

Owner's Manual

1998 DS Golf Car Gasoline/Electric

Manual Number 1019682-01 Print Code 0897B1297A

A 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 for owners of single golf cars 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 a completed warranty registration card to you.

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.

This manual contains proprietary information that is protected by copyright. All rights are reserved. No part of this manual may be photocopied, reproduced, or translated to another language without the written consent of Club Car, Inc.

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 18, 1997

CLUB CAR LIMITED THREE (3) YEAR WARRANTY FOR SINGLE 1998 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 1998 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, except options and accessories, 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.

LIMITED ONE YEAR WARRANTY:

All original equipment options and accessories supplied by Club Car are warranted with respect to parts and labor against defects in material and workmanship for a period of one year 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 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 OTHER-WISE, 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 WAR-RANTY ADMINISTRATION, CLUB CAR, INC., P.O. Box 204658, 4152 Washington Road, Augusta, Georgia 30907-4658.

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 service, 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. 2601. 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.

A DANGER

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

A WARNING

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

A CAUTION

• A CAUTION INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN PROD-UCT 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.

A DANGER

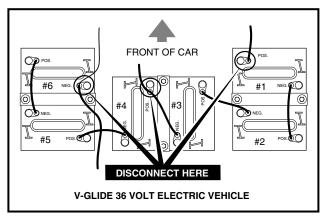
• GASOLINE VAPORS - FLAMMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE. SERVICE ONLY IN WELL-VENTILATED AREAS.

A DANGER

- DO NOT OPERATE GASOLINE VEHICLE IN ENCLOSED AREA WITHOUT PROPER VENTILA-TION. ENGINE PRODUCES CARBON MONOXIDE WHICH IS AN ODORLESS, DEADLY POISON.
- BATTERY VAPORS FLAMMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE AREA OF THE VEHICLE. SERVICE ONLY IN WELL-VENTILATED AREAS.
- A GOLF CAR WILL NOT PROVIDE PROTECTION FROM LIGHTNING, FLYING OBJECTS, OR OTHER STORM RELATED HAZARDS. IF CAUGHT IN A STORM WHILE DRIVING A GOLF CAR, EXIT THE VEHICLE AND SEEK SHELTER IN ACCORDANCE WITH APPLICABLE SAFETY GUIDELINES FOR YOUR LOCATION.

A 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 ALL **DANGERS**, **WARNINGS**, AND **CAUTIONS** LISTED IN THIS MANUAL AS WELL AS THOSE AFFIXED TO THE VEHICLE.
- ALWAYS WEAR SAFETY GLASSES OR APPROVED EYE PROTECTION WHEN SERVICING THE VEHICLE. WEAR A FULL FACE SHIELD WHEN WORKING WITH BATTERIES.
- TURN THE KEY SWITCH TO OFF, REMOVE THE KEY, CHOCK THE WHEELS, PLACE THE FOR-WARD AND REVERSE SWITCH IN NEUTRAL, AND DISCONNECT BATTERY(IES) PRIOR TO SERVICING THE VEHICLE:
 - ON GASOLINE VEHICLES, DISCONNECT THE NEGATIVE BATTERY LEAD FIRST.
 - ON POWERDRIVE PLUS VEHICLES, PLACE TOW SWITCH IN THE *TOW* POSITION BEFORE DISCONNECTING BATTERIES.
 - FOR ELECTRIC VEHICLE BATTERY DISCONNECT, SEE FIGURES 1 AND 2.
- ALWAYS USE INSULATED TOOLS WHEN WORKING AROUND BATTERIES OR ELECTRICAL CONNECTIONS.
- IMPROPER USE OF THE VEHICLE OR FAILURE TO PROPERLY MAINTAIN IT, COULD RESULT IN DECREASED VEHICLE PERFORMANCE OR SEVERE PERSONAL INJURY.
- 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.



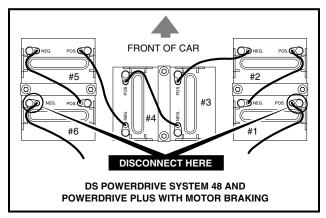
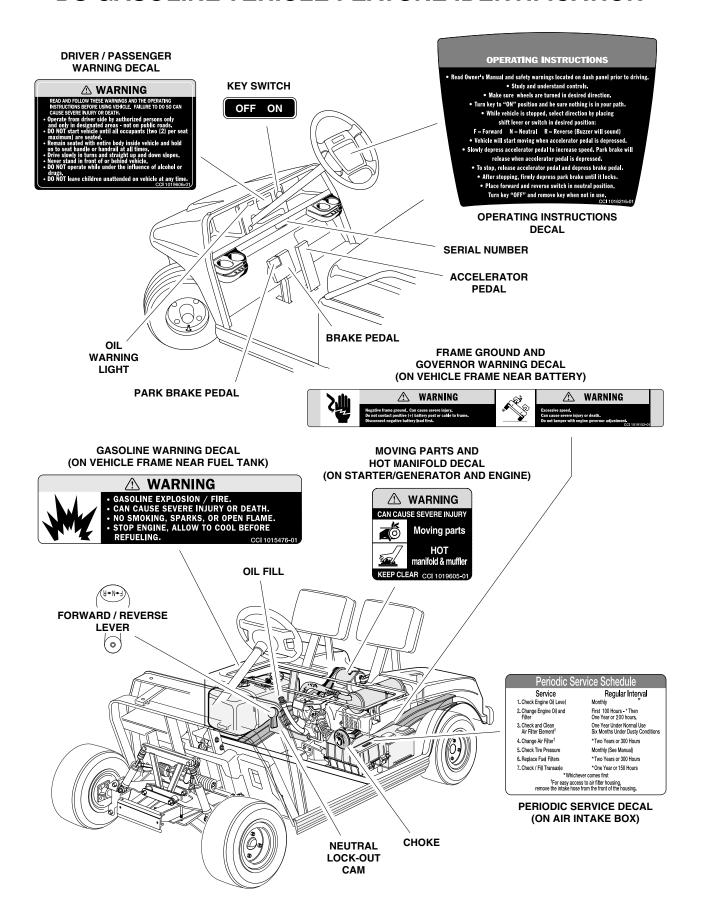
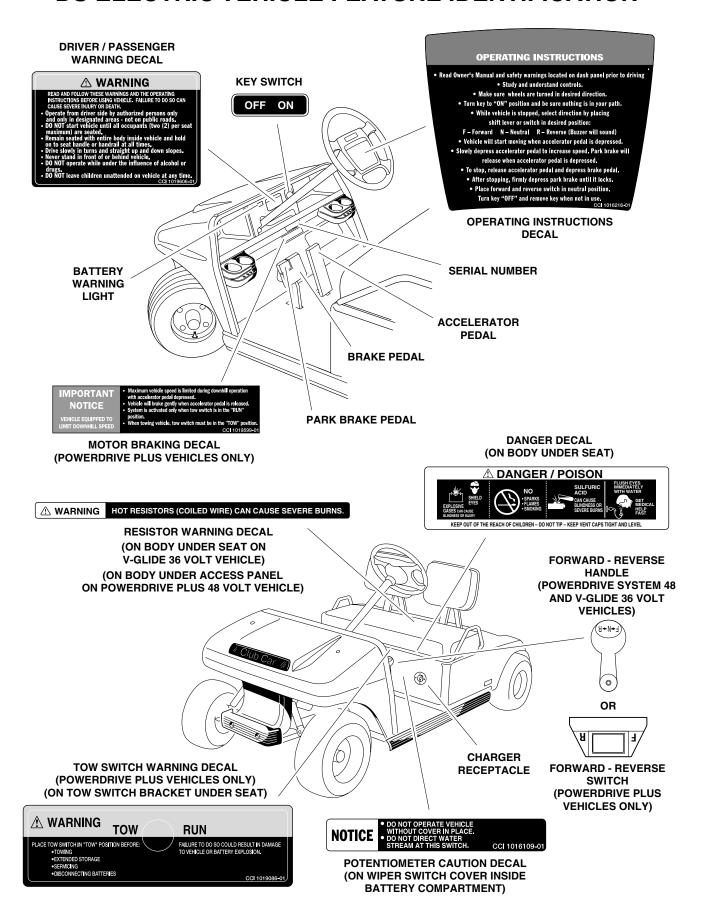


