

OWNER'S MANUAL



1997 DS Golf Cars Electric and Gasoline

 **WARNING**

- THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.

NOTICE

The Club Car Limited Warranty appears on the pages following this notice, and the Limited Lifetime Fleet Warranty appears on the last pages of this manual. No other warranties, express or implied, are contained herein. Your authorized representative checked this vehicle before it was delivered to you and will provide you with a completed warranty registration card.

Club Car is not liable for errors in this manual or for incidental or consequential damages that result from the use of the material in this manual.

This vehicle conforms to the current American National Standards Institute's Z130 Safety and Performance Requirements for Golf Cars. This standard, which promotes safety in the design, application, and operation of golf cars, defines a golf car as "a vehicle used to convey a person or persons and equipment to play the game of golf in an area designated as a golf course". Throughout this manual, the words "golf car" and "vehicle" are used interchangeably.

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The information contained in this document is subject to change without notice.

Club Car reserves the right to make design changes to either gasoline or electric vehicles without obligation to make these changes on units previously sold.

These vehicles are designed and manufactured for off-road use only. They do not conform to Federal Motor Vehicle Safety Standards or EPA regulations and are not equipped for operation on public streets, roads, or highways.

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This manual effective August 1, 1996

CLUB CAR LIMITED THREE (3) YEAR WARRANTY FOR 1997 INDIVIDUAL GOLF CARS IN THE UNITED STATES AND CANADA

1. WARRANTY:

CLUB CAR, INC. ("CLUB CAR") hereby warrants to the original retail purchaser that its new 1997 Model DS golf car purchased from CLUB CAR or an authorized distributor or dealer for use in the United States or Canada shall be free from defects in materials and workmanship under normal use and service as a golf car for the periods stated below, subject to the provisions, limitations, and exclusions contained in this limited warranty.

LIMITED THREE YEAR WARRANTY:

The golf car frame (excluding the front and rear bumper mounts), rack and pinion steering gearbox unit, suspension system (defined as the shock absorbers, shock mounts, A-plate, leaf springs, shackles, and associated hardware), gasoline engine, unitized transaxle, torque converters (drive and driven), starter generator, transaxle (electric vehicle), and electric motor are warranted with respect to parts and labor against defects in materials and workmanship for a period of three years from the date of purchase.

LIMITED TWO YEAR WARRANTY:

All remaining components of the golf car not specified otherwise are warranted with respect to parts and labor against defects in materials and workmanship for a period of two years from the date of purchase.

This limited warranty covers materials, workmanship, and repair labor cost as to those items specifically listed above for the periods specified. Such repair labor shall be performed only by CLUB CAR, its authorized distributors or dealers, or a service agency approved by CLUB CAR.

IF THE WARRANTY REGISTRATION FORM IS NOT COMPLETED AND RETURNED TO CLUB CAR AT THE TIME OF THE ORIGINAL RETAIL SALE, PURCHASER MUST PROVIDE PROOF OF DATE OF PURCHASE WITH ANY WARRANTY CLAIM.

2. EXCLUSIONS:

Excluded from any CLUB CAR warranty are all optional equipment and accessories, fuses, filters, decals (except safety decals), spark plugs, lubricants, trim pieces, seats, routine wear items such as the charger plug and receptacle, brake shoes, belts, brushes, bushings, engine mounts, mats and pads, maintenance adjustments, cosmetic deterioration, and items which deteriorate or fail due to exposure or ordinary wear and tear. Batteries, battery charger, on-board computer, and solid state controller are covered by separate CLUB CAR warranties. Tires are warranted by their manufacturer. Also excluded from any CLUB CAR warranty is damage to a golf car or component resulting from a cause other than a defect including unreasonable or unintended strain or use, improper installation of accessories, installation of parts or accessories that are not original equipment, overloading, accident, alteration, abuse, or neglect.

Transportation expenses for warranty service are also excluded from this warranty.

3. VOIDING OF WARRANTY:

THIS AND ANY OTHER WARRANTY SHALL BE VOID IF THE GOLF CAR IS ABUSED OR USED IN AN UNINTENDED MANNER OR SHOWS INDICATIONS THAT IT HAS BEEN ALTERED IN ANY WAY, INCLUDING, BUT NOT LIMITED TO, MODIFICATION OF THE SPEED GOVERNOR, BRAKING SYSTEM, STEERING, TRANSAXLE, OR OTHER OPERATING SYSTEMS OF THE CAR TO CAUSE IT TO PERFORM OUTSIDE CLUB CAR SPECIFICATIONS. THE WARRANTY IS LIKEWISE VOID IF THE CAR SHOWS INDICATIONS THAT REASONABLE OR NECESSARY MAINTENANCE AS OUTLINED IN THE OWNER'S MANUAL AND MAINTENANCE AND SERVICE MANUAL WAS NOT PERFORMED AT THE TIME AND IN THE MANNER SPECIFIED IN SUCH MANUALS.

4. SOLE REMEDY:

CLUB CAR'S ONLY LIABILITY UNDER THIS LIMITED WARRANTY, OR IN ANY ACTION, WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT PRODUCT LIABILITY, OR OTHERWISE, IS LIMITED TO THE REPAIR OR REPLACEMENT, AT CLUB CAR'S OPTION, OF A GOLF CAR OR

COMPONENT THEREOF THAT CLUB CAR DEEMS TO BE DEFECTIVE. REPLACEMENT SHALL MEAN FURNISHING, DURING THE APPLICABLE LIMITED WARRANTY PERIOD, A NEW GOLF CAR OR FACTORY RECONDITIONED VEHICLE OR COMPONENT THEREOF WHICH IS IDENTICAL OR REASONABLY EQUIVALENT TO THE WARRANTED PRODUCT OR COMPONENT AT NO COST TO THE PURCHASER. REPAIR SHALL MEAN REMEDYING A DEFECT IN THE GOLF CAR OR COMPONENT THEREOF AT NO COST TO THE PURCHASER DURING THE APPLICABLE LIMITED WARRANTY PERIOD. IF CLUB CAR ELECTS TO REPAIR THE GOLF CAR, IT MAY PROVIDE FACTORY RECONDITIONED PARTS OR COMPONENTS. ALL PARTS AND COMPONENTS REPLACED UNDER WARRANTY SHALL BECOME THE PROPERTY OF CLUB CAR.

5. HOW TO MAKE A WARRANTY CLAIM:

To make a warranty claim under this limited warranty, you must present the golf car or defective component to an authorized CLUB CAR distributor or dealer or send the defective component, freight prepaid, to WARRANTY ADMINISTRATION, CLUB CAR, INC., 4152 Washington Road, P.O. Box 204658, Augusta, Georgia 30917-4658.

6. DISCLAIMER:

THIS LIMITED WARRANTY IS EXCLUSIVE. CLUB CAR MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS OR TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY CLUB CAR AND EXCLUDED FROM THIS WARRANTY. THE PURCHASER AND CLUB CAR EXPRESSLY AGREE THAT THE REMEDY OF REPLACEMENT OR REPAIR OF THE DEFECTIVE GOLF CAR OR COMPONENT THEREOF IS THE EXCLUSIVE AND SOLE REMEDY OF THE PURCHASER. CLUB CAR MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, DISTRIBUTOR OR DEALER OF CLUB CAR HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE OR AGREEMENT WHICH IN ANY WAY VARIES THE TERMS OF THIS WARRANTY.

7. NO CONSEQUENTIAL DAMAGES:

IN NO EVENT SHALL CLUB CAR BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS RELATED TO PROPERTY OTHER THAN THE GOLF CAR, LOSS OF USE, LOSS OF TIME, INCONVENIENCE, OR ANY OTHER ECONOMIC LOSS.

Some states allow neither limitation on the duration of an implied warranty nor exclusions or limitation of incidental or consequential damages. Therefore, the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

8. INFORMATION:

For further information contact WARRANTY ADMINISTRATION, CLUB CAR, INC., P.O. Box 204658, Augusta, Georgia 30917-4658, U.S.A., 706-863-3000.

9. WARNING:

Any modification or alteration of any golf car beyond factory specifications, including those that affect the weight distribution, stability, or speed of the golf car, can cause serious personal injury or death.

FOREWORD

Thank you for choosing Club Car, the golf car most widely recognized as the industry leader in vehicle efficiency and long-lasting value. Whether you have chosen the DS Gasoline or DS Electric, you have chosen the finest golf car on the market. Please protect your investment and ensure that your Club Car provides years of reliable, superior performance by returning your Warranty Registration (provided by your distributor/dealer), and by reading and following the maintenance instructions in this manual.

Your comfort and safety are important to us as well, so we urge you to read and follow the step-by-step operating instructions and safety procedures in this manual. These instructions must be followed in order to avoid the risk of severe personal injury. If you rent or loan your vehicle to others, we recommend that you ask them to read this manual before they operate the vehicle.

Club Car products are backed by a customer support system designed to offer you fast, courteous service. In the event that your golf car needs repairs or services, we recommend that your local authorized Club Car representative perform them. For the name and address of the Club Car representative nearest you, call 706-863-3000, Ext. 822. If you would prefer to write to us, direct your letter to: Club Car, Attention: Product Development Department, P.O. Box 204658, Augusta, Ga. 30917-4658 USA. Your local authorized Club Car representative can also provide technical advice, parts, and service manuals.

We hope you will consider this owner's manual a permanent part of your golf car. If you sell the vehicle, please include the manual so that the next owner will have the important operating, safety, and maintenance information it contains.

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Practice Safety



Safety signs like you see above may at first seem shocking, but their impact is mild compared with the reality of severe personal injury.

Your safety and satisfaction are of the utmost importance to Club Car. That is why we urge you to study this owner's manual, and to read, understand, and heed the warnings in this manual, as well as the safety decals on your vehicle, before operating the vehicle.

Take time to understand the language of safety. It is a language that can save your life.

SAFETY DETAILS

WARNING

- THIS OWNER'S MANUAL SHOULD BE READ COMPLETELY BEFORE ATTEMPTING TO DRIVE OR SERVICE THE VEHICLE. FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS MANUAL COULD RESULT IN PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.

It is important to note that some vital statements throughout this manual and on the decals affixed to the vehicle are preceded by the words DANGER, WARNING, CAUTION, or NOTE. For your protection, we recommend that you take special notice of these safety procedures. Safety procedures are essential and must be followed.

Throughout this manual and on the operation and warning decals affixed to the vehicle, the words "golf car" and "vehicle" are used interchangeably. "Golf car" is defined in the Notice of this manual and no other representation is stated or implied.

If any of the operation or warning decals on the vehicle become damaged, have been removed or cannot be easily read they should be replaced immediately to avoid possible personal injury, property damage, or death. Contact your CLUB CAR distributor/dealer.

DANGER

- A DANGER INDICATES AN IMMEDIATE HAZARD WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

WARNING

- A WARNING INDICATES AN IMMEDIATE HAZARD WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

CAUTION

- A CAUTION INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN PRODUCT OR PROPERTY DAMAGE OR MINOR PERSONAL INJURY.

NOTE

- A NOTE PROVIDES KEY INFORMATION TO MAKE PROCEDURES MORE EASILY UNDERSTOOD.

GENERAL WARNINGS

The safety procedures listed must be followed whenever the vehicle is being operated, repaired, or serviced. Other specific warnings appear throughout this manual and on the vehicle.

DANGER

- GASOLINE VAPORS - FLAMMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE. SERVICE ONLY IN WELL-VENTILATED AREAS.

DS GASOLINE VEHICLE FEATURE IDENTIFICATION

PRACTICE GOLF ETIQUETTE

- Observe club rules.
- Drive on golf car paths when possible.
- Keep proper distance from greens.
- Replace divots.
- Repair ball marks on greens.
- Rake sand traps.
- Allow faster players to play through.
- Help speed up play.
- Dispose of litter properly.

Club Car

GOLF ETIQUETTE

KEY SWITCH



OPERATING INSTRUCTIONS DECAL

OPERATING INSTRUCTIONS

- Read owner's manual prior to operation.
- Study and understand controls. Do not attempt to modify.
- Before driving, read safety warnings located above pedals.
- Make sure vehicle are turned in desired direction.
- Turn key to "ON" position and be sure nothing is in your path.
- Select direction by placing shift lever in desired position:
 - F - Forward
 - N - Neutral
 - R - Reverse
- Vehicle will not start moving when accelerator pedal is depressed.
- Slowly depress accelerator pedal to increase speed. Park brake will release when accelerator pedal is depressed.
- To stop, release accelerator pedal and depress brake pedal.
- After stopping, firmly depress park brake until it locks.
- Place forward and reverse switch in neutral position.
- Turn key "OFF" and remove key when not in use.

OIL WARNING LIGHT

SERIAL NUMBER

ACCELERATOR PEDAL

BRAKE PEDAL

PARK BRAKE PEDAL

SAFETY WARNING DECAL

<p>WARNING</p> <p>Failure to follow these instructions can cause severe injury or death.</p> <ul style="list-style-type: none"> • Read operating instructions before using vehicle. • Never stand in front or behind vehicle. • Vehicle should be driven only in specified areas by trained persons. 	<ul style="list-style-type: none"> • Do not use on public roads. • Only two persons per seat. • Operate vehicle from driver's side only. • Do not start vehicle until all people are seated. 	<ul style="list-style-type: none"> • Remain seated and hold on in moving vehicle. • Keep arms, legs, feet and body inside vehicle. • Stop vehicle before changing direction. • Buzzer will sound in reverse. • Drive slowly in turns. 	<ul style="list-style-type: none"> • Drive slowly straight up and down slopes. • Set park brake before leaving vehicle. • Remove key when vehicle is not in use. • Place shift lever in neutral when vehicle is not in use.
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GASOLINE TANK DANGER DECAL (ON BODY ADJACENT TO FUEL TANK)

HOT MANIFOLD AND MUFFLER DECAL (ON ENGINE)

MOVING PARTS DECAL (ON FRAME)

WARNING

Gasoline - extremely flammable.

- Keep heat, sparks and open flame away from fuel tank and fuel lines.
- Do not add fuel while engine is running or hot.
- Service by trained personnel.

WARNING

HOT manifold and muffler can cause severe burns.

PERIODIC SERVICE SCHEDULE DECAL (ON AIR INTAKE BOX)

ClubCar Periodic Service Schedule

Check/Service Item	Regular Interval
1. Check Oil Level	Monthly
2. Oil and Filter Change	Monthly, Annually or 100 Hours
3. Check coolant level	Monthly, Annually or 100 Hours
4. Check Air Filter	Monthly or 100 Hours
5. Check Fuel Pressure	Monthly or 100 Hours
6. Replace Fuel Filter	Annually or 100 Hours
7. Check Spark Plugs	Annually or 100 Hours
8. Check P/B Transmissions	Annually or 100 Hours

WARNING

SAE 90 above 32°F (5°C) or SAE 150 below 32°F (0°C). Classification SE, SF, SG or Higher. *Whichever comes first.

WARNING

MOVING PARTS

OIL FILL

FORWARD / REVERSE LEVER

NEUTRAL LOCK-OUT CAM

CHOKE

FRAME GROUND WARNING DECAL

DANGER / POISON

SHIELD EYES FROM EXPLOSIVE GASES OR FLAMES FROM BATTERY

NO SPARKS, FLAMES, SMOKE

SULFURIC ACID - FLUSH EYES IMMEDIATELY WITH WATER

DO NOT TOUCH BATTERY OR BATTERY POSTS

KEEP OUT OF THE REACH OF CHILDREN - DO NOT TIP - KEEP VENT CAPS TIGHT AND LEVEL.

DANGER DECAL (ON BODY UNDER SEAT)

WARNING

Negative frame ground. Do not contact positive (+) battery post or cable to frame as this can cause battery explosion, electrical shocks, and burns.

(ON FRAME)

DS ELECTRIC VEHICLE FEATURE IDENTIFICATION

PRACTICE GOLF ETIQUETTE

- Observe club rules.
- Drive on golf car paths when possible.
- Keep proper distance from greens.
- Replace divots.
- Repair ball marks on greens.
- Rake sand traps.
- Allow faster players to play through.
- Help speed up play.
- Dispose of litter properly.

Club Car

GOLF ETIQUETTE DECAL
V-GLIDE 36 VOLT AND POWERDRIVE SYSTEM 48 VEHICLES OR

IMPORTANT NOTICE
VEHICLE EQUIPPED TO CONTROL DOWNHILL SPEED

- Maximum vehicle speed is controlled during downhill operation with accelerator pedal depressed.
- Vehicle will brake gently when accelerator pedal is released.
- System is activated only when key is in the "ON" position.
- When towing vehicle, key must be in the "OFF" position.

Club Car

MOTOR BRAKING DECAL
POWERDRIVE PLUS VEHICLE ONLY

BATTERY WARNING LIGHT

KEY SWITCH DECAL



OPERATING INSTRUCTIONS DECAL

OPERATING INSTRUCTIONS

- Read owner's manual prior to operation.
- Study and understand controls. Be sure everyone is seated.
- Before driving, read safety warnings located above pedals.
- Make sure wheels are turned in desired direction.
- Turn key to "ON" position and be sure nothing is in your path.
- Select direction by placing shift lever in desired position:
 - Forward for "Forward" or "Reverse"
- Vehicle will start moving when accelerator pedal is depressed.
- Slowly depress accelerator pedal to increase speed. Park brake will release when accelerator pedal is depressed.
- To stop, release accelerator pedal and depress brake pedal.
- After stopping, firmly depress park brake until it locks.
- Place forward and reverse switch in neutral position. Turn key "OFF" and remove key when not in use.

SERIAL NUMBER

ACCELERATOR PEDAL

BRAKE PEDAL

PARK BRAKE PEDAL

WARNING

- Read operating instructions before using vehicle.
- Never stand in front or behind vehicle.
- Vehicle should be driven only in specified areas by trained persons.
- Do not use on public roads.
- Only two persons per seat.
- Operate vehicle from driver's side only.
- Do not start vehicle until all people are seated.
- Remain seated and hold on in moving vehicle.
- Keep arms, legs, feet and body inside vehicle.
- Stop vehicle before changing direction.
- Buzzer will sound in reverse.
- Drive slowly in turns.
- Drive slowly straight up and down slopes.
- Set park brake before leaving vehicle.
- Remove key when vehicle is not in use.
- Place shift lever in neutral when vehicle is not in use.

