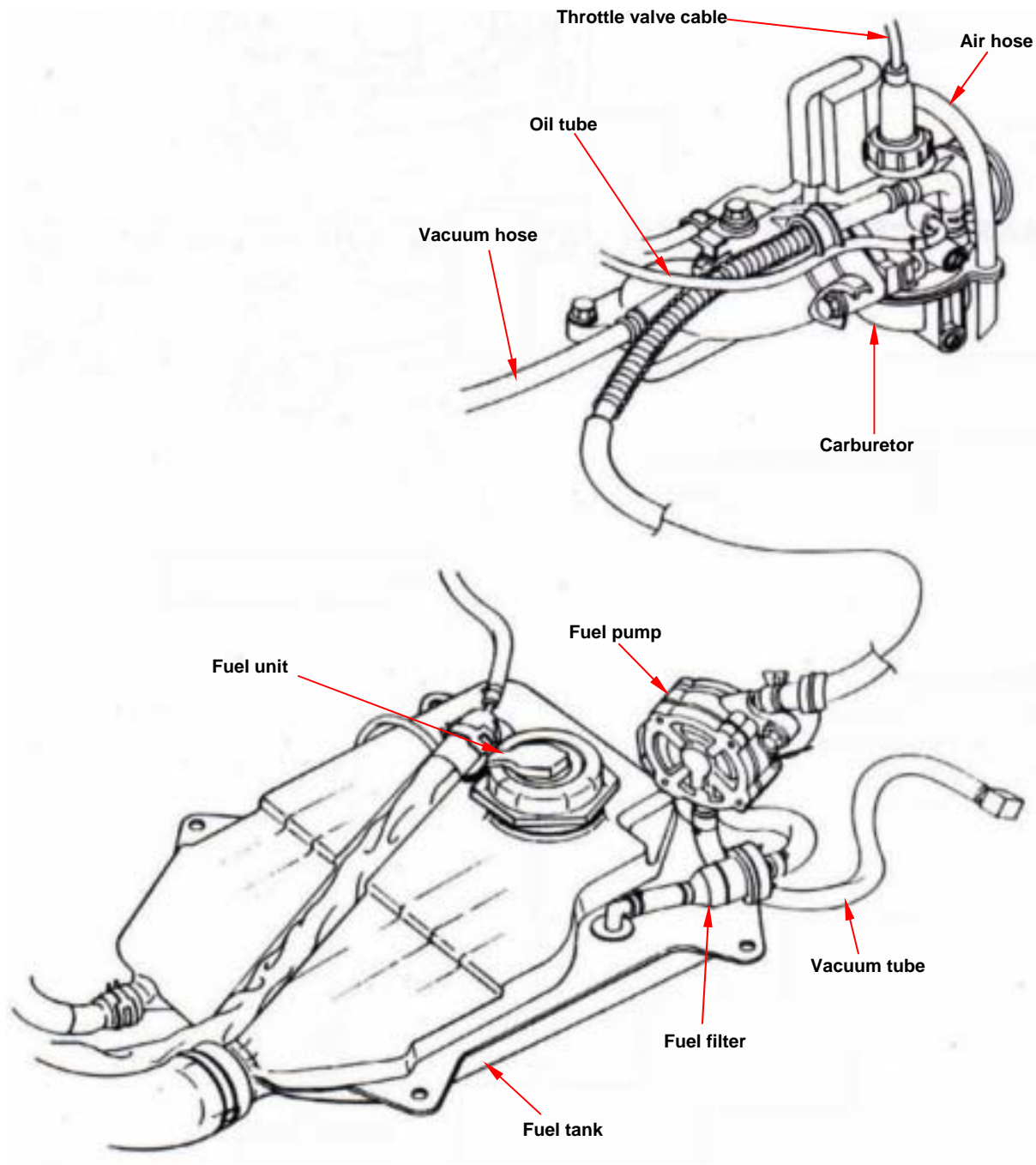


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10. FUEL SYSTEM

Maintenance Information

Precautions in Operations

Warning

Gasoline is a highly flammable material and may explosive under circumstance. Thus, always work in a well-ventilated place and strictly prohibit flame when working with gasoline.

- Care must be taken when dealing with gasoline, and always work in a well-ventilated place and strictly prohibit flame.
- When disassembling fuel system parts, pay attention to O-ring position, replace with new one as re-assembly
- It has to conduct air bleeding operation as removed the oil tube.
- Idle speed adjustment.

