GROUP-14

FUEL SYSTEM

CONTENTS

GENERAL SPECIFICATIONS

	For Federal (not available in California)	For California (can also be sold in Federal States)
Fuel tank and filter		
Fuel tank capacity	60 lit. (15.9 U.S.gal., 13.2 Imp.gal.)	60 lit. (15.9 U.S.gal., 13.2 Imp.gal.)
Fuel return system	Provided	Provided
Fuel filter	Cartridge type	Cartridge type
Fuel pump		
Type	Mechanical diaphragm	Mechanical diaphragm
Driven by	Camshaft	Camshaft
Carburetor		
Type	Down-draft, 2 barrel, automatic choke	Down-draft, 2 barrel, Feed back type
Model No.	32-35DIDTA-170 . . . M/T (High Altitude) 32-35DIDTA-171 . . . A/T (High Altitude) 32-35DIDTA-186 . . . M/T 32-35DIDTA-187 . . . A/T	32-35DIDTA-184 . . . M/T 32-35DIDTA-185 . . . A/T
Throttle bore		
Primary	32 mm (1.260 in.)	32 mm (1.260 in.)
Secondary	35 mm (1.378 in.)	35 mm (1.378 in.)
Main jet		
Primary	#113.8 . . . M/T #115 . . . A/T	#110
Secondary	#195	#185
Pilot jet		
Primary	#65	#47.5
Secondary	#65	#65
Enrichment jet	#45	#100
Fast idle opening degree at 23°C (73°F)	13.5° ± 0.5° . . . M/T 14.5° ± 0.5° . . . A/T	13.5° ± 0.5° . . . M/T 14.5° ± 0.5° . . . A/T
Additional mechanisms	Dashpot Air switching valve (ASV) Coasting air valve (CAV) Jet air control valve (JACV) Sub-EGR valve Fuel cut-off solenoid	Dashpot Duty control solenoid valve Sub-EGR valve Throttle position sensor
Accelerator control method	Cable type	Cable type
Choke control method	Automatic choke	Automatic choke

M/T . . . Manual transmission, A/T . . . Automatic transmission

SERVICE SPECIFICATIONS

Standard values	
Accelerator cable free play	0-1 mm (0-.04 in.)
Length of vinyl tube protruding from connecting hose	Approx. 5 mm (.20 in.)
Ignition timing	7°BTDC±2° at curb idle speed
Idle speed	675 $^{+150}_{-100}$ rpm [first 500 km (300 miles)]
	750 ± 100 rpm [after 500 km (300 miles)]

TORQUE SPECIFICATIONS

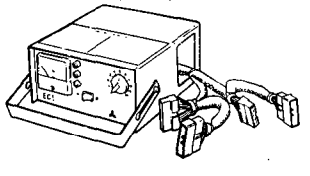
Nm (ft.lbs.)

Drain plug	15-25 (11-18)
Fuel tank to body	25-30 (18-22)
Fuel gauge unit	1 (0.7)

LUBRICANTS

	Specified lubricant	Quantity
Accelerator arm pin and return spring	Multipurpose grease, SAE J310a, NLGI grade #3 or equivalent	As required
Sliding surfaces of accelerator pedal	Multipurpose grease, SAE J310a, NLGI grade #3 or equivalent	As required
Sliding surfaces of accelerator arm	Multipurpose grease, SAE J310a, NLGI grade #3 or equivalent	As required

SPECIAL TOOL

Tool (Number and name)	Use
MD998406 ECI checker 	Diagnosis for FBC system

Symptom	Probable cause	Remedy
Poor driveability	Improper fuel mixture (Too rich or lean)	Overhaul carburetor or replace as required
	Abnormal air flow from jet air mixture	Repair jet valve, and replace as required
	Fuel leakage from deceleration device	Replace as required
	Loose vacuum hose in heated inlet air system	Repair or replace as required.
	Broken air-control valve of heated air inlet system	Repair or replace as required
	Disconnected air cleaner snorkel	Repair or replace as required
Rough idle	Improper idle adjustment	Readjust ignition timing and idle speed
	Choke valve not opening	Repair or replace as required
	Over-flooded carburetor	Repair or replace as required
	Fuel level improperly (Too high or low)	Repair or replace as required
	Leaned inlet air	Clean up or replace as required
	Restricted exhaust system	Replace
	EGR (Exhaust Gas Recirculation) valve does not close	Repair or replace as required
	Jet air control valve does not close (Except Feed back carburetor)	Repair or replace as required
	Deceleration device does not shut off (Except Feed back carburetor)	Repair or replace as required
	Clogged nipple of EGR valve	Clean up
	Clogged passage in EGR valve	Clean up
Engine will not keep running	Carburetor icing Loose vacuum hose in heated inlet air system Loose connecting rod between diaphragm and high altitude compensator	Repair and replace as required
	Clogged fuel pipe due to foreign material	Clean or replace as required
	Clogged fuel hose	Clean or replace as required
	Clogged fuel filter Water in fuel tank Deposit due to improper fuel type	Clean up filter Clean filter and pipe, and install clean fuel

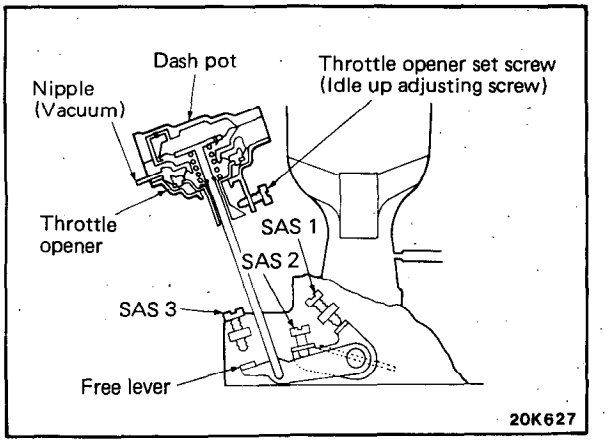
Symptom	Probable cause	Remedy
Low engine power	Broken or burned out catalyst	Replace as assembly
	Inadequate sealing of gasket in air cleaner case	Repair
	Inadequate sealing between air cleaner and carburetor body	Reposition and replace as required
	Broken air intake manifold gasket	Repair or replace as required
Noise	Loose wing nut in air cleaner case	Retighten
	Broken air cleaner snorkel	Repair or replace as required
	Worn bearing or shaft of heated air inlet system	Repair or replace as required
	Exhaust gas leakage from EGR valve	Replace as assembly
	Broken bracket of air pipe	Repair or replace as required
	Broken exhaust pipe	Repair or replace as required
Increased clattering noise	Inadequate sealing of secondary-air system	Repair or replace as required
Exhaust gas odor	Broken exhaust manifold case	Replace
	Exhaust gas leakage due to loose connections	Retighten
	Air pipe nut loose	Retighten
	Deceleration device inoperative	Repair or replace as required
	Purge control device inoperative	Replace or replace as required
Poor exhaust gas	Pressure leakage from purge air solenoid valve	Replace as assembly
	Seized plunger seat in purge air solenoid valve	Clean up
	Broken or burned out catalyst	Replace as assembly
	Abnormal reaction of catalyst	Replace as assembly
Engine overspeed when throttle is released	Seized plunger seat in purge air solenoid valve	Clean up
	Inadequate idle speed	Reset idle speed
	Air/Fuel mixture will enter vacuum switch	Replace as assembly
Deteriorating exhaust emission during accel. or decel.	Broken exhaust manifold case or burned out catalyst	Replace as assembly
	Catalytic converter deteriorated by too high temperature	Replace as assembly
	Clogged catalytic converter	Replace as assembly

Symptom	Probable cause	Remedy
Fuel leakage	Inoperative check valve (Two-way valve)	Replace as assembly
	Broken fuel hose or pipe	Replace
	Wrong position of two-way valve	Reposition the valve
	Clogged or kinked vapor hose	Clean/reposition the hose
	Loose fuel hose nipple	Retighten or replace as required
Fuel leakage from fuel tank	Deposit due to improper fuel type	Clean or replace as required
Back fuel from filler	Misaligned filler hose	Reposition the hose

ENGINE IDLE SPEED ADJUSTMENT (Unscheduled maintenance only)

Adjustment condition:
Lights and all accessories off, transmission in neutral and parking brake pulled.

1. Run the cold engine at fast idle until the coolant temperature is 85 to 95°C (185 to 205°F).
2. Run the engine for more than 5 seconds at an engine speed of 2,000 to 3,000 rpm.
3. Run the engine at idle for 2 minutes.
4. Using a tachometer, check the idling speed. If it does not meet specifications, readjust the speed to the nominal specificaiton using the idle speed adjusting screw No.1 (SAS). (20K627)



FAST IDLE ADJUSTMENT FOR VEHICLES EQUIPPED WITH AIR CONDITIONING

Adjustment condition:

Coolant temp.: 85 to 95°C (185 to 205°F)
All lights and accessories: Off
Transmission: Neutral
Parking Brake: Pulled

1. Make sure curb idle speed is within the specified speed. Reset it by readjusting the idle speed adjusting screw No.1 (SAS) as necessary.
2. Switch the air conditioning system on.
3. Adjust the engine speed to the specified speed with the throttle opener setting screw (idle-up adjusting screw). (20K627)

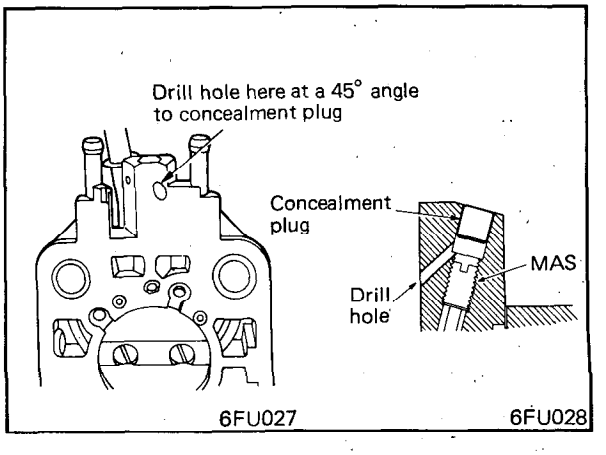
A/C on idle rpm

Specified speed	900 to 950 rpm

4. Reconnect cooling fan connector.
5. Turn ON/OFF air conditioner switch several times to check the throttle opener for operation (lever up/down).

IDLE SPEED AND MIXTURE ADJUSTMENT-except FEEDBACK CARBURETOR VEHICLES (Unscheduled maintenance only)

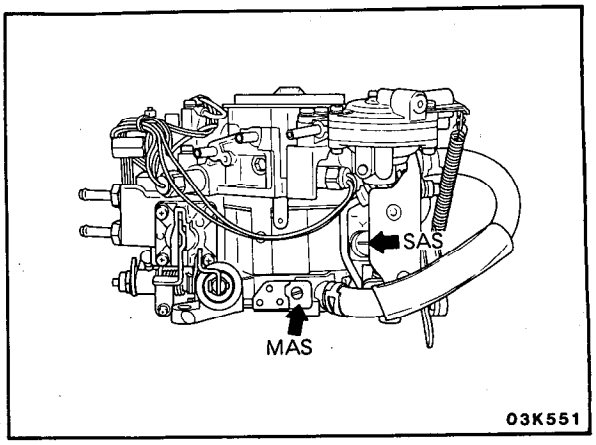
1. Remove carburetor from engine.
2. Clamp carburetor in a vise with idle mixture adjusting screw (MAS) facing up (protect gasket surface from vise jaws).
3. Drill a 2.0 mm (5/64 in.) pilot hole in the casting surrounding the idle mixture adjusting screw (MAS) and then redrill the hole to 3.0 mm (1/8 in.). (6FU027, 6FU028)
4. Insert a blunt punch into the hole and remove the plug.
5. Reinstall carburetor on engine.
6. Lights and all accessories off, and transmission in neutral.
7. Run the cold engine at fast idle until the coolant temperature is 85 to 95°C (185 to 205°F).



