

## REMOVAL AND INSTALLATION (Continued)

**Upper Intake Manifold and Throttle Body****Removal**

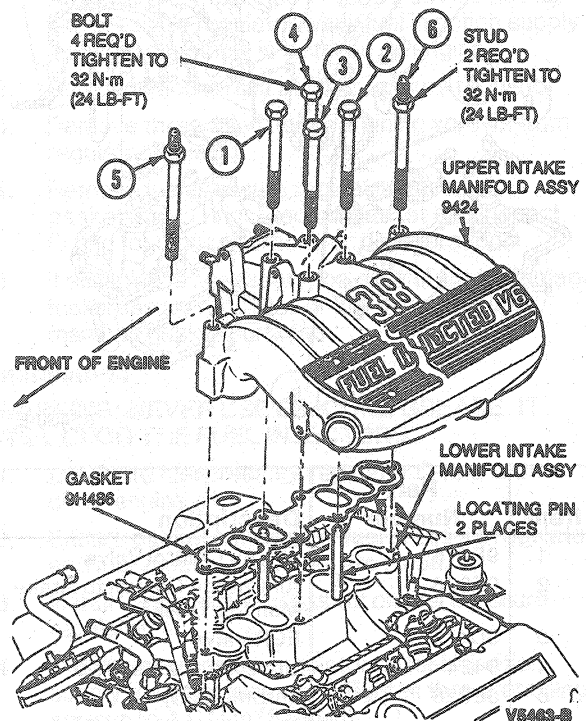
1. Disconnect electrical connectors at idle air control (IAC) valve, throttle position sensor and EGR pressure valve sensor (9J460).
2. Disconnect throttle linkage at throttle ball and transmission linkage from throttle body. Remove two bolts securing bracket to intake manifold and position bracket with cables out of way.
3. Disconnect upper intake manifold vacuum fitting connections by disconnecting all vacuum lines to vacuum tree, vacuum lines to EGR valve and vacuum line to fuel pressure regulator.
4. Disconnect PCV system by disconnecting hose from fitting on rear of upper intake manifold.
5. Remove nut retaining EGR transducer to upper intake manifold.
6. Loosen EGR tube at exhaust manifold and disconnect at EGR valve.
7. Remove two bolts retaining EGR valve to upper intake manifold and remove EGR valve and EGR transducer as an assembly.
8. Remove six upper intake manifold retaining bolts.
9. Remove two retaining bolts on front and rear edges of upper intake manifold where intake manifold supports (9J444) are located.
10. Remove nut retaining generator bracket to upper intake manifold and two bolts retaining generator bracket to water pump and generator.
11. Remove upper intake manifold and throttle body as an assembly from lower intake manifold.

**Installation**

1. Clean and inspect the mounting surfaces of the lower and upper intake manifolds.
2. Position new gasket on lower intake manifold mounting surface. The use of alignment studs may be helpful.
3. Install upper intake manifold and throttle body assembly to lower intake manifold. Ensure gasket remains in place (if alignment studs are not used).
4. Install four center retaining bolts and two studs to upper intake manifold and tighten to 10 N-m (8 lb-ft). Repeat sequence in two steps: 20 N-m (15 lb-ft) and 32 N-m (24 lb-ft).
5. Install two bolts retaining intake manifold supports to upper intake manifold and tighten to 25 N-m (19 lb-ft).
6. Position generator bracket and install two retaining bolts to water pump and generator. Install generator bracket to upper intake manifold retaining nut. Tighten to 25 N-m (19 lb-ft).
7. Connect EGR valve to EGR tube making sure tube is properly seated in EGR valve. Connect EGR valve to upper intake manifold and tighten to 25 N-m (19 lb-ft).

8. Connect PCV hose to rear of upper intake manifold.
9. Connect vacuum lines to vacuum tree, EGR valve and fuel pressure regulator.
10. Position throttle linkage bracket with cables to upper intake manifold. Install two retaining bolts and tighten to 17 N-m (13 lb-ft). Connect throttle cable and AXOD-E transaxle cable to throttle body.
11. Connect electrical connectors at idle air control (IAC) valve, throttle position sensor and EGR pressure valve sensor.

NOTE: If lower intake manifold was removed, fill and bleed cooling system. Refer to Section 03-03.

**Throttle Body****Removal**

1. Disconnect throttle position sensor and idle air control (IAC) valve connectors.
2. Remove four throttle body retaining nuts.
3. Remove and discard air charge control to intake manifold gasket (9E936) between throttle body and upper intake manifold.

**Installation**

NOTE: If scraping is necessary, be careful not to damage gasket surfaces or allow material to drop into intake manifold.

1. Clean gasket mating surfaces.