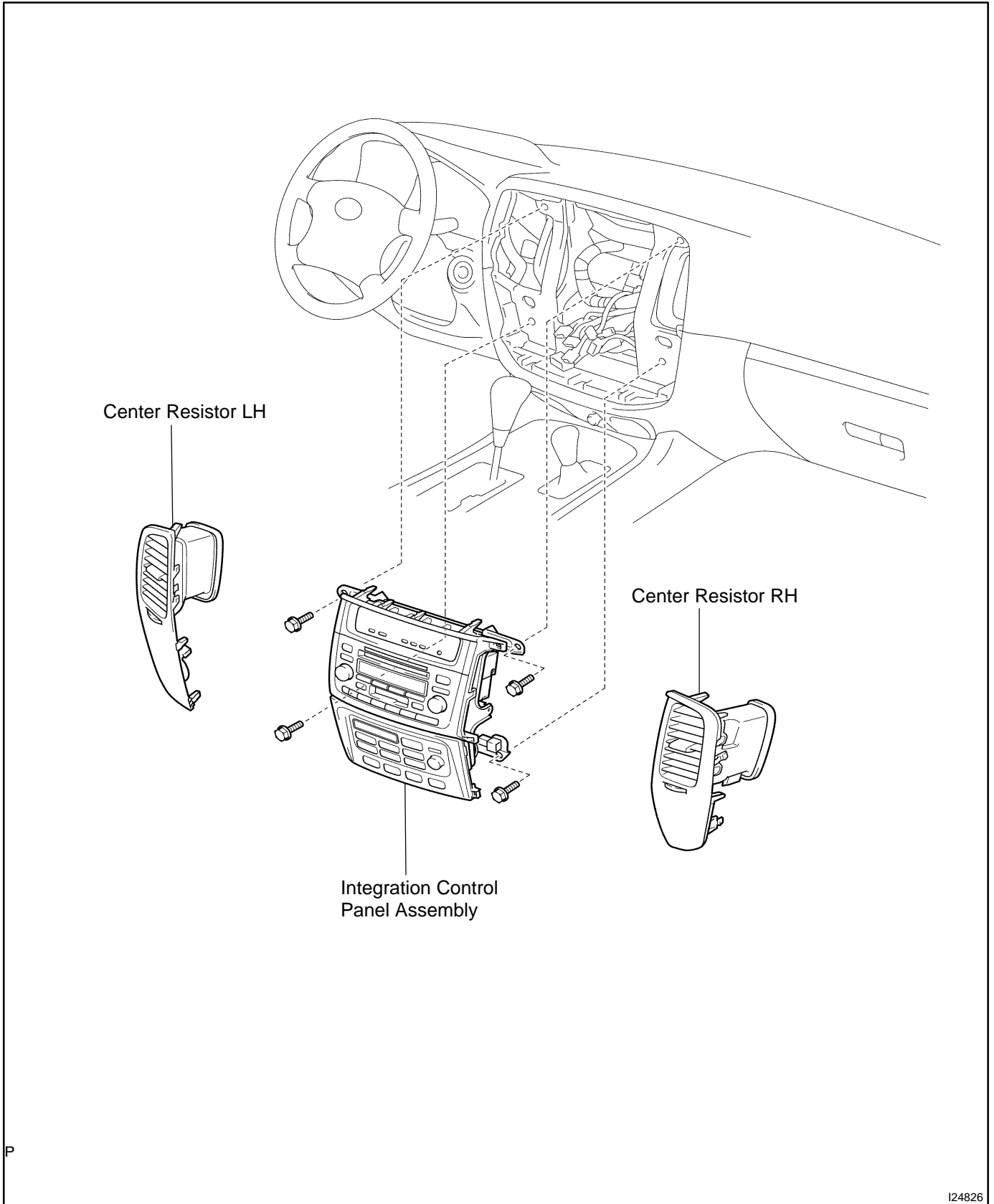
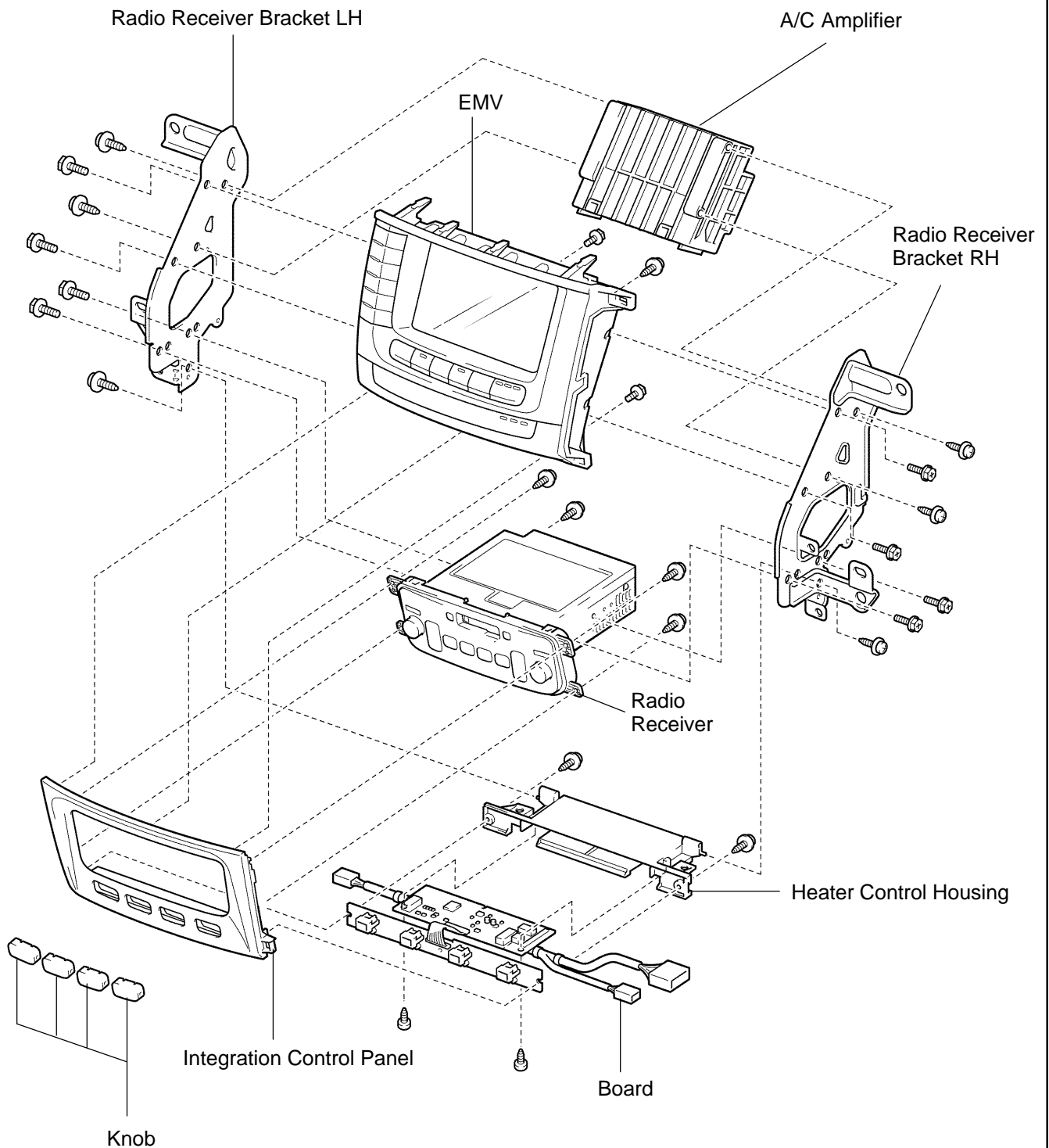


# AIR CONDITIONING CONTROL ASSEMBLY COMPONENTS

AC3P2-01



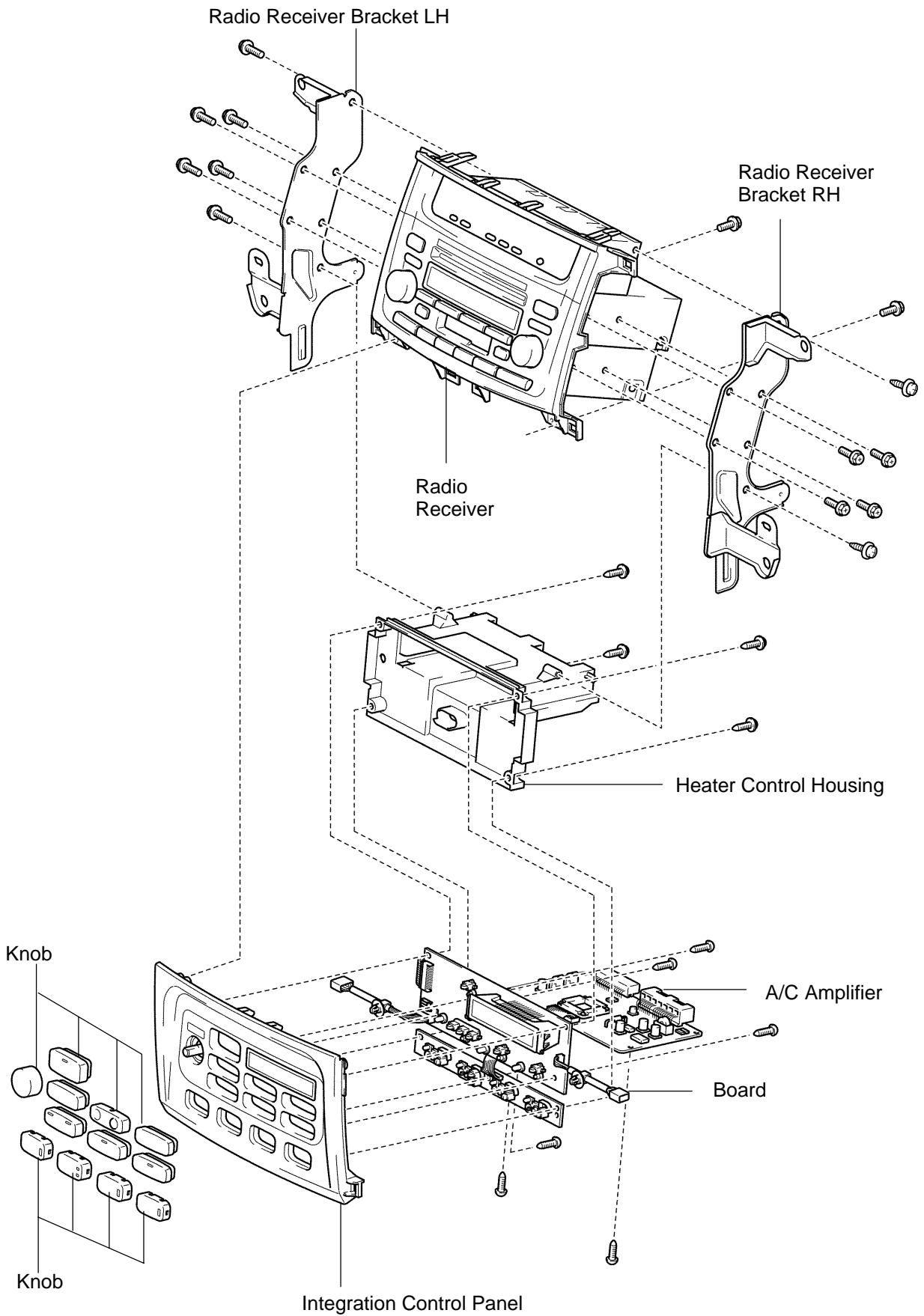
w/ Navigation System:



P

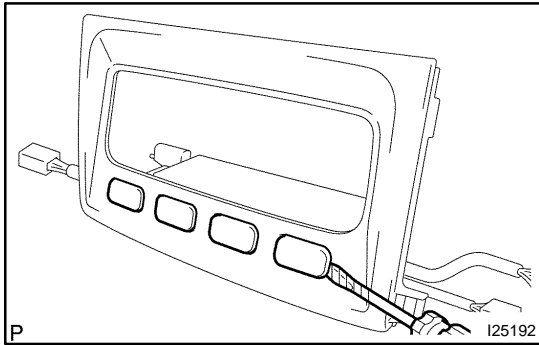
I24827

w/o Navigation System:



P

I25152



## DISASSEMBLY

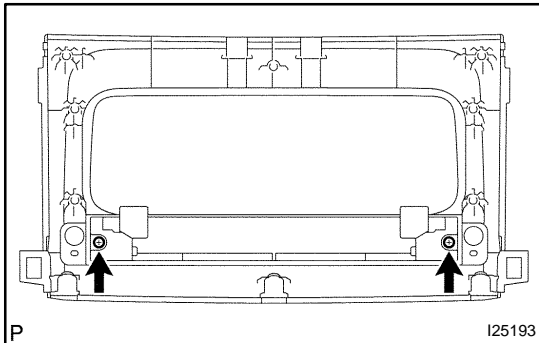
### 1. w/ navigation system:

#### REMOVE KNOB

Using a screwdriver, pull out the knobs.

HINT:

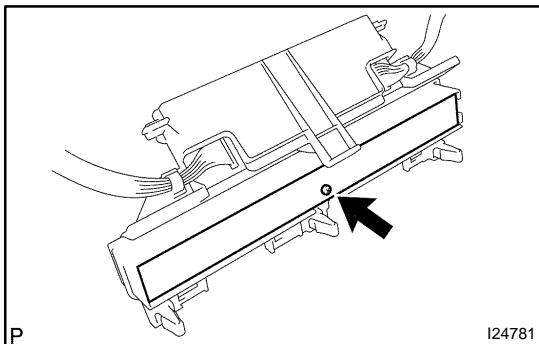
Tape up the screwdriver tip before use.



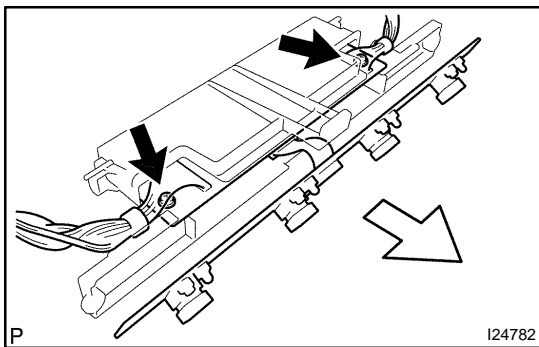
### 2. w/ navigation system:

#### REMOVE INTEGRATION CONTROL PANEL

(a) Remove the 2 screws.



(b) Remove the screw and the board.



### 3. w/ navigation system:

#### REMOVE HEATER CONTROL HOUSING

(a) Disconnect the connector clamps.

(b) Remove the 2 screws and pull out the board from the heater control housing.

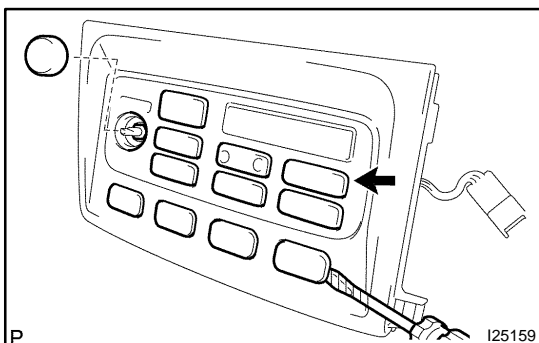
### 4. REMOVE KNOB

(a) Using a screwdriver, pull out the knobs.

HINT:

Tape up the screwdriver tip before use.

(b) Remove the nut.



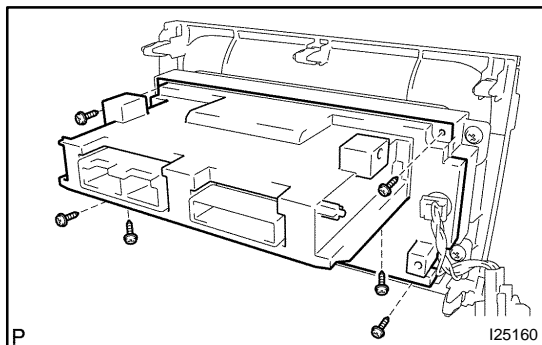
### 5. w/o LEXUS navigation system:

#### REMOVE KNOB

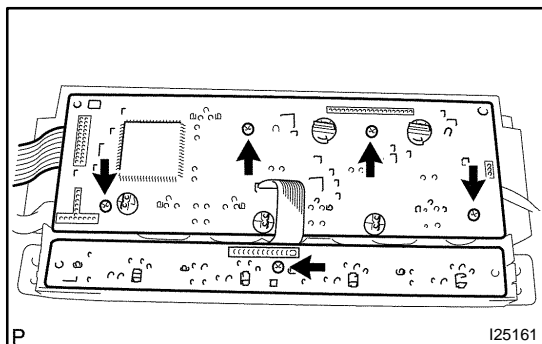
Using a screwdriver, pull out the knobs.

HINT:

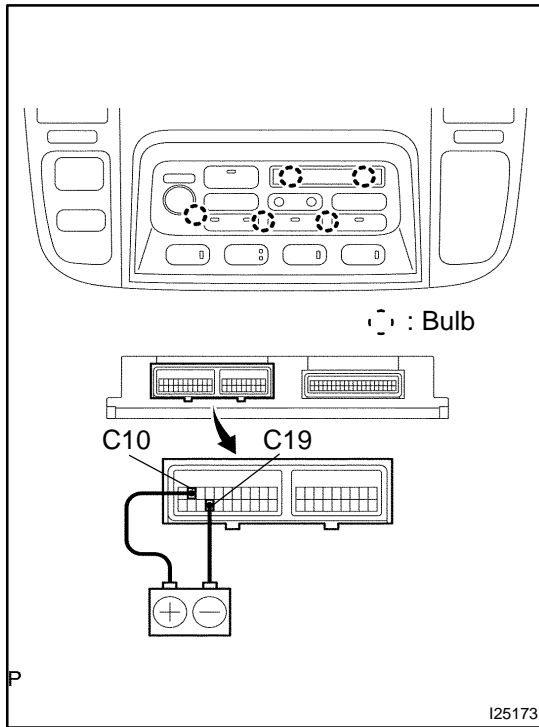
Tape up the screwdriver tip before use.



6. **w/o navigation system:**  
**REMOVE INTEGRATION CONTROL PANEL**  
(a) Remove the 6 screws and pull out the A/C amplifier.



- (b) Remove the 5 screws and the board.



## INSPECTION

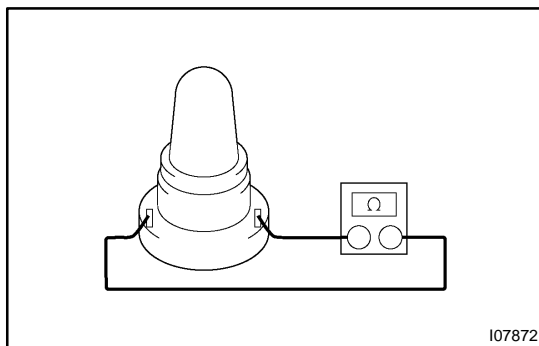
### 1. w/o Navigation system:

#### INSPECT ILLUMINATION OPERATION

- (a) Connect the positive (+) lead from the battery to terminal C10 and negative (-) lead to terminal C19, then check that the indicators illuminate.

If operation is not as specified, check the faulty bulb.

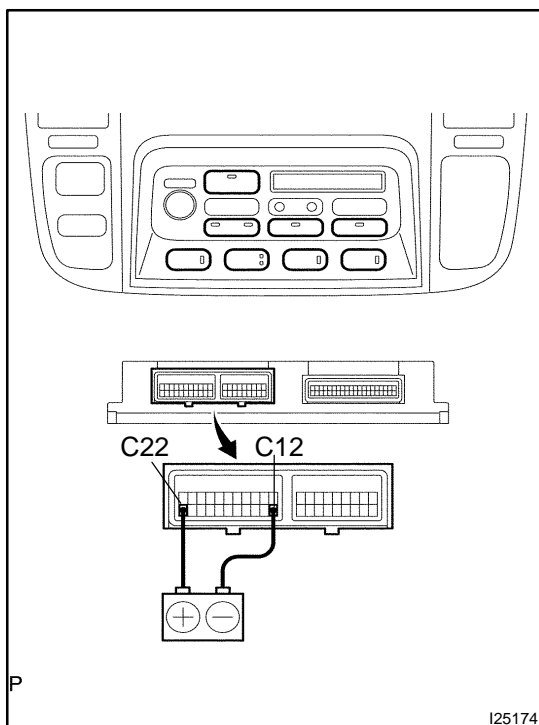
- (b) Remove the bulb.



- (c) Using the tester as shown in the illustration, test the continuity.

If continuity exists, replace the heater control.

If no continuity exists, replace the bulb.



### 2. w/o Navigation system:

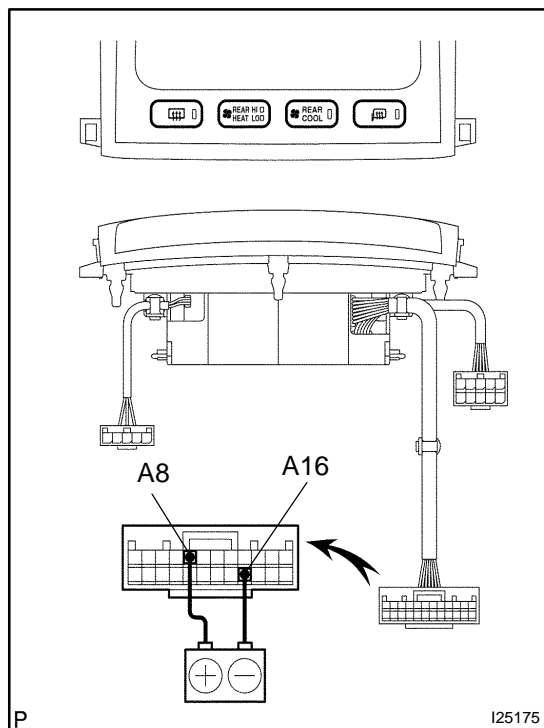
#### INSPECT INDICATORS OPERATION

- (a) Connect the positive (+) lead from the battery to terminal C22 and negative (-) lead to terminal C12.

- (b) Check that the indicators come on while operate the switches.

If operation is not as specified, replace the heater control.

### 3. INSPECT A/C CONTROL ASSEMBLY CIRCUIT (See page [DI-1309](#))

**4. w/ Navigation system:****INSPECT ILLUMINATION OPERATION**

- (a) Connect the positive (+) lead from the battery to terminal A8 and negative (-) lead to terminal A16.
- (b) Check that the indicators come on while operating the switches.

If operation is not as specified, replace the heater control.

**5. INSPECT A/C CONTROL ASSEMBLY CIRCUIT**

(See page [DI-1309](#))

## INSTALLATION

Installation is in the reverse of removal (See page [AC-100](#) ).

HINT:

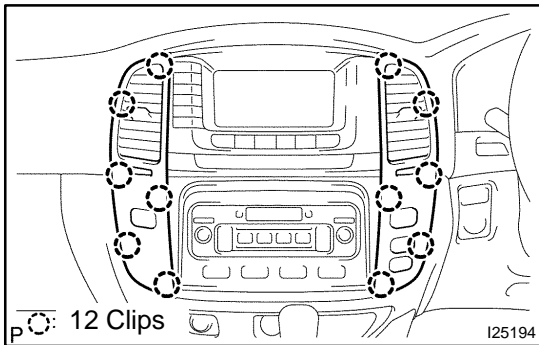
w/ Navigation System:

When removing/installing or replacing EMV, or when disconnecting/connecting the battery terminal, turn the IG ON and OFF twice for initial display setting.



## REASSEMBLY

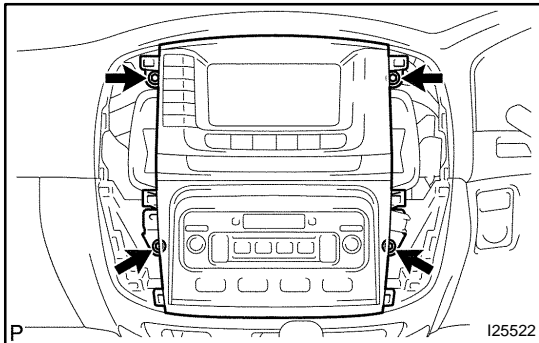
Reassembly is in the reverse of disassembly (See page [AC-102](#)).



## REMOVAL

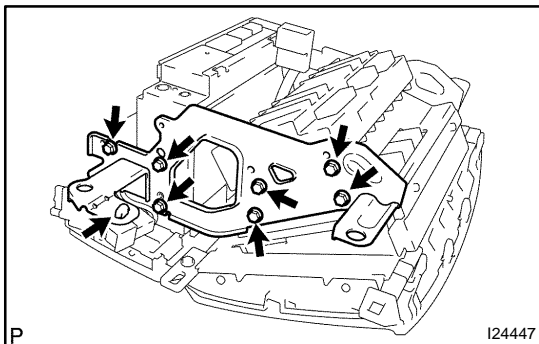
### 1. REMOVE CENTER RESISTORS

Disengage the 12 clips and remove the center resistors, then disconnect the connectors.



### 2. REMOVE INTEGRATION CONTROL PANEL ASSEMBLY

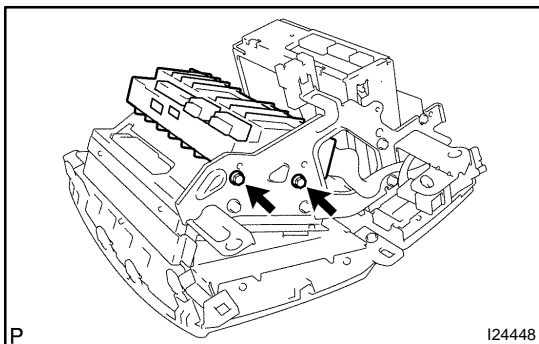
- (a) Remove the 4 bolts.
- (b) Remove the integration control panel assembly, then disconnect the connectors.



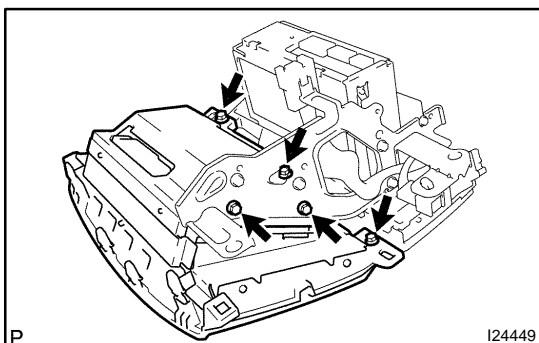
### 3. w/ navigation system:

#### REMOVE A/C AMPLIFIER

- (a) Disconnect the connector clamp.
- (b) Remove the 3 screws, the 4 bolts and the radio receiver bracket LH.



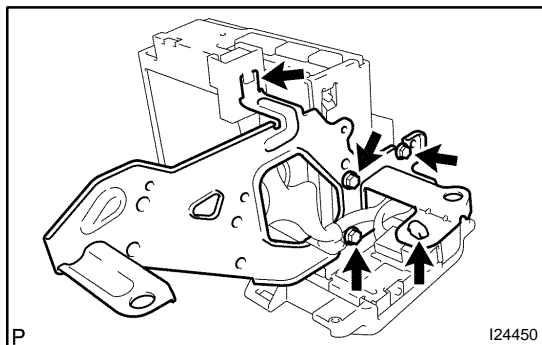
- (c) Remove the 2 screws and the A/C amplifier.



### 4. w/ LEXUS navigation system:

#### REMOVE EMV

Remove the 3 screws, the 2 bolts and the EMV.

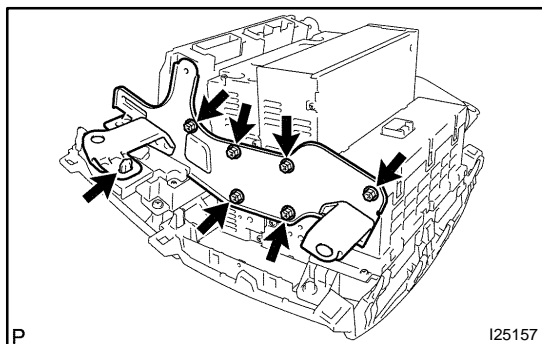


5. **w/ navigation system:**

**REMOVE INTEGRATION CONTROL PANEL**

6. **Disconnect the connector clamps.**

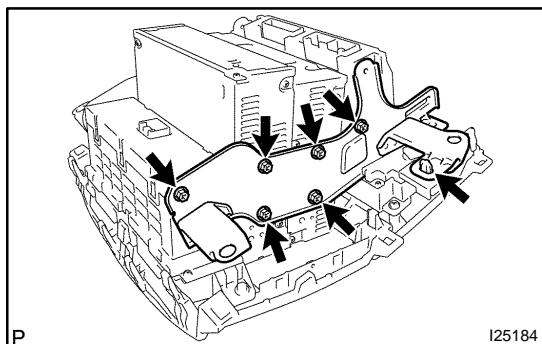
- (a) Remove the screw, the 2 bolts and the radio receiver bracket RH.
- (b) Remove the integration control panel from the radio receiver.



7. **w/o navigation system:**

**REMOVE INTEGRATION CONTROL PANEL**

- (a) Disconnect the connector clamp.
- (b) Remove the 2 screws, 4 bolts and the radio receiver bracket LH.

