
FUEL SUPPLY AND ENGINE CONTROL

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GENERAL INFORMATION

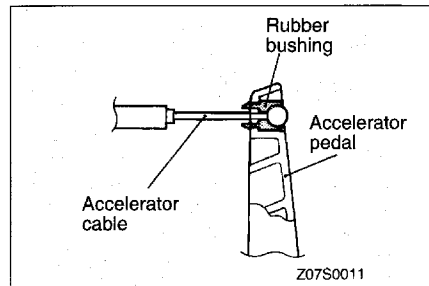
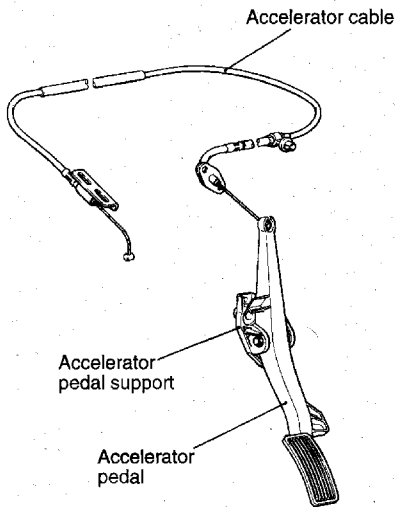
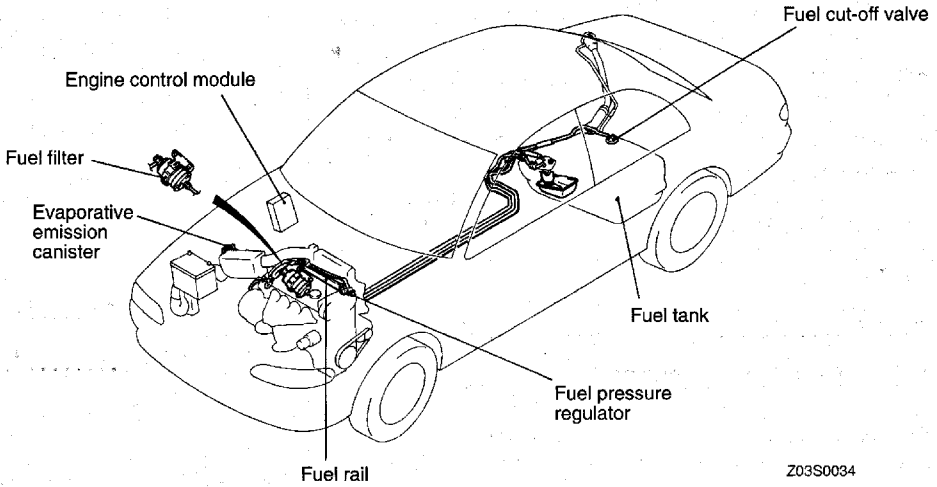
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The fuel system consists of an electromagnetic fuel injector, fuel rail, pressure regulator, an electric fuel pump to supply high pressure fuel, a fuel filter, fuel tank, etc.

The accelerator control system uses a cable and a suspended pedal. A special resin moulding is used for the pedal. The ends of the cable are provided with rubber bushings to absorb the vibration which may be transmitted from the pedal.

CONSTRUCTION DIAGRAM

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SERVICE SPECIFICATIONS

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Items	Standard value
Accelerator cable play mm (in.)	1-2 (.04-.08)

SEALANT

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Items	Specified sealant
Plug and floor pan	3M ATD Part No. 8513 or equivalent

