

Owner's Manual

1986 • Electric
Golf Car

3-Wheel Classic
4-Wheel Challenger



One Golf Car Road • P.O. Box 1
Deerfield, WI 53531 • (608) 764-5474

COLUMBIA™

Part No. 99467-86

INTRODUCTION

This manual contains important safety information, operating instructions, model specifications and maintenance instructions for the 3-Wheel Classic and 4-Wheel Challenger Electric Golf Cars.

The service information in this manual is limited to care and maintenance information only. Information covering repairs is provided in a detailed service manual available from Columbia ParCar dealers. Such major repairs require the attention of a skilled mechanic and the use of special tools and equipment. Your Columbia ParCar dealer has the facilities, experience and genuine Columbia ParCar parts and accessories to properly service Columbia ParCars.

For convenience, the SAFE OPERATING RULES and CONTROLS AND OPERATIONS are printed side by side in the manual and are of particular importance for operator safety. These pages should be copied or reprinted and given to anyone operating the golf car.

MODEL IDENTIFICATION

The vehicle identification number is located on a metal tag above the right rear tire on the rear frame cross brace.

IMPORTANT! Always give these numbers when ordering parts or making inquiries about your Columbia ParCar.

WARNING

On 3-wheel car with tilting body, to secure body upright and avoid possible personal injury through accidental closing of body, remove body hold-up rod from clip and insert into slot in body frame.

PATENT NOTICE

Columbia ParCar products are manufactured under one or more of the following: U.S. Patents — 2986162, 2987934, 2998809, 3116089, 3144631, 3144860, 3226994, 3229792, 3434887, 3559773, 3673359, 3680403, 3683716, 3709317, Des. 225 626.

To the best knowledge of Columbia ParCar Corp., the material contained herein is accurate as of the date this publication was approved for printing. Columbia ParCar Corp. reserves the right to change specifications, equipment, or designs at any time without notice and without incurring obligation.

Columbia ParCar Corp.

Statements in this manual preceded by the following words are of special significance:

WARNING

Means there is the possibility of personal injury to yourself or others.

CAUTION

Means there is the possibility of damage to the vehicle. We recommend you take special notice of these items.

SAFE OPERATING RULES

Before operating the Columbia ParCar, it is the operator's responsibility to read and follow the safety, operating and maintenance instructions in this manual for personal safety. If you are responsible for the use or rental of the golf car, it is your responsibility to inform the person or persons using the golf car about the following basic rules of operation for their personal safety.

WARNING

For personal safety and to maintain vehicle stability and control.

- To be operated by authorized persons only and only in designated areas.
- This golf car is restricted to no more than 2 occupants and their equipment, exceeding this limitation may endanger occupants.
- Drive slowly straight up and down slopes. Drive slowly in turns and backing up.
- Keep arms, legs, and feet inside to avoid injury.
- Do not start until all occupants are seated. Remain seated while golf car is in motion.
- Set parking brake before leaving golf car. If golf car is left unattended, remove key.

WARNING

Failure to comply with above warnings may result in bodily injury and property damage.

These basic rules of operation, combined with courtesy and common sense will help to make driving the Columbia ParCar a safe and pleasant experience.

CONTROLS AND OPERATION

Simple controls make it easy to operate the Columbia ParCar. To drive, move directional key switch to desired position and depress accelerator with right foot. Depress brake pedal to slow or stop car.

WARNING

Be sure directional key switch is in desired direction of travel before depressing accelerator.

DIRECTIONAL KEY SWITCH

The switch requires key to operate. Turn to FORWARD position to run car forward. Turn to REVERSE position to run car in reverse. Warning buzzer sounds when in reverse. Key can only be removed when in the OFF position. Switch locks automatically when key is removed. **DO NOT CHANGE DIRECTION UNTIL CAR HAS COME TO A COMPLETE STOP.**