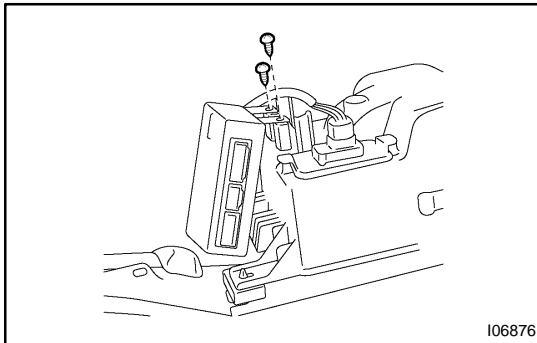


- (c) Disconnect the connector clamp.
- (d) Remove the 2 screws, 4 bolts and the radio receiver bracket RH.
- (e) Remove the integration control panel.

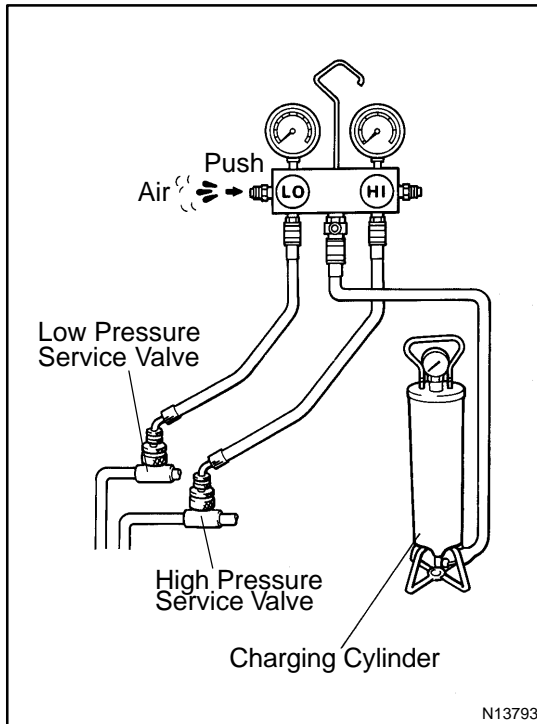
## AIR CONDITIONING AMPLIFIER (for Rear A/C) INSPECTION

AC22D-03

1. REMOVE REAR DOOR SCUFF PLATE RH
2. REMOVE REAR FLOOR MAT SUPPORT PLATE
3. REMOVE QUARTER TRIM PANEL RH



4. REMOVE A/C AMPLIFIER
  - (a) Disconnect the connectors.
  - (b) Remove the 2 screws and the A/C amplifier.
5. INSPECT REAR A/C AMPLIFIER CIRCUIT  
(See page [DI-1309](#))



## CHARGING

### 1. INSTALL CHARGING CYLINDER

#### HINT:

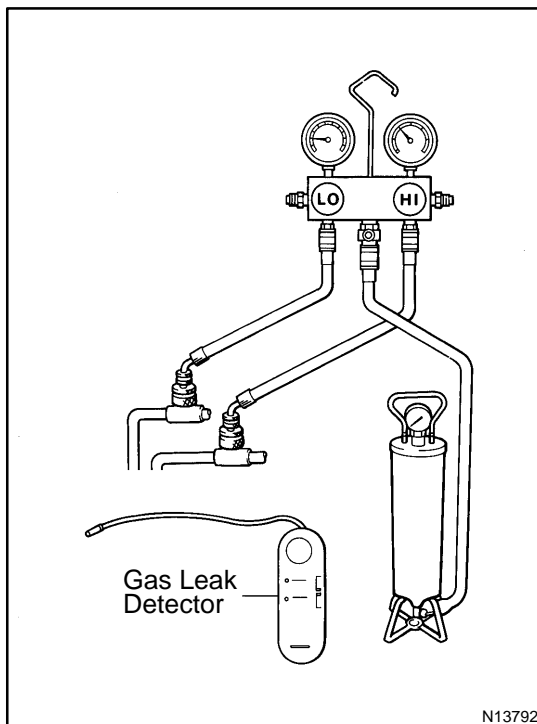
When handling the charging cylinder, always follow the directions given in the instruction manual.

- (a) Charge the proper amount of refrigerant into the charging cylinder.
- (b) Connect the center hose to the charging cylinder.

#### CAUTION:

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

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



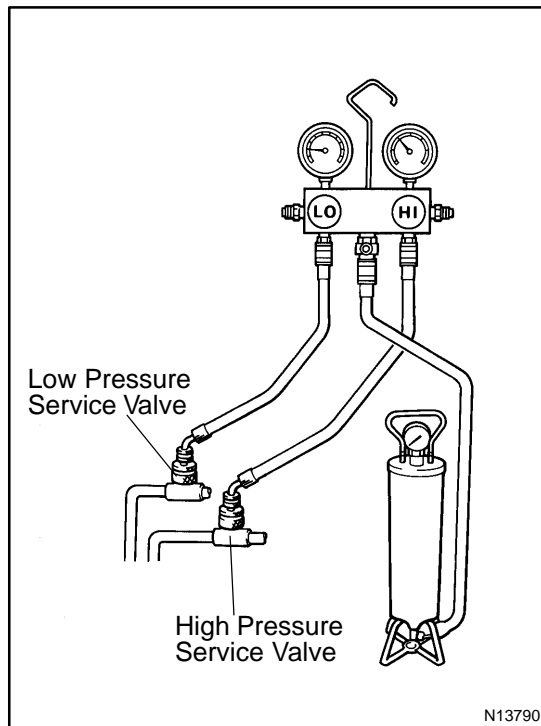
### 2. INSPECT REFRIGERATION SYSTEM FOR LEAKS

- (a) Open the high pressure hand valve and the charge refrigerant.
- (b) When the low pressure gauge indicates 98 kPa (1 kgf/cm<sup>2</sup>, 14 psi), close the high pressure hand valve.
- (c) Using a gas leak detector, check the system for any leakage.

If leaks are 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 into the refrigeration system.

#### CAUTION:

- ◆ Do not 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.

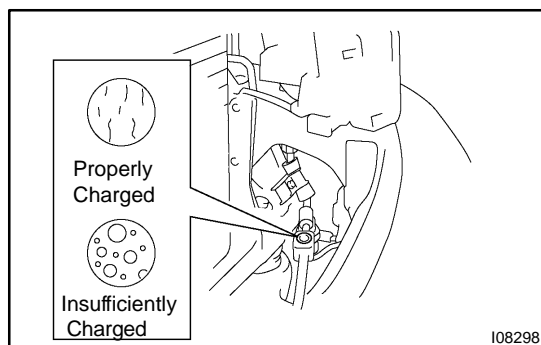
#### HINT:

No bubbles in the sight glass indicates that the system is fully charged.

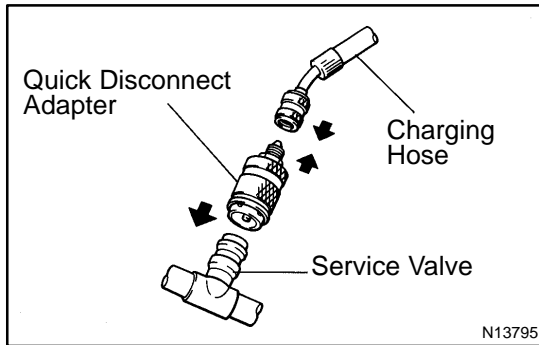
- (c) Partially charge the refrigeration system with refrigerant.
  - (1) Start engine and race engine at 1,500 rpm.
  - (2) Set fan speed selector to "HI".
  - (3) Set temperature control to "MAX. COOL".
  - (4) Set air inlet control to "RECIRC".
  - (5) Fully open doors (Sliding roof: closed).
  - (6) Open the low pressure hand valve.

#### CAUTION:

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

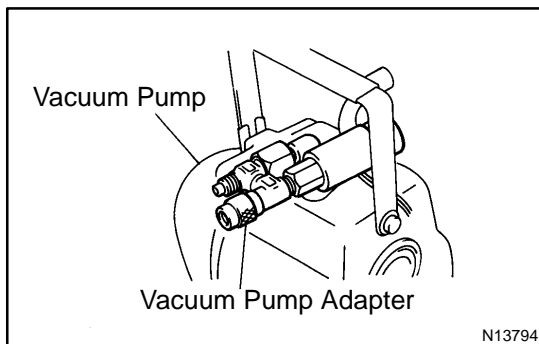


- (d) Charge refrigerant until bubbles disappear and check the pressure on the gauge through the sight glass.

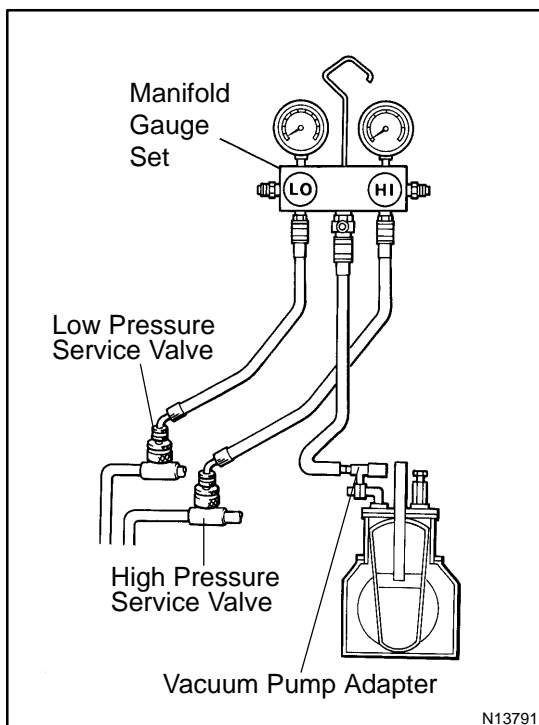


## EVACUATING

1. **CONNECT QUICK DISCONNECT ADAPTER TO CHARGING HOSES**
2. **REMOVE CAPS FROM SERVICE VALVES ON REFRIGERANT LINES**
3. **SET ON MANIFOLD GAUGE SET**
  - (a) Close both the hand valves of the manifold gauge set.
  - (b) Connect the quick disconnect adapters to the service valves.



4. **EVACUATE AIR FROM REFRIGERATION SYSTEM**
  - (a) Connect the vacuum pump adapter to the vacuum pump.



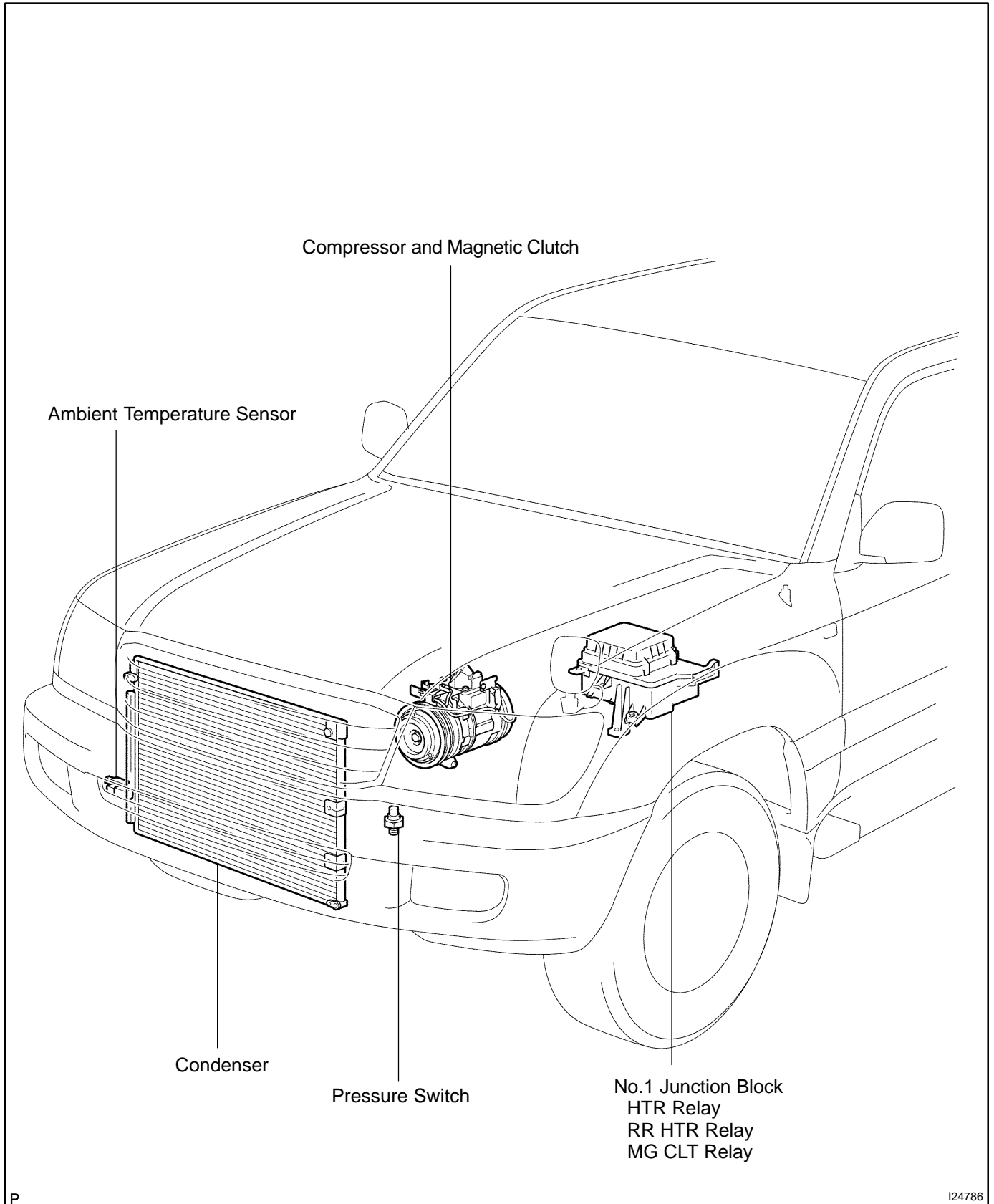
- (b) Connect the center hose of the manifold gauge set to the vacuum pump adapter.
- (c) Open both the high and low hand valves and run the vacuum pump.
- (d) After 10 minutes or later, check that the low pressure gauge indicates 750 mmHg (30 in. Hg) minimum.

### HINT:

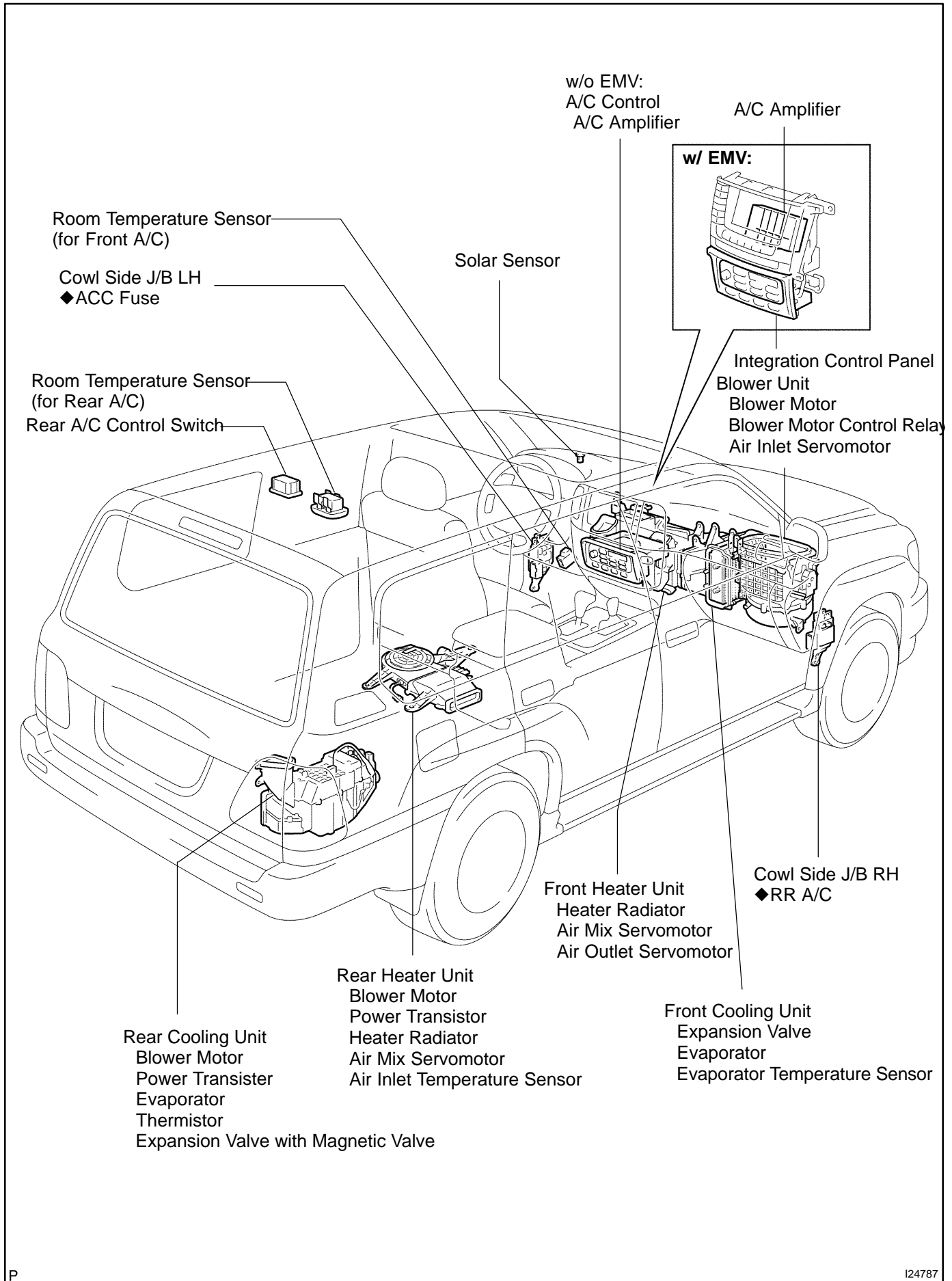
If the reading is 750 mmHg (30 in. Hg) close both hand valves of the manifold gauge set and stop the vacuum pump. Check the system for leaks and repair if necessary.

- (e) Close both the high and low hand valves and stop the vacuum pump.
- (f) Leave the system in this condition for at least 5 minutes and check that there is no gauge indicator.

# LOCATION

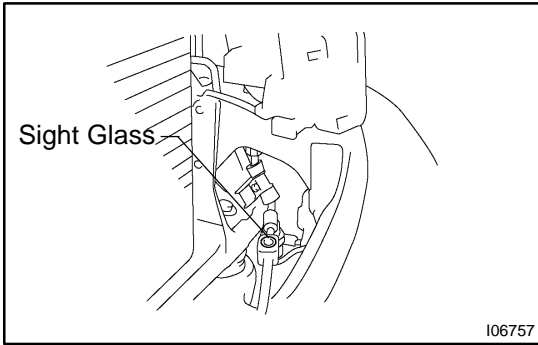






P

I24787



## ON-VEHICLE INSPECTION

### 1. INSPECT REFRIGERANT VOLUME

Observe the sight glass on the liquid tube.

Test conditions:

- ◆ Engine speed at 1,500 rpm
- ◆ Fan speed selector at "HI" position
- ◆ A/C switch ON
- ◆ Temperature control dial at "COOL" position
- ◆ Doors fully opened

Item	Symptom	Amount of refrigerant	Remedy
1	Bubbles appear in sight glass	Insufficient*	(1) Check for gas leakage with gas leak detector and repair, if necessary (2) Add refrigerant until bubbles disappear
2	No bubbles appear in sight glass	None, sufficient or too much	Refer to item 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, if necessary (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 system is turned off, refrigerant in sight glass stays clear	Too much	(1) Discharge refrigerant (2) Evacuate air and charge proper amount of purified refrigerant
6	When air conditioning system is turned off, refrigerant foams and then stays clear	Correct	-

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

## 2. INSPECT REFRIGERANT PRESSURE WITH MANIFOLD GAUGE SET

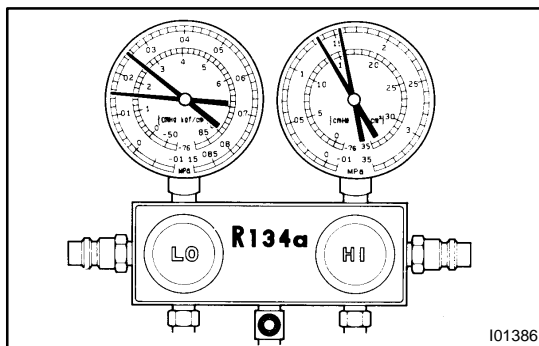
Check the trouble area using a set of manifold gauge set. Read the manifold gauge pressure when following conditions are detected.

Test conditions:

- ◆ Temperature at the air inlet with the switch set at RECIRC is 30 - 35 °C (86 - 95 °F)
- ◆ Engine running at 2,000 rpm
- ◆ Fan speed selector at "HI" position
- ◆ Temperature control dial on "COOL" position

HINT:

It should be noted that the gauge indications may vary depending on ambient temperature conditions.



(1) Normally functioning refrigeration system.

**Gauge reading:**

**Low pressure side:**

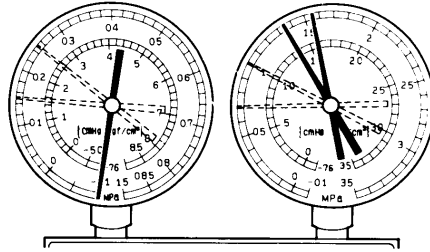
**0.15 - 0.25 MPa (1.5 - 2.5 kgf/cm<sup>2</sup>)**

**High pressure side:**

**1.37 - 1.57 MPa (14 - 15 kgf/cm<sup>2</sup>)**

(2) Moisture present in refrigeration system.

Condition : Periodically cools and then fails to cool

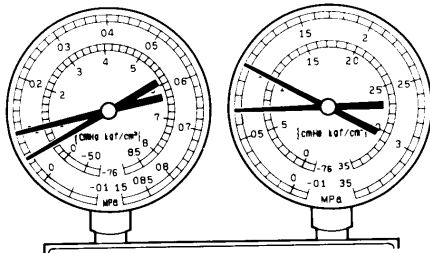


I01387

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
During operation, pressure on low pressure side sometimes become a vacuum and sometime normal	Moisture entered in refrigeration system freezes at expansion valve orifice and temporarily stops cycle, but normal state is restored after a time when the ice melts	<ul style="list-style-type: none"> <li>◆Drier in over-saturated state</li> <li>◆Moisture in refrigeration system freezes at expansion valve orifice and blocks circulation of refrigerant</li> </ul>	<ol style="list-style-type: none"> <li>(1) Replace condenser</li> <li>(2) Remove moisture in cycle through repeatedly evacuating air</li> <li>(3) Charge proper amount of new refrigerant</li> </ol>

(3) Insufficient cooling.

Condition: Insufficient cooling

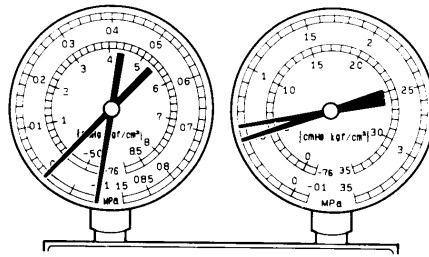


I01388

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure low on both low and high pressure sides</li> <li>◆Bubbles seen in sight glass continuously</li> <li>◆Insufficient cooling performance</li> </ul>	Gas leakage at some place in refrigeration system	<ul style="list-style-type: none"> <li>◆Insufficient refrigerant in system</li> <li>◆Refrigerant leaking</li> </ul>	<ol style="list-style-type: none"> <li>(1) Check for gas leakage with gas leak detector and repair if necessary</li> <li>(2) Charge proper amount of refrigerant</li> <li>(3) If indicated pressure value is near 0 when connected to gauge, create the vacuum after inspecting and repairing the location of the leak</li> </ol>

(4) Poor circulation of refrigerant.

Condition: Insufficient cooling

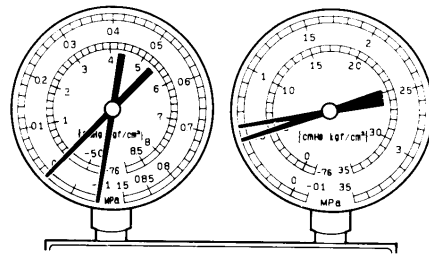


I01389

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure low in both low and high pressure sides</li> <li>◆Frost on tube from condenser to unit</li> </ul>	Refrigerant flow obstructed by dirt in condenser	condenser clogged	Replace condenser

(5) Refrigerant does not circulate.

Condition: Does not cool (Cools from time to time in some cases)

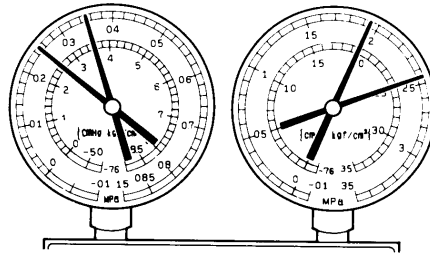


I01449

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Vacuum indicated on low pressure side, very low pressure indicated on high pressure side</li> <li>◆Frost or dew seen on piping before and after condenser/ drier or expansion valve</li> </ul>	<ul style="list-style-type: none"> <li>◆Refrigerant flow obstructed by moisture or dirt in refrigeration system</li> <li>◆Refrigerant flow obstructed by gas leakage from expansion valve</li> </ul>	Refrigerant does not circulate	<ol style="list-style-type: none"> <li>(1) Check expansion valve</li> <li>(2) Clean out dirt in expansion valve by blowing with air</li> <li>(3) Replace condenser</li> <li>(4) Evacuate air and charge new refrigerant to proper amount</li> <li>(5) For gas leakage from expansion valve, replace expansion valve</li> </ol>

(6) Refrigerant overcharged or insufficient cooling of condenser.

Condition: Insufficient cooling

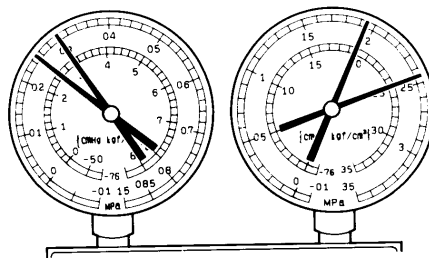


I01390

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure too high on both low and high pressure sides</li> <li>◆No air bubbles seen through the sight glass even when the engine rpm is lowered</li> </ul>	<ul style="list-style-type: none"> <li>◆Unable to develop sufficient performance due to excessive refrigeration system</li> <li>◆Insufficient cooling of condenser</li> </ul>	<ul style="list-style-type: none"> <li>◆Excessive refrigerant in cycle → refrigerant over charged</li> <li>◆Condenser cooling → condenser fins clogged or cooling fan faulty</li> </ul>	<ol style="list-style-type: none"> <li>(1) Clean condenser</li> <li>(2) Check cooling fan with fluid coupling operation</li> <li>(3) If (1) and (2) are in normal state, check amount of refrigerant, and charge proper amount of refrigerant</li> </ol>

(7) Air present in refrigeration system.

Condition: Insufficient cooling



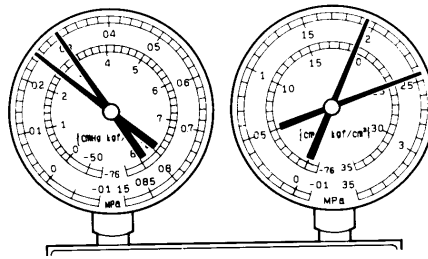
NOTE : These gauge indications are shown when the refrigeration system has been opened and the refrigerant charged without vacuum purging.

I01392

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure too high on both low and high pressure sides</li> <li>◆The low pressure piping hot to touch</li> <li>◆Bubbles seen in sight glass</li> </ul>	<p>Air entered in refrigeration system</p>	<ul style="list-style-type: none"> <li>◆Air present in refrigeration system</li> <li>◆Insufficient vacuum purging</li> </ul>	<ol style="list-style-type: none"> <li>(1) Check compressor oil to see if it is dirty or insufficient</li> <li>(2) Evacuate air and charge new refrigerant</li> </ol>

(8) Expansion valve improperly.

Condition: Insufficient cooling

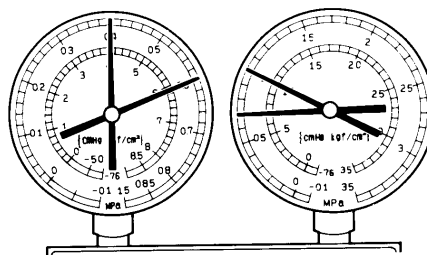


I01450

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure too high on both low and high pressure sides</li> <li>◆Frost or large amount of dew on piping on low pressure side</li> </ul>	Trouble in expansion valve	<ul style="list-style-type: none"> <li>◆Excessive refrigerant in low pressure piping</li> <li>◆Expansion valve opened too wide</li> </ul>	Check expansion valve, and replace if defective

(9) Defective compression compressor.

Condition : Does not cool



I01393

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
<ul style="list-style-type: none"> <li>◆Pressure too high on low and high pressure sides</li> <li>◆Pressure too low on high pressure side</li> </ul>	Internal leak in compressor	<ul style="list-style-type: none"> <li>◆Compression defective</li> <li>◆Valve leaking or broken sliding parts</li> </ul>	Repair or replace compressor

**3. INSPECT IDLE-UP SPEED**

- (a) Warm up engine
- (b) Inspect idle-up speed when following conditions are established.