8. Disconnent the secondary air hose running between the reed valve and the air cleaner, and plug the air hose to stop any secondary air flow into the reed valve.
   Or, clamp the air hose running between the pulse air feeder and the air cleaner, with a special hose clamp, to stop any secondary air flow into the reed valve.
9. Run the engine for more than 5 seconds at 2,000 to 3,000 rpm.
10. Run the engine at idle for 2 minutes.
11. Set the idle CO and the engine speed to the specified values by adjusting the idle mixture adjusting screw (MAS) and the idle speed adjusting screw (SAS). (Y03645)

Idle CO at nominal curb idle speed: 0.5 ± 0 %

12. Unplug the secondary air hose and reconnect it to the air cleaner. Or, take off the special hose clamp from the air hose.
13. Reset the engine speed to the nominal idle speed by adjusting the idle speed adjusting screw, if the engine speed is out of the specified speed range.
14. Install the concealment plug into the hole to seal the idle mixture adjusting screw (MAS).



IDLE SPEED AND MIXTURE ADJUSTMENT-for FEEDBACK CARBURETOR VEHICLES (Unscheduled Maintenance only)

1. Remove carburetor from engine. Carburetor is to be transferred to a bench and held in a suitable fixture for removing the concealment plug.
2. Reinstall carburetor on engine without concealment plug.
3. Set condition: Light, electric cooling fan (if applicable) and all accessories are off, and transmission in neutral.
4. Run the cold engine at fast idle until the cooling water temperature is raised to 85-95°C (185-205°F).
5. Turn off the ignition key.
6. Disconnect the cable from the negative terminal of the battery for about 3 seconds. And then reconnect the cable to the original terminal.
7. Disconnect the connector of the exhaust oxygen sensor.
8. Run the vehicle for 5 minutes at the vehicle speed of 30 mile/hour, or run the engine for more than 5 seconds at the engine speed of 2,000 to 3,000 rpm.
9. Run the engine at idle for 2 minutes.
10. Set the idle CO and the engine speed to the specified value by adjusting the speed adjusting screw and the mixture adjusting screw.

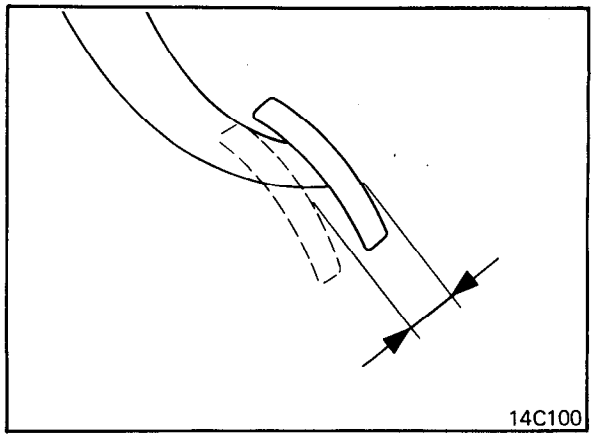
Idle CO: 0.1-0.3 % at nominal curb idle speed

11. Reconnect the connector of the exhaust oxygen sensor.
12. Reset the engine speed to the nominal idle speed by adjusting the speed adjusting screw, if the engine speed is out of the specified speed range.
13. Install the concealment plug into the hole to seal the idle mixture adjusting screw.

ADJUSTMENT OF ACCELERATOR CABLE

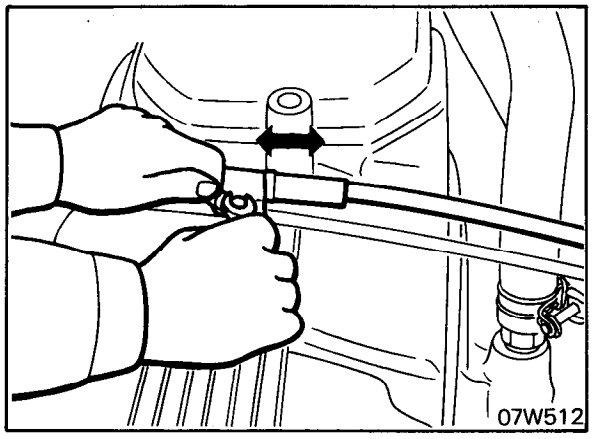
Run the engine until it reaches the specified idle speed. Measure the free play of the accelerator pedal. (14C100)

Accelerator cable free play . . . . . 0-1 mm (0-.04 in.)



If the measured free play is not within the standard value, adjust it as follows.

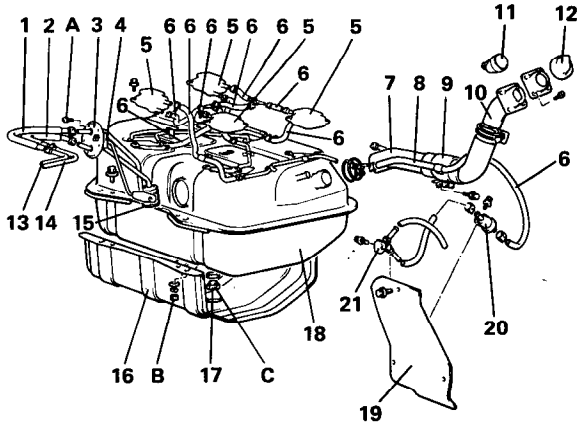
1. Loosen the tightening bolt so that the throttle lever is free.
2. Use the tightening bolt to make the adjustment of the accelerator cable free play so that it is within the standard value. (07W512)



FUEL TANK

COMPONENTS

1. Return hose
2. Main hose
3. Pipe assembly
4. Fuel gauge unit
5. Separator tank
6. Vapor hose
7. Connecting hose
8. Breather hose
9. Clamp assembly
10. Fuel filler neck
11. Shutter assembly
12. Fuel tank cap
13. Fuel return pipe
14. Fuel main pipe
15. In-tank fuel filter
16. Tank protector
17. Drain plug
18. Fuel tank
19. Filler hose protector
20. 2-way valve
21. Check valve

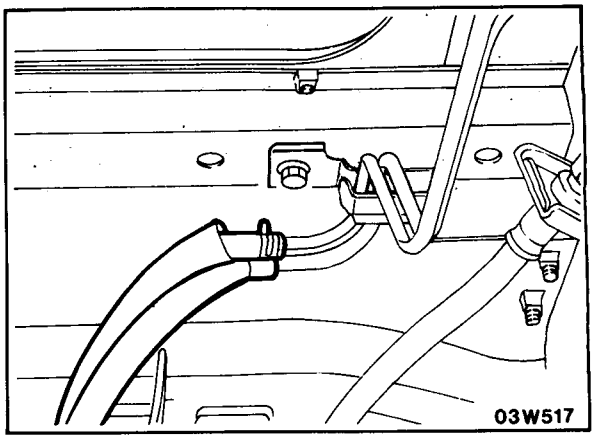


	Nm	ft.lbs.
A	1	0.7
B	25-30	18-22
C	15-25	11-18

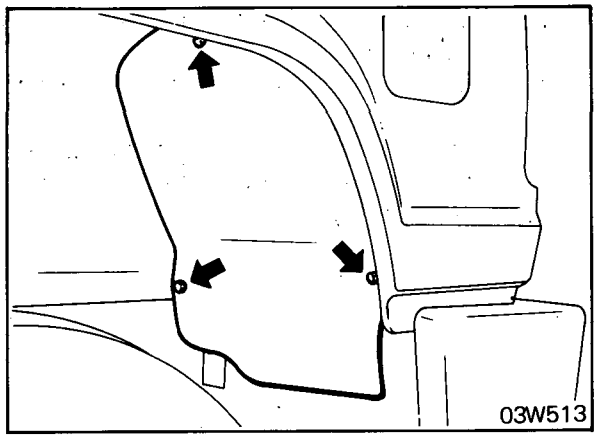
03W522

REMOVAL

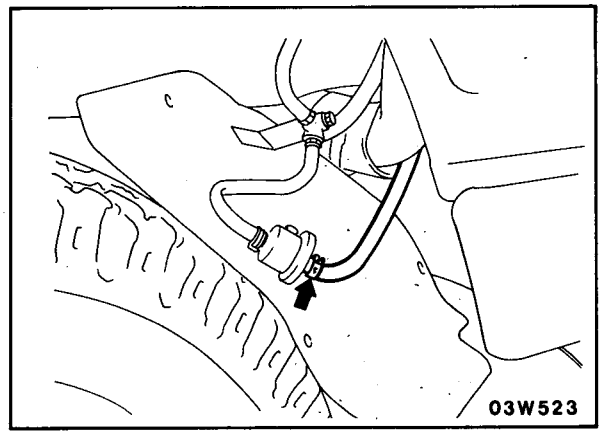
1. Remove the fuel tank cap.
2. Remove the drain plug to drain the fuel.
3. Disconnect the fuel hoses from the fuel pipes. (03W517)
4. Disconnect the fuel gauge unit connector.



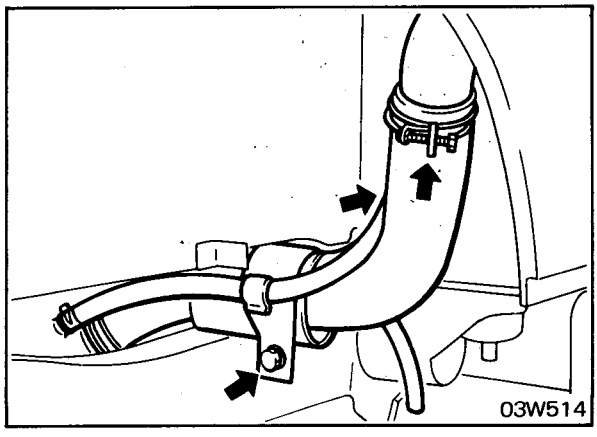
5. Remove the filler hose protector mounting bolts from the left rear wheelhouse.



6. Remove the filler hose protector and disconnect the 2-way valve and vapor hose from behind the protector.

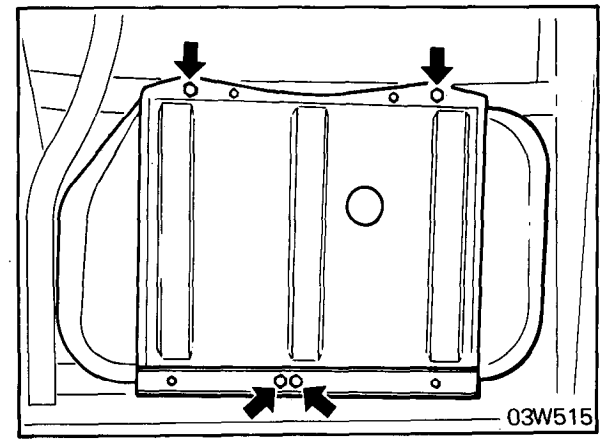


7. Disconnect the fuel filler neck connecting hose and breather hose. (03W514)
8. Remove the clamp assembly.



9. Remove the fuel tank.

NOTE
If the inside of the fuel tank is to be cleaned, use any one of the following:
(1) Kerosene
(2) Trichloroethylene
(3) Neutral emulsion detergent



INSPECTION

1. Check the fuel tank cap for malfunctions.
2. Check the fuel tank for cracks, corrosion or deformation.
3. Check the fuel tank for foreign material.
4. Check the in-tank fuel filter for clogging.
5. Check the fuel tank protector for cracks or deformation.