ACCELERATOR

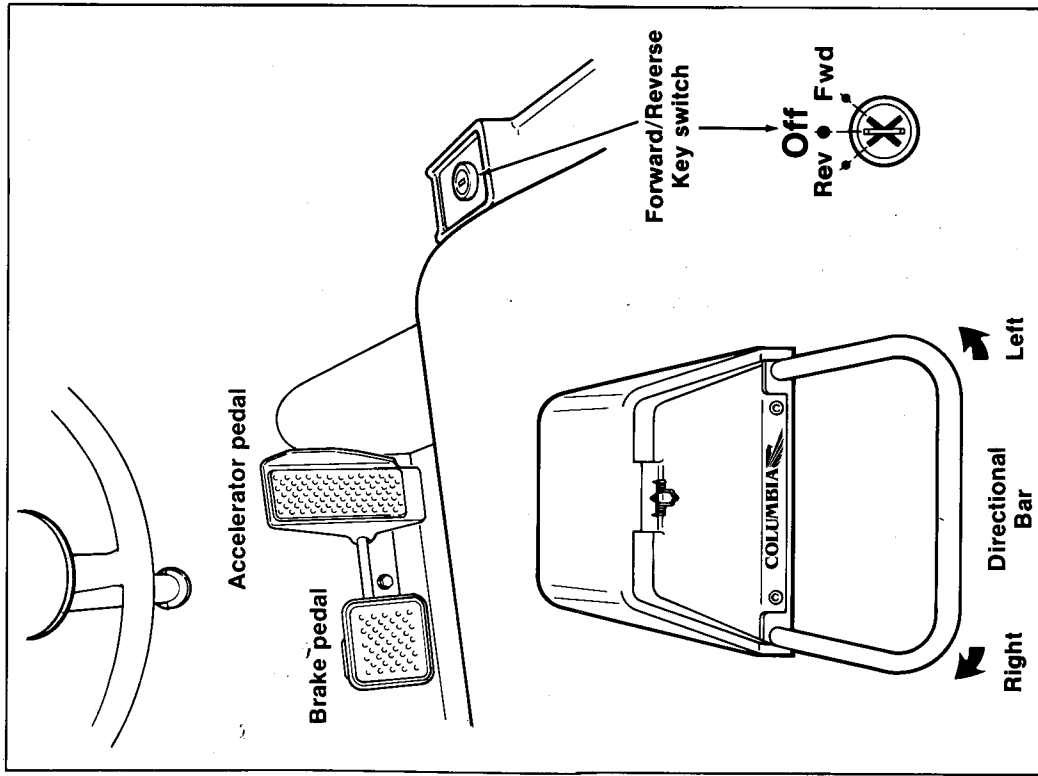
Accelerator pedal operates the Golf Car in selected speeds as pedal is depressed. With key in desired position, depress accelerator to operate car in desired direction.

BRAKE

Depress brake pedal to slow or stop vehicle. To lock brake for parking, depress pedal and tilt forward. **Always apply parking brake when leaving vehicle.** Parking brake remains applied until automatically released by depressing accelerator pedal. Parking brake can also be released by tilting brake pedal backward.

STEERING AND CONTROLS

- 3-wheel models may be ordered with directional bar or steering wheel.
- 4-wheel models are equipped with a steering wheel.



TRAILERING

WARNING

When trailering golf car observe the following safety precautions:

- Use trailer specifically designed to carry golf cars.
- Secure golf car to trailer following trailer manufacturer's instructions.
- On golf cars equipped with windshields or suntop, be certain windshield or suntop is secured properly to golf car to prevent loss or damage while trailering. Also secure golf car body to chassis as it may raise as a result of air flow on suntop while trailering. Increased trailering speed adds stress to windshield or suntop and subsequently increases chance of loss or damage.

SERVICING

Performance and quality have been designed into every Columbia ParCar. Continued dependable and trouble free service depends primarily on the care and attention given.

Special attention must be given to the maintenance requirements of golf cars in fleets or rental use. Consult your Columbia ParCar dealer for maintenance requirements of fleet operation.

Use the following charging time chart as a guide for maintaining batteries in top condition. The detailed service procedures are outlined in service manuals available from your Columbia ParCar dealer.

NOTE

For optimum battery performance, limit the use of new batteries to 18 holes between charges for first 5 charging cycles.

CHARGING TIME CHART Using manually timed charger 70° F (20° C)

GOLF CAR USAGE	CHARGING TIME
9 Holes	7 Hours
18 Holes or More	12 Hours

NOTE

Charging times to fully charge batteries vary with differences in temperature. Cold temperature requires longer charge times.

To service batteries, speed switch, motor or brakes on Classic model, lift body up.

