

Intake Manifold

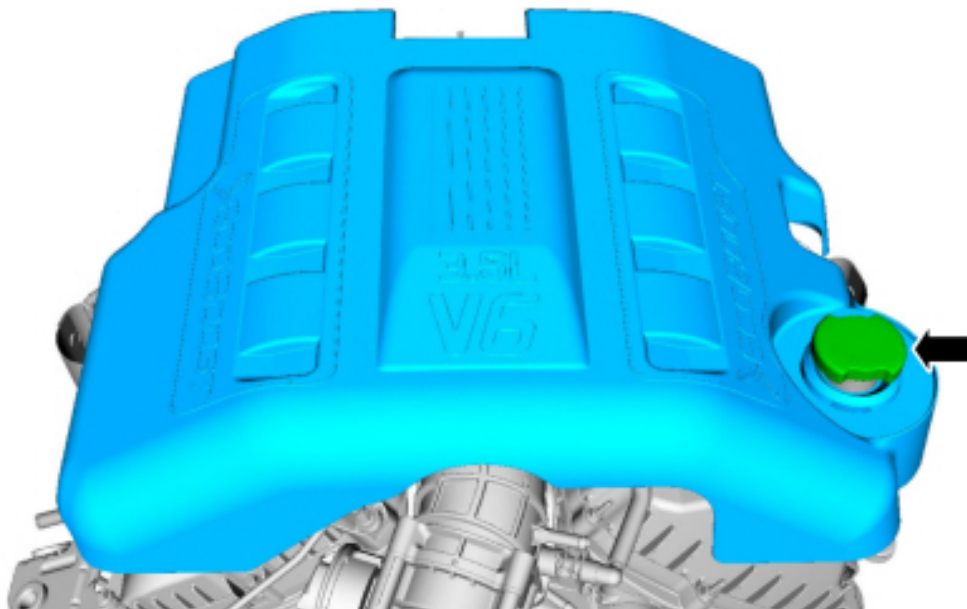
Base Part Number: Base Part Number: 9424

Special Tool(s) / General Equipment

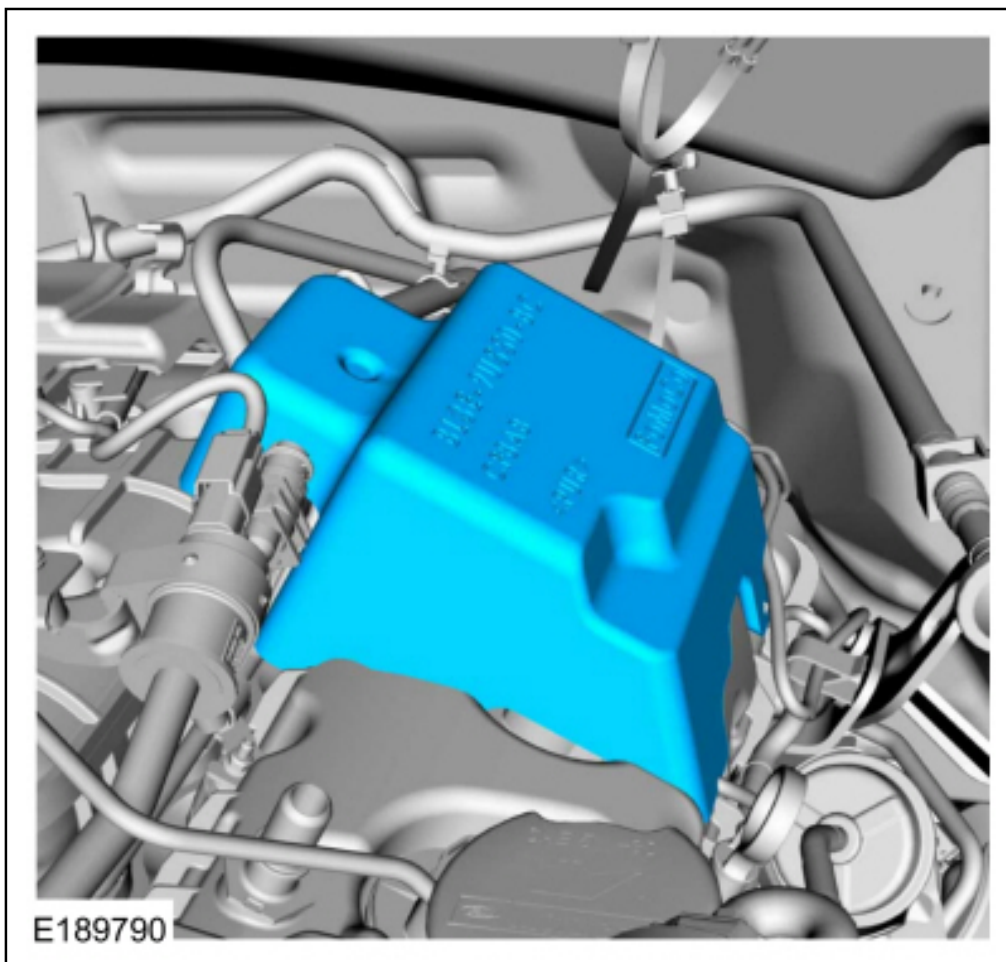
Hose Clamp Remover/Installer

Removal

1. Disconnect the battery ground cable.
Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).
2. Remove the engine appearance cover.



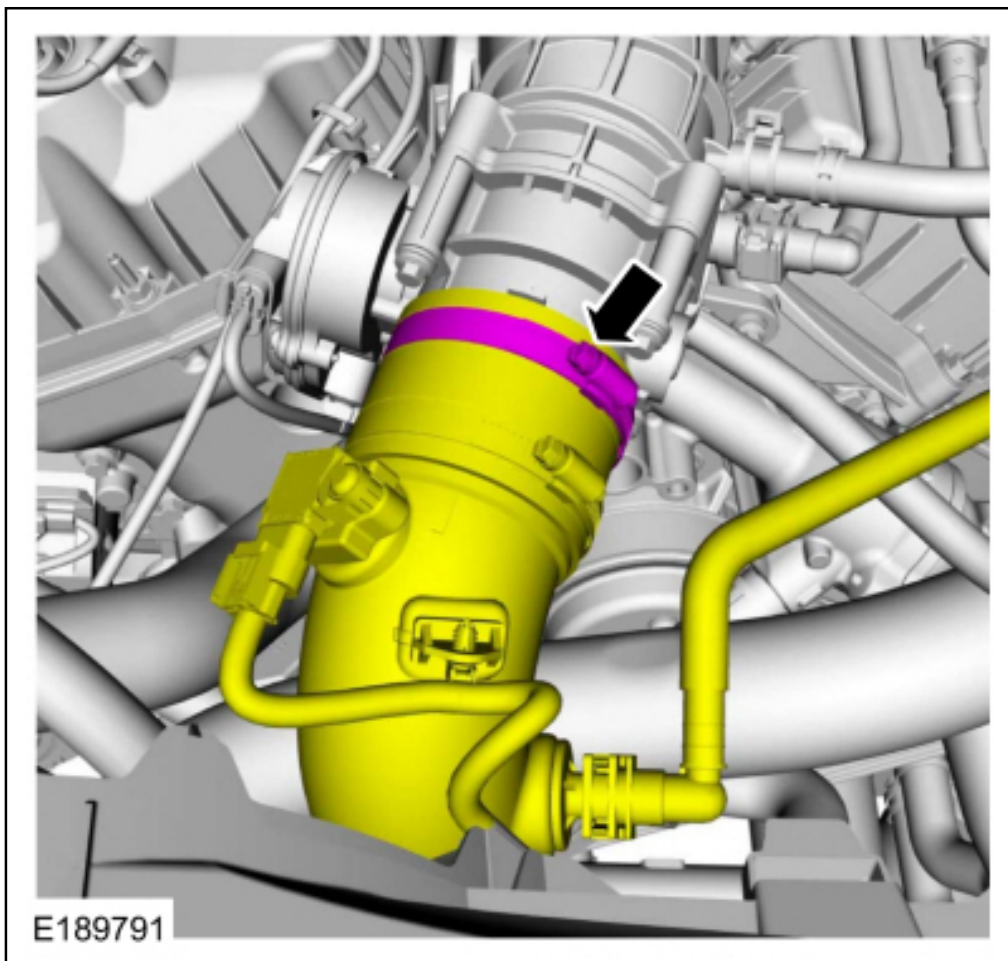
3. Remove the fuel injection pump noise insulator.