SAFETY WARNING DECAL

DANGER DECAL (ON BODY UNDER SEAT)

⚠ DANGER / POISON

- EXPLOSIVE GASES OR FUMES: BLINDNESS OR BURN
- SHIELD EYES
- NO SPARKS, FLAMES, SMOKE
- SULFURIC ACID: CAN CAUSE BLINDNESS OR SEVERE BURNS
- FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.

KEEP OUT OF THE REACH OF CHILDREN - DO NOT TIP - KEEP VENT CAPS TIGHT AND LEVEL

⚠ WARNING HOT RESISTORS CAN CAUSE SEVERE BURNS.

RESISTOR WARNING DECAL
V-GLIDE 36 VOLT AND POWERDRIVE PLUS VEHICLES (ON BODY UNDER SEAT)

FORWARD - REVERSE LEVER (POWERDRIVE SYSTEM 48 AND V-GLIDE 36 VOLT VEHICLES)



OR



FORWARD - REVERSE SWITCH (POWERDRIVE PLUS VEHICLES ONLY)

CAUTION

- DO NOT OPERATE VEHICLE WITHOUT COVER IN PLACE • DO NOT DIRECT WATER STREAM AT THIS SWITCH

SPEED SWITCH CAUTION DECAL
V-GLIDE 36 VOLT VEHICLE ONLY (ON WIPER SWITCH COVER)

CHARGER RECEPTACLE

GENERAL INFORMATION

There are four DS Golf Car models: the DS gasoline powered vehicle, the DS V-Glide 36 volt electric powered vehicle, the DS PowerDrive System 48 (48 volt) electric vehicle, and the DS PowerDrive Plus (48 volt) electric vehicle with motor braking. Throughout this manual, important features unique to each model are highlighted. We urge the owner/operator to read and understand this manual, and to pay special attention to the features specific to his/her vehicle.

MODEL IDENTIFICATION

The serial number of your CLUB CAR is printed on a bar code decal mounted on the frame directly above the accelerator pedal (Example: A9701-123456 for Electric or AG9701-123456 for Gasoline) (**See Figure 3**). There is also a second serial number decal mounted on the front body frame behind the center dash panel. The center dash panel must be removed to access it.

NOTE

- ALWAYS HAVE THE VEHICLE SERIAL NUMBER AT HAND WHEN ORDERING PARTS OR MAKING INQUIRIES. IF THE VEHICLE IS EQUIPPED AS A FAIRWAY VILLAGER FOUR PASSENGER VEHICLE, READ THE SPECIAL INSTRUCTIONS ON PAGES 36 AND 37.

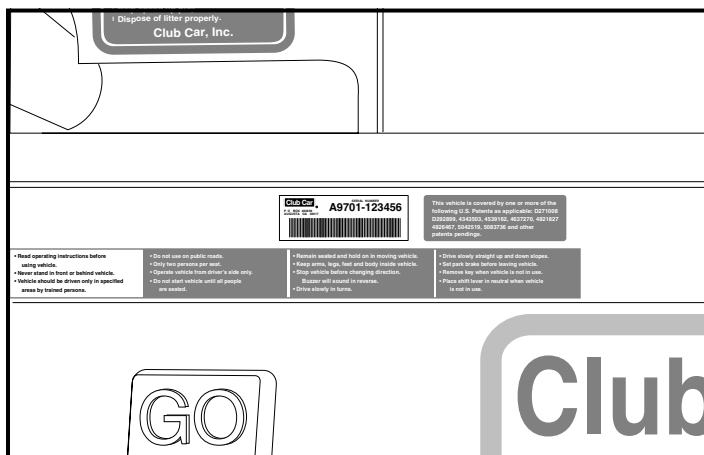
SAFETY COMMITTEE

If the golf car is to be rented or is part of a fleet, we strongly recommend that a safety committee be appointed. One of the main concerns of this committee should be the safe operation of the golf cars.

This should include at a minimum:

- Where golf cars should be driven.
- Ensuring that proper warnings of driving hazards are displayed and visible.
- Who should and who should not drive golf cars.
- Instructing first time drivers.
- Maintaining golf cars in a safe driving condition.
- How various rules are to be enforced.

The safety committee should include all these items and such others as the committee feels necessary or appropriate.



PRE-OPERATION CHECKLIST

Your CLUB CAR has been thoroughly inspected and adjusted at the factory, and also by your CLUB CAR distributor/dealer. However, upon arrival of your new CLUB CAR(s), you should become familiar with its controls and operation, and carefully inspect each vehicle to be satisfied that it is in proper working condition before accepting delivery.

Use the following checklist as a guide to inspect your new vehicle, and in conjunction with the Periodic Service Schedules (pages 19 through 23). Any problems should be corrected only by your CLUB CAR distributor/dealer or a trained mechanic.

- **General:** All the parts should be in place and properly installed. Be sure that all nuts, bolts, and screws are tight. On the DS Gasoline vehicle, check all hose clamps for tight fit as well as the starter belt for tightness.
- **Warning Decals:** Check to ensure that all warning and operation decals are in place (**See Pages 3 and 4**).
- **Tires:** Check for proper tire pressure (**See Vehicle Capacities, Page 26**).
- **Batteries (electric vehicles):** Check electrolyte to ensure that it is at its proper level (**See Figure 22, Page 29**). Check battery posts. Wires should be tight and free of corrosion. Charge batteries fully before first use of vehicle.
- **V-Glide Speed Switch (V-Glide 36 volt electric vehicles):** Be sure speed switch cover is properly secured prior to operating the vehicle.
- **Engine (gasoline vehicles):** Check for proper engine oil level (**See Engine Oil, Page 27**).
- **Fuel (gasoline vehicles):** Check fuel level (**See Fueling Instructions, Page 27**).

WARNING

- BE SURE THE PLASTIC HAS BEEN REMOVED FROM THE SEAT BOTTOM BEFORE OPERATING THE VEHICLE. FAILURE TO DO SO MAY RESULT IN A FIRE, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

PERFORMANCE INSPECTION

After you have familiarized yourself with the vehicle's controls and have read and understood the driving instructions, take the vehicle for a test drive. Use the following checklist as a guide to inspect your new vehicle. Any problems should be corrected only by your CLUB CAR distributor/dealer or a trained technician.

All vehicles:

- **Brakes:** Be sure the brakes function properly. When brake pedal is fully depressed under moderate pressure, it should **not** go more than halfway to the floor, and vehicle should come to a smooth, straight stop within 14 feet. If the pedal goes more than halfway to the floor, or if the vehicle swerves or fails to stop within 14 feet, have the brake system checked and adjusted as required. Brake adjustment must be maintained so that the brake pedal **cannot** be depressed to the floor under any circumstances.
- **Park Brake:** When latched, the park brake should lock the wheels and hold the vehicle stationary (on incline of 20% or less). It should release when either the accelerator or brake pedal is depressed.
- **Steering:** The vehicle should be easy to steer and should not have any play in the steering wheel.
- **Accelerator:** As the accelerator pedal is depressed, the engine or motor should start and the vehicle should come up smoothly to full speed. When the pedal is released it should return to the original position and the engine or motor should stop. The DS Electric vehicle runs at reduced speed in reverse.
- **Governor (gasoline vehicles):** Check maximum speed of the vehicle. The vehicle should run at 12-15 MPH (19-24 KPH) on a level surface.
- **General:** Listen for any unusual noises such as squeaks or rattles. Check the vehicle's ride and performance. Have a CLUB CAR distributor/dealer or a trained mechanic investigate anything unusual.

DS PowerDrive Plus Vehicles with Motor Braking:

- **Zero Speed Detect:** With the vehicle parked on level ground and the park brake disengaged, turn the ignition key to the ON position and attempt to push the vehicle. It should resist rolling (moving at no more than 1 or 2 mph) with the forward and reverse switch in any position.
- **“Pedal Up” Motor Braking:** Accelerate the vehicle to full speed and then release the accelerator pedal. The vehicle should quickly and smoothly slow to approximately 9 mph.
- **“Pedal Down” Motor Braking:** Accelerate down an incline with the accelerator pedal depressed. When the vehicle reaches approximately 15 mph, regenerative motor braking should engage and moderate vehicle speed between 15 and 16 mph, depending upon the grade of the hill.

CONTROLS

DANGER

- **DO NOT OPERATE GASOLINE VEHICLE IN AN ENCLOSED AREA WITHOUT PROPER VENTILATION. GASOLINE ENGINES PRODUCE CARBON MONOXIDE GAS, WHICH IS AN ODORLESS, DEADLY POISON.**

WARNING

- ANY MODIFICATION OR CHANGE TO THE VEHICLE WHICH AFFECTS THE STABILITY OR HANDLING OF THE VEHICLE, OR INCREASES MAXIMUM VEHICLE SPEED BEYOND FACTORY SPECIFICATIONS, COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.
- IF RENTING OR LOANING THE VEHICLE, MAKE SURE THE DRIVER IS FAMILIAR WITH ALL CONTROLS AND OPERATING PROCEDURES BEFORE ALLOWING THE VEHICLE TO BE DRIVEN.
- DO NOT TAMPER WITH THE GASOLINE VEHICLE’S GOVERNOR. DOING SO WILL VOID THE WARRANTY, AS WELL AS DAMAGE THE ENGINE AND OTHER COMPONENTS, AND COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH DUE TO UNSAFE SPEEDS.
- DO NOT MODIFY OR CHANGE THE VEHICLE IN ANY WAY WHICH MIGHT AFFECT ITS STABILITY OR HANDLING, OR INCREASE MAXIMUM SPEED BEYOND FACTORY SPECIFICATIONS. PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH COULD RESULT.
- DO NOT SHIFT THE FORWARD/REVERSE SWITCH WHILE THE VEHICLE IS IN MOTION. TO AVOID INJURY TO AN UNSUSPECTING PASSENGER OR DAMAGE TO THE VEHICLE, ALWAYS BRING THE VEHICLE TO A FULL STOP BEFORE SHIFTING THE SWITCH. A BUZZER WILL SOUND AS A WARNING WHEN THE VEHICLE IS IN REVERSE.
- RELEASE THE ACCELERATOR PEDAL AND THEN DEPRESS THE BRAKE PEDAL FIRMLY UNTIL THE VEHICLE STOPS. TO AVOID UNINTENTIONAL STARTING OR ROLLING OF THE VEHICLE, SET THE PARK BRAKE, TURN THE KEY SWITCH TO **OFF**, AND REMOVE THE KEY WHEN LEAVING THE VEHICLE.

KEY SWITCH

The key switch is mounted on the dash to the right of the steering column (**See Figure 4, Page 8**). It has two positions, OFF and ON, which are clearly labeled.

NOTE

- THE KEY CAN BE REMOVED WHEN THE KEY SWITCH IS IN THE **OFF** POSITION ONLY.

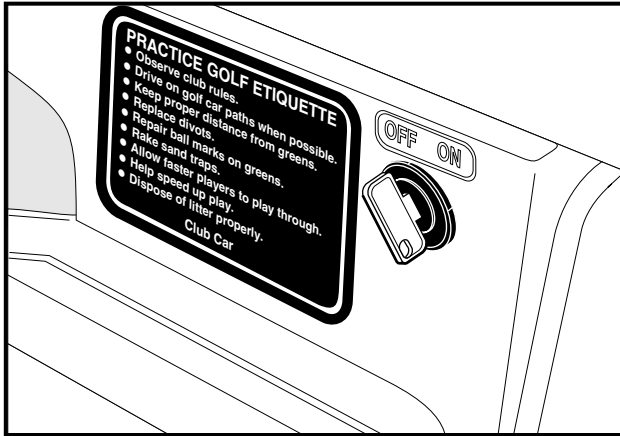


FIGURE 4

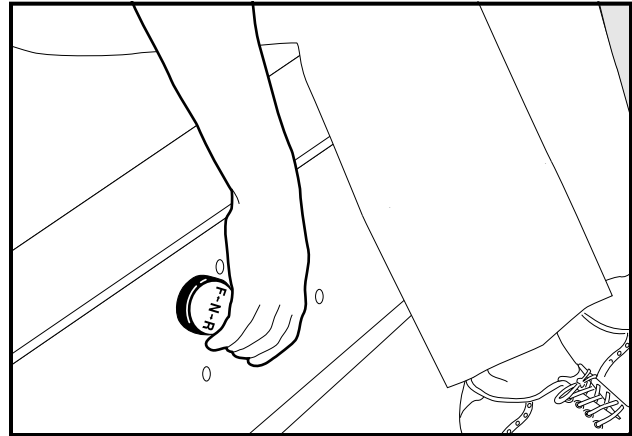


FIGURE 5

FORWARD/REVERSE CONTROL

DS Gasoline, DS V-Glide Electric, and DS PowerDrive System 48:

The forward/reverse shift lever is located on the seat support panel, below and to the right of the driver's right knee (See Figure 5). The lever has three distinct positions: **F** (forward), **N** (neutral), and **R** (reverse). Rotate the lever towards the driver, **F** (forward), to run the vehicle in the forward direction, or towards the passenger, **R** (reverse), to run the vehicle in reverse. When the lever is in the straight up, or **N** (neutral) position, the vehicle will not run. The engine on the DS Gasoline will stop if it is shifted to this position while running. The DS Electric vehicle operates at reduced speed in reverse. When the vehicle is in reverse, the reverse warning buzzer will sound.

DS PowerDrive Plus With Motor Braking:

The forward/reverse shift switch is located in the same place as the forward/reverse shift lever on all other DS models; on the seat support panel below and to the right of the driver's right knee. The Forward (F) and Reverse (R) positions are clearly marked on the switch. Push down the **F** (forward) side of the switch to run the vehicle in the forward direction, or push down the **R** (reverse) side of the switch to run the vehicle in reverse. When the switch is positioned with neither side down, the vehicle is in the NEUTRAL position and the vehicle will not run if the accelerator is depressed (See Figure 6).

NOTE

- THE REVERSE BUZZER WILL SOUND AS A WARNING WHEN THE VEHICLE IS IN REVERSE.

ACCELERATOR PEDAL

The accelerator pedal is the pedal on the right, with the word **GO** molded into it (See Figure 7).

NOTE

- **THE OPERATION OF THE ACCELERATOR PEDAL DIFFERS FROM THAT OF AN AUTOMOBILE.** WHEN THE KEY SWITCH IS ON, AND THE SHIFT LEVER IS IN EITHER FORWARD OR REVERSE, DEPRESSING THE ACCELERATOR PEDAL WILL AUTOMATICALLY RELEASE THE PARK BRAKE AND START THE VEHICLE MOVING IN THE DIRECTION SELECTED (FORWARD OR REVERSE). AS THE ACCELERATOR PEDAL IS DEPRESSED, SPEED WILL INCREASE UNTIL FULL SPEED IS REACHED. WHEN THE ACCELERATOR IS RELEASED, POWER WILL BE CUT OFF AND THE ENGINE OR MOTOR WILL STOP RUNNING.
- **POWERDRIVE PLUS VEHICLES ONLY:** SEE "PEDAL-UP" AND "PEDAL-DOWN" MOTOR BRAKING ON PAGE 7.

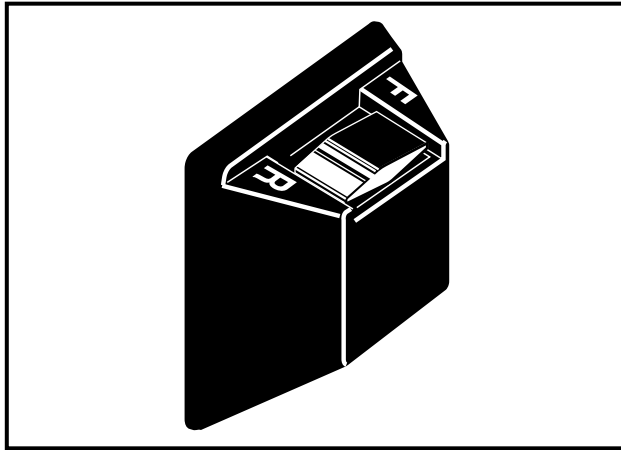


FIGURE 6

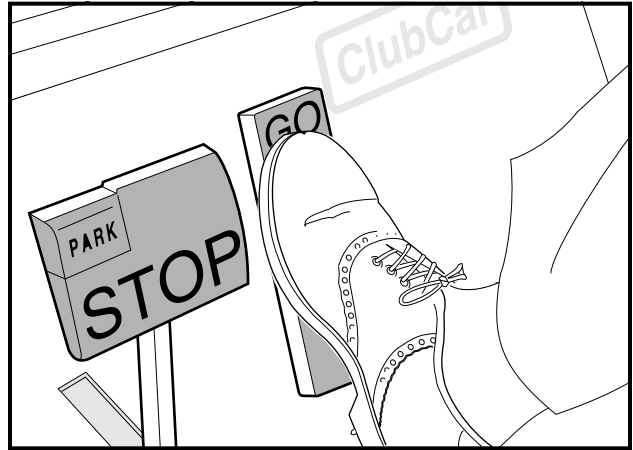


FIGURE 7

BRAKE PEDAL

The brake pedal is the large pedal on the left with the word **STOP** molded into it (See Figure 7). To slow or stop the vehicle, depress the brake pedal with your right foot (See Figure 8).

⚠ WARNING

- THE PARK BRAKE WILL RELEASE AUTOMATICALLY WHEN EITHER THE ACCELERATOR OR BRAKE PEDAL IS DEPRESSED. THE PARK BRAKE HAS MULTIPLE LOCKING POSITIONS AND SHOULD BE FIRMLY PRESSED TO PREVENT THE VEHICLE FROM ROLLING.

PARK BRAKE PEDAL

The park brake pedal is the small raised portion in the upper left corner of the brake pedal. It has the word **PARK** molded into it and the words **PARK BRAKE** marked on top of it (See Figure 8). To set the park brake, depress the brake pedal firmly and tilt the park brake portion of the pedal forward with your foot (Figure 9).

