

**CERTAIN 2018 MODEL YEAR F-150, EXPEDITION AND NAVIGATOR VEHICLES
 EQUIPPED WITH A 3.5L GTDI ENGINE HIGH-PRESSURE FUEL PUMP
 REPLACEMENT**

OVERVIEW

In the affected vehicles, the high-pressure fuel pump flange weld may crack, allowing the high-pressure fuel pump to move while the engine is running. Movement of the high-pressure fuel pump can cause the fuel tubes to crack, resulting in a fuel leak. A fuel leak in the presence of an ignition source may increase the risk of a fire. Before demonstrating or delivering any new in-stock vehicles involved in this recall, dealers are to replace the high-pressure fuel pump.

SERVICE PROCEDURE

Recommended Tool List For Replacement:

General Tools	General Equipment
1/4" Drive Deep Socket 8mm and 10mm	Metal Trim Tool
1/4" Drive Extension 6 inch	3/8 Fuel Line Disconnect Tool
3/8" Drive Torx Socket T45	
3/8" Drive Extension 6 and 10 inch	Special Tools
1/2" Drive Standard Length Socket 18mm	310-250 Disconnect Tool
1/2" Drive Breaker Bar	
1/4" and 3/8" Drive Ratchet	
1/4" and 3/8" Drive Power Tool	
1/4" and 3/8" Drive Torque Wrench	



HIGH-PRESSURE FUEL PUMP REPLACEMENT ALL VEHICLES

1. Remove the engine appearance cover. See Figure 1.

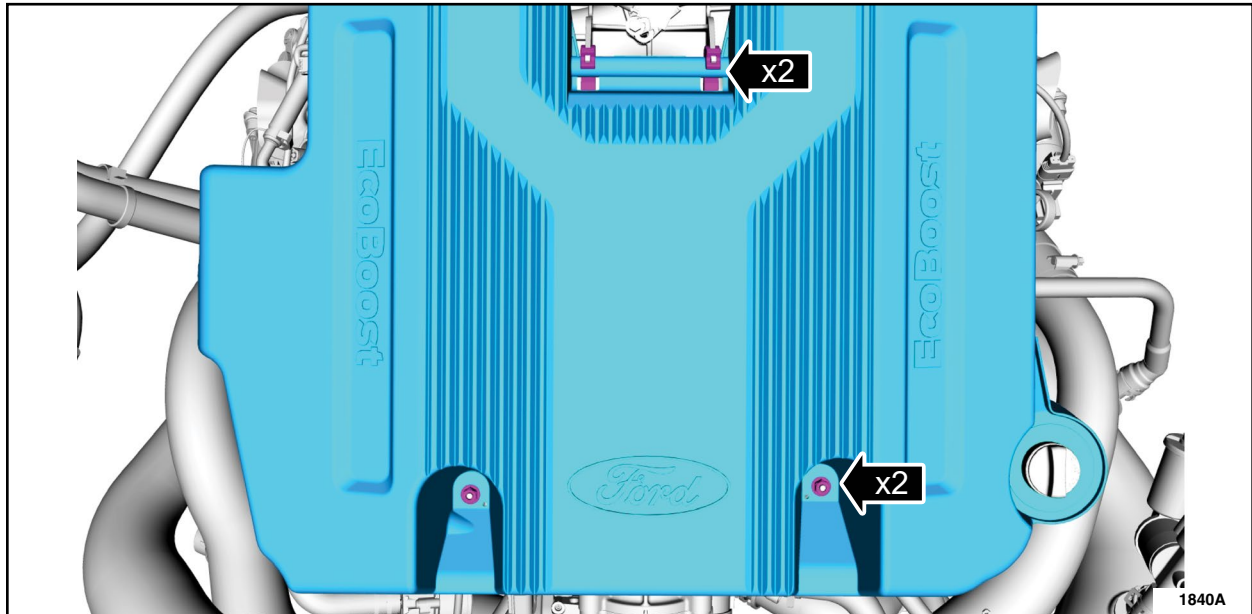


FIGURE 1

2. Release the fuel system pressure. Please refer to Workshop Manual (WSM) procedures in Section 310-00C.
3. Disconnect the battery. Please refer to WSM procedures in Section 414-01.
4. Disconnect the high-pressure fuel pump electrical connector. See Figure 2.

