SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
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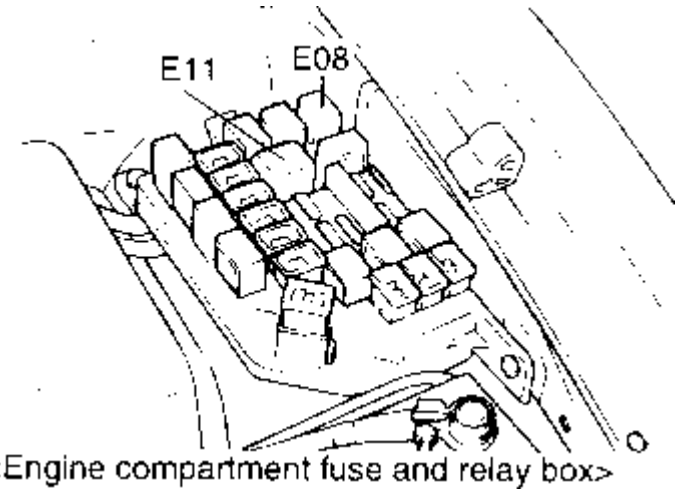
SYMPTOM CHART

SYMPTOM	REMEDY
No hot air flow. (Blower motor does not run at all)	Perform the flow chart.
No hot air flow. (Blower motor runs)	Check for following: • Clogged heater duct • Clogged blower outlet • Clogged heated core or hose • Faulty air mix door • Air mix cable adjustment
Hot air flow is low. (Blower speed does not change)	Perform flow chart.
Hot air flow is low. (Blower runs properly)	Check following: • Clogged heater duct • Clogged blower outlet • Incorrect door position
Compressor does not come on even though the condenser fan runs.	Perform the procedures in the flow chart.
Compressor and condenser fan do not run.	Perform the procedures in the flow chart.
Only condenser fan does not run.	Perform the procedures in the flow chart.
Idle-up not OK.	See the fuel and emission section.

QUICK TROUBLESHOOTING HINTS



<Engine compartment fuse and relay box>

Check the fusible link K (30A) and fuse No. 16 (10A) for blower control system.

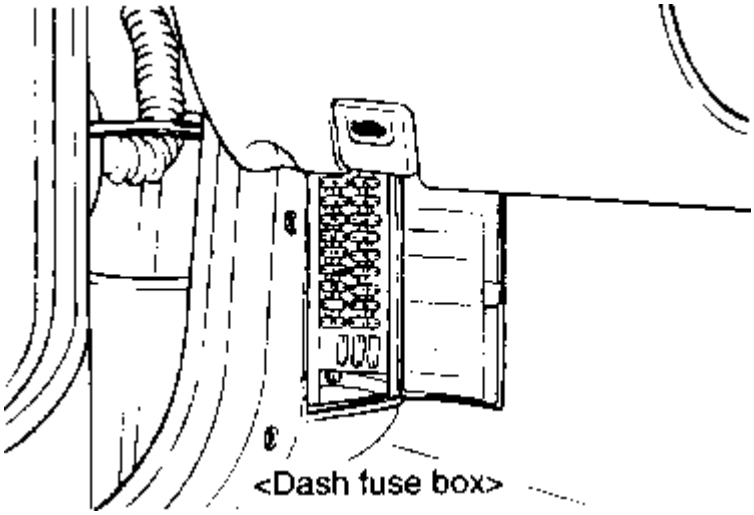
Check that blower relay (E11) is properly mounted in the engine compartment relay box.

Check fuse No. 1 (10A) in the dash fuse box and A/C fuse (10A) in the engine compartment relay & fuse box for A/C control system.

Check that A/C relay (E08) is properly mounted in engine compartment relay & fuse box.

Check that A/C system is properly charged. (Refer to Air conditioning system page HA-30.)

Check the Fusible Link D (BLUE, 20A) in the engine compartment relay & fuse box for condenser fan control.



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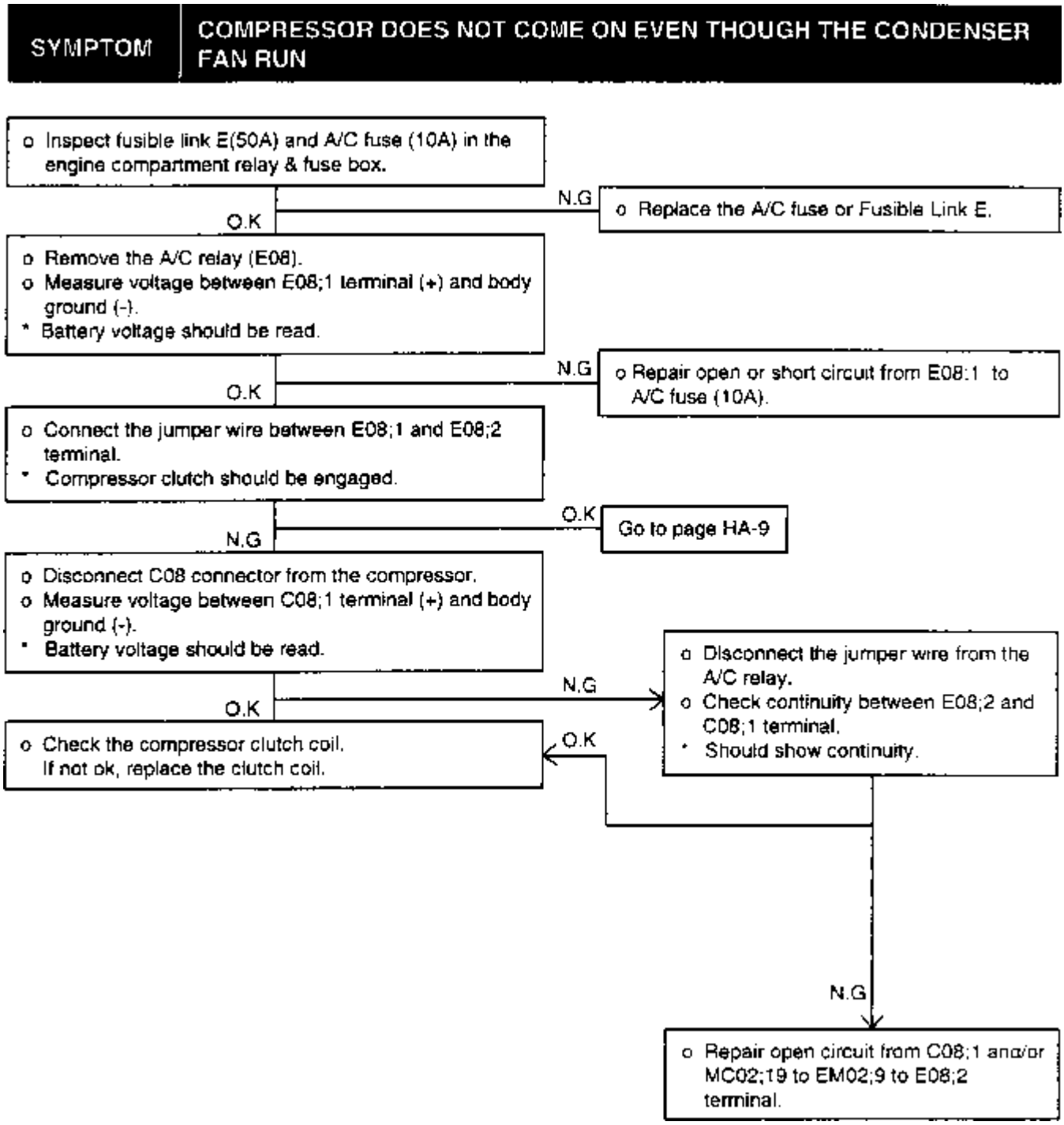
TROUBLESHOOTING (COMPRESSOR DOES NOT RUN)



From page HA-a

o Tum **the i,gnitioo ON".**
o Measure voltage between E0B:3 terminal{+) and body ground *(-)-*
• Barterr voltags should **be read.**

N.G → o Repair the 1.25 RED/BLU wire between E08;3 and tha point jointed with E05;3.

O.K

o Cti-e-ck the *NC* relay operatiori.
(s.a-e paga HA-36)

N.G → Replace A/C relay.

0.K

0 Tum OFF the ignition switch.
0 Reinstall ttie *NC* relay.
0 Disco Meet CO1(sweden} or CO2 (except sweden} c:mnector from the ECM.

0 Connect jumper wire betwnn C01;48 {C-02;51) terminal and body groolld.
0 Tum ON the ignition switc:h.
Compressor c:lutch snciuld be engaged.

N.G → Repajr open circuit from co1 ;46 {CO2;51) to MC02:7, to EM02;19 al'ld to EO8;S termrnai.

0 . ζ'

o Tum ON the bjower switcli and *NC* switch.
o Maasure voltage betw,a,an C01;64 (C02;6) termiMI (+) and booy ground H,
~ Battery voltage should be react.

N.G → Go to page HA-TO

O.K

0 Substitute a known-good ECM and rechec:k.
0 1f pre scribec:I voltage 1::. now availab4e, raplaca the original ECM.

From page HA-9

0 Tum OFF the ignition switch.
0 Tum OFF th& blower switch and 1he A/C switch.
0 Reconnect the C01 (swaden) or CO2 (except swedefl) e:onnec:tor to ECM.

!) Disconnect E17 connector from the du.al pressure $wi1ch.
0 Tum the igrution, blower and *NC* switches ON.
0 Measure voltage **between** E17;1 ierminal (-+) and body ground (·).
• Battery voltage should be **read.**

NJ .I → Go !o page H:A,-,

O.K → From page HA·T1

0 Tum OFF the lignition, blower and *NC* switches.
a Connect jumper wire between E17;1 and E17;2 terminal.

a START the engine.
o Tum the blower and A/C switch.es ON .
• Compass0f should be run.

N.G → Repair open or shon circui1 from EH: 1 *to* EM02:2 M51;2, to M51;1, and to 114;5 terminal.

O.K

o Remove the jumper **wire.**
o Check A/C pressure by using manifold gaga.

N.G → 0 Recharge the refrigerant gas.
0 Check the gas leakage and repair the system.

0 .K I

Replace the dual pra-asure swrich.

NOTE: Ma*y* be law on retrigerantT

From page HA ,o

-::i Tun) the ignition. **blower and *AiC* switches OFF .**
o Reconrie-ct E17 cc:nnec:tor to the dual **pressure** switch.

o Remove the glove box from the m.ain crash pad asSEmbly, (Refer to **page HA-66}**
o Di sconnecc M5, i::on riector trom the Iti ermostatic switc:h \With thermrstor).
o Tum ,ha ignition switch ON.
o Tum !he blower and the *NC* switches ON.
a Measure voltage **between** M51:1(+)and bocfy ground.
" Batteiy voltage Muld be reacl.

N . G Repairope-n circuit from M51;1, and/or 114;5 terminal.

OK

o Tum the blower and tire A/C switche:S O FF .
o Reconnect MS, connector to the ttiermostatic switch.
o Tum the blower and the A/C switches ON.
o Start the engine.
o Wilh the M51 coniiector in coupled state, install a voltmeter between M51;2 and M5i;3(-) terminal and chei::k whether 1here is change in voltage bet'Yleen tetmInais according to tha temperature of ,tie evaporator.

Thermo switch opcrilt10r characlerisl,cs

Evaporator , Thenno $IW temperatu *r* ɹ o,peration		Voltage (2 and 3)	Remark
1.0 ± 1.o· c °{33.8±1.8 'F}	OFF	OV	Compressor clutch shOuld bedisengage
4.0::; 1.0 ·C (39.2 1.8 "F)	ON	12 *V*	Compressor : clutch should **ba** erigaged.

NOTE : Th**is tast shoutd** b& **carried** out on the **back sides otthe M51 connector.**

NG Replace the thermo tatic switch {with thermistor) {Refer to **page** HA-66, HA-68}

0.K

Pertom, to page- HA-1O

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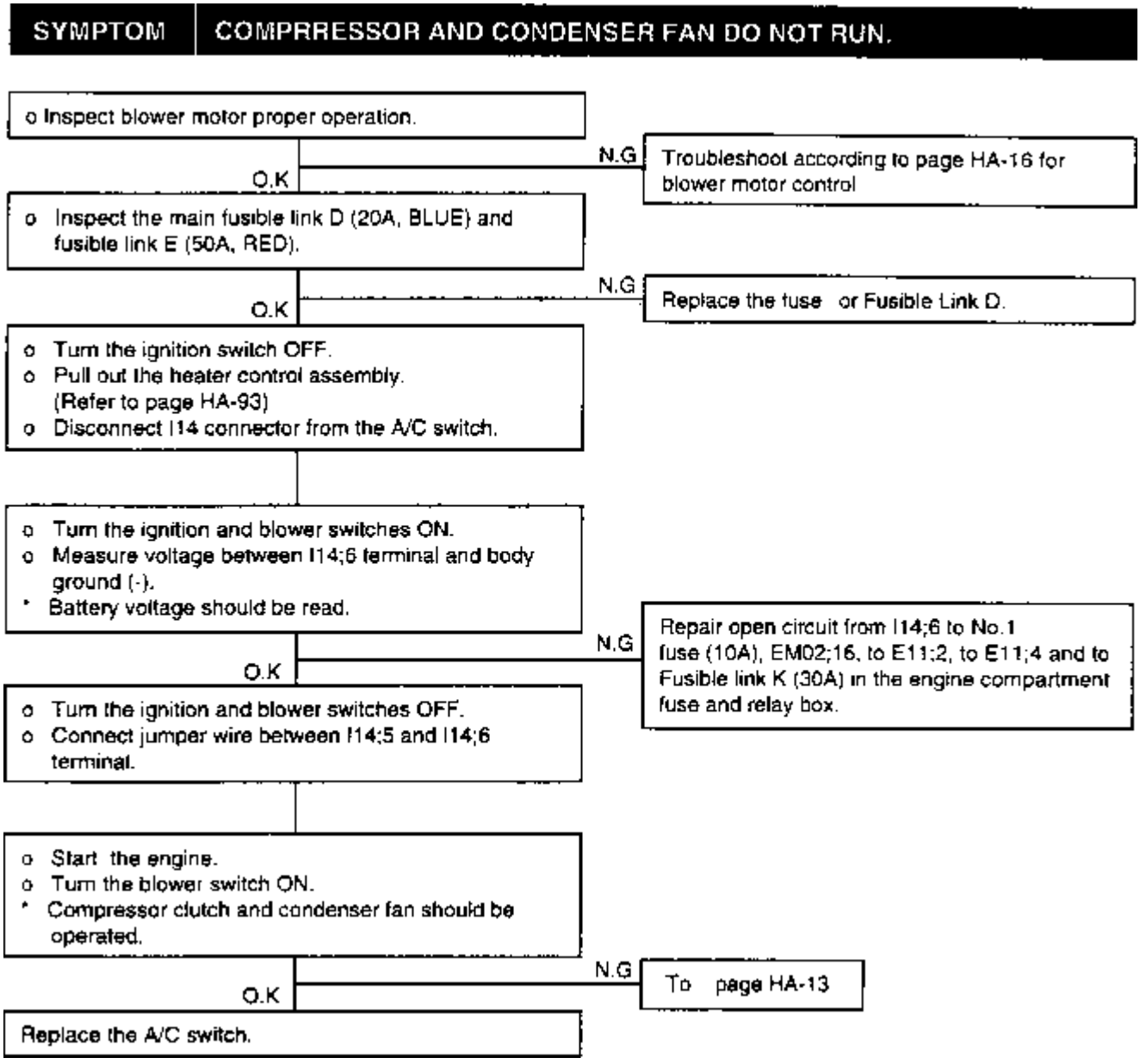
TROUBLESHOOTING (COMPRESSOR AND CONDENSER FAN DO NOT RUN)



From page HA-t2

- Tum the ignition and blower switche OFF_
- Reconnect !he 114 connactorto ,n-e *NC* switch.
- Remove the gLov8 box trom the main crash pad. (R eter to page HA·66)
- Disconnect the M51 connector from the theimostatic switch.

- Tum the ignitlon **swrtch ON.**
- Tum the t>lower and the A/C switc:ti-es ON.
- Measure voltags between M51;1(+}terminal and Ina body ground(-).
- Battery voltagit should **OO** read

N.G

Repair open circ1.1it from M51;l to MI04;8 lo 114:5 terminal.

O.K

Perforrn to i;iage HA-11 through HA-151

Pertann to page HA-,8 through HA-11

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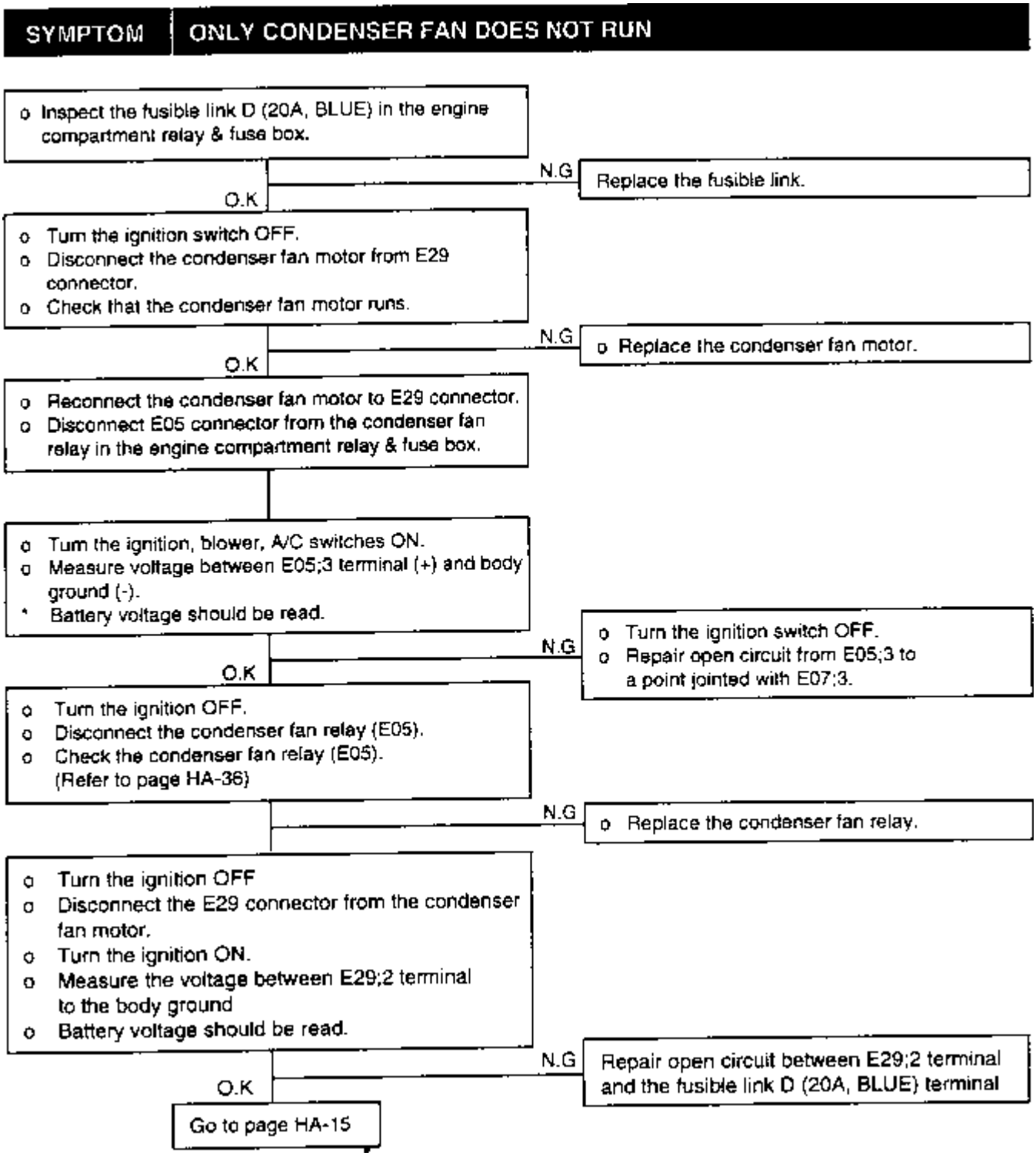
TROUBLESHOOTING (ONLY CONDENSER FAN DOES NOT RUN)



From page r+A-14

o Turn tne blower and the AiC switch ON.
o Check ccntinu,ty between E29 ;1 terminal and body ground.
o Should show continuity.

N.G

o Tum off !'ha 1g11ition, bfawer a:nd A/C **switches.**
o Repair open circuit in BLACK wire from E29 :1 tenninal *to* E05;2 terminal and from EOS; 7 terminal to ground (G04)

o Disconnect COi {Sweden) CO2 (except sweder-1} conne!ctor from **ECM.**
o Measure voltage between C01;64 (C02;6} terminal ro body ground.
o **Measure** voltage **between** C01:19 (CO2;13) terminal to body grol..lnd.
Battery voltage should b,e read.

N.G

o Repair open circuit trom C01;64 (C02:6) to MC03:10, lo MI04:8 and to 114;5 terminal.
o Repair open circuit rrom C01:19 (CO2:13) to MC03:18 to EM02;1 3 and \0 EOS;S termjnal

O.K

a Substitute a known good ECM.
o Condenser tan should be run,

N.G

o Replace the condenser fan motor.

O.K

o Replace the ECM,

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TROUBLESHOOTING (BLOWER MOTOR DOES NOT RUN)

SYMPTOM | **BLOWER MOTOR DOES NOT RUN AT ALL**

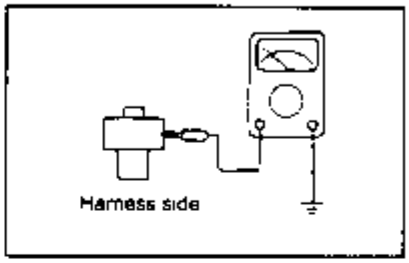
Inspect the fusible link K (30A) in the engine compartment relay & fuse box and fuse No.16 (10A) in the dash fuse box.

N.G → Replace the fusible link or the fuse

O.K

Disconnect the M56 connector from the blower motor.

- Ignition switch "ON", engine "OFF".
- Blower switch is turned "ON".



- Measure voltage between the blower motor M56;1 terminal (+) and body ground (-).
- Battery voltage should be read

N.G →
- Remove the blower relay from the passenger compartment relay box.
- Measure voltage from the blower relay E11;3 and/or E11;1 terminal (+) to body ground (-).
- Battery voltage should be read.

O.K →
- Check blower relay operation (see page HA-36).
- If relay is O.K, repair open circuit between E11;2 and M56;1.
- If not, replace the blower relay.

N.G →
- Repair open circuit between :
  - E11;4 and the fusible link K (30A)
  - E11;1 and fuse No. 16 (10A).

O.K

- Turn the ignition switch OFF.
- Reconnect the M56 connector to the blower motor

O.K

- Connect a jumper wire between the M56;2 (BLU/BLK) terminal back side and body ground.
- Turn the ignition ON.
- Blower motor should be run.

N.G → Replace the blower motor.

O.K

- Turn the ignition switch OFF.
- Remove the jumper wire.

Go to page HA-17

From page HA- 16

0 Remove th,e h$ater c:ontro! assembly (See page HA-93)
0 Disconnect the 115 (6P) connector from tha blower switch.

0 Connect **a jumper wire between** the l15;6 (BLU/BLK) terminal an-d body ground.
a Connect **a 1umper wire between** 111e 115;2 (GAN) terminal and the groun-cL

0 Turn the ignition, blower switcnes ON,
0 6 lower motor should be nJn,

N.G

o, Repair open in GRN wire- **between** blower relay **E**1l ;3 termina, and blower switch 11 5 ;2 terminal,
o Repair open in BLU/BLK wire **between** the M56;2 terminal and blower switc:t, l, **S**:6 tenninal

O.K l

0 Tum ignition switch OFF.
0 Remove rile jumper wires,

0 Inspe<::t the blower switch ($ee page HA-96}

N.G1

1 Replace the blower switch assembly

O.K !

0 Repair open circuit in BU(\.Vire between the **b er** switch 115;1 and body ground or poor ground (G02).

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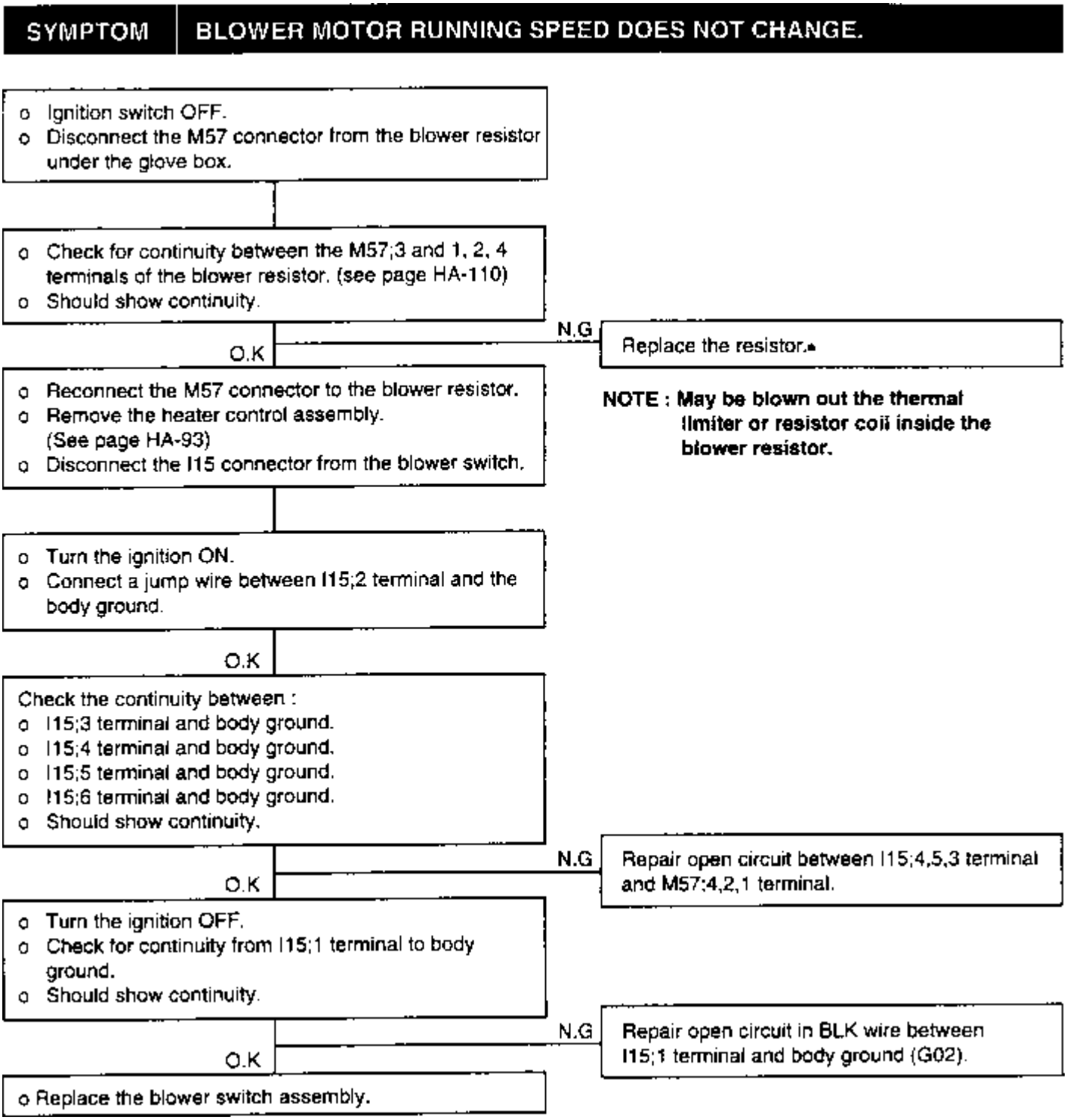
TROUBLESHOOTING (BLOWER MOTOR RUNNING SPEED DOES NOT CHANGE)



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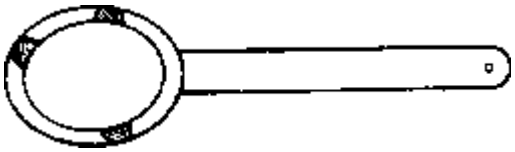
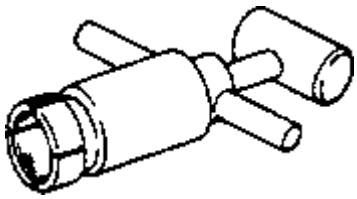
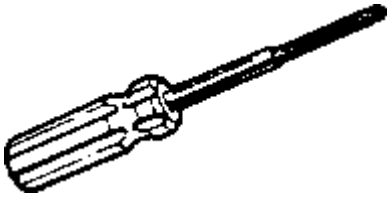
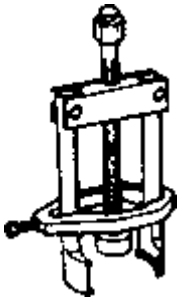
SPECIAL TOOLS

Tool (Number and name)	Illustration	Use
09977-29000 Pressure plate bolt remover		Removal and installation of pressure plate
09977-33700 Shaft seal remover and installer		Removal and installation of the shaft seal
09977-33800 Snap ring remover		Removal of snap ring
09495-33000 Bearing and gear puller		Removal of field coil

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TIGHTENING TORQUE

Compressor and refrigerant lines

Item	Nm	kg.cm	lb.ft
Mounting bolts (Compressor)	20.4-30.6	204-306	15.0-22.6
Mounting bolt (Suction hose to compressor)	12.0-15.0	120-150	8.6-11.1
Mounting bolt (Compressor to discharge hose)	12.0-15.0	120-150	8.6-11.1
Mounting nut (Discharge hose to discharge pipe)	12.0-15.0	120-150	8.6-11.1
Mounting nut (Discharge pipe to condenser)	12.0-15.0	120-150	8.6-11.1
Mounting nut (Condenser to liquid tube (A))	5.0-6.0	50-60	3.7-4.4
Mounting nut (Liquid tube (A) to receiver drier)	5.0-6.0	50-60	3.7-4.4
Mounting nut (Receiver drier to liquid tube (B))	5.0-6.0	50-60	3.7-4.4
Mounting nut (Liquid tube (B) to liquid tube (C))	5.0-6.0	50-60	3.7-4.4
Mounting nut (Liquid tube (C) to evaporator)	5.0-6.0	50-60	3.7-4.4
Mounting nut (Evaporator to suction hose)	12.0-15.0	120-150	8.6-11.1
Mounting bolt (Compressor disc and hub assembly)	10.2-15.3	102-153	7.5-11.3

Condenser

Item	Nm	kg.cm	lb.ft
Mounting bolts (Condenser)	5.0-6.0	50-60	3.7-4.4

O-RING (FOR R134A)

Item	Material	Size (in.)	Color	Quantity (EA)

Liquid tube (A)	HNBR	5/16	Light green	2
Liquid tube (B)	HNBR	5/16	Light green	1
Liquid tube (C)	HNBR	5/16	Light green	2
Suction hose	HNBR	5/8	Orange	2
Discharge hose	HNBR	1/2	Orange	2
Discharge pipe	HNBR	1/2	Orange	1

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SPECIFICATIONS

Heater unit

Type	Three-way-flow-air-mix system
Heating capacity	4,500 ± 450 kcal/h

Heater control assembly: Rotary type (Vacuum Control System)

Air conditioning

Cooling capacity	4,100 ± 410 kcal/h

Compressor

Model	FX-15 (Switch plate type)
Refrigerant unit lubricant, cc (cu. in.)	PAG oil FD46XG or Equivalent 170-190cc (10.4-11.6)
Bore x stroke	29.0 mm x 23.3 mm
Displacement	154 cc/rev

Magnetic clutch

Voltage, power consumption	DC 12.8 ± 0.2V
Break away torque	Min. 40 Nm (400 kg.cm, 29.50 lb.in)
Coil resistance (12.8V at 20°C)	3.23 ± 0.08

Pressure relief valve (color: natural)

Working pressure	35.0 - 42.2 kg/cm2 (498-600 psi)
Resealed pressure	28.1 kg/cm2 (400 psi)

Dual pressure switch

High pressure switch	OFF 32 ± 2 kg/cm2 (3,140 kpa, 455 psi)
	ON 26 ± 2 kg/cm2 (2,550 kpa, 370 psi)
Low pressure switch	OFF 2.0 ± 0.2 kg/cm2 (200 kpa, 28 psi)

	ON 2.25 ± 0.2 kg/cm2 (220 kpa, 32 psi)

Freezer prevention	Electrical type (Thermistor)
	OFF: 1.0 ± 1°C (33.8 ± 1.8°F)
	ON: 4.0 ± 1°C (39.2 ± 1.8°F)

Refrigerant and quantity: R-134a Approx. 675-725g (1.50-1.61 lbs) Max.

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SERVICE STANDARDS

Amount of deflection of V belt

New belt	5-5.5 mm (0.20-0.21 in.)
Used belt	6-7 mm (0.23-0.28 in.)
After driving	8 mm (0.31 in.)

Compressor clutch clearance (air gap): 0.35-0.65 mm (0.0138-0.0256 in.)

V belt size

Type	4PK850
Length	850 ± 5.0 mm (33.5 ± 0.2 in.)

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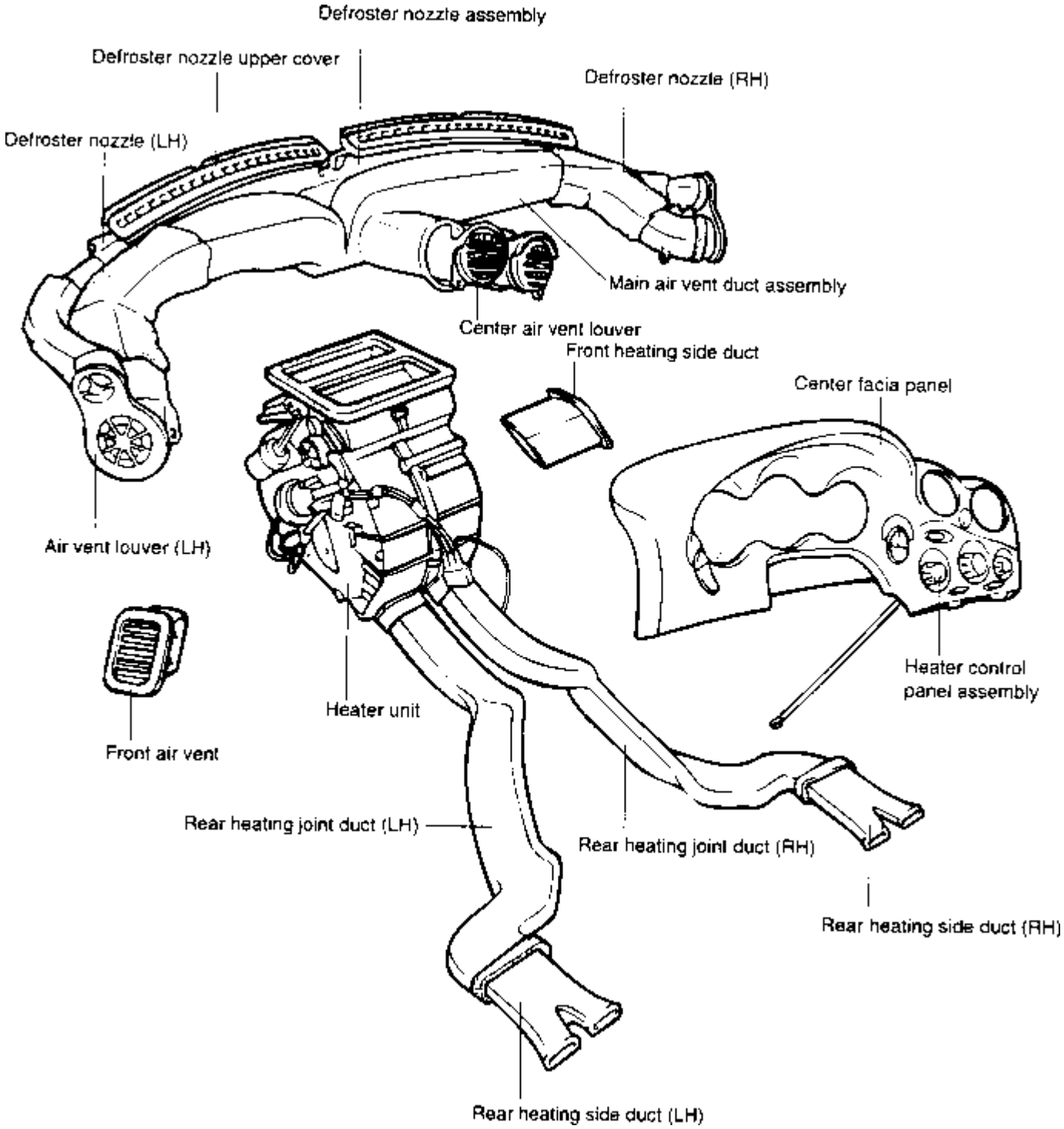
COMPONENTS



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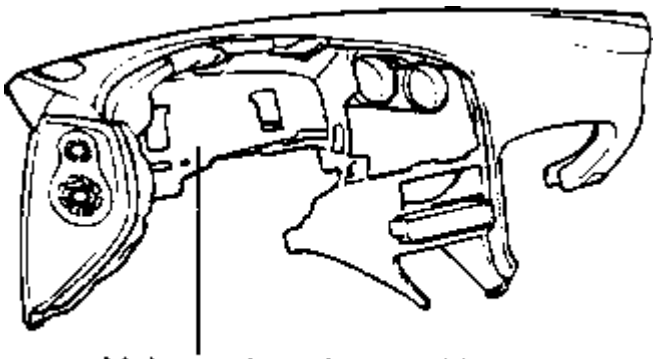
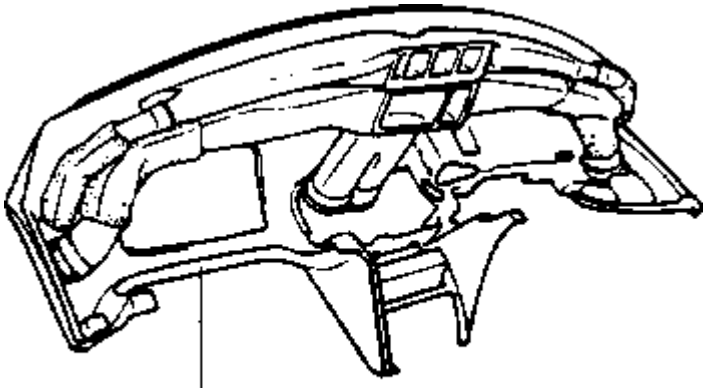
REMOVAL AND INSTALLATION

DEFROSTER NOZZLE ASSEMBLY AND MAIN AIR VENT DUCT ASSEMBLY

Remove the main crash pad assembly.



Main crash pad assembly
<Front View - Raised state>



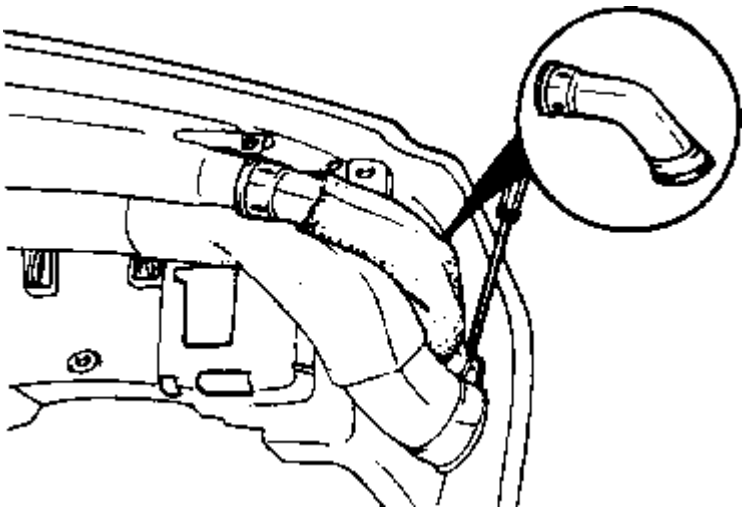
Main crash pad assembly
<Rear View - Layed state>

NOTE

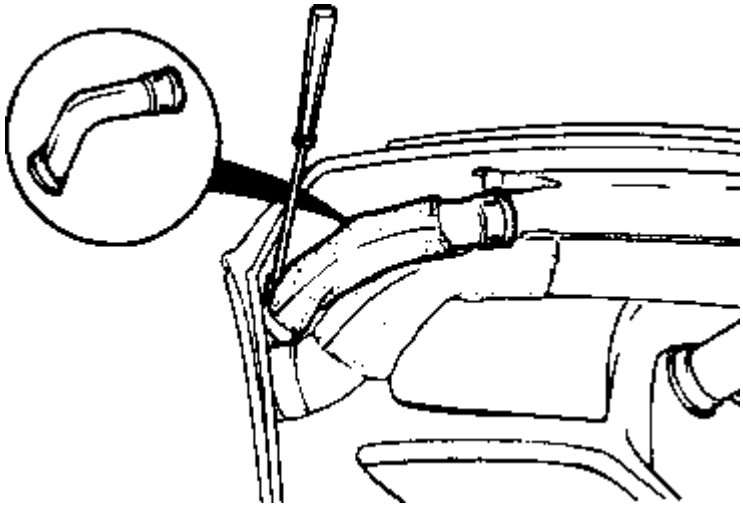
Removal and installation should be carried out on the back of the main crash pad assembly.

DEFROSTER NOZZLE ASSEMBLY

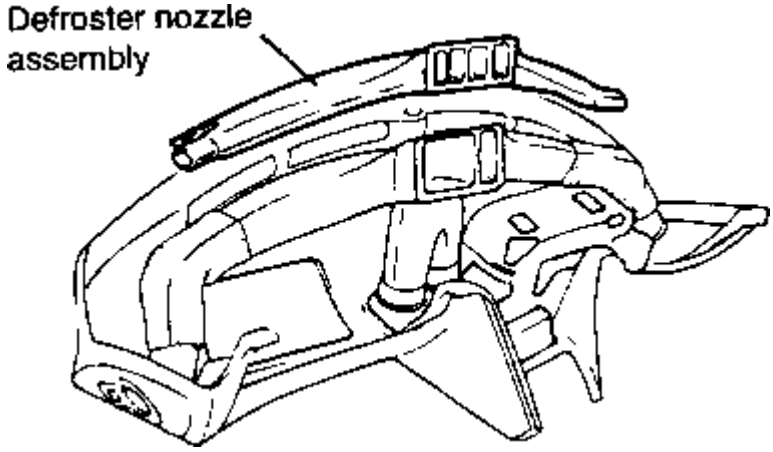
Remove the LH side defroster nozzle assembly.



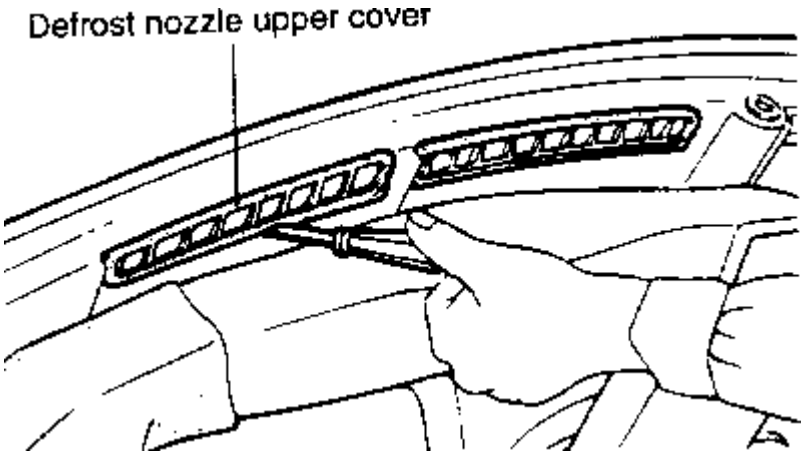
Remove the RH side defroster nozzle assembly.



Remove the defroster nozzle assembly.

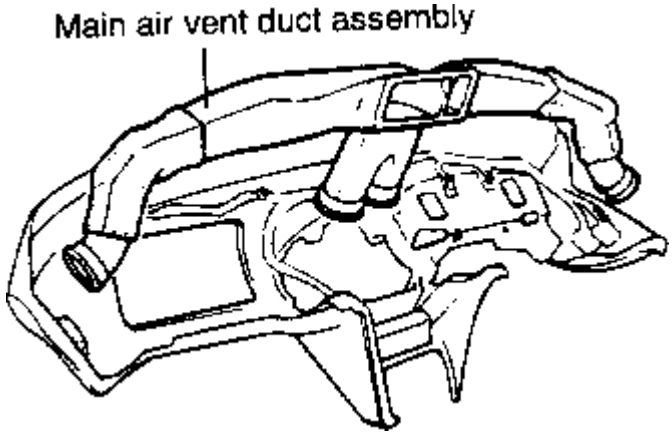


After releasing clips (3EA), remove the defroster nozzle upper cover (LH/RH).

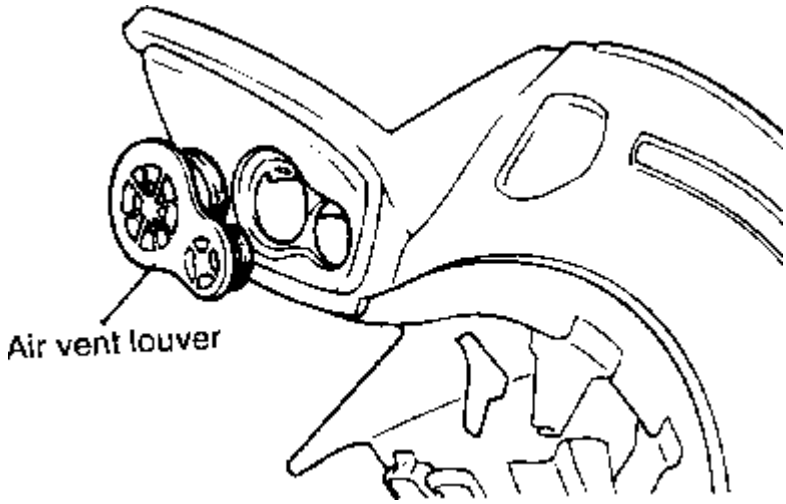


MAIN AIR VENT DUCT ASSEMBLY

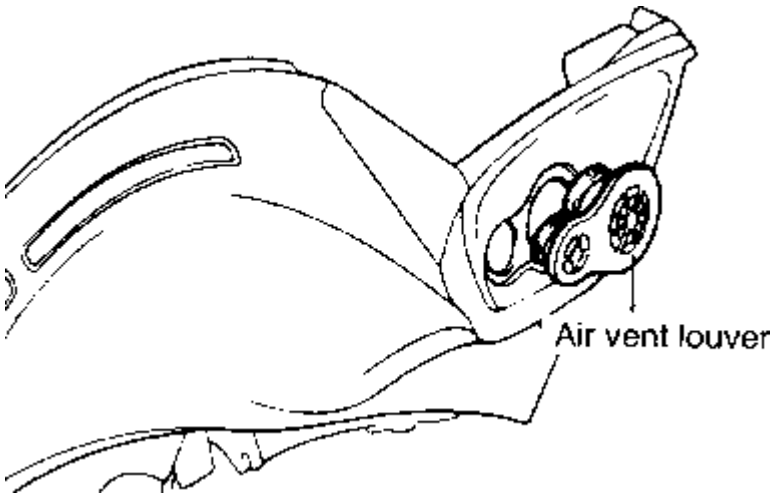
Remove the main air vent duct assembly.



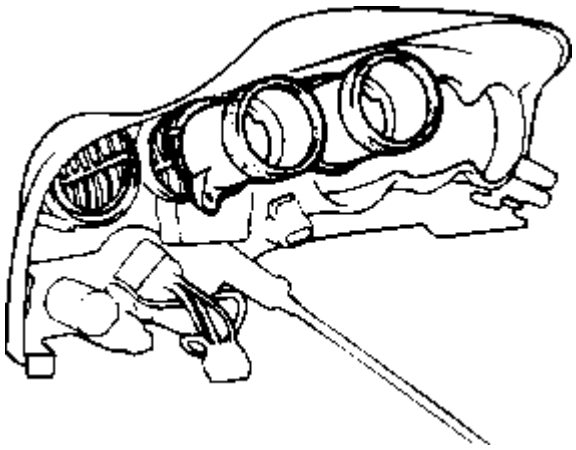
Remove the side air vent Iouver assembly (LH).



