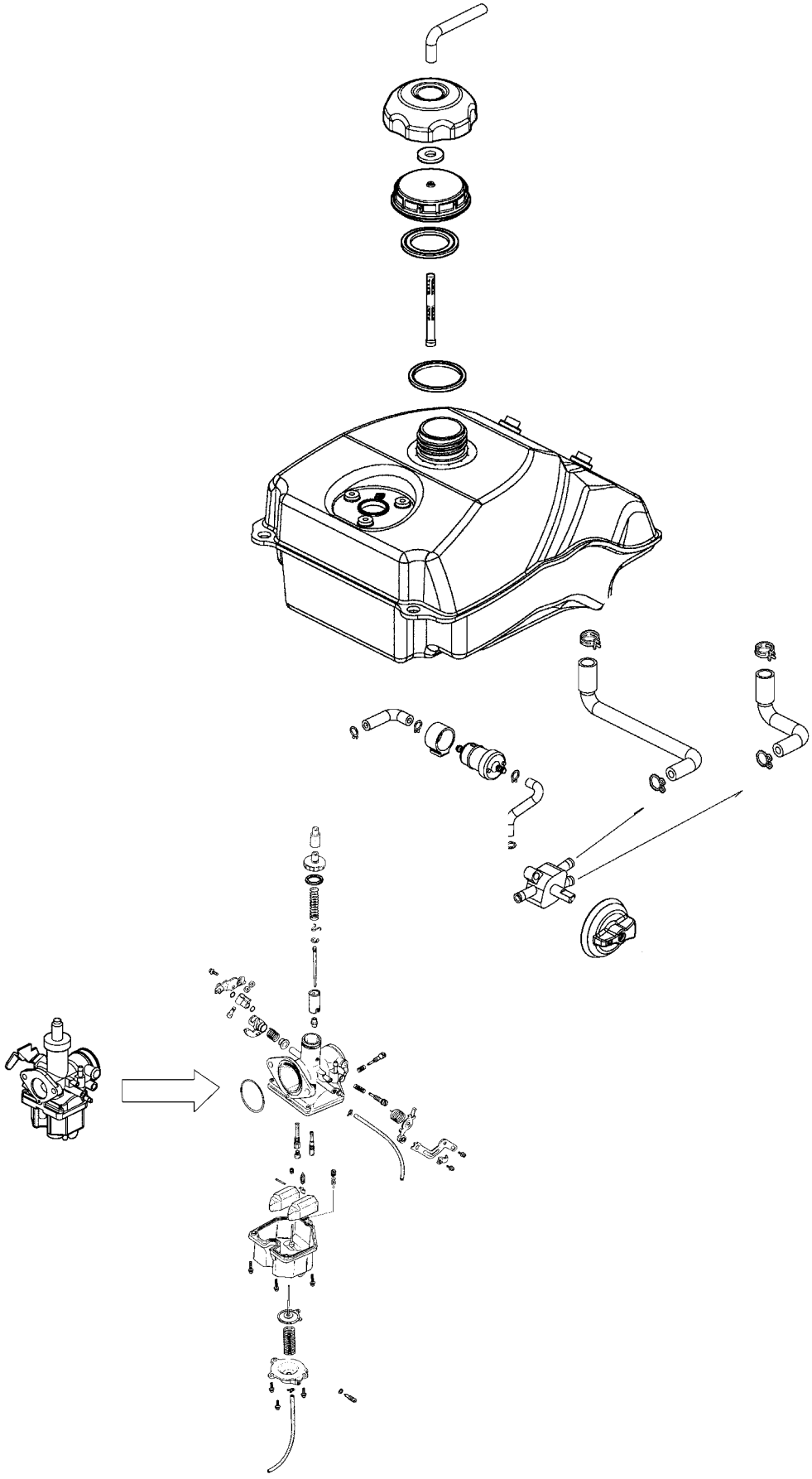
5

# FUEL SYSTEM

# 5. FUEL SYSTEM



## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

Gasoline is very dangerous. When working with gasoline, keep sparks and flames away from the working area.
Gasoline is extremely flammable and is explosive under certain conditions. Be sure to work in a well-ventilated area.

- Do not bend or twist control cables. Damaged control cables will not operate smoothly.
- When disassembling fuel system parts, note the locations of O-rings. Replace them with new ones during reassembly.
- Before float chamber disassembly, loosen the drain screw to drain the residual gasoline into a clean container.
- After the carburetor is removed, plug the intake manifold side with a clean shop towel to prevent foreign matters from entering.
- When cleaning the carburetor air and fuel jets, the O-rings and diaphragm must be removed first to avoid damage. Then, clean with compressed air.
- When the motorcycle is not used for over one month, drain the residual gasoline from the float chamber to avoid erratic idling and clogged slow jet due to deteriorated fuel.

