24 40 19 Removing and installing fuel injector - as of MY 2003, until MY 2006

- Preliminary work
- Removing fuel injector
- Installing fuel injector
- Subsequent work

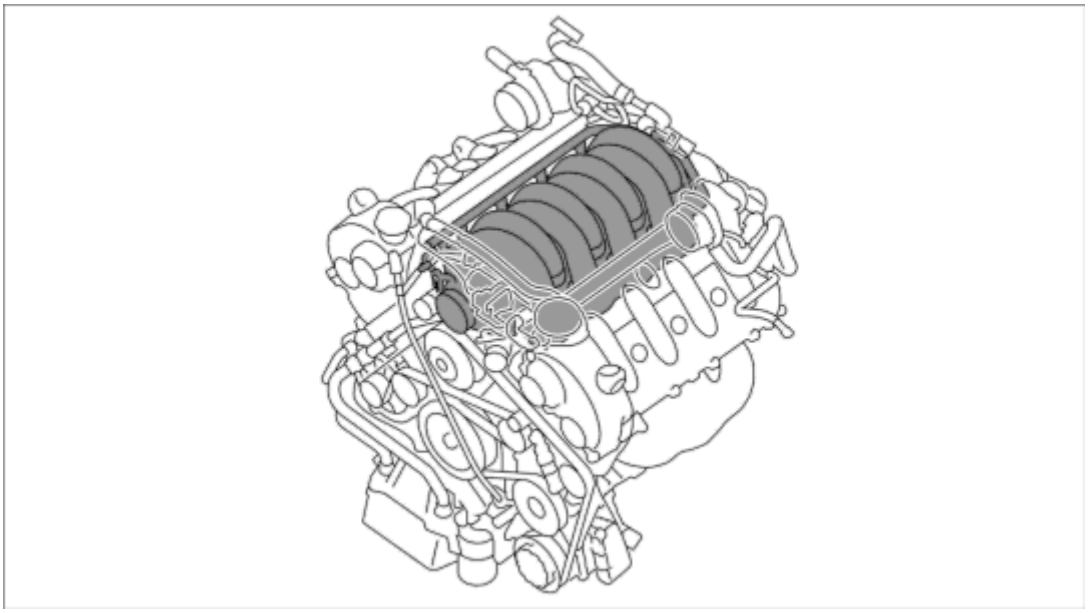
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Preliminary work

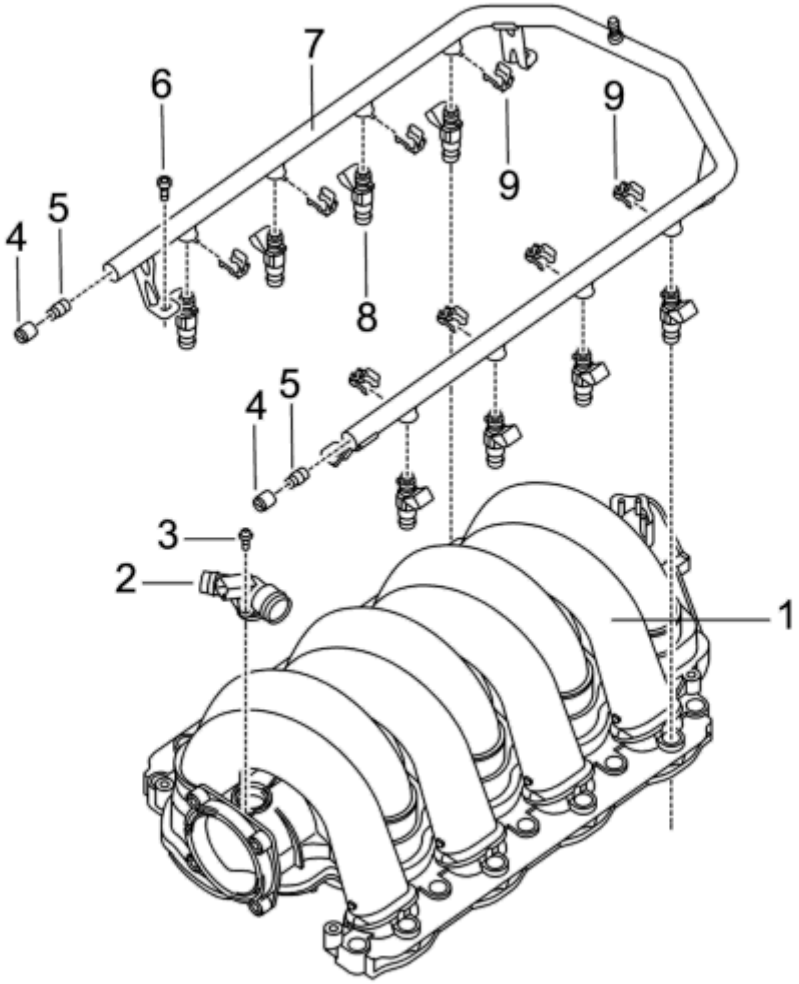
Preliminary work: Installing fuel injectors

