

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

2019 Ranger
Procedure revision date: 01/7/2019

Block Heater

Special Tool(s) / General Equipment

Hose Clamp Remover/Installer

Materials

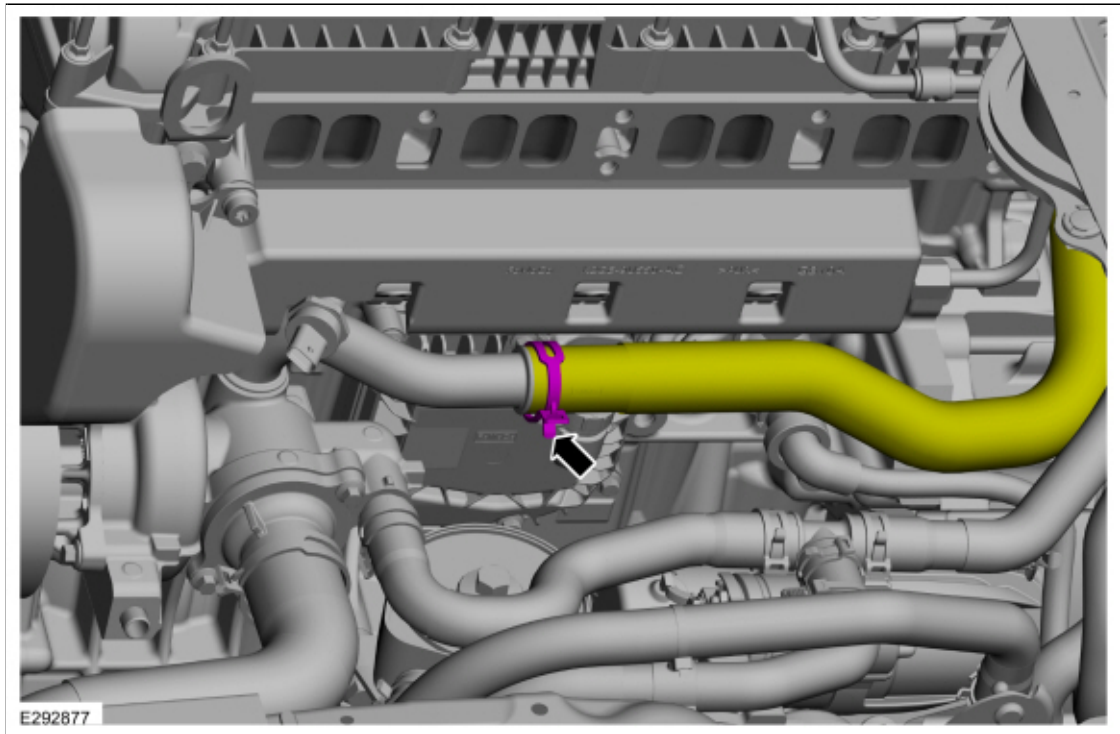
Name	Specification
Motorcraft® Orange Prediluted Antifreeze/Coolant VC-3DIL-B	WSS-M97B44-D2
Motorcraft® Yellow Concentrated Antifreeze/Coolant VC-13-G	WSS-M97B57-A1
Motorcraft® Yellow Prediluted Antifreeze/Coolant VC-13DL-G	WSS-M97B57-A2
Motorcraft® Orange Concentrated Antifreeze/Coolant VC-3-B	WSS-M97B44-D

