



2006 Owner's Manual

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NOTE: This manual is subject to change. For the latest version please visit www.gemcar.com, and click on the GEM Owners link at the bottom of the page.



Introduction

ABOUT THIS MANUAL

Thank you for purchasing your GEM by Global Electric Motorcars, LLC. Your vehicle is designed to operate exclusively on battery power. It is an emission-free vehicle. The ideal application for a battery-powered neighborhood electric vehicle (NEV) like your GEM occurs when the daily driving pattern is predictable and the distance is short.

The GEM company objective is customer safety and product satisfaction. This Owner's Manual is designed to acquaint you with the proper and safe operation of your GEM vehicle. Please take the time to read and understand the manual before operating your vehicle. Maintenance schedules and general care instructions are included in the Operation and Maintenance section.

This manual is applicable to the following GEM models: The GEM e2 (Two Passenger NEV), GEM e4 (Four Passenger NEV), GEM eS (Two Passenger Short-back NEV), and the GEM eL (Two Passenger Long-back NEV).



If questions arise after reading the manual, contact GEM Customer Service at **866.764.0616**. Please have your Vehicle Identification Number (VIN) and date of purchase information available.

NOTE: All information and specifications in this Owner's Manual are current at the time of printing. However, due to GEM's policy of continuous product improvement, we reserve the right to make changes, at any time, without written notice or obligation.

CAUTIONS, WARNINGS, AND NOTES

Throughout this owners manual you will find the words "WARNING!" and "CAUTION!" these serve as reminders that attention is required. "WARNING!" indicates an immediate hazard, which could result in an accident causing bodily injury. "CAUTION!" identifies something that could result in damage to your vehicle. You will also find information preceded by the word "NOTE." Notes are for your information and to make procedures more easily understood.



Vehicle Identification and Specifications

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Vehicle Identification and Specifications

GENERAL SPECIFICATIONS

GEM e2 Specifications

Motor:	Heavy Duty 72-Volt Electric Motor
Transmission:	Front wheel drive, direct-couple differential
Motor Control:	Solid state electronic controller
Tire:	12" Two-ply street rated tires or 10" turf-rated tires
Battery Pack:	Six 12-volt flooded or gel batteries of specific make and model number
Secondary Power Supply:	Dual output 30A DC/DC converter
On Board Charger:	72-volt DC charger 110-volt 15 amp AC input
Width:	55 inches
Length:	99 inches
Height:	68 inches
Turning Radius:	12' 6"
Wheelbase:	72 inches
Curb Weight:	1080 lbs. (EMPTY)
GVW:	1850 lbs. (LOADED)

Available Cargo Capacity:

With Hard Doors: 290 lbs.*

Without Hard Doors: 390 lbs.*

*Depending on the rear accessory option installed

Vehicle Identification and Specifications



GENERAL SPECIFICATIONS

GEM e4 Specifications

Motor:	Heavy Duty 72-Volt Electric Motor
Transmission:	Front wheel drive, direct-couple differential
Motor Control:	Solid state electronic controller
Tire:	12" Two-ply street rated tires
Battery Pack:	Six 12-volt flooded or gel batteries of specific make and model number
Secondary Power Supply:	Dual output 30A DC/DC converter
On Board Charger:	72-volt DC charger 110-volt 15 amp AC input
Width:	55 inches
Length:	128 inches
Height:	70 inches
Turning Radius:	16' 6"
Wheelbase:	102 inches
Curb Weight:	1270 lbs. (EMPTY)
GVW:	2200 lbs. (LOADED)

Available Cargo Capacity:

With Hard Doors:	180 lbs.*
Without Hard Doors:	280 lbs.*

*Depending on the rear accessory option installed



Vehicle Identification and Specifications

GENERAL SPECIFICATIONS

GEM eS Specifications

Motor:	Heavy Duty 72-Volt Electric Motor
Transmission:	Front wheel drive, direct-couple differential
Motor Control:	Solid state electronic controller
Tire:	12" Two-ply street rated tires
Battery Pack:	Six 12-volt flooded or gel batteries of specific make and model number
Secondary Power Supply:	Dual output 30A DC/DC converter
On Board Charger:	72-volt DC charger 110-volt 15 amp AC input
Width:	55 inches
Length:	108 inches
Height:	70 inches
Turning Radius:	12' 6"
Wheelbase:	72 inches
Curb Weight:	1140 lbs. (EMPTY)
GVW:	1850 lbs. (LOADED)

Available Cargo Capacity:

With Hard Doors: 260 lbs.*

Without Hard Doors: 330 lbs.*

*Depending on the rear accessory option installed

Vehicle Identification and Specifications



GENERAL SPECIFICATIONS

GEM eL Specifications

Motor:	Heavy Duty 72-Volt Electric Motor
Transmission:	Front wheel drive, direct-couple differential
Motor Control:	Solid state electronic controller
Tire:	12" Two-ply street rated tires
Battery Pack:	Six 12-volt flooded or gel batteries of specific make and model number
Secondary Power Supply:	Dual output 30A DC/DC converter
On Board Charger:	72-volt DC charger 110-volt 15 amp AC input
Width:	55 inches
Length:	144 inches
Height:	70 inches
Turning Radius:	16' 6"
Wheelbase:	102 inches
Curb Weight:	1192 lbs. (EMPTY)
GVW:	2300 lbs. (LOADED)

Available Cargo Capacity:

With Hard Doors:	630 lbs.*
Without Hard Doors:	700 lbs.*

*Depending on the rear accessory option installed



Things to Know Before You Operate Your Vehicle

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Things to Know Before You Operate Your Vehicle



DRIVING AND ALCOHOL

Your ability to drive your GEM vehicle can be seriously impaired with blood alcohol levels far below the legal minimum. If you are drinking alcohol, don't drive. Ride with a designated non-drinking driver, call a cab, or use public transportation.

WARNING!

Driving after drinking alcohol can lead to an accident. Your perceptions are less sharp, your reflexes are slower, and your judgment is impaired when you have been drinking. Never drink alcohol and drive.

WARNING!

Drinking alcohol can seriously impair your ability to operate this vehicle.



Things to Know Before You Operate Your Vehicle

SAFETY INFORMATION

WARNING!

Your vehicle is battery powered. If handled improperly, batteries can be dangerous. Follow the precautions provided on pages 14-15 during charging operations to avoid personal injury or damage to electrical components in the vehicle.

- Read the Owner's Manual before operating this vehicle.
- Charge batteries in a well-ventilated area only.
- Keep children away from the batteries during charging.
- Batteries can emit explosive hydrogen gases when charging. Keep sparks and flames away from the battery area of the vehicle. Tools, wires and metal objects can cause sparks when shorted across the battery connections. Follow all instructions carefully when dealing with batteries.
- The batteries in the GEM vehicle are 12-volt, either flooded or gel batteries, specially built for electric vehicle application. **Never use anything other than factory approved batteries.**
- Electrolyte can leak from damaged or defective flooded batteries. Avoid contact with skin, eyes, or clothing.

Things to Know Before You Operate Your Vehicle



- Batteries contain acid, which can cause severe burns. If battery fluid comes in contact with your skin, flush the affected areas with water for at least 15 minutes and then seek medical assistance.
- Internal ingested: Get medical assistance as soon as possible.
- Contact with eyes: Flush with water and get medical assistance as soon as possible. While you are being driven to get medical assistance, continue to rinse your eyes by using a sponge or soft cloth saturated with water.

