

## CHARGING

### 1. INSTALL CHARGING CYLINDER

#### HINT:

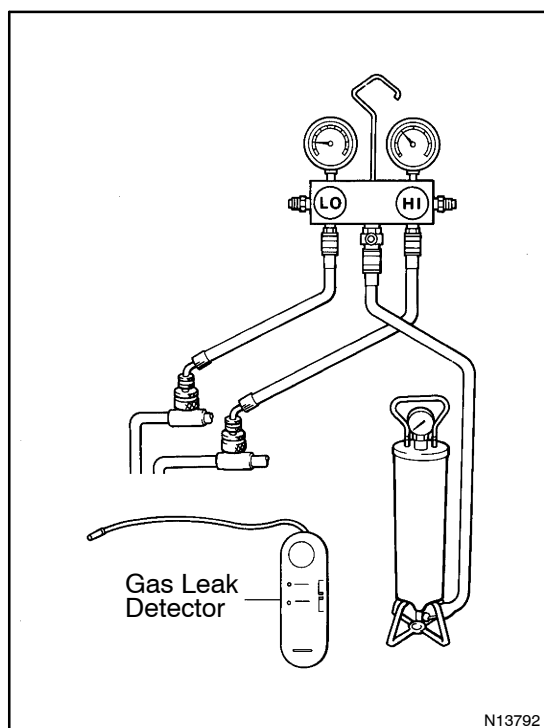
When handling the charging cylinder, always follow the directions given in the instruction manual.

- Charge the proper amount of refrigerant into the charging cylinder.
- Connect the center hose to the charging cylinder.

#### CAUTION:

**Do not open both high and low hand valves of manifold gauge set.**

- Open the valve of charging cylinder.
- Press the valve core on the side of manifold gauge and expel the air inside of the center hose.

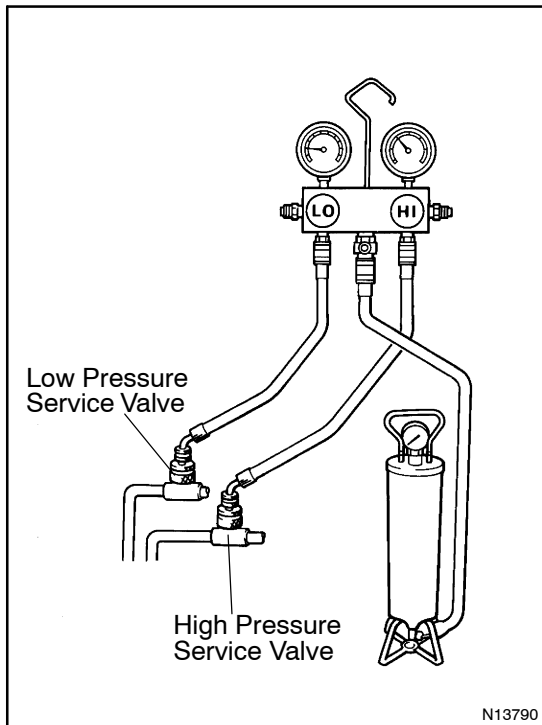


### 2. INSPECT REFRIGERATION SYSTEM FOR LEAKS

- Open the high pressure hand valve and charge refrigerant.
- When the low pressure gauge indicates 98 kPa (1 kgf/cm<sup>2</sup>, 14 psi) close the high pressure hand valve.
- Using a gas leak detector, check the system for leakage. If leak is found, repair the faulty component or connection.

#### CAUTION:

**Use the refrigerant recovery/ recycling machine to recover the refrigerant whenever replacing parts.**



### 3. CHARGE REFRIGERANT INTO REFRIGERATION SYSTEM

If there is no leak after refrigerant leak check charge, the proper amount of refrigerant in to refrigeration system.

#### CAUTION:

- **Never run the engine when charging the system through the high pressure side.**
- **Do not open the low pressure hand valve when the system is being charged with liquid refrigerant.**

- (a) Open the high pressure hand valve fully.
- (b) Charge specified amount of refrigerant, then close the high pressure hand valve.

