



ECAR GOLF AND COMMUNITY VEHICLES



A-SERIES OPERATORS MANUAL



Distributed in Australasia by E-Car Australasia Pty Ltd

IMPORTANT INFORMATION IN THIS MANUAL

Particularly important information is distinguished in this manual by the following notations. Please pay careful attention to these messages to ensure the safe operation and maintenance of your golf car.



NOTE

This message provides additional key information.



SAFETY ALERT

The safety alert symbol means ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED!



CAUTION

This message describes special precautions that must be taken to avoid damage to the golf car.



WARNING

Failure to follow WARNING instructions could result in severe injury or death to the golf car occupants, a bystander or a person inspecting the golf car.

INTRODUCTION



NOTE

We continually seek advancements in product design and quality and therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your golf car and this manual. If you have any questions concerning this manual please consult your **e-car** dealer.

This manual should be considered a permanent part of your golf car and should remain with it if the car is resold.



WARNING

READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE OPERATING YOUR GOLF CAR.

Congratulations on your purchase of your new **e-car** vehicle.

We encourage you to carefully read this manual and to familiarise yourself with the operation and maintenance of your new vehicle. This will facilitate the safe operation of the vehicle and ensure it's ongoing premium performance.

We trust you will enjoy your **e-car** experience.



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GOLF CAR WARRANTY

E-CAR by LVTONG hereby warrants that any new E-CAR golf car purchased from an authorized E-CAR dealer will be free from defects in material and workmanship for two years from date of purchase, (2 years on batteries), subject to the stated limitations.

DURING THE PERIOD OF WARRANTY any authorized E-CAR Dealer will, free of charge and at E-CAR'S option, repair or replace any part adjudged defective by E-CAR due to faulty workmanship or materials. Parts used in warranty repairs will be warranted for the balance of the machine's warranty period. All parts replaced under warranty become the property of E-CAR.

GENERAL EXCLUSIONS from this warranty shall include any failures caused by

- Abnormal strain, neglect, or abuse including lack of proper maintenance or use contrary to the Owner / Operator Manual instructions.
- Accident or collision damage.
- Installation of parts or accessories that are not original equipment.
- Fading, rust or deterioration due to exposure or ordinary wear and tear.
- Modifications or alteration that affects the car's condition, operation, purpose or durability.
- Damage due to improper transportation.
- Acts of God, i.e. Lightening hail damage, flood, fire, etc.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

1. Operate and maintain the golf car as specified in the appropriate Owner's / Operator's Manual.
2. Give notice to an authorized E-CAR dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs by dealer's authorized representative.

WARRANTY TRANSFER: To transfer any remaining warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized E-CAR Dealer in order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.

IMPORTANT LABELS



SAFETY ALERT

These are SAFETY and INSTRUCTION LABELS.



WARNING

Please read the following labels carefully before operating your golf car. Promptly replace any labels which become damaged or removed.

1. OPERATORS INSTRUCTIONS LABEL

OPERATION INSTRUCTIONS



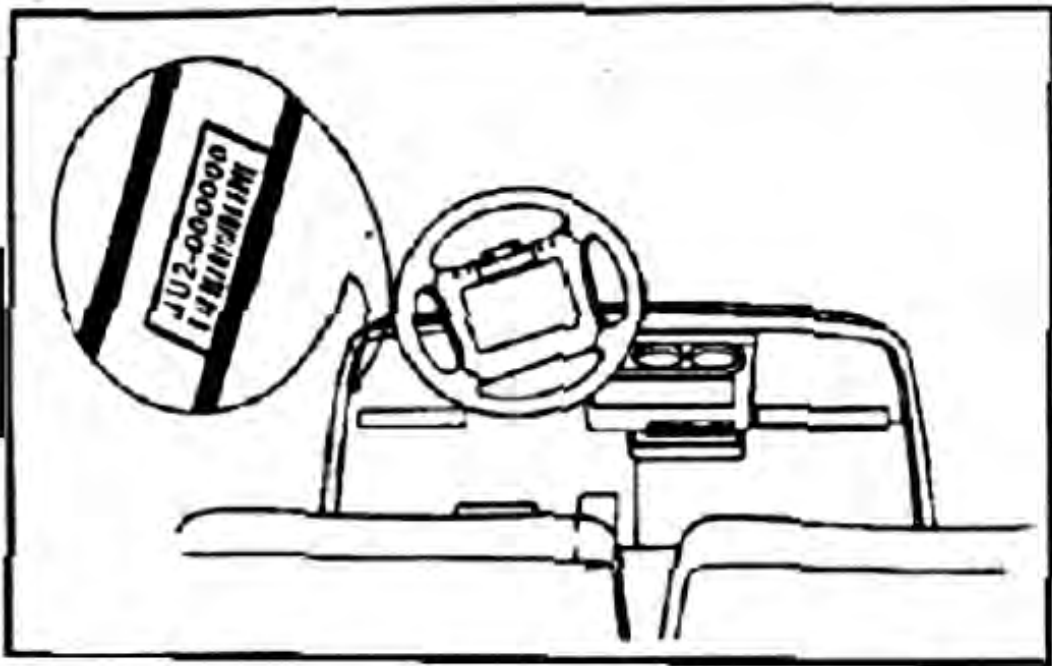
- Read the operating label and manual before operating
- Be sure occupants are seated
- Select "FORWARD" and "REVERSE" position
- Press the accelerator pedal to start moving .The motor will start and the parking brake will release automatically .
- To stop , release the accelerator pedal and press the brake pedal
- Never travel at speed too fast for the terrain ,visibility, conditions or your experience
- Drive with extra caution in congested area when operating in reverse, and when driving on wet, rough surface
- Make sure the car is stably parked before transferring the "forward" and "reverse"

IMPORTANT LABELS

2. BATTERY WARNINGS LABEL

WARNING/AVERTISSEMENT		
 <p>EXPLOSIVE GASES are released when batteries are charged or discharged. Keep well ventilated. Keep sparks, flames and cigarettes away. Shield eyes when working near batteries.</p>	 <p>SULFURIC ACID in batteries will burn skin, eyes, and clothing. Do not tip batteries. Keep vent caps tight and level. In event of injury, flush with physician immediately.</p>	 <p>ELECTRICAL SHORTS can result in burns. Do not make connection between positive and negative battery terminals.</p>

3. GOLF CAR SERIAL NUMBER



NOTE

The golf cars serial number will enable your dealer to correctly identify the model and production details of your vehicle. Keep a record of the number for reference when ordering parts and accessories from your E-Car dealer.

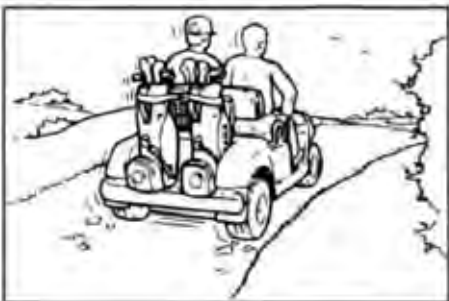
OPERATOR SAFETY

BEFORE OPERATING THE GOLF CAR



E-CAR golf cars are designed to be easily operated however be sure to observe the following:

- Read this Owner's Operator's manual and all safety and instruction labels on the golf car before operating.
- Perform the pre-operation checks found in Section 6 of this manual.
- Only authorized people should drive the golf car.
- Operate the vehicle from the driver's side only and only in designated areas.
- Do not overload the golf car. This golf car is restricted to the stated occupants.
- Do not operate the golf car while under the influence of alcohol or drugs as they can affect vision and judgment and make operating a golf car dangerous.
- Do not operate the golf car on public streets, roads or highways. Such use is prohibited by law, and dangerous. Operation on public roads can result in collisions with other vehicles.



OPERATOR SAFETY

- Keep your entire body inside the golf car, remain seated and hold on when the car is in motion.
- Do not start the golf car until all occupants are seated.
- Keep your hands on the steering wheel and your eyes on the path ahead.
- Use extra care in congested areas or when backing up.
- Always back up slowly and watch carefully.
- Avoid starting or stopping abruptly.
- Vary the speed of the golf car to match the terrain of the course.
- Avoid turning the steering wheel too sharply at high speeds.
- Always drive slowly straight up or straight down slopes never at an angle.
- Do not make any modification or addition which affects the safe operation of the vehicle, or make any changes not in accordance with the owner's / operators manual.

GENERAL SAFETY INFORMATION

GENERAL SAFETY INFORMATION

Like all machines, golf cars can cause injury if improperly used or maintained. This section contains broad safety practices required for safe golf car operation.

Experience has shown that golf cars are safe when operated in accordance with the safety warnings affixed to every golf car. This safe operation is enhanced when golf cars are used according to the safety rules and practices established to meet the terrain and conditions of the course they are used on.

The information contained herein is intended for golf course personnel responsible for golf car safety. If you are responsible for this golf car we encourage you to implement this golf car safety program.

Allow only authorized people to operate golf cars. It is recommended that only people who possess a valid motor vehicle driver's license be allowed to operate Golf cars. Place operation and safety instructions recommended by the golf car manufacturer along with the golf course safety rules in a conspicuous place near the golf car rental area or golf car pick-up area. It is also recommended that the following warning be posted in a conspicuous location.

Do NOT Operate Golf Cars When Under the Influence of Alcohol or Drugs

GOLF COURSE SAFETY SURVEY

Perform safety surveys regularly to identify hazardous areas where golf cars should not be operated. The following golf Course hazards must be made safe:

GOLF COURSE HAZARD PREVENTION

Steep Grades: Where steep grades exist, restrict golf cars to designated golf car pathways where possible. In addition, identify steep grades with a suitable warning like such as:

Warning. Steep Grade. Descend Slowly With Foot on Brake

Sharp Turns, Blind Turns, Steep Descents, Bridge Approaches: Chain or rope off these potentially hazardous areas or identify them with a suitable warning sign describing the nature of the hazard and proper precautions to be taken to avoid the hazard.

Wet Areas: Wet grass may cause a golf car to lose traction and may affect stability. Chain or rope off wet areas or identify wet areas with a suitable warning.

Loose Terrain: Loose terrain may cause a golf car to lose traction and may affect stability. Repair loose terrain, chain or rope off these areas or identify loose terrain with a suitable warning.

Golf Car and pedestrian Interference: Reroute or separate golf car traffic and pedestrian traffic in congested areas wherever possible to prevent accidents. If it's impractical to reroute traffic, erect warning signs to warn pedestrians of golf car operation and to warn golf car operators to drive slowly, use caution, and watch for pedestrians.

