

Owner's Manual

1990

Gasoline ParCar

Electric ParCar

Gasoline Columbia Utilitruck

Electric Columbia Utilitruck

Electric Columbia Shuttle

COLUMBIA ParCar 

Columbia ParCar Corp.

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PART NO. 99466-90

COLUMBIA ParCar 

Your Columbia ParCar vehicle has been manufactured in full compliance with all applicable American National Standards Institute (ANSI) standards. Your safe use and operation of your vehicle is important to us. Any alteration of your Columbia ParCar vehicle that results in the vehicle being in non-compliance with applicable ANSI standards is strictly prohibited. Columbia ParCar is not responsible or liable for any damage that results from any such alteration and all warranties for any such altered vehicles are null and void.

WARNING

For Angle Bag Rack Model G4S, E4S, 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.

ParCar

PATENT NOTICE

Columbia ParCar products are manufactured under one or more of the following: U.S. Patents — 2986162, 2987934, 2998809, 3116089, 3144631, 3144860, 3229792, 3434887, 3559773, 3673359, 3680403, 3683716, 3709317, 4648473, Des. 225 626.

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INTRODUCTION

This manual contains important safety information, operating instructions, model specifications and maintenance instructions for the Columbia Shuttle, Columbia Utilitruck and ParCar.

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 ParCar Vehicles.

MODEL IDENTIFICATION

The vehicle identification number (VIN) is located on a metal tag above the rear tire on the left fender. On gasoline powered vehicles, the engine serial number is located on the top of the engine crankcase.

IMPORTANT! Always give the (VIN) number when ordering parts or making inquiries about your Columbia ParCar Vehicle.

Statements in this manual preceeded 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.

WARNING

The modification of Columbia ParCar Vehicles is not recommended. Exceeding load capacities or recommended speed may result in possible injury or property damage.

WARNING

This vehicle has a designed maximum speed of 12 mph and is not designed or intended to be used on public roadways or highways.

Columbia Shuttle, Utilitruck and ParCar SAFE OPERATING RULES

Before operating the Columbia Shuttle, Utilitruck and 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 vehicle, it is your responsibility to inform the person or persons using the vehicle 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 ParCar is restricted to no more than 2 occupants and their equipment. Exceeding this limitation may endanger occupants.
- Utilitrucks are designed to transport no more than two people unless adequate provisions have been made for additional passengers.
- The Columbia Shuttle is restricted to no more than six passengers at one time, or a total load capacity of 1,200 lbs. including persons. Exceeding this limitation may endanger occupants.
- ParCar is never to exceed load capacity (750 lbs. gasoline vehicle and electric vehicle including persons).
- Columbia Utilitruck is never to exceed load capacity (1,000 lbs. gasoline vehicle and electric vehicle including persons).
- Always properly distribute and secure loads.
- Always drive vehicle slowly straight up and down inclines to avoid overturning vehicle or losing vehicle stability and control. Be cautious while turning or backing up vehicle.

- Personal injury may result if arms, legs, or other parts of body are not kept inside vehicle while it is moving.
 - Do not start until all occupants are seated. Remain seated while vehicle is in motion.
 - Before leaving your seat, bring vehicle to a complete stop and lock parking brake to prevent vehicle from moving. If vehicle is to be left unattended, switch key OFF and remove key.
 - Do not use accelerator to hold vehicle on an incline — use the brake.
 - Make sure key is in position for desired direction of travel before depressing accelerator. **DO NOT CHANGE DIRECTION OF VEHICLE WHILE MOVING!**
- 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 your Columbia Shuttle, Utilitruck or ParCar a safe and pleasant experience.

CONTROLS AND OPERATION

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

WARNING

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

SAFETY DIRECTIONAL KEY SWITCH

The switch requires key to operate. Turn to FORWARD position to run vehicle forward. Turn to REVERSE position to run vehicle 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 VEHICLE HAS COME TO A COMPLETE STOP.**

ACCELERATOR

Gasoline Vehicles

Accelerator pedal starts the engine automatically when depressed. Further movement of pedal operates vehicle at desired speed. The engine stops running when pedal is released. To slow or stop vehicle depress brake.

ACCELERATOR

Electric Vehicles

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

HAND PARKING BRAKE

Columbia Shuttle

Depress brake pedal to slow or stop vehicle. To lock brake for parking, pull hand brake outward to lock. **Always apply parking brake when leaving vehicle.** Parking brake remains applied until manually released for vehicle operation.

