



A Textron Company

# OWNER'S GUIDE

**RXV**

**ELECTRIC POWERED VEHICLE**



**646285-F**

**ISSUED MAY 2015**

**REVISED JULY 2017**

# WELCOME

Thank you for purchasing this vehicle. Before you drive the vehicle, read this Owner's Guide. This guide contains maintenance and operation information. The illustrations can show items that are optional for your vehicle.

You can do most of the service procedures in this guide with common, automotive hand tools. If necessary, contact your service representative for information about how to service the vehicle as shown in the Periodic Service Schedule.

Repair or replacement parts are available from your E-Z-GO dealer or E-Z-GO Service Parts Department.

**When you contact E-Z-GO about service or parts for your vehicle, the information below is needed.**

**Vehicle Model:** \_\_\_\_\_

**PIN, VIN or Serial Number:** \_\_\_\_\_

# OWNER'S GUIDE ELECTRIC POWERED VEHICLES

**RXV FLEET**

**RXV FREEDOM**

**RXV SHUTTLE 2+2**

**STARTING MODEL YEAR 2016**

## **CALIFORNIA Proposition 65 Warning**

**WARNING:** Motor vehicles may contain fuels, oils and fluids, battery posts, terminals, and related accessories which contain lead and lead compounds and other chemicals identified by the State of California to potentially cause cancer, birth defects, and other reproductive harm. These chemicals are found in vehicles, vehicle parts and accessories, both new and replacements. During maintenance, these vehicles generate used oil, waste fluids, grease, fumes, and particulates, all identified by the State of California to potentially cause cancer, birth defects, and other reproductive harm.

Never modify the vehicle in any way that will alter the weight distribution of the vehicle, decrease its stability or increase the speed beyond the factory specifications. Such modifications can cause serious personal injury or death. E-Z-GO Division of Textron Inc. prohibits and disclaims responsibility for any such modifications or any other alteration which would adversely affect the safety of the vehicle.

E-Z-GO Division of Textron Inc. reserves the right to incorporate engineering and design changes to products in this manual, without obligation to include these changes on units sold previously.

The information contained in this manual may be revised periodically by E-Z-GO, and therefore is subject to change without notice.

E-Z-GO DISCLAIMS LIABILITY FOR ERRORS IN THIS MANUAL, and SPECIFICALLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES resulting from the use of the information and materials in this Manual.

These are the original instructions as defined by 2006/42/EC.

## **CONTACT US:**

**E-Z-GO Division of Textron Inc.  
1451 Marvin Griffin Road.  
Augusta, Georgia, USA 30906-3852**

## **North America:**

**Technical Assistance and Warranty PHONE: 1-800-774-3946 FAX: 1-800-448-8124**

**Service Parts PHONE: 1-888-GET-EZGO (1-888-438-3946) FAX: 1-800-752-6175**

**International: PHONE: 001-706-798-4311 FAX: 001-706-771-4609**

**This vehicle was designed and manufactured in the United States of America (USA). The standards and specifications listed in the following text originate in the USA unless otherwise indicated.**

**Use Original Equipment Manufacturer (OEM) approved parts to keep the warranty effective.**

**If you do not correctly do maintenance on the batteries, you will cancel the warranty. Refer to the MAINTENANCE section for instructions on the correct maintenance of the batteries.**

## **BATTERY PROLONGED STORAGE**

**Batteries discharge over time. The rate of discharge changes according to the ambient temperature, the age and condition of the batteries.**

**Completely charged batteries will not freeze in winter temperatures unless the temperature is less than -75°F (- 60°C).**

**For winter storage, the batteries must be clean, completely charged and disconnected from any electrical drain.**

**The battery charger can remain connected to the vehicle to keep a full charge on the batteries while the charger is connected to an active electrical supply. If the power to the electrical supply is disconnected or interrupted, the battery charger will continuously check the charge on the battery pack. A continuous check of the battery pack will pull power from the battery pack and drain the batteries.**

**The batteries must be checked and charged again as required or at a minimum of 30-day intervals.**

**Check and keep correct fluid level in all battery cells during the storage period. Correct fluid level is necessary for maximum battery performance.**

## **BATTERY DISPOSAL**

**Lead-acid batteries are recyclable. Return discarded batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, put residue in acid-resistant containers with absorbent material such as sand. Dispose in accordance with local, state and federal regulations for acid and lead compounds. Contact local or state environmental officials for the disposal information.**

## SAFETY

GENERAL .....	1
NOTICES, CAUTIONS, WARNINGS AND DANGERS .....	1
GENERAL OPERATION .....	3
MAINTENANCE .....	4
LABELS AND PICTOGRAMS .....	5

## GENERAL SPECIFICATIONS

APPROXIMATE VEHICLE DIMENSIONS .....	17
TURNING DIAMETER AND INCLINE INFORMATION .....	19

## INTRODUCTION

CONTROLS AND INDICATORS .....	21
FEATURES .....	22
General Information .....	22
Key Switch and Direction Selector .....	22
State of Charge Meter (if equipped) .....	23
Headlight Switch (if equipped) .....	23
Turn Signal Switch (if equipped) .....	23
Accelerator and Brake Pedals .....	23
Horn (if equipped) .....	23
Run/Tow Switch .....	23
USB Port (if equipped) .....	24
12-Volt Power Outlet (if equipped) .....	24
Parking Brake .....	24
Front Seat .....	25
Front Hip Restraint .....	25
Cup Holder .....	25
Steering Wheel .....	25
Rear Seat and Cargo Platform (if equipped) .....	25
Rear Hand Rail .....	25
Rear Handle .....	25
Charger Receptacle .....	26
Weather Enclosure (if equipped) .....	26
Rear View Mirror (if equipped) .....	26
DC to DC Converter .....	26
Battery Compartment .....	26

# TABLE OF CONTENTS

## OPERATING PROCEDURES

SERIAL NUMBER LOCATION .....	27
BEFORE INITIAL USE.....	28
PORTABLE CHARGER INSTALLATION .....	28
UNDERSTAND THE CHARGER.....	30
LED Operation Codes .....	30
LED Fault Codes .....	31
HOW TO USE THE CHARGER.....	31
CHARGER MAINTENANCE.....	31
HOW TO OPERATE THE VEHICLE .....	32
Direction Selector Operation .....	33
Accelerator and Brake Pedal Operation .....	33
Horn (if equipped) .....	33
Run/Tow Switch Operation .....	33
Rear Seat and Cargo Platform Operation (if equipped) .....	34
Regenerative Braking .....	34
Pedal-Up Braking .....	35
High Pedal Disable Feature .....	35
STARTING AND DRIVING .....	35
Starting Vehicle On A Hill .....	35
Coasting .....	35
LABELS AND PICTOGRAMS.....	35
SUN TOP AND WINDSHIELD (IF EQUIPPED).....	36

## MAINTENANCE

VEHICLE CLEANING AND CARE.....	37
ENVIRONMENTAL CONCERNS .....	37
Battery Disposal .....	38
LIFTING THE VEHICLE.....	38
WHEELS AND TIRES.....	39
Tire Repair .....	40
Wheel Installation .....	40
LIGHT BULB REPLACEMENT .....	41
Headlight (if equipped) .....	41
Turn Signal (if equipped) .....	41
Taillight/brake (if equipped) .....	41

TRANSPORTING VEHICLE .....	42
Towing .....	42
Hauling .....	43
SERVICE AND MAINTENANCE.....	43
ROUTINE MAINTENANCE .....	44
TIRE INSPECTION .....	44
BRAKES.....	44
REAR AXLE .....	45
Checking the Lubricant Level .....	45
CAPACITIES AND REPLACEMENT PARTS .....	45
HARDWARE .....	45
BATTERY CHARGING AND MAINTENANCE .....	46
Safety .....	46
Battery Disposal .....	47
Battery .....	47
Battery Maintenance .....	47
At Each Charging Cycle .....	47
Monthly .....	47
Electrolyte Level and Water .....	48
Battery Cleaning .....	49
Battery Removal and Installation .....	50
Prolonged Storage .....	53
Battery Charging .....	54
AC Voltage .....	54
Fault Diagnosis .....	54
Hydrometer .....	55
Using A Hydrometer .....	56
Battery Charger Maintenance .....	56
PERIODIC SERVICE SCHEDULE	
PERIODIC SERVICE SCHEDULE .....	57
APPENDIX A	
DECLARATION OF CONFORMITY .....	A

## Notes:



Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

## SAFETY

### GENERAL

For any questions about material in this manual, contact an authorized representative.

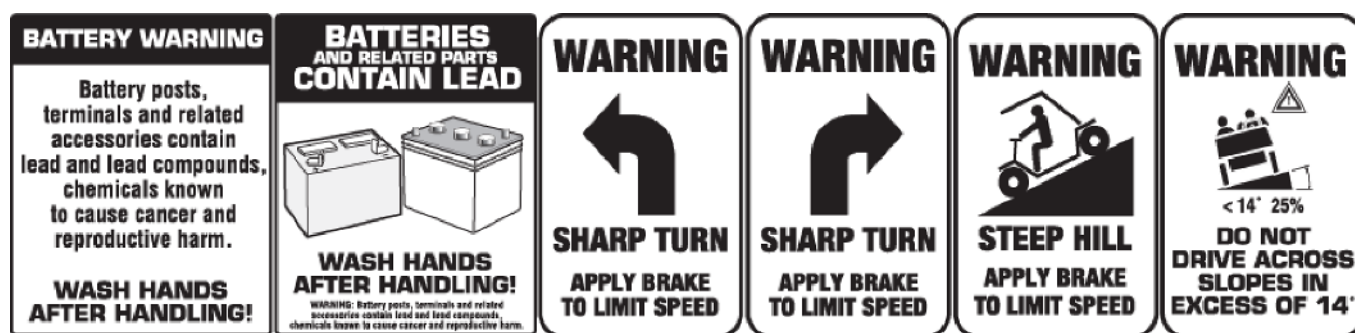
Read and understand all labels on the vehicle. Always replace any damaged or missing labels.

Steep hills allow the vehicle to move at faster speeds than normal speeds on a flat surface. To prevent the loss of vehicle control and possible injury, speeds must be controlled to the maximum level ground speed indicated in the **GENERAL SPECIFICATIONS** section. Apply the brake to control the speed.

If you operate the vehicle above the maximum specified speed, you can damage the drivetrain components. The damage caused by speeds more than the maximum specified can cause a loss of vehicle control, is abusive, and will not be covered under the warranty.

Use caution when you tow the vehicle. Towing the vehicle above the recommended speed can cause personal injury or damage to the vehicle and other property.

If the vehicle is used in a commercial environment, signs must be in position to inform of possible conditions that can be dangerous. Examples are shown below.



### NOTICES, CAUTIONS, WARNINGS AND DANGERS

Read the **NOTICES, CAUTIONS, WARNINGS** and **DANGERS**. The person who services a vehicle needs the mechanical skill and experience to see possible hazardous conditions. Incorrect service or repairs can cause damage to the vehicle or make the vehicle dangerous to operate.

#### NOTICE

*A NOTICE indicates and describes information not related to personal injury.*



#### CAUTION

*A CAUTION indicates a dangerous condition that can cause injury that is not life threatening.*



#### WARNING

*A WARNING indicates a dangerous condition that can cause death or serious injury.*



#### DANGER

*A DANGER indicates a dangerous condition that will cause death or serious injury.*

# SAFETY

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

This manual contains recommended maintenance procedures from the manufacturer. Follow these procedures and fault diagnosis information to get the best service from the product. To decrease the risk of personal injury or property damage, obey all the information in this manual.



## CAUTION

***Certain replacement parts can be used independently and/or in combination with other accessories to modify an E-Z-GO-manufactured vehicle to permit the vehicle to operate at or in excess of 20 mph. When an E-Z-GO-manufactured vehicle is modified in any way by the Distributor, Dealer or customer to operate at or in excess of 20mph, UNDER FEDERAL LAW the modified product will be a Low Speed Vehicle (LSV) subject to the structures and requirements of Federal Motor Vehicle Safety Standard 571.500. In these instances, pursuant to Federal law the Distributor or Dealer MUST equip the product with headlights, rear lights, turn signals, seat belts, top, horn and all other modifications for LSV's mandated in FMVSS 571.500, and affix a Vehicle Identification Number to the product in accordance with the requirements of FMVSS 571.565. Pursuant to FMVSS 571.500, and in accordance with the State laws applicable in the places of sale and use of the product, the Distributor, Dealer or customer modifying the vehicle also will be the Final Vehicle Manufacturer for the LSV, and required to title or register the vehicle as mandated by State law.***

E-Z-GO will NOT approve Distributor, Dealer or customer changes that change an E-Z-GO product into a Low Speed Vehicle (LSV).

Any person who operates this vehicle must be A LICENSED DRIVER AND OPERATE THE VEHICLE ACCORDING TO APPLICABLE STATE REQUIREMENTS. This rule is important for the SAFE USE AND OPERATION of the product. All customers must obey this SAFETY RULE.

Information on FMVSS 571.500 is found at Title 49 of the Code of Federal Regulations, section 571.500. For information online, go to [www.ecfr.gov](http://www.ecfr.gov).

Vehicles are used for different purposes, so it is not possible to know and inform of every possible occurrence. Be careful when you drive to prevent avoidable personal injury or damage to the vehicle. All users must read and obey this manual. Make sure you give special attention to the CAUTIONS, WARNINGS and DANGERS.

For questions about this vehicle, contact your E-Z-GO/CUSHMAN dealer or write to the address on the back cover of this publication, Attention: Customer Care Department.

E-Z-GO has the right to change the design of the vehicle. There is no responsibility to make the changes on units purchased before changes were made. The information in this manual can change without notice.

E-Z-GO IS NOT LIABLE FOR ERRORS IN THIS MANUAL. E-Z-GO IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF THE MATERIAL IN THIS MANUAL.

This vehicle meets the current applicable standard for safety and performance requirements.

These vehicles are designed and manufactured for off-road use. They **DO NOT** meet the federal Motor Vehicle Safety Standards of the United States of America (USA) and are not equipped for operation on the public streets. Some areas allow the operation of the vehicles on their streets according to local codes.

Refer to GENERAL SPECIFICATIONS for capacity of the vehicle.



## WARNING

***Never modify the vehicle in any way that will alter the weight distribution of the vehicle, decrease its stability, increase the speed or extend the stopping distance beyond the factory specification. Such modifications can result in serious personal injury or death.***

Do not change the vehicle in any manner that changes the weight distribution, decreases stability, increases speed or extends the necessary distance to stop more than the factory specification. E-Z-GO is not responsible for changes that cause the vehicle to be dangerous.

Do not let anyone below the height of 59 inches (150 cm) operate the vehicle.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## GENERAL OPERATION

Read the following warnings before attempting to operate the vehicle:

### **WARNING**

*When you leave the vehicle, turn the key to the OFF position and remove the key from the vehicle.*

*Drive the vehicle only as fast as terrain and conditions allow. Consider the terrain and traffic conditions. Consider environmental conditions that change the terrain and your ability to control the vehicle.*

*Do not drive fast downhill. Sudden stops or change of direction can cause a loss of control. Use the brake to control the speed of the vehicle when you drive down a slope.*

*When possible, stay in approved areas. Do not drive on steep slopes.*

*Always keep feet, legs, hands and arms inside vehicle.*

*Do not drive on rough terrain.*

*Before you drive in the reverse direction, make sure the area behind the vehicle is clear.*

*Make sure the direction selector is in the correct position before you press the accelerator pedal.*

*Decrease speed before and during turns.*

*Make sure you completely stop the vehicle before you move the direction selector.*

*See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.*

### **NOTICE**

*Read the following text and warnings before you service the vehicle.*

Normal use, wear or abuse can cause some components on the vehicle to fail. The manufacturer can not know all possible component failures or the methods that failures can occur.

A vehicle in need of repair does not function properly and can be dangerous.

Be careful when you service the vehicle. Be aware of your safety and the safety of other people in the area.

Some components are heavy, spring loaded, corrosive, explosive, can cause high amperage or get hot. Battery acid and hydrogen gas can cause injury. Do not put your hands, face, feet or body in a location that can expose them to injury if an unexpected situation occurs.

Always use the correct tools shown in the tool list and wear safety equipment.

### **WARNING**

*Remove all jewelry before you service the vehicle.*

*Do not allow loose clothing or hair to contact the moving parts.*

*Do not touch the hot objects.*

# SAFETY

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*



*When you service the vehicle, always wear eye protection. Be careful when you do work around batteries or you use solvents or compressed air.*

## **ALWAYS:**

- Use the vehicle in a responsible manner and keep the vehicle in safe condition for operation.
- Read and obey all warnings and operation instruction labels on the vehicle.
- Follow all safety rules in the area where the vehicle is operated.
- When there is a risk of lightning, leave the vehicle and look for a safe location to wait until the lightning has stopped.
- Drive the vehicle only as fast as terrain and conditions allow.
- Apply the brake to control speed on steep grades.
- Keep enough distance between vehicles.
- Decrease speed in wet areas.
- Be careful when you make sharp turns, or turns you are not familiar with.
- Be careful when you drive on loose terrain.
- Be careful when you operate the vehicle around people.

## **MAINTENANCE**

### **ALWAYS:**

- Replace damaged or missing warning, caution or information labels.
- Service the vehicle according to the periodic service schedule in this manual.
- Make sure that approved and qualified personnel do all repairs.
- Follow the manufacturer's maintenance procedures.
- Use insulated tools within the battery area to prevent sparks or battery explosion.
- Use specified replacement parts. DO NOT use replacement parts of less quality.
- Use recommended tools.
- Make sure that tools and procedures not specified by the manufacturer will not be a safety risk to personnel or operation of the vehicle.
- Use wheel chocks and support vehicle with jack stands. NEVER get below a vehicle that is supported by a jack. Lift the vehicle according to the manufacturers instructions.
- Make sure you service the vehicle in an area away from open flame or sparks.
- Know that a vehicle in need of repair does not operate correctly and can be dangerous to operate.
- Test drive the vehicle after any repairs or maintenance in a safe area that is free of both vehicular and pedestrian traffic.
- Keep complete records of the maintenance history of the vehicle

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## LABELS AND PICTOGRAMS



⚠ **WARNING**
608529

**OPERATING INSTRUCTIONS**

**BEFORE OPERATING**

- READ all warning labels and the owner's manual. Contact an authorized E-Z-GO dealer or visit [www.ezgo.com](http://www.ezgo.com) for a replacement manual.
- This vehicle is equipped for personal use in most communities. However, state law or local rules may require additional equipment in your community.

**SAFE OPERATION**

- Turn key to "ON" - select "forward" or "reverse" - release the parking brake (Gas vehicle only) - then slowly depress accelerator pedal.
- Always bring the vehicle to a complete stop BEFORE shifting the direction selector.
- Operate from the driver's seat ONLY.

**PARKING**

- ALWAYS fully engage the parking brake and remove the key BEFORE leaving the vehicle. In an electric vehicle set the direction selector to "neutral" and in a gasoline vehicle set the selector to "forward".

**MAINTENANCE**

- This vehicle requires regularly scheduled maintenance (see owner's manual). ONLY qualified personnel should service this vehicle.

608529

⚠ **WARNING**
Failure to follow these instructions can result in **SERIOUS INJURY** or **DEATH**

**Except where PERMITTED BY LAW:** To be operated by persons with valid drivers license, in accordance with state requirements. Operate from Driver's side only.

**Reduce the RISK OF ACCIDENTS:** For non-road use, and in designated areas only. Do not operate under the influence of drugs or alcohol.

**AVOID FALLS from the vehicle:** All occupants must be fully seated, keep entire body inside vehicle and hold on while vehicle is in motion.

**STARTING the vehicle:** Apply service brake, move direction selector to desired position and accelerate smoothly. On Gas Vehicle, direction selector is the F-N-R. On Electric vehicle, direction selector is the key switch.

**DO NOT OVERLOAD this vehicle:** Maximum vehicle payload is 800 lbs. (363 kg) including a maximum of 2 persons, options, and accessories.

**Drive with CAUTION:** Drive slowly straight up and down slopes and in turns. Use care in reverse, congested areas, and wet or loose terrain.

**STOPPING the vehicle:** To stop, release accelerator pedal and apply service brake.

**PARKING the vehicle:** Before leaving vehicle, turn key "OFF". On Gas vehicle, move the direction selector to "FORWARD" and engage park brake.

608522 Fleet Vehicles

⚠ **WARNING**
Failure to follow these instructions can result in **SERIOUS INJURY** or **DEATH**

**Except where PERMITTED BY LAW:** NEVER drive on public roads. • Drivers must possess a valid drivers license in accordance with local state law.

**AVOID FALLS from the vehicle:** Do not start moving until all occupants are PROPERLY SEATED and HOLDING ON. • KEEP entire body INSIDE VEHICLE while moving.

**Reduce the RISK OF ACCIDENTS:** Always DRIVE SLOWLY in congested areas, on wet or loose terrain, and when backing up. • DRIVE SLOWLY when turning and AVOID sudden stops. ALWAYS drive straight up and down slopes. Do not coast, use BRAKE when going down a slope. • NEVER drive this vehicle under the influence of drugs or alcohol.

**This vehicle is NOT A TOY:** Drive responsibly. • NEVER leave children unattended or allow children to play on the vehicle. • NEVER leave the key in the vehicle when parked.

**DO NOT OVERLOAD this vehicle:** NEVER carry more than 2 occupants on each bench seat. • Do not exceed vehicle WEIGHT CAPACITY (see Owner's Manual).

**DO NOT MODIFY this vehicle:** NEVER alter this vehicle to increase travel speeds above factory specifications. • ONLY authorized E-Z-GO dealers should alter the vehicle using approved parts. • Alterations not approved or tested by E-Z-GO can create unsafe conditions and increase your chance of having an accident.

