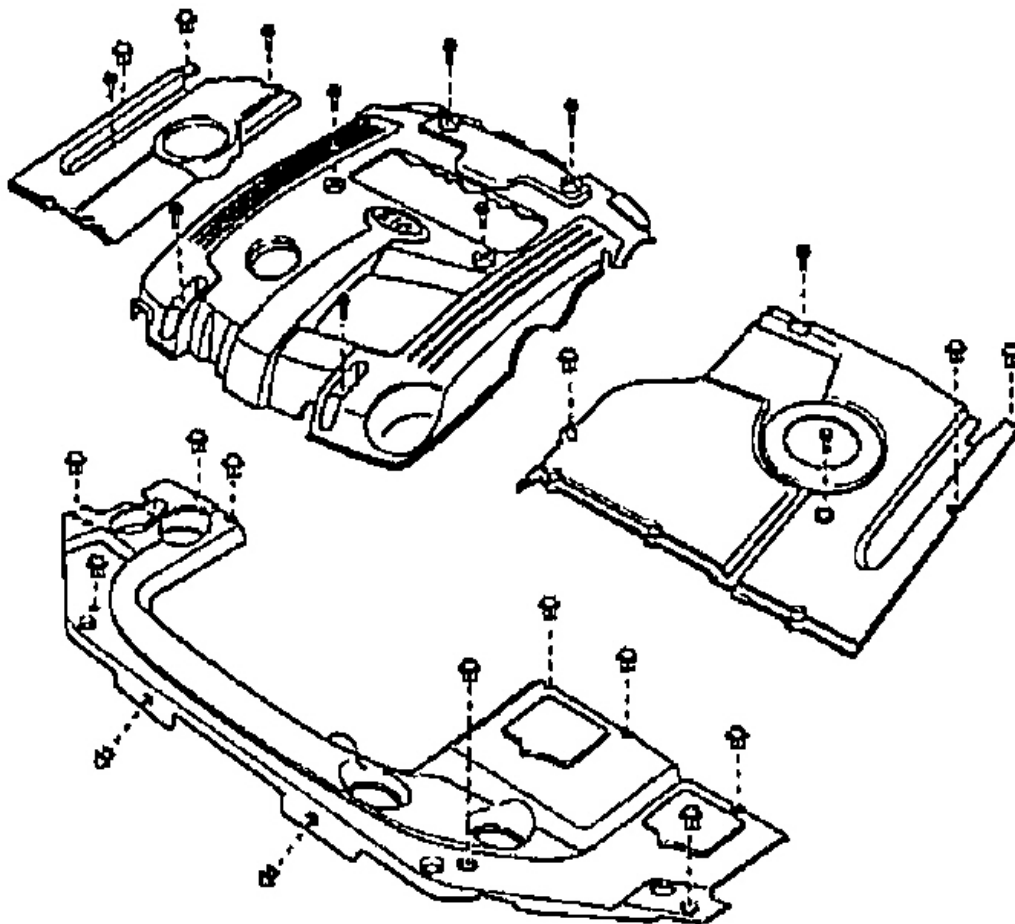


REMOVAL

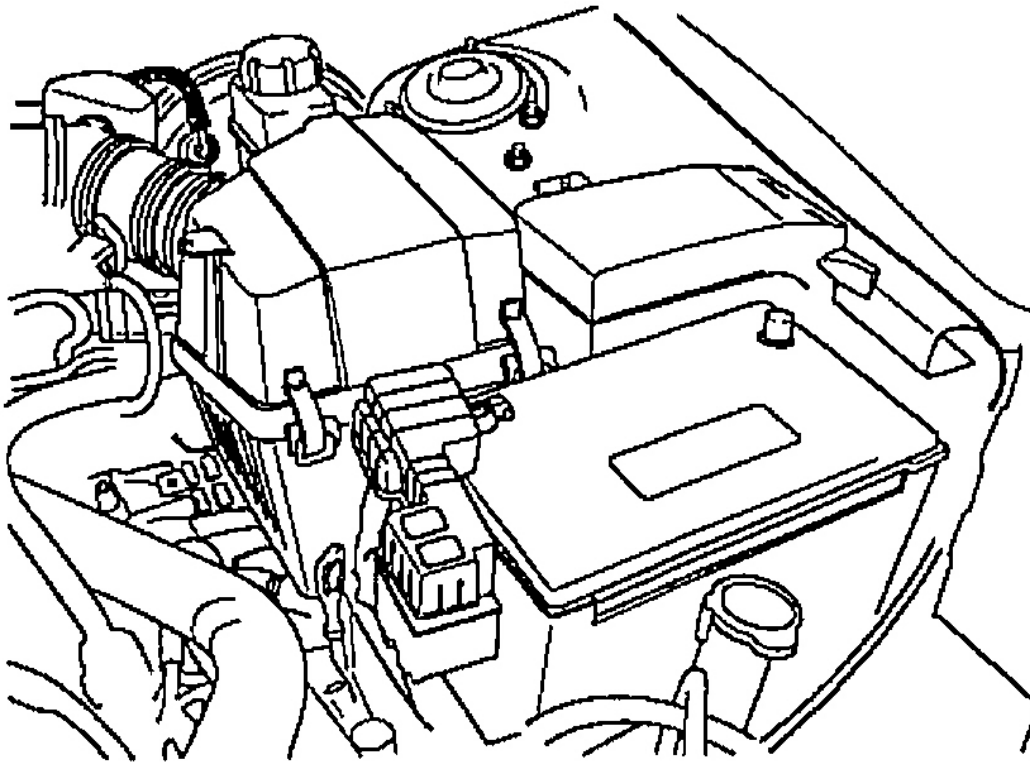
1. Remove the engine cover.



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Fig. 171: Removing Engine Cover