Test conditions:

- ◆ Fan speed selector at "HI" position
- ◆ Temperature control dial at "COOL" position
- ◆ A/C switch ON
- ◆ Put gear shift in neutral

Magnetic clutch condition	Idle-up speed
Magnetic clutch not engaged	700 ± 50 rpm
Magnetic clutch engaged	780 ± 50 rpm

If idle speed is not as specified, check the idle control system.

**4. INSPECT FOR LEAKAGE OF REFRIGERANT**

- (a) Stop engine.
- (b) Secure good ventilation (The gas leak detector may not react to volatile gases which are not refrigerant, such as evaporated gasoline and exhaust gas)
- (c) Repeat the test 2 or 3 times
- (d) Make sure that there is some refrigerant remaining in the refrigeration system.

When compressor is OFF: approx. 392 - 588 kPa (4 - 6 kgf-cm<sup>2</sup>, 57 - 85 psi)

- (e) Bring the gas leak detector close to the drain hose before performing the test.

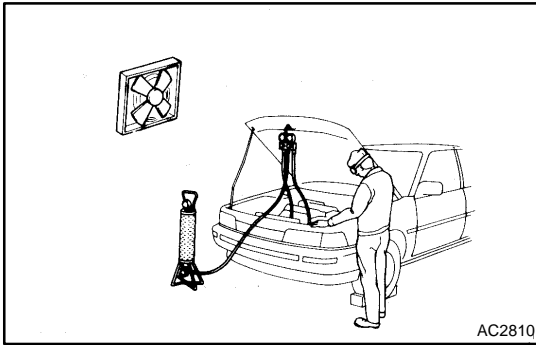
HINT:

- ◆ After the blower motor stops, leave the cooling for more than 15 minutes.
- ◆ Expose the gas leak detector sensor under the drain hose.
- ◆ When bring the gas leak detector close to the drain hose, make sure that the gas leak detector does not react to the volatile gases.

If gas leaks are detected, lift up the vehicle.

- (f) If gas leaks are not detected on the drain hose, remove the blower resistor from the cooling unit. Then insert the gas leak detector sensor into the unit to perform the test.
- (g) Disconnect the connector and leave the pressure switch for approx. 20 minutes. Then bring the gas leak detector close to the pressure switch to perform the test.
- (h) Bring the gas leak detector close to the refrigerant lines.



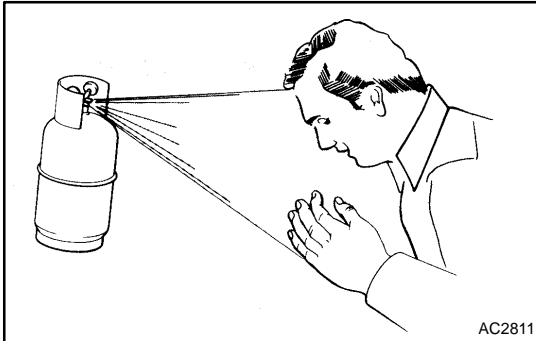


AC2810

## AIR CONDITIONING SYSTEM PRECAUTION

AC1HK-04

1. **DO NOT HANDLE REFRIGERANT IN AN ENCLOSED AREA OR NEAR AN OPEN FLAME**
2. **ALWAYS WEAR SAFETY GLASSES FOR EYE PROTECTION**



AC2811

3. **AVOID YOUR EYES AND SKIN TO CONTACT WITH LIQUID REFRIGERANT**

If you get the liquid refrigerant in your eyes or on your skin:

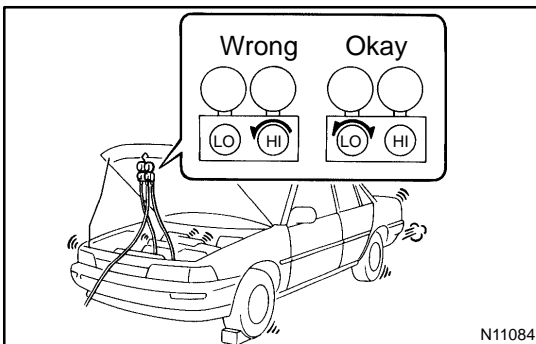
- (a) Wash out the area with lots of cold water.

### CAUTION:

**Do not rub your eyes or skin.**

- (b) Apply clean petroleum jelly to the skin.
- (c) Go immediately to a physician or hospital for professional treatment.

4. **NEVER HEAT CONTAINER OR EXPOSE IT TO NAKED FLAME**
5. **DO NOT DROP CONTAINER NOR APPLY PHYSICAL SHOCKS TO IT.**



N11084

6. **DO NOT OPERATE COMPRESSOR WITHOUT ENOUGH REFRIGERANT IN REFRIGERANT SYSTEM**

If there is not enough refrigerant in the refrigerant system, oil lubrication will be insufficient and compressor burnout may occur. To avoid this, always keep enough refrigerant in the refrigerant system.

7. **DO NOT OPEN HIGH PRESSURE MANIFOLD VALVE WHILE COMPRESSOR IS OPERATING**

If the high pressure valves opened, refrigerant flows in the reverse direction and could cause the charging cylinder to rupture, so open and close the only low pressure valve.

8. **DO NOT OVERCHARGE REFRIGERANT SYSTEM WITH REFRIGERANT**

If refrigerant is overcharged, it causes problems such as insufficient cooling, poor fuel economy, engine overheating etc.

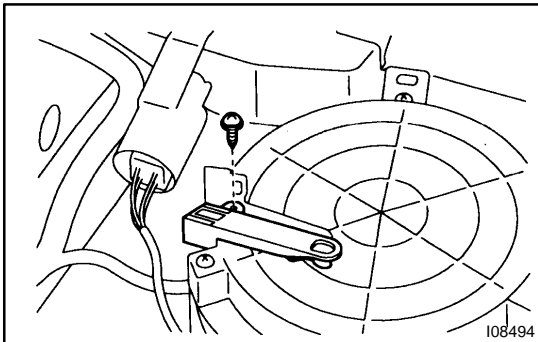
**9. SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

The LAND CRUISER is equipped with SRS (Supplemental Restraint System) such as the driver airbag and the front passenger airbag. Failure to carry out service operation in the correct sequence could cause the SRS to unexpectedly deploy during servicing, possibly leading to a serious accident. Before servicing (including removal or installation of parts, inspection or replacement), be sure to read the precautionary notices in the RS section.

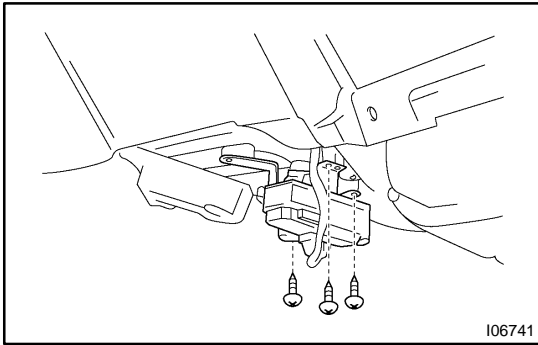
# AIR INLET TEMPERATURE SENSOR INSPECTION

AC1LQ-04

1. REMOVE FRONT SEATS
2. REMOVE REAR CONSOLE BOX
3. REMOVE FRONT CONSOLE BOX COVER
4. REMOVE LOWER CENTER CLUSTER FINISH PANEL
5. REMOVE FRONT DOOR SCUFF PLATES
6. REMOVE COWL SIDE TRIMS
7. REMOVE REAR DOOR SCUFF PATES
8. REMOVE CENTER PILLAR GARNISHES
9. REMOVE AIR INLET TEMPERATURE SENSOR
- (a) Slide the floor carpet backward.



- (b) Disconnect the connector.
- (c) Remove the screw and the air inlet temperature sensor.
10. **INSPECT AIR INLET TEMPERATURE SENSOR CIRCUIT (See page [DI-1342](#) )**
11. **INSTALL AIR INLET TEMPERATURE SENSOR**
  - (a) Install the air inlet temperature sensor with the screw.
  - (b) Connect the connector.
  - (c) Install the floor carpet.
12. **INSTALL CENTER PILLAR GARNISHES**
13. **INSTALL REAR DOOR SCUFF PLATES**
14. **INSTALL COWL SIDE TRIMS**
15. **INSTALL FRONT DOOR SCUFF PLATES**
16. **INSTALL REAR CONSOLE BOX**
17. **INSTALL FRONT SEATS**



## AIR MIX SERVOMOTOR (for Front A/C)

AC1LK-06

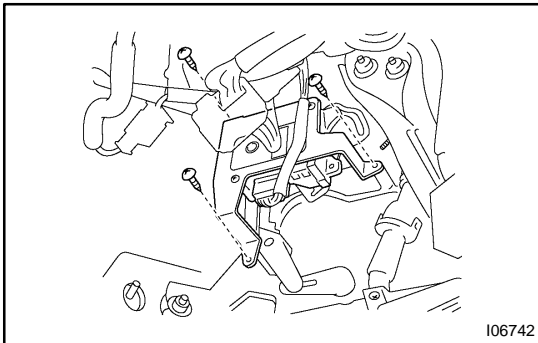
### INSPECTION

1. **REMOVE AIR MIX SERVOMOTOR**
  - (a) Disconnect the connector.
  - (b) Remove the 2 screws and the air mix servomotor.
2. **INSPECT AIR MIX SERVOMOTOR OPERATION**  
(See page [DI-1354](#) )
3. **INSPECT AIR MIX DAMPER POSITION SENSOR**  
(See page [DI-1345](#) )
4. **INSTALL SERVOMOTOR**
  - (a) Install the servomotor with the 3 screws.
  - (b) Connect the connector.

# AIR OUTLET SERVOMOTOR INSPECTION

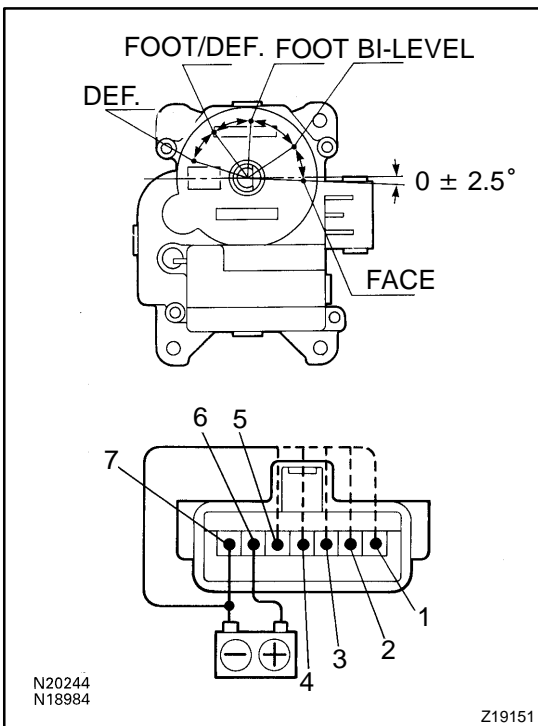
AC1LL-06

1. REMOVE LOWER NO. 1 PANEL (See page [BO-84](#) )



2. REMOVE AIR OUTLET SERVOMOTOR

- (a) Disconnect the connector.
- (b) Remove the 3 screws and the air outlet servomotor.



3. INSPECT AIR OUTLET SERVOMOTOR OPERATION

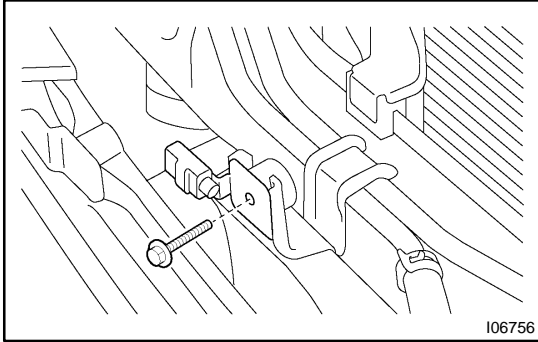
- (a) Connect the positive (+) lead from the battery to terminal 6 and the negative (-) lead to terminal 7.
- (b) Connect the negative (-) lead from the battery to each terminal and check that the shaft rotates at each position, as shown in the illustration.

Connected terminal	Position
5	DEF.
4	FOOT/DEF.
3	FOOT
2	B/L
1	FACE

If operation is not as specified, replace the servomotor.

4. INSTALL AIR OUTLET SERVOMOTOR

- (a) Install the air outlet servomotor with the 3 screws.
- (b) Connect the connector.



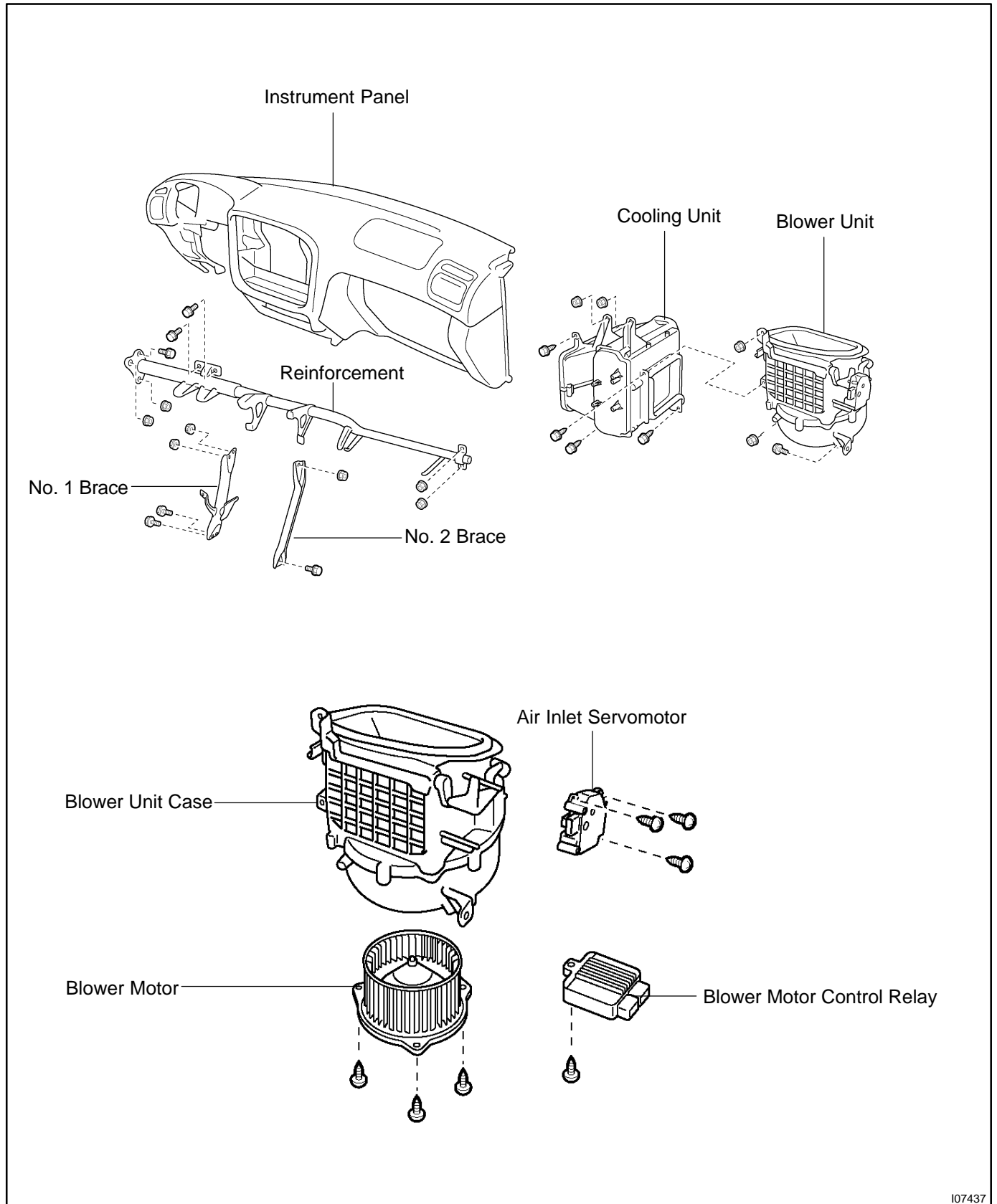
## AMBIENT TEMPERATURE SENSOR INSPECTION

AC1LP-05

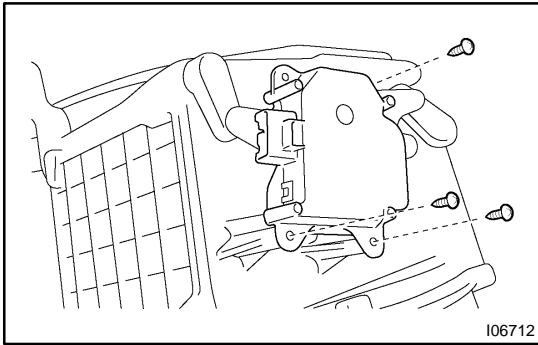
- 1. REMOVE AMBIENT TEMPERATURE SENSOR**
  - (a) Disconnect the connector.
  - (b) Remove the bolt and the ambient temperature sensor.
- 2. INSPECT AMBIENT TEMPERATURE SENSOR CIRCUIT (See page [DI-1319](#) )**
- 3. INSTALL AMBIENT TEMPERATURE SENSOR**
  - (a) Install the ambient temperature sensor to the condenser upper bracket.
  - (b) Connect the connector.

# BLOWER UNIT COMPONENTS

AC1KT-03



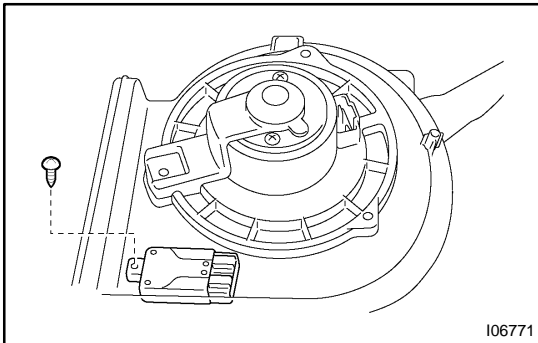
107437



## DISASSEMBLY

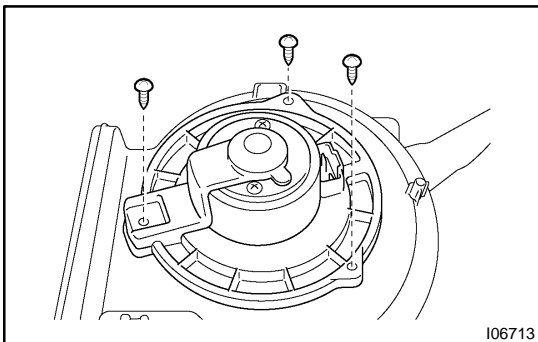
### 1. REMOVE AIR INLET SERVOMOTOR

Remove the 3 screws and the air inlet servomotor.



### 2. REMOVE BLOWER MOTOR CONTROL RELAY

- (a) Disconnect the connector.
- (b) Remove the screw and the blower motor control relay.



### 3. REMOVE BLOWER MOTOR

- (a) Disconnect the connector.
- (b) Remove the 3 screws and the blower motor.

### 4. REMOVE WIRE HARNESS

Remove the screw and the wire harness.



## INSPECTION

1. INSPECT AIR INLET SERVOMOTOR OPERATION (See page [DI-1357](#) )
2. INSPECT AIR INLET DAMPER POSITION SENSOR CIRCUIT (See page [DI-1348](#) )

## INSTALLATION

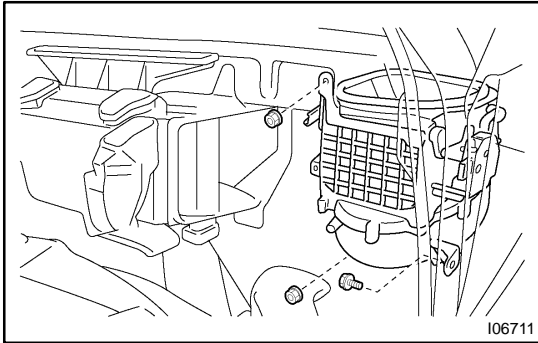
Installation is in the reverse of removal (See page [AC-55](#)).

## REASSEMBLY

Reassembly is in the reverse of disassembly (See page [AC-56](#)).

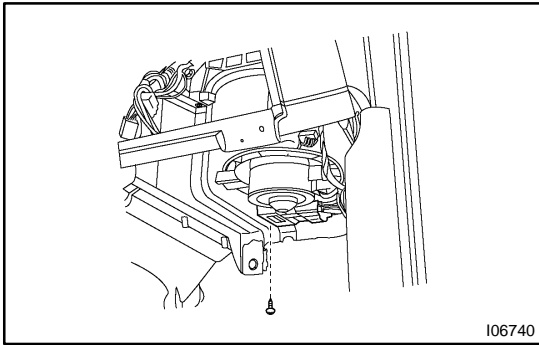
## REMOVAL

1. REMOVE FRONT COOLING UNIT (See page [AC-24](#))



2. REMOVE BLOWER UNIT

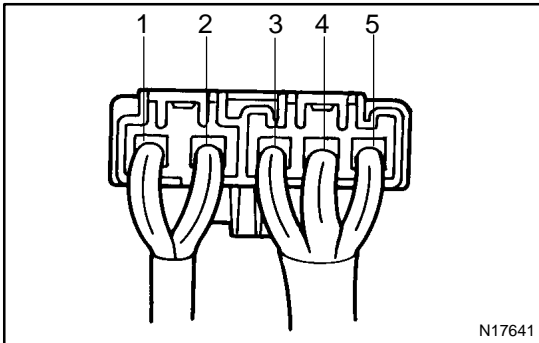
- (a) Disconnect the connectors.
- (b) Remove the bolt, 2 nuts and the blower unit.



# BLOWER MOTOR CONTROL RELAY INSPECTION

AC1LH-03

1. REMOVE BLOWER MOTOR CONTROL RELAY
  - (a) Disconnect the connectors.
  - (b) Remove the screw and the blower motor control relay.



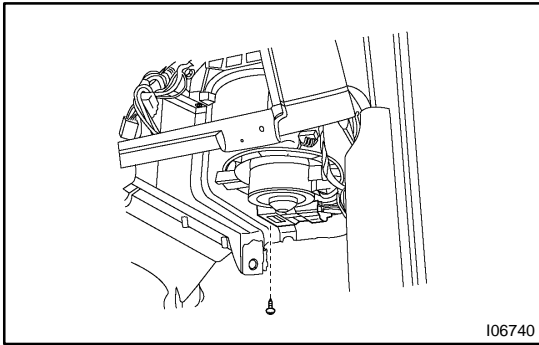
2. INSPECT BLOWER MOTOR CONTROL RELAY  
 Connect the connector to the blower motor control relay and inspect the wire harness side connector from the back side as shown in the illustration.

Test condition:

- ◆ Turn ignition switch to ON

Tester connection	Condition	Specified condition
1 - Ground	Constant	Continuity
2 - Ground	Blower speed control switch at "LO" position	Approx. 3.5 V
	Blower speed control switch at "M1" position	Approx. 2.2 V
3 - Ground	Operate blower motor	Battery positive voltage
	Blower speed control switch at "OFF" position	No voltage
4 - 5	Blower speed control switch at "LO" position	Approx. 3.6 V
	Blower speed control switch at "M2" position	Approx. 8.3 V
	Blower speed control switch at "HI" position	Approx. 13.0 V

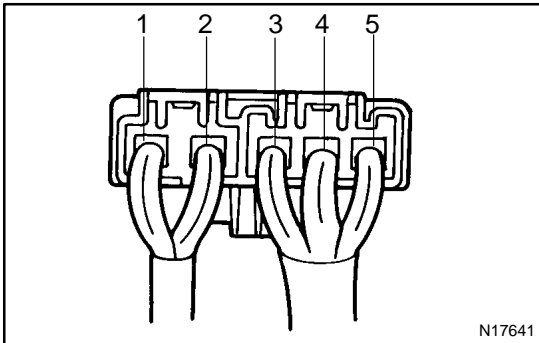
If circuit is not as specified, replace the relay.



# BLOWER MOTOR CONTROL RELAY INSPECTION

AC1LH-03

1. REMOVE BLOWER MOTOR CONTROL RELAY
  - (a) Disconnect the connectors.
  - (b) Remove the screw and the blower motor control relay.



2. INSPECT BLOWER MOTOR CONTROL RELAY  
Connect the connector to the blower motor control relay and inspect the wire harness side connector from the back side as shown in the illustration.

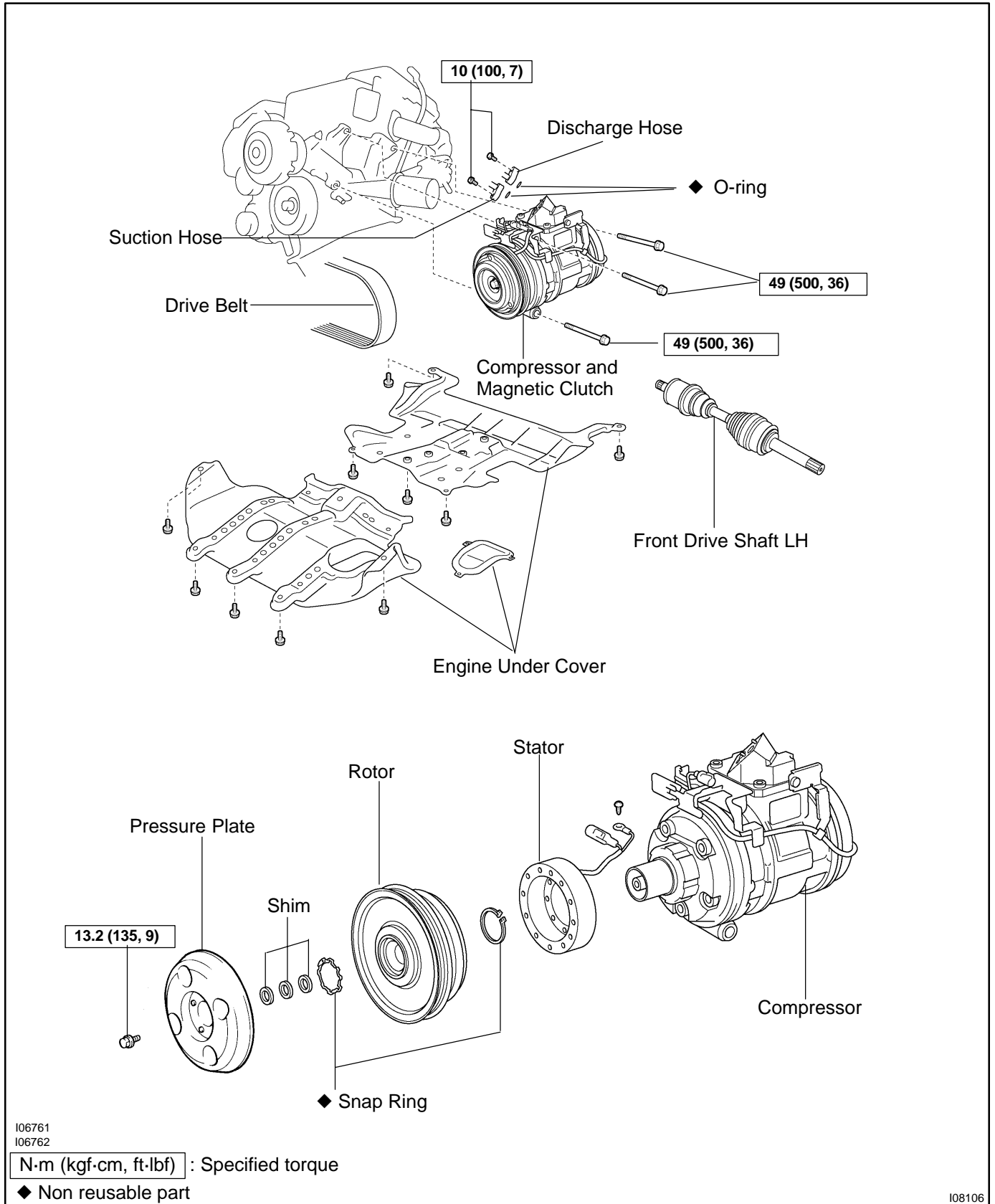
Test condition:

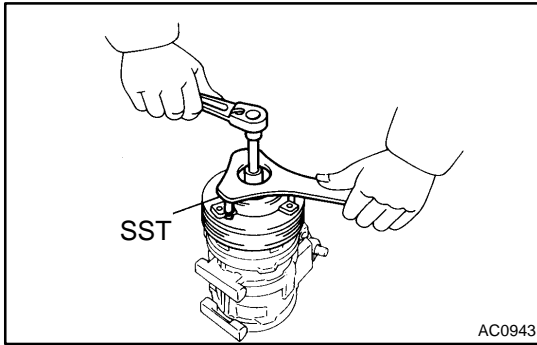
- ◆ Turn ignition switch to ON

Tester connection	Condition	Specified condition
1 - Ground	Constant	Continuity
2 - Ground	Blower speed control switch at "LO" position	Approx. 3.5 V
	Blower speed control switch at "M1" position	Approx. 2.2 V
3 - Ground	Operate blower motor	Battery positive voltage
	Blower speed control switch at "OFF" position	No voltage
4 - 5	Blower speed control switch at "LO" position	Approx. 3.6 V
	Blower speed control switch at "M2" position	Approx. 8.3 V
	Blower speed control switch at "HI" position	Approx. 13.0 V

If circuit is not as specified, replace the relay.