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# SAFETY

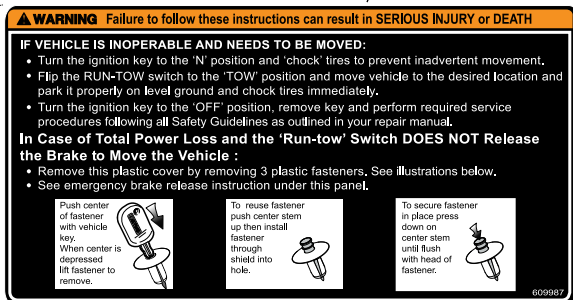
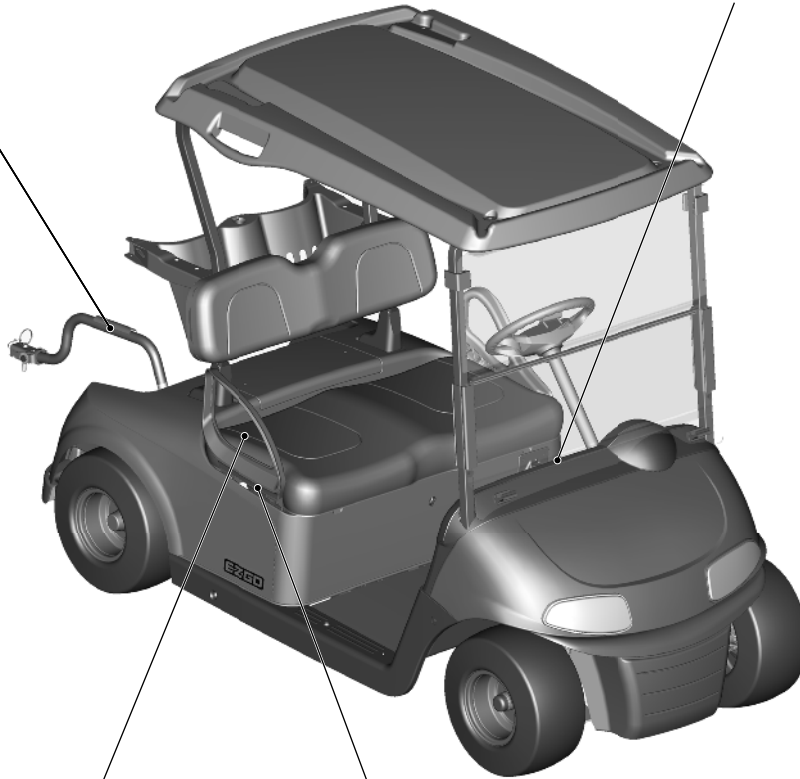
Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



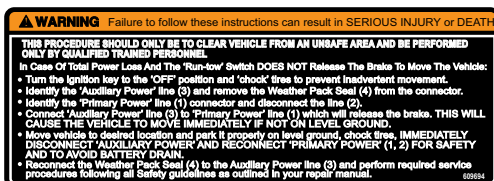
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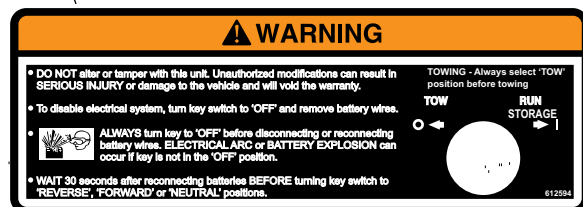
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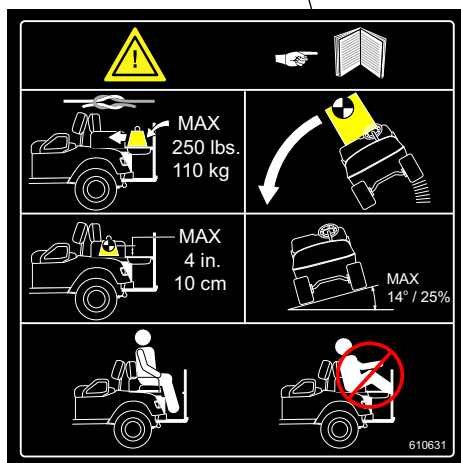


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Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



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# SAFETY

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

**READ THE MANUAL**

OPERATE ACCORDING TO LOCAL LAWS AND REGULATIONS

USE CAUTION IN BAD WEATHER

**GASOLINE VEHICLES**

**FORWARD OPERATION**

- \* TURN KEY TO 'ON'
- \* MOVE DIRECTION SELECTOR TO 'F'
- \* PRESS ACCELERATOR PEDAL GENTLY

**REVERSE OPERATION**

- \* TURN KEY TO 'ON'
- \* MOVE DIRECTION SELECTOR TO 'R'
- \* PRESS ACCELERATOR PEDAL GENTLY

**PARK VEHICLE**

- \* MOVE DIRECTION SELECTOR TO 'F'
- \* TURN KEY TO 'OFF'
- \* APPLY PARKING BRAKE

**OPERATE FROM DRIVER SIDE ONLY**

DO NOT STAND UP AND KEEP ENTIRE BODY INSIDE VEHICLE

MINIMUM HEIGHT TO OPERATE VEHICLE IS 150 CM

MAXIMUM RAMP OR HILL

MAXIMUM CROSS RAMP OR HILL

**614043 CE VEHICLES**

**ELECTRIC VEHICLES**

**FORWARD OPERATION**

- \* TURN KEY TO 'F'
- \* PRESS ACCELERATOR PEDAL GENTLY

**REVERSE OPERATION**

- \* TURN KEY TO 'R'
- \* GENTLY PRESS ACCELERATOR PEDAL

**PARK VEHICLE**

- \* TURN KEY TO 'OFF'

DO NOT DRIVE ON HIGHWAY

DO NOT OPERATE IF USING DRUGS OR ALCOHOL

DO NOT OPERATE VEHICLE WHEN LIGHTNING IS IN THE AREA

READ THE MANUAL REPLACEMENT AVAILABLE AT [www.ezgo.com](http://www.ezgo.com)

**WARNING: NEGATIVE GROUND ELECTRICAL SYSTEM**

**608818**


**WARNING: SHORTING ACROSS TERMINALS MAY CAUSE BATTERY EXPLOSION**



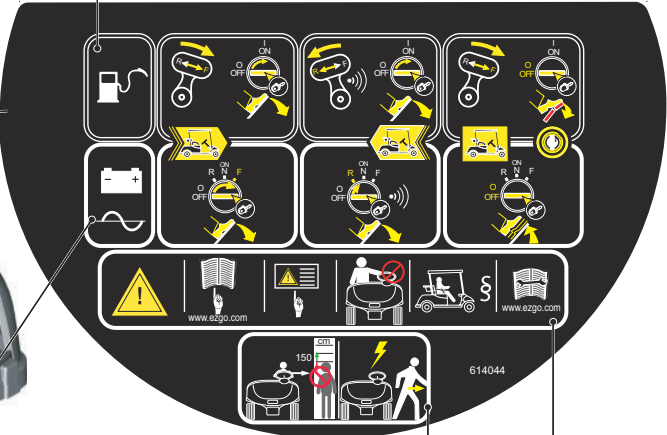
Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

GASOLINE VEHICLES	<b>FORWARD OPERATION</b> * TURN KEY TO 'ON' * MOVE DIRECTION SELECTOR TO 'F' * PRESS ACCELERATOR PEDAL GENTLY	<b>REVERSE OPERATION</b> * TURN KEY TO 'ON' * MOVE DIRECTION SELECTOR TO 'R' * PRESS ACCELERATOR PEDAL GENTLY	<b>PARK VEHICLE</b> * MOVE DIRECTION SELECTOR TO 'F' * TURN KEY TO 'OFF' * APPLY PARKING BRAKE
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ELECTRIC VEHICLES	<b>FORWARD OPERATION</b> * TURN KEY TO 'F' * PRESS ACCELERATOR PEDAL GENTLY	<b>REVERSE OPERATION</b> * TURN KEY TO 'R' * PRESS ACCELERATOR PEDAL GENTLY	<b>PARK VEHICLE</b> * TURN KEY TO 'OFF'
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MINIMUM HEIGHT TO OPERATE VEHICLE IS 150 CM	DO NOT OPERATE VEHICLE WHEN LIGHTNING IS IN THE AREA
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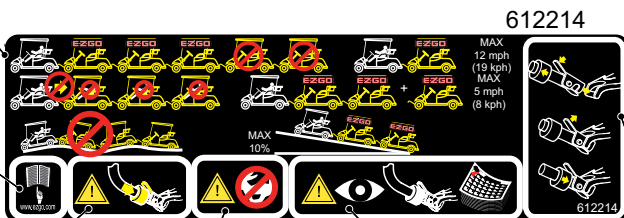
WARNING	READ THE MANUAL REPLACEMENT IS AVAILABLE AT <a href="http://www.ezgo.com">www.ezgo.com</a>	READ ALL LABELS	OPERATE FROM DRIVER SIDE ONLY	OPERATE ACCORDING TO LOCAL LAWS AND REGULATIONS	MAINTAIN ACCORDING TO SERVICE and REPAIR MANUAL AVAILABLE AT <a href="http://www.ezgo.com">www.ezgo.com</a>
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# SAFETY

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

DO NOT TOW MORE THAN 3 VEHICLES MAX 12 mph (19 kph) TOWING 1 VEHICLE  
DO NOT DRIVE IN REVERSE WHEN TOWING VEHICLES MAX 5 mph (8 kph) TOWING 2 or 3 VEHICLES  
NO PASSENGERS IN TOWED VEHICLES  
DO NOT TOW VEHICLES OVER UNEVEN TERRAIN 10% MAX SLOPE FOR TOWING VEHICLES

READ THE  
MANUAL  
REPLACEMENT  
AVAILABLE AT  
[www.ezgo.com](http://www.ezgo.com)

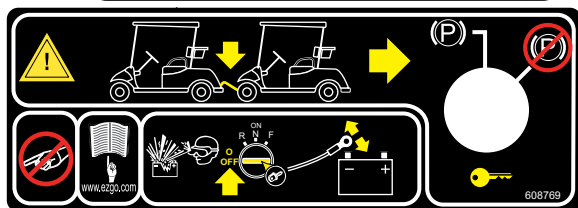


WARNING  
ENGAGE  
LOCKING  
COLLAR

WARNING  
DO NOT  
DRIVE  
FAST

WARNING INSPECT TOW BAR  
SYSTEM EVERY 30 DAYS

WARNING: ATTACH TOW BAR BEFORE  
TURNING KEY SWITCH TO 'TOW'



KEEP  
HANDS  
OUT

READ THE  
MANUAL  
REPLACEMENT  
AVAILABLE AT  
[www.ezgo.com](http://www.ezgo.com)

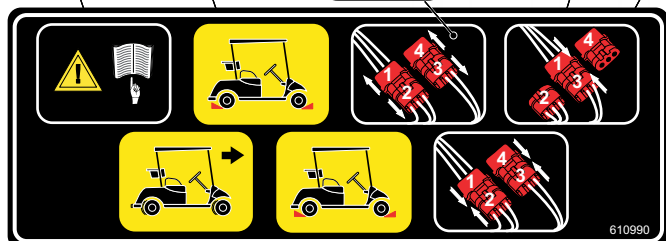
TO REDUCE POSSIBILITY OF  
BATTERY EXPLOSION TURN  
KEY TO 'OFF' BEFORE  
DISCONNECTING OR CONNECTING  
BATTERY WIRES

WARNING  
READ THE  
MANUAL

CHOCK  
THE  
WHEELS

UNPLUG  
1 FROM 2  
AND  
3 FROM 4

PLUG  
1 INTO 3



MOVE THE  
VEHICLE

CHOCK  
THE  
WHEELS

PLUG  
1 INTO 2  
AND  
3 INTO 4

## TOW BAR OPERATION

- \* PULL LOCKING COLLAR AWAY FROM LATCH AND PRESS ON LATCH TAB TO OPEN
- \* PLACE LATCH OVER FRONT TOWING BRACKET
- \* CLOSE LATCH AND MOVE LOCKING COLLAR UNDER LATCH TAB
- \* DO NOT TOW MORE THAN 3 VEHICLES
- \* 12 mph (19 kph) MAX SPEED TOWING 1 VEHICLE
- \* DO NOT DRIVE IN REVERSE WHEN TOWING VEHICLES
- \* NO PASSENGERS IN TOWED VEHICLES
- \* DO NOT TOW VEHICLES OVER UNEVEN TERRAIN 10% MAXIMUM SLOPE FOR TOWING VEHICLES



IF THE  
VEHICLE  
WILL NOT  
MOVE

WARNING  
READ THE  
MANUAL

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



NO MORE THAN 2  
OCCUPANTS IN  
EACH SEAT

DO NOT STAND UP  
AND KEEP ENTIRE  
BODY INSIDE  
VEHICLE

READ THE MANUAL  
REPLACEMENT  
AVAILABLE AT  
[www.ezgo.com](http://www.ezgo.com)

WARNING

OPERATE ACCORDING  
TO LOCAL LAWS AND  
REGULATIONS

DO NOT STAND IN FRONT  
OF OR BEHIND VEHICLE



CHILDREN MUST BE  
ACCOMPANIED BY  
AN ADULT

DO NOT ALLOW  
CHILDREN TO  
RIDE ALONE

608820

DO NOT GET ON OR OFF  
A MOVING VEHICLE

**Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.**

## Notes:

# GENERAL SPECIFICATIONS

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## GENERAL SPECIFICATIONS



A Textron Company

**MODEL: RXV**  
**TYPE: ELECTRIC FLEET GOLF CAR**  
**MODEL YEAR: 2016**  
**Part No.: 638540G01**



### PRODUCT SPECIFICATION

#### CONFIGURATION HIGHLIGHTS

**Programmable AC Drive System:** Factory programmable to application

- Solid State variable frequency AC speed controller
- Drive-by-wire electronic throttle control
- Dash mounted direction selector switch (Forward-Neutral-Reverse)
- Descent speed control and automatic hill hold
- Full-time regenerative braking
- 235 Amp AC Controller
- Full torque, reduced speed reverse
- Sealed Hall effect throttle sensor
- Full diagnostic capability (Hand held diagnostic unit)
- Six field selectable speeds with hand held diagnostic unit

**Motor:** 48 Volt AC induction motor, solid copper windings. 4.4 hp (3.3 kW) Continuous. AC system reads motor speed for accurate speed control in all conditions. Regenerative braking for maximum economy

**Battery Charger:** SC - 48V / 913-4810-E3B Charger. UL1564, CSA 107.2

**Electrical System:** 48 Volt DC, four, 12 volt deep cycle storage batteries (60 minute minimum, 140 amp-hour @ 20 hr. discharge rate)

**Drive Train:** Direct motor shaft connected to transaxle pinion shaft

**Transaxle:** Differential with reverse helical gears

**Brakes:** Induction motor. Electro-magnetic parking brake is applied automatically

**Body Protection:** 360° energy transfer bumpers maximize vehicle protection from minor impact

### PRODUCT OVERVIEW

#### Dimensions

Overall Length	94.5 in (240 cm)
Overall Width	47.0 in (119 cm)
Overall Height (No Canopy)	45.7 in (116 cm)
Overall Height (With Canopy)	68.5 in (174 cm)
Wheel Base	65.7 in (167 cm)
Front Wheel Track	35.5 in (90 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.5 in (11 cm)

#### Vehicle Power

Power Source	48 Volts DC
Motor Type	48 Volt AC
Horsepower (kW)	4.4 hp (3.3 kW) Continuous
Electrical System	48 Volt
Batteries (Qty, Type)	Four, 12 Volt Deep Cycle
Key or Pedal Start	Pedal
Speed Controller	235 Amp AC Controller
Drive Train	Motor Shaft Direct Drive
Transaxle	Limited Slip Differential
Gear Selection	Dash Mounted Forward-Neutral-Reverse
Rear Axle Ratio	16.99:1

#### CE Noise, Vibration & Harshness

Noise Sound pressure: continued A-weighted equal to 68 db (A)

Vibration, WBV The highest RMS value of weighted acceleration is: 1.15 m/s<sup>2</sup>

Vibration, HAV The highest RMS value of weighted acceleration is: less than 2.5 m/s<sup>2</sup>. The uncertainty of measurement is 0.2 m/s<sup>2</sup>

#### Performance

Seating Capacity	2 Person
Dry Weight	611 lb (278 kg) (Without Batteries)
Curb Weight	911 lb (414 kg)
Vehicle load capacity	800 lb (360 kg)
Outside Clearance Circle	19.2 ft (5.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	8 - 15 mph (13 - 24 kph)
Towing Capacity	3 E-Z-GO Golf Cars with approved tow bars

#### Steering & Suspension

Steering	Double Ended Rack & Pinion
Front Suspension	Independent A-Arm Coil Over Shock
Rear Suspension	Mono-Leaf Springs With Hydraulic Shocks
Service Brake	Induction Motor
Parking Brake	Automatic Electro-Magnetic
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

#### Body & Chassis

Frame	Welded Steel. DuraShield™ powder coat
Body & Finish	Injection molded TPO
Standard Color	Forest Green

Some items shown may be optional equipment

# GENERAL SPECIFICATIONS

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.



A Textron Company

**MODEL: RXV FREEDOM™**

**TYPE: ELECTRIC PERSONAL GOLF CAR**

**MODEL YEAR: 2016**

**Part No.: 638542G01**



## PRODUCT SPECIFICATION

### CONFIGURATION HIGHLIGHTS

**Programmable AC Drive System:** Factory programmable to application

- Solid State variable frequency AC speed controller
- Drive-by-wire electronic throttle control
- Dash mounted direction selector switch (Forward-Neutral-Reverse)
- Descent speed control and automatic hill hold
- Full-time regenerative braking
- 235 Amp AC Controller
- Full torque, reduced speed reverse
- Sealed Hall effect throttle sensor
- Full diagnostic capability (Hand held diagnostic unit)
- Six field selectable speeds with hand held diagnostic unit

**Motor:** 48 Volt AC induction motor, solid copper windings. 4.4 hp (3.3 kW) Continuous. AC system reads motor speed for accurate speed control in all conditions. Regenerative braking for maximum economy

**Battery Charger:** SC - 48V / 913-4810-E3B Charger. UL1564, CSA 107.2

**Electrical System:** 48 Volt DC, four, 12 volt deep cycle storage batteries (60 minute minimum, 140 amp-hour @ 20 hr. discharge rate)

**Drive Train:** Direct motor shaft connected to transaxle pinion shaft

**Transaxle:** Differential with reverse helical gears

**Brakes:** Induction motor. Electro-magnetic parking brake is applied automatically

**Body Protection:** 360° energy transfer bumpers maximize vehicle protection from minor impact

## PRODUCT OVERVIEW

### Dimensions

Overall Length	94.5 in (240 cm)
Overall Width	47.0 in (119 cm)
Overall Height (No Canopy)	45.7 in (116 cm)
Overall Height (With Canopy)	68.5 in (174 cm)
Wheel Base	65.7 in (167 cm)
Front Wheel Track	35.5 in (90 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.5 in (11 cm)

### Vehicle Power

Power Source	48 Volts DC
Motor Type	48 Volt AC
Horsepower (kW)	4.4 hp (3.3 kW) Continuous
Electrical System	48 Volt
Batteries (Qty, Type)	Four, 12 Volt Deep Cycle
Key or Pedal Start	Pedal
Speed Controller	235 Amp AC Controller
Drive Train	Motor Shaft Direct Drive
Transaxle	Limited Slip Differential
Gear Selection	Dash Mounted Forward-Neutral-Reverse
Rear Axle Ratio	16.99:1

### CE Noise, Vibration & Harshness

Noise Sound pressure: continued A-weighted equal to 68 db (A)

Vibration, WBV The highest RMS value of weighted acceleration is: 1.15 m/s<sup>2</sup>

Vibration, HAV The highest RMS value of weighted acceleration is: less than 2.5 m/s<sup>2</sup>. The uncertainty of measurement is 0.2 m/s<sup>2</sup>

### Performance

Seating Capacity	2 Person
Dry Weight	635 lb (290 kg) (Without Batteries)
Curb Weight	935 lb (425 kg)
Vehicle load capacity	800 lb (360 kg)
Outside Clearance Circle	19.2 ft (5.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	17.5 - 19.5 mph (28 - 31 kph)
Towing Capacity	3 E-Z-GO Golf Cars with approved tow bars

### Steering & Suspension

Steering	Double Ended Rack & Pinion
Front Suspension	Independent A-Arm Coil Over Shock
Rear Suspension	Mono-Leaf Springs With Hydraulic Shocks
Service Brake	Induction Motor
Parking Brake	Automatic Electro-Magnetic
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

### Body & Chassis

Frame	Welded Steel. DuraShield™ powder coat
Body & Finish	Injection molded TPO
Standard Color	Forest Green

*Some items shown may be optional equipment*



# GENERAL SPECIFICATIONS

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



A Textron Company

**MODEL: SHUTTLE™ 2+2 RXV**  
**TYPE: ELECTRIC PERSONNEL CARRIER**  
**MODEL YEAR: 2016**  
**Part No.: 638546G01**



## PRODUCT SPECIFICATION

### CONFIGURATION HIGHLIGHTS

**Programmable AC Drive System:** Factory programmable to application

- Solid State variable frequency AC speed controller
- Drive-by-wire electronic throttle control
- Dash mounted direction selector switch (Forward-Neutral-Reverse)
- Descent speed control and automatic hill hold
- Full-time regenerative braking
- 235 Amp AC Controller
- Full torque, reduced speed reverse
- Sealed Hall effect throttle sensor
- Full diagnostic capability (Hand held diagnostic unit)
- Six field selectable speeds with hand held diagnostic unit

**Motor:** 48 Volt AC induction motor, solid copper windings. 4.4 hp (3.3 kW) Continuous. AC system reads motor speed for accurate speed control in all conditions. Regenerative braking for maximum economy

**Battery Charger:** SC - 48V / 913-4810-E3B Charger. UL1564, CSA 107.2

**Electrical System:** 48 Volt DC, four, 12 volt deep cycle storage batteries (60 minute minimum, 140 amp-hour @ 20 hr. discharge rate)

**Drive Train:** Direct motor shaft connected to transaxle pinion shaft

**Transaxle:** Differential with reverse helical gears

**Brakes:** Induction motor. Electro-magnetic parking brake is applied automatically

**Body Protection:** 360° energy transfer bumpers maximize vehicle protection from minor impact

## PRODUCT OVERVIEW

### Dimensions

Overall Length	105.5 in (268 cm)
Overall Width	47.0 in (119 cm)
Overall Height (No Canopy)	45.7 in (116 cm)
Overall Height (With Canopy)	74.0 in (188 cm)
Wheel Base	65.7 in (167 cm)
Front Wheel Track	35.5 in (90 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.5 in (11 cm)

### Vehicle Power

Power Source	48 Volts DC
Motor Type	48 Volt AC
Horsepower (kW)	4.4 hp (3.3 kW) Continuous
Electrical System	48 Volt
Batteries (Qty, Type)	Four, 12 Volt Deep Cycle
Key or Pedal Start	Pedal
Speed Controller	235 Amp AC Controller
Drive Train	Motor Shaft Direct Drive
Transaxle	Limited Slip Differential
Gear Selection	Dash Mounted Forward-Neutral-Reverse
Rear Axle Ratio	16.99:1

### CE Noise, Vibration & Harshness

Noise Sound pressure: continued A-weighted equal to 68 db (A)

Vibration, WBV The highest RMS value of weighted acceleration is: 1.15 m/s<sup>2</sup>

Vibration, HAV The highest RMS value of weighted acceleration is: less than 2.5 m/s<sup>2</sup>. The uncertainty of measurement is 0.2 m/s<sup>2</sup>

### Performance

Seating Capacity	4 Person
Dry Weight	645 lb (295 kg) (Without Batteries)
Curb Weight	1000 lb (455 kg)
Vehicle load capacity	720 lb (325 kg)
Outside Clearance Circle	19.2 ft (5.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	8-15 mph (13 - 24 kph) Programmable
Towing Capacity	N/A

### Steering & Suspension

Steering	Double Ended Rack & Pinion
Front Suspension	Independent A-Arm Coil Over Shock
Rear Suspension	Mono-Leaf Spring With Hydraulic Shocks
Service Brake	Induction Motor
Parking Brake	Automatic Electro-Magnetic
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

### Body & Chassis

Frame	Welded Steel with DuraShield™ powder coat
Body & Finish	Injection molded TPO
Standard Color	Forest Green

Some items shown may be optional equipment

# GENERAL SPECIFICATIONS

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



A Textron Company

**MODEL: SHUTTLE™ 2+2 RXV High Speed, Elec**

**TYPE: ELECTRIC PERSONNEL CARRIER**

**MODEL YEAR: 2016**

**Part No: 638539G01**



## PRODUCT SPECIFICATION

### CONFIGURATION HIGHLIGHTS

**Programmable AC Drive System:** Factory programmable to application

- Solid State variable frequency AC speed controller
- Drive-by-wire electronic throttle control
- Dash mounted direction selector switch (Forward-Neutral-Reverse)
- Descent speed control and automatic hill hold
- Full-time regenerative braking
- 235 Amp AC Controller
- Full torque, reduced speed reverse
- Sealed Hall effect throttle sensor
- Full diagnostic capability (Hand held diagnostic unit)
- Six field selectable speeds with hand held diagnostic unit

