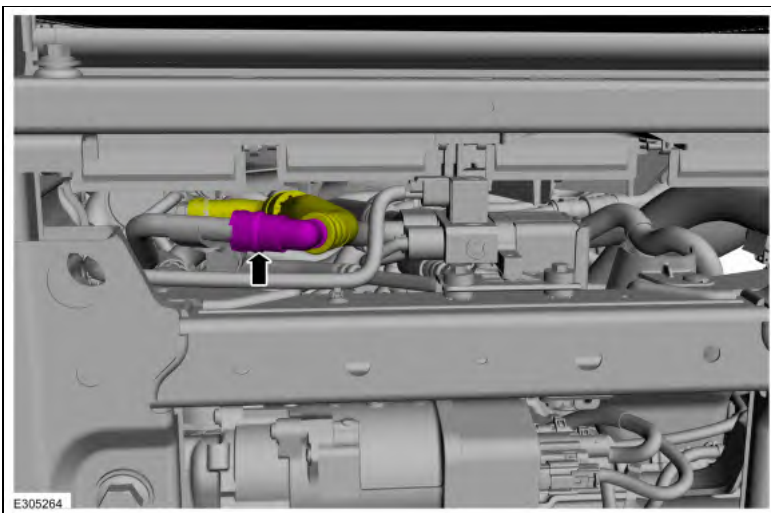
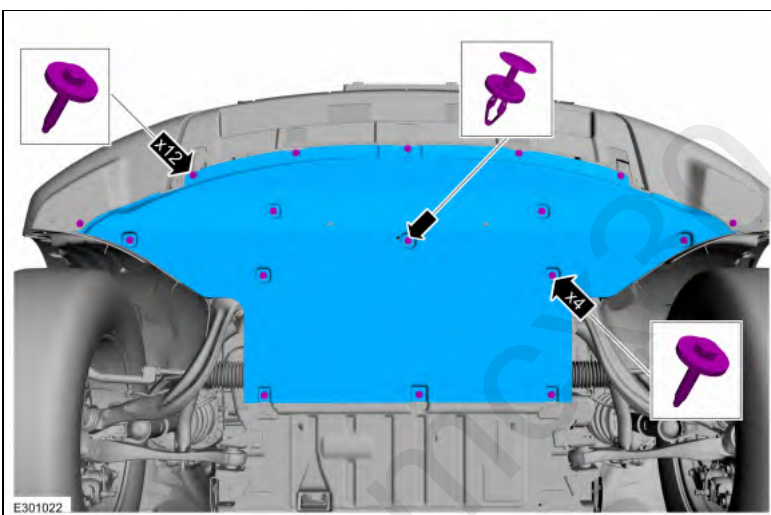




2. Install the engine underbody shield and the retainers.



3.

- **NOTICE:** Use the correct coolant. Do not mix coolant types. Mixing coolant types may degrade the coolant corrosion protection and may damage the engine or cooling system. For the correct coolant specified for this vehicle, refer to Specifications.

NOTICE: Engine coolant provides boil protection, corrosion protection, freeze protection and cooling efficiency to the engine and cooling components. In order to obtain these protections, maintain the engine coolant at the correct concentration and fluid level in the degas bottle.

NOTICE: Do not add alcohol, methanol, or brine, or any engine coolants mixed with alcohol or methanol antifreeze. These can cause engine damage from overheating or freezing.

NOTE: Ford Motor Company does NOT recommend the use of recycled engine coolant since a Ford- approved recycling process is not yet available.

When adding or topping off the engine coolant:

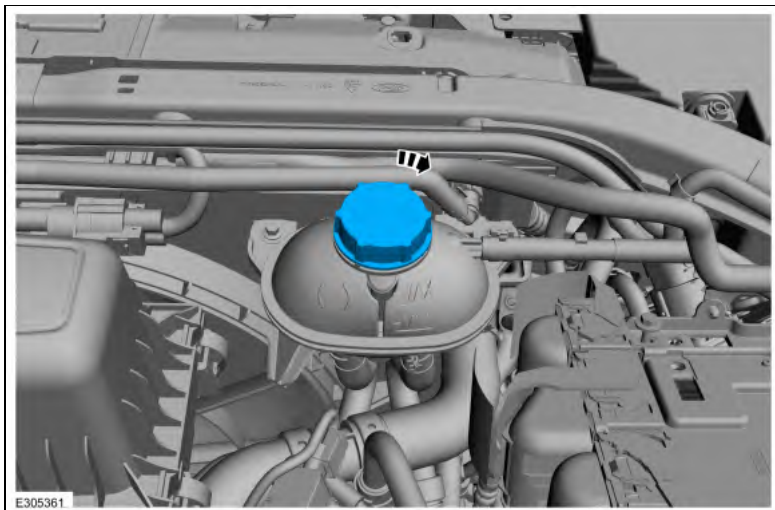
- Measure the coolant concentration in the vehicle.
Use Special Service Tool: ROB75240 Coolant/Battery Refractometer (Fahrenheit).
- Determine the concentration desired based on the vehicle duty cycle of extreme hot or cold operating conditions.
- Add, top-off or adjust the coolant as follows:
Refer to: Specifications (303-03E Electric Powertrain Cooling - 3.3L Duratec-V6 4-cylinder Hybrid (BP), Specifications).