**SPECIFICATIONS**

| Item | Standard |
|---|---|
| Type | PTG |
| Venturi dia. | ϕ22 |
| Float level | 14.8mm |
| Main jet No. | 98 |
| Adjust method | Piston |
| Idle speed | 1500±100rpm |
| Throttle grip free play | 1～4mm |
| Air screw opening | 1 1/8±1/2 |

**SPECIAL TOOL**
Float level gauge

## TROUBLESHOOTING

**Engine cranks but won't start**
- No fuel in tank
- No fuel to carburetor
- Cylinder flooded with fuel
- No spark at plug
- Clogged air cleaner
- Intake air leak
- Improper throttle operation

**Engine idles roughly, stalls or runs poorly**
- Excessively used choke
- Ignition malfunction
- Faulty carburetor
- Poor quality fuel
- Lean or rich mixture
- Incorrect idle speed

**Misfiring during acceleration**
- Faulty ignition system
- Faulty carburetor

**Backfiring at deceleration**
- Float level too low
- Incorrectly adjusted carburetor
- Faulty exhaust muffler

**Engine lacks power**
- Clogged air cleaner
- Faulty carburetor
- Faulty ignition system

**Lean mixture**
- Clogged carburetor fuel jets
- Float level too low
- Intake air leak
- Clogged fuel tank cap breather hole
- Kinked or restricted fuel line

**Rich mixture**
- Float level too high
- Clogged air jets
- Clogged air cleaner

## FUEL TANK

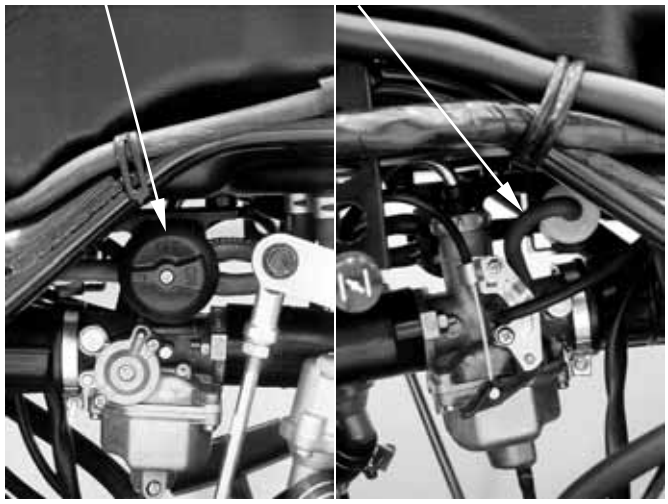
### REMOVAL

**Warning**

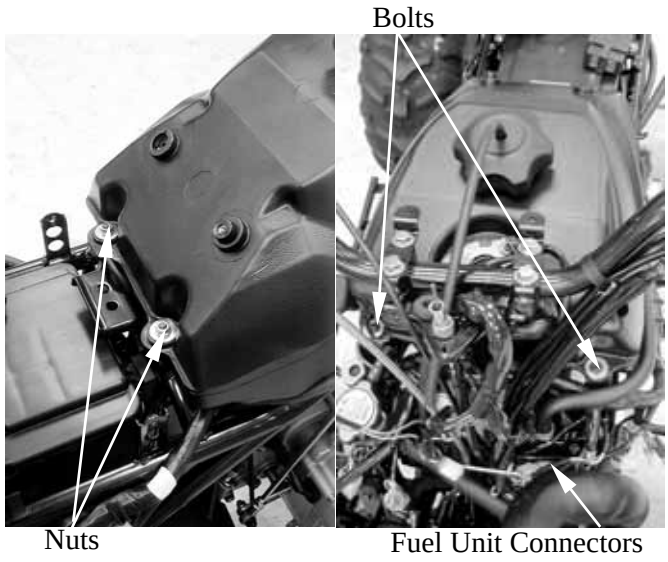
- Keep sparks and flames away from the work area.
- Wipe off any spilled gasoline.

Remove the seat (See page 2-3), right and left side frame cover (See page 2-6) and fuel tank cover (See page 2-5).

Switch the fuel valve “OFF”.
Disconnect the fuel tube from carburetor.




Disconnect the fuel unit connectors.
Remove the two bolts and two nuts from the fuel tank, then remove the fuel tank.




### INSTALLATION

Reverse the “FUEL TANK REMOVAL” procedures.