FIGURE 1 FIGURE 2

DS GASOLINE VEHICLE FEATURE IDENTIFICATION



DS ELECTRIC VEHICLE FEATURE IDENTIFICATION



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(s).

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: A9801-123456 for Electric or AG9801-123456 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 MAK-ING INQUIRIES. IF THE VEHICLE IS EQUIPPED AS A FAIRWAY VILLAGER FOUR PASSENGER VEHICLE, READ THE SPECIAL INSTRUCTIONS ON PAGES 37 AND 38.

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.

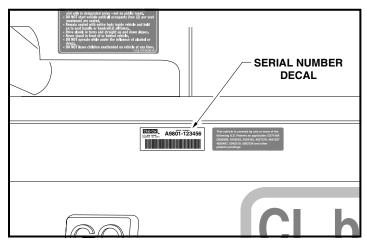


FIGURE 3

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 20 through 24). 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 27).
- Batteries (electric vehicles): Check electrolyte to ensure that it is at its proper level (See Figure 23, Page 29). Check battery posts. Wires should be tight and free of corrosion. Charge batteries fully before first use of vehicle.
- Multi-Step Potentiometer (48 volt electric vehicles) and V-Glide Wiper Switch (36 volt electric vehicles): Be sure accelerator 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 28).

WARNING

• BE SURE THE PLASTIC HAS BEEN REMOVED FROM THE SEAT BOTTOM BEFORE OPERAT-ING THE VEHICLE. FAILURE TO DO SO MAY RESULT IN A FIRE, PROPERTY DAMAGE, PER-SONAL 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.
- Reverse Buzzer: The reverse buzzer should sound as a warning when the vehicle is in reverse.
- Steering: The vehicle should be easy to steer and should not have any play in the steering wheel.
- Accelerator: With the key switch ON and the forward and reverse switch in the FORWARD position; 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. All DS (gasoline and electric) vehicles run 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 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, place the tow switch in the RUN 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. Motor braking should quickly and smoothly slow the vehicle to approximately 9 mph. Motor braking will disengage when vehicle slows to 9 mph.
- "Pedal Down" Motor Braking: Accelerate down an incline with the accelerator pedal depressed. When the vehicle reaches approximately 15 mph, motor braking should engage and moderate vehicle speed between 15 and 16 mph, depending upon the grade of the hill.

CONTROLS

A DANGER

 DO NOT OPERATE GASOLINE VEHICLE IN AN ENCLOSED AREA WITHOUT PROPER VENTI-LATION. GASOLINE ENGINES PRODUCE CARBON MONOXIDE GAS, WHICH IS AN ODOR-LESS, DEADLY POISION.

A WARNING

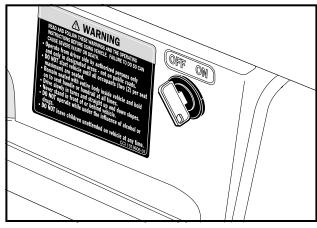
- IF RENTING OR LOANING THE VEHICLE, MAKE SURE THE DRIVER IS FAMILIAR WITH ALL CONTROLS AND OPERATING PROCEDURES BEFORE ALLOWING THE VEHICLE TO BE DRIVEN.
- DO NOT TAMPER WITH THE GASOLINE VEHICLE GOVERNOR. DOING SO WILL VOID THE WARRANTY, AS WELL AS DAMAGE THE ENGINE AND OTHER COMPONENTS, AND COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH DUE TO ACCIDENT AT UNSAFE SPEED.
- DO NOT MODIFY OR CHANGE THE VEHICLE IN ANY WAY WHICH MIGHT AFFECT ITS STABIL-ITY 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 MOVING. 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 UNINTENTIONALLY STARTING OR ROLLING 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.



