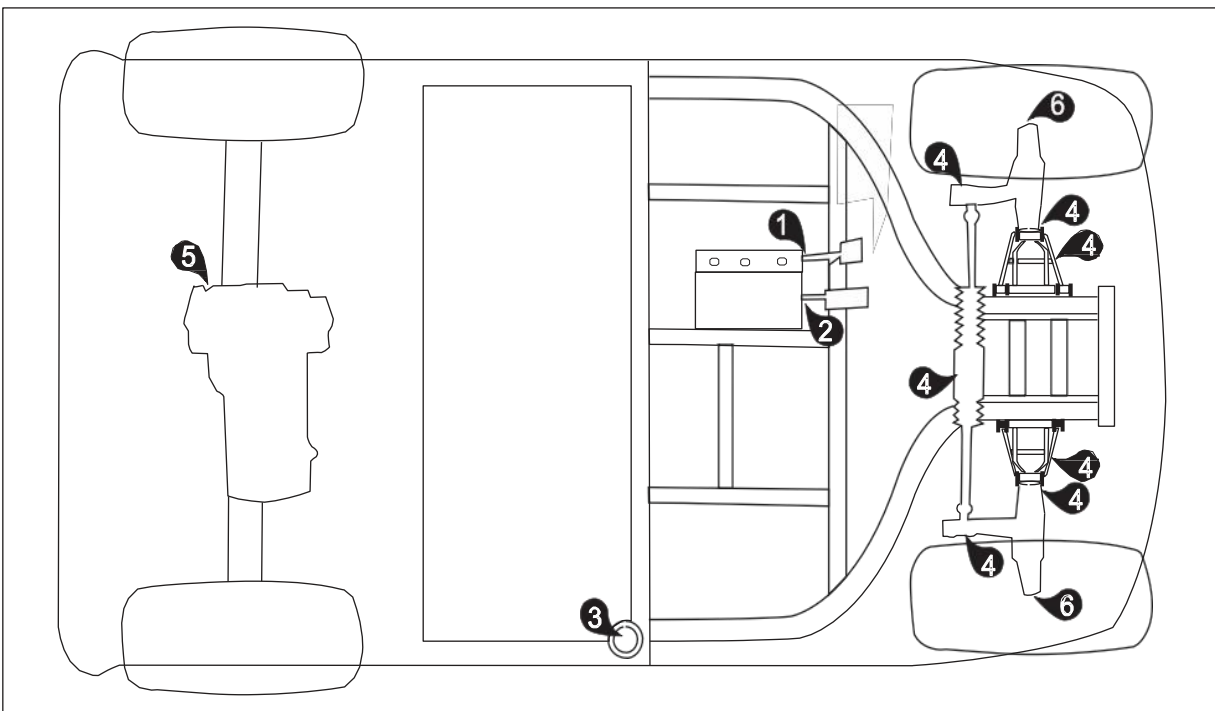
Interval	Item	What to inspect / perform
These items should be inspected or performed on a daily, weekly, and monthly basis.  Contact your dealer if any problems occur.	Ignition Switch	Key should easily insert and turn to desired location. You will hear a “click.” Display will light up.
	Forward / Reverse Switch	Should operate as expected. LSVs will emit a sound in “Rabbit” mode between 0 and 19 mph. All beep in reverse.
	Accelerator Pedal	As you push on the pedal, vehicle should accelerate smoothly to a speed that corresponds to the amount of pedal depression. When released, pedal should return to original position and vehicle should slow down.
	Steering	Should be easy to steer with no play.
	Brakes	With moderate pressure vehicle should come to a consistent, smooth and straight stop. It should not swerve or make any grinding or squeaking noise.
	Automatic Parking Brake (E-Brake)	Parking brake should automatically engage when the vehicle comes to a complete stop, and disengage when the accelerator pedal is pressed.
	Tires	Should not wear unevenly and are filled with the correct amount of air pressure.
	Battery Pack Charge	Lead Acid and NexSys: Charge after each daily use. EVOLVE: Charge when necessary.
	Battery Posts	Make sure they are clean and free of dirt/dust.
	Lead Acid Batteries	Make sure the electrolyte level is properly filled. Do not overfill
	Charger Cable & Socket	Cable should insert into the receptacle with a snug fit. Remove the cable by grasping the charger cable end (that plugs into the receptacle) and pull outward. Never pull on the cable to remove it from the vehicle.
	Wires and fasteners	Inspect to make sure they are secure or damaged.
	Speed	Verify maximum speed of vehicle < 19 mph for PTV and <25 for LSV.
Weekly	Lead Acid Batteries	Make sure the electrolyte level is properly filled. Do not overfill.
Monthly	Tires	Should not wear unevenly and are filled with 30-35 psi air pressure.
Quarterly	Vehicle lubrication	Perform lubrication as specified in table below.
	Brake fluid	Check the brake fluid reservoir. If low, add DOT3 to the max fill indicator line. See page 22.
Semi-annual	Brake system	Verify normal operation. Inspect all components (including wiring) and replace worn components if necessary. Clean and adjust.
	Direction selector	Inspect function and verify secure wire connection.
	Front wheel alignment	Check and adjust if necessary.
	Lubrication	Perform lubrication as specified in table below.
	Lead Acid Batteries	Perform discharge test.
Annual	Motor	Inspect the motor brushes and replace if necessary.
	Front wheel bearing	Inspect and lubricate.
	Lubrication	Perform lubrication as specified in table below.

Note: Each inspection interval should include all prior intervals. Example: Monthly should include weekly and daily. Semi-annual should include quarterly, monthly, weekly and daily. Same for annual. In addition, quarterly and semi-annual inspections should be performed by a qualified technician. Annual inspections must be performed by a Tomberlin qualified dealer.

## SCHEDULED OILING/LUBRICATION PROCEDURES

Interval	Item	Position	Lubrication
Quarterly	Brake pedal shaft	1	General purpose lithium-based grease
	Accelerator pedal shaft	2	General purpose lithium-based grease
	Brake fluid reservoir	3	DOT3 brake fluid
	Front suspension	4	General purpose lithium-based grease
Annual	Inspect axle fluid	5	GL-5 gear lube
	Front wheel bearing	6	General purpose lithium-based grease

Note: Quarterly and semi-annual inspections should be performed by a qualified technician. Annual inspections must be performed by a Tomberlin qualified dealer.



