

Wheelman - Recreational Vehicle Manual



Forward

Thank you for purchasing your wheelman recreation vehicle. It is highly recommended you review this owner's operational and maintenance manual. Understanding the proper start up procedures, regular maintenance and tips on riding techniques will ensure you achieve your objective – and that is to have fun!

Although this vehicle is designed for off road use and can function on rough terrain, it also performs exceptionally well on hard surfaces such as pavement or concrete; however, when first learning to ride it is recommended that the rider start out on a smooth but softer surface, such as a grass playing field. It will be common for the average rider to take a few spills when ***first learning to ride***. A grassy playing field will reduce the risk of injury and prevent scratching your new wheelman.

The wheelman is produced by a company that continues to refine the vehicle and enhance the rider's excitement and satisfaction. Your unit may have performance upgrades that may not exactly match the components discussed in this manual.

Getting to know your new toy and learning to ride will be very exciting. A quick look at the following table of contents will hopefully point out, in the order necessity, that reviewing the manual completely will be a wise decision.

Enjoy your ride!

Removing your g-wheel from the packaging

Ensure that the packaging is correct side up. It is strongly recommended that all packaging be removed carefully and then returned to the box intact and undamaged. For moving purposes the original packaging will protect your wheelman from damage during transport.

Lift out the throttle/brake handle and connecting cable first. Although the wheelman is a manageable 28 kg, having the cable catch on the packaging in the process of lifting out the unit, can cause an unexpected muscle strain. If at all possible, have someone assist with holding the lower packaging while removing the g-wheel from the box. Holding the fiber rod where it connects to the rear housing will find a point of balance. Included in the packaging is a fuel mixing container.

Visual and mechanical inspection

Although every wheelman is produced using **vigorous quality controls**, because you are about to ride a motorized vehicle, it is **common sense to inspect your vehicle prior to riding**. It is also in the rider's best interest to know and understand the basics of how the machine works.

You will notice the wheelman is of partial frame and partial split body construction. There is a **hinge** and hook mechanism for the **front wheel to pivot**, which does not come into contact with the hinge mounted to the stainless steel skid plate and frame. All self-locking nuts connecting the reinforced fiberglass or FRP as it is known in the industry will be secure. The four skid pads mounted to footplates will be fastened with nickel-chromed machine screws. The **chain** will be kept very **snug** on the rear sprocket by a **spring-loaded chain-tensioning wheel**. Both the front and back **wheels** will have a **little play** and may feel loose. This is **by design** and when under load of a rider this play will not be detectable.

The **lever** on the control grip for the rear **disc brake** will engage mid way through the lever's travel. This can be checked by placing a block under the skid plate, rotating the rear wheel by hand and engaging the brake. The g-wheel has an **automatic centrifugal clutch and brake**. This **prevents movement** of the vehicle **at idle** and will slow you quickly when you release the throttle.

The fuel tank is below the **carburetor**, a **purge bulb** is mounted on the top of the carburetor to prime the carburetor by pushing 3 times prior to engine running. Neoprene pads are wrapped around the **hub less wheel assemblies**. The high performance **49.99 cc engine** is mounted in the center of the unit with the carburetor facing forward and the **exhaust expansion chamber muffler** unit facing to the rear. **Caution!** This exhaust system will be **hot** shortly after starting the engine. The **pull start** handle and cord recoil system is located on the side of the engine. The two heavy tread **tires** have **inner tubes** and will have an **air valve** through the side of the tire.

Note: The correct tire pressure is **20 psi**. Although this is will have been checked before leaving the factory, due to different climatic conditions and elevation, tire **Pressure** can fluctuate. Incorrect tire pressure can cause riding difficulty and cause Damage to the tire and rim. Pre-ride inspection should include the use a tire gauge to check and fill or release if necessary.

This brief visual walk about of your Outback will **prepare you for the next phase of your adventure**.

