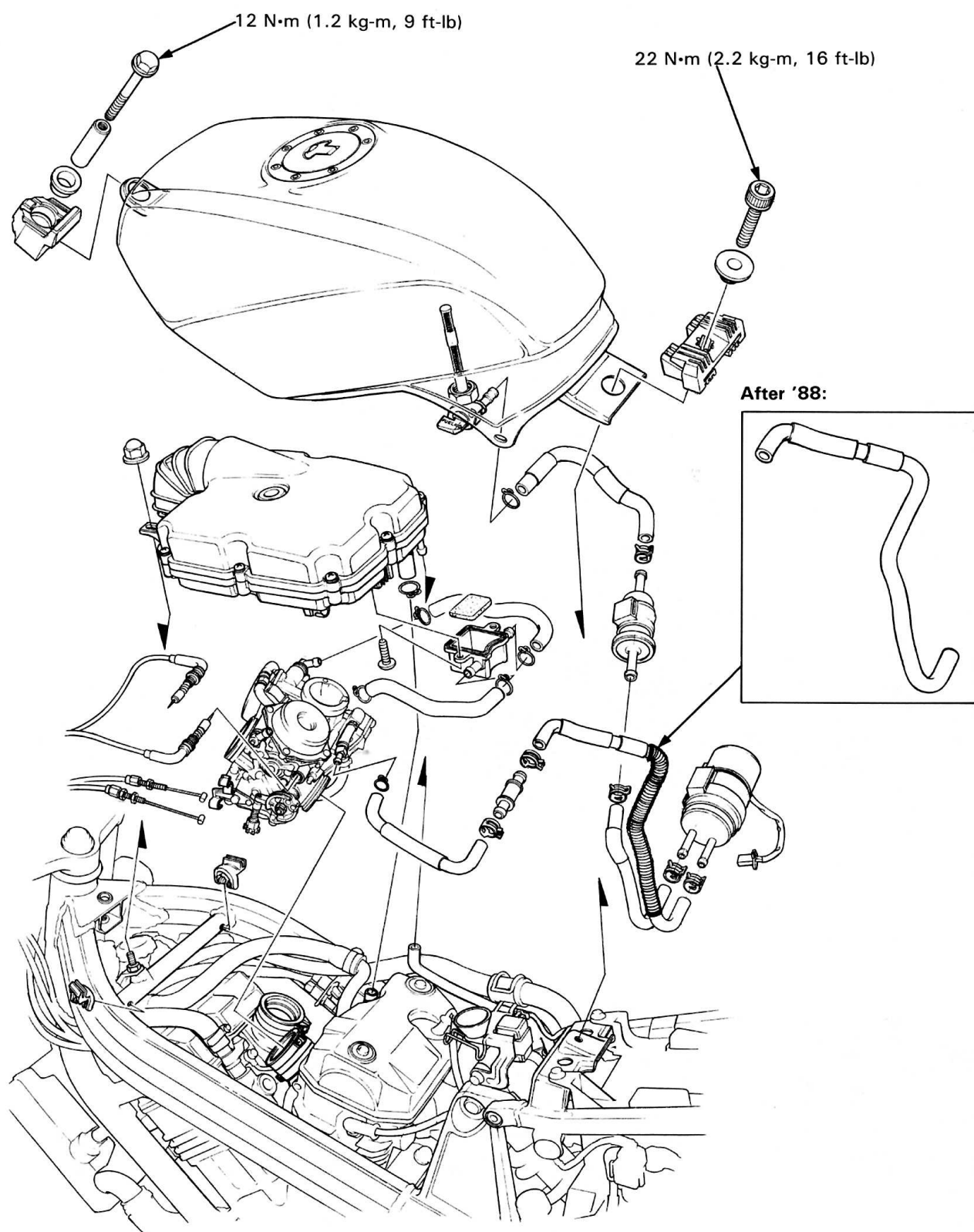


FUEL SYSTEM

'88 Shown:



4. FUEL SYSTEM

4

SERVICE INFORMATION	4-1	CARBURETOR INSTALLATION	4-13
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SERVICE INFORMATION

⚠ WARNING

- Gasoline is extremely flammable and is explosive under certain conditions work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.
- If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in an enclosed area.
- The exhaust contains poisonous carbon monoxide gas that may cause loss of consciousness and lead to death.

