

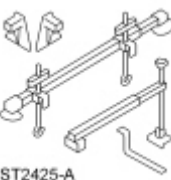


Engine

Special Tool(s)

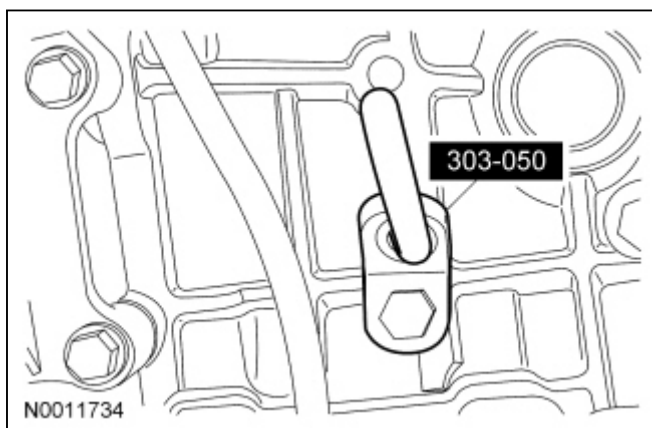
 <p>ST1595-A</p>	<p>Lifting Bracket, Engine 303-050 (T70P-6000)</p>
 <p>ST1377-A</p>	<p>Lifting Bracket, Engine 303-F047 (014-00073) or equivalent</p>
 <p>ST2425-A</p>	<p>Support Bar, Engine 303-F072</p>

Material

Item	Specification
<p>Motorcraft® SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP (US); Motorcraft® SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12 (Canada); or equivalent</p>	<p>WSS-M2C930-A</p>

All vehicles

1. Install the Engine Lifting Bracket to the threaded hole located at the LH side of the engine block.



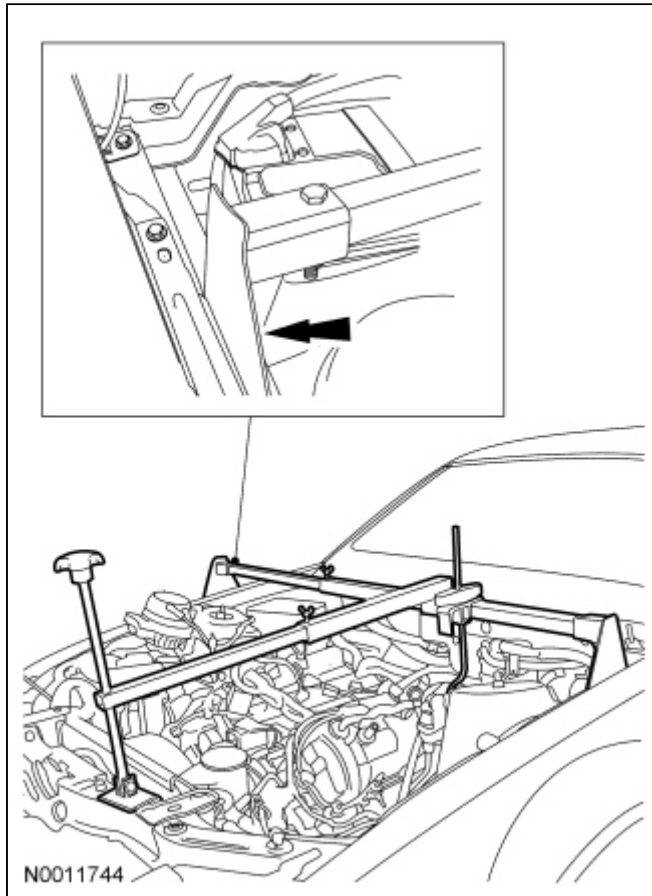
2. **NOTICE:** Do not remove the engine crane until the Engine Support Bar is installed in the next step. The rear of the engine must be supported to prevent damage to the engine or cowl panel.