GOLF CAR MAINTENANCE SAFETY

MAINTENANCE REQUIRED FOR GOLF CAR SAFETY

Practice the following to help ensure the safety of golf car occupants:

Preventative Maintenance: Perform all scheduled maintenance in accordance with manufacturer's recommendations to provide the golfing patron with a safe, properly operating golf car.

Personnel: Allow only qualified, trained and authorized personnel to inspect, adjust, and maintain golf cars.

Parts and Materials: Use only replacement parts and materials recommended by the manufacturer.

Ventilation: Properly ventilate all maintenance and storage areas in accordance with applicable fire codes and ordinances to avoid fire hazards. Ventilation is required to remove hydrogen gas from electric powered car storage areas during the charging process.

For electric powered golf cars, the amount of hydrogen gas emitted during charging depends on a number of factors, such as the condition of the batteries, the output rate of the battery charger, and the amount of time the batteries are on charge. Because of the highly volatile nature of hydrogen gas and its propensity to rise and accumulate at the ceiling in pockets, a minimum of 5 air changes per hour is recommended. Consult applicable fire and safety codes for the specific ventilation levels requirement, as well as requirements for the use of explosion proof electrical apparatus.

SAFETY PRECAUTIONS DURING MAINTENANCE

When performing maintenance, follow all safety instructions contained in the manufacturer's operation and servicing safety procedures.

- Properly immobilize golf car before beginning any maintenance.
- Properly block up chassis before working underneath golf car.
- Avoid fire hazards, and have appropriate fire protection equipment available.
- Before working on an electric golf car, disable the car's electrical system in accordance with the manufacturer's instructions.
- Use only properly insulated tools when working on electrically powered golf cars or around batteries.
- Maintain all safety devices including brakes, steering mechanisms, warning devices, and governors in a safe operating condition. Do not modify these safety devices as supplied by the manufacturer.
- After each maintenance or repair, the car must be driven by a qualified, trained, and authorized person in an area free of pedestrian traffic to ensure proper operation and adjustment.
- Record all maintenance performed in a maintenance record log by date, name of person performing maintenance and type of maintenance.
- Periodically inspect maintenance log to ensure accurate and complete entries.
- Provide operator comment cards to assist in identifying non-periodic maintenance needs for specific golf cars.
- Maintain - in a legible condition - all nameplates, warnings and instructions provided by the manufacturer. If new nameplates, warnings or instructions are needed, contact your e-car distributor.

STORAGE AND BATTERY CHARGING

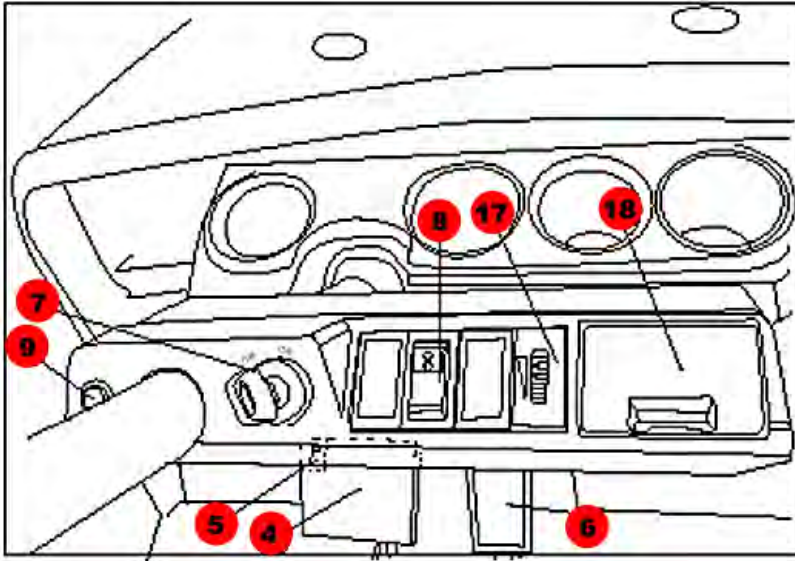
STORAGE AND BATTERY CHARGING

Take the following precautions to ensure maintenance worker safety:

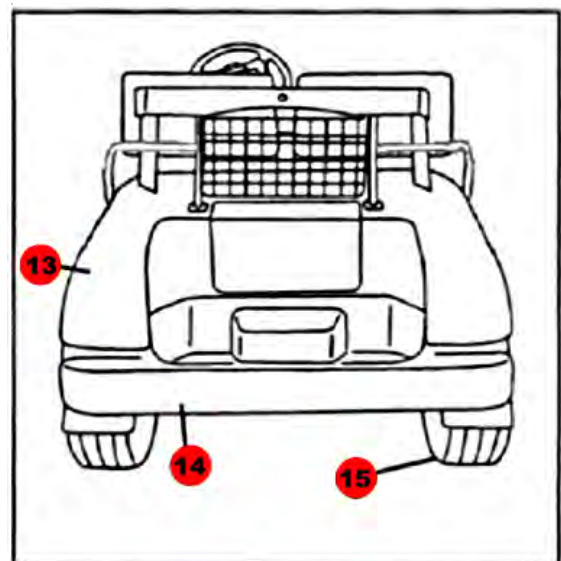
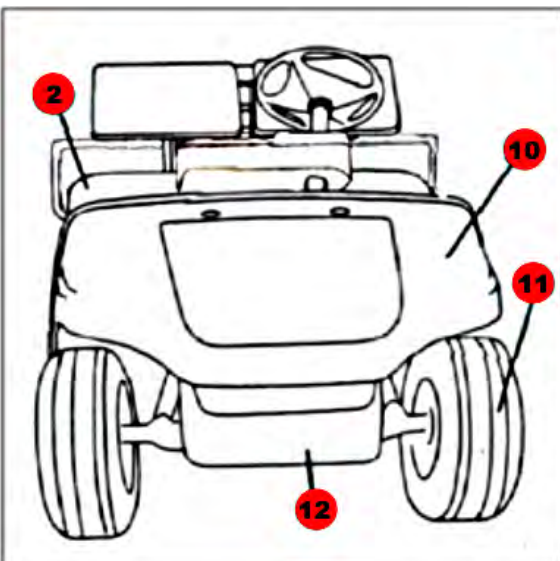
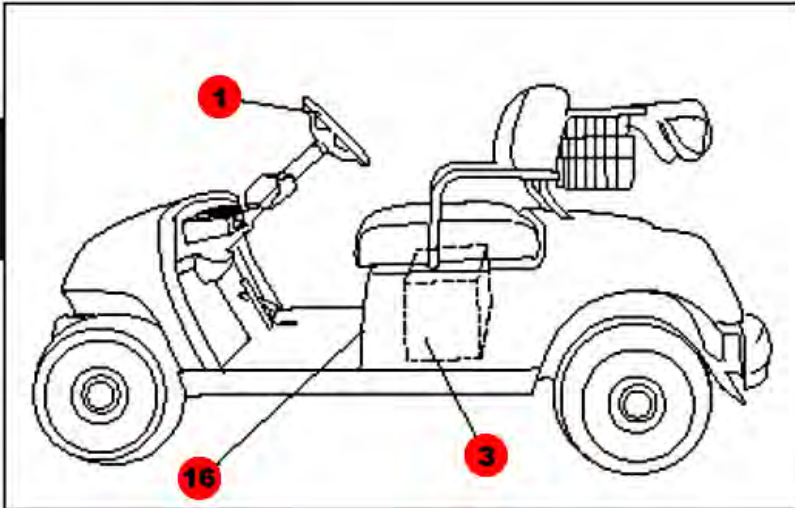
- Only use battery changing and charging facilities and procedures that are in accordance with applicable ordinances and regulations.
- Periodically inspect charging facilities and procedures to ensure that applicable safety codes, regulations and procedures are being followed.
- Ensure that batteries are charged and maintained according to the battery manufacturers specifications.

CONTROLS

KEY FEATURES OF YOUR GOLF CAR



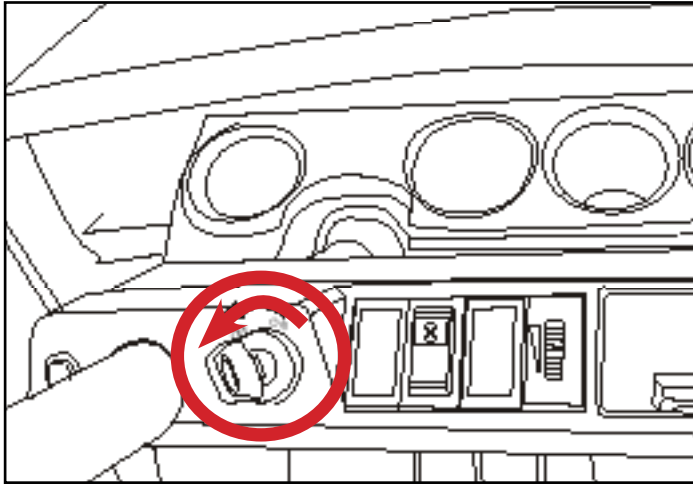
1. Steering wheel
2. Seat
3. Batteries
4. Brake pedal
5. Parking brake pedal
6. Accelerator pedal
7. Key switch
8. Drive selector switch
9. Horn
10. Front cowl
11. Front tire
12. Front bumper
13. Rear cowl
14. Rear bumper
15. Rear tire
16. Receptacle
17. Volt meter
18. Ashtray



CONTROLS

MAIN KEY SWITCH

The main key switch controls the following items.

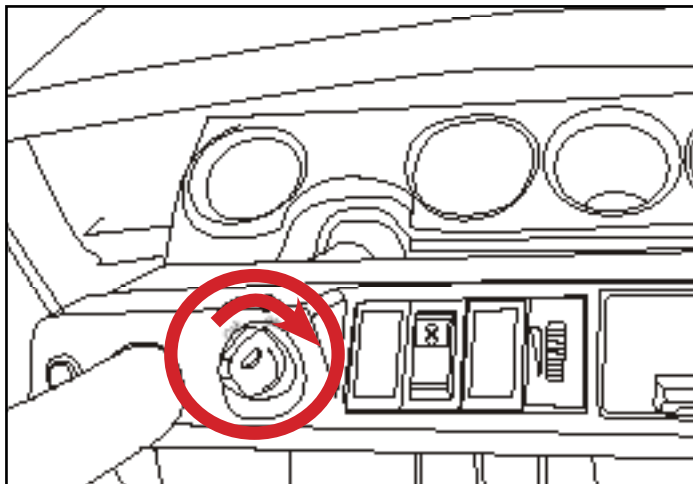


SWITCH OFF

The electrical circuits are switched off. The golf car cannot be driven.