**Motor:** 48 Volt AC induction motor, solid copper windings. 4.4 hp (3.3 kW) Continuous. AC system reads motor speed for accurate speed control in all conditions. Regenerative braking for maximum economy

**Battery Charger:** SC - 48V / 913-4810-E3B Charger. UL1564, CSA 107.2

**Electrical System:** 48 Volt DC, four, 12 volt deep cycle storage batteries batteries (60 minute minimum, 140 amp-hour @ 20 hr. discharge rate)

**Drive Train/transaxle** Direct motor shaft connected to transaxle pinion shaft, differential with reverse helical gears

**Brakes:** Induction motor. Electro-magnetic parking brake is applied automatically

**Body Protection:** 360° energy transfer bumpers maximize vehicle protection from minor impact

## PRODUCT OVERVIEW

### Dimensions

Overall Length	105.5 in (268 cm)
Overall Width	47.0 in (119 cm)
Overall Height (No Canopy)	45.7 in (116 cm)
Overall Height (With Canopy)	74.0 in (188 cm)
Wheel Base	65.7 in (167 cm)
Front Wheel Track	35.5 in (90 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.5 in (11 cm)

### Vehicle Power

Power Source	48 Volts DC
Motor Type	48 Volt AC
Horsepower (kW)	4.4 hp (3.3 kW) Continuous
Electrical System	48 Volt
Batteries (Qty, Type)	Four, 12 Volt Deep Cycle
Key or Pedal Start	Pedal
Speed Controller	235 Amp AC Controller
Drive Train	Motor Shaft Direct Drive
Transaxle	Limited Slip Differential
Gear Selection	Dash Mounted Forward-Neutral-Reverse
Rear Axle Ratio	16.99:1

### CE Noise, Vibration & Harshness

Noise Sound pressure: continued A-weighted equal to 68 db (A)

Vibration, WBV The highest RMS value of weighted acceleration is: 1.15 m/s<sup>2</sup>

Vibration, HAV The highest RMS value of weighted acceleration is: less than 2.5 m/s<sup>2</sup>. The uncertainty of measurement is 0.2 m/s<sup>2</sup>

### Performance

Seating Capacity	4 Person
Dry Weight	758 lb (344 kg) (Without Batteries)
Curb Weight	1114 lb (505 kg)
Vehicle load capacity	800 lb (364 kg)
Outside Clearance Circle	19.2 ft (5.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	8-15 mph (13 - 24 kph) Programmable
Towing Capacity	N/A

### Steering & Suspension

Steering	Double Ended Rack & Pinion
Front Suspension	Independent A-Arm Coil Over Shock
Rear Suspension	Mono-Leaf Spring With Hydraulic Shocks
Service Brake	Induction Motor
Parking Brake	Automatic Electro-Magnetic
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

### Body & Chassis

Frame	Welded Steel with DuraShield™ powder coat
Body & Finish	Injection molded TPO
Standard Color	Forest Green

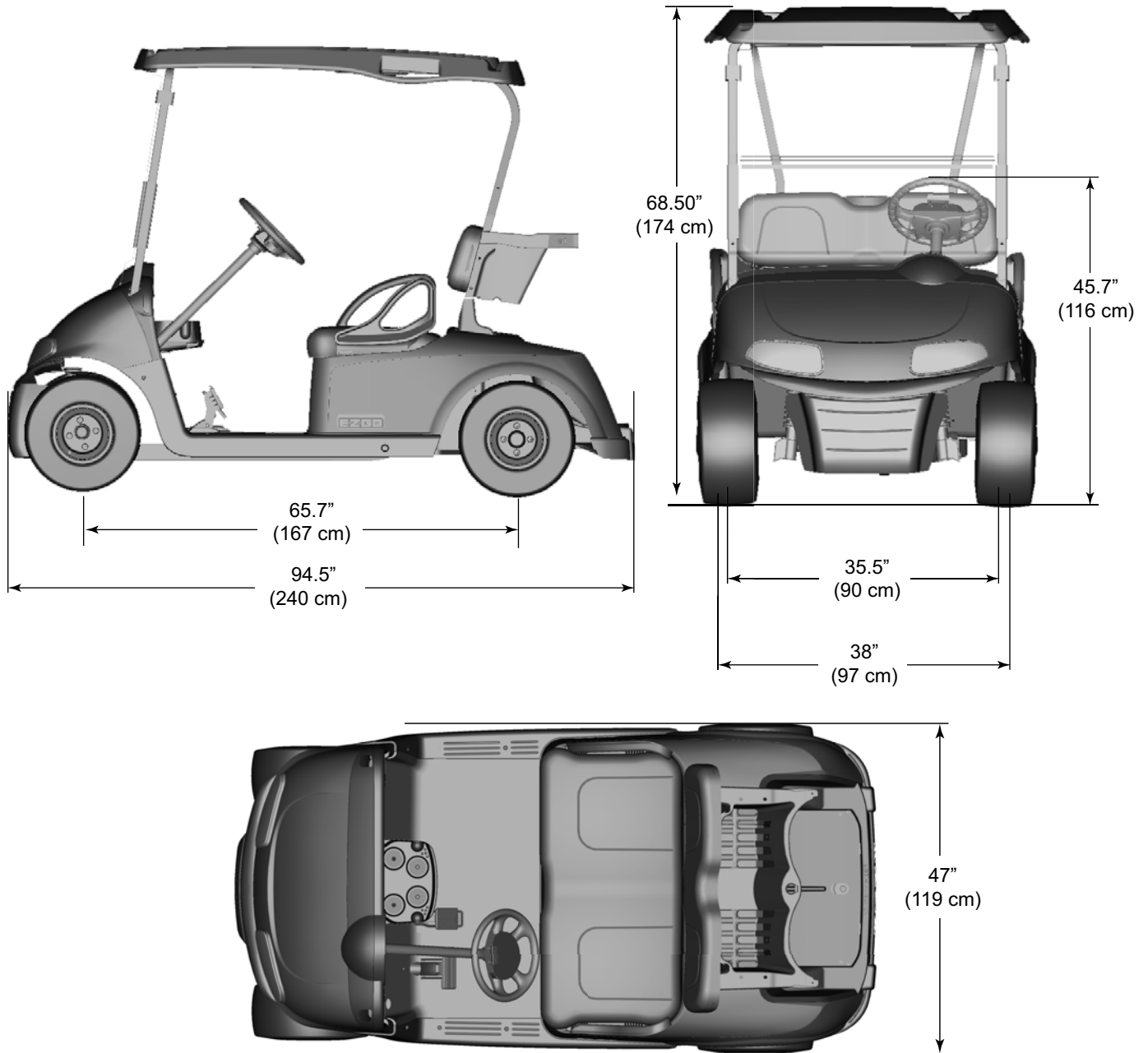
Some Items shown may be optional equipment



# GENERAL SPECIFICATIONS

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

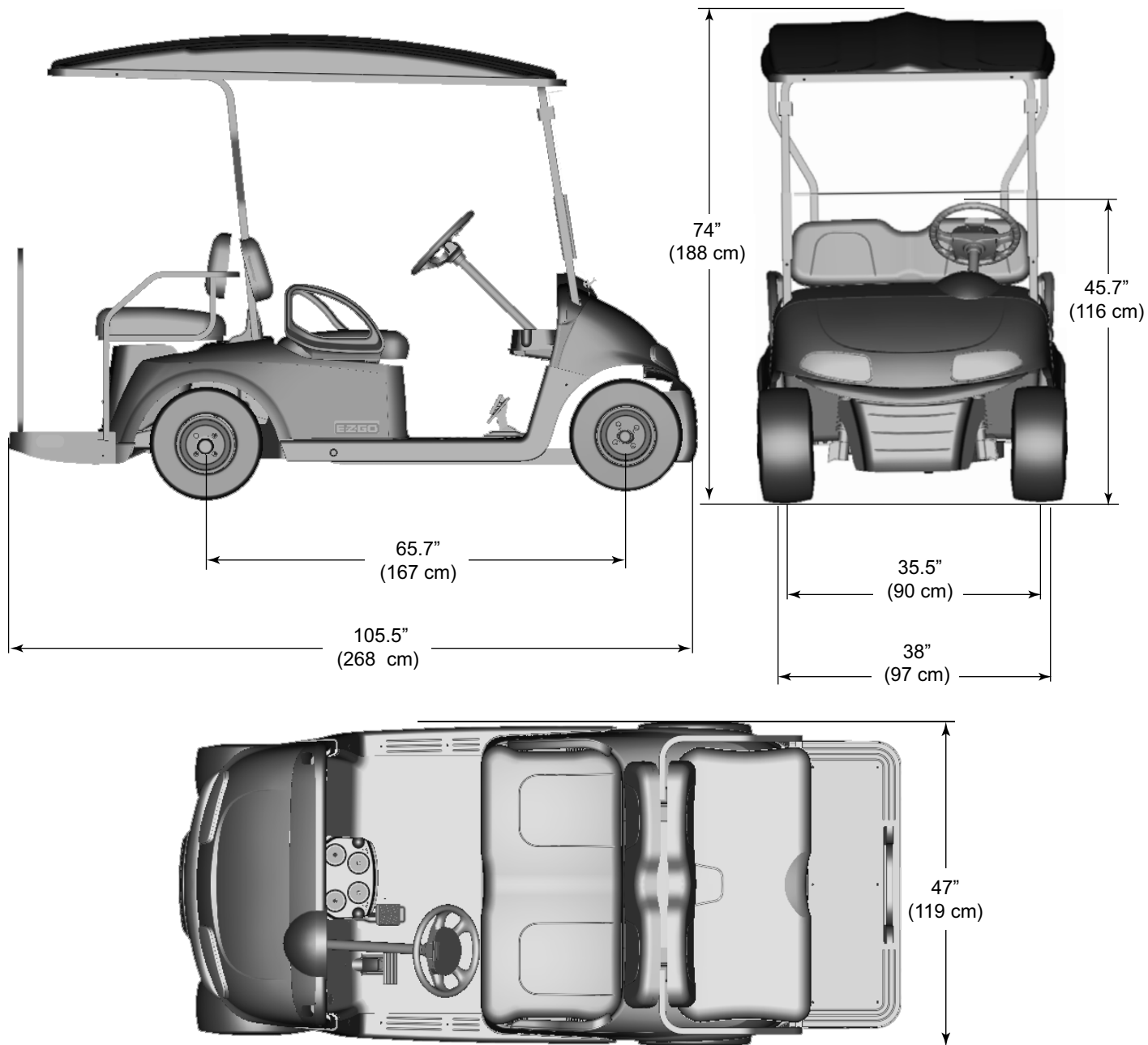
## APPROXIMATE VEHICLE DIMENSIONS



**Figure 1 Fleet and Freedom Vehicle Dimensions**

# GENERAL SPECIFICATIONS

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

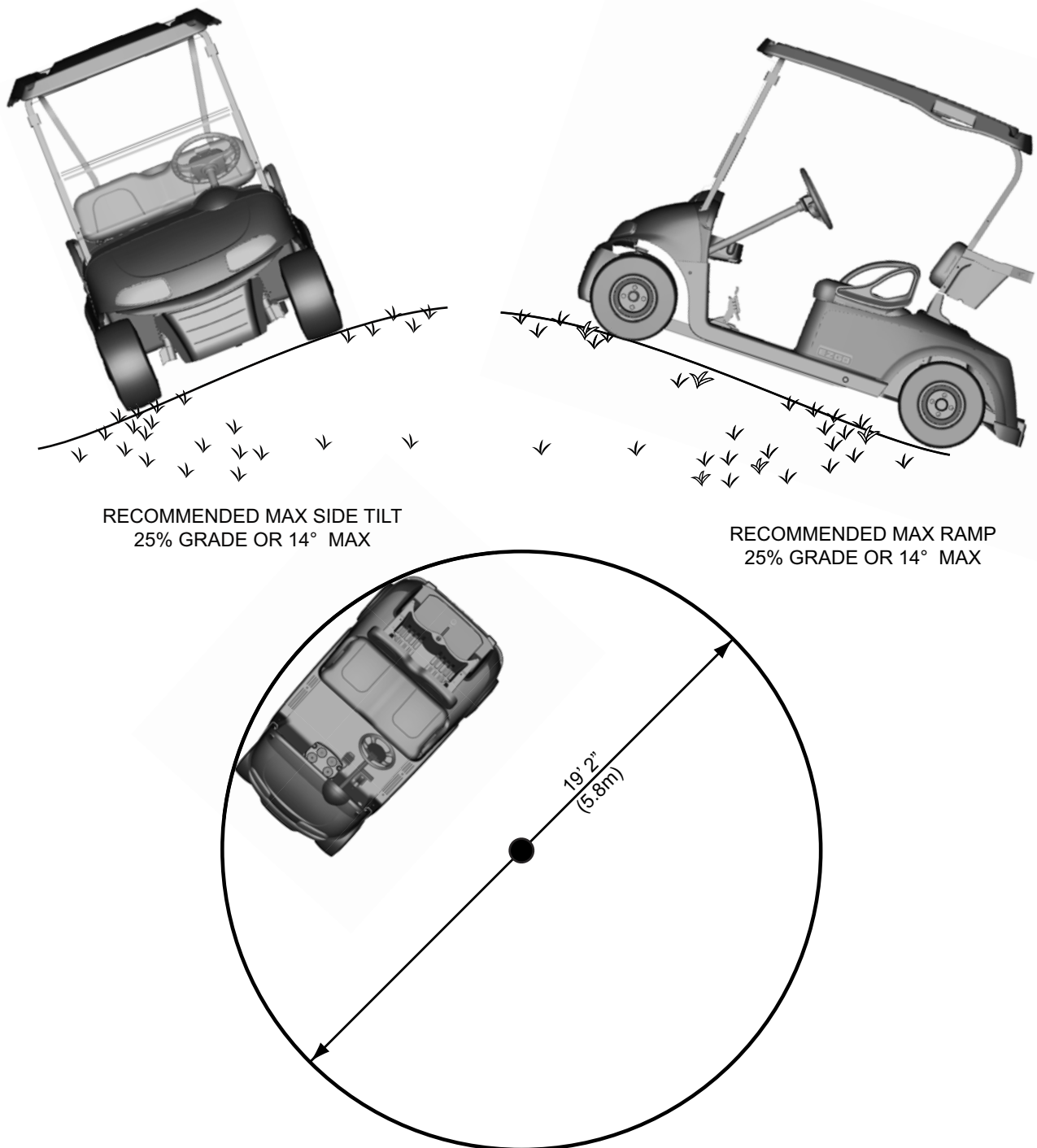


**Figure 2 Shuttle 2 + 2 Vehicle Dimensions**

# GENERAL SPECIFICATIONS

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## TURNING DIAMETER AND INCLINE INFORMATION

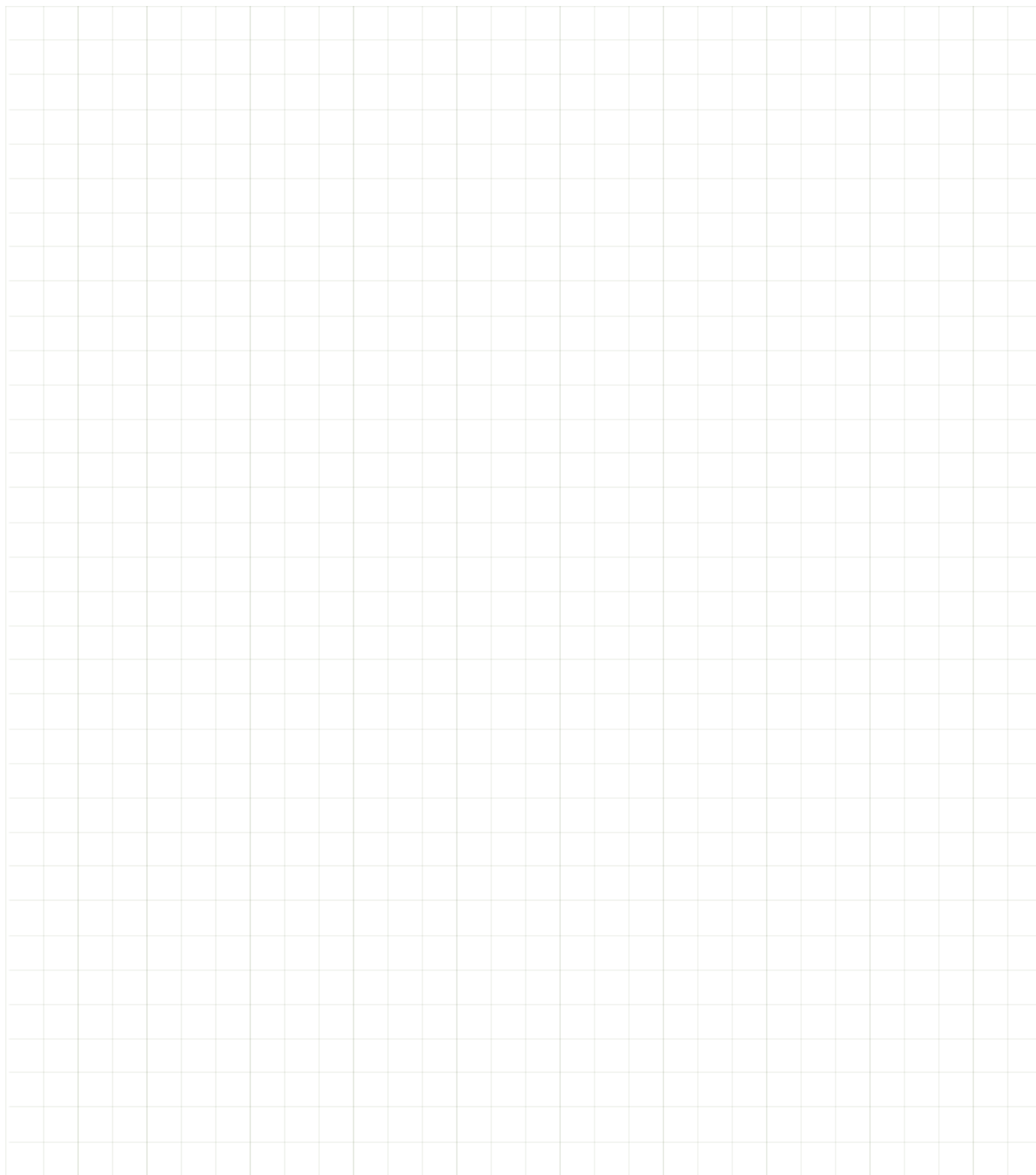


**Figure 3 Vehicle Incline Specifications and Turning Diameter**

# GENERAL SPECIFICATIONS

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## Notes:

A large grid of 20 columns and 30 rows for taking notes. The grid is composed of light gray lines on a white background, forming a series of small squares. It is intended for users to write down important information or instructions related to the general specifications.

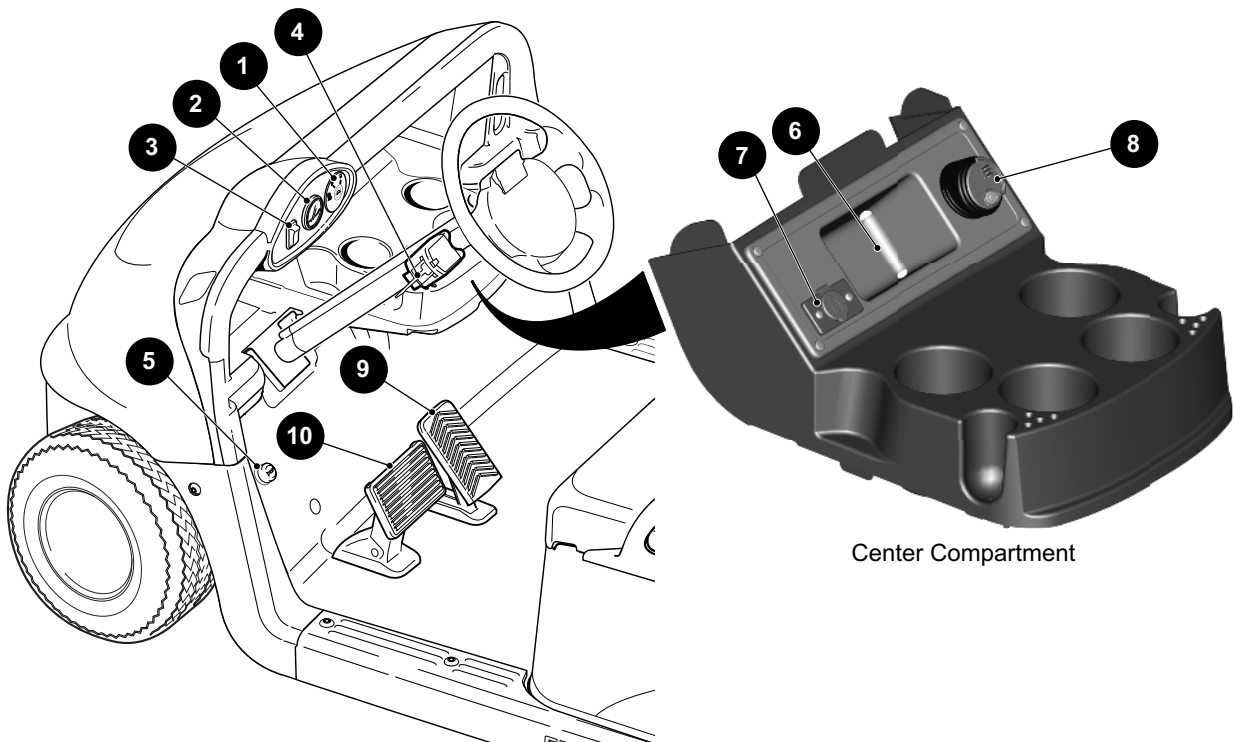
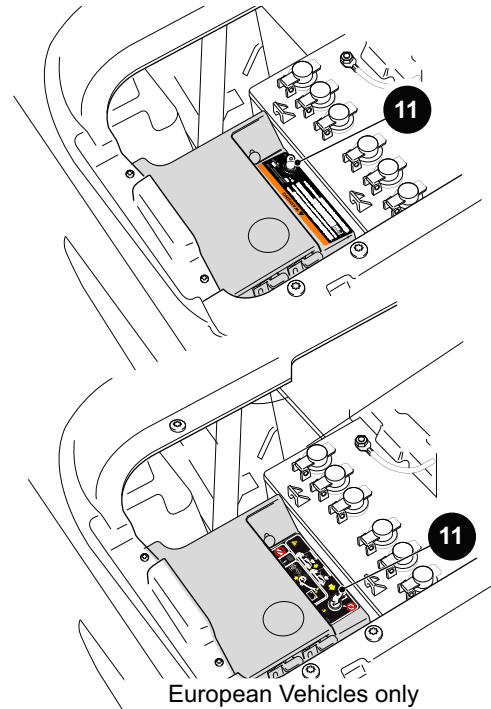
*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## INTRODUCTION

### CONTROLS AND INDICATORS

Vehicle controls and indicators consists of: (Figure 1)

1. Key Switch and Direction Selector
2. State of Charge Meter (if equipped)
3. Head Light Switch (if equipped)
4. Turn Signal Switch (if equipped)
5. Horn Button (if equipped)
6. Center Compartment
7. Power Outlet, 12V (if equipped)
8. USB Port (if equipped)
9. Accelerator Pedal
10. Brake Pedal
11. Run/Tow Switch



**Figure 1 Vehicle controls, features and indicators**

# INTRODUCTION

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## FEATURES

### General Information

#### NOTICE

*If the vehicle has accessories that were installed at the factory, some accessories continue to operate with the key switch in the OFF position.*



#### CAUTION

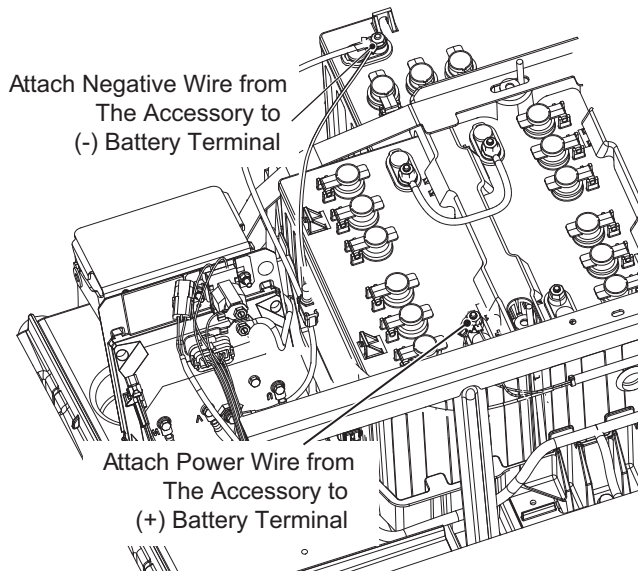
**ALL accessories that do NOT use the accessory wiring harness MUST be connected to the DC to DC converter to pull from the full 48-Volt battery pack.**

**A DC to DC converter is necessary for the accessories that need voltage different from 48 volts to operate correctly.**

Accessories, including a DC to DC converter, that are connected to this vehicle and do not use the accessory wire harness must be connected across the entire 48 volt battery pack. To correctly connect a 48 volt accessory, connect one wire to the most positive battery pack terminal and the second wire to the most negative battery pack terminal as shown (Figure 2).