Courtesy of KIA MOTORS AMERICA, INC.

2. Disconnect the battery terminal.

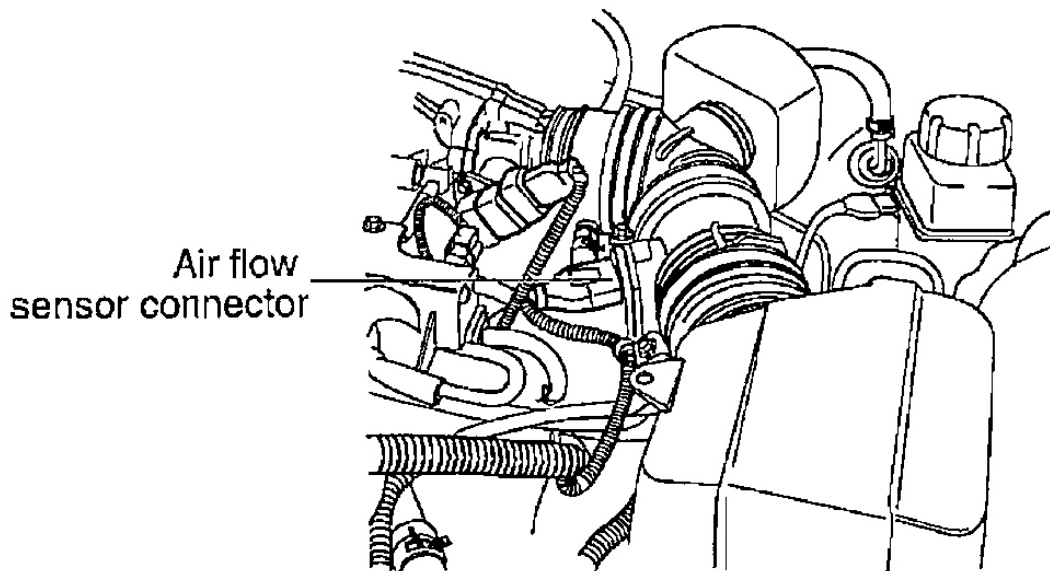


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Fig. 172: Disconnecting Battery

Courtesy of KIA MOTORS AMERICA, INC.