Using a suitable engine crane, position the engine in the vehicle.

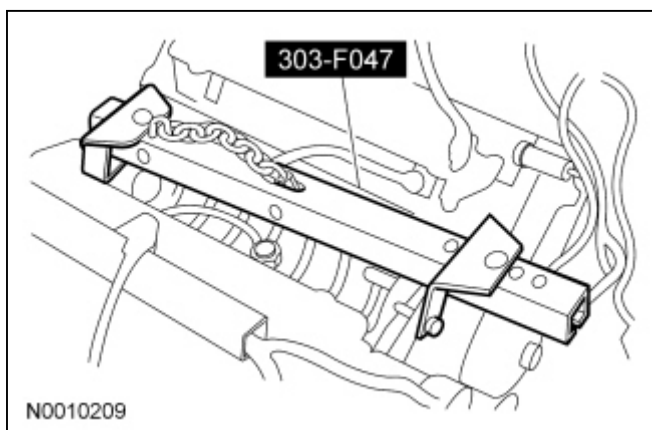
3. **NOTICE:** Do not position the legs of the Engine Support Bar on the fenders. Instead, the legs should be positioned on the body structure near the suspension strut tower. Failure to follow these instructions may result in body damage.

Install the Engine Support Bar and a suitable length of chain to the Engine Lifting Bracket installed in the previous step.

- Remove the engine crane.



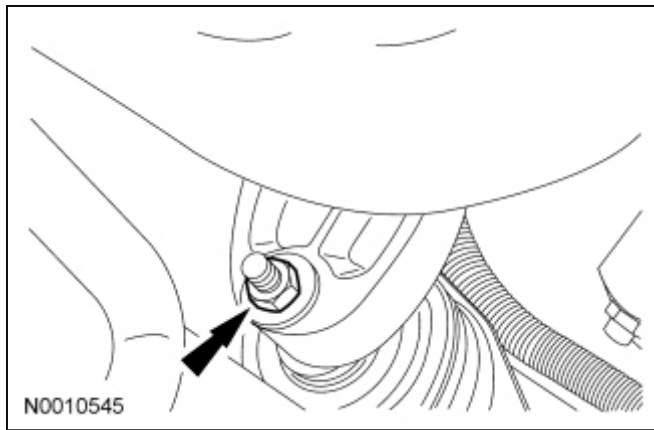
4. Remove the Engine Lifting Bracket.



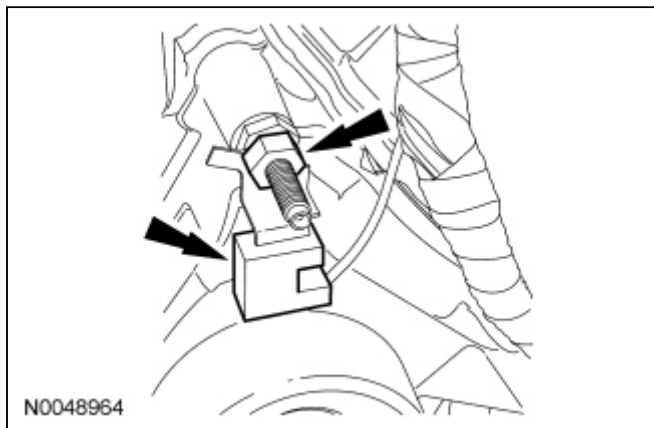
5. **NOTE:** RH shown, LH similar.

Install the RH and LH engine support insulator nuts.

