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SERVICE INFORMATION

⚠ WARNING

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

- 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.

CAUTION

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

NOTE

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

SPECIFICATIONS

Fuel capacity	18 liters (4.8 US gal, 4.0 Imp gal)
Fuel reserve capacity	2.9 liters (0.77 US gal, 0.64 Imp gal)

< >: California model

Throttle valve dia.	φ34	
Identification No.	VDFHA <VDFJA>	
Float level	7 mm (0.3 in)	
Main jet	FRONT #120	REAR #120
Slow jet	#38	
Idle speed	1,300 ± 100 rpm	
Throttle grip free play	2–6 mm (1/16–1/4 in)	
Pilot screw initial opening	2-1/2 turns out	
Vacuum difference between cylinders	40 mm (1.6 in) Hg max.	

TORQUE VALUES

Fuel tank mounting bolt	27 N·m (2.7 kg-m, 20 ft-lb)
Fuel valve lock nut	40 N·m (4.0 kg-m, 29 ft-lb)
Fuel cup	4 N·m (0.4 kg-m, 2.9 ft-lb)

TOOL

Common

Float level gauge	07401–0010000
Vacuum/Pressure pump	A937X-041-XXXXX or
Vacuum pump	ST-AH-260-MC7
Pressure pump	ST-AH-255-MC7 (U.S.A. only)

TROUBLESHOOTING**Engine cranks but won't start**

- No fuel in tank
- No fuel to carburetor
 - Fuel filter/strainer clogged
 - Fuel line clogged
 - Float valve stuck
 - Float level misadjusted
 - Fuel tank breather tube clogged
 - Fuel auto valve malfunction
- Too much fuel getting to the engine
 - Air cleaner clogged
 - Flooded carburetor
- No spark at plug (ignition system malfunction)
- Intake air leak
- Fuel contaminated/deteriorated
- Slow circuit clogged

Lean mixture

- Fuel jet clogged
- Float valve faulty
- Float level too low
- Fuel line restricted
- Carburetor air vent tube clogged
- Intake air leak
- Fuel auto valve malfunction
- Vacuum piston faulty
- Throttle valve faulty

Rich mixture

- Choke valve in ON position
- Float valve faulty
- Float level too high
- Air jet clogged
- Air cleaner element contaminated
- Flooded carburetor

Engine stalls, hard to start, rough idling

- Fuel line restricted
- Ignition system malfunction
- Fuel mixture too lean/right
- Fuel contaminated/deteriorated
- Intake air leak
- Idle speed misadjusted
- Fuel auto valve malfunction
- Pilot screw misadjusted
- Slow circuit clogged
- Float level misadjusted
- Fuel tank breather tube clogged
- Purge control valve faulty
(California model only)
- Hoses of the emission control system faulty
(California model only)

Afterburn when engine braking is used

- Air cut-off valve faulty
- Lean mixture in slow circuit
- Hoses of the emission control system faulty
(California model only)

Backfiring or misfiring during acceleration

- Ignition system malfunction
- Fuel mixture too lean

Poor performance (driveability) and poor fuel economy

- Fuel system clogged
- Ignition system malfunction
- Damaged/misconnected emission control system hoses
(California model only).

FUEL TANK

REMOVAL

▲WARNING

- *Keep gasoline away from flames or sparks. Wipe up spilled gasoline at once.*

Remove the side covers (page 12-4) and side cowling (page 12-2).

Remove the two bolts and seat.

Turn the fuel valve OFF and disconnect the fuel tube and vacuum tubes.

Disconnect the fuel tank cap vent tube (California model only).

Remove the fuel tank mounting bolt and fuel tank.

Check that fuel flows out of the fuel valve freely.

If flow is restricted, clean the fuel strainer screen (page 3-4).

INSTALLATION

Install the fuel tank and tighten the mounting bolt.

TORQUE: 27 N·m (2.7 kg·m, 20 ft·lb)

Connect the fuel tube and vacuum tubes.

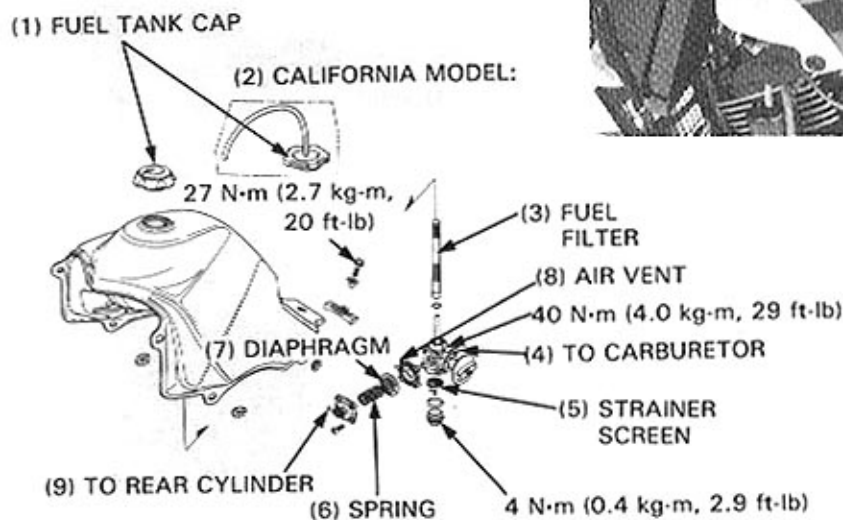
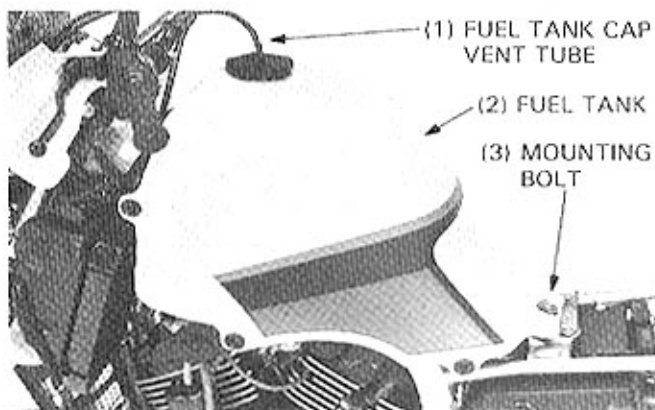
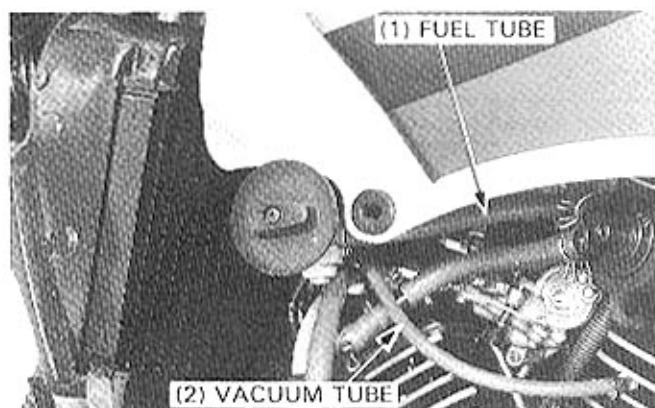
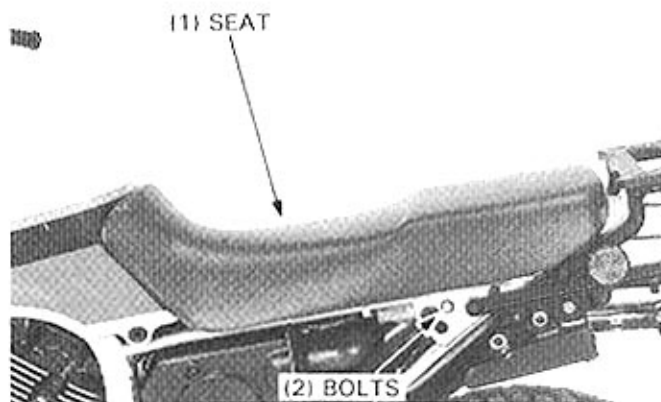
Install the seat with the two bolts.

Install the side covers (page 12-4) and side cowling (page 12-2).

Connect the fuel tank cap vent tube (California model only).

NOTE

- After assembling, make sure there are no fuel leaks.



FUEL VALVE

INSPECTION

Install the vacuum pump to the vacuum tube of the fuel valve.

Apply a vacuum to the diaphragm with the vacuum pump and be sure the gasoline flows smoothly.

The fuel valve is operating normally if fuel flows out of the fuel tube when vacuum is applied and if fuel stops flowing out when the vacuum pump is disconnected.

If the fuel valve does not operate normally;

- Inspect the fuel valve for clogging and clean the valve.
- Replace the diaphragm if fuel flows out without applying a vacuum.

NOTE

- Place a clean fuel container under the fuel tube.