REMARK

The key can be removed only when the switch is in the OFF position.



SWITCH ON

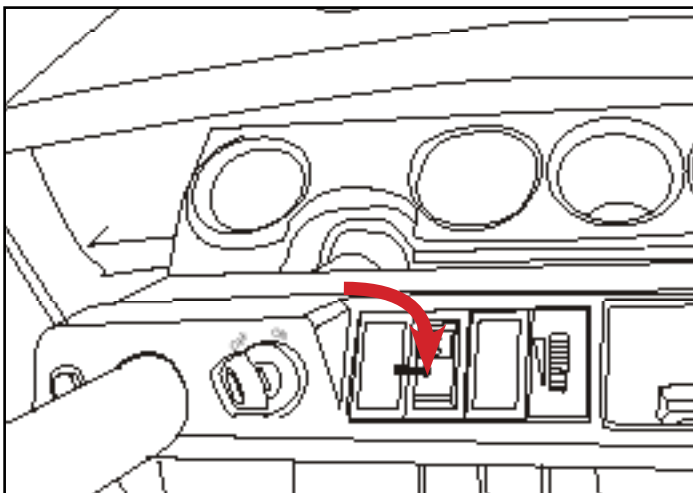
The electrical circuits are switched on. The golf car can be driven.

REMARK

The operator must position the drive selector rocker switch (forward/reverse) to the middle - neutral - position before starting the car with the main key switch.

DRIVE SELECTOR SWITCH

The drive selector switch is used to shift the golf car into forward or reverse.



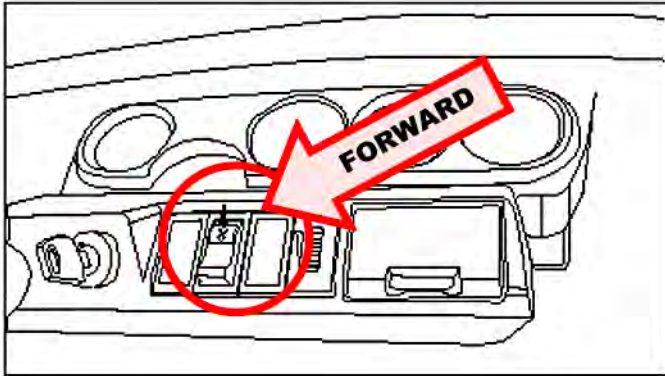
After the golf car has come to a complete stop move the switch to the desired position.

Middle	STOP
FWD	FORWARD
REV	REVERSE

CONTROLS

DRIVE SELECTOR SWITCH Cont.

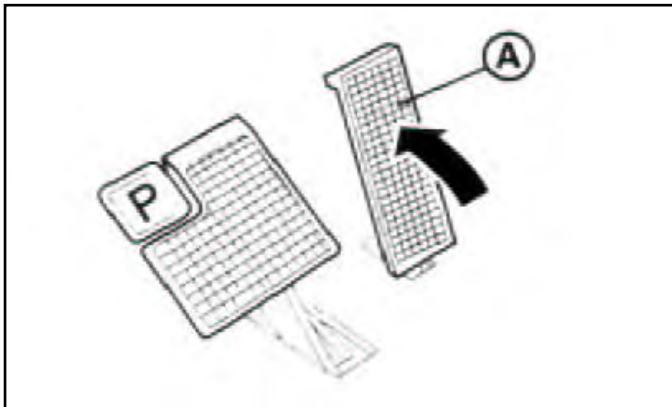
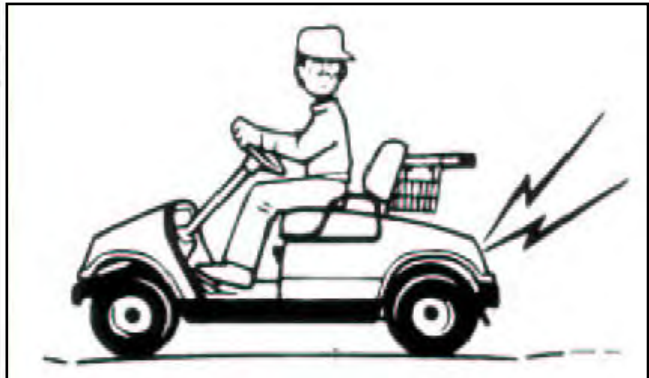
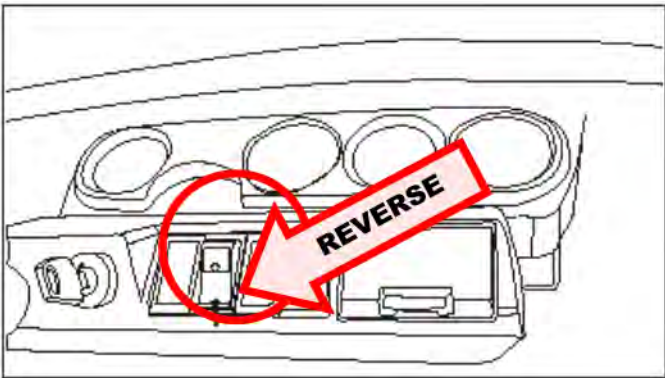
The drive selector switch is used to shift the golf car into forward or reverse.



REMARK

The reversing buzzer will beep when the drive selector switch is depressed to the REV position.

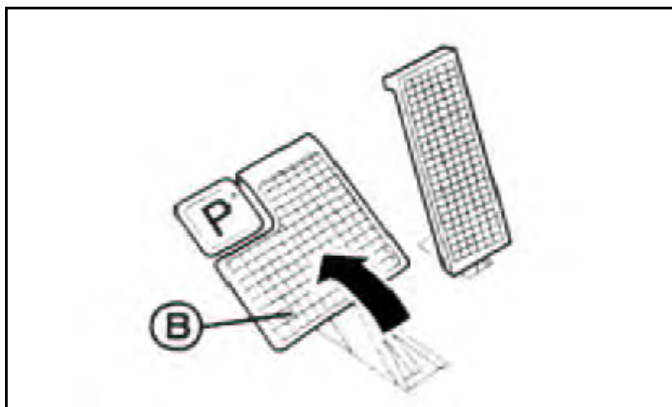
Middle	STOP
FWD	FORWARD
REV	REVERSE



A - ACCELERATOR PEDAL.

The accelerator pedal controls the golf car's speed. Depress the pedal slowly. Avoid stomping on the pedal.

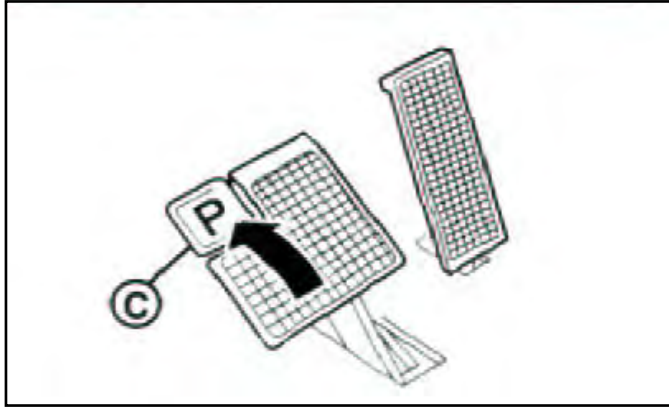
Action	Golf Car Speed
Depress pedal	Increase Speed
Release pedal	Decrease Speed



B - BRAKE PEDAL.

Press down on the brake pedal to bring the golf car to a stop.

CONTROLS



C - PARKING BRAKE PEDAL.

Press down on the parking brake pedal whenever parking the golf car.

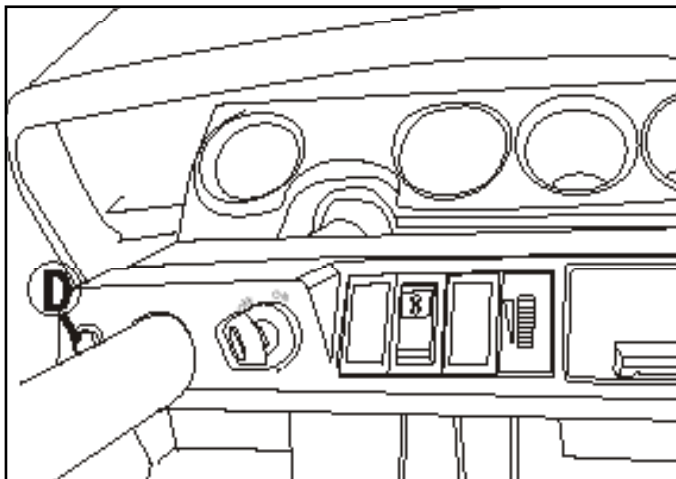
NOTE:

Release the parking brake by depressing the accelerator pedal.



WARNING

The parking brake will automatically release when the accelerator pedal is depressed. If the main switch is "ON", depressing the accelerator pedal may cause the golf cart to move.



D - HORN.

Press down on the horn button to sound a warning.

NOTE:

Only sound the horn in case of danger to alert pedestrians or another vehicle. Avoid sounding the horn unnecessarily particularly on the golf course.

PRE-OPERATION

PRE OPERATION

Pre-operation checks should be made each time you use your golf car. Get into the habit of performing the following checks in the same way so that they become second nature



WARNING

Be sure the main switch key is removed before performing the pre-operating checks to prevent accidental starting. Apply the parking brake to keep the car from moving.