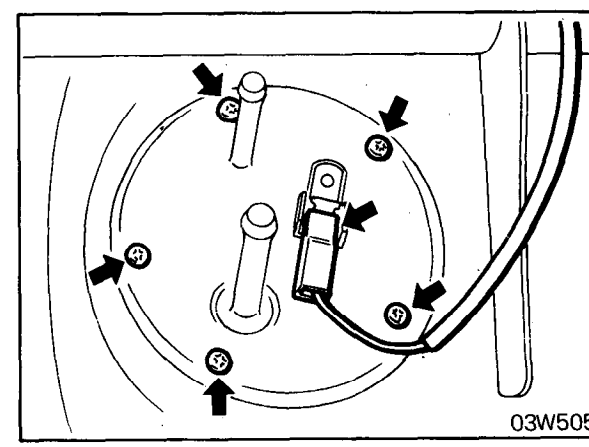
FUEL GAUGE UNIT AND IN-TANK FUEL FILTER REPLACEMENT

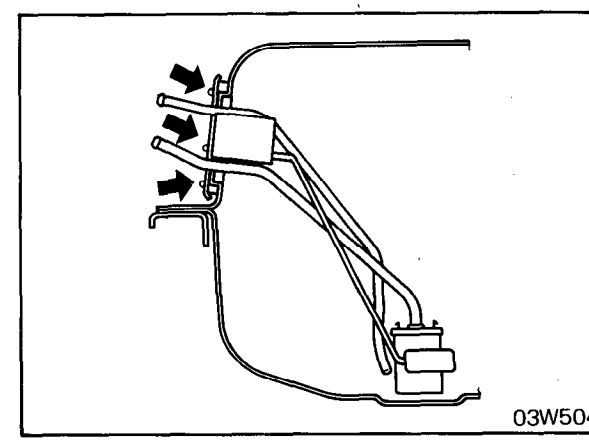
1. Disconnect the fuel hoses and fuel gauge unit connector from the pipe assembly. (03W505)

NOTE
The pipe assembly is mounted to the side of the fuel tank; when the fuel hose and the pipe assembly are to be disconnected, remove fuel as necessary so as not to spill the fuel.

2. Remove the pipe assembly from the tank.
3. Remove the in-tank fuel filter by pressing the tabs.
4. After installation, check for fuel leaks from the connection between the tank and the pipe assembly. (03W504)

NOTE
When the pipe assembly is installed, make sure that it is evenly tightened to prevent changing the set position of the float, because the pipe assembly and fuel gauge unit are one assembly.

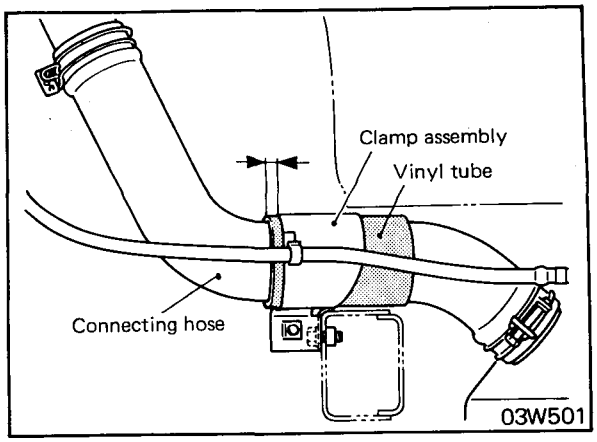




INSTALLATION

When clamping the connecting hose to the frame, make sure that the vinyl tube protrudes as specified from the clamp toward the fuel filler neck to prevent damage to the hose.

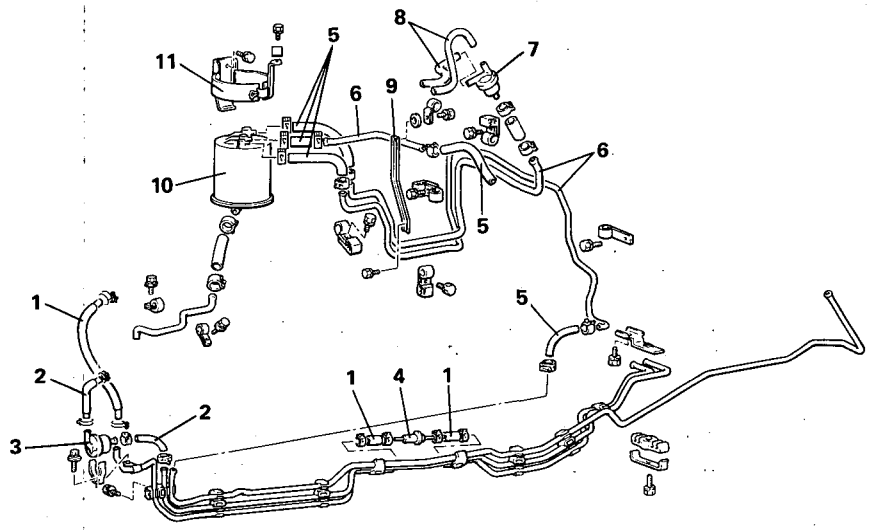
Length of vinyl tube protruding from clamp assembly	Approx. 5 mm (.20 in.)



FUEL LINE

COMPONENTS

1. Fuel return hose
2. Fuel main hose
3. Fuel filter
4. Fuel return valve
5. Vapor hose
6. Vapor pipe
7. Purge control valve
8. Purge hose
9. Stay
10. Canister
11. Canister holder

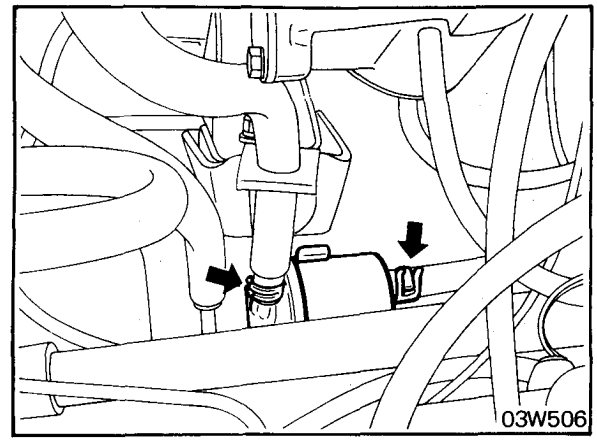


INSPECTION

1. Check fuel hoses and pipes for cracks, bends, deformation, deterioration or clogging.
2. Check fuel filter for clogging or damage.
3. Check 2-way valve for malfunction.
4. Check separator tank for cracks or deformation.

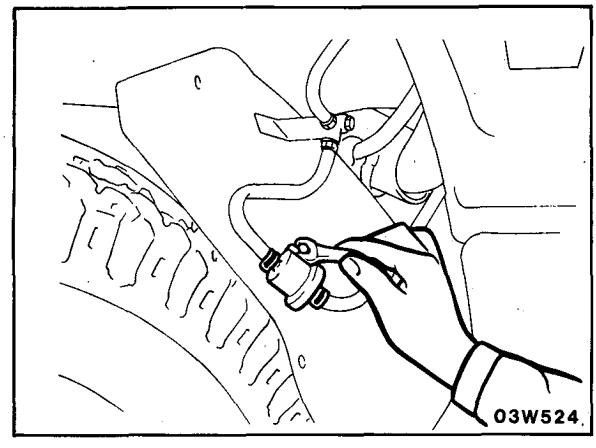
FUEL FILTER REPLACEMENT

1. Remove the fuel tank cap to decrease the pressure in the fuel tank.
2. Remove the fuel filter after removing the clip and clamp. (03W506)



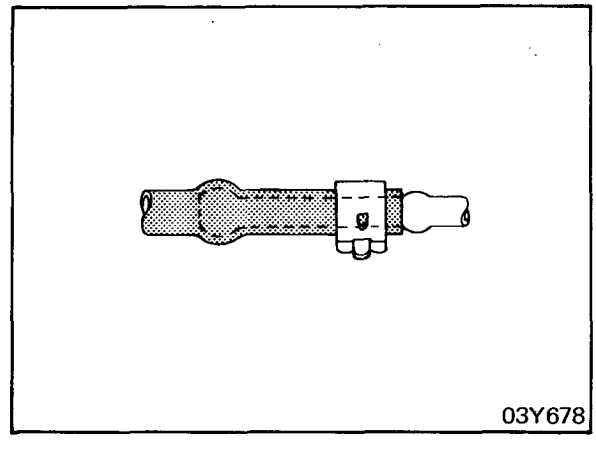
2-WAY VALVE REPLACEMENT

1. Remove the filler hose protector from the left rear wheelhouse.
2. Remove the 2-way valve from the back side of the filler hose protector. (03W524)



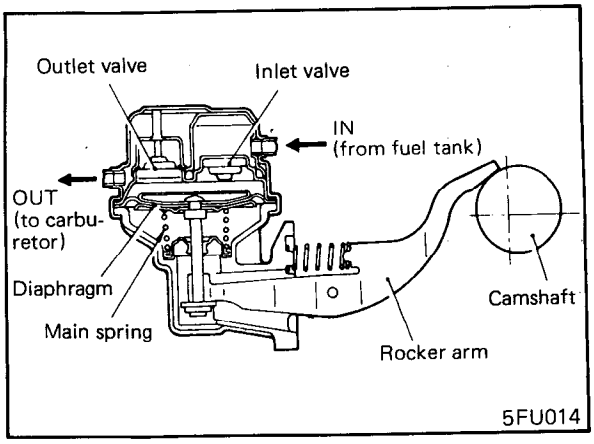
INSTALLATION

1. When attaching the fuel hose to the pipe, be sure that the hose is attached as shown in the illustration. (03Y678)
2. After all of the fuel pipes and hoses have been connected, start the engine, and confirm that there is no fuel leakage from any of the connections.



REMOVAL

1. Position the piston of the No. 1 cylinder at top dead center of the compression stroke. When the piston is in this position, the lift of the fuel pump drive eccentric cam will be reduced to a minimum and the fuel pump will be easier to remove.
2. Disconnect the fuel hoses from the fuel pump.
3. Remove the fuel pump mounting nuts and then remove the fuel pump assembly.
4. Remove the insulator and gaskets.



