

Transmission Fluid Warmer - Raptor

Special Tool(s) / General Equipment

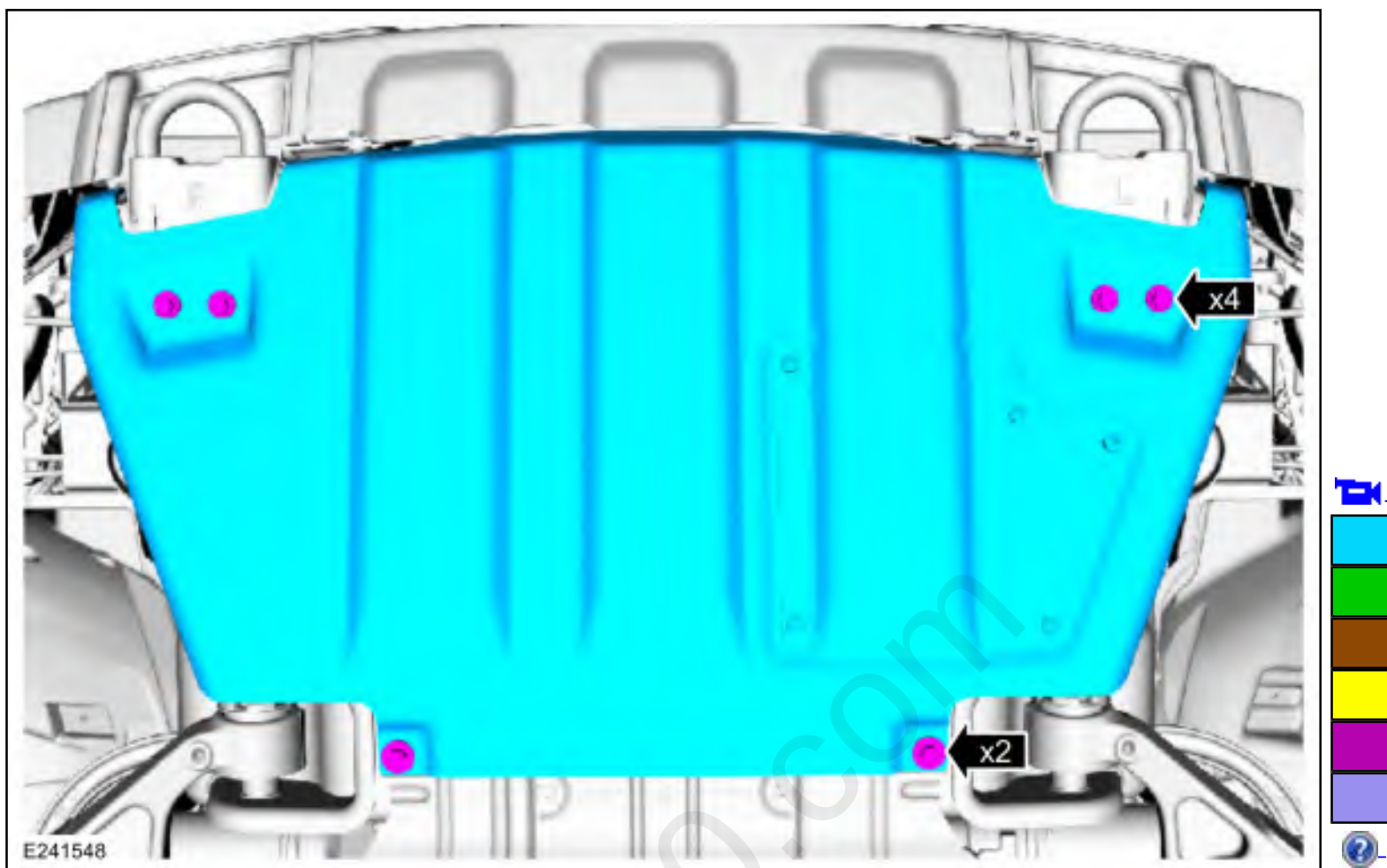
 E158906	307-569 Disconnect Tool TOC Line (1/2) TKIT-2006U-F/FM TKIT-2006U-FLM/LM TKIT-2006U-ROW1 TKIT-2006U-ROW2
Hose Clamp(s)	

Materials

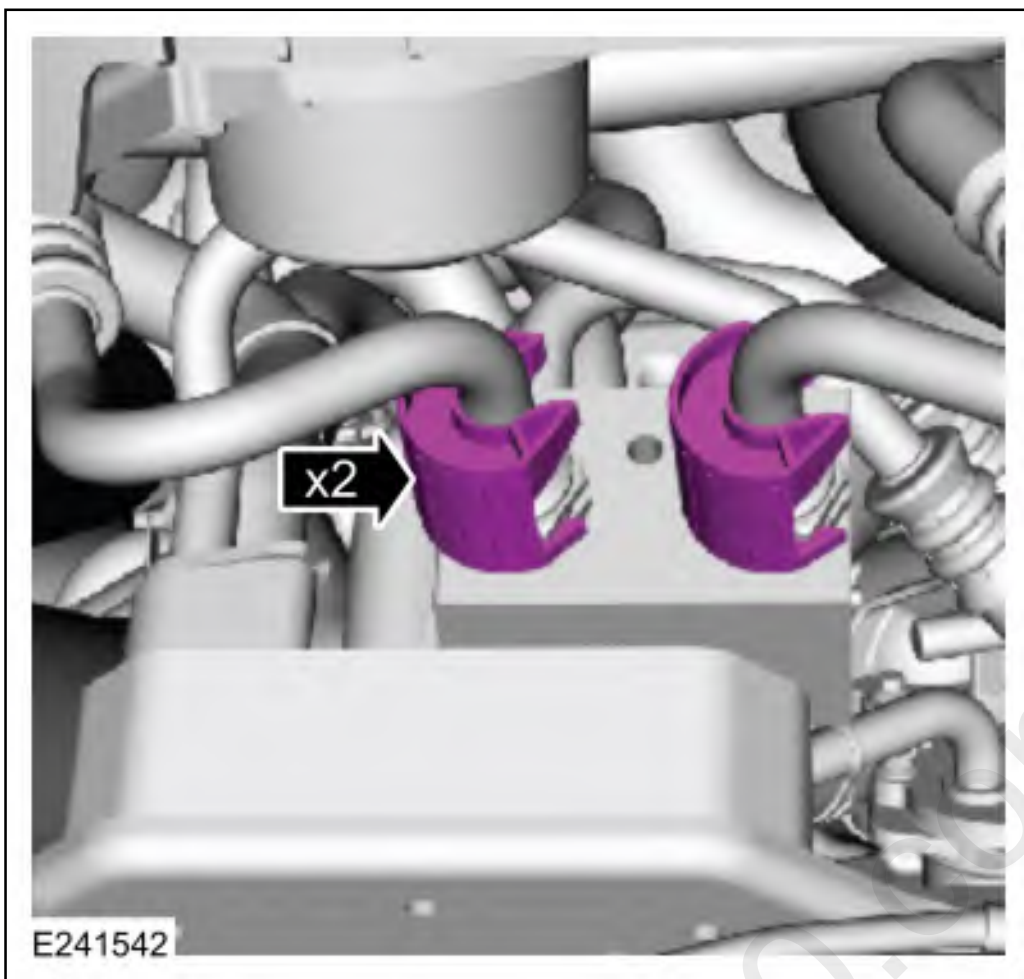
Name	Specification
Motorcraft® MERCON® ULV Automatic Transmission Fluid XT-12-QULV	MERCON® ULV WSS-M2C949-A

Removal

1. With the vehicle in N, position it on a hoist.
Refer to: [Jacking and Lifting - Overview](#) (100-02 Jacking and Lifting, Description and Operation).
2. If equipped, remove the bolts and the skid plate.

