

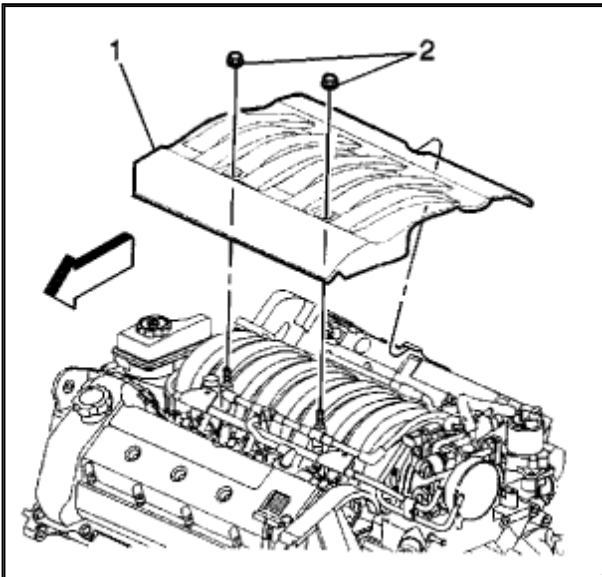
2001 Cadillac DeVille V8-4.6L VIN 9

[Vehicle Level](#) → [Engine, Cooling and Exhaust](#) → [Engine](#) → [Intake Manifold](#) → [Service and Repair](#) → [Intake Manifold Replacement](#) ←

Intake Manifold Replacement

Intake Manifold Replacement

Removal Procedure

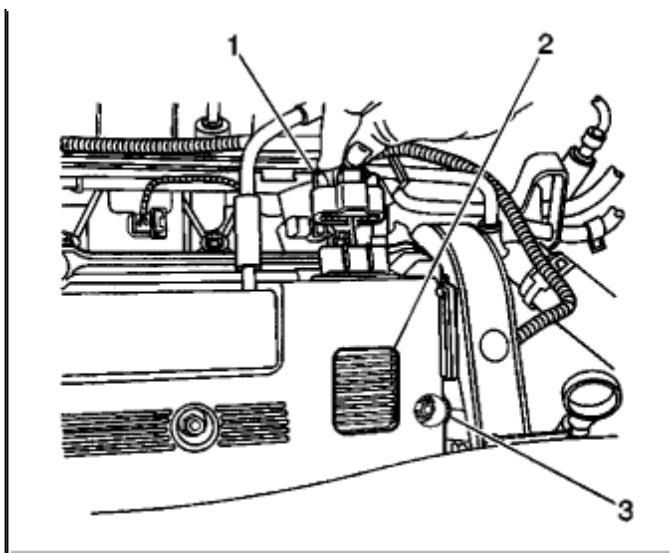


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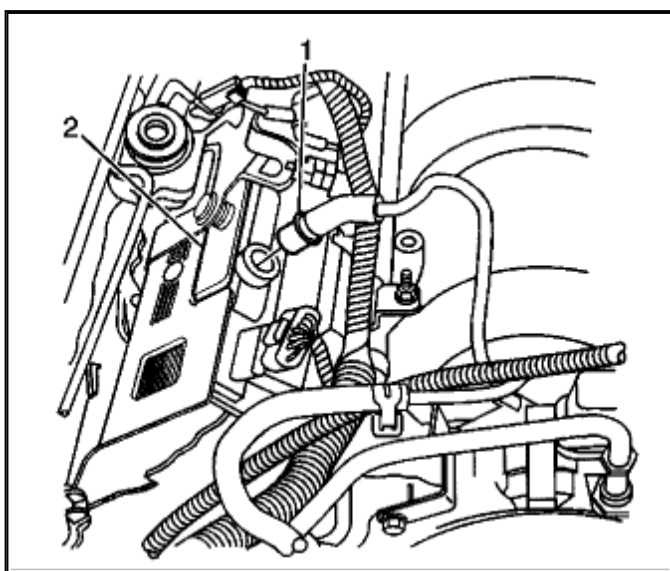
1. Remove the 2 nuts (2) from the intake manifold sight shield (1).
2. Remove the sight shield (1) from the engine.





