

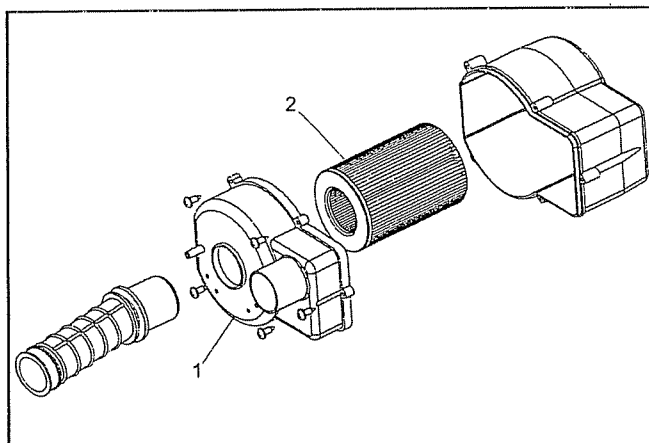
SERVICE INSTRUCTIONS

A. Air Cleaner

This unit is equipped with a paper style air filter element and should be replaced after every 20 hours of operation (Ref Figure).

NOTE: *Operation in unusually dusty conditions may require more frequent replacement.*

- 1) Remove the air cleaner cover (1) by removing the Phillips head screws.
- 2) Clean any excess dirt, oil, or dust from the air cleaner box with a mild detergent and water solution.
- 3) Thoroughly dry the air box
- 4) Replace the air cleaner element (2)
- 5) Carefully align the gasket between the air box halves during re-assembly



B. Engine Lubrication

You **MUST** change the oil in the crankcase after the first 5 hours of operating a new engine. The engine oil should then be changed every 10 hours of use thereafter. This will insure proper lubrication of the internal parts and prevent costly repairs due to excessive wear.

CAUTION

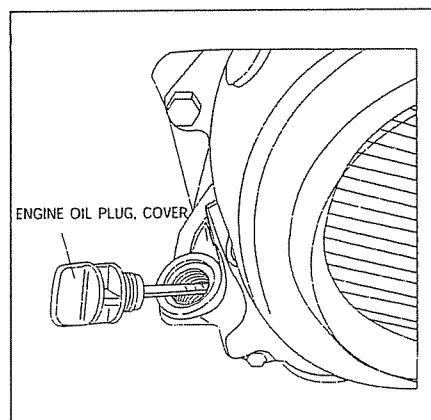
This unit has been shipped with special BREAK-IN oil pre-filled in the engine crankcase. This oil **MUST** be changed after 5 hours of operation. Replace with SAE 10W40 weight motor oil as described in the *following section*.

WARNING



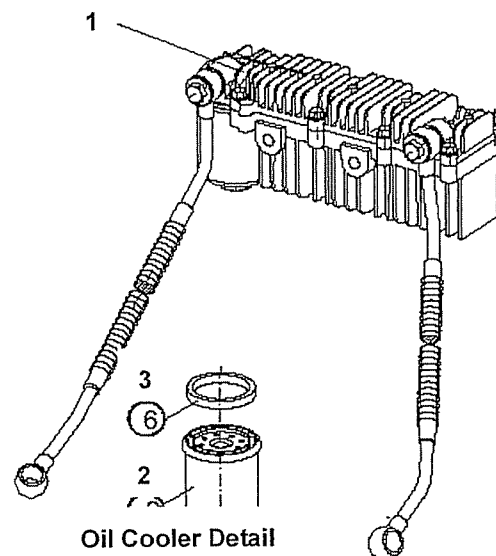
Used oil **MUST** be disposed of at a proper collection center

- a. Remove the drain plug located on the bottom of the right rear side of engine. Elevating the front of the kart slightly will help drain all of the oil.
- b. The oil should be emptied into suitable container for recycling.
- c. Remove and clean the oil screen.
- d. With the oil completely drained, replace the drain plug and tighten securely.
- e. Place the kart back onto a flat surface to level the engine, and Re-fill the crankcase with 30oz of SAE 10W40 motor oil.
- f. Check the oil level using the dipstick attached to the oil



