NOSTRUM
HIGH PERFORMANCE

Ford Maverick 2.0l EcoBoost High-Pressure Fuel Pump

PRODUCT PART SKU#: H086-2020-A

Warning! Please follow all warnings and instructions found in your vehicle service manual. The following instructions must be read and fully understood before beginning installation. Failure to follow these instructions may result in vehicle damage, personal injury, or death. If these instructions are not fully understood, do not attempt installation.

Please note that this product does require vehicle calibration. Please ensure provisions are made prior to installation. Nostrum Tuning Guides are available upon request. If you are already in touch with a tuner, please have them reach out to support@nostrumshop.com or access the Tuning Guide via the dealer portal on the Nostrum website. If you do not currently have a tuner, we will gladly connect you with someone within the Nostrum dealer network.

CLEANLINESS IS PARAMOUNT!

Every serialized pump is production tested for leaks and dynamic flow for quality control. These pumps left the factory with no leaks and met all production specifications for control and flow! Contamination is the #1 cause of fuel system leaks and problems. Pump contamination can come from poor fuel quality, dirt or debris introduced during installation, or dirt and debris from handling before installation. It is imperative that the engine, workspace, tools, and handling is as clean as possible during the installation process. Use fuels and ethanol from trusted sources!

Required tools:

- 5 mm Allen socket adapter
- 8 mm socket
- 10 mm socket
- 13 mm socket
- 17 mm wrench
- 17 mm crow's foot
- Flat blade screwdriver
- 5/16" Quick-Connect fuel line disconnect tool, low profile
    - **Highly Recommend Ford Rotunda tool P/N: 310-250 (includes 3/8" & 5/16" on same tool)**
- Pick tools
- Trim removal tool
- Needle nose pliers
- Hose clamp pliers
- ECU programming interface or other calibration delivery method
- Safety glasses
- Fire extinguisher (Class B minimum recommended)
- Torque wrench
- Torque-angle wrench or angle attachment

Consumables:

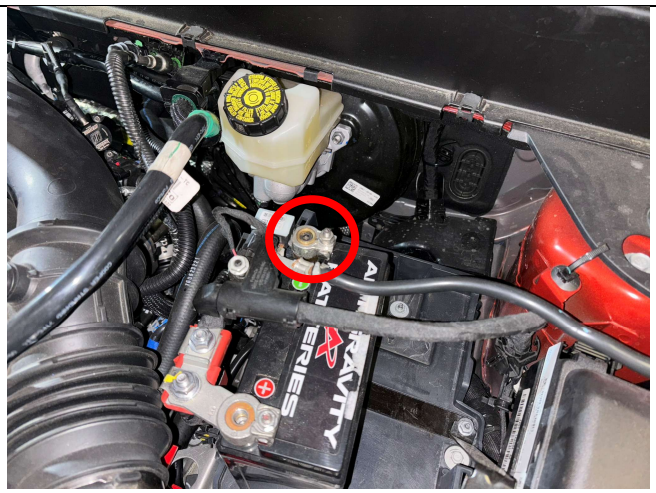
- Lint free absorbent towels
- Disposable rubber gloves

Additional recommended OEM parts (not included) you may consider for the install:

Description	Quantity	Part #
Vacuum Hose (Ford Dealer)	1	K2GZ-6758-H
EGR Gasket (Ford Dealer)	1	K2GZ-9E464-B
EGR Gasket (Ford Dealer)	1	K2GZ-9E464-C
High-pressure line (Ford Dealer)	1	K2GZ-9J323-B

PRODUCT H086-2020-A NHP Parts List:

Description	Quantity	Part #
High-Pressure Fuel Pump	1	H086-1481-2
Low-Pressure Fuel Line	1	L176-0590-2
High-Pressure Fuel Pump Flange	1	9262K201
Flange Alignment Tool	1	A140-0313-1
Bolts – Flange to Head	2	91292A142
Electrical Adapter	1	E066-0372-2
Bolts – Pump to Flange	2	91292A143

1. Using a 10 mm socket disconnect the negative battery terminal. Cover the terminal with a rag or electrical tape to prevent it from contacting the negative post and restoring power to the vehicle.	
	Figure 1
2. Disconnect the electrical connector from the vacuum tube.	
	Figure 2
3. Disconnect the vacuum hose from the top of the intake tube.	
	Figure 3

4. Disconnect the two hoses from the front of the intake tube.

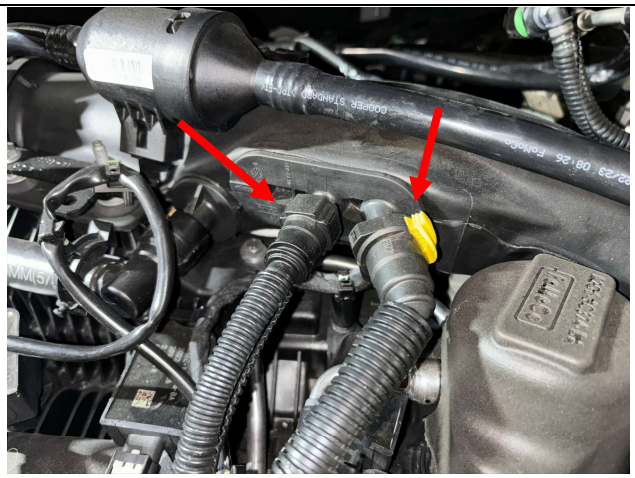


Figure 4

5. Disconnect the vacuum hose to the left of the two connectors that were disconnected in the previous step. (STEP 4)

   Ford classifies this line as one time use. It is difficult to remove and should be replaced.

   Ford P/N: K2GZ-6758-H

Figure 5

6. Use a pair of needle nose pliers or hose clamp pliers to remove the vacuum hose on the back of the intake tube.

Figure 6

7. Using a 10 mm socket remove the two nuts highlighted in red, then remove the metal bracket. After the bracket is removed, use a 13 mm socket to remove the two studs highlighted in blue that are mounting the air intake onto the valve cover.

   You will not be able to see the 13 mm hex head bolts until the metal bracket is removed.

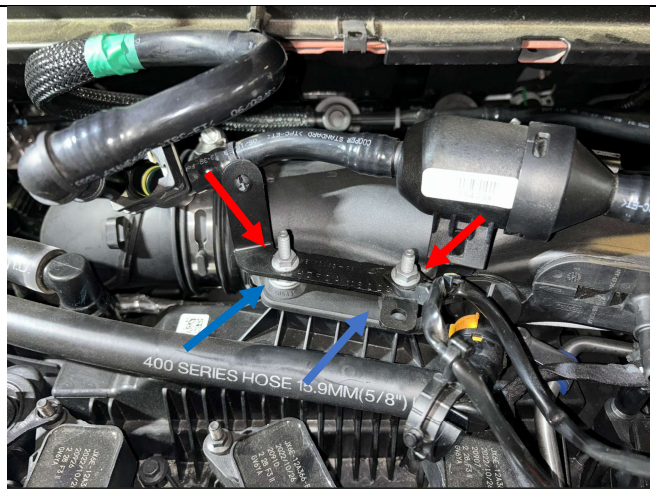


Figure 7

8. Remove the vacuum hose on top of the intake tube closest to the air box.

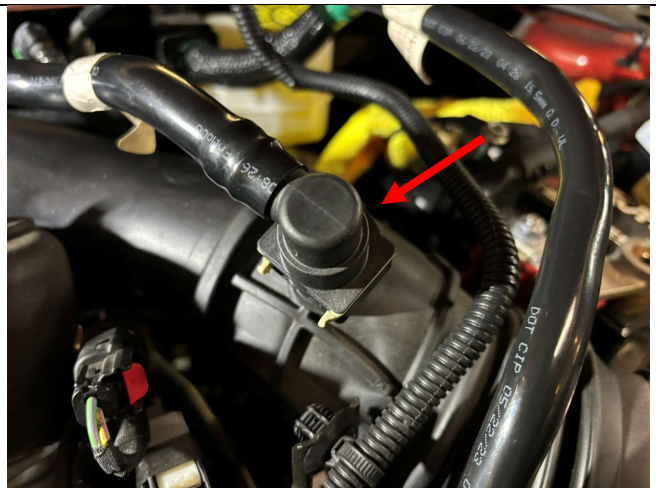


Figure 8

9. Using an 8 mm socket or flat blade screwdriver, loosen the worm gear clamp connecting the air inlet tube to the airbox.