BRAKE

ParCar and Columbia Utilitruck

Depress brake pedal to slow or stop vehicle. The parking brake lock is controlled by a bar located across the top of the pedal. To lock brake for parking, depress pedal and bar at the same time. **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 momentarily pressing brake pedal and then releasing.

CHOKE – Gasoline Vehicle Only

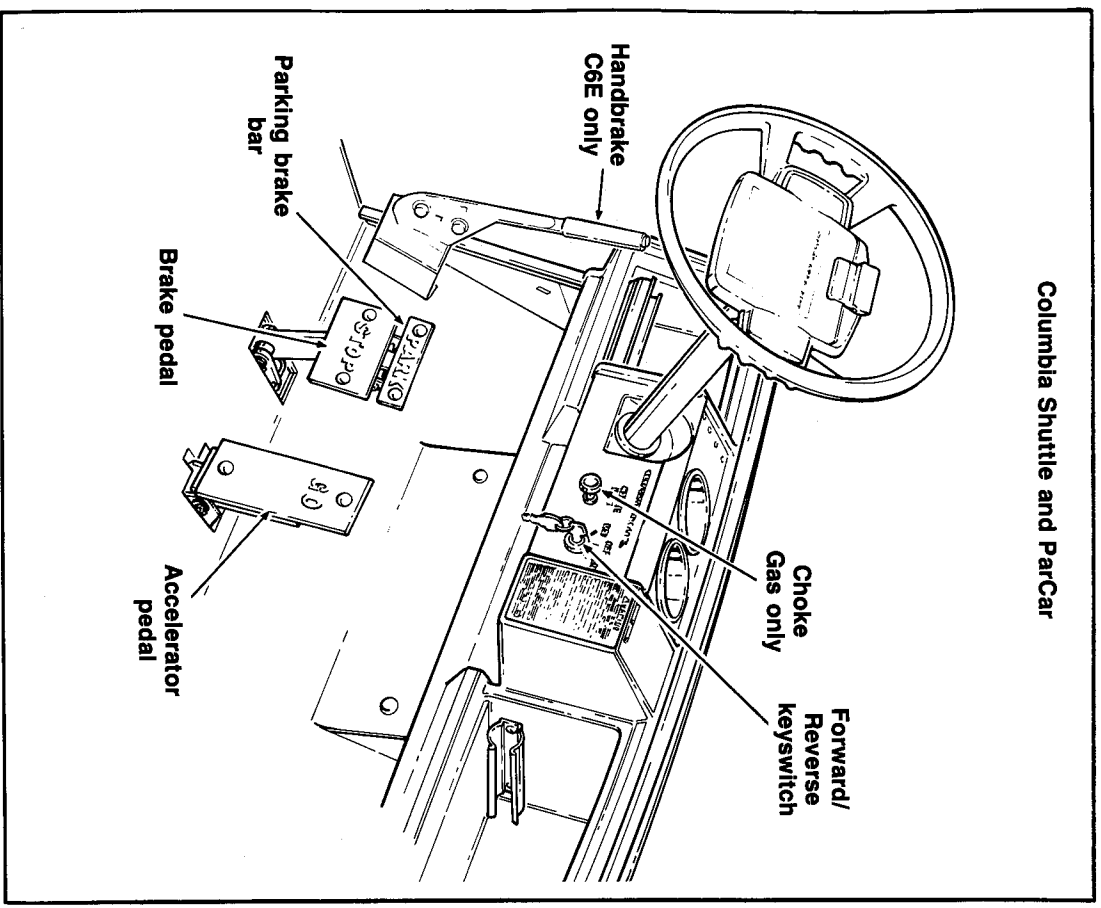
Choke knob is located on the front console next to directional key switch. Use choke knob when starting a cold engine. Pull knob out to choke. Note: choke is spring returned to the open position. It will probably not be necessary to use choke again unless the engine has completely cooled off.