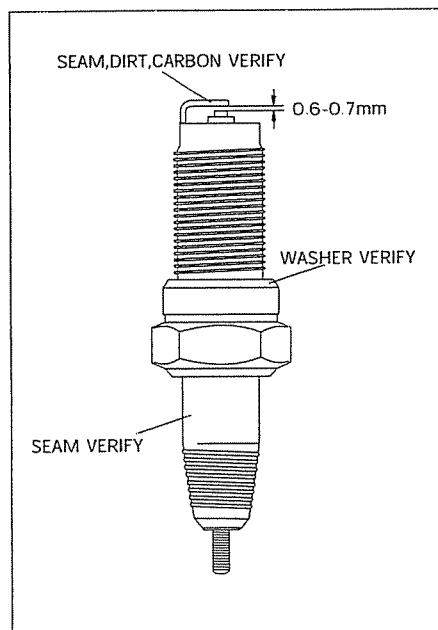
plug cap. Be sure to check the oil level before each use of the kart. Add oil when necessary to keep the oil level between the bottom of the dipstick and the "O" mark. **NOTE: Oil level should be checked by dipping the oil level stick into the crankcase WITHOUT screwing the cap in.**

- g. Some units are equipped with a remote oil cooler (1) and filter (2) located just behind the driver seat under the battery tray. If your unit has this option, the screw on style oil filter (2) should be replaced as well. With the oil drained from the crankcase (Refer to step d), unscrew the oil filter and replace. Ensure that the oil filter gasket (3) is properly located and in good condition. Do not over tighten the oil filter.



C. Spark Plug

- a. Remove the spark plug and inspect it each time you change the oil (Use a spark plug wrench). The electrodes should be kept clean and free of carbon. The presence of carbon or excess oil will greatly reduce engine performance. If possible, check the spark plug gap (area between the electrodes) using a wire feeler gage or spark plug gap tool.
- b. **Correct gap is 0.6 - .07mm**
- c. Before installing the spark plug, coat the threads lightly with graphite lubricant to ensure easier removal of the plug in the future.
- d. Spark plug should be replaced once a year for optimum engine performance.

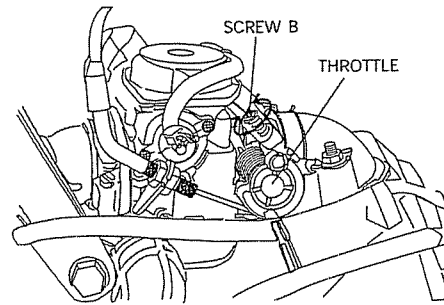


D. Carburetor Adjustment

All the necessary carburetor adjustments have been made at the factory, and the recommended settings are correct for most applications. To adjust the engine idle setting on the carburetor:

- a. Allow the engine to warm up for 5-10 minutes
- b. Using a Phillips screwdriver, adjust the idle screw (B) until the engine settles at approximately 1400RPM

NOTE: For further carburetor adjustments, refer to the Service Manual available for purchase from your Dealer or by calling Manco PowerSports customer service.