   Torque Spec: 4.6 Nm (41 in.lb)

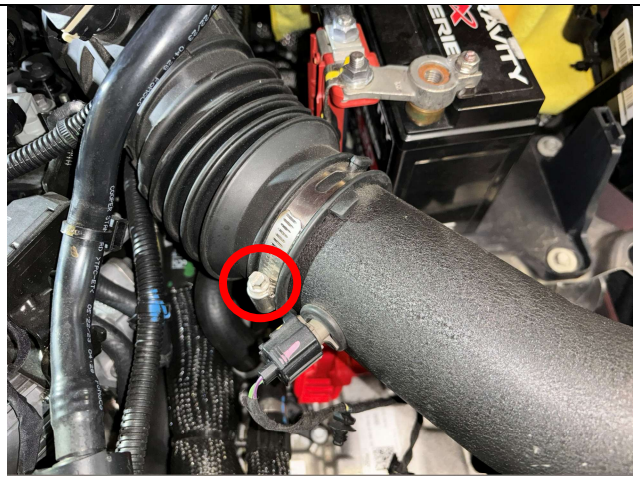


Figure 9

10. Using an 8 mm socket or flat blade screwdriver, loosen the worm gear clamp connecting the air inlet tube to the airbox. Then remove the air inlet tube.

    Torque Spec: 4.6 Nm (41 in.lb)

Figure 10

11. Disconnect the MAP sensor and the purge valve electrical connectors.

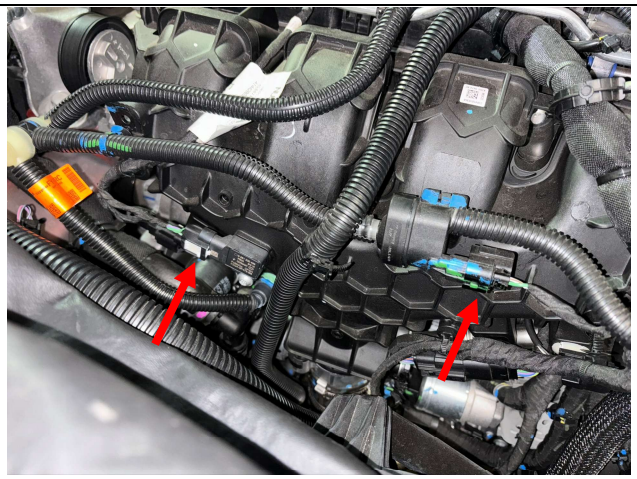


Figure 11

12. Lift the purge valve from its mounting location on the intake manifold.

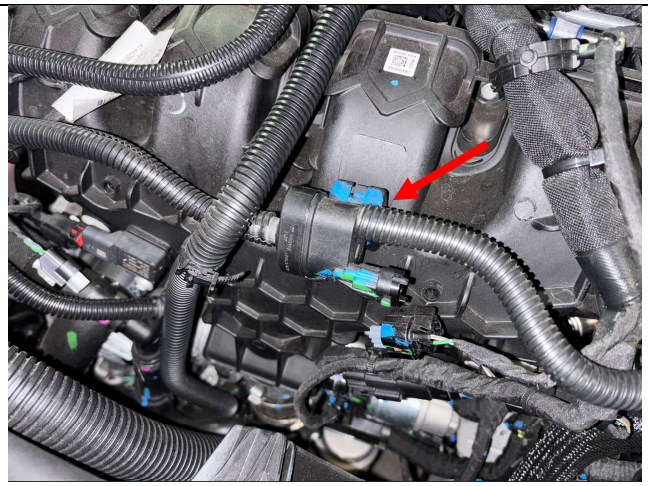


Figure 12

13. Disconnect the vacuum hose with the green locking clip from the intake manifold.

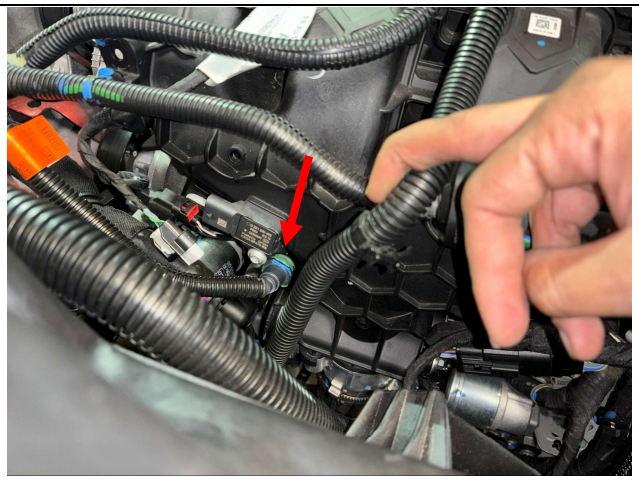


Figure 13

14. Disconnect the three retaining clips from the EVAP lines.

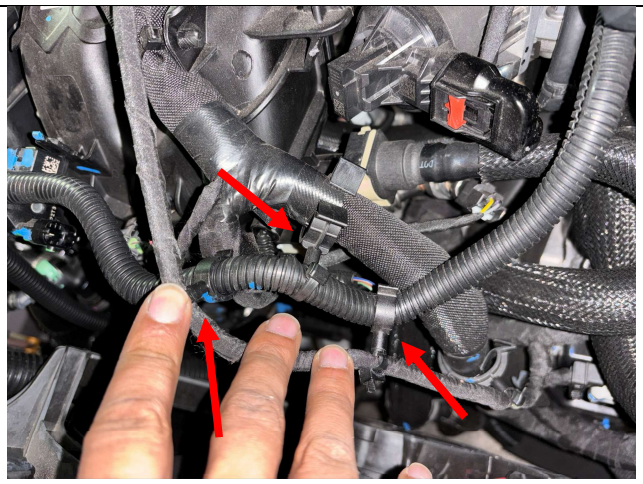


Figure 14

15. Disconnect the electrical connector with the red locking tab that's connected to the intake manifold. Then release the retaining clip mounting the female portion of the connector to the intake manifold.