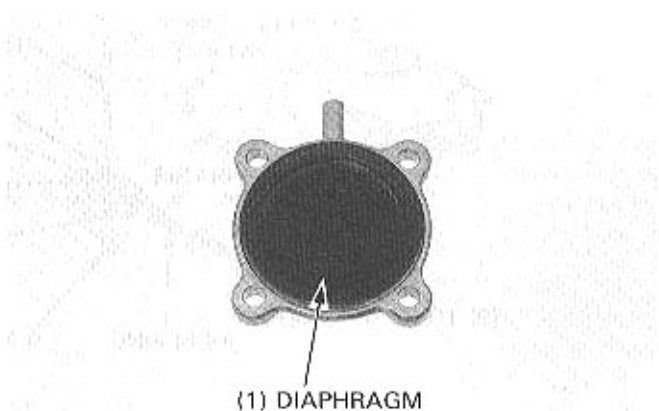
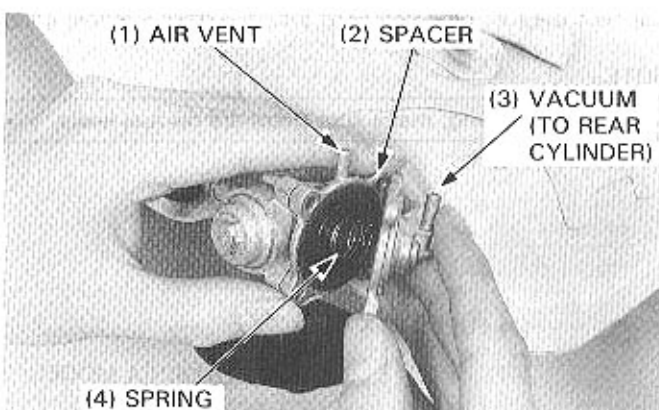
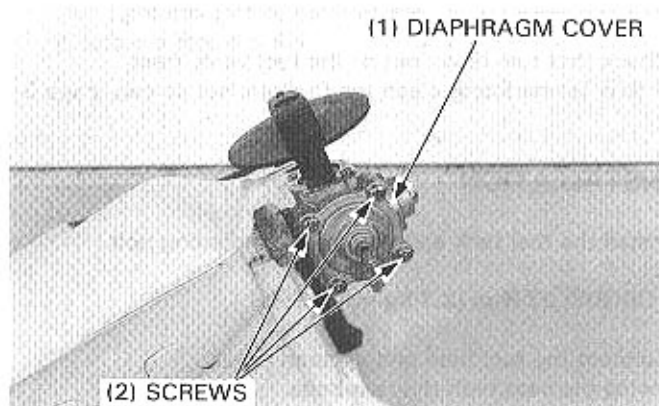
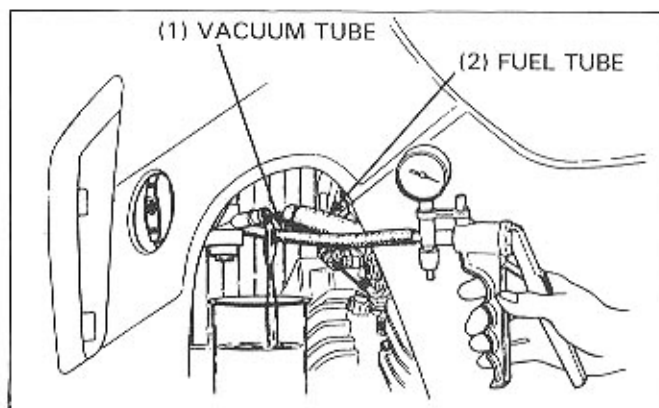
DISASSEMBLY

Remove the fuel tank (page 4-3).

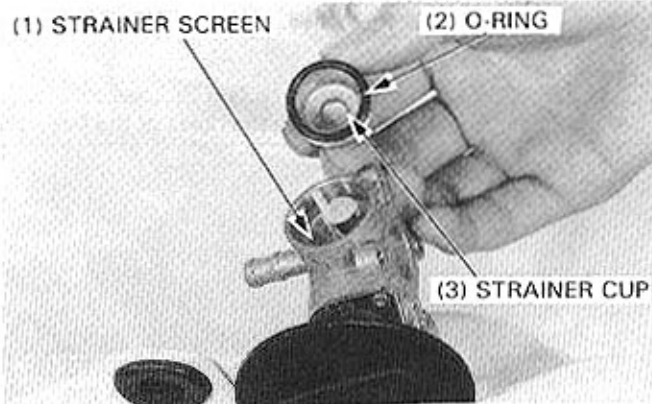
Remove the diaphragm cover with the four screws.

Remove the spring and spacer.
Check the spring for damage.

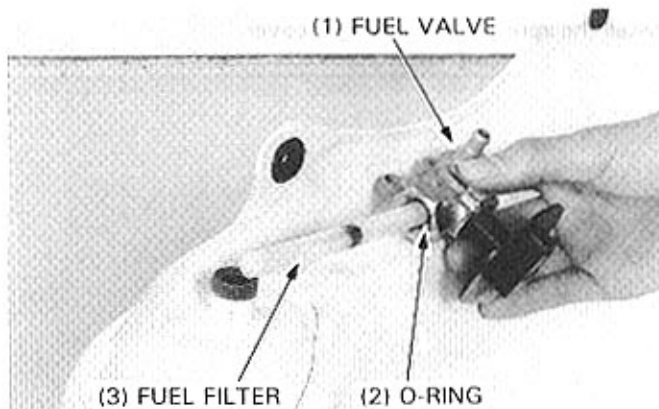
Check the diaphragm for pin holes or other damage.
Replace if necessary.



Remove the fuel strainer cup, O-ring and strainer screen.
Clean the fuel strainer screen.



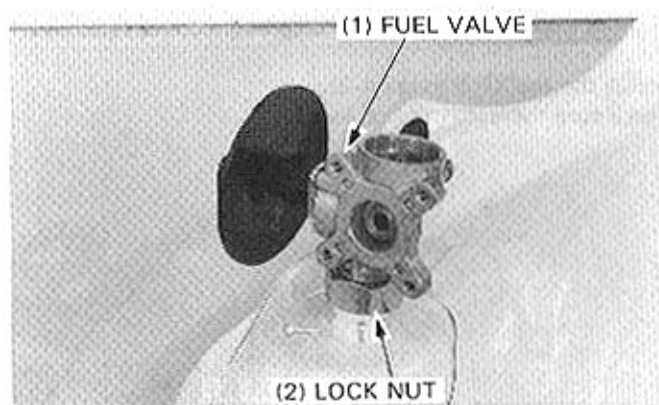
Loosen the lock nut, and remove the fuel valve from the fuel tank.
Remove the fuel filter and O-ring.
Clean the fuel filter.



ASSEMBLY

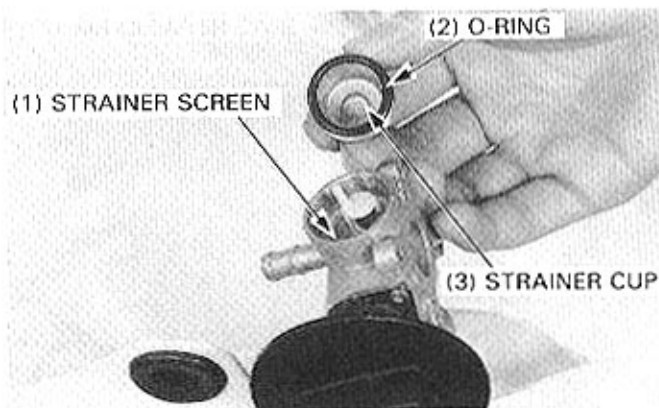
Install the fuel filter and a new O-ring to the fuel valve.
Install the fuel valve to the fuel tank.

TORQUE: 40 N·m (4.0 kg-m, 29 ft-lb)



Install the strainer screen.
Install a new O-ring to the strainer cup, and install the strainer cup onto the fuel valve.

TORQUE: 4.0 N·m (0.4 kg-m, 2.9 ft-lb)

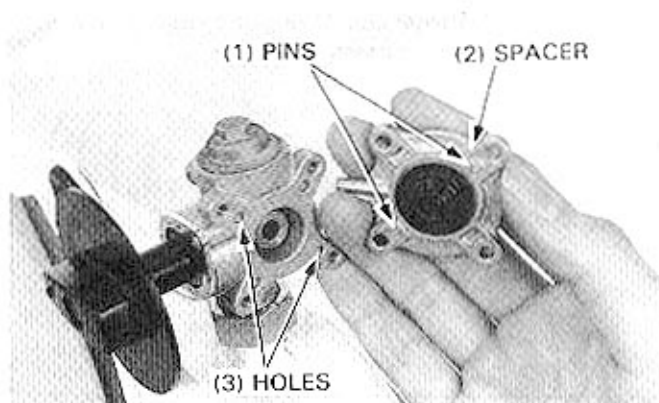


FUEL SYSTEM

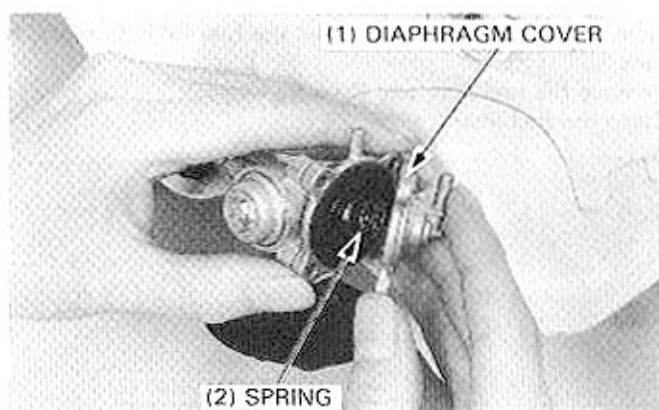
Install the spacer to the fuel valve.

NOTE

- Align the pins of the spacer with the holes of the fuel valve.