# COMPONENTS





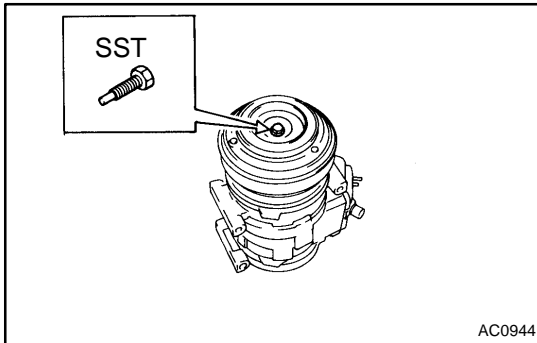
## DISASSEMBLY

### 1. REMOVE PRESSURE PLATE

- (a) Using SST and a socket wrench, remove the shaft bolt.

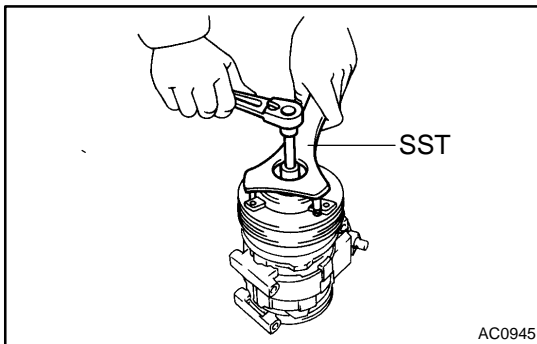
**Torque: 13.2 N·m (135 kgf·cm, 9 ft·lbf)**

SST 07112-76060



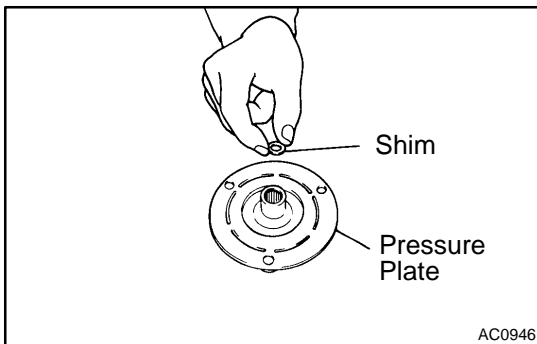
- (b) Install SST on the pressure plate.

SST 07112-66040

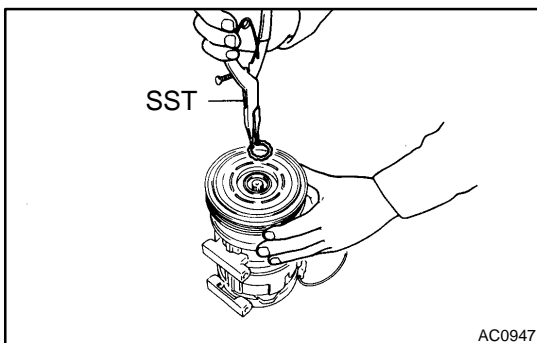


- (c) Using SST and socket wrench, remove the pressure plate.

SST 07112-66040, 07112-76060



- (d) Remove the shims from the pressure plate.

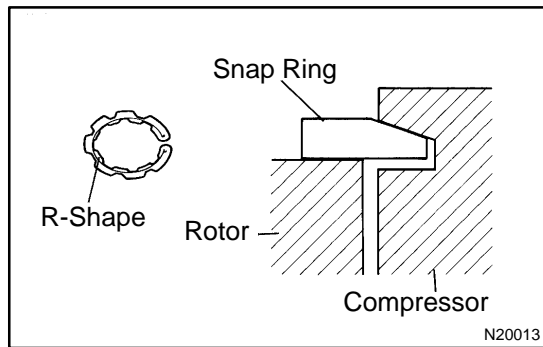


### 2. REMOVE ROTOR

- (a) Using SST, remove the snap ring.

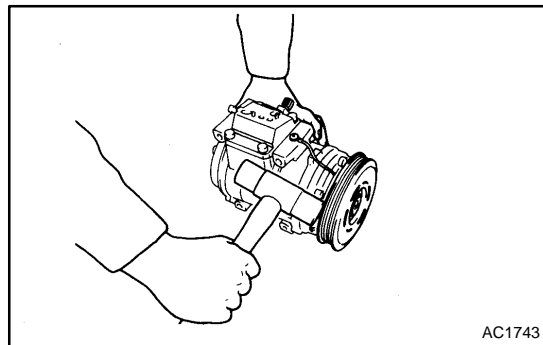
SST 95994-10020





**NOTICE:**

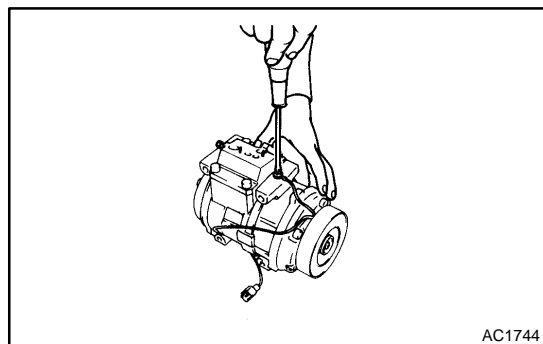
At the time of reassembly, the snap ring should be installed so that beveled side facing up.



(b) Using a plastic hammer, tap the rotor off the shaft.

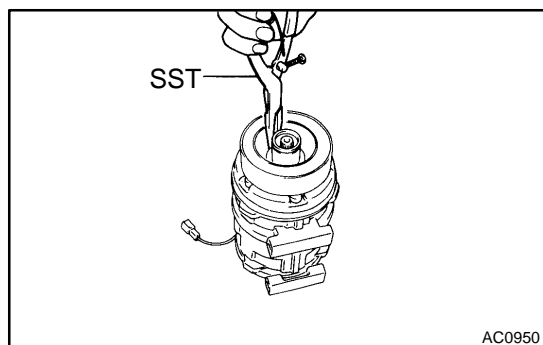
**NOTICE:**

Be careful not to damage the pulley when tapping on the rotor.



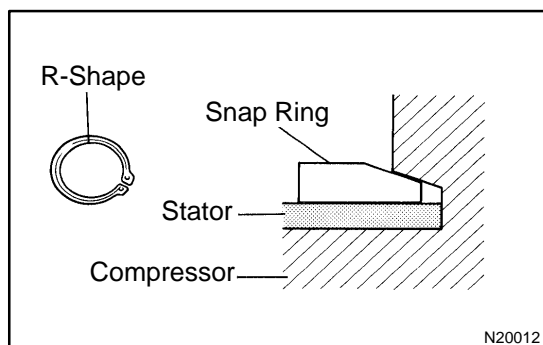
**3. REMOVE STATOR**

(a) Disconnect the stator lead wire from the compressor housing.



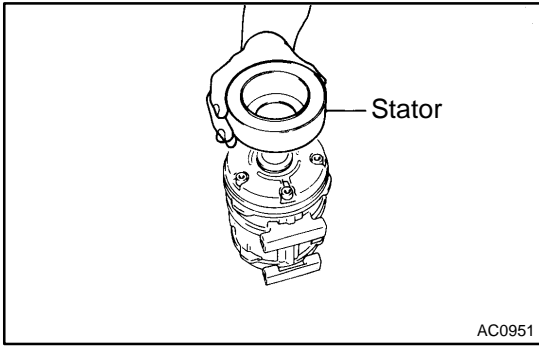
(b) Using SST, remove the snap ring.

SST 95994-10020



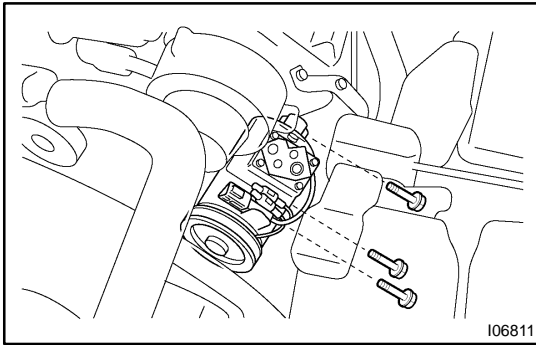
**NOTICE:**

At the time of reassembly, the snap ring should be installed so that its beveled side facing up.



(c) Remove the stator.

AC0951

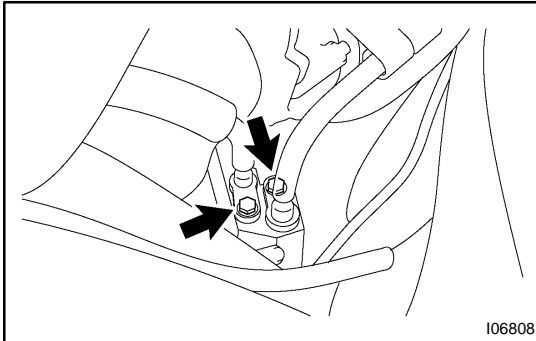


## INSTALLATION

### 1. INSTALL COMPRESSOR

- (a) Install the compressor with 3 bolts.  
**Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)**
- (b) Connect the connector.

### 2. INSTALL FRONT DRIVE SHAFT LH (See page SA-33 )



### 3. CONNECT DISCHARGE AND SUCTION HOSES

- (a) Lubricate 2 new O-rings with compressor oil and install them to the hoses.
- (b) Connect the both hoses with 2 bolts.  
**Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)**

#### NOTICE:

Hose should be connected immediately after the caps have been removed.

### 4. INSTALL AND CHECK DRIVE BELT (See page AC-17 and AC-15 )

### 5. CONNECT NEGATIVE (-) TERMINAL CABLE TO BATTERY

### 6. EVACUATE AIR FROM REFRIGERATION SYSTEM AND CHARGE SYSTEM WITH REFRIGERANT Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)

### 7. INSPECT FOR LEAKAGE OF REFRIGERANT

Using a gas leak detector, check for leaks of the refrigerant. If there is a leakage, check the tightening torque at the joints.

### 8. INSPECT A/C OPERATION

# COMPRESSOR AND MAGNETIC CLUTCH

AC11K-03

## ON-VEHICLE INSPECTION

### 1. INSPECT COMPRESSOR FOR METALLIC SOUND

Check there is abnormal metallic sound from the compressor when the A/C switch is ON.

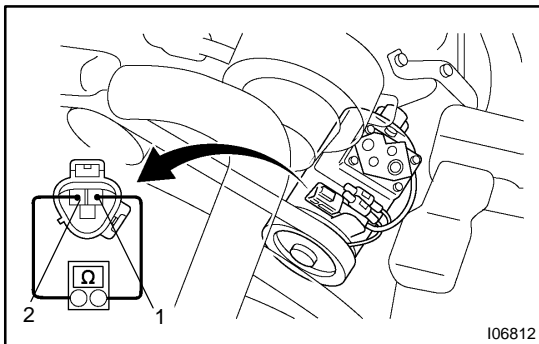
If abnormal metallic sound is heard, replace the compressor assembly.

### 2. INSPECT REFRIGERANT PRESSURE

(See page AC-3)

### 3. INSPECT VISUALLY FOR LEAKAGE OF REFRIGERANT

Using a gas leak detector, check for leakage of refrigerant. If there is any leakage, replace the compressor assembly.



### 4. INSPECT COMPRESSOR LOCK SENSOR RESISTANCE

- (a) Disconnect the connector.
- (b) Measure resistance between terminal 1 and 2.

**Standard resistance:**

**570 - 1,050  $\Omega$  at 20°C (68 °F)**

If resistance is not as specified, replace the compressor.

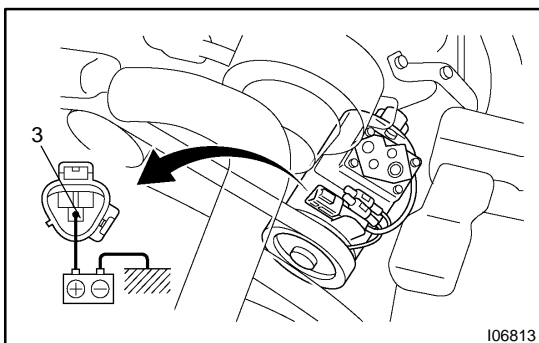
### 5. CHECK FOR LEAKAGE OF GREASE FROM CLUTCH BEARING

### 6. CHECK FOR SIGNS OF OIL ON PRESSURE PLATE OR ROTOR

### 7. INSPECT MAGNETIC CLUTCH BEARING FOR NOISE

- (a) Start engine.
- (b) Check for abnormal noise from the compressor when the A/C switch is OFF.

If abnormal noise is being emitted, replace the rotor of magnetic clutch.



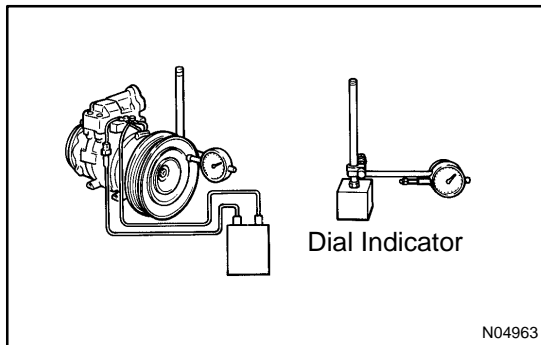
### 8. INSPECT MAGNETIC CLUTCH OPERATION

- (a) Disconnect the connector.
- (b) Connect the positive (+) lead from the battery to terminal 3 and the negative (-) lead to the body ground.
- (c) Check that the magnetic clutch is energized.

If operation is not as specified, replace the magnetic clutch.

## REASSEMBLY

Reassembly is in the reverse of disassembly  
(See page [AC-63](#)).



### AFTER REASSEMBLY, CHECK MAGNETIC CLUTCH CLEARANCE

- Set the dial indicator to the pressure plate of the magnetic clutch.
- Connect the magnetic clutch lead wire to the battery positive (+) terminal.
- Check the clearance between the pressure plate and rotor when connecting the negative (-) terminal to the battery.

#### Standard clearance:

**0.5 ± 0.15 mm (0.020 ± 0.0059 in.)**

If the clearance is not within the standard clearance, adjust the clearance using shims to obtain the standard clearance.

#### Shim thickness:

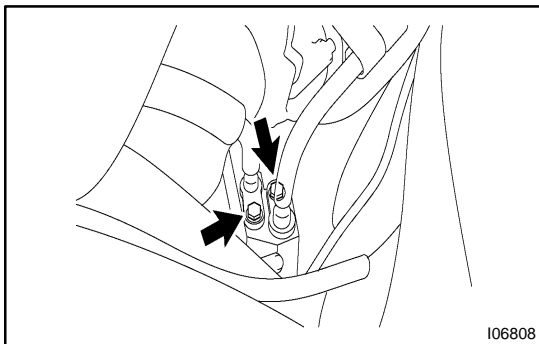
**0.1 mm (0.004 in.)**

**0.3 mm (0.012 in.)**

**0.5 mm (0.020 in.)**

## REMOVAL

1. RUN ENGINE AT IDLE SPEED WITH A/C ON FOR APPROX. 10 MINUTES
2. STOP ENGINE
3. DISCONNECT NEGATIVE (-) TERMINAL CABLE FROM BATTERY
4. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM
5. REMOVE ENGINE UNDER COVER
6. REMOVE DRIVE BELT (See page [AC-16](#))



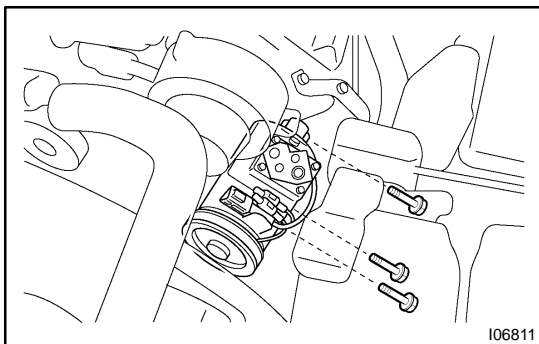
### 7. DISCONNECT DISCHARGE AND SUCTION HOSES

Remove the 2 bolts and disconnect the both hoses.

#### NOTICE:

Cap the open fittings immediately to keep moisture or dirt out of the system.

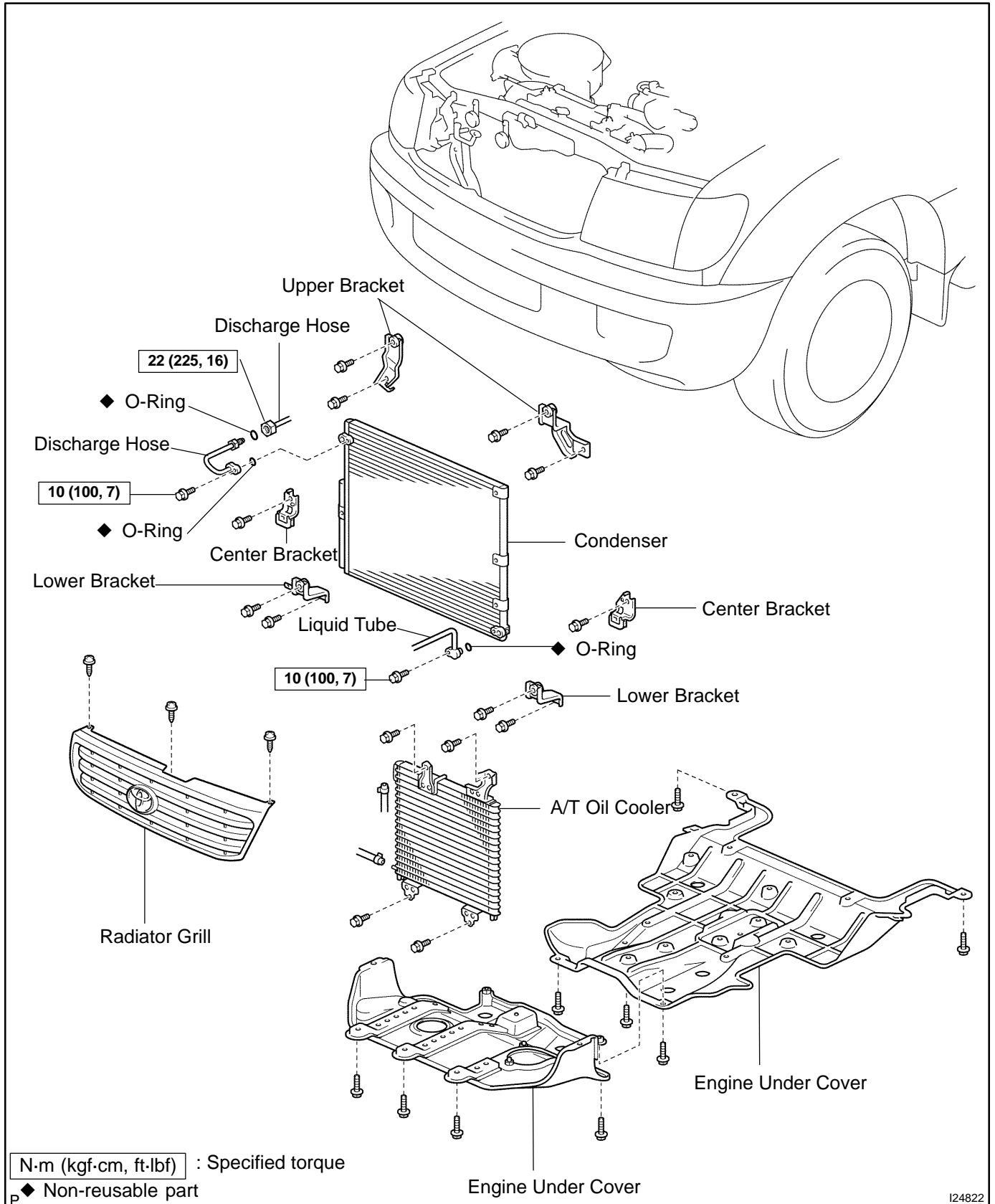
8. REMOVE FRONT DRIVE SHAFT LH  
(See page [SA-26](#))



### 9. REMOVE COMPRESSOR

- (a) Disconnect the connector.
- (b) Remove the 3 bolts and the compressor.

# COMPONENTS



124822

## INSTALLATION

Installation is in the reverse of removal (See page [AC-70](#)).



# CONDENSER

AC11Q-02

## ON-VEHICLE INSPECTION

### 1. INSPECT CONDENSER FINS FOR BLOCKAGE OR DAMAGE

If the fins are clogged, wash them with water and dry with compressed air.

#### **NOTICE:**

**Be careful not to damage the fins.**

If the fins are bent, straighten them with a screwdriver or pliers.

### 2. INSPECT CONDENSER AND FITTINGS FOR LEAKAGE

Using a gas leak detector, check for leaks of refrigerant.

If there is a leakage, check the tightening torque at the joints.

## REMOVAL

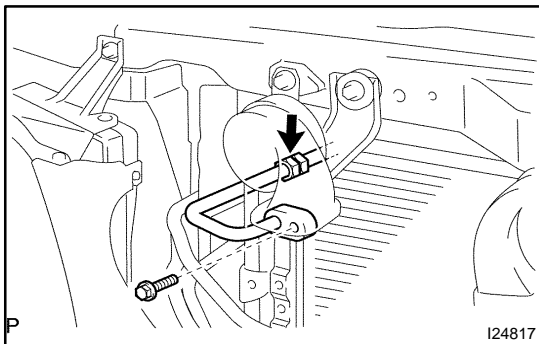
### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

#### HINT:

At the time of installation, refer to the following items evacuate air from the refrigeration system and charge system with the refrigerant and inspect for leaks of the refrigerant.

**Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)**

2. REMOVE RADIATOR GRILL
3. REMOVE A/T AIR COOLED OIL COOLER  
(See page [AT-17](#))
4. REMOVE ENGINE UNDER COVER



### 5. REMOVE DISCHARGE TUBE

- (a) Remove the bolt and disconnect the tube from the condenser.

**Torque: 5.4 N·m (55 kgf·cm, 48 in.-lbf)**

- (b) Loosen the nut and remove the tube.

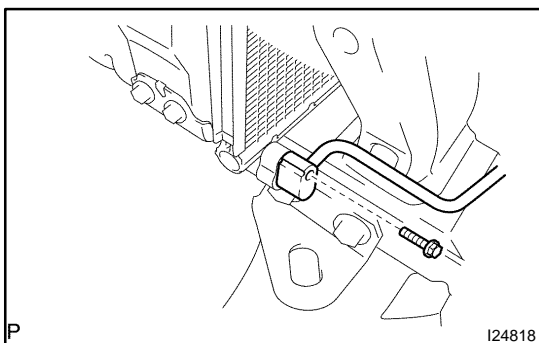
**Torque: 22 N·m (225 kgf·cm, 16 ft-lbf)**

#### NOTICE:

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

#### HINT:

At the time of installation, lubricate 2 new O-rings with compressor oil and install them on the tube.



### 6. DISCONNECT LIQUID TUBE

Remove the bolt and disconnect the tube.

**Torque: 10 N·m (100 kgf·cm, 7 ft-lbf)**

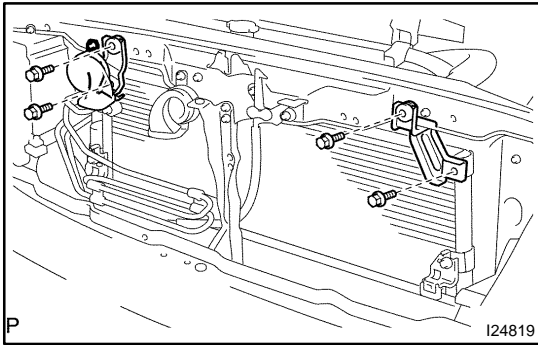
#### NOTICE:

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

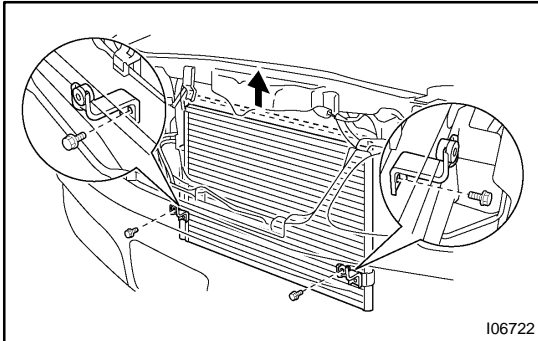
#### HINT:

At the time of installation, lubricate a new O-ring with compressor oil and install them on the tube.

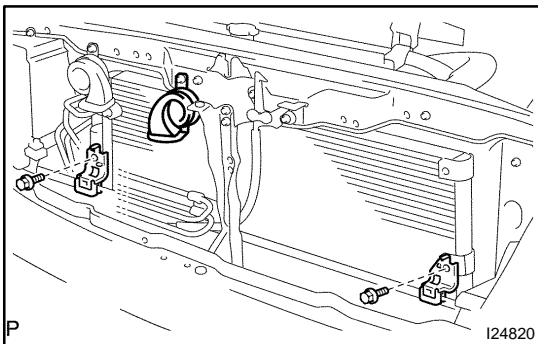
## AIR CONDITIONING - CONDENSER

**7. REMOVE CONDENSER**

- (a) Remove the 4 bolts and the 2 upper bracket.



- (b) Lift up condenser, then remove the 4 bolts and the 2 center bracket.



- (c) Remove the 2 bolts and the 2 center bracket.

- (d) Remove the condenser.

**HINT:**

At the time of installation, please refer to the following item.

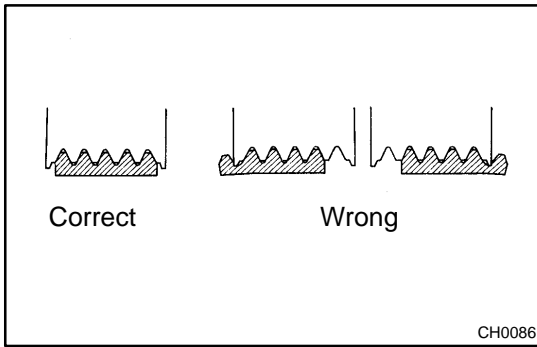
If condenser is replaced, add compressor oil to condenser.

**Add: 40 - 50 cc (1.4 - 1.7 fl.oz.)**

**Compressor oil: ND-OIL 8 or equivalent**

## INSTALLATION

Installation is in the reverse of removal (See page [AC-16](#)).

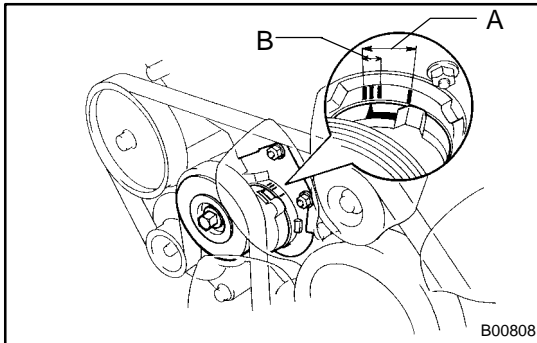


## DRIVE BELT ON-VEHICLE INSPECTION

AC1HP-03

### 1. INSPECT DRIVE BELT'S INSTALLATION CONDITION

Check that drive belt fits properly in the ribbed grooves.



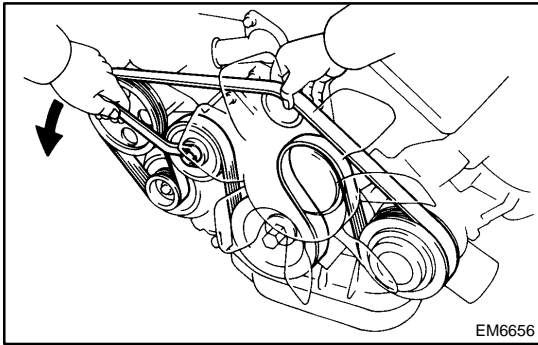
### 2. INSPECT DRIVE BELT TENSION

Check that the tension is within A range on the auto tensioner scale.

If the tension is not within the A range on the scale, replace the belt with a new one.

**HINT:**

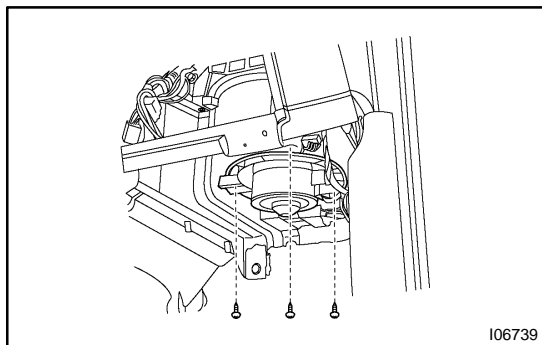
When replacing the drive belt with a new one, the belt's tension should be within the B range on the belt tensioner scale.



## REMOVAL

### REMOVE DRIVE BELT

Loosen the drive belt tension by turning the drive belt tensioner counterclockwise, and remove the drive belt.