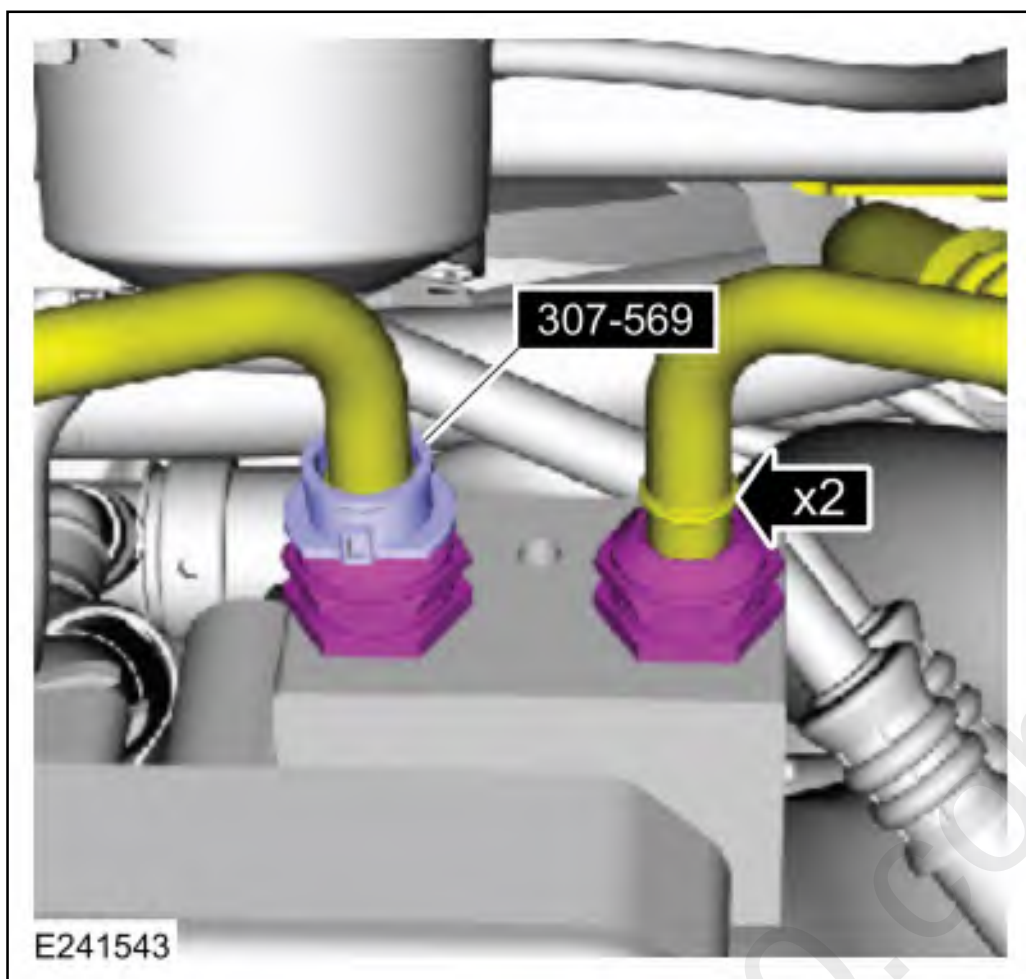


3. Remove the transmission fluid tube secondary latches.



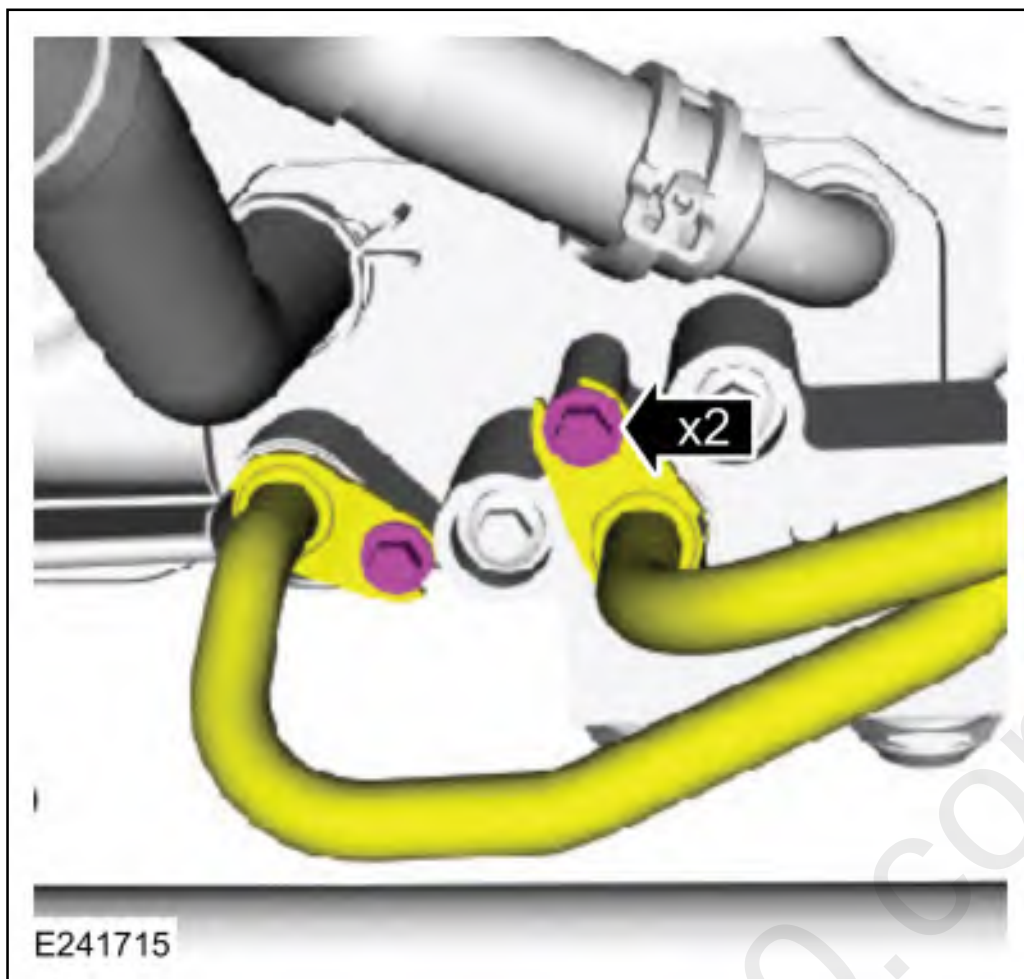
4. **NOTE:** *Be prepared to collect escaping fluid.*

Using the special tool, disconnect the transmission fluid cooler tubes.
Use Special Service Tool: 307-569 Disconnect Tool TOC Line (1/2).



