



M-9424-M50B 2012 Boss 302 Intake Manifold INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

Please visit www.fordracingparts.com for the most current instruction information

**!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION.
AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD RACING
TECHLINE AT 1-800-367-3788 !!!**

WARNING: CUSTOM CALIBRATION REQUIRED! CALIBRATION NOT INCLUDED!

KIT CONTENTS:

- 1) Intake Manifold Assembly
- 2) Assembly Instructions (this document)

THIS KIT REQUIRES:

Boss® 302 INTAKE MANIFOLD INSTALL KIT M-9444-M50B

- Fuel Vapor Hose
- Fuel Vapor Fuse Bracket and fasteners
- Fuel Line
- Air Inlet Tube assembly – throttle body to air box



Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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FUEL SYSTEM PRESSURE RELEASE:

WARNING: Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

WARNING: Do not carry personal electronic devices such as cell phones, pagers or audio equipment of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

WARNING: Before working on or disconnecting any of the fuel tubes or fuel system components, relieve the fuel system pressure to prevent accidental spraying of fuel. The fuel system remains under high pressure, even when the engine is not running. Failure to follow this instruction may result in serious personal injury.

NOTE: The Fuel Pump Driver Module (FPDM) is located in the spare tire stowage compartment. Disconnect the FPDM electrical connector(s).

STEP 1: Start the engine and allow it to idle until it stalls.

STEP 2: After the engine stalls, crank the engine for approximately 10 seconds to make sure the fuel injection supply manifold pressure has been released.

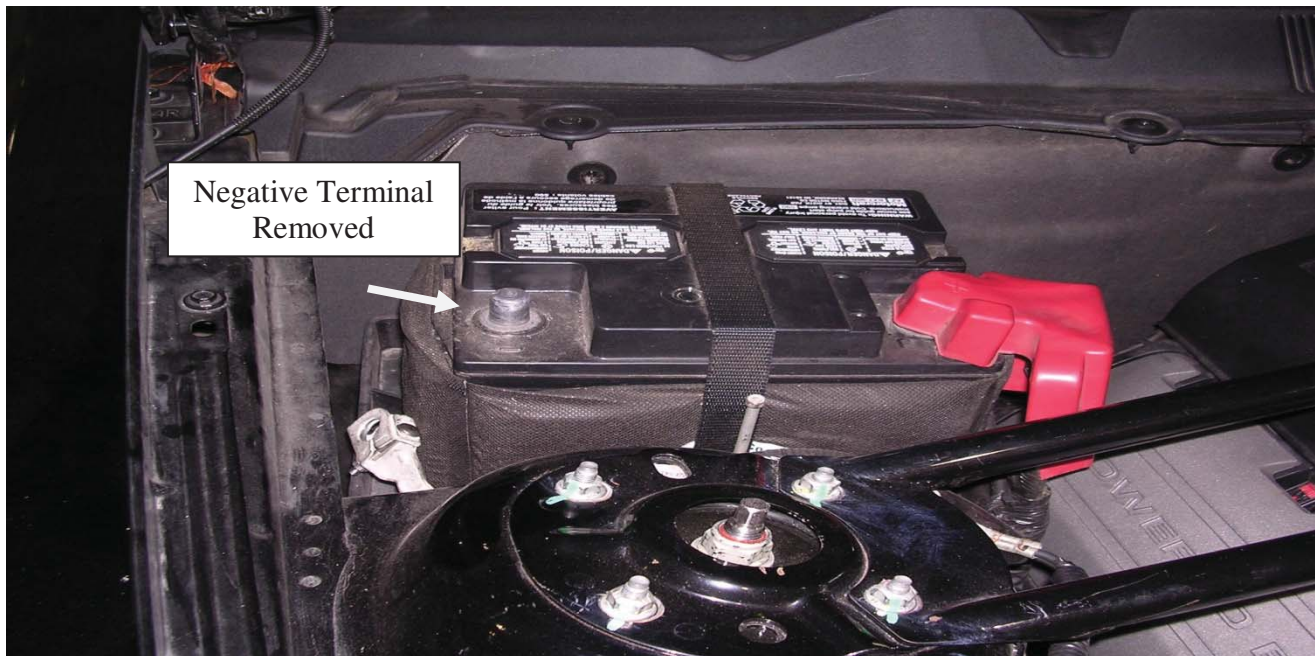
STEP 3: Turn the ignition switch to the OFF position

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INSTALLATION INSTRUCTIONS:

STEP 1: Disconnect battery at negative (black) terminal.



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STEP 2: Remove strut tower brace. (Note: Original strut tower brace will not fit with the Boss 302 intake)

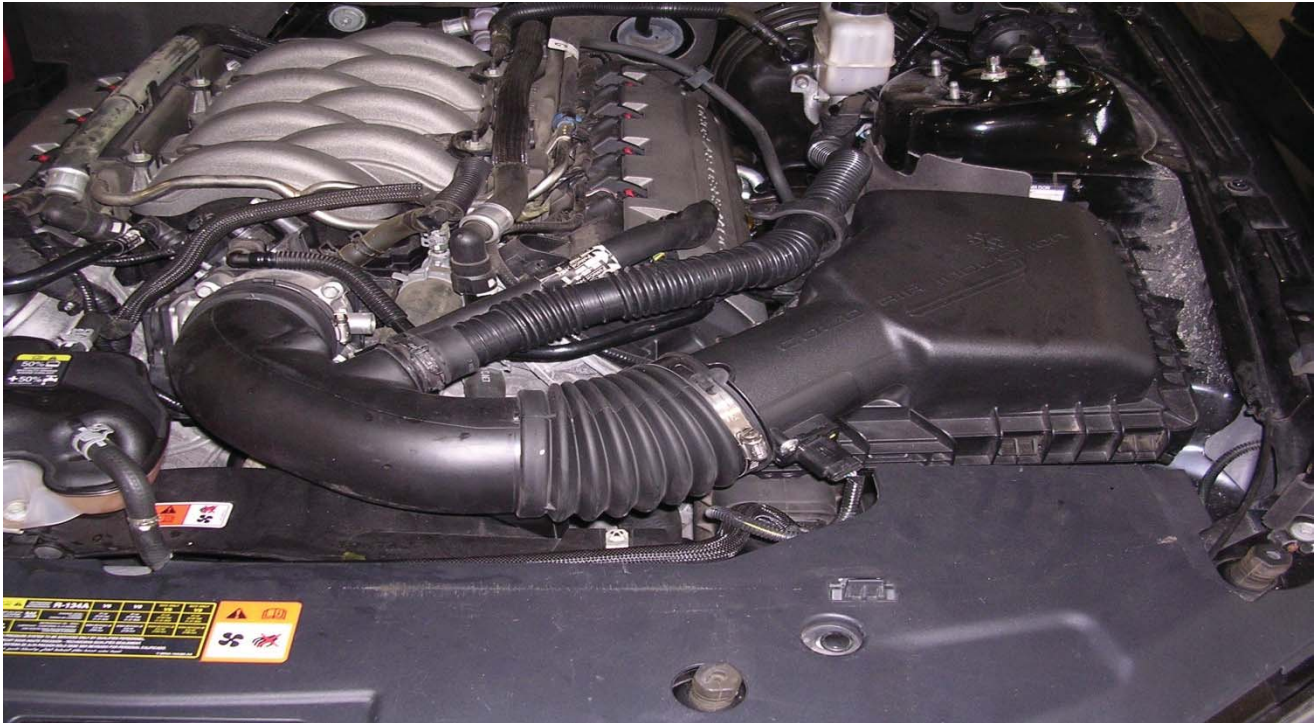
STEP 3: Remove intake cover from intake.



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STEP 4: Remove air cleaner box lid and tube assembly.



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STEP 5: Fuel Pressure must be released before performing the following step! Disconnect the fuel line by first removing the safety clip. Put on safety glasses.

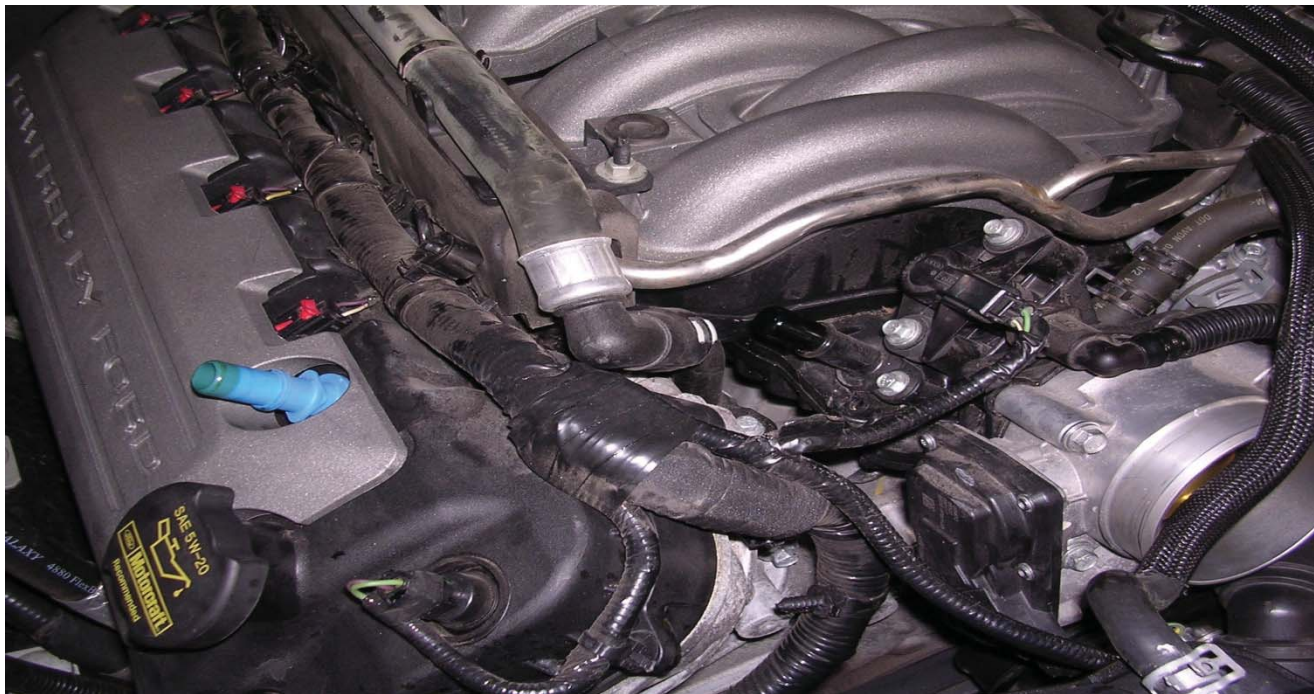
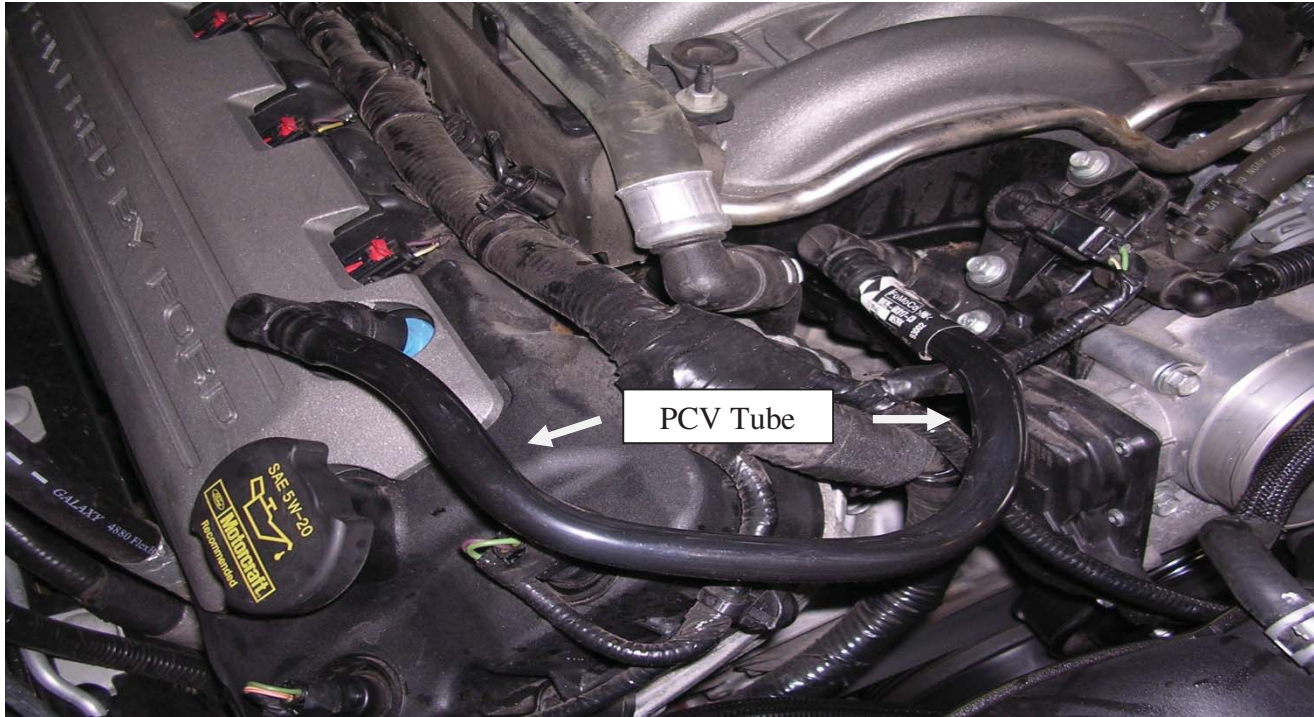
WARNING: Fuel will spill out when you disconnect the line so it is best to place a rag below the connection to absorb the fuel that spills.



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STEP 6: Remove PCV tube from intake.

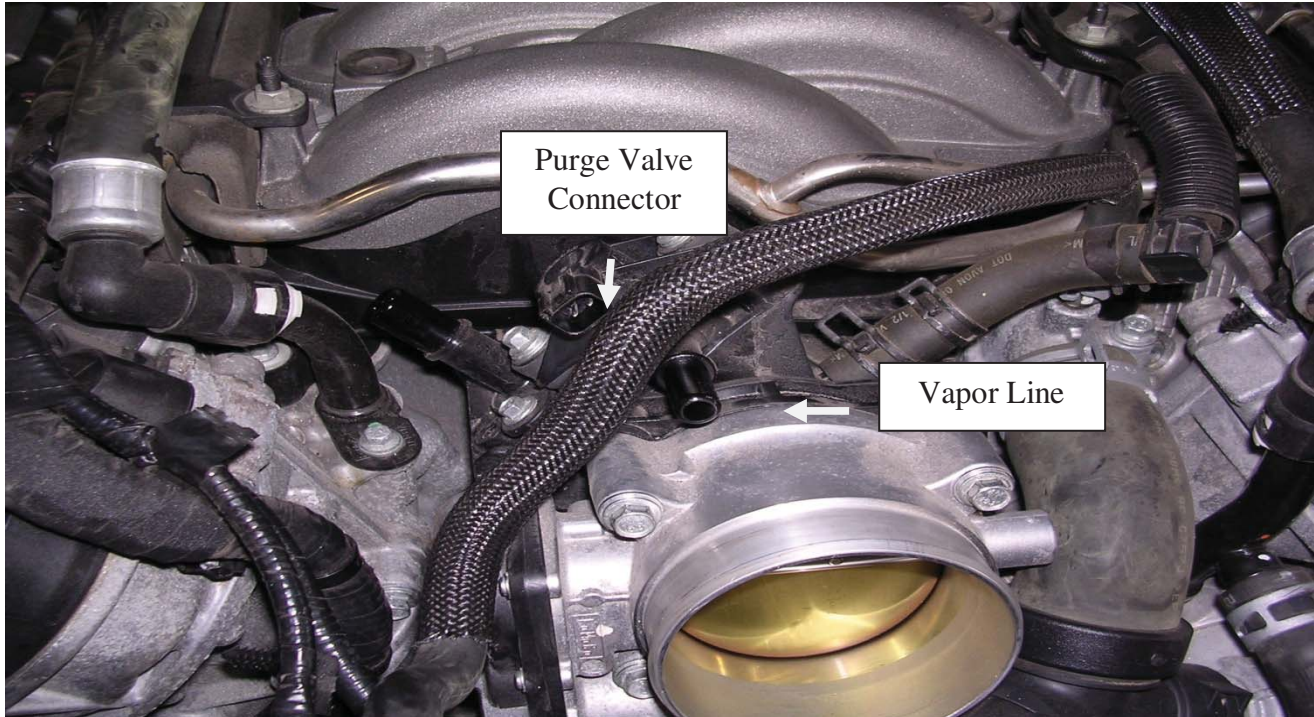


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STEP 7: Remove vapor line and disconnect electrical connector from purge valve and throttle Body connector.

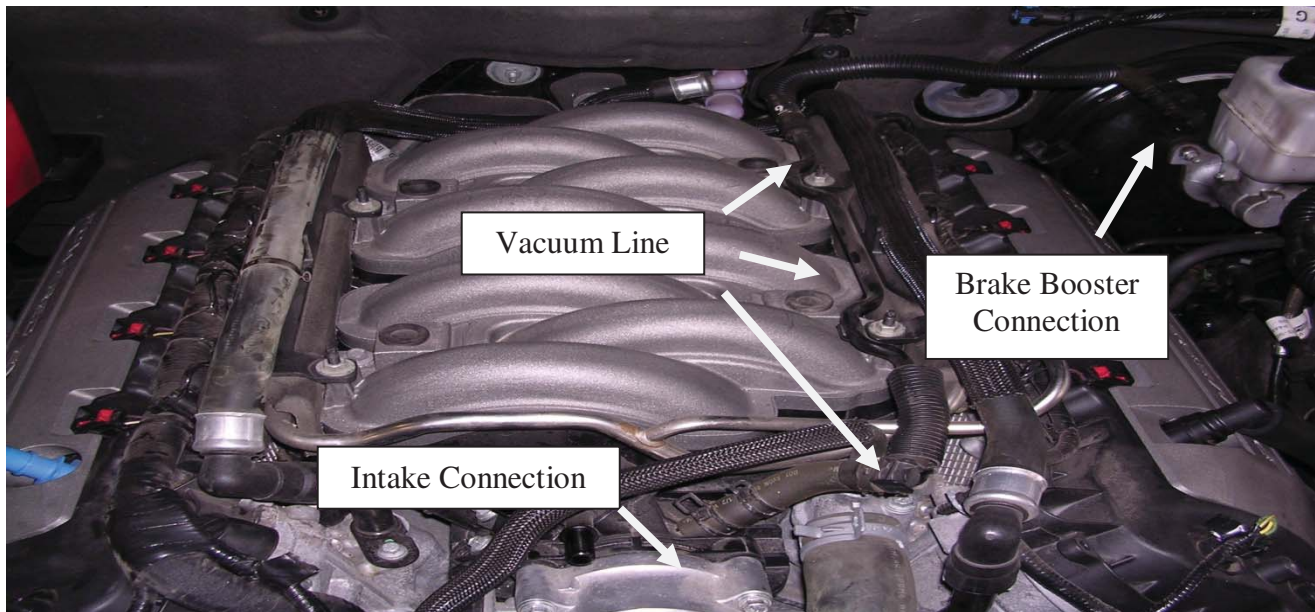


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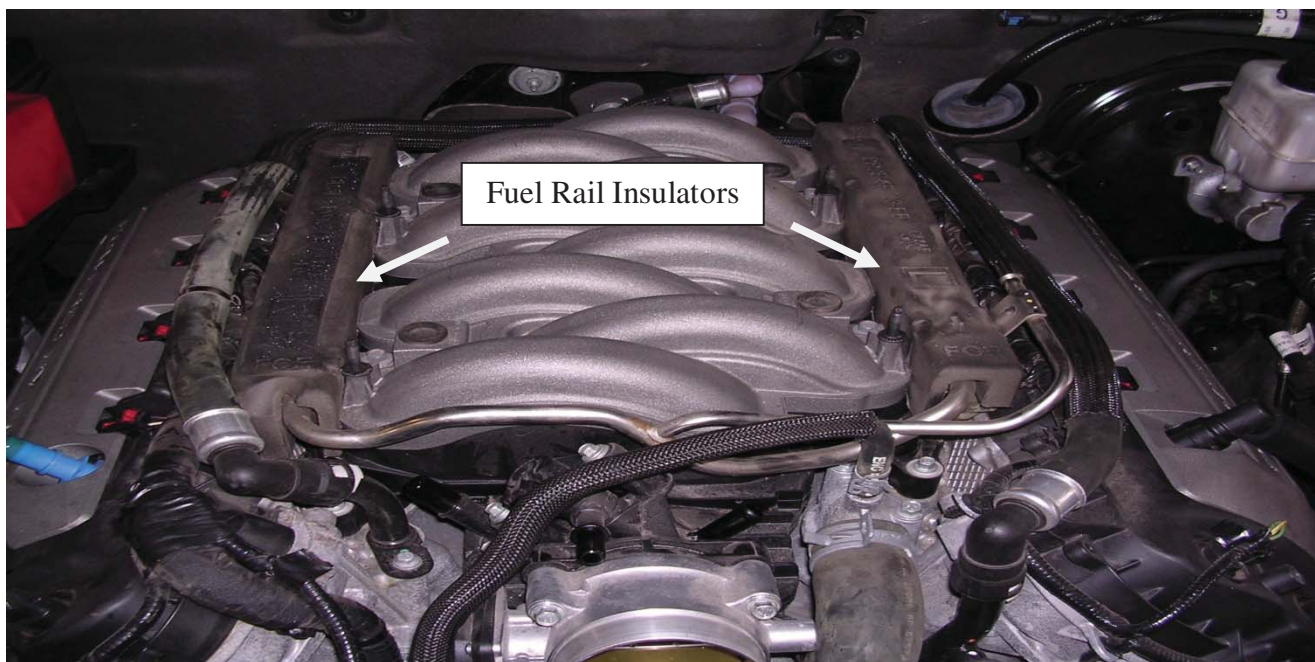
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STEP 8: Disconnect vacuum line from intake to brake booster.

STEP 9: Remove nuts holding down heater hose and vacuum line rails. Then remove vacuum line.



STEP 10: Move heater hose off to the side and remove LH and RH fuel rail insulators.



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STEP 11: Unplug 8 injectors by pushing in clip and pulling straight out.



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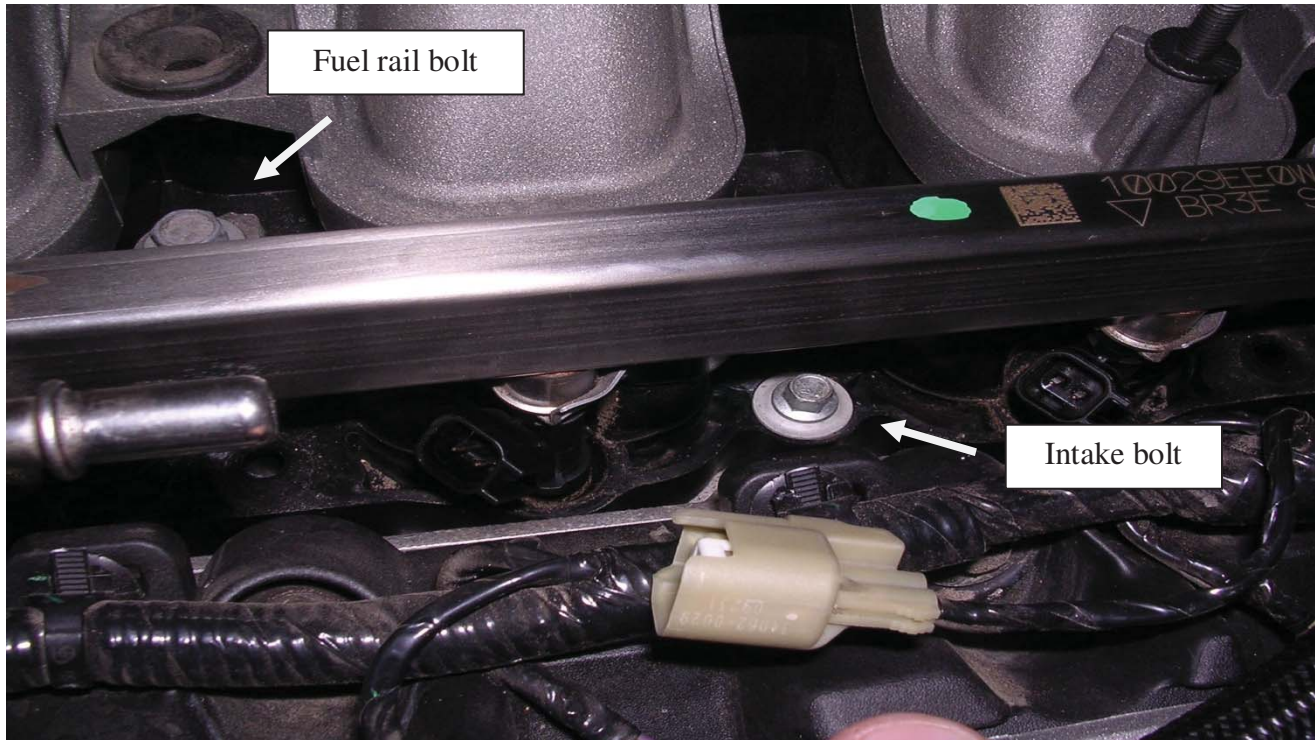
STEP 12: Confirm base of intake is clean of debris.

STEP 13: Remove wire harness clips from rear of intake (4) places.



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STEP 14: Remove (4) fuel rail bolts and loosen (6) intake bolts, Remove intake and place on work bench.



STEP 15: Cover intake ports on cylinder head with duct tape for now to keep any debris out.



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STEP 16: Remove new intake from shipping box and place on bench next to your removed intake.

STEP 17: Swap over fuel injectors, fuel rail and throttle body.

STEP 18: Tighten Throttle body to spec.

While holding the TB in the most upward position tighten the 4 bolts in 2 stages.

- Stage 1: Tighten to 10 Nm (89 lb-in).
- Stage 2: Tighten an additional 45 degrees.

STEP 19: Remove tape from cylinder heads.

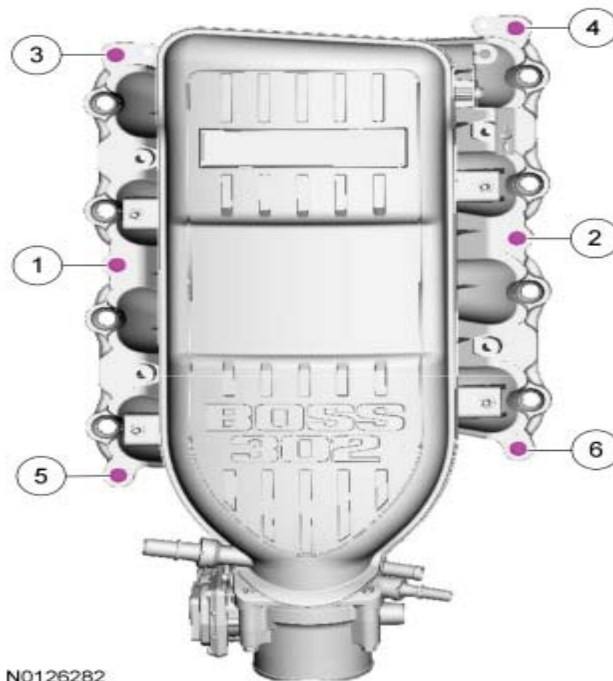
STEP 20: Install Boss® 302 intake onto engine.

NOTE: Clean the sealing surfaces with metal surface prep. Inspect the mating surfaces.

NOTE: Fuel rail removed from graphic for clarity.

Using new gaskets, install the intake manifold.

- Tighten the 6 intake manifold bolts in the sequence shown in 2 stages.
- Stage 1: Tighten to 10 Nm (89 lb-in).
- Stage 2: Tighten an additional 45 degrees.



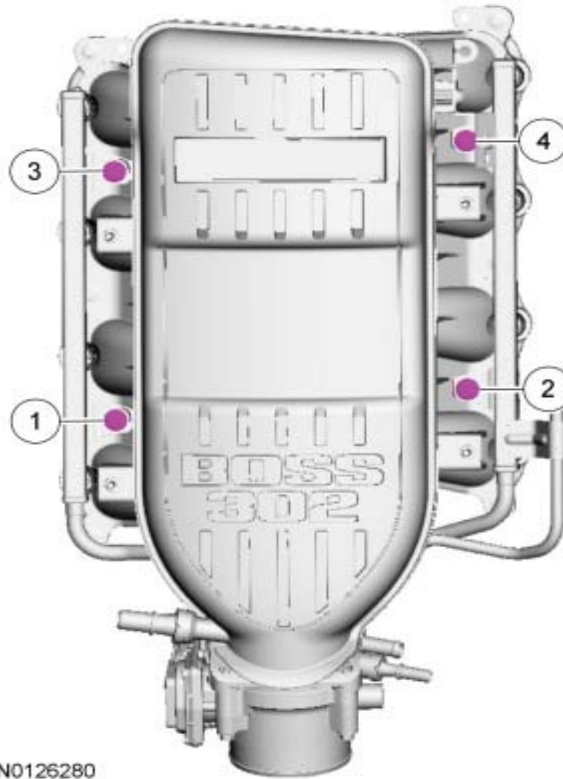
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STEP 21: Install the 4 fuel rail bolts.

Tighten in the sequence shown in 3 stages.

- Stage 1: Hand tighten.
- Stage 2: Tighten to 10 Nm (89 lb-in).
- Stage 3: Tighten an additional 90 degrees.



STEP 22: Attach the 2 wiring harness retainers to the rear of the intake manifold.

STEP 23: Connect the 8 fuel injector electrical connectors.

STEP 24: Install the LH and RH fuel rail insulators.

STEP 25: Install the RH heater hose support and the 2 nuts.

- Tighten to 7 Nm (62 lb-in).

STEP 26: Install the vacuum tube assembly, the LH heater hose support and the 2 nuts.

- Tighten to 7 Nm (62 lb-in).

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- STEP 27:** Position the heater hoses.
- STEP 28:** Connect the vacuum tube to the intake manifold.
- STEP 29:** Remove original fuel line and vapor line by disconnecting lines at rear base of left hand wheel well.
- STEP 30:** Remove new lines from installation kit part number M-9444-M50B and connect line at rear base of left hand wheel well.
- STEP 31:** Connect the fuel supply tube.
- STEP 32:** Install the crankcase ventilation tube.
- STEP 33:** Install the Evaporative Emission (EVAP) canister purge valve and bracket. (From kit part number M-9444-M50B)
- Note: Wiring for purge valve will have to be extended approximately 40 inches of 18 awg wire, cut and splice wire, solder and shrink tube.



- STEP 34:** Connect the TB electrical connector.
- STEP 35:** Remove old and install the Air Cleaner (ACL) outlet pipe. (From kit part number M-9444-M50B)

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STEP 36: Reconnect battery cable.

STEP 37: Start vehicle and check for fuel and vacuum leaks.

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