

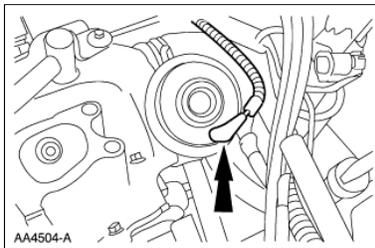
Intake Manifold — Lower**Material**

Item	Specification
Silicone Gasket and Sealant F7AZ-19554-EA	WSE-M4G323-AA

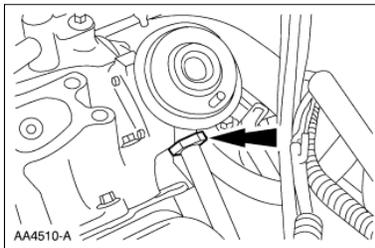
Removal

⚠ CAUTION: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces, that enters the oil passages, coolant passages or the oil pan can cause engine failure.

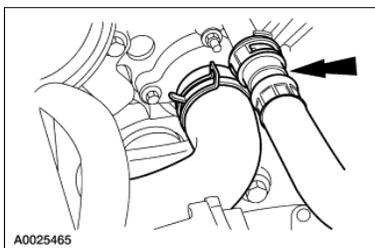
1. Drain the cooling system. For additional information, refer to [Section 303-03](#).
2. Remove the upper intake manifold. For additional information, refer to [Intake Manifold — Upper](#) in this section.
3. Remove the fuel supply manifold. For additional information, refer to [Section 303-04](#).
4. Disconnect the EGR vacuum tube.



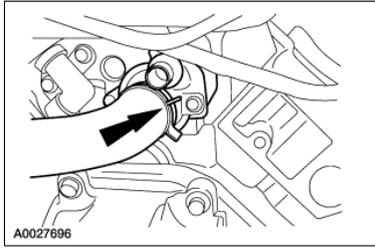
5. Disconnect the EGR-to-exhaust manifold tube.
 - Loosen the nut.



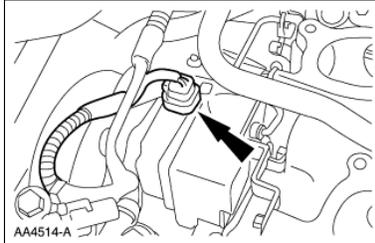
6. Disconnect the heater hose.
 - Compress the fitting.
 - Disconnect the hose.



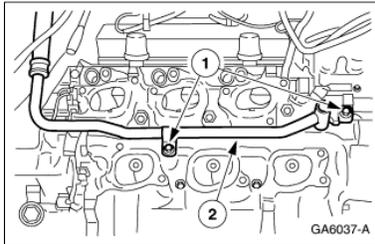
7. Disconnect the upper radiator hose.
 - Reposition the clamp.
 - Disconnect the hose.



8. Disconnect the intake manifold runner control (IMRC).



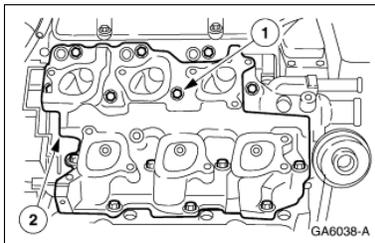
9. Position the water bypass tube aside.
 1. Remove the bolts.
 2. Position the tube aside.



10. **NOTE:** Note the location of the six long bolts for installation.

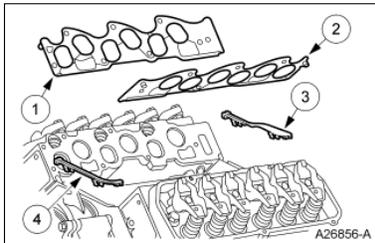
Remove the lower intake manifold.

1. Remove the bolts.
2. Remove the intake manifold.



11. Remove the intake manifold runner control (IMRC) if necessary. For additional information, refer to [Section 303-14](#).

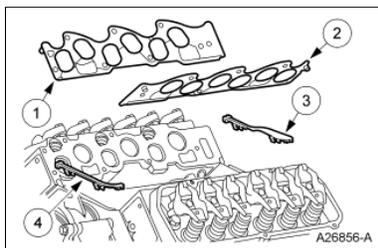
12. Remove and discard the lower intake manifold sealing components.



Item	Part Number	Description
1	9439	Intake manifold gasket— RH
2	9439	Intake manifold gasket— LH
3	9A424	Intake manifold rear end seal (part of 9439)
4	9A425	Intake manifold front end seal (part of 9439)

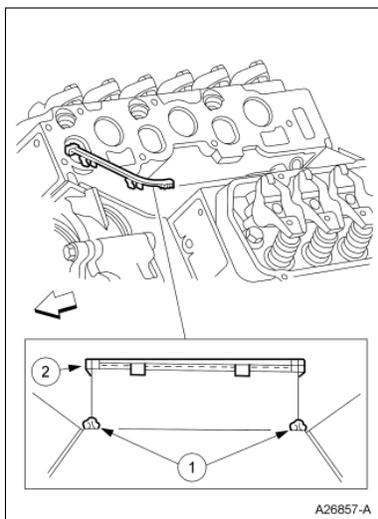
Installation

1. Refer to the illustration for intake manifold sealing component locations.

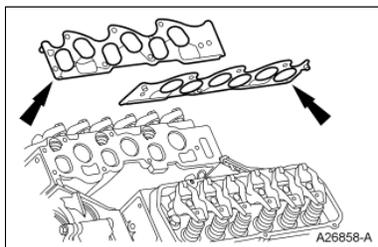


Item	Part Number	Description
1	9439	Intake manifold gasket— RH
2	9439	Intake manifold gasket— LH
3	9A424	Intake manifold rear end seal (part of 9439)
4	9A425	Intake manifold front end seal (part of 9439)

2. Install the lower intake manifold front and rear end seals.
 1. Apply a bead of sealant to the intake manifold front and rear end seal mounting points as indicated.
 2. Install the lower intake manifold front and rear end seals.