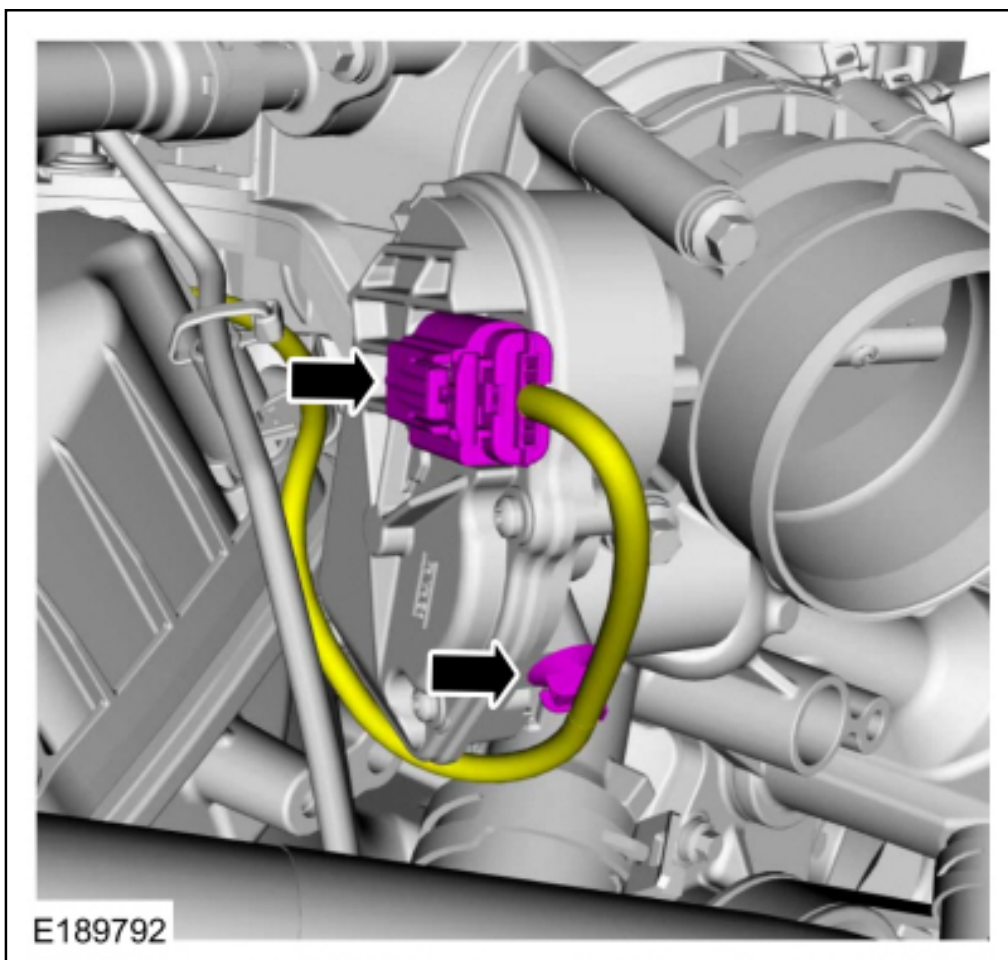
4. Remove the air cleaner outlet pipe.

Refer to: [Air Cleaner Outlet Pipe](#) (303-12C Intake Air Distribution and Filtering - 3.5L EcoBoost (272kW/370PS), Removal and Installation).

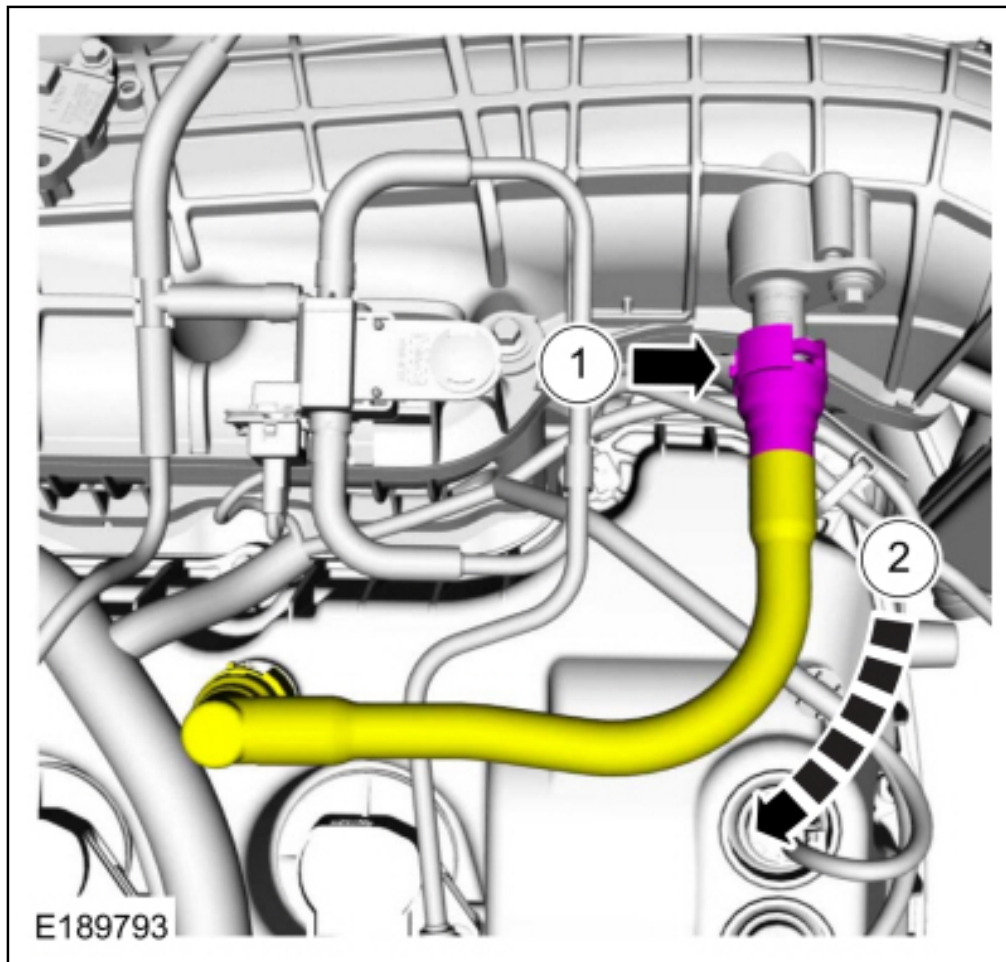
5. Loosen the clamp and position the throttle body intake pipe aside.



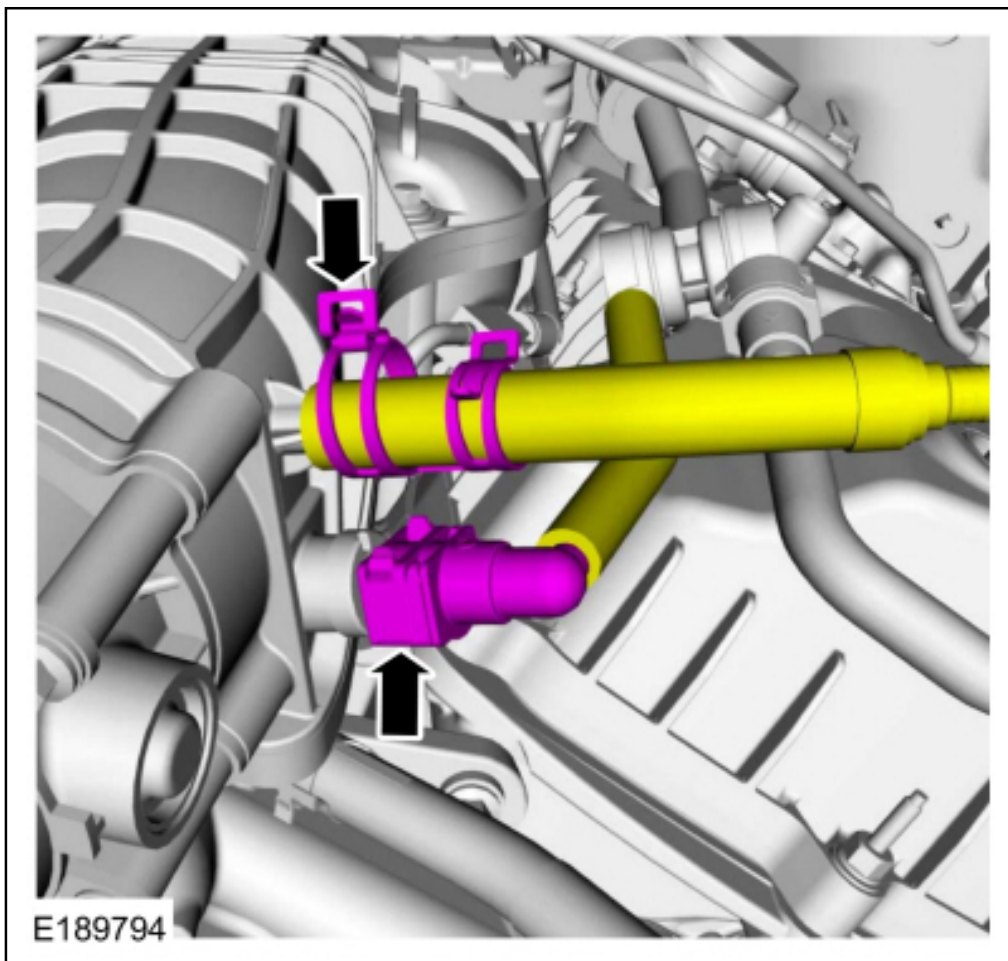
6. Disconnect the throttle body electrical connector and wiring harness retainer.