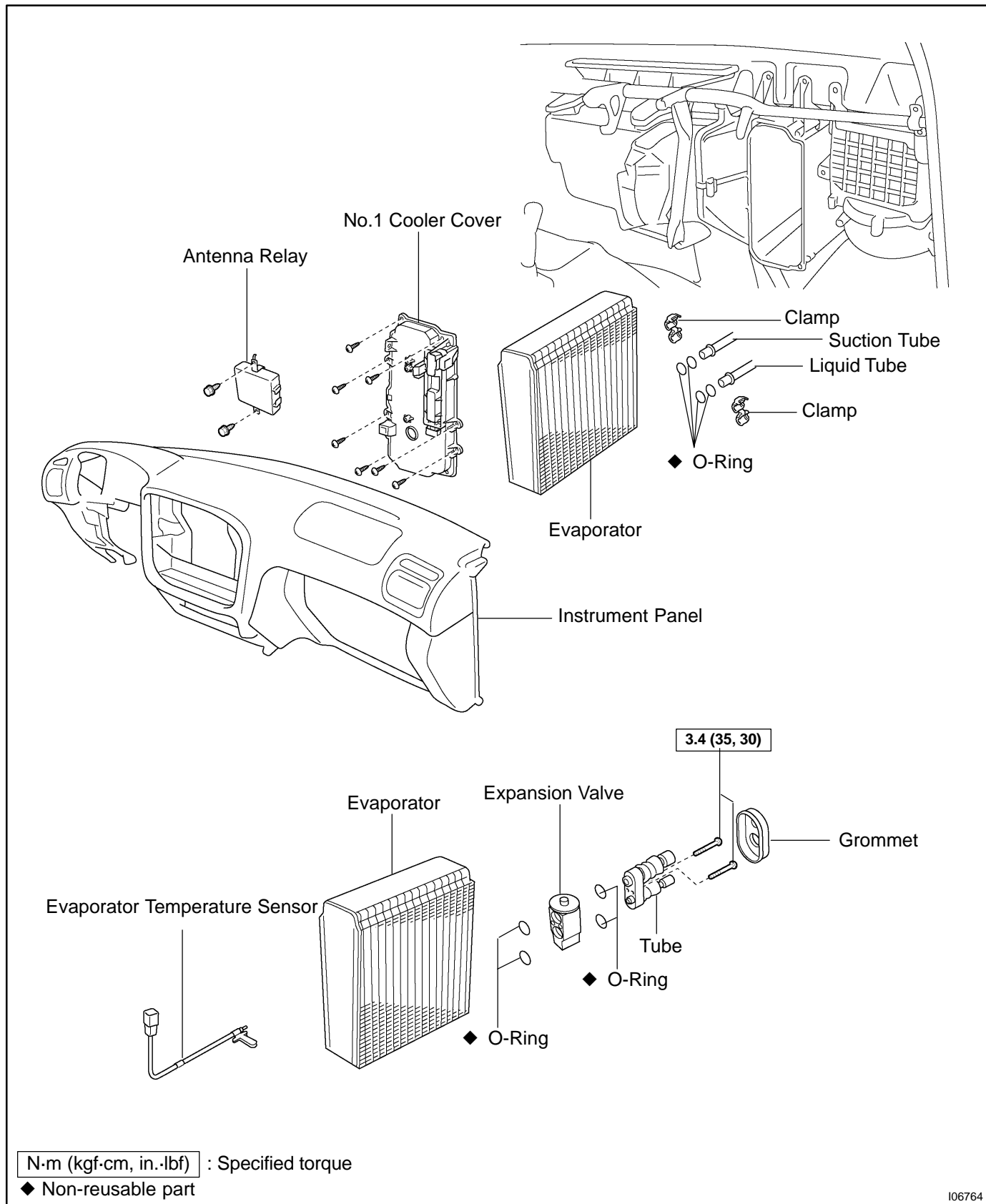


## FRONT A/C BLOWER MOTOR INSPECTION

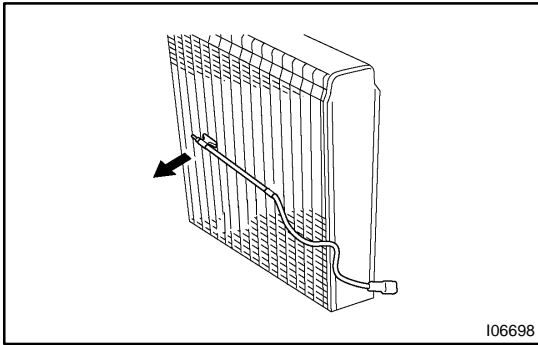
AC1LG-03

- 1. REMOVE BLOWER MOTOR**
  - (a) Disconnect the connector.
  - (b) Remove the 3 screws and the blower motor.
- 2. INSPECT BLOWER MOTOR CIRCUIT**  
(See page [DI-1369](#))
- 3. INSTALL BLOWER MOTOR**
  - (a) Install the blower motor with 3 screws.
  - (b) Connect the connector.

# COMPONENTS

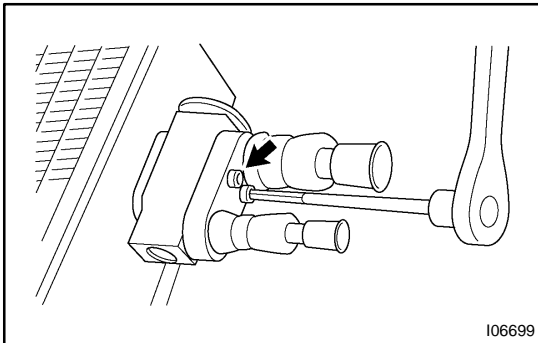






## DISASSEMBLY

### 1. PULL OUT EVAPORATOR TEMPERATURE SENSOR



### 2. REMOVE EXPANSION VALVE

Using a hexagon wrench (5.0mm, 0.20 in.), remove the 2 bolts and separate the expansion valve and the evaporator.

**Torque: 3.4 N·m (35 kgf·cm, 30 in.-lbf)**

#### NOTICE:

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

#### HINT:

At the time of reassembly, lubricate 4 new O-rings with compressor oil and install them to the valve. If evaporator is replaced, add compressor oil to the evaporator.

**Add: 40 cc (1.4 fl.oz.)**

**Compressor oil: ND-OIL8 or equivalent**

## INSPECTION

### 1. CHECK EVAPORATOR FINS FOR BLOCKAGE

If the fins are clogged, remove them with compressed air.

#### **NOTICE:**

**Never use water to clean the evaporator.**

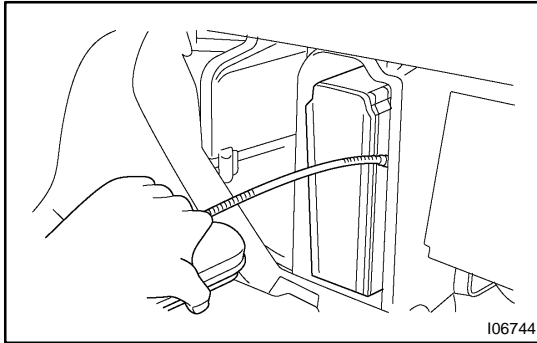
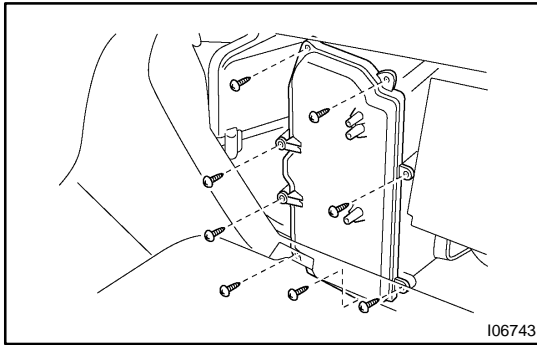
### 2. CHECK FITTINGS FOR CRACKS OR SCRATCHES

If necessary, repair or replace.

### 3. INSPECT EVAPORATOR TEMPERATURE CIRCUIT (See page [DI-1322](#) )

## INSTALLATION

Installation is in the reverse of removal (See page [AC-75](#)).



## FRONT A/C EVAPORATOR ON-VEHICLE INSPECTION

AC1L9-05

### 1. INSPECT FOR LEAKAGE OF REFRIGERANT

- (a) Remove the glove compartment door.
- (b) Remove the lower No. 2 finish panel  
(See page [BO-84](#) ).
- (c) Remove the No. 1 cooler cover.
  - (1) Disconnect the connector clamp.
  - (2) Remove the 8 screws and No. 1 cooler cover.
- (d) Using a gas leak detector, check for leaks of refrigerant. If there is a leakage of refrigerant, check the tightening torque at the joints or check the evaporator.
- (e) Install the No. 1 cooler cover.

### 2. INSPECT EXPANSION VALVE

- (a) Check amount of gas during refrigeration cycle.
- (b) Set on manifold gauge set.
- (c) Operate A/C system at "MAX. COOL" for approx. 5 minutes.
- (d) Check expansion valve.  
Check the low pressure reading drops to 0 kPa (0 kgf/cm<sup>2</sup>, 0 psi).

If the low pressure reading is not as specified, replace the expansion valve with the tubes.

## REASSEMBLY

Reassembly is in the reverse of disassembly (See page [AC-76](#)).

## REMOVAL

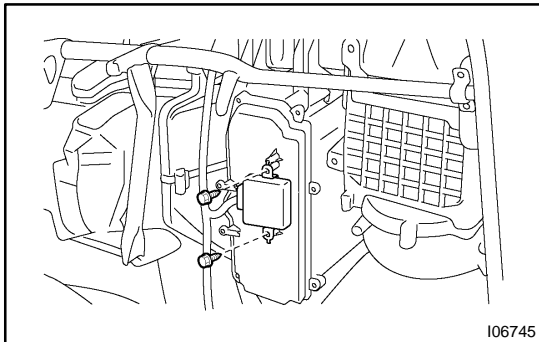
### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

#### HINT:

At the time of installation, evacuate air from refrigeration system and charge the system with the refrigerant and inspect for leaks of the refrigerant.

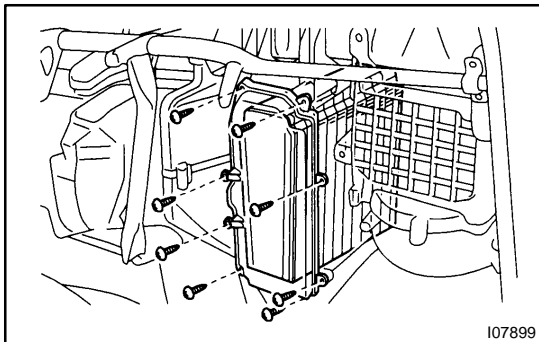
**Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)**

2. DISCONNECT LIQUID AND SUCTION TUBES FROM FRONT COOLING UNIT (See page [AC-24](#) )
3. REMOVE INSTRUMENT PANEL (See page [BO-84](#) )



### 4. REMOVE ANTENNA RELAY

- (a) Disconnect the connector.
- (b) Remove the 2 screws and the antenna relay.

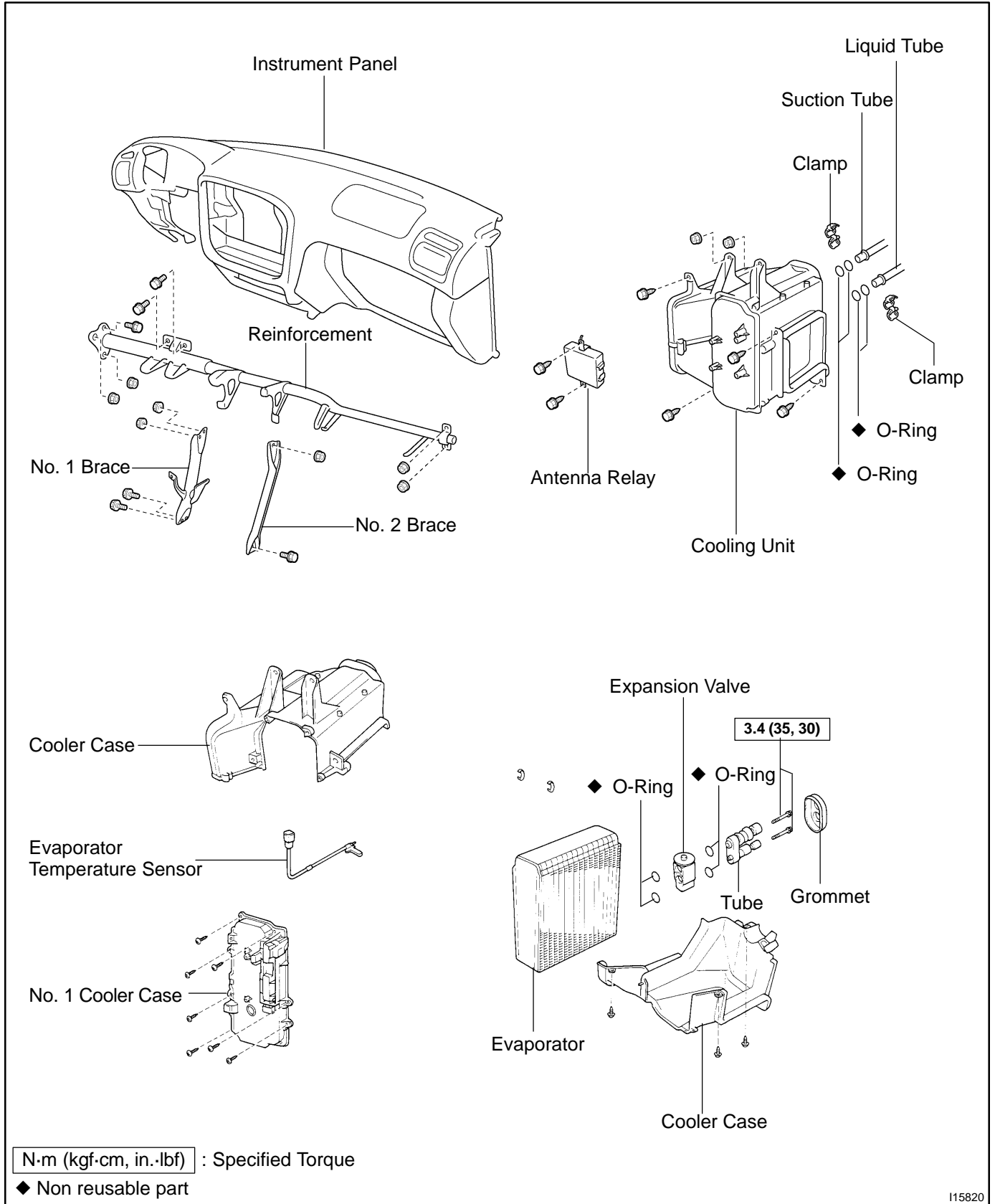


### 5. REMOVE EVAPORATOR

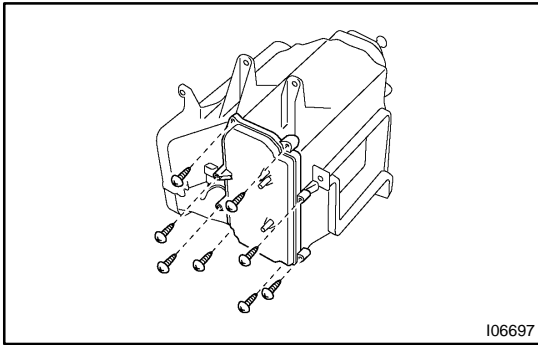
- (a) Disconnect the connector.
- (b) Disconnect the connector clamp.
- (c) Remove the 8 screws and the No .1 cooler cover.
- (d) Pull out the evaporator.

# FRONT COOLING UNIT COMPONENTS

AC1K5-06



115820



## DISASSEMBLY

### 1. REMOVE EVAPORATOR

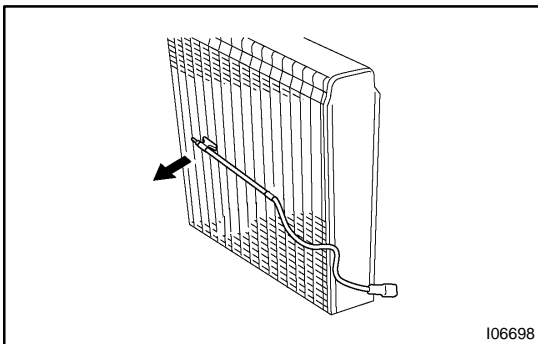
- (a) Disconnect the connector clamp.
- (b) Remove the 8 screws and No. 1 cooler cover.
- (c) Pull out the evaporator

#### HINT:

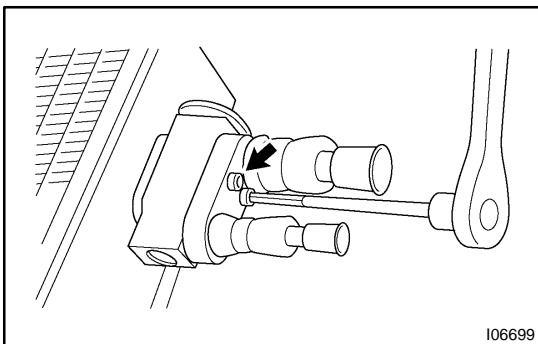
At the time of reassembly, if evaporator is replaced, add compressor oil to the evaporator.

**Add: 40 cc (1.4 fl.oz.)**

**Compressor oil: ND-OIL 8 or equivalent**



### 2. PULL OUT EVAPORATOR TEMPERATURE SENSOR FROM EVAPORATOR



### 3. REMOVE EXPANSION VALVE

- (a) Remove the grommet.
- (b) Pry out the packing.

#### HINT:

At the time of reassembly, do not reuse the packing.

- (c) Using a hexagon wrench (5.0 mm, 0.20 in.), remove the 2 bolts and separate the expansion valve, tube and evaporator.

**Torque: 3.4 N·m (35 kgf·cm, 30 in.-lbf)**

#### NOTICE:

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

#### HINT:

At the time of reassembly, lubricate 4 new O-rings with compressor oil and install them in the tube.

### 4. REMOVE DRAIN HOSE



## INSTALLATION

Installation is in the reverse of removal (See page [AC-24](#) ).

## REASSEMBLY

Reassembly is in the reverse of disassembly (See page [AC-26](#)).

## REMOVAL

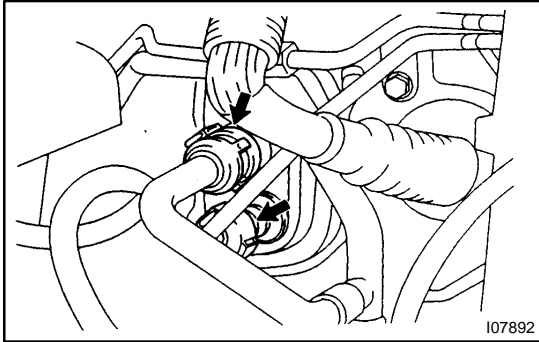
### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

#### HINT:

At the time of installation, first evacuate air from refrigeration system.

Then, charge the system with the refrigerant and inspect for leaks of the refrigerant.

**Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)**

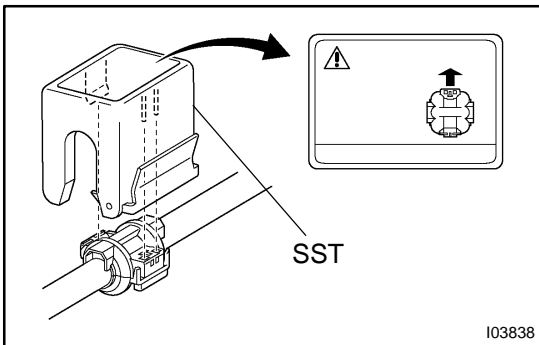


### 2. DISCONNECT LIQUID AND SUCTION TUBES

- (a) Using SST, remove the 2 piping clamps.

SST 09870-00025 (Liquid tube)

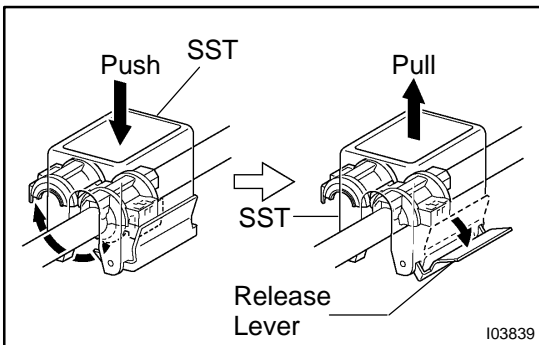
09870-00015 (Suction tube)



- (1) Insert SST to piping clamp.

#### HINT:

Confirm the direction of the piping clamp claw and SST referring to the illustration on the caution label.



- (2) Push down SST and release the clamp lock.

#### NOTICE:

**Be careful not to deform the tubes when pushing SST.**

- (3) Pull SST slightly and push the release lever, then remove the piping clamp with SST.

- (4) Remove the piping clamp from SST.

- (b) Disconnect the both tubes.

#### NOTICE:

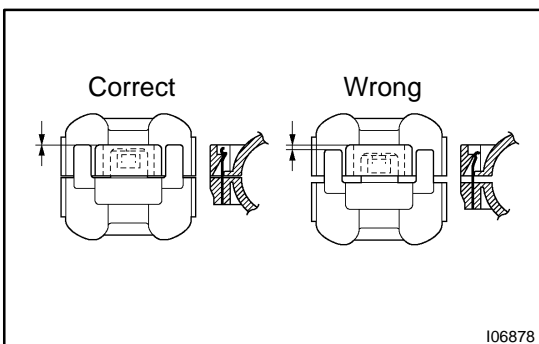
**Cap the open fittings immediately to keep moisture or dirt out of the system.**

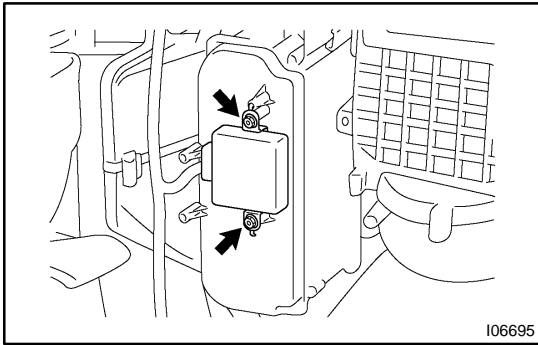
#### HINT:

At the time of installation:

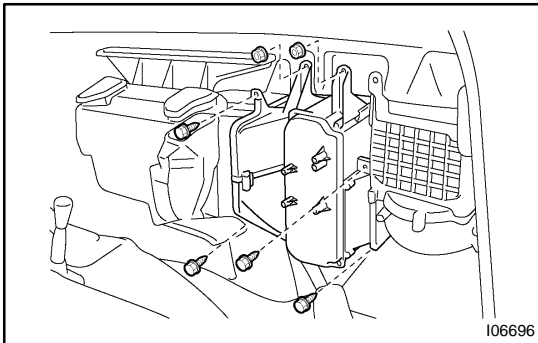
- ◆ Lubricate 4 new O-rings with compressor oil and install them to the tubes.
- ◆ After connection, check the fitting for claw of the piping clamp.

### 3. REMOVE INSTRUMENT PANEL AND REINFORCEMENT (See page [BO-84](#))



**4. REMOVE ANTENNA RELAY**

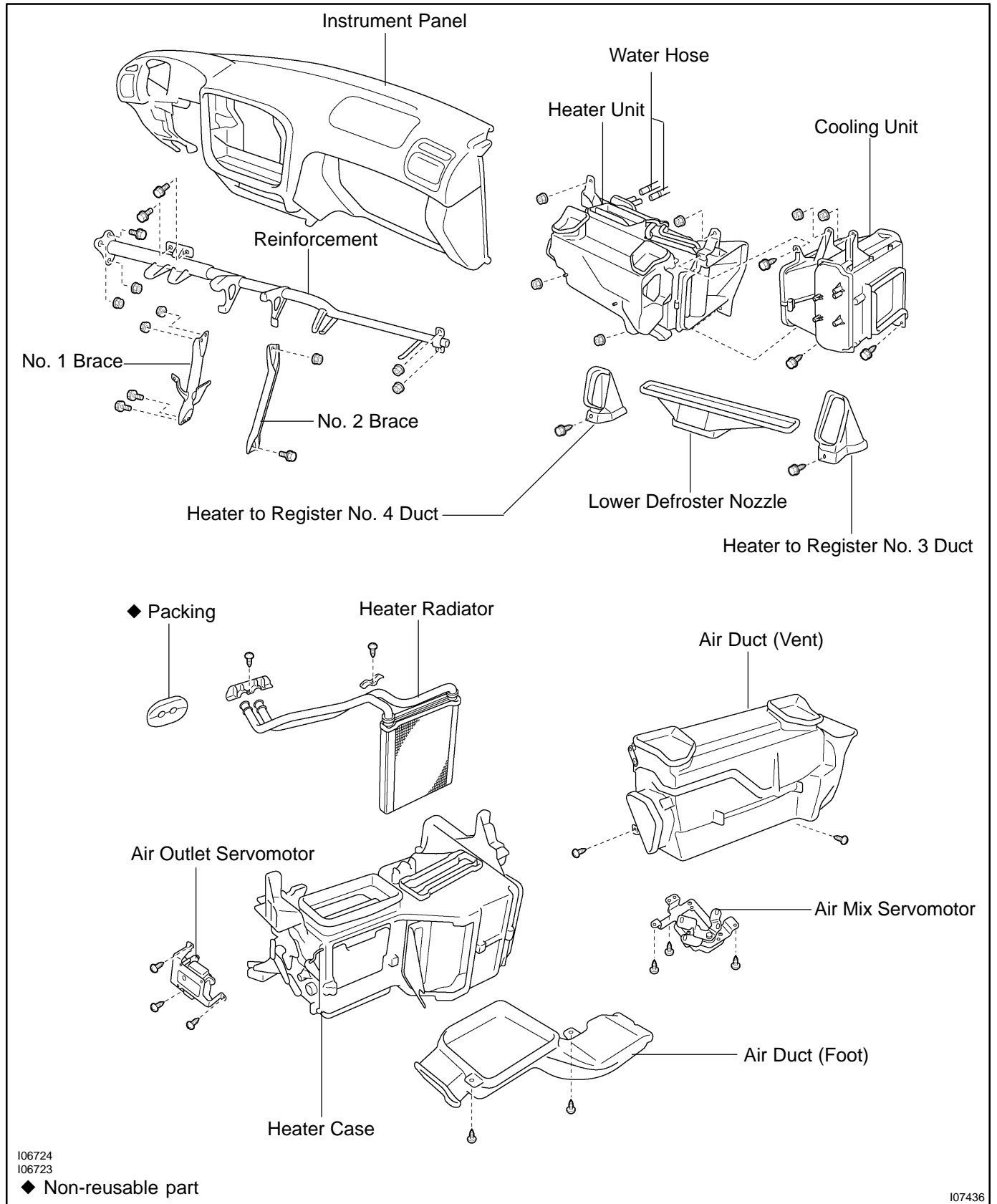
- (a) Disconnect the connector.
- (b) Remove the 2 screws and antenna relay.

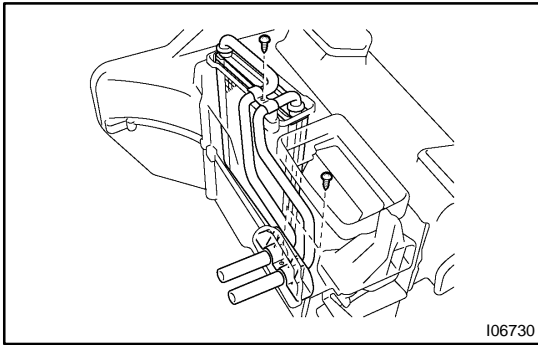
**5. REMOVE COOLING UNIT**

- (a) Disconnect the connector.
- (b) Remove the 4 screws, 2 nuts and cooling unit.

# FRONT HEATER UNIT COMPONENTS

AC1KH-03

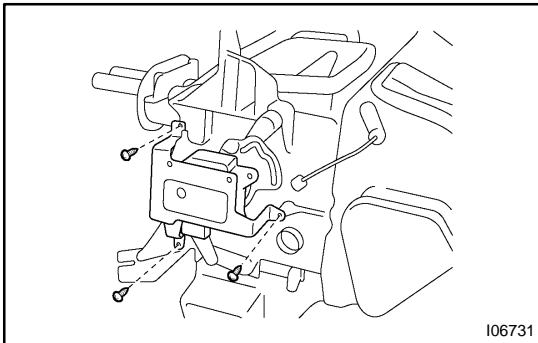




## DISASSEMBLY

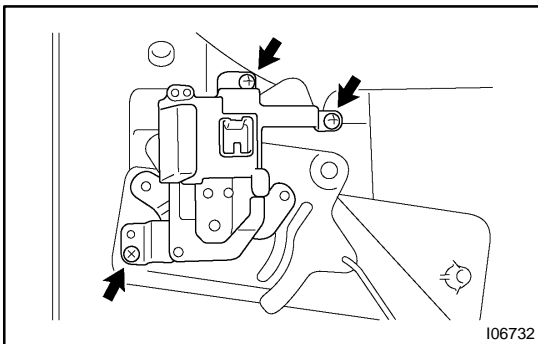
### 1. REMOVE HEATER RADIATOR

- (a) Pry out the packing.
- (b) Remove the screw and the bracket.
- (c) Remove the screw and the clamp.
- (d) Pull out the heater radiator.



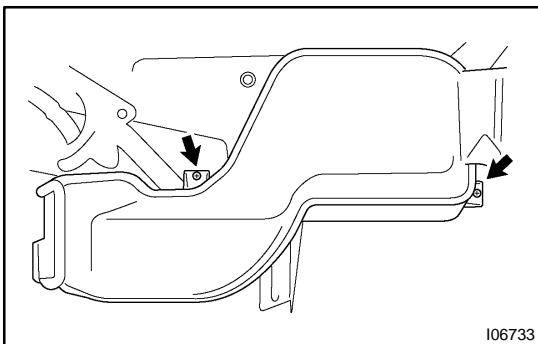
### 2. REMOVE AIR OUTLET SERVOMOTOR

Remove the 3 screws and the air outlet servomotor.