Remove the side air vent Iouver assembly (RH).



Remove the center air vent Iouver assembly from the cluster facia panel.



Installation of the main air vent duct assembly and defroster nozzle assembly is the reverse order of removal.

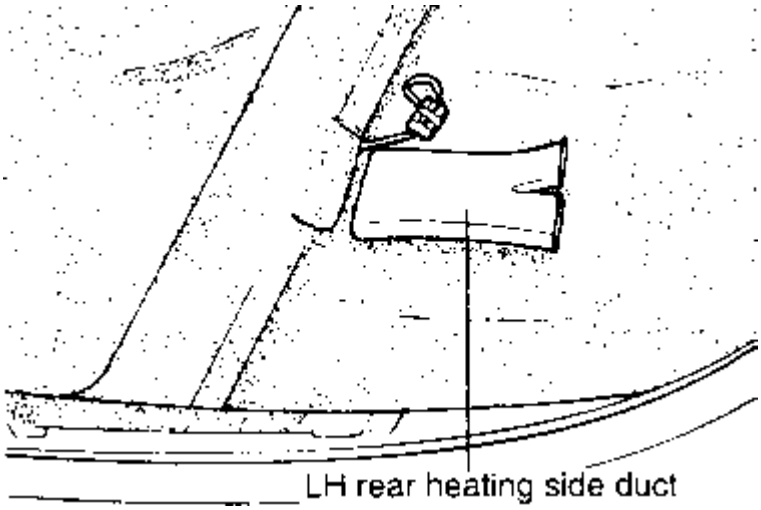
Return to Main Menu(s): Mechanical Manual Electrical Manual

REAR HEATING DUCT ASSEMBLY

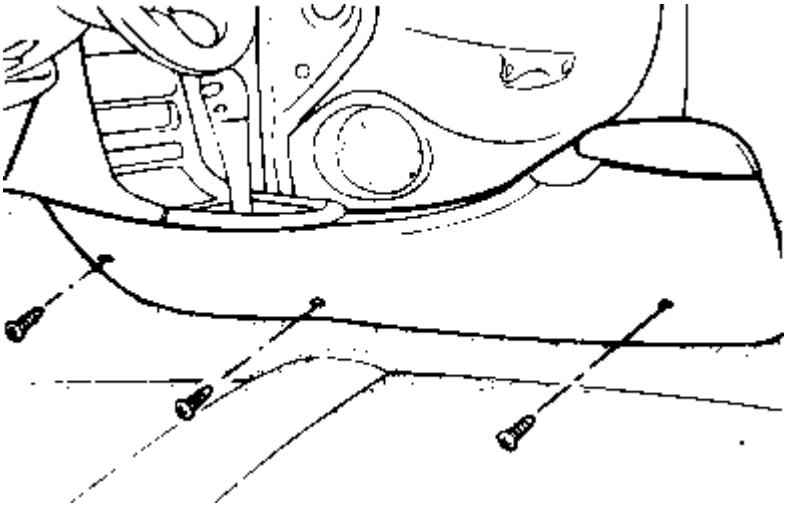
REAR HEATING DUCT- LH SIDE

Remove the driver seat assembly.

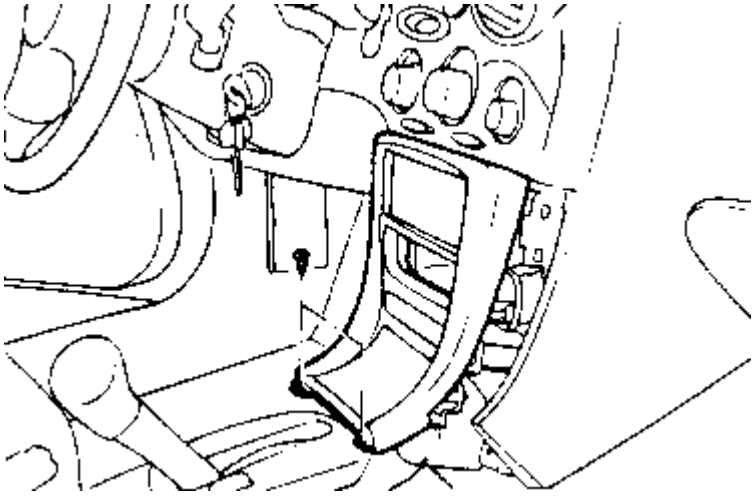
Remove the rear heating side duct (LH).



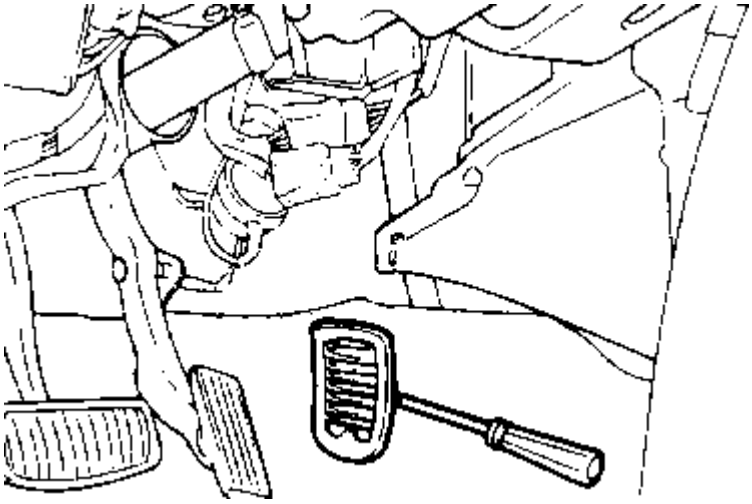
Remove the floor console.



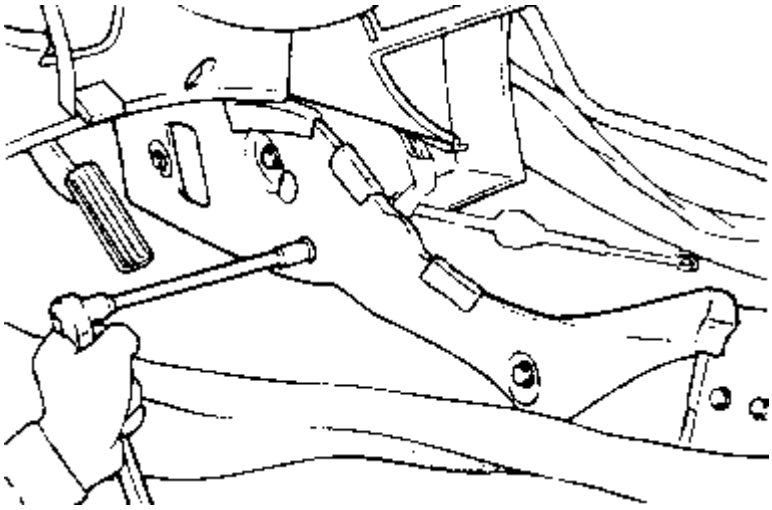
Remove the cent facia panel.



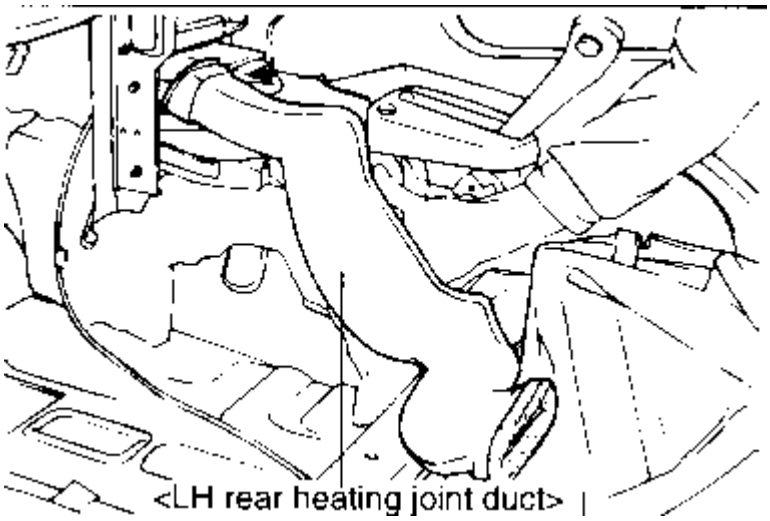
Remove the front air vent (LH).



Turn over the carpet and remove the console mounting bracket (LH).



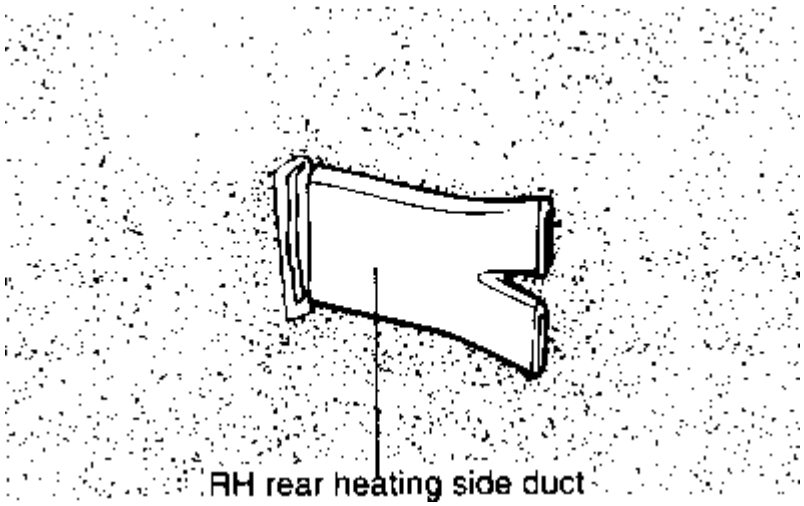
Remove the rear heating joint duct (LH).



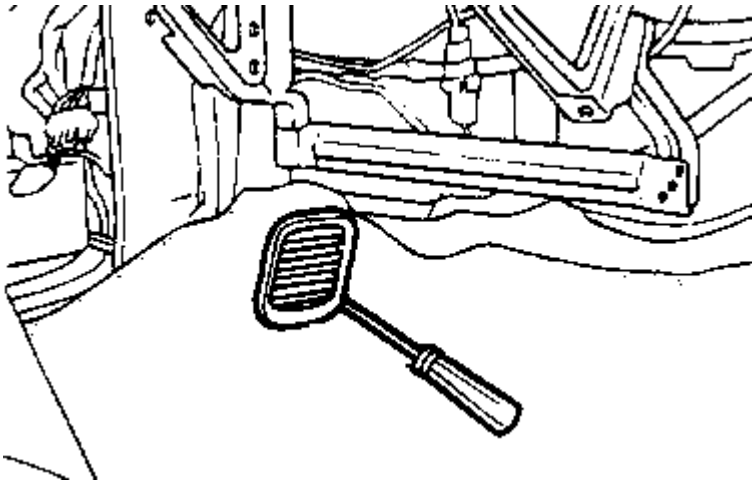
REAR HEATING DUCT - RH SIDE

Remove the front passenger seat.

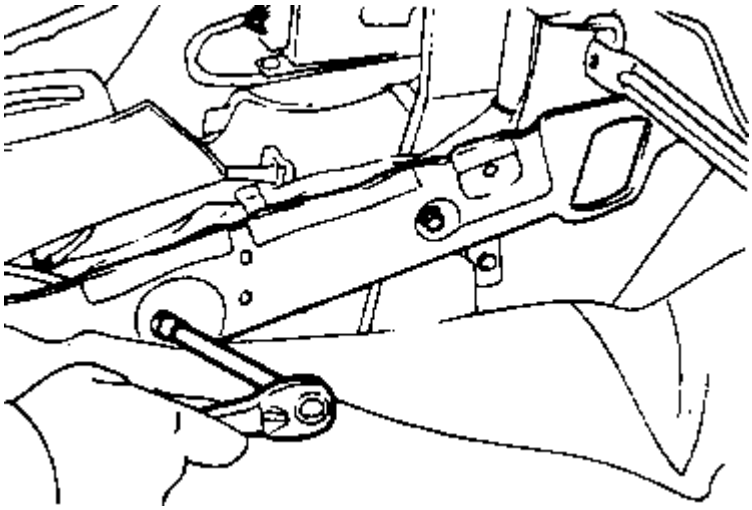
Remove the rear heating side duct (RH).



Remove the front heating side duck.



Turn over the carpet and remove the console mounting bracket (RH).



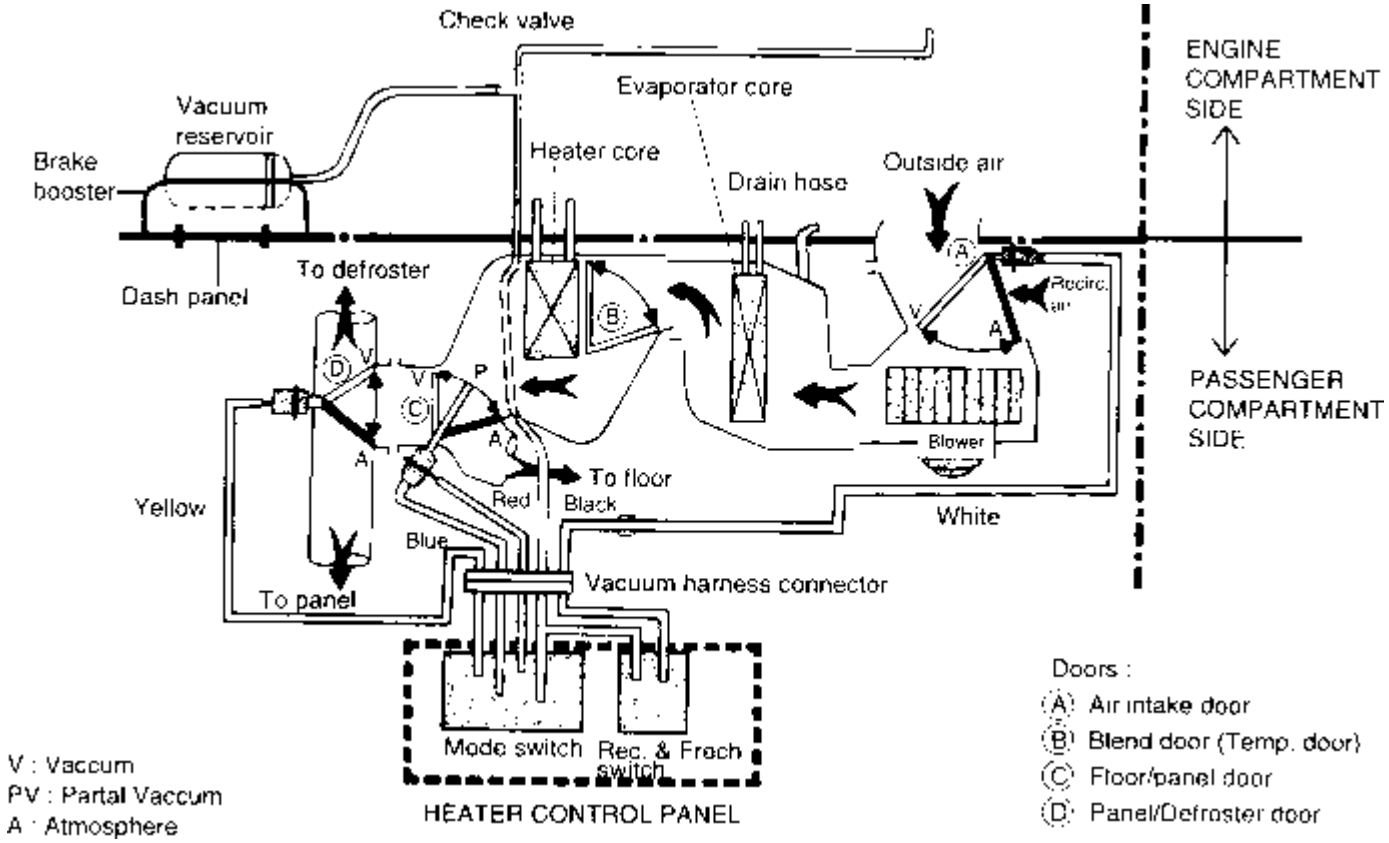
Remove the rear heating joint duct (RH).

Installation is the reverse order of removal.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Vacuum System

Return to Main Menu(s): Mechanical Manual Electrical Manual

VACUUM SYSTEM



SYMPTOM AND PROBABLE CAUSE IN AIR FLOW MODE CONTROL SYSTEM

Symptom	Probable cause
On "FLOOR" position. All air through defroster or DEF/FLOOR.	• Blue and/or and vacuum hose pinched or disconnected at vacuum motor. • Black source hose pinched or disconnected at the connector. • Engine compartment vacuum source hose pinched or disconnected at the vacuum manifold. • Defective vacuum motor.
On "DEF/FLOOR" position. All air through defroster.	• Blue hose pinched or disconnected at vacuum motor. • Black source hose pinched or disconnected at the connector. • Engine compartment vacuum source hose pinched or disconnected at the vacuum manifold. • Defective vacuum motor.
	• Yellow vacuum hose pinched or disconnected at vacuum

On "PANEL VENTS" position. All air through defroster.	motor. • Black source hose pinched or disconnected at the connector. • Engine compartment vacuum source hose pinched or disconnected at the vacuum manifold. • Defective vacuum motor.
On "PANEL/FLOOR" position. All air through defroster or panel	• Yellow vacuum hose pinched or disconnected at vacuum motor. • Blue hose pinched or disconnected at vacuum motor. • Black source hose pinched or disconnected at the connector. • Engine compartment vacuum source hose pinched or disconnected at the vacuum manifold. • Defective vacuum motor.
On "DEF" position. (No vacuum) On "RECIRC" position. All air through fresh.	• White vacuum hose disconnected at the connector or recirc duct vacuum motor. • Black source hose pinched or disconnected at the connector. • Engine compartment vacuum source hose pinched or disconnected at the vacuum manifold. • Defective vacuum motor.
Engine poor idle	• Engine compartment vacuum source hose disconnected.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Heater

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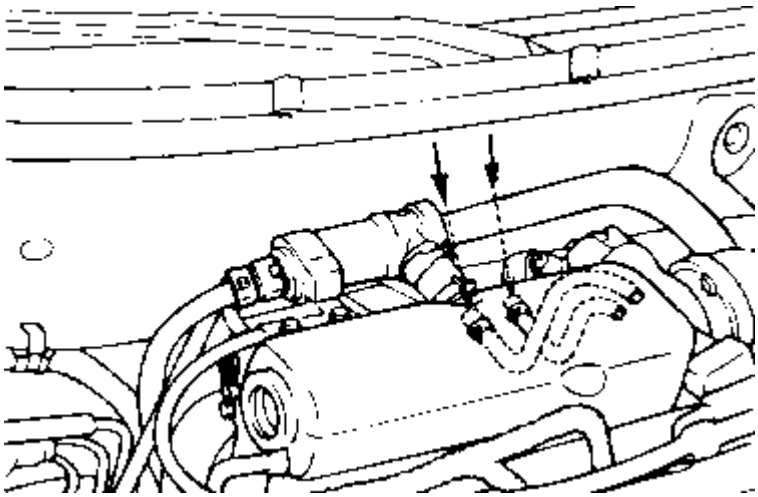
REMOVAL

Disconnect the negative terminal from the battery.

Disconnect the engine coolant inlet and the out let hoses from the heater unit.

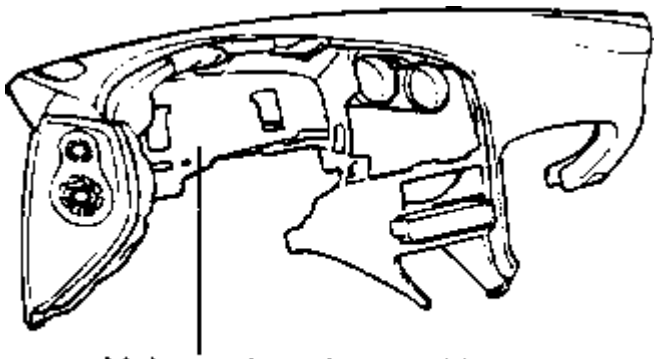


NOTE

Plug the ends of inlet and outlet hoses immediately after disconnection.

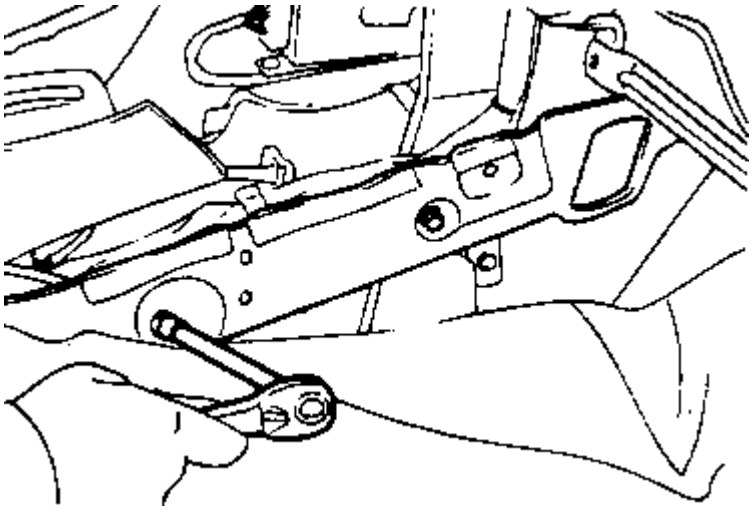
Disconnect vacuum source hose from the vacuum nipple of the heater unit.

Remove the main crash pad assembly. (Refer to the "BODY".)

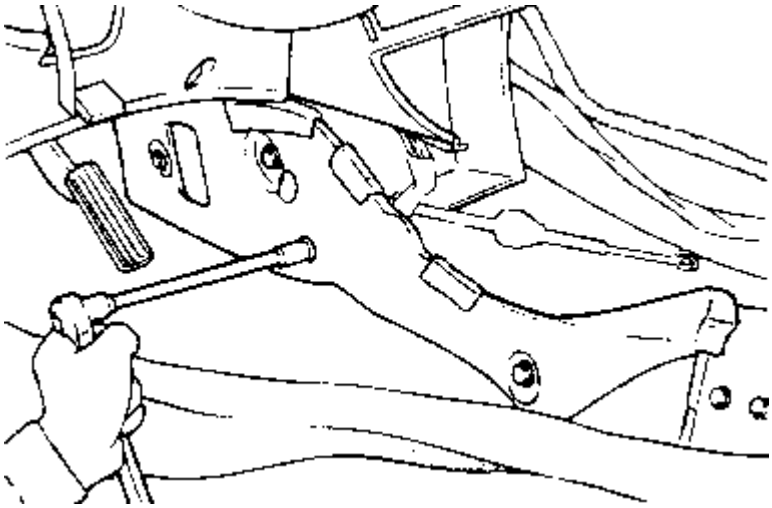


Main crash pad assembly
<Front View - Raised state>

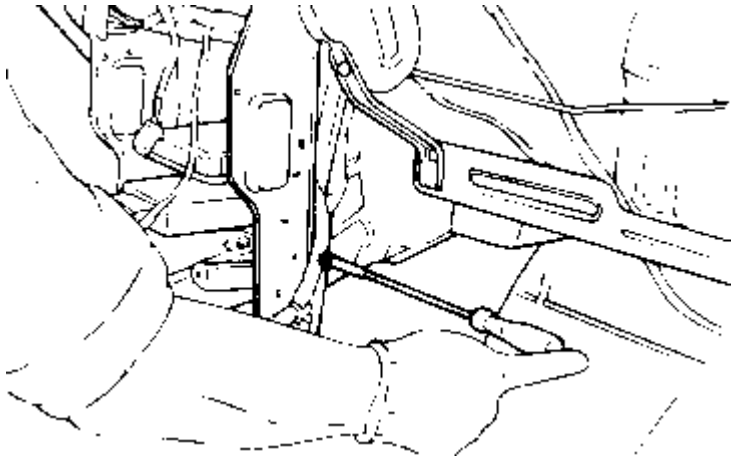
After removing the RH front heating side duct and turning over the carpet, remove the RH console mounting bracket.



After removing the LH front heating side duct and turning over the carpet, remove the LH console mounting bracket.

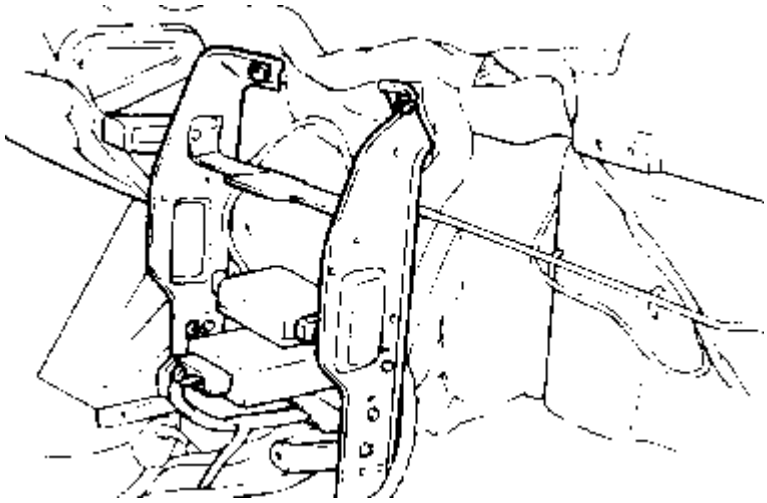


Remove the rear heating if joint duct (RH/LH) from the heater unit.

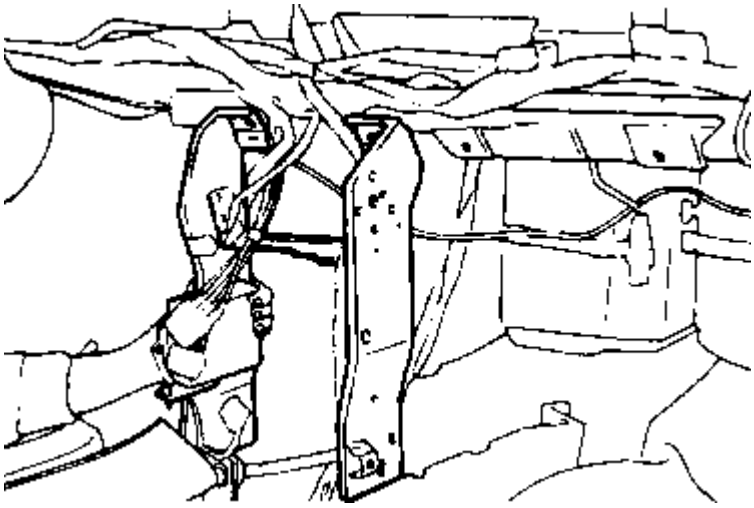


Disconnect connectors from the control modules mounted on the center facia panel support bracket and other interruptive connectors.

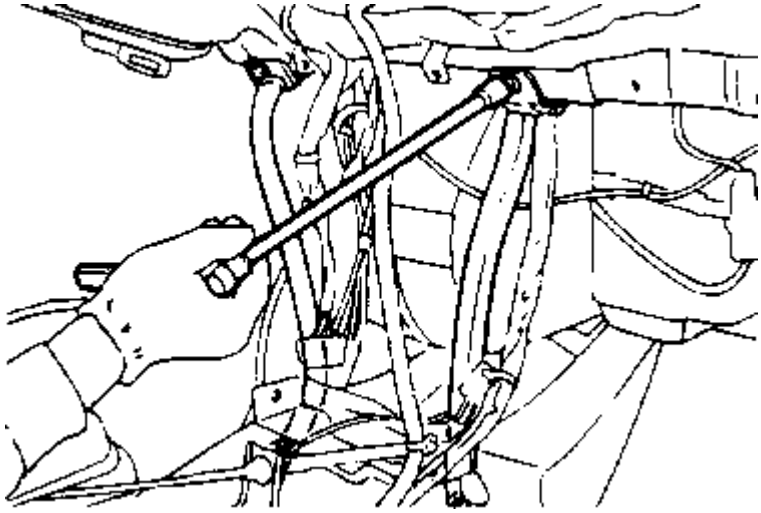
Remove screws, bolts or nuts from the center facia panel support bracket.



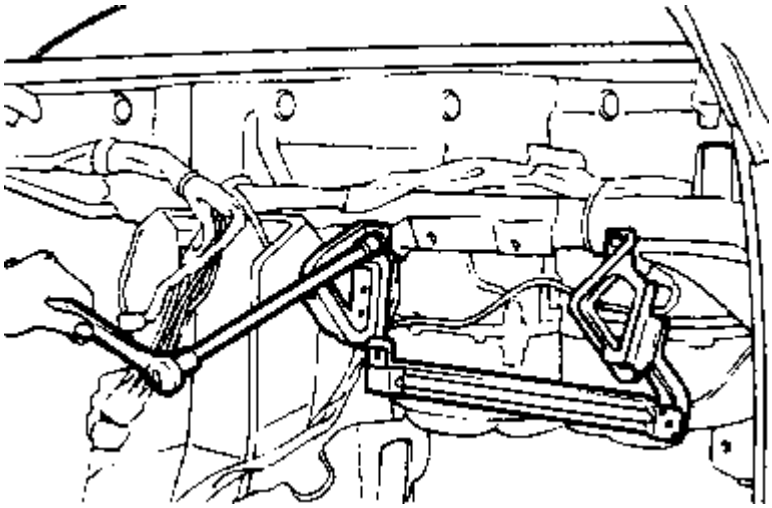
Remove the center facia panel support bracket.



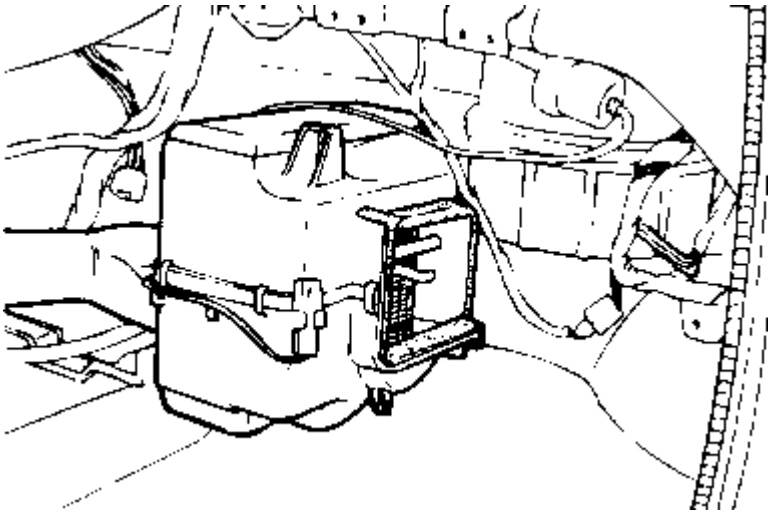
Remove center support bars.



Remove the glove box support bracket.

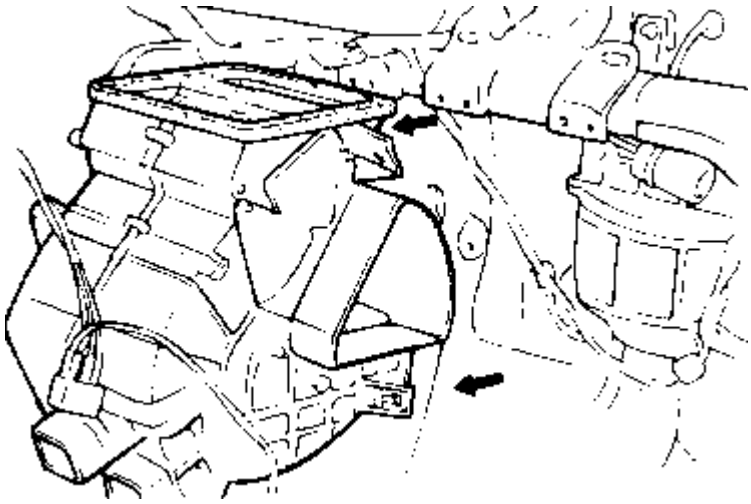


Remove the evaporator unit (For detailed removal procedures, refer to the "Remove of the evaporator unit" on page HA-61).



Remove the heat unit mounting bolt and remove the heat unit.

Remove the blower unit.



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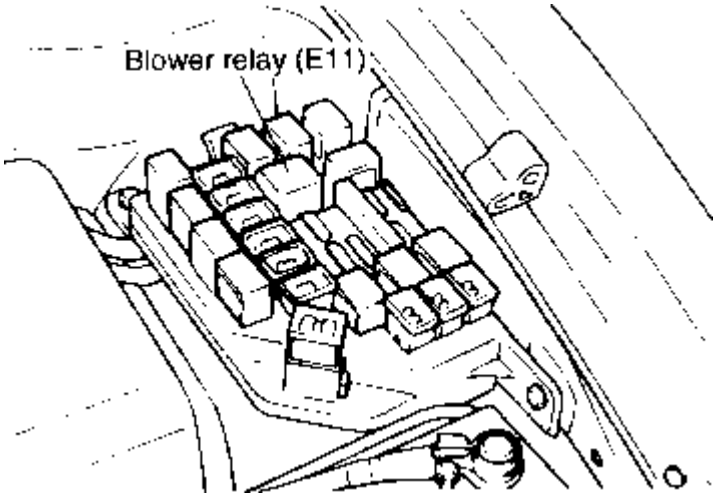
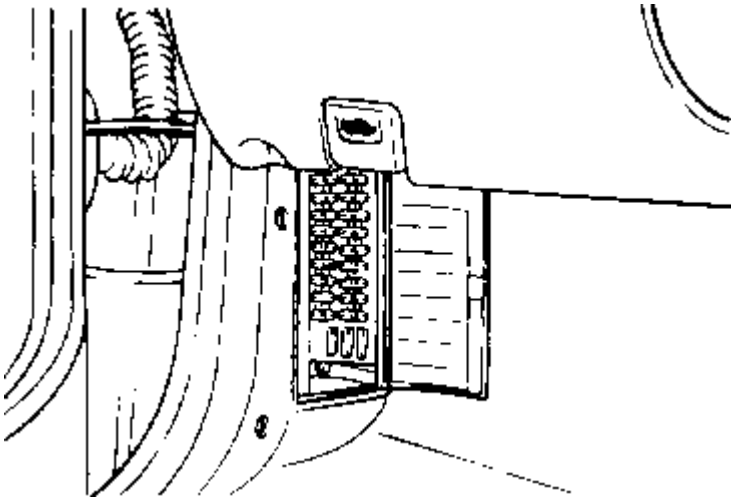
COMPONENT LOCATION

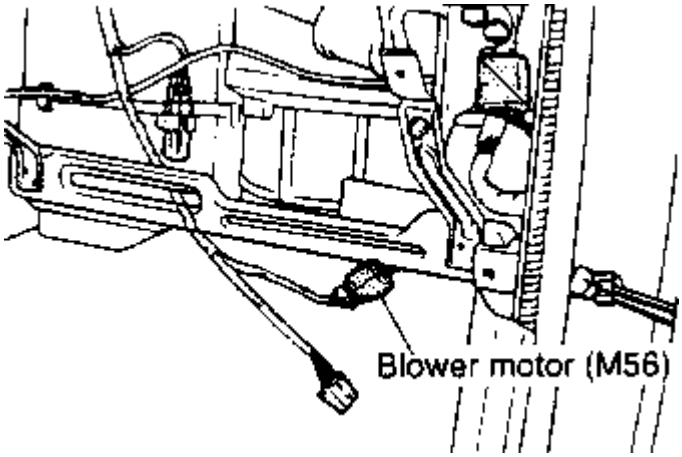
Engine compartment fuse & relay box



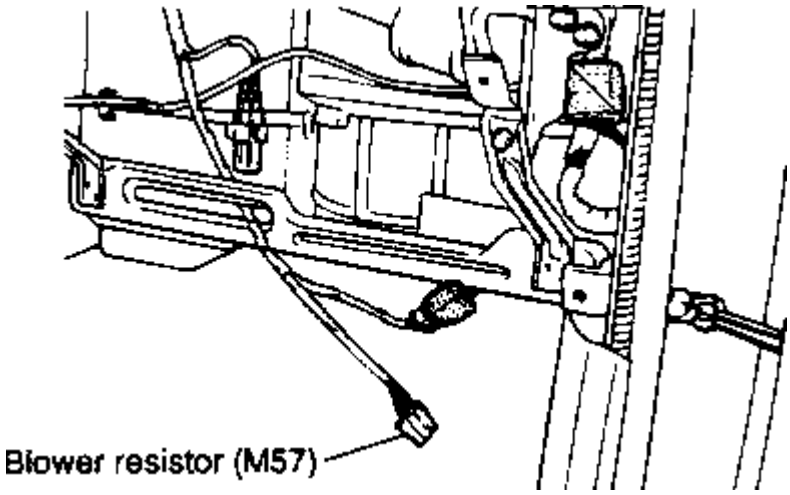
Dash fuse box



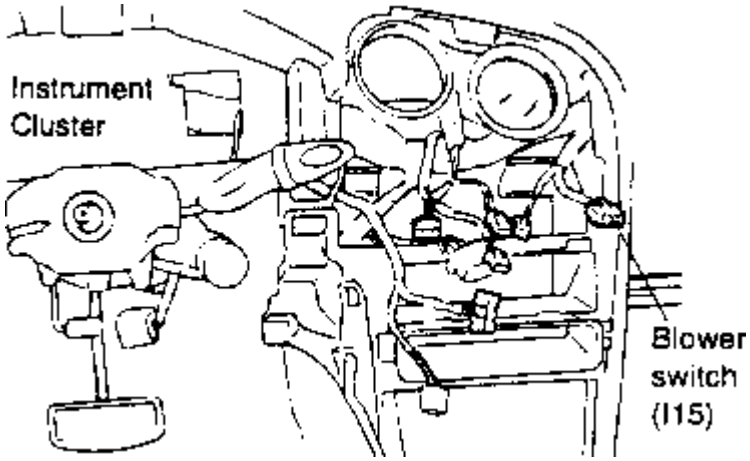
Blower motor (M56)



Blower resistor (M57)



Blower switch (11 5)



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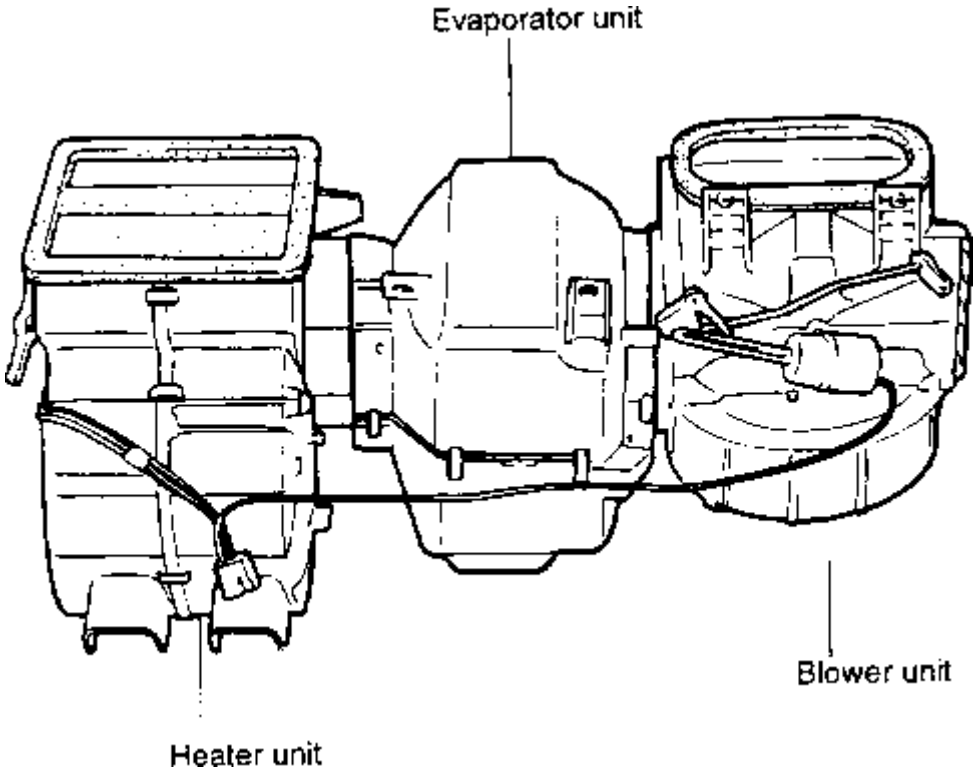
COMPONENTS



Return to Main Menu(s): Mechanical Manual Electrical Manual

INSTALLATION

Installation is the reverse order of removal.

After installation, evacuate, charge and test the air conditioning system.

Check that the temperature control cable slides smoothly, the full stroke right to left. If not okay, readjust the temperature control cable.

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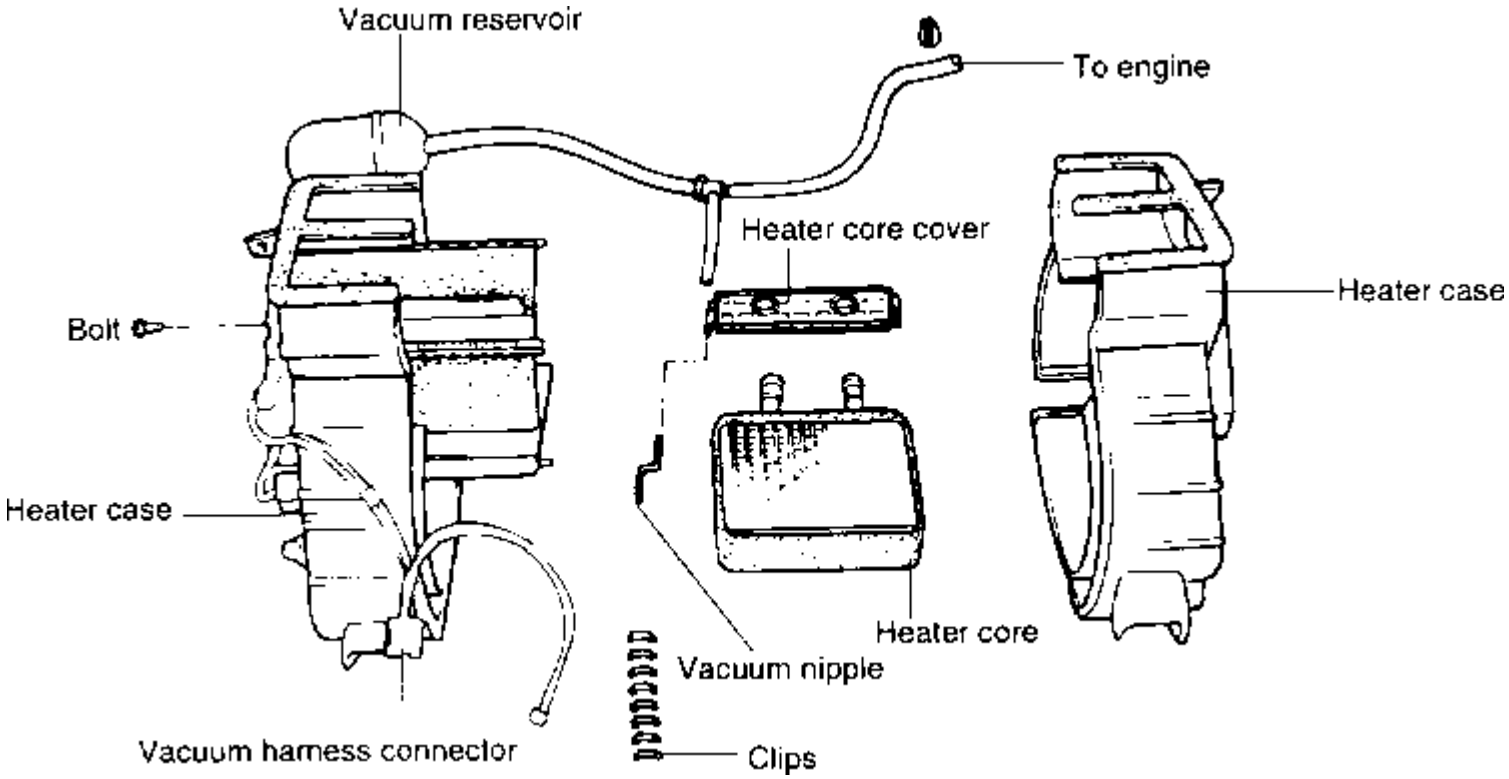
COMPONENTS



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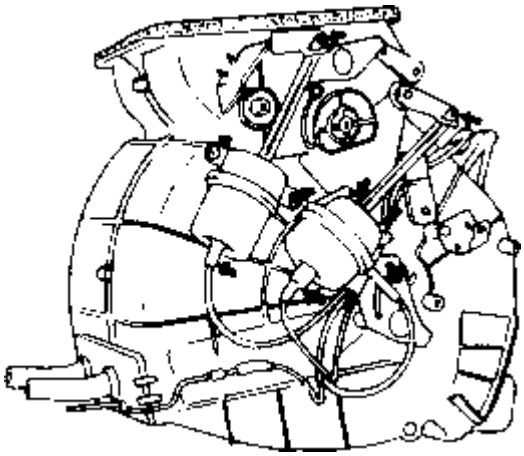
DISASSEMBLY AND REASSEMBLY



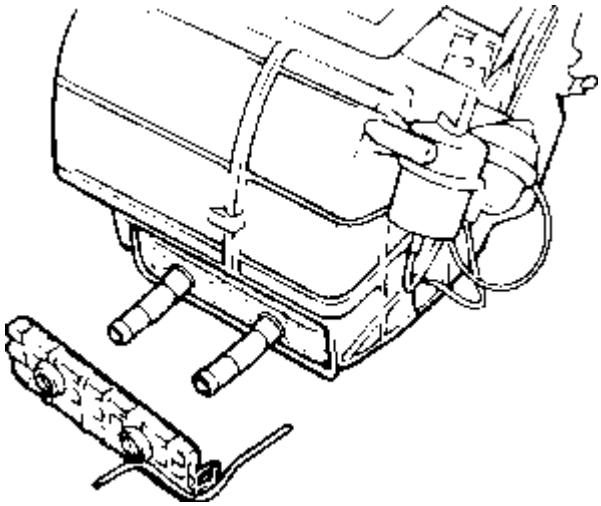
Disconnect the vacuum from the vacuum nipple of the vacuum motor.

Remove mounting bolts (2EA) from each of the vacuum motor.

Disconnect vacuum motor rod end connections.

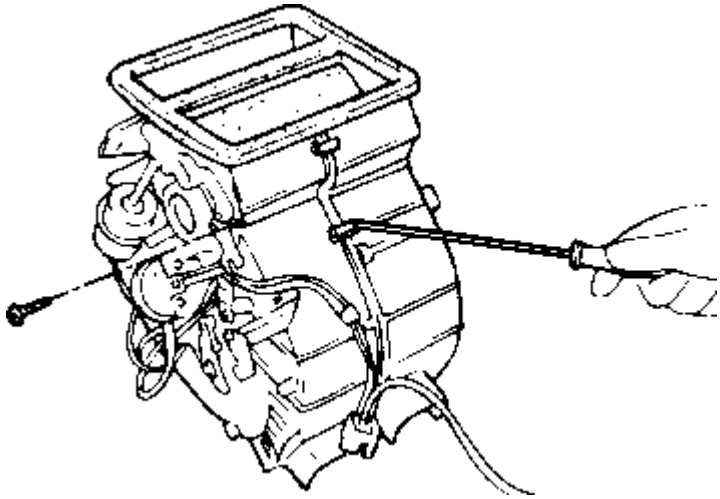
Remove the vacuum motor.

Disconnect the connection at both sides of the heater core cover and remove the cover and the vacuum nipple.



Pull out the heater core.

Remove clips (8EA) which is holding both cases around the heater unit.



Disassemble the heater unit.