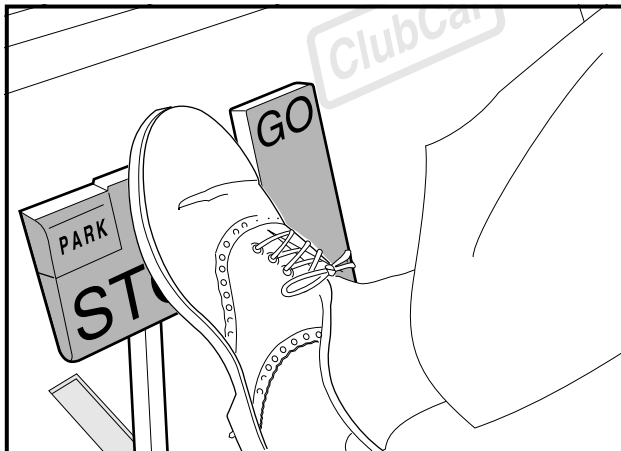


FIGURE 8

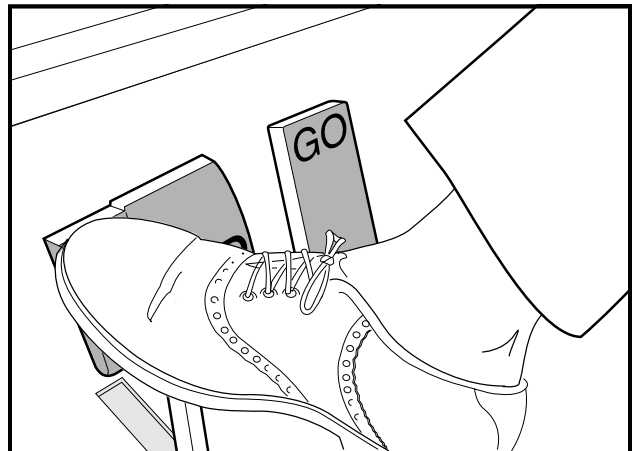


FIGURE 9

GASOLINE VEHICLES ONLY:

Neutral Lock-out

The vehicle has a neutral lock-out circuit that prevents the driver from starting the vehicle in NEUTRAL. If the vehicle is started in forward or reverse and then shifted to neutral, the engine will stop running.

Neutral Lock-out, Continued:

For the convenience of the trained mechanic, there is a neutral lock-out cam located on the back of the forward/reverse lever. If the neutral lock-out cam is pulled out approximately 3/8 inch (10 millimeters) and then rotated one-half turn until it snaps into place, the vehicle will be in the SERVICE position (**See Figure 10**). This will allow the mechanic to run the engine in NEUTRAL for certain maintenance procedures. With the cam in this position, the vehicle will not operate if the forward/reverse lever is placed in either the forward or reverse position. To put the vehicle back into the OPERATE position, pull the cam out approximately 3/8 inch (10 millimeters) and rotate it one-half turn until it snaps into place (**See Figure 11**). See WARNING and NOTE below.

WARNING

- WITH THE CAM IN THE SERVICE POSITION AND THE ENGINE RUNNING, THE VEHICLE MAY MOVE SUDDENLY IF THE FORWARD/REVERSE LEVER IS SHIFTED OR ACCIDENTALLY BUMPED. TO PREVENT THIS, CHOCK THE FRONT AND REAR WHEELS AND ALWAYS FIRMLY SET THE PARK BRAKE BEFORE SERVICING OR LEAVING THE VEHICLE.

NOTE

- BE SURE TO RETURN THE CAM TO THE OPERATE POSITION AFTER SERVICING THE VEHICLE, OR IT WILL NOT RUN WITH THE FORWARD AND REVERSE SWITCH IN EITHER THE FORWARD OR REVERSE POSITION.

Choke

The choke is located on the seat support panel below and to the left of the driver's left knee (**See Figure 12**). If the vehicle is hard to start in cool or cold temperatures, simply push in the choke cover with your left hand to activate it. Hold it during start up and release the choke cover after the engine starts and runs smoothly.

Oil Light

The DS Gasoline golf car is equipped with a low oil warning light, located on the dash panel just above the steering column (**See Figure 13**). If the oil warning light comes on, oil should be checked and added to the engine as necessary before continuing to use the vehicle. The vehicle should never be driven with the oil warning light remaining on. If the oil warning light goes on and off, you may proceed, but oil should be added at the first opportunity. If the oil level is correct and the light stays on, have a trained mechanic check the vehicle.

CAUTION

- FAILURE TO ADD OIL IMMEDIATELY WHEN THE OIL WARNING LIGHT STAYS ON MAY RESULT IN PERMANENT ENGINE DAMAGE.

POWERDRIVE SYSTEM 48 AND POWERDRIVE PLUS ELECTRIC VEHICLES ONLY:

Battery Warning Light

PowerDrive System 48 and PowerDrive Plus vehicles feature a dash mounted warning light (above steering column) that, when the vehicle is in operation, indicates low battery voltage, or, when the vehicle is being charged, indicates a charging problem. The battery warning light is controlled by the PowerDrive on-board computer.

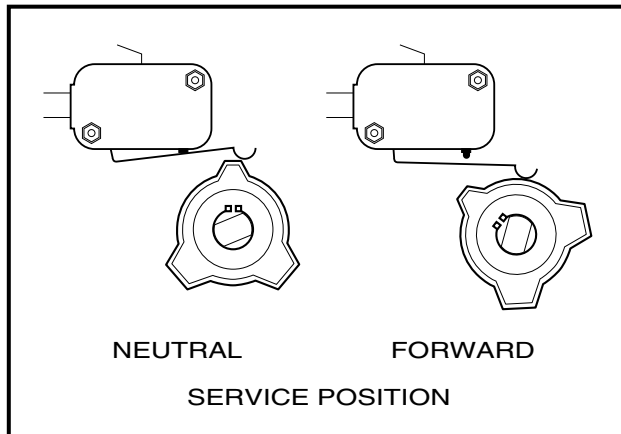


FIGURE 10

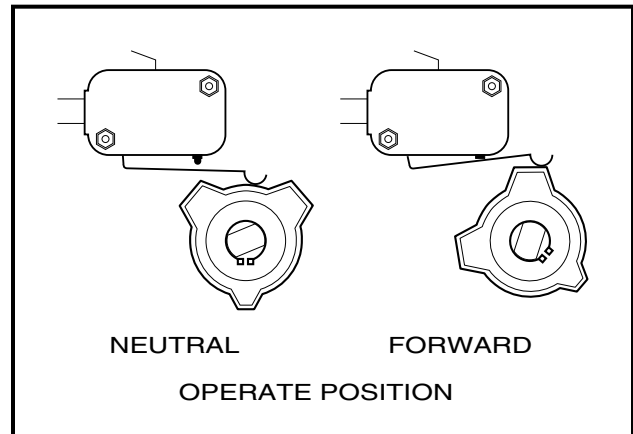


FIGURE 11

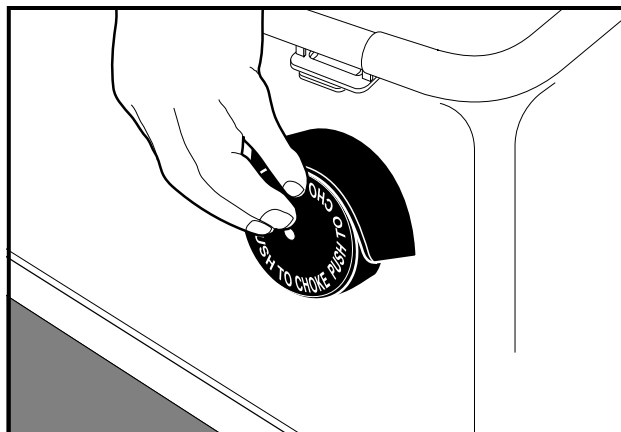


FIGURE 12

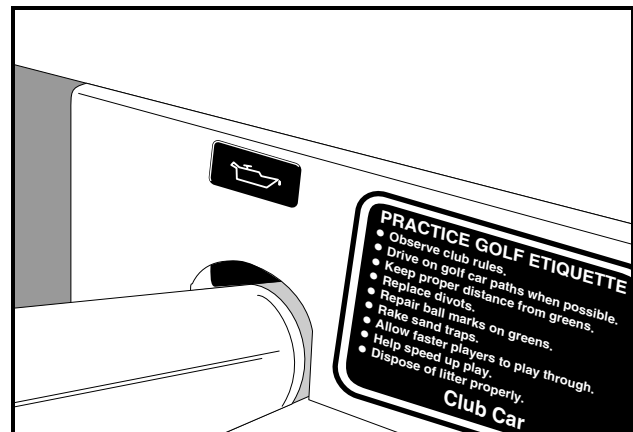


FIGURE 13

When the vehicle is in operation, the warning light will come on and remain illuminated if:

- Batteries voltage drops below 48 when there is no load on the batteries (the vehicle is stopped and there are no accessories on).
- Batteries have discharged to less than 25% of rated capacity.

If the warning light comes on during a round of golf, there is enough power remaining to finish the round, but the car should be charged before being used again. If the warning light comes on and the vehicle is unable to finish the round, have your Club Car distributor/dealer check the vehicle for a possible battery or electrical system problem.

When the batteries receive an incomplete charge because 1) the DC power cord is disconnected, 2) AC power to the charger is interrupted, 3) automatic charger shut-off occurs after 16 hours of operation, or 4) the charger malfunctions, the warning light will indicate as follows:

- The warning light will not come on if the charge is 90% or more complete. The on-board computer will retain in memory the amount of charge needed to fully replenish the batteries and will complete the charge during the next charge cycle.
- When the charger is unplugged, the warning light will come on and remain illuminated for 10 seconds if the charge is less than 90% complete but the car has enough power to complete 36 holes of golf. This will alert the fleet operator that the car may be used, but that it must be charged to completion as soon as possible.
- The warning light will come on and remain illuminated if the charger times out at 16 hours (see charger manual) and the batteries are not sufficiently charged. This indicates an abnormal charge cycle. The charger and batteries should be checked by your Club Car distributor/dealer.

Battery Warning Light, Continued:

- The warning light will come on during a charge cycle (DC plug is still connected) if AC power to the charger is interrupted. The light will go out when AC power is restored.

DRIVING INSTRUCTIONS

WARNING

- IF RENTING OR LOANING THE VEHICLE, MAKE SURE THE DRIVER IS FAMILIAR WITH ALL CONTROLS AND OPERATING PROCEDURES BEFORE ALLOWING THE VEHICLE TO BE DRIVEN.
- NO MORE THAN TWO PEOPLE SHOULD BE ON THE VEHICLE AT ONE TIME.
- THE VEHICLE IS NOT SPECIALLY EQUIPPED FOR HANDICAPPED PERSONS. BE SURE ALL PERSONS CAN PROPERLY OPERATE THE VEHICLE PRIOR TO ALLOWING THEM TO DRIVE THE VEHICLE.
- FOR NIGHT USE, THE VEHICLE MUST BE EQUIPPED WITH HEADLIGHTS, TAILLIGHTS, AND REFLECTORS.
- STOP THE VEHICLE BEFORE SHIFTING THE FORWARD AND REVERSE SWITCH. FAILURE TO DO SO MAY RESULT IN INJURY TO AN UNSUSPECTING PASSENGER AND (OR) DAMAGE TO THE VEHICLE. A BUZZER WILL SOUND AS A WARNING WHEN THE VEHICLE IS IN REVERSE.

WHEN DRIVING THE VEHICLE:

- OPERATE THE VEHICLE FROM THE DRIVER'S SEAT ONLY.
- TO PREVENT FALLS FROM THE VEHICLE, REMAIN SEATED IN A MOVING VEHICLE AND HOLD ON TO SEAT HANDLES OR HANDRAILS AT ALL TIMES. DRIVER SHOULD KEEP BOTH HANDS ON THE STEERING WHEEL WHEN THE VEHICLE IS IN MOTION.
- KEEP ALL BODY PARTS INSIDE THE VEHICLE TO PREVENT THEM FROM GETTING CAUGHT BETWEEN THE VEHICLE AND THE GROUND OR OTHER OBJECTS.
- TO PREVENT OVERTURNING OF THE VEHICLE, DRIVE SLOWLY IN TURNS.
- TO PREVENT OVERTURNING OF THE VEHICLE, DRIVE SLOWLY STRAIGHT UP AND DOWN SLOPES. **DO NOT DRIVE THE VEHICLE ON SLOPES EXCEEDING 20% INCLINE.**
- TO AVOID POSSIBLE INJURY TO AN UNSUSPECTING PASSENGER AND (OR) DAMAGE TO THE VEHICLE, AVOID SUDDEN STARTS, SUDDEN STOPS, AND ABRUPT TURNS
- TO AVOID THE POSSIBILITY OF LOSING CONTROL OF OR OVERTURNING THE VEHICLE, REDUCE SPEED FOR ADVERSE DRIVING CONDITIONS SUCH AS WET GRASS OR ROUGH TERRAIN.
- DO NOT USE THE VEHICLE ON PUBLIC ROADS. IT IS NOT DESIGNED OR INTENDED FOR STREET USE AND SHOULD NOT BE LICENSED FOR USE ON PUBLIC ROADS
- OBEY ALL LOCAL RULES CONCERNING GOLF CARS.
- THE VEHICLE SHOULD BE DRIVEN IN ONLY SPECIFIED AREAS BY TRAINED PEOPLE.
- TO AVOID BEING STRUCK, DO NOT STAND IN FRONT OF OR BEHIND THE VEHICLE.
- DO NOT DRIVE WHILE UNDER THE INFLUENCE OF ALCOHOL, DRUGS, OR MEDICATIONS.

No one should drive the vehicle without first being instructed in the proper operation and use of the vehicle's controls. An experienced operator should accompany each first-time driver on a test drive before allowing him(her) to operate the vehicle alone. Only licensed drivers should be allowed to drive this vehicle.

To ensure safe operation of the vehicle, follow exactly and in order, all of the following procedures. Read and understand all instructions prior to driving the vehicle.

STARTING THE VEHICLE

1. Enter the vehicle.
2. Study and understand controls.
3. Be sure everyone is seated and holding onto seat handles or handrails.
4. Read safety warnings located above pedals.
5. Make sure wheels are turned in desired direction.
6. Turn key to the ON position and be sure nothing is in your path.
7. Select direction by placing shift lever in desired position (F = forward or R = reverse).
8. Slowly depress accelerator pedal. The park brake will release automatically and the vehicle will start to move. As the accelerator pedal is depressed, speed will increase until full speed is reached.

WARNING

- VEHICLE OPERATOR MUST CONTROL SPEED WHEN GOING DOWNHILL.
- NEVER SHIFT THE VEHICLE OUT OF FORWARD WHILE GOING DOWNHILL. IF YOU DO, YOU WILL NOT BE ABLE TO SHIFT INTO REVERSE OR BACK INTO FORWARD UNTIL STOPPED.
- **GASOLINE VEHICLE ONLY:** DEPRESS THE BRAKE PEDAL AS NECESSARY AND PARTIALLY DEPRESS THE ACCELERATOR WHEN DESCENDING A HILL. WITH THE ACCELERATOR PEDAL PARTIALLY DEPRESSED, THE GOVERNOR WILL CAUSE THE ENGINE TO ASSIST THE BRAKES IN CONTROLLING DOWNHILL SPEED.
- **POWERDRIVE PLUS VEHICLE (WITH MOTOR BRAKING) ONLY:** “PEDAL DOWN” OR “PEDAL UP” MOTOR BRAKING MAY BE USED TO CONTROL SPEED WHEN GOING DOWNHILL (SEE PERFORMANCE INSPECTION ON PAGE 7). HOWEVER, TERRAIN OR OTHER CONDITIONS MAY REQUIRE THAT PEDAL BRAKING BE USED IN CONJUNCTION WITH MOTOR BRAKING.

STOPPING THE VEHICLE

WARNING

- DRIVING THROUGH WATER MAY AFFECT THE BRAKES. AFTER DRIVING THROUGH WATER, CHECK EFFECTIVENESS OF THE BRAKES BY GENTLY DEPRESSING THE BRAKE PEDAL. IF THE VEHICLE DOES NOT SLOW DOWN AT THE NORMAL RATE, CONTINUE TO DEPRESS THE BRAKES UNTIL THEY DRY OUT AND NORMAL PERFORMANCE RETURNS.

CAUTION

- WHEN STOPPED ON A HILL, USE THE BRAKE PEDAL TO HOLD YOUR POSITION. DO NOT USE THE ACCELERATOR PEDAL.

To stop the vehicle, release the accelerator pedal and depress the brake pedal with your right foot until the vehicle comes to a complete stop.

PARKING AND LEAVING THE VEHICLE

1. After stopping the vehicle, firmly depress the park brake pedal until it locks. This will prevent the vehicle from rolling.
 2. Turn the key switch to OFF and place the shift lever in the NEUTRAL position. Remove the key when the vehicle is not in use.
- **PowerDrive Plus Vehicles (Motor Braking) Only:** When the vehicle’s key switch is ON (with the forward and reverse switch in any position), the “zero speed detect” function will prevent the vehicle from rolling at more than 1 or 2 mph unless the accelerator is depressed. This prevents the possibility of a parked vehicle (with the park brake disengaged) rolling away too fast to be overtaken on foot (**See “Zero Speed Detect”, Page 7**).

TOWING

WARNING

- NEVER TOW THE VEHICLE ON PUBLIC STREETS OR HIGHWAYS.
- USE ONLY APPROVED CLUB CAR TOW BARS.
- TURN THE KEY SWITCH TO OFF AND PLACE THE FORWARD AND REVERSE SWITCH IN NEUTRAL BEFORE TOWING THE VEHICLE.
- EXTREME CAUTION SHOULD BE USED WHEN TOWING ANY VEHICLE.
- DO NOT EXCEED 5 MPH (8 KPH) TOWING SPEED.
- DO NOT ALLOW PEOPLE IN THE VEHICLES BEING TOWED.
- AVOID SUDDEN STARTS, SUDDEN STOPS, AND TIGHT TURNS WHEN TOWING.
- DO NOT TOW MORE THAN ONE CLUB CAR VEHICLE WITH ANOTHER CLUB CAR VEHICLE. IF MORE THAN ONE VEHICLE MUST BE TOWED, AN ADEQUATELY POWERED VEHICLE (TRACTOR OR FULL SIZED TRUCK) PROPERLY FITTED, WITH A TOW HITCH HEIGHT OF 11 INCHES SHOULD BE USED. ONLY HEAVY-DUTY TOW BARS SHOULD BE USED FOR MULTI-VEHICLE TOWING. **NEVER TOW MORE THAN FIVE VEHICLES AT ONE TIME.**
- **POWERDRIVE PLUS VEHICLE (WITH MOTOR BRAKING) ONLY:** THE KEY SWITCH MUST BE OFF BEFORE THE VEHICLE CAN BE TOWED. THE VEHICLE WILL NOT ROLL OTHERWISE.