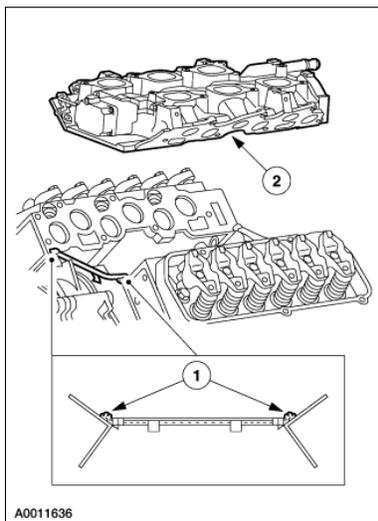
3. Install the intake manifold gaskets (9439).



4. Install the intake manifold runner control (IMRC) if required. For additional information, refer to [Section 303-14](#).
5. **NOTE:** The lower intake manifold must be installed within four minutes of applying sealant.

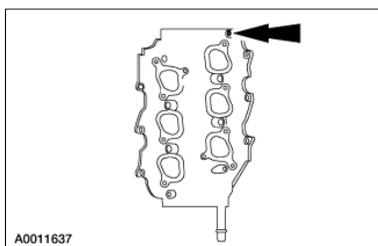
Position the lower intake manifold.

1. Apply a bead of sealant to the lower intake manifold mounting at the points indicated.
2. Position the lower intake manifold.

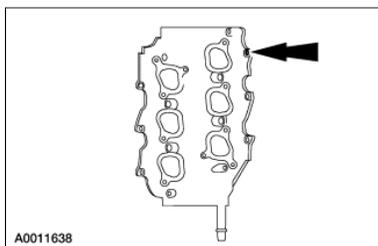


6. **NOTE:** Make sure the bolts are installed in the correct locations.

Install the six long bolts.

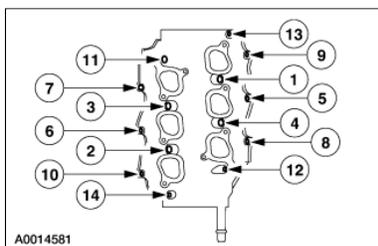


7. Install the eight short bolts.



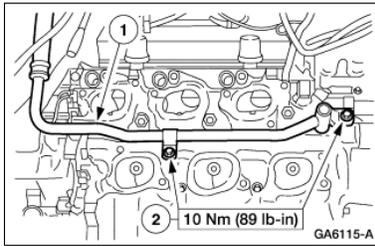
8. Make sure to tighten the bolts in two stages following the sequence shown.

- Stage 1: Tighten to 5 Nm (44 lb-in).
- Stage 2: Tighten to 10 Nm (89 lb-in).

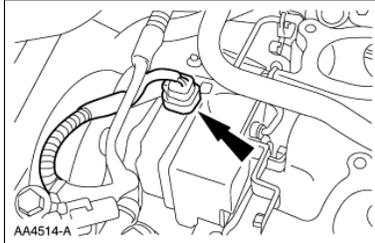


9. Connect the water bypass tube.

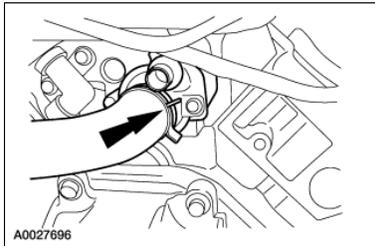
1. Position the tube.
2. Install the bolts.



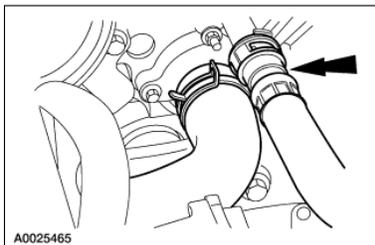
10. Connect the intake manifold runner control (IMRC) electrical connector.



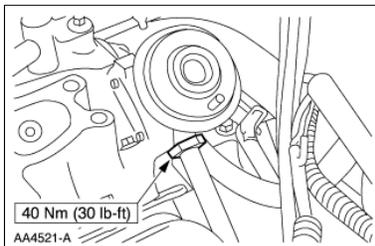
11. Connect the upper radiator hose.
- Connect the hose.
 - Position the clamp.



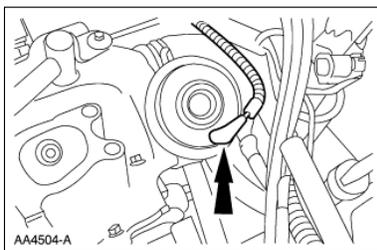
12. Connect the heater hose.



13. Connect the EGR to exhaust manifold tube.
- Tighten the nut.



14. Connect the EGR vacuum tube.



15. Install the fuel supply manifold. For additional information, refer to [Section 303-04](#).
 16. Install the upper intake manifold. For additional information, refer to [Intake Manifold — Upper](#) in this section.
 17. Fill and bleed the cooling system. For additional information, refer to [Section 303-03](#).
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