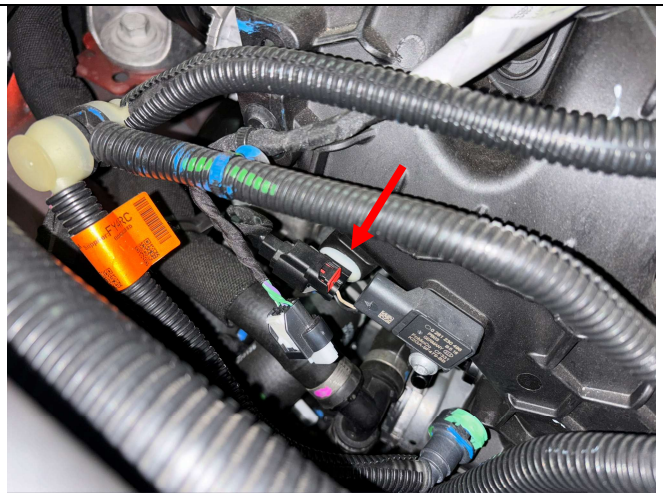


Figure 15

16. Release the four highlighted retaining clips using a trim removal tool or equivalent.

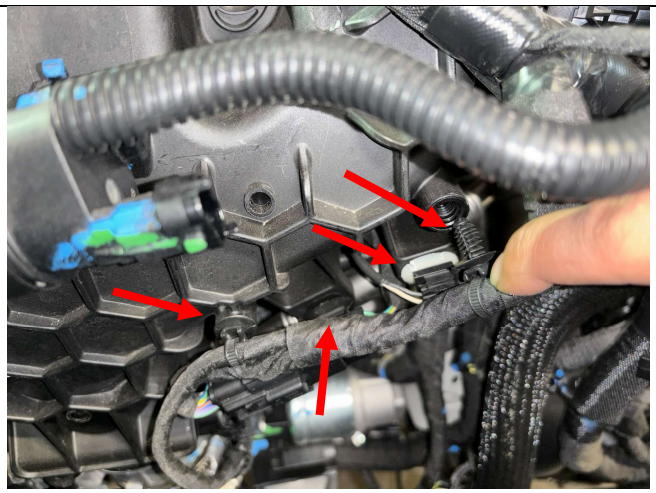


Figure 16

17. Disconnect the two electrical connectors as shown in *Figure 17*.

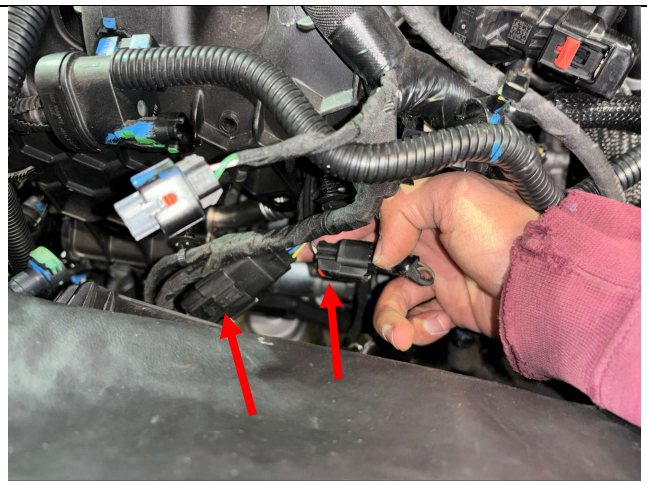


Figure 17

18. Release the three wiring harness retaining clips as shown in *Figure 18*.

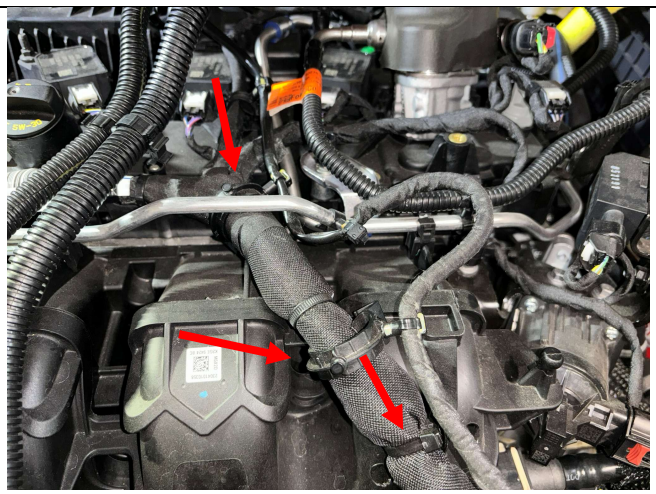


Figure 18

19. Release the four retaining clips connected to the coolant hardline.

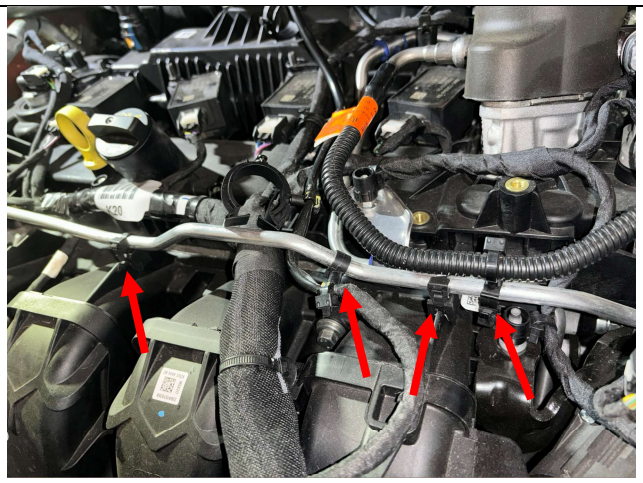


Figure 19

20. Remove the coolant hardline from its holder on the passenger side of the valve cover.

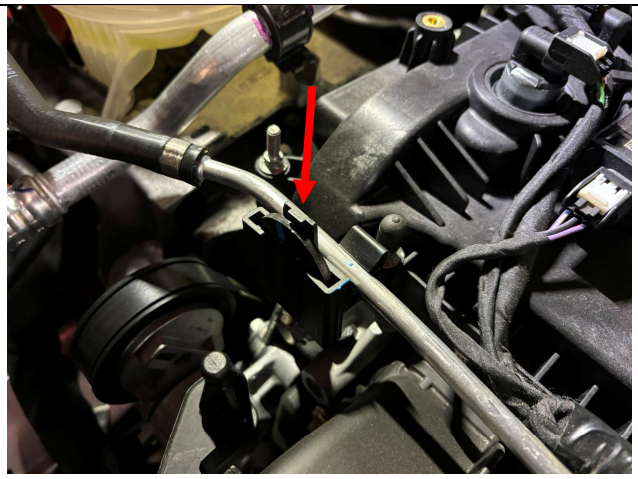


Figure 20

21. Remove the vacuum hose from the driver side of the intake manifold.

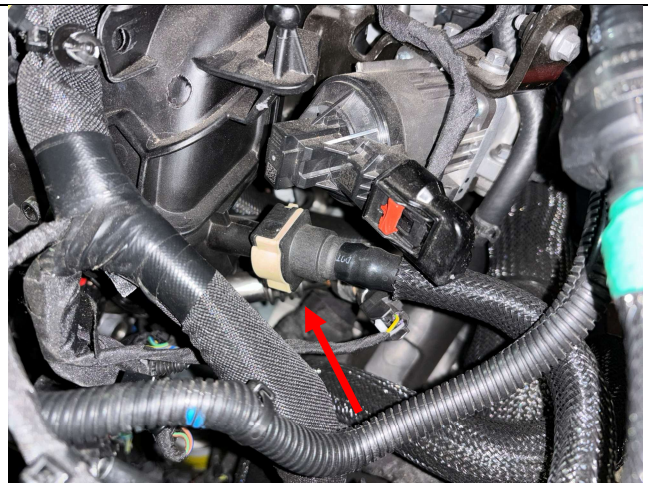


Figure 21

22. Using an 8 mm socket or flat blade screwdriver, loosen the worm gear clamp fastening the rubber coupler on the throttle body, then slide the coupler off.