WARNING!

The battery packs are high voltage and could cause serious or fatal injury if not handled properly. **Only qualified technicians should handle or service this vehicle.**

CAUTION!

When checking the electrolyte level in flooded batteries, be careful to never touch the battery terminals.



Understanding the Features of Your Vehicle

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INSTRUMENT POD

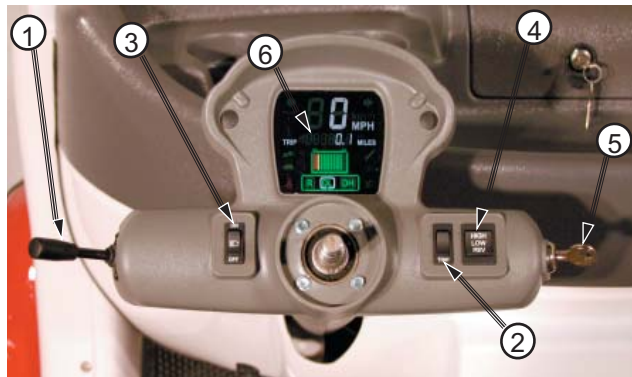


Figure 2 - Instrument Pod

1. Turn Signal/Windshield Wiper/Horn Lever
2. Trip/Odometer Switch
3. Headlight Switch
4. Forward/Reverse Switch
5. Key Switch
6. LCD Display

NOTE: Further explanation of these vehicle features are found on the next four pages.



Understanding the Features of Your Vehicle

TURN SIGNAL/WINDSHIELD WIPER/HORN LEVER

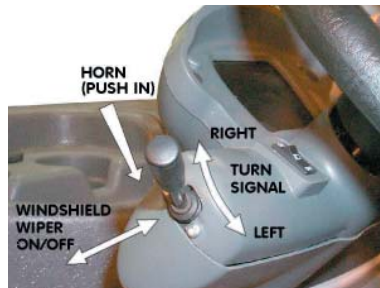


Figure 3 - Turn Signal Lever

The turn signal lever is multi-functional, controlling the turn signals, horn and wiper. Figure 3 illustrates how to activate the different functions.

TURN SIGNAL

For a left turn, move the lever down until it clicks. For a right turn, move the lever up until it clicks.

CAUTION!

The turn signal lever is not self-canceling. After completing the turn, return the lever to the center position.

Understanding the Features of Your Vehicle



HORN

Press the turn signal lever inward toward the instrument pod to activate the horn.

WINDSHIELD WIPER

Pull the turn signal lever towards the steering wheel to turn on the windshield wiper. Push the turn signal lever away from the steering wheel to turn off.

TRIP METER/ODOMETER SWITCH

The trip switch has three functions: (1) toggling between the odometer and the trip meter; (2) reset the trip meter; (3) change the function of the speedometer and odometer from miles-per-hour (MPH) to kilometers-per-hour (km/h) and miles to kilometers.

USING THE TRIP/ODOMETER SWITCH

1. Pressing the trip switch for less than 2 seconds will toggle between the odometer and trip meter modes on the display.
2. Pressing the trip switch for 3-9 seconds, while the display is in the trip mode, will reset the trip meter to zero. (TRIP must be lit on the display - see page 22).
3. Pressing the trip switch for 10-12 seconds, while the display is in the odometer mode will change the display functions from MPH to km/h and miles to km.



Understanding the Features of Your Vehicle

HEADLIGHT SWITCH

Headlight switch turns the headlights and taillights on and off.

FORWARD/REVERSE SWITCH

Drive High

With the key turned on and 'High' selected, pushing down on the accelerator pedal will move the vehicle in a forward direction with the speed range of 0-25 MPH. This mode refers to 'APPROVED TRAFFIC' routes based on Low Speed Vehicle (LSV) regulations for your area.

Drive Low

With the key turned on and 'Low' selected, pushing down on the accelerator pedal will move the vehicle in a forward direction with the speed range of 0-15 mph. When 'Low' is selected, the acceleration and speed of the GEM is limited.

Reverse

With the key switch on and 'Reverse' selected, pushing down on the accelerator pedal will move the vehicle in reverse. The top speed in the reverse direction is limited for safety.

NOTE: Your GEM is equipped with a reverse warning device that sounds when the key is on and the vehicle direction switch is in the reverse position.

Understanding the Features of Your Vehicle



CAUTION!

Always bring the vehicle to a complete stop before changing the position of the forward/reverse switch.

KEY SWITCH

When the key is in the 'ON' position (turned clockwise), the display will light up and all accessories may be turned on. When the key is in the 'OFF' position, the car will not accelerate but accessories and lights will remain on for approximately 20 seconds.

CAUTION!

Do not leave the key in the 'ON' position when not in use. Doing so will discharge the batteries.

ZERO SPEED DETECT

If the vehicle is moving while the key switch is on and accelerator pedal up, the electric motor will resist vehicle motion.



Understanding the Features of Your Vehicle

LCD DISPLAY

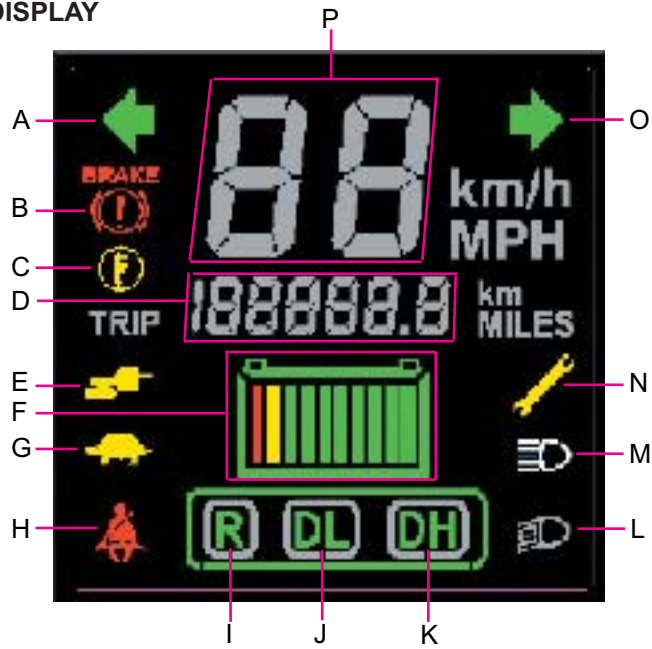


Figure 4 - LCD Display

Understanding the Features of Your Vehicle



LCD Display	Indicators
A	Left Turn Indicator
B	Brake Failure Warning Indicator/Low Fluid Level
C	High Motor Temperature Warning Indicator
D	Odometer/Trip Meter
E	Charger Connected Indicator
F	State of Charge Indicator
G	Current Limiting Mode Indicator
H	Safety Belt Warning Indicator
I	Reverse Indicator
J	Drive-Low Setting
K	Drive-High Setting
L	NOT ACTIVE IN VEHICLE
M	Headlight Indicator
N	Service Required Indicator
O	Right Turn Indicator
P	Speedometer/Error Code Display

NOTE: These indicators are defined on the next several pages.



Understanding the Features of Your Vehicle

TURN INDICATORS

The turn signal arrows will flash corresponding to the direction of the turn signal lever.