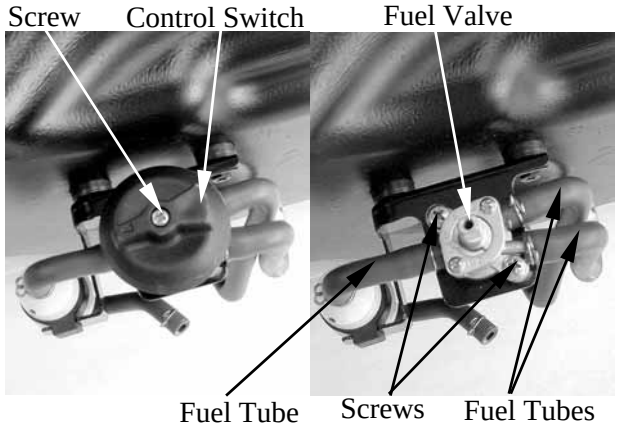
## FUEL VALVE

### REMOVAL

*

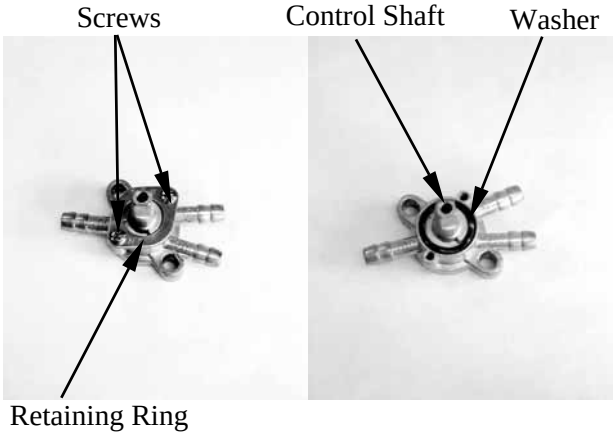
- Keep sparks and flames away from the work area.
- Drain gasoline into a clean container.

Remove the screw and then remove control switch.
Disconnect all fuel tubes and remove the two screws, then remove fuel valve.

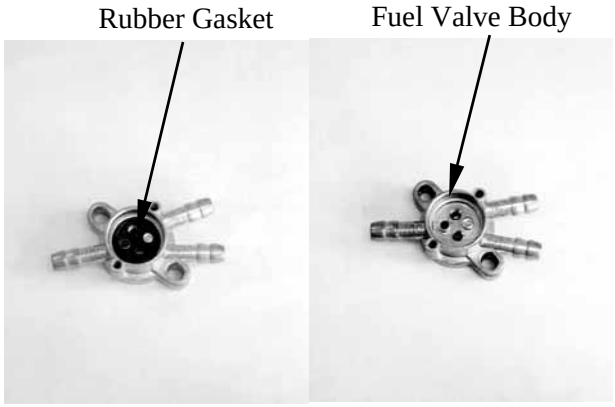


**DISASSEMBLY**

Remove the two screws on the retaining ring and then remove retaining ring.
Remove the washer and control shaft.




Remove the rubber gasket from the fuel valve body.

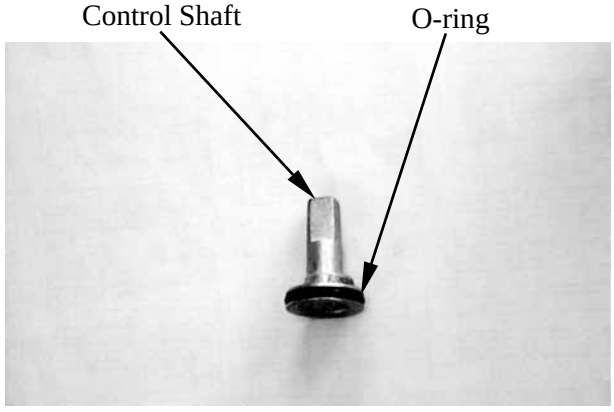



**INSPECTION**

Inspect the fuel valve body for dirt and clog. Clean if necessary.

Replace the rubber gasket with new ones if they are damaged or deteriorated.

Replace the O-rings with new ones if they are damaged or deteriorated.

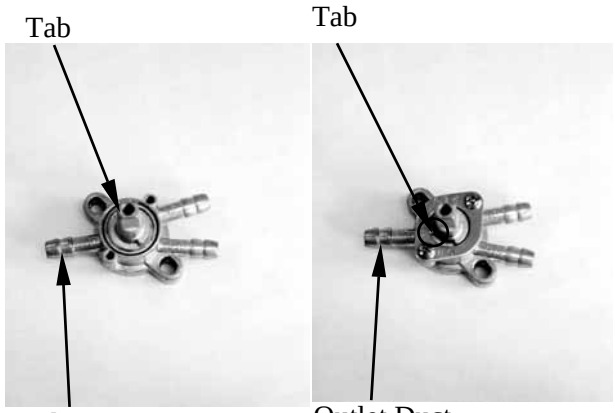


**ASSEMBLY**

Reverse the “DISASSEMBLY” procedures.

Install rubber gasket, control shaft, washer and retaining ring.

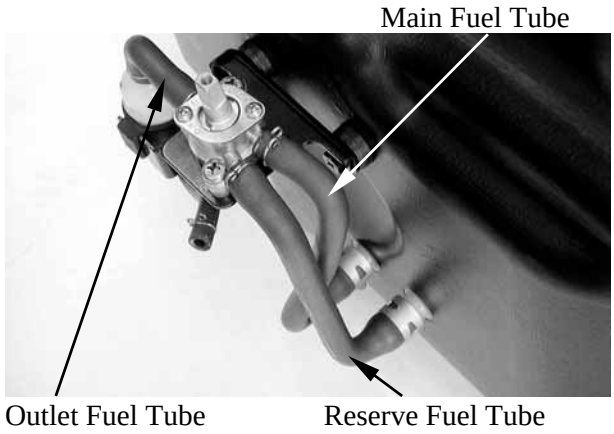
*
- Aligning the tab on the control shaft with the outlet duct in the fuel valve body.
- Aligning the tab on the retaining ring with the outlet duct in the fuel valve body.