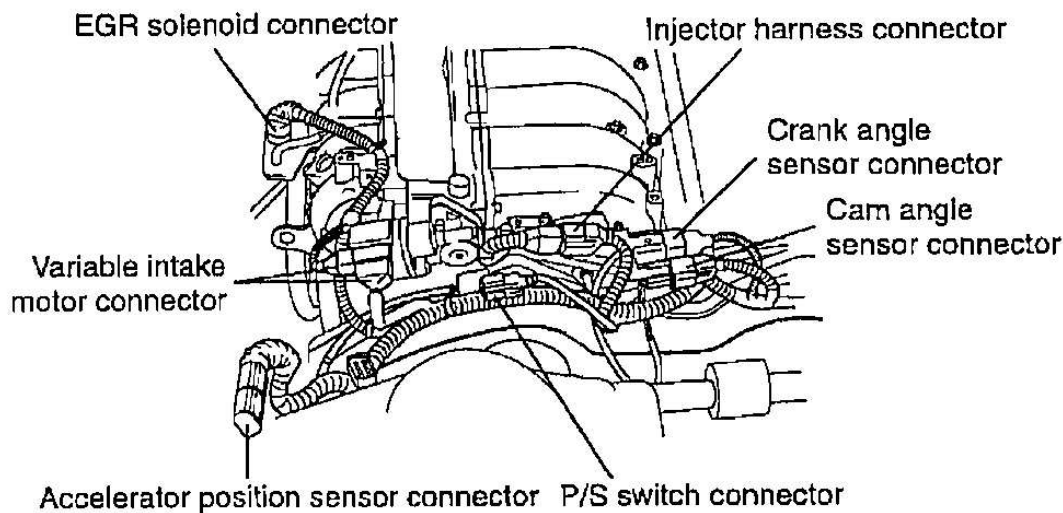
3. Disconnect the air flow sensor connector and the vacuum hose from the air intake hose.



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Fig. 173: Disconnecting Air Flow Sensor & Vacuum Hose
Courtesy of KIA MOTORS AMERICA, INC.

4. Remove the air cleaner assembly after removing the air intake hose clamp and fixing bolt (3ea).
5. Disconnect the crank angle sensor connector, the cam angle sensor connector, the injector harness connector, the power steering switch connector, the variable intake motor connector (2ea), the accelerator position sensor connector and the EGR solenoid connector.



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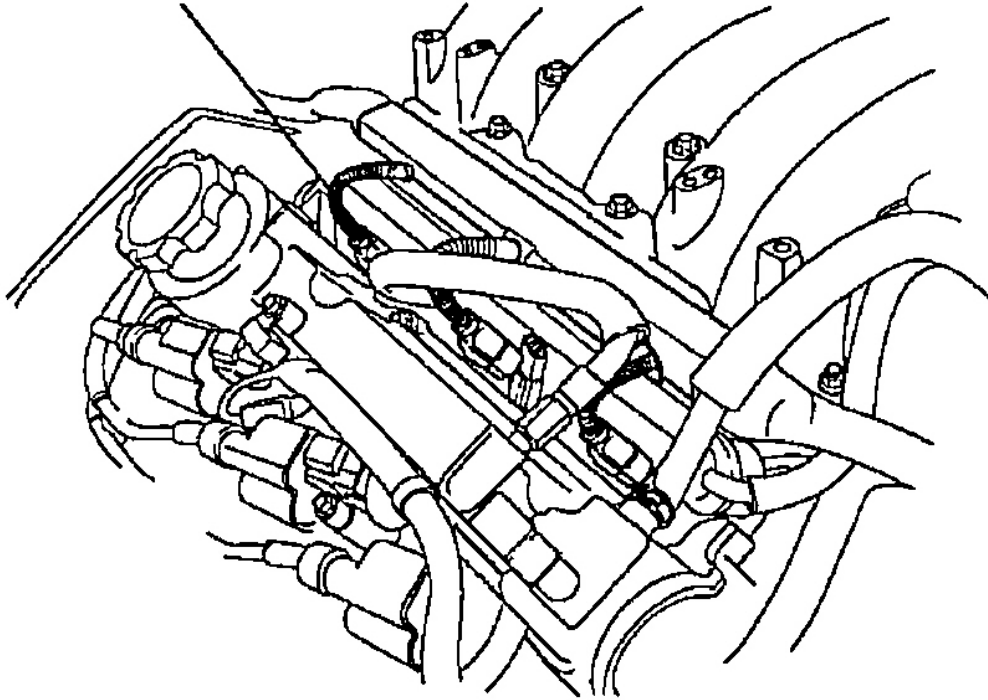
Fig. 174: Disconnecting Engine Sensors and Injector Harness