## CHECKING HYDRAULIC BRAKE FLUIDS

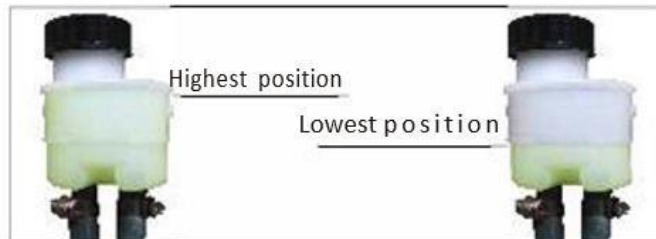
### DANGER

Never operate your E-Merge if the brake pedal does not feel firm or extends more than half way to the floor.

Immediately stop operation if your vehicle pulls severely to one side while braking. Do not continue operation.

### Your E-MERGE is equipped with 4 Wheel Brakes

The main pedal braking is done on all four wheels with a hydraulic brake system which includes front wheel disc brakes and rear wheel drum brakes. This system requires periodic inspection for brake pad wear, drum/rotor wear and hydraulic fluid loss. Consult your Tomberlin Dealer or qualified Technician if excess wear or if fluid loss is noted. Do not attempt to move the vehicle.



The second braking system is an electronic motor brake that will activate when the E-Merge comes to a complete stop, the key is turned off, or the batteries are below 24-volts.

Additional braking utilizes the E-Merge's electric motor. It will limit your top speed to 19.9 mph (PTV) or 25 mph (LSV) while going downhill by transferring some of the excess energy back into the batteries. It will also engage and slow the vehicle if it starts to roll-away once stopped.



## BATTERY PACK CARE AND MAINTENANCE

### DANGER

1. While charging lead acid batteries emit hydrogen which is an explosive gas. Keep the vehicle in well ventilated areas while charging.
2. Do not smoke or expose sparks or open flames near the vehicle.
3. Lead acid battery electrolyte is highly acidic and poisonous. Avoid contact with skin, eyes, and clothing. Severe burning and scarring may result.
4. Remedial measures in case of contact with battery acid:
  - External: Flush with water for 15 minutes. Call physician immediately.
  - Internal: Drink large quantities of milk or water followed with milk of magnesia or vegetable oil. Call physician immediately.
  - Eyes: Flush with water for 15 minutes. Call physician immediately.

### WARNING

- Wear safety glasses while working on the vehicle or charger. Wear a full- face shield and rubber gloves while working on or near the batteries.
- Use insulated tools while working on any electrical components.

### CAUTION

Turn the vehicle and all accessories off while charging. The batteries in this vehicle are specifically designed deep cycle batteries. Automotive batteries should never be used in this vehicle. The same type and size batteries should be used if replacements are necessary. Alternative batteries such as sealed batteries and glass mat batteries will require a different charging system and should not be used. Always consult your dealer or battery manufacturer for proper care and maintenance.

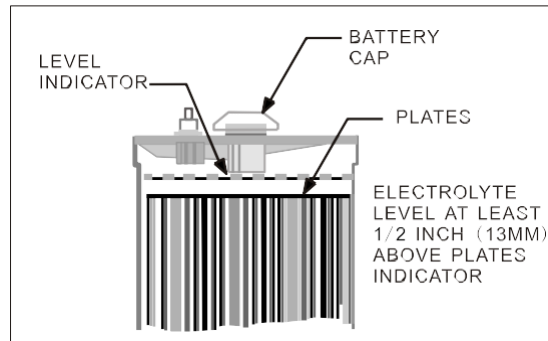
It is important to properly condition new batteries. New lead acid batteries will take numerous charges to reach their full potential. During this period, it is important not to exceed a 50% discharge level. Batteries should be fully charged before first use of vehicle, before removal from storage, and before use each day. Charge batteries whenever possible; avoid deep discharging of batteries as it will shorten their life.

#### **Battery Care**

1. Keep lead acid and lithium batteries clean.
2. Lead acid batteries:
  - Ensure lead acid battery cell tops are secure. Wash the lead acid battery tops and terminals with a solution comprised of 1-gallon water and 1 cup baking soda. Do not allow solution to enter the batteries. Rinse off residual solution.
  - The electrolyte level in the batteries should be checked weekly by removing the battery caps and visually inspecting the level as shown below.
3. Lithium batteries should only be cleaned with a mild soap solution and gentle rinse from a hose. Do not use pressure washers or other high pressure water sources as this may force water into sensitive electronics causing damage.

## **⚠ WARNING**

Lead acid batteries contain high current. Do not overfill or allow water to stand on top of the batteries. Doing so could result in personal injury and or property damage.



Use distilled water. Do not use tap or well water.

Add water to lead acid batteries only after charging, unless the electrolyte level is below the top of the battery plates. Add water to cover plates then check electrolyte levels again once charged.

### **Notes:**

- A lead acid battery watering gun or bottle is available at many auto parts dealers.
- Nothing is added to lithium batteries.

Inspect the wires and terminal connections for corrosion, fraying, or damage. Replace wires if necessary. Ensure battery wire terminal connector nuts are tightened to 100 in-lbs.

## **⚠ CAUTION**

- If the battery wires or terminals are damaged or corroded, they should be replaced or cleaned. Failure to do so may cause them to overheat during operation.
- Torque battery hold down bars to 40 in-lbs. to ensure the batteries are held in place securely.
- After each use, the E-merge should be placed on charge. The batteries should never be left discharged longer than necessary.

### **Battery Charging**

## **⚠ DANGER**

- Batteries emit hydrogen which is an explosive gas. While charging, keep vehicle in well ventilated areas.
- Do not cover the vehicle while charging as an accumulation of hydrogen gas could result in an explosion.

### **Charger**

The charger is controlled by an internal computer. This vehicle is equipped with a charger interlock feature. This feature prevents vehicle from operating when the charger is connected to an AC power source

## **WARNING**

- Do not attempt to service the charger. If the charger requires service, take it to an authorized Tomberlin Dealer or approved technician.
- Do not overload the AC circuit. The voltage of the circuit between 100-240 volt the current should be a minimum of 15 Amps with no electrical devices plugged into the same circuit (i.e. dedicated outlet).
- The AC side of the charger uses a three-prong plug. While charging, use a three-prong wall receptacle with a proper ground. Do not attempt to alter the charger plug in any way.
- Do not use an adapter plug to go from three prongs to a two-prong outlet. This will result in an ungrounded condition and increase the risk of electrical shock and/or fire.
- If an extension cord is used, it must also be a three-prong extension cord with 12 AWG wires, no longer than 25-feet.
- Inspect and replace the charger if it has been dropped or damaged in any way. Inspect the cords and connectors for cracks and fraying. If cracks or frays are detected, replace immediately.
- Do not use the charger near volatile liquids such as gasoline, paints, thinners and other flammables. The charger can ignite flammable materials and vapors.
- Do not expose the charger to rain or liquids. Keep the charger dry.
- Do not place anything near charger cooling vents. Severe electrical shock may occur.
- Do not cover or block the cooling slots on the charger as it could potentially overheat.