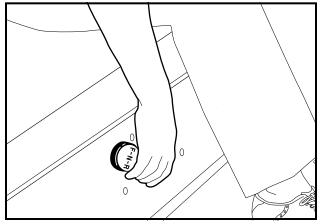


FIGURE 4 FIGURE 5

FORWARD/REVERSE CONTROL

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

The forward/reverse shift handle 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 vehicle will stop if it is shifted to this position while running. DS electric and gasoline vehicles operate 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 pedal is depressed (See Figure 6).

NOTE

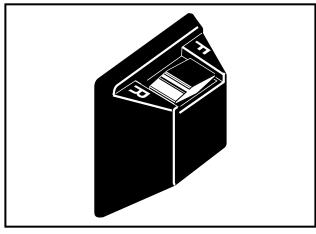
THE REVERSE BUZZER WILL SOUND AS A WARNING WHEN THE VEHICLE IS IN REVERSE.

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 BRAK-ING ON PAGE 7.



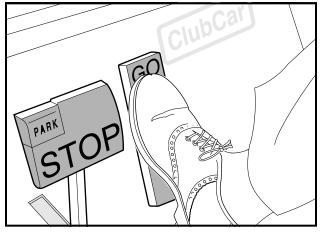


FIGURE 6 FIGURE 7

BRAKE PEDAL

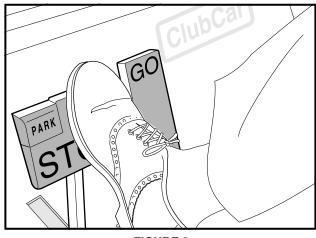
The brake pedal is the large pedal on the left with the word **STOP** molded into it **(See Figure 7)**. To slow or stop the vehicle, depress the brake pedal with your right foot **(See Figure 8)**.

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 AND LOCKED 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).



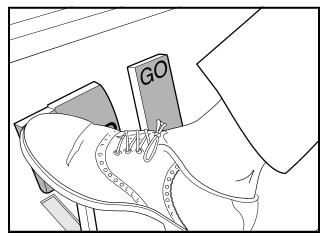


FIGURE 8 FIGURE 9

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 cam 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 cam 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.

A WARNING

WITH THE CAM IN THE SERVICE POSITION AND THE ENGINE RUNNING, THE VEHICLE MAY
MOVE SUDDENLY IF THE FORWARD/REVERSE HANDLE 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 VEHI-CLE, 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.

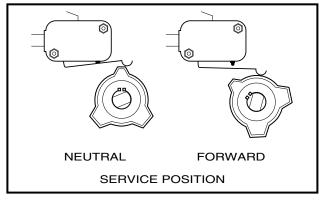
A CAUTION

• 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.



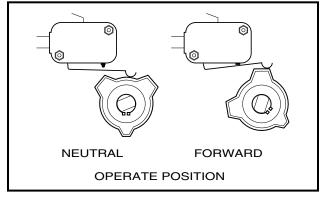
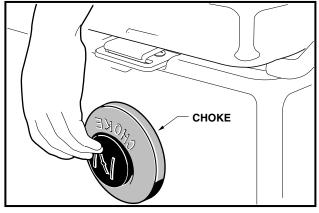


FIGURE 10 FIGURE 11



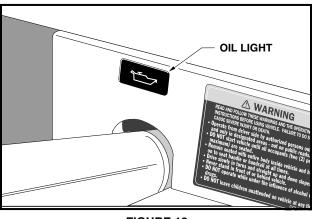


FIGURE 12 FIGURE 13

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 their 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 repeatedly illuminate for 10 seconds, with 4 second intervals, if the charger times
 out at 16 hours (see charger manual) and the batteries are not sufficiently charged. This indicates an
 abnormal charge cycle. Charger and batteries should be checked by your Club Car distributor/dealer.
- The warning light will repeatedly illuminate for 10 seconds, with 4 second intervals, 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.

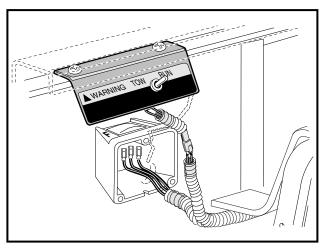
Controls, Continued:

POWERDRIVE PLUS ELECTRIC VEHICLES ONLY:

Tow/Run Switch

WARNING

- TO AVOID POSSIBLE BATTERY EXPLOSION, THE TOW/RUN SWITCH MUST BE IN THE **TOW** POSITION BEFORE DISCONNECTING OR CONNECTING BATTERY WIRES.
- WHEN THE TOW/RUN SWITCH IS IN THE **TOW** POSITION, ALL MOTOR BRAKING FUNCTIONS, INCLUDING ZERO-SPEED DECTECT, ARE DISABLED.



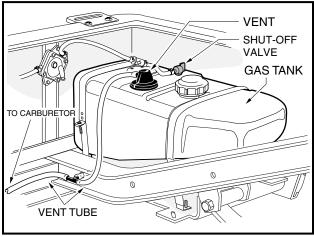


FIGURE 14 FIGURE 15

All 1998 DS PowerDrive Plus vehicles (with motor braking) are equipped with a TOW/RUN switch, located under the seat just above the forward and reverse switch (**Figure 14**). The tow/run switch must be in the RUN position in order to operate the vehicle. When the switch is in the TOW position, power to the vehicle electrical components is turned off and the vehicle will not operate.

NOTE

- AFTER PLACING THE SWITCH IN TOW POSITION, ALLOW 10 SECONDS BEFORE SWITCHING BACK TO RUN.
- AFTER PLACING THE SWITCH IN RUN POSITION, ALLOW 10 SECONDS BEFORE OPERATING THE VEHICLE.

The TOW/RUN switch should be placed in the TOW position under the following conditions:

- **Before Towing the Vehicle** Place the tow/run switch in the TOW position to disable all motor braking functions, thus preventing possible damage that could occur to the vehicle or electrical components if the vehicle is towed while the Zero-Speed Detect motor braking function is operating.
- Before Disconnecting or Attaching Battery Wires Place the tow/run switch in the TOW position to turn off power to the vehicle electrical system, thus preventing severe arcing and possible battery explosion as the battery wires are disconnected.
- For Long Term Storage Place the tow/run switch in the TOW position to turn off power to the vehicle electrical system, thus preventing vehicle electrical components from discharging the batteries.