ParCars, Columbia Utilitruck and Columbia Shuttle

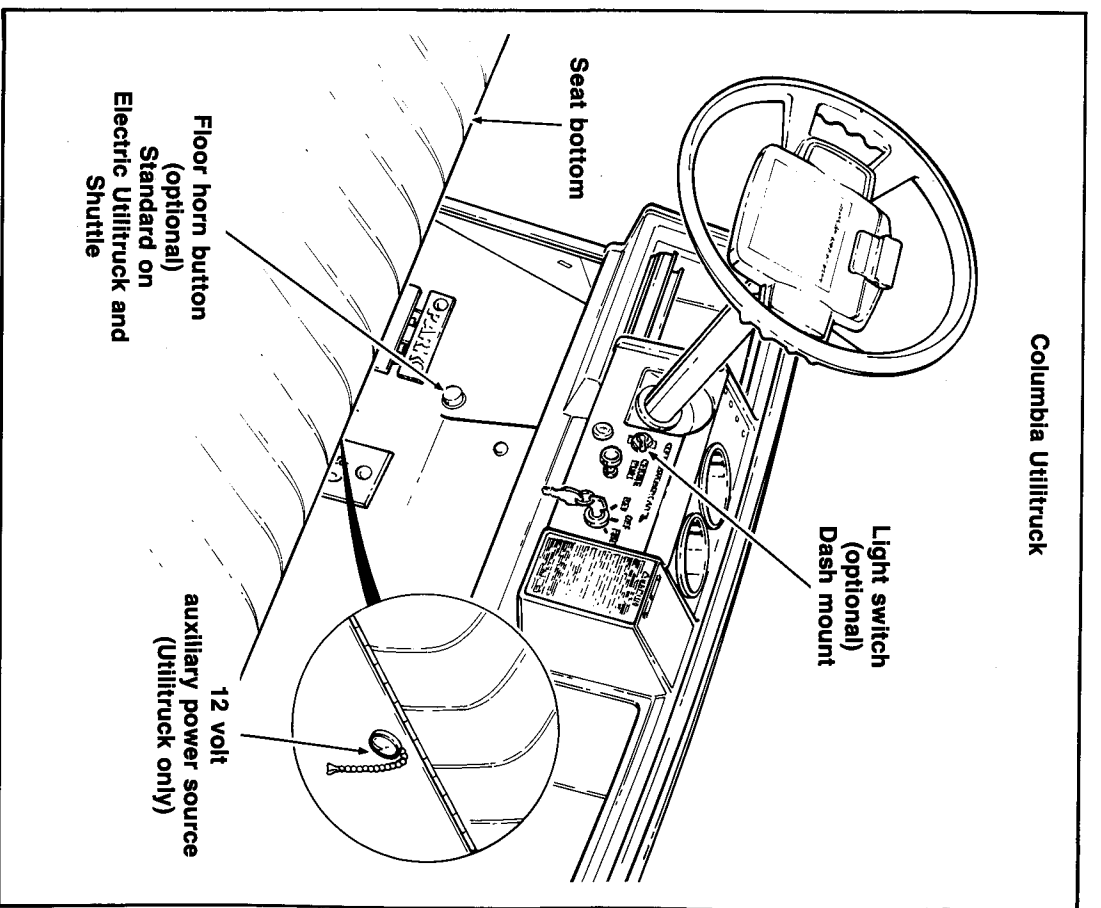
STEERING AND CONTROLS

- All models are equipped with a steering wheel.

Columbia Shuttle and ParCar



Columbia Utilitruck



AUXILIARY POWER SOURCE

The Utilitruck is equipped with an auxiliary power source located under the seat on the rear panel. This may be used for a 12 volt DC negative ground electrical accessory.

TRAILERING

WARNING

When Trailering your vehicle, observe the following safety precautions:

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

Gasoline ParCar and Columbia Utilitruck SERVICING

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

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

ENGINE LUBRICATION AND FUEL

Columbia ParCar gasoline vehicles are equipped with oil injection so it is not necessary to mix oil with the gas. Use regular grade leaded or unleaded gasoline in the fuel tank and Columbia ParCar Lubricant Part No. 99802-84 in the oil tank. Check level of oil in oil tank every time gasoline is added to fuel tank.

Use of lubricant other than Columbia ParCar Oil, or other lubricants which DO NOT meet ParCar standards, may cause damage to the engine and void the warranty.

WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Do not fill fuel tank while engine is running. Do not smoke or allow open flames or sparks near vehicle when refueling.

SERVICE SCHEDULE

Use the following service schedule as a guide for maintaining your Columbia ParCar Gasline Vehicle.

AS NECESSARY OR EVERY WEEK

Cooling Air

- Remove debris from cooling air intake screen in front of engine, particularly after operating vehicle through clippings, dry dandelions, weeds, etc.

Cleaning

- Wash underside of vehicle to remove all dirt and debris.
- Wash body and seats with a mild detergent only. DO NOT use abrasives (bodies are painted). Apply ParCar Cleaner Part No. 99642-85 and Sealer Part No. 99643-85. Order through Columbia ParCar Parts Department.

