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1996 FORD Thunderbird OEM Service and Repair Workshop Manual

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WARNING

Do not smoke, carry lighted tobacco or have an open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

WARNING

Do not carry personal electronic devices such as cell phones, pagers or audio equipment of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited. Failure to follow these instructions may result in serious personal injury.

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 serious personal injury.

WARNING

Clean all fuel residue from the engine compartment. If not removed, fuel residue may ignite when the engine is returned to operation. Failure to follow this instruction may result in serious personal injury.

Refer to Wiring Diagrams Cell 22for schematic and connector information.

Normal Operation and Fault Conditions Refer to the DTC (diagnostic trouble code) Fault Trigger Conditions. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P0230:00	Fuel Pump Primary Circuit: No Sub Type Information	Sets when the PCM (powertrain control module) detects a concern from the fuel pump or fuel pump relay power (FPRPWR) circuits.
PCM (powertrain control	Fuel Pump Module 'A' Control Circuit/Open:	Sets when the PCM (powertrain control module) detects an open, short to voltage or short to grond from ground the fuel pump command. When the PCM (powertrain control module)

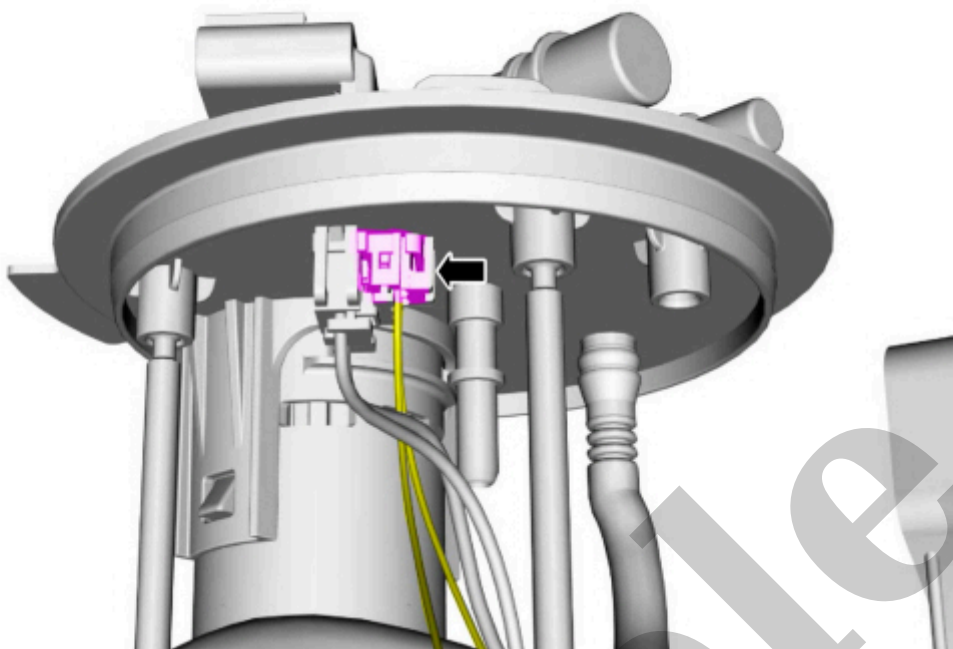
PCM (powertrain control module) P166A:00	Restraints Deployment Communication Circuit: No Sub Type Information	Sets when the PCM (powertrain control module) detects an open or short from the IES circuit.
PCM (powertrain control module) U0109:00	Lost Communication With Fuel Pump Control Module 'A': No Sub Type Information	Sets when the PCM (powertrain control module) does not detect a duty cycled signal from the fuel pump monitor circuit after a calibrated amount of time. The PCM (powertrain control module) monitors the fuel pump monitor circuit for the presence of a duty cycled signal. If the fuel pump monitor circuit is fixed at a low or high voltage, the PCM (powertrain control module) begins to increment a counter.

Possible Sources

- Fuel pump circuitry concern
- IES signal circuitry concern
- Fuel pump control module relay
- Fuel pump control module (9D370)
- Fuel pump (9H307)
- PCM (powertrain control module) (12A650)

Pinpoint Test Steps available in the on-line Workshop Manual.