5. **NOTE:** *Be prepared to collect escaping fluid.*

Remove the bolts and disconnect the transmission fluid cooler tubes.



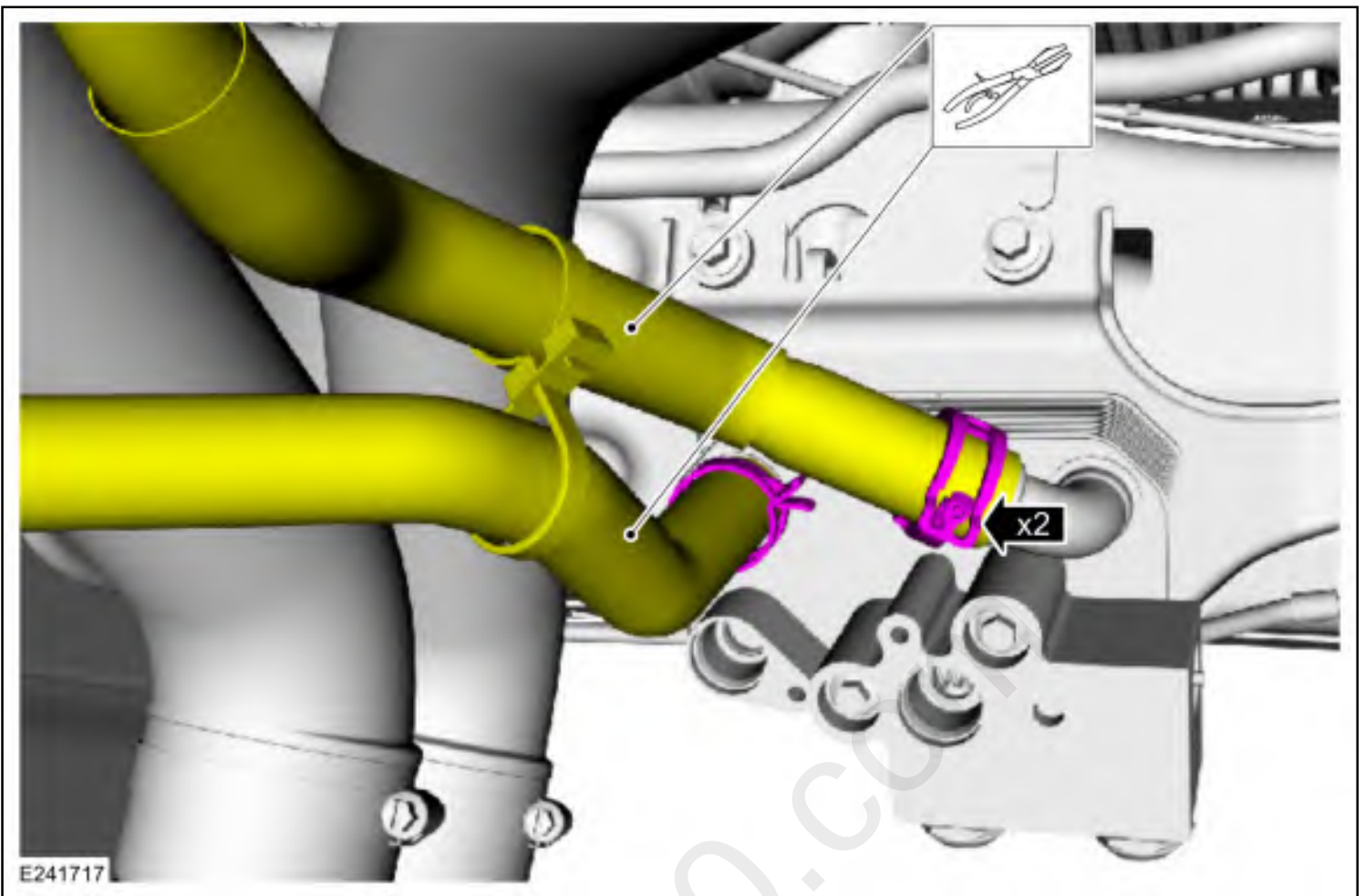
6. Inspect the cooler bypass valve and the transmission fluid warmer to be sure the transmission fluid tube seals and backing rings were removed with the transmission fluid tube and are not stuck in the cooler bypass valve or the transmission fluid warmer. If the transmission fluid tube seals or backing rings are stuck in the cooler bypass valve or the transmission fluid warmer, remove the seals and backing rings.