EVERY MONTH, 24 HOURS OPERATING TIME OR 32 ROUNDS

Brake

Gasoline ParCar and Columbia Utilitruck

- To adjust brake:
 1. Loosen locknuts on brake rod clevises. Loosen clevis to provide slack in linkage.
 2. Raise rear wheels of vehicle off ground. Support with stands.
 3. Remove rubber protective boots from brake adjusters on brake backing plates.
 4. 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.
 5. 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.
 6. Replace clevis pin and cotter pin.
 7. Tighten locknut on brake rod.
 8. Check free travel of pedal and brake function.

Tires

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

Controls

- Oil throttle, choke, oil injection and governor swivel blocks and control cable conduit ends.

CAUTION

Do not overcharge battery, overcharging could cause damage to battery cells.

CAUTION

When adding water or acid to battery, always wear protective eye glasses and protect hands.

WARNING

Batteries contain sulfuric 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.

WARNING

Maximum battery charge rate is 6 amps.

WARNING

Batteries produce explosive hydrogen gas at all times, especially when being charged. To avoid personal injury, keep cigarettes, open flame, and sparks away from the battery at all times. Ventilate area when charging battery. Always protect hands and eyes with a shield or goggles when working near a battery or acid.

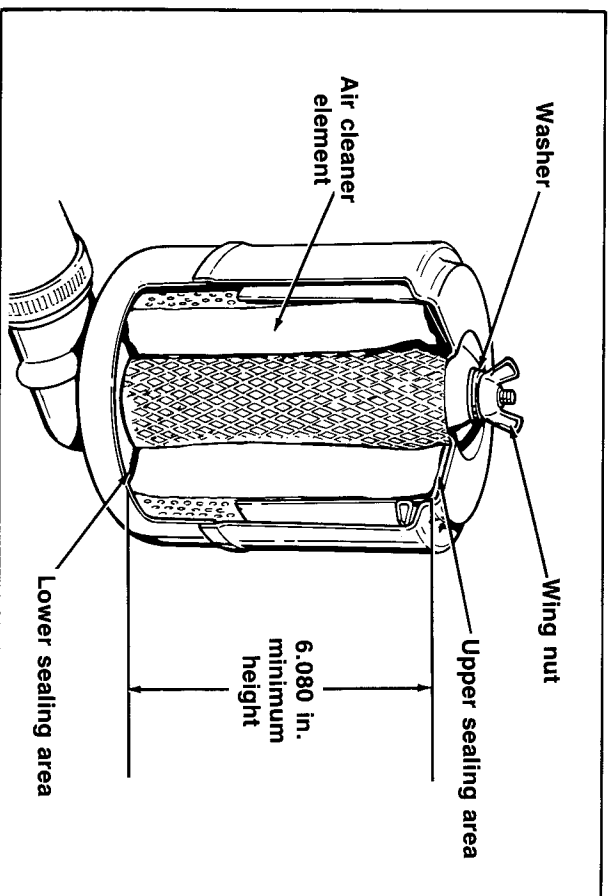
Air Cleaner

- Service air cleaner more often under dirty operating conditions, or if power loss is noted. The air cleaner element can be removed by loosening the wing nut and removing end of filter housing.
- Check automatic dust unloader for obstruction or damage. Replace if necessary.
- Replace air cleaner element if dirty with element purchased from Columbia ParCar Authorized Dealer or Service Center, Part No. 29121-71. Install element, and position filter housing with unloader valve pointing to rear. Tighten wing nut snugly by hand. To ensure proper canister seal, the air cleaner element must have a minimum height of 6.080" as shown.

CAUTION
Do not use solvent to wash air cleaner element or element will be damaged.

CAUTION

If air cleaner element is short, the canister cover will contact before the element can seal, leaving a space for dirt to pass. This will damage the engine and void the warranty.



Lubrication

- Oil body hinges.
- Columbia ParCar Vehicles have six grease fittings which should be greased with high quality chassis grease.
- Check differential oil level and fill with API Service GL5 Multipurpose Gear Lubricant APG 90 Part No. 99890-61A available through Columbia ParCar Parts Department as required to maintain level 1/2 inch (13 mm) below filler opening.

EACH SEASON

Perform all monthly service operations in addition to the following:

Spark Plug

- Replace with Champion L95YC.

Gasoline ParCar Columbia Utilitruck PROLONGED STORAGE

Engine

- Add a good quality fuel stabilizer to the fuel following the manufacturer's recommendations on the container.
- Drain carburetor bowl into suitable container. This will prevent the inlet needle from sticking due to varnish build up.

WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Store vehicle in well ventilated area away from heat or open flame (such as pilot light or space heater).

Battery

- With battery fully charged, store battery in as cold a place as possible. If stored above 50° F (27° C), check state of charge every eight to ten weeks, and recharge as necessary.