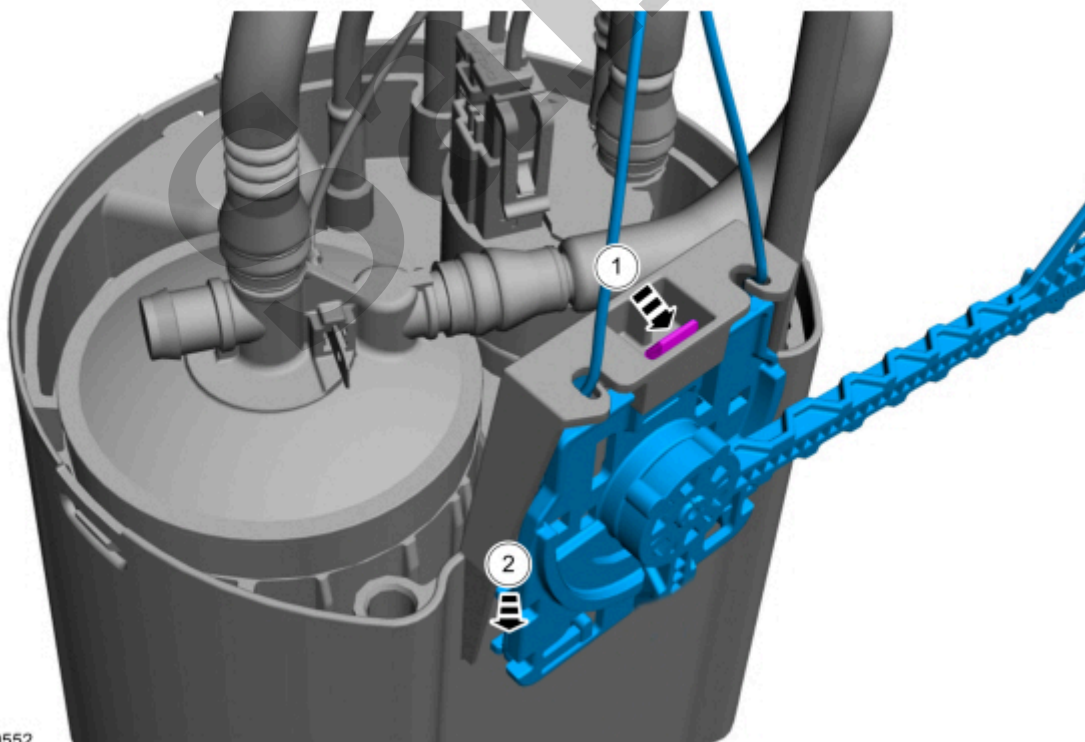
E188521



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3. 1. Release the retainer tab.
2. Remove the fuel level sender.

E330552





Fuel Lines

310-01A Fuel Tank and Lines - 2.7L EcoBoost (238kW/324PS)	2022 F-150
Removal and Installation	Procedure revision date: 09/30/2020