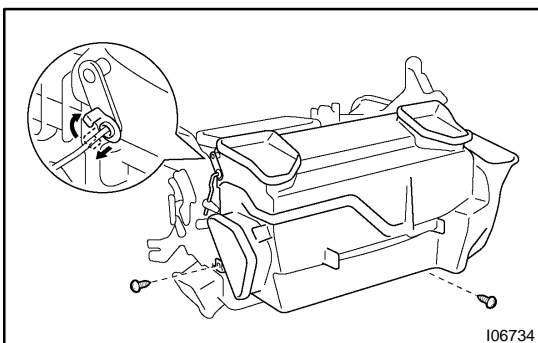
### 3. REMOVE AIR MIX SERVOMOTOR

- (a) Disconnect the connector.
- (b) Remove the 3 screws and the air mix servomotor.
- (c) Release the claw and remove the wire harness.



### 4. REMOVE AIR DUCT (Foot Duct)

Remove the 2 screws and air duct.



### 5. REMOVE AIR DUCT (Vent Duct)

- (a) Disconnect the mode damper control link.
- (b) Remove the 2 screws and the air duct.

## INSPECTION

### 1. CHECK HEATER RADIATOR FINS FOR BLOCKAGE

If the fins are clogged, remove them with compressed air.

### 2. CHECK FITTING FRO CRACKS OR SCRATCHES

If necessary repair or replace.

## INSTALLATION

Installation is in the reverse of removal (See page [AC-40](#) ).



## REASSEMBLY

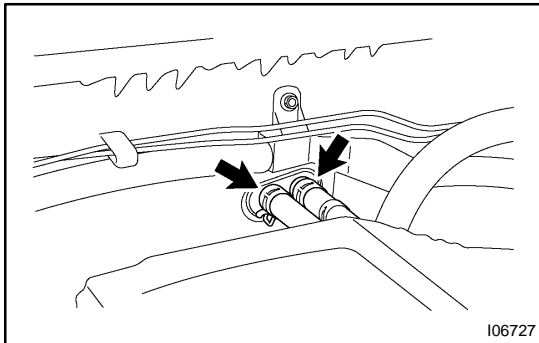
Reassembly is in the reverse of disassembly (See page [AC-41](#) ).

## REMOVAL

### 1. DRAIN ENGINE COOLANT FROM RADIATOR

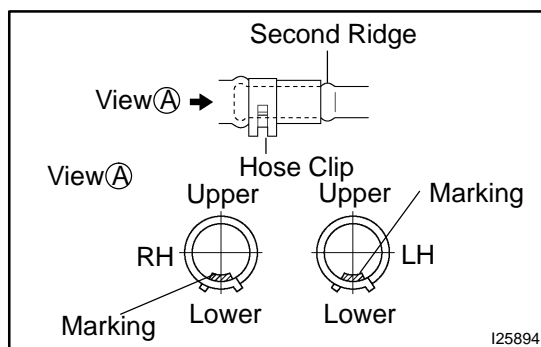
HINT:

It is not necessary to drain out all coolant.



### 2. DISCONNECT WATER HOSES FROM HEATER RADIATOR PIPES

- (a) Using pliers, grip the claws of the hose clip and slide the clip along the hose.
- (b) Disconnect the water hoses from the heater radiator pipes.



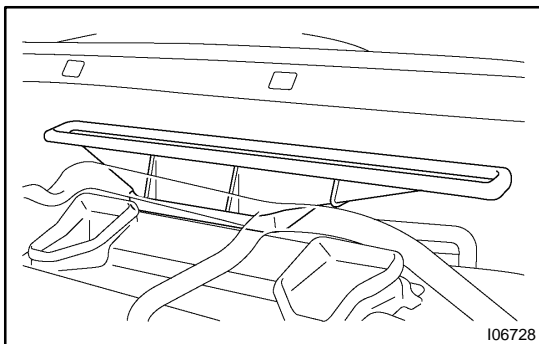
HINT:

At the time of installation, please refer to the following items.

- ◆ Push the water hose onto the heater radiator pipe to the second ridge on the pipe.
- ◆ Install a hose clip in the position as shown in the illustration.

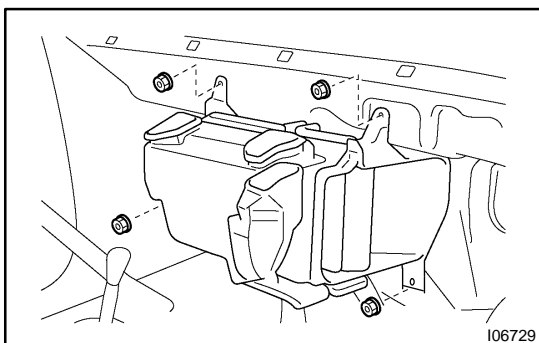
### 3. REMOVE INSTRUMENT PANEL AND REINFORCEMENT (See page [BO-84](#))

### 4. REMOVE FRONT COOLING UNIT (See page [AC-24](#))

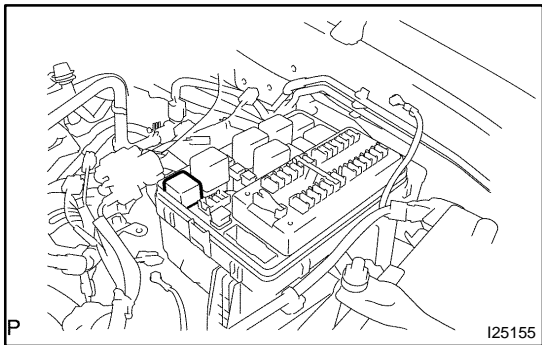


### 5. REMOVE HEATER UNIT

- (a) Remove the lower defroster nozzle.



- (b) Disconnect the connector.
- (c) Remove the 4 nuts and heater unit.

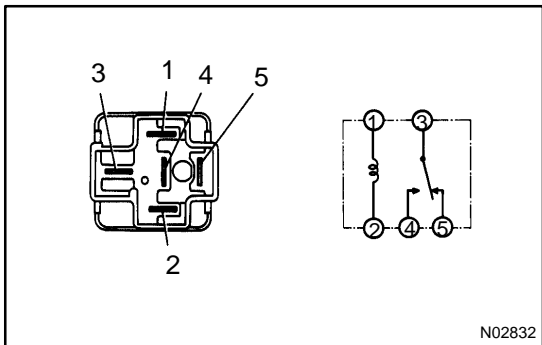


# HEATER MAIN RELAY INSPECTION

AC30X-01

## 1. REMOVE HEATER MAIN RELAY

Remove the heater main relay.

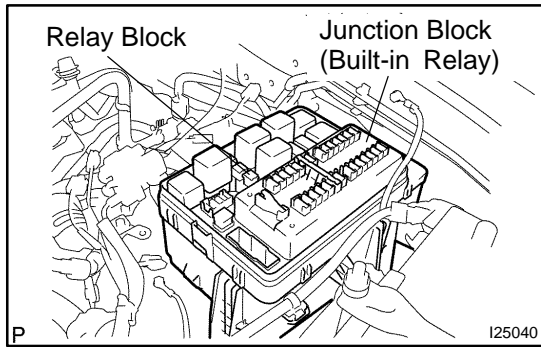


## 2. INSPECT HEATER MAIN RELAY CONTINUITY

Condition	Tester connection	Specified condition
Constant	1 - 2	Continuity
	3 - 4	
Apply B+ between terminals 1 and 2.	3 - 5	Continuity

If continuity is not as specified, replace the relay.

## 3. INSTALL HEATER MAIN RELAY



# MAGNETIC CLUTCH RELAY INSPECTION

AC1LY-03

**HINT:**

The magnetic clutch relay is built in the engine room junction block. Since the relay is constructed with a relay block that is in the junction block as a unit, it is impossible to disconnect the wire harness connecting with the relay block.

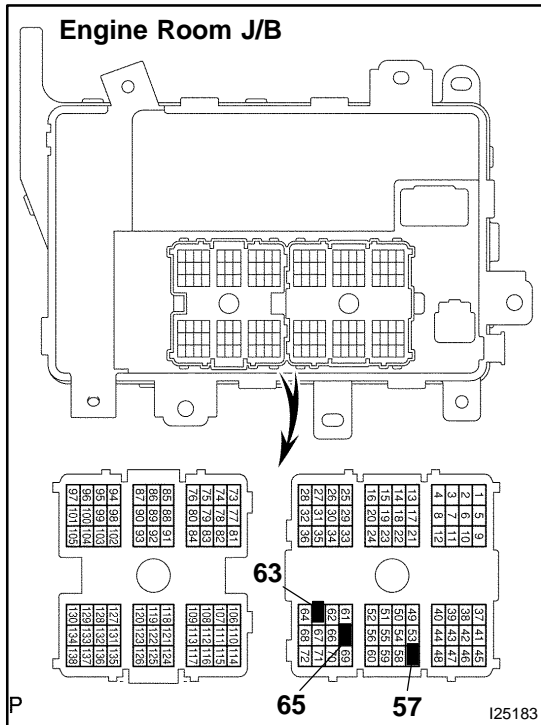
If the relay has a malfunction, replace it with the junction block assembly wire harness together.

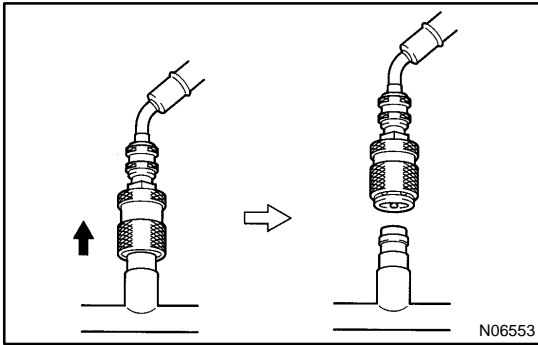
1. REMOVE ENGINE ROOM J/B
2. INSPECT MAGNETIC CLUTCH RELAY CONTINUITY

Condition	Tester connection	Specified condition
Constant	57 - 65	Continuity
Apply B+ between terminals 57 and 65.	63 - 65	Continuity

If continuity is not as specified, replace the engine room J/B.

3. INSTALL ENGINE ROOM J/B





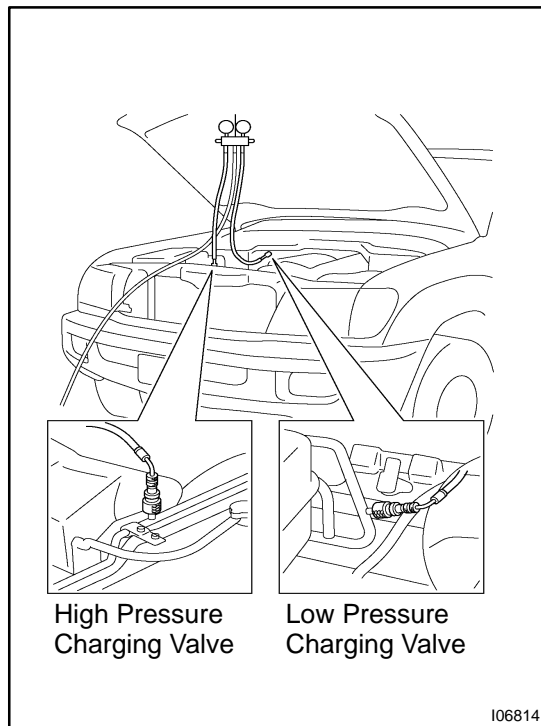
## SET OFF

1. CLOSE BOTH HAND VALVES OF MANIFOLD GAUGE SET
2. DISCONNECT QUICK DISCONNECT ADAPTERS FROM SERVICE VALVES ON REFRIGERANT LINE

### HINT:

Slide the sleeve of the quick disconnect adapter upward to unlock the adapter and remove it from the service valve.

3. INSTALL CAPS TO SERVICE VALVES ON REFRIGERANT LINE



## MANIFOLD GAUGE SET SET ON

AC1HS-05

### 1. CONNECT CHARGING HOSE TO MANIFOLD GAUGE SET

Tighten the nuts by hand.

#### CAUTION:

Do not connect the wrong hoses.

### 2. CONNECT QUICK DISCONNECT ADAPTERS TO CHARGING HOSES

Tighten the nuts by hand.

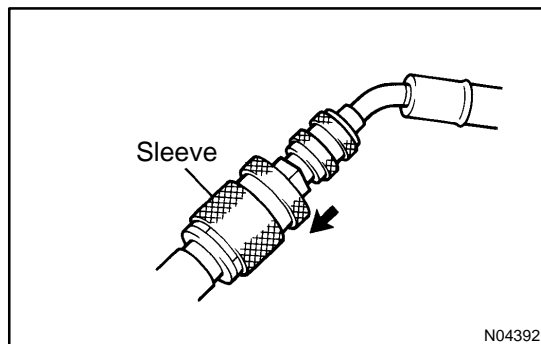
### 3. CLOSE BOTH HAND VALVES OF MANIFOLD GAUGE SET

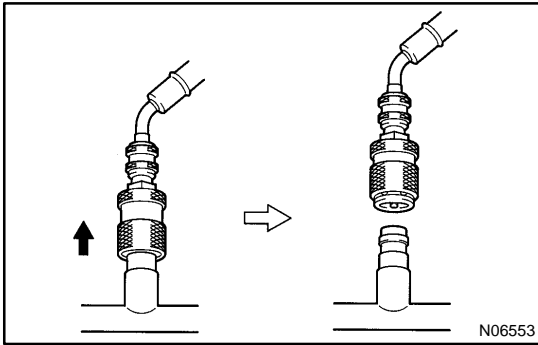
### 4. REMOVE CAPS FROM SERVICE VALVES ON REFRIGERANT LINES

### 5. CONNECT QUICK DISCONNECT ADAPTERS TO SERVICE VALVES

#### HINT:

Push the quick disconnect adapter onto the service valve, then the sleeve of the quick disconnect adapter downward to lock it.





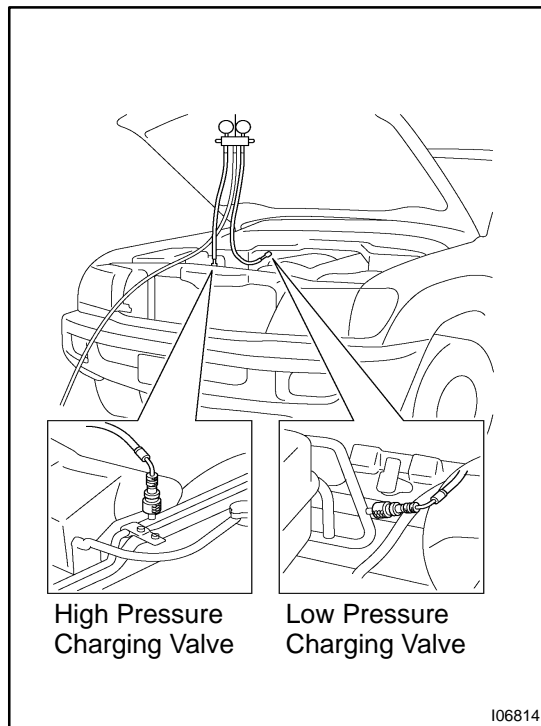
## SET OFF

1. CLOSE BOTH HAND VALVES OF MANIFOLD GAUGE SET
2. DISCONNECT QUICK DISCONNECT ADAPTERS FROM SERVICE VALVES ON REFRIGERANT LINE

### HINT:

Slide the sleeve of the quick disconnect adapter upward to unlock the adapter and remove it from the service valve.

3. INSTALL CAPS TO SERVICE VALVES ON REFRIGERANT LINE



## MANIFOLD GAUGE SET SET ON

AC1HS-05

### 1. CONNECT CHARGING HOSE TO MANIFOLD GAUGE SET

Tighten the nuts by hand.

#### CAUTION:

Do not connect the wrong hoses.

### 2. CONNECT QUICK DISCONNECT ADAPTERS TO CHARGING HOSES

Tighten the nuts by hand.

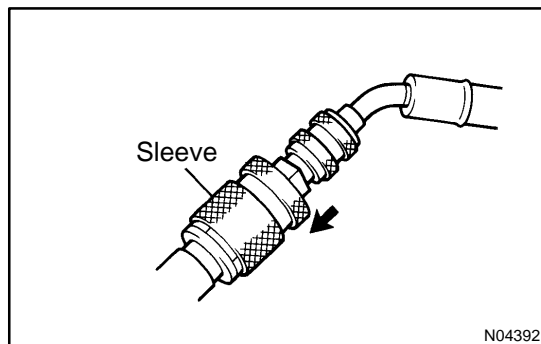
### 3. CLOSE BOTH HAND VALVES OF MANIFOLD GAUGE SET

### 4. REMOVE CAPS FROM SERVICE VALVES ON REFRIGERANT LINES

### 5. CONNECT QUICK DISCONNECT ADAPTERS TO SERVICE VALVES

#### HINT:

Push the quick disconnect adapter onto the service valve, then the sleeve of the quick disconnect adapter downward to lock it.



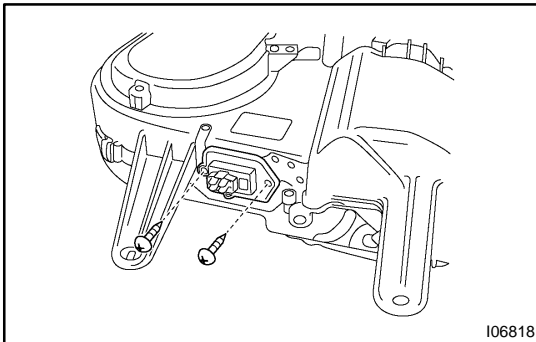


## POWER TRANSISTOR (for Rear Heater)

AC1LJ-04

### INSPECTION

1. REMOVE FRONT SEATS
2. REMOVE REAR CONSOLE BOX
3. REMOVE FRONT CONSOLE BOX COVER
4. REMOVE LOWER CENTER CLUSTER FINISH PANEL
5. REMOVE FRONT DOOR SCUFF PLATES
6. REMOVE COWL SIDE TRIMS
7. REMOVE REAR DOOR SCUFF PATES
8. REMOVE CENTER PILLAR GARNISHES
9. REMOVE POWER TRANSISTOR
- (a) Slide the floor carpet backward.



- (b) Disconnect the connector.
- (c) Remove the 2 screws and power transistor.

#### 10. INSPECT POWER TRANSISTOR

Check the power transistor in the same way as for "POWER TRANSISTOR (For Rear Cooler)" on page [AC-82](#) .

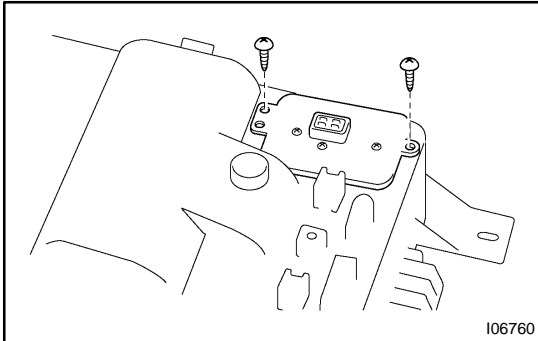
11. INSTALL POWER TRANSISTOR
12. INSTALL CENTER PILLAR GARNISHES
13. INSTALL REAR DOOR SCUFF PATES
14. INSTALL COWL SIDE TRIMS
15. INSTALL FRONT DOOR SCUFF PLATES
16. INSTALL LOWER CENTER CLUSTER FINISH PANEL
17. INSTALL FRONT CONSOLE BOX COVER
18. INSTALL REAR CONSOLE BOX
19. INSTALL FRONT SEATS

# POWER TRANSISTOR (for Rear Cooler)

AC1LI-04

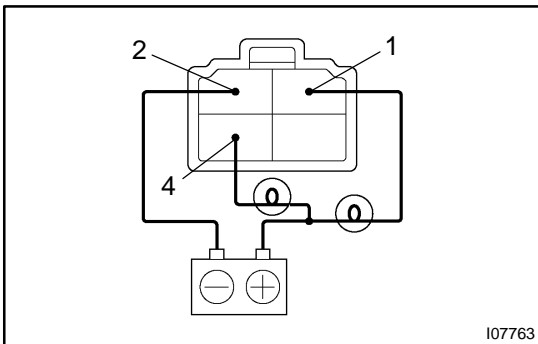
## INSPECTION

1. REMOVE REAR DOOR SCUFF PLATE RH
2. REMOVE REAR FLOOR MAT SUPPORT PLATE
3. REMOVE QUARTER TRIM PANEL RH



### 4. REMOVE POWER TRANSISTOR

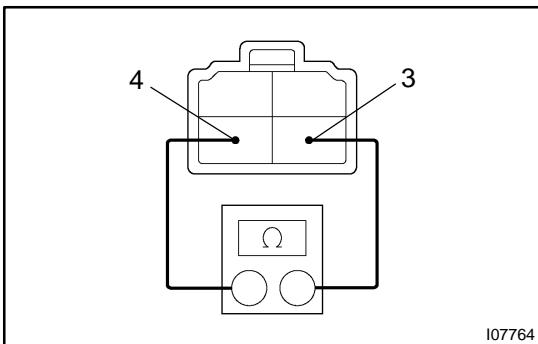
- (a) Disconnect the connector.
- (b) Remove the 2 screws and the power transistor.



### 5. INSPECT POWER TRANSISTOR OPERATION

- (a) Connect the positive (+) lead to terminal 1 through a 12 V - 3.4 W test bulb and negative (-) lead to terminal 2.
- (b) Check the test bulb comes on when another positive (+) lead is connected to terminal 4 through a 12 V - 3.4 W test bulb.

If operation is not as specified, replace the power transistor.



### 6. INSPECT POWER TRANSISTOR RESISTANCE

Measure resistance between terminals 3 and 4.

**Standard resistance: 2.0 - 2.4 kΩ**

If resistance is not as specified, replace the power transistor.

### 7. INSTALL POWER TRANSISTOR

- (a) Install the power transistor with 2 screws.
- (b) Connect the connector.

### 8. INSTALL QUARTER TRIM PANEL RH

### 9. INSTALL REAR FLOOR MAT SUPPORT PLATE

### 10. INSTALL REAR DOOR SCUFF PLATE RH

## INSTALLATION

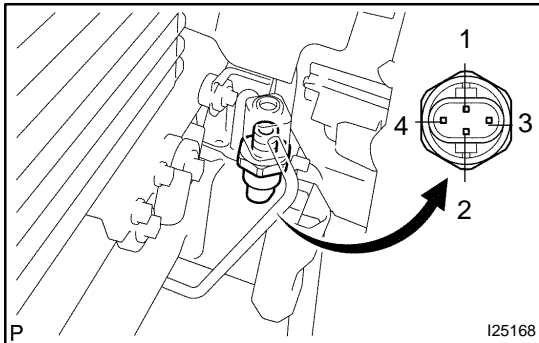
Installation is in the reverse of removal (See page [AC-92](#)).

# PRESSURE SWITCH ON-VEHICLE INSPECTION

AC30W-01

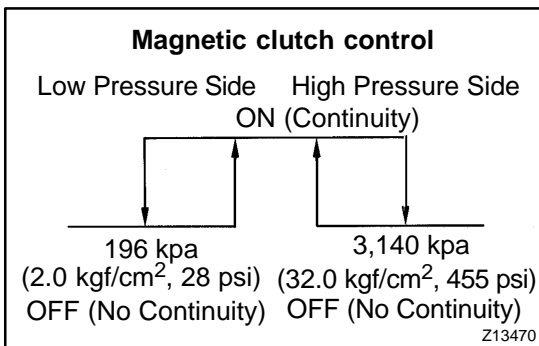
## 1. SET VEHICLE IN THESE CONDITION

- (a) Engine speed at 1,500 rpm
- (b) Blower speed control switch at "HI" position
- (c) Temperature control dial at "MAX. COOL" position
- (d) Manifold gauge set setting



## 2. INSPECT PRESSURE SWITCH OPERATION

- (a) Disconnect the connector.



- (b) Inspect pressure switch continuity (Magnetic Clutch Control)
  - (1) Connect the positive (+) lead from the ohmmeter to terminal 1 and the negative (-) lead to terminal 2.
  - (2) Check continuity between terminals when the refrigerant pressure is changed, as shown in the illustration.

If continuity is not as specified, replace the pressure switch.

## REMOVAL

### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

#### HINT:

At the time of installation, evacuate air from refrigeration system and charge system with refrigerant and inspect for leakage of refrigerant.

**Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)**

### 2. REMOVE RADIATOR GRILL

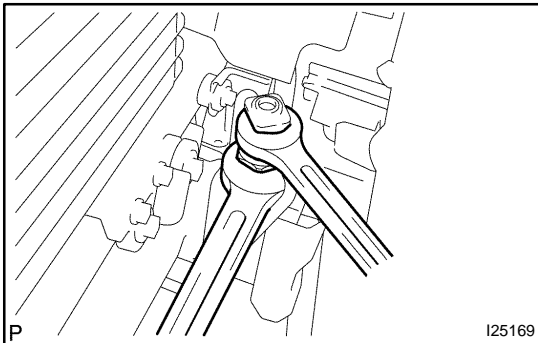
### 3. REMOVE PRESSURE SWITCH FROM LIQUID TUBE

Disconnect the connector and remove the pressure switch.

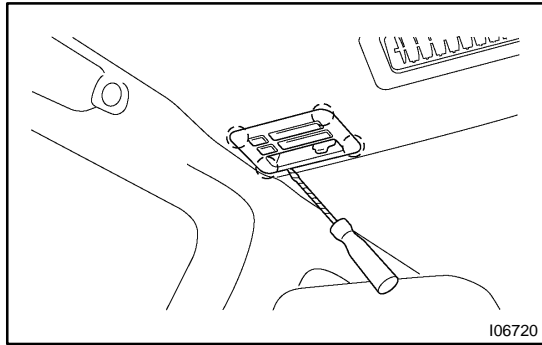
**Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)**

#### HINT:

- ◆ Lock the switch mount on the tube with an open-end wrench, be careful not to deform the tube, and remove the switch.
- ◆ At the time of installation, lubricate a new O-ring with compressor oil and install the switch.



I25169

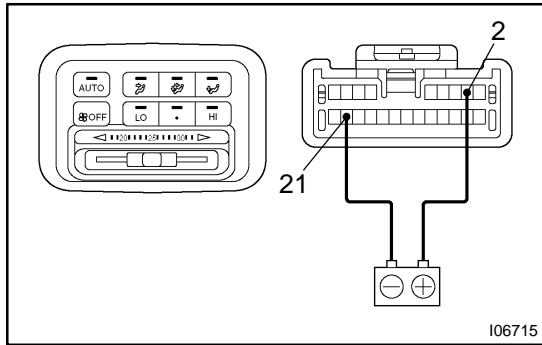


## REAR A/C CONTROL ASSEMBLY INSPECTION

AC1MC-04

### 1. REMOVE REAR HEATER CONTROL ASSEMBLY

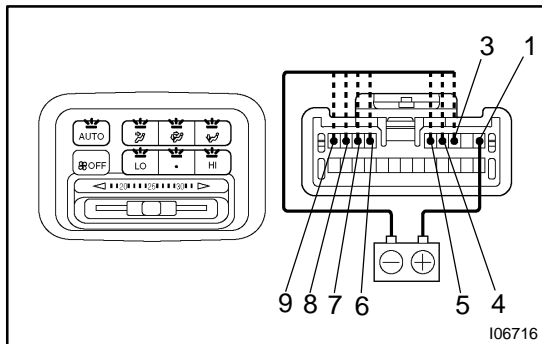
Using a screwdriver, release the 4 claws and pull out the rear heater control assembly, then disconnect the connector.



### 2. INSPECT ILLUMINATION OPERATION

Connect battery positive (+) lead to terminal 2 and battery negative (-) lead to terminal 21 then check that the indicators come on.

If operation is not as specified, replace the rear A/C control assembly.

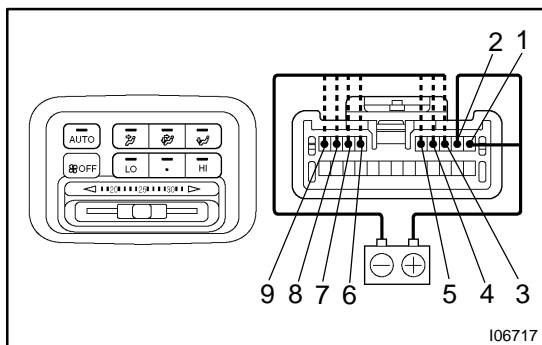


### 3. INSPECT INDICATOR OPERATION

(a) Connect battery positive (+) lead to terminal 1 and battery negative (-) lead to all the other terminals, then check that the indicator come on, as shown in the chart.

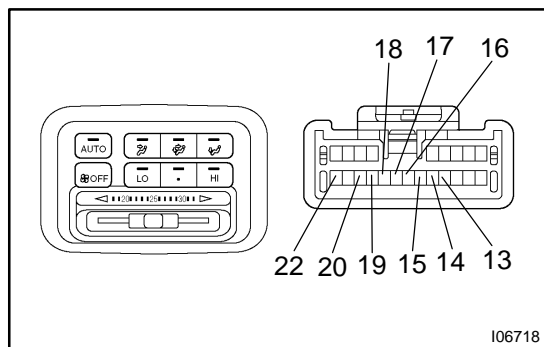
Switch	Tester connection
Auto	3
LO	4
ME	5
HI	6
FACE	7
Bi-Level	8
FOOT	9

If operation is not as specified, replace the rear A/C control assembly.