Reassembly is the reverse order of disassembly.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Heater

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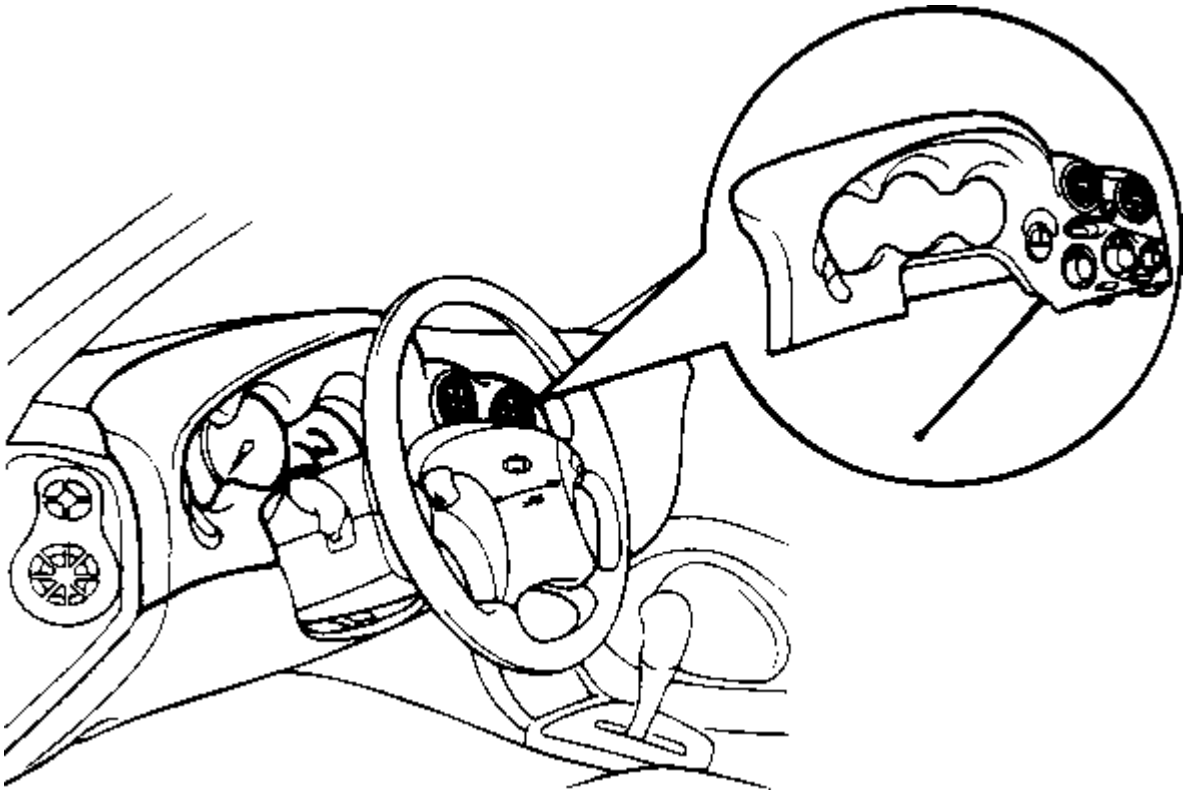
COMPONENTS



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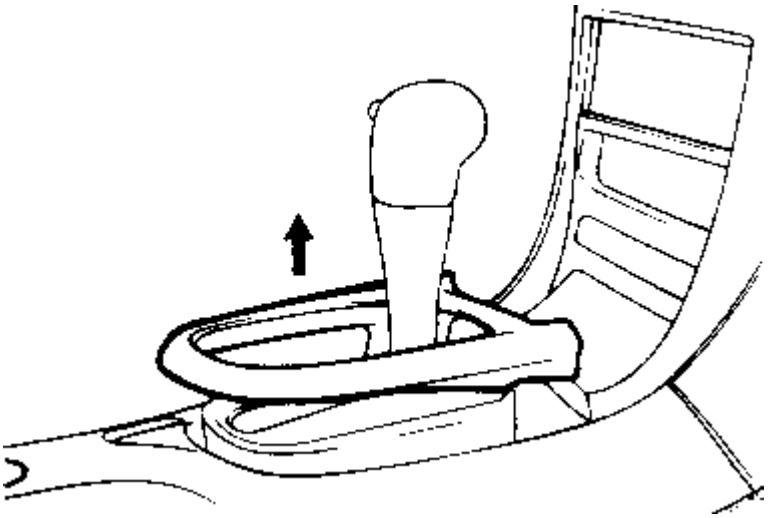
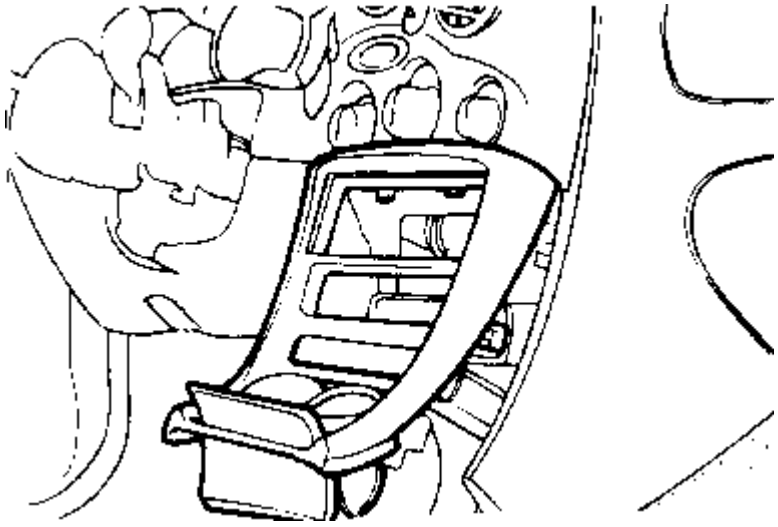
REMOVAL

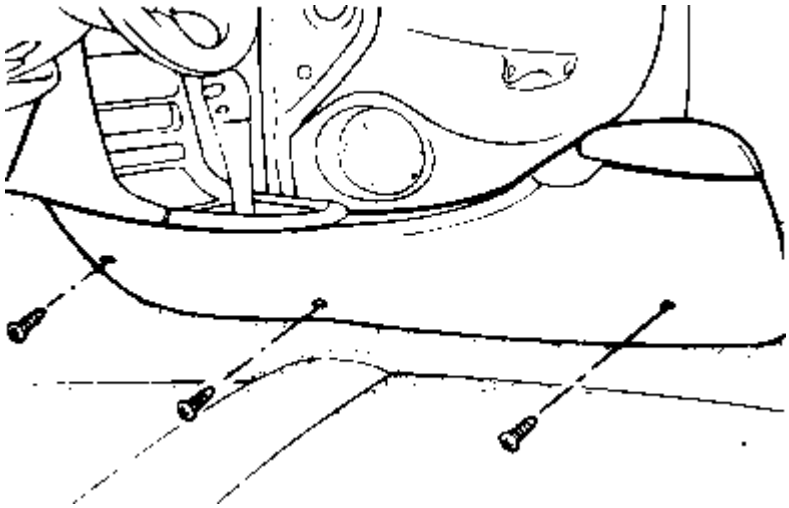
Remove the shift lever upper cover.



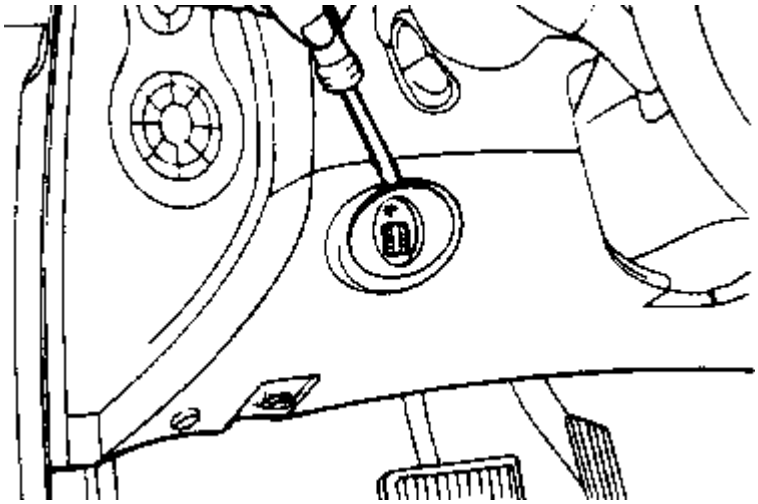
Remove the facia panel mounting screws.



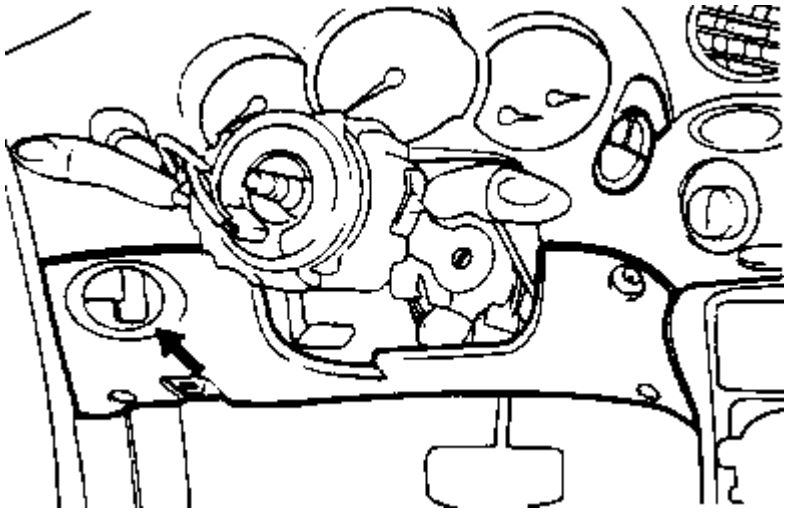
Remove the floor console mounting screws (4EA) and then, remove the floor console.



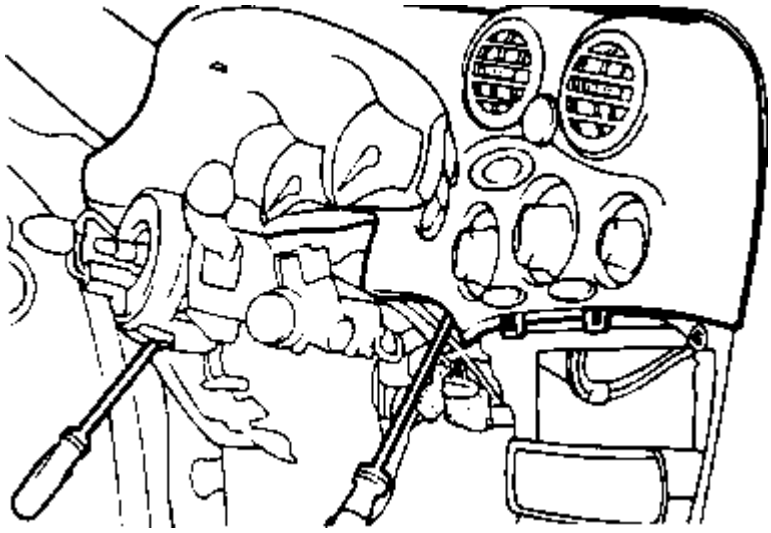
Disconnect the rheostat switch.



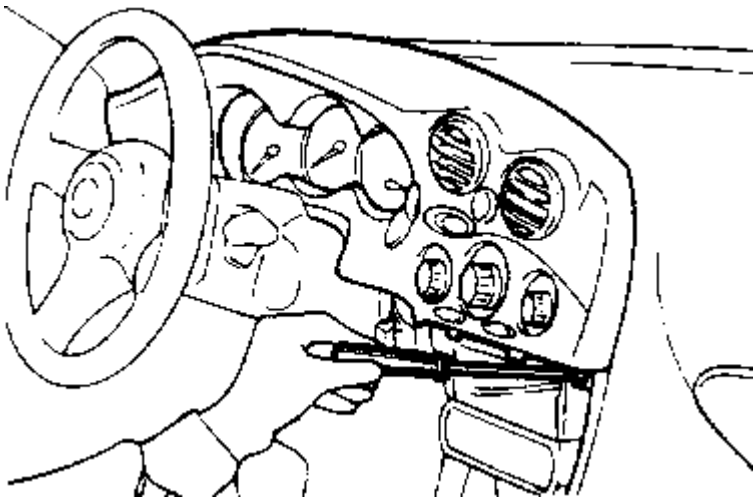
Remove the lower crash pad panel.



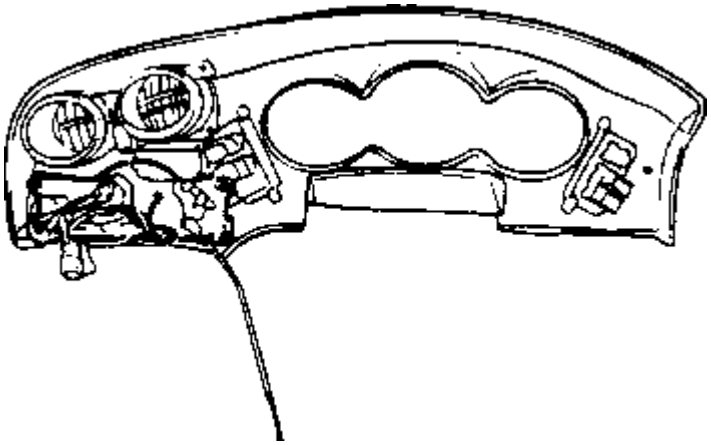
Remove the cluster facia panel mounting screws (5EA) from the cluster facia panel.



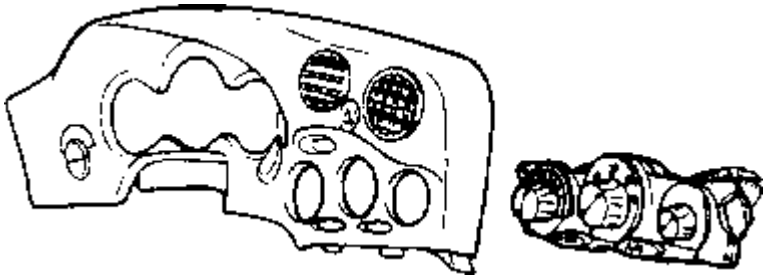
Pull out the cluster facia panel, disconnect switch extension wire connector, vacuum harness connector, blowers switch connector, A/C switch connector.



Remove the heater control panel mounting screws.



Remove the heater control panel assembly from the cluster facia panel.



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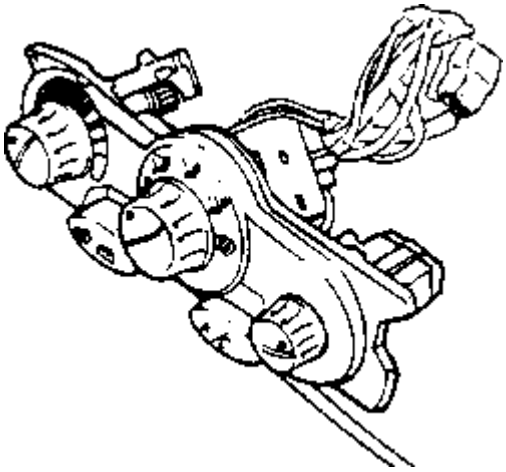
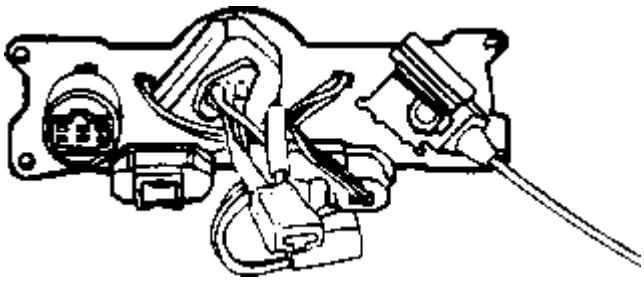
DESCRIPTION



The heater assembly is a blend air system and consists of a heater assembly, blower assembly and duct which is connected between the heater case and blower case. The heater case contains the heater core and the temperature blend door. The blower assembly containing the outside/recirculating air door, the blower motor and the lower wheel is connected directly to an opening in the upper cowl. The outside air is drawn into the system from the cowl through the blower inlet into the blower housing, forced through and/or around the heater core, mixed and then discharged through outlets in the discharge air duct to the floor area or through the defroster outlets depending the type of climate control desired. The system airflow is controlled by two kind of control assembles, the vacuum rotary and the manual lever type.



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INSTALLATION

Installation is the reverse order of removal.

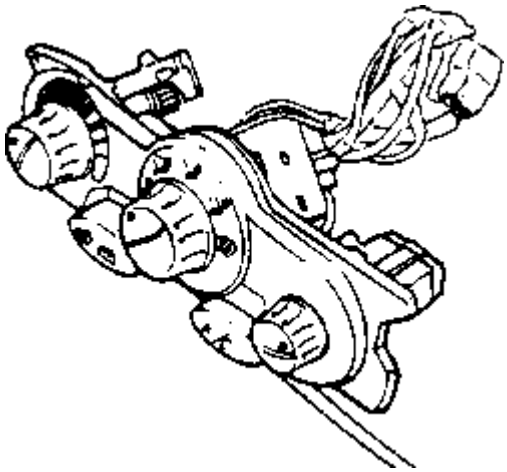
TEMPERATURE CONTROL CABLE ADJUSTMENT

After installation of the heater control assembly, adjust the temperature control cable.

Slide the temperature control lever to HOT.

Turn the temperature door shaft arm to the left and connect the end of the cable to the arm.

Gently slide the cable outer housing back from the end enough to take up any slack in the cable, but not enough to make temperature control lever move, then snap the cable housing into the clamp.



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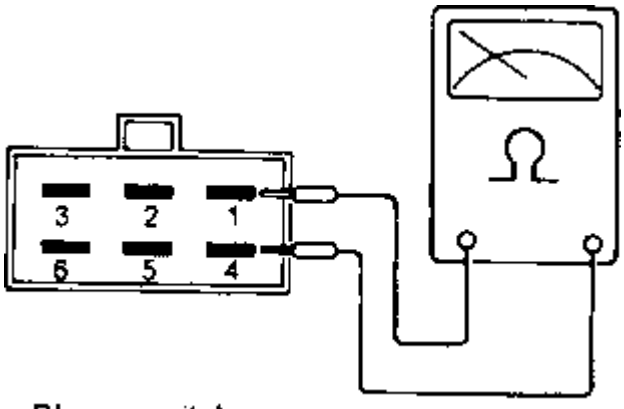
INSPECTION

BLOWER SWITCH

Check for continuity between terminals as shown below.

Terminal / Switch position	1 (Ground)	2 (B+)	3 (M.H)	4 (LOW)	5 (M.L)	6 (HIGH)
OFF						
1 (LOW)	○	○		○		
2 (M.L)	○	○			○	
3 (M.H)	○	○	○			
4 (HIGH)	○	○				○



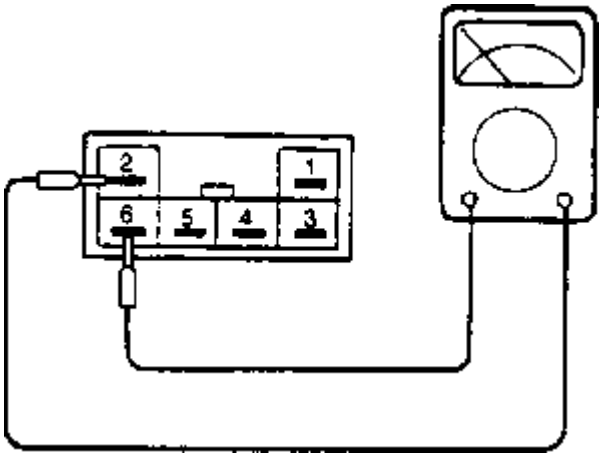
Blower switch

If continuity is not as specified, replace the switch.

AIR CONDITIONING SWITCH

Check for continuity between terminals as shown below.

Terminal / Switch position	1 (ILL+)	2 (Ground)	3 (IGN+)	4 (ILL-)	5 (Thermo s/w)	6 (B+)
OFF						
ON		○				○
Pannel illumination	○		○	○		



If continuity is not as specified, replace the switch.

MODE CONTROL SWITCH

Connect the vacuum tester to black color hose of the vacuum connector.

Connect the vacuum hoses to mode control switch.

Clog the vacuum port for fresh/recirc control switch.

Check for vacuum hiss from the mode switch and vacuum hoses, and inspect for air flow between each hoses when the mode switch is at the each positions as shown below.

Hose color	Panel	Panel/ Floor	Floor	Floor/ Defroster	Defroster
Black	V	V	V	V	V
Blue	-	V	V	V	-
Red	-	-	V	-	-
Yellow	V	V	-	-	-
White	-	-	-	-	-

NOTE

'V': make air flow with black hose.

If air flow is not as specified, replace the mode switch.

FRESH/RECIRC BUTTON

Connect the vacuum tester to back color hose for the fresh/recirc control switch.

Check for vacuum hiss and air flow as shown below.

Hose color	Button switch position Fresh	Button switch position Recirc
Black	V	V
White	-	V

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Heater

Return to Main Menu(s): Mechanical Manual Electrical Manual

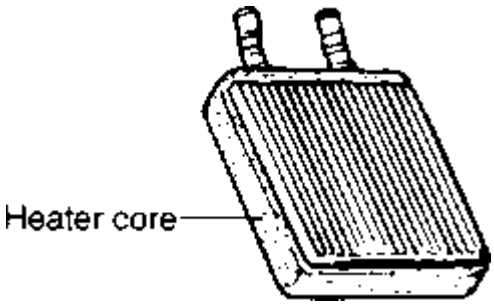
INSPECTION

HEATER CORE

Using a special tool, install to the heater core one side and the other side is clogged.

Place the heater core in water, then apply 200kPa (29psi) pressure.

Holding for two minutes, while checking for leakage from the heater core. If there is leakage, repair or replace the heater core.



VACUUM MOTOR

Connect vacuum tester to the each vacuum connectors and apply-510mmHg pressure.

Check vacuum hiss from the diaphragm of the vacuum motor and that the shaft returns smoothly to initial position. If not okay, replace the vacuum motor.

> **NOTE**
>
> **Never manually operate any vacuum motor or vacuum motor controlled door. This may cause internal damage to the motor diaphragm.**

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Blower Controls

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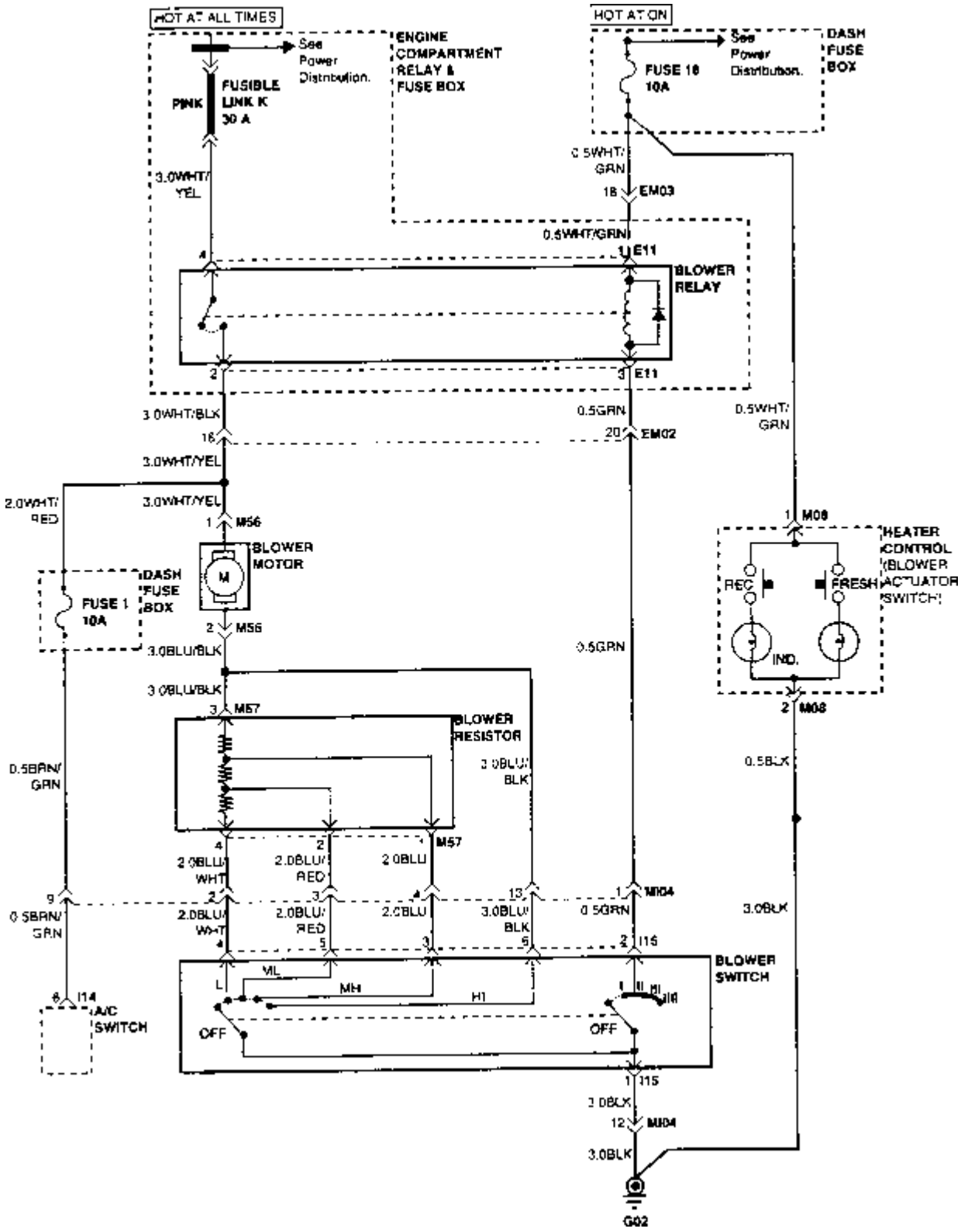
BLOWER CONTROLS (FOR DETAILS, REFER TO ETM SCHEMATIC DIAGRAMS)



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Blower Controls

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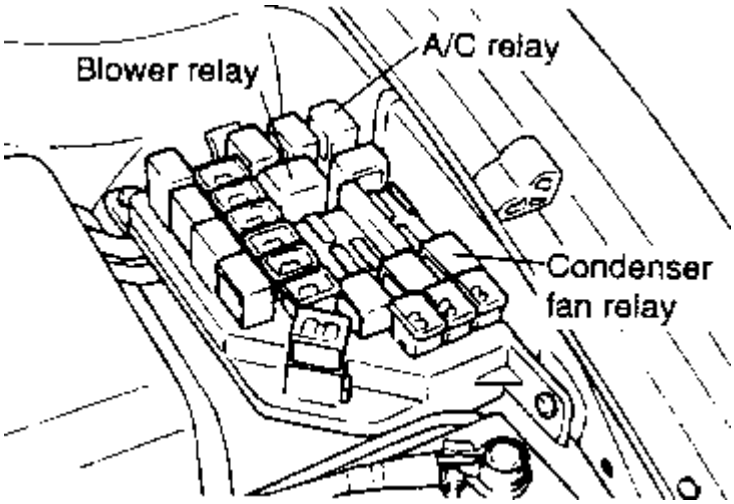
RELAYS

AIR CONDITIONING RELAY AND CONDENSER FAN RELAY



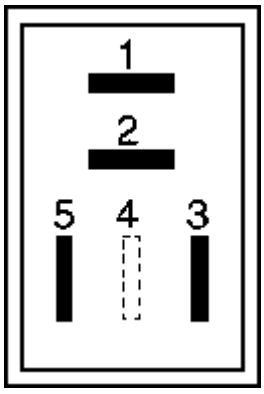
Remove the battery ground cable.

Remove the cover of relay box located in engine compartment.

Remove the relays from relay box.

Check for continuity or voltage between the terminals.

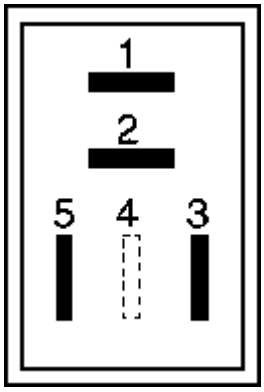
AIR CONDITIONING RELAY-CHECK FOR CONTINUITY



Terminal / Condition	1	2	3	4	5
Constant			○	—	○
Apply battery voltage to terminal 3 and 5	○	○			

If continuity is not as specified, replace the relay.

CONDENSER FAN RELAY-CHECK FOR CONTINUITY



Terminal / Condition	1	2	3	4	5
Constant			○	—	○
Apply battery voltage to terminal 3 and 5	○	○			

If continuity is not as specified, replace the relay.

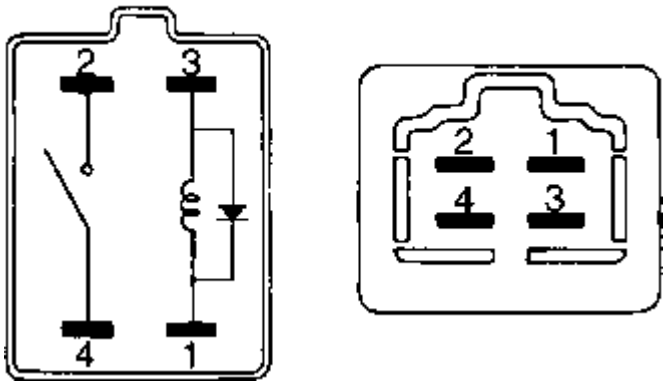
BLOWER FAN RELAY

Remove the battery ground cable.

Remove the rheostat switch with coin box from the crash pad.

Remove the relay and check for continuity between the terminal.

Blower relay



Terminal / Condition	1	2	3	4
Constant	○	——▶——	○	
Apply battery voltage to terminal 1 and 3		○	——	○

If continuity is not as specified, replace the relay.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Blower Controls

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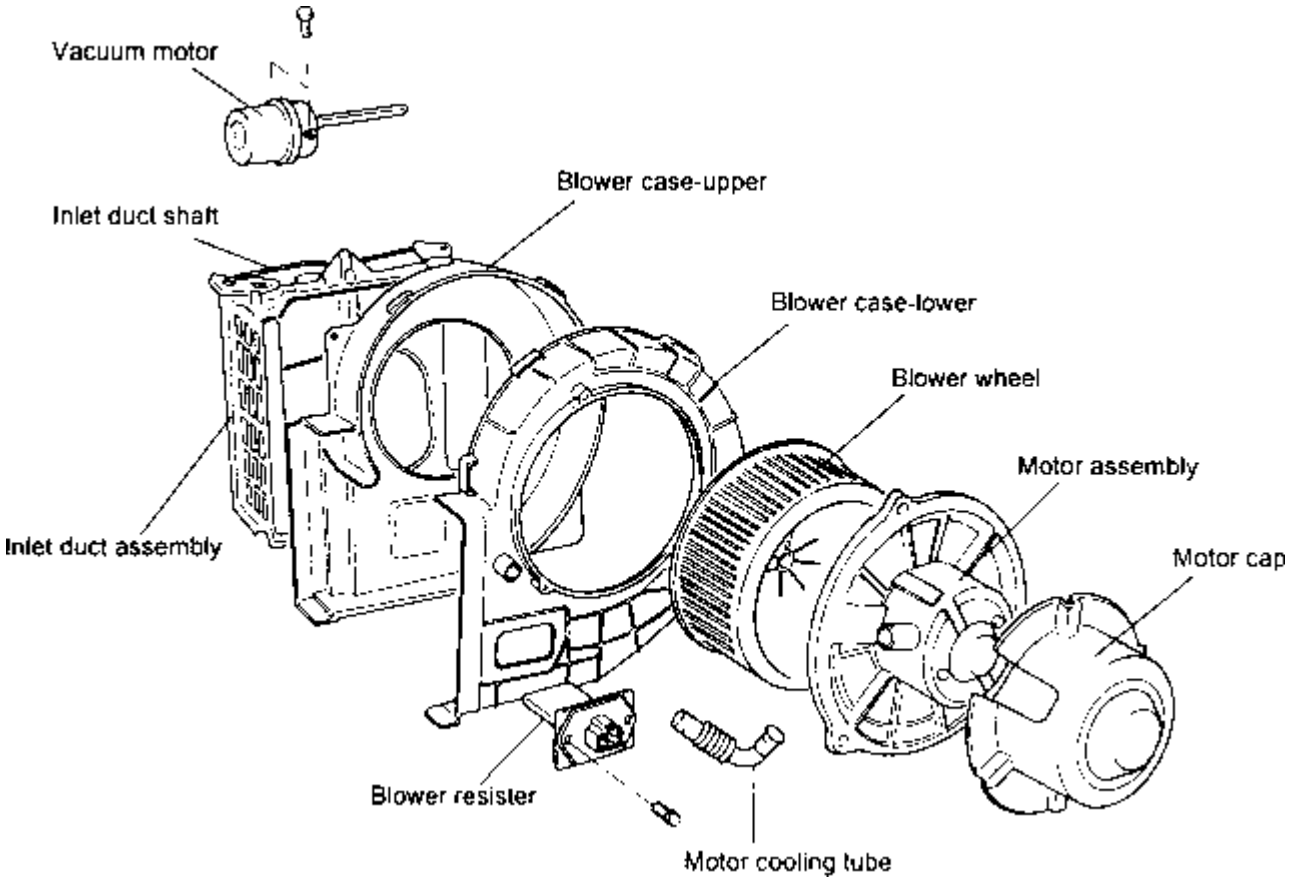
DISASSEMBLY AND REASSEMBLY

COMPONENTS



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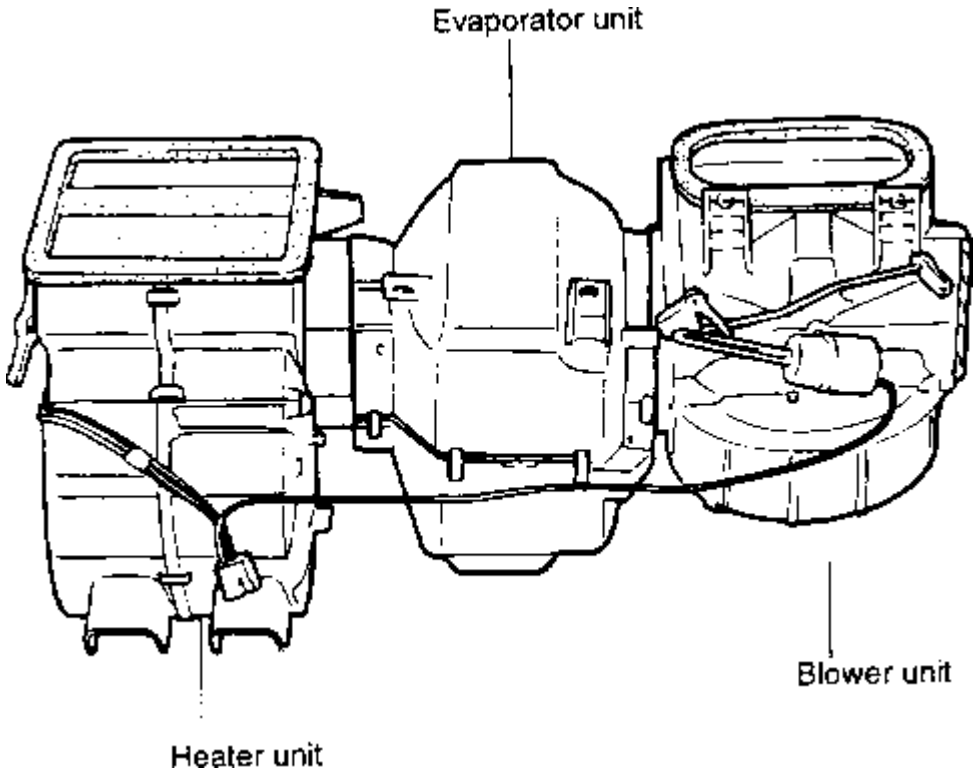
COMPONENTS



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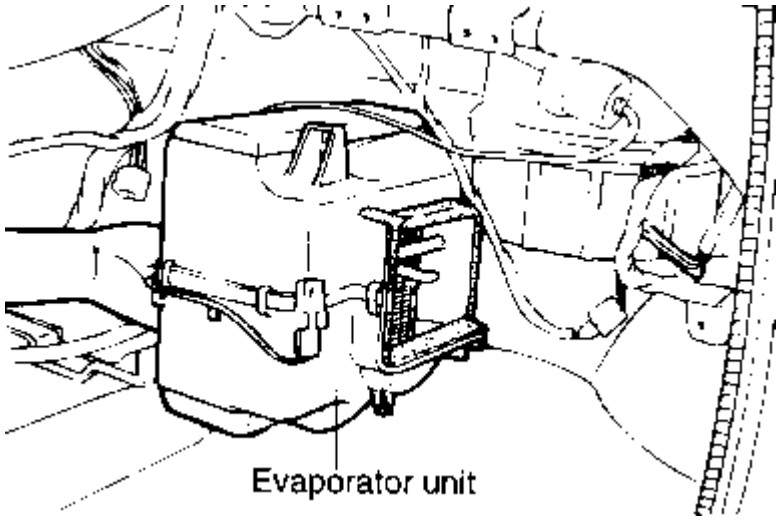
REMOVAL

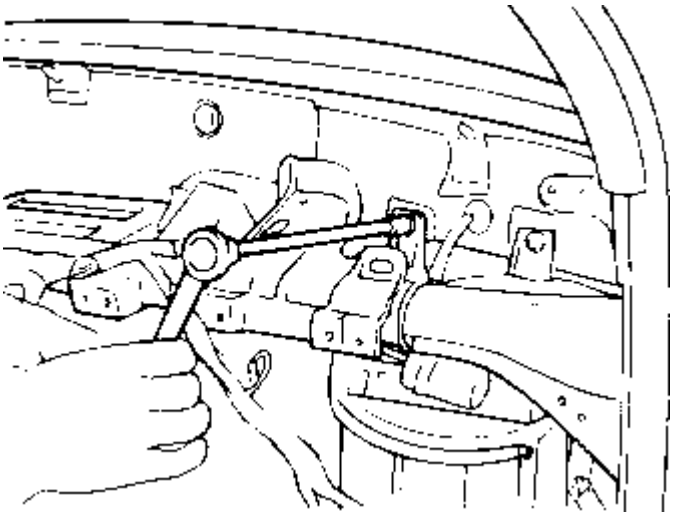
Disconnect negative terminal from the battery.

Remove the evaporator unit, (For detailed removal procedures refer to the "Removal of the evaporator unit" on page HA-61).

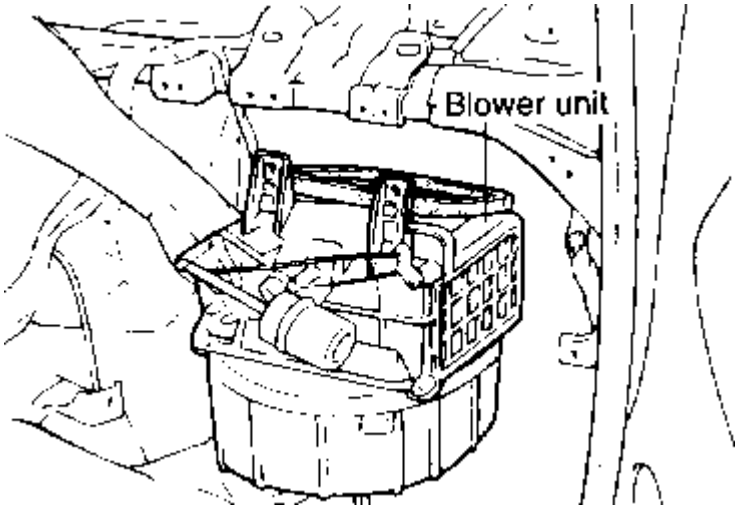


Disconnect the blower motor connector and the blower resist connector.

Remove mounting bolts of the blower unit.



Remove the blower unit.



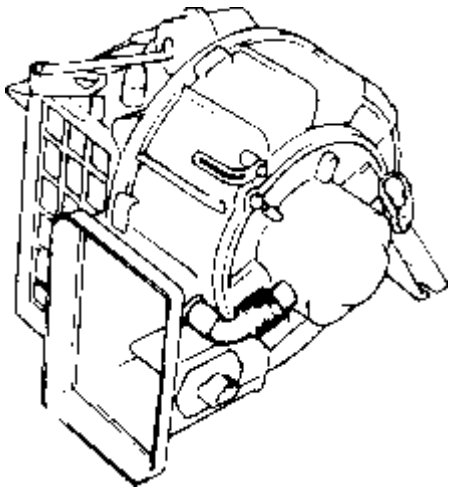
Installation is the reverse order of removal.

> **NOTE**
>
> **After installation, evacuate, charge and test the air conditioning system.**

Return to Main Menu(s): Mechanical Manual Electrical Manual

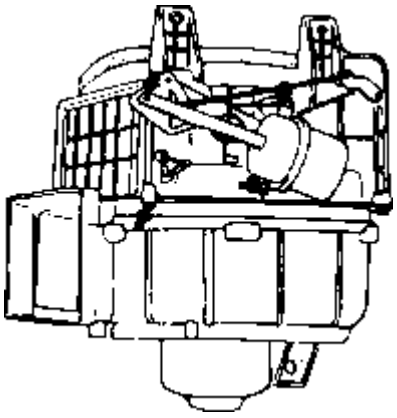
DISASSEMBLY AND REASSEMBLY

Remove the motor cooling tube from the blower unit.

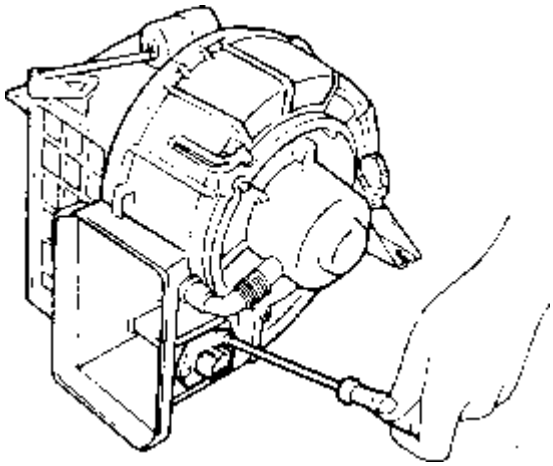


Remove the vacuum motor.

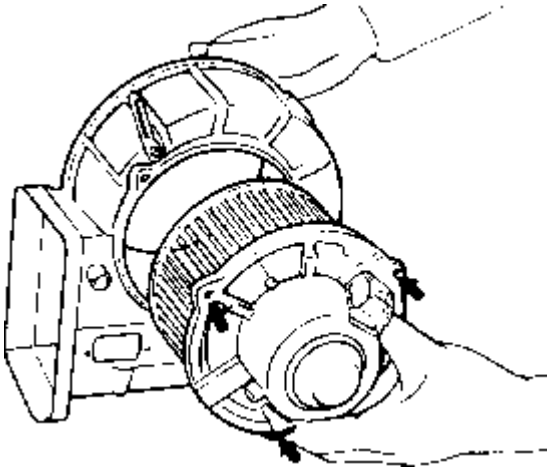
Remove the blower upper case assembly from the lower case assembly.



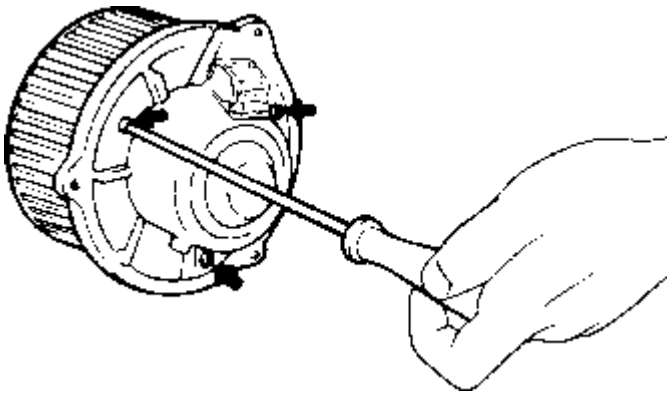
Remove the blower resistor.



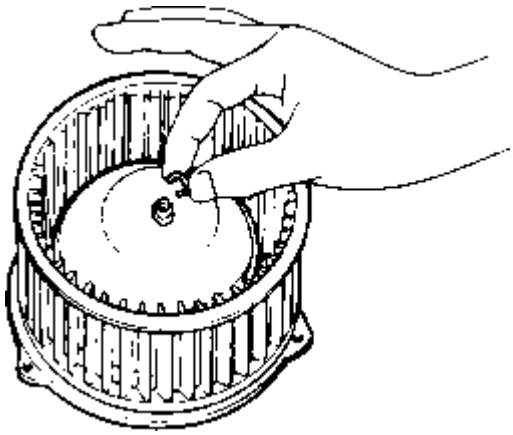
Remove the blower motor assembly from the blower outlet duct assembly.



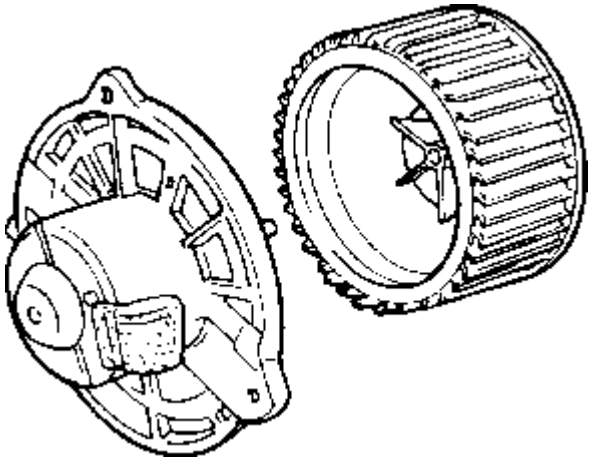
Remove the blower motor cap.



Remove the washer clip from the end of the blower motor shaft.



Remove the blower fan from the blower motor.



Reassembly is the reverse order of disassembly.

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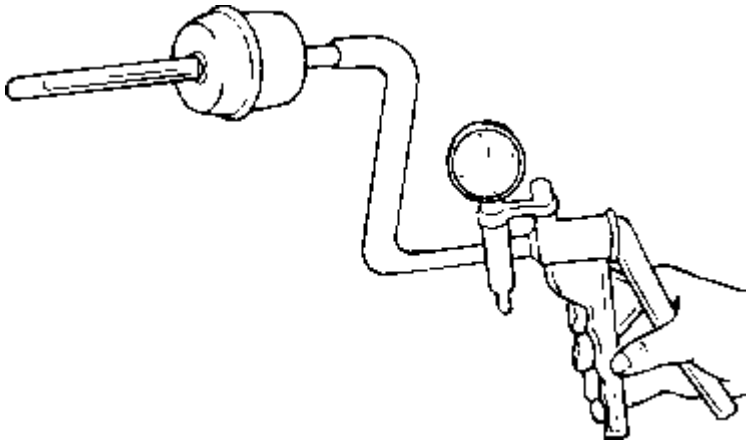
INSPECTION

VACUUM MOTOR

Connect vacuum tester to the vacuum motor and apply-510 mmHg pressure.



Check vacuum hiss from the vacuum motor and that the shaft return smoothly to initial position. If not OK, replace the vacuum motor.

> **NOTE**
>
> **Never manually operate any vacuum motor or vacuum motor controlled door. This may cause internal damage to the motor diaphragm.**

BLOWER MOTOR

Check for bending or abnormal deflection of the rotating shaft of the blower motor assembly.

Check for cracking or deterioration of the packing.