Gasoline ParCar Model G4S and P4G GENERAL FEATURES

Automatic Transmission with Reverse and Governed Forward Speed Ad-justable Up to a Maximum of 12 mph (19.4 kph)

Turning Radius
(measured from turning center to center of outside tire tread) 8'
Clearance Radius 10'

DIMENSIONS

	G4S	P4G
Wheelbase	65 in.	63.5 in.
Ground Clearance	4 in.	4 in.
Weight	694 lbs.	655 lbs.
Max. Load Capacity	750 lbs.	750 lbs.
Overall Length	94.62 in.	92.5 in.
Overall Width	44.25 in.	44.5 in.
Overall Height	47.5 in.	46 in.

Gasoline Columbia Utilitruck GENERAL FEATURES

Automatic Transmission with Reverse and Governed Forward Speed Ad-justable Up to a Maximum of 12 mph (19.4 kph)

Turning Radius
(measured from turning center to center of outside tire tread) 8'
Clearance Radius
(measured from turning center to outside edge of bumper) 10'

DIMENSIONS

Wheelbase	65 in.
Ground Clearance	4 in.
Weight	771 lbs.
Maximum Load Capacity*	1000 lbs.
Gross Vehicle Weight (cargo area)	1771 lbs.
Overall Length	103 in.
Overall Width	45 in.
Overall Height	46 in.

*Including driver and passenger.

Gasoline ParCar Gasoline Columbia Utilitruck SPECIFICATIONS CAPACITIES

Fuel Tank 8 U.S. gals. (32.2 liters) (Approx.)
Oil Tank 3.5 U.S. qts. (3.3 liters) (Approx.)
Differential 24 oz. (710 cc)

ENGINE

Type Reversible - two-cycle
Number of Cylinders One
Cooling Blower air-cooled
Mounting Rubber
Bore 2.75 in. (70 mm)
Stroke 2.50 in. (64 mm)
Displacement 14.8 cu. (243 cc)
Compression Ratio (after port closing 6.0:1) 7.7:1
Air Cleaner Dry-type
Spark Plug

Type Champion L95CY
Size 14 mm x 1/2" (12.78 mm) reach
Gap025 in. (.6 mm)
Torque 15-20 ft.-lbs. (2-2.7 kg/m)
Ignition Timing 19° .085 forward (2.16 mm) B.T.C.

POWER TRANSMISSION

Automatic variable-pitch V-belt transmission. Overall drive ratio variable from 10.4 to 38.2.

BRAKES

Drum brakes on rear wheels mechanically operated. Brake pedal incor-porates ratchet with spring loaded linkage compensating for brake shoe wear, with automatic release controlled by accelerator pedal.