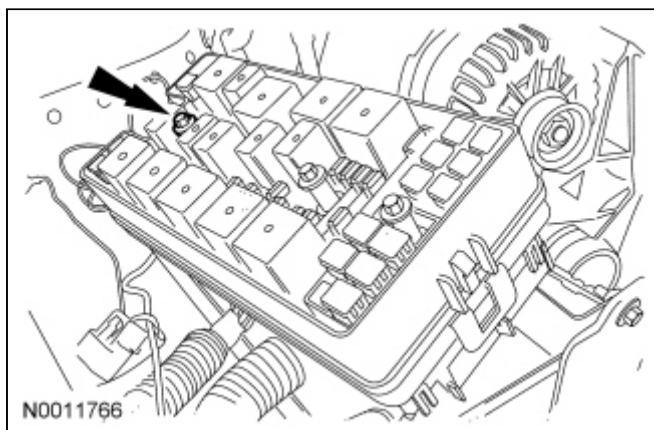
- Tighten to 63 Nm (46 lb-ft).



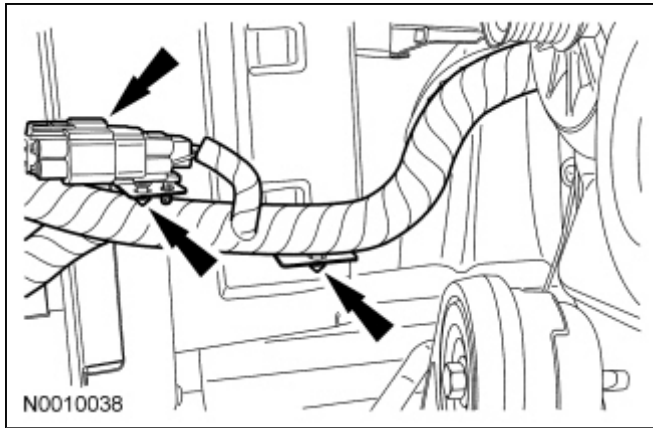
6. Install the LH radio interference capacitor and nut onto the engine front cover stud bolt.
 - Tighten to 25 Nm (18 lb-ft).



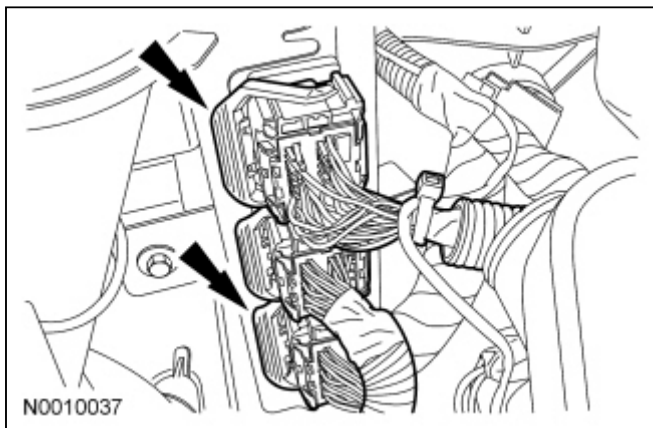
7. Connect the 68-pin connector to the Power Distribution Box (PDB) and tighten the bolt.
 - Tighten to 6 Nm (53 lb-in).
 - Attach the [PDB](#) upper housing to the lower housing.



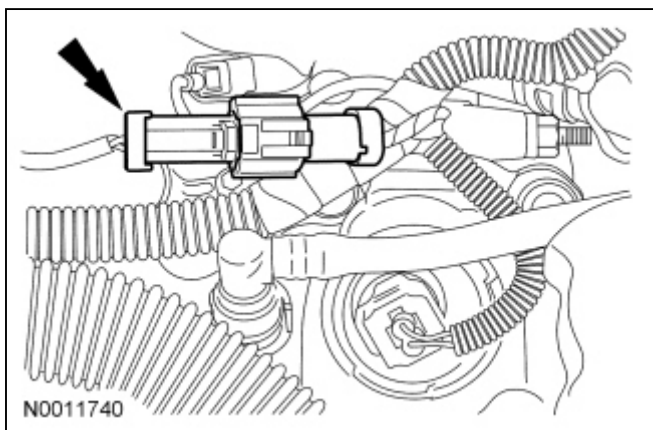
8. Install the [PDB](#) cover.
9. Connect the 16-pin electrical connector and attach the 2 wiring retainers.



