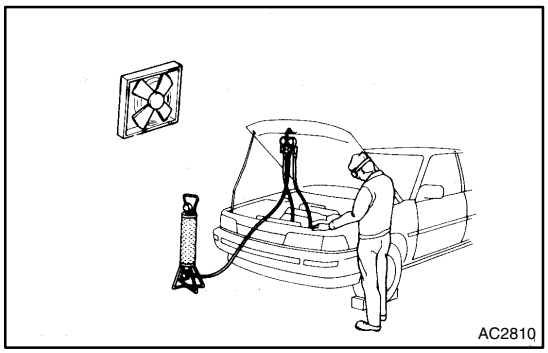
AIR CONDITIONING


AC2810

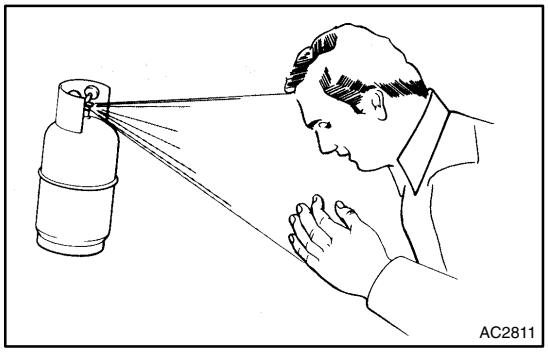
AIR CONDITIONING SYSTEM

AC1ME–02

PRECAUTION

1. DO NOT HANDLE REFRIGERANT IN AN ENCLOSED AREA OR WEAR A NAKED FLAME

2. ALWAYS WEAR EYE PROTECTION


AC2811

3. BE CAREFUL NOT TO GET LIQUID REFRIGERANT IN YOUR EYES OR ON YOUR SKIN

If liquid refrigerant gets in your eyes or on your skin.

(a) Wash the area with lots of cool water.

CAUTION:

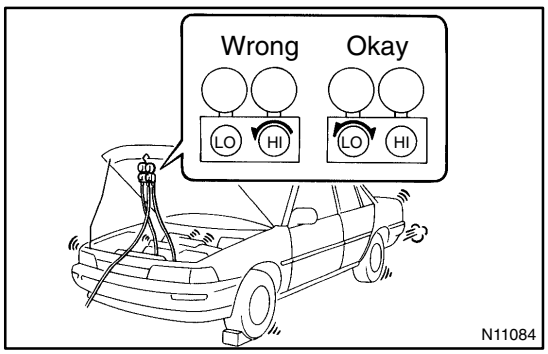
Do not rub your eyes or skin.

(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. BE CAREFUL NOT TO DROP CONTAINER AND NOT TO 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, so take care to avoid this, necessary care should be taken.

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.

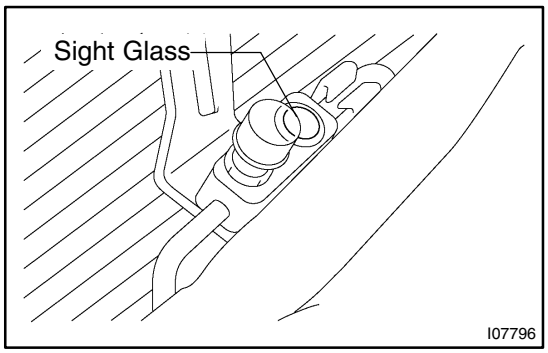
8. BE CAREFUL NOT TO OVERCHARGE SYSTEM WITH REFRIGERANT

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

9. SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

The LEXUS RX300 is equipped with an SRS (Supplemental Restraint System) such as the driver, front passenger and side 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.

AC1MF–02



ON–VEHICLE INSPECTION

1. INSPECT REFRIGERANT VOLUME

Observe the sight glass on the liquid tube.

Test conditions:

- Running engine at 1,500 rpm
- Blower speed control switch at ”HI” position
- A/C switch ON
- Temperature control dial at ”COOL” position
- Fully open the doors

Item	Symptom	Amount of refrigerant	Remedy
1	Bubbles present in sight glass	Insufficient*	(1) Check for gas leakage with gas leak detector and repair if necessary (2) Add refrigerant until bubbles disappear
2	No bubbles present in sight glass	None, sufficient or too much	Refer 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 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 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

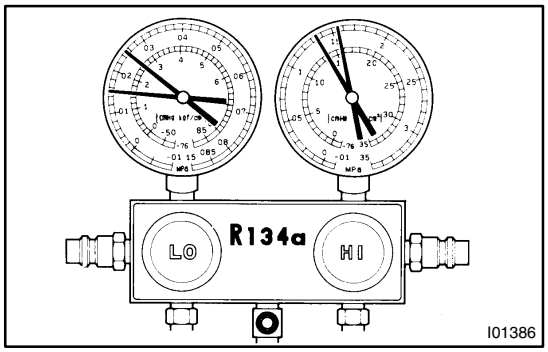
This is a method in which the trouble is located by using a manifold gauge set. Read the manifold gauge pressure when these conditions are established.

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
- Blower speed control switch at "HI" position
- Temperature control dial on "COOL" position

HINT:

It should be noted that the gauge indications may vary slightly due to ambient temperature conditions.



(1) Normally functioning refrigeration system.

Gauge reading:

Low pressure side:

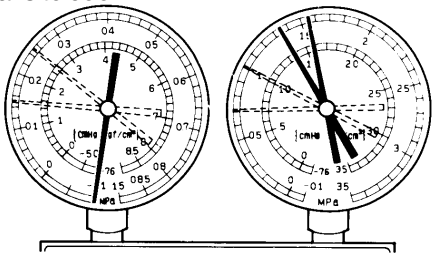
0.15 – 0.25 MPa (1.5 – 2.5 kgf/cm^2)

High pressure side:

1.37 – 1.57 MPa (14 – 15 kgf/cm$^{2)}$

(2) Moisture present in refrigeration system.

Condition : Periodically cools and then fails to cool

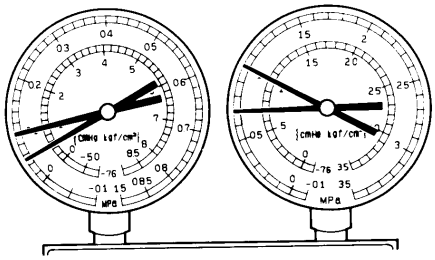


I01387

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	• Drier in oversaturated state • Moisture in refrigeration system freezes at expansion valve orifice and blocks circulation of refrigerant	(1) Replace condenser (2) Remove moisture in cycle through repeatedly evacuating air (3) Charge proper amount of new refrigerant

(3) Insufficient cooling

Condition: Insufficient cooling

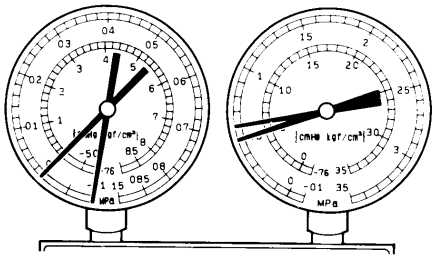


I01388

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure low on both low and high pressure sides • Bubbles seen in sight glass continuously • Insufficient cooling performance	Gas leakage at some place in refrigeration system	• Insufficient refrigerant in system • Refrigerant leaking	(1) Check for gas leakage with gas leak detector and repair if necessary (2) Charge proper amount of refrigerant (3) If indicated pressure value is near 0 when connected to gauge, create the vacuum after inspecting and repairing the location of the leak

(4) Poor circulation of refrigerant

Condition: Insufficient cooling

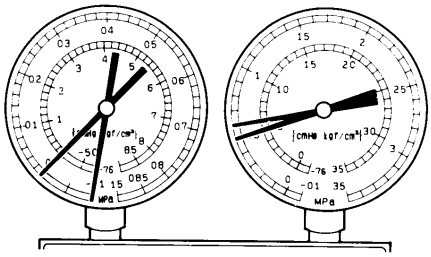


I01389

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure low in both low and high pressure sides • Frost on tube from condenser to unit	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)

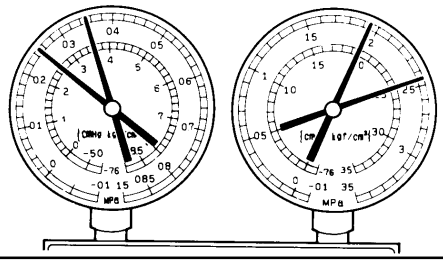


I01449

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Vacuum indicated on low pressure side, very low pressure indicated on high pressure side • Frost or dew seen on piping before and after condenser/ drier or expansion valve	• Refrigerant flow obstructed by moisture or dirt in refrigeration system • Refrigerant flow obstructed by gas leakage from expansion valve	Refrigerant does not circulate	(1) Check expansion valve (2) Clean out dirt in expansion valve by blowing with air (3) Replace condenser (4) Evacuate air and charge new refrigerant to proper amount (5) For gas leakage from expansion valve, replace expansion valve

(6) Refrigerant overcharged or insufficient cooling of condenser

Condition: Insufficient cooling

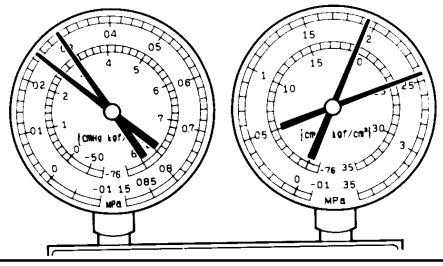


I01390

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure too high on both low and high pressure sides • No air bubbles seen through the sight glass even when the engine rpm is lowered	• Unable to develop sufficient performance due to excessive refrigeration system • Insufficient cooling of condenser	• Excessive refrigerant in cycle → refrigerant over charged • Condenser cooling → condenser fins clogged of condenser fan faulty	(1) Clean condenser (2) Check condenser fan motor operation (3) If (1) and (2) are in normal state, check amount of refrigerant Charge proper amount of refrigerant

(7) Air present in refrigeration system

Condition: Insufficient cooling



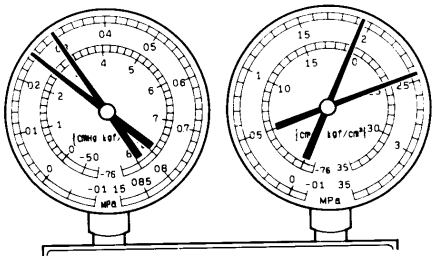
NOTE : These gauge indications are shown when the refrigeration system has been opened and the refrigerant charged without vacuum purging.

I01392

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure too high on both low and high pressure sides • The low pressure piping hot to touch • Bubbles seen in sight glass	Air entered in refrigeration system	• Air present in refrigeration system • Insufficient vacuum purging	(1) Check compressor oil to see if it is dirty or insufficient (2) Evacuate air and charge new refrigerant

(8) Expansion valve improperly

Condition: Insufficient cooling

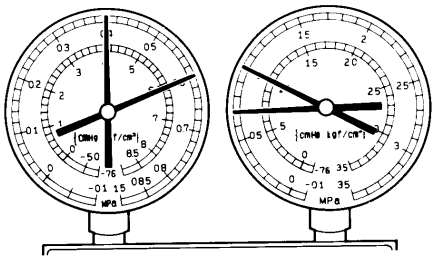


I01450

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure too high on both low and high pressure sides • Frost or large amount of dew on piping on low pressure side	Trouble in expansion valve	• Excessive refrigerant in low pressure piping • Expansion valve opened too wide	Check expansion valve Replace if defective

(9) Defective compression compressor

Condition : Does not cool



I01393

Symptom seen in refrigeration system	Probable cause	Diagnosis	Remedy
• Pressure too high on low and high pressure sides • Pressure too low on high pressure side	Internal leak in compressor	• Compression defective • Valve leaking or broken sliding parts	Repair or replace compressor

3. INSPECT IDLE–UP SPEED

(a) Warm up engine.
(b) Connect the tachometer.
(c) Inspect idle–up speed when the these conditions are established.

Test conditions:

- Blower speed control switch 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 (at cooling fan running ”LO” mode)	700 ± 50 rpm
Magnetic clutch engaged (at cooling fan running ”HI” mode)	730 ± 50 rpm

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

4. INSPECT FOR LEAKAGE OF REFRIGERANT

(a) Perform in these conditions.
  - Stop engine
  - Secure good ventilation (If the gas leak detector may not react volatile gases which are not refrigerant, such as evaporated gasoline and exhaust gas)
  - Repeat the test 2 or 3 times
  - Make sure that there is some refrigerant remaining in the refrigeration system.
    When compressor is OFF: approx. 392 – 588 kPa (4 – 6 kgf·cm^2, 57 – 85 psi)

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

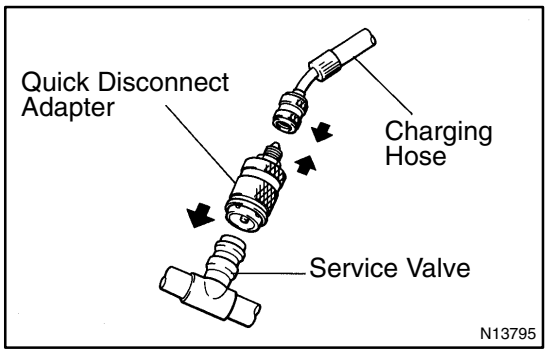
HINT:

- After the blower motor has stopped, 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 such reaction is unavoidable, the vehicle must be lifted up.

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

AC1MG–01



EVACUATING

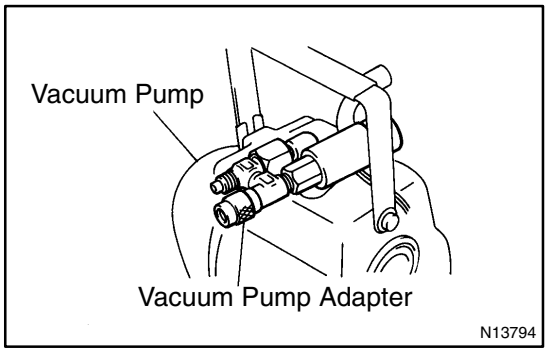
1. CONNECT QUICK DISCONNECT ADAPTER TO CHARGING HOSES

2. REMOVE CAPS FROM SERVICE VALVES ON REFRIGERANT LINES

3. SET ON MANIFOLD GAUGE SET

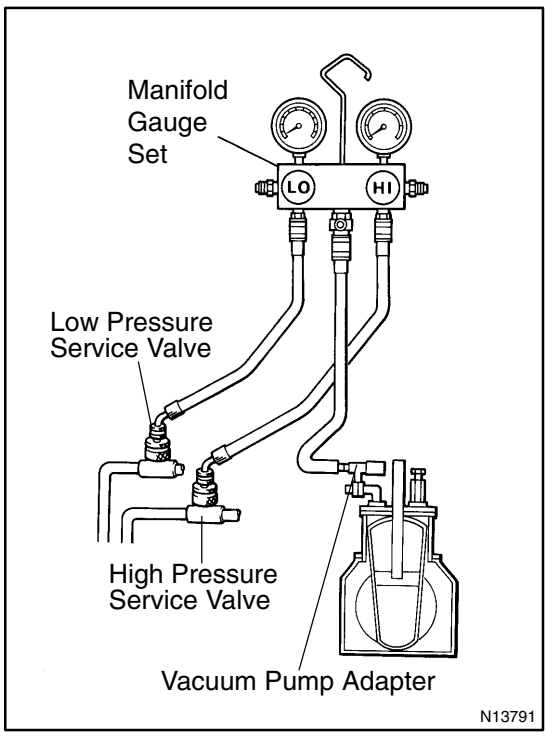
(a) Close both hand valves of manifold gauge set.

(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 more, check that the low pressure gauge indicates 750 mmHg (30 in. Hg) or more.

HINT:

If the reading is 750 mmHg (30 in. Hg) or more, close both hand valves of manifold gauge set and stop the vacuum pump.

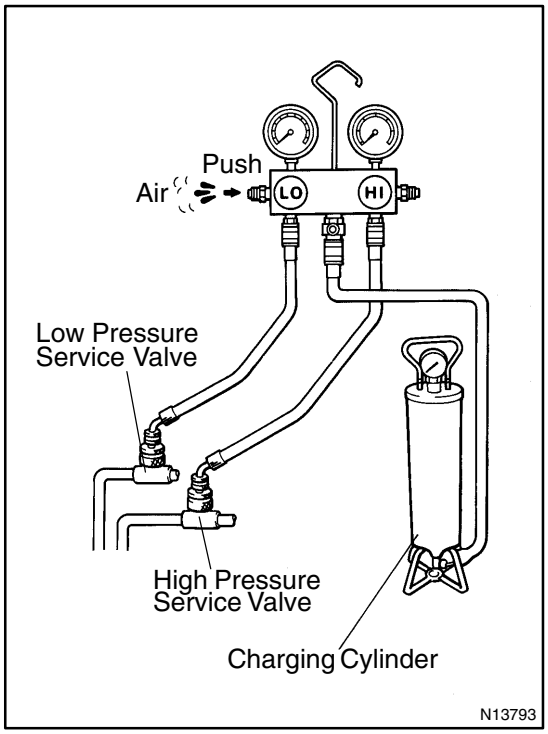
Check the system for leaks and repair if necessary.

(e) Close both the high and low hand valves and stop the vacuum pump.

(f) Leave the system in this condition for 5 minutes or more and check that there is no gauge indicator.

AC1MH–01

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.

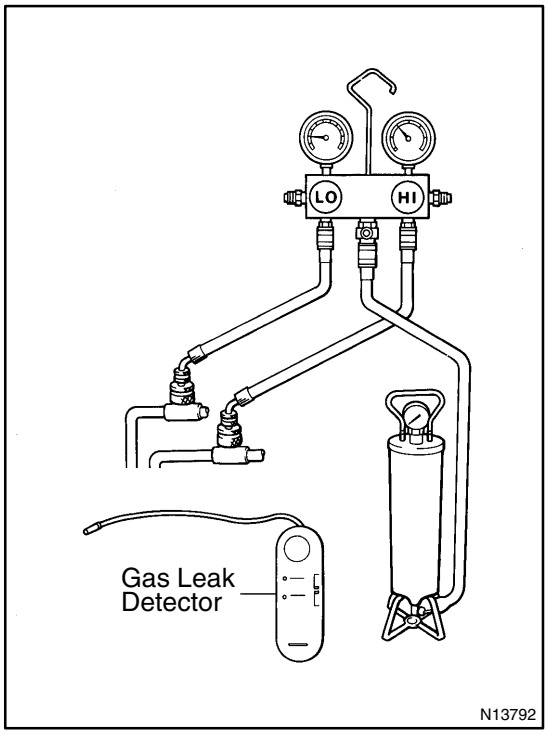
(b) Connect the center hose to the charging cylinder.

