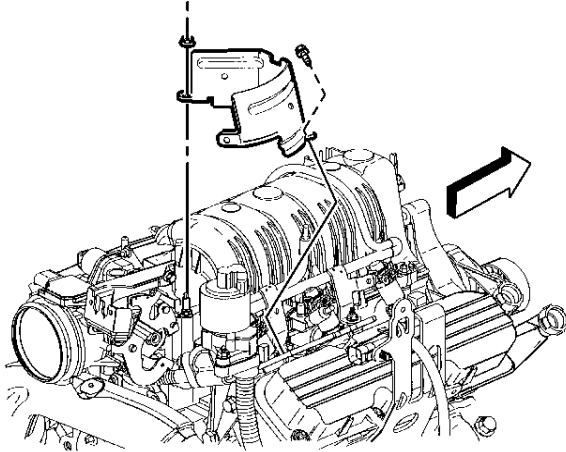


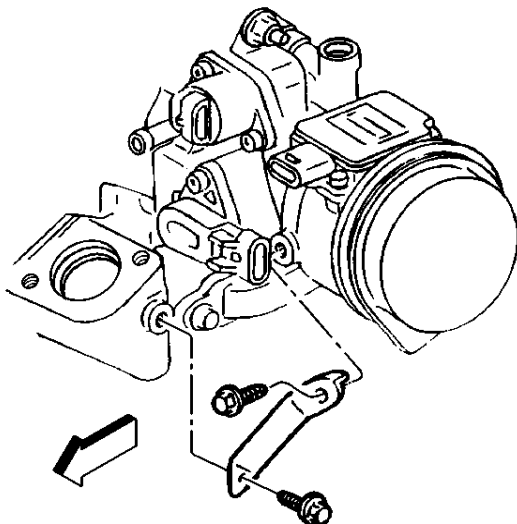
Intake Manifold Replacement - Upper

Removal Procedure

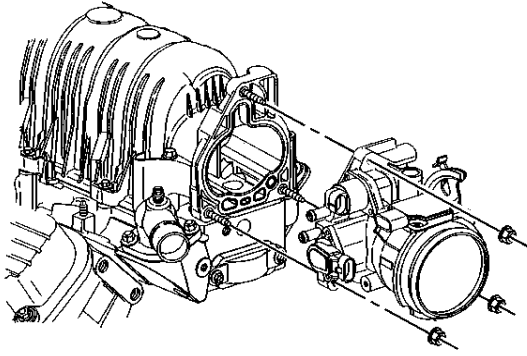
1. Remove the fuel injector sight shield. Refer to Fuel Injector Sight Shield Replacement.
2. Disconnect the manifold vacuum source.
3. Remove the evaporative emission (EVAP) canister purge valve solenoid and secure the hoses to the air inlet grill. Refer to Evaporative Emission (EVAP) Canister Purge Solenoid Valve Replacement in Engine Controls.
4. Disconnect the right spark plug wires from the ignition module and position aside.
5. Remove the manifold absolute pressure (MAP) sensor. Refer to Manifold Absolute Pressure (MAP) Sensor Replacement in Engine Controls.



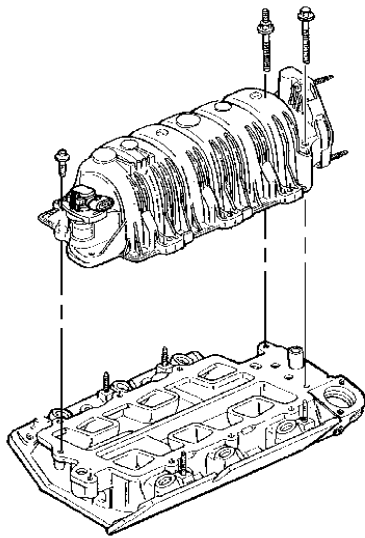
6. Remove the engine wiring harness heat shield fasteners.
7. Remove the engine wiring harness heat shield.
8. Remove the fuel rail mounting bolts and the fuel rail with the injectors. Refer to Fuel Rail Assembly Replacement in Engine Controls.



9. Remove the throttle body support bracket bolts.
10. Remove the throttle body support bracket.
11. Remove the air cleaner intake duct. Refer to Air Cleaner Intake Duct Replacement in Engine Controls.

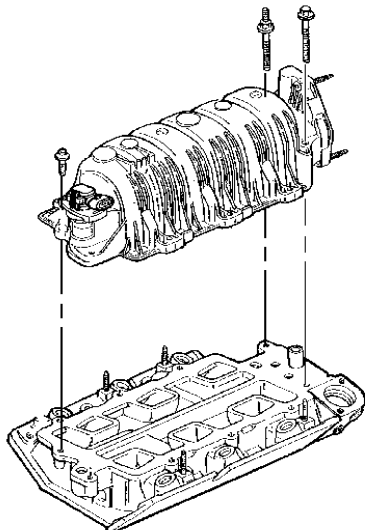


12. Remove the nuts securing the throttle body to the upper intake manifold.
13. Remove the throttle body and position aside.
14. Remove the throttle body gasket.



15. Remove the upper intake manifold bolts.
16. Remove the upper intake manifold.
17. Clean and inspect the upper intake manifold. Refer to Intake Manifold Cleaning and Inspection - Upper.
18. Clean the lower intake manifold mating surface.