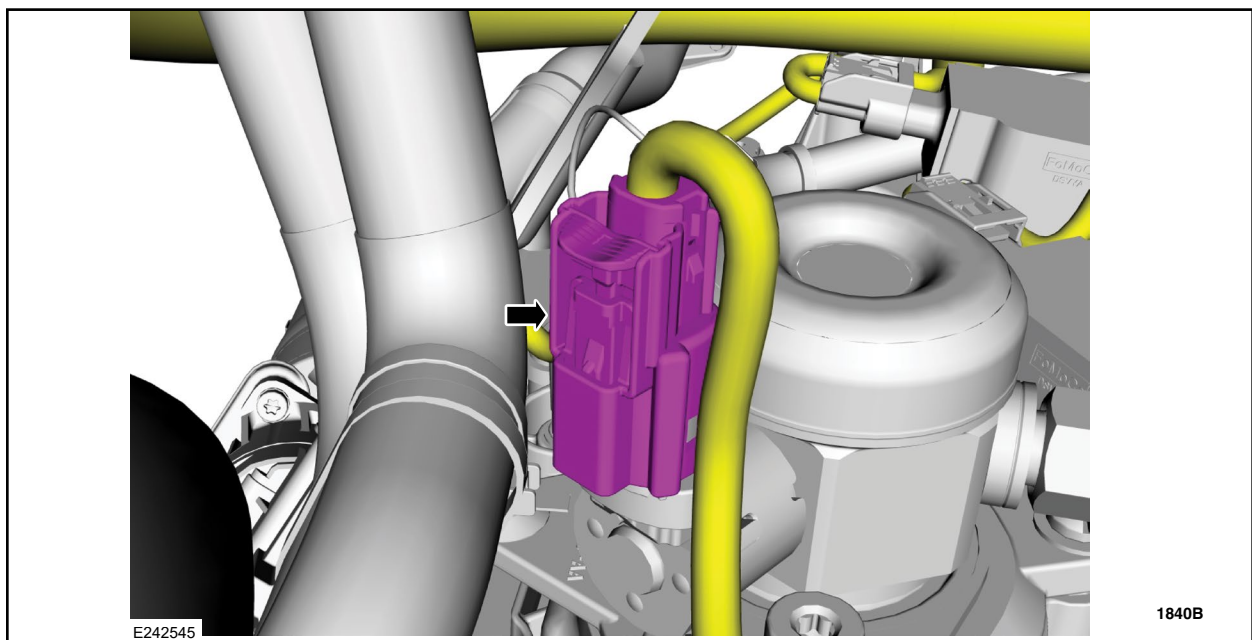


FIGURE 2



5. Disconnect the secondary latch and position out of the way. See Figure 3.
6. Disconnect the spring lock coupling and then disconnect the high-pressure fuel pump supply line. See Figure 3.