BRAKE FAILURE WARNING

If the brake warning icon is lit, there may be a problem with your braking system. It could be an indication of the following:

- Low brake fluid
- Air in the brake system

WARNING!

Have your brakes checked immediately by a trained service person if the brake failure warning indicator is lit.

HIGH MOTOR TEMPERATURE

If the high motor temperature icon is lit, your motor could be overheating. This is usually a symptom of overworking the motor. Climbing steep grades and hauling heavy loads will overheat the motor and shorten motor life.

Understanding the Features of Your Vehicle



CAUTION!

If the high motor temperature warning indicator is lit, pull over and park the vehicle in a cool location as soon as possible. Wait until motor temperature is reduced and the high motor temperature icon turns off before continuing to drive. If this condition persists, contact your service provider.

TRIP METER/ODOMETER

The odometer indicates the total distance the vehicle has been driven. This is useful in keeping a record for maintenance. The odometer can be displayed in kilometers or miles. To change from miles to kilometers or to change from odometer to trip meter, see the Odometer Switch/Trip Meter section on page 19. The trip meter is useful for keeping track of specific distances traveled.

SPEEDOMETER/ERROR CODE

The speedometer indicates driving speed in either miles-per-hour (MPH) or kilometers-per hour (km/h). To switch between MPH and km/h, see the Trip Meter/Odometer Switch section on page 19. If the Service icon is lit, an error code will be displayed at the speedometer location. See page 46 for information regarding error codes.



Understanding the Features of Your Vehicle

CHARGER CONNECTED

The charger connected icon and state of charge gauge turns on approximately 8-10 seconds after the extension cord is plugged in. After charging is 100% complete, the charger connected icon will be the only thing lit and the bar graph will not be illuminated. A green light on the charger itself will also illuminate when the car is 100% charged. To know if the charging process is complete, all ten bars on the state of charge indicator should be illuminated when the car is turned on. If the charger code is plugged in and neither the charger connected icon nor the state of charge indicators are illuminated, the charger may not be charging. If this occurs, make sure the main disconnect switch is in the 'ON' position. More information on the charger and charging of the batteries is discussed on pages 48-52.

STATE OF CHARGE

The state of charge indicator shows how much capacity remains in the battery pack. There are 10 bars: 1 red, 1 yellow, and 8 green. After a full charge all the bars should be illuminated when the car is turned on. The far right green bar will be the first to turn off once the battery pack voltage begins to drop. The percent of charge corresponding to each bar is shown below.

Bar	Color	% Full Charge
1	Red (Far Left)	Less Than 10
2	Yellow	10-20
3	Green	20-30
4	Green	30-40
5	Green	40-50
6	Green	50-60
7	Green	60-70
8	Green	70-80
9	Green	80-90

Understanding the Features of Your Vehicle



CURRENT LIMITING MODE

The current limiting mode is designed to protect the batteries and motor. If the current limiting mode icon is illuminated, it is an indication of one of the following issues:

Battery Pack Over-Voltage

Battery over-voltage typically occurs when the vehicle is descending down hills after being fully charged. During descent, the regenerative mode is activated, which returns current to the battery by using the motor as a generator. In some extreme cases, the battery pack might get overcharged.

Battery Pack Under-Voltage

Battery under-voltage would coincide with a low charge reading on the state of charge gauge. If you continue to drive, the acceleration and power will begin to decrease. The controller will eventually shut the vehicle down before allowing battery damage to occur. If the state of charge is low and the current limiting icon is illuminated, pull the vehicle over to a safe location and charge the vehicle.



Understanding the Features of Your Vehicle

SAFETY BELT

The safety belt icon reminds you to fasten your safety belt. The icon remains on for 45 seconds.

DRIVE HIGH/LOW/REVERSE

The drive High/Low/Reverse corresponds to the position of the Forward/Reverse switch. More information regarding this switch can be found on pages 17 and 20

SERVICE

If the Service icon is illuminated, an error code will be displayed at the speedometer location. See page 46 for a description and explanation of common error codes.



WINDSHIELD WIPER

NOTE: Operation of the windshield wiper could be interrupted if the current draw from the wiper motor is too high. This typically occurs when the wiper is dragging on a dry window. The interruption will usually only last a few seconds.

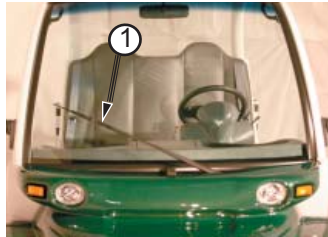


Figure 5- Windshield Wiper

1. Wiper Blade and Arm

CAUTION!

A damaged or worn wiper blade may reduce vision and impair you from seeing well enough to drive safely. A worn wiper blade could damage windshield glass. If your blade becomes damaged or worn, replace it.



Understanding the Features of Your Vehicle

FOOT PEDALS

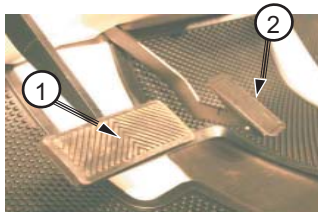


Figure 6 - Foot Pedals

1. Brake Pedal
2. Accelerator Pedal

BRAKE PEDAL

The brake pedal (Figure 6) is located on the floor to the left of the accelerator pedal. To slow or stop the vehicle, firmly press the brake pedal.

ACCELERATOR PEDAL

The accelerator pedal (Figure 6), is located on the floor, close to the center of the vehicle and is used to control your speed. Pressing down on the pedal will increase speed.

WARNING!

Always accelerate slowly to prevent possible injury to yourself or others.



PARKING BRAKE

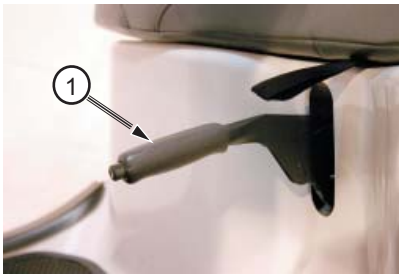


Figure 7 - Parking Brake (models e2, eS, eL)



Figure 8 - Parking Brake (model e4)



Understanding the Features of Your Vehicle

1. Parking Brake (models e2, eS, eL) Figure 7
2. Parking Brake (model e4) Figure 8

The parking brake is located to the lower right of the driver seat. To engage the parking brake, lift up on the handle. To release, press the button on the end of the brake handle and lower it.

NOTE: The parking brake is adjustable and should be checked periodically by a trained service technician. Review the vehicle maintenance schedule on page 70.

WARNING!
It may be possible to drive the vehicle with the parking brake lever engaged. Always release the parking brake lever before attempting to move the vehicle.

CAUTION!
Always engage the parking brake before exiting the vehicle.



MAIN DISCONNECT SWITCH



Figure 9 - Main Disconnect Switch

The main disconnect switch (Figure 9), is located inside the fuse access panel on the lower dash. The switch is clearly labeled 'ON' and 'OFF'. The switch is intended to provide an easy way to disconnect all power to the vehicle during long-term storage. After disconnect is turned off, some power may remain in the system until all capacitors have discharged.

NOTE: The main disconnect switch must be turned 'ON' for operation and charging. The GEM is equipped with a battery charger that will monitor the state of charge of the batteries and will initiate a charge cycle whenever the batteries fall below a predetermined level. If the car will be left unused for an extended period of time, leave the MDS on and the car plugged in. The car will maintain a charge on its own for up to 24 weeks.