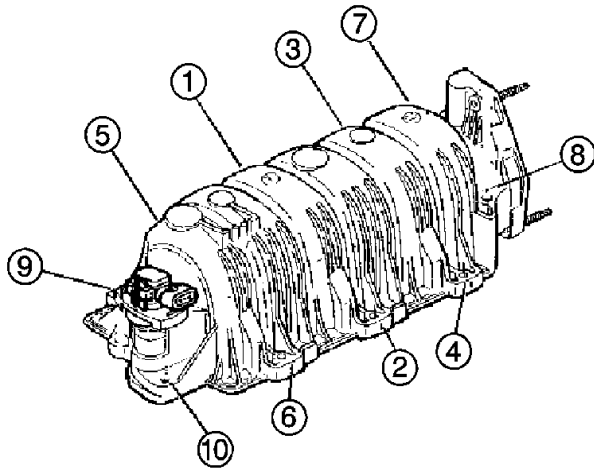
Installation Procedure



Important

Do not use any sealer on the gasket.

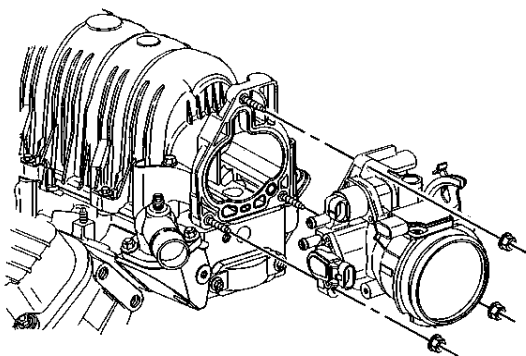
1. Install the new upper intake manifold gasket.
2. Position the upper intake manifold to the lower intake manifold.



Notice

Use the correct fastener in the correct location. Replacement fasteners must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specifications when installing fasteners in order to avoid damage to parts and systems.

3. Install the upper intake manifold bolts. **Tighten**
Tighten the upper intake manifold bolts in sequence (1-10) to 10 N·m (89 lb in).

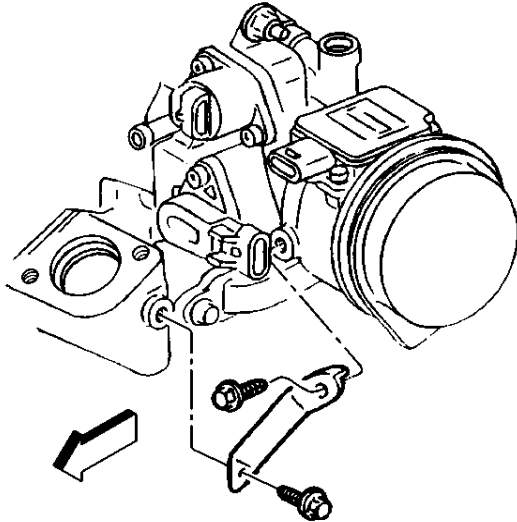


4. Position a new throttle body gasket to the upper intake manifold.
5. Install the throttle body to the upper intake manifold.

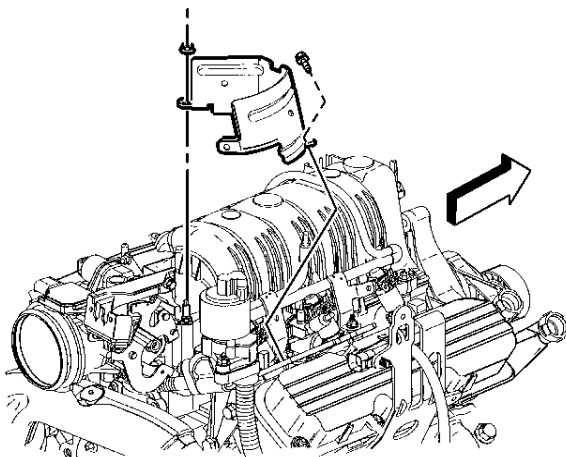
6. Install the nuts securing the throttle body to the upper intake manifold. **Tighten**

Tighten the throttle body nuts to 10 N·m (89 lb in).

7. Install the air cleaner intake duct. Refer to Air Cleaner Intake Duct Replacement in Engine Controls.



8. Install the throttle body support bracket.
9. Install the throttle body support bracket bolts. **Tighten**
Tighten the throttle body support bracket bolts to 10 N·m (89 lb in).
10. Install the fuel rail assembly. Refer to Fuel Rail Assembly Replacement in Engine Controls.



11. Install the engine wiring harness heat shield.
12. Install the engine wiring harness heat shield fasteners. **Tighten**
Tighten the engine wiring harness heat shield fasteners to 10 N·m (89 lb in).
13. Install the MAP sensor. Refer to Manifold Absolute Pressure (MAP) Sensor Replacement in Engine Controls.
14. Connect the right spark plug wires to the ignition module.
15. Install the evaporative emission canister purge valve solenoid. Refer to Evaporative Emission (EVAP) Canister Purge Solenoid Valve Replacement in Engine Controls.
16. Connect the manifold vacuum source.
17. Install the fuel injector sight shield. Refer to Fuel Injector Sight Shield Replacement.