CAUTION:

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

(c) Open the valve of charging cylinder.

(d) Press the valve core on the side of manifold gauge and expel the air inside of the center hose.



2. INSPECT REFRIGERATION SYSTEM FOR LEAKS

(a) Open the high pressure hand valve and charge refrigerant.

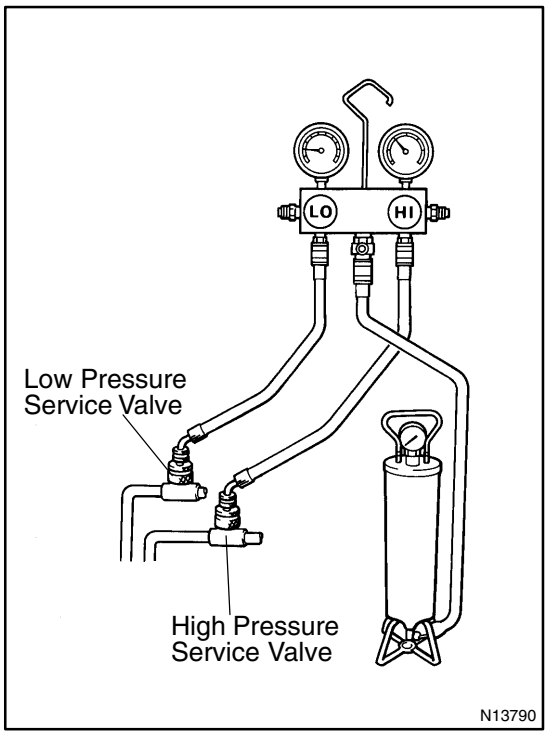
(b) When the low pressure gauge indicates 98 kPa (1 kgf/cm^2, 14 psi) close the high pressure hand valve.

(c) Using a gas leak detector, check the system for leakage.

If leak is found, repair the faulty component or connection.

CAUTION:

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



3. CHARGE REFRIGERANT INTO REFRIGERATION SYSTEM

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

CAUTION:

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

(a) Open the high pressure hand valve fully.

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

HINT:

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

(c) Charge partially refrigeration system with refrigerant.

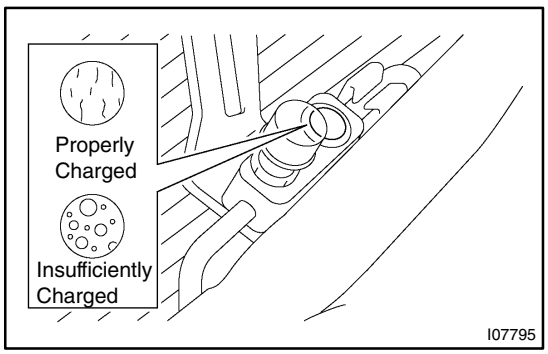
(1) Set vehicle in these conditions:

- Running engine at 1,500 rpm
- Blower speed control set at "HI"
- Temperature control set at "MAX. COOL"
- Air inlet control set at "RECIRC"
- Fully open doors (Sliding roof : closed)

(2) Open the low pressure hand valve.

CAUTION:

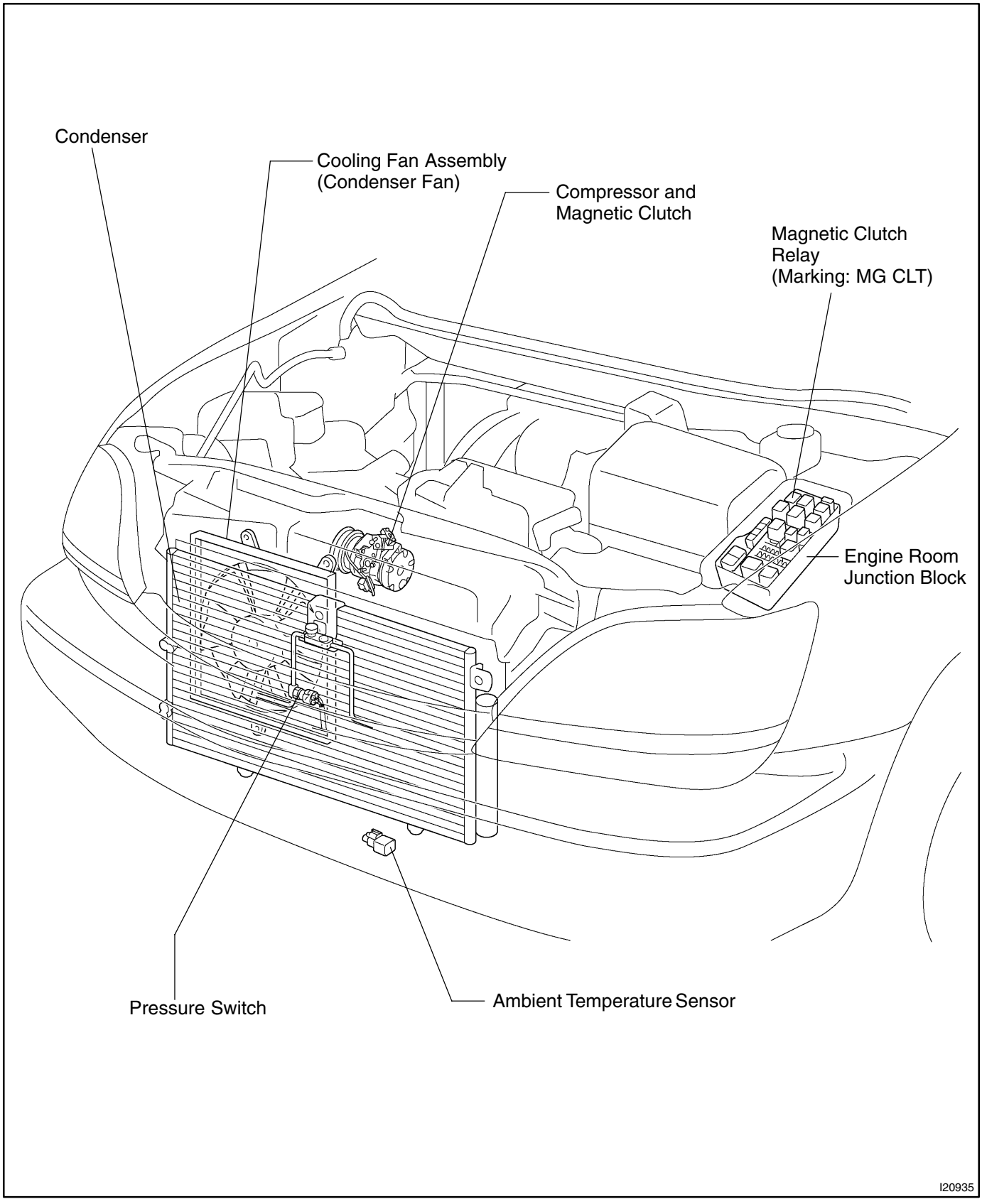
Do not open the high pressure hand valve.

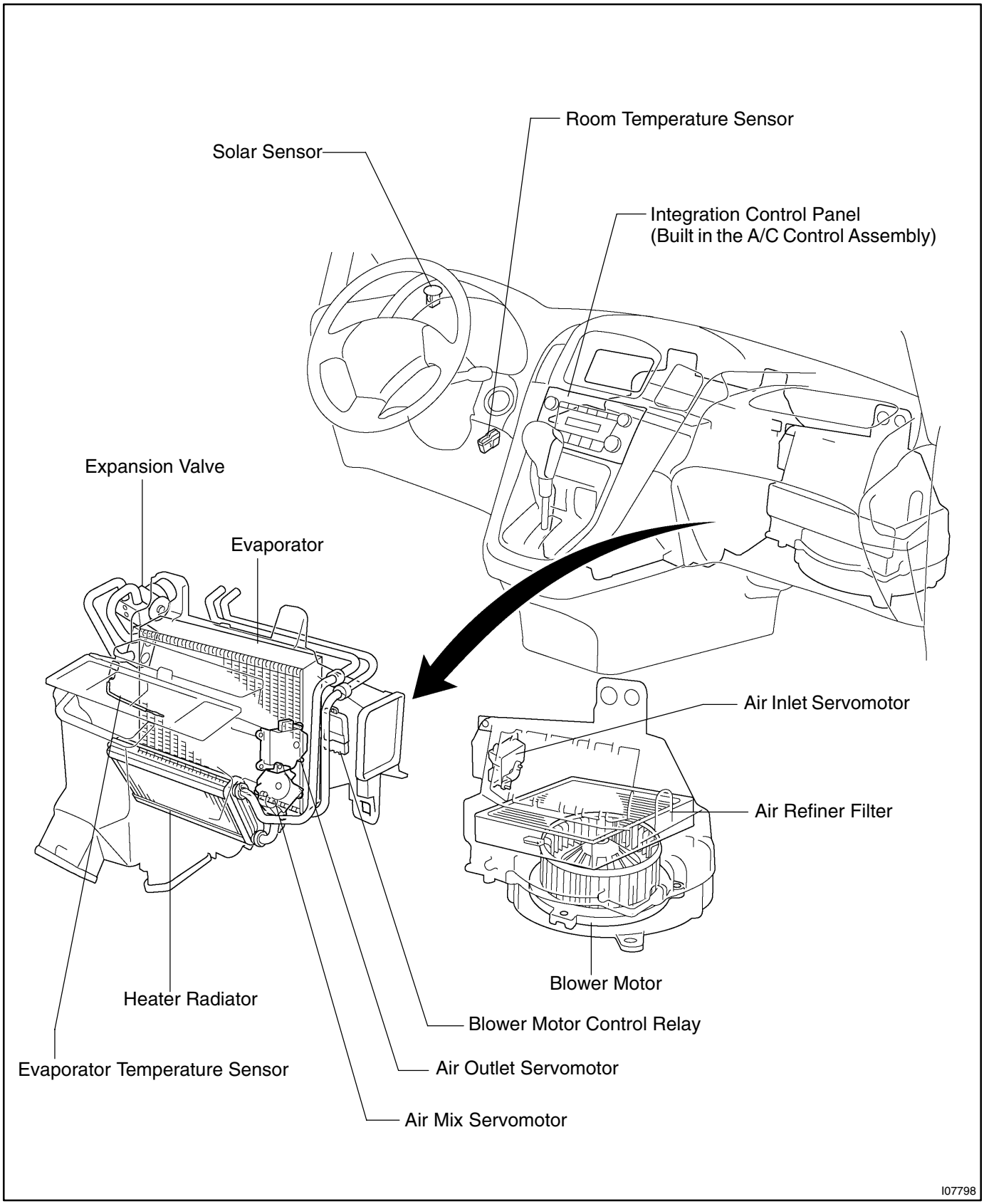


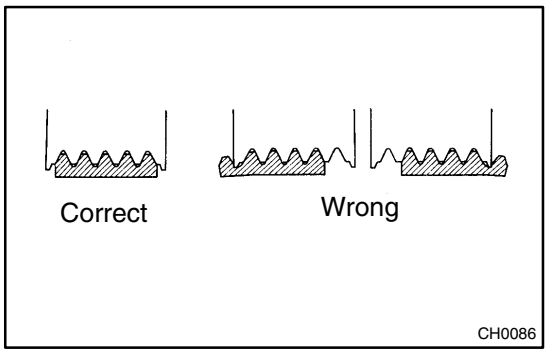
(3) Charge refrigerant until bubbles disappear and check the pressure on the gauge through the sight glass.

AC1MI–02

LOCATION




Room Temperature Sensor
Solar Sensor
Integration Control Panel
(Built in the A/C Control Assembly)
Expansion Valve
Evaporator
Air Inlet Servomotor
Air Refiner Filter
Blower Motor
Heater Radiator
Blower Motor Control Relay
Evaporator Temperature Sensor
Air Outlet Servomotor
Air Mix Servomotor
I07798



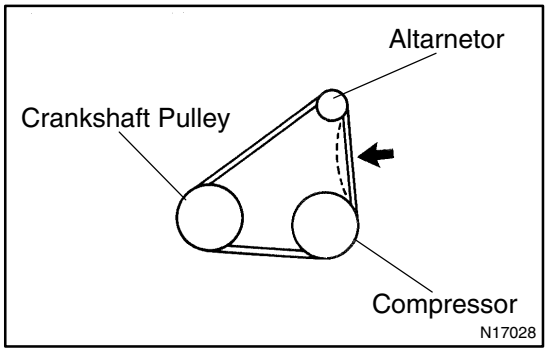
DRIVE BELT

AC0S0–04

ON–VEHICLE INSPECTION

1. INSPECT DRIVE BELT'S INSTALLATION CONDITION

Check that the drive belt fits properly in the ribbed grooves.



2. INSPECT DRIVE BELT DEFLECTION

(a) Using a belt tension gauge, apply load of 98 N (10 kgf).

(b) Check drive belt deflection.

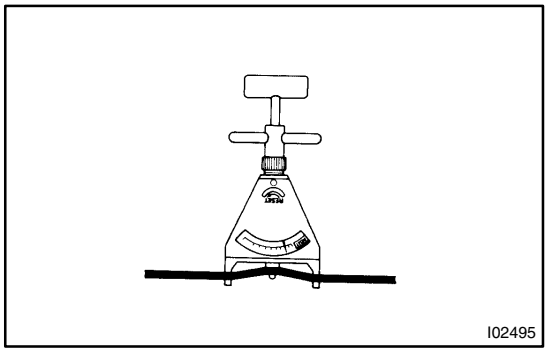
Drive belt deflection:

New belt: 8.0 – 9.0 mm (0.31 – 0.35 in.)

Used belt: 12.0 – 14.0 mm (0.47 – 0.55 in.)

HINT:

- "New belt" is a belt which has been used less than 5 minutes with the engine running.
- "Used belt" is a belt which has been used for 5 minutes or more with the engine running.
- After installing the drive belt, check that it fits properly in the ribbed grooves.



3. INSPECT DRIVE BELT TENSION (Reference)

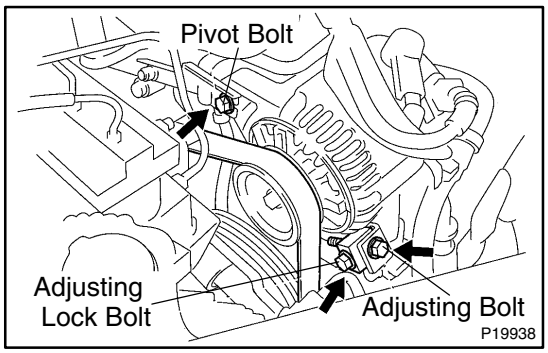
Using a belt tension gauge, check the drive belt tension.

Drive belt tension:

New belt: 690 – 780 N (70 – 80 kgf)

Used belt: 300 – 440 N (30 – 45 kgf)

AC0S1–02



REMOVAL

REMOVE DRIVE BELT

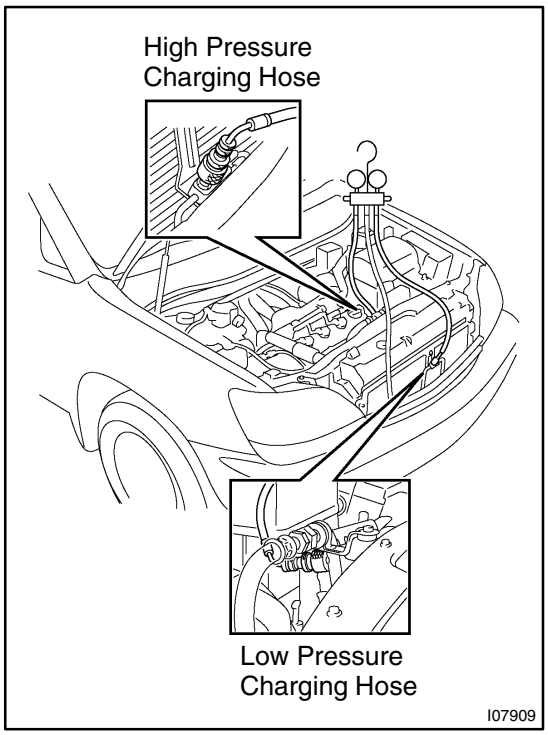
(a) Loosen the pivot bolt and adjusting lock bolt.
Torque:
Pivot bolt: 56 N·m (570 kgf·cm, 41 ft·lbf)
Adjusting lock bolt: 18 N·m (185 kgf·cm, 13 ft·lbf)

(b) Loosen the belt tension by adjusting bolt and remove the drive belt.

AC0S2–02

INSTALLATION

Installation is in the reverse order of removal (See page AC–16).
AFTER INSTALLATION, CHECK DRIVE BELT'S INSTALLATION CONDITION



MANIFOLD GAUGE SET

AC0S3–03

SET ON

1. CONNECT CHARGING HOSES TO MANIFOLD GAUGE SET

Tighten the nuts by hand.

CAUTION:

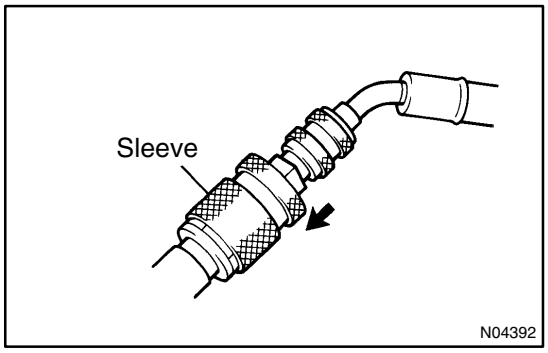
Do not connect the wrong hoses.