Courtesy of KIA MOTORS AMERICA, INC.

6. Disconnect the injector connector after removing the injector harness bracket bolt (2ea).

CAUTION: When disconnect the injector connector, lift the fuel delivery pipe and injector assembly upward appropriately. At this time unscrew the mounting bolt to lift the fuel delivery pipe. Reinstall the delivery pipe and injector assembly.

Injector connector



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Fig. 175: Disconnecting Injector Connector
Courtesy of KIA MOTORS AMERICA, INC.

7. Disconnect the throttle position sensor connector, the ETS (Electronic throttle system) motor connector, the limp-home connector and the purge solenoid valve connector.

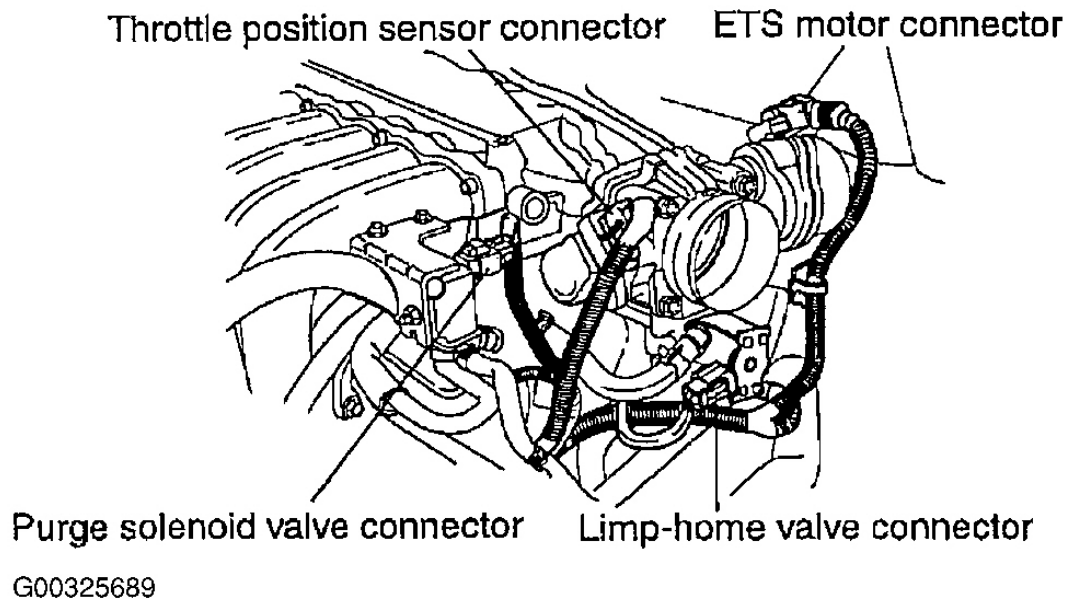
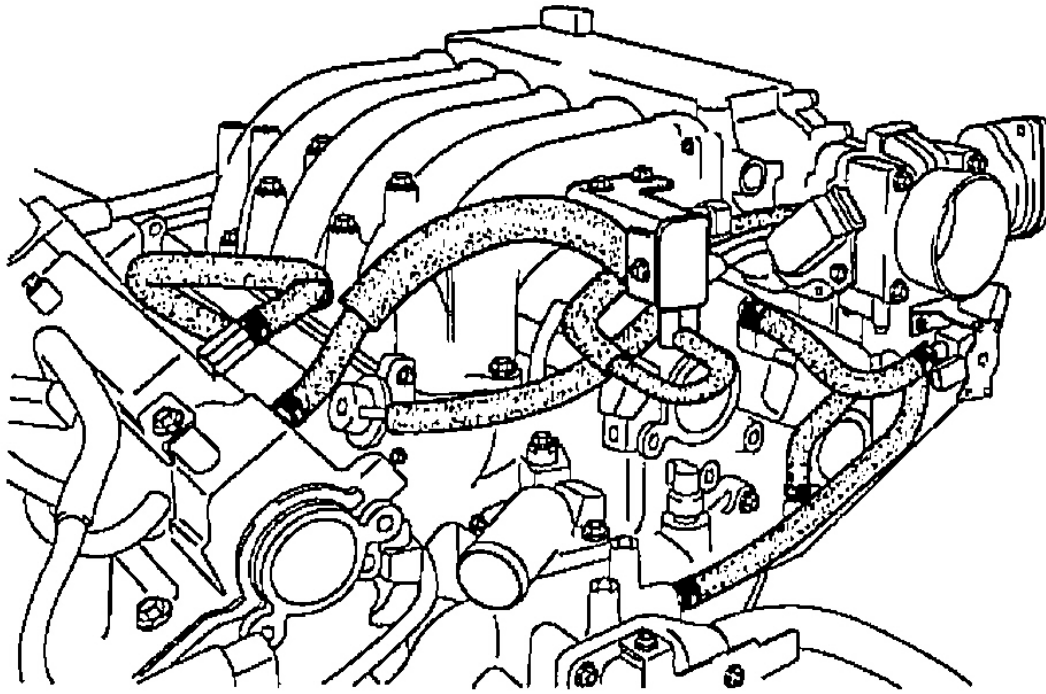