All vehicles are equipped with both front and rear tow bar attaching points. A light duty tow bar is available for break-down towing and single vehicle towing. A heavy duty tow bar and an on-board tow bar are available for multi-vehicle towing. Observe all of the above warnings when towing.

TRANSPORTING ON A TRAILER

If your vehicle must be transported over long distances or on public highways, it should be done on an approved trailer observing all the following warnings:

WARNING

- FOR USE ON PUBLIC ROADS, THE TRAILER MUST MEET ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS SUCH AS TAILLIGHTS, BRAKE LIGHTS, ETC.
- ALWAYS USE AN APPROVED TRAILER THAT HAS A LOAD RATING OF 1200 LBS. (544 KG) PER VEHICLE TO BE TOWED (EXAMPLE: A TWO-CAR TRAILER SHOULD BE RATED AT 2 X 1200 = 2400 LBS (2 X 544 = 1088 KG)).
- NEVER TOW A CLUB CAR VEHICLE BEHIND A PASSENGER VEHICLE OR TRUCK ON A PUBLIC ROAD UNLESS IT IS ON AN APPROVED TRAILER.
- THE VEHICLE TO BE TOWED SHOULD BE TIED SECURELY TO THE TRAILER, WITH THE FORWARD AND REVERSE SWITCH IN NEUTRAL, THE KEY SWITCH OFF, AND THE PARK BRAKE FIRMLY DEPRESSED AND LOCKED.
- WHEN TOWING ON A TRAILER, NORMAL ROAD SPEED OF THE TOW VEHICLE SHOULD BE REDUCED.
- BECAUSE OF THE ADDED LENGTH OF THE TRAILER, CAUTION SHOULD BE USED WHEN TURNING A CORNER.
- REMOVE THE VEHICLE WINDSHIELD BEFORE TRANSPORTING ON A TRAILER.

STORAGE - GASOLINE VEHICLE

To prepare your vehicle for extended off season storage:

1. Store vehicle in a cool place. This will prevent self-discharge of the battery. If the battery appears to be weak, have it charged using an automotive-type 12-volt battery charger rated 10 amps or less.

DANGER

- **GASOLINE - FLAMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE.**
- **NEVER ATTEMPT TO DRAIN GASOLINE WHEN THE ENGINE IS HOT OR WHILE IT IS RUNNING. BE SURE TO CLEAN UP ANY SPILLED GASOLINE BEFORE OPERATING THE VEHICLE.**
- **STORE GASOLINE IN AN APPROVED GASOLINE CONTAINER ONLY. STORE IN A WELL-VENTILATED AREA AWAY FROM SPARKS, OPEN FLAMES, HEATERS, OR HEAT SOURCES.**
- **DO NOT SERVICE, REPAIR, OR OPERATE IN AN ENCLOSED AREA WITHOUT PROPER VENTILATION. THE ENGINE PRODUCES CARBON MONOXIDE WHICH IS AN ODORLESS, DEADLY POISON.**
- **KEEP GASOLINE OUT OF THE REACH OF CHILDREN.**
- **DO NOT SIPHON GASOLINE FROM THE VEHICLE.**

WARNING

- DO NOT ATTEMPT TO CHARGE A BATTERY IF IT IS FROZEN OR IF THE CASE IS BULGED. DISCARD THE BATTERY. FROZEN BATTERIES CAN EXPLODE.

CAUTION

- BATTERIES IN A LOW STATE OF CHARGE WILL FREEZE AT LOW TEMPERATURES.

2. Drain carburetor and seal the fuel tank.
 - 2.1. Place the Forward and Reverse Lever in the NEUTRAL position and the neutral lock-out cam in the SERVICE position. Disconnect the fuel line from the *inlet side* of the fuel pump and run the engine until fuel remaining in the carburetor and fuel lines is used up and the engine stalls. Return the neutral lock-out cam to OPERATE position.
 - 2.2. Loosen (do not remove) the carburetor drain screw and drain fuel remaining in bowl into a small container, then pour the fuel from the container into vehicle fuel tank.
 - 2.3. Reconnect fuel line to fuel pump.
 - 2.4. Disconnect fuel vent line from fuel tank vent nipple.
 - 2.5. Plug the fuel tank vent nipple so that it is air tight. We recommend using a slip-on vinyl cap.
3. To protect the engine, remove the spark plug and pour 1/2 ounce of SAE 10 weight oil into the engine through the spark plug hole. Rotate the engine's crank shaft several times and then re-install the spark plug.

WARNING

- TURN THE KEY SWITCH OFF, REMOVE THE KEY, AND LEAVE THE FORWARD AND REVERSE SWITCH IN THE NEUTRAL POSITION DURING STORAGE. THIS IS TO PREVENT UNINTENTIONAL STARTING OF THE VEHICLE.

Storage of Gasoline Vehicle, Continued:

4. Increase tire pressure to 20 psi (.96 kPa).
5. Grease front suspension and do all quarterly periodic lubrication (**See Periodic Lubrication Schedule, Page 24**).
6. Thoroughly clean front body, rear body, seats, engine compartment, and underside of vehicle.
7. Do not latch the park brake. Block tires to prevent the vehicle from rolling.

TO RETURN THE STORED VEHICLE TO SERVICE:

1. Restore fuel system to operation.
 - 1.1. Remove plug from the fuel tank vent nipple and reconnect fuel vent line to tank.
 - 1.2. Place the Forward and Reverse Lever in the NEUTRAL position and the neutral lock-out cam in the SERVICE position. Crank the engine until fuel is pumped into the carburetor and fuel lines and the engine starts. Turn engine off and return neutral lock-out cam to the OPERATE position.
2. Readjust tire pressure to 12-14 psi (.57/.67 kPa).
3. Perform the Pre-Operation Checklist (**See pages 6 and 7**).

NOTE

- WHEN RUNNING THE ENGINE FOR THE FIRST TIME AFTER STORAGE, IT MAY SMOKE EXCESSIVELY FOR A SHORT WHILE DUE TO THE OIL ADDED TO THE ENGINE IN PREPARATION FOR STORAGE.

STORAGE - ELECTRIC VEHICLE

WARNING

- TURN THE KEY SWITCH OFF, REMOVE THE KEY, AND LEAVE THE FORWARD AND REVERSE SWITCH IN THE NEUTRAL POSITION DURING STORAGE. THIS IS TO PREVENT UNINTENTIONAL STARTING OF THE VEHICLE.
- DO NOT ATTEMPT TO CHARGE FROZEN BATTERIES OR BATTERIES WITH BULGED CASES. DISCARD THE BATTERY. FROZEN BATTERIES CAN EXPLODE.

CAUTION

- BATTERIES IN LOW STATE OF CHARGE WILL FREEZE AT LOW TEMPERATURES.
- WHEN WASHING THE VEHICLE, DO NOT DIRECT WATER STREAM AT THE SPEED SWITCH, FORWARD AND REVERSE SWITCH, OR OTHER ELECTRICAL COMPONENT.
- IF BATTERY WIRE TERMINALS ARE DAMAGED OR CORRODED, THEY SHOULD BE REPLACED OR CLEANED AS NECESSARY. FAILURE TO DO SO MAY CAUSE THEM TO OVERHEAT DURING OPERATION.

1. Fully charge batteries (**See Batteries - Electric Vehicle, Page 29**).
2. Wash off any corrosion around the terminals with a solution of baking soda and water (one cup per gallon of water), then rinse solution from the batteries (NOTE: Do not allow this solution to enter the batteries). Let the terminals dry and coat them with CLUB CAR battery terminal spray, Part No. 1014305.

3. Store in a cool, dry place. This will prevent self-discharge of the batteries.
4. Adjust tire pressure to 20 psi (.96 kPa).
5. Grease front suspension and do all quarterly periodic lubrication (**See Periodic Lubrication Schedule, Page 25**).
6. Thoroughly clean front body, rear body, seats, battery compartment, and underside of vehicle.
7. Do not latch the park brake. Block tires to prevent the vehicle from rolling.
8. Keep batteries fully charged during storage (**See Batteries - Electric Vehicle, Page 29**).
 - Recharge 36 volt vehicles with Accu-Power battery chargers every 6-8 weeks as necessary.
 - Leave PowerDrive System 48 and PowerDrive Plus vehicles with PowerDrive chargers plugged in during storage. The PowerDrive storage charge feature will automatically charge the batteries as needed throughout storage period (**See Batteries - Electric Vehicle, Page 29**).

NOTE

- A POWERDRIVE SYSTEM 48 OR POWERDRIVE PLUS VEHICLE WILL NOT OPERATE WHILE PLUGGED TO A CHARGER.

TO RETURN THE STORED VEHICLE TO SERVICE:

1. Fully charge batteries (**See Batteries - Electric Vehicle, Page 29**).
2. Readjust tire pressure to 18-20 psi (.86/.96 kPa).
3. Perform the Pre-Operation Checklist (**See pages 6 and 7**).

MAINTENANCE

GENERAL INFORMATION:

To ensure trouble-free vehicle performance, it is very important to follow an established preventive maintenance program (regularly scheduled service, even though the vehicle is functional). Regular and consistent vehicle maintenance can prevent vehicle down-time and expensive repairs that result from neglect. Any vehicle not functioning correctly should be removed from use until it is properly repaired. This will prevent further damage to the vehicle and avoid the possibility of injury due to unsafe conditions.

Contact your local Club Car distributor/dealer to perform all repairs and semi-annual and annual periodic service.

- **See Page 19 for Gasoline Vehicle Periodic Service Schedule.**
- **See Page 21 for Electric Vehicle Periodic Service Schedule.**
- **See Page 24 for Gasoline Vehicle Periodic Lubrication Schedule.**
- **See Page 25 for Electric Vehicle Periodic Lubrication Schedule.**
- **See Page 26 for Vehicle Capacities (all DS vehicles).**

WARNING

- ONLY TRAINED MECHANICS SHOULD REPAIR OR SERVICE THE VEHICLE. ANYONE DOING EVEN SIMPLE REPAIRS OR SERVICE SHOULD FOLLOW THE PROCEDURES EXACTLY AS STATED IN THIS MANUAL, AND OBEY THE **DANGERS, WARNINGS, AND CAUTIONS** LISTED IN THIS MANUAL, AS WELL AS THOSE AFFIXED TO THE VEHICLE.

Maintenance, Continued:

⚠ WARNING

- IF ANY PROBLEMS ARE FOUND DURING SCHEDULED INSPECTION OR SERVICE, DO NOT OPERATE THE VEHICLE UNTIL REPAIRS ARE MADE. FAILURE TO MAKE NECESSARY REPAIRS COULD RESULT IN FIRE, PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.
- ALWAYS WEAR SAFETY GLASSES OR APPROVED EYE PROTECTION WHEN SERVICING THE VEHICLE. WEAR A FULL-FACE SHIELD WHEN WORKING WITH BATTERIES.
- ALWAYS USE INSULATED TOOLS WHEN WORKING AROUND BATTERIES OR ELECTRICAL CONNECTIONS.
- TURN KEY SWITCH TO OFF, REMOVE THE KEY, PLACE THE FORWARD AND REVERSE SWITCH IN THE NEUTRAL POSITION, AND CHOCK TIRES PRIOR TO SERVICING.
- MOVING PARTS - DO NOT ATTEMPT TO SERVICE GASOLINE VEHICLE WHILE THE ENGINE IS RUNNING.
- HOT! DO NOT ATTEMPT TO SERVICE HOT ENGINE, MOTOR, RESISTORS, OR EXHAUST SYSTEM. ATTEMPTING TO DO SO COULD CAUSE SEVERE BURNS.

GASOLINE VEHICLES ONLY:

- TO AVOID UNINTENTIONAL STARTING OF THE VEHICLE, BEFORE SERVICING ALWAYS:
 - DISCONNECT THE BATTERY CABLES, NEGATIVE (-) FIRST.
 - DISCONNECT THE SPARK PLUG WIRE FROM THE SPARK PLUG.
- FRAME GROUND - DO NOT ALLOW WRENCH OR OTHER METAL OBJECTS TO CONTACT FRAME WHEN DISCONNECTING BATTERIES OR OTHER ELECTRICAL WIRING. NEVER ALLOW A POSITIVE WIRE TO TOUCH THE VEHICLE FRAME, ENGINE, INNER FRAME, OR OTHER METAL COMPONENT.

ELECTRIC VEHICLES ONLY:

- TO AVOID UNINTENTIONAL STARTING OF THE VEHICLE, DISCONNECT THE BATTERIES AS SHOWN (SEE FIGURES 14 AND 15). **ON POWERDRIVE SYSTEM 48 AND POWERDRIVE PLUS VEHICLES**, ALSO DISCHARGE THE CONTROLLER AS FOLLOWS:
 - TURN THE KEY SWITCH TO ON AND PLACE THE FORWARD AND REVERSE SWITCH IN THE REVERSE POSITION.
 - SLOWLY DEPRESS THE ACCELERATOR PEDAL AND KEEP IT DEPRESSED UNTIL THE REVERSE WARNING BUZZER CAN NO LONGER BE HEARD. WHEN THE BUZZER STOPS SOUNDING, THE CONTROLLER IS DISCHARGED.

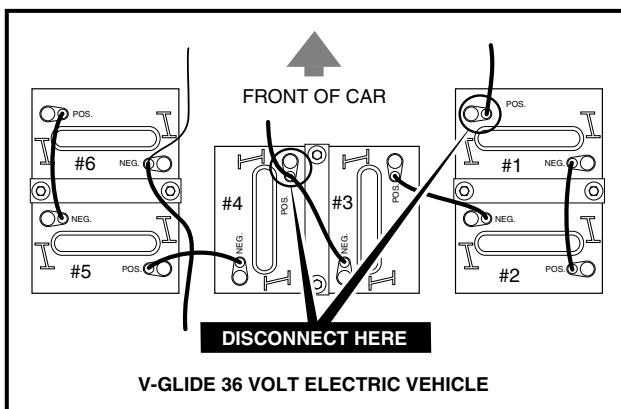


FIGURE 14

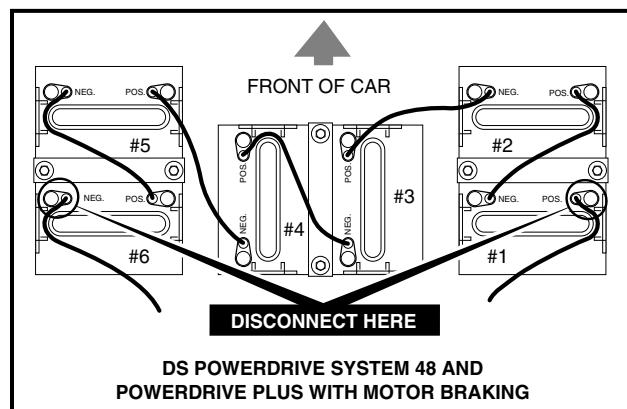


FIGURE 15

PERIODIC SERVICE SCHEDULES

WARNING

- IF ANY PROBLEMS ARE FOUND, DO NOT OPERATE THE VEHICLE UNTIL REPAIRS ARE MADE. FAILURE TO MAKE NECESSARY REPAIRS COULD RESULT IN FIRE, PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.
- ALL SERVICE, REPAIRS, AND ADJUSTMENTS MUST BE MADE PER INSTRUCTIONS IN THE DS GOLF CAR MAINTENANCE AND SERVICE MANUAL, PUBLICATION PART NUMBER 1019051-01.

PERIODIC SERVICE SCHEDULE - GASOLINE VEHICLE

REGULAR INTERVAL	SERVICE	
Daily Service by Owner	Accelerator pedal/rod	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Accelerator/governor linkage and cables	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Choke	Check for proper operation (See Page 10).
	Engine	Check for proper operation.
	Engine air intake system	Check air filter element, clean as necessary.
	Engine cooling air intake	Check for clogging, clean as necessary.
	Fuel System	Check fuel tank, lines, cap, pump, and carburetor for fuel leakage.
	Park Brake	Check for proper operation. (See Performance Inspection, Page 6).
	Reverse Warning Buzzer	Check for proper operation (See NOTE, Page 8).
	Steering and linkages	Check for proper operation (See Performance Inspection, Page 6).
	Tires	Check for wear and damage.
	Unitized Transaxle	Check shift linkage for proper operation.
Vehicle warning decals	Make sure all are in place (See Gasoline Vehicle Feature Identification, Page 3).	
Weekly Service by Owner	Battery	Clean terminals and wash dirt from casing, check electrolyte level (See Page 29).
	Electrical wiring and connections	Check for tightness and damage.
	Torque Converter	Rinse with water.
	General Vehicle	Check for loose hardware and tighten as required.
		Check maximum speed of vehicle. Maximum vehicle speed should be 12-15 mph (19-24 kph).
	Wash engine compartment and underside of vehicle.	
	Check all daily items listed above.	
Periodic Service Schedule Continued on Next Page.		

