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Ford 6.7L High Pressure Fuel Line Kit

1050165

**2011-2021 Ford F250/F350
2011-2019 Ford F450/F550/F650/F750**

Table of Contents

Table of Contents.....	2
Kit Contents	2
Introduction	2
Tools Required for Installation	2
Fuel System Pressure Release.....	3
Removal	3
Installation.....	5
Fuel System Bleeding	8

Kit Contents

1500165	1500166	1040510
		
Fuel line; Cylinder 3/4/5/6	Fuel Line; Cylinder 1/2/7/8	Injector Hold Down Bolt
Qty: 4	Qty: 4	Qty: 1 set of 8

Introduction

This kit is designed by BD Diesel to give you true to OEM fuel line fitment to allow for easy installation. Every single line is checked for quality and fitment to guarantee fit to the Ford 6.7L Power Stroke engine.

Tools Required for Installation

- Torque wrench
- 17mm crowfoot wrench
- Assorted metric sockets
- Ratchet and extensions

Fuel System Pressure Release

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 injury.

WARNING: Do not work on the fuel system until the pressure has been released and the engine has cooled. Fuel in the high-pressure fuel system is hot and under very high pressure. High-pressure fuel may cause cuts and contact with hot fuel may cause burns. Failure to follow these instructions may result in serious injury.

With the key in OFF position make sure the Fuel Conditioning Module pump is not running. Wait at least 2 minutes after pump has shut off for the low-pressure system to bleed off pressure.

Note: The fuel system cannot be relieved of pressure manually. The high-pressure fuel system loses pressure as the engine cools down. When working on the high-pressure fuel system wait until the engine is cool or 5 minutes, whichever is longer, to allow the high-pressure fuel system pressure to bleed off and the fuel to cool.

After the installation is complete, bleed the fuel system.

Removal

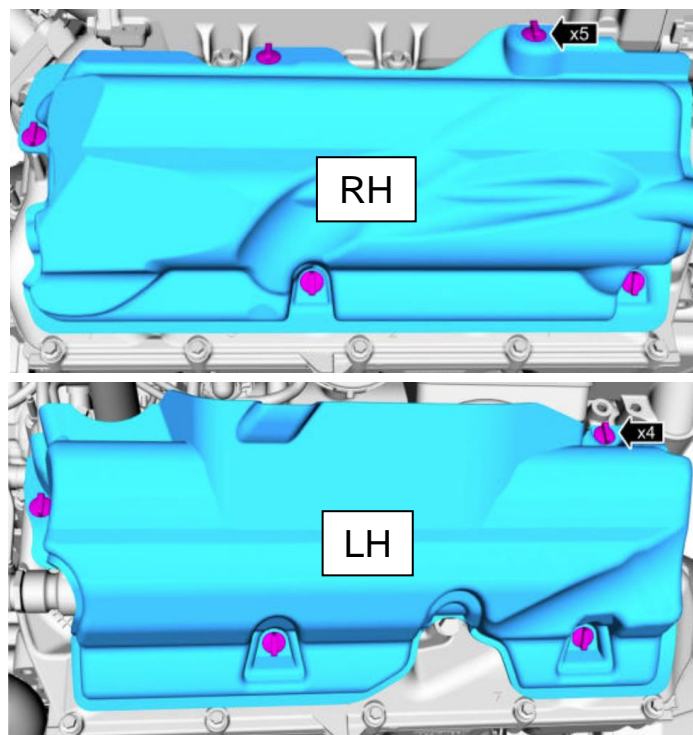
Disconnect both vehicle batteries before installation for safety.

IMPORTANT: Fuel injection equipment is manufactured to very precise tolerances and fine clearances. To prevent system damage, it is essential that absolute cleanliness is observed when working with these components.

Release fuel system pressure, and disconnect battery ground cables.

