
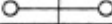



INSPECTION OF SWITCH

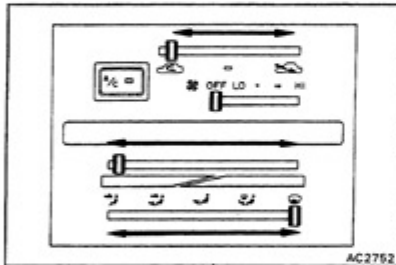
INSPECT SWITCH CONTINUITY

| | | | |
|---|-----------------|---|---|
|  | Terminal | 2 | 3 |
| | Switch position | | |
| | OFF | | |
| | ON |  |  |

If continuity is not as specified, replace the switch.

INSTALLATION OF SWITCH

1. INSTALL A/C SWITCH
2. CONNECT NEGATIVE CABLE TO BATTERY

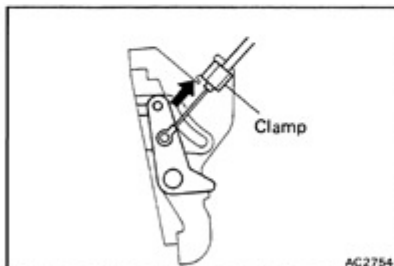


A/C Control Levers

INSPECTION OF A/C CONTROL LEVERS

INSPECT A/C CONTROL LEVERS OPERATION

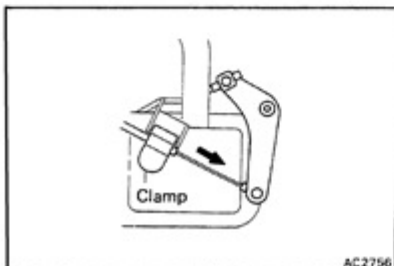
Move the control levers left and right, and check for stiffness and binding through the full range of the levers.



ADJUSTMENT OF A/C CONTROL CABLES

1. ADJUST AIR INLET DAMPER CONTROL CABLE

Set the air inlet damper and the control lever to "FRESH" position, install the control cable and lock the clamp.

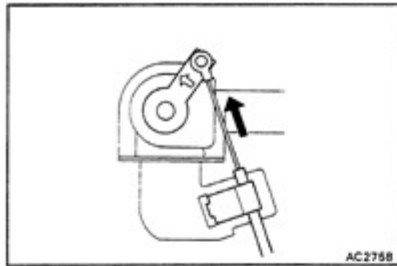


2. ADJUST AIR MIX DAMPER CONTROL CABLE

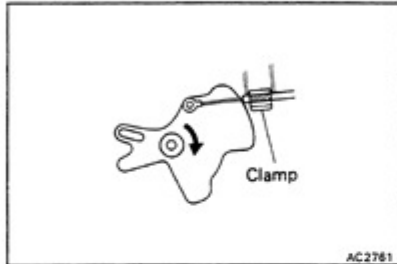
Set the air mix damper and the control lever to "COOL" position, install the control cable and lock the clamp.

AC-34

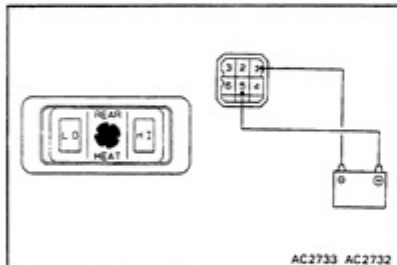
AIR CONDITIONING - A C Control Assembly Rear Heater Switch

**3. ADJUST WATER VALVE CONTROL CABLE**

Set the water valve and the control lever to "COOL" position, install the control cable and lock the clamp.

**4. ADJUST MODE DAMPER CONTROL CABLE**

- Set the mode damper and the control lever to "DEF" position.
- Clamp the white section of the control cable and install the cable to damper control lever.



REAR HEATER SWITCH INSPECTION OF SWITCH

1. INSPECT INDICATOR

- Connect the positive (+) lead from the battery to terminal 5 and the negative (-) lead to terminal 1.
- Push each of the rear heater switch knob in and check that their indicators light up.

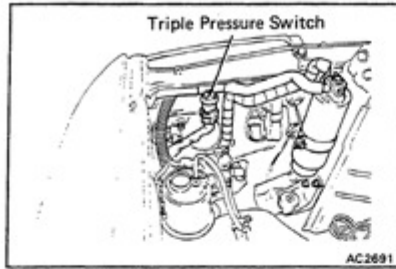
If indicator operation is not as specified, replace the switch.

2. INSPECT SWITCH CONTINUITY

| Terminal Switch position | 1 | 2 | 4 | 5 | illumination | |
|-----------------------------|---|---|---|---|--------------|---|
| | | | | | 3 | 6 |
| HI | ○ | — | ○ | | | |
| OFF | | | | | | |
| LO | ○ | ○ | | | | |

AC2733 S-6-2-8

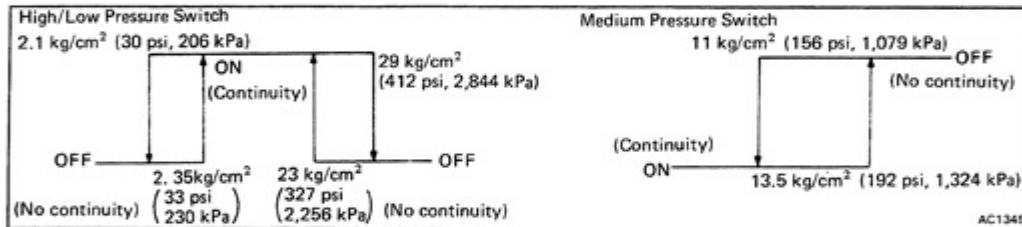
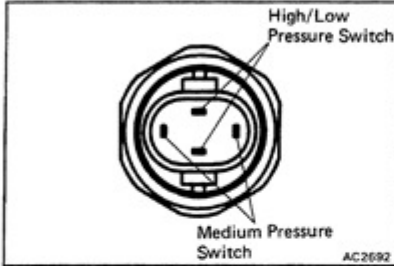
If continuity is not as specified, replace the switch.



TRIPLE PRESSURE SWITCH

ON-VEHICLE INSPECTION

1. DISCONNECT CONNECTOR OF PRESSURE SWITCH
2. INSPECT PRESSURE SWITCH
 - (a) Install the manifold gauge set.
 - (b) Observe the gauge reading.
 - (c) Check the continuity between the two terminals of the pressure switch shown in the below.



If defective, replace the pressure switch.

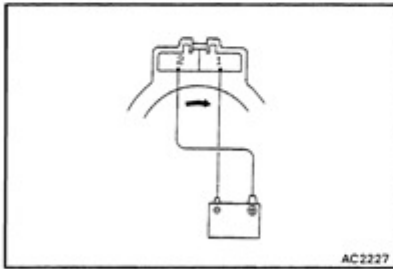
BLOWER MOTORS

Front A/C Blower Motor

INSPECTION OF BLOWER MOTOR

INSPECT BLOWER MOTOR OPERATION

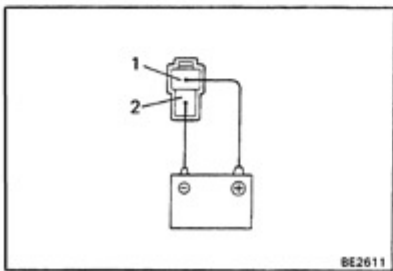
Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, then check that the motor operation is smooth.



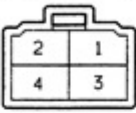

Rear Heater Blower Motor

INSPECTION OF BLOWER MOTOR

Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, then check that the motor operation is smooth.









BLOWER RESISTORS**Front A/C Blower Resistor****INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | |
|--|-----------|--|---|---|---|
|  H-4-2 | Terminal | 1 | 3 | 2 | 4 |
| | Condition | | | | |
| | Constant |  | | | |

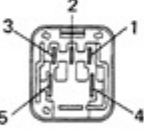




If continuity is not as specified, replace the blower resistor.

Rear Heater Blower Resistor**INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | | | |
|--|--|-----------|---|--|-----|---|---|
| Connector "A" | Connector "B" | Terminal | A-1 | A-2 | A-3 | B-1 | B-2 |
|  H-3-2 |  H-2-2 | Condition | | | | | |
| | | Constant |  |  | |  |  |

If continuity is not as specified, replace the blower resistor.

HEATER RELAY**INSPECTION OF RELAY****INSPECT RELAY CONTINUITY**

| | | | | | | |
|--|-----------|---|---|---|---|---|
|  BE1850 BE1844 | Terminal | 1 | 2 | 3 | 4 | 5 |
| | Condition | | | | | |
| | Constant |  |  |  | | |
| Apply battery voltage to terminals 1 and 3. | | | | |  | |

If continuity is not as specified, replace the relay.

REAR HEATER RELAY**INSPECTION OF RELAY**

Check the relay the same way as for the heater relay on page [AC-36](#).

4. **EVACUATE AIR IN REFRIGERATION SYSTEM AND CHARGE WITH REFRIGERANT**
Specified amount: 900 f 50 g (31.74 i 1.76 oz)
5. **INSPECT FOR LEAKAGE OF REFRIGERANT**
Using a gas leak tester, check for leakage of refrigerant.
6. **INSPECT AIR CONDITIONER OPERATION**

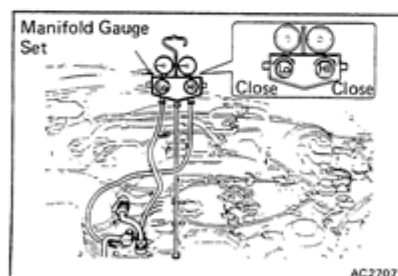
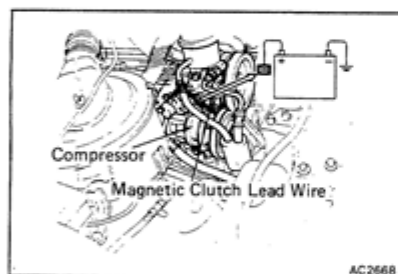
COMPRESSOR

ON-VEHICLE INSPECTION

(Magnetic Clutch)

INSPECT MAGNETIC CLUTCH FOR FOLLOWING

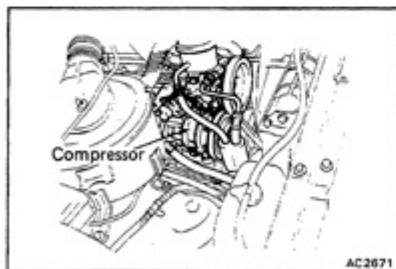
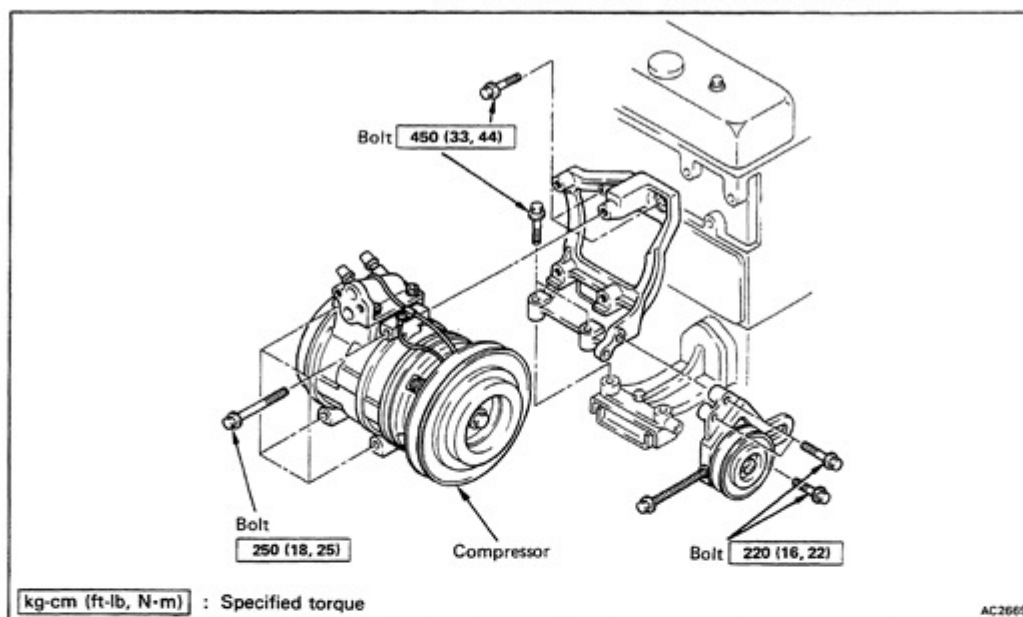
- (a) Inspect the pressure plate and the rotor for signs of oil.
- (b) Check the clutch bearings for noise and grease leakage.
- (c) Connect the positive (+) lead from the battery to the terminal on the magnetic clutch connector and the negative (-) lead to the body ground.
- (d) Check that the magnetic clutch is energized.
If the magnetic clutch is not energized, replace the magnetic clutch.