10. Connect the upper and lower PCM electrical connectors.

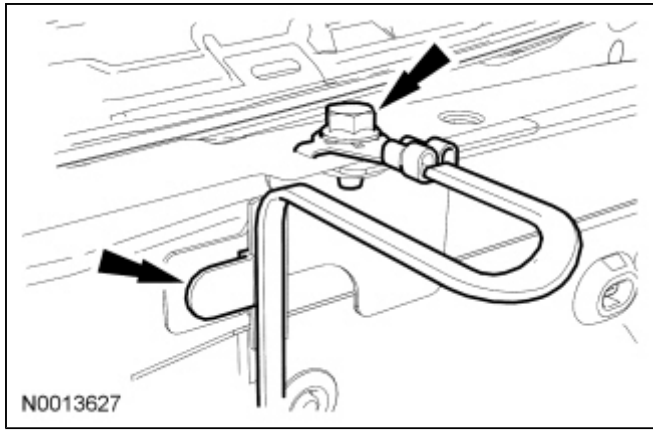


11. Connect the generator jumper harness electrical connector.

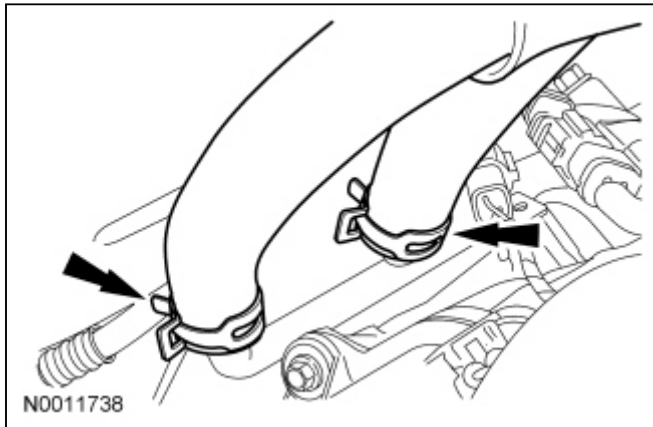


12. Install the ground strap and bolt to the cowl.

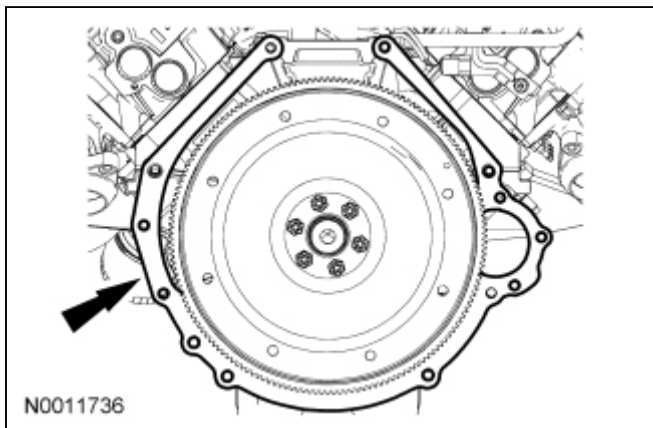
- Tighten to 6 Nm (53 lb-in).
- Attach the pin-type retainer.



