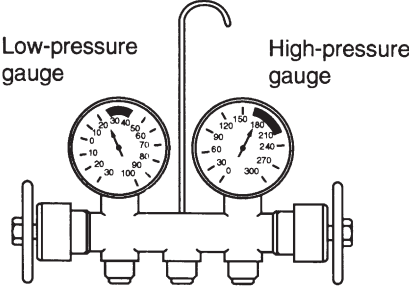
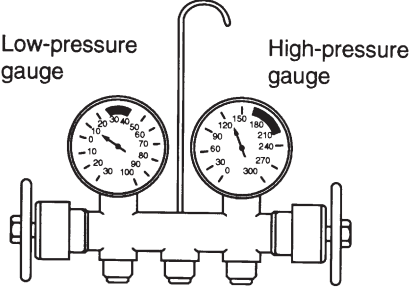
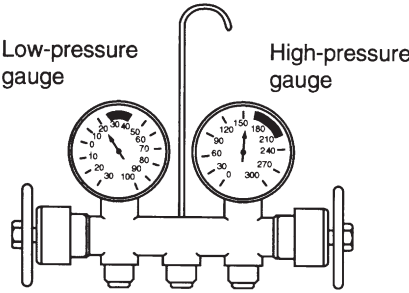
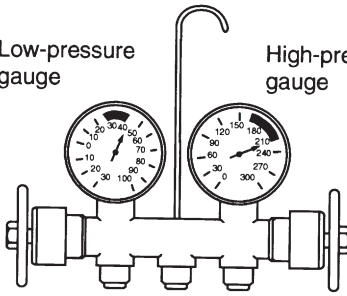
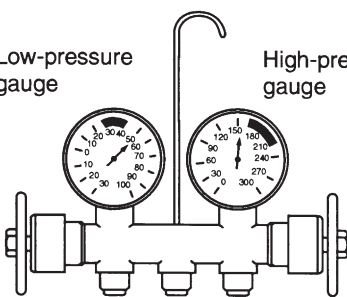
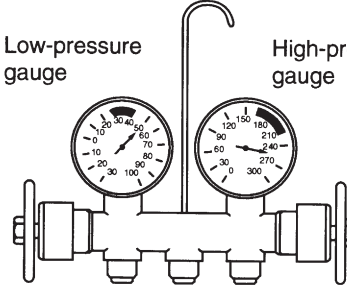
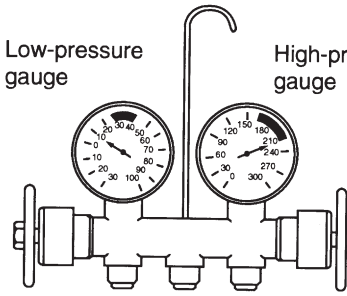


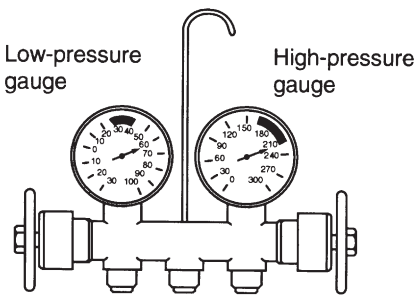
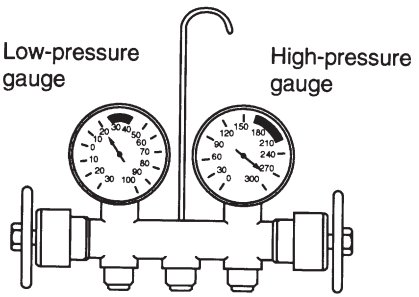
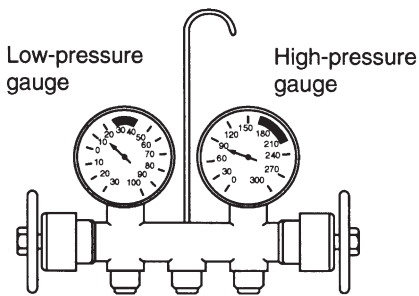
2. Performance Test Diagnosis

If various conditions caused to other air conditioning system, the characteristics revealed on manifold gauge reading are shown in the following. As to the method of a performance test, refer to the item of "Performance Test".