DRIVING INSTRUCTIONS

A 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.
- TO PREVENT THE POSSIBILITY OF SERIOUS INJURY, KEEP YOUR ENTIRE BODY (INCLUDING HEAD, HANDS, ARMS, LEGS AND FEET) INSIDE THE VEHICLE.
- 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 DRIVERS.
- 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.

Driving Instructions, Continued:

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 on dash and (or) 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 handle 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.

GASOLINE VEHICLE ONLY:

- 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.
- DEPRESS THE BRAKE PEDAL AS NECESSARY AND PARTIALLY DEPRESS THE ACCELERA-TOR WHEN DESCENDING A HILL. WITH THE ACCELERATOR PEDAL PARTIALLY DEPRESSED, THE GOVERNOR WILL CAUSE THE ENGINE TO ASSIST THE BRAKES IN CON-TROLLING 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 BRAKE PEDAL UNTIL THE BRAKES DRY OUT AND NORMAL PERFORMANCE RETURNS.

A 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 handle in the NEUTRAL position. Remove the key when the vehicle is not in use.

• PowerDrive Plus Vehicles (Motor Braking) Only: When the vehicle tow/run switch is in the RUN position, (with the forward and reverse switch or key 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" on Page 7.

TOWING

A 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: PLACE THE TOW/RUN SWITCH IN TOW POSITION. 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; and all the following WARNINGS, below and at the top page 16 should be heeded:

A 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 FOR-WARD 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.

Transporting on a Trailer, Continued:

WARNING

- 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.
- GASOLINE VEHICLE ONLY: TURN FUEL SHUT-OFF VALVE TO OFF (FIGURE 15, PAGE 12).

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.

A 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-VEN-TILATED 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.

A CAUTION

- BATTERIES IN A LOW STATE OF CHARGE WILL FREEZE AT LOW TEMPERATURES.
- 2. Drain carburetor.
 - 2.1. Place the Foward and Reverse handle in the NEUTRAL position and the neutral lock-out cam in the SERVICE position. Turn the fuel shut-off valve to the OFF position 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. Disconnect fuel vent line from fuel tank vent nipple.
 - 2.4. 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 crankshaft several times and then re-install the spark plug.

A 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.
- 4. Increase 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, engine compartment, and underside of vehicle.
- 7. Do not latch the park brake. Chock wheels 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 connect the vent line to the nipple. Open fuel shut-off valve.
 - 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

• DUE TO THE OIL ADDED TO THE ENGINE IN PREPARATION FOR STORAGE, THE ENGINE MAY SMOKE EXCESSIVELY FOR A SHORT WHILE WHEN RUNNING IT FOR THE FIRST TIME AFTER 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.
- POWERDRIVE PLUS VEHICLES (WITH MOTOR BRAKING) ONLY: PLACE THE TOW/RUN SWITCH IN THE TOW POSITION.
- DO NOT ATTEMPT TO CHARGE FROZEN BATTERIES OR BATTERIES WITH BULGED CASES. DISCARD THE BATTERY. FROZEN BATTERIES CAN EXPLODE.

A CAUTION

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

Storage - Electric Vehicle, Continued:

A CAUTION

- WHEN WASHING THE VEHICLE, DO NOT DIRECT WATER STREAM AT THE MULTI-STEP POTENTIOMETER (48 VOLT VEHICLES) OR V-GLIDE SPEED SWITCH (36 VOLT VEHICLE), 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 OVER-HEAT DURING OPERATION.
- POWERDRIVE PLUS VEHICLES ONLY: PLACE TOW/RUN SWITCH IN THE TOW POSITION.
- 1. Fully charge batteries (See Batteries Electric Vehicle, Page 30).
- 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 (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 26).
- 6. Thoroughly clean front body, rear body, seats, battery compartment, and underside of vehicle.
- 7. Do not latch the park brake. Chock wheels to prevent the vehicle from rolling.
- 8. Keep batteries fully charged during storage (See Batteries Electric Vehicle, Page 30).
 - If possible, charge 36 volt vehicles with Accu-Power battery chargers every 6-8 weeks as necessary. If it is not possible or practical to charge the batteries, leave them disconnected while the vehicle is in storage.
 - 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 30).

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 30).
- 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 20 for Gasoline Vehicle Periodic Service Schedule.
- See Page 22 for Electric Vehicle Periodic Service Schedule.
- See Page 25 for Gasoline Vehicle Periodic Lubrication Schedule.
- See Page 26 for Electric Vehicle Periodic Lubrication Schedule.
- See Page 27 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.
- IF 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 WHEELS 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.

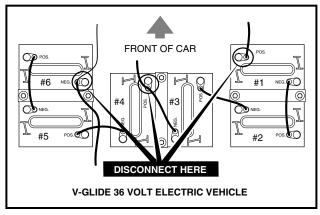
GASOLINE VEHICLES ONLY:

- TURN FUEL SHUT-OFF VALVE TO OFF.
- TO AVOID UNINTENTIONALLY STARTING 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 TOOLS 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, OR OTHER METAL COMPONENT.

ELECTRIC VEHICLES ONLY:

- TO AVOID UNINTENTIONALLY STARTING THE VEHICLE, DISCONNECT THE BATTERIES AS SHOWN (SEE FIGURES 16 AND 17, PAGE 20). 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.
 - POWERDRIVE PLUS VEHICLES ONLY: PLACE TOW/RUN SWITCH IN THE TOW POSITION BEFORE DISCONNECTING BATTERIES.

Maintenance, Continued:



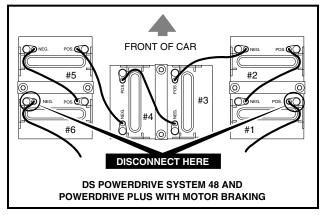


FIGURE 16

FIGURE 17

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.
- SERVICE, REPAIRS, AND ADJUSTMENTS MUST BE MADE PER INSTRUCTIONS IN THE 1998 DS GOLF CAR MAINTENANCE & SERVICE MANUAL.

