

E-TON

VIPER 150

OWNER'S MANUAL



RXL-150

Important Notices

READ and UNDERSTAND this owner's manual

Both the operator and the adult supervisor should completely read and understand this owner's manual before operating this vehicle. This owner's manual will instruct you in the safe operation of the vehicle.

NO Passengers

This vehicle was designed for operation **ONLY** by the operator, (Driver). The load limit and seat configuration is designed for the operator **ONLY**. It is not safe to carry passengers on the vehicle.

ADULT Supervision and Instruction are REQUIRED.

This vehicle **MUST NOT** be operated by a youth without Adult instructions. E-TON recommends that both the operator and the adult instructor attend an ATV safety instruction course.

ALWAYS Wear Protective Clothing

While operating this vehicle, the driver must always wear protective clothing. Protective helmet with face shield, elbow and knee pads, long leg pants, gloves and hard soled boots should always be worn when operating this vehicle.

OFF ROAD Use ONLY

This vehicle is designed and manufactured for off-road use only. Operation on public streets, roads or highways is illegal and very dangerous.

OBEY all State and local laws and regulations

Each state and local governing agency has laws and regulations for ATV operations. It is the owner's responsibility to know, understand and obey these laws and regulations.

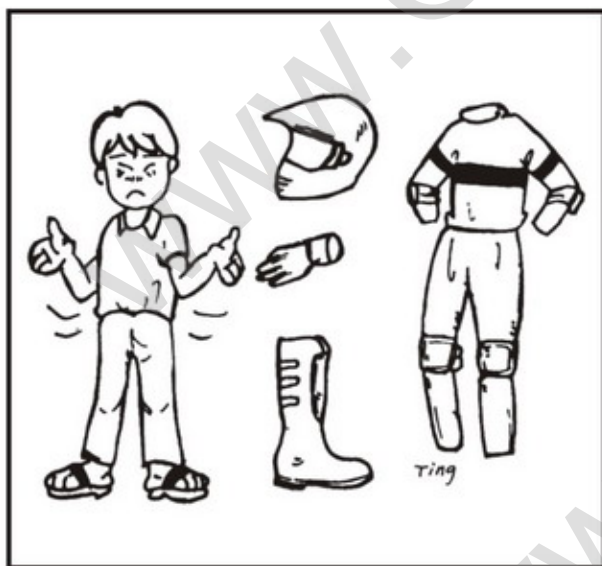
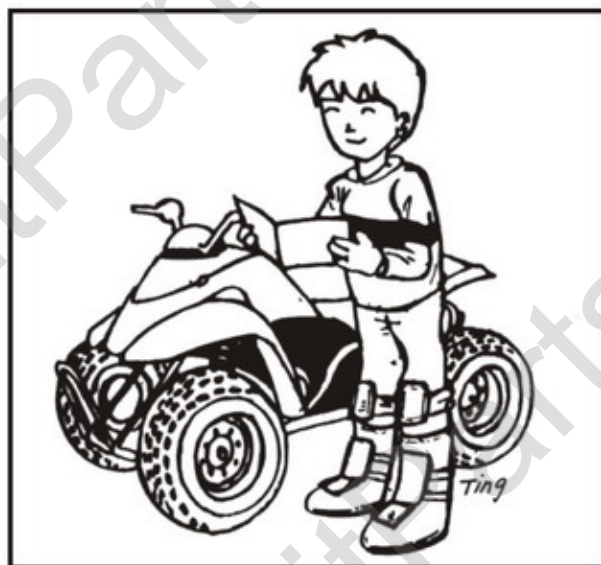
<i>Age Recommendations by model size</i>			
<i>ATV Model Size</i>	<i>ETON Models</i>	<i>Minimum Age</i>	<i>Weight Capacity</i>
<i>Under 70cc</i>	<i>RXL-40E/RXL-40 RXL-50M/RXL-50 RXL - 70/RXL - 70R</i>	<i>6 years and older</i>	<i>70 Lbs</i>
<i>70 - 90cc</i>	<i>RXL-90 RXL-90R</i>	<i>12 years and older</i>	<i>250 Lbs</i>
<i>over 90cc 150 cc</i>	<i>CXL-150 RXL-150</i>	<i>16 years and older</i>	<i>250 Lbs</i>
<i>150 cc</i>	<i>CXL-150 RXL-150</i>	<i>16 years and older</i>	<i>300 Lbs</i>

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Safety Notes

1. Both the adult instructor and youth operator must fully understand everything in this manual before operating this vehicle.
2. This vehicle was designed for the operator only. NO PASSENGERS should be allowed on this vehicle.
3. This vehicle is designed for operation on level, obstacle free off-road areas.
4. Riding this vehicle on public roads or highways is illegal. If it becomes necessary to cross a public road or highway, the vehicle should be pushed across using extreme caution.
5. DO NOT operate this vehicle while under the influence of drugs, alcohol or other medication that impairs judgment or coordination. Doing so can result in serious injury or even death.
6. Maintain a safe distance between your vehicle and other vehicles with whom you are riding.
7. **READ** the owner's manual carefully before riding.



8. **ALWAYS** wear a helmet, face shield, elbow & knee pads, hard-soled boots, gloves, and protective clothing while operating this vehicle.

9. NEVER ride this vehicle unless it has been properly maintained and adjusted. Always perform a pre-ride inspection of your vehicle. Look for wires, bolts and other fasteners that may have come loose on previous rides. Inspect the drive chain, throttle and brakes for proper adjustment and operation. Check the engine oil level in the oil tank. Check fuel level and inspect for fuel leaks. (Remember, you can ride further in 1 hour than you can walk back in 1 day!)



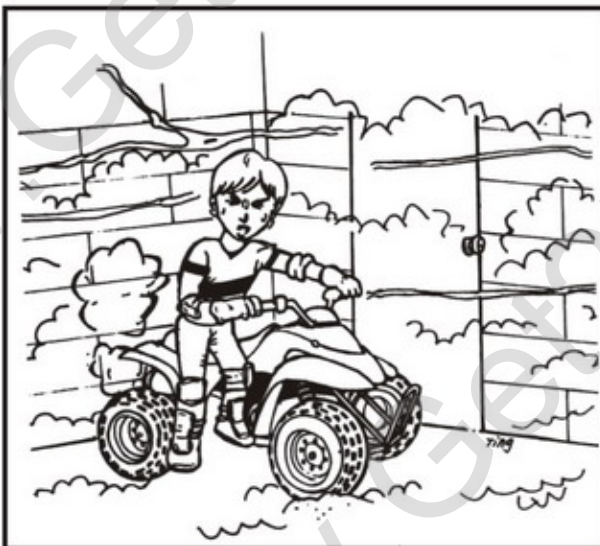
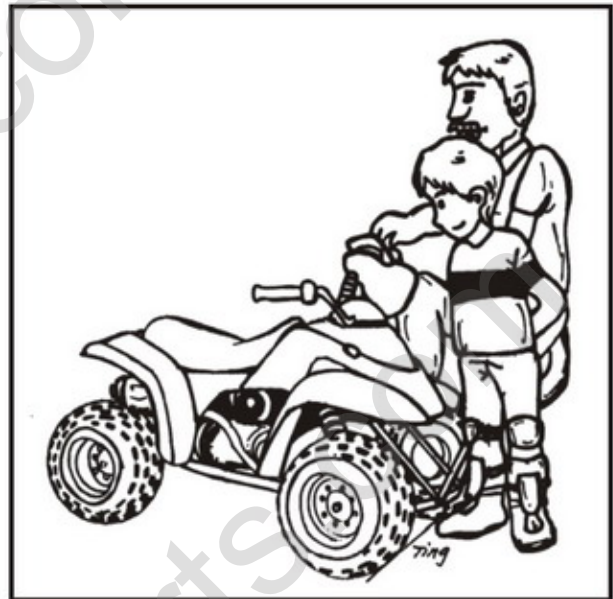
10. WARM UP your body with some exercises before riding. This helps to make you alert and prevent cramping and other discomfort.

11. LEARN TO RIDE this vehicle properly and safely. Have an experienced rider teach you the safe operation of your vehicle. E-TON recommends you take an ATV riding course before you first ride your vehicle.