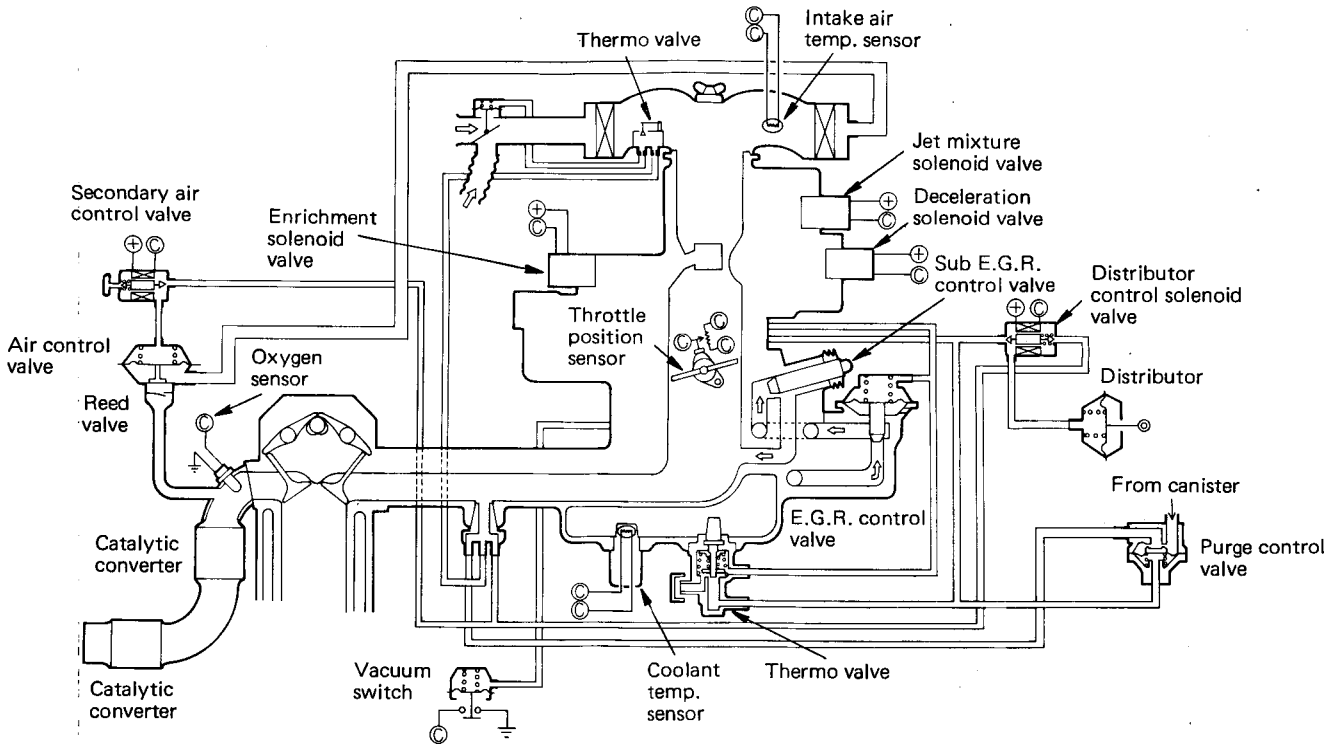
INSPECTION

1. Check the arm where it contacts the camshaft eccentric cam for wear on the end rocker.
2. Move the rocker arm to check for spring weakening.
3. Check the pump body and the cover for cracks or damage.

INSTALLATION

1. Position the piston of No. 1 cylinder at top dead center of the compression stroke.
2. Install new gaskets and insulator.
3. Install the fuel pump assembly and tighten the nuts.
4. Connect the fuel hoses to the fuel pump. Secure the hoses with hose clamps. Make certain that the fuel hoses are not broken or cracked.
5. Start the engine and check for fuel leaks or oil leaks.

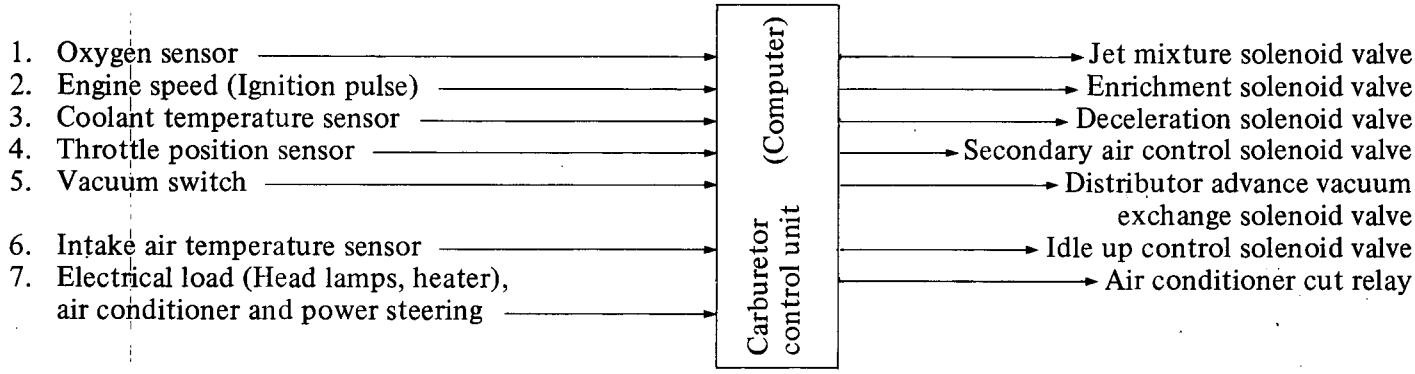
COMPONENTS



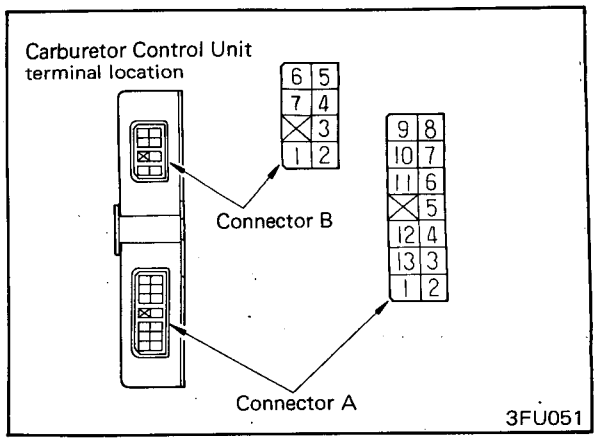
NOTE
© indicates the computer connection.
⊕ is the power cord.

5FU053

FBC (Feed Back Carburetor) system is composed of various kinds of sensors and actuators and a computer (carburetor control unit) as shown in the system diagram in the preceding figure. The flow of input and output signals of the control unit is as shown in the following chart.



A-1. Oxygen sensor
A-2. Ground for sensor
A-3. Throttle position sensor ⊕
A-4. Intake air temperature sensor
A-5. Idle positon switch
A-6. Ground
A-7. Ignition switch
A-8. Ignition switch
A-9. Battery ⊕
A-10. Ignition coil ⊖
A-11. Ground
A-12. Coolant temperature sensor
A-13. Throttle position sensor (out put)
B-1. Jet mixture solenoid valve
B-2. Deceleration solenoid valve
B-3. Idle up control solenoid valve
B-4. Secondary air control solenoid
B-5. Enrichment solenoid valve
B-6. Air conditioner cut relay
B-7. Distributer advance vacuum exchange solenoid valve



INSPECITON OF FBC SYSTEM

If FBC system components (sensors, carburetor control unit computer, solenoid, etc.) fail, interruption of fuel supply or failure to supply proper amount of fuel for engine operating conditions will result. Therefore, the following situations will be encountered.
(1) Engine is hard to start or does not start at all.
(2) Unstable idle.
(3) Poor driveability.
If any of above conditions is noted, first perform basic engine checks (ignition system malfunctions, incorrect engine adjustment, etc.).
The FBC system can be checked by use of ECI checker and adapter. Inspection procedure as follows.

INSPECTION PROCEDURE

Cautions

- **Before battery terminals are disconnected, make sure that ignition switch is set to OFF. If battery terminals are disconnected while engine is running or when ignition switch is in ON position, malfunction of computer or damage to semiconductors could result.**
- **Disconnect battery cables before charging battery.**
- **When battery is connencted, be sure not to reverse polarity.**
- **Make sure that harness connectors are securely connected. Use care not to allow entry of water or oil into connectors.**

1. Turn ignition switch to OFF.
2. Remove the harness connector "A" (13 poles) and connector "B" (7 poles) from carburetor control unit (computer).

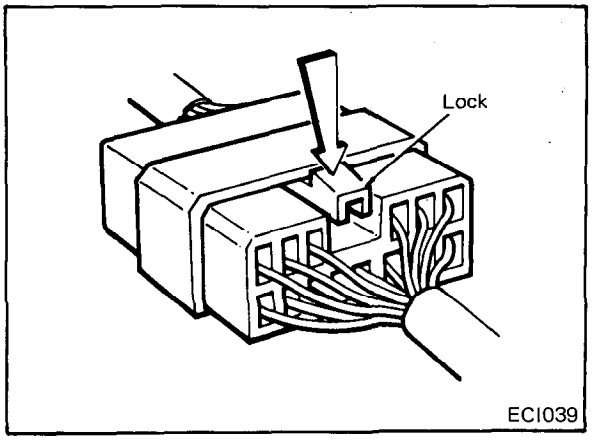
Caution
Before harness connectors are removed from, or inserted into carburetor control unit, make sure that ignition switch is turned off.
Hold down lock all the way when harness connector of carburetor control unit or connector of ECI checker is removed. When connector is connected, push it in all the way and check to ensure that lock is in position.

3. Set check switch of ECI checker to OFF.
4. Set select switch of checker to A.
5. Connect the adapter to the connectors of ECI checker, and then connect adapter to carburetor control unit and harness connectors. Place ECI checker on front passenger's seat.
6. Perform checks according to the "FBC System Check Procedure Chart".

Caution
When steps 1. through 12. of the select switch "A" are checked, finish each step quickly and switch the ignition switch to OFF after inspection of each step to save current consumption. This is important for protection of the battery.

7. If checker shows any departure from specifications, check corresponding sensor and related electrical wiring, repair or replace.
8. After repair or replacement, recheck with ECI checker to confirm that repaired or replaced part is performing well.
9. Set check switch of ECI checker to OFF.
10. Set ignition switch to OFF.
11. Disconnect connectors of ECI checker and adapter from carburetor control unit and body side harness connectors.
12. Connect body side harness connector to carburetor control unit.

Caution
Make sure that connector is securely connected.



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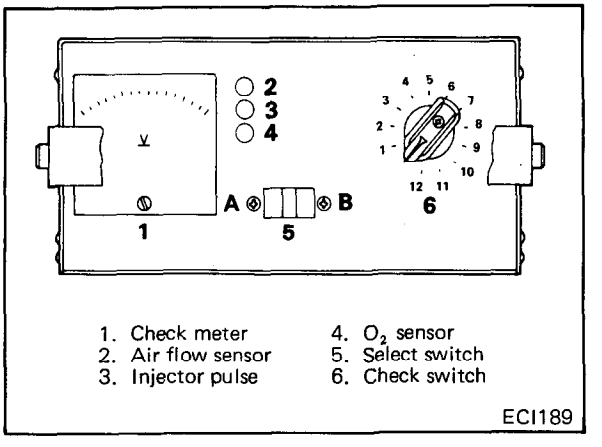


