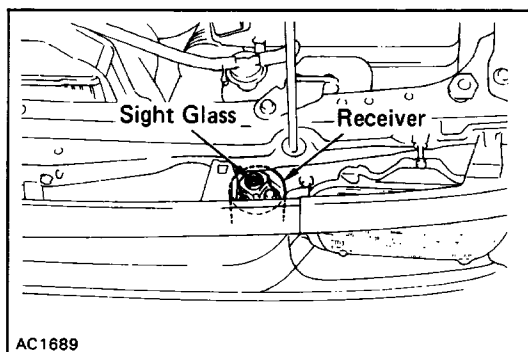


REFRIGERATION SYSTEM

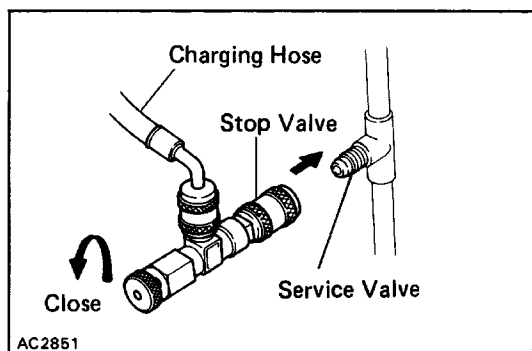
Checking of Refrigerant Volume

1. RUN ENGINE AT APPROX. 1,500 RPM
2. OPERATE AIR CONDITIONING AT MAXIMUM COOLING FOR A FEW MINUTES
3. CHECK AMOUNT OF REFRIGERANT
Observe the sight glass on the receiver.



Item	Symptom	Amount of refrigerant	Remedy
1	Bubbles present in sight glass	Insufficient *	(1) Check for gas leakage with gas leak tester and repair if necessary (2) Add refrigerant until bubbles disappear
2	No bubbles present in sight glass	None, sufficient or too much	Refer to items 3 and 4
3	No temperature difference between compressor inlet and outlet	Empty or nearly empty	(1) Check for gas leakage with gas leak tester and repair if necessary (2) Add refrigerant until bubbles disappear
4	Temperature between compressor inlet and outlet is noticeably different	Proper or too much	Refer to items 5 and 6
5	Immediately after air conditioning is turned off, refrigerant in sight glass stays clear	Too much	(1) Recover refrigerant (2) Evacuate air and charge proper amount of purified refrigerant
6	When air conditioning is turned off, refrigerant foams and then stay clear	Proper	—

*: Bubbles in the sight glass with ambient temperatures higher can be considered normal if cooling is sufficient



Installation of Manifold Gauge Set

HINT: To prevent releasing refrigerant, use charging hoses with a stop valve when installing the manifold gauge set to service valves on the refrigerant line.

Part No. of charging hoses with a stop valve

1. CONNECT CHARGING HOSES WITH A STOP VALVE TO MANIFOLD GAUGE SET

Tighten the nuts by hand.

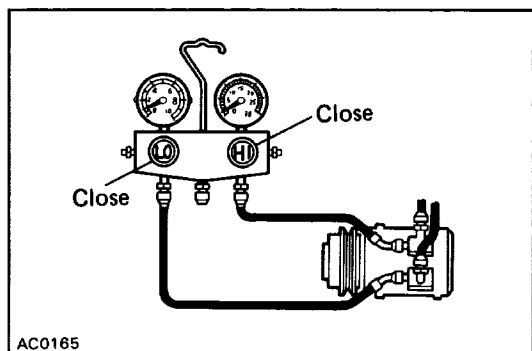
CAUTION:

- Do not connect the wrong hoses to the high pressure and the low pressure sides.
- To prevent loosening the nuts, do not apply compressor oil to seat of the connection.

2. CLOSE HAND VALVES OF BOTH STOP VALVES

3. CLOSE BOTH HAND VALVES OF GAUGE SET

4. REMOVE CAPS FROM SERVICE VALVES ON REFRIGERANT LINE



5. CONNECT STOP VALVES TO SERVICE VALVES

Tighten the nuts by hand.

CAUTION:

- Do not connect the wrong valves to the high pressure and the low pressure sides.
- To prevent loosening the nuts, do not apply compressor oil to seat of the connection.

6. OPEN HAND VALVES OF BOTH STOP VALVES**REMOVAL OF MANIFOLD GAUGE SET****1. CLOSE BOTH HAND VALVES OF MANIFOLD GAUGE SET****2. CLOSE HAND VALVES OF BOTH STOP VALVES****3. DISCONNECT STOP VALVES FROM SERVICE VALVES ON REFRIGERANT LINE****4. INSTALL CAPS TO SERVICE VALVES**

COMPRESSOR

ON-VEHICLE INSPECTION

1. INSTALL MANIFOLD GAUGE SET

(See page [AC-16](#))

2. RUN ENGINE AT APPROX. 1,500 RPM**3. CHECK COMPRESSOR FOR FOLLOWING:**

- High pressure gauge reading is not low and low pressure gauge reading is not higher than normal.
 - Metallic sound
 - Leakage from shaft seal
- If defects are found, repair the compressor.

4. CHECK MAGNETIC CLUTCH

- Inspect the pressure plate and the rotor for signs of oil.
- Check the clutch bearings for noise and grease leakage.
- Using an ohmmeter, measure the resistance of the stator coil between the clutch lead wire and ground.

Standard resistance: $3.6 \pm 0.2 \Omega$ at 200C (680F)

If resistance value is not as specified, replace the coil.