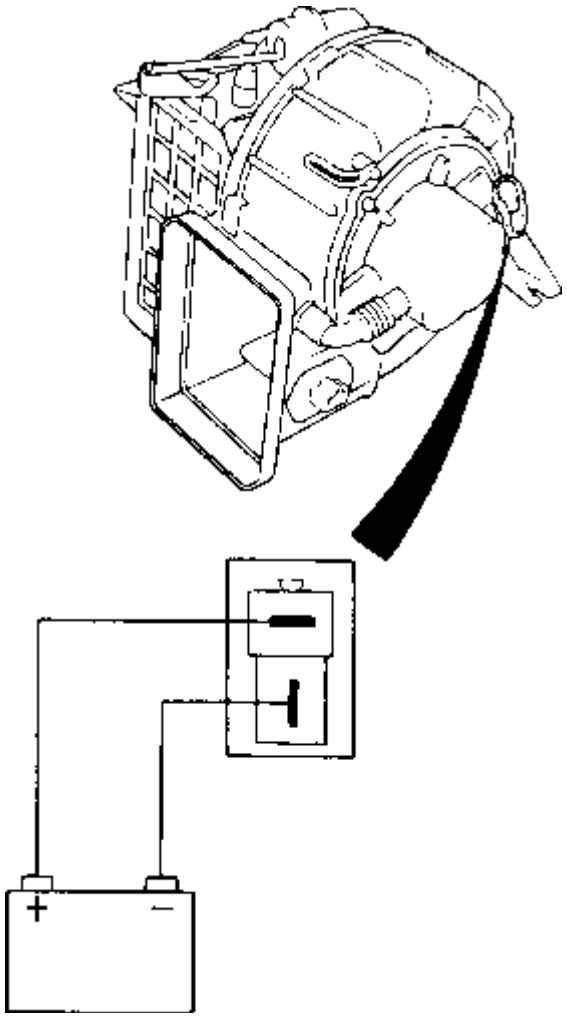
Check for damage to the fan.

Check for damage to the blower case.

Check the operation of the inside/outside air selection damper, and for damage.

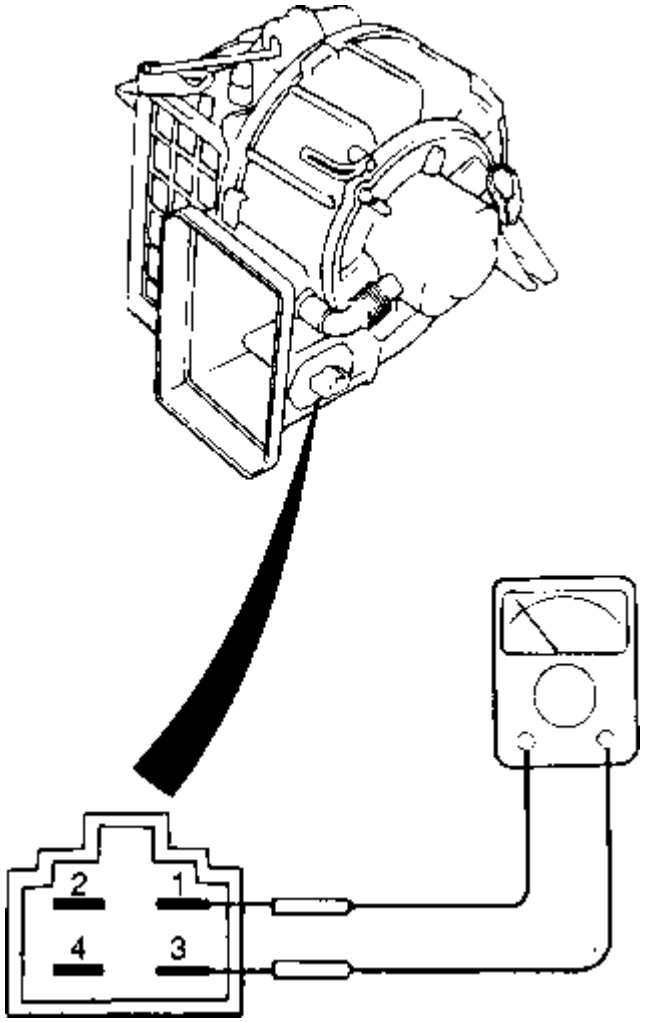
Connect the blower motor terminals directly to the battery and check that the blower motor operates smoothly.

Next, reverse the polarity and check that the blower motor operates smoothly in the reverse direction.



BLOWER RESISTOR

Measure terminal-to-terminal resistance of the blower resistor. If measured resistance is not within specification, the blower resistor must be replaced.



Terminal / Ohmmeter indication / Speed	1	2	3	4	Resistance (Ω)
	MH	ML	HI	LO	
Continuity is indicated			○—○	○—○	2.9±15%
		○—○	○—○		1.2±0.12%
	○—○		○—○		0.4±0.04%

NOTE:

○—○ **indicates that there is continuity between points.**

NOTE

Never weld the blown-out fuse in the blower resistor. Just replace the blower resistor.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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DISCHARGING REFRIGERANT

Federal regulations require that the discharging of R-134a refrigerant be performed by a licensed technician using only an approved recovery and/or recycling system. Do not discharge R-134a refrigerant into the atmosphere. When discharging the refrigerant system, always follow the recovery or recycling system equipment manufacturer's instructions.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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HANDLING INSTRUCTIONS

WHEN HANDLING REFRIGERANT

R-134a liquid refrigerant is highly volatile. A drop on the skin of your hand could result in localized frostbite. When handling the refrigerant, be sure to wear gloves.

If the refrigerant splashes into your eyes, wash them with clean water immediately. It is standard practice to wear goggles or glasses to protect your eyes, and gloves to protect your hands.

The R-134a container is highly pressurized, never leave it in a hot place, and check that the storage temperature is below 52°C (126°F).

A halide leak detector is often used to check the system for refrigerant leakage. Bear in mind that R-134a, upon coming into contact with flame (this detector burns propane to produce a small flame), produces phosgene, a toxic gas.

R-134a refrigerant and R-12 refrigerant must never be mixed, even in the smallest amounts, as they are incompatible with each other. If the refrigerants are mixed, compressor failure is likely to occur.

Use only recommended lubricant for R-134a A/C system and components. If lubricant other than recommended one is used, system failure may occur.

The PAG lubricant absorbs moisture from the atmosphere at a rapid rate; therefore the following precautions must be observed:

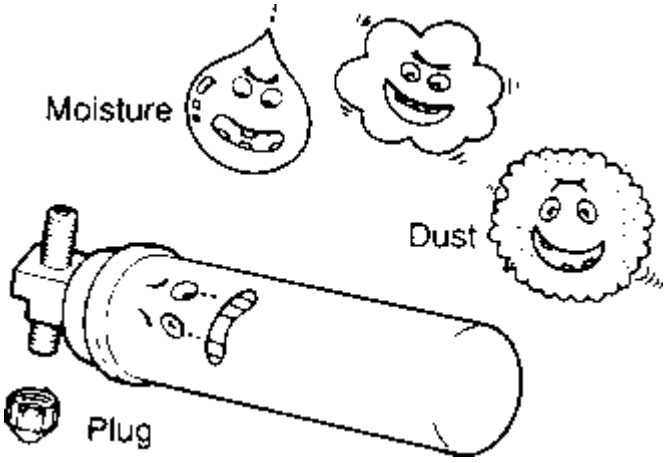
- When removing refrigerant components from a vehicle, immediately cap the components to prevent moisture from entering the A/C system.
- When installing refrigerant components in a vehicle, do not remove the cap until just before connecting the components.
- Complete the connection of all refrigerant tubes and hoses without delay to prevent moisture from entering the A/C system.
- Use the recommended lubricant from a sealed container only.

If accidental system discharge occurs, ventilate the work area before resuming service.

WHEN REPLACING PARTS ON A/C SYSTEM

Never open or loosen a connection before discharging the system.

Seal the open fittings with a cap or plug immediately in disconnected parts to prevent intrusion of moisture or dust.



Do not remove the sealing caps from a replacement component until it is ready to be installed.

Before connecting an open fitting, always install a new sealing ring. Coat the fitting and seal with refrigerant oil before making the connection.

Because of the differences in the physical properties and characteristics between R12 and R13a refrigerants, the compressor oil for lubricating the air compressor and other system parts are not interchangeable between the R12 and R13a systems. Use the utmost care to avoid using the wrong ones. The compressor oils and some other materials are not visually distinguishable. To avoid any misuse, be sure that the materials for the R12 system and those for the R134a system are separately controlled.

- If an O-ring usable only for the R-12 system is used for the R134a system by mistake, the O-ring will foam and swell, subsequently causing the refrigerant to leak.
- If the compressor oil specified for use in the R12 system is inadvertently used for the R134a system, the compressor will lock.

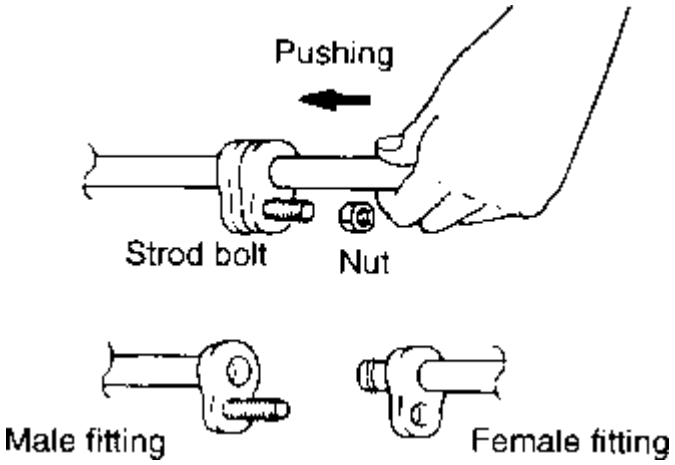
WHEN INSTALLING CONNECTING PARTS

FLANGE WITH GUIDE PIN TYPE

Check the condition (damages or missing) of the O-ring and lubricate using compressor oil. Hand tighten the nut by pushing the one side pipe. Tighten the nut to specified torque.

Hand-tighten the nut by pushing the pipe to one side.

Tighten the nut to specified torque.



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
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Heating, Ventilation & Air Conditioning	Air Conditioning System

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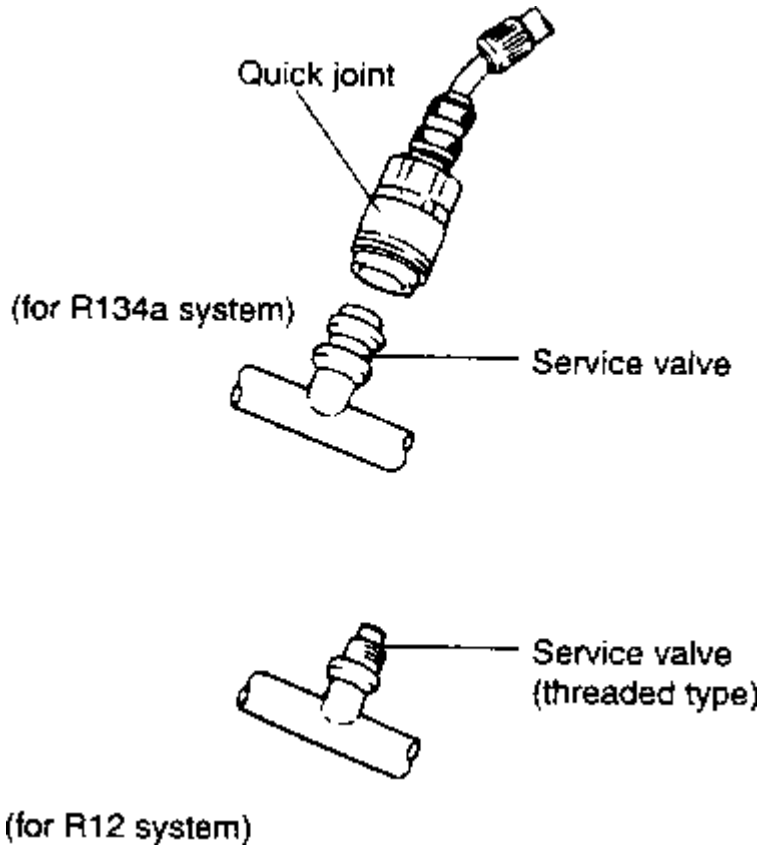
MANIFOLD GAUGE SET

INSTALLATION

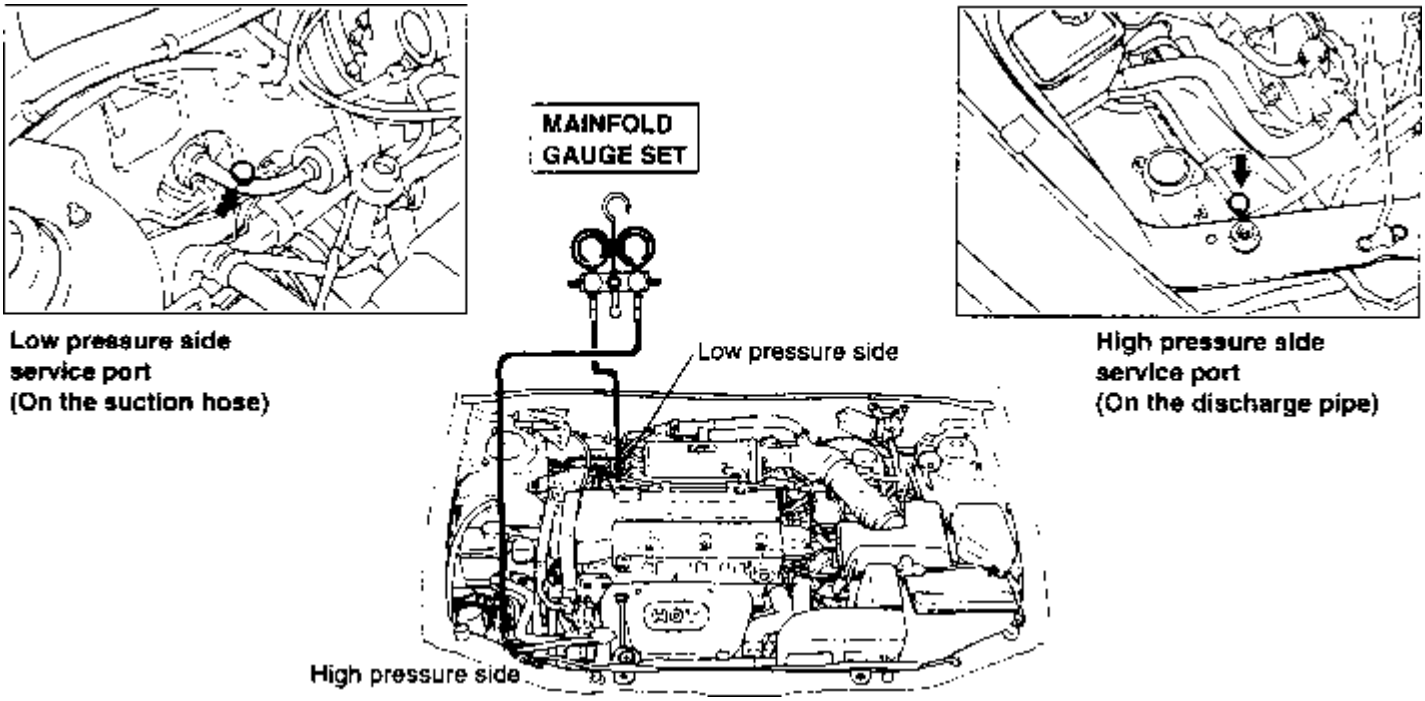
R-12 and R-134a require separate and non-interchangeable service tools and equipment because the refrigerants and lubricants are not compatible and cannot be mixed even in the smallest amounts.

In addition, the quick joint design has been adopted for better serviceability.

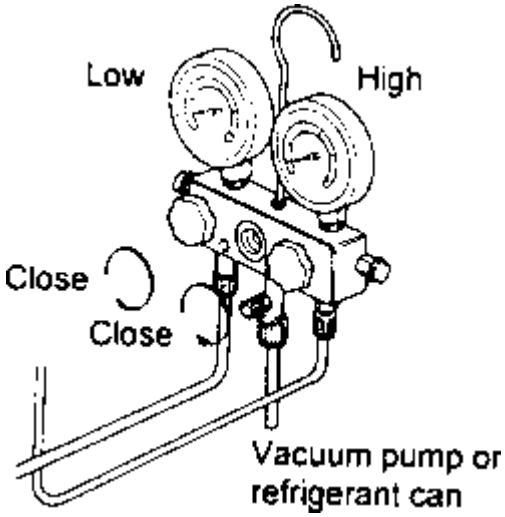
Do not attempt to use same set of equipment and tools for both R-12 and R-134a because all equipment contains residual amounts of refrigerant and lubricant. This may cause contamination of A/C system circuit.



The use of incorrect equipment will result in refrigerant and/ or lubricant contamination when may cause A/C system or equipment failure.



Close both hand valves of manifold gauge set.



Install charging hoses of gauge set to service ports. Connect the low pressure hose to the low pressure service port in the suction pipe and the high pressure hose to the high pressure service port in the discharge hose.

Tighten the hose nuts by hand.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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COMPRESSOR OIL LEVEL CHECK

The oil used to lubricate the compressor circulates in the system while the compressor is operating. Whenever replacing any component of the system or when a large amount of gas leakage occurs, add oil to maintain the original total amount of oil.

Total amount of oil in the system: 154 cc (5.13 us fl oz)

Compressor for R-134a: 170-190 cc (104-11.6 cu.in)

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
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Heating, Ventilation & Air Conditioning	Air Conditioning System

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ADDING OIL FOR REPLACEMENT COMPONENT PARTS

When replacing the system's component parts, be sure to add the following amount of oil to the parts being replaced.

Component parts to be replaced	Amount of oil cc (US fl oz) for R-12	Amount of oil cc (US fl oz) for R-134a
Evaporator	40 (1.28)	50 (1.6)
Condenser	30 (0.96)	45 (1.44)
Receiver-drier	30 (0.96)	35 (1.12)
Compressor	30 (0.96)	30 (0.96)

SERVICE MANUAL	
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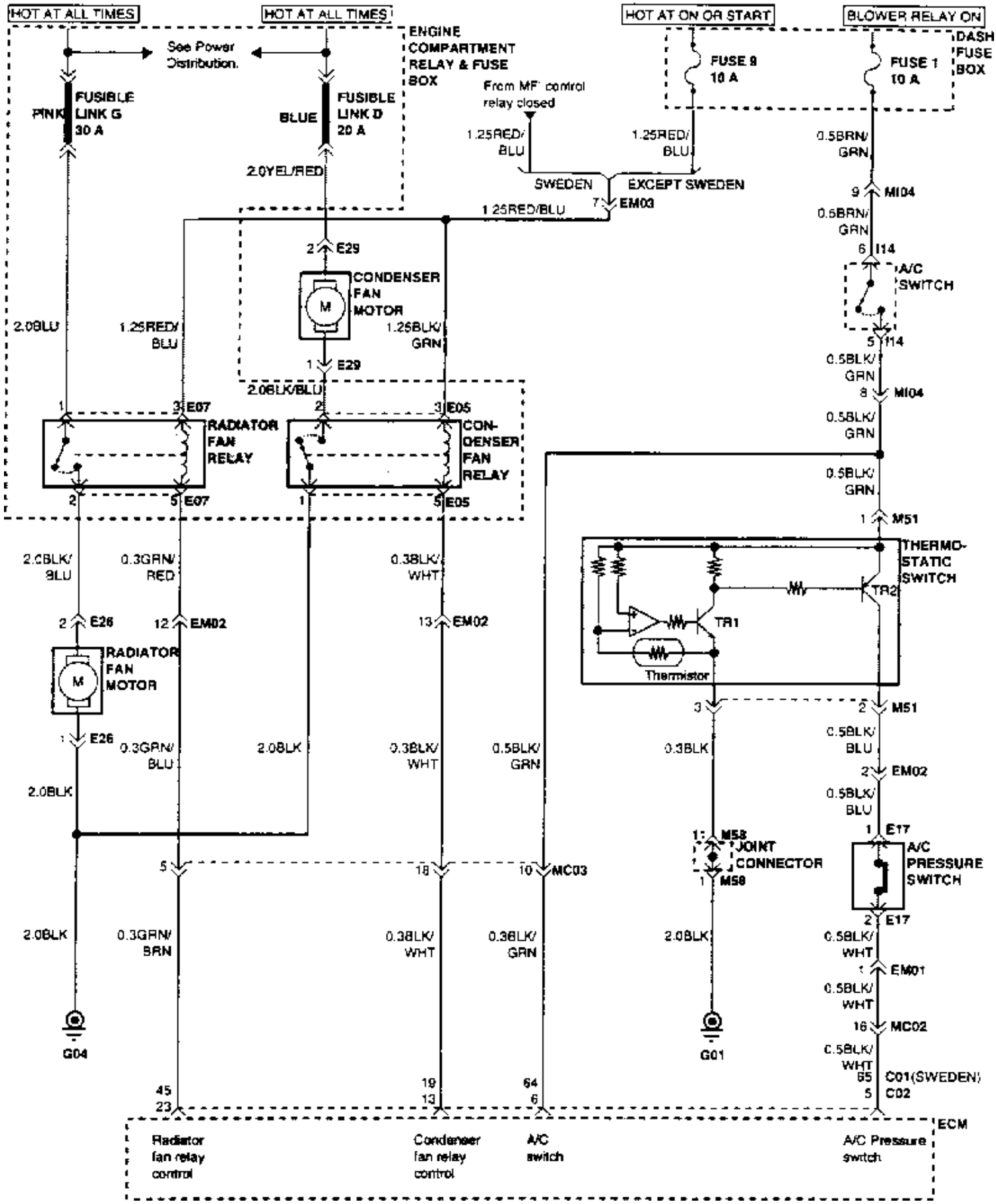
COOLING CONTROLS (FOR DETAILS, REFER TO E.T.M SCHEMATIC DIAGRAMS)



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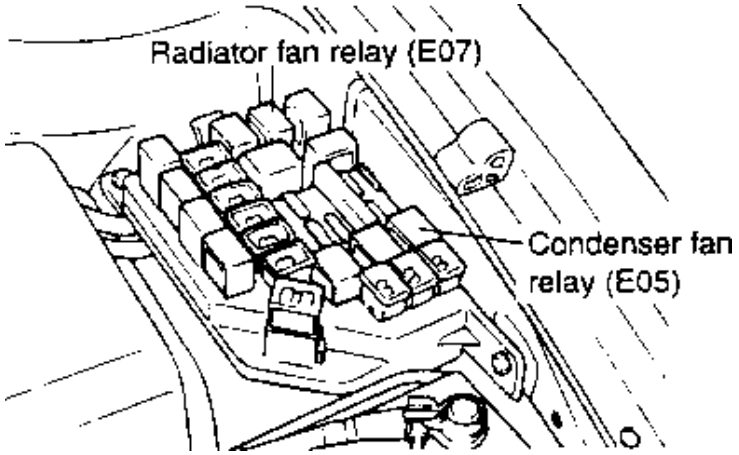
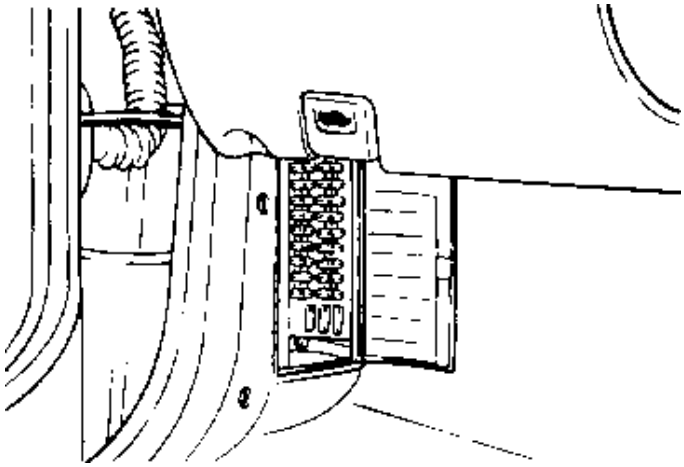
COMPONENT LOCATION

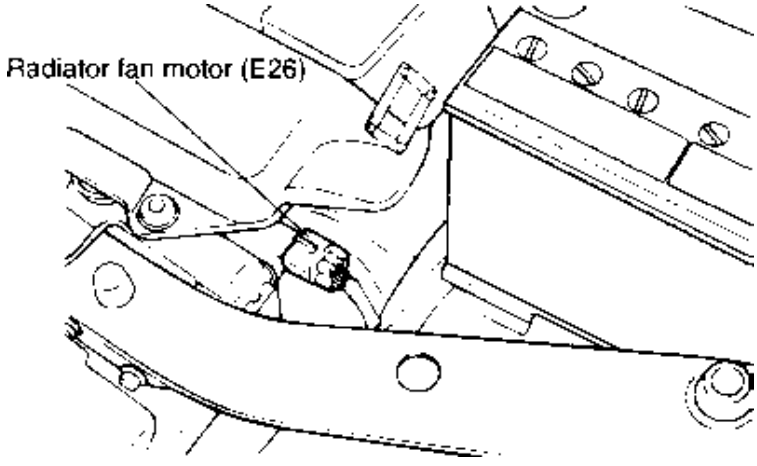
Engine compartment fuse & relay box



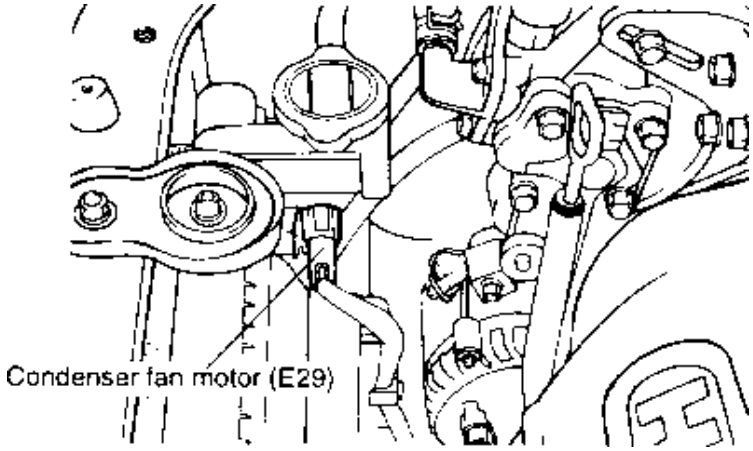
Dash fuse box



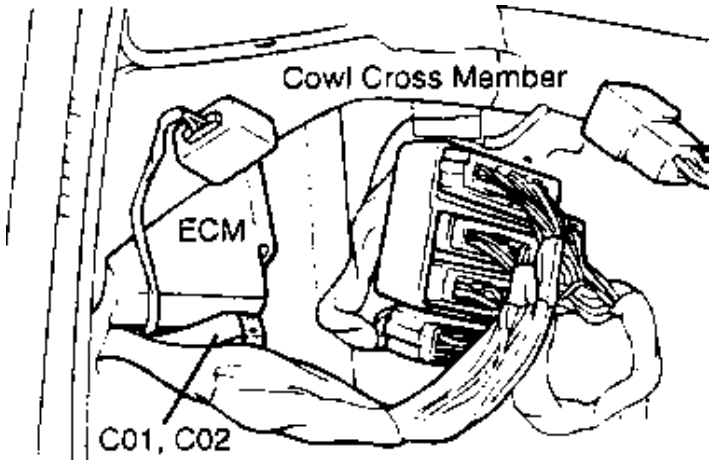
Radiator fan motor (E26)



Condenser fan motor (E29)



ECM (Engine control module) (C02)



SERVICE MANUAL	
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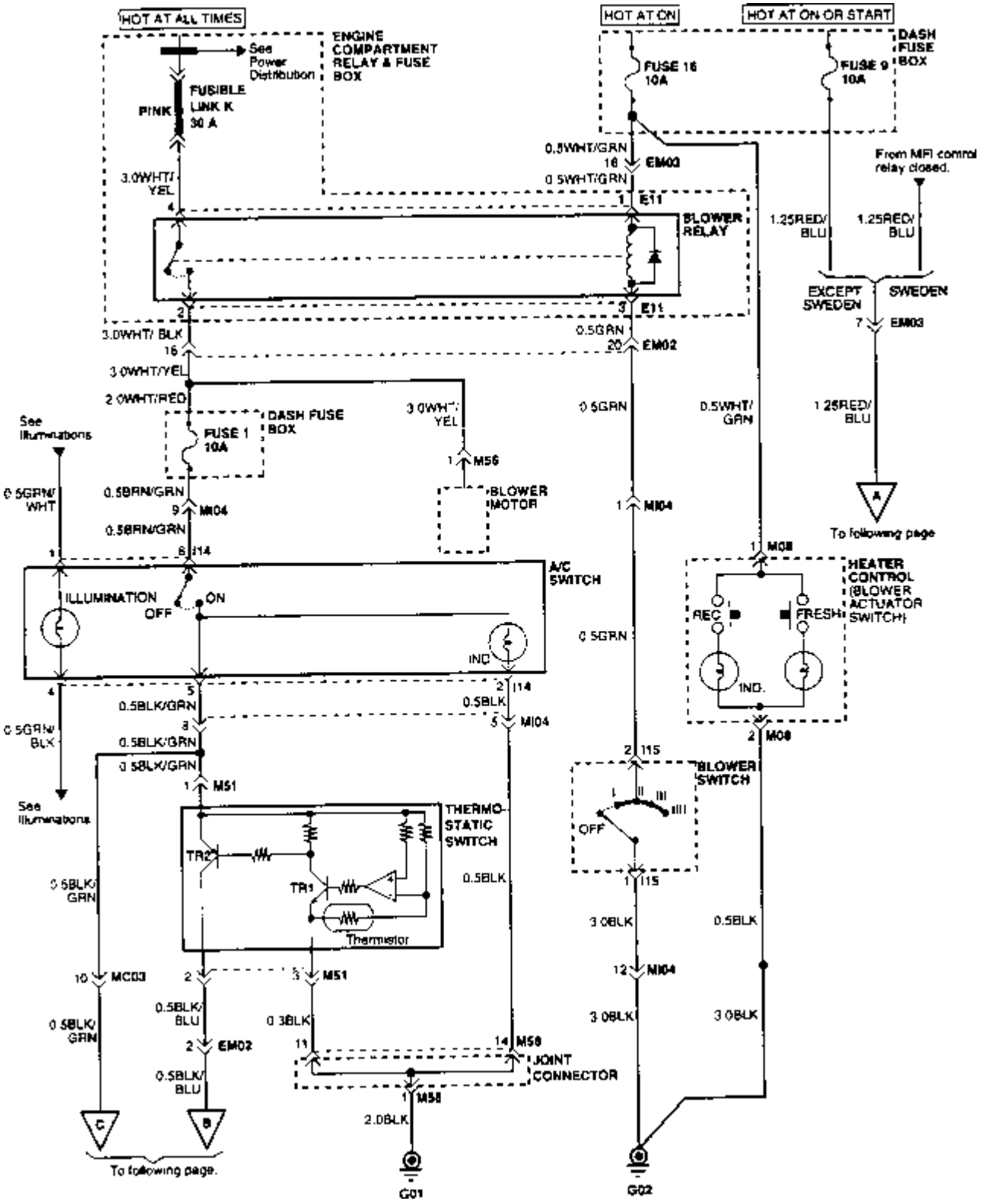
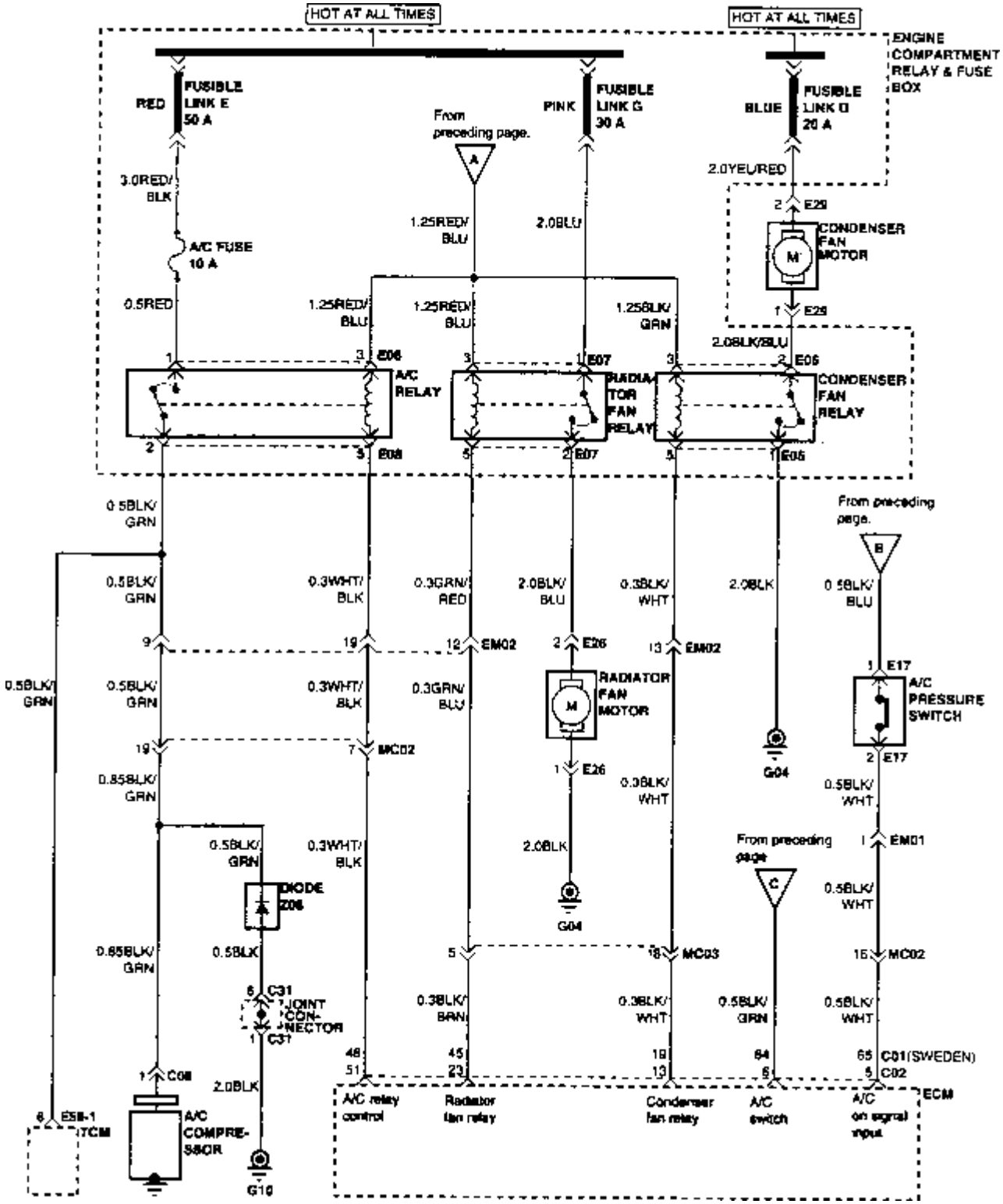
AIR CONDITIONING CONTROLS

(FOR DETAILS, REFER TO ETM SCHEMATIC DIAGRAMS)

AIR CONDITIONING CONTROLS (1)



AIR CONDITIONING CONTROLS (2)



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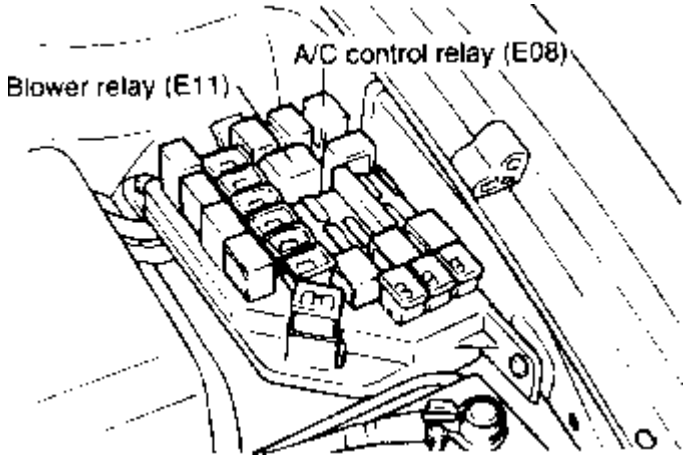
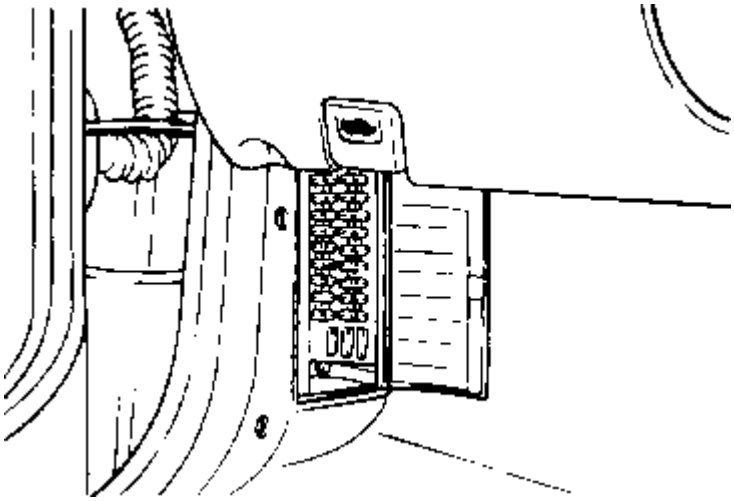
COMPONENT LOCATION

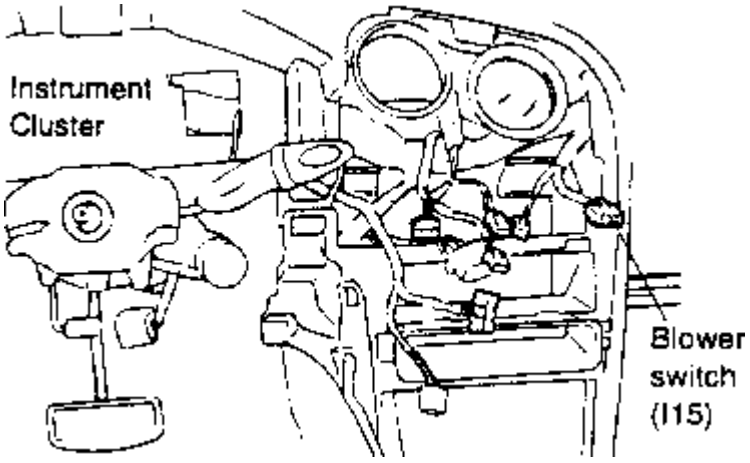
Engine compartment fuse & relay box



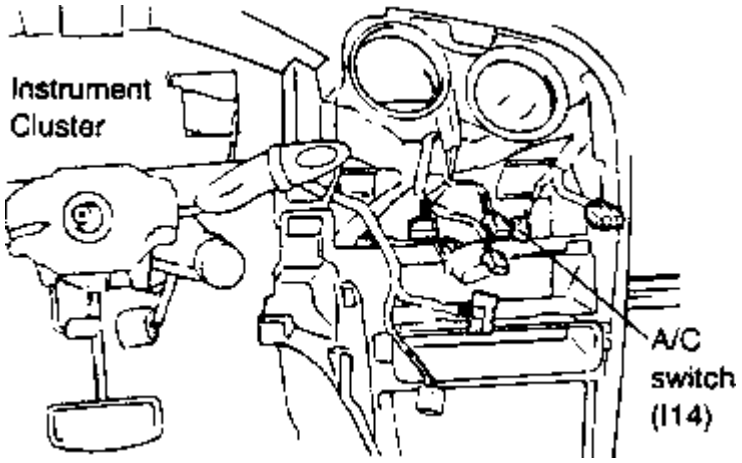
Dash fuse box



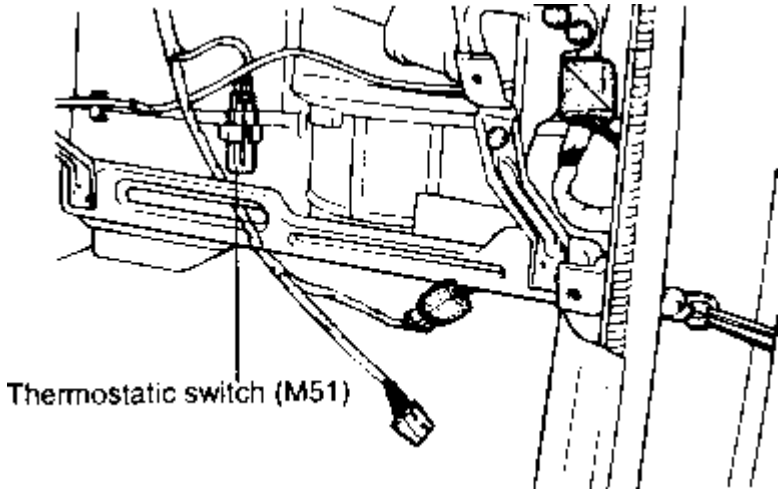
Blower switch (115)



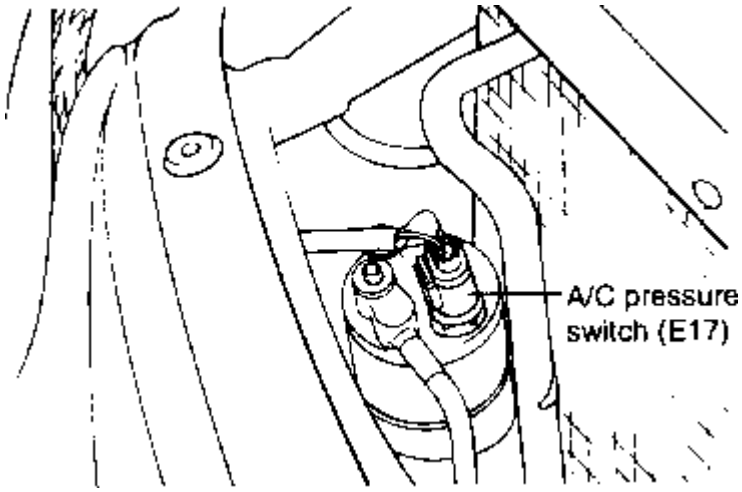
A/C switch (114)



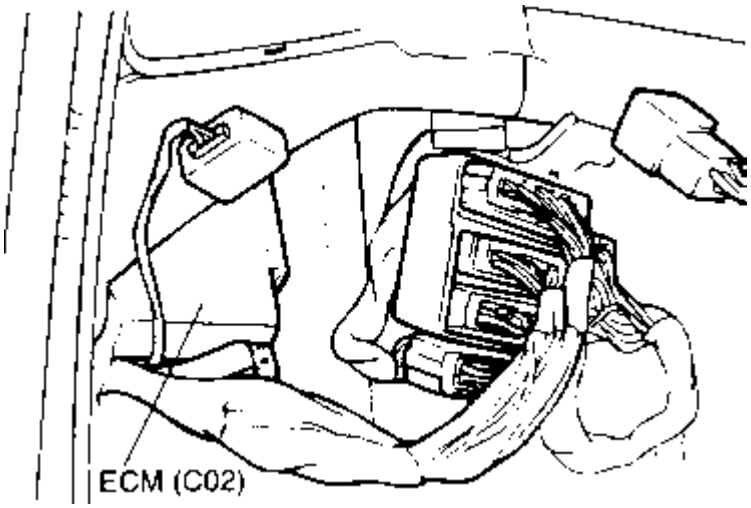
Thermostatic switch (M51)



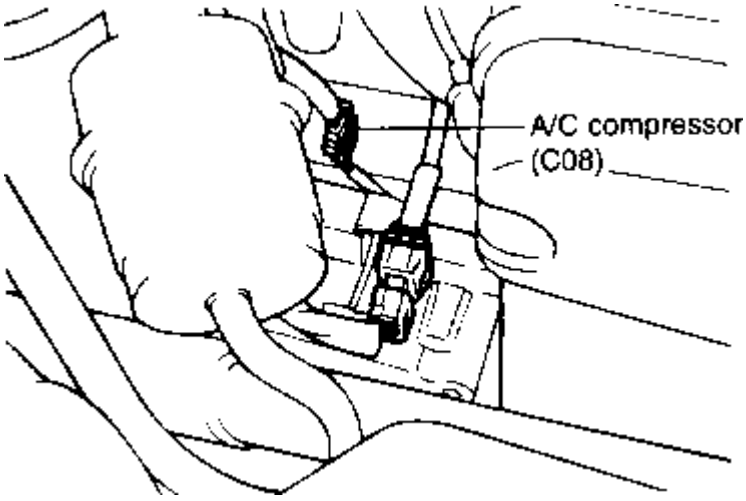
A/C pressure switch (E17)



ECM (Engine control module) (C02)



A/C compressor (C08)



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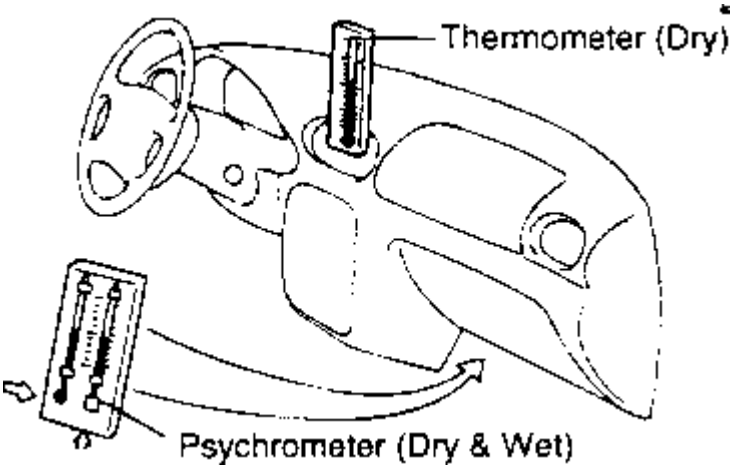
PERFORMANCE TEST



Install the manifold gauge set.

Run the engine at 2,000 rpm and set the controls for maximum cooling and high blower speed.

Keep all windows and doors open.

Place a dry-bulb thermometer in the cool air outlet.

Place a psychrometer close to the inlet of the cooling unit.

Check that the reading on the high pressure gauge is 1,373-1,575 kpa (14-16 kg/cm2, 199-228 psi). If the reading is too high, pour water on the condenser. If the reading to too low, cover the front of the condenser.

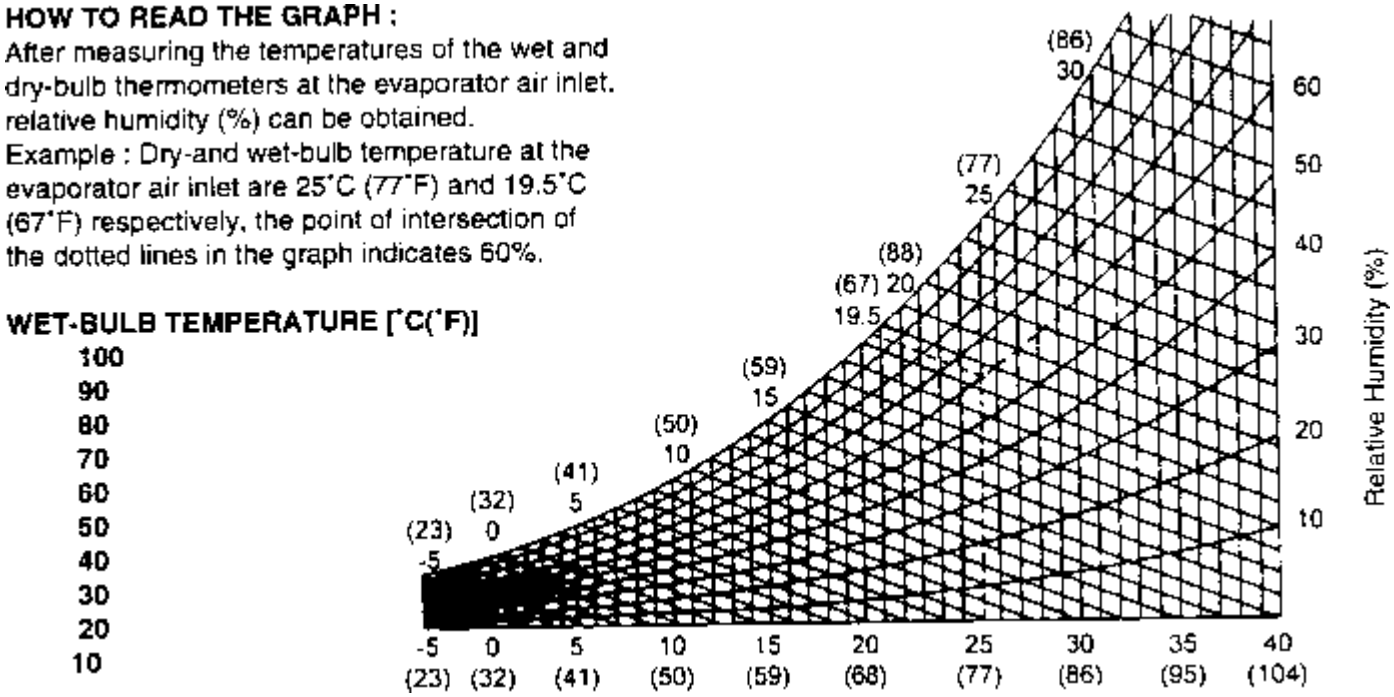
Check that the reading on the dry-bulb thermometer at the air inlet at 25-35°C (77-95°F).

