

303-03 Engine Cooling - 2.3L EcoBoost (201kW/273PS)
Removal and Installation

2019 Ranger
Procedure revision date: 01/7/2019

Degas Bottle

Base Part Number: 8A080

Special Tool(s) / General Equipment

Fluid Suction Gun
Hose Clamp Remover/Installer

Materials

Name	Specification
Motorcraft® Orange Prediluted Antifreeze/Coolant VC-3DIL-B	WSS-M97B44-D2
Motorcraft® Yellow Concentrated Antifreeze/Coolant VC-13-G	WSS-M97B57-A1
Motorcraft® Yellow Prediluted Antifreeze/Coolant VC-13DL-G	WSS-M97B57-A2
Motorcraft® Orange Concentrated Antifreeze/Coolant VC-3-B	WSS-M97B44-D

Removal

 **WARNING:** Always allow the engine to cool before opening the cooling system. Do not unscrew the coolant pressure relief cap when the engine is operating or the cooling system is hot. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly. Failure to follow these instructions may result in serious personal injury.

NOTE: Removal steps in this procedure may contain installation details.

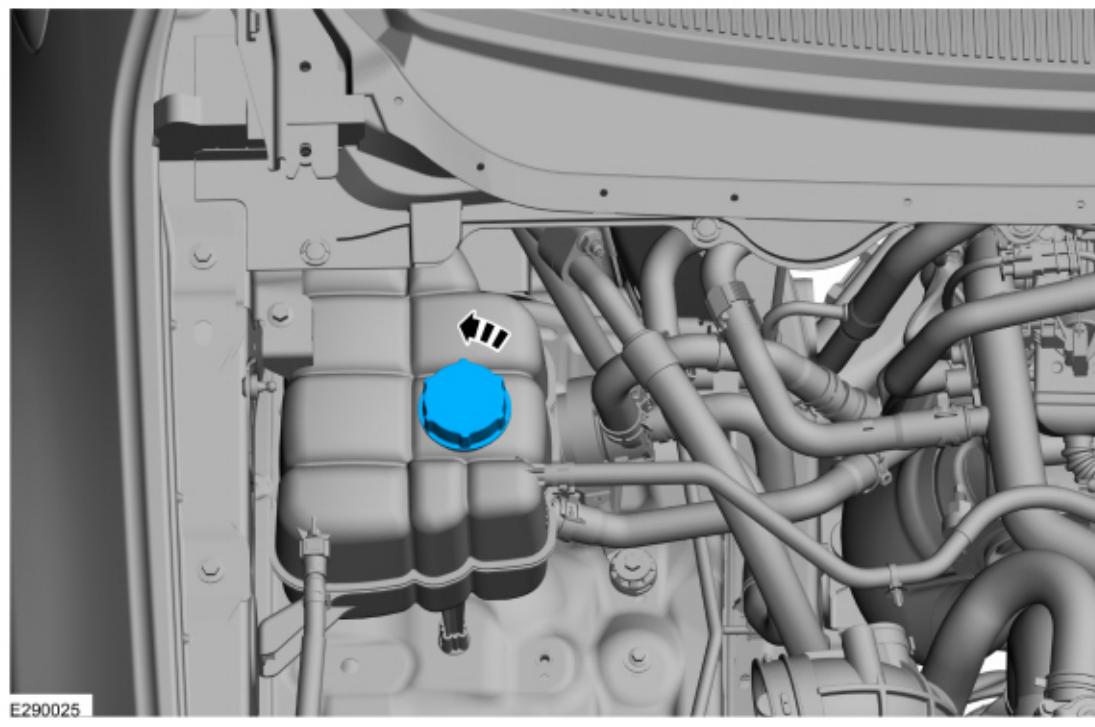
1. Remove the air cleaner assembly.
Refer to: [Air Cleaner](#) (303-12 Intake Air Distribution and Filtering - 2.3L EcoBoost (201kW/273PS), Removal and Installation).

2.