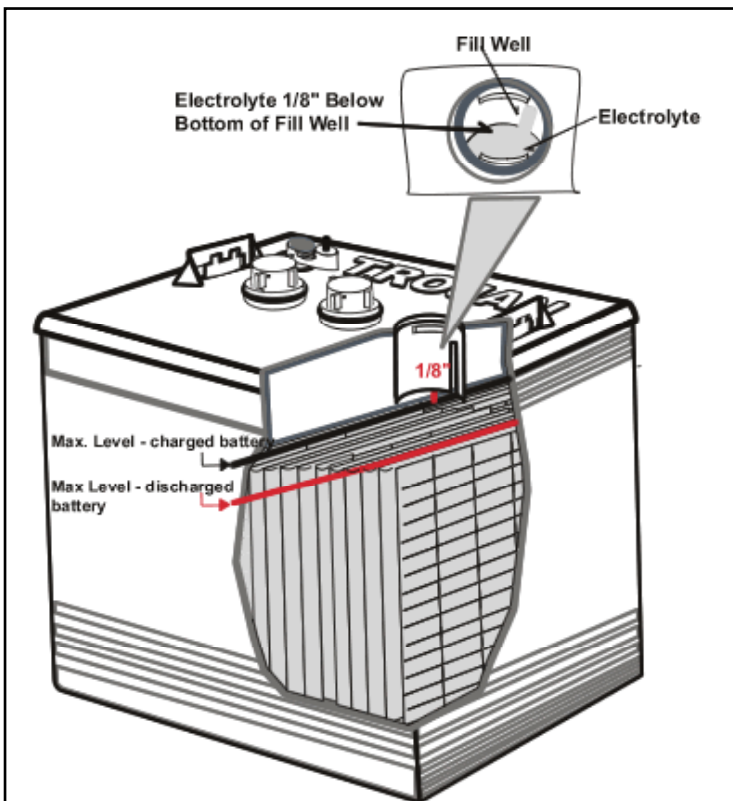
PRE-OPERATION CHECKLIST

Before each use check the following

- Batteries
- Tire condition
- Steering system
- Reversing buzzer
- Pedal operation
- Body and chassis

SEAT

Open the seat for checking and servicing batteries. Note warning labels.



BATTERY

Charge the batteries before each use.

(See charging steps in chapter on Maintenance.)

Check that the batteries are held securely in place to prevent the batteries from being damaged from vibration or jarring.

Also check that no battery acid has spilled or could spill from the battery.

Check the battery terminals for corrosion.

PRE-OPERATION

TIRE CONDITION



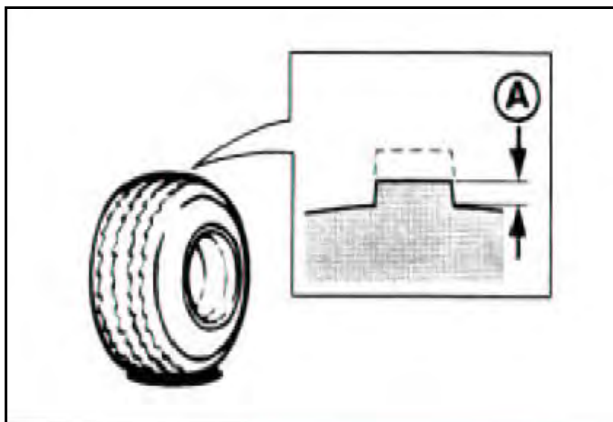
TIRE AIR PRESSURE.

Check the tire air pressure before operating the golf car.

TIRE PRESSURE

Minimum
20 psi (137 kpa, 1.4 kgf/cm²)

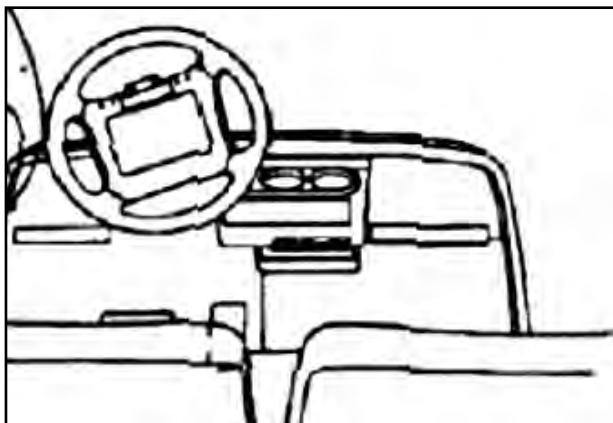
Recommended
22 psi (150 kpa)



TIRE WEAR LIMIT

Check the tire surface for damage, cracks or embedded objects. When tire tread wears down to 0.04 in (1 mm) - replace the tire.

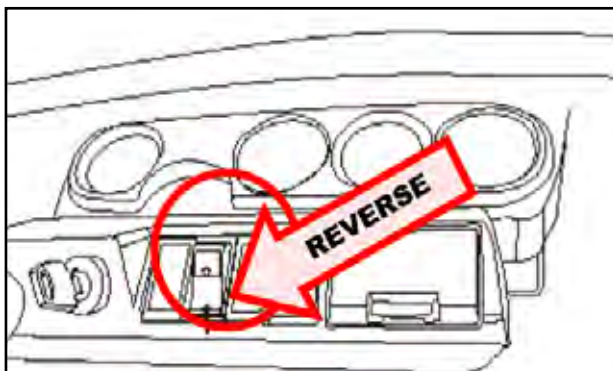
A. WEAR LIMIT



STEERING SYSTEM

Check the steering system for excessive free-play by

- Moving the steering wheel up and down and back and forth.
- Turning the steering wheel slightly to the right and left. Excessive free-play, or rattling sounds may indicate loose steering components. Consult an e-car dealer.



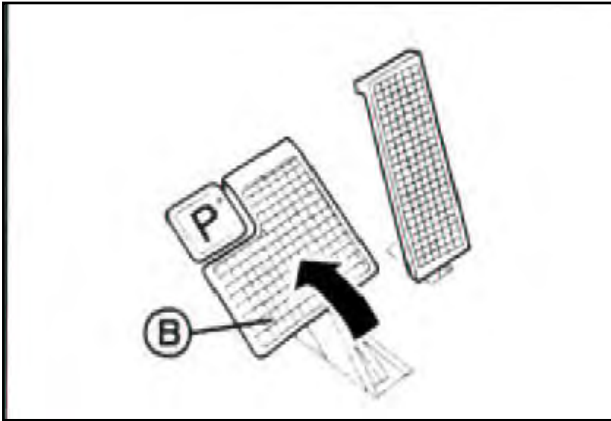
REVERSING BUZZER

Check the back up buzzer by moving the drive select switch to "REV" for reverse. The buzzer should sound.

PRE-OPERATION

PEDAL OPERATION

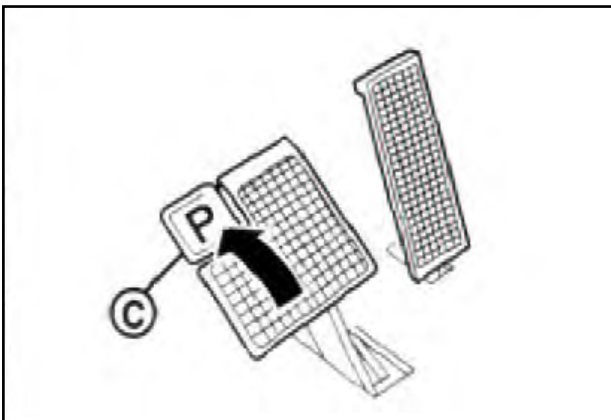
Check the following pedals controls for proper operation. If a pedal does not perform properly consult your dealer immediately.



BRAKE PEDAL.

Make sure the brake pedal feels firm when pressed and returns to its original position when released.

B = Brake pedal

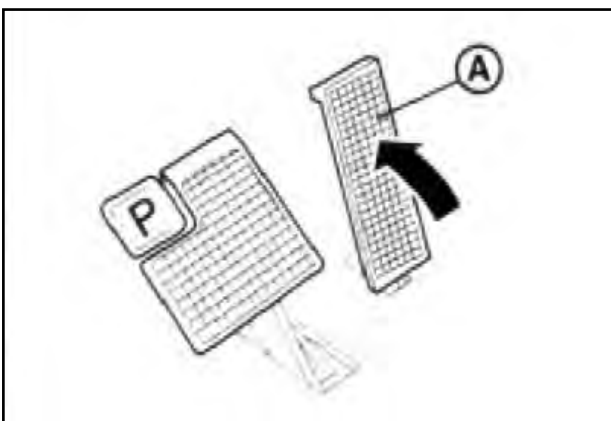


PARKING BRAKE PEDAL.

Make sure the parking brake pedal locks in place with a positive click and releases when the accelerator pedal is pressed.

(NOTE: Release the parking brake by depressing the accelerator pedal.)

C = Parking brake pedal



ACCELERATOR PEDAL

Make sure the accelerator pedal operates smoothly.

A = Accelerator pedal



WARNING

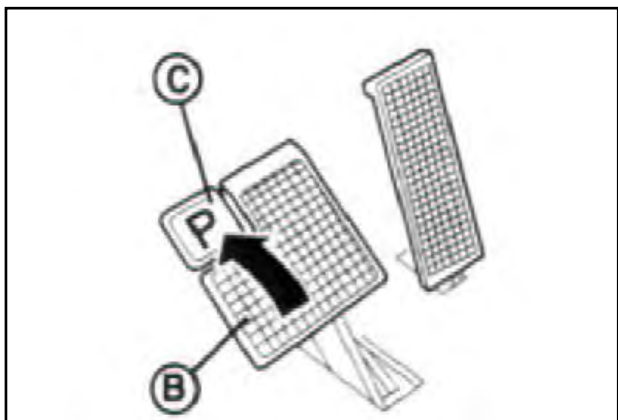
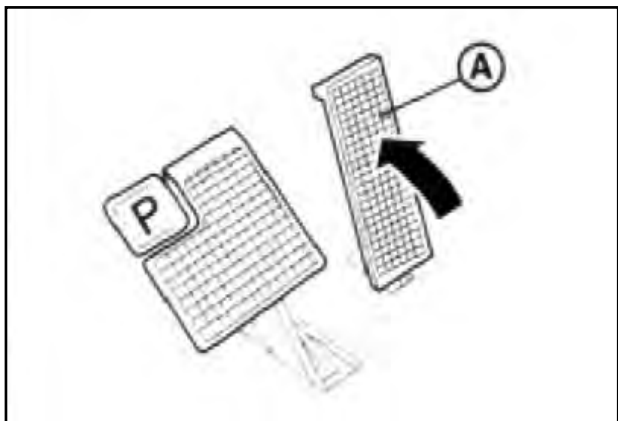
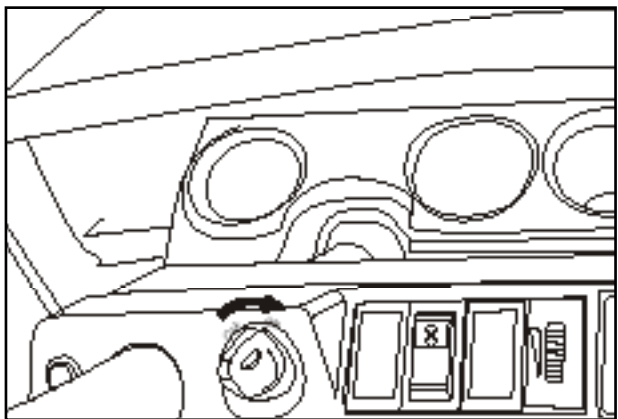
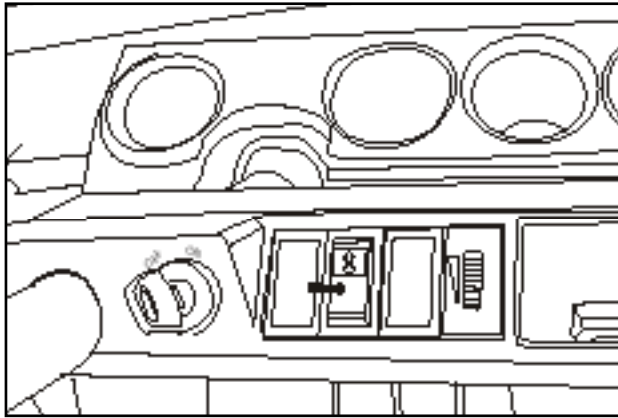
Before checking the operation of the accelerator pedal be sure the main switch is "OFF".