Carburetor Idle Adjustment Detail

E. Cleaning Instructions

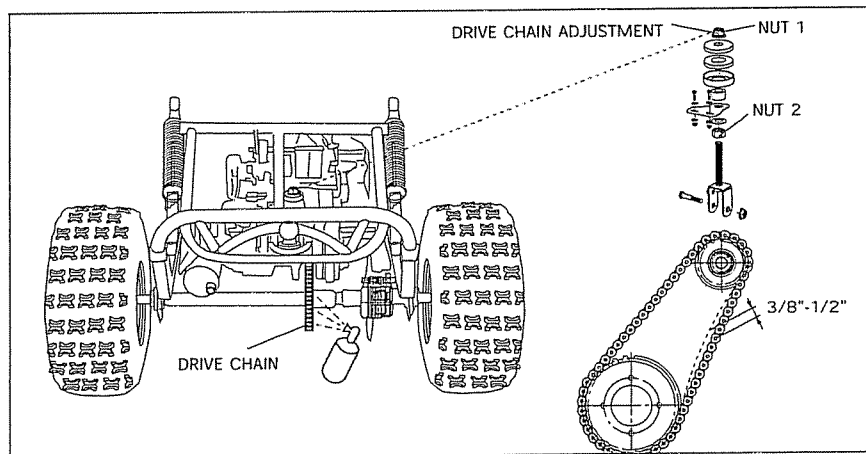
Keep your kart clean by using a clean rag and a mild detergent and water solution. Wipe off all dirt and oil from around the controls. Wipe off any spilled fuel and oil. Keep the engine clean and clear of foreign objects, especially those around the air intake fan and air inlet ductwork.

F. General Lubrication

Lubricate the vehicle at least every 90 days, and more often, if the kart is used daily or in unusually dusty conditions. Lubrication of the front suspension should be performed by adding fresh axle grease, with a grease gun, to the fittings located on each A-Arm.

G. Chain Lubrication and Adjustment

For optimum chain life, regular lubrication with a spray on chain lubricant should be performed on a regular basis. (Ref Figure below)



A new chain will have initial stretch and therefore will require adjustment. The first chain adjustment should be made after the first 2 hours of use. If the chain has more than $\frac{1}{2}$ " of slack or "flex" than it will require adjustment. To adjust:

- a. Loosen Nut (1).
- b. Adjust nut (2) on the underside of the tube.
- c. Re-tighten Nut (1) until the proper chain tension is achieved.

H. Adjustment of Front and Rear Shock

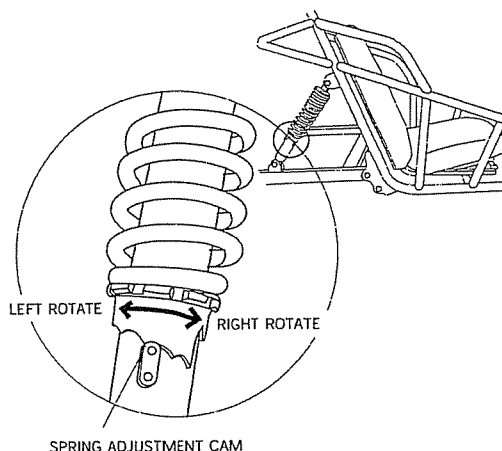
There are five adjustable positions on each shock.

The center notch is the default position as set by the manufacturer (Ref Figure). Use a round nut wrench to adjust the shock.

To INCREASE the shock stiffness, rotate the ring to the highest (longest) setting.

To DECREASE the shock stiffness, rotate the ring to the lowest (shortest) setting.

Shock stiffness adjustments should be made based on the overall weight of the rider and occupant.

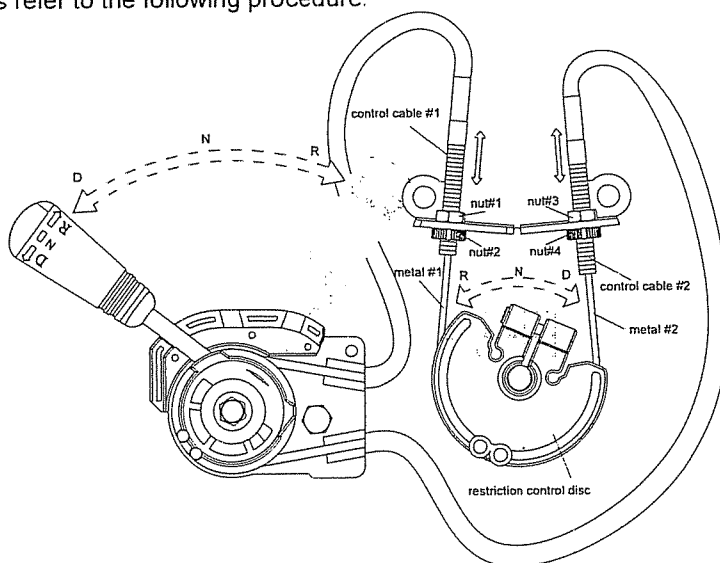


Shock Adjustment

J. Shifter Adjustment

Your unit may require an occasional adjustment in the shift cables due to typical stretch found during normal operation of the kart. To make shift adjustments refer to the following procedure:

- Push the shift lever to the "D" position
- Check the restriction control disc found just behind the oil level dipstick to ensure that it has rotated forward all the way (looking for any slack in control cable #1)
- Loosen adjustment nuts #1 and #2, pulling the housing to draw the cable tight. Re-tighten the nuts when the cable is properly tensioned.
- Shift the lever to the "R" position and check the control disc to ensure that it has rotated full towards the rear of the kart.
- Loosen adjustment nuts #3 and #4, pulling the cable housing to draw the #2 control cable tight.
- Re-tighten nuts #3 and #4 when the cable is properly tensioned.



K. Storage Instruction

If you plan to store (and not operate) your kart for a period in excess of 30 days, or at the end of each driving season, the unit should be set up for storage as follows:

- Drain fuel tank and carburetor by allowing the engine to run completely out of fuel.
- Lubricate the engine cylinder by removing the air cleaner and spraying an engine fogging oil through the carburetor.
- Do NOT save or store gasoline over the winter. Using old gasoline, which will deteriorate from storage, will make the engine difficult to start and affect the performance of the engine.
- Remove the battery from the unit and apply a periodic trickle charge to maintain the battery at a proper voltage level for the next riding season.
- To protect the paint, plastics and upholstery, it is a good idea to keep the unit covered when not in use.

GENERAL MAINTENANCE

A. Front Wheel Replacement

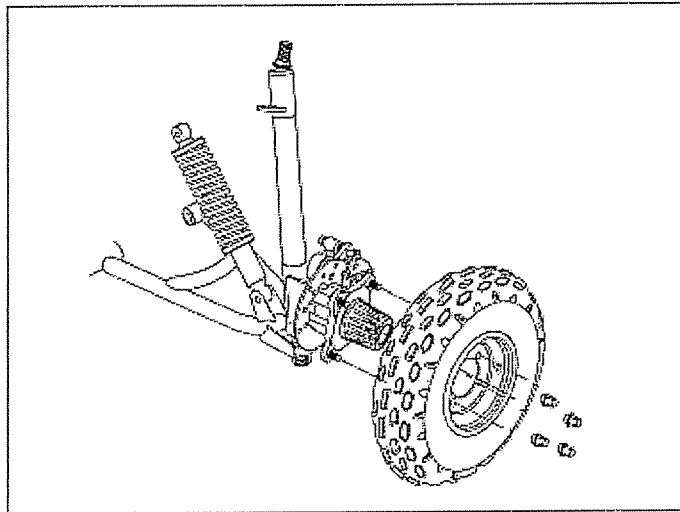
Do not disassemble the castle nuts when you replace the front wheels. It is only necessary to remove the 4 lug nuts to remove the wheel. (See Figure)

Tighten the nuts securely after replacing the wheels.

B. Rear Wheel Replacement

Do not disassemble the castle nuts when you replace the rear wheels. It is only necessary to remove the 4 lug nuts to remove the wheel. (See Figure)

Tighten the nuts after replacing the wheels.