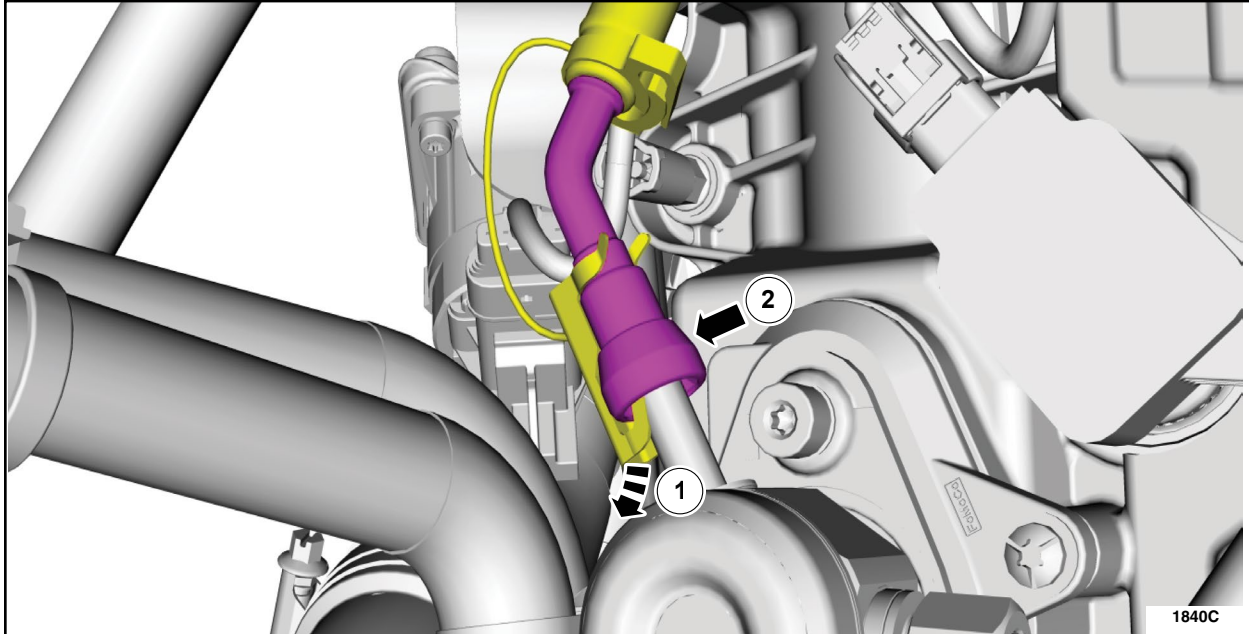


FIGURE 3



7. Remove and discard the fuel tube retaining bolts and disconnect the fuel tube flare nuts. Remove and discard the high-pressure fuel tube. See Figure 4.