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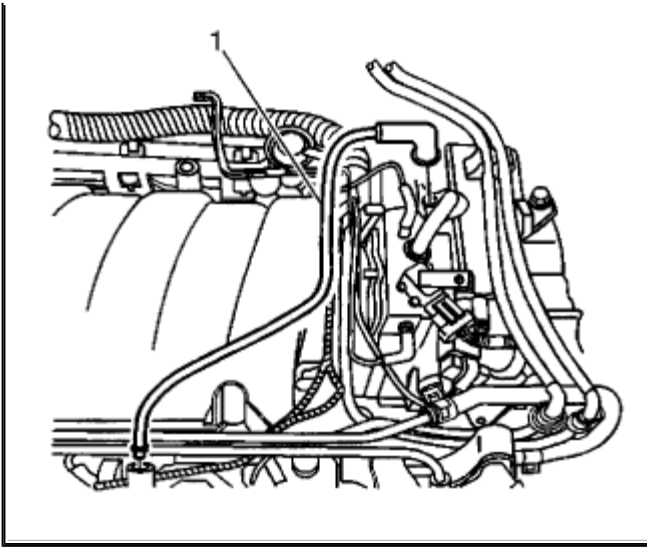
3. Disconnect the coil module connectors (1) from the coil modules (2) located in the camshaft covers (3).



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4. Disconnect the PCV valve (1) from the camshaft cover (2).
5. Disconnect the PCV fresh air tube (1) from the camshaft cover.

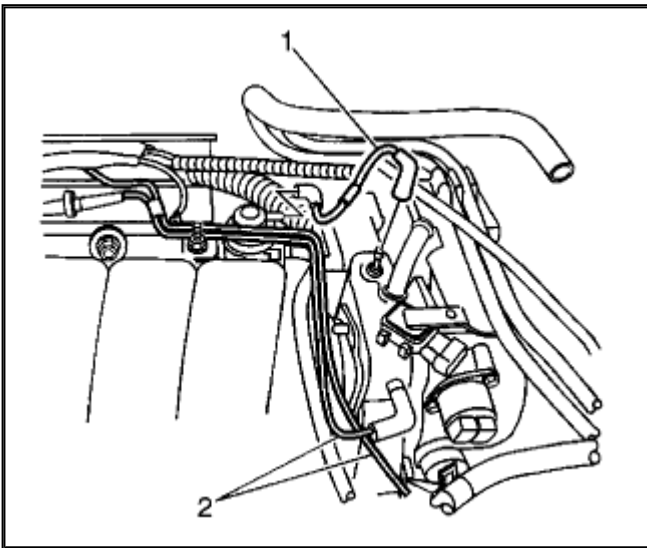




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6. Disconnect the fuel regulator vacuum tube (1).

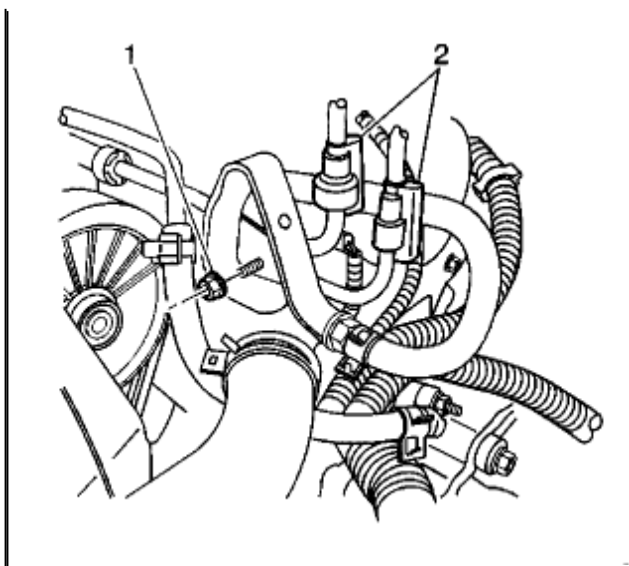


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7. Disconnect the vacuum tubes (2) from the AIR solenoid.

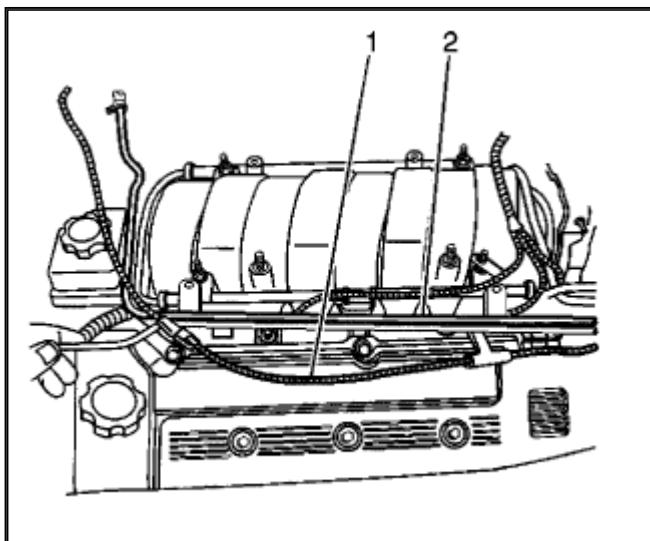




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8. Disconnect the fuel inlet and return quick-connect fittings (2) at the fuel rail.
9. Disconnect the fuel rail bracket retaining nut (1) at the rear lift bracket.

