

1997 Ford EXPEDITION

Submodel: | Engine Type: V8 | Liters: 5.4
Fuel Delivery: FI | Fuel: GAS

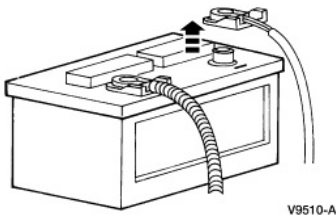
Section 303-01B: Basic Engine — 5.4L 1997 Expedition Workshop Manual

IN-VEHICLE REPAIR

Intake Manifold

Removal

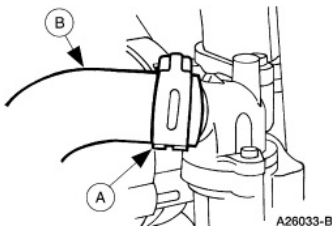
1. Disconnect the battery ground cable.



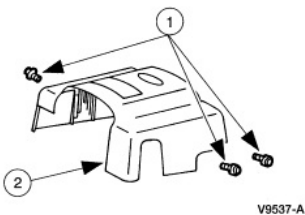
2. **WARNING: DO NOT SMOKE OR CARRY LIGHTED TOBACCO OR OPEN FLAME OF ANY TYPE WHEN WORKING ON OR NEAR ANY FUEL RELATED COMPONENTS. HIGHLY FLAMMABLE MIXTURES ARE ALWAYS PRESENT AND MAY BE IGNITED, RESULTING IN POSSIBLE PERSONAL INJURY.**

Relieve the fuel pressure; refer to Section 310-00 .

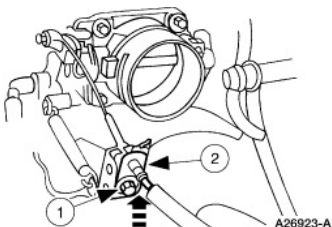
3. Drain the cooling system; refer to Section 303-03 .
4. Slide the (A) hose clamp and disconnect the (B) upper radiator hose (8260).



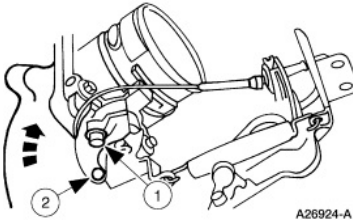
5. Remove the accelerator control splash shield.
 1. Remove the bolts.
 2. Remove the accelerator control splash shield.



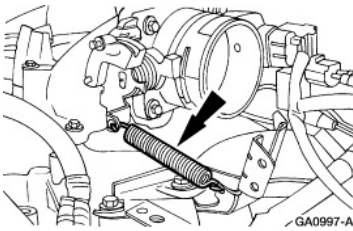
6. Disconnect the accelerator cable from the accelerator cable bracket.
 1. Remove the accelerator cable bolt.
 2. Slide the accelerator cable up to remove it from the accelerator cable bracket.



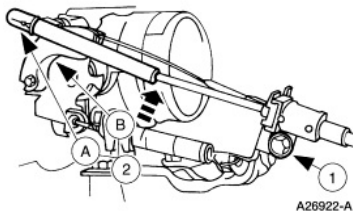
7. Disconnect the accelerator cable from the throttle body cam.
 1. Roll the throttle body cam forward.
 2. Slide the accelerator cable end from the throttle body cam.



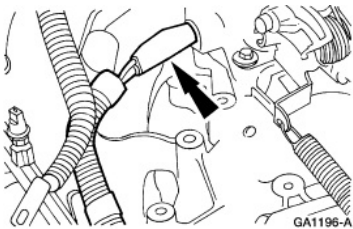
8. Remove the throttle return spring.



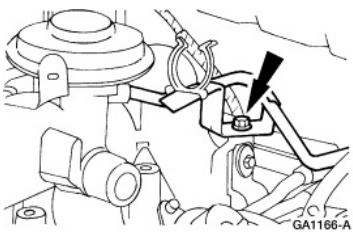
9. If equipped, disconnect the speed control actuator cable from the throttle body.
 1. Remove the speed control actuator cable to accelerator cable bracket bolt.
 2. Disconnect the (A) speed control actuator cable from the (B) throttle body cam and position aside.



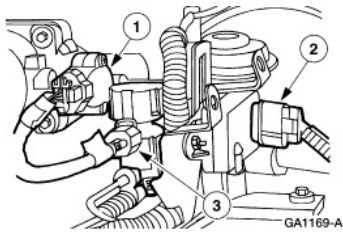
10. Disconnect the engine vacuum reservoir hose.