1. Check meter
2. Air flow sensor
3. Injector pulse
4. O_2 sensor
5. Select switch
6. Check switch

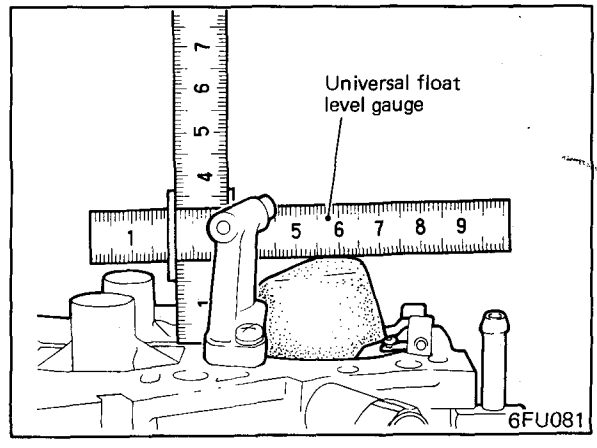
ECI189

FBC System Check Procedure Chart

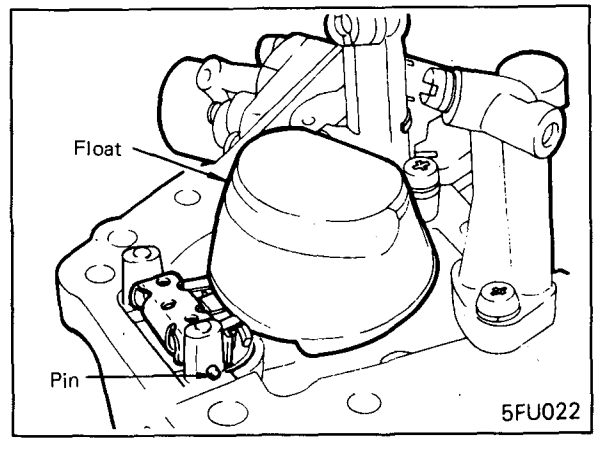
Select switch	Check switch	Check item	Condition		Check meter reading when normal	Terminal number of computer
A	1	Power supply	Ignition switch OFF → ON		11-13V	A-7
	2	Distributor advance vacuum exchange solenoid valve	Idling		13-15V	B-7
			2,000 rpm		0-1 V	
	3	Throttle position sensor	Ignition switch OFF → ON	Accelerator closed	0-0.6 V	A-13
				Accelerator wide opened	4-4.5 V	
	4	Coolant temperature sensor	Ignition switch OFF → ON	20°C (68°F)	2.4-2.6 V	A-12
				40°C (104°F)	1.4-1.6 V	
				80°C (176°F)	0.5-0.7 V	
	5	Intake air temperature sensor	Ignition switch OFF → ON	20°C (68°F)	2.4-2.6 V	A-4
				40°C (104°F)	1.4-1.6 V	
				80°C (176°F)	0.5-0.7 V	
	6	Vacuum switch	Ignition switch OFF → ON			A-5
			Idling			
	7	Idle up control solenoid valve	Ignition switch OFF → ON		0-0.6 V	B-3
	8	Enrichment solenoid valve	Ignition switch OFF → ON		11-13 V	B-5
	9	A/C cut relay	Ignition switch OFF → ON	A/C switch OFF → ON	0-0.6 V	B-6
	10	Power supply for sensor	Ignition switch OFF → ON		5 V	A-3
	11	–	–		–	–
	12	Secordary air control solenoid valve	Ignition switch OFF → ON	Coolant temp. 30-40°C (86-104°F)	0-0.6 V	B-4
B	1	–	–		–	–
	2	Jet mixture solenoid valve	Ignition switch OFF → ON		11-13 V	B-1
			Idling			
	3	Idle up control solenoid valve	Keep 1,500 rpm		13-15V	B-3
	4	Ignition pulse	Idling		12-15 V	A-10
			3,000 rpm		11-13 V	
	5	–	–		–	–
	6	Power supply for back up	Idling		13-15 V	A-9
	7	Deceleration solenoid valve	Idling		0-0.6 V	B-2
	8	Oxygen sensor	Keep 1,300 rpm after warming up		0.4-1 V ↕ Flashing 2.7 V	A-1
	9	Enrichment solenoid valve				B-5
	10	–	–		–	–
	11	A/C cut relay	Ignition switch OFF → ON	A/C switch OFF → ON at accel. wide opened	11-13 V	B-6
	12	Secondary air control solenoid valve	Keep idling after warming up		11-13 V	B-4

FLOAT LEVEL ADJUSTMENT-DRY SETTING

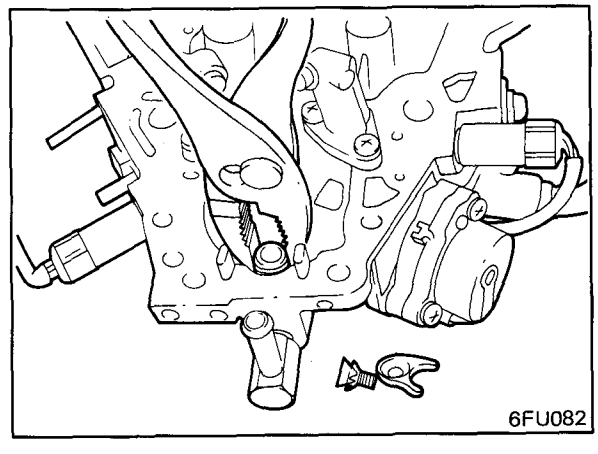
1. Invert the float chamber cover assembly without a gasket.
2. Position universal float level gauge or suitable depth gauge, distance from bottom of float to surface of float chamber cover should be 20 mm (.787 in.) ± 1 mm (.0394 in.). If reading is not within this range the shim under the needle seat must be changed. Shim kit MD606952 has 3 shims 0.3 mm (.0118 in.), 0.4 mm (.0157 in.), 0.5 mm (.0196 in.). Adding or removing a shim will change the float level by three times the thickness of the shim.



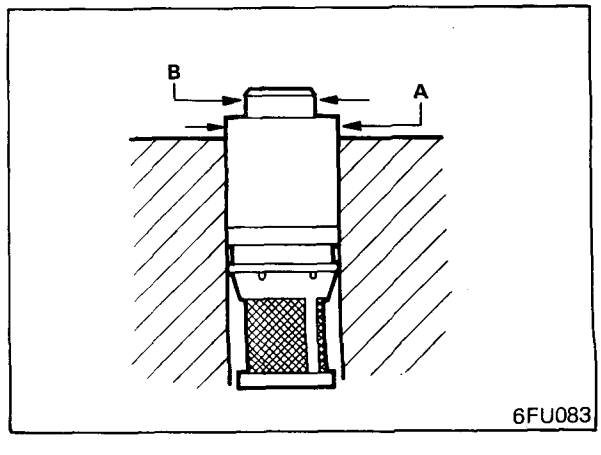
3. To remove the float slide the pin out and remove the float and the needle.



4. Unscrew retainer and remove the needle seat use with pliers.



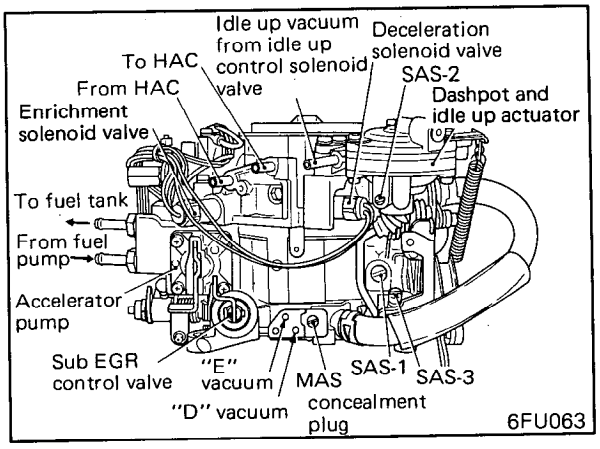
When removing the needle seat, clamp the portion A with pliers.
Do not clamp portion B of needle seat.

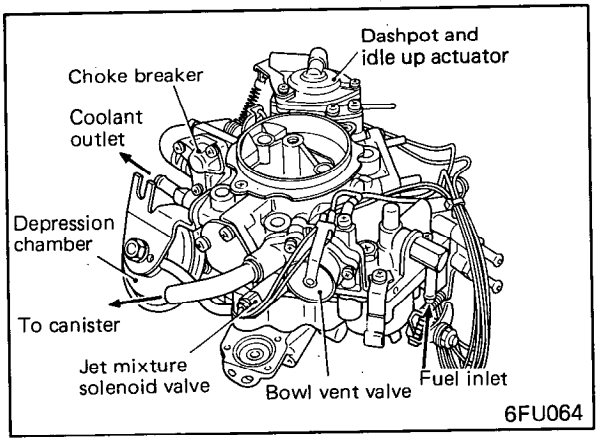


5. Check the filter for clogge or damage. Replace if necessary.
6. Install the new O-ring to the needle seat.
7. Install the shim and filter to the needle seat.
8. Insert the needle seat assembly into the float chamber cover.
9. Install the needle seal retainer and tighten the screw firmly.
10. Insert the needle into the seat.
11. Install the float and insert the pin.
12. Check the distance from bottom of float to surface of float chamber cover. Readjust if necessary.

REMOVAL

1. Disconnect battery ground cable.
2. Drain coolant down to intake manifold level or below.
3. Remove air cleaner.
4. Place a container under fuel inlet fitting to catch any fuel that may be trapped in fuel line and disconnect the fuel hose from the carburetor inlet connection.
5. Disconnect the vacuum hoses from carburetor.
6. Disconnect the throttle cable from carburetor.
7. Remove carburetor mounting bolts and carefully remove the carburetor from the engine. Hold carburetor level to avoid spilling fuel from fuel bowl.

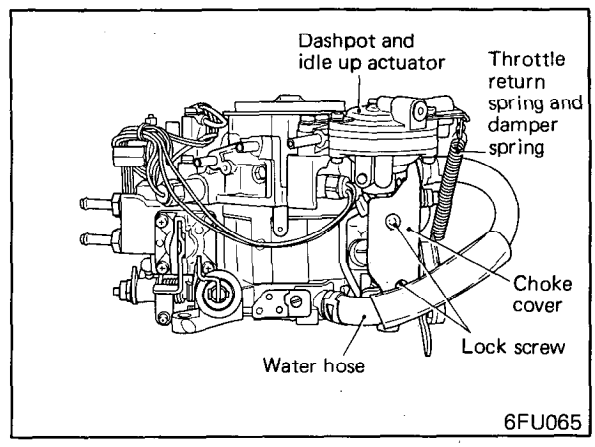




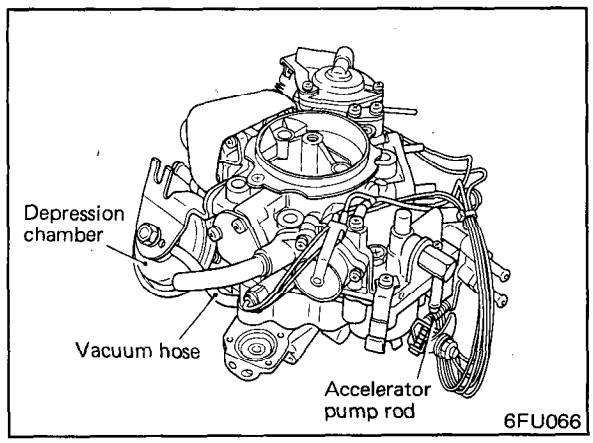
DISASSEMBLY

Caution
Do not remove the following parts:
1. **Choke valves.**
2. **Choke levers and related parts.**
3. **Round nut of accelerator pump link.**
4. **Adjusting screws except idle speed adjusting screws, idle mixture adjusting screw and dashpot adjusting screw.**
5. **Throttle valves.**