GENERAL

- Refer to Section 3 for carburetor synchronization, throttle cable and choke cable adjustments.
- When disassembling fuel system parts, note the locations of the O-rings; replace them with new ones on reassembly.
- The carburetor float chambers have drain screws that can be loosened to drain residual gasoline.
- For fuel pump inspection refer to section 18.
- All hoses used in the evaporative emission control system are numbered for identification. When connecting one of these hoses, compare the hose number with the Vacuum Hose Routing Diagram Label on page 4-15 (California model only), for its routing.

CAUTION

- Do not bend or twist control cables. Damaged control cables will not operate smoothly and may stick or bind.

NOTE

- If the vehicle is to be stored for more than one month, drain the float chambers. Fuel left in the float chambers may cause clogged jets resulting in hard starting or poor driveability.

SPECIFICATIONS

	'88		After '88	
Item	49 St. model	California model	49 St. model	California model
Type	Constant Velocity dual carburetor			
Throttle bore	36.5 mm (1.4 in)			
Identification No.	VDGKA	VDGLA	VDGKA	VDGLA
Float level	9.2 mm (0.36 in)		9.2 mm (0.36 in)	
Main jet	Front: #138, Rear: #132		Front: #138, Rear: #132	
Slow jet	#42		#42	
Idle speed	1,200 ± 100 rpm			
Throttle grip free play	2—6 mm (1/8—1/4 in)			
Pilot screw initial opening	2-1/8	2-1/2	Front: 1-1/2, Rear: 1	1-3/8

FUEL SYSTEM

TORQUE VALUES

Fuel tank mounting bolt	: Front	12 N·m (1.2 kg-m, 9 ft-lb)
	: Rear	22 N·m (2.2 kg-m, 16 ft-lb)

TOOLS

Special

Vacuum/Pressure pump	A937X-041-XXXXX or
Pressure pump	ST-AH-255-MC7 (U.S.A. only)
Vacuum pump	ST-AH-260-MC7 (U.S.A. only)

Common

Float level gauge	07401-0010000
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TROUBLESHOOTING

Engine cranks but won't start

- No fuel to carburetor
- Engine flooded with fuel
- No spark at plug (ignition system faulty)
- Clogged air cleaner
- Intake air leak
- Improper choke operation
- Improper throttle operation

Hard starting or stalling after starting

- Improper choke operation
- Ignition malfunction
- Faulty carburetor
- Fuel contaminated
- Intake air leak
- Incorrect idle speed
- Incorrect valve clearance (Section 3)
- Incorrect carburetor synchronization (Section 3)
- Improper choke valve operation.

Rough idle

- Faulty ignition system
- Incorrect idle speed
- Incorrect valve clearance (Section 3)
- Incorrect carburetor synchronization
- Faulty carburetor
- Fuel contaminated
- Faulty air cut off valve
(California model only):
 - : Faulty purge control valve
 - : Faulty air vent control valve
 - : Worn/damaged emission system hoses

Afterburning during deceleration

- Faulty ignition system
- Faulty air cut off valve
- Lean mixture
(California model only):
 - : Worn/damaged emission system hoses

Misfiring during acceleration

- Faulty ignition system

Backfiring

- Faulty ignition system
- Faulty carburetor

Poor performance (driveability) and poor fuel economy

- Clogged fuel system
- Faulty ignition system
- Dirty air cleaner
(California model only):
 - : Faulty air vent control valve
 - : Worn/damaged emission system hoses

Lean mixture

- Clogged fuel jets
- Stuck vacuum piston
- Faulty float valve
- Low float level
- Clogged fuel tank breather
- Clogged fuel strainer
- Restricted fuel line
- Intake air leak
- Restricted or faulty fuel pump

Rich mixture

- Clogged air jets
- Faulty float valve
- Float level too high
- Dirty air cleaner

FUEL TANK

REMOVAL

⚠ WARNING

- Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.

Remove the seat (page 13-25) and turn the fuel valve OFF. Disconnect the fuel tube from the fuel tank.

'88 Only:

California model only:

Disconnect the No. 1 fuel breather tube (to canister) from the fuel tank.

All models:

Remove the rear fuel tank mounting bolt first, then the front bolt and remove the tank from the frame.

CAUTION

- If you remove the front mounting bolt first, it may damage the front mounting collar.

Check that fuel flows out of the fuel valve freely. If flow is restricted, clean the fuel starter.

After '88:

Remove the rear fuel tank mounting bolt first, then the front bolt.