    Torque Spec: 4.6 Nm (41 in.lb)

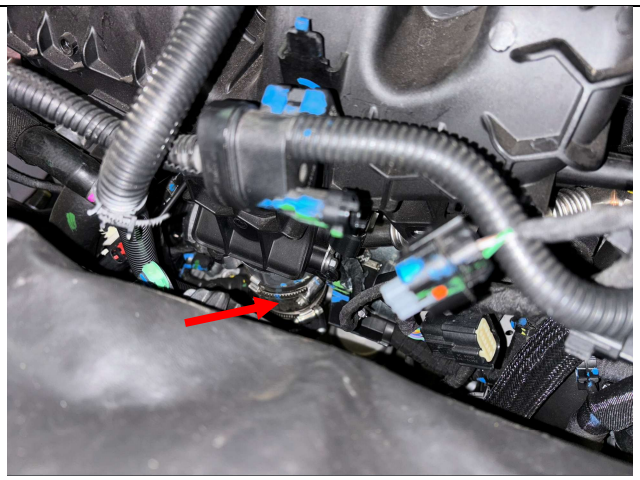


Figure 22

23. Disconnect the EGR (Exhaust Gas Recirculation) tube electrical connector.

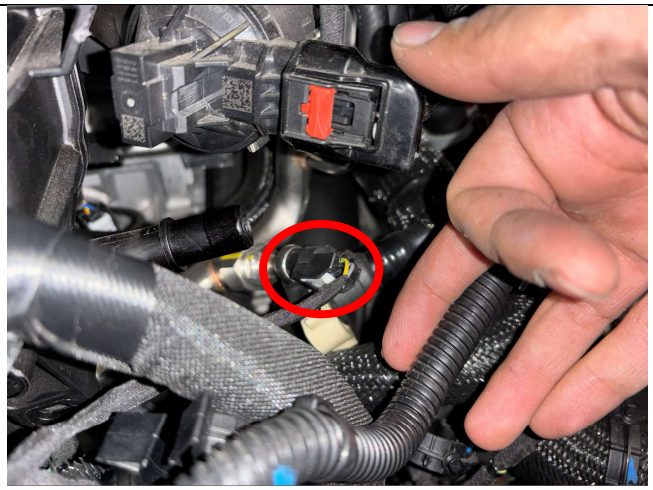


Figure 23

24. Using a trim tool release the vacuum hose from its mounting location.

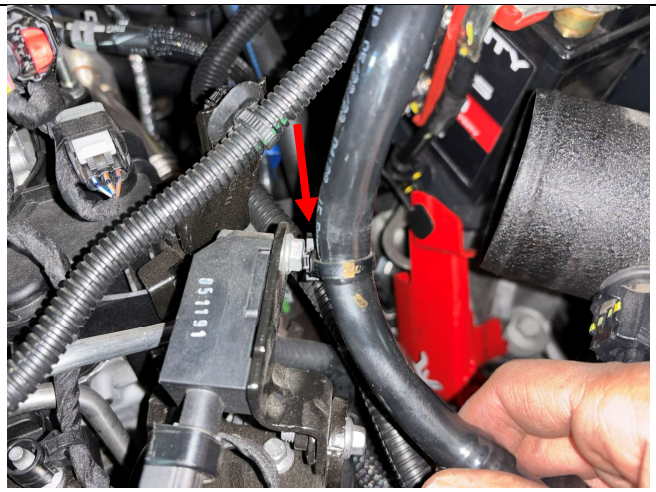


Figure 24

25. Using a pair of hose clamps or needle nose pliers, disconnect the two hoses from the EGR tube.

    The blue arrow is a reference for the following step.

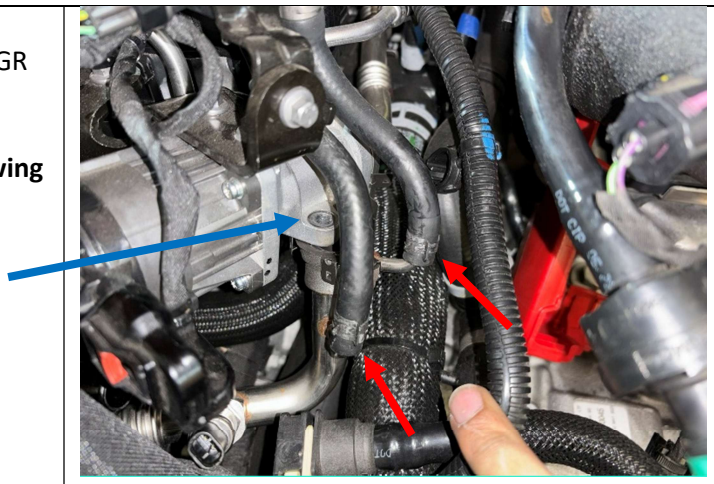


Figure 25

26. Using an 8 mm socket, remove the two EGR bolts located near the BOV (Blow Off Valve). One of the bolts cannot be seen in this photo.

    Refer to the blue arrow in the previous step (Step 25) for a better view of the second bolt location.

    Torque Spec: 11 Nm (97 in.lb)

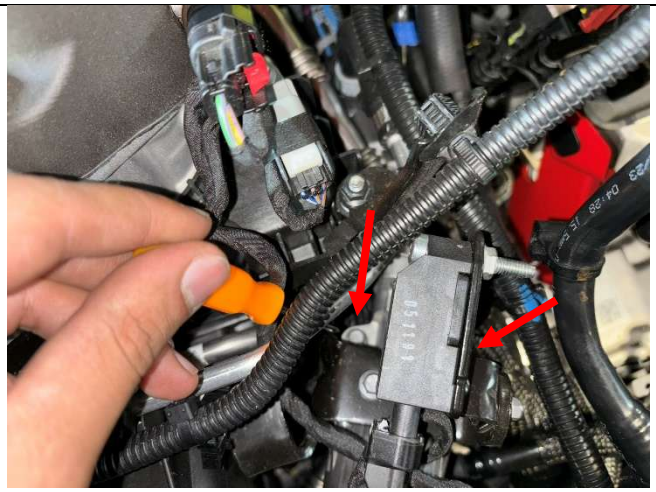


Figure 26

27. Using an 8 mm socket, remove the two EGR bolts connected to the intake manifold.

    Torque Spec: 11 Nm (97 in.lb)

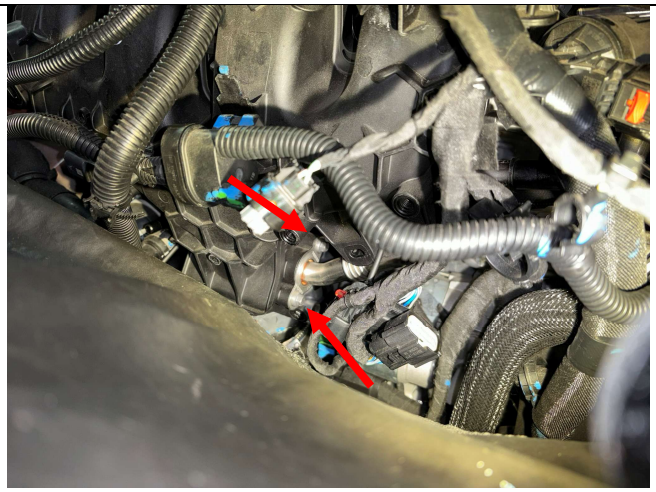


Figure 27

28. Remove the EGR tube.

Ford classifies both EGR gaskets as one time use and recommends replacing them.