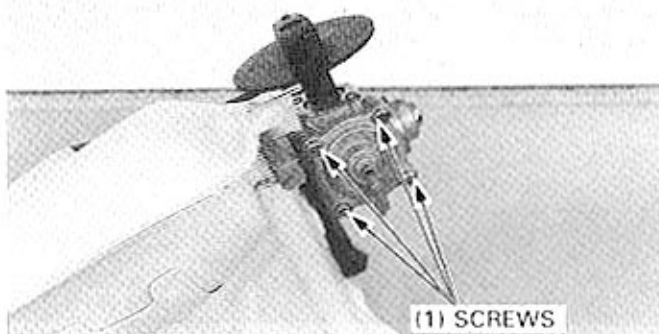


Install the spring and diaphragm cover.



Tighten the four screws of the diaphragm cover securely.

Install the fuel tank (page 4-3).
Make sure there are no fuel leaks.



AIR CLEANER CASE

REMOVAL

Rise the rear wheel off the ground by placing a box or workstand under the engine.

CAUTION

- Do not jack up the engine by putting the jack under the oil filter.

Remove the battery (page 16-3).

Remove the starter relay switch.

Remove the rear fender and inner fender (page 12-5).

Remove the rear wheel (page 14-3).

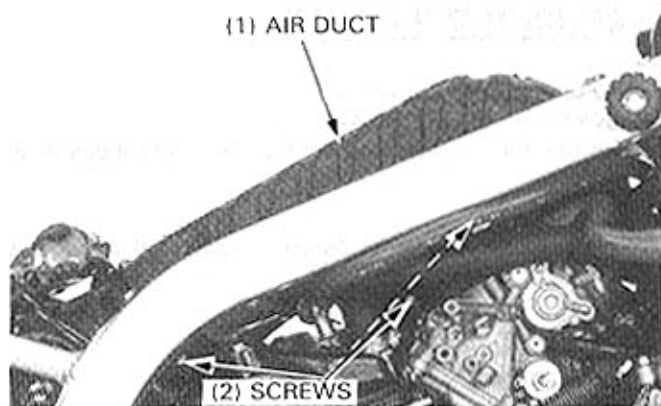
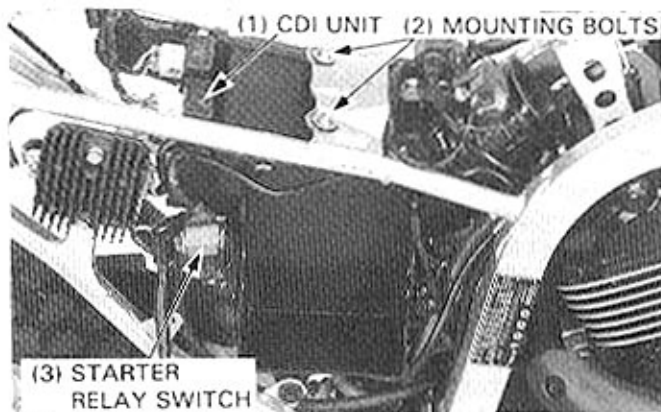
Remove the air cleaner case mounting bolt on right side.

Remove the CDI unit from the air cleaner case.

Remove the air cleaner case mounting bolts on upper side.

Loosen the insulator band and air duct band screws and remove the air duct.

Pull the air cleaner case backward.

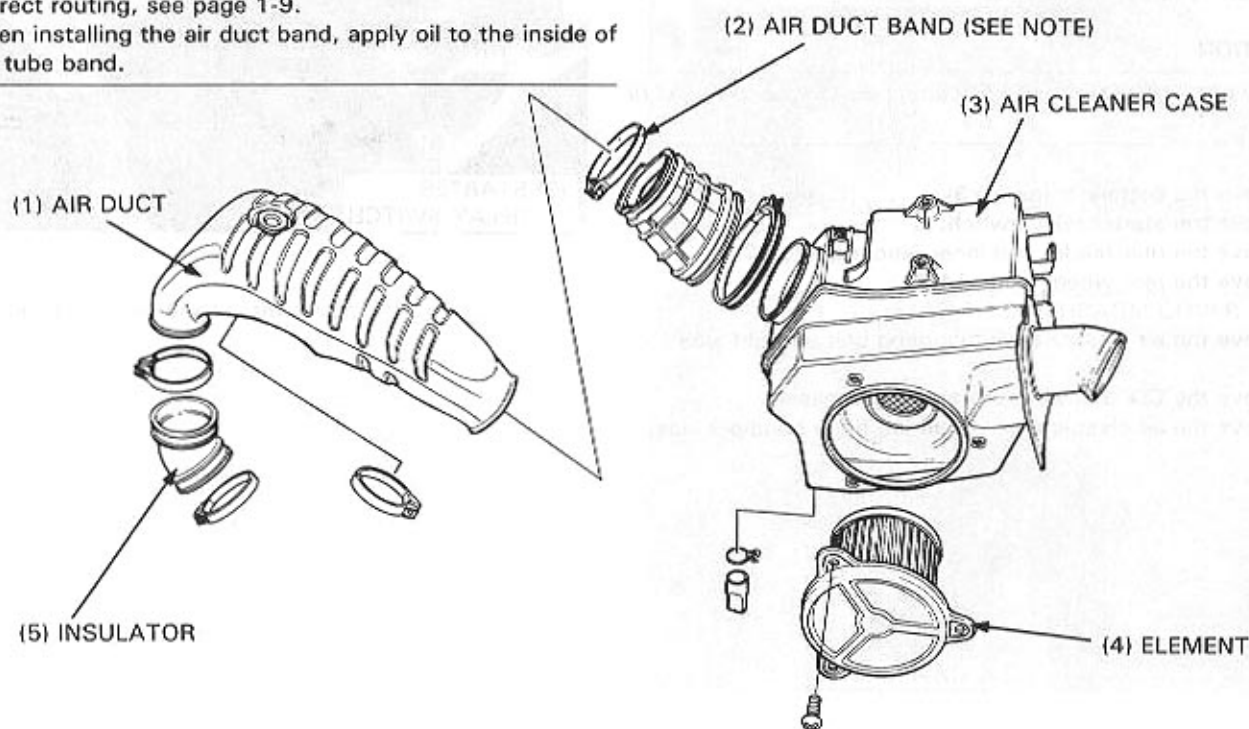


INSTALLATION

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

NOTE

- Correct routing, see page 1-9.
- When installing the air duct band, apply oil to the inside of the tube band.



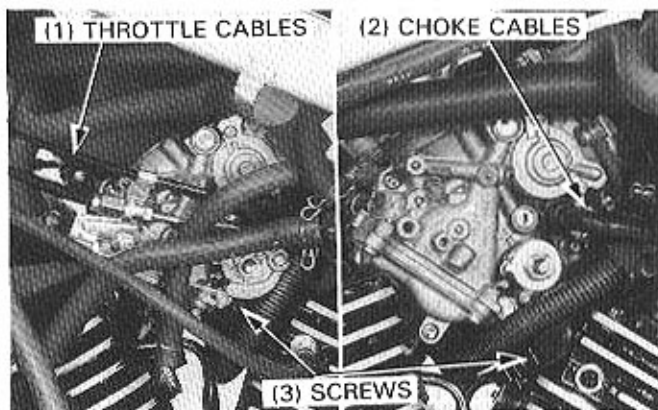
CARBURETOR REMOVAL

Remove the fuel tank (page 4-3).
Remove the air duct (page 4-7).
Loosen the drain screws and drain the fuel into a container.

WARNING

- *Keep gasoline away from flames or sparks. Wipe up spilled gasoline at once.*

Disconnect the throttle cables.
Disconnect the right and left side choke cables.
Loosen the insulator band screws.
Pull the carburetors upward and away from the engine.

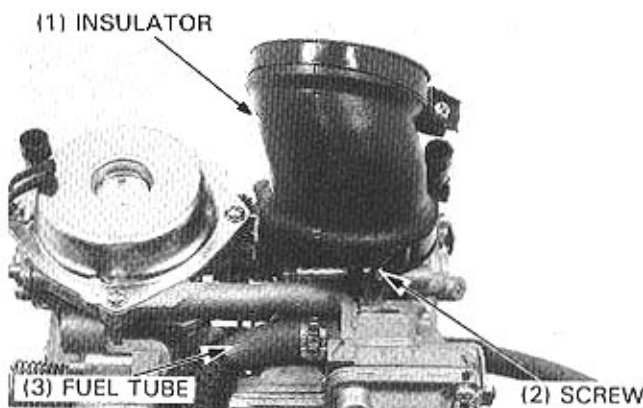


CARBURETOR DISASSEMBLY

NOTE

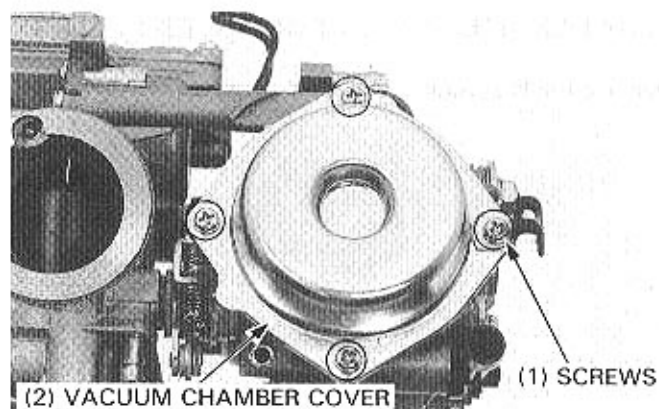
- The disassembly of the carburetor can be done without separating the carburetors.