1. Remove engine compartment lining at the rear and on the right-hand side. → 700219 Removing and installing front cover (engine compartment) - "Removing" section
2. Remove design covers from engine. → 108319 Removing and installing engine cover - "Removing" section

Component overview



Installation position for suction module and fuel injectors



Fuel pipe and fuel injectors

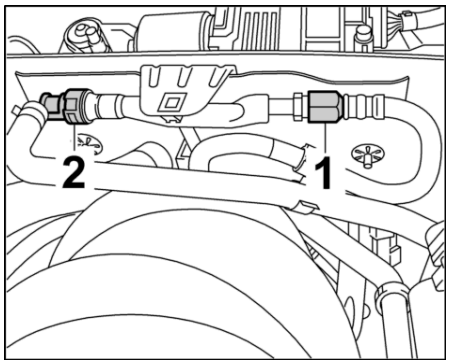
1 - Intake-air distributor
2 - Positive crankcase ventilation (T flange)
3 - K50 x 12 lens-head screw → **Tightening torque: 1.6 ftlb.**
4 - Cap; replace
5 - Valve insert
6 - M6 x 10 oval-head screw
7 - Fuel gallery; do not bend
8 - Fuel injector
9 - Safety clip

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Removing fuel injector

Removing injection valve

Ignition is off, ignition key is removed.



Fuel connections

DANGER

Danger of poisoning from fuels!

→ Gasoline is toxic.

→ Inhaling vapours can cause irritation of the mucous membranes and eyes.

→ It can be carcinogenic. It represents a serious risk to health when inhaled, touched or swallowed over longer periods.

→ Only work on the fuel system in well-ventilated rooms.

→ Wear protective gloves that are fuel-resistant.

→ Wear a breathing mask with active charcoal filter; do not breathe in any fuel vapours.

→ Ensure that there is adequate ventilation and extract all fuel vapours.

→ Before opening the fuel lines or fuel hoses, relieve the fuel pressure.

→ Collect escaping fuel, absorb it if necessary with a suitable binding material and dispose of properly.

→ Pay attention to cleanliness when working on the fuel system.

DANGER

Danger of fire from fuel!

→ Keep clear of ignition sources.

→ Do not smoke.

→ Disconnect battery.

→ Danger of fire due to naked flames and sparks, e.g. during welding or grinding work.

→ Danger of fire due to escaping fuel, e.g. on hot engine components or due to electrostatic

charge. Allow engine to cool down.

→ Secure the vehicle, e.g. with a warning sign.

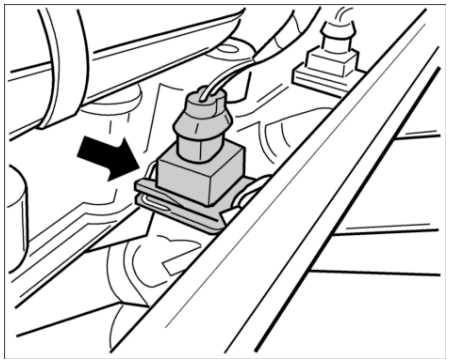
→ Change any clothing soaked with fuel immediately.

→ In case of fire, use CO_2 or dry powder fire extinguishers.

Note

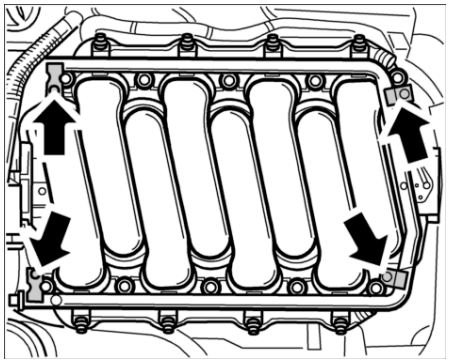
- *The ignition must be switched off when working on the fuel system.*
- *Absorb any escaping fuel using a suitable binding material or a cloth.*
- *Cloths which have absorbed fuel must be disposed of according to the applicable national laws.*
- *The fuel system must be depressurised before starting work on it.*
- *Only work on the fuel system in well-ventilated rooms.*
- *Any seals which have been removed must always be replaced.*

1. Disconnect fuel line -1- and line -2- from the carbon canister on the radiator tank splash panel.



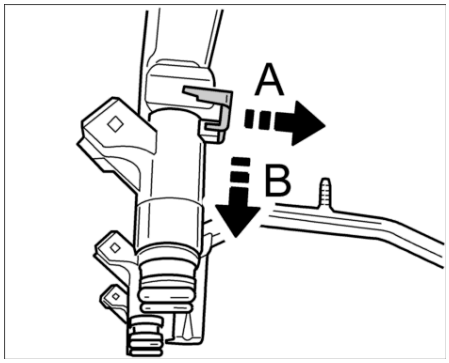
Metal clip on plug

2. Disconnect the electric connectors to the eight fuel injectors. To do this, press the metal clip on the plug and pull off the plug.



Fastening screws for fuel distribution pipe

3. Unscrew the four fastening screws on the fuel distribution pipe.
4. Remove fuel distribution pipe with the fuel injectors.