**If an accessory requires voltage different than 48 volts a DC to DC converter must be used to change the voltage to the correct amount. A DC to DC converter is available for purchase from E-Z-GO Service Parts.**

**The Operational Performance Guarantee of 2 rounds per day is void if non-factory accessories that use more than 1 Amp/Hour of energy per round are installed on the vehicle.**



**Figure 2 Accessory Wires to Battery Pack Attachment**

### Key Switch and Direction Selector



#### CAUTION

**To decrease the risk of component damage, stop the vehicle before you move the key switch or the direction selector.**



#### WARNING

**To prevent the loss of control, do not move the direction selector while the vehicle is in motion. If you move the selector, the vehicle speed will immediately decrease and a warning device activates.**

The key Switch and Direction Selector is located on the dash panel. The key switch or direction selector enables the electrical system of the vehicle to be turned ON or OFF by turning the key. It also functions as the direction selector and allows the operator to select F (forward) or R (reverse).

When the direction selector is moved to the R position, the reverse warning buzzer activates.

When the vehicle is without an operator, The key switch must be turned to the OFF position and removed, to prevent accidental movement of the vehicle.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## State of Charge Meter (if equipped)

SOC Meter (State of Charge) is located on the instrument panel to the left of the key switch.

SOC meter indicates the amount of power remaining in the battery pack. **F** indicates a full charge and **E** indicates that the battery pack needs to be charged.

## Headlight Switch (if equipped)

If the vehicle has headlights, the headlight switch is located on the dash panel to the left of the speedometer.

## Turn Signal Switch (if equipped)

The turn signal switch is on the steering column and controls the operation of the right and left turn signal lights.

## Accelerator and Brake Pedals



*Accidental movement of the accelerator pedal can cause the vehicle to move suddenly and cause severe injury or death.*

With the key switch in the F or R position, and when you press the accelerator pedal (10), the motor starts and the vehicle moves in the direction indicated on the key switch/direction selector. This vehicle is equipped with motor brake, when the accelerator pedal is released, the motor will stop. To stop the vehicle quickly, press the brake pedal (11) (Figure 1).

## Horn (if equipped)



The horn button is located on the driver side of the floorboard. Press the button to activate the horn.

## Run/Tow Switch



**Before you attempt to tow the vehicle, turn the key switch to N and move the Run/Tow switch to the TOW position. Failure to do so will damage the controller or the motor.**


**NOTICE**

*The RUN/TOW switch must be returned to the RUN/STORAGE or  (on European Models) position after towing the vehicle. If the switch is in the TOW or  (on European Models) position for an extended period of time it will drain the batteries.*

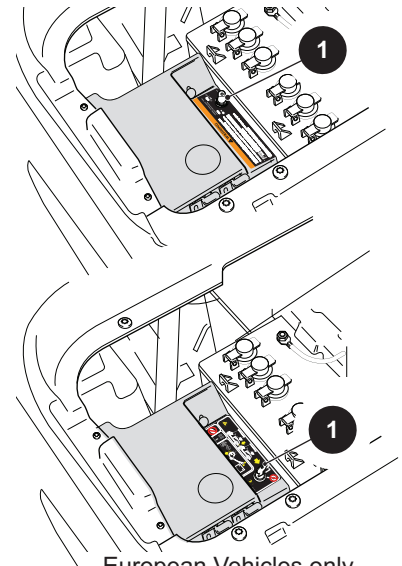
The Run/Tow (1) switch is located under the seat on the passenger side of the vehicle (Figure 3).

With the switch in the TOW or  (on European Models) position and the key in N:

- the electronic parking brake is deactivated, which allows the vehicle to be towed or move freely, except in the event a controller failure
- the brake is still active
- the reverse warning beeper is deactivated

With the switch in RUN/STORAGE or  (on European Models) position:

- the electronic parking brake and the reverse warning beeper features are activated



European Vehicles only  
**Figure 3` Run /Tow Switch**



# INTRODUCTION

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

## USB Port (if equipped)

USB Port (3) is located to the right of the center compartment (Figure 4).

## 12-Volt Power Outlet (if equipped)

A 12-Volt power outlet (4) is located to the left of the center compartment. The outlet supplies continuous power for any accessories that have a 12-volt plug (Figure 4).

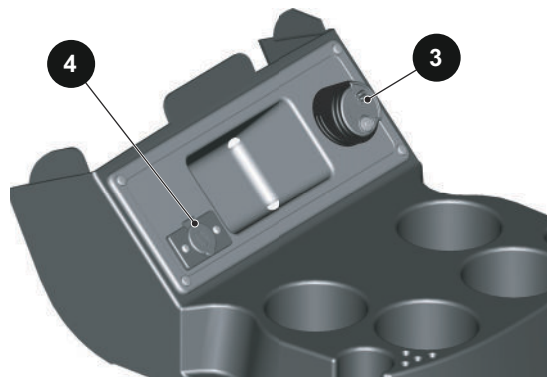



Figure 4 Center Compartment

## Parking Brake

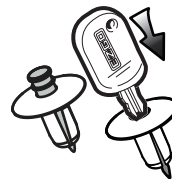
This vehicle is equipped with an automatic parking brake; when the vehicle is stopped, the parking brake is automatically set. The parking brake is released when the key switch and direction selector is in F (forward) or R (reverse) and the accelerator is pressed. The parking brake is also released when the RUN/TOW switch is in the TOW or  (on European Models) position with the key switch turned to N (neutral).

When the vehicle does not move forward or reverse, release the parking brake using the instructions located on the controller splash shield below the seat on the passenger side of the vehicle.

To move the vehicle, turn the key switch to N, turn the RUN/TOW switch to the TOW position, move the vehicle to a safe location on level ground, chock the tires, and turn the key to OFF.

In case of total power loss and the RUN/TOW switch does not release the parking brake, use the instructions below the controller splash shield. Chock the tires to prevent the vehicle from moving when the brake is released.

To read the instructions, remove three re-usable plastic rivets that secures the controller splash shield to the body and the controller. To remove these rivets, press the center of the rivet with the vehicle key. When the center pin goes into position the rivet can be removed. Repeat the procedure for each remaining rivet. Turn the splash shield over to read the instructions.



## WARNING

*This procedure must be performed by qualified trained personnel.*

Make sure that the key switch is in the OFF position and chock the tires to prevent the vehicle from moving; Then do the following:

- Locate the 'Auxiliary Power' line (7) and remove the weather pack seal (8) from the connector (Figure 5).
- Locate the 'Primary Power' line connector (5) and disconnect it from line (6).
- Connect the 'Auxiliary Power' line (7) to the 'Primary Power' line (5) which releases the brake. If the tires are not chocked and the vehicle is not on flat ground the vehicle will move immediately.
- Move the vehicle to desired, safe location and chock the tires immediately.
- Disconnect the 'Auxiliary Power' line (7) from the 'Primary Power' line (5).
- Connect the 'Primary Power' line (5) to line (6).
- Replace the weather pack seal (8) on the 'Auxiliary Power' line connector (7).

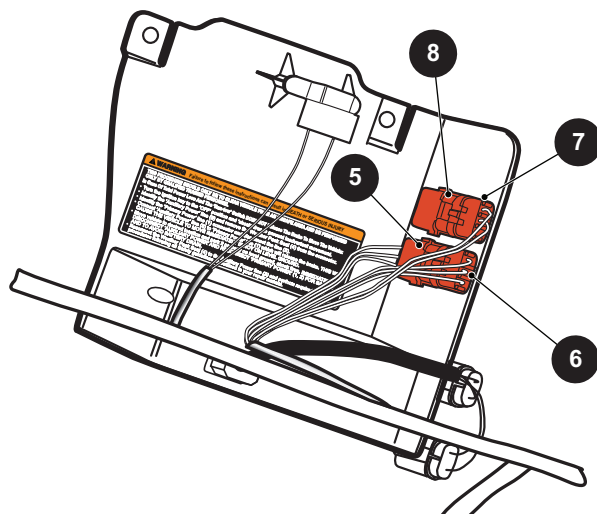


Figure 5 Splash Shield and Parking Brake Release



*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

To reinstall the controller splash shield, position the splash shield by aligning the mounting holes with the holes in the body, push the center pin of each rivet upward so that the top of the pin is above the rivet head. Place a rivet in each mounting hole of the controller splash shield and push down on the center pin until the top of the pin is flush with the rivet head.



## Front Seat

The front seat (9) is for two people, one person on each side of the seat (Figure 6).

## Front Hip Restraint

The front hip restraints (10) help people stay in position while the vehicle is in motion (Figure 6).

## Cup Holder

The vehicle has a cup holder (11) for the benefit of both the driver and passenger (Figure 6).

## Steering Wheel

The steering wheel (12) controls the direction of vehicle travel (Figure 6).

## Rear Seat and Cargo Platform (if equipped)



## WARNING

*Rear passengers must stay in the seat and hold both the hand rail and rear handle while the vehicle is in motion.*

*Do not allow passengers to ride on the cargo platform. A sudden move or stop can cause severe injury or death to passengers on the cargo platform.*

The vehicle has a feature that functions as a rear seat or a cargo platform.

When in the upright position, it is a rear seat for two passengers. Fold the seat flat for a cargo platform (13).

## Rear Hand Rail

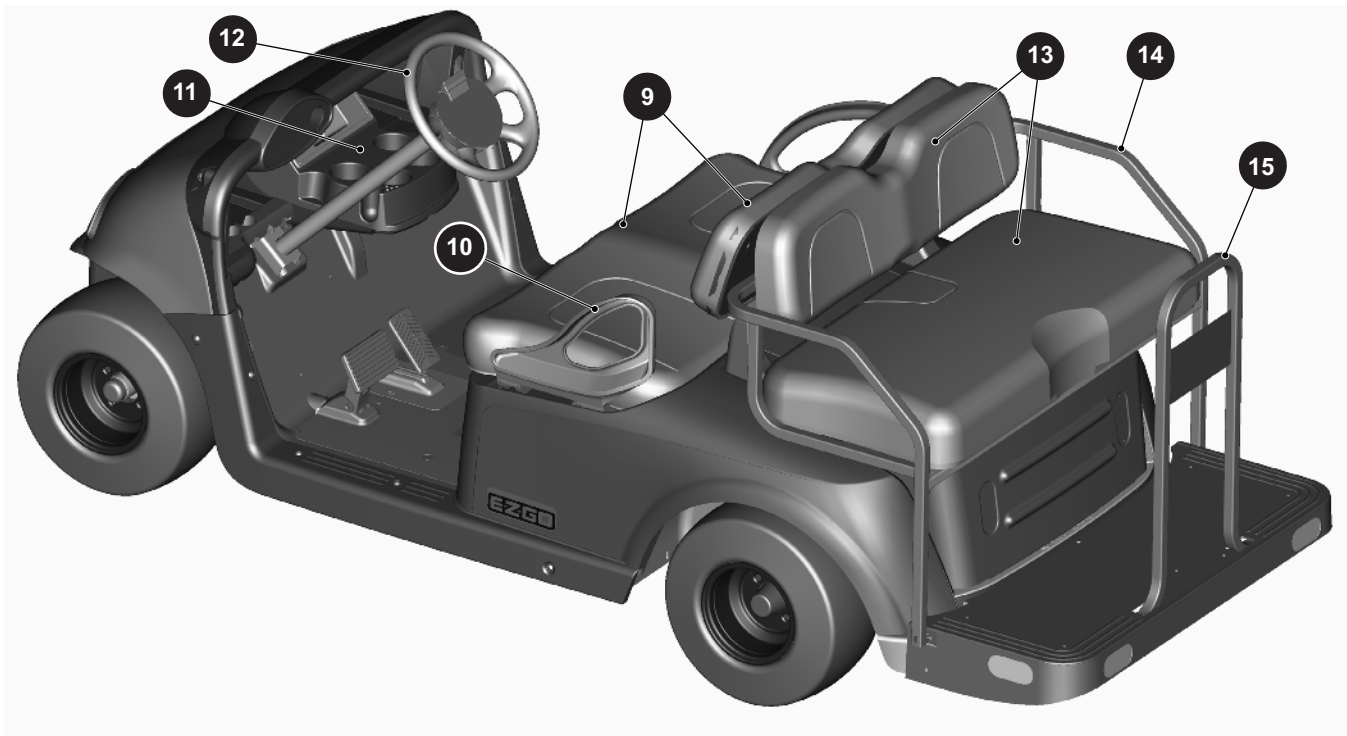
There are rear hand rail (14), one on each side of the rear seat to help passengers stay in position when the vehicle is in motion. The passengers must hold the rear hand rail (14) whenever the vehicle is in motion (Figure 6).

## Rear Handle

The rear handle (15) is located at the far end of the vehicle in the center of the footrest. The handle helps the passengers stay in position when the vehicle is in motion. The passengers must hold the rear handle (15) when the vehicle is in motion (Figure 6).

# INTRODUCTION

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*



**Figure 6 Rear Seating**

## **Charger Receptacle**

Connect the charger cord to this charger receptacle (16) to charge the batteries (Figure 7).

## **Weather Enclosure (if equipped)**

A weather enclosure provides protection from strong weather conditions.

## **Rear View Mirror (if equipped)**

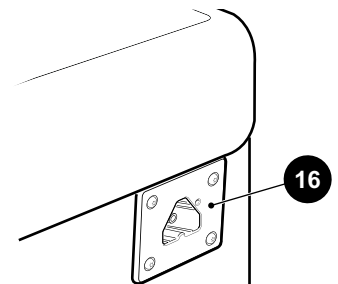
The rear view mirror is adjustable for use during the day or night.

## **DC to DC Converter**

The DC to DC Converter Supplies power to the power accessories.

## **Battery Compartment**

Lift the front seat to access the battery compartment for maintenance of the batteries and for access to the Run/Tow switch.



**Figure 7 Charger Receptacle**

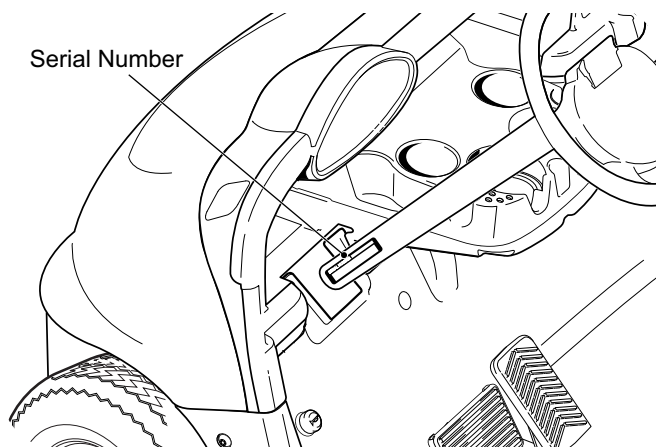
*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## OPERATING PROCEDURES

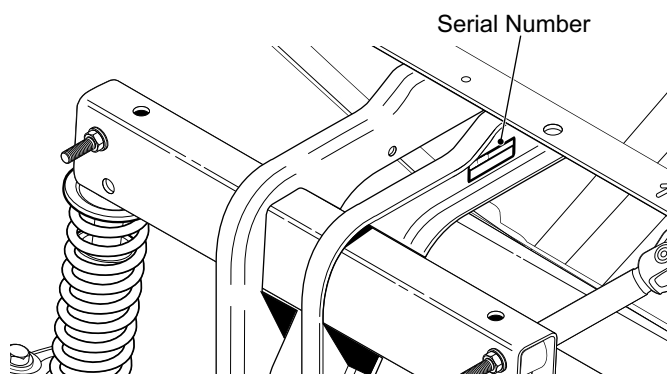
### SERIAL NUMBER LOCATION

Three serial number and manufacture date code labels are on the vehicle. One of the labels is located on the steering column, the second label is located on the frame member under the front splash shield on the driver side, and the third is located on the passenger side frame rail at the rear of the vehicle (Figure 1).

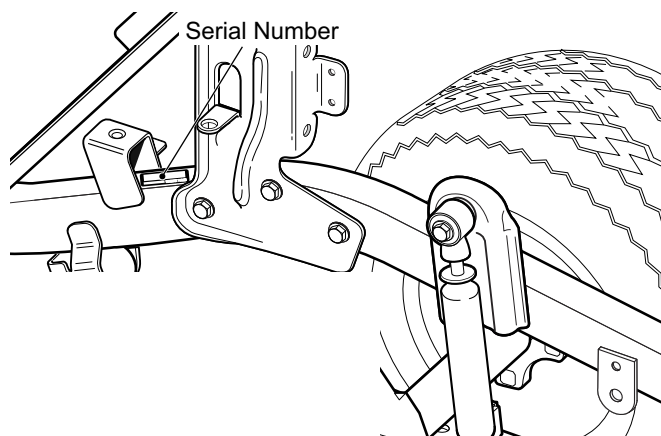
Design changes occur on a continuous basis. To get the correct components for the vehicle, the PIN number, manufacture date code, serial number or vehicle model, must be supplied.



Serial Number Location on Steering Column



Serial Number Location on Front Frame



Serial Number Location on Rear Frame

**Figure 1 Serial Number Locations**



**CAUTION**

*Improper use of the vehicle or the lack of proper maintenance may result in damage or decreased performance.*

# OPERATING PROCEDURES

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

## BEFORE INITIAL USE

Read, understand and follow the safety label on the cup holder. Make sure you understand how to safely operate the vehicle and its equipment.

### **WARNING**

*Reckless use of this vehicle can cause severe injury or death. This vehicle is a light-duty vehicle, NOT an All Terrain Vehicle (ATV).*

*Do not engage in rough or reckless operation of this vehicle.*

*If you do not know the terrain, make sure you prepare for unexpected occurrences. If the vehicle gets stuck or the batteries discharge, a one-hour drive can take many hours to return on foot.*

*Explosive hydrogen gas is created during the charge cycle of batteries. Do not charge batteries without enough ventilation. A 4% concentration of hydrogen gas is explosive.*

*To prevent battery explosion, keep all flammable materials, open flame or sparks away from the batteries.*

Explosive hydrogen gas is created during the charge cycle of the batteries. Good ventilation is necessary to remove gas from enclosed spaces. The air must change every 12 minutes.

Never charge a battery near flammable materials, open flame or sparks. Never charge a vehicle near gas water heaters and furnaces.

Before a new vehicle is put into operation, complete the items shown in the **INITIAL SERVICE CHART**.

INITIAL SERVICE CHART	
Item	Service Operation
Portable Charger	Remove from vehicle and correctly install.
Batteries	Charge batteries.
Seats	Remove protective plastic covering.
Brakes	Check operation.
	Calculate the distance necessary to stop the vehicle for the brake performance test.
Tires	Check air pressure (18 - 22 psi)
General	Check for possible leaks that may have started during shipment

## PORTABLE CHARGER INSTALLATION

### **DANGER**

***Risk of electric shock. Connect the charger power cord to an outlet that is correctly installed and connected to an electrical ground according to all codes and regulations. A grounded outlet is necessary to decrease the risk of electric shock – do not use ground adapters or replace the plug. Do not touch parts of output connector or battery terminals that do not have insulation.***

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## **DANGER**

***Disconnect the DC plug before you make or break the connections to a battery that is charging. Do not open or disassemble the charger. Do not operate the charger if the AC cord is damaged. Make sure qualified personnel does all repair work to the charger.***

## **WARNING**

*Do not allow children to use the charger.*

*To prevent over-heating that can cause damage to the charger and possible fire, keep the air fins clear. Install portable chargers on a platform above the ground to allow maximum air flow around and below the charger.*

*Use the charger on 48-volt battery systems. Other use can cause personal injury and damage.*

*Lead acid batteries can create explosive hydrogen gas during normal operation. Keep sparks, flames and flammable materials away from batteries.*

*Supply enough ventilation during the charge cycle.*

*Never charge a frozen battery.*

*Read all of the manufacturers specified precautions for the battery. For example, recommended rates of charge and removal of cell caps during charge cycle.*

Portable chargers are supplied with the vehicles. Before vehicle or charger operation, remove the charger from the vehicle. **A dedicated circuit is necessary for the charger.** Refer to the charger manual for correct circuit protection. For best performance and shortest charge times, put the charger in an area with good ventilation.

The list below supplies points to keep the charger cool while in operation.

- Put the charger in an area that is without dirt, mud or dust to prevent build-up in the charger fins.
- Put the charger on a horizontal surface with the fins vertical.
- Put the charger on a platform above the ground to allow air to flow around and below the charger.

If the charger is operated in an outdoor location, rain and sun protection must be supplied.

Because the charger can get hot during operation, install in an area with minimum person traffic to decrease possible contact with hot charger.

Make sure the status display on the charger is visible to the user.

## **NOTICE**

*Put the DC cord through the center of the steering wheel to remind you to put the cord away when finished with the charger. You can damage the DC plug if you drive over or catch the cord on the vehicle when you drive away.*

## **WARNING**

*To decrease the possibility of electrical shock or electrocution, make sure that the charger plug is not damaged and is correctly connected to a grounded outlet.*

*The power AC cord has a plug with a ground post. Do not remove, cut or bend the ground post.*

# OPERATING PROCEDURES

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

## WARNING

The charger DC cord has a polarized connector which fits into a receptacle on the vehicle.

## NOTICE

If the vehicle is charged with a charger different from the one supplied with the vehicle, refer to the instructions supplied with the charger used.