### Charging the E-Merge

## **DANGER**

- Do not use charger if:
  - The plug is loose or does not make good contact.
  - The plug or wires get hot.
  - The connector pins are bent or corroded.
  - The plug, receptacle, or connector is damaged in any way.
- Ensure all cords and wires will not be driven over, covered or present a tripping hazard.
- Using charger with any of the above issues could result in a fire and/or personal injury.
- Always utilize a charger cord sized for heavy power loads, consult an electrician in the event of any doubt.

## **WARNING**

- Inspect cords and connections for cracks or fraying. Replace if any problems are found. Make sure all connectors are clean and dry.
- Use the charger plug to connect to the vehicle receptacle. Do not pull on the charger cable.
- With the charger properly plugged into the AC outlet. The charger will analyze the battery's condition and activate within 10 seconds. The charger indicator lights will flash one by one and then return to indicating the state of charge.



**Note:** The charger is built into the vehicle. Due to the heat caused when charging, the seat should be raised when charging in hot weather conditions.

The charger will automatically apply sufficient power to bring the E-Merge's batteries to full charge. It will also automatically shut itself off when they are fully charged. If left connected, the charger will occasionally check the batteries' condition and apply sufficient power to maintain a full charge.

Visit charger manufacturer's website [www.lesterelectrical.com](http://www.lesterelectrical.com), for more details and maintenance tips.

### Charging the Batteries

Required electrical outlet is a minimum of 15 amps with no other electrical devices plugged into the same circuit (i.e. dedicated circuit).



### How to Connect the Charger to an Electrical Outlet

The power cord is industry standard and commonly available. A 3-conductor 6-foot 18 AWG power cord is included with the golf cart. If an extension cord longer than 6-foot is required, it must be a 3-conductor, minimum 14 AWG (12 AWG is recommended) and 25 ft maximum.

It is important to first plug the power cord into the golf cart first. Then plug the power cord into the wall plug. When disconnecting the power cord, disconnect the wall plug first then the cart. This sequence minimizes the chance of creating a spark at the charger's electrical connector (via zero electricity at the cart end) whenever you connect or remove the power cable.

The Maringo plug (electrical connector) on the Tomberlin E-MERGE is located below the LED status indicators; and below the driver's seat on an E2 model, and below the rear passenger seat behind the driver on a E4 model.



When disconnecting the power cord, disconnect it first from the wall connector, then from the cart. In addition, when disconnecting from the cart, firmly grab the end of the cable and pull straight out. Do not grab the power cable and pull up and down on the cable—which can cause undue stress and possibly damage the plug.

If the charger is left connected to AC power, a refresh charge will occur after 10 days if the battery voltage has dropped below a pre-programmed level. If a refresh charge tries to start, but the AC power is disconnected, the charger will wait 8 days for AC power to be restored. If the AC power is not restored, the charger will go into sleep mode. To “wake up” the charger from sleep mode, disconnect either the positive or negative lead from the charger to the batteries, wait 10 seconds, then reconnect. Note: disconnecting the positive or negative lead from the charger to the batteries also resets the Bluetooth module.

## **Charging Indicator**

The charging status of the batteries is indicated by a single tri-color LED (amber, green and red). Amber represents the charging status; green represents the charge is finished; and red represents a fault has occurred.

The amber color reflects three different stages of charge. The amber light will flash slowly when the battery charge is 0 to 50%. It will flash more quickly when the battery charge status is 51-70% charged. And the amber color will stay on (and not flash) when the battery charge status is 71-99% charged.

Note: The percentage of battery charge is also indicated by vehicles equipped with a 7" LCD display (left green bar).

## **Maintenance Instructions**

- For lead-acid batteries, regularly check water levels of each battery cell after charging and add distilled water as required to level specified by battery manufacturer. Follow the maintenance and safety instructions recommended by the battery manufacturer.
- The electrolyte level in a conventional lead-acid battery will lower during discharge and rise during charge. Therefore, never fill then charge. If the battery's electrolyte level is low (and needs a charge) add sufficient water to cover the plates. Once charged then add water to recommended levels (usually about 1/8 inch below the bottom of the vent well—or the plastic tube that extends into the battery). This is not applicable for NexSys maintenance free lead-acid batteries and the EVOLVE lithium battery.
- Make sure charger connections to battery terminals are tight and clean.

## **Cleaning and Appearance**

Do not expose charger to oil, dirt, mud or direct heavy water spray when cleaning vehicle.

It is recommended to use automotive car wash soaps and mild household cleaners. Use a garden hose with a sponge or towel. Do not use a pressure washer as the overspray may damage some of the electrical components. Use non-abrasive automotive type wax products. Battery acid, bugs, asphalt, and tar should be washed away with mild non-reactive solvents to prevent possible staining.

**Questions:** If you have any questions regarding the care, maintenance, repair or operation of your E-Merge, contact your local Tomberlin Dealer.