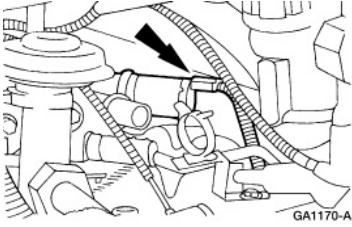
11. Remove the brake booster vacuum hose bracket bolt and the brake booster vacuum hose and bracket.



12. Remove the intake manifold to body ground strap from the intake manifold.
13. Disconnect the fuel lines; refer to Section 310-00 .
14. Disconnect the following electrical connectors:
 1. Throttle position (TP) sensor electrical connector.
 2. EGR backpressure transducer.
 3. Engine vacuum regulator (EVR) electrical connector.

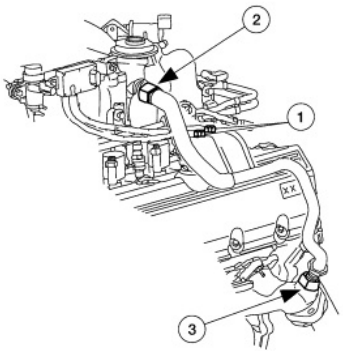


15. Disconnect the idle air control (IAC) valve electrical connector.

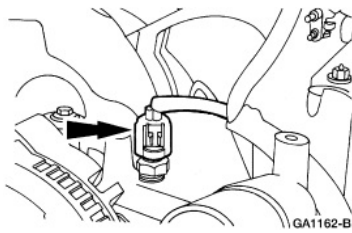


16. Disconnect the EGR connections.

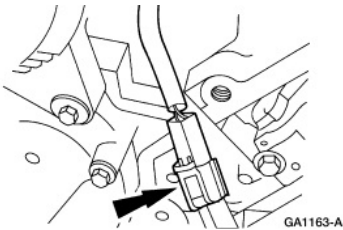
1. Disconnect the two EGR backpressure transducer hoses.
2. Disconnect the EGR tube upper fitting.
3. Disconnect the EGR tube lower fitting.



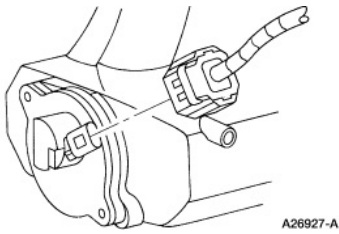
17. Disconnect the engine coolant temperature (ECT) sensor electrical connector.



18. Disconnect the cylinder head temperature (CHT) jumper harness electrical connector.

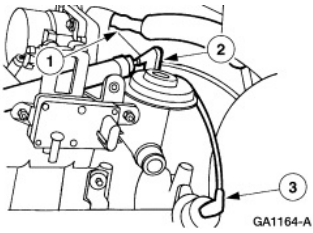


19. Disconnect the intake manifold tuning valve electrical connector.

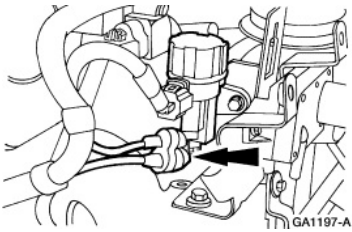


20. Disconnect the following vacuum connections:

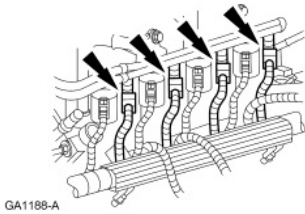
1. VMV vacuum connector.
2. EGR vacuum connector.
3. Fuel pressure regulator vacuum connector.



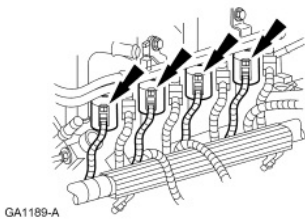
21. Disconnect the EVR vacuum connector.



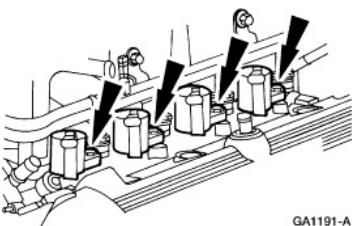
22. Disconnect the RH fuel injector electrical connectors.



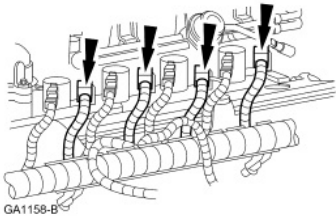
23. Disconnect the RH coil on plug (COP) electrical connectors.