PERIODIC SERVICE SCHEDULE - GASOLINE VEHICLE			
REGULAR INTERVAL	SERVICE		
	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. Check engine oil level.	
	Engine air intake system	Check air filter element, clean as necessary.	
	Engine cooling air intake	Check for clogging, clean as necessary.	
Daily Service by Owner	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 Performance Inspection, Page 6).	
	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).	

REGULAR INTERVAL	SERVICE		
	Battery	Clean terminals and wash dirt from case, check electrolyte level (See Pages 28 and 29).	
	Electrical wiring and connections	Check for tightness and damage.	
	Torque Converter	Rinse with water. Dispose of waste water properly.	
Weekly Service by Owner		Check for loose hardware and tighten as required.	
	General Vehicle	Check maximum speed of vehicle. Maximum vehicle speed should be 12-15 mph (19-24 kph).	
		Wash engine compartment and underside of vehicle. Dispose of waste water properly.	
	Check all daily items listed above.		
	Battery	Wash battery and terminals with baking soda/water solution (See Page 28). Dispose of waste water properly.	
		Check brake cables for damage; replace as required.	
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Adjust as necessary (See DS Maintenance & Service Manual).	
Monthly Service by Owner or Trained Mechanic		Make sure that both ground wires are tight and properly connected.	
	Engine	Check engine oil level - change as required (See Gas Vehicle Lubrication Chart, Page 25). Dispose of used oil properly.	
	Exhaust System	Check for leaks.	
	Tires	Check air pressure and adjust as necessary (See Vehicle Capacities Chart on Page 27).	
	Check all daily and weekly items listed above		
	Engine	Check engine oil level - change as required (See Gas Vehicle Lubrication Chart, Page 25). Dispose of used oil properly.	
	Engine air intake hose	Check clamps for tightness; check hose for cracks.	
Quarterly Service by Owner	Accelerator/governor linkage and cables	Check for proper operation, adjust as necessary.	
or Trained Mechanic	Front Suspension	Lubricate per Gas Vehicle Lubrication Chart on Page 25.	
	General Vehicle	Lubricate per Gas Vehicle Lubrication Chart on Page 25.	
	Check all daily, weekly, and monthly ite	ems listed above.	
		Check brake shoes, replace if necessary.	
Semi-annual Service by Trained Mechanic Only	Brake System	Lubricate slide plates with graphite (See DS Maintenance & Service Manual).	
(Every 100 rounds or 50 hours of operation)	Drive Belt	Check for cracks, wear, or glazing, replace if necessary.	
	Electrical Wiring	Check for cracked or worn insulation.	

PERIODIC SERVICE SCHEDULE - GASOLINE VEHICLE				
REGULAR INTERVAL	SERVICE			
	Engine	Check spark plug wire and boot for damage and proper routing. Check engine oil level.		
	Exhaust System	Check head and exhaust/header pipe flange connection gasket for leaks.		
		Check muffler condition.		
Semi-annual Service by Trained Mechanic Only	Front Wheel Alignment and Camber	Check and adjust as required (See DS Maintenance & Service Manual).		
(Every 100 rounds or 50 hours of operation),	Torque Converter	Check for proper operation.		
Continued:	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 25.		
	Check all daily, weekly, monthly, and quarte	Check all daily, weekly, monthly, and quarterly items listed above.		
	Engine	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. Dispose of used filter element properly.		
	Fuel Filters	Replace. Dispose of used filters properly.		
Annual Service by Trained Mechanic Only (Every 200 rounds or	Front Wheel Bearings	Inspect and check for free play; repack with chassis lube and adjust as necessary.		
100 hours of operation)	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 25).		
	General Vehicle	Lubricate per Gas Vehicle Lubrication Chart on Page 25.		
	Check all daily, weekly, monthly, quarterly, and semi-annual items listed above.			

PERIODIC SERVICE SCHEDULES

A 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.
- SERVICE, REPAIRS, AND ADJUSTMENTS MUST BE MADE PER INSTRUCTIONS IN THE 1998 DS GOLF CAR MAINTENANCE & SERVICE MAUAL.

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.		
Periodic Service Schedule Continued on Next Page.			

PERIODIC SERVICE SCHEDULE - ELECTRIC VEHICLE				
REGULAR INTERVAL	SERVICE			
	Multi-Step Potentiometer (48 volt) or V- Glide Wiper Switch (36 volt)	Check for proper operation (See DS Maintenance and Service Manual).		
	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.		
Daily Service by Owner, Continued:	Park Brake	Check for proper operation (See Performance Inspection, Page 6). Adjust as necessary.		
	Reverse Warning Buzzer	Check for proper operation (See Performance Inspection, Page 6).		
	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).		
	Batteries	Clean terminals and wash dirt from case, check electrolyte level (See Page 29). Dispose of waste water properly.		
	Electrical wiring and connections	Check for tightness and damage.		
Weekly Service by Owner		Check for loose hardware and tighten as required.		
	General Vehicle	Check maximum speed of vehicle. Maximum vehicle speed should be 12-15 mph (19-24 kph).		
	Check all daily items listed above.			
	Batteries	Wash battery tops and terminals with baking soda/ water solution. Dispose of waste water properly .		
	Brake System	Check for proper operation (See Performance Inspection, Page 6). Check brake pedal free play. Adjust as necessary (See DS Maintenance & Service Manual).		
Monthly Service by Owner or Trained Mechanic		Check brake cables for damage and replace as required.		
or trained wechanic	Tires	Check air pressure and adjust as necessary (See Vehicle Capacities Chart on Page 27).		
	Multi-Step Potentiomer (48 volt) or V-Glide Wiper Switch (36 volt)	Check for cracks or other damage; make sure switch is securely fastened to frame. Check movable contact for correct operation.		
	Check all daily and weekly items listed above			
Quarterly Service	Front Suspension	Lubricate per Electric Vehicle Lubrication Chart on Page 26.		
by Owner or Trained Mechanic	General Vehicle	Lubricate per Electric Vehicle Lubrication Chart on Page 26.		
	Check all daily, weekly, and monthly items listed above.			