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 LINE

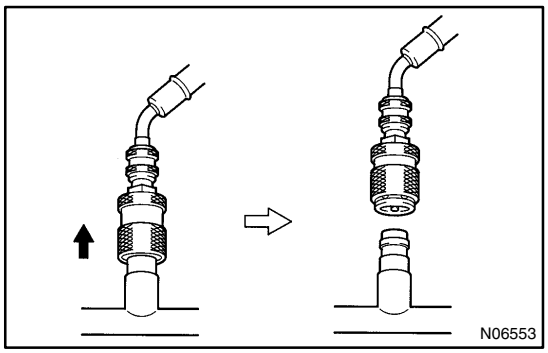


5. CONNECT QUICK DISCONNECT ADAPTERS TO SERVICE VALVES

HINT:

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

AC0S4–03



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**

REFRIGERANT LINE

AC1MJ–01

ON–VEHICLE INSPECTION

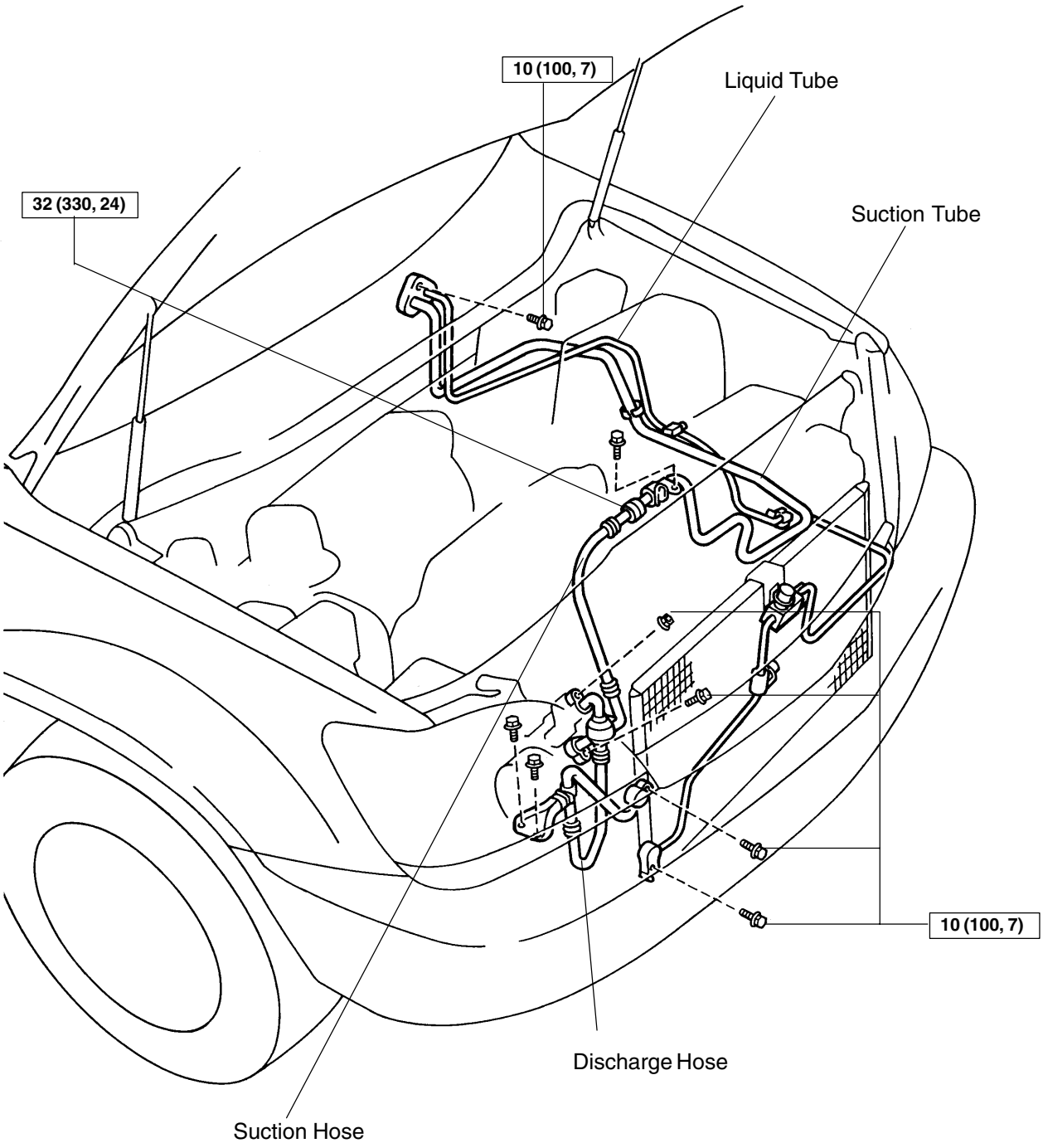
1. INSPECTION HOSE AND TUBE CONNECTIONS FOR LOOSENESS

2. INSPECT HOSES AND TUBES FOR LEAKAGE

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

AC3AK–01

LOCATION



N·m (kgf·cm, ft·lbf) : Specified torque

I19408

AC1ML–01

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:

Connections should not be torqued tighter than the specified torqued.

Part tightened	N·m	kgf·cm	ft·lbf
Condenser x Discharge hose	10	100	7
Condenser x Liquid tube	10	100	7
Compressor x Discharge hose	10	100	7
Compressor x Suction hose	10	100	7
A/C unit x Liquid and suction tube	10	100	7
Suction line (Piping joint)	32	330	24

4. EVACUATE AIR FROM REFRIGERATION SYSTEM AND CHARGE WITH REFRIGERANT

Specified amount: 650 ± 50 g (22.92 ± 1.76 oz.)

5. INSPECT FOR LEAKAGE OF REFRIGERANT

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

6. INSPECT AIR CONDITIONING OPERATION

AIR CONDITIONER UNIT

AC3AL–01

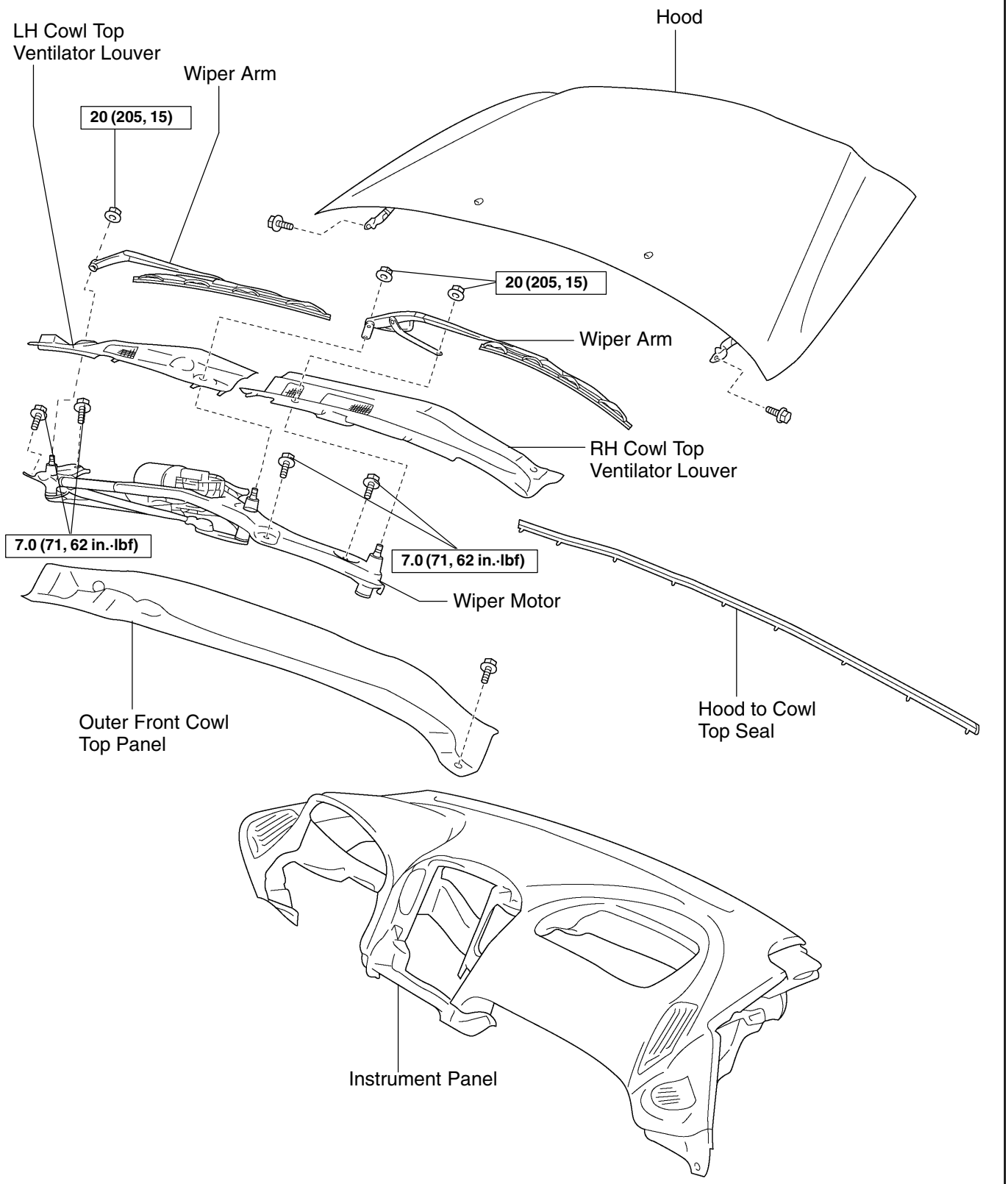
ON–VEHICLE INSPECTION

INSPECT EVAPORATOR AND FITTINGS FOR LEAKAGE OF REFRIGERANT

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

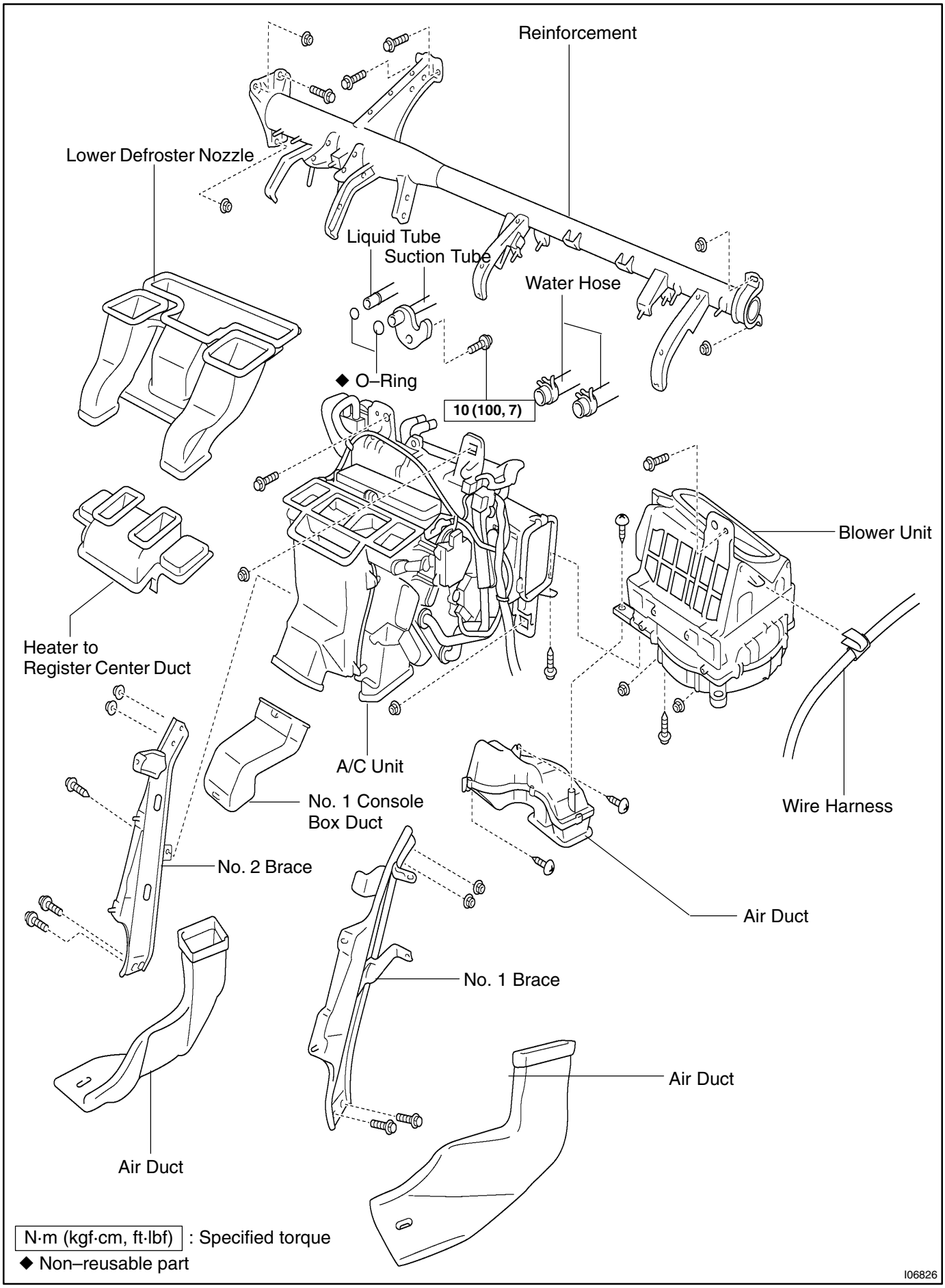
AC3AM–01

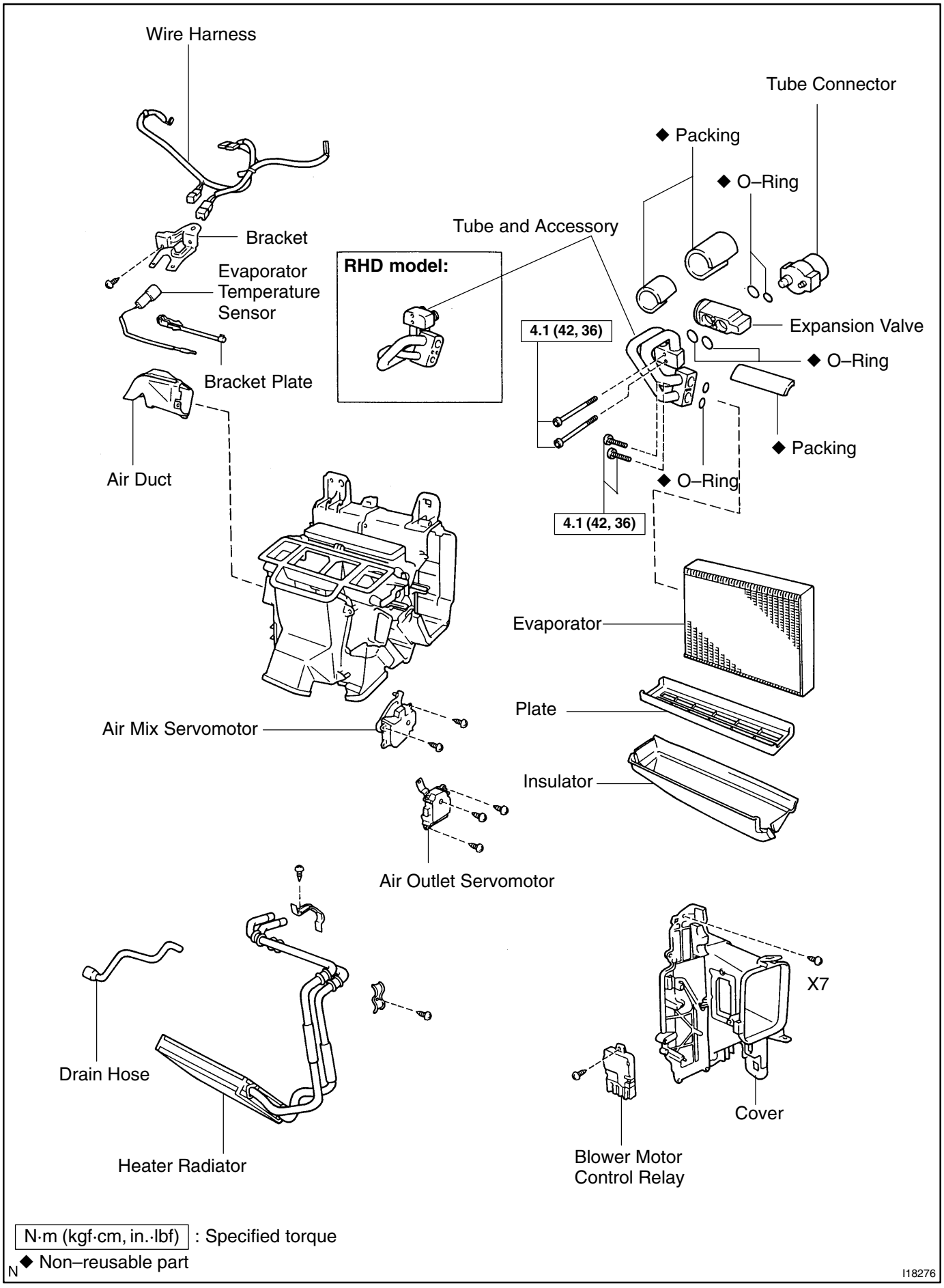
COMPONENTS



N·m (kgf·cm, ft·lbf) : Specified torque

I06828


Reinforcement
Lower Defroster Nozzle
Liquid Tube
Suction Tube
Water Hose
◆ O–Ring
10 (100, 7)
Blower Unit
Heater to
Register Center Duct
A/C Unit
No. 1 Console
Box Duct
Wire Harness
No. 2 Brace
Air Duct
No. 1 Brace
Air Duct
Air Duct
N·m (kgf·cm, ft·lbf) : Specified torque
◆ Non–reusable part
I06826


Wire Harness
Tube Connector
◆ Packing
◆ O–Ring
Tube and Accessory
Bracket
RHD model:
Evaporator Temperature Sensor
4.1 (42, 36)
Expansion Valve
◆ O–Ring
Bracket Plate
◆ Packing
Air Duct
◆ O–Ring
4.1 (42, 36)
Evaporator
Plate
Air Mix Servomotor
Insulator
Air Outlet Servomotor
X7
Drain Hose
Cover
Heater Radiator
Blower Motor Control Relay
N·m (kgf·cm, in.·lbf) : Specified torque
◆ Non–reusable part
N
I18276

AC3AN–01

REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

HINT:

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

Evacuate air from refrigeration system.

Charge system with refrigerant and inspect for leakage of refrigerant.

Specified amount: 650 ± 50 g (22.92 ± 1.76 oz.)

2. DRAIN ENGINE COOLANT FROM RADIATOR

HINT:

It is not necessary to drain out all coolant.