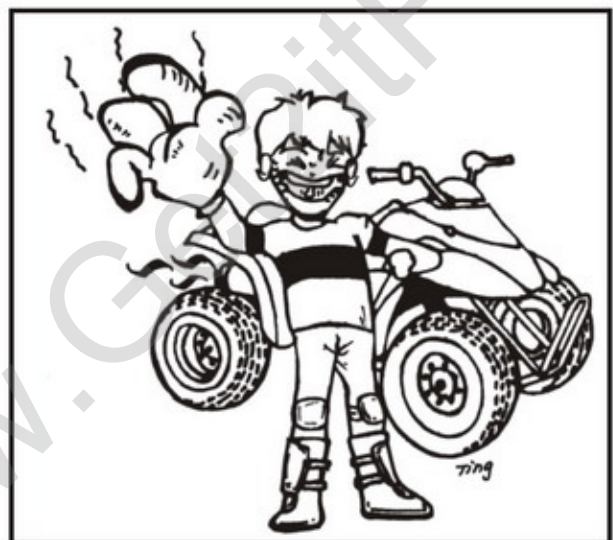
12. NEVER REFUEL this vehicle when hot.

Ask your adult supervisor to refuel your vehicle. Gasoline is extremely flammable and will ignite if spilled on a hot engine or muffler. Never smoke or expose the fuel to an open flame or spark while refueling your vehicle. Always refuel your vehicle in a safe place free of any ignition source.



13. NEVER run the vehicle in an enclosed area. The exhaust gases from the engine contain **CARBON MONOXIDE** which can be fatal if breathed in high concentrations for an extended time.

14. HOT! The engine and exhaust system on your vehicle become very hot during normal operation. Touching these hot surfaces can cause severe burns. Always assume that your unit's engine and exhaust system are **HOT** unless you know that they are not.



Additional safety tips:

- Participate in an approved ATV safety education training program
- Always provide responsible adult supervision for ATV operators younger than 18 years of age
- Don't let youngsters ride full-sized ATV's
- Follow all safety recommendations of the ATV manufacturer
- Operate ATVs only during daylight
- Wear a helmet with face protection at all times
- Operate only four-wheeled ATVs
- Provide a drug and alcohol free environment
- Always use the buddy system
- Avoid riding in areas where contact with automobiles might be possible
- Drive ATVs on surfaces as recommended by the manufacturer
- Travel at speeds conducive to conditions and operator abilities
- Check on the conditions of the trails you will be traveling
- Know and understand local and state laws governing the use of ATVs
- Permit only one operator per ATV
- Insist on a "perfect fit" between the ATV and the physical, mental, and emotional maturity of the operator
- Use antenna flags and wear bright clothing to increase conspicuity.
- Use maps and compass if you are riding in an unfamiliar area.
- Make a mental note of landmarks; you may need them if you are stranded.
- If you are lost at night, do not move around. You will waste valuable fuel that you can use to ride safely in the daylight.
- Carry a first-aid pack with you.
- Carry some snacks and a water supply with you.
- Carry equipment to handle medical and mechanical emergencies.
- Your vehicle field repair kit should include the following items;
 - the manufacturer's tool kit
 - wire, tape, elastic cords,
 - possibly locking pliers
 - and a tow rope.
- Pre-Ride Inspection- Inspecting the condition of your ATV before each ride is very important to minimize the chance of injury and maximize the enjoyment of your ride. It also helps ensure long term performance of your ATV. Follow the owner's manual guide to inspection and maintenance of your ATV. A well maintained ATV will give you years of enjoyment.
- Watch out for thin ice which may be camouflaged by snow.
- Remember, you can ride further in one hour than you can walk in an entire day.

<i>Age Recommendations by model size</i>			
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* Information is subject to change without notice.

Vehicle Identification Numbers



Vehicle Identification Number (VIN) is located at the front of the unit under the front fender on a plate mounted between the main frame rails.

Your VIN RFZ_____



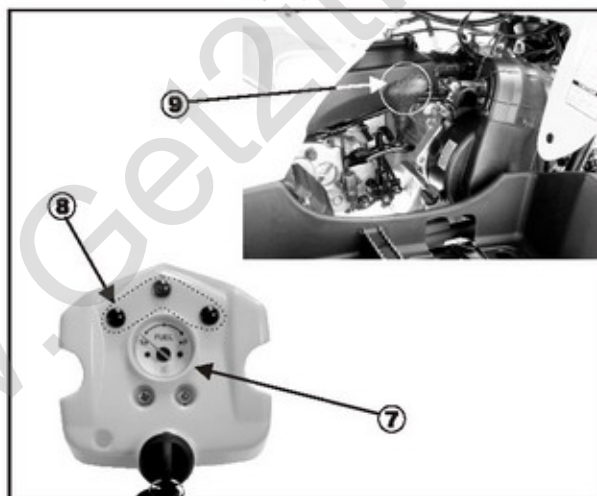
Engine serial number is located on the left-hand side of the engine on the crankcase housing.

Eng. No. _____

Controls, Switches & Feature Locations

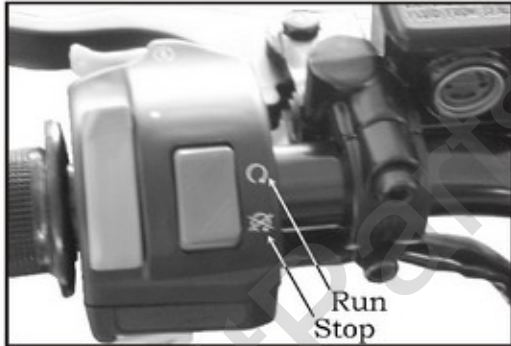
Locations of controls and features

- | | |
|-----------------------|--|
| 1. Rear Brake Lever | 6. Throttle Lever |
| 2. Headlight Switch | 7. Fuel Gauge |
| 3. Horn Button | 8. Transmission Gear Indicator Lamps |
| 4. Engine Stop Switch | 9. Transmission Gear Shift Shaft |
| 5. Front Brake Lever | 10. Starter Button |
| | 11. Auxiliary 12v DC Electrical Outlet |



Control Features

Engine Stop Switch



The stop switch is a red colored rocker switch located on the left-hand handle bar.

To start and run the engine, this switch must be placed in the on, "⦿", position.

The vehicle is also equipped with a safety brake switch which will prevent the engine from starting until the parking brake is engaged.

To stop your engine, place the switch to the Stop, "⊗", position.

In the stop, "⊗", position the ignition system is grounded preventing the spark plug from firing.

This switch can also be used as a safety or emergency stop switch.

Throttle lever

The throttle lever is located on the right-hand handle bar below the grip. To operate the



throttle lever, place your right thumb on the lever and press forward to increase your speed. To decrease your speed, reduce your pressure on the lever and the spring tension will automatically reduce your speed.

The travel of the throttle lever is controlled by the throttle stop bolt.

As your operator gains more experience, you can increase the throttle travel to allow for additional speed to be obtained.



To increase the throttle's travel, thus increasing the maximum speed, turn the throttle stop bolt counter clockwise. To decrease the throttle's travel, thus decreasing the maximum speed, turn the throttle stop bolt clockwise.

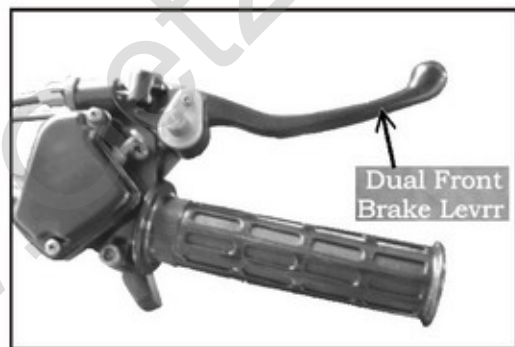
The throttle cable should be adjusted so there is 2mm, (1/8") free travel at the lever before the throttle starts to open.

Front and Rear Brakes

This vehicle is equipped with dual front mechanical drum brakes and a rear hydraulic disc brake.

The front brakes are controlled by the long brake lever on the right-handle bar.

The rear brake is controlled by the long lever on the left-handle bar.

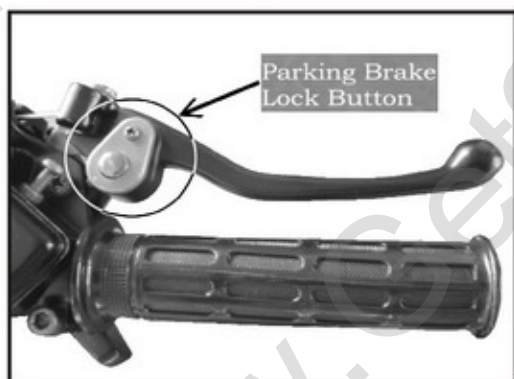


The rear brake is the primary stopping brake on your vehicle. Using the rear brake to stop your vehicle will prevent steering control loss.