(b) Connect the positive (+) lead from the battery to terminal 2, then check where the indicators dim.

If operation is not as specified, replace the rear A/C control assembly.

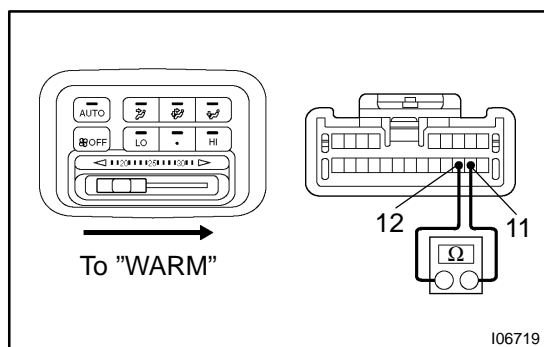


#### 4. INSPECT SWITCH CONTINUITY

Check the continuity between terminals while switch is pressed, as shown in the chart.

Switch	Tester connection	Specified condition
Auto	13 - 22	Continuity
OFF	14 - 22	Continuity
LO	15 - 22	Continuity
ME	16 - 22	Continuity
HI	17 - 22	Continuity
FACE	18 - 22	Continuity
Bi-Level	19 - 22	Continuity
FOOT	20 - 22	Continuity

If continuity is not as specified, replace the rear A/C control assembly.



#### 5. INSPECT VARIABLE RESISTOR OPERATION

- (a) Measure resistance between terminal 10 and 12.

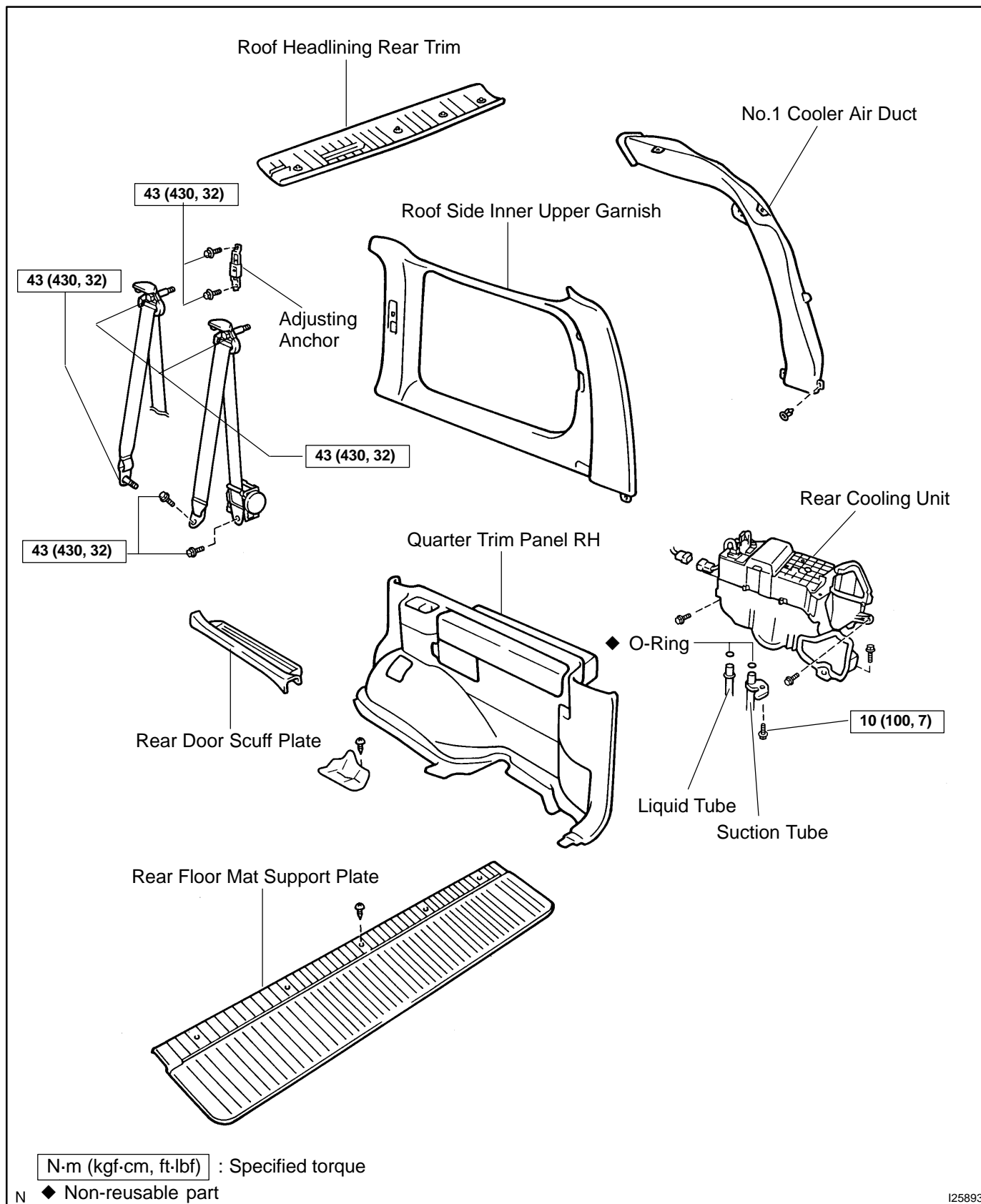
**Standard resistance: 3.0 kΩ**

- (b) Gradually move the temperature control lever from "COOL" side to "WARM" side, then check that the resistance between terminal 11 and 12 increase to 3.0 kΩ.

If operation is not as specified, replace the rear A/C control assembly.

#### 6. INSTALL HEATER CONTROL ASSEMBLY

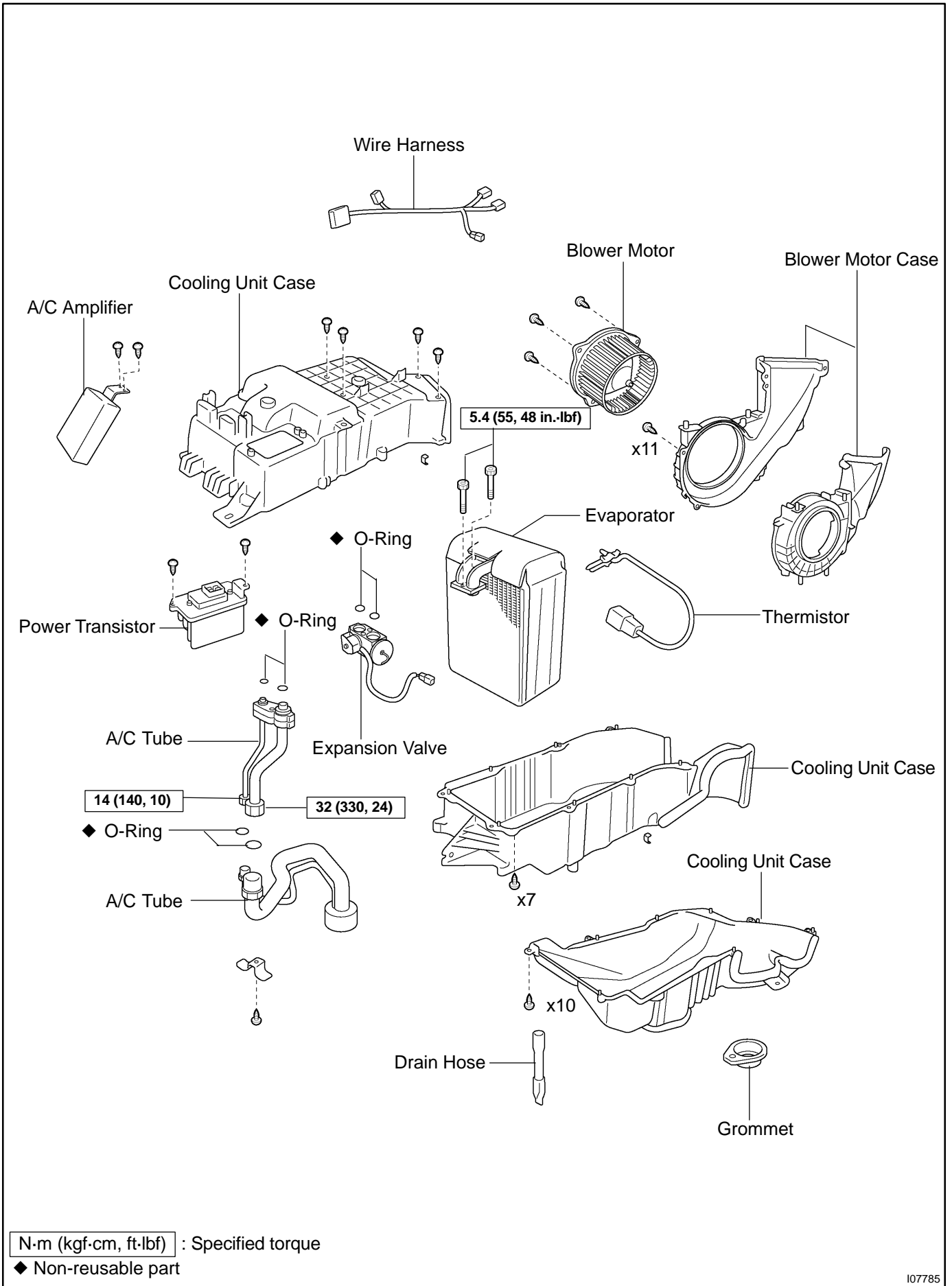
# COMPONENTS



125893

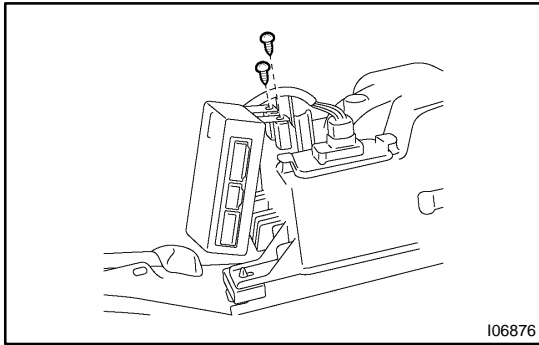


AIR CONDITIONING - REAR COOLING UNIT



N-m (kgf-cm, ft-lbf) : Specified torque  
 ◆ Non-reusable part

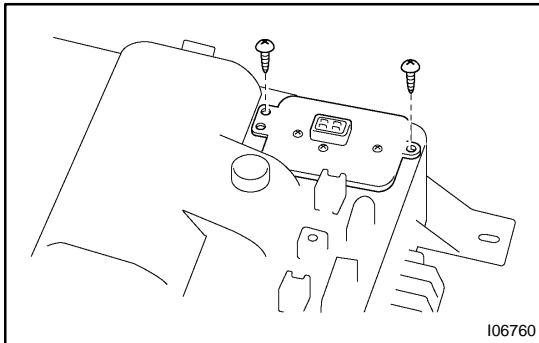
I07785



## DISASSEMBLY

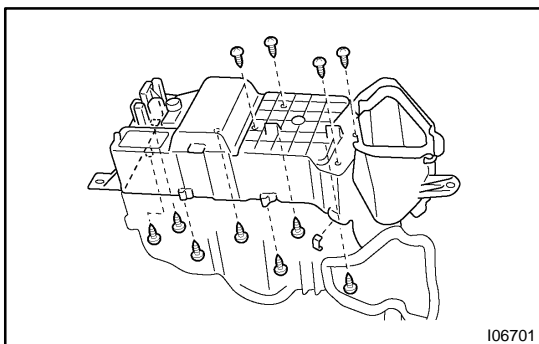
### 1. REMOVE A/C AMPLIFIER

Remove the 2 screws and the A/C amplifier.



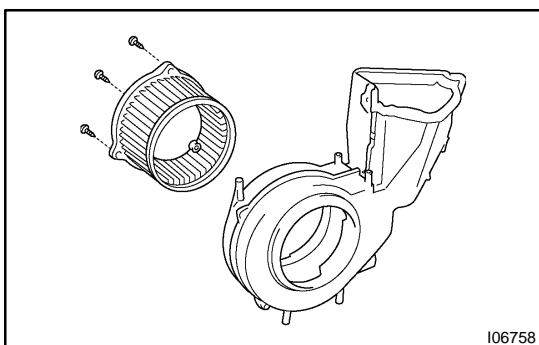
### 2. REMOVE POWER TRANSISTOR

- (a) Disconnect the connector.
- (b) Remove the 2 screws and the power transistor.



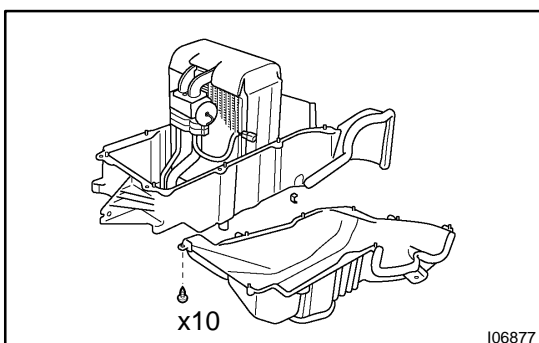
### 3. REMOVE BLOWER CASE

- (a) Remove the wire harness.
- (b) Remove the 11 screws, 3 holding springs and separate the cooling unit cases.
- (c) Disconnect the connector.
- (d) Remove the blower case.



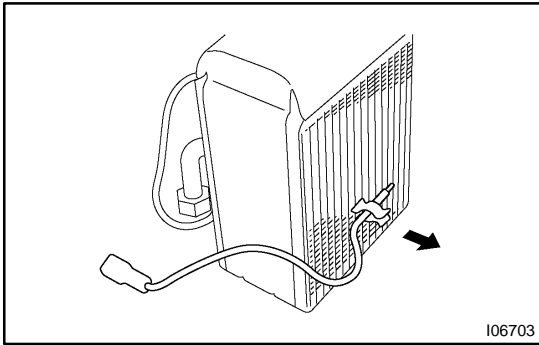
### 4. REMOVE BLOWER MOTOR

Remove the 3 screws and the blower motor.

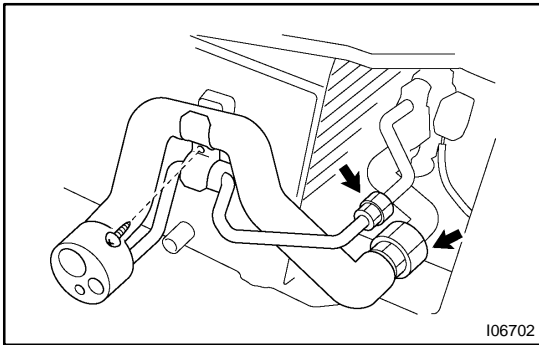


### 5. REMOVE EVAPORATOR

- (a) Disconnect the 2 connector clamps.
- (b) Remove the 10 screws and the 2 holding springs, and separate the cooling unit cases.



(c) Pull out the thermistor from the evaporator.



(d) Remove the screw and the piping clamp.  
 (e) Loosen the 2 nuts and remove the tube and accessory.

**Torque:**

**Liquid line: 14 N·m (140 kgf·cm, 10 ft·lbf)**

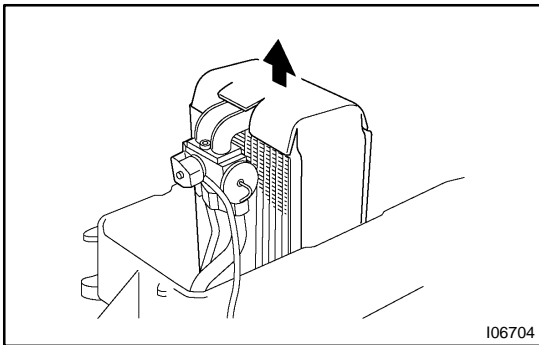
**Suction line: 32 N·m (330 kgf·cm, 24 ft·lbf)**

**NOTICE:**

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

**HINT:**

At the time of reassembly, lubricate 2 new O-rings with compressor oil and install them in the tubes.



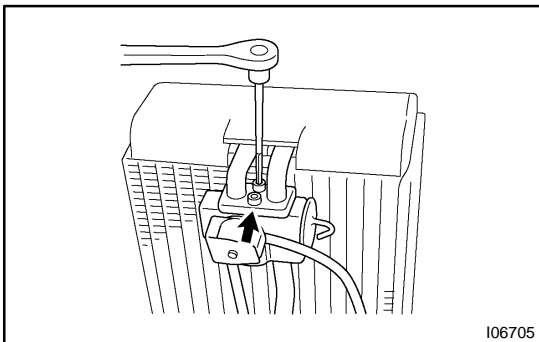
(f) Remove the evaporator.

**HINT:**

At the time of reassembly, if evaporator was replaced, add compressor oil to the new evaporator.

**Add 40 cc: (1.4 fl.oz.)**

**Compressor oil: ND-OIL 8 or equivalent**



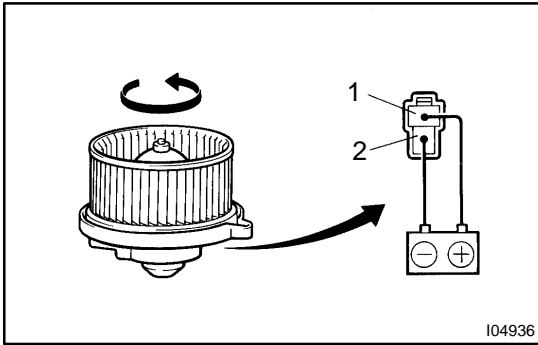
**6. REMOVE EXPANSION VALVE**

Using a hexagon wrench (5.0 mm, 0.20 in.), remove the 2 bolts and separate the expansion valve and evaporator.

**Torque: 5.4 N·m (55 kgf·cm, 48 in.-lbf)**

**HINT:**

At the time of reassembly, lubricate 4 new O-rings with compressor oil and install them in the tubes.

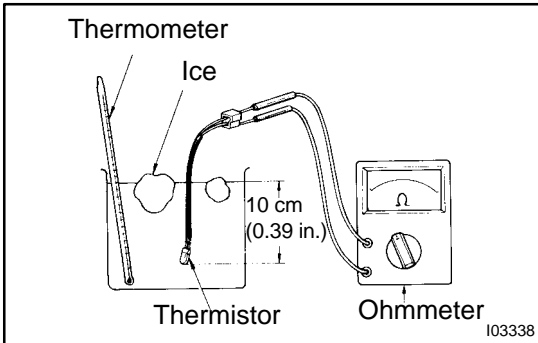


## INSPECTION

### 1. INSPECT BLOWER MOTOR OPERATION

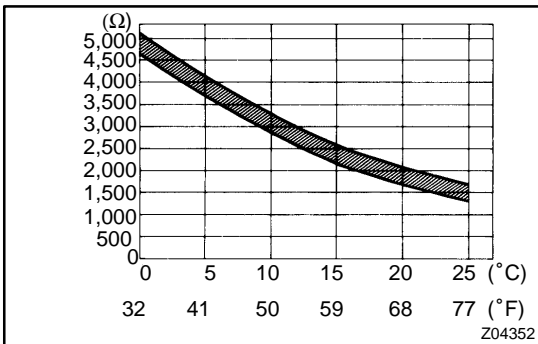
Connect the battery positive (+) lead to terminal 1 and battery negative (-) lead to terminal 2, then check that the motor rotates smoothly.

If the motor rotates smoothly, check the wire harness. Otherwise, replace the blower motor.

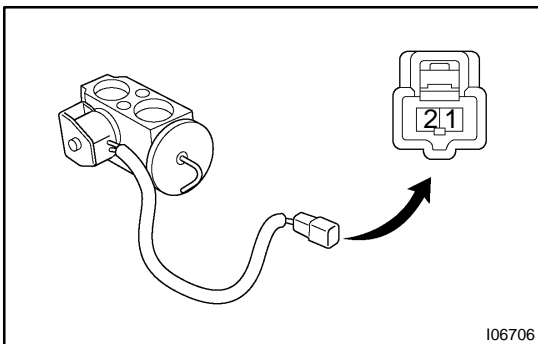


### 2. INSPECT THERMISTOR RESISTANCE

- (a) Place the thermistor in cold water.
- (b) Measure resistance of the thermistor as the water temperature increases.



- (c) Compare the readings with the chart.
- If the values meet the specifications, check the wire harness. Otherwise, replace the thermistor.



### 3. INSPECT MAGNETIC VALVE OPERATION

Check the air passage through the valve, with and without the battery positive voltage applied, between terminals as shown in the chart.

Condition	Air passage
Apply B+ between terminals	Free passage
Not apply B+ between terminals	No passage

Otherwise replace the magnetic valve with the expansion valve. If operation is as specified, check the wire harness.

### 4. INSPECT EVAPORATOR

- (a) Check the evaporator fins for blockage.
- If the fins are clogged, remove them with compressed air.

#### NOTICE:

**Never use water to clean the evaporator.**

- (b) Check the fitting for cracks or scratches.
- If necessary, repair or replace.

## INSTALLATION

Installation is in the reverse of removal (See page [AC-32](#)).

## REAR COOLING UNIT ON-VEHICLE INSPECTION

AC1KA-04

### 1. INSPECT EXPANSION VALVE

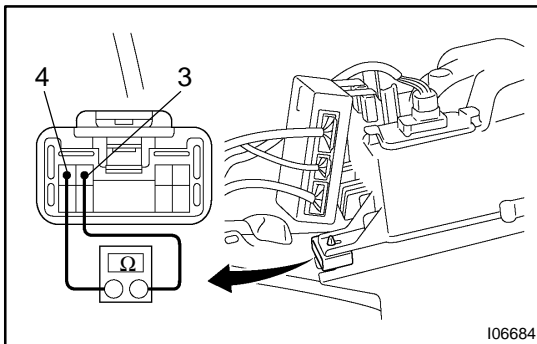
- (a) Check amount of gas during refrigeration cycle.
- (b) Set on manifold gauge set.
- (c) Start the engine.
- (d) Operate the A/C system.
- (e) Inspect the expansion valve.
  - (1) Run the engine at 1,500 rpm for at least 5 minutes.
  - (2) Check the high pressure reading is 1.37 - 1.57 MPa (14 - 16 kgf/cm<sup>2</sup>, 199 - 288 psi).
  - (3) Check the low pressure reading.

If the low pressure reading is 0 kPa (0 kgf/cm<sup>2</sup>, 0psi), replace the expansion valve.

### 2. REMOVE REAR DOOR SCUFF PLATE RH

### 3. REMOVE REAR FLOOR MAT SUPPORT PLATE

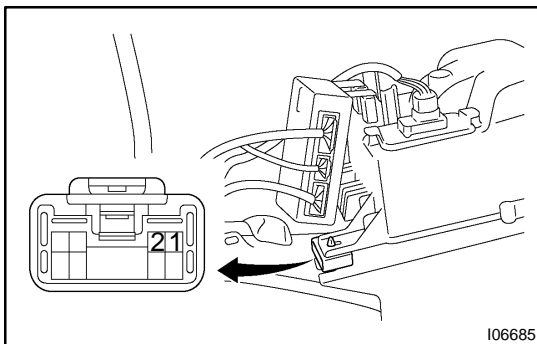
### 4. REMOVE QUARTER TRIM PANEL RH



### 5. INSPECT THERMISTOR RESISTANCE

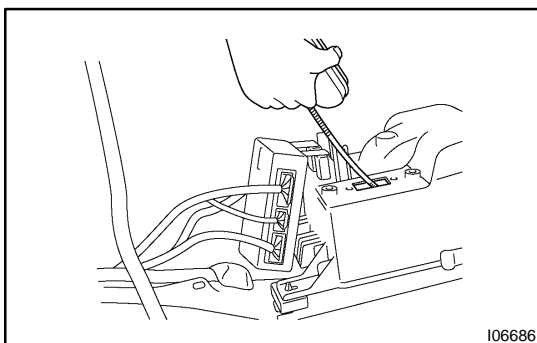
- (a) Disconnect the connector.
- (b) Measure resistance between terminal 3 and 4.  
**Standard resistance: Approx. 1.5 kΩ at 25 °C (77 °F)**

If resistance is not as specified, proceed "INSPECTION" on page [AC-36](#).



### 6. INSPECT MAGNETIC VALVE CONTINUITY

- (a) Disconnect the connector.
  - (b) Check the continuity exists between terminal 1 and 2.
- If resistance is not as specified, proceed "INSPECTION" on page [AC-36](#).



### 7. CHECK FOR LEAKAGE OF REFRIGERANT

- (a) Remove the power transistor.
  - (b) Using a gas leak detector, check for leaks of refrigerant.
- If there is a leakage, check the evaporator or tightening torque at the joints.

## REASSEMBLY

Reassembly is in the reverse of disassembly (See page [AC-34](#) ).

## REMOVAL

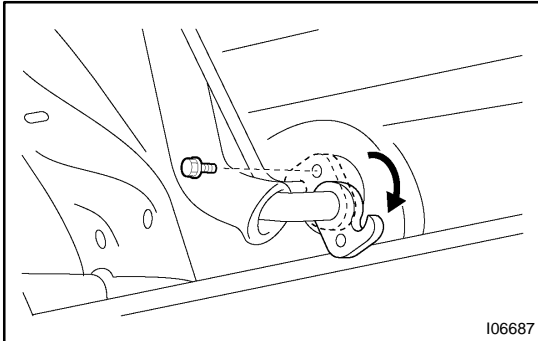
### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

#### HINT:

At the time of installation, first evacuate air from refrigeration system.

Then, charge the system with the refrigerant and inspect for leaks of the refrigerant.

**Specified amount: 1,050 ± 50 g (37.04 ± 1.76 oz.)**



### 2. DISCONNECT LIQUID AND SUCTION TUBES

Remove the bolt and slide the plate, then disconnect both tubes.

**Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)**

#### NOTICE:

**Cap the open fittings immediately to keep moisture or dirt out of the system.**

#### HINT:

At the time of installation, lubricate 2 new O-rings with compressor oil and install them to the tubes.

### 3. REMOVE REAR DOOR SCUFF PLATE RH

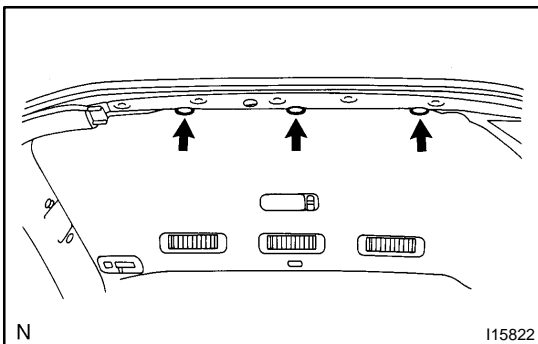
### 4. REMOVE REAR FLOOR MAT SUPPORT PLATE

### 5. REMOVE ROOF HEADLINING REAR TRIM

### 6. REMOVE QUARTER TRIM PANEL RH

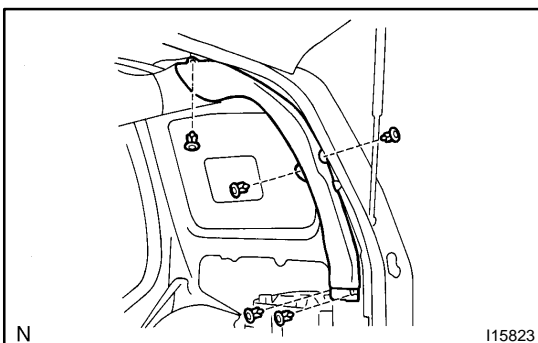
### 7. REMOVE ROOF SIDE INNER UPPER GARNISH

(See page [BO-97](#))



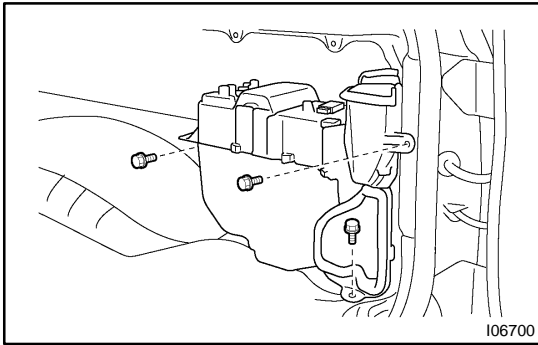
### 8. REMOVE NO. 1 COOLER AIR DUCT

(a) Remove the 3 roof headlining set clips.