Specification

Item	DD 50
Venturi diameter	14 mm
Fuel level	8.6±1.0mm
Air screw opener	1 3/8
Idle speed	2000±100 rpm
Throttle handle free play	2~6 mm
I.D. number	PB2BE
Main jet	#82
Fuel pump output	20 c.c. minimum.

Troubleshooting

Engine can not be started

1. No fuel in fuel tank
2. Fuel can not reach to carburetor
3. Too much fuel in cylinder
4. Clogged air cleaner

Stall after started

1. Incorrect idle speed adjustment
2. No spark on the spark plug
3. Low compression pressure
4. Rich mixture
5. Lean mixture
6. Clogged air cleaner
7. Inlet pipe leaking
8. Polluted fuel

Lean Mixture

1. Clogged carburetor jet
2. Clogged hose from carburetor to canister
3. Bend, squeezed or clogged fuel lines
4. Clogged fuel filter
5. Malfunction of float valve
6. Low fuel level in float chamber
7. Clogged vent pipe
8. Malfunction of fuel pump

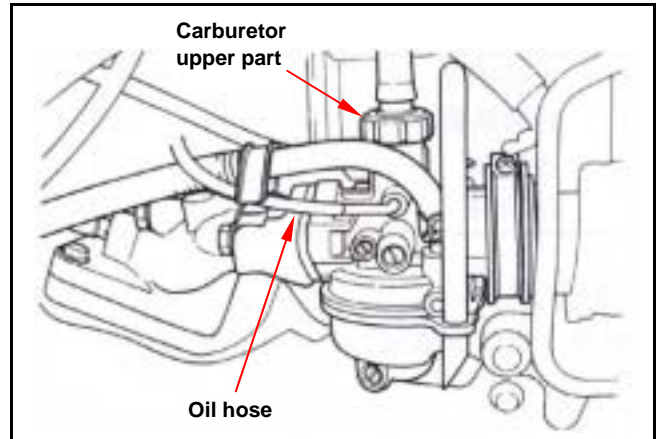
Rich Mixture

1. Malfunction of float valve
2. Low fuel level in float chamber
3. Clogged carburetor air injector

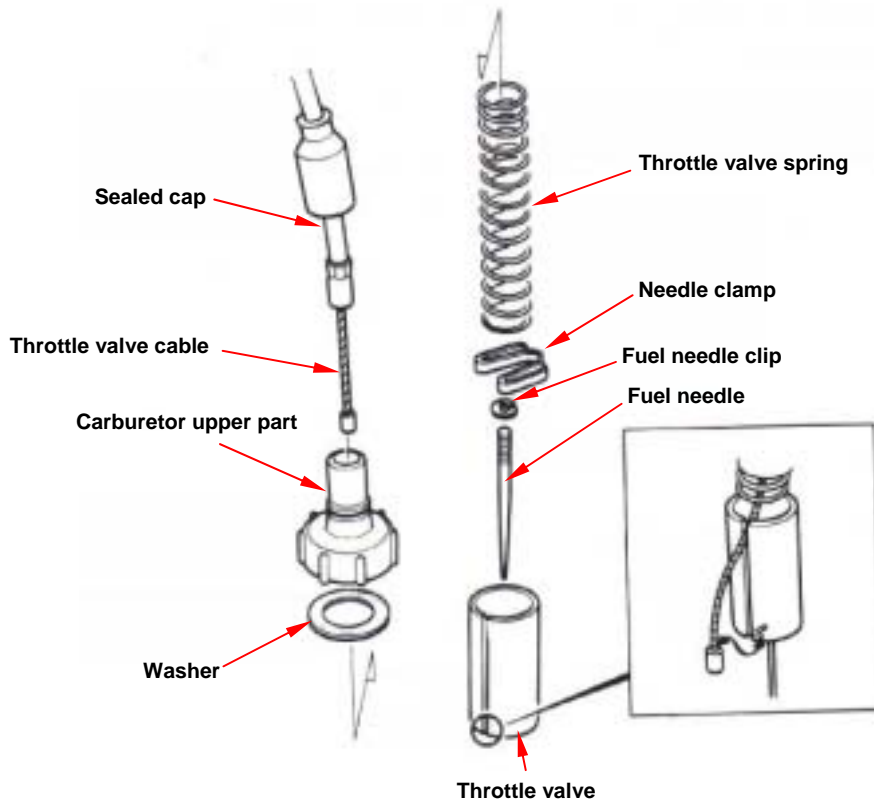
Throttle Valve

Removal

- Remove the body cover.
- Remove the carburetor upper part, throttle valve spring and sealed cap.
- Remove the throttle valve cable from the throttle valve.
- Remove needle clamp and fuel needle.