3. REMOVE WIPER ARM

4. REMOVE LH COWL TOP VENTILATOR LOUVER

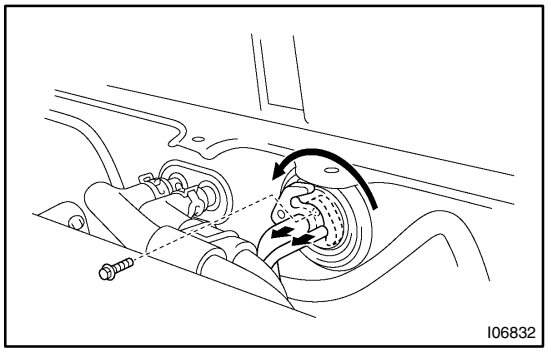
5. REMOVE RH COWL TOP VENTILATOR LOUVER

6. REMOVE WIPER MOTOR (See page BO–58)

7. REMOVE HOOD

8. REMOVE OUTER FR COWL TOP PANEL ASSEMBLY

9. REMOVE INSTRUMENT PANEL AND REINFORCEMENT (See page BO–126)



10. DISCONNECT LIQUID TUBE AND SUCTION HOSE FROM A/C UNIT

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

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

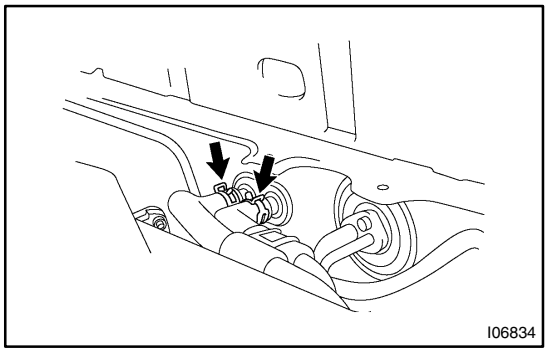
NOTICE:

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

HINT:

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

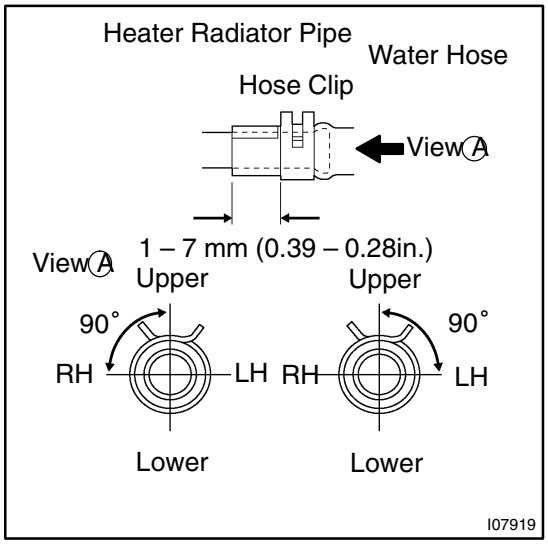
Lubricate 2 new O–rings with compress oil and install them to the tubes.



11. DISCONNECT WATER HOSES FROM HEATER RADIATOR PIPES

(a) Grip the claws of the hose clip and slide the hose clip along the water hose.

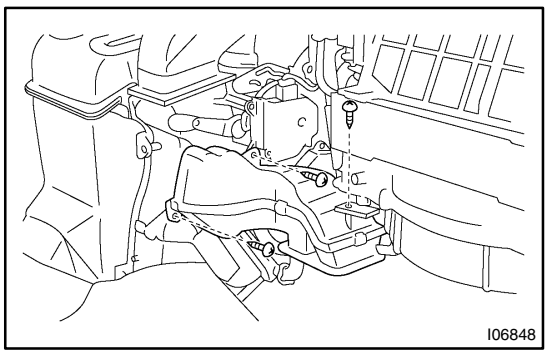
(b) Disconnect the water hose.



HINT:

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

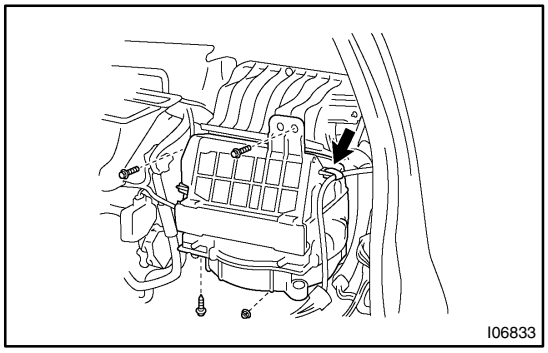
- Push the water hose onto the heater radiator pipe as far as the grommet.
- Install the hose clip in a position, as shown in the illustration.



12. REMOVE BLOWER UNIT

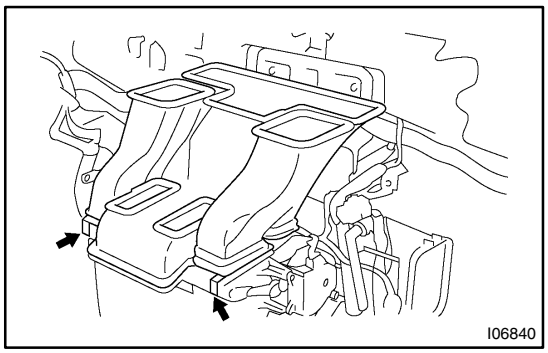
(a) Disconnect the connectors.

(b) Remove the 3 screws and air duct.



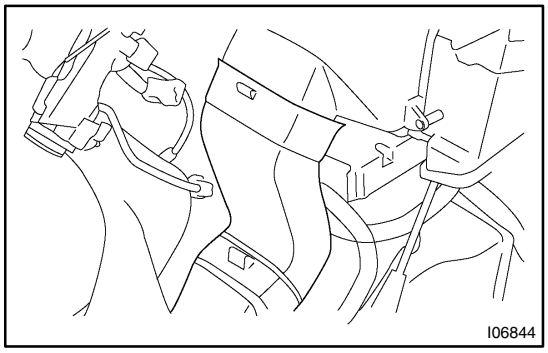
(c) Disconnect wire harness clamp.

(d) Remove the nut, 2 bolts, screw and blower unit.

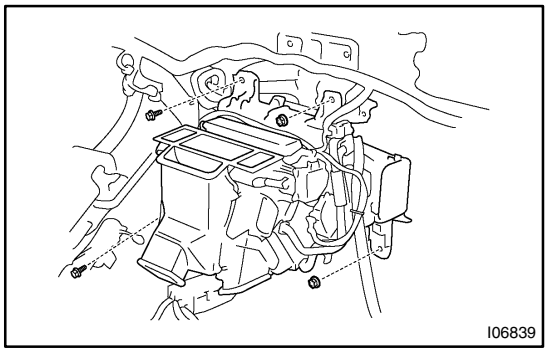


13. REMOVE A/C UNIT

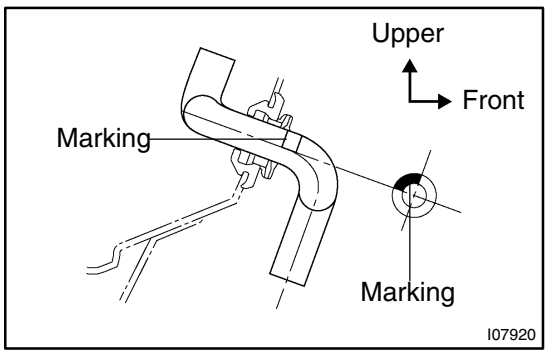
(a) Release the 2 claws and remove the lower defroster nozzle and heater to resister center duct.



(b) Remove the No.1 console box duct.



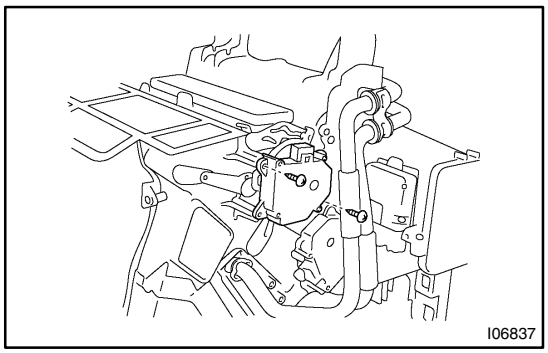
(c) Disconnect the connector.
(d) Remove the 2 nuts, 2 bolts and A/C unit.



HINT:
At the time of installation, please refer to the following item.
Align the marking on the drain hose, as shown in the illustration.

AC3AO–01

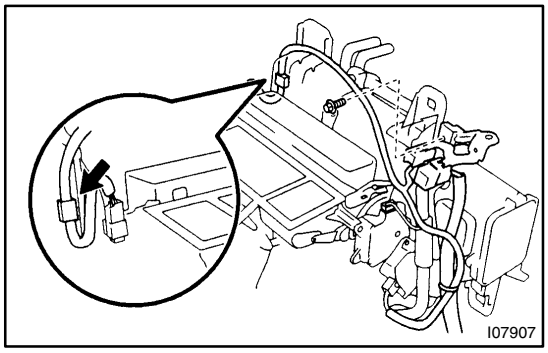
DISASSEMBLY



1. REMOVE AIR OUTLET SERVOMOTOR

(a) Disconnect the connector.

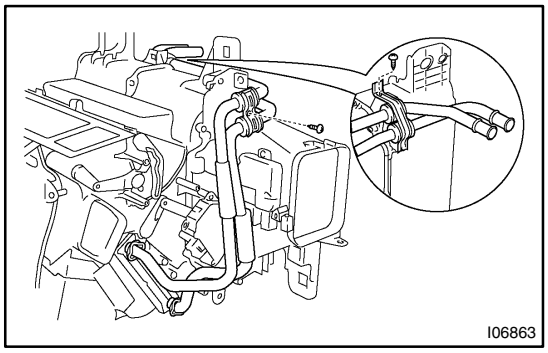
(b) Remove the 2 screws and servomotor.



2. REMOVE WIRE HARNESS

3. REMOVE BRACKET

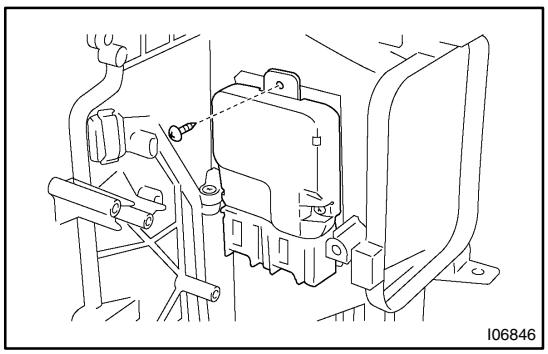
Remove the bolt and bracket.



4. REMOVE HEATER RADIATOR

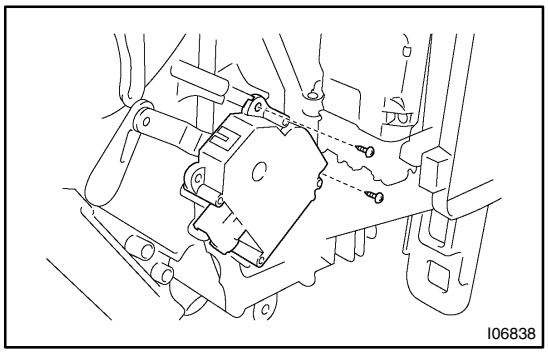
(a) Remove the 2 screws and 2 plates.

(b) Pull out the heater radiator.



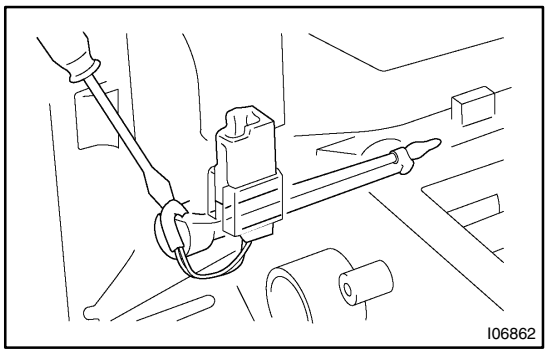
5. REMOVE BLOWER MOTOR CONTROL RELAY

Remove the screw and blower motor control relay.



6. REMOVE AIR MIX SERVOMOTOR

Remove the 2 screws and servomotor.



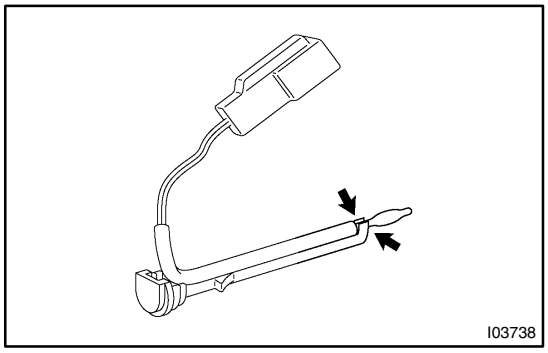
7. REMOVE EVAPORATOR TEMPERATURE SENSOR

(a) Disconnect the connector clamp.

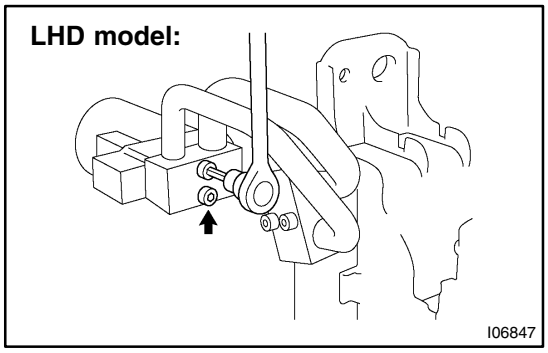
(b) Using a screwdriver, pull out the sensor.

HINT:

Tape the screwdriver tip before use.



(c) Release the 2 claws and remove the sensor from bracket plate.



8. REMOVE EXPANSION VALVE

(a) Pry out the packings.

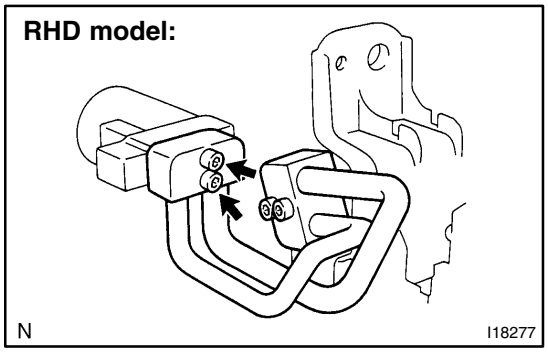
HINT:

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

Do not reuse the packing.

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

Torque: 4.1 N·m (42 kgf·cm, 36 in.·lbf)



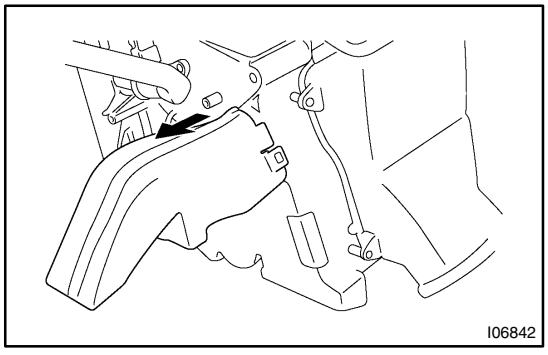
NOTICE:

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

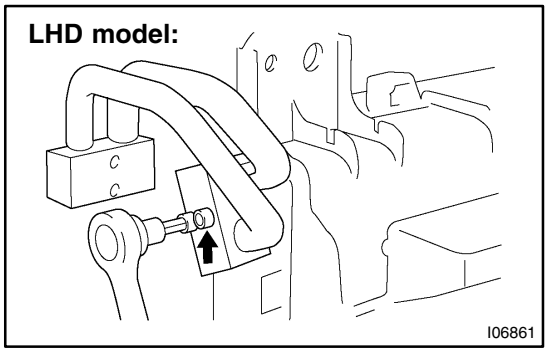
HINT:

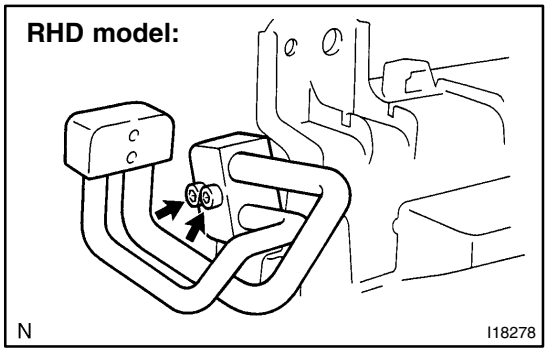
At the time of reassembly, please refer to the following item.

Lubricate 4 new O–rings with compressor oil and install them to the valve.



9. REMOVE AIR DUCT (Driver Side)





10. REMOVE EVAPORATOR

(a) Using a hexagon wrench (5.0 mm, 0.20 in.), remove the 2 bolts and tube and accessory.
Torque: 4.1 N·m (42 kgf·cm, 36 in.·lbf)

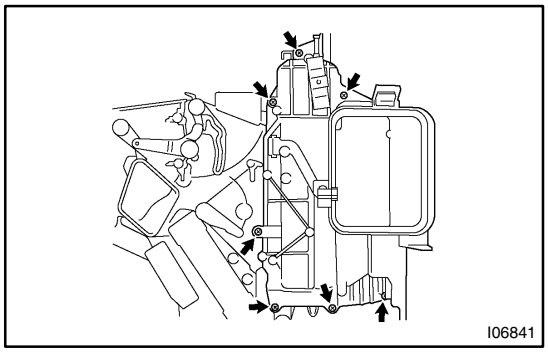
NOTICE:

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

HINT:

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

Lubricate 2 new O–rings with compressor oil and install them to the tube.



(b) Remove the 7 screws and cover.

(c) Pull out the evaporator.

HINT:

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

If evaporator is replaced, add compressor oil to the evaporator.
Add 40 cc (1.4 fl. oz.)
Compressor oil: ND–OIL 8 or equivalent

(d) Remove the insulator.

AC3AP–01

INSPECTION

1. INSPECT EVAPORATOR

(a) Check the fins for blockage.

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

NOTICE:

Never use water to clean the evaporator.

(b) Check fitting for cracks for scratches.

If necessary, repair or replace.

2. INSPECT HEATER RADIATOR

Check the fins for blockage.

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

AC3AQ–01

REASSEMBLY

Reassembly is in the reverse order of disassembly (See page AC–30).