Remove the insulator from the carburetor, loosening the screw.
Remove the fuel tube.



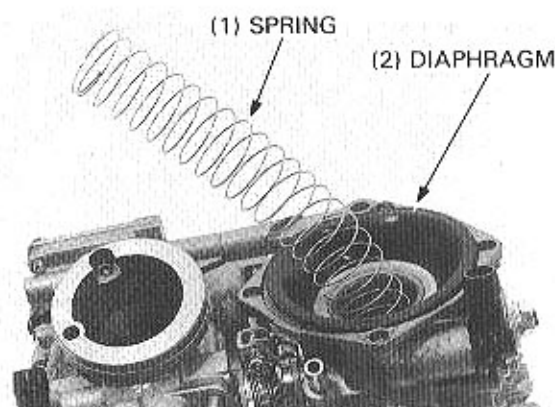
VACUUM CHAMBER

Remove the four screws and vacuum chamber cover.

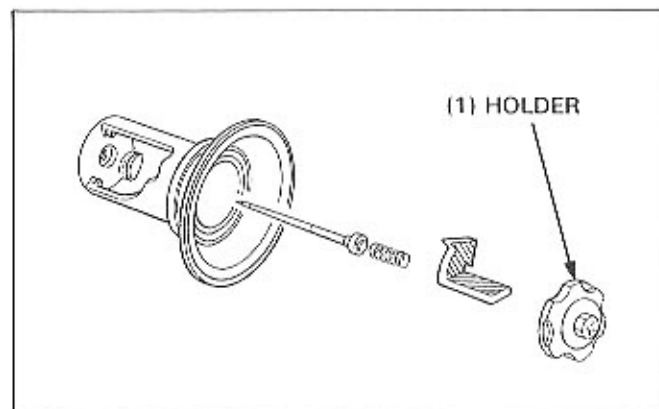


Remove the spring, diaphragm and vacuum piston. Inspect the vacuum piston for wear, nicks, scratches or other damage.

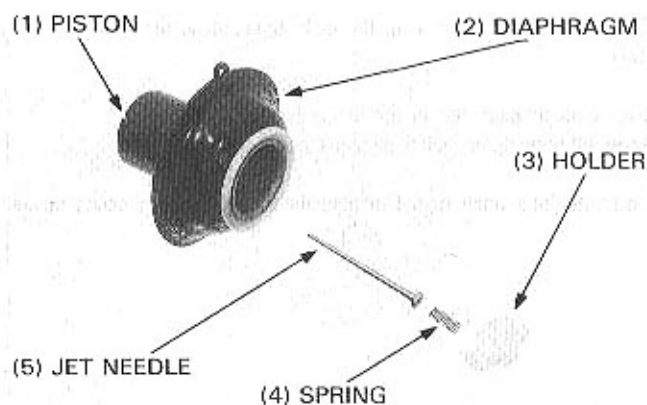
Make sure the piston moves up and down freely in the chamber.



Push the jet needle holder in and turn it in 60 degrees counter-clockwise.

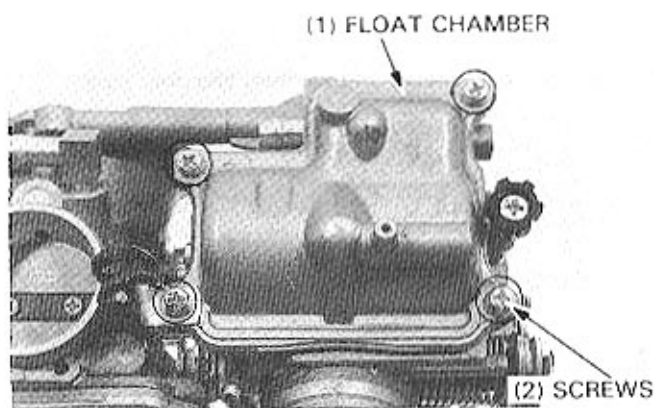


Then remove the needle holder, spring and jet needle from the piston. Inspect the needle for excessive wear at the tip, bending or other damage. Inspect the diaphragm for damage or pin holes. Inspect the vacuum piston for wear or damage.

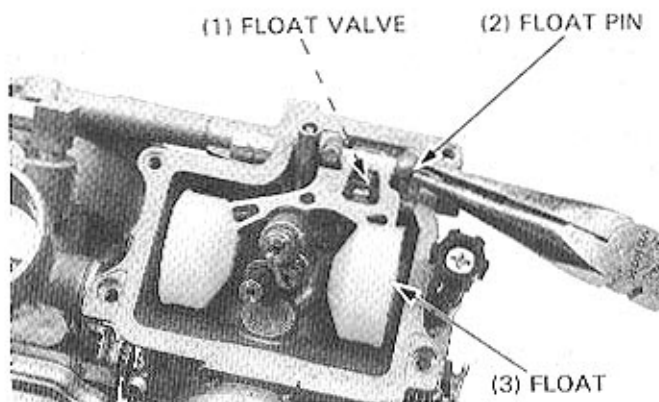


FLOAT CHAMBER, FLOAT AND JETS

Remove the four screws and float chamber.

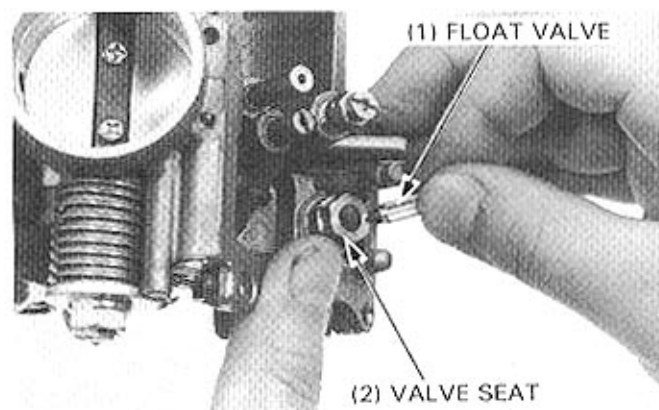


Remove the float pin, float and float valve.



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

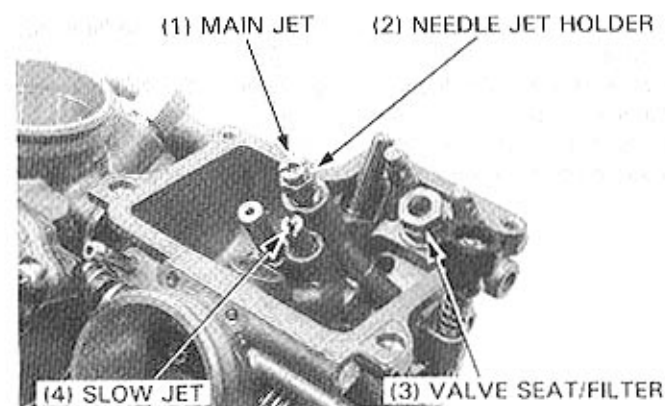
Inspect the operation of the float valve.



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

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

Clean all jets with non-flammable or high flash point solvent.

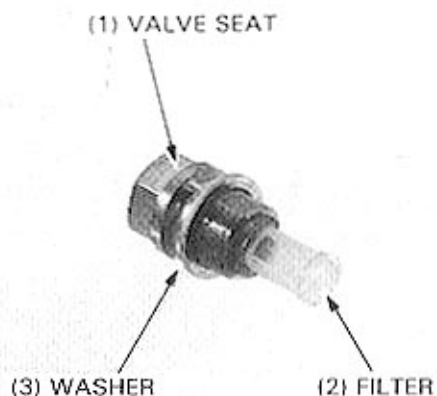


Inspect the float valve seat and filter for grooves, nicks or deposits.

Clean the filter with low-compressed air.

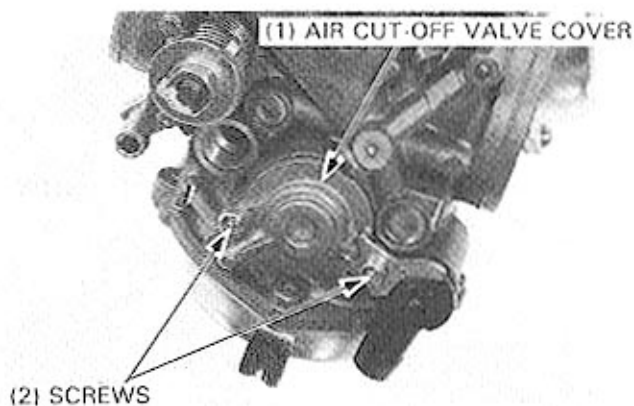
NOTE

- Do not use high-pressure air.



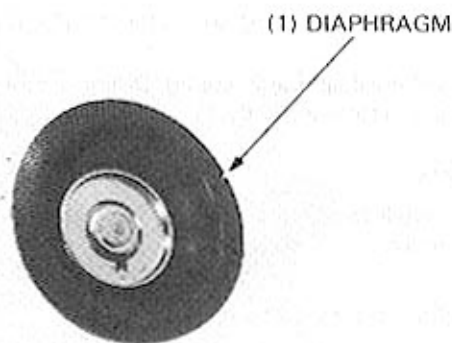
AIR CUT-OFF VALVE

Remove the two screws and air cut-off valve cover.
Remove the spring, diaphragm and O-ring.