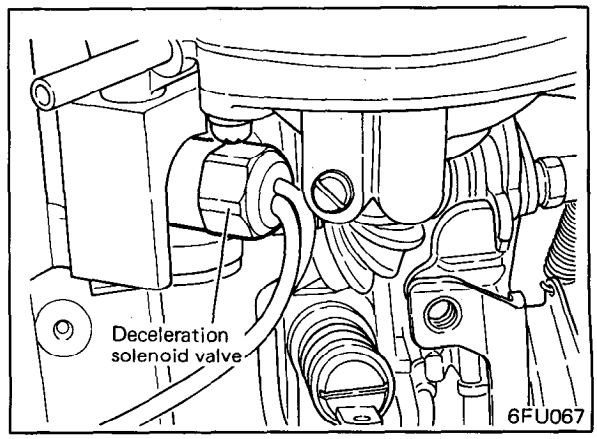
1. Pull the water hose off the nipple of throttle body and off the nipple of wax element portion.
2. Grind down the head of choke cover lock screws (in 2 positions) by using a hand grinder or other instruments. (6FU066)



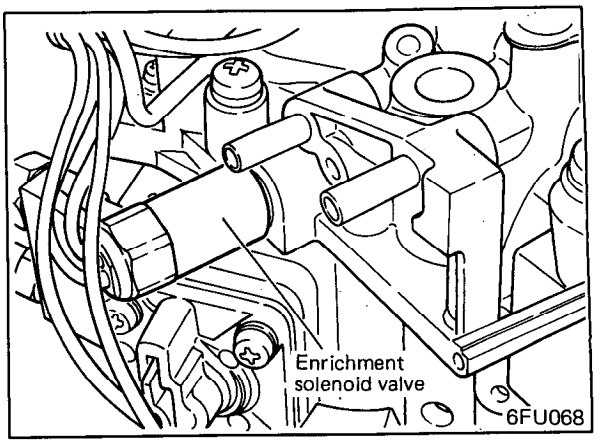
3. Remove the throttle return spring and the damper spring.
4. Remove the vacuum hose from the depression chamber and the throttle body.
5. Remove the accelerator pump rod from the throttle lever.
6. Remove the dashpot/idle up actuator rod (for a manual transmission) or idle up actuator rod (for an automatic transmission) from the free lever.
7. Remove the dashpot/idle up actuator (for a manual transmission) or the idle up actuator (for an automatic transmission) from the float chamber cover.



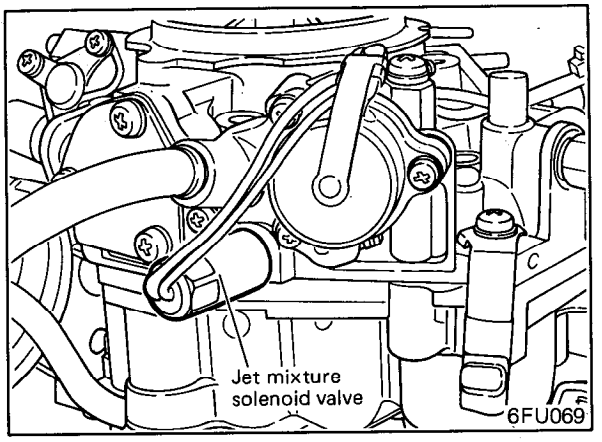
8. Remove the deceleration solenoid valve from the float chamber cover.



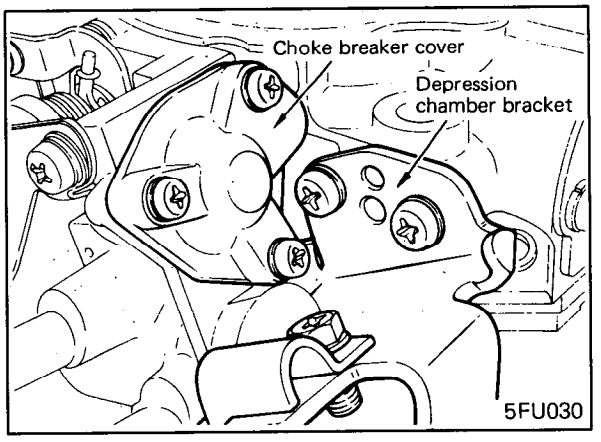
9. Remove the enrichment solenoid valve from the float chamber cover.



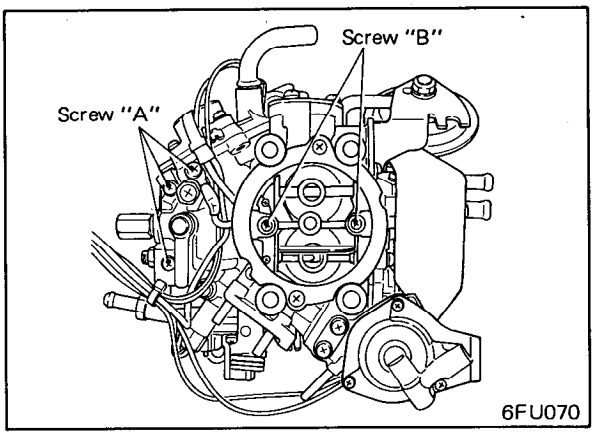
10. Remove the jet mixture solenoid valve from the float chamber cover.



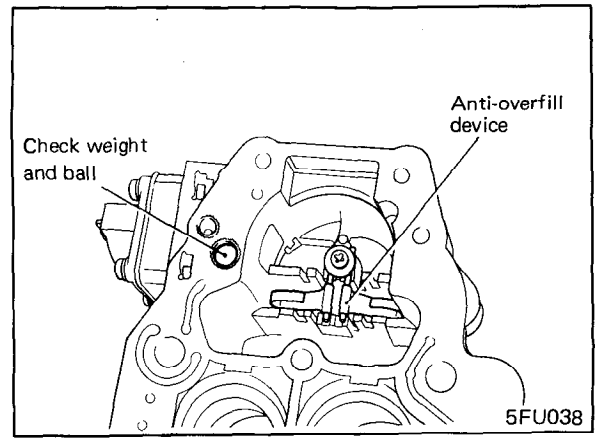
11. Remove the depression chamber rod from the secondary throttle lever.
12. Remove the depression chamber.
    To remove depression chamber, first remove choke breaker cover. Then remove depression chamber attaching screws.



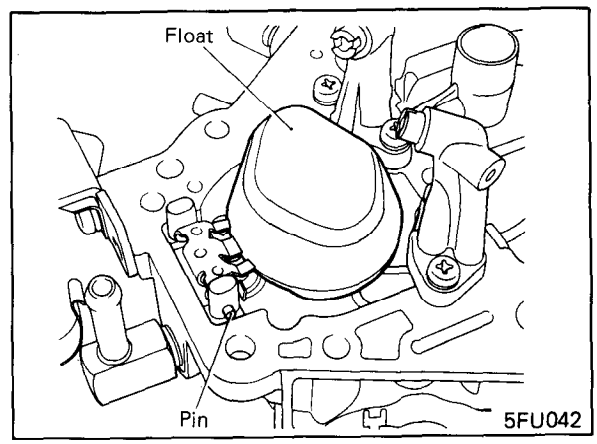
13. Remove the float chamber cover screws "B" and remove the throttle body.
14. Remove the screws "A" and remove the float chamber cover from main body.



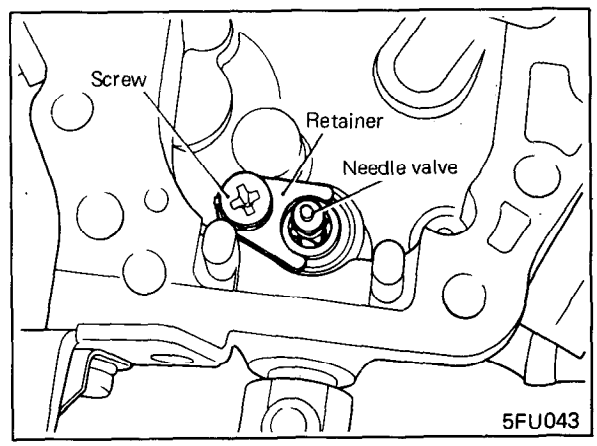
15. Remove the check weight and ball, and steel ball of anti-overfill device.



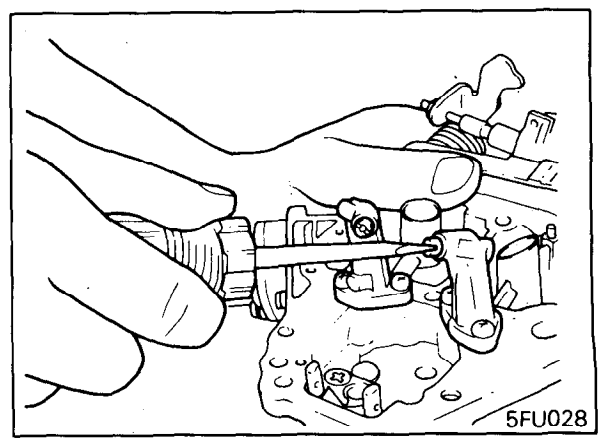
16. Pull off the pin and remove the float.



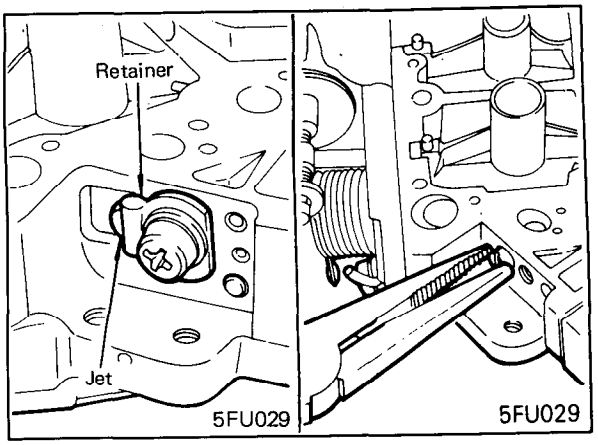
17. Remove the needle valve retainer and then remove the needle valve assembly with pliers.



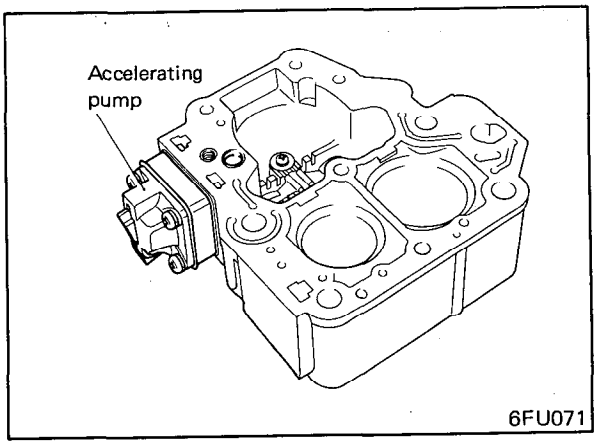
18. Remove the main jets from the jet blocks. When the main jet is to be removed, use a screwdriver with proper blade for slot in jet.



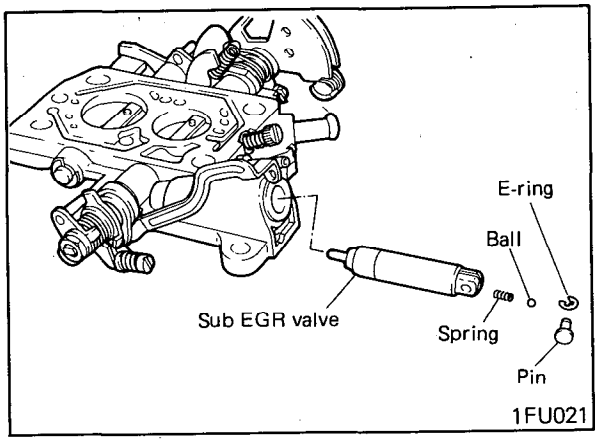
19. Remove the pilot jet retainer and pull out the secondary pilot jet with pliers.