Removal

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

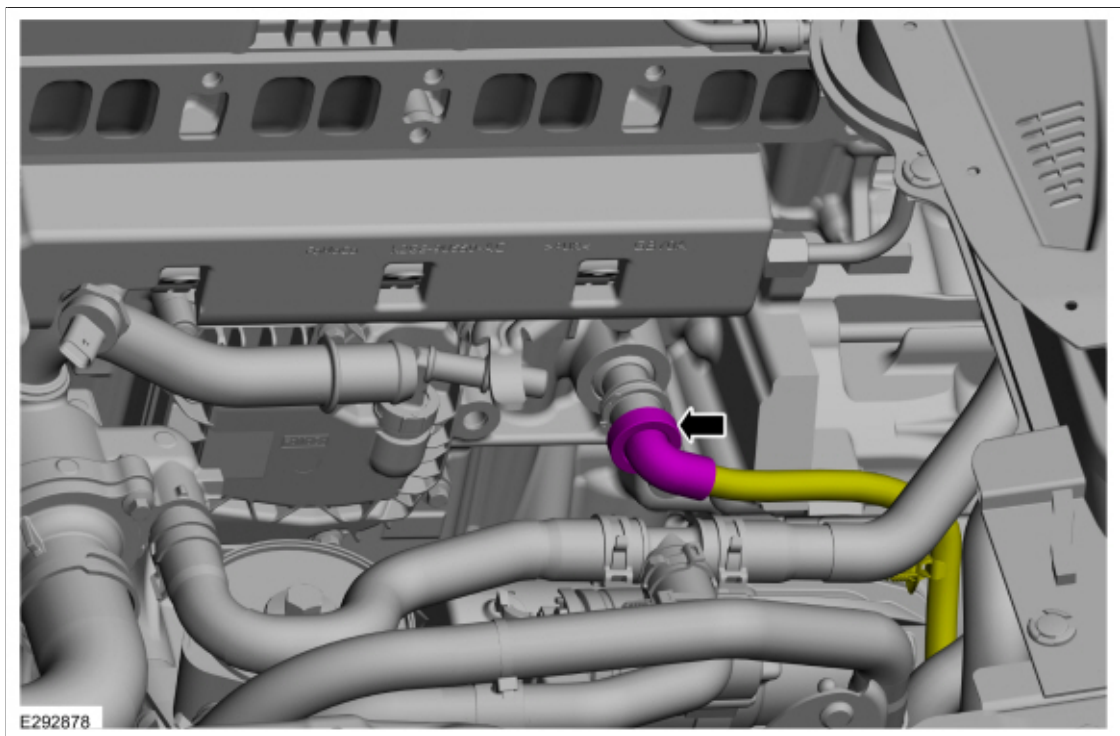
1. Drain the cooling system.
Refer to: [Cooling System Draining, Vacuum Filling and Bleeding](#) (303-03 Engine Cooling - 2.3L EcoBoost (201kW/273PS), General Procedures).
2. Remove the intake manifold.
Refer to: [Intake Manifold](#) (303-01 Engine - 2.3L EcoBoost (201kW/273PS), Removal and Installation).
3. Release the clamp and disconnect the coolant hose.
Use the General Equipment: Hose Clamp Remover/Installer