PERIODIC SERVICE SCHEDULE - GASOLINE VEHICLE

REGULAR INTERVAL	SERVICE	
Monthly Service by Owner or Trained Mechanic	Battery	Wash battery top with baking soda/water solution (See Page 28).
	Brake System	Check brake cables for damage; replace as required.
		Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Adjust as necessary (See DS Maintenance & Service Manual).
	Engine	Make sure that both ground wires are tight and properly connected.
		Check engine oil level - change as required (See Gas Vehicle Lubrication Chart, Page 24).
	Exhaust System	Check for leaks.
	Tires	Check for wear and damage.
Check air pressure and adjust as necessary (See Vehicle Capacities Chart on Page 26).		
Check all daily and weekly items listed above		
Quarterly Service by Owner or Trained Mechanic	Engine	Check engine oil level - change as required (See Gas Vehicle Lubrication Chart, Page 24).
	Engine air intake hose	Check clamps for tightness; check hose for cracks.
	Accelerator pedal/rod	Check for proper operation, adjust as necessary (See NOTE, Page 8).
	Accelerator/governor linkage and cables	Check for proper operation, adjust as necessary.
	Steering	Lubricate per Gas Vehicle Lubrication Chart on Page 24.
	General Vehicle	Lubricate per Gas Vehicle Lubrication Chart on Page 24.
	Check all daily, weekly, and monthly items listed above.	
Semi-annual Service by Trained Mechanic Only (Every 100 rounds or 50 hours of operation)	Brake System	Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Clean, and adjust as necessary (See DS Maintenance & Service Manual).
		Check brake shoes, replace if necessary.
		Lubricate slide plates with graphite (See DS Maintenance & Service Manual).
	Drive Belt	Check for cracks, wear, or glazing, replace if necessary.
	Electrical Wiring	Check for cracked or worn insulation.
	Engine	Check spark plug wire and boot for damage and proper routing.
	Exhaust System	Check head and exhaust/header pipe flange connection gasket for leaks.
Check muffler condition.		
Front Wheel Alignment and Camber	Check and adjust as required (See DS Maintenance & Service Manual).	
Periodic Service Schedule Continued on Next Page.		

PERIODIC SERVICE SCHEDULE - GASOLINE VEHICLE		
REGULAR INTERVAL	SERVICE	
Semi-annual Service by Trained Mechanic Only (Every 100 rounds or 50 hours of operation), Continued:	Torque Converter/Drive Belt	Check for proper operation. Inspect belt and replace as required.
	Starter/Generator Belt	Check for cracks, wear, and glazing, replace if necessary.
		Check belt tension, adjust as required.
	General Vehicle	Lubricate per Gas Vehicle Lubrication Chart on Page 24.
Check all daily, weekly, monthly, and quarterly items listed above.		
Annual Service by Trained Mechanic Only (Every 200 rounds or 100 hours of operation)	Engine	Check engine oil level - change as required (See Gas Vehicle Lubrication Chart, Page 24).
		Check for leaks around gaskets, fill plugs, etc.
		Inspect, clean, and regap spark plug; replace if necessary.
	Engine Air Intake	Check air filter element, clean or replace.
	Fuel Filters	Replace.
	Front Wheel Bearings	Inspect and check for free play; repack with chassis lube and adjust as necessary.
	Starter/Generator	Check brush length (remove excess carbon dust); replace as necessary.
	Unitized Transaxle	Check/fill transaxle to plug level (See Gas Vehicle Lubrication Chart on Page 24).
	General Vehicle	Lubricate per Gas Vehicle Lubrication Chart on Page 24.
Check all daily, weekly, monthly, quarterly, and semi-annual items listed above.		

PERIODIC SERVICE SCHEDULES

WARNING

- IF ANY PROBLEMS ARE FOUND, DO NOT OPERATE THE VEHICLE UNTIL REPAIRS ARE MADE. FAILURE TO MAKE NECESSARY REPAIRS COULD RESULT IN FIRE, PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.
- ALL SERVICE, REPAIRS, AND ADJUSTMENTS MUST BE MADE PER INSTRUCTIONS IN THE DS GOLF CAR MAINTENANCE AND SERVICE MANUAL, PUBLICATION PART NUMBER 1019051-01.

PERIODIC SERVICE SCHEDULE - ELECTRIC VEHICLE

REGULAR INTERVAL	SERVICE	
Daily Service by Owner	Accelerator pedal/rod	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Accelerator Switch (Wiper Switch or Continuously Variable Potentiometer)	Check for proper operation (See DS Maintenance and Service Manual).
Periodic Service Schedule Continued on Next Page.		

PERIODIC SERVICE SCHEDULE - ELECTRIC VEHICLE

REGULAR INTERVAL	SERVICE	
Daily Service by Owner, Continued:	Batteries	Charge batteries.
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Charger and Receptacle	Check for damage and snug fit.
	Park Brake	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.
	Reverse Warning Buzzer	Check for proper operation (See NOTE, middle of Page 8).
	Steering and linkages	Check for proper operation.
	Tires	Check for wear and damage.
	Vehicle warning decals	Make sure all are in place (See Electric Vehicle Feature Identification, Page 4).
Weekly Service by Owner	Batteries	Clean terminals and wash dirt from casing, check electrolyte level (See Page 29).
	Electrical wiring and connections	Check for tightness and damage.
	General Vehicle	Check for loose hardware and tighten as required.
		Check maximum speed of vehicle. Maximum vehicle speed should be 12-15 mph (19-24 kph).
	Check all daily items listed above.	
Monthly Service by Owner or Trained Mechanic	Batteries	Wash battery tops with baking soda/water solution.
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Adjust as necessary (See DS Maintenance & Service Manual).
		Check brake cables for damage and replace as required.
	Tires	Check for wear and damage.
	Tires	Check air pressure and adjust as necessary (See Vehicle Capacities Chart on Page 26).
	Accelerator Switch (Wiper Switch or Continuously Variable Potentiometer)	Check for cracks or other damage; make sure switch is securely fastened to frame.
	Check all daily and weekly items listed above	
Quarterly Service by Owner or Trained Mechanic	Accelerator pedal/rod	Check for proper operation, adjust as necessary (See NOTE, bottom of Page 8).
	Steering	Lubricate per Electric Vehicle Lubrication Chart on Page 25.
	General Vehicle	Lubricate per Electric Vehicle Lubrication Chart on Page 25.
	Check all daily, weekly, and monthly items listed above.	
Periodic Service Schedule Continued on Next Page.		

PERIODIC SERVICE SCHEDULE - ELECTRIC VEHICLE

REGULAR INTERVAL	SERVICE	
Semi-annual Service by Trained Mechanic Only (Every 100 rounds or 50 hours of operation)	Batteries	Check specific gravity, electrolyte level, and on-charge voltage.
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Clean, and adjust as necessary (See DS Maintenance & Service Manual).
		Check brake shoes, replace if necessary.
		Lubricate slide plates with graphite (See DS Maintenance & Service Manual).
	Electrical Wiring	Check for cracked or worn insulation.
	Forward and Reverse Switch	Check condition of contacts and wire connections; Make sure connections are tight.
	Front Wheel Alignment and Camber	Check and adjust as required (See DS Maintenance & Service Manual).
	General Vehicle	Lubricate per Electric Vehicle Lubrication Chart on Page 25.
Check all daily, weekly, monthly, and quarterly items listed above.		
Annual Service by Trained Mechanic Only (Every 200 rounds or 100 hours of operation)	Accelerator Switch (Wiper Switch or Continuously Variable Potentiometer)	Check for proper operation, remove cover and check for wear and damage (See Maintenance & Service Manual). Wiper switch type only: check contacts for burns, excessive heat, or arcing; check brush for wear.
	Batteries	Perform discharge test.
	Motor	Check motor brushes; replace as necessary.
	Front Wheel Bearings	Inspect and check for free play; repack with chassis lube and adjust as necessary.
	Transaxle	Check/fill transaxle to plug level (see Electric Vehicle Lubrication Chart on Page 25).
	General Vehicle	Lubricate per Electric Vehicle Lubrication Chart on Page 25.
	Check all daily, weekly, monthly, quarterly, and semi-annual items listed above.	

WARNING

- IF ANY PROBLEMS ARE FOUND, DO NOT OPERATE THE VEHICLE UNTIL REPAIRS ARE MADE. FAILURE TO MAKE NECESSARY REPAIRS COULD RESULT IN FIRE, PROPERTY DAMAGE, SEVERE PERSONAL INJURY, OR DEATH.
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PERIODIC LUBRICATION SCHEDULES

PERIODIC LUBRICATION SCHEDULE - GASOLINE VEHICLE			
REGULAR INTERVAL	SERVICE	PLACE*	RECOMMENDED LUBRICANT
Quarterly by Owner or Trained Technician	Brake shaft bearings	1.	Dry Moly Lube - Club Car Part No. 1012151
	Brake Linkage and Pivots	2.	Dry Moly Lube - Club Car Part No. 1012151
	Accelerator push rod pivots and shifter cable pivots	3.	Dry Moly Lube - Club Car Part No. 1012151
	Front Suspension (5 fittings)	4.	Chassis Lube
Annually by Trained Technician Only (Every 200 rounds or 100 hours of operation)	Check/fill unitized transaxle to plug level	5.	27 oz. (.8 liter) 80-90 WT. API Class GL-3 or 80-90 WT. AGMA Class EP Gear Lube
	Inspect front wheel bearings (Repack as necessary)	6.	Chassis Lube
First Change 100 Hours - Additional Change Every 400 Rounds or Every 200 Hours of Operation, or Annually - Whichever Comes First	Change engine oil and oil filter	7.	32 oz. (.97 liter) without filter; 38 oz. (1.16 liters) with filter. 10W30 above 32°F (0°C) or SAE 5W20 below 32°F (0°C) API Class SE, SF, or SG Oil (or higher)

*See Figure 16 below.

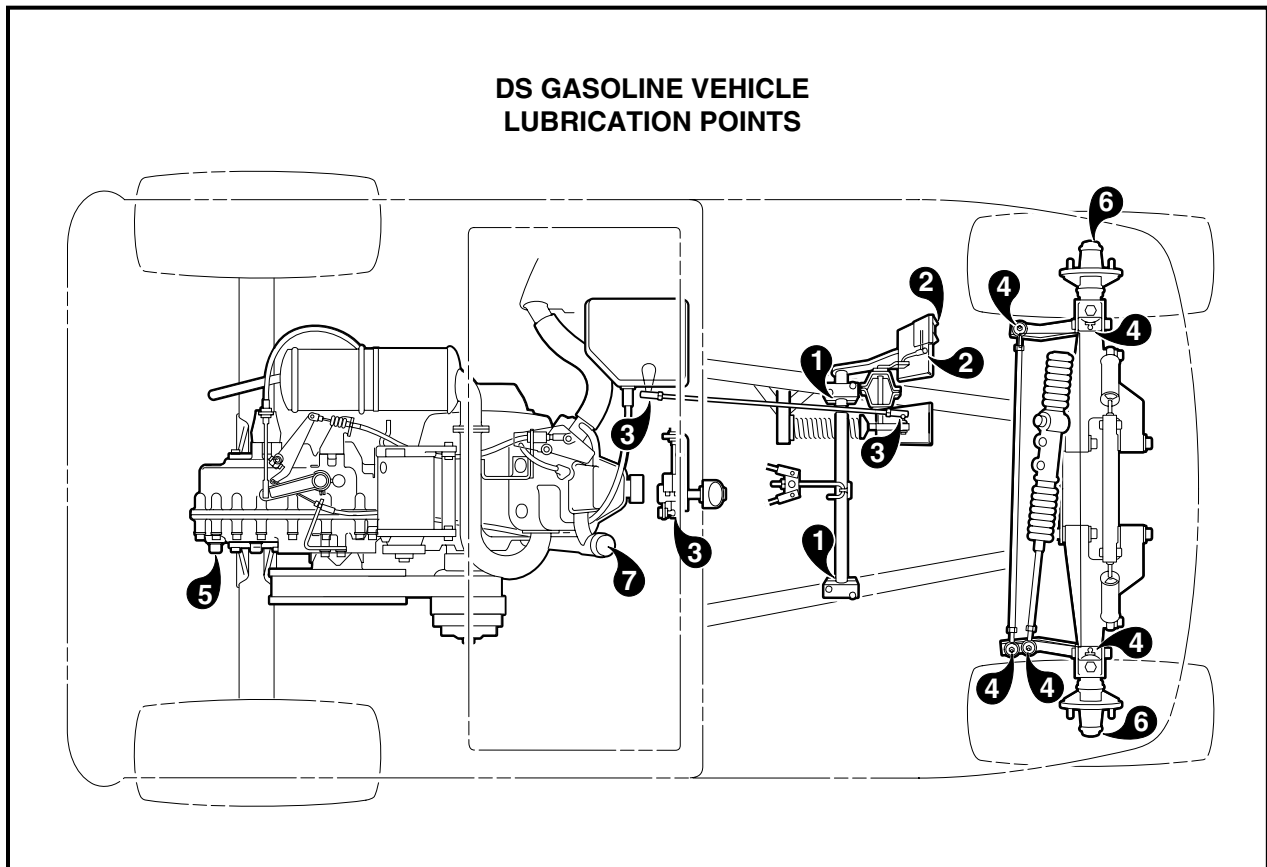


FIGURE 16

PERIODIC LUBRICATION SCHEDULES

PERIODIC LUBRICATION SCHEDULE - ELECTRIC VEHICLE			
REGULAR INTERVAL	SERVICE	PLACE*	RECOMMENDED LUBRICANT
Quarterly by Owner or Trained Technician	Brake shaft bearings	1.	Dry Moly Lube - Club Car Part No. 1012151
	Brake Linkage and Pivots	2.	Dry Moly Lube - Club Car Part No. 1012151
	Accelerator pivots	3.	Dry Moly Lube - Club Car Part No. 1012151
	Forward and reverse switch contacts and charger receptacle	4.	WD-40®
	Front Suspension (5 fittings)	5.	Chassis Lube
Annually by Trained Technician Only (Every 200 rounds or 100 hours of operation)	Check/fill transaxle to plug level	6.	22 oz. (.67 liter) SAE 30 WT. API Class SE, SF, or SG Oil (or higher)
	Inspect front wheel bearings (Repack as necessary)	7.	Chassis Lube

*See Figure 17 below, and Figure 18 on Page 26.

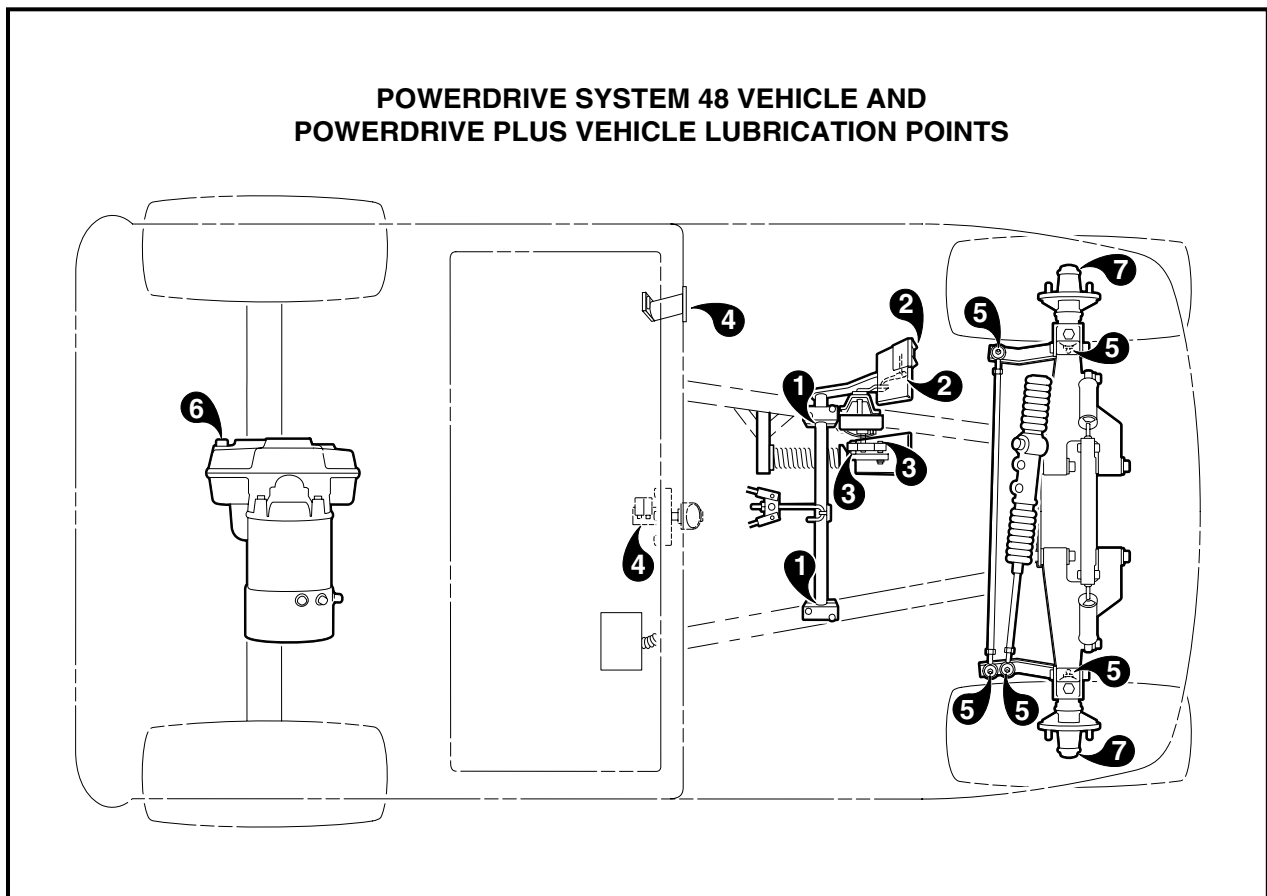


FIGURE 17

**V-GLIDE 36 VOLT VEHICLE
LUBRICATION POINTS**

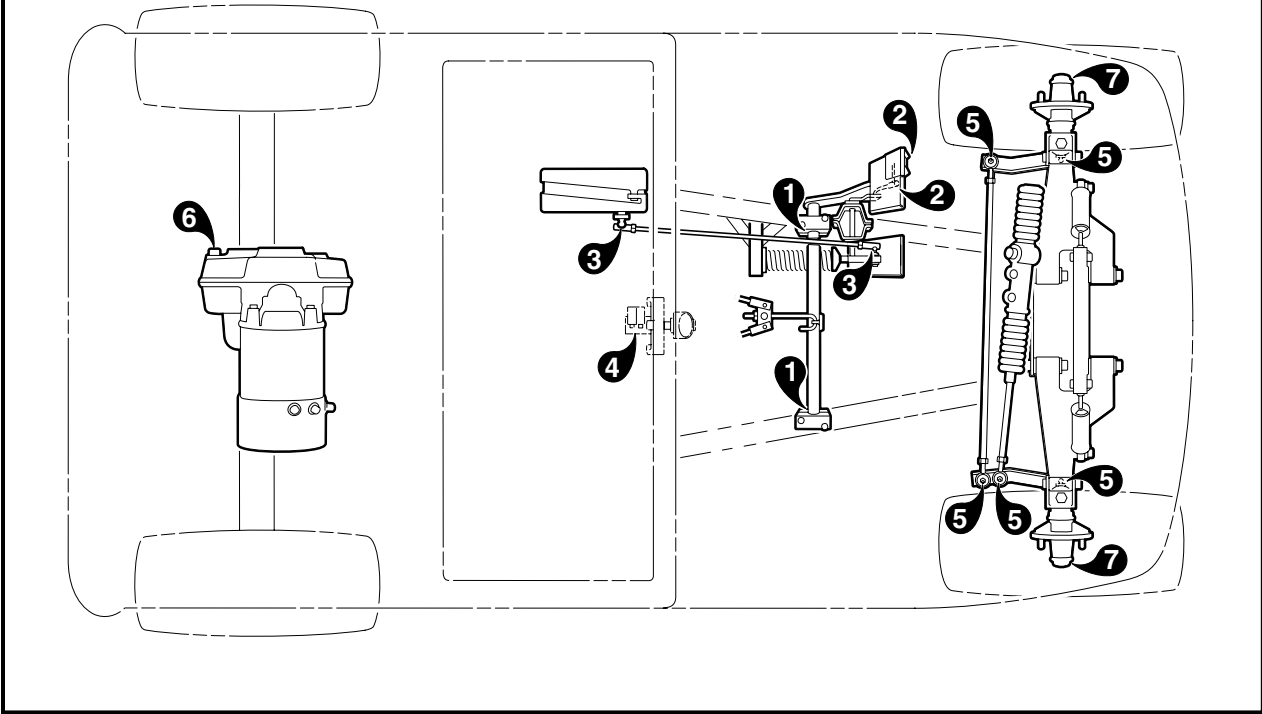


FIGURE 18

VEHICLE CAPACITIES

CAPACITIES		
	GASOLINE VEHICLES	ELECTRIC VEHICLES
Engine Crankcase without filter	32 oz. (.98 liters)	
Engine Crankcase with filter	38 oz. (1.16 liters)	
Unitized Transaxle (gas vehicle)	27 oz. (.8 liters)	
Transaxle (electric vehicle)		22 oz. (.67 liters)
Gasoline Tank	7 gallons (26.5 liters)	
Tire Pressure	12-14 psi (83-96 kPa)	18-20 psi (124-138 kPa)

ENGINE OIL - GASOLINE VEHICLE

Even though the oil warning light on the dash should warn you if your oil is getting low, engine oil level should be checked monthly (See Figure 19).

