

ON-VEHICLE INSPECTION

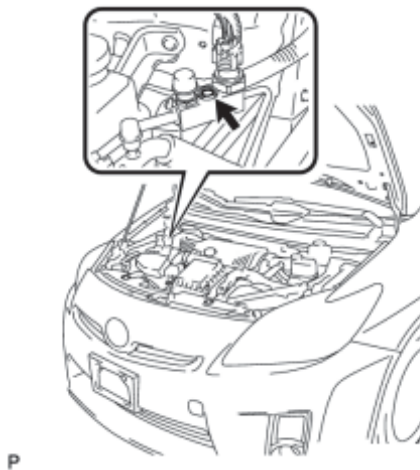
1. INSPECT REFRIGERANT VOLUME

(a) Check the sight glass on the air conditioning tube and accessory.

(1) Prepare the vehicle according to the chart below.

Item	Condition
Vehicle door	Fully open
Temperature setting	MAX COOL
Blower speed	HI
A/C	on

(2) Compare the sight glass to the following chart.



Item	Symptom	Amount of Refrigerant	Corrective Action
1	Bubbles exist	Insufficient*	<ol style="list-style-type: none"> 1. Check for gas leaks and repair if necessary 2. Recharge with a proper amount of refrigerant
2	No bubbles exist	Empty, insufficient, or excessive	Refer to 3 and 4
3	No temperature difference between compressor inlet and outlet	Empty or nearly empty	<ol style="list-style-type: none"> 1. Check for gas leaks and repair if necessary 2. Evacuate the AC system and recharge with a proper amount of refrigerant
4	Considerable temperature difference between compressor inlet and outlet	Proper or excessive	Refer to 5 and 6
5	Immediately after air conditioning is turned off, refrigerant remains clear	Excessive	<ol style="list-style-type: none"> 1. Recover refrigerant 2. Evacuate the AC system and recharge with a proper

			amount of refrigerant
6	Immediately after air conditioning is turned off, refrigerant foams and then becomes clear	Proper	-

*: Bubbles in the sight glass with the vehicle's interior temperature above 35°C (95°F) can be considered normal if cooling is sufficient.

2. INSPECT REFRIGERANT PRESSURE WITH MANIFOLD GAUGE SET

HINT:

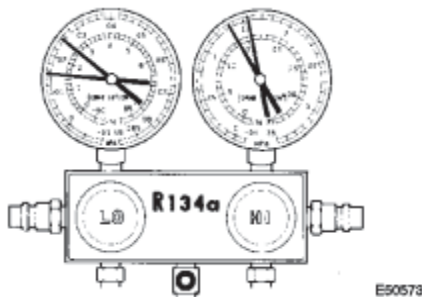
This is a method where a manifold gauge set is used to help locate the problem.

(a) Read the manifold gauge pressure when the following conditions are met:

Test conditions:

- Temperature at the air inlet with the switch set at RECIRC is 30 to 35°C (86 to 95°F).
- The blower speed control switch position is at "HI".
- The temperature control dial position is at "COOL".
- The A/C switch is on.
- Doors are fully open.
- The power switch is in a position that enables the A/C compressor to run.

(1) Normally functioning refrigeration system



Gauge Reading

Pressure Side	Refrigerant Volume
Low	0.15 to 0.25 MPa (1.5 to 2.5 kgf/cm ² , 21 to 36 psi)
High	1.37 to 1.57 MPa (13.9 to 16.0 kgf/cm ² , 199 to 228 psi)

(2) Moisture is present in the refrigeration system.

Condition: Periodically cools and then fails to cool