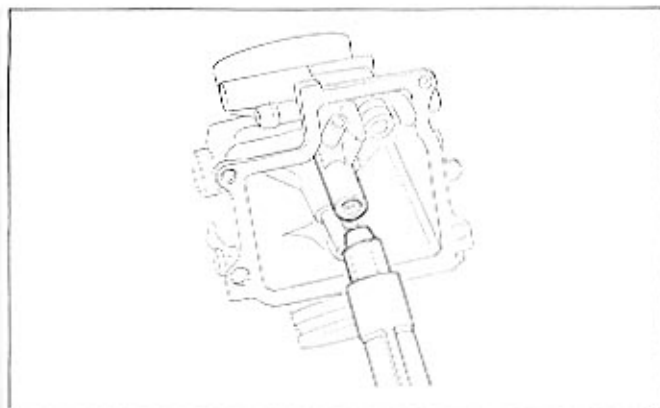
Check the diaphragm for pin holes or other damage.

Replace if necessary.

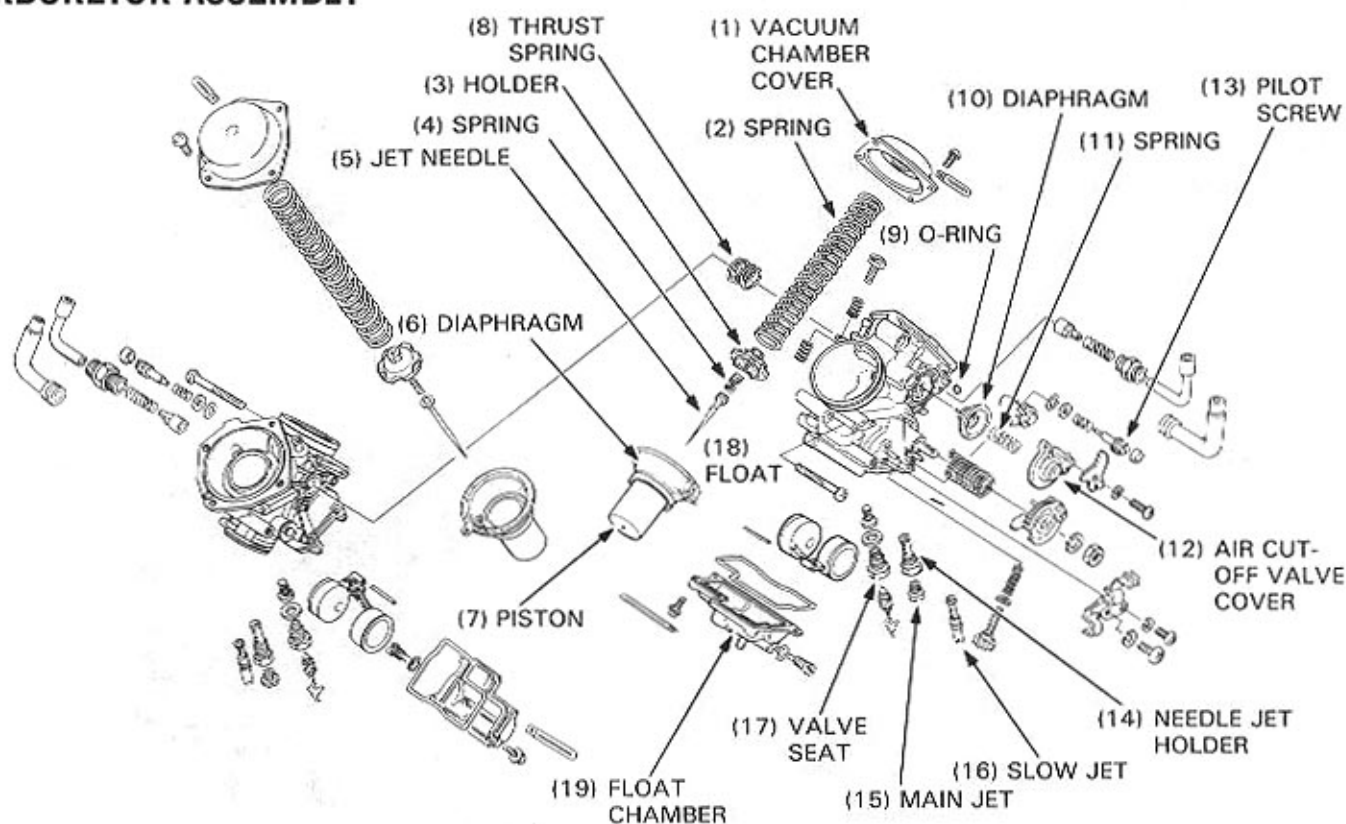


Separate the carburetors (page 4-14).

Blow all passages open with compressed air before installing the jets and valves.



CARBURETOR ASSEMBLY



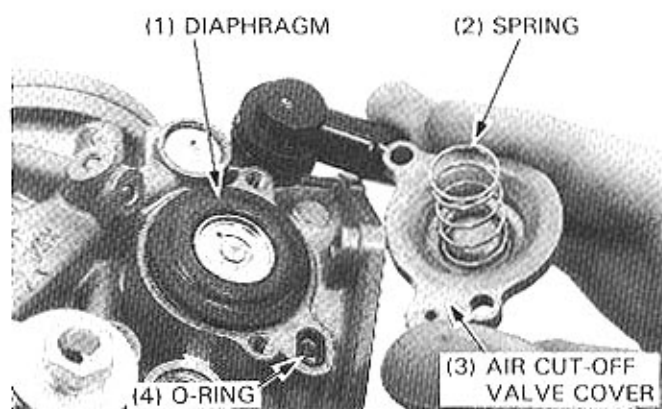
AIR CUT-OFF VALVE

Install the diaphragm, spring, O-ring and air cut-off valve cover to the carburetor body.

NOTE

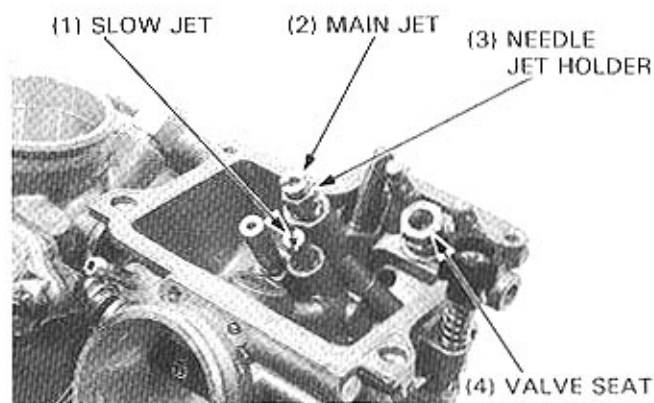
- Install the O-ring with its flat side toward the carburetor body.

Tighten the screws securely.

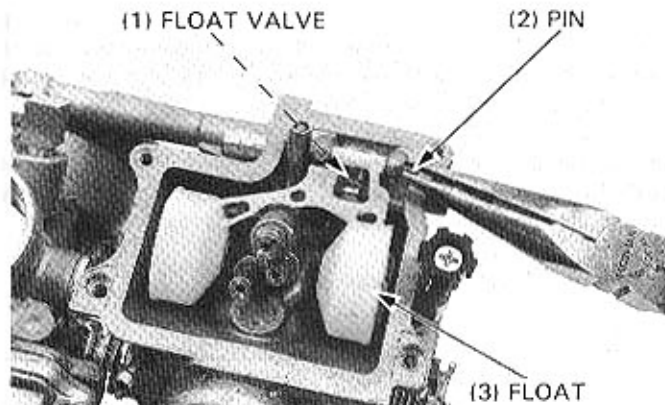


FLOAT CHAMBER, FLOAT AND JETS

Install the valve seat, slow jet, needle jet holder and main jet.



Install the float with the float valve toward the carburetor body and install the float arm pin through the body and float.



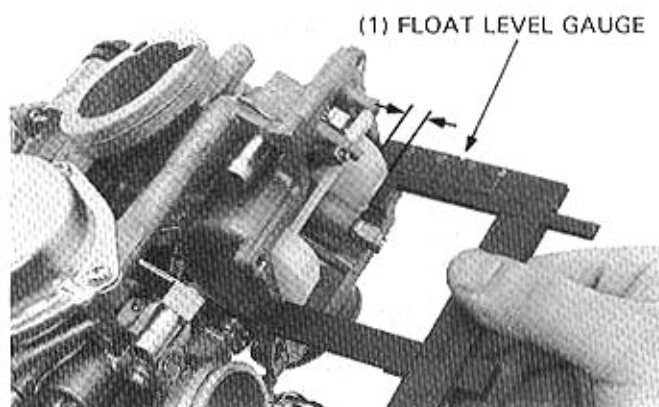
FLOAT LEVEL

Measure the float level with the float tang just contacting the float valve.

FLOAT LEVEL: 7 mm (0.3 in)

TOOL:
Float level gauge 07401-0010000

Adjust the float level by carefully bending the float tang.

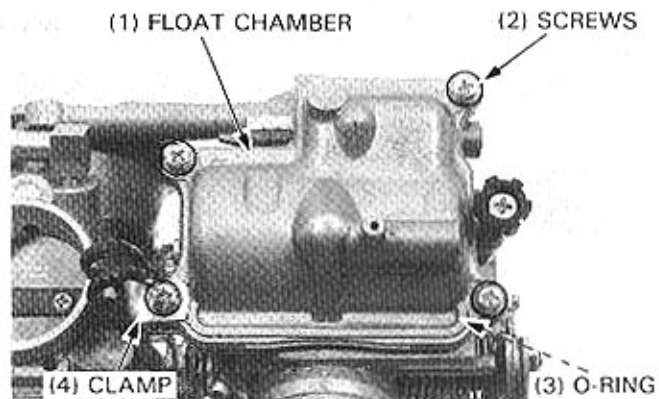


Apply thin oil to the O-ring.

