



### 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 engine speed 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/

 $cm^2$ , 18 — 28 psi)

High pressure: 1,471 — 1,667 kPa (15 — 17

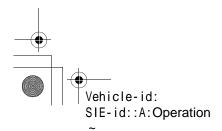
kg/cm<sup>2</sup>, 213 — 242 psi)

*Ambient temperature: 30 — 35 °C (86 — 95* 

°F)

## **B: INSPECTION**

Symptom	Probable cause	Repair order
High-pressure side is unusually high.	<ul> <li>Defective condenser fan motor</li> <li>Clogged condenser fan</li> <li>Too much refrigerant</li> <li>Air inside the system</li> <li>Defective receiver dryer</li> </ul>	<ul> <li>Replace the fan motor.</li> <li>Clean the condenser fin.</li> <li>Discharge refrigerant.</li> <li>Replace the receiver dryer.</li> </ul>
High-pressure side is unusually low.	Defective compressor     Not enough refrigerant     Clogged expansion valve     Expansion valve frozen temporarily by moisture	<ul><li>Replace the compressor.</li><li>Check for leaks.</li><li>Replace the expansion valve.</li></ul>
Low-pressure side is unusually high.	<ul><li>Defective compressor</li><li>Defective expansion valve</li><li>Too much refrigerant</li></ul>	<ul><li>Replace the compressor.</li><li>Replace the expansion valve.</li><li>Discharge refigerant.</li></ul>
Low-pressure side is unusually low.	<ul> <li>Not enough refrigerant</li> <li>Clogged expansion valve</li> <li>Expansion valve frozen temporarily by moisture</li> <li>Saturated receiver dryer</li> </ul>	<ul><li>Check for leaks.</li><li>Replace the expansion valve</li><li>Replace the receiver dryer.</li></ul>





**AC-17** 