(Compressor)

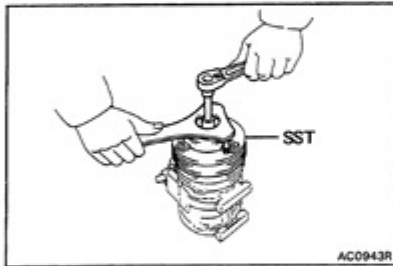
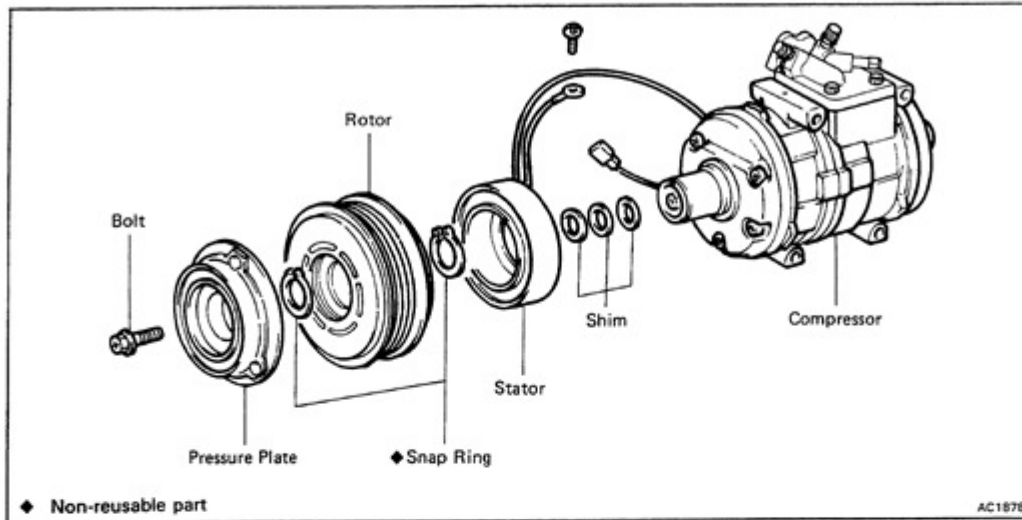
1. **INSTALL MANIFOLD GAUGE SET**
See page [AC-14](#)
2. **RUN ENGINE AT APPROX. 2,000 RPM**
3. **INSPECT COMPRESSOR FOR FOLLOWING**
 - (a) High pressure gauge reading is not lower and low pressure gauge reading is not higher than normal.
 - (b) Check that the metallic sound.
 - (c) Check that the leakage from shaft seal.
 If defects are found, replace the compressor.

REMOVAL OF COMPRESSOR

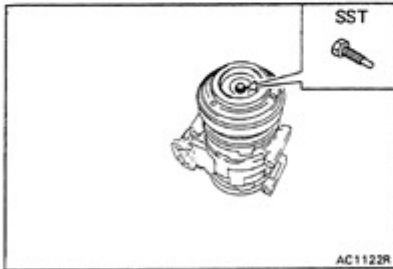


1. RUN ENGINE AT IDLE SPEED WITH A/C ON FOR TEN MINUTES
2. STOP ENGINE
3. DISCONNECT NEGATIVE CABLE FROM BATTERY
4. REMOVE UNDER COVER
5. DISCONNECT CONNECTOR FROM MAGNETIC CLUTCH
6. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM
7. DISCONNECT TWO HOSES FROM COMPRESSOR SERVICE VALVES

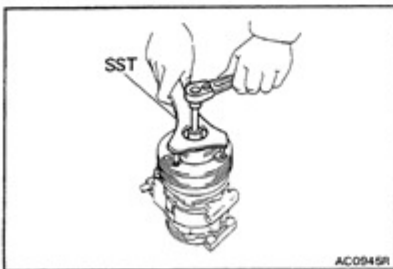
Cap the open fitting immediately to keep moisture and dust out of the system.

DISASSEMBLY OF MAGNETIC CLUTCH**1. REMOVE PRESSURE PLATE**

- (a) Using SST and a socket, remove the shaft bolt.
SST 07112-76060



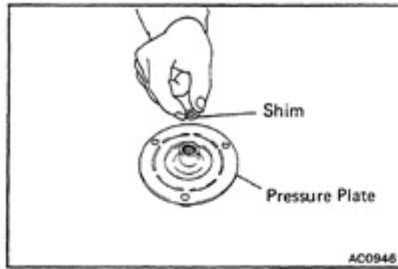
- (b) Install SST to the pressure plate.
SST 07112-66040



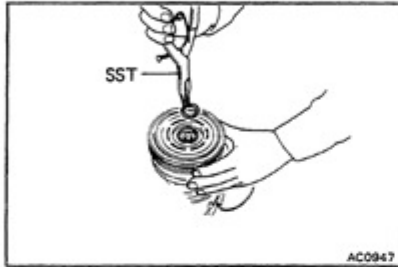
- (c) Using SST and a socket, remove the pressure plate.
SST 07112-76060

AC-20

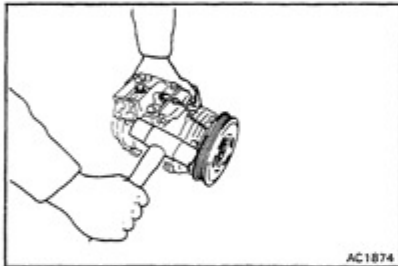
AIR CONDITIONING - Compressor



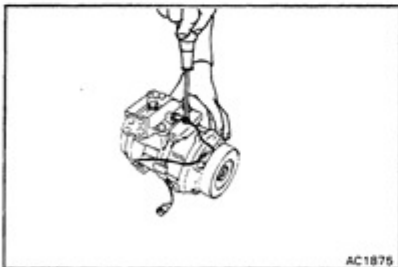
- (d) Remove the shims from the pressure plate.

**2. REMOVE ROTOR**

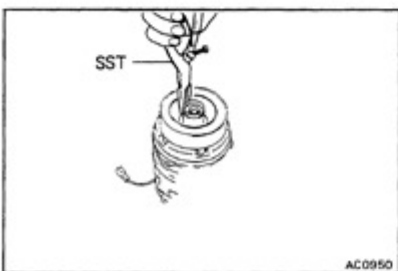
- (a) Using SST, remove the snap ring.
SST 07114-84020



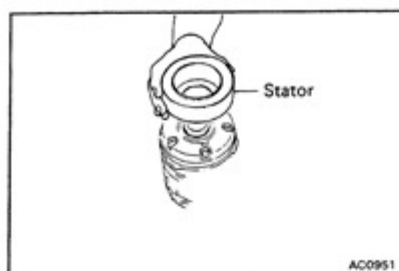
- (b) Using a plastic hammer, tap the rotor off the shaft.
NOTICE: Be careful not to damage the pulley when tapping on the rotor.

**3. REMOVE STATOR**

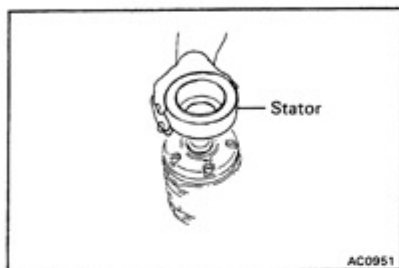
- (a) Disconnect the stator lead wire from the compressor housing.



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



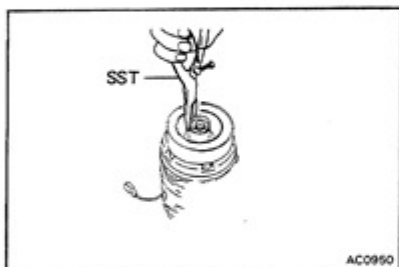
(c) Remove the stator.



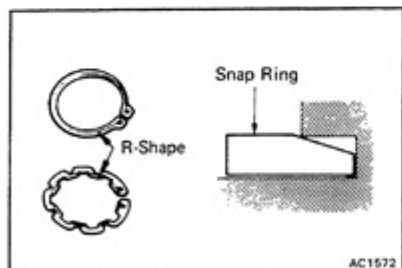
ASSEMBLY OF MAGNETIC CLUTCH

1. INSTALL STATOR

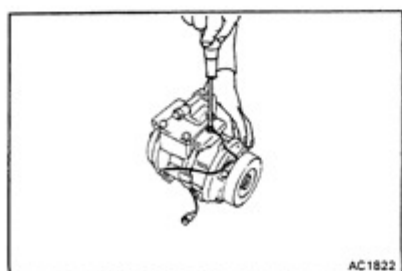
(a) Install the stator on the compressor.



(b) Using a SST, install the new snap ring.
SST 07114-84020



NOTICE: The snap ring should be installed so that its beveled side faces up.



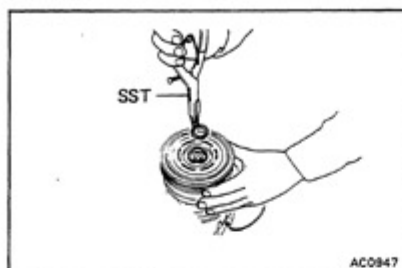
(c) Using a SST and torque wrench, fasten the magnetic clutch lead wire to the cylinder block.

Torque: 35 kg-cm (30 in.-lb, 3.4 N-m)

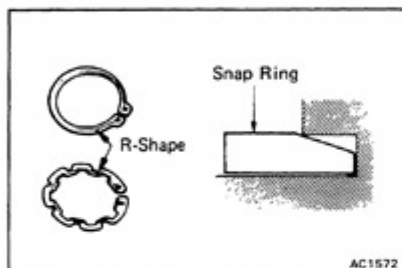
SST 07110-61050

AC-22

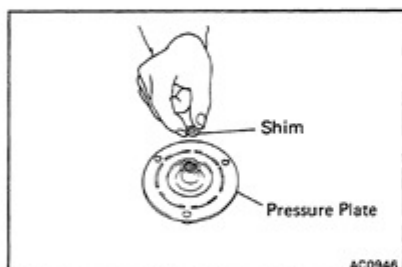
AIR CONDITIONING - Compressor

**2. INSTALL ROTOR**

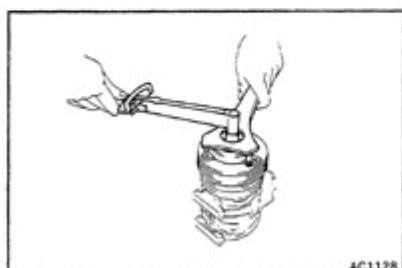
- (a) Install the rotor on the compressor shaft.
- (b) Using a SST, install the new snap ring.
SST 07114-84020



NOTICE: The snap ring should be installed so that its beveled side faces up.

**3. INSTALL PRESSURE PLATE**

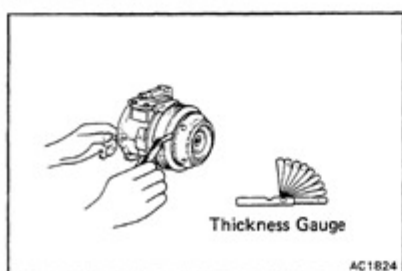
- (a) Put the shims on the pressure plate.



- (b) Using a SST and torque wrench, install the shaft bolt.

SST 07112-76060

Torque: 135 kg-cm (9.8 ft-lb, 13 N-m)

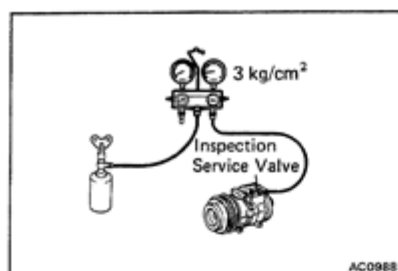
**4. CHECK CLEARANCE OF MAGNETIC CLUTCH**

Check the clearance between the pressure plate and rotor using thickness gauge.