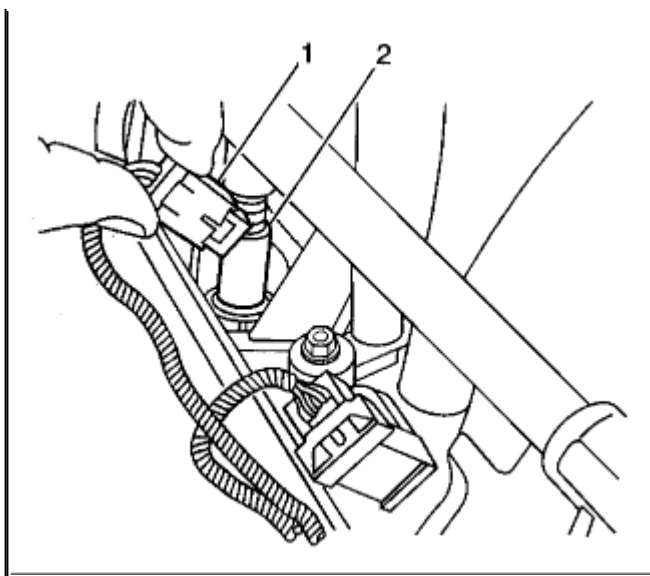


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10. Remove the 2 pushnuts securing the engine coolant heater wire (1) and position aside (if equipped).
11. Carefully position aside the surge tank pipe (2) from the fuel rail studs.

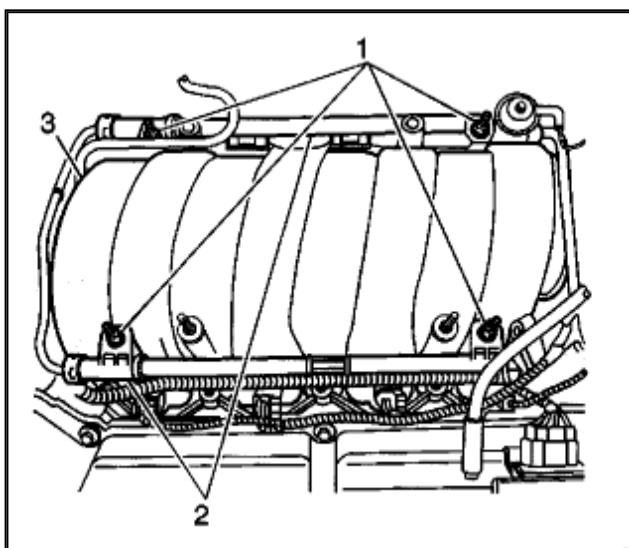




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12. Disconnect the 8 electrical connectors (1) from the 8 fuel injectors (2).

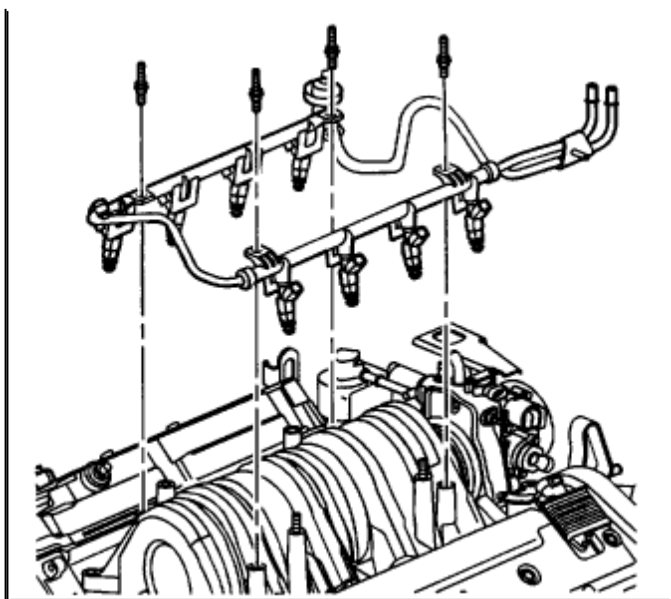


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13. Remove the 4 bolts (1) attaching the fuel rail (2) to the intake manifold (3).