Use your front and rear brakes in combination to control your speed while descending a grade. Use caution not to apply too much pressure to your front brakes so that the wheels lock up, stop turning, and causing a loss of steering control. If the front wheels lock up, and stop turning, lightly reduce the pressure on the front brake lever until they unlock and start to turn.

Parking Brake



The front brake lever has a button located at the pivot point to lock the brake in the, "O", on position. This should be engaged as a parking brake whenever the vehicle is not in operation.

This feature must be engaged in order to start the engine. The brake lever has a safety switch built in to prevent the engine from starting while the brake is disengaged.

If your engine fails to start, ensure that the engine stop switch is in the on, "O", position and that the parking brake is engaged.

Fuel System

Fuel Tank



The fuel tank fill cap is located on top of the unit just ahead of the seat. The cap contains a vent to prevent a vacuum from forming in the tank as fuel is used. The vent tube must be attached to the cap and inserted in the vent tube holder hole while operating the unit. The fuel cap vent and vent tube must be clean and clear of obstructions for the unit to operate normally. You can check the vent and vent tube by blowing air through the tube. If you can not blow through the vent tube and cap you must clean the vent and tube or replace them.

Every time you refuel your unit, check the rubber seal inside the cap for cuts, tears and dirt. Clean or replace the seal if it becomes worn or torn. The seal must be in good condition to insure a proper seal of the cap to the tank to prevent fuel spills. DO NOT allow dirt or other debris to enter the tank when refueling.

Replace the cap if damaged or if it will not seal to the tank.

Tighten the cap snugly, being careful not to over tighten. Over tightening the cap can cause damage to the cap or seal.

The fuel tank capacity is 9 liters, 2.37 gal, including a reserve of 1.5 liters, 0.4 gal.

Use unleaded automobile gasoline with an octane level of 91 or higher.

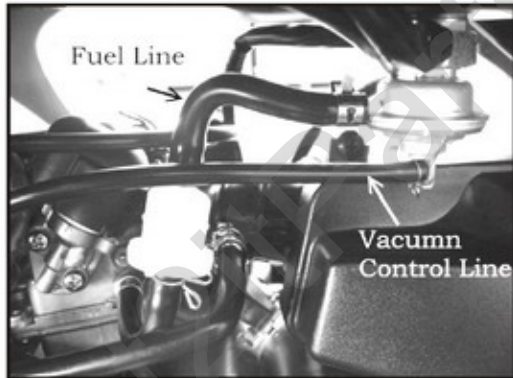
Your ATV is equipped with a fuel gage located in the instrument cluster between the handlebars.

NEVER REFUEL YOUR ATV when the engine is HOT. Wait 30 minutes after turning off the unit before refueling. Spilling fuel on a HOT engine could cause a fire. Wipe up any fuel spills before re-starting.

Fuel Valve

The unit is equipped with a vacuum controlled fuel valve. The fuel supply is automatically shut off when the engine is stopped.

The fuel will automatically begin to flow when the engine is turned over.



To test the fuel valve remove the fuel line from the carburetor and place the end in a container to catch the fuel. Insure that your tank has fuel and press the starter button. Fuel should flow into the container from the fuel line.

ALWAYS CHECK YOUR Fuel level before you start riding your ATV

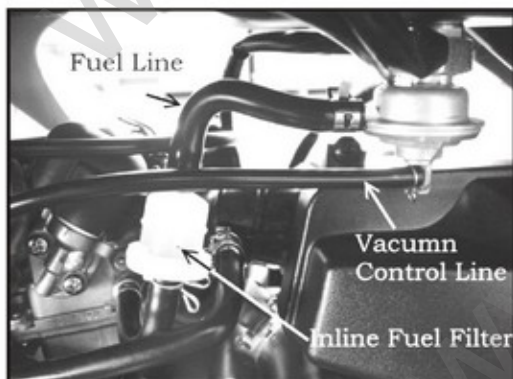
Remember: You can drive further in one hour on your ATV than you can walk in one day.

Inline Fuel Filter

Your ATV is equipped with an inline fuel filter to prevent dirt and debris from entering the carburetor and engine.

Check the filter for dirt or damage before each ride and at each refueling. Replace the filter if dirty or damaged.

DO NOT operate the unit with out a fuel filter. Doing so can cause damage to the carburetor and engine.



The filter should be replaced every 600 hours of operation and at the start of each season.

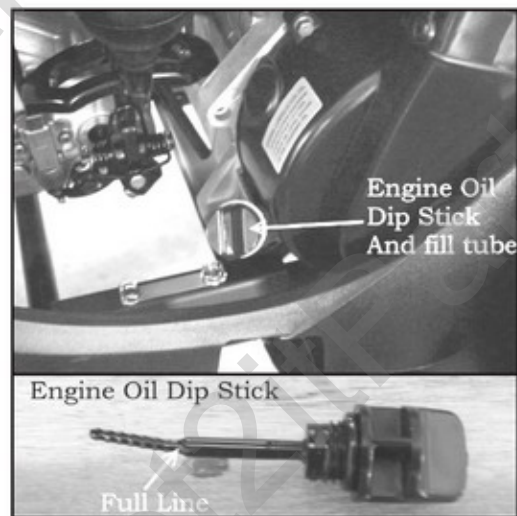
To replace the filter, carefully compress the wire clamp rings until the clamp is free of the fuel line. Slide each clamp away from the filter about $\frac{3}{4}$ ".

Remove the filter from the fuel line by holding the line and pulling the filter. Install the new filter by inserting the filter into the fuel line and returning the clamps to the original position. Start the engine and check for leaks. Inspect the fuel lines for cuts, abrasions and deterioration. Replace fuel lines as needed.

DO NOT start or operate the engine if the fuel filter or lines are leaking. Leaking fuel can cause a fire.

Engine Oil

Checking Engine Oil Level



Your ATV uses automotive type engine oil to lubricate the engine. The engine oil dip stick is located on the right hand side of your engine below the transmission shifting lever.

To check your oil level, remove the dip stick by turning the thumb hold counter clockwise until the stick has been completely disengaged from the threads. Pull the dip stick out of the crankcase and check the level of the oil as indicated on the dip stick. The engine oil is full when the oil reaches the level on the stick as indicated in the photo above.

Always check your engine oil level with the engine off and cold. Removing the dip stick with the engine running could cause hot oil to splash from the crankcase causing severe burns.

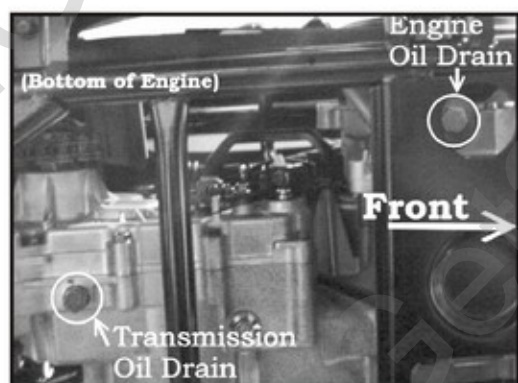
Checking your engine oil while the engine is hot can give you a false reading; always check the oil level with a cold engine.

Your engine requires SAE 30W engine oil and the crankcase capacity is 1.0 Liters / 1 quart.

The engine oil should be changed before the start of each riding season or every 300 hours of operation. When riding where conditions are

dusty or humidity is high the engine oil should be change more frequently.

Changing Engine Oil



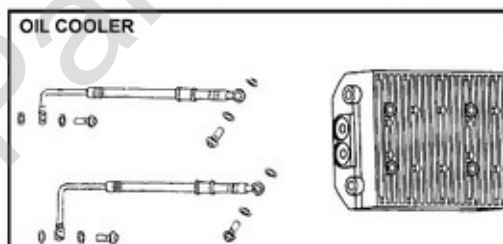
1. Place an oil catch pan under the unit directly below the engine crankcase.
2. Remove the crankcase drain plug located on the bottom of the crankcase on the underside of the unit.
3. Remove the engine oil dipstick located on the right hand side of the engine below the shifter shaft.
4. Allow the oil to drain completely (15-30 min).
5. Reinstall the drain plug and tighten.
Torque to 7-10 lbf-ft
6. Fill the crankcase with of SAE 30W engine oil through the dip dipstick hole. 1 liter/1 quart.
7. Reinstall the engine oil dipstick and finger tighten.
8. Dispose of used oil at a proper recycling station as required by law

Engine Oil Cooler



The engine oil is cooled by pumping the oil Through a external oil cooling radiator located at the front of the unit. It is important that the Cooling fins of the radiator be kept clean of dirt Build up to prevent engine overheating.