Ford P/N: K2GZ-9E464-B
Ford P/N: K2GZ-9E464-C

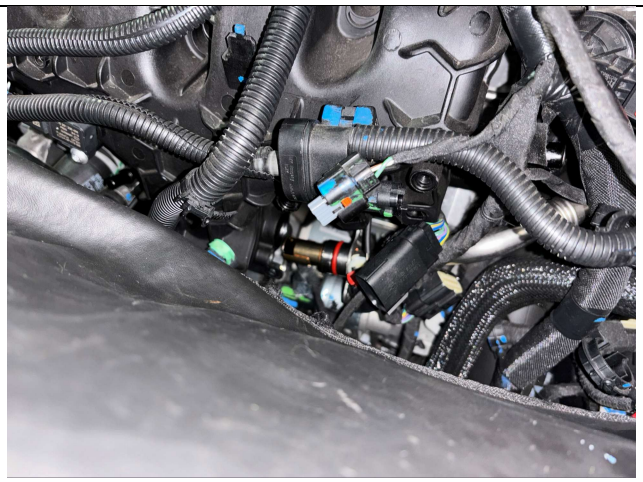


Figure 28

29. Using a trim tool or flat blade screwdriver, disconnect the wiring harness retaining clip.

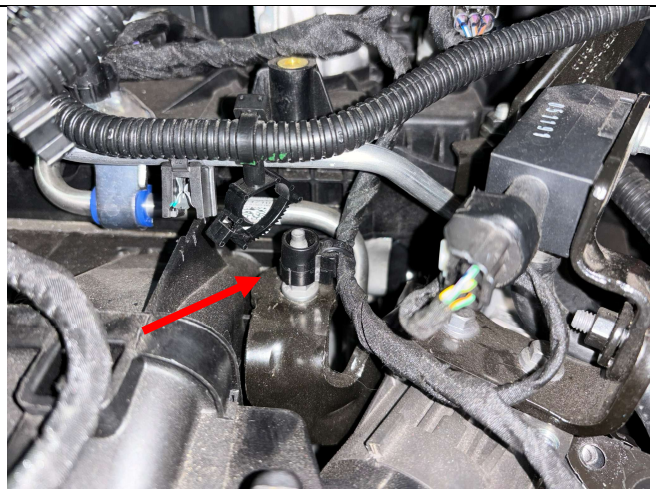


Figure 29

30. Using an 8 mm socket, remove the stud mounting the metal bracket to the intake manifold.

Torque Spec: 11 Nm (97 in.lb)

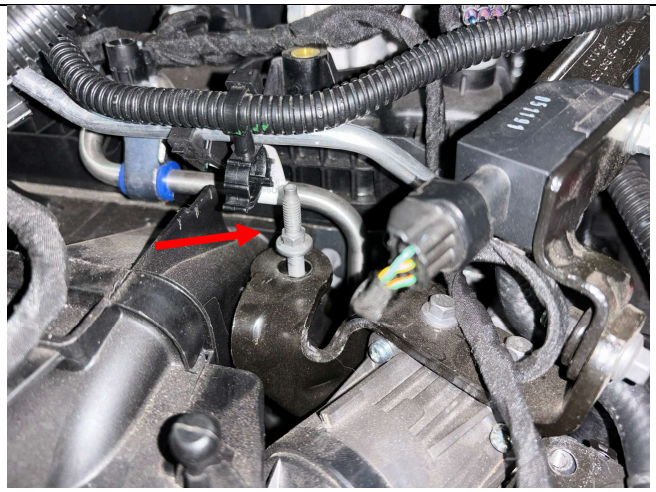


Figure 30

31. Using a 10 mm socket, remove the five intake manifold bolts, then tilt the manifold towards the front of the vehicle.

    Torque Spec: 25 Nm (18 ft.lb)

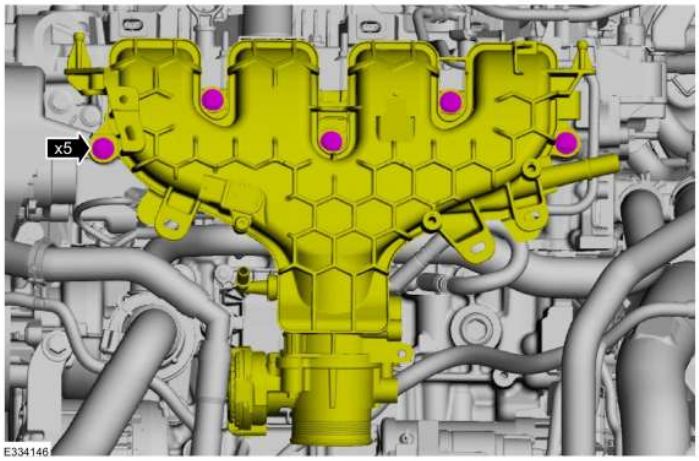


Figure 31

32. Disconnect the vacuum hose on the back of the intake manifold, then slightly lift the manifold upwards but do **NOT** remove it.