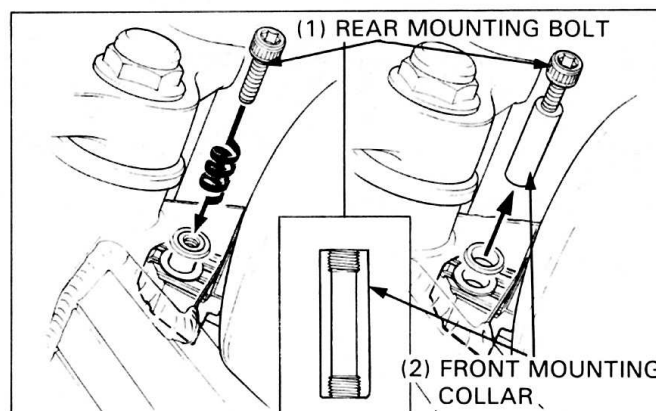
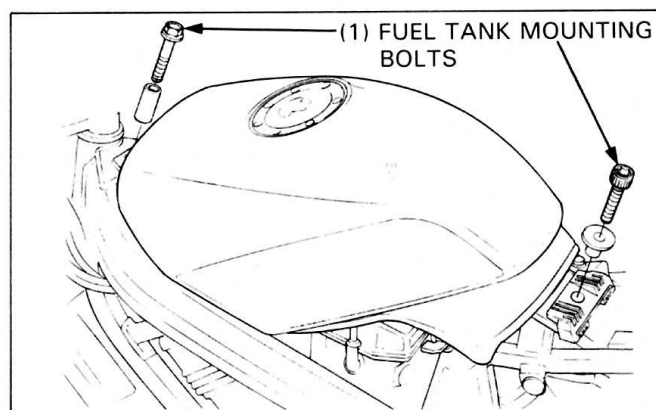
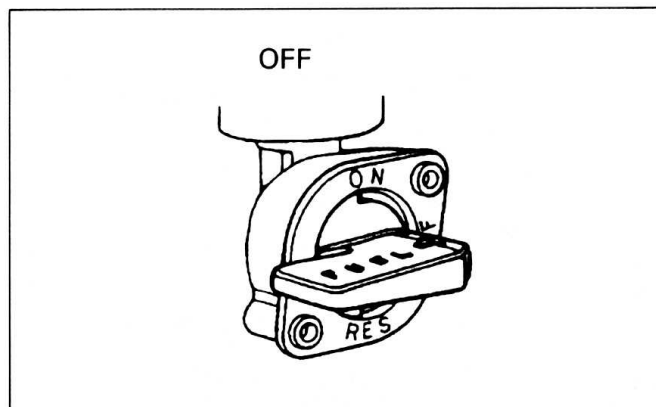
Screw the rear mounting bolt in the front mounting collar. Remove the rear mounting bolt and the collar as a set.

California model only:

Disconnect the No. 1 fuel breather tube (to canister) from the fuel tank.

All models:

Remove the fuel tank from the frame.



INSTALLATION

'88, After '88:

Install the fuel tank in the frame.

Install the front mounting collar and the bolt first, then the rear mounting bolt.

TORQUE:

Front: 12 N·m (1.2 kg-m, 9 ft-lb)

Rear: 22 N·m (2.2 kg-m, 16 ft-lb)

Connect the removed tubes securely.

FUEL SYSTEM

AIR CLEANER CASE

REMOVAL

NOTE

- The air cleaner case can be removed without removing the case cover removal.

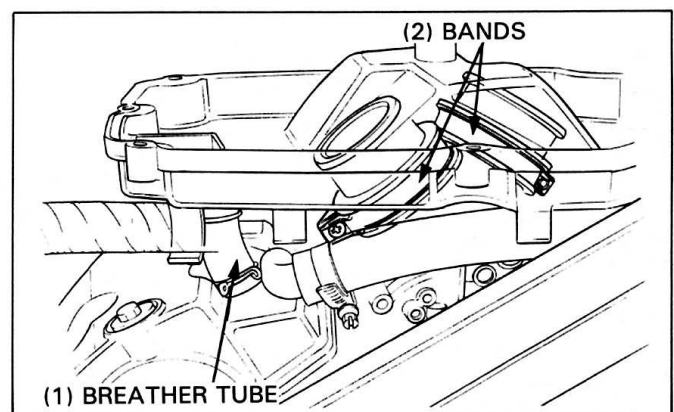
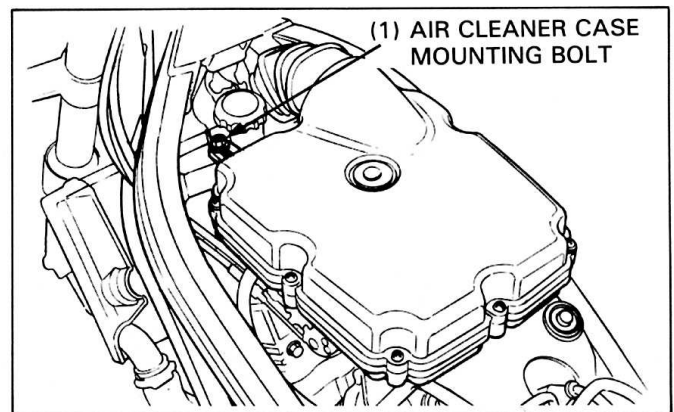
Remove the seat and fuel tank.