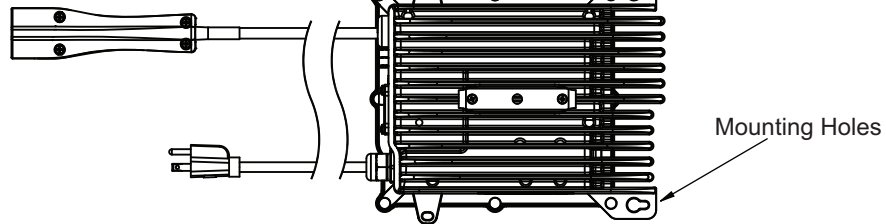
Provide Protection From Elements



Keep cooling fins clean and free of dirt and debris

 NEMA 15 - 5R Grounded AC Receptacle  
110 - 120 VAC. Dedicated 10 AMP Circuit

Locations outside the US and Canada: Reference appropriate local electrical code and charger manufacturer recommendations for AC power requirements



## UNDERSTAND THE CHARGER

When the charger is connected to the vehicle, the vehicle will not operate. When the charger is connected to the vehicle, the charger will automatically turn on. The LED lights on the charger and the vehicle flash GREEN to indicate the charge cycle has started.

When minimum voltage of 2 volts per cell (VPC) is reached, the charger output electric current will change from full electric current to trickle electric current. The length of charge time depends on how discharged the batteries are, the input AC voltage and charger ambient temperatures.

The charger LED light will give a SHORT flash if the charge is less than 80%. The charger LED light will give a LONG flash if the charge is more than 80%. SOLID GREEN indicates that the batteries are completely charged and you can disconnect the charger, but it is not necessary. The charger can stay connected to keep the batteries charged.

If a fault occurred during the charge cycle, the charger LED will quickly flash RED. The specified fault is indicated by the number of RED flashes that occur, a pause, and the RED flashes repeat again. Errors are caused by different conditions. Some errors need a person to correct the problem and then reset the charger. Disconnect the DC cord from the vehicle to reset the charger.

If the AC voltage is interrupted and restored, the charger will automatically turn on again.

### LED Operation Codes

- SHORT GREEN FLASH = less than 80% of charge capacity
- LONG GREEN FLASH = more than 80% of charge capacity
- SOLID GREEN = 100% of charge capacity
- RED FLASH = fault code

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## LED Fault Codes

- **RED FLASH:** The light turns on quickly, and does not flash after that - check for valid AC voltage.
- **ONE RED FLASH:** One flash, a pause, and another flash and a pause
  - Charge Enable Fault: Bad contact in the DC connector or dirty contacts.
  - Battery Temperature Fault: Battery temperature is more than 122° F (50° C) or less than 14° F (-10° C).
- **TWO RED FLASHES:** Two flashes, a pause and another two flashes and a pause  
Battery Voltage Fault: The battery pack is less than 48.0 Volts or more than 67.2 Volts. The battery pack is discharged too much or over charged for the charger to operate.
- **THREE RED FLASHES:** Three flashes, a pause and another three flashes and a pause  
Battery Charge Time-out: Charge time more than 24 hours. This fault can indicate a problem with the battery pack or that the charger output electric current decreased because of high ambient temperatures.
- **FOUR RED FLASHES:** Four flashes, a pause and another four flashes and a pause  
Battery Fault: Charge time exceeded. This fault indicates that the battery pack voltage did not reach the necessary minimum level within the maximum time allowed.
- **SIX RED FLASHES:** Six flashes, a pause and another six flashes and a pause  
Charger Fault: A fault inside the charger was sensed. Disconnect the charger DC power cord and connect again. If the fault is sensed after that, take the charger to an approved service center.

## WARNING

*To decrease the possibility of electrical shock or electrocution, make sure that the charger plug is not damaged and is correctly connected to a grounded outlet.*

*The power AC cord has a plug with a ground post. Do not remove, cut or bend the ground post.*

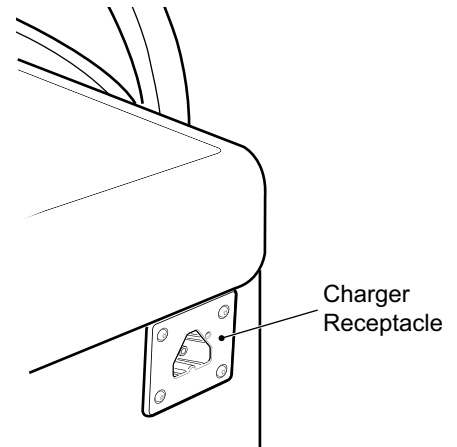
The charger DC cord has a polarized connector which fits into a receptacle on the vehicle. The receptacle is located on the driver side of the vehicle below the seat.

## HOW TO USE THE CHARGER

The charger can stay connected to the AC outlet after the charge cycle is complete.

To charge the vehicle, refer to the instruction labels on the charger.

Completely connect the DC plug into the vehicle receptacle. The charger will automatically start seconds after the plug is in position. The charger will automatically stop when the batteries are charged. Remove the DC plug before you operate the vehicle.



## CHARGER MAINTENANCE

1. Make sure the charger connections to the battery terminals are tight and clean. Check for damage or cracks in the plastic parts.
2. Inspect the charger harness for wear and check the areas that contact other components. Inspect all wires for wear, loose terminals, corrosion or damage to the insulation.
3. Clean dirt and any other particles from the cooling fins. Keep the charger away from oil, dirt and mud. Do not allow water to spray on the charger when you clean equipment.
4. Inspect the plug of the battery charger and the vehicle receptacle housing for dirt or dust. Clean a minimum of once a month.



# OPERATING PROCEDURES

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## HOW TO OPERATE THE VEHICLE



### CAUTION

***Incorrect use of the vehicle or lack of maintenance can cause damage or decreased performance.***

Read the following warnings before you operate the vehicle.



### WARNING

***To decrease the risk of severe injury or death resulting from loss of vehicle control, the following warnings must be obeyed:***

*When driving vehicle, understand the terrain, traffic conditions and the environmental conditions which change the terrain and the ability to control the vehicle. When possible, stay in approved areas and do not drive on steep slopes.*

*Speed in reverse must be limited to a maximum of 10 MPH.*

*Keep a safe speed when driving down hill. Use the brake to control speed when traveling down a slope. A sudden stop or change of direction can cause loss of control.*

*Decrease speed before and during turns. Never drive the vehicle up, down, or across a slope that is more than 14° (25% grade).*

*See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.*

***To decrease the risk of severe injury or death resulting from improper vehicle operation, the following warnings must be obeyed:***

*Pressing accelerator pedal can cause accidental vehicle movement. Turn the key to the OFF position when the vehicle is parked. When you leave the vehicle, turn the key to the OFF position and remove from the switch to prevent accidental operation.*

*To prevent accidental movement when the vehicle is to be left without an operator, turn the key to the OFF position and remove the key.*

*Always stop the vehicle before moving the direction selector.*

*Do not take the vehicle out of gear while in motion (move without power).*

*Check the area behind the vehicle before you operate in the reverse direction.*

*All persons must be seated. Keep entire body inside vehicle and hold on while vehicle is in motion.*

Incorrect and irresponsible operation of this vehicle can cause dangerous conditions for the operator, passengers and other people in the area. Do not allow children or anyone without a license to operate the vehicle. Children may not have the skill and ability to make good decisions or strength to operate the vehicle.

Drugs and alcohol decrease the ability of the driver to operate the vehicle safely. Always check with a medical professional before you operate the vehicle.

When you drive the vehicle at full speed on a dirt road, loose surface or wet grass, the necessary distance to stop the vehicle will increase. The necessary distance to stop a loaded vehicle is more than the necessary distance to stop a vehicle without a load. In wet weather conditions, apply light pressure to the brakes to supply enough friction to dry the brake unit. Wet brakes lose much of their effect.

If you drive on a steep hill and can not get enough traction, do not try to turn around on the hill. Slowly drive in reverse and use the brake to control the speed.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## Direction Selector Operation

### ⚠ WARNING

*To prevent loss of control, do not move the direction selector to a different position while the vehicle is in motion. If you move the selector, the speed will immediately decrease and a warning device activates.*

Move the direction selector to F (forward) to move in the forward direction.

Move the direction selector to R (reverse) to move in the reverse direction. A reverse warning buzzer activates when the direction selector is moved to the R (reverse) position.

The position between F (forward) and R (reverse) is the neutral position.

When you leave the vehicle, turn the key to the OFF position and remove it from the key switch.

## Accelerator and Brake Pedal Operation

With the key switch in the F (forward) or R (reverse) position, press the accelerator pedal (1), which starts the motor and the vehicle moves in the direction indicated on the key switch/direction selector. This vehicle is equipped with motor brake. When the accelerator pedal is released, the motor will stop. To stop the vehicle quickly, press the brake pedal (2) (Figure 2).

## Horn (if equipped)

If the vehicle is equipped with a horn, the horn button (3) is located on the driver's side of the floorboard. Pressing the button (3) will sound the vehicle's horn (Figure 2).

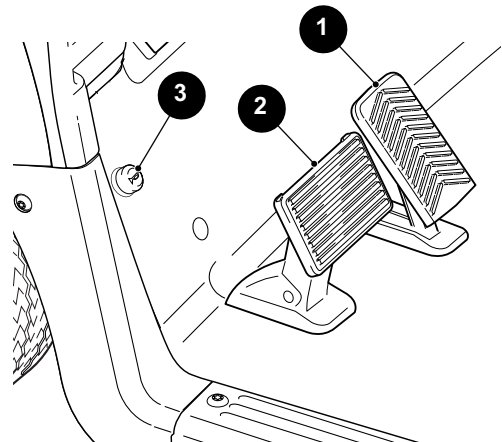


Figure 2 Accelerator and Brake Pedal Operation

## Run/Tow Switch Operation

### ⚠ CAUTION

*Before you attempt to tow the vehicle, turn the key switch to N and move the Run/Tow switch to the TOW position. Failure to do so will damage the controller or the motor.*

### NOTICE

*The RUN/TOW switch should always be returned to the RUN/STORAGE or Ⓟ (on European Models) position after towing the vehicle. If the switch is left in the TOW or Ⓟ (on European Models) position for an extended period of time it will drain the batteries.*

The Run/Tow switch is located under the seat on the passenger side of the vehicle.

With the switch in the TOW or Ⓟ (on European Models) position and the key in N (neutral):

- the electronic parking brake is deactivated, which allows the vehicle to be towed or move freely, except in the event of a controller failure
- the brake is still active

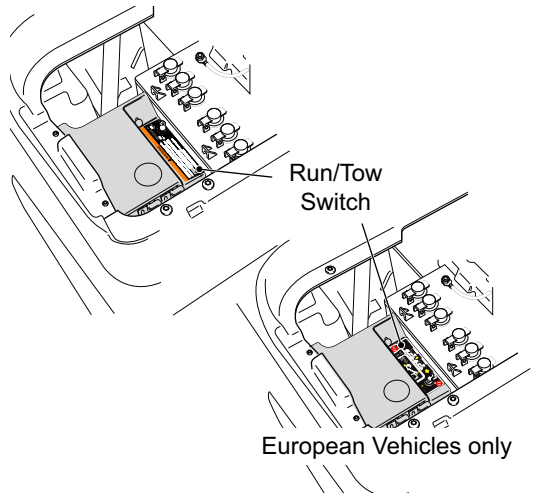



Figure 3 Run/Tow Switch

# OPERATING PROCEDURES

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

- the reverse warning beeper is deactivated

With the switch in RUN/STORAGE or  (on European Models) position:

- the electronic parking brake and the reverse warning beeper features are activated.

## Rear Seat and Cargo Platform Operation (if equipped)

### CAUTION

*To prevent damage to the rear seat, move any accessories that are installed on the hand rail, when you fold the seat.*

Fold the seat to the flat position to access the cargo platform.

### WARNING

*Secure the loads on the platform to prevent movement.*

*Put the load on the platform as far forward as possible.*

*The center of gravity of the load must be less than 4 inches (10 cm) above the platform.*

*Do not put more than the specified capacity on the platform.*

*Increased loads can change drive properties of the vehicle.*

*Do not allow passengers to ride on the cargo platform.*

When you put cargo on the platform, make sure you follow the information below to decrease the risk of injury, damage to the vehicle or cause the vehicle to tilt.

- Put the load on the platform as far forward as possible.
- Secure the loads on the platform to prevent movement.
- The center of gravity of the load must be less than 4 inches (10 cm) above the platform.
- The load capacity of the cargo platform is a maximum of 250 lbs. (115 kg). Do not put more than the specified capacity on the platform.

Increased loads can change the drive properties of the vehicle.

## Regenerative Braking

### WARNING

*To prevent the possibility of loss of control that could cause severe injury or death, use brake to reduce speed.*

This vehicle is equipped with a regenerative motor control system.

Example: If both of the following events occur:

- a. The vehicle is being driven down a slope.
- b. The driver attempts to exceed the specified top speed with the accelerator pedal pressed **or** released

The regenerative braking will limit the speed of the vehicle to the specified top speed. When the regenerative braking system is activated by this sequence of events, the motor generates power that is returned to the batteries.

When the vehicle speed is reduced below the maximum by using the brake, the speed will not increase unless the throttle is increased. When the brake pedal is released the vehicle will slow down as it does with pedal up braking.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## Pedal-Up Braking

Pedal-up braking is regenerative braking that occurs when the accelerator pedal is released while the vehicle is moving.

Example: If both of the following events occur:

- a. The vehicle is being driven down a slope
- b. The accelerator pedal is released

The pedal-up braking will slow the vehicle until the vehicle stops, or the accelerator is applied. When pedal-up braking system is activated by this sequence of events, the motor generates power that is returned to the batteries.

## High Pedal Disable Feature

High pedal disable prevents acceleration if the key is turned on while the accelerator or brake are pressed. To reset the controller after a High Pedal Disable, place both feet on the floor, turn the key to the OFF position. With both feet on the floor turn the key to the desired direction and press the accelerator.

## STARTING AND DRIVING

All vehicles have an interlock system that disables the controller and prevents operation or tow of the vehicle while the charger is connected. Remove the charger plug from the receptacle and correctly store the cable before you move the vehicle.

To operate the vehicle:

- Put the key in the key switch and turn to the desired position.
- Slowly press the accelerator pedal to start the motor.
- When the accelerator pedal is released, the motor decreases the speed of the vehicle. To stop the vehicle quickly, press the brake pedal.

### NOTICE

*When the direction selector is in the reverse position, a warning signal will sound to indicate that the vehicle is ready to run in reverse.*

## Starting Vehicle On A Hill

The parking brake will activate automatically when the vehicle stops. To start the vehicle on a hill press the accelerator pedal and the parking brake will be released.

## Coasting

Uncontrolled coasting does not occur with this model. However, this is not a substitute for the brake which must be used to quickly decrease the speed of the vehicle.

## LABELS AND PICTOGRAMS

Vehicles may be labeled with pictograms as a method of conveying information or warnings. The Vehicle Label Identification Section of this manual explains the labels that are used on this vehicle.

# OPERATING PROCEDURES

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## SUN TOP AND WINDSHIELD (IF EQUIPPED)



*The sun top does not provide protection from roll-over or falling objects.*

*The windshield does not provide protection from tree limbs or flying objects.*

The sun top and windshield provide some protection from the elements; however, they will not keep the operator and passenger dry in heavy rain. This vehicle is not equipped with seat belts and the sun top has not been designed to provide roll-over protection. In addition, the sun top does not protect against falling objects nor does the windshield protect against flying objects and tree limbs. Keep arms and legs inside whenever the vehicle is in motion.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## MAINTENANCE

### VEHICLE CLEANING AND CARE

#### **WARNING**

*To decrease the risk of severe injury read and understand all instructions supplied by the manufacturer of the pressure washer before use.*

#### **CAUTION**

***When you clean the outside of the vehicle with a pressure washer, do not use more than 700-psi pressure. Keep a minimum distance of 12 inches from the spray nozzle to the painted surface. Do not clean the plastic parts with abrasive solvents.***

Make sure you use correct methods and cleaning materials to prevent risk of damage to the outside of the vehicle. The use of more than 700-psi water pressure can cause injury to anyone in the area or damage to vehicle.

Clean the windshield with water and a clean cloth. Remove small scratches with a plastic polish or Plexus® plastic cleaner, available from the service parts department.

Apply a soap and water solution with a sponge or soft brush to clean the vinyl seats and plastic or rubber trim. Dry with a cloth.

Use a commercially available vinyl and rubber cleaner to remove oil, tar, asphalt, shoe polish, etc.

Wash the vehicle frequently with cool water and mild detergent to protect the painted surfaces.

Apply wax that is for clear coat automotive finishes to improve the appearance and protection of the painted surfaces. Do not apply wax to matte finish surfaces.

Occasional cleaning and waxing with non-abrasive products designed for clear coat automotive finishes will enhance the appearance and durability of the painted surfaces.

Materials used as fertilizers or for dust control can collect on the bottom of the vehicle. These materials will cause corrosion of components, unless cleaned with water. Clean areas where mud or dirt can collect. Loosen the sediment that is packed in closed areas to help with removal. Be careful not to damage the paint.

### ENVIRONMENTAL CONCERNS

#### **WARNING**

***As a responsible user, practice respect for all wildlife and their habitat. Respect private property and comply with all local laws and regulations governing the use of light duty utility vehicles.***

*Always be respectful of the environment.*

*Make sure you are permitted by property owners to operate the vehicle on their property.*

*There is a risk of fire when the vehicle is operated near combustible material.*

*Be careful of environmental hazards like steep slopes, tree branches, etc.*

# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

## Battery Disposal

Return used batteries to the manufacturer or lead smelter for recycling purposes. For neutralized spills, put residue in acid-resistant containers with absorbent material, sand or earth and discard according to state and federal regulations for acid and lead compounds. Contact authorized environmental people for information about disposal.

## LIFTING THE VEHICLE

You must lift the front, the rear or the entire vehicle for some service and maintenance operations.

### **WARNING**

*The vehicle is not stable during the lifting process.*

*Make sure the vehicle is on a hard and level surface.*

*Never get below a vehicle that is supported by a jack only.*

*Make sure a vehicle that is supported on jack stands is stable before you get below the vehicle.*

*Put wheel chocks in front and behind the wheels that remain on the ground.*

*Do not allow any person in or on the vehicle being lifted.*

### **CAUTION**

***When you lift the vehicle, put the jacks and jack stands at the areas indicated only.***

Tool List	Quantity	Tool List	Quantity
Floor Jack.....	1	Jack Stands.....	4
Wheel Chocks .....	4		

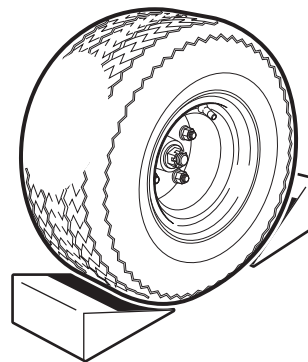
Remove payload from vehicle before lifting. No person(s) should be in or on the vehicle while lifting.

### **How to lift the entire vehicle:**

1. Install wheel chocks in front and behind each front wheel.
2. Center the jack under the bagwell.
3. Lift the vehicle enough to place two jack stands under the frame where the leaf spring mounting brackets are welded to the frame.
4. Lower the jack and test the stability of the vehicle on the two jack stands.
5. Place the jack under the center front just behind the bumper.
6. Lift the vehicle and place two jack stands under the frame where the instrument panel support is attached to the frame.
7. Lower the jack and test the stability of the vehicle on the jack stands.

### **How to lift the rear of the vehicle only:**

1. Install wheel chocks in front and behind each rear wheel.
2. Center the jack under the bagwell.
3. Lift the vehicle enough to place two jack stands under the frame where the leaf spring mounting brackets are welded to the frame.
4. Lower the jack and test the stability of the vehicle on the jack stands.



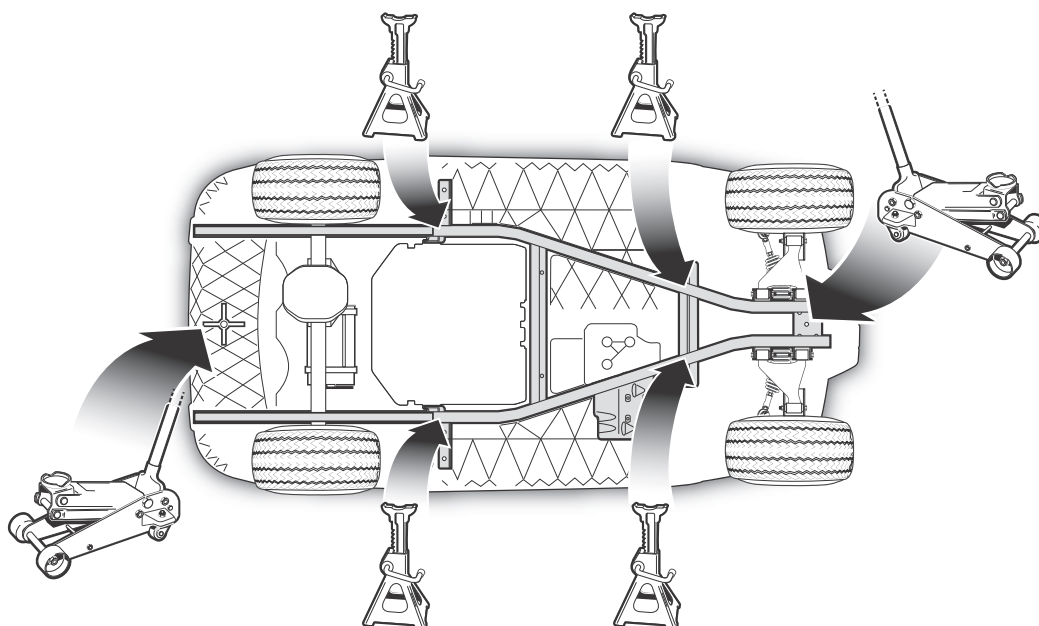
*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## How to lift the front of the vehicle only:

1. Install wheel chocks in front and behind each front wheel.
2. Place the jack under the center front just behind the bumper.
3. Lift the vehicle and place two jack stands under the frame where the instrument panel support is attached to the frame.
4. Lower the jack and test the stability of the vehicle on the jack stands.

## Lower the vehicle:

1. Lift the vehicle enough to remove the jack stands.
2. Carefully lower the vehicle to the ground with the jack.



## WHEELS AND TIRES

Recommended tire inflation pressure: 18-22 psi

### **WARNING**

*To decrease the risk of tire explosion, add small amounts of air to the tire at intervals to seat the tire beads. Over inflation of small tires can occur in a few seconds.*

*Do not over inflate the tires. Excess pressure can cause the tire to separate from the wheel or explode.*

*Protect face and eyes when removing a tire valve core.*

*Use only sockets made for use with impact wrenches to decrease the risk of injury caused by a broken socket.*

*Do not use tires that have a recommended tire inflation pressure less than the tire pressure recommended.*



# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

## Tire Repair

Tool List	Quantity	Tool List	Quantity
Lug Wrench, 3/4" .....	1	Impact Socket, 3/4" .....	1
Impact Wrench .....	1	Torque Wrench, ft. lbs. ....	1

Use caution when you inflate the tires. Because of the low volume of the small tires, over inflation can occur in seconds. Over inflation can cause the tire to separate from the wheel or cause a tire explosion.

The general recommended tire inflation pressure is 18-22 psi, but know that tire inflation pressure can change according to the condition of the terrain.

For outdoor applications with primary use on areas with grass, consider the following:

- Slightly higher tire inflation pressure is suitable on hard turf
- A lower pressure decreases the risk of tires cutting into a soft turf

For hard surfaces or pavement, tire inflation pressure must be in the higher allowed range, but not more than recommended on the tire sidewall.