## VEHICLE SPECIFICATION

Specifications		2-Passenger	4-Passenger	6-Passenger
Dimensions Length*width*height (mm)	No load	2500*1200*1860	3280*1200*1870	3980*1230*1870(1945)
	Full load	2500*1200*1840	3280*1200*1850	3980*1230*1850(1925)
Dimensions Length*width*height (in)	No load	98.5*47.28*73.3	129.23*47.28*73.7	156.8*48.5*73.7(76.6)
	Full load	98.5*47.28*72.50	129.23*47.28*72.9	156.8*48.5*72.9(75.8)
Wheel base (mm)		1630	2450	3150
Wheel base (in)		64.2	96.5	124.1
Wheel tread (mm)	Front wheel/rear	980/1060	980/1060	980/1060
Wheel tread (in)	Front wheel/rear	38.61/41.76	38.61/41.76	38.61/41.76
Weight without batteries and load (kg)		360	480	635
Weight without batteries and load (lb.)		794	1058	1399
Weight of load (Kg)	Weight of passenger (kg)	2*80=160	4*80=320	6*80=480
	Batteries (kg) (Lead Acid/Li)	240 / 90	240 / 90	240 / 90
Weight of load (lb.)	Weight of passenger (lb.)	2*176.4=353	4*176.4=706	6*176.4=1058
	Batteries (lb.) Lead Acid / Li	529 / 198	529 / 198	529 / 198
Overall weight (kg) Lead Acid / Li		760 / 610	1040 / 890	1355 / 1205
Overall weight (lb.) Lead Acid / Li		1676 / 1345	2293.3 / 1962	2986 / 2655
Weight on axles for no load	Front axle/rear (kg)	220/380	270/450	262/613
Weight on axles for no load	Front axle/rear (lb.)	485/838	595.35/992.25	577.5/1351.5
Weight on axles for full load	Front axle/rear (kg)	274/486	400/640	407/948
Weight on axles for full load	Front axle/rear (lb.)	604/1072	882/1411.2	897/2090
AC motor / (Kw /R/min)		5.0/5000	5.0/5000	5.0/5000
AC motor / (Hp /R/min)		6.803/5000	6.803/5000	6.803/5000
Controller (A/V)		450/48 or 275/48	450/48 or 275/48	450/48
Maximum speed (km/h)		≤32 PTV, ≤40 LSV	≤32 PTV, ≤40 LSV	≤32 PTV, ≤40 LSV
Maximum speed (mile/h)		≤19.9 PTV, ≤25 LSV	≤19.9 PTV, ≤25 LSV	≤19.9 PTV, ≤25 LSV
Approximate drive distance (km) Lead Acid / Li		55-70 / 88-105	55-70 / 72-88	55-70 / 56-72
Approximate drive distance (mile) Lead Acid / Li		35-45 / 55-65	30-40 / 45-55	25-35 / 35-45
Minimum turning radius (m)		≤3	≤5	≤5.5
Minimum turning radius (ft)		≤9.84	≤16.41	≤18.04
Minimum ground clearance (mm)		≥80	≥80	≥80
Minimum ground clearance (in)		≥3.15	≥3.15	≥3.15
Angle of approach for no load (°)		≥35	≥35	≥35
Front wheel alignment (no load)	Camber angle (°)	1	1	1
	Steering axis inclination (°)	12	12	12
	Caster angle (°)	5	5	5
	Toe in (mm)	3-5	5-8	5-8
	Toe in (in)	0.12-0.20	0.2-0.32	0.2-0.32
The maximum noise (db.)		≤70	≤70	≤70

Notes: Li = EVOLVE Lithium 210 Battery. All driving distances are estimates. Actual may vary. See next page.

## VARIABLES THAT INCREASE OR DECREASE DRIVING DISTANCE

Average driving distances are influenced by a multitude of variables—which correlate to similar variables that influence miles per gallon on a gasoline powered vehicle. The most influential variables are listed below.

<b>Driving Distance Variable</b>	<b>Increases Distance</b>	<b>Decreases Distance</b>
<b>All Battery Types</b>		
Tire Type	Radials w/smooth tread surface	Knobby tires = more drag / friction
Driving Style	Slow acceleration, slow stopping	Fast acceleration, quick stopping
Vehicle Programming	Revenge / LE (slower acceleration)	SS (fastest rate of acceleration)
Driving Environment	Few starts and stops	Many starts and stops
# Passengers / Total Weight	Less weight = less power required	More weight = more power required
Driving Terrain	Smooth roads = less friction	Sand, Grass, etc. = more friction
PTV vs LSV	Slower max speed (i.e. 20 mph)	Driving @ max speed (i.e. 25 mph)
<b>Lead-Acid Batteries</b>		
Ambient Temperature	Cold = slower charge and discharge	Hot = faster charge and discharge
Break-In # of Cycles	> 100 cycles = full storage potential	< 100 cycles = not full storage potential)
Battery Care	Proper care	Improper care

# WARRANTY

**Tomberlin™**

**Limited Electric Vehicle Warranty**

**Consumer and Approved Commercial Applications**

Tomberlin is part of the Columbia Vehicle Group, Inc., which provides a consumer-oriented warranty plan that is supported by leading community-based dealers and authorized service centers. Your satisfaction is our primary goal. As such, this warranty is written in a simplified manner to enhance clarity and understanding of what is and is not covered by Tomberlin.

The key to a positive ownership experience includes the recognition of the role the owner has in assuring correct maintenance and care are properly followed. In fact, incorrect care, improper care, or neglect of maintenance can void this warranty. The terms and conditions of this limited warranty are listed below.

**Issued By:** Columbia Vehicle Group, Inc. Note that some components are covered under different limited warranties provided by their manufacturer, such as (but not limited to) batteries, tires, and so forth. Please visit your dealer for additional information.

**Issued To:** The original individual purchaser, as reflected on the consumer warranty registration.

**Coverage:** Authorized Tomberlin parts plus limited labor for defective components whose failure is solely attributable to a manufacturing defect or workmanship. Failure must occur and be properly reported by an authorized Tomberlin dealer during the warranty period while the vehicle is under normal use. The approved warranty repairs must be provided by a Tomberlin authorized dealer or service center. In the absence of a full-service dealer, Tomberlin's limit of liability is restricted to a "parts only" warranty as detailed within this limited warranty, and only on a pre-approval basis.

**Warranty Period:** This Limited Warranty, as it pertains to specific covered components, will range from 6 to 60 months as detailed below, subject to the restrictions mentioned throughout this document. First and foremost, this is a 100% consumer use limited warranty. Any commercial use will void the consumer limited warranty. Tomberlin offers commercial limited warranty coverage. See page 8 for more information.

**Product Covered:** All Tomberlin electric vehicle models sold new by an authorized Tomberlin dealer in compliance with the sales procedures in place at the time of sale. Other models have restricted limited warranty coverage explained below.

**Warranty Registration at the Time of Sale:** Warranty coverage begins at time of the documented purchase. In addition, the transaction must be evidenced by a customer-signed Pre-Delivery Inspection form and subsequent Dealer Warranty Registration being received by Tomberlin within ten days of purchase. If the vehicle warranty registration form (submitted by the dealer) is not received within ten days of the retail transaction, this warranty will be considered void. Customers should make certain they maintain a readable copy for their own records of the following:

- Warranty Registration form
- Proof of payment
- Customer signed (dealer completed) Pre-Delivery Inspection form
- Owner's Manual

**Transfer of Warranty (2017 Models or Newer):** Remaining Consumer warranty coverage (which began at the time of the first owner's documented purchase) may be transferred to a new owner. This fee-based warranty transfer requires a Full-Servicing Authorized Dealer to (1) perform a Pre-Delivery Inspection (PDI) of the cart; (2) complete and submit the PDI and Warranty Transfer Document to Tomberlin; and (3) receive approval from Tomberlin. Consult with your Dealer for the applicable warranty transfer fee. The warranty for commercial applications is not transferable.