NOTE

- TO CHECK ENGINE OIL, THE ENGINE MUST BE IN LEVEL POSITION. REMOVE THE OIL LEVEL DIPSTICK FROM THE OIL FILLER TUBE AND WIPE OIL FROM IT WITH A CLEAN DRY CLOTH OR PAPER TOWEL. CHECK OIL BY INSERTING THE DIPSTICK FULLY INTO THE OIL FILLER TUBE AND IMMEDIATELY REMOVING IT AGAIN. IF THE OIL LEVEL IS AT OR BELOW THE **ADD** MARK ON THE DIPSTICK GAUGE, ADD OIL UNTIL THE LEVEL IS BETWEEN **ADD** AND **FULL** (SAFE LEVEL). **DO NOT OVERFILL!** REINSERT DIPSTICK INTO THE OIL FILLER TUBE.

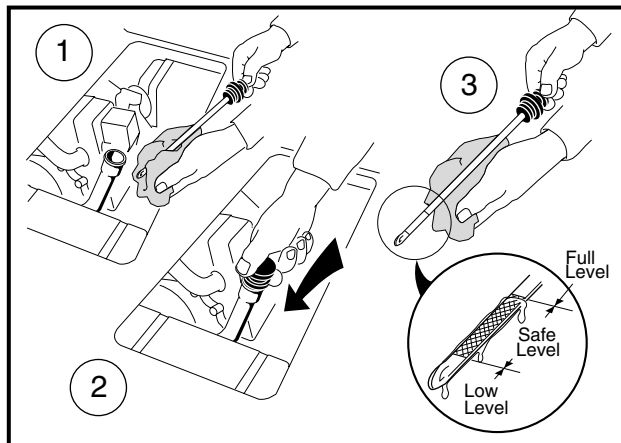


FIGURE 19

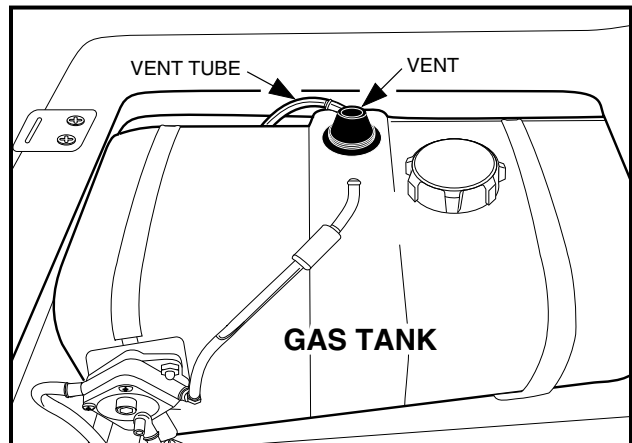


FIGURE 20

FUELING INSTRUCTIONS - GASOLINE VEHICLE

⚠ DANGER

- **GASOLINE - FLAMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE.**
- **SERVICE OR REPAIR IN WELL VENTILATED AREA ONLY.**
- **NEVER ATTEMPT TO POUR GASOLINE INTO THE FUEL TANK WHEN THE ENGINE IS HOT OR WHILE IT IS RUNNING.**
- **TO AVOID ELECTRIC ARC CAUSED BY STATIC ELECTRICITY, THE FUEL STORAGE/PUMPING DEVICE MUST BE GROUNDED. IF THE PUMP IS NOT GROUNDED, THE VEHICLE MUST BE GROUNDED TO THE PUMP BEFORE AND DURING THE FUELING OPERATION.**
- **IF THE VEHICLE HAS AN ALL-WEATHER ENCLOSURE INSTALLED, THE GAS TANK MUST BE PROPERLY VENTED AS SHOWN (FIGURE 20).**
- **TO AVOID THE POSSIBILITY OF FIRE, BE SURE TO CLEAN UP ANY SPILLED GASOLINE BEFORE OPERATING THE VEHICLE.**

NOTE

- WHENEVER POSSIBLE, AVOID USING OXYGENATED FUELS AND FUELS THAT ARE BLENDED WITH ALCOHOL. VEHICLES TO BE STORED FOR EXTENDED PERIODS SHOULD BE PREPARED FOR STORAGE AS INSTRUCTED ON PAGE 15 OF THIS MANUAL.

Fueling Instructions, Continued:

1. Lift and remove seat bottom.
2. The fuel tank is located on passenger side of vehicle. Remove fuel cap and fill the fuel tank with fresh unleaded gasoline only.

CAUTION

- DO NOT OVERFILL THE FUEL TANK. AVOID SPILLING FUEL.

3. Replace fuel cap on tank, being sure cap is tightened securely.
4. Replace seat bottom.

BATTERY - GASOLINE VEHICLE

DANGER

- **BATTERY - EXPLOSIVE GASSES! DO NOT SMOKE! KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE. TOOLS, WIRES, AND METAL OBJECTS CAN CAUSE SPARKS WHEN SHORTED ACROSS A BATTERY. FOLLOW ALL INSTRUCTIONS CAREFULLY WHEN WORKING WITH BATTERIES.**
- **CHARGE BATTERY IN A WELL-VENTILATED AREA ONLY.**
- **POISON! CONTAINS ACID! CAUSES SEVERE BURNS - AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. ANTIDOTES:**
 - **EXTERNAL: FLUSH WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.**
 - **INTERNAL: DRINK LARGE QUANTITIES OF MILK OR WATER FOLLOWED WITH MILK OF MAGNESIA OR VEGETABLE OIL. CALL A PHYSICIAN IMMEDIATELY.**
 - **EYES: FLUSH WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.**

WARNING

- DO NOT JUMP START THE VEHICLE. TO CHARGE THE BATTERY, USE AN AUTOMOTIVE-TYPE 12-VOLT CHARGER RATED AT 10 AMPS OR LESS.
- ALWAYS WEAR SAFETY GLASSES OR APPROVED EYE PROTECTION WHEN SERVICING THE VEHICLE.
- ALWAYS USE INSULATED TOOLS WHEN WORKING AROUND BATTERIES OR ELECTRICAL CONNECTIONS.

The battery in the DS Gasoline Vehicle is a 12 volt, low maintenance battery that requires infrequent watering (**Figure 21**).

Any corrosion around the positive (+) or negative (-) terminals should be washed off with a solution of baking soda and water (1 cup per gallon of water). Rinse solution off the battery. Be sure terminals are tight. Let the terminals dry and then spray them with CLUB CAR battery terminal spray (Club Car Part No.1014305).

CAUTION

- IF BATTERY WIRE TERMINALS ARE DAMAGED OR CORRODED, THEY SHOULD BE REPLACED OR CLEANED AS NECESSARY. FAILURE TO DO SO MAY CAUSE THEM TO OVERHEAT DURING OPERATION.

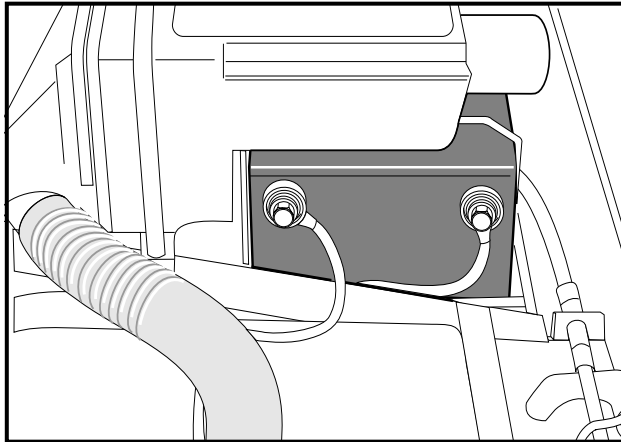


FIGURE 21

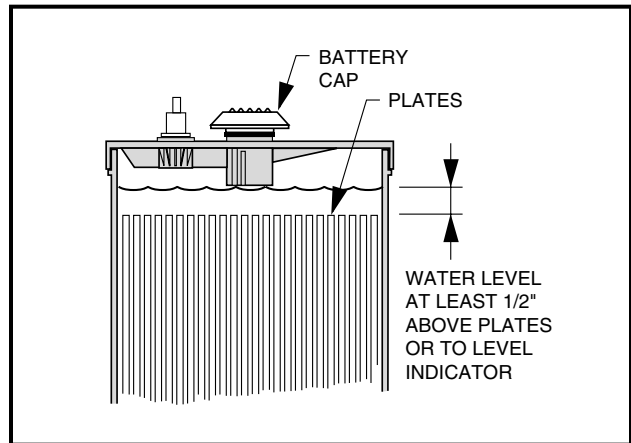


FIGURE 22

Be sure battery hold-down bracket is properly tightened. Torque to 15-25 in.lbs. (1.7/2.9 N-m). A loose hold-down bracket may allow the battery to become damaged from vibration or jarring. A hold-down bracket that is too tight may buckle or crack the battery case.

If battery appears weak, have it charged by a trained mechanic. The battery should never be left discharged any longer than absolutely necessary (do not leave discharged overnight).

BATTERIES - ELECTRIC VEHICLE

⚠ DANGER

- **BATTERY - EXPLOSIVE GASSES! DO NOT SMOKE! KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE. TOOLS, WIRES, AND METAL OBJECTS CAN CAUSE SPARKS WHEN SHORTED ACROSS A BATTERY. FOLLOW ALL INSTRUCTIONS CAREFULLY WHEN DEALING WITH BATTERIES.**
- **CHARGE BATTERIES IN A WELL-VENTILATED AREA ONLY. BATTERIES EMIT HYDROGEN WHILE BEING CHARGED. HYDROGEN IS AN EXPLOSIVE GAS AND MUST NEVER EXCEED A LEVEL OF 2% OF THE AIR.**
- **POISON! CONTAINS ACID! CAUSES SEVERE BURNS - AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. ANTIDOTES:**
 - **EXTERNAL: FLUSH WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.**
 - **INTERNAL: DRINK LARGE QUANTITIES OF MILK OR WATER FOLLOWED WITH MILK OF MAGNESIA OR VEGETABLE OIL. CALL A PHYSICIAN IMMEDIATELY.**
 - **EYES: FLUSH WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.**

⚠ WARNING

- **ALWAYS WEAR SAFETY GLASSES OR APPROVED EYE PROTECTION WHEN SERVICING THE VEHICLE. WEAR A FULL-FACE SHIELD WHEN WORKING WITH BATTERIES.**
- **ALWAYS USE INSULATED TOOLS WHEN WORKING AROUND BATTERIES OR ELECTRICAL CONNECTIONS.**

⚠ CAUTION

- **ON ALL VEHICLES, TURN OFF ALL ACCESSORIES BEFORE CHARGING BATTERIES.**

Batteries - Electric Vehicles, Continued:

- The batteries in DS V-Glide 36 Volt Electric Vehicles are 6 volts each.
- The batteries in PowerDrive System 48 and PowerDrive Plus Electric Vehicles are 8 volts each.

Both the 6 and 8 volt batteries are deep cycle batteries, specially built for electric vehicle application. Automotive batteries should never be used.

New batteries will not deliver their full capabilities until they have been discharged and recharged 20 to 50 times. To obtain the maximum service life from new batteries, restrict vehicle with new batteries to 36 holes of use between charges in the first two months of operation. Batteries should be fully charged before first use of new vehicle, before first use of a vehicle after storage, and before releasing vehicle for use each day.

BATTERY CARE

To keep batteries in good working condition, follow this maintenance program on a regular basis:

1. The batteries should be kept clean and free of corrosion. Wash tops and terminals of batteries with a solution of baking soda and water (1 cup baking soda per gallon of water). Rinse solution off batteries (NOTE: Do not allow this solution to enter the battery). Be sure terminals are tight. Let the terminals dry and then spray them with CLUB CAR battery protector spray (Part No. 1014305).
2. The water level in the batteries should be checked weekly (**See Figure 22, Page 29, for proper level**). Add water only after charging unless the water level is below the top of the plates. In this case, add just enough water to cover the plates, charge and then check the level again. Never charge batteries if plates are exposed above water level. For best battery life, add only distilled water.

NOTE

- A BATTERY WATERING GUN IS AVAILABLE AT MANY AUTO PARTS DEALERS.

3. The hold-down straps should be tight enough so that the batteries do not move while the vehicle is in motion, but not so tight as to crack or buckle the battery case. Torque hold-down retaining nuts to 15-25 in.lbs. (1.7/2.8 N-m). The terminal connections should be clean and tight, and any worn insulation or frayed wires should be replaced. Torque battery terminals to 90-100 in.lbs. (10/11.3 N-m).

CAUTION

- IF BATTERY WIRE TERMINALS ARE DAMAGED OR CORRODED, THEY SHOULD BE REPLACED OR CLEANED AS NECESSARY. FAILURE TO DO SO MAY CAUSE THEM TO OVERHEAT DURING OPERATION.

4. After use, the batteries should be placed on charge. The batteries should never be left discharged any longer than absolutely necessary (do not leave discharged overnight).

BATTERY CHARGER - ELECTRIC VEHICLE

DANGER

- BATTERIES EMIT HYDROGEN WHILE BEING CHARGED. HYDROGEN IS AN EXPLOSIVE GAS. IF THE VEHICLE IS EQUIPPED WITH A WEATHERPROOF ENCLOSURE, IT SHOULD BE UNZIPPED AND PULLED BACK WHILE BATTERIES ARE BEING CHARGED. THIS IS TO AVOID THE ACCUMULATION OF HYDROGEN GAS INSIDE THE ENCLOSURE.
- THE CHARGING AREA MUST BE VENTILATED. HYDROGEN LEVEL IN THE AIR MUST NEVER EXCEED 2%. THE TOTAL VOLUME OF AIR IN THE BUILDING MUST BE CHANGED FIVE TIMES PER HOUR. EXHAUST FANS SHOULD BE LOCATED AT THE HIGHEST POINT OF THE ROOF. CONTACT A LOCAL HVAC ENGINEER.

WARNING

- EACH CHARGER SHOULD HAVE ITS OWN DEDICATED 15 OR 20 AMPERE SEPARATELY PROTECTED (CIRCUIT BREAKER OR FUSE) SINGLE PHASE BRANCH CIRCUIT, IN ACCORDANCE WITH ALL APPLICABLE ELECTRICAL CODES FOR THE LOCATION.
- CONNECT THE CHARGER AC SUPPLY CORD TO A PROPERLY GROUNDED, THREE-WIRE OUTLET OF THE PROPER VOLTAGE AND FREQUENCY AS SHOWN ON THE CHARGER.
- DO NOT USE AN ADAPTER TO PLUG THE CHARGER WITH A THREE-PRONG PLUG INTO A TWO-PRONG OUTLET. IMPROPER CONNECTION OF THE EQUIPMENT-GROUNDING CONDUCTOR CAN RESULT IN A FIRE OR AN ELECTRICAL SHOCK.
- AN EXTENSION CORD OR ELECTRICAL OUTLET MUST ACCEPT A THREE-PRONG PLUG. THE USE OF IMPROPER EXTENSION CORD COULD RESULT IN FIRE OR AN ELECTRICAL SHOCK.
- ONLY TRAINED TECHNICIANS SHOULD REPAIR OR SERVICE THE CHARGER. CONTACT YOUR NEAREST CLUB CAR DISTRIBUTOR/DEALER.
- DO NOT OPERATE THE CHARGER IF IT HAS RECEIVED A SHARP BLOW, WAS DROPPED, OR OTHERWISE DAMAGED IN ANY WAY.
- HAVE WORN, CUT, OR DAMAGED POWER CORDS OR WIRES REPLACED IMMEDIATELY.
- DO NOT USE NEAR FUELS, GRAIN DUST, SOLVENTS, THINNERS, OR OTHER FLAMMABLES. CHARGERS CAN IGNITE FLAMMABLE MATERIALS AND VAPORS.
- DO NOT EXPOSE TO RAIN OR ANY LIQUID. KEEP THE CHARGER DRY.
- NEVER PUSH OBJECTS OF ANY KIND INTO THE CHARGER THROUGH CABINET SLOTS. THEY MAY TOUCH DANGEROUS VOLTAGE POINTS OR CAUSE AN ELECTRICAL SHORT CIRCUIT THAT COULD RESULT IN FIRE OR ELECTRICAL SHOCK.
- **36 VOLT ACCU-POWER CHARGER:** DO NOT DISCONNECT THE DC OUTPUT PLUG FROM THE VEHICLE RECEPTACLE WHEN THE CHARGER IS ON. THE RESULTING ARCING AND BURNING COULD DAMAGE THE PLUG AND RECEPTACLE AND COULD CAUSE BATTERIES TO EXPLODE. IF THE CHARGER MUST BE STOPPED, DISCONNECT THE AC SUPPLY PLUG FROM THE WALL OUTLET BEFORE DISCONNECTING THE CHARGER DC CORD FROM THE VEHICLE RECEPTACLE
- **48 VOLT POWERDRIVE CHARGER:** WHEN THE CHARGER IS ON, THE CHARGER DC CORD MAY BE DISCONNECTED FROM THE VEHICLE RECEPTACLE **SLOWLY**. JERKING OR PULLING THE DC CORD OUT QUICKLY COULD CAUSE ARCING AND BURNING THAT COULD DAMAGE THE PLUG AND RECEPTACLE AND COULD CAUSE BATTERIES TO EXPLODE.