Fuel Lines

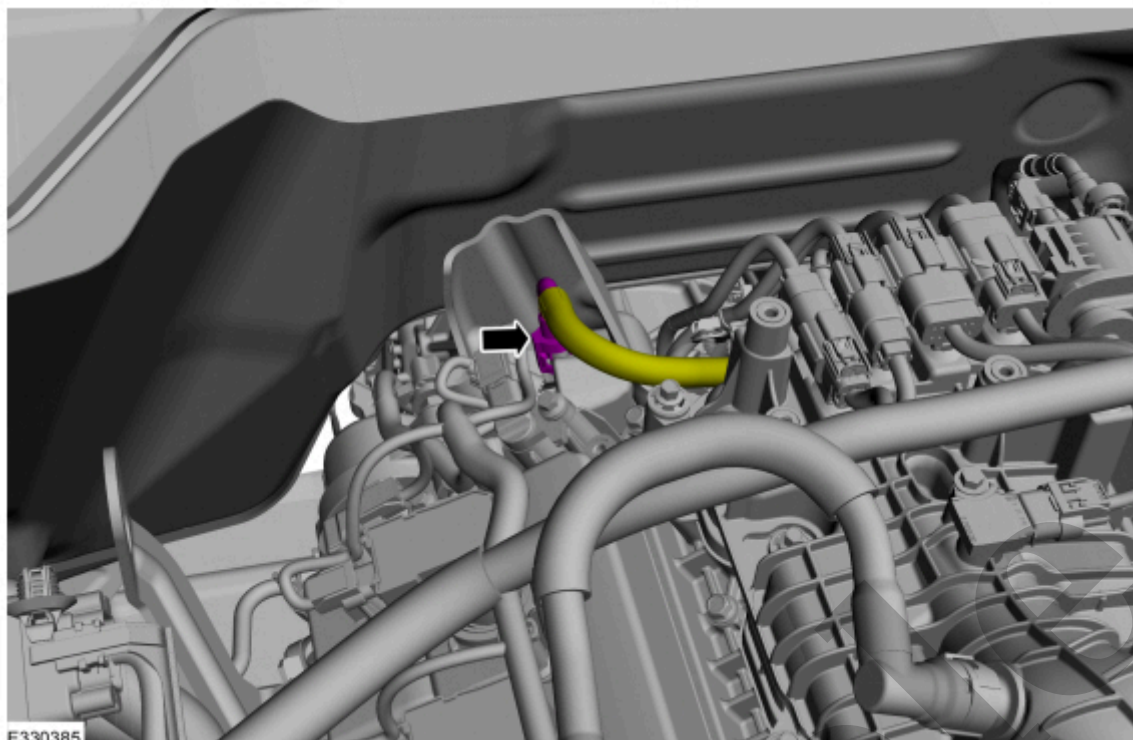
Removal

1. **NOTE**

Removal steps in this procedure may contain installation steps.

- With the vehicle in NEUTRAL, position it on a hoist.
- Refer to: [Jacking and Lifting - Overview](#)(100-02 Jacking and Lifting, Description and Operation).
2. Release the fuel system pressure.
- Refer to: [Fuel System Pressure Release](#)(310-00A Fuel System - General Information - 2.7L EcoBoost (238kW/324PS), General Procedures).
3. Disconnect the battery ground cable.
- Refer to: [Battery Cables - 2.7L EcoBoost \(238kW/324PS\)](#)(414-01 Battery, Mounting and Cables, Removal and Installation).
4. If equipped.
- Remove nuts and the engine appearance cover.

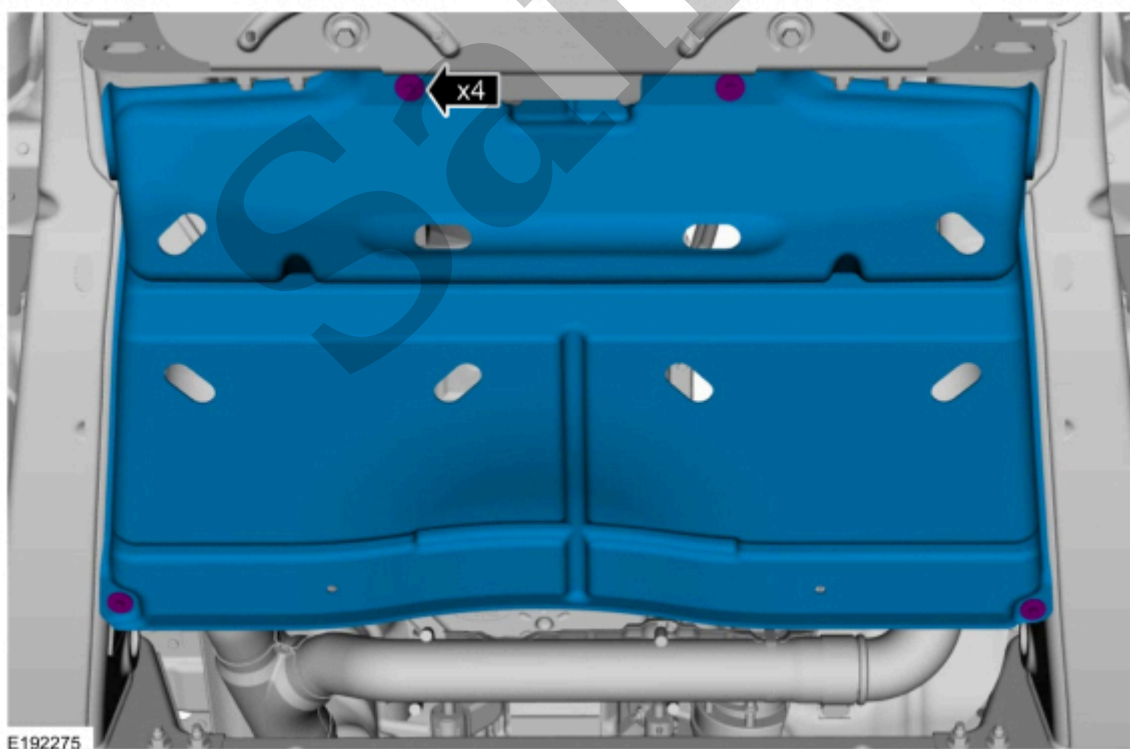
Torque : 53 lb.in (6 Nm)



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6. Remove the bolts and the splash shield.