Install the float chamber and tighten the screws securely.

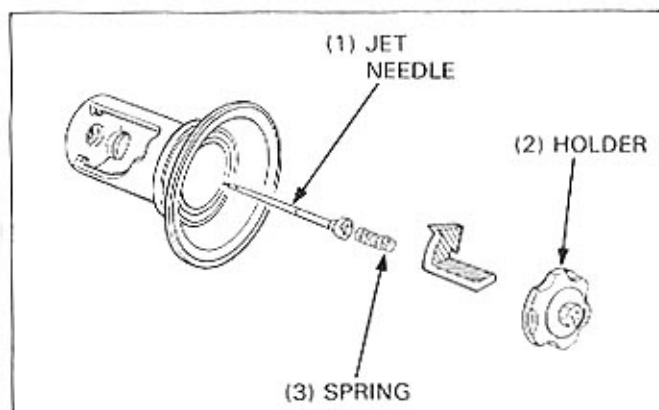
NOTE

- Install the fuel tube clamp at the correct position.



VACUUM CHAMBER

Install the jet needle, spring and needle holder to the vacuum piston. Push the jet needle holder in and turn it in 60 degrees clockwise.



FUEL SYSTEM

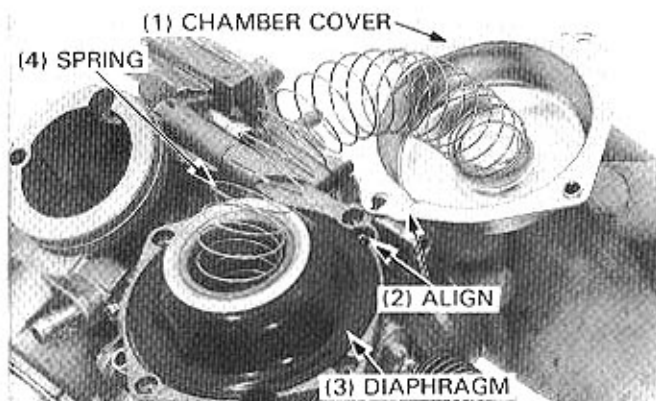
Install the vacuum chamber with the tab of the diaphragm aligned with the groove of the carburetor and with the vacuum piston held up to almost full open so that the diaphragm is not pinched by the chamber cover.

Install the chamber cover with the spring, aligning its cavity with the hole in the carburetor, and secure with at least two screws on diagonal before releasing the vacuum piston.

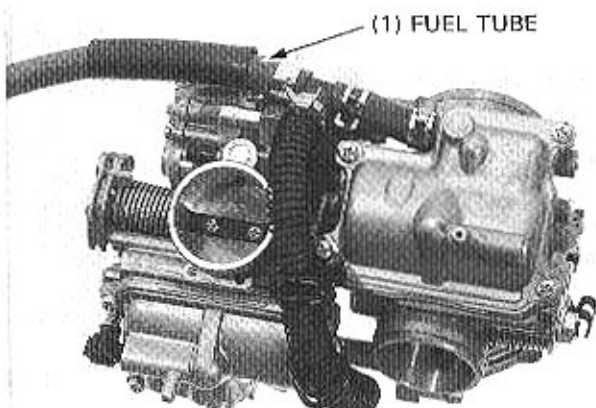
Install the remaining screws.

NOTE

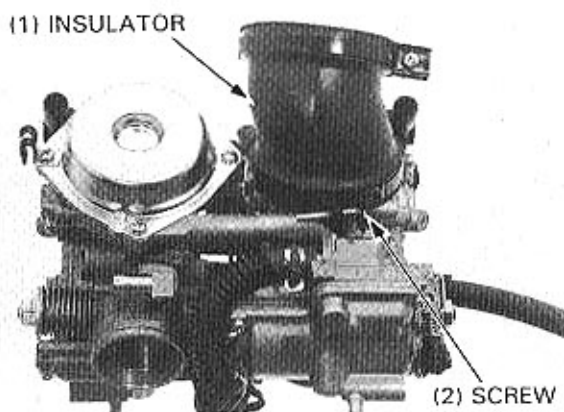
- Do not pinch the diaphragm with the chamber cover.



Install the fuel tube to the carburetors as shown.



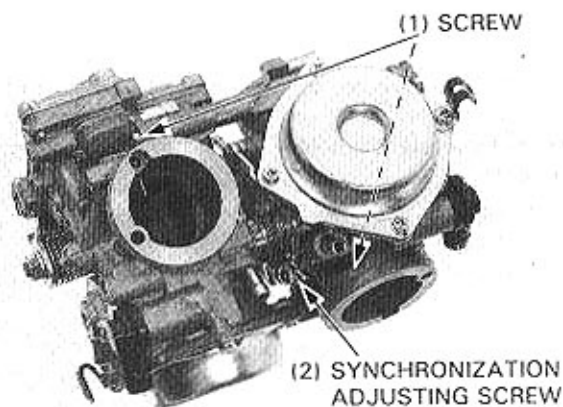
Install the insulator to the carburetor and tighten the screw securely.



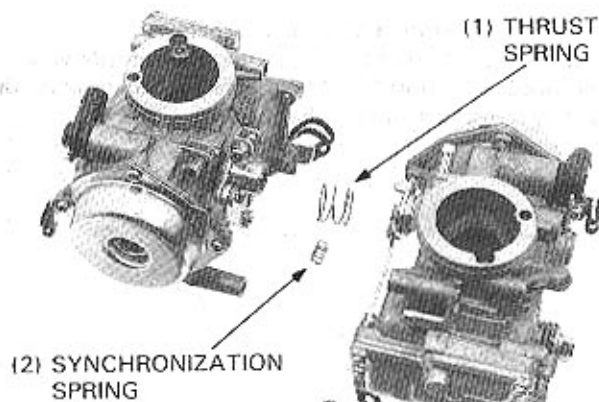
CARBURETOR SEPARATION/ COMBINATION

SEPARATION

Loosen the synchronization adjusting screw.
Separate the carburetors by removing two attaching screws.



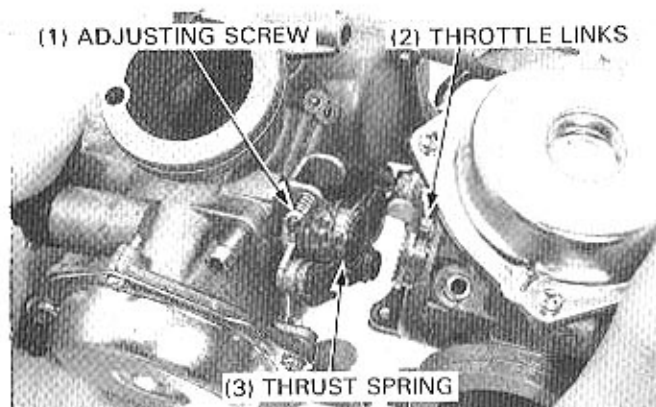
Take care not to lose the thrust spring and synchronization adjusting spring.



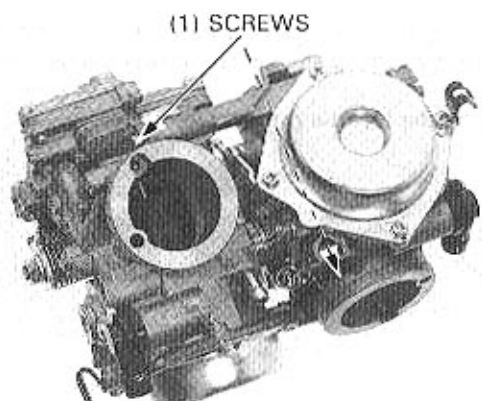
COMBINATION

Loosen the synchronization adjusting screw until there is no tension.

Install the thrust spring between the throttle links.



Assemble the carburetors with the two attaching screws.



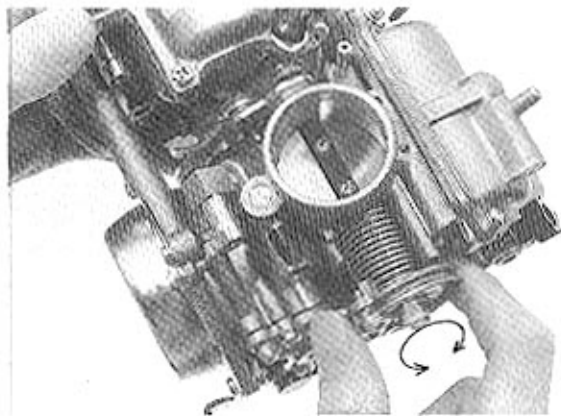
Install the synchronization spring.