Understanding the Features of Your Vehicle

SAFETY BELTS



Figure 10 - Safety Belts (Bench Seat)



Figure 11 - Safety Belts (Bucket Seat)

1. Belt
2. Latch
3. Buckle

The GEM is equipped with safety belts for both driver and passengers.

Understanding the Features of Your Vehicle



Research has shown that safety belts save lives. Safety belts can reduce the seriousness of injuries in a single vehicle accident. Some of the worst injuries happen when people are thrown from the vehicle. Safety belts provide protection, and they reduce the risk of injury caused by striking the inside of the vehicle. Everyone needs to buckle up all the time, even for short trips.

WARNING!

- Wearing a safety belt incorrectly is dangerous. Safety belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision best.
- Wearing your safety belt incorrectly could increase your risk for injury in a collision. You could suffer internal injuries, or even slide out of part of the belt. Use the instructions in this manual to insure you and your passengers are wearing the safety belts properly.
- Two people should never be belted into a single safety belt. People belted together can crash into one another in an accident, causing injury. Never use a lap/shoulder belt for more than one person, no matter the size of the person.



Understanding the Features of Your Vehicle

PROPER USE OF YOUR LAP AND SHOULDER BELT

1. Enter the vehicle and sit back.
2. The safety belt buckle is located above the back of the seat. Grasp the buckle and pull out the belt. Slide the buckle up the webbing as far as necessary to make the belt go around your lap.
3. When the safety belt is long enough to fit, insert the buckle into the latch until you hear a click.

CAUTION!

Make sure the button on the latch faces upward or outward, so that you are able to unbuckle your safety belt quickly.

4. Position the lap belt across your thighs, and below your abdomen. To remove slack in the lap belt portion of the belt, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the buckle and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.
5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

Understanding the Features of Your Vehicle



6. To release the belt, push the red button on the latch. If necessary, slide the buckle down the webbing to allow it to retract fully.

WARNING!

- A belt that is buckled into the wrong latch will not function or protect you properly. The lap portion of the safety belt could ride too high on your body, possibly causing internal injuries. Always buckle your safety belt into the latch nearest you.
- A safety belt that is too loose will not function properly. In a sudden stop, you could jerk too far forward, increasing the possibility of injury. Wear your safety belt snugly.
- A belt that is positioned under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing the possibility of injury. A belt worn under the arm can cause internal injuries. Wear the belt over your shoulder.
- A shoulder belt placed behind you will not protect you from injury during a collision. The lap and shoulder belts are to be used together.



Understanding the Features of Your Vehicle

WARNING!

A frayed or torn safety belt could fail in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system. Safety belt assemblies must be replaced after an accident if they have been damaged.

CAUTION!

Maximum occupancy is limited to four people for your GEM model e4 vehicle, and two people for your GEM models e2, eS, and eL vehicle.



CONVENIENCE ITEMS

SEAT ADJUSTMENT - 4 PASSENGER ONLY

The front seats on the e4 models are equipped with manual seat adjustments. The seat adjustment handle is directly under the front of the seat. Move the handle toward the driver's side door, to the left, and move the seat to the desired position. Using body pressure, move forward and rearward on the seat to assure the seat adjusters are latched securely.

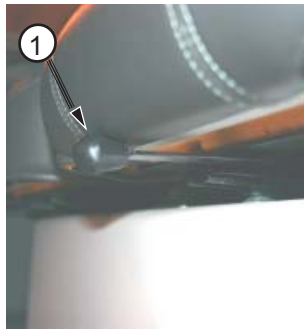


Figure 12 - Seat Adjustment Handle

1. Seat Adjustment Handle



Understanding the Features of Your Vehicle

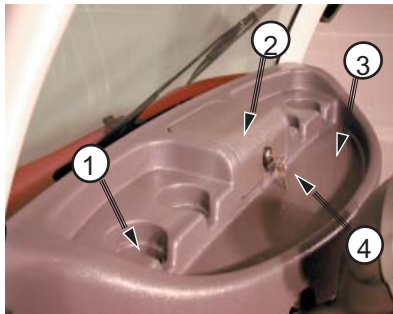


Figure 13 - Upper Dash

1. Cup Holder
2. Glove Box Door
3. Package Tray
4. Glove Box Lock

The glove box (Figure 13), is located on the top center of the upper dash and is equipped with a lock to protect against theft or damage. The upper dash also contains a package tray and four cup holder locations. Your ignition key will lock and unlock the glove box. Turn 1/4 turn counter clockwise to unlock.

Understanding the Features of Your Vehicle



CAUTION!

Liquids can damage electrical components and the circuit board. Handle liquids with care. Do not spray water directly into the upper or lower dash.



Understanding the Features of Your Vehicle

REAR ACCESSORY OPTIONS

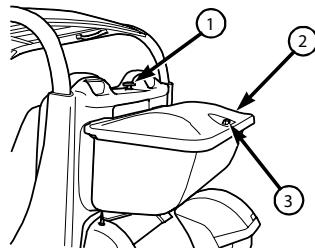


Figure 15 - Trunkback™

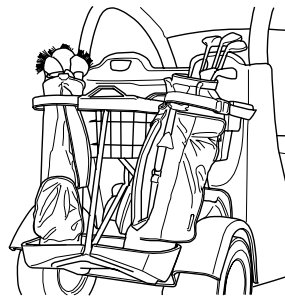


Figure 16 - Linksback™

1. Release Handle - your ignition key opens this lock, always lock after changing optional accessory backs.
 2. Cover
 3. Cover Lock - there is a separate key for this lock.
- Rear accessories options are available from your dealer and they are interchangeable.

CAUTION!

Use only GEM approved rear accessories. Others may cause damage to the locking system or vehicle, and will void warranty.

Understanding the Features of Your Vehicle



The release handle is located at the rear of the vehicle between the taillights.

To remove or install rear accessories:

1. Remove contents of rear accessory.
2. Steady it to prevent it from falling.
3. Unlock the release handle with ignition key.
4. Rotate the release handle clockwise to release.
5. Remove the Velcro safety strap.
6. Lift off the GEM.
7. Position the new rear accessory onto the brackets and refasten the Velcro safety strap.
8. Push forward to engage lock. Test to make sure it is secure. This is a two stage locking system. If not secure, repeat procedure.
9. Lock the release handle with ignition key.

CAUTION!
Keep the Back latch in a locked position when operating or transporting the vehicle. The rear accessory could fall and cause injury if the safety strap is not used.

WARNING!
The capacity of the Back is not intended for any type of passenger use. Doing so could result in personal injury.



Understanding the Features of Your Vehicle

ACCESSORY PLUG (OPTIONAL)

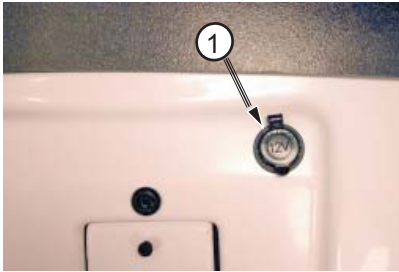


Figure 17 - Accessory Plug

1. Accessory Plug

The optional accessory plug (Figure 17) is located on the lower dash, to the right of the fuse access panel. This plug will accept a standard automotive 12-volt accessory plug and is intended for moderately powered accessories such as a cellular phone. It will not operate large current items such as cigarette lighters.

