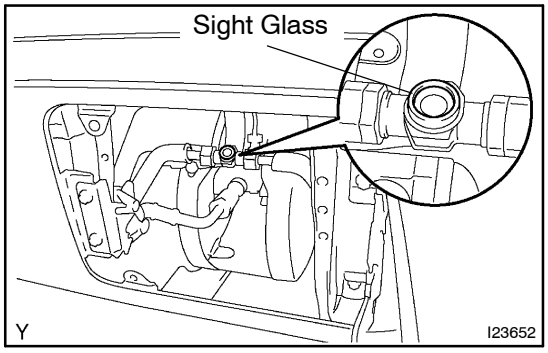



# AIR CONDITIONING SYSTEM

AC3MG–01

## ON–VEHICLE INSPECTION

### 1. INSPECT REFRIGERANT VOLUME

Observe the sight glass on the liquid tube.

Test conditions:

- Running engine at 1,500 rpm
- Blower switch at ”HI” position
- A/C switch ON
- Air inlet control dial at ”RECIRC” position
- Fully open the doors

| Item | Symptom | Amount of refrigerant | Remedy |
|---|---|---|---|
| 1 | Bubbles present in sight glass | Insufficient* | 1. Check for gas leakage with gas leak detector and repair it if necessary<br>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 detector and repair it if necessary<br>2. Add refrigerant until bubbles disappear |
| 4 | Temperature between compressor inlet and outlet is noticeably different | Correct 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. Discharge refrigerant<br>2. Evacuate air and charge proper amount or purified refrigerant |
| 6 | When air conditioning is turned off, refrigerant foams and then stays clear | Correct | – |

*: Bubbles in the sight glass with ambient temperature is higher than the usual can be considered normal if cooling is sufficient.

### 2. INSPECT IDLE–UP SPEED

Inspect the idle–up speed when the these conditions are established.

- Warm up engine
- Blower switch at ”HI” position
- A/C switch ON
- Air inlet control dial at ”RECIRC” position

| | Magnetic clutch condition | Idle–up speed |
|---|---|---|
| 14B | Magnetic clutch not engaged | 650 ± 50 rpm |
| 14B | Magnetic clutch engaged | 800 ± 50 rpm |
| 15B–FT | Magnetic clutch not engaged | 700 ± 50 rpm |
| 15B–FT | Magnetic clutch engaged | 725 ± 25 rpm |
| 15B–FTE | Magnetic clutch not engaged | 650 ± 50 rpm |
| 15B–FTE | Magnetic clutch engaged | 950 ± 50 rpm |
| 1BZ–FPE | Magnetic clutch not engaged | 700 ± 50 rpm |
| 1BZ–FPE | Magnetic clutch engaged | 750± 50 rpm |
| 1HZ | Magnetic clutch not engaged | 650 ± 50 rpm |
| 1HZ | Magnetic clutch engaged | 950 ± 50 rpm |

| | | |
|---|---|---|
| 3RZ–FE | Magnetic clutch not engaged | 800 ± 50 rpm |
| 3RZ–FE | Magnetic clutch engaged | 950 ± 50 rpm |

If the idle speed is not as specified, adjust the idle–up speed with the idle adjusting screw of the VSV or check the ISC valve and air intake system.