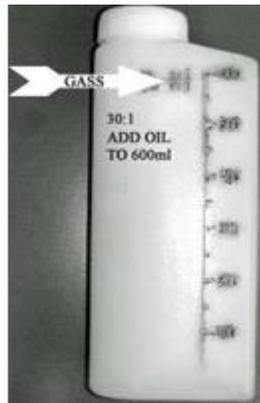
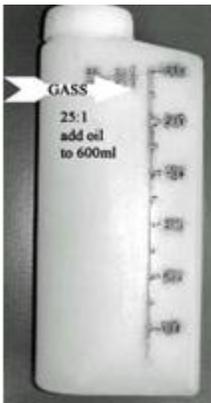
Preferred Stance

The wheelman is designed to suit both **natural (left foot forward)** and **goofy (right foot forward)** riders. The vehicle has been **preset** to accommodate **natural riders**. Having the incorrect foot forward can make balance surprisingly difficult. To **switch** the set up **to goofy** stance, simply **remove** the **nut** that bolts onto the hook through the **rubber mount**, and **remove** the **hinge pin** by taking off the large **nut** attached to the top of the pin and **sliding the pin out**. **Flip** the **hook** over to the **other side** and refasten securely. How much you tighten the large nut will change how easily the front wheel turns, tighter for trails or learning, looser for advanced carving tight turns and low speed maneuverability.

Fuel

Your motor is a **2-cycle** high performance internal combustion engine. Four stroke engines have an oil reserve for lubricating all of the internal moving parts. A 2 cycle engines does not. Instead, a small amount of **2-stroke oil is mixed with the fuel** available at most gas stations. This fuel/oil mix in vapor form will **lubricate** all the moving **parts** in the crankcase chamber and the piston cylinder. **It is essential that oil be added the gasoline!** The proper mix depends on the type of oil. Generally, high performance 2-cycle oil the mix is 25 to 30 parts gasoline for 1 part oil (recommended for regular riding conditions), and for synthetic oil the mix may be as high as 50:1 for more performance. This will require carburetor adjustment. If the engine is running too hot then increase the oil ratio.

Example: 30:1 means – 1 liter of gasoline will require 33 ml of oil



Note! Gasoline is extremely flammable and can ignite easily!

Caution! Always mix and pour fuel in a well-ventilated area, preferably outdoors.

Caution! Always wait until the engine has cooled down before refueling.

Caution! Always keep fuel away from an open flame or potential spark.

Caution! Use proper fuel containers only.

Caution! Do not smoke cigarettes while mixing or refueling.

Tip: For **regular** non-synthetic **2-cycle oil** expect to see a **small amount of blue in the exhaust**. This will mean that your engine is being lubricated. Too, much, however, may foul (dirty) the spark plug causing poor running conditions and will require replacement.

Tip: pour the required amount of oil into the empty fuel container first, add about 20% of the fuel, close the lid on the container and shake moderately to mix well, and then add the remainder of fuel required to obtain the correct ratio. How much to add will be explained on back of the 2-stroke oil container.

The **advantage of 2-cycle engine** is far fewer moving parts (no valves for porting fuel and exhaust) which eliminates a lot of maintenance, makes rebuilding or upgrading the size of the engine very easy, and reduces the overall weight of the engine. And most significant, the spark plug ignites the fuel every second stroke, as opposed to one in four of a four stroke engine, **making the vehicle 2 times as powerful for its size!**

Rider's safety gear

The type and amount of riding **safety apparel** will **depend** on the riding **conditions** and the rider's **preference**. New riders will learn at individual rates depending on experience of other activities. Snow boarders and skate boarders will start off with the biggest advantage because of the familiar stance and balance skill set. Others not to worry, the **wheelman is quick to master**.

It is recommended for all, however, that a **helmet** be used at all times as well as elbow pads, kneepads, riding gloves, and wrist guards and even shoulder pads may boost one's confidence at the early stages.

Riding technique

Although discussion of the riding process will take place now, a thorough and complete read of this manual is necessary. Even though learning to ride the wheelmank is easy, here are some **tips to consider**:

Note: remember about preferred stance:

- 1.) Place the wheelman next to a railing or something to hold on to
- 2.) Let the vehicle rest on the front hinge hook and the same side skid pads
- 3.) Step into the footpads while holding onto a pole or something for support
- 4.) Push down on heels and pivot the vehicle into an upright position
- 5.) Standing vertical, and face the direction of travel, rotate your hips left and right
- 6.) Allow your feet to also turn forward until they wedge into the foot-wells
- 7.) Move your feet forward and back in the foot wells until your shins gently make contact with the neoprene padding and you feel comfortable rocking the machine back and forth. Put a little extra weight on the forward foot and bend at the knees a little
- 8.) Now looking forward, not down, gently rock the unit side to side and **familiarize** yourself with this **position** and get the **feeling of balance**
- 9.) **Now you know what to achieve when riding**



Later, when ready to go for the first time, try this simple procedure with the engine running and the control lever in your hand. If your body will recognize the correct position without you having to discover it, you will be able to start effortlessly.