Inspection



Installation

- Place the fuel needle onto the throttle valve and clip it with needle clamp.
- Install the sealed cap, carburetor upper part, and throttle valve spring.
- Connect the throttle valve cable to the throttle valve.
- Install the throttle valve into the carburetor body.

Caution

Align the groove inside the throttle valve with the throttle stopper screw of the carburetor body.

- Tighten the carburetor upper part.
- Install carburetor protector.
- Adjust the free play of throttle valve cable.

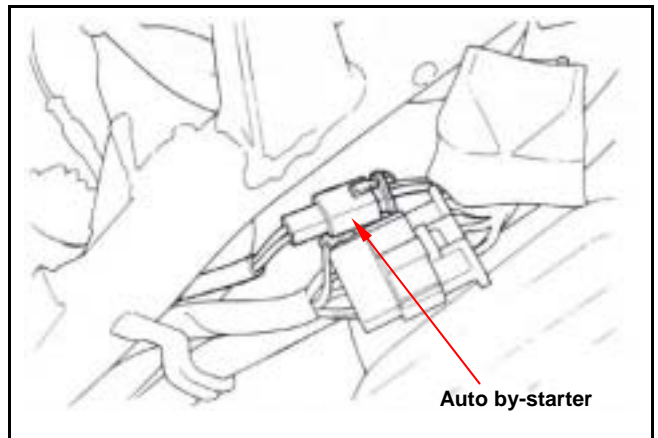
10. FUEL SYSTEM

Carburetor Remove

Remove the body cover.



Disconnect the auto by-starter connector.

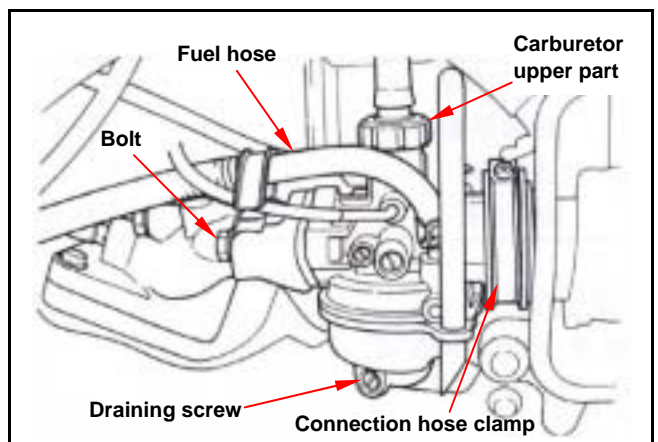


Loosen draining screw and then drain out fuel inside the carburetor.

Loosen carburetor upper part and remove carburetor upper part.

Remove fuel and oil hoses from carburetor.

Remove carburetor mounting bolt and carburetor.



Auto By-Starter

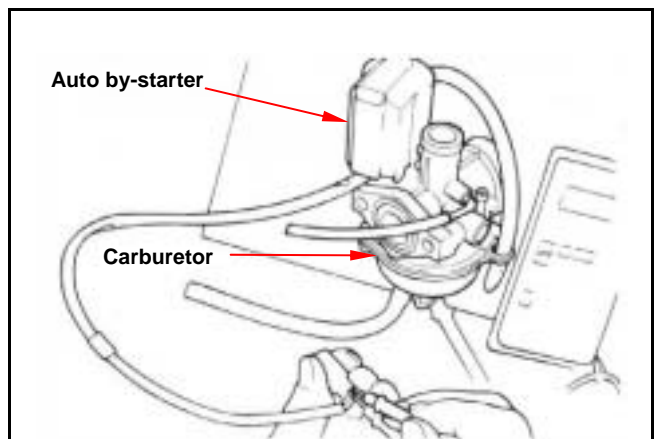
Inspection

Connect resistor meter to the terminals of auto by-starter, and then measure its resistance. If the resistance value exceeds specification too much, it means that the PTC in the auto by-starter is malfunction. Then, replace the auto by-starter.