**INSTALLATION**

Reverse the “FUEL VALVE REMOVEAL” procedures.

Connect all fuel tube.

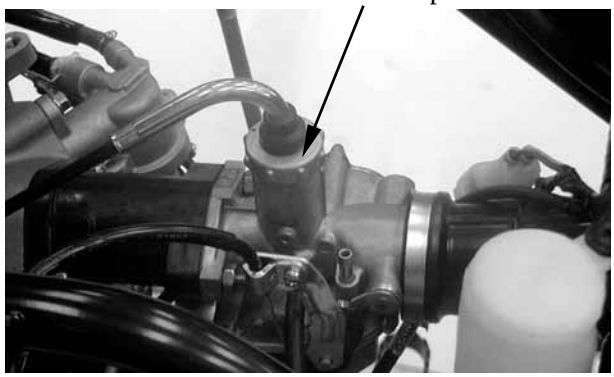


## THROTTLE VALVE

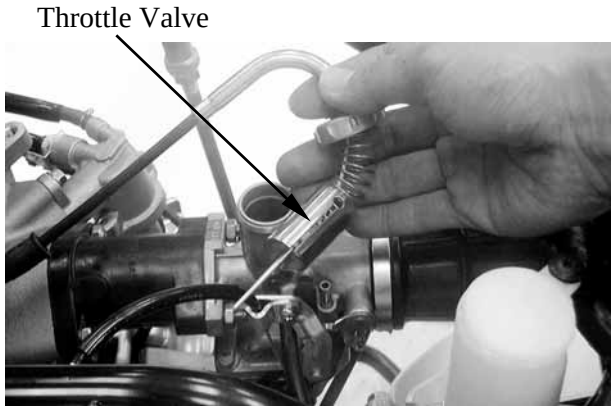
**DISASSEMBLY**

Remove the fuel tank. (Refer to "FUEL TANK" section in the chapter 5)

Remove the carburetor cap.

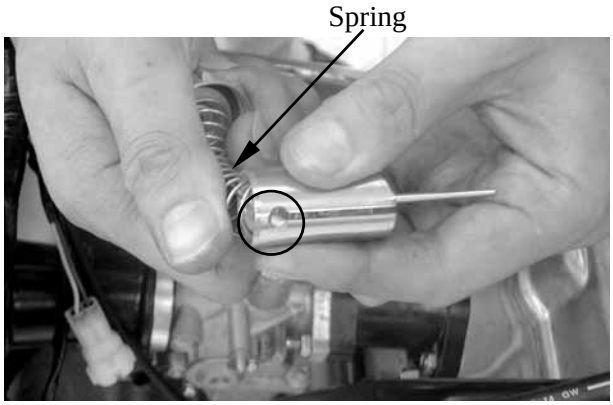



Pull out the throttle valve.

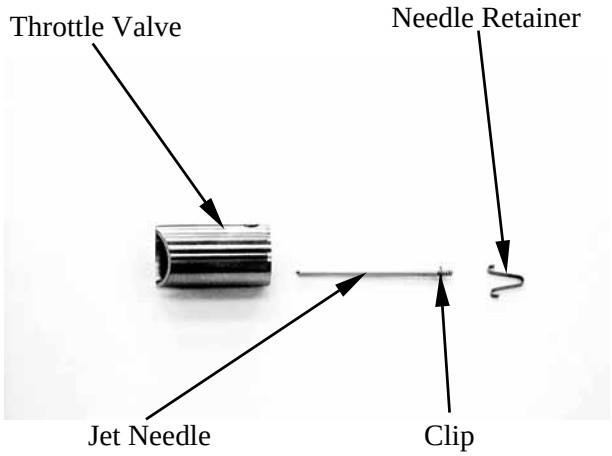



Compress the spring to disconnect the throttle cable by hand.

Remove the spring from the throttle valve




Pry off the needle retainer and remove the jet needle.
Check the throttle valve and jet needle for wear or damage.

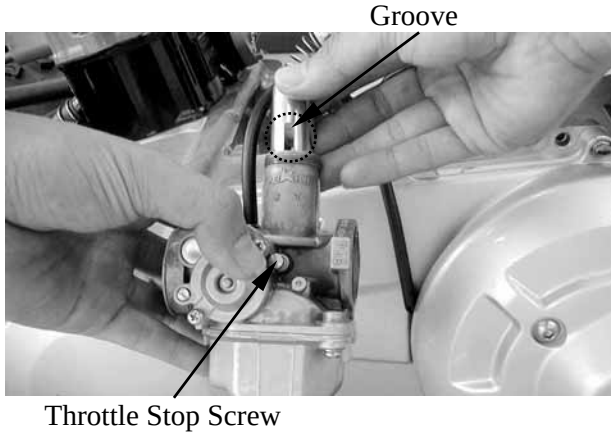



**ASSEMBLY**

Reverse the "DISASSEMBLY" procedures.

Install the throttle valve into the carburetor body.

* Align the groove in the throttle valve with the throttle stop screw on the carburetor body.