AC3AR–01

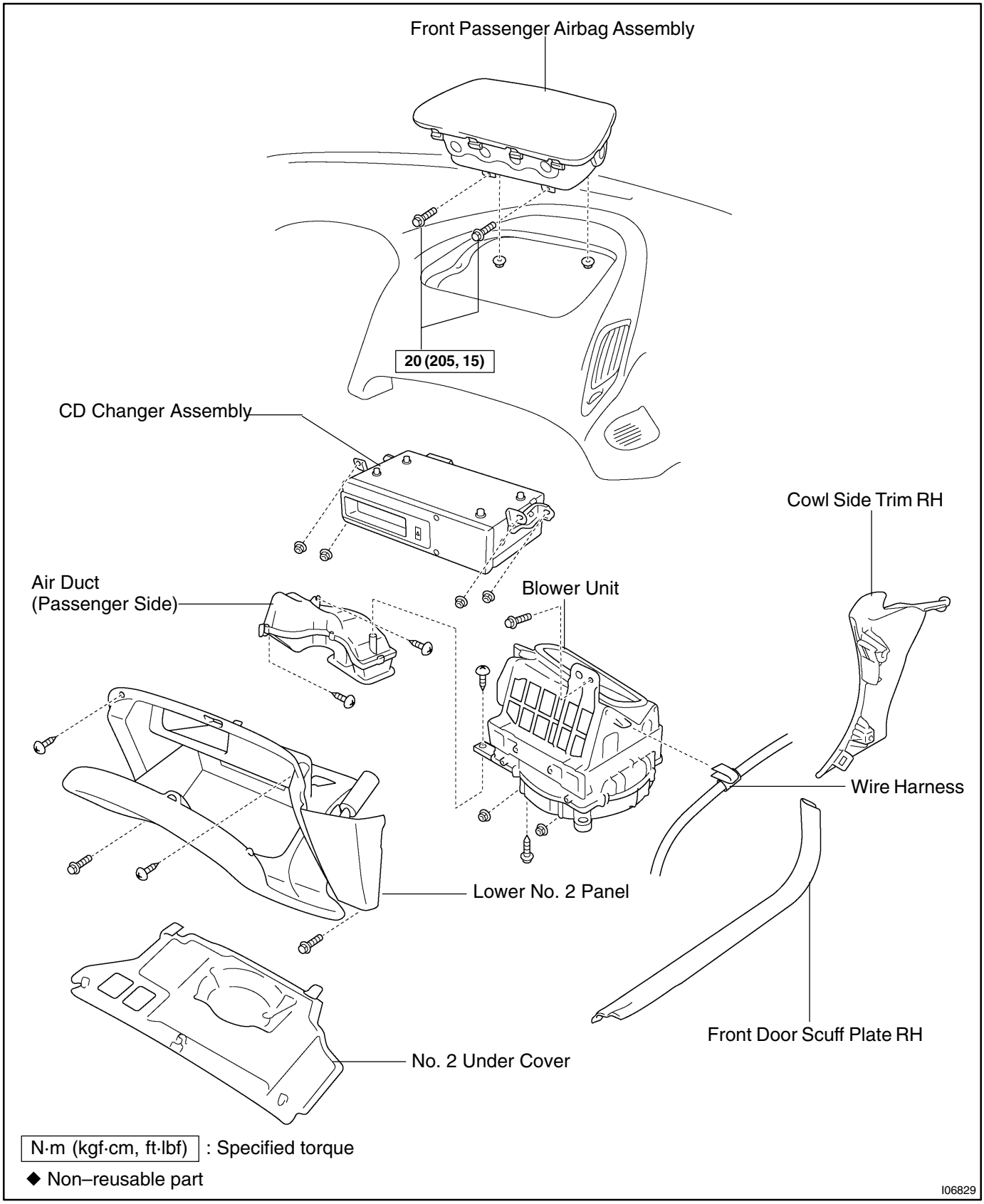
INSTALLATION

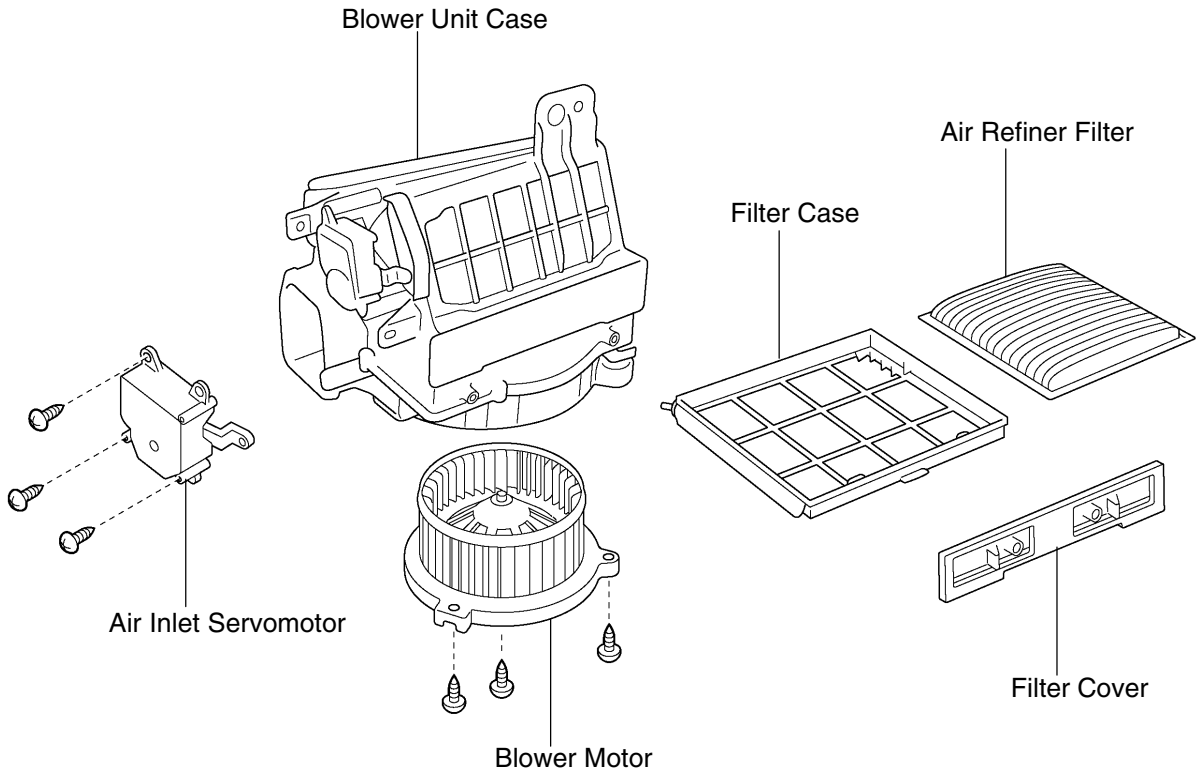
Installation is in the reverse order of removal (See page AC–27).

BLOWER UNIT

COMPONENTS

AC1MT–01

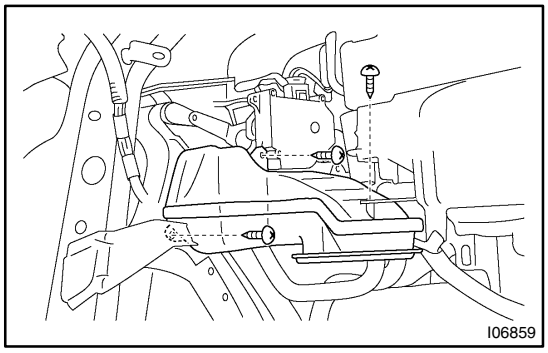



Blower Unit Case
Air Refiner Filter
Filter Case
Air Inlet Servomotor
Filter Cover
Blower Motor
I06827

AC1MU–02

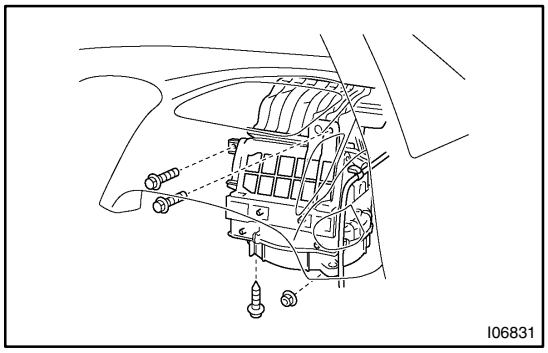
REMOVAL

1. **REMOVE COWL SIDE TRIM RH**
2. **REMOVE FRONT DOOR SCUFF PLATE RH**
3. **REMOVE NO. 2 UNDER COVER**
4. **REMOVE LOWER NO. 2 PANEL**
5. **w/ CD AUTO CHANGER:**
   REMOVE CD CHANGER ASSEMBLY
6. **REMOVE FRONT PASSENGER AIRBAG ASSEMBLY**
   (See page RS–27)



7. **REMOVE BLOWER UNIT**

(a) Remove the 3 screws and air duct.



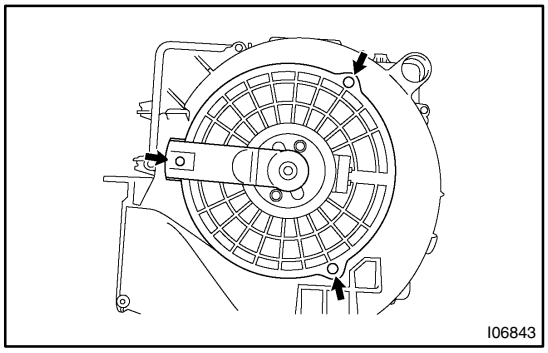
(b) Disconnect the connectors.
(c) Disconnect wire harness clamp.
(d) Remove the 2 nuts, 2 bolts, screw and blower unit.

AC1MV–01

DISASSEMBLY

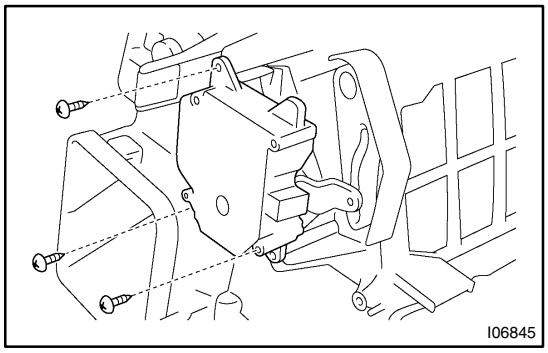
1. REMOVE AIR REFINER FILTER

(a) Release the 2 claws and remove the cover.
(b) Pull out the air refiner filter.
(c) Remove the filter from filter case.



2. REMOVE BLOWER MOTOR

Remove the 3 screws and motor.



3. REMOVE AIR INLET SERVOMOTOR

Remove the 3 screws and servomotor.

AC1MW–02

INSPECTION

1. INSPECT AIR INLET SERVOMOTOR OPERATION (See page DI–844)
2. INSPECT AIR INLET DAMPER POSITION SENSOR (See page DI–835)

AC1MX–01

REASSEMBLY

Reassembly is in the reverse order of disassembly (See page AC–39).

AC1MY–01

INSTALLATION

Installation is in the reverse order of removal (See page AC–38).

COMPRESSOR AND MAGNETIC CLUTCH

AC1MZ–01

ON–VEHICLE INSPECTION

1. INSPECT COMPRESSOR FOR METALLIC SOUND

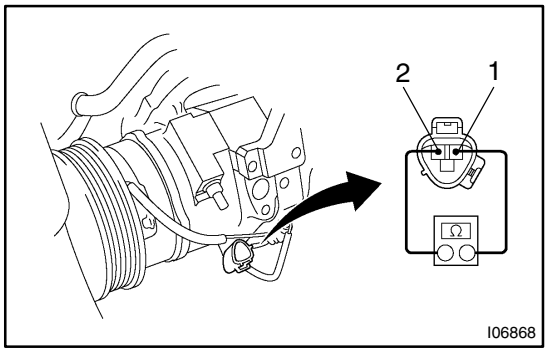
(a) Start engine.

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

If abnormal sound is heard, replace the compressor assembly.

2. INSPECT REFRIGERANT PRESSURE

(See page AC–3)



3. INSPECT COMPRESSOR LOCK SENSOR RESISTANCE

(a) Disconnect the connector.

(b) Measure resistance between terminals 1 and 2.

Standard resistance: 65 – 125 Ω at 20 °C (68 °F)

If resistance is not as specified, rerplace the compressor assembly.

4. INSPECT VISUAL FOR LEAKAGE OF REFRIGERANT FROM SAFETY SEAL

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

If there is any leakage, replace the compressor assembly.

5. MAKE THESE VISUAL CHECKS:

(a) Leakage of grease from the cluch bearing.

(b) Signs of oil on the pressure plate

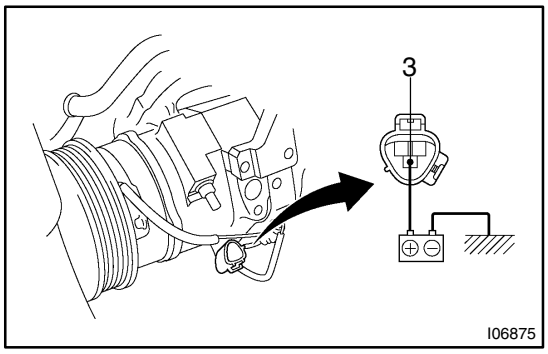
If necessary repair or replace.

6. INSPECT MAGNETIC CLUTCH BEARING FOR NOISE

(a) Start engine.

(b) Check for abnormal noise near the compressor when the A/C switch is OFF.

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



7. INSPECT MAGNETIC CLUTCH OPERATION

(a) Disconnect the connector.

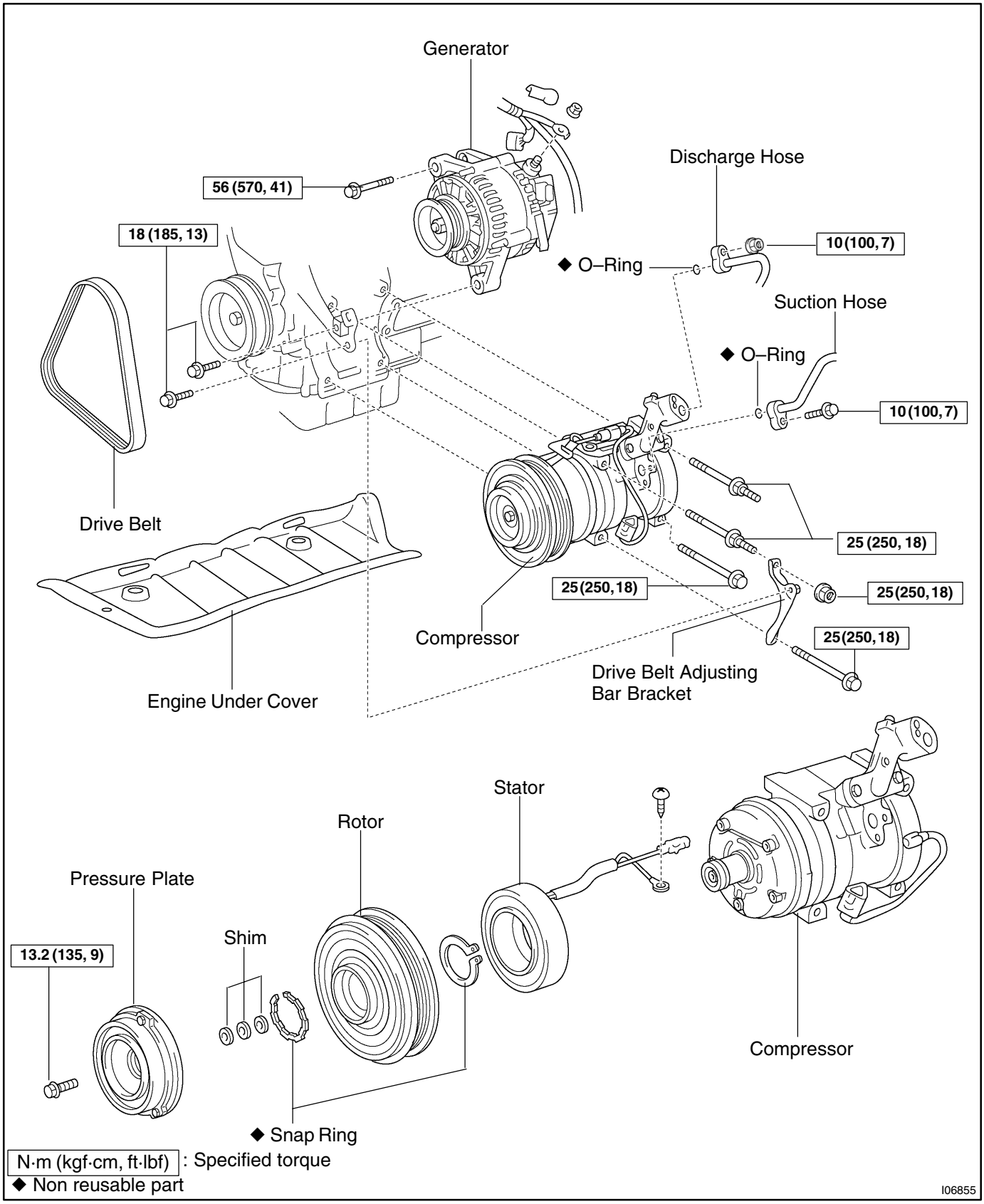
(b) Connect the positive (+) lead from the battery to terminal 4 and the negative (–) lead to the body ground.

(c) Check that the magnetic clutch is energized.

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

AC1N0–01

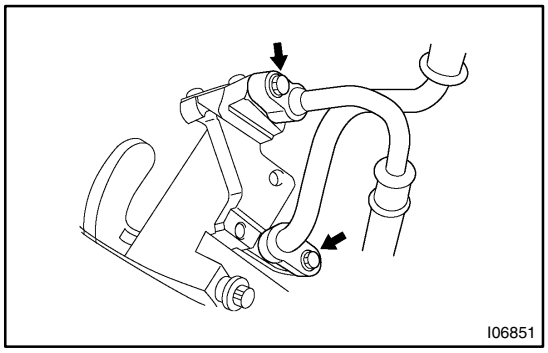
COMPONENTS



AC1N1–01

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 DRIVE BELT
(See page AC–16)

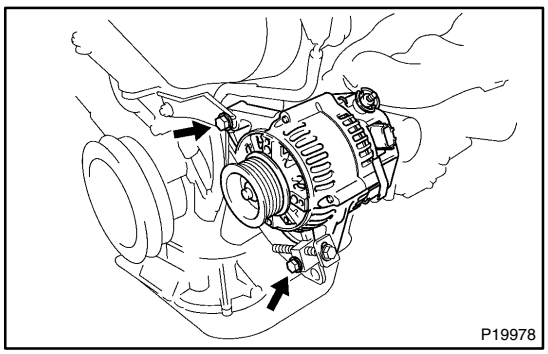

I06851

6. DISCONNECT DISCHARGE AND SUCTION HOSES

Remove the bolt, nut and disconnect the both hoses.

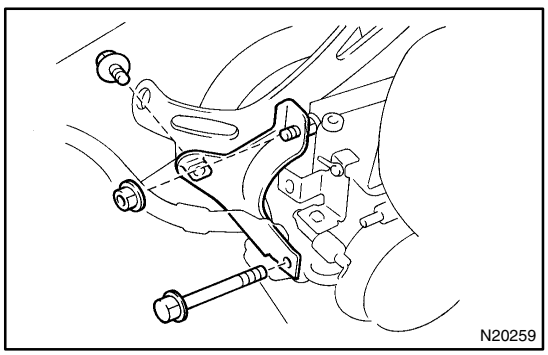
NOTICE:

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


P19978

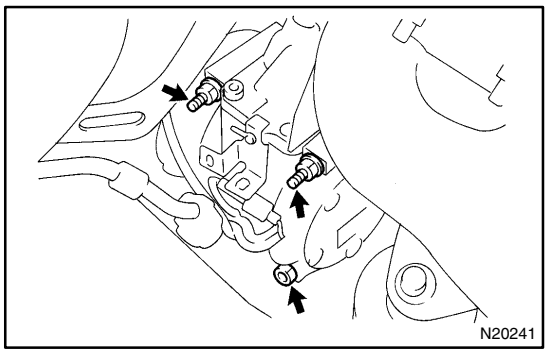
7. REMOVE GENERATOR

(a) Disconnect the generator connector.
(b) Remove the nut, and disconnect the generator wire.
(c) Disconnect the wire harness from the clamp.
(d) Remove the pivot bolt, adjusting lock bolt and generator.