WARNING!

Damage to electrical components may occur from improper use.

Operation and Maintenance



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Operation and Maintenance

BASIC OPERATION

Basic procedure of how to operate the vehicle.

1. Turn on Main Disconnect Switch.
2. Fasten safety belts and adjust mirrors as necessary.
3. Turn key 'On'.
4. Depress brake pedal and move direction switch to desired position.
5. Release parking brake.
6. Release brake pedal.
7. Press accelerator pedal and go.

WHAT TO DO IN EMERGENCIES

Error Code Summary and Explanation

Error codes are used in the control system to indicate conditions that prevent the vehicle from operating. **All error codes are accompanied by the service icon.** The chart shown below summarizes the most frequent error codes and remedies.

Error Code	Condition	Remedy
06	Pedal depressed and no direction is selected.	Release pedal and insure direction switch is locked into a position.
11	Pedal is depressed when key is turned on.	Release accelerator pedal and restart car.
15	Low voltage on battery pack.	Need to charge batteries before operating.
16	High voltage on battery pack.	Turn lights on for several seconds, then turn key switch off, and back on again.

Operation and Maintenance



NOTE: If any other codes are present, contact your GEM dealer or customer service for assistance.

TRANSPORTING YOUR VEHICLE

The best way to transport your vehicle is in an enclosed trailer. If it is necessary to transport your vehicle on an open trailer, follow these guidelines:

1. Never transport your vehicle while the vehicle is facing rearward on the trailer.
2. With the vehicle facing forward, pull the trailer at speeds of 65 MPH or less.
4. If your vehicle is equipped with hard doors, put all windows down.
5. Secure any items that could be affected by airflow through the vehicle.
6. **Do not secure across any plastic body or floor panel component of the vehicle.** Use tie down points on the frame identified with an "X" as shown on page 64.

NOTE: GEM is not responsible for damage incurred or lost items due to vehicle towing.

CAUTION!

TOWING THE VEHICLE IS NOT RECOMMENDED. This vehicle is not designed for dolly towing. Any vehicle failures resulting from dolly towing will void warranty.



Operation and Maintenance

BASIC MAINTENANCE

WARNING!

The main disconnect switch should be turned off before any vehicle maintenance is started.

Battery Charging - The Main Disconnect Switch must be 'On' before charging the batteries.

NOTE: The type of batteries used in the vehicle will perform better when kept fully charged. Therefore, whenever possible, recharge the batteries - no matter what the state of charge is at the time the charge status is started.

The GEM vehicle has a battery control and recharge system especially designed for electric vehicle usage. Two of the six 12-volt flooded or GEL batteries are located under the battery access cover of the bed on models eS and eL (see page 55), or under the maintenance plate on the rear spat of models e2 and e4 (see page 56). The other 4 batteries are located under the bench seat on all models. The charging system is designed to maximize the battery pack life while recharging the pack in the shortest time with available household current (isolated 110-volt, 15 amp grounded, A/C outlet). The following guidelines will insure that you receive the maximum battery life and performance out of your GEM vehicle.

Operation and Maintenance



- New batteries will not perform to their fullest capacity until they have been discharged and recharged 20 to 30 times. Batteries should be fully charged before the first use.
- When recharging, it is preferable to have the battery pack at room temperature. Do not charge in direct sunlight, on hot pavement or at temperatures of 110°F or higher.
- Batteries should be charged after each use if possible.
- In the first few years of life, your batteries should provide a range of up to 30 miles at 72°F. At 32°F, your range may be reduced to 12-15 miles. This is a normal characteristic of electric vehicles. Your actual range may be affected by road conditions, terrain, weather, and driving habits.

WARNING!

- Always wear safety glasses or approved eye protection when servicing the vehicle. Wear a full-face shield and gloves when working with or around batteries and electrical connectors.
- Always use insulated tools when working with or near batteries.



Operation and Maintenance

WARNING!

- Battery fluid is a corrosive acid solution and can burn or blind you.
- Do not allow battery fluid to contact eyes, skin or clothing. If acid splashes in eyes or on the skin, flush the area immediately with large quantities of water.
- Battery gas is flammable and explosive. Keep flame or sparks away from the battery or any other booster source.
- Do not allow battery cable clamps to touch each other.
- Battery posts, terminals and related accessories contain lead and lead compounds. Wash your hands after handling.

CAUTION!

It is essential, when replacing the cables on the batteries that the positive cable is attached to the positive post (+) and the negative cable is attached to the negative post (-). Battery posts are identified on the battery case as positive (+) and negative (-). Cable clamps should be tight on the terminal posts and free of corrosion.



BATTERY CHARGER

The battery pack should be charged whenever convenient and no matter the state of charge. If no green bars are lit, the battery pack should be put on charge as soon as possible. A full recharge cycle (state of charge showing only 1 red bar) can take 8 hours or more. Most recharge cycles will be shorter.

CAUTION!

Batteries can be permanently damaged (and the warranty voided) if allowed to remain 30 days or more with low charge.

CAUTION!

- Fully charge batteries before storing.
- In hot climates, battery self-discharge will increase.
- In cold climates, batteries could freeze if not properly charged.
- If the vehicle will not be used for 10 or more days, unplug the car, turn the main disconnect switch 'OFF' and arrange for monthly charging, **OR** leave the car plugged in and the main disconnect switch 'ON', (only up to 24 weeks).



Operation and Maintenance

BATTERY CHARGE RECEPTACLE

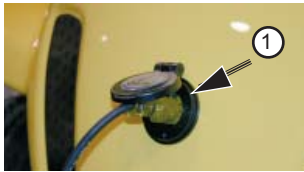


Figure 18 - Charging Receptacle

1. Charging Receptacle

The Battery Charge Receptacle (Figure 18), is located on the hood. It accepts a standard, 3 wire, grounded, extension cord and should not exceed the following:

- 12 gauge wire with three wire grounded; 50 feet or less in length.
- 14 gauge wire with three wire grounded; 25 feet or less in length.

NOTE: Never use less than 14 gauge wire to charge your GEM.

WARNING!

Use the correct gauge extension cord as defined above.
An incorrect gauge extension cord could result in a fire,
heat damage or charger failure.

Insert the proper grounded extension cord into the battery charger receptacle (Figure 18), and then plug into a 110-volt A/C, 15 amp breaker outlet. A GFI (Ground Fault Interrupt) receptacle is recommended. An optional GEM GFI cord set is available from your GEM Dealer or Customer Service if you do not have a GFI receptacle at your regular recharge site.

CAUTION: Periodically check extension cords for cut, abrasive or loose connections. Never leave extension cords in standing water. Do not drive over extension cords.

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BATTERY CARE

Your GEM vehicle is equipped with six 12-volt Gel or flooded batteries. Both types are shown in Figure 19.



Figure 19 - Gel and flooded batteries

1. Gel Battery
2. Flooded Battery

CAUTION!

Each vehicle is programmed at the factory for a particular battery type. Switching battery types can only be done by a GEM certified technician.