To service batteries, speed switch, motor or brakes on the Challenger, remove bag wells and/or tilt seats forward. Major repairs of the Challenger may require removal of body.

WARNING

Always disconnect one negative battery cable from each bank of batteries before performing any golf car service to avoid accidental start-up of vehicle and possible personal injury.

SERVICE CHART

Use the following service check chart as a guide for maintaining your Columbia ParCar in top operating condition.

DAILY

Batteries

- Fully charge batteries after each usage as shown in chart. Charging receptacle is located on front side of rear body between seats. Be sure key switch is off, key removed from switch and accelerator pedal released.

WARNING

Batteries give off hydrogen gas which is highly explosive! DO NOT allow flame or sparks near charging area when charging. Charging area must be well ventilated.

WARNING

Batteries contain sulphuric acid. Avoid contact with skin, eyes or clothing.

Antidote

External — Flush with water.

Internal — Drink large quantities of milk or water followed by milk of magnesia, vegetable oil, or beaten eggs. Call doctor immediately.

Eyes — Flush with water and get immediate medical attention.

AS NECESSARY OR EVERY WEEK

Batteries

- Check electrolyte level. Fill to marker in each cell with distilled water or water low in mineral content after charging.
- Keep terminals and top of batteries clean to reduce battery discharge.

Cleaning

- Wash underside of car to remove all dirt and debris.
- Wash body and seats with a mild detergent only. DO NOT use abrasives (bodies are painted).

EVERY MONTH, 24 HOURS OPERATING TIME OR 32 ROUNDS

Brake

- Adjust brake as follows when brake pedal free travel becomes excessive.
- Raise rear wheels of car off ground. Support with stands.

Remove rubber protective boots from brake adjusters on brake backing plates.

While rotating rear wheel turn adjusting screw in until brake locks. Back off adjusting screw until wheel rotates freely (5 clicks). Replace boot. Adjust opposite brake in same manner.

Loosen locknut on brake rod clevis.

Remove clevis pin from rear end of brake rod clevis. Turn clevis to lengthen or shorten rod as necessary to provide tension on brake cables without allowing brakes to drag.

Replace clevis pin and cotter pin.

Tighten locknut on brake rod.

Check free travel of pedal and brake function.

- Lubricate brake cables annually in conjunction with brake adjustment.

Tires

- Check pressure and inflate to 18 psi (1.2 atm).

Electrical

- Check terminal connections and battery connections. Tighten and clean as required.

Lubrication

- Oil body hinges (Classic only).
- Grease front suspension fitting (2 on 3-wheel, 4 on 4-wheel).
- Check differential and fill with APG 75 Lightweight Gear Lubricant as required to maintain level 1/2 in. (13 mm) below filler opening.

EACH SEASON

Perform all monthly service operations in addition to the following:

- On steering wheel equipped cars, check steering gear box lubricant level. Remove filler plug and fill with API Service GL5 Multipurpose Gear Lubricant APG 90.
- Clean, inspect and repack front wheel bearings with a water resistant Multipurpose Bearing Grease.

STORAGE

- Fully charge batteries. With electrolyte level up in all cells, store batteries in as cold a place as possible. If stored above 50°F (27°C), check state of charge every 8 to 10 weeks and charge as necessary to maintain 1.250 to 1.270 specific gravity. Use the chart below to determine freezing point of battery and maximum recommended storage temperature.

Specific Gravity	1,260		1,230		1,200		1,117		1,110	
	F°	C°	F°	C°	F°	C°	F°	C°	F°	C°
Freezing Point of Electrolyte	-70°	-57°	-39°	-38°	-16°	-26°	-2°	-19°	+17°	-8°

SPECIFICATIONS

GENERAL FEATURES

- **Maximum Speed** on Level Ground Surface 11 MPH
- **Turning Radius** (measured from turning center to center of outside tire tread) 12'
- **Clearance Radius** (measured from turning center to outside edge of bumper) 13'8"

TIRES

- **Type** High Flotation
- **Size** 8.50 x 8 std.
- **Pressure** 18 psi (1.2 atm), front and rear

BRAKES

Drum brakes on rear wheels mechanically operated. Brake pedal incorporates ratchet lock for parking, with automatic release controlled by accelerator pedal.