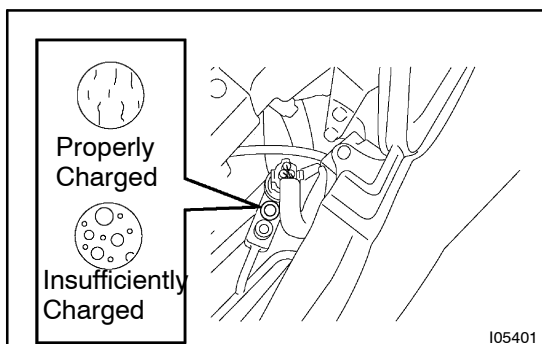
#### HINT:

A fully charged system is indicated by the sight glass being free of any bubbles.

- (c) Charge partially refrigeration system with refrigerant.
  - (1) Set vehicle in these conditions:
    - Running engine at 1,500 rpm
    - Blower speed control set at "HI"
    - Temperature control set at "MAX. COOL"
    - Air inlet control set at "RECIRC"
    - Fully open doors (Sliding roof : closed)
  - (2) Open the low pressure hand valve.

#### CAUTION:

**Do not open the high pressure hand valve.**



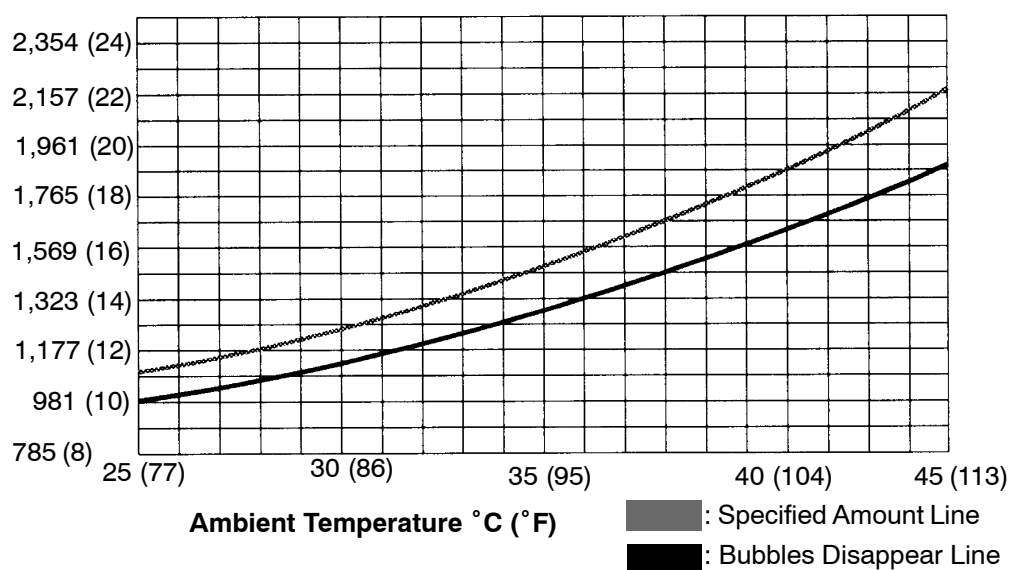
- (3) Charge refrigerant until bubbles disappear and check the pressure on the gauge through the sight glass.

- (4) Add the refrigerant gradually until the pressure reaches to of point of intersection with ambient temperature and the specified amount in the chart and check the pressure rise up.
- (5) Stop adding the refrigerant when the pressure of the specified amount has been reached.

**HINT:**

- In the case that the refrigerant has been charged excessively, draw out the refrigerant until the pressure returns to the specified amount.
- When the ambient temperature is 25°C (77°F) below, a compressor might be OFF due the mechanism of the system. When checking the pressure based o this chart, check it at the ambient temperature of 25°C (77°F) above.

**High Pressure Side Pressure**  
**KPa (kgf/cm<sup>2</sup>)**



105402