TROUBLESHOOTING

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FUEL TANK AND FUEL LINE

Symptom	Probable cause	Remedy
Engine malfunctions due to insufficient fuel supply	Bent or kinked fuel pipe or hose	Repair or replace
	Clogged fuel pipe or hose	Clean or replace
	Clogged fuel filter or in-tank fuel filter	Replace
	Water in fuel filter	Replace the fuel filter or clean the fuel tank and fuel line
	Dirty or rusted fuel tank interior	Clean or replace
Evaporative emission control system malfunctions (When tank filler tube cap is removed, pressure releasing noise is heard)	Malfunctioning fuel pump (Clogged filter in the pump)	Replace
	Misrouting of vapor line	Correct
	Disconnected vapor line piping joint	Replace
	Folded, bent, cracked or clogged vapor line	
Faulty fuel tank filler tube cap		

ACCELERATOR CABLE AND ACCELERATOR PEDAL

Symptom	Probable cause	Remedy
Throttle valve will not fully open or close	Misadjusted accelerator cable	Adjust
	Misadjusted auto-cruise control cable	
	Broken return spring	Replace
	Throttle lever malfunction	
Accelerator pedal operation not smooth (over acceleration)	Accelerator pedal wrongly tightened	Repair
	Misinstalled accelerator cable	
	Accelerator cable requires lubrication	Lubricate or replace

SERVICE ADJUSTMENT PROCEDURES

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ACCELERATOR CABLE INSPECTION AND ADJUSTMENT

<Vehicles with auto-cruise control system>
Refer to P.13G-21.

<Vehicles without auto-cruise control system>

1. Turn air conditioning and lamps OFF.
Inspect and adjust at no load.
2. Warm engine until stabilized at idle.
3. Confirm idle speed is at prescribed r/min.
4. Stop engine (ignition switch OFF).
5. Confirm there are no sharp bends in accelerator cable.
6. Check inner cable for correct slack.
7. If there is too much slack or no slack, adjust play by the following procedures.
 - (1) Turn the ignition switch to the ON position (without starting the engine) and leave in that condition for approximately 15 seconds in order to initialize the ISC motor.

- (2) Loosen the adjusting bolts on the intake manifold plenum, and then secure the outer cable so that the free play of the inner cable will be the standard value.

Standard value: 1–2 mm (.04–.08 in.)

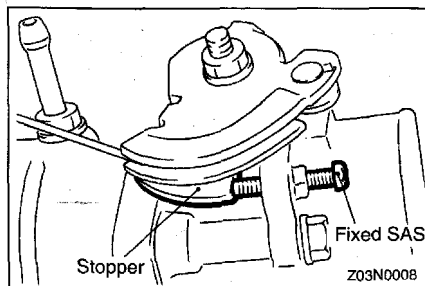
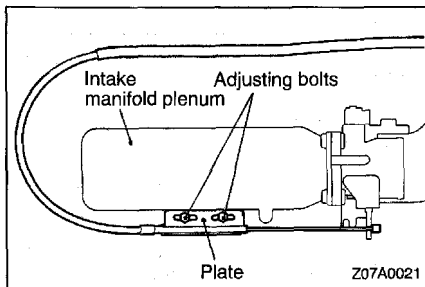
NOTE

If there is excessive play of the accelerator cable, the vehicle speed drop (“undershoot”) when climbing a slope will be large.

If there is no play (excessive tension) of the accelerator cable, the idling speed will increase.