Resistance value: Max. 10 (at cold engine)

Caution

If the resistance value exceeds the standard a little bit, the auto by-starter may still in normal. However, it is necessary to check other relative components for damage.

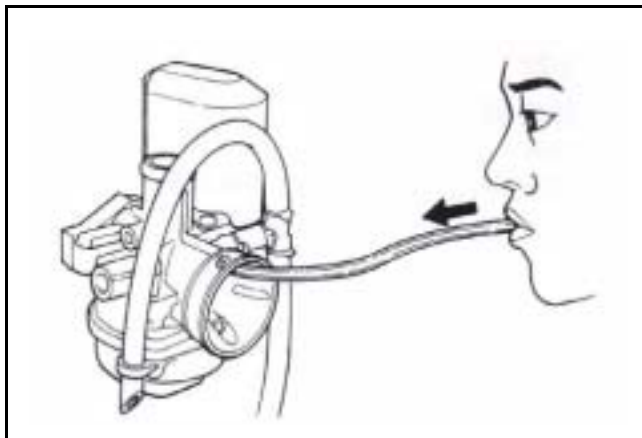


Remove carburetor, and allow it to cool off for 30 minutes.

Connect fuel rich circuit with a hose and pump compressed air to the hose.

Air should flow into fuel rich circuit.

Replace the auto by-starter if the circuit clogged.

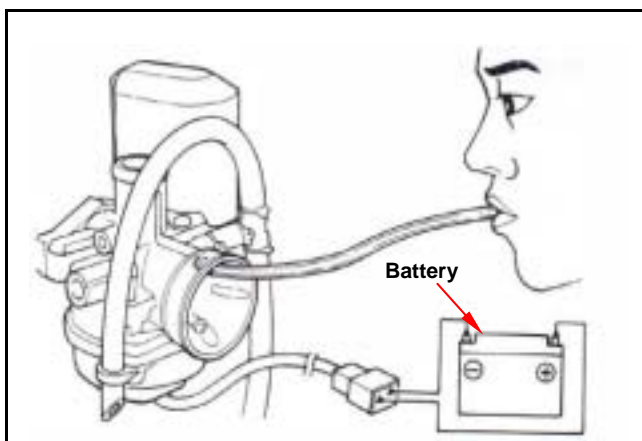


Connect battery to starter's connectors and wait for several minutes.

Pump compressed air into the fuel rich circuit.

Air should not flow into the circuit.

If air flow through the circuit, then, replace the starter.



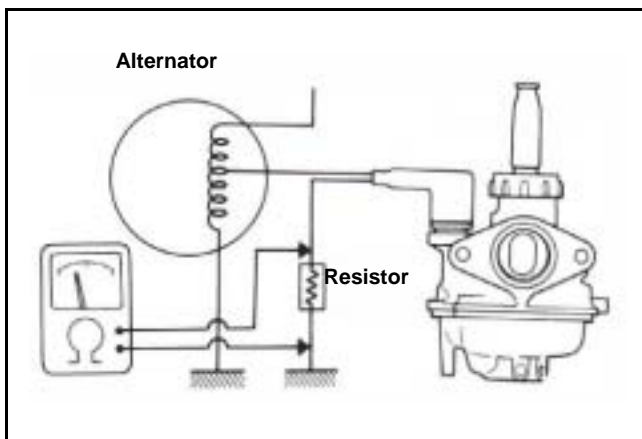
Check resistor to make sure that the auto by-starter is in normal. Engine is running.

If the resistor is in open-circuit, then current will not flow into the PTC. Thus, the auto by-starter is not operated.

However, if the resistor is in short-circuit, current higher than specification will flow into the PTC.

Then, it will cause the fuel rich circuit close rapidly, and difficult to start the scooter.

Resistance value: 10.2



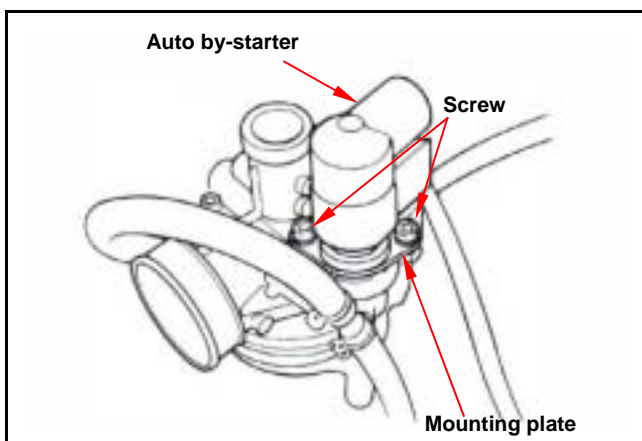
Automatic By-Starter Removal/Installation

Remove the cover of the auto by-starter.