**All four tires** must have the same pressure for best control qualities. Always install the valve stem cap after you check or inflate the tires.

The vehicle has low-pressure tubeless tires, installed on one-piece rims.

Use a tire plug to repair small holes in the tread part of the tire. For large holes and cuts, replace the tire.

## NOTICE

*Tire plug tools and plugs are available at automotive outlets. The tires do not have to be removed from the wheel to install the tire plugs.*

If the tire is flat, remove the wheel and inflate the tire to the recommended maximum pressure for the tire. Submerge the tire in water to find the leak and mark with chalk. Install the tire plug according to manufacturers instructions.

## Wheel Installation

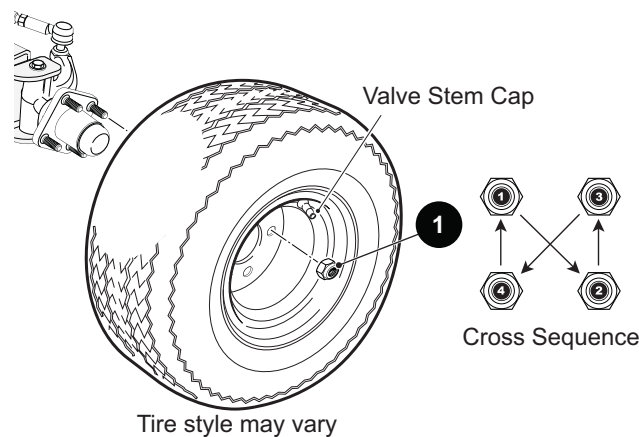
### CAUTION

**To decrease the risk of component damage, do not tighten lug nuts to more than 85 ft. lbs. (115 Nm) torque.**

### NOTICE

*Always follow the cross-sequence pattern when you install the lug nuts to make sure the wheel is evenly seated against the hub.*

- With the valve stem to the outside of the wheel, install the wheel on the hub with lug nuts.
- Tighten the lug nuts (1) with your fingers in the cross-sequence pattern shown.
- Tighten the lug nuts to 50 to 85 ft. lbs. (70 to 115 Nm) torque in 20 ft. lbs. (27 Nm) increments.
- Continue to follow the cross-sequence pattern until the correct torque is reached.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## LIGHT BULB REPLACEMENT

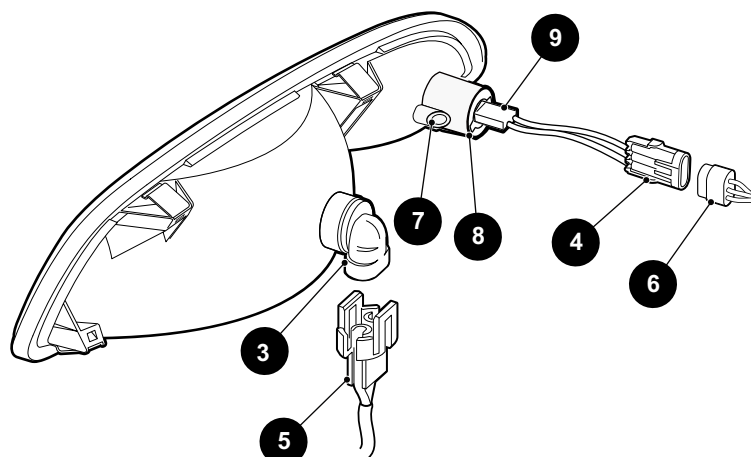


**To decrease the risk of premature bulb failure, do not allow your fingers to contact new bulbs. Use clean, dry paper or paper towels to touch the glass part of the bulb.**

### Headlight (if equipped)

Make sure that the vehicle key switch is in the OFF position and the key has been removed. For vehicles equipped with lights mounted in the cowl locate the headlight bulb socket on the backside of the light assembly.

- Disconnect the accessory harness (5) from the light bulb (Figure 1).
- Turn the headlight bulb (3) clockwise and pull to remove.
- Align the bulb with the opening in the back of the headlight assembly.
- Turn the bulb (3) counter clockwise until it stops.
- Connect the accessory harness (5) to the light bulb (3).



**Figure 1** Headlight and Turn signal bulb replacement

### Turn Signal (if equipped)

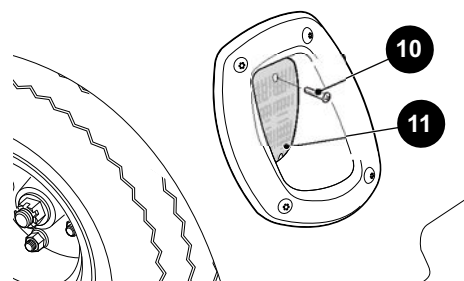
Make sure that the vehicle key switch is in the OFF position and the key has been removed.

- Remove the phillips head screw (7) and turn the retaining collar (8) to align with the turn signal bulb housing (9) (Figure 1).
- Grip the turn signal bulb housing (9) and pull backward to remove housing from the headlight assembly.
- Remove the bulb from the housing and replace with a new one.
- Push turn signal housing (9) into headlight assembly firmly, making sure that it is seated completely.
- Turn the retaining collar (8) to secure the bulb housing and install the phillips head screw (7) to secure in place.

### Taillight/brake (if equipped)

Make sure that the vehicle key switch is in the OFF position and the key has been removed.

- Remove the two phillips head screws (10) that secure the lens (11) to the taillight assembly.
- Remove the light bulb.
- Install the new light bulb.
- Install the lens (11) and secure in place with the two phillips head screws. (10)



Replacement bulbs are available from a local Distributor, an authorized Branch or the Service Parts Department.

# MAINTENANCE

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## TRANSPORTING VEHICLE

### Towing

#### **WARNING**

*Use extra caution when towing a vehicle.*

*DO NOT ride on the vehicle being towed.*

*DO NOT try to tow the vehicle with ropes, chains or any device other than tow bar approved by the factory.*

*DO NOT tow the vehicle on highways.*


*DO NOT tow a single vehicle at speeds in excess of 12 mph (19 kph).*

*DO NOT exceed 5 mph (8 kph) while towing multiple vehicles.*

*DO NOT tow more than three vehicles at a time.*

Before the vehicle, put the run/tow switch in the TOW position.

#### **CAUTION**




***Place key switch in N and the Run/Tow switch in the TOW or  (on European Models) position prior to towing the vehicle to prevent damage to the electric motor and controller.***

***Do not tow a single vehicle at speeds in excess of 12 mph (19 kph). Do not tow more than three vehicles at a time. Do not exceed 5 mph (8 kph) while towing multiple vehicles. Towing the vehicle above the recommended speed may result in severe injury and/or damage to the vehicle and other property.***


***Tow bars are not intended for road use.***


#### **NOTICE**

*If a vehicle is towed in excess of 15 mph the motor brake will engage and slow the vehicle down.*

This vehicle is equipped with a Run/Tow switch located underneath the seat on the passenger side. The TOW or  (on European Models) position, with the key switch in the N position, allows the vehicle to roll freely without activating the warning beeper and eliminating potential damage to controller or motor. Check to see that vehicles to be towed are switched to the TOW or  (on European Models) position and the key is turned to the neutral (N) position. Always return the switch to the RUN/STORAGE or  (on European Models) position after moving the vehicle and make sure that the key switch is turned to OFF and the key removed.

Never use ropes or chains to tow vehicle(s). Tow bars are available from the E-Z-GO Service Parts Department.

Tow bars are not intended for highway use. Before towing, place the direction selector in neutral (N) and make sure that the Run/Tow switch in TOW or  (on European Models). Do not ride on a vehicle being towed. Tow bars are designed to tow only one vehicle at a maximum speed of 12 mph (19 kph) and up to three vehicles at a maximum speed of 5 mph (8 kph).

In the event that there is no power through the controller to release the parking brake with the vehicle in the TOW or  (on European Models) mode, the vehicle can still be moved by using the procedure described under PARKING BRAKE.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## Hauling

### **WARNING**

*Make sure you secure the vehicle and all items before you transport a vehicle on a trailer.*

*Do not allow any people on a vehicle being transported on a trailer.*

*Remove the windshield before you transport a vehicle on a trailer.*

*Maximum speed with sun top installed is 50 mph (80 kph).*

If you transport the vehicle on a trailer at highway speeds, the sun top must be removed and the seat bottom secured.

When you transport the vehicle on a trailer below highway speeds, check for tight hardware and cracks in sun top at the mounting points.

The rated capacity of the trailer or truck must be more than the weight of the vehicle and load plus 1000 lbs. (454 kg).

See GENERAL SPECIFICATIONS for the weight of the vehicle.

Secure the vehicle to the trailer with ratchet tie downs.

## SERVICE AND MAINTENANCE

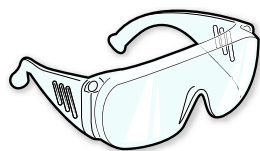
### **WARNING**

*Read all notices, cautions and warnings in this manual before you do any type of service operations.*

*The drive wheels must be lifted and supported on jack stands before you do any service to the powertrain when the motor is in operation.*

*To decrease the risk of motor damage, do not operate the vehicle at full throttle for more than 5 seconds with the drive wheels lifted off the ground.*

*Disconnect the negative battery cable before you service the vehicle to prevent accidental operation.*



*Wear eye protection when you service the vehicle. Be careful when you do work around batteries, use solvents or compressed air.*

*To decrease the risk of electrical arc, which can cause a battery explosion, disable all electrical loads from the battery before you remove the battery wires.*

*Use wrenches with insulation to decrease the risk of a short-circuit if a wrench falls across the battery terminals. A battery short-circuit can cause an explosion.*

*The electrolyte in a battery is an acid solution which can cause burns to the skin and eyes. Completely clean all electrolyte spills that contact the body and eyes with clear water. Contact a physician immediately.*

*Neutralize electrolyte spills with a solution of 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed in 1 quart (1 liter) of water. Clean with water.*

*Be careful when you use the aerosol containers near battery terminals. Use a metal container that has insulation to prevent an explosion.*

# MAINTENANCE

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

The vehicle owner and service technician must carefully follow the procedures recommended in this manual. The preventative maintenance, applied at recommended intervals, keeps the vehicle dependable and decreases costs for repairs. Refer to the Periodic Service Schedule for service and intervals. Refer to Lubrication Points for correct lubrication locations.



## CAUTION

***To decrease the risk of damage to the controller or motor, make sure the run/tow switch to is set to the TOW position before you tow the vehicle.***

***Before you disconnect or connect a battery or any other wires, make sure the run/tow switch to is set to the RUN position.***

***After you connect a battery or any other wires, wait a minimum of 30 seconds before you move the key switch to the ON position.***

## ROUTINE MAINTENANCE



## CAUTION

***To increase the life of a vehicle that is used in rough conditions, some maintenance must be done more often than recommended in the Periodic Service Schedule. For example: high or low temperatures, high dust and dirt conditions, high use with maximum load.***

To access the powertrain for normal maintenance, lift or remove the seat and remove the rear access panel. For major repairs, refer to the applicable Technician's Repair and Service Manual.

Some service procedures make it necessary to lift the vehicle. Refer to LIFTING THE VEHICLE for correct lift procedure and safety information.

## TIRE INSPECTION

Inspect the tire condition according to the Periodic Service Schedule. Tire inflation pressures must be checked when the tires are cool. Always install the valve dust cap after you check or inflate the tires.

## BRAKES



## WARNING

***Always inspect the pedal travel before you operate a vehicle to confirm some brake function is found.***

***Make sure you do all brake tests in a safe location with regard to the safety of all personnel.***

## NOTICE

***A subtle loss of performance can occur over time; therefore, it is important to establish the standard with a new vehicle.***

The Periodic Brake Performance Test should be performed regularly as an evaluation of braking system performance. It is useful as a method of identifying subtle loss of performance over time.

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

## REAR AXLE

The only maintenance necessary for the first five years is the inspection of the rear axle for lubricant leakage. Unless leakage is visible, the lubricant needs to be replaced after five years. Refer to the Service and Repair Manual for the fluid replacement procedure.

### Checking the Lubricant Level

Clean the area around the check/fill plug and remove the plug. The correct lubricant level is just below the bottom of the threaded hole. If lubricant is low, add lubricant as required. Add lubricant (0 WT engine oil) slowly until lubricant starts to seep from the hole. Install the check/fill plug. In the event that the lubricant is to be replaced, the oil pan must be removed or the oil siphoned through the check/fill hole.

## CAPACITIES AND REPLACEMENT PARTS

Fluid	Part Number	Qty.
Rear Axle Lubricant Mobile 424	603967	25 oz. (651 ml)
Friction Modifier E-Z-GO	611242	2 oz. (59 ml)

**Figure 2 Capacities**

Item	Part Number
Fuse	ATC 10A (E-Z-GO P/N 35212G07)
Headlight Bulb	894 (E-Z-GO P/N 74004G01)
Turn Signal Bulb	912-NA (E-Z-GO P/N 74005G01)
Taillight Bulb	2057 (E-Z-GO P/N 604311)

**Figure 3 Replacement Parts**







## HARDWARE

Normally, three classes of standard hardware and three classes of metric hardware are used in the vehicle. Grade 5 hardware is identified by the three marks on the hexagonal head; grade 8 hardware is identified by six marks on the head; grade 2 hardware is not marked. The class specification is marked on metric hardware.

Inspect the vehicle for loose fasteners periodically. The fasteners must be tightened carefully and according to the Torque Specifications table or as specified in the Repair and Service Manual.

# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

ALL TORQUE FIGURES ARE IN FT. LBS. (Nm) Unless otherwise noted in text, tighten all hardware in accordance with this chart. This chart specifies 'lubricated' torque figures. Fasteners that are plated or lubricated when installed are considered 'wet' and require approximately 80% of the torque required for 'dry' fasteners.										
BOLT SIZE	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"
Grade 2 	4 (5)	8 (11)	15 (20)	24 (33)	35 (47)	55 (75)	75 (102)	130 (176)	125 (169)	190 (258)
Grade 5 	6 (8)	13 (18)	23 (31)	35 (47)	55 (75)	80 (108)	110 (149)	200 (271)	320 (434)	480 (651)
Grade 8 	6 (8)	18 (24)	35 (47)	55 (75)	80 (108)	110 (149)	170 (230)	280 (380)	460 (624)	680 (922)
BOLT SIZE	M4	M5	M6	M8	M10	M12	M14			
Class 5.8 (Grade 2) 	1 (2)	2 (3)	4 (6)	10 (14)	20 (27)	35 (47)	55 (76.4)			
Class 8.8 (Grade 5) 	2 (3)	4 (6)	7 (10)	18 (24)	35 (47)	61 (83)	97 (131)			
Class 10.9 (Grade 8) 	3 (4)	6 (8)	10 (14)	25 (34)	49 (66)	86 (117)	136 (184)			

**Figure 4 Torque Specifications and Bolt Grades**

## BATTERY CHARGING AND MAINTENANCE

### Safety

Always obey the following warnings when working on or near batteries.



*To prevent the risk of battery explosion, keep all flammable materials, open flames or sparks away from the batteries.*

*Hydrogen gas is made as batteries are charged. Do not charge batteries without good ventilation. A 4% concentration of hydrogen gas is explosive.*

*Make sure that the key switch is in the OFF position and all electrical accessories are off before you start to work on the vehicle.*

*Turn off all accessories before disconnecting from the battery terminal.*



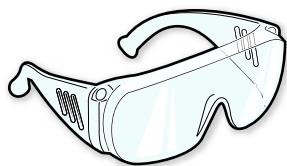
*Use safe procedures to move the batteries. Always lift the battery with a commercially available battery lifting device.*

*Do not tilt the batteries during removal or installation. An electrolyte spill can cause burns and damage.*

*The electrolyte in a storage battery is an acid solution which can cause burns to the skin and eyes. Treat all electrolyte spills to the body and eyes with extended flushing with clear water. Contact a physician immediately.*



Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.



*Always wear a safety shield or approved safety goggles when you add water or charge the batteries.*

*Neutralize electrolyte spills with a solution of 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed in 1 quart (1 liter) of water. Clean with water.*

*If you fill the batteries with electrolyte above the maximum level, you can cause an electrolyte spill during the charge cycle. An electrolyte spill can cause damage to the vehicle and storage facility.*

*Be careful when you use aerosol containers near the battery terminals. Use a container with insulation to prevent an explosion.*

*Use wrenches with insulation to decrease the risk of a short-circuit if a wrench falls across the battery terminals. A battery short-circuit can cause an explosion.*

## Battery Disposal

Lead-acid batteries are recyclable. Return used batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, put residue in acid-resistant containers with absorbent material, sand or earth and discard according to state and federal regulations for acid and lead compounds. Contact state environmental officials for disposal information.

## Battery

A battery is described as two dissimilar metals immersed in an acid. If the acid is absent or if the metals are not dissimilar, a battery has not been created. The batteries in this vehicle are lead acid.

A battery does not store electricity, but it can produce electricity as the result of a chemical reaction which releases stored chemical energy in the form of electrical energy. The chemical reaction occurs faster in warm conditions and slower in cold conditions. Temperature is important when conducting tests on a battery and test results must be corrected to adjust for temperature differences.

An older battery can perform adequately except that its capacity is decreased. Capacity describes the time that a battery can continue to supply its design amperes from a full charge.

A battery has a maximum life. Good maintenance maximizes the available life and decreases the conditions that can decrease the life of the battery.

## Battery Maintenance

Tool List	Quantity	Tool List	Quantity
Insulated Wrench, 9/16" .....	1	Battery Carrier .....	1
Hydrometer .....	1	Battery Maintenance Kit P/N 25587G01 .....	1
Battery Protective Spray .....	1	Socket, 9/16" .....	1
Torque Wrench .....	1		

## At Each Charging Cycle

- Before you charge the batteries, inspect the plug of the battery charger and vehicle receptacle housing for dirt or other particles.
- Charge the batteries after each use.

## Monthly

- Inspect all wires for wear, loose connections, corrosion or damage of insulation.
- Make sure that the electrolyte level is correct and add clean water as required.
- Clean the batteries and wire connections.
- Apply battery protectant to the battery terminals.

# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

## Electrolyte Level and Water

The correct level of the electrolyte is 1/2" (13 mm) above the plates in each cell.

This level will leave approximately 1/4" - 3/8" (6 - 10 mm) of space between the electrolyte and the vent tube.

The electrolyte level is important because any part of the plates open to air will be damaged.

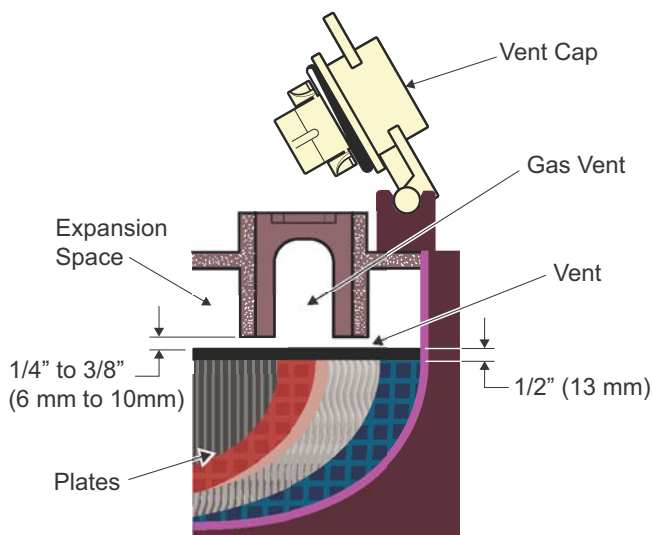
Do not overfill with water. Too much water pushes the electrolyte from the battery by release of gas and a decrease in volume of the electrolyte.



## CAUTION

**DO NOT overfill batteries. The charge cycle will expel electrolyte and cause component damage.**

A battery being charged will gas with most gassing occurring at the end of the charging cycle. This gas is hydrogen which is lighter than air. Water and sulphuric acid droplets will be carried out of the battery vents by the hydrogen gas, however, this loss is minimum. If the electrolyte level is high, the electrolyte will block the vent tube and the gas will push it out the vent tube and battery cap. The water will dry but the sulphuric acid will stay and damage the vehicle components and the storage facility floor. Sulphuric acid loss will weaken the amount of acid within the electrolyte and decrease the life of the battery.



Electrolyte level should be at least 1/2" (13mm) above the plates and 1/4" to 3/8" (6 to 10 mm) below vent  
Correct Electrolyte Level

Over the life of the battery, a large amount of water is used. The water used must be clean and without contamination. Water that is not clean decreases the life of the battery by reducing the chemical reaction. Use distilled water or filtered water only. Test water that is not distilled water and filter if needed. Refer to the water purity table for requirements.

Impurity	Parts Per Million
Color	Clear
Suspended	Trace
Total Solids	100
Calcium and Magnesium Oxides	40
Iron	5
Ammonia	8
Organic and Volatile Matter	50
Nitrites	5
Nitrates	10
Chloride	5

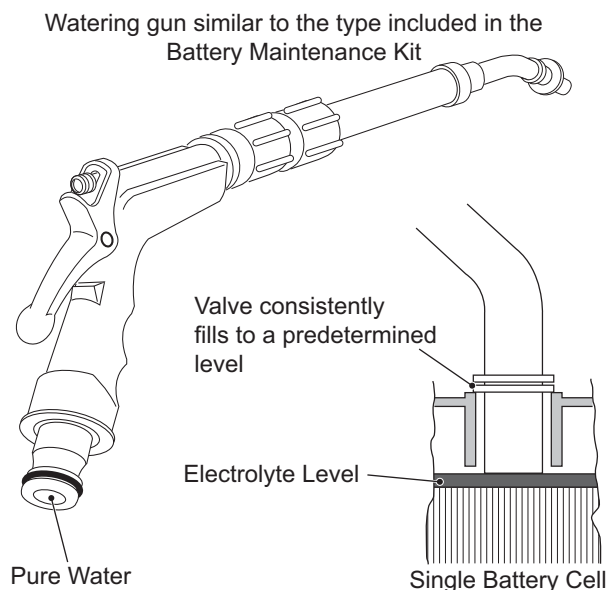
Water Purity Table

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

Hand held watering devices available at an automotive parts store, or automatic watering devices like the one included in the E-Z-GO Battery Maintenance Kit (P/N 25587G01) can be used with an approved water supply. These watering devices are accurate, easy to use and allow for fast fill. They also keep the correct electrolyte level within the battery cells.

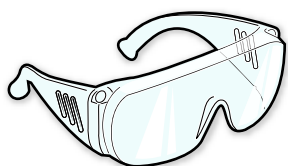
## NOTICE

*The watering device must only be used if the electrolyte level is less than 1/2" (13 mm) above top of plates.*



## WARNING

*The electrolyte in a battery is an acid solution which can cause severe burns to the skin and eyes. Clean all electrolyte spills to the body and eyes with clear water. Contact a physician immediately.*



*To clean an electrolyte spill, use a solution of 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed with 1 quart (1 liter) of water.*

*Always wear a safety shield or approved safety goggles when you add water or charge the batteries.*

## Battery Cleaning

## CAUTION

***To prevent battery damage, make sure you correctly install all battery caps.***

***To decrease the risk of damage to vehicle or floor, neutralize acid before you spray the battery with water.***

***To decrease the risk of damage to the electrical components while cleaning, do not use a pressure washer.***

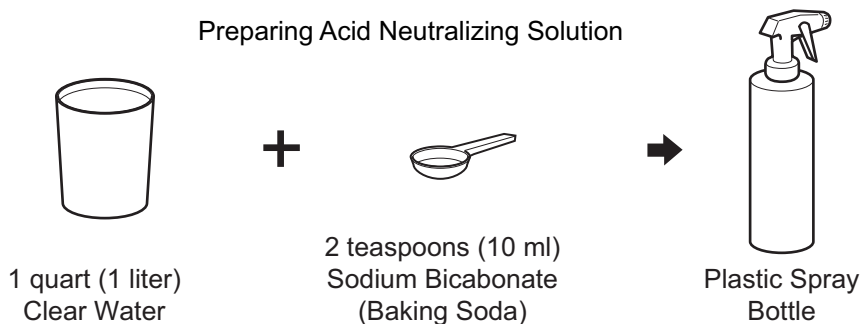
Clean the batteries according to the Periodic Service Schedule.