BODY AND CHASSIS

Before each use, visually inspect the golf car body and chassis for damage and /or missing parts.

OPERATION

OPERATION OF YOUR GOLF CAR



STARTING

1. With the parking brake applied turn the drive select switch to "FWD" for forward, or "REV" to reverse.
2. Turn the main switch to "ON".



CAUTION

Do not shift from "FWD" forward to "REV" reverse while the golf car is in motion,



WARNING

Do not depress the accelerator pedal when turning on the main switch or the golf car may suddenly start moving.

3. Check that your path is clear in the direction you plan to go and slowly depress the accelerator pedal. The golf car will start to move.

(NOTE: The parking brake automatically releases when the accelerator pedal is depressed.)

A. Accelerator pedal.

STOPPING

To stop the golf car, gradually press down on the brake pedal.

B = Brake pedal

When the car has come to a stop, apply the parking brake pedal and turn the main switch to "OFF".

C = Parking brake pedal



CAUTION

Do not hold the golf car on an incline with the accelerator pedal - use the brake.

MAINTENANCE

MAINTENANCE

PERIODIC MAINTENANCE CHART

Regular maintenance is required for the best performance and safe operation of your golf car.

Be sure to turn off the main switch and apply the parking brake when you perform maintenance unless otherwise specified.

If the owner is not familiar with the servicing, requirements this work should be done by an e-car dealer or other qualified mechanic.

Please see the table below.

MAINTENANCE

PERIODIC MAINTENANCE CHART

C= CHECK CA=CHECK ADJUST R=REPLACE S=SERVICE

CL=CLEAN AND LUBRICATE L=LUBRICATE

	Remarks	Pre-Operation	20rounds 20 hours 100miles 160 kms (Every Month)	125rounds 125hrs 600mis 1000kms (Every 6 months)	250rounds 250has 1200 mis 2000 kms (Every Years)	500rounds 500hrs 2500mis 4000kn (Every 2 years)	1000rounds 1000 hrs 5000 mis 8000 kms (Every 4 years)	Page
PRE OP	Charge	S	S	S	S	S	S	8-5
	Clean battery tops for tightness of hold-down screws and terminals	S	S	S	S	S	S	8-3/6-2
	Check brake pedal freeplay and adjust if necessary	C	CA	CA	CA	CA	CA	8-9/8-10
	Check steering operation	C	C	C	C	C	C	6-3
	Check tire pressure tread depth tire surface for damage	C	CA	CA	CA	CA	CA	6-2
	Check body and chassis for Damage	C	C	C	C	C	C	6-4
	Check tightness of all bolts , Nuts and screws	C	C	C	C	C	C	"
	Check reverse buzzer operation	C	C	C	C	C	C	6-3
EVERY 6 MONTH	Check electrolyte level		C	C	C	C	C	8-3/6-4
	Check for loose or broken Connections		C	C	C	C	C	"
	Clean Lube pedal control area		CL					--
EVERY MONTHS	Check all wire insulation for Crack and/or worn spots			C	C	C	C	"
	Check shock absorbers for oil leaks and damaged springs			C	C	C	C	"
EVERY YEAR	Perform a discharge test				S	S	S	"
	Apply Terminal protectant				S	S	S	--
	Check shoe lining thickness and rear axle beating play				C	C	C	"
	Check steering knuckle bushing freeplay /Adjust wheel alignment				CA	CA	CA	"
	Check wheel nut tightness front wheel bearing play				C	C	C	8-9/*
	Check gear box oil level and leakage				C	C	C	8-8
EVERY 4 YEARS	Check operation and adjust pedal stop if necessary				CA	CA	CA	"
	Replace gear box oil						R	"
	Check for grease leakage ;adjust Gear box if necessary						CA	8-8

MAINTENANCE

BATTERY CARE



WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with eyes or clothing.

Antidote:

EXTERNAL: Flush with water

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call a physician immediately.

EYES: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc, away.

Ventilate: when charging or using in enclosed space. Always shield eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN

Six x 8-volt deep cycle batteries provide power for your electric golf car and must be properly maintained and recharged for maximum performance and service life.

To maintain your batteries

1. Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.



CAUTION

Do NOT allow cleaning solution to enter the battery cells.

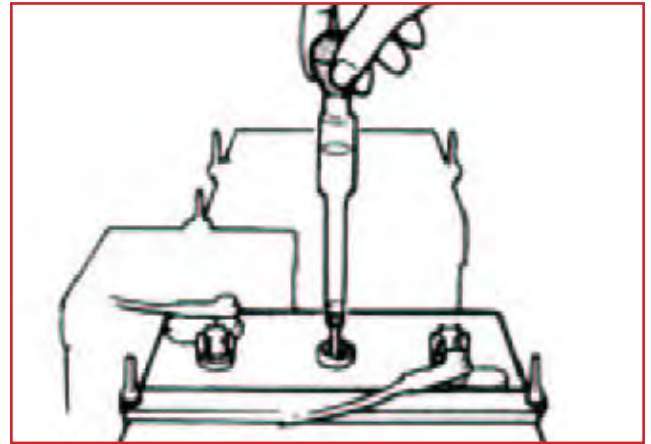
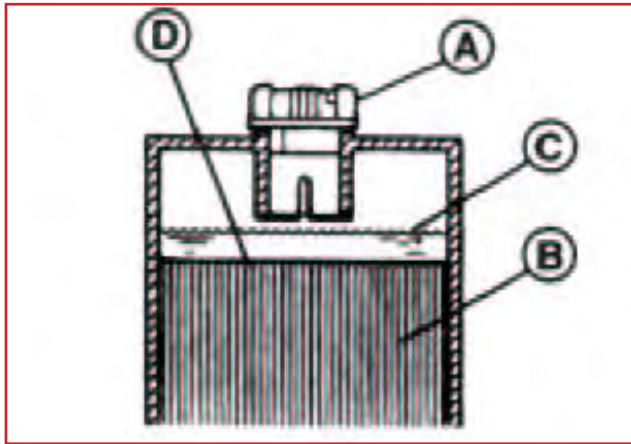
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Before charging: Add only distilled water if the fluid is below the top of the plates and then add just enough to cover plates.

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MAINTENANCE

A----Battery cap B----Plates C----Maximum fluid level D----Minimum fluid level



CAUTION

Normal tap water contains minerals which are harmful to a battery. Therefore refill only with distilled water.

- Using a hydrometer, check the specific gravity of the battery fluid in each cell against the readings on the chart below.
- Consult your e-car dealer if any low readings are found or if readings vary more than one point between cells.

Temperature		Satisfactory Uncorrected Hydrometer Reading
° F	° C	
120	48.9	1.244
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40	4.4	1.276
30	-1.1	1.280

MAINTENANCE

BATTERY CHARGING



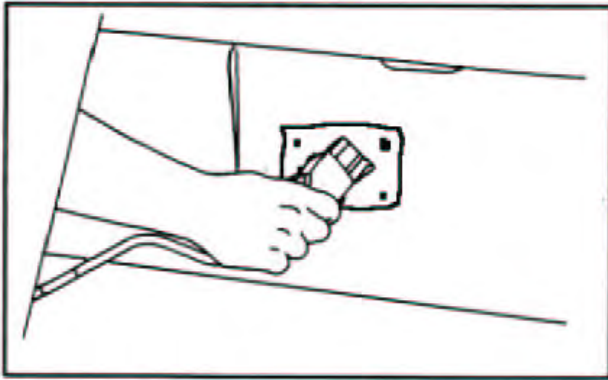
WARNING

Read and understand the owner's manual provided with your golf car's battery charger before charging batteries.



WARNING

Explosives hydrogen gas is produced while batteries are being charged. Only charge batteries in well ventilated areas (a minimum of 5 air changes per hour is recommended).



To charge the batteries in your golf car, follow the instructions contained in your battery charger's owner's manual.

The following is a summary of the charging steps:

Do not attempt to recharge your golf car's batteries without thoroughly reading and understanding the instructions that came with your charger.

1. Turn main switch key to "OFF" position.
2. With the charger properly connected and grounded, (see charger's owner's manual), insert the DC output plug into the golf car receptacle.



CAUTION

Use only battery chargers that are rated for use with 48 volt e-car Golf Cars. Thoroughly read and understand the user manual supplied with your 48 volt charger.



WARNING

Do not disconnect the DC output cord from the battery receptacle when the charger is on or an arc could occur that may cause an explosion.

3. The charger will turn off automatically when the batteries reach full charge.
4. After the charger has turned off, disconnect the DC output plug from the golf car receptacle by grasping the plug body and pulling the plug straight out of the receptacle.

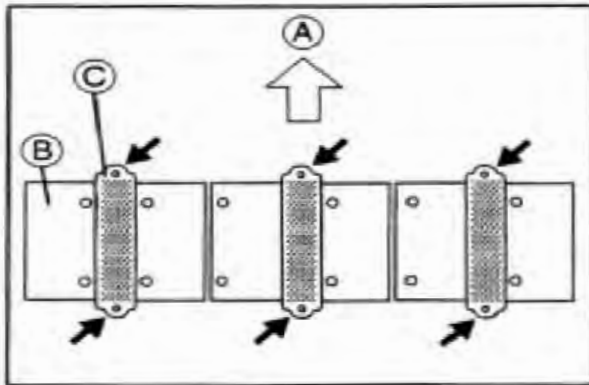
MAINTENANCE

BATTERY INSTALLATION



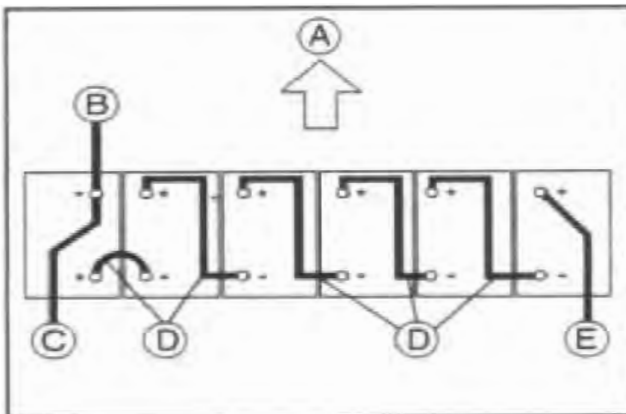
WARNING

When working with batteries, do not put wrenches or other metal objects across the battery terminals. An arc can occur, causing an explosion of the battery.