N20259

8. REMOVE COMPRESSOR

(a) Disconnect the connector.
(b) Disconnect the wire harness clamp.
(c) Remove the 2 bolts, nut and drive belt adjusting bar bracket.

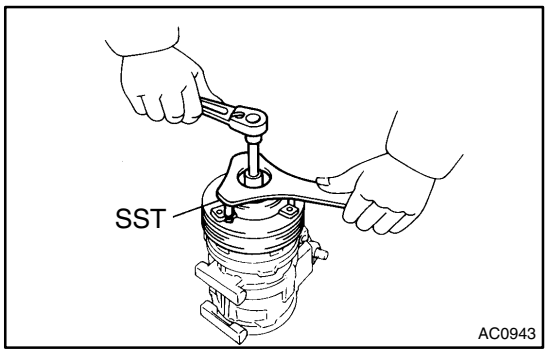


(d) Remove the 3 bolts and compressor.

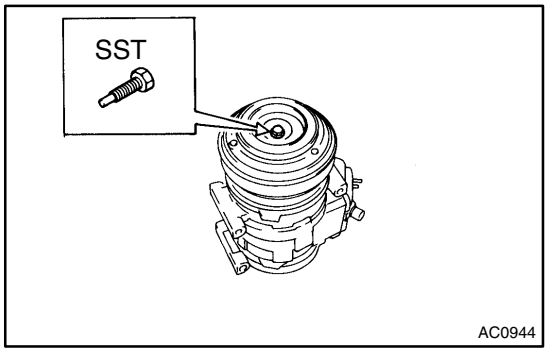
AC1N2–01

DISASSEMBLY

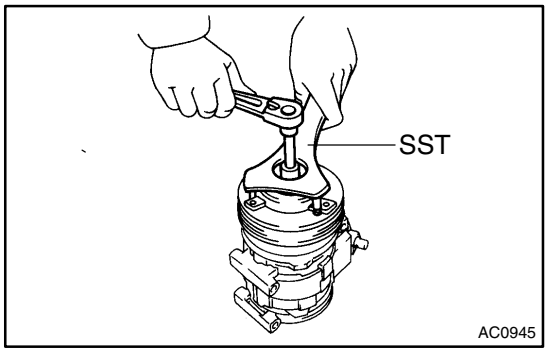
1. REMOVE PRESSURE PLATE



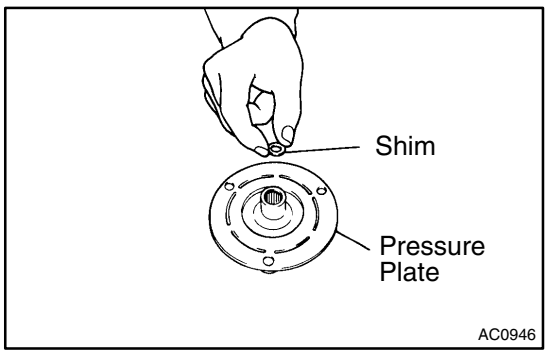
(a) Using SST and a socket wrench, remove the shaft bolt.
SST 07112–76060
Torque: 13.2 N·m (135 kgf·cm, 9 ft·lbf)



(b) IInstall SST on the pressure plate.
SST 07112–66040

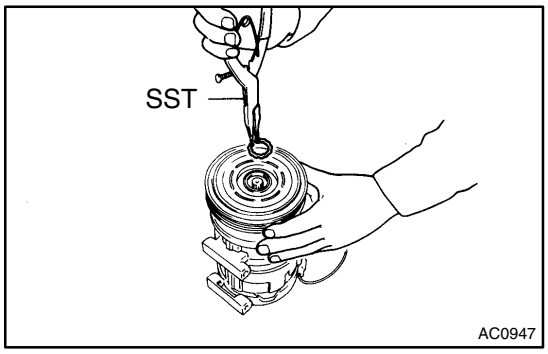


(c) Using SST and socket wrench, remove the pressure plate.
SST 07112–76060, 07112–66040

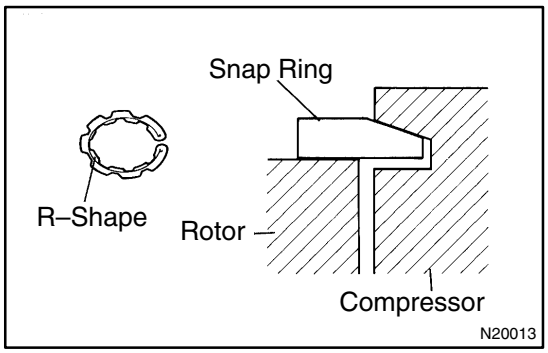


(d) Remove the shims from the pressure plate.

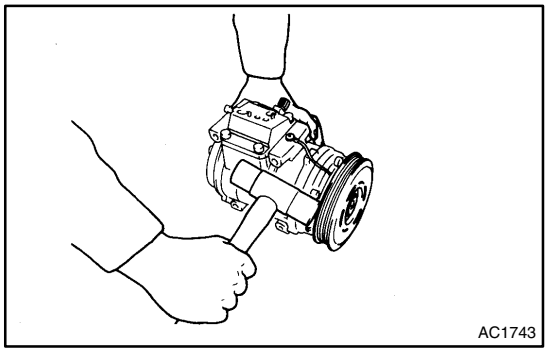
2. REMOVE ROTOR



(a) Using SST, remove the snap ring.
SST 07114–84020

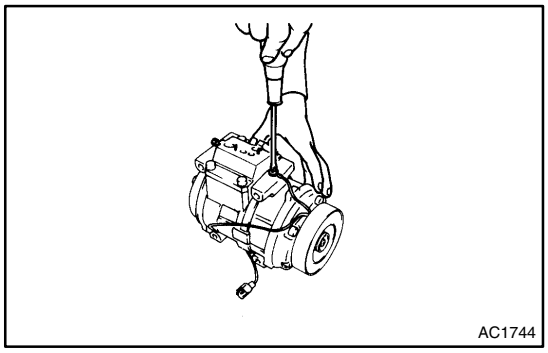


NOTICE:
At the time of reassembly, please refer to the following item.
The snap ring should be installed so that beveled side faces up.



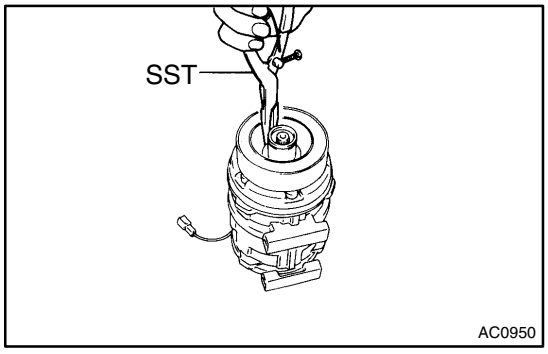
(b) Using a plastic hammer, tap the rotor off the shaft.

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

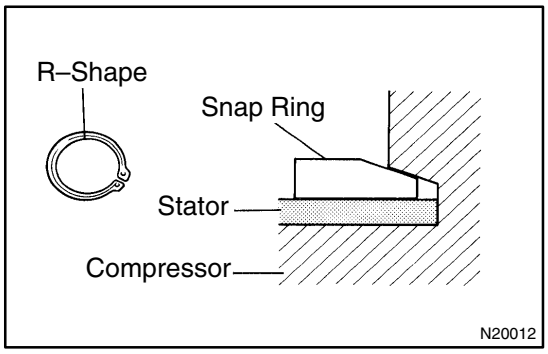


3. REMOVE STATOR

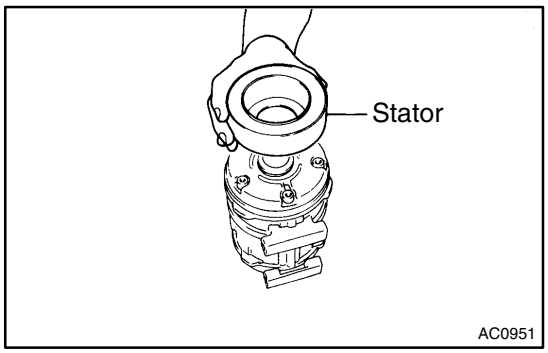
(a) Disconnect the stator lead wire from the compressor housing.



(b) Using SST, remove the snap ring.
SST 07114–84020



NOTICE:
At the time of reassembly, please refer to the following item.
The snap ring should be installed so that its beveled side faces up.

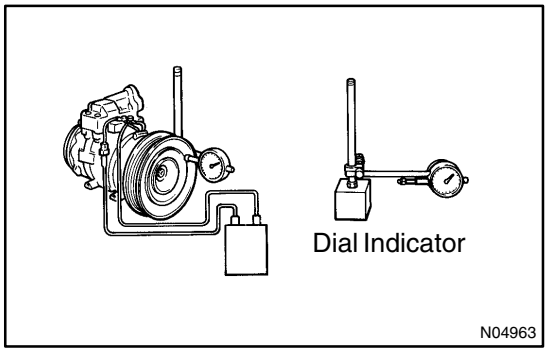


(c) Remove the stator.

AC1N3–01

REASSEMBLY

Reassembly is in the reverse order of disassembly (See page AC–47).



AFTER REASSEMBLY, CHECK MAGNETIC CLUTCH CLEARANCE

(a) Set the dial indicator to the pressure plate of the magnetic clutch.

(b) Connect the magnetic clutch lead wire to the positive (+) terminal of the battery.

(c) 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, adjust the clearance using shims to obtain the standard.

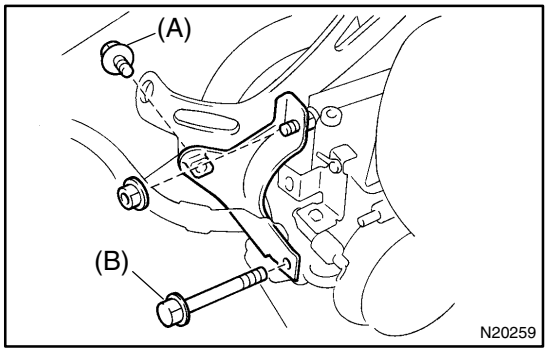
Shim thickness:
0.1 mm (0.004 in.)
0.3 mm (0.012 in.)
0.5 mm (0.020 in.)

AC1N4–01

INSTALLATION

1. INSTALL COMPRESSOR

(a) Install the compressor with 3 bolts.
Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)



(b) Install the generator drive belt adjusting bar bracket with 2 bolts and a nut.
Torque:
Bolt (A): 18 N·m (185 kgf·cm, 13 ft·lbf)
Bolt (B): 25 N·m (250 kgf·cm, 18 ft·lbf)
Nut: 25 N·m (250 kgf·cm, 18 ft·lbf)

2. INSTALL GENERATOR

(a) Mount generator on the generator bracket with the pivot bolt and adjusting lock bolt. Do not tighten the bolts yet.
(b) Connect the generator connector.
(c) Connect the generator wire with the nut.

3. CONNECT DISCHARGE AND SUCTION HOSES

Connect both hoses with the bolt and nut.
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

NOTICE:
Hoses should be connected immediately after the caps have been removed.

HINT:
Lubricate 2 new O–ring with compressor oil and install them to the tube.

4. INSTALL AND CHECK DRIVE BELT
(See page AC–17, AC–15)

5. CONNECT NEGATIVE (–) TERMINAL CABLE TO BATTERY

6. EVACUATE AIR FROM REFRIGERATION SYSTEM AND CHARGE WITH REFRIGERANT
Specified amount: 650 ± 50 g (22.92 ± 1.76 oz.)

7. INSPECT FOR LEAKAGE OF REFRIGERANT

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

8. INSPECT A/C OPERATION

CONDENSER

AC1N5–01

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.

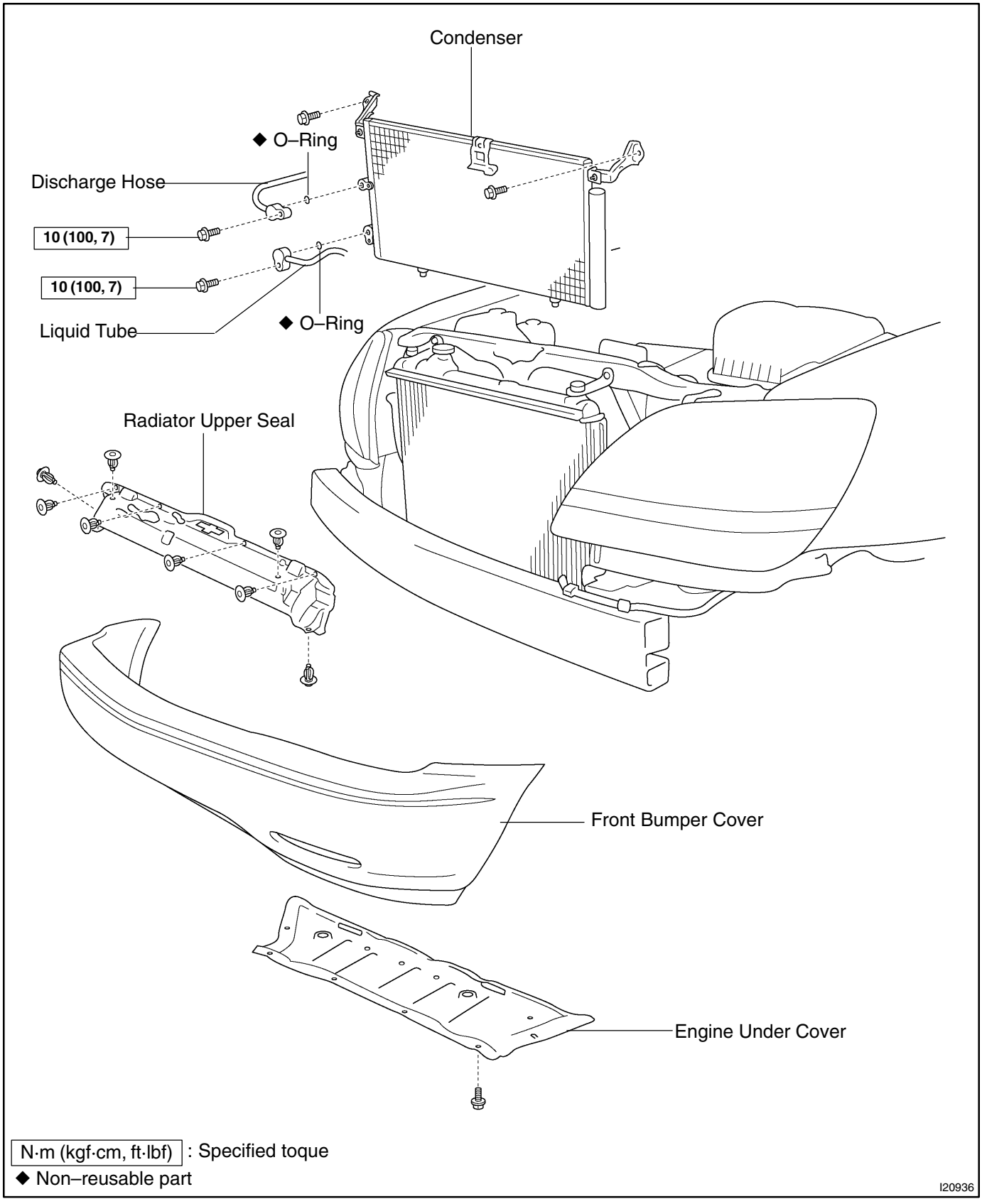
2. INSPECT CONDENSER AND FITTING FOR LEAKAGE

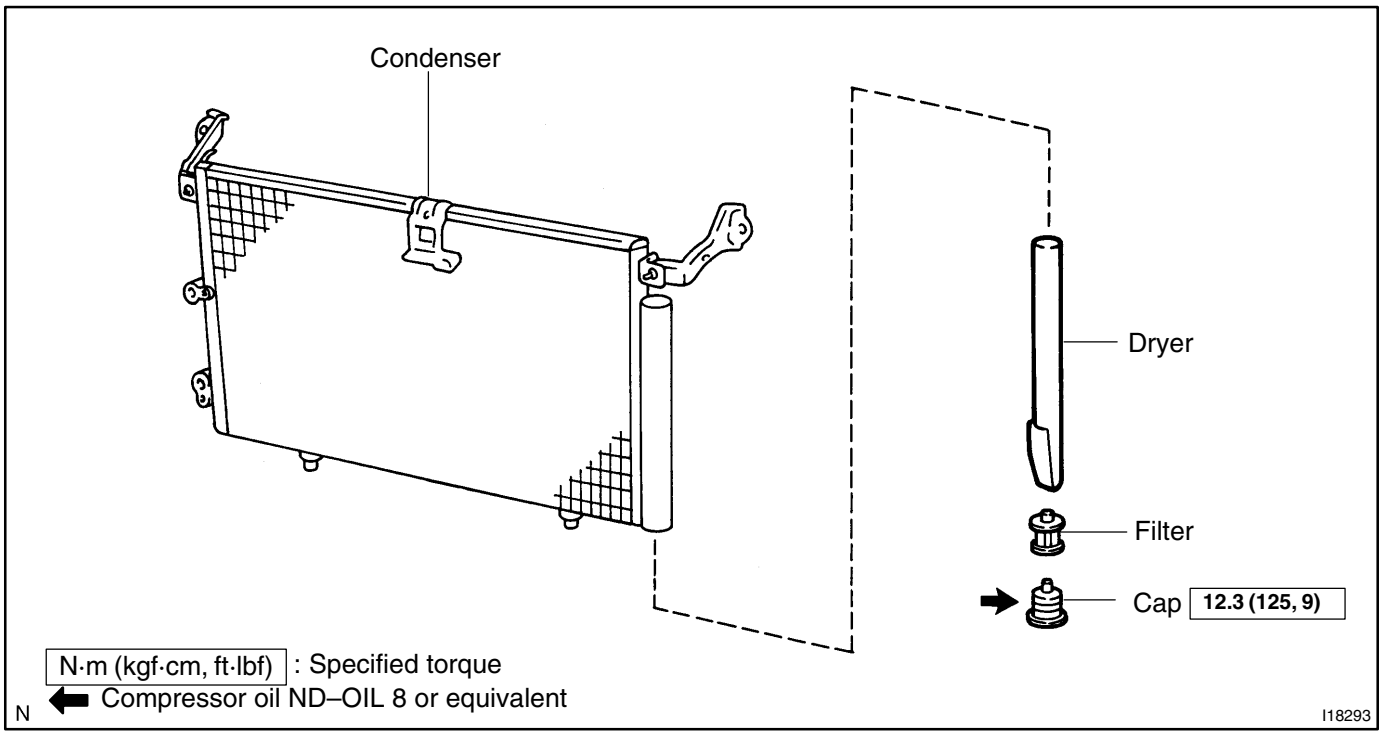
Using a gas leak detector, check for leakage of refrigerant.