7. **NOTE:** *Be prepared to collect escaping fluid.*

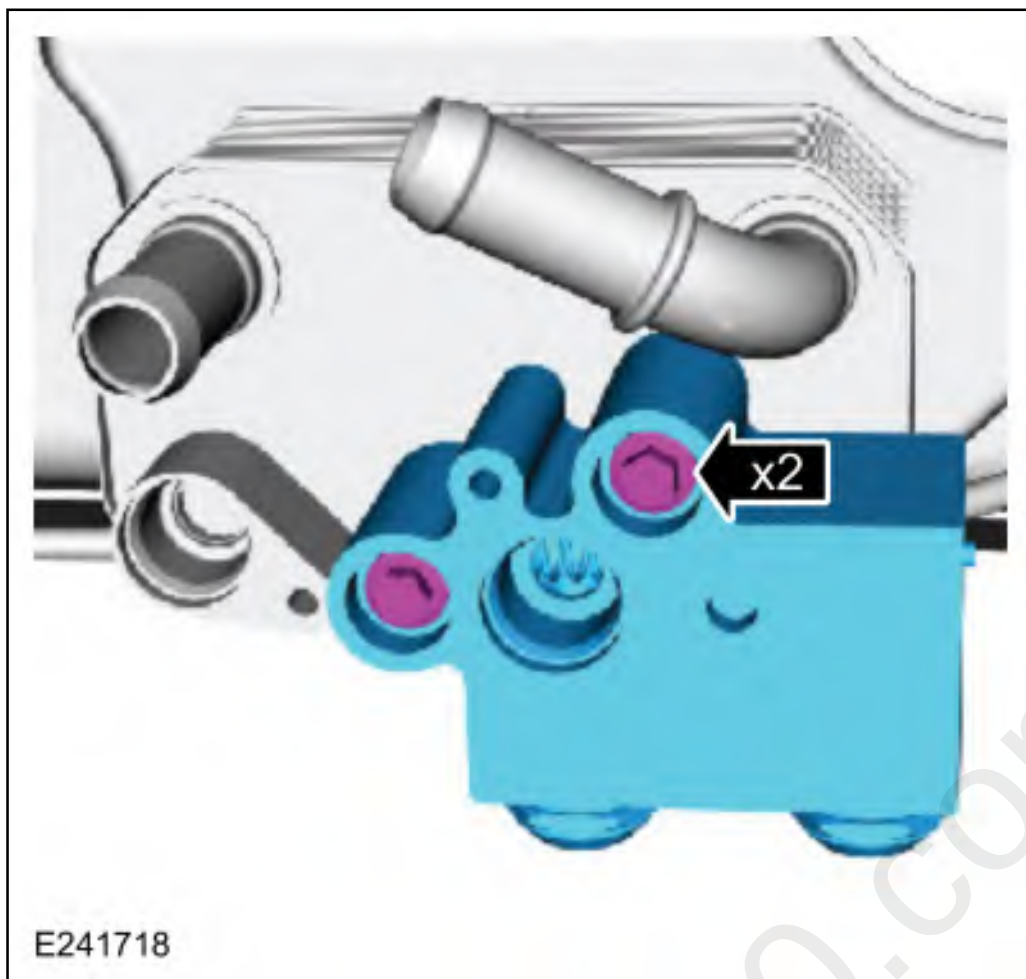
Install hose clamping pliers on the coolant hoses, release the hose clamps and disconnect the coolant hoses.

Use the General Equipment: Hose Clamp(s)

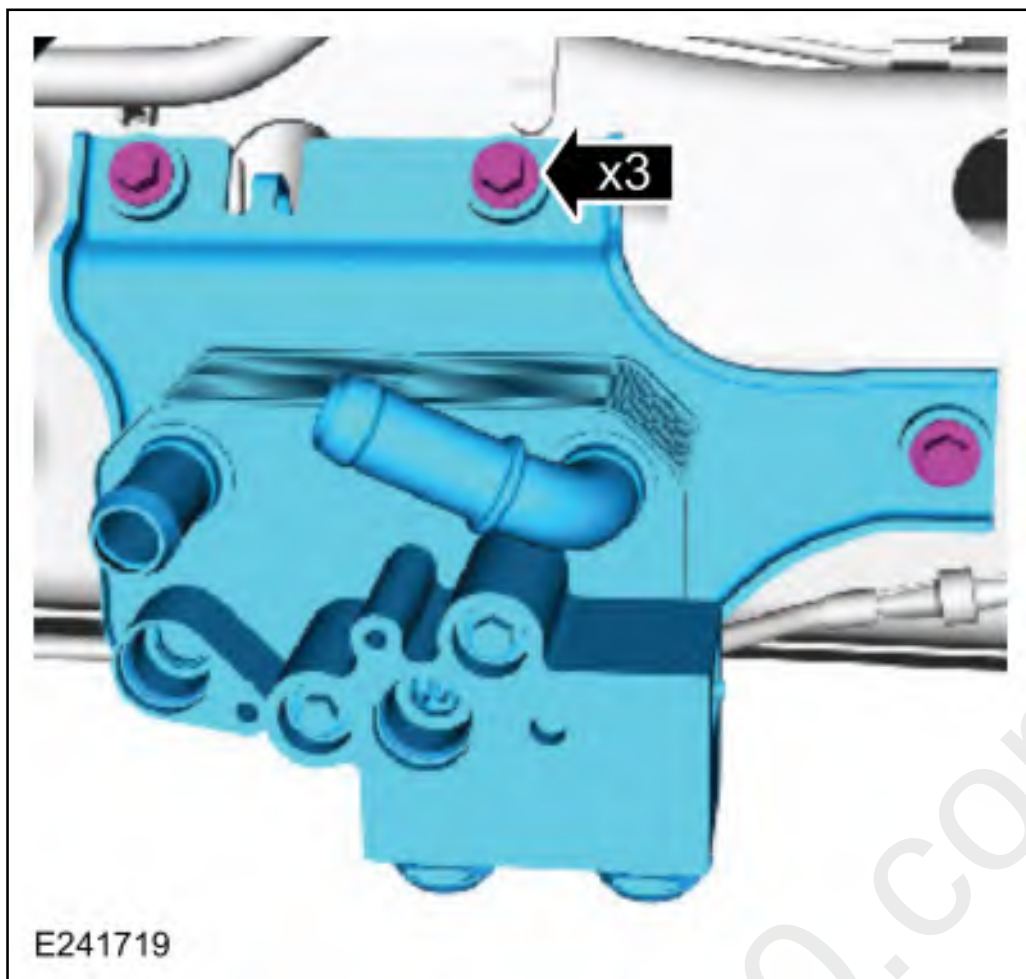


8. **NOTE:** *This step is only necessary if installing a new transmission fluid warmer.*

If installing a new transmission fluid warmer, remove the bolts and the cooler bypass valve.