1. Install the battery hold-down plates as shown.

- A---Forward
- B---Battery
- C---Battery fitting plate



1. Connect the wire leads shown

- A---Forward
- B---To receptacle
- C---To motor control unit
- D---Between batteries
- E---To relay



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When working with batteries, do not put wrenches or other metal objects across the battery terminals. An arc can occur, causing an explosion of the battery.

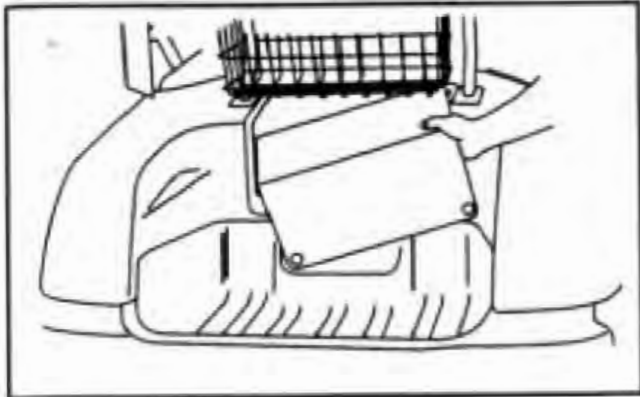


CAUTION

Do not over tighten the battery hold-down nuts. Excessive force will damage the battery casing.

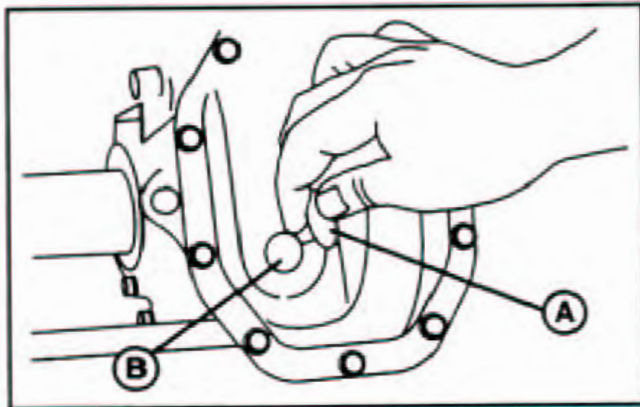
MAINTENANCE

GEAR BOX OIL



To check gear box oil level:

1. Place the golf car on a level surface.
2. Remove the access panel by removing the rivets in the two lower corners of the panel and pulling the panel from the car.



3. Remove the oil level plug ---- A
4. Add gear oil little by little until oil flows from the level plug hole ----- B
5. Allow excess gear oil flow out until it stops.
6. Reinstall the oil level plug

NOTE: We recommend that to replace gear box oil you consult your e-car dealer or other qualified mechanic.

Recommended oil
SAE 90 gear oil

Gearcase capacity :
0.3 US qt
(0.3L ,0.06 Imp gal)



CAUTION

Do not allow foreign material to enter the gear box.

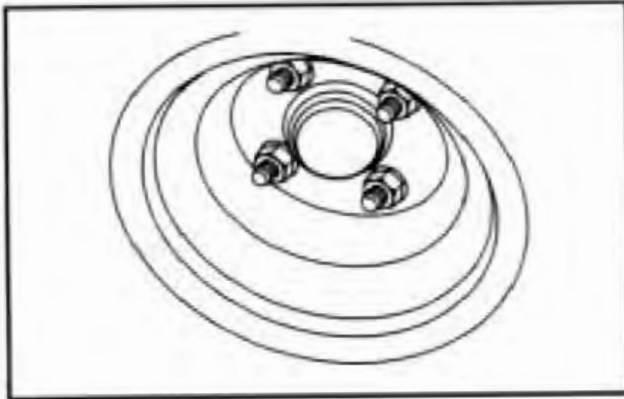
MAINTENANCE

WHEEL REPLACEMENT



CAUTION

Before performing wheel or brake maintenance, verify that the main switch is in the "OFF" position.



Wheel nuttightening torque:
58 ft lb (Nm, 8.0 m kg)

To remove and install a wheel on your golf car:

1. With the wheels blocked to prevent the golf car from moving, loosen the wheel nuts.
2. Elevate the golf car with a jack and remove the wheel nuts and the wheel.
3. Reverse the removal steps when installing the wheel.

BRAKE ADJUSTMENT



WARNING

Consult your e-car dealer before using your golf car if you suspect brake problems. Brake failure could result a serious accident.

The brakes on your golf car are self-adjusting

Before you operate the car, press down on the brake pedal several times to make sure the brakes are functioning properly.

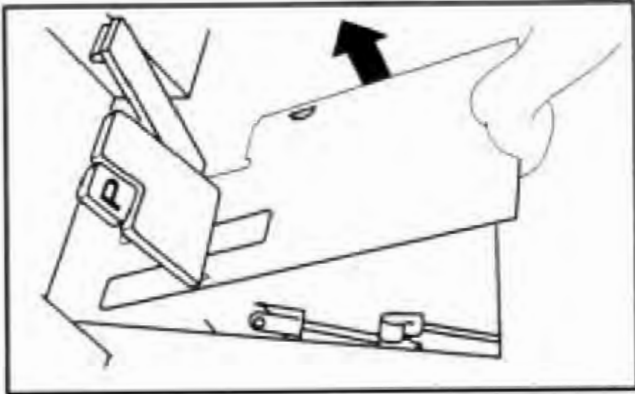
MAINTENANCE

BRAKE PEDAL - FREE PLAY ADJUSTMENT



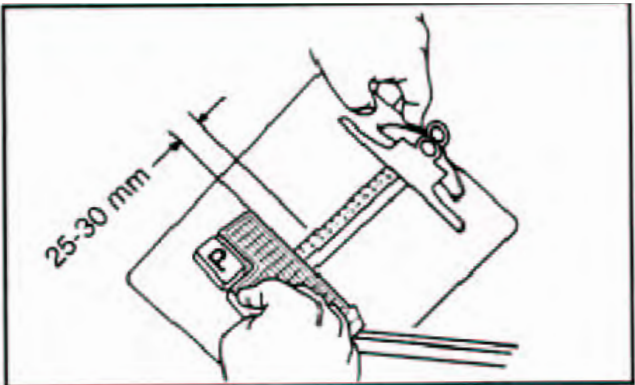
CAUTION

Before adjusting brake pedal free play, pump the brake pedal several times to self-adjust the brakes.



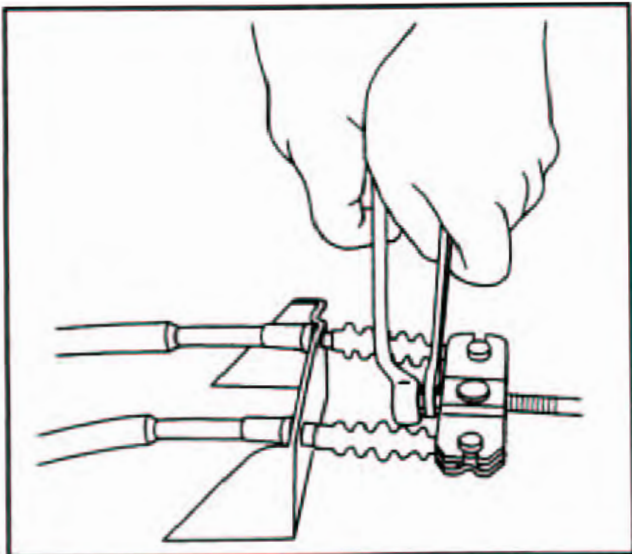
To adjust the brake pedal free play:

1. Remove the service lid from the floor of the golf car.



2. Check the brake pedal free play by pressing against the pedal with two fingers (using light force) and measuring the distance the pedal travels before resistance is felt.

Brake pedal free play
25-30 mm (0.981.18 in)



3. If the free play distance needs adjusting, loosen the lock nut and turn the adjusting nut in or out until the free play specification is met. Then tighten the lock nut in place.



WARNING

Do not over-tighten the brake cables. The self adjusters may not operate properly, reducing braking performance.

STORAGE

PREPARE YOUR GOLF CAR FOR STORAGE

Perform the following preparations when storing your golf car for extended periods of time:



NOTE

Turn main switch key to "OFF" position remove key and store key in a safe place.