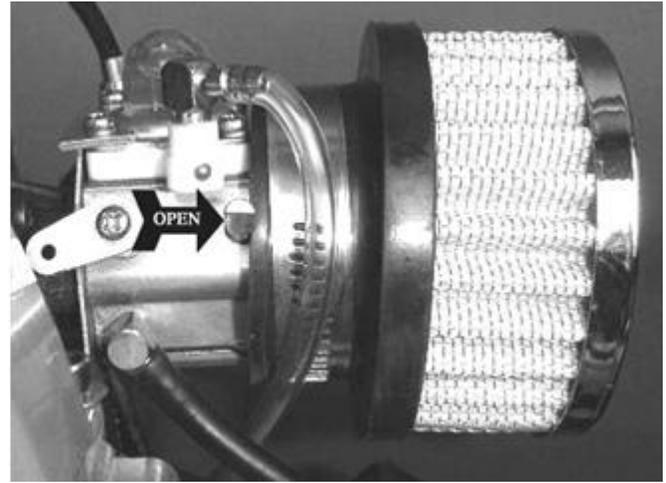
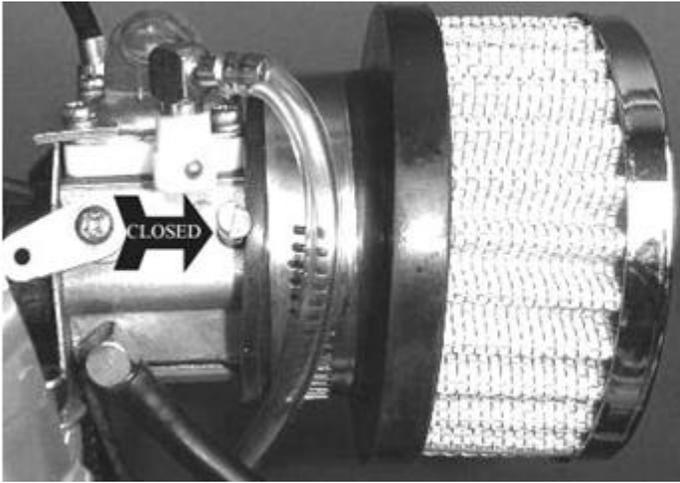
When you are **ready**, with the control in your hand and the **engine warmed up**, step into the foot wells. With the front wheel resting on the skid pads, push down on your heels, lift the vehicle to the upright position and at the same time moderately compress the throttle lever. This may take a few tries to get the amount of throttle and timing right to create the forward motion while maintaining your balance. You may want to start with the aid of a pole, wall or friend.

Once you have learned this procedure, you will quickly learn that **throttle control can help maintain your balance**. If you feel your body weight start to lean too much to one side while in motion, a little extra throttle will push you back to a comfortable upright position. Both wheels act as gyros maintaining and assisting your balance while in motion. Finding out just how much is **part of the fun!** If you feel the front wheel turns too easily you may want to tighten the large nut on the "U" shaped arm (see preferred stance section). Good luck and have fun!!

Engine start up

Warning! Always start the engine outdoors. The exhaust emissions in an enclosed area are very harmful.

- 1.) Pump the primer bulb until fuel is seen flowing freely in the clear fuel line 3 or more times
- 2.) Hold the throttle/brake control lever in one hand
- 3.) Flip the choke lever (clear tube knob) on the carburetor to on the position, flat side back
- 4.) Place your left foot on the front wheel hook hinge to keep the vehicle stable
- 5.) Use your right thumb to push the operating switch to "on"
- 6.) Now pull the "Pull Start Cord" slowly until you feel it engage with the engine then pull quickly towards the front of the engine and not upwards which may damage the FRP. With one or two pulls the engine should fire then stall.



Caution! Do not let go of the "Pull Start Cord" handle. Always guide it back into the recoil assembly.

- 7.) Turn the choke off, flat side down and repeat step 5 but as soon as the engine fires, give it a little pulsating throttle to prevent a cold stall
- 8.) Momentarily, the engine will idle without any extra throttle. Allow the engine to warm up. This will only take 2 to 3 minutes you may gently pulse the throttle during this time if it is rough idling.