Fig. 176: Disconnecting Throttle & Purge Solenoid Valve

Courtesy of KIA MOTORS AMERICA, INC.

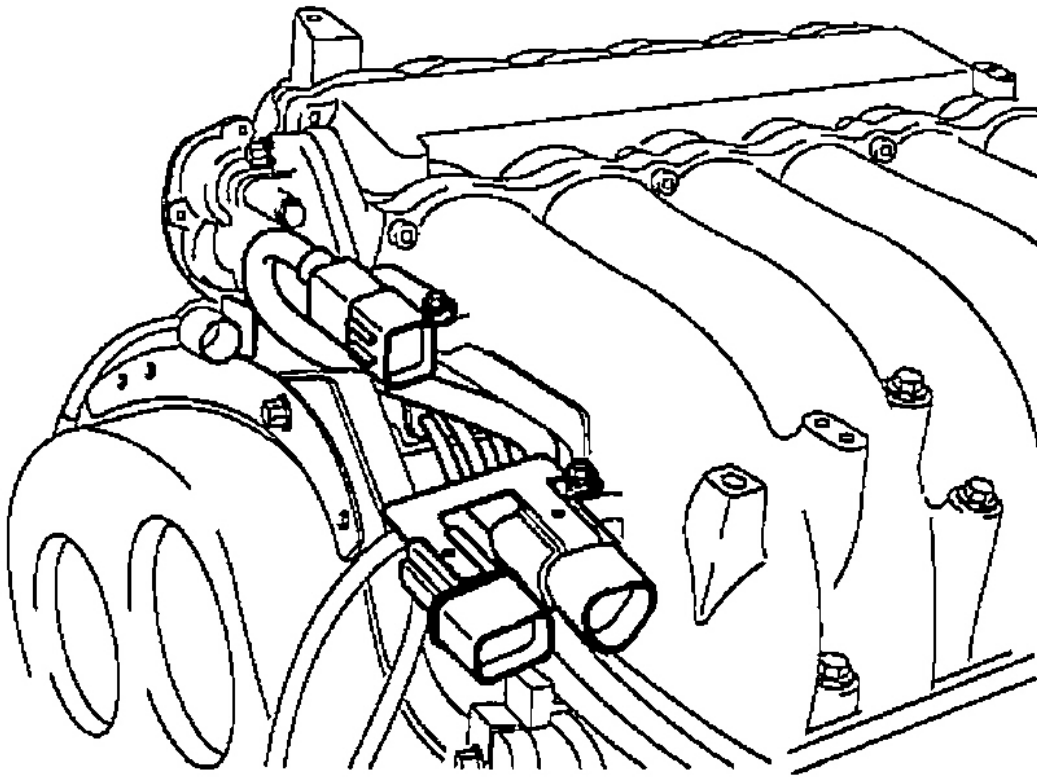
8. Disconnect the vacuum hoses between the cylinder head cover and the intake manifold. Disconnect the fuel pressure regulator vacuum hose, the purge control solenoid valve hose and the throttle body heater hose.