Operation and Maintenance

Flooded Battery Fill Well

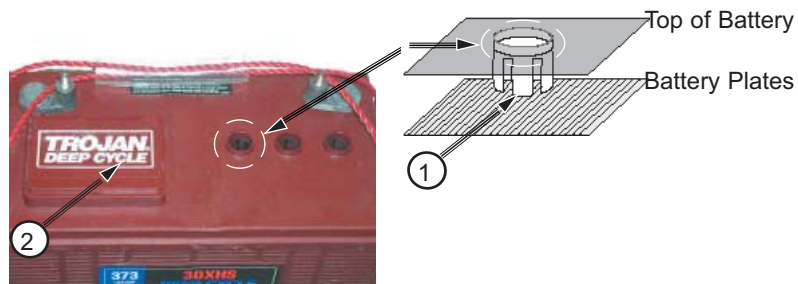


Figure 20 - Fill Wells of flooded battery

1. Bottom of Fill Well
2. Vented Cap

The detailed view in Figure 20 shows the internal features of a fill well. Each battery contains two vented caps and six fill wells. Figure 20 shows one vented cap removed to show the three fill wells.

*See Page 57 for filling instructions

NOTE: Gel batteries do not have fill wells, as they are maintenance free.

GEM Owner's Manual - Page 54



Battery Location for eS and eL Models

Four of the batteries are located under the bench seat and two of the six batteries are located under the battery access cover in the center of the bed. The battery access cover, as shown in Figure 21, can be removed by unscrewing four fasteners.

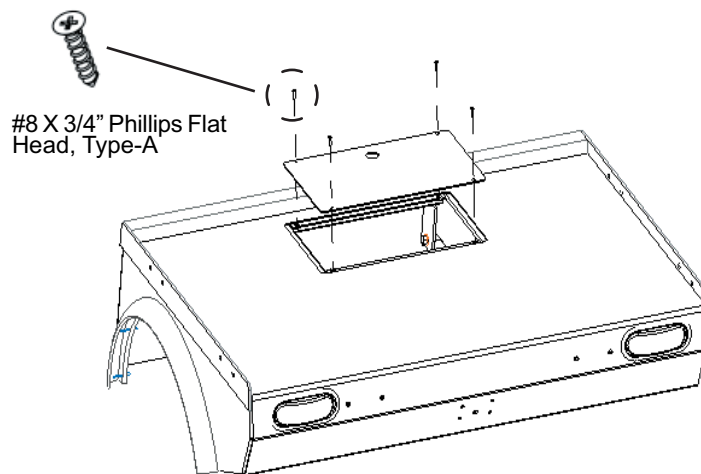


Figure 21 - Short back bed battery access



Operation and Maintenance

Battery Location for e2 and e4 Models

On the e2 and e4 models four batteries are under the seat and two of the six batteries are located under the maintenance plate located in the center of the rear spat. It may be necessary to remove any rear accessory options before removing the cover.



Figure 22 - Spat battery

To keep batteries in good working condition, follow the maintenance schedule listed below and discussed on pages

Monthly Battery Maintenance
1. Check water level (flooded only)
2. Wash tops and terminals of batteries and allow to dry
3. Check terminal connections
4. Check battery hold down bar to insure batteries are tightly secured
5. Check for worn insulation or frayed wires

NOTE: For more information or if a problem exists, contact GEM Service at 866.764.0616.

Operation and Maintenance



1. The water level in the flooded batteries should be checked monthly, or more frequently with heavy usage. The level should be in between the battery plates and the bottom of the fill well (see page 54). The battery plates should be visible when looking into the fill well. If not, use a flashlight. Add (distilled) water **only** after charging unless the water level is below the top of the battery plates. In this case, add just enough distilled water to cover the plates, charge then recheck the level.

CAUTION!

Never charge batteries if plates are exposed above water level.

CAUTION!

Battery acid from cleaning batteries can damage driveway or garage floor.

NOTE: For best battery life, add only distilled water.

2. Make sure the battery caps are firmly in place after maintenance and before washing. (See step 3)
3. Batteries should be kept clean and free of corrosion. Wash the tops and terminals of batteries with a solution of baking soda and water (1 cup baking soda per gallon of water) once per month. Review the CAUTIONS on pages 48 and 49.

NOTE: Do not allow the cleaning solution to enter the battery.

4. Be sure battery terminals are tight. If just cleaned, let terminals dry, and spray them with battery anti-corrosion spray.



Operation and Maintenance

CAUTION!

If battery cable terminals are damaged or corroded, they should be replaced or cleaned as necessary. Failure to do so may cause them to overheat during operation.

4. The hold down bars should be snug to keep batteries from moving while the vehicle is in motion, but not so tight as to crack or buckle the battery case. Make sure the lynch pin is in the proper position and locked.
5. Worn insulation, frayed cables, or damaged cable ends should be replaced immediately by a GEM certified technician.

NOTE: After each use, the batteries should be charged. The batteries should never be left discharged.

BATTERY DISPOSAL

Lead-acid batteries are recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, place residue in acid-resistant containers with absorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information. You can also contact GEM Customer Service at 866-764-0616 for information.

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BATTERY CARE DURING STORAGE

To allow for extended storage time, your GEM vehicle has several features to enhance battery life.

A fully charged vehicle can be stored (with the ignition key in the 'OFF' position), for up to 10 days. It will lose some of its charge during this period.

When storing, or not using, your GEM for an extended period of time (two weeks or longer) it is recommended that you first check the water level of your batteries, unless equipped with maintenance free gel batteries, and leave the vehicle plugged in with the Main Disconnect Switch in the 'ON' position. The charger will monitor the state of charge of the batteries, and will initiate a charge cycle whenever the batteries fall to a pre-determined charge level, for up to 24 weeks.

NOTE: In the case that the GEM vehicle can not be left plugged in for extended periods of time, the recommended method is to check the water level of flooded batteries, charge the car to 100% and then turn the MDS to the 'OFF' position. When storing your vehicle in this condition for 30 days or more, it is necessary that arrangements are made to have the vehicle recharged every 30 days while in storage.

To eliminate battery charge loss due to component current drain, or if the vehicle will be stored for more than 10 days, the car should be fully charged and the main disconnect switch must be turned 'OFF'. The main disconnect switch can be seen on page 33.



BRAKE FLUID LEVEL

1. Reservoir
2. Cap
3. Maximum Level Mark
4. Minimum Level Mark

The Brake Fluid Reservoir (Figure 23) is located under the hood, above and to the rear of the left front tire. The fluid level of your brake system is a very important safety component. It should be checked according to the Vehicle Maintenance Schedule, on Page 70, by observing the side of the reservoir and noting its level. The fluid level should be at the maximum level mark. If it approaches the minimum level mark, fill it with DOT3 brake fluid and see your dealer for service or call Customer Service immediately at 866.764.0616.

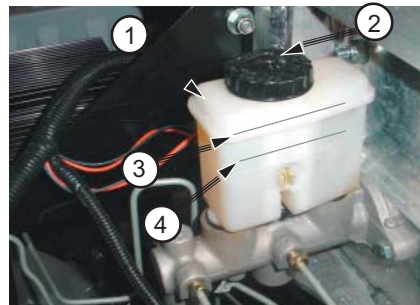


Figure 23 - Brake Fluid Reservoir

CAUTION: Brake fluid may cause damage to painted and finished surfaces. Use caution when refilling the brake fluid reservoir.

Operation and Maintenance



NOTE: The vehicle is equipped with a four-wheel hydraulic braking system.

CAUTION!

Use standard DOT3 brake fluid.

TIRES

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. Tire inflation pressures are provided on your vehicle's VIN/Certification Label (See page 7, Figure 1).