Caution! Do not over rev the engine when cold. High rpm revving without a load (rider) is harmful to the engine. **Best wait until you are on the machine!**

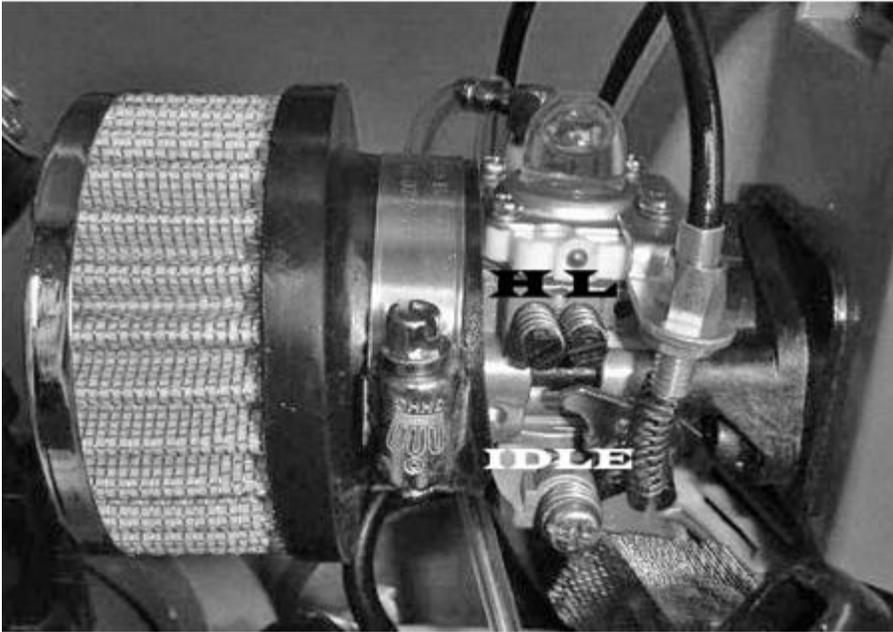
Carburetor adjustment

The wheelman utilizes a high performance carburetor. Each engine will be **tested at the factory** and have the **carburetor** adjustment **preset**; however, like tire pressure, **different** geographical **regions** may have **effect** on the **optimum settings** for your machine. Here's a simple **test** to see if your **settings are perfect**:

- 1) With a small slot screw driver, and one at a time, turn the low speed jet screw and the high speed jet screw from their current positions, clockwise all the way in, **counting the number of half turns** as you go. For Each screw, **record your findings** by writing them down here H_____ turns L_____ turns

Caution! It is extremely **rare** for an individual **to remember** the number of turns.

- 2) Once you have recorded this information, **return each screw to its factory setting**
- 3) Fully warm up the engine
- 4) Place a block under skidpan so that the **back tire is off the ground**
- 5) Quickly compress the **throttle to full** and as soon as the **engine roars, back off the throttle**. The **response time should be almost instant!** If it is and the engine idles nicely, your **settings are perfect**. If not, proceed with some adjustments
- 6) You can change the idle RPM by adjusting the idle screw (screw with spring) in or out



For advanced mechanical skill owners only:

- 7) **Low Speed-Jet Screw:** The low speed-jet screw marked L adjusts the amount of fuel added to the air passing through the carburetor at partial throttle, or up to 1/3 throttle openings. It is recommended leaving this as is unless you feel it needs to be adjusted. Turn the low-speed jet screw so once the engine idles steady, use the low throttle screw to get a slow chattering idle. If the engine slowly chatters and dies, then it is too rich and the low throttle screw must be turned in, to lean the mixture a bit (1/8 to 1/4 turn). If the idle speed gets too fast with the leaner low throttle setting use the Idle screw to get a slower idle speed. The ideal low setting is as rich as possible without loading up (Chattering & Dying). that the engines idle at its highest RPM. Adjust the idle screw to a nice purr about 800 RPM
- 8) **High Speed-Jet Screw:** This screw adjusts the amount of fuel added to the air passing through the carb from 1/3 throttle to full open. Now start trying different settings 1/8 turn at a time with the high-speed jet screw marked H and repeat the quick throttle compression, until the response is directly to high engine rpm while little or no hesitation, but remember to keep high rpm for brief moments only. The object of High Speed adjustment is to obtain the highest possible RPM under load (ride it) with the richest possible setting. The richer you can keep the mixture while still getting peak RPM the better. The engine will accelerate; it will live longer, run cooler and respond better. Just adjusting the high throttle screw for max RPM on the kick stand would leave the engine very lean and when the engine is under load it probably won't accelerate well at all and could seize. Instead, start rich and lean the mixture out in small increments (1/8 of a turn). Test each new setting under a load. Once the acceleration starts to suffer, you have gone too far. (Go back 1/8 of a turn). An optimum setting for typical stock engines is about 1 1/8 to 1 3/4 turns out.
- 9) **Once the high-speed adjustment is complete, reset the idle (step 6) to a nice soft purr.**

Problem: Engine chatters at full throttle and doesn't rev high.