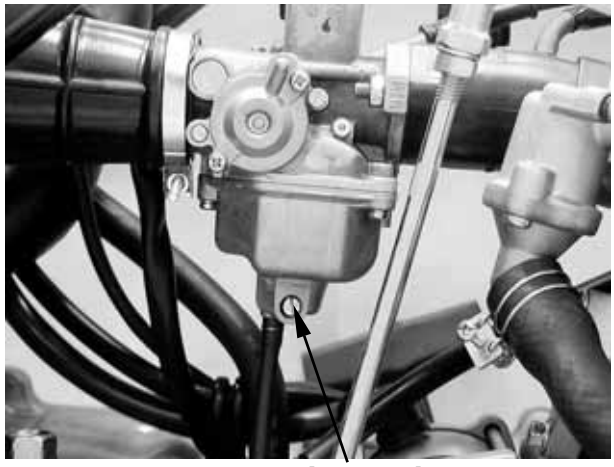


## CARBURETOR

### REMOVAL

Remove the fuel tank and carburetor cap. (Refer to “FUEL TANK” and “THROTTLE VALVE DISASSEMBLY” section in the chapter 5)
Loosen the drain screw to drain the gasoline from the float chamber.

* • Keep sparks and flames away from the work area.
  • Drain gasoline into a clean container.


Fuel Drain Plug

Loosen the screw on the lock plate for disconnect the choke cable

Loosen the air cleaner connecting tube band screw.

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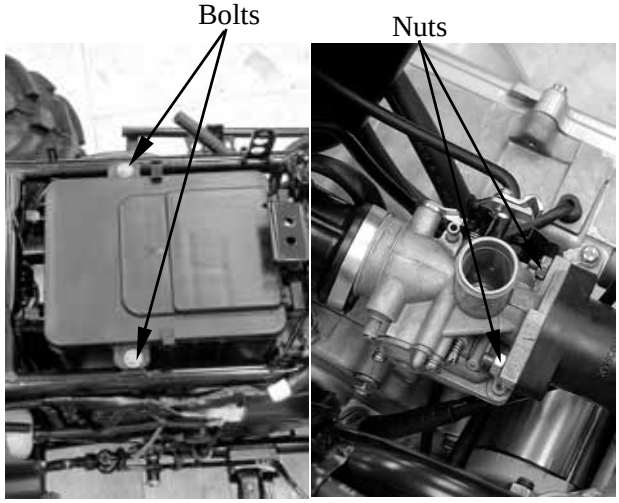
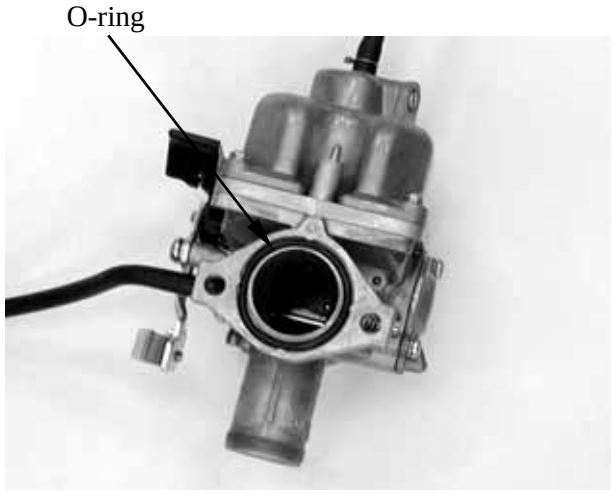
Remove the two bolts at the air cleaner case.
Disconnect the air cleaner connecting tube from the carburetor.
Remove the two carburetor mounting nuts and carburetor body.
Remove the carburetor.

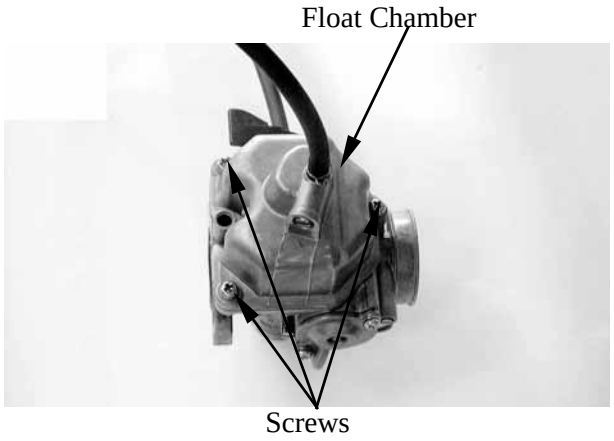


Check the O-ring for damage.
Replace with new ones if necessary.

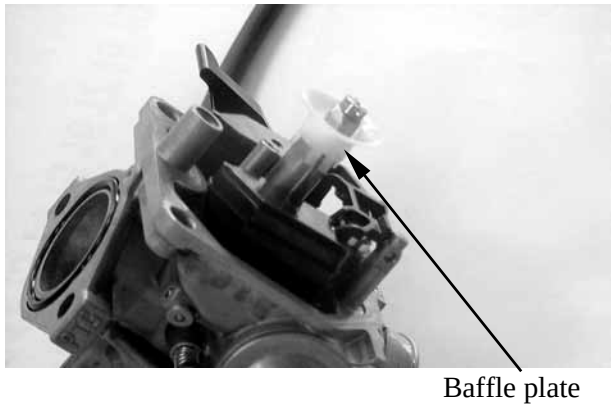



**DISASSEMBLY**

Remove the float chamber attaching three screws and remove the float chamber.