TIRES

Type High flotation
Size 8.50 x 8 Std.
Pressure 18 psi (1.2 atm) front and rear

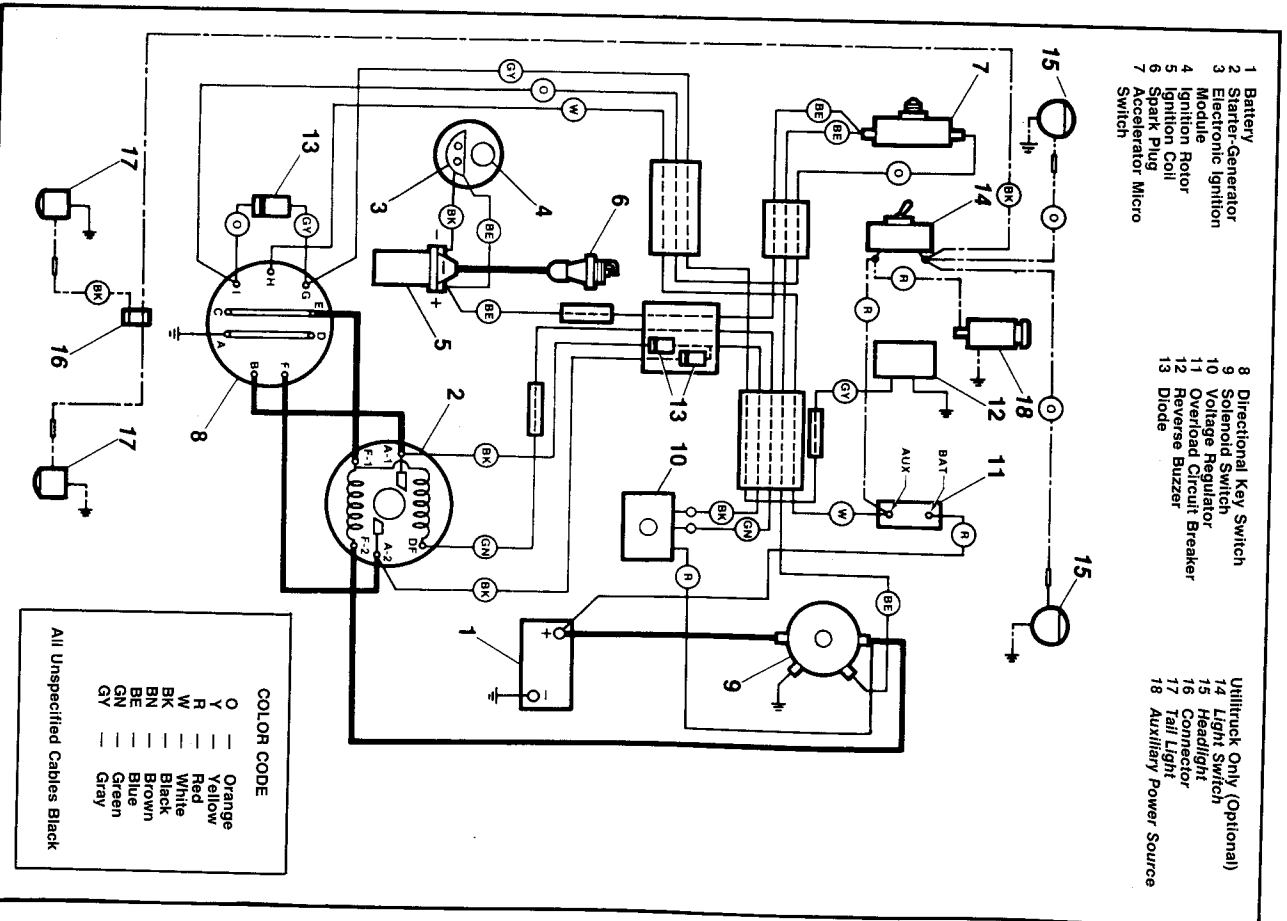
ELECTRICAL EQUIPMENT

Reversible starter-generator, solid state voltage regulator, coil ignition.
12 volt battery.

Specifications subject to change without notice.

See your Columbia ParCar dealer for his full line of replacement parts,
accessories, service aids and service tools.

Gasoline ParCar and Gasoline Columbia Utilitruck WIRING DIAGRAM



Electric ParCar Electric Columbia Utilitruck Electric Columbia Shuttle SERVICING

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

Special attention must be given to the maintenance requirements of vehicles 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. This will prevent premature failure of the batteries.

LESTRONIC II CHARGING TIME CHART

ParCar Usage	Charging Time
9 Holes	7 Hours*
18 Holes or More	12 Hours*

* Approximate time to recharge batteries at 70° F (20° C) using Automatic Charger Part No. 66534-83 available from Columbia ParCar Parts Department.

NOTE

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

If performance, service per charge is effected by the charger electrical supply, check facility for proper wire size, that the circuit breaker is adequate for charging while giving protection from overload. Check charger instructions, local codes, and your Columbia ParCar dealer for full details.

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

(continued)

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

SERVICE SCHEDULE

Use the following service schedule as a guide for maintaining your vehicle in top operating condition.

DAILY

Batteries

- Fully charge batteries after each useage as shown in chart on page 23. Charging receptacle is located on front side of rear body between seats. On Model P4E ParCar and Columbia Shuttle, receptacle is located on left side of vehicle under shell. 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 sulfuric 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.

Cleaning

- Wash underside of vehicle to remove all dirt and debris.

- Wash body and seats with a mild detergent only. DO NOT use abrasives (bodies are painted). Apply ParCar Cleaner Part No. 99642-85 and Sealer Part No. 99643-85. Order through Columbia ParCar Parts Department.

EVERY MONTH, 24 HOURS OPERATING TIME OR 32 ROUNDS

Brake

Electric ParCar, Columbia Shuttle and Columbia Utilitruck

- To adjust brake:
 1. Loosen locknuts on brake rod clevises. Loosen clevis to provide slack in linkage.
 2. Raise rear wheels of vehicle off ground. Support with stands.
 3. Remove rubber protective boots from brake adjusters on brake backing plates.
 4. 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.
 5. 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.
 6. Replace clevis pin and cotter pin.
 7. Tighten locknut on brake rod.
 8. Check free travel of pedal and brake function.

Tires

- Check pressure and inflate to 18 psi (1.2 atm) for Columbia Shuttle and ParCar.