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

AC3AS–01

COMPONENTS




Condenser
Dryer
Filter
Cap
12.3 (125, 9)
N·m (kgf·cm, ft·lbf) : Specified torque
Compressor oil ND–OIL 8 or equivalent
N
I18293

AC1N7–01

REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

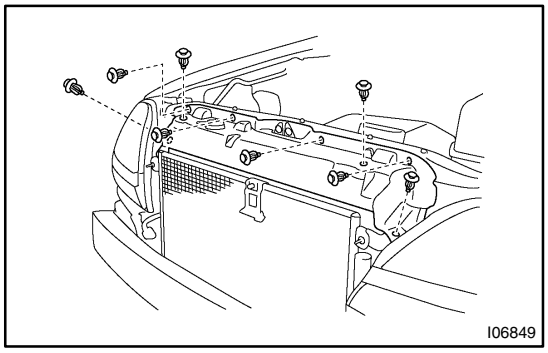
HINT:

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

Evacuate air from refrigeration system.

Charge system with refrigerant and inspect for leakage of refrigerant.

Specified amount : 650 ± 50 g (22.92 ± 1.76 oz.)

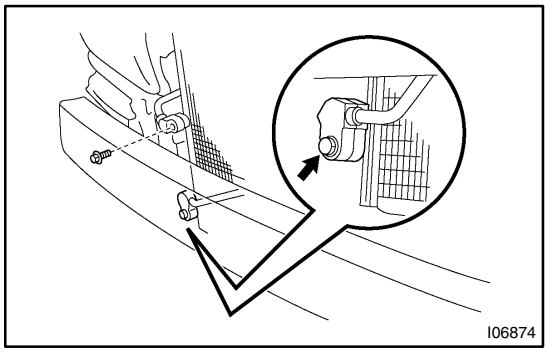


2. REMOVE RADIATOR UPPER SEAL

Remove the 7 clips and radiator upper seal.

3. REMOVE FRONT BUMPER

(See page BO–4)



4. DISCONNECT DISCHARGE HOSE AND LIQUID TUBE

Remove the 2 bolts and disconnect the hose and tube.

Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

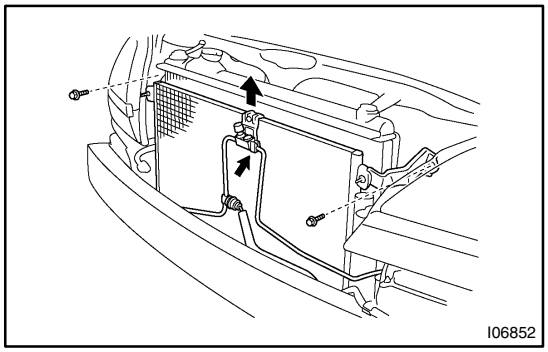
NOTICE:

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

HINT:

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

Lubricate 2 new O–rings with compressor oil and install them to the hose and tube.



5. REMOVE CONDENSER

(a) Disconnect the liquid tube piping clamp.

(b) Remove the 2 bolts and pull out the condenser upward.

HINT:

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

If condenser is replaced, add compressor oil to the condenser.

Add 40 cc (1.4 fl. oz)

Compressor oil: ND – OIL 8 or equivalent

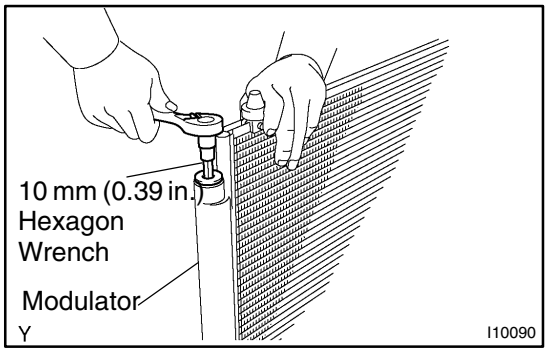
AC28K–05

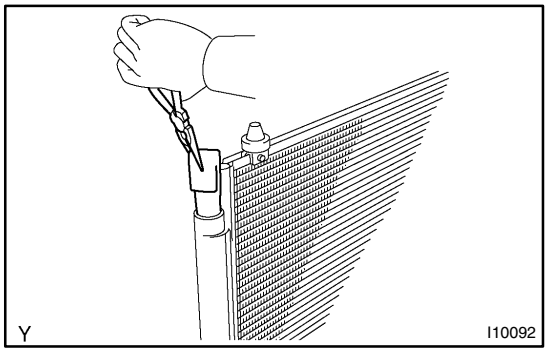
REPLACEMENT

REPLACE DRIER FROM MODULATOR

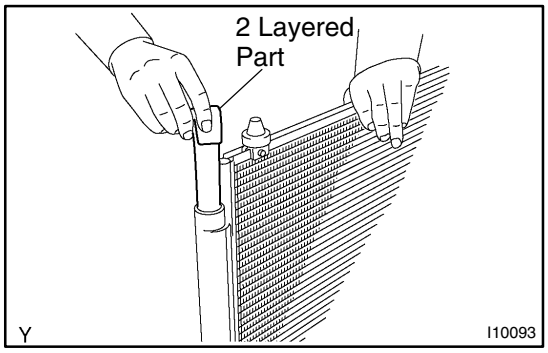
(a) Using a hexagon wrench (10 mm, 0.39 in.), remove the cap from the modulator.

(b) Remove the filter from the modulator.





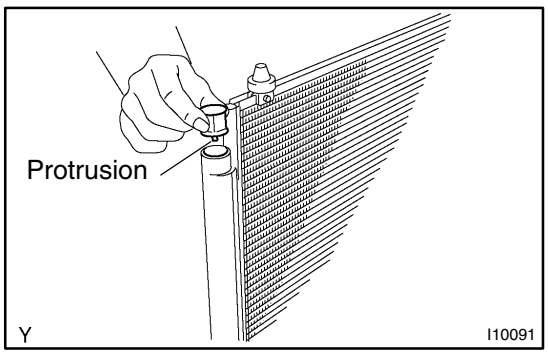
(c) Using pliers, remove the drier.



(d) Insert a new drier into the modulator.

NOTICE:

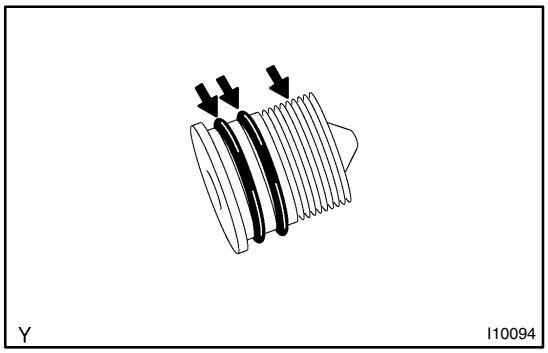
- **Do not remove the drier from a vinyl bag until inserting it into the modulator.**
- **Install the drier with its 2 layered part faced upward to the modulator.**



(e) Insert the filter into the modulator.

NOTICE:

Install the filter with its protrusion faced downward to the modulator.



(f) Install the cap to the modulator.

(1) Apply compressor oil to the O–rings and screw part of the cap.

Compressor oil: ND–OIL 8 or equivalent

(2) Using a hexagon wrench (10 mm, 0.39 in.), install the caps.

Torque: 12.3 N·m (125 kgf·cm, 9 ft·lbf)

AC1N8–01

INSTALLATION

Installation is in the reverse order of removal (See page AC–55).

EXPANSION VALVE

AC1N9–02

ON–VEHICLE INSPECTION

1. CHECK QUANTITY OF GAS DURING REFRIGERATION CYCLE

2. SET ON MANIFOLD GAUGE SET (See page AC–18)

3. RUN ENGINE

(a) Run the engine at 1,500 rpm for at least 5 minutes.

(b) Then check that the high pressure reading is 1.37 – 1.57 MPa (14 – 16 kgf/cm^2, 199 – 228 psi).

4. CHECK EXPANSION VALVE

If the expansion valve is faulty, the low pressure reading will drop to 0 kPa (0 kgf/cm^2, 0 psi).

HINT:

When the low pressure drops to 0 kPa (0 kgf/cm^2, 0 psi), check the receiver's IN and OUT sides for no temperature difference.

AC3AT–01

REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

HINT:

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

Evacuate air from refrigeration system.

Charge system with refrigerant and inspect for leakage of refrigerant.

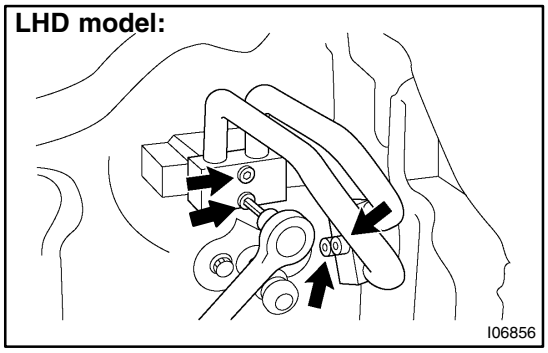
Specified amount: 650 ± 50 g (22.92 ± 1.76 oz.)

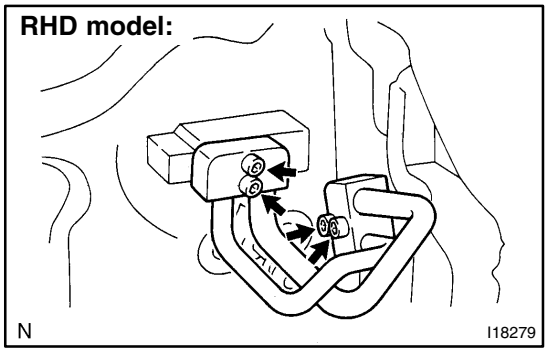
2. REMOVE INSTRUMENT PANEL

(See page BO–126)

3. RHD model:

REMOVE BLOWER UNIT (See page BO–126)





4. REMOVE EXPANSION VALVE

(a) Pry out the packings.

HINT:

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

Do not reuse the packings.

(b) Using a hexagon wrench (5.0 mm, 0.20 in.), remove the 4 bolts and tube and accessary.

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

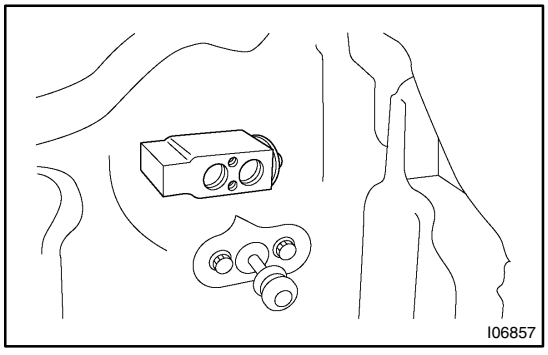
NOTICE:

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

HINT:

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

Lubricate 4 new O–rings with compressor oil and install them to the tubes.



(c) Remove the expansion valve from tube connector.

NOTICE:

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

HINT:

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

Lubricate 2 new O–rings with compressor oil and install them to the tubes.

AC1NB–01

INSTALLATION

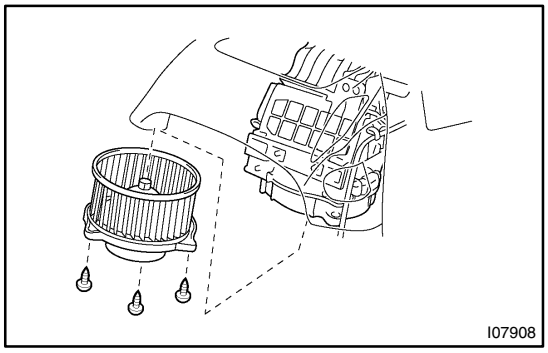
Installation is in the reverse order of removal (See page AC–59).

BLOWER MOTOR

AC1NC–02

INSPECTION

1. **REMOVE NO.2 UNDER COVER**
   (See page BO–126)



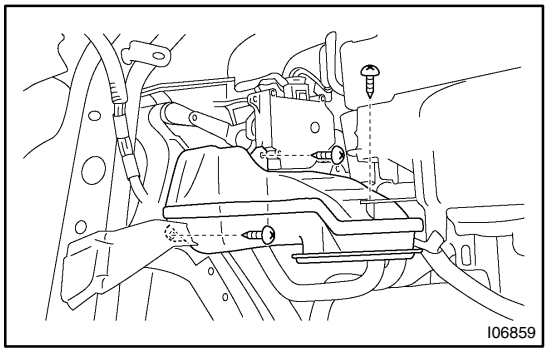
2. **REMOVE BLOWER MOTOR**
(a) Disconnect the connector.
(b) Remove the 3 screws and blower motor.
3. **INSPECT BLOWER MOTOR OPERATION**
   (See page DI–852)
4. **INSTALL BLOWER MOTOR**
(a) Install the blower motor with 3 screws.
(b) Connect the connector.
5. **INSTALL NO.2 UNDER COVER**

AIR MIX SERVOMOTOR

AC3AU–01

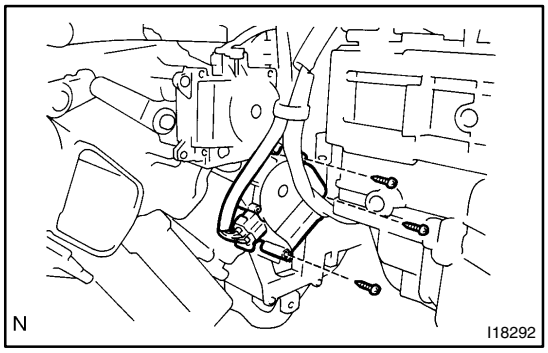
INSPECTION

1. **REMOVE COWL SIDE TRIM RH**
2. **REMOVE FRONT DOOR SCUFF PLATE RH**
3. **REMOVE NO. 2 UNDER COVER**
4. **REMOVE LOWER NO. 2 PANEL**



5. **REMOVE AIR MIX SERVOMOTOR**

(a) Remove the 3 screws and air duct.



(b) Remove the 3 screws and servomotor.

6. **INSPECT AIR MIX SERVOMOTOR OPERATION (See page DI–847)**
7. **INSPECT AIR MIX DAMPER POSITION SENSOR (See page DI–838)**
8. **INSTALL AIR MIX SERVOMOTOR**
9. **INSTALL AIR DUCT**
10. **INSTALL THESE PARTS:**

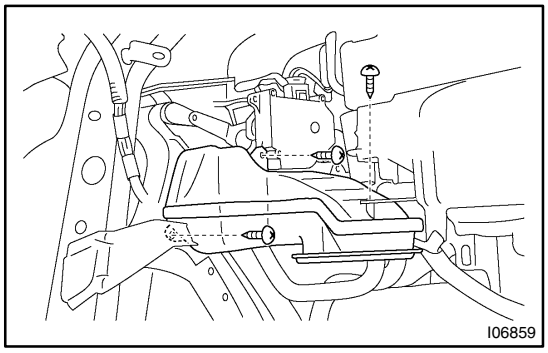
(a) Lower No. 2 panel
(b) No. 2 under cover
(c) Front door scuff plate RH
(d) Cowl side trim RH

AIR OUTLET SERVOMOTOR

AC1ND–02

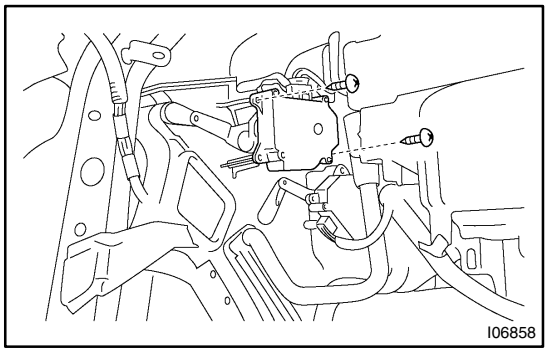
INSPECTION

1. **REMOVE COWL SIDE TRIM RH**
2. **REMOVE FRONT DOOR SCUFF PLATE RH**
3. **REMOVE NO. 2 UNDER COVER**
4. **REMOVE LOWER NO. 2 PANEL**



5. **REMOVE AIR OUTLET SERVOMOTOR**

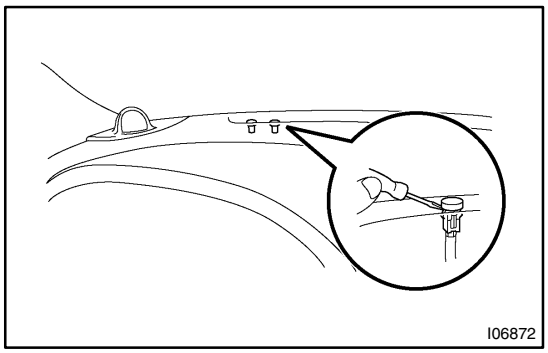
(a) Remove the 3 screws and air duct.



(b) Remove the 2 screws and servomotor.

6. **INSPECT AIR OUTLET SERVOMOTOR OPERATION (See page DI–847)**
7. **INSPECT AIR OUTLET DAMPER POSITION SENSOR (See page DI–838)**
8. **INSTALL AIR OUTLET SERVOMOTOR**
9. **INSTALL AIR DUCT**
10. **INSTALL THESE PARTS:**

(a) Lower No. 2 panel
(b) No. 2 under cover
(c) Front door scuff plate RH
(d) Cowl side trim RH



SOLAR SENSOR

AC1NE–02

INSPECTION

1. REMOVE SOLAR SENSOR

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

HINT:

Tape the screwdriver tip before use.

2. INSPECT SOLAR SENSOR CIRCUIT
(See page DI–823)

3. INSTALL SOLAR SENSOR

(a) Connect the connector.

(b) Insert the to the instrument panel.

