

REFRIGERANT PRESSURE WITH MANIFOLD GAUGE SET

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

2. Refrigerant Pressure with Manifold Gauge Set

A: OPERATION

- 1) Place the vehicle in the shade and draftless condition.
- 2) Connect the manifold gauge set.
- 3) Open the front windows and close all doors.
- 4) Open the hood.
- 5) Increase the engine to 1,500 rpm.
- 6) Turn ON the A/C switch.
- 7) Turn the temperature control switch to MAX COOL.
- 8) Put in RECIRC position.
- 9) Turn the blower control switch to HI.
- 10) Read the gauge.

Standard:

Low pressure: 127 - 196 kPa (1.3 - 2.0 kg/cm², 18 - 28 psi)

High pressure: 1,471 - 1,667 kPa (15 - 17 kg/cm², 213 - 242 psi)

Ambient temperature: 30 - 35 °C (86 - 95 °F)

B: INSPECTION

Symptom	Probable cause	Repair order
High-pressure side is unusually high.	<ul style="list-style-type: none">• Defective condenser fan motor• Clogged condenser fan• Too much refrigerant• Air inside the system• Defective receiver dryer	<ul style="list-style-type: none">• Replace the fan motor.• Clean the condenser fin.• Discharge refrigerant.• Replace the receiver dryer.
High-pressure side is unusually low.	<ul style="list-style-type: none">• Defective compressor• Not enough refrigerant• Clogged expansion valve• Expansion valve frozen temporarily by moisture	<ul style="list-style-type: none">• Replace the compressor.• Check for leaks.• Replace the expansion valve.
Low-pressure side is unusually high.	<ul style="list-style-type: none">• Defective compressor• Defective expansion valve• Too much refrigerant	<ul style="list-style-type: none">• Replace the compressor.• Replace the expansion valve.• Discharge refrigerant.
Low-pressure side is unusually low.	<ul style="list-style-type: none">• Not enough refrigerant• Clogged expansion valve• Expansion valve frozen temporarily by moisture• Saturated receiver dryer	<ul style="list-style-type: none">• Check for leaks.• Replace the expansion valve• Replace the receiver dryer.