Remove the air cleaner case mounting bolt.

Loosen the air cleaner connecting tube band screws and disconnect the crankcase breather and air cleaner case drain tube.

Remove the air cleaner case.

Install the air cleaner case in the reverse order of removal.



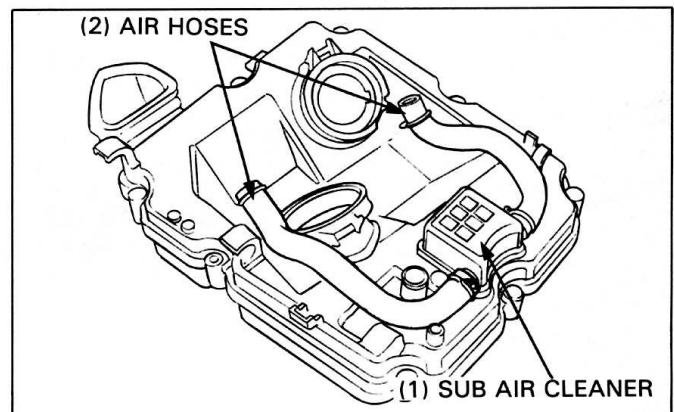
SUB-AIR CLEANER ELEMENT

Remove the following:

- seat (page 13-25) and fuel tank (page 4-3)
- air cleaner case

Disconnect the air hoses (carburetors-to-sub-air cleaner cover).

Remove the sub-air cleaner mounting bolt and cover and remove the element.

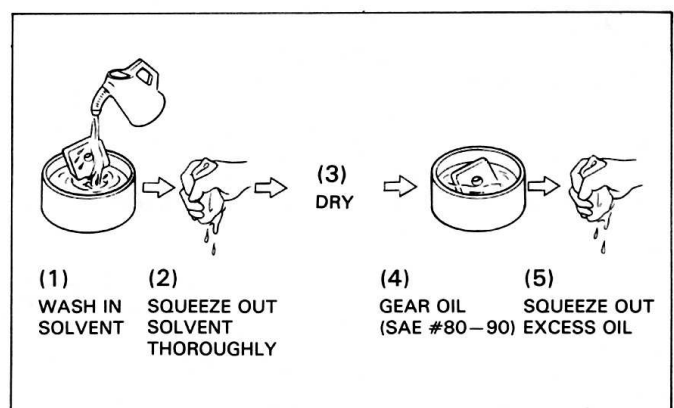


Wash the element in non-flammable or high flash point solvent, squeeze out the solvent thoroughly, and allow the element to dry.

Soak the element in gear oil (SAE #80–90) and squeeze out the excess.

Reinstall the element and cover, and tighten the bolt.

Reconnect the air tubes from the carburetors.



CARBURETOR REMOVAL

⚠ WARNING

- Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.

Loosen the drain screws and drain the fuel into a container.
Remove the air cleaner case.
Disconnect the throttle cables from the carburetor.

NOTE

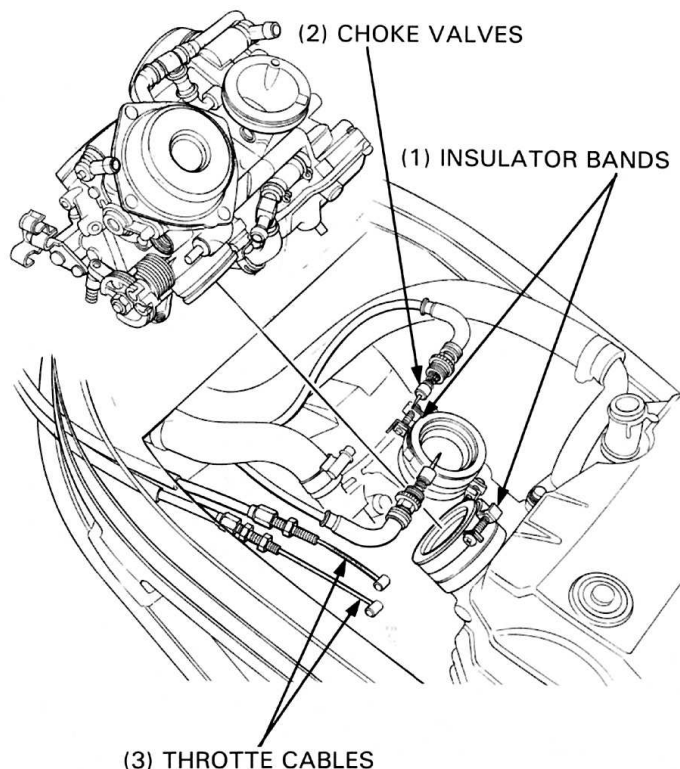
- Turn the choke lever fully in to avoid losing the choke valves.