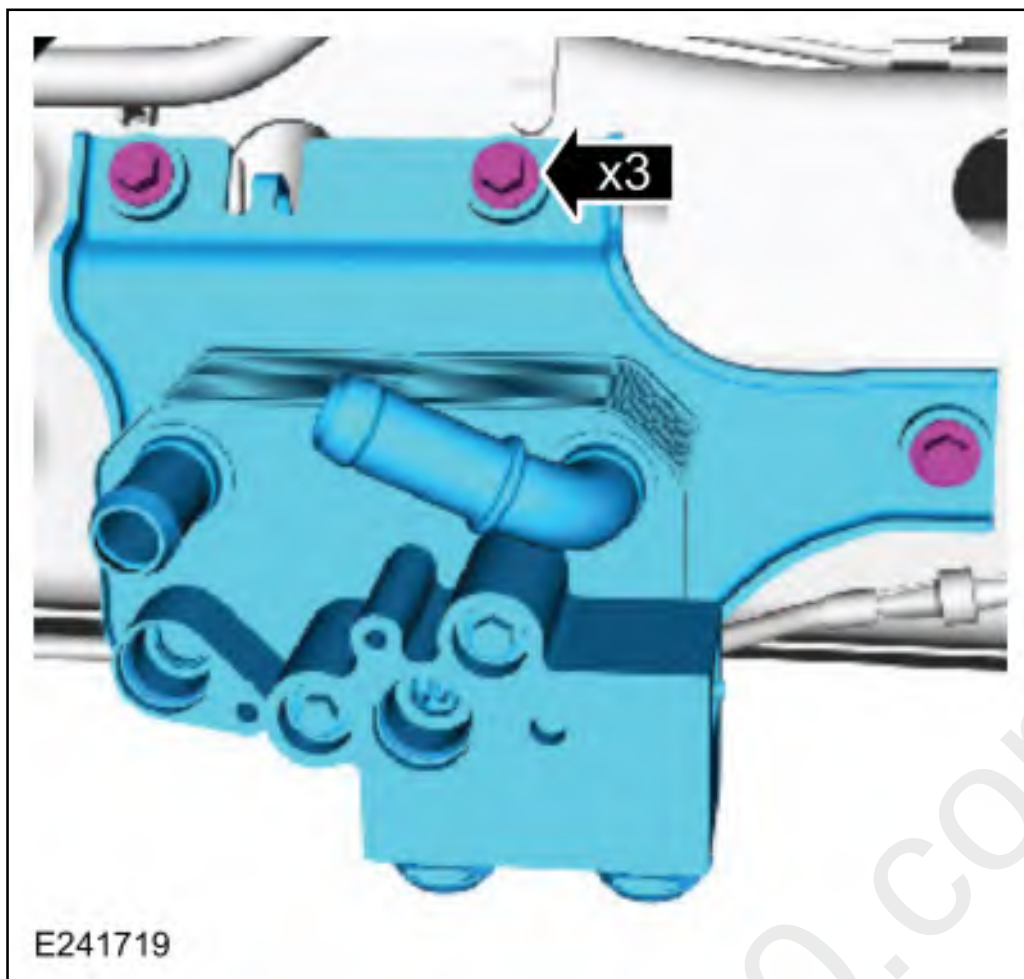


9. Remove the bolts and the transmission fluid warmer.



Installation

1. Install the transmission fluid warmer and the bolts.
Torque: 159 lb.in (18 Nm)



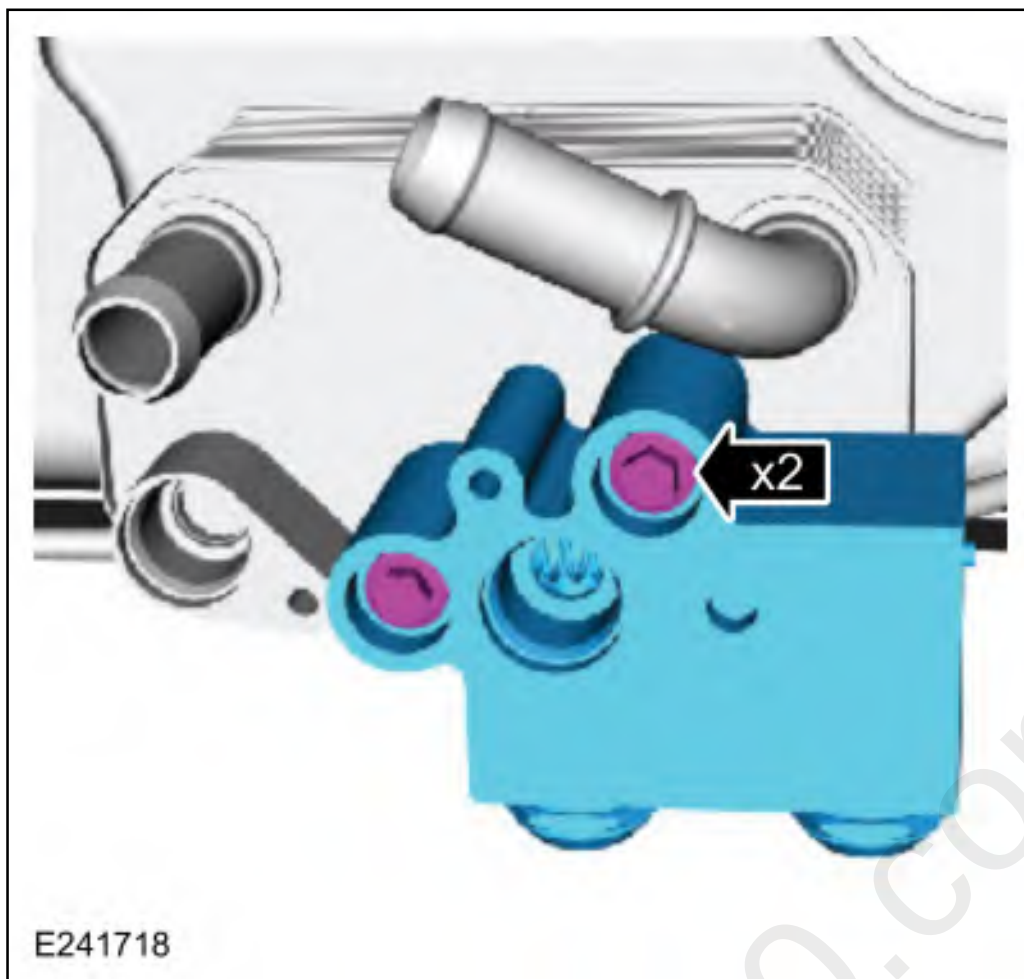
NOTE: The following two steps are only necessary if installing a new transmission fluid warmer.