DIMENSIONS

Wheelbase	
Classic	60.5 in. (154 cm)
Challenger	66.5 in. (169 cm)
Overall Length	
Classic	91 in. (231 cm)
Challenger	92 in. (234 cm)
Overall Width	
Classic	45 in. (115 cm)
Challenger	46 in. (117 cm)
Overall Height	
Classic	46.5 in. (118 cm)
Challenger	48 in. (122 cm)
Ground Clearance	
Classic	4 in. (10 cm)
Challenger	4 in. (10 cm)
Weight	w/o batteries with batteries
Classic	613 lbs. (278 kg) 961 lbs. (436 kg)
Challenger	574 lbs. (260 kg) 922 lbs. (418 kg)
Maximum Load Capacity	
Classic	750 lbs. (338 kg)
Challenger	750 lbs. (338 kg)

MOTOR

Type	Series wound, reversible
Rating	2 H.P. @ 2800 R.P.M., 36 volts

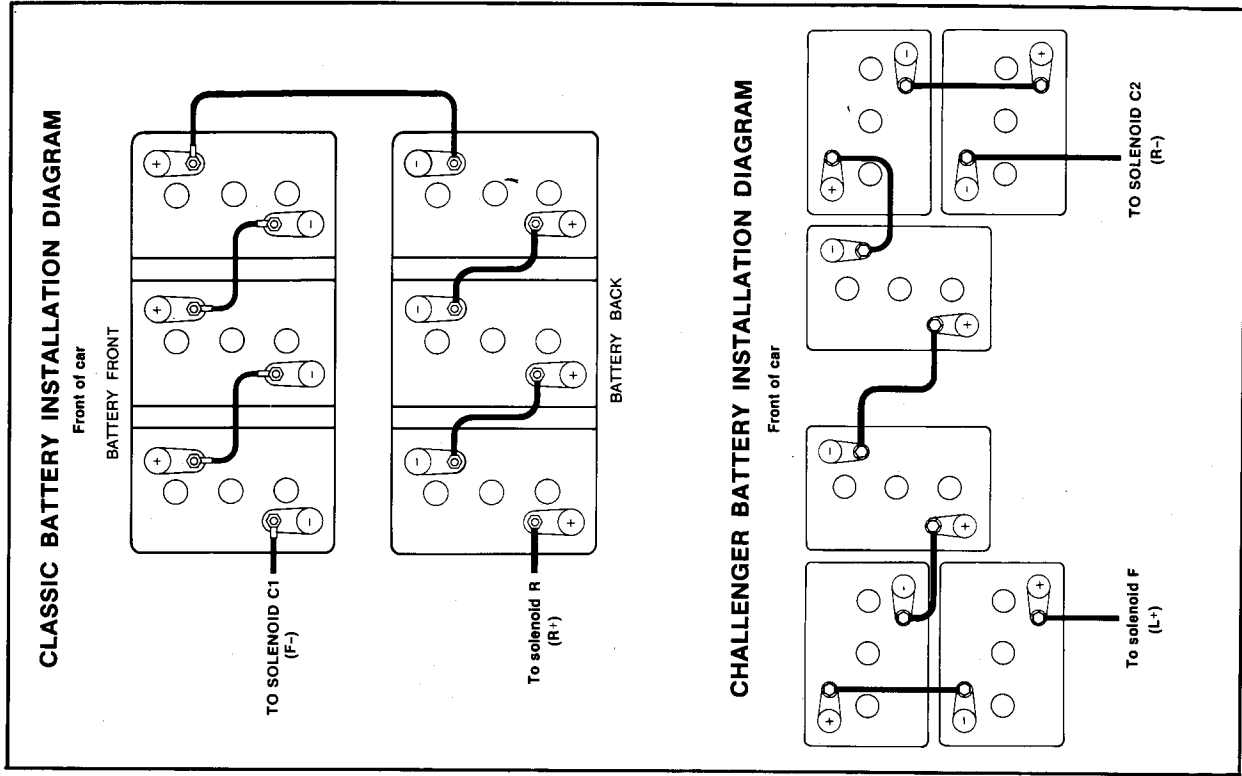
DRIVE

Direct Drive Motor to Differential Shaft	
Drive Ratio	12.25

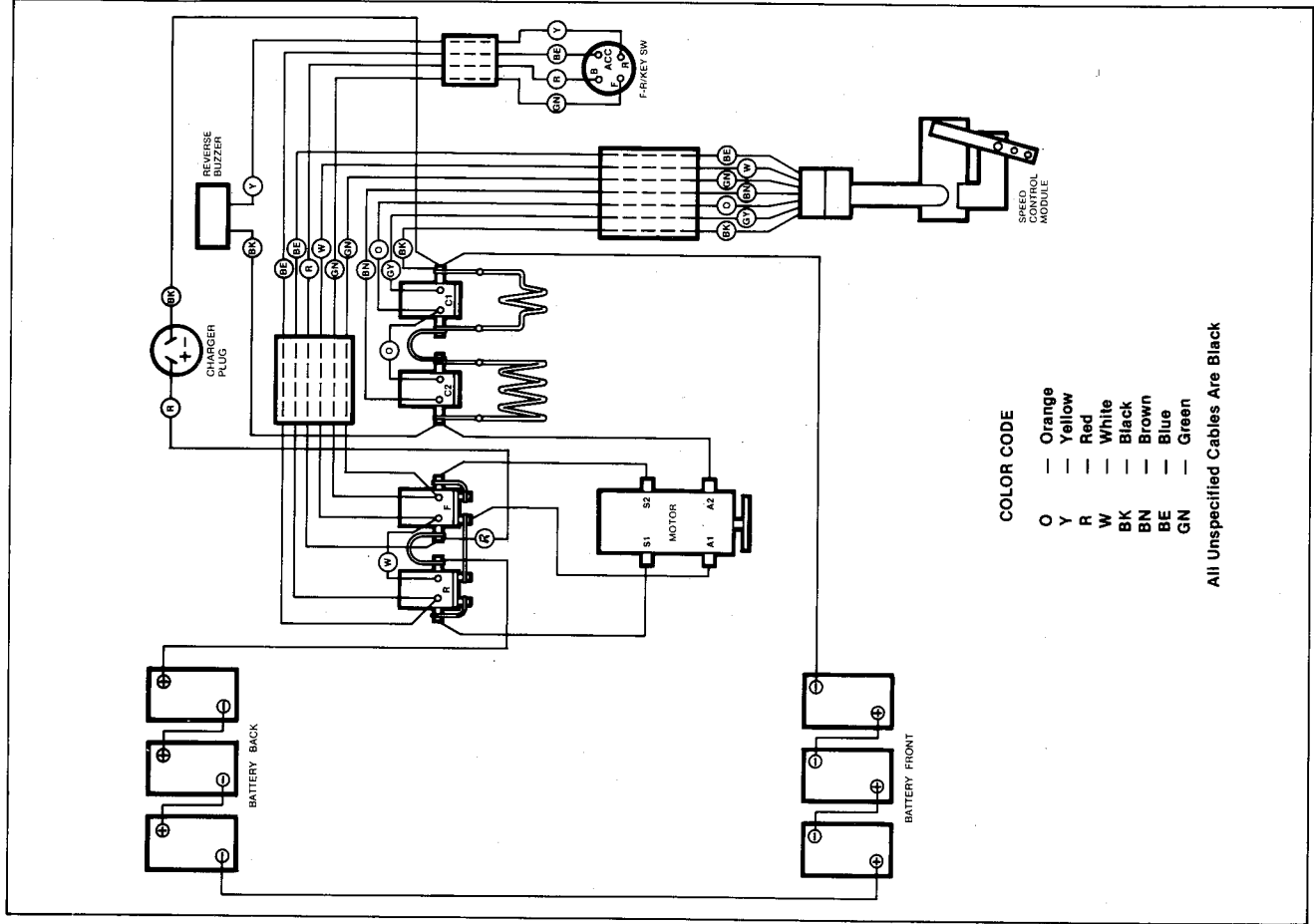
BATTERIES

Type	6-volt electric vehicle (EV) lead storage battery
Quantity	6 per car
Rating - standard duty	88 minutes (75 amp discharge at 80°F to 5.25 volts)
optional	106 minutes (75 amp discharge at 80°F to 5.25 volts)
Charge Rate	Maximum; 25 amperes with automatic charger reduction to low rate