Remove the choke valves from the carburetor and loosen the carburetor insulator bands.

California model only:

Disconnect the purge control valve No. 5 tubes and air vent control valve No. 6 and 11 tubes from the carburetor.

Pull the carburetors upward and away from the engine.

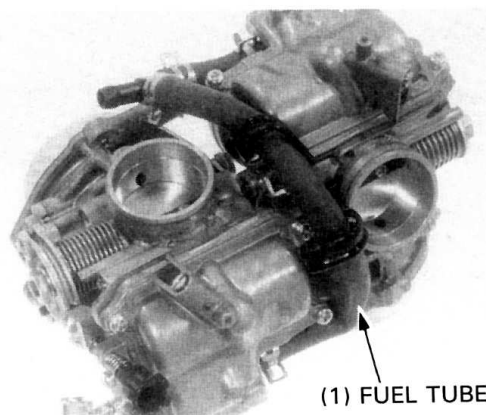


CARBURETOR DISASSEMBLY

NOTE

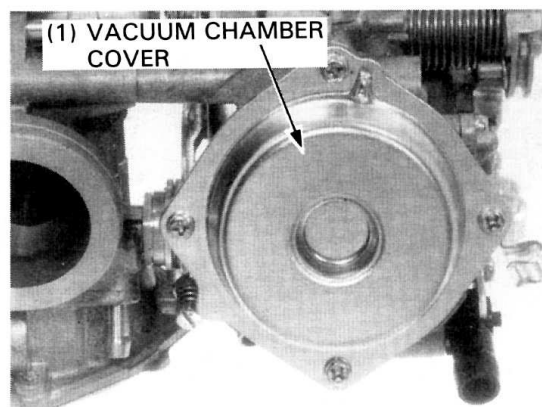
- The carburetors can be disassembled without being separated.

Remove the fuel tube from the carburetor.



VACUUM CHAMBER

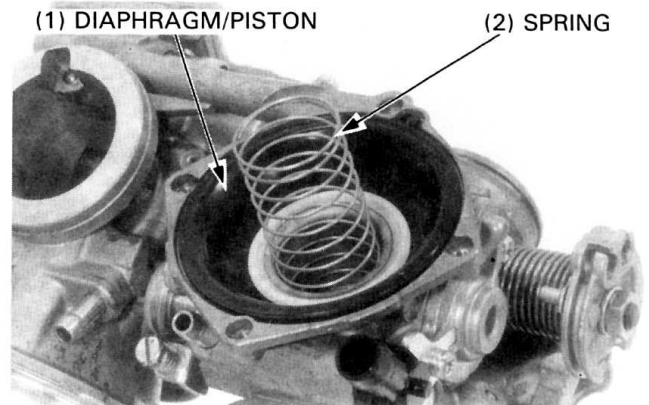
Remove the four screws and vacuum chamber cover.



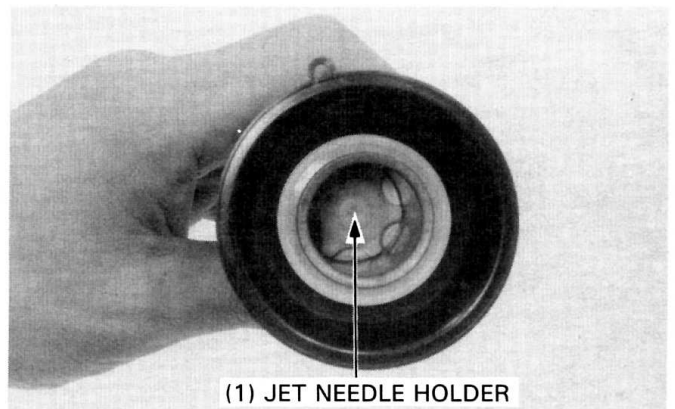
FUEL SYSTEM

Remove the spring, piston/diaphragm.
Inspect the vacuum piston for wear, nicks, scratches or other damage.