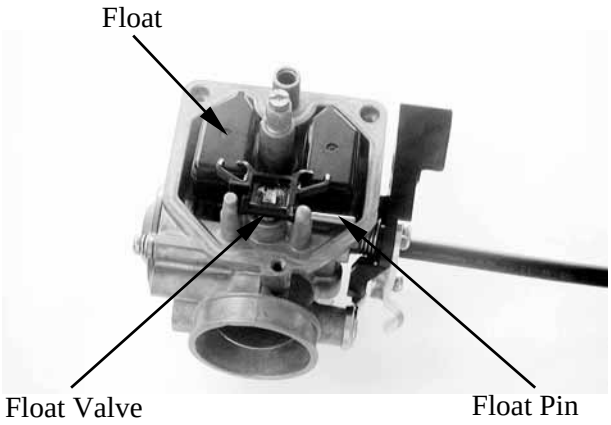



Remove the baffle plate.

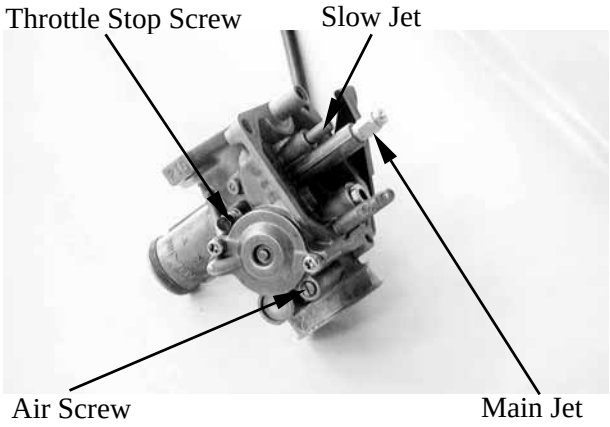


Pull out the float pin, then remove float and float valve.

Inspect the float for deformation or damage.

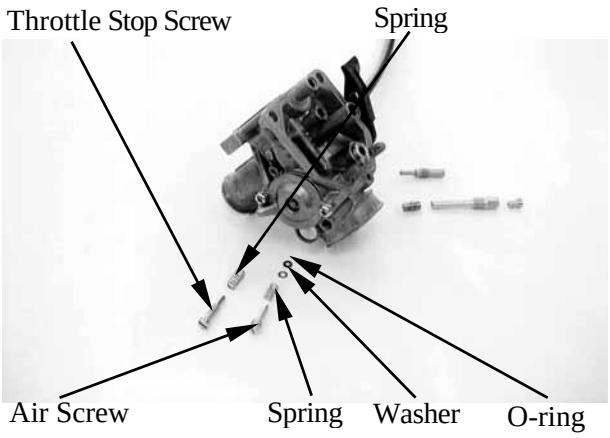


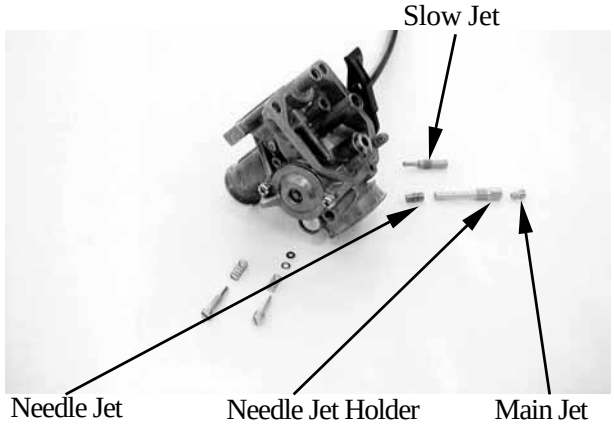

Remove the main jet, needle jet holder, and needle jet.
Remove the slow jet.
Remove the air screw and throttle stop screw.



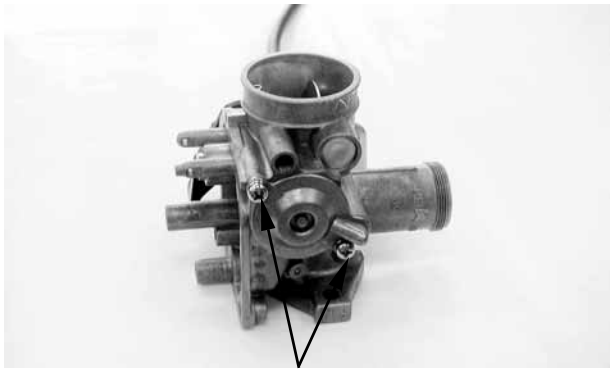

**CAUTIONS!**

* 
- Be careful not to damage the jets and jet holder when removing them.
- Before removal, turn the throttle stop screw and air screw in and count the number of turns until they seat lightly and then make a note of this.
- Do not force the screw against its seat to avoid seat damage.
- Be sure to install the O-ring in the reverse order of removal.