 **WARNING:** When releasing the cooling system pressure, cover the coolant expansion tank cap with a thick cloth.

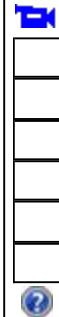
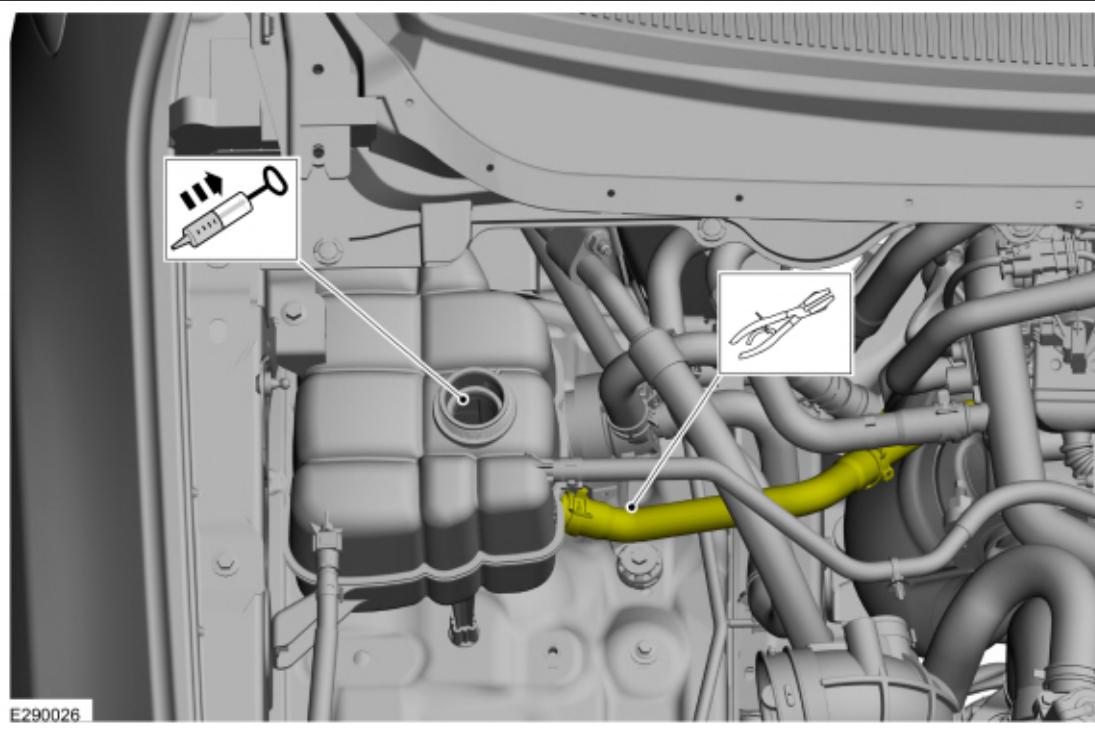
Release the cooling system pressure by slowly turning the degas bottle cap between 2 and 3 turns and remove the degas bottle cap.



3. Using general tools, clamp the lower expansion hose and syphon the engine coolant from the expansion tank.

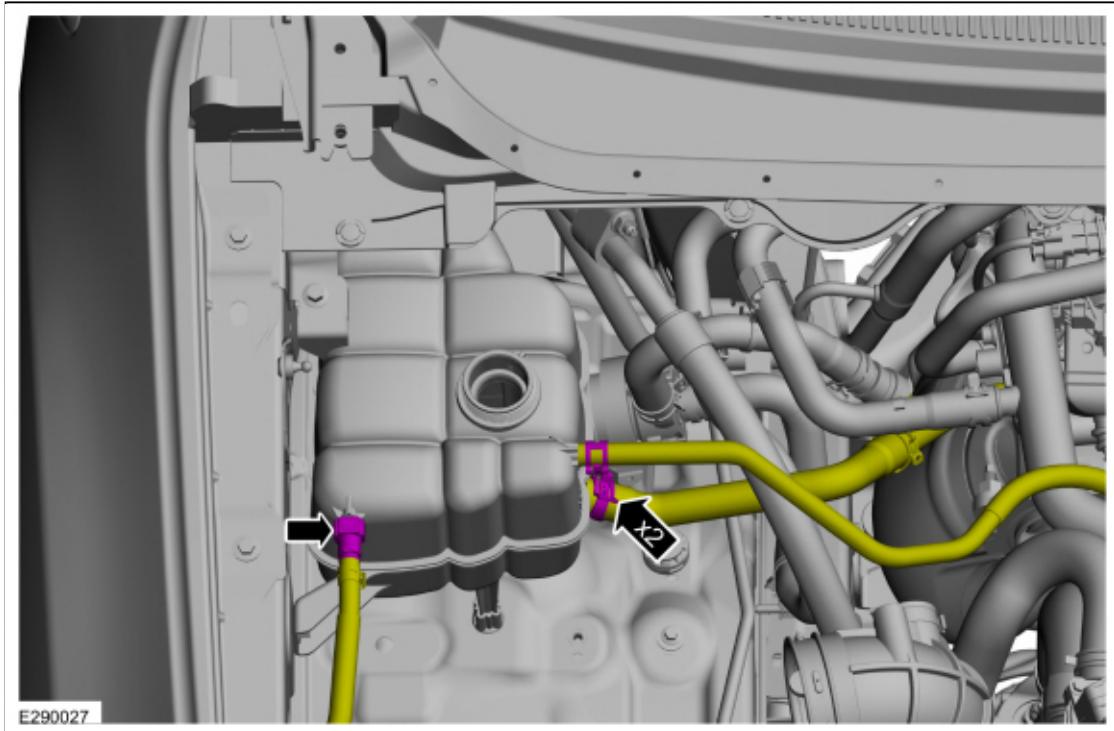
Use the General Equipment: Fluid Suction Gun