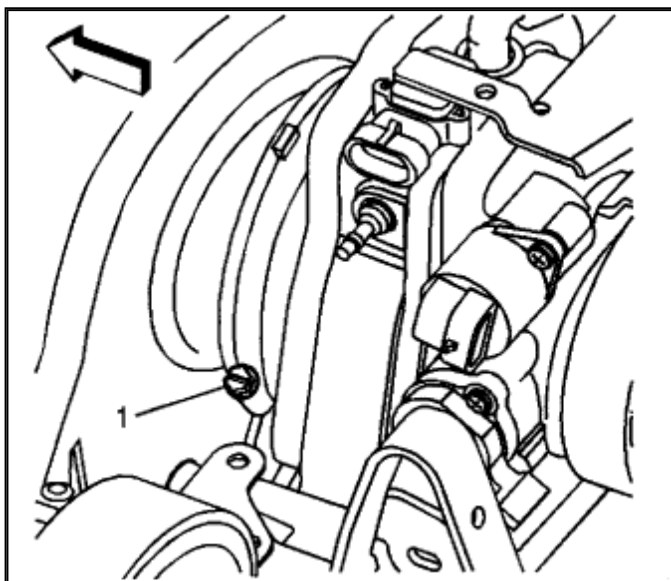




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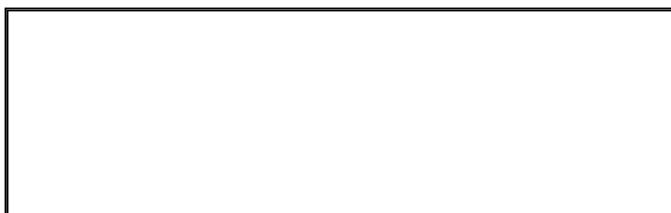
14. Lift the entire fuel rail and injector assembly from the intake manifold.

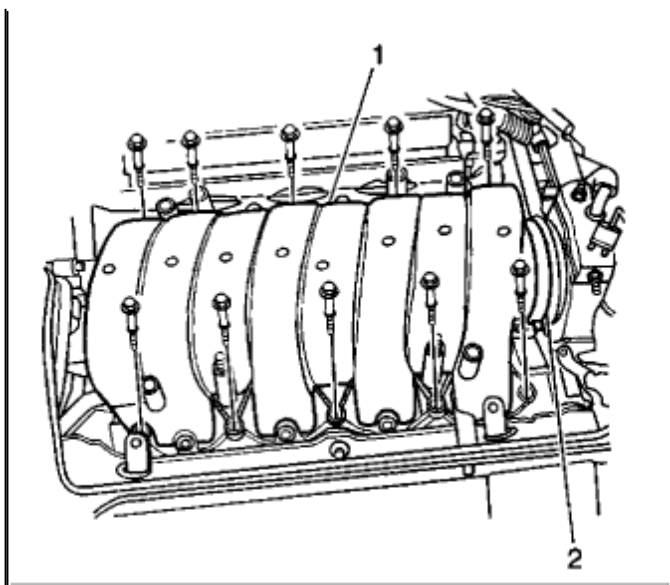


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15. Loosen the plenum duct clamp at the rear of the intake manifold.

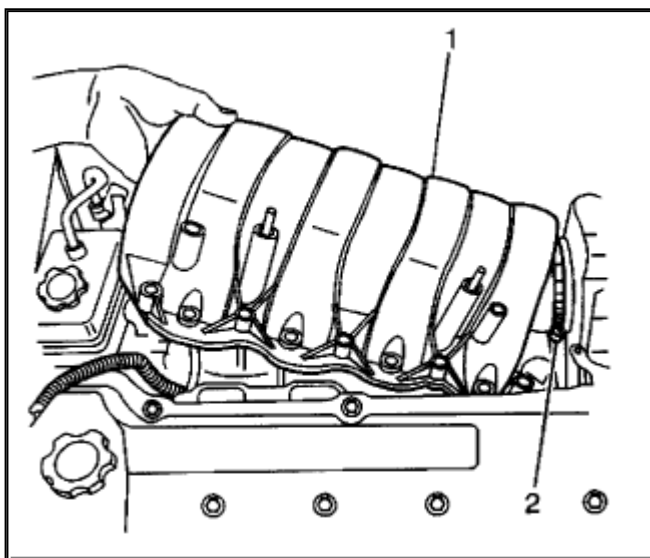




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16. Remove 10 bolts attaching the intake manifold (1) to the cylinder heads.



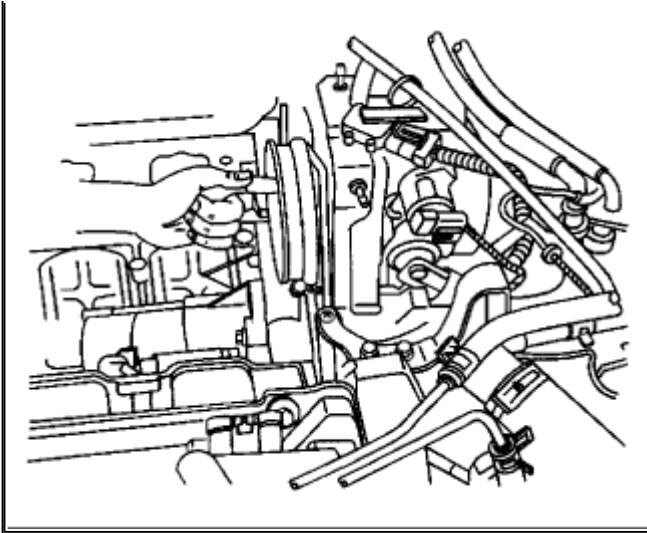
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17. Remove the intake manifold (1) by using an upward lifting motion at the front of the manifold assembly.
18. Clean and inspect the intake manifold.