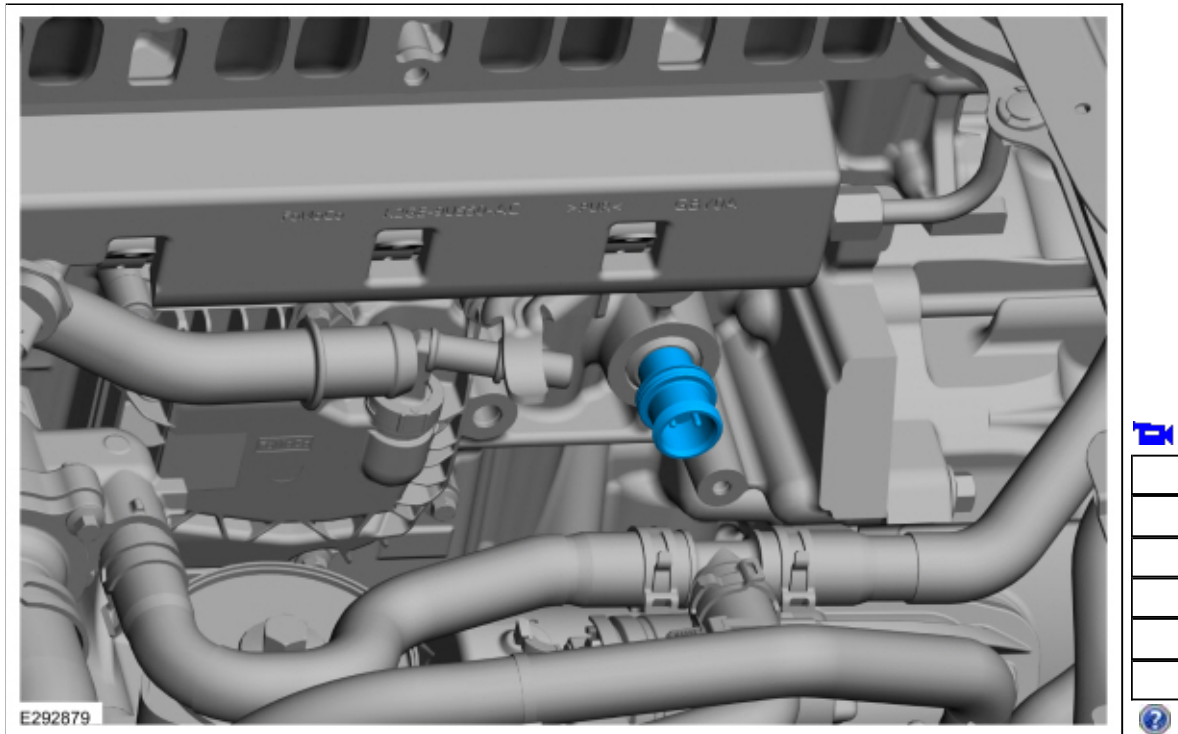


4. **NOTE:** Make sure the block heater wiring is routed and secured away from rotating or hot components.

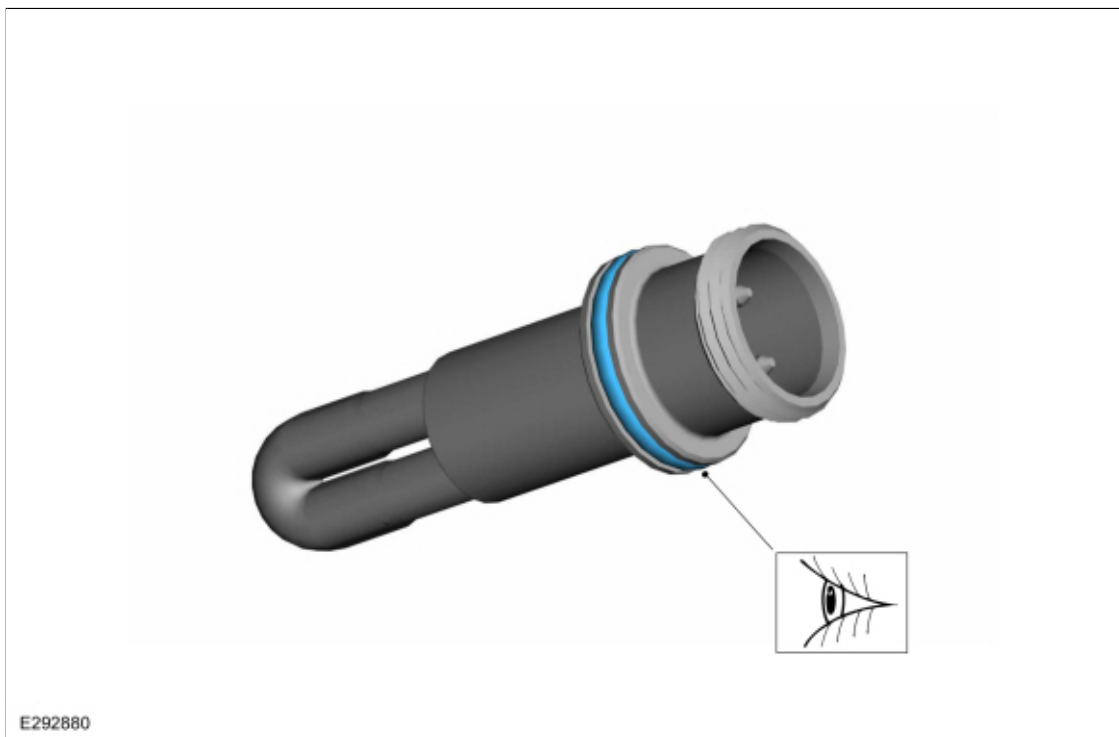
Disconnect the block heater electrical connector.