PERIODIC SERVICE SCHEDULE - ELECTRIC VEHICLE				
REGULAR INTERVAL	SERVICE			
	Batteries	Check specific gravity, electrolyte level, and on- charge voltage.		
		Check brake shoes, replace if necessary.		
	Brake System	Lubricate slide plates with graphite (See DS Maintenance & Service Manual).		
Semi-annual Service by Trained Mechanic Only	Electrical Wiring	Check for cracked or worn insulation.		
(Every 100 rounds or 50 hours of operation)	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 26.		
	Check all daily, weekly, monthly, and quarterly items listed above.			
	Multi-Step Potentiomer (48 volt) or V-Glide Wiper Switch (36 volt)	Remove cover and check for wear and damage (See Maintenance & Service Manual). Check contacts for burns, excessive heat, or arcing; check brush for wear.		
	Batteries	Perform discharge test.		
Annual Service by	Motor	Check motor brushes; replace as necessary.		
Trained Mechanic Only (Every 200 rounds or 100 hours of operation)	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 26.		
	General Vehicle	Lubricate per Electric Vehicle Lubrication Chart on Page 26.		
	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.
- ALL SERVICE, REPAIRS, AND ADJUSTMENTS MUST BE MADE PER INSTRUCTIONS IN THE 1998 DS GOLF CAR MAINTENANCE AND SERVICE MANUAL.

PERIODIC LUBRICATION SCHEDULES

PERIODIC LUBRICATION SCHEDULE - GASOLINE VEHICLE			
REGULAR INTERVAL	SERVICE	PLACE*	RECOMMENDED LUBRICANT
	Brake shaft bearings	1.	Dry Moly Lube - Club Car Part No. 1012151
Quartarly by Owner	Brake Linkage and Pivots	2.	Dry Moly Lube - Club Car Part No. 1012151
Quarterly by Owner or Trained Technician	Accelerator push rod pivots and shifter cable pivots	3.	Dry Moly Lube - Club Car Part No. 1012151
	Front Suspension (5 fittings)	4.	Chassis Lube - EP NLGI 2
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-5 or 80-90 WT. AGMA Class EP Gear Lube
	Inspect front wheel bearings (Repack as necessary)	6.	Chassis Lube - EP NLGI 2
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 Dispose of used oil properly.	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 18 below.

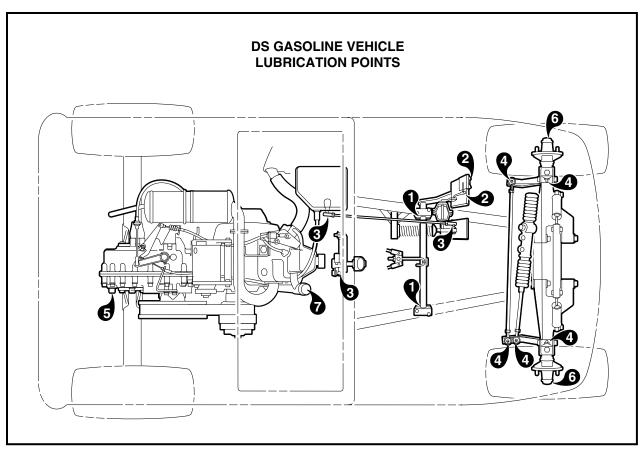


FIGURE 18

PERIODIC LUBRICATION SCHEDULES

PERIODIC LUBRICATION SCHEDULE - ELECTRIC VEHICLE			
REGULAR INTERVAL	SERVICE	PLACE*	RECOMMENDED LUBRICANT
	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
Quarterly by Owner or Trained Technician	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 - EP NLGI 2
Annually by Trained Technician Only	Check/fill transaxle to plug level	6.	22 oz. (.67 liter) SAE 30 WT. API Class SE, SF, or SG Oil (or higher)
(Every 200 rounds or 100 hours of operation)	Inspect front wheel bearings (Repack as necessary)	7.	Chassis Lube - EP NLGI 2

^{*}See Figure 19 below.

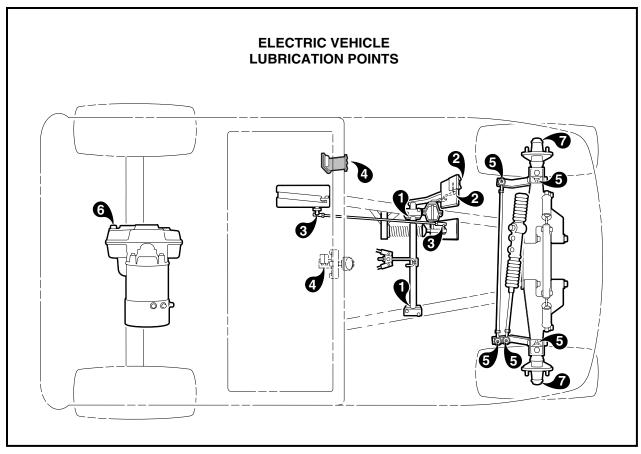


FIGURE 19

VEHICLE CAPACITIES

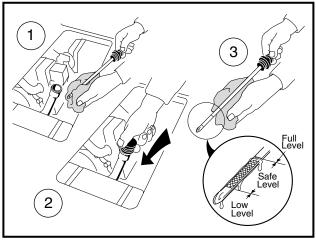
CAPACITIES		
	GASOLINE VEHICLES	ELECTRIC VEHICLES
Engine Crankcase without filter	32 oz. (.98 liters)	
Engine Crankcase with filter	38 oz. (1.16 liters)	
Unitized Transaxle (gas vehicle)	27 oz. (.8 liters)	
Transaxle (electric vehicle)		22 oz. (.67 liters)
Gasoline Tank	7 gallons (26.5 liters)	
Tire 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 20). See NOTE below.

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.
- PROPERLY RECYCLE OR DISPOSE OF USED OIL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.



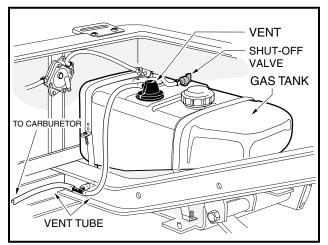


FIGURE 20 FIGURE 21

FUELING INSTRUCTIONS - GASOLINE VEHICLE

A DANGER

- GASOLINE FLAMMABLE! EXPLOSIVE! DO NOT SMOKE. KEEP SPARKS AND FLAMES AWAY FROM THE VEHICLE FUELING OR SERVICE AREA.
- 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/PUMP-ING 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 21).
- 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 16 OF THIS MANUAL.
- 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.