Remove screw and mounting plate.

Remove the auto by-starter from carburetor.

Install in the reverse order of removal procedures.



10. FUEL SYSTEM

Float/Float Valve/Jet

Removal

Remove the float from carburetor body.
 Remove the float pin and then remove float and float valve.
 Check the valve seat for worn out or damage.
 Check float for bend and if fuel inside the float.
 Before removing both the throttle valve stopper and air screws, record their original turns for close to their original set up position as installation.

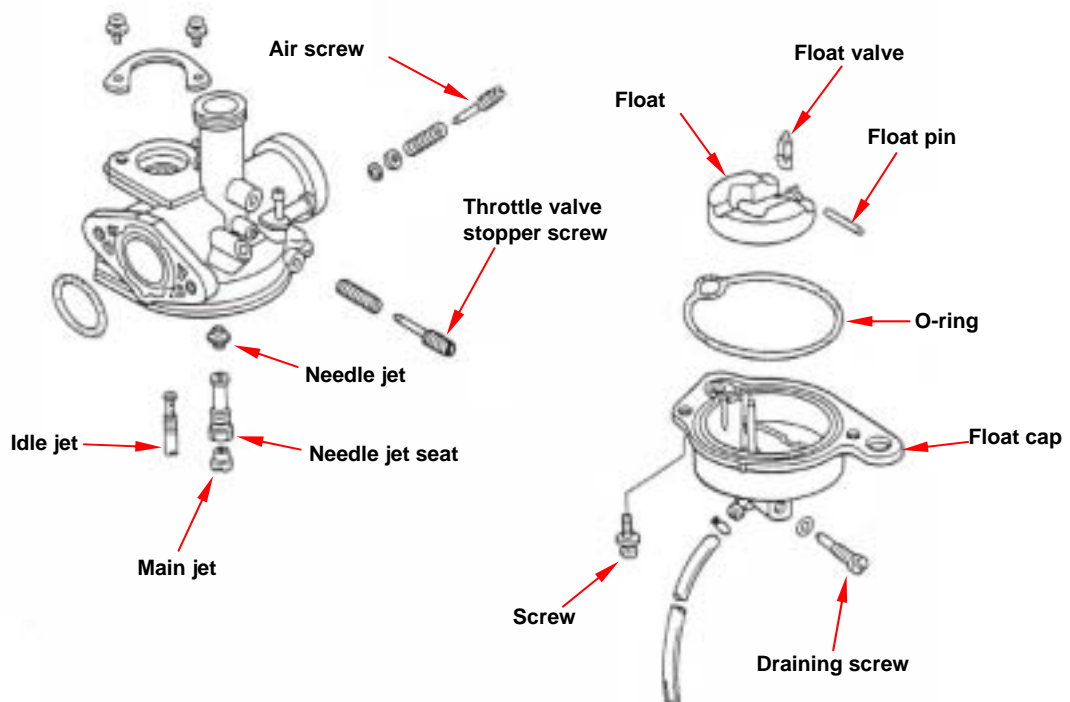
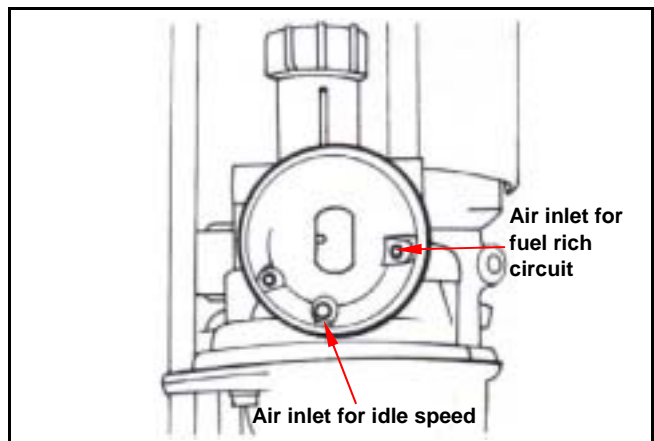
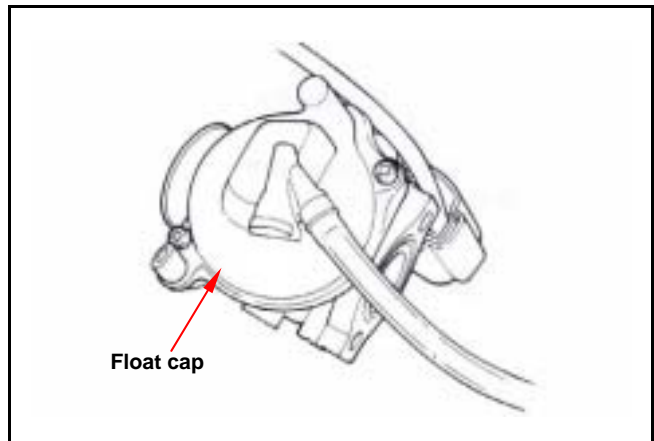
⚠ Caution