Calculate the relative humidity from the psychrometric graph by comparing the wet-and dry-bulb reading of the psychrometer at the air inlet.

HOW TO READ THE GRAPH :

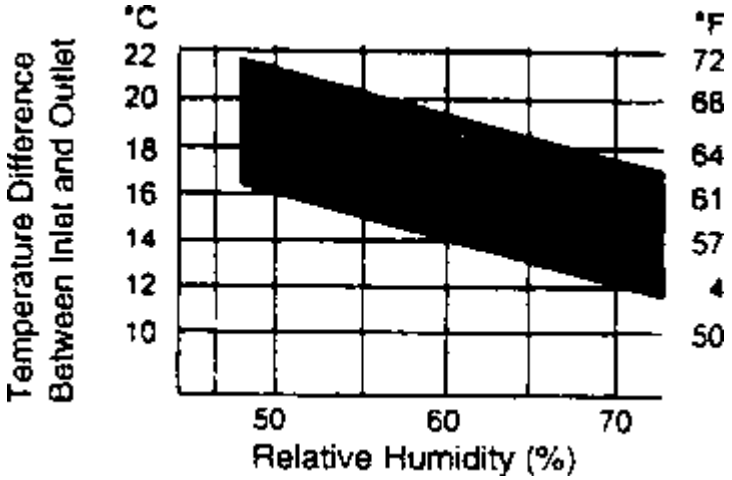
After measuring the temperatures of the wet and dry-bulb thermometers at the evaporator air inlet. relative humidity (%) can be obtained.

Example : Dry-and wet-bulb temperature at the evaporator air inlet are 25˚C (77˚F) and 19.5˚C (67˚F) respectively, the point of intersection of the dotted lines in the graph indicates 60%.



Measure the dry-bulb temperature at the cool air outlet, and calculate the difference between the inlet dry-bulb and outlet dry-bulb temperatures.

Check that the intersection of the relative humidity and temperature difference is between Block hard line. If the intersection is within the block hard line, cooling performance is satisfactory.



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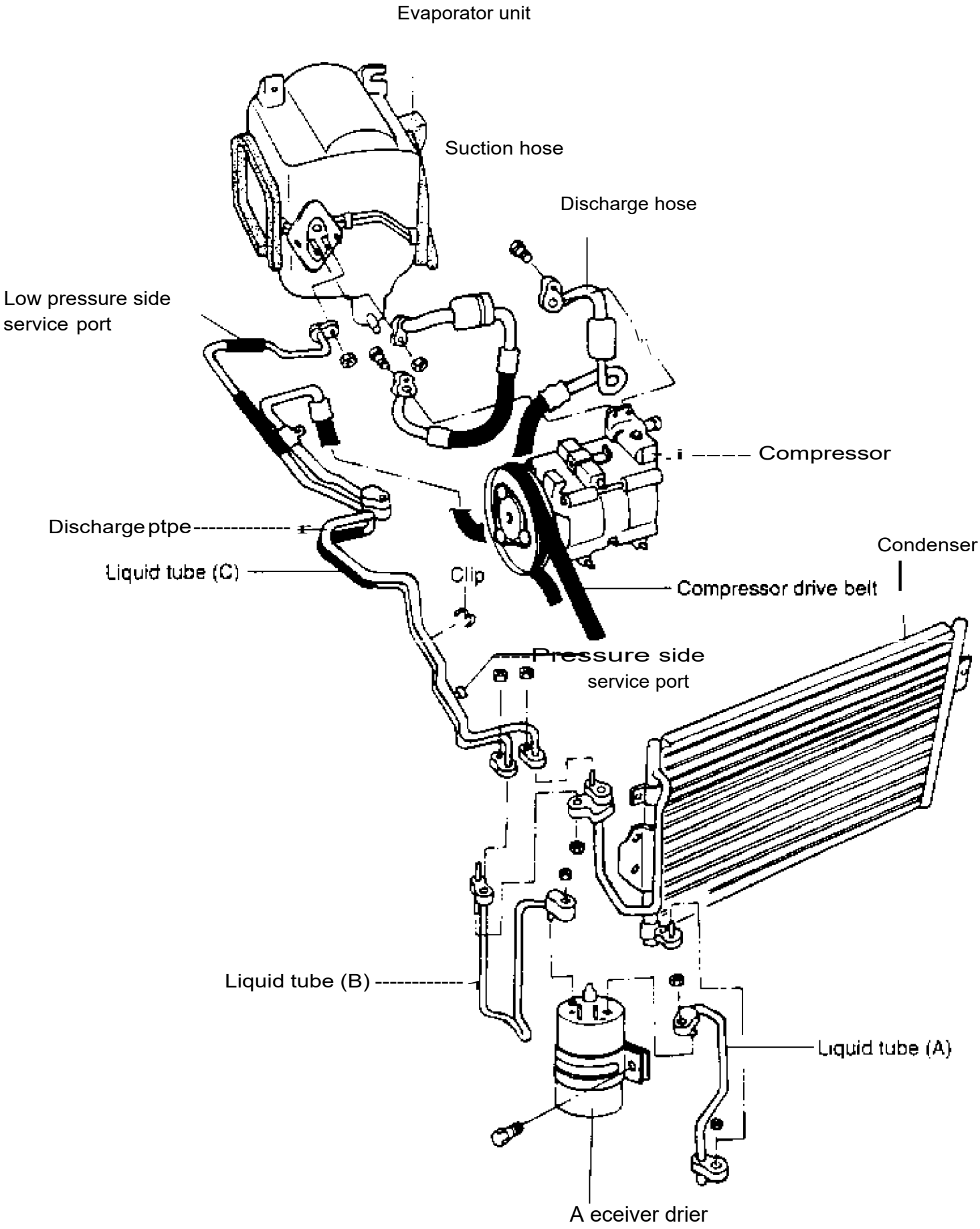
COMPONENTS


Evaporator unit
Suction hose
Discharge hose
Low pressure side
service port
Compressor
Discharge ptpe
Liquid tube (C)
Clip
Condenser
Compressor drive belt
Pressure side
service port
Liquid tube (B)
Liquid tube (A)
A eceiver drier

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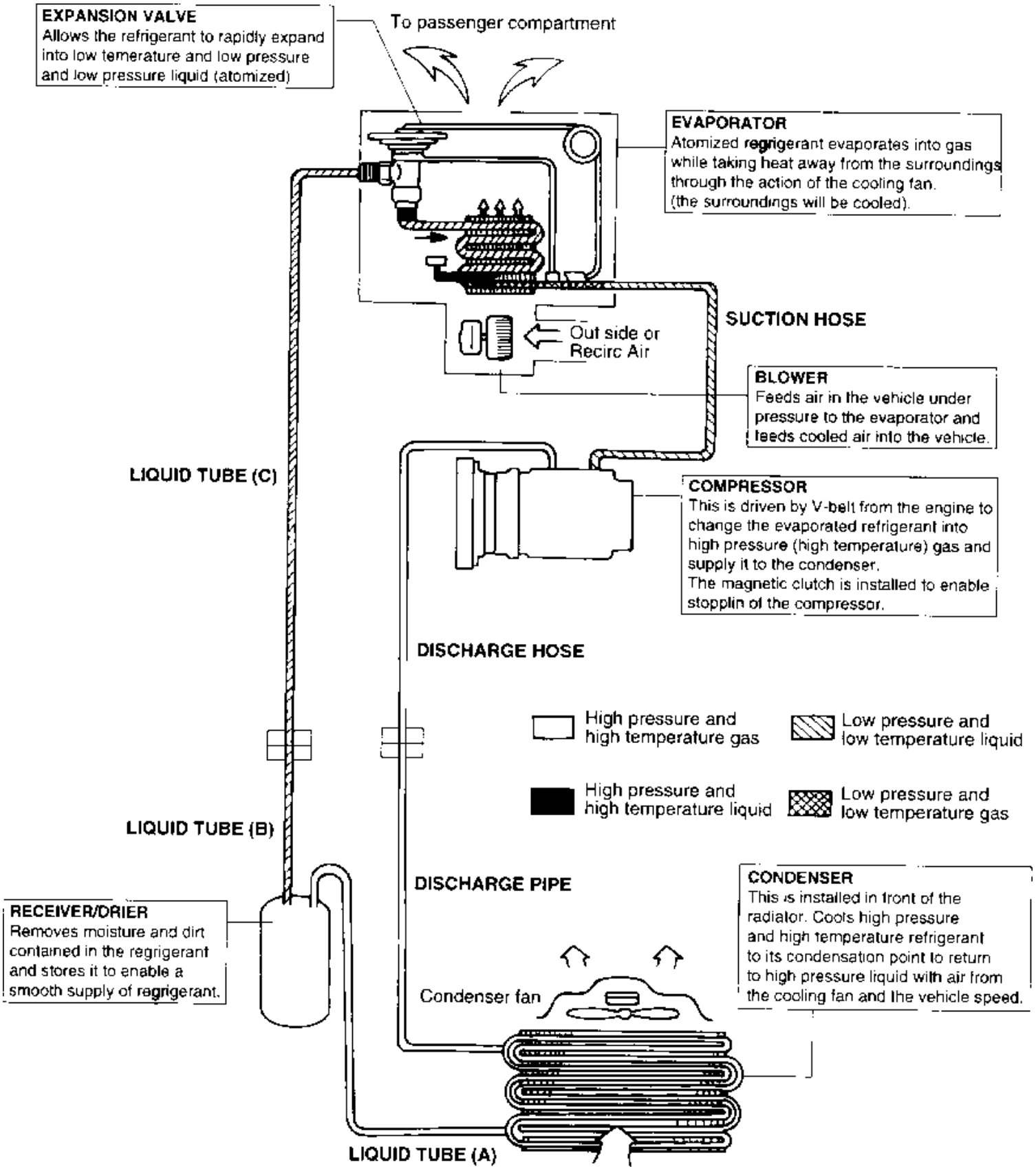
REFRIGERATION CYCLE



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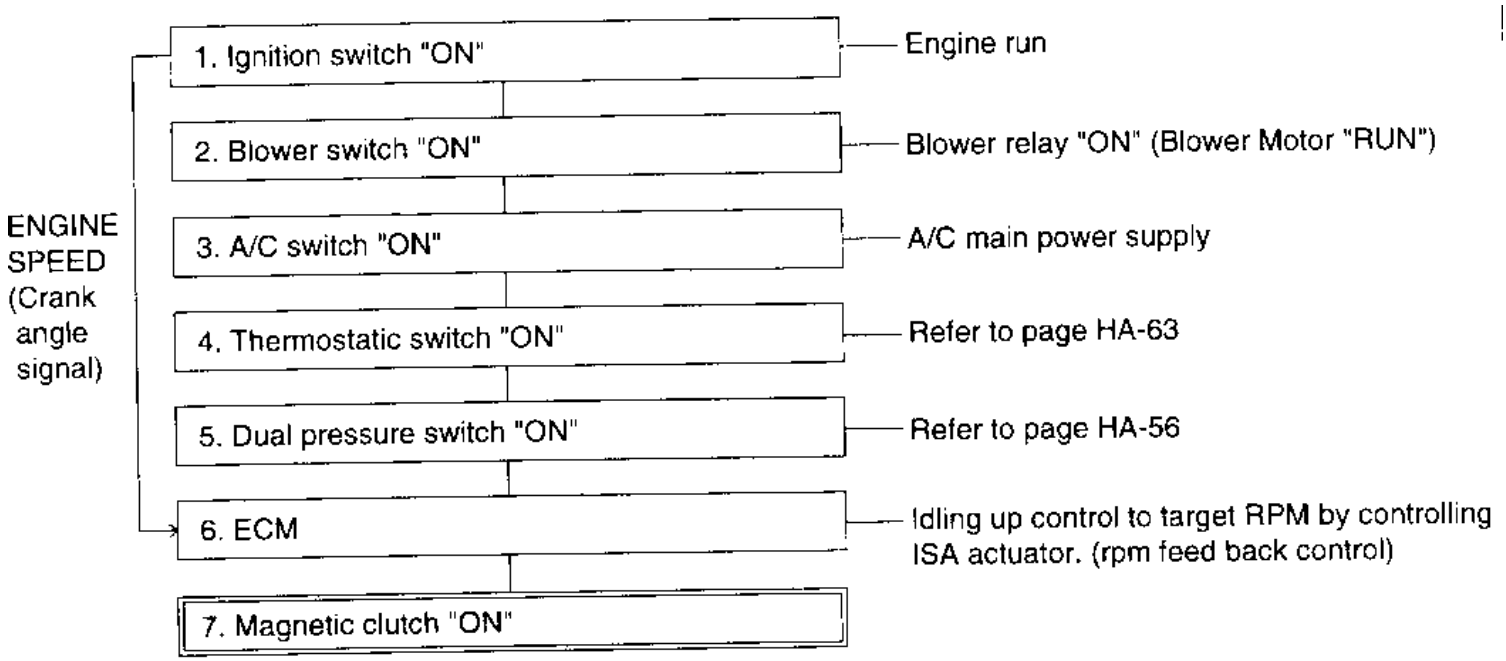
MAGNETIC CLUTCH

The general process how the magnetic clutch is energized is shown below. (MFI only)



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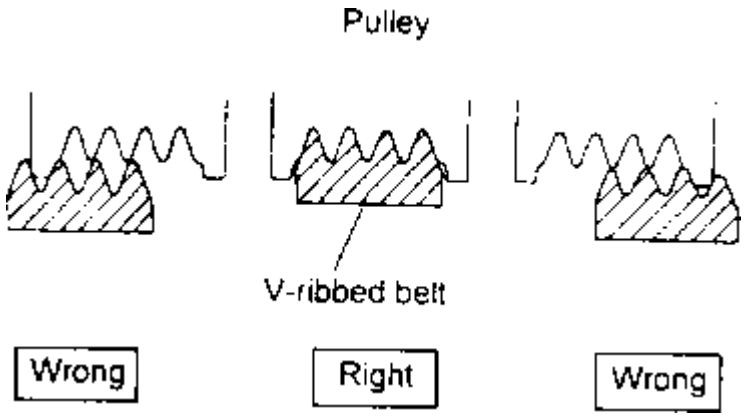
ON-VEHICLE INSPECTION

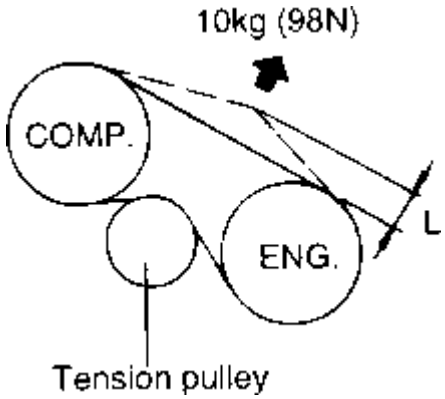
Check condenser fins for blockage or damage. If the fins are clogged, clean them with pressurized water.

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

Make sure that drive belt is installed correctly. Check that the drive belt fits properly in the ribbed grooves.



Check drive belt tension. If the proper tensions are not maintained, belt slippage will greatly reduce air conditioning performance and drive belt life. To avoid such adverse effects, the following service procedure should be followed:



Any belt that has operated for a minimum of one half-hour is considered to be a "used" belt. Adjust air conditioning drive belt at the time of new-car preparation.
Check drive belt tension at regular service intervals and adjust as needed.

CONDITION	LENGTH (mm)
After Driving	Approximately 8
Used Belt	6 - 7
New Belt	5 - 5.5

Start the engine.

Turn On the A/C Switch. Check that the A/C operates at each position of the blower switch.

Check magnetic clutch operation.

Check idle RPM increasing. When the magnetic clutch engaged, idle RPM should be increased (refer to engine section).

Check condenser fan motor rotation.

IG. KEY	A/C switch	ECT sensor sensing temp.	CONDENSER FAN MOTOR
ON	ON	-	ON
	OFF	Below 107°C	OFF
		Above 107°C	ON
OFF	-	-	OFF

FOOT1.
ECT = Engine Coolant Temperature

If no cooling or it is insufficient, inspect for leakage. Using a gas leak detector, inspect each component of the refrigeration system.

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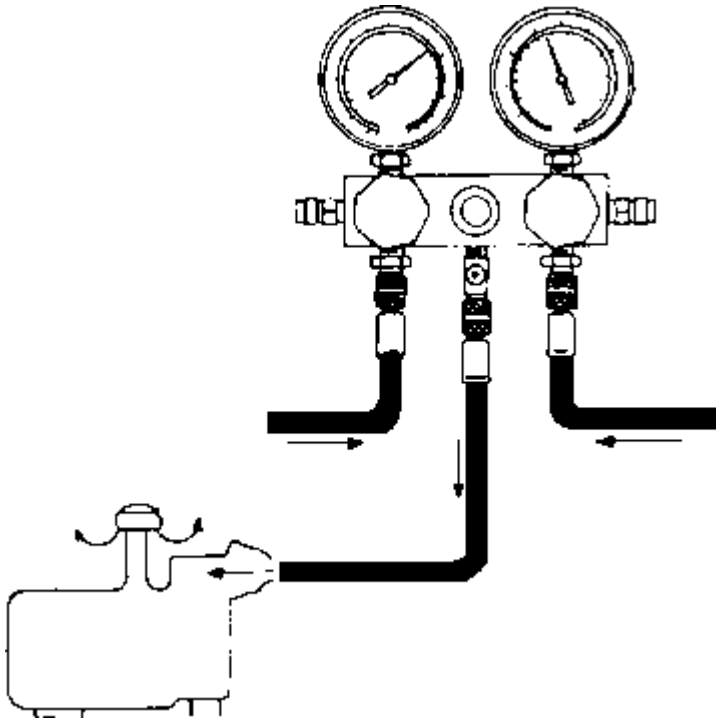
EVACUATING REFRIGERANT SYSTEM

When an A/C System has been opened to the atmosphere, such as during installation or repair, it must be evacuated using a vacuum pump. (If the system has been open for several days, the receiver/drier should be replaced).

Start the pump, then open both gauge valves. Turn the pump for about 15 minutes. Close the valves and stop the pump. The low gauge should indicate above 700 mm Hg (27 in-Hg) and remain steady with the valves closed.



NOTE

If low pressure does not reach more than 700 mmHg (27 in-Hg) in 15 minutes, there is probably a leak in the system. Check for leaks, and repair (see Leak Test below).

If there are no leaks open the valves and continue pumping for at least another 15 minutes, then close both valves and stop the pump.

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LEAK TEST

Attach an air Conditioning Service Station.

Open high pressure valve to charge the system to about 100 kpa (14psi), then close the supply valve.

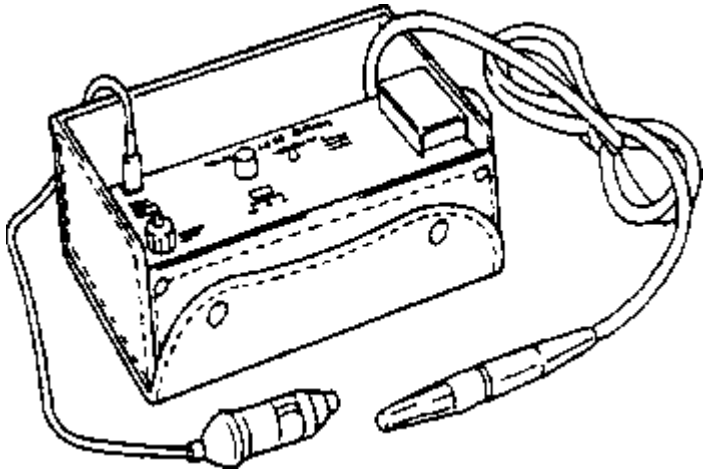
Check the system for leaks using a leak detector.

If you find leaks that require the system to be opened (to repair or replace hoses, fittings, etc.), release any charge in the system according to the Discharge Procedure on page HA-59.

After checking and repairing leaks, the system must be evacuated (see System Evacuation on page HA-27).

ELECTRONIC LEAK DETECTOR

The leak detector is a delicate device that can detect small amounts of halogen.



NOTE

In order to use the device properly, read the manuals supplied by the manufacturer to perform the specified maintenance and inspections.

If a gas leak is detected, proceed as follows:

Check the torque on the connection fitting and, if necessary tighten to the proper torque. Check for leakage with the leak detector.

If leakage continues even after the fitting has been retightened, discharge the refrigerant from the system, disconnect the fittings, and check the seat for damage. Replace fitting, even if the damage is slight.

Check compressor oil and add oil if required.

Charge the system and recheck for leaks. If no leaks are found, evacuate and charge the system.

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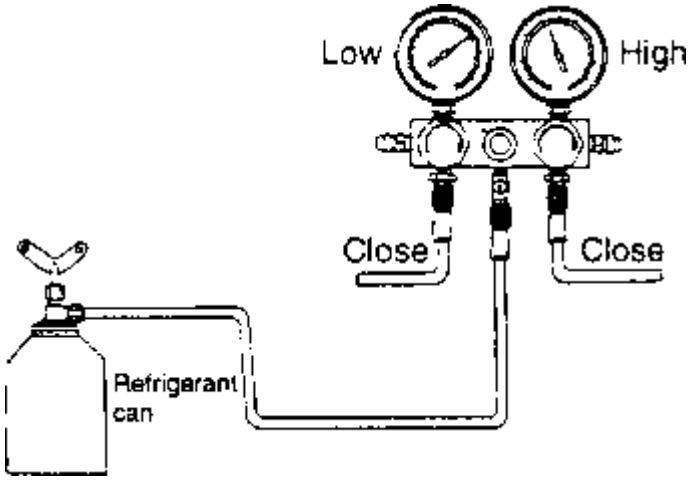
CHARGING REFRIGERANT SYSTEM

NOTE

This step is to charge the system through the low pressure side with refrigerant in a vapor state. When the refrigerant container is placed right side up, refrigerant will enter the system as a vapor.

Attach an Air Conditioning Service Station as shown below.



Open the low pressure valve. Adjust the valve so that the low pressure gauge does not read over 412 kpa (4.2 kg/cm2, 60 psi)

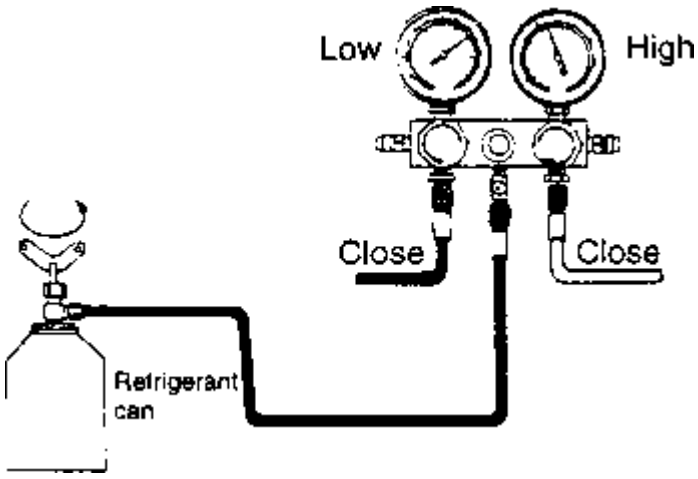
Put the refrigerant in a pan of warm water on heat plate (maximum temperature 40°C (104°F)) to keep vapor pressure in the container slightly higher than vapor pressure in the system.

Run the engine at fast idle, and operate the air conditioner.

NOTE

Be sure to keep the container upright to prevent liquid refrigerant from being charged into the system through the suction side, resulting in possible damage to the compressor.

Charge the system to the specified amount. Then, close the low pressure valve.



SPECIFIED AMOUNT:
R-134a: 675-725 g (1.50-1.61 lbs)

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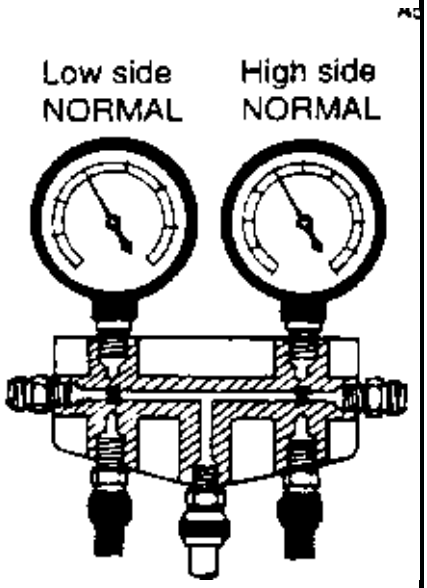
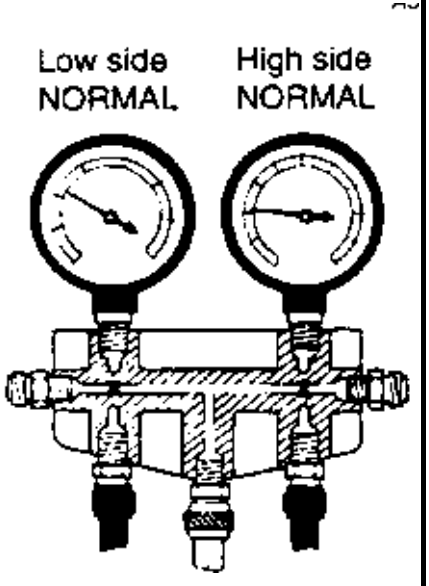
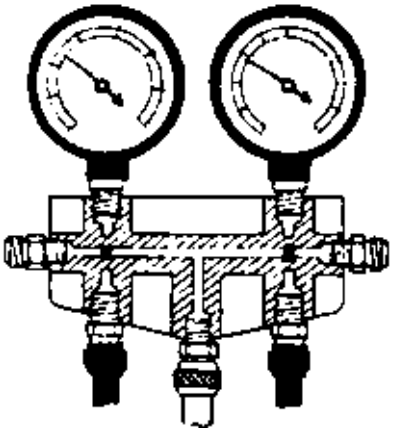
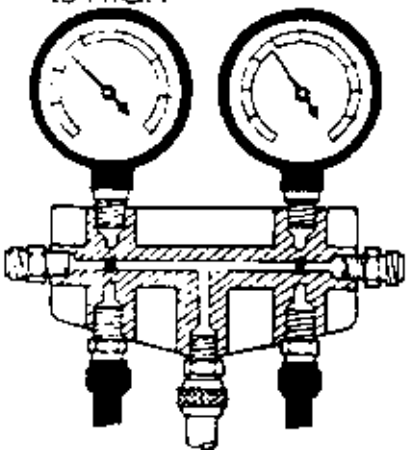
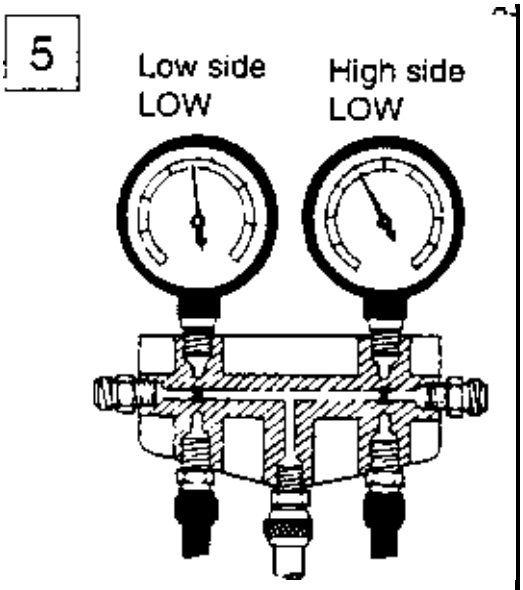
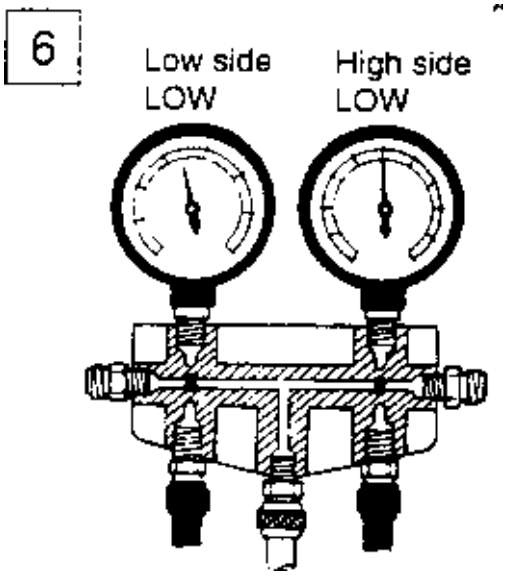
PERFORMANCE TEST DIAGNOSIS

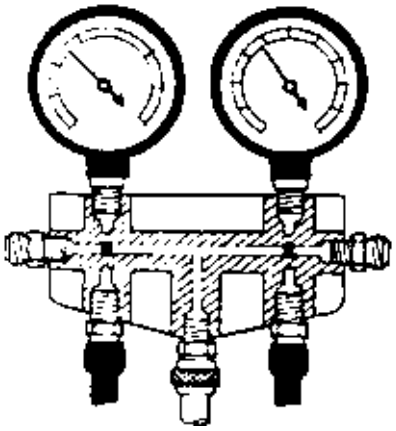
The test gauge indicators shown in the following chapter are to be used as typical examples of common problems which you may need to diagnose.

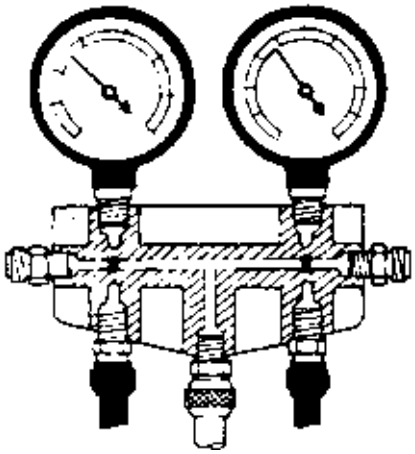
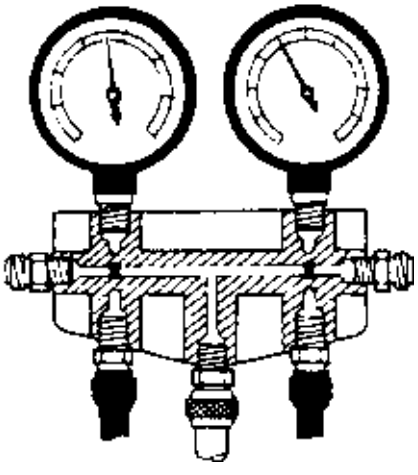
GAUGE READINGS	OTHER SYMPTOMS	DIAGNOSIS	CORRECTION
1  	• Discharge air: slightly cool. • Thermostatic switch (with thermistor): Low side gauge doesn't fluctuate with switch "ON" and "OFF" cycle.	Some air and moisture in system.	1. Leak test system. 2. Discharge refrigerant from system. 3. Repair leaks as located. 4. Replace receiver/drier (The drier is probably saturated with moisture.) 5. Evacuate the system for at least 30 minutes. 6. Charge system with refrigerant. 7. Operate system and check performance.
2  	• Discharge air: Becomes warm as low side cycles into vacuum. • Discharge air: Becomes warm all the time during hot part of day.	Excessive moisture in system	1. Discharge refrigerant. 2. Replace receiver-drier. 3. Evacuate system with a vacuum pump. 4. Recharge system to proper capacity. 5. Operate system and check performance.
			1. Stop engine and

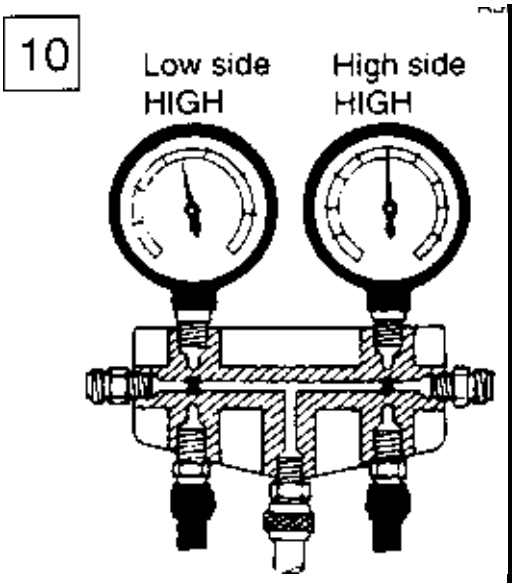
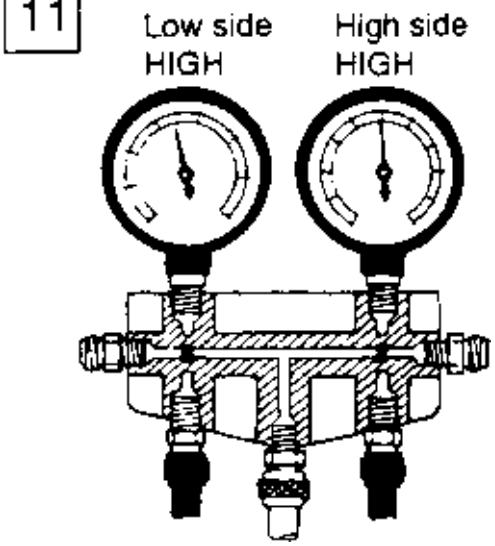
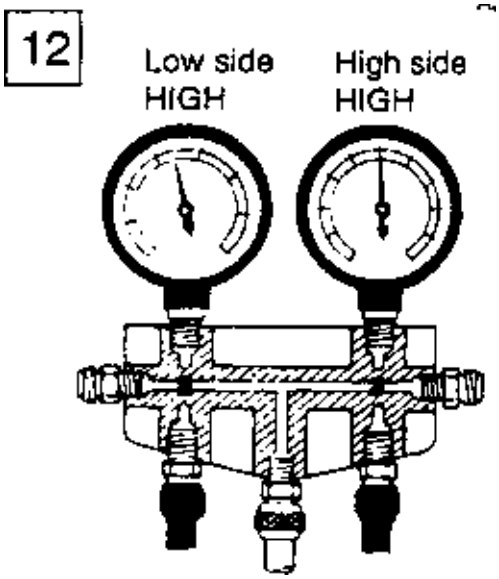
3 Low side NORMAL High side NORMAL 	• Compressor: Cycles on and off too fast. • Low side gauge: Not enough range shown on low side gauge.	Defective thermo-static switch	turn air conditioning "OFF". 2. Replace thermostatic switch when installing new thermostatic switch. Make sure that thermister tube is installed in the same position and to the same depth in evaporator core as old switch tube. 3. Operate system and check performance.

GAUGE READINGS	OTHER SYMPTOMS	DIAGNOSIS	CORRECTION
4 Low side NORMAL to HIGH High side NORMAL 	• Compressor: low side pressure builds too high before compressor turns on (cycle "ON" point too high)	Faulty thermo-static switch	1. Stop engine and turn air conditioning "OFF". 2. Repair or replace thermostatic switch with thermistor (make sure that all wiring is positioned so that no short circuiting can occurred.) 3. Operate system and check performance.
	• Discharge air: Slightly cool.	System slightly low on refri-gerant	1. Check leaks. 2. Discharge refrigerant. 3. Repair leaks. 4. Check compressor oil level. 5. Evacuate system using a vacuum pump.

5  			6. Charge system with refrigerant. 7. Operate system and check performance.
6  	• Discharge air: Warm	• System very low on refri-gerant • Poss-ible leak in system.	1. Check leaks. 2. Leak test compressor seal area very carefully. 3. Discharge refrigerant. 4. Check compressor oil level. 5. Evaporate system using a vacuum pump. 6. Charge system with refrigerant. 7. Operate system and check performance.
	• Discharge air: Slightly cool. • Expansion valve: Sweating or frost build up.	• Expansion valve stuck closed. • Screen plugged • Sensing bulb malfunction.	1. Discharge system. 2. Disconnect inlet line at expansion valve and remove and inspect screen. 3. Clean and replace screen and reconnect inlet line. 4. Evacuate

7 Low side LOW High side LOW 			system using a vacuum pump. 5. Charge system with refrigerant.

GAUGE READINGS	OTHER SYMPTOMS	DIAGNOSIS	CORRECTION
8 Low side LOW High side LOW 	• Discharge air: slightly cool. • High side pipe: Cool and also shows sweating or frost.	Restric-tion in high side of system	1. Discharge system. 2. Remove and replace receiver-drier, liquid pipes or other defective components. 3. Evacuate system using a vacuum pump. 4. Charge system with refrigerant. 5. Operate system and check performance.
9 Low side HIGH High side LOW 	• Compressor: Noisy	Compres-sor malfunc-tion	1. Isolate compressor. 2. Remove compressor cylinder head and inspect compressor. 3. Check compressor oil level. 4. Replace receiver-drier 5. Operate system and check performance.
			1. Check for loose

10  	• Discharge air: Warm. • High side pipe: Very hot	Malfunc-tioning condenser over-charge.	or worn fan belt. 2. Inspect condenser for clogged air passage. 3. Inspect condenser mounting for proper radiator clearance. 4. Check for refrigerant overcharge. 5. Operate system and check performance.
11  	• Discharge air: Slightly cool.	Large amount of air and moisture	1. Discharge refrigerant from system. 2. Replace receiver-drier which may be saturated with moisture. 3. Evacuate system using vacuum pump. 4. Charge system with refrigerant. 5. Operate system and check performance.
12  	• Discharge air: Warm • Evaporator: Sweating or frost.	Expansion valve stuck open.	1. Discharge system. 2. Replace expansion valve, making sure all contacts are clean and secure. 3. Evacuate system using vacuum pump, then recharge system with refrigerant. 4. Operate system and check performance.

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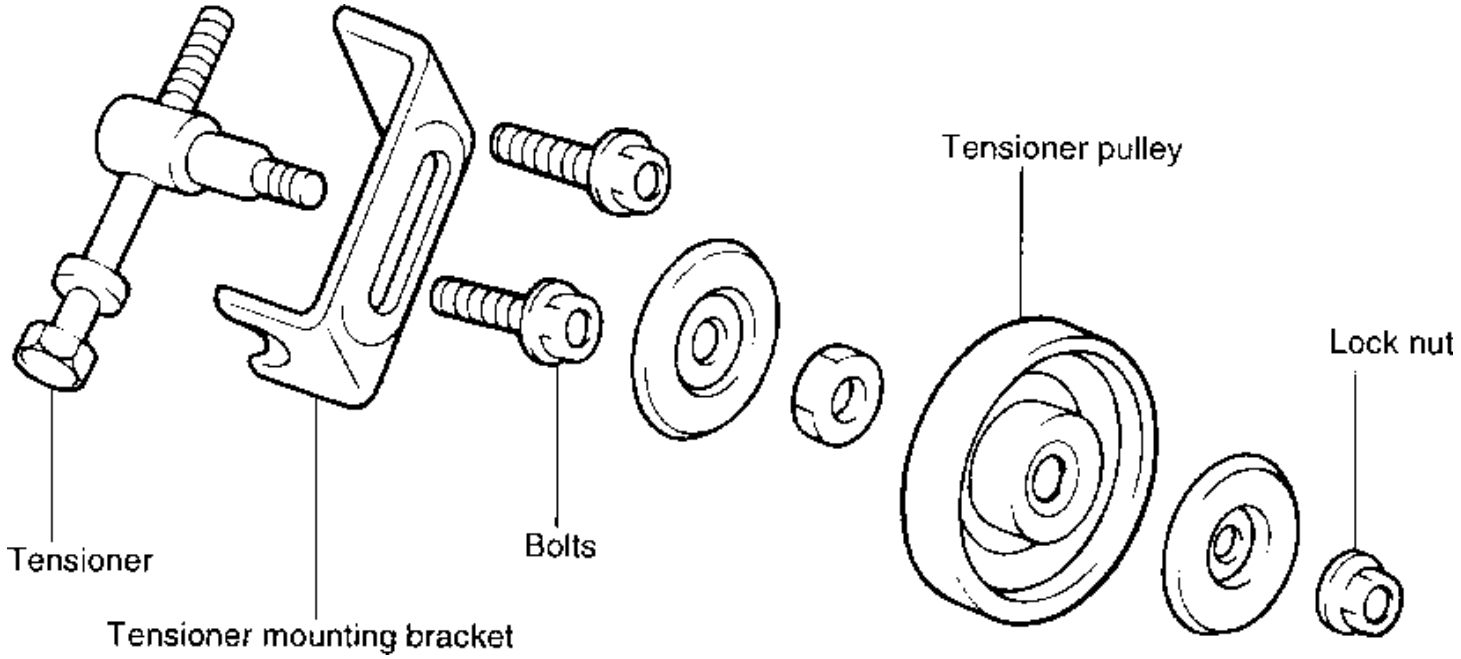
COMPONENTS



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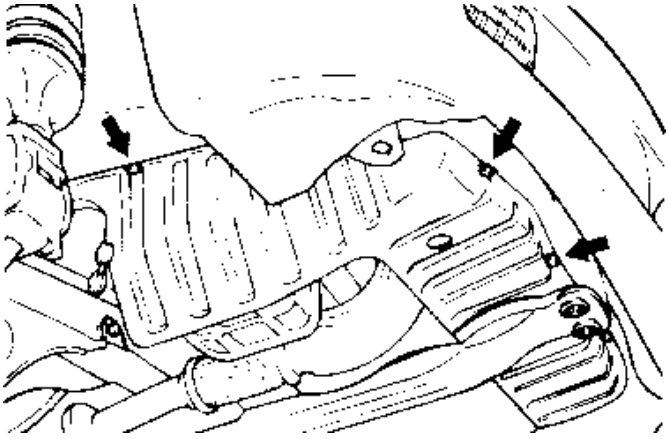
REMOVAL

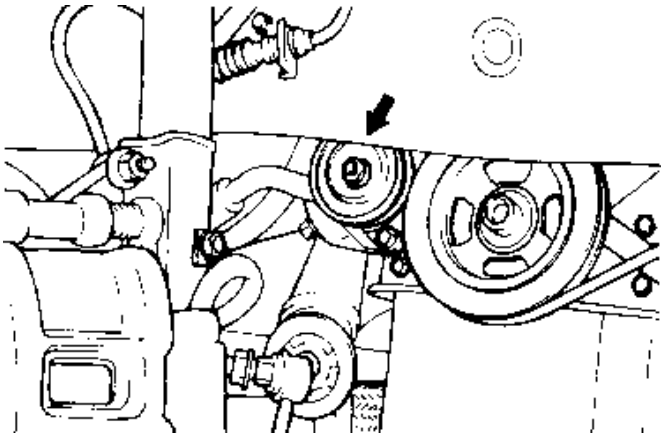
Lift up the vehicle.

Remove the RH-side front wheel and tire.

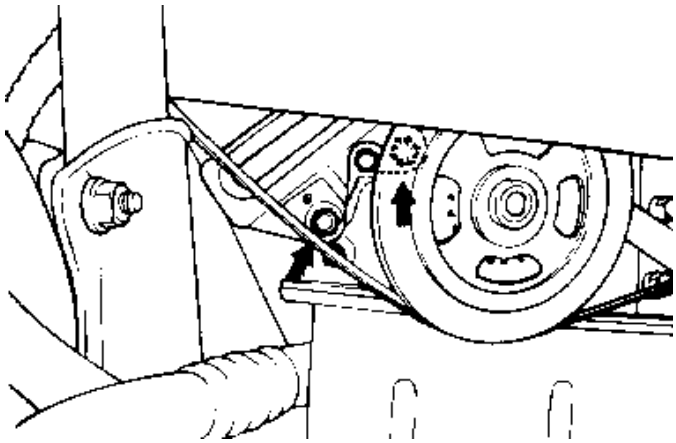
Remove the under cover.



Remove the locking nut of the tensioner.



Remove the tensioner pulley and tensioner assembly from the tensioner mounting bracket.



Remove the mounting bolt of the tensioner mounting bracket.

Remove the tensioner mounting bracket.

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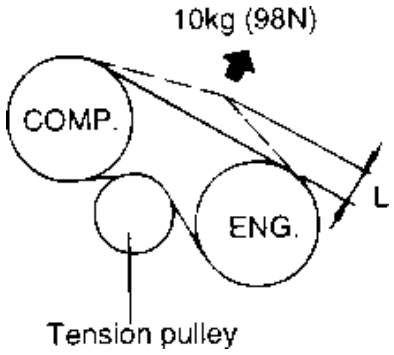
INSTALLATION

Installation is the reverse order of removal.



NOTE

After installation, lower the vehicle and check whether the tension of the compressor drive belt is proper or not. If not, adjust properly.

CONDITION	LENGTH (mm)
After driving	Approximately 8.0
Used belt	6.0 - 7.0
New belt	5.0 - 5.5

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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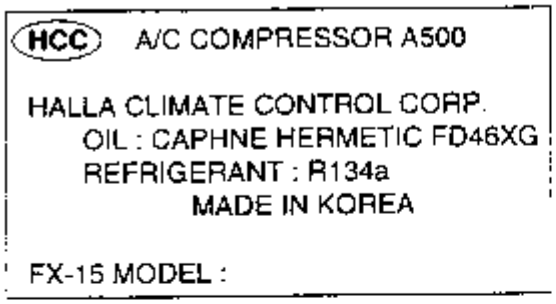
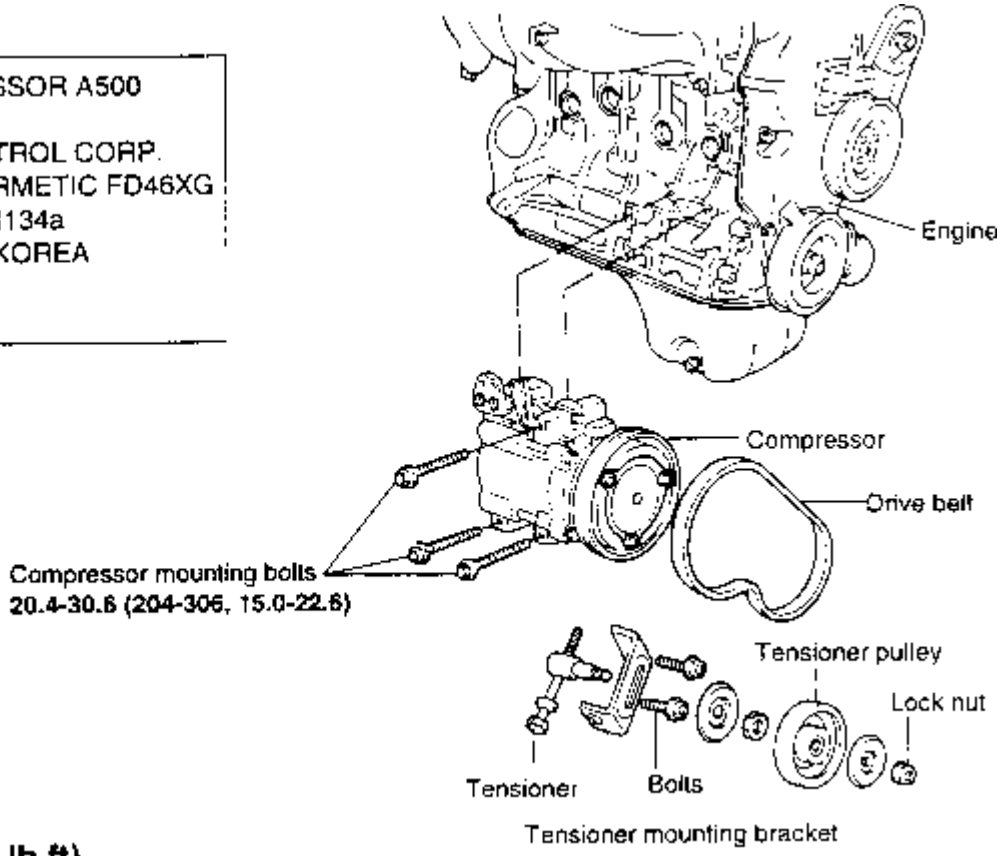
LOCATION OF COMPRESSOR





TORQUE : Nm (kg.cm, lb.ft)

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REMOVAL AND INSTALLATION

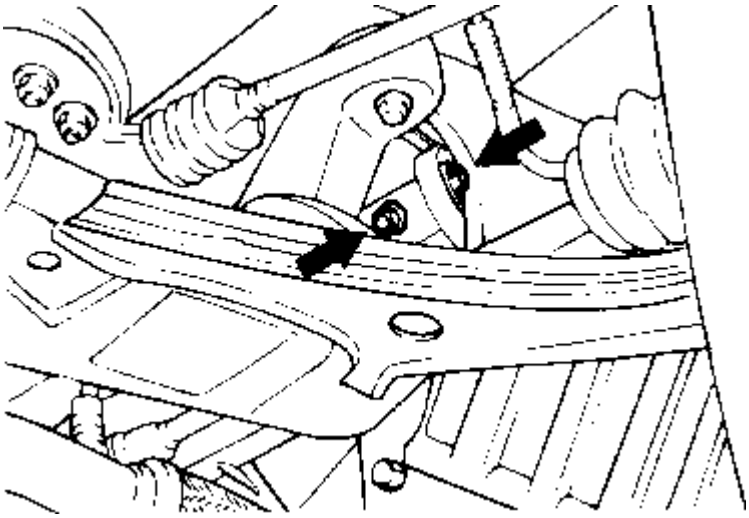
> **NOTE**
>
> **Plug all of the open fittings immediately after removal to keep moisture out of the system.**

Discharge refrigerant from the refrigeration system.

