

Refrigerant Leak Check

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

5. Refrigerant Leak Check

A: INSPECTION

- 1) Operate the A/C system for approx. 10 minutes, and check that the high-side pressure shows at least 690 kPa (7.03 kgf/cm², 100 psi). Then stop the engine to start the leak test.
- 2) Starting from the connection between high-pressure pipe and evaporator, check the system for leaks along the high-pressure side through the compressor. The following items must be checked thoroughly.
 - Check the joint and seam between pressure sensor and high-pressure pipe.
 - Check the connections between condenser and pipes, and welded joints on the condenser.

NOTE:

The leak tester may detect the oil on the condenser fins as a leak.

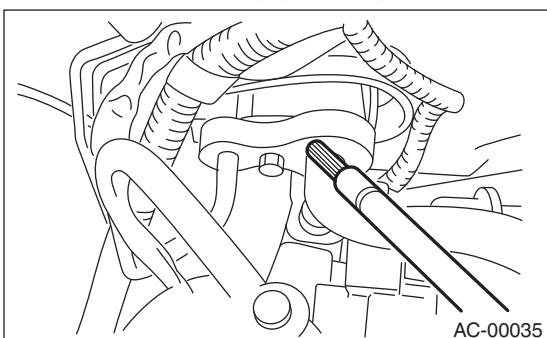
- Check the joint between compressor and hoses.
- Check the machined area of the compressor and other joints on the compressor.
- Check the compressor shaft seal at the area near the center of compressor clutch pulley.

NOTE:

Shaft seals may show a slight amount of leakage, about 3 g (0.1 oz) per year. This is not a problem.

- 3) Starting from the connection between low-pressure pipe and evaporator, check the system for leakage along the low-pressure side through the compressor. The following items must be checked thoroughly.

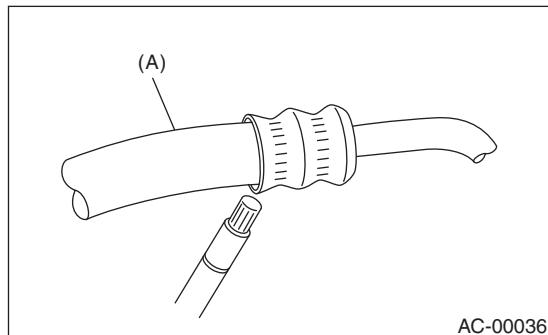
- Connection between 2 parts
- Connection between pipe and plate



- 4) Visually check the rubber area of the flexible hose for cracks. Check the entire length of the flexible hose, especially the connection with the metal hose end.

CAUTION:

Carefully check the external surface of hoses and pipes at approx. 25 mm (0.98 in) per second.

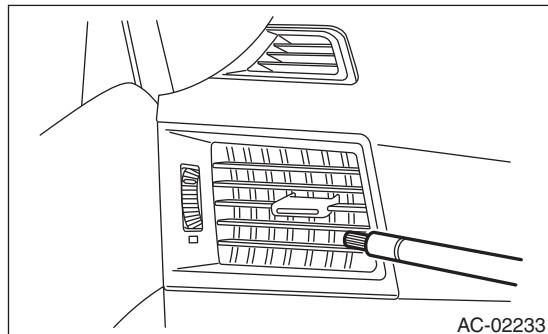


(A) Flexible hose

- 5) Disconnect the drain hose from the heater case, and check the hose end for at least 10 seconds.

After the test is finished, reconnect the drain hose.

- 6) Turn the ignition key to ON, and run the blower at high speed for approx. 1 minute. Stop the blower and check the ventilation grille on the instrument panel. While moving the tester closer to the grille, run the blower for 1 or 2 seconds, then stop it. Check the grille at that position for at least 10 seconds.



- 7) Check the valve in the service port.

- 8) Visually check the rubber seal in the service port cap.