Each shaded area on the following tables indicates a reading of the normal system when the temperature of outside air is 32.5°C (91°F).

Condition		Probable cause	Corrective action
INSUFFICIENT REFRIGERANT CHARGE		Refrigerant is small, or leaking a little.	1. Leak test. 2. Repair leak. 3. Charge system. Evacuate, as necessary, and recharge system.
 G4M0673		Insufficient cooling.	
ALMOST NO REFRIGERANT		Serious refrigerant leak.	Stop compressor immediately. 1. Leak test. 2. Discharge system. 3. Repair leak(s). 4. Replace receiver drier if necessary. 5. Check oil level. 6. Evacuate and recharge system.
 G4M0674		No cooling action.	
FAULTY EXPANSION VALVE		Expansion valve restricts refrigerant flow. ● Expansion valve is clogged. ● Expansion valve is inoperative. ● Valve stuck closed. Thermal bulb has lost charge.	If valve inlet reveals sweat or frost: 1. Discharge system. 2. Remove valve and clean it. Replace it if necessary. 3. Evacuate system. 4. Charge system. If valve does not operate: 1. Discharge system. 2. Replace valve. 3. Evacuate and charge system.
 G4M0675		Slight cooling. Sweating or frosted expansion valve inlet.	

Condition	Probable cause	Corrective action
Low-pressure gauge High-pressure gauge  G4M0676 Low-pressure gauge High-pressure gauge  G4M0677	Insufficient cooling. Sweated suction line. No cooling. Sweating or frosted suction line.	Expansion valve allows too much refrigerant through evaporator. Faulty seal of O-ring in expansion valve. Check valve for operation. If suction side does not show a pressure decrease, replace valve. 1. Discharge system. 2. Remove expansion valve and replace O-ring. 3. Evacuate and replace system.
AIR IN SYSTEM	Insufficient cooling.	Air mixed with refrigerant in system.
Low-pressure gauge High-pressure gauge  G4M0678		1. Discharge system. 2. Replace receiver drier. 3. Evacuate and charge system.
MOISTURE IN SYSTEM	After operation for a while, pressure on suction side may show vacuum pressure reading. During this condition, discharge air will be warm. As warning of this, reading shows 39 kPa (0.4 kg/cm ² , 6 psi) vibration.	Drier is saturated with moisture. Moisture has frozen at expansion valve. Refrigerant flow is restricted.
Low-pressure gauge High-pressure gauge  G4M0679		1. Discharge system. 2. Replace receiver drier (twice if necessary). 3. Evacuate system completely (Repeat 30 minute evacuating three times.). 4. Recharge system.

Condition		Probable cause	Corrective action
FAULTY CONDENSER  Low-pressure gauge High-pressure gauge G4M0680		No cooling action. Engine may overheat. Suction line is very hot. Condenser is often found not functioning well.	● Check condenser cooling fan. ● Check condenser for dirt accumulation. ● Check engine cooling system for over-heat. ● Check for refrigerant overcharge. If pressure remains high in spite of all above actions taken, remove and inspect the condenser for possible oil clogging.
HIGH-PRESSURE LINE BLOCKED  Low-pressure gauge High-pressure gauge G4M0681		Insufficient cooling. Frosted high-pressure liquid line. Drier clogged, or restriction in high-pressure line.	1. Discharge system. 2. Remove receiver drier or strainer and replace it. 3. Evacuate and charge system.
FAULTY COMPRESSOR  Low-pressure gauge High-pressure gauge G4M0682		Insufficient cooling. Internal problem in compressor, or damaged gasket and valve.	1. Discharge system. 2. Remove and check compressor. 3. Repair or replace compressor. 4. Check oil level. 5. Replace receiver drier. 6. Evacuate and charge system.