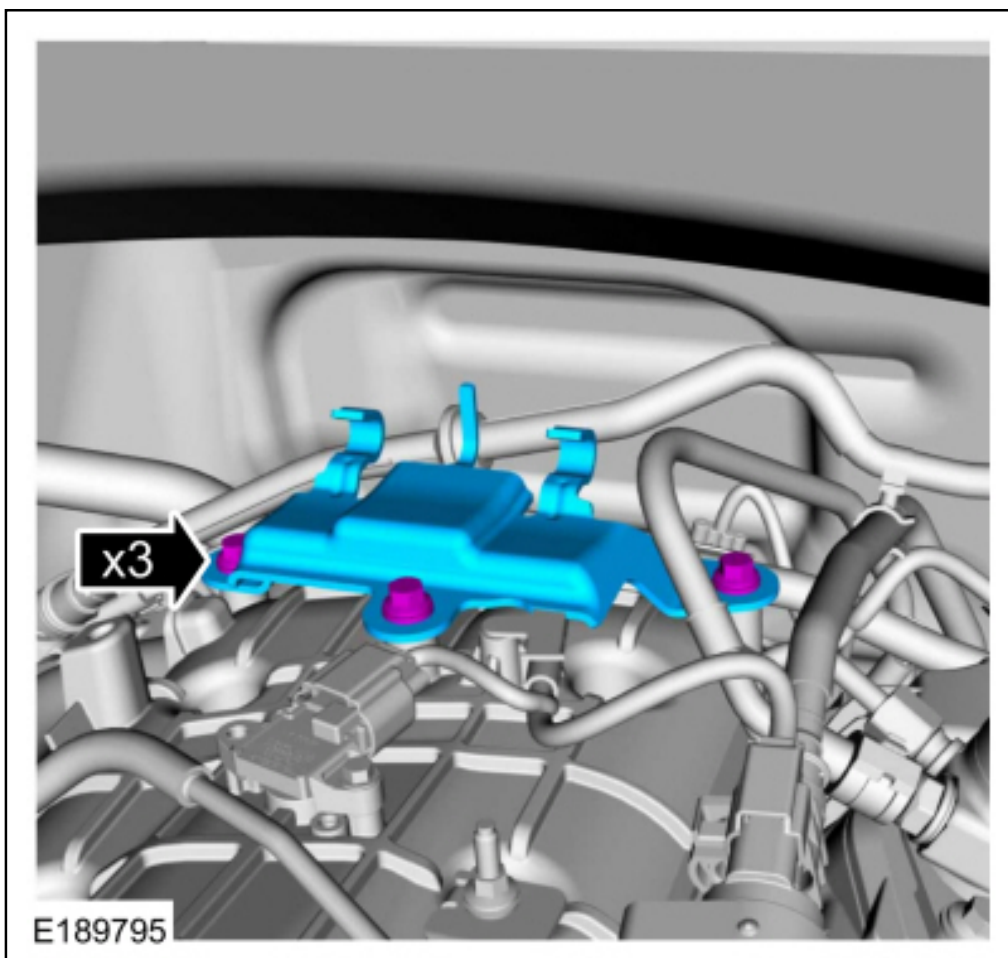
7. Disconnect the PCV tube from the intake manifold and position the tube aside.
Refer to: [Quick Release Coupling](#) (310-00C Fuel System - General Information - 3.5L EcoBoost (272kW/370PS), General Procedures).



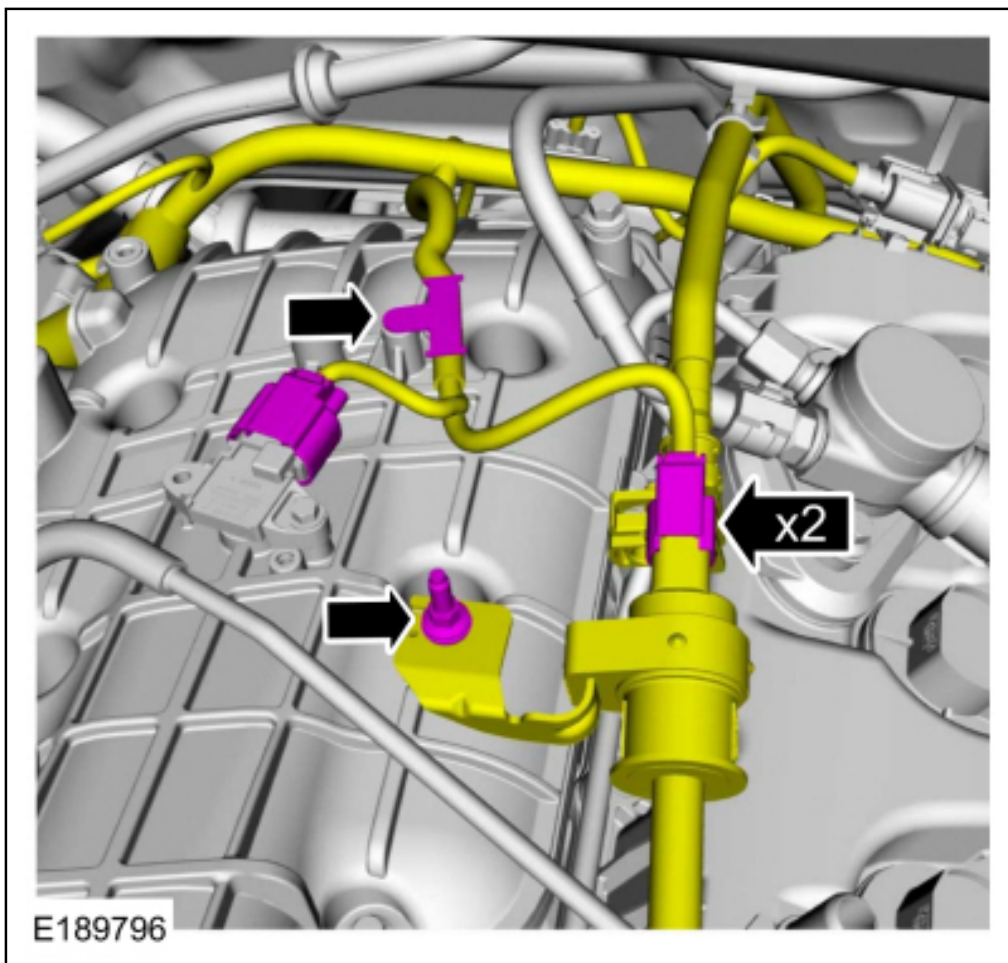
- Loosen the clamp and position the vacuum hose aside.
Use the General Equipment: Hose Clamp Remover/Installer
- Disconnect the fuel vapor tube from the intake manifold and position the tube aside.
Refer to: [Quick Release Coupling](#) (310-00C Fuel System - General Information - 3.5L EcoBoost (272kW/370PS), General Procedures).



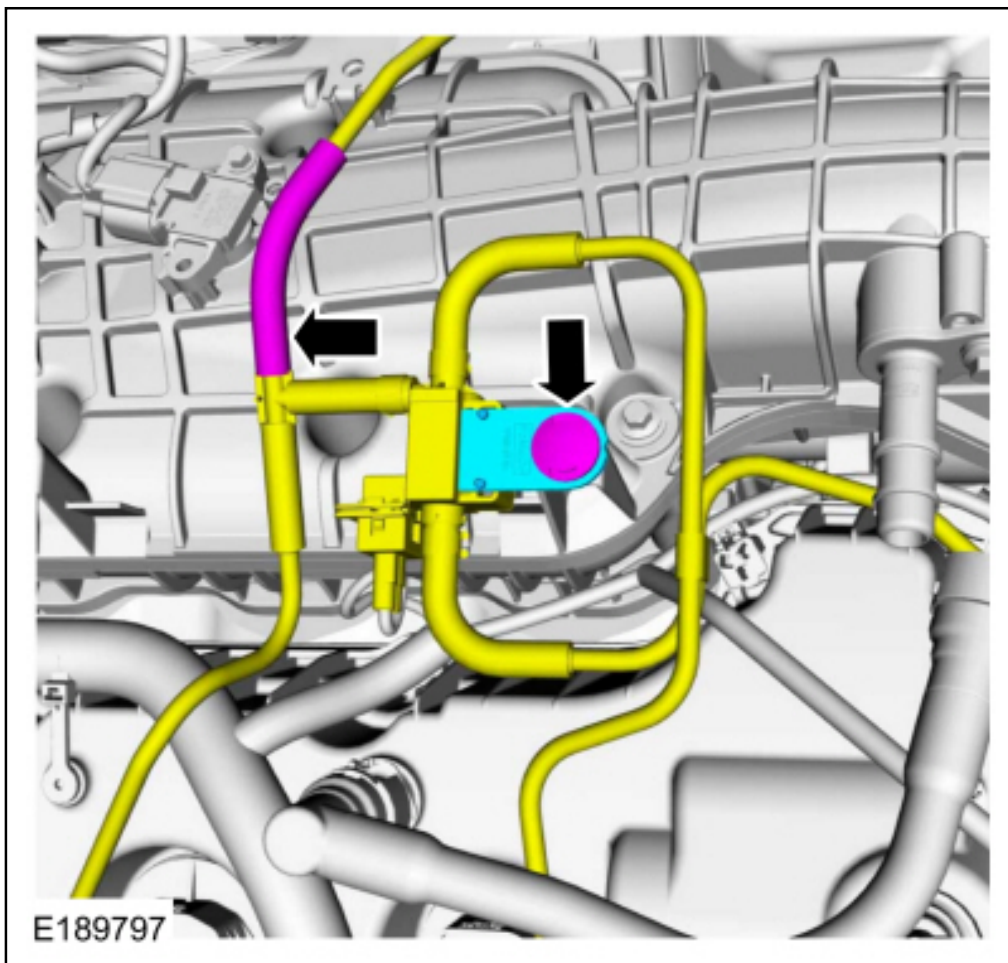
9. Remove the bolts and the engine appearance cover bracket.