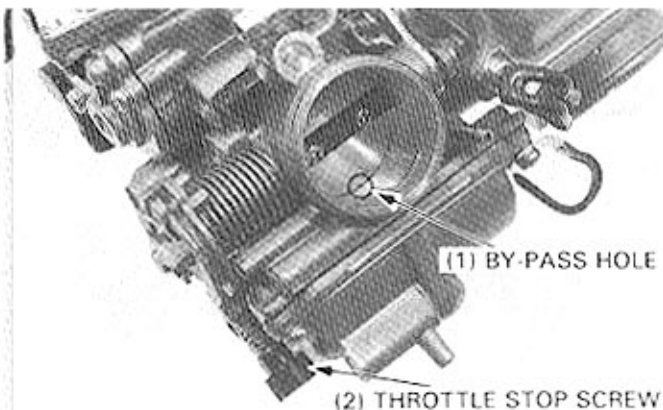
FUEL SYSTEM

Inspect throttle operation as described below:

- Open the throttle slightly by rotating the throttle valve. Then release the throttle. Make sure that there is no drag when opening and closing the throttle.

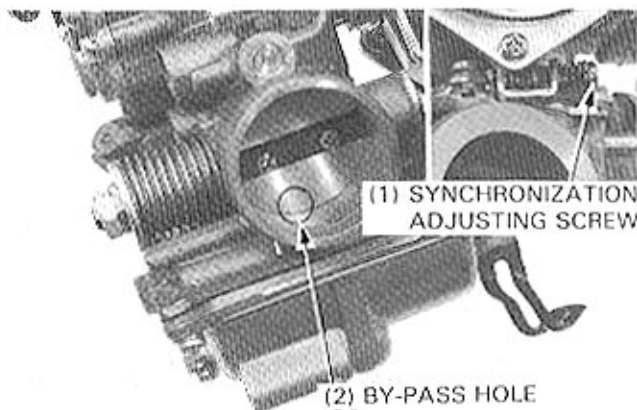


Turn the throttle stop screw to align the left side carburetor throttle valve with the edge of the by-pass hole.



Align the right side carburetor throttle valve with the by-pass hole edge by turning the synchronization adjusting screw.

Make sure the throttle returns smoothly.



CARBURETOR INSTALLATION

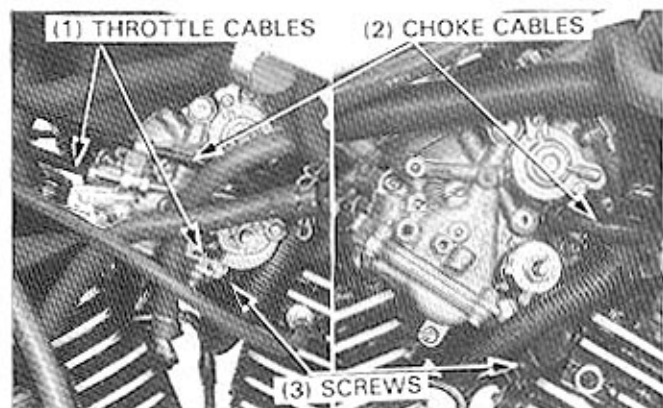
Install the carburetor in the reverse order of removal.

NOTE

- Route the throttle cables properly (pages 1-9 through 1-12).

Perform the following inspections and adjustments.

- Throttle operation (page 3-4).
- Idle speed (page 3-9).
- Choke cable operation (page 3-5).
- Carburetor synchronization (page 3-8).



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.

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.*
- *If you replace the pilot screw in one carburetor, you must replace the pilot screw in the other carburetor for proper pilot screw adjustment (page 4-18).*

Force a self-tapping 4 mm screw (H/C 069399, 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.

▲ WARNING

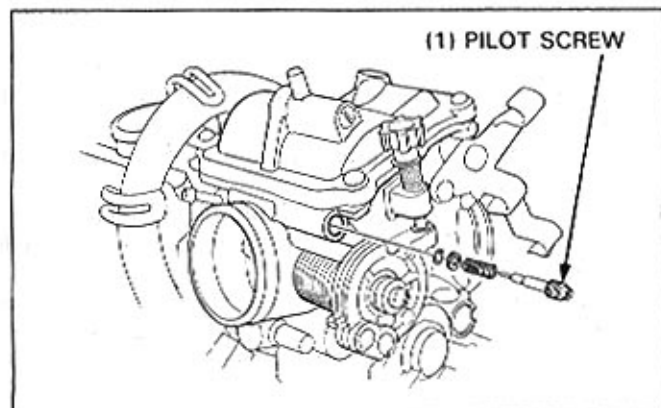
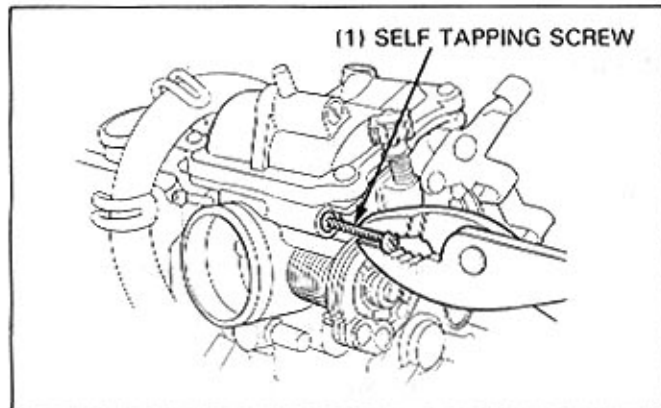
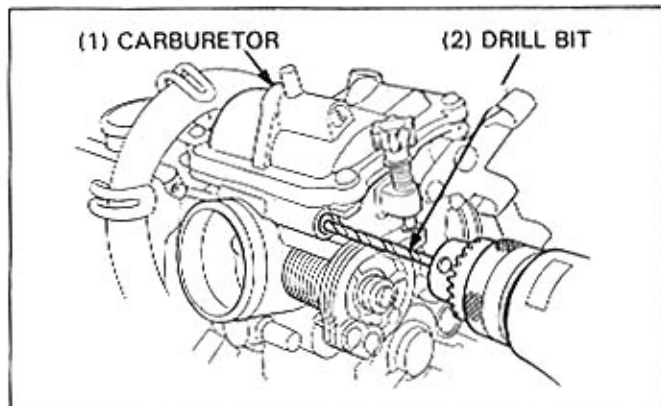
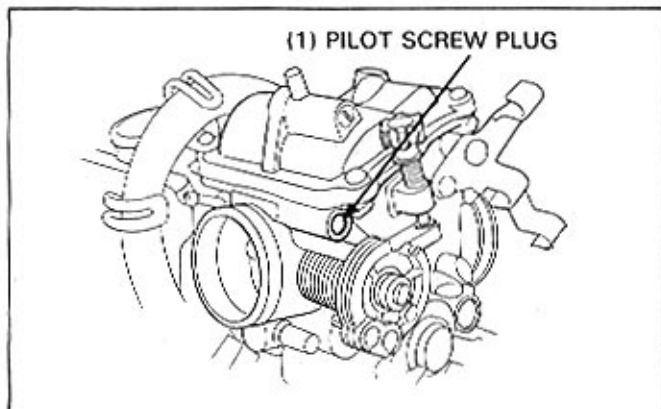
- *Use appropriate eye protection.*

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 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.



INSTALLATION

Install the pilot screws and return them to their original position as noted during removal. Perform pilot screw adjustment if new pilot screws are installed.

NOTE

- Do not install new plugs in the pilot screw holes until after the adjustment has been made.
- If you replace the pilot screw in one carburetor, you must replace the pilot screw in the other carburetor for proper pilot screw adjustment.

PILOT SCREW ADJUSTMENT

IDLE DROP PROCEDURE (U.S.A. ONLY)

NOTE

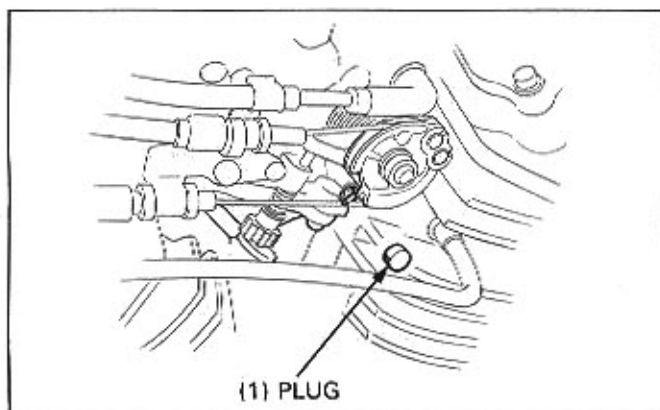
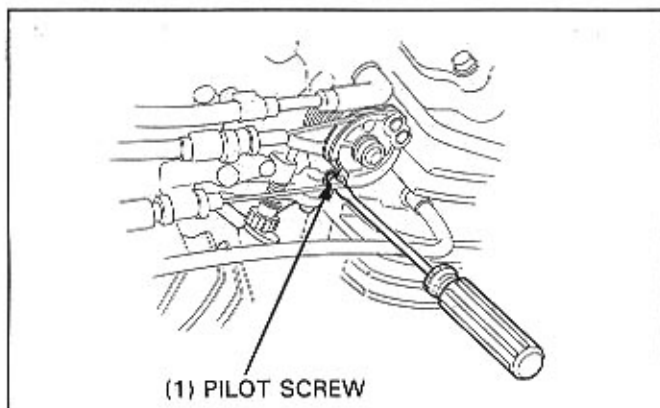
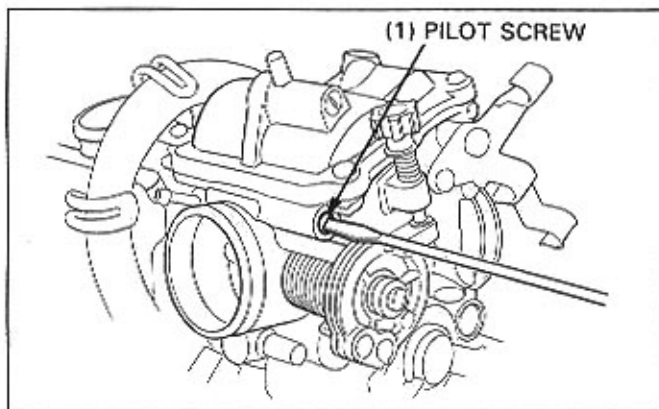
- The pilot screws are factory pre-set and no adjustment is necessary unless the pilot screws are replaced.
- Use a tachometer with graduations of 50 rpm or smaller that will accurately indicate a 50 rpm change.