CHASSIS PREPARATION

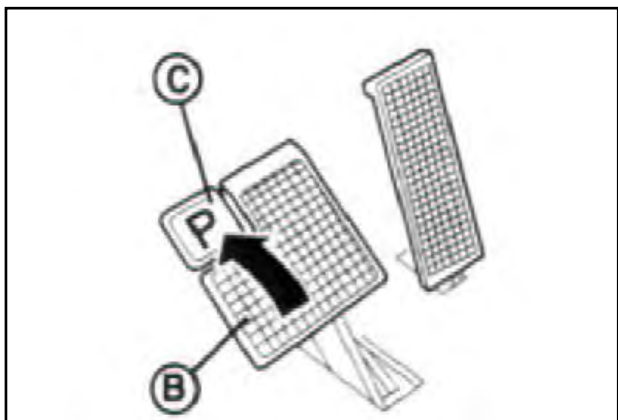
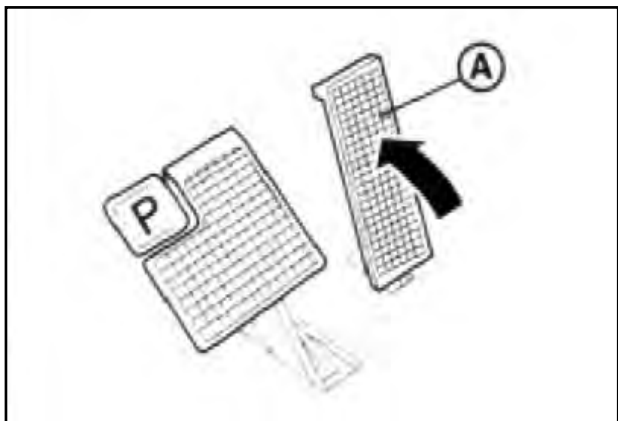
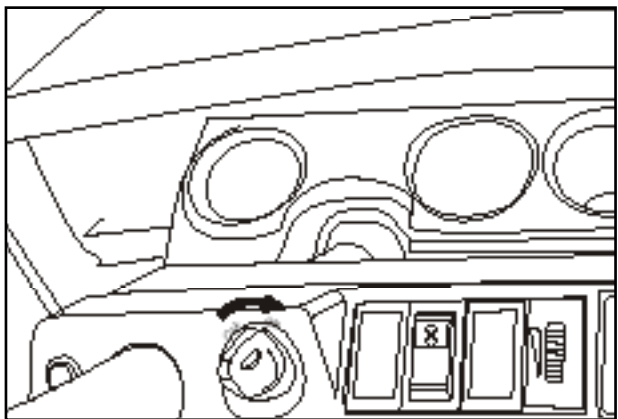
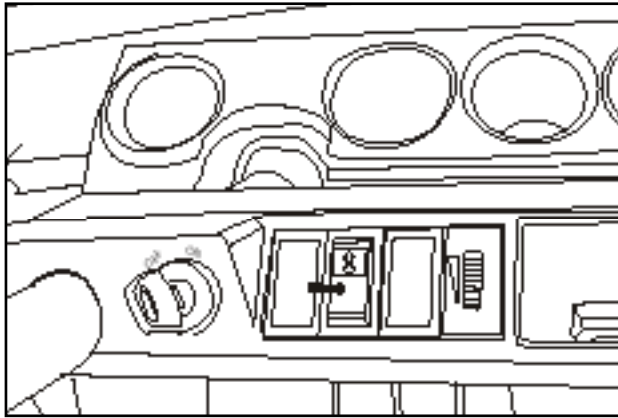
- Verify the tire pressure is set to 20 psi (137 kpa, 1.4 kgf/cm).
- Clean exterior of the golf car and apply a rust inhibitor.
- Cover the golf car with a breathable cover and store it in a dry, well-ventilated area.

BATTERY PREPARATION

- Recharge the batteries and check the fluid levels at least once month.
- Do not allow cleaning solution to enter battery cells.
- Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.

OPERATION

OPERATION OF YOUR GOLF CAR



STARTING

1. With the parking brake applied turn the drive select switch to "FWD" for forward, or "REV" to reverse.
2. Turn the main switch to "ON".



CAUTION

Do not shift from "FWD" forward to "REV" reverse while the golf car is in motion,



WARNING

Do not depress the accelerator pedal when turning on the main switch or the golf car may suddenly start moving.

3. Check that your path is clear in the direction you plan to go and slowly depress the accelerator pedal. The golf car will start to move.

(NOTE: The parking brake automatically releases when the accelerator pedal is depressed.)

A. Accelerator pedal.

STOPPING

To stop the golf car, gradually press down on the brake pedal.

B = Brake pedal

When the car has come to a stop, apply the parking brake pedal and turn the main switch to "OFF".

C = Parking brake pedal



CAUTION

Do not hold the golf car on an incline with the accelerator pedal - use the brake.

MAINTENANCE

MAINTENANCE

PERIODIC MAINTENANCE CHART

Regular maintenance is required for the best performance and safe operation of your golf car.

Be sure to turn off the main switch and apply the parking brake when you perform maintenance unless otherwise specified.

If the owner is not familiar with the servicing, requirements this work should be done by an e-car dealer or other qualified mechanic.

Please see the table below.

MAINTENANCE

PERIODIC MAINTENANCE CHART

C= CHECK CA=CHECK ADJUST R=REPLACE S=SERVICE

CL=CLEAN AND LUBRICATE L=LUBRICATE

	Remarks	Pre-Operatio n	20rounds 20 hours 100miles 160 kms (Every Month)	125rounds 125hrs 600mis 1000kms (Every 6 months)	250rounds 250has 1200 mis 2000 kms (Every Years)	500rounds 500hrs 2500mis 4000kn (Every 2 years)	1000round s 1000 hrs 5000 mis 8000 kms (Every 4 years)	Page
PRE □ OP	Charge	S	S	S	S	S	S	8-5
	Clean battery tops for tightness of hold-down screws and terminals	S	S	S	S	S	S	8-3/6-2
	Check brake pedal freeplay and adjust if necessary	C	CA	CA	CA	CA	CA	8-9/8-10
	Check steering operation	C	C	C	C	C	C	6-3
	Check tire pressure tread depth tire surface for damage	C	CA	CA	CA	CA	CA	6-2
	Check body and chassis for Damage	C	C	C	C	C	C	6-4
	Check tightness of all bolts , Nuts and screws	C	C	C	C	C	C	*
	Check reverse buzzer operation	C	C	C	C	C	C	6-3
EVERY 6 MONTH	Check electrolyte level		C	C	C	C	C	8-3/8-4
	Check for loose or broken Connections		C	C	C	C	C	*
	Clean Lube pedal control area		CL					--
EVERY MONTHS	Check all wire insulation for Crack and/or worn spots			C	C	C	C	*
	Check shock absorbers for oil leaks and damaged springs			C	C	C	C	*
EVERY YEAR	Perform a discharge test				S	S	S	*
	Apply Terminal protectant				S	S	S	--
	Check shoe lining thickness and rear axle beating play				C	C	C	*
	Check steering knuckle bushing freeplay /Adjust wheel alignment				CA	CA	CA	*
	Check wheel nut tightness front wheel bearing play				C	C	C	8-9/*
	Check gear box oil level and leakage				C	C	C	8-8
	Check operation and adjust pedal stop if necessary				CA	CA	CA	*
EVERY4 YEARS	Replace gear box oil						R	*
	Check for grease leakage ;adjust Gear box if necessary						CA	8-8

MAINTENANCE

BATTERY CARE



WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with eyes or clothing.

Antidote:

EXTERNAL: Flush with water

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call a physician immediately.

EYES: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc, away.

Ventilate: when charging or using in enclosed space .Always shield eyes when working near batteries.

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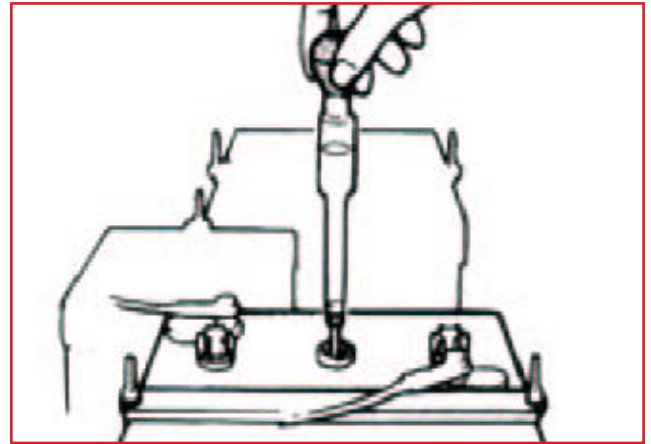
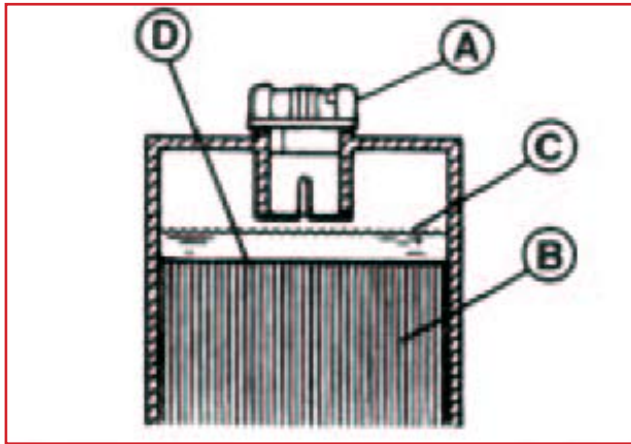
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MAINTENANCE

A----Battery cap B----Plates C----Maximum fluid level D----Minimum fluid level



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MAINTENANCE

BATTERY CHARGING



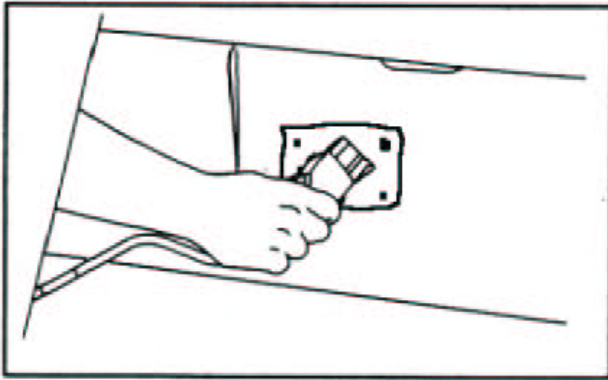
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Explosives hydrogen gas is produced while batteries are being charged. Only charge batteries in well ventilated areas (a minimum of 5 air changes per hour is recommended).



To charge the batteries in your golf car, follow the instructions contained in your battery charger's owner's manual.

The following is a summary of the charging steps:

Do not attempt to recharge your golf car's batteries without thoroughly reading and understanding the instructions that came with your charger.

1. Turn main switch key to "OFF" position.
2. With the charger properly connected and grounded, (see charger's owner's manual), insert the DC output plug into the golf car receptacle.



CAUTION

Use only battery chargers that are rated for use with 48 volt e-car Golf Cars. Thoroughly read and understand the user manual supplied with your 48 volt charger.



WARNING

Do not disconnect the DC output cord from the battery receptacle when the charger is on or an arc could occur that may cause an explosion.