Three primary areas are affected by improper tire pressure.

1. Safety

Under-inflation increases tire flexing and can result in tire failure. Over-inflation causes a tire to lose its ability to cushion shock. Objects on the road and potholes could cause tire damage that may result in tire failure. Unequal tire pressure can cause steering problems.



Operation and Maintenance

2. Economy

Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life resulting in premature replacement. Under-inflation increases tire rolling-resistance, resulting in lower vehicle range.

3. Ride Comfort and Vehicle Stability

Proper tire inflation contributes to a comfortable ride. Over-inflation produces a jarring and uncomfortable ride. Both under-inflation and over-inflation affect the stability of the vehicle and can produce a feeling of sluggish response or over responsiveness. Replace valve stem caps after tire maintenance to prevent dirt from damaging valve stem or preventing the stem from closing properly.

WARNING!

Improperly inflated tires are dangerous and can cause accidents. Always drive with each tire inflated to the recommended pressure on your VIN sticker.

REPLACEMENT TIRES

The tires on your new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct inflation pressure. GEM strongly recommends that you use tires equivalent to the originals in quality and performance when replacement is needed. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your vehicle. We recommend that you contact your dealer or GEM Customer Service regarding any questions you may have on tire specifications or capability.

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WARNING!

- Do not use a tire size other than that specified on your vehicle's tire label.
- Improperly sized tires can cause vehicle components to wear out prematurely and may change your vehicle's ride, handling, and steering behavior. In addition, it may affect the accuracy of your speedometer/odometer. Using tires sized other than specified on your vehicle's tire label could cause you to lose control resulting in serious injury or death.
- Never use a tire smaller than the minimum tire size listed on your vehicle's tire label. Using a smaller tire could result in tire overload and failure.
- Failure to equip your vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.
- Overloading your tires is dangerous. Like under inflation, overloading can cause tire failure. Use tires of the recommended load capacity for your vehicle and never overload them.

NOTE: The vehicle's tire information can be found on the VIN/Certification label (See page 7, Figure 1).



TIRE CHANGING AND JACKING AND TIE-DOWN POINTS

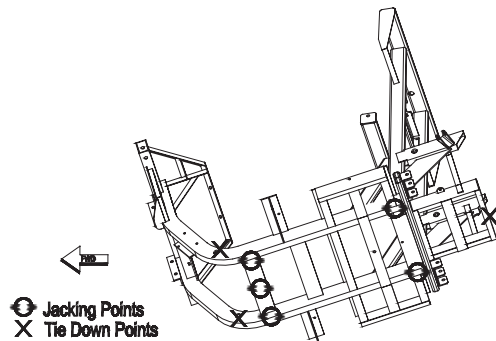


Figure 24 - Jacking and Tie Down

(X) Tie-down points for transporting your GEM, see pages 47 for transporting vehicle.

In the event of a flat tire, GEM recommends using the GEM dealer network or GEM Customer Service to change it, because they have the proper equipment. Should you choose to change the tire yourself, you need to observe the following precautions:

- Park the vehicle on a firm level surface; avoiding icy or slippery areas.

Operation and Maintenance



- Set the parking brake and block both the front and rear of the tire diagonally opposite the jacking position. For example, if the right front tire is being changed, block the left rear wheel.
- Use a small floor style jack or low profile scissors jack only.
- Jack the vehicle only from the side of the vehicle, on the main frame rail, at the point where the tub or floor panel support and the main frame rail are welded (See page 64, Figure 24). Alternative locations include the rear frame rail and the center of the front cross member.

Tire Lug Nut Torque Specification: 50 ft-lbs, or 41 N-m

WARNING!

Getting under a jacked-up vehicle is dangerous. The vehicle could slip off the jack and fall on you. Never get any part of your body under a vehicle that is on a jack. Never start or run the motor when the vehicle is on a jack. If you need to get under the vehicle, make sure the vehicle is first located on a flat solid surface, and is supported securely by automotive jack stands or, take the vehicle to a service center where a technician can put it on a properly adjusted hoist.

CAUTION!

Jacking at any location other than the proper jacking points may cause major vehicle body damage.



FUSE ACCESS PANEL/FUSE BLOCK

The fuse block (Figure 25) is located inside the fuse access panel (Figure 26), which is on the lower dash. The ignition key opens the fuse access panel. To open, turn the key counterclockwise one quarter turn.



Figure 25 - Fuse Block



Figure 26 - Fuse Access Panel

Operation and Maintenance



A sticker is attached to the inside of the fuse access panel showing the function and amp rating of each fuse as shown in Figure 27. The 'Spare' and 'Heater Coil' fuses are used for accessories.

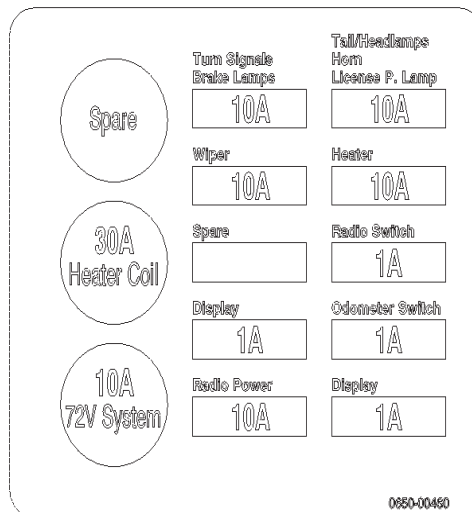


Figure 27 - Fuse Decal



Operation and Maintenance

KEY REPLACEMENT

To obtain an extra or replacement key for your vehicle please call Global Electric Motorcars, LLC at 1.866.764.0616. Please have your key code and VIN ready. Please refer to page 7 for key numbers or refer to key numbers stamped on key.

CARE AND CLEANING

CLEANING THE WINDSHIELD AND SUNROOF

GEM recommends using *GEM Windshield Cleaner and Protectant* to remove normal dust and dirt, available at all GEM dealerships. A liquid household glass cleaner can also be used. Do not use abrasive cleaners on the windshield and sunroof, as they will cause scratches.

CAUTION!

Be very careful when cleaning the acrylic windows (sunroof, side and rear windows) as they can be scratched or damaged. Do not use a cleaner with an abrasive, a combination cleaner and wax or any solvent that contains ethyl or methyl alcohol. Do not use products containing ammonia, soaps, or abrasives. Never use gasoline or cleaning solvent. These products scratch or destroy the surface of the windows. To remove oil, grease or road tar use isopropyl alcohol, then wash the windows with water. Dry gently with a soft cloth or chamois.

Operation and Maintenance



CLEANING THE SEATS

To clean the seats of your GEM vehicle, use *GEM Foaming All Surface Cleaner* available at your local GEM dealer. Rubbing seats with warm water and a clean, damp cloth will also remove dirt. Substances such as tar, asphalt, and other soils will stain if not removed quickly. Use a clean cloth and solvent type vinyl cleaner and then wash the area thoroughly with a damp cloth and mild liquid detergent. Finish by rinsing with cool water.

CLEANING THE INTERIOR

Use mild liquid detergent and warm water to clean the interior. Wipe using a cloth dampened with warm or cool water or remove detergent or deposits.

CAUTION!
Do not spray the interior of your vehicle. Water contact with the dash panel or instrument panel could damage the electrical system.