**Consumers Responsibility** is to assure they understand the vehicle, its speed settings, braking, restraint, and ride character. Customers should complete a test drive and receive training before taking final delivery. Dealer training should include safety and operational training, tire maintenance and care, how to charge, use of the charge cord, long term storage, local regulations, and so forth. Plus, you should be instructed to immediately report any malfunction to your dealer.

Tomberlin vehicles may look like a traditional golf car. However, they are engineered to perform more like an automobile. For example, Tomberlin models offer two maximum speed settings; have automotive-type 3-point seat belts; automotive-type pedals (i.e. accelerator and brake); and some have an automotive-type steering column. In addition, they have a firmer coil-over shock suspension—like an on-road sports car—which provides superior handling and stability. Your dealer is prepared to explain, demonstrate, and answer questions you may have.

**Full-Servicing Authorized Dealer:** Only Authorized Tomberlin Sales and Servicing Dealers are authorized to receive warranted parts and labor to service the vehicle. Note: Generally, Tomberlin owners enjoy a better service experience utilizing a Full-Servicing Authorized Dealer.

**Authorized Service Centers:** Authorized Service Centers are in areas where we do not have a Full-Servicing Authorized Dealer. Tomberlin, upon pre-approval, may provide free parts to the Authorized Service Center (without labor reimbursement) for covered parts as detailed herein under the following guidelines. A Tomberlin Service Center must complete a Parts Only Service Center form and ship any part desired to be replaced due to a manufacturing defect to the address as specified with the Service Center procedures. Other procedures must be in compliance—such as maintenance, proof of registration, and so forth. All parts seeking to be replaced must be submitted while under an active warranty period as specified herein. All other terms and conditions apply.

**Servicing Business:** In lieu of a Full-Servicing Authorized Dealer or Authorized Service Center, Tomberlin, upon pre-approval, may provide free parts (without labor reimbursement) for covered parts as detailed herein under the following guidelines. A servicing business must receive pre-approval and ship any part desired to be replaced due to a manufacturing defect to the address as specified with the servicing business procedures. Other procedures must be in compliance—such as maintenance, proof of registration, and so forth. All parts seeking to be replaced must be submitted while under an active warranty period as specified herein. All other terms and conditions apply.

**Tomberlin Parts:** Any part determined solely by Tomberlin to be defective due to faulty workmanship may be repaired or replaced at the sole option of Tomberlin with new, remanufactured, and/or certified replacement parts and will also be warranted for the remaining balance of the vehicles warranty period as it relates to that particular component.

**Maintenance Cost:** All routine maintenance and care is at the expense of the owner and should be conducted only by authorized Tomberlin Dealers. See routine maintenance and care instructions in the Owner's Manual. You may also visit [www.tomberlin.net](http://www.tomberlin.net) for additional current information on maintenance, proper care, and safe driving habits.

**Owners Responsibility:** The limited warranty period is dependent upon adherence to proper care and maintenance. As such, it is the responsibility of the owner to operate and properly maintain their Tomberlin product by following the guidelines, instructions, and recommended maintenance programs and schedules in the Owner's Manual—including those detailed in this document. Unfortunately, we have experienced many examples of improper care and maintenance—some of which can result in component damage, fire, accidents, injury, and death. Examples include:

- Modifying or raising the center of gravity
- Installing the wrong size or brand of batteries
- Manipulating controllers for more speed or torque
- Installing the incorrect size tires, wheels, or lift kits
- Installing aftermarket light kits, trailer hitches, cargo beds, and other accessories
- Installing stereos and electronics that are spliced into the wrong wires
- Improper long-term storage or long periods of no use
- Using inappropriate extension cords to charge the vehicle

The following warranty information is for all 2021 and newer Tomberlin E-MERGE models.

<p><b>CONSUMER WARRANTY PERIOD &amp; MODELS:</b> The following warranty periods are subject to exclusions detailed in this document.</p>	<p>Properly maintained components covered under this Limited Warranty for the period in the corresponding left column include:</p>
<p><b>Five Years</b></p>	<p>Steering wheel, steering column, front and rear body deformation (excludes paint, cracks, spills, and contact damage), upper structure welds, *A-arms, *front spindles, rear swing arms, brake caliper deformation, stainless steel hardware, frame, steel upper frame brace component welds, hip restraint, wheels. *Note: Non-OEM wheels will void this coverage.</p>
<p><b>Three Years</b></p>	<p>Properly maintained battery cables (no corrosion), shocks and coil springs breakage, front wheel hub, steering gear rack and grease Zerk fittings.</p>
<p><b>Two Years</b></p>	<p>Motor, motor brake, controller, on-board smart charger, switch housing, seat hinges, master cylinder, DC to DC converter, steel brake line and front brake disc, rear drum, transaxle assembly, accelerator pedal, brake pedal assembly, headlight assembly (not the bulb), bushings, primary wire harness breakage (not due to water), switches including turn signal stalk.</p>
<p><b>One Year</b> Standard consumer coverage period unless components are otherwise listed above or below.</p>	<p>Tie-rods, power steering, and all other items and components not mentioned above or specifically excluded as noted below. Excluded items include front and rear bumpers, dash, windshields, and any damage due to impact from foreign objects, vandalism, or accidents to include shipping damage which is covered by the carrier subject to certain notification requirements.</p>
<p><b>Six Months</b></p>	<p>Seat coverings, body finishes, and Tomberlin accessories installed at the factory or properly installed by a Tomberlin authorized dealer. Canopies, headliners, floor mats, electrical connections, components including audio systems, sensors, solenoid, trim, decals, and switch connections.</p>
<p><b>90 Days</b></p>	<p>Elite Enclosures</p>
<p><b>Batteries &amp; Tires</b></p>	<p>Batteries shipped with the vehicle to the dealer by Tomberlin, limited coverage as detailed below. If batteries are not shipped to the dealer by Tomberlin, no Warranty other than coverage provided by the battery manufacturer if any. Tire warranties provided by the tire manufacturer if any.</p>

