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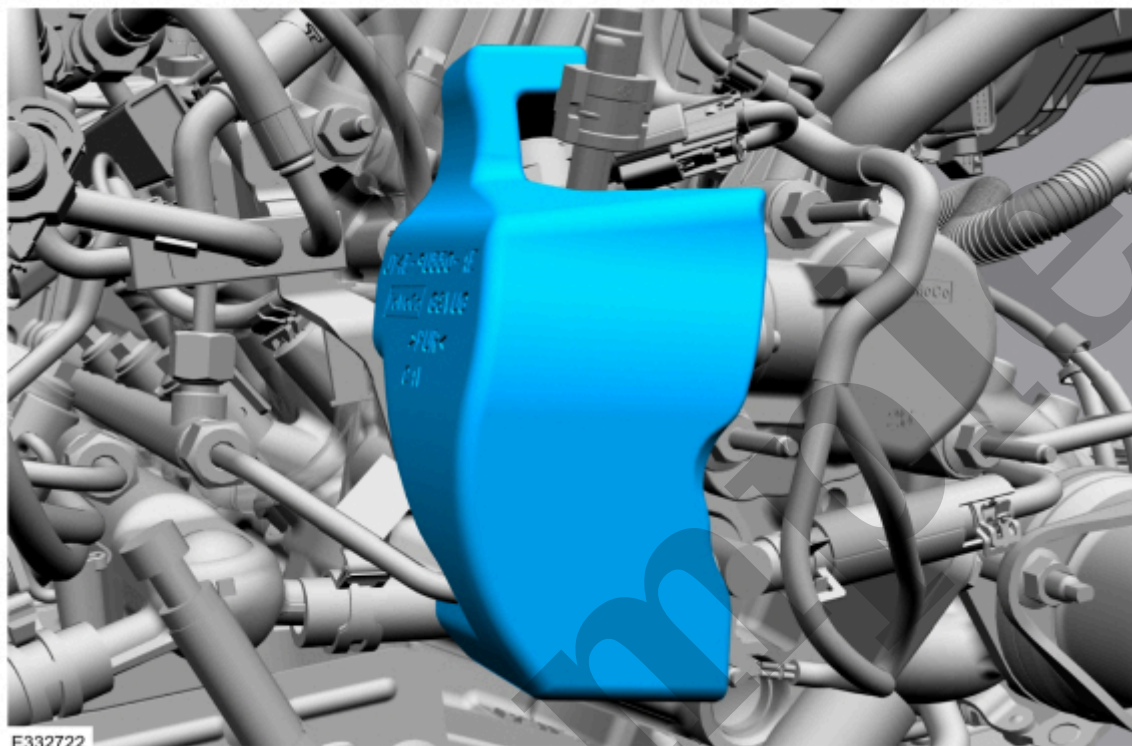
## 2022 Ford E-450 Super Duty Service and Repair Manual

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10. **NOTE**

When removing or installing the fuel injection pump noise insulator, spreading the openings will reduce the risk of damage.