Installation Procedure

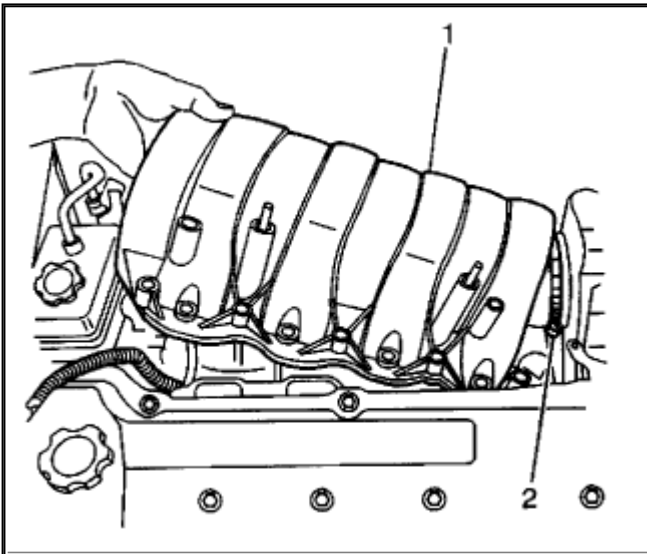




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1. Lightly grease the inside edge of the rubber plenum duct.



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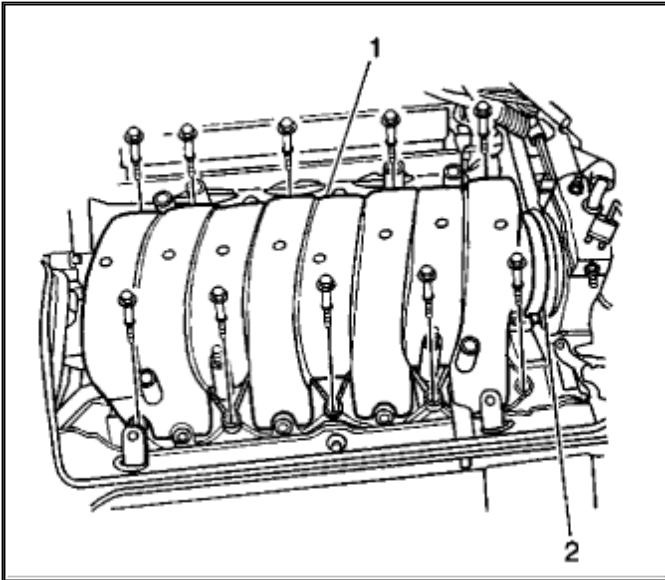
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2. Clean any debris from the cylinder head or intake manifold.
3. Install the new gaskets to the intake manifold.

Important: Ensure the PCV valve hose is firmly connected to the fitting at the front of the intake manifold, prior to installation.

4. Place the intake manifold in position by completing the following:

- 4.1. Position the rear of the intake manifold (1) into the plenum duct (2).
- 4.2. Position the front of the intake manifold (1) downward on to the cylinders heads.