13. Connect the heater hoses.

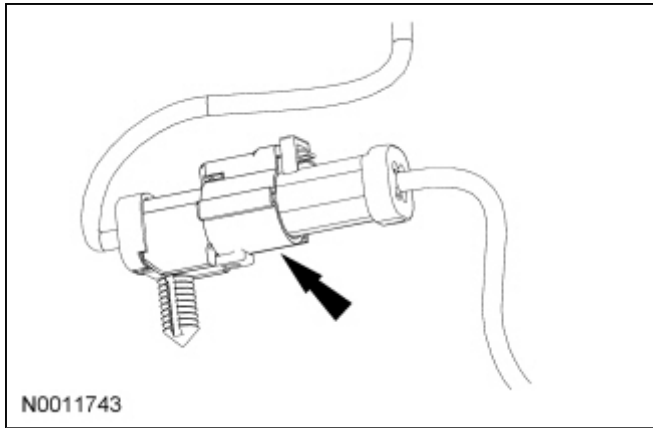


14. Install the engine-to-transmission spacer plate.

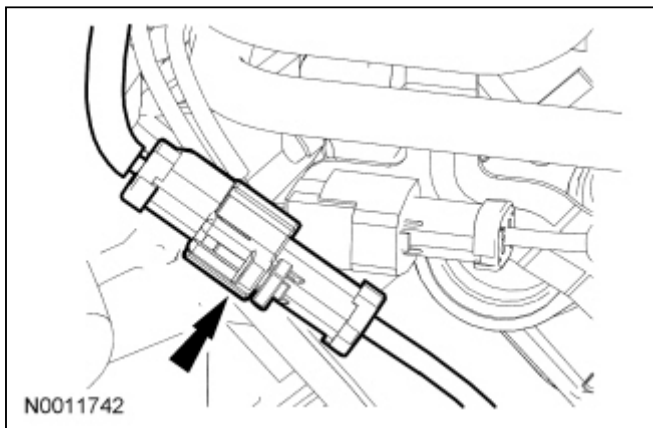


15. **NOTE:** RH shown, LH similar.

Connect the RH and LH catalyst monitor sensor.



16. Connect the RH Heated Oxygen Sensor (HO2S) electrical connector.

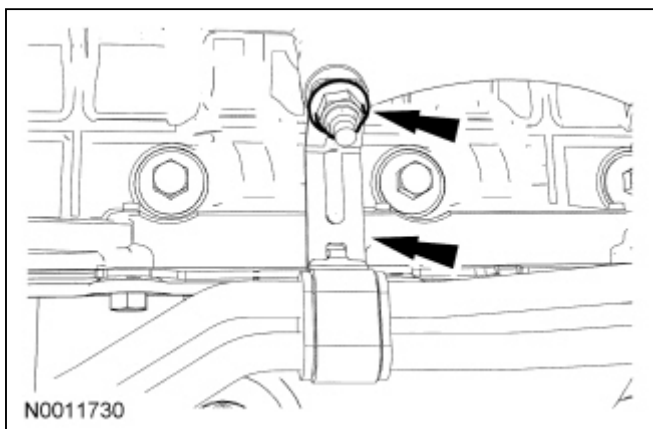


Vehicles with manual transmission

17. Install the clutch. For additional information, refer to [Section 308-01](#).

Vehicles with automatic transmission

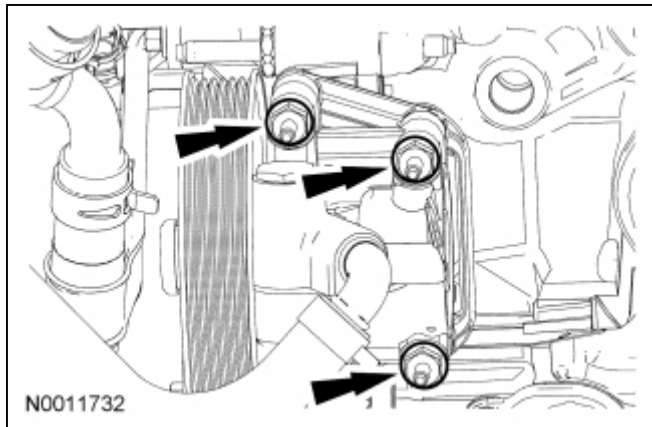
18. Install the transmission. For additional information, refer to [Section 307-01](#).
19. Install the transmission cooler tube bracket and nut.
 - Tighten to 25 Nm (18 lb-ft).