5. Remove the block heater.
Torque: 30 lb.ft (40 Nm)



6. Inspect the O-ring seal and replace if necessary.



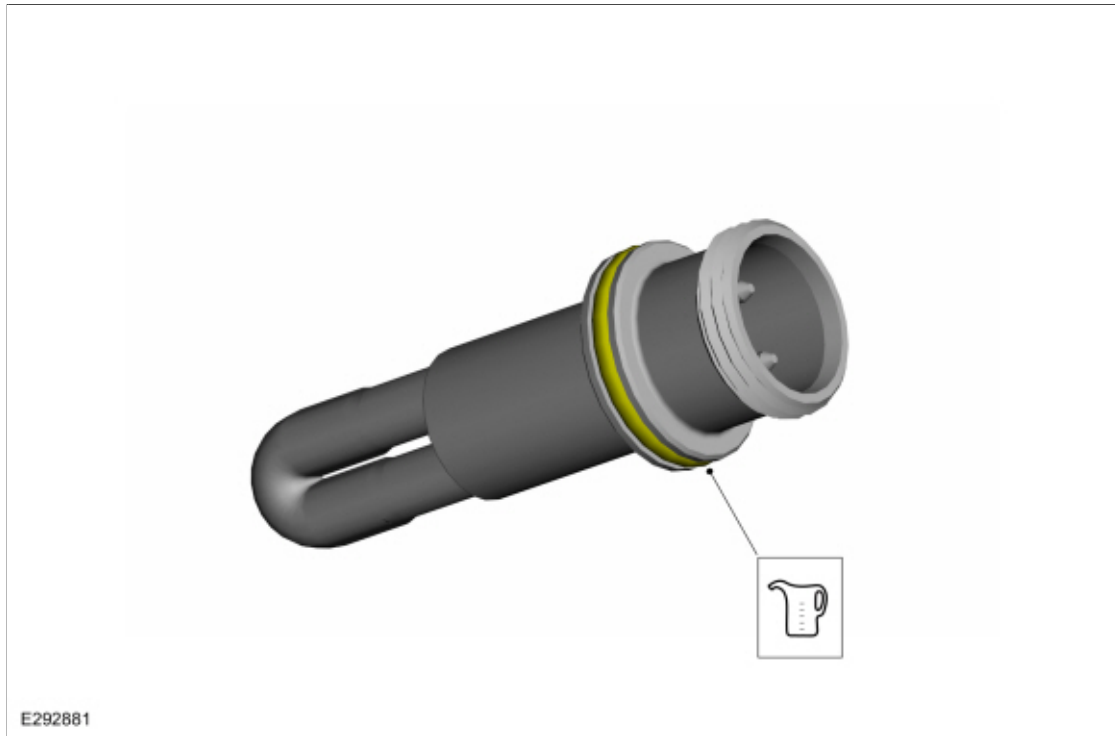
Installation

1. Lubricate the O-ring seal with clean engine coolant.
Material: Motorcraft® Orange Prediluted Antifreeze/Coolant / VC-3DIL-B (WSS-M97B44-D2)

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

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

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



2. To install, reverse the removal procedure.

3. Fill and bleed the cooling system.

Refer to: [Cooling System Draining, Vacuum Filling and Bleeding](#) (303-03 Engine Cooling - 2.3L EcoBoost (201kW/273PS), General Procedures).

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