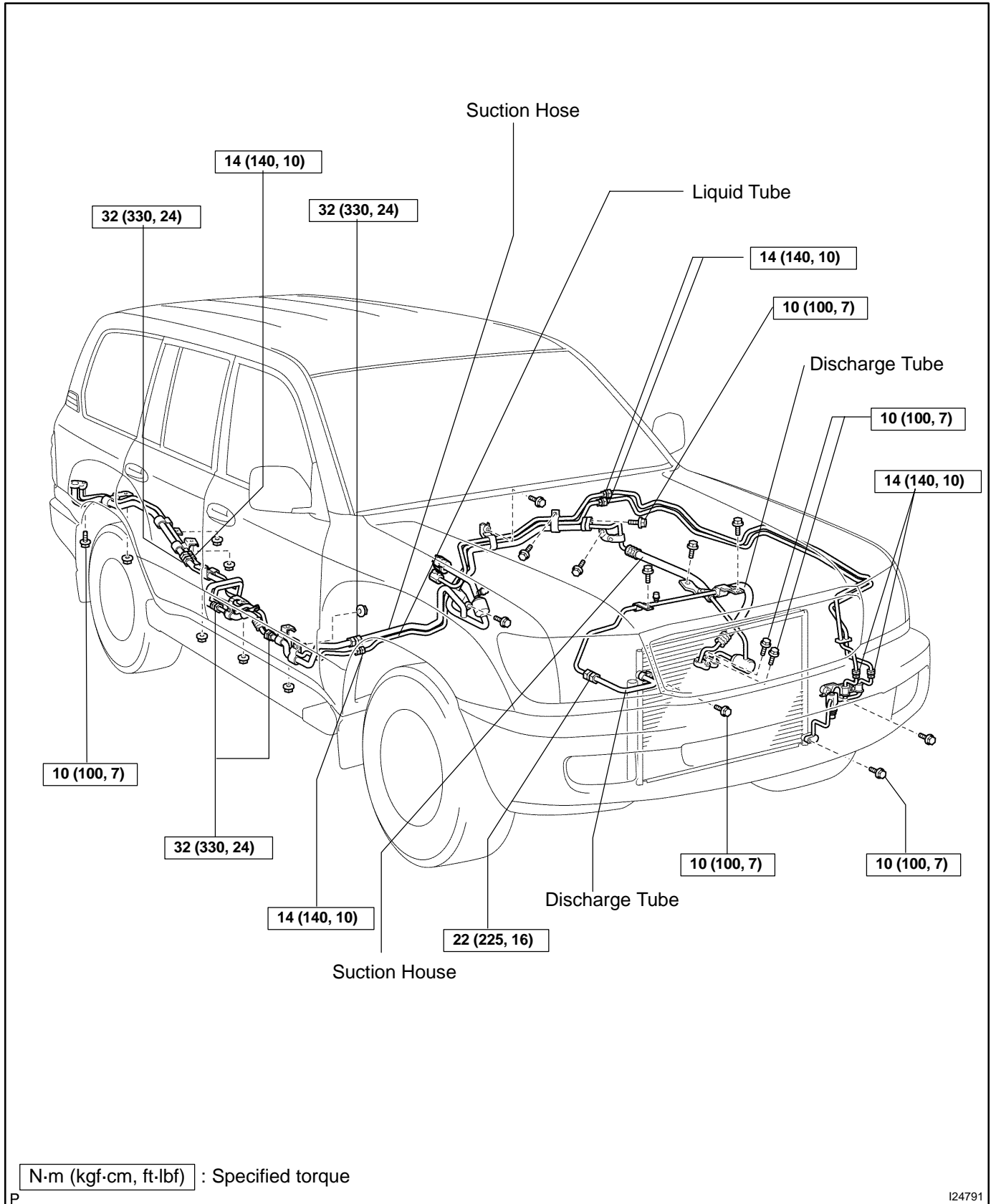
(b) Remove the 5 clips and the No. 1 cooler air duct.



**9. REMOVE REAR COOLING UNIT**

- (a) Disconnect the connectors.
- (b) Remove the 3 bolts and the rear cooling unit.

# COMPONENTS



# REFRIGERANT LINE

AC1HU-01

## ON-VEHICLE INSPECTION

1. INSPECTION HOSE AND TUBE CONNECTIONS FOR LOOSENESS
2. INSPECT HOSES AND TUBES FOR LEAKAGE

Using a gas leak detector, check for leakage of refrigerant.

## REPLACEMENT

### 1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

### 2. REPLACE FAULTY TUBE OR HOSE

#### NOTICE:

Cap the open fittings immediately to keep moisture or dirt out of the system.

### 3. TIGHTEN JOINT OF BOLT OR NUT TO SPECIFIED TORQUE

#### NOTICE:

Do not tighten the connections more than specified.

Part tightened		N-m	kgf-cm	ft-lbf
Compressor x Discharge hose		10	100	7
Compressor x Suction hose		10	100	7
Condenser x Discharge tube		5.4	55	48 in.-lbf
Condenser x Liquid tube		10	100	7
Liquid line	Nut	14	140	10
	Bolt	10	100	7
Discharge line		22	225	16
Suction line	Nut (5/8")	32	330	24
	Nut (3/4")	42	425	31
	Bolt	10	100	7

### 4. EVACUATE AIR FROM REFRIGERATION SYSTEM AND CHARGE SYSTEM WITH REFRIGERANT

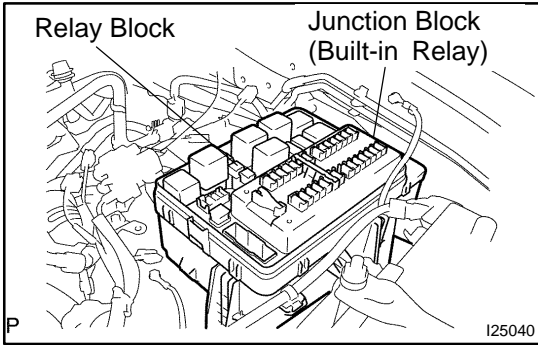
Specified amount: 1,050 ± 50 g (37.03 ± 1.76 oz.)

### 5. INSPECT FOR LEAKAGE OF REFRIGERANT

Using a gas leak detector, check for leaks of refrigerant

If there is leakage, check the tightening torque at the joints.

### 6. INSPECT AIR CONDITIONING OPERATION



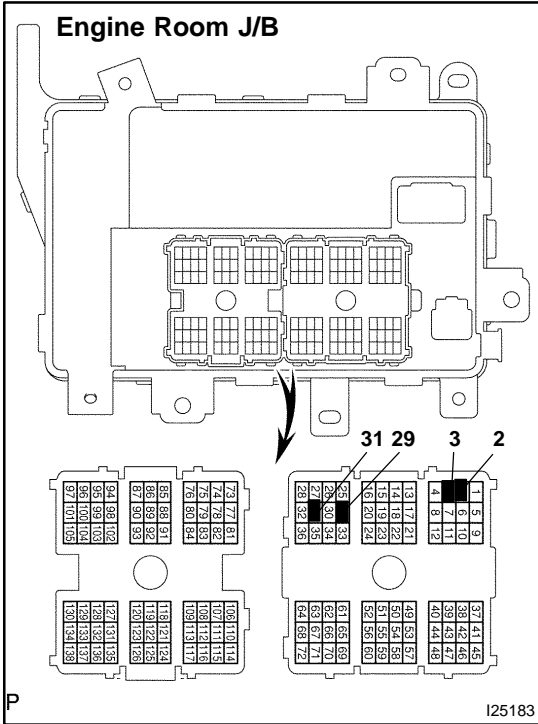
# REAR HEATER RELAY INSPECTION

AC30Y-01

**HINT:**

The rear heater relay is built in the engine room junction block. Since the relay is constructed with a relay block that is in the junction block as a unit, it is impossible to disconnect the wire harness connecting with the relay block.

If the relay has a malfunction, replace it with the junction block assembly wire harness together.



1. REMOVE ENGINE ROOM J/B
2. INSPECT REAR HEATER RELAY CONTINUITY

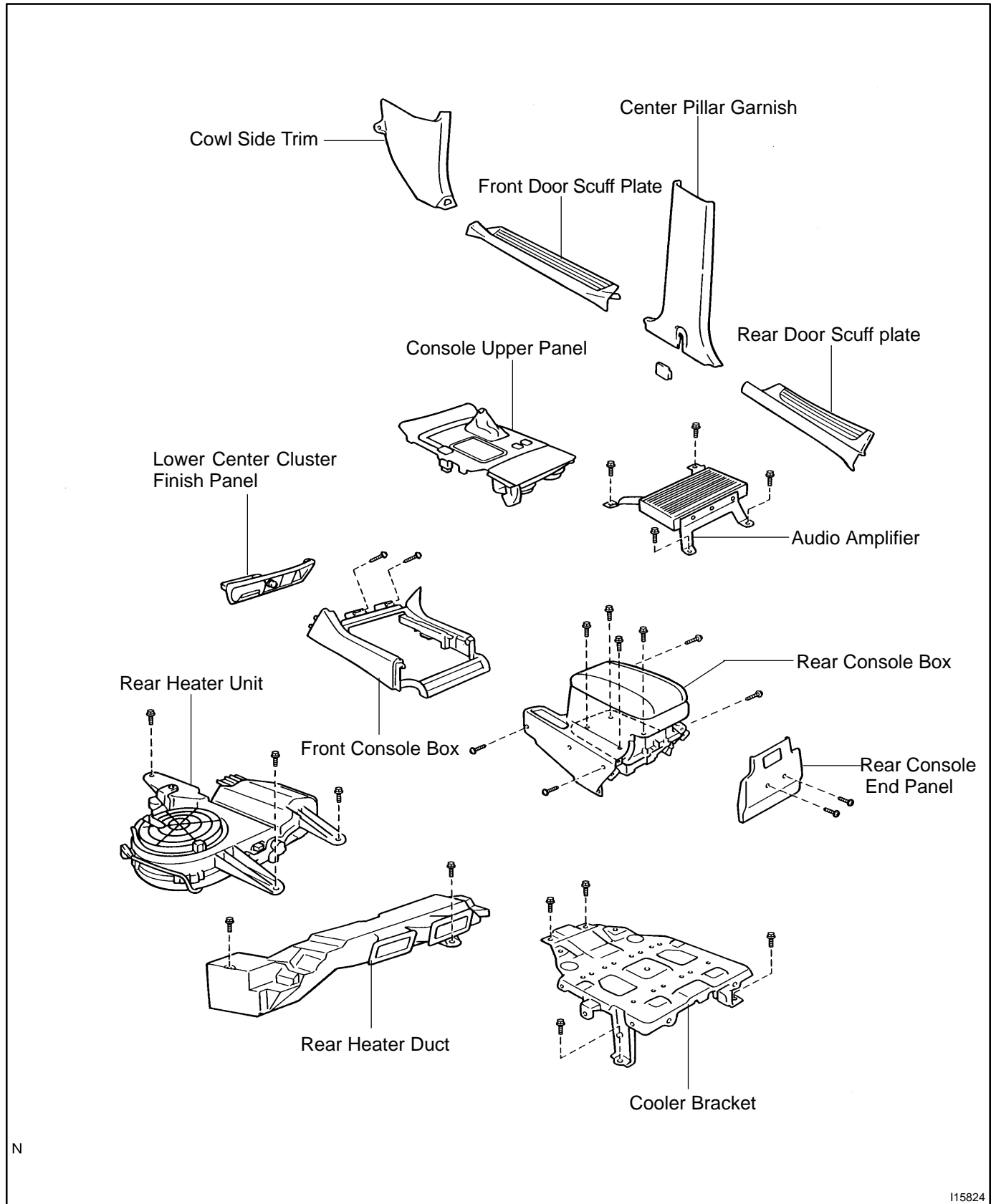
Condition	Tester connection	Specified condition
Constant	29 - 31	Continuity
Apply B+ between terminals 29 and 31.	2 - 3	Continuity

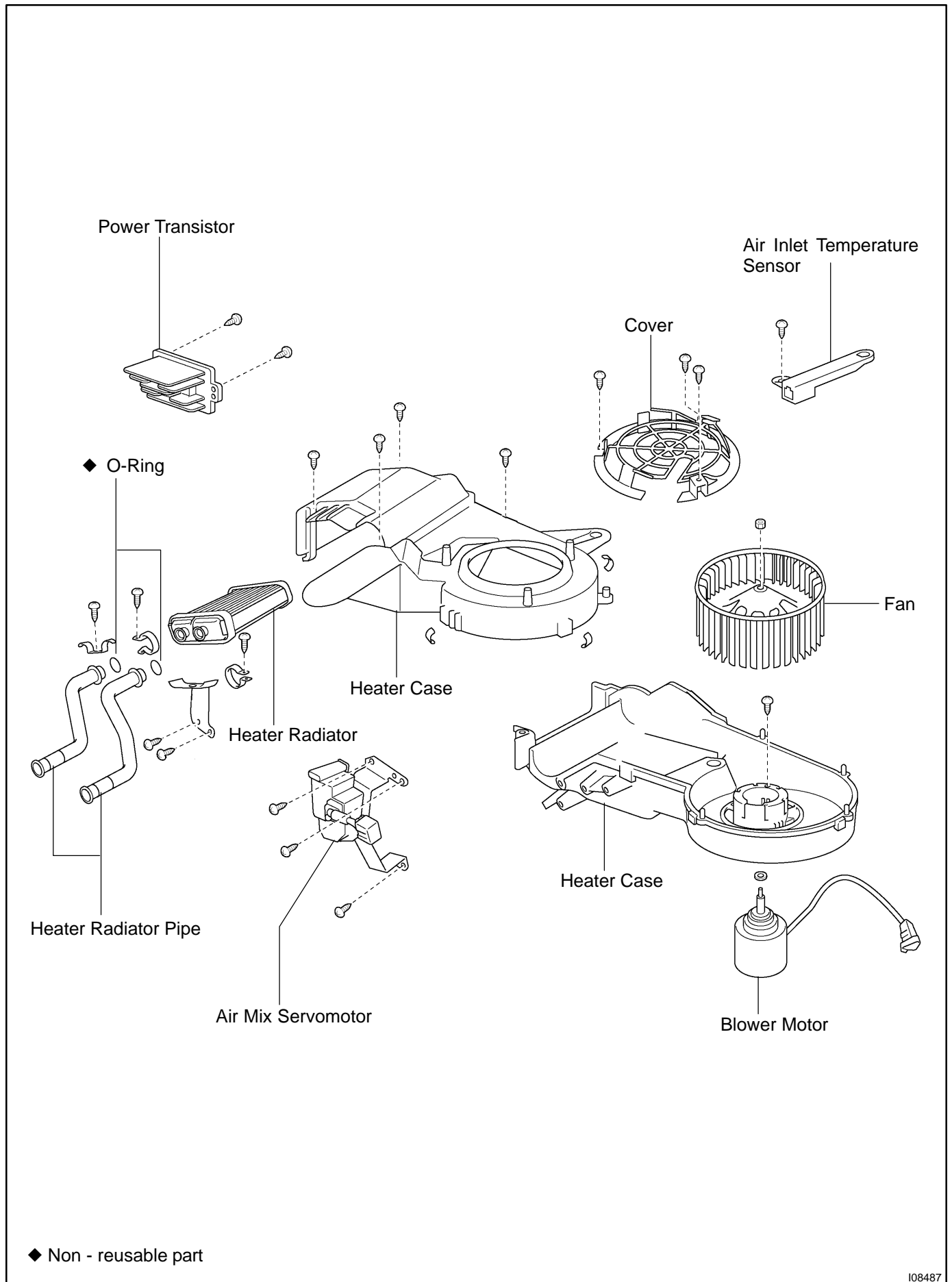
If continuity is not as specified, replace the engine room J/B.

3. INSTALL ENGINE ROOM J/B

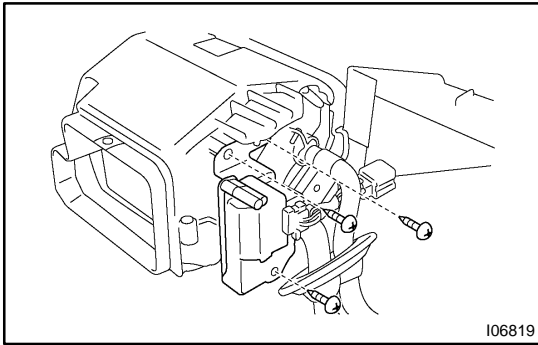
# REAR HEATER UNIT COMPONENTS

AC1KN-05





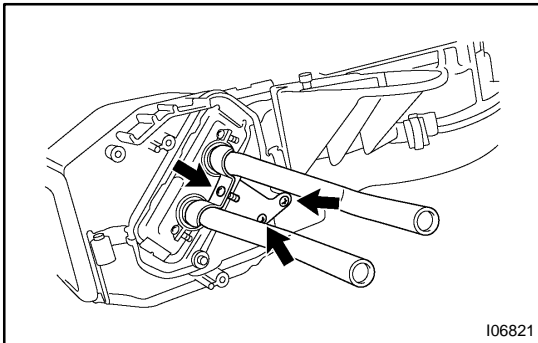
I08487



## DISASSEMBLY

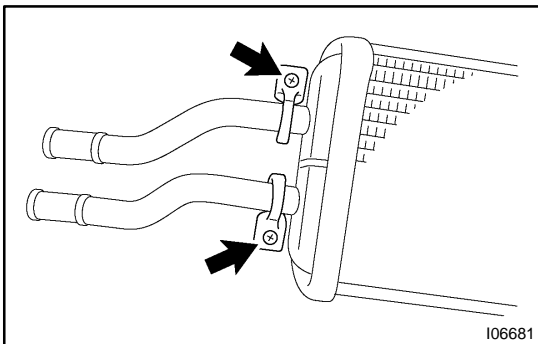
### 1. REMOVE AIR MIX SERVOMOTOR

Remove the 3 screws and the air mix servomotor.



### 2. REMOVE HEATER RADIATOR

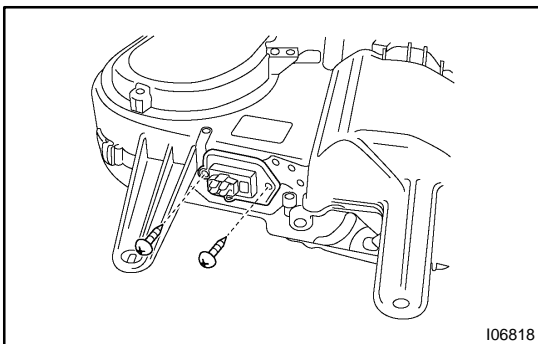
- (a) Remove the 3 screws and 2 clamps
- (b) Pull out the heater radiator.



- (c) Remove the 2 screws, 2 clamps and the heater radiator pipes.
- (d) Remove the 2 O-rings.

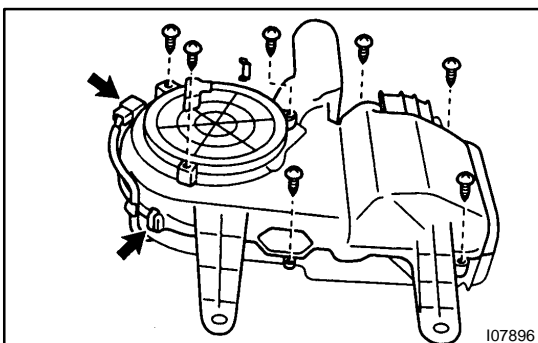
#### HINT:

At the time of reassembly, do not reuse the O-rings



### 3. REMOVE POWER TRANSISTOR

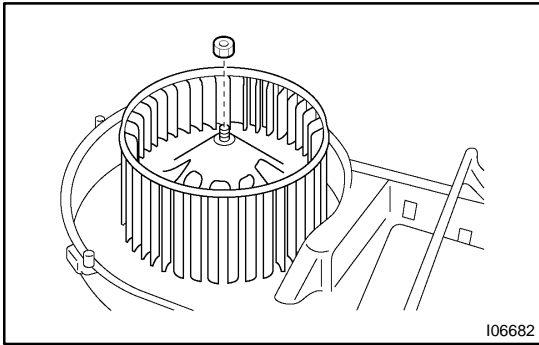
Remove the 2 screws and the power transistor.



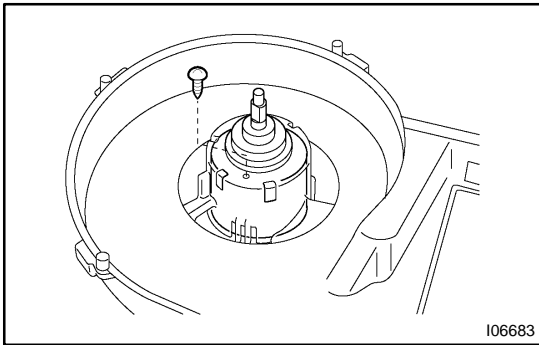
### 4. REMOVE BLOWER MOTOR

- (a) Remove the 3 screws and the cover.
- (b) Remove the 4 screws, the 3 holding springs and separate the heater cases.





(c) Remove the nut and the fan.

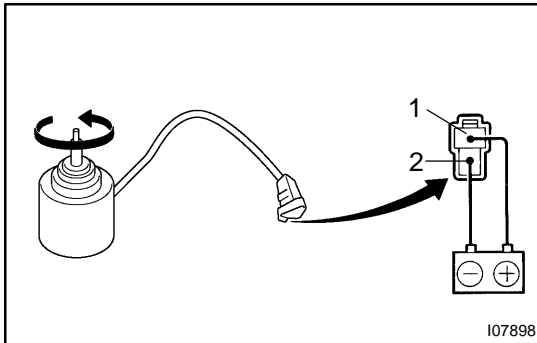


(d) Remove the screws and the blower motor.

## INSPECTION

### 1. INSPECT HEATER RADIATOR

If the fins are clogged, clean them with compressed air.



### 2. INSPECT BLOWER MOTOR OPERATION

Connect battery positive (+) lead to terminal 1 and battery negative (-) lead to terminal 2, then check that the motor rotates smoothly.

If operation is not as specified, replace the blower motor.

### 3. INSPECT AIR MIX SERVOMOTOR (See page [DI-1354](#))

### 4. INSPECT AIR MIX DAMPER POSITION SENSOR (See page [DI-1345](#))

## INSTALLATION

Installation is in the reverse of removal (See page [AC-47](#)).

## REASSEMBLY

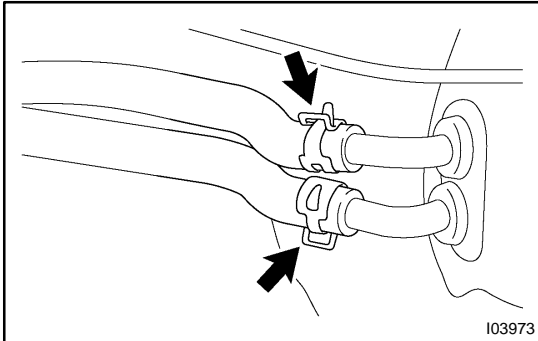
Reassembly is in the reverse of disassembly (See page [AC-49](#)).

## REMOVAL

### 1. DRAIN ENGINE COOLANT FROM RADIATOR

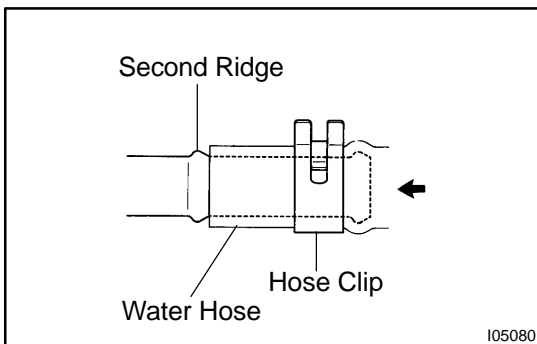
HINT:

It is not necessary to drain out all the coolant.



### 2. DISCONNECT WATER HOSES FROM HEATER RADIATOR PIPES

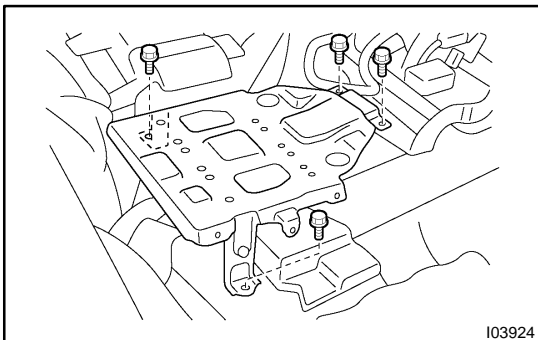
- (a) Using pliers, grip the claws of the clip and slide the clip along the hose
- (b) Disconnect the water hoses



HINT:

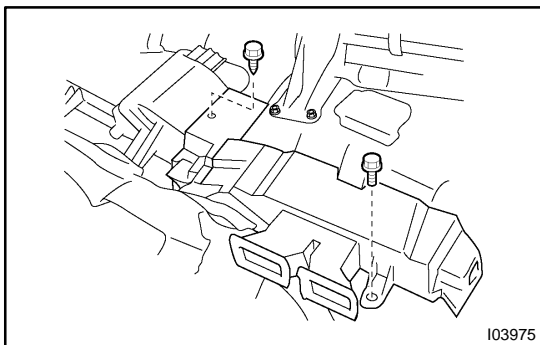
At the time of installation, push the water hose on to the heater radiator pipe to the second ridge on the pipe.

3. REMOVE FRONT SEATS
4. REMOVE REAR CONSOLE BOX
5. REMOVE FRONT CONSOLE BOX COVER
6. REMOVE LOWER CENTER CLUSTER FINISH PANEL
7. REMOVE FRONT DOOR SCUFF PLATE
8. REMOVE COWL SIDE TRIMS
9. REMOVE REAR DOOR SCUFF PLATES
10. REMOVE CENTER PILLAR GARNISHES
11. SLIDE FLOOR CARPET BACKWARD

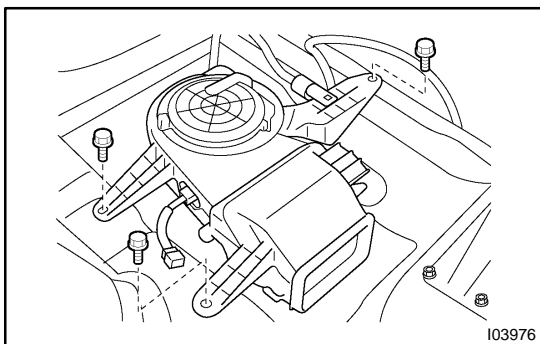


### 12. REMOVE COOLER BRACKET

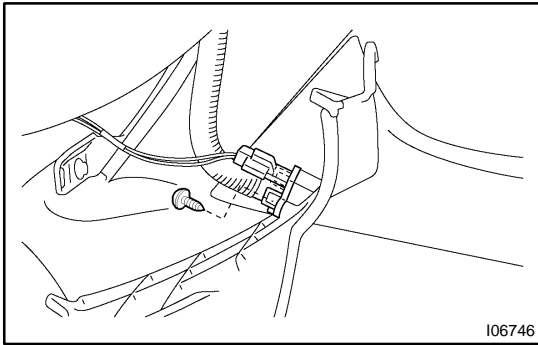
Remove the 4 bolts and the cooler bracket.

**13. REMOVE REAR HEATER DUCT**

Remove the bolt, the screw and the rear heater duct.

**14. REMOVE REAR HEATER UNIT**

- (a) Disconnect the connector.
- (b) Remove the 3 bolts and the rear heater unit.



## ROOM TEMPERATURE SENSOR (for Front A/C) INSPECTION

AC1LN-04

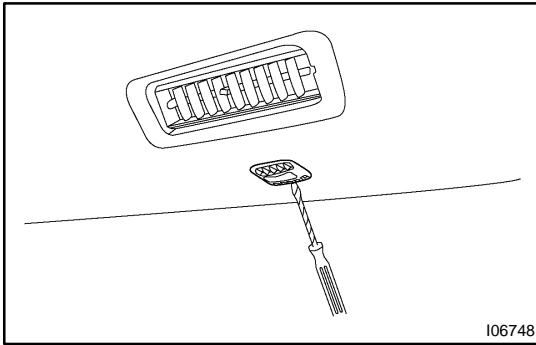
### 1. REMOVE ROOM TEMPERATURE SENSOR

- (a) Remove the lower No. 1 panel set screw.
- (b) Release the lower No. 1 panel set claws.
- (c) Disconnect the connector and the aspirator hose.
- (d) Remove the screw and the room temperature sensor.

### 2. INSPECT ROOM TEMPERATURE SENSOR CIRCUIT (See page [DI-1316](#) )

### 3. INSTALL ROOM TEMPERATURE SENSOR

- (a) Install the room temperature sensor to the lower No. 1 panel with the screw.
- (b) Connect the aspirator hose and the connector.
- (c) Install the lower No. 1 panel with the screw.



## ROOM TEMPERATURE SENSOR (for Rear A/C) INSPECTION

AC1LO-05

### 1. REMOVE ROOM TEMPERATURE SENSOR

Using a screwdriver, pull out the room temperature sensor, then disconnect the connector.

HINT:

Tape the screwdriver tip before use.

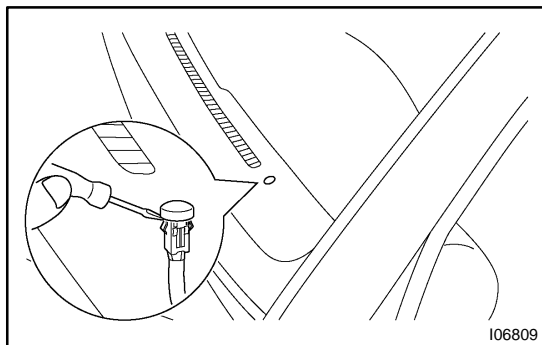
### 2. INSPECT ROOM TEMPERATURE SENSOR

(See page [DI-1330](#) )

### 3. INSTALL ROOM TEMPERATURE SENSOR

- (a) Connect the connector.
- (b) Insert the room temperature sensor to the roof headlining.





## SOLAR SENSOR INSPECTION

AC1LM-05

### 1. REMOVE SOLAR SENSOR

Using a screwdriver, pull out the solar sensor, then disconnect the connector.

HINT:

Tape up the screwdriver tip before use.

### 2. INSPECT SOLAR SENSOR CIRCUIT (See page [DI-1333](#))

### 3. INSTALL SOLAR SENSOR

- (a) Connect the connector.
- (b) Insert the solar sensor to the instrument panel.