2. If installing a new transmission fluid warmer, install and lubricate a new cooler bypass valve O-ring seal.

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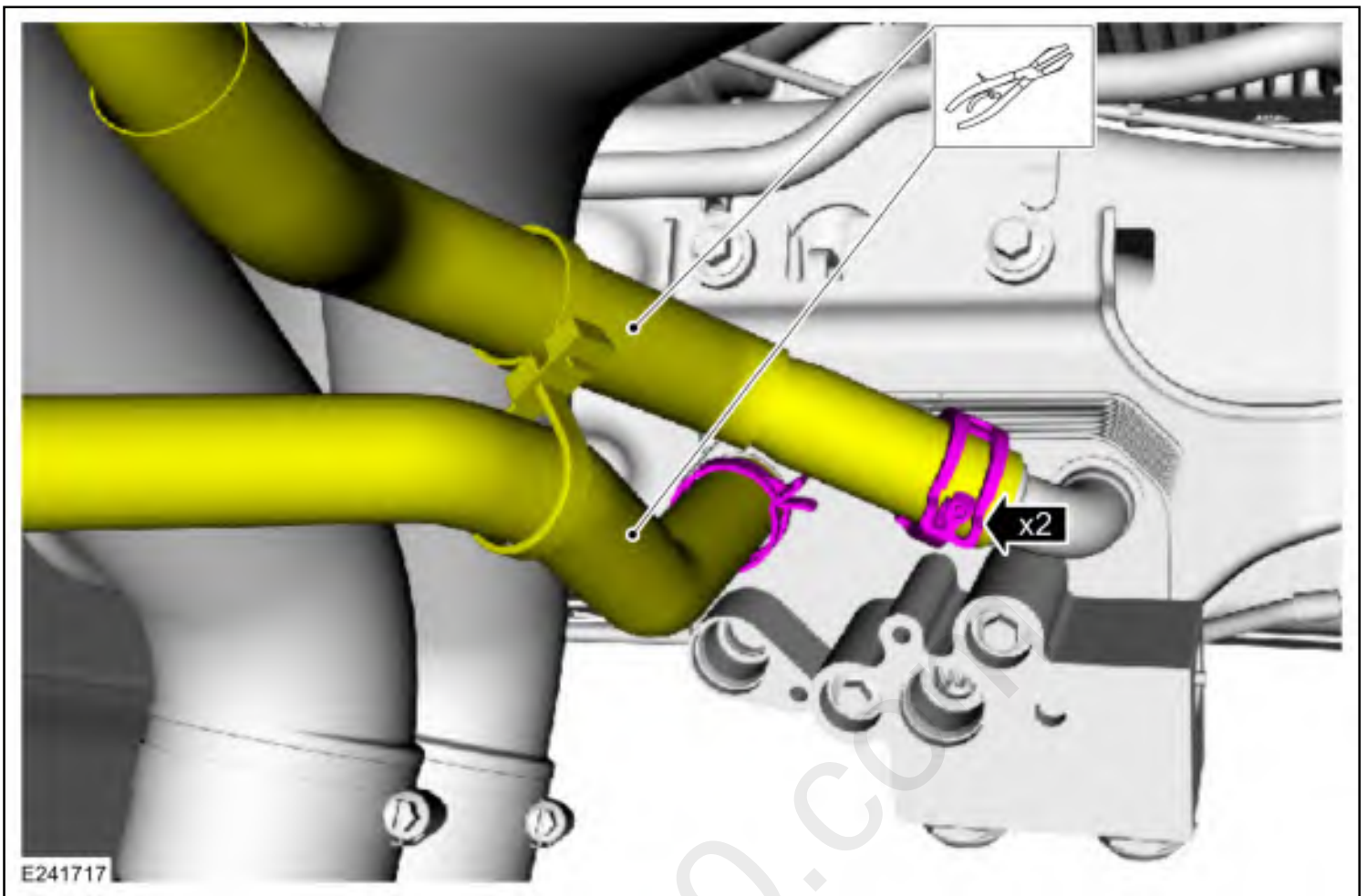


3. If installing a new transmission fluid warmer, install the cooler bypass valve and the bolts.
Torque: 106 lb.in (12 Nm)



4. **NOTE:** *Be prepared to collect escaping fluid.*

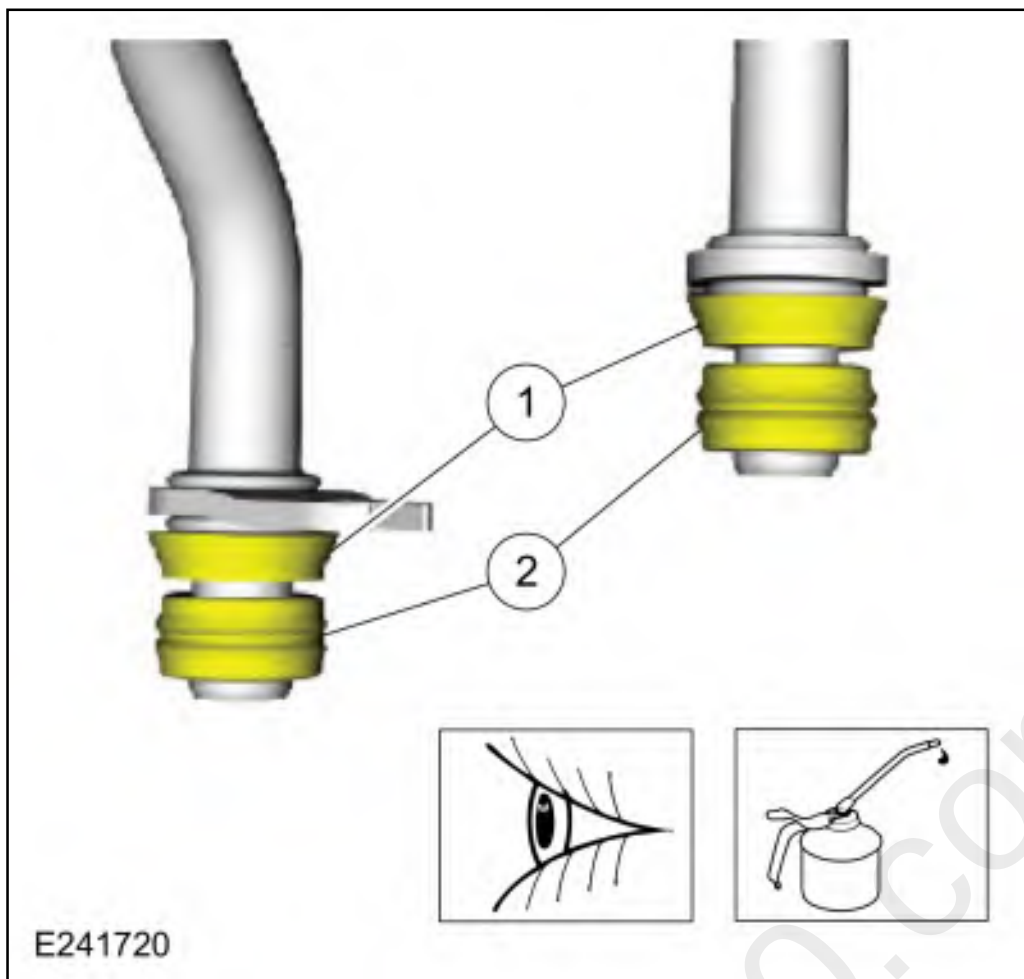
Connect the coolant hoses, position the clamps and remove the hose clamping pliers.
Use the General Equipment: Hose Clamp(s)