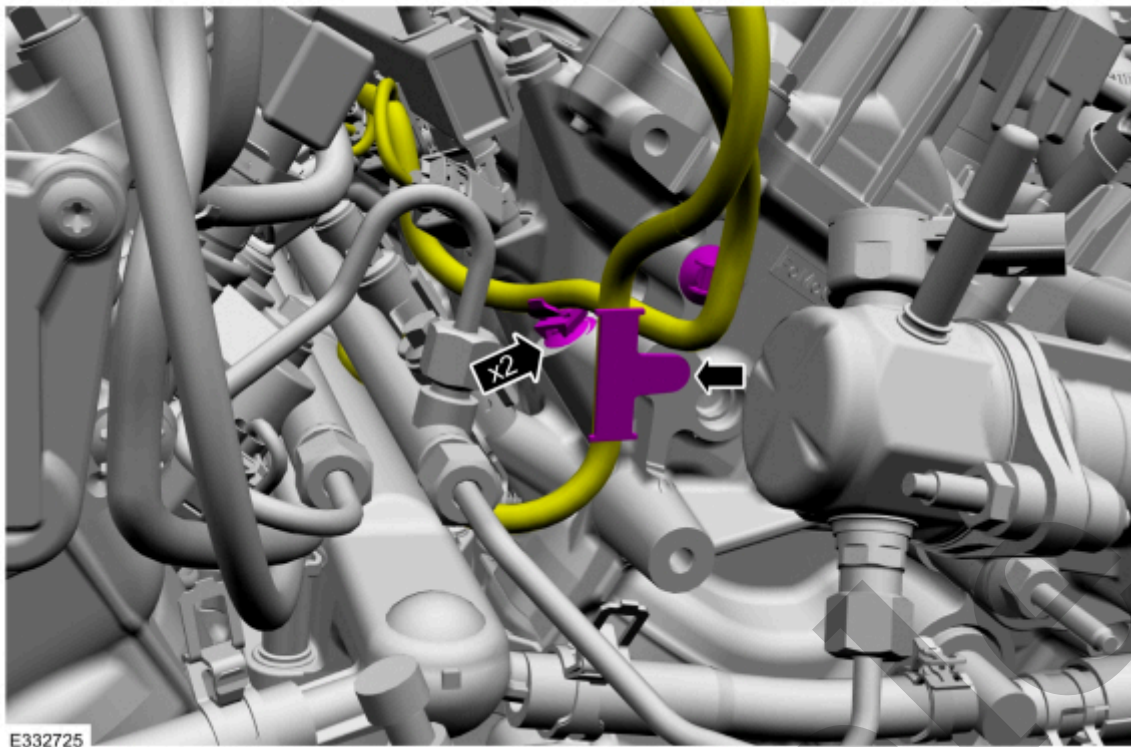
Remove the fuel injection pump noise insulator.



[Click here to learn about symbols, color coding, and icons used in this manual.](#)

11. Detach the wiring harness retainers. Disconnect the fuel supply quick connect couplings.

Refer to: [Quick Release Coupling](#)(310-00A Fuel System - General Information - 2.7L EcoBoost (238kW/324PS), General Procedures).



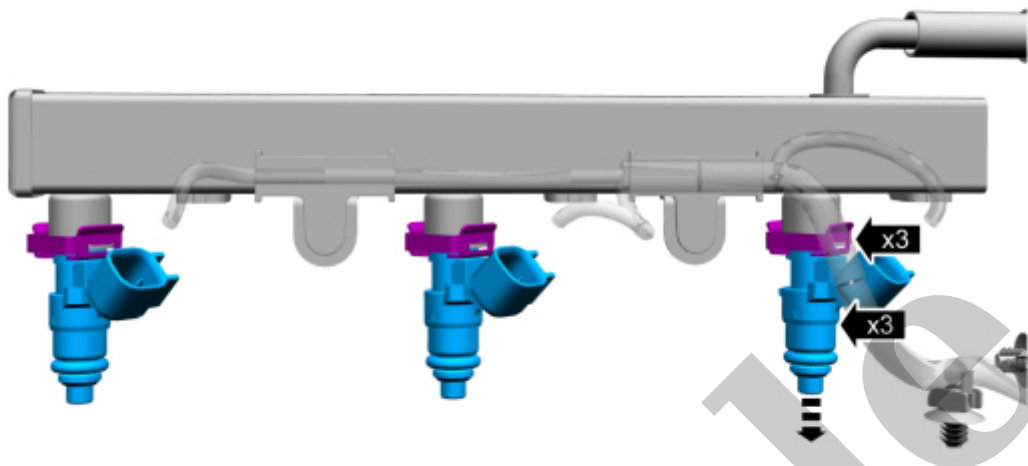
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#### 14. NOTICE

Pull out the fuel rails in the direction of the fuel injector axis or damage may occur to the fuel injectors.

1. Use compressed air to remove any dirt or foreign material from the cylinder head, block and general surrounding area of the fuel rail and the fuel injectors.
  2. Remove the fuel rail retaining bolts, then remove the fuel rail.
- Should any of the fuel injectors remain in the head, then the fuel injector electrical connectors will need to be disconnected as the fuel rail is being removed.

