

## 3-12 ENGINE AND ENGINE OVERHAUL



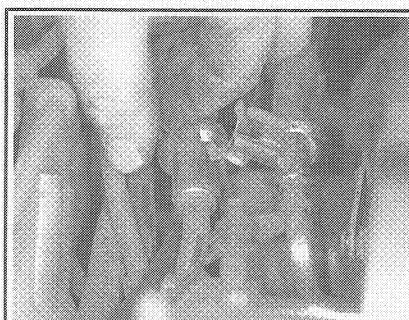
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**Fig. 30** Removing the vacuum lines at the intake manifold



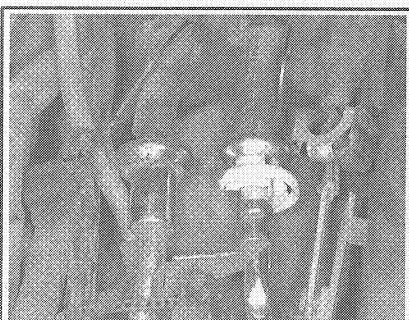
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**Fig. 31** Remove the fuel line locks by just pulling them off



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**Fig. 32** There is a lock on each line and the fuel lines are different diameters. The smaller is the return



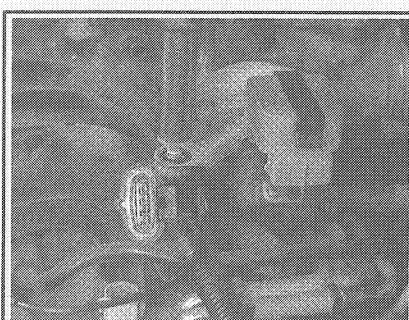
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**Fig. 33** Install the special tool into the fuel line to separate the connector



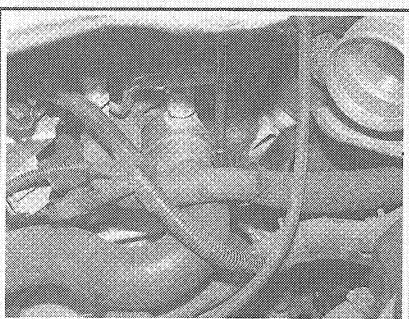
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**Fig. 34** The special tool must engage the spring to release the fuel line



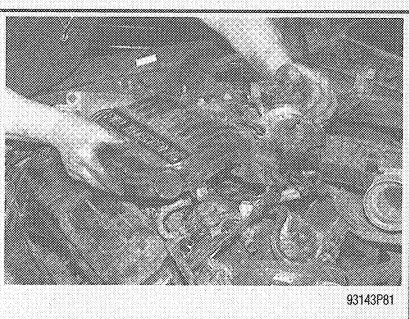
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**Fig. 35** Disconnecting and removing the PFE sensor



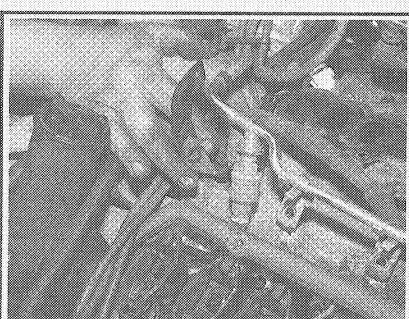
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**Fig. 36** The upper hose connects to the thermostat housing. It is easier to get to once the air cleaner has been removed



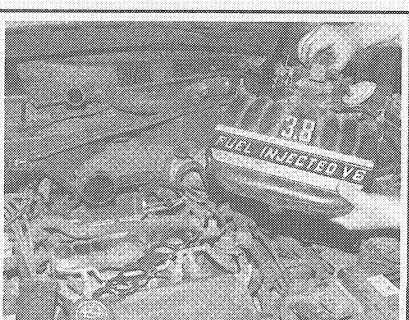
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**Fig. 37** Removal of the EGR valve is not necessary in this procedure. Disconnect the EGR tube when not removing the EGR valve from the manifold



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**Fig. 38** This wiring retainer bracket is easier to access with the alternator removed



93143P53

**Fig. 39** Lifting the upper air intake manifold off the engine

3. Disconnect the accelerator cable return spring at the throttle body assembly.
4. Disconnect the transaxle linkage at the upper intake manifold.
5. Remove the attaching bolts from the accelerator cable mounting bracket, then position the cables aside.
6. Tag and disconnect the vacuum lines from the fuel pressure regulator and the intake manifold
7. Disconnect the fuel lines at the injector fuel rail assembly.
8. Disengage any necessary electrical connectors.
9. Remove the drive belt. For details regarding this procedure, please refer to Section 1 of this manual.
10. Disconnect the radiator hose at the thermostat housing connection.
11. Disconnect the coolant bypass hose at the intake manifold connection.
12. Remove the air compressor support bracket. Remove the alternator mounting brace.
13. Disconnect the PCV lines. Disconnect the crankcase ventilation hoses located on the upper intake manifold.
14. Remove the throttle body assembly and remove the EGR valve assembly from the upper intake manifold, if necessary. For details regarding throttle body removal, please refer to Section 5 of this manual.
15. Remove the attaching nut, then remove the wiring retainer bracket located at the left front of the intake manifold and set aside with the ignition wires.
16. Remove the upper intake manifold attaching