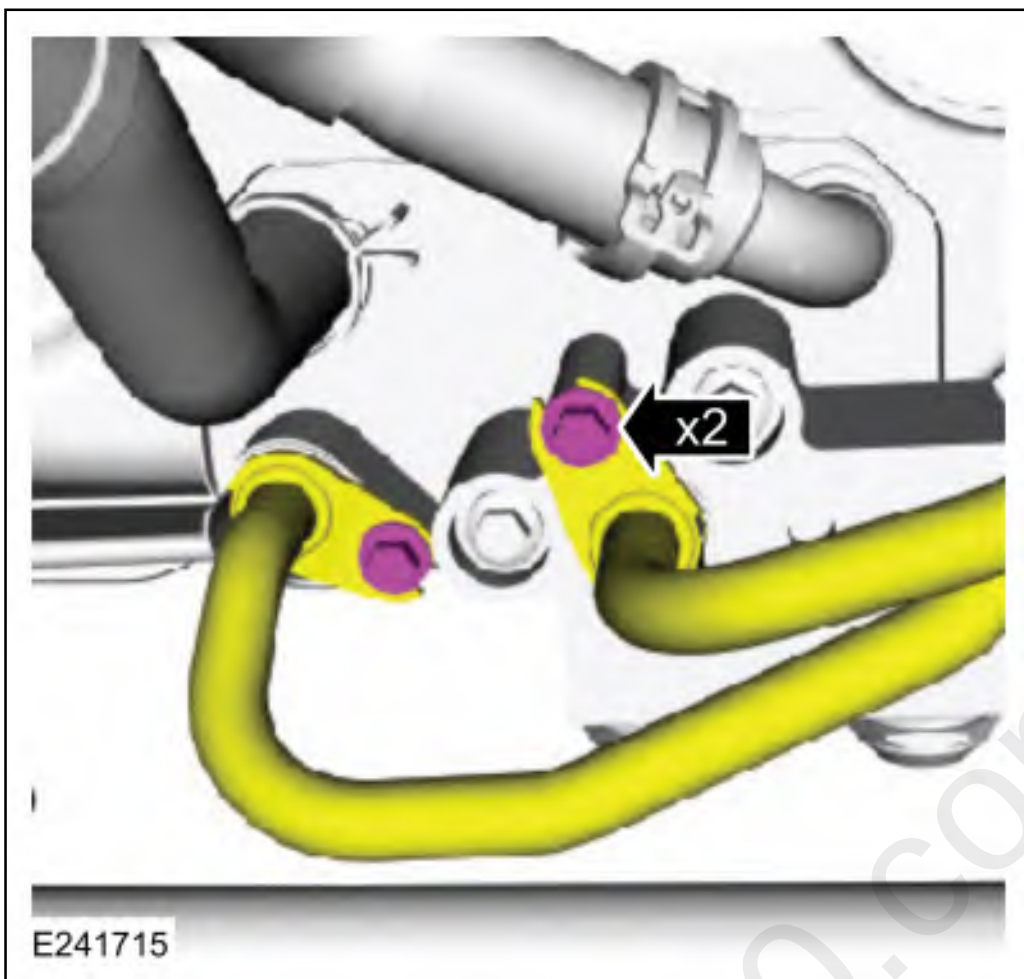
5. Inspect and lubricate the band seals and backing rings. Install new band seals and backing rings if necessary.

1. Backing ring (7J324).
2. Seal (7D285).

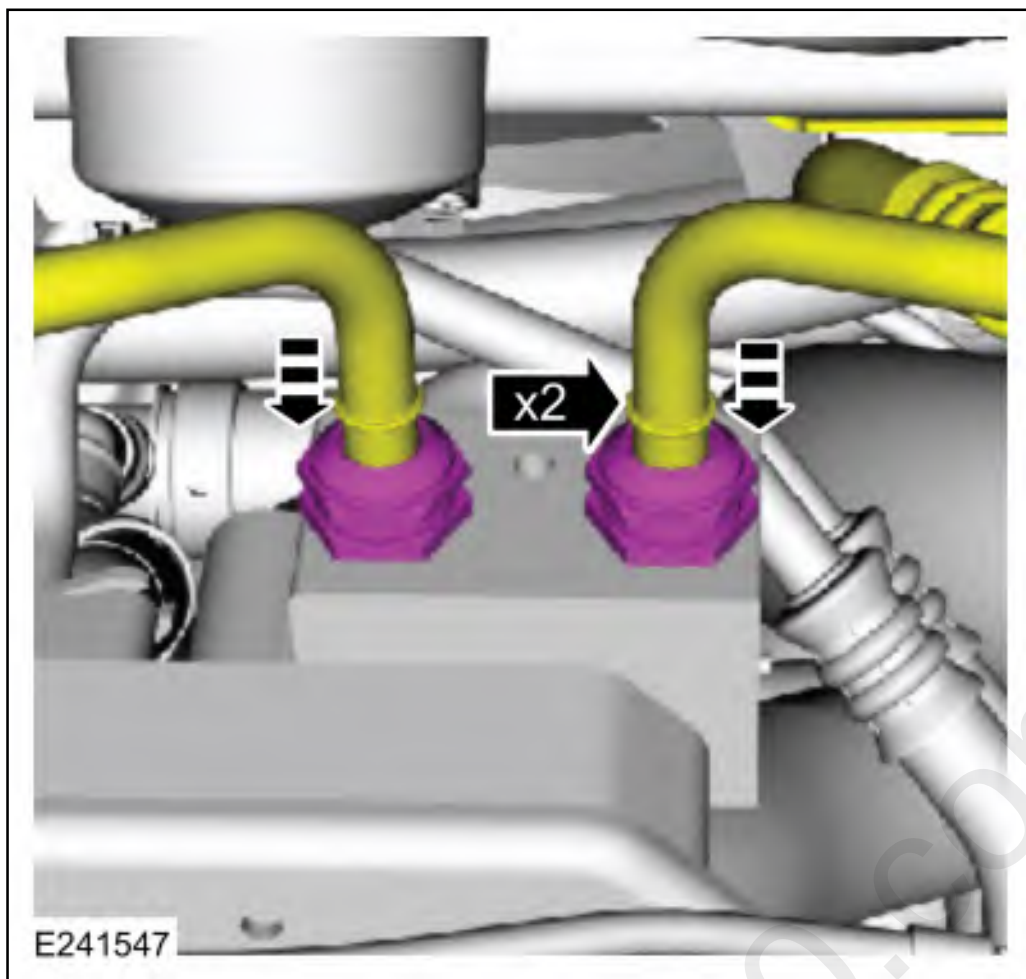
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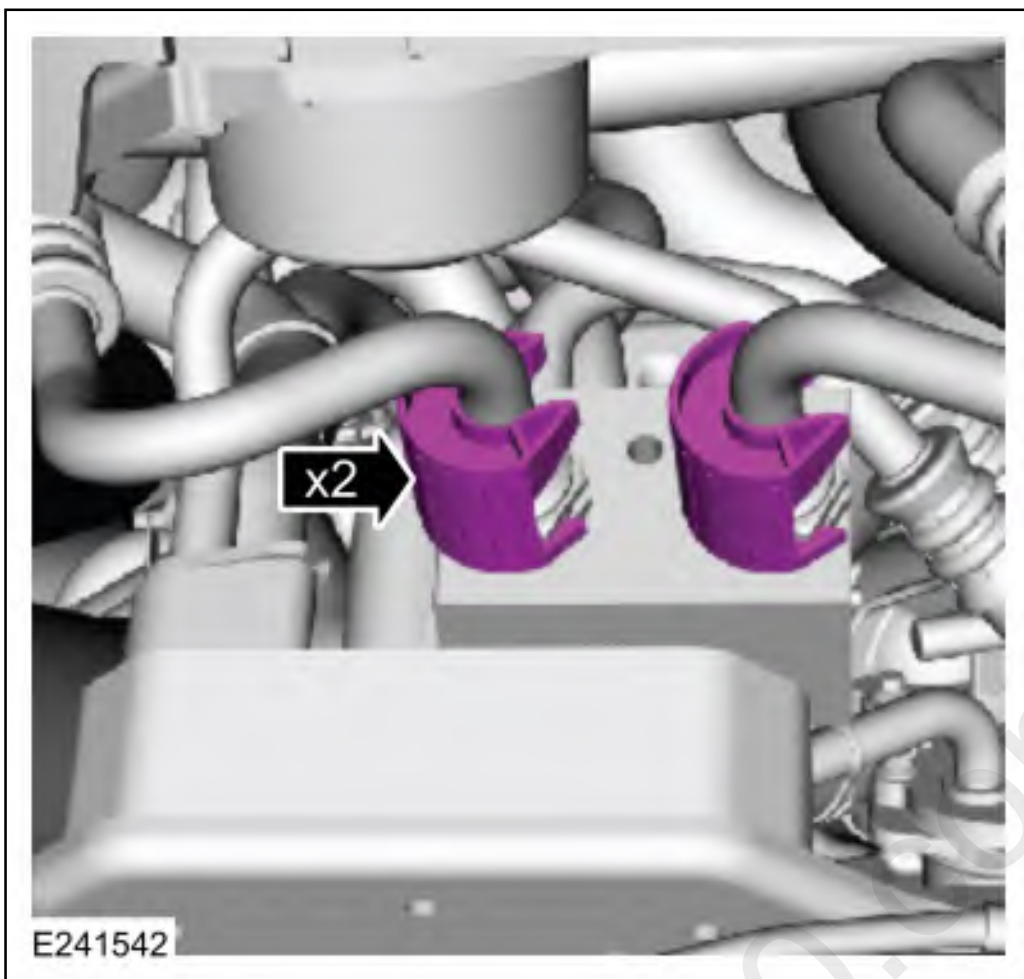
6. Connect the transmission fluid cooler tubes and install the bolts.
Torque: 89 lb.in (10 Nm)