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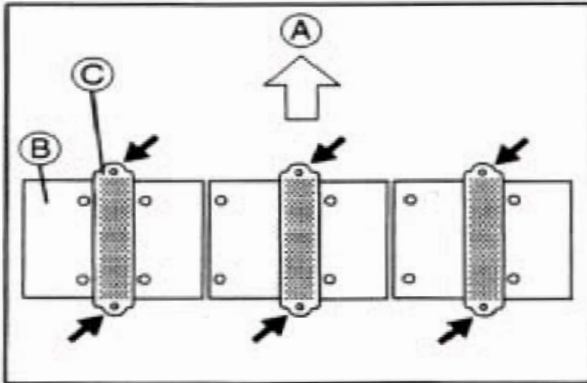
MAINTENANCE

BATTERY INSTALLATION



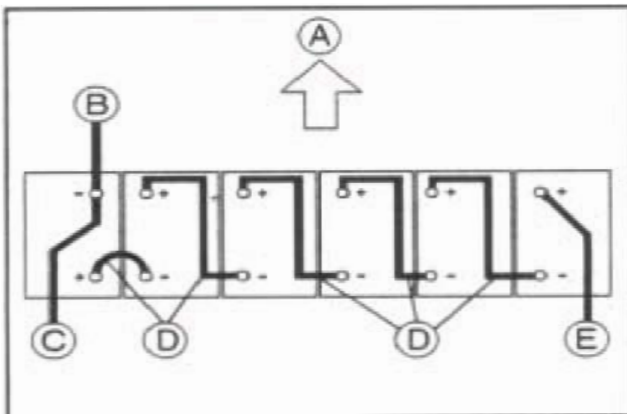
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When working with batteries, do not put wrenches or other metal objects across the battery terminals. An arc can occur, causing an explosion of the battery.



1. Install the battery hold-down plates as shown.

- A---Forward
- B---Battery
- C---Battery fitting plate



1. Connect the wire leads shown

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- B---To receptacle
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- D---Between batteries
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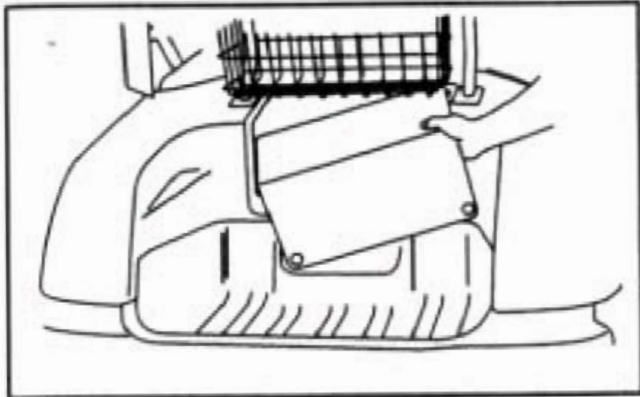


CAUTION

Do not over tighten the battery hold-down nuts. Excessive force will damage the battery casing.

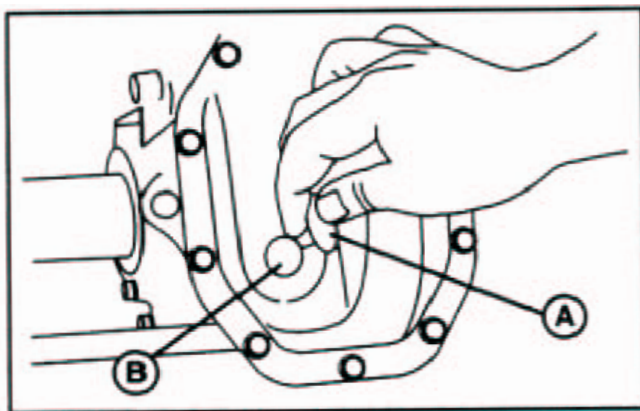
MAINTENANCE

GEAR BOX OIL



To check gear box oil level:

1. Place the golf car on a level surface.
2. Remove the access panel by removing the rivets in the two lower corners of the panel and pulling the panel from the car.



3. Remove the oil level plug ---- A
4. Add gear oil little by little until oil flows from the level plug hole ----- B
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NOTE: We recommend that to replace gear box oil you consult your e-car dealer or other qualified mechanic.

Recommended oil
SAE 90 gear oil

Gearcase capacity :
0.3 US qt
(0.3L ,0.06 Imp gal)



CAUTION

Do not allow foreign material to enter the gear box.

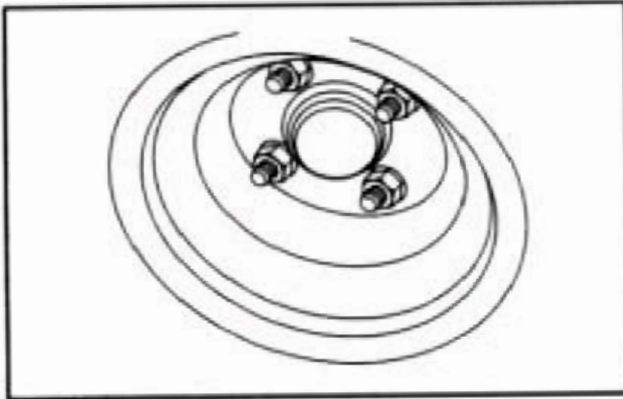
MAINTENANCE

WHEEL REPLACEMENT



CAUTION

Before performing wheel or brake maintenance, verify that the main switch is in the "OFF" position.



Wheel nuttightening torque:
58 ft lb (Nm, 8.0 m kg)

To remove and install a wheel on your golf car:

1. With the wheels blocked to prevent the golf car from moving, loosen the wheel nuts.
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BRAKE ADJUSTMENT



WARNING

Consult your e-car dealer before using your golf car if you suspect brake problems. Brake failure could result a serious accident.

The brakes on your golf car are self-adjusting

Before you operate the car, press down on the brake pedal several times to make sure the brakes are functioning properly.

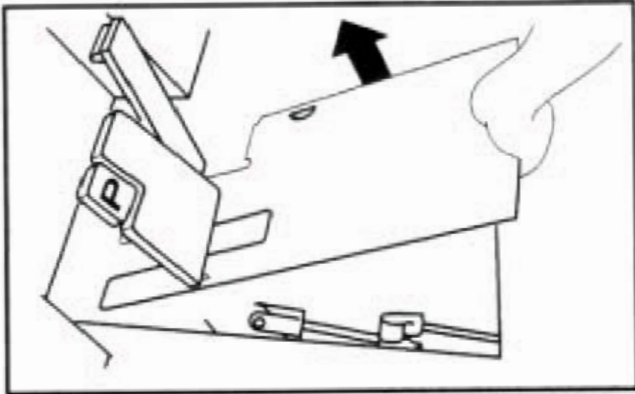
MAINTENANCE

BRAKE PEDAL - FREE PLAY ADJUSTMENT



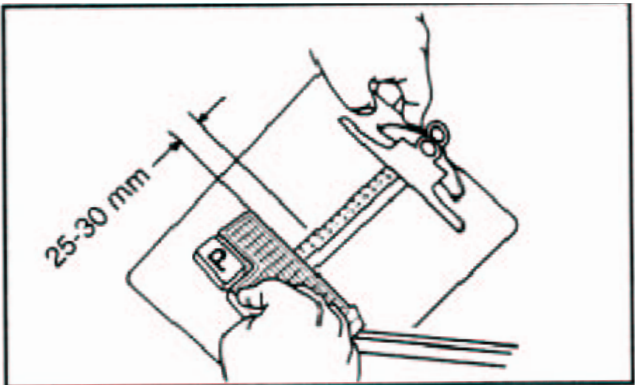
CAUTION

Before adjusting brake pedal free play, pump the brake pedal several times to self-adjust the brakes.



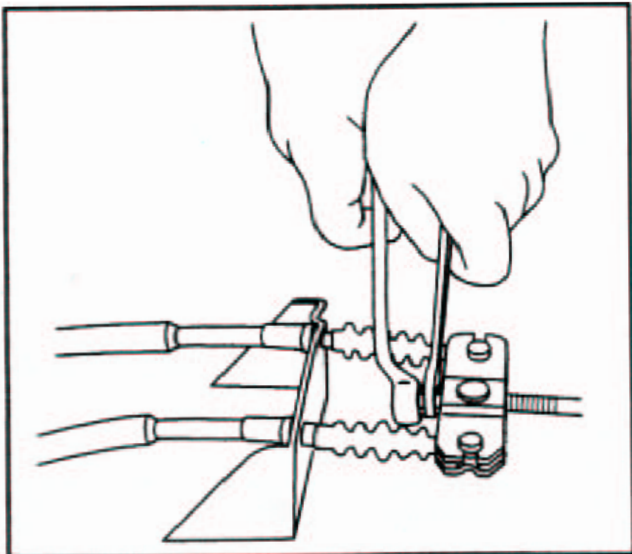
To adjust the brake pedal free play:

1. Remove the service lid from the floor of the golf car.



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Brake pedal free play
25-30 mm (0.981.18 in)



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Do not over-tighten the brake cables. The self adjusters may not operate properly, reducing braking performance.

STORAGE

PREPARE YOUR GOLF CAR FOR STORAGE

Perform the following preparations when storing your golf car for extended periods of time:



NOTE

Turn main switch key to "OFF" position remove key and store key in a safe place.

CHASSIS PREPARATION

- Verify the tire pressure is set to 20 psi (137 kpa, 1.4 kgf/cm).
- Clean exterior of the golf car and apply a rust inhibitor.
- Cover the golf car with a breathable cover and store it in a dry, well-ventilated area.

BATTERY PREPARATION

- Recharge the batteries and check the fluid levels at least once month.
- Do not allow cleaning solution to enter battery cells.
- Clean the tops of the batteries with a solution of baking soda and water, as necessary, to remove corrosion.

GOLF CAR WARRANTY

E-CAR by LVTONG hereby warrants that any new E-CAR golf car purchased from an authorized E-CAR dealer will be free from defects in material and workmanship for two years from date of purchase, (2 years on batteries), subject to the stated limitations.

DURING THE PERIOD OF WARRANTY any authorized E-CAR Dealer will, free of charge and at E-CAR'S option, repair or replace any part adjudged defective by E-CAR due to faulty workmanship or materials. Parts used in warranty repairs will be warranted for the balance of the machine's warranty period. All parts replaced under warranty become the property of E-CAR.

GENERAL EXCLUSIONS from this warranty shall include any failures caused by

- Abnormal strain, neglect, or abuse including lack of proper maintenance or use contrary to the Owner / Operator Manual instructions.
- Accident or collision damage.
- Installation of parts or accessories that are not original equipment.
- Fading, rust or deterioration due to exposure or ordinary wear and tear.
- Modifications or alteration that affects the car's condition, operation, purpose or durability.
- Damage due to improper transportation.
- Acts of God, i.e. Lightening hail damage, flood, fire, etc.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

1. Operate and maintain the golf car as specified in the appropriate Owner's / Operator's Manual.
2. Give notice to an authorized E-CAR dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs by dealer's authorized representative.

WARRANTY TRANSFER: To transfer any remaining warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized E-CAR Dealer in order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.