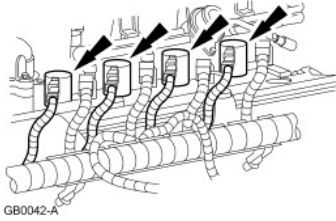
24. Remove the RH COP bolts and the COPs.



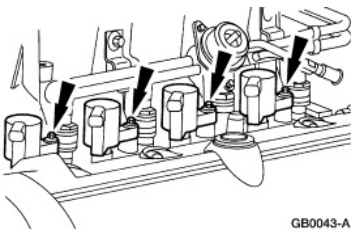
25. Disconnect the LH fuel injector electrical connectors.



26. Disconnect the LH COP electrical connectors.



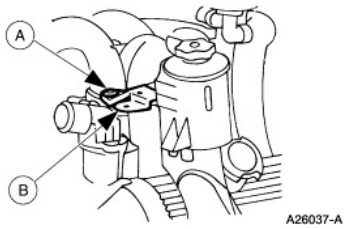
27. Remove the LH COP bolts and the COPs.



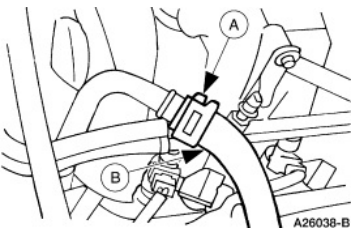
28. Remove the drive belt (8620); refer to Section 303-05 .

29. Remove the generator (GEN) (10300); refer to Section 414-02 .

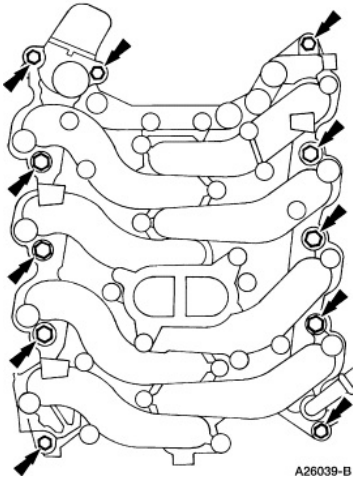
30. Remove the (A) power steering fluid reservoir bracket bolts and the (B) power steering bracket.



31. Slide the (A) hose clamp back and disconnect the (B) heater water hose (18D359).

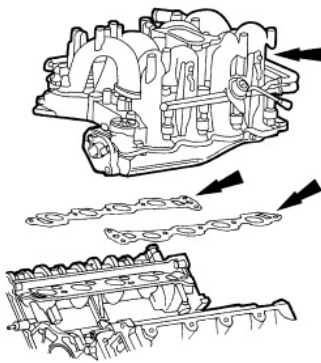


32. Remove the intake manifold bolts.



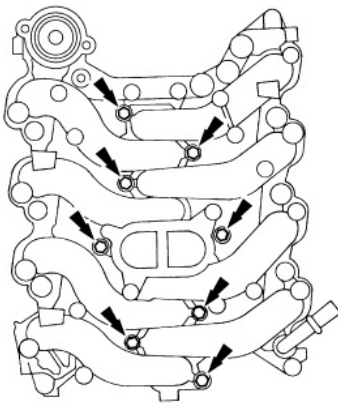
A26039-B

33. Remove the intake manifold (9424).
- Remove and discard the upper intake manifold gaskets.



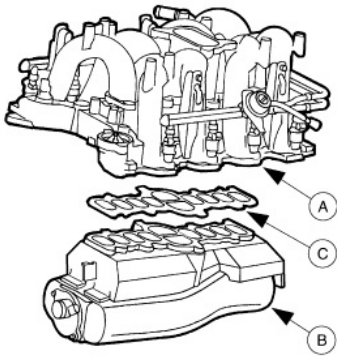
GA2588-A

34. Remove the lower intake manifold bolts.



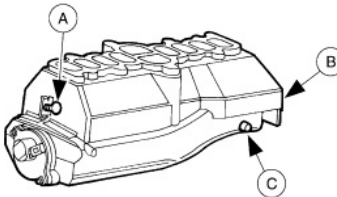
A26040-B

35. Separate the (A) upper intake manifold from the (B) lower intake manifold and discard the (C) lower intake manifold gasket.