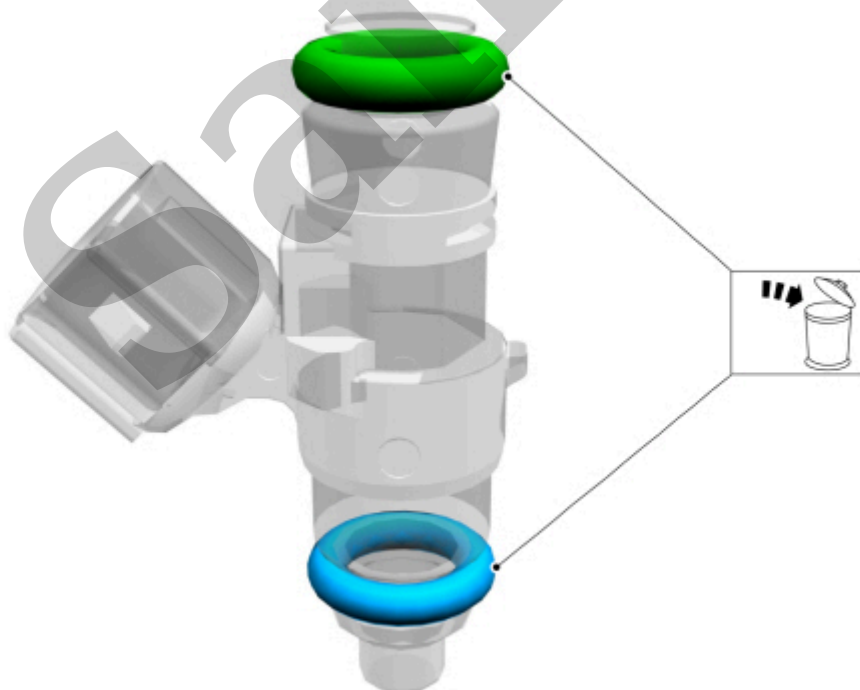
2. Remove the fuel injectors from the fuel rail.



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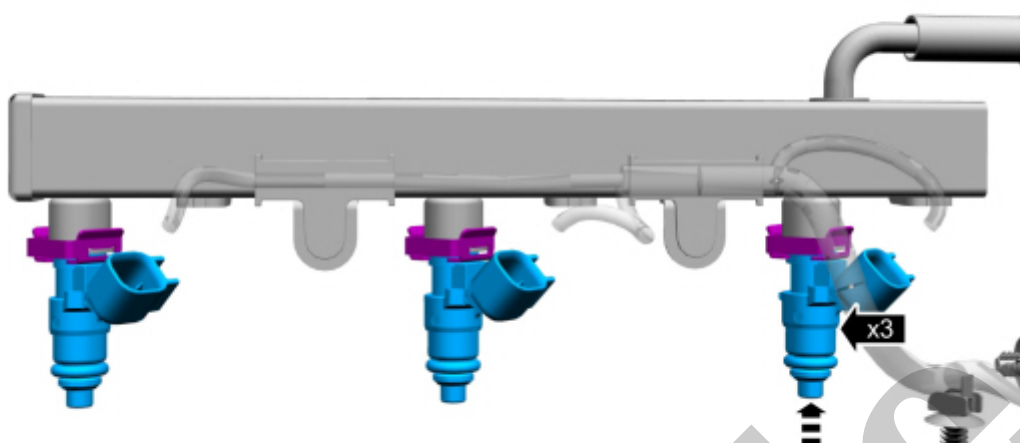
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17. Remove and discard all of the fuel injector O-ring seals.



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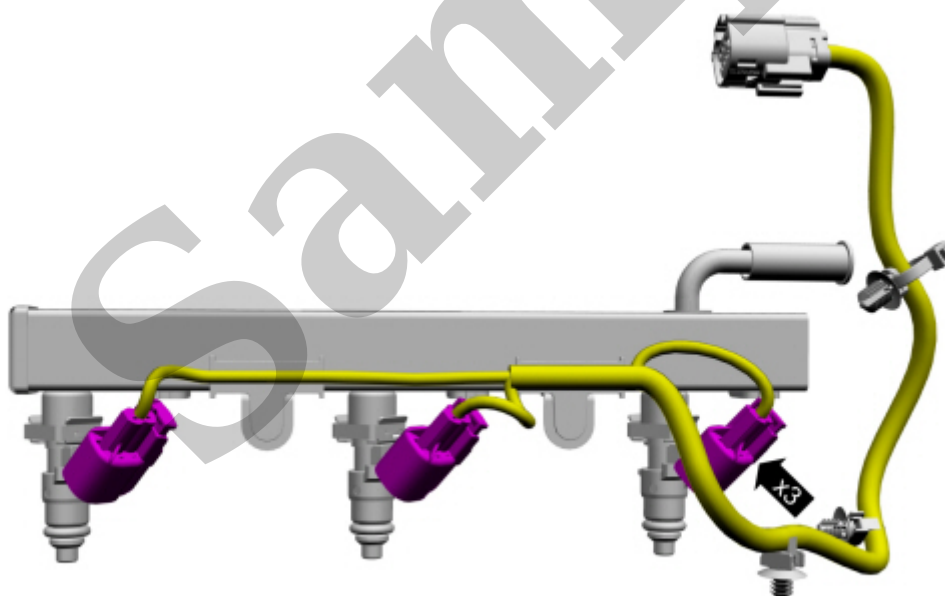
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3. Connect the fuel injector electrical connectors.