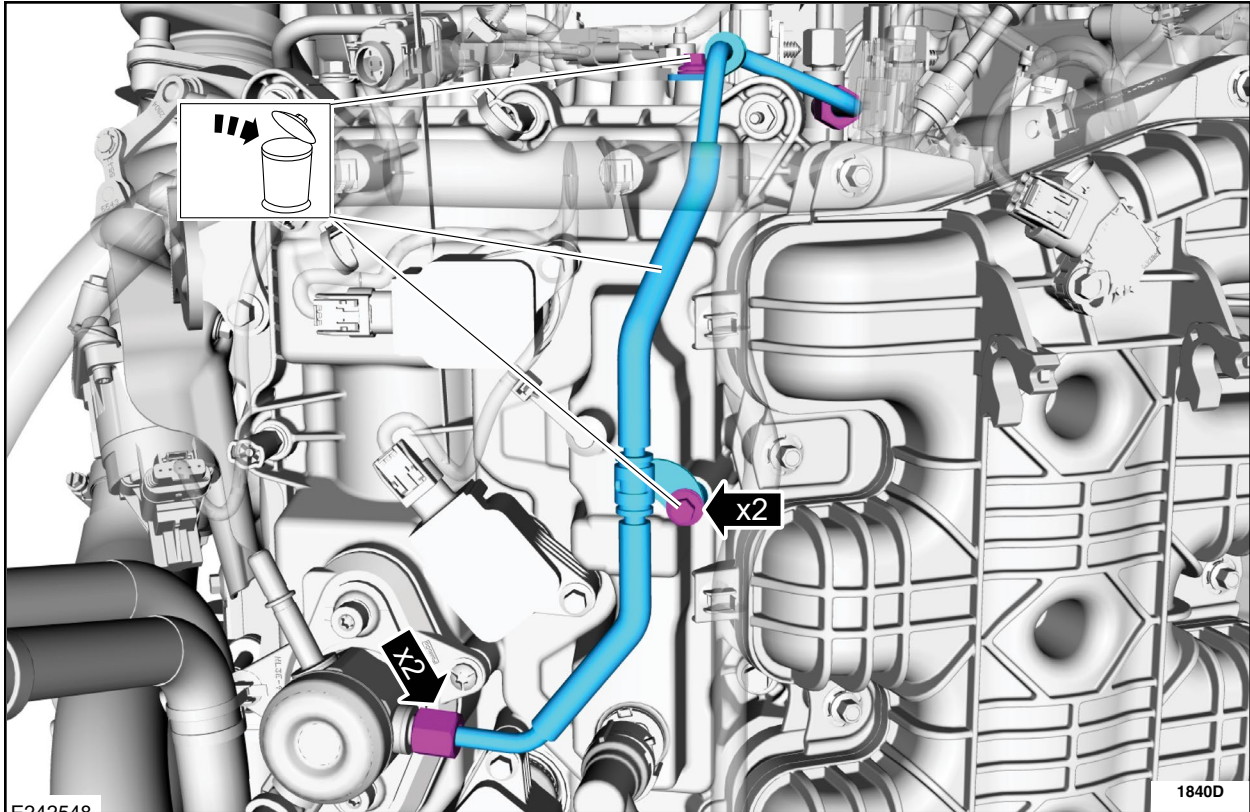


FIGURE 4



8. Detach the hose retainer. See Figure 5.

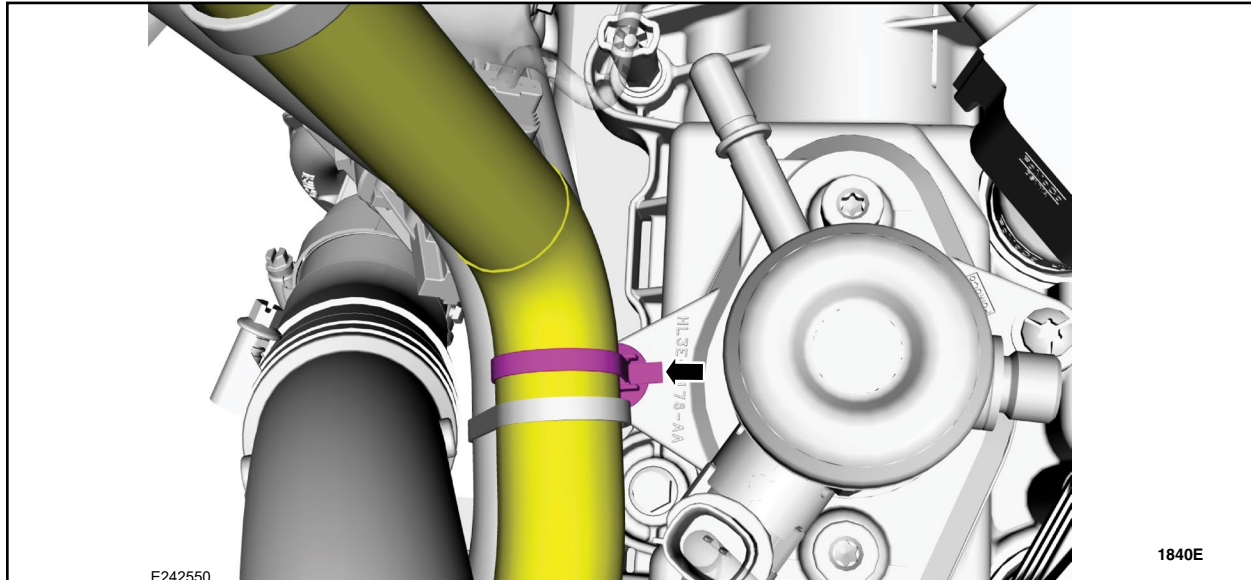


FIGURE 5

9. Remove and discard the high-pressure fuel pump bolts. Remove the high-pressure fuel pump. See Figure 6.

NOTE: Alternately loosen the high-pressure fuel pump bolts one complete revolution at a time.