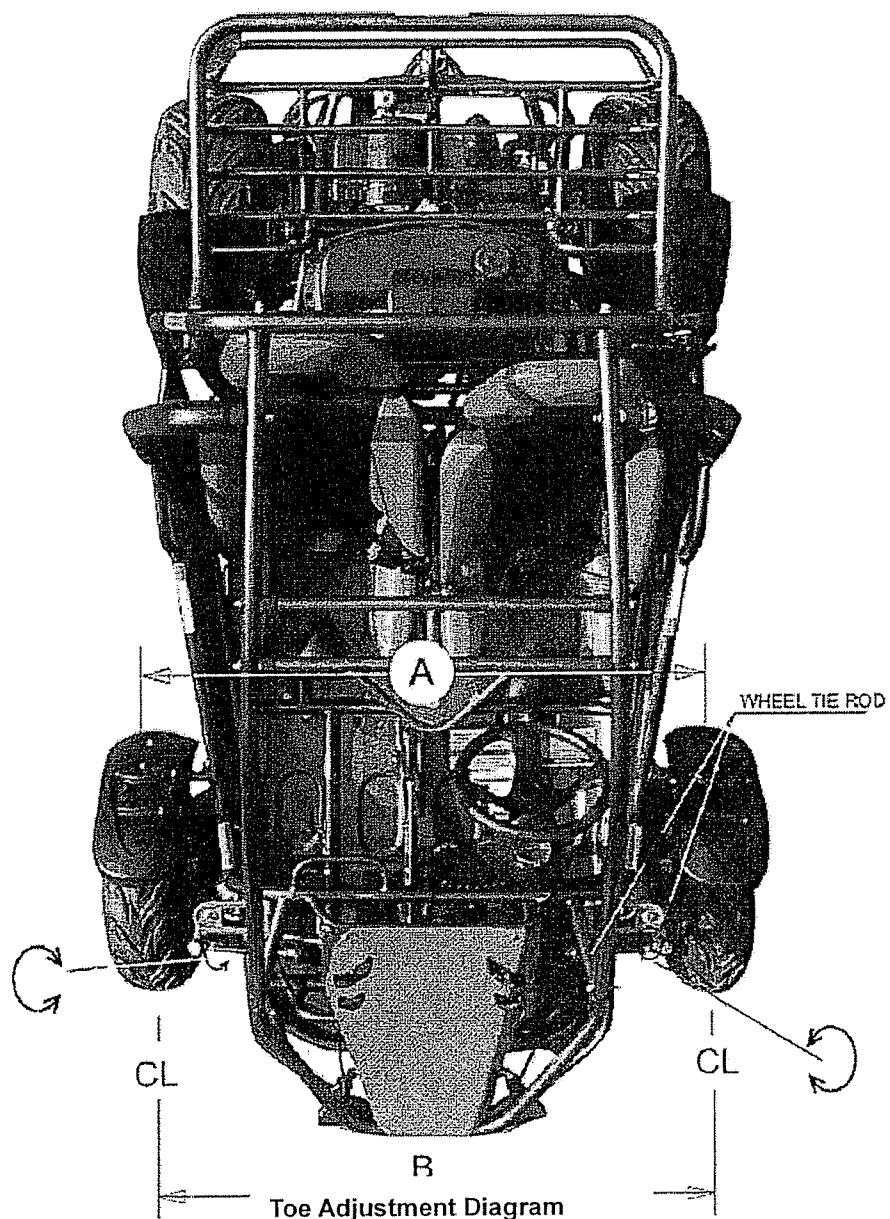
Front and Rear Wheel Attachment

C. Front Wheel Alignment (Ref Toe Adjustment Diagram)

The front wheels should be set with a "toe-in" from 1/8" to 1/4". At the centerline of the tires, measure the Distance A and the Distance B. For proper toe adjustment, Dimension A should be 1/8" – 1/4" greater than Dimension B.

To make adjustments:

- a. Loosen the lock nuts on both sides of Front Tie Rods.
- b. Ensure the steering wheel is centered, and adjust Dimension B by equally rotating the tie rods in or out with a 12mm wrench.
- c. After adjusting to the desired length, tighten the lock nut against the rod end.
- d. Recheck the dimensions for proper alignment.