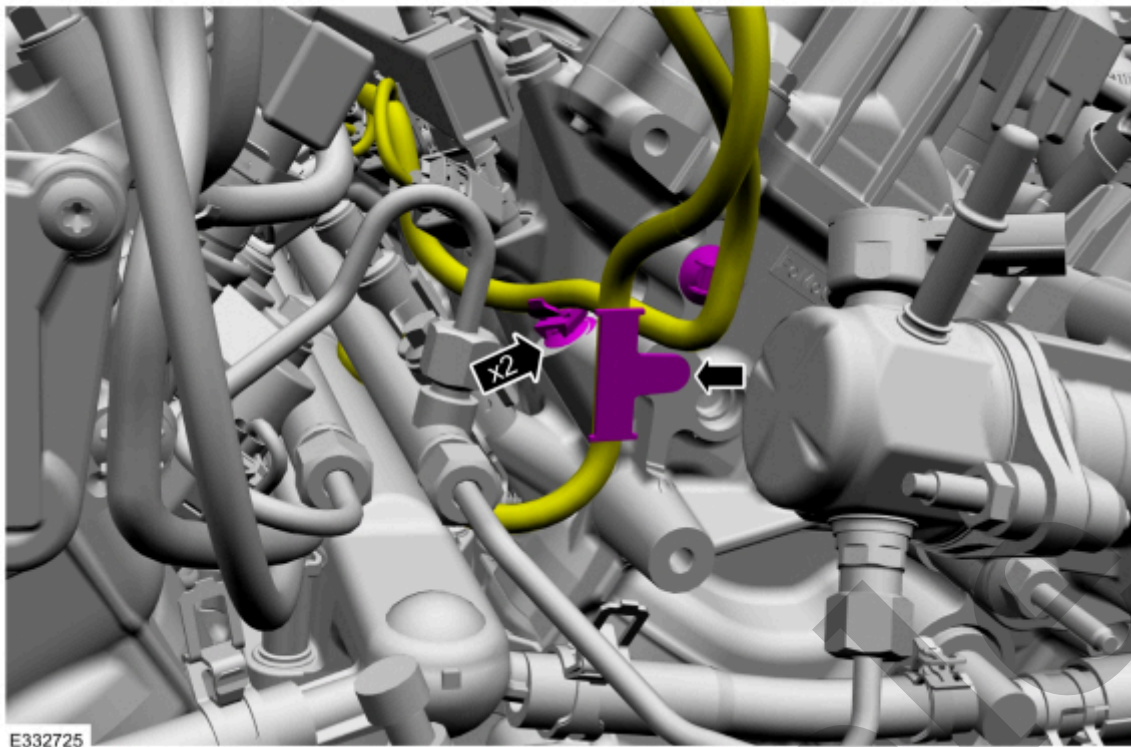


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4. **NOTICE**

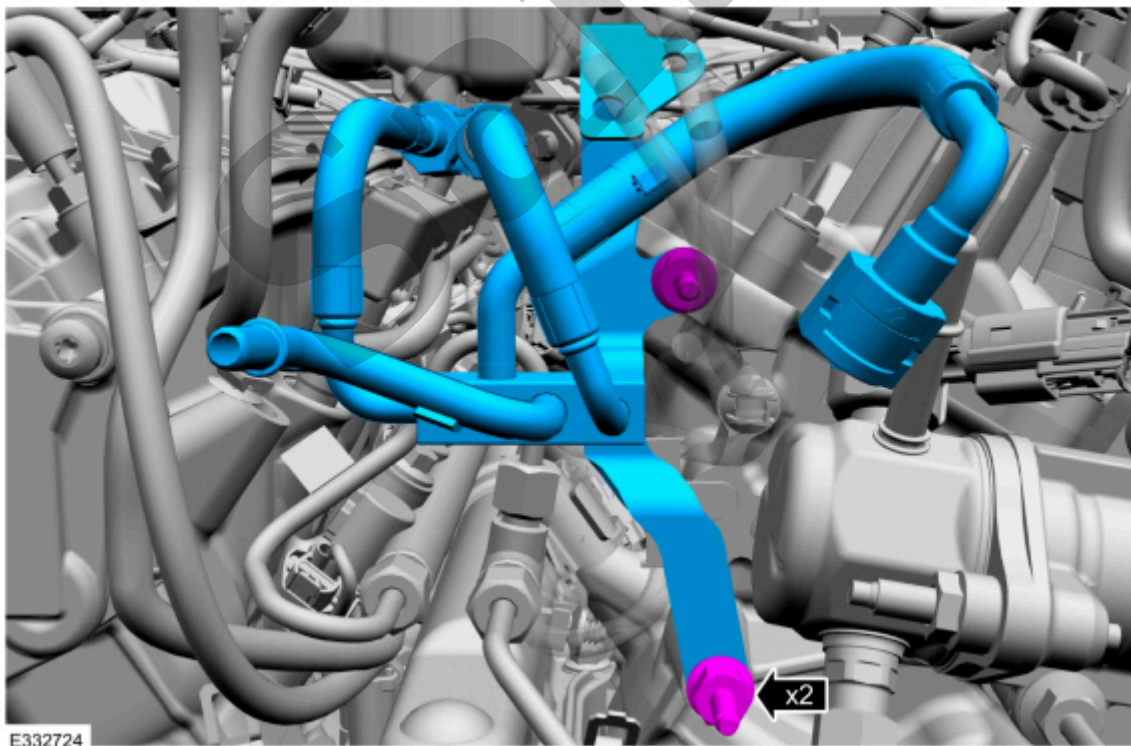