8. After adjusting, confirm that throttle valve fully opens and closes by operating pedal.

9. Adjust accelerator cable play and confirm throttle lever stopper touches the fixed SAS.



FUEL TANK

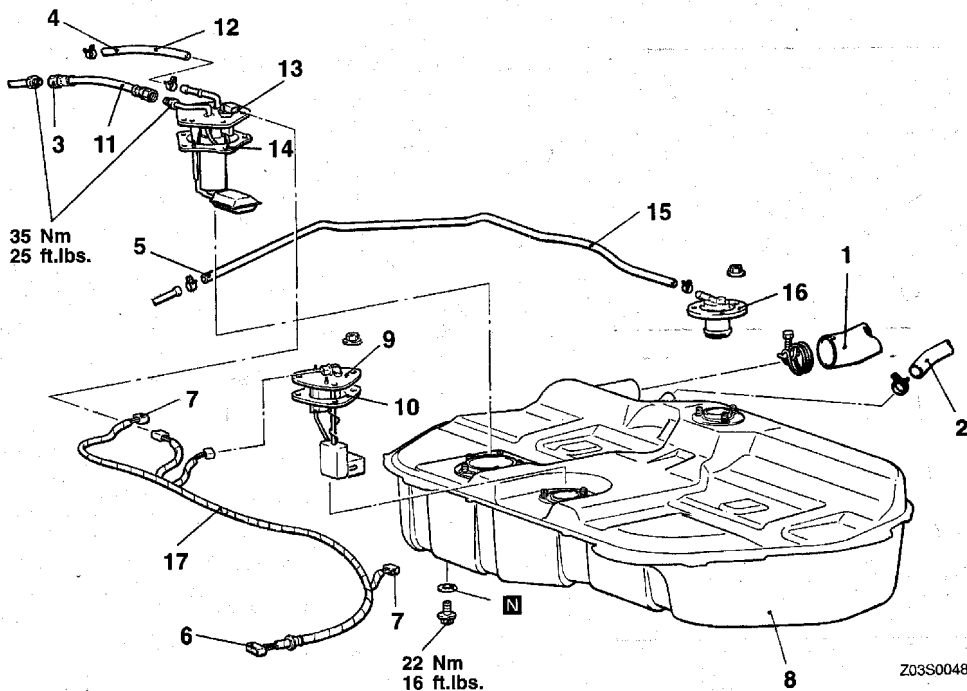
REMOVAL AND INSTALLATION

Pre-removal Operation

- Draining the Fuel
- Reduce the Inner Pressure of Fuel Line and Hose (Refer to GROUP 13A – Service Adjustment Procedures.)

Post-installation Operation

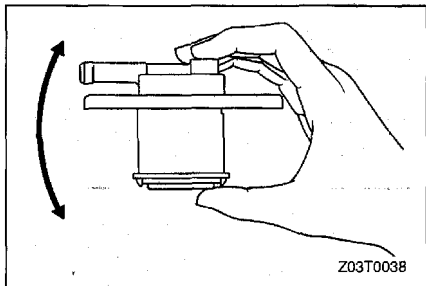
- Refilling the Fuel
- Checking for Fuel Leaks



Removal steps

1. Filler hose
2. Vapor hose
3. High-pressure fuel hose connection
4. Return hose connection
5. Vapor hose connection
6. Fuel gauge and pump connector
7. Rear speed sensor connector
<Vehicles with ABS>
8. Fuel tank assembly

9. Fuel gauge unit
10. Packing
11. High-pressure fuel hose
12. Return hose
13. Fuel pump
14. Packing
15. Vapor hose
16. Fuel cut off valve
17. Fuel gauge and pump wiring harness

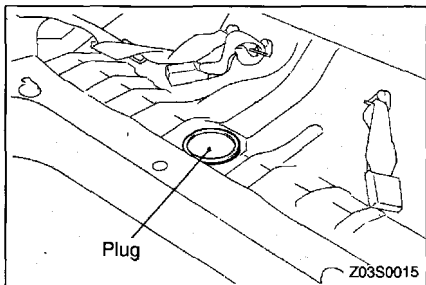


INSPECTION

- Check the hoses and pipes for cracks or damage.
- Check the fuel tank filler tube cap for malfunction.
- Check the fuel tank for deformation, corrosion or crack.

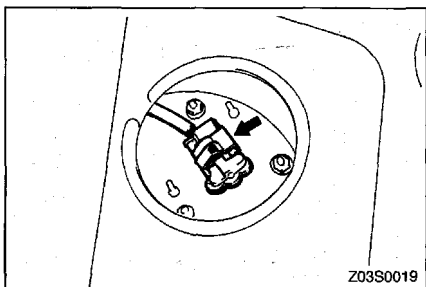
FUEL CUT OFF VALVE

If the sound of the float valve moving (knocking sound) can be heard when the valve assembly is gently shaken up and down, then the valve is okay.