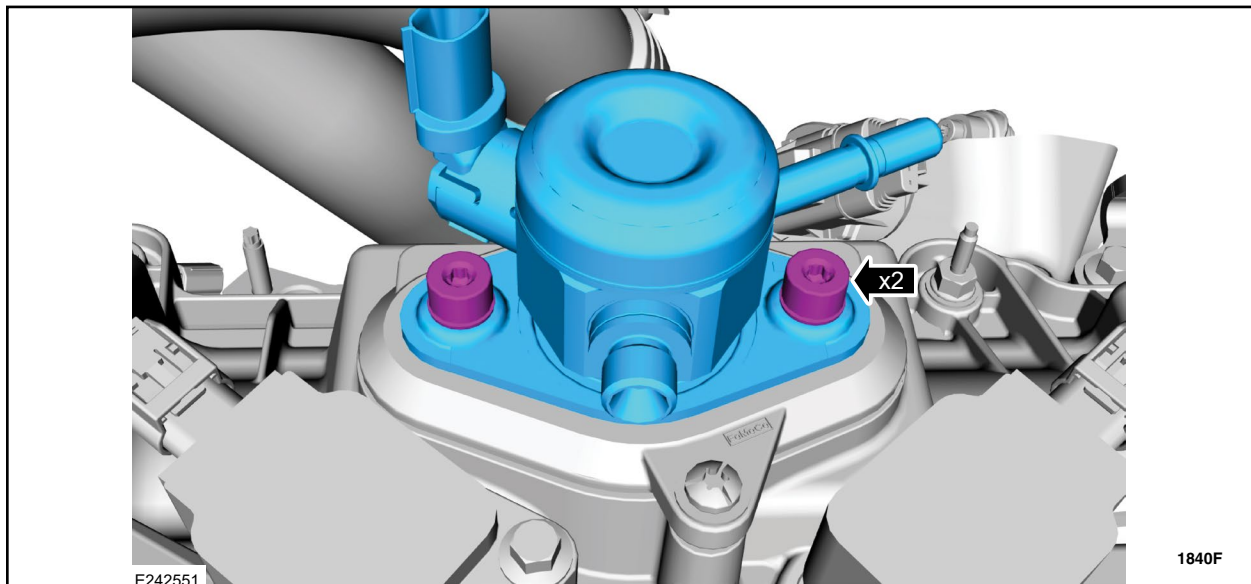


FIGURE 6



Installation

NOTICE: The drive lobe for the high-pressure fuel pump must be at BDC (bottom dead center) for the high-pressure fuel pump installation.

10. Remove the high-pressure fuel pump roller tappet and verify the drive lobe is at BDC (bottom dead center). See Figure 7.

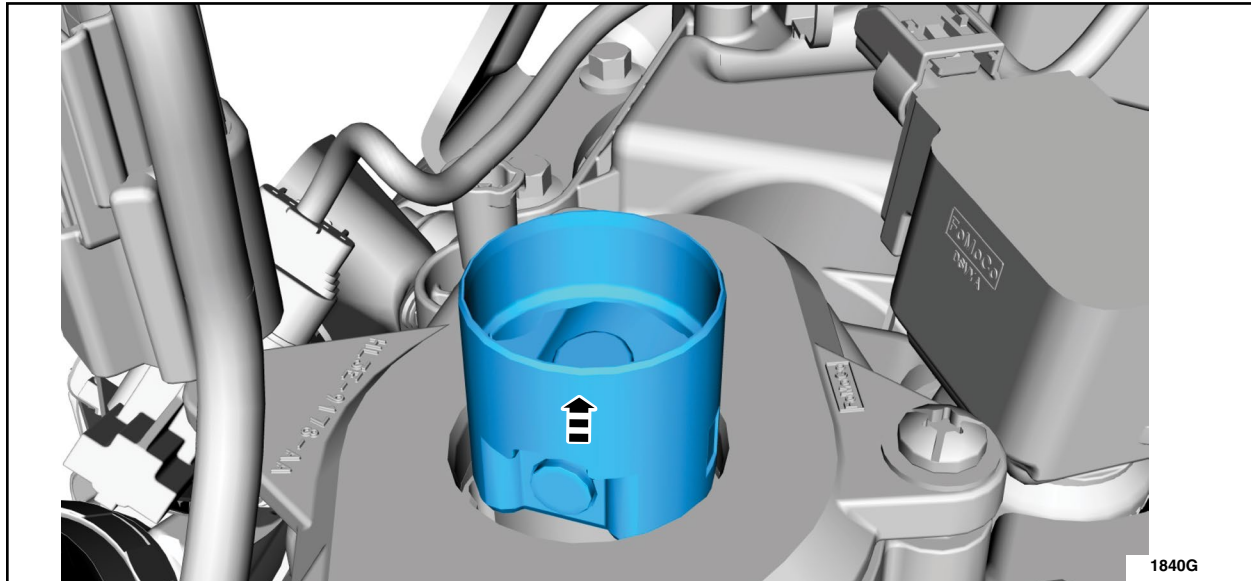


FIGURE 7

11. Install the high-pressure fuel pump roller tappet. See Figure 8.

NOTE: Apply clean engine oil to the roller tappet.