Remove left and right tires; and inner fenders. (Bolt torque: **9 Nm, 80 lbs-in**)

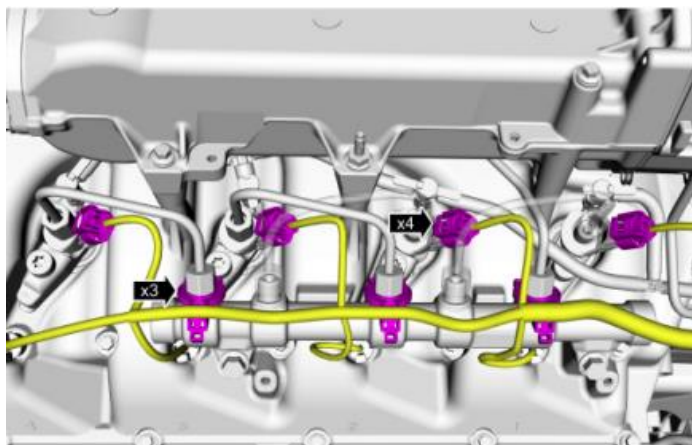
Remove all 5 RH and 4 LH engine sound shield retainers and the engine sound shields.



Disconnect the fuel injector electrical connectors.

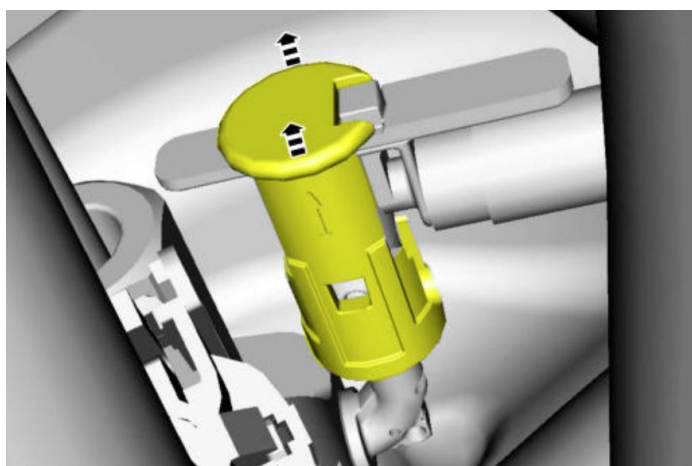
Disconnect the fuel charging wiring harness retainers from the fuel rail and position the fuel charging wiring harness aside.

Note: RH side shown; LH side is similar.

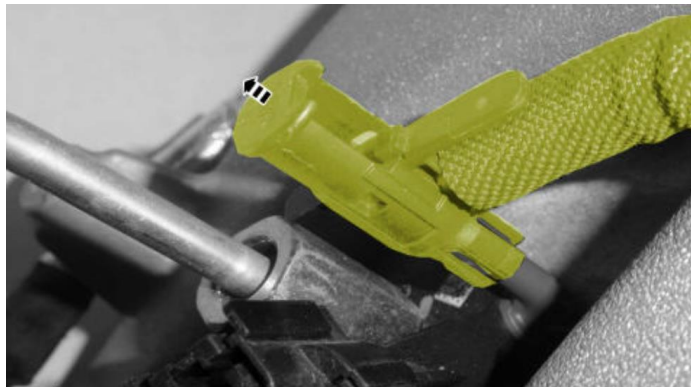


Pull up on the center of the fuel injector return hose fittings to release the center fuel injector return hose fitting locks.

Note: The use of a pair of long needle nose pliers or another commercially available tool may aid in the releasing of the center fuel injector return hose fitting lock.



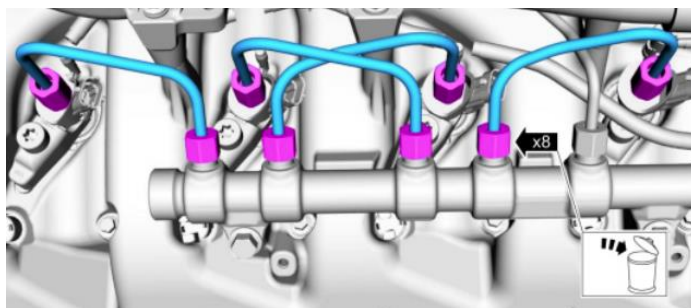
Pull up on the fuel injector return hose fittings to disconnect the fuel injector return hose fittings from the fuel injectors.