Remove any build up of mud and dirt from the cooling unit with a pressurized spray of water.



Inspect the Oil cooler line for leaks and damage. Replace any damaged lines and repair any leaking connections before starting the engine.

Transmission Shifting Gears

Your ATV is equipped with a fully automatic C.V.T. transmission and has forward and reverse gearing. A transmission shifting shaft is located on the right hand side of your engine.



The shifter has three positions "F" Forward, "N" Neutral and "R" Reverse.



The instrument panel has three lights that correspond to the transmission shifter shaft position.

The transmission must be placed in the "N" (neutral - Green indicator Lamp) to start the engine.

Slowly move the shifting lever to the desired gear pausing slightly at the neutral position. Once you have the gear selected increase the throttle slowly until the transmission becomes fully engaged and the vehicle starts moving in the desired direction.

When shifting gears it is important that you bring the vehicle to a complete stop with the rear brake fully engaged and the engine at idle. If you attempt to shift the transmission with the engine running above the idle speed the engine will automatically shut down to protect the transmission.

If this should happen you will need to turn off the ignition switch to reset the safety lock out before attempting to restart the engine.

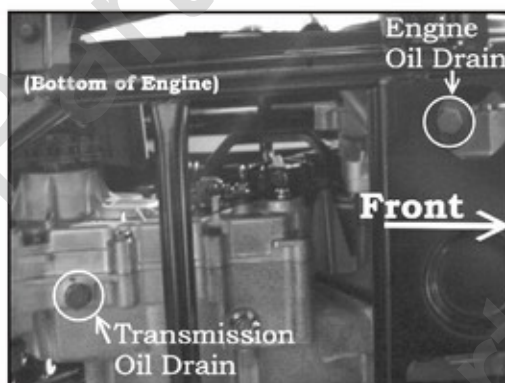
Checking Transmission Oil Level

Your ATV uses SAE 80/90W gear oil to lubricate the drive and transmission gears. There is an oil sight glass in the side of the transmission case to check the level of the oil in the gear box. The oil level is correct when the level in the sight glass is half way up the glass. The level should be checked with the engine stopped and cold. Checking the level when the engine is hot can cause a false reading and lead to a low gear oil level.



Your gear oil should be checked before each riding session. The gear oil should be changed before each riding season or every 1000 hours operation.

Changing Transmission Oil



1. Place an oil catch pan under the unit directly below the transmission box.
2. Remove the transmission box drain plug located on the bottom of the transmission box on the underside of the unit.
3. Remove the transmission box fill hole plug located on top of the transmission box on the right hand side of the engine.
4. Allow the oil to drain completely (15-30 min).

5. Reinstall the drain plug and tighten.
Torque to 7-101bf-ft
6. Fill the transmission box with of SAE 80-90 gear oil 150cc Engine = 750cc /25.4oz
7. Reinstall the fill hole plug and torque to 2-31bf-ft.
8. Dispose of used oil at a proper recycling station as required by law

Tires and Wheels

Tire & Wheel inspection



It is important to inspect your tires and wheels for damage and wear before each riding session. Inspect each tire for cuts, tears and punctures. Inspect the wheel rim for dents and separation of the wheel from the tire bead.

Replace any tire or wheel found to be damaged.

Operating your ATV with damaged tires or wheels is dangerous. Damaged tires or wheels can result in a sudden loss of tire pressure and control which could result in injuries.

Check your tire pressure before each riding session and at each refueling operation. Always check the pressure when the tires are cool. Use the tire pressure gauge that came with your ATV to check the tire pressure.

Tire Pressure

Recommended tire pressure is:

Front	Min	3.2psi / 0.23kg/cm ²
	Max	4.0psi / 0.28kg/cm ²
Rear	Min	3.2psi / 0.23kg/cm ²
	Max	4.0psi / 0.28kg/cm ²

Wheel Nuts torque 24-30 N/m (18-22 1b/ft)

Spark Plug



Replace spark plug at the beginning of each season with a replacement plug NGK-C7HSA.

Disconnect spark plug wire.

Clean dirt from around spark plug base with brush or compressed air.

Remove spark plug with spark plug wrench. Set the spark plug gap on the new plug to 0.023"

Install the new plug screwing it in finger tight and then use the plug wrench to screw the plug in another 1/2 turn.

Inspect the spark plug wire for cuts, nicks or other damage. Replace as needed.

Spark Arrestor Screen

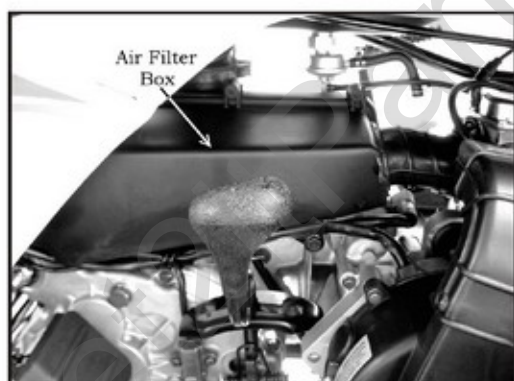
Required maintenance and cleanout:

1. After every 100 hours of operation the muffler should be cleaned by removing the clean out bolt by using a 12mm wrench.
2. After every 60 hours of operation the Spark Arrestor has to be cleaned by loosening the retaining nut using a 10mm socket. Using pliers turn the sleeve of the Spark Arrestor counter clockwise and pull out. Clean the screen with an exhaust cleaning solution and replace, securing it by tightening the retaining nut.
3. After every 200 hours of operation the Spark Arrestor has to be replaced by loosening the retaining nut using a 10mm socket or wrench. Using pliers turn the sleeve of the Spark Arrestor counter clockwise and pull out. Replace

a new Spark Arrester and secure it by tightening the retaining nut.

Air Filter

Air Filter Maintenance



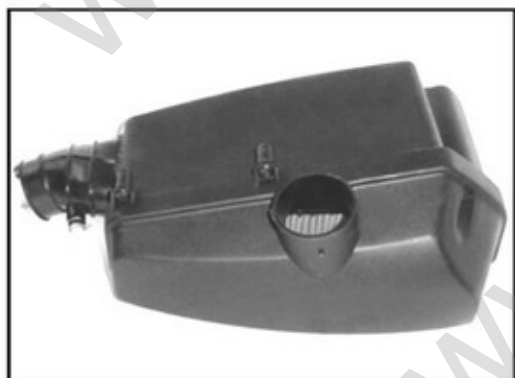
To maintain the highest performance from your engine and to reduce excessive wear that could cause engine failure the engine requires a continuous flow of clean air. Air is taken into the engine through an air filter to clean the air prior to mixing it with fuel in the carburetor.

During normal operation the filter accumulates dirt from the air and will need to be cleaned to maintain the proper air flow. The filter should be cleaned every 30 days, more often if you ride in a dusty or dirty environment and the element should be replaced every year.

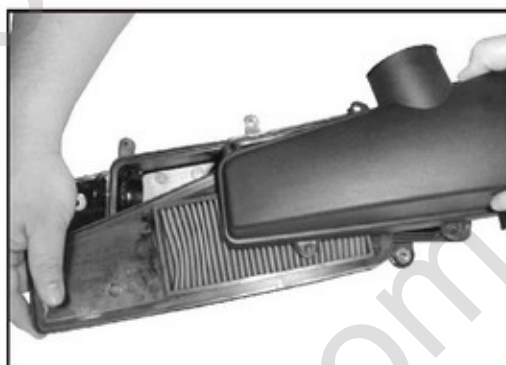
The air filter box is located at the front of the engine under the fuel tank.

To clean the filter

Remove the air filter box.



Remove the filter element from the air box and replace the filter element as needed.