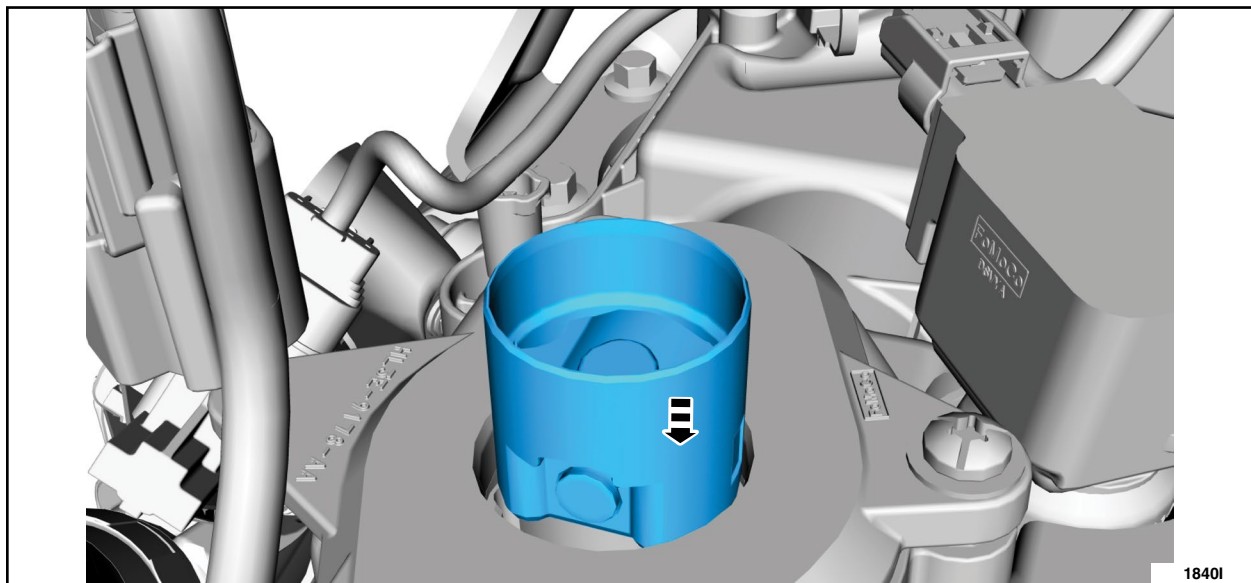


FIGURE 8



12. Install the new high-pressure fuel pump to the mounting plate. See Figure 9.

NOTE: Lubricate the O-ring with clean engine oil.

- Finger tighten the high-pressure fuel pump bolts.
- Alternately tighten each bolt one complete revolution until seated.
- Torque stage 1: 89 lb.in (10 Nm).
- Torque stage 2: 45 degrees.