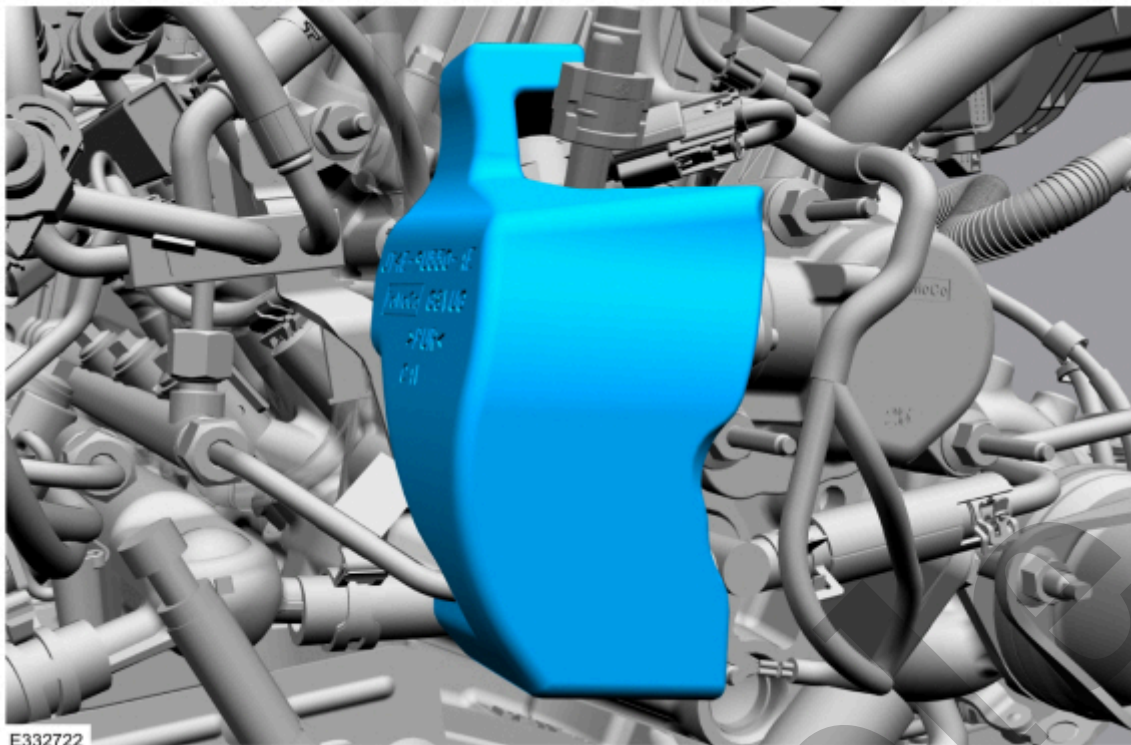
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6. Install the fuel supply manifold, then install and tighten the retainers.