Remove and discard the fuel injector supply tubes.

Remove the injector hold down bolts and replace with the new ones provided in this kit.

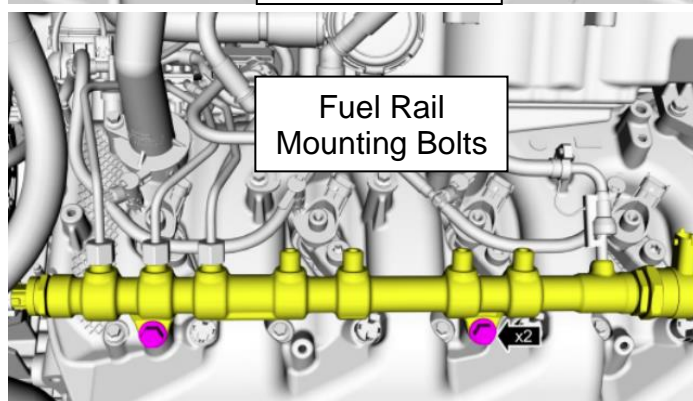
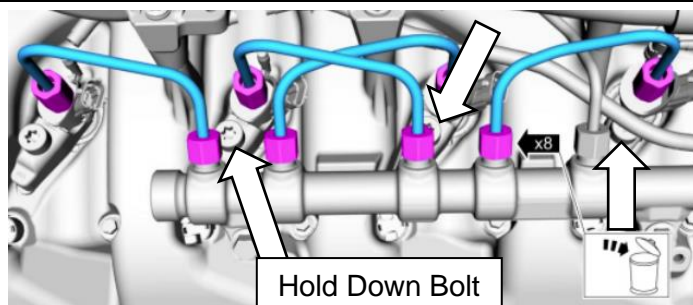
IMPORTANT: Used injector tubes and hold-down bolts cannot be reused.



Installation

Torque the hold down bolts to **30 Nm (22 lb-ft)**, and then an additional **90 degrees**.

Loosen the fuel rail mounting bolts.



Position the new fuel injector supply tubes between the fuel rail and injectors.

Fully hand-start and seat the fittings onto the fuel rail and injectors.

Tighten in the stages and in the 2-stage sequence shown.

Stage 1

1-2: Fuel rail mounting bolts: **24 Nm (18 lb-ft)**

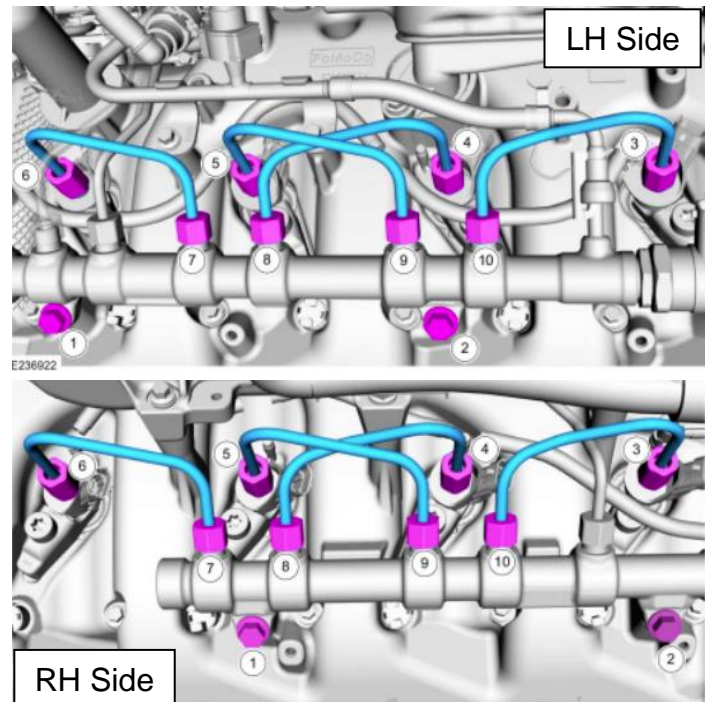
3-6: Fuel injector supply tube fitting to fuel injector: **10 Nm (89 in-lb)**