When you clean the battery cases and terminals, do not use a water hose without neutralizing any acid deposits first. The water hose moves the acid from the top of the batteries to another area of the vehicle or storage facility, where it can cause damage. After spraying the batteries, a conductive residue remains on the batteries and contribute to the discharge of the batteries.

# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

## Preparing Acid Neutralizing Solution



The correct cleaning method is to spray the top and sides of the batteries with a solution of baking soda and water. Apply this solution with a plastic spray bottle. The solution is 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed with 1 quart (1 liter) of water. Spray the solution on all metal components near the batteries also.

Allow the solution to set a minimum of three minutes. Use a soft bristle brush or cloth to clean the top of each battery to remove residue that can cause the discharge of the battery. Clean the area with low pressure clear water.

## **WARNING**

*Be careful when you use aerosol containers near the battery terminals. Use a container with insulation to prevent an explosion.*

Clean one time a month or more often in harsh conditions. After the batteries are clean and dry, apply a commercially available protectant to the terminals.

## Battery Removal and Installation

Tool List	Quantity	Tool List	Quantity
Insulated Wrench, 9/16" .....	1	Socket, 1/2" Deep-well .....	1
Socket, 9/16" .....	1	Ratchet.....	1
Battery Carrier Strap .....	1	Torque Wrench, in. lbs. ....	1
Portable Lifting Device .....	1	Torx Bit, 50IP .....	1

## **WARNING**



*The batteries are heavy. Use correct lifting methods when you move them. Always lift the battery with a commercially available battery lifting device. Be careful not to tilt batteries when you remove or installing them; spilled electrolyte can cause burns and damage.*

## **NOTICE**

*Hardware that is removed must be installed in its original position unless otherwise specified. If torque values are not specified, refer to the Torque Specifications table.*

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

1. Turn key switch to the OFF position and remove the key.
2. Disconnect the main negative (-) battery cable (BL-).
3. Disconnect the main positive (+) battery cable (BL+).
4. Disconnect and remove all other wires connected to the batteries.
5. **4 - 12V Battery System:** Remove two pan head torx screws (7), (one on each side) from the battery strap (9) (Figure 7).

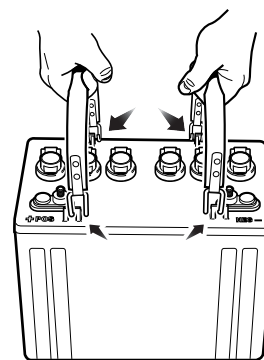
**6 - 8V Battery System:** Remove two hex nuts (13) securing battery retainer (14) until they are at the end of the J-bolt (15), unhook the J-bolts from the battery tray (16). When removing the J-bolts (15) from and between the batteries, it can help to tilt the battery to the outside to release the pressure on J-bolt (15).

6. **4 - 12V Battery System:** Remove the battery hold down (8) and the battery strap (9) by loosening all three hex nuts (10), flat washers (20) until they are at the end of the J-bolt (11) and unhook the J-bolts from the battery tray (12). When you remove the J-bolts (11) from and between the batteries it can help to tilt the battery to the outside to release the pressure on the J-bolt (Figure 7).

**6 - 8V Battery System:** Remove two screws (18), washers (21 and 22) and nuts (19) securing battery hold down (17) and keep it for later installation.

7. **4 - 12V Battery System:** Remove the batteries using commercially available battery carrier straps (2 per battery) and a portable lifting device (Figure 5). Remove the three front batteries (1, 2 and 3) one at a time; then using the carrier straps tilt the last battery (4) to the front of the vehicle just enough to clear the rear body and using the portable lifting device lift the battery up and out of the vehicle (Figure 6).

**6 - 8V Battery System:** Remove the batteries using commercially available battery carrier straps (1 per battery) and a portable lifting device. Remove the three front batteries (1, 2 and 3) one at a time; then using the carrier strap tilt the rear batteries (4, 5 and 6) to the front of the vehicle just enough to clear the rear body and lift up and out of the vehicle, one after another.

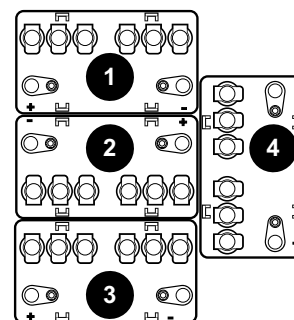


4 - 12V BATTERY

**Figure 5 Battery Removal**

8. Check the area around the battery tray for corrosion. If any corrosion is found, it must be immediately removed with a putty knife and a wire brush (for metal surfaces) or a plastic bristle brush (for plastic surfaces). The area must be washed with a solution of baking soda and water and dried completely. All metal surfaces that has been cleaned must be primed and painted with a corrosion resistant paint.
9. **4 - 12V Battery System:** Replace the batteries, using the portable lifting device, starting with the battery located at the rear end of the battery tray (12), by making sure that it is positioned as shown (Figure 6) (Figure 7).

**6 - 8V Battery System:** Replace the batteries, starting with the battery (6) located at the rear end of the battery tray, by making sure that it is positioned as shown (Figure 6) (Figure 7).



4 - 12V BATTERY SYSTEM

**Figure 6 Battery Placement & Orientation**

# MAINTENANCE

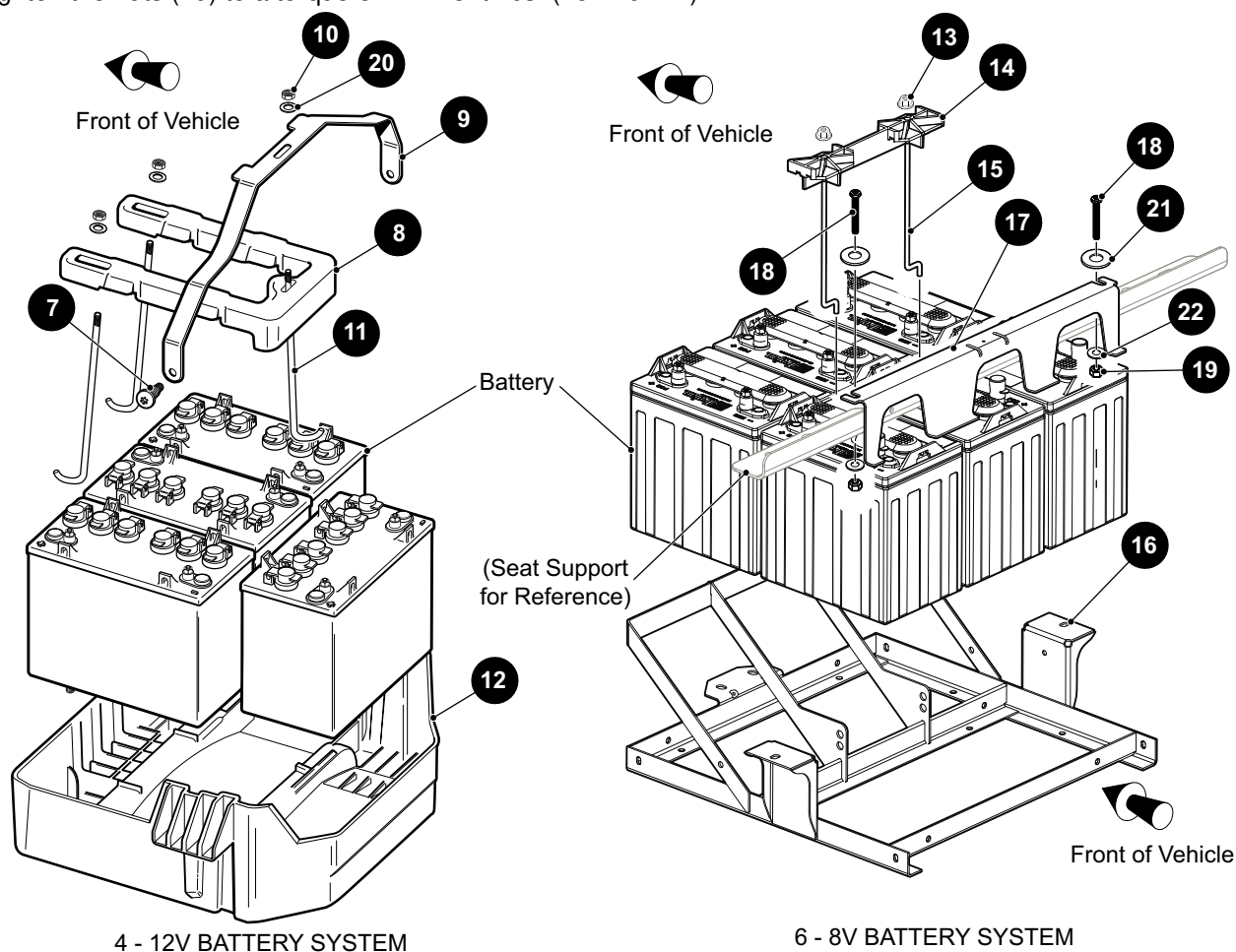
Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers**.

10. **4 - 12V Battery System:** With the J-bolts (11) in the battery hold-down (8) and held in place by the hex nuts (10) on the end of the threaded portion; carefully position the battery hold-down (8) and the battery strap (9) guiding the J-bolts (11) between the batteries (it may be necessary to tip the batteries slightly) and into the slots in the battery tray (12). Finger tighten the hex nuts (10) on the J-bolts (11) by making sure that the J-bolts are securely hooked in the battery tray (12), and then tighten the nuts (10) to a torque of 62 - 80 in. lbs. (7 - 9 Nm).

**6 - 8V Battery System:** With the J-bolts (15) in the battery retainer (17) and held in place by the lock nuts (13) at the end of the threaded portion; carefully position the battery retainer (17), guiding the J-bolts between the batteries (it may be necessary to tip the batteries slightly) and into the slots in the battery tray (16). Finger tighten the hex nuts (13) on the J-bolts (15) by making sure that the J-bolts are securely hooked in the battery tray (16). Tighten the lock nuts (13) to a torque of 44 - 55 in. lbs. (5 - 6.2 Nm).

11. **4 - 12V Battery System:** Install the two screws (7) through the ends of the battery strap (9) into the holes on the vehicle frame and tighten the screws (7) to a torque of 80 - 97 in. lbs. (9 - 11 Nm).

**6 - 8V Battery System:** Install battery hold down (17) using two screw (18), washer (21 and 22) and nuts (19). Tighten the nuts (19) to a torque of 11 - 15 ft. lbs. (15 - 20 Nm).



**Figure 7 Battery Components**

12. Inspect all wires and terminals and clean any corrosion from the battery terminals or wire terminals with a solution of baking soda and water, using a wire brush to completely remove corrosion if required.
13. Carefully reconnect the wires on the battery terminals as shown (Figure 8). Make sure to reconnect the main negative (-) battery cable, BL-, from the controller lastly.
14. Tighten all battery terminal hardware to 98 - 105 in. lbs. (11 - 12 Nm) torque.
15. Protect the battery terminals and battery cable terminals with a commercially available protective coating.



Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

## ⚠ WARNING

Aerosol containers of battery protector spray must be used with extreme care. Insulate the metal container to decrease the risk of container from contacting battery terminals which could result in an explosion.

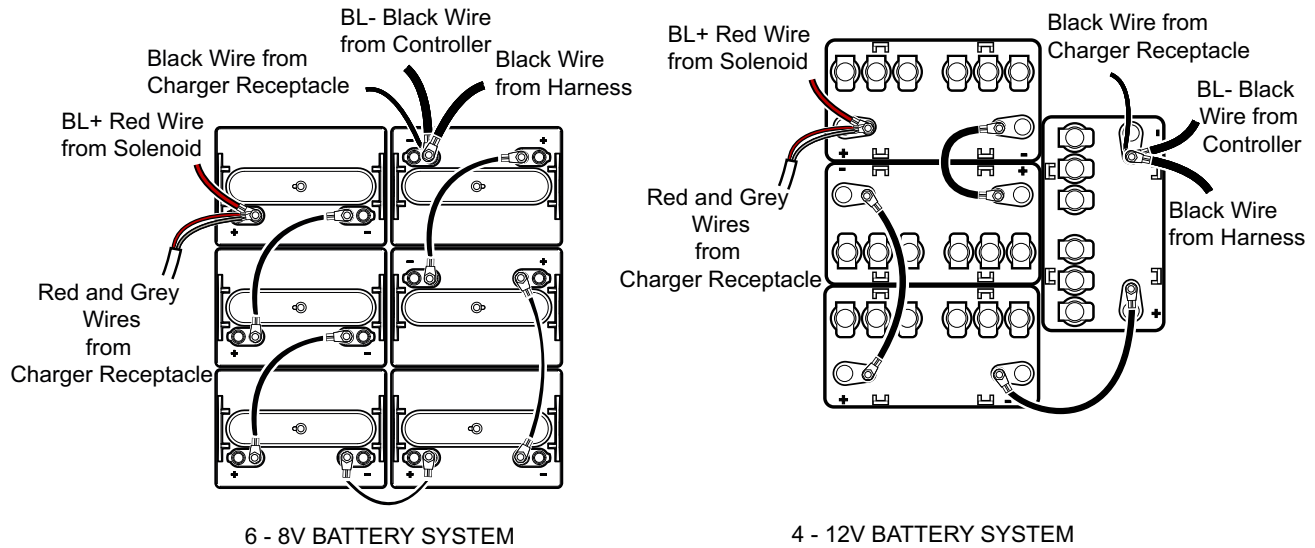


Figure 8 Battery Connections

### Prolonged Storage

## ⚠ CAUTION

**Disconnect the battery charger, controller and other electronic devices for extended storage. All connected electronic components cause the discharge of batteries.**

## NOTICE

*Put the run/tow switch in the RUN position for extended storage of the vehicle to prevent draining of the batteries.*

During storage, the batteries need attention to keep them maintained and prevent discharge. In high temperatures the chemical reaction is faster, while low temperatures cause the chemical reaction to slow. A vehicle that is stored at 90° F (32° C) will lose .002 of specific gravity each day. If a completely charged battery has a specific gravity of 1.275, and the battery is not used, it will become partially discharged.

When it reaches 1.240, which it will do in less than 20 days, it must be charged again. If a battery stays in a discharged state, sulfating occurs on and within the plates. This condition is not reversible and will cause

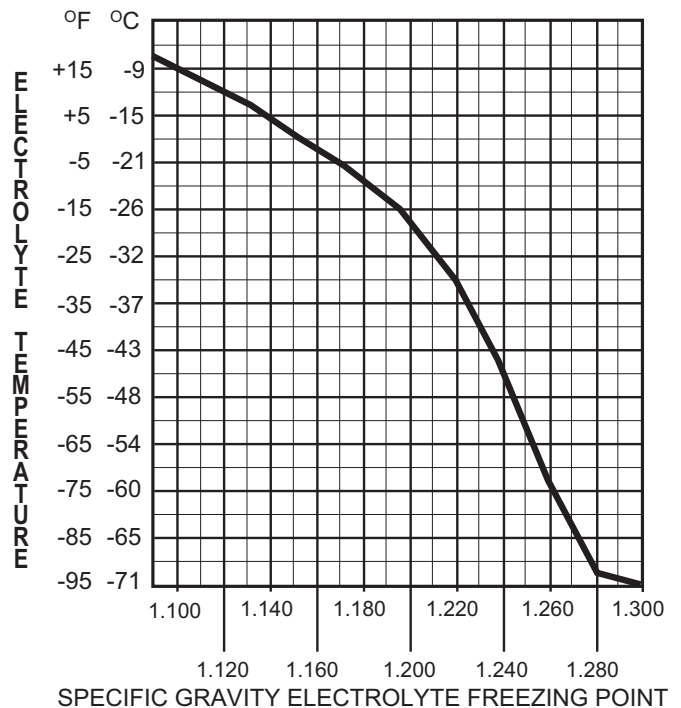


Figure 9 Freezing point of electrolyte



# MAINTENANCE

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

permanent damage to the battery. To prevent damage, the battery must be charged again. Use a hydrometer to find the specific gravity and the state of charge of a battery (Figure 9).

In winter conditions, the battery must be completely charged to prevent the risk of freezing. A completely charged battery will not freeze in temperatures above -75° F (-60° C). Although the chemical reaction is decreased in cold temperatures, the battery must be stored completely charged, and disconnected from circuits that can discharge the battery. The controller must be disconnected from the batteries by disconnecting the battery cables.

For portable chargers, disconnect the charger plug from the vehicle receptacle.

For on-board chargers, disconnect the charging harness from the batteries.

The batteries must be cleaned and all deposits neutralized and removed from the battery case to prevent self discharge. The batteries must be tested or charged again at 0 day minimum intervals.

## Battery Charging

The battery charger is designed to completely charge the battery set. If the batteries are severely deep cycled, some automatic battery chargers contain an electronic module that will not activate and the battery charger will not operate. Automatic chargers determine the correct length of charge to the battery set and turns off when the batteries are charged. Always refer to the instructions of the charger used.



***Do not overfill batteries. The charge cycle will expel electrolyte and cause component damage.***

Before charging, the following must be observed:

- The electrolyte level in all cells must be at the recommended level and above the plates.
- The charging must occur in an area with good ventilation to remove hydrogen gas that is made during the charge cycle. A minimum of five air replacements for each hour is recommended.
- The charger connector components must be in good condition and free from dirt and particles.
- The charger connector must be completely installed in the vehicle receptacle.
- The charger connector and cord set must be protected from damage. The charger connector and cord set must be used in an area where it is not possible for personnel to run over or trip over the cord set.
- The charger automatically turns off during the connect and disconnect cycle so no electrical arc is generated at the DC plug and receptacle contacts.

## AC Voltage

The battery charger output is directly related to the input voltage. If the vehicle receives an incomplete charge in a normally adequate time period, low AC voltage can be the cause. Consult an electrician if necessary.

## Fault Diagnosis

Fault diagnosis is done for two reasons:

- A battery that performs poorly and is outside of the manufacturers specification must be identified to replace it within the terms of the manufacturer's warranty. Different manufacturers have different requirements. Refer the battery manufacturer or the manufacturer's representative for specified requirements.
- Find the reason a vehicle does not perform adequately. Performance problems can cause a vehicle to run slowly or can not operate for the time needed.

A new battery must mature before it develops its maximum capacity. Maturing can take 100 or more charge and discharge cycles. After the maturing phase, the older a battery gets, the lower the capacity. The only method to find the capacity of a battery is a load test with a discharge machine. Refer to the discharge machine manufacturer instructions.

A hydrometer is used to identify a poorly performing battery in a set with a low specific gravity. When the particular cell or cells that are the problem are identified, the battery can be removed and replaced. The battery can not be restored. The individual battery should be replaced with a good battery of the same brand, type and approximate age.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

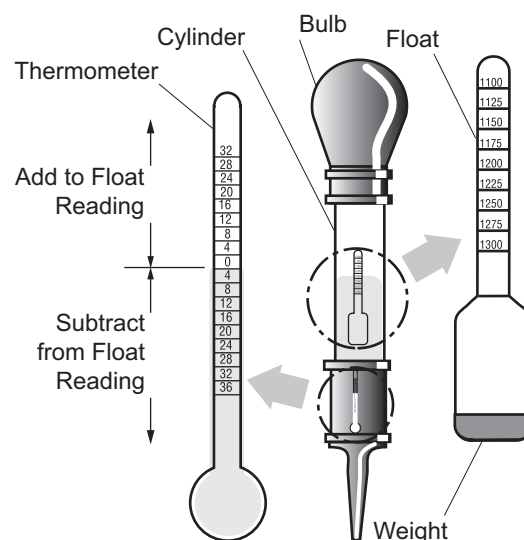
## Hydrometer

A hydrometer is used to test the state of charge of a battery cell. This is performed by measuring the density of the electrolyte, which is accomplished by measuring the specific gravity of the electrolyte. The greater the concentration of sulfuric acid, the more dense the electrolyte becomes. The higher the density, the higher the state of charge.

### WARNING

*To prevent battery explosion, never insert a metal thermometer into a battery. Use a hydrometer with a built in thermometer that is designed for testing batteries.*

Specific gravity is the measurement of a liquid that is compared to a baseline. The baseline is water which is assigned a base number of 1.000. The concentration of sulfuric acid to water in a new golf car battery is 1.280 which means that the electrolyte weighs 1.280 times the weight of the same volume of water. A fully charged battery will test at 1.275 - 1.280 while a discharged battery will read in the 1.140 range.



### NOTICE

*Do not perform a hydrometer test on a battery that has just been watered. The battery must go through at least one charge and discharge cycle in order to permit the water to adequately mix with the electrolyte.*

The temperature of the electrolyte is important since the hydrometer reading must be corrected to 80° F (27° C). High quality hydrometers are equipped with an internal thermometer that will measure the temperature of the electrolyte and will include a conversion scale to correct the float reading. It is important to recognize that the electrolyte temperature is significantly different from the ambient temperature if the vehicle has been operated.

# MAINTENANCE

Read all of **SAFETY** and this section before attempting any procedure. Pay particular attention to **Notices, Cautions, Warnings and Dangers.**

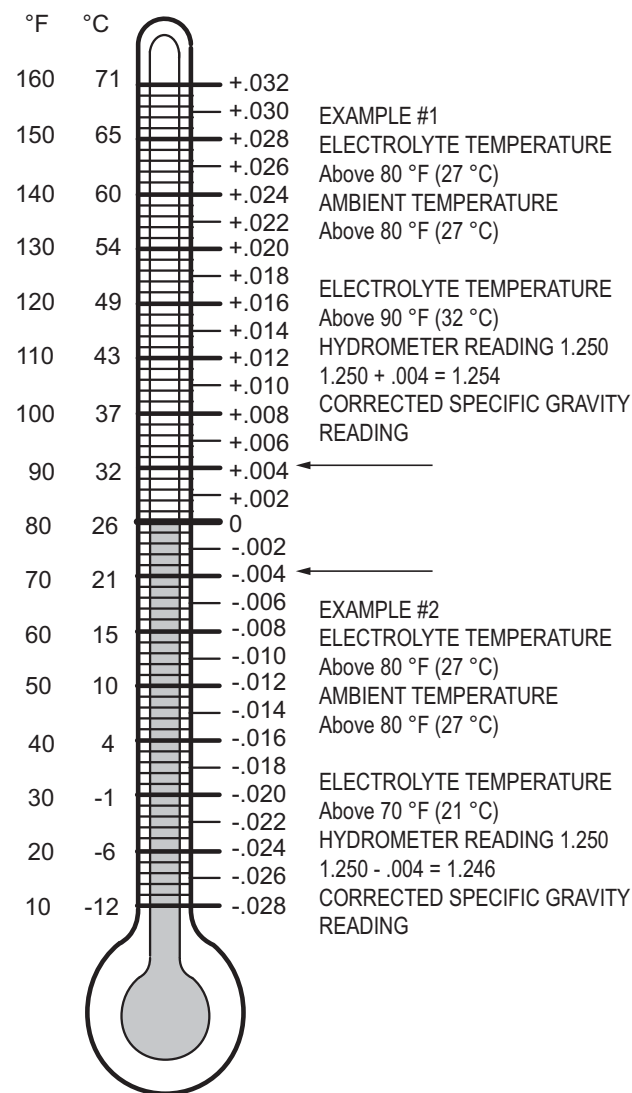
## Using A Hydrometer

1. Draw electrolyte into the hydrometer and release it several times to permit the thermometer to adjust to the electrolyte temperature and note the reading. Examine the color of the electrolyte. A brown or gray coloration indicates a problem with the battery and is a sign that the battery is nearing the end of its life.
2. Draw the minimum quantity of electrolyte into the hydrometer to permit the float to float freely without contacting the top or bottom of the cylinder.
3. Hold the hydrometer in a vertical position at eye level and note the reading where the electrolyte meets the scale on the float.
4. Add or subtract four points (.004) to the reading for every 10° F (6° C) the electrolyte temperature is above or below 80° F (27° C). Adjust the reading to conform with the electrolyte temperature, e.g., if the reading indicates a specific gravity of 1.250 and the electrolyte temperature is 90° F (32° C), add four points (.004) to the 1.250 which gives a corrected reading of 1.254. Similarly if the temperature was 70° F (21° C), subtract four points (.004) from the 1.250 to give a corrected reading of 1.246.
5. Test each cell and note the readings (corrected to 80° F or 27° C). A variation of fifty points between any two cell readings (example 1.250 - 1.200) indicates a problem with the low reading cell(s).