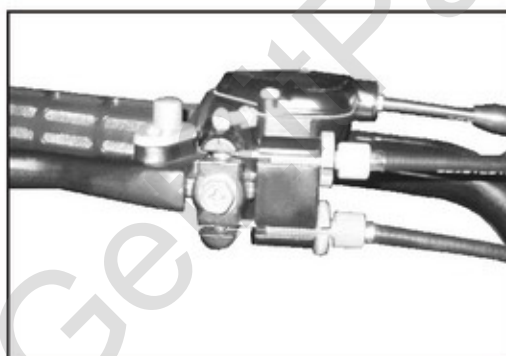


Braking Systems

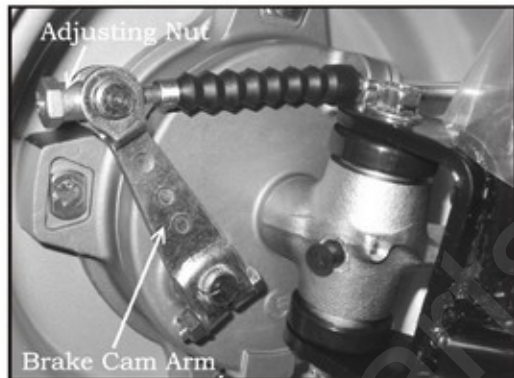
Your ATV unit is equipped with dual front mechanical drum brakes and a rear hydraulic disc brake. The front brakes are applied by squeezing the brake lever on the right-handle bar, while the rear brake is applied by squeezing the brake lever on the left-handle bar.

Proper maintenance of the brake system is a necessary part of safe operation of your unit. The brake systems should be inspected and tested before each riding session.

Front Brake System Inspection



Visually inspect the brake cables for any signs of wear. Inspect the cables for frays and kinks that inhibit the free movement of the cable. Replace frayed or kinked cable before operating your unit. Inspect the cables for rust or corrosion. Replace any brake cable that show signs of corrosion as this could cause a reduction in cable strength that can lead to the cable breaking.



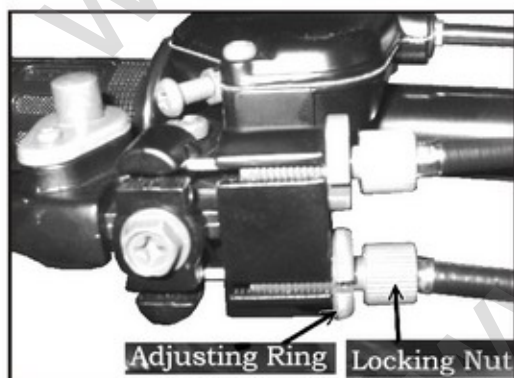
Inspect the brake arm, spring, rod and fastener for signs of wear or damage. Operate the brake lever while watching the brake mechanism for proper operation. Tighten, repair or replace parts as needed to insure safe brake operation. Clean any build-up of mud or debris from the brake mechanism.

The brakes are equipped with a wear indicator to alert you when your brake shoes need replacing. Apply light pressure to the brake lever and slowly push the unit forward. If you hear a high pitched metallic scraping sound, you need to replace your brake shoes. The minimum shoe lining thickness is 1.5mm.

DO NOT RIDE A UNIT WITH WORN BRAKE SHOES.

Test the brakes by applying pressure to the brake lever and trying to push the unit forward. If the wheel rotates while the brakes are applied, adjust the brake cable until the wheels no longer rotate.
(See Brake Adjustment)

Front Brake Adjustment



Adjust the brake cable so that the lever has zero free play and a minimum clearance of $\frac{1}{2}$ " between the lever and the handle grip when the brake is fully applied. Adjust the cable by using the adjustment wheel where the cable attaches to the lever assembly. After obtaining the correct adjustment, insure that the locking nut is tightened securely against the adjusting wheel to prevent the adjustment wheel from turning due to vibration. Keep your brake cables lubricated with a high quality cable lubricant to prevent rust and corrosion. The cables should be lubricated every 60 days or more often if operated in a dusty or wet environment.

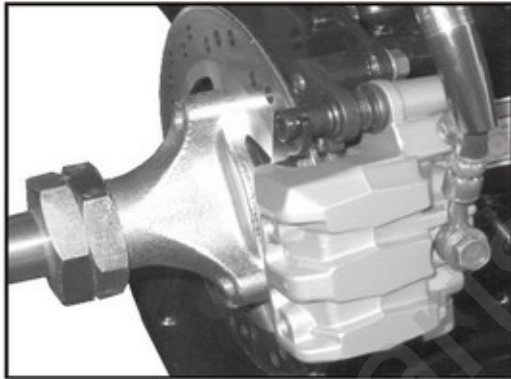
Replacement of the brake shoes and cables should **ONLY** be performed by a qualified mechanic.

Rear Brake System Inspection

Visually inspect the brake hose for any signs of wear or leaks. Check the fluid level in the fluid reservoir by checking the site glass for the level.



The fluid level should fill at least $\frac{3}{4}$ of site glass when the unit is setting on a level surface. Test the brakes by applying pressure to the brake lever and trying to push the unit forward. If the wheel rotates while the brakes are applied, check your fluid level and brake pads. If the brake lever feels spongy or does not stop when squeezed, you may have air in the lines. All air must be purged from the brake lines for the disc brake to operate properly. (See purging brake lines).



After riding your unit, be sure to clean any build up of mud, sand and dirt from the brake rotor skid plate. This will protect the rotor disc from rust and corrosion.

Refold the cover gasket as shown in picture and replace cover and bolts



To Fill the Reservoir

Remove the reservoir cover by removing the two cover bolts.

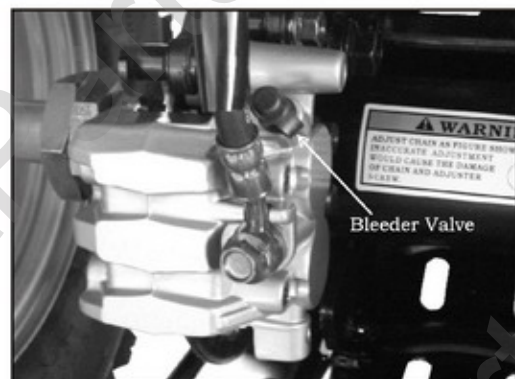


Fill the reservoir to 1/8" from top with Dot-3 SAE-J 1703 grade brake fluid.



Caution: DO NOT allow dirt to fall into the reservoir

Purging Brake Lines

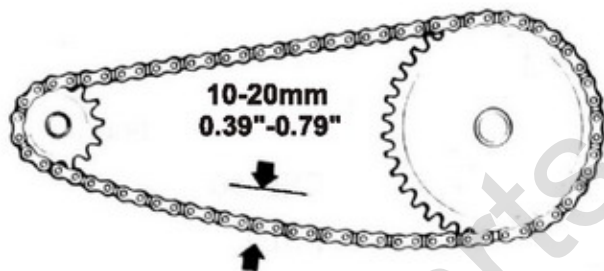


For the hydraulic brake system to operate safely, the brake system must be purged of air in the lines and reservoir.

To bleed the air will require two people to perform the following procedure.

1. Place a drain pan under the brake caliper to catch the fluid.
2. Open the bleeder valve 1/2 turn counter clockwise.
3. Squeeze the brake lever to expel air from the system.
4. While holding the brake lever, close the bleeder valve.
5. Repeat steps 2 through 4 until the brake fluid coming from the bleeder valve is a solid stream without any air, then close the valve and replace rubber protection cap.
6. Test the brake system by squeezing the lever, the lever should feel firm and stop without fading.

Drive Chain

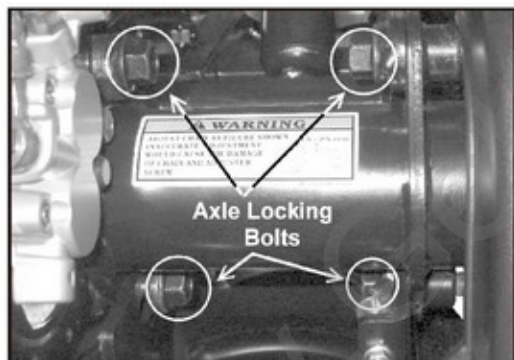


The drive chain will stretch with use and will require periodic adjustments. To check the chain tension, remove the chain guard and measure the slack.

The amount of slack in the chain should not exceed 10-20mm or 0.39"-0.79".

Inspect the drive and axle sprockets for worn, damaged or broken teeth. Replace as needed. Inspect the chain links for damaged, worn or loose rivets. Repair or replace as needed.