Solution: The "H" screw is too far open. Close 1/8 turn and test under load until acceleration suffers and then open 1/8 turn.

Problem: Engine bogs from low speed.

Solution: The "H" Screw is too far close. Open it 2 or more turns and tune for chatter. NOTE: Worn parts, restricted exhaust and low cylinder compression can cause low speed bog.

Problem: Engine idles but slowly dies.

Solution: The low jet-speed screw is too far open. Turn in 1/8 turn at a time until idle cleans up. If idle speed is too fast after adjustment slow the idle down using the idle screw.

Problem: Engine idles smooth but runs poor under load unless throttle is full open.

Solution: The low speed screw is too far in. Turn idle screw all the way clockwise and set a low idle using the low speed-jet screw.

Problem: Engine idles fast and stalls when you try to slow idle speed down.

Solution: These are the symptoms of an intake leak which usually occur at the manifold to cylinder gasket. You can check for leaks with the g-wheel running. Spray WD-40 around the manifold, if the idle speed changes you have a leak.

Breaking in the engine

Watch the temperature, heat is your enemy. You can **break your engine in gently** (3 to 4 hours of moderate riding only reaching maximum rpm briefly and allow to cool every 10min) will give you maximum engine life **or break your engine** by maxing out the rpm continuously and risk engine failure not covered by the warranty.

You make the choice!

Tip: It is **good practice** to treat your **engine** with a little **respect**. After a period of thrill seeking and racing (which your high performance engine will enjoy as much as you) let the **engine cool down before turning off**. This 2-stroke engine ignites fuel every second stroke...Notice that it is forced air cooled (no heavy water cooling system). Forced airflow by the flywheel through the cylinder foils cools the engine adequately. If the engine is hot, when you're riding stops, allow the engine to idle for a few minutes before turning off.

To turn off the engine, use your thumb on the control lever to push the switch up.

Regular maintenance

Note: Although riding conditions will effect fuel consumption, an average ride per liter of fuel will be approximately 1 hour but much less during the break in period. Use the following table as a guide to hassle free riding.

Inspection	Every ride	20 hours	40 hours	80 hours
Tire pressure	Visual check			
Screws, nuts, bolts	Check for tightness			
Hand break	Actuate			
Throttle lever	Actuate			
Fuel and fuel cap	Visual check			
Chain	Lubricate			Change
Air filter	Check	Clean		Change
Spark plug		Check and clean		Change
Cylinder bolts			Tighten if necessary.	

Storage

For periods of non-use (too bad, so sad...)

- Empty the fuel tank completely by lifting the unit and pouring the fuel out into a proper fuel container. Be sure to replace the fuel cap. This is recommended for periodic cleaning of the fuel tank as well.
- Remove the air filter and spray "Carburetor cleaner" into the carburetor
- Start the engine with the remaining fuel in the carburetor and spray another shot of carb cleaner into the carburetor. Let idle until engine stop due to no fuel remaining and remember to turn the operating switch to the off position.
- Clean the air cleaner with solvent and replace
- Remove the spark plug and pour a little 2-cycle oil (a thimble full – 10ml) into the piston cylinder. Clean and replace the spark plug.
- Spray WD40 liberally over your metal parts.
- Lubricate the chain.
- Ensure your g-wheel is stored in a dry place.
- Replace the spark plug with new after new season start up.

Trouble Shooting

The g-wheel is one tough machine. It is build to withstand rough terrain and you are encouraged to ride it aggressively. However; like all machines with internal combustion engines, constant vibration can cause parts to loosen and even fail over time. Because you will be riding your Outback a lot, the following section should help to solve any problems and put you back on the trails.

Note: for the following procedures, where necessary see your dealer for the correct replacement parts.

Note: to remove the ride side panel (not recommended); first remove the flywheel aluminum cap over the panel. Use shims (or slot screw drivers) to wedge under the edge and tap moderately working around the circumference until it pops off.

Flat tire

- **Pressurize the tire** (do not assume you have a punctured inner tube – this is unlikely) to the specified 20 psi. If the tire seems to hold air it is possible there is leaky valve. Moisten a finger and then gently wipe the valve of the pressurized tire. Create a moisture skin over the valve and look for an expanding bubble. If this is the case then the valve is faulty and needs to be replaced.