- Check pressure and inflate to 50 psi (3.4 atm) for Columbia Utilitruck.

Electrical

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

Lubrication

- Oil body hinges.
- Columbia ParCar Vehicles have six grease fittings which should be greased with high quality chassis grease.
- Check differential oil level and fill to 8 to 12 oz. with API Service GL5 Light Weight Gear Lubricant APG 75 30W oil.

EACH SEASON

Perform all monthly service operations in addition to the following:

- Inspect battery pack for charge and electrolyte. If low, add water to safe level.

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	1.177	1.110
Freezing Point of Electrolyte	F -70 C -57	F -39 C -38	F -16 C -26	F -2 C -19	F +17 C -8

Electric ParCar Model P4E, E4S GENERAL FEATURES

Maximum Speed on Level Ground Surface 12 MPH

Turning Radius
(measured from turning center to center of outside tire tread) 8'

Clearance Radius 10'

DIMENSIONS

	E4S	P4E
Wheelbase	65.0 in.	63.5 in.
Overall Length	94.62 in.	92.5 in.
Overall Width	44.25 in.	44.5 in.
Overall Height	47.5 in.	46 in.
Ground Clearance	4 in.	4 in.
Weight		
w/o batteries	629 lbs.	590 lbs.
with batteries	977 lbs.	938 lbs.
Maximum Load Capacity	750 lbs.	750 lbs.

Electric Columbia Utilitruck GENERAL FEATURES

Maximum Speed on Level Ground Surface 11 MPH

Turning Radius
(measured from turning center to center of outside tire tread) 8'

Clearance Radius
(measured from turning center to outside edge of bumper) 10'

DIMENSIONS

Wheelbase	65 in.
Ground Clearance	4 in.
Weight	1093 lbs.
Maximum Load Capacity*	1000 lbs.
Gross Vehicle Weight (cargo area)	2093 lbs.
Overall Length	103 in.
Overall Width	45 in.
Overall Height	46 in.

*Including driver and passenger.

Electric Columbia Shuttle C6E GENERAL FEATURES

Maximum Speed on Level Ground Surface 12 MPH

Turning Radius
(measured from turning center to center of outside tire tread) ... 20'

Clearance Radius
(measured from turning center to outside edge of bumper) 22'

DIMENSIONS

Wheelbase 83.5 in.

Ground Clearance 4 in.

Weight
w/o batteries 780 lbs.
with batteries 1150 lbs.

Maximum Load Capacity* 1200 lbs.

Overall Length 118 in.

Overall Width 44.25 in.

Overall Height 46 in.

*Including driver and passenger.

Electric ParCar Electric Columbia Shuttle Electric Columbia Utilitruck SPECIFICATIONS

MOTOR

Type Series wound, reversible

Rating 2 H.P. @ 2800 R.P.M., 36 volts

DRIVE

Direct Drive Motor to Differential Shaft

Drive Ratio 12.55

BATTERIES

Type 6-volt electric vehicle (EV) lead storage battery

Quantity 6 per vehicle

Rating 106 minutes (75 amp discharge at 80° F to 5.25 volts)

Charge Rate (total for 6 batteries in series)
Maximum: 25 amperes with automatic charger
reduction to low rate

TIRES

ParCar and Columbia Shuttle

Type High Flotation

Size 8.50 x 8 Std.

Pressure 18 psi (1.2 atm), front and rear

Columbia Utilitruck

Type High Speed

Size 5.70 x 8

Pressure 50 psi (3.4 atm)

BRAKES

ParCar and Columbia Utilitruck

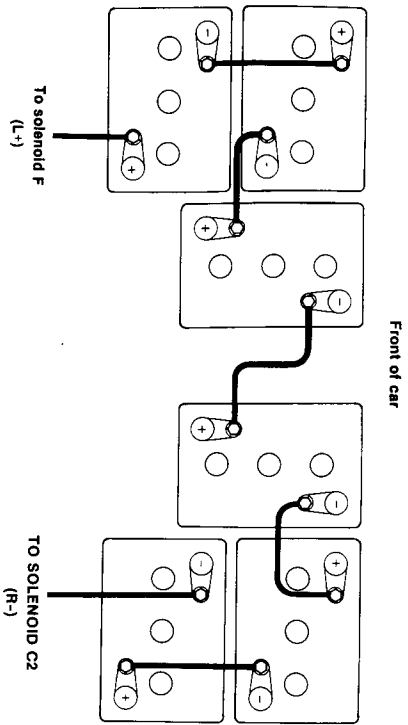
Drum brakes on rear wheels mechanically operated. Brake pedal incorporates ratchet with spring loaded linkage compensating for brake shoe wear, with automatic release controlled by accelerator pedal.