D. Optional Speed Reduction Installation

This kart has been equipped with provision for a speed limiter to reduce the overall speed of the unit to 20mph max. This kit is available from your dealer or directly from Manco PowerSports by calling customer To install the speed limiter:

- a. Remove the electrical control box cover located on the rear swingarm, just next to the air box, using a Phillips screwdriver.
- b. Locate the open 2 wire plug, and install the rev limiter box provided in the kit.
- c. Replace the electrical box cover, being careful not to smash or crush wires and connections.

REPLACEMENT PARTS AND SERVICE

Most replacement parts are typically available from your dealer. Because of immediate availability and convenience, it is recommended that replacement parts be ordered from an authorized dealer. Take this manual and all supplements to the dealer when ordering parts in person.

If replacement parts are not available from a dealer, they may be ordered directly from Manco PowerSports at 1-800-643-7332. Orders may be subject to a minimum fee. A listing of authorized service center locations in your area are also available from our Customer Service department.

Record the vehicle VIN number in the spaces provided at the front of this manual. The VIN number is hard tagged on the kart and can be found just behind the drivers seat.

SPECIFICATIONS

Dimensions

Overall Length ----- 85.0 in. (2160mm)
Overall Width ----- 55.4 in. (1406mm)
Overall Height ----- 57.4 in. (1458mm)
Wheelbase ----- 59.0 in. (1500mm)
Front Track ----- 47.7 in. (1160mm)
Rear Track ----- 39.4 in. (1000mm)
Ground Clearance ----- 6.7 in. (170mm)

Engine

Type ----- Single Cylinder Oil & Air cooled 4-Stroke
Engine capacity ----- 150cc
Bore / Stroke ----- 57.4mm x 57.8mm
Displacement ----- 149.6 cm³
Corrected compression ratio ----- 9.2:1
Carburetor ----- KF, CB24J
Output Power ----- 9.9 hp @ 7500rpm
Maximum Torque ----- 13 ft-lbs @ 5500rpm
Starting ----- Keyed Electric
Ignition ----- CDI
Lubrication ----- Force & Splash SAE-10W/40
Transmission ----- CVT automatic with Neutral and Reverse
Spark plug ----- C7HSA (NGK)
Plug gap ----- 0.6-0.7mm
Fuel Type ----- Mid-Grade Unleaded (89 Octane)

Capacities

Maximum load (Driver, Passenger, & Gear) ----- 400lbs
Fuel tank ----- 2.64 Gal
Engine oil ----- 30 Oz
Climbing Angle ----- 20° - 25°
Battery ----- 12V 10Ah
Head Light ----- 12V 35W
Tail Light ----- 12V 21W/5W
Fuse ----- 15A
Top speed (20mph Speed Reduction Kit Available) ----- 35 - 39mph

Miscellaneous

Brakes (Front & Rear) ----- Hydraulic Disc
Front tire ----- 19 x 7-8 @ 15psi
Rear tire ----- 21 x 10 -10 @ 10psi
Front Suspension ----- Independent Dual A-Arm
Rear Suspension ----- Swing Arm/Double Oil Damped Shock
Restraint System ----- 3-Point Retractor Style Belt
Final Drive Chain ----- KMC #50 - 5/8" Pitch
Net Weight ----- 522 lbs