As a battery ages the specific gravity of the electrolyte will decrease at full charge. This is not a reason to replace the battery providing all cells are within fifty points of each other.

Since the hydrometer test is in response to a vehicle exhibiting a performance problem, the vehicle should be recharged and the test repeated. If the results indicate a weak cell, the battery or batteries should be removed and replaced with a good battery of the same brand, type and approximate age.

### ELECTROLYTE TEMPERATURE



## Battery Charger Maintenance

Connect the charger plug into the vehicle receptacle and wait for the relay to activate.

Move the plug back and forth in the receptacle. If the charger turns off, check the plug for a broken red wire in the DC cord.

# PERIODIC SERVICE SCHEDULE

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## PERIODIC SERVICE SCHEDULE

### PERIODIC SERVICE SCHEDULE

✓ - CHECK      C&A - CHECK & ADJUST      CL - CLEAN      R - REPLACE

REMARKS	before each use DAILY	WEEKLY	20 rds/20 hrs 100 miles/160 kms MONTHLY	60 rds/60 hrs 300 miles/500 kms QUARTERLY	125 rds/125 hrs 600 miles/1000 kms SEMI-ANNUAL	250 rds/250 hrs 1200 miles/2000 kms ANNUAL	5 YEARS
Tires - pressure, condition of tires and rims	✓	✓	✓	✓	✓	✓	
Hardware - loose or missing	✓	✓	✓	✓	✓	✓	
Reverse Warning Indicator	✓	✓	✓	✓	✓	✓	
Overall Vehicle Condition	✓	✓	✓	✓	✓	✓	
Batteries - state of charge, condition, loose terminals, corrosion, hold down and hardware	✓	✓	✓	CL	CL	CL	
Batteries* - check electrolyte level, fill if required			C&A	C&A	C&A	C&A	
Brakes - smooth operation of pedal, stopping distance	✓		✓	✓	✓	✓	
Brakes - aggressive stop test, does brake hold on a hill			✓	✓	✓	✓	
Accelerator - smooth operation	✓		✓	✓	✓	✓	
Wiring - loose connections, broken or missing insulation			✓	✓	✓	✓	
Charger Receptacle - clean connections			CL	CL	CL	CL	
Steering Assembly - excessive play, loose or missing hardware			✓	✓	✓	✓	
Tie Rods - excessive play, bent rods, loose or missing hardware			✓	✓	✓	✓	
Rear Axle - fluid level, oil leakage, noise, loose or missing hardware			✓	✓	✓	✓	
Rear Axle - drain and replace fluid							R
Front Suspension - strut oil leakage, excessive play in hubs or kingpins, worn bushings, loose or missing hardware			✓	✓	✓	✓	
Front Wheel Alignment - unusual tire wear				C&A	C&A	C&A	
Rear Suspension - shock oil leakage, worn bushings, loose or missing hardware				✓	✓	✓	

\*Use only distilled or purified water that is free of contaminants to fill batteries.

NOTE: Some maintenance items must be serviced more frequently on vehicles used under severe driving conditions.

## PERIODIC SERVICE SCHEDULE

**Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.**

## Notes:

*Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.*

# APPENDIX A

## DECLARATION OF CONFORMITY



# APPENDIX A


Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

## DECLARATION OF CONFORMITY • ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ • PROHLÁŠENÍ O SHODĚ • OVERENSSTEMMELSESESKLÆRING • CONFORMITEITSVERKLARING • VASTAVUSDEKLARATSIOON • VAATIMUSTENMUKAISUUSVAKUUTUS • DECLARATION DE CONFORMITE • KONFORMITÄTSESKLÄRUNG • ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ • MEGFELELŐSÉGI NYILATKOZAT • DICHIARAZIONE DI CONFORMITÀ • ATBILSTĪBAS DEKLARĀCIJA • ATITIKTIES DEKLARACIJA • DIKJARAZZJONI TAL-KONFORMITÀ • DEKLARACJA ZGODNOŚCI • DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁŠENIE O ZHODE • IZJAVA O SKLADNOSTI • DECLARACIÓN DE CONFORMIDAD • DECLARATION OM ÖVERENSSTÄMMELSE • SAMRÆMISYFIRLÝSING • KONFORMITETSESKLÆRING • 符合性声明 • SAMRÆMISYFIRLÝSING • 適合宣言 • 적합성 선언서 • UYGUNLUK BEYANI • ДЕКЛАРАЦІЯ ПРО ВІДПОВІДНІСТЬ

Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledige adres van de fabrikant • Toetja ärinimi ja täielik aadress • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmenname und vollständige Adresse des Herstellers • Εταιρεία και τοχυδρομική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummercjali u indiriz shih tal-fabbrikant • Nazwa firmy i pełny adres producenta • Nome da empresa e endereço completo do fabricante • Denumirea comercială și adresa completă a producătorului • Obchodný názov a úplná adresa výrobcu • Naziv podjetja in polni naslov proizvajalca • Nombre de la empresa y dirección completa del fabricante • Tilverkarens företagsnamn och kompletta adress • Fyrirtækisheiti og fullt heimilisfang framleiðanda • Firmanavn og full adresse for produsenten • 製造商の商業名称和完整地址 • Nafn fyrirtækis og fullt heimilisfang framleiðanda • 商号およびメーカーの正式住所 • 제조자의 상호명 및 주소 • Imalatçının ticari ünvanı ve açık adresi • Фірмове найменування і повна адреса виробника	Textron Specialized Vehicles (aka E-Z-GO Division of Textron Inc.) 1451 Marvin Griffin Road Augusta, GA 30906 USA
Product Code • Код на продукта • Kód výrobku • Produktkode • Productcode • Toote kood • Tuotekoodi • Code produit • Produktcode • Κωδικός προϊόντος • Termékkód • Codice prodotto • Produkta kods • Produktu kods • Kodici tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod • Vörumer • Produktkode • 产品代码 • Framleiðslunúmer • 製品コード • 제품 코드 • Ürün Kodu • Код виробу	638539G01, 638540G01, 638542G01, and 638546G01 when equipped with CE Kit 614081.
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenaam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Όνομασία μηχανήματος • Gėrėnė • Denominazione della macchina • Iekārtas nosaukums • Mašinos pavadinimas • Isem tal-Magna • Nazwa urządzenia • Nome da Máquina • Numele echipamentului • Názov stroja • Naziv stroja • Nombre de la máquina • Maskinens namn • Heiti tækis • Maskinnavn • 机器名称 • Nafn vélar • 機械名 • 기기 명칭 • Makine Adı • Назва машины	RXV Golf Car, Freedom and Freedom Electric Chassis, Shuttle 2+2 and 2+2 Hi Spd. E-Z-GO brand
Designation • Предназначение • Označení • Betegneise • Benaming • Nimetus • Tyypimerkintä • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Apzīmējums • Lithuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenie • Namen stroja • Descripción • Beteckning • Merking • Konstruksjon • 名称 • Útföring • 用途 • 지정 • Tanımı • Позначения	48V Electric Golf Car
Serial Number • Серийн номер • Sériové číslo • Seriennummer • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sėrijas numurs • Serijos numeris • Numru Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer • Račnúmer • Seriennummer • 序列号 • Račnúmer • シリアル番号 • 일련 번호 • Seri Numarası • Серийний номер	5376100 - 5600000
Conforms to Directives • В съответствие с директивите • Splūfuje podminky směrnic • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθώ τις προϋποθέσεις • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktīvām • Atitinka direktyvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektywy związane • Cumpre as Directivas • Respectă Directivele • Je v súlade so smernicami • Skladnost z direktivami • Cumpie con las Directivas • Uppfyller direktiv • Samræmist tilskipunum • I samsvær med direktiv • 符合指令 • I samræmi við reglugerðir • 適合指令 • 규정 준수 • Şu Yönergelere Uyaktadır • Відповідає директиві	2006/42/EC 2014/30/EU
Conformity Assessment • Оценка за съответствие • Hodnocení plnění podmínek • Overensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitikties įvertinimas • Livell tal-Qawwa tal-Floss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömning av överensstämmelse • Samræmismat • Konformitetsvurdering • 符合性评估 • Samræmismat • 適合性評価 • 적합성 평가 • Uygunluk Değerlendirilmesi • Оцінка відповідності	2006/42/EC Annex II
Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühtlustatud standardid • Käytetyt yhdenmukaistetut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmantotie saskaņotie standarti • Panaudoti suderinti standartai • Standards armonizzati usati • Normy spójne powiązane • Normas harmonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljene usklajeni standarti • Estándares armonizados utilizados • Harmoniserade standarder som används • 所采用的协调标准 • Samstiltir staðlar notaðir • 整合規格 • 적용되는 조화 표준 • Kullanılan uyumlu standartlar • Використані гармонізовані стандарти	EN 61000-6-2 :2005 EN 61000-6-4: 2007: A1:2011 EN ISO 5349-1: 2001 EN ISO 11202: 2010
Technical standards and specifications used • Използвани технически стандарти и спецификации • Použité technické normy a specifikace • Brugte tekniske standarder og specifikationer • Gebruikte technische standaards en specificaties • Kasutatud tehnilised standardid ja spetsifikatsioonid • Käytetyt tekniset standardit ja eritelmät • Specificacions et normes techniques utilisées • Angewandte technische Normen und Spezifikationen • Τεχνικά πρότυπα και προδιαγραφές που χρησιμοποιήθηκαν • Műszaki szabványok és specifikációk • Standard tecnici e specifiche applicati • Izmantotie tehniskie standarti un specifikācijas • Panaudoti techniniai standartai ir techninė informacija • Standards u specifikazzjonijiet teknici usati • Normy i specyfikacje techniczne powiązane • Normas técnicas e especificações usadas • Standardele tehnice și specificațiile utilizate • Použité technické normy a specifikácie • Uporabljene tehnični standardi in specifikacije • Estándares y especificaciones técnicas utilizadas • Tekniska standarder och specifikationer som används • Samræmdir staðlar sem notaðir eru • Benyttede harmoniserete standarder • 所采用的技术标准 and 规范 • Tæknistaðlar og -kröfur notaðar • 技術規格および仕様書 • 적용되는 기술 표준 및 규격 • Kullanan teknik standartlar ve şartnamlar • Використані технічні стандарти і умови	ISO 2631-1: 2010
The place and date of the declaration • Место и дата на декларацията • Místo a datum prohlášení • Sted og dato for erklæringen • Plaats en datum van de verklaring • Deklarationsiijäljastamise koht ja kuupäev • Vakuutuksen paikka ja päivämäärä • Lieu et date de la déclaration • Ort und Datum der Erklärung • Τόπος και ημερομηνία δήλωσης • A nyilatkozat kelte (hely és idő) • Luogo e data della dichiarazione • Deklarācijas vieta un datums • Deklaracijos vieta ir data • Il-post u d-data tad-dikjarazzjoni • Miejsce i data wystawienia deklaracji • Local e data da declaração • Locul și data declarației • Miesto a dátum vyhlášení • Kraj in datum izjave • Lugar y fecha de la declaración • Plats och datum för declarationen • Tæknistaðlar og tæknifýsingar sem notaðar eru • Benyttede tekniske standarder og spesifikasjoner • Staður og dagsetning yfirlýsingar • Sted og dato for erklæringen • 声明的地点与日期 • Staður og dagsetning yfirlýsingarinnar • 宣言場所および日付 • 선언 장소 및 일자 • Beyan yeri ve tarihi • Місце і дата укладення декларації	Textron Specialized Vehicles (aka E-Z-GO Division of Textron Inc.) 1451 Marvin Griffin Road Augusta, GA 30906 USA



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

<p>Signature of the person empowered to draw up the declaration on behalf of the manufacturer, holds the technical documentation and is authorised to compile the technical file, and who is established in the Community.</p> <p>Подпис на човека, упълномощен да състави декларацията от името на производителя, който поддържа техническата документация и е оторизиран да изготви техническия файл и е регистриран в общността.</p> <p>Podpis osoby oprávněné sestavit prohlášení jménem výrobce, držet technickou dokumentaci a osoby oprávněné sestavit technické soubory a založené v rámci Evropského společenství.</p> <p>Underskrift af personen, der har fuldmagt til at udarbejde erklæringen på vegne af producenten, der er indehaver af dokumentationen og er bemyndiget til at udarbejde den tekniske journal, og som er baseret i nærområdet.</p> <p>Handtekening van de persoon die bevoegd is de verklaring namens de fabrikant te tekenen, de technische documentatie bewaart en bevoegd is om het technische bestand samen te stellen, en die is gevestigd in het Woongebied.</p> <p>Ühenduse registrisse kantud isiku allkiri, kes on volitatud tootja nimel deklaratsiooni koostama, kes omab tehnilist dokumentatsiooni ja kellel on õigus koostada tehniline toimik.</p> <p>Sen henkilöön allekirjoitus, jolla on valmistajan valtuutus vakuutuksen laadintaan, jolla on hallussaan tekniset asiakirjat, joka on valtuutettu laatimaan tekniset asiakirjat ja joka on sijoitautunut yhteisöön.</p> <p>Signature de la personne habilitée à rédiger la déclaration au nom du fabricant, à détenir la documentation technique, à compiler les fichiers techniques et qui est implantée dans la Communauté.</p> <p>Unterschrift der Person, die berechtigt ist, die Erklärung im Namen des Herstellers abzugeben, die die technischen Unterlagen aufbewahrt und berechtigt ist, die technischen Unterlagen zusammenzustellen, und die in der Gemeinschaft niedergelassen ist.</p> <p>Υπογραφή ατόμου εξουσιοδοτημένου για την σύνταξη της δήλωσης εκ μέρους του κατασκευαστή, ο οποίος κατέχει την τεχνική έκθεση και έχει την εξουσιοδότηση να ταξινομήσει τον τεχνικό φάκελο και ο οποίος είναι διακριόμενος στην Κοινότητα.</p> <p>A gyártó nevében meghatalmazott személy, akinek jogában áll módosítani a nyilatkozatot, a műszaki dokumentációt őrizi, engedélyvel rendelkezik a műszaki fájl összeállításához, és aki a közösségen letelepedett személy.</p> <p>Firma della persona autorizzata a redigere la dichiarazione a nome del fabbricante, in possesso della documentazione tecnica ed autorizzata a costituire il fascicolo tecnico, che deve essere stabilita nella Comunità.</p> <p>Tās personas paraksts, kura ir pilnvarota deklarācijas sastādīšanai ražotāja vārdā, kurai ir tehniskā dokumentācija, kura ir pilnvarota sagatavot tehnisko reģistru un kura ir apstiprināta Kopienā.</p> <p>Asmuo, kuris yra gana žinomas, kuriam gamintojas suteikė įgaliojimus sudaryti šią deklaraciją, ir kuris ją pasirašo, turi visą techninę informaciją ir yra įgaliojamas sudaryti technines informacijos dokumentą.</p> <p>Il-firma tal-persuna awtorizzata li tffassi id-dikjarazzjoni f'isem il-fabbrikant, għandha d-dokumentazzjoni teknika u hija awtorizzata li tikkompila l-fajl tekniku u li hija stabbilita fil-Komunità.</p> <p>Podpis osoby upowaznionej do sporządzenia deklaracji w imieniu producenta, przechowującej dokumentację techniczną, upowazniona do stworzenia dokumentacji technicznej oraz wyznaczona ds. wspólnotowych.</p> <p>Assinatura da pessoa com poderes para emitir a declaração em nome do fabricante, que possui a documentação técnica, que está autorizada a compilar o processo técnico e que está estabelecida na Comunidade.</p> <p>Semătura persoanei împuternicite să elaboreze declarația în numele producătorului, care deține documentația tehnică, este autorizată să compileze dosarul tehnic și este stabilită în Comunitate.</p> <p>Podpis osoby poverenej vystavením vyhlásenia v mene výrobcu, ktorá má technickú dokumentáciu a je oprávnená spracovávať technické podklady a ktorá je umiestnená v Spoločenstve.</p> <p>Podpis osebe, pooblašene za izdelavo izjave v imenu proizvajalca, ki ima tehnično dokumentacijo in lahko sestavlja spis tehnične dokumentacije, ter ima sedež v Skupnosti.</p> <p>Firma de la persona responsable de la declaración en nombre del fabricante, que posee la documentación técnica y está autorizada para recopilar el archivo técnico y que está establecido en la Comunidad.</p> <p>Undertecknas av den som bemyndigad att upprätta deklarationen i tillverkarens vägnar, innehar den tekniska dokumentationen och är bemyndigad att sammanställa den tekniska informationen och som är etablerad i gemenskapen. Underskrift aðilans sem hefur umboð til að gera yfirlýsinguna fyrir hönd framleiðandans, hefur undir höndum tæknigögnin og hefur leyfi til að taka saman tækniskýrsluna, og er víðurkenndur innan evrópska efnahagssvæðisins.</p> <p>Signatures til personon som har fullmakt til á utferðige erklæringen på vegne av produsenten, er i besittelse av den tekniske dokumentasjonen, har autorisasjon til å utarbeide den tekniske filen og som har tilhold i EU.</p> <p>获得授权代表制造商起草声明者的签名。此人保留技术文档并获授权编译技术文件。且是社区中获得认可者。</p> <p>Undirskrift starfsmanns sem hefur heimild til að rita yfirlýsinguna fyrir hendi framleiðandans, hefur umsjón með tæknigögnum og hefur heimild til að setja saman tæknilega skýrslu og sem er tengdur inn í samfélagið.</p> <p>メーカーを代表して宣言書起草し、技術文書を保有し技術ファイルを編纂する権限を有し、地域において確固たる地位を築いている人物の署名。</p> <p>제조자를 대표하여 선언서를 작성하고, 기술문서를 보유하고 기술 파일을 편찬할 권한을 가지고, 지역 내에서 확실한 위치를 차지하고 있는 인물인 것이다.</p>	<p>2006/42/EC Annex II 1A: 2 Chris Clifford Technical Director 11 Jul 2017 Ransomes Jacobsen Limited West Road, Ransomes Europark, Ipswich, England, IP3 9TT</p>  <p>2006/42/EC Annex II 1A: 10 Christopher W Spencer Vice President of Engineering Textron Specialized Vehicles 1451 Marvin Griffin Road Augusta, GA 30906 USA 11 Jul 2017 Signatory</p>
<p>Certificate Number • Номер на сертификат • Číslo osvědčení • Certifikatnummer • Certificaatnummer • Sertifikaadi number • Hyväksyntänumero • Numéro de certificat • Bescheinigungsnummer • Αριθμός Πιστοποιητικού • Hitelesítési szám • Numero del certificato • Serifikata numurs • Serifikato numeris • Numru ta-Certifikat • Numer certifikatu • Número do Certificado • Număr certificat • Číslo osvedčenia • Številka certifikata • Número de certificado • Certifikatsnummer • Número skirteinis • Serifikatnummer • 证书编号 • Skirteinisnúmer • 認証番号 • 인증 번호 • Serifika Numarasi • Номер сертификата</p>	<p>DoC1010</p>



**Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.**

## Notes:

## NOTICE

*Read the following warnings before operating vehicle:*

## WARNING

*When you leave the vehicle, turn the key to the OFF position and remove the key from the vehicle.*

*Drive the vehicle only as fast as terrain and conditions allow. Consider the terrain and traffic conditions. Consider environmental conditions that change the terrain and your ability to control the vehicle.*

*Do not drive fast downhill. Sudden stops or change of direction can cause a loss of control. Use the brake to control the speed of the vehicle when you drive down a slope.*

*When possible, stay in approved areas and do not drive on steep slopes.*

*Always keep feet, legs, hands and arms inside vehicle.*

*Do not drive on rough terrain.*

*Before you drive in the reverse direction, make sure the area behind the vehicle is clear.*

*Make sure the direction selector is in the correct position before you press the accelerator pedal.*

*Decrease speed before and during turns.*

*Make sure you completely stop the vehicle before you move the direction selector.*

*See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.*

## NOTICE

*Read the following information and warnings before operating vehicle:*

In any product, components will eventually fail to perform properly as the result of normal use, age, wear or abuse.

Normal use, age, wear or abuse can cause some components on the vehicle to fail. The manufacturer can not know all possible component failures or the methods that failures can occur. A vehicle in need of repair does not operate correctly and can be dangerous.

Be careful when you service the vehicle. Be aware of your safety and the safety of other people in the area. Some components are heavy, spring loaded, corrosive, explosive, can cause high amperage or get hot. Battery acid and hydrogen gas can cause injury. Do not put your hands, face, feet or body in a location that can expose them to injury if an unexpected situation occurs.

Always use the correct tools shown in the tool list and wear safety equipment.

## WARNING

*Remove all jewelry before you service the vehicle.*

*Do not allow loose clothing or hair to contact the moving parts.*

*Do not touch hot objects.*

*The drive wheels must be lifted and supported on jack stands before you do any service to the powertrain when the motor is in operation.*



*When you service the vehicle, always wear eye protection. Be careful when you do work around batteries or you use solvents or compressed air.*

*Use wrenches with insulation to decrease the risk of a short-circuit if a wrench falls across the battery terminals. A battery short-circuit can cause an explosion.*

*To prevent the risk of battery explosion, keep all flammable materials, open flames or sparks away from the batteries.*

*Hydrogen gas is made as batteries are charged. Do not charge batteries without good ventilation.*



A Textron Company

**E-Z-GO Textron, Inc.**

1451 Marvin Griffin Road  
Augusta, Georgia 30906-3852 USA

**CONTACT US:**

**North America:**

**Technical Assistance and Warranty**

Phone: 1-800-774-3946, FAX: 1-800-448-8124

**Service Parts**

Phone: 1-888-GETEZGO (1-888-438-3946), FAX: 1-800-752-6175

**International:**

Phone: 001-706-798-4311, FAX: 001-706-771-4609

Service Parts Manuals, as well as Repair and Service Manuals  
are available from a local Distributor, an authorized Branch,  
Genuine E-Z-GO Parts and Accessories Department or at [www.shopezgo.com](http://www.shopezgo.com).

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