A26041-B

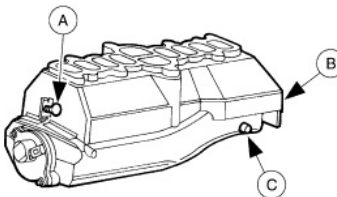
36. Remove the (A) NVH push pin from the (B) NVH shield and remove the NVH shield from the (C) lower intake.



A26696-A

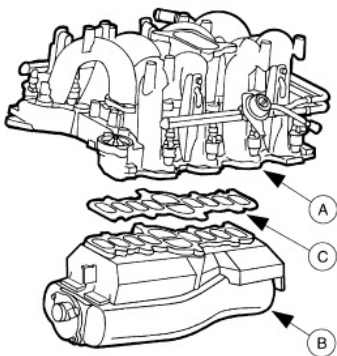
Installation

1. Install the (B) NVH shield on the (C) lower intake manifold and install the (A) NVH push pin.



A26696-A

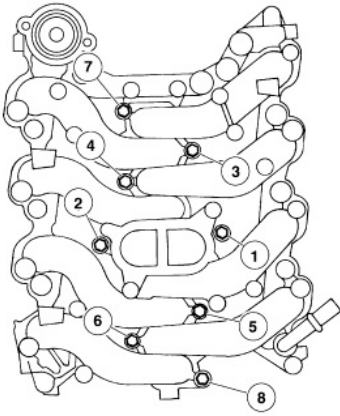
2. Position the (C) lower intake manifold gasket and the (A) upper intake manifold on the (B) lower intake manifold and loosely install the eight bolts.



A26041-B

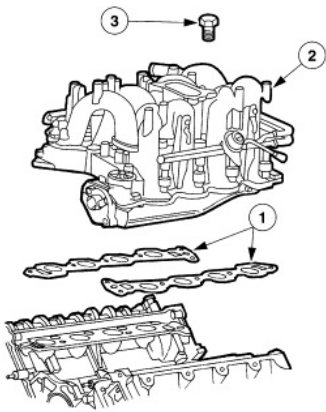
3. Tighten the lower intake manifold bolts in the two stages, in the sequence shown.

- Stage 1: 2 Nm (18 lb/in).
- Stage 2: 8-12 Nm (71-106 lb/in).



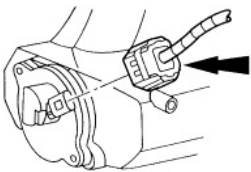
GA1089-B

4. Install the upper intake manifold.
 1. Position the two upper intake manifold gaskets.
 2. Position the upper intake manifold.
 3. Loosely install the nine intake manifold bolts.



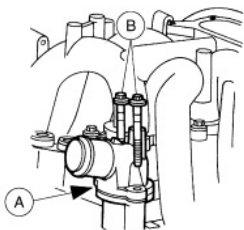
GA1318-A

5. Connect the IMTV electrical connector.



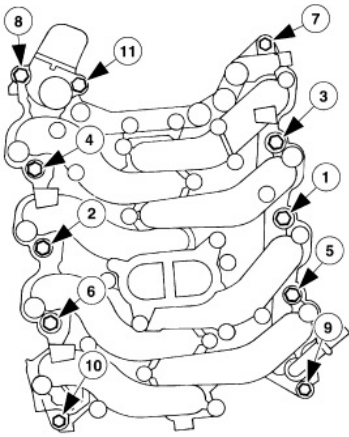
GA2689-A

6. **NOTE:** Make sure that the thermostat is in the correct position before the thermostat housing is installed. Position the (A) thermostat housing and start the two (B) thermostat housing bolts.



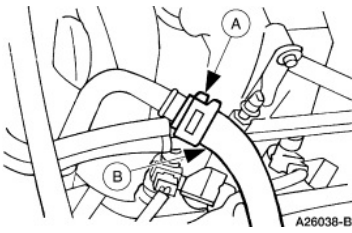
A26695-A

7. Tighten the intake manifold bolts in the two stages, in the sequence shown.
 - Stage 1: 2 Nm (18 lb/in).
 - Stage 2: 20-30 Nm (15-22 lb/ft).