*\*In some cases, there may be surface rust on various metal parts like the frame and/or other steel components, which will not affect the functionality of the component.*

**Exclusions:** This warranty does not cover components damaged by abuse, alteration, neglect, accidental damage, misuse, or malfunction resulting from a collision, accident, impact, commercial applications or use outside of the intended use of the vehicle. Any promises, statements, or service agreements with a particular Tomberlin dealer or service center are between you and the dealer. Dealer promises, statements, written or otherwise are not the responsibility of Columbia Vehicle Group, Inc. to execute, fulfill or perform. Secondary damages of any kind or nature are not covered. Examples of what is not covered are damages caused by overfilling the batteries that may result in rust, corrosion and/or floor damage. Vehicle damage caused by improper care, heat conditions due to improper torque, care or storage or using light duty charge cords. Do It Yourself efforts are excluded from coverage without prior written approval by Tomberlin. Verbal statements and/or agreements between the consumer, dealer, or 3rd party are considered null and void as it relates to this warranty; which is governed solely by the written limited warranty defined in this document. Any modifications to this warranty must be signed off by a corporate officer of Columbia Vehicle Group, Inc.

Wear items are excluded. This exclusion includes tires, brake pads, brake shoes, motor brushes, wiper blades, paint finish, bulbs/fuses, and so forth.

Additionally, warranty will be denied and does not include the failure of any part or accessory due to abuse, misuse, acts of nature, acts of God, improper installation or maintenance, a low fluid level, and use of a fluid other than specified by Tomberlin. The installation of any part that is not provided (or authorized) by Tomberlin will void this warranty—including use of the vehicle in competition or racing events. Other exclusions include the following:

- Any failure associated with modifying the vehicle or installing accessories unauthorized by Tomberlin
- Any incidental expenses or inconvenience you may suffer due to the loss of use of your vehicle
- Any vehicle that has been declared a total loss or sold for salvage adjustments/repairs
- Routine maintenance items or service procedures recommended by Tomberlin
- Electrical components damaged by loose connections, power surges or poor care
- Driving through water deep enough to cause electrical system damage
- Corrosion of battery terminals or damages relates to spikes in electrical power
- Altering the vehicle’s performance or use beyond its original intended use and performance envelope
- Fading, blemishes, scratches, or surface deterioration due to exposure and normal wear and tear

**Battery Care and Maintenance:** As a reminder and in addition to other guidelines, owners are advised to perform the following minimum amount of care and maintenance to maintain an active and valid warranty for lead-acid and EVOLVE Lithium batteries. While vehicles are being stored, the battery system must be maintained. Minimum maintenance requirements are as follows:

Maintenance	Lead-Acid	NexSys	EVOLVE
Fully Charge at least every 30 days	√	√	
Check water level weekly and after fully charging	√		
Use only distilled water if required	√		
Add water to bring level to the top of the plates before charging	√		
DO NOT charge battery when plates are exposed to air	√		
Inspect battery connections when charging	√	√	√
Ensure that the key switch is set to the OFF position when the vehicle is not in use to avoid rapid discharge of the batteries.	√	√	√
Always keep batteries fully charged	√	√	
Always charge batteries with the charger provided with the vehicle	√	√	√
The charger provided is specifically matched to the battery pack in the vehicle	√	√	√
Avoid charging batteries when ambient temperature is above 120 F	√	√	113 °
Never discharge batteries when charge levels are below 20% of capacity	√	√	

***Tomberlin believes the customer is best served by having a fresh battery pack installed at the time of purchase by the dealer.***

**Battery Warranty: Conventional Lead-Acid**

<p>Tomberlin offers US Batteries and Trojan batteries.</p> <p>Battery warranty is provided if Tomberlin-approved batteries are included at time of vehicle shipment to the dealer, and if properly maintained by dealer prior to sale.</p> <p>Consult with you dealer if batteries werenot included with the vehicle when shipped to the dealer.</p> <p>Warranty period begins on the date of documented purchase.</p> <p>Battery warranty is subject to restrictions, proper battery care and maintenance guidelines in the owner’s manual of the Battery Manufacturer. Battery replacement and verification of defect must comply with the battery manufacturer procedures in place.</p> <p style="text-align: center;"><b># Months Since Documented Purchase</b></p>	<p><b>Tomberlin</b> will credit dealer up to the following percent for a battery found defective due to manufacturing defect upon verification by Tomberlin.</p> <p>Tomberlin dealers will apply the corresponding percentage in the chart below based upon the elapsed time since the date of documented purchase.</p> <p>Customer will be responsible for paying to dealer the remaining percentage due.</p> <p style="text-align: center;"><b>Tomberlin Dealer</b></p>	<p><b>Customer</b> will be responsiblefor paying the following percentage of dealer charge to replace the covered battery.</p> <p>The amount will be credited toward the approved battery replacements as approved by Tomberlin that are in use at the time of the battery credit. The credit is only valid at authorized Tomberlin dealers or Service Centers.</p> <p style="text-align: center;"><b>Customer</b></p>
<b>US Batteries</b>		
31-40 Months	25%	75%
21-30 Months	50%	50%
13-20 Months	75%	25%
1-12 Months	100%	0%
<b>Trojan Batteries</b>		
20-28 Months	25%	75%
14-19 Months	50%	50%
9-13 Months	75%	25%
1-8 Months	100%	0%



### LIMITED WARRANTY AGREEMENT COVERING NEXSYS® BATTERY AND CHARGER PACKS FOR SMALL TRACTION APPLICATIONS

EnerSys Delaware Inc. ("EnerSys") warrants the NexSys® battery products which include an integrated battery charger ("Pack") to be free of defects in workmanship and materials for a period of twenty-four (24) months from date of shipment ("Warranty Period"). Please refer to 29.00NXSCW for charger warranty details. In addition, the Pack is warranted to deliver 80% of the rated ampere-hour (Ah) capacity at the 8-hour rate when tested under EnerSys supervision for thirty-six (36) months from the date of shipment. If the Pack fails to deliver 80% of its rated capacity at the 8-hour rate after twenty-four (24) months under the above conditions, EnerSys will credit the original purchaser ("User") an amount equal in dollars to the list price of the replacement blocs multiplied by the months of unexpired life divided by thirty-six (36). Credit will be issued against the purchase of the equivalent EnerSys blocs. Where a Pack is not placed into service immediately, the Warranty Period will commence when the Pack is placed into service, but no more than thirty (30) days after shipment.