Do not tighten the screw forcedly to avoid to damaging the valve seat.

Remove main jet, needle jet seat and idle jet and clean them and each component with compressed air.

Installation

Install the idle jet, the needle jet seat and main jet. Then install the throttle valve stopper and air screws to their original position according to the marks as removal. Adjust the screws if replace with new ones.



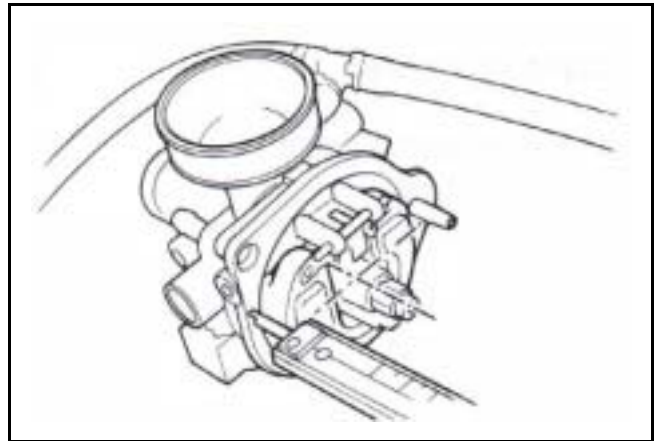
Float Level Inspection

Measure float fuel level to have the upper end of float just contact with the float.

Float fuel level: 8.8 mm

Carefully bend the float arm for adjustment.

Check the float operation and the install it.



Carburetor Installation

⚠ Caution

Do not let foreign materials into the carburetor.

Install the carburetor and insulator onto intake pipe with bolts.

Install fuel and vent pipes onto carburetor.

Install the carburetor upper part.

Tighten the connection hose.

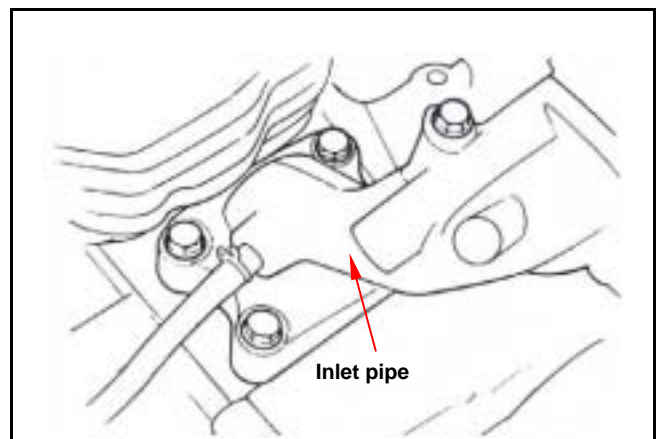
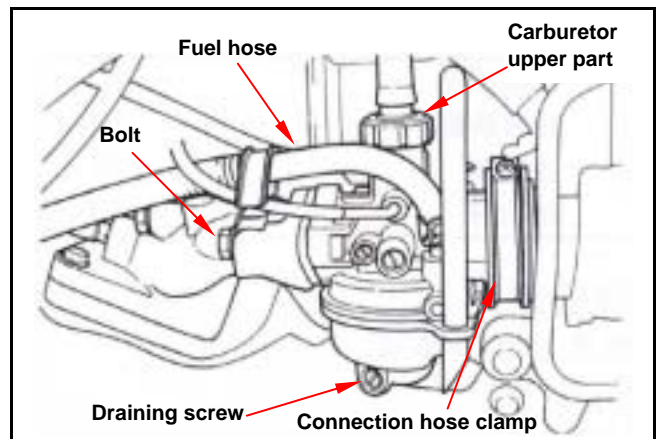
Tighten the draining screw.