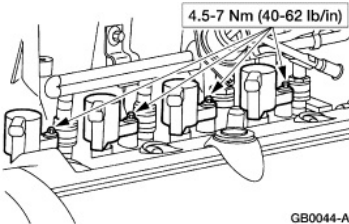
GA1091-B

8. Install the (B) heater water hose (18472) and position the (A) clamp.



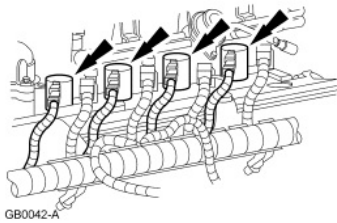
A26038-B

9. Install the LH COP and the COP bolts.



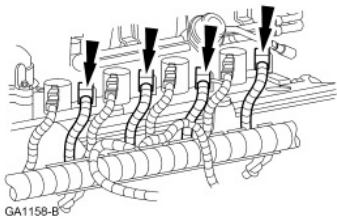
GB0044-A

10. Connect the LH COP electrical connectors.



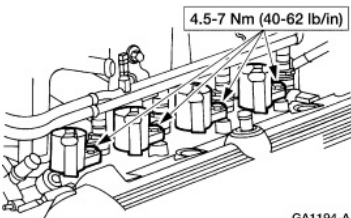
GB0042-A

11. Connect the LH fuel injector electrical connectors.



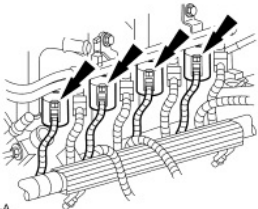
GA1158-B

12. Install the RH COPs and the COP bolts.



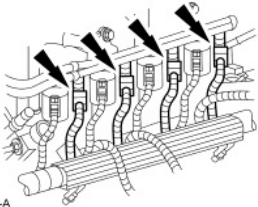
GA1194-A

13. Connect the RH COP electrical connectors.



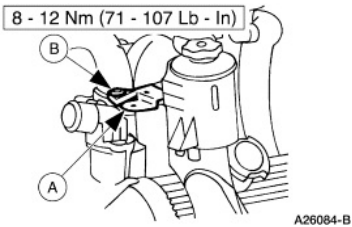
GA1189-A

14. Connect the RH fuel injector electrical connectors.



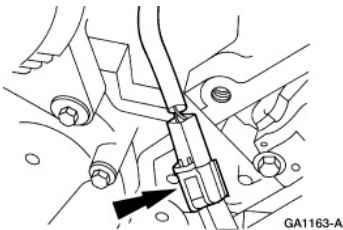
GA1188-A

15. Position the (A) power steering fluid reservoir and install the (B) power steering fluid reservoir bracket bolts.



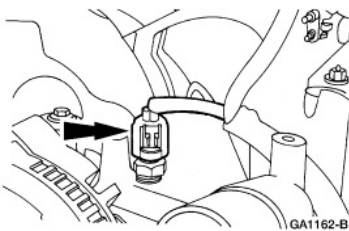
A26084-B

16. Connect the cylinder head temperature (CHT) sensor jumper harness electrical connection.



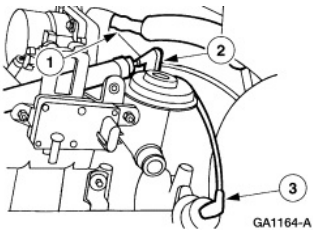
GA1163-A

17. Connect the engine coolant temperature (ECT) sensor electrical connector.



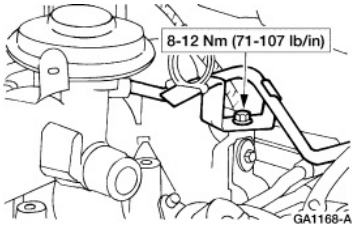
GA1162-B

18. Install the generator; refer to Section 414-02 .
19. Install the drive belt; refer to Section 303-05 .
20. Connect the following vacuum connections:
1. Vapor management valve (VMV) vacuum connector.
 2. EGR vacuum connector.
 3. Fuel pressure regulator vacuum connector.

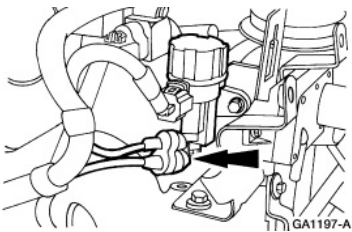


21. Connect the intake manifold body ground strap to the intake manifold.

22. Position the brake booster vacuum hose and bracket and install the brake booster vacuum hose bracket bolt.

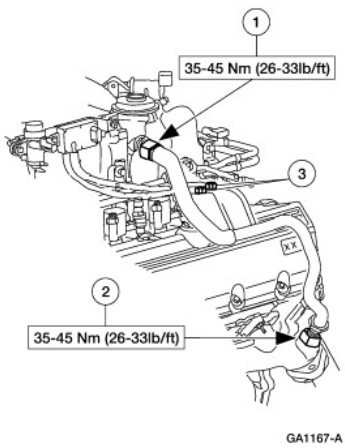


23. Connect the EVR vacuum connection.



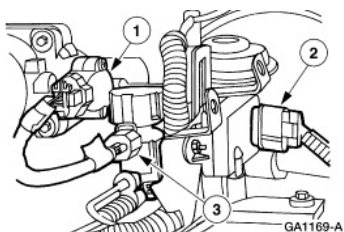
24. Connect the EGR connections:

1. The EGR tube upper fitting.
2. The EGR tube lower fitting.
3. The two EGR backpressure transducer hoses.

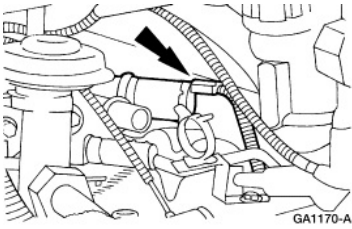


25. Connect the following electrical connectors:

1. Throttle position (TP) sensor electrical connector.
2. EGR backpressure transducer electrical connector.
3. EVR electrical connector.

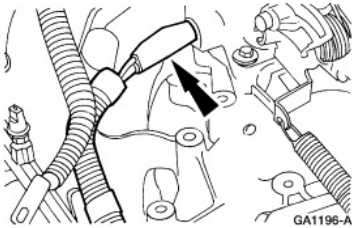


26. Connect the idle air control (IAC) electrical connector.



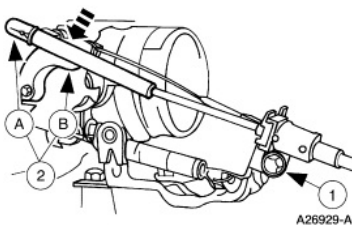
27. Connect the fuel lines; refer to Section 310-00 .

28. Install the engine vacuum reservoir hose.

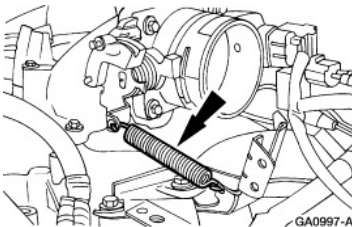


29. If equipped, install the speed control actuator cable on the throttle body.

1. Install the speed control actuator cable to accelerator cable bracket bolt.
2. Connect the (A) speed control actuator cable to the (B) throttle body cam.

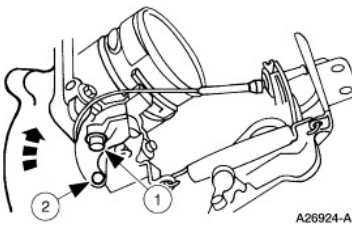


30. Install the throttle return spring.



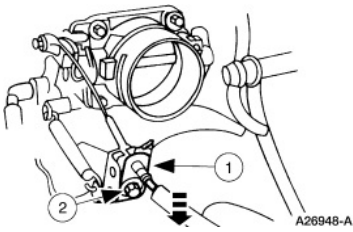
31. Connect the accelerator cable to throttle body cam.

1. Rotate the throttle body cam forward.
2. Slide the accelerator end into the throttle body cam.

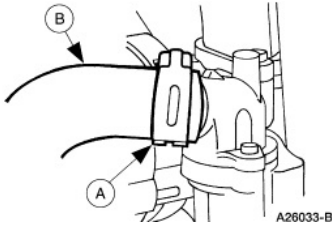


32. Connect the accelerator cable to accelerator cable bracket.

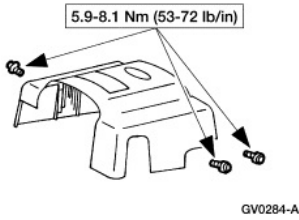
1. Slide the accelerator cable into the accelerator cable bracket.
2. Install the accelerator cable bolt.



- 33. Install the engine air cleaner outlet tube (9B659); refer to Section 303-12 .
- 34. Install the (B) heater water hose and position the (A) clamp back.



- 35. Fill the cooling system; refer to Section 303-03 .
- 36. Install the accelerator control splash shield.



- 37. **NOTE:** When the battery is disconnected and reconnected, some abnormal drive symptoms may occur while the vehicle relearns its adaptive strategy. The vehicle may need to be driven 16 km (10 mi) or more to relearn the strategy.
Connect the battery ground cable.