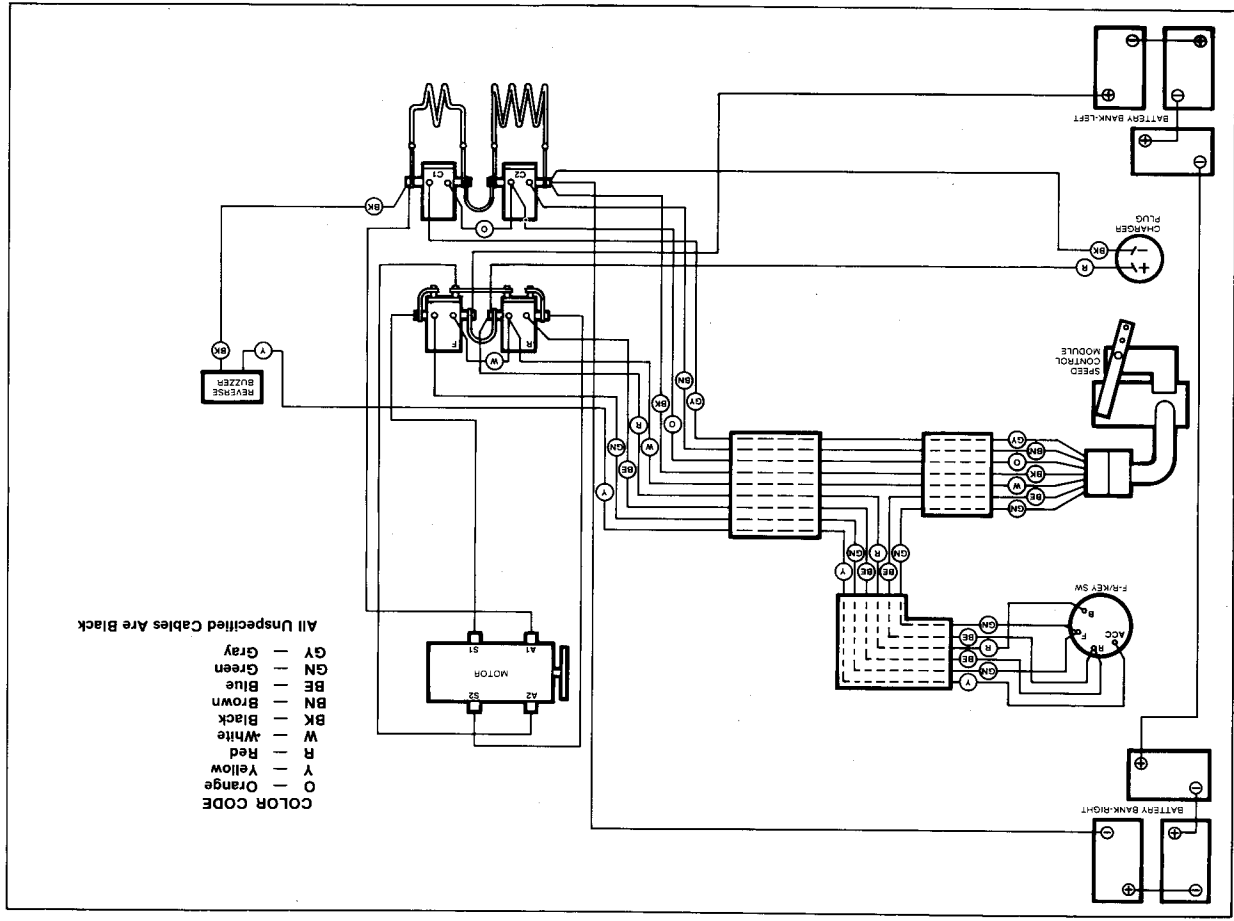
BATTERY CONNECTIONS



WIRING DIAGRAM CLASSIC



WIRING DIAGRAM CHALLENGER



COLUMBIA



We warrant to the original consumer purchaser only that our 1986 model electric golf car will be free from defects in factory materials and workmanship under normal use and service for a period of twenty-four months (Limited lifetime warranty for the frame) from the date of sale, as more fully explained below:

1. Columbia ParCar will pay for parts provided under this warranty and you must pay all other expenses incurred in obtaining warranty repairs, including transportation and labor charges, if any. If we believe factory inspection of an alleged defective part is required, the part must be returned to us, transportation charges prepaid by the purchaser, as prior condition to the allowance of any warranty claim.
2. If the vehicle is equipped with batteries installed at the factory as original equipment, the batteries are covered under a separate warranty provided by the battery manufacturer and not covered by this warranty. Your Columbia ParCar Dealer will assist you in requesting an adjustment if this becomes necessary.
3. To qualify for warranty protection, you and the selling dealer must complete the Warranty Registration Form and return it to us within ten days after sale. If this form is not on file, we will not be able to honor your warranty claim.
4. To obtain warranty service, you must return your golf car during the warranty period to the selling Columbia ParCar Dealer, to any authorized Columbia ParCar Dealer if you have moved a long distance or to any other qualified repair facility. Our dealer should be able to provide service during his normal business hours and within a reasonable time, depending upon his workload and the availability of any necessary parts. For commercial customers, such as country clubs and resorts, this warranty is as stated above except it is void unless the customer uses parts approved by Columbia ParCar and unless repairs and warranty service are performed at an authorized Columbia ParCar dealer. Further information regarding warranty service may be obtained from Columbia ParCar by writing our Customer Service Department, Columbia ParCar Corp., P.O. Box 1, One Golf Road, Deerfield, WI 53531.
5. Any changes in golf car design or equipment made during the course of the model season shall not apply to golf cars previously manufactured.
6. THIS WARRANTY WILL NOT APPLY TO DEFECTS WHICH ARISE OUT OF:
 - (a) Failure to operate or maintain as specified in the applicable Owner's Manual.
 - (b) Abuse, misuse or neglect, including operation at other than the specified design speed.
 - (c) Alteration or repair outside of factory specifications.

1986 ELECTRIC GOLF CAR LIMITED WARRANTY 24 MONTHS

- (d) Maintenance or operation by use or attachment of accessories, or parts and lubricants not specified by us which adversely affect the golf car's stability, reliability or performance.

7. THIS WARRANTY SHALL NOT APPLY TO:

- (a) Non-genuine parts and any damage caused by their use including damage caused by the use of batteries which do not meet Columbia ParCar specifications.
- (b) Improperly installed repair parts.
- (c) Normal maintenance shown in the Owner's Manual which the purchaser is expected to perform including, but not limited to, brake adjustment, battery maintenance (cleaning, maintaining proper fluid levels and battery charge), lubricant replacement in differential assemblies, brake shoes.
- (d) Fading or deterioration of seats, floor mats, bag mats, fiberglass, paint or chrome caused by ordinary wear and tear or exposure.

8. Our dealers are independently owned and operated, and may sell products other than Columbia ParCar. Therefore you should understand that **WE ARE NOT AND CAN NOT, BE RESPONSIBLE FOR THE QUALITY, SUITABILITY OR SAFETY OF ANY NON-COLUMBIA PART, ACCESSORY OR DESIGN MODIFICATION, INCLUDING LABOR, WHICH MAY BE SOLD AND/OR INSTALLED BY OUR DEALERS OR ANY DAMAGE CAUSED THEREBY.**

THERE IS NO OTHER EXPRESS WARRANTY ON YOUR GOLF CAR. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS IS LIMITED TO THE TWENTY-FOUR MONTH PERIOD OF THIS WARRANTY. TO THE FULLEST EXTENT ALLOWED BY LAW, COLUMBIA PARCAR CORP. AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVENIENCE, LOST TIME, COMMERCIAL LOSS OR ANY OTHER INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES.

9. (EXPORT GOLF CARS ONLY) In the case of golf cars sold outside the U.S.A. and Canada, defective parts must be returned to the selling dealer, transportation charges prepaid by the purchaser. Our dealer will then replace all parts which his inspection shall show to be defective under the warranty. We assume no liability for our dealers labor charges, if any, or any other expenses. For further information concerning export golf car service, please contact Columbia ParCar Corp., P.O. Box 1, One Golf Car Road, Deerfield, Wisconsin, 53531 U.S.A. Attn: Customer Service Dept. (608) 764-5474.

Some states do not allow the exclusion or limitation of incidental, consequential or other damages, or limitations on how long an implied warranty lasts, so the above limitations and exclusion 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.