Disconnect the magnetic clutch connector.

Lift up the vehicle.

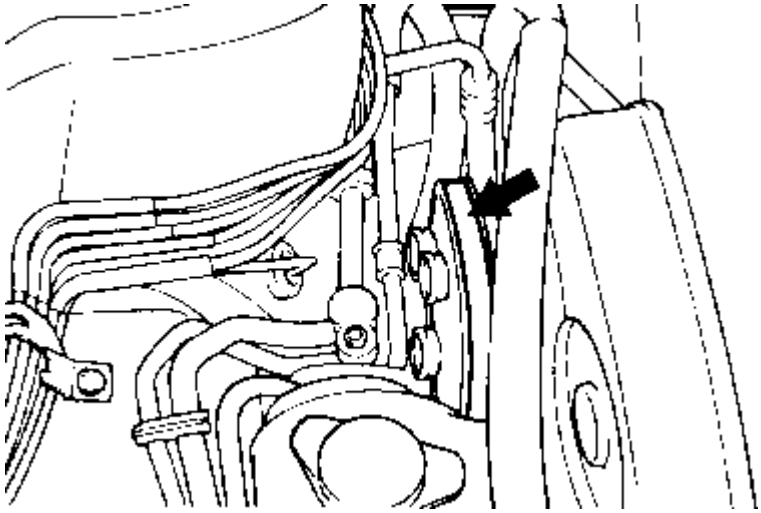
Loosen the locking nut of the tensioner.



Sufficiently lessen the tension of the compressor drive belt by turning the tension adjusting bolt counterclockwise.

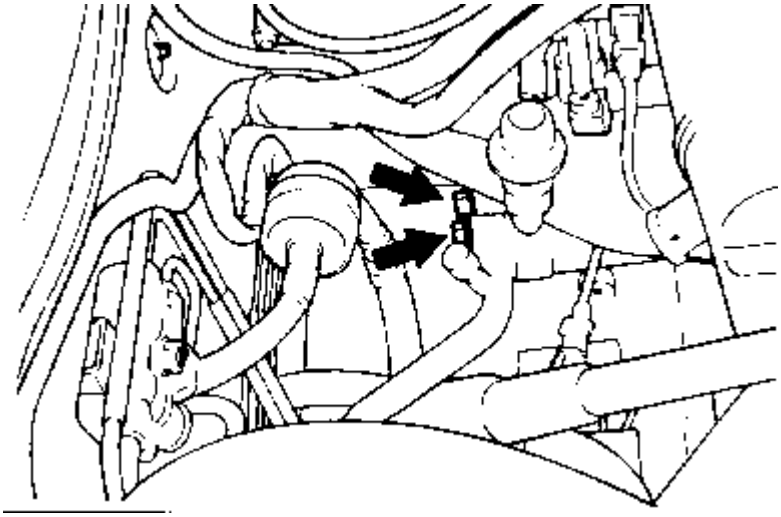
Lower the vehicle.

Derail the compressor drive belt from the compressor pulley.



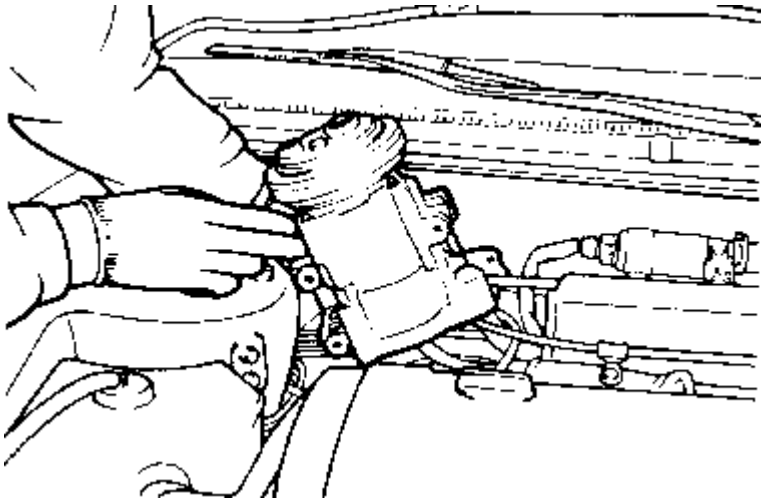
Disconnect the suction hose fitting from the compressor.

Disconnect the discharge hose fitting from the compressor.



Remove compressor mounting bolts.

Remove the compressor assembly.



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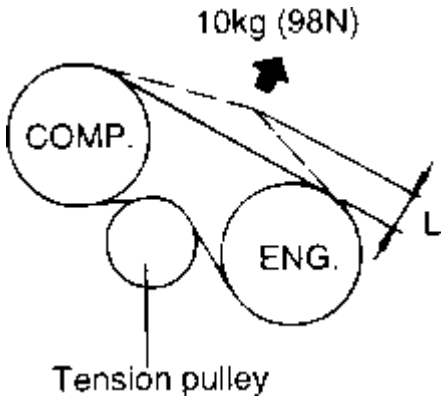
ON-VEHICLE INSPECTION

Install manifold gauge set.

Check compressor drive belt tension. (See page HA-24)



Run engine at approx. 1,500 rpm.

Check compressor for following:

Low pressure gauge reading is not lower and high pressure gauge reading is not higher than normal.
Metallic sound.
Leakage from shaft seal. If there is any case among the above, repair the compressor.
Check magnetic clutch.

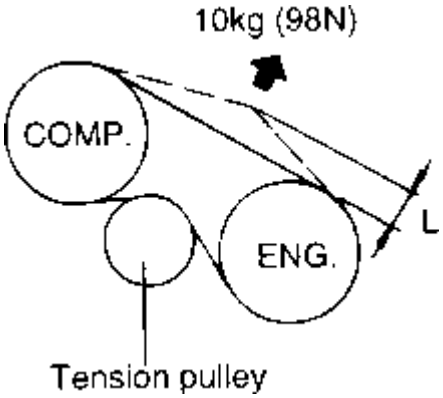
Lift-up the vehicle.
Inspect the pressure plate and the rotor for signs of oil.
Check the clutch bearings for noise and leaking grease.
Using an ohmmeter, measure the resistance of the stator coil between the clutch lead wire and ground.
Standard resistance: 3.23 ± 0.08OHM at 12.8 20°C (68°F) If resistance value is not as specified, replace the coil.
Connect the positive (+) lead from the battery to terminal, check that the magnetic clutch is energized. If magnetic clutch is not energized, replace the coil.

> **CAUTION**
>
> **Do not short the positive (+) lead wire on the vehicle by applying battery voltage.**

Return to Main Menu(s): Mechanical Manual Electrical Manual

INSTALLATION

Installation is the reverse order of removal.



NOTE

1. **Replace O-ring of the disconnected fittings and apply specified lubricant.**
2. **While installation, observe specified tightening torques for the bolts or nuts.**
3. **After installation, adjust the compressor drive belt tension.**

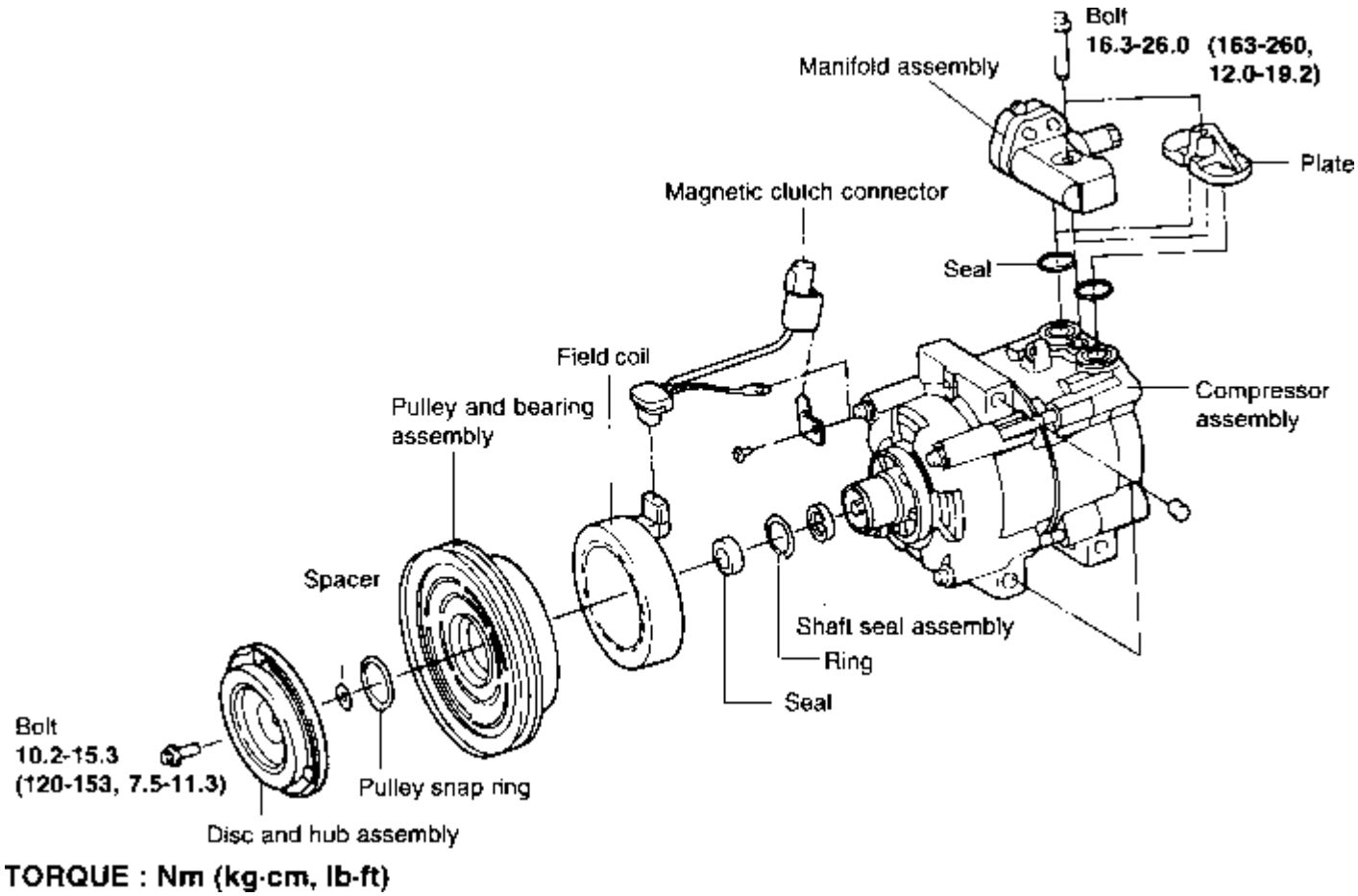
CONDITION	LENGTH (mm)
After driving	Approximately 8
Used belt	6.0 - 7.0
New belt	5 - 5.5

4. **Evacuate, charge and test the air conditioning system.**

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS



TORQUE : Nm (kg·cm, lb-ft)

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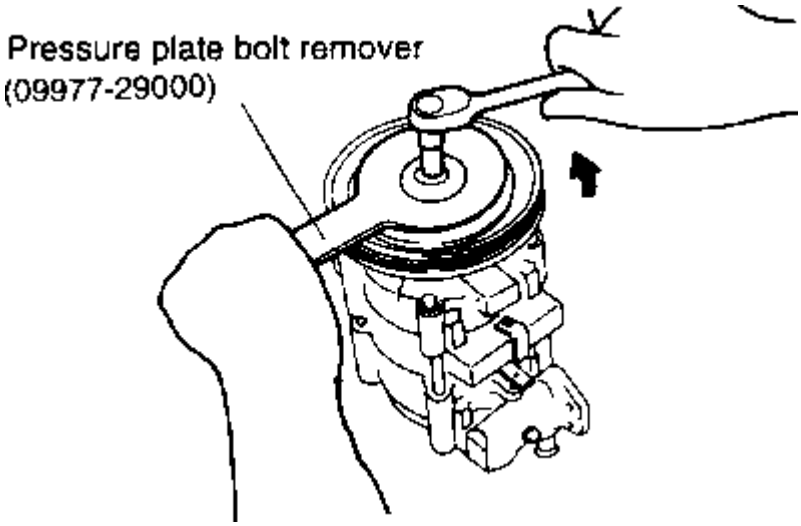
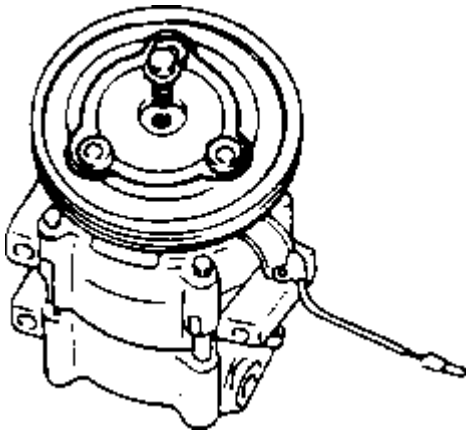
DISASSEMBLY

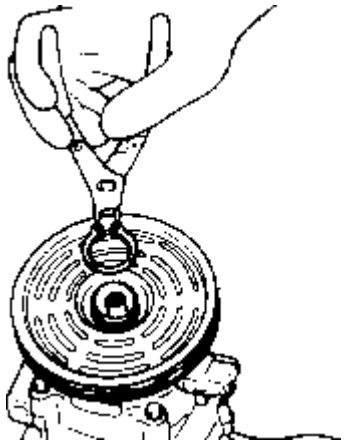
Remove the clutch hub retaining bolt with the aid of a spanner wrench.



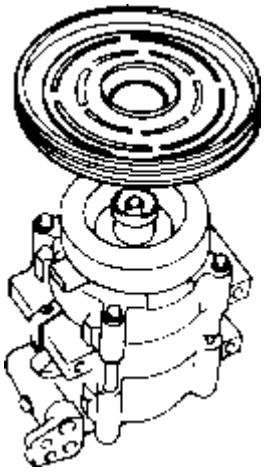
Pull the clutch hub and shims from the compressor shaft. If the hub cannot be pulled from the compress shaft, screw an 8mm bolt into the shaft hole of the clutch hub to force the hub from the shaft.



Remove the pulley retaining snap ring.



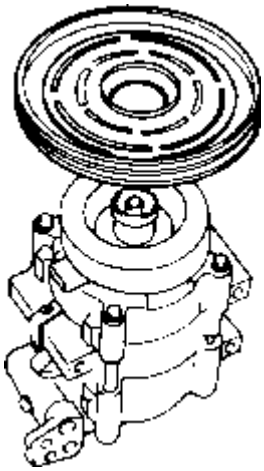
Pull the pulley the bearing assembly from the compressor.



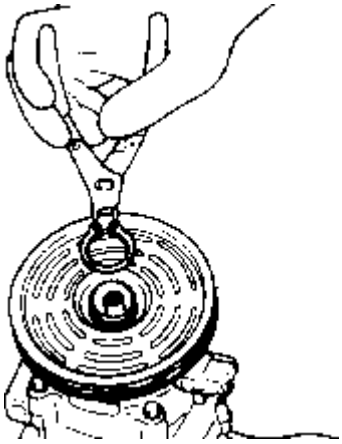
REASSEMBLY

Clean the pulley bearing surface of the compressor head to remove any dirt or corrosion.

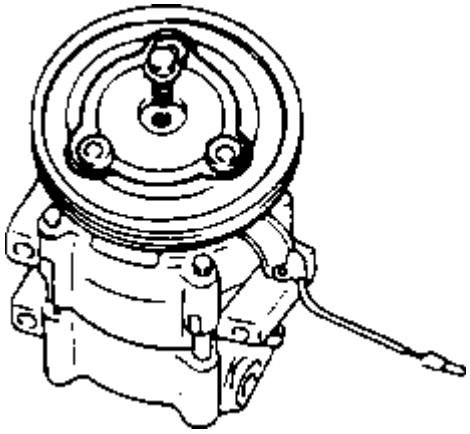
Install the pulley and bearing assembly on the compressor. The bearing is a slip fit on the compressor head and, if properly aligned, should slip on the compressor head.



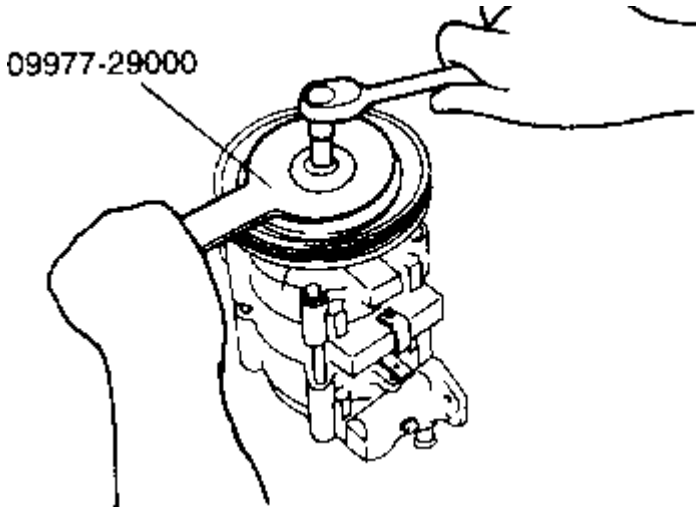
Install the pulley retaining snap ring with the bevel side of the snap ring out.



Place one nominal thickness spacer shim inside the hub spline opening and slide the hub on the end of the compressor shaft.



Thread a new hub retaining bolt into the end of the compressor shaft. Tighten the hub retaining bolt.

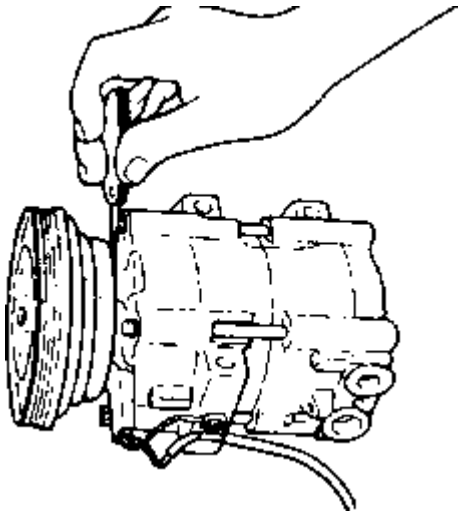


TORQUE SPECIFICATION	
Hub retaining bolt	10.2-15.3 Nm (102-153 kg·cm, 7.5-11.3 lb·ft)

NOTE

Do not use air tools.

Check the clutch air gap between the clutch hub and the pulley mating surfaces with a feeler gauge. The air gap should be as follows:



MEASUREMENT SPECIFICATION	

Air gap	0.35-0.75 mm (0.014-0.030 in)

Check at three locations equally spaced around the pulley.

If the clutch air gap is not within the dimensions specified above, repeat steps 4 through 6 with the various thickness shims until the air gap is between the specified limits.

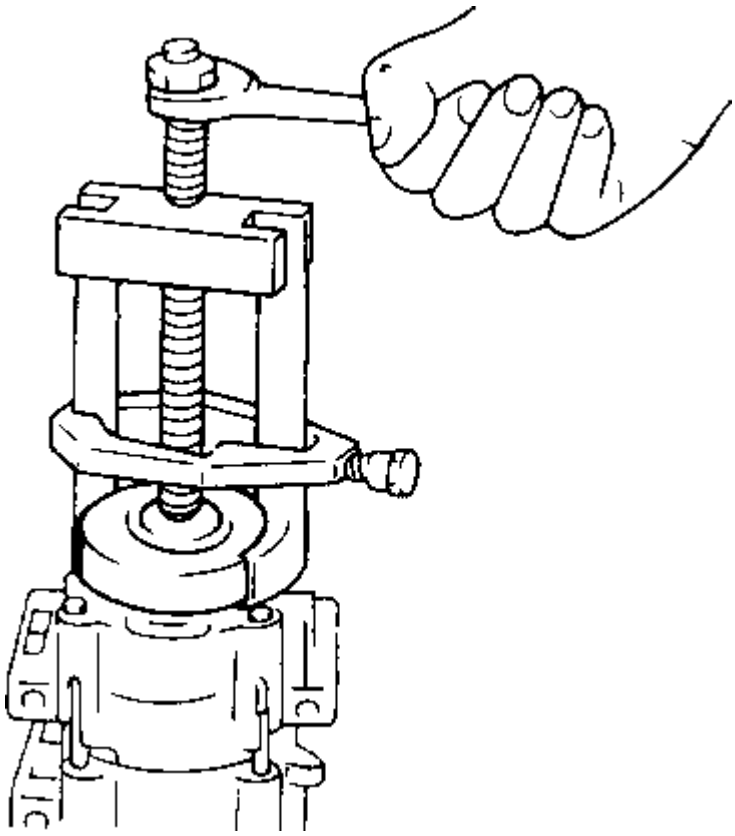
CLUTCH FIELD COIL

DISASSEMBLY

Remove the clutch hub and pulley following the procedure given.

Install shaft protector tool on the nose opening of the compressor.

Install the puller on the compressor as shown in the illustration.



Place the tip of the puller forcing screw on the center dimple of the shaft protector and the jaws of the puller around the back side of the field coil.

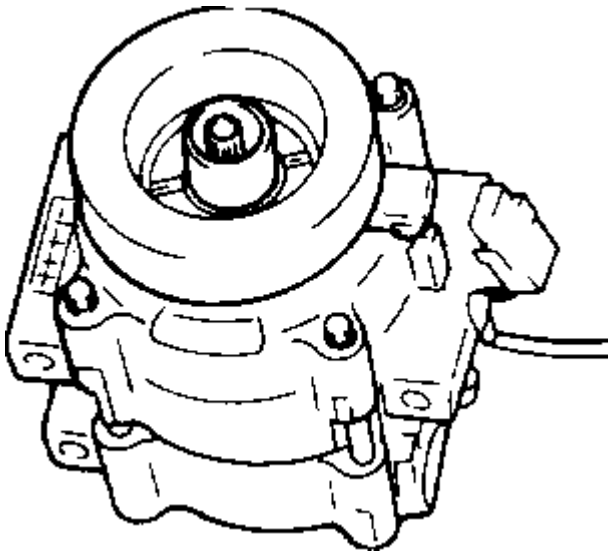
Tighten the forcing screw with a wrench to pull the coil loose from the compressor front head.

> **NOTE**
>
> **Do not use air tools.**

REASSEMBLY

Clean the coil press diameter of the front head to remove any dirt or corrosion.

With the compressor in a vertical position (nose up), place the coil in position on the front head of the compressor. Assure that the clutch coil electrical connector is positioned correctly.



Place the coil pressing tool in position over the compressor nose and the inner radius of the field coil.

Position an eight (8) inch, two jaw puller to the compressor and pressing tool as shown in the illustration. The jaws of the puller should be firmly engaged with the rear side of the compressor front mounts and the forcing screw should be piloted on the center of the pressing tool.

Tighten the forcing screw with a wrench by hand until the coil is pressed completely onto the compressor front head. Check to assure that the field coil bottoms are against the front head at all points around the coil outer diameter

Install the clutch pulley and hub on the compressor as outlined.

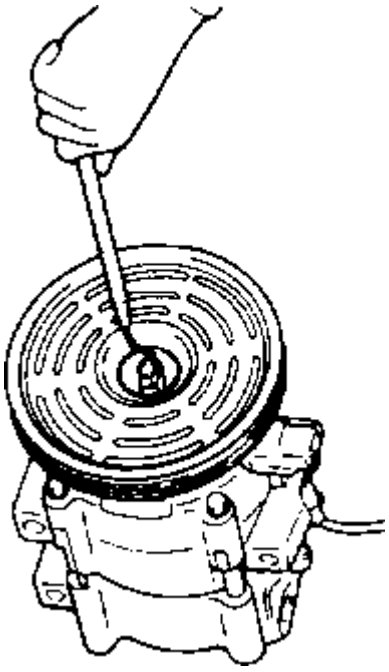
SHAFT SEAL

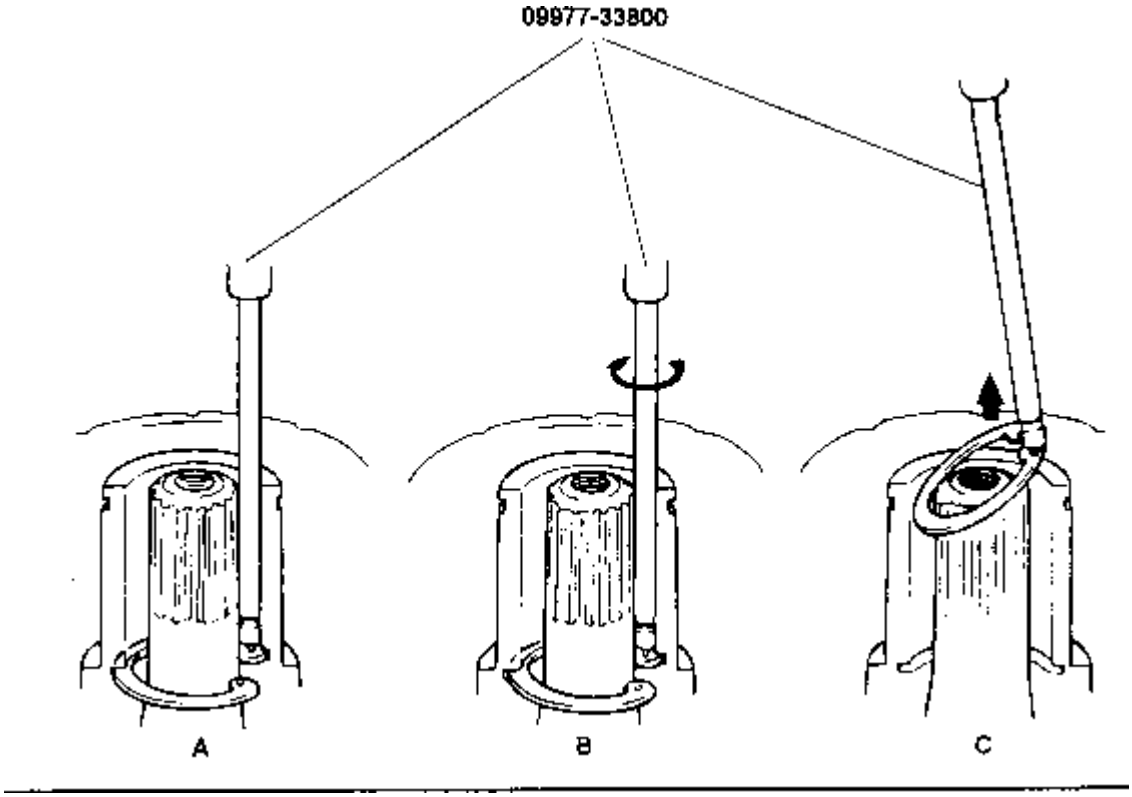
The refrigerant system must be discharged and the compressor must be removed from the vehicle prior to replacing the compressor shaft seal.

DISASSEMBLY

Remove the clutch hub from the compressor.

Remove the shaft seal from the nose of the compressor with a pick type tool.



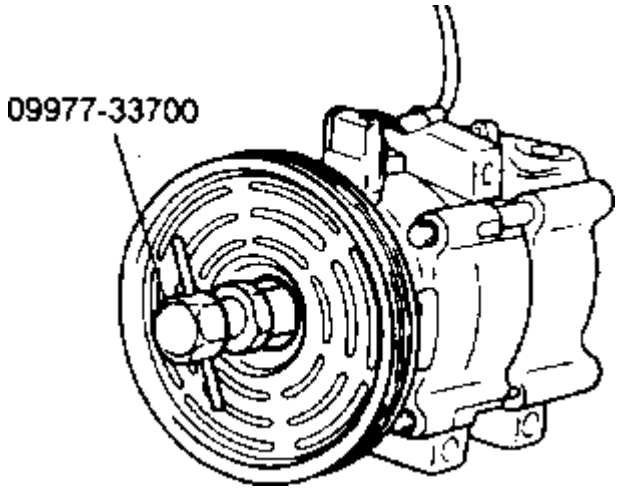


Blow any debris from inside the compressor nose with low pressure compressed air. Then, clean the inside and outside nose area of the compressor with a lint-free cloth to remove any oil and dirt.

Remove the shaft seal retaining snap ring from inside the compressor nose with Snap Ring Remover as follows.

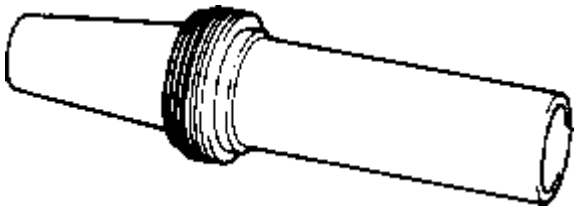
- Insert tip of Snap Ring Remover into one of the snap ring eyes (View A).
- Rotate the Snap Ring Remove to position the tool tip and snap ring eye closest to the compressor shaft (View B).
- Pull the snap Ring Remover tool up quickly while keeping the tool shaft against the side of the nose opening to remove the snap ring (View C).

Position the Shaft Seal Remove Tool (09977-33700) over the compressor shaft and push the tool into the nose of the compressor and down against the shaft seal. Engage the end of the tool with the internal diameter of the shaft seal. While holding the hex part of the tool, turn the tool handle clockwise to expand the tool tip inside the seal inner radius. Then, pull the shaft seal from the compressor with the tool.



REASSEMBLY

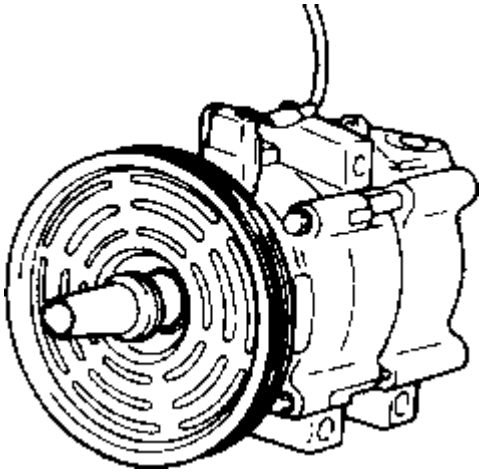
Obtain a new shaft seal kit. Carefully remove the contents from the package and locate the plastic shaft seal protector. Inspect the protector for any burrs or other damage. Do not use the protector if it is damaged. Obtain another shaft seal kit and use the protector from it.



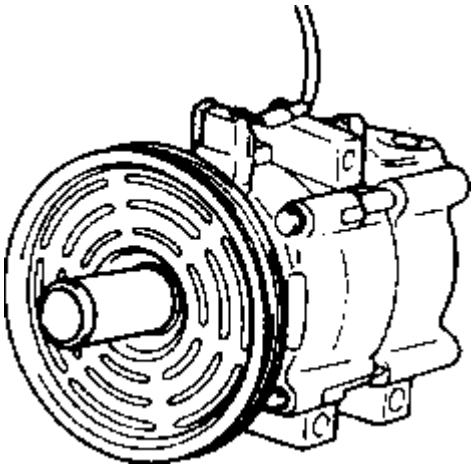
Using a clean lint-free cloth, clean the shaft and the seal pocket inside the compressor nose.

Dip the shaft seal protector and seal in clean refrigerant oil and position the seal on the protector with the lip of the seal pointing toward the large end of the protector.

Place the seal protector with shaft seal over the end of the compressor shaft.



Place the shaft seal installer tool over the end of the shaft seal protector. Then, slowly push the shaft seal down the protector until it is seated in the compressor.



Remove the seal installer and seat protector from the compressor.

Place a new seal retaining snap ring into the compressor nose opening and seat the snap ring into the groove with the remover tool.

Test leakage of the shaft seal installation after rotating the shaft about 10 with the clutch hub.

Install a new felt into the compressor nose.

Install the clutch hub on the compressor as outlined in this section.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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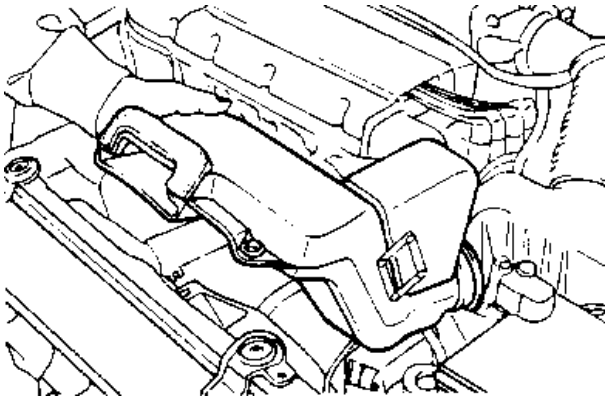
REMOVAL AND INSTALLATION CONDENSER

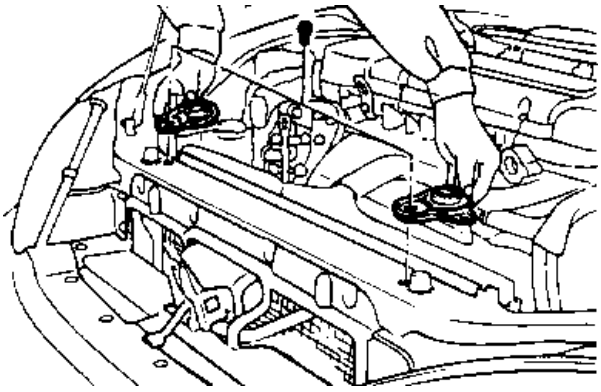
> **NOTE**
>
> **Plug all of the open fittings immediately after removal to keep moisture out of the system.**

Discharge refrigerant from the air conditioning system. (For detailed removal procedures for No.2 through No.8, refer to the "Removal of the liquid tube (B)" on page HA-76)

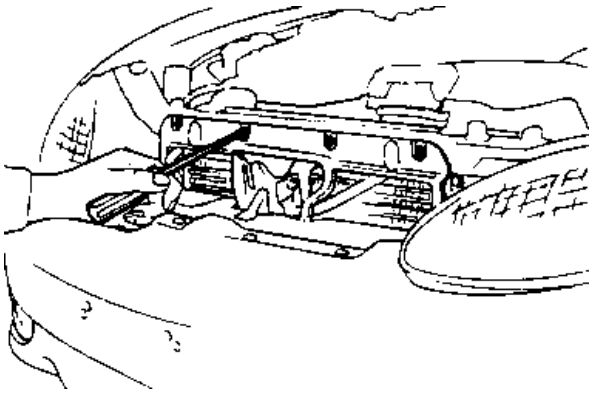
Remove the air intake duct assembly.



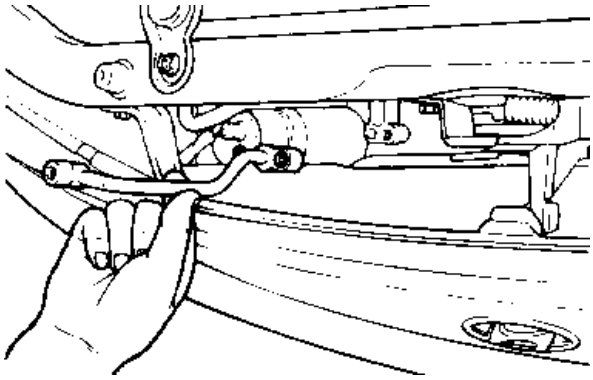
Remove the radiator upper mounting clamps.



Remove the radiator upper grille.

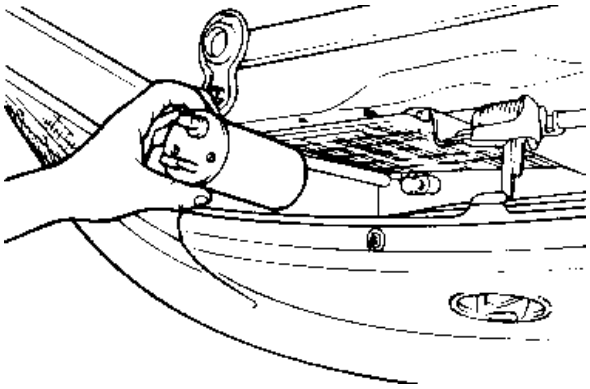


Remove the liquid tube (A).

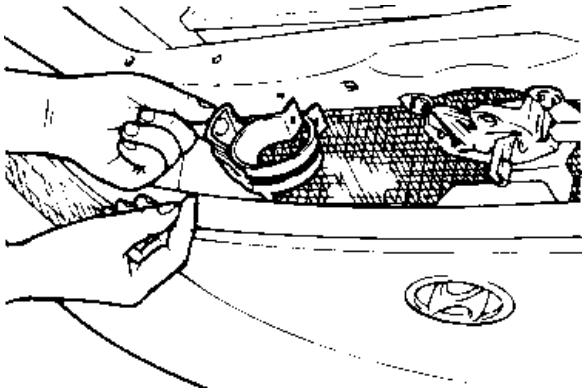


Disconnect the liquid tube (B) and remain it with removed state.

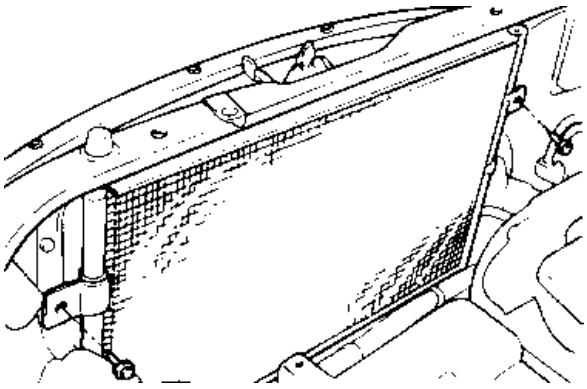
Remove the receiver drier.



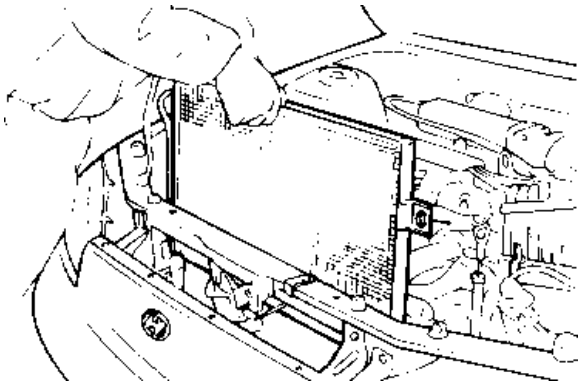
Remove the receiver drier mounting bracket.



Remove the condenser mounting bolts.



Remove the condenser assembly.



NOTE

Be careful not to damage the condenser fins.

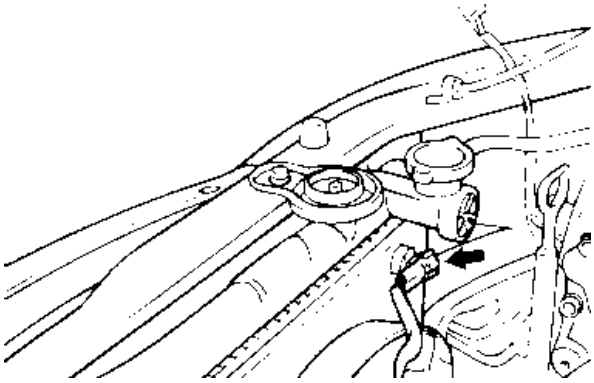
Installation is the reverse order of removal.

NOTE

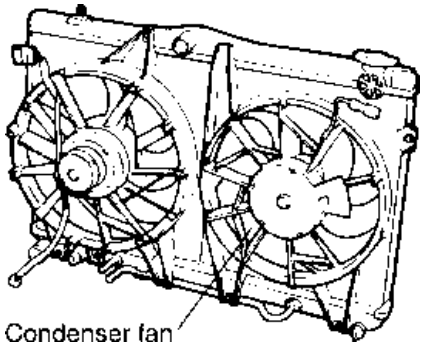
1. **While installing each of removed fitting, replace O-ring (if exists) and apply specified lubricant.**
2. **Be careful not to bend or twist refrigerant lines in order to install them easily.**
3. **After installation, evacuate, charge and test the air conditioning system.**

CONDENSER FAN

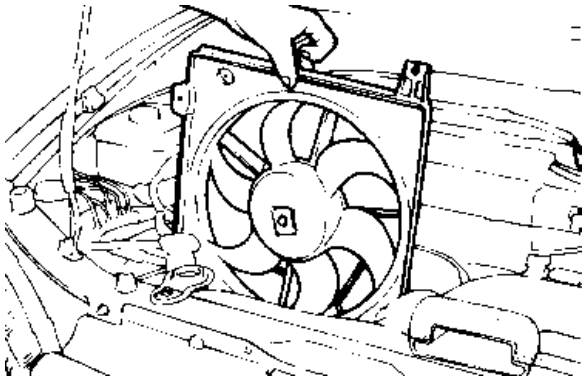
Disconnect the connector of the condenser fan.



Remove mounting screws.



Remove the condenser fan assembly.



Installation is the reverse order of removal.

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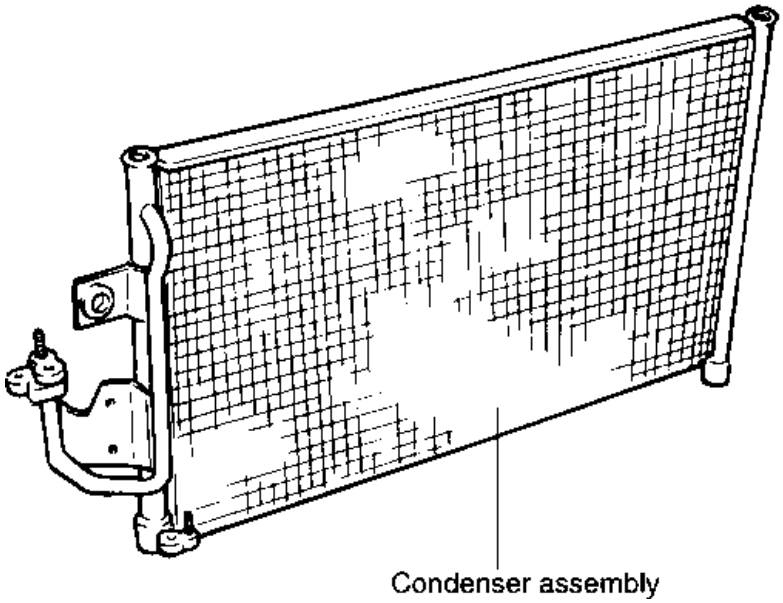
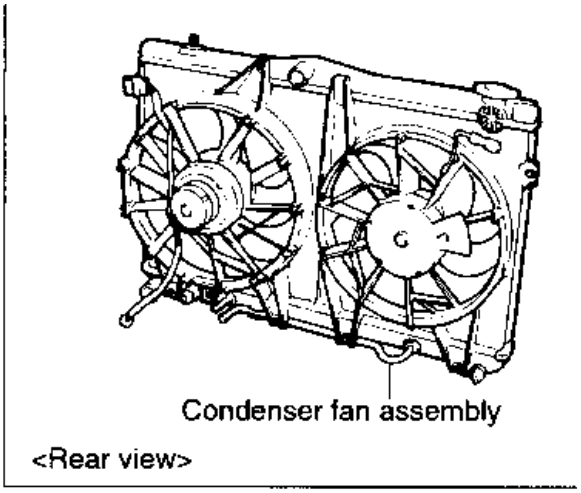
COMPONENTS





SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
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Heating, Ventilation & Air Conditioning	Air Conditioning System

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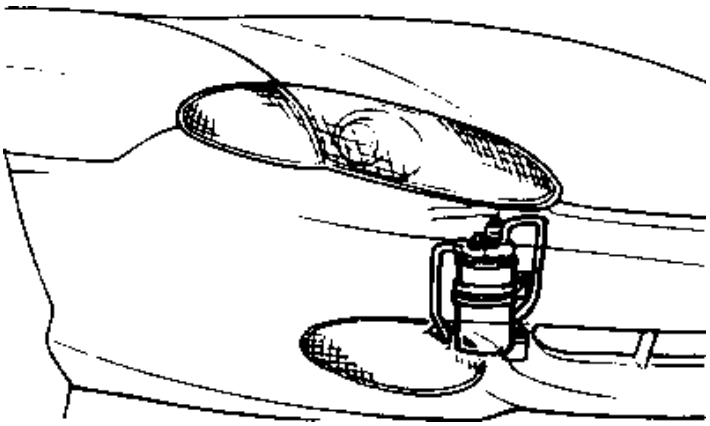
ON-VEHICLE INSPECTION

RECEIVER DRIER

Check the dual pressure switch and the fittings for leakage, using a leak detector.

Check the receiver/drier for clogging.



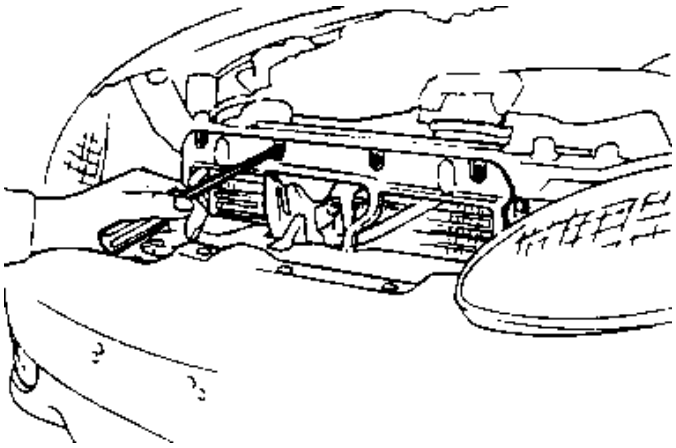
Run the engine at fast idle with the air conditioning ON.
Check both the inlet and outlet temperature. If difference in temperatures between the inlet and outlet is large, replace the receiver-drier.

DUAL PRESSURE SWITCH

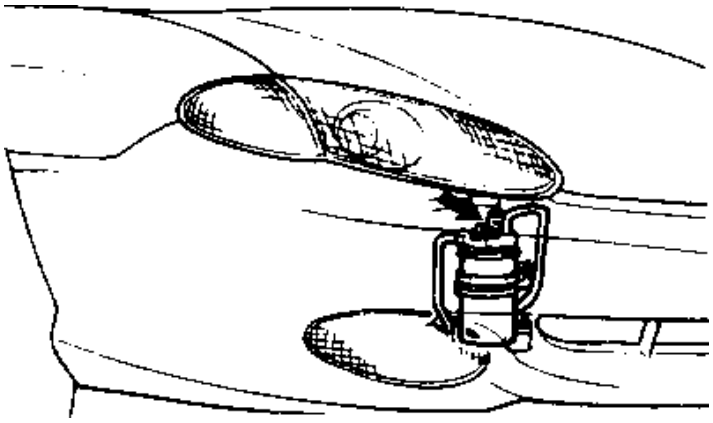
REMOVAL

Discharge refrigerant from the air conditioning system.