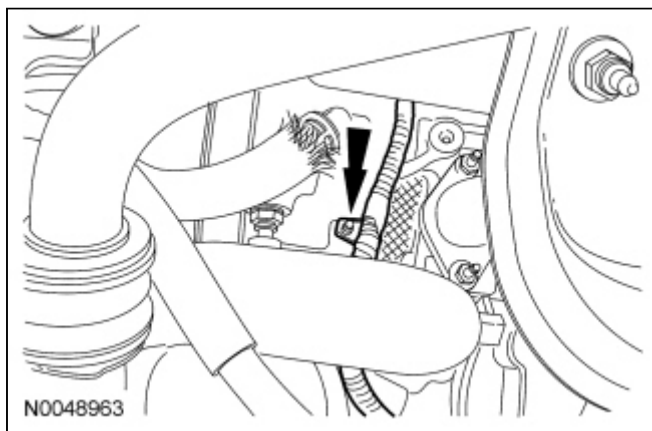
All vehicles

20. Remove the Engine Support Bar, Chain and the Engine Lifting Bracket from the engine.
21. Position the power steering pump and install the 3 stud bolts.

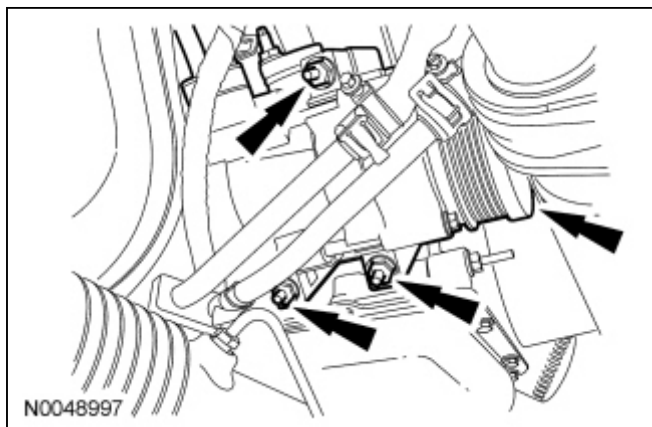
- Tighten to 25 Nm (18 lb-ft).



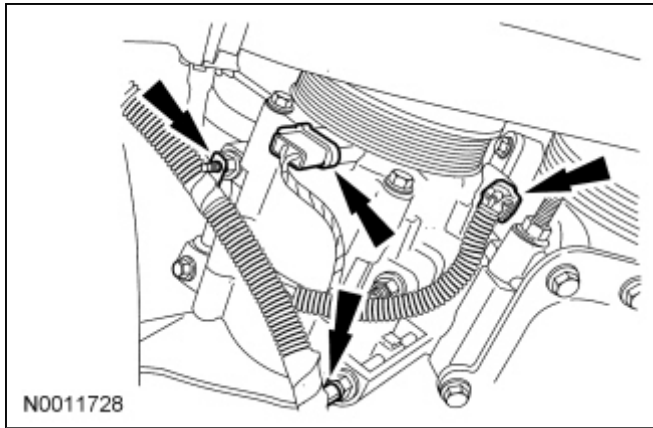
22. Install the wiring retainer on the power steering stud bolt.



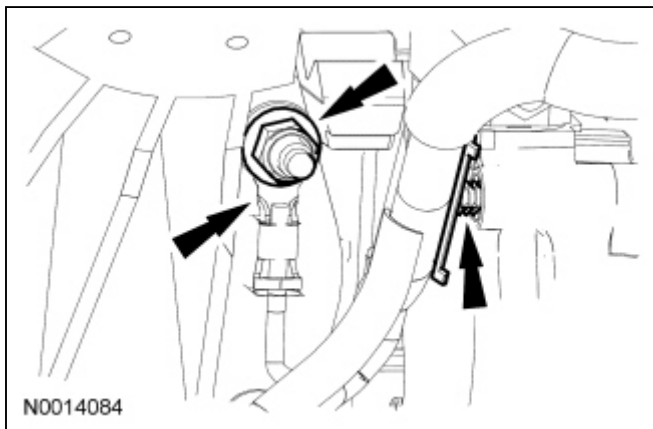
23. Position the A/C compressor, bolt and install the 3 nuts.
- Tighten to 25 Nm (18 lb-ft).