Fuel injector

5. Pull off the clamp on the fuel injector **-A-** and pull the fuel injector out of the fuel distribution pipe **-B -** .

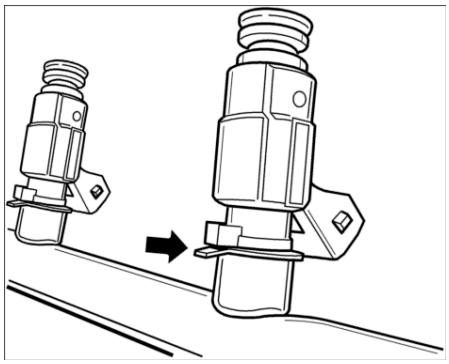
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Installing fuel injector

Note

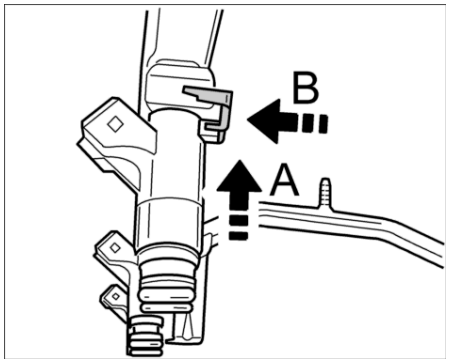
- *If the fuel injectors are to be reused, the sealing rings should be replaced.*

1. Replace sealing rings on the injection valves. Take care not to damage the fuel injector when removing the sealing rings.



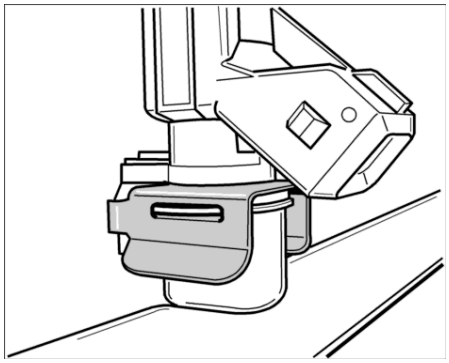
Valve alignment

2. Insert injection valve into the fuel distribution pipe and align. The electric connector must be positioned opposite the lug on the distributor. Then fit sheetmetal clips **-arrow-** .



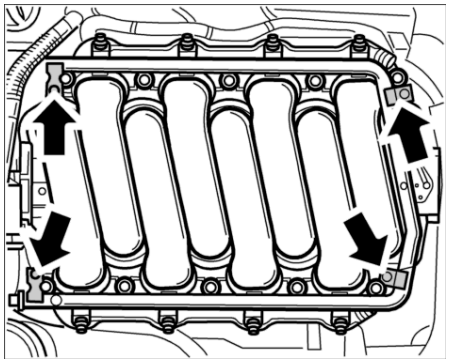
View shows fitting

3. Insert the fuel injector into the fuel distribution pipe **-A-** and insert the clamp on the fuel injector **-B -** .



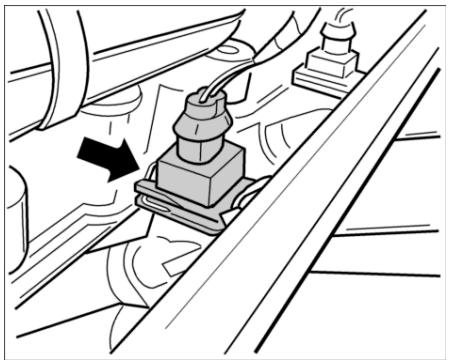
Installation position for sheetmetal clip

4. Check that the sheetmetal clip is correctly fitted. The sheetmetal clip must engage in the flanged edge on the fuel distribution pipe.
5. Insert fuel injectors into the openings in the intake module and press the fuel gallery down.



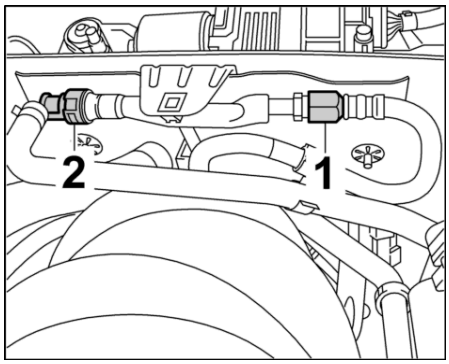
Fastening screws for fuel distribution pipe

6. Tighten the four fastening screws to the specified torque. → **Tightening torque: 6 ftlb.**



Fuel injector clamp

7. Connect the 8 electric connectors to the injection valves. The connectors must engage audibly.



Fuel connections

8. Connect fuel line **-1-** and line **-2-** from the carbon canister on the radiator tank splash panel.
9. Switch on ignition and check the system for leaks.

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Subsequent work

Work subsequent to installing injection valves

1. Install design covers for engine. → 108319 Removing and installing engine cover - "Installing" section
2. Install engine compartment cover at the rear and on the right-hand side. → 700219 Removing and installing front cover (engine compartment) - "Installing" section