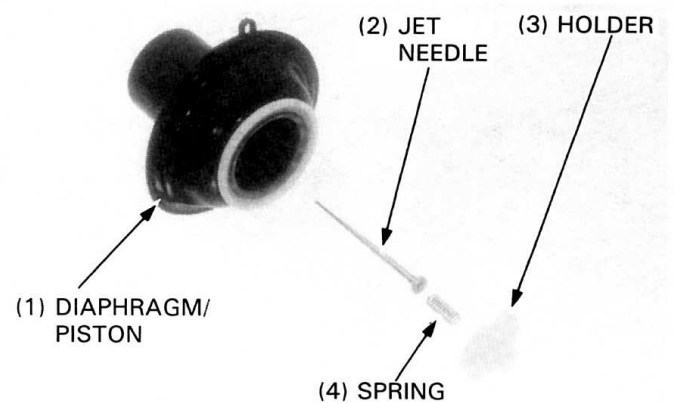
Make sure the piston moves up and down freely in the chamber.



Push the jet needle holder in and turn it in 90 degrees counter-clockwise.

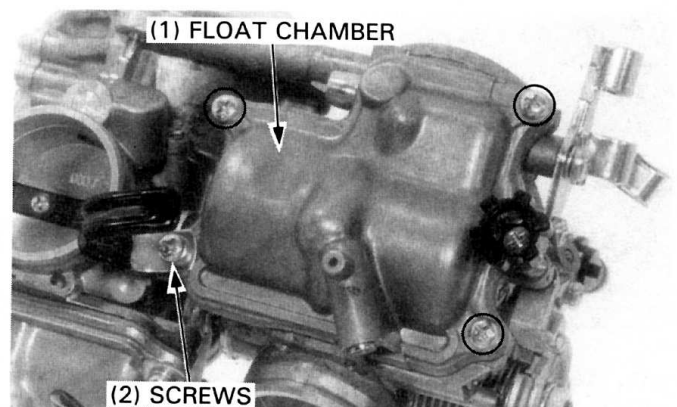


Then remove the needle holder, spring, jet needle and from the piston.
Inspect the needle for excessive wear at the tip, bending or other damage.
Inspect the diaphragm for damage, fatigue or pin holes.
Inspect the vacuum piston for wear or damage.

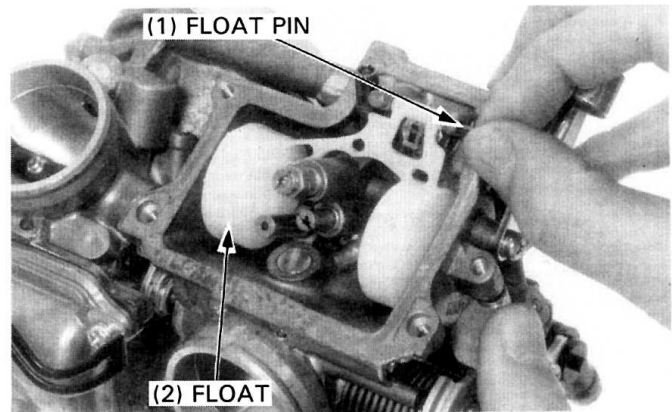


FLOAT CHAMBER, FLOAT AND JETS

Remove the four screws and float chamber.

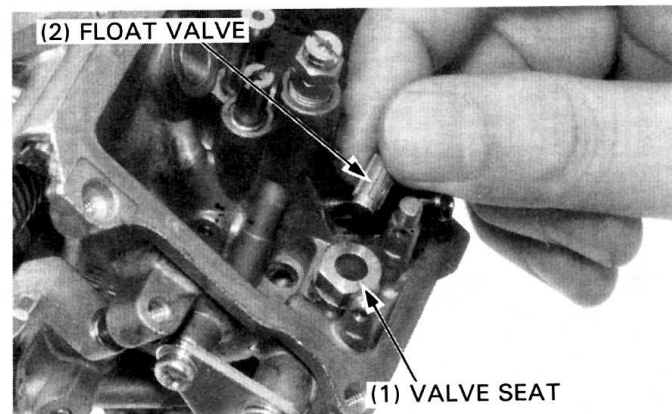


Remove the float pin, float and float valves.



Check the float valve and valve seat for scratches, clogging or damage.

Inspect the operation of the float valve.