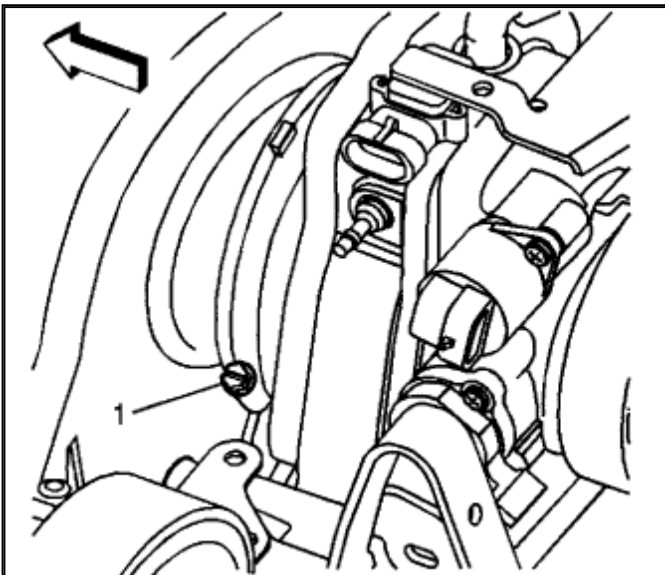


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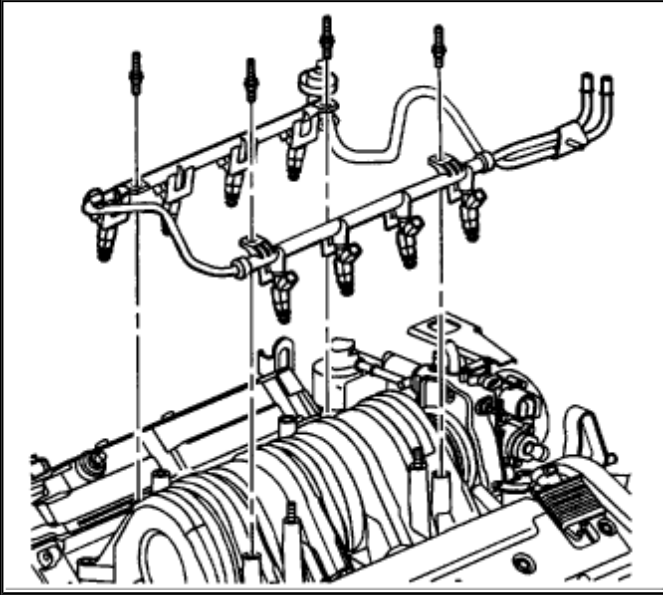
Notice: Refer to Fastener Notice in Service Precautions.

5. Install the 10 bolts attaching the intake manifold (1) to the cylinder heads.
 - Tighten the intake manifold bolts starting from the center and working outward in a circular pattern to **10 Nm (89 inch lbs.)** .



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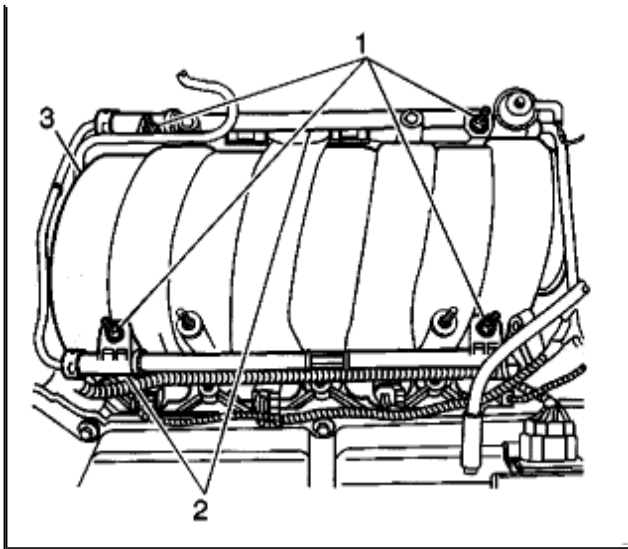
6. Ensure that the plenum duct is fully attached to the rear of the intake manifold.
 - Tighten the plenum duct clamp (1) to **2.25 Nm (20 inch lbs.)** .

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Important: DO NOT force the injectors into position or damage to the O-ring seals could occur.

7. Install the entire fuel rail and injector assembly into the intake manifold by pressing the fuel rail and injector simultaneously into the correct position.



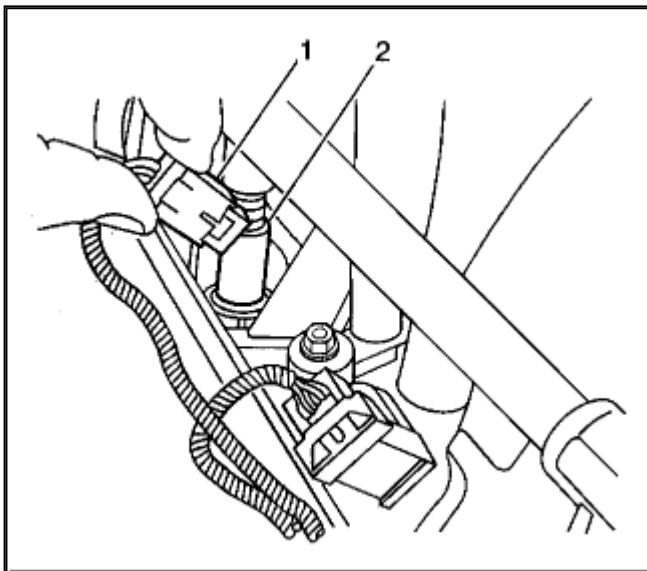


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8. Install the 4 bolts (1) attaching the fuel rail (2) to the intake manifold (3).

- Tighten the fuel rail bolts to **10 Nm (89 inch lbs.)** .