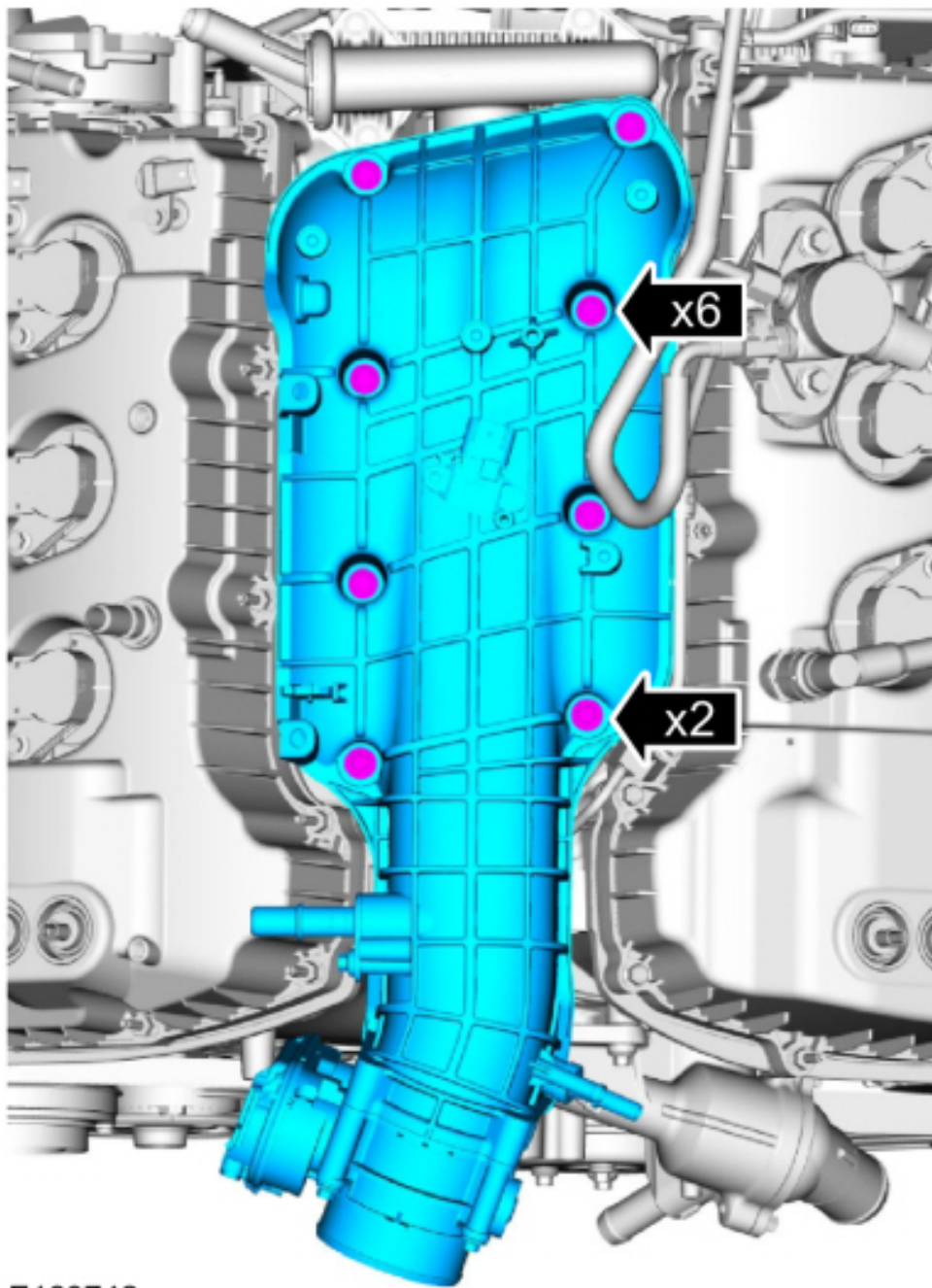
- Disconnect the EVAP purge solenoid and MAPT sensor electrical connectors and wiring harness retainer.
- Remove the stud bolt and position the EVAP purge solenoid aside.



- Disconnect the vacuum hose and position aside.
- Remove the pin-type retainer, the retaining plate and position the vacuum solenoid assembly aside.



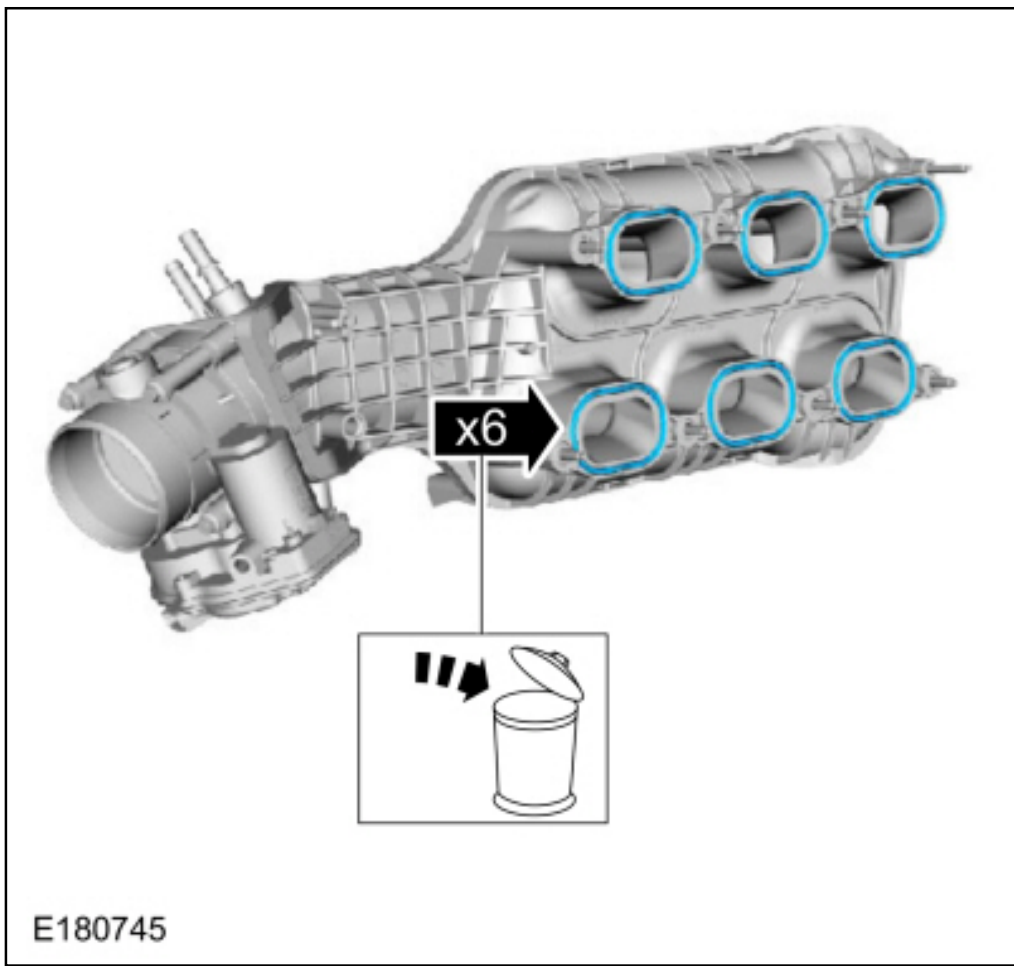
12. Loosen the bolts and remove the intake manifold.