7-10: Fuel injector supply tube fitting to fuel rail: **10 Nm (89 in-lb)**

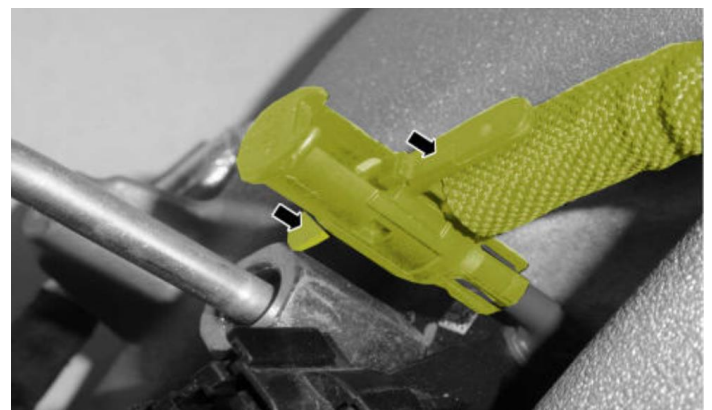
Stage 2

3-6: Fuel injector supply tube fitting to fuel injector: **65°**

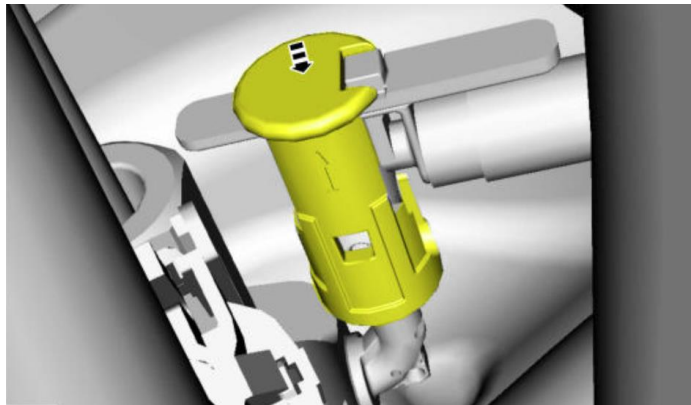
7-10: Fuel injector supply tube fitting to fuel rail: **65°**



Push down on the fuel injector return hose fitting tabs to connect the fuel injector hose fittings to the fuel injectors.



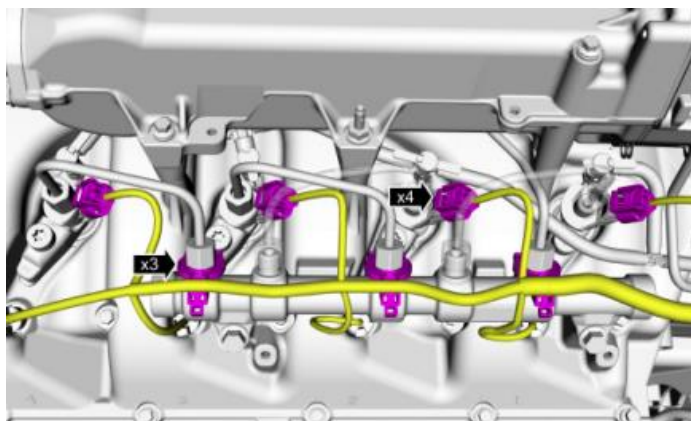
Push down on the center of the fuel injector return hose fittings to lock the fittings to the fuel injectors.