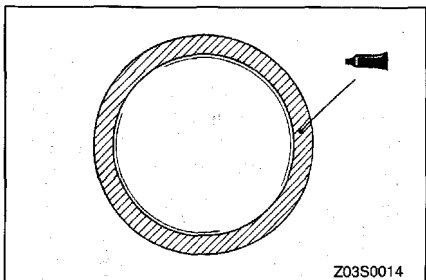


FUEL GAUGE UNIT REPLACEMENT

- (1) Remove the rear seat cushion.
(Refer to GROUP 52A – Seat.)
- (2) Remove the plug.



- (3) Disconnect the fuel gauge unit connector and remove the fuel gauge unit.



- (4) Apply specified sealant to the contact surfaces of the plug and the floor pan, and install the plug.

Specified sealant:

3M ATD Part No. 8513 or equivalent

FUEL FILTER

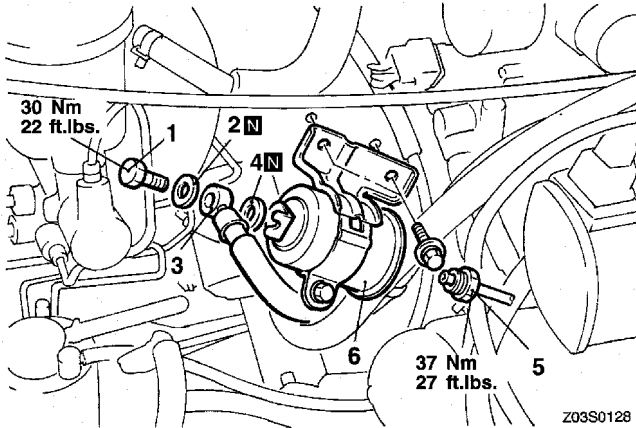
REMOVAL AND INSTALLATION

Pre-removal Operation

- Release of Residual Pressure from High Pressure Hose (Refer to GROUP 13A – Service Adjustment Procedures.)
- Air Cleaner and Air Intake Hose Removal (Refer to GROUP 15 – Air Cleaner.)

Post-installation Operation

- Air Cleaner and Air Intake Hose Installation (Refer to GROUP 15 – Air Cleaner.)
- Fuel Pressure Measurement (Refer to GROUP 13A – On-vehicle Inspection of MFI Components.)



Removal steps

- ◀A▶
1. Eye bolt
 2. Gasket
 3. High-pressure fuel hose connection
 4. Gasket
- ◀B▶
5. Fuel main pipe connection
 6. Fuel filter

REMOVAL SERVICE POINTS

◀A▶ EYE BOLT REMOVAL

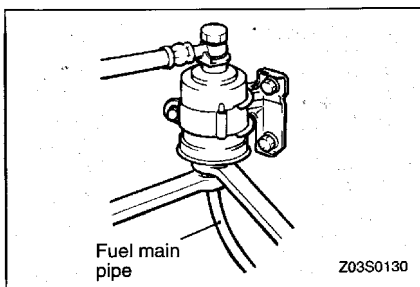
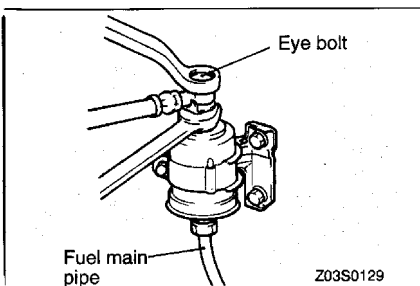
Hold the fuel filter with a spanner and remove the eye bolt.

Caution

As there will be some pressure remaining in the fuel pipe line, cover it with a shop towel to prevent fuel from spraying out.