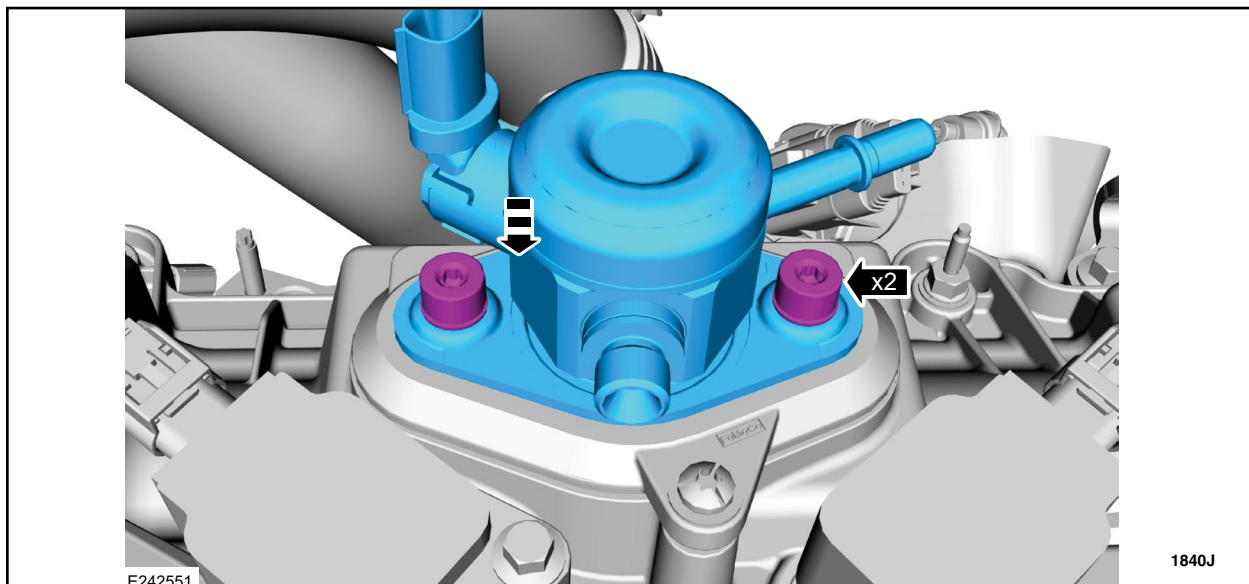


FIGURE 9

13. Attach the hose retainer. See Figure 5.



14. Install the new high-pressure fuel tube flare nuts to the high-pressure fuel pump and fuel line.
See Figure 10.

- Torque stage 1: 62 lb.in (7 Nm).
- Torque stage 2: 89 lb.in (10 Nm).
- Torque stage 3: 30 degrees.

15. Install the new high-pressure fuel tube retaining bolts. See Figure 10.

- Torque stage 1: 89 lb.in (10 Nm).
- Torque stage 2: 45 degrees.