Chain Slack Adjustment



Loosen the axle position lock bolt slightly and turn the chain adjuster nut to take up the excess slack in the chain. Once the chain has been adjusted to the proper tension retighten the axle position locking bolt.



The chain should be kept well lubricated to prevent excess wear and premature failure. We recommend that you lubricate the chain every 15 hours of operation, or more frequently if needed, with a high quality chain lubricant.

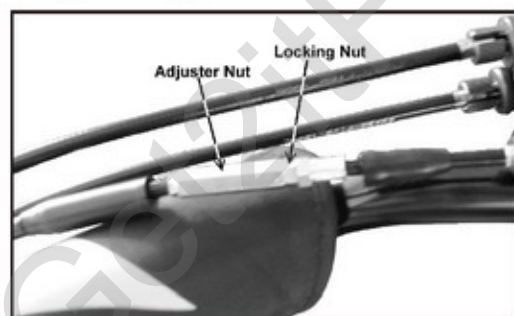
If your ATV has the tensioner inside the drive chain. You don't need to follow the procedure of chain slack adjustment. The drive chain will be adjusted by tensioner.

Throttle Lever



The throttle lever is located beside the right-handlebar grip and is operated by using the right-hand thumb. The lever is spring loaded and will return to the idle position when you remove your thumb from the lever. To accelerate the unit, simply press the lever forward to open the throttle slide in the carburetor. To slow the unit, reduce the pressure on the lever or remove your thumb and the throttle will return to the idle position automatically.

Adjusting the throttle cable

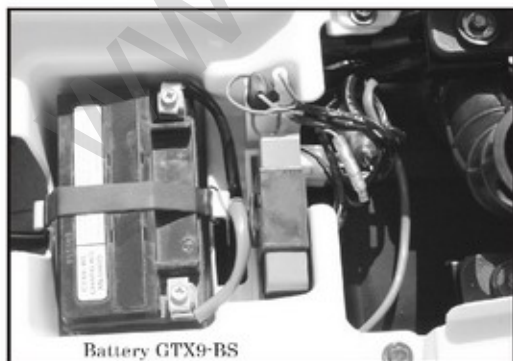
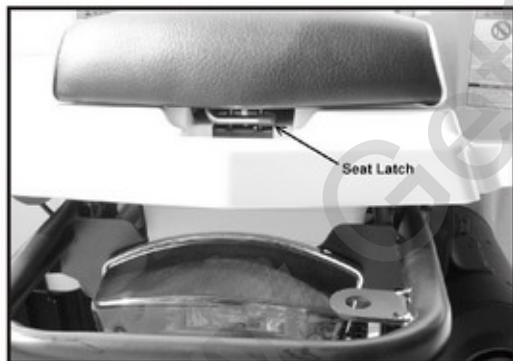


The cable should be adjusted to allow for $\frac{1}{8}$ " free travel before the throttle engages the carburetor throttle slide. Slide the adjuster cover down the cable to uncover the adjuster assembly. To adjust the cable's free travel, loosen the locking nut of the cable adjuster, and turn the adjuster nut until there is $\frac{1}{8}$ " free travel in the lever. Tighten the locking nut to secure the adjusting nut. Slide the cover back over the adjuster assembly.



The speed of the unit can be adjusted by adjusting the throttle stop screw to limit throttle travel. Loosen the throttle stop screw locking nut and turn the throttle stop screw clockwise to reduce the throttle travel thus reducing the maximum speed of the unit. Turning the stop screw counter clockwise will increase the throttle travel thus increasing the maximum speed of the unit. Tighten the stop screw locking nut when the desired throttle travel has been established.

Electrical Battery



The unit's battery is located under the seat and supplies electrical power to the unit. The battery

is a 12 volt jell acid type that contains no liquid electrolyte. The battery should be removed from the vehicle when stored for extended periods and charged before being replaced in the unit. Use a trickle charger set at 12 volts to recharge the battery to full charge before replacing it in the unit.

When reinstalling the battery, be sure to connect the red cable to the positive (+) terminal and the black cable to the negative (-) terminal.

The battery should be replaced every three years or when it no longer holds a charge.

Do not expose the battery, for extended periods of time, to freezing temperatures. If the battery has been frozen it will need to be replaced. There is an inline fuse on the positive lead of the battery to protect the wiring system from over loads. If your starter motor will not turn over and the battery is fully charged, check the inline fuse on the unit.



Replace the fuse with a 7A fuse.

Pre-Operation Inspection procedure

The following procedure must be performed before each operating session.

Checking your ATV takes only a few minutes and may save you from serious injuries and costly repairs.

1. Check engine oil level.
2. Check engine fuel level.
3. Check brake operations and brake fluid level.
4. Check tire condition and pressure.
5. Check drive chain condition and slack.

6. Check throttle operation and free play adjustment.
7. Check engine stop switch for proper operation.
8. Check steering system. Look for free and smooth operation. Check all fastening hardware.
9. Check all nuts, bolts and other fasteners for loose conditions.
10. Inspect unit for any broken or damaged parts.
11. Check all indicator lights and switches for proper operation.
12. Insure you are wearing proper clothing and protective gear: Helmet, Gloves Pads, etc.

Starting Procedure

The following procedure must be followed each time you start your unit.

Park the unit on a level surface and lock the parking brake. Place the transmission gear selector shaft in the "N", Neutral, position. Turn the engine stop switch to the "ON" position. Turn the ignition key switch to the "ON" position. Apply slight pressure to the throttle lever. Press the starter button on the left-handle bar.

Your unit should start within 10 seconds of pushing the starter button. If the unit fails to start check the following.

1. Ignition key switch is "ON"
2. Engine stop switch is "ON".
3. Parking Brake Locked "ON".
4. Transmission selector switch in the "N" position

Driving your ATV

Your ATV should only be driven in an area that is designated for this use. Insure that the area is free of obstacles and other dangers that could cause a loss of control. Check with your local authorities for any regulations regarding the use of your ATV.

Always keep your feet on the footrests and your hands on the handle bar grips while operating your ATV. Doing so will give you the best control of the unit.

Start your ATV by following the starting procedure above and allow the engine a few minutes to warm up before releasing the parking brake.

Start the unit by slowly increasing the throttle until the unit begins moving.

Turning your ATV

Learning to turn your ATV requires you to learn to shift your weight and control the throttle to allow the rear wheels to turn properly. When making a turn, the wheels on the outside of the turn must travel a wider radius and thus a greater distance than the inside wheels of the turn. Since the rear axle does not permit a different rate of rotation, it is not enough to merely steer your ATV into the turn.

To turn properly, steer in the direction of the turn and lean your body to the inside of the turn while supporting your weight on the outer footrest. Use the throttle to maintain power throughout the turn.

If you do not use this turning technique the unit will have a tendency to continue in a straight line. If this occurs, release the throttle lever to allow the unit to stop.

Avoid braking or accelerating until you have regained directional control.

Parking Your ATV

1. Always park your ATV on a level surface.
2. Turn the ignition key to the "OFF" position to stop the engine.
3. Set the engine stop switch to "OFF" position.
4. Engage the parking brake locking button.
5. Remove the ignition key to prevent unauthorized use or theft of your ATV.

VIPER 150 Specifications

Engine			
Type		Four cycle Air/Oil cooled	
Displacement		149.56 cc	
Bore / Stroke		ø 57.4 * 57.8mm	
Compression		9.7:1	
Power		10.6ps @ 7500rpm	
Transmission			
Type		Automatic (C.V.T. V-Belt)	
Chassis			
Overall Length		1665mm / 65.6"	
Overall Width		1010mm / 39.8"	
Overall High		1070mm / 42.1"	
Wheel Base		1090mm / 42.9"	
Dry Weight		168kg / 370lbs	
Suspension			
Front		Dual A-arm Adjustable Shocks @ 3.5" travel	
Rear		Swing Arm Adjustable Shock @ 3.75" travel	
Brakes			
Front		Dual Mechanical drum	
Rear		Hydraulic Disc	
Tires			
Front		21*17-10	
Rear		20*11-9	
Tire Pressure	Front	Min	3.2psi / 0.23kg/cm²
		Max	4.0psi / 0.28kg/cm²
	Rear	Min	3.2psi / 0.23kg/cm²
		Max	4.0psi / 0.28kg/cm²
Wheels			
Bolt Pattern		4 x 110mm	
Carburetor			
Make/Size		Kei-Hin with Manual choke OR Electric choke	
Main Jet		1.12mm	
Pilot Jet		0.35mm	
Air Mixture Adjustment		Back out 1 - 2¼ turns	
Idle Speed		Idle 1600 - 1800rpm	