CLEANING THE EXTERIOR

The best way to preserve your vehicle's finish is to wash the vehicle regularly. *GEM Fiberglass Plastic and Rubber Restorer* is available at local GEM dealers. Mild liquid detergents (no strong soaps or chemical detergents), can also be used. Rinse promptly after cleaning. Dry the finish with a soft, clean chamois or towel to avoid surface scratches and water spotting.

NOTE: To avoid spotting, do not wash your vehicle in direct sunlight.



Operation and Maintenance

PROTECTION FROM THE ELEMENTS

Covering your vehicle is optional, however, prolonged exposure to UV light may deteriorate the exterior and interior finish. It is recommended to protect the vehicle with a *GEM Custom Vehicle Cover*, available at local dealerships.

MONTHLY VEHICLE MAINTENANCE

MONTHLY TASKS
1. Check all six (6) flooded batteries for proper water level.
2. Check battery terminals for tight connections.
3. Check tires for correct air pressure and wear.
4. Check for proper operation of parking brake.
5. Check brake fluid reservoir for proper brake fluid level.
6. Check brake lines for leaks.
7. Check seat belts for proper operation.
8. Check headlights, horn, turn signals, windshield wiper and brake lights for proper operation.

Warranty and Customer Service



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Warranty and Customer Service

WARRANTY

12 Month-Factory Materials and Workmanship

We warrant to the original consumer, purchaser, or lessee that your GEM will be free from defects in factory materials and workmanship under normal use and service for a period of twelve months from the date of sale, subject to the terms and provisions contained herein.

The factory warranty for parts and labor shall include your GEM in its entirety. Battery and tires are excluded from warranty as they are warranted by their respective manufacturers. (See individual warranty terms and conditions in your owner's packet)

ADDITIONAL CONDITIONS

GEM will warrant all parts provided under this warranty. All GEM parts replaced under warranty become the property of GEM and must be returned to the factory for inspection, on request. Your authorized GEM dealer will provide parts return service.

Any other expenses incurred in obtaining warranty repairs, including transportation, are the responsibility of the purchaser, unless otherwise stated in this warranty.

Warranty and Customer Service



NOTE: To qualify for warranty protection, the selling dealer must file the warranty registration information on the Internet site *GEM Connect* within ten days of purchase. If this is not on file, we will not honor your warranty claim.

To obtain warranty service, you must contact the nearest GEM retailer and make your vehicle available for inspection and repair during the warranty period. Your GEM dealer should be able to provide service during normal business hours and within a reasonable time, depending upon workload and availability of necessary parts. Further information regarding warranty service may be obtained from

Global Electric Motorcars, LLC
1301 39th St. N Suite 2
Fargo, North Dakota 58102

Customer Service Hours
7:00 a.m. - 7:00 p.m. Monday - Thursday CST, 7:00 a.m. - 5:00 p.m.
Friday CST. 1.866.764.0616

Changes by GEM in design or equipment made during the course of ownership shall not apply to any GEM vehicle previously manufactured or purchased.



Warranty and Customer Service

This warranty shall not apply to damage or repair costs caused by:

- 1) Failure to operate, maintain, and service, as specified in the GEM Owner's Manual.
- 2) Abuse, misuse, neglect, accident, collision, or operation other than the specified design, use and speed.
- 3) Alteration or repair outside of factory specifications.
- 4) Use of components, including batteries, not specified in the applicable owner's manual or any damage avoidable with the proper use of specified GEM components.
- 5) Owner should contact selling dealer or GEM Service for currently approved battery manufacturer and model information.
- 6) Fading, deterioration or weathering of seats, floor mats, composite parts or paint caused by ordinary wear and tear of exposure.

This warranty shall not apply to normal maintenance. This maintenance includes, but is not limited to, battery fluid replenishment, brake adjustment, brake fluid replenishment, and brake shoes. Consumables such as light bulbs, fuses, etc. are not covered.

Our dealers are independently owned and operated, and may sell products other than GEM. Therefore, you should understand that GEM is not, and cannot be, responsible for the quality, suitability or safety of any non-genuine GEM parts, accessories or design modifications, including labor, which may be sold and/or installed by a GEM dealer or anyone else, or any damage caused thereby.

Warranty and Customer Service



There are no other expressed warranties on your GEM beyond those set forth herein, and no implied warranties of merchantability or fitness to the full extent allowed by law. GEM and its dealers shall not be liable for loss of use, inconvenience, lost time, commercial loss or any incidental, consequential or other damages.

EXPORTED GEMS

In the case of GEMs sold outside of the USA, defective parts must be returned to the selling dealer and transportation charges prepaid by the purchaser. Your dealer or GEM will then replace all parts which inspection shall show to be defective under the warranty. GEM will cover the shipping charges of warranty parts to the 50 United States, but it is the purchaser's responsibility to cover the rest of the shipping charges outside the 50 United States. For further information concerning export GEM service, please contact:

Global Electric Motorcars, LLC
1301 39th St. N Suite 2
Fargo, North Dakota 58102

Customer Service Hours
7:00 a.m. - 7:00 p.m. Monday - Thursday CST, 7:00 a.m. - 5:00 p.m. Friday
CST. 1.866.764.0616



Warranty and Customer Service

GEM Business Hours
8:00 AM - 5:00 PM M-F CST
1.888.871.4367 Web Site: www.gemcar.com

Some states do not allow the exclusion or limitation of incidental, consequential or other damages, or limitation on the length of an implied warranty, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

NOTE: See your dealer to obtain a copy of a detailed warranty description.

Battery and Tire Warranty

The batteries and tires are warranted through their respective manufacturers. The warranty information is in your Owner's Manual packet. Refer to the manufacturers warranty statements.

Extended Service

For information regarding purchase of an extended service, call or write to Global Electric Motorcars, LLC.

Global Electric Motorcars, LLC
1301 39th St. N Suite 2
Fargo, North Dakota 58102

Customer Service Hours

7:00 a.m. - 7:00 p.m. Monday - Thursday CST, 7:00 a.m. - 5:00 p.m. Friday CST. 1.866.764.0616

Warranty and Customer Service



GEM CUSTOMER SERVICE

Prepare For Appointment

If you're having warranty work done, be sure to have documents included with your warranty folder. All work to be performed may not be covered by the warranty. Discuss additional charges with the service provider. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem. There are pages provided at the back of this owner's manual for notes.

Prepare a List

Make a written list of your vehicle's problems or the specific work you want done. If you've had an accident, or work done that is not on your maintenance log, let the service provider know.



Warranty and Customer Service

CHANGE OF ADDRESS/TRANSFER OF WARRANTY

Change of Address/2nd Owner Address

Please copy the form on page 79 and mail to GEM at the address below, to keep records current.

Transfer of Factory Warranty/On-Site

Please copy the form on page 80 and mail to GEM at the address below. Warranty will transfer upon completion of this form. Our Warranty Department can assist you in maintaining your new vehicle.

Global Electric Motorcars, LLC
Warranty Department
1301 39th St. N Suite 2
Fargo, North Dakota 58102
1.866.764.0616

Warranty and Customer Service



CHANGE OF ADDRESS FORM/2ND OWNER ADDRESS FORM

Vehicle Identification Number
(See page 7, Vehicle Identification and Specifications section)

Last Name

First Name

Street Address

City State Zip Code

Phone #

E-mail Address



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Customer Service: 866.764.0616

www.gemcar.com