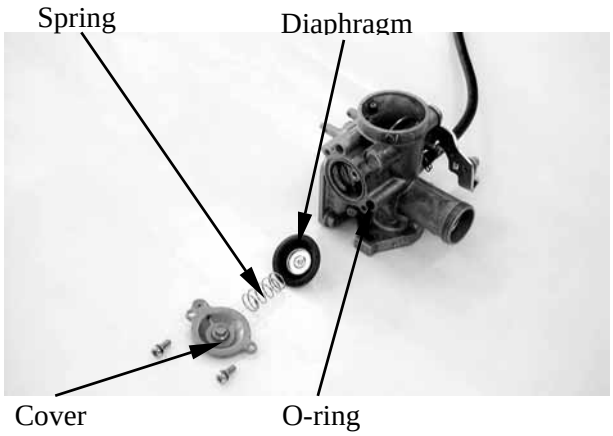





Remove the two screws and the air cut-off valve cover.

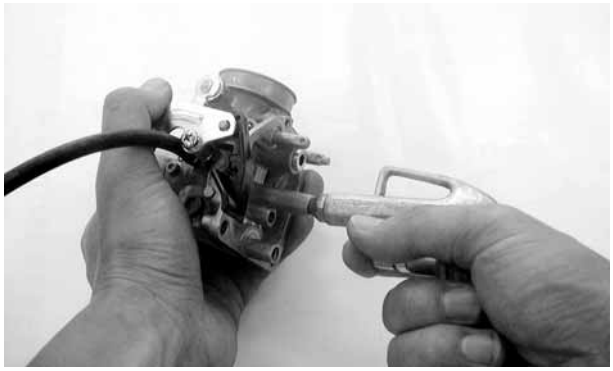



Remove the spring, diaphragm and O-rings. Inspect the diaphragm and spring for wear or damage.



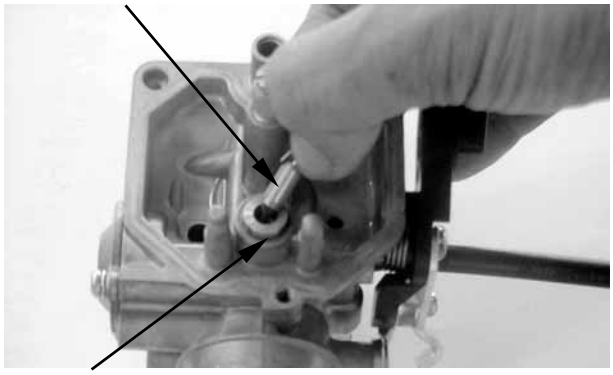
**CARBURETOR CLEANING**

Blow compressed air through all passages of the carburetor body.



**FLOAT/FLOAT VALVE INSPECTION**

Inspect the float valve seat for wear or damage.
Inspect the float for damage or fuel level inside the float chamber.

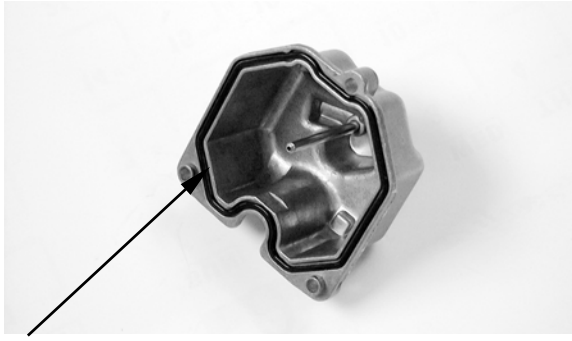



**FUEL RESERVOIR O-RING CHECK**

Remove the O-ring.

INSPECTION

Inspect the check the O-ring for damage.
Replace with new ones if necessary



**ASSEMBLY**

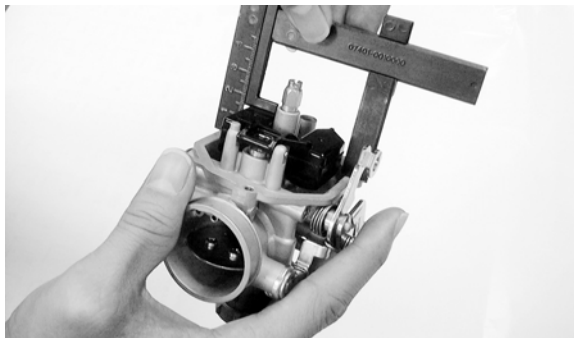
Install the slow jet.
Install the needle jet, needle jet holder and main jet.
Install the throttle stop screw and air screw
Install the spring, diaphragm and O-rings.

* • When installing the air screw, return it to the original position as noted during removal
  • After the carburetor is installed, be sure to perform the Exhaust Emission

Install the float valve, float and float pin.

**FLOAT LEVEL INSPECTION**

Turn the carburetor upside down so that the float will go down to make the float valve contact the float valve seat.
Then slowly tilt the carburetor and measure the float level with the float level gauge while the float pin just contacts with float valve.