Connect the automatic by-starter connector.

Install air cleaner cap.

Conduct following operations

- Adjustment of throttle valve cable.
- Adjustment of oil pump.
- Adjustment of idle speed.



Reed Valve

Removal

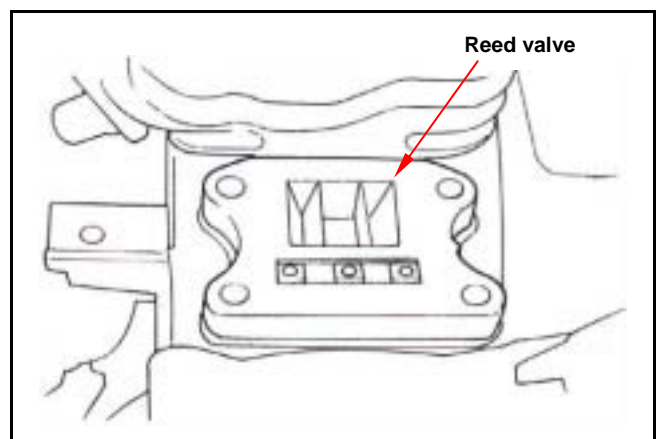
Remove the body cover.

Remove the carburetor.

Remove carburetor insulator.

Remove inlet pipe.

Remove the reed valve.



10. FUEL SYSTEM

Inspection

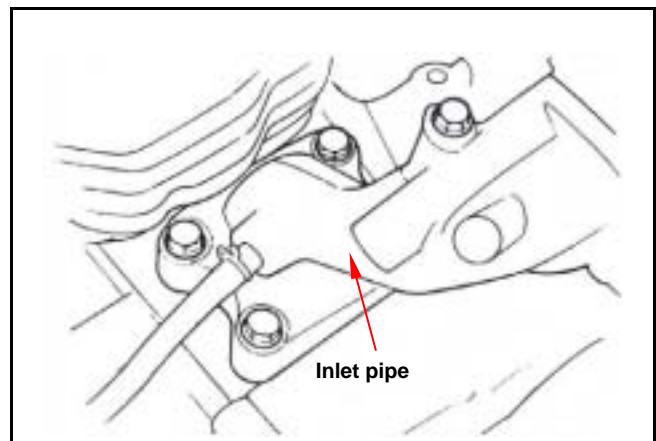
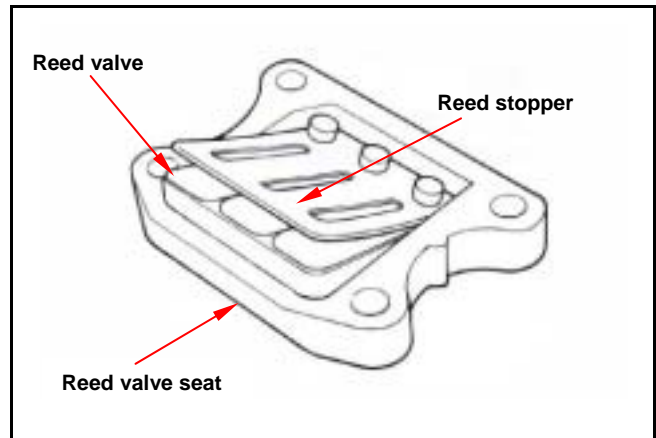
Check the reed valve for damage and its reed strength.

Check the reed valve seat for crack, damage and the clearance between the seat and the valve.

Replace reed valve if necessary.

⚠ Caution

Do not bend the reed valve stopper. Otherwise, it will cause its strength insufficient and rough engine running. If the reed valve or its seat is damaged, replace with a set.



Installation

Install in the reverse order of removal procedures.

Check for leaking after installed.

Fuel Pump

Inspection

Remove the body cover.