Torque : 53 lb.in (6 Nm)

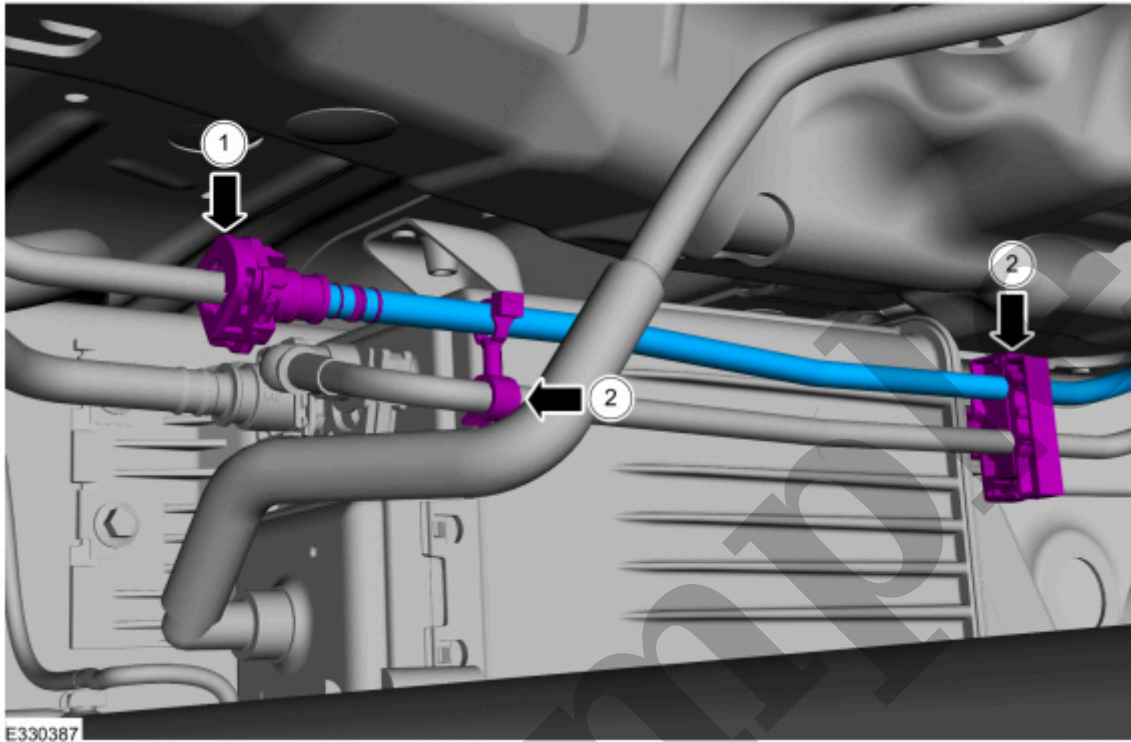


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9. • Disconnect the fuel supply line quick connect coupling.

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

- Detach the retainer clips and Remove the fuel line.