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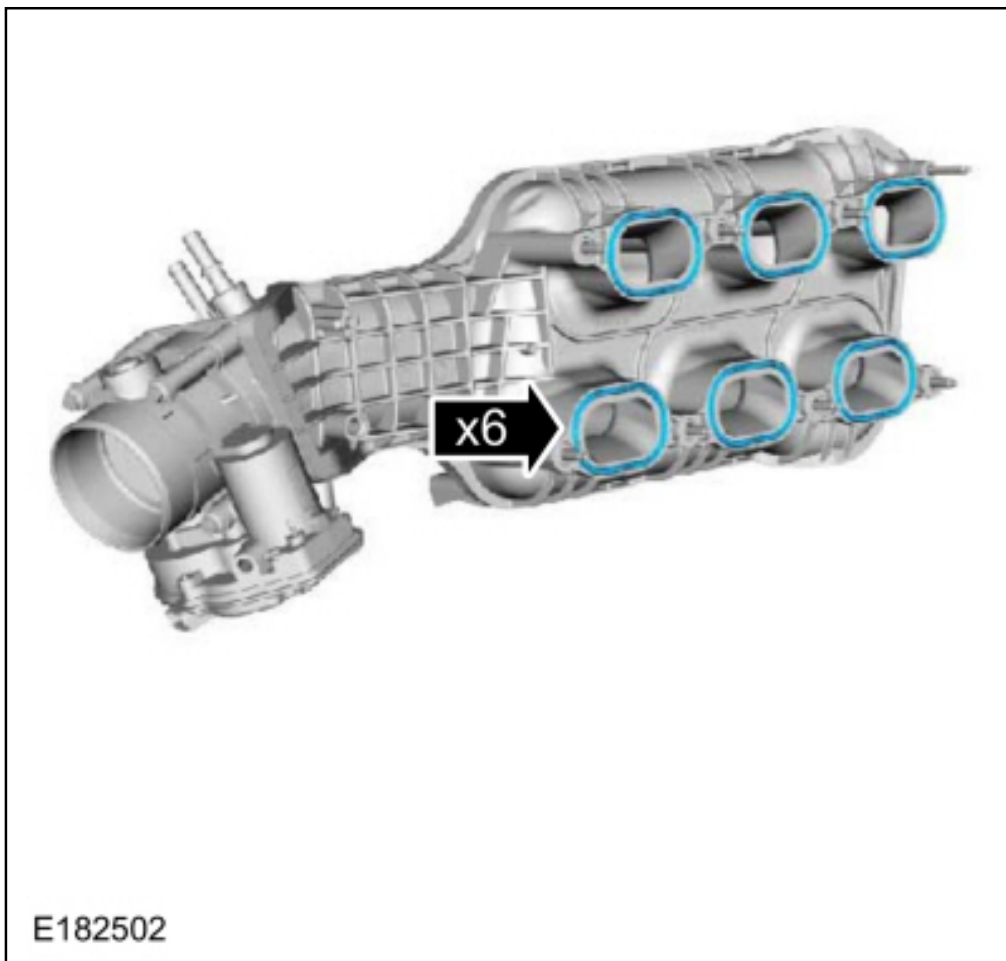


- Discard the gaskets.
- Clean and inspect all of the sealing surfaces of the cylinder heads and the intake manifold.



Installation

1. Install new intake manifold gaskets.



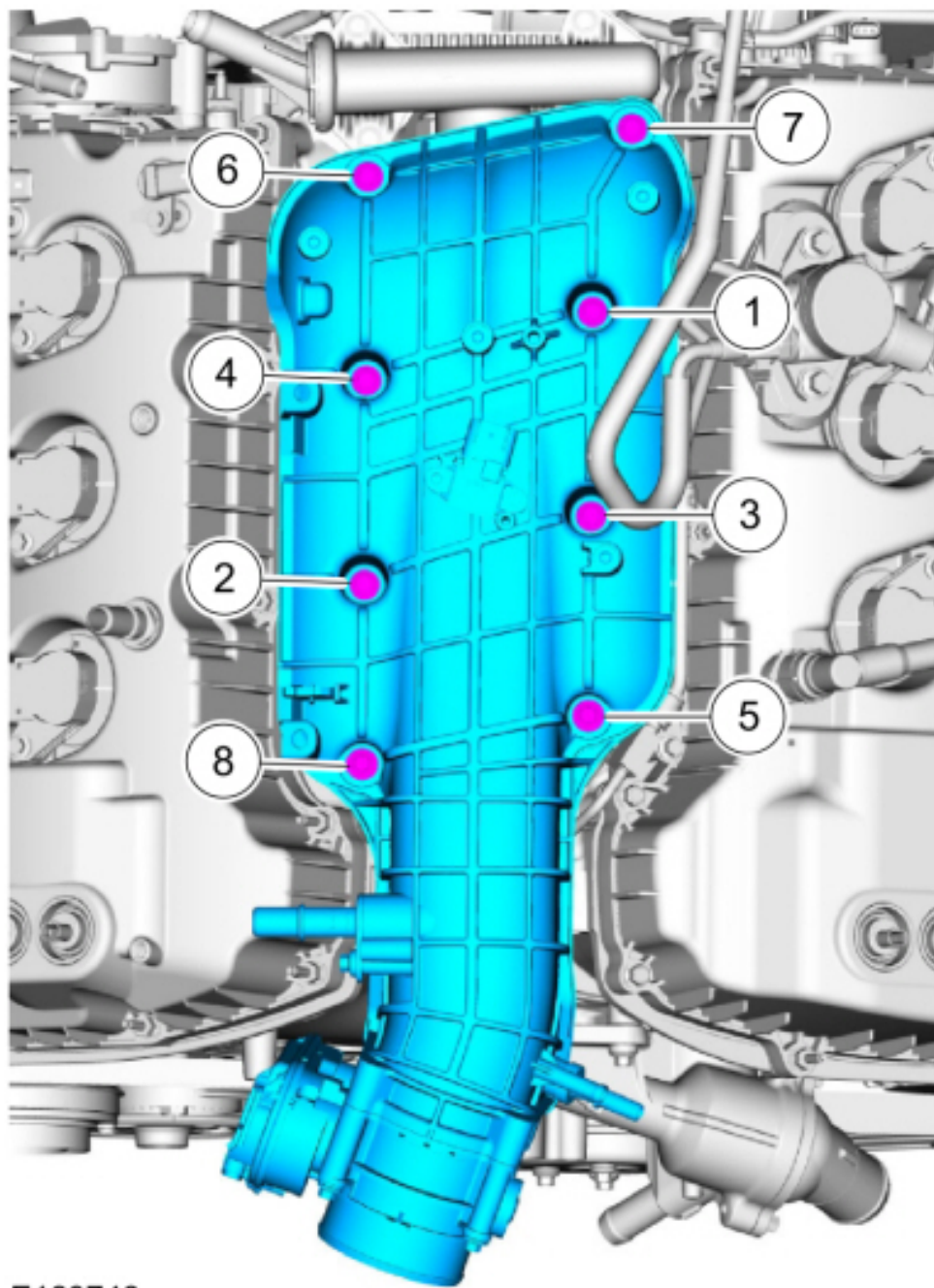
2. **NOTICE:** If the engine is repaired or replaced because of upper engine failure, typically including valve or piston damage, check the intake manifold for metal debris. If metal debris is found, install a new intake manifold. Failure to follow these instructions can result in engine damage.

Using new gaskets, install the intake manifold and the bolts.

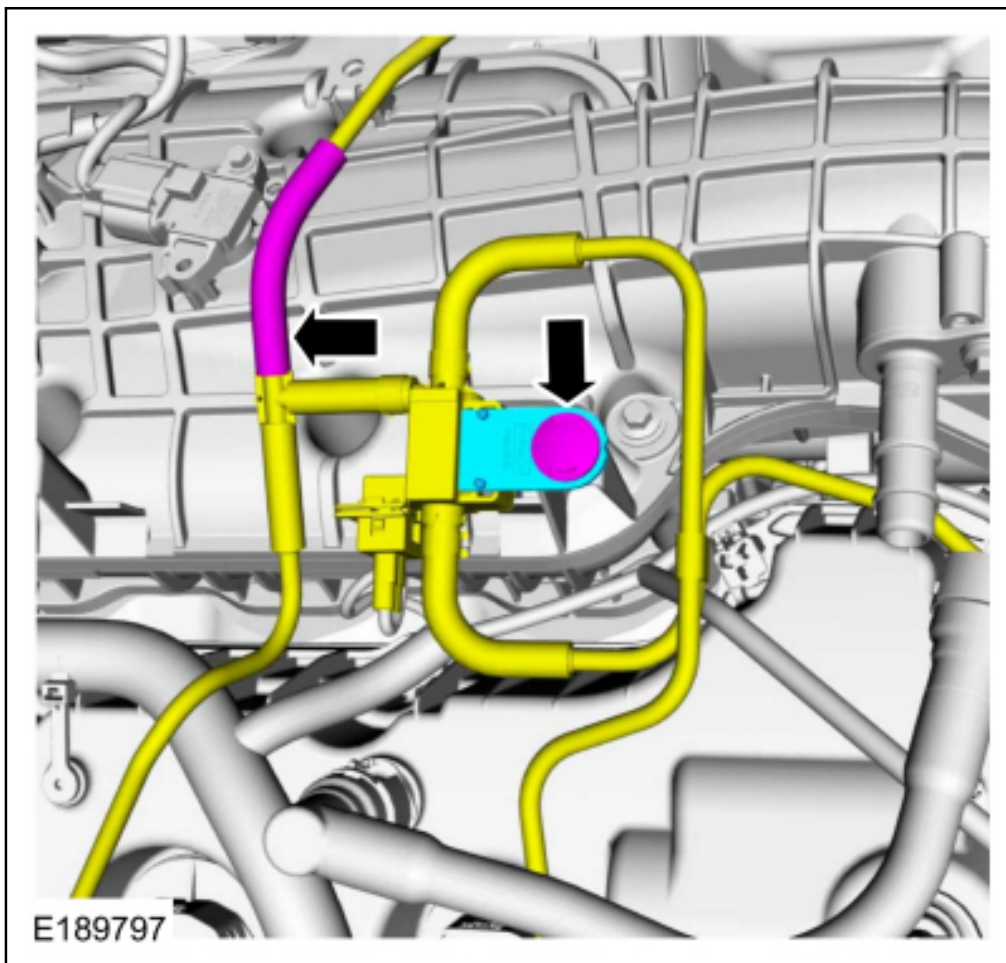
Torque:

Stage 1: 89 lb.in (10 Nm)

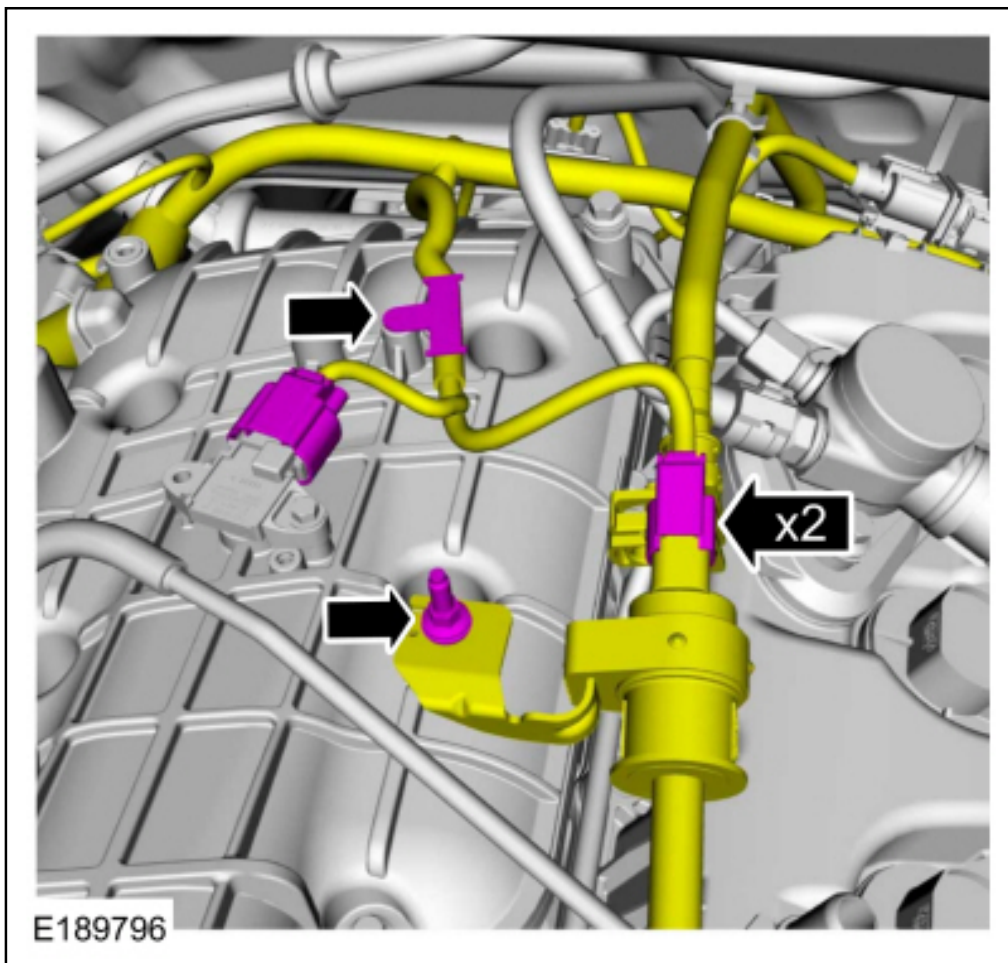
Stage 2: 45°



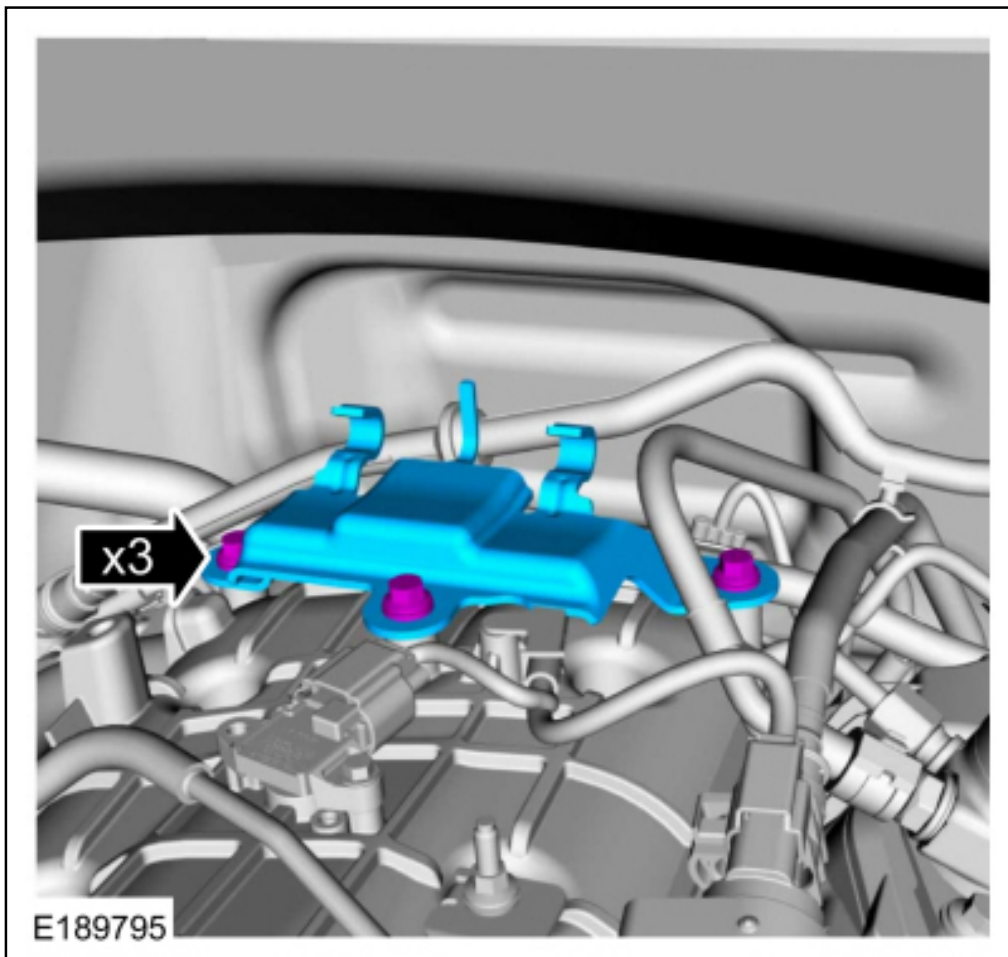
- Position the vacuum solenoid assembly and install the retaining plate and pin-type retainer.
- Connect the vacuum hose.



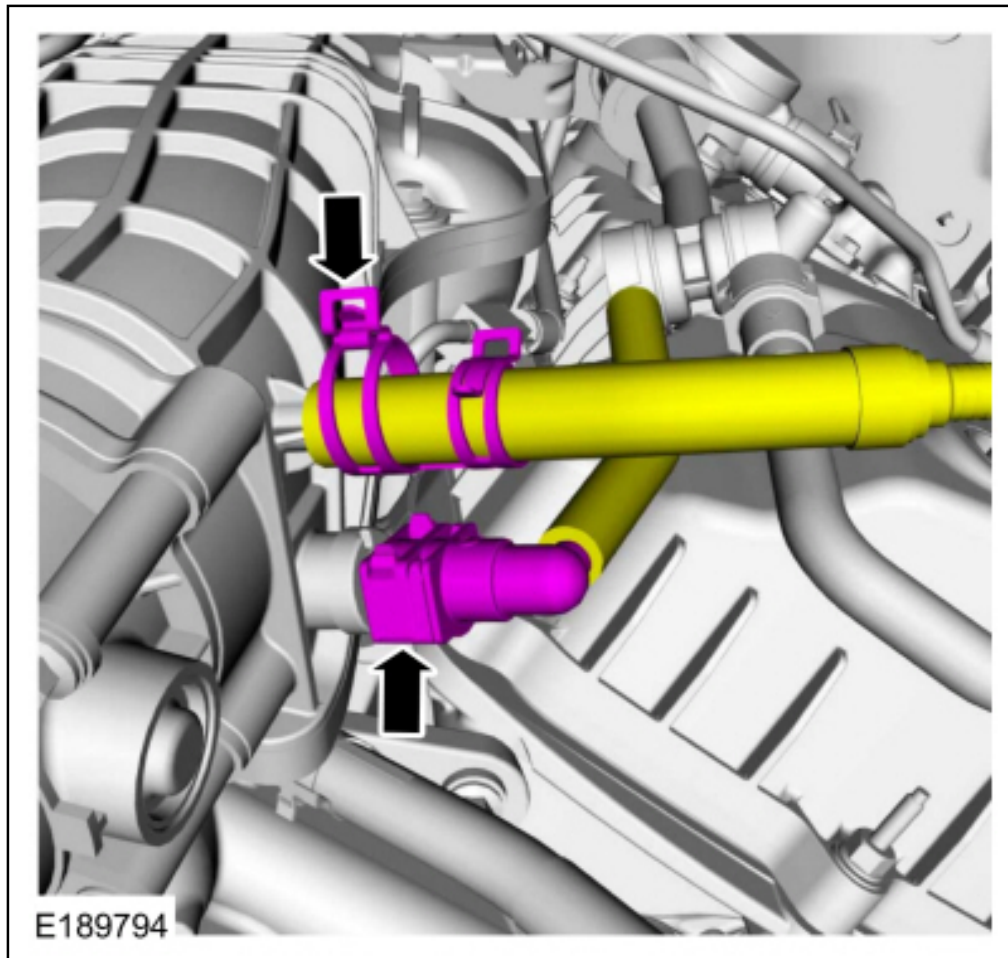
- Install the EVAP purge solenoid and stud bolt.
Torque: 89 lb.in (10 Nm)
- Connect the EVAP purge solenoid and MAPT sensor electrical connectors and wiring harness retainer.