Remove the radiator upper grille.



Disconnect the dual pressure switch connector.



Remove the dual pressure switch with wrench. (22mm)

Installation is the reverse order of removal.

After installation, evacuate, charge and test the air conditioning system.

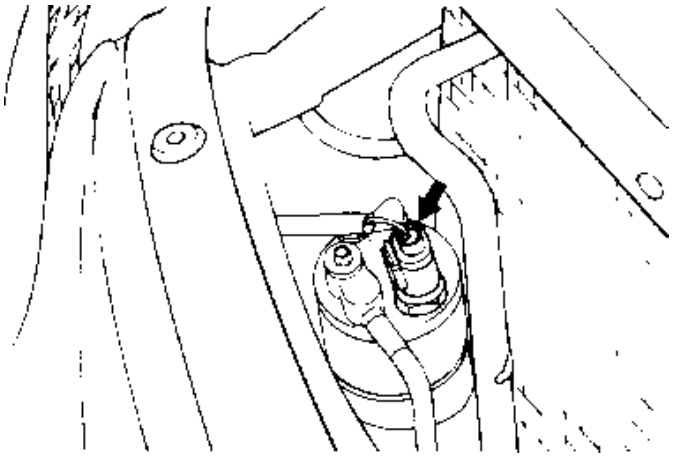
DUAL PRESSURE SWITCH

Refrigerant	R12	R134a
Pressure setting (kg/cm^2G)	ON / OFF — 2.0 2.1 (Low pressure side) — 21 27 (High pressure side)	ON / OFF — 2.0 2.025 (Low pressure side) — 26 32 (High pressure side)

R-12	The dual pressure switch is a combination of the low pressure switch (for checking the quantity of refrigerant) and the high pressure switch (for prevention of overheating). It is installed in the receiver, and when the pressure becomes approximately 200 kpa (28 psi) or lower, the compressor stops, thus preventing the compressor from being damaged by heat. When the pressure reaches 2,700 kpa (384 psi) or higher, the compressor stops, thus preventing overheating. There is generally no necessity for inspection; if, however, an unusual condition, such as non-operation of the compressor is encountered, check by following the procedures below.
R-134a	The dual pressure switch is a combination of the low pressure switch (for checking the quantity of refrigerant) and the high pressure switch (for prevention of overheating). It is installed in the receiver, and when the pressure becomes approximately 200 kpa (29 psi) or lower, the compressor stops, thus preventing the compressor from being damaged by heat. When the pressure reaches approximately 3,140 kpa (455 psi) or higher, the compressor stops, thus preventing overheating. There is generally no necessity for inspection; if, however, an unusual condition, such as non-operation of the compressor is encountered, check by following the procedures below.

ON-VEHICLE INSPECTION

Disconnect connector of the dual pressure switch.



Install the manifold gauge set.

Observe the gauge reading to confirm that refrigerant is sufficient in the air conditioning system.

If refrigerant is sufficient, check the continuity between the two terminals of the dual pressure switch shown in the figure. If defective, replace the dual pressure switch.

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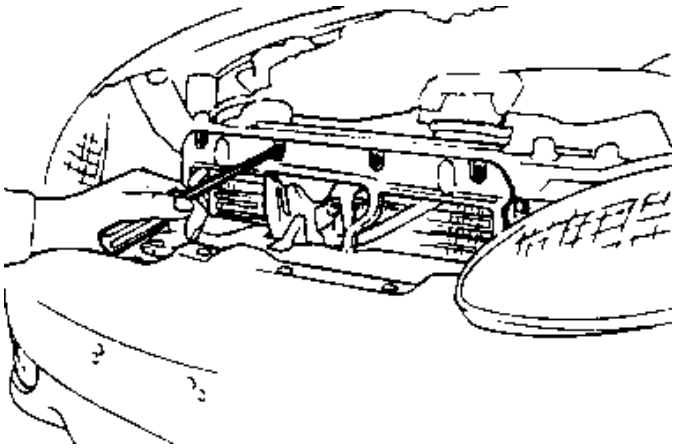
REMOVE AND INSTALLATION RECEIVER DRIER

> **NOTE**
>
> **Plug all of the open fittings immediately after removal to keep moisture out of the system.**

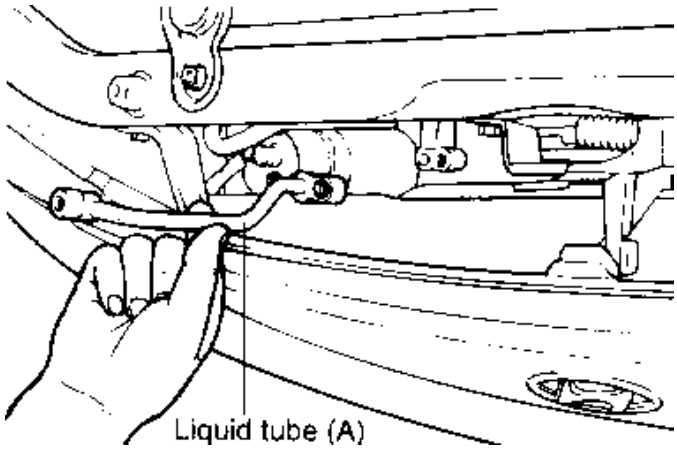
Discharge refrigerant from the air conditioning system.

Remove the radiator upper grille.



Disconnect the dual pressure switch connector.

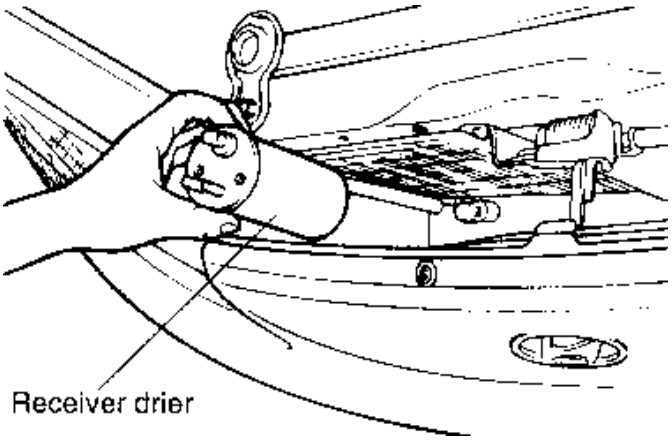
Remove the liquid tube (A). (Refer to the "Removal of the liquid tube (A)" on page HA-75)



Disconnect the receiver/driver side fitting of the liquid tube (B).

Remove the receiver/drier mounting bolt from the receiver/ drier mounting bracket.

Remove the receiver/drier assembly.



Installation is the reverse order of removal.

NOTE

1. **While installing each of removed fitting, replace O-ring (if exists) and apply specified lubricant.**
2. **Be careful not to bend or twist refrigerant lines in order to install them easily.**
3. **After installation, evacuate, charge and teat the air conditioning system.**

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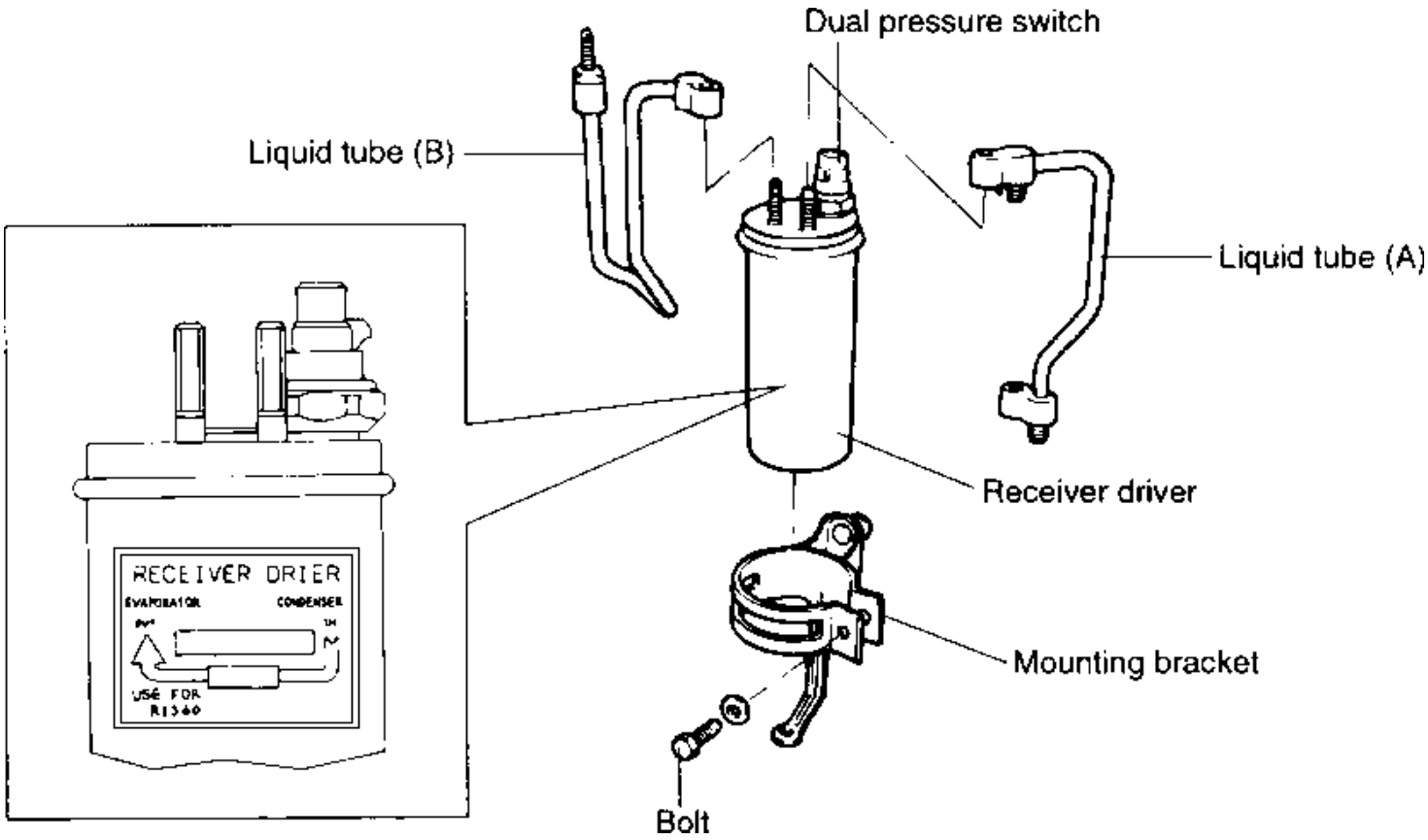
COMPONENTS



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ON-VEHICLE INSPECTION

Check the condenser fins for blockage or damage. If fins are clogged, clean them with compressed air. If the fins are bent, straighten them with a screwdriver or a pair of pliers.

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

Check the condenser fittings for leakage. Repair or replace if necessary.

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REMOVAL AND INSTALLATION

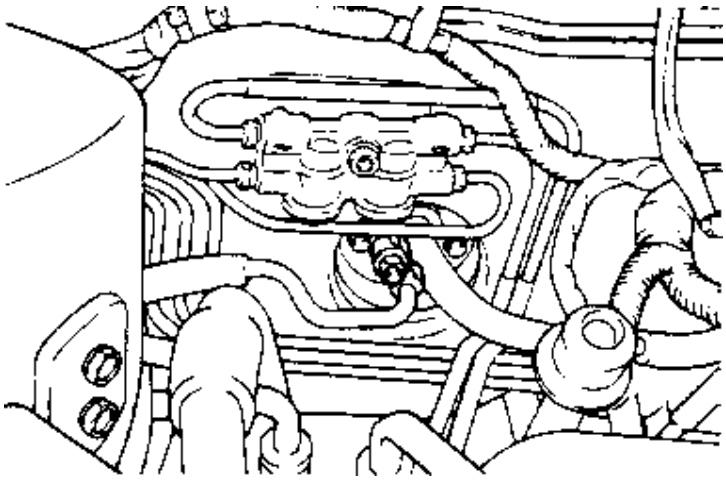
NOTE

Plug all of the open fittings immediately after removal in order to keep moisture out of the air conditioning system.

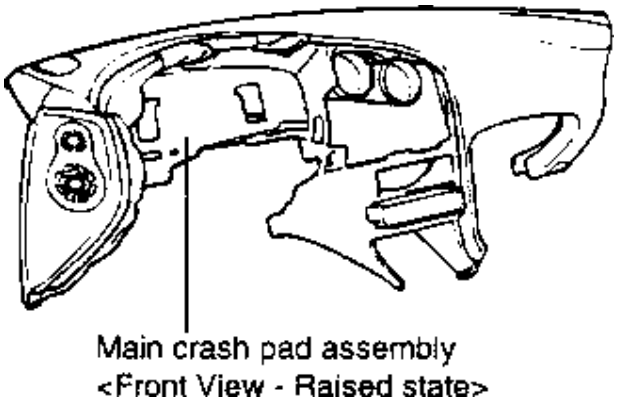
Disconnect battery negative terminal.

Discharge refrigerant from the air conditioning system.

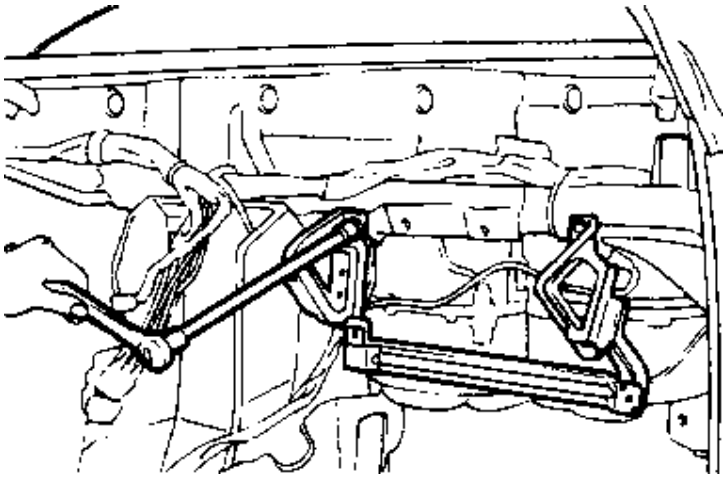
Disconnect fittings connected to the evaporator unit from the engine compartment.



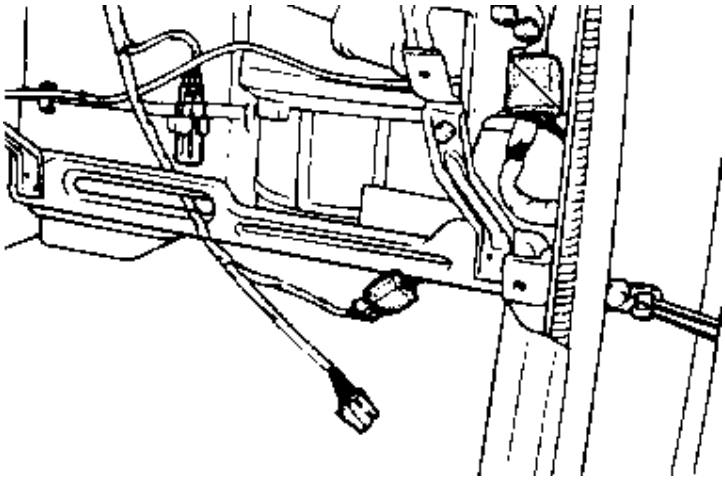
Remove the main crash pad assembly (Refer to the "BODY" section)



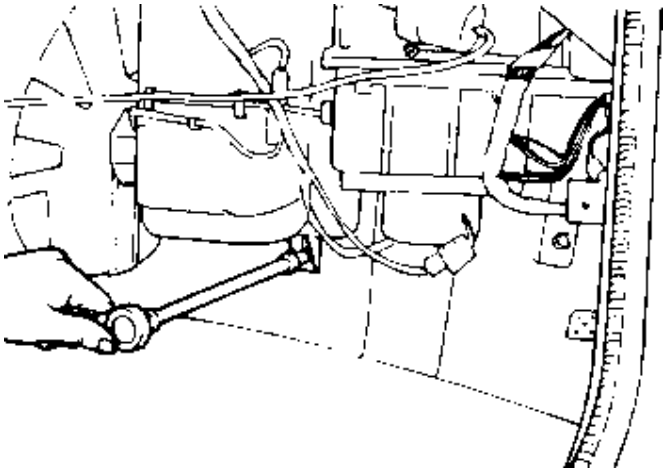
Remove the glove box support bracket.



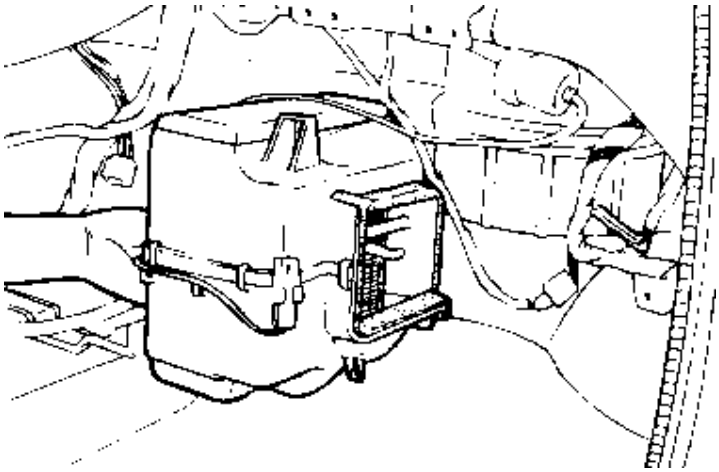
Disconnect the thermostatic switch connector.



Remove the evaporator upper and lower mounting bolts.



Remove the evaporator unit.



Installation is the reverse order of removal.

NOTE

1. **While installing each of removed fitting, replace O-ring (if exists) and apply specified lubricant.**
2. **Be careful not to bend or twist refrigerant lines in order to install them easily.**
3. **After installation, evacuate, charge and test the air conditioningsystem.**

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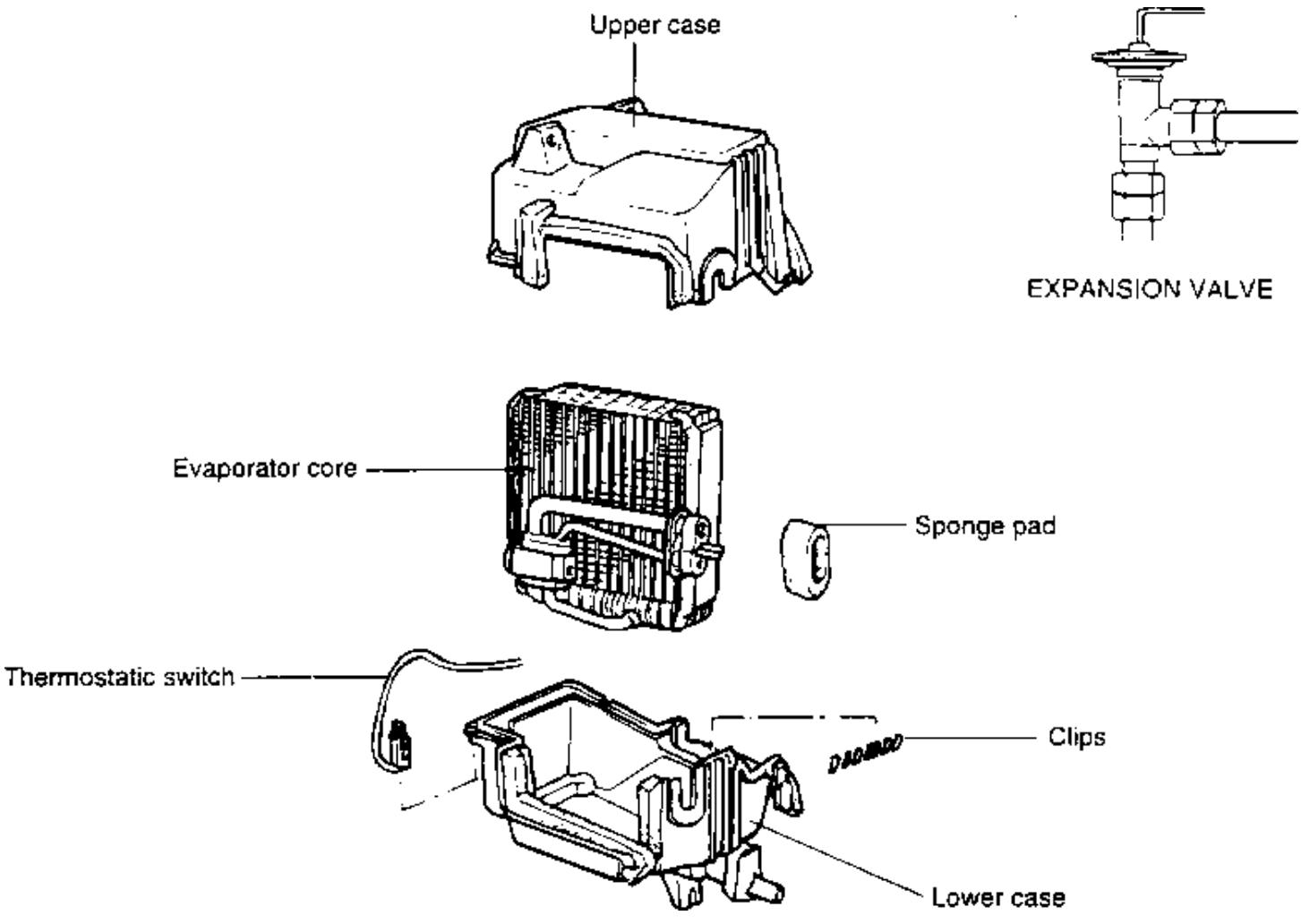
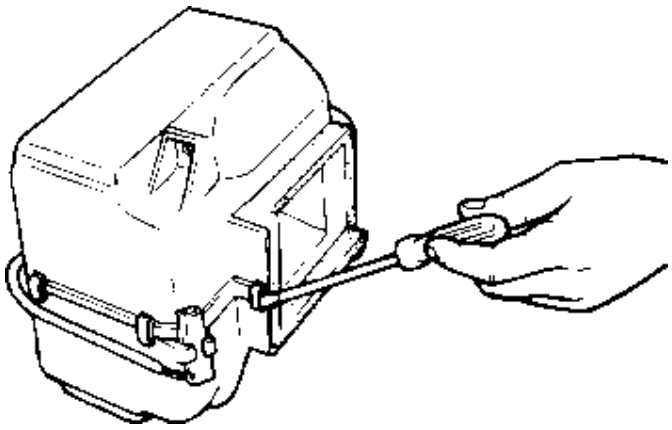
COMPONENTS

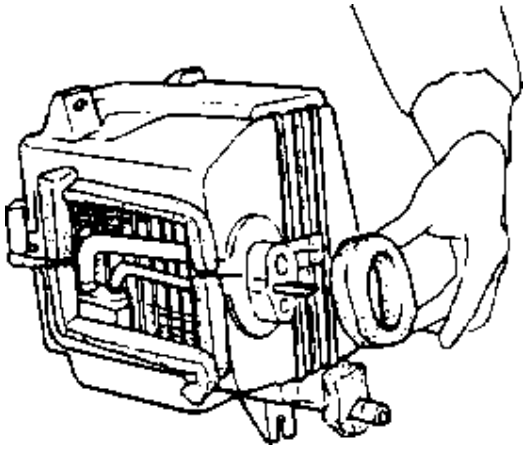


DISASSEMBLY

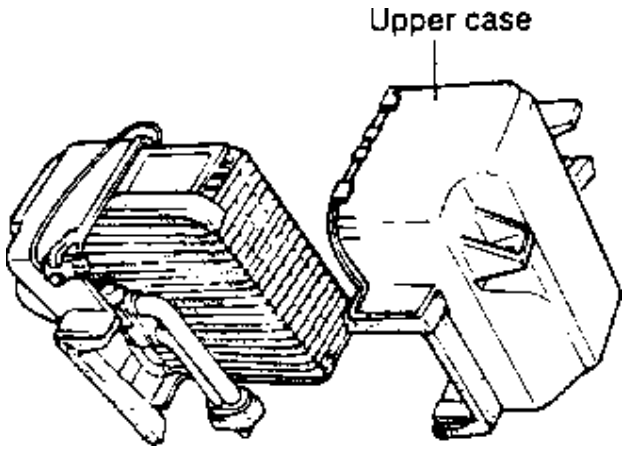
Remove clips (7EA) which is holding the upper case to the lower case.



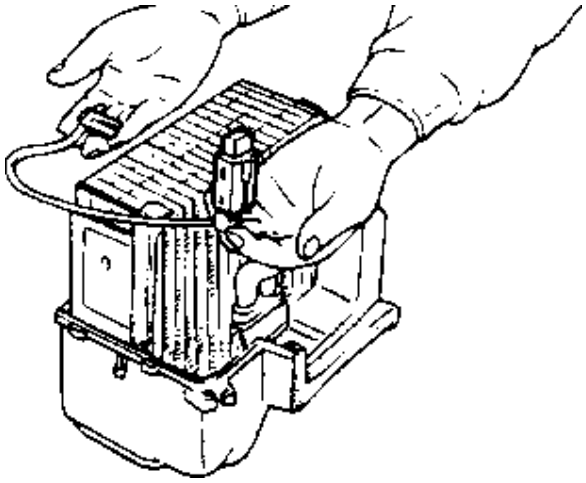
Remove the sponge pad which is wrapping around the evaporator inlet and the outlet fittings.



Remove the evaporator upper case from the lower case.



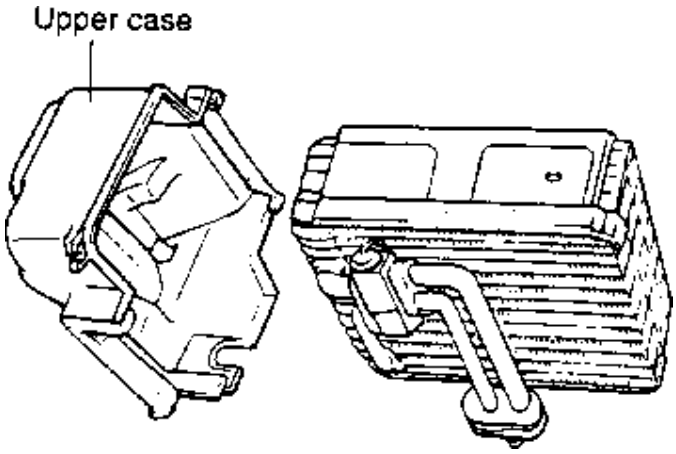
Remove the thermostatic switch (with thermistor) and thermistor mounting clip.



CAUTION

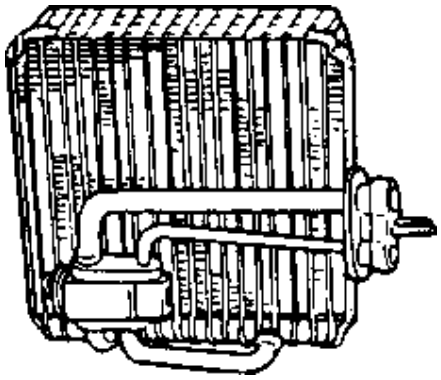
Be careful not to damage the fins of the evaporator core.

Remove the evaporator core from the evaporator lower case.



INSPECTION

Check for damaged fins of the evaporator core.



Check for clogged fins of the evaporator core. If fins are clogged, clean them with compressed air.

CAUTION

Never use water to clean the evaporator core.

Check fittings for cracks or scratches.

REASSEMBLY

Reassembly is the reverse order of disassembly.

> **CAUTION**
>
> **While reassembling the evaporator unit, be careful not to damage the fins of the evaporator core and the thermostatic switch wiring.**

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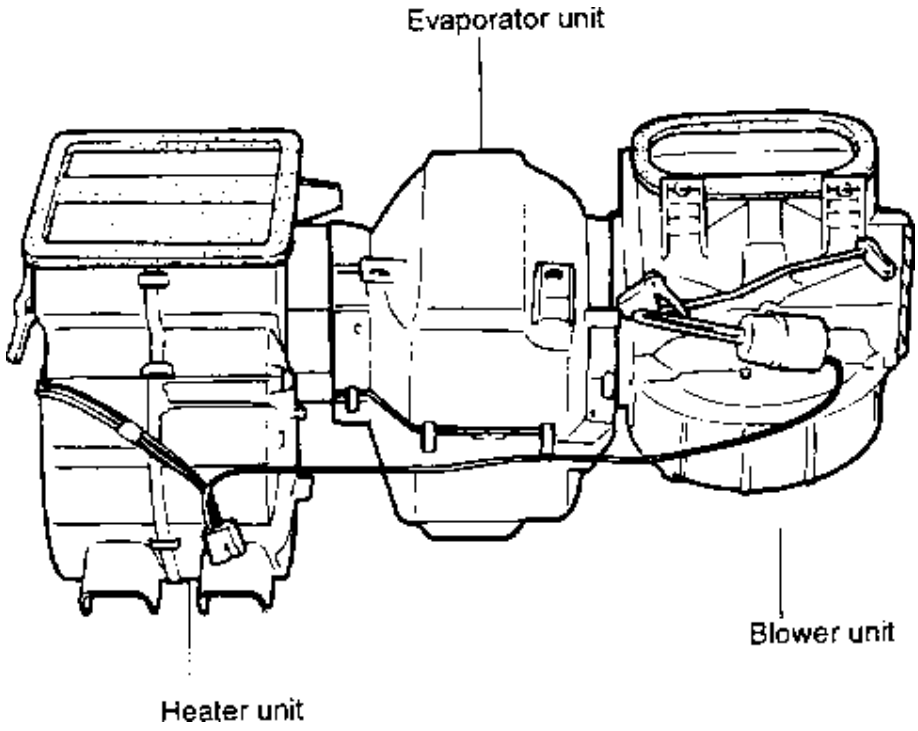
COMPONENTS



ON-VEHICLE INSPECTION

Check quantity of refrigerant gas during refrigeration cycle.

Install manifold gauge set.

Run the engine at 2,000 rpm at least 5 minutes.

Read the manifold gauge and check the gas leakage from the evaporator by using gas leak detector.

- If the expansion valve is clogged, low pressure reading will drop to 0 kg/cm2, otherwise it is ok.
- If the expansion valve is clogged or gas leak from the evaporator, then repair or replace as necessary.

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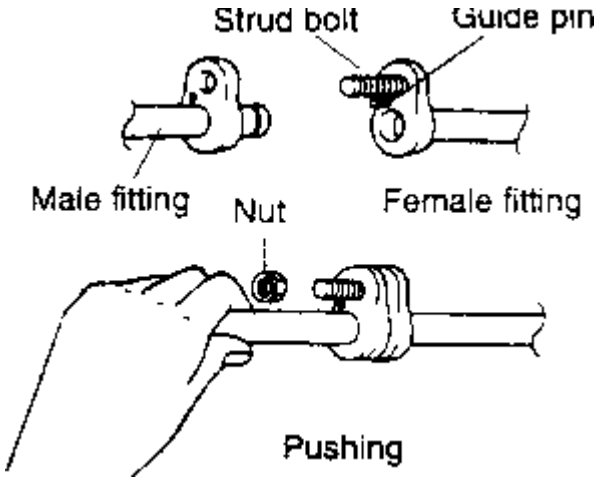
REFRIGERANT LINE

HANDLING TUBING AND FITTINGS

The internal parts of the refrigeration system will remain in a state of chemical stability as long as pure-moisture free refrigerant and refrigerant oil are used. Abnormal amounts of dirt, moisture or air can upset the chemical stability and cause troubles or serious damage.



THE FOLLOWING PRECAUTIONS MUST BE OBSERVED

When it is necessary to open the refrigeration system, have everything you will need to service the system ready so the system will not be left open any longer than necessary.

Cap or plug all lines and fittings as soon as they are opened to prevent the entrance of dirt and moisture.

All lines and components in parts stock should be capped or sealed until they are ready to be used.

Never attempt to rebind formed lines to fit. Use the correct line for the installation you are servicing.

All tools, including the refrigerant dispensing manifold, the gauge set manifold and test hoses should be kept clean and dry.

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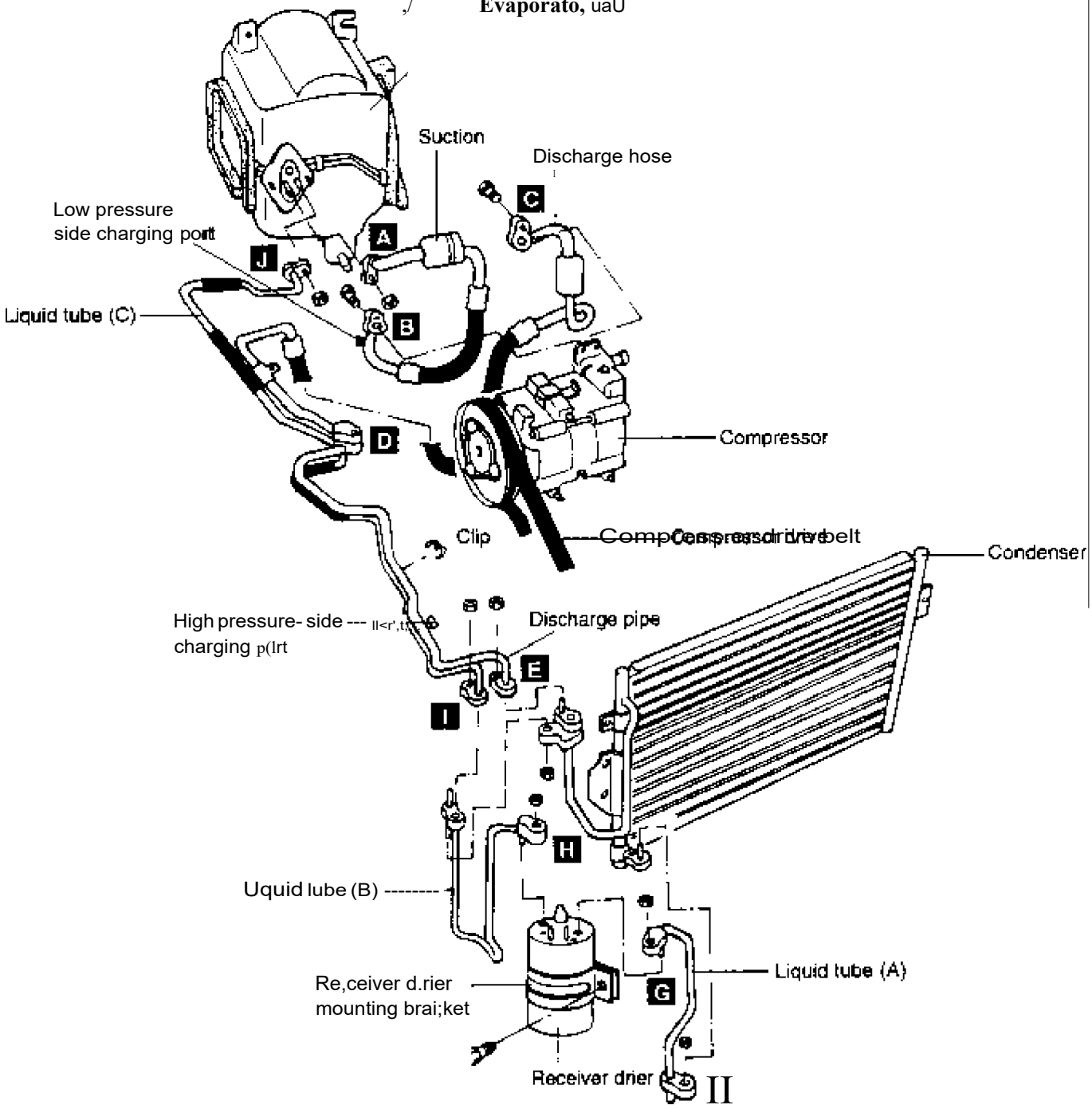
COMPONENTS


Suction
Discharge hose
Low pressure
side charging port
Liquid tube (C)
Compressor
Clip
Condenser
High pressure- side
charging p(lrt
Discharge pipe
Uquid lube (B)
Liquid tube (A)
Re,ceiver d.rier
mounting brai;ket
Receiver drier
A
B
C
D
E
G
H
I
J

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

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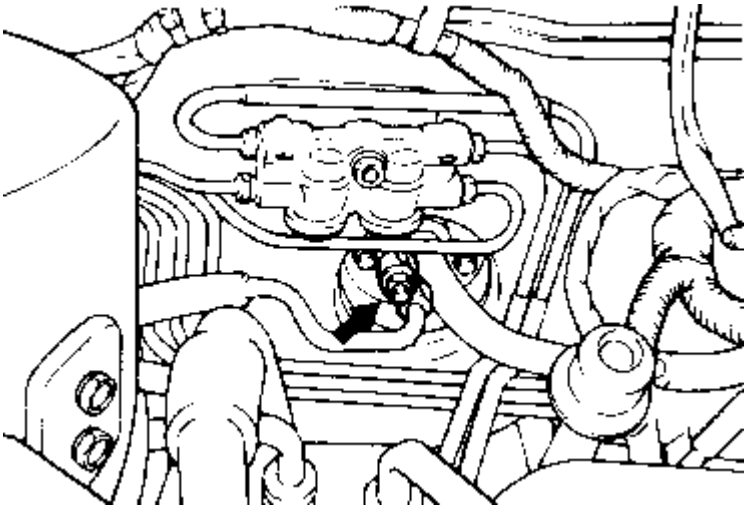
REMOVAL AND INSTALLATION

SUCTION HOSE

NOTE

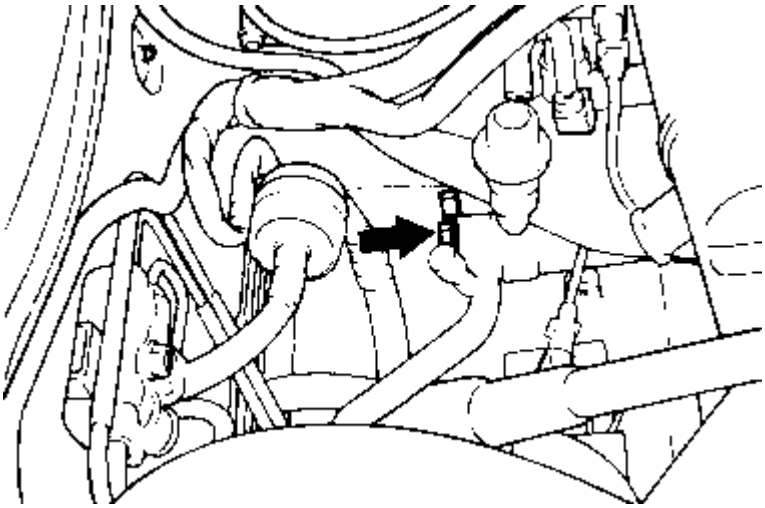
1. **While installing each of the removed refrigerant line, replace the O-ring (if exists) at each fitting with new one and apply specified lubricant.**
2. **Observe the specified tightening torque at each fitting.**
3. **Be careful not to bend or twist refrigerant lines in order to install them easily.**
4. **After installation, evacuate, charge and test the air conditioning system.**

Discharge refrigerant from the air conditioning system.

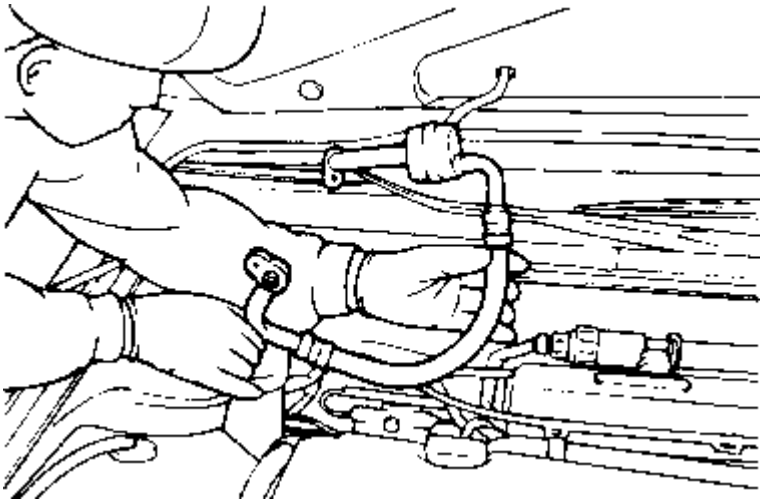


Disconnect evaporator side fitting of the suction hose.

Disconnect compressor side fitting of the suction hose.



Remove the suction hose.

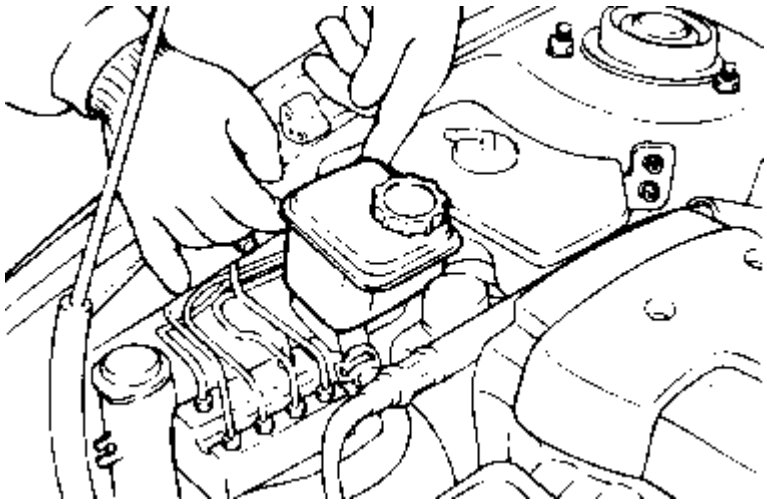


Installation is the reverse order of removal.

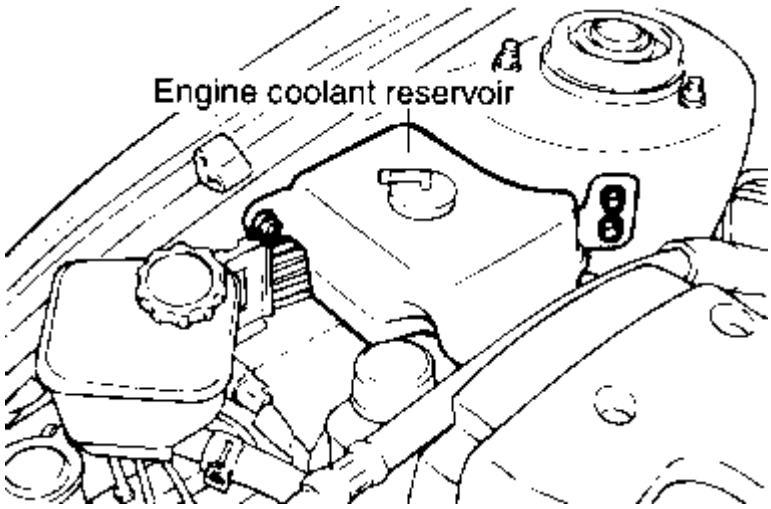
DISCHARGE HOSE

Discharge refrigerant from the air conditioning system.

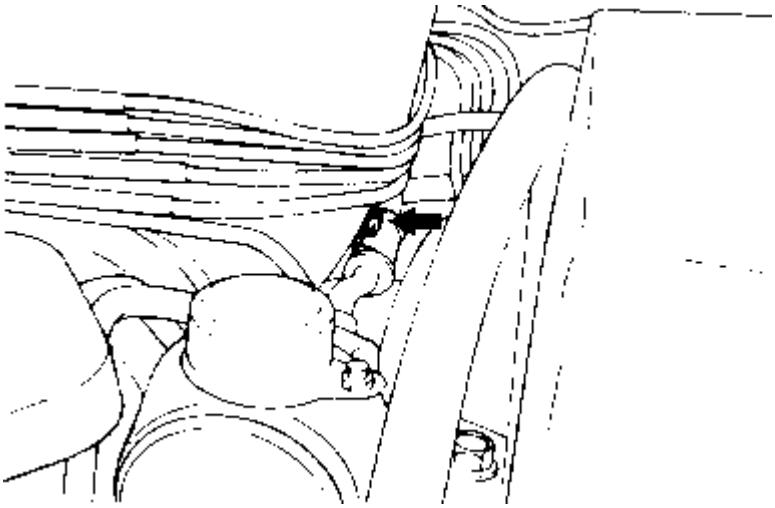
Detach the power steering fluid reservoir from its mounting bracket by pulling upward.



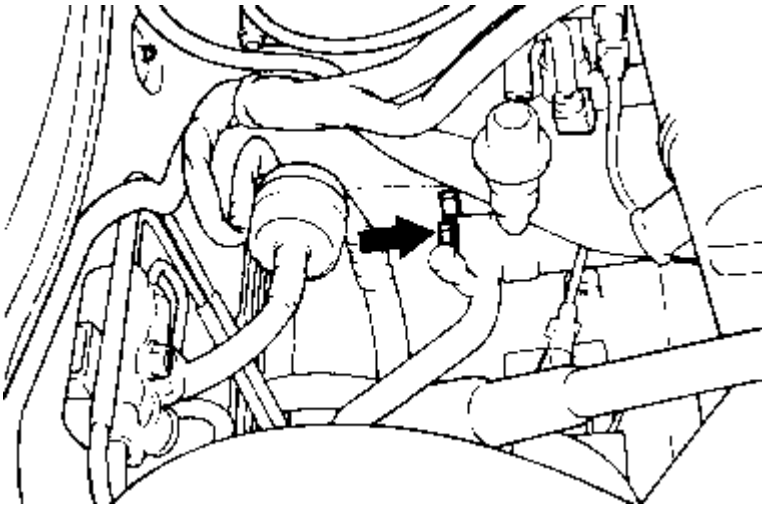
Remove the engine coolant reservoir.



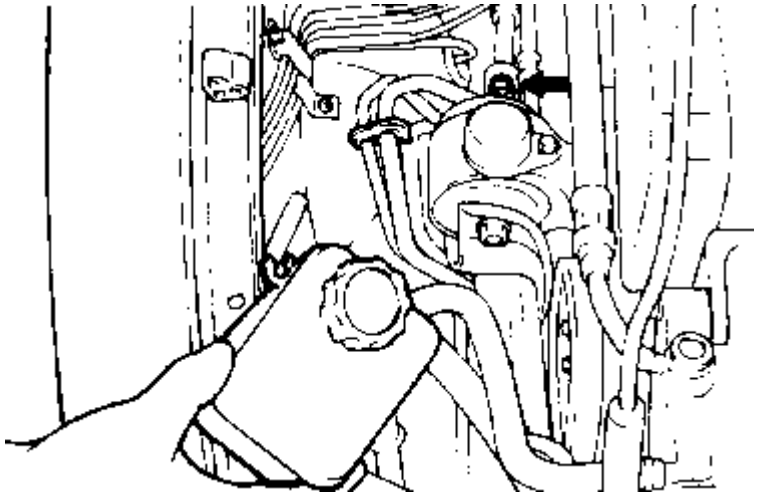
Remove the mounting bolt of the discharge hose mounting clamp.



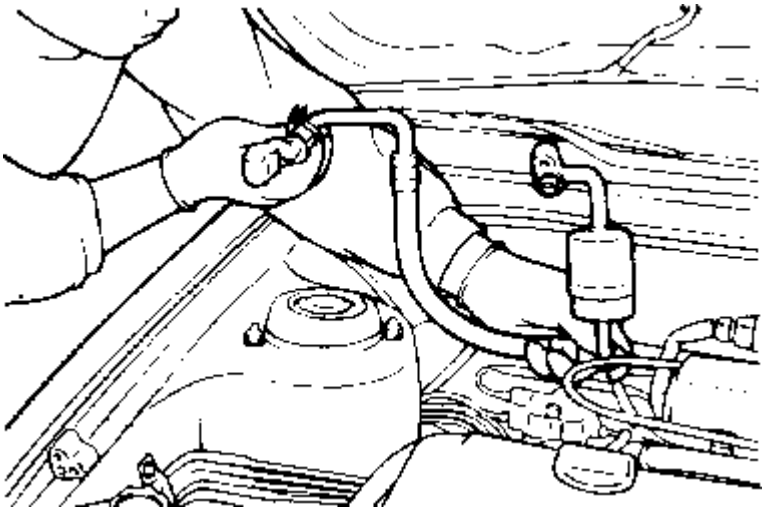
Disconnect compressor side fitting of the discharge hose.



