



# SERVICE ADVISORY

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## AIR CONDITIONING COMPRESSOR LEAK/NOISE DIAGNOSIS

**APPLIED VEHICLE:** All

### SERVICE INFORMATION

If a customer brings in a vehicle complaining of poor cooling performance and/or an air conditioning (A/C) compressor noise complaint and diagnosis shows that the refrigerant level is lower than specification, the A/C compressor may **NOT** be the cause.

### SERVICE PROCEDURE

#### Leak

When diagnosing compressors for a refrigerant leak, please use the following procedure:

1. Make sure the A/C system is charged with the specified amount of refrigerant.
2. Use the J39400 leak detector to identify the area of the leak. For detailed information on refrigerant leak detection, refer to technical bulletin NTB95-014, PROCEDURE FOR DETECTION OF REFRIGERANT LEAKS, dated February 22, 1995.
3. If a leak is detected, verify the exact location of the leak with a soap and water solution. Please note that if the compressor's joint connector has a leak, compressor oil may leak out on the compressor case. Therefore it should not be assumed that the compressor has a leak if compressor oil is detected on the compressor case.
4. If the leak is at the compressor's joint connector, do not replace the compressor. The leak should be repaired as follows:
  - Evacuate/Recover the refrigerant from the A/C system using the proper refrigerant recycling equipment.
  - Replace the "O" ring for the leaking joint connector.
  - Properly position the tube and compressor joint connector.
  - Tighten the connector's fastening bolt(s) by hand first. Confirm the tube and compressor joint connector are mated correctly. Then tighten to specification with a torque wrench and back up wrench.

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5. Evacuate and recharge the system with the specified amount of refrigerant.
6. Conduct a leak test on the components which were repaired/replaced to confirm the leak is repaired.
7. Conduct performance test. If the incident is not resolved, refer to the service manual for further diagnosis.

## **Noise**

When diagnosing for suspected A/C compressor noise, please use the following procedure:

1. Note the engine RPM at which the noise occurs and listen to the noise with the A/C compressor turned ON, then OFF. If the noise can be heard when the compressor is OFF, the noise is not generated by the compressor. Look for other components which may be the source of the noise including the drive belts and the A/C compressor idler pulley.
2. If the noise is heard only when the compressor is ON, conduct further diagnosis on the A/C system. Please note that if the A/C system has a leak, refrigerant as well as compressor oil will leak out of the system. Low refrigerant and compressor oil quantity may cause the compressor to be noisy.