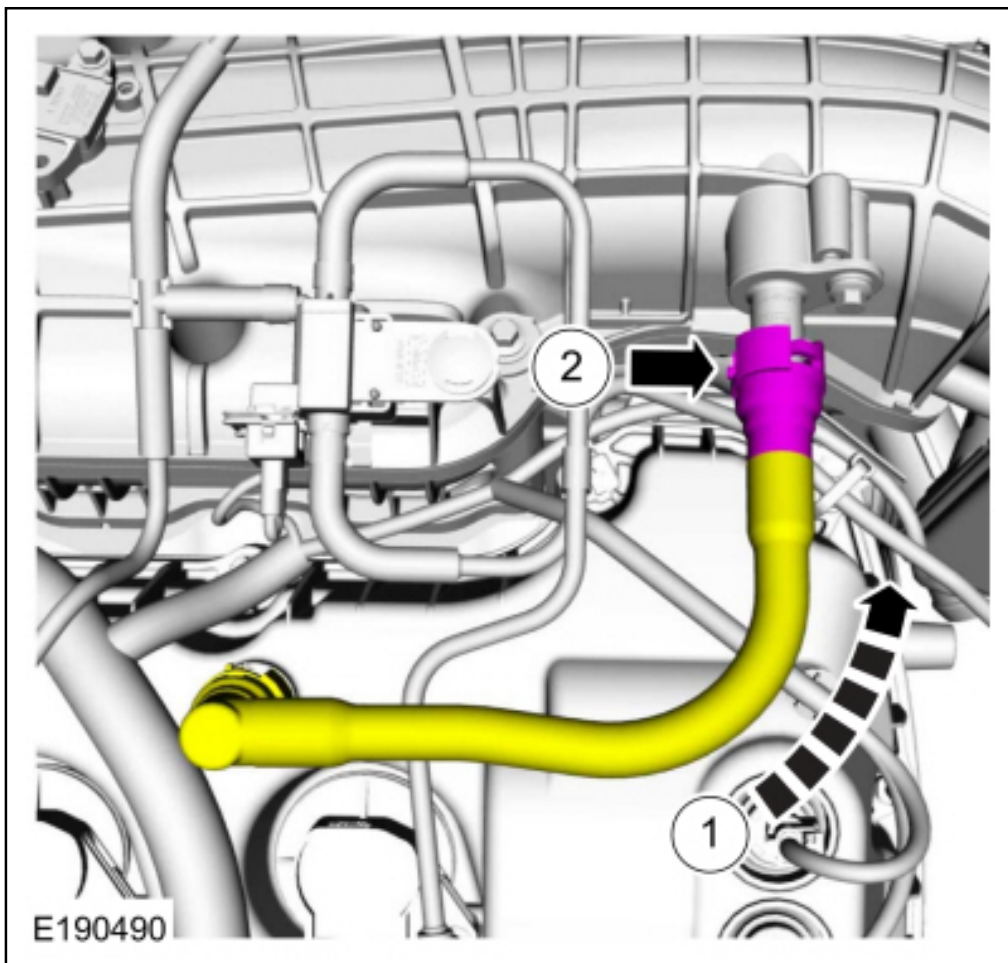
5. Install the engine appearance cover bracket and bolts.
Torque: 89 lb.in (10 Nm)



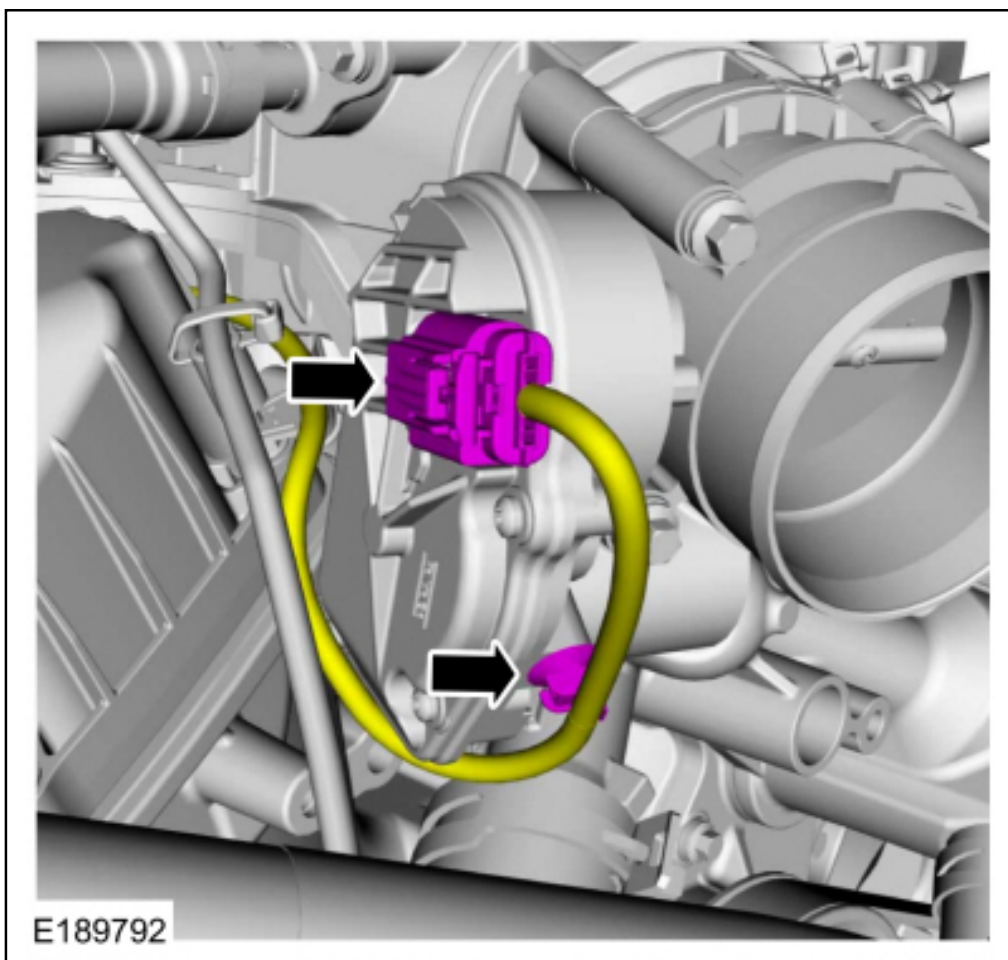
- Connect the fuel vapor tube to the intake manifold.
Refer to: [Quick Release Coupling](#) (310-00C Fuel System - General Information - 3.5L EcoBoost (272kW/370PS), General Procedures).
- Install the vacuum hose and clamp.
Use the General Equipment: Hose Clamp Remover/Installer