If defects in workmanship or materials are found within the initial twenty-four (24) months of the Warranty Period, or if the Pack fails to deliver 80% of its rated capacity at the six (6) hour rate in the first twenty-four (24) months, EnerSys, in its sole discretion, will determine whether to repair or replace the Pack or its parts at no charge. When a no-charge replacement Pack is issued within the Warranty Period, the replacement Pack's warranty will not exceed the Warranty Period remaining from the original Pack. Parts and labor for Packs shipped outside of the contiguous United States and Canada have a warranty of one (1) year. This warranty applies to the original purchaser ("User") of the Pack and is nontransferable. Freight and travel are the responsibility of the User, F.O.B. the nearest authorized EnerSys facility.

This warranty is subject to the following terms and limitations:

- (1) Repair by anyone other than an authorized EnerSys representative shall void this warranty.
- (2) The Pack must be sized properly to perform the duty cycle originally intended, and the Pack must not be required to perform a duty cycle in excess of the originally intended one.
- (3) The Pack must be charged and maintained in accordance with EnerSys current published Operating and Maintenance Instructions for NexSys Batteries Section 25.10 (hereinafter "Section 25.10"). Failure to follow the current EnerSys published guidelines and/or instructions may invalidate the Pack warranty, at the sole discretion of EnerSys.
- (4) The ambient temperature range of use for the Pack is between 50° F and 113° F, any use outside of this range must be approved by an EnerSys representative.
- (5) This warranty is invalid if the Pack is subjected to misuse, physical damage or abuse other than normal wear and tear.
- (6) Daily depth of discharge must be limited to 80% (as shown in Section 25.10).
- (7) EnerSys authorized representatives shall have access to the Pack at reasonable hours and intervals for purposes of inspection.
- (8) EnerSys, at its sole discretion, may require proof of purchase consisting of a copy of the original product invoice.
- (9) The acceptance of a Pack shipped to EnerSys shall not be deemed an admission that the Pack so shipped is defective. The Pack shipped back to EnerSys, shall, in EnerSys sole discretion, become EnerSys sole property.

**THIS LIMITED WARRANTY IS IN LIEU OF, AND ENERSYS DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, STATUTORY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ENERSYS' EXCLUSIVE LIABILITY FOR BREACH OF WARRANTY SHALL BE TO REPLACE THE PACK WITHIN THE EFFECTIVE WARRANTY PERIOD. IN NO EVENT SHALL ENERSYS BE LIABLE FOR ANY LOSS OR DAMAGES OF ANY OTHER KIND, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, SPECIAL OR OTHERWISE. NOR SHALL ENERSYS BE LIABLE FOR ANY REMOVAL OR INSTALLATION EXPENSE, OR THE LOSS OF TIME OR PROFITS. USER ASSUMES RESPONSIBILITY FOR ALL PERSONAL INJURY AND PROPERTY DAMAGE RESULTING FROM THE HANDLING, POSSESSION OR USE OF THE PACK. IN NO EVENT SHALL THE LIABILITY OF ENERSYS FOR ANY AND ALL CLAIMS EXCEED THE PURCHASE PRICE OF THE PACK.**

Some countries and/or states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to User. This warranty gives the User specific legal rights, which may vary from country to country and/or state to state. This warranty shall be governed by and interpreted in accordance with the laws of the Commonwealth of Pennsylvania without regard to Pennsylvania conflicts of laws rules. The United Nations Convention on Contracts for the International Sale of Goods signed in Vienna in 1980 shall not apply to this warranty. This warranty is understood to be the exclusive agreement between the parties relating to the subject matter hereof. No employee or representative of EnerSys is authorized to make any warranty in addition to those made in this agreement.



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## EVOLVE L210 Lithium Battery Limited Warranty

Columbia Vehicle Group, Inc. gives a five-year, 36,000 mile (57,936 kilometers), whichever comes first, Limited Warranty parts and labor warranty on the EVOLVE L210 lithium-ion battery against defects in materials or workmanship on your E-MERGE vehicle.

All batteries experience some reduction in capacity/range over time. A capacity/range reduction of 40% or less during the battery warranty period does not constitute a defect. Any capacity/range related claims must be confirmed by an Authorized Dealer and approved by Columbia Vehicle Group, Inc. to be eligible for coverage. In addition to the Lithium Battery Warranty Coverage exclusions detailed within the E-MERGE 5-year warranty, the battery warranty also excludes failure, damage or capacity loss to the battery caused by neglect, lack of charging or not following the recommended maintenance schedule outlined in the E-MERGE Operator's Manual.

Battery coverage in this Limited Warranty begins on the date of purchase by the original retail purchaser and continues for sixty-months or 36,000 miles (57,936 kilometers), whichever comes first. During this time period, Columbia Vehicle Group, Inc. warrants your vehicle's EVOLVE L210 battery against defects in materials or workmanship. After thirty-six months in service, a defective battery will be replaced on a manufacture/customer shared basis provided that the warranty limit of 36,000 miles (57,936 kilometers) has not yet occurred. Review the guidelines in the table below:

<b>Term for vehicles with less than 36,000 miles (57,936 kilometers)</b>	<b>Warranty Coverage for Evolve Batteries deemed defective by Columbia Vehicle Group, Inc.</b>
Purchase Date – 36 Months of Service	100% of the cost of an approved Evolve Battery at an Authorized Tomberlin Dealer
37-Months – 60-Months	50% of the cost of an approved Evolve Battery at an Authorized Tomberlin Dealer

### Lithium Battery Warranty Exclusions

This Limited Warranty may be voided or limited at the sole discretion of Columbia Vehicle Group, Inc. (i.e. the "Company") if the vehicle and or battery/charger:

- Has electrical accessories that are not manufactured or sold by the Company for use with the vehicle or any electrical energy consuming devices installed directly to the battery pack.
- Shows indications that the battery pack was disassembled, opened, or tampered with in any way.
- Shows indications that attempts may have been made to intentionally reduce the battery pack life.
- Shows indications that routine maintenance was not performed in accordance with the E-MERGE Operator's Manual provided with the vehicle, including but not limited to: proper tire inflation, lack of proper charging, and non-recommended lubricants were applied to the vehicle and any part thereof.
- Shows indications that the speed governor was adjusted or modified to permit the vehicle to operate beyond Company specifications.
- Shows water damage from being submerged.
- Shows evidence of being pressure washed.
- Shows evidence of being short circuited or "jumped" to another battery pack.
- Shows improper use and/or storage outside the limitations listed in the table below:

<b>Storage and Operation Limitations*</b>	<b>Time Allowed</b>
Short term storage temperature requirements: -4°F (-20°C) to 104°F (40°C)	30-days
Long term storage temperature requirements: -4°F (-20°C) to 86°F (30°C).	180-days*
Operation temperature requirements: below -4°F (-20°C) and above 140°F (60°C)	Not Allowed
Charging temperature requirements: below 32°F (0°C) and above 113°F (45°C)	Not Allowed

\*Short and long-term storage number of days apply to a fully charged battery on day one, and properly stored batteries as defined in Long Term Storage section of this E-MERGE Operator's Manual.