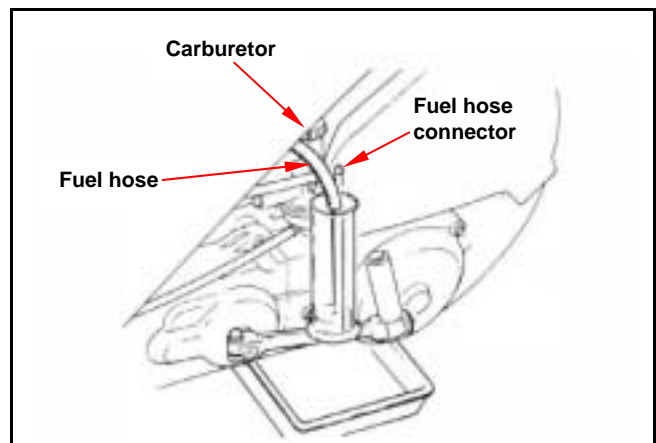
Warm up the engine and adjust idle speed.

Remove fuel hose from carburetor and then wait for 5 minutes.

Measure the output of fuel pump. Its output time is 10 seconds.

Output quantity: Min. 20 c.c.

If the output quantity is lower than 20 c.c., check fuel hose, vacuum hose and fuel filter.



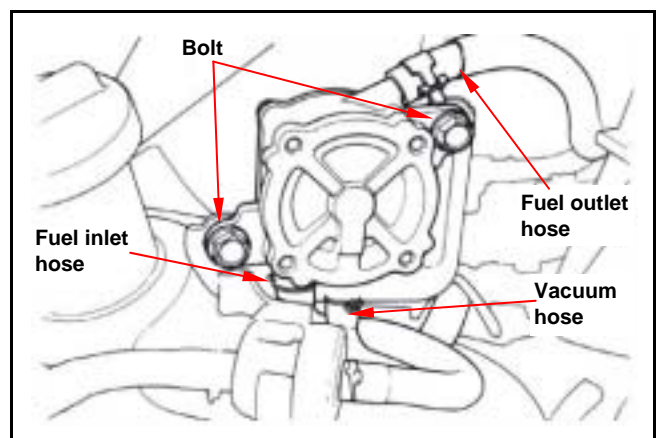
Removal/Installation

Remove floor plate.

Remove fuel inlet, outlet and vacuum hoses.

Remove 2 bolts and fuel pump.

Install the fuel pump in the reverse order of removal procedures.



Air Cleaner**Removal/Installation**

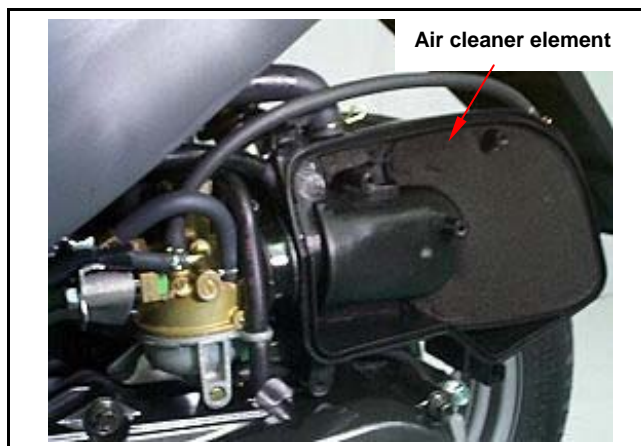
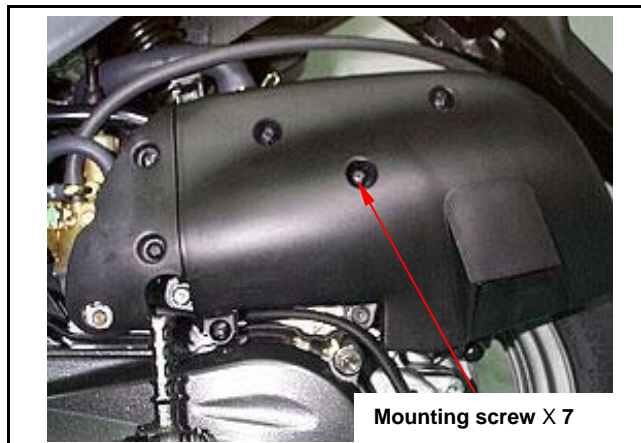
Remove the EEC hose from the air cleaner outer case.

Loosen connection hose clamp.

Remove 2 bolts and then remove the air cleaner outer case.

Install in the reverse order of removal procedures.

Install the air cleaner outer case.



Notes: