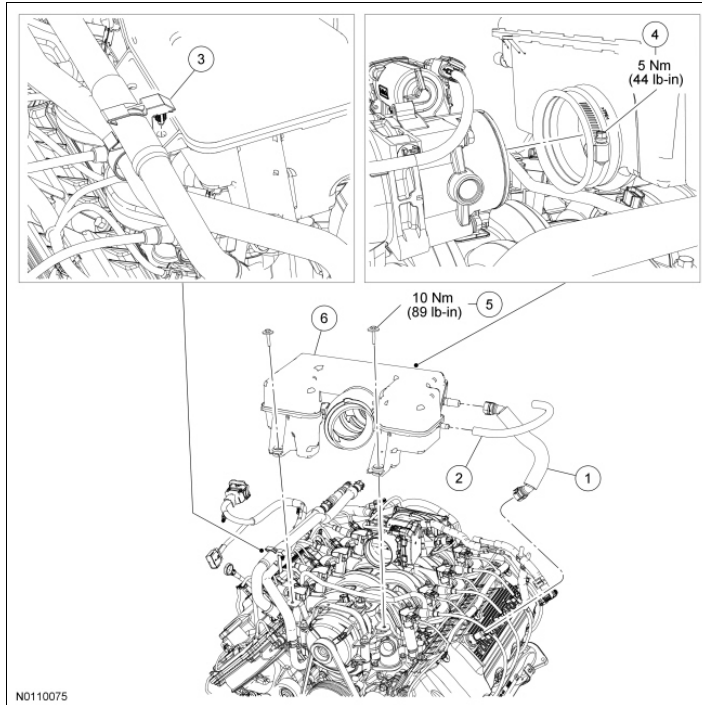
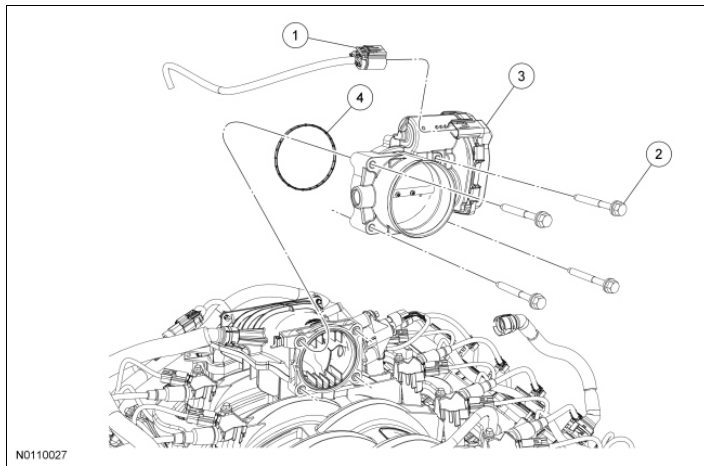


**Throttle Body****Air Cleaner (ACL) Outlet Pipe-to-Throttle Body (TB) Adapter**

Item	Part Number	Description
1	6758	Crankcase ventilation tube
2	9C490	Brake booster vacuum hose
3	-	Heater coolant hose position retainer
4	-	Throttle Body (TB) adapter-to-TB clamp (part of 9F805)
5	W505426 >Air Cleaner (ACL) outlet pipe-to- TB adapter bolt (2 required)	
6	9A589	ACL outlet pipe-to- TB adapter

**Throttle Body (TB)**



Item	Part Number	Description
1	-	Electronic Throttle Control (ETC) electrical connector (part of 12B637)
2	N709168	Throttle Body (TB) bolt (4 required)
3	9F991	TB
4	9E936	TB O-ring seal

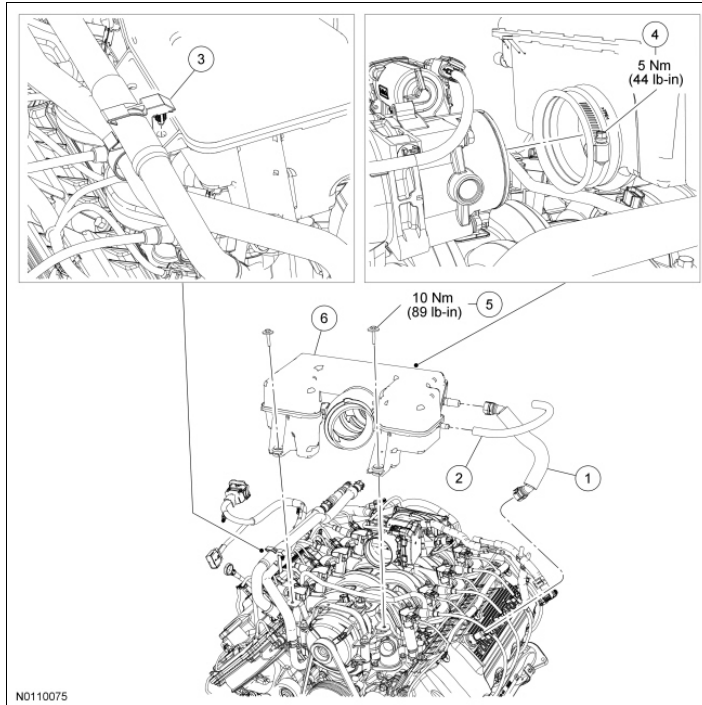
### Removal

1. Remove the Air Cleaner (ACL) outlet tube. For additional information, refer to [Section 303-12](#) .
2. Disconnect the heater coolant hose retainer from the ACL outlet pipe-to-Throttle Body (TB) adapter.
3. Disconnect the crankcase ventilation tube quick connect fitting from ACL outlet pipe-to- TB adapter. For additional information, refer to [Section 310-00](#) .
4. Disconnect the brake booster vacuum hose from the ACL outlet pipe-to- TB adapter.
5. Remove the 2 bolts and the ACL outlet pipe-to- TB adapter.
6. Loosen the clamp and disconnect the TB adapter from the TB .
7. Disconnect the Electronic Throttle Control (ETC) electrical connector.
8. Remove the 4 bolts and the TB assembly.
  - Discard the TB O-ring seal.

### Installation

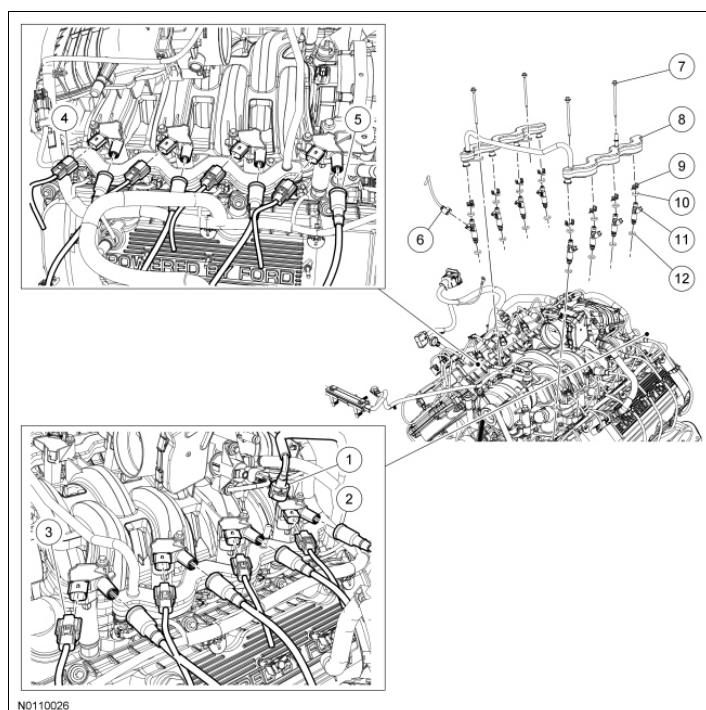
1. Using a new O-ring seal, position the TB and tighten the 4 bolts in 2 stages.
  - Stage 1: Tighten to 12 Nm (106 lb-in).
  - Stage 2: Tighten an additional 60 degrees.
2. Connect the ETC electrical connector.
3. Position the TB adapter onto the TB and install the 2 bolts.
  - Tighten to 10 Nm (89 lb-in).
4. Tighten the TB adapter-to- TB clamp.

- Tighten to 5 Nm (44 lb-in).
5. Connect the crankcase ventilation tube quick connect coupling to the ACL outlet pipe-to- TB adapter.  
For additional information, refer to Section 310-00 .
  6. Connect the brake booster vacuum hose to the ACL outlet pipe-to- TB adapter.
  7. Connect the crankcase ventilation tube quick connect fitting to the ACL outlet pipe-to- TB adapter.  
For additional information, refer to Section 310-00 .
  8. Connect the heater coolant hose retainer to the ACL outlet pipe-to- TB adapter.
  9. Install the ACL outlet tube. For additional information, refer to Section 303-12 .
-

**Fuel Rail and Fuel Injector - Exploded View****Air Cleaner (ACL) Outlet Pipe-to-Throttle Body (TB) Adapter**

Item	Part Number	Description
1	6758	Crankcase ventilation tube
2	9C490	Brake booster vacuum hose
3	-	Heater coolant hose position retainer
4	-	Throttle Body (TB) adapter-to- TB cl 9F805)
5	W505426	Air Cleaner (ACL) outlet pipe-to- TB adapter bolt (2 required)
6	9A589	ACL outlet pipe-to- TB adapter

**Fuel Rail and Fuel Injectors**



Item	Part Number	Description
1	-	Fuel supply tube quick connect coupling
2	12286	LH ignition wire (4 required)
3	12029	LH ignition coil electrical connector (part of 12B637) (4 required)
4	12029	RH ignition coil electrical connector (part of 12B637) (4 required)
5	12286	RH ignition wire (4 required)
6	14A464	Fuel injector electrical connector (part of 12B637) (8 required)
7	W714633	Fuel rail bolt (4 required)
8	9F792	Fuel rail
	9C995	Fuel injector-to-fuel rail locking clip (8 required)
10	9U509	Fuel injector-to-fuel rail O-ring (8 required)
11	9F593	Fuel injector (8 required)
12	9U509	Fuel injector-to-intake manifold O-ring (8 required)

1. For additional information, refer to the procedures in this section.



**Fuel Rail**

## Material

Item	Specification
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	WSS-M2C930-A

**Removal**

**⚠ 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:** 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. Fuel in 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.

**NOTICE:** Fuel injection equipment is manufactured to very precise tolerances and fine clearances. It is therefore essential that absolute cleanliness is observed when working with these components. Always install blanking plugs to any open orifices or tubes.

**NOTICE:** When reusing liquid or vapor tube connectors, make sure to use compressed air to remove any foreign material from the connector retaining clip area before separating from the tube.

1. Disconnect the battery ground cable. For additional information, refer to [Section 414-01](#) .
2. Remove the Air Cleaner (ACL) outlet tube. For additional information, refer to [Section 303-12](#) .
3. Disconnect the heater coolant hose retainer from the ACL outlet pipe-to-Throttle Body (TB) adapter.
4. Disconnect the crankcase ventilation tube quick connect fitting from the ACL outlet pipe-to- TB adapter. For additional information, refer to [Section 310-00](#) .
5. Disconnect the brake booster vacuum hose from the ACL outlet pipe-to- TB adapter.
6. Loosen the clamp and disconnect the TB adapter from the TB .
7. Remove the 2 bolts and the ACL outlet pipe-to- TB adapter.
8. Disconnect the fuel tube quick connect coupling. For additional information, refer to [Section 310-00](#) .
9. Disconnect the 8 ignition coil electrical connectors.
10. Disconnect the 8 ignition wires from the 8 ignition coils.

11. Disconnect the 8 fuel injector electrical connectors.
12. Remove the 4 fuel rail bolts and the fuel rail and injectors as an assembly.
13. Remove the fuel injector-to-fuel rail locks and separate the 8 fuel injectors from the fuel rail.
  - Discard the upper and lower fuel injector O-ring seals.

## Installation

1. **NOTICE:** Use O-ring seals that are made of special fuel-resistant material. Use of ordinary O-rings can cause the fuel system to leak.

**NOTE:** Lubricate the new O-ring seals with clean engine oil prior to installation.

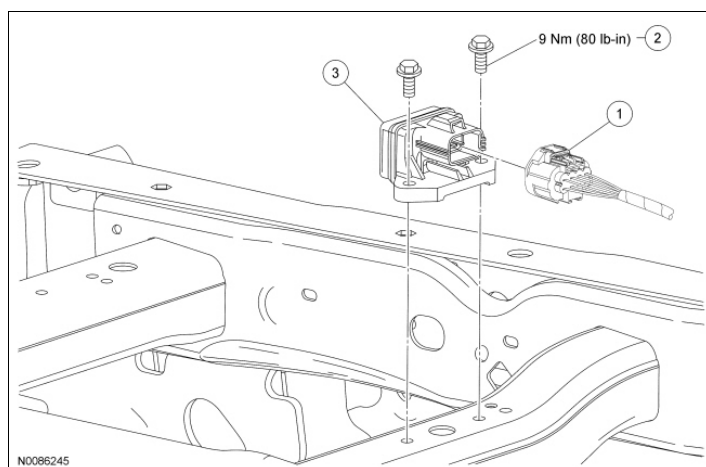
Install 16 new O-ring seals on each of the fuel injectors.

2. Assemble the 8 fuel injectors onto the fuel rail and install the 8 fuel injector retaining clips.
  3. Install the fuel rail and fuel injectors as an assembly onto the intake manifold.
  4. Install the 4 fuel rail bolts in 2 stages.
    - Stage 1: Tighten to 10 Nm (89 lb-in).
    - Stage 2: Tighten an additional 90 degrees.
  5. Connect the 8 fuel injector electrical connectors.
  6. Connect the 8 ignition wires to the 8 ignition coils.
  7. Connect the 8 ignition coil electrical connectors.
  8. Connect the fuel tube quick connect coupling. For additional information, refer to [Section 310-00](#).
  9. Position the ACL outlet pipe-to- TB adapter and install the 2 bolts.
    - Tighten to 10 Nm (89 lb-in).
  10. Tighten the TB adapter-to- TB clamp.
    - Tighten to 5 Nm (44 lb-in).
  11. Connect the brake booster vacuum hose from the ACL outlet pipe-to- TB adapter.
  12. Connect the crankcase ventilation tube quick connect fitting to the ACL outlet pipe-to- TB adapter.  
For additional information, refer to [Section 310-00](#).
  13. Connect the heater coolant hose retainer to the ACL outlet pipe-to- TB adapter.
  14. Install the ACL outlet tube. For additional information, refer to [Section 303-12](#).
  15. Connect the battery ground cable. For additional information, refer to [Section 414-01](#).
-



## **Fuel Injector**

1. The fuel injectors are serviced with the fuel rail. For additional information, refer to Fuel Rail and Fuel Injector - Exploded View and Fuel Rail in this section.
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SECTION 303-04D: Fuel Charging and Controls - 6.2L (2V)  
REMOVAL AND INSTALLATION2012 F-150 Workshop Manual  
Procedure revision date: 10/31/2011**Fuel Pump Control Module**

Item	Part Number	Description
1	14A464	Fuel Pump (FP) control module electrical connector (part of 14404)
2	W705549	FP control module bolt (2 required)
3	9D412	FP control module

**Removal and Installation**

1. Disconnect the Fuel Pump (FP) control module electrical connector.
2. Remove the 2 bolts and the FP control module.
  - To install, tighten to 9 Nm (80 lb-in).
3. To install, reverse the removal procedure.