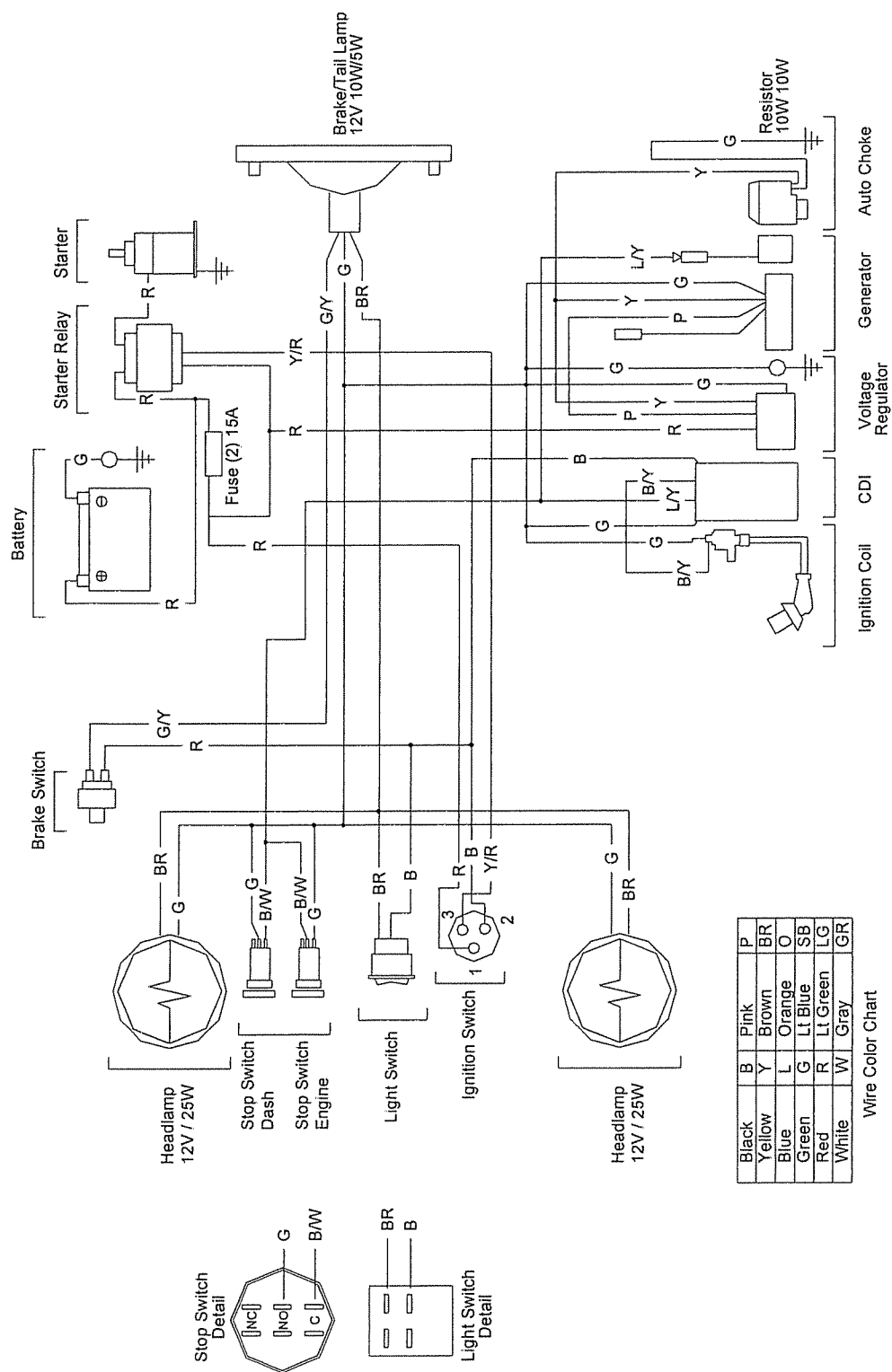
Periodic Checks & Services

The maintenance intervals in the following table are based upon average driving conditions. Driving in unusually dusty areas may require more frequent servicing.

Item	Initial Service (First Week)	Monthly	Quarterly	Yearly
Tire Pressure / Wear	I	I		
Brake System	I	I		
Fastener Tightness	I	I		
Air Cleaner		R		
Carburetor	I			C
Spark Plug			C, A	R
Brake Fluid	I	I		
Gearbox Oil		I		
Engine Oil	R (5hr)	R (every 10hr)		
Chassis		C, I	L	
Fuel Filter		I		R
Battery			I	

A = Adjust, C= Clean, I = Inspect, L= Lubricate, R= Replace

ELECTRICAL SCHEMATIC



7150 Electrical Schematic