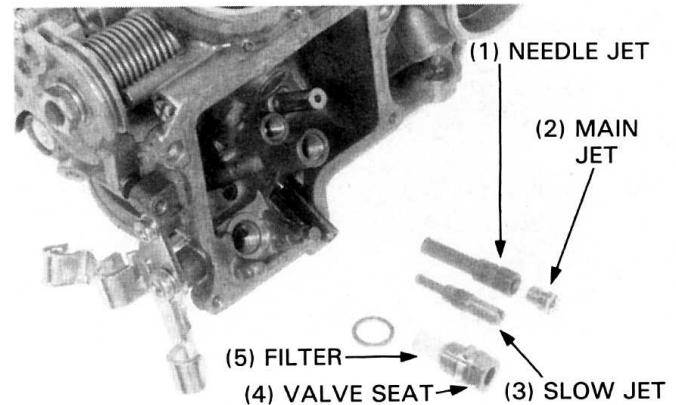
Remove the main jet, needle jet, slow jet and valve seat/filter.

Check each part for wear or damage.
Blow open all jets with compressed air.

Clean each jet with non-flammable or high flash point solvent.

Inspect the float valve seat and filter for grooves, nicks or deposits.

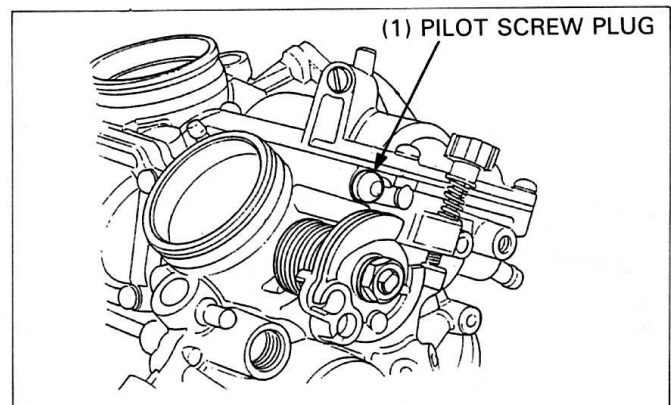
Clean the filter with low-pressure compressed air.



PILOT SCREW REMOVAL

NOTE

- The pilot screws are factory pre-set and should not be removed unless the carburetors are overhauled.
- The pilot screw plugs are factory installed to prevent pilot screw misadjustment. Do not remove the plugs unless the pilot screws are being removed.
- Cover all openings with tape to keep metal particles out when the plugs are drilled.

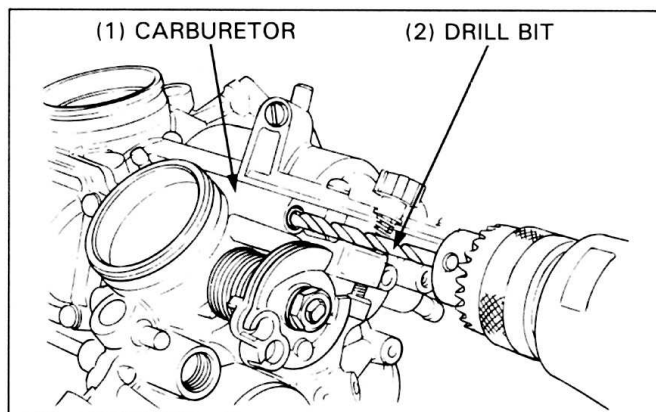


FUEL SYSTEM

Center punch the pilot screw plug to center the drill point. Drill through the plug with a 4 mm (5/32 in) drill bit. Attach a drill stop to the bit 3 mm (1/8 in) from the end to prevent drilling into the pilot screw.

CAUTION

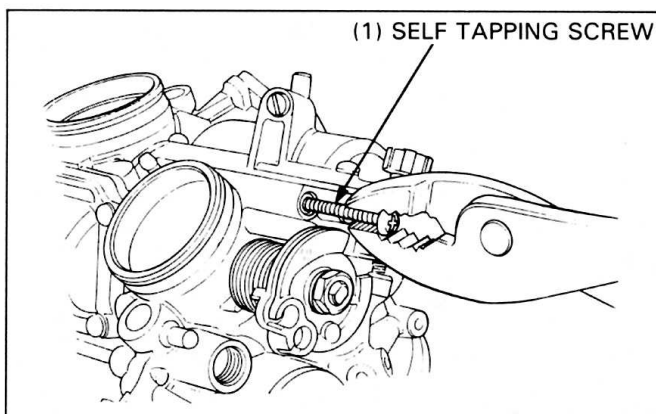
- *Be careful not to drill into the pilot screw.*
- *Both pilot screws must be replaced even if only one requires it, for proper pilot screw adjustment (page 4-14).*



Force a self-tapping 4 mm screw, P/N 93903—35410 into the drilled plug and continue turning the screwdriver until the plug rotates with the screw.