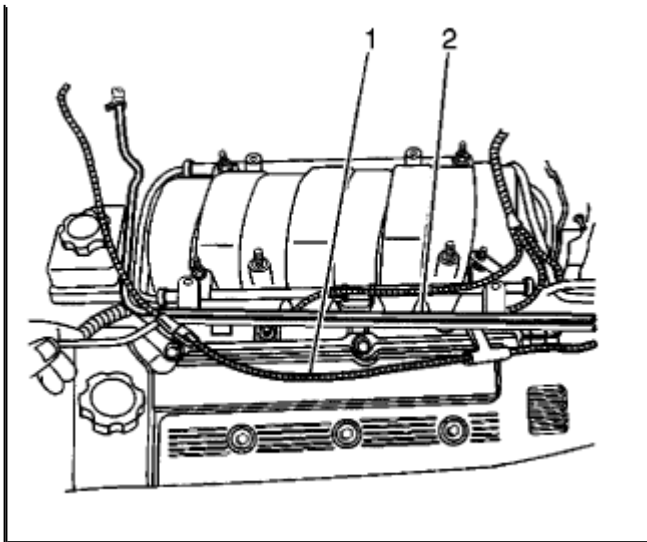


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9. Connect the 8 electrical connectors (1) to the 8 fuel injectors (2).

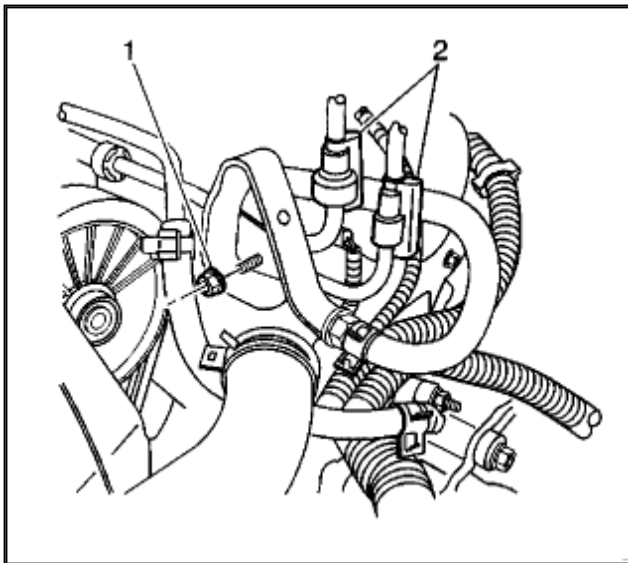




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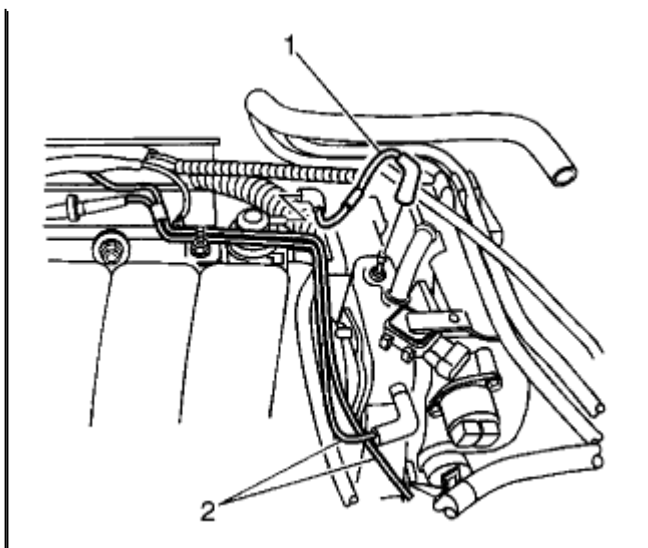
10. Position the surge tank pipe (2) on to the fuel rail studs.
11. Position the engine coolant heater wire (1) on to the fuel rail studs (if equipped).
12. Install the 2 pushnuts.



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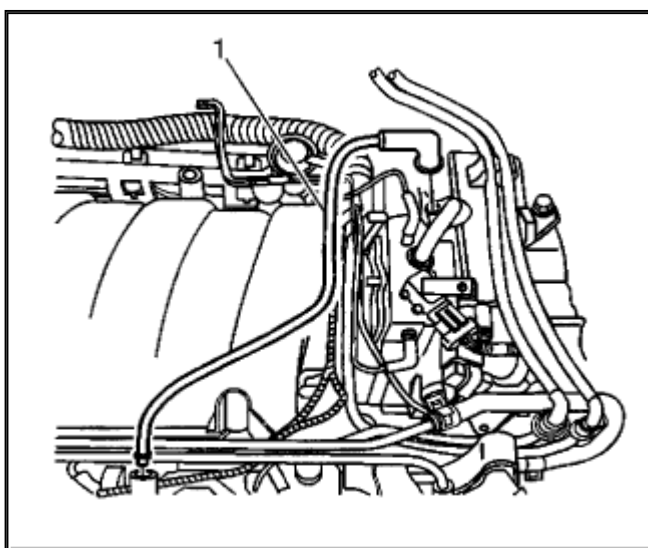
13. Install the fuel rail bracket retaining nut (1) to the rear lift bracket.
 - Tighten the fuel rail bracket retaining nut (1) to **10 Nm (89 inch lbs.)** .
14. Install the quick connect fittings to the fuel rail.