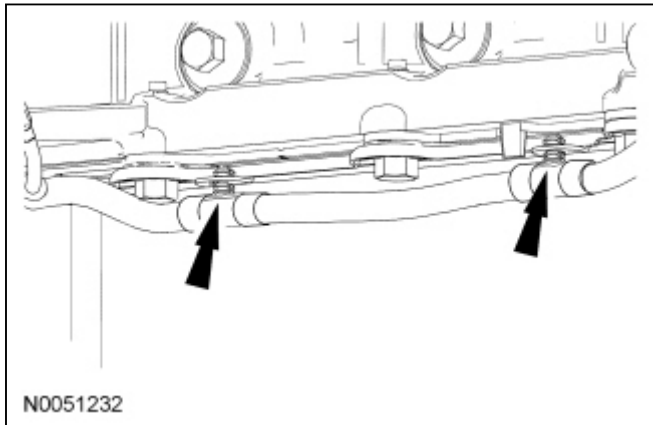
24. Connect the A/C clutch and Crankshaft Position (CKP) sensor electrical connectors.
- Attach the wiring harness retainers.



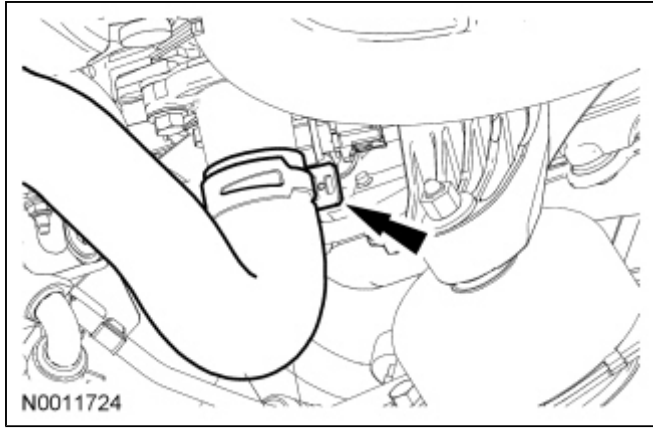
25. Install the ground wire onto the stud bolt.
- Tighten to 25 Nm (18 lb-ft).
 - Attach the pin-type retainer from the A/C compressor.



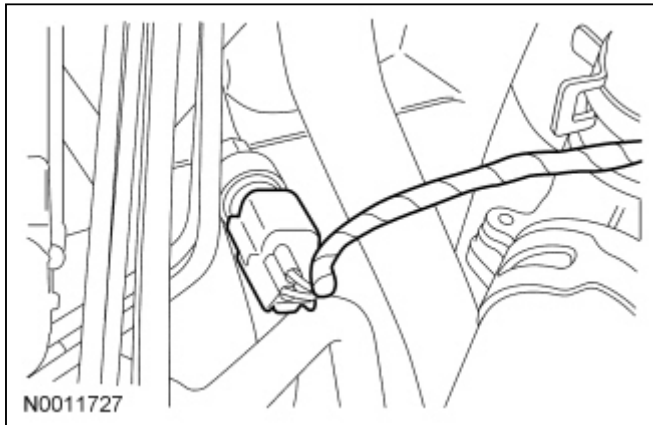
26. Attach the 2 pin-type retainers.



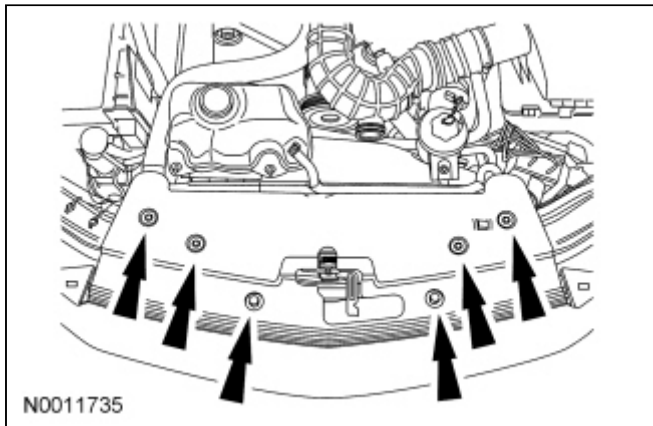
27. Connect the coolant hose to the oil filter adapter.



28. Connect the A/C pressure transducer electrical connector.

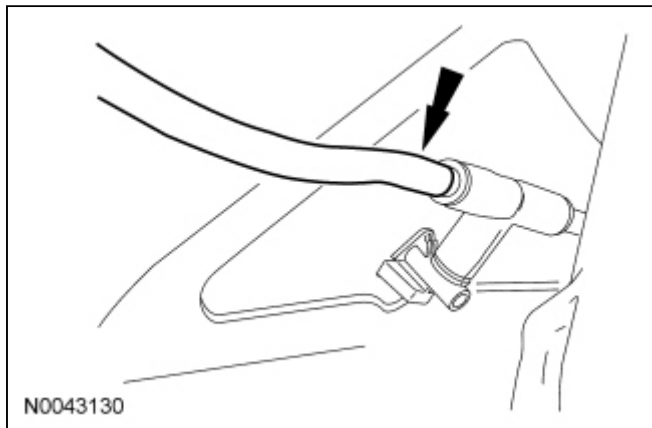


29. Install the accessory drive belt. For additional information, refer to [Section 303-05](#).
30. Install the radiator sight shield and the 6 pin-type retainers.

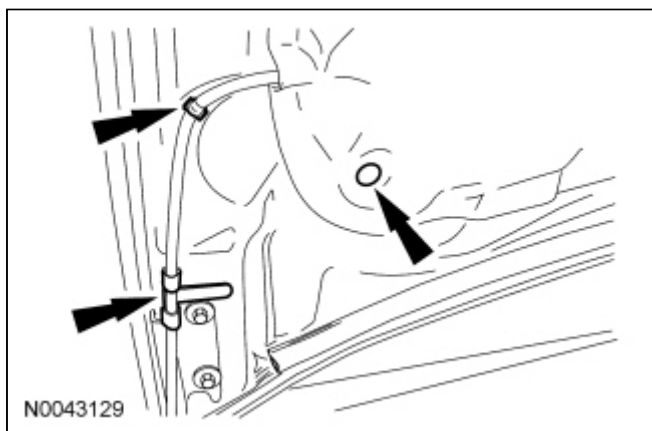


31. Install the engine coolant crossover. For additional information, refer to [Section 303-03A](#).
32. Install the degas bottle. For additional information, refer to [Section 303-03A](#).
33. Install the air cleaner and outlet pipe. For additional information, refer to [Section 303-12](#).
34. Install the cowl vent screen. For additional information, refer to [Section 501-02](#).
35. **NOTE:** Use the hood hinge location index marks made during removal to aid in hood installation.
Install the hood and 4 bolts.

36. Connect the windshield washer hose and position the hood insulation.



37. Install the hood insulation pin-type retainer and attach the 2 windshield washer hose retainers.



38. Fill the engine with clean engine oil.
39. Fill and bleed the engine cooling system. For additional information, refer to [Section 303-03A](#).
40. Connect the battery ground cable. For additional information, refer to [Section 414-01](#).
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