**Torque** : 89 lb.in (10 Nm)



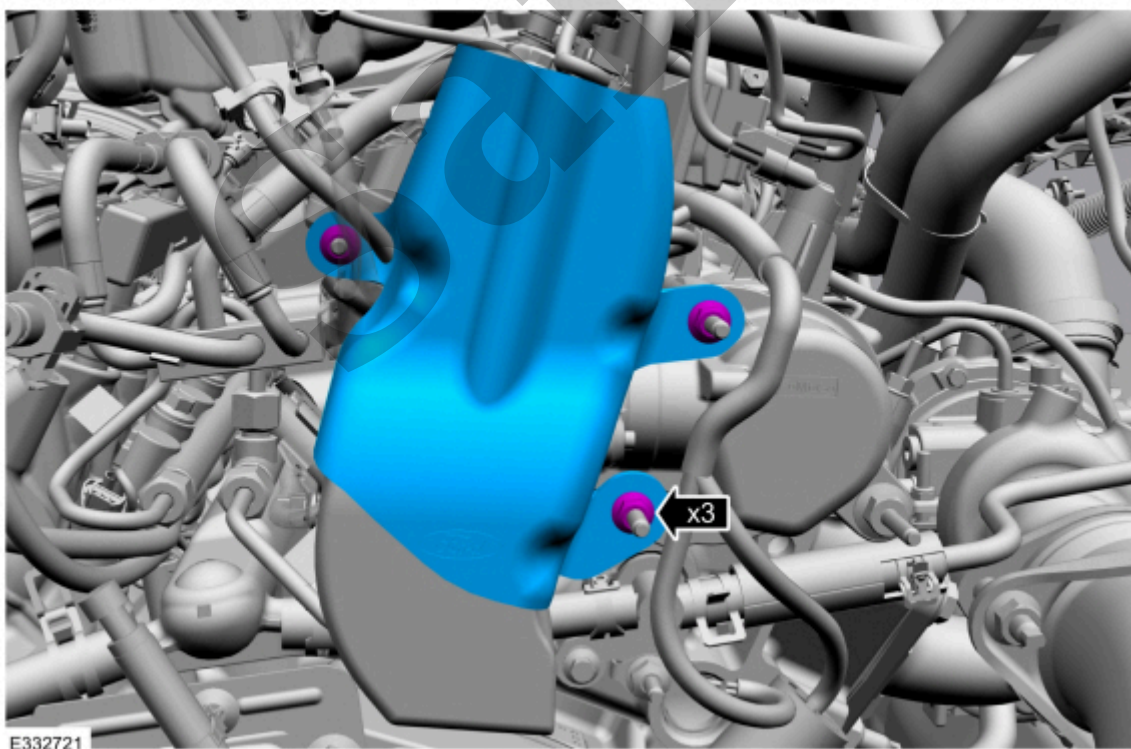
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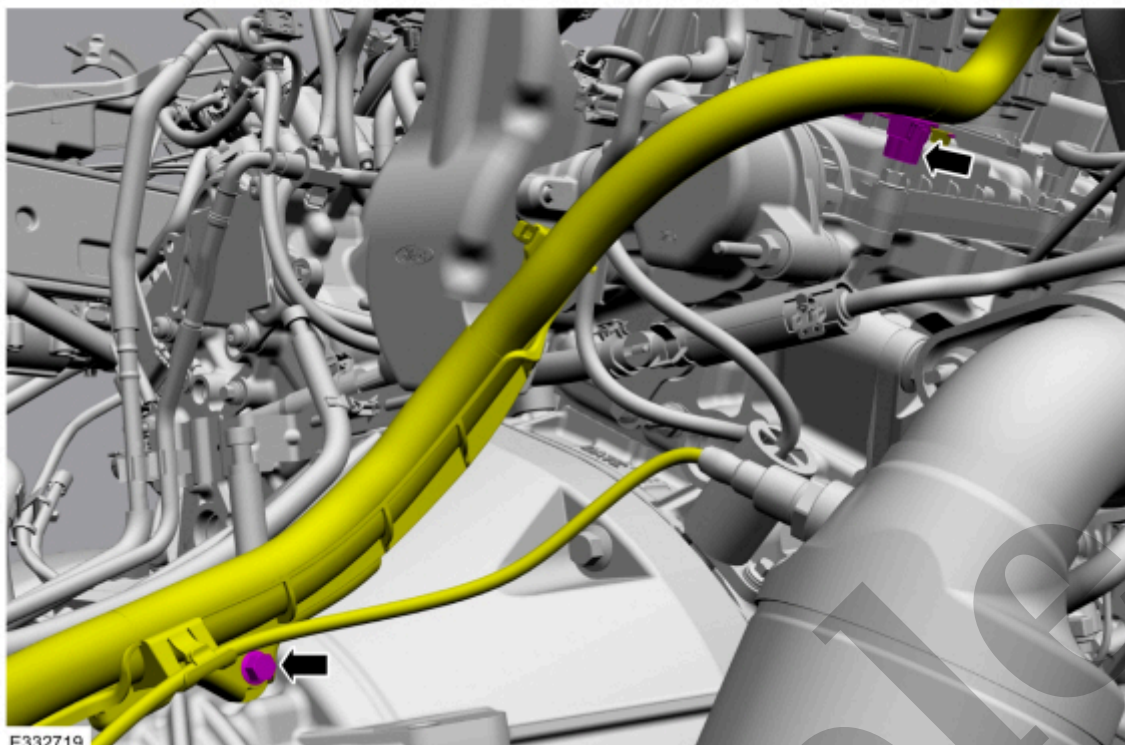
9. Install the high-pressure fuel pump shield, then install and tighten the retainers.

**Torque** : 89 lb.in (10 Nm)



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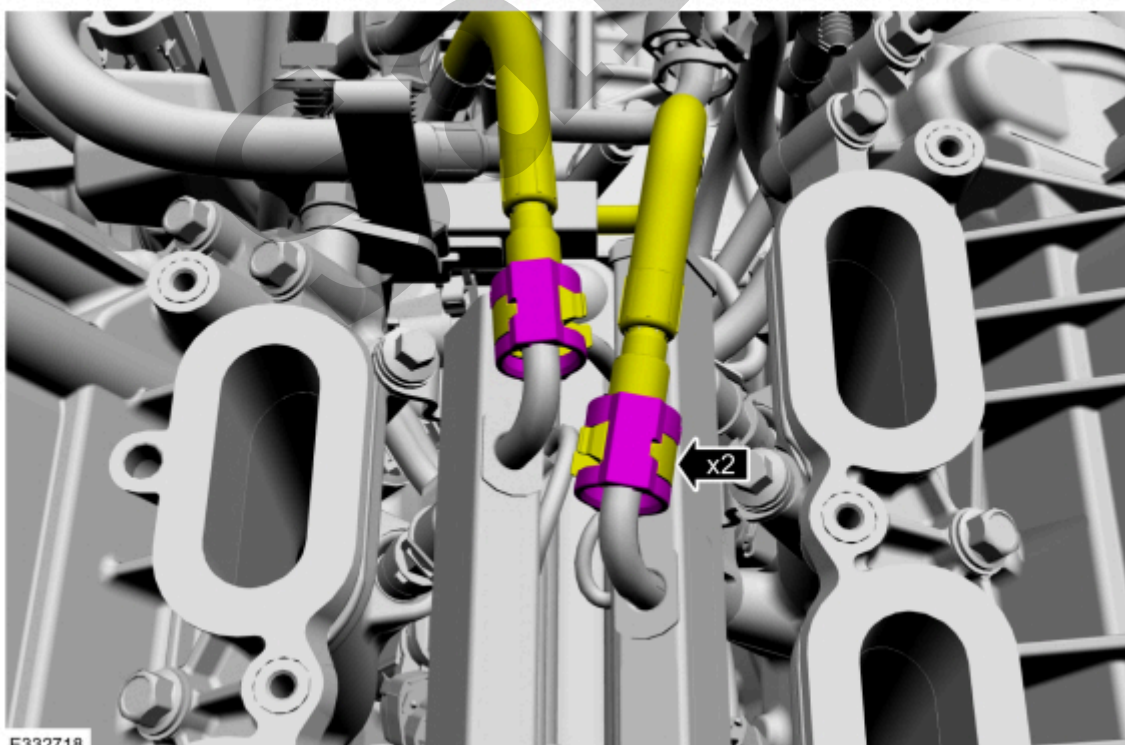


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13. Connect the quick release couplings.