1. Turn each pilot screw clockwise until it seats lightly, then back it out to the specification given.
This is an initial setting prior to the final pilot screw adjustment.

INITIAL OPENING: 2-1/2 turns out

CAUTION

- *Damage to the pilot screw seat will occur if the pilot screw is tightened against the seat.*
2. Warm up the engine to operating temperature.
Stop and go driving for 10 minutes is sufficient.
 3. Attach a tachometer according to the manufacturer's instructions.
 4. Adjust the idle speed with the throttle stop screw.
 5. Turn each pilot screw 1/2 turns out from the initial setting.
 6. If the engine speed increases by 50 rpm or more, turn each pilot screw out by 1/2 turns until engine speed drops by 50 rpm or less.
 7. Adjust the idle speed with the throttle stop screw.
 8. Turn the No. 1 carburetor (left side) pilot screw in until the engine speed drops 50 rpm.
 9. Turn the No. 1 carburetor pilot screw 1 turn out from the position obtained in step 8.
 10. Adjust the idle speed with the throttle stop screw.
 11. Perform steps 8, 9 and 10 for the No. 2 carburetor pilot screw.
 12. Drive new pilot screw plugs into the pilot screw bores with a 7 mm valve guide driver (P/N 07942-8230000).
When fully seated the plug surfaces will be recessed 1 mm.



HIGH ALTITUDE ADJUSTMENT (U.S.A. ONLY)

When the vehicle is to be operated continuously above 2,000 meters (6,500 feet), the carburetors must be readjusted as described below to improve driveability and decrease exhaust emissions.

Remove the each pilot screw plug. (Page 4-17).
Warm up the engine to normal operating temperature.
Stop and go driving for 10 minutes is sufficient.

Turn the pilot screw clockwise 1/2 turn.
Adjust the idle speed to the specification, with the throttle stop screw.

IDLE SPEED: 1,300 ± 100 rpm

NOTE

- These adjustments must be made at high altitude to ensure proper high altitude operation.

Drive new pilot screw plugs into the pilot screw bores. (Page 4-18).

Attach the Vehicle Emission Control Information Update label as shown. See SL #132 for information on obtaining the label.

NOTE

- Do not attach the label to any part that can be easily removed from the vehicle.

WARNING

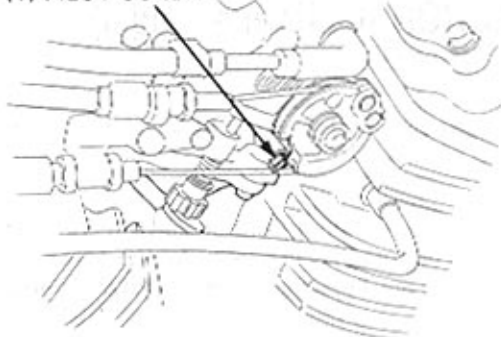
- *Operation at an altitude lower than 1,500 meters (5,000 feet) with the carburetors adjusted for high altitudes may cause the engine to idle roughly and stall.*

When the vehicle is to be operated countinuously below 1,500 meters (5,000 feet); turn each pilot screw counterclockwise 1/2 turns to its original position and adjust the idle speed to the specification.

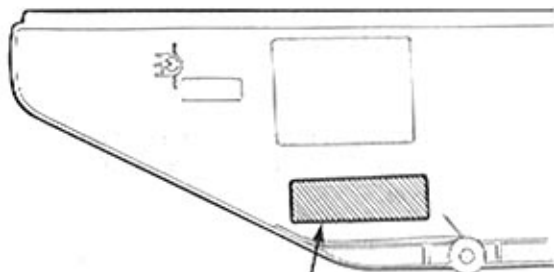
Drive new pilot screw plugs into the pilot screw bores. (Page 4-18)


Be sure to do these adjustments at low altitude with the engine at normal operating temperature.

(1) PILOT SCREW



(1) VEHICLE EMISSION CONTROL INFORMATION LABEL



VEHICLE EMISSION CONTROL INFORMATION UPDATE
-HONDA MOTOR CO., LTD.
THIS VEHICLE HAS BEEN ADJUSTED TO
IMPROVE EMISSION CONTROL PERFORMANCE
WHEN OPERATED AT HIGH ALTITUDE. 
ALTITUDE PERFORMANCE ADJUSTMENT INSTRUCTIONS
ARE AVAILABLE AT YOUR AUTHORIZED HONDA DEALER.

PURGE CONTROL VALVE INSPECTION (California model)

NOTE

- The purge control valve should be inspected if hot restart is difficult.

Check all fuel tank, Purge Control Valve (PCV) and charcoal filter hoses to be sure they are not kinked and are securely connected. Replace any hose that shows signs of damage or deterioration.

NOTE

- The PCV is located above the breather separator.

Remove the fuel tank (page 4-3).

Disconnect the PCV hoses from their connections and remove the PCV from its mount. Refer to the routing label on the inside of the left side cover.

Connect the vacuum pump to the 4.5 mm (0.18 in) I.D. hose that goes to the carburetor body. Apply the specified vacuum to the PCV.

SPECIFIED VACUUM: 250 mm (9.8 in) Hg

The specified vacuum should be maintained.
Replace the PCV if vacuum is not maintained.

TOOL:

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

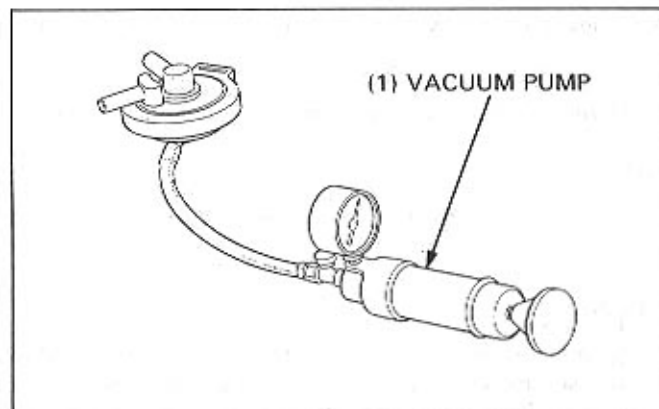
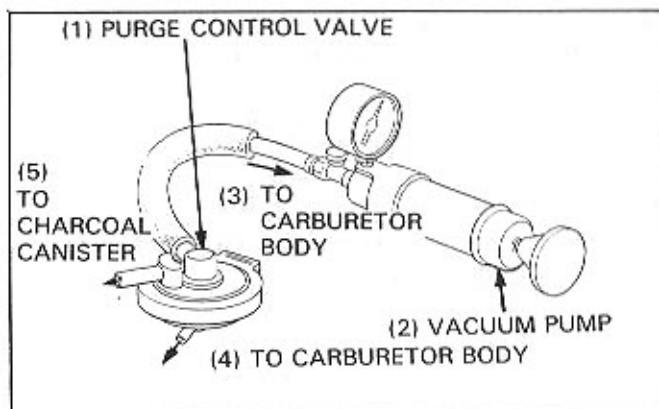
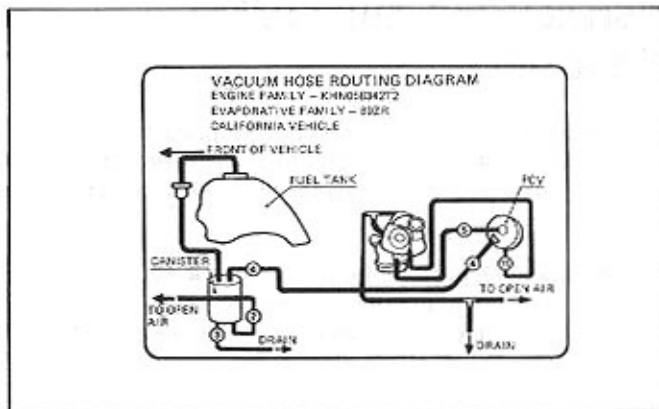
Remove the vacuum pump and connect it to the vacuum hose that goes to the carburetor body.
Apply the specified vacuum to the PCV.

SPECIFIED VACUUM: 250 mm (9.8 in) Hg

The specified vacuum should be maintained.
Replace the PCV if vacuum is not maintained.

TOOL:

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



Connect a pressure pump to 8 mm (0.31 in) I.D. hose that goes to the charcoal canister. While applying the specified vacuum to the PCV hose that goes to the carburetor body, pump air through the canister hose.

Air should flow through the PCV and out the hose that goes to the carburetor body.

Replace the PCV if air does not flow out.

CAUTION

- *To prevent damage to the purge control valve, do not use high-pressure air sources. Use a hand operated air pump only.*

TOOL:

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

Remove the pumps, install the PCV into its mount, route and reconnect the hoses according to the routing label.