CAUTION

- DO NOT BLOCK OR COVER SLOTS AND OPENINGS IN THE BACK AND BOTTOM OF CHARGER CABINET. THEY PROVIDE VENTILATION AND PROTECT THE CHARGER FROM OVERHEATING.
- DO NOT ALLOW CLOTHING, BLANKETS, OR OTHER MATERIAL TO COVER THE CHARGER.
- PROVIDE ADEQUATE VENTILATION FOR THE CHARGER.
- **36 VOLT ACCU-POWER CHARGER:** DO NOT LEAVE THE DC CORD PLUGGED INTO A VEHICLE RECEPTACLE WHILE UNATTENDED FOR MORE THAN TWO DAYS IN A ROW. SEVERE OVERHEATING AND DAMAGE TO THE BATTERIES MAY RESULT IF THE CHARGER DOES NOT TURN OFF.
- INSTALL SURGE ARRESTORS ON INCOMING AC POWER LINES. SURGE ARRESTORS WILL HELP PROTECT ELECTRICAL/ELECTRONIC COMPONENTS IN THE CHARGER AND ON THE VEHICLE FROM ALL BUT DIRECT OR VERY CLOSE LIGHTNING STRIKES.

Battery Charger - Electric Vehicle, Continued:

NOTE

- BECAUSE THE **POWERDRIVE** CHARGER HAS A STORAGE CHARGE FEATURE THAT AUTOMATICALLY CHECKS AND RECHARGES THE BATTERIES AS NECESSARY EVERY 15 DAYS, IT CAN REMAIN PLUGGED TO A POWERDRIVE VEHICLE THROUGHOUT THE STORAGE PERIOD.
- SHORTLY AFTER CHARGING HAS BEGUN, THE **POWERDRIVE** CHARGER WILL SHUT OFF IN ORDER TO RUN A SELF-DIAGNOSTIC PROGRAM (AMMETER WILL DROP TO 0). CHARGING WILL RESUME IN A FEW MOMENTS (AMMETER WILL RETURN TO CURRENT STATE OF CHARGE).

Each electric vehicle is supplied with a fully automatic battery charger as standard equipment. The AC cord to each charger is to be connected to a source capable of supplying 10 amperes minimum per charger.

The battery charger must be grounded to reduce the risk of electrical shock. The charger is equipped with an AC electric cord having an equipment-grounding conductor and a grounding type plug and is for use on a nominal 115 Volt 60 Hertz circuit, unless otherwise noted on the charger. The plug must be grounded to an appropriate dedicated receptacle that is properly installed and grounded in accordance with the National Electrical Code, ANSI/NFPA 70, and all local codes and ordinances.

The use of an extension cord with the charger should be avoided. If an extension cord must be used, a three conductor No. 12 AWG heavy duty cord with a ground conductor in good electrical condition must be used. Keep it as short as possible (no more than twelve feet). Locate all cords so that they will not be stepped on, tripped over, or otherwise subject to damage or stress.

Ventilation fans should be located at the highest point in the room and must be capable of changing the total volume of air in the room five times per hour. Consult a local HVAC engineer.

TO CHARGE BATTERIES

WARNING

- BE SURE ALL WIRE CONNECTIONS AT THE RECEPTACLE AND THE FUSE LINK ARE CLEAN AND TIGHT.
- DO NOT ROCK OR BEND THE PLUG. TO CONNECT THE CHARGER PLUG TO THE VEHICLE RECEPTACLE, GRASP THE PLUG HANDLE AND PUSH THE PLUG STRAIGHT INTO THE RECEPTACLE (SEE FIGURE 23).
- DO NOT PULL ON THE DC CORD (SEE FIGURE 24). DO NOT TWIST, ROCK OR BEND THE PLUG. TO DISCONNECT THE CHARGER PLUG FROM THE VEHICLE RECEPTACLE, GRASP THE PLUG BY THE HANDLE AND PULL THE PLUG STRAIGHT OUT OF THE RECEPTACLE.
- DO NOT CONNECT A PORTABLE CHARGER TO THE RECEPTACLE IF THE CHARGER CORD, PLUG, OR THE VEHICLE RECEPTACLE IS BROKEN, DAMAGED IN ANY MANNER, OR DOES NOT MAKE A GOOD ELECTRICAL CONNECTION. FIRE OR PERSONAL INJURY CAN RESULT. HAVE IT REPLACED BY A QUALIFIED SERVICE PERSON IMMEDIATELY.
- FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN DAMAGE TO THE CHARGER CORD, THE PLUG, AND (OR) THE VEHICLE'S RECEPTACLE.

DO NOT USE A CHARGER IF:

- THE PLUG IS TOO LOOSE OR DOES NOT MAKE A GOOD CONNECTION.
- THE PLUG AND RECEPTACLE FEEL HOTTER THAN NORMAL DURING CHARGE.
- THE PLUG PINS (POWERDRIVE CHARGERS) OR BLADES (ACCU-POWER CHARGERS), OR RECEPTACLE CONTACTS ARE BENT OR CORRODED.

⚠ WARNING

DO NOT USE A CHARGER IF:

- THE PLUG, RECEPTACLE, OR CORDS ARE CUT, WORN, HAVE ANY EXPOSED WIRES OR ARE DAMAGED IN ANY WAY.
- USING THE CHARGER WITH ANY OF THE ABOVE SYMPTOMS COULD RESULT IN A FIRE, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.
- THE DC CHARGER CORD AND PLUG ARE WEAR ITEMS AND MUST BE REPLACED WHEN WORN OR DAMAGED.

NOTE

- WHEN TEMPERATURES FALL BELOW 65° F (18.3 C), BATTERIES CHARGED IN UNHEATED AREAS SHOULD BE PLACED ON CHARGE AS SOON AS POSSIBLE AFTER USE. BATTERIES ARE WARMEST IMMEDIATELY AFTER USE, AND COLD BATTERIES REQUIRE MORE TIME TO FULLY CHARGE.

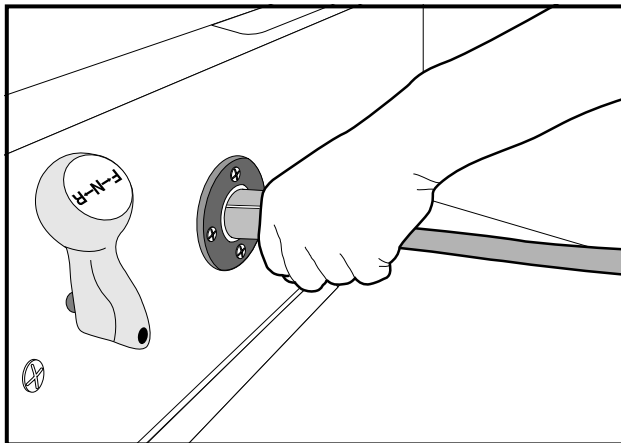


FIGURE 23

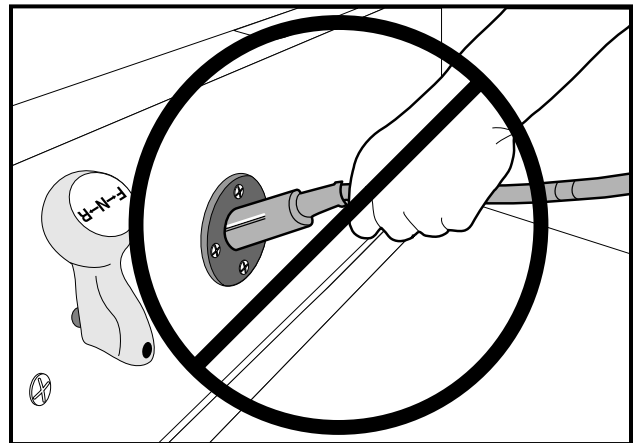


FIGURE 24

Insert the charger's DC plug into the vehicle's receptacle. The charger will turn on two to ten seconds later (**Figure 23**).

- When inserting the PowerDrive System 48 DC plug, align the raised guide on the plug with the guide slot in the receptacle and push straight in slowly.
- The **PowerDrive Charger** interacts with an on-board computer on the PowerDrive System 48 Golf Car. The computer records the amount of energy consumed during vehicle use. While the charger is plugged in, the golf car's control circuit is locked out, preventing operation of the vehicle, as well as the possibility of consequent damage to the charger and the vehicle.

Once the lock-out is actuated, the charger turns on. The on-board computer then records the amount of energy being returned to the batteries. When the optimum amount of energy needed to replenish the batteries is returned, the charger will shut off. The control circuit lock-out remains activated until the charger plug is disconnected from the vehicle.

Because of these unique features, **only PowerDrive System 48 vehicles are compatible with the PowerDrive Charger** (Neither vehicles made by other manufacturers, nor other Club Car models are compatible).

To Charge Batteries, Continued:

As long as the charger is allowed to shut off by itself, the batteries will be fully charged. Overcharging and undercharging will normally be prevented.

Batteries should be put on charge even if they have been used for only a short period (9 holes of golf or 10 minutes). The charger is automatic and will turn off when batteries are fully charged. If the charger does not seem to be operating properly, or if the batteries seem weak, contact your local Club Car distributor/dealer.

PLUG AND RECEPTACLE

If the charger plug becomes difficult to insert or disconnect, the receptacle contacts should be lightly sprayed with WD-40 brand spray lubricant. The plug should then be inserted and removed several times to ensure ease of insertion, ease of removal, and good electrical contact.

NOTE

- IF THE WARNING TAG HAS BEEN DAMAGED OR REMOVED FROM THE DC CORD, HAVE IT REPLACED IMMEDIATELY.

Receptacle Fuse Link

As an additional feature to protect the batteries and charging circuit from an overload, the electric vehicle is equipped with a receptacle fuse link (**Figure 25, V-Glide 36 volt vehicle, or Figure 26, PowerDrive System 48 vehicle**). If the portable charger does not come on when the vehicle is placed on charge, visually inspect the fuse link.

⚠ WARNING

- IF THE RECEPTACLE FUSE LINK IS BLOWN, DETERMINE THE SOURCE OF THE ELECTRICAL PROBLEM AND CORRECT IT BEFORE REPLACING THE FUSE. CONTACT YOUR NEAREST CLUB CAR DISTRIBUTOR/DEALER.

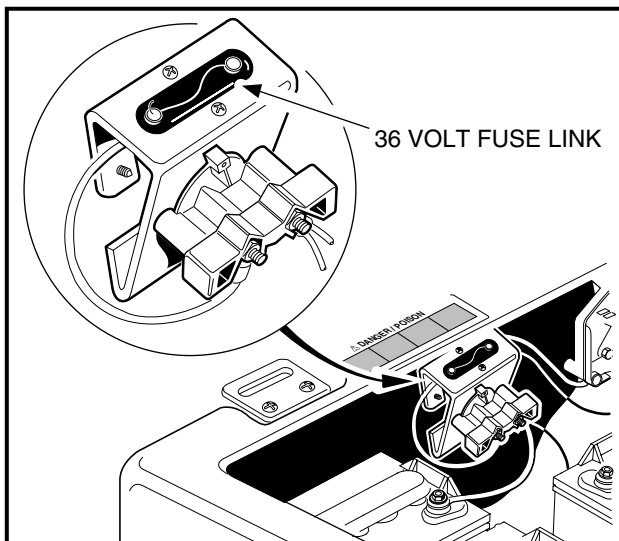


FIGURE 25

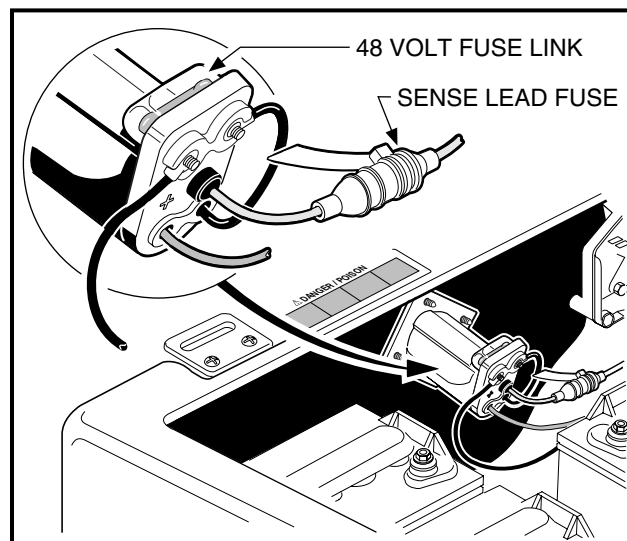


FIGURE 26

CLEANING THE VEHICLE

The vehicle is equipped with an Armorflex® front body and rear body. Use only mild dishwashing liquid soap with a sponge or soft cloth for normal cleaning. See CAUTION at the top of next page.

⚠ CAUTION

- IF A PRESSURE WASHER IS USED, DO NOT EXCEED 500 PSI (3448 KPA). NOZZLE SHOULD BE SET TO WIDE ANGLE SPRAY.

Minor scratches or blemishes in the front body or the rear body can be buffed out using most commercially available polishing compounds and polishes.

The seats of the vehicle will last longer with proper cleaning. Mild soap or detergent with a sponge or soft cloth for normal cleaning is recommended. For stubborn or imbedded dirt, a soft bristle brush may be used.

Do not use harsh detergents or cleaning solvents on the front body, the rear body, or the seat.

Battery acid, fertilizers, tars, asphalt, creosote, paint, or chewing gum should be removed immediately to prevent possible stains. Use commercial automotive products because the finish on the vehicle is the same as the finish on today's automobiles.

VEHICLE CONTROLLER - ELECTRIC VEHICLE

The DS Electric vehicle is equipped with either a Solid State Speed Controller (PowerDrive System 48 and PowerDrive System 48 with Motor Braking), or a V-Glide Speed Controller (36 Volt Vehicle).

In order to properly service and maintain the Solid State Controller Vehicle or the V-Glide Speed Controller Vehicle, it is necessary to understand the electrical circuitry and the functions of all components in both systems. Therefore, if any repair or servicing needs to be performed, we recommend that it be performed by an authorized CLUB CAR distributor/dealer using CLUB CAR OEM parts.

ACCESSORIES AND OPTIONS

The vehicle is available with a complete line of optional equipment items and accessories that are available from Club Car and our dealers/distributors. Care should be taken that these accessories and options are properly installed by trained technicians, and that they are used in the manner for which they were designed.

OPTIONAL EQUIPMENT ALL DS GOLF CARS:

- Accent Striping
- Woodgrain Decal
- Custom Club Decals
- I.D. Numbers
- Adjustable Seat Back
- Scuff Guards
- Canopy Top
- Weather-proof Enclosure
- Tinted Split Windshield
- Clear or Tinted Snap-on Windshield
- AM/FM Stereo Cassette Radio with Clock
- Lighting Package (high/low beam headlights, taillights, brake lights, and horn)
- Deluxe Lighting Package with Turn Signals
- Ashtray
- Rear View Mirror
- Glove Box
- Power Rib Tires
- Extra Traction Tires
- White Wall Tires
- Chrome Hub Wheel Covers
- Chrome Sport Wheel Covers
- Sand Bunker Rake Kit
- Sand Bottle Divot Repair Kit
- Sand Basket and Divot Bucket Repair Kit
- Temporary Tow Bar for Single Vehicle Towing
- Permanent Tow Bar for Multiple Vehicle Towing (factory installed)
- On-board Tow Bar
- Trailer Hitch
- Hour Meter
- Sweater Basket
- Information Holder
- Beverage Cooler
- Extra Two-bag Attachment
- Bagwell Liner
- Snap-on Tee Holder

Optional Equipment Continued on Next Page.

OPTIONAL EQUIPMENT ELECTRIC VEHICLES ONLY:

- 3.75 hp Electric Motor (PowerDrive System 48 vehicle only)
- Battery Indicator
- 3.5 hp Electric Motor (V-Glide 36 volt vehicle only)
- On-board Charger with Rewind Cord

OPTIONAL EQUIPMENT GASOLINE VEHICLES ONLY:

- Fuel Gauge
- Spark Arrestor Kit

WARNING

- TINTED WINDSHIELDS AND WEATHER-PROOF ENCLOSURES WILL **NOT** PROTECT OCCUPANTS FROM FLYING OBJECTS (GOLF BALLS, ETC.).

SUBSEQUENT OWNER REGISTRATION

In the event a vehicle is bought as a used vehicle from another individual or from a distributor/dealer, we strongly urge the new owner to re-register the vehicle with Club Car. This will enable us to contact you if the need arises. Please send your name, address, and serial number(s) of the vehicle(s) to CLUB CAR, INC., P.O. Box 204658, Augusta, GA 30917-4658, ATTN: Vehicle Registration.