- **Inner tube is punctured** and needs to be repaired: try using a tire sealant first if this does not work than remove the left side paneling over the rear wheel, or the side clear of the front connecting hook for the front wheel. Poke the valve to release all the air in the tube. Use several large slot screwdrivers to pry under the tire and gradually lift the tire from the rim (**too small a screwdriver will damage the rim!**) Work the screwdrivers in opposite directions, leaving extra screwdrivers in place if you have them will prevent from losing headway. It will get tough, but the **tire will stretch**. Once one edge of the tire is completely over the rim, the **tube can be removed and repaired**.

Chain comes off

- Inspect the chain tensioning wheel and ensure the spring and mechanism appears to be functioning.
- After **extended use**, the chain will **stretch and wear**, and become loose. Solve this by removing a link or ½ link in the chain and shorten. **Caution!** This is not difficult as long as you do not remove the side panel or chain from the front sprocket.
- Find the master link and snap off the clip (notice the direction of the open end be sure to reinstall the same way with the closed end facing the direction of travel) pull out the master link and ½ link if present. If no ½ link is present then use a file (or dremel grinder cautiously) to reduce a link pin and tap out with a nail set or small punch. Reinstall the master link and clip connecting the chain once again.
- It is recommended that a new chain be replaced approximately every 80 hours

Pull cord breaks

- Remember to always guide the pull cord back into the recoil mechanism
- In the event the cord breaks, it will need to be replaced. Do not shorten – this will make starting difficult.
- To repair, remove the side panel (always double check to ensure all mounting nuts have been removed before pulling off). Remove cord from recoil mechanism, making note of position, and replace (this is an item that can be replaced from other similar applications, such as a lawn mower or chain saw)

Pull cord mechanism fails

- Follow the steps above and replace the mechanism (see dealer for replacement)

Muffler rattles loose

- The bolts fastening the muffler to the engine cylinder are under tremendous stress of vibration, constant heating and cooling and although unlikely, should this happen excess noise will be the main indicator. If not left unattended, no damage will occur. Remove the left side panel and tighten left muffler bolt. Repeat for right side to access right muffle bolt, tighten and reinstall panel.

Sprockets out of alignment

- Indicators might be: excess chain noise, chain keeps coming off, excess chain wear
- Position the g-wheel upside-down, rigging some form of holding system. Rotate the back wheel and observe the configuration between front and rear sprockets. If the back sprocket seems to wobble considerably, take your time to determine which rim roller will need to move laterally, remove the appropriate side panel, move the inside roller nut to the new position, and replace the panel. This procedure may require a little trial and error.

No brake

- inspect cable for damage. If broken, replace it.
- if cable appears to be okay, check that cable is clamped securely at the housing lever attached to the disc brake assembly. It make be sliding through and not engaging this lever. If the hand control lever compresses all the way to the grip before engaging the brake, an adjustment can be made on the underside of the control grip lever by turning, adjusting and then locking.
- If all of the above are in order, the disc pads may be excessively worn and need replacing by removing the right side panel to access the disc brake assembly.

No throttle

- Inspect the throttle lever. It is possible to ride over the control grip and cause damage to the trigger or this unit. If this assembly is damaged it will need to be replaced.

Engine will not start

Complete the following checklist before going further:

1. Is the control grip start switch on?
2. Ensure that there really is fuel in the tank
3. Is the carburetor primed (compress the primer bulb until you see fuel)?

4. On a cold start you will need choke. If starts but then stalls, turn choke off.
5. Check the spark plug by removing cap wire, removing spark plug, replace cap wire and lay the threads of the spark plug against the metal of the engine. Pull the starter cord and observe for functioning spark plug. If no spark, replace the spark plug.
6. Check the air filter, it may be dirty or clogged (always clean by blowing or rinsing with solvent from the inside out)
7. remove all the fuel from the tank, it may be incorrectly mixed or maybe there is water (from condensation) in the tank.

Note: do not proceed with the following until all of the above have been checked first.

8. Check for loose manifold bolts by grasping the carburetor with your hand and check for any side to side movement if present remove and tighten.
9. Remove the carburetor and inspect the jets and ports for dirt and clogging Clean with a "carburetor cleaning" product and moderate compressed air.
10. Contact dealer for assistance

Start but no idle

- See: Carburetor adjustment page Of this manual

Start but no power

- See: Step 8 above and Carburetor adjustment page Of this manual

We hope you have hassle free riding; but it is in the rider's best interest to know and understand how your machine works.