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Fig. 177: Disconnecting Vacuum Hoses
Courtesy of KIA MOTORS AMERICA, INC.

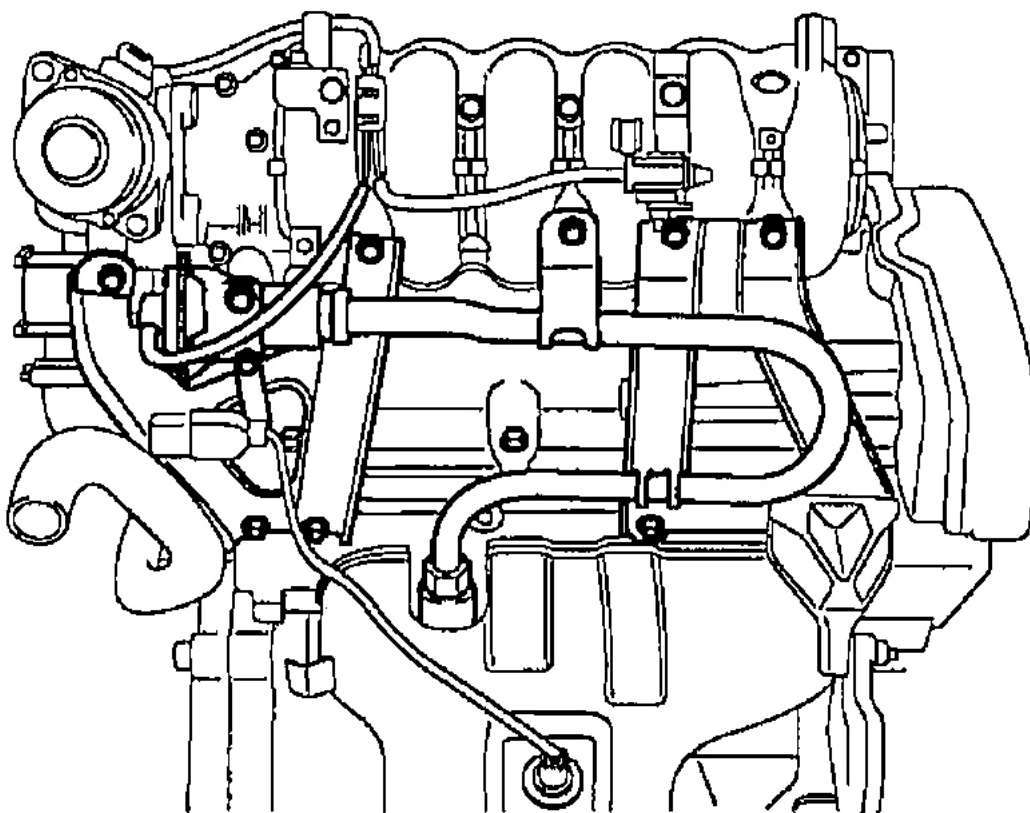
9. Remove the bracket of the injector harness connector, the crank angle sensor connector and the cam angle sensor connector.