4. **NOTE:** Verify that all of the SOBDMC/ TCM electrical connections are fully engaged. This is to avoid any fluid spillage into the connector openings.

NOTE: The cooling system must be filled with a commercially available vacuum cooling system filler.

Install the vacuum cooling system filler and follow the manufacturer's instructions to fill the cooling system.
Refer to: Specifications (303-03E Electric Powertrain Cooling - 3.3L Duratec-V6 4-cylinder Hybrid (BP), Specifications).
Use the General Equipment: Cooling System Vacuum Tester and Refiller

5. Install the pressure relief cap.



Bleeding

1. Place transmission selector in park.
2. **NOTE:** Vehicles should be left in the service fill mode for a minimum of 20 minutes.

Using the scan tool, run the service fill mode procedure for the electric powertrain cooling system.

3. **NOTE:** The gas engine may or may not start. Confirm that the SOBDMC/ TCM coolant pump is running by feeling for vibration at the pump.

Start the vehicle by pressing the brake pedal and START button until the ready to drive indicator is illuminated.

4. **NOTE:** Monitor the level in the reservoir and fill throughout the process.

Watch for air bubbles in the coolant expansion tank for the SOBDMC/ TCM. Add coolant to the coolant expansion tank if the level falls below the MIN mark. Bleeding is complete when bubbling stops.

Refer to: Specifications (303-03E Electric Powertrain Cooling - 3.3L Duratec-V6    Hybrid (BP), Specifications).

5. Exit the service fill mode and turn off the ignition. Check and fill the coolant expansion tank until the coolant level is between the MIN and MAX marks.
Refer to: Specifications (303-03E Electric Powertrain Cooling - 3.3L Duratec-V6    Hybrid (BP), Specifications).
6. Repeat steps 2 through 5 if necessary.

Removal and Installation

Coolant Expansion Tank

Special Tool(s) / General Equipment

Fluid Suction Gun
Hose Clamp Remover/Installer
Locking Pliers

Removal

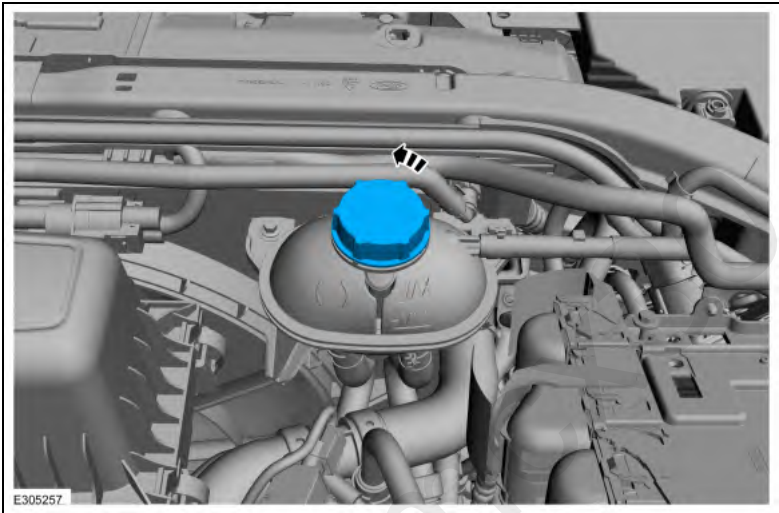
⚠️**WARNING:** Always allow the engine to cool before opening the cooling system. Do not unscrew the coolant pressure relief cap when the engine is operating or the cooling system is hot. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly.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

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

1. 
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⚠️**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.



2. Using general tools, clamp the lower expansion tank hose and syphon the engine coolant from the expansion tank.
Use the General Equipment: Fluid Suction Gun
Use the General Equipment: Locking Pliers