Standard clearance: 0.5 ± 0.15 mm

(0.020 ± 0.0059 in.)

If the clearance is not within tolerance, change the number of shims to obtain the standard clearance.



PERFORMANCE TEST OF COMPRESSOR

1. PERFORM GAS LEAKAGE TEST

- (a) Install the inspection service valve on the service valve .

HINT: Use only a TOYOTA supplied inspection service valve to perform the gas leakage test.

Part No. Suction side 88376-17020

Discharge side 88376-22020

- (b) Charge the compressor with refrigerant through the charge valve until the pressure is 3 kg/cm² (43 psi, 294 kPa) .
- (c) Using a gas leak tester, check the compressor for leaks.

If leaks are found, check and replace the compressor.

2. EVACUATE COMPRESSOR AND CHARGE WITH REFRIGERANT

Make sure the caps are tight and the compressor is free from moisture and contamination.

HINT: When storing a compressor for an extended period, charge the compressor with refrigerant or dry nitrogen gas to prevent corrosion.

INSTALLATION OF COMPRESSOR

(See page AC-18)

1. INSTALL COMPRESSOR WITH THREE MOUNTING BOLTS

Torque: 280 kg-cm (20 ft-lb, 27 N-m)

2. INSTALL DRIVE BELT

(See page AC-15)

3. CONNECT TWO HOSES TO COMPRESSOR SERVICE VALVES

Torque: Discharge line 250 kg-cm (18 ft-lb, 25 N-m)

Suction line 250 kg-cm (18 ft-lb, 25 N-m)

4. CONNECT CLUTCH LEAD WIRE TO WIRING HARNESS

5. CONNECT NEGATIVE CABLE TO BATTERY

6. EVACUATE AIR FROM AIR CONDITIONING SYSTEM

7. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT AND CHECK FOR GAS LEAKAGE

Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)

CONDENSER

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 FITTINGS FOR LEAKAGE

Repair as necessary.

REMOVAL OF CONDENSER

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

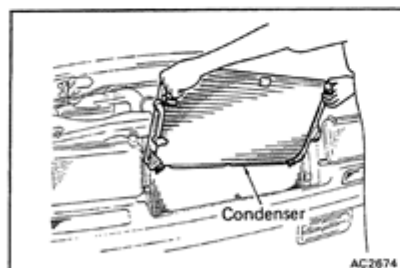
2. DISCONNECT NEGATIVE CABLE FROM BATTERY

3. REMOVE FOLLOWING COMPONENTS

- (a) Hood lock brace
- (b) Center brace

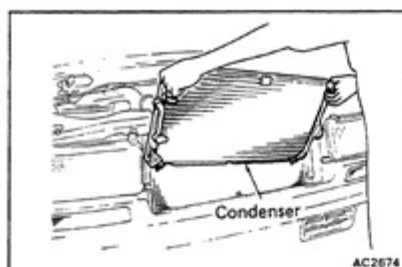
4. DISCONNECT DISCHARGE HOSE AND LIQUID TUBE

HINT: Cap the open fittings immediately to keep moisture out of system.



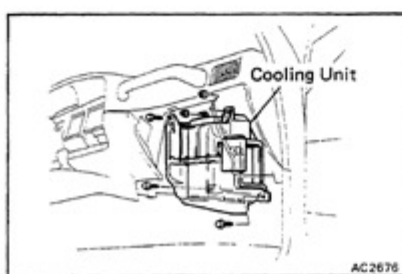
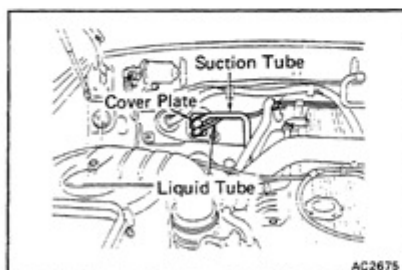
5. REMOVE CONDENSER

- (a) Remove two bolts.
- (b) Pull out the condenser between the radiator and the body.



INSPECTION OF CONDENSER

1. **INSTALL CONDENSER**
Put in the condenser between the radiator and the body.
Then, tighten two bolts.
2. **CONNECT DISCHARGE HOSE AND LIQUID TUBE**
Torque: 185 kg-cm (13 ft-lb, 18 N-m)
3. **INSTALL FOLLOWING COMPONENTS**
 - (a) Center brace
 - (b) Hood lock brace
4. **IF CONDENSER WAS REPLACED, ADD COMPRESSOR OIL TO COMPRESSOR**
Add 40 - 50 cc (1.4 - 1.7 fl. oz.)
Compressor oil: DENSOIL 6,
SUNISO N0.5GS or equivalent
5. **EVACUATE AIR FROM AIR CONDITIONING SYSTEM**
6. **CHARGE SYSTEM WITH REFRIGERANT AND INSPECT FOR LEAKAGE OF REFRIGERANT**
Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)



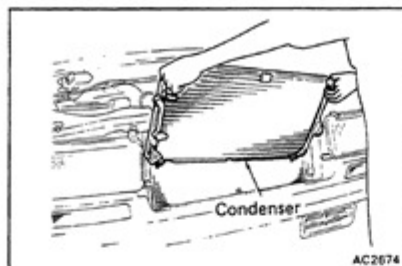
COOLING UNIT

REMOVAL OF COOLING UNIT

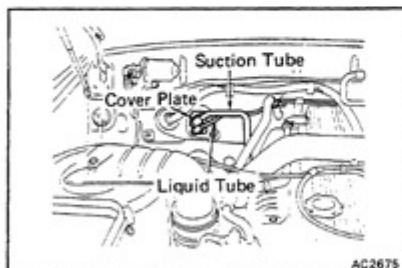
1. **DISCONNECT NEGATIVE CABLE FROM BATTERY**
2. **DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM**
3. **DISCONNECT SUCTION TUBE FROM COOLING UNIT OUTLET FITTING**
4. **DISCONNECT LIQUID TUBE FROM COOLING UNIT INLET FITTING**
HINT: Cap the open fittings immediately to keep moisture out of the system.
5. **REMOVE COVER PLATE FROM INLET AND OUTLET FITTINGS**
6. **REMOVE GLOVE BOX**
7. **DISCONNECT CONNECTORS**
8. **REMOVE COOLING UNIT**
Remove the three nuts and four bolts.

AC-26

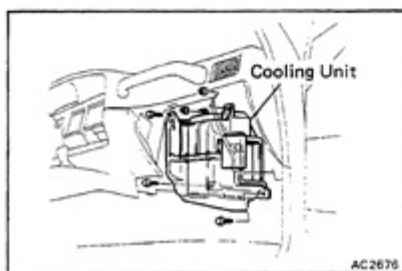
AIR CONDITIONING - Cooling Unit

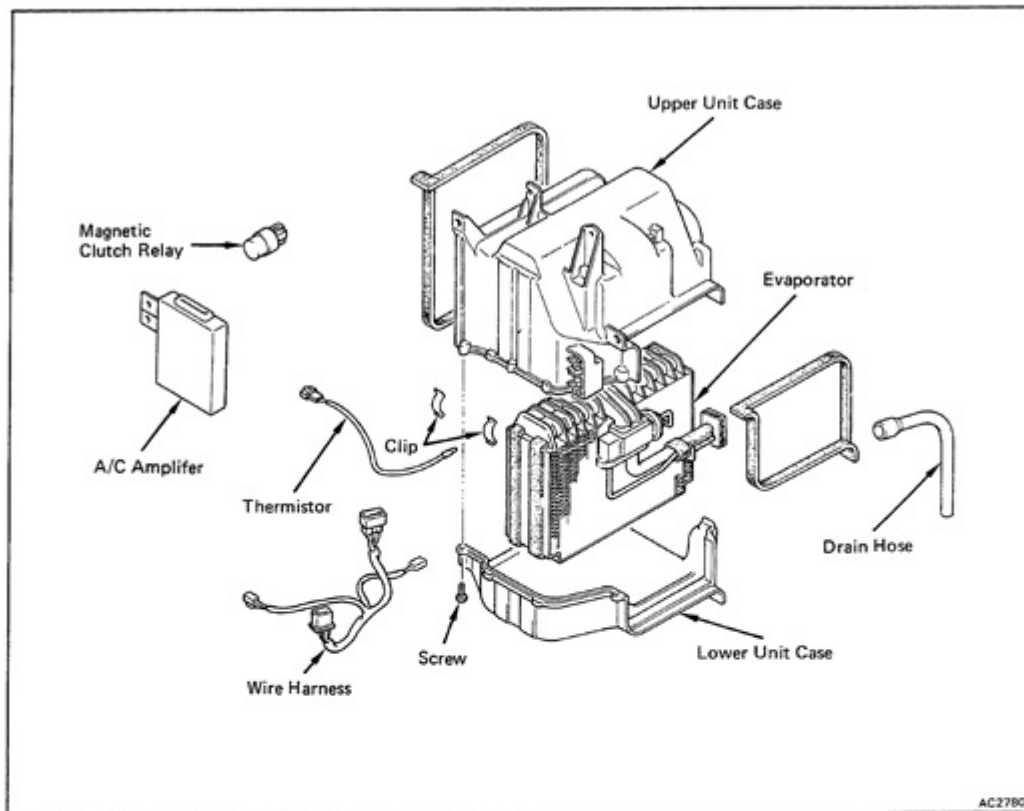
**INSPECTION OF CONDENSER**

1. **INSTALL CONDENSER**
Put in the condenser between the radiator and the body.
Then, tighten two bolts.
2. **CONNECT DISCHARGE HOSE AND LIQUID TUBE**
Torque: 185 kg-cm (13 ft-lb, 18 N-m)
3. **INSTALL FOLLOWING COMPONENTS**
 - (a) Center brace
 - (b) Hood lock brace
4. **IF CONDENSER WAS REPLACED, ADD COMPRESSOR OIL TO COMPRESSOR**
Add 40 - 50 cc (1.4 - 1.7 fl. oz.)
Compressor oil: DENSOIL 6,
SUNISO N0.5GS or equivalent
5. **EVACUATE AIR FROM AIR CONDITIONING SYSTEM**
6. **CHARGE SYSTEM WITH REFRIGERANT AND INSPECT FOR LEAKAGE OF REFRIGERANT**
Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)

**COOLING UNIT****REMOVAL OF COOLING UNIT**

1. **DISCONNECT NEGATIVE CABLE FROM BATTERY**
2. **DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM**
3. **DISCONNECT SUCTION TUBE FROM COOLING UNIT OUTLET FITTING**
4. **DISCONNECT LIQUID TUBE FROM COOLING UNIT INLET FITTING**
HINT: Cap the open fittings immediately to keep moisture out of the system.
5. **REMOVE COVER PLATE FROM INLET AND OUTLET FITTINGS**
6. **REMOVE GLOVE BOX**
7. **DISCONNECT CONNECTORS**
8. **REMOVE COOLING UNIT**
Remove the three nuts and four bolts.

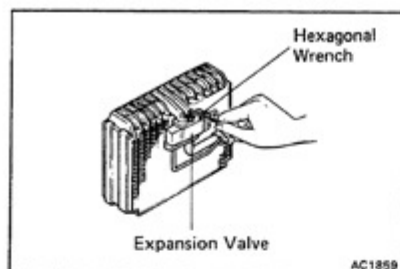


DISASSEMBLY OF COOLING UNIT

- 1. REMOVE MAGNETIC CLUTCH RELAY**
- 2. REMOVE REAR COOLER RELAY**
- 3. REMOVE A/C AMPLIFIER**
- 4. REMOVE LOWER AND UPPER CASE**
 - (a) Remove connector of thermistor from unit case.
 - (b) Remove three clips.
 - (c) Remove four screws.
 - (d) Remove upper unit case.
 - (e) Remove thermistor with thermistor holder.
 - (f) Remove lower unit case.

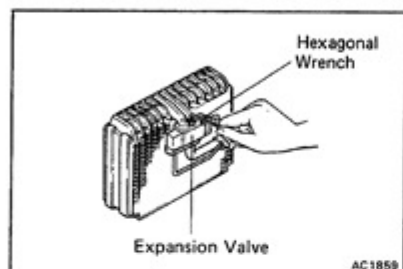
AC-28

AIR CONDITIONING - Cooling Unit



5. REMOVE EXPANSION VALVE

- (a) Remove the packing and heat sensing tube from suction and liquid tubes.
- (b) Remove the expansion valve from the evaporator.



ASSEMBLY OF COOLING UNIT

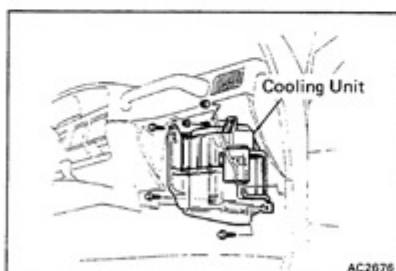
INSTALL COMPONENTS ON EVAPORATOR

- (a) Connect the expansion valve, suction and liquid tubes to the evaporator. Torque the bolt.

Torque: 55 kg-cm (48 in.-lb, 5.4 N-m)

HINT: Be sure that the O-rings are positioned on the tube fitting.

- (b) Install the holder to the suction and liquid tubes with heat sensing tube.
- (c) Install the lower unit case to the evaporator.
- (d) Install the thermistor to the evaporator.
- (e) Install the upper unit case.
- (f) Install the four screws.
Install three clips.
- (h) Install the connector of thermistor.



INSTALLATION OF COOLING UNIT

1. INSTALL COOLING UNIT

Install the cooling unit with three screws and two nuts.

2. CONNECT CONNECTOR OF THERMISTOR

3. INSTALL EFI AND A.B.S. COMPUTER

4. INSTALL GLOVE BOX COVER AND REINFORCEMENT

5. INSTALL GLOVE BOX AND UNDER COVER

6. INSTALL GROMMETS ON INLET AND OUTLET FITTINGS

7. CONNECT LIQUID TUBE TO COOLING UNIT INLET FITTING

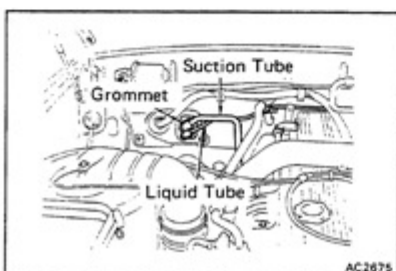
Torque the bolt.

Torque: 150 kg-cm (43 in.-lb, 4.9 N-m)

8. CONNECT SUCTION TUBE TO COOLING UNIT OUTLET FITTING

Torque the nut.

Torque: 50 kg-cm (43 in.-lb, 4.9 N-m)



9. IF EVAPORATOR WAS REPLACED, ADD COMPRESSOR OIL TO COMPRESSOR
Add 40 – 50 cc (1.4 – 1.7 fl. oz.)
Compressor oil: DENSOIL 6,
SUNISO No. 5GS or equivalent
10. INSTALL CHARCOAL CANISTER WITH BRACKET
11. CONNECT NEGATIVE CABLE TO BATTERY
12. EVACUATE AIR FROM AIR CONDITIONING SYSTEM
13. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT AND CHECK FOR GAS LEAKAGE
Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)

EVAPORATOR

REMOVAL OF EVAPORATOR

See Disassembly of Cooling Unit on page [AC-27](#).

INSPECTION OF EVAPORATOR

1. INSPECT EVAPORATOR FINS FOR BLOCKAGE
If the fins are clogged, clean them with compressed air.
NOTICE: Never use water to clean the evaporator.
2. INSPECT FITTINGS FOR CRACKS OR SCRATCHES
Repair as necessary.

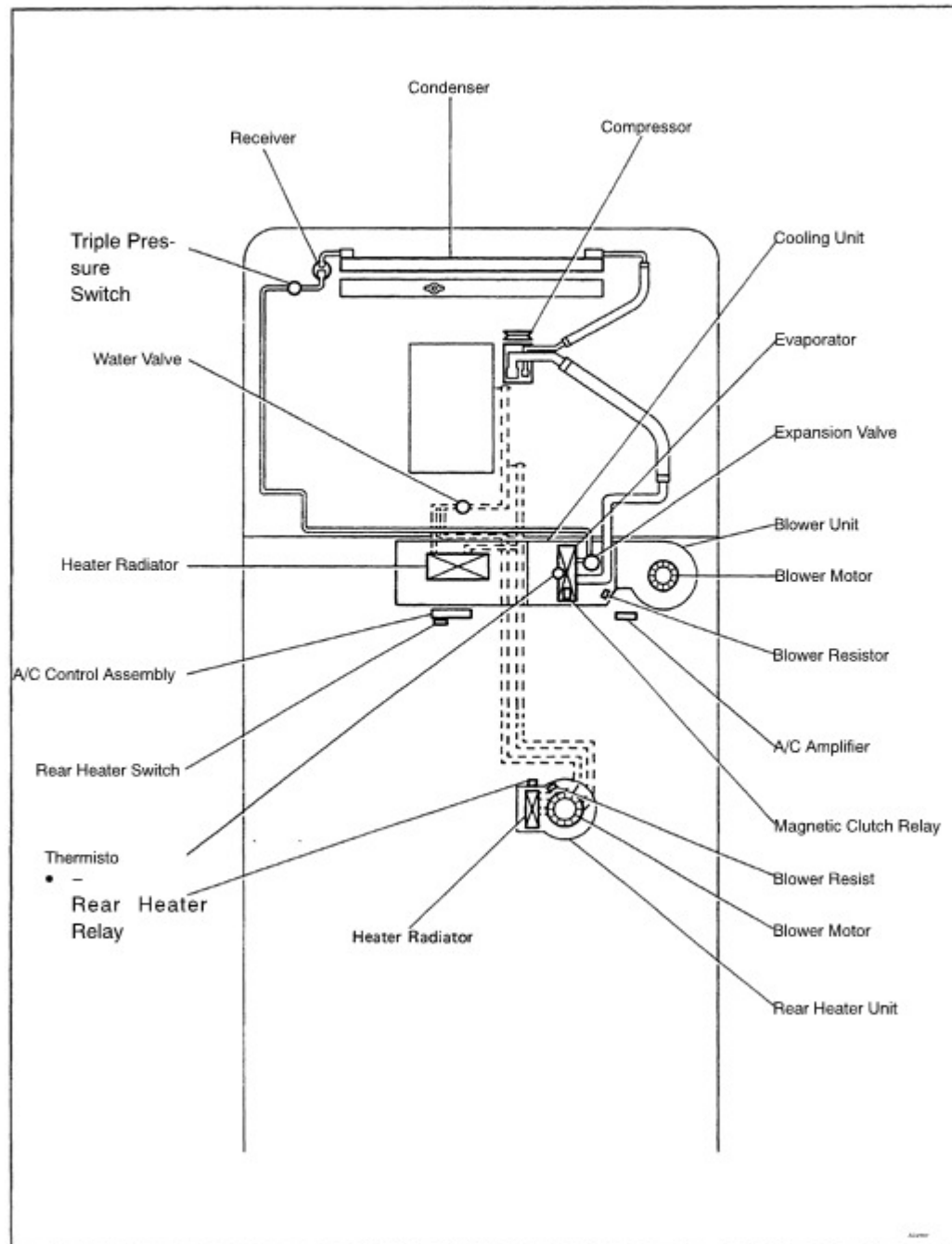
INSTALLATION OF EVAPORATOR

See Assembly of Cooling Unit on page [AC-28](#).

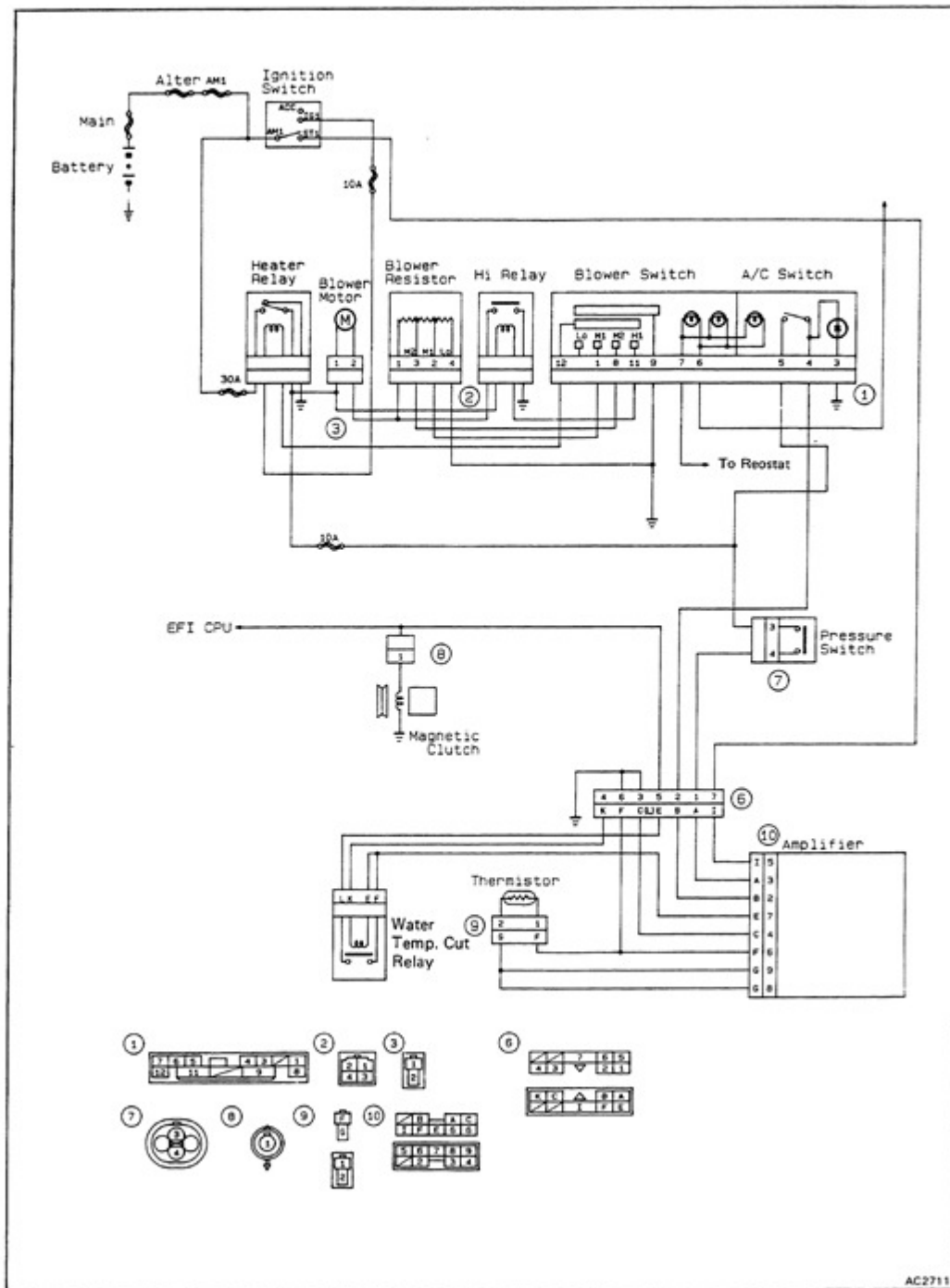
AC-4

AIR CONDITIONING - Description

DESCRIPTION PARTS LOCATION



ELECTRICAL WIRING DIAGRAM

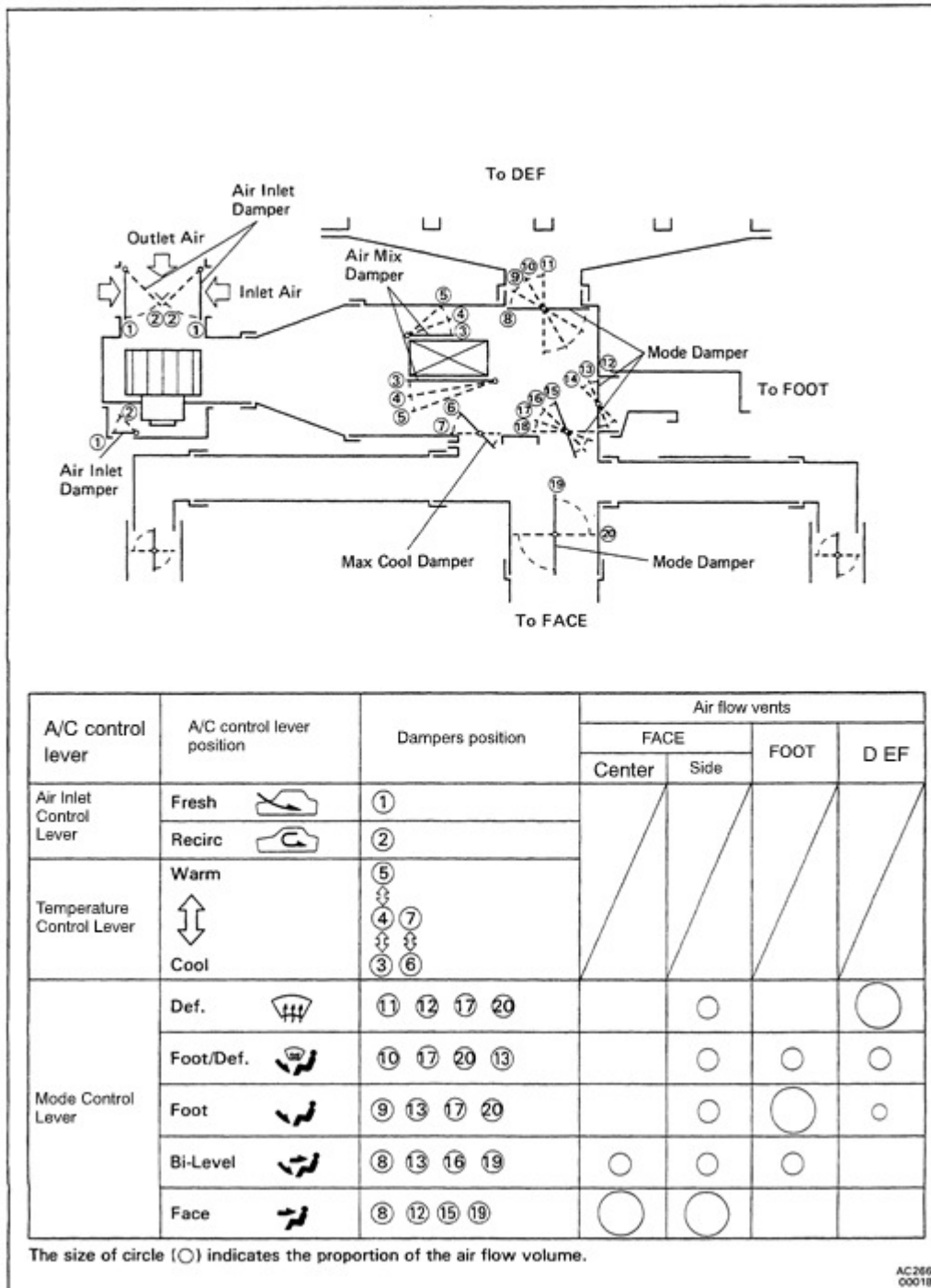


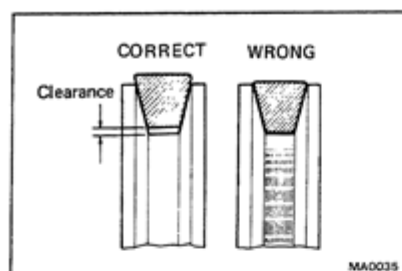
AC2711

| AIR CONDITIONING | Description |
|------------------|-------------|
| 1 | 1.000000 |
| 2 | 2.000000 |
| 3 | 3.000000 |
| 4 | 4.000000 |
| 5 | 5.000000 |
| 6 | 6.000000 |
| 7 | 7.000000 |
| 8 | 8.000000 |
| 9 | 9.000000 |
| 10 | 10.000000 |
| 11 | 11.000000 |
| 12 | 12.000000 |
| 13 | 13.000000 |
| 14 | 14.000000 |
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| 87 | 87.000000 |
| 88 | 88.000000 |
| 89 | 89.000000 |
| 90 | 90.000000 |
| 91 | 91.000000 |
| 92 | 92.000000 |
| 93 | 93.000000 |
| 94 | 94.000000 |
| 95 | 95.000000 |
| 96 | 96.000000 |
| 97 | 97.000000 |
| 98 | 98.000000 |
| 99 | 99.000000 |
| 100 | 100.000000 |



DAMPERS POSITION



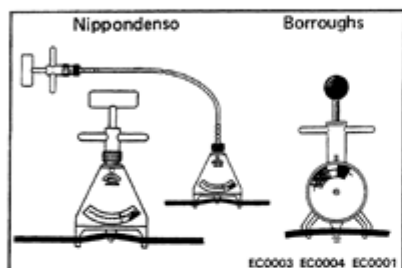


DRIVE BELT

INSPECTION OF DRIVE BELT TENSION

1. MAKE SURE THAT DRIVE BELT IS INSTALLED CORRECTLY

Visually check the belt for cracks, oiliness or wear. Check that the belt does not touch the bottom of the pulley groove.



2. INSPECT DRIVE BELT TENSION

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

Belt tension gauge:

Nippondenso BTG-20 (95506-00020) or

Borroughs No.BT-33-73F

Drive belt tension:

New belt 100 – 150 lb

Used belt 60 – 100 lb

NOTE:

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

9. IF EVAPORATOR WAS REPLACED, ADD COMPRESSOR OIL TO COMPRESSOR
Add 40 – 50 cc (1.4 – 1.7 fl. oz.)
Compressor oil: DENSOIL 6,
SUNISO No. 5GS or equivalent
10. INSTALL CHARCOAL CANISTER WITH BRACKET
11. CONNECT NEGATIVE CABLE TO BATTERY
12. EVACUATE AIR FROM AIR CONDITIONING SYSTEM
13. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT AND CHECK FOR GAS LEAKAGE
Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)

EVAPORATOR

REMOVAL OF EVAPORATOR

See Disassembly of Cooling Unit on page [AC-27](#).

INSPECTION OF EVAPORATOR

1. INSPECT EVAPORATOR FINS FOR BLOCKAGE
If the fins are clogged, clean them with compressed air.
NOTICE: Never use water to clean the evaporator.
2. INSPECT FITTINGS FOR CRACKS OR SCRATCHES
Repair as necessary.

INSTALLATION OF EVAPORATOR

See Assembly of Cooling Unit on page [AC-28](#).

EXPANSION VALVE

ON-VEHICLE INSPECTION

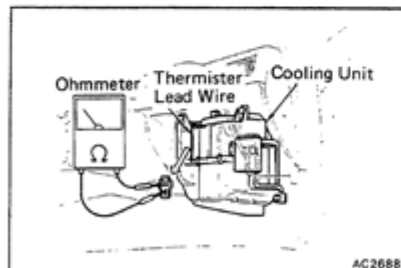
1. **INSPECT REFRIGERANT VOLUME**
See page [AC-13](#).
2. **INSTALL MANIFOLD GAUGE SET**
See page [AC-14](#).
3. **TURN FRONT A/C SWITCH ON AND BLOWER SWITCH TO HI POSITION**
4. **RUN ENGINE AT APPROX. 2,000 RPM FOR AT LEAST FIVE MINUTES**
5. **INSPECT EXPANSION VALVE**
If the expansion valve is clogged, the low pressure reading will drop to 0 kg-cm² (0 psi, 0 kPa), otherwise it is OK.

REMOVAL OF EXPANSION VALVE

See Disassembly of Front Cooling Unit on page [AC-27](#).

INSTALLATION OF EXPANSION VALVE

See Assembly of Front Cooling Unit on page [AC-28](#).



THERMISTOR

ON-VEHICLE INSPECTION

1. **DISCONNECT NEGATIVE BATTERY CABLE**
2. **REMOVE GLOVE BOX**
3. **CHECK RESISTANCE OF THERMISTOR**
Measure the resistance between terminals.
Standard resistance: 1,500 Ω at 25°C (77°F)
If resistance value is not as specified, replace the thermistor.

REMOVAL OF THERMISTOR

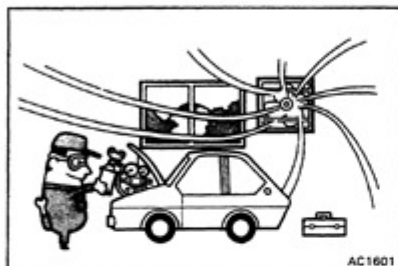
See Disassembly of Cooling Unit on page [AC-27](#).

AIR CONDITIONING SYSTEM

GENERAL INFORMATION

ELECTRICAL PARTS

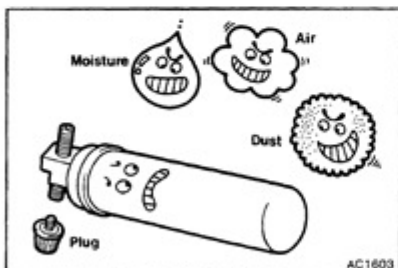
Before removing and inspecting the electrical parts, set the ignition switch to the LOCK position and disconnect the negative (-) terminal cable from the battery.



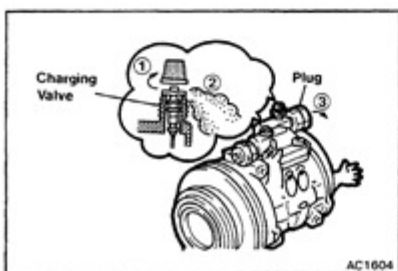
AC1601



AC1602



AC1603



AC1604

REFRIGERATION SYSTEM

1. WHEN HANDLING REFRIGERANT (R-12), FOLLOWING PRECAUTIONS MUST BE OBSERVED;

- Do not handle refrigerant in an enclosed area or near an open flame.
- Always wear eye protection.
- Be careful that liquid refrigerant does not get in your eyes or on your skin.

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

- Do not rub.
- Wash the area with lots of cool water.
- Apply clean petroleum jelly to the skin.
- Go immediately to a physician or hospital for professional treatment.
- Do not attempt to treat yourself.

2. WHEN REPLACING PARTS IN REFRIGERANT LINE;

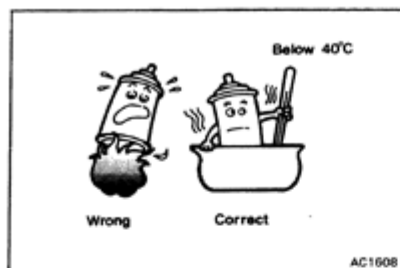
- Discharge the refrigerant in the line slowly before replacement.
- Insert a plug immediately in disconnected parts to prevent the entry of moisture and dust.
- Do not leave a new condenser or receiver, etc., lying around with the plug removed.

- Discharge the refrigerant from the charging valve before installing a new compressor.

If the refrigerant is not discharged first, compressor oil will spray out with the refrigerant gas when the plug is removed.

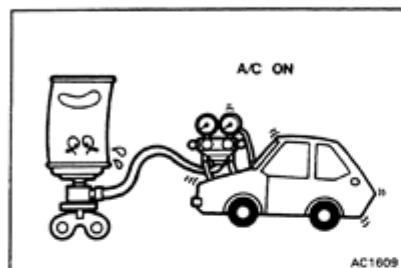
- Do not use a torch for tube bending or lengthening operations.

If tubes are heated with a torch, a layer of oxidation forms inside the tube, causing the same kind of trouble as an accumulation of dust.



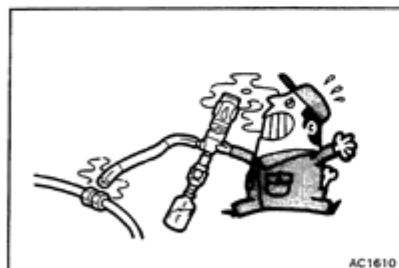
3. WHEN HANDLING REFRIGERANT CONTAINER (SERVICE CAN);

- (a) The container must never be heated.
- (b) Containers must be kept below 40°C (104°F)
- (c) If warming a service can with hot water, be careful that the valve on top of the service can is never immersed in the water, as the water may permeate the refrigerant cycle.
- (d) Empty service cans must never be re-used.



4. WHEN A/C IS ON AND REFRIGERANT GAS IS BEING REPLENISHED;

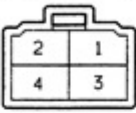

- (a) If there is not enough refrigerant gas in the refrigerant cycle, oil lubrication will be insufficient and compressor burnout may occur, so take care to avoid this.
- (b) If the valve on the high pressure side is opened, refrigerant flows in the reverse direction and could cause the service can to rupture, so open and close the valve on the low pressure side only.
- (c) If the service can is inverted and refrigerant is loaded in a liquid state, the liquid is compressed and causes the compressor to break down, so the refrigerant must be in a gaseous state.
- (d) Be careful not to load too much refrigerant gas, as this causes trouble such as inadequate cooling, poor fuel economy, engine overheating, etc.



5. WHEN USING GAS-CYLINDER TYPE GAS LEAK TESTER;






- (a) As a naked flame is used, first make sure that there are no flammable substances nearby before using it.
- (b) Be careful, as a poisonous gas is produced when refrigerant gas comes in contact with heated parts.

BLOWER RESISTORS**Front A/C Blower Resistor****INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | |
|--|-----------|--|---|---|---|
|  H-4-2 | Terminal | 1 | 3 | 2 | 4 |
| | Condition | | | | |
| | Constant |  | | | |

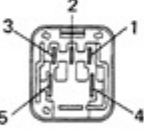



If continuity is not as specified, replace the blower resistor.

Rear Heater Blower Resistor**INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | | | |
|--|--|-----------|---|---|-----|---|-----|
| Connector "A" | Connector "B" | Terminal | A-1 | A-2 | A-3 | B-1 | B-2 |
|  H-3-2 |  H-2-2 | Condition | | | | | |
| | | Constant |  |  | |  | |

If continuity is not as specified, replace the blower resistor.

HEATER RELAY**INSPECTION OF RELAY****INSPECT RELAY CONTINUITY**

| | | | | | | |
|--|-----------|---|---|---|---|---|
|  BE1850 BE1844 | Terminal | 1 | 2 | 3 | 4 | 5 |
| | Condition | | | | | |
| | Constant |  |  | | | |
| Apply battery voltage to terminals 1 and 3. | | | | |  | |

If continuity is not as specified, replace the relay.

REAR HEATER RELAY**INSPECTION OF RELAY**

Check the relay the same way as for the heater relay on page [AC-36](#).

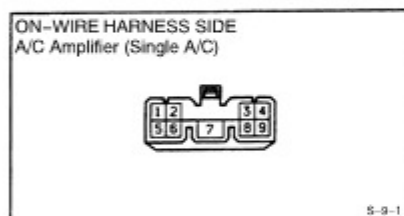
MAGNETIC CLUTCH RELAY

INSPECTION OF RELAY

INSPECT RELAY CONTINUITY

| | | | | | |
|--|---|---|---|---|---|
| | Terminal Condition | 1 | 2 | 3 | 4 |
| | Constant | ○ | — | ○ | |
| | Apply battery voltage to terminals 1 and 3. | | ○ | — | ○ |

If continuity is not as specified, replace the relay.



A/C AMPLIFIER

INSPECTION OF AMPLIFIER

INSPECT AMPLIFIER CIRCUIT

Disconnect the amplifier and inspect the connector on the wire harness side as shown in the chart below.

Test conditions: '

- (1) Ignition switch: ON
- (2) Temperature control lever: MAX COOL
- (3) Blower switch: HI

| Check for | Tester connection | Condition | Specified value |
|------------|-------------------|----------------------|-------------------------------|
| Continuity | 6 — Ground | Constant | Continuity |
| | 8 — 9 | Constant | Continuity |
| Voltage | 2 — 6 | Turn A/C switch on. | Battery voltage |
| | | Turn A/C switch off. | No voltage |
| | 3 — 6 | Turn A/C switch on. | Battery voltage |
| | | Turn A/C switch off. | No voltage |
| | 5 — 6 | Start the engine. | Approx. 10 to 14 V |
| | | Stop the engine. | No voltage |
| Resistance | 9 — 6 | Constant | Approx. 1.5 kΩ at 25°C (77°F) |

If circuit is as specified, replace the amplifier.

AC-10

AIR CONDITIONING - Preparation



**PREPARATION
SPECIAL TOOLS AND EQUIPMENT**

| Tool | SST No. | Use |
|----------------------------------|-------------|---|
| Ohmmeter | | To diagnosis electrical system |
| Voltage meter | | To diagnosis electrical system |
| Air conditioner service tool set | 07110-58011 | To evacuate and charge system |
| Hexagon wrench set | 07110-61050 | To remove service valve and front housing |
| Magnetic clutch remover | 07112-66040 | To remove pressure plate |
| Magnetic clutch stopper | 07112-76060 | To remove pressure plate |
| Snap ring pliers | 07114-84020 | To remove magnetic clutch |

SSM (SPECIAL SERVICE MATERIALS)







| Part Name | Part No. | Use etc. |
|---|-------------|------------|
| DENSO OIL 6, SUNISO No.5GS or equivalent | 07117-68040 | Compressor |

BLOWER RESISTORS**Front A/C Blower Resistor****INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | |
|--|-----------|--|---|---|---|
|  H-4-2 | Terminal | 1 | 3 | 2 | 4 |
| | Condition | | | | |
| | Constant |  | | | |

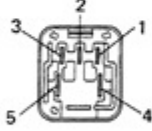




If continuity is not as specified, replace the blower resistor.

Rear Heater Blower Resistor**INSPECTION OF BLOWER RESISTOR****INSPECT BLOWER RESISTOR CONTINUITY**

| | | | | | | | |
|--|--|-----------|---|---|---|---|-----|
| Connector "A" | Connector "B" | Terminal | A-1 | A-2 | A-3 | B-1 | B-2 |
|  H-3-2 |  H-2-2 | Condition | | | | | |
| | | Constant |  |  |  |  | |

If continuity is not as specified, replace the blower resistor.

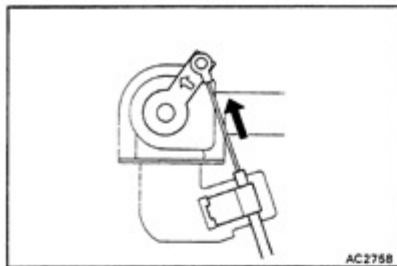
HEATER RELAY**INSPECTION OF RELAY****INSPECT RELAY CONTINUITY**

| | | | | | | |
|--|-----------|---|---|---|---|---|
|  BE1850 BE1844 | Terminal | 1 | 2 | 3 | 4 | 5 |
| | Condition | | | | | |
| | Constant |  |  |  | | |
| Apply battery voltage to terminals 1 and 3. | | | | |  | |

If continuity is not as specified, replace the relay.

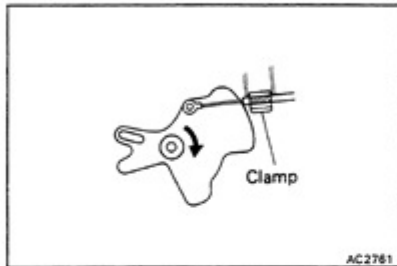
REAR HEATER RELAY**INSPECTION OF RELAY**

Check the relay the same way as for the heater relay on page [AC-36](#).



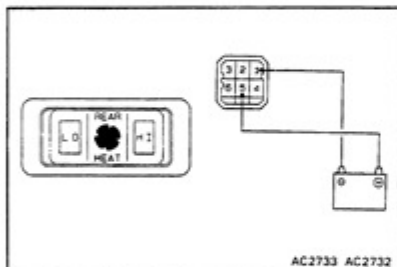
3. ADJUST WATER VALVE CONTROL CABLE

Set the water valve and the control lever to "COOL" position, install the control cable and lock the clamp.



4. ADJUST MODE DAMPER CONTROL CABLE

- Set the mode damper and the control lever to "DEF" position.
- Clamp the white section of the control cable and install the cable to damper control lever.



REAR HEATER SWITCH INSPECTION OF SWITCH

1. INSPECT INDICATOR

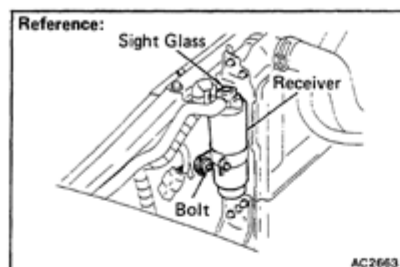
- Connect the positive (+) lead from the battery to terminal 5 and the negative (-) lead to terminal 1.
- Push each of the rear heater switch knob in and check that their indicators light up.

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

2. INSPECT SWITCH CONTINUITY

| Terminal Switch position | 1 | 2 | 4 | 5 | Illumination | |
|-----------------------------|---|---|---|---|--------------|---|
| | | | | | 3 | 6 |
| HI | ○ | — | ○ | | | |
| OFF | | | | | | |
| LO | ○ | ○ | | | | |

If continuity is not as specified, replace the switch.



RECEIVER

ON-VEHICLE INSPECTION

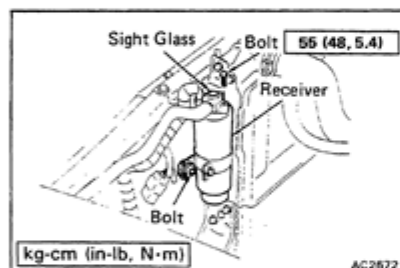
INSPECT SIGHT GLASS, FUSIBLE PLUG AND FITTINGS FOR LEAKAGE

Use a gas leak tester. Repair as necessary.

REMOVAL OF RECEIVER

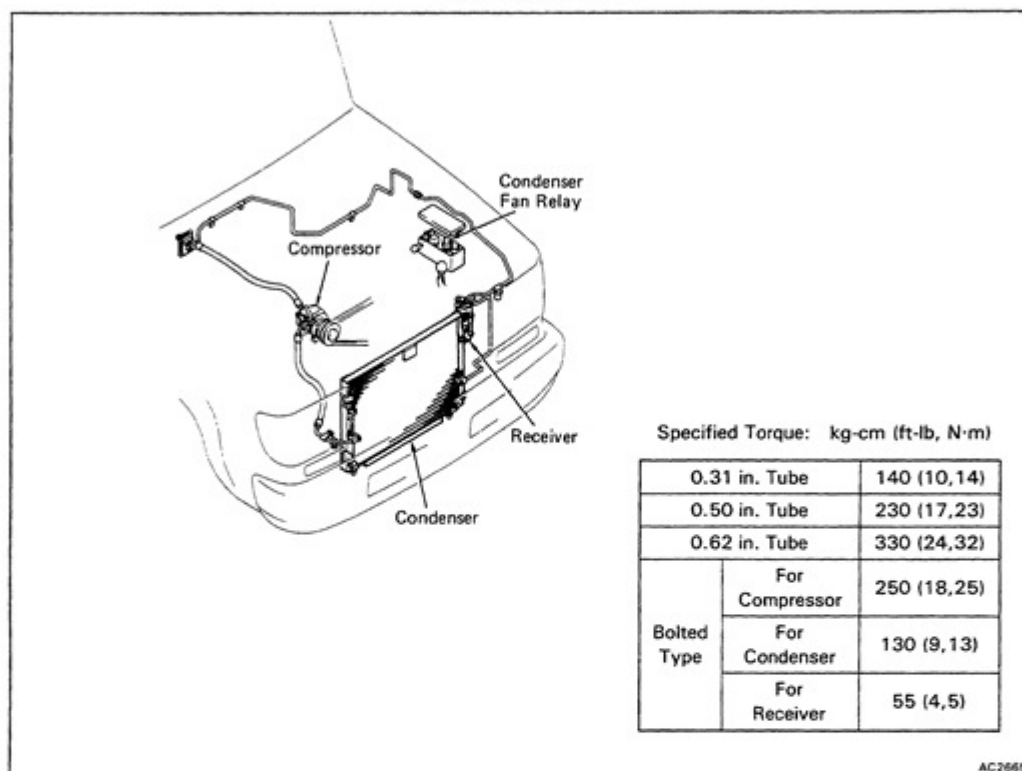
1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM
2. REMOVE BATTERY
3. DISCONNECT TWO LIQUID TUBES FROM RECEIVER
HINT: Cap the open fittings immediately to keep moisture out of the system
4. REMOVE RECEIVER FROM RECEIVER HOLDER

INSTALLATION OF RECEIVER



1. INSTALL RECEIVER IN RECEIVER HOLDER
HINT: Do not remove the blind plugs until ready for connection.
2. CONNECT TWO LIQUID TUBES TO RECEIVER
Torque: 55 kg-cm (48 in.-lb, 5.4 N-m)
3. INSTALL BATTERY
4. IF RECEIVER WAS REPLACED, ADD COMPRESSOR OIL TO COMPRESSOR
Add 20 cc (0.7 fl.oz.)
Compressor oil: DENSOIL 6,
SUNISO NO.5GS or equivalent
5. EVACUATE AIR FROM REFRIGERATION SYSTEM
6. CHARGE SYSTEM WITH REFRIGERANT AND INSPECT FOR LEAKAGE OF REFRIGERANT
Specified amount: 900 ± 50 g (31.74 ± 1.76 oz)

REFRIGERATION LINES TIGHTENING



ON-VEHICLE INSPECTION

1. **INSPECT HOSE AND TUBE CONNECTIONS FOR LOOSENESS**
2. **INSPECT HOSES AND TUBES FOR LEAKAGE**
Using a gas leak tester, check for leakage of refrigerant.

REPLACEMENT OF REFRIGERANT LINES

1. **DISCHARGE REFRIGERANT IN REFRIGERATION SYSTEM**
See page [AC-10](#).
2. **REPLACE FAULTY TUBE OR HOSE**
HINT: Cap the open fittings immediately to keep moisture or dirt out of the system.
3. **TORQUE CONNECTIONS TO SPECIFIED TORQUE**
NOTICE: Connections should not be torqued tighter than the specified torque.

4. **EVACUATE AIR IN REFRIGERATION SYSTEM AND CHARGE WITH REFRIGERANT**
Specified amount: 900 f 50 g (31.74 i 1.76 oz)
5. **INSPECT FOR LEAKAGE OF REFRIGERANT**
Using a gas leak tester, check for leakage of refrigerant.
6. **INSPECT AIR CONDITIONER OPERATION**

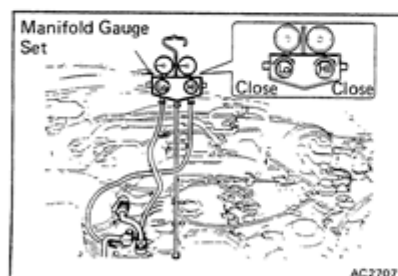
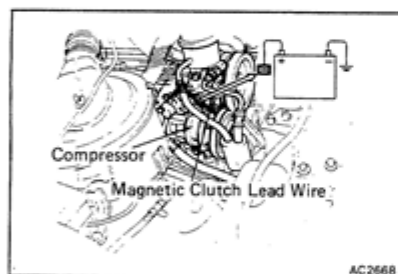
COMPRESSOR

ON-VEHICLE INSPECTION

(Magnetic Clutch)

INSPECT MAGNETIC CLUTCH FOR FOLLOWING

- (a) Inspect the pressure plate and the rotor for signs of oil.
- (b) Check the clutch bearings for noise and grease leakage.
- (c) Connect the positive (+) lead from the battery to the terminal on the magnetic clutch connector and the negative (-) lead to the body ground.
- (d) Check that the magnetic clutch is energized.
If the magnetic clutch is not energized, replace the magnetic clutch.



(Compressor)

1. **INSTALL MANIFOLD GAUGE SET**
See page [AC-14](#)
 2. **RUN ENGINE AT APPROX. 2,000 RPM**
 3. **INSPECT COMPRESSOR FOR FOLLOWING**
 - (a) High pressure gauge reading is not lower and low pressure gauge reading is not higher than normal.
 - (b) Check that the metallic sound.
 - (c) Check that the leakage from shaft seal.
- If defects are found, replace the compressor.

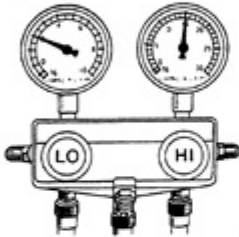
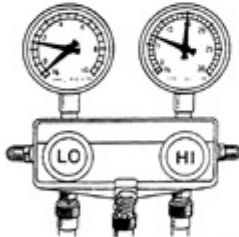
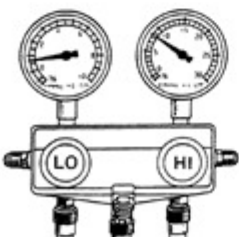
REFRIGERATION SYSTEM

INSPECTION OF REFRIGERATION SYSTEM WITH MANIFOLD GAUGE SET

This is a method in which the trouble is located by using a manifold gauge set. (See "Installation of Manifold Set" on page AC-14.) Read the manifold gauge pressure when the following conditions are established:

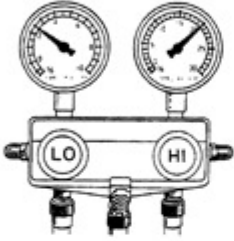
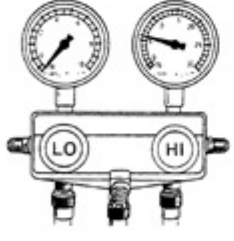
- Temperature at the air inlet with the switch set at RECIRC is 30 – 35°C (86 – 95°F)
- Engine running at 2,000 rpm
- Blower fan speed control switch set at high speed
- Temperature control switch set at max cool side

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

| No. | Gauge reading kg/cm ² (psi, kPa) | Condition | Probable cause | Remedy |
|-----|---|--|---|---|
| 1 | LO: 1.5–2.0 (21–28, 147–196) HI: 14.5–15.0 (206–213, 1,422–1,471)  AC0067 | Normal cooling | Normally functioning system | |
| 2 | During operation, pressure at low pressure side sometimes becomes a vacuum and sometimes normal  AC0068 | Periodically cools and then fails to cool | Moisture present in refrigeration system | (1) Replace receiver (2) Remove moisture in system through repeatedly evacuating air (3) Charge with refrigerant to proper amount |
| 3 | Pressure low at both low and high pressure sides  AC0069 | <ul style="list-style-type: none"> Insufficient cooling Bubbles seen in sight glass | Insufficient refrigerant | (1) Using gas leak tester, check for leakage (2) Charge refrigerant to proper amount |
| | | <ul style="list-style-type: none"> Insufficient cooling Frost on tubes from receiver to unit | Refrigerant flow obstructed by dirt in receiver | Replace receiver |

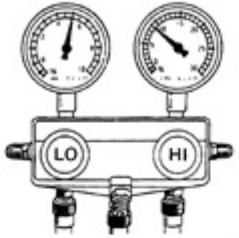
AC-12

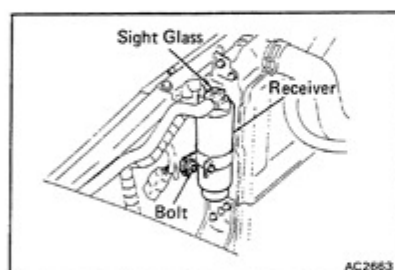
AIR CONDITIONING - Refrigeration System

| No. | Gauge reading kg lcm ² (psi, kPa) | Condition | Probable cause | Remedy |
|-----|--|---|--|--|
| 4 | Pressure too high at both low and high pressure side  | Insufficient cooling | Insufficient cooling of condenser | (1) Clean condenser (2) Check fan motor operation |
| 5 | | | Refrigerant over charged | Check amount of refrigerant HINT: Vent out refrigerant through gauge manifold low pressure side by gradually opening valve |
| 6 | | | Air present in system | (1) Replace receiver (2) Check compressor oil to see if dirty or insufficient (3) Evacuate air and charge with new refrigerant |
| 7 | | <ul style="list-style-type: none"> Insufficient cooling Frost or large amount of dew on piping at low pressure side | Expansion valve improperly mounted, heat sensing tube defective (Opens too wide) | (1) Check heat sensing tube installation condition (2) If (1) is normal, check expansion valve (3) Replace if defective |
| 8 | Vacuum indicated at low pressure side, very low pressure indicated at high pressure  | <ul style="list-style-type: none"> Does not cool (Cools from time to time in some cases) Frost or dew seen on piping before and after receiver or expansion valve | Refrigerant does not circulate | Allow to stand for some time and then restart operation to determine if trouble is caused by moisture or dirt If caused by moisture refer to procedures step 2 on page AC-11 If caused by dirt, remove expansion valve and clean off dirt by blowing with air. If not able to remove dirt, replace valve Evacuate air and charge with new refrigerant to proper amount For gas leakage from heat sensing tube, replace expansion valve |

HINT at No.6

These gauge indications are shown when the refrigeration system has been opened and the refrigerant charged without evacuating air.

| No. | Gauge reading kg/cm ² (psi, kPa) | Condition | Probable cause | Remedy |
|-----|--|---------------|--------------------------|------------------------------|
| 9 | Pressure too high at low pressure side, pressure too low at high pressure side  AC0157 | Does not cool | Insufficient compression | Repair or replace compressor |



INSPECTION OF REFRIGERANT VOLUME

1. RUN ENGINE AT APPROX. 1,500 RPM
2. OPERATE A/C AT MAXIMUM COOLING FOR A FEW MINUTES
3. INSPECT AMOUNT OF REFRIGERANT
Observe the sight glass on the liquid tube.

| Item | Symptom | Amount of refrigerant | Remedy |
|------|---|------------------------------|---|
| 1 | Bubbles present in sight glass | Insufficient* | Check for gas leakage with gas leak tester |
| 2 | No bubbles present in sight glass | None, sufficient or too much | Refer to items 3 and 4 |
| 3 | No temperature difference between compressor inlet and outlet | Empty or nearly empty | Evacuate and charge system. Then check for gas leakage with gas leak tester |
| 4 | Temperature between compressor inlet and outlet is noticeably different | Proper or too much | Refer to items 5 and 6 |
| 5 | Immediately after air conditioner is turned off, refrigerant in sight glass stays clear | Too much | Discharge excess refrigerant to specified amount |
| 6 | When air conditioner is turned off, refrigerant foams and then stays clear | Proper | Refer to items 3 and 4 |

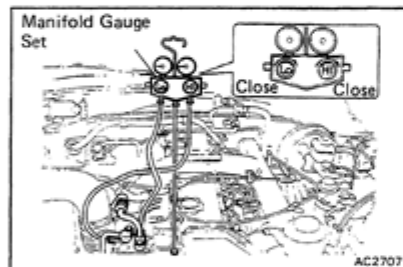
*: Bubbles in the sight glass with ambient temperatures higher can be considered normal if cooling is sufficient.

DISCHARGING OF REFRIGERANT IN REFRIGERATION SYSTEM

(See Air Conditioning Fundamentals and Repairs Pub. No. 36950E)

EVACUATING OF AIR IN REFRIGERATION SYSTEM AND CHARGING WITH REFRIGERANT

(See Air Conditioning Fundamentals and Repairs Pub. No. 36950E)_



INSTALLATION OF MANIFOLD GAUGE SET

1. CLOSE BOTH HIGH AND LOW HAND VALVES
2. CONNECT CHARGING HOSES TO CHARGING VALVES

- (a) Connect the low pressure hose to the low pressure charging valve and the high pressure hose to the high pressure charging valve.
- (b) Tighten the hose nuts by hand.

NOTICE: Do not apply compressor oil to the seats of the connection.

EXPANSION VALVE

ON-VEHICLE INSPECTION

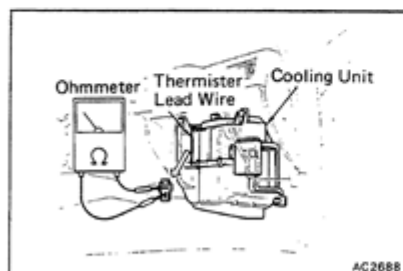
1. **INSPECT REFRIGERANT VOLUME**
See page [AC-13](#).
2. **INSTALL MANIFOLD GAUGE SET**
See page [AC-14](#).
3. **TURN FRONT A/C SWITCH ON AND BLOWER SWITCH TO HI POSITION**
4. **RUN ENGINE AT APPROX. 2,000 RPM FOR AT LEAST FIVE MINUTES**
5. **INSPECT EXPANSION VALVE**
If the expansion valve is clogged, the low pressure reading will drop to 0 kg-cm² (0 psi, 0 kPa), otherwise it is OK.

REMOVAL OF EXPANSION VALVE

See Disassembly of Front Cooling Unit on page [AC-27](#).

INSTALLATION OF EXPANSION VALVE

See Assembly of Front Cooling Unit on page [AC-28](#).



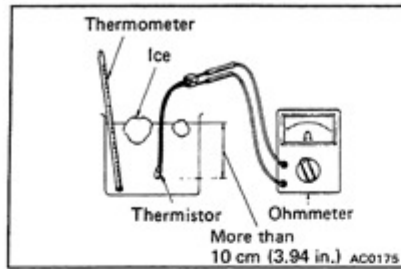
THERMISTOR

ON-VEHICLE INSPECTION

1. **DISCONNECT NEGATIVE BATTERY CABLE**
2. **REMOVE GLOVE BOX**
3. **CHECK RESISTANCE OF THERMISTOR**
Measure the resistance between terminals.
Standard resistance: 1,500 Ω at 25°C (77°F)
If resistance value is not as specified, replace the thermistor.

REMOVAL OF THERMISTOR

See Disassembly of Cooling Unit on page [AC-27](#).



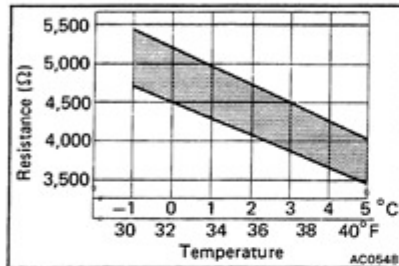
INSPECTION OF THERMISTOR

INSPECT THERMISTOR OPERATION

- Place the thermistor in cold water. While varying the temperature of the water, measure the resistance at the connector and at the same time, measure the temperature of the water with a thermometer.

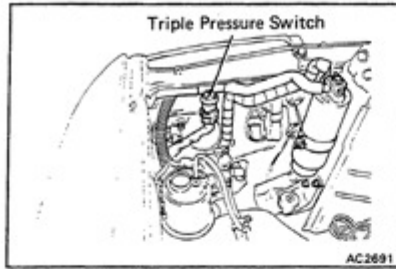
- Compare the two readings on the chart.

If the intersection is not between the two lines, replace the thermistor.



INSTALLATION OF THERMISTOR

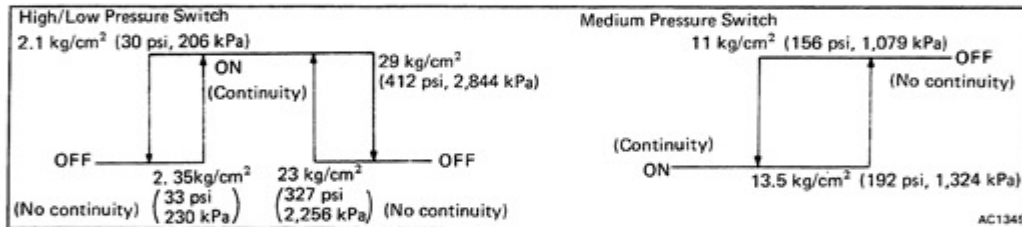
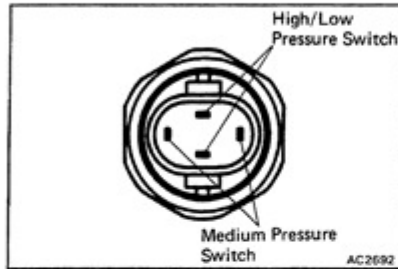
See Assembly of Cooling Unit on page [AC-28](#).



TRIPLE PRESSURE SWITCH

ON-VEHICLE INSPECTION

1. DISCONNECT CONNECTOR OF PRESSURE SWITCH
2. INSPECT PRESSURE SWITCH
 - (a) Install the manifold gauge set.
 - (b) Observe the gauge reading.
 - (c) Check the continuity between the two terminals of the pressure switch shown in the below.



If defective, replace the pressure switch.

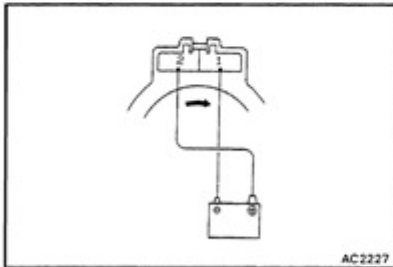
BLOWER MOTORS

Front A/C Blower Motor

INSPECTION OF BLOWER MOTOR

INSPECT BLOWER MOTOR OPERATION

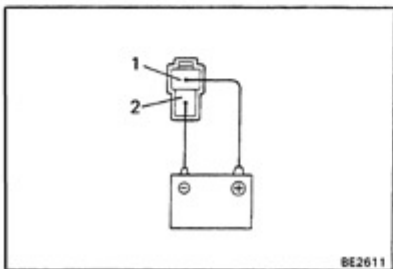
Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1, then check that the motor operation is smooth.



Rear Heater Blower Motor

INSPECTION OF BLOWER MOTOR

Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2, then check that the motor operation is smooth.



TROUBLESHOOTING

You will find the cause of trouble more easily by properly using the table shown below. In this table, the numbers indicate the order of priority of the causes of trouble. Check each part in the order shown. If necessary, replace the part.

| See page | AC-13 | AC-11 | AC-15 | AC-5 | AC-5 | AC-5 | AC-35 | AC-30 | AC-36 | AC-37 | AC-36 | AC-35 | AC-32 | AC-37 | AC-17 |
|--|-------------------------------|--|----------------------------|--------------|-----------------|------|------------------------|------------|--------------|-----------------------|-----------------|--------------|----------------------|---------------|------------|
| Pasts Name | Inspect volume of refrigerant | Inspect refrigeration system with manifold gauge set | Inspect drive belt tension | Fusible link | Circuit breaker | Fuse | Triple pressure switch | Thermistor | Heater relay | Magnetic clutch relay | Blower resistor | Blower motor | A/C control assembly | A/C amplifier | Compressor |
| Trouble | | | | | | | | | | | | | | | |
| No blower operation | | | | 1 | 2 | | | | 3 | | 6 | 5 | 4 | | |
| No blower control | | | | | | | | | | | 2 | | 1 | | |
| No air flow mode control | | | | | | | | | | | | | 1 | | |
| No air inlet control | | | | | | | | | | | | | 1 | | |
| Insufficient flow of cool air | | | | | | | | | 1 | | 3 | 2 | | | |
| Insufficient flow of warm air | | | | | | | | | 1 | | 3 | 2 | | | |
| No cool air comes out | 3 | 4 | 5 | | | 1 | 6 | 12 | | 2 | | | 10 | 11 | 8 |
| Cool air comes out intermittently | 1 | 2 | 3 | | | | | 5 | | | | | | 4 | |
| Cool air comes out only at high engine speed | 2 | 3 | 1 | | | | | | | | | | | | 5 |
| Insufficient cooling | 1 | 2 | 3 | | | | | 10 | | | | | | 9 | 8 |
| No warm air comes out | | | | | | | | | | | | | 2 | | |
| Air temp. control not functioning | | | | | | | | | | | | | 2 | | |

| AC-25 | AC-29 | AC-30 | AC-17 | AC-24 | AC-34 | I | AC-5 |
|-----------|------------|-----------------|-----------------|----------|-------------|-----------------|-----------------------------|
| Condenser | Evaporator | Expansion valve | Magnetic clutch | Receiver | Water valve | Heater radiator | Wiring or wiring connection |
| | | | | | | | 7 |
| | | | | | | | 3 |
| | | | | | | | |
| | 4 | | | | | | 5 |
| | | | | | | 4 | 5 |
| | | | 7 | | 9 | | 13 |
| | | 6 | | | | | 7 |
| 4 | | | | | | | |
| 4 | 11 | 12 | 7 | 5 | 6 | | |
| | | | | | 1 | | |
| | | | | | 1 | | 3 |

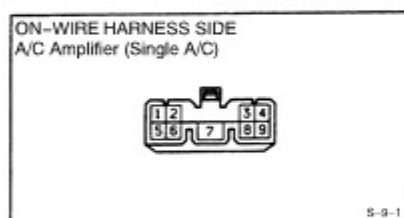
MAGNETIC CLUTCH RELAY

INSPECTION OF RELAY

INSPECT RELAY CONTINUITY

| | | | | | |
|-------------------|---|---|---|---|---|
| BE1647 BE1841 | Terminal Condition | 1 | 2 | 3 | 4 |
| | Constant | ○ | — | ○ | |
| | Apply battery voltage to terminals 1 and 3. | | ○ | — | ○ |

If continuity is not as specified, replace the relay.



AC AMPLIFIER

INSPECTION OF AMPLIFIER

INSPECT AMPLIFIER CIRCUIT

Disconnect the amplifier and inspect the connector on the wire harness side as shown in the chart below.

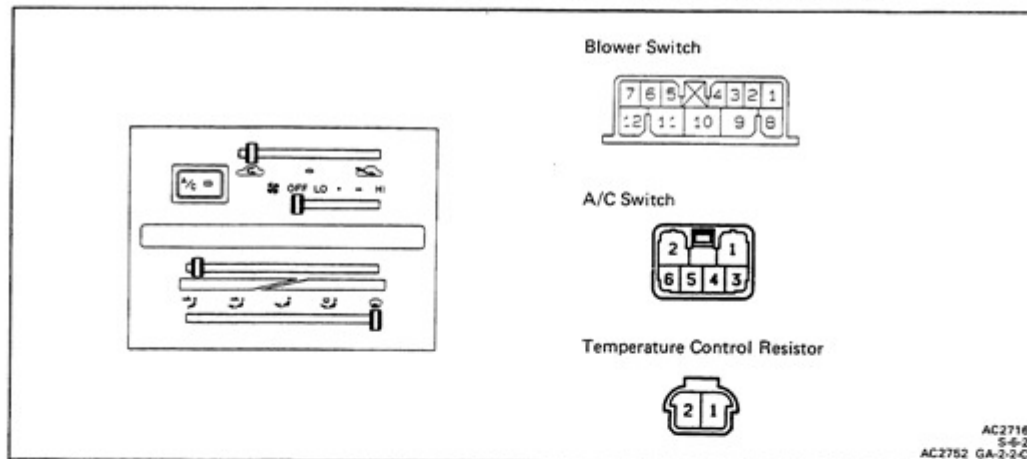
Test conditions: '

- (1) Ignition switch: ON
- (2) Temperature control lever: MAX COOL
- (3) Blower switch: HI

| Check for | Tester connection | Condition | Specified value |
|------------|-------------------|----------------------|-------------------------------|
| Continuity | 6 — Ground | Constant | Continuity |
| | 8 — 9 | Constant | Continuity |
| Voltage | 2 — 6 | Turn A/C switch on. | Battery voltage |
| | | Turn A/C switch off. | No voltage |
| | 3 — 6 | Turn A/C switch on. | Battery voltage |
| | | Turn A/C switch off. | No voltage |
| | 5 — 6 | Start the engine. | Approx. 10 to 14 V |
| | | Stop the engine. | No voltage |
| Resistance | 9 — 6 | Constant | Approx. 1.5 kΩ at 25°C (77°F) |

If circuit is as specified, replace the amplifier.

AC CONTROL ASSEMBLY



Blower Switch

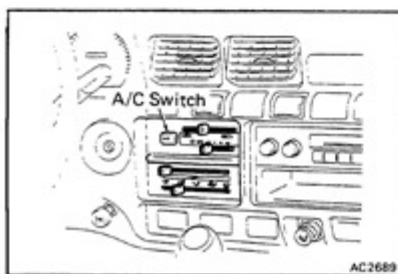
INSPECTION OF SWITCH

INSPECT SWITCH CONTINUITY

| Terminal Switch position | 1 | 8 | 9 | 11 | 12 | Illumination | |
|-----------------------------|---|---|---|----|----|--------------|---|
| | | | | | | 6 | 7 |
| OFF | | | | | | | |
| LO | | | | | | | |
| • (M 1) | | | | | | | |
| • (M 2) | | | | | | | |
| HI | | | | | | | |

AC2716

If continuity is not as specified, replace the switch.



A/C Switch

REMOVAL OF SWITCH

1. DISCONNECT NEGATIVE CABLE FROM BATTERY
2. REMOVE A/C SWITCH