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Fig. 178: Removing Injector Bracket & Crankshaft/Camshaft Sensor Connectors
Courtesy of KIA MOTORS AMERICA, INC.

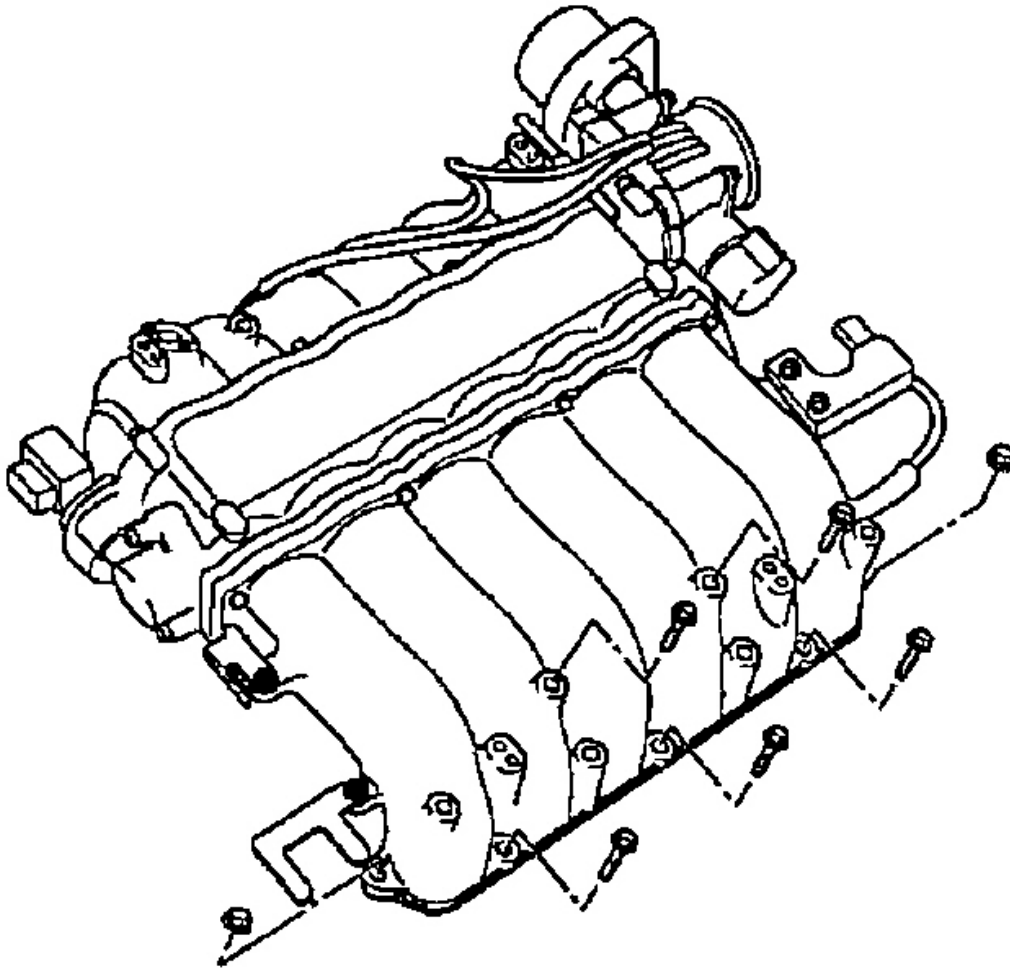
10. Remove the EGR valve hose, the EGR valve mounting bolts, the EGR pipe fixing bracket bolt and the surge tank stay mounting bolts.



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Fig. 179: Removing EGR Valve Hose, Mounting Bolts, Pipe Bracket & Surge Tank Stay
Courtesy of KIA MOTORS AMERICA, INC.

11. Remove the surge tank assembly after unscrewing the surge tank mounting bolts and nuts.



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Fig. 180: Removing Surge Tank Assembly
Courtesy of KIA MOTORS AMERICA, INC.