Pull on the screw head with pliers to remove the plug.

Use compressed air to clean the pilot screw area and remove metal shavings.

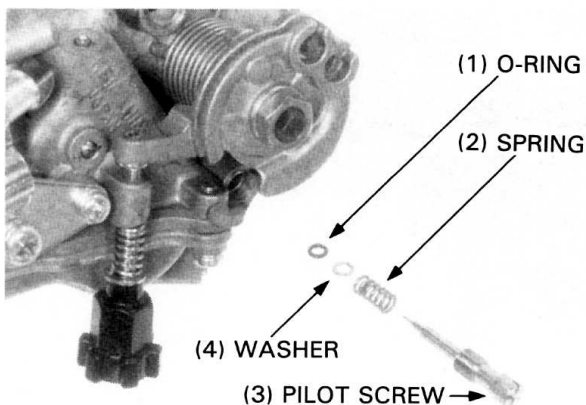


Turn each pilot screw in and carefully count the number of turns until it seats lightly. Make a note of this to use as a reference when reinstalling the pilot screws.

CAUTION

- *Damage to the pilot screw seat will occur if the pilot screw is tightened against the seat.*

Remove the pilot screws and inspect them. Replace them if they are worn or damaged.

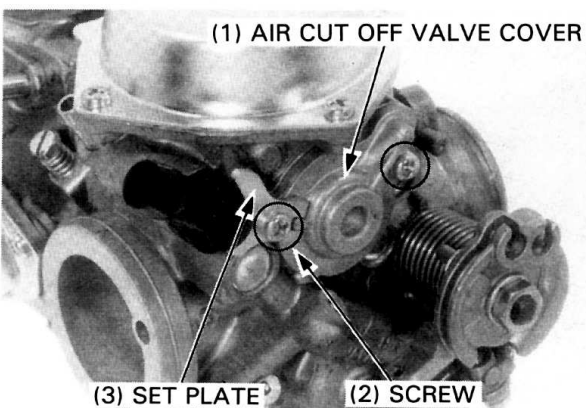


AIR CUT OFF VALVE

Remove the two screws, the set plate and the air cut off valve cover.

NOTE

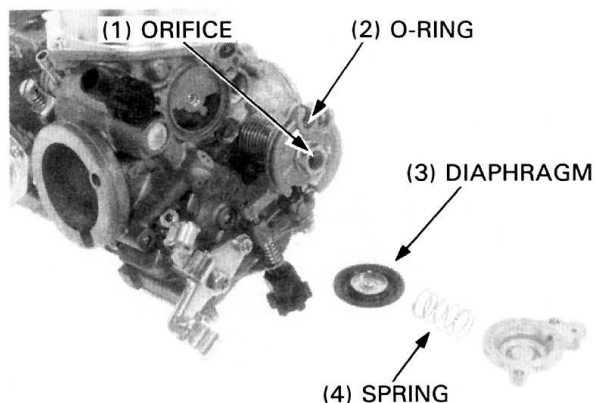
- The air cut off valve cover is under spring pressure. Do not loose the spring and screws.



Visually check the following:

- diaphragm for deterioration, pin hole or other damage.
- spring for deterioration or other damage.
- diaphragm needle for excessive wear at the tip or other damage.
- orifice of air vent for clogging.
- O-ring for damage.

Replace the air cut off valve as an assembly, if necessary.

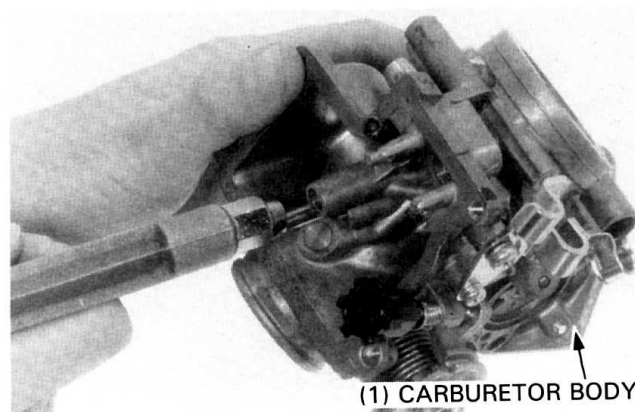


CARBURETOR CLEANING

Separate the carburetors (page 4-12).

Remove the float valve, all jets, and the pilot screws.

Blow open all carburetor body openings with compressed air.



CARBURETOR ASSEMBLY