A 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

The battery in the DS Gasoline Vehicle is a 12 volt, low maintenance battery that requires infrequent watering (Figure 22).

DANGER

- BATTERY EXPLOSIVE GASES! DO NOT SMOKE! KEEP SPARKS AND FLAMES A SAFE DISTANCE FROM 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.

A DANGER

- 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.

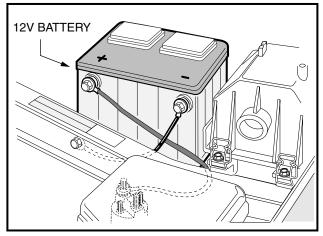
A WARNING

- 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.

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).

A 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.



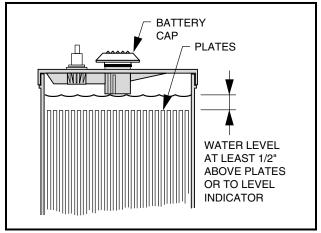


FIGURE 22 FIGURE 23

Be sure battery clamp is properly tightened. Torque to 10-13 in.lbs. (13.5/17.6 N-m). A loose battery clamp may allow the battery to become damaged from vibration or jarring.

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

A DANGER

- BATTERY EXPLOSIVE GASES! DO NOT SMOKE! KEEP SPARKS AND FLAMES A SAFE DISTANCE FROM 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.

A CAUTION

• ON ALL VEHICLES, TURN OFF ALL ACCESSORIES BEFORE CHARGING BATTERIES.

NOTE

- RECYCLE OR DISPOSE OF DISCARDED BATTERIES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- 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 PowerDrive System 48 vehicles with new batteries to 36 holes of use between charges in the first two months of operation; V-Glide 36 volt vehicles should be limited to 18 holes between charges in the first two months. 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) once per week. Rinse solution off batteries. See NOTE at top of page 31.

NOTE

- DO NOT ALLOW THIS SOLUTION TO ENTER THE BATTERY.
- DISPOSE OF WASTE WATER PROPERLY.

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 23, 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 OR BOTTLE 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 35-45 in.lbs. (4.0/5.1 N-m). The terminal connections should be clean and tight, and any worn insulation or frayed wires should be replaced. Torque battery terminals to 125-145 in.lbs. (14.1/16.4 N-m).

A 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

A 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.

Battery Charger - Electric Vehicle, Continued:

WARNING

- 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 CON-DUCTOR CAN RESULT IN A FIRE OR AN ELECTRICAL SHOCK.
- AN EXTENSION CORD OR ELECTRICAL OUTLET MUST ACCEPT A THREE-PRONG PLUG. EXTENSION CORD SHOULD BE A THREE-WIRE NO. 12 AWG, AND BE AS SHORT AS POSSI-BLE. THE USE OF IMPROPER EXTENSION CORD COULD RESULT IN FIRE OR AN ELECTRI-CAL 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.

A 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 VEHI-CLE 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.

A CAUTION

• 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.

NOTE

- BECAUSE THE **POWERDRIVE** CHARGER HAS A STORAGE CHARGE FEATURE THAT AUTO-MATICALLY 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).
- RECYCLE OR DISPOSE OF DISCARDED BATTERIES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

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 24, PAGE 34).
- DO NOT PULL ON THE DC CORD (SEE FIGURE 25, PAGE 34). 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 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.

To Charge Batteries, Continued:

A WARNING

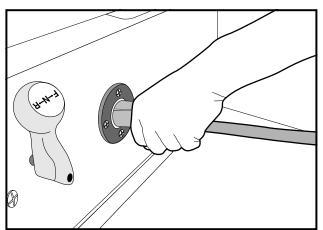
• FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN DAMAGE TO THE CHARGER CORD, THE PLUG, AND (OR) THE VEHICLE RECEPTACLE.

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.
- 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.



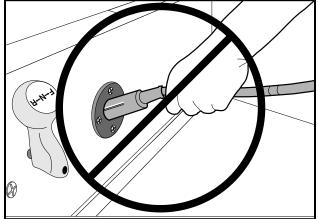


FIGURE 24 FIGURE 25

Insert the charger DC plug into the vehicle receptacle. The charger will turn on two to ten seconds later (Figure 24).

- 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).

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

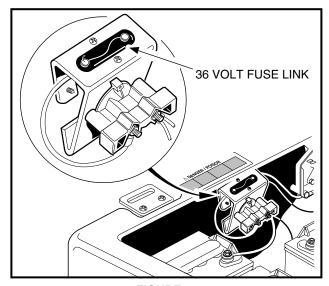
• IF THE WARNING TAG HAS BEEN DAMAGED OR REMOVED FROM THE DC CORD, HAVE IT REPLACED IMMEDIATELY.

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 26, V-Glide 36 volt vehicle, or Figure 27, 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.



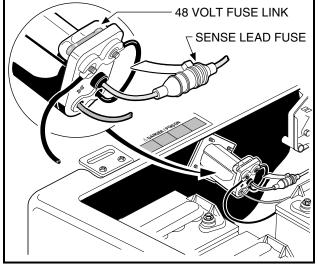


FIGURE 26 FIGURE 27

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 and NOTE below**.

A CAUTION

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

NOTE

DISPOSE OF WASTE WATER PROPERLY.

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 Plus 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
- Custom Club Decals
- Number Decals
- Canopy Top
- Rear Rain Curtain
- Weather-proof Enclosure
- Tinted Split Windshield
- Tinted Snap-on Windshield
- Adjustable Seat Back

- Rear View Mirror
- Glove Box
- Performance Grade Tires
- Premium Tread Tires
- Extra Traction Tires
- White Wall Tires
- Chrome Hub Wheel Covers
- Chrome Sport Wheel Covers
- Trailer Hitch

- Differential Guard
- Hour Meter
- Information Holder
- Beverage Cooler
- Extra Two-bag Attachment
- Sand Bunker Rake Kit
- Golf Club and Ball Cleaner

Optional Equipment Continued on Next Page.