**OEM installed Battery Exclusions:** Batteries that fail due to customer abuse or improper care such as lack of maintenance, under-charging, or over-charging to include improper electrolyte levels due in part to overwatering or under watering. Batteries that fail due to fire, wreckage, explosion, or freezing. Batteries that have been allowed to discharge while in storage or improperly installed such as loose or corroded hardware.

**Battery Replacement:** In the event a manufactured defect is determined, the battery manufacturer must approve. Only the defective battery in a set will be replaced subject to the terms herein.

**Replacement Parts:** Parts replaced under this warranty become the property of Tomberlin and Tomberlin will make the final decision whether to repair or replace any existing part or assembly. Factory remanufactured, or certified replacement parts may be utilized for some warranty repairs.

**Pick Up, Rental, and Delivery:** This limited warranty does not cover any pickup and delivery reimbursement.

**Remedy:** The only remedy (sole remedy) under this limited warranty is Tomberlin will repair or replace any parts determined to be defective at the sole discretion of Tomberlin. Tomberlin makes no other warranty of any kind, expressed or implied.

**Merchantability:** Any expressed or implied warranty of merchantability and fitness for a particular use, or purpose that in anyway exceed the limits of time or obligations as stated in this limited warranty are hereby disclaimed.

**Tire Care:** Tomberlin vehicles have a firm sports-car-like ride that tracks well with an emphasis on lateral stability. We engineer a “feel-the-road” sensation via rack and pinion steering; and provides a tighter road-hugging ride compared to a traditional golf car. Proper tire care is critical to aid in enhancing a safe and improved ride. Proper storage habits, properly inflated tires, and keeping the vehicle correctly aligned will offer a much longer tire life as well as improved ride.

**Flat Spots:** Flat spotting or wheel bounce can occur in virtually any tire. However, golf car tires and wheels are more susceptible (due to size and width)—especially in warm climate areas and when parked for several days. Visit the Tirerack website links below to learn more about proper tire care, storage tips, and ways to reduce flat spotting which can produce a bouncy ride. Go to the following sites (or similar sites) for more information.

<http://www.tirerack.com> and <http://www.tirerack.com/tires/tiretech/techpage.jsp?techid=42>

**Tire Cradles:** Tomberlin recommends removing the weight of the vehicle from the tires when in storage (or not used) formore than a week. Tire cradles may offer a simpler method to aid in the reduction of tires getting out of round. Visit <http://www.griotsgarage.com> and type in “flat spot eliminator” in the search window; or go to [www.tirecradles.com](http://www.tirecradles.com) or similar sites to learn more. *Tomberlin provides these tips as an aid to our consumer’s own research and knowledge. Tomberlin has no affiliation with any of these companies and makes no recommendation, warranty, results, or value associated with their offerings.*

**Design:** Tomberlin does not assume any responsibility to modify components or vehicles existing in the market due to new or ongoing designs, modification, or technology previously unknown to Tomberlin. Tomberlin reserves the right to make design changes to product without notice.

**State Law:** Some states do not allow implied warranty limitations and may not be applicable to certain owners.

**Safety:** Make yourself fully aware of how to operate and care for your vehicle. Always wear your seat belt, know your vehicle, remove your keys, and engage your brake before exiting. Staying alert and using common sense saves lives and aids in assuring a safe driving and ownership experience. In addition, make certain those who you permit to drive your vehicle are of lawful age, have read the owner’s manual, and have a clear understanding of its’ operation.

Tomberlin Golf Cars configured as a PTV (Personal Transportation Vehicle) operate up to 19 mph.  
Tomberlin Golf Cars configured as a LSV (Low Speed Vehicle) operate up to 23-25 MPH.



## Commercial Applications

**Rentals, Commercial, Industrial or Institutional Use:** Tomberlin E-Merge vehicles used for approved Rent, and/or in Industrial, Commercial, and Fleet type applications are warranted for a six-month. Other applicable terms as to care, maintenance, and procedures as detailed herein will apply.

**Additional Limitations:** In no case shall Tomberlin be liable for indirect, incidental, punitive, or consequential damages, including but not limited to death, personal injury or property damage arising from or related to any alleged failure in a vehicle or battery charger, or any damage or loss to the purchaser or any third party for lost time, inconvenience, or any economic loss, whether or not company was apprised of the foreseeability of such damages or losses. The right of purchaser to recover damages within the limitations set forth in this section is purchaser's exclusive alternative remedy if the limited remedy of repair or replacement of the vehicle fails of its essential purpose. The parties agree that this alternative remedy will be enforceable even if the limited remedy of repair or replacement fails of its essential purpose. Any legal claim or action arising that alleges breach of warranty must be brought within three (3) months from the date the warranty claim arises. This limited warranty gives you specific legal rights and you may have other rights which vary from state to state. Some states do not allow the exclusion of incidental damages or limitations on how long an implied warranty may last, so the above exclusions and limitations may not apply to you. The warranty for commercial applications is not transferable.

**Other Company Rights:** Tomberlin reserves all rights to improve, modify or change the design or operation of any Tomberlin vehicle or component without being responsible to modify previously manufactured vehicles. This Limited Warranty cannot be changed without written approval of Company CEO and no other person, employee, agent, dealer, distributor has any authority to bind the company beyond the terms herein.

All parts that are warranted shall be stored for up to three months then shipped to Tomberlin with proper documents, failure codes, VIN, original owner—including various explanations of what took place. All parts are invoiced when shipped and due in accordance with procedures and policies on file, typically 15 to 30 days, and warranty credits will be applied as approved and in compliance with Tomberlin procedures.

This document more fully explains the coverage's, time line of coverage periods and term to include the restrictions associated with all Tomberlin Limited Warranties. In the event of conflicting written statements or lack of clarity, the shorter coverage period and/or more restrictive language shall apply but in no case, shall go beyond those explained herein.

*Columbia Vehicle Group, Inc.*

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