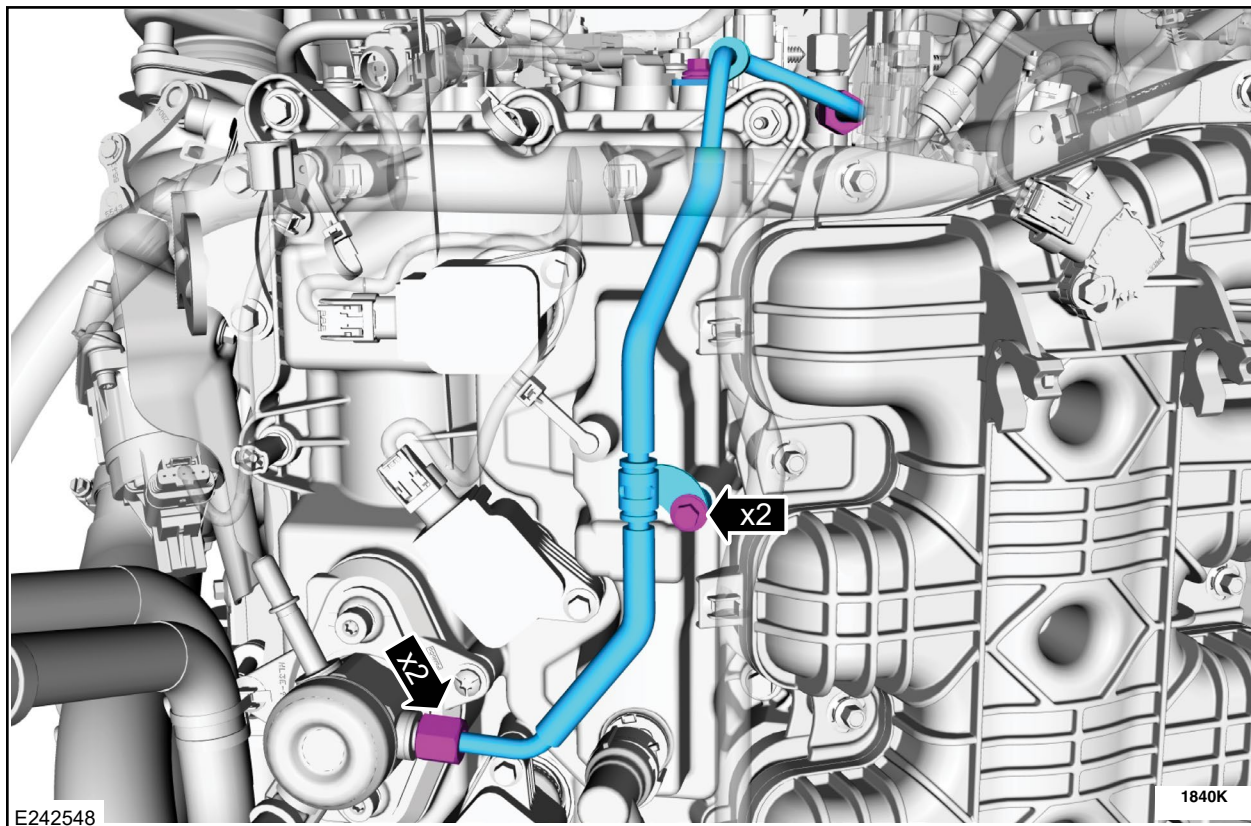


FIGURE 10



16. Connect the high-pressure fuel pump supply line and then connect the spring lock coupling.
See Figure 11.

17. Install the secondary latch. See Figure 11.

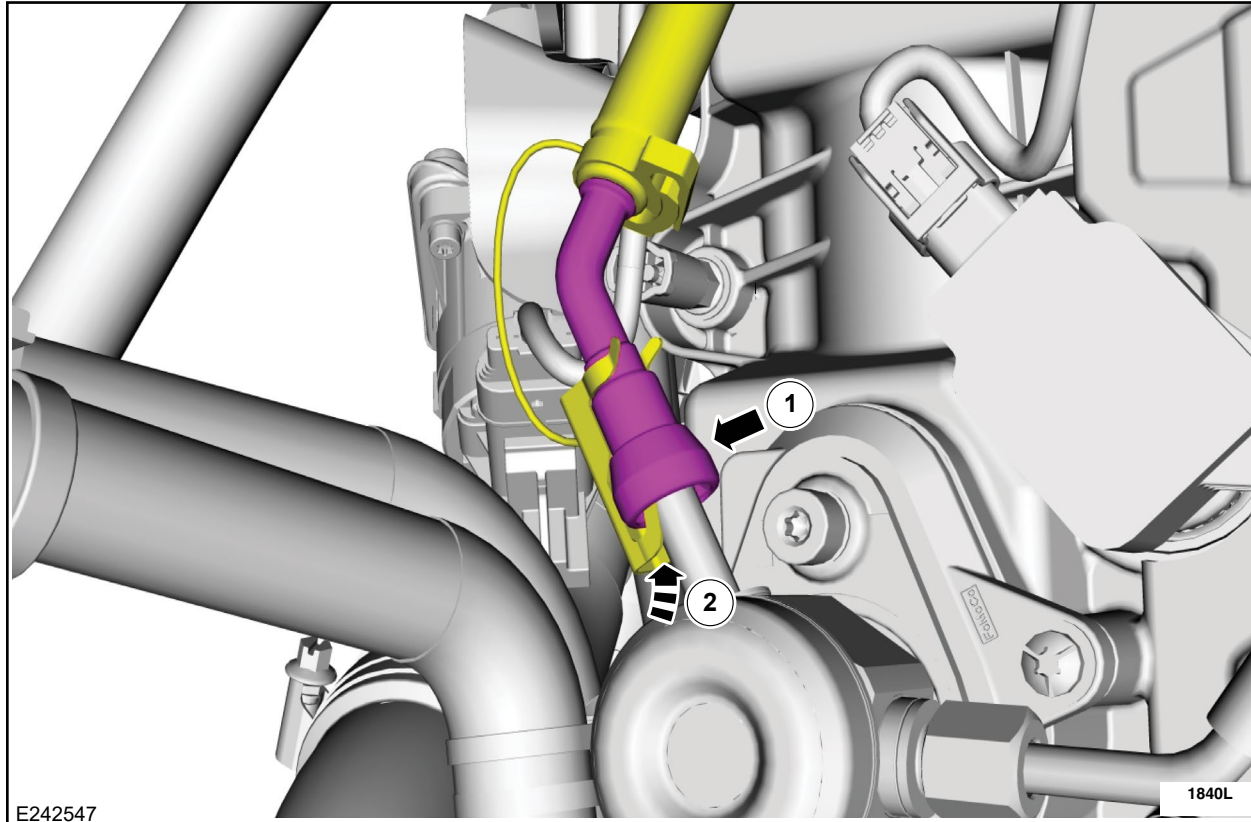


FIGURE 11

18. Connect the high-pressure fuel pump electrical connector. See Figure 2.

19. Connect the battery. Please refer to WSM procedures in Section 414-01.

20. Pressurize the fuel system. Please refer to WSM procedures in Section 310-00C.

21. Install the engine appearance cover into the rear retainers, then install and tighten the engine appearance cover retainers. See Figure 1.

- Torque to 97 lb.in (11 Nm).