Sprockets		
Front		12 teeth
Rear		34 teeth
Chain		#520 O-Ring
Battery		
12V-9AH-GTX9		
Fluids		
Fuel	Type	Unleaded Gasoline 89 octane
	Volume	9 liters / 2.37gal
Engine Oil	Type	SAE 30W
	Volume	1.0 liters / 1qt
Transmission	Type	SAE 80/90 weight gear Oil
	Volume	750cc / 25.4oz
Spark Plug		
NGK		C7HSA/NGK
Nipendenso		U22FS-U
Champion		Z9Y(Not recommended)
	Electrode Gap	0.6-0.7mm / 0.023"-0.027"
Carrying Capacity		
Rack Capacity	Front	16kg / 301b
	Rear	16kg / 301b
Towing Capacity	Trailer Weight	150kg / 330lbs
	Tongue Weight	34kg / 75Lbs
Maximum Rider Weight		150kg / 300lb
Minimum Rider Age		16 years

Maintenance Schedule

	First week	Every 30 Days	Every Year	Notes
Fuel Lines			I	Replace Fuel & Vent Lines every 2 years
Throttle Operation	I	I		Inspect as part of pre-ride inspection
Air Filter		C	R	
Fuel Filter			R	
Spark Plug		I	R	
Drive Chain	I, L	I, L		
Brake Shoes		I	I	
Brake System	I	I		Inspect as part of pre-ride inspection
Brake Fluid	I			Inspect as part of pre-ride inspection Replace every 2 years
Bolts, Nuts & Fasteners	I	I		Inspect as part of pre-ride inspection
Wheels	I	I		Inspect as part of pre-ride inspection
Steering system			I Every 6 months	Inspect as part of pre-ride inspection
Suspension System			I	
C.V.T. Drive belt			I	Replace as needed
Transmission Oil			R or 100 hrs	
Engine Oil	I	I	R or 100 hrs	inspect as part of pre-ride inspection
Choke		I		
Spark Arrester			C every 100 hrs	R every 200 Hours
Battery			I, C	

I= Inspect, Clean, Adjust, Lubricate or Replace as needed

C= Clean

L= Lubricate

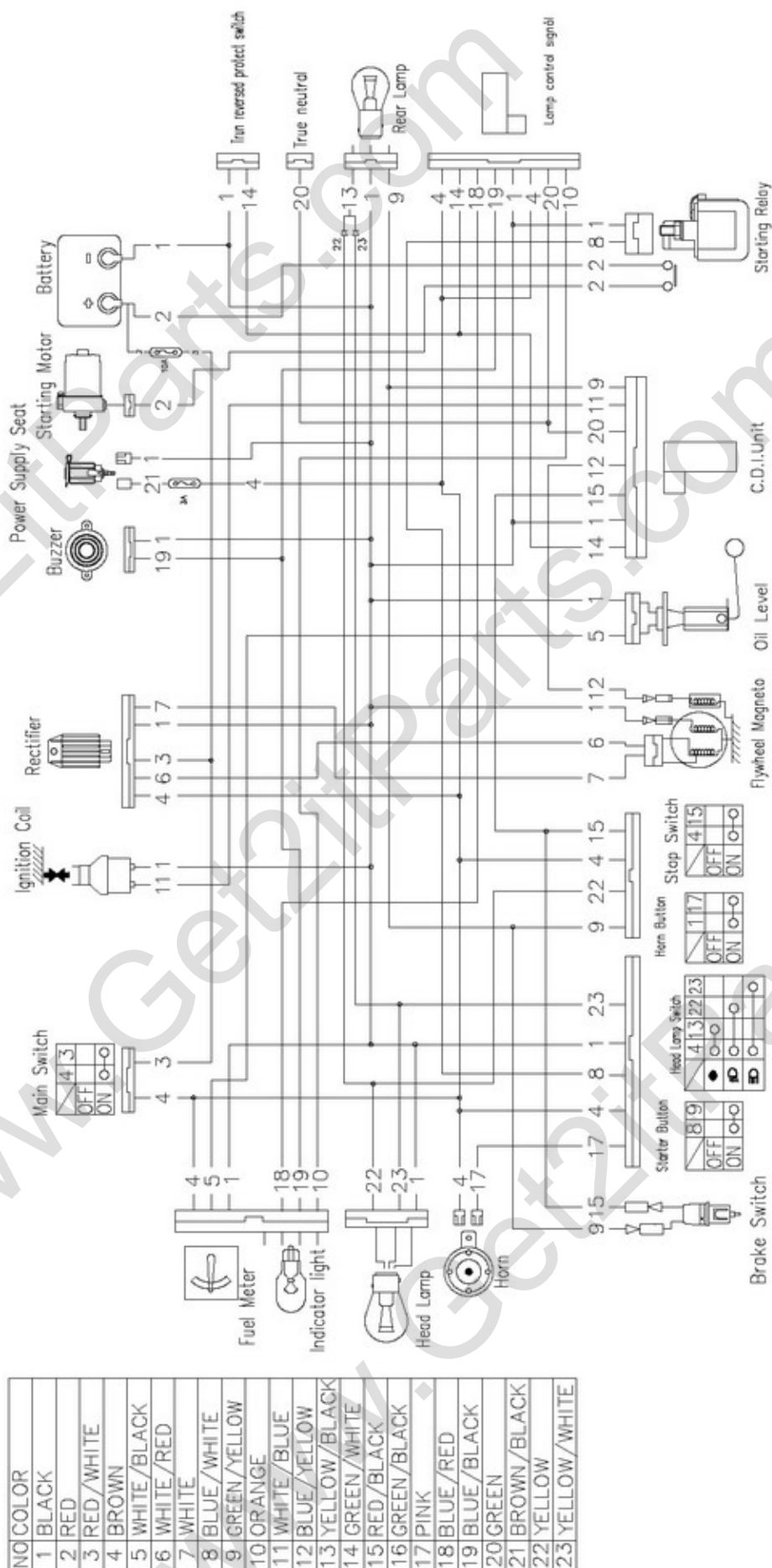
R= Replace

Owners Maintenance Records

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VIPER 150 Wiring Diagram

WIRING DIAGRAM





ETON AMERICA, LLC.

LIMITED VEHICLE WARRANTY

ETON America warrants all new ETON vehicles sold by authorized Eton Dealers to be free from defects in materials and workmanship, subject to the following exclusions and limitations. New vehicles sold by an authorized dealer to original retail consumers are covered by this policy for a period of six (6) months from the date of delivery. There is no mileage limitation.

Vehicles used in rental service or for certain commercial purposes are specifically excluded from this policy. (Check with your dealer for warranty application.)

Items and conditions that are specifically excluded from this warranty program are;

1. Damage caused by accidents, misuse, negligence, improper vehicle operation.
2. Any modification or alteration to any standard specifications or equipment.
3. Any repairs made by an unauthorized dealer or service firm.
4. Use of non-ETON genuine parts for repairs or alteration to standard specifications.
5. Damage caused by failure to perform factory scheduled service maintenance.
6. Damage which occurs as a result of improper storage.
7. Damage caused by the use of improper fuel or lubricants, and/or failure to use proper oil/gas mixture on two stroke models.

The following normal wear parts are specifically excluded from warranty coverage:

1. Rubber parts
2. Tires
3. Belts
4. Brake linings
5. Normal wear item
6. Brake parts
7. Cables
8. Filters
9. Spark plugs
10. Bulbs
11. Batteries
12. Sprockets
13. External springs
14. Seat and hand grips.

The "limited vehicle warranty" is applicable to all the E-TON ATV consumers: However for the regions outside USA & Canada one should contact with your local E-TON dealer.



ETON AMERICA, LLC.

LIMITED VEHICLE WARRANTY

Scheduled maintenance service is the responsibility of the owner during and after the warranty period. In the event of a failure or required repair, the owner should take vehicle to an authorized dealer for repair without undue delay and within a maximum of thirty, (30), days of the occurrence of the problem. All eligible warranty repairs must be made at any authorized dealer's normal place of business. Any transportation costs, or other expenses which may occur in order to obtain warranty service, are the responsibility of the owner. All eligible repairs covered under this warranty will be paid to the servicing dealer only, by ETON America, and no additional payments shall be made for authorized warranty repairs.