Disconnect discharge pipe side fitting of the discharge hose.



Remove the discharge hose.

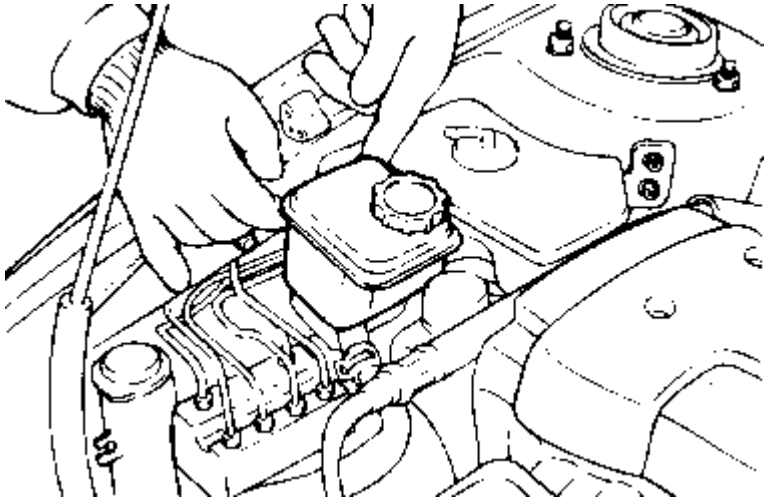


Installation is the reverse order of removal.

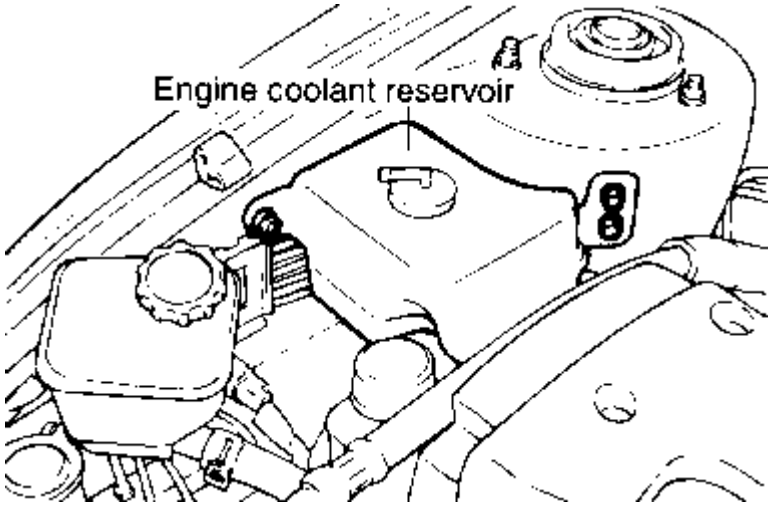
DISCHARGE PIPE

Discharge refrigerant from the air conditioning system.

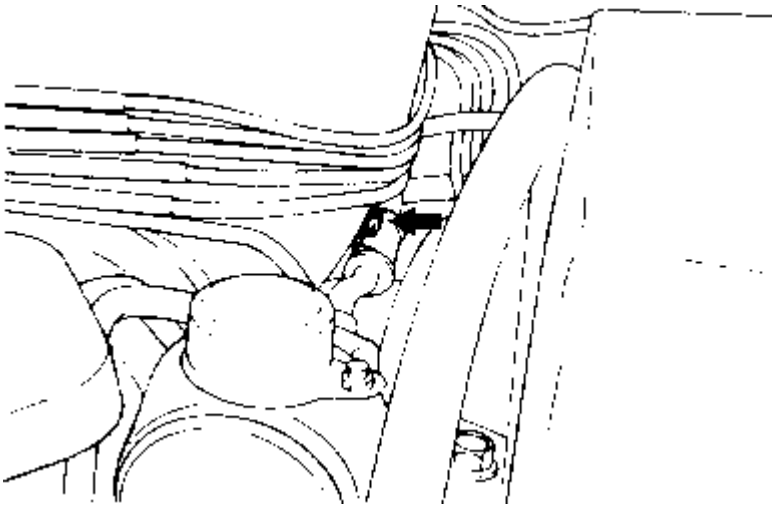
Detach the power steering fluid reservoir from its mounting bracket by pulling upward.



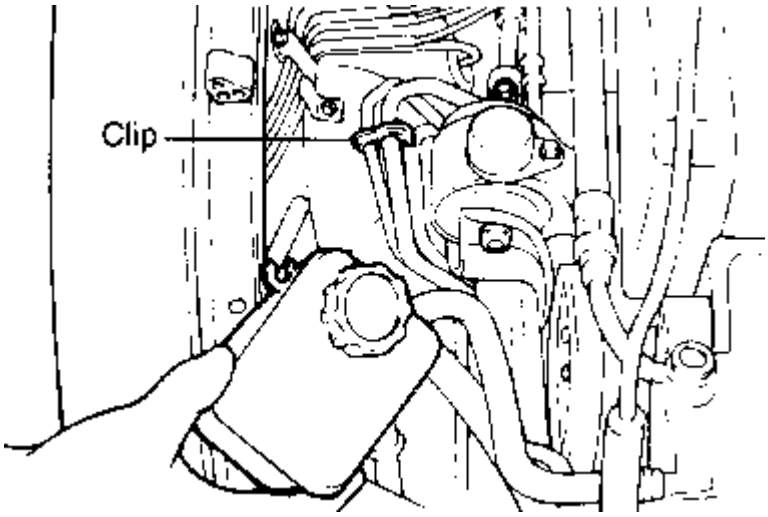
Remove the engine coolant reservoir.



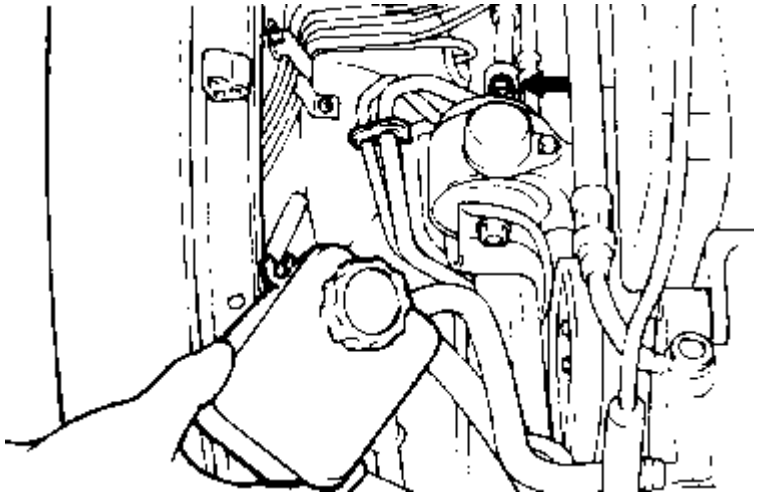
Remove the mounting bolt of the discharge hose mounting clamp.



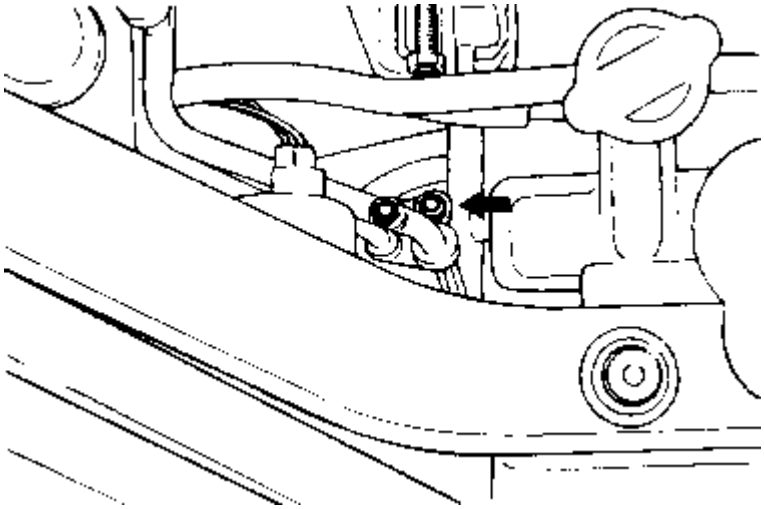
Remove the clip which is holding both of the discharge pipe and the liquid tube (C).



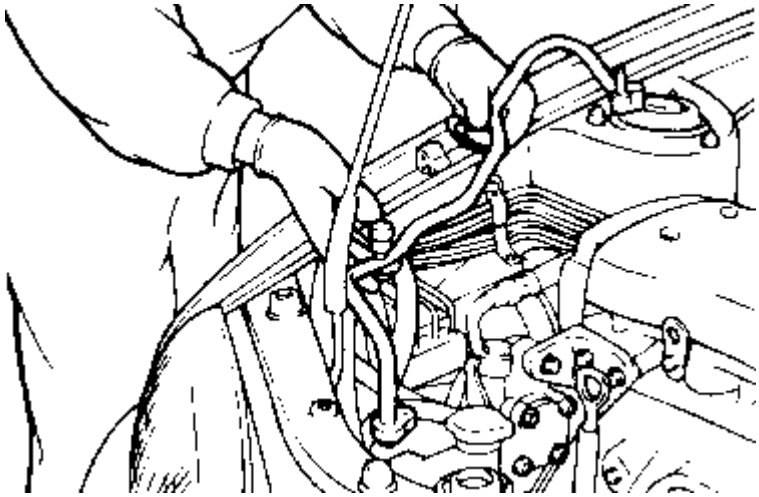
Disconnect compressor side fitting of the discharge pipe.



Disconnect condenser side fitting of the discharge pipe.



Remove the discharge pipe.

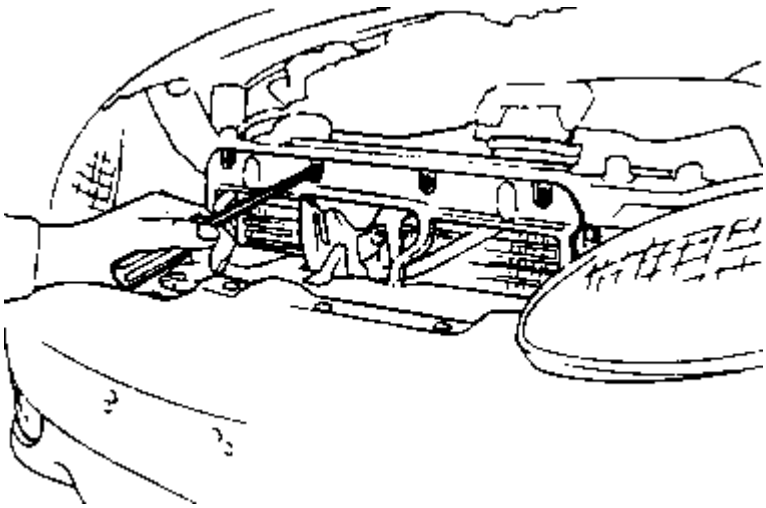


Installation is the reverse order of removal.

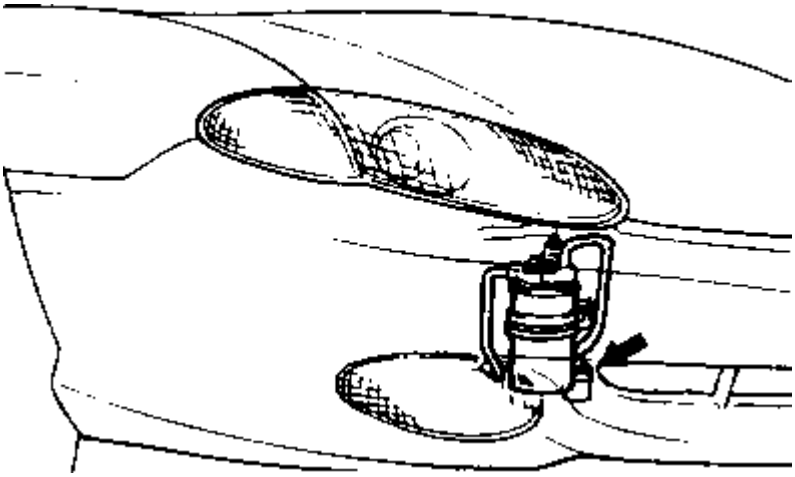
LIQUID TUBE (A)

Discharge refrigerant from the air conditioning system.

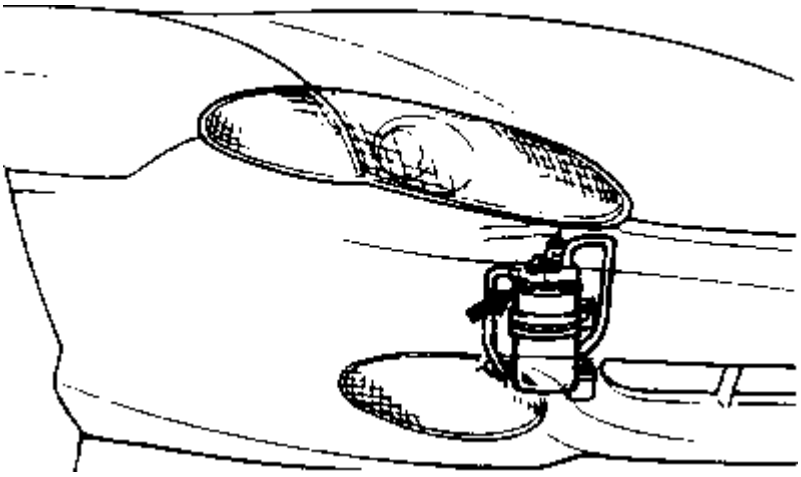
Remove the radiator upper grille.



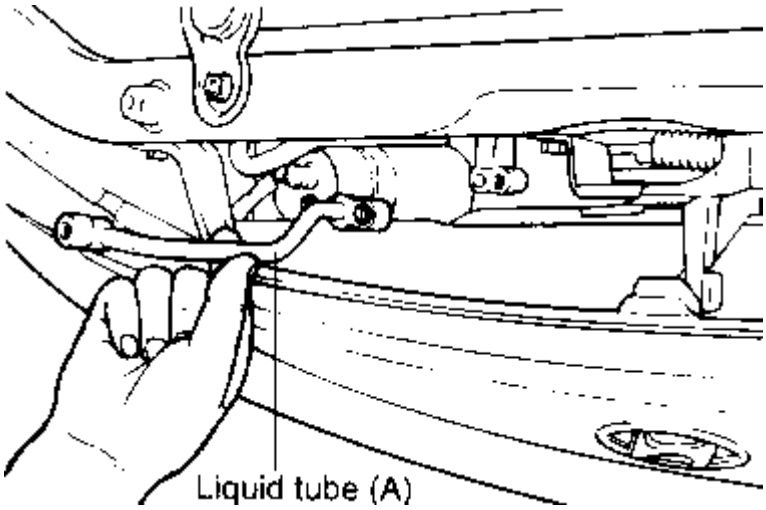
Disconnect condenser side fitting of the liquid tube (A).



Disconnect receiver drier side fitting of the liquid tube (A).



Remove the liquid tube (A).

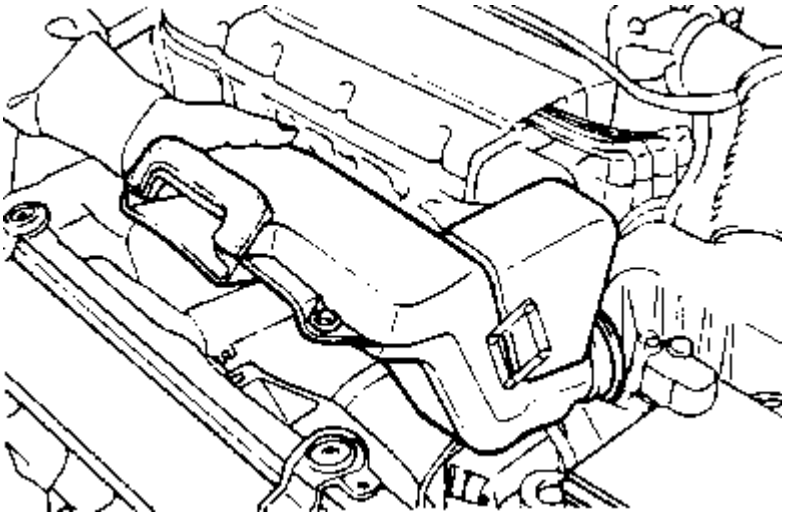


Installation is the reverse order of removal.

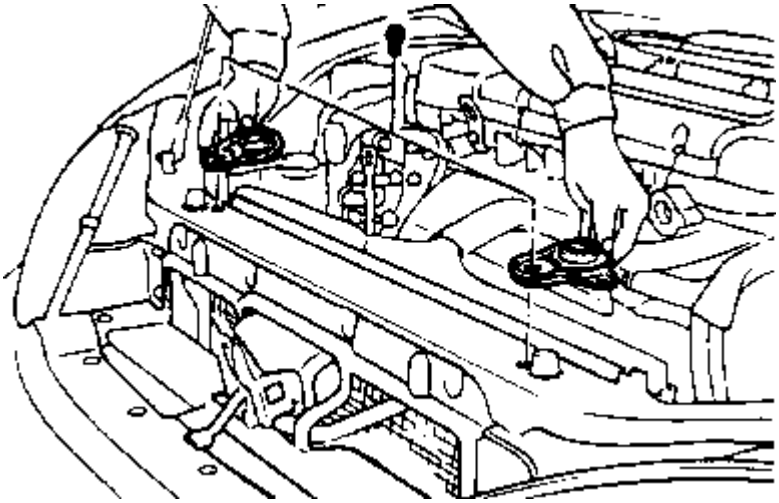
LIQUID TUBE (B)

Discharge refrigerant from the air conditioning system.

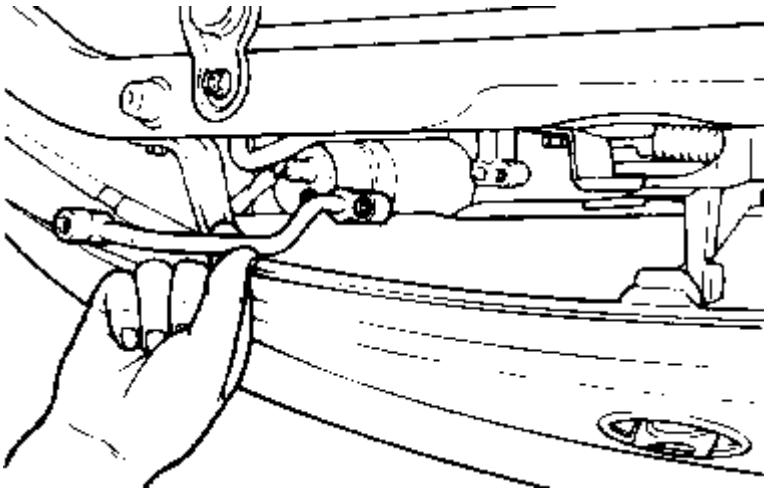
Remove the air intake duct assembly.



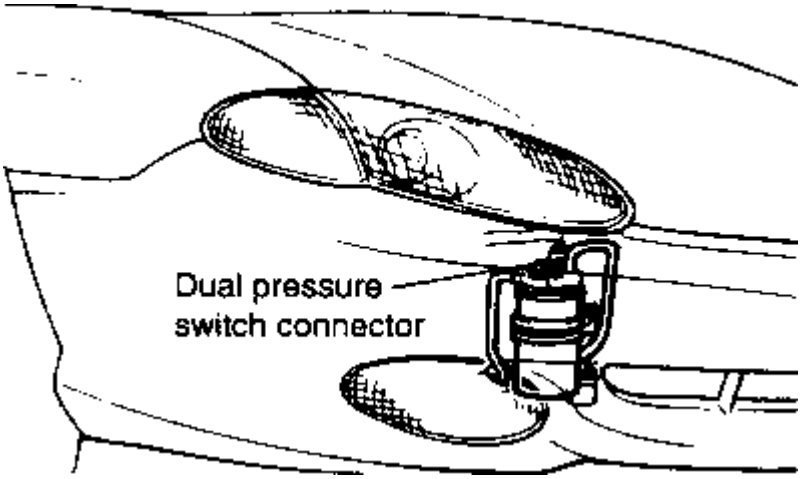
Remove the radiator upper mounting clamps.



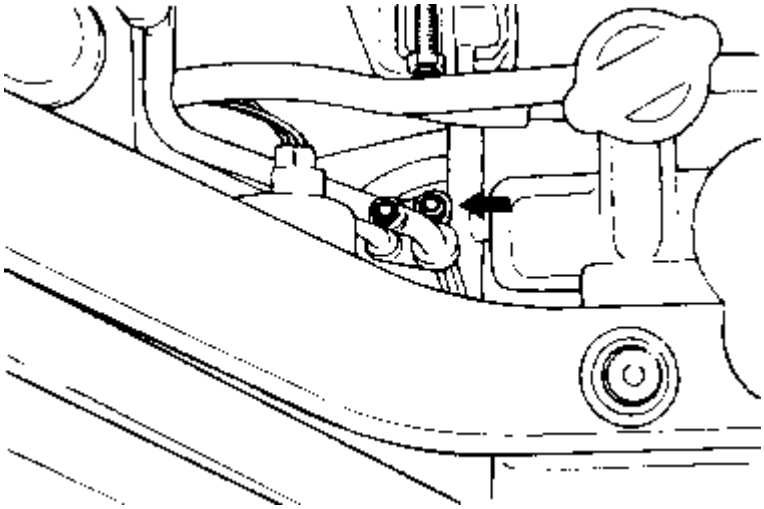
Remove the liquid tube (A). (Refer to the "Removal of the liquid tube (A) on page HA-75)



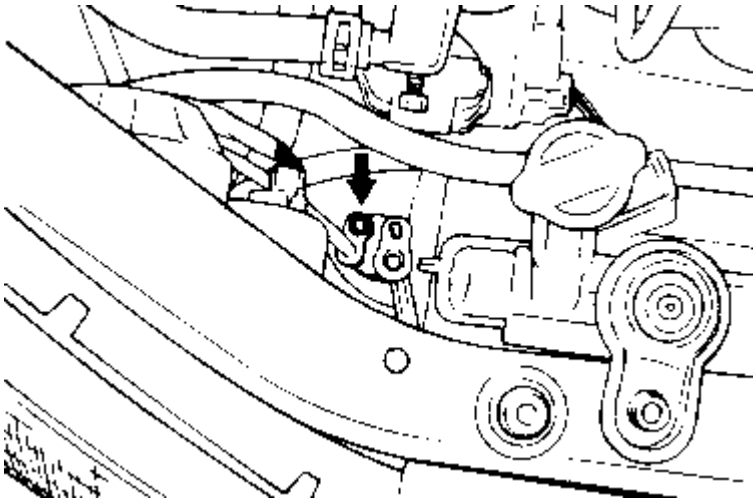
Disconnect the dual pressure switch connector from the receiver/drier.



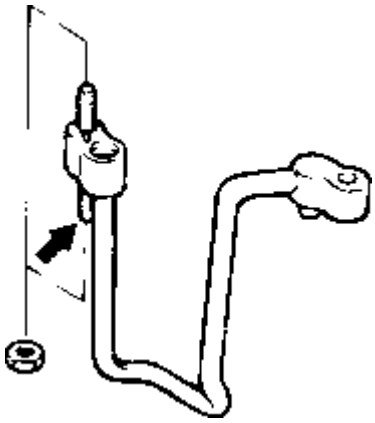
Disconnect condenser side fitting of the discharge pipe.



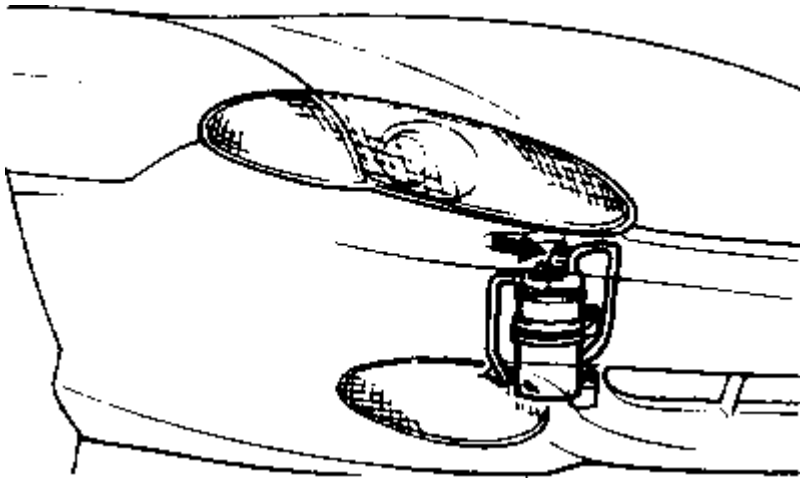
Disconnect liquid tube (B) side fitting of the liquid tube (C).



Remove the mounting nut of the liquid tube (B) at the side of the liquid tube (C).



Disconnect the receiver/drier side fitting of the liquid tube (B).

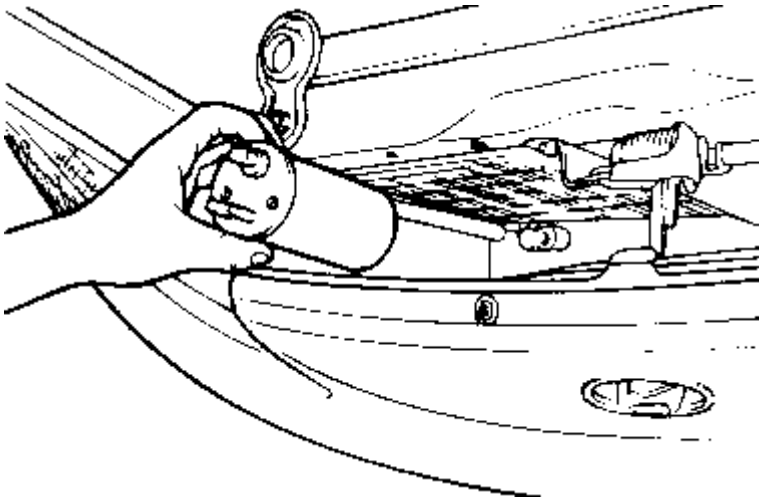


Remain the liquid tube (B) in removed state.

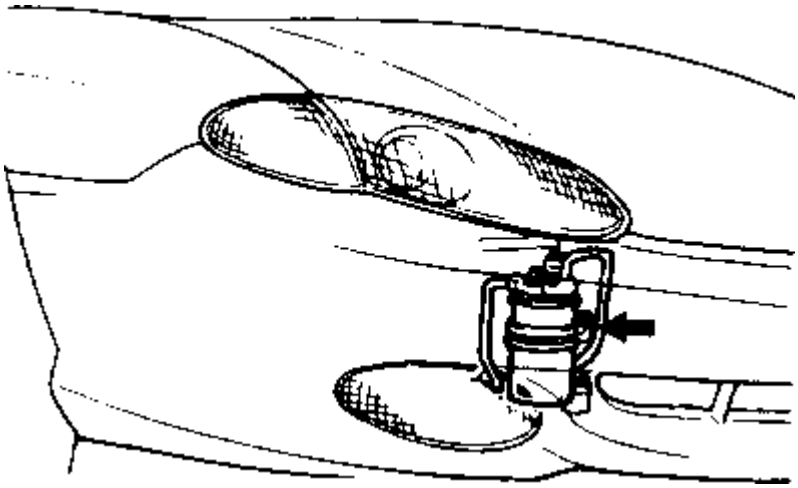
> **NOTE**
>
> **Because of the receiver/drier and its mounting bracket, it is impossible to take out the liquid tube (B) even though it has been removed.**

Remove the receiver/drier mounting bolt from the receiver/drier mounting bracket.

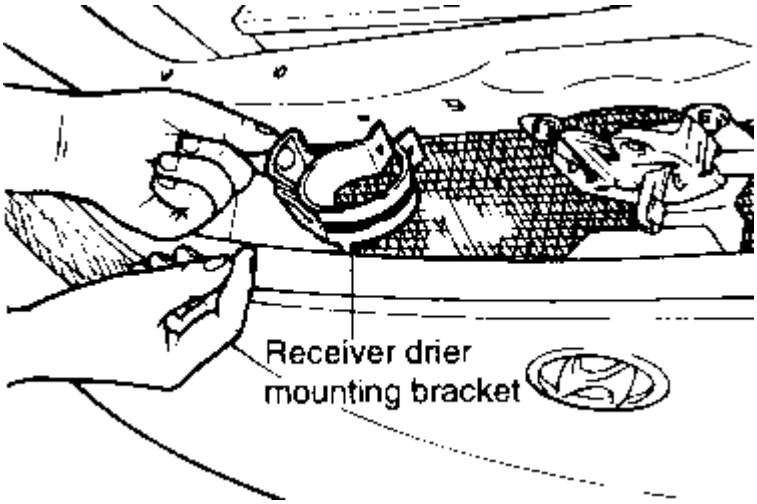
Remove the receiver/drier from its mounting bracket.



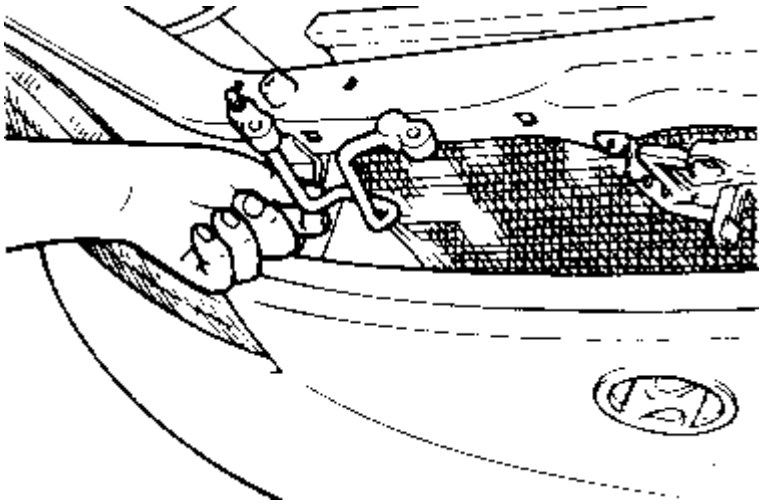
Remove the mounting bolts of the receiver/drier mounting bracket.



Remove the receiver/drier mounting bracket.



Take out the liquid tube (B).



CAUTION

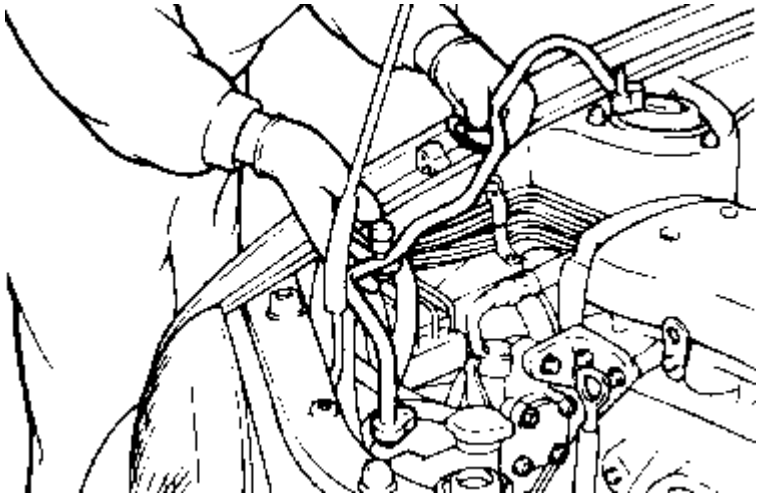
Be careful not to damage or bend the liquid tube (B)

Installation is the reverse order of removal.

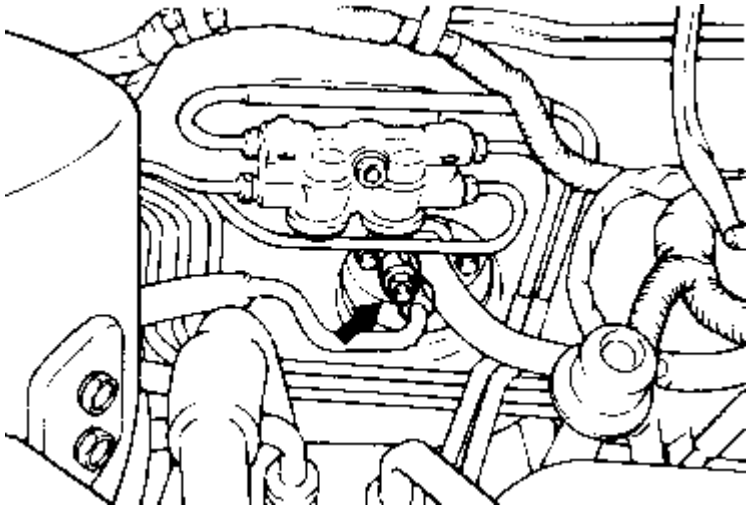
LIQUID TUBE (C)

Discharge refrigerant from the air conditioning system.

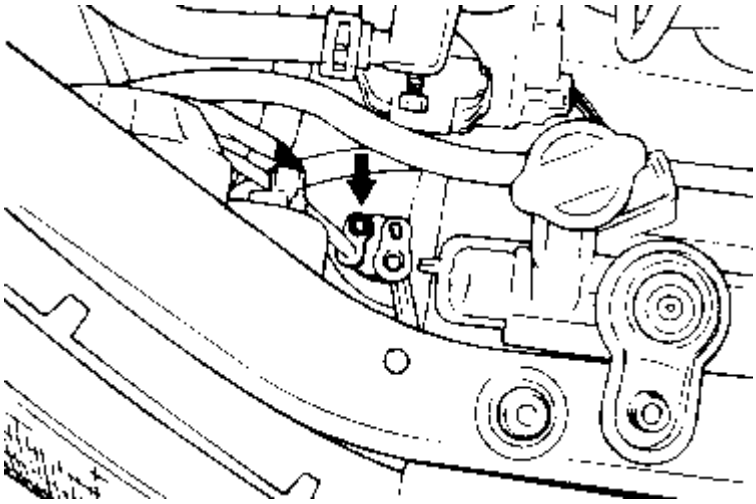
Remove the discharge pipe. (Refer to the "Removal of the discharge pipe" on page HA-74)



Disconnect the evaporator side fitting of the liquid tube (C).

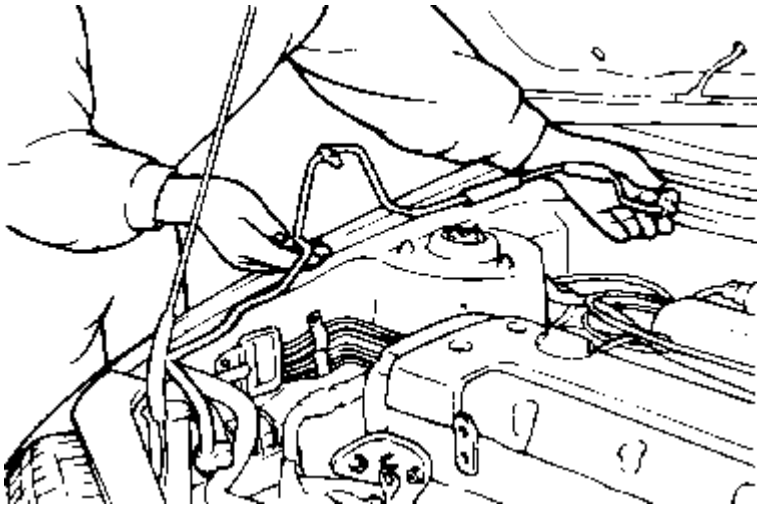


Disconnect the liquid tube (B) side fitting of the liquid tube (C).



Remove the liquid tube (C).

Installation is the reverse order of removal.



Return to Main Menu(s): Mechanical Manual Electrical Manual

FITTINGS AND O-RINGS

Fitting	Description	O-ring Size (in.)	O-ring Color	Tightening torque Nm (kg.cm, lb.ft)
A	Evaporator to suction hose	5/8	Orange	12-15 (120-150, 8.6-11.1)
B	Suction hose to compressor	5/8	Orange	12-15 (120-150, 8.6-11.1)
C	Compressor to discharge hose	1/2	Orange	12-15 (120-150, 8.6-11.1)
D	Discharge hose to discharge pipe	1/2	Orange	12-15 (120-150, 8.6-11.1)
E	Discharge pipe to condenser	1/2	Orange	12-15 (120-150, 8.6-11.1)
F	Condenser to liquid tube (A)	5/16	Light green	5-6 (50-60, 3.7-4.4)
G	Liquid tube (A) to receiver drier	5/16	Light green	5-6 (50-60, 3.7-4.4)
H	Receiver drier to liquid tube (B)	5/16	Light green	5-6 (50-60, 3.7-4.4)
I	Liquid tube (B) to liquid tube (C)	5/16	Light green	5-6 (50-60, 3.7-4.4)
J	Liquid tube (C) to evaporator	5/16	Light green	5-6 (50-60, 3.7-4.4)

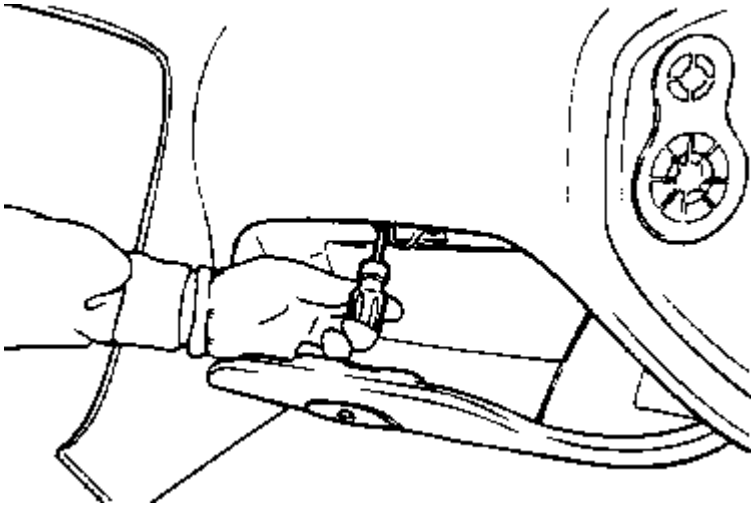
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Heating, Ventilation & Air Conditioning	Air Conditioning System

Return to Main Menu(s): Mechanical Manual Electrical Manual

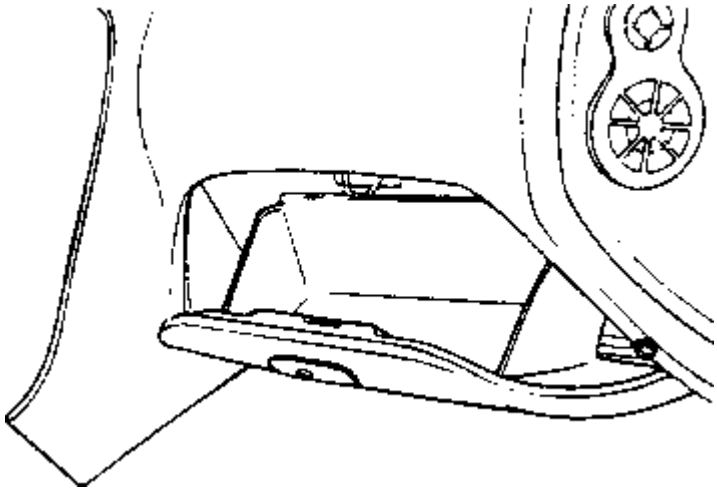
TERMOSTATIC SWITCH (THERMISTOR)

ON-VEHICLE INSPECTION

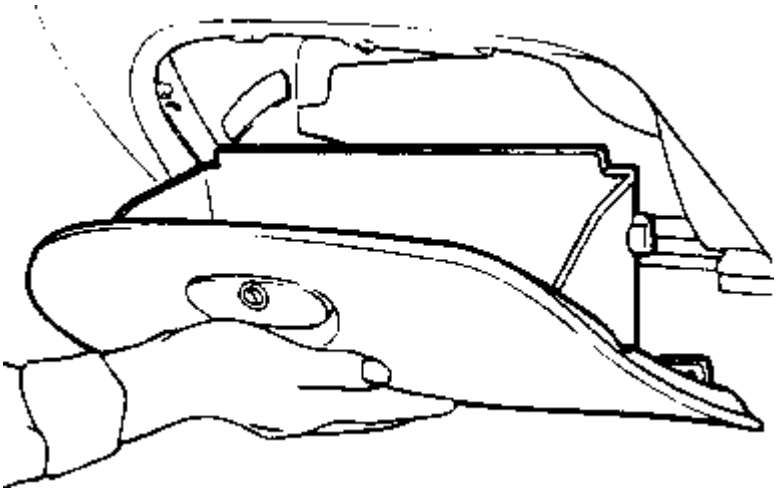
Open the glove box and remove the glove box latching mechanism after removing mounting screws.



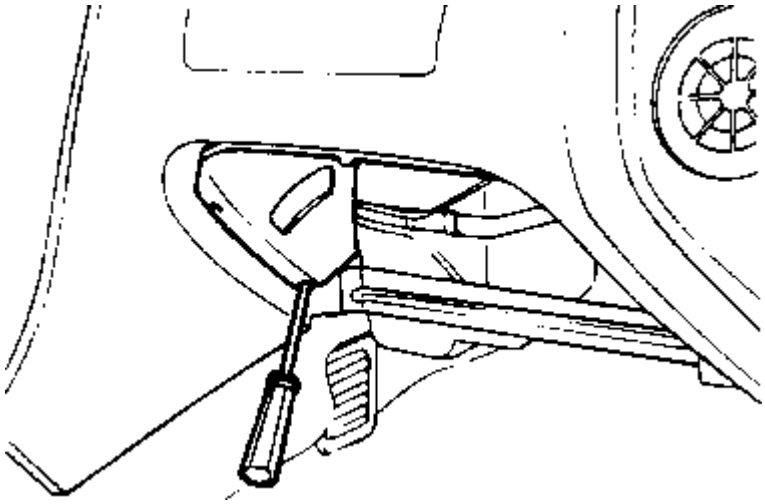
Remove glove box mounting screws.



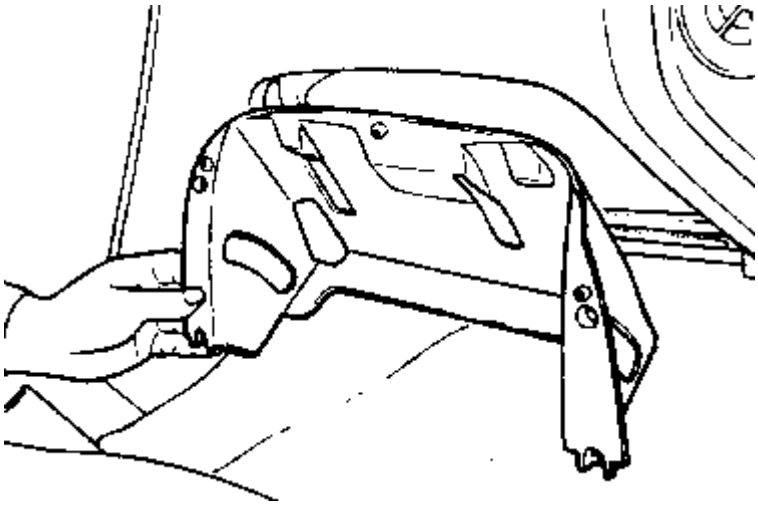
Remove the glove box.



Remove mounting screws of the glove box mounting plate.



Remove the glove box mounting plate.

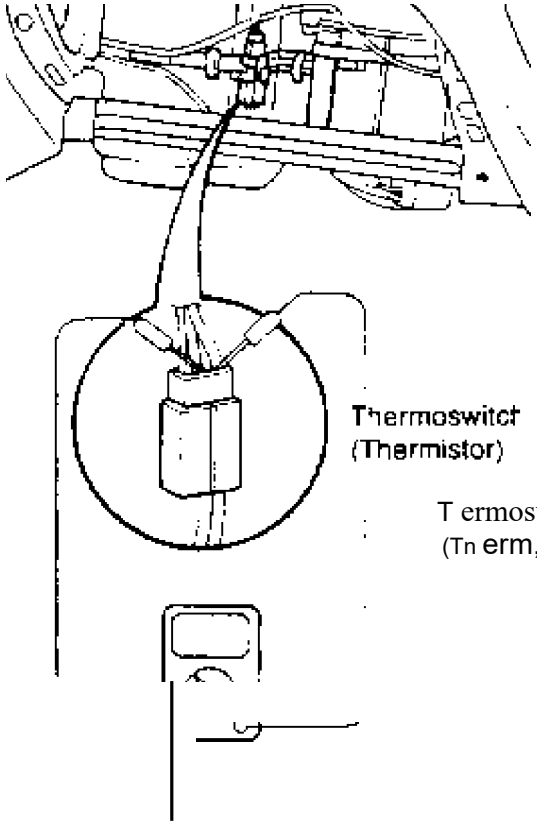


Turn the blower and A/C switches ON.

Start the engine.

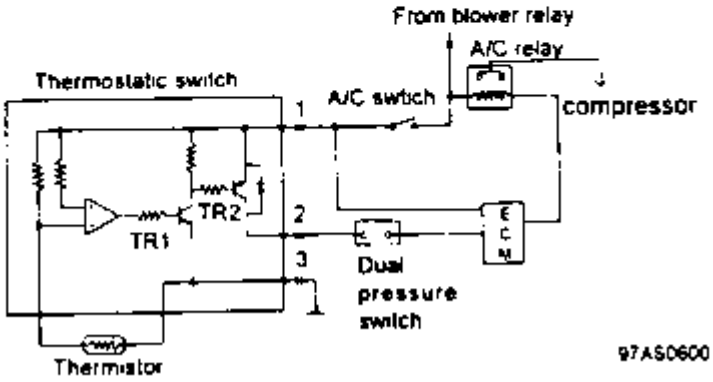
With the thermostatic switch connector in coupled state, install a voltmeter between 2 and 3 (-) terminal and check whether there is change in voltage between terminals according to the temperature of the evaporator surface.

* Thermostatic switch operating characteristics


Thermoswitch
(Thermistor)
T ermoswitcn
(Tn erm,s\or)

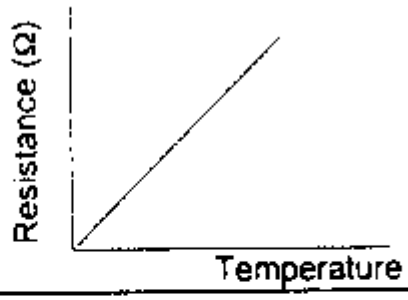
Operating temp	Thermo switch operation	Terminal voltage (2 and 3)	Remarks
1.5±1.0°C (34.7±1.8°F)	OFF	0 V	Compressor clutch should be disengaged
4 3±1.0°C (39.7±1.8°F)	ON	12 V	Compressor clutch should be engaged

- **Thermostatic switch circuit**



Thermistor

* Type : PTC (Positive Thermal Coefficient)



Operation

1. When the resistance (the temperature of the evaporator) in the thermistor increases :
   →TR1"ON"→TR2"ON"→Thermostatic switch"ON".

2. When the resistance (the temperature of the evaporator) in the thermistor decreases :
   →TR1"OFF"→TR2"OFF"→Thermostatic switch "OFF"

NOTE

This check should be carried out on the back probes of the thermostatic switch when it is in coupled state.

If above condition is not satisfied, remove the evaporator unit and replace the thermostatic switch. (Refer to the "Removal and disassembly of the evaporator unit" on page HA-61 - HA-67)

After inspection, install all the removal parts. Installation is the reverse order of removal.