HANDBRAKE

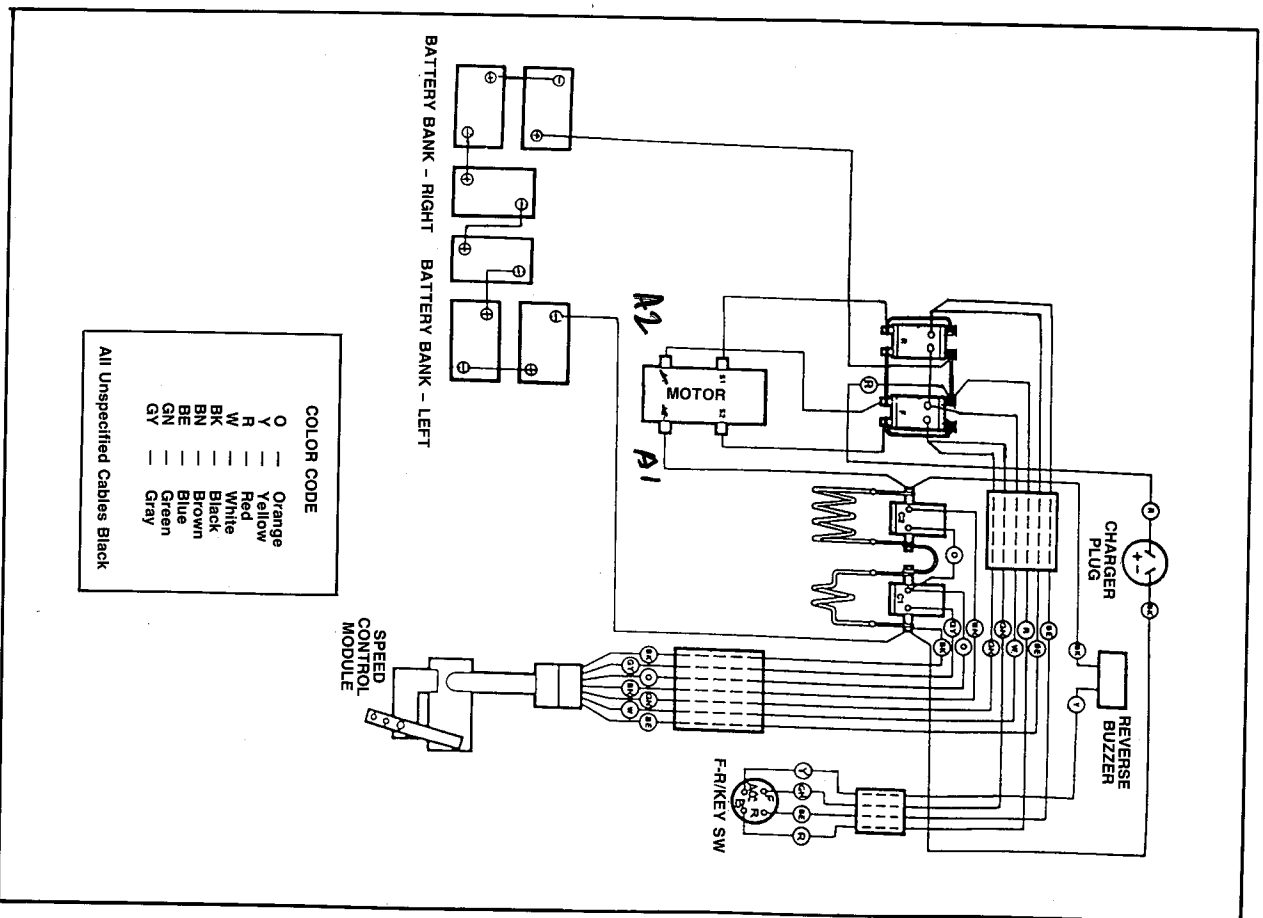
Columbia Shuttle

Drum brakes on rear wheels mechanically operated. Parking brake hand operated pulling outward to lock brakes. Manually released for vehicle operation.

Model P4E, E4S, EU4 and C6E ParCar, Columbia Shuttle and Columbia Utilitruck BATTERY INSTALLATION



Model P4E, E4S, C6E Electric ParCar and Columbia Shuttle WIRING DIAGRAM



Electric Utilitruck WIRING DIAGRAM

NOTES/SERVICE RECORDS