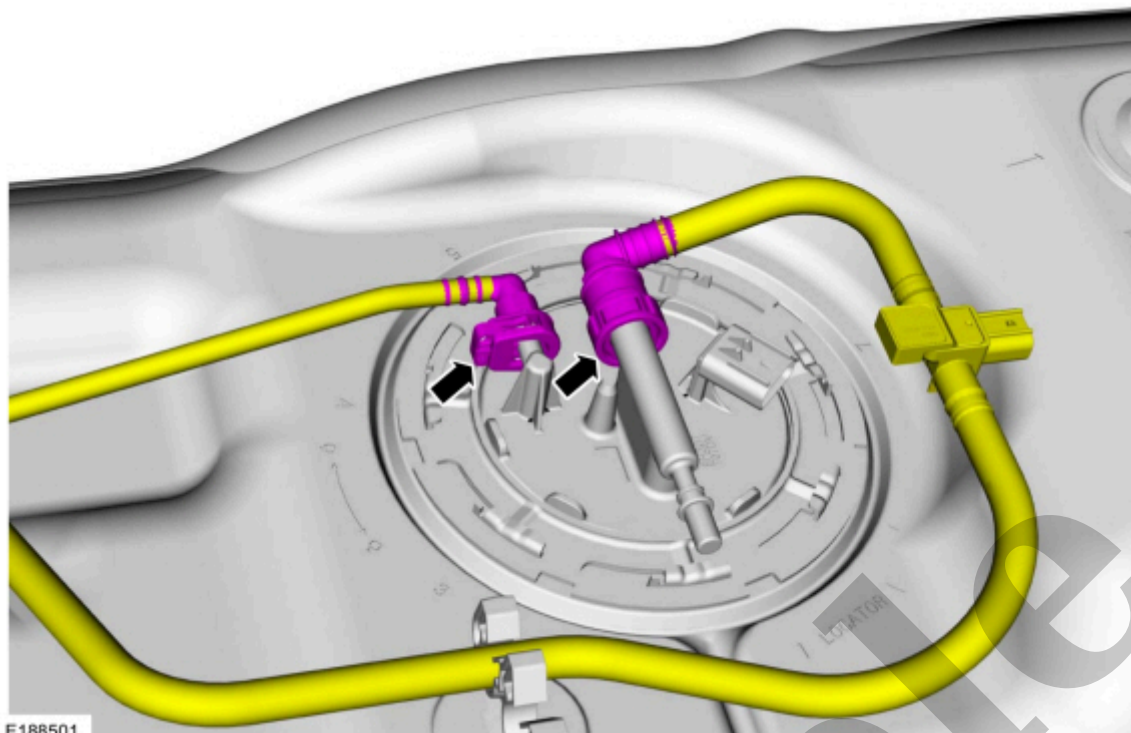


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Installation

1. To install, reverse the removal procedure.

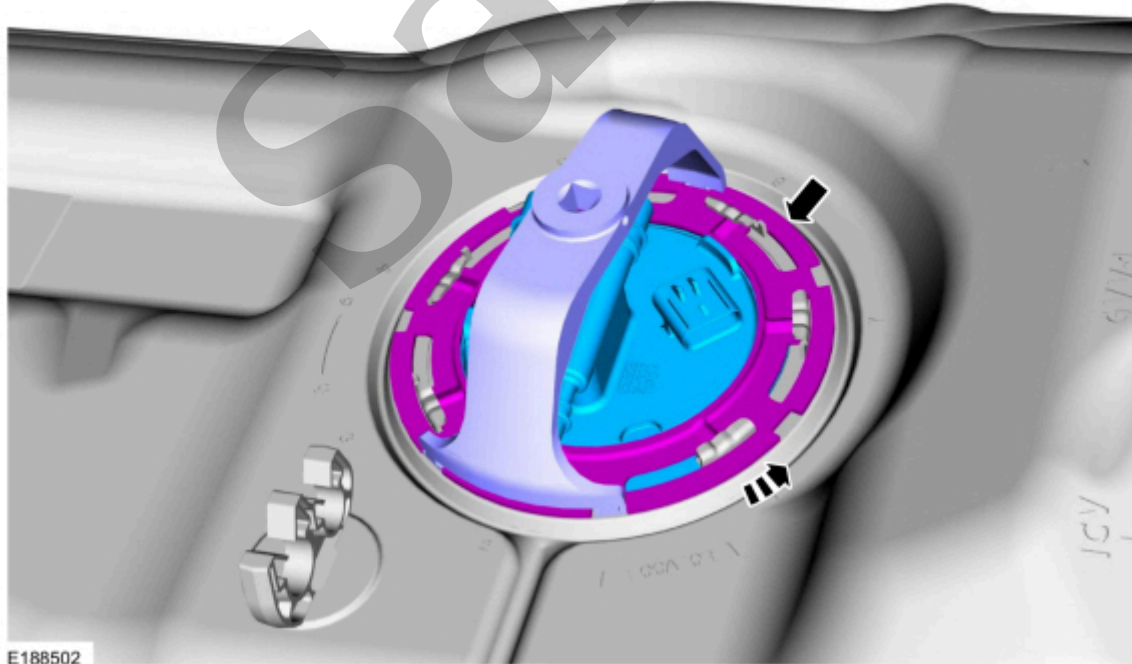
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3. Using the lock ring tool, unlock and remove the Fuel Pump and Sender unit lock ring.

Use Special Service Tool : 310-123 Locking Ring, Fuel Tank



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NOTE

The Fuel Pump and Sender Unit must be handled carefully to avoid damage to the float arm and filter.

NOTE

Inspect the mating surfaces of the Fuel Pump and Sender Unit flange and fuel tank O-ring seal contact surfaces. Wipe clean with a lint free towel. Install a new Fuel Pump and Sender Unit or fuel tank if the O-ring seal contact area is bent, scratched or corroded.

Remove the Fuel Pump and Sender Unit.

Make sure to install a new Fuel Pump and Sender Unit O-ring seal.

NOTE

Make sure the alignment tabs on the Fuel Pump and Sender Unit and the fuel tank meet prior to tightening the Fuel Pump and Sender Unit lock ring.

To install, reverse the removal procedure.

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