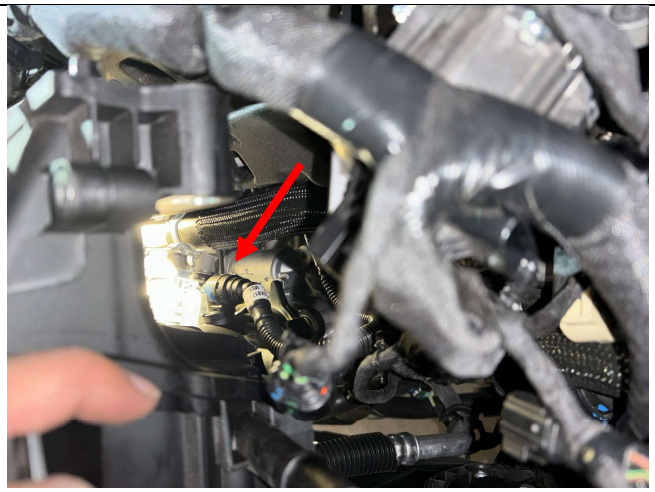


Figure 32

33. Disconnect the throttle body electrical connector, then remove the intake manifold.

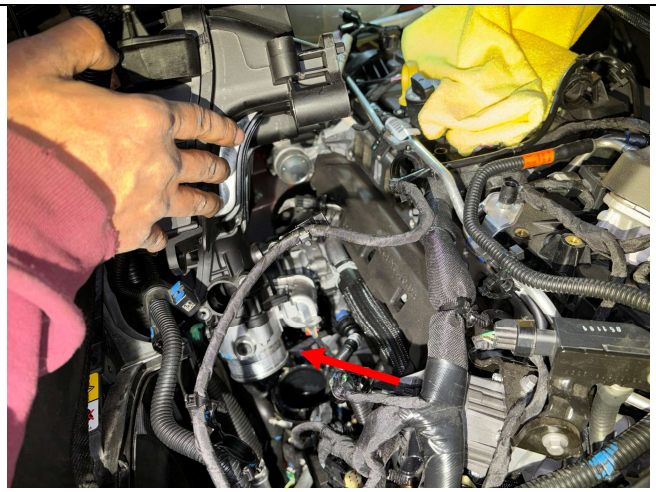
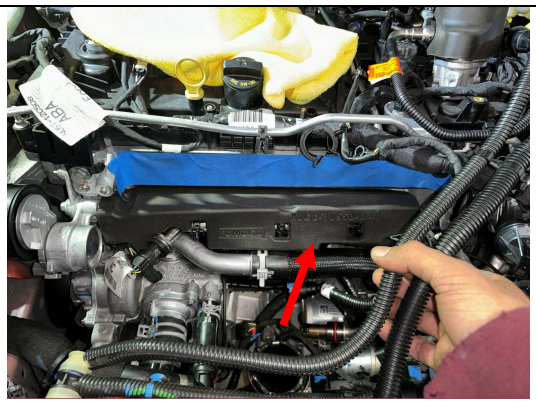
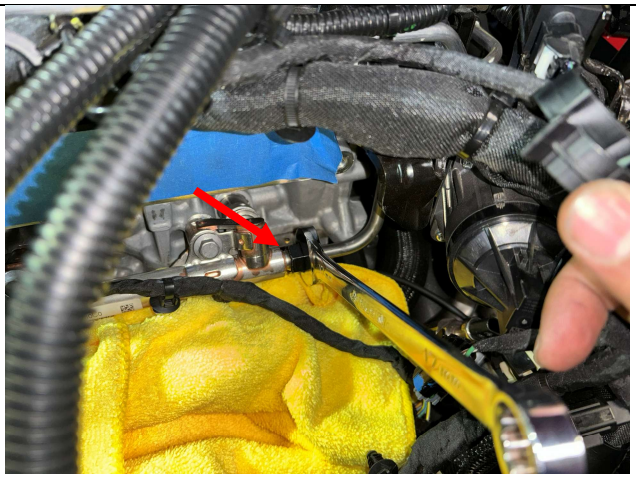
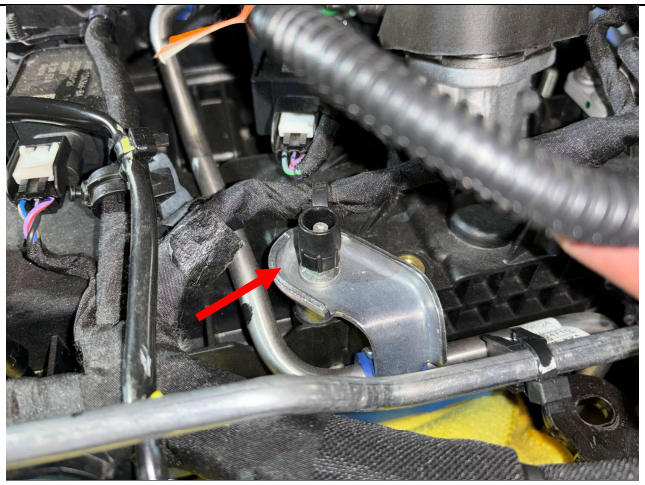


Figure 33

34. Remove the fuel rail sound damping foam.	
	Figure 34
35. Using a 17 mm wrench disconnect the high-pressure line from the fuel rail. Use a rag or absorbent towel to soak up any spilled fuel.	
	Figure 35
36. Using a trim tool or flat blade screwdriver disconnect the wiring harness retaining clip.	
	Figure 36

37. Using an 8 mm socket, remove the high-pressure line mounting stud highlighted in blue, then using a 10 mm socket, remove the high-pressure line mounting bolt highlighted in red.

    Torque Spec: 11 Nm (97 in.lb)

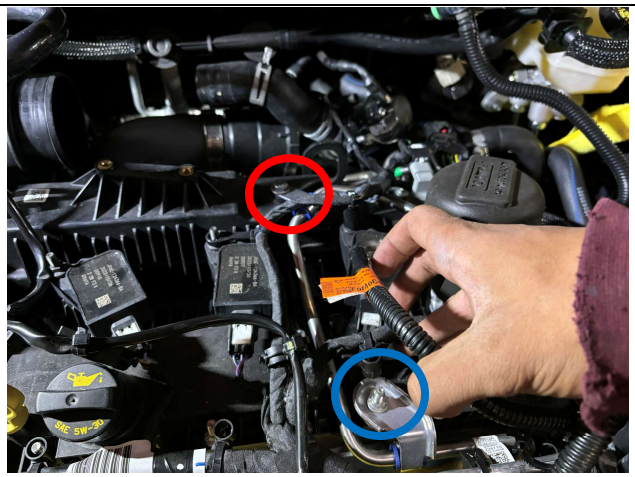


Figure 37

38. Remove the high-pressure pump sound damping foam. You will not be reusing this.

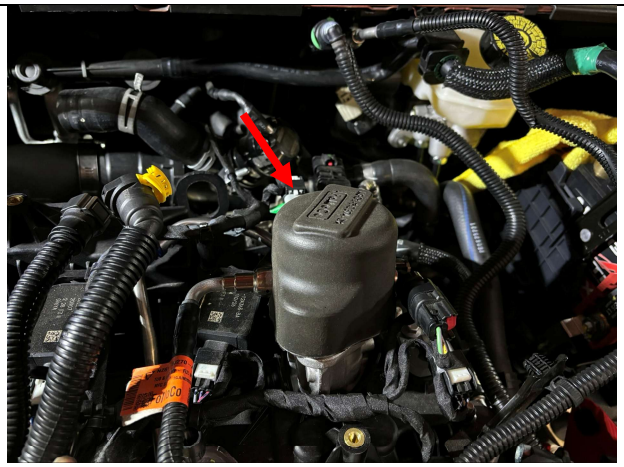


Figure 38

39. Using a 17 mm socket disconnect the high-pressure line from the high-pressure pump, then remove the high-pressure line.
    Use a rag or absorbent towel to soak up any spilled fuel.

    Ford classifies this high-pressure line as one time use and recommends replacement.