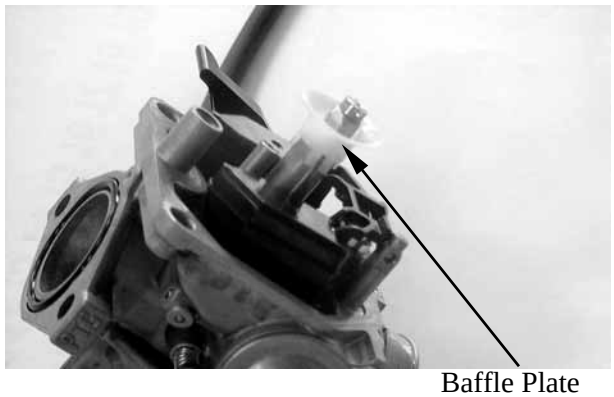


**Float Level**: 14.8mm

When adjusting, carefully bend the float pin.

Check the float for proper operation.

Install the jet holder, aligning the baffle plate groove with the carburetor tab and then install the float chamber.




**INSTALLATION**
Reverse the " CARBURETOR REMOVAL" procedures.

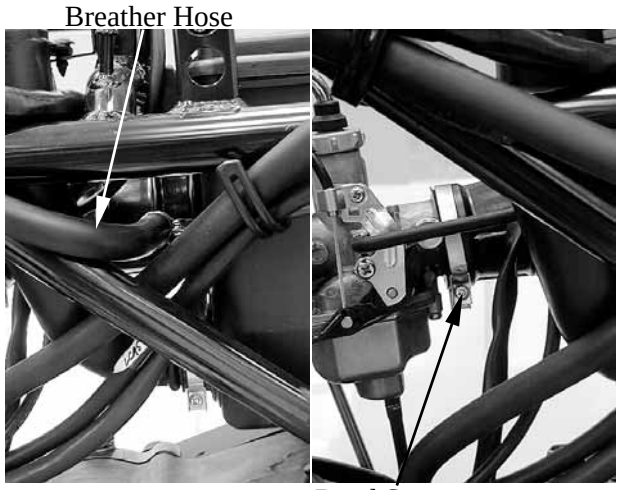
## AIR CLEANER

Refer to the "AIR CLEANER" section in the chapter 3 for air cleaner replacement and cleaning.

## AIR CLEANER HOUSING
### REMOVAL/INSTALLATION

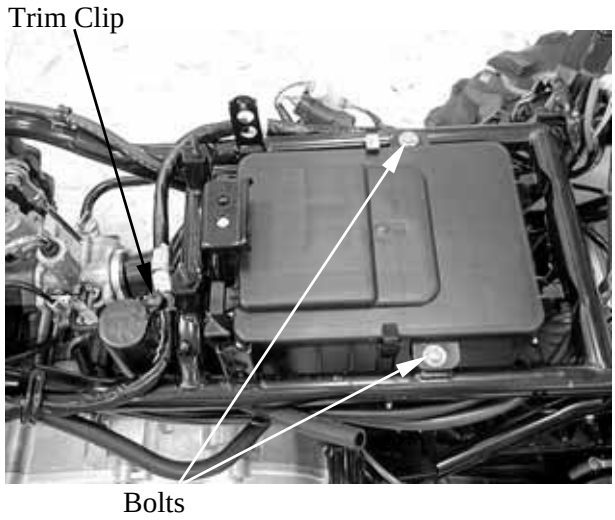
Remove the seat (see page 2-3).
Remove the side covers (see page 2-6).

Remove the clip and disconnect the crankcase breather hose from the crankcase.
Loosen the carburetor-to-air cleaner connecting tube band screw.




Remove the intake air duct trim clip.
Remove the mounting bolts and then remove the air cleaner housing from the carburetor and the intake duct.

Installation is in the reverse order of removal.

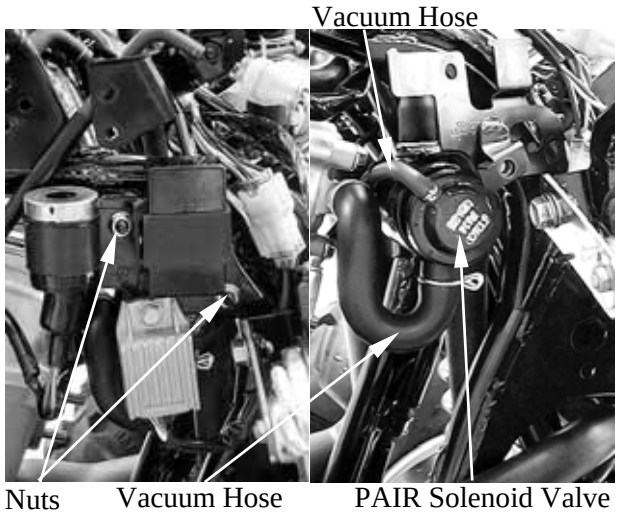


## PAIR SOLENOID VALVE

### REMOVAL/INSTALLATION

Remove the two nuts and electrical holder.

Disconnect air supply hose and vacuum hose from the PAIR solenoid valve, then remove the PAIR solenoid valve.




Installation is in the reverse order of removal.