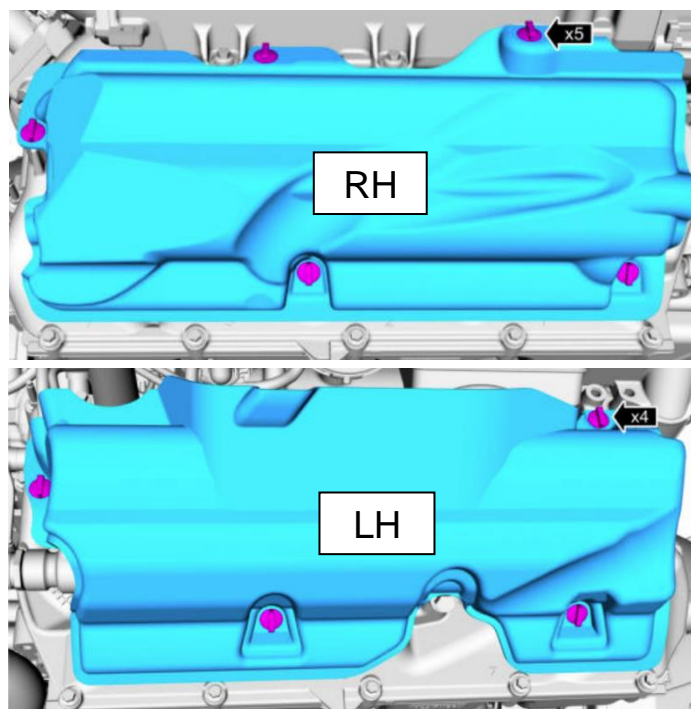
Connect the 4x fuel injector electrical connectors.

Connect the 3x fuel charging wiring harness retainers to the fuel rail.

Note: RH side shown; LH side similar.



Position the RH and LH sound shields and install the 5 RH and 4 LH retainers.



Reinstall fenders and tires. Bleed the fuel system.

Fuel System Bleeding

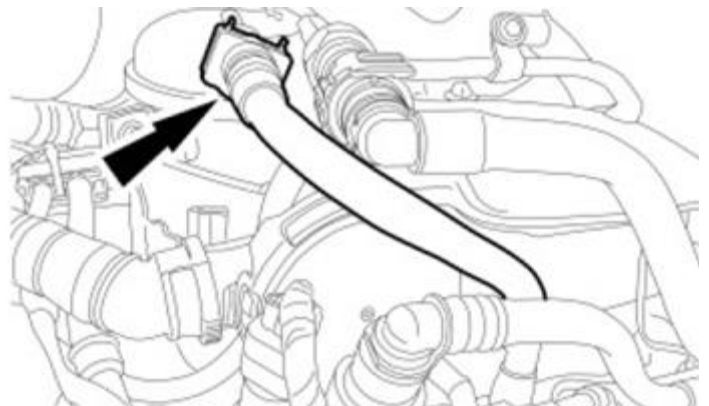
WARNING: When handling fuel, always observe fuel handling precautions and be prepared in the event of fuel spillage. Spilled fuel may be ignited by hot vehicle components or other ignition sources. Failure to follow these instructions may result in personal injury.

Bleed the fuel system by cycling the ignition 3 times in the following sequence:

- Turn the ignition key ON without cranking the engine.
- Wait 30 seconds for the fuel conditioning module to run.
- Turn the ignition key to OFF.

Test the system for normal operation. If the engine fails to start there may still be air in the fuel system, continue bleeding the fuel system with the following steps.

If air is still present in the fuel system, disconnect the fuel supply quick connect coupling from the secondary fuel filter and position aside.



Install one end of a suitable hose onto the secondary fuel filter and the other end into a suitable container.

Cycle the ignition 3 times in the following sequence until no air is present in the fuel system,

- Turn the ignition key ON without cranking the engine.
- Wait 30 seconds for the fuel conditioning module to run.
- Turn the ignition key to OFF.

Remove the hose and connect the fuel supply tube quick connect coupling to the secondary fuel filter, and check the system for normal operation.

Note: Carry out a Key ON Engine OFF (KOEO) visual inspection for fuel leaks after completing the Fuel System Bleeding Procedure.



Once all components have been reinstalled, be sure to check all connection points are tight and inspect for leaks.