Use the General Equipment: Hose Clamp Remover/Installer

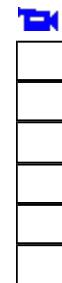


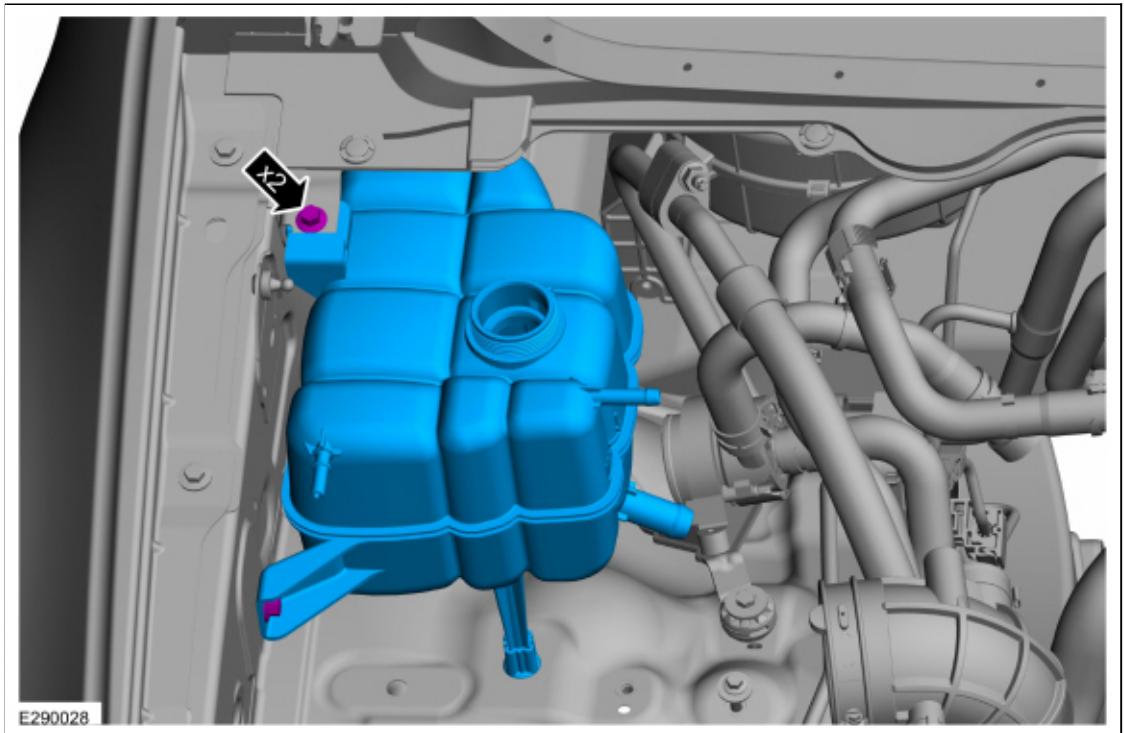
- 4.

- Release the clamps and disconnect the coolant hoses.
Use the General Equipment: Hose Clamp Remover/Installer
- Disconnect the quick release coupling.
Refer to: [Quick Release Coupling](#) (310-00 Fuel System - General Information - 2.3L EcoBoost (201kW/273PS), General Procedures).



5. Remove the bolts and the degas bottle.
Torque: 93 lb.in (10.5 Nm)





Installation

1. To install, reverse the removal procedure.
2. Fill the degas bottle with the recommended coolant mixture and fill level.

Material: Motorcraft® Orange Concentrated Antifreeze/Coolant / VC-3-B (WSS-M97B44-D)

Material: Motorcraft® Orange Prediluted Antifreeze/Coolant / VC-3DIL-B (WSS-M97B44-D2)

Material: Motorcraft® Yellow Concentrated Antifreeze/Coolant / VC-13-G (WSS-M97B57-A1)

Material: Motorcraft® Yellow Prediluted Antifreeze/Coolant / VC-13DL-G (WSS-M97B57-A2)

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