FAIRWAY VILLAGER

The Fairway Villager is designed to provide a smooth and comfortable ride for four passengers, and is offered in both gasoline and PowerDrive System 48 electric power configurations. An optional rack for two golf bags is also available. Contact your nearest Club Car distributor/dealer. This Owner's Manual should be read thoroughly prior to operating the vehicle.

The Fairway Villager should be driven and maintained as stated in this Owner's Manual with the following exceptions:

WARNING

- TO PREVENT POSSIBLE INJURY TO AN UNSUSPECTING PASSENGER, OR DAMAGE TO THE VEHICLE, AVOID SUDDEN STARTS, SUDDEN STOPS, AND ABRUPT TURNS.
- VEHICLE SHOULD BE DRIVEN AT SLOWER SPEEDS WHEN FOUR PASSENGERS ARE IN THE VEHICLE.
- PASSENGERS SHOULD HOLD ON TO SEAT HANDLES OR HAND RAILS AT ALL TIMES (SEE FIGURE 27). DRIVER SHOULD KEEP BOTH HANDS ON THE STEERING WHEEL WHILE VEHICLE IS MOVING.
- DO NOT LEAVE CHILDREN UNATTENDED ON THE REAR SEAT WHILE VEHICLE IS MOVING.
- NO MORE THAN FOUR PASSENGERS SHOULD BE ON THE VEHICLE AT ONE TIME.
- KEEP ALL BODY PARTS INSIDE THE VEHICLE TO PREVENT THEM FROM GETTING CAUGHT BETWEEN THE VEHICLE AND THE GROUND OR OTHER OBJECTS.

MAINTENANCE

Refer to Pages 19 through 26 for periodic service schedules and periodic lubrication schedules. See NOTE at the top of next page.

NOTE

- IF THE VEHICLE IS CONSTANTLY HAULING HEAVY LOADS, THE PREVENTIVE MAINTENANCE PROCEDURES SHOULD BE PERFORMED MORE OFTEN THAN RECOMMENDED IN THE SERVICE AND LUBRICATION SCHEDULES.

STORAGE COMPARTMENT

There is an enclosed storage compartment underneath the rear seat with 2 cu.ft. (.06 cu.m.) of storage area. Access the storage compartment by lifting the rear seat.

ELECTRIC FAIRWAY VILLAGER

An optional on-board charger is available for the Fairway Villager electric. The charger should be plugged into a properly grounded nominal 115 Volts AC, 60 Hertz outlet. The AC line to which the charger is to be connected must be capable of supplying 15 amperes minimum to the charger. The rear seat should be propped open while charging the batteries.

⚠ WARNING

- EACH CHARGER SHOULD HAVE ITS OWN DEDICATED 15 OR 20 AMPERE SEPARATELY PROTECTED (CIRCUIT BREAKER OR FUSE) SINGLE PHASE BRANCH CIRCUIT, IN ACCORDANCE WITH ALL APPLICABLE ELECTRICAL CODES FOR THE LOCATION.

⚠ CAUTION

- BEFORE CHARGING BATTERIES, TURN OFF ALL ACCESSORIES ON ALL VEHICLES.
- IF USING AN ON-BOARD CHARGER, BE SURE THE AC PLUG IS UNPLUGGED FROM THE OUTLET BEFORE ATTEMPTING TO DRIVE THE VEHICLE. CHARGER AND AC OUTLET WILL BE DAMAGED IF THE CHARGER IS NOT UNPLUGGED BEFORE DRIVING. BE SURE THE AC CORD IS PROPERLY WOUND UP ON THE REEL BEFORE DRIVING THE VEHICLE. STUDY ALL GENERAL INFORMATION, NOTES, CAUTIONS, AND WARNINGS AS WELL AS ALL INFORMATION, NOTES, CAUTIONS, AND WARNINGS SPECIFIC TO THE POWERDRIVE CHARGER AND POWERDRIVE SYSTEM 48 IN THE BATTERY CHARGER SECTION OF THIS OWNER'S MANUAL (PAGE 30).

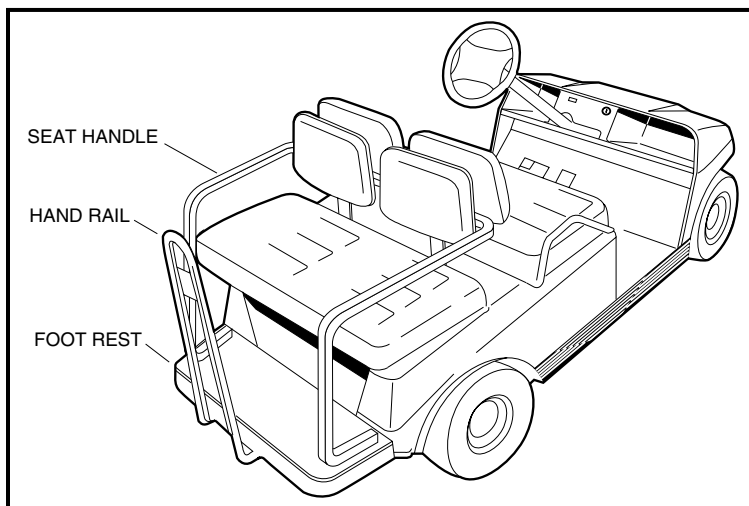


FIGURE 27

VEHICLE SPECIFICATIONS

SPECIFICATIONS	DS GASOLINE	POWERDRIVE SYSTEM 48 ELECTRIC	POWERDRIVE PLUS ELECTRIC	DS 36 VOLT ELECTRIC
POWER SOURCE				
Engine: 4 cycle, OHV, 286 cc, 9.0 hp rated., single cylinder, air cooled, with pressure lubrication system.	•			
Drive Motor: Direct drive, 48 volts DC, series wound, 3.1 hp.		•		
Drive Motor: Direct drive, 48 volts DC, shunt wound, 3.2 hp.			•	
Drive Motor: Direct drive, 36 volts DC, series wound, 2.97 hp.				•
Fuel System: Side draft carburetor with float bowl, fixed jets, fuel filter, and impulse fuel pump.	•			
Governor: Automatic ground speed sensing, internally geared in unitized transaxle.	•			
Ignition: Transistor electronic ignition with electronic RPM limiter.	•			
Unitized Transaxle: Fully synchronized forward and reverse with neutral (11.8:1 forward, 17.1:1 reverse).	•			
Transaxle: Double reduction helical gear with 12.28:1 direct drive axle.		•	•	•
Electrical System: 12 volt, 460 cold cranking amp battery and 35 amp charging capacity.	•			
Electrical System: 48 volts DC, reduced speed reverse.		•	•	
Electrical System: 36 volts DC, reduced speed reverse.				•
Batteries: High capacity, deep cycle, Trojan PowerDrive 8 volt, 117 min. capacity.		•	•	
Batteries: High capacity, deep cycle, Trojan PowerDrive 6 volt, 115 min. capacity.				•
Charger: Automatic, 17 amp PowerDrive; UL and CSA listed.		•	•	
Charger: Automatic, 21 amp Accu-Power; UL and CSA listed.				•
Torque Converter: Automatic, variable speed, dry type.	•			
STEERING/SUSPENSION/BRAKES				
Steering: Self-adjusting rack and pinion.	•	•	•	•
Suspension: Front and rear tapered mono-leaf springs with dual hydraulic shocks.	•	•	•	•
Brakes: Dual rear wheel self-adjusting brakes with cast iron drums and single brake pedal with automatic-release park brake.	•	•	•	•
BODY/CHASSIS				
Frame/Chassis: Twin I-Beam welded aluminum.	•	•	•	•
Front and Rear Body: Armorflex®	•	•	•	•
Body Finish: Protective coat over molded-in color.	•	•	•	•
Tires: 18.00 x 8.50 - 8.00 tubeless, 4 ply rated.	•	•	•	•
SEATING CAPACITY/FUEL CAPACITY				
Standard Seating Capacity: 2 persons	•	•	•	•
Fairway Villager Seating Capacity: 4 persons	•	•	N/A	•
Fuel Tank: 7 gallons (26.5 liters), unleaded gasoline only.	•			
DIMENSIONS/WEIGHT				
Overall Length	91-1/2" (232 cm)	91-1/2" (232 cm)	91-1/2" (232 cm)	91-1/2" (232 cm)
Overall Width	47-1/4" (120 cm)	47-1/4" (120 cm)	47-1/4" (120 cm)	47-1/4" (120 cm)
Specifications Continued on Next Page.				

SPECIFICATIONS	DS GASOLINE	POWERDRIVE SYSTEM 48 ELECTRIC	POWERDRIVE PLUS ELECTRIC	DS 36 VOLT ELECTRIC
Overall Height: At Steering Wheel.	48" (122 cm)	48" (122 cm)	48" (122 cm)	48" (122 cm)
Wheelbase	65-1/2" (166 cm)	65-1/2" (166 cm)	65-1/2" (166 cm)	65-1/2" (166 cm)
Ground Clearance	4-1/2" (11 cm)	4-1/2" (11 cm)	4-1/2" (11 cm)	4-1/2" (11 cm)
Front Wheel Tread	34-1/2" (88 cm)	34-1/2" (88 cm)	34-1/2" (88 cm)	34-1/2" (88 cm)
Rear Wheel Tread	38-1/2" (98 cm)	38-1/2" (98 cm)	38-1/2" (98 cm)	38-1/2" (98 cm)
Weight: Standard electric vehicle (without batteries)		455 lbs. (206 kg)	455 lbs. (206 kg)	448 lbs. (203 kg)
Weight: Fairway Villager electric vehicle (without batteries)		495 lbs. (225 kg)	N/A	N/A
Weight: Standard gasoline powered vehicle (dry)	593 lbs. (269 kg.)			
Weight: Fairway Villager gasoline powered vehicle (dry)	633 lbs. (287 kg.)			
Forward Speed	12 - 15 mph (19 - 24 kph)	12 - 15 mph (19 - 24 kph)	12 - 15 mph (19 - 24 kph)	12 - 15 mph (19 - 24 kph)
Clearance Circle (diameter)	17'-6" (533 cm)	17'-6" (533 cm)	17'-6" (533 cm)	17'-6" (533 cm)
Braking Distance: At 12 mph (19 kph).	14' (427 cm)	14' (427 cm)	14' (427 cm)	14' (427 cm)

CLUB CAR LIMITED LIFETIME WARRANTY FOR 1997 FLEET GOLF CARS IN THE UNITED STATES AND CANADA

1. WARRANTY:

CLUB CAR, INC. ("CLUB CAR") hereby warrants to the Original Retail Fleet Purchaser or Original Retail Fleet Lessee, as those terms are defined herein, and subject to the provisions, limitations and exclusions contained in this limited warranty, that its new 1997 Model DS golf car purchased from CLUB CAR or an authorized distributor or dealer for use in the United States or Canada shall be free from defects in materials and workmanship under normal use and service as a golf car for the periods stated below.

LIMITED LIFETIME WARRANTY:

The golf car frame (excluding the front and rear bumper mounts), the rack and pinion steering gearbox unit, and the suspension system (defined as the shock absorbers, shock mounts, A-plates, leaf springs, shackles and associated hardware) are warranted with respect to parts and labor against defects in materials and workmanship for the lifetime of the vehicle while owned by the Original Retail Fleet Purchaser or in the possession of the Original Retail Fleet Lessee.

LIMITED THREE YEAR WARRANTY:

The gasoline engine, transmission, torque converter (drive and driven), unitized transaxle, starter generator, transaxle (electric vehicle), and electric motor are warranted with respect to parts and labor against defects in materials and workmanship for a period of three years from the date of purchase while owned by the Original Retail Fleet Purchaser or in the possession of the Original Retail Fleet Lessee.

LIMITED TWO YEAR WARRANTY:

All remaining components of the golf car not specified otherwise are warranted with respect to parts and labor against defects in materials and workmanship for a period of two years from the date of purchase while owned by the Original Retail Fleet Purchaser or in the possession of the Original Retail Fleet Lessee.

This limited warranty covers materials, workmanship and repair labor cost as to those items specifically listed above for the periods specified. Such repair labor shall be performed only by CLUB CAR, its authorized distributors or dealers, or a service agency approved by CLUB CAR.

IF THE WARRANTY REGISTRATION FORM IS NOT COMPLETED AND RETURNED TO CLUB CAR AT THE TIME OF THE ORIGINAL RETAIL SALE, PURCHASER MUST PROVIDE PROOF OF DATE OF PURCHASE WITH ANY WARRANTY CLAIM.

2. EXCLUSIONS:

Excluded from any CLUB CAR warranty are all optional equipment and accessories, fuses, filters, decals (except safety decals), spark plugs, lubricants, and trim pieces, seats, routine wear items such as the charger plug and receptacle, brake shoes, belts, brushes, bushings, engine mounts, mats and pads, maintenance adjustments, cosmetic deterioration, and items which deteriorate or fail due to exposure or ordinary wear and tear. Batteries, the battery charger, on-board computer, and solid-state speed controller are covered under separate CLUB CAR warranties. Tires are warranted by their manufacturer. Also excluded from any CLUB CAR warranty is damage to a golf car or component resulting from a cause other than a defect including unreasonable or unintended strain or use, improper installation of accessories, installation of parts or accessories that are not original equipment, overloading, accident, alteration, abuse or neglect.

Transportation expenses for warranty service are also excluded from this warranty.

3. VOIDING OF WARRANTY:

THIS AND ANY OTHER WARRANTY SHALL BE VOID IF THE GOLF CAR IS ABUSED OR USED IN AN UNINTENDED MANNER OR SHOWS INDICATIONS THAT IT HAS BEEN ALTERED IN ANY WAY, INCLUDING, BUT NOT LIMITED TO, MODIFICATION OF THE SPEED GOVERNOR, BRAKING SYSTEM, STEERING, TRANSAXLE, OR OTHER OPERATING SYSTEMS OF THE CAR TO CAUSE IT TO PERFORM

OUTSIDE CLUB CAR SPECIFICATIONS. THE WARRANTY IS LIKEWISE VOID IF THE CAR SHOWS INDICATIONS THAT REASONABLE OR NECESSARY MAINTENANCE AS OUTLINED IN THE OWNER'S MANUAL AND MAINTENANCE AND SERVICE MANUAL WAS NOT PERFORMED AT THE TIME AND IN THE MANNER SPECIFIED IN SUCH MANUALS.

4. SOLE REMEDY:

CLUB CAR'S ONLY LIABILITY UNDER THIS LIMITED WARRANTY, OR IN ANY ACTION WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT PRODUCT LIABILITY OR OTHERWISE, IS LIMITED TO THE REPAIR OR REPLACEMENT, AT CLUB CAR'S OPTION, OF A GOLF CAR OR COMPONENT THEREOF THAT CLUB CAR DEEMS TO BE DEFECTIVE. REPLACEMENT SHALL MEAN FURNISHING, DURING THE APPLICABLE LIMITED WARRANTY PERIOD, A NEW GOLF CAR OR FACTORY RECONDITIONED VEHICLE OR COMPONENT THEREOF WHICH IS IDENTICAL OR REASONABLY EQUIVALENT TO THE WARRANTED PRODUCT OR COMPONENT AT NO COST TO THE PURCHASER. REPAIR SHALL MEAN REMEDYING A DEFECT IN THE GOLF CAR OR COMPONENT THEREOF AT NO COST TO THE PURCHASER DURING THE APPLICABLE LIMITED WARRANTY PERIOD. IF CLUB CAR ELECTS TO REPAIR THE GOLF CAR, IT MAY PROVIDE FACTORY RECONDITIONED PARTS OR COMPONENTS. ALL PARTS AND COMPONENTS REPLACED UNDER WARRANTY SHALL BECOME THE PROPERTY OF CLUB CAR.

5. HOW TO MAKE A WARRANTY CLAIM:

To make a warranty claim under this limited warranty, you must present the golf car or defective component to an authorized CLUB CAR distributor or dealer or send the defective component, freight prepaid, to WARRANTY ADMINISTRATION, CLUB CAR, INC., 4152 Washington Road, P.O. Box 204658, Augusta, Georgia 30917-4658.

6. DEFINITIONS:

For the purpose of this warranty, an Original Retail Fleet Purchaser is the original purchaser of the golf car who is in the business of owning or operating golf courses and who purchases such golf car for the purpose of renting it to golf players for use on such courses. An Original Retail Fleet Lessee is the first end-user of the golf car who is in the business of owning and operating golf courses and who leases such golf car for the purpose of renting it to golf players for use on such golf courses. In the event the golf car is purchased or leased by any entity for the purpose of leasing it to an Original Retail Fleet Lessee, then this limited warranty shall extend only to the first Original Retail Fleet Lessee, and not to such entity or to any subsequent lessee of the golf car.

7. DISCLAIMER:

THIS LIMITED WARRANTY IS EXCLUSIVE. CLUB CAR MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS OR TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY CLUB CAR AND EXCLUDED FROM THIS WARRANTY. THE PURCHASER AND CLUB CAR EXPRESSLY AGREE THAT THE REMEDY OF REPAIR OR REPLACEMENT OF THE DEFECTIVE GOLF CAR OR COMPONENT THEREOF IS THE EXCLUSIVE AND SOLE REMEDY OF THE PURCHASER. CLUB CAR MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, AND NO REPRESENTATIVE, EMPLOYEE, DISTRIBUTOR, OR DEALER OF CLUB CAR HAS THE AUTHORITY TO MAKE OR IMPLY ANY REPRESENTATION, PROMISE, OR AGREEMENT WHICH IN ANY WAY VARIES THE TERMS OF THIS WARRANTY.

8. NO CONSEQUENTIAL DAMAGES:

IN NO EVENT SHALL CLUB CAR BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS RELATED TO PROPERTY OTHER THAN THE GOLF CAR, LOSS OF USE, LOSS OF TIME, INCONVENIENCE, OR ANY OTHER ECONOMIC LOSS.

Limited Warranty, Continued:

Some states allow neither limitation on the duration of an implied warranty nor exclusions or limitation of incidental or consequential damages. Therefore, the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

9. INFORMATION:

For further information, contact WARRANTY ADMINISTRATION, CLUB CAR, INC., P.O. Box 204658, Augusta, Georgia 30917-4658, U.S.A., 706-863-3000.

10. WARNING:

Any modification or alteration of any golf car beyond factory specifications, including those that affect the weight distribution, stability, or speed of the golf car, can cause serious personal injury or death.

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