

Air Conditioning (A/C) System Leak Test Using Forming Gas

Special Tool(s) / General Equipment

Forming Gas Pressure Gauge and Leak Detector

Materials

Name	Specification
Forming Gas	-

Leak detection

All vehicles

1. **NOTE:** Use a Rotunda-approved Tracer Gas A/C System Dealership Leak Detection Service Kit that meets SAE J2790.

Recover the refrigerant. Refer to the appropriate Recovery procedure in Group 412.

Hybrid/Electric vehicles

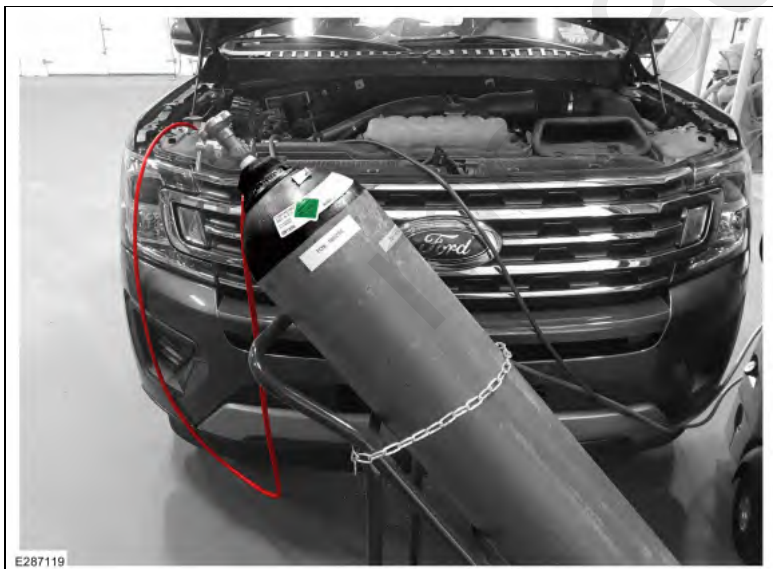
2. Electric or Hybrid vehicle with a battery chiller. It may be necessary to activate the battery chiller(s) to open the solenoid(s) to allow vacuum and gas to pass through to chiller for leak testing. Refer to shop manual refrigerant reclaim and charging to see if solenoid(s) activation is necessary. Follow the shop manual procedure to perform activation if needed.

All vehicles

3. Perform the vacuum leak test in accordance with the service unit manufacturer instructions.
4. Assemble tracer gas leak detection kit per manufacturer instructions.
5. Connect the forming gas pressure gauge and leak detector service hose to the high-pressure port of the air conditioning system in accordance with the manufacturer instructions.

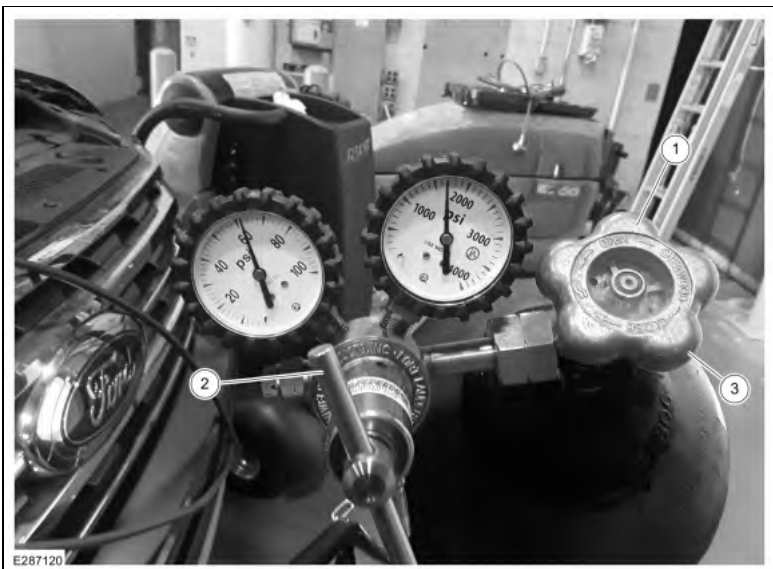
Use the General Equipment: Forming Gas Pressure Gauge and Leak Detector

Material: Forming Gas



6. **NOTICE:** Make sure that the pressure reducer (2) is closed.

1. Open the bottle valve.
 2. Slowly turn the pressure reducer until a pressure of 4.1 bar (60 psi) is reached. Maintain open for 30 seconds to allow tracer gas to fill system.
 3. Close the bottle valve.
- Model D740KIT - Tracer Gas A/C System Dealership Leak Detection Service Kit



7. Leak test the refrigerant system. Follow the instructions included with the Leak Detector for handling and operation techniques.
 - D740 H₂/N₂ leak detector
8. **NOTE:** Trace gas is lighter than air, and tends to move up from the source of the leak. It is possible that a leak may not be detected if the leak detector tip is held below the leaking fitting, line or component. Always be sure to thoroughly leak test below, above and around the fitting, line or component.

 Disconnect the forming gas pressure gauge and leak detector from the air conditioning system in accordance with the manufacturer instructions.
9. **NOTICE:** Do not ever recover the tracer gas into the A/C recovery/charging machine.

NOTE: Discharge the H₂/N₂ tracer gas into the atmosphere after the system leak/s are located.

 Charge the system with the appropriate refrigerant only after the leak/s are repaired and retested with the H₂/N₂ tracer gas and the model D740 leak detector. Refer to the appropriate Recharging procedure in Group 412.