Dealer and/or ETON America are not responsible for loss of use, other damage or inconvenience due to warranty repairs. It is the customer/buyer's responsibility to review with the selling dealer the pre-delivery service schedule to assure machine is properly serviced prior to delivery acceptance. It is recommended that the buyer take a test ride to familiarize themselves with the machine and to make certain the unit is in proper operating condition. The dealer is responsible for checking and performing all items on the "set-up and pre-delivery checklist" prior to delivery to the customer.

This warranty is valid at any authorized ETON Dealer in the United States only. In the event you experience any problem obtaining prompt service, contact ETON America, customer service department for assistance. Always consult first with your selling dealer and or service personnel for assistance with any service work or repairs. In the event you have a problem obtaining service send your name, address, and vehicle identification number to Eton America for assistance.

The above stated policy is the only policy offered and backed by ETON America, and no other organization or individual is authorized to make or offer any different arrangements. Some states prohibit certain limitations or conditions or do not allow exclusions or limitations. You may be eligible for additional consideration, so check with your local dealer or appropriate state agency for assistance. Rights vary from state to state, and you may have other rights not offered in this warranty.

ETON America warrants all new vehicles comply with applicable US regulations.

The "limited vehicle warranty" is applicable to all the E-TON ATV consumers: However for the regions outside USA & Canada one should contact with your local E-TON dealer.

Owner's Notes:

Owner's Notes:

Owner's Notes:

ETON Viper 150 (RXL-150) Setup Instructions

1. Uncrate ATV



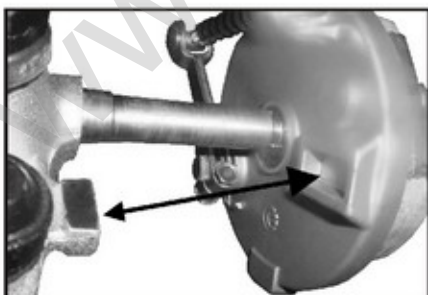
2. Inventory Parts Package (see Check List)



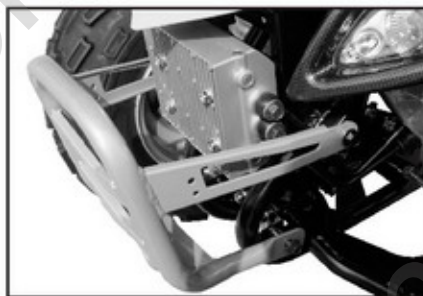
3. Prep battery by adding electrolyte. (About 1 hour for battery to come to full charge. **DO NOT** Put on charger.)



4. Attach tie rod ends using 10mm Lock nut (2). Torque to 25lb and install 3/4" cotter keys (2).



5. Align brake backing plate by placing alignment hole over locator pin on the spindle assembly.



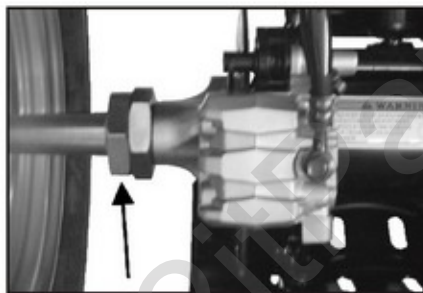
6. Install front bumper using 8x16mm bolts (2), 8x35mm bolts (2) and Front Bumper Collar (2). Torque to 16lb



7. Install rear bar assembly using 8x16mm bolts and lock washers (4). Torque to 16lb.

8. Connect rear tail / brake light wire to harness.

9. Inflate front and rear tires to 4psi



10. Check torque of rear axle nuts. Torque to 45lb.



11. Install front and rear wheels. Note rotation arrows on tires when installing.



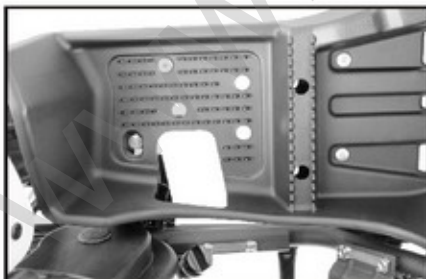
12. Attach front wheels using
- Front wheel Assembly
 - 15x24x5t front wheel washer (2),
 - 14mm castle nut (2). Torque to 44lb.
 - Insert 1/4" cotter key (2)

13. Attach rear wheels using
- wheel assembly
 - 40x14x4.5t washer (2),
 - 14mm flange castle nut (2). Torque to 44lb.
 - Insert 1/4" cotter key (2)



14. Install wheel hub caps over wheel nuts. (4).

15. Position handlebar assembly and tighten the 5mm hex head socket bolt to secure. (Caution: Do not over tighten.)



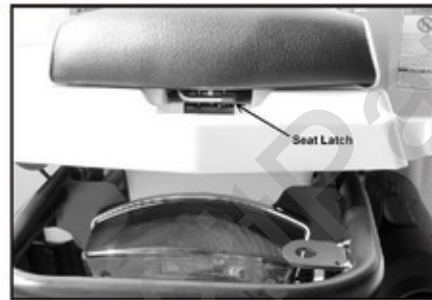
16. Install left footrest & right footrest using 6x18mm button head screw(7) , 6x16mm hexagon head bolt (1) , washer(1) and Flange Nut (4).



17. Install left footrest & right footrest using 6x23mm button head screw (2) and Flange Nut (4).



18. Check engine oil level. Fill to full line using SAE 30w engine oil.



19. Remove seat by pulling seat latch under rear fender.

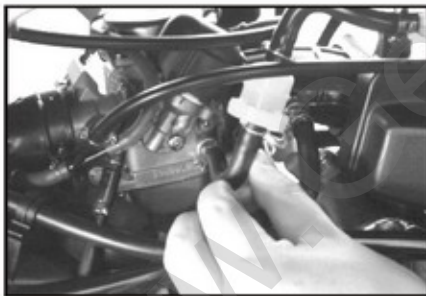


20. Install battery. Attach red lead to positive terminal and black lead to negative terminal.

21. Secure battery with rubber battery strap.
22. Check under seat storage compartment for tool kit and place owner's manual in compartment.
23. Replace seat.



24. Turn on ignition key, check gear shift shaft position indicator lights by moving shaft from reverse to forward position. (Reverse position red light, neutral green light, and forward blue light.)
25. Remove fuel cap and fill tank with gasoline. (At least 89 octane)
26. Replace fuel cap and install breather tube through hole in instrument panel below indicator lights.



27. Check fuel system for leaks.
28. Lock parking brake using right hand lever and lock button.



29. Move gear shift shaft into neutral position.



30. Move engine stop switch to on, "O", position.
31. Turn ignition key to on position.
32. While holding the left hand brake lever in, start unit by pressing yellow starter button. (DO NOT crank starter motor more than 15 seconds)
33. Allow unit to warm up for 4-5 minutes.
34. Check idle speed. Adjust to run at 1500-1800rpm.
36. Test ride unit.
37. Check for any loose bolts and fasteners.
38. Complete set-up form check list.

Viper 150 (RXL-150) Parts Packing List

Qty	Item No.	Description
1		E-Ton Setup Instructions
1		Rear Bar Assembly
4	650.424	Spring Washer (08)
4	650.294	Flange Bolt (M8 X 16)
1		Front Bumper
2		Front Bumper Collar
2	650.294	Flange Bolt (M8 X 16)
2		Flange Bolt (M8 X 35)
2	650.255	Self-Locking Flange Nut (M10)
2	650.339	Cotter Pin (1/8 x 1)
2		Front Wheel & Tire Assembly
2	800.291	Washer (15x24x2.3)
2	800.525	Castle Nut, (M14)
		Rear Wheel & Tire Assembly
2	650.368	Wheel Axle Washer, (40x14x4.5)
2		Flange Castle Nut, (M14)
4	650.352	Cotter Pin (1/8 x 1-1/2)
2	650.843	Rubber Hub Cap
2	650.353	Rubber Hub Cap
1		Footrest, Right
1		Bolt ,Hexagon Head (M6x16)
1		Washer (06)
1		Footrest, Left
7		Button Head Screw (M6x18)
6	800.504	Flange Nut, (M6)
2		Button Head Screw (M6x23)
1		Owner's Manual Viper 150
1	800.529	Tire Pressure Gauge
1	800.453	Battery (GTX9-BS)
1		Setup Instruction sheets
1		Unit Folder containing:
		Buyer agreement
		Setup Checklist / PDI form
		Registration Form
		VIN Labels



E-TON