20. Remove the accelerator pump mounting screws and remove the pump cover-link assembly, diaphragm, spring, body and gasket from main body.



21. Remove the snap ring from the sub EGR control valve pin.
22. Remove the pin and then remove the link from the valve. Then take out the little steel ball and spring from the sub EGR control valve.
23. Remove the sub EGR control valve from the throttle body.



REASSEMBLY

Perform reassemble in reverse procedure of disassembly, pay attention to the following items:

1. Clean the all reassembling parts.
2. Check to be sure that no clogging is in the air passages and fuel passages.
3. Check for rough operation of throttle and choke linkage. If they are binding, apply a small amount of lubricant after cleaning them up.
4. Sub EGR valve must operate smoothly.
5. When replacing a main or a pilot jet, the old jet and the new jet must be of the same size, because the jet is selected after exact flow measurement by factory (a No. is stamped on each jet).

INSTALLATION

1. Inspect the gasket surfaces of carburetor and intake manifold. Be sure both surfaces are clean and free of gasket material, nicks, burrs or other damage.
2. Place a new carburetor gasket on the intake manifold surface.
3. Carefully place the carburetor on the intake manifold.
4. Install carburetor mounting bolts and tighten alternately, a little at a time, to compress carburetor gasket evenly. The nuts must be drawn down tightly to prevent vacuum leakage between the carburetor and intake manifold.
5. Connect the throttle cable, vacuum hoses and fuel hoses.
6. Check carefully for worn or loose vacuum hose connections.
7. Check to be sure the choke plate opens and closes fully when operated.
8. Check to see that full throttle travel is obtained.
9. Install air cleaner. The air cleaner should be cleaned or replaced at this time to insure proper carburetor performance.
10. Connect battery cable.

Caution

The practice of priming an engine by pouring gasoline into the carburetor air horn for starting after servicing the fuel system should be strictly avoided. Cranking the engine, and then priming by depressing the accelerator pedal several times should be adequate.

11. Set carburetor idle speed and mixture adjustment.

REMOVAL

1. Disconnect battery ground cable.
2. Drain coolant down to intake manifold level or below.
3. Remove air cleaner.
4. Place a container under fuel inlet fitting to catch any fuel that may be trapped in fuel line and disconnect the fuel hose from the carburetor inlet connection.
5. Disconnect the vacuum hoses from carburetor.
6. Disconnect the throttle cable from carburetor.
7. Remove carburetor mounting bolts and carefully remove the carburetor from the engine. Hold carburetor level to avoid spilling fuel from fuel bowl.

DISASSEMBLY

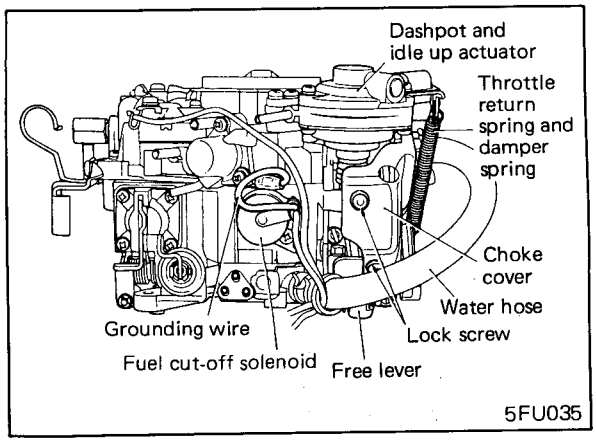
Caution

Do not remove the following parts:

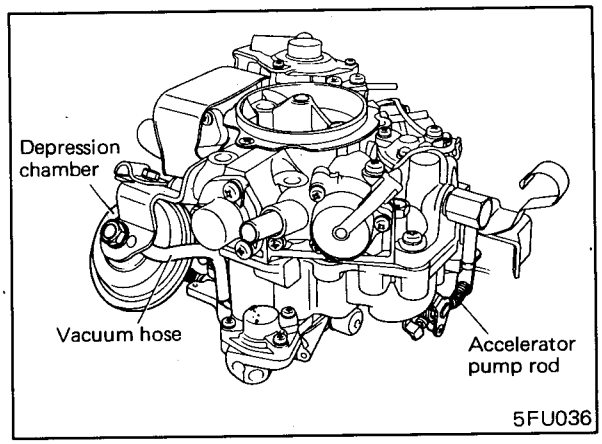
1. **Choke valves.**
2. **Choke levers and related parts.**
3. **Round nut of accelerator pump link.**
4. **Adjusting screws except idle speed adjusting screws, idle mixture adjusting screw and dashpot adjusting screw.**
5. **Throttle valves.**

REMOVAL

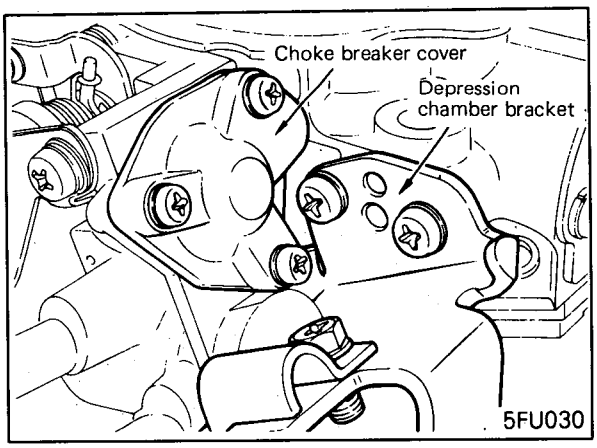
1. Disconnect the water hose from the connection of throttle body and from the connection of wax element.
2. Remove the tamper proof screws from the choke cover and then remove the choke cover.
3. Disconnect the ground wire of the fuel cut-off solenoid at the float chamber cover.
4. Remove the throttle return spring and the damper spring.
5. Disconnect the vacuum hose connecting the depression chamber and the throttle body.
6. Detach the accelerator pump rod from the throttle lever.
7. Detach the dashpot/idle up actuator rod from the free lever.



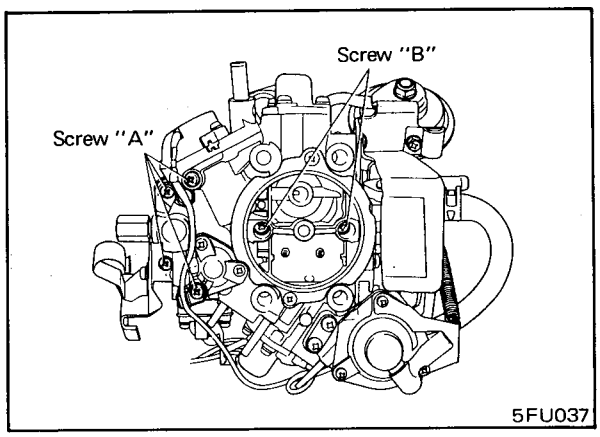
8. Remove the dashpot/idle up actuator from the float chamber cover.
9. Detach the depression chamber rod from the secondary throttle lever.



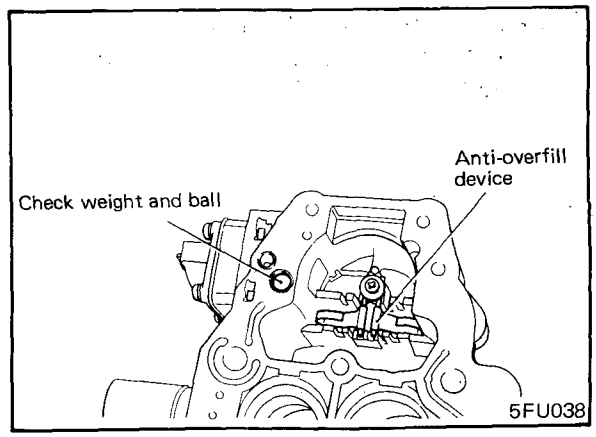
10. Remove the depression chamber. To remove depression chamber, first remove choke breaker cover. Then remove depression chamber attaching screws.



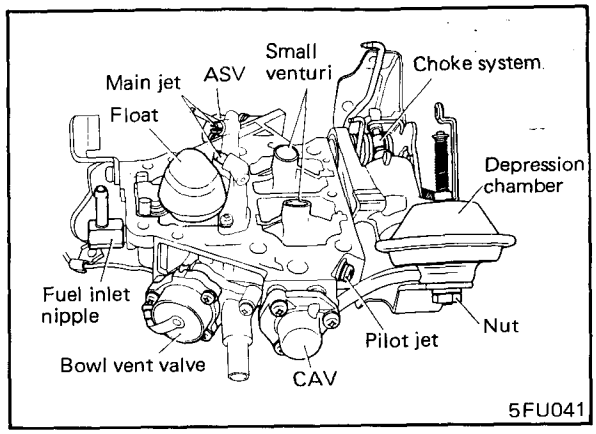
11. Remove the float chamber cover screws "B" and remove the throttle body.
12. Remove the screws "A" and remove the float chamber cover from main body.



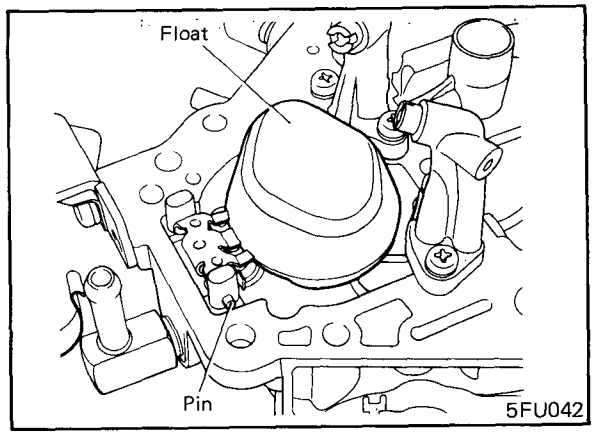
13. Remove the check weight and ball, and steel ball of anti-overfill device.



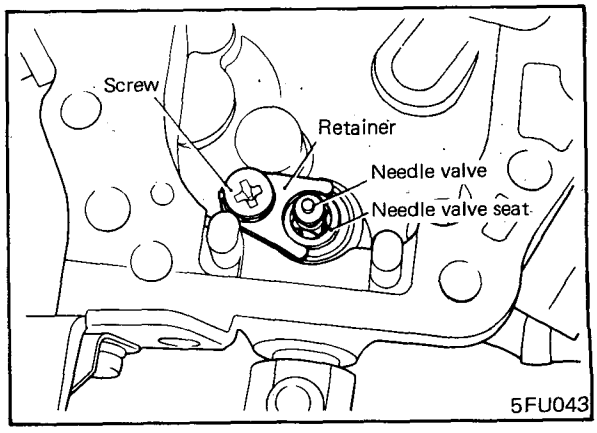
14. Do not remove components unless necessary, do not disassemble the auto choke system.



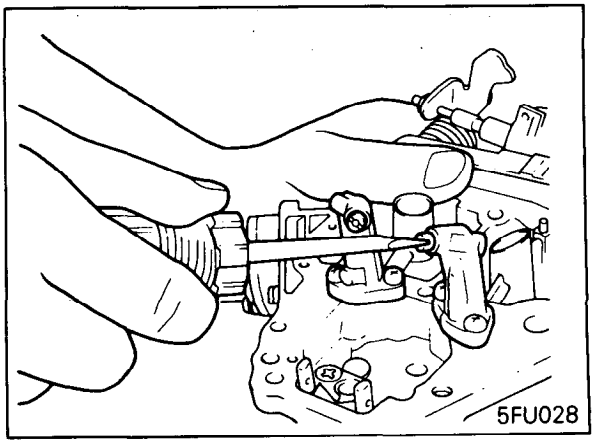
15. Pull out the float pin and remove the float.