OPTIONAL EQUIPMENT - ALL DS GOLF CARS:

- Ashtray
- Sand Bottle Divot Repair Kit
- Lighting Package (high/low beam headlights, taillights, brake lights, and horn)
- Deluxe Lighting Package with Turn Signals
- On-board Tow Bar
- Sand Basket and Divot Bucket Repair Kit
- Temporary Tow Bar for Single Vehicle Towing
- Permanent Tow Bar for Multiple Vehicle Towing (factory installed)

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 OCCU-PANTS 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:

A 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 PERSONS ARE IN THE VEHICLE.
- PASSENGERS SHOULD HOLD ON TO SEAT HANDLES OR HAND RAILS AT ALL TIMES (SEE FIGURE 28). DRIVER SHOULD KEEP BOTH HANDS ON THE STEERING WHEEL WHILE VEHICLE IS MOVING.

Fairway Villager, Continued:

A WARNING

- DO NOT LEAVE CHILDREN UNATTENDED ON THE REAR SEAT WHILE VEHICLE IS MOVING.
- NO MORE THAN FOUR PERSONS SHOULD BE ON THE VEHICLE AT ONE TIME.
- TO PREVENT THE POSSIBILITY OF SERIOUS INJURY, KEEP YOUR ENTIRE BODY (INCLUDING HEAD, HANDS, ARMS, LEGS AND FEET) INSIDE THE VEHICLE.

MAINTENANCE

Refer to Pages 20 through 26 for periodic service schedules and periodic lubrication schedules. **See NOTE below**.

NOTE

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

STORAGE COMPARTMENT

There is an enclosed storage compartment underneath the rear seat with 2 cu.ft. (.6 cu.m.) of storage area. Access the storage compartment by lifting the rear seat.

ELECTRIC FAIRWAY VILLAGER

An optional on-board charger, which is installed under the rear seat, is available for the Fairway Villager electric vehicle. 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.

A WARNING

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

A 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 OUT-LET 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 INFORMA-TION, NOTES, CAUTIONS, AND WARNINGS SPECIFIC TO THE POWERDRIVE CHARGER AND POWERDRIVE SYSTEM 48 IN THE BATTERY CHARGER SECTION OF THIS OWNER'S MANUAL (PAGE 31).

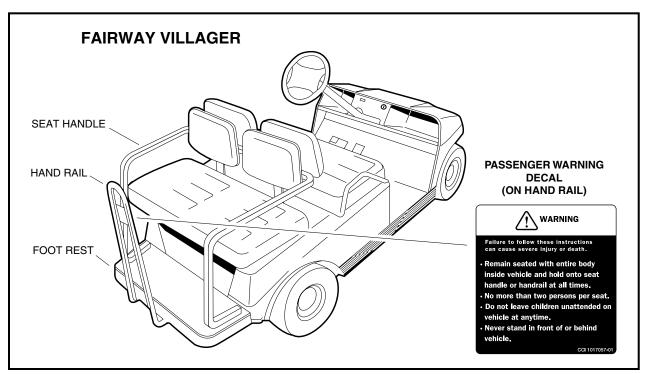


FIGURE 28

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 and reduced speed reverse (11.8:1 forward, 17.1:1 reverse).	•			
Transaxle: Double reduction helical gear with 12.28:1 direct drive axle.		•	•	•
Electrical System: Battery - 12 volt, 500 cold cranking amps at 0°, 650 cranking amps at 32°, 85 minute reserve 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 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	•	•	•	•
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.		1		

SPECIFICATIONS	DS GASOLINE	POWERDRIVE SYSTEM 48 ELECTRIC	POWERDRIVE PLUS ELECTRIC	DS 36 VOLT ELECTRIC
Overall Height: At Steering Wheel.	48"	48"	48"	48"
	(122 cm)	(122 cm)	(122 cm)	(122 cm)
Wheelbase	65-1/2"	65-1/2"	65-1/2"	65-1/2"
	(166 cm)	(166 cm)	(166 cm)	(166 cm)
Ground Clearance	4-1/2"	4-1/2"	4-1/2"	4-1/2"
	(11 cm)	(11 cm)	(11 cm)	(11 cm)
Front Wheel Tread	34-1/2"	34-1/2"	34-1/2"	34-1/2"
	(88 cm)	(88 cm	(88 cm	(88 cm
Rear Wheel Tread	38-1/2"	38-1/2"	38-1/2"	38-1/2"
	(98 cm)	(98 cm)	(98 cm)	(98 cm)
Weight: Standard electric vehicle (without batteries)		455 lbs. (206 kg)	477 lbs. (216 kg)	448 lbs. (203 kg)
Weight: Fairway Villager electric vehicle (without batteries)		495 lbs. (225 kg)	517 lbs. (235 kg)	N/A
Weight: Standard gasoline powered vehicle (dry, without battery)	598 lbs. (271 kg.)			
Weight: Fairway Villager gasoline powered vehicle (dry)	638 lbs. (289 kg.)			
Forward Speed: At 2700 rpm	12 - 15 mph	12 - 15 mph	12 - 15 mph	12 - 15 mph
	(19 - 24 kph)	(19 - 24 kph)	(19 - 24 kph)	(19 - 24 kph)
Clearance Circle (diameter)	17'-6"	17'-6"	17'-6"	17'-6"
	(533 cm)	(533 cm)	(533 cm)	(533 cm)
Braking Distance: At 12 mph (19 kph)	14'	14'	14'	14'
	(427 cm)	(427 cm)	(427 cm)	(427 cm)

CLUB CAR LIMITED LIFETIME WARRANTY FOR 1998 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 1998 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, except options and accessories, 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.

LIMITED ONE YEAR WARRANTY:

All original equipment options and accessories supplied by Club Car are warranted with respect to parts and labor against defects in material and workmanship for a period of one year 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 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 OTHER-WISE, 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 REASON-ABLY 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 WAR-RANTY ADMINISTRATION, CLUB CAR, INC., P.O. Box 204658, 4152 Washington Road, Augusta, Georgia 30907-4658.

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.

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.



Golf Cars
Club Car Inc. P.O. Box 204658 Augusta, GA 30917-4658