ROOM TEMPERATURE SENSOR

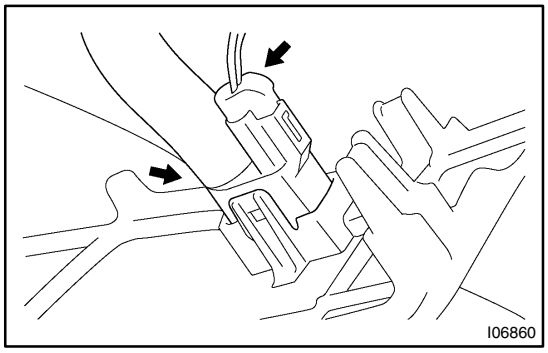
AC1NF–02

INSPECTION

1. REMOVE THESE PARTS:

(a) Front door scuff plate LH

(b) Cowl side trim LH



2. REMOVE ROOM TEMPERATURE SENSOR

(a) Remove the 2 lower finish panel set bolts.

(b) Pull out the lower finish panel.

(c) Disconnect the connector and aspirator hose.

(d) Release the 2 claws and pull out the sensor.

3. INSPECT ROOM TEMPERATURE SENSOR CIRCUIT (See page DI–814)

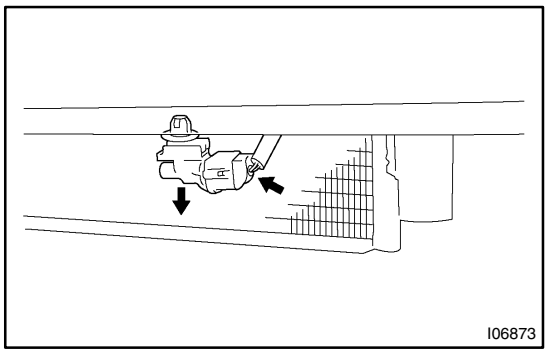
4. INSTALL ROOM TEMPERATURE SENSOR

5. INSTALL LOWER FINISH PANEL

6. INSTALL THESE PARTS:

(a) Cowl side trim LH

(b) Front door scuff plate LH



AMBIENT TEMPERATURE SENSOR

AC1NG–02

INSPECTION

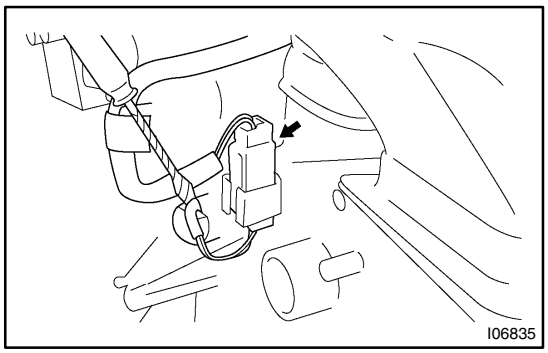
1. REMOVE AMBIENT TEMPERATURE SENSOR

(a) Disconnect the connector.

(b) Using a clip remover, pull out the sensor from front bumper reinforcement.

2. INSPECT AMBIENT TEMPERATURE SENSOR (See page DI–817)

3. INSTALL AMBIENT TEMPERATURE SENSOR



EVAPORATOR TEMPERATURE SENSOR

AC3AV–01

INSPECTION

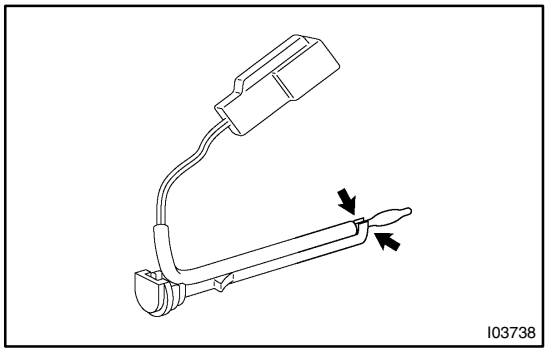
1. REMOVE EVAPORATOR TEMPERATURE SENSOR

(a) Disconnect the connector and connector clamp.

(b) Using a screwdriver, pull out the sensor.

HINT:

Tape the screwdriver tip before use.



(c) Release the 2 claws and remove the sensor from bracket plate.

2. INSPECT EVAPORATOR TEMPERATURE SENSOR (See page DI–820)

3. INSTALL EVAPORATOR TEMPERATURE SENSOR

4. INSTALL INSTRUMENT PANEL

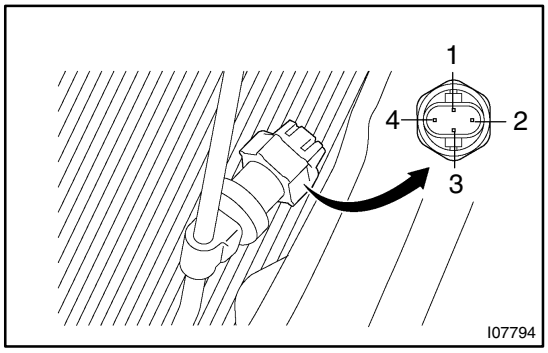
PRESSURE SWITCH

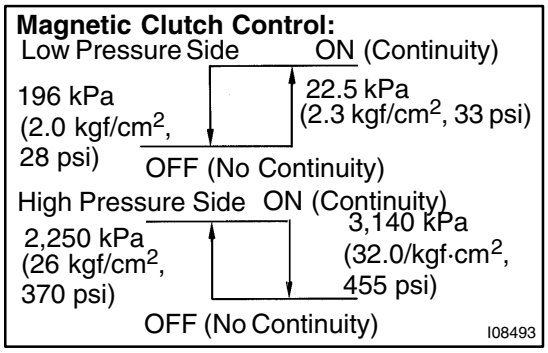
AC3AW–01

ON–VEHICLE INSPECTION

1. **SET VEHICLE IN THESE CONDITION**
2. **RUNNING ENGINE AT 1,500 rpm**
3. **BLOWER SPEED CONTROL SWITCH AT "HI" POSITION**
4. **TEMPERATURE CONTROL DIAL AT "MAX. COOL" POSITION**
5. **SET ON MANIFOLD GAUGE SET**
6. **INSPECT PRESSURE SWITCH OPERATION**

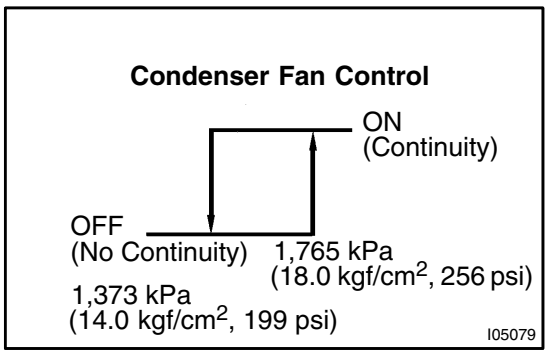
(a) Disconnect the connector.





(b) Inspect pressure switch continuity
(Magnetic Clutch Control)
   (1) Connect the positive (+) lead from the ohmmeter to terminal 4 and the negative (–) lead to terminal 1.
   (2) Check continuity between terminals when refrigerant pressure is changed, as shown in the illustration.

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



(c) Inspect pressure switch continuity
(Condenser Fan Control)
   (1) Connect the positive (+) lead from the ohmmeter to terminal 2 and the negative (–) lead to terminal 3.
   (2) Check continuity between terminals when refrigerant pressure is changed, as shown in the illustration.

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

AC1NJ–01

REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

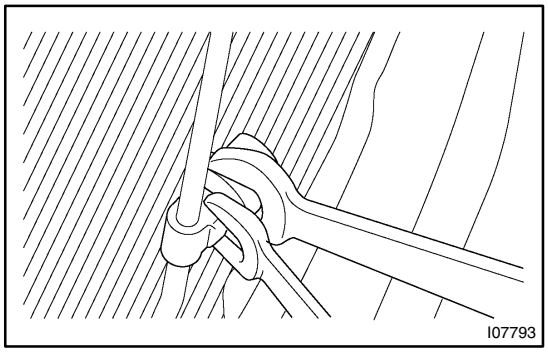
HINT:

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

Evacuate air from refrigeration system.

Charge system with refrigerant and inspect for leakage of refrigerant.

Specified amount: 650 ± 50 g (22.92 ± 1.76 oz.)



2. 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:

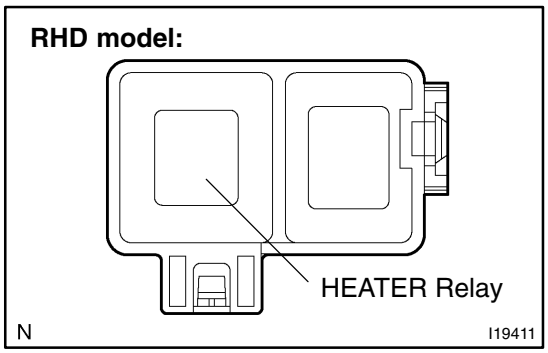
- Lock the switch mount on the tube with an open end wrench, being careful not to deform the tube, and remove the switch.
- At the time of installation, please refer to the following item.

  Lubricate a new O–ring with the compressor oil and install the switch.

AC1NK–01

INSTALLATION

Installation is in the reverse order of removal (See page AC–69).

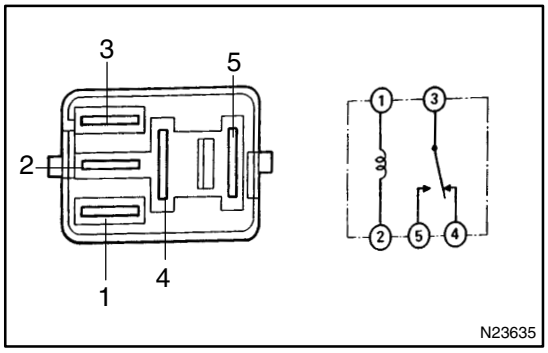


HEATER MAIN RELAY

AC3AX–01

INSPECTION

1. **LHD model:**
   REMOVE LOWER FINISH PANEL
2. **RHD model:**
   REMOVE NO. 2 LOWER PANEL
3. **REMOVE HEATER MAIN RELAY**

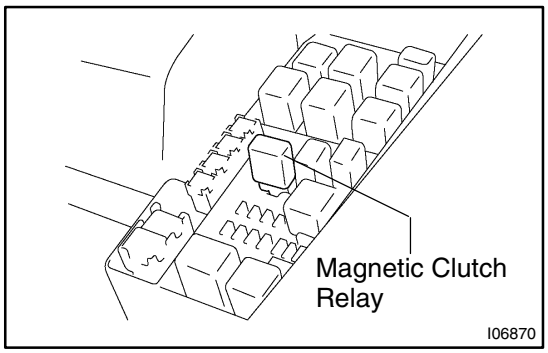


4. **INSPECT HEATER MAIN RELAY CONTINUITY**

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

If continuity is not as specified, replace the relay.

5. **LHD model:**
   INSTALL LOWER FINISH PANEL
6. **RHD model:**
   INSTALL NO. 2 LOWER PANEL

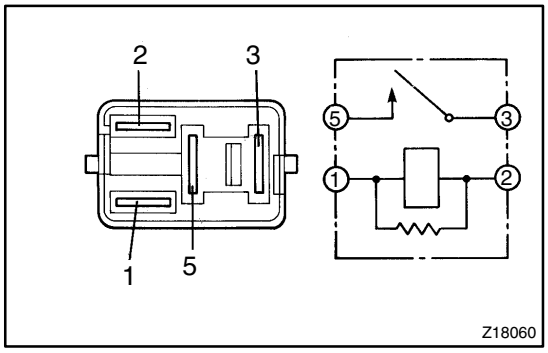


MAGNETIC CLUTCH RELAY

AC1NM–01

INSPECTION

1. REMOVE MAGNETIC CLUTCH RELAY (Marking : MG CLT) FROM ENGINE ROOM JUNCTION BLOCK

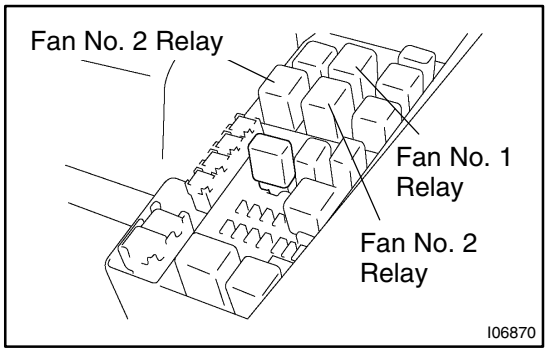


2. INSPECT MAGNETIC CLUTCH RELAY (Marking : MG CLT) CONTINUITY

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

If continuity is not as specified, replace the relay.

3. INSTALL MAGNETIC CLUTCH RELAY TO ENGINE ROOM JUNCTION BLOCK

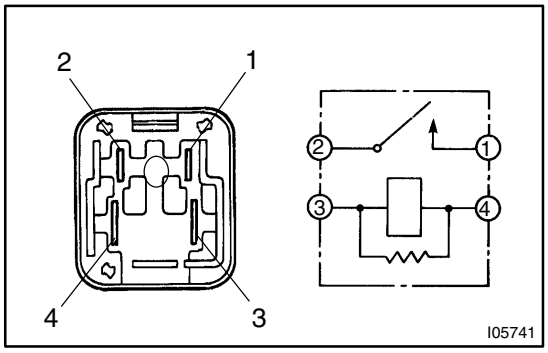


COOLING FAN RELAY

AC3AY–01

INSPECTION

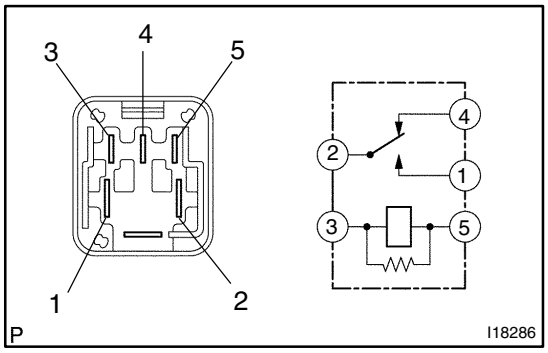
1. REMOVE RELAY



2. INSPECT FAN NO. 1, 3 RELAY CONTINUITY

Condition	Tester connection	Specified condition
Constant	3 – 4	Continuity
Apply B + between terminals 3 and 4.	1 – 2	No Continuity

If continuity is not as specified, replace the relay.



3. INSPECT FAN NO. 2 RELAY CONTINUITY

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

If continuity is not as specified, replace the relay.

CONDENSER FAN

AC1NN–02

ON–VEHICLE INSPECTION

1. INSPECT CONDENSER FAN OPERATION

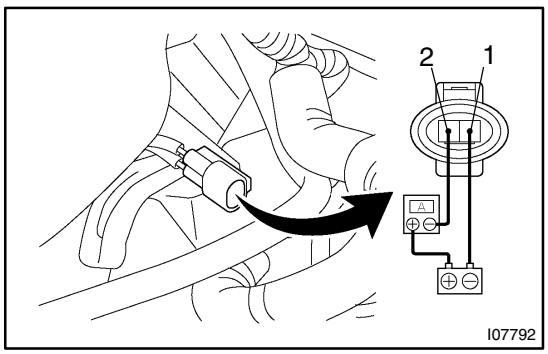
Inspect the fan operation in these conditions, as shown in the chart below.

Test conditions:

- Start engine
- Blower speed control switch position ”HI”
- Temperature control dial at ”COOL” position
- Set manifold gauge set
- A/C switch ON

Condition	Fan operation (Fan speed)
Engine coolant temperature 90 °C (194 °F) or below	Rotate (Low speed)
Engine coolant temperature 95 °C (203 °F) or above	Rotate (High speed)
Refrigerant pressure is less than 1,520 kPa (15.5 kgf/cm^2, 220 psi)	Rotate (Low speed)
Refrigerant pressure is 1,520 kPa (15.5 kgf/cm^2, 220 psi) or above	Rotate (High speed)

If operation is not as specified, proceed to the next inspection.



2. INSPECT CONDENSER FAN MOTOR OPERATION

(a) Disconnect the fan connector.

(b) Connect battery and ammeter to the fan connector, as shown in the illustration.

(c) Check that the fan rotates smoothly and check the reading on the ammeter.

Specified amperage: 9.8 ± 1.5 A at 20 °C (68 °F)

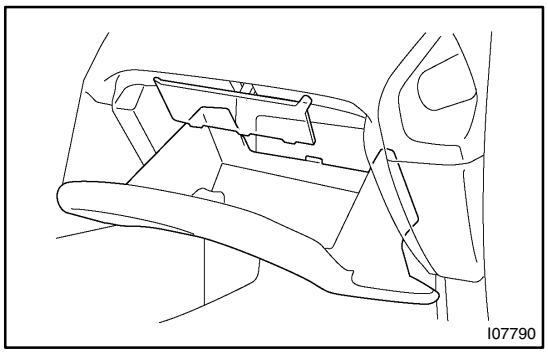
If operation is not as specified, replace the fan motor (See page CO–26).

If operation is as specified, check the pressure switch, cooling fan relays and water temp. switch (See page CO–33, CO–34).

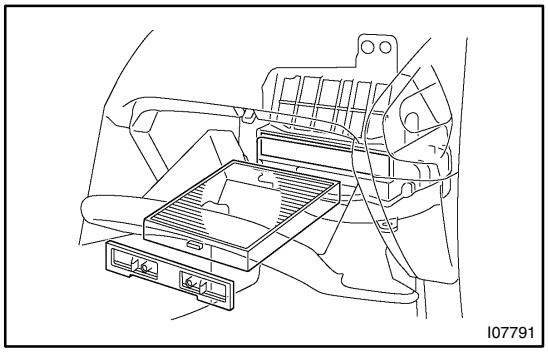
AIR REFINER FILTER

AC1NR–01

REPLACEMENT



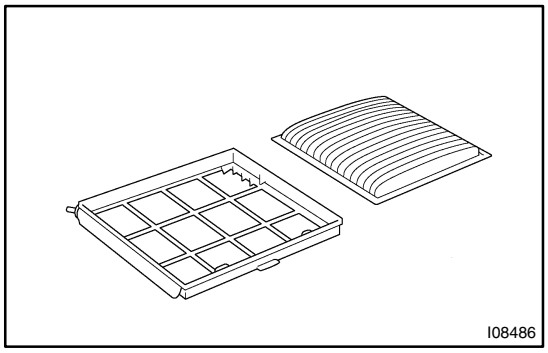
1. REMOVE LOWER COVER FROM LOWER NO.2 FINISH PANEL



2. REMOVE AIR REFINER FILTER

(a) Remove the filter cover.

(b) Pull out the filter.



(c) Remove the filter from the flame.

3. INSTALL NEW FILTER

(a) Install the new filter to the flame.

(b) Install the filter to blower unit.

(c) Install the filter cover.

4. INSTALL LOWER COVER TO LOWER NO.2 FINISH PANEL