◀B▶ FUEL MAIN PIPE DISCONNECTION

Hold the fuel filter with a spanner and loosen the flare nut. Then disconnect the fuel main pipe connection.

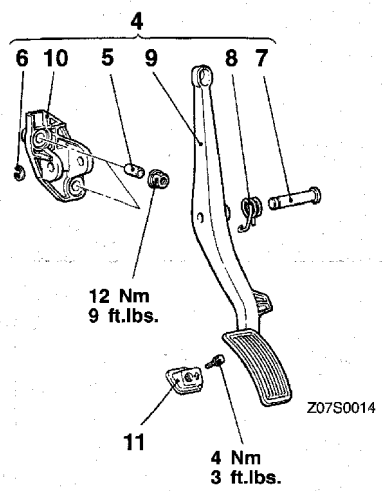
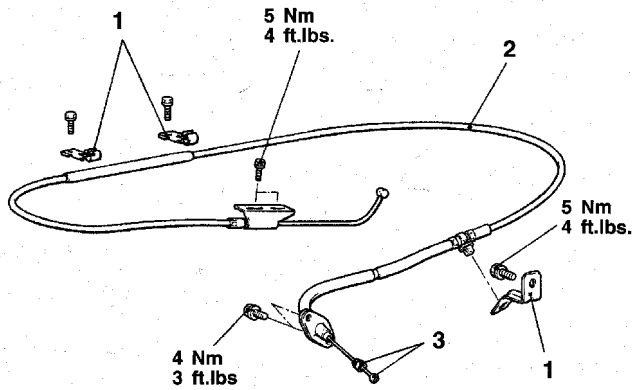
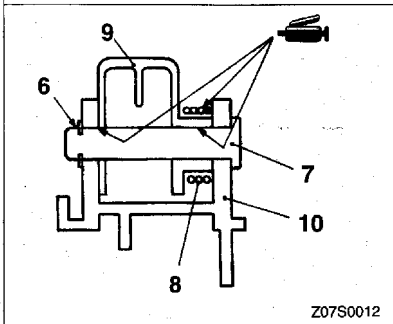
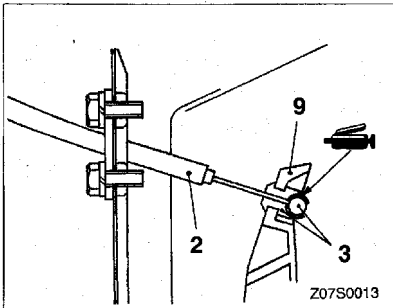


ACCELERATOR CABLE AND PEDAL

REMOVAL AND INSTALLATION

Post-installation Operation

- Adjusting the Accelerator Cable (Refer to P. 13F-4; for models equipped with auto-cruise control system, refer to P. 13G-21.)



Accelerator cable removal steps

1. Accelerator cable bracket and clamp
2. Accelerator cable

Accelerator pedal removal steps

3. Bushing and accelerator cable connection
4. Accelerator pedal assembly
5. Spacer
6. Snap ring
7. Pin
8. Return spring
9. Accelerator pedal arm
10. Accelerator pedal support
11. Accelerator pedal stopper

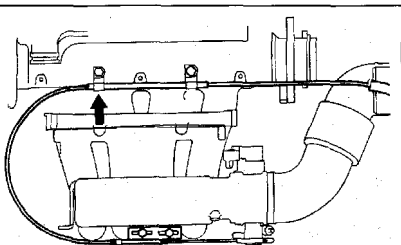
INSPECTION

- Check the inner and outer cable for damage.
- Check the cable for smooth movement.
- Check the accelerator arm for bending.
- Check the return spring for deterioration.
- Check the connection of bushing to end metal fitting.

INSTALLATION SERVICE POINT

▶A◀ ACCELERATOR CABLE INSTALLATION

Install the accelerator cable so that the marking section is aligned with the clamp shown by the arrow.



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