

## REMOVAL AND INSTALLATION (Continued)

**Intake Manifold and Throttle Body**

NOTE: Any reference to EGR pertains only to California vehicles.

**Removal**

1. Remove intake air tube from throttle body and mass airflow (MAF) (12B579) sensor. Disconnect throttle cables.
  2. Disconnect electrical connectors at throttle position sensor, idle air control (IAC) valve, vacuum switching valve and ignition control module (ICM).
- WARNING: COOLING SYSTEM MAY BE UNDER PRESSURE. RELEASE PRESSURE AT RADIATOR PRESSURE CAP BEFORE REMOVING HOSES. ENSURE ENGINE IS COOL BEFORE REMOVING CAP.**
3. Disconnect coolant bypass hoses and vacuum lines.
  4. Disconnect EGR valve to exhaust manifold tube (9D477) from EGR valve.
  5. Remove eight bolts at intake manifold support brackets and remove brackets.
  6. Remove bolt retaining coolant hose bracket.
  7. Disconnect PCV hoses.
  8. Remove 12 manifold retaining bolts.

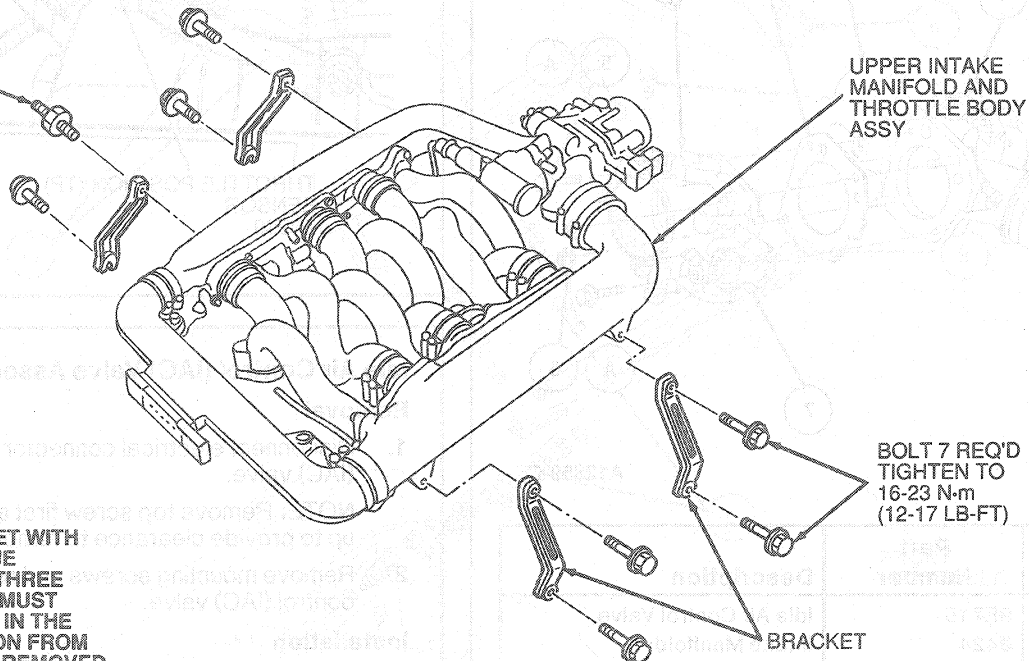
9. Remove intake manifold and throttle body assembly.

**Installation**

NOTE: Metal intake manifold gaskets can be reused if undamaged.

1. Clean and inspect gaskets and mounting surfaces.
2. Position manifold gaskets.
3. Position manifold assembly, being careful not to pinch any hoses or wires.
4. Install 12 intake manifold retaining bolts. Tighten bolts to 15-23 N·m (11-17 lb-ft).
5. Connect PCV hoses.
6. Install manifold support brackets and coolant hose bracket. Tighten bolts to 15-23 N·m (11-17 lb-ft).
7. Connect EGR valve to exhaust manifold tube to EGR valve.
8. Connect coolant bypass hoses and vacuum lines.
9. Connect electrical connectors at ignition control module (ICM), vacuum switching valve, throttle position sensor and idle air control (IAC) valve.
10. Install throttle cables and intake air tube.
11. Check and top-off coolant.

STUD  
1 REQ'D  
TIGHTEN TO  
16-23 N·m  
(12-17 LB-FT)



NOTE: BRACKET WITH STUD IS UNIQUE FROM OTHER THREE BRACKETS. IT MUST BE INSTALLED IN THE SAME LOCATION FROM WHICH IT WAS REMOVED.

V7352-C

**Air Intake Throttle Body****Removal**

1. Remove intake air tube and throttle cables.