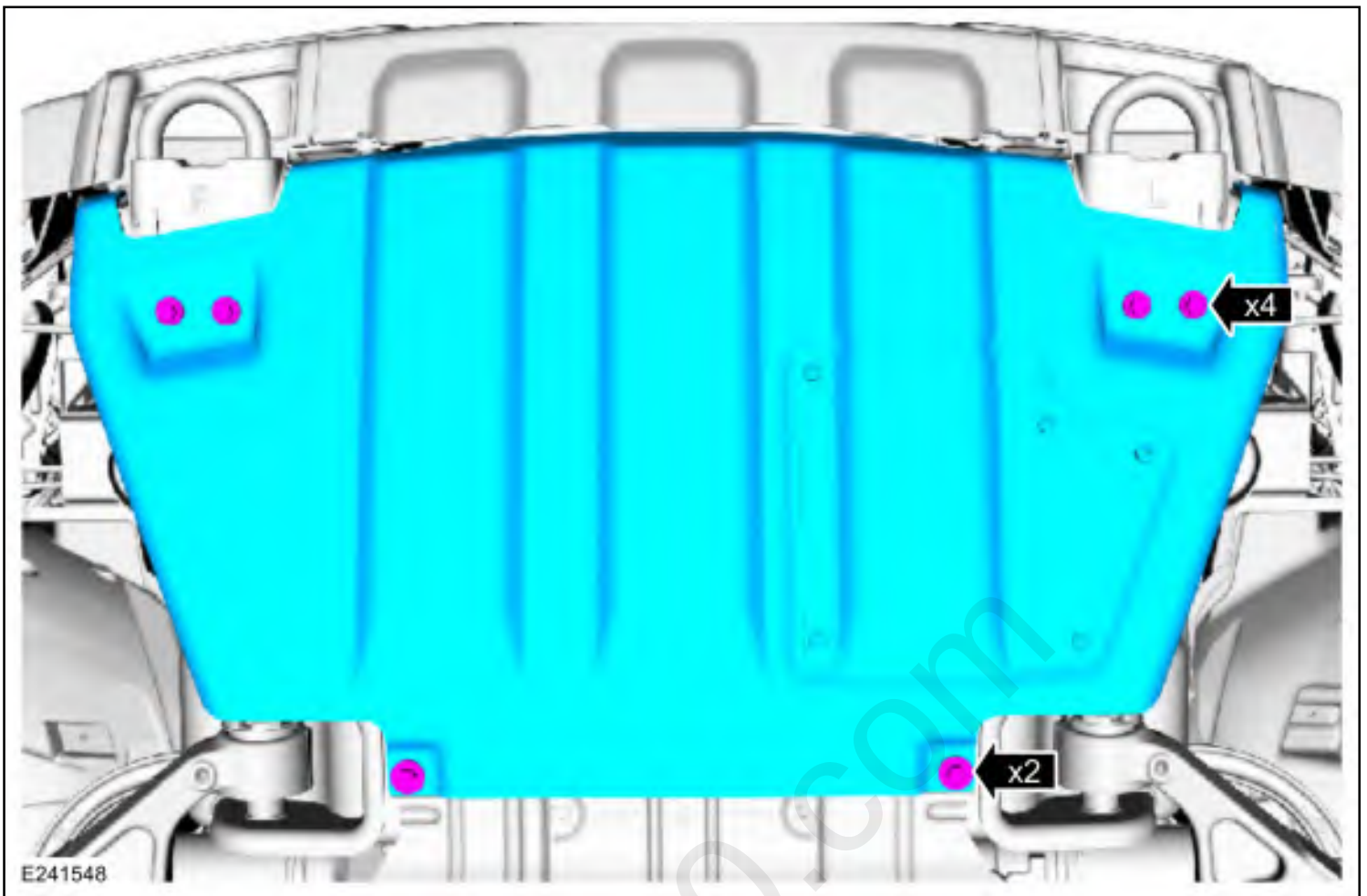
7. Connect the transmission fluid cooler tubes.



8. Install the transmission fluid tube secondary latches.



9. If equipped, install the skid plate and the bolts.
Torque: 22 lb.ft (30 Nm)



10. Check the transmission fluid level and adjust as necessary.
Refer to: [Transmission Fluid Level Check](#) (307-01B Automatic Transmission - 10-Speed Automatic Transmission - 10R80, General Procedures).
11. Check the engine coolant level and adjust as necessary.
Refer to: Cooling System Draining, Vacuum Filling and Bleeding (303-03 Engine Cooling - 3.5L EcoBoost (272kW/370PS)) .