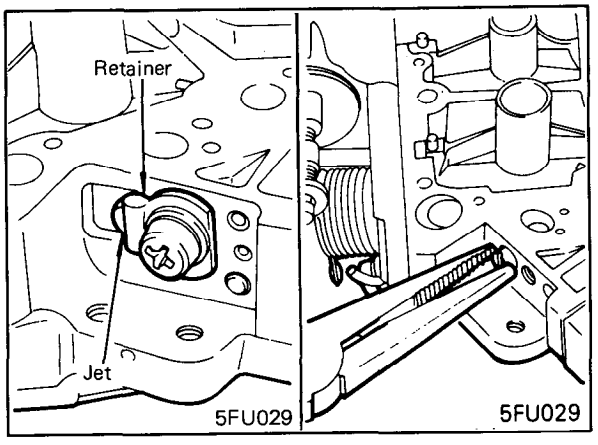
16. Remove the needle valve retainer and then remove the needle valve assembly with pliers.



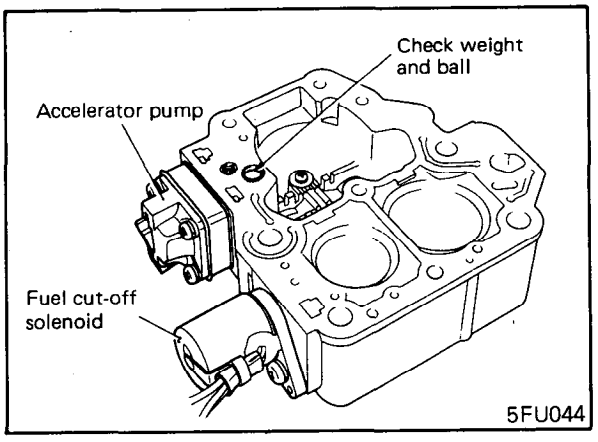
17. Remove the main jets from the jet blocks. When the main jet is to be removed, use a screwdriver with proper blade for slot in jet.



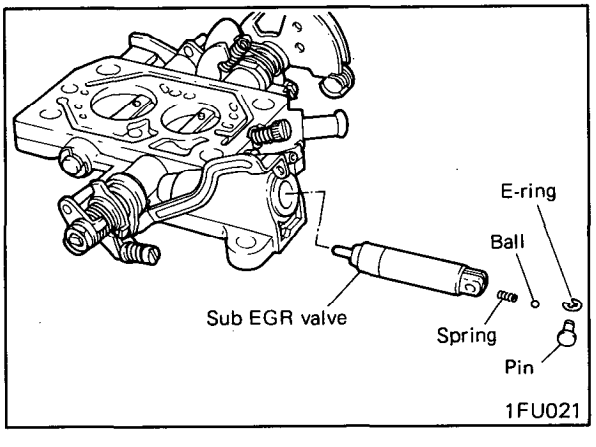
18. Remove the pilot jet retainer and pull out the secondary pilot jet with pliers.



19. Remove the accelerator pump and fuel cut-off solenoid.



20. Remove the snap ring from the sub EGR control valve pin.
21. Remove the pin and then remove the link from the valve. Then take out the little steel ball and spring from the sub EGR control valve.
22. Remove the sub EGR control valve from the throttle body.



REASSEMBLY

Perform reassemble in reverse procedure of disassembly, pay attention to the following items:

1. Clean the all reassembling parts.
2. Check to be sure that no clogging is in the air passages and fuel passages.
3. Check for rough operation of throttle and choke linkage. If they are binding, apply a small amount of lubricant after cleaning them up.
4. Sub EGR valve must operate smoothly.
5. When replacing a main or a pilot jet, the old jet and the new jet must be of the same size, because the jet is selected after exact flow measurement by factory (a No. is stamped on each jet).

INSTALLATION

1. Inspect the gasket surfaces of carburetor and intake manifold. Be sure both surfaces are clean and free of gasket material, nicks, burrs or other damage.
2. Place a new carburetor gasket on the intake manifold surface.
3. Carefully place the carburetor on the intake manifold.
4. Install carburetor mounting bolts and tighten alternately, a little at a time, to compress carburetor gasket evenly. The nuts must be drawn down tightly to prevent vacuum leakage between the carburetor and intake manifold.
5. Connect the throttle cable, vacuum hoses and fuel hoses.
6. Check carefully for worn or loose vacuum hose connections.
7. Check to be sure the choke plate opens and closes fully when operated.
8. Check to see that full throttle travel is obtained.
9. Install air cleaner. The air cleaner should be cleaned or replaced at this time to insure proper carburetor performance.
10. Connect battery cable.

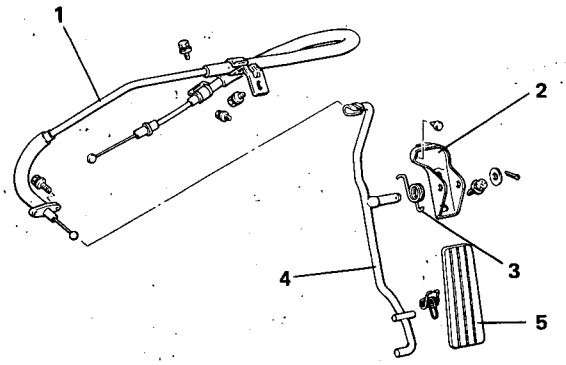
Caution

The practice of priming an engine by pouring gasoline into the carburetor air horn for starting after servicing the fuel system should be strictly avoided. Cranking the engine, and then priming by depressing the accelerator pedal several times should be adequate.

11. Set carburetor idle speed and mixture adjustment.

COMPONENTS

1. Accelerator cable
2. Accelerator arm bracket
3. Return spring
4. Accelerator arm
5. Pedal

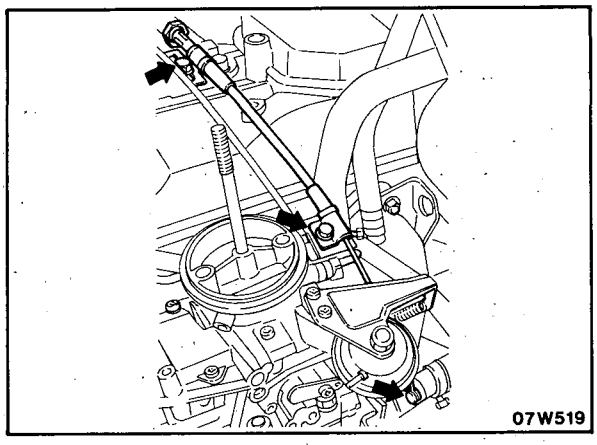


07W523

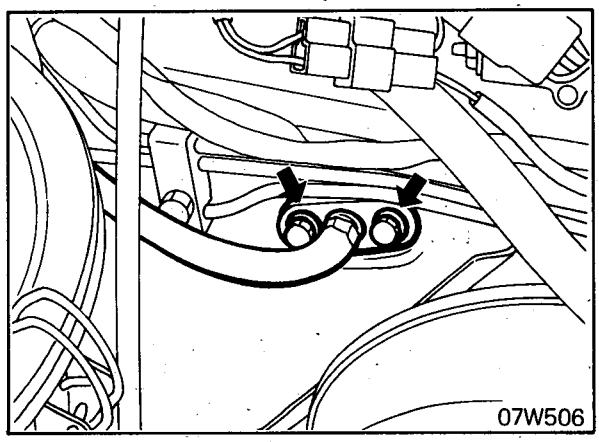
REMOVAL

Accelerator Cable

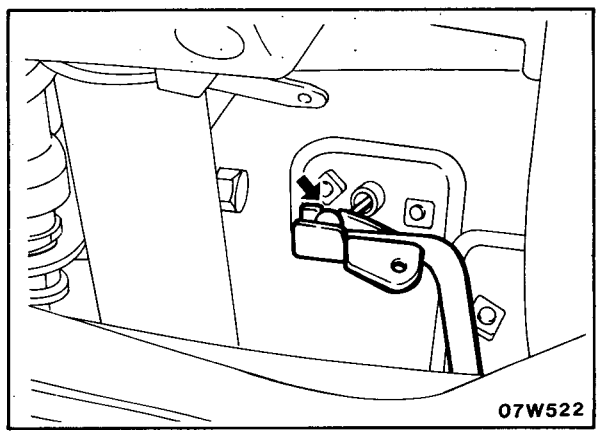
1. Loosen the accelerator cable tightening bolts. (07W519)
2. Disconnect the accelerator cable from the throttle lever.


07W519

3. Remove the bolts which hold the accelerator cable guide from the floorboard within the engine compartment.

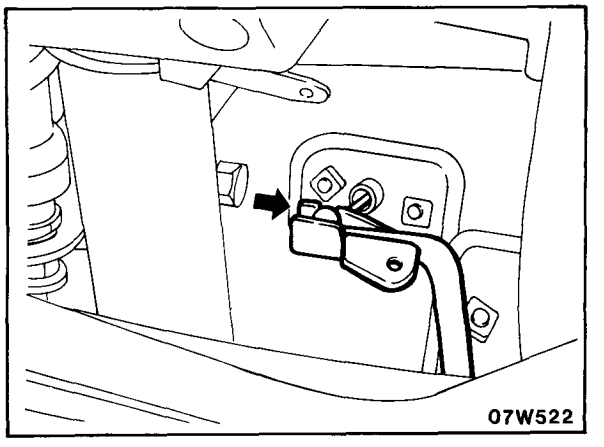

07W506

4. Disconnect the accelerator cable from the end of the accelerator arm, and then remove the cable from the engine compartment.

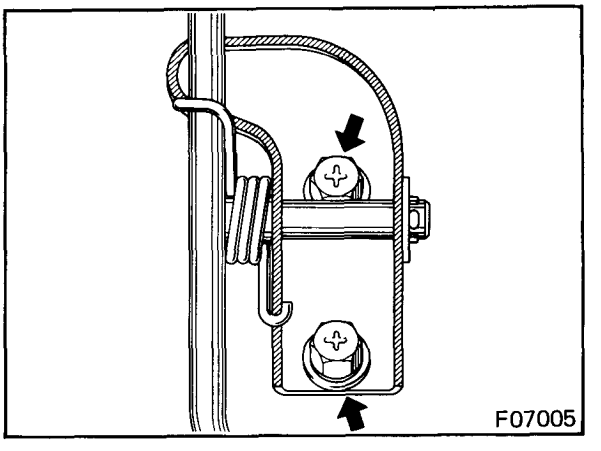

07W522

Accelerator Pedal

1. Disconnect the accelerator cable from the end of the accelerator arm.



2. Remove the accelerator arm together with the accelerator bracket. (F07005)
3. Remove the pedal from the accelerator arm.



INSPECTION

1. Check accelerator cable for damage.
2. Check cable outer casing for damage.
3. Check cable for roughness in the movement.
4. Check accelerator arm for bending.
5. Check return spring for deterioration.

INSTALLATION

1. Apply specified multipurpose grease and drying-type sealant to the specified positions. (F07005, 07W503)

Recommended grease	Multipurpose grease SAE J310a, NLGI grade #3, or equivalent

2. Eliminate sharp bends from the accelerator cable.
3. Adjust the free play of the accelerator cable. (Refer to p. 14-9.)