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- 15. Connect the vacuum tubes (2) to the AIR solenoid.
- 16. Connect the fuel regulator vacuum tube (1).

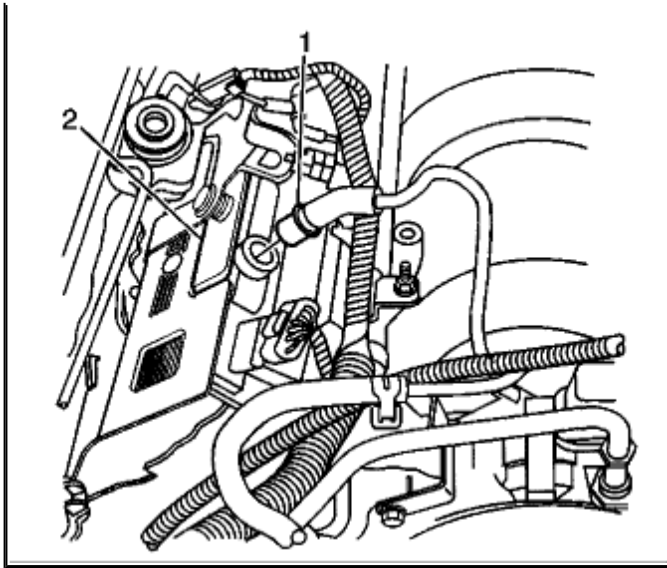


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- 17. Connect the PCV fresh air tube (1) to the camshaft cover.

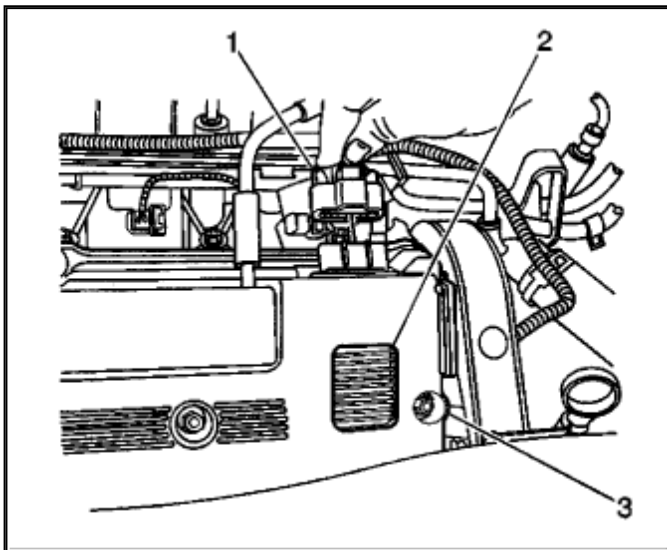




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18. Connect the PCV valve (1) to the camshaft cover (2).

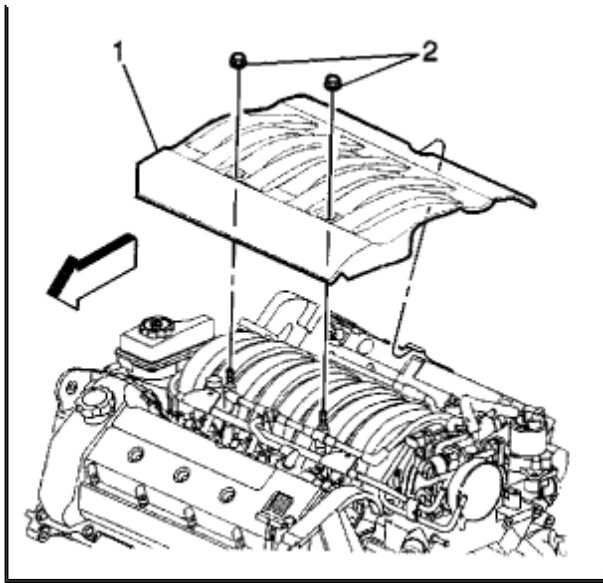


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- 19. Connect the coil module connectors (1) to the coil modules (2) located in the camshaft covers (3).
- 20. To clean, turn the ignition switch to the ON position for 2 seconds, then turn to the OFF position for 10 seconds. Again turn to the ON position and check for fuel leaks.





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21. Position the intake manifold sight shield (1) to the engine.
22. Install the 2 intake manifold sight shield nuts (2).
 - Tighten the nuts to **3 Nm (27 inch lbs.)** .