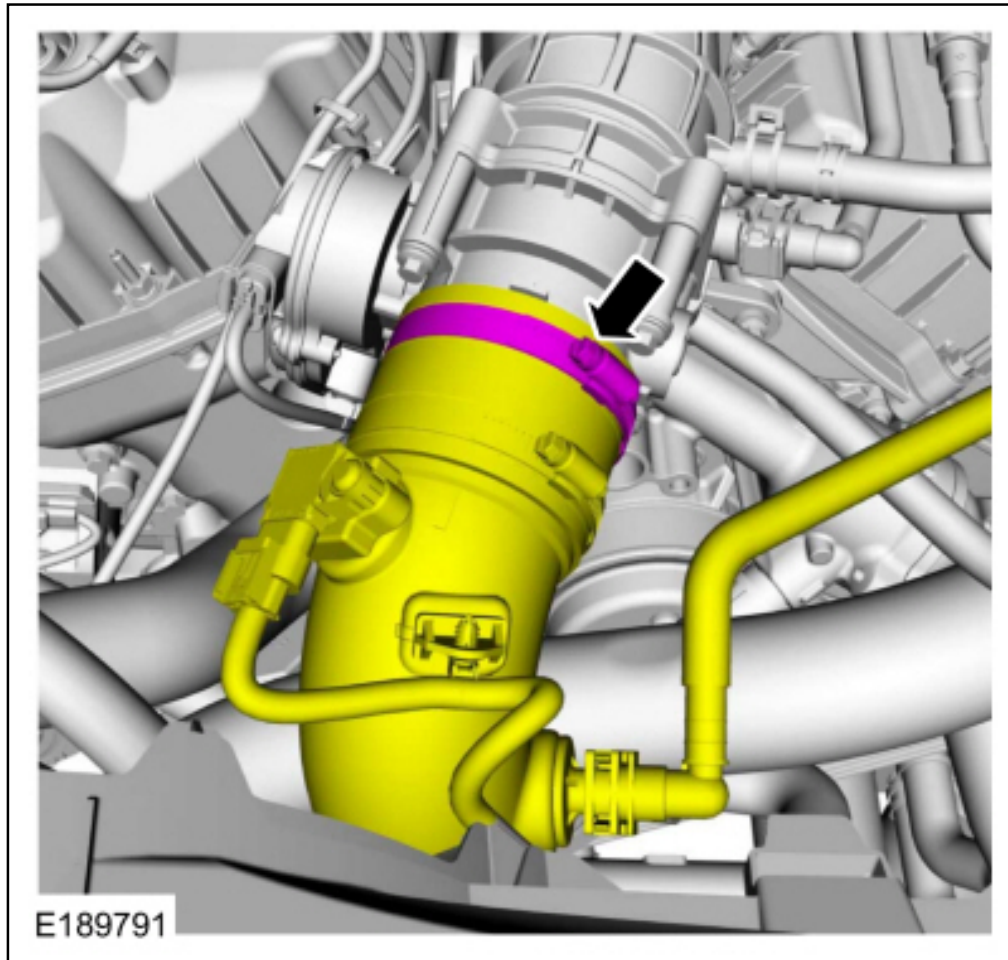
7. Rotate and connect the PCV tube to the intake manifold.
Refer to: [Quick Release Coupling](#) (310-00C Fuel System - General Information - 3.5L EcoBoost (272kW/370PS), General Procedures).



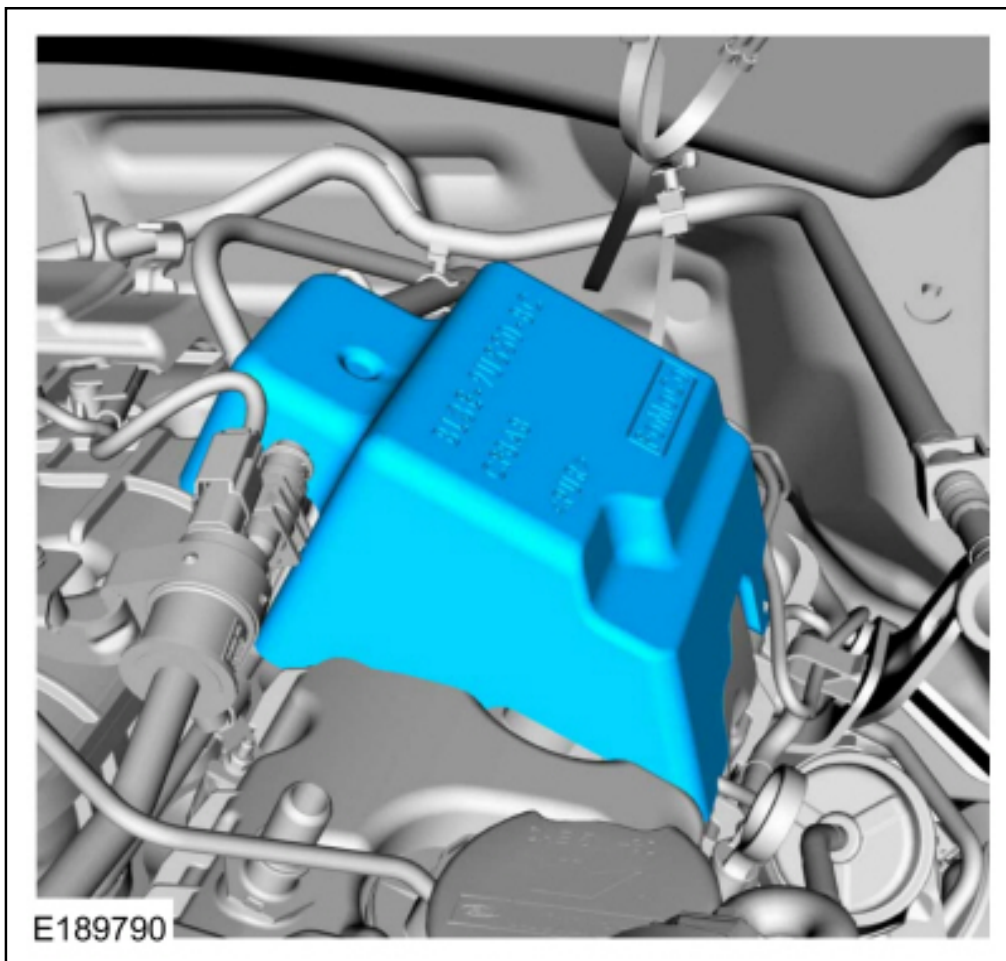
8. Connect the throttle body electrical connector and wiring harness retainer.



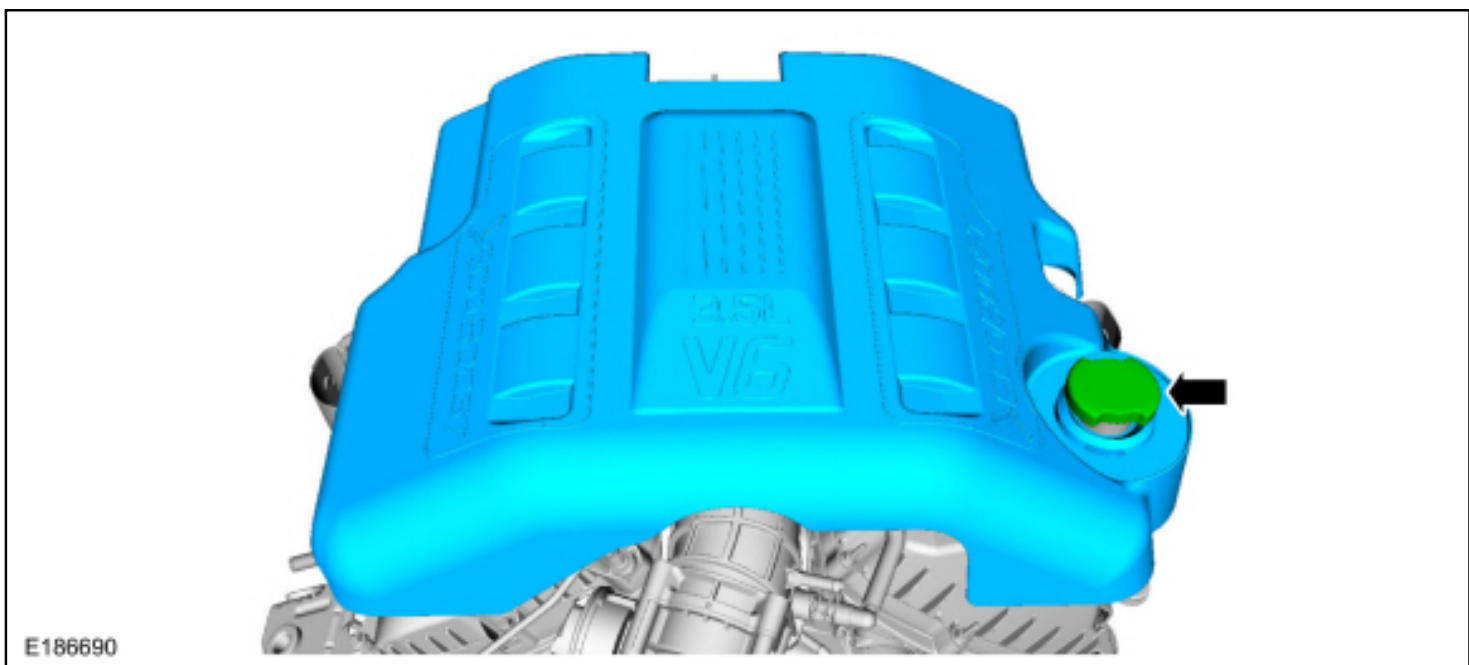
9. Position back the throttle body intake pipe and tighten the clamp.
Torque: 44 lb.in (5 Nm)



10. Install the air cleaner outlet pipe.
Refer to: [Air Cleaner Outlet Pipe](#) (303-12C Intake Air Distribution and Filtering - 3.5L EcoBoost (272kW/370PS), Removal and Installation).
11. Install the fuel injection pump noise insulator.



12. Install the engine appearance cover.



13. Connect the battery ground cable.

Refer to: [Battery Disconnect and Connect](#) (414-01 Battery, Mounting and Cables, General Procedures).