    Ford P/N: K2GZ-9J323-B

Figure 39

40. Position your new high-pressure line for installation.

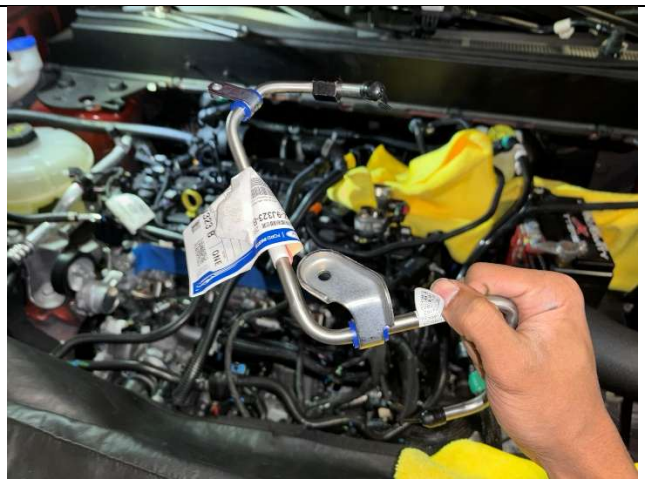


Figure 40

41. Finger-tighten the high-pressure line to the fuel rail.

Figure 41

42. Disconnect the high-pressure pump solenoid connector.

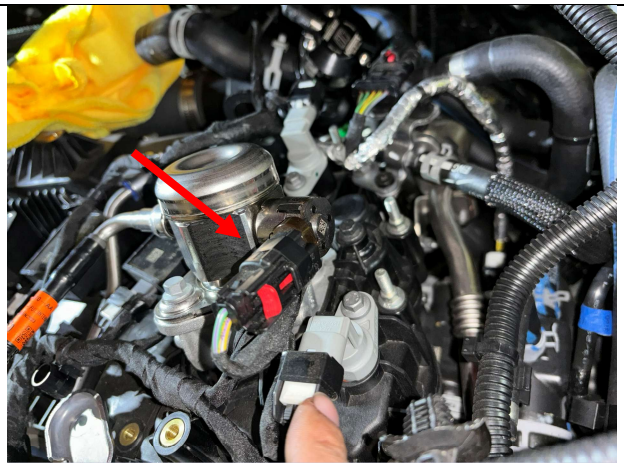


Figure 42

43. Finger tighten the high-pressure line mounting bolt and stud.

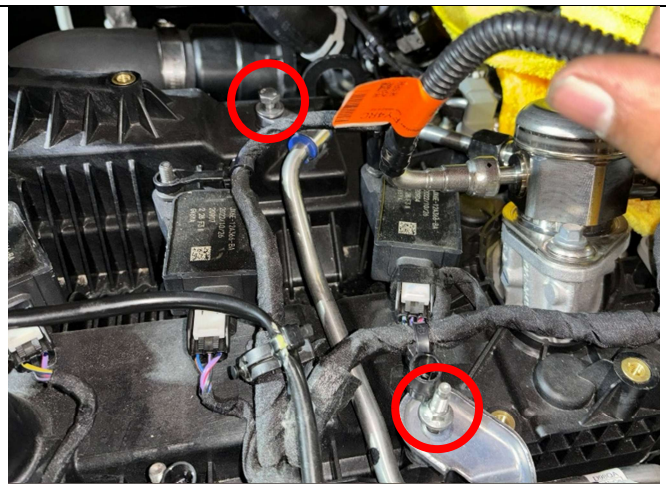


Figure 43

44. Using a 5/16th fuel line disconnect tool, remove the low-pressure fuel line from the high-pressure pump.

    A special tool from Ford is need for this step. Ford P/N: 310-250

Figure 44

45. Using an 8 mm socket, remove the bolts securing the stock high-pressure pump. Gradually loosen the bolts alternating between both bolts as you loosen so that you do not side load the factory pump piston. Then remove the pump from the engine bay.

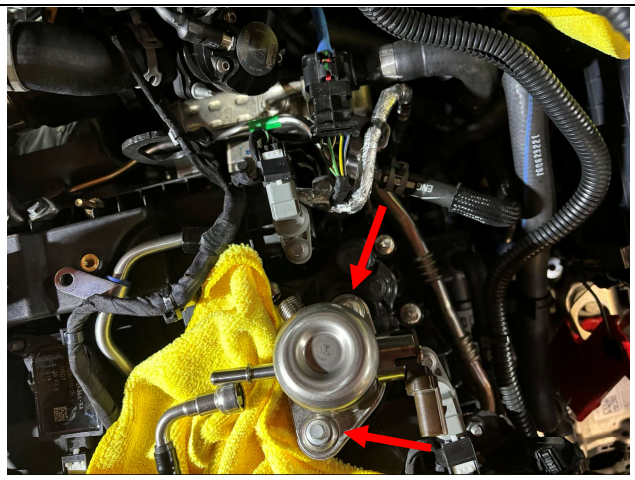
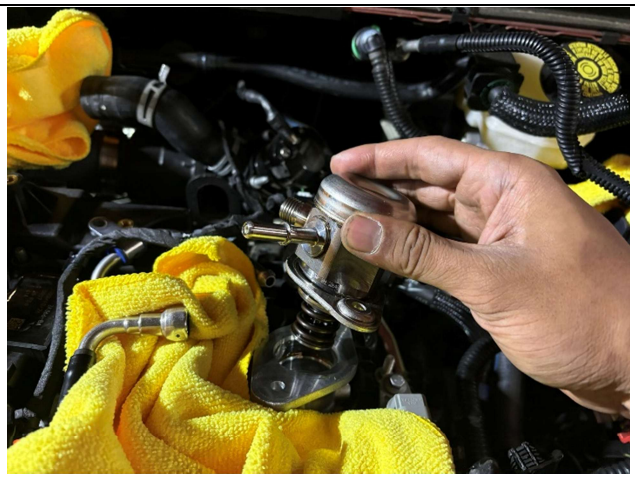


Figure 45

46. Remove the high-pressure pump.	
	Figure 46
47. Place the flange and flange alignment tool into the high-pressure pump bore.	
	Figure 47
48. Using a 5 mm allen socket, fasten the flange to the cylinder head with the provided M6x1.0-30 mm bolts then torque them to **14 Nm (10.3 ft lb.)**	
	Figure 48

49. Place your new Nostrum pump into the flange as shown.

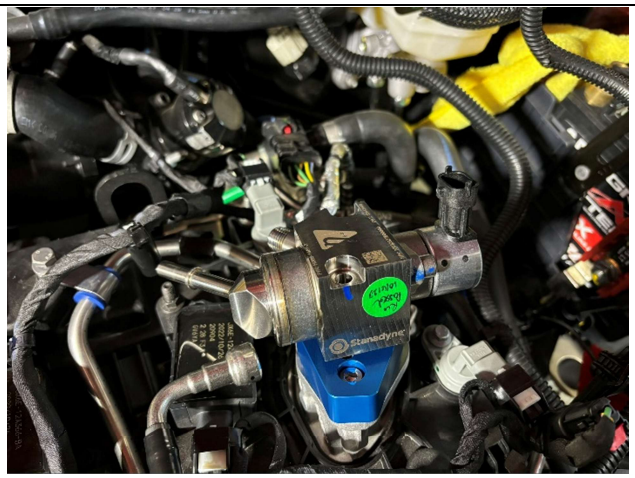


Figure 49

50. Hand thread the M6x1.0-45 mm socket head cap screw fasteners into the pump. Using a 5 mm allen socket tighten the fasteners, alternating from side to side every few revolutions so as not to put significant side load on the pump. Once fully seated, torque the fasteners to **14 Nm (10.3 ft lb.)**

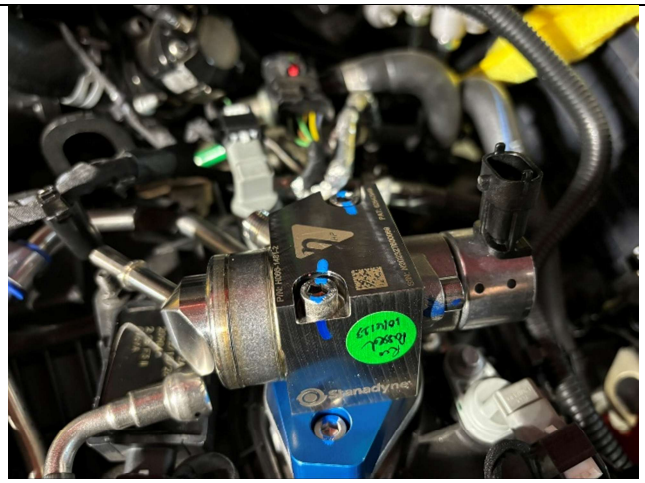


Figure 50

51. The high-pressure fuel line will need to be bent slightly upward and toward the passenger side of the firewall in order to be properly aligned. After doing so, torque the high-pressure line mounting bolt, stud and the high-pressure pump fitting.