Refer to: [Quick Release Coupling](#)(310-00A Fuel System - General Information - 2.7L EcoBoost (238kW/324PS), General Procedures).



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# Throttle Body

<b>303-04A Fuel Charging and Controls - 2.7L EcoBoost (238kW/324PS)</b>	<b>2022 F-150</b>
<b>Removal and Installation</b>	<b>Procedure revision date: 09/7/2022</b>

## Throttle Body

### Removal

1. Remove the charge air cooler outlet pipe.  
  
Refer to: [Charge Air Cooler \(CAC\) Outlet Pipe](#)(303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

2. **NOTE**

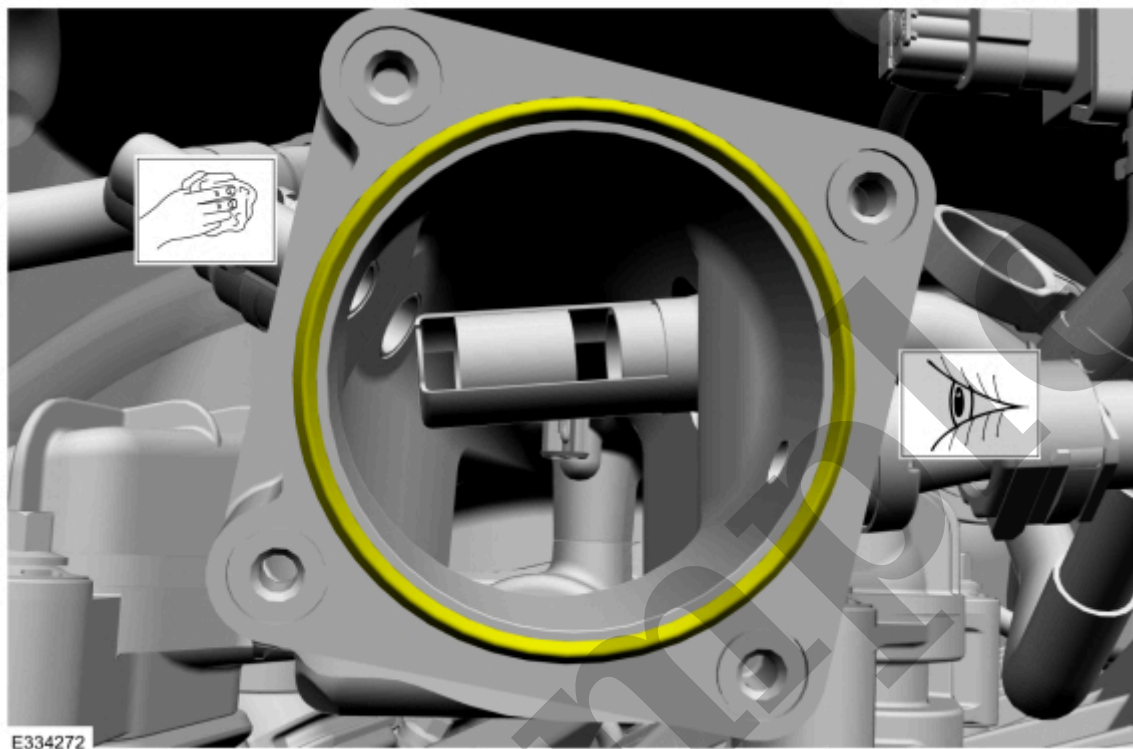
When disconnecting the throttle body electrical connector disengage the red locking tab on the throttle body electrical connector by sliding it to the rear of the throttle body electrical connector, away from the throttle body. Squeeze the throttle body electrical connector while removing.

Disconnect the throttle body electrical connector.

## 1. NOTICE

Make sure that the mating faces are clean and free of foreign material.

2. Inspect the throttle body gasket, clean and replace the throttle body gasket as needed.



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3. Install the throttle body, then install and tighten the throttle body bolts.

**Torque** : 89 lb.in (10 Nm)