    Torque Specs
    Pump fitting: 10 Nm (89 in.lb) + 38 degrees
    High-pressure line mounting hardware: 11 Nm (97 in.lb)

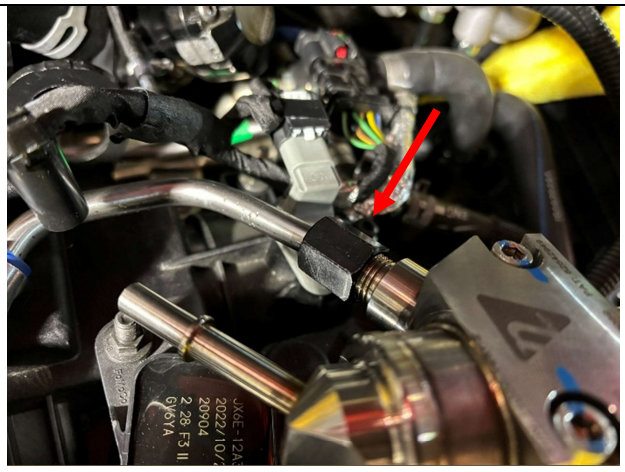


Figure 51

52. Torque the high-pressure line to the fuel rail.

    Torque Spec: 10 Nm (89 in.lb) + 38 degrees

Figure 52

53. Connect the low-pressure line to the high-pressure pump.

Figure 53

54. Connect the high-pressure pump solenoid electrical adapter to the OEM connector on the engine wire harness.

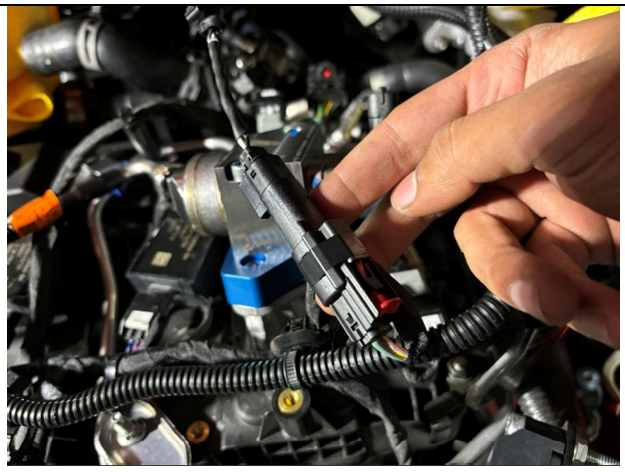


Figure 54

55. Connect the high-pressure pump electrical adapter to the high-pressure pump.

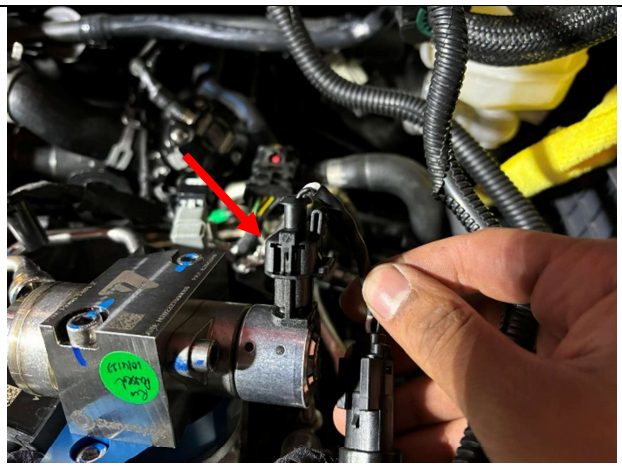


Figure 55

56. Zip tie the low-pressure line to the two points highlighted in *Figure 56* on the engine wire harness.

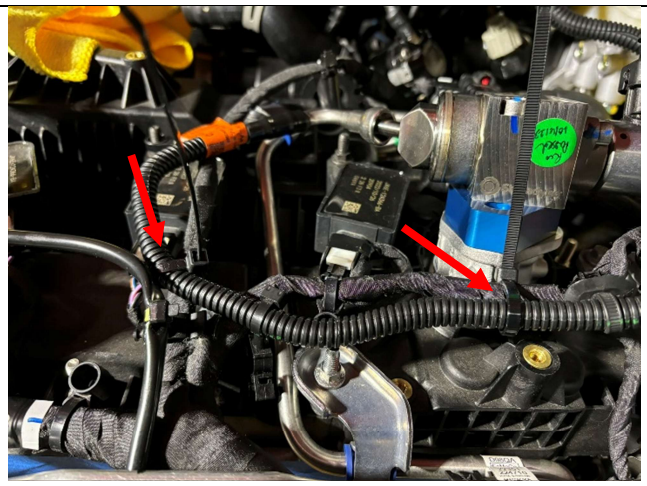


Figure 56

57. Installation complete. Reassemble the vehicle in reverse order of assembly starting from Step 34. Check for leaks after the first cranking of vehicle. Retighten any fittings if leaks are present and recheck.

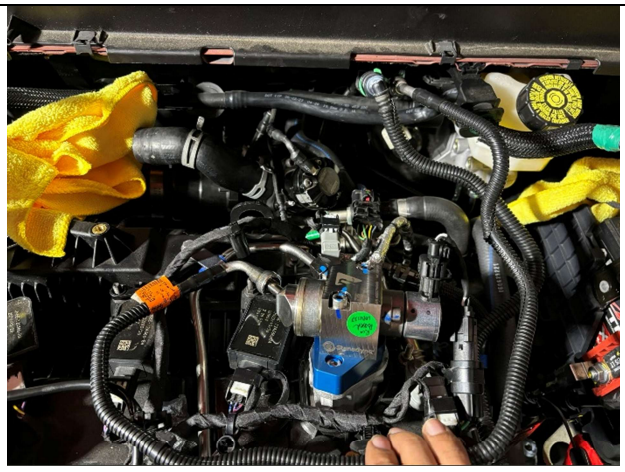


Figure 57

Hardware installation is complete.

Calibration

Do not start your vehicle, this product requires calibration. Please contact your tuner or refer to the Nostrum Tuning Guide to make the necessary changes prior to starting the vehicle. Once calibration is complete, please proceed to the next step.

First Start-Up

1. Be sure to remove all installation tools and loose items from the engine compartment. Follow good, safe practices when working on your vehicle. Be sure to reassemble all parts and components according to your OE service manual.

2. Key cycle the vehicle into the "Accessory On" position (do not go to the Start position). The low-pressure fuel pump will activate and the fuel system will pressurize. Check the high-pressure fuel pump and the low-pressure system for leaks. If no leaks are found, proceed to Step 3.

3. Cycle the key to the Start position and let the vehicle attempt several start cycles. Remember that the fuel lines, pump, and part of the fuel rail are filled with air, therefore this step is necessary to evacuate that air and get the system charged. If it starts, continue with the following steps. If it does not, key off the vehicle. Check the high-pressure lines to the fuel rail, to the pump and the pump itself for leaks. If no leaks are found, proceed to step 4.

4. Key cycle one more time to Start. Engine should start-up and idle. If so, continue with the following steps. If not, repeat Steps 2-4 again.

5. Let the car idle for a few minutes. Check for leaks in the low and high-pressure systems again.

6. Installation is complete!

NOTE: a fault code may appear at the first key cycle due to the extended cranking time or the low-pressure in the fuel rail, both due to the air in the fuel system.
This code should self-clear after the OEM defined quantity of key cycles.

NOTE: Please check for fuel leaks after driving the vehicle and letting it cool for an extended period of time. Fittings may loosen after the first heat cycle due to thermal expansion and contraction. Retighten fittings if needed.

For additional technical & software support please contact:

Email: support@nostrumshop.com
Phone: 734-548-8677 (during